

2020

LED CATALOGUE



3F Filippi

www.3F-Filippi.com

Instructions for use

How to use the 2020 General Catalogue

To facilitate using our catalogue, a new page layout is being introduced with this new version to help reading and simplify consultation.

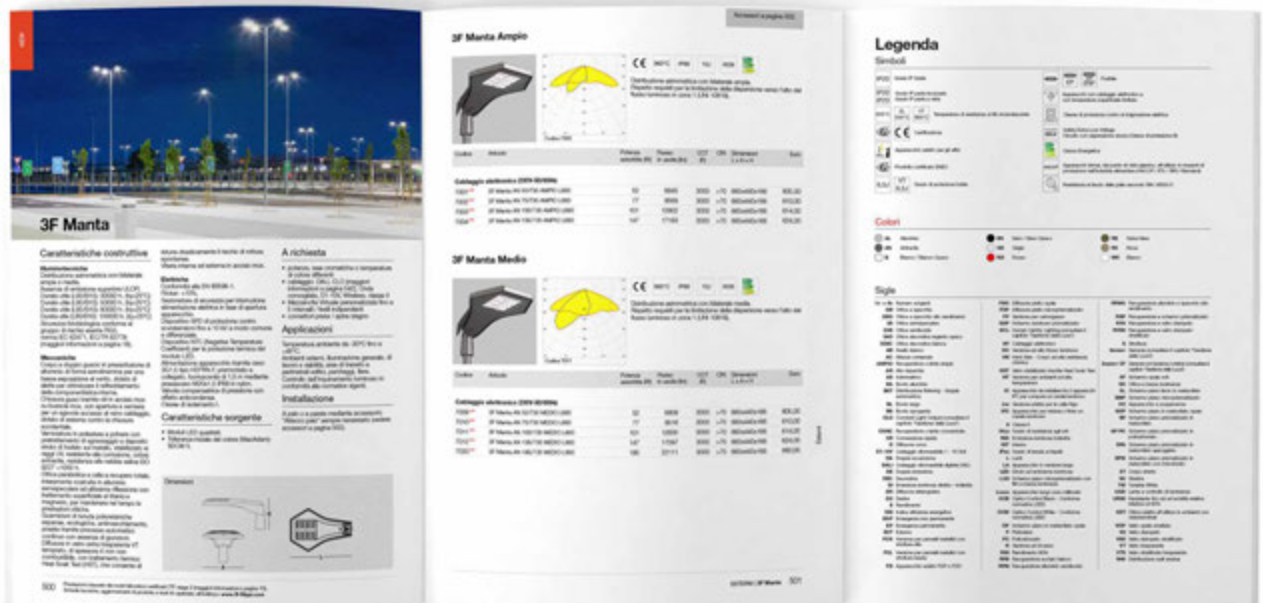
We will see in detail how:

New for 2020

New product ranges are highlighted in red and have NEW beside them.

UPDATE

Product families that interested by important updates or new options compared to the 2019 version.



Series presentation page

In this section the product series are presented, with the characteristics and concepts common to the various versions specified.

Descriptions, articles, codes and prices

In these pages, all products are presented, divided by code, article and price. The specific accessories for the version are also specified. Accessories common to the whole series are grouped in a page at the end of the series.

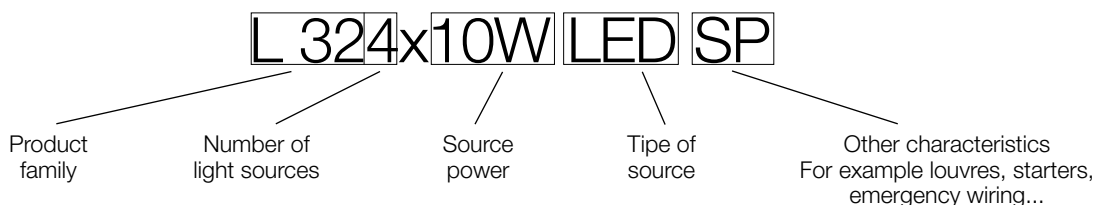
Legend

This appendix helps understand the information given in the catalogue's pages. It contains the key to the symbols and codes used and a summary.

It is part of the back cover and opens out.





















How to interpret our product Articles

Consulting our product Articles could not be simpler – here's how:



Legend

Symbols

| | | | | | |
|---|--|--|--|--|------|
|  IP20 | Overall IP rating |  |  EP |  EP ENP | Fuse |
|  IP20 IP23 | IP rating of recessed part IP rating of exposed part |  | Luminaires with electronic wiring and limited surface temperature | | |
|  650°C |  SL 650°C |  VT 960°C | Glow wire resistance temperature | | |
|  |  | Certification | | | |
|  | Luminaire suitable for offices | | | | |
|  | ENEC Certified product | | | | |
|  6,5J |  VT 6,5J | Overall IK rating | | | |
| | |  | Protection against electric shock - appliance class | | |
| | |  | Safety Extra-Low Voltage Separated power source (Class III) | | |
| | |  | Energy class | | |
| | |  | Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard) | | |
| | |  | Resistance against ball impacts in accordance with DIN 18032-3 | | |

Colors

| | | | | | |
|---|------------|--|--------------------|---|--------------------|
|  AL | Aluminium |  BK | Black / Matt Black |  RE | Black Forest |
|  AN | Anthracite |  GR | Grey |  RS | Walnut |
|  B | White |  RD | Red |  WH | White / Matt White |

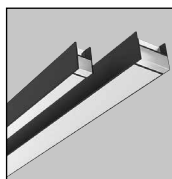
Acronyms

| | | |
|--|---|---|
| 1x -> 6x Number of sources | FDP Flat Diffuser Microprismatic | RVS Flow recuperator and molded glass |
| 2M specular louvre | FP Version for Plasterboard | RVSS Flux recuperator and laminated moulded glass |
| 2MG specular louvre, high efficiency | GSP Glare Screen Prismatic | S Structure |
| 2S semi-specular louvre | HCL Human centric lighting (see the section "Management of light") | Sensor Sensor (refer to the "Management of light") |
| 2US semi-glossy louvre | HF Electronic wiring | Sensor CF Sensor with corridor function (refer to the "Management of light") |
| 3AO Matt silver decorative louvre | HO High Output | SF Soft opal screen |
| 3DEC White decorative louvre | HS Hard Skin - high chemical resistant body | SK Low glaring optic |
| AB White trim | HST Glass stabilised via heat soak test | SL Flat smooth diffuser in methacrylate |
| AC Low height | HT High temperature | SMP Flat cover microprismatic |
| AMPIO Wide flow recuperator | IC Luminaire to be installed between two IFC products | SO Pendant luminaire |
| AR High energy savings | Ice Version suitable for refrigeration cells | SOP Opal PMMA flat diffuser |
| AS Asymmetric | IFC Luminaire to start or finish a lighting channel | SP Flat diffuser, prismatic in methacrylate |
| BA Aluminium edge | II Class ii | SP PC Flat PMMA prismatic cover |
| BAT Batwing distribution - dual asymmetric | IKxx Impact resistance | SPA Flat diffuser, prismatic methacrylate, lay-in installation |
| BL Wide edge | IND Indirect light output | SPM Flat diffuser, prismatic methacrylate, microperforated |
| BS Prominent edge | INT Internal | ST Narrow body |
| CLO Constant light output (see the section "Management of light") | IPxx Liquid ingress protection | SX Left |
| CONC Concentrated flow recuperator | L Lenses | TW Tunable White |
| CR Fast connection | LA Wide version luminaire | UGR Luminance control lens |
| D Curved diffuser | LED Light emitting diode | UR95 Resistent to relative humidity up to 95% |
| D1-10V Dimmable 1 - 10 volt wiring | LGS Flat PMMA, with low luminance microprismatic cover | VDT Optic suitable for use in environments with monitor |
| DA Twin-circuit | Lxxxx Appliance length xxxx millimetres | VOP Opal enamelled glass |
| DALI Dali digital dimmable wiring | NL No power line | VS Moulded glass |
| DE Dual emission | OCB Optics Control Black - LEED Compliant | VSS Laminated moulded glass |
| DEC Decorative | OCW Optics Control White - LEED Compliant | VT Transparent glass |
| DI Direct - indirect light output | OP Opal | VTS Transparent laminated glass |
| DR Rectangular diffuser | P Surface luminaire | WW Wall washer distribution |
| DX Right | PC Polycarbonate | |
| E Efficiency | R Recessed version | |
| EEI Energy efficiency index | R90 90% efficiency | |
| ENP Non-permanent emergency lighting | RFB White steel flow recuperator | |
| EP Permanent emergency lighting | RFM Semi-polished aluminium flow recuperator | |
| EXT External | RFMG High-efficiency specular aluminium flow recuperator | |
| FCH Version for metal panels with high structures | RSP Flow recuperator with prismatic screen | |
| FCL Version for metal panels with low structures | | |
| FD Fixture suitable FDP or FDO | | |
| FDO Flat Diffuser Opal | | |

Product range

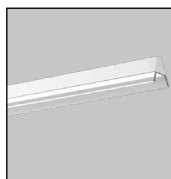
3F Architectural

Page 26 **UPDATE**



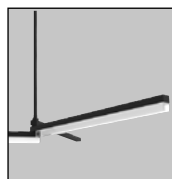
3F HD

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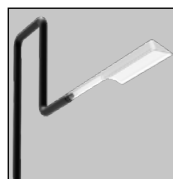
3F Mirella

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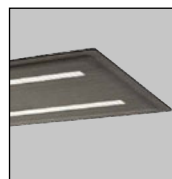
3F Trittico

Page 114 **UPDATE**



3F Filoluce

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3F Sound Lux

Surface luminaires and suspensions

Page 138 **NEW**



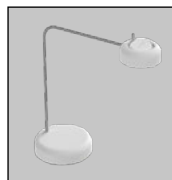
3F C8

Page 142 **NEW**



3F Diagon P

Page 146 **NEW**



3F Emilio Table

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3F Zeta

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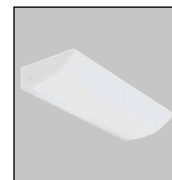
3F Petra

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3F Emilio Wall

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Mira

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3F Travetta

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Filigare

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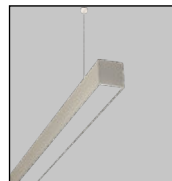
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P 250

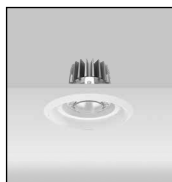
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Barraluce P

Recessed luminaires

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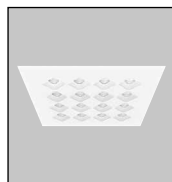
3F Reno

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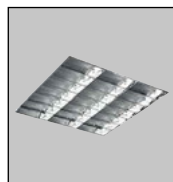
3F Emilio R

Page 232 **UPDATE**



3F Diagon

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L 320

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L 350

Page 274 **NEW**



L 360

Page 276 **NEW**



L 480

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L 560

Page 284 **UPDATE**



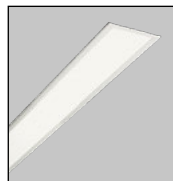
L 580

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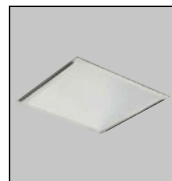
L 590

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Barraluce L

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Lucequadro

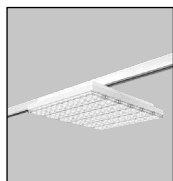
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Galassia

Systems and track-mounted products

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3F Six

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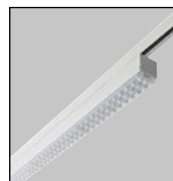
3F Linux

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3F Emilio

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3F Zeta Track

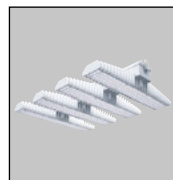
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Binario 3F

Waterproof and corrosion-proof

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3F LEM

Page 418 **UPDATE**



3F Linda

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Beta 235

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Beta A3F - i3F

Page 476



Beta 430

Page 482



3F Cub

Outdoor

Page 492 **NEW**



3F Manta

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3F 66

Light Management

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Light Management

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3F Easy Dim

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3F Sensor

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3F Smart Dimming

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3F HCL for Tunable White fixtures

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Wired control systems

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Infopoint

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Lighting engineering

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Electrical engineering and Electronics

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Mechanics

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Analytical guide

This "LED catalogue 2020" is an informative product which is distributed free of charge.

While all efforts have been taken to ensure the accuracy of its contents, 3F Filippi shall not under any circumstances be held liable for errors, omissions, interruptions or delays concerning the information provided in the Catalogue, or for any resulting damage.

The data listed in this Catalogue may be approximate: please visit our website at www.3f-filippi.com or contact our Sales network to check for any updates.

As 3F Filippi S.p.A. are constantly striving to improve our products, we reserve the right to modify the contents of this publication and the technical specifications of products contained herein without prior notice.

2020 News

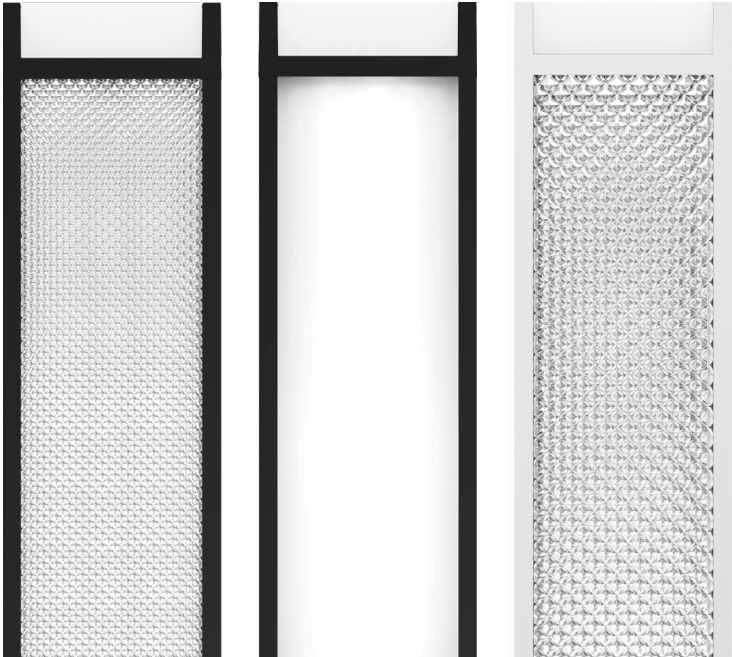


3F C8



3F Manta

3F HD HO





L 360

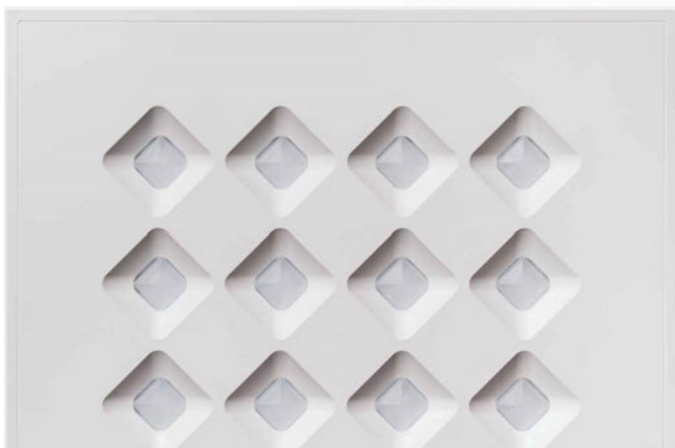


L 480



3F Diagon P
3F Diagon Soft UGR

3F Filoluce RD
3F Filoluce AN



Applications



| 38 | 3F HD - Single | • | • | • | • | • | | | |
|-----|---|---|---|---|---|---|---|---|---|
| 46 | 3F HD - Channel | • | • | • | • | • | | | |
| 50 | 3F HD Direct/Indirect - Single | • | • | • | • | • | | | |
| 56 | 3F HD Direct/Indirect - Channel | • | • | • | • | • | | | |
| 60 | 3F HD R Recessed - Single | • | • | • | • | • | | | |
| 66 | 3F HD R Recessed - Channel | • | • | • | • | • | | | |
| 88 | 3F Mirella | • | • | • | | | | • | |
| 92 | 3F Mirella Direct/Indirect | • | • | • | | | | • | |
| 96 | 3F Mirella Soft | • | • | • | | | | • | |
| 98 | 3F Mirella Soft Direct/Indirect | • | • | • | | | | • | |
| 100 | 3F Mirella Floor | • | • | • | | | | • | |
| 110 | 3F Trittico | • | • | • | | | | | |
| 122 | 3F Filoluce | • | • | • | | | | | |
| 132 | 3F Sound Lux | • | • | • | | | | • | • |
| 134 | 3F Sound Lux Direct/Indirect | • | • | • | | | | • | • |
| 138 | 3F C8 | • | • | • | • | • | | | |
| 140 | 3F C8 Direct/Indirect | • | • | • | • | • | | | |
| 142 | 3F Diagon P | • | • | • | • | • | | | |
| 144 | 3F Diagon P Tunable White | • | • | • | • | • | | | |
| 146 | 3F Emilio Table | • | • | • | | | | | |
| 148 | 3F Zeta L | • | • | | | • | • | | |
| 152 | 3F Zeta D | • | • | | | • | • | | |
| 154 | 3F Zeta DR | • | • | | | • | • | | |
| 160 | 3F Petra LED | • | | | | • | • | • | |
| 162 | 3F Petra LED Sensor | • | | | | • | • | • | |
| 164 | 3F Petra Suspended LED | • | | | | • | • | • | |
| 166 | 3F Emilio Wall | | • | • | • | | | | |
| 168 | Mira Wall LED | | • | | | • | • | | |
| 170 | 3F Travetta LED | • | • | | | • | • | | |
| 174 | 3F Travetta LED DI | • | • | | | • | • | | |
| 176 | 3F Travetta LED Tunable White | • | • | | | • | • | | |
| 182 | Filigare 180 LED | | | | | | | • | |
| 190 | P 200 LED | • | | | • | • | • | | |
| 192 | P 200 LED IP54 | • | | | • | • | • | | |
| 194 | P 250 LED | • | | | • | • | | | |
| 198 | P 250 LED Diffused Light | • | | | • | • | | | |
| 200 | Barraluca P LED | • | • | | | | | • | |
| 212 | 3F Reno White | • | • | • | • | • | | | |
| 220 | 3F Reno Black | • | • | • | • | • | | | |
| 228 | 3F Emilio R | • | • | • | | | | | |
| 238 | 3F Diagon Lay-in installation | • | • | • | • | • | | | |
| 242 | 3F Diagon Tunable White Lay-in installation | • | • | • | • | • | | | |
| 246 | 3F Diagon Pull-up installation | • | • | • | • | • | | | |
| 252 | L 320 LED | • | • | • | • | • | | | |
| 258 | L 320 LED Diffused Light | • | • | • | • | • | | | |
| 262 | L 320 LED Tunable White | • | • | • | • | • | | | |
| 264 | L 320 LED Sensor | • | • | • | • | • | | | |
| 270 | L 350 LED | • | | | • | | | | |
| 274 | L 360 | • | • | • | • | • | | | |
| 276 | L 480 | • | • | • | • | • | | | |



| | | | | | | | | | |
|-----|-------------------------------|---|---|---|---|---|---|---|---|
| 280 | L 560 LED | | • | | | • | • | | |
| 284 | L 580 LED IP54 | • | • | | | • | | | |
| 288 | L 590 LED IP65 | • | | | | • | • | | |
| 292 | Barraluce L LED | | • | • | | | • | | |
| 296 | Lucequadro LED | | • | • | • | • | • | | |
| 300 | Galassia 220 | | • | • | • | • | • | | |
| 312 | 3F Six Track | • | | | | • | | • | • |
| 316 | 3F Six Blindo | • | | | | • | | • | • |
| 330 | 3F Linux S IP40 | • | • | • | • | | | | |
| 332 | 3F Linux S IP54 | • | • | • | • | | | | |
| 334 | 3F Linux L Light modules | • | • | • | • | | | | |
| 344 | 3F Linux D Light modules | • | • | • | • | | | | |
| 346 | 3F Linux DR Light modules | • | • | • | • | | | | |
| 350 | 3F Linux Track | • | • | • | • | | | | |
| 364 | 3F Emilio Track | | • | • | • | | | | |
| 370 | 3F Emilio Track DALI | | • | • | • | | | | |
| 372 | 3F Emilio Track Bluetooth | | • | • | • | | | | |
| 374 | 3F Zeta Track L | | | | | • | | | |
| 378 | Binario 3F | | | • | • | | | | |
| 396 | 3F LEM | • | | | | • | | | |
| 400 | 3F LEM DALI Sensor | • | | | | • | | | |
| 404 | 3F LEM High Output | • | | | | • | | | |
| 408 | 3F LEM High Temperature | • | | | | • | | | |
| 412 | 3F LEM Sport | | | | | | • | • | |
| 424 | 3F Linda LED | • | | | | • | | • | • |
| 430 | 3F Linda LED HS | • | | | | • | | • | • |
| 432 | 3F Linda LED Transparent | • | | | | • | | • | • |
| 434 | 3F Linda LED Ice | • | | | | • | | • | • |
| 436 | 3F Linda LED Sensor | • | | | | • | | • | • |
| 450 | Beta 235 LED Steel | • | | | | • | | • | • |
| 458 | Beta 235 LED Stainless Steel | • | | | | • | | • | • |
| 464 | Beta i3F 75-76 LED | • | | | | | | • | • |
| 468 | Beta Ice LED | • | | | | | | • | • |
| 470 | Kit LED Retrofit for Beta 2x | • | | | | | | | |
| 476 | Beta 430 LED | • | | | | | | • | |
| 478 | Kit LED Retrofit for Beta 430 | • | | | | | | | |
| 484 | 3F Cub LED | • | | | | | | • | |
| 500 | 3F Manta | • | | | | • | | • | • |
| 504 | 3F 66 LED | | | | | | | | • |

 **Industry**

 **Offices**

 **Architecture**

 **Retail**

 **Healthcare**

 **Schools**

 **Sport**

 **Transport**



Quality

Absolute transparency with the market is one of our most abiding values. Ever since it was founded, our company has always offered fixtures that offer **guaranteed performance**, establishing itself as a reliable partner for the creation of any lighting project.

Our products are at the heart of everything. Each of them is created to have the best possible performance and durability, and are **tested and verified in our laboratories**. In fact, 3F Filippi uses cutting-edge systems like the Goniophotometer to perform photometric calculations with absolute precision and invests a significant portion of its resources in Research and Development to stay up-to-date on the latest technological innovations available on the market.

Our employees are highly **motivated, knowledgeable, and passionate**: this is the starting point for obtaining customer satisfaction.

Our sales force is always ready to support you so you can obtain the best results. From the initial phases of your project, we provide information on our fixtures, processes, prices, and services. We are at your disposal to create custom solutions for your experience.

Our values



Reliability and technique come first

3F Filippi's commitment is to offer its customers the best technology available on the market so that every single Watt used is optimised to give the highest level of illumination.

Whenever they pick one of our products, customers must be certain they are choosing **the best on the market** in terms of technical performance, reduced energy consumption, and reliability.

Listening to the customer always proves out.

Customers are the ideal partners when we talk about ideas, environmental topics, and increasingly green technical solutions. They help us analyse the present and imagine the future, considering several points of view.

Quick and easy installation have always been a benchmark for 3F Filippi, so we take the installers' feedback very seriously. In response to their observations we have developed, for example, the Fast Wiring for 3F Linus and 3F HD, as well as the Quick Connection for our industrial products.

All of these are optimisations that help those working in the construction site to save time, effort, and money.





We believe in the rules

The interpretation of the architectural spaces and the lighting effects within them must always follow the current standards. These rules derive from the experience of competent professionals, able to design a healthy and comfortable environment for those who experience it.

That is why, since 1952, 3F Filippi has been developing cutting-edge systems and instruments to **respond to the requirements** of the strictest standards, often before they become mandatory: We feel that we cannot show respect for the customer if we do not respect the rules.

Improving people's lives

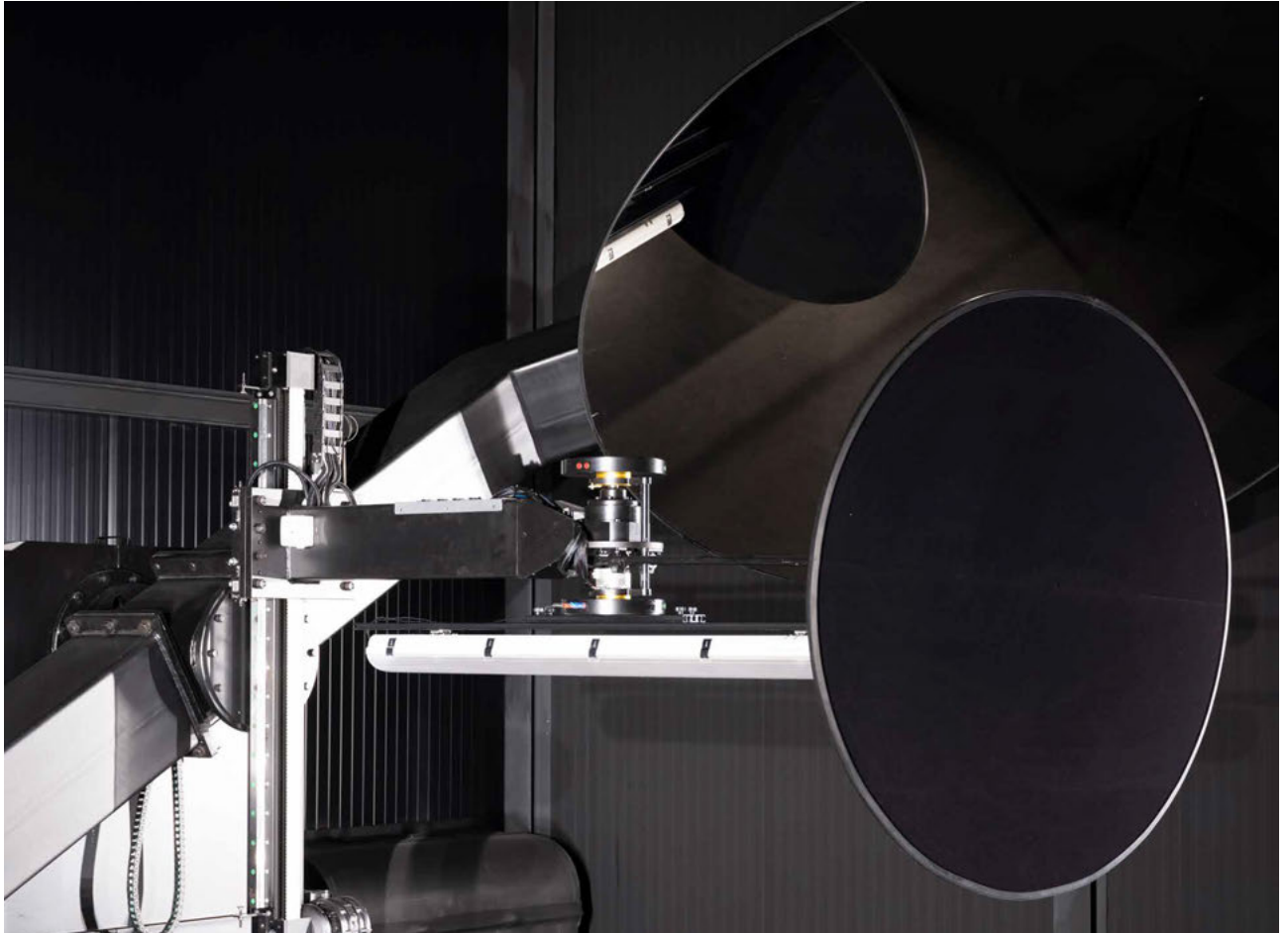
Light is a physical phenomenon that profoundly impacts every aspect of our lives. People spend most of their day indoors and 3F Filippi products are there to light up the hospitals where you were born, the schools you attended, the companies and offices where you work, and the shops you frequent.

Since this lighting accompanies every moment of your life, we feel it is our fundamental duty to **offer the best light for your wellbeing**. And nothing could make us happier.



Laboratory Tests

Goniophotometer



Research and Development plays a fundamental role in 3F Filippi's growth strategy.

This is why the company dedicates a significant portion of its resources each year to always be up-to-date with the most recent innovations available, like **the rotating mirror Goniophotometer**, i.e., the most technologically advanced instruments in the industry to perform extremely precise checks.

All measurements are done inside a laboratory that occupies 210 m² of surface area, with a height of 8 m, and in which all the different parameters are continuously checked, including electrical stability, air speed, humidity, and temperature.

3F Filippi is one of the few European companies to possess this type of instrumentation and, therefore, can certify its products according to the recent standards, UNI EN 13032 and IES LM-79.

The use of this technology allows us to guarantee quality, reliability, and the authenticity of the data reported.

Tests that can be carried out:

- Photometric measurements (intensity, distribution, luminance, etc.)
- Colorimetric measurements (light spectrum, colour temperatures, colour yields, etc.).
- Precise thermal measurements on the internal components of the device

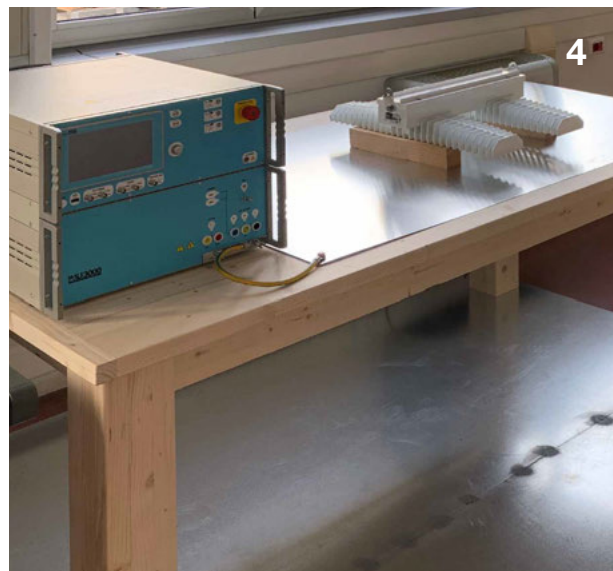
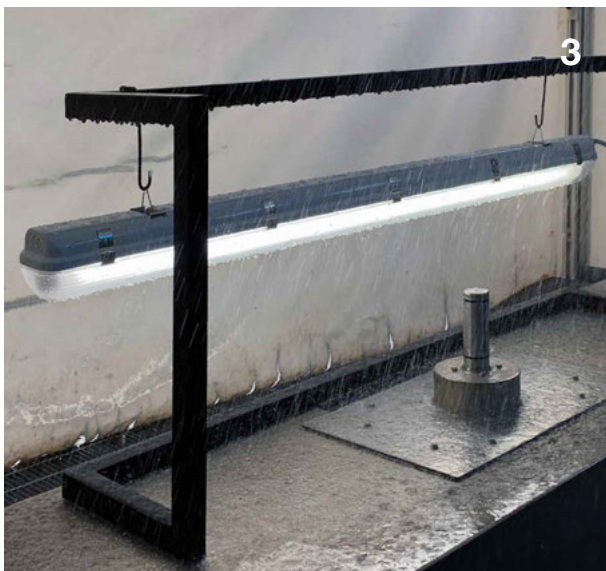
The photometric laboratory, which is CTF – Stage 2 certified by a Third Party (certification can be downloaded from www.3F-Filippi.com), is subject to IMQ monitoring and allows all photometric and colorimetric measurements of the products in the catalogue, according to the various international standards.

Tests and inspections

3F Filippi devices are built and tested in compliance with current national standard CEI 34-21, European standard EN 60598-1, and international standard IEC 60598-1. This allows us to independently perform the **valid tests for product Certification**: this significantly speeds up the development phases, to the customer's advantage, ensuring the safety, quality, and long life of the fixtures.

This is why the company constantly invests in updating its laboratories, which are IMQ certified (certifications can be downloaded from www.3F-Filippi.com), where the following tests are performed:

- Temperature
- Electromagnetic compatibility
- UL Conformity: Rain and Sprinkler
- EMC Compatibility: Burst and Surge
- Liquid seal tests
- Ball impact resistance (DIN 18032-3)
- Dust seal
- Resistance to salt spray
- Impact Resistance



We work hard each day to give our best

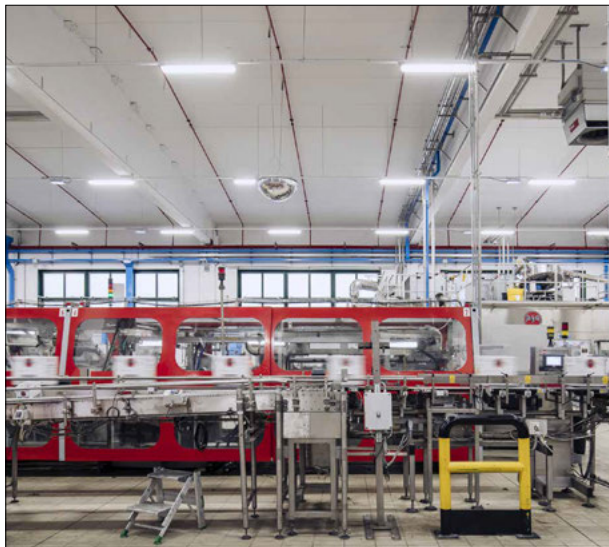


3F Filippi works alongside the best specialists, providing them with the most advanced instruments and the support of its lighting office (whose activity is ISO 9001 certified).

The company works through a close-knit network of regional and foreign offices in the European, Latin American, Asian, and Oceanian markets and impeccable logistics supported by a modern fleet of company vehicles allows 3F Filippi to optimise its delivery times and shipping of fixtures to its customers throughout the world.

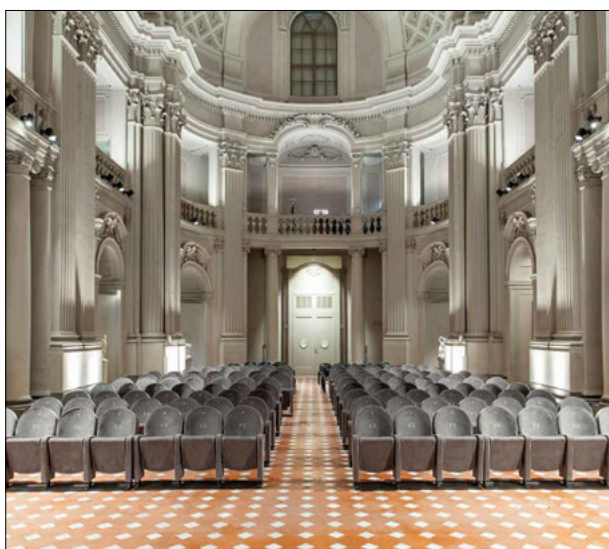
Since 2018, 3F Filippi and Targetti, two companies that made the history of lighting in Italy, represent a cohesive unit that acts as a unique partner to professionals and planners looking for quality solutions.

With decades of experience and the combination of skills in the technical and architectural lighting areas, the group responds and meets any type of need and design approach. Our partner can count on a vast selection, from the highly technical and functional products in the 3F Filippi catalogue to Targetti fixtures for indoor and outdoor architectural lighting, and up to the range of LED sources and fixtures offered by the Duralamp brand.



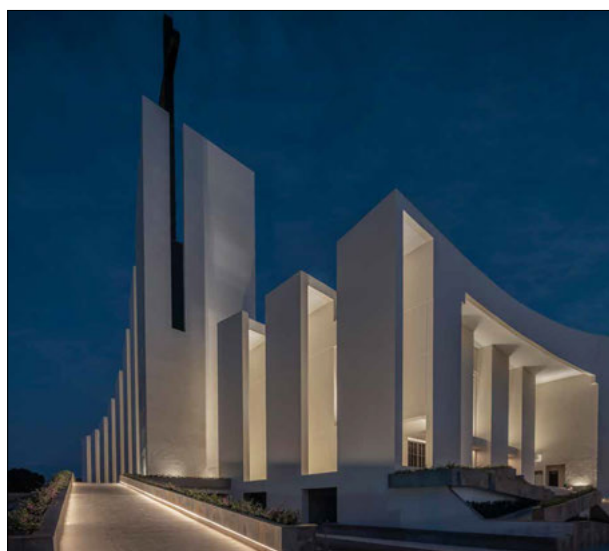
3F Filippi

Since 1952, 3F Filippi S.p.A has been a benchmark in the field of efficient technical lighting fixture design and manufacturing. The products, which are designed and created exclusively in the Pian di Macina - Pianoro (Bologna) facilities, are an expression of the company's ability to combine the traditional and the modern, craftsmanship and technology, appearance and functionality, and efficiency and sustainability.



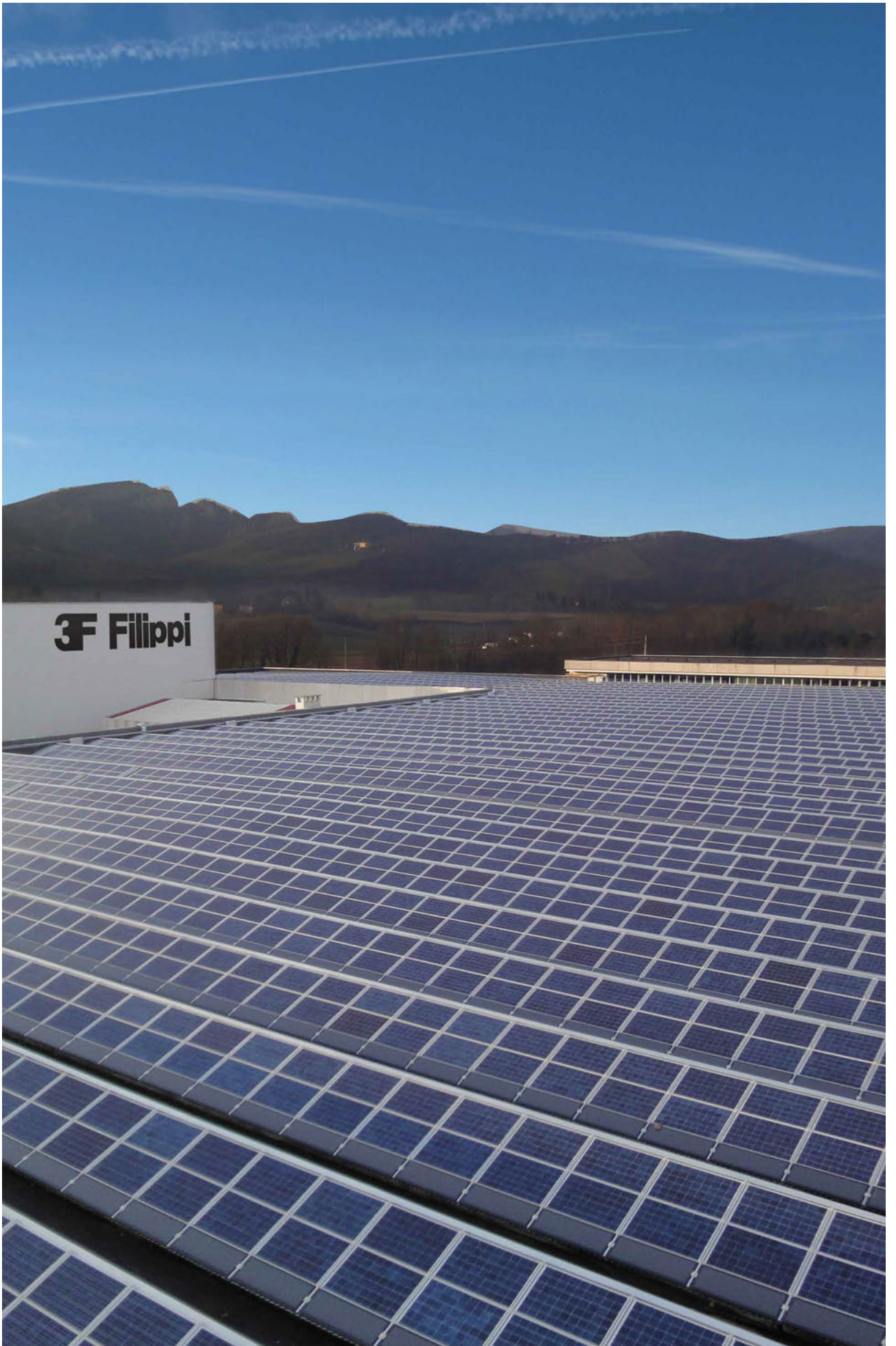
TARGETTI

Targetti has been designing and producing indoor and outdoor architectural lighting fixtures since 1928. For over ninety years, its products have been illuminating prized artistic and architectural works throughout the world and are the expression of innovation, research, and attention to detail. The company has always placed its experience and expertise at the disposal of architects, designers, and professionals in the lighting world.



DURA LAMP

With decades of experience and solid technical skill, Duralamp offers a wide range of high quality and efficient products. Thanks to its expertise, it selects the latest generation components, engineering reliable products, with an offer that includes sources, LED strips, and lighting fixtures.



Sustainability

3F Filippi wants to contribute to spreading and development a new consumption model that is not based on a “disposable” economy but on products that can be updated over time and on which maintenance can be performed, as needed. Our products have always been built as platforms that can adapt to the customer’s needs and technological development, for solutions that are always more efficient. To reach this goal, we focus **on increasing the performance of the products and reducing the environmental impact** of the manufacturing processes.



3F Filippi actively collaborates with Lighting Europe to develop increasingly advanced systems, in line with European and International standards.

It is also a member of ASSIL (Italian Association of Lighting Manufacturers), a partner and institutional supporter of IES (Illuminating Engineering Society of North America), AIDI (Italian Lighting Association), and APIL (Association of Lighting Professionals) with whom it shares the values of the Carta della Luce (Light Charter).

Keyword: optimise

At 3F Filippi, we work to produce **increasingly efficient products with less impact on the environment**, throughout all phases of the life cycle. Here is what we are already doing today:

- We choose the **best** and most efficient components on the market
- We manufacture **exclusively** in two facilities located in the same district (Pian di Macina - Pianoro - Bologna).
- We use **photovoltaic panels** that cover 30% of the energy needs, with the remaining 70% from **certified renewable energy sources**
- If quality is equal, we choose the closest supplier to our facility

- **ISO 14001** certified, we reorganise and rationalise the company's environmental management
- We apply the **Lean Production** system that aims to minimise waste, with the goal of removing it
- We use **green packaging** that is highly recyclable and in the most compact sizes possible. This has a significant positive impact on transport and stocking of our products



Networking and collaborate



To activate effective **green policies**, a company must be considered inside an ecosystem made up of a complex context of environmental, social, political, and economic elements.

Involving our partners in the development of the product is a lever for innovation for us. The combination of each skill can lead to results that greatly exceed expectations.

BY listening to our partners' needs, we succeed in **anticipating trends** and the related national and international standards.

Taking care of and selecting suppliers and, more generally, the supply chain based on a shared green awareness contributes to giving more power to what we do, increasing the effectiveness of our environmental efforts.

LEDs: photobiological safety

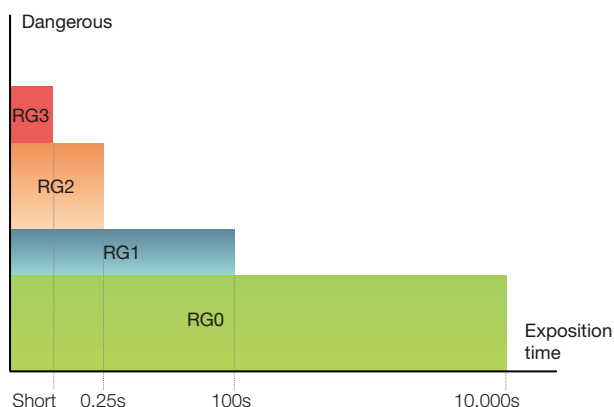
Is LED technology safe for health?



Among 3F Filippi's top priorities is the well-being of those who are illuminated by our products. For this reason, we pay a great deal of attention to photo-biological safety, using the best sources with a low impact on human health.

Unfortunately, some less scrupulous manufacturers use low-quality sources during prolonged exposure, emit radiation which is damaging to organs of the human body, such as the eyes and skin.

A number of Photobiological Safety Risk Groups (IEC62471) have now been defined for the amount of radiation emitted from all sources in the range of wavelengths from 200 nm to 3000 nm, providing a clear indication of the limits of maximum exposure for each group.



Risk classes

In accordance with Paragraph 6.1 of EN 62471: 2010, the risk groups (for blue light) are defined as follows:

- RG0 (Risk Exempt): The source does not cause any photobiological risk. Requirement met by any lamp that does not cause a blue light (BL) retinal risk with an exposure time of up to 10,000 s (about 2.8 h).
- RG1 (Low Risk): The source does not cause risk due to normal operating limitations on exposure. Requirement met by any source that exceeds the limits of the Exempt Group but does not cause a blue light (BL) retinal risk with an exposure time of up to 100 s.
- RG2 (Moderate Risk): The source does not cause a risk due to an instinctive reaction when looking at very bright light sources (or due to a sensation of thermal discomfort.) Requirement met by any source that exceeds the limits of Risk 1 Group but does not cause a blue light (BL) retinal risk with an exposure time of up to 0.25 s (aversion response).
- RG3 (High Risk): The source can constitute a risk even due to momentary or brief exposure.
- Sources that exceed the limits of Risk Group 2 are included in Risk Group 3.

Notes

The current standard EN 60598-1 concerning indoor luminaires indicates that RG0 or RG1 risk groups are acceptable for safety purposes. With the publication of standard EN 60598-1: 2015 (Luminaires - Part 1: General requirements and tests), the acceptable levels for safety purposes were definitively established.

In Paragraph 4.24.2 (Blue light retinal risk), the following is indicated:

"For luminaires that use light sources from risk group RG0 (unlimited) or RG1 (unlimited), in accordance with IEC/TR 62778, or which have been judged as being finished products ready for use, belonging to risk group RG0 (unlimited) or RG1 (unlimited), the requirements concerning blue light retinal risk do not apply."

For luminaires that have an ETHR illuminance threshold, evaluated in accordance with IEC/TR 62778, additional requirements are applied for evaluating how far the product is from the threshold between RG2 and RG1. In such cases, although the luminaire cannot be considered to be dangerous, warnings and markings are used to alert the installer or user to the possible risks associated with direct and prolonged viewing of the source.

From a technical perspective, RG0 and RG1 groups cannot be said to be equivalent, or to be both considered as "exempt". The two photobiological risk groups are in fact distinguished as follows:

- RG0 (Risk Absent): the source does not present any photobiological risk.
- RG1 (Low risk): The source does not cause risk due to normal operating limitations on exposure.

Currently, therefore, there is no regulation that declares the various photo-biological risk groups to be equivalent, or indeed that united them, rendering both exempt.

Exposure to RG1-group luminaires is not considered dangerous under ordinary conditions of use, due to the fact that periods of exposure of over 100 seconds are considered to be "unlikely", although not impossible, as this cannot be predicted in the design phase.

Risk group RG0, on the other hand, has a period of exposure greater than 2.8h and as such, it can be stated with greater confidence that a luminaire would not be viewed directly for this long.

The demand for RG0 light sources could be considered redundant, but it is not stated anywhere that it is prohibited to request the use of RG0 luminaires, or that these can be considered equivalent to those belonging to the RG1 risk category.

As explained above, the RG0 risk group represents a cautionary, optimal class of light source.

A company that exhibits extra caution with regard to the safety of its operators, and decides to install equipment belonging to the risk-exempt RG0 category, could therefore be seen to be excessively conservative, but cannot certainly be criticised for having requested compliance with a parameter that provides greater safety for all involved.

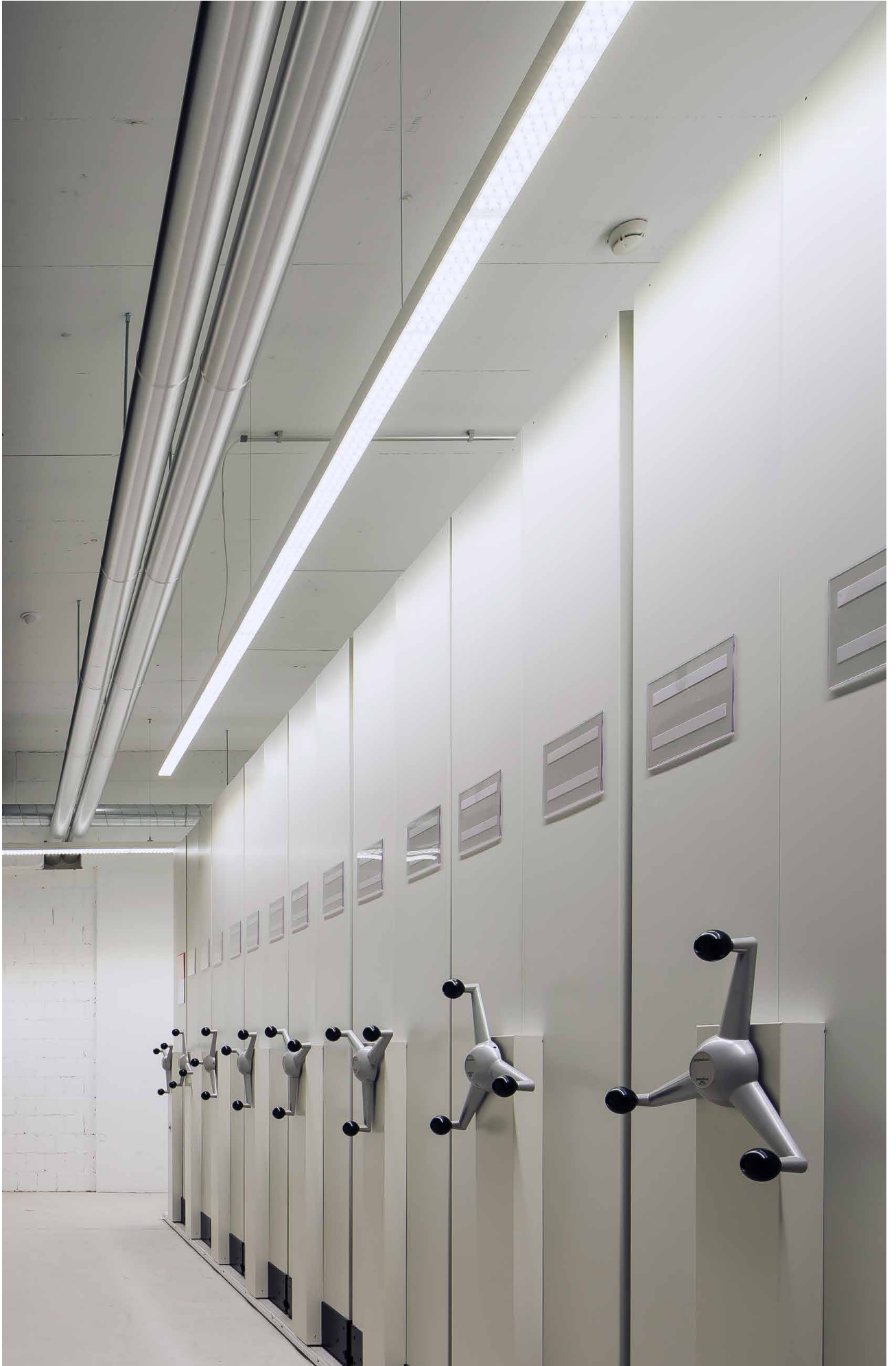
European legislation states that companies, specifically the statutory employer, evaluate and manage risks to workers' health and safety. Among the risks that the employer must evaluate is any photobiological risk deriving from exposure to artificial optical radiation.

The reference standard is IEC/EN 62471:2010, which does not define a threshold marking safe from unsafe, but rather defines classification of sources into risk groups. Limitations of use or warnings for the user are contained in the corresponding product standards, while a product marking guide is contained in IEC TR 62471-2:2009.

3F Filippi is committed to providing the most technologically advanced luminaires and always chooses the LED sources with the lowest photobiological risk group available on the market for its customers.

We also frequently find that some manufacturers declare data which is inconsistent with the components available on the market, and which must therefore be untrue.

If customers are offered product solutions similar to those which 3F Filippi declares for a certain class (for example RG1 - low) but other manufacturers state as being of a lower class (e.g. RG0 – risk absent), they can protect themselves by requesting that those manufacturers provide the certificates proving that the sources actually meet this photobiological risk class.



Instruments

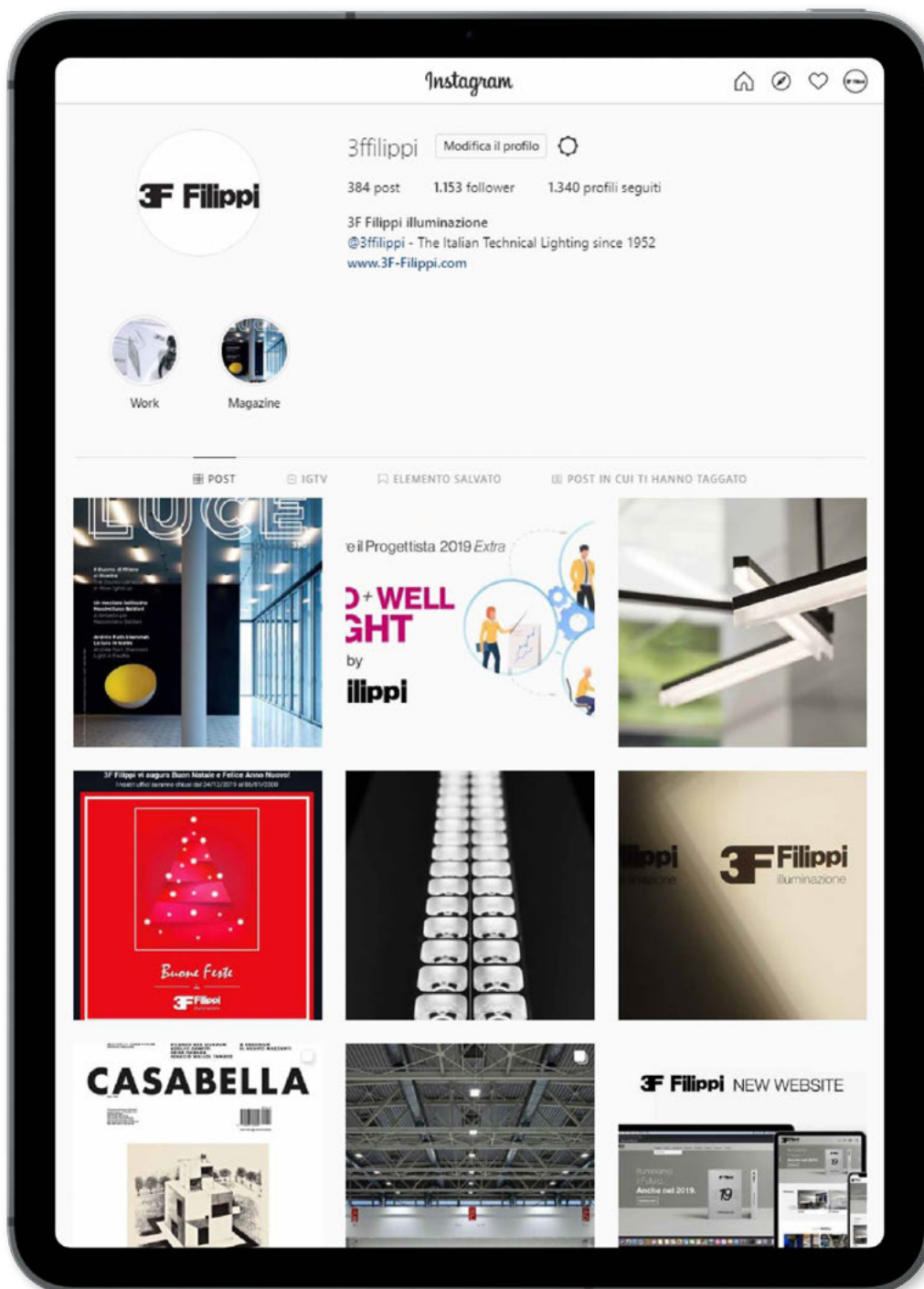
The 3F Filippi catalogue is intended to be a valid **“work instrument”** that is continuously evolving, as is the lighting market, customer demand and lighting technology.

For 3F Filippi, operating in this industry means continuously being committed to increasing not only the performance of each product, but also the knowledge of artificial light and the infinite interactions that define the relationship between people and the environment. This calls for continuous research and **constructive networking with planners**, in particular lighting designers, to the full extent of their individual skills and specialities. We are convinced that a new lighting culture may arise only by working together to share the standards on **mandatory lighting design**, giving rise to all the necessary initiatives for the development of a new lighting culture. For this reason, we signed the APIL Lighting Charter.

Sharing experiences

There is no treasure more valuable than experience in the field. That is why we publish **our monthly Newsletter, "lightUpdate"** with reports on what designers all over the world make with our products. In the Case History section of our website you can find a collection of these references.

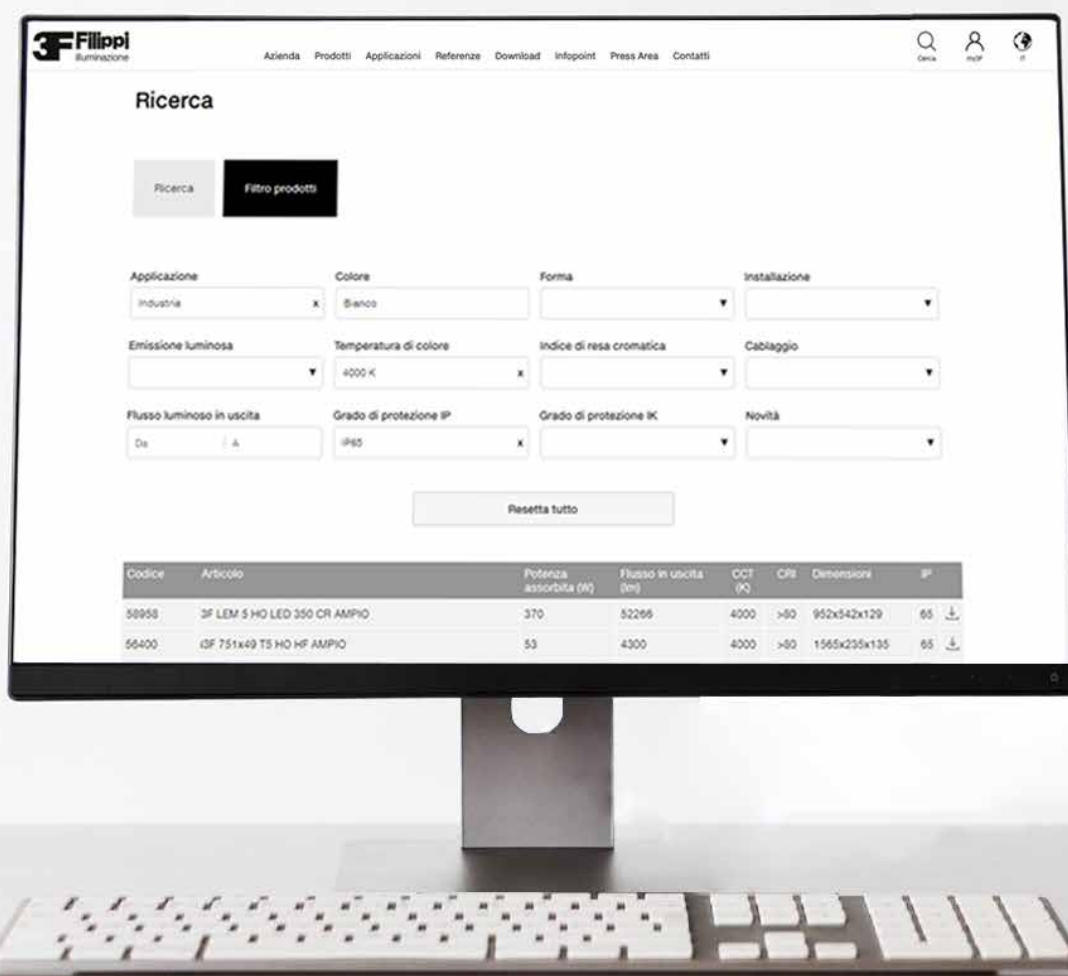
We publish images every day on social networks (LinkedIn, Instagram, and Facebook) to show how light influences our environment and its perception. Would you like to share your project? Tag us in your posts using @3FFilippi #3FFilippi



lightUpdate
newsletter



Are you looking for the right product?

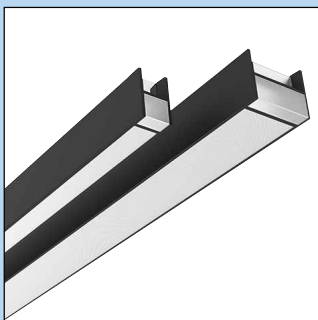


The website www.3F-Filippi.com was designed to make the research process more straightforward, in 6 different languages.

We decided to structure the information following the “**Research by code**” that lead directly to the item, the

“**Product Filter**” to choose the most suitable product from a dynamic screen and the “**Configurators**” that also help less practised users with **guided creation of modular products**.

3F HD



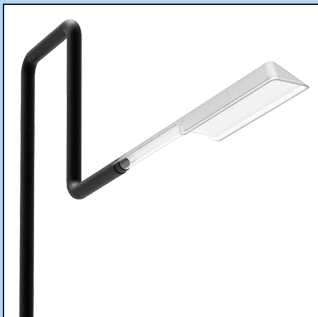
3F Mirella



3F Trittico



3F Filoluce



3F Sound Lux



3F Architectural

| Page | Product | Recessed | Ceiling | Suspended | Floor |
|------|---|----------|---------|-----------|-------|
| 26 | 3F HD | | | | |
| 38 | UPDATE 3F HD - Single | | • | • | |
| 46 | 3F HD - Channel | | • | • | |
| 50 | 3F HD Direct/Indirect - Single | | | • | |
| 56 | 3F HD Direct/Indirect - Channel | | | • | |
| 60 | UPDATE 3F HD R Recessed - Single | • | | | |
| 66 | 3F HD R Recessed - Channel | • | | | |
| 78 | 3F Mirella | | | | |
| 88 | 3F Mirella | | | • | |
| 92 | 3F Mirella Direct/Indirect | | | • | |
| 96 | 3F Mirella Soft | | | • | |
| 98 | 3F Mirella Soft Direct/Indirect | | | • | |
| 100 | 3F Mirella Floor | | | | • |
| 102 | 3F Trittico | | | | |
| 110 | 3F Trittico | | | • | |
| 114 | 3F Filoluce | | | | |
| 122 | UPDATE 3F Filoluce | | | | • |
| 124 | 3F Sound Lux | | | | |
| 132 | 3F Sound Lux | | | • | |
| 134 | 3F Sound Lux Direct/Indirect | | | • | |





3F HD 50 - OCB (LEED Compliant)

3F HD

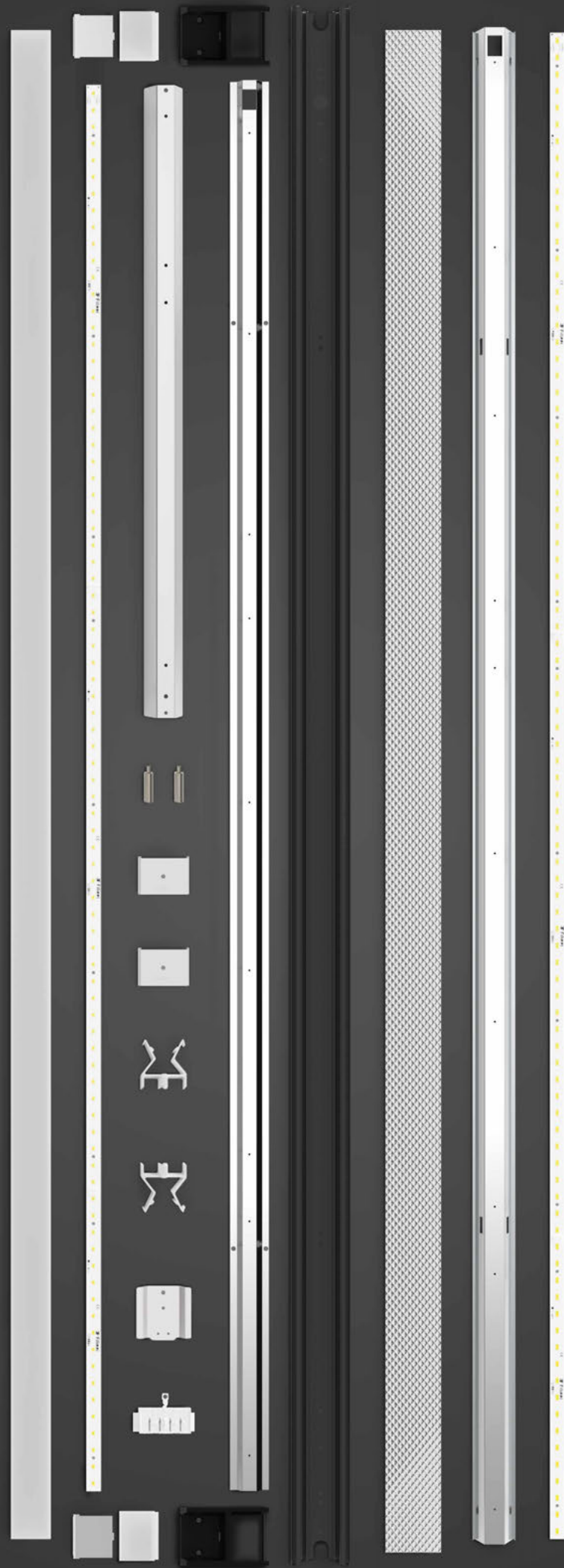
Design: **PARK ASSOCIATI**

3F HD is available with different photometric distributions that are obtained with opal and prismatic screens. The fixture is also available in a LEED compliant version equipped with an OCB optic, a unique solution with innovative technology to control luminance in the workplace in compliance with LEED specifications. 3F HD is composed of an H section aluminium linear profile.

It can be ceiling mounted, suspension and recessed (3F HD R version). Available in various lengths it provides direct or direct/indirect light emission.

3F HD can be used easily in continuous lines with a significant reduction in installation time thanks to the presence of concealed joints and standard mounted plug-sockets.

The lighting head it is equipped with allows for a 360° perception of the fixture reaffirming its presence and uniqueness.





PARK ASSOCIATI

“3F HD is a code name. In astronomy HD is an acronym that followed by a number denotes a celestial body. A link between research, experimentation and experience.”

3F HD was developed with the aim of innovating lighting in the workplace with a minimal, modern and highly technical linear system.

A real necessity given the increasing demand for solutions aimed at energy saving, visual comfort and current LEED certification in particular in environments with VDTs. Knowing the long established expertise of 3F Filippi in the field of highly efficient technical lighting we accepted the challenge to design a light fixture that is ideal for modern workplaces in terms of performance and flexibility for lighting designers.

The various dimensions, optics and screens available together with the use of the cutting-edge LED source ensure 360° quality for those like us that consider light to be a key element in creating the perfect working environment in the present and the future.

SCREENS AND FINISHES

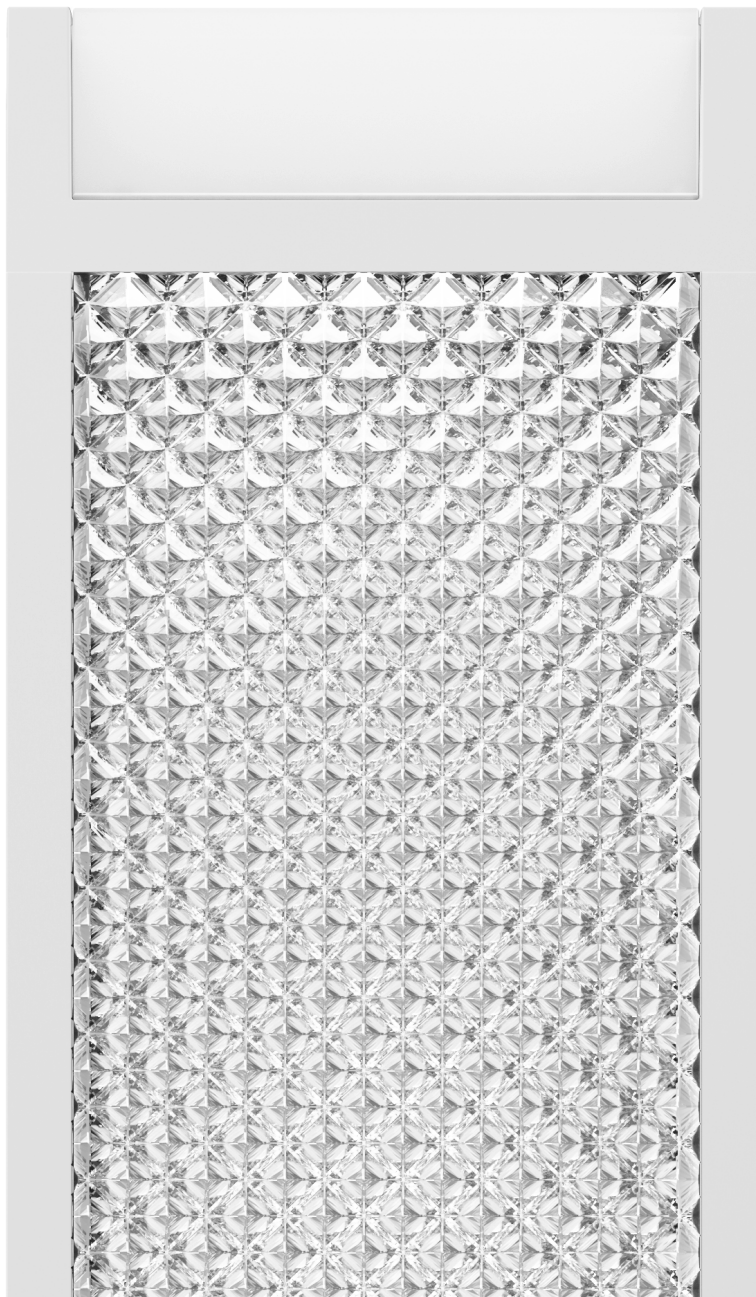
3F HD can satisfy all lighting needs. The system can be equipped with two different rollable flat PMMA filters, a prismatic screen designed especially for 3F Filippi and a series of OCB (Optics Control Black) optics, depending on the intended use of the environments.

The FDO opal screen is suitable for areas that are not visually demanding such as waiting rooms and corridors, while the FDP (Flat Diffuser Micro prismatic) standard micro prismatic one ensures increased visual comfort for work stations. Both filters do not require any visible joints for lengths of up to 15 metres thus ensuring the uniformity of the light diffusion.

The GSP (Glare Screen Prismatic) prismatic screen allows 3F HD to reduce progressive luminance, using the OCB optic on the other hand meets and widely exceeds luminance limits provided for in LEED certification for corners of more than 45° (<math><2500\text{ cd/m}^2</math>) and those of more than 65° (<math><200\text{ cd/m}^2</math>).

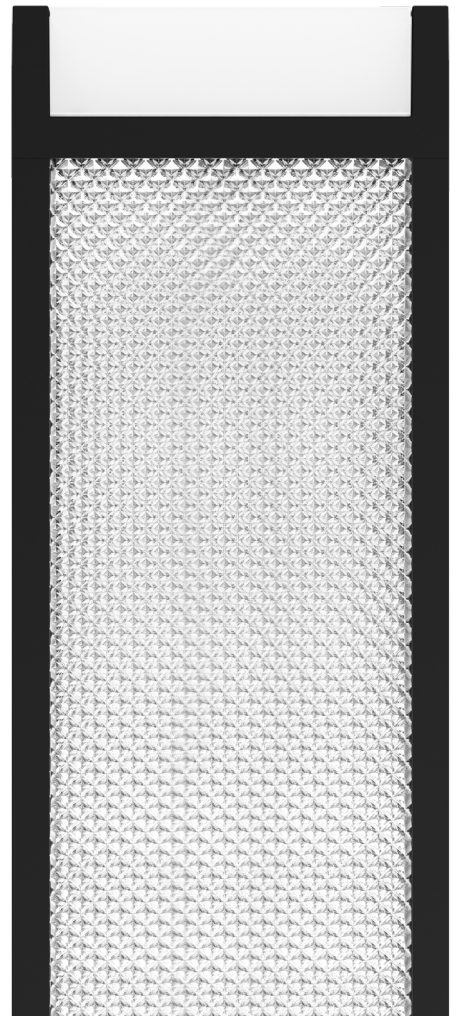
GSP

Prismatic screen



FDP

Flat micro prismatic diffuser



Finishes



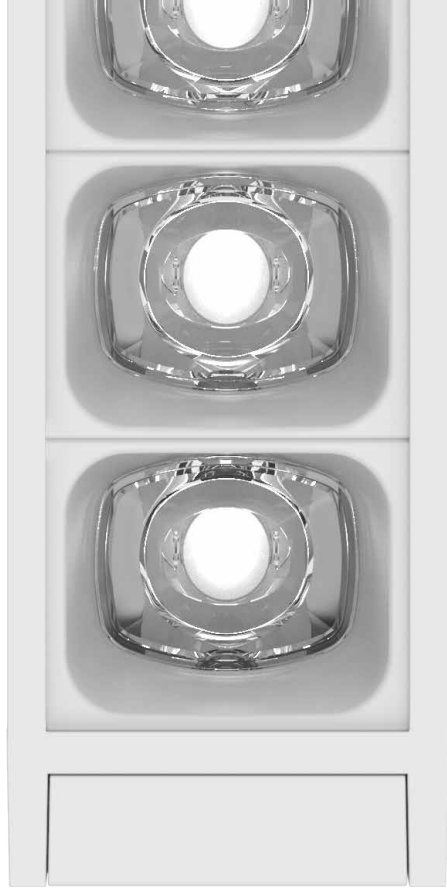
White



Black

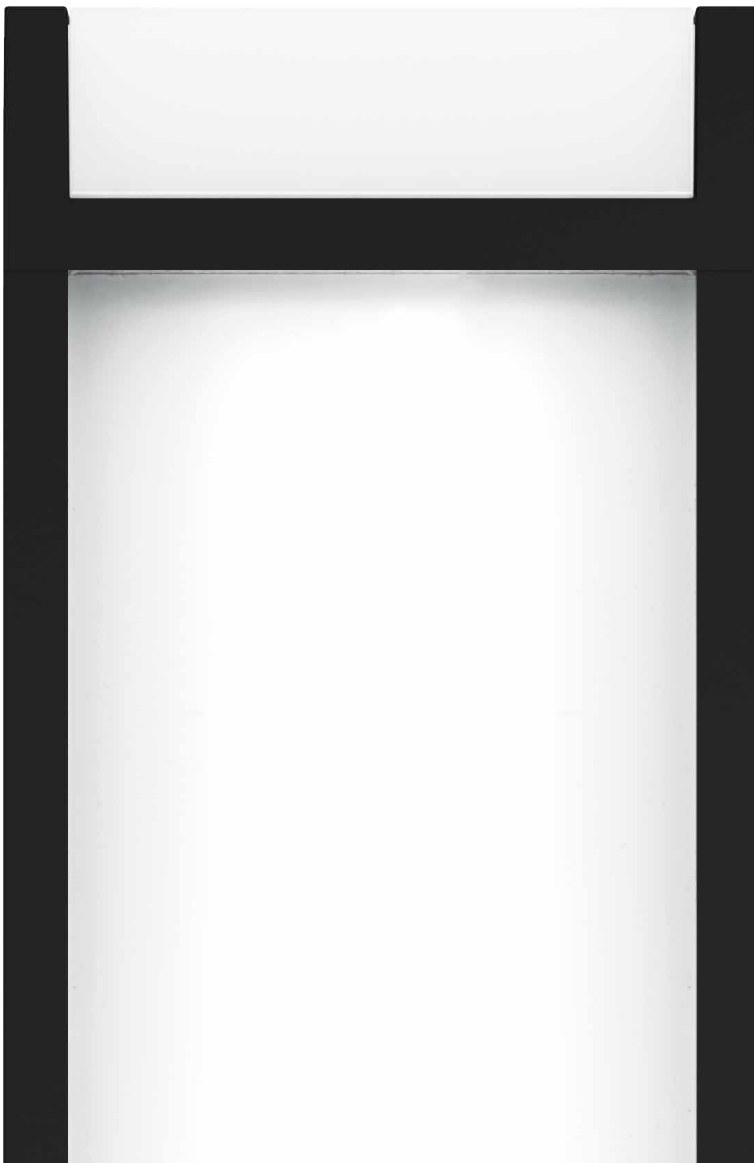


Silver



FDO

Flat opal diffuser

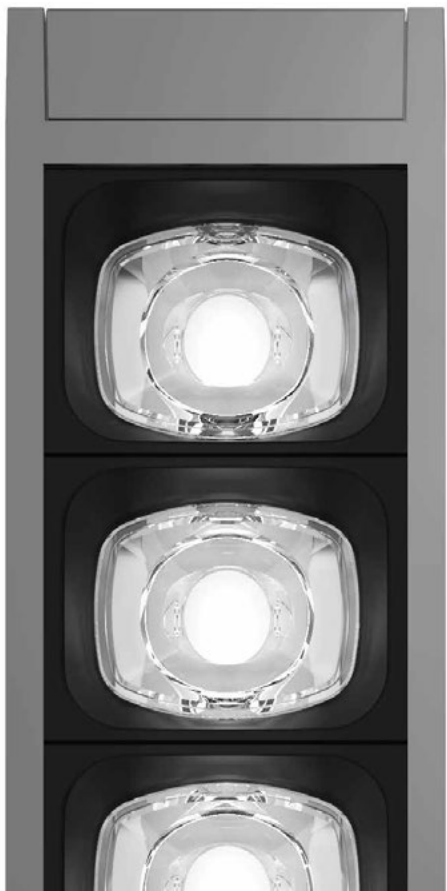


OCW

Optics Control White
Complies with LEED regulations

OCB

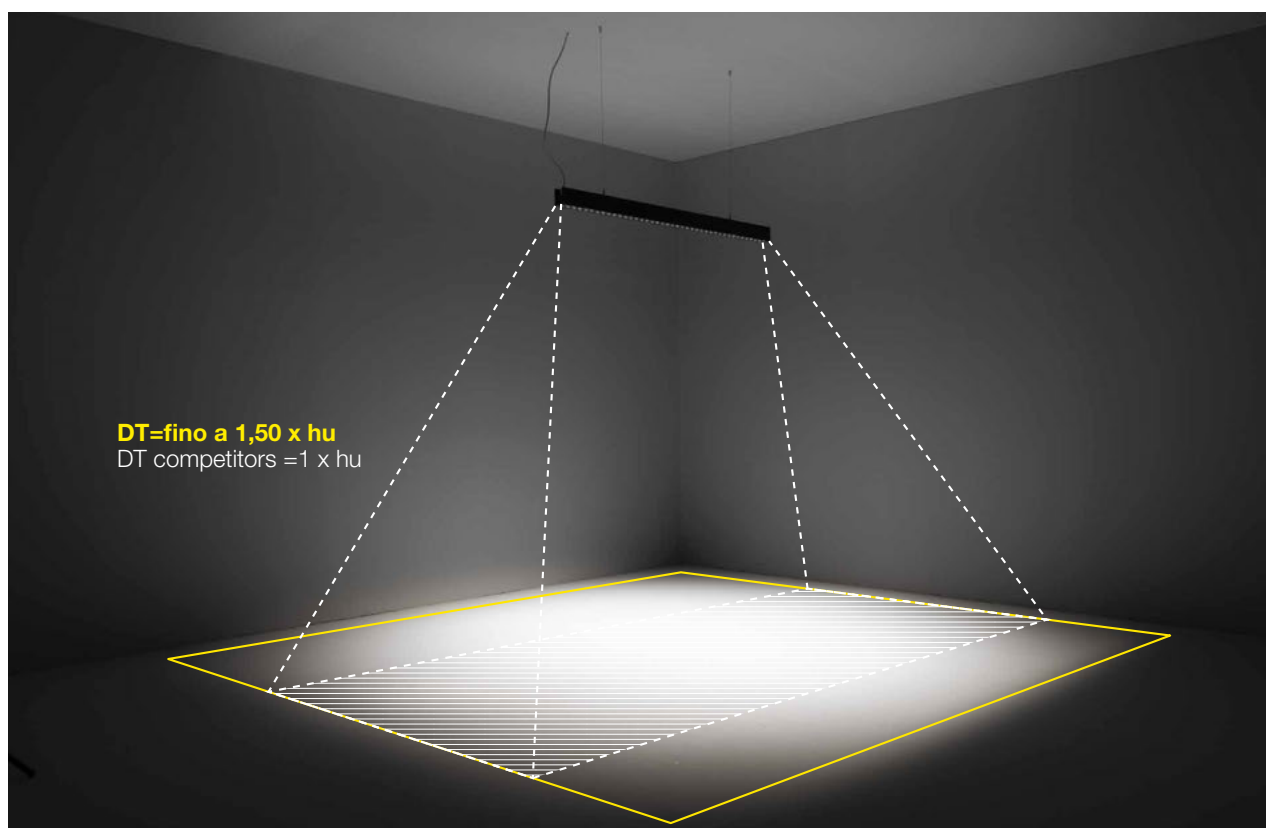
Optics Control Black
Complies with LEED regulations



Scale 1:1

PRODUCT EFFICIENCY

The new optics from the OC (Optic Control) range were designed with the aim of obtaining the best lighting performance in terms of low luminance and uniformity of light distribution in the space: modern offices need spaces where the furniture can be arranged in a flexible way. For this reason the first step is to accept an ambitious challenge: to create an optic that can meet the stringent requirements of LEED certification with a product that can be installed at wide distances. With the solutions that were previously available on the market the distance was too contained and meant it was necessary to install a large number of fixtures to achieve the required performance in compliance with existing legislation.



Thanks to innovative Optic Control optics, the DT (transversal installation step, ie the installation distance between the luminaires) offered by 3F HD OCB is up to 50% more than the average of the homologous products proposed by the major brands on the market. The performance is obtained by maintaining 500 lux and ensuring, thanks to direct emission only, complete uniformity of the luminous flux on work stations (Direct/Indirect emission versions are also available).

3F HD

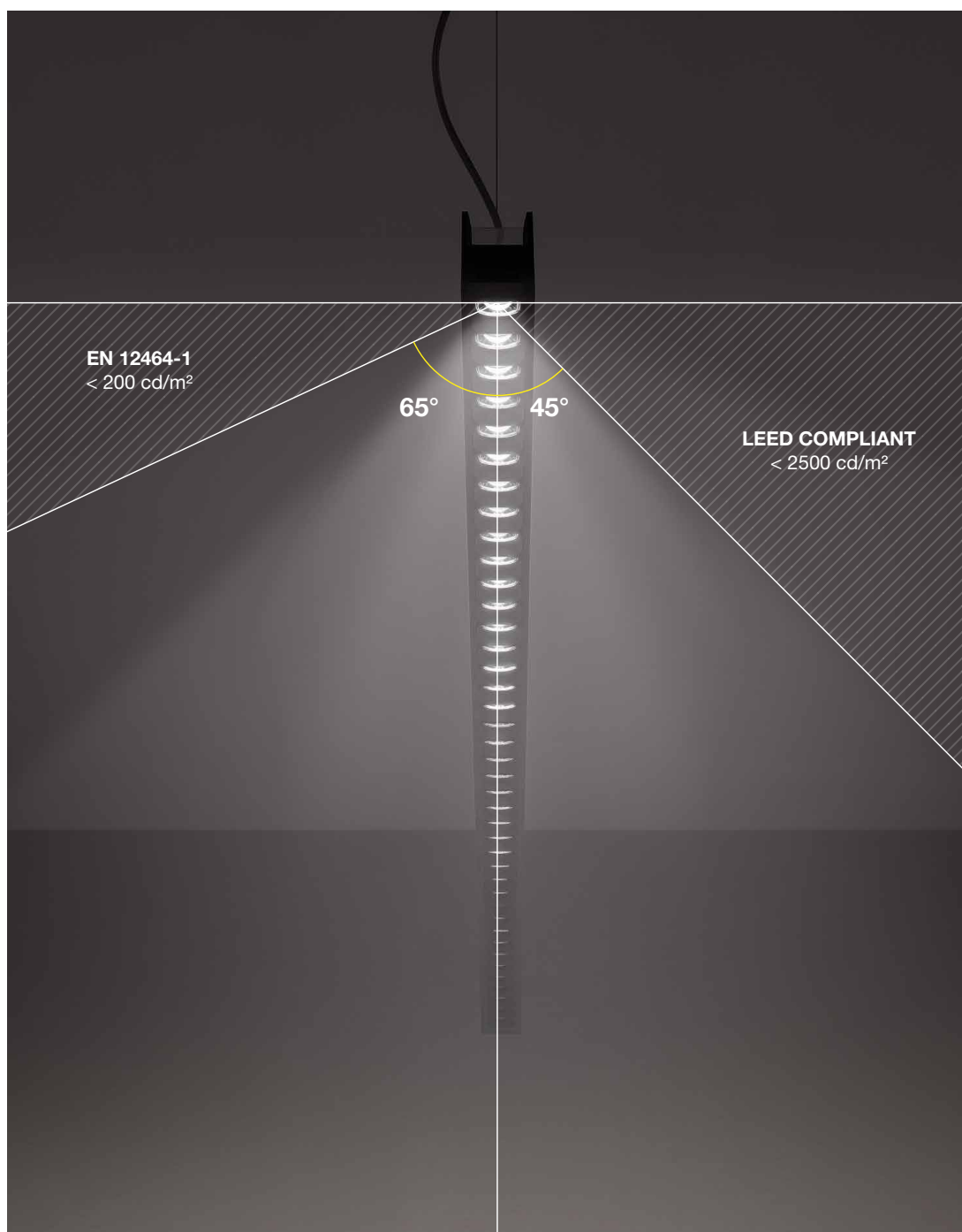


Competitors



LEED COMPLIANT

3F HD is the ideal technical solution to comply with indications from the most stringent environmental certifications and current legislation. The 3F Filippi system is LEED compliant, with a luminance of less than 2500 cd/m² for corners of more than 45°. The performance of 3F HD substantially meets the requirements of European standard EN 12464-1: if the maximum luminance required at 65° must be between 3000 cd/m² and 1500 cd/m², the performance of the fixture at the same angle is lower than 200 cd/m².



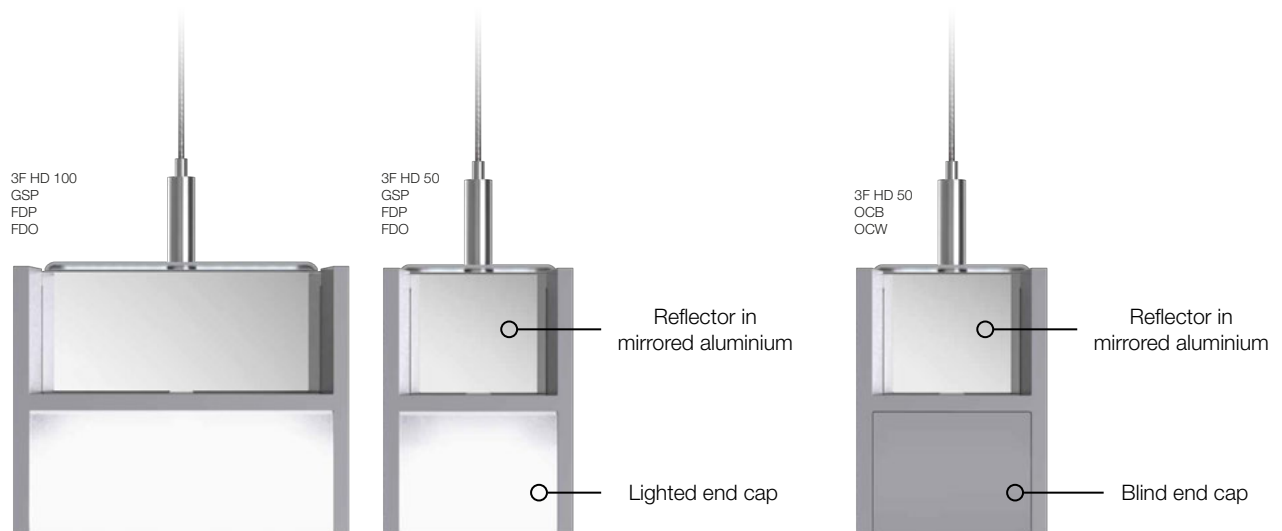
PRODUCT ADVANTAGES

END CAPS

3F HD is a product created with two different types of end caps. While the OC (Optic Control - OCB and OCW) have blind caps, given that lighting and lighting distribution control are managed completely by the cells, those with screens use lighted end caps that perform the following functions:

- **Aesthetic:** the lower screen connected to the two end caps creates luminosity that eliminates the typical two-dimensional effect of similar products.
- **Functional:** when the product is installed near walls, the lighted caps mitigate the typical smudged light effect. On the other hand, when installed in open areas, its perception and light diffusion improve, even in the most open corners.
- **Lighting:** the luminous front component reduces the visual contrast, making the perceived light under the same product axis more comfortable.

All versions have a mirrored aluminium decoration that hides the access, giving the product visual depth.

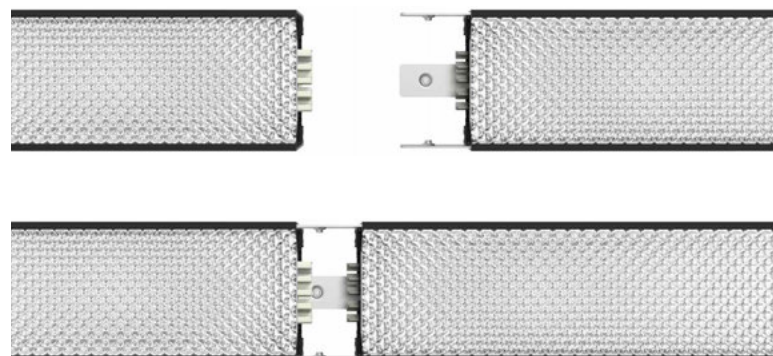


FASTWIRING SYSTEM

In the channel versions, the **FastWiring** system drastically reduces the installation time.

A plug and a socket are mounted at the beginning and end of each bar. Simply join them together and the connection is made automatically.

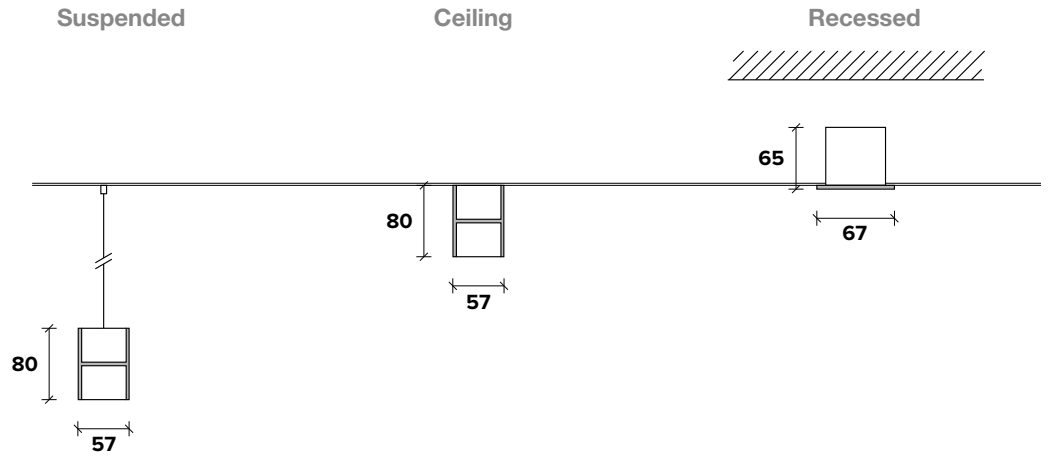
From the mechanical point of view, the connection is ensured by the (already mounted) joining elements inside the second body and fixing the safety hardware.



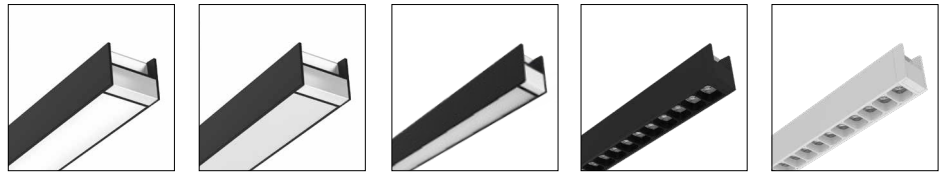


PRODUCT RANGE

3F HD 50 Single/Channel



3F HD 3F HD R Direct Emission



FDO

FDP

GSP

OCB

OCW

**Average luminance
for angles > 65
(cd / m²)**

>3000

<3000

<3000

<200

<1500

UGR

<22

<19

<19

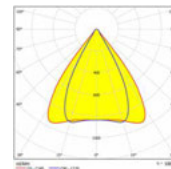
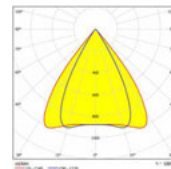
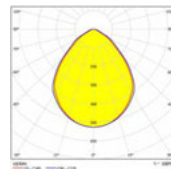
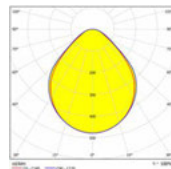
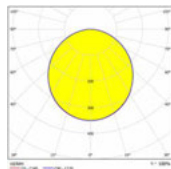
<16

<16

Finishes

Silver | White | Black

**Photometric
distribution**



Installation steps

Dt

1,29

1,16

1,14

1,34

1,32

DI

1,24

1,18

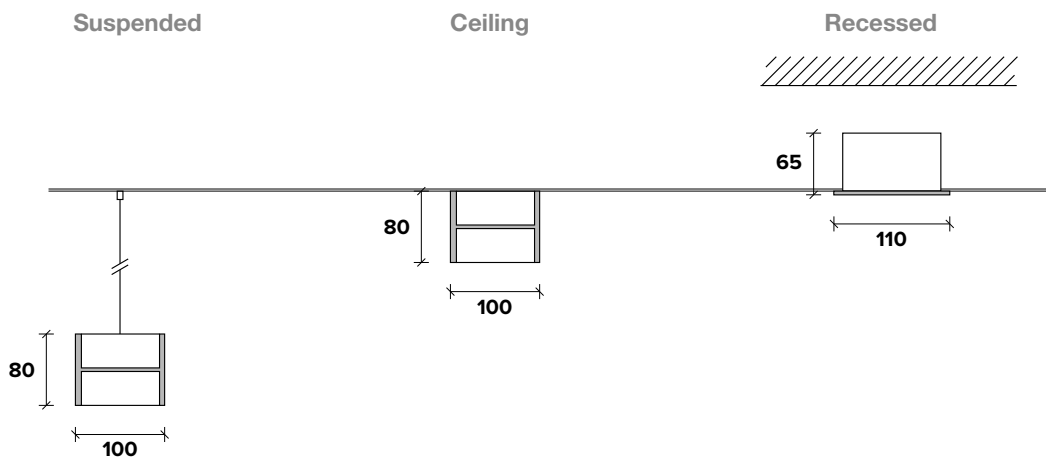
1,18

1,00

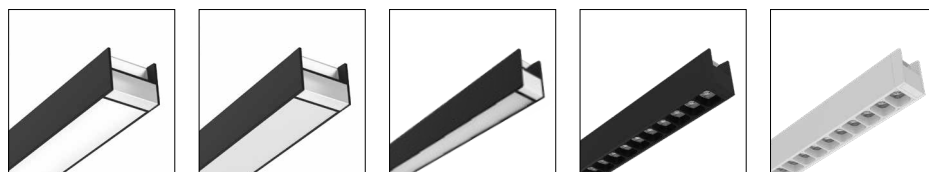
1,00

3F HD 100

Single/Channel



3F HD Direct / Indirect Emission



FDO FDP GSP OCB OCW

Average luminance
for angles > 65
(cd / m²)

| | | | | |
|-------|-------|-------|------|-------|
| >3000 | <3000 | <3000 | <200 | <1500 |
|-------|-------|-------|------|-------|

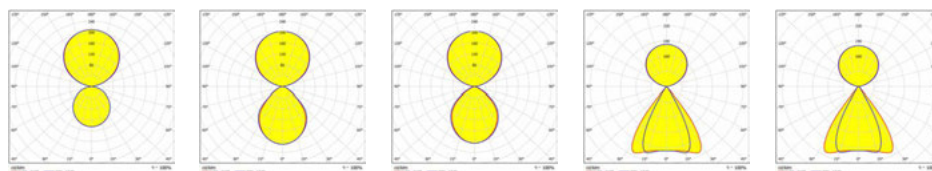
UGR

| | | | | |
|-----|-----|-----|-----|-----|
| <22 | <19 | <19 | <16 | <16 |
|-----|-----|-----|-----|-----|

Finishes

Silver | White | Black

Photometric
distribution



Installation steps

| | | | | | |
|-----------|------|------|------|------|------|
| Dt | 1,40 | 1,50 | 1,45 | 1,50 | 1,50 |
| DI | 1,20 | 1,25 | 1,25 | 1,20 | 1,20 |



3F HD - Single

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium housing.

Removable gear-tray.

Lighting head caps with specular aluminium frieze.

Electrical characteristics

In compliance with EN 60598-1.

Entrance to the upper power supply in proximity to a power head.

Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (more information on page 542)

Applications

Environments: with VDTs, meeting rooms, offices.

Environments: architectural, commercial, staterooms, banks.

Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

FDO version

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

Installation

Ceiling mounted or suspension installation.

Light Management

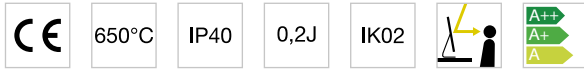
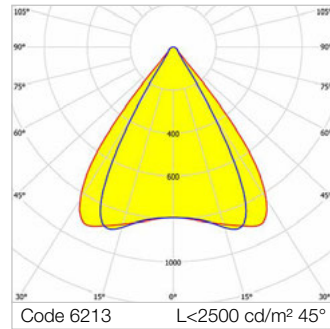
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F HD OCW Single

Optics Control White - LEED certification



Average luminance <math><2500\text{ cd/m}^2</math> for angles >math>45^\circ</math>. Average luminance <math><1500\text{ cd/m}^2</math> for angles >math>65^\circ</math>. Environments with very exacting visual tasks and control of luminance at angles of >math>45^\circ</math> compared to the LEED certification. Offices with video terminals and administrative, information and school offices. Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux. Anti-reflective white polycarbonate alveolar optic.

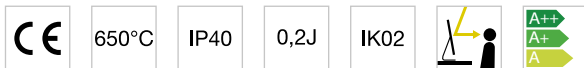
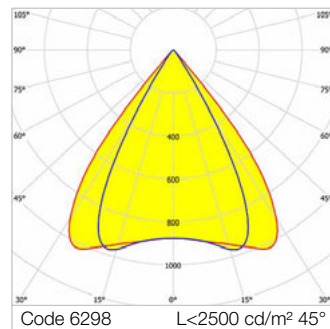
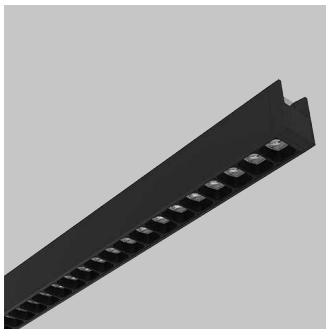
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|----------------------------------|------|------|------|-----|------------|
| ○ 6212 | 3F HD50 WH 12/835 DALI OCW L1214 | 13.5 | 1593 | 3500 | >80 | 1214x57x80 |
| ○ 6213 | 3F HD50 WH 15/835 DALI OCW L1508 | 17 | 1991 | 3500 | >80 | 1508x57x80 |
| ○ 6214 | 3F HD50 WH 30/835 DALI OCW L2975 | 33 | 3981 | 3500 | >80 | 2975x57x80 |

3F HD OCB Single

Optics Control Black - LEED certification



Average luminance <math><2500\text{ cd/m}^2</math> for angles >math>45^\circ</math>. Average luminance <math><200\text{ cd/m}^2</math> for angles >math>65^\circ</math>. Environments with very exacting visual tasks and control of luminance at angles of >math>45^\circ</math> compared to the LEED certification. Offices with video terminals and administrative, information and school offices. Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux. Anti-reflective black polycarbonate alveolar optic.

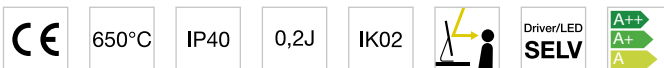
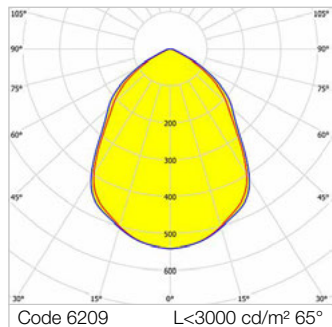
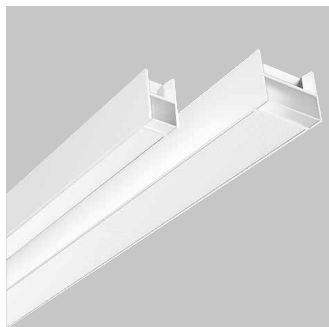
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|----------------------------------|------|------|------|-----|------------|
| ● 6297 | 3F HD50 BK 12/835 DALI OCB L1214 | 13.5 | 1474 | 3500 | >80 | 1214x57x80 |
| ● 6298 | 3F HD50 BK 15/835 DALI OCB L1508 | 17 | 1843 | 3500 | >80 | 1508x57x80 |
| ● 6299 | 3F HD50 BK 30/835 DALI OCB L2975 | 33 | 3686 | 3500 | >80 | 2975x57x80 |
| ○ 6382 | 3F HD50 AL 12/835 DALI OCB L1214 | 13.5 | 1474 | 3500 | >80 | 1214x57x80 |
| ○ 6383 | 3F HD50 AL 15/835 DALI OCB L1508 | 17 | 1843 | 3500 | >80 | 1508x57x80 |
| ○ 6384 | 3F HD50 AL 30/835 DALI OCB L2975 | 33 | 3686 | 3500 | >80 | 2975x57x80 |

3F HD GSP Single

Flat prismatic diffuser in methacrylate with low luminance film



Average luminance <math><3000 \text{ cd/m}^2</math> for angles >math>65^\circ</math>. Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. SP flat diffuser in transparent PMMA, outside prismatic, anti-glare. Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

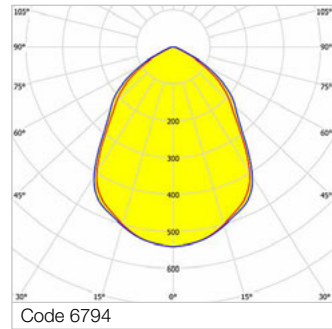
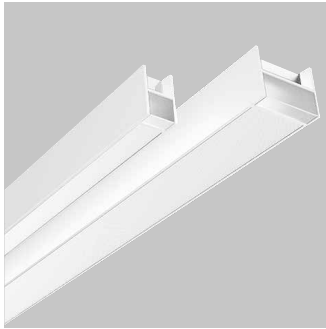
| | | | | | | | |
|---|------|----------------------------------|----|------|------|-----|------------|
| ○ | 6208 | 3F HD50 WH 13/840 DALI GSP L1214 | 14 | 1374 | 4000 | >80 | 1214x57x80 |
| ○ | 6209 | 3F HD50 WH 16/840 DALI GSP L1508 | 19 | 1718 | 4000 | >80 | 1508x57x80 |
| ○ | 6210 | 3F HD50 WH 32/840 DALI GSP L2975 | 35 | 3435 | 4000 | >80 | 2975x57x80 |
| ● | 6293 | 3F HD50 BK 13/840 DALI GSP L1214 | 14 | 1374 | 4000 | >80 | 1214x57x80 |
| ● | 6294 | 3F HD50 BK 16/840 DALI GSP L1508 | 19 | 1718 | 4000 | >80 | 1508x57x80 |
| ● | 6295 | 3F HD50 BK 32/840 DALI GSP L2975 | 35 | 3435 | 4000 | >80 | 2975x57x80 |
| ○ | 6378 | 3F HD50 AL 13/840 DALI GSP L1214 | 14 | 1374 | 4000 | >80 | 1214x57x80 |
| ○ | 6379 | 3F HD50 AL 16/840 DALI GSP L1508 | 19 | 1718 | 4000 | >80 | 1508x57x80 |
| ○ | 6380 | 3F HD50 AL 32/840 DALI GSP L2975 | 35 | 3435 | 4000 | >80 | 2975x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|------|-----------------------------------|----|------|------|-----|-------------|
| ○ | 6227 | 3F HD100 WH 22/840 DALI GSP L1214 | 24 | 2617 | 4000 | >80 | 1214x100x80 |
| ○ | 6228 | 3F HD100 WH 26/840 DALI GSP L1508 | 30 | 3271 | 4000 | >80 | 1508x100x80 |
| ○ | 6229 | 3F HD100 WH 52/840 DALI GSP L2975 | 58 | 6428 | 4000 | >80 | 2975x100x80 |
| ● | 6312 | 3F HD100 BK 22/840 DALI GSP L1214 | 24 | 2617 | 4000 | >80 | 1214x100x80 |
| ● | 6313 | 3F HD100 BK 26/840 DALI GSP L1508 | 30 | 3271 | 4000 | >80 | 1508x100x80 |
| ● | 6314 | 3F HD100 BK 52/840 DALI GSP L2975 | 58 | 6428 | 4000 | >80 | 2975x100x80 |
| ○ | 6397 | 3F HD100 AL 22/840 DALI GSP L1214 | 24 | 2617 | 4000 | >80 | 1214x100x80 |
| ○ | 6398 | 3F HD100 AL 26/840 DALI GSP L1508 | 30 | 3271 | 4000 | >80 | 1508x100x80 |
| ○ | 6399 | 3F HD100 AL 52/840 DALI GSP L2975 | 58 | 6428 | 4000 | >80 | 2975x100x80 |

3F HD HO GSP Single

Flat prismatic diffuser in methacrylate with low luminance film



650°C

IP40

0,2J

IK02

Driver/LED
SELV

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

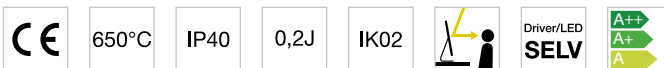
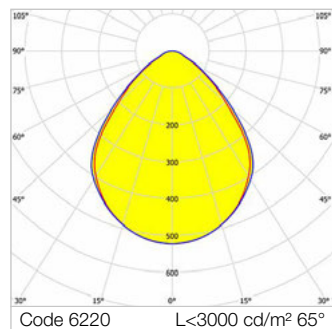
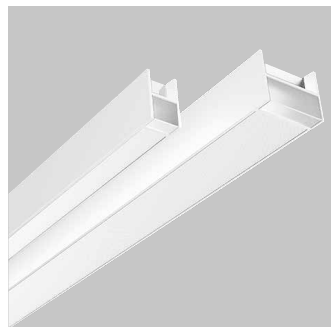
| | | | | | | | |
|---|---------------------|-------------------------------------|----|------|------|-----|------------|
| ○ | 6793 ^{NEW} | 3F HD50 WH HO 22/840 DALI GSP L1214 | 24 | 2597 | 4000 | >80 | 1214x57x80 |
| ○ | 6794 ^{NEW} | 3F HD50 WH HO 26/840 DALI GSP L1508 | 32 | 3246 | 4000 | >80 | 1508x57x80 |
| ○ | 6795 ^{NEW} | 3F HD50 WH HO 52/840 DALI GSP L2975 | 58 | 5871 | 4000 | >80 | 2975x57x80 |
| ● | 6799 ^{NEW} | 3F HD50 BK HO 22/840 DALI GSP L1214 | 24 | 2597 | 4000 | >80 | 1214x57x80 |
| ● | 6800 ^{NEW} | 3F HD50 BK HO 26/840 DALI GSP L1508 | 32 | 3246 | 4000 | >80 | 1508x57x80 |
| ● | 6801 ^{NEW} | 3F HD50 BK HO 52/840 DALI GSP L2975 | 58 | 5871 | 4000 | >80 | 2975x57x80 |
| ○ | 6805 ^{NEW} | 3F HD50 AL HO 22/840 DALI GSP L1214 | 24 | 2597 | 4000 | >80 | 1214x57x80 |
| ○ | 6806 ^{NEW} | 3F HD50 AL HO 26/840 DALI GSP L1508 | 32 | 3246 | 4000 | >80 | 1508x57x80 |
| ○ | 6807 ^{NEW} | 3F HD50 AL HO 52/840 DALI GSP L2975 | 58 | 5871 | 4000 | >80 | 2975x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|---------------------|--------------------------------------|----|------|------|-----|-------------|
| ○ | 6796 ^{NEW} | 3F HD100 WH HO 36/840 DALI GSP L1214 | 39 | 3999 | 4000 | >80 | 1214x100x80 |
| ○ | 6797 ^{NEW} | 3F HD100 WH HO 44/840 DALI GSP L1508 | 49 | 4998 | 4000 | >80 | 1508x100x80 |
| ○ | 6798 ^{NEW} | 3F HD100 WH HO 88/840 DALI GSP L2975 | 98 | 9997 | 4000 | >80 | 2975x100x80 |
| ● | 6802 ^{NEW} | 3F HD100 BK HO 36/840 DALI GSP L1214 | 39 | 3999 | 4000 | >80 | 1214x100x80 |
| ● | 6803 ^{NEW} | 3F HD100 BK HO 44/840 DALI GSP L1508 | 49 | 4998 | 4000 | >80 | 1508x100x80 |
| ● | 6804 ^{NEW} | 3F HD100 BK HO 88/840 DALI GSP L2975 | 98 | 9997 | 4000 | >80 | 2975x100x80 |
| ○ | 6808 ^{NEW} | 3F HD100 AL HO 36/840 DALI GSP L1214 | 39 | 3999 | 4000 | >80 | 1214x100x80 |
| ○ | 6809 ^{NEW} | 3F HD100 AL HO 44/840 DALI GSP L1508 | 49 | 4998 | 4000 | >80 | 1508x100x80 |
| ○ | 6810 ^{NEW} | 3F HD100 AL HO 88/840 DALI GSP L2975 | 98 | 9997 | 4000 | >80 | 2975x100x80 |

3F HD FDP Single

Diffuser microprismatic



Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math>. Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. Externally micro prismatic transparent flat anti-glare polycarbonate diffuser. Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

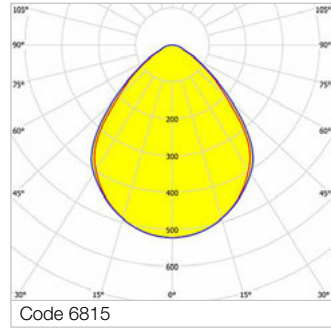
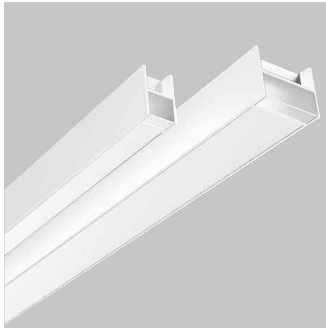
| | | | | | | | |
|---|------|----------------------------------|----|------|------|-----|------------|
| ○ | 6200 | 3F HD50 WH 13/840 DALI FDP L1214 | 14 | 1292 | 4000 | >80 | 1214x57x80 |
| ○ | 6201 | 3F HD50 WH 16/840 DALI FDP L1508 | 19 | 1615 | 4000 | >80 | 1508x57x80 |
| ○ | 6202 | 3F HD50 WH 32/840 DALI FDP L2975 | 35 | 3229 | 4000 | >80 | 2975x57x80 |
| ● | 6285 | 3F HD50 BK 13/840 DALI FDP L1214 | 14 | 1292 | 4000 | >80 | 1214x57x80 |
| ● | 6286 | 3F HD50 BK 16/840 DALI FDP L1508 | 19 | 1615 | 4000 | >80 | 1508x57x80 |
| ● | 6287 | 3F HD50 BK 32/840 DALI FDP L2975 | 35 | 3229 | 4000 | >80 | 2975x57x80 |
| ○ | 6370 | 3F HD50 AL 13/840 DALI FDP L1214 | 14 | 1292 | 4000 | >80 | 1214x57x80 |
| ○ | 6371 | 3F HD50 AL 16/840 DALI FDP L1508 | 19 | 1615 | 4000 | >80 | 1508x57x80 |
| ○ | 6372 | 3F HD50 AL 32/840 DALI FDP L2975 | 35 | 3229 | 4000 | >80 | 2975x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|------|-----------------------------------|----|------|------|-----|-------------|
| ○ | 6219 | 3F HD100 WH 22/840 DALI FDP L1214 | 24 | 2468 | 4000 | >80 | 1214x100x80 |
| ○ | 6220 | 3F HD100 WH 26/840 DALI FDP L1508 | 30 | 3085 | 4000 | >80 | 1508x100x80 |
| ○ | 6221 | 3F HD100 WH 52/840 DALI FDP L2975 | 58 | 6062 | 4000 | >80 | 2975x100x80 |
| ● | 6304 | 3F HD100 BK 22/840 DALI FDP L1214 | 24 | 2468 | 4000 | >80 | 1214x100x80 |
| ● | 6305 | 3F HD100 BK 26/840 DALI FDP L1508 | 30 | 3085 | 4000 | >80 | 1508x100x80 |
| ● | 6306 | 3F HD100 BK 52/840 DALI FDP L2975 | 58 | 6062 | 4000 | >80 | 2975x100x80 |
| ○ | 6389 | 3F HD100 AL 22/840 DALI FDP L1214 | 24 | 2468 | 4000 | >80 | 1214x100x80 |
| ○ | 6390 | 3F HD100 AL 26/840 DALI FDP L1508 | 30 | 3085 | 4000 | >80 | 1508x100x80 |
| ○ | 6391 | 3F HD100 AL 52/840 DALI FDP L2975 | 58 | 6062 | 4000 | >80 | 2975x100x80 |

3F HD HO FDP Single

Diffuser microprismatic



CE
650°C
IP40
0,2J
IK02
Driver/LED SELV
A++
A+
A

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
 Externally micro prismatic transparent flat anti-glare polycarbonate diffuser.
 Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

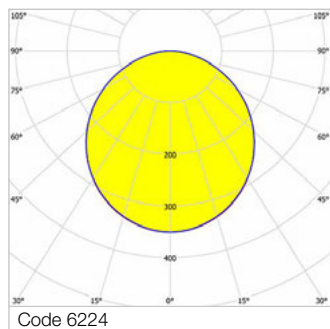
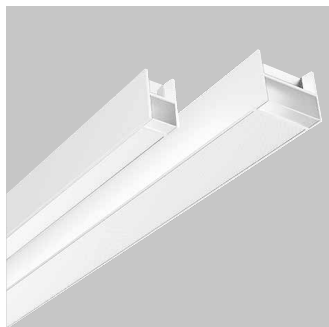
| | | | | | | |
|-----------------------|-------------------------------------|----|------|------|-----|------------|
| ○ 6811 ^{NEW} | 3F HD50 WH HO 22/840 DALI FDP L1214 | 24 | 2449 | 4000 | >80 | 1214x57x80 |
| ○ 6812 ^{NEW} | 3F HD50 WH HO 26/840 DALI FDP L1508 | 32 | 3061 | 4000 | >80 | 1508x57x80 |
| ○ 6813 ^{NEW} | 3F HD50 WH HO 52/840 DALI FDP L2975 | 58 | 5537 | 4000 | >80 | 2975x57x80 |
| ● 6817 ^{NEW} | 3F HD50 BK HO 22/840 DALI FDP L1214 | 24 | 2449 | 4000 | >80 | 1214x57x80 |
| ● 6818 ^{NEW} | 3F HD50 BK HO 26/840 DALI FDP L1508 | 32 | 3061 | 4000 | >80 | 1508x57x80 |
| ● 6819 ^{NEW} | 3F HD50 BK HO 52/840 DALI FDP L2975 | 58 | 5537 | 4000 | >80 | 2975x57x80 |
| ○ 6823 ^{NEW} | 3F HD50 AL HO 22/840 DALI FDP L1214 | 24 | 2449 | 4000 | >80 | 1214x57x80 |
| ○ 6824 ^{NEW} | 3F HD50 AL HO 26/840 DALI FDP L1508 | 32 | 3061 | 4000 | >80 | 1508x57x80 |
| ○ 6825 ^{NEW} | 3F HD50 AL HO 52/840 DALI FDP L2975 | 58 | 5537 | 4000 | >80 | 2975x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-----------------------|--------------------------------------|----|------|------|-----|-------------|
| ○ 6814 ^{NEW} | 3F HD100 WH HO 36/840 DALI FDP L1214 | 39 | 3771 | 4000 | >80 | 1214x100x80 |
| ○ 6815 ^{NEW} | 3F HD100 WH HO 44/840 DALI FDP L1508 | 49 | 4714 | 4000 | >80 | 1508x100x80 |
| ○ 6816 ^{NEW} | 3F HD100 WH HO 88/840 DALI FDP L2975 | 98 | 9428 | 4000 | >80 | 2975x100x80 |
| ● 6820 ^{NEW} | 3F HD100 BK HO 36/840 DALI FDP L1214 | 39 | 3771 | 4000 | >80 | 1214x100x80 |
| ● 6821 ^{NEW} | 3F HD100 BK HO 44/840 DALI FDP L1508 | 49 | 4714 | 4000 | >80 | 1508x100x80 |
| ● 6822 ^{NEW} | 3F HD100 BK HO 88/840 DALI FDP L2975 | 98 | 9428 | 4000 | >80 | 2975x100x80 |
| ○ 6826 ^{NEW} | 3F HD100 AL HO 36/840 DALI FDP L1214 | 39 | 3771 | 4000 | >80 | 1214x100x80 |
| ○ 6827 ^{NEW} | 3F HD100 AL HO 44/840 DALI FDP L1508 | 49 | 4714 | 4000 | >80 | 1508x100x80 |
| ○ 6828 ^{NEW} | 3F HD100 AL HO 88/840 DALI FDP L2975 | 98 | 9428 | 4000 | >80 | 2975x100x80 |

3F HD FDO Single

Opal diffuser



Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. Flat opal anti-glare polycarbonate diffuser.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

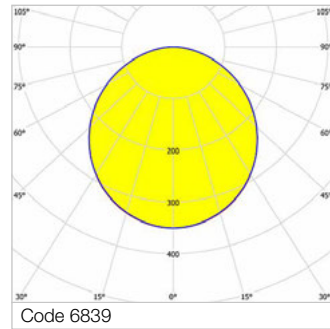
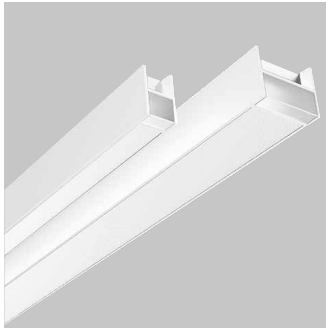
| | | | | | | |
|--------|----------------------------------|----|------|------|-----|------------|
| ○ 6204 | 3F HD50 WH 13/840 DALI FDO L1214 | 14 | 1250 | 4000 | >80 | 1214x57x80 |
| ○ 6205 | 3F HD50 WH 16/840 DALI FDO L1508 | 19 | 1563 | 4000 | >80 | 1508x57x80 |
| ○ 6206 | 3F HD50 WH 32/840 DALI FDO L2975 | 35 | 3126 | 4000 | >80 | 2975x57x80 |
| ● 6289 | 3F HD50 BK 13/840 DALI FDO L1214 | 14 | 1250 | 4000 | >80 | 1214x57x80 |
| ● 6290 | 3F HD50 BK 16/840 DALI FDO L1508 | 19 | 1563 | 4000 | >80 | 1508x57x80 |
| ● 6291 | 3F HD50 BK 32/840 DALI FDO L2975 | 35 | 3126 | 4000 | >80 | 2975x57x80 |
| ○ 6374 | 3F HD50 AL 13/840 DALI FDO L1214 | 14 | 1250 | 4000 | >80 | 1214x57x80 |
| ○ 6375 | 3F HD50 AL 16/840 DALI FDO L1508 | 19 | 1563 | 4000 | >80 | 1508x57x80 |
| ○ 6376 | 3F HD50 AL 32/840 DALI FDO L2975 | 35 | 3126 | 4000 | >80 | 2975x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-----------------------------------|----|------|------|-----|-------------|
| ○ 6223 | 3F HD100 WH 22/840 DALI FDO L1214 | 24 | 2304 | 4000 | >80 | 1214x100x80 |
| ○ 6224 | 3F HD100 WH 26/840 DALI FDO L1508 | 30 | 2880 | 4000 | >80 | 1508x100x80 |
| ○ 6225 | 3F HD100 WH 52/840 DALI FDO L2975 | 58 | 5660 | 4000 | >80 | 2975x100x80 |
| ● 6308 | 3F HD100 BK 22/840 DALI FDO L1214 | 24 | 2304 | 4000 | >80 | 1214x100x80 |
| ● 6309 | 3F HD100 BK 26/840 DALI FDO L1508 | 30 | 2880 | 4000 | >80 | 1508x100x80 |
| ● 6310 | 3F HD100 BK 52/840 DALI FDO L2975 | 58 | 5660 | 4000 | >80 | 2975x100x80 |
| ○ 6393 | 3F HD100 AL 22/840 DALI FDO L1214 | 24 | 2304 | 4000 | >80 | 1214x100x80 |
| ○ 6394 | 3F HD100 AL 26/840 DALI FDO L1508 | 30 | 2880 | 4000 | >80 | 1508x100x80 |
| ○ 6395 | 3F HD100 AL 52/840 DALI FDO L2975 | 58 | 5660 | 4000 | >80 | 2975x100x80 |

3F HD HO FDO Single

Opal diffuser



650°C

IP40

0,2J

IK02

Driver/LED
SELV

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. Flat opal anti-glare polycarbonate diffuser.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|---------------------|-------------------------------------|----|------|------|-----|------------|
| ○ | 6829 ^{NEW} | 3F HD50 WH HO 22/840 DALI FDO L1214 | 24 | 2287 | 4000 | >80 | 1214x57x80 |
| ○ | 6830 ^{NEW} | 3F HD50 WH HO 26/840 DALI FDO L1508 | 32 | 2858 | 4000 | >80 | 1508x57x80 |
| ○ | 6831 ^{NEW} | 3F HD50 WH HO 52/840 DALI FDO L2975 | 58 | 5170 | 4000 | >80 | 2975x57x80 |
| ● | 6835 ^{NEW} | 3F HD50 BK HO 22/840 DALI FDO L1214 | 24 | 2287 | 4000 | >80 | 1214x57x80 |
| ● | 6836 ^{NEW} | 3F HD50 BK HO 26/840 DALI FDO L1508 | 32 | 2858 | 4000 | >80 | 1508x57x80 |
| ● | 6837 ^{NEW} | 3F HD50 BK HO 52/840 DALI FDO L2975 | 58 | 5170 | 4000 | >80 | 2975x57x80 |
| ○ | 6841 ^{NEW} | 3F HD50 AL HO 22/840 DALI FDO L1214 | 24 | 2287 | 4000 | >80 | 1214x57x80 |
| ○ | 6842 ^{NEW} | 3F HD50 AL HO 26/840 DALI FDO L1508 | 32 | 2858 | 4000 | >80 | 1508x57x80 |
| ○ | 6843 ^{NEW} | 3F HD50 AL HO 52/840 DALI FDO L2975 | 58 | 5170 | 4000 | >80 | 2975x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|---------------------|--------------------------------------|----|------|------|-----|-------------|
| ○ | 6832 ^{NEW} | 3F HD100 WH HO 36/840 DALI FDO L1214 | 39 | 3521 | 4000 | >80 | 1214x100x80 |
| ○ | 6833 ^{NEW} | 3F HD100 WH HO 44/840 DALI FDO L1508 | 49 | 4401 | 4000 | >80 | 1508x100x80 |
| ○ | 6834 ^{NEW} | 3F HD100 WH HO 88/840 DALI FDO L2975 | 98 | 8802 | 4000 | >80 | 2975x100x80 |
| ● | 6838 ^{NEW} | 3F HD100 BK HO 36/840 DALI FDO L1214 | 39 | 3521 | 4000 | >80 | 1214x100x80 |
| ● | 6839 ^{NEW} | 3F HD100 BK HO 44/840 DALI FDO L1508 | 49 | 4401 | 4000 | >80 | 1508x100x80 |
| ● | 6840 ^{NEW} | 3F HD100 BK HO 88/840 DALI FDO L2975 | 98 | 8802 | 4000 | >80 | 2975x100x80 |
| ○ | 6844 ^{NEW} | 3F HD100 AL HO 36/840 DALI FDO L1214 | 39 | 3521 | 4000 | >80 | 1214x100x80 |
| ○ | 6845 ^{NEW} | 3F HD100 AL HO 44/840 DALI FDO L1508 | 49 | 4401 | 4000 | >80 | 1508x100x80 |
| ○ | 6846 ^{NEW} | 3F HD100 AL HO 88/840 DALI FDO L2975 | 98 | 8802 | 4000 | >80 | 2975x100x80 |



3F HD - Channel

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium housing.
 Removable gear-tray.
 Hot-dip galvanised steel linear connecting element installed on the body for rapid mechanical connection.

Electrical characteristics

In compliance with EN 60598-1.
 Entrance to the upper power supply in proximity to a power head.
 5 mm² section 2.5 pin through line with an irreversible quick coupling plug plug/socket fixed on the body for rapid electrical connection.
 Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (more information on page 542)

Applications

Environments: with VDTs, meeting rooms, offices.
 Environments: architectural, commercial, staterooms, banks.
 Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

FDO version

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

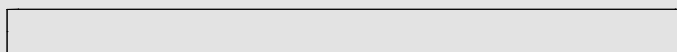
Installation

Ceiling mounted or suspension installation.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

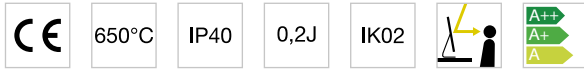
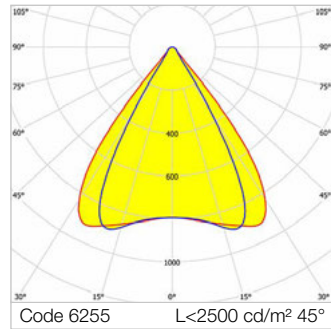
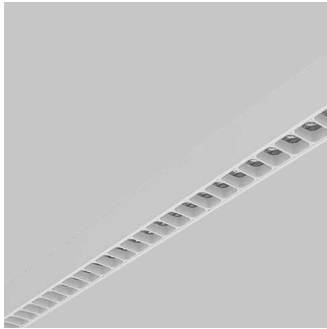
Dimensions



L

3F HD OCW Channel

Optics Control White - LEED certification

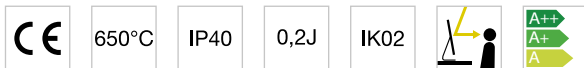
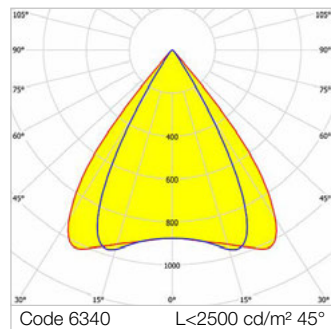
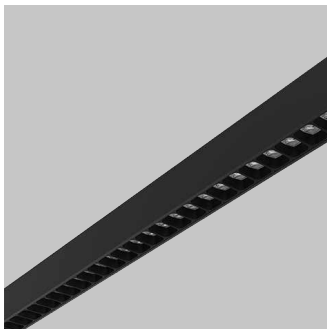


Average luminance <math><2500\text{ cd/m}^2</math> for angles >math>45^\circ</math>. Average luminance <math><1500\text{ cd/m}^2</math> for angles >math>65^\circ</math>. Environments with very exacting visual tasks and control of luminance at angles of >math>45^\circ</math> compared to the LEED certification. Offices with video terminals and administrative, information and school offices. Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux. Anti-reflective white polycarbonate alveolar optic.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|---|-------------------------------------|--------------------|------------------|---------|-----|----------------------|
| 3F HD 50 - DALI electronic wiring 230V-50/60Hz | | | | | | |
| ○ 6254 | 3F HD50 WH 12/835 DALI 5P OCW L1174 | 13.5 | 1593 | 3500 | >80 | 1174x57x80 |
| ○ 6255 | 3F HD50 WH 15/835 DALI 5P OCW L1468 | 17 | 1991 | 3500 | >80 | 1468x57x80 |
| ○ 6259 | 3F HD50 WH 30/835 DALI 5P OCW L2935 | 33 | 3981 | 3500 | >80 | 2935x57x80 |

3F HD OCB Channel

Optics Control Black - LEED certification

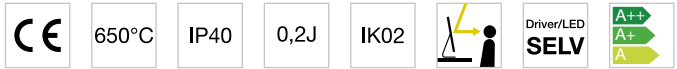
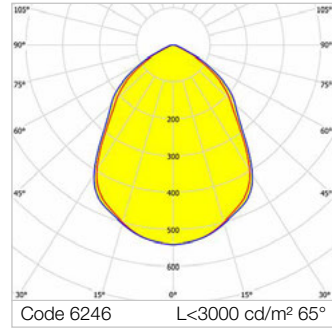


Average luminance <math><2500\text{ cd/m}^2</math> for angles >math>45^\circ</math>. Average luminance <math><200\text{ cd/m}^2</math> for angles >math>65^\circ</math>. Environments with very exacting visual tasks and control of luminance at angles of >math>45^\circ</math> compared to the LEED certification. Offices with video terminals and administrative, information and school offices. Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux. Anti-reflective black polycarbonate alveolar optic. Black colour PVC superior closure top.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|---|-------------------------------------|--------------------|------------------|---------|-----|----------------------|
| 3F HD 50 - DALI electronic wiring 230V-50/60Hz | | | | | | |
| ● 6339 | 3F HD50 BK 12/835 DALI 5P OCB L1174 | 13.5 | 1474 | 3500 | >80 | 1174x57x80 |
| ● 6340 | 3F HD50 BK 15/835 DALI 5P OCB L1468 | 17 | 1843 | 3500 | >80 | 1468x57x80 |
| ● 6344 | 3F HD50 BK 30/835 DALI 5P OCB L2935 | 33 | 3686 | 3500 | >80 | 2935x57x80 |
| ○ 6424 | 3F HD50 AL 12/835 DALI 5P OCB L1174 | 13.5 | 1474 | 3500 | >80 | 1174x57x80 |
| ○ 6425 | 3F HD50 AL 15/835 DALI 5P OCB L1468 | 17 | 1843 | 3500 | >80 | 1468x57x80 |
| ○ 6429 | 3F HD50 AL 30/835 DALI 5P OCB L2935 | 33 | 3686 | 3500 | >80 | 2935x57x80 |

3F HD GSP Channel

Flat prismatic diffuser in methacrylate with low luminance film



Average luminance <math><3000 \text{ cd/m}^2</math> for angles >65°.
 Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
 SP transparent methacrylate diffuser, prismatic outside, antiglare.
 Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

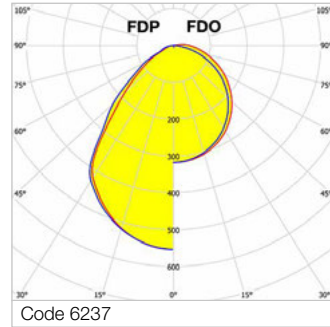
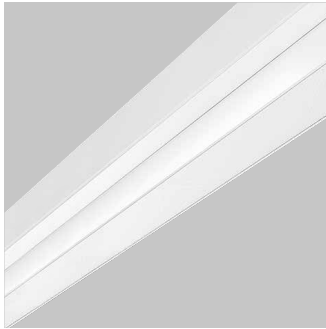
| | | | | | | |
|--------|-------------------------------------|----|------|------|-----|------------|
| ○ 6245 | 3F HD50 WH 13/840 DALI 5P GSP L1174 | 14 | 1374 | 4000 | >80 | 1174x57x80 |
| ○ 6246 | 3F HD50 WH 16/840 DALI 5P GSP L1468 | 19 | 1718 | 4000 | >80 | 1468x57x80 |
| ○ 6250 | 3F HD50 WH 32/840 DALI 5P GSP L2935 | 35 | 3435 | 4000 | >80 | 2935x57x80 |
| ● 6330 | 3F HD50 BK 13/840 DALI 5P GSP L1174 | 14 | 1374 | 4000 | >80 | 1174x57x80 |
| ● 6331 | 3F HD50 BK 16/840 DALI 5P GSP L1468 | 19 | 1718 | 4000 | >80 | 1468x57x80 |
| ● 6335 | 3F HD50 BK 32/840 DALI 5P GSP L2935 | 35 | 3435 | 4000 | >80 | 2935x57x80 |
| ○ 6415 | 3F HD50 AL 13/840 DALI 5P GSP L1174 | 14 | 1374 | 4000 | >80 | 1174x57x80 |
| ○ 6416 | 3F HD50 AL 16/840 DALI 5P GSP L1468 | 19 | 1718 | 4000 | >80 | 1468x57x80 |
| ○ 6420 | 3F HD50 AL 32/840 DALI 5P GSP L2935 | 35 | 3435 | 4000 | >80 | 2935x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|--------------------------------------|----|------|------|-----|-------------|
| ○ 6275 | 3F HD100 WH 22/840 DALI 5P GSP L1174 | 24 | 2617 | 4000 | >80 | 1174x100x80 |
| ○ 6276 | 3F HD100 WH 26/840 DALI 5P GSP L1468 | 30 | 3271 | 4000 | >80 | 1468x100x80 |
| ○ 6280 | 3F HD100 WH 52/840 DALI 5P GSP L2935 | 58 | 6428 | 4000 | >80 | 2935x100x80 |
| ● 6360 | 3F HD100 BK 22/840 DALI 5P GSP L1174 | 24 | 2617 | 4000 | >80 | 1174x100x80 |
| ● 6361 | 3F HD100 BK 26/840 DALI 5P GSP L1468 | 30 | 3271 | 4000 | >80 | 1468x100x80 |
| ● 6365 | 3F HD100 BK 52/840 DALI 5P GSP L2935 | 58 | 6428 | 4000 | >80 | 2935x100x80 |
| ○ 6445 | 3F HD100 AL 22/840 DALI 5P GSP L1174 | 24 | 2617 | 4000 | >80 | 1174x100x80 |
| ○ 6446 | 3F HD100 AL 26/840 DALI 5P GSP L1468 | 30 | 3271 | 4000 | >80 | 1468x100x80 |
| ○ 6450 | 3F HD100 AL 52/840 DALI 5P GSP L2935 | 58 | 6428 | 4000 | >80 | 2935x100x80 |

3F HD FD Channel

Fixture suitable FDP or FDO



650°C

IP40

0,2J

IK02



Driver/LED

SELV



Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math> (FDP).
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
For diffusers see accessories on page 74.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|------------------------------------|----|----------------------|------|-----|------------|
| ○ 6236 | 3F HD50 WH 13/840 DALI 5P FD L1174 | 14 | 1292 FDP 1250 FDO | 4000 | >80 | 1174x57x80 |
| ○ 6237 | 3F HD50 WH 16/840 DALI 5P FD L1468 | 19 | 1615 FDP 1563 FDO | 4000 | >80 | 1468x57x80 |
| ○ 6241 | 3F HD50 WH 32/840 DALI 5P FD L2935 | 35 | 3229 FDP 3126 FDO | 4000 | >80 | 2935x57x80 |
| ● 6321 | 3F HD50 BK 13/840 DALI 5P FD L1174 | 14 | 1292 FDP 1250 FDO | 4000 | >80 | 1174x57x80 |
| ● 6322 | 3F HD50 BK 16/840 DALI 5P FD L1468 | 19 | 1615 FDP 1563 FDO | 4000 | >80 | 1468x57x80 |
| ● 6326 | 3F HD50 BK 32/840 DALI 5P FD L2935 | 35 | 3229 FDP 3126 FDO | 4000 | >80 | 2935x57x80 |
| ○ 6406 | 3F HD50 AL 13/840 DALI 5P FD L1174 | 14 | 1292 FDP 1250 FDO | 4000 | >80 | 1174x57x80 |
| ○ 6407 | 3F HD50 AL 16/840 DALI 5P FD L1468 | 19 | 1615 FDP 1563 FDO | 4000 | >80 | 1468x57x80 |
| ○ 6411 | 3F HD50 AL 32/840 DALI 5P FD L2935 | 35 | 3229 FDP 3126 FDO | 4000 | >80 | 2935x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-------------------------------------|----|----------------------|------|-----|-------------|
| ○ 6266 | 3F HD100 WH 22/840 DALI 5P FD L1174 | 24 | 2468 FDP 2304 FDO | 4000 | >80 | 1174x100x80 |
| ○ 6267 | 3F HD100 WH 26/840 DALI 5P FD L1468 | 30 | 3085 FDP 2880 FDO | 4000 | >80 | 1468x100x80 |
| ○ 6271 | 3F HD100 WH 52/840 DALI 5P FD L2935 | 58 | 6062 FDP 5660 FDO | 4000 | >80 | 2935x100x80 |
| ● 6351 | 3F HD100 BK 22/840 DALI 5P FD L1174 | 24 | 2468 FDP 2304 FDO | 4000 | >80 | 1174x100x80 |
| ● 6352 | 3F HD100 BK 26/840 DALI 5P FD L1468 | 30 | 3085 FDP 2880 FDO | 4000 | >80 | 1468x100x80 |
| ● 6356 | 3F HD100 BK 52/840 DALI 5P FD L2935 | 58 | 6062 FDP 5660 FDO | 4000 | >80 | 2935x100x80 |
| ○ 6436 | 3F HD100 AL 22/840 DALI 5P FD L1174 | 24 | 2468 FDP 2304 FDO | 4000 | >80 | 1174x100x80 |
| ○ 6437 | 3F HD100 AL 26/840 DALI 5P FD L1468 | 30 | 3085 FDP 2880 FDO | 4000 | >80 | 1468x100x80 |
| ○ 6441 | 3F HD100 AL 52/840 DALI 5P FD L2935 | 58 | 6062 FDP 5660 FDO | 4000 | >80 | 2935x100x80 |



3F HD Direct/Indirect - Single

Construction characteristics

Illuminotechnical characteristics

Direct-indirect distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium housing.
 Removable gear-tray.
 Translucent polycarbonate upper diffuser.
 Lighting head caps with specular aluminium frieze.

Electrical characteristics

In compliance with EN 60598-1.
 5-pole terminal block, single 230V circuit,
 2 DALI addresses (depending on the type of lighting fixture).
 Entrance to the upper power supply in proximity to a power head.
 Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (more information on page 542)

Applications

Environments: with VDTs, meeting rooms, offices.
 Environments: architectural, commercial, staterooms, banks.
 Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

FDO version

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

Installation

Suspension installation.

Light Management

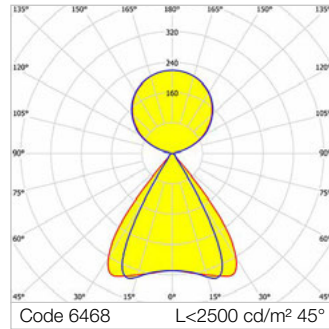
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F HD DI OCW Single

Optics Control White - LEED certification



650°C

IP40

0,2J

IK02



Average luminance < 2500 cd/m² for angles > 45°.
 Average luminance < 1500 cd/m² for angles > 65°.
 Environments with very exacting visual tasks and control of luminance at angles of > 45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.
 Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
 Anti-reflective white polycarbonate alveolar optic.

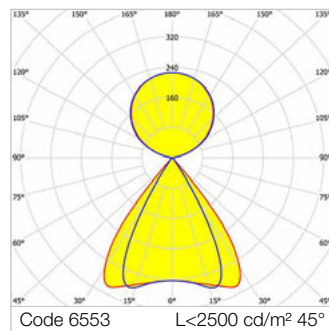
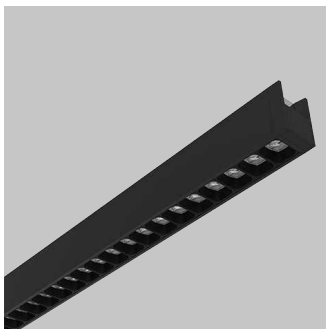
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|---------------------------------------|----|-------|------|-----|------------|
| ○ 6467 | 3F HD50DI WH 12+20/835 DALI OCW L1214 | 38 | 3995 | 3500 | >80 | 1214x57x80 |
| ○ 6468 | 3F HD50DI WH 15+26/835 DALI OCW L1508 | 46 | 5048 | 3500 | >80 | 1508x57x80 |
| ○ 6469 | 3F HD50DI WH 30+52/835 DALI OCW L2975 | 92 | 10095 | 3500 | >80 | 2975x57x80 |

3F HD DI OCB Single

Optics Control Black - LEED certification



650°C

IP40

0,2J

IK02



Average luminance < 2500 cd/m² for angles > 45°.
 Average luminance < 200 cd/m² for angles > 65°.
 Environments with very exacting visual tasks and control of luminance at angles of > 45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.
 Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
 Anti-reflective black polycarbonate alveolar optic.

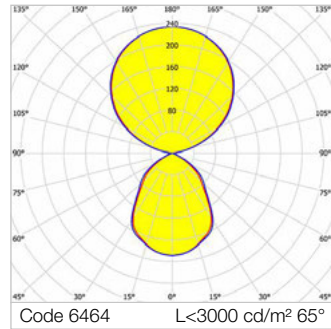
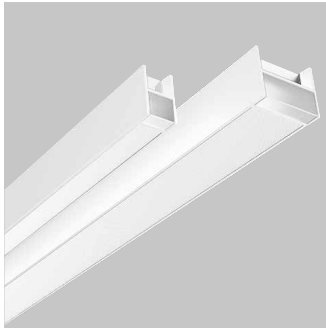
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|---------------------------------------|----|------|------|-----|------------|
| ● 6552 | 3F HD50DI BK 12+20/835 DALI OCB L1214 | 38 | 3876 | 3500 | >80 | 1214x57x80 |
| ● 6553 | 3F HD50DI BK 15+26/835 DALI OCB L1508 | 46 | 4900 | 3500 | >80 | 1508x57x80 |
| ● 6554 | 3F HD50DI BK 30+52/835 DALI OCB L2975 | 92 | 9800 | 3500 | >80 | 2975x57x80 |
| ○ 6637 | 3F HD50DI AL 12+20/835 DALI OCB L1214 | 38 | 3876 | 3500 | >80 | 1214x57x80 |
| ○ 6638 | 3F HD50DI AL 15+26/835 DALI OCB L1508 | 46 | 4900 | 3500 | >80 | 1508x57x80 |
| ○ 6639 | 3F HD50DI AL 30+52/835 DALI OCB L2975 | 92 | 9800 | 3500 | >80 | 2975x57x80 |

3F HD DI GSP Single

Flat prismatic diffuser in methacrylate with low luminance film



650°C

IP40

0,2J

IK02



Driver/LED
SELV



Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math>.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
SP transparent methacrylate diffuser, prismatic outside, antiglare.
Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

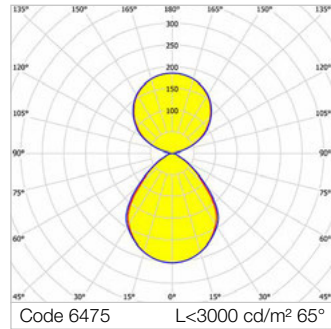
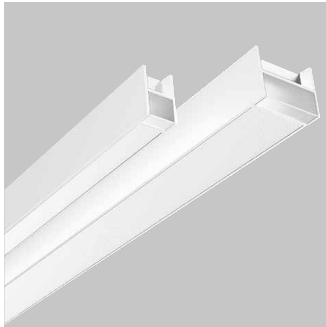
| | | | | | | | |
|---|------|---------------------------------------|----|------|------|-----|------------|
| ○ | 6463 | 3F HD50DI WH 13+20/840 DALI GSP L1214 | 38 | 3943 | 4000 | >80 | 1214x57x80 |
| ○ | 6464 | 3F HD50DI WH 16+26/840 DALI GSP L1508 | 46 | 4988 | 4000 | >80 | 1508x57x80 |
| ○ | 6465 | 3F HD50DI WH 32+52/840 DALI GSP L2975 | 92 | 9975 | 4000 | >80 | 2975x57x80 |
| ● | 6548 | 3F HD50DI BK 13+20/840 DALI GSP L1214 | 38 | 3943 | 4000 | >80 | 1214x57x80 |
| ● | 6549 | 3F HD50DI BK 16+26/840 DALI GSP L1508 | 46 | 4988 | 4000 | >80 | 1508x57x80 |
| ● | 6550 | 3F HD50DI BK 32+52/840 DALI GSP L2975 | 92 | 9975 | 4000 | >80 | 2975x57x80 |
| ○ | 6633 | 3F HD50DI AL 13+20/840 DALI GSP L1214 | 38 | 3943 | 4000 | >80 | 1214x57x80 |
| ○ | 6634 | 3F HD50DI AL 16+26/840 DALI GSP L1508 | 46 | 4988 | 4000 | >80 | 1508x57x80 |
| ○ | 6635 | 3F HD50DI AL 32+52/840 DALI GSP L2975 | 92 | 9975 | 4000 | >80 | 2975x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|------|--|-----|-------|------|-----|-------------|
| ○ | 6482 | 3F HD100DI WH 22+20/840 DALI GSP L1214 | 51 | 5251 | 4000 | >80 | 1214x100x80 |
| ○ | 6483 | 3F HD100DI WH 26+26/840 DALI GSP L1508 | 61 | 6625 | 4000 | >80 | 1508x100x80 |
| ○ | 6484 | 3F HD100DI WH 52+52/840 DALI GSP L2975 | 122 | 13135 | 4000 | >80 | 2975x100x80 |
| ● | 6567 | 3F HD100DI BK 22+20/840 DALI GSP L1214 | 51 | 5251 | 4000 | >80 | 1214x100x80 |
| ● | 6568 | 3F HD100DI BK 26+26/840 DALI GSP L1508 | 61 | 6625 | 4000 | >80 | 1508x100x80 |
| ● | 6569 | 3F HD100DI BK 52+52/840 DALI GSP L2975 | 122 | 13135 | 4000 | >80 | 2975x100x80 |
| ○ | 6652 | 3F HD100DI AL 22+20/840 DALI GSP L1214 | 51 | 5251 | 4000 | >80 | 1214x100x80 |
| ○ | 6653 | 3F HD100DI AL 26+26/840 DALI GSP L1508 | 61 | 6625 | 4000 | >80 | 1508x100x80 |
| ○ | 6654 | 3F HD100DI AL 52+52/840 DALI GSP L2975 | 122 | 13135 | 4000 | >80 | 2975x100x80 |

3F HD DI FDP Single

Diffuser microprismatic



650°C

IP40

0,2J

IK02



Driver/LED

SELV



Average luminance <3000 cd/m² for angles >65°.
 Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
 Externally micro prismatic transparent flat anti-glare polycarbonate diffuser.
 Opal polycarbonate internal anti-glare filter for lighting uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

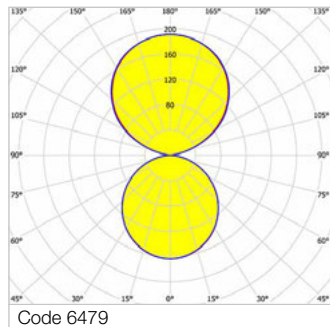
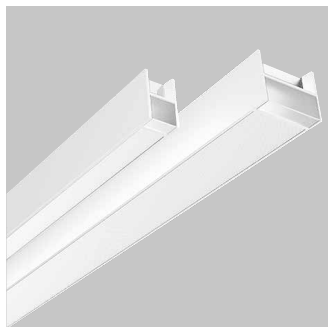
| | | | | | | |
|--------|---------------------------------------|----|------|------|-----|------------|
| ○ 6455 | 3F HD50DI WH 13+20/840 DALI FDP L1214 | 38 | 3861 | 4000 | >80 | 1214x57x80 |
| ○ 6456 | 3F HD50DI WH 16+26/840 DALI FDP L1508 | 46 | 4885 | 4000 | >80 | 1508x57x80 |
| ○ 6457 | 3F HD50DI WH 32+52/840 DALI FDP L2975 | 92 | 9769 | 4000 | >80 | 2975x57x80 |
| ● 6540 | 3F HD50DI BK 13+20/840 DALI FDP L1214 | 38 | 3861 | 4000 | >80 | 1214x57x80 |
| ● 6541 | 3F HD50DI BK 16+26/840 DALI FDP L1508 | 46 | 4885 | 4000 | >80 | 1508x57x80 |
| ● 6542 | 3F HD50DI BK 32+52/840 DALI FDP L2975 | 92 | 9769 | 4000 | >80 | 2975x57x80 |
| ○ 6625 | 3F HD50DI AL 13+20/840 DALI FDP L1214 | 38 | 3861 | 4000 | >80 | 1214x57x80 |
| ○ 6626 | 3F HD50DI AL 16+26/840 DALI FDP L1508 | 46 | 4885 | 4000 | >80 | 1508x57x80 |
| ○ 6627 | 3F HD50DI AL 32+52/840 DALI FDP L2975 | 92 | 9769 | 4000 | >80 | 2975x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|--|-----|-------|------|-----|-------------|
| ○ 6474 | 3F HD100DI WH 22+20/840 DALI FDP L1214 | 51 | 5102 | 4000 | >80 | 1214x100x80 |
| ○ 6475 | 3F HD100DI WH 26+26/840 DALI FDP L1508 | 61 | 6439 | 4000 | >80 | 1508x100x80 |
| ○ 6476 | 3F HD100DI WH 52+52/840 DALI FDP L2975 | 122 | 12769 | 4000 | >80 | 2975x100x80 |
| ● 6559 | 3F HD100DI BK 22+20/840 DALI FDP L1214 | 51 | 5102 | 4000 | >80 | 1214x100x80 |
| ● 6560 | 3F HD100DI BK 26+26/840 DALI FDP L1508 | 61 | 6439 | 4000 | >80 | 1508x100x80 |
| ● 6561 | 3F HD100DI BK 52+52/840 DALI FDP L2975 | 122 | 12769 | 4000 | >80 | 2975x100x80 |
| ○ 6644 | 3F HD100DI AL 22+20/840 DALI FDP L1214 | 51 | 5102 | 4000 | >80 | 1214x100x80 |
| ○ 6645 | 3F HD100DI AL 26+26/840 DALI FDP L1508 | 61 | 6439 | 4000 | >80 | 1508x100x80 |
| ○ 6646 | 3F HD100DI AL 52+52/840 DALI FDP L2975 | 122 | 12769 | 4000 | >80 | 2975x100x80 |

3F HD DI FDO Single

Opal diffuser



CE

650°C

IP40

0,2J

IK02

Driver/LED
SELV

A++
A+
A

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. Flat opal anti-glare polycarbonate diffuser.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|------|---------------------------------------|----|------|------|-----|------------|
| ○ | 6459 | 3F HD50DI WH 13+20/840 DALI FDO L1214 | 38 | 3819 | 4000 | >80 | 1214x57x80 |
| ○ | 6460 | 3F HD50DI WH 16+26/840 DALI FDO L1508 | 46 | 4833 | 4000 | >80 | 1508x57x80 |
| ○ | 6461 | 3F HD50DI WH 32+52/840 DALI FDO L2975 | 92 | 9666 | 4000 | >80 | 2975x57x80 |
| ● | 6544 | 3F HD50DI BK 13+20/840 DALI FDO L1214 | 38 | 3819 | 4000 | >80 | 1214x57x80 |
| ● | 6545 | 3F HD50DI BK 16+26/840 DALI FDO L1508 | 46 | 4833 | 4000 | >80 | 1508x57x80 |
| ● | 6546 | 3F HD50DI BK 32+52/840 DALI FDO L2975 | 92 | 9666 | 4000 | >80 | 2975x57x80 |
| ○ | 6629 | 3F HD50DI AL 13+20/840 DALI FDO L1214 | 38 | 3819 | 4000 | >80 | 1214x57x80 |
| ○ | 6630 | 3F HD50DI AL 16+26/840 DALI FDO L1508 | 46 | 4833 | 4000 | >80 | 1508x57x80 |
| ○ | 6631 | 3F HD50DI AL 32+52/840 DALI FDO L2975 | 92 | 9666 | 4000 | >80 | 2975x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|------|--|-----|-------|------|-----|-------------|
| ○ | 6478 | 3F HD100DI WH 22+20/840 DALI FDO L1214 | 51 | 4938 | 4000 | >80 | 1214x100x80 |
| ○ | 6479 | 3F HD100DI WH 26+26/840 DALI FDO L1508 | 61 | 6234 | 4000 | >80 | 1508x100x80 |
| ○ | 6480 | 3F HD100DI WH 52+52/840 DALI FDO L2975 | 122 | 12367 | 4000 | >80 | 2975x100x80 |
| ● | 6563 | 3F HD100DI BK 22+20/840 DALI FDO L1214 | 51 | 4938 | 4000 | >80 | 1214x100x80 |
| ● | 6564 | 3F HD100DI BK 26+26/840 DALI FDO L1508 | 61 | 6234 | 4000 | >80 | 1508x100x80 |
| ● | 6565 | 3F HD100DI BK 52+52/840 DALI FDO L2975 | 122 | 12367 | 4000 | >80 | 2975x100x80 |
| ○ | 6648 | 3F HD100DI AL 22+20/840 DALI FDO L1214 | 51 | 4938 | 4000 | >80 | 1214x100x80 |
| ○ | 6649 | 3F HD100DI AL 26+26/840 DALI FDO L1508 | 61 | 6234 | 4000 | >80 | 1508x100x80 |
| ○ | 6650 | 3F HD100DI AL 52+52/840 DALI FDO L2975 | 122 | 12367 | 4000 | >80 | 2975x100x80 |





3F HD Direct/Indirect - Channel

Construction characteristics

Illuminotechnical characteristics

Direct-indirect distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium housing.
 Removable gear-tray.
 Hot-dip galvanised steel linear connecting element installed on the body for rapid mechanical connection.
 Translucent polycarbonate upper diffuser.

Electrical characteristics

In compliance with EN 60598-1.
 5-pole terminal block, single 230V circuit, 2 DALI addresses (depending on the type of lighting fixture).
 Entrance to the upper power supply in proximity to a power head.
 Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (more information on page 542)

Applications

Environments: with VDTs, meeting rooms, offices.
 Environments: architectural, commercial, staterooms, banks.
 Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

FDO version

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

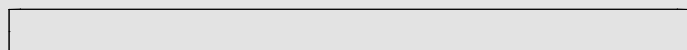
Installation

Suspension installation.

Light Management

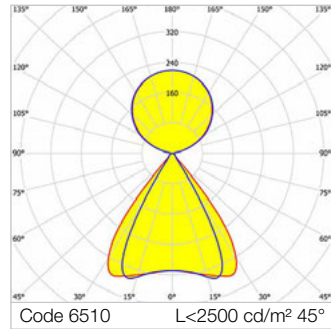
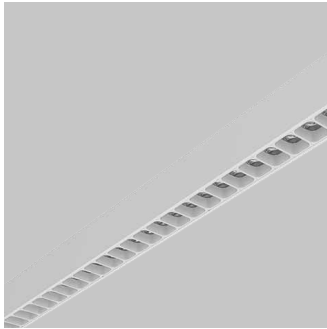
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F HD DI OCW Channel

Optics Control White - LEED certification



650°C

IP40

0,2J

IK02



Average luminance < 2500 cd/m² for angles > 45°.
 Average luminance < 1500 cd/m² for angles > 65°.
 Environments with very exacting visual tasks and control of luminance at angles of > 45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.
 Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
 Anti-reflective white polycarbonate alveolar optic.

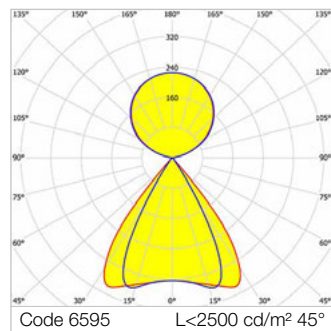
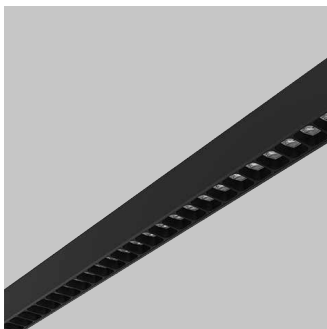
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|--|----|-------|------|-----|------------|
| ○ 6509 | 3F HD50DI WH 12+20/835 DALI 5P OCW L1174 | 40 | 3995 | 3500 | >80 | 1174x57x80 |
| ○ 6510 | 3F HD50DI WH 15+26/835 DALI 5P OCW L1468 | 48 | 5048 | 3500 | >80 | 1468x57x80 |
| ○ 6514 | 3F HD50DI WH 30+52/835 DALI 5P OCW L2935 | 92 | 10095 | 3500 | >80 | 2935x57x80 |

3F HD DI OCB Channel

Optics Control Black - LEED certification



650°C

IP40

0,2J

IK02



Average luminance < 2500 cd/m² for angles > 45°.
 Average luminance < 200 cd/m² for angles > 65°.
 Environments with very exacting visual tasks and control of luminance at angles of > 45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.
 Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
 Anti-reflective black polycarbonate alveolar optic.

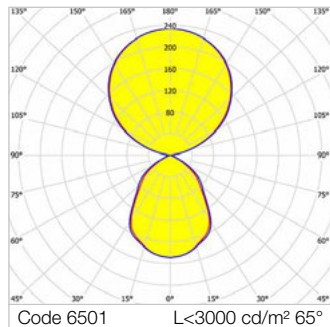
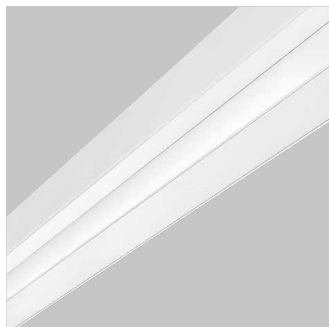
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|--|----|------|------|-----|------------|
| ● 6594 | 3F HD50DI BK 12+20/835 DALI 5P OCB L1174 | 40 | 3876 | 3500 | >80 | 1174x57x80 |
| ● 6595 | 3F HD50DI BK 15+26/835 DALI 5P OCB L1468 | 48 | 4900 | 3500 | >80 | 1468x57x80 |
| ● 6599 | 3F HD50DI BK 30+52/835 DALI 5P OCB L2935 | 92 | 9800 | 3500 | >80 | 2935x57x80 |
| ○ 6679 | 3F HD50DI AL 12+20/835 DALI 5P OCB L1174 | 40 | 3876 | 3500 | >80 | 1174x57x80 |
| ○ 6680 | 3F HD50DI AL 15+26/835 DALI 5P OCB L1468 | 48 | 4900 | 3500 | >80 | 1468x57x80 |
| ○ 6684 | 3F HD50DI AL 30+52/835 DALI 5P OCB L2935 | 92 | 9800 | 3500 | >80 | 2935x57x80 |

3F HD DI GSP Channel

Flat prismatic diffuser in methacrylate with low luminance film



Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math>. Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. SP transparent methacrylate diffuser, prismatic outside, antiglare. Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

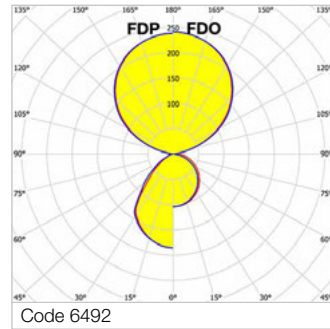
| | | | | | | |
|--------|--|----|------|------|-----|------------|
| ○ 6500 | 3F HD50DI WH 13+20/840 DALI 5P GSP L1174 | 38 | 3943 | 4000 | >80 | 1174x57x80 |
| ○ 6501 | 3F HD50DI WH 16+26/840 DALI 5P GSP L1468 | 46 | 4988 | 4000 | >80 | 1468x57x80 |
| ○ 6505 | 3F HD50DI WH 32+52/840 DALI 5P GSP L2935 | 92 | 9975 | 4000 | >80 | 2935x57x80 |
| ● 6585 | 3F HD50DI BK 13+20/840 DALI 5P GSP L1174 | 38 | 3943 | 4000 | >80 | 1174x57x80 |
| ● 6586 | 3F HD50DI BK 16+26/840 DALI 5P GSP L1468 | 46 | 4988 | 4000 | >80 | 1468x57x80 |
| ● 6590 | 3F HD50DI BK 32+52/840 DALI 5P GSP L2935 | 92 | 9975 | 4000 | >80 | 2935x57x80 |
| ○ 6670 | 3F HD50DI AL 13+20/840 DALI 5P GSP L1174 | 38 | 3943 | 4000 | >80 | 1174x57x80 |
| ○ 6671 | 3F HD50DI AL 16+26/840 DALI 5P GSP L1468 | 46 | 4988 | 4000 | >80 | 1468x57x80 |
| ○ 6675 | 3F HD50DI AL 32+52/840 DALI 5P GSP L2935 | 92 | 9975 | 4000 | >80 | 2935x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|---|-----|-------|------|-----|-------------|
| ○ 6530 | 3F HD100DI WH 22+20/840 DALI 5P GSP L1174 | 51 | 5251 | 4000 | >80 | 1174x100x80 |
| ○ 6531 | 3F HD100DI WH 26+26/840 DALI 5P GSP L1468 | 61 | 6625 | 4000 | >80 | 1468x100x80 |
| ○ 6535 | 3F HD100DI WH 52+52/840 DALI 5P GSP L2935 | 122 | 13135 | 4000 | >80 | 2935x100x80 |
| ● 6615 | 3F HD100DI BK 22+20/840 DALI 5P GSP L1174 | 51 | 5251 | 4000 | >80 | 1174x100x80 |
| ● 6616 | 3F HD100DI BK 26+26/840 DALI 5P GSP L1468 | 61 | 6625 | 4000 | >80 | 1468x100x80 |
| ● 6620 | 3F HD100DI BK 52+52/840 DALI 5P GSP L2935 | 122 | 13135 | 4000 | >80 | 2935x100x80 |
| ○ 6700 | 3F HD100DI AL 22+20/840 DALI 5P GSP L1174 | 51 | 5251 | 4000 | >80 | 1174x100x80 |
| ○ 6701 | 3F HD100DI AL 26+26/840 DALI 5P GSP L1468 | 61 | 6625 | 4000 | >80 | 1468x100x80 |
| ○ 6705 | 3F HD100DI AL 52+52/840 DALI 5P GSP L2935 | 122 | 13135 | 4000 | >80 | 2935x100x80 |

3F HD DI FD Channel

Fixture suitable FDP or FDO



650°C

IP40

0,2J

IK02



Driver/LED

SELV



Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math> (FDP).
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
For diffusers see accessories on page 74.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|---|----|----------------------|------|-----|------------|
| ○ 6491 | 3F HD50DI WH 13+20/840 DALI 5P FD L1174 | 38 | 3861 FDP 3819 FDO | 4000 | >80 | 1174x57x80 |
| ○ 6492 | 3F HD50DI WH 16+26/840 DALI 5P FD L1468 | 46 | 4885 FDP 4833 FDO | 4000 | >80 | 1468x57x80 |
| ○ 6496 | 3F HD50DI WH 32+52/840 DALI 5P FD L2935 | 92 | 9769 FDP 9666 FDO | 4000 | >80 | 2935x57x80 |
| ● 6576 | 3F HD50DI BK 13+20/840 DALI 5P FD L1174 | 38 | 3861 FDP 3819 FDO | 4000 | >80 | 1174x57x80 |
| ● 6577 | 3F HD50DI BK 16+26/840 DALI 5P FD L1468 | 46 | 4885 FDP 4833 FDO | 4000 | >80 | 1468x57x80 |
| ● 6581 | 3F HD50DI BK 32+52/840 DALI 5P FD L2935 | 92 | 9769 FDP 9666 FDO | 4000 | >80 | 2935x57x80 |
| ○ 6661 | 3F HD50DI AL 13+20/840 DALI 5P FD L1174 | 38 | 3861 FDP 3819 FDO | 4000 | >80 | 1174x57x80 |
| ○ 6662 | 3F HD50DI AL 16+26/840 DALI 5P FD L1468 | 46 | 4885 FDP 4833 FDO | 4000 | >80 | 1468x57x80 |
| ○ 6666 | 3F HD50DI AL 32+52/840 DALI 5P FD L2935 | 92 | 9769 FDP 9666 FDO | 4000 | >80 | 2935x57x80 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|--|-----|------------------------|------|-----|-------------|
| ○ 6521 | 3F HD100DI WH 22+20/840 DALI 5P FD L1174 | 51 | 5102 FDP 4938 FDO | 4000 | >80 | 1174x100x80 |
| ○ 6522 | 3F HD100DI WH 26+26/840 DALI 5P FD L1468 | 61 | 6439 FDP 6234 FDO | 4000 | >80 | 1468x100x80 |
| ○ 6526 | 3F HD100DI WH 52+52/840 DALI 5P FD L2935 | 122 | 12769 FDP 12367 FDO | 4000 | >80 | 2935x100x80 |
| ● 6606 | 3F HD100DI BK 22+20/840 DALI 5P FD L1174 | 51 | 5102 FDP 4938 FDO | 4000 | >80 | 1174x100x80 |
| ● 6607 | 3F HD100DI BK 26+26/840 DALI 5P FD L1468 | 61 | 6439 FDP 6234 FDO | 4000 | >80 | 1468x100x80 |
| ● 6611 | 3F HD100DI BK 52+52/840 DALI 5P FD L2935 | 122 | 12769 FDP 12367 FDO | 4000 | >80 | 2935x100x80 |
| ○ 6691 | 3F HD100DI AL 22+20/840 DALI 5P FD L1174 | 51 | 5102 FDP 4938 FDO | 4000 | >80 | 1174x100x80 |
| ○ 6692 | 3F HD100DI AL 26+26/840 DALI 5P FD L1468 | 61 | 6439 FDP 6234 FDO | 4000 | >80 | 1468x100x80 |
| ○ 6696 | 3F HD100DI AL 52+52/840 DALI 5P FD L2935 | 122 | 12769 FDP 12367 FDO | 4000 | >80 | 2935x100x80 |



3F HD R Recessed - Single

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in white painted extruded aluminium.

Removable gear-tray.

End caps in white steel.

Electrical characteristics

In compliance with EN 60598-1.

Entrance to the upper power supply in proximity to a power head.

Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- optic in different RAL colours
- wiring: CLO (more information on page 542)
- possibility to create lighting corners
- Optics Control Black

Applications

Environments: with VDTs, meeting rooms, offices.

Environments: architectural, commercial, staterooms, banks.

Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

FDO version

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

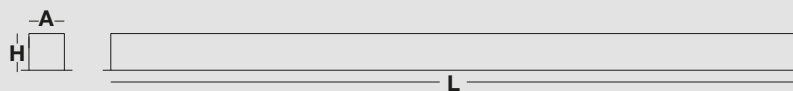
Installation

Recessed installation.

Light Management

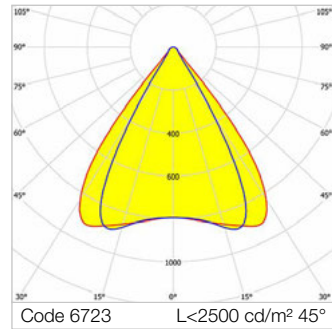
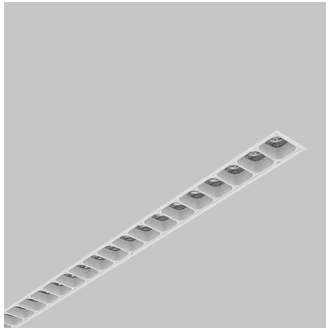
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F HD R OCW Single

Optics Control White - LEED certification



650°C

IP40

0,2J

IK02



Average luminance <math><2500\text{ cd/m}^2</math> for angles >math>45^\circ</math>. Average luminance <math><1500\text{ cd/m}^2</math> for angles >math>65^\circ</math>. Environments with very exacting visual tasks and control of luminance at angles of >math>45^\circ</math> compared to the LEED certification. Offices with video terminals and administrative, information and school offices. Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux. Anti-reflective white polycarbonate alveolar optic.

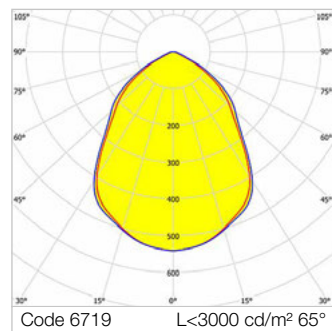
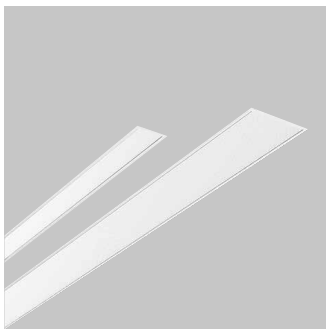
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-----------------------------------|------|------|------|-----|------------|
| ○ 6722 | 3F HD50R WH 12/835 DALI OCW L1188 | 13.5 | 1593 | 3500 | >80 | 1188x67x65 |
| ○ 6723 | 3F HD50R WH 15/835 DALI OCW L1482 | 17 | 1991 | 3500 | >80 | 1482x67x65 |
| ○ 6724 | 3F HD50R WH 30/835 DALI OCW L2949 | 33 | 3981 | 3500 | >80 | 2949x67x65 |

3F HD R GSP Single

Flat prismatic diffuser in methacrylate with low luminance film



650°C

IP40

0,2J

IK02



Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math>. Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. SP flat diffuser in transparent PMMA, outside prismatic, anti-glare. Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

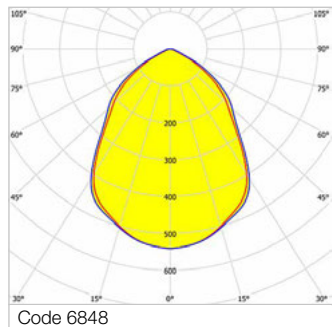
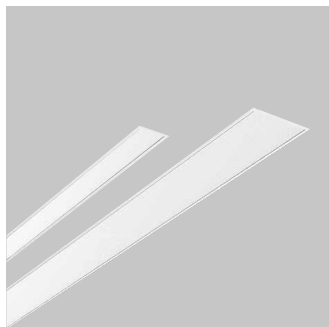
| | | | | | | |
|--------|-----------------------------------|----|------|------|-----|------------|
| ○ 6718 | 3F HD50R WH 13/840 DALI GSP L1188 | 14 | 1374 | 4000 | >80 | 1188x67x65 |
| ○ 6719 | 3F HD50R WH 16/840 DALI GSP L1482 | 19 | 1718 | 4000 | >80 | 1482x67x65 |
| ○ 6720 | 3F HD50R WH 32/840 DALI GSP L2949 | 35 | 3435 | 4000 | >80 | 2949x67x65 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|------------------------------------|----|------|------|-----|-------------|
| ○ 6737 | 3F HD100R WH 22/840 DALI GSP L1188 | 24 | 2617 | 4000 | >80 | 1188x110x65 |
| ○ 6738 | 3F HD100R WH 26/840 DALI GSP L1482 | 30 | 3271 | 4000 | >80 | 1482x110x65 |
| ○ 6739 | 3F HD100R WH 52/840 DALI GSP L2949 | 58 | 6428 | 4000 | >80 | 2949x110x65 |

3F HD R HO GSP Single

Flat prismatic diffuser in methacrylate with low luminance film



Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
 SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
 Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

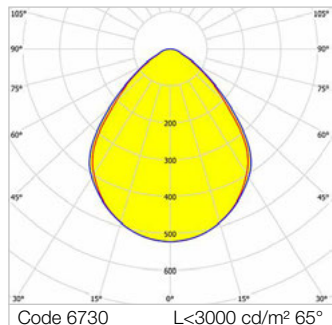
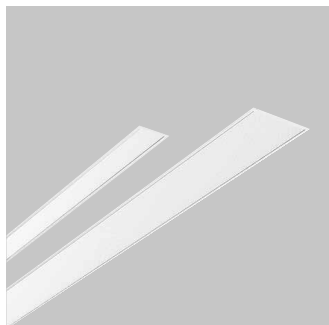
| | | | | | | | |
|-----------------------|---------------------|--------------------------------------|----|------|------|-----|------------|
| <input type="radio"/> | 6847 ^{NEW} | 3F HD50R WH HO 22/840 DALI GSP L1188 | 24 | 2597 | 4000 | >80 | 1188x67x65 |
| <input type="radio"/> | 6848 ^{NEW} | 3F HD50R WH HO 26/840 DALI GSP L1482 | 32 | 3246 | 4000 | >80 | 1482x67x65 |
| <input type="radio"/> | 6849 ^{NEW} | 3F HD50R WH HO 52/840 DALI GSP L2949 | 58 | 5871 | 4000 | >80 | 2949x67x65 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-----------------------|---------------------|---------------------------------------|----|------|------|-----|-------------|
| <input type="radio"/> | 6850 ^{NEW} | 3F HD100R WH HO 36/840 DALI GSP L1188 | 39 | 3999 | 4000 | >80 | 1188x110x65 |
| <input type="radio"/> | 6851 ^{NEW} | 3F HD100R WH HO 44/840 DALI GSP L1482 | 49 | 4998 | 4000 | >80 | 1482x110x65 |
| <input type="radio"/> | 6852 ^{NEW} | 3F HD100R WH HO 88/840 DALI GSP L2949 | 98 | 9997 | 4000 | >80 | 2949x110x65 |

3F HD R FDP Single

Diffuser microprismatic



Average luminance <3000 cd/m² for angles >65°.
 Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
 Externally micro prismatic transparent flat anti-glare polycarbonate diffuser.
 Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

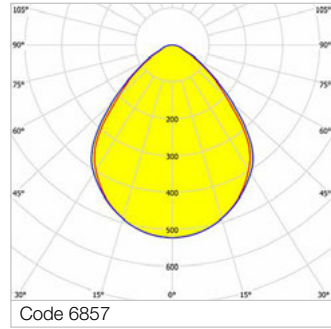
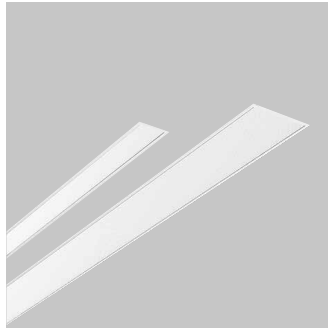
| | | | | | | | |
|-----------------------|------|-----------------------------------|----|------|------|-----|------------|
| <input type="radio"/> | 6710 | 3F HD50R WH 13/840 DALI FDP L1188 | 14 | 1292 | 4000 | >80 | 1188x67x65 |
| <input type="radio"/> | 6711 | 3F HD50R WH 16/840 DALI FDP L1482 | 19 | 1615 | 4000 | >80 | 1482x67x65 |
| <input type="radio"/> | 6712 | 3F HD50R WH 32/840 DALI FDP L2949 | 35 | 3229 | 4000 | >80 | 2949x67x65 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-----------------------|------|------------------------------------|----|------|------|-----|-------------|
| <input type="radio"/> | 6729 | 3F HD100R WH 22/840 DALI FDP L1188 | 24 | 2468 | 4000 | >80 | 1188x110x65 |
| <input type="radio"/> | 6730 | 3F HD100R WH 26/840 DALI FDP L1482 | 30 | 3085 | 4000 | >80 | 1482x110x65 |
| <input type="radio"/> | 6731 | 3F HD100R WH 52/840 DALI FDP L2949 | 58 | 6062 | 4000 | >80 | 2949x110x65 |

3F HD R HO FDP Single

Diffuser microprismatic



CE
850°C
IP40
0,2J
IK02
Driver/LED SELV
A++
A+
A

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. Externally micro prismatic transparent flat anti-glare polycarbonate diffuser. Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

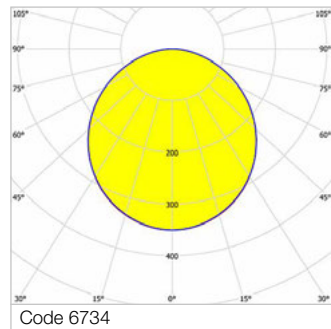
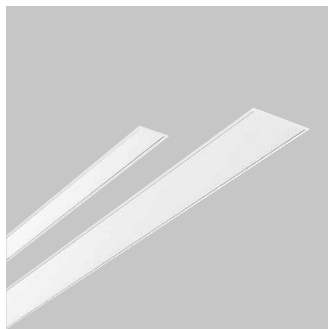
| | | | | | | |
|-----------------------|--------------------------------------|----|------|------|-----|------------|
| ○ 6853 ^{NEW} | 3F HD50R WH HO 22/840 DALI FDP L1188 | 24 | 2449 | 4000 | >80 | 1188x67x65 |
| ○ 6854 ^{NEW} | 3F HD50R WH HO 26/840 DALI FDP L1482 | 32 | 3061 | 4000 | >80 | 1482x67x65 |
| ○ 6855 ^{NEW} | 3F HD50R WH HO 52/840 DALI FDP L2949 | 58 | 5537 | 4000 | >80 | 2949x67x65 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-----------------------|---------------------------------------|----|------|------|-----|-------------|
| ○ 6856 ^{NEW} | 3F HD100R WH HO 36/840 DALI FDP L1188 | 39 | 3771 | 4000 | >80 | 1188x110x65 |
| ○ 6857 ^{NEW} | 3F HD100R WH HO 44/840 DALI FDP L1482 | 49 | 4714 | 4000 | >80 | 1482x110x65 |
| ○ 6858 ^{NEW} | 3F HD100R WH HO 88/840 DALI FDP L2949 | 98 | 9428 | 4000 | >80 | 2949x110x65 |

3F HD R FDO Single

Opal diffuser



CE
850°C
IP40
0,2J
IK02
Driver/LED SELV
A++
A+
A

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. Flat opal anti-glare polycarbonate diffuser.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

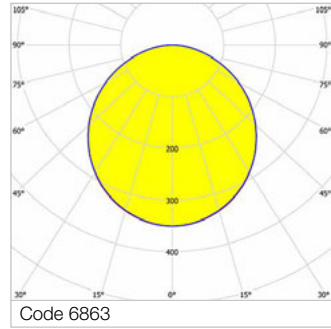
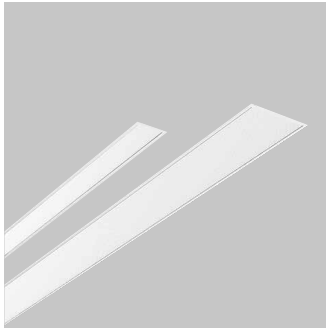
| | | | | | | |
|--------|-----------------------------------|----|------|------|-----|------------|
| ○ 6714 | 3F HD50R WH 13/840 DALI FDO L1188 | 14 | 1250 | 4000 | >80 | 1188x67x65 |
| ○ 6715 | 3F HD50R WH 16/840 DALI FDO L1482 | 19 | 1563 | 4000 | >80 | 1482x67x65 |
| ○ 6716 | 3F HD50R WH 32/840 DALI FDO L2949 | 35 | 3126 | 4000 | >80 | 2949x67x65 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|------------------------------------|----|------|------|-----|-------------|
| ○ 6733 | 3F HD100R WH 22/840 DALI FDO L1188 | 24 | 2304 | 4000 | >80 | 1188x110x65 |
| ○ 6734 | 3F HD100R WH 26/840 DALI FDO L1482 | 30 | 2880 | 4000 | >80 | 1482x110x65 |
| ○ 6735 | 3F HD100R WH 52/840 DALI FDO L2949 | 58 | 5660 | 4000 | >80 | 2949x110x65 |

3F HD R HO FDO Single

Opal diffuser



CE
850°C
IP40
0,2J
IK02
Driver/LED SELV
A++
A+
A

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. Flat opal anti-glare polycarbonate diffuser.

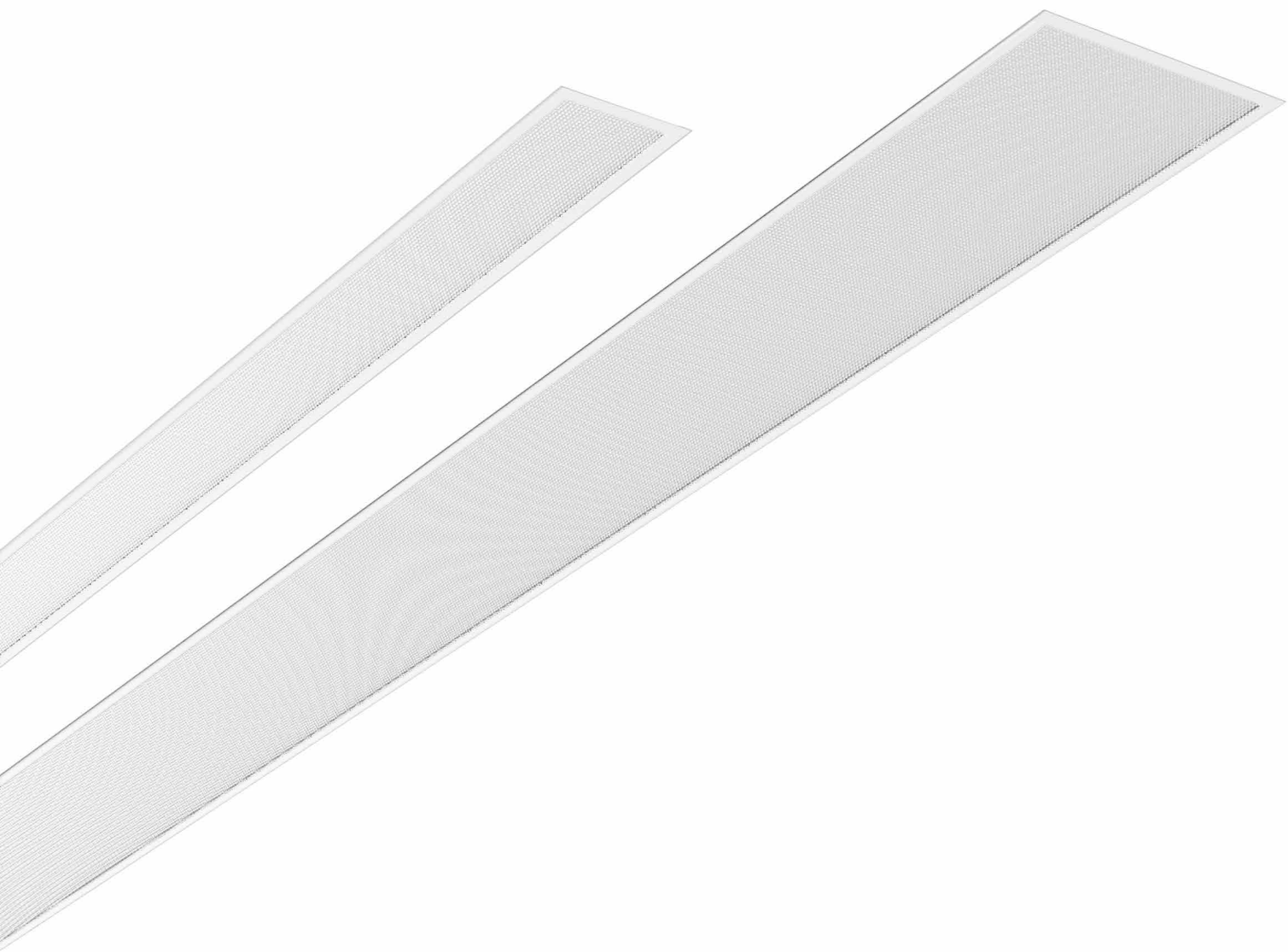
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-----------------------|--------------------------------------|----|------|------|-----|------------|
| ○ 6859 ^{NEW} | 3F HD50R WH HO 22/840 DALI FDO L1188 | 24 | 2287 | 4000 | >80 | 1188x67x65 |
| ○ 6860 ^{NEW} | 3F HD50R WH HO 26/840 DALI FDO L1482 | 32 | 2858 | 4000 | >80 | 1482x67x65 |
| ○ 6861 ^{NEW} | 3F HD50R WH HO 52/840 DALI FDO L2949 | 58 | 5170 | 4000 | >80 | 2949x67x65 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-----------------------|---------------------------------------|----|------|------|-----|-------------|
| ○ 6862 ^{NEW} | 3F HD100R WH HO 36/840 DALI FDO L1188 | 39 | 3521 | 4000 | >80 | 1188x110x65 |
| ○ 6863 ^{NEW} | 3F HD100R WH HO 44/840 DALI FDO L1482 | 49 | 4401 | 4000 | >80 | 1482x110x65 |
| ○ 6864 ^{NEW} | 3F HD100R WH HO 88/840 DALI FDO L2949 | 98 | 8802 | 4000 | >80 | 2949x110x65 |





3F HD R Recessed - Channel

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in white painted extruded aluminium.
 Removable gear-tray.
 Hot-dip galvanised steel linear connecting element installed on the body for rapid mechanical connection.

Electrical characteristics

In compliance with EN 60598-1.
 Entrance to the upper power supply in proximity to a power head.
 5 mm² section 2.5 pin through line with an irreversible quick coupling plug plug/socket fixed on the body for rapid electrical connection.
 Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (more information on page 542)

Applications

Environments: with VDTs, meeting rooms, offices.
 Environments: architectural, commercial, staterooms, banks.
 Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

FDO version

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

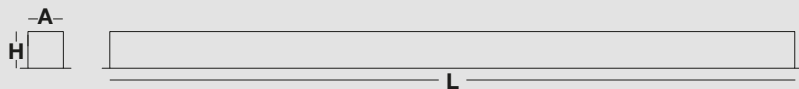
Installation

Recessed installation.

Light Management

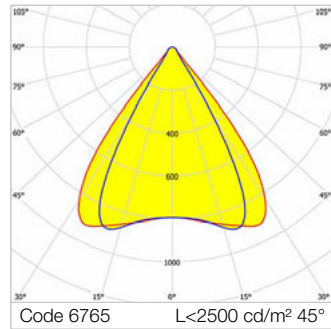
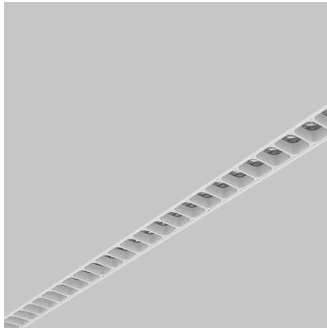
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F HD R OCW Channel

Optics Control White - LEED certification



650°C

IP40

0,2J

IK02

Driver/LED
SELV

Average luminance <math><2500 \text{ cd/m}^2</math> for angles >math>45^\circ</math>. Average luminance <math><1500 \text{ cd/m}^2</math> for angles >math>65^\circ</math>. Environments with very exacting visual tasks and control of luminance at angles of >math>45^\circ</math> compared to the LEED certification. Offices with video terminals and administrative, information and school offices. Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux. Anti-reflective white polycarbonate alveolar optic.

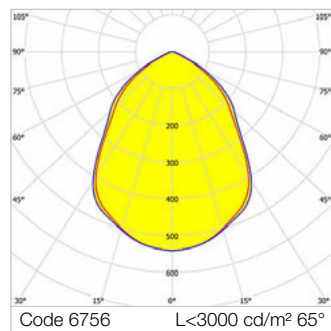
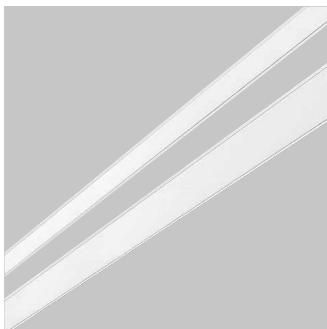
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|--------------------------------------|------|------|------|-----|------------|
| ○ 6764 | 3F HD50R WH 12/835 DALI 5P OCW L1174 | 13.5 | 1593 | 3500 | >80 | 1174x67x65 |
| ○ 6765 | 3F HD50R WH 15/835 DALI 5P OCW L1468 | 17 | 1991 | 3500 | >80 | 1468x67x65 |
| ○ 6769 | 3F HD50R WH 30/835 DALI 5P OCW L2935 | 33 | 3981 | 3500 | >80 | 2935x67x65 |

3F HD R GSP Channel

Flat prismatic diffuser in methacrylate with low luminance film



650°C

IP40

0,2J

IK02

Driver/LED
SELV

Average luminance <math><3000 \text{ cd/m}^2</math> for angles >math>65^\circ</math>. Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. SP flat diffuser in transparent PMMA, outside prismatic, anti-glare. Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

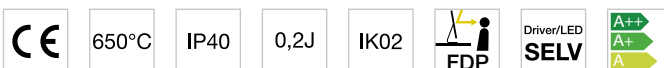
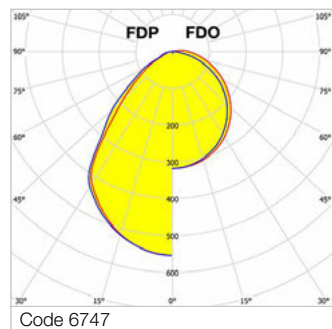
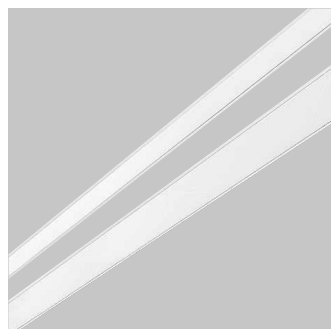
| | | | | | | |
|--------|--------------------------------------|----|------|------|-----|------------|
| ○ 6755 | 3F HD50R WH 13/840 DALI 5P GSP L1174 | 14 | 1374 | 4000 | >80 | 1174x67x65 |
| ○ 6756 | 3F HD50R WH 16/840 DALI 5P GSP L1468 | 19 | 1718 | 4000 | >80 | 1468x67x65 |
| ○ 6760 | 3F HD50R WH 32/840 DALI 5P GSP L2935 | 35 | 3435 | 4000 | >80 | 2935x67x65 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|---------------------------------------|----|------|------|-----|-------------|
| ○ 6785 | 3F HD100R WH 22/840 DALI 5P GSP L1174 | 24 | 2617 | 4000 | >80 | 1174x110x65 |
| ○ 6786 | 3F HD100R WH 26/840 DALI 5P GSP L1468 | 30 | 3271 | 4000 | >80 | 1468x110x65 |
| ○ 6790 | 3F HD100R WH 52/840 DALI 5P GSP L2935 | 58 | 6428 | 4000 | >80 | 2935x110x65 |

3F HD R FD Channel

Fixture suitable FDP or FDO



Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math> (FDP).
 Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
 For diffusers see accessories on page 74.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F HD 50 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-------------------------------------|----|----------------------|------|-----|------------|
| ○ 6746 | 3F HD50R WH 13/840 DALI 5P FD L1174 | 14 | 1292 FDP 1250 FDO | 4000 | >80 | 1174x67x65 |
| ○ 6747 | 3F HD50R WH 16/840 DALI 5P FD L1468 | 19 | 1615 FDP 1563 FDO | 4000 | >80 | 1468x67x65 |
| ○ 6751 | 3F HD50R WH 32/840 DALI 5P FD L2935 | 35 | 3229 FDP 3126 FDO | 4000 | >80 | 2935x67x65 |

3F HD 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|--------------------------------------|----|----------------------|------|-----|-------------|
| ○ 6776 | 3F HD100R WH 22/840 DALI 5P FD L1174 | 24 | 2468 FDP 2304 FDO | 4000 | >80 | 1174x110x65 |
| ○ 6777 | 3F HD100R WH 26/840 DALI 5P FD L1468 | 30 | 3085 FDP 2880 FDO | 4000 | >80 | 1468x110x65 |
| ○ 6781 | 3F HD100R WH 52/840 DALI 5P FD L2935 | 58 | 6062 FDP 5660 FDO | 4000 | >80 | 2935x110x65 |



COMPOSITION GUIDE

3F HD | Suspension installation

Necessary / optional accessories

Single Unit

| Fastening | Type | Notes | Code | Item |
|-----------|--------------|---------------|--------|---|
| Necessary | Brackets | | A01532 | Sliding bracket with regulator for suspension installation 3F HD50DI |
| | | | A01528 | Sliding bracket with regulator for suspension installation 3F HD100DI |
| | Suspensions | | A20485 | Susp. without adjustment for Linux/HD - 0,5 m |
| | | | A20486 | Susp. without adjustment for Linux/HD - 1 m |
| | | | A20487 | Susp. without adjustment for Linux/HD - 2 m |
| | | | A20488 | Susp. without adjustment for Linux/HD - 3 m |
| | | | A20489 | Susp. without adjustment for Linux/HD - 4 m |
| | | | A20490 | Susp. without adjustment for Linux/HD - 5 m |
| | | | A20491 | Susp. without adjustment for Linux/HD - 6 m |
| | | Alternatively | A0716 | Coil galvanized cable diam. 1.5mm - 100m |
| | | | A0717 | Coil galvanized cable diam. 1.5mm - 500m |
| | | | A0718 | Coil galvanized cable diam. 1.5mm - 1000m |
| | | | + | |
| | | | A0714 | Clamp 2 holes - 100 pcs |
| Optional | Power supply | | A0679 | 5-pole rectangular rose (no cable) |

Light channel

| Fastening | Type | Notes | Code | Item |
|-----------|---|---------------|---|---|
| Necessary | Brackets | | A01532 | Sliding bracket with regulator for suspension installation 3F HD50DI |
| | | | A01528 | Sliding bracket with regulator for suspension installation 3F HD100DI |
| | Suspensions | | A20485 | Susp. without adjustment for Linux/HD - 0,5 m |
| | | A20486 | Susp. without adjustment for Linux/HD - 1 m | |
| | | A20487 | Susp. without adjustment for Linux/HD - 2 m | |
| | | A20488 | Susp. without adjustment for Linux/HD - 3 m | |
| | | A20489 | Susp. without adjustment for Linux/HD - 4 m | |
| | | A20490 | Susp. without adjustment for Linux/HD - 5 m | |
| | | A20491 | Susp. without adjustment for Linux/HD - 6 m | |
| | | Alternatively | A0716 | Coil galvanized cable diam. 1.5mm - 100m |
| | | | A0717 | Coil galvanized cable diam. 1.5mm - 500m |
| | | | A0718 | Coil galvanized cable diam. 1.5mm - 1000m |
| | | | + | |
| | | | A0714 | Clamp 2 holes - 100 pcs |
| | Terminal block | | A01567 | 3F HD - 5P socket/plug terminal block |
| | Diffusers only for 3F HD FD products | Prismatics | A01536 | Channels diffusers 3F HD50 - FDP - 6m |
| | | | A01537 | Channels diffusers 3F HD50 - FDP - 9m |
| | | | A01538 | Channels diffusers 3F HD50 - FDP - 15m |
| | | | A01544 | Channels diffusers 3F HD100 - FDP - 6m |
| | | | A01545 | Channels diffusers 3F HD100 - FDP - 9m |
| | | | A01546 | Channels diffusers 3F HD100 - FDP - 15m |
| | Diffusers only for 3F HD FD products | Opals | A01540 | Channels diffusers 3F HD50 - FDO - 6m |
| | | | A01541 | Channels diffusers 3F HD50 - FDO - 9m |
| | | | A01542 | Channels diffusers 3F HD50 - FDO - 15m |
| | | | A01548 | Channels diffusers 3F HD100 - FDO - 6m |
| | | | A01549 | Channels diffusers 3F HD100 - FDO - 9m |
| | | | A01550 | Channels diffusers 3F HD100 - FDO - 15m |
| | End caps | | A01552 | Pair of end caps for 3F HD50 WH channel |
| | | A01553 | Pair of end caps for 3F HD50 BK channel | |
| | | A01554 | Pair of end caps for 3F HD50 AL channel | |
| | | A01555 | Pair of end caps for 3F HD100 WH channel | |
| | | A01556 | Pair of end caps for 3F HD100 BK channel | |
| | | A01557 | Pair of end caps for 3F HD100 AL channel | |
| | | A01558 | Pair of end caps for 3F HD50 WH OC channel | |
| | | A01559 | Pair of end caps for 3F HD50 BK OC channel | |
| | | A01560 | Pair of end caps for 3F HD50 AL OC channel | |
| Optional | | Power supply | | A0679 |
| | Dilator couplings | | A01563 | Dilator joint FD channles>15m - HD50 WH |
| | | A01564 | Dilator joint FD channles>15m - HD100 WH | |
| | | A01568 | Dilator joint FD channles>15m - HD50 BK | |
| | | A01569 | Dilator joint FD channles>15m - HD100 BK | |
| | | A01570 | Dilator joint FD channles>15m - HD50 AL | |
| | | A01571 | Dilator joint FD channles>15m - HD100 AL | |

COMPOSITION GUIDE

3F HD | Surface-mounted ceiling installation

Necessary / optional accessories

Single Unit

| Fastening | Type | Notes | Code | Item |
|-----------|----------|-------|--------|---|
| Necessary | Brackets | | A01530 | Ceiling/recessed sliding bracket 3F HD50 |
| | | | A01531 | Ceiling/recessed sliding bracket 3F HD100 |

Light channel

| Fastening | Type | Notes | Code | Item |
|-----------|---|------------|--------|--|
| Necessary | Brackets | | A01530 | Ceiling/recessed sliding bracket 3F HD50 |
| | | | A01531 | Ceiling/recessed sliding bracket 3F HD100 |
| | Terminal block | | A01567 | 3F HD - 5P socket/plug terminal block |
| | Diffusers only for 3F HD FD products | Prismatics | A01536 | Channels diffusers 3F HD50 - FDP - 6m |
| | | | A01537 | Channels diffusers 3F HD50 - FDP - 9m |
| | | | A01538 | Channels diffusers 3F HD50 - FDP - 15m |
| | | | A01544 | Channels diffusers 3F HD100 - FDP - 6m |
| | | | A01545 | Channels diffusers 3F HD100 - FDP - 9m |
| | | | A01546 | Channels diffusers 3F HD100 - FDP - 15m |
| | Diffusers only for 3F HD FD products | Opals | A01540 | Channels diffusers 3F HD50 - FDO - 6m |
| | | | A01541 | Channels diffusers 3F HD50 - FDO - 9m |
| | | | A01542 | Channels diffusers 3F HD50 - FDO - 15m |
| | | | A01548 | Channels diffusers 3F HD100 - FDO - 6m |
| | | | A01549 | Channels diffusers 3F HD100 - FDO - 9m |
| | | | A01550 | Channels diffusers 3F HD100 - FDO - 15m |
| | End caps | | A01552 | Pair of end caps for 3F HD50 WH channel |
| | | | A01553 | Pair of end caps for 3F HD50 BK channel |
| | | | A01554 | Pair of end caps for 3F HD50 AL channel |
| | | | A01555 | Pair of end caps for 3F HD100 WH channel |
| | | | A01556 | Pair of end caps for 3F HD100 BK channel |
| | | | A01557 | Pair of end caps for 3F HD100 AL channel |
| | | | A01558 | Pair of end caps for 3F HD50 WH OC channel |
| | | | A01559 | Pair of end caps for 3F HD50 BK OC channel |
| | | | A01560 | Pair of end caps for 3F HD50 AL OC channel |
| Optional | Dilator couplings | | A01563 | Dilator joint FD channles>15m - HD50 WH |
| | | | A01564 | Dilator joint FD channles>15m - HD100 WH |
| | | | A01568 | Dilator joint FD channles>15m - HD50 BK |
| | | | A01569 | Dilator joint FD channles>15m - HD100 BK |
| | | | A01570 | Dilator joint FD channles>15m - HD50 AL |
| | | | A01571 | Dilator joint FD channles>15m - HD100 AL |

COMPOSITION GUIDE

3F HD R | Recessed installation

Necessary / optional accessories

Single Unit

| Fastening | Type | Notes | Code | Item |
|-----------|----------|-------|--------|--|
| Necessary | Brackets | | A01565 | Couple fixed brackets for plasterboard 3F HD50R |
| | | | A01566 | Couple fixed brackets for plasterboard 3F HD100R |
| | | | A01530 | Ceiling/recessed sliding bracket 3F HD50 |
| | | | A01531 | Ceiling/recessed sliding bracket 3F HD100 |

Light channel

| Fastening | Type | Notes | Code | Item |
|-----------|---|------------|--------|---|
| Necessary | Brackets | | A01565 | Couple fixed brackets for plasterboard 3F HD50R |
| | | | A01566 | Couple fixed brackets for plasterboard 3F HD100R |
| | | | A01530 | Ceiling/recessed sliding bracket 3F HD50 |
| | | | A01531 | Ceiling/recessed sliding bracket 3F HD100 |
| | Terminal block | | A01567 | 3F HD - 5P socket/plug terminal block |
| | Diffusers only for 3F HD FD products | Prismatics | A01536 | Channels diffusers 3F HD50 - FDP - 6m |
| | | | A01537 | Channels diffusers 3F HD50 - FDP - 9m |
| | | | A01538 | Channels diffusers 3F HD50 - FDP - 15m |
| | | | A01544 | Channels diffusers 3F HD100 - FDP - 6m |
| | | | A01545 | Channels diffusers 3F HD100 - FDP - 9m |
| | | | A01546 | Channels diffusers 3F HD100 - FDP - 15m |
| | Diffusers only for 3F HD FD products | Opals | A01540 | Channels diffusers 3F HD50 - FDO - 6m |
| | | | A01541 | Channels diffusers 3F HD50 - FDO - 9m |
| | | | A01542 | Channels diffusers 3F HD50 - FDO - 15m |
| | | | A01548 | Channels diffusers 3F HD100 - FDO - 6m |
| | | | A01549 | Channels diffusers 3F HD100 - FDO - 9m |
| | | | A01550 | Channels diffusers 3F HD100 - FDO - 15m |
| | End caps | | A01561 | Pair of end caps for 3F HD50R WH channel FDP/FDO |
| | | | A01562 | Pair of end caps for 3F HD100R WH channel FDP/FDO |
| | | | A01572 | Pair of end caps for 3F HD50R WH channel GSP |
| | | | A01573 | Pair of end caps for 3F HD100R WH channel GSP |
| | | | A01574 | Pair of end caps for 3F HD50R WH channel OCW |
| Optional | Dilator couplings | | A01563 | Dilator joint FD channles>15m - HD50 WH |
| | | | A01564 | Dilator joint FD channles>15m - HD100 WH |
| | | | A01568 | Dilator joint FD channles>15m - HD50 BK |
| | | | A01569 | Dilator joint FD channles>15m - HD100 BK |
| | | | A01570 | Dilator joint FD channles>15m - HD50 AL |
| | | | A01571 | Dilator joint FD channles>15m - HD100 AL |

3F HD Accessories



850°C



FDP - Flat diffuser, externally microprismatic and made of transparent polycarbonate, with internal anti-glare opal polycarbonate filter for luminous uniformity. Supplied in roll.

Accessory compatible with 3F HD FD Channel, 3F HD DI FD Channel and 3F HD R FD Channel.

| Code | Item |
|--------|---|
| A01536 | Channels diffusers 3F HD50 - FDP - 6m |
| A01537 | Channels diffusers 3F HD50 - FDP - 9m |
| A01538 | Channels diffusers 3F HD50 - FDP - 15m |
| A01544 | Channels diffusers 3F HD100 - FDP - 6m |
| A01545 | Channels diffusers 3F HD100 - FDP - 9m |
| A01546 | Channels diffusers 3F HD100 - FDP - 15m |

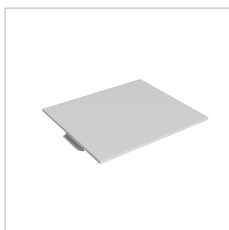


850°C

FDO - Flat diffuser, smooth outside and made of opal polycarbonate. Supplied in roll.

Accessory compatible with 3F HD FD Channel, 3F HD DI FD Channel and 3F HD R FD Channel.

| Code | Item |
|--------|---|
| A01540 | Channels diffusers 3F HD50 - FDO - 6m |
| A01541 | Channels diffusers 3F HD50 - FDO - 9m |
| A01542 | Channels diffusers 3F HD50 - FDO - 15m |
| A01548 | Channels diffusers 3F HD100 - FDO - 6m |
| A01549 | Channels diffusers 3F HD100 - FDO - 9m |
| A01550 | Channels diffusers 3F HD100 - FDO - 15m |



Dilator coupling to connect flat diffusers FDP or FDO.

Accessory compatible with 3F HD FD Channel, 3F HD DI FD Channel and 3F HD R FD Channel.

| Code | Item |
|--------|--|
| A01563 | Dilator joint FD channles>15m - HD50 WH |
| A01564 | Dilator joint FD channles>15m - HD100 WH |
| A01568 | Dilator joint FD channles>15m - HD50 BK |
| A01569 | Dilator joint FD channles>15m - HD100 BK |
| A01570 | Dilator joint FD channles>15m - HD50 AL |
| A01571 | Dilator joint FD channles>15m - HD100 AL |

To be used for channels longer than 15 meters.



Pair of end caps for light channels equipped with GSP, FDP and FDO screens; made of plastic material reinforced with fiberglass and supplied with fixing screws. Thickness: 20 mm each cap.

Accessory compatible with 3F HD FD/GSP Channel and 3F HD DI FD/GSP Channel.

| Code | Item |
|--------|--|
| A01552 | Pair of end caps for 3F HD50 WH channel |
| A01553 | Pair of end caps for 3F HD50 BK channel |
| A01554 | Pair of end caps for 3F HD50 AL channel |
| A01555 | Pair of end caps for 3F HD100 WH channel |
| A01556 | Pair of end caps for 3F HD100 BK channel |
| A01557 | Pair of end caps for 3F HD100 AL channel |

These accessories are not suitable for single-unit installation.



Pair of end caps for light channels equipped with OCB and OCW optics; made of plastic material reinforced with fiberglass and supplied with fixing screws. Thickness: 20 mm each cap.

Accessory compatible with 3F HD OC Channel and 3F HD DI OC Channel.

| Code | Item |
|--------|--|
| A01558 | Pair of end caps for 3F HD50 WH OC channel |
| A01559 | Pair of end caps for 3F HD50 BK OC channel |
| A01560 | Pair of end caps for 3F HD50 AL OC channel |

These accessories are not suitable for single-unit installation.



Pair of end caps for channels, in grey painted aluminium, with screws for fixing to housing, always required. Thickness: 10 mm each cap.

Accessory compatible with 3F HD R FD Channel.

| Code | Item |
|--------|---|
| A01561 | Pair of end caps for 3F HD50R WH channel FDP/FDO |
| A01562 | Pair of end caps for 3F HD100R WH channel FDP/FDO |
| A01572 | Pair of end caps for 3F HD50R WH channel GSP |
| A01573 | Pair of end caps for 3F HD100R WH channel GSP |
| A01574 | Pair of end caps for 3F HD50R WH channel OCW |

These accessories are not suitable for single-unit installation.



Stainless steel sliding bracket that can be positioned freely. Accessory dedicated to ceiling or recessed installation in inspectable false ceilings.

| Code | Item |
|--------|---|
| A01530 | Ceiling/recessed sliding bracket 3F HD50 |
| A01531 | Ceiling/recessed sliding bracket 3F HD100 |



Set of galvanised steel brackets necessary to recess install the fixture in plasterboard.

Accessory compatible with 3F HD R Recessed - Single, 3F HD R Recessed - Channel.

| Code | Item |
|--------|--|
| A01565 | Couple fixed brackets for plasterboard 3F HD50R |
| A01566 | Couple fixed brackets for plasterboard 3F HD100R |



Free-position sliding bracket with regulator in stainless steel. Accessory dedicated to suspended installation.

| Code | Item |
|-----------------------|---|
| A01532 | Sliding bracket with regulator for suspension installation 3F HD50DI |
| A01528 ^{NEW} | Sliding bracket with regulator for suspension installation 3F HD100DI |

In the event of buying the sliding bracket with a regulator (code A01532 - A01528) on its own, the suspension cable must be made of galvanised steel with 49 elementary wires with a minimum diameter of 1,5 mm² (for a load of 15 kg).



Suspension without controller, galvanized steel cable 1.5 mm diameter, load 15 kg.

Accessory compatible with sliding bracket code A01532 and A01528.

| Code | Item |
|--------|---|
| A20485 | Susp. without adjustment for Linux/HD - 0,5 m |
| A20486 | Susp. without adjustment for Linux/HD - 1 m |
| A20487 | Susp. without adjustment for Linux/HD - 2 m |
| A20488 | Susp. without adjustment for Linux/HD - 3 m |
| A20489 | Susp. without adjustment for Linux/HD - 4 m |
| A20490 | Susp. without adjustment for Linux/HD - 5 m |
| A20491 | Susp. without adjustment for Linux/HD - 6 m |

In the case of purchase of only one sliding bracket with controller (codes A01532 - A01528), the suspension cable must be made of galvanized steel with 49 elementary wires of minimum 1.5 mm diameter (for a weight of 15 kg).



Galvanized steel cable, diameter 1.5 mm, composed of 49 wires. 15 kg capacity (ratio 5:1).

Accessory compatible with one of the following codes: A01532 - A01528 - A0714.

| Code | Item |
|-------|---|
| A0716 | Coil galvanized cable diam. 1.5mm - 100m The pack contains 100 metres. |
| A0717 | Coil galvanized cable diam. 1.5mm - 500m The pack contains 500 metres. |
| A0718 | Coil galvanized cable diam. 1.5mm - 1000m The pack contains 1000 metres. |



Clamp in nickel-plated brass suitable for fixing and adjustment of galvanized steel wire (diameter 1,25 mm - 1,5 mm - 2 mm), complete with locking screws. The 2 hole clamp allows to block and adjust the cable on a bearing element (part of the building) or on rounded eye bolt.

Accessory compatible with one of the following codes: A0716 - A0717 - A0718.

| Code | Item |
|-------|--|
| A0714 | Clamp 2 holes - 100 pcs The pack contains 100 pieces. |



Terminal block (plug/socket) with irreversible snap-in double clamp, for power-supply connection at beginning and end of the channel, 5 poles.

Accessory compatible with 3F HD - Channel, 3F HD Direct/Indirect - Channel, 3F HD R Recessed - Channel.

| Code | Item |
|--------|---------------------------------------|
| A01567 | 3F HD - 5P socket/plug terminal block |



Electric supply with white polycarbonate case, internal bracket in galvanized steel.

Accessory compatible with 3F HD - Single, 3F HD Direct/Indirect - Single, 3F HD Direct/Indirect - Channel, 3F HD R Recessed - Single, 3F HD R Recessed - Channel.

| Code | Item |
|-------|------------------------------------|
| A0679 | 5-pole rectangular rose (no cable) |







3F Mirella

Design: **Andrea Ciotti**

Essential yet at the same time refined the fixture is composed of an aluminium body that houses the LED technology and a shaped methacrylate part that accompanies the luminous flux. Available in various models and finishes the new system is designed to integrate discreetly in professional or residential contexts. The integration of the two elements makes the visual perception of the light source change inside the space during the day.

Elaborate, essential and flexible 3F Mirella is a solution that is suitable for multiple configurations in modern architectural spaces. It can be equipped with diffusers of different types and colours, all interchangeable to give customers the possibility to select the best light quality and required visual comfort.





Andrea Ciotti

“I like to talk about Mirella as if it were the creation of a three-dimensional child’s drawing: the extrusion of an archetypal shape and its rays of light.”

Flexible lighting is increasingly in demand in architectural contexts because it is light that must be at the forefront: 3F Mirella was designed precisely to meet this need.

“The strength of this product is its simplicity.

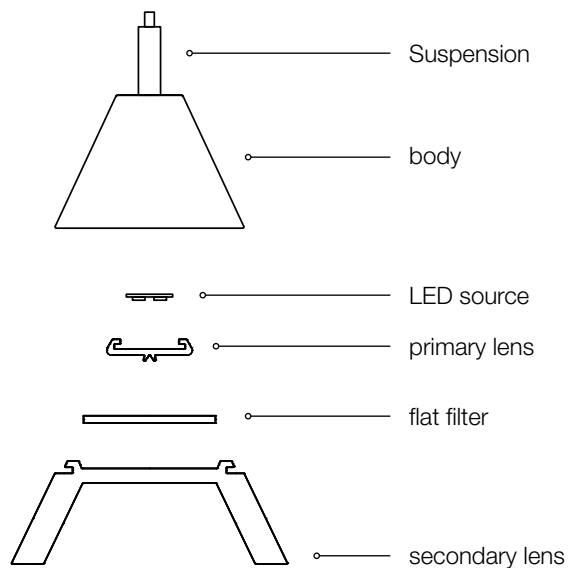
I like to talk about Mirella as if it were the creation of a three-dimensional child’s drawing: the extrusion of an archetypal shape and its rays of light”,

this is how Andrea Ciotti describes the origin of the lamp.

The integration of the aluminium body that houses the LED technology and a shaped methacrylate part that allows the fixture to integrate “discreetly” into any environment, changing its perception to the human eye during the day. The possibility to choose diffusers of different types and colours allows the most suitable light for every space to be selected depending on the atmosphere and level of visual comfort required.

Elaborate yet essential at the same time 3F Mirella lends itself to multiple applications in contemporary architectural environments.

VERSIONS



In addition to the original suspension version with a transparent PMMA lens 3F Mirella **(A)** the range evolves by integrating a new “Soft light” **(B)** version, which unlike the original version has a satin PMMA lens and a free-standing version **(C)** that can be customised with different lenses according to customer needs.



A



C



3F Mirella Floor

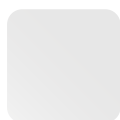
3F Mirella

SCREENS AND FINISHES

3F Filippi takes their lighting competence to the architectural sector with products with advanced technology and excellent performance.

3F Mirella was developed with an optical system composed of three elements that make it possible to have extraordinary glare values and luminance without compromising on luminous flux output.

Finishes



White



Black



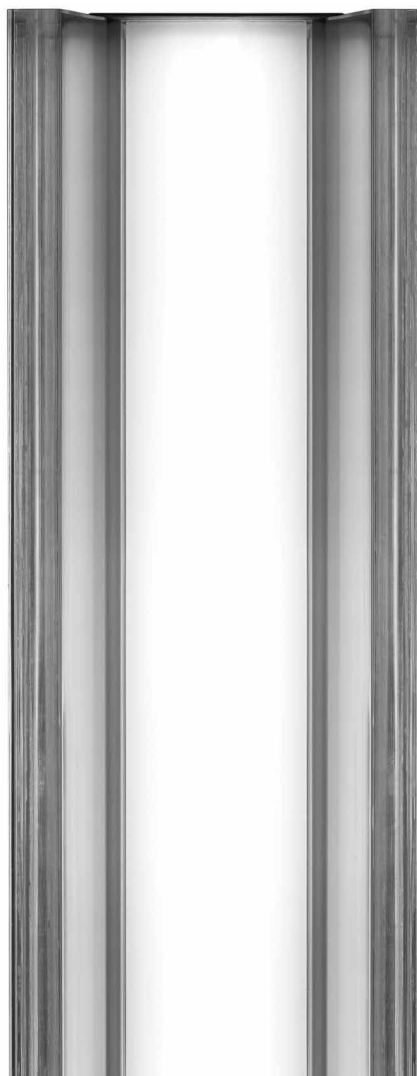
Silver

A. Secondary transparent PMMA lens to optimise light distribution.

B. Secondary satin PMMA lens for soft lighting.

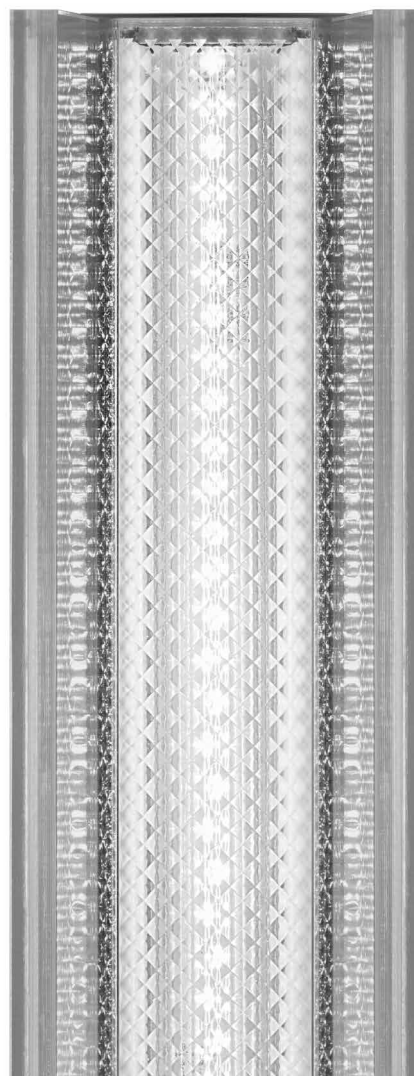
OP

Flat opal
PMMA filter



SP

Flat prismatic
PMMA filter





A

B

PRODUCT RANGE

Direct Emission



Model

SP

OP

Soft SP

CCT (K)

4000

4000

4000

CRI

>80

>80

>80

Luminance

<3000 cd/m²

>3000 cd/m²

<3000 cd/m²

UGR

UGR <19

UGR <22

UGR <19

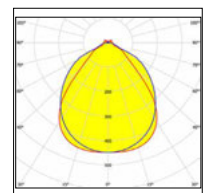
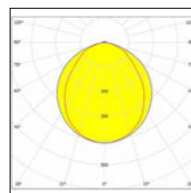
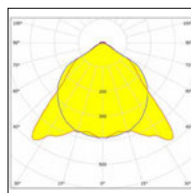
Protection class

IP40

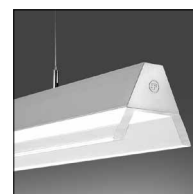
Finishes

Silver | Black | White

Photometric distribution



DI Emission



Model

SP

OP

Soft SP

CCT (K)

4000

4000

4000

CRI

>80

>80

>80

Luminance

<3000 cd/m²

>3000 cd/m²

<3000 cd/m²

UGR

UGR <19

UGR <22

UGR <19

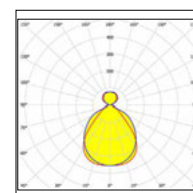
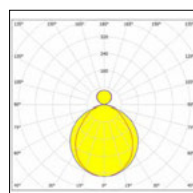
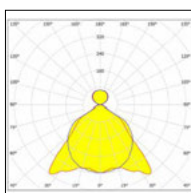
Protection class

IP40

Finishes

Silver | Black | White

Photometric distribution





3F Mirella

Construction characteristics

Illuminotechnical characteristics

Controlled symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium body, zamak heads.
 External lens of particular aesthetic value in transparent PMMA.
 Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics

In compliance with EN 60598-1.

ON/OFF versions

Transparent 3-pole power cable with white ceiling power supply case.

DALI versions

Transparent 5-pole power cable with white ceiling power supply case.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- power and suspension cables of >2 m long

Applications

Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.
 In environments with VDTs, managerial offices and staterooms.

OP version

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

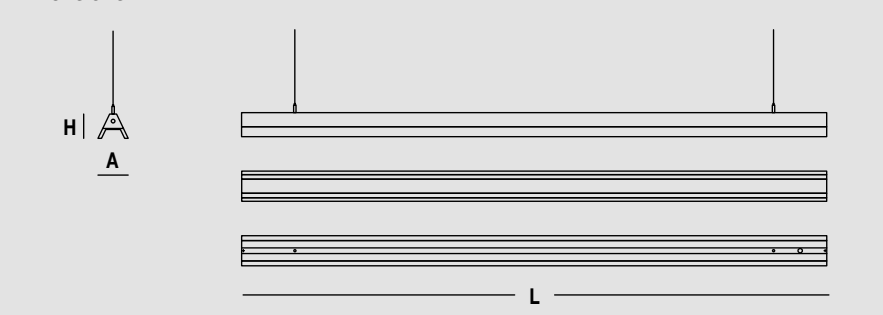
Installation

Suspension installation.

Light Management

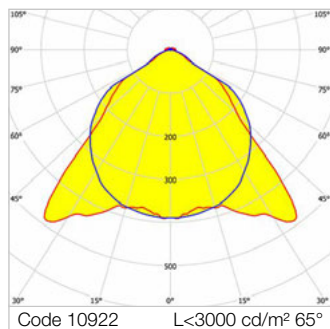
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Mirella SP

Flat diffuser, prismatic in methacrylate



650°C

IP40

1J

IK06



Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
PMMA primary lens for total source shielding.

Flat transparent prismatic PMMA methacrylate filter, multi-lenticular exterior, anti-glare.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

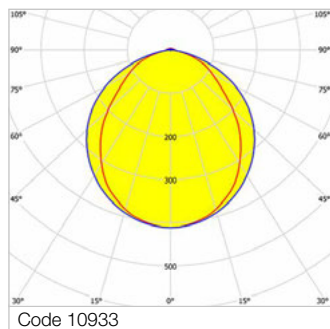
| | | | | | | | |
|---|-------|---------------------------|----|------|------|-----|-------------|
| ○ | 10920 | 3F Mirella WH 40 SP L1480 | 45 | 4741 | 4000 | >80 | 1480x112x91 |
| ○ | 10921 | 3F Mirella WH 60 SP L2200 | 66 | 7112 | 4000 | >80 | 2200x112x91 |
| ● | 10898 | 3F Mirella BK 40 SP L1480 | 45 | 4741 | 4000 | >80 | 1480x112x91 |
| ● | 10899 | 3F Mirella BK 60 SP L2200 | 66 | 7112 | 4000 | >80 | 2200x112x91 |
| ○ | 10942 | 3F Mirella AL 40 SP L1480 | 45 | 4741 | 4000 | >80 | 1480x112x91 |
| ○ | 10943 | 3F Mirella AL 60 SP L2200 | 66 | 7112 | 4000 | >80 | 2200x112x91 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|-------|--------------------------------|----|------|------|-----|-------------|
| ○ | 10922 | 3F Mirella WH 40 DALI SP L1480 | 45 | 4741 | 4000 | >80 | 1480x112x91 |
| ○ | 10923 | 3F Mirella WH 60 DALI SP L2200 | 66 | 7112 | 4000 | >80 | 2200x112x91 |
| ● | 10900 | 3F Mirella BK 40 DALI SP L1480 | 45 | 4741 | 4000 | >80 | 1480x112x91 |
| ● | 10901 | 3F Mirella BK 60 DALI SP L2200 | 66 | 7112 | 4000 | >80 | 2200x112x91 |
| ○ | 10944 | 3F Mirella AL 40 DALI SP L1480 | 45 | 4741 | 4000 | >80 | 1480x112x91 |
| ○ | 10945 | 3F Mirella AL 60 DALI SP L2200 | 66 | 7112 | 4000 | >80 | 2200x112x91 |

3F Mirella OP

Opal PMMA flat diffuser



Flat opal anti-glare PMMA filter.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|-------|---------------------------|----|------|------|-----|-------------|
| ○ | 10931 | 3F Mirella WH 40 OP L1480 | 45 | 4845 | 4000 | >80 | 1480x112x91 |
| ○ | 10932 | 3F Mirella WH 60 OP L2200 | 66 | 7268 | 4000 | >80 | 2200x112x91 |
| ● | 10909 | 3F Mirella BK 40 OP L1480 | 45 | 4845 | 4000 | >80 | 1480x112x91 |
| ● | 10910 | 3F Mirella BK 60 OP L2200 | 66 | 7268 | 4000 | >80 | 2200x112x91 |
| ○ | 10953 | 3F Mirella AL 40 OP L1480 | 45 | 4845 | 4000 | >80 | 1480x112x91 |
| ○ | 10954 | 3F Mirella AL 60 OP L2200 | 66 | 7268 | 4000 | >80 | 2200x112x91 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|-------|--------------------------------|----|------|------|-----|-------------|
| ○ | 10933 | 3F Mirella WH 40 DALI OP L1480 | 45 | 4845 | 4000 | >80 | 1480x112x91 |
| ○ | 10934 | 3F Mirella WH 60 DALI OP L2200 | 66 | 7268 | 4000 | >80 | 2200x112x91 |
| ● | 10911 | 3F Mirella BK 40 DALI OP L1480 | 45 | 4845 | 4000 | >80 | 1480x112x91 |
| ● | 10912 | 3F Mirella BK 60 DALI OP L2200 | 66 | 7268 | 4000 | >80 | 2200x112x91 |
| ○ | 10955 | 3F Mirella AL 40 DALI OP L1480 | 45 | 4845 | 4000 | >80 | 1480x112x91 |
| ○ | 10956 | 3F Mirella AL 60 DALI OP L2200 | 66 | 7268 | 4000 | >80 | 2200x112x91 |





3F Mirella Direct/Indirect

Construction characteristics

Illuminotechnical characteristics

Direct-indirect distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium body, zamak heads.

External lens of particular aesthetic value in transparent PMMA.

Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics

In compliance with EN 60598-1.

ON/OFF versions

Transparent 3-pole power cable with white ceiling power supply case, single ignition.

DALI versions

5-pole transparent power cable with white power supply case for ceiling, single 230V circuit, 2 DALI addresses.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- power and suspension cables of >2 m long
- twin-circuit
- wiring: CLO (more information on page 542)

Applications

Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.

In environments with VDTs, managerial offices and staterooms.

OP version

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

Installation

Suspension installation.

Light Management

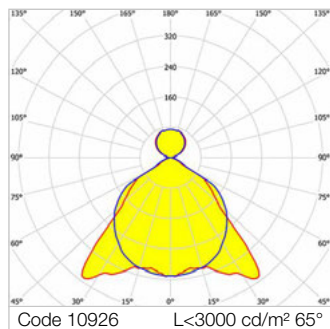
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Mirella DI SP

Flat diffuser, prismatic in methacrylate



650°C

IP40

1J

IK06



PMMA primary lens for total source shielding.
Flat transparent prismatic PMMA methacrylate filter, multi-lenticular exterior, anti-glare.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

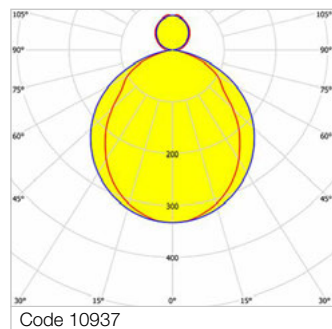
| | | | | | | | |
|----------------------------------|-------|---------------------------------|----|------|------|-----|-------------|
| <input type="radio"/> | 10924 | 3F Mirella WH DI 40+8 SP L1480 | 58 | 5849 | 4000 | >80 | 1480x112x91 |
| <input type="radio"/> | 10925 | 3F Mirella WH DI 60+14 SP L2200 | 88 | 8907 | 4000 | >80 | 2200x112x91 |
| <input checked="" type="radio"/> | 10902 | 3F Mirella BK DI 40+8 SP L1480 | 58 | 5849 | 4000 | >80 | 1480x112x91 |
| <input checked="" type="radio"/> | 10903 | 3F Mirella BK DI 60+14 SP L2200 | 88 | 8907 | 4000 | >80 | 2200x112x91 |
| <input type="radio"/> | 10946 | 3F Mirella AL DI 40+8 SP L1480 | 58 | 5849 | 4000 | >80 | 1480x112x91 |
| <input type="radio"/> | 10947 | 3F Mirella AL DI 60+14 SP L2200 | 88 | 8907 | 4000 | >80 | 2200x112x91 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|----------------------------------|-------|--------------------------------------|----|------|------|-----|-------------|
| <input type="radio"/> | 10926 | 3F Mirella WH DI 40+8 DALI SP L1480 | 58 | 5849 | 4000 | >80 | 1480x112x91 |
| <input type="radio"/> | 10927 | 3F Mirella WH DI 60+14 DALI SP L2200 | 88 | 8907 | 4000 | >80 | 2200x112x91 |
| <input checked="" type="radio"/> | 10904 | 3F Mirella BK DI 40+8 DALI SP L1480 | 58 | 5849 | 4000 | >80 | 1480x112x91 |
| <input checked="" type="radio"/> | 10905 | 3F Mirella BK DI 60+14 DALI SP L2200 | 88 | 8907 | 4000 | >80 | 2200x112x91 |
| <input type="radio"/> | 10948 | 3F Mirella AL DI 40+8 DALI SP L1480 | 58 | 5849 | 4000 | >80 | 1480x112x91 |
| <input type="radio"/> | 10949 | 3F Mirella AL DI 60+14 DALI SP L2200 | 88 | 8907 | 4000 | >80 | 2200x112x91 |

3F Mirella DI OP

Opal PMMA flat diffuser



Flat opal anti-glare PMMA filter.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

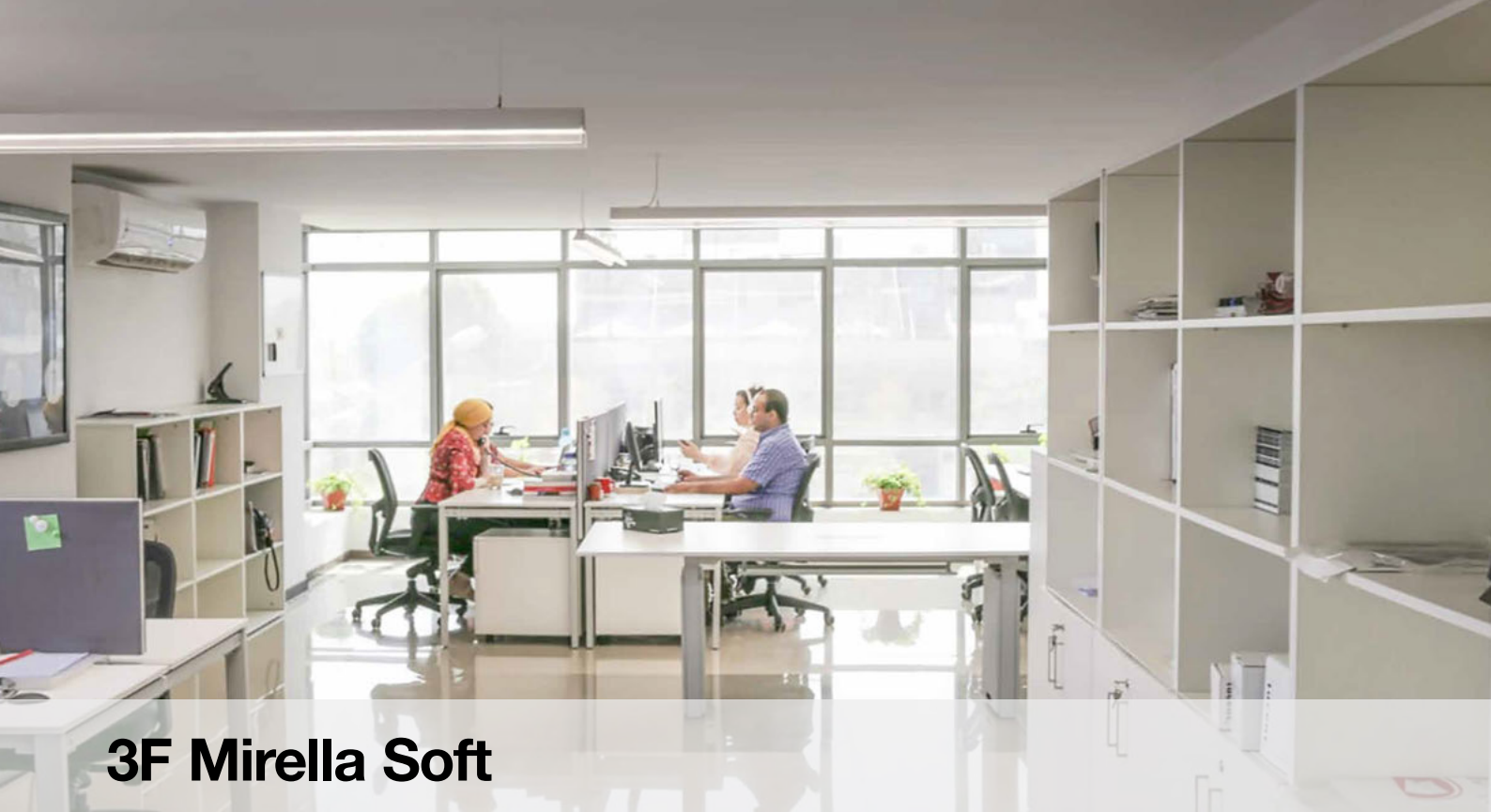
Electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|-------|---------------------------------|----|------|------|-----|-------------|
| ○ | 10935 | 3F Mirella WH DI 40+8 OP L1480 | 58 | 5944 | 4000 | >80 | 1480x112x91 |
| ○ | 10936 | 3F Mirella WH DI 60+14 OP L2200 | 88 | 9051 | 4000 | >80 | 2200x112x91 |
| ● | 10913 | 3F Mirella BK DI 40+8 OP L1480 | 58 | 5944 | 4000 | >80 | 1480x112x91 |
| ● | 10914 | 3F Mirella BK DI 60+14 OP L2200 | 88 | 9051 | 4000 | >80 | 2200x112x91 |
| ○ | 10957 | 3F Mirella AL DI 40+8 OP L1480 | 58 | 5944 | 4000 | >80 | 1480x112x91 |
| ○ | 10958 | 3F Mirella AL DI 60+14 OP L2200 | 88 | 9051 | 4000 | >80 | 2200x112x91 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|-------|--------------------------------------|----|------|------|-----|-------------|
| ○ | 10937 | 3F Mirella WH DI 40+8 DALI OP L1480 | 58 | 5944 | 4000 | >80 | 1480x112x91 |
| ○ | 10938 | 3F Mirella WH DI 60+14 DALI OP L2200 | 88 | 9051 | 4000 | >80 | 2200x112x91 |
| ● | 10915 | 3F Mirella BK DI 40+8 DALI OP L1480 | 58 | 5944 | 4000 | >80 | 1480x112x91 |
| ● | 10916 | 3F Mirella BK DI 60+14 DALI OP L2200 | 88 | 9051 | 4000 | >80 | 2200x112x91 |
| ○ | 10959 | 3F Mirella AL DI 40+8 DALI OP L1480 | 58 | 5944 | 4000 | >80 | 1480x112x91 |
| ○ | 10960 | 3F Mirella AL DI 60+14 DALI OP L2200 | 88 | 9051 | 4000 | >80 | 2200x112x91 |





3F Mirella Soft

Construction characteristics

Illuminotechnical characteristics

Controlled symmetric distribution.
 Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium body, zamak heads.
 PMMA primary lens for total source shielding.
 Brushed methacrylate PMMA prismatic flat anti-glare filter, multi lenticular on the outside.
 External lens of particular aesthetic value in satin PMMA.
 Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics

In compliance with EN 60598-1.

ON/OFF versions

Transparent 3-pole power cable with white ceiling power supply case.

DALI versions

Transparent 5-pole power cable with white ceiling power supply case.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- power and suspension cables of >2 m long

Applications

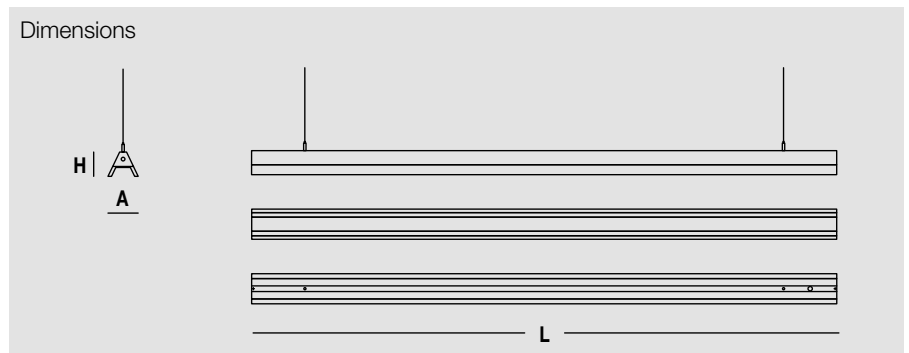
Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.
 In environments with VDTs, managerial offices and staterooms.

Installation

Suspension installation.

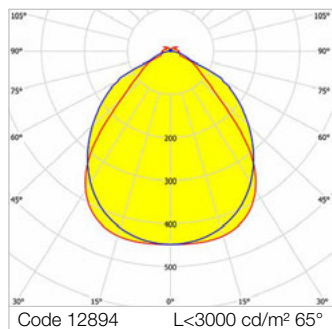
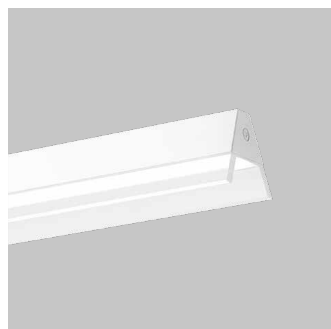
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).



3F Mirella Soft SP

Flat diffuser, prismatic in methacrylate



650°C

IP40

1J

IK06



| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|-------|------------------------------|----|------|------|-----|-------------|
| ○ | 12892 | 3F Mirella SF WH 40 SP L1480 | 45 | 3964 | 4000 | >80 | 1480x112x91 |
| ○ | 12893 | 3F Mirella SF WH 60 SP L2200 | 66 | 5947 | 4000 | >80 | 2200x112x91 |
| ● | 12870 | 3F Mirella SF BK 40 SP L1480 | 45 | 3964 | 4000 | >80 | 1480x112x91 |
| ● | 12871 | 3F Mirella SF BK 60 SP L2200 | 66 | 5947 | 4000 | >80 | 2200x112x91 |
| ○ | 12914 | 3F Mirella SF AL 40 SP L1480 | 45 | 3964 | 4000 | >80 | 1480x112x91 |
| ○ | 12915 | 3F Mirella SF AL 60 SP L2200 | 66 | 5947 | 4000 | >80 | 2200x112x91 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|-------|-----------------------------------|----|------|------|-----|-------------|
| ○ | 12894 | 3F Mirella SF WH 40 DALI SP L1480 | 45 | 3964 | 4000 | >80 | 1480x112x91 |
| ○ | 12895 | 3F Mirella SF WH 60 DALI SP L2200 | 66 | 5947 | 4000 | >80 | 2200x112x91 |
| ● | 12872 | 3F Mirella SF BK 40 DALI SP L1480 | 45 | 3964 | 4000 | >80 | 1480x112x91 |
| ● | 12873 | 3F Mirella SF BK 60 DALI SP L2200 | 66 | 5947 | 4000 | >80 | 2200x112x91 |
| ○ | 12916 | 3F Mirella SF AL 40 DALI SP L1480 | 45 | 3964 | 4000 | >80 | 1480x112x91 |
| ○ | 12917 | 3F Mirella SF AL 60 DALI SP L2200 | 66 | 5947 | 4000 | >80 | 2200x112x91 |



3F Mirella Soft Direct/Indirect

Construction characteristics

Illuminotechnical characteristics

Direct-indirect distribution.
 Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium body, zamak heads.
 PMMA primary lens for total source shielding.
 Brushed methacrylate PMMA prismatic flat anti-glare filter, multi lenticular on the outside.
 External lens of particular aesthetic value in satin PMMA.
 Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics

In compliance with EN 60598-1.

ON/OFF versions

Transparent 3-pole power cable with white ceiling power supply case, single ignition.

DALI versions

5-pole transparent power cable with white power supply case for ceiling, single 230V circuit, 2 DALI addresses.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- power and suspension cables of >2 m long
- twin-circuit

Applications

Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.
 In environments with VDTs, managerial offices and staterooms.

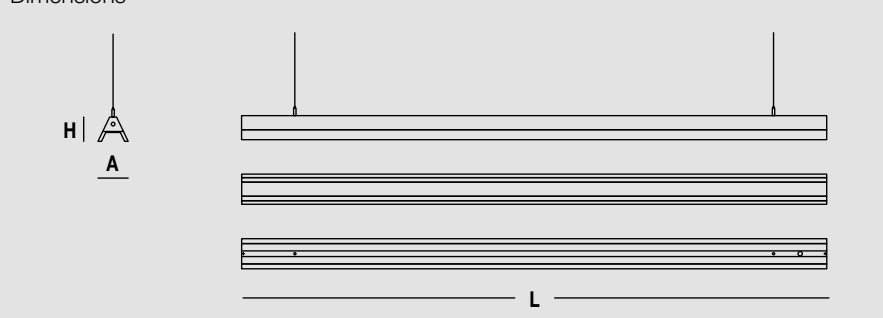
Installation

Suspension installation.

Light Management

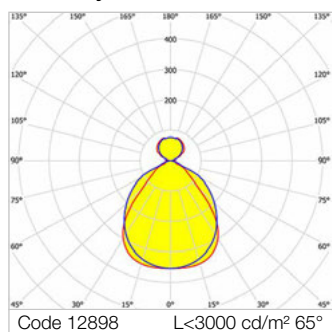
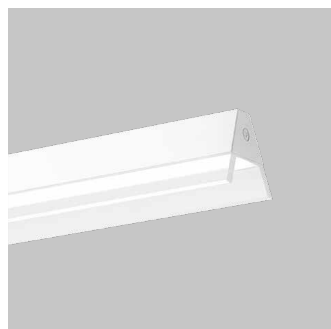
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Mirella Soft DI SP

Flat diffuser, prismatic in methacrylate



650°C

IP40

1J

IK06



| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|-------|------------------------------------|----|------|------|-----|-------------|
| ○ | 12896 | 3F Mirella SF WH DI 40+8 SP L1480 | 58 | 5018 | 4000 | >80 | 1480x112x91 |
| ○ | 12897 | 3F Mirella SF WH DI 60+14 SP L2200 | 88 | 7641 | 4000 | >80 | 2200x112x91 |
| ● | 12874 | 3F Mirella SF BK DI 40+8 SP L1480 | 58 | 5018 | 4000 | >80 | 1480x112x91 |
| ● | 12875 | 3F Mirella SF BK DI 60+14 SP L2200 | 88 | 7641 | 4000 | >80 | 2200x112x91 |
| ○ | 12918 | 3F Mirella SF AL DI 40+8 SP L1480 | 58 | 5018 | 4000 | >80 | 1480x112x91 |
| ○ | 12919 | 3F Mirella SF AL DI 60+14 SP L2200 | 88 | 7641 | 4000 | >80 | 2200x112x91 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|-------|---|----|------|------|-----|-------------|
| ○ | 12898 | 3F Mirella SF WH DI 40+8 DALI SP L1480 | 58 | 5018 | 4000 | >80 | 1480x112x91 |
| ○ | 12899 | 3F Mirella SF WH DI 60+14 DALI SP L2200 | 88 | 7641 | 4000 | >80 | 2200x112x91 |
| ● | 12876 | 3F Mirella SF BK DI 40+8 DALI SP L1480 | 58 | 5018 | 4000 | >80 | 1480x112x91 |
| ● | 12877 | 3F Mirella SF BK DI 60+14 DALI SP L2200 | 88 | 7641 | 4000 | >80 | 2200x112x91 |
| ○ | 12920 | 3F Mirella SF AL DI 40+8 DALI SP L1480 | 58 | 5018 | 4000 | >80 | 1480x112x91 |
| ○ | 12921 | 3F Mirella SF AL DI 60+14 DALI SP L2200 | 88 | 7641 | 4000 | >80 | 2200x112x91 |



3F Mirella Floor

Construction characteristics

Illuminotechnical characteristics

Direct-indirect distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium body, zamak heads.

Transparent methacrylate PMMA micro prismatic primary anti-glare lens, multi lenticular on the outside.

Anti-glare opal polycarbonate filter for brightness uniformity.

External lens of particular aesthetic value in satin PMMA.

Painted stainless steel square section pole. Base in painted steel.

Electrical characteristics

In compliance with EN 60598-1.

Power supply with a 2.5 m long transparent cable, schuko plug.

ON/OFF versions

Foot switch, single switch-on.

DALI versions

Touch DALI touch control integrated in the stem, for switching on and off and independent adjustment of the two emissions.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- body, pole and base in different RAL colours
- wiring: CLO (more information on page 542)
- different power cables

Applications

Environments which cannot, for technical reasons, be equipped with points of light directed onto the ceiling.

Open-space offices and environments in which a high degree of workstation flexibility is required.

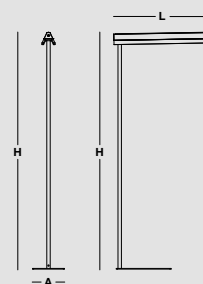
Environments: staterooms, with VDTs, offices.

Environments where soft diffuse light is required for optimal visual comfort.

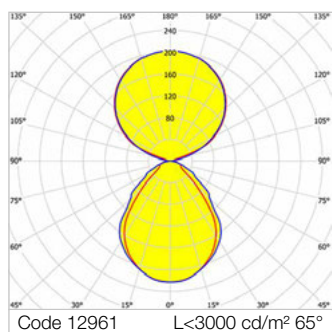
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Mirella Floor



650°C

IP40

Driver/LED
SELV

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|----------------------------------|-------|------------------------------|----|------|------|-----|--------------|
| <input type="radio"/> | 12961 | 3F Mirella Floor SF WH 23+23 | 52 | 6754 | 4000 | >80 | 843x280x2060 |
| <input checked="" type="radio"/> | 12960 | 3F Mirella Floor SF BK 23+23 | 52 | 6754 | 4000 | >80 | 843x280x2060 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|----------------------------------|-------|---|----|------|------|-----|--------------|
| <input type="radio"/> | 12965 | 3F Mirella Floor SF WH 23+23 Touch DALI | 52 | 6754 | 4000 | >80 | 843x280x2060 |
| <input checked="" type="radio"/> | 12964 | 3F Mirella Floor SF BK 23+23 Touch DALI | 52 | 6754 | 4000 | >80 | 843x280x2060 |



THE
CORNER

THE
CORNER

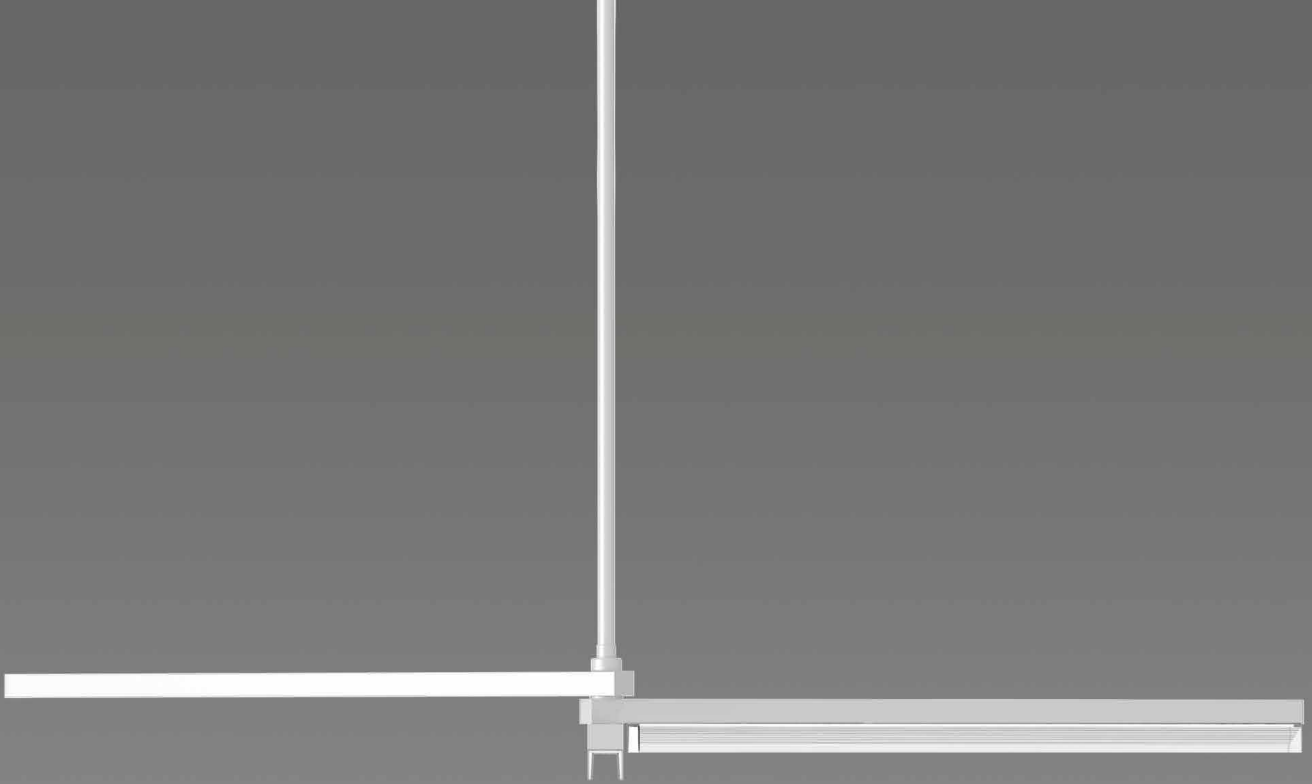
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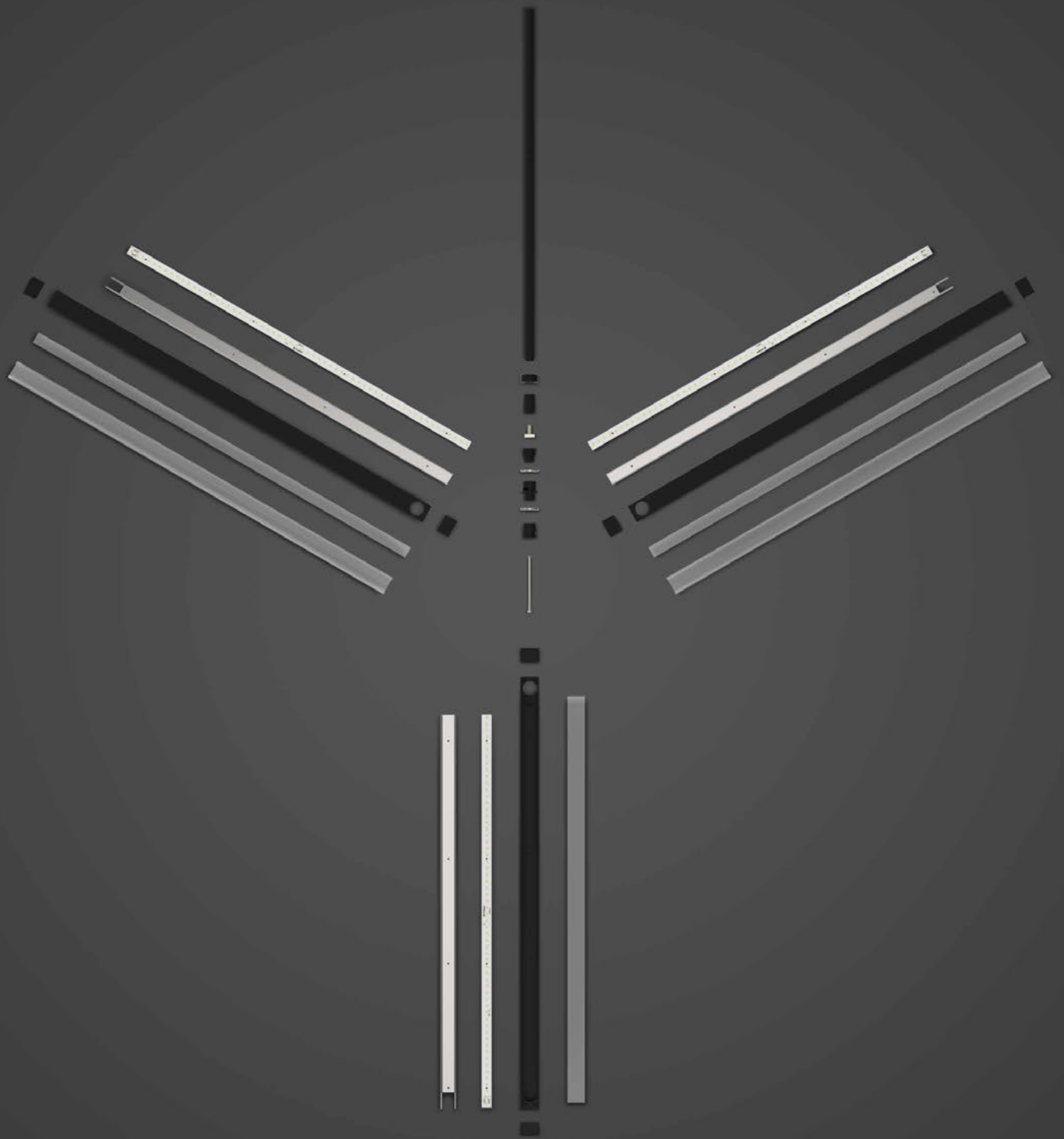
THE
CORNER



3F Trittico

Design: **Atelier(s) Alfonso Femia**

Ceiling mounted light fixture equipped with LED sources.
3F Trittico is composed of three arms of around 800 mm, two for direct lighting and one for indirect lighting.
Conceived mainly to light offices this fixture is ideal to adapt to changes in the layout of spaces. The three arms on the fixture can rotate perpendicularly to the supporting rod to provide the best lighting depending on the activity carried out in the space and the arrangement of the furniture.





Atelier(s) Alfonso Femia

“3F Trittico is designed for every type of space, obviously starting from the operational sphere of contemporary offices right up to the domestic environment. This is because in order for objects to come into contact with us and speak to us they must know how to contaminate and defile and belong to us”.

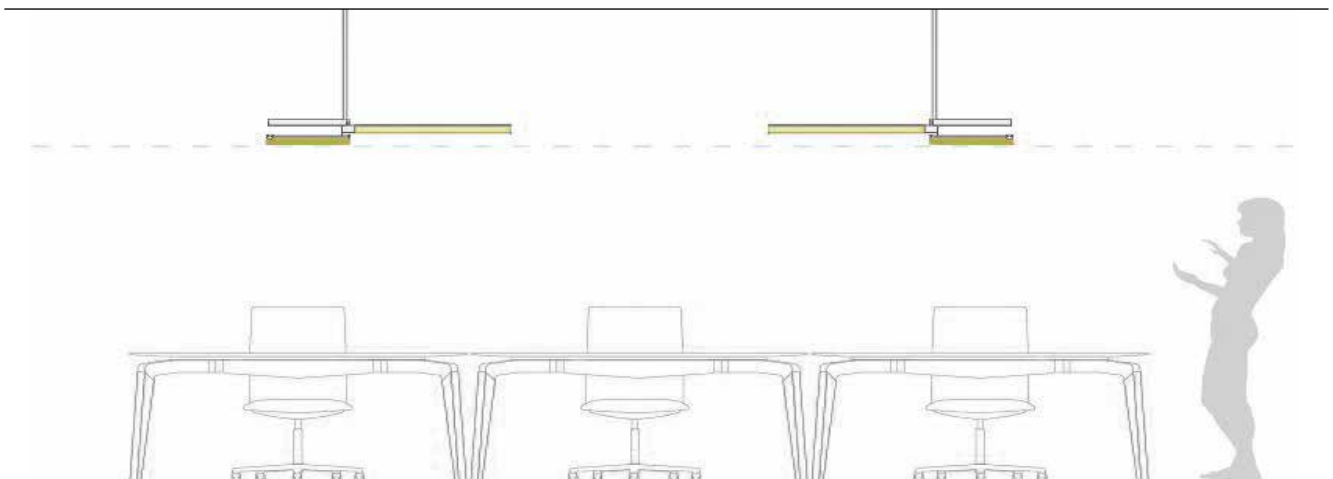
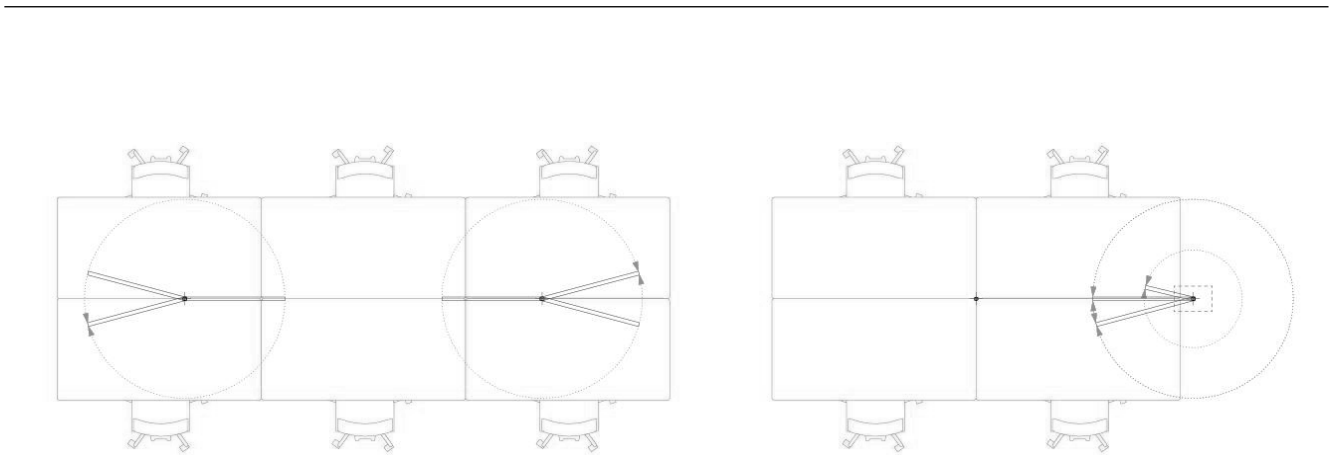
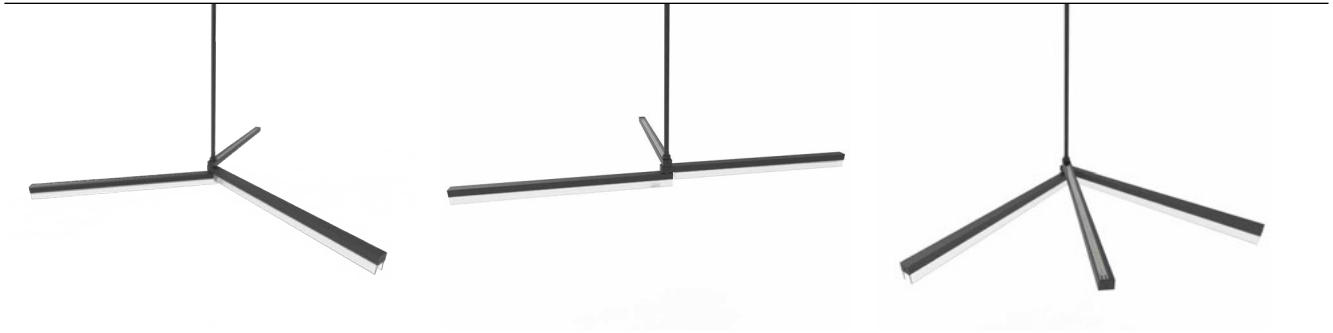
With 3F Trittico the light integrates perfectly in the space by designing shapes.

It shape evolves to adapt to the necessity of the context and the time with a light that sees its method of use evolve, from more technical for offices to decorative for general areas. 3F Trittico starts and develops from a simple element like a line to become increasingly more complex in its layers of souls, light and fixture.



VERSATILITY

Minimum angle between light elements of 52 degrees.
Maximum angle between light elements 308 degrees.



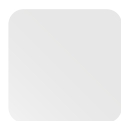
SCREENS AND FINISHES

3F Trittico is available with an opaque black and white finish with aluminium arms and a steel supporting rod. Indirect lighting is filtered by a translucent PMMA screen, while the desktop version is diffused with a satin extruded PMMA lens with a design that minimises the level of glare.

INDIRECT LIGHT

Flat opal
PMMA filter

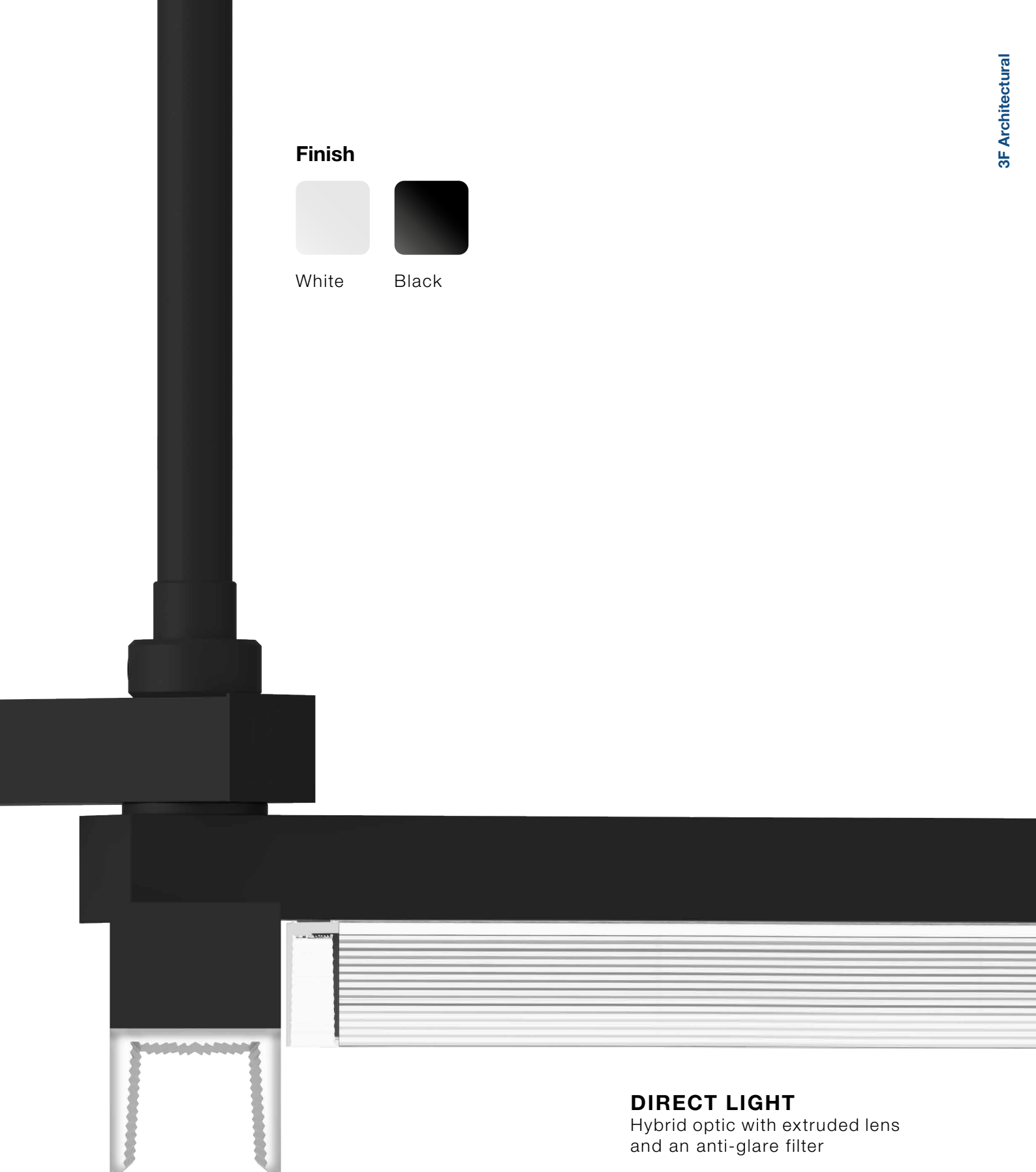
Finish



White



Black



DIRECT LIGHT

Hybrid optic with extruded lens
and an anti-glare filter



3F Trittico

Construction characteristics

Illuminotechnical characteristics

Direct-indirect distribution.
 Lifetime (L92/B10): 30000 h. (tq+25°C)
 Lifetime (L85/B10): 50000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium housing.
 Fixture composed of three independent adjustable arms that can be moved separately.
 Non-iridescent high efficiency aluminium with a titanium and magnesium surface treatment flow recuperator.
 Transparent PMMA methacrylate anti-glare filter.
 Arms for direct lighting with satin PMMA methacrylate lenses.
 Arm for indirect lighting with a translucent polycarbonate screen.
 Polycarbonate heads.
 Steel suspension fixture with poles H 300-500-800 mm with a brass rotation mechanism.

Electrical characteristics

In compliance with EN 60598-1.
 Peripheral cabling unit to recess into the ceiling.
 Class II.
 4-pole terminal block, single 230V circuit, 2 DALI addresses.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- LED sources with different colour temperatures
- housing in different RAL colours
- wiring: CLO (more information on page 542)
- version for ceiling installation
- maximum pole height 1.3 m

Applications

Environments: with VDTs, meeting rooms, offices.
 Environments: architectural, commercial, staterooms, banks.
 Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

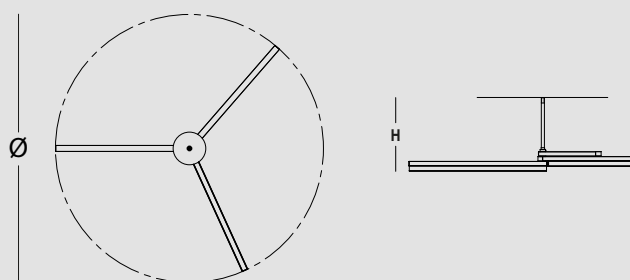
Installation

Installing mineral fibre or metal panels in plasterboard ceilings.
 Warning: to install this fixture it is necessary to buy one of the following four accessories (A0828 / A0829 / A0830 / A0831) depending on the kind of ceiling to be used.

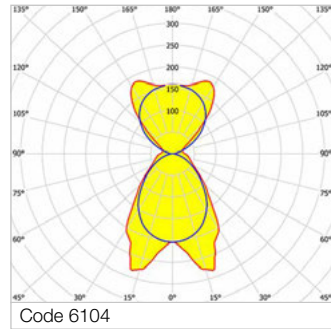
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Trittico



650°C

IP20

0,2J

IK02

Driver/LED
SELV

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

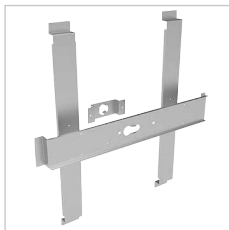
| | | | | | | | |
|---|------|---------------------------------------|----|------|------|-----|---------------|
| ○ | 6104 | 3F Trittico WH 12+12+15/835 DALI H300 | 45 | 5748 | 3500 | >80 | 1560x1560x300 |
| ○ | 6107 | 3F Trittico WH 12+12+15/835 DALI H500 | 45 | 5748 | 3500 | >80 | 1560x1560x500 |
| ○ | 6110 | 3F Trittico WH 12+12+15/835 DALI H800 | 45 | 5748 | 3500 | >80 | 1560x1560x800 |
| ● | 6105 | 3F Trittico BK 12+12+15/835 DALI H300 | 45 | 5748 | 3500 | >80 | 1560x1560x300 |
| ● | 6108 | 3F Trittico BK 12+12+15/835 DALI H500 | 45 | 5748 | 3500 | >80 | 1560x1560x500 |
| ● | 6111 | 3F Trittico BK 12+12+15/835 DALI H800 | 45 | 5748 | 3500 | >80 | 1560x1560x800 |

3F Trittico Accessories



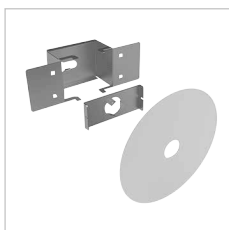
Hot-dip galvanised steel fixture installation bracket for metal panel false ceilings 600x600 with hidden structure with perpendicular adjustment rod screws.

| Code | Item |
|-------|------------------------------------|
| A0828 | Trittico fixing 60x60 metal panels |



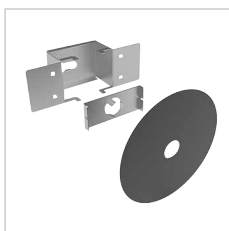
Hot-dip galvanised steel fixture installation bracket for mineral fibre panel false ceilings 600x600 with visible structure with perpendicular adjustment rod screws.

| Code | Item |
|-------|--|
| A0829 | Trittico Fixing Mineral fiber panels 60x60 |



Hot-dip galvanised steel fixture installation bracket for plasterboard false ceilings with perpendicular adjustment rod screws. White painted canopy with a Ø 120 mm hole.

| Code | Item |
|-------|---------------------------------|
| A0830 | Fixing Trittico plasterboard WH |



Hot-dip galvanised steel fixture installation bracket for plasterboard false ceilings with perpendicular adjustment rod screws. Black painted canopy with a Ø 120 mm hole.

| Code | Item |
|-------|---------------------------------|
| A0831 | Fixing Trittico plasterboard BK |







3F Filoluce

Design: **GEZA Architettura**

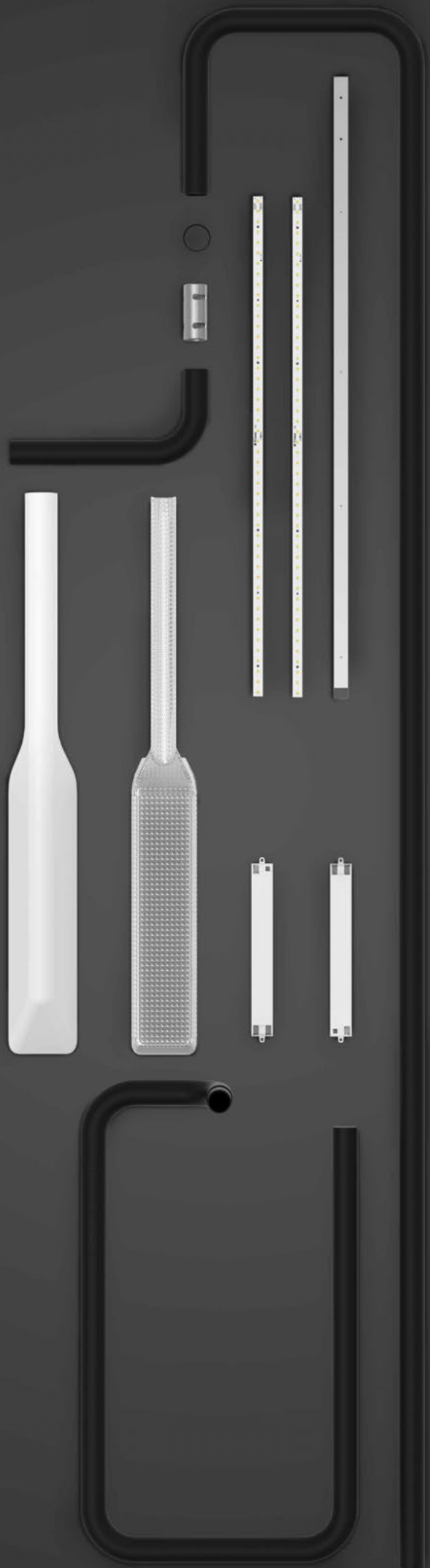
A free-standing steel luminaire fitted with a white opal methacrylate diffuser and a prismatic screen designed for the workplace.

The lightness of the shape allows 3F Filoluce to fit easily into every context, establishing a relationship with the same through the various curves that form the sinuous vertical arm with a constant diameter of 38 mm, from the base right up to the diffuser.

Fitted with a touch ignition system located in the vertical part the fixture provides comfortable lighting that is particularly suitable for office environments.

With 3F Filoluce design and quality combine in a single element with a sleek, unusual shape designed to enhance the work environment from a technical and aesthetic point of view.







GEZA

Architettura

“For the shape of 3F Filoluce we took our inspiration from paper clips, objects that symbolically represent working in an office.”

The idea behind this light fixture is a reflection on the new demands of contemporary offices combined with a re-visitation of the industrial diffuser which is the soul of 3F Filippi.

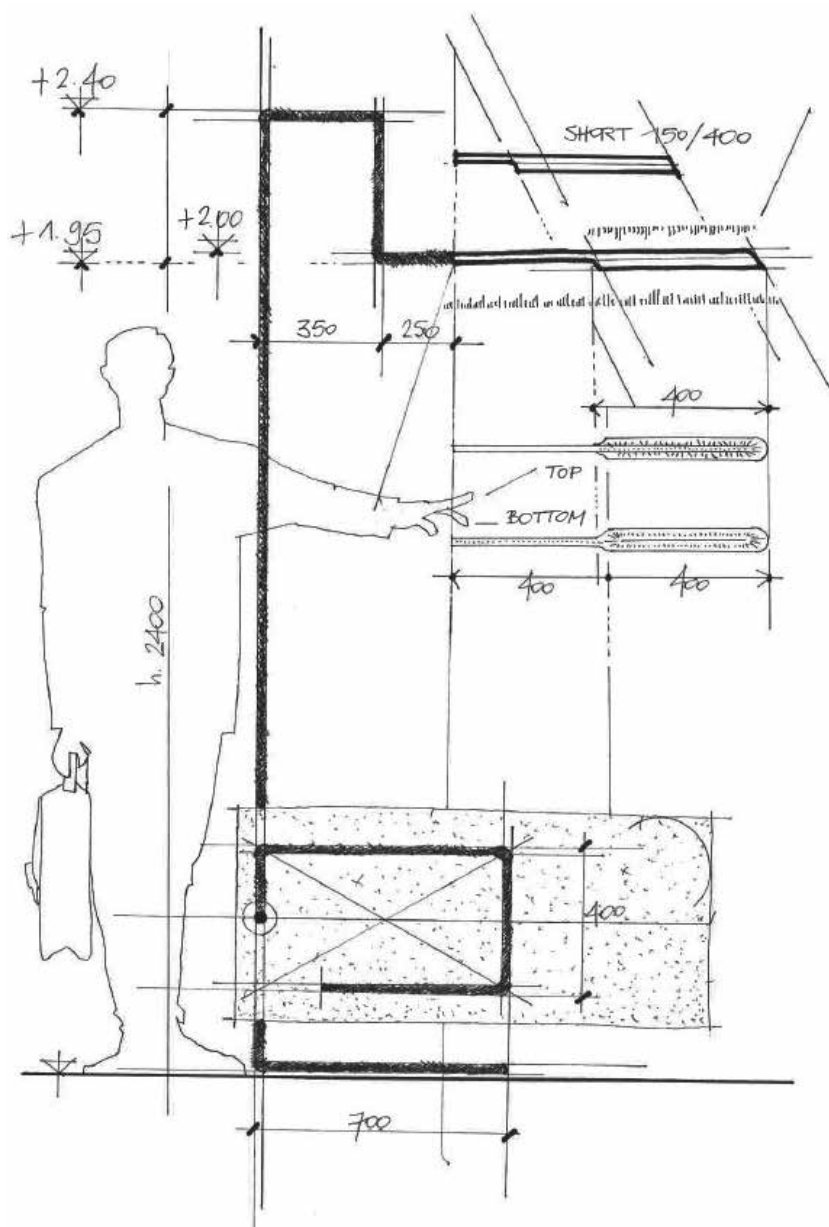
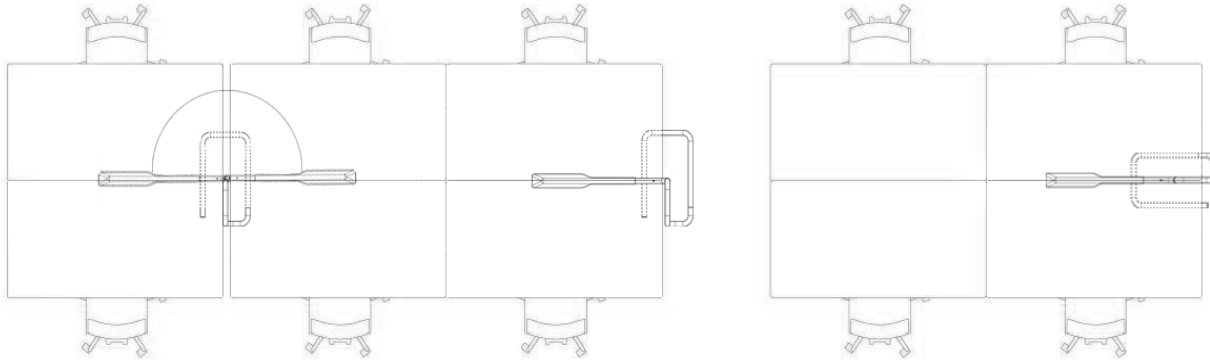
Given increasing requests for flexibility a free-standing luminaire was chosen that could be the ideal solution for lighting these new working environments. The light fixture is suitable to be used individually or in series and can be freely positioned to characterise the architectural quality of the space. The thin shaped fixture with a monumental architectural presence evolves into a series of curves to reach desks.

As it rises from the ground the fixture turns downwards as if to evoke the effect of a suspension lamp to then end parallel to the work station with an unusual opaque white diffuser whose shape allows for an effective distribution of the luminous flux. The upper arm can rotate to 90° to disengage from the encumbrance of the base to adapt to various workstation configurations.



VERSATILITY

The light element has a 180 degree rotation angle.



SCREENS AND FINISHES

3F Filoluce is available in black, white, red and anthracite versions. Its direct and indirect light is distributed downwards using a trapezoidal prismatic diffuser and upwards using an opal element: a mix that makes the working environment relaxing while at the same time ensuring excellent visual comfort on work stations.

OP
Flat opal
PMMA filter

SP
Prismatic
PMMA filter



Finish



White



Black



Red



Anthracite





3F Filoluce

Construction characteristics

Illuminotecnical characteristics

Direct-indirect distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math> (direct emission).
Lifetime (L92/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Painted steel filiform tubular body.
Aluminium LED housing compartment with a thermal heat sink function.
Particularly eye-catching opal and transparent prismatic PMMA diffuser to optimise light distribution.
The luminous part can be rotated 180° horizontally to optimise positioning in the workplace.

Electrical characteristics

In compliance with EN 60598-1.
Touch DALI touch control integrated in the stem, for switching on and off and independent adjustment of the two emissions.
Power supply with a 2.5 m long transparent cable, schuko plug.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- single-circuit wiring
- different power cables

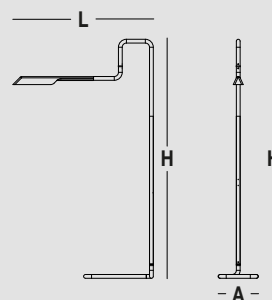
Applications

Environments which cannot, for technical reasons, be equipped with points of light directed onto the ceiling.
Open-space offices and environments in which a high degree of workstation flexibility is required.
Environments: staterooms, with VDTs, offices.
Environments where soft diffuse light is required for optimal visual comfort.

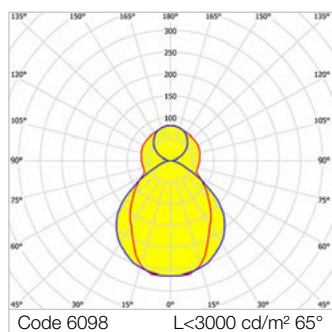
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Filoluce



| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---|---------------------|--------------------------------------|----|------|------|-----|---------------|
| ○ | 6094 | 3F Filoluce WH 16+23W/835 Touch DALI | 45 | 4631 | 3500 | >80 | 1410x400x2400 |
| ○ | 6098 | 3F Filoluce WH 16+23W/840 Touch DALI | 45 | 4953 | 4000 | >80 | 1410x400x2400 |
| ● | 6095 | 3F Filoluce BK 16+23W/835 Touch DALI | 45 | 4631 | 3500 | >80 | 1410x400x2400 |
| ● | 6099 | 3F Filoluce BK 16+23W/840 Touch DALI | 45 | 4953 | 4000 | >80 | 1410x400x2400 |
| ● | 6096 ^{NEW} | 3F Filoluce AN 16+23W/835 Touch DALI | 45 | 4631 | 3500 | >80 | 1410x400x2400 |
| ● | 6100 ^{NEW} | 3F Filoluce AN 16+23W/840 Touch DALI | 45 | 4953 | 4000 | >80 | 1410x400x2400 |
| ● | 6097 ^{NEW} | 3F Filoluce RD 16+23W/835 Touch DALI | 45 | 4631 | 3500 | >80 | 1410x400x2400 |
| ● | 6101 ^{NEW} | 3F Filoluce RD 16+23W/840 Touch DALI | 45 | 4953 | 4000 | >80 | 1410x400x2400 |





3F Sound Lux

Design: **3F Filippi + Mascagni**

3F Sound Lux is a fixture that has been developed to provide innovative lighting in the workplace. The fixture is the result of a combination of different materials and lighting excellence.

The light fixture is composed of an acoustic panel covered with a microperforated laminate and is fitted with a LED source that emits a white light (3000 degrees Kelvin).

This light fixture was designed to provide the best visual and acoustic comfort to make working environments more welcoming. Available with various finishes so as to integrate perfectly with its surroundings 3F Sound Lux can also be suspension installed.

Its design also makes it particularly versatile because its modules allow for easy reconfiguration to suit any environment to adapt effectively if the furniture is rearranged in the work space.

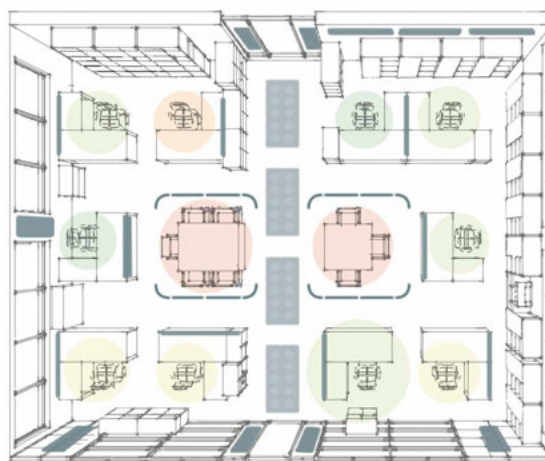
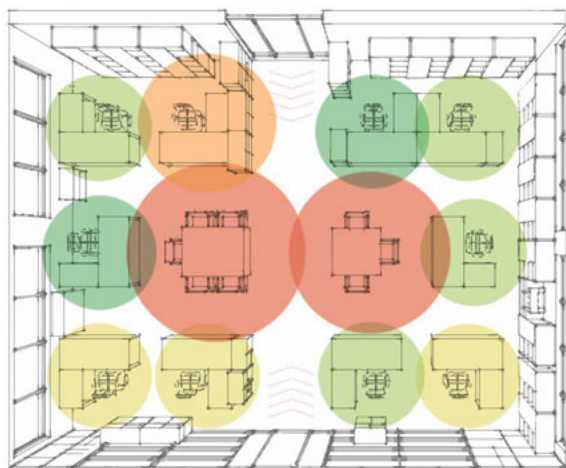
3F Sound Lux was developed in collaboration with Mascagni S.p.A., the Italian brand of excellence in the design and manufacture of office furniture.

Collaboration started by integrating 3F Filippi's lighting know-how with Mascagni's vast experience and design capabilities in creating high-end professional furnishings.

This highly technical partnership confirms 3F Filippi's determination to obtain the same results for work environments that they have already achieved on a global level in the Industrial and Retail lighting sectors.



ACOUSTIC WELLBEING



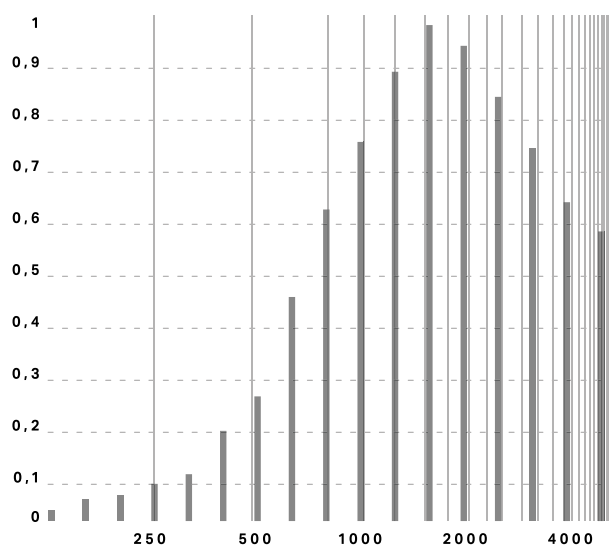
A general approach is not suitable to consider space for personal, group, work or leisure use where sound becomes an important factor for comfort and productivity.

Every place has their own characteristics that can vary according to the number of people in it and the way it is built and the materials used. For every space it is necessary to study a specific solution: there are no constraints defined without careful control.

Accurate analysis of an open space, for example must start with the interaction between the people who work there and how they work. Different jobs require different levels of concentration and interaction.

With careful and rational arrangement of the acoustic panels, living spaces go back to being comfortable just as work becomes more productive and bad habits give way to consistent communication.

ACOUSTIC PERFORMANCE



The acoustic performance of the 3F Sound Lux panels was assessed using special measurements in a reverberation chamber carried out by the Giordano Institute (an internationally recognised Certification Body). The values obtained confirmed the exceptional sound absorption of the panel in the frequency range of speech. The panel is certified as class A, the best among the categories defined in EN ISO 11654, in the speech spectrum in octave bands from 1000 a 4000 Hz. The 3F Sound Lux acoustic panel covers a range of frequencies from 500 to 5000 Hz with excellent results from between 1000 and 1250 Hz where it reaches a value of 99%.

The technology and materials used ensure that the acoustic panels have Class 1 Fire Reaction Classification (reference to B S2 d0 certification with reference to European standard EN13501-1).

SCREENS AND FINISHES

Sound Lux technology makes it possible to resolve complex issues easily.

Starting with energy wastage which is eliminated thanks to the special lenses applied to the LED sources which were designed and produced entirely by 3F Filippi, which allow for efficiency of 97% (a value that places this fixture at the top of its class). These lenses also have a significant effect on the visual comfort of the light fixture. Installed on desks Sound Lux prevents annoying reflections on computer screens and mobile devices and does not produce any glare that could disturb colleagues sitting at other work stations.

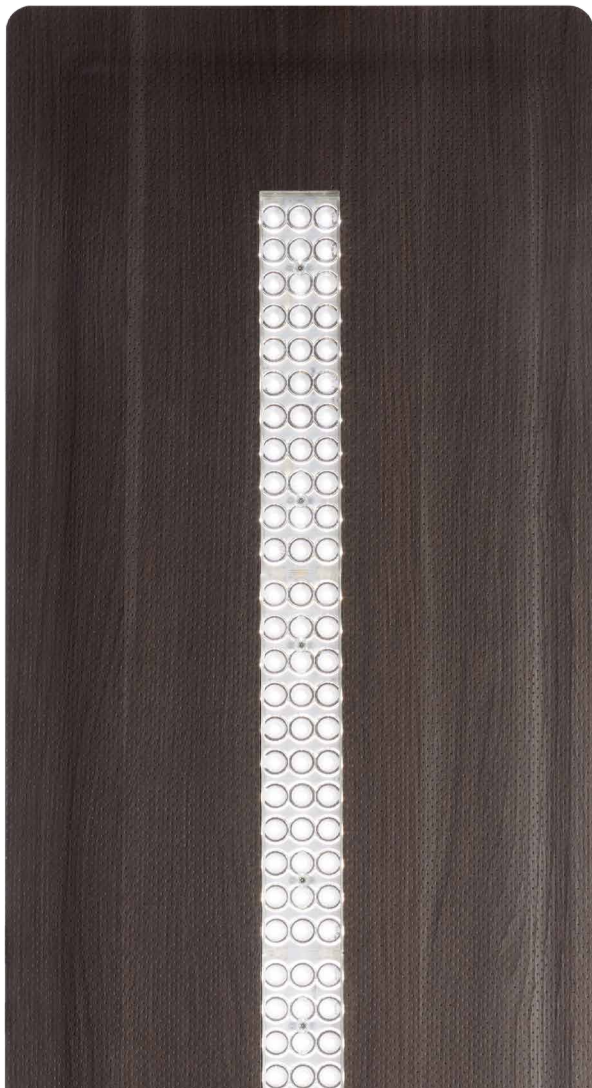
DALI dimmable cabling also increases its ease of use making it possible to adjust the power and brightness as required or in an automated way.

PMMA lenses

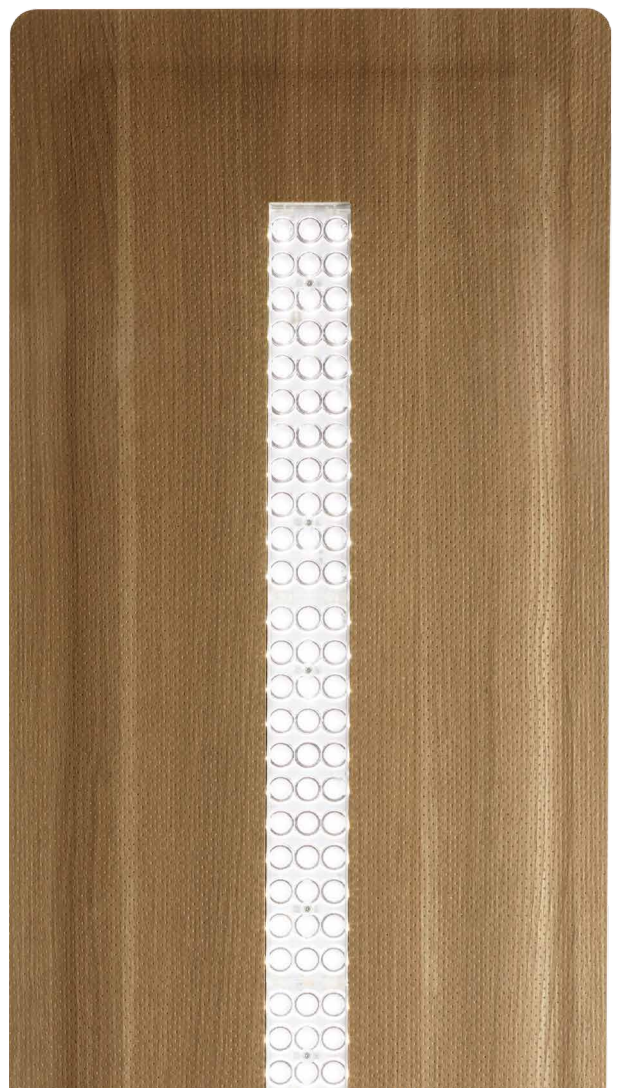
Average luminance <math><3000\text{ cd/m}^2</math> for corners >math>65^\circ</math> radial.

Finish

Black Forest



Walnut





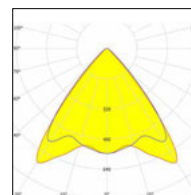
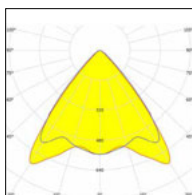
PRODUCT RANGE

Direct Emission



| Model | 450 | 900 |
|-------------------------|-------------------------|-------------------------|
| CCT (K) | 3000 | 3000 |
| CRI | >90 | >90 |
| Brightness | <3000 cd/m ² | <3000 cd/m ² |
| UGR | UGR <19 | UGR <19 |
| Product dimensions (mm) | 1780 x 450 x 43 | 1780 x 900 x 43 |
| Protection class | IP40 | |
| Finish | Black Forest Walnut | |

Photometric distribution



Direct/Indirect Emission



Model

450

900

CCT (K)

3000

3000

CRI

>90

>90

Brightness

<3000 cd/m²

<3000 cd/m²

UGR

UGR <19

UGR <19

Product dimensions (mm)

1780 x 450 x 43

1780 x 900 x 43

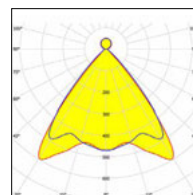
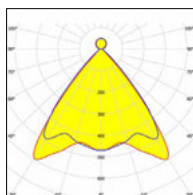
Protection class

IP40

Finish

Black Forest | Walnut

Photometric distribution





3F Sound Lux

Construction characteristics

Illuminotechnical characteristics

Controlled symmetric distribution.
 Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Acoustic

3F Sound Lux acoustic panel covers a range of frequencies from 500 to 5000 Hz, with exceptional results in the range from 1000 to 1250 Hz where it reaches a value of 99%.
 Certified as class A, (UNI EN ISO 11654) in the speech spectrum in octave bands from 1000 to 4000 Hz.

Mechanical characteristics

The lighting fixture consists of an acoustic panel covered by a micro-perforated layer of natural wood.
 Hot-galvanized steel lighting unit coated with a polyester based paint enclosed in a stainless steel casing.

Transparent methacrylate controlled distribution lenses with flat external surface.
 Suspensions fitted with chrome bosses and quick-acting regulator, 2 m galvanized steel cable.

Electrical characteristics

In compliance with EN 60598-1.
 Transparent 5-pole power cable with white ceiling power supply case.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- body with a tobacco finish

Applications

Environments with video terminals, executive, open space and representative offices.

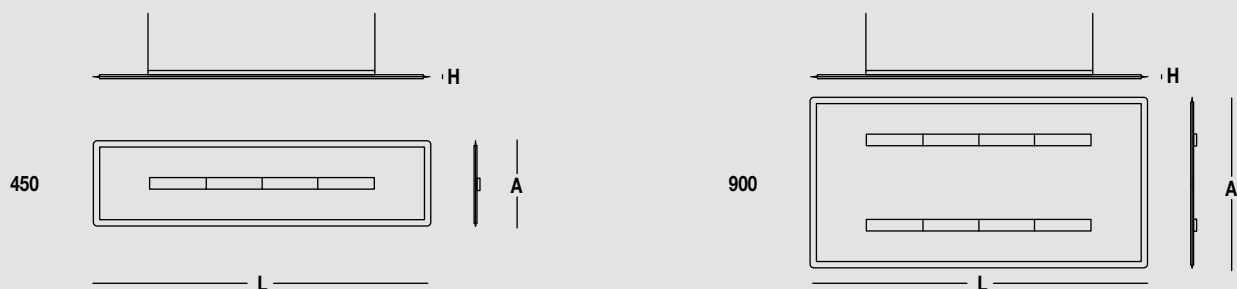
Installation

Suspension installation.

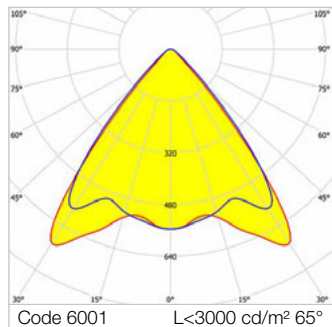
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Sound Lux



CE
650°C
IP40
1J
IK06

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|---------------------------------|----|------|------|-----|-------------|
| ● 6001 | 3F Sound Lux 450 RE 35/930 DALI | 37 | 4197 | 3000 | >90 | 1780x450x43 |
| ● 6007 | 3F Sound Lux 900 RE 70/930 DALI | 74 | 8395 | 3000 | >90 | 1780x900x43 |
| ● 6005 | 3F Sound Lux 450 RS 35/930 DALI | 37 | 4197 | 3000 | >90 | 1780x450x43 |
| ● 6011 | 3F Sound Lux 900 RS 70/930 DALI | 74 | 8395 | 3000 | >90 | 1780x900x43 |



3F Sound Lux Direct/Indirect

Construction characteristics

Illuminotechnical characteristics

Direct-indirect distribution.

Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Acoustic

3F Sound Lux acoustic panel covers a range of frequencies from 500 to 5000 Hz, with exceptional results in the range from 1000 to 1250 Hz where it reaches a value of 99%.

Certified as class A, (UNI EN ISO 11654) in the speech spectrum in octave bands from 1000 to 4000 Hz.

Mechanical characteristics

The lighting fixture consists of an acoustic panel covered by a micro-perforated layer of natural wood.

Hot-galvanized steel lighting unit coated with a polyester based paint enclosed in a stainless steel casing.

Transparent methacrylate controlled distribution lenses with flat external surface.

Suspensions fitted with chrome bosses and quick-acting regulator, 2 m galvanized steel cable.

Electrical characteristics

In compliance with EN 60598-1.

5-pole transparent power cable with white ceiling power supply box, single 230V circuit, 2 DALI addresses (versions 450) and 4 DALI addresses (versions 900).

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- body with a tobacco finish

Applications

Environments with video terminals, executive, open space and representative offices.

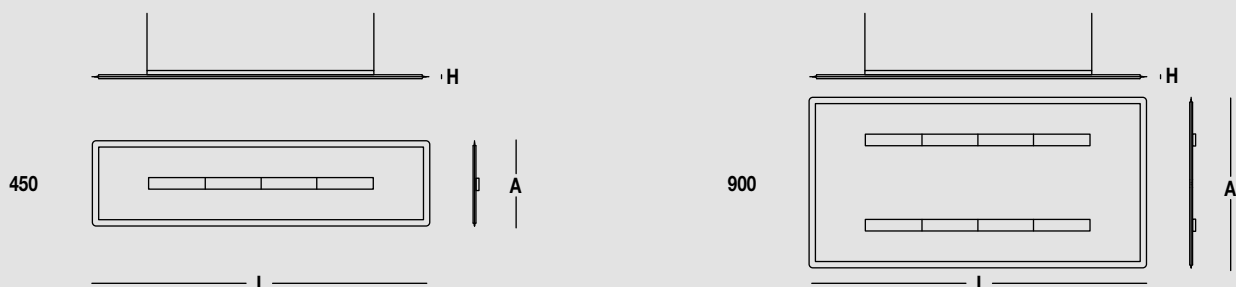
Installation

Suspension installation.

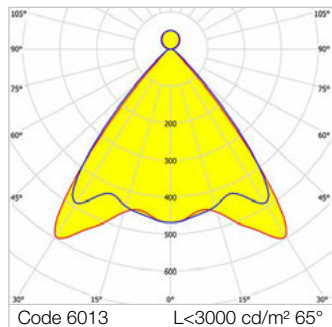
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Sound Lux DI



CE
650°C
IP40
1J
IK06

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|---------------------------------------|----|------|------|-----|-------------|
| ● 6013 | 3F Sound Lux 450 RE DI 35+8/930 DALI | 47 | 4981 | 3000 | >90 | 1780x450x43 |
| ● 6019 | 3F Sound Lux 900 RE DI 70+16/930 DALI | 94 | 9962 | 3000 | >90 | 1780x900x43 |
| ● 6017 | 3F Sound Lux 450 RS DI 35+8/930 DALI | 47 | 4981 | 3000 | >90 | 1780x450x43 |
| ● 6023 | 3F Sound Lux 900 RS DI 70+16/930 DALI | 94 | 9962 | 3000 | >90 | 1780x900x43 |

3F C8



3F Diagon P



3F Emilio Table



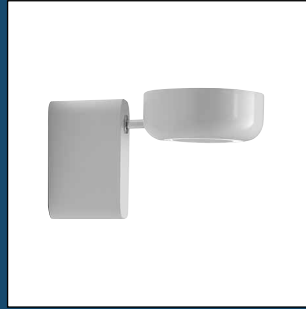
3F Zeta



3F Petra



3F Emilio Wall



Mira



3F Travetta



Filigare



P 200



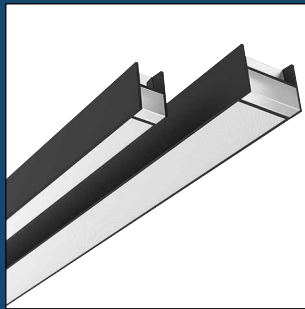
P 250



Barraluce P



3F HD



3F Mirella



3F Trittico



3F Filoluce



3F Sound Lux



Surface luminaires and suspensions

| Page | Product | Ceiling | Suspended | Wall | Table |
|------|--------------------------------------|---------|-----------|------|-------|
| 138 | 3F C8 | | | | |
| 138 | NEW 3F C8 | | • | | |
| 140 | NEW 3F C8 Direct/Indirect | | • | | |
| 142 | 3F Diagon P | | | | |
| 142 | NEW 3F Diagon P | • | | | |
| 144 | NEW 3F Diagon P Tunable White | • | | | |
| 146 | 3F Emilio Table | | | | |
| 146 | NEW 3F Emilio Table | | | | • |
| 148 | 3F Zeta | | | | |
| 148 | 3F Zeta L | • | • | • | |
| 152 | 3F Zeta D | • | • | • | |
| 154 | 3F Zeta DR | • | • | • | |
| 160 | 3F Petra | | | | |
| 160 | 3F Petra LED | • | | • | |
| 162 | 3F Petra LED Sensor | • | | • | |
| 164 | 3F Petra Suspended LED | | • | | |
| 166 | 3F Emilio Wall | | | | |
| 166 | 3F Emilio Wall | • | | • | |
| 168 | Mira | | | | |
| 168 | Mira Wall LED | | | • | |
| 170 | 3F Travetta | | | | |
| 170 | 3F Travetta LED | • | • | | |
| 174 | 3F Travetta LED DI | | • | | |
| 176 | 3F Travetta LED Tunable White | • | • | | |
| 182 | Filigare | | | | |
| 182 | Filigare 180 LED | • | • | | |
| 190 | P 200 | | | | |
| 190 | P 200 LED | • | | | |
| 192 | P 200 LED IP54 | • | | | |
| 194 | P 250 | | | | |
| 194 | P 250 LED | • | | | |
| 198 | P 250 LED Diffused Light | • | | | |
| 200 | Barraluce P | | | | |
| 200 | Barraluce P LED | • | • | | |



3F C8

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium body, zamak heads.

SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.

Anti-glare opal polycarbonate filter for brightness uniformity.

Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics

In compliance with EN 60598-1.

Transparent 5-pole power cable with white ceiling power supply case.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- power and suspension cables of >2 m long
- different dimensions
- housing in different RAL colours

Applications

Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.

In environments with VDTs, managerial offices and staterooms.

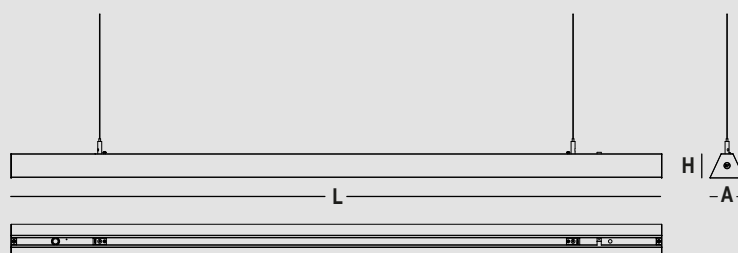
Installation

Suspension installation.

Light Management

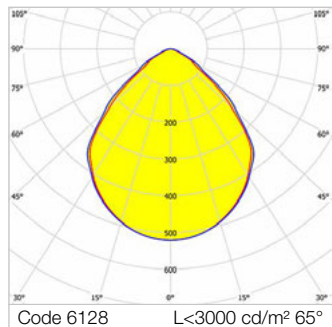
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F C8 GSP

Flat prismatic diffuser in methacrylate with low luminance film



Average luminance <3000 cd/m² for angles >65°.

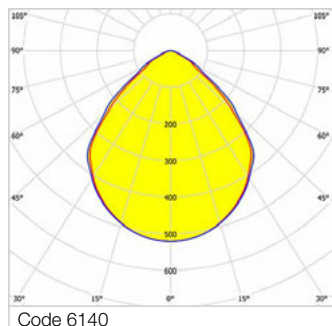
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-----------------------|----------------------------|----|------|------|-----|------------|
| ○ 6128 ^{NEW} | 3F C8 WH 30 DALI GSP L1480 | 35 | 2726 | 4000 | >80 | 1480x77x54 |
| ● 6136 ^{NEW} | 3F C8 BK 30 DALI GSP L1480 | 35 | 2726 | 4000 | >80 | 1480x77x54 |

3F C8 HO GSP

Flat prismatic diffuser in methacrylate with low luminance film



| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-----------------------|-------------------------------|----|------|------|-----|------------|
| ○ 6140 ^{NEW} | 3F C8 WH HO 44 DALI GSP L1480 | 49 | 3702 | 4000 | >80 | 1480x77x54 |
| ● 6148 ^{NEW} | 3F C8 BK HO 44 DALI GSP L1480 | 49 | 3702 | 4000 | >80 | 1480x77x54 |



3F C8 Direct/Indirect

Construction characteristics

Illuminotechnical characteristics

Symmetric direct-indirect distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Extruded aluminium body, zamak heads.
 SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
 Anti-glare opal polycarbonate filter for brightness uniformity.
 Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics

In compliance with EN 60598-1.
 5-pole transparent power cable with white power supply case for ceiling, single 230V circuit, 2 DALI addresses.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- power and suspension cables of >2 m long
- twin-circuit
- different dimensions
- housing in different RAL colours

Applications

Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.
 In environments with VDTs, managerial offices and staterooms.

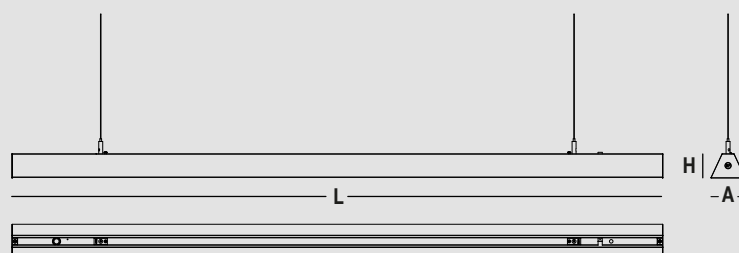
Installation

Suspension installation.

Light Management

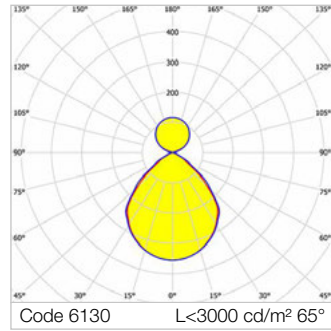
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F C8 DI GSP

Flat prismatic diffuser in methacrylate with low luminance film



Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math>.

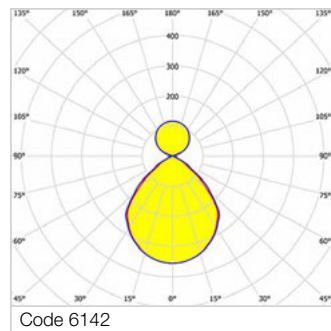
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-----------------------|---------------------------------|----|------|------|-----|------------|
| ○ 6130 ^{NEW} | 3F C8 WH DI 30+8 DALI GSP L1480 | 48 | 3993 | 4000 | >80 | 1480x77x54 |
| ● 6138 ^{NEW} | 3F C8 BK DI 30+8 DALI GSP L1480 | 48 | 3993 | 4000 | >80 | 1480x77x54 |

3F C8 DI HO GSP

Flat prismatic diffuser in methacrylate with low luminance film



| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-----------------------|------------------------------------|----|------|------|-----|------------|
| ○ 6142 ^{NEW} | 3F C8 WH DI HO 44+8 DALI GSP L1480 | 62 | 4969 | 4000 | >80 | 1480x77x54 |
| ● 6150 ^{NEW} | 3F C8 BK DI HO 44+8 DALI GSP L1480 | 62 | 4969 | 4000 | >80 | 1480x77x54 |



3F Diagon P

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Average luminance <math><3000\text{ cd/m}^2</math> for angles >65°.

Colour temperature available /830 - /840, /930 - /940.

Lifetime (L95/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L80/B10): 80000 h. (tq+25°C)

Lifetime (L75/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

White painted frame.

Height only 40 mm.

Housing in hot-galvanized steel, painted in white polyester.

Honeycombed diagonal screen in white anti-glare polycarbonate.

Opal methacrylate rhomboid lenses with differentiated, engraved and prismatic surfaces for diffused, soft lighting and excellent visual comfort.

Electrical characteristics

Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.

Quick connection.

Source characteristics

- Squared LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- suspension installation
- different power levels, colour rendering indices and colour temperatures
- wiring: twin-circuit, CLO (more information on page 542)
- Sensor version
- transparent lens versions

Applications

Environments: staterooms, with VDTs, offices.

Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.

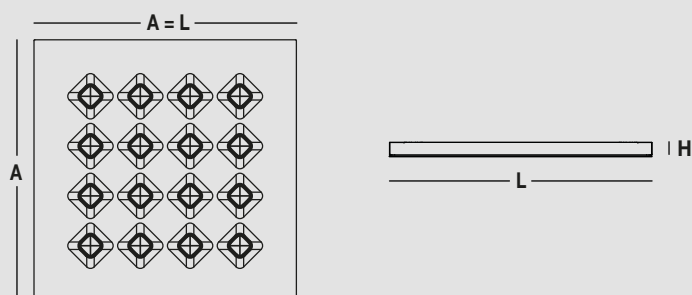
Installation

Ceiling installation.

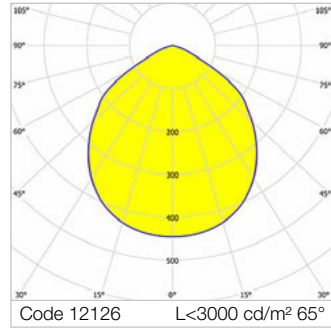
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Diagon P Soft UGR
















Installation Interdistance Transv.D = 1.20 x hu - Long.D = 1.20 x hu.

Surface luminaires and suspensions

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|--------------------------------------|----|------|------|-----|------------|
| 12126 ^{NEW} | 3F Diagon P 25W/830 SOFT UGR 596x596 | 28 | 3531 | 3000 | >80 | 600x600x40 |
| 12130 ^{NEW} | 3F Diagon P 25W/840 SOFT UGR 596x596 | 28 | 3797 | 4000 | >80 | 600x600x40 |
| 12134 ^{NEW} | 3F Diagon P 39W/930 SOFT UGR 596x596 | 40 | 3819 | 3000 | >90 | 600x600x40 |
| 12138 ^{NEW} | 3F Diagon P 39W/940 SOFT UGR 596x596 | 40 | 3843 | 4000 | >90 | 600x600x40 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|---|----|------|------|-----|------------|
| 12127 ^{NEW} | 3F Diagon P 25W/830 DALI SOFT UGR 596x596 | 28 | 3531 | 3000 | >80 | 600x600x40 |
| 12131 ^{NEW} | 3F Diagon P 25W/840 DALI SOFT UGR 596x596 | 28 | 3797 | 4000 | >80 | 600x600x40 |
| 12135 ^{NEW} | 3F Diagon P 39W/930 DALI SOFT UGR 596x596 | 40 | 3819 | 3000 | >90 | 600x600x40 |
| 12139 ^{NEW} | 3F Diagon P 39W/940 DALI SOFT UGR 596x596 | 40 | 3843 | 4000 | >90 | 600x600x40 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|----------------------|---|----|------|------|-----|------------|
| 12128 ^{NEW} | 3F Diagon P 25W/830 EP SOFT UGR 596x596 | 29 | 3531 | 3000 | >80 | 600x600x40 |
| 12132 ^{NEW} | 3F Diagon P 25W/840 EP SOFT UGR 596x596 | 29 | 3797 | 4000 | >80 | 600x600x40 |
| 12136 ^{NEW} | 3F Diagon P 39W/930 EP SOFT UGR 596x596 | 41 | 3819 | 3000 | >90 | 600x600x40 |
| 12140 ^{NEW} | 3F Diagon P 39W/940 EP SOFT UGR 596x596 | 41 | 3843 | 4000 | >90 | 600x600x40 |



3F Diagon P Tunable White

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Average luminance <math><3000\text{ cd/m}^2</math> for angles >65°.

The color temperature can be adjusted between 2700 K and 6500 K.

Lifetime (L95/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L80/B10): 80000 h. (tq+25°C)

Lifetime (L75/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

White painted frame.

Height only 40 mm.

Housing in hot-galvanized steel, painted in white polyester.

Honeycombed diagonal screen in white anti-glare polycarbonate.

Opal methacrylate rhomboid lenses with differentiated, engraved and prismatic surfaces for diffused, soft lighting and excellent visual comfort.

Electrical characteristics

In compliance with EN 60598-1.

Cable with a DALI DT8 driver.

5-pole terminal block (L-N-PE-DA/DA)

quick connection for line connection with connection capacity 2x2.5 mm².

Source characteristics

- Squared LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- suspension installation
- different power levels, colour rendering indices and colour temperatures
- wiring: twin-circuit

Applications

Any environments requiring light which aims for the wellness of people. Environments: staterooms, with VDTs, offices.

Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.

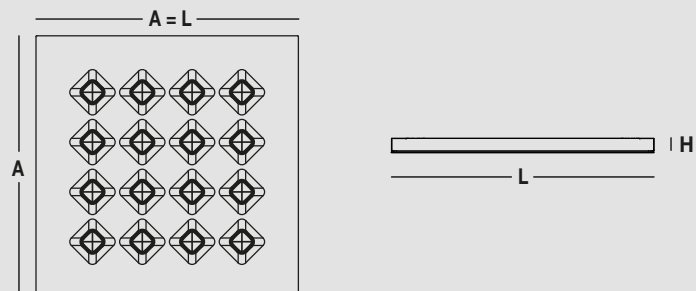
Installation

Ceiling installation.

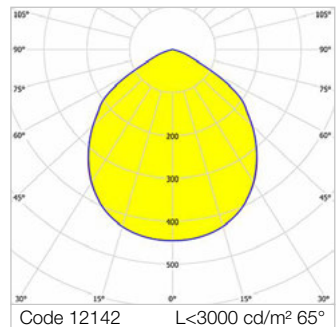
Light Management

Products in the 3F Tunable White range can be controlled manually or automatically with 3F HCL for TW fixtures technology (see the chapter on "Light Management").

Dimensions



3F Diagon P Soft UGR Tunable White















Installation Interdistance Transv.D = 1.20 x hu - Long.D = 1.20 x hu.

Surface luminaires
and suspensions

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI DT8 electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|---|------------------|------|----------------------|-----|------------|
| 12142 ^{NEW} | 3F Diagon P 25W DT8 TW SOFT UGR 596x596 | 31,5 30 29 | 3686 | 2700 4000 6500 | >80 | 600x600x40 |
|----------------------|---|------------------|------|----------------------|-----|------------|

3F Emilio Table

Construction characteristics

Illuminotechnical characteristics

Direct controlled symmetrical and indirect diffused comfort distribution (thanks to the reduction of the luminous contrast between the product and the surrounding environment).

Lifetime (L90/B20): 30000 h. (tq+25°C)

Lifetime (L80/B20): 50000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Diffuser in die-cast aluminum, opaque white, with upper rings with a luminous crown effect and an orientation arm. Diffuser adjustability: 90° along the horizontal axis and 290° on the stem axis. PMMA opal methacrylate lens. Round stem in painted steel. Round shaped base in aluminum and painted steel.

Electrical characteristics

In compliance with EN 60598-1.

Dimmer button installed on the 2 m long power cable with 2x10A plug. Class II device.

Source characteristics

- Compact LED module.
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- LED module with different power levels, colour temperatures and colour rendering index
- housing in different RAL colours

Applications

Environments which cannot, for technical reasons, be equipped with points of light directed onto the ceiling.

Open-space offices and environments in which a high degree of workstation flexibility is required.

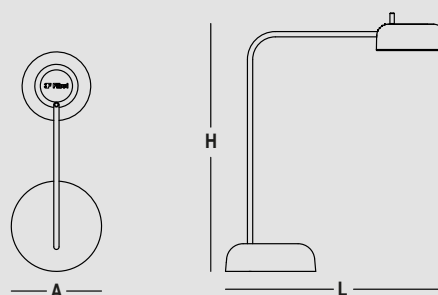
Environments: staterooms, with VDTs, offices.

Environments where soft diffuse light is required for optimal visual comfort.

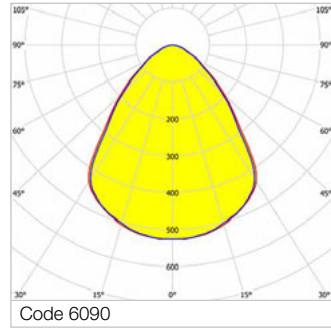
Installation

Table installation.

Dimensions



3F Emilio Table



CE
650°C
IP20

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|------------|--------------------|------------------|---------|-----|----------------------|
|------|------|------------|--------------------|------------------|---------|-----|----------------------|

PHASE CUT DIM electronic wiring 230V-50/60Hz

| | | | | | | | |
|---------------------|---------------------------------|-----|----|-----|------|-----|-------------|
| 6090 ^{NEW} | 3F Emilio Table WH 1000/930 PCD | 80° | 14 | 913 | 3000 | >90 | 415x170x490 |
|---------------------|---------------------------------|-----|----|-----|------|-----|-------------|



3F Zeta L

Construction characteristics

Illuminotechnical characteristics

Wide, direct and asymmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

L UGR version

Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester, obtained through rolling process.

Light unit in hot-galvanized steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.

End caps in white polycarbonate.

Stainless steel mounting brackets with anti-slip screws.

Electrical characteristics

Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.

Source characteristics

- LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (more information on page 542)
- HACCP versions for use in the food industry
- IP54 version

Applications

Environments: architectural, commercial, transit areas, cornices, boards.

L UGR version

Environments: exhibition areas, staterooms, with VDTs, halls, shops, great halls, offices.

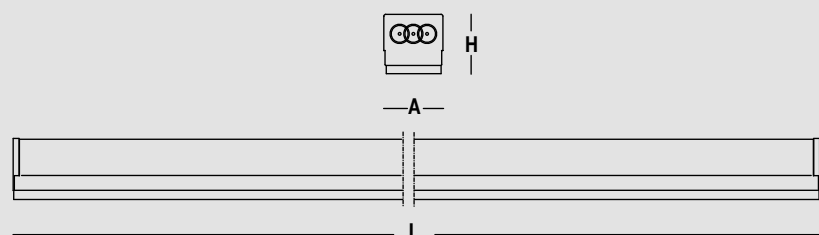
Installation

Ceiling, suspension or wall installation.

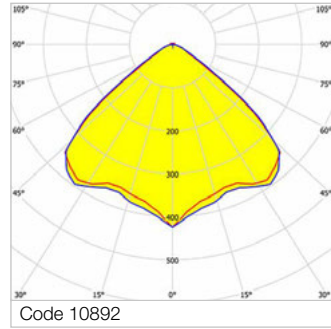
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Zeta L



Lenses for wide distribution, in transparent PMMA with external flat surface.

Surface luminaires
and suspensions

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------|------|------|------|-----|------------|
| 10894 | 3F Zeta L 15 LED L605 | 16.5 | 2749 | 4000 | >80 | 605x62x67 |
| 10893 | 3F Zeta L 30 LED L1194 | 33 | 5498 | 4000 | >80 | 1194x62x67 |
| 10892 | 3F Zeta L 40 LED L1489 | 40 | 6872 | 4000 | >80 | 1489x62x67 |

DALI electronic wiring 230V-50/60Hz

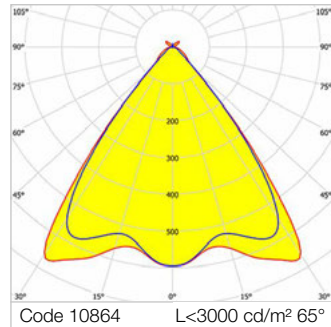
| | | | | | | |
|-------|-----------------------------|----|------|------|-----|------------|
| 10977 | 3F Zeta L 30 LED DALI L1194 | 33 | 5498 | 4000 | >80 | 1194x62x67 |
| 10976 | 3F Zeta L 40 LED DALI L1489 | 40 | 6872 | 4000 | >80 | 1489x62x67 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|---------------------------|----|------|------|-----|------------|
| 10988 | 3F Zeta L 40 LED EP L1489 | 41 | 6872 | 4000 | >80 | 1489x62x67 |
|-------|---------------------------|----|------|------|-----|------------|

3F Zeta L UGR

Luminance control lens



Average luminance <math><3000 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. Transparent methacrylate controlled distribution lenses with flat external surface.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

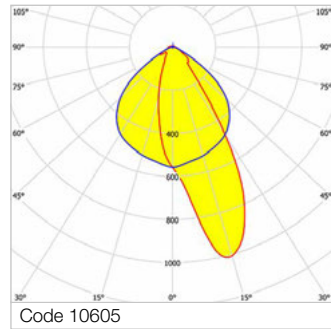
| | | | | | | |
|-------|----------------------------|----|------|------|-----|------------|
| 10864 | 3F Zeta L UGR 30 LED L1194 | 33 | 5487 | 4000 | >80 | 1194x62x67 |
|-------|----------------------------|----|------|------|-----|------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------|----|------|------|-----|------------|
| 10867 | 3F Zeta L UGR 30 LED DALI L1194 | 33 | 5487 | 4000 | >80 | 1194x62x67 |
|-------|---------------------------------|----|------|------|-----|------------|

3F Zeta L AS

Asymmetric



Transparent methacrylate asymmetric distribution lenses with a flat external surface.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------|----|------|------|-----|------------|
| 10605 | 3F Zeta L AS 40 LED L1489 | 40 | 6894 | 4000 | >80 | 1489x62x67 |
|-------|---------------------------|----|------|------|-----|------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------|----|------|------|-----|------------|
| 10606 | 3F Zeta L AS 40 LED DALI L1489 | 40 | 6894 | 4000 | >80 | 1489x62x67 |
|-------|--------------------------------|----|------|------|-----|------------|

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|------------------------------|----|------|------|-----|------------|
| 10607 | 3F Zeta L AS 40 LED EP L1489 | 41 | 6894 | 4000 | >80 | 1489x62x67 |
|-------|------------------------------|----|------|------|-----|------------|





3F Zeta D

Construction characteristics

Illuminotechnical characteristics

Diffused symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester, obtained through rolling process.
 Light unit in hot-galvanized steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
 Curved screen in self-extinguishing polycarbonate, UV stabilized, opal, with smooth outer surface.
 End caps in white polycarbonate.
 Stainless steel mounting brackets with anti-slip screws.

Electrical characteristics

Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (more information on page 542)
- class II

Applications

Environments: architectural, commercial, transit areas, cornices, large mirrors, boards.

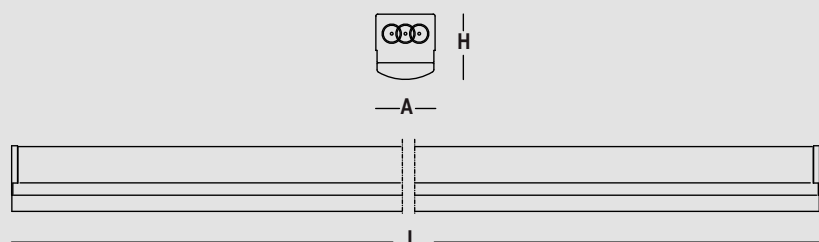
Installation

Ceiling, suspension or wall installation.

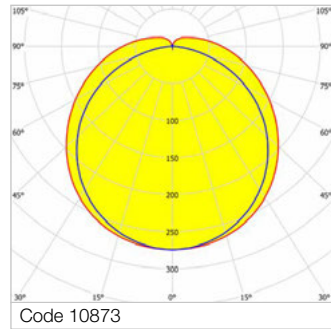
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Zeta D



850°C

IP40

1J

IK06

Driver/LED
SELV

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------|------|------|------|-----|------------|
| 10872 | 3F Zeta D 1x9 LED L605 | 10 | 1247 | 4000 | >80 | 605x62x81 |
| 10871 | 3F Zeta D 1x18 LED L1194 | 20 | 2494 | 4000 | >80 | 1194x62x81 |
| 10875 | 3F Zeta D 2x9 LED L605 | 20 | 2495 | 4000 | >80 | 605x62x81 |
| 10870 | 3F Zeta D 1x22 LED L1489 | 24.5 | 3118 | 4000 | >80 | 1489x62x81 |
| 10874 | 3F Zeta D 2x18 LED L1194 | 40 | 4988 | 4000 | >80 | 1194x62x81 |
| 10873 | 3F Zeta D 2x22 LED L1489 | 49 | 6236 | 4000 | >80 | 1489x62x81 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|------|------|------|-----|------------|
| 10962 | 3F Zeta D 1x18 LED DALI L1194 | 20 | 2494 | 4000 | >80 | 1194x62x81 |
| 10961 | 3F Zeta D 1x22 LED DALI L1489 | 24.5 | 3118 | 4000 | >80 | 1489x62x81 |
| 10965 | 3F Zeta D 2x18 LED DALI L1194 | 40 | 4988 | 4000 | >80 | 1194x62x81 |
| 10964 | 3F Zeta D 2x22 LED DALI L1489 | 49 | 6236 | 4000 | >80 | 1489x62x81 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|-----------------------------|------|------|------|-----|------------|
| 10980 | 3F Zeta D 1x22 LED EP L1489 | 25.5 | 3118 | 4000 | >80 | 1489x62x81 |
| 10982 | 3F Zeta D 2x22 LED EP L1489 | 50 | 6236 | 4000 | >80 | 1489x62x81 |



3F Zeta DR

Construction characteristics

Illuminotechnical characteristics

Diffused symmetric and asymmetric distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester, obtained through rolling process.

Light unit in hot-galvanized steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.

End caps in white polycarbonate.

Stainless steel mounting brackets with anti-slip screws.

Electrical characteristics

Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (more information on page 542)
- class II

Applications

Environments: architectural, commercial, transit areas, cornices, large mirrors, boards.

UGR version

Environments: exhibition areas, staterooms, with VDTs, halls, shops, great halls, offices.

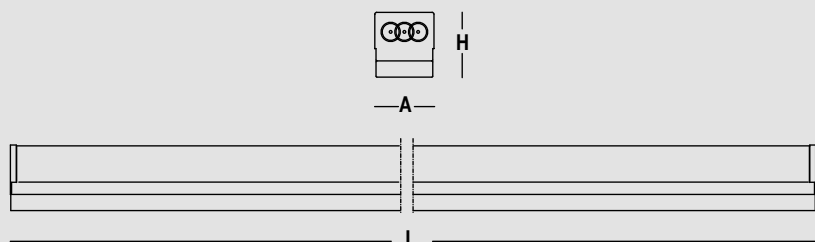
Installation

Ceiling, suspension or wall installation.

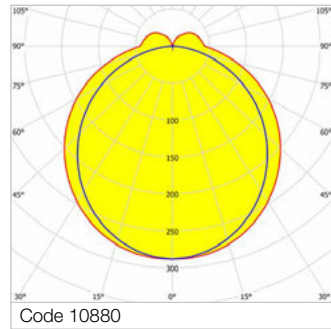
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Zeta DR



850°C

IP40

1J

IK06

Driver/LED
SELV

Diffused symmetric distribution.
Rectangular screen in self-extinguishing polycarbonate, UV stabilized, opal, with smooth outer surface.

 Surface luminaires
and suspensions

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------|------|------|------|-----|------------|
| 10879 | 3F Zeta DR 1x9 LED L605 | 10 | 1251 | 4000 | >80 | 605x62x81 |
| 10878 | 3F Zeta DR 1x18 LED L1194 | 20 | 2500 | 4000 | >80 | 1194x62x81 |
| 10882 | 3F Zeta DR 2x9 LED L605 | 20 | 2501 | 4000 | >80 | 605x62x81 |
| 10877 | 3F Zeta DR 1x22 LED L1489 | 24.5 | 3126 | 4000 | >80 | 1489x62x81 |
| 10881 | 3F Zeta DR 2x18 LED L1194 | 40 | 5001 | 4000 | >80 | 1194x62x81 |
| 10880 | 3F Zeta DR 2x22 LED L1489 | 49 | 6253 | 4000 | >80 | 1489x62x81 |

DALI electronic wiring 230V-50/60Hz

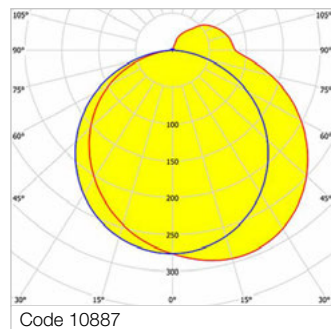
| | | | | | | |
|-------|--------------------------------|------|------|------|-----|------------|
| 10968 | 3F Zeta DR 1x18 LED DALI L1194 | 20 | 2500 | 4000 | >80 | 1194x62x81 |
| 10967 | 3F Zeta DR 1x22 LED DALI L1489 | 24.5 | 3126 | 4000 | >80 | 1489x62x81 |
| 10971 | 3F Zeta DR 2x18 LED DALI L1194 | 40 | 5001 | 4000 | >80 | 1194x62x81 |
| 10970 | 3F Zeta DR 2x22 LED DALI L1489 | 49 | 6253 | 4000 | >80 | 1489x62x81 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|------------------------------|------|------|------|-----|------------|
| 10984 | 3F Zeta DR 1x22 LED EP L1489 | 25.5 | 3126 | 4000 | >80 | 1489x62x81 |
| 10986 | 3F Zeta DR 2x22 LED EP L1489 | 50 | 6253 | 4000 | >80 | 1489x62x81 |

3F Zeta DR AS

Asymmetric



850°C

IP40

1J

IK06

Driver/LED
SELV

Asymmetric distribution.
Rectangular screen in self-extinguishing polycarbonate, UV stabilized, opal, with smooth outer surface.
Internal recuperator in white painted steel.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

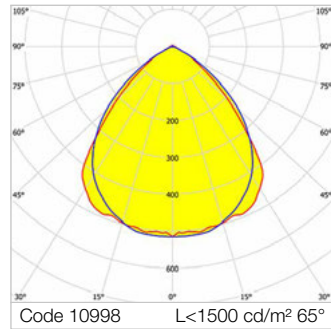
| | | | | | | |
|-------|------------------------------|----|------|------|-----|------------|
| 10886 | 3F Zeta DR AS 1x30 LED L1489 | 35 | 3451 | 4000 | >80 | 1489x62x81 |
| 10887 | 3F Zeta DR AS 2x22 LED L1489 | 49 | 5096 | 4000 | >80 | 1489x62x81 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|------------|
| 10973 | 3F Zeta DR AS 1x30 LED DALI L1489 | 35 | 3451 | 4000 | >80 | 1489x62x81 |
| 10974 | 3F Zeta DR AS 2x22 LED DALI L1489 | 49 | 5096 | 4000 | >80 | 1489x62x81 |

3F Zeta DR UGR

Luminance control optic



Controlled symmetric distribution.

1x - Average luminance <1500 cd/m² for radial angles >65°.

2x - Average luminance <3000 cd/m² for radial angles >65°.

Rectangular transparent polycarbonate diffuser.

Semi-specular aluminium internal louvre with prismatic

methacrylate filter above the louvre blades for complete shielding of the louvre compartment.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|------------|
| 10599 | 3F Zeta DR UGR 1x12 LED L605 | 15 | 1497 | 4000 | >80 | 605x62x81 |
| 10598 | 3F Zeta DR UGR 2x9 LED L605 | 20 | 2144 | 4000 | >80 | 605x62x81 |
| 10592 | 3F Zeta DR UGR 1x24 LED L1194 | 28 | 2786 | 4000 | >80 | 1194x62x81 |
| 10998 | 3F Zeta DR UGR 1x30 LED L1783 | 35 | 3487 | 4000 | >80 | 1783x62x81 |
| 10591 | 3F Zeta DR UGR 2x18 LED L1194 | 40 | 4287 | 4000 | >80 | 1194x62x81 |
| 10997 | 3F Zeta DR UGR 2x22 LED L1783 | 49 | 5361 | 4000 | >80 | 1783x62x81 |
| 11003 | 3F Zeta DR UGR 2x22/940 LED L1783 | 49 | 4289 | 4000 | >90 | 1783x62x81 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--|----|------|------|-----|------------|
| 10601 | 3F Zeta DR UGR 1x12 LED DALI L605 | 15 | 1497 | 4000 | >80 | 605x62x81 |
| 10600 | 3F Zeta DR UGR 2x9 LED DALI L605 | 20 | 2144 | 4000 | >80 | 605x62x81 |
| 10594 | 3F Zeta DR UGR 1x24 LED DALI L1194 | 28 | 2786 | 4000 | >80 | 1194x62x81 |
| 11000 | 3F Zeta DR UGR 1x30 LED DALI L1783 | 35 | 3487 | 4000 | >80 | 1783x62x81 |
| 10593 | 3F Zeta DR UGR 2x18 LED DALI L1194 | 40 | 4287 | 4000 | >80 | 1194x62x81 |
| 10999 | 3F Zeta DR UGR 2x22 LED DALI L1783 | 49 | 5361 | 4000 | >80 | 1783x62x81 |
| 11004 | 3F Zeta DR UGR 2x22/940 LED DALI L1783 | 49 | 4289 | 4000 | >90 | 1783x62x81 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|----------------------------------|----|------|------|-----|------------|
| 11002 | 3F Zeta DR UGR 1x30 LED EP L1783 | 36 | 3487 | 4000 | >80 | 1783x62x81 |
| 11001 | 3F Zeta DR UGR 2x22 LED EP L1783 | 50 | 5361 | 4000 | >80 | 1783x62x81 |

3F Zeta Accessories



Suspension with regulator, galvanized steel cable 1.5 mm diameter, load 15 kg.

| Code | Item |
|-------|----------------------------------|
| A0660 | Suspension with adjustment - 1 m |
| A0661 | Suspension with adjustment - 2 m |
| A0662 | Suspension with adjustment - 3 m |
| A0663 | Suspension with adjustment - 4 m |
| A0664 | Suspension with adjustment - 5 m |
| A0665 | Suspension with adjustment - 6 m |

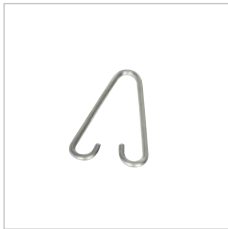
These accessories must always be used in conjunction with the supplied sliding brackets.



Caddy hook to create a point from which to suspend the system or the loads to false ceilings with visible profiles.

| Code | Item |
|--------|-------------------------------------|
| A02562 | Caddy for exposed profiles of 24 mm |

To be installed on exposed profiles (width 24 mm) of false ceilings. We recommend reinforcing the false-ceiling fixing at the point where the Caddy is to be installed. Supplied complete with nut and washer. The suspension must be purchased separately. These accessories must ALWAYS be used with one of the following codes: A0660 - A0661 - A0662 - A0663 - A0664 - A0665.



Hook to suspended luminaires to a chain.

| Code | Item |
|--------|--------------------------------|
| A20452 | Stainless steel hook for chain |



Element to connect in hot-galvanized steel.

| Code | Item |
|--------|--|
| A20433 | Linear connecting element for 3F Linux |



Galvanized steel cable, diameter 1.5 mm, composed of 49 wires. 15 kg capacity (ratio 5:1).

| Code | Item |
|-------|---|
| A0716 | Coil galvanized cable diam. 1.5mm - 100m The pack contains 100 metres. |
| A0717 | Coil galvanized cable diam. 1.5mm - 500m The pack contains 500 metres. |
| A0718 | Coil galvanized cable diam. 1.5mm - 1000m The pack contains 1000 metres. |

These accessories must ALWAYS be used with one of the following codes: A20452 - A0714 - A0659.



Clamp in nickel-plated brass suitable for fixing and adjustment of galvanized steel wire (diameter 1,25 mm - 1,5 mm - 2 mm), complete with locking screws. The 2 hole clamp allows to block and adjust the cable on a bearing element (part of the building) or on rounded eye bolt.

| Code | Item |
|-------|--|
| A0714 | Clamp 2 holes - 100 pcs The pack contains 100 pieces. |



Clamp suitable for fixing and adjustment of galvanized steel wire (diameter 1.5 mm), with quick adjustment through unlock buttons. The clamp with 2 holes allow to fix and adjust the cable on the carrier structural element (belonging to the building) or with eye screw fixing.

| Code | Item |
|-------|---|
| A0659 | Adjustable clamp 2 holes - 10 pcs The pack contains 10 pieces. |

This accessory can be used with one of the following codes: A0716 - A0717 - A0718.



Safety bracket in white painted steel to secure lighting elements if installed vertically.

| Code | Item |
|--------|---|
| A20478 | Anti-slip terminal for inclined 3F Linux installation |

This accessory must always be used in combination with end terminals.



Electric supply with white polycarbonate case, internal bracket in galvanized steel.

| Code | Item |
|-------|------------------------------------|
| A0679 | 5-pole rectangular rose (no cable) |





3F Petra LED

Construction characteristics

Illuminotecnical characteristics

Diffuse distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in self-

extinguishing V2 polycarbonate, UV stabilized, injection moulded, glazed.

Ecologic anti-aging injected sealing gasket.

Diffuser in opal PMMA, injection moulded.

Gear-tray reflector unit in aluminium, painted in white polyester, fixed to the housing by quick-fastening steel devices, hinged opening.

Snug fit safety snap-lock clips for diffuser mounting in transparent polycarbonate, screwdriver opening.

Electrical characteristics

In compliance with EN 60598-1.

Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.

Entry for power-supply cable at the top by means of sealing grommet or lateral after drilling.

Source characteristics

- Circular LED module.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- wiring: dimmable, CLO (more information on page 542)
- LED module with different power levels, colour temperatures and colour rendering index

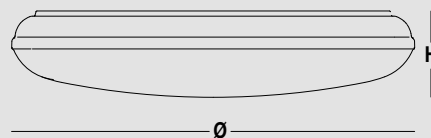
Applications

Environments: architectural, transit areas, lobbies or waiting rooms, stairwells. Environments where ceiling indirect lighting and direct lighting supply a visual comfort. Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials. Completely insect and dust proof.

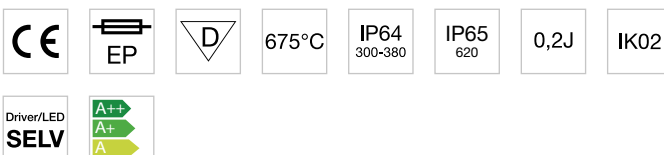
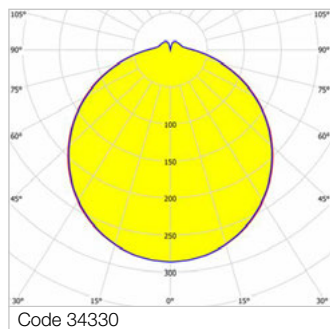
Installation

Wall or ceiling installation.

Dimensions



3F Petra LED



| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|--------------------|------------------|---------|-----|------------------|
|------|------|--------------------|------------------|---------|-----|------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------|------|------|------|-----|---------|
| 34229 | 3F Petra OP 300 12W LED | 14.3 | 1607 | 4000 | >80 | 300x120 |
| 34330 | 3F Petra OP 380 22W LED | 25.4 | 2841 | 4000 | >80 | 380x117 |
| 34407 | 3F Petra OP 620 50W LED | 55.5 | 5740 | 4000 | >80 | 620x134 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|----------------------------|------|------|------|-----|---------|
| 34332 | 3F Petra OP 380 22W LED EP | 26.4 | 2841 | 4000 | >80 | 380x117 |
| 34409 | 3F Petra OP 620 50W LED EP | 56.5 | 5740 | 4000 | >80 | 620x134 |



3F Petra LED Sensor

Construction characteristics

Illuminotechnical characteristics

Diffuse distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in self-extinguishing V2 polycarbonate, UV stabilized, injection moulded, glazed. Ecologic anti-aging injected sealing gasket.
 Diffuser in opal PMMA, injection moulded.
 Gear-tray reflector unit in aluminium, painted in white polyester, fixed to the housing by quick-fastening steel devices, hinged opening.
 Snug fit safety snap-lock clips for diffuser mounting in transparent polycarbonate, screwdriver opening.

Electrical characteristics

In compliance with EN 60598-1.
 Entry for power-supply cable at the top by means of sealing grommet or lateral after drilling.
 Sensor mode: turns on and off depending on persons present.
 Integrated presence sensor with ON/OFF function.

Source characteristics

- Circular LED module.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- 3F Petra OP 620 50W Sensor
- LED module with different power levels, colour temperatures and colour rendering index

Applications

Environments: architectural, transit areas, lobbies or waiting rooms, stairwells. Environments where ceiling indirect lighting and direct lighting supply a visual comfort. Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials. Completely insect and dust proof.

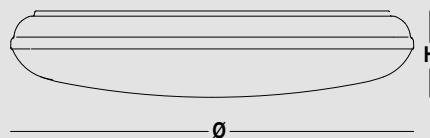
Installation

Wall or ceiling installation.

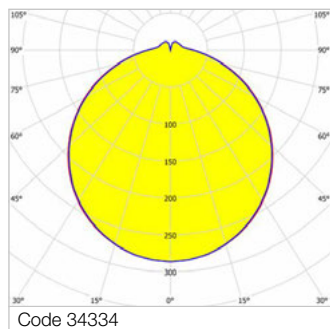
Light Management

For more information on 3F Sensor technology, refer to the specific chapter in the "Light Management" section.

Dimensions



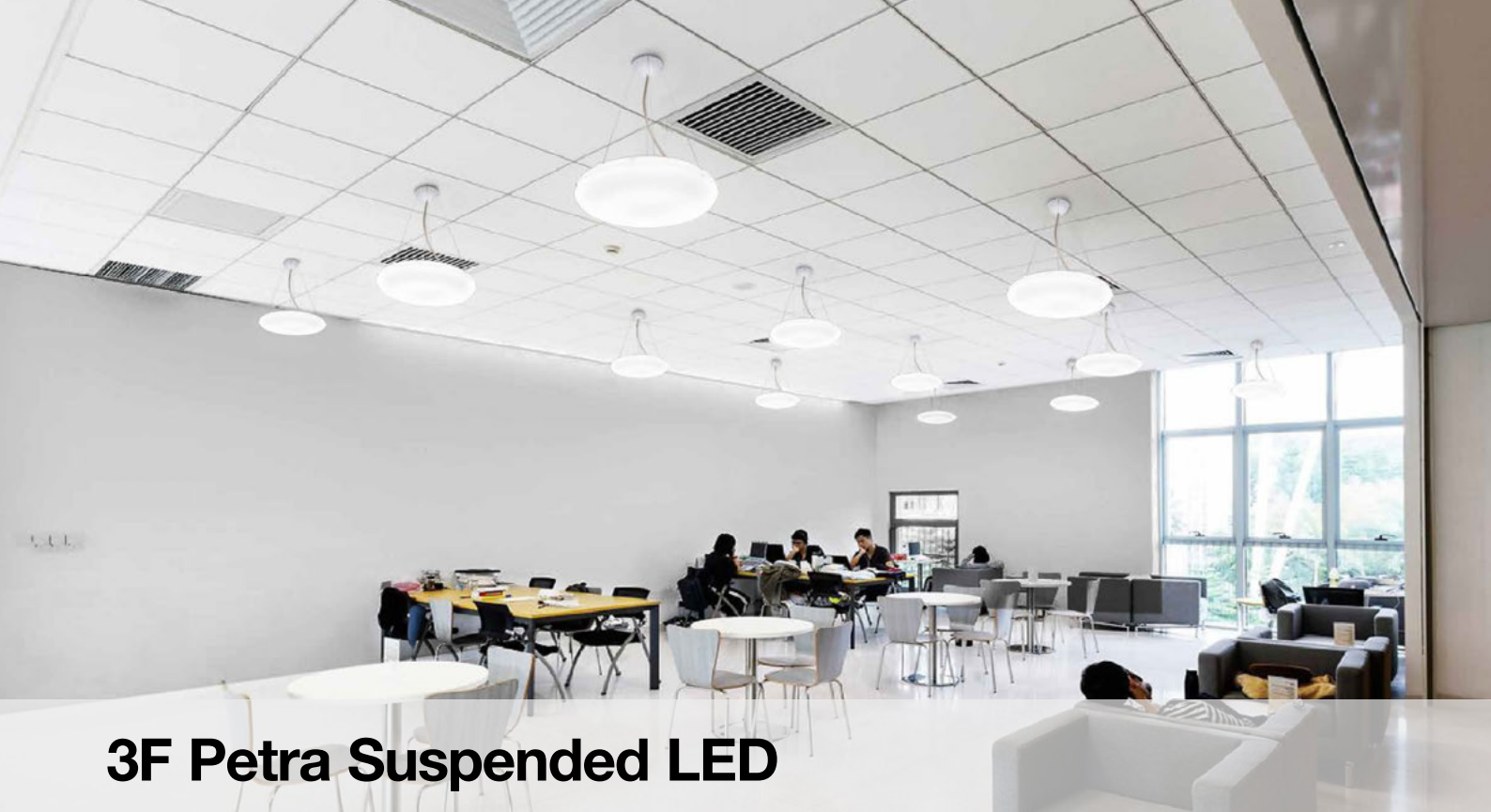
3F Petra LED Sensor



| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|--------------------|------------------|---------|-----|---------------------|
|------|------|--------------------|------------------|---------|-----|---------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------|------|------|------|-----|---------|
| 34233 | 3F Petra OP 300 12W LED Sensor | 14.3 | 1607 | 4000 | >80 | 300x120 |
| 34334 | 3F Petra OP 380 22W LED Sensor | 25.4 | 2841 | 4000 | >80 | 380x117 |



3F Petra Suspended LED

Construction characteristics

Illuminotechnical characteristics

Diffuse distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in self-extinguishing V2 polycarbonate, UV stabilized, injection moulded, glazed. Ecologic anti-aging injected sealing gasket.
 Diffuser in opal PMMA, injection moulded.
 Gear-tray reflector unit in aluminium, painted in white polyester, fixed to the housing by quick-fastening steel devices, hinged opening.
 Snug fit safety snap-lock clips for diffuser mounting in transparent polycarbonate, screwdriver opening.
 Adjustable suspension with Rose in white polycarbonate, with stainless steel cables, 2 m long.

Electrical characteristics

In compliance with EN 60598-1.
 Entry for power-supply cable at the top by means of double-membrane sealing grommet, or side-entry after drilling.
 Transparent 5x1.5 mm² power-supply cable.

Source characteristics

- Circular LED module.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- wiring: dimmable, CLO (more information on page 542)
- EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse, in compliance with EN 60598-2-22
- LED module with different power levels, colour temperatures and colour rendering index

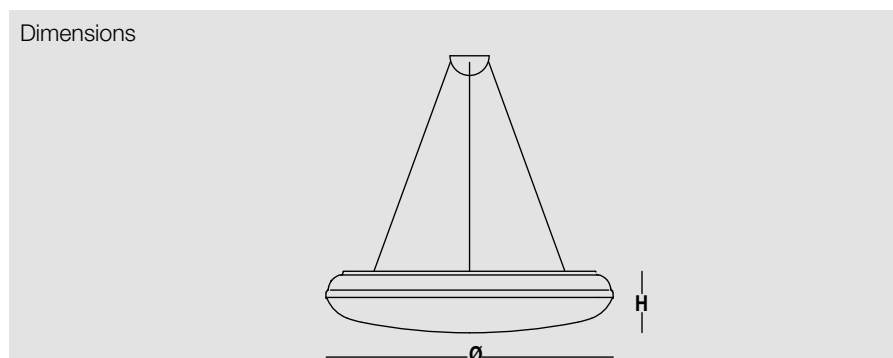
Applications

Environments: transit areas, great halls. Environments where ceiling indirect lighting and direct lighting supply a visual comfort. Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials. Completely insect and dust proof.

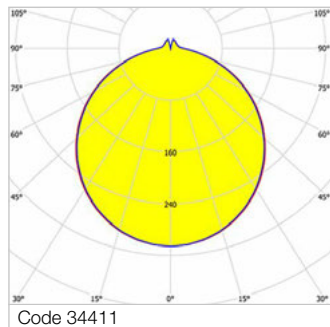
Installation

Suspension installation.

Dimensions



3F Petra Suspended LED



CE
D
675°C
IP65
0,2J
IK02
Driver/LED SELV
A++
A+
A

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|--------------------|------------------|---------|-----|------------------|
|------|------|--------------------|------------------|---------|-----|------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------|------|------|------|-----|---------|
| 34411 | 3F Petra OP 620 50W LED SO | 55.5 | 5740 | 4000 | >80 | 620x134 |
|-------|----------------------------|------|------|------|-----|---------|

Surface luminaires
and suspensions



3F Emilio Wall

Construction characteristics

Illuminotechnical characteristics

Diffused symmetric distribution.
 Lifetime (L90/B20): 30000 h. (tq+25°C)
 Lifetime (L80/B20): 50000 h. (tq+25°C)
 Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Gear-tray casing in white painted aluminium for ceiling or wall installation. Single-piece in die-cast aluminium with passive dissipation, white colour, with perimeter cooling slots on upper edge, giving a crown of light effect to the fitting. Invisible lock for positioning the luminous flux.
 PMMA opal methacrylate lens.
 Positioning arm in galvanized brass with sphere to allow for vertical positioning at angles from 0° to 90° and horizontal positioning from 0° to 290°.

Source characteristics

- Compact LED module.
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- LED module with different power levels, colour temperatures and colour rendering index
- housing in different RAL colours
- dimmable wiring

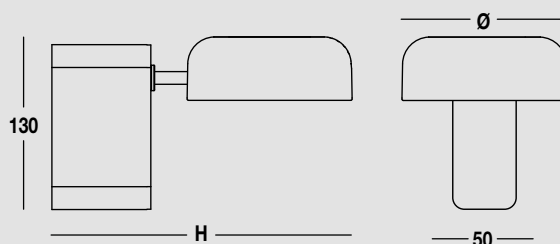
Applications

Environments: commercial, museums, shops.
 Environments: transit areas, lobbies or waiting rooms, corridors, stairwells.
 Environments where soft diffuse light is required for optimal visual comfort.

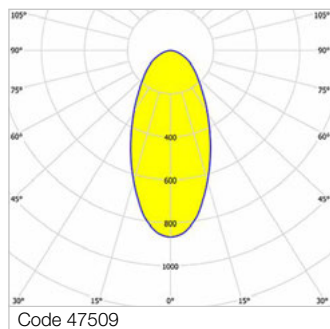
Installation

Wall or ceiling installation.
 In cases where the body of the luminaire is facing the ceiling (for indirect lighting), to maintain high luminous efficiency we recommend cleaning the lens regularly.

Dimensions



3F Emilio Wall



PMMA opal methacrylate lens.

Surface luminaires
and suspensions

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|--------------------------|-----|------|------|------|-----|---------|
| 47509 | 3F Emilio P LED 3000/840 | 50° | 27.9 | 2844 | 4000 | >80 | 130x156 |
|-------|--------------------------|-----|------|------|------|-----|---------|



Mira Wall LED

Construction characteristics

Illuminotecnical characteristics

Asymmetric indirect distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in white painted steel.
 Flow recuperator in specular aluminium with superficial titanium-magnesium treatment.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- housing in different RAL colours
- wiring: dimmable, CLO (more information on page 542)

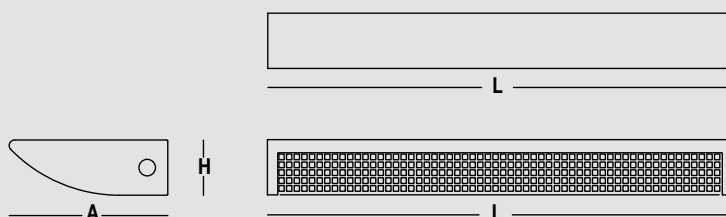
Applications

Environments: with VDTs, meeting rooms, offices.
 Environments: transit areas, lobbies or waiting rooms, corridors, stairwells.
 Environments where soft diffuse light is required for optimal visual comfort.

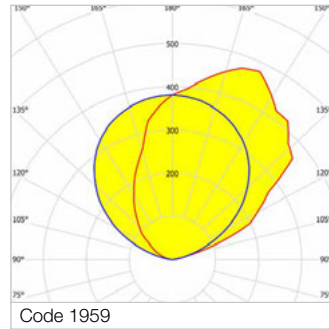
Installation

Wall installation.

Dimensions



Mira Par LED Ind



850°C

IP40

Driver/LED
SELV

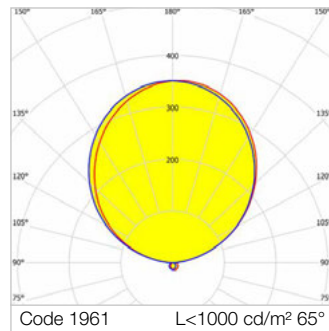
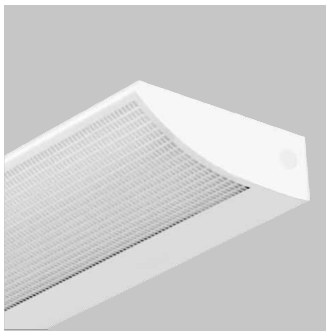
Indirect lighting.
Upper closing diffuser in selfextinguishing V2 transparent polycarbonate, UV stabilized.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|------|-----------------------------|----|------|------|-----|------------|
| 1959 | MIRA PAR LED 4x12W IND L675 | 56 | 6453 | 4000 | >80 | 675x230x80 |
|------|-----------------------------|----|------|------|-----|------------|

Mira Par LED Dec



650°C

IP40

Driver/LED
SELV

Average luminance <math><1000 \text{ cd/m}^2</math> for radial angles >65°.
Indirect and direct decorative lighting.
Body with reticular slots.
Opal acrylic upper diffuser.
Opal polycarbonate Inlay Cover for perforated housings.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|------|----------------------------|----|------|------|-----|------------|
| 1961 | MIRA PAR LED DE 4x12W L675 | 56 | 6321 | 4000 | >80 | 675x230x80 |
|------|----------------------------|----|------|------|-----|------------|

Accessories



5-pole terminal block, connection capacity from 2.5 to 6 mm², on galvanized steel bracket for cascade connection lines.

| Code | Item |
|-------|-------------------------------|
| A0090 | Bracket/5-pole terminal block |



3F Travetta LED

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing with squared shape in white painted steel, with nonreflecting surface.

Electrical characteristics

In compliance with EN 60598-1.

5-pole terminal block for cascade line connection with connection capacity 2x2.5 mm².

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 2.

On request

- different power levels, colour rendering indices and colour temperatures
- different dimensions
- housing and accessories in different RAL colours
- wiring: emergency, CLO (more information on page 542)

Applications

Environments: exhibition areas, staterooms, with VDTs, halls, shops, great halls, offices.

Environments where soft diffuse light is required for optimal visual comfort.

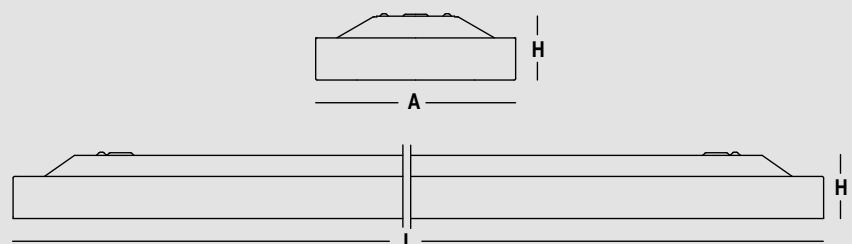
Installation

Ceiling mounted or suspension installation.

Light Management

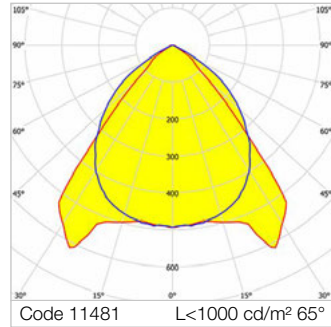
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Travetta LED 2MG

Specular louvre, high efficiency



650°C

IP20



Driver/LED

SELV



Average luminance <math><1000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top.
 Prismatic PMMA diffuser for total shielding of the louvre compartment.
 Film protective against dust and finger marks, adhesive, attached to louvre.

Surface luminaires
and suspensions

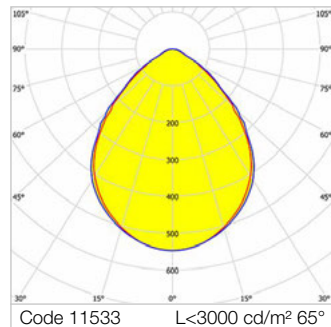
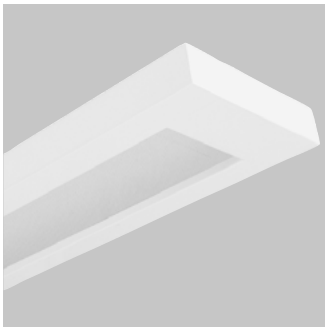
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------------|------|------|------|-----|-------------|
| 11481 | 3F Travetta LED 1x22W DALI 2MG L1590 | 24.5 | 3168 | 4000 | >80 | 1590x190x60 |
| 11484 | 3F Travetta LED 2x22W DALI 2MG L1590 | 49 | 6236 | 4000 | >80 | 1590x190x60 |

3F Travetta LED LGS

Flat micro-prismatic diffuser with low luminance film



650°C

IP40



Driver/LED

SELV



Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 Flow recuperator in semi-specular aluminium, high efficiency.
 LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare.
 Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

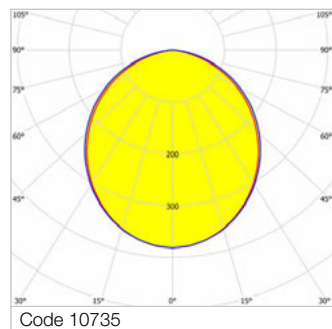
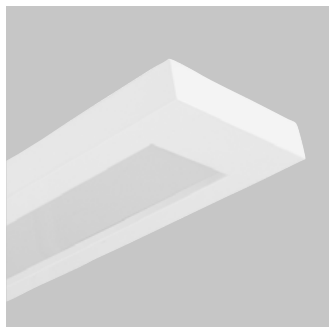
| | | | | | | |
|-------|---------------------------------|----|------|------|-----|-------------|
| 11528 | 3F Travetta LED 1x24W LGS L1290 | 28 | 3022 | 4000 | >80 | 1290x190x60 |
| 11530 | 3F Travetta LED 1x30W LGS L1590 | 35 | 3783 | 4000 | >80 | 1590x190x60 |
| 11531 | 3F Travetta LED 2x18W LGS L1290 | 40 | 4690 | 4000 | >80 | 1290x190x60 |
| 11533 | 3F Travetta LED 2x22W LGS L1590 | 49 | 5865 | 4000 | >80 | 1590x190x60 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------------|----|------|------|-----|-------------|
| 11537 | 3F Travetta LED 1x24W DALI LGS L1290 | 28 | 3022 | 4000 | >80 | 1290x190x60 |
| 11539 | 3F Travetta LED 1x30W DALI LGS L1590 | 35 | 3783 | 4000 | >80 | 1590x190x60 |
| 11540 | 3F Travetta LED 2x18W DALI LGS L1290 | 40 | 4690 | 4000 | >80 | 1290x190x60 |
| 11542 | 3F Travetta LED 2x22W DALI LGS L1590 | 49 | 5865 | 4000 | >80 | 1590x190x60 |

3F Travetta LED OP

Opal PMMA flat diffuser



650°C

IP40



OP opal methacrylate flat diffuser, anti-glare.
Flow recuperator in semi-specular aluminium, high efficiency.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------|------|------|------|-----|-------------|
| 10731 | 3F Travetta LED 1x18W OP L1290 | 20 | 2335 | 4000 | >80 | 1290x190x60 |
| 10732 | 3F Travetta LED 1x22W OP L1590 | 24.5 | 2920 | 4000 | >80 | 1590x190x60 |
| 10734 | 3F Travetta LED 2x18W OP L1290 | 40 | 4545 | 4000 | >80 | 1290x190x60 |
| 10775 | 3F Travetta LED 1x40W OP L2200 | 44 | 4887 | 4000 | >80 | 2200x190x60 |
| 10735 | 3F Travetta LED 2x22W OP L1590 | 49 | 5683 | 4000 | >80 | 1590x190x60 |
| 10777 | 3F Travetta LED 2x40W OP L2200 | 88 | 9511 | 4000 | >80 | 2200x190x60 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------------|------|------|------|-----|-------------|
| 11494 | 3F Travetta LED 1x18W DALI OP L1290 | 20 | 2335 | 4000 | >80 | 1290x190x60 |
| 11495 | 3F Travetta LED 1x22W DALI OP L1590 | 24.5 | 2920 | 4000 | >80 | 1590x190x60 |
| 11497 | 3F Travetta LED 2x18W DALI OP L1290 | 40 | 4545 | 4000 | >80 | 1290x190x60 |
| 11511 | 3F Travetta LED 1x40W DALI OP L2200 | 44 | 4887 | 4000 | >80 | 2200x190x60 |
| 11498 | 3F Travetta LED 2x22W DALI OP L1590 | 49 | 5683 | 4000 | >80 | 1590x190x60 |
| 11513 | 3F Travetta LED 2x40W DALI OP L2200 | 88 | 9511 | 4000 | >80 | 2200x190x60 |





3F Travetta LED DI

Construction characteristics

Illuminotechnical characteristics

Direct-indirect distribution.
 Average luminance <math><1000\text{ cd/m}^2</math> for radial angles >65°.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing with squared shape in white painted steel, with nonreflecting surface. 2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top.
 Prismatic PMMA diffuser for total shielding of the louvre compartment.
 Film protective against dust and finger marks, adhesive, attached to louvre.
 Upper holes closing film made of opal polycarbonate.

Electrical characteristics

In compliance with EN 60598-1.
 5-pole terminal block for cascade line connection with connection capacity 2x2.5 mm².

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 2.

On request

- different power levels, colour rendering indices and colour temperatures
- different dimensions
- housing and accessories in different RAL colours
- wiring: emergency, CLO (more information on page 542)
- version with LGS screen

Applications

Environments: exhibition areas, staterooms, with VDTs, halls, shops, great halls, offices.
 Environments where soft diffuse light is required for optimal visual comfort.

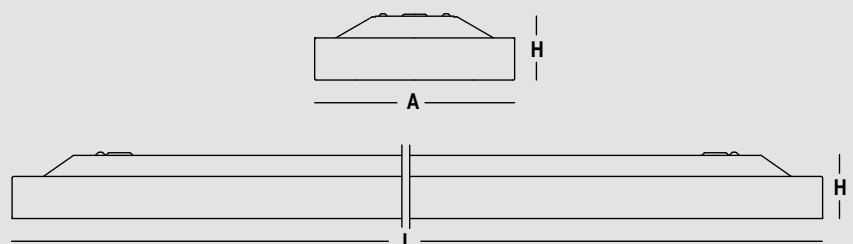
Installation

Suspension installation.

Light Management

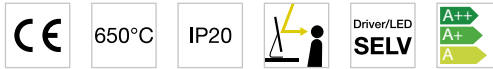
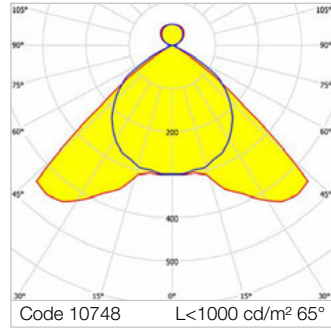
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).
 The DALI SENSOR (LS) products from this product family are all fitted with DALI light and presence sensors integrated into the luminaire (see "Light Management" chapter).

Dimensions



3F Travetta LED DI 2MG

Specular louvre, high efficiency



Light emission: direct 15%, indirect 85% .

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

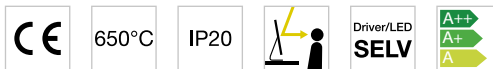
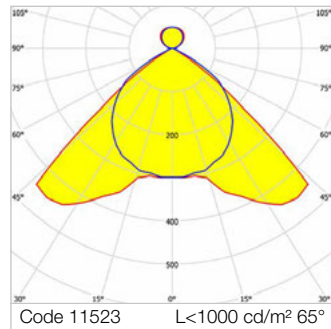
| | | | | | | |
|-------|------------------------------------|----|------|------|-----|-------------|
| 10747 | 3F Travetta LED DI 2x15W 2MG L1590 | 35 | 3958 | 4000 | >80 | 1590x190x60 |
| 10748 | 3F Travetta LED DI 2x22W 2MG L1590 | 49 | 5865 | 4000 | >80 | 1590x190x60 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|----|------|------|-----|-------------|
| 11503 | 3F Travetta LED DI 2x15W DALI 2MG L1590 | 35 | 3958 | 4000 | >80 | 1590x190x60 |
| 11504 | 3F Travetta LED DI 2x22W DALI 2MG L1590 | 49 | 5865 | 4000 | >80 | 1590x190x60 |

3F Travetta LED DI DALI Sensor 2MG

Specular louvre, high efficiency



Light emission: direct 15%, indirect 85% .

Integrated DALI light and presence sensor on the luminaire, to keep lighting levels constant in accordance with the amount of natural light and the presence of persons.
Turns on and off and is regulated according to the level of light and the presence of persons.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|----|------|------|-----|-------------|
| 11522 | 3F Trav. LED DI 2x15W DALI LS 2MG L1590 | 35 | 3958 | 4000 | >80 | 1590x190x60 |
| 11523 | 3F Trav. LED DI 2x22W DALI LS 2MG L1590 | 49 | 5865 | 4000 | >80 | 1590x190x60 |



3F Travetta LED Tunable White

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
Average luminance <math><1000\text{ cd/m}^2</math> for radial angles >65°.

The color temperature can be adjusted between 2700 K and 6500 K.

Lifetime (L90/B10): 30000 h. (tq+25°C)

Lifetime (L85/B10): 50000 h. (tq+25°C)

Lifetime (L75/B10): 80000 h. (tq+25°C)

Lifetime (L70/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing with squared shape in white painted steel, with nonreflecting surface. 2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top.

Opal methacrylate diffuser for total shielding of the louvre compartment. Film protective against dust and finger marks, adhesive, attached to louvre.

Electrical characteristics

In compliance with EN 60598-1.

Cable with a DALI DT8 driver.

5-pole terminal block (L-N-PE-DA/DA) for line connection with connection capacity 2x2.5 mm².

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different dimensions
- housing and accessories in different RAL colours
- wiring: emergency

Applications

Any environments requiring light which aims for the wellness of people. Environments with VDTs.

Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.

Installation

Ceiling mounted or suspension installation.

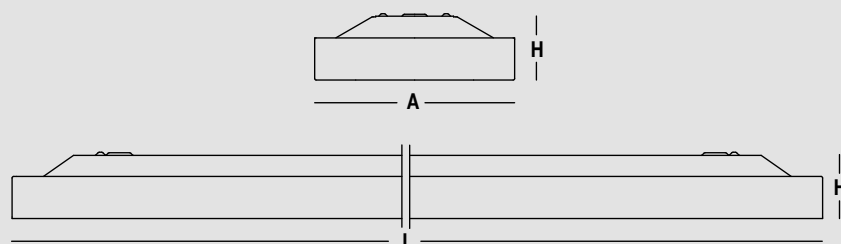
WARNING FOR SUSPENSION

INSTALLATION it is necessary to order suspension fixtures that are not equipped with cables and a 7 pin power cable.

Light Management

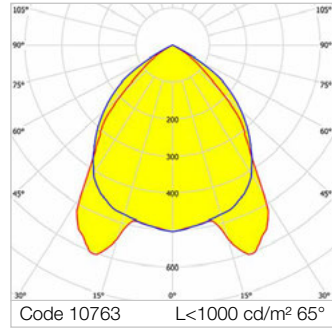
Products in the 3F Tunable White range can be controlled manually or automatically with 3F HCL for TW fixtures technology (see the chapter on "Light Management").

Dimensions



3F Travetta LED Tunable White 2MG

Specular louvre, high efficiency











Variable light intensity and color temperature.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI DT8 electronic wiring 230V-50/60Hz

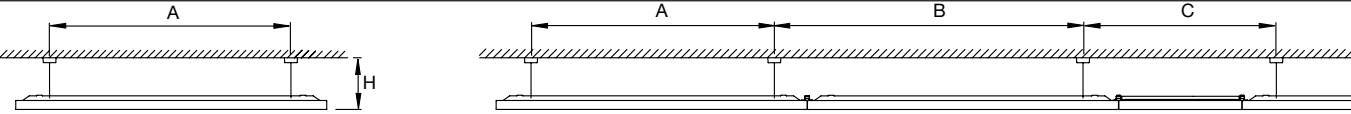
| | | | | | | |
|-------|--|----|----------------------|----------------------|-----|-------------|
| 10763 | 3F TRAV. LED 2X22W DALI DT8 TW 2MG L1590 | 51 | 5530 6214 5996 | 2700 4000 6500 | >80 | 1590x190x60 |
|-------|--|----|----------------------|----------------------|-----|-------------|

Surface luminaires and suspensions

3F Travetta LED

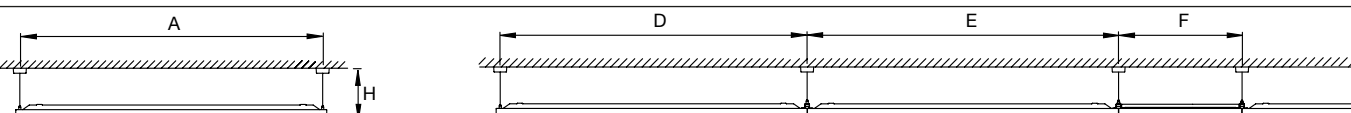
Installations

Mounting with fixed suspension H = 300-500-1000mm



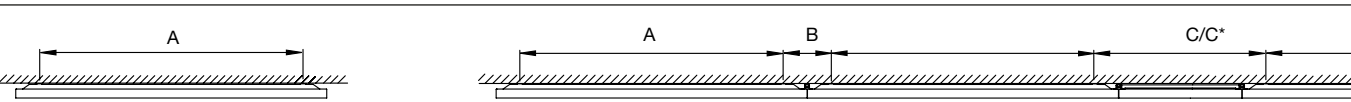
| Versions | A | Connecting bracket code | B | Connecting element code | C |
|-------------------------|------|-------------------------|------|---|-----------------------------------|
| 3F Travetta 1290 | 1200 | A0875 | 1290 | A0892 A0894 A0895 A0896 A0897 | 280 300 600 900 1200 |
| 3F Travetta 1590 | 1200 | A0875 | 1590 | A0892 A0894 A0895 A0896 A0897 | 580 600 900 1200 1500 |
| 3F Travetta 2200 | 1800 | A0875 | 2200 | A0892 A0894 A0895 A0896 A0897 | 590 610 910 1210 1510 |

Mounting with adjustable suspension H max 1000mm



| Versions | A | Connecting bracket code | D | E | Connecting element code | F |
|-------------------------|------|-------------------------|------|------|---|----------------------------------|
| 3F Travetta 1290 | 1250 | A0875 | 1270 | 1290 | A0892 A0894 A0895 A0896 A0897 | 190 210 510 810 1110 |
| 3F Travetta 1590 | 1550 | A0875 | 1570 | 1590 | A0892 A0894 A0895 A0896 A0897 | 190 210 510 810 1110 |
| 3F Travetta 2200 | 2160 | A0875 | 2180 | 2200 | A0892 A0894 A0895 A0896 A0897 | 190 210 510 810 1110 |

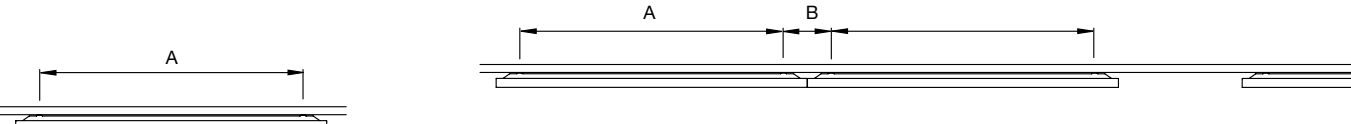
Ceiling mounting



| Versions | A | Connecting bracket code | B | Connecting element code | C | C* |
|------------------------------|------|-------------------------|-----|----------------------------------|----------------------------|-----------------------------|
| 3F Travetta 1290 (C) | 1075 | A0875 | 215 | A0892 | 405 | |
| 3F Travetta 1590 (C) | 1375 | A0875 | 215 | A0892 | 405 | 690 |
| 3F Travetta 2200 (C*) | 1700 | A0875 | 500 | A0894 A0895 A0896 A0897 | 425 725 1025 1325 | 710 1010 1310 1610 |

Installation on 3F Linux system

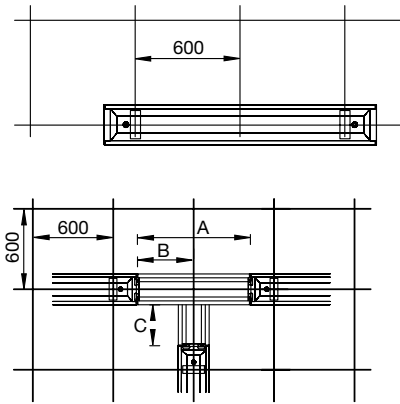
This type of installation avoids the use of connecting elements for 3F Travetta direct version.



| Versions | A | B |
|-------------------------|------|-----|
| 3F Travetta 1290 | 1075 | 215 |
| 3F Travetta 1590 | 1375 | 215 |
| 3F Travetta 2200 | 1700 | 500 |

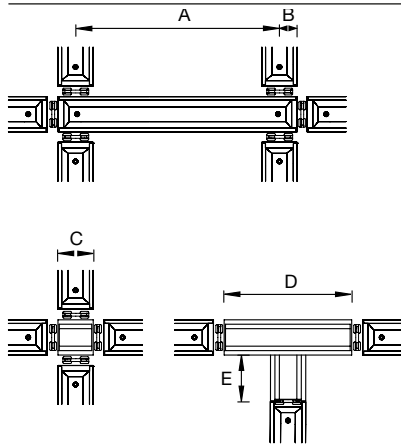
Installation to false ceiling with exposed structure 600x600 - 600x1200

For this type of installation only fixed suspensions are to be used.



| Versions | Linear connecting elements codes | | | | Connecting elements for branches codes | |
|------------------|----------------------------------|-------|---------|----------|--|-------|
| | A0894 | A0895 | A0896 | A0897 | A0951 | A0952 |
| 3F Travetta 1290 | | 510 | | 1110/505 | | 460 |
| 3F Travetta 1590 | 210 | | 810/405 | | 310 | |

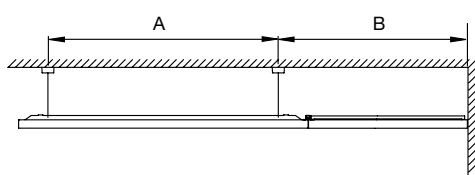
Formation of composition or branch



| Versions | A | B |
|------------------|------|----|
| 3F Travetta 1290 | 1100 | 95 |
| 3F Travetta 1590 | 1400 | 95 |

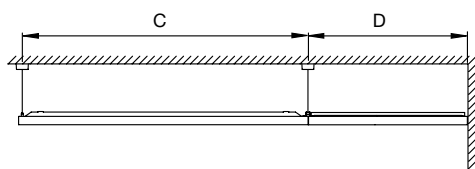
| Linear connecting elements codes | | | | | Connecting elements for branches codes | |
|----------------------------------|-------|-------|-------|-------|--|-------|
| A0892 | A0894 | A0895 | A0896 | A0897 | A0951 | A0952 |
| C | D | D | D | D | E | E |
| 190 | 210 | 510 | 810 | 1110 | 310 | 460 |

Wall power-supply



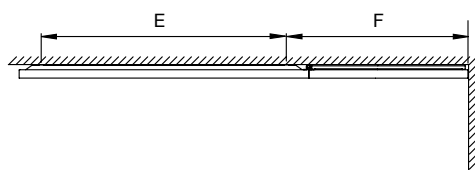
Fixed suspension

| Versions | A | Connecting bracket code | B |
|------------------|------|-------------------------|--------------|
| 3F Travetta 1290 | 1200 | A0941 A0942 | 855 1155 |
| 3F Travetta 1590 | 1200 | A0941 A0942 | 1005 1305 |
| 3F Travetta 2200 | 1800 | A0941 A0942 | 1010 1310 |



Adjustable suspension

| Versions | C | Connecting bracket code | D |
|------------------|------|-------------------------|-------------|
| 3F Travetta 1290 | 1270 | A0941 A0942 | 810 1110 |
| 3F Travetta 1590 | 1570 | A0941 A0942 | 810 1110 |
| 3F Travetta 2200 | 2180 | A0941 A0942 | 810 1110 |



Ceiling mounting

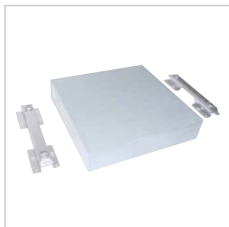
| Versions | E | Connecting bracket code | F |
|------------------|------|-------------------------|--------------|
| 3F Travetta 1290 | 1075 | A0941 A0942 | 918 1218 |
| 3F Travetta 1590 | 1375 | A0941 A0942 | 918 1218 |
| 3F Travetta 2200 | 1700 | A0941 A0942 | 1060 1360 |

3F Travetta Accessories



Connecting bracket to form linear channels or branches of single luminaires, in galvanized steel with upper holes for adjustable suspensions.

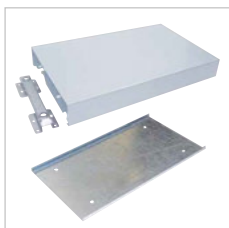
| Code | Item |
|-------|--|
| A0875 | Connecting bracket for linear channels or branches |



Linear connecting element and for branch, between luminaires or between luminaires and wall, to form channels, in steel with accessorizable cover, white colour. It allows the passage of the power-supply line. Concerning the use of connecting elements in false ceilings 600x600, see installation.

| Code | Item |
|-------|--|
| A0892 | White connecting element 190x190 3F Travetta GR |
| A0894 | White connecting element 190x210 3F Travetta GR |
| A0895 | White connecting element 190x510 3F Travetta GR |
| A0896 | White connecting element 190x810 3F Travetta GR |
| A0897 | White connecting element 190x1110 3F Travetta GR |
| A0941 | White connecting element lum/wall 810 3F Travetta |
| A0942 | White connecting element lum/wall 1110 3F Travetta |

On request: elements of desired length. Connecting elements for false ceiling 625x625.



Branching in correspondence with the steel linear connecting elements with a white colour accessory cover.

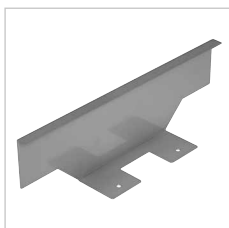
| Code | Item |
|-------|--|
| A0951 | White branches elem. 190x310 3F Travetta |
| A0952 | White branches elem. 190x460 3F Travetta |
| A0877 | Bracket for T-branch for 3F Travetta |
| A0878 | Bracket for X-branch for 3F Travetta |

It allows the passage of the power-supply line. The 190x190 linear connecting element can also be used for T junctions (request a bracket code A0875) and X junctions (request two brackets code A0875). To obtain an excellent T or X junction for connecting elements of a false ceiling with 600x600 visible profiles, the combination of a 1110 mm linear element with a 460 mm junction and the combination of a 810 mm linear element with a 310 mm junction are recommended.



Connecting element between luminaires or between luminaire and wall, white colour, composed of aluminium tube 1.5 m long Ø20 mm, which can be sectioned to any desired length, it allows the passage of the power-supply line.

| Code | Item |
|-------|---|
| A0870 | White connecting element with boss for luminaires |
| A0872 | White connecting element to wall with boss for luminaires |



Linear connecting element end cap to be used when there are connecting elements at the beginning or end of a channel.

| Code | Item |
|--------|------------------------------|
| A01368 | Travetta B joint closing cap |



Adjustable suspension with polycarbonate case in white colour, internal bracket in galvanized steel. Wired version with transparent power-supply cable 5x1.5 mm². Stainless steel cables Ø 1.25 mm, length 1 m, leaded at one end with adjusters for coupling on the luminaire.

| Code | Item |
|--------|--|
| A01318 | White rectangular case suspension-adj. 1 m |
| A01325 | Wired suspension 5P white rectangular case-adj.1 m |

On request: for suspensions longer than 1 m, it is necessary order stainless steel cables Ø 1,25 mm in spool of 100 m and pack of n° 100 clamps.
Accessory always required for 2200 mm long products.



Fixed suspension with white polycarbonate case, internal bracket in galvanized steel. Wired version with transparent power-supply cable 5x1.5 mm². Ø 1.25 mm stainless steel cables leaded at the end for coupling on the luminaire.

| Code | Item |
|--------|---|
| A01314 | White rectangular case suspension- fixed 0,3m |
| A01315 | White rectangular case suspension- fixed 0,5m |
| A01317 | White rectangular case suspension- fixed 1m |
| A01321 | Wired susp. 5P white rectangular case-fixed 0,3m |
| A01322 | Wired susp. 5P white rectangular case-fixed 0,5m |
| A01324 | Wired suspension 5P white rectangular case-fixed 1m |



Coil of stainless steel cable Ø 1.25 mm, length 100 m.

| Code | Item |
|-------|--|
| A0620 | Spool with stainless steel cable diam. 1,25mm 100 m The pack contains 100 metres. |



Clamps in nickel-plated brass suitable for fixing of steel wire (diameter 1.25 mm - 1.5 mm - 2 mm), complete with locking screws.

| Code | Item |
|-------|---|
| A0622 | Clamp 1 hole - 100 pcs The pack contains 100 pieces. |



Electric supply with white polycarbonate case, internal bracket in galvanized steel.

| Code | Item |
|-------|------------------------------------|
| A0679 | 5-pole rectangular rose (no cable) |



Filigare 180 LED

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.
 Metal end caps with cover element in white polycarbonate, removable to form channels.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 2.

On request

- different power levels, colour rendering indices and colour temperatures
- asymmetric luminaires
- housing and accessories in different RAL colours
- wiring: dimmable, CLO (more information on page 542), emergency

Applications

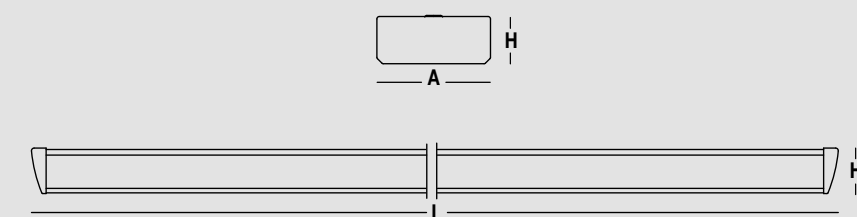
2US version

Environments: with VDTs, schools, offices.
 Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops, schools.
 High energy efficiency systems.

Installation

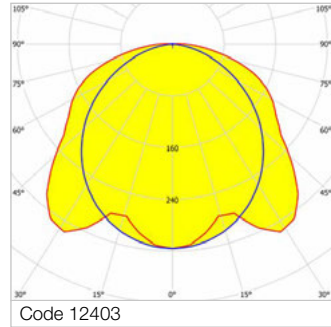
Ceiling mounted or suspension installation. In the event of ceiling installation of the 2US fixture the invisible sliding brackets (accessories) are always required. Installation and assembly diagrams on page 184.

Dimensions



Filigare 180 LED RSP

Flow recuperator with prismatic screen



850°C

IP40



Flow recuperator in specular aluminium, high efficiency, with superficial titanium-magnesium treatment, non-iridescent. SP diffuser in self-extinguishing V2 transparent polycarbonate, photo-engraved inside, UV stabilised, injection moulded with smooth outside.

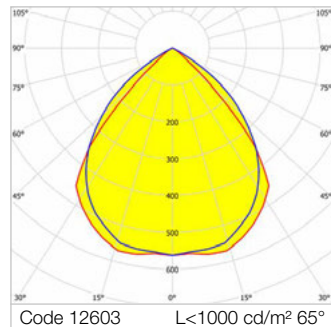
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|-------------|
| 12403 | Fil 180 LED 2x24W RSP AMPIO L1280 | 56 | 6965 | 4000 | >80 | 1280x180x85 |
| 12404 | Fil 180 LED 2x30W RSP AMPIO L1590 | 70 | 8718 | 4000 | >80 | 1590x180x85 |

Filigare 180 LED 2US

Semi-glossy louvre



650°C

IP20



Average luminance <math><1000 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. 2US parabolic louvre in semi-glossy aluminium, anti-glare, with transverse blades closed at the top. Prismatic PMMA diffuser for total shielding of the louvre compartment. Film protective against dust and finger marks, adhesive, attached to louvre. 2+2 in-line twin circuit wiring.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|-----|-------|------|-----|-------------|
| 12601 | Fil 180 LED 1x24W 2US L1280 | 28 | 2910 | 4000 | >80 | 1280x180x85 |
| 12603 | Fil 180 LED 1x30W 2US L1590 | 35 | 3643 | 4000 | >80 | 1590x180x85 |
| 12605 | Fil 180 LED 2x24W 2US L1280 | 56 | 5066 | 4000 | >80 | 1280x180x85 |
| 12607 | Fil 180 LED 2x30W 2US L1590 | 70 | 6341 | 4000 | >80 | 1590x180x85 |
| 12614 | Fil 180 LED 1+1x30W 2US L3140 | 70 | 7285 | 4000 | >80 | 3140x180x85 |
| 12618 | Fil 180 LED 2+2x30W 2US L3140 | 140 | 12682 | 4000 | >80 | 3140x180x85 |

Filigare 180 LED

Characteristics and installations

Housing in hot-galvanised steel, and painted in white polyester base obtained by Rolling Process.



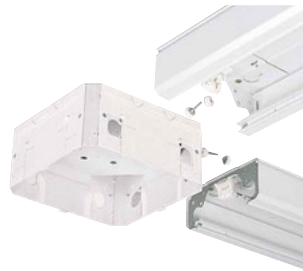
Branch box
By opening the relevant membranes, it allows cable installation with no need to insert them. It can also house a junction box.



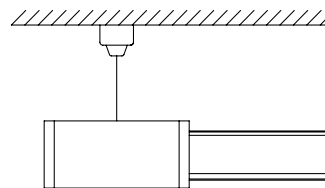
Removable end caps to form lighting channels or grid compositions.



Branch box
Allows L, T and cross-shaped compositions; it is fitted with 2 steel side covers for closing, to be used on free sides.

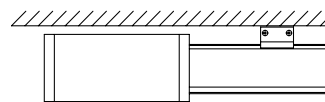


Kit for continuous channel for connecting the structures simply using screws and nuts.



Suspension mounting directly on the box.

Lighting systems
Perfect connection for a continuous lighting row.



Ceiling mounting, by using the sliding bracket in the higher position (21 mm) and placed in close proximity of the boxes.

Continuous side compartments physically separated from the luminous systems (louvres and flow recuperators) for the passage of power-supply lines in one compartment and for the wiring in the other one.



Connecting element for variable spacings between luminaires and between luminaire and wall.



Articulated connecting element for compositions with irregular angles.

Possibility of **head-to-side branch** so that lighting fitting can be joined at any point on its side after drilling, to be implemented on site by the installer.



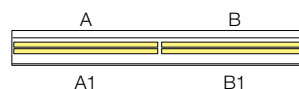
Head-to-side branch is recommended only for occasional connections.

Switch-on:

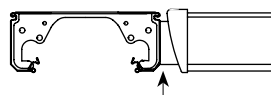
Filigare 1+1 = single-circuit (A)



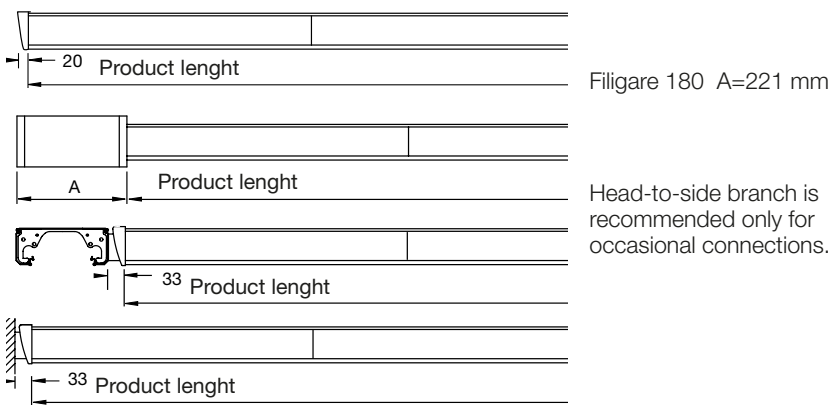
Filigare 2+2 = twin-circuit in-line wiring. (A/B and A1/B1)



Reference point for alignment



Formation of channels, branches and wall-mounting



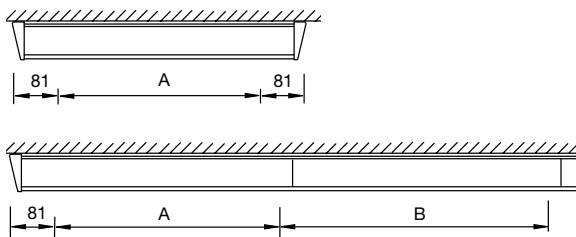
| LED versions | | |
|----------------|--|------|
| 1-2x24 | | 1240 |
| 1-2x30 | | 1550 |
| 1+1x30; 2+2x30 | | 3100 |

Channel luminaire installation

For creating continuous lighting channels, in order to reduce purchase and installation costs, we recommend using the longest (1+1 e 2+2) Filigare versions rather than the shorter ones.

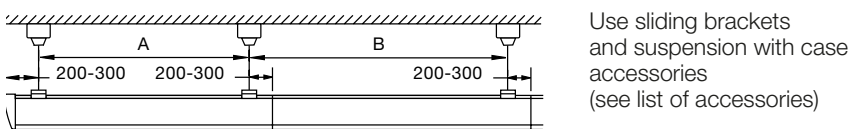
| Luminaire type | On-centre installation distance for channel | On-centre installation distance with junction box |
|------------------|---|---|
| Filigare 180 LED | 3100 mm | 3321mm |

Mounting directly to the ceiling



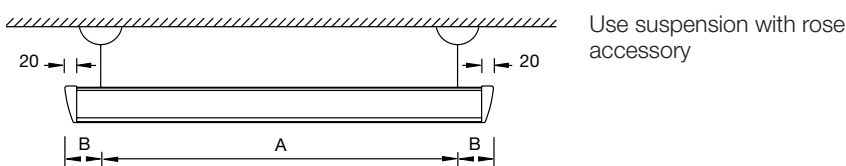
| LED versions with sliding brackets and louvre | | |
|---|--|-----------|
| 1-2x24 | | 1118 1240 |
| 1-2x30 | | 1428 1550 |
| 1+1x30; 2+2x30 | | 2978 3100 |

Mounting with suspension and sliding brackets for channel luminaires



| LED versions | | |
|----------------|-----------|------|
| 1+1x30; 2+2x30 | 2500-2700 | 3100 |

Mounting with suspension for luminaires or single structures



| LED versions | | |
|----------------|------|-----|
| 1-2x24 | 1020 | 130 |
| 1-2x30 | 1330 | 120 |
| 1+1x30; 2+2x30 | 2880 | 130 |

Filigare Accessories



Structure in hot-galvanized steel painted in white polyester.

| Code | Item |
|-------|--------------------------|
| A0006 | Fil 180 CP620 Structure |
| A0008 | Fil 180 CP1240 Structure |
| A0009 | Fil 180 CP1550 Structure |

These accessories must ALWAYS be used with one of the following codes: A0030.



Kit for continuous channel composed of blend stop and two screws with nuts.

| Code | Item |
|-------|-------------------------------------|
| A0030 | Fil 180 CC (continuous channel kit) |



Bracket to strengthen structures connection in white painted steel for continuous channel of considerable length, complete with kit for continuous channel, one bracket every two connections is recommended.

| Code | Item |
|-------|---|
| A0066 | Strength. Brack.+Connect. Kit - Fil 180 |



Connecting element for variable interdistances between luminaires, composed of a pair of adapter cylinders and aluminium tube 1.5 m long, Ø 35 mm, which can be sectioned to any desired length.

| Code | Item |
|-------|----------------------------|
| A0034 | Pair of white cylinders |
| A0035 | Aluminium tube 1.5 m white |

The branch end cap (cod. A0033) is always necessary.



Branch box in white painted steel for L, T and cross-shaped branches. Possibility of suspension at the centre of the box, see suspension (cod. A0045 - A0046 - A0047 - A0762 - A0766 - A0770). A hermetic junction box can be housed internally.

| Code | Item |
|-------|-----------------------------|
| A0036 | Fil 180 BL (box for branch) |



Elements for branch and for wall-mounting for Filigare 180, in white polycarbonate, interchangeable with standard end caps.

| Code | Item |
|-------|---------------------------------|
| A0033 | Fil 180 DT (element for branch) |



Articulated connecting element in white polycarbonate; it is not a mechanical support; it allows the passage of power-supply line. It must always be coupled with 2 elements for branch connection (cod. A0033).

| Code | Item |
|-------|--------------------------------------|
| A0038 | White articulated connecting element |



Pair of end cap cover elements (in white polycarbonate), complete with fixing bolts.

| Code | Item |
|-------|--------------------------------|
| A0039 | Pair of white end caps Fil 180 |



Concealed sliding bracket for free positioning, in galvanized steel, for mounting to or suspension from the ceiling. It can be adjusted at two heights to position the structure at distances of 16 or 21 mm from the ceiling. Allows for installation even on surfaces that are normally flammable.

| Code | Item |
|-------|------------------------------|
| A0042 | Fil 180 SS (sliding bracket) |

Always required for Filigare 180 LED 2US version.



Adjustable suspension for single-unit, composed by: polycarbonate ceiling white rose Ø 110 mm, stainless steel cable Ø 1,25 mm (length 1 m), quick adjuster, white power cable 1,5 mm² section, H05VV-F (length 2 m).

| Code | Item |
|-------|--|
| A0124 | Rose 110 (Adjust. susp.1m unwired) |
| A0125 | Rose 110 (Adjust. susp.1m wired with 4-pole cable) |
| A0114 | Rose 110 (Adjust. susp.1m wired with 5-pole cable) |



Adjustable suspension for continuous channel composed of white polycarbonate case, internal bracket in galvanized steel, cables Ø 2 mm in galvanized steel, quick adjusters, maximum load 50 kg.

| Code | Item |
|-------|--|
| A0045 | Adjustable suspension for channel 1m |
| A0046 | Adjustable suspension for channel 1.5m |
| A0047 | Adjustable suspension for channel 2m |
| A0762 | Adjustable suspension for channel 3m |
| A0766 | Adjustable suspension for channel 4m |
| A0770 | Adjustable suspension for channel 6m |

For continuous channel it is always necessary to use the sliding bracket (cod. A0042). The box is fixed directly. On request galvanized steel cable of Ø 2 mm, spool of 100 m.



Coil of stainless steel cable Ø 1.25 mm, length 100 m.

| Code | Item |
|-------|--|
| A0620 | Spool with stainless steel cable diam. 1,25mm 100 m The pack contains 100 metres. |



Clamps in nickel-plated brass suitable for fixing of steel wire (diameter 1.25 mm - 1.5 mm - 2 mm), complete with locking screws.

| Code | Item |
|-------|---|
| A0622 | Clamp 1 hole - 100 pcs The pack contains 100 pieces. |



Cable clip in polycarbonate, snap-lock fastening in side compartment; it is advisable to use it every meter.

| Code | Item |
|-------|--|
| A0053 | Fil 19 BF (cable clip) The pack contains 20 pieces. |



White closing strip in PVC to be attached by fitting into position in structure.

| Code | Item |
|-------|--------------------------------------|
| A0016 | 32 IF (PVC closing top Fil 180-620) |
| A0018 | 32 MH (PVC closing top Fil 180-1240) |
| A0019 | 32 HA (PVC closing top Fil 180-1550) |

These accessories must ALWAYS be used with one of the following codes: A0006 - A0008 - A0009.

850°C



White closing strip in steel, to be attached by fitting into position in structure.

| Code | Item |
|-------|------------------------------------|
| A0021 | Fil 180 AB620 (steel closing top) |
| A0023 | Fil 180 AB1240 (steel closing top) |
| A0024 | Fil 180 AB1550 (steel closing top) |

These accessories must ALWAYS be used with one of the following codes: A0006 - A0008 - A0009.



Wall-mounting bracket, in white painted steel, suitable for mounting on the sliding bracket A0042 (always necessary).

| Code | Item |
|-------|---|
| A0052 | Fil 15 FP (wall-mounting bracket Fil 180) |





P 200 LED

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 Average luminance <math><1000\text{ cd/m}^2</math> for radial angles >65°.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.
 2US parabolic louvre in semi-glossy aluminium with transverse blades closed at the top and prismatic PMMA diffusers for total shielding of the louvre compartment.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Linear LED modules.
- 10W version**
- Color initial tolerance (MacAdam): SDCM 2.
- 24W, 30W versions**
- Color initial tolerance (MacAdam): SDCM 3.

On request

- parabolic louvres 2M, 2MG, 3AO
- different power levels, colour rendering indices and colour temperatures
- housing in RAL colours
- wiring: dimmable, CLO (more information on page 542), emergency

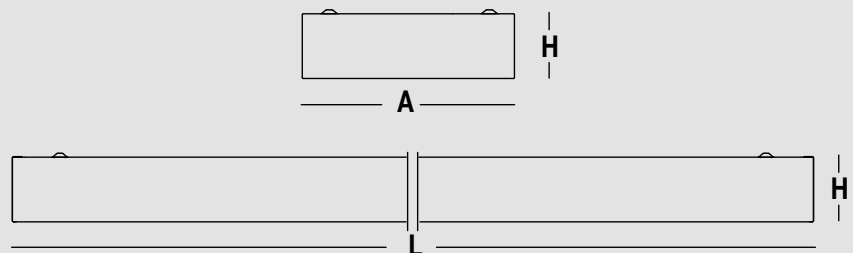
Applications

Environments: with VDTs, schools, offices.

Installation

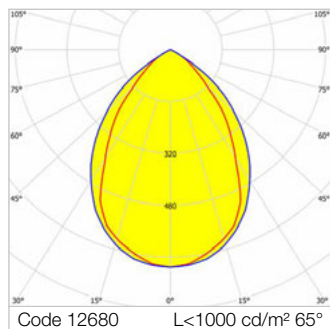
Ceiling mounted installation.

Dimensions



P 200 LED 2US

Semi-glossy louvre



650°C

IP20



Driver/LED
SELV



Average luminance <math><1000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
2US parabolic louvre in semi-glossy aluminium, anti-glare, with transverse blades closed at the top.
Prismatic PMMA diffuser for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.

Surface luminaires and suspensions

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------|----|------|------|-----|-------------|
| 12675 | P 201x30W LED 2US 156x1531 | 35 | 3529 | 4000 | >80 | 1531x156x82 |
| 12692 | P 203x10W LED 2US 596x596 | 34 | 3748 | 4000 | >80 | 596x596x82 |
| 12687 | P 202x24W LED 2US 270x1231 | 56 | 5531 | 4000 | >80 | 1231x270x82 |
| 12680 | P 202x24W LED 2US 196x1231 | 56 | 5871 | 4000 | >80 | 1231x196x82 |
| 12689 | P 202x30W LED 2US 270x1531 | 70 | 6922 | 4000 | >80 | 1531x270x82 |
| 12682 | P 202x30W LED 2US 196x1531 | 70 | 7348 | 4000 | >80 | 1531x196x82 |



P 200 LED IP54

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

VS version

3x - Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 4x - Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Linear LED modules.
- 10W version**
- Color initial tolerance (MacAdam): SDCM 2.
- 24W version**
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- diffuser in SMP microprismatic PMMA or SP polycarbonate, Selfextinguishing V2
- housing in different RAL colours
- wiring: dimmable, CLO (more information on page 542), emergency

Applications

Particularly suitable for environments where protection against water and dust is required, such as hospitals, pharmaceutical and chemical laboratories. In environments with foodstuffs or machines with moving parts, with considerable sudden temperature changes, and in general in any environments requiring total protection against falling fragments, use the P 200 LED IP54 SP PC version (polycarbonate diffuser) available on request.

Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.

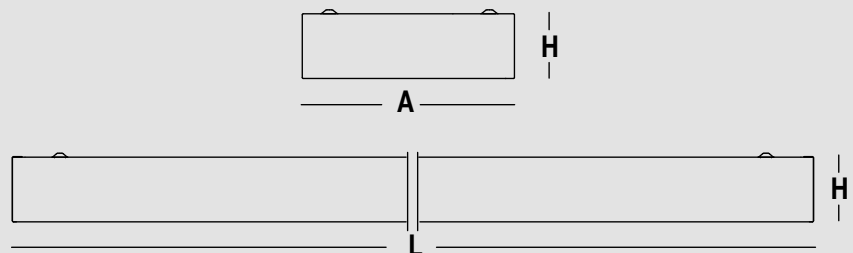
SP version

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

Installation

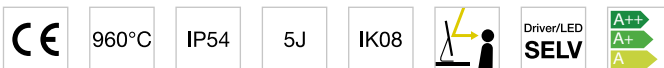
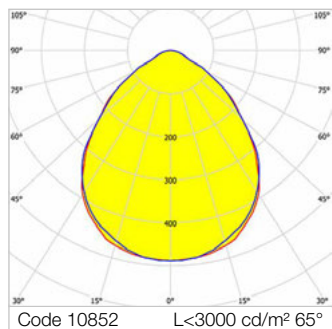
Ceiling mounted installation.

Dimensions



P 200 LED IP54 VS

Moulded glass



3x - Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 4x - Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 VS moulded glass, anti-glare, tempered, non-combustible, thickness 4 mm, locked to the white painted aluminium perimetrical frame, sealing gasket, hinged opening.

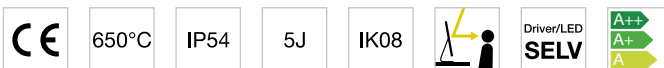
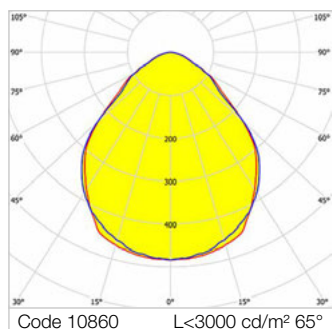
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------|----|------|------|-----|-------------|
| 10851 | P 203x10W LED VS IP54 596x596 | 34 | 3986 | 4000 | >80 | 596x596x82 |
| 10852 | P 204x10W LED VS IP54 596x596 | 45 | 5253 | 4000 | >80 | 596x596x82 |
| 10848 | P 202x24W LED VS IP54 196x1231 | 56 | 6302 | 4000 | >80 | 1231x196x82 |

P 200 LED IP54 SP

Flat diffuser, prismatic in methacrylate



SP transparent PMMA diffuser, prismatic, anti-glare, locked to the pre-painted white aluminium perimeter frame with sealing gasket, hinged opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------|----|------|------|-----|-------------|
| 10859 | P 203x10W LED SP IP54 596x596 | 34 | 4142 | 4000 | >80 | 596x596x82 |
| 10860 | P 204x10W LED SP IP54 596x596 | 45 | 5474 | 4000 | >80 | 596x596x82 |
| 10856 | P 202x24W LED SP IP54 196x1231 | 56 | 6567 | 4000 | >80 | 1231x196x82 |



P 250 LED

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

SP version

Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.

LGS version

Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >65°.

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.

Height only 55 mm.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Linear LED modules.

10W version

- Color initial tolerance (MacAdam): SDCM 2.

24W, 30W versions

- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- diffuser in SMP microprismatic PMMA or SP polycarbonate, Selfextinguishing V2
- housing in different RAL colours
- wiring: dimmable, CLO (more information on page 542), emergency

Applications

Particularly suitable for low height environments.

SP version

Environments: with VDTs, offices.

Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.

OP version

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

LGS version

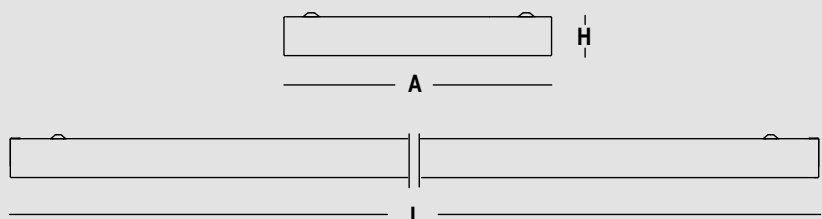
Environments: with video terminals, representative areas, offices.

Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.

Installation

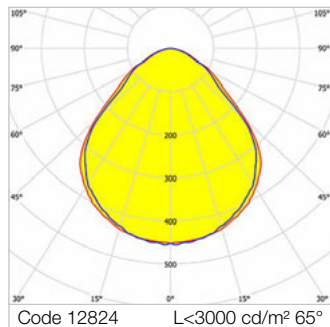
Ceiling mounted installation.

Dimensions



P 250 LED SP

Flat diffuser, prismatic in methacrylate



Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. SP transparent PMMA diffuser, prismatic, anti-glare, locked to the pre-painted white aluminium perimeter frame with sealing gasket, hinged opening.

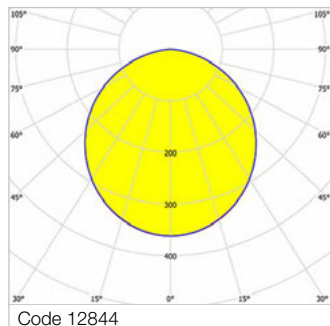
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------|----|------|------|-----|-------------|
| 12824 | P 253x10W LED SP 596x596 | 34 | 4360 | 4000 | >80 | 596x596x55 |
| 12815 | P 251x30W LED SP 156x1531 | 35 | 4364 | 4000 | >80 | 1531x156x55 |
| 12826 | P 254x10W LED SP 596x596 | 45 | 5765 | 4000 | >80 | 596x596x55 |
| 12820 | P 252x24W LED SP 196x1231 | 56 | 6916 | 4000 | >80 | 1231x196x55 |
| 12822 | P 252x30W LED SP 196x1531 | 70 | 8655 | 4000 | >80 | 1531x196x55 |

P 250 LED OP

Opal PMMA flat diffuser



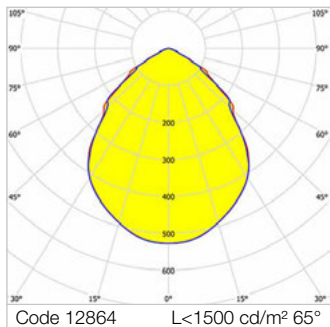
OP opal PMMA flat diffuser, anti-glare, locked to the pre-painted white aluminium perimeter frame with sealing gasket, hinged opening.








| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------|----|------|------|-----|-------------|
| 12844 | P 253x10W LED OP 596x596 | 34 | 4080 | 4000 | >80 | 596x596x55 |
| 12835 | P 251x30W LED OP 156x1531 | 35 | 4084 | 4000 | >80 | 1531x156x55 |
| 12846 | P 254x10W LED OP 596x596 | 45 | 5405 | 4000 | >80 | 596x596x55 |
| 12840 | P 252x24W LED OP 196x1231 | 56 | 6484 | 4000 | >80 | 1231x196x55 |
| 12842 | P 252x30W LED OP 196x1531 | 70 | 8116 | 4000 | >80 | 1531x196x55 |

P 250 LED LGS



Average luminance <math><1500 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 LGS micro-prismatic flat diffuser in transparent methacrylate, multilenticular exterior, anti-glare, locked to the white painted aluminium perimetral frame, sealing gasket, hinged opening. Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------|----|------|------|-----|-------------|
| 12864 | P 253x10W LED LGS 596x596 | 34 | 3696 | 4000 | >80 | 596x596x55 |
| 12855 | P 251x30W LED LGS 156x1531 | 35 | 3700 | 4000 | >80 | 1531x156x55 |
| 12866 | P 254x10W LED LGS 596x596 | 45 | 4894 | 4000 | >80 | 596x596x55 |
| 12860 | P 252x24W LED LGS 196x1231 | 56 | 5871 | 4000 | >80 | 1231x196x55 |
| 12862 | P 252x30W LED LGS 196x1531 | 70 | 7348 | 4000 | >80 | 1531x196x55 |





P 250 LED Diffused Light

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Lifetime (L90/B20): 30000 h. (tq+25°C)

Lifetime (L80/B20): 50000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

LGS version

Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >65°.

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.

Height only 55 mm.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Squared LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- diffuser in SMP microprismatic PMMA or SP polycarbonate, Selfextinguishing V2
- housing in different RAL colours

Applications

Particularly suitable for low height environments.

LGS version

Environments: with video terminals, representative areas, offices.

Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.

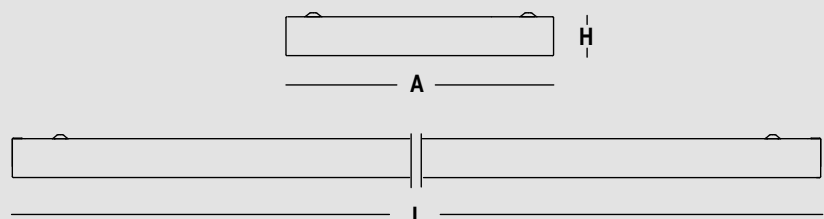
OP version

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

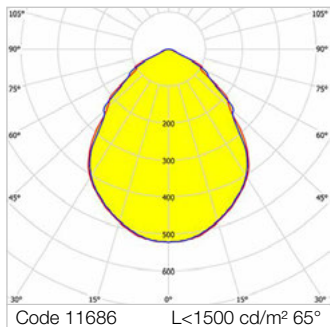
Installation

Ceiling mounted installation.

Dimensions



P 250 LED Diffused Light LGS



Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare, locked to the white painted aluminium perimeter frame, hinged opening.
 Anti-glare opal polycarbonate filter for brightness uniformity.

Surface luminaires and suspensions

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

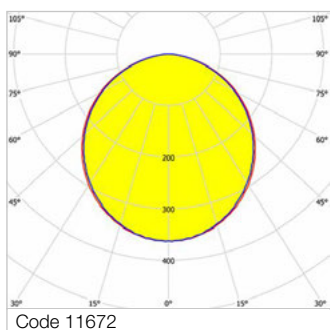
| | | | | | | |
|-------|---------------------------|----|------|------|-----|------------|
| 11686 | P 250 32W LED LGS 596x596 | 37 | 3620 | 4000 | >80 | 596x596x55 |
|-------|---------------------------|----|------|------|-----|------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------|----|------|------|-----|------------|
| 11688 | P 250 32W LED DALI LGS 596x596 | 37 | 3620 | 4000 | >80 | 596x596x55 |
|-------|--------------------------------|----|------|------|-----|------------|

P 250 LED Diffused Light OP

Opal PMMA flat diffuser



OP opal PMMA flat diffuser, anti-glare, locked to the pre-painted white aluminium perimeter frame, hinged opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------|----|------|------|-----|------------|
| 11672 | P 250 32W LED OP 596x596 | 37 | 3950 | 4000 | >80 | 596x596x55 |
|-------|--------------------------|----|------|------|-----|------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|------------|
| 11674 | P 250 32W LED DALI OP 596x596 | 37 | 3950 | 4000 | >80 | 596x596x55 |
|-------|-------------------------------|----|------|------|-----|------------|



Barraluce P LED

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Natural anodised extruded aluminium housing.
 Removable gear-tray, functions as flux recuperator, in specular aluminium, high efficiency, with titanium-magnesium surface treatment, non-iridescent.

Electrical characteristics

In compliance with EN 60598-1.
 1+1 wiring in twincircuit.
 Upper power entry near an end cap.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- wiring: dimmable, CLO (more information on page 542), emergency
- possibility to create lighting corners

Applications

Environments: with VDTs, meeting rooms, offices.
 Environments: architectural, commercial, staterooms, banks.
 Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

Installation

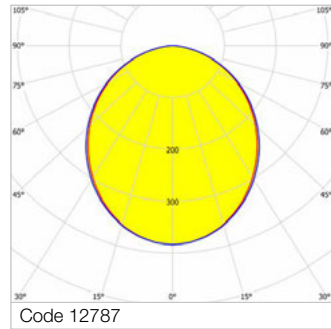
Ceiling mounted or suspension installation.

Dimensions



Barraluce P LED OP - Single

Opal PMMA flat diffuser



650°C

IP40



Luminaire for standalone installation with aluminium end caps.
OP opal methacrylate flat diffuser, anti-glare.

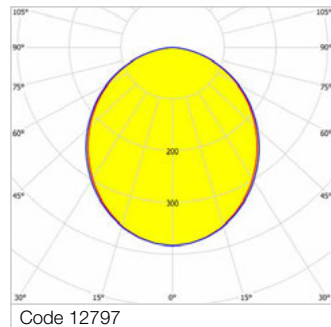
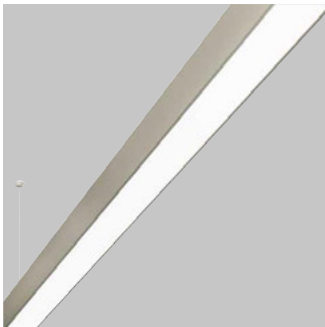
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------------|----|------|------|-----|-------------|
| 12787 | Barraluce P 1x30W LED OP L1471 | 35 | 3004 | 4000 | >80 | 1471x99x100 |
| 12789 | Barraluce P 1+1x30W LED OP L2937 | 70 | 6009 | 4000 | >80 | 2937x99x100 |

Barraluce P LED OP - Channel

Opal PMMA flat diffuser



650°C

IP40



Luminaire for continuous channel installation (end caps not included).

OP opal methacrylate flat diffuser, anti-glare.

Through-wiring, 5-pole, 2.5 mm² section with irreversible fastconnection plug/socket, with irreversible fast-connection socket for branch, connecting to the socket positioned on the gear-tray unit.

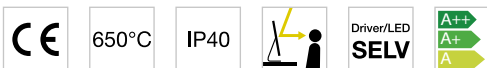
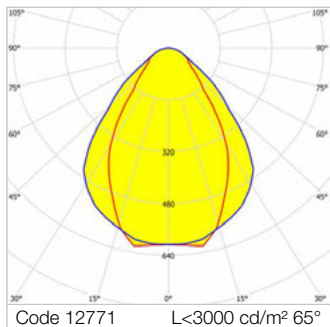
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------------|----|------|------|-----|-------------|
| 12795 | Barraluce P 1x30W LED OP 5P L1466 | 35 | 3004 | 4000 | >80 | 1466x99x100 |
| 12797 | Barraluce P 1+1x30W LED OP 5P L2932 | 70 | 6009 | 4000 | >80 | 2932x99x100 |

Barraluce P LED SP - Single

Flat diffuser, prismatic in methacrylate



Average luminance <math><3000 \text{ cd/m}^2</math> for radial angles >65°. Luminaire for standalone installation with aluminium end caps. SP flat diffuser in PMMA transparent prismatic methacrylate, anti-glare.

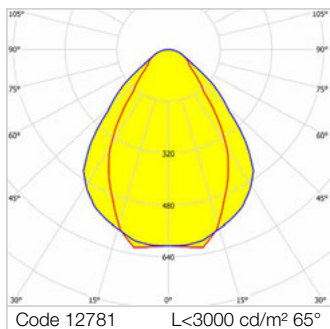
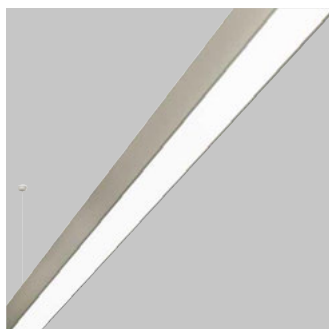
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------------|----|------|------|-----|-------------|
| 12771 | Barraluce P 1x30W LED SP L1471 | 35 | 3383 | 4000 | >80 | 1471x99x100 |
| 12773 | Barraluce P 1+1x30W LED SP L2937 | 70 | 6766 | 4000 | >80 | 2937x99x100 |

Barraluce P LED SP - Channel

Flat diffuser, prismatic in methacrylate



Average luminance <math><3000 \text{ cd/m}^2</math> for radial angles >65°. Luminaire for continuous channel installation (end caps not included). SP flat diffuser in PMMA transparent prismatic methacrylate, anti-glare. Through-wiring, 5-pole, 2.5 mm² section with irreversible fastconnection plug/socket, with irreversible fast-connection socket for branch, connecting to the socket positioned on the gear-tray unit.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------------|----|------|------|-----|-------------|
| 12779 | Barraluce P 1x30W LED SP 5P L1466 | 35 | 3383 | 4000 | >80 | 1466x99x100 |
| 12781 | Barraluce P 1+1x30W LED SP 5P L2932 | 70 | 6766 | 4000 | >80 | 2932x99x100 |

Barraluce P Accessories



Concealed sliding bracket in galvanized steel for free positioning, with locking screws.

| Code | Item |
|--------|---------------------------------|
| A01429 | Sliding bracket for Barraluce P |



Linear connecting elements in hot-galvanized steel with grub screws for fast and rigid installation.

| Code | Item |
|--------|--------------------------------------|
| A01423 | Linear connecting elements Barraluce |

These accessories are not suitable for single-unit installation.



Pair of end caps for channels, in grey painted aluminium, with screws for fixing to housing, always required. Thickness: 2 mm each cap.

| Code | Item |
|--------|---|
| A01434 | Pair of end caps for Barraluce L channels with diffuser |

These accessories are not suitable for single-unit installation.



Terminal block (plug/socket) with irreversible snap-in double clamp, for power-supply connection at beginning and end of the channel, 5 poles.

| Code | Item |
|--------|---|
| A02484 | 5P socket/plug terminal block Beginning/End Channel |

These accessories are not suitable for single-unit installation.



Suspension for Barraluce P with regulator, galvanized steel cable of 2 mm diameter, load 25 kg.

| Code | Item |
|-------|--|
| A0693 | Suspension with adjustment for Barraluce P - 1 m |
| A0694 | Suspension with adjustment for Barraluce P - 2 m |
| A0695 | Suspension with adjustment for Barraluce P - 3 m |
| A0696 | Suspension with adjustment for Barraluce P - 4 m |
| A0697 | Suspension with adjustment for Barraluce P - 5 m |
| A0698 | Suspension with adjustment for Barraluce P - 6 m |

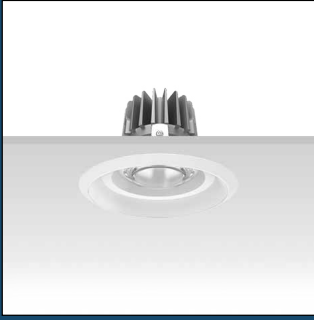
It is always necessary to use the sliding bracket (cod. A01429).



Electric supply with white polycarbonate case, internal bracket in galvanized steel.

| Code | Item |
|-------|------------------------------------|
| A0679 | 5-pole rectangular rose (no cable) |

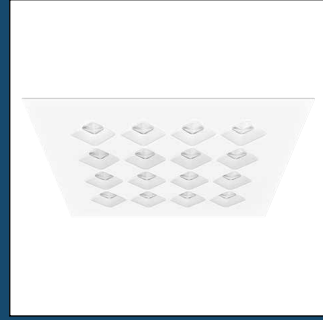
3F Reno



3F Emilio R



3F Diagon



L 320



L 350



L 360



L 480



L 560



L 580



L 590



Barraluce L



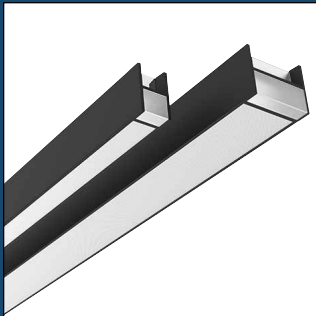
Lucequadro



Galassia



3F HD



Recessed luminaires

| Page | Product | Lay-installation | Pull-up installation | Sterile environments | Slat ceiling |
|------|--|------------------|----------------------|----------------------|--------------|
| 206 | 3F Reno | | | | |
| 212 | 3F Reno White | | • | | |
| 220 | 3F Reno Black | | • | | |
| 228 | 3F Emilio R | | | | |
| 228 | 3F Emilio R | | • | | |
| 232 | 3F Diagon | | | | |
| 238 | UPDATE 3F Diagon Lay-in installation | • | | | |
| 242 | NEW 3F Diagon Tunable White Lay-in installation | • | | | |
| 246 | UPDATE 3F Diagon Pull-up installation | | • | | |
| 252 | L 320 | | | | |
| 252 | L 320 LED | • | with brackets | | |
| 258 | L 320 LED Diffused Light | • | | | |
| 262 | L 320 LED Tunable White | • | with brackets | | |
| 264 | L 320 LED Sensor | • | with brackets | | |
| 270 | L 350 | | | | |
| 270 | L 350 LED | • | with brackets | | |
| 274 | L 360 | | | | |
| 274 | NEW L 360 | • | | | |
| 276 | L 480 | | | | |
| 276 | NEW L 480 | | • | | |
| 280 | L 560 | | | | |
| 280 | L 560 LED | | | | • |
| 284 | L 580 | | | | |
| 284 | UPDATE L 580 LED IP54 | • | • | • | |
| 288 | L 590 | | | | |
| 288 | UPDATE L 590 LED IP65 | • | • | • | |
| 292 | Barraluce L | | | | |
| 292 | Barraluce L LED | | • | | |
| 296 | Lucequadro | | | | |
| 296 | Lucequadro LED | | • | | |
| 300 | Galassia | | | | |
| 300 | Galassia 220 | | • | | |

3F Reno



Focused on efficiency



To combine comfort, effectiveness and efficiency: this is the objective of 3F Reno, the new recessed spotlight designed to provide quality lighting in every context, from professional to commercial environments.

Available in 3 different sizes (100, 150 and 200 millimetre recessed holes), it provides maximum installation flexibility: a wide range of luminous fluxes (from 900 lumen right up to more than 4000 lumen), excellent colour rendering and a high level of visual comfort.

3F Reno is available with 4 different luminous flux distributions: Wide, Spot, Elliptical and UGR.

3F Reno comes in two different colours (black and white) to adapt better to the different contexts it is used in.

3F Reno

Product range

3F Reno was developed to obtain the lowest luminance level possible by working with the lens on flow distribution: the percentage of light emitted directly (which therefore does not interact with the reflector) is higher than **95%**.

The stepped surface visibly halves the reflective surface: this structure practically eliminates annoying reflections that can affect the viewer's eye even if they are at a discrete distance from the product (as in open plan offices).

In installations where minimum luminance values are required, the BK version with black reflector has reduced values up to **95%** (3F Reno 200 BK WIDE) compared to the WH version made of white polycarbonate.

Versions with a White reflector (WH):



3F Reno 100 WH

3F Reno 150 WH

3F Reno 200 WH

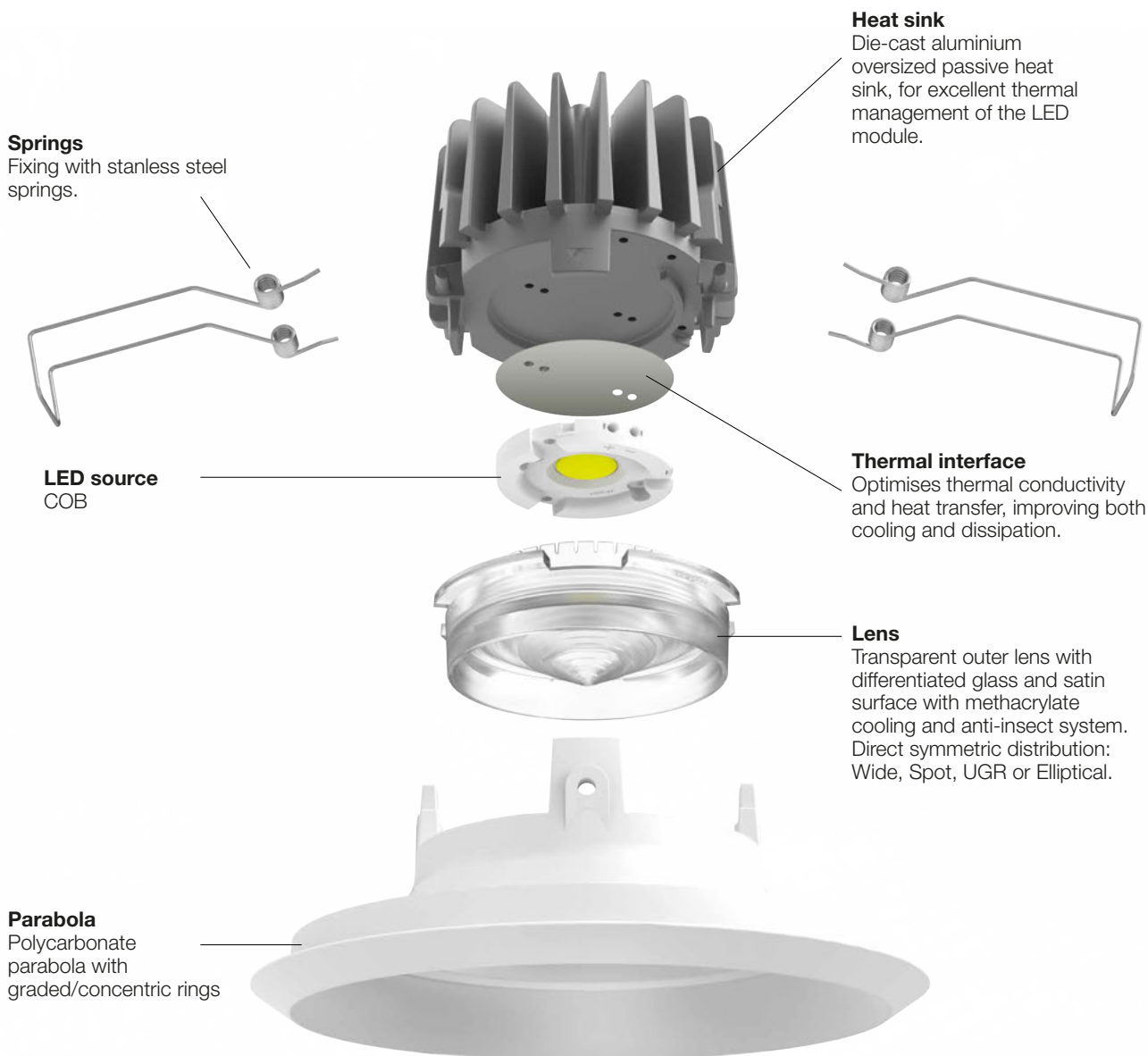
Versions with a Black reflector (BK):



3F Reno 100 BK

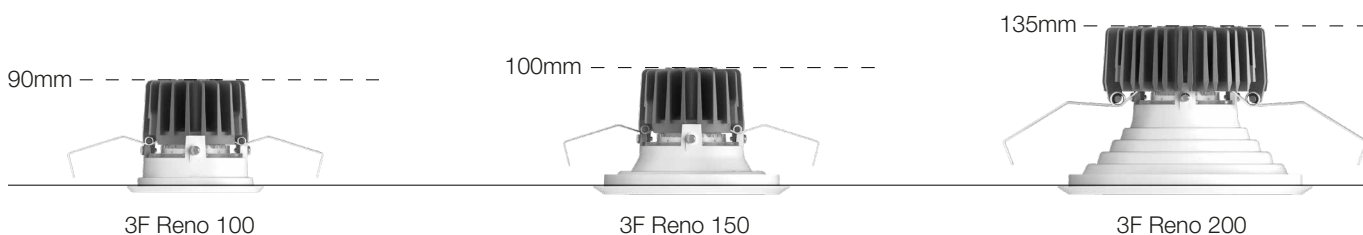
3F Reno 150 BK

3F Reno 200 BK



Every environment is unique: to provide the most appropriate lighting according to specific needs and requirements 3F Reno comes in 3 different sized recessed holes: 100mm, 150mm and 200mm (actual sizes 116mm, 166mm and 216mm). To facilitate the installation of every product every fixture is supplied with a template to make the hole.

All versions share a significant advantage in terms of practicality: we have developed a highly efficient, compact heat sink that facilitates installation in shallow technical spaces, ensuring that these sizes do not vary **regardless of the photometric distribution used** (unlike what happens for most products on the market). This way the recessed dimensions from the external edge of the plasterboard are as follows:



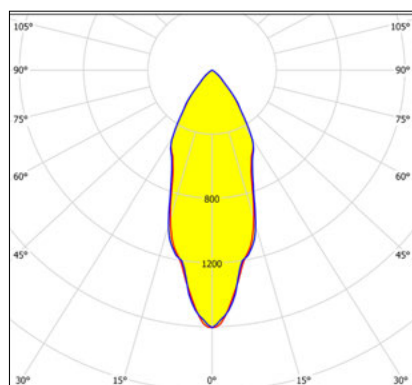
3F Reno

Luminous distribution for all requirements

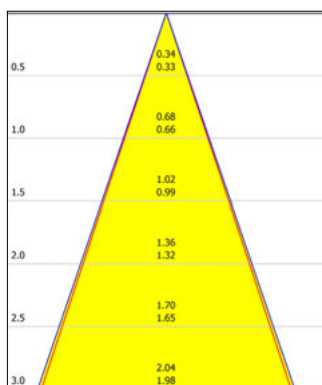
A light for every environment. 3F Reno was designed to provide the most suitable lighting according to the architectural context. The 4 luminous flux beam openings make it possible to enhance all illuminated space to the full using suitable beam openings, according to the use of the environment.

Spot Distribution

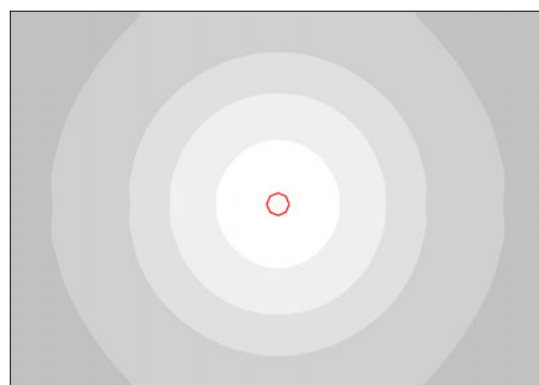
Photometry



Cone Diagram



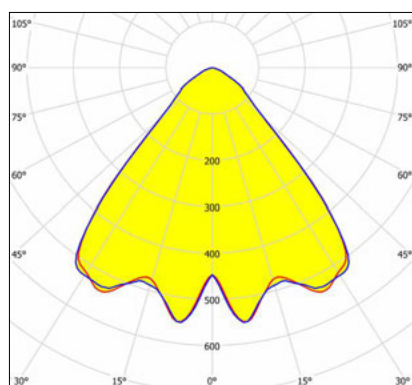
Projected on the ground



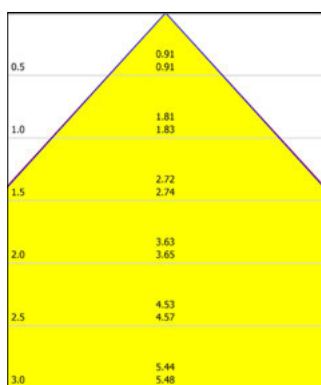
SPOT distribution is recommended to provide concentrated lighting in specific points and is the ideal choice for those environments with high ceilings or to create accent lighting. High performance with a highly controlled beam. Beam opening angle: 37°.

Wide Distribution

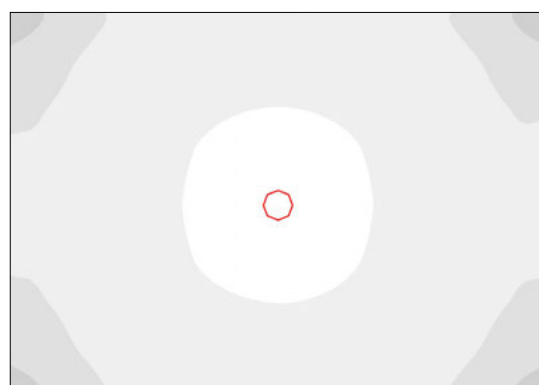
Photometry



Cone Diagram



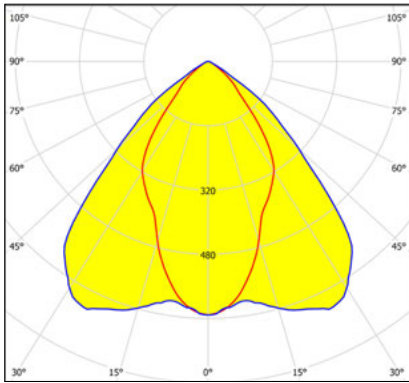
Projected on the ground



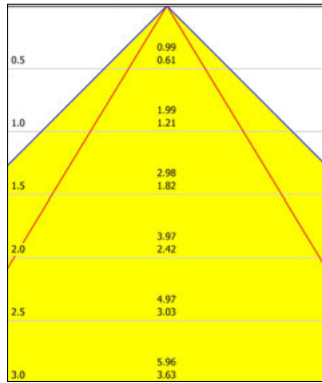
WIDE distribution is recommended to broadly cover an area thus creating diffused and homogeneous light. The light is produced given the shape of the lens that optimises the LED source distributing the light in a soft, diffused way. Beam opening angle: 84°.

Elliptical Distribution (ELL)

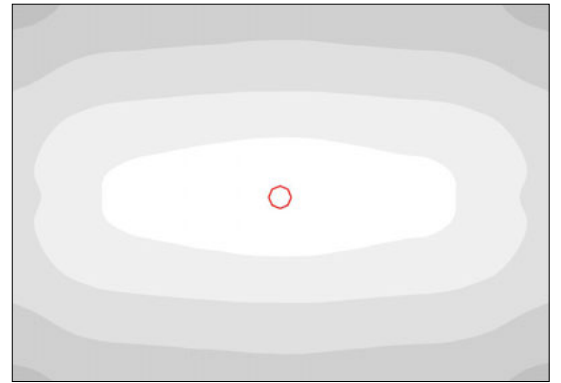
Photometry



Cone Diagram



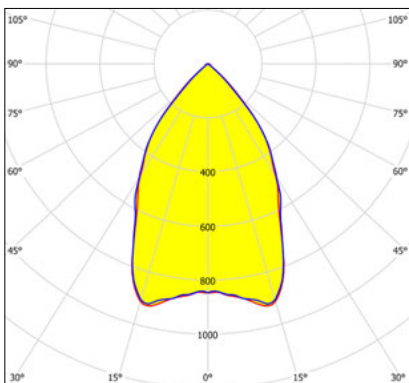
Projected on the ground



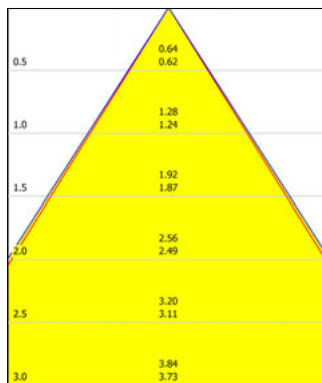
ELLIPTICAL distribution is recommended to create elliptical, precise and efficient light. It is particularly suitable for use in corridors or in applications where it is necessary to highlight lanes.
 Beam opening angle: 90° (longitudinal axis) and 64° (transversal axis).

UGR Distribution

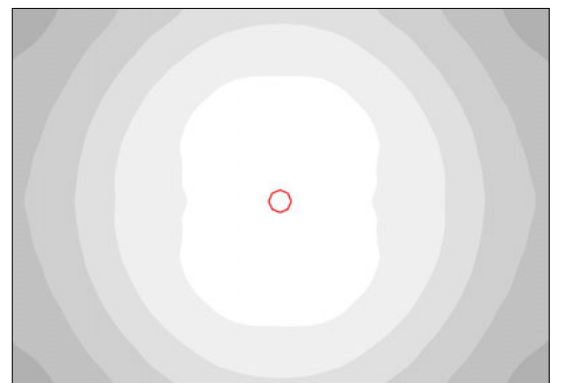
Photometry



Cone Diagram



Projected on the ground



UGR distribution is recommended for all those environments bound by the EN12464-1 standard on limits on direct glare, as well as environments with extremely high or double volume ceilings where light control is critical to ensure good lighting value, precision and visual comfort.
 Beam opening angle: 64°.



3F Reno White

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution: wide, spot, UGR, elliptical.

Lifetime (L90/B10): 30000 h. (tq+25°C)

Lifetime (L85/B10): 50000 h. (tq+25°C)

Lifetime (L70/B10): 80000 h. (tq+25°C)

Colour temperature available /840 and /930.

UGR version

Average luminance <math><1000\text{ cd/m}^2</math> for radial angles >65°.

Mechanical characteristics

Passive heat dissipator in die-casting aluminium, oversized, for optimum thermal management of the LED module. Parabolic element with graduated/concentric rings in white polycarbonate. Transparent external lens with glossy and satin differentiated surfaces, with a cooling and anti-insect system in methacrylate. Internal specular metallic louvre to optimise control of the luminous flux in polycarbonate in Spot, UGR and Elliptical versions. Fastening spring clips in stainless steel.

Electrical characteristics

Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.

Wiring on a separate unit.

Class II.

Source characteristics

- Compact LED module.
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- on/off ballast, compliant with EN 60598-2-22 (high-risk areas excluded)

Applications

Environments: architectural, commercial, exhibition areas, transit areas, corridors, shops, display windows, service areas. In false ceilings with narrow voids.

Wide version

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

UGR version

In environments with VDTs, managerial offices and staterooms, public offices and schools.

Installation

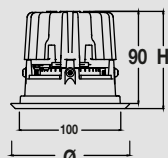
Pull-up installation.

Light Management

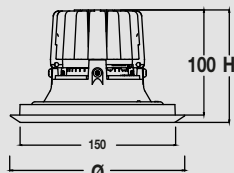
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions

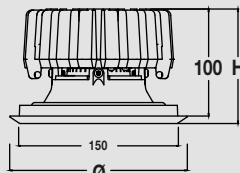
3F Reno 100
1000 - 2000



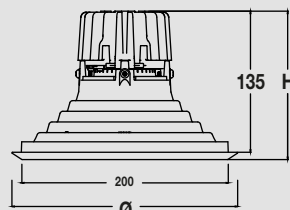
3F Reno 150
1500 - 2000



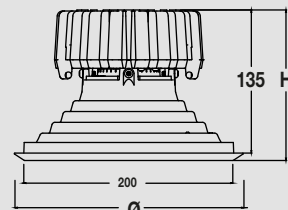
3F Reno 150
3000



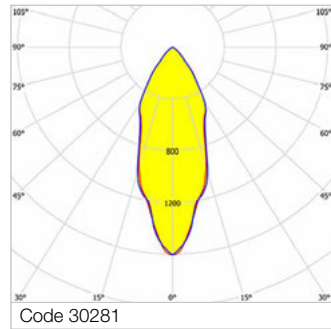
3F Reno 200
2000



3F Reno 200
2500 - 3000 - 4000



3F Reno White Spot



Internal spotlight louvre in metallic polycarbonate.
External lens in transparent methacrylate.
Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|--|-----------------------------------|------------|--------------------|------------------|---------|-----|------------------|
| 3F Reno 100 - Electronic wiring 230V-50/60Hz | | | | | | | |
| 30005 | 3F Reno 100 WH 1000/930 SPOT | 37° | 14 | 1424 | 3000 | >90 | 116x95 |
| 30001 | 3F Reno 100 WH 1000/840 SPOT | 37° | 14 | 1550 | 4000 | >80 | 116x95 |
| 30009 | 3F Reno 100 WH 2000/840 SPOT | 37° | 19 | 2419 | 4000 | >80 | 116x95 |
| 30013 | 3F Reno 100 WH 2000/930 SPOT | 37° | 24 | 2316 | 3000 | >90 | 116x95 |
| 3F Reno 100 - DALI electronic wiring 230V-50/60Hz | | | | | | | |
| 30039 | 3F Reno 100 WH 1000/930 DALI SPOT | 37° | 14 | 1424 | 3000 | >90 | 116x95 |
| 30035 | 3F Reno 100 WH 1000/840 DALI SPOT | 37° | 14 | 1550 | 4000 | >80 | 116x95 |
| 30043 | 3F Reno 100 WH 2000/840 DALI SPOT | 37° | 19 | 2419 | 4000 | >80 | 116x95 |
| 30047 | 3F Reno 100 WH 2000/930 DALI SPOT | 37° | 24 | 2316 | 3000 | >90 | 116x95 |
| 3F Reno 100 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560) | | | | | | | |
| 30022 | 3F Reno 100 WH 1000/930 EP SPOT | 37° | 15 | 1424 | 3000 | >90 | 116x95 |
| 30018 | 3F Reno 100 WH 1000/840 EP SPOT | 37° | 15 | 1550 | 4000 | >80 | 116x95 |
| 30026 | 3F Reno 100 WH 2000/840 EP SPOT | 37° | 20 | 2419 | 4000 | >80 | 116x95 |
| 30030 | 3F Reno 100 WH 2000/930 EP SPOT | 37° | 25 | 2316 | 3000 | >90 | 116x95 |
| 3F Reno 150 - Electronic wiring 230V-50/60Hz | | | | | | | |
| 30273 | 3F Reno 150 WH 2000/840 SPOT | 37° | 19 | 2424 | 4000 | >80 | 166x107 |
| 30277 | 3F Reno 150 WH 2000/930 SPOT | 37° | 24 | 2321 | 3000 | >90 | 166x107 |
| 30281 | 3F Reno 150 WH 3000/840 SPOT | 37° | 26 | 3090 | 4000 | >80 | 166x107 |
| 30285 | 3F Reno 150 WH 3000/930 SPOT | 37° | 33 | 2911 | 3000 | >90 | 166x107 |
| 3F Reno 150 - DALI electronic wiring 230V-50/60Hz | | | | | | | |
| 30307 | 3F Reno 150 WH 2000/840 DALI SPOT | 37° | 19 | 2424 | 4000 | >80 | 166x107 |
| 30311 | 3F Reno 150 WH 2000/930 DALI SPOT | 37° | 24 | 2321 | 3000 | >90 | 166x107 |
| 30315 | 3F Reno 150 WH 3000/840 DALI SPOT | 37° | 28 | 3304 | 4000 | >80 | 166x107 |
| 30319 | 3F Reno 150 WH 3000/930 DALI SPOT | 37° | 37 | 3227 | 3000 | >90 | 166x107 |
| 3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560) | | | | | | | |
| 30290 | 3F Reno 150 WH 2000/840 EP SPOT | 37° | 20 | 2424 | 4000 | >80 | 166x107 |
| 30294 | 3F Reno 150 WH 2000/930 EP SPOT | 37° | 25 | 2321 | 3000 | >90 | 166x107 |
| 30298 | 3F Reno 150 WH 3000/840 EP SPOT | 37° | 27 | 3090 | 4000 | >80 | 166x107 |
| 30302 | 3F Reno 150 WH 3000/930 EP SPOT | 37° | 34 | 2911 | 3000 | >90 | 166x107 |

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

3F Reno 200 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|-----|----|------|------|-----|---------|
| 30521 | 3F Reno 200 WH 2000/840 SPOT | 37° | 19 | 2413 | 4000 | >80 | 216x142 |
| 30525 | 3F Reno 200 WH 2000/930 SPOT | 37° | 24 | 2311 | 3000 | >90 | 216x142 |
| 30529 | 3F Reno 200 WH 3000/840 SPOT | 37° | 26 | 3076 | 4000 | >80 | 216x142 |
| 30537 | 3F Reno 200 WH 4000/840 SPOT | 37° | 36 | 4103 | 4000 | >80 | 216x142 |
| 30533 | 3F Reno 200 WH 3000/930 SPOT | 37° | 33 | 2898 | 3000 | >90 | 216x142 |
| 30541 | 3F Reno 200 WH 4000/930 SPOT | 37° | 43 | 3664 | 3000 | >90 | 216x142 |

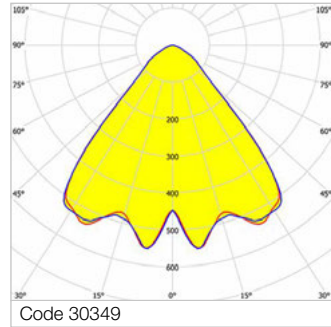
3F Reno 200 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------------|-----|----|------|------|-----|---------|
| 30571 | 3F Reno 200 WH 2000/840 DALI SPOT | 37° | 19 | 2413 | 4000 | >80 | 216x142 |
| 30575 | 3F Reno 200 WH 2000/930 DALI SPOT | 37° | 24 | 2311 | 3000 | >90 | 216x142 |
| 30579 | 3F Reno 200 WH 3000/840 DALI SPOT | 37° | 28 | 3289 | 4000 | >80 | 216x142 |
| 30587 | 3F Reno 200 WH 4000/840 DALI SPOT | 37° | 36 | 4103 | 4000 | >80 | 216x142 |
| 30583 | 3F Reno 200 WH 3000/930 DALI SPOT | 37° | 37 | 3212 | 3000 | >90 | 216x142 |
| 30591 | 3F Reno 200 WH 4000/930 DALI SPOT | 37° | 43 | 3664 | 3000 | >90 | 216x142 |

3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|---------------------------------|-----|----|------|------|-----|---------|
| 30546 | 3F Reno 200 WH 2000/840 EP SPOT | 37° | 20 | 2413 | 4000 | >80 | 216x142 |
| 30550 | 3F Reno 200 WH 2000/930 EP SPOT | 37° | 25 | 2311 | 3000 | >90 | 216x142 |
| 30554 | 3F Reno 200 WH 3000/840 EP SPOT | 37° | 27 | 3076 | 4000 | >80 | 216x142 |
| 30562 | 3F Reno 200 WH 4000/840 EP SPOT | 37° | 37 | 4103 | 4000 | >80 | 216x142 |
| 30558 | 3F Reno 200 WH 3000/930 EP SPOT | 37° | 34 | 2898 | 3000 | >90 | 216x142 |
| 30566 | 3F Reno 200 WH 4000/930 EP SPOT | 37° | 44 | 3664 | 3000 | >90 | 216x142 |

3F Reno White Wide



Wide lens in transparent methacrylate.
Photobiological safety RG0 (excluding versions 4000 - RG1), risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

3F Reno 100 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|-----|----|------|------|-----|--------|
| 30073 | 3F Reno 100 WH 1000/930 WIDE | 84° | 14 | 1150 | 3000 | >90 | 116x95 |
| 30069 | 3F Reno 100 WH 1000/840 WIDE | 84° | 14 | 1252 | 4000 | >80 | 116x95 |
| 30077 | 3F Reno 100 WH 2000/840 WIDE | 84° | 19 | 1953 | 4000 | >80 | 116x95 |
| 30081 | 3F Reno 100 WH 2000/930 WIDE | 84° | 24 | 1870 | 3000 | >90 | 116x95 |

3F Reno 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------------|-----|----|------|------|-----|--------|
| 30107 | 3F Reno 100 WH 1000/930 DALI WIDE | 84° | 14 | 1150 | 3000 | >90 | 116x95 |
| 30103 | 3F Reno 100 WH 1000/840 DALI WIDE | 84° | 14 | 1252 | 4000 | >80 | 116x95 |
| 30111 | 3F Reno 100 WH 2000/840 DALI WIDE | 84° | 19 | 1953 | 4000 | >80 | 116x95 |
| 30115 | 3F Reno 100 WH 2000/930 DALI WIDE | 84° | 24 | 1870 | 3000 | >90 | 116x95 |

3F Reno 100 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|---------------------------------|-----|----|------|------|-----|--------|
| 30090 | 3F Reno 100 WH 1000/930 EP WIDE | 84° | 15 | 1150 | 3000 | >90 | 116x95 |
| 30086 | 3F Reno 100 WH 1000/840 EP WIDE | 84° | 15 | 1252 | 4000 | >80 | 116x95 |
| 30094 | 3F Reno 100 WH 2000/840 EP WIDE | 84° | 20 | 1953 | 4000 | >80 | 116x95 |
| 30098 | 3F Reno 100 WH 2000/930 EP WIDE | 84° | 25 | 1870 | 3000 | >90 | 116x95 |

3F Reno 150 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|-----|----|------|------|-----|---------|
| 30341 | 3F Reno 150 WH 2000/840 WIDE | 84° | 19 | 2014 | 4000 | >80 | 166x107 |
| 30345 | 3F Reno 150 WH 2000/930 WIDE | 84° | 24 | 1928 | 3000 | >90 | 166x107 |
| 30349 | 3F Reno 150 WH 3000/840 WIDE | 84° | 26 | 2567 | 4000 | >80 | 166x107 |
| 30353 | 3F Reno 150 WH 3000/930 WIDE | 84° | 33 | 2418 | 3000 | >90 | 166x107 |

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------------|-----|----|------|------|-----|---------|
| 30375 | 3F Reno 150 WH 2000/840 DALI WIDE | 84° | 19 | 2014 | 4000 | >80 | 166x107 |
| 30379 | 3F Reno 150 WH 2000/930 DALI WIDE | 84° | 24 | 1928 | 3000 | >90 | 166x107 |
| 30383 | 3F Reno 150 WH 3000/840 DALI WIDE | 84° | 28 | 2744 | 4000 | >80 | 166x107 |
| 30387 | 3F Reno 150 WH 3000/930 DALI WIDE | 84° | 37 | 2680 | 3000 | >90 | 166x107 |

3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|---------------------------------|-----|----|------|------|-----|---------|
| 30358 | 3F Reno 150 WH 2000/840 EP WIDE | 84° | 20 | 2014 | 4000 | >80 | 166x107 |
| 30362 | 3F Reno 150 WH 2000/930 EP WIDE | 84° | 25 | 1928 | 3000 | >90 | 166x107 |
| 30366 | 3F Reno 150 WH 3000/840 EP WIDE | 84° | 27 | 2567 | 4000 | >80 | 166x107 |
| 30370 | 3F Reno 150 WH 3000/930 EP WIDE | 84° | 34 | 2418 | 3000 | >90 | 166x107 |

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|---------------------|
|------|------|------------|--------------------|------------------|---------|-----|---------------------|

3F Reno 200 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|-----|----|------|------|-----|---------|
| 30621 | 3F Reno 200 WH 2000/840 WIDE | 85° | 19 | 1925 | 4000 | >80 | 216x142 |
| 30625 | 3F Reno 200 WH 2000/930 WIDE | 85° | 24 | 1843 | 3000 | >90 | 216x142 |
| 30629 | 3F Reno 200 WH 3000/840 WIDE | 85° | 26 | 2454 | 4000 | >80 | 216x142 |
| 30637 | 3F Reno 200 WH 4000/840 WIDE | 85° | 36 | 3273 | 4000 | >80 | 216x142 |
| 30633 | 3F Reno 200 WH 3000/930 WIDE | 85° | 33 | 2312 | 3000 | >90 | 216x142 |
| 30641 | 3F Reno 200 WH 4000/930 WIDE | 85° | 43 | 2922 | 3000 | >90 | 216x142 |

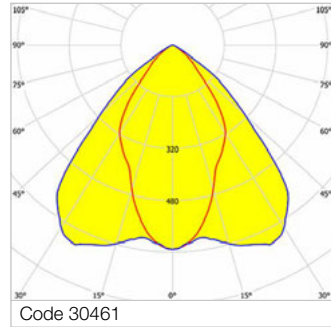
3F Reno 200 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------------|-----|----|------|------|-----|---------|
| 30671 | 3F Reno 200 WH 2000/840 DALI WIDE | 85° | 19 | 1925 | 4000 | >80 | 216x142 |
| 30675 | 3F Reno 200 WH 2000/930 DALI WIDE | 85° | 24 | 1843 | 3000 | >90 | 216x142 |
| 30679 | 3F Reno 200 WH 3000/840 DALI WIDE | 85° | 28 | 2623 | 4000 | >80 | 216x142 |
| 30687 | 3F Reno 200 WH 4000/840 DALI WIDE | 85° | 36 | 3273 | 4000 | >80 | 216x142 |
| 30683 | 3F Reno 200 WH 3000/930 DALI WIDE | 85° | 37 | 2562 | 3000 | >90 | 216x142 |
| 30691 | 3F Reno 200 WH 4000/930 DALI WIDE | 85° | 43 | 2922 | 3000 | >90 | 216x142 |

3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|---------------------------------|-----|----|------|------|-----|---------|
| 30646 | 3F Reno 200 WH 2000/840 EP WIDE | 85° | 20 | 1925 | 4000 | >80 | 216x142 |
| 30650 | 3F Reno 200 WH 2000/930 EP WIDE | 85° | 25 | 1843 | 3000 | >90 | 216x142 |
| 30654 | 3F Reno 200 WH 3000/840 EP WIDE | 85° | 27 | 2454 | 4000 | >80 | 216x142 |
| 30662 | 3F Reno 200 WH 4000/840 EP WIDE | 85° | 37 | 3273 | 4000 | >80 | 216x142 |
| 30658 | 3F Reno 200 WH 3000/930 EP WIDE | 85° | 34 | 2312 | 3000 | >90 | 216x142 |
| 30666 | 3F Reno 200 WH 4000/930 EP WIDE | 85° | 44 | 2922 | 3000 | >90 | 216x142 |

3F Reno White Elliptical



Internal elliptical louvre in metallic polycarbonate.
External lens in transparent methacrylate.
Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

3F Reno 100 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------|-----------|----|------|------|-----|--------|
| 30209 | 3F Reno 100 WH 1000/930 ELL | 90° - 64° | 14 | 1221 | 3000 | >90 | 116x95 |
| 30205 | 3F Reno 100 WH 1000/840 ELL | 90° - 64° | 14 | 1330 | 4000 | >80 | 116x95 |
| 30213 | 3F Reno 100 WH 2000/840 ELL | 90° - 64° | 19 | 2075 | 4000 | >80 | 116x95 |
| 30217 | 3F Reno 100 WH 2000/930 ELL | 90° - 64° | 24 | 1987 | 3000 | >90 | 116x95 |

3F Reno 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|----------------------------------|-----------|----|------|------|-----|--------|
| 30243 | 3F Reno 100 WH 1000/930 DALI ELL | 90° - 64° | 14 | 1221 | 3000 | >90 | 116x95 |
| 30239 | 3F Reno 100 WH 1000/840 DALI ELL | 90° - 64° | 14 | 1330 | 4000 | >80 | 116x95 |
| 30247 | 3F Reno 100 WH 2000/840 DALI ELL | 90° - 64° | 19 | 2075 | 4000 | >80 | 116x95 |
| 30251 | 3F Reno 100 WH 2000/930 DALI ELL | 90° - 64° | 24 | 1987 | 3000 | >90 | 116x95 |

3F Reno 100 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|--------------------------------|-----------|----|------|------|-----|--------|
| 30226 | 3F Reno 100 WH 1000/930 EP ELL | 90° - 64° | 15 | 1221 | 3000 | >90 | 116x95 |
| 30222 | 3F Reno 100 WH 1000/840 EP ELL | 90° - 64° | 15 | 1330 | 4000 | >80 | 116x95 |
| 30230 | 3F Reno 100 WH 2000/840 EP ELL | 90° - 64° | 20 | 2075 | 4000 | >80 | 116x95 |
| 30234 | 3F Reno 100 WH 2000/930 EP ELL | 90° - 64° | 25 | 1987 | 3000 | >90 | 116x95 |

3F Reno 150 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------|-----------|----|------|------|-----|---------|
| 30453 | 3F Reno 150 WH 2000/840 ELL | 90° - 62° | 19 | 2097 | 4000 | >80 | 166x107 |
| 30457 | 3F Reno 150 WH 2000/930 ELL | 90° - 62° | 24 | 2008 | 3000 | >90 | 166x107 |
| 30461 | 3F Reno 150 WH 3000/840 ELL | 90° - 62° | 26 | 2673 | 4000 | >80 | 166x107 |
| 30465 | 3F Reno 150 WH 3000/930 ELL | 90° - 62° | 33 | 2518 | 3000 | >90 | 166x107 |

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|----------------------------------|-----------|----|------|------|-----|---------|
| 30487 | 3F Reno 150 WH 2000/840 DALI ELL | 90° - 62° | 19 | 2097 | 4000 | >80 | 166x107 |
| 30491 | 3F Reno 150 WH 2000/930 DALI ELL | 90° - 62° | 24 | 2008 | 3000 | >90 | 166x107 |
| 30495 | 3F Reno 150 WH 3000/840 DALI ELL | 90° - 62° | 28 | 2858 | 4000 | >80 | 166x107 |
| 30499 | 3F Reno 150 WH 3000/930 DALI ELL | 90° - 62° | 37 | 2791 | 3000 | >90 | 166x107 |

3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|--------------------------------|-----------|----|------|------|-----|---------|
| 30470 | 3F Reno 150 WH 2000/840 EP ELL | 90° - 62° | 20 | 2097 | 4000 | >80 | 166x107 |
| 30474 | 3F Reno 150 WH 2000/930 EP ELL | 90° - 62° | 25 | 2008 | 3000 | >90 | 166x107 |
| 30478 | 3F Reno 150 WH 3000/840 EP ELL | 90° - 62° | 27 | 2673 | 4000 | >80 | 166x107 |
| 30482 | 3F Reno 150 WH 3000/930 EP ELL | 90° - 62° | 34 | 2518 | 3000 | >90 | 166x107 |

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

3F Reno 200 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------|-----------|----|------|------|-----|---------|
| 30785 | 3F Reno 200 WH 2000/840 ELL | 90° - 65° | 19 | 2053 | 4000 | >80 | 216x142 |
| 30789 | 3F Reno 200 WH 2000/930 ELL | 90° - 65° | 24 | 1965 | 3000 | >90 | 216x142 |
| 30793 | 3F Reno 200 WH 3000/840 ELL | 90° - 65° | 26 | 2617 | 4000 | >80 | 216x142 |
| 30801 | 3F Reno 200 WH 4000/840 ELL | 90° - 65° | 36 | 3490 | 4000 | >80 | 216x142 |
| 30797 | 3F Reno 200 WH 3000/930 ELL | 90° - 65° | 34 | 2465 | 3000 | >90 | 216x142 |
| 30805 | 3F Reno 200 WH 4000/930 ELL | 90° - 65° | 43 | 3116 | 3000 | >90 | 216x142 |

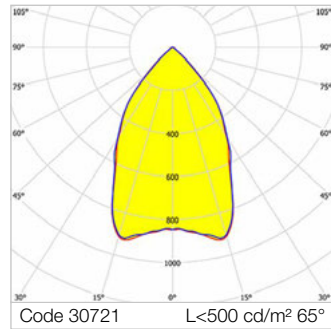
3F Reno 200 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|----------------------------------|-----------|----|------|------|-----|---------|
| 30835 | 3F Reno 200 WH 2000/840 DALI ELL | 90° - 65° | 19 | 2053 | 4000 | >80 | 216x142 |
| 30839 | 3F Reno 200 WH 2000/930 DALI ELL | 90° - 65° | 24 | 1965 | 3000 | >90 | 216x142 |
| 30843 | 3F Reno 200 WH 3000/840 DALI ELL | 90° - 65° | 28 | 2797 | 4000 | >80 | 216x142 |
| 30851 | 3F Reno 200 WH 4000/840 DALI ELL | 90° - 65° | 36 | 3490 | 4000 | >80 | 216x142 |
| 30847 | 3F Reno 200 WH 3000/930 DALI ELL | 90° - 65° | 37 | 2732 | 3000 | >90 | 216x142 |
| 30855 | 3F Reno 200 WH 4000/930 DALI ELL | 90° - 65° | 43 | 3116 | 3000 | >90 | 216x142 |

3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|--------------------------------|-----------|----|------|------|-----|---------|
| 30810 | 3F Reno 200 WH 2000/840 EP ELL | 90° - 65° | 20 | 2053 | 4000 | >80 | 216x142 |
| 30814 | 3F Reno 200 WH 2000/930 EP ELL | 90° - 65° | 25 | 1965 | 3000 | >90 | 216x142 |
| 30818 | 3F Reno 200 WH 3000/840 EP ELL | 90° - 65° | 27 | 2617 | 4000 | >80 | 216x142 |
| 30826 | 3F Reno 200 WH 4000/840 EP ELL | 90° - 65° | 37 | 3490 | 4000 | >80 | 216x142 |
| 30822 | 3F Reno 200 WH 3000/930 EP ELL | 90° - 65° | 34 | 2465 | 3000 | >90 | 216x142 |
| 30830 | 3F Reno 200 WH 4000/930 EP ELL | 90° - 65° | 44 | 3116 | 3000 | >90 | 216x142 |

3F Reno White UGR



650°C

IP20
IP44

0,5J

IK04

Driver/LED
SELV

150 WH - Average luminance <1000 cd/m² for radial angles >65°.
 200 WH - Average luminance <500 cd/m² for radial angles >65°.
 Internal UGR louvre in metallic polycarbonate.
 External lens in transparent methacrylate.
 Photobiological safety RG1, low risk, in compliance with
 IEC 62471, IEC/TR 62778 (further information on page 18).

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

3F Reno 150 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------|-----|----|------|------|-----|---------|
| 30408 | 3F Reno 150 WH 1500/840 UGR | 64° | 14 | 1756 | 4000 | >80 | 166x107 |
| 30409 | 3F Reno 150 WH 2000/840 UGR | 64° | 19 | 2430 | 4000 | >80 | 166x107 |

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|----------------------------------|-----|----|------|------|-----|---------|
| 30430 | 3F Reno 150 WH 1500/840 DALI UGR | 64° | 14 | 1756 | 4000 | >80 | 166x107 |
| 30431 | 3F Reno 150 WH 2000/840 DALI UGR | 64° | 19 | 2430 | 4000 | >80 | 166x107 |

3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|--------------------------------|-----|----|------|------|-----|---------|
| 30419 | 3F Reno 150 WH 1500/840 EP UGR | 64° | 15 | 1756 | 4000 | >80 | 166x107 |
| 30420 | 3F Reno 150 WH 2000/840 EP UGR | 64° | 20 | 2430 | 4000 | >80 | 166x107 |

3F Reno 200 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------|-----|----|------|------|-----|---------|
| 30721 | 3F Reno 200 WH 2000/840 UGR | 65° | 19 | 2411 | 4000 | >80 | 216x142 |
| 30725 | 3F Reno 200 WH 2000/930 UGR | 65° | 24 | 2308 | 3000 | >90 | 216x142 |
| 30730 | 3F Reno 200 WH 2500/930 UGR | 65° | 29 | 2571 | 3000 | >90 | 216x142 |
| 30726 | 3F Reno 200 WH 3000/840 UGR | 65° | 26 | 3073 | 4000 | >80 | 216x142 |

3F Reno 200 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|----------------------------------|-----|----|------|------|-----|---------|
| 30753 | 3F Reno 200 WH 2000/840 DALI UGR | 65° | 19 | 2411 | 4000 | >80 | 216x142 |
| 30757 | 3F Reno 200 WH 2000/930 DALI UGR | 65° | 24 | 2308 | 3000 | >90 | 216x142 |
| 30762 | 3F Reno 200 WH 2500/930 DALI UGR | 65° | 29 | 2571 | 3000 | >90 | 216x142 |
| 30758 | 3F Reno 200 WH 3000/840 DALI UGR | 65° | 28 | 3285 | 4000 | >80 | 216x142 |

3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|--------------------------------|-----|----|------|------|-----|---------|
| 30737 | 3F Reno 200 WH 2000/840 EP UGR | 65° | 20 | 2411 | 4000 | >80 | 216x142 |
| 30741 | 3F Reno 200 WH 2000/930 EP UGR | 65° | 25 | 2308 | 3000 | >90 | 216x142 |
| 30746 | 3F Reno 200 WH 2500/930 EP UGR | 65° | 29 | 2571 | 3000 | >90 | 216x142 |
| 30742 | 3F Reno 200 WH 3000/840 EP UGR | 65° | 27 | 3073 | 4000 | >80 | 216x142 |



3F Reno Black

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution: wide, spot, UGR, elliptical.
 Lifetime (L90/B10): 30000 h. (tq+25°C)
 Lifetime (L85/B10): 50000 h. (tq+25°C)
 Lifetime (L70/B10): 80000 h. (tq+25°C)
 Colour temperature available /840 and /930.

UGR version

Average luminance <math><500\text{ cd/m}^2</math> for radial angles >65°.

Mechanical characteristics

Passive heat dissipator in die-casting aluminium, oversized, for optimum thermal management of the LED module.
 Parabolic element with graduated/concentric rings in black polycarbonate.
 Transparent external lens with glossy and satin differentiated surfaces, with a cooling and anti-insect system in methacrylate.
 Internal specular metallic louvre to optimise control of the luminous flux in polycarbonate in Spot, UGR and Elliptical versions.
 Fastening spring clips in stainless steel.

Electrical characteristics

Wiring on a separate unit.
 Class II.

Source characteristics

- Compact LED module.
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- EP maintained emergency wiring, in compliance with EN 60598-2-22
- on/off ballast, compliant with EN 60598-2-22 (high-risk areas excluded)

Applications

Environments: architectural, commercial, exhibition areas, transit areas, corridors, shops, display windows, service areas. In false ceilings with narrow voids.

Wide version

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

UGR version

In environments with VDTs, managerial offices and staterooms, public offices and schools.

Installation

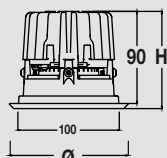
Pull-up installation.

Light Management

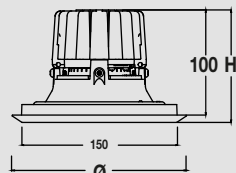
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions

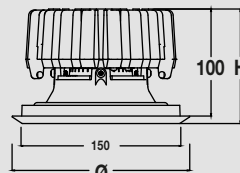
3F Reno 100
2000



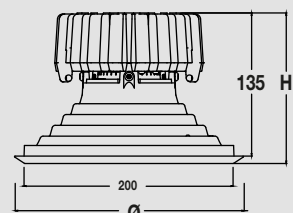
3F Reno 150
2000



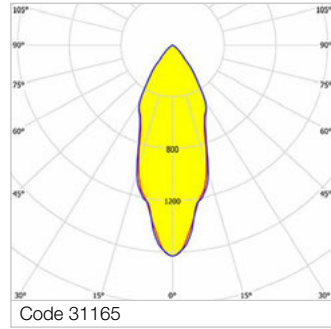
3F Reno 150
3000



3F Reno 200
2500 - 3000 - 4000



3F Reno Black Spot



650°C

IP20
IP44

0,5J

IK04

Driver/LED
SELV

Internal spotlight louvre in metallic polycarbonate.
External lens in transparent methacrylate.
Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

3F Reno 100 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|-----|----|------|------|-----|--------|
| 30893 | 3F Reno 100 BK 2000/840 SPOT | 37° | 19 | 2375 | 4000 | >80 | 116x95 |
| 30897 | 3F Reno 100 BK 2000/930 SPOT | 37° | 24 | 2274 | 3000 | >90 | 116x95 |

3F Reno 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------------|-----|----|------|------|-----|--------|
| 30927 | 3F Reno 100 BK 2000/840 DALI SPOT | 37° | 19 | 2375 | 4000 | >80 | 116x95 |
| 30931 | 3F Reno 100 BK 2000/930 DALI SPOT | 37° | 24 | 2274 | 3000 | >90 | 116x95 |

3F Reno 150 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|-----|----|------|------|-----|---------|
| 31165 | 3F Reno 150 BK 3000/840 SPOT | 37° | 26 | 3030 | 4000 | >80 | 166x107 |
| 31169 | 3F Reno 150 BK 3000/930 SPOT | 37° | 33 | 2855 | 3000 | >90 | 166x107 |

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------------|-----|----|------|------|-----|---------|
| 31199 | 3F Reno 150 BK 3000/840 DALI SPOT | 37° | 28 | 3239 | 4000 | >80 | 166x107 |
| 31203 | 3F Reno 150 BK 3000/930 DALI SPOT | 37° | 37 | 3164 | 3000 | >90 | 166x107 |

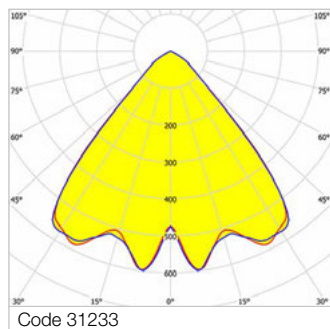
3F Reno 200 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|-----|----|------|------|-----|---------|
| 31421 | 3F Reno 200 BK 4000/840 SPOT | 37° | 36 | 3985 | 4000 | >80 | 216x142 |
| 31425 | 3F Reno 200 BK 4000/930 SPOT | 37° | 43 | 3558 | 3000 | >90 | 216x142 |

3F Reno 200 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------------|-----|----|------|------|-----|---------|
| 31471 | 3F Reno 200 BK 4000/840 DALI SPOT | 37° | 36 | 3985 | 4000 | >80 | 216x142 |
| 31475 | 3F Reno 200 BK 4000/930 DALI SPOT | 37° | 43 | 3558 | 3000 | >90 | 216x142 |

3F Reno Black Wide



Wide lens in transparent methacrylate.
Photobiological safety RG0 (excluding versions 4000 - RG1), risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

3F Reno 100 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|-----|----|------|------|-----|--------|
| 30961 | 3F Reno 100 BK 2000/840 WIDE | 83° | 19 | 1703 | 4000 | >80 | 116x95 |
| 30965 | 3F Reno 100 BK 2000/930 WIDE | 83° | 24 | 1631 | 3000 | >90 | 116x95 |

3F Reno 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------------|-----|----|------|------|-----|--------|
| 30995 | 3F Reno 100 BK 2000/840 DALI WIDE | 83° | 19 | 1703 | 4000 | >80 | 116x95 |
| 30999 | 3F Reno 100 BK 2000/930 DALI WIDE | 83° | 24 | 1631 | 3000 | >90 | 116x95 |

3F Reno 150 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|-----|----|------|------|-----|---------|
| 31233 | 3F Reno 150 BK 3000/840 WIDE | 83° | 26 | 2221 | 4000 | >80 | 166x107 |
| 31237 | 3F Reno 150 BK 3000/930 WIDE | 83° | 33 | 2092 | 3000 | >90 | 166x107 |

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------------|-----|----|------|------|-----|---------|
| 31267 | 3F Reno 150 BK 3000/840 DALI WIDE | 83° | 28 | 2374 | 4000 | >80 | 166x107 |
| 31271 | 3F Reno 150 BK 3000/930 DALI WIDE | 83° | 37 | 2319 | 3000 | >90 | 166x107 |

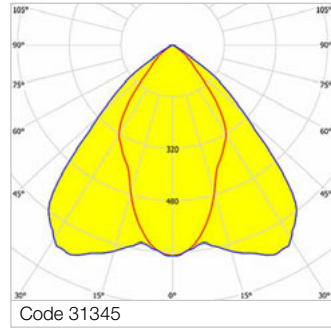
3F Reno 200 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|-----|----|------|------|-----|---------|
| 31521 | 3F Reno 200 BK 4000/840 WIDE | 84° | 36 | 2801 | 4000 | >80 | 216x142 |
| 31525 | 3F Reno 200 BK 4000/930 WIDE | 84° | 43 | 2501 | 3000 | >90 | 216x142 |

3F Reno 200 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------------|-----|----|------|------|-----|---------|
| 31571 | 3F Reno 200 BK 4000/840 DALI WIDE | 84° | 36 | 2801 | 4000 | >80 | 216x142 |
| 31575 | 3F Reno 200 BK 4000/930 DALI WIDE | 84° | 43 | 2501 | 3000 | >90 | 216x142 |

3F Reno Black Elliptical



650°C

IP20
IP44

0,5J

IK04

Driver/LED
SELV

Internal elliptical louvre in metallic polycarbonate.
External lens in transparent methacrylate.
Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

3F Reno 100 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------|-----------|----|------|------|-----|--------|
| 31097 | 3F Reno 100 BK 2000/840 ELL | 89° - 62° | 19 | 1917 | 4000 | >80 | 116x95 |
| 31101 | 3F Reno 100 BK 2000/930 ELL | 89° - 62° | 24 | 1835 | 3000 | >90 | 116x95 |

3F Reno 100 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|----------------------------------|-----------|----|------|------|-----|--------|
| 31131 | 3F Reno 100 BK 2000/840 DALI ELL | 89° - 62° | 19 | 1917 | 4000 | >80 | 116x95 |
| 31135 | 3F Reno 100 BK 2000/930 DALI ELL | 89° - 62° | 24 | 1835 | 3000 | >90 | 116x95 |

3F Reno 150 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------|-----------|----|------|------|-----|---------|
| 31345 | 3F Reno 150 BK 3000/840 ELL | 89° - 61° | 26 | 2479 | 4000 | >80 | 166x107 |
| 31349 | 3F Reno 150 BK 3000/930 ELL | 89° - 61° | 33 | 2335 | 3000 | >90 | 166x107 |

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|----------------------------------|-----------|----|------|------|-----|---------|
| 31379 | 3F Reno 150 BK 3000/840 DALI ELL | 89° - 61° | 28 | 2650 | 4000 | >80 | 166x107 |
| 31383 | 3F Reno 150 BK 3000/930 DALI ELL | 89° - 61° | 37 | 2588 | 3000 | >90 | 166x107 |

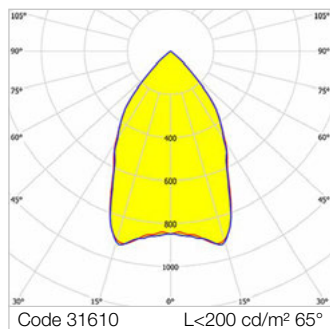
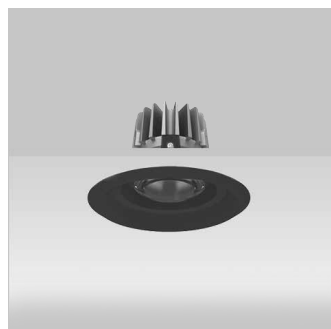
3F Reno 200 - Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------|-----------|----|------|------|-----|---------|
| 31685 | 3F Reno 200 BK 4000/840 ELL | 89° - 62° | 36 | 3117 | 4000 | >80 | 216x142 |
| 31689 | 3F Reno 200 BK 4000/930 ELL | 89° - 62° | 43 | 2783 | 3000 | >90 | 216x142 |

3F Reno 200 - DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|----------------------------------|-----------|----|------|------|-----|---------|
| 31735 | 3F Reno 200 BK 4000/840 DALI ELL | 89° - 62° | 36 | 3117 | 4000 | >80 | 216x142 |
| 31739 | 3F Reno 200 BK 4000/930 DALI ELL | 89° - 62° | 43 | 2783 | 3000 | >90 | 216x142 |

3F Reno Black UGR



150 BK - Average luminance <math><500\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 200 BK - Average luminance <math><200\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 Internal UGR louvre in metallic polycarbonate.
 External lens in transparent methacrylate.
 Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions $\varnothing \times H$ |
|--|----------------------------------|------------|--------------------|------------------|---------|-----|-----------------------------------|
| 3F Reno 150 - Electronic wiring 230V-50/60Hz | | | | | | | |
| 31293 | 3F Reno 150 BK 2000/840 UGR | 65° | 19 | 2413 | 4000 | >80 | 166x107 |
| 3F Reno 150 - DALI electronic wiring 230V-50/60Hz | | | | | | | |
| 31315 | 3F Reno 150 BK 2000/840 DALI UGR | 65° | 19 | 2413 | 4000 | >80 | 166x107 |
| 3F Reno 200 - Electronic wiring 230V-50/60Hz | | | | | | | |
| 31614 | 3F Reno 200 BK 2500/930 UGR | 64° | 29 | 2530 | 3000 | >90 | 216x142 |
| 31610 | 3F Reno 200 BK 3000/840 UGR | 64° | 26 | 3023 | 4000 | >80 | 216x142 |
| 3F Reno 200 - DALI electronic wiring 230V-50/60Hz | | | | | | | |
| 31646 | 3F Reno 200 BK 2500/930 DALI UGR | 64° | 29 | 2530 | 3000 | >90 | 216x142 |
| 31642 | 3F Reno 200 BK 3000/840 DALI UGR | 64° | 26 | 3232 | 4000 | >80 | 216x142 |

3F Reno Accessories



VS moulded glass, micro-prismatic, anti-glare, tempered, non-combustible glass, affixed to the white polycarbonate trim. Accessory suitable for versions with wide distribution.

Accessory compatible with 3F Reno White.

| Code | Item |
|--------|-------------------|
| A01035 | VS 3F RENO WH 150 |
| A01037 | VS 3F RENO WH 200 |

1J

IK06



VS moulded glass, micro-prismatic, anti-glare, tempered, non-combustible glass, affixed to the black polycarbonate trim. Accessory suitable for versions with wide distribution.

Accessory compatible with 3F Reno Black.

| Code | Item |
|--------|-------------------|
| A01036 | VS 3F RENO BK 150 |
| A01038 | VS 3F RENO BK 200 |

1J

IK06



VT transparent glass, tempered, not flammable, locked and in line with the trim, in white polycarbonate. Accessory suitable for versions with spot, UGR and elliptic distribution.

Accessory compatible with 3F Reno White.

| Code | Item |
|--------|-------------------|
| A01023 | VT 3F RENO WH 150 |
| A01025 | VT 3F RENO WH 200 |

1J

IK06



VT transparent glass, tempered, not flammable, locked and in line with the trim, in black polycarbonate. Accessory suitable for versions with spot, UGR and elliptic distribution.

Accessory compatible with 3F Reno Black.

| Code | Item |
|--------|-------------------|
| A01024 | VT 3F RENO BK 150 |
| A01026 | VT 3F RENO BK 200 |

1J

IK06



Micro-prismatic SMP antiglare diffuser in PMMA, locked and in line with the trim, in white polycarbonate. Accessory suitable for versions with wide distribution.

Accessory compatible with 3F Reno White.

| Code | Item |
|--------|--------------------|
| A01046 | SMP 3F RENO WH 150 |
| A01048 | SMP 3F RENO WH 200 |

0,7J

IK05



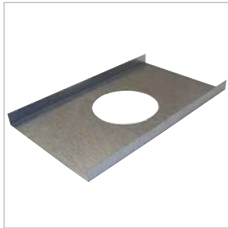
Micro-prismatic SMP ant glare diffuser in PMMA, locked and in line with the trim, in black polycarbonate. Accessory suitable for versions with wide distribution.

Accessory compatible with 3F Reno Black.

| Code | Item |
|--------|--------------------|
| A01047 | SMP 3F RENO BK 150 |
| A01049 | SMP 3F RENO BK 200 |

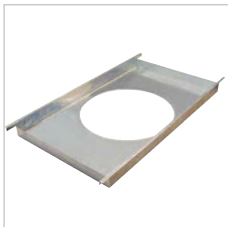
0,7J

IK05



Reinforcing bracket for panels 600x600, 600x1200 with exposed structure, in hot-galvanized steel.

| Code | Item |
|-------|----------------|
| A0804 | SF 3F Reno 150 |
| A0805 | SF 3F Reno 200 |



Reinforcing bracket for metal panels 600x600 with concealed structure, in hot-galvanized steel.

| Code | Item |
|-------|----------------|
| A0806 | SM 3F Reno 150 |
| A0807 | SM 3F Reno 200 |





3F Emilio R

Construction characteristics

Illuminotechnical characteristics

Vertical distribution adjustable from 0° to 70°.

Lifetime (L90/B20): 30000 h. (tq+25°C)

Lifetime (L80/B20): 50000 h. (tq+25°C)

Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Single-piece in die-cast aluminium with passive dissipation with perimeter cooling slots on upper edge, giving a crown of light effect to the fitting.

Invisible lock for positioning the luminous flux.

Positioning arm in galvanized brass with sphere to allow for vertical positioning at angles from 0° to 65° and horizontal positioning from 0° to 360°.

Fastening spring clips in stainless steel.

Electrical characteristics

In compliance with EN 60598-1.

Wiring on a separate unit.

Class II.

Source characteristics

- Compact LED module.
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- housing in different RAL colours
- wiring: dimmable

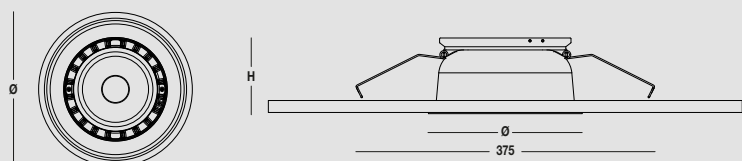
Applications

Environments: commercial, museums, shops.

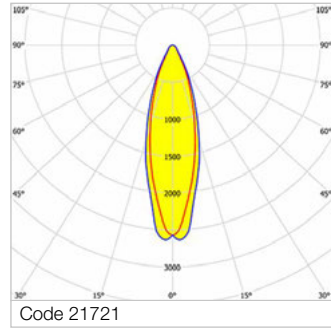
Installation

Pull-up installation.

Dimensions



3F Emilio R Spot



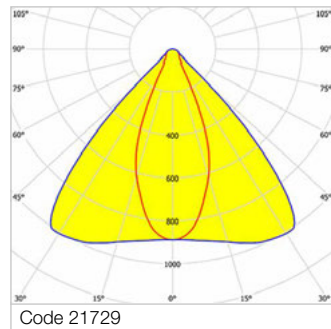
Spot lens.
Lens made from transparent PMMA methacrylate with glossy surface and differentiated photo-etched.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-------------------------------|-----|----|------|------|-----|--------|
| 21720 | 3F Emilio R LED 2000/840 SPOT | 29° | 19 | 2189 | 4000 | >80 | 193x95 |
| 21721 | 3F Emilio R LED 2000/930 SPOT | 29° | 23 | 2000 | 3000 | >90 | 193x95 |

3F Emilio R Elliptical



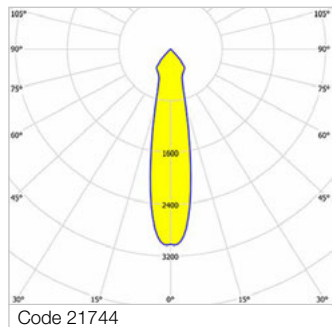
Horizontal ELL elliptical lens provides greater installation distances.
Lens made from transparent PMMA methacrylate with glossy surface and differentiated photo-etched.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|-----------|----|------|------|-----|--------|
| 21728 | 3F Emilio R LED 2000/840 ELL | 42° - 85° | 19 | 2484 | 4000 | >80 | 193x95 |
| 21729 | 3F Emilio R LED 2000/930 ELL | 42° - 85° | 23 | 2270 | 3000 | >90 | 193x95 |

3F Emilio R Iperconcentrated



Bright anodised parabola in semi-specular, anti-reflective, anti-iridescent aluminum.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

Electronic wiring 230V-50/60Hz

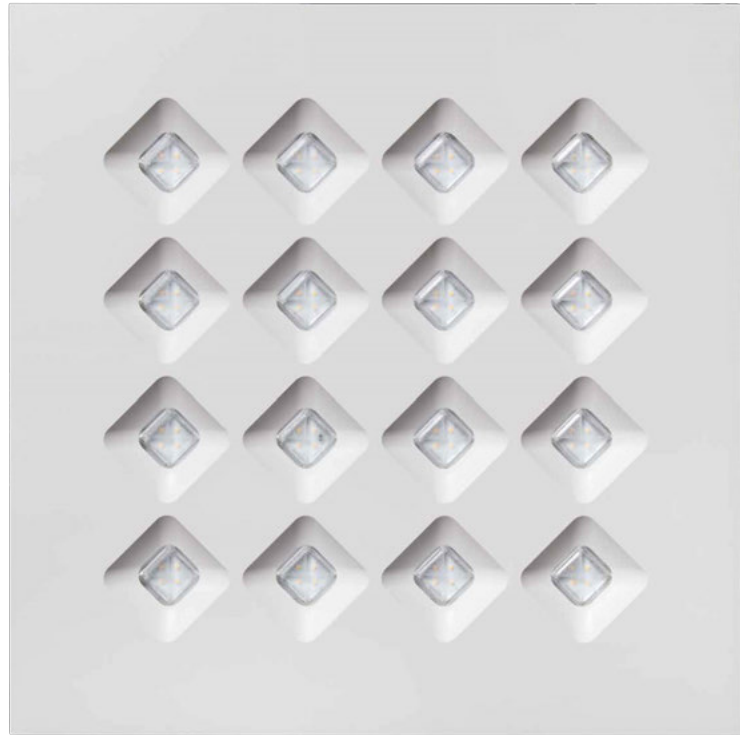
| | | | | | | | |
|-------|-------------------------------|-----|----|------|------|-----|--------|
| 21736 | 3F Emilio R LED 2000/840 IPER | 23° | 19 | 2433 | 4000 | >80 | 193x95 |
| 21737 | 3F Emilio R LED 2000/930 IPER | 23° | 23 | 2223 | 3000 | >90 | 193x95 |
| 21744 | 3F Emilio R LED 3000/840 IPER | 23° | 28 | 3216 | 4000 | >80 | 193x95 |



3F Diagon



Safety in Light. Uniformly.



Patented

Light to improve working environments, shops and passage ways: providing this is 3F Diagon, a square shaped recessed fixture whose 16 recessed cells are equipped with state-of-the-art LED sources. The fixture is only 30 millimetres high which allows installation in ceiling cavities up to a minimum height of 110 mm.

Every truncated square pyramid shaped cell is equipped with a lens that is designed to maximise the light output of the state-of-the-art LED sources.

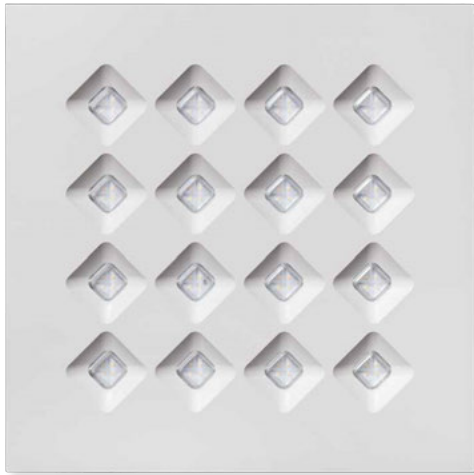
This means a system efficiency of up to 155 lm/ W for the version with transparent lenses and up to 120 lm/ W for the Soft UGR version.

Available in three different sizes (596x596 mm, 599x599mm and 621x621mm) and with two different types of lenses (transparent and Soft UGR), the fixture comes with on/off wiring, DALI control, Tunable White and an Emergence light.

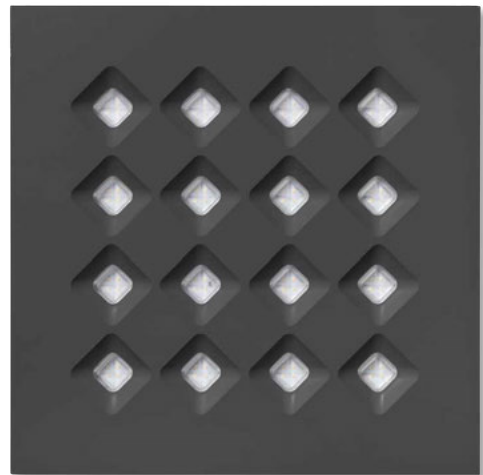
3F Diagon is suitable for surface installation on false ceilings with a visible support system, a pull-up installation version on plasterboard false ceilings, metal ceilings and for ceiling installation.

3F Diagon

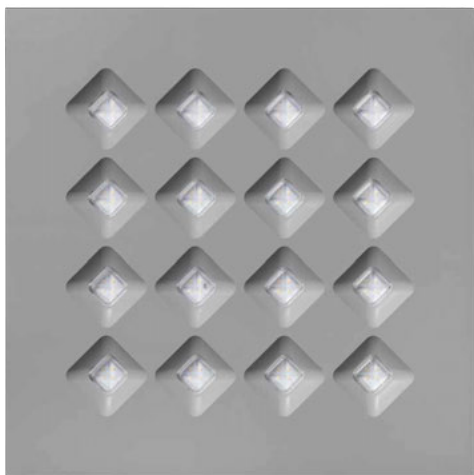
Finishes and construction details



White
Transparent lenses



Black
On request



Gray
On request



White
Soft UGR lenses



Thanks to the compact height of 30 millimetres, 3F Diagon is the ideal solution for installation in false ceilings with limited space.

Body

White painted, hot-dipped galvanized steel body.

Wiring

Rapid connection with a satin polycarbonate shell.

Source

State-of-the-art square LED modules.

Lens

Rhomboid lens with a differentiated surface.

Springs

Mounted using steel springs.

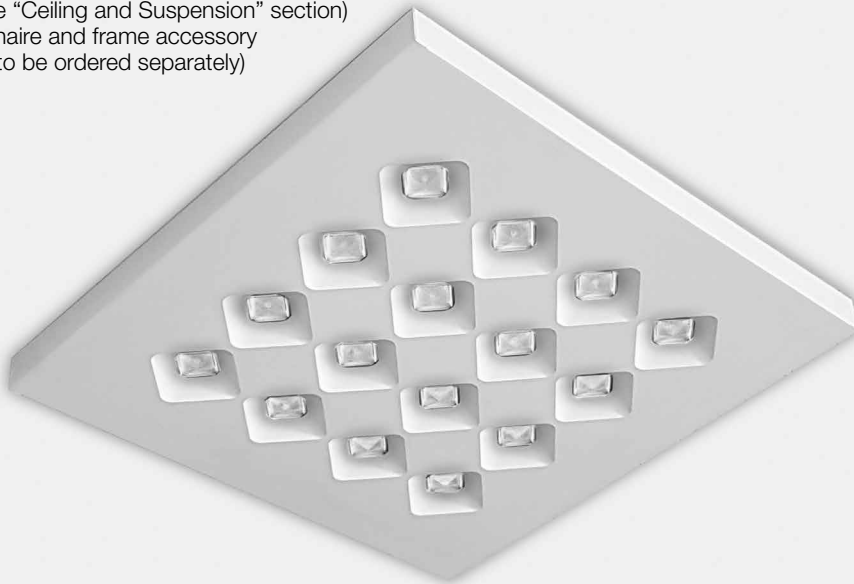


Screen

Anti-glare white polycarbonate alveolar diagonal screen.

Ceiling installation possible with:

- complete luminaire, 3F Diagon P (available in the "Ceiling and Suspension" section)
- recessed luminaire and frame accessory (code A0686, to be ordered separately)



Top view



Quick connection

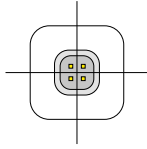
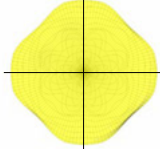
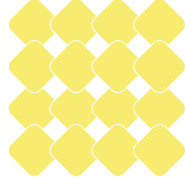
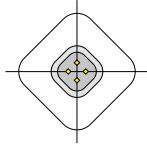
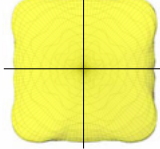
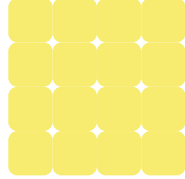


3F Diagon

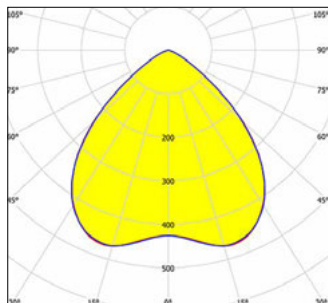
Lenses and photometric distributions

45° angle cells

The 45° angle cells were designed to minimise shadow areas inside the illuminated space. This idea came from careful analysis of multi-lens fixtures on the market that have the lenses parallel to the edge of the fixture:

| | Cell distribution | Light distribution of a single cell | Uniformity of light on the ground |
|--|---|---|---|
| Market solution Cell placed parallel to the edge of the product |  |  |  |
| 3F Diagon Cell oriented at a 45 degree angle to the edge of the product |  |  |  |

As can be seen with 45 degree angled cells uniformity on the ground is higher because the light distribution of the cell fills most of the available space even by using micro prisms on the lens edges and state-of-the-art LED sources.



3F Diagon | Transparent lenses

Versions equipped with transparent lenses, suitable for boardrooms with visual display terminals, offices or environments with exacting visual tasks where a diffused soft light is required for optimal visual comfort.

The 15W, 19W and 25W power versions provide a glare degree lower than 1500 cd/m² and UGR <16.

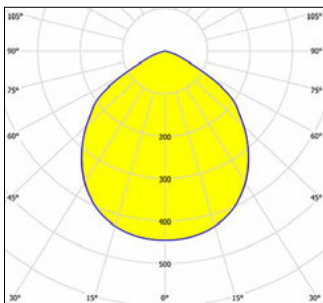
The 39W power version provides luminances with values below 3000 cd/m², despite output fluxes from the luminaire exceeding 5500 lumens.



LED/Lens Features



- Direct symmetric distribution
- Colour temperatures available: /830 - /840, /930 - /940 or HCL (on request)
- Useful life (L80/B10): 80000 hours (tq+25°C)
- Photobiological safety conforms with the risk free RG0 group
- State-of-the-art square LED modules
- Initial colour tolerance (MacAdam): SDCM 3
- Transparent lens performance > 90%
- Soft UGR lens efficiency > 75%



3F Diagon Soft UGR

The versions equipped with Soft UGR lens are particularly suitable for illuminating environments where maximum comfort is required for diffused and soft lighting.

Suitable for representative environments, with video terminals, offices, meeting rooms, transit areas, reception and waiting rooms.

They provide luminance control with values lower than 3000 cd/m² for angles > 65°.





3F Diagon | Lay-in installation

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Colour temperature available /830 - /840, /930 - /940.

Lifetime (L95/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L80/B10): 80000 h. (tq+25°C)

Lifetime (L75/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.

Honeycombed diagonal screen in white anti-glare polycarbonate.

Height only 30 mm.

Installation in false ceilings with exposed structure.

The 621x621 version is intended for false ceilings that have recess dimensions of 625x625.

Electrical characteristics

Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.

Quick connection.

Source characteristics

- Squared LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: twin-circuit, CLO (more information on page 542)
- Sensor version

Applications

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

Representative environments, with video terminals, offices, meeting rooms, transit areas, reception and waiting rooms.

Installation

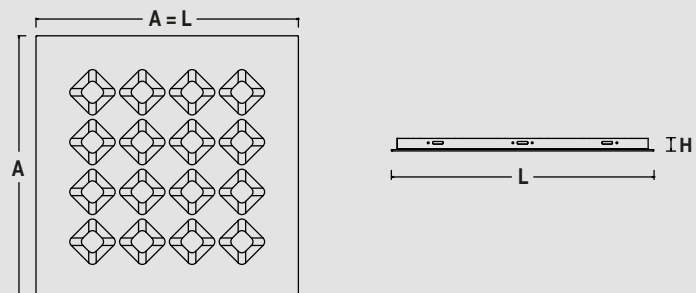
Lay-in installation.

Installation and assembly diagrams on page 244.

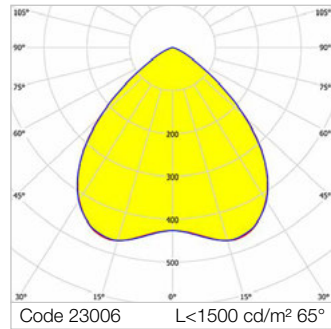
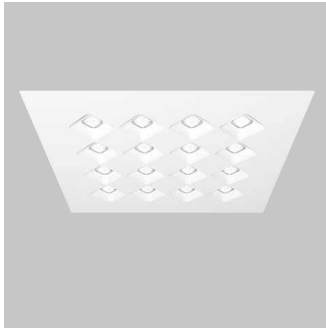
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Diagon



650°C



1J

IK06



Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 39W - Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 Installation Interdistance Transv.D = 1.40 x hu - Long.D = 1.40 x hu.
 Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in transparent methacrylate.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F Diagon 596x596 - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------|----|------|------|-----|------------|
| 23025 | 3F Diagon 15W/840 596x596 | 17 | 2738 | 4000 | >80 | 596x596x30 |
| 23024 | 3F Diagon 19W/840 596x596 | 21 | 3291 | 4000 | >80 | 596x596x30 |
| 23098 | 3F Diagon 25W/930 596x596 | 28 | 3487 | 3000 | >90 | 596x596x30 |
| 23122 | 3F Diagon 25W/940 596x596 | 28 | 3509 | 4000 | >90 | 596x596x30 |
| 23002 | 3F Diagon 25W/830 596x596 | 28 | 4079 | 3000 | >80 | 596x596x30 |
| 23026 | 3F Diagon 25W/840 596x596 | 28 | 4386 | 4000 | >80 | 596x596x30 |
| 23027 | 3F Diagon 39W/840 596x596 | 40 | 5547 | 4000 | >80 | 596x596x30 |

3F Diagon 596x596 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------|----|------|------|-----|------------|
| 23029 | 3F Diagon 15W/840 DALI 596x596 | 17 | 2738 | 4000 | >80 | 596x596x30 |
| 23028 | 3F Diagon 19W/840 DALI 596x596 | 21 | 3291 | 4000 | >80 | 596x596x30 |
| 23102 | 3F Diagon 25W/930 DALI 596x596 | 28 | 3487 | 3000 | >90 | 596x596x30 |
| 23126 | 3F Diagon 25W/940 DALI 596x596 | 28 | 3509 | 4000 | >90 | 596x596x30 |
| 23006 | 3F Diagon 25W/830 DALI 596x596 | 28 | 4079 | 3000 | >80 | 596x596x30 |
| 23030 | 3F Diagon 25W/840 DALI 596x596 | 28 | 4386 | 4000 | >80 | 596x596x30 |
| 23031 | 3F Diagon 39W/840 DALI 596x596 | 40 | 5547 | 4000 | >80 | 596x596x30 |

3F Diagon 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|------------------------------|----|------|------|-----|------------|
| 23033 | 3F Diagon 15W/840 EP 596x596 | 18 | 2738 | 4000 | >80 | 596x596x30 |
| 23032 | 3F Diagon 19W/840 EP 596x596 | 22 | 3291 | 4000 | >80 | 596x596x30 |
| 23106 | 3F Diagon 25W/930 EP 596x596 | 29 | 3487 | 3000 | >90 | 596x596x30 |
| 23130 | 3F Diagon 25W/940 EP 596x596 | 29 | 3509 | 4000 | >90 | 596x596x30 |
| 23010 | 3F Diagon 25W/830 EP 596x596 | 29 | 4079 | 3000 | >80 | 596x596x30 |
| 23034 | 3F Diagon 25W/840 EP 596x596 | 29 | 4386 | 4000 | >80 | 596x596x30 |
| 23035 | 3F Diagon 39W/840 EP 596x596 | 41 | 5547 | 4000 | >80 | 596x596x30 |

3F Diagon 621x621 - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------|----|------|------|-----|------------|
| 23409 | 3F Diagon 15W/840 621x621 | 17 | 2738 | 4000 | >80 | 621x621x30 |
| 23408 | 3F Diagon 19W/840 621x621 | 21 | 3291 | 4000 | >80 | 621x621x30 |
| 23482 | 3F Diagon 25W/930 621x621 | 28 | 3487 | 3000 | >90 | 621x621x30 |
| 23506 | 3F Diagon 25W/940 621x621 | 28 | 3509 | 4000 | >90 | 621x621x30 |
| 23386 | 3F Diagon 25W/830 621x621 | 28 | 4079 | 3000 | >80 | 621x621x30 |
| 23410 | 3F Diagon 25W/840 621x621 | 28 | 4386 | 4000 | >80 | 621x621x30 |
| 23411 | 3F Diagon 39W/840 621x621 | 40 | 5547 | 4000 | >80 | 621x621x30 |

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

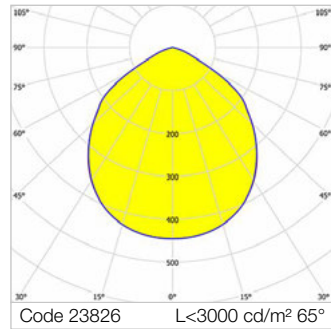
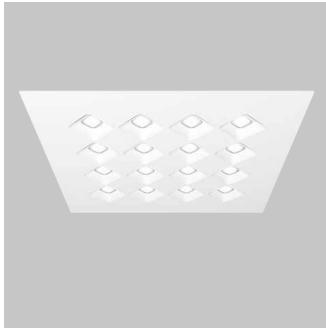
3F Diagon 621x621 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------|----|------|------|-----|------------|
| 23413 | 3F Diagon 15W/840 DALI 621x621 | 17 | 2738 | 4000 | >80 | 621x621x30 |
| 23412 | 3F Diagon 19W/840 DALI 621x621 | 21 | 3291 | 4000 | >80 | 621x621x30 |
| 23486 | 3F Diagon 25W/930 DALI 621x621 | 28 | 3487 | 3000 | >90 | 621x621x30 |
| 23510 | 3F Diagon 25W/940 DALI 621x621 | 28 | 3509 | 4000 | >90 | 621x621x30 |
| 23390 | 3F Diagon 25W/830 DALI 621x621 | 28 | 4079 | 3000 | >80 | 621x621x30 |
| 23414 | 3F Diagon 25W/840 DALI 621x621 | 28 | 4386 | 4000 | >80 | 621x621x30 |
| 23415 | 3F Diagon 39W/840 DALI 621x621 | 40 | 5547 | 4000 | >80 | 621x621x30 |

3F Diagon 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|------------------------------|----|------|------|-----|------------|
| 23417 | 3F Diagon 15W/840 EP 621x621 | 18 | 2738 | 4000 | >80 | 621x621x30 |
| 23416 | 3F Diagon 19W/840 EP 621x621 | 22 | 3291 | 4000 | >80 | 621x621x30 |
| 23490 | 3F Diagon 25W/930 EP 621x621 | 29 | 3487 | 3000 | >90 | 621x621x30 |
| 23514 | 3F Diagon 25W/940 EP 621x621 | 29 | 3509 | 4000 | >90 | 621x621x30 |
| 23394 | 3F Diagon 25W/830 EP 621x621 | 29 | 4079 | 3000 | >80 | 621x621x30 |
| 23418 | 3F Diagon 25W/840 EP 621x621 | 29 | 4386 | 4000 | >80 | 621x621x30 |
| 23419 | 3F Diagon 39W/840 EP 621x621 | 41 | 5547 | 4000 | >80 | 621x621x30 |

3F Diagon Soft UGR



650°C

IP20
IP43

1J

IK06



Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math>. Installation Interdistance Transv.D = 1.20 x hu - Long.D = 1.20 x hu. Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in opal methacrylate.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F Diagon 596x596 - Electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|------------------------------------|----|------|------|-----|------------|
| 23826 ^{NEW} | 3F Diagon 25W/830 SOFT UGR 596x596 | 28 | 3531 | 3000 | >80 | 596x596x30 |
| 23812 ^{NEW} | 3F Diagon 25W/840 SOFT UGR 596x596 | 28 | 3797 | 4000 | >80 | 596x596x30 |
| 23842 ^{NEW} | 3F Diagon 39W/930 SOFT UGR 596x596 | 40 | 3819 | 3000 | >90 | 596x596x30 |
| 23834 ^{NEW} | 3F Diagon 39W/940 SOFT UGR 596x596 | 40 | 3843 | 4000 | >90 | 596x596x30 |

3F Diagon 596x596 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|---|----|------|------|-----|------------|
| 23828 ^{NEW} | 3F Diagon 25W/830 DALI SOFT UGR 596x596 | 28 | 3531 | 3000 | >80 | 596x596x30 |
| 23814 ^{NEW} | 3F Diagon 25W/840 DALI SOFT UGR 596x596 | 28 | 3797 | 4000 | >80 | 596x596x30 |
| 23844 ^{NEW} | 3F Diagon 39W/930 DALI SOFT UGR 596x596 | 40 | 3819 | 3000 | >90 | 596x596x30 |
| 23836 ^{NEW} | 3F Diagon 39W/940 DALI SOFT UGR 596x596 | 40 | 3843 | 4000 | >90 | 596x596x30 |

3F Diagon 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|----------------------|---------------------------------------|----|------|------|-----|------------|
| 23827 ^{NEW} | 3F Diagon 25W/830 EP SOFT UGR 596x596 | 29 | 3531 | 3000 | >80 | 596x596x30 |
| 23813 ^{NEW} | 3F Diagon 25W/840 EP SOFT UGR 596x596 | 29 | 3797 | 4000 | >80 | 596x596x30 |
| 23843 ^{NEW} | 3F Diagon 39W/930 EP SOFT UGR 596x596 | 41 | 3819 | 3000 | >90 | 596x596x30 |
| 23835 ^{NEW} | 3F Diagon 39W/940 EP SOFT UGR 596x596 | 41 | 3843 | 4000 | >90 | 596x596x30 |

3F Diagon 621x621 - Electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|------------------------------------|----|------|------|-----|------------|
| 23830 ^{NEW} | 3F Diagon 25W/830 SOFT UGR 621x621 | 28 | 3531 | 3000 | >80 | 621x621x30 |
| 23819 ^{NEW} | 3F Diagon 25W/840 SOFT UGR 621x621 | 28 | 3797 | 4000 | >80 | 621x621x30 |
| 23846 ^{NEW} | 3F Diagon 39W/930 SOFT UGR 621x621 | 40 | 3819 | 3000 | >90 | 621x621x30 |
| 23838 ^{NEW} | 3F Diagon 39W/940 SOFT UGR 621x621 | 40 | 3843 | 4000 | >90 | 621x621x30 |

3F Diagon 621x621 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|---|----|------|------|-----|------------|
| 23832 ^{NEW} | 3F Diagon 25W/830 DALI SOFT UGR 621x621 | 28 | 3531 | 3000 | >80 | 621x621x30 |
| 23821 ^{NEW} | 3F Diagon 25W/840 DALI SOFT UGR 621x621 | 28 | 3797 | 4000 | >80 | 621x621x30 |
| 23848 ^{NEW} | 3F Diagon 39W/930 DALI SOFT UGR 621x621 | 40 | 3819 | 3000 | >90 | 621x621x30 |
| 23840 ^{NEW} | 3F Diagon 39W/940 DALI SOFT UGR 621x621 | 40 | 3843 | 4000 | >90 | 621x621x30 |

3F Diagon 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|----------------------|---------------------------------------|----|------|------|-----|------------|
| 23831 ^{NEW} | 3F Diagon 25W/830 EP SOFT UGR 621x621 | 29 | 3531 | 3000 | >80 | 621x621x30 |
| 23820 ^{NEW} | 3F Diagon 25W/840 EP SOFT UGR 621x621 | 29 | 3797 | 4000 | >80 | 621x621x30 |
| 23847 ^{NEW} | 3F Diagon 39W/930 EP SOFT UGR 621x621 | 41 | 3819 | 3000 | >90 | 621x621x30 |
| 23839 ^{NEW} | 3F Diagon 39W/940 EP SOFT UGR 621x621 | 41 | 3843 | 4000 | >90 | 621x621x30 |



3F Diagon Tunable White | Lay-in installation

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
The color temperature can be adjusted between 2700 K and 6500 K.
Lifetime (L90/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Lifetime (L80/B20): 80000 h. (tq+25°C)
Lifetime (L70/B20): 100000 h. (tq+25°C)
Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.
Honeycombed diagonal screen in white anti-glare polycarbonate.
Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in opal methacrylate.
Height only 30 mm.
Installation in false ceilings with exposed structure.

Electrical characteristics

In compliance with EN 60598-1.
Cable with a DALI DT8 driver.
5-pole terminal block (L-N-PE-DA/DA) quick connection for line connection with connection capacity 2x2.5 mm².

Source characteristics

- Squared LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

Applications

Any environments requiring light which aims for the wellness of people. Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source. Representative environments, with video terminals, offices, meeting rooms, transit areas, reception and waiting rooms.

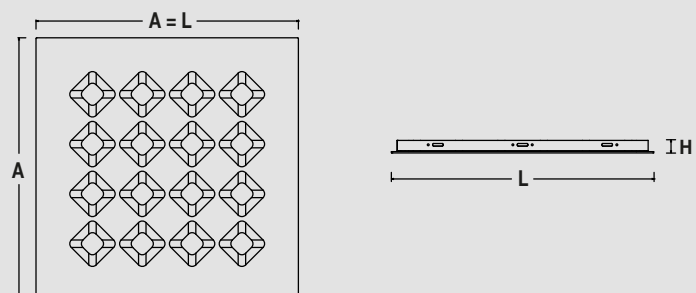
Installation

Lay-in installation.
Installation and assembly diagrams on page 244.

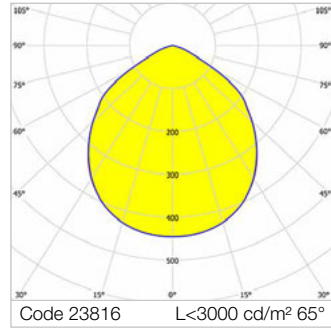
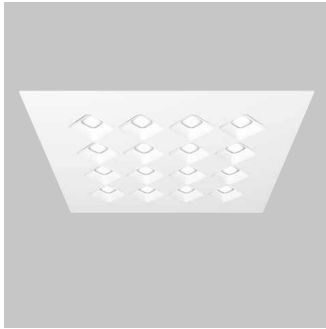
Light Management

Products in the 3F Tunable White range can be controlled manually or automatically with 3F HCL for TW fixtures technology (see the chapter on "Light Management").

Dimensions



3F Diagon Soft UGR Tunable White



Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math>. Installation Interdistance Transv.D = 1.20 x hu - Long.D = 1.20 x hu.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F Diagon 596x596 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|---------------------------------------|------------------|------|----------------------|-----|------------|
| 23816 ^{NEW} | 3F Diagon 25W DT8 TW SOFT UGR 596x596 | 31,5 30 29 | 3686 | 2700 4000 6500 | >80 | 596x596x30 |
|----------------------|---------------------------------------|------------------|------|----------------------|-----|------------|

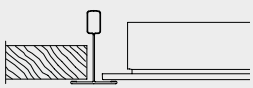
3F Diagon 621x621 - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|---------------------------------------|------------------|------|----------------------|-----|------------|
| 23823 ^{NEW} | 3F Diagon 25W DT8 TW SOFT UGR 621x621 | 31,5 30 29 | 3686 | 2700 4000 6500 | >80 | 621x621x30 |
|----------------------|---------------------------------------|------------------|------|----------------------|-----|------------|

Recessed luminaires

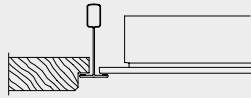
Mounting details

1



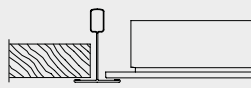
Panels in mineral fibre with exposed structure 600x600.

2



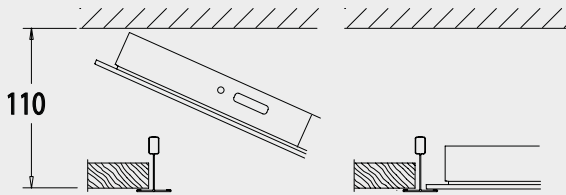
Panels in mineral fibre with decoration in relief 600x600.

3

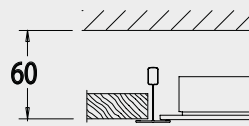


Panels in mineral fibre with exposed structure 625x625.

Installation



Installation following false ceiling mounting, supported by the exposed structure, minimum void of 110 mm from the structure's lower edge.



Installation simultaneously with the false ceiling, minimum void of 60 mm from the structure's lower edge.



3F Diagon | Pull-up installation

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Lifetime (L95/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L80/B10): 80000 h. (tq+25°C)

Lifetime (L75/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.

Honeycombed diagonal screen in white anti-glare polycarbonate.

Height only 30 mm.

The FP (For Plasterboard) version is

dedicated to plasterboard false ceilings.

The FCL (For Complanar Low) version is dedicated to plasterboard with metal panels and low structures.

The FCH (For Complanar High) version is

dedicated to plasterboard with metal panels and high structures.

For all versions, spring fixing in stainless steel.

Electrical characteristics

Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.

Quick connection.

Source characteristics

- Squared LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: emergency, twin-circuit, CLO (more information on page 542)
- luminaires for pull-up installation with brackets
- 3F Tunable White version
- 3F Diagon Soft UGR, for FCL and FCH versions

Applications

FCL, FCH, FP versions

Environments: staterooms, with VDTs, offices.

Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.

Version FP Soft UGR

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

Installation

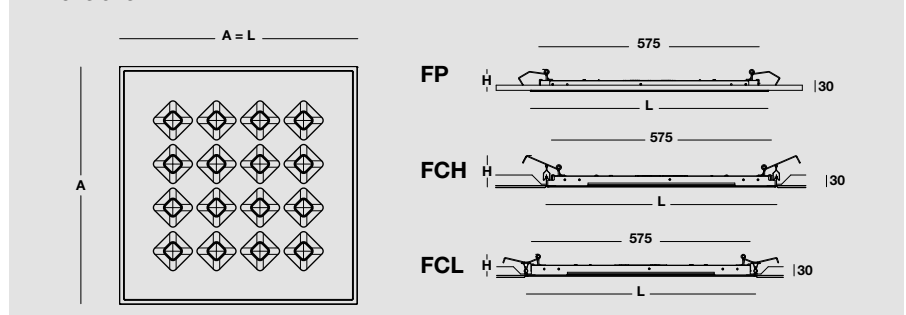
Installation and assembly diagrams on page 249.

Do not hesitate to contact our Sales Network or our Technical Offices to check the compatibility of the FCH and FCL models with the various types of metallic false ceilings.

Light Management

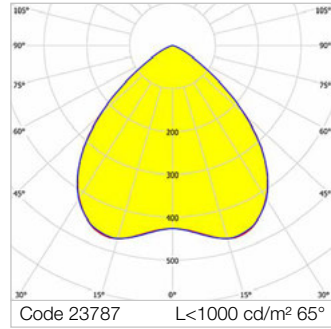
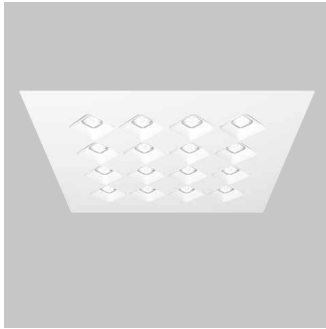
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Diagon FCL

Version for metal panels with low structures



Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. Installation Interdistance Transv.D = 1.40 x hu - Long.D = 1.40 x hu. Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in transparent methacrylate.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F Diagon 599x599 - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|------------|
| 23785 | 3F Diagon FCL 19W/840 599x599 | 21 | 3291 | 4000 | >80 | 599x599x60 |
| 23786 | 3F Diagon FCL 25W/840 599x599 | 28 | 4386 | 4000 | >80 | 599x599x60 |

3F Diagon 599x599 - DALI electronic wiring 230V-50/60Hz

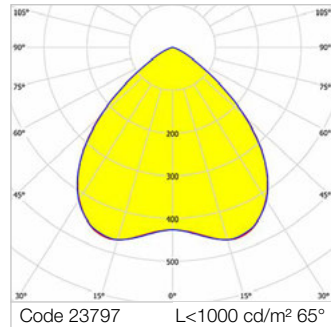
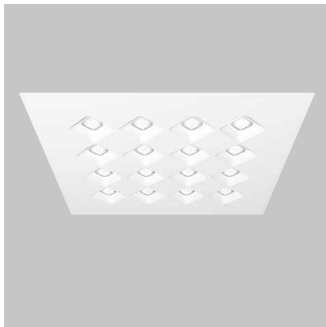
| | | | | | | |
|-------|------------------------------------|----|------|------|-----|------------|
| 23787 | 3F Diagon FCL 19W/840 DALI 599x599 | 21 | 3291 | 4000 | >80 | 599x599x60 |
| 23788 | 3F Diagon FCL 25W/840 DALI 599x599 | 28 | 4386 | 4000 | >80 | 599x599x60 |

3F Diagon 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|----------------------------------|----|------|------|-----|------------|
| 23789 | 3F Diagon FCL 19W/840 EP 599x599 | 22 | 3291 | 4000 | >80 | 599x599x60 |
| 23790 | 3F Diagon FCL 25W/840 EP 599x599 | 29 | 4386 | 4000 | >80 | 599x599x60 |

3F Diagon FCH

Version for metal panels with high structures



Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. Installation Interdistance Transv.D = 1.40 x hu - Long.D = 1.40 x hu. Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in transparent methacrylate.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F Diagon 599x599 - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|------------|
| 23795 | 3F Diagon FCH 19W/840 599x599 | 21 | 3291 | 4000 | >80 | 599x599x60 |
| 23796 | 3F Diagon FCH 25W/840 599x599 | 28 | 4386 | 4000 | >80 | 599x599x60 |

3F Diagon 599x599 - DALI electronic wiring 230V-50/60Hz

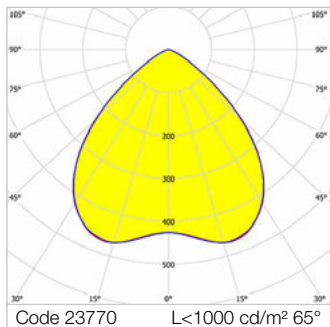
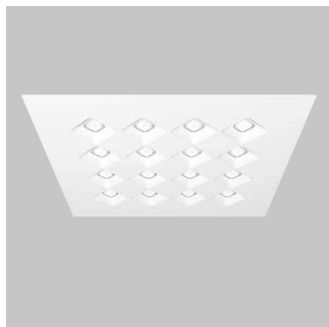
| | | | | | | |
|-------|------------------------------------|----|------|------|-----|------------|
| 23797 | 3F Diagon FCH 19W/840 DALI 599x599 | 21 | 3291 | 4000 | >80 | 599x599x60 |
| 23798 | 3F Diagon FCH 25W/840 DALI 599x599 | 28 | 4386 | 4000 | >80 | 599x599x60 |

3F Diagon 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|----------------------------------|----|------|------|-----|------------|
| 23799 | 3F Diagon FCH 19W/840 EP 599x599 | 22 | 3291 | 4000 | >80 | 599x599x60 |
| 23800 | 3F Diagon FCH 25W/840 EP 599x599 | 29 | 4386 | 4000 | >80 | 599x599x60 |

3F Diagon FP

Version for plasterboard



Average luminance <1500 cd/m² for radial angles >65°. Installation Interdistance Transv.D = 1.40 x hu - Long.D = 1.40 x hu. Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in transparent methacrylate.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F Diagon 621x621 - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------|----|------|------|-----|------------|
| 23768 | 3F Diagon FP 19W/840 621x621 | 21 | 3291 | 4000 | >80 | 621x621x60 |
| 23769 | 3F Diagon FP 25W/840 621x621 | 28 | 4386 | 4000 | >80 | 621x621x60 |

3F Diagon 621x621 - DALI electronic wiring 230V-50/60Hz

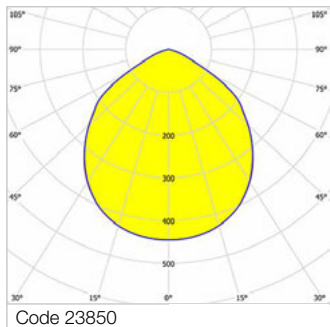
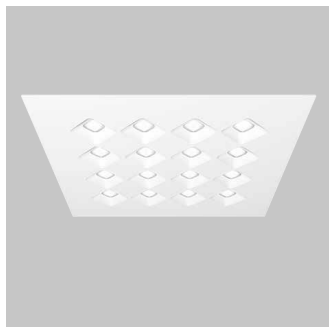
| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|------------|
| 23770 | 3F Diagon FP 19W/840 DALI 621x621 | 21 | 3291 | 4000 | >80 | 621x621x60 |
| 23771 | 3F Diagon FP 25W/840 DALI 621x621 | 28 | 4386 | 4000 | >80 | 621x621x60 |

3F Diagon 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|---------------------------------|----|------|------|-----|------------|
| 23772 | 3F Diagon FP 19W/840 EP 621x621 | 22 | 3291 | 4000 | >80 | 621x621x60 |
| 23773 | 3F Diagon FP 25W/840 EP 621x621 | 29 | 4386 | 4000 | >80 | 621x621x60 |

3F Diagon FP Soft UGR

Version for plasterboard



Average luminance <3000 cd/m² for angles >65°. Installation Interdistance Transv.D = 1.20 x hu - Long.D = 1.20 x hu. Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in opal methacrylate.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

3F Diagon 621x621 - Electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|---------------------------------------|----|------|------|-----|------------|
| 23850 ^{NEW} | 3F Diagon FP 25W/840 SOFT UGR 621x621 | 28 | 3797 | 4000 | >80 | 621x621x60 |
|----------------------|---------------------------------------|----|------|------|-----|------------|

3F Diagon 621x621 - DALI electronic wiring 230V-50/60Hz

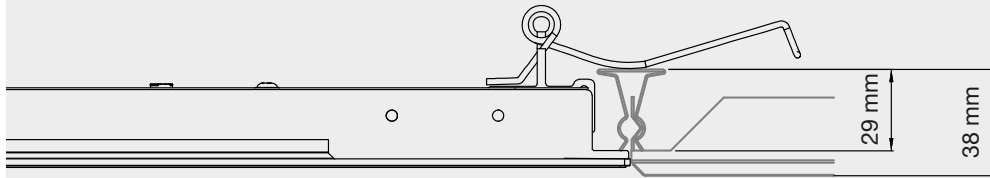
| | | | | | | |
|----------------------|--|----|------|------|-----|------------|
| 23852 ^{NEW} | 3F Diagon FP 25W/840 DALI SOFT UGR 621x621 | 28 | 3797 | 4000 | >80 | 621x621x60 |
|----------------------|--|----|------|------|-----|------------|

3F Diagon 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|----------------------|--|----|------|------|-----|------------|
| 23851 ^{NEW} | 3F Diagon FP 25W/840 EP SOFT UGR 621x621 | 29 | 3797 | 4000 | >80 | 621x621x60 |
|----------------------|--|----|------|------|-----|------------|

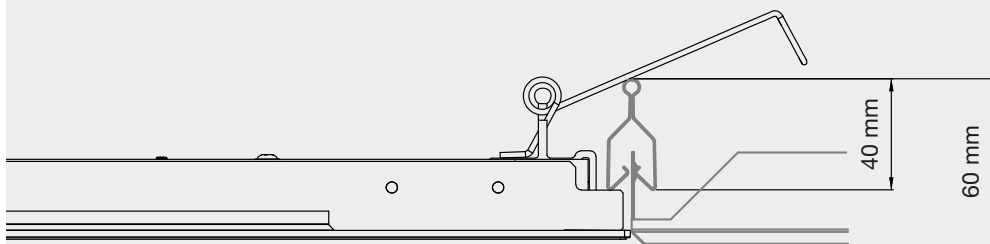
Mounting details

FCL - Version for metal panels with low structures (599x599)

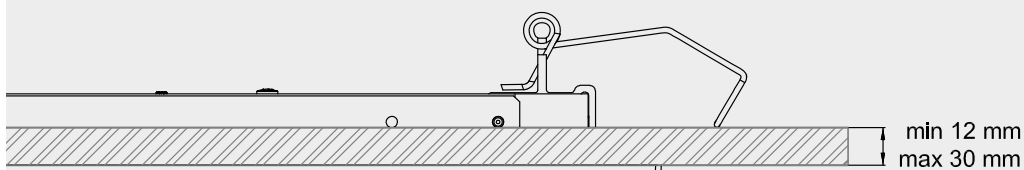


Do not hesitate to contact our Sales Network or our Technical Offices to check the compatibility of the FCH and FCL models with the various types of metallic false ceilings.

FCH - Version for metal panels with high structures (599x599)



FP - Version for Plasterboard (621x621)



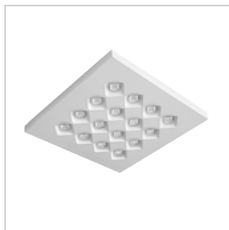
In the event that the type of false ceiling reported is not that envisaged by the installation, it is necessary to consult our Sales Network.

3F Diagon Accessories



Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.

| Code | Item |
|-------|-------------|
| A0477 | Safety wire |



White painted polyester hot-dip galvanised steel frame for 3F Diagon Plafone. Height only 40 mm.

Accessory compatible with 3F Diagon | Lay-in installation, 3F Diagon Tunable White | Lay-in installation.

| Code | Item |
|-------|---|
| A0686 | 596x596 Diagon frame for Ceiling installation |



Suction cup to extract "3F Diagon" installed in abutment. To be used in false ceilings with metal panels, where the space between the luminaire and the surrounding panels does not allow the use of other tools.

Accessory compatible with 3F Diagon | Pull-up installation.

| Code | Item |
|-------|------------------------------------|
| A0702 | Suction cup for Diagon maintenance |





L 320 LED

Construction characteristics

Illuminotecnical characteristics

Direct symmetric distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.

Attention: before ordering these products, we ask you to check the installation instructions if the type of installation requires accessory brackets.

Electrical characteristics

In compliance with EN 60598-1.

Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.

Source characteristics

- Linear LED modules.

10W version

- Color initial tolerance (MacAdam): SDCM 2.

18W version

- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- diffuser in OP opal PMMA or SP polycarbonate, self-extinguishing V2
- luminaires for pull-up installation with brackets

Applications

Environments: staterooms, with VDTs, offices.

Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.

SP version

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

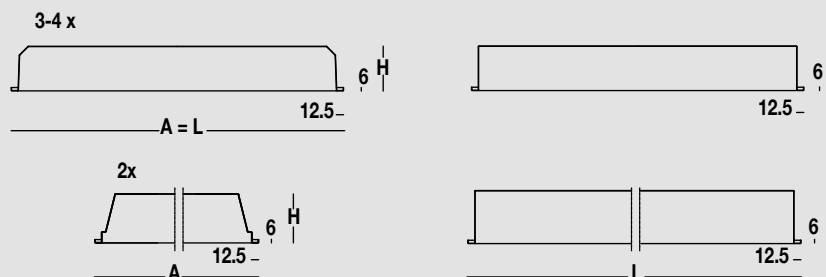
Installation

Lay-in or pull-up installation with brackets.

Light Management

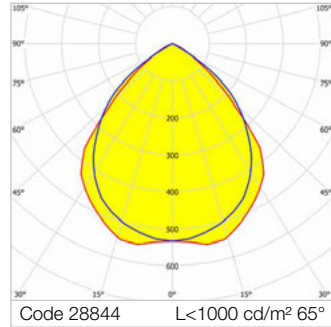
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



L 320 LED 2MG

Specular louvre, high efficiency



650°C

IP20



Driver/LED

SELV



Average luminance <math><1000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top.
 Prismatic PMMA diffuser for total shielding of the louvre compartment.
 Film protective against dust and finger marks, adhesive, attached to louvre.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|-------------|
| 28844 | L 323x10W LED 2MG 596x596 | 34 | 4287 | 4000 | >80 | 596x596x80 |
| 22722 | L 323x10W/940 LED 2MG 596x596 | 34 | 3430 | 4000 | >90 | 596x596x80 |
| 28846 | L 322x18W LED 2MG 296x1196 | 40 | 5179 | 4000 | >80 | 1196x296x95 |

DALI electronic wiring 230V-50/60Hz

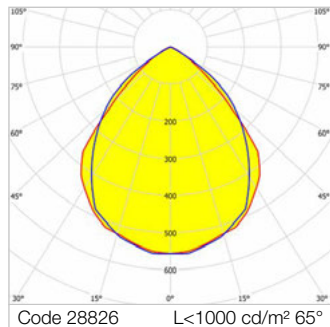
| | | | | | | |
|-------|------------------------------------|----|------|------|-----|-------------|
| 28856 | L 323x10W LED DALI 2MG 596x596 | 34 | 4287 | 4000 | >80 | 596x596x80 |
| 22724 | L 323x10W/940 LED DALI 2MG 596x596 | 34 | 3430 | 4000 | >90 | 596x596x80 |
| 28858 | L 322x18W LED DALI 2MG 296x1196 | 40 | 5179 | 4000 | >80 | 1196x296x95 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|----------------------------------|----|------|------|-----|-------------|
| 28847 | L 323x10W LED EP 2MG 596x596 | 35 | 4287 | 4000 | >80 | 596x596x80 |
| 22723 | L 323x10W/940 LED EP 2MG 596x596 | 35 | 3430 | 4000 | >90 | 596x596x80 |
| 28849 | L 322x18W LED EP 2MG 296x1196 | 41 | 5179 | 4000 | >80 | 1196x296x95 |

L 320 LED 2S

Semi-specular louvre



Average luminance <math>< 1000 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 2S parabolic louvre in semi-specular aluminium, non-reflecting, with transverse blades closed at the top.
 Prismatic PMMA diffuser for total shielding of the louvre compartment.
 Film protective against dust and finger marks, adhesive, attached to louvre.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------|----|------|------|-----|-------------|
| 28826 | L 323x10W LED 2S 596x596 | 34 | 3997 | 4000 | >80 | 596x596x80 |
| 22716 | L 323x10W/940 LED 2S 596x596 | 34 | 3197 | 4000 | >90 | 596x596x80 |
| 28828 | L 322x18W LED 2S 296x1196 | 40 | 4730 | 4000 | >80 | 1196x296x95 |

DALI electronic wiring 230V-50/60Hz

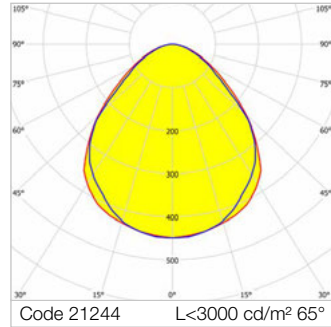
| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|-------------|
| 28838 | L 323x10W LED DALI 2S 596x596 | 34 | 3997 | 4000 | >80 | 596x596x80 |
| 22718 | L 323x10W/940 LED DALI 2S 596x596 | 34 | 3197 | 4000 | >90 | 596x596x80 |
| 28840 | L 322x18W LED DALI 2S 296x1196 | 40 | 4730 | 4000 | >80 | 1196x296x95 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|---------------------------------|----|------|------|-----|-------------|
| 28829 | L 323x10W LED EP 2S 596x596 | 35 | 3997 | 4000 | >80 | 596x596x80 |
| 22717 | L 323x10W/940 LED EP 2S 596x596 | 35 | 3197 | 4000 | >90 | 596x596x80 |
| 28831 | L 322x18W LED EP 2S 296x1196 | 41 | 4730 | 4000 | >80 | 1196x296x95 |

L 320 LED SP

Flat diffuser, prismatic in methacrylate



650°C

IP20
IP54

5J

IK08

Driver/LED
SELV

Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. SP transparent PMMA diffuser, prismatic exterior, anti-glare, locked to the prepainted white aluminium perimeter frame with sealing gasket, hinged opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------|----|------|------|-----|-------------|
| 21244 | L 323x10W LED SP 596x596 | 34 | 4163 | 4000 | >80 | 596x596x80 |
| 22701 | L 323x10W/940 LED SP 596x596 | 34 | 3330 | 4000 | >90 | 596x596x80 |
| 21287 | L 322x18W LED SP 296x1196 | 40 | 5272 | 4000 | >80 | 1196x296x95 |
| 21245 | L 324x10W LED SP 596x596 | 45 | 5516 | 4000 | >80 | 596x596x80 |
| 22702 | L 324x10W/940 LED SP 596x596 | 45 | 4413 | 4000 | >90 | 596x596x80 |

DALI electronic wiring 230V-50/60Hz

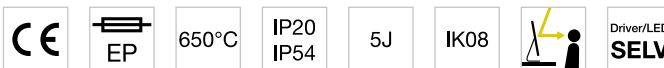
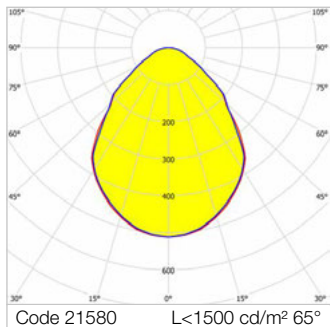
| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|-------------|
| 21256 | L 323x10W LED DALI SP 596x596 | 34 | 4163 | 4000 | >80 | 596x596x80 |
| 22703 | L 323x10W/940 LED DALI SP 596x596 | 34 | 3330 | 4000 | >90 | 596x596x80 |
| 21290 | L 322x18W LED DALI SP 296x1196 | 40 | 5272 | 4000 | >80 | 1196x296x95 |
| 21257 | L 324x10W LED DALI SP 596x596 | 45 | 5516 | 4000 | >80 | 596x596x80 |
| 22704 | L 324x10W/940 LED DALI SP 596x596 | 45 | 4413 | 4000 | >90 | 596x596x80 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|---------------------------------|----|------|------|-----|-------------|
| 21262 | L 323x10W LED EP SP 596x596 | 35 | 4163 | 4000 | >80 | 596x596x80 |
| 22705 | L 323x10W/940 LED EP SP 596x596 | 35 | 3330 | 4000 | >90 | 596x596x80 |
| 21293 | L 322x18W LED EP SP 296x1196 | 41 | 5272 | 4000 | >80 | 1196x296x95 |
| 21263 | L 324x10W LED EP SP 596x596 | 46 | 5516 | 4000 | >80 | 596x596x80 |
| 22706 | L 324x10W/940 LED EP SP 596x596 | 46 | 4413 | 4000 | >90 | 596x596x80 |

L 320 LED LGS

Low glaring flat diffuser, microprismatic in methacrylate



2x - 4x - Average luminance <3000 cd/m² for radial angles >65°.
 3x - Average luminance <1500 cd/m² for radial angles >65°.
 LGS micro-prismatic flat diffuser in transparent methacrylate, multilenticular exterior, anti-glare, locked to the white painted aluminium perimetral frame, sealing gasket, hinged opening. Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|-------------|
| 21580 | L 323x10W LED LGS 596x596 | 34 | 3178 | 4000 | >80 | 596x596x80 |
| 21600 | L 322x18W LED LGS 296x1196 | 40 | 4102 | 4000 | >80 | 1196x296x95 |
| 21581 | L 324x10W LED LGS 596x596 | 45 | 4292 | 4000 | >80 | 596x596x80 |
| 22709 | L 324x10W/940 LED LGS 596x596 | 45 | 3434 | 4000 | >90 | 596x596x80 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------------|----|------|------|-----|-------------|
| 21586 | L 323x10W LED DALI LGS 596x596 | 34 | 3178 | 4000 | >80 | 596x596x80 |
| 21603 | L 322x18W LED DALI LGS 296x1196 | 40 | 4102 | 4000 | >80 | 1196x296x95 |
| 21587 | L 324x10W LED DALI LGS 596x596 | 45 | 4292 | 4000 | >80 | 596x596x80 |
| 22710 | L 324x10W/940 LED DALI LGS 596x596 | 45 | 3434 | 4000 | >90 | 596x596x80 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|----------------------------------|----|------|------|-----|-------------|
| 21589 | L 323x10W LED EP LGS 596x596 | 35 | 3178 | 4000 | >80 | 596x596x80 |
| 21606 | L 322x18W LED EP LGS 296x1196 | 41 | 4102 | 4000 | >80 | 1196x296x95 |
| 21590 | L 324x10W LED EP LGS 596x596 | 46 | 4292 | 4000 | >80 | 596x596x80 |
| 22711 | L 324x10W/940 LED EP LGS 596x596 | 46 | 3434 | 4000 | >90 | 596x596x80 |



VIETATO L'ACCESSO
A CHI NON È
AUTORIZZATO

VIETATO L'ACCESSO
A CHI NON È
AUTORIZZATO

EXIT
EXIT

MANIGLIONE
ANTIPANICO
Estrazione a spinta



PRODOTTO ESCLUSIVO
IN UNO DEI NOSTRI
PACCHI DA CONSUMARE
PER LA COTTURA

YAESSE



L 320 LED Diffused Light

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 Lifetime (L90/B20): 30000 h. (tq+25°C)
 Lifetime (L80/B20): 50000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.
 Height only 55 mm.
 The 621x621 version is intended for false ceilings that have recess dimensions of 625x625.
 Warning: both are suitable for lay-in installation, but only the 596x596 version is suitable for pull-up installation (using accessory A0798).

Electrical characteristics

Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.
 Quick connection.

Source characteristics

- Squared LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- diffuser in SMP microprismatic PMMA or SP polycarbonate, Selfextinguishing V2
- housing in RAL colours

Applications

OP version

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

LGS version

Environments: staterooms, with VDTs, offices.

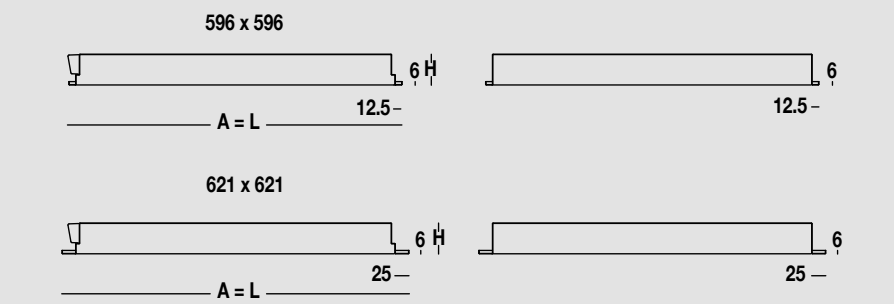
Installation

Lay-in installation.

Light Management

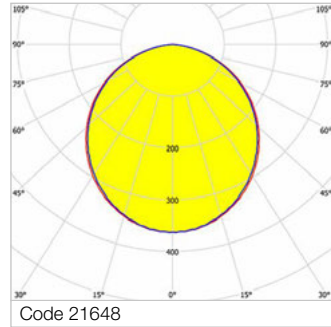
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



L 320 LED Diffused Light OP

Opal PMMA flat diffuser



OP opal PMMA flat diffuser, anti-glare, locked to the pre-painted white aluminium perimeter frame, hinged opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------|----|------|------|-----|------------|
| 21648 | L 320 32W LED OP 596x596 | 36 | 3950 | 4000 | >80 | 596x596x55 |
| 22742 | L 320 32W/940 LED OP 596x596 | 36 | 3160 | 4000 | >90 | 596x596x55 |
| 21660 | L 320 32W LED OP 621x621 | 36 | 3950 | 4000 | >80 | 621x621x55 |

DALI electronic wiring 230V-50/60Hz

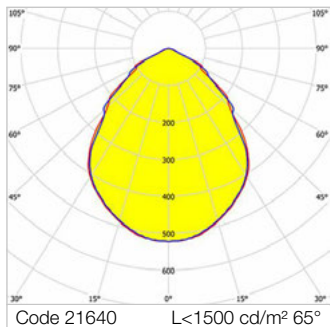
| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|------------|
| 21649 | L 320 32W LED DALI OP 596x596 | 36 | 3950 | 4000 | >80 | 596x596x55 |
| 22743 | L 320 32W/940 LED DALI OP 596x596 | 36 | 3160 | 4000 | >90 | 596x596x55 |
| 21661 | L 320 32W LED DALI OP 621x621 | 36 | 3950 | 4000 | >80 | 621x621x55 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|---------------------------------|----|------|------|-----|------------|
| 21650 | L 320 32W LED EP OP 596x596 | 37 | 3950 | 4000 | >80 | 596x596x55 |
| 22744 | L 320 32W/940 LED EP OP 596x596 | 37 | 3160 | 4000 | >90 | 596x596x55 |
| 21662 | L 320 32W LED EP OP 621x621 | 37 | 3950 | 4000 | >80 | 621x621x55 |

L 320 LED Diffused Light LGS

Low glaring flat diffuser, microprismatic in methacrylate



Average luminance < 1500 cd/m² for radial angles > 65°. LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare, locked to the white painted aluminium perimeter frame, hinged opening. Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|------------|
| 21640 | L 320 32W LED LGS 596x596 | 36 | 3620 | 4000 | >80 | 596x596x55 |
| 22732 | L 320 32W/940 LED LGS 596x596 | 36 | 2896 | 4000 | >90 | 596x596x55 |
| 21652 | L 320 32W LED LGS 621x621 | 36 | 3620 | 4000 | >80 | 621x621x55 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------------|----|------|------|-----|------------|
| 21641 | L 320 32W LED DALI LGS 596x596 | 36 | 3620 | 4000 | >80 | 596x596x55 |
| 22733 | L 320 32W/940 LED DALI LGS 596x596 | 36 | 2896 | 4000 | >90 | 596x596x55 |
| 21653 | L 320 32W LED DALI LGS 621x621 | 36 | 3620 | 4000 | >80 | 621x621x55 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|----------------------------------|----|------|------|-----|------------|
| 21642 | L 320 32W LED EP LGS 596x596 | 37 | 3620 | 4000 | >80 | 596x596x55 |
| 22734 | L 320 32W/940 LED EP LGS 596x596 | 37 | 2896 | 4000 | >90 | 596x596x55 |
| 21654 | L 320 32W LED EP LGS 621x621 | 37 | 3620 | 4000 | >80 | 621x621x55 |





L 320 LED Tunable White

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 The color temperature can be adjusted between 2700 K and 6500 K.
 Lifetime (L90/B10): 30000 h. (tq+25°C)
 Lifetime (L85/B10): 50000 h. (tq+25°C)
 Lifetime (L80/B20): 80000 h. (tq+25°C)
 Lifetime (L70/B20): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.
 LGS micro-prismatic flat diffuser in transparent methacrylate, multilenticular exterior, anti-glare, locked to the white painted aluminium perimetral frame, sealing gasket, hinged opening.
 Anti-glare opal polycarbonate filter for brightness uniformity.

Attention: before ordering these products, we ask you to check the installation instructions if the type of installation requires accessory brackets.

Electrical characteristics

In compliance with EN 60598-1.
 Cable with a DALI DT8 driver.
 5-pole terminal block (L-N-PE-DA/DA) for line connection with connection capacity 2x2.5 mm².

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- diffuser in SP prismatic PMMA or SP polycarbonate, Selfextinguishing V2
- luminaires for pull-up installation with brackets

Applications

Any environments requiring light which aims for the wellness of people. Environments with VDTs. Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.

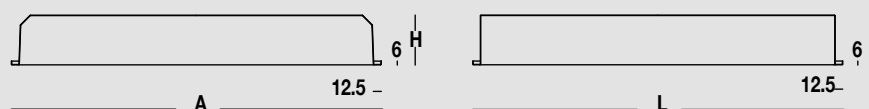
Installation

Lay-in or pull-up installation with brackets.

Light Management

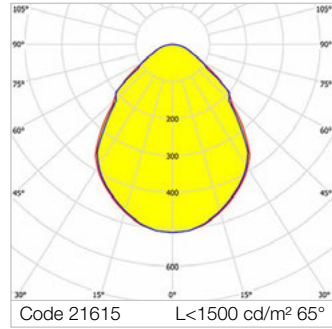
Products in the 3F Tunable White range can be controlled manually or automatically with 3F HCL for TW fixtures technology (see the chapter on "Light Management").

Dimensions



L 320 LED Tunable White LGS

Low glaring flat diffuser, microprismatic in methacrylate
















Average luminance < 1500 cd/m² for radial angles > 65°. Variable light intensity and color temperature.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI DT8 electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------------|----|----------------------|----------------------|-----|------------|
| 21615 | L 323x10W LED DALI DT8 TW LGS 596x596 | 35 | 2685 3017 2911 | 2700 4000 6500 | >80 | 596x596x80 |
|-------|---------------------------------------|----|----------------------|----------------------|-----|------------|

Recessed luminaires



L 320 LED Sensor

Construction characteristics

Illuminotecnical characteristics

Direct symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.

Attention: before ordering these products, we ask you to check the installation instructions if the type of installation requires accessory brackets.

Electrical characteristics

In compliance with EN 60598-1.
 On board DALI light sensor (no cables to be added).
 CF Corridor function: even with the environment free of people, the luminous flux is maintained at 10%.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 2.

On request

- diffuser in OP opal PMMA or SP polycarbonate, self-extinguishing V2
- different power levels, colour rendering indices and colour temperatures
- wiring: emergency
- luminaires for pull-up installation with brackets

Applications

Environments: staterooms, with VDTs, offices.
 Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.

SP version

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

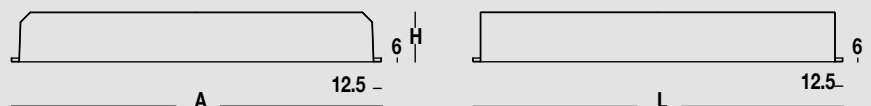
Installation

Lay-in or pull-up installation with brackets.

Light Management

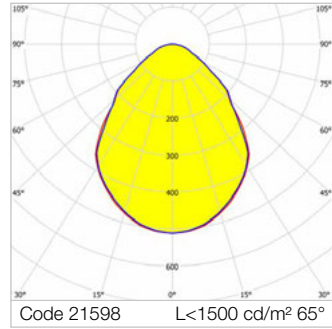
For more information on 3F Sensor technology, refer to the specific chapter in the "Light Management" section.

Dimensions



L 320 LED Sensor LGS

Low glaring flat diffuser, microprismatic in methacrylate



Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 LGS micro-prismatic flat diffuser in transparent methacrylate, multilenticular exterior, anti-glare, locked to the white painted aluminium perimetral frame, sealing gasket, hinged opening. Anti-glare opal polycarbonate filter for brightness uniformity.

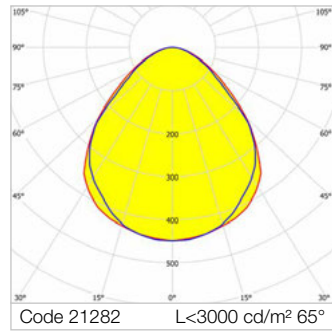
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------------|----|------|------|-----|------------|
| 21598 | L 323x10W LED Sensor CF LGS 596x596 | 34 | 3178 | 4000 | >80 | 596x596x80 |
|-------|-------------------------------------|----|------|------|-----|------------|

L 320 LED Sensor SP

Flat diffuser, prismatic in methacrylate



Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 SP transparent PMMA diffuser, prismatic exterior, anti-glare, locked to the prepainted white aluminium perimeter frame with sealing gasket, hinged opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------------|----|------|------|-----|------------|
| 21282 | L 323x10W LED Sensor CF SP 596x596 | 34 | 4163 | 4000 | >80 | 596x596x80 |
|-------|------------------------------------|----|------|------|-----|------------|

L 320

Accessories



Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.

Accessory compatible with L 320 LED, L 320 LED Tunable White, L 320 LED Sensor.

| Code | Item |
|-------|-------------|
| A0477 | Safety wire |



Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.

Accessory compatible with L 320 LED Diffused Light.

| Code | Item |
|-------|-----------------|
| A0445 | Safety wire H55 |



Plug for quick connection of the luminaire, 3-pole irreversible to be snapped (Snap-in), with integrated locking device, H07 V2-U HT90° 1.5 mm² cables, for the connection to the terminal block of the luminaire. Connection for single-circuit wiring: order white plug. Connection for twin-circuit, dimmable, emergency wiring: order white plug plus black plug.

Accessory compatible with L 320 LED, L 320 LED Sensor.

| Code | Item |
|-------|-----------------------------|
| A0720 | Wieland (white plug) |
| A0721 | Wago (white plug) |
| A0722 | Ensto (white plug+ adapter) |
| A0725 | Wieland (black plug) |
| A0726 | Wago (black plug) |
| A0727 | Ensto (black plug+ adapter) |

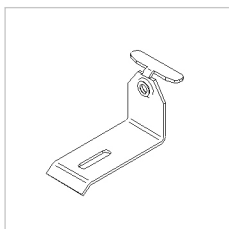
This accessory is suitable for square products only.



Adapter frame in white-painted steel, for installing luminaires with dimensions of 596x596 mm on false ceilings with dimensions of 625x625 mm. Also useful for pull-up installations on plasterboard false ceilings.

| Code | Item |
|-------|--------------------------|
| A0798 | 621x621 frame + brackets |

This accessory is suitable for square products only.

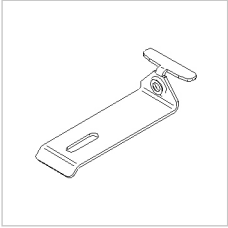


Galvanized steel fixing bracket for pull-up installation on plasterboard. Pack for 1 luminaire.

Accessory compatible with L 320 LED, L 320 LED Tunable White, L 320 LED Sensor.

| Code | Item |
|-------|--|
| A0173 | 15HI - L320-L350-L450 The pack contains 4 pieces. |

Excursion min. 0 mm, max. 25 mm.
This accessory is suitable for square products only.
Not suitable for diffused light recessed luminaires.

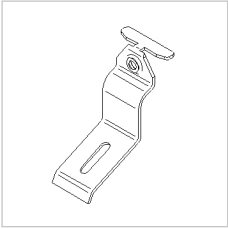


Fixing bracket in galvanized steel. Pack for 1 luminaire.

Accessory compatible with L 320 LED, L 320 LED Tunable White, L 320 LED Sensor.

| Code | Item |
|-------|--|
| A0177 | 15ZH - L320-L350-L560 The pack contains 4 pieces. |

For square luminaires with louvre (excursion min. 0 mm, max. 60 mm), with diffuser and glass (excursion min. 15 mm, max. 60 mm).
For rectangular luminaires (excursion min. 45 mm, max. 72 mm), with diffuser and glass (excursion min. 27 mm, max. 65 mm).
Suitable for pull-up installation on plasterboard.
Not suitable for diffused light recessed luminaires.

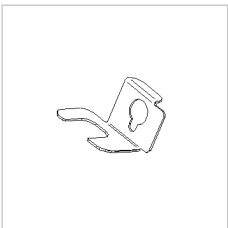


Fixing bracket in galvanized steel for ceiling pull-up installation. Pack for 1 luminaire.

Accessory compatible with L 320 LED, L 320 LED Tunable White, L 320 LED Sensor.

| Code | Item |
|-------|--|
| A0170 | 15BS - L320-L400-L560 The pack contains 4 pieces. |

For rectangular luminaires with louvre (excursion min. 18 mm, max. 45 mm), with diffuser (excursion min. 0 mm, max. 40 mm).
Not suitable for diffused light recessed luminaires.



Fixing bracket in galvanized steel for installation coplanar with metal panels with concealed structure. Pack for 1 luminaire.

Accessory compatible with L 320 LED, L 320 LED Tunable White, L 320 LED Sensor.

| Code | Item |
|-------|--|
| A0179 | 15LB - L320-350 pann.met. The pack contains 4 pieces. |

For square luminaires with louvre, mounting in two positions (23/36 mm, 53/66 mm) with diffuser (36 mm and 66 mm).
Not suitable for diffused light recessed luminaires.



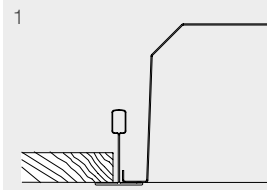
Cable clip system that protects the luminaire if the power cables are pulled accidentally.

Accessory compatible with L 320 LED Diffused Light.

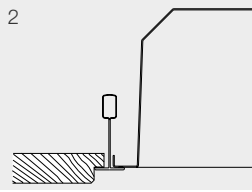
| Code | Item |
|-------|---|
| A0800 | Cable locker - 10 pcs The pack contains 10 pieces. |

Mounting details

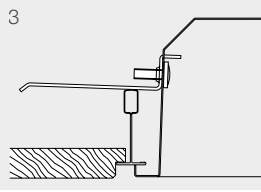
Square version H80 - 596x596



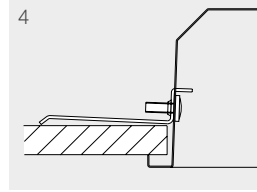
1
Panels in mineral fibre with exposed structure 600x600.



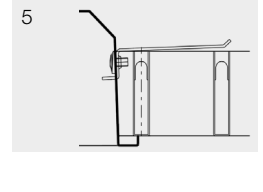
2
Panels in mineral fibre with decoration in relief 600x600.



3
Panels in mineral fibre with decoration 600x600, small voids.
Luminaires on request, installed flush with bracket accessory 15 ZH.

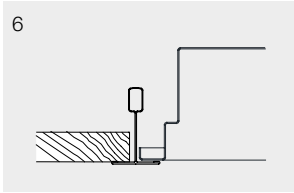


4
Plasterboard.
Luminaires on request, installed flush with bracket accessory 15 ZH.

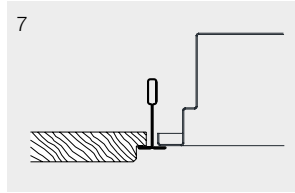


5
Pull-up installation on grid false ceilings.
Luminaires on request, installed flush with bracket accessory 15 ZH.

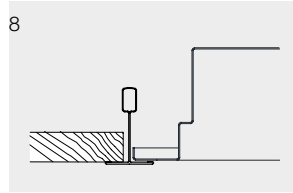
Square version H55 - 596x596



6
Panels in mineral fibre with exposed structure 600x600.



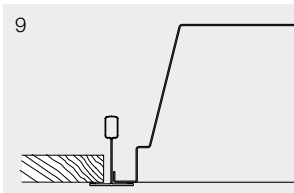
7
Panels in mineral fibre with decoration in relief 600x600.



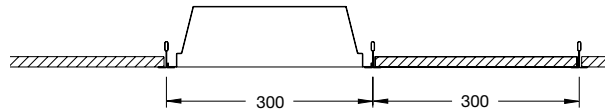
8
Panels in mineral fibre with exposed structure 625x625.

Square version H55 - 621x621

Rectangular version H95 - 296x1196



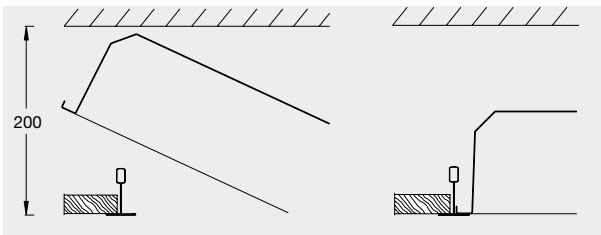
9
Mineral fibre panels 600x600, 600x1200 with exposed structure.



Note: rectangular luminaires have a width of 296mm. When installed on 600mm wide panels with exposed structure (600x600 or 600x1200), a further T profile must be used.

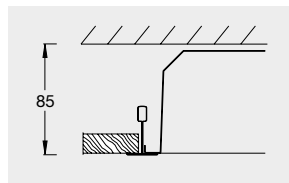
Installation (square versions only)

H55 and H80 version

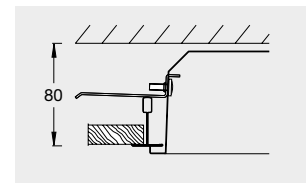


Installation following false ceiling mounting, supported by the exposed structure, minimum void of 200 mm from the structure's lower edge.

H80 version

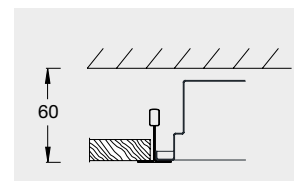


Installation simultaneously with the false ceiling, minimum void of 85 mm from the structure's lower edge.



Minimum void of 80 mm from the structure's lower edge.
Luminaires on request, installed flush with bracket accessory 15 ZH.

H55 version



Installation simultaneously with the false ceiling, minimum void of 60 mm from the structure's lower edge.





L 350 LED

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 Lifetime (L90/B10): 30000 h. (tq+25°C)
 Lifetime (L85/B10): 50000 h. (tq+25°C)
 Lifetime (L80/B20): 80000 h. (tq+25°C)
 Lifetime (L70/B20): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.

Attention: before ordering these products, we ask you to check the installation instructions if the type of installation requires accessory brackets.

Electrical characteristics

In compliance with EN 60598-1.
 Quick connection.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 7 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- luminaires for pull-up installation with brackets
- wiring: CLO (more information on page 542), emergency

Applications

Environments: architectural, commercial, exhibition areas.
 Environments where high levels of light are required.

Warning: 3AO luminaire not suitable for installation in false ceilings without heat removal capacity.
 Minimum void of 200 mm required.

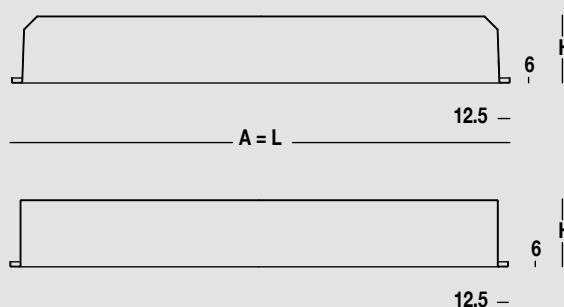
Installation

Lay-in or pull-up installation with brackets.

Light Management

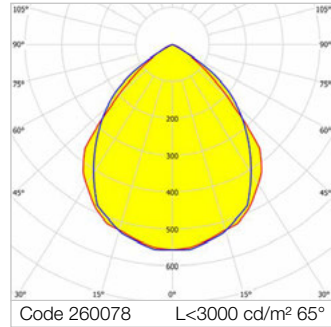
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



L 350 LED 3AO

Matt silver decorative louvre



650°C

IP20

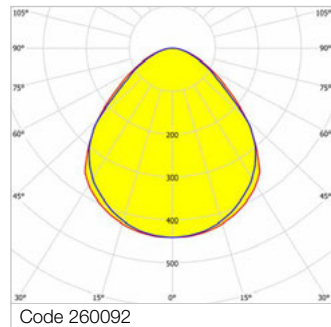


Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
3AO Decorative parabolic louvre in matt silver aluminium, antiglare, with transverse blades closed at the top and prismatic PMMA diffusers for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|--|--------------------------------|--------------------|------------------|---------|-----|----------------------|
| Electronic wiring 230V-50/60Hz | | | | | | |
| 260078 | L 353x25W LED 3AO 596x596 | 82 | 9740 | 4000 | >80 | 596x596x80 |
| DALI electronic wiring 230V-50/60Hz | | | | | | |
| 260080 | L 353x25W LED DALI 3AO 596x596 | 82 | 9740 | 4000 | >80 | 596x596x80 |

L 350 LED SP

Flat diffuser, prismatic in methacrylate



650°C

IP20
IP54

5J

IK08

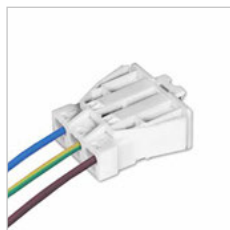


SP transparent PMMA diffuser, prismatic exterior, anti-glare, locked to the prepainted white aluminium perimeter frame with sealing gasket, hinged opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|--|-----------------------------------|--------------------|------------------|---------|-----|----------------------|
| Electronic wiring 230V-50/60Hz | | | | | | |
| 260092 | L 353x14W LED SP 54V 596x596 | 47 | 6160 | 4000 | >80 | 596x596x80 |
| DALI electronic wiring 230V-50/60Hz | | | | | | |
| 260094 | L 353x14W LED DALI SP 54V 596x596 | 47 | 6160 | 4000 | >80 | 596x596x80 |

L 350

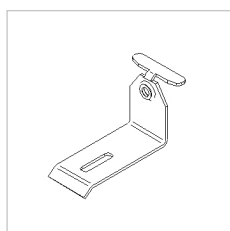
Accessories



Plug for quick connection of the luminaire, 3-pole irreversible to be snapped (Snap-in), with integrated locking device, H07 V2-U HT90° 1.5 mm² cables, for the connection to the terminal block of the luminaire. Connection for single-circuit wiring: order white plug. Connection for twin-circuit, dimmable, emergency wiring: order white plug plus black plug.

| Code | Item |
|-------|-----------------------------|
| A0720 | Wieland (white plug) |
| A0721 | Wago (white plug) |
| A0722 | Ensto (white plug+ adapter) |
| A0725 | Wieland (black plug) |
| A0726 | Wago (black plug) |
| A0727 | Ensto (black plug+ adapter) |

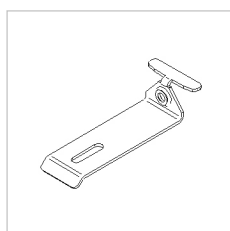
This accessory is suitable for square products only.



Galvanized steel fixing bracket for pull-up installation on plasterboard. Pack for 1 luminaire.

| Code | Item |
|-------|--|
| A0173 | 15HI - L320-L350-L450 The pack contains 4 pieces. |

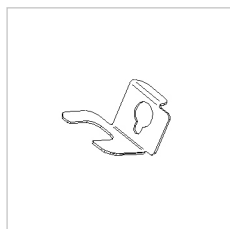
Excursion min. 0 mm, max. 25 mm.



Fixing bracket in galvanized steel. Pack for 1 luminaire.

| Code | Item |
|-------|--|
| A0177 | 15ZH - L320-L350-L560 The pack contains 4 pieces. |

3AO (excursion min. 0 mm, max. 60 mm).
SP (excursion min. 15 mm, max. 60 mm).
Suitable for pull-up installation on plasterboard.



Fixing bracket in galvanized steel for installation coplanar with metal panels with concealed structure. Pack for 1 luminaire.

| Code | Item |
|-------|--|
| A0179 | 15LB - L320-350 pann.met. The pack contains 4 pieces. |

For square luminaires with louvre, mounting in two positions (23/36 mm, 53/66 mm) with diffuser (36 mm and 66 mm).



Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.

| Code | Item |
|-------|-------------|
| A0477 | Safety wire |



Adapter frame in white-painted steel, for installing luminaires with dimensions of 596x596 mm on false ceilings with dimensions of 625x625 mm. Also useful for pull-up installations on plasterboard false ceilings.

| Code | Item |
|-------|--------------------------|
| A0798 | 621x621 frame + brackets |

This accessory is suitable for square products only.

Mounting details

1

Panels in mineral fibre with exposed structure 600x600.

2

Panels in mineral fibre with decoration in relief 600x600.

3

Version on request.
Panels in mineral fibre with decoration 600x600, narrow voids.
Use fixing brackets item 15 ZH.

4

Version on request.
Plasterboard.
Use fixing brackets item 15 ZH.

L 350 SP IP54 exposed part

Version on request

5

Version on request. Pull-up installation on grid false ceilings. Applies only to square luminaires.

Installation

Installation following false ceiling mounting supported by the exposed structure, minimum void of 200 mm from the structure's lower edge.

Installation simultaneously with the false ceiling, minimum void of 85 mm from the structure's lower edge.
3x25 version with minimum void of 200 mm and with capability of heat dissipation.

Version on request.
By using fixing brackets item 15 ZH, minimum void of 80 mm from the structure's lower edge.
3x25 version with minimum void of 200 mm and with capability of heat dissipation.

Recessed luminaires

L 360

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Average luminance <math><2500\text{ cd/m}^2</math> for angles >math>45^\circ</math>.

Average luminance <math><1500\text{ cd/m}^2</math> for angles >math>65^\circ</math>.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in white painted steel.

Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.

Anti-reflective white polycarbonate alveolar optic.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- anti-reflective black polycarbonate alveolar optic
- different dimensions

Applications

Environments with very exacting visual tasks and control of luminance at angles of >math>45^\circ</math> compared to the LEED certification.

Environments: with VDTs, meeting rooms, offices.

Environments: architectural, commercial, staterooms, banks.

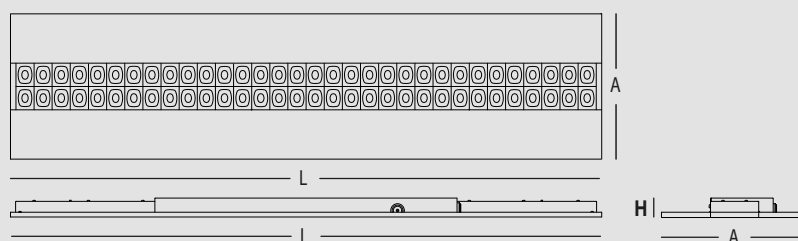
Installation

Lay-in installation.

Light Management

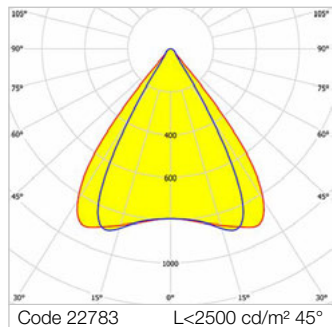
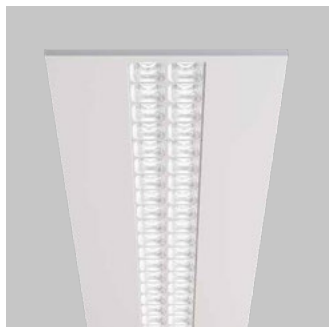
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



L 360 OCW

Optics Control White - LEED certification



CE
650°C
IP40
0,2J
IK02
A++
A+
A

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|----------------------------|----|------|------|-----|-------------|
| 22782 ^{NEW} | L 362x12W LED OCW 296x1196 | 27 | 3407 | 4000 | >80 | 1196x296x40 |
| 22786 ^{NEW} | L 362x12W LED OCW 308x1246 | 27 | 3407 | 4000 | >80 | 1246x308x40 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|---------------------------------|----|------|------|-----|-------------|
| 22783 ^{NEW} | L 362x12W LED DALI OCW 296x1196 | 27 | 3407 | 4000 | >80 | 1196x296x40 |
| 22787 ^{NEW} | L 362x12W LED DALI OCW 308x1246 | 27 | 3407 | 4000 | >80 | 1246x308x40 |

Recessed luminaires



L 480

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted white.

Removable gear-tray, functions as flux recuperator.

Pair of quick regulators for suspended installation (steel cable to be ordered separately).

Electrical characteristics

In compliance with EN 60598-1.

Quick connection of the power supply from the outside of the body with the possibility of cascade connection in / out.

Source characteristics

- Linear LED module.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- mounting brackets

Applications

Environments: with VDTs, meeting rooms, offices.

Environments: architectural, commercial, staterooms, banks.

OP version

Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

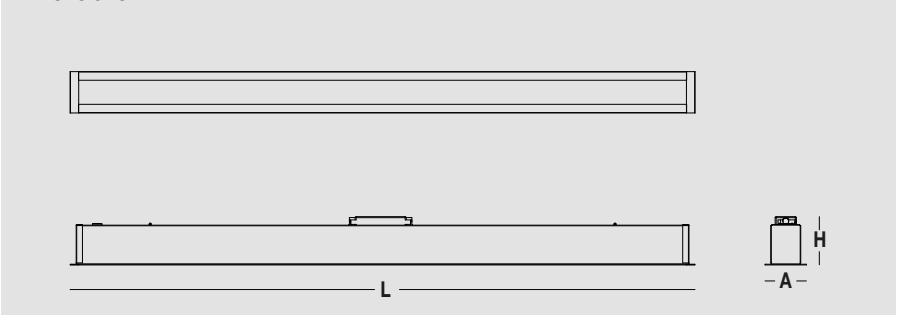
Installation

Pull-up recessed fitting, to be used with inspectable false-ceilings.

Light Management

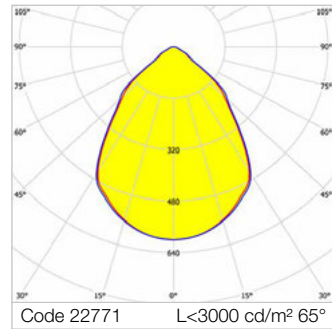
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



L 480 GSP

Flat prismatic diffuser in methacrylate with low luminance film



650°C

IP40



Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math>.
 SP transparent methacrylate diffuser, prismatic outside, antiglare.
 Anti-glare opal polycarbonate filter for brightness uniformity.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

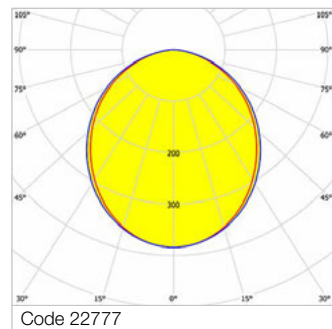
| | | | | | | |
|----------------------|---------------------------|----|------|------|-----|------------|
| 22767 ^{NEW} | L 480 24W LED GSP 80x1210 | 28 | 2347 | 4000 | >80 | 1210x80x95 |
| 22768 ^{NEW} | L 480 30W LED GSP 80x1510 | 35 | 2937 | 4000 | >80 | 1510x80x95 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|--------------------------------|----|------|------|-----|------------|
| 22770 ^{NEW} | L 480 24W LED DALI GSP 80x1210 | 28 | 2347 | 4000 | >80 | 1210x80x95 |
| 22771 ^{NEW} | L 480 30W LED DALI GSP 80x1510 | 35 | 2937 | 4000 | >80 | 1510x80x95 |

L 480 OP

Opal diffuser



650°C

IP40



OP opal methacrylate flat diffuser, anti-glare.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

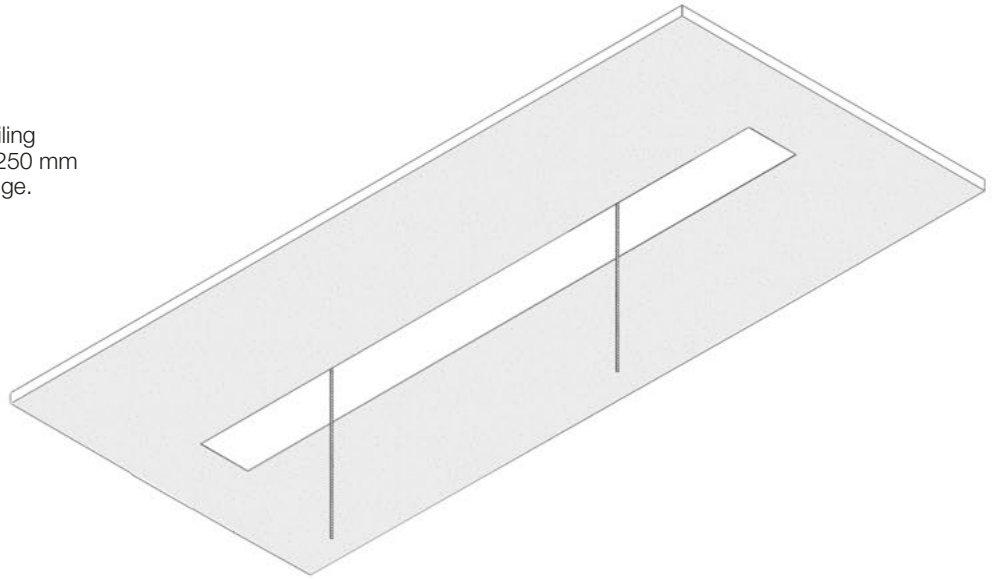
| | | | | | | |
|----------------------|--------------------------|----|------|------|-----|------------|
| 22773 ^{NEW} | L 480 24W LED OP 80x1210 | 28 | 2699 | 4000 | >80 | 1210x80x95 |
| 22774 ^{NEW} | L 480 30W LED OP 80x1510 | 35 | 3378 | 4000 | >80 | 1510x80x95 |

DALI electronic wiring 230V-50/60Hz

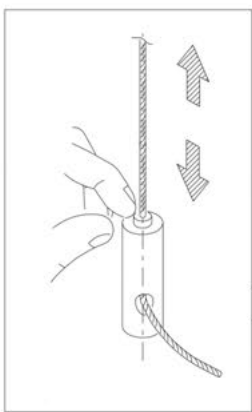
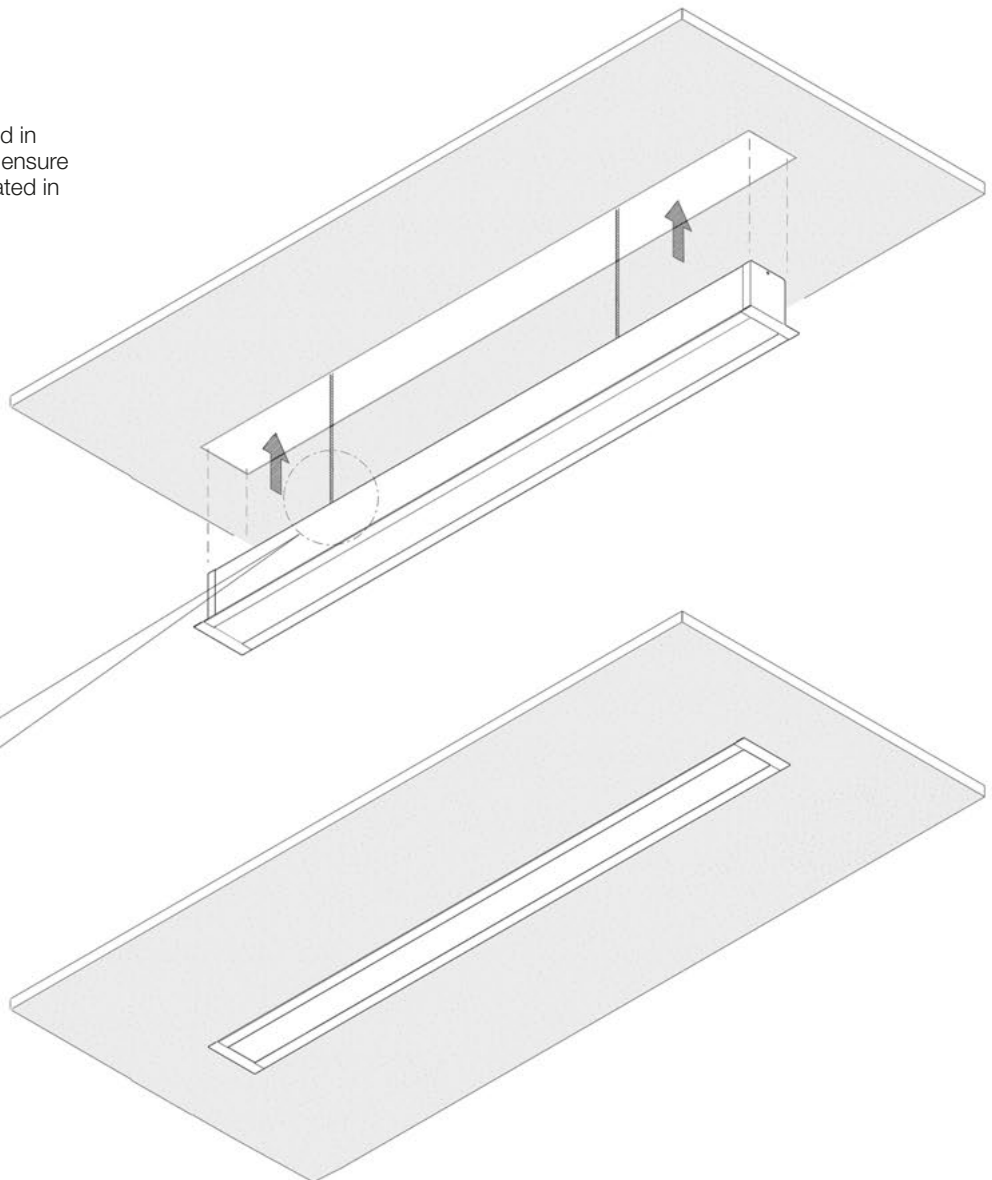
| | | | | | | |
|----------------------|-------------------------------|----|------|------|-----|------------|
| 22776 ^{NEW} | L 480 24W LED DALI OP 80x1210 | 28 | 2699 | 4000 | >80 | 1210x80x95 |
| 22777 ^{NEW} | L 480 30W LED DALI OP 80x1510 | 35 | 3378 | 4000 | >80 | 1510x80x95 |

Mounting details

Installation following false ceiling mounting, minimum void of 250 mm from the structure's lower edge.



The product must be installed in inspectable false ceilings, to ensure access to the regulators located in the upper part.



L 480 Accessories



Suspension without controller, galvanized steel cable 1.5 mm diameter, load 15 kg.

| Code | Item |
|--------|---|
| A20485 | Susp. without adjustment for Linux/HD - 0,5 m |
| A20486 | Susp. without adjustment for Linux/HD - 1 m |
| A20487 | Susp. without adjustment for Linux/HD - 2 m |
| A20488 | Susp. without adjustment for Linux/HD - 3 m |
| A20489 | Susp. without adjustment for Linux/HD - 4 m |
| A20490 | Susp. without adjustment for Linux/HD - 5 m |
| A20491 | Susp. without adjustment for Linux/HD - 6 m |



Galvanized steel cable, diameter 1.5 mm, composed of 49 wires. 15 kg capacity (ratio 5:1).

| Code | Item |
|-------|---|
| A0716 | Coil galvanized cable diam. 1.5mm - 100m The pack contains 100 metres. |
| A0717 | Coil galvanized cable diam. 1.5mm - 500m The pack contains 500 metres. |
| A0718 | Coil galvanized cable diam. 1.5mm - 1000m The pack contains 1000 metres. |



Clamp in nickel-plated brass suitable for fixing and adjustment of galvanized steel wire (diameter 1,25 mm - 1,5 mm - 2 mm), complete with locking screws. The 2 hole clamp allows to block and adjust the cable on a bearing element (part of the building) or on rounded eye bolt.

| Code | Item |
|-------|--|
| A0714 | Clamp 2 holes - 100 pcs The pack contains 100 pieces. |



Clamp suitable for fixing and adjustment of galvanized steel wire (diameter 1.5 mm), with quick adjustment through unlock buttons. The clamp with 2 holes allow to fix and adjust the cable on the carrier structural element (belonging to the building) or with eye screw fixing.

| Code | Item |
|-------|---|
| A0659 | Adjustable clamp 2 holes - 10 pcs The pack contains 10 pieces. |



L 560 LED

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in white painted galvanized steel.

Attention: before ordering these products, we ask you to check the installation instructions if the type of installation requires accessory brackets.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- parabolic louvres 2M, 2MG, 2US, 3AO
- different power levels, colour rendering indices and colour temperatures
- diffuser in SMP microprismatic PMMA or SP polycarbonate, Selfextinguishing V2
- wiring: dimmable, CLO (more information on page 542), emergency

Applications

2S version

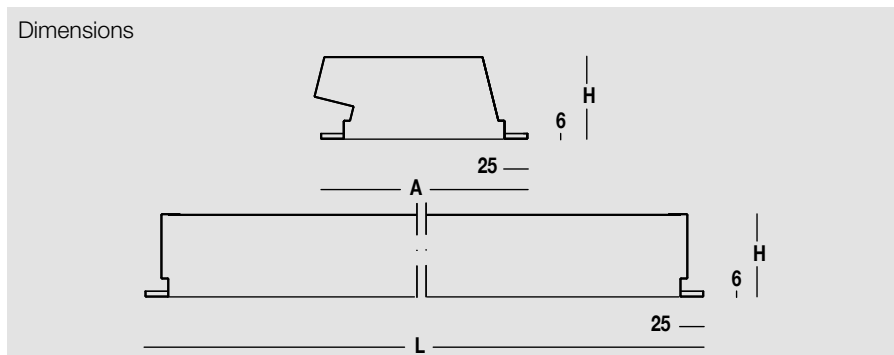
Environments: with VDTs, schools, offices.

SP version

Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.

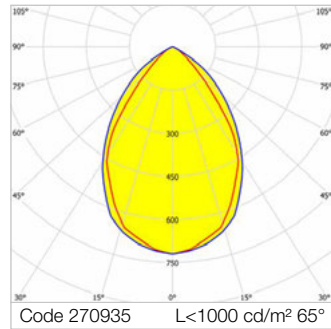
Installation

Slat ceiling installation.



L 560 LED 2S

Semi-specular louvre



650°C

IP20



Driver/LED

SELV

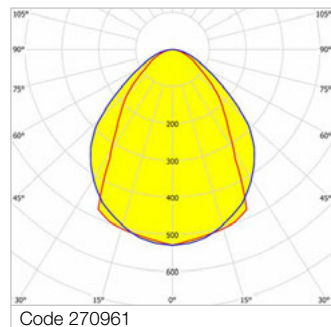


1x - Average luminance <math><1000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 2x - Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 2S parabolic louvre in semi-specular aluminium, non-reflecting, with transverse blades closed at the top.
 Prismatic PMMA diffuser for total shielding of the louvre compartment.
 Film protective against dust and finger marks, adhesive, attached to louvre.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|---------------------------------------|---------------------------|--------------------|------------------|---------|-----|----------------------|
| Electronic wiring 230V-50/60Hz | | | | | | |
| 270931 | L 561x12W LED 2S 221x647 | 15 | 1452 | 4000 | >80 | 647x221x95 |
| 270933 | L 561x24W LED 2S 221x1256 | 28 | 2906 | 4000 | >80 | 1256x221x95 |
| 270937 | L 562x12W LED 2S 221x647 | 30 | 2771 | 4000 | >80 | 647x221x95 |
| 270935 | L 561x30W LED 2S 221x1556 | 35 | 3637 | 4000 | >80 | 1556x221x95 |
| 270939 | L 562x24W LED 2S 221x1256 | 56 | 5547 | 4000 | >80 | 1256x221x95 |
| 270941 | L 562x30W LED 2S 221x1556 | 70 | 6943 | 4000 | >80 | 1556x221x95 |

L 560 LED SP

Flat diffuser, prismatic in methacrylate



650°C

IP20
IP54

5J

IK08

Driver/LED

SELV

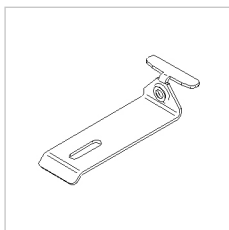


SP transparent PMMA diffuser, prismatic exterior, anti-glare, locked to the prepainted white aluminium perimeter frame with sealing gasket, hinged opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|---------------------------------------|---------------------------|--------------------|------------------|---------|-----|----------------------|
| Electronic wiring 230V-50/60Hz | | | | | | |
| 270957 | L 561x12W LED SP 221x647 | 15 | 1466 | 4000 | >80 | 647x221x95 |
| 270959 | L 561x24W LED SP 221x1256 | 28 | 2935 | 4000 | >80 | 1256x221x95 |
| 270963 | L 562x12W LED SP 221x647 | 30 | 2875 | 4000 | >80 | 647x221x95 |
| 270961 | L 561x30W LED SP 221x1556 | 35 | 3674 | 4000 | >80 | 1556x221x95 |
| 270965 | L 562x24W LED SP 221x1256 | 56 | 5755 | 4000 | >80 | 1256x221x95 |
| 270967 | L 562x30W LED SP 221x1556 | 70 | 7202 | 4000 | >80 | 1556x221x95 |

L 560

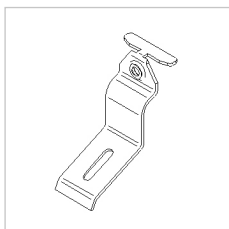
Accessories



Fixing bracket in galvanized steel. Pack for 1 luminaire.

| Code | Item |
|-------|--|
| A0177 | 15ZH - L320-L350-L560 The pack contains 4 pieces. |

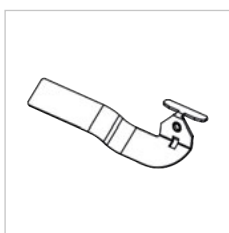
Brackets for lay-in installation on load bearing side profiles parallel to the luminaire with louvre (min. adjustment 45 mm, max 72 mm) with diffuser (min. adjustment 27 mm, max 65 mm).



Fixing bracket in galvanized steel for ceiling pull-up installation. Pack for 1 luminaire.

| Code | Item |
|-------|--|
| A0170 | 15BS - L320-L400-L560 The pack contains 4 pieces. |

Brackets for lay-in installation on load bearing side profiles parallel to the luminaire with louvre (min. adjustment 18 mm, max 45 mm) with diffuser (min. adjustment 0 mm, max 40 mm).



Head fixings bracket for installation of the luminaire on load bearing structures (transverse by the luminaire). Pack for 1 luminaire.

| Code | Item |
|-------|--|
| A0174 | 15DP - L560 The pack contains 4 pieces. |

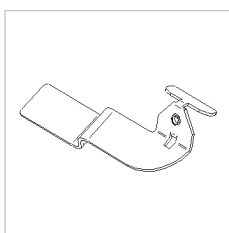
The bracket protruding 55 mm beyond the head side. Excursion min. 55 mm, max. 75 mm. Not suitable for diffused light recessed luminaires.



Head fixings bracket for installation of the luminaire on load bearing structures (transverse by the luminaire). Pack for 1 luminaire.

| Code | Item |
|-------|--|
| A0175 | 15GF - L560 The pack contains 4 pieces. |

The bracket protruding 60 mm beyond the head side. Excursion min. 37 mm, max. 55 mm.



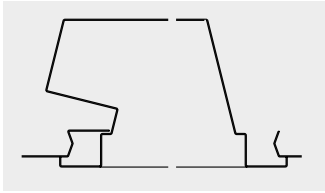
Head fixings bracket for installation of the luminaire on load bearing structures (transverse by the luminaire). Pack for 1 luminaire.

| Code | Item |
|-------|--|
| A0176 | 15XB - L560 The pack contains 4 pieces. |

The bracket protruding 55 mm beyond the head side. Excursion min. 20 mm, max. 37 mm.

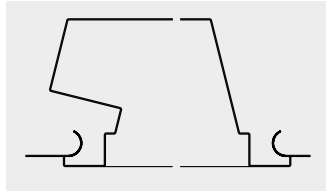
Mounting details

Staves spaced 100



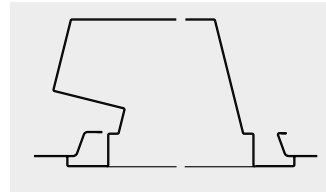
Staves spaced 100

Fixing brackets item 15 DP,
15 GF, 15 XB.



HD staves, spaced 100

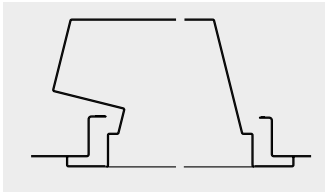
Fixing brackets item 15 DP,
15 GF.



Staves spaced 100

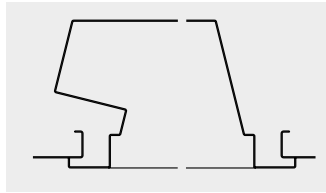
Fixing brackets item 15 DP,
15 GF, 15 XB.

Staves spaced 100 - 200



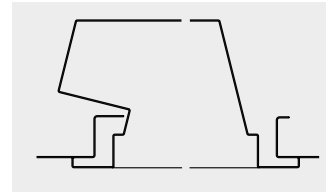
Staves spaced 100-200

Fixing brackets item 15 DP,
15 GF.



Staves spaced 100-200

Fixing brackets item 15 DP,
15 GF.



Staves spaced 100-200

Fixing brackets item 15 DP,
15 GF.

Spacing of load-bearing profiles



For perfect installation of the luminaires, the load-bearing profile sections should be positioned at the distances indicated above (net space between profiles).



L 580 LED IP54

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in white painted galvanized steel.

Total IP54 protection degree.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 2.

On request

- diffuser in OP opal PMMA or SP polycarbonate, self-extinguishing V2
- different power levels, colour rendering indices and colour temperatures
- different dimensions
- wiring: dimmable D1-10V, CLO (more information on page 542), emergency
- brackets for pull-up installation
- HACCP versions for use in the food industry

Applications

Environments: hospital premises, aseptic, sterilised rooms, laboratories.

Environments requiring a high level of protection, high levels of light, lamp shielding and simplified cleaning.

Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.

Environments in which there are foodstuffs

or machines with moving parts, with large temperature fluctuations, and generally, in any environments that require total protection against falling fragments, SP PC version with a polycarbonate diffuser can be supplied. If necessary an L/E version i.e. with the smooth part mounted externally, or specific luminaires with laminated glass (series L 350 and L 590) with suitable frame can also be supplied.

SP version

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

Installation

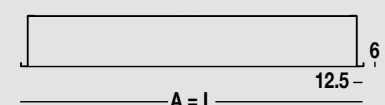
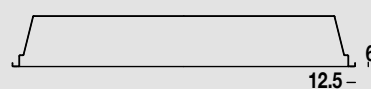
Lay-in or pull-up installation.

Light Management

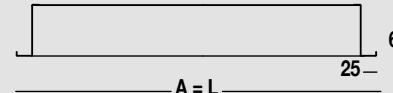
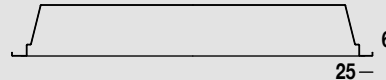
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions

Standard

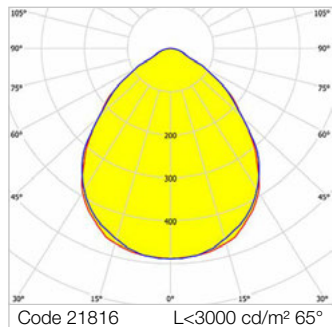


Wide Edge



L 580 LED VS

Moulded glass



CE

960°C

IP54

5J

IK08

Average luminance <math>< 3000 \text{ cd/m}^2</math> for radial angles >65°. VS moulded glass, anti-glare, tempered, non-combustible, thickness 4 mm, locked to the white painted aluminium perimetrical frame, sealing gasket, hinged opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|------------|
| 21815 | L 583x10W LED VS IP54 596x596 | 34 | 3986 | 4000 | >80 | 596x596x95 |
| 21816 | L 584x10W LED VS IP54 596x596 | 45 | 5253 | 4000 | >80 | 596x596x95 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------------------------|------------------------------------|----|------|------|-----|------------|
| 21843 <small>NEW</small> | L 583x10W LED DALI VS IP54 596x596 | 34 | 3986 | 4000 | >80 | 596x596x95 |
| 21844 <small>NEW</small> | L 584x10W LED DALI VS IP54 596x596 | 45 | 5253 | 4000 | >80 | 596x596x95 |

Wide edge - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|------------|
| 21822 | L 583x10W LED VS IP54 621x621 | 34 | 3986 | 4000 | >80 | 621x621x95 |
| 21823 | L 584x10W LED VS IP54 621x621 | 45 | 5253 | 4000 | >80 | 621x621x95 |

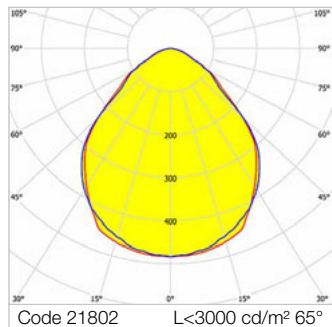
Wide edge - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------------------------|------------------------------------|----|------|------|-----|------------|
| 21850 <small>NEW</small> | L 583x10W LED DALI VS IP54 621x621 | 34 | 3986 | 4000 | >80 | 621x621x95 |
| 21851 <small>NEW</small> | L 584x10W LED DALI VS IP54 621x621 | 45 | 5253 | 4000 | >80 | 621x621x95 |

Recessed luminaires

L 580 LED SP

Flat diffuser, prismatic in methacrylate



CE

650°C

IP54

5J

IK08

Driver/LED
SELV

A++
A+
A

Average luminance <math><3000 \text{ cd/m}^2</math> for radial angles >65°.
 SP transparent PMMA diffuser, prismatic, anti-glare, locked to the pre-painted white aluminium perimeter frame with sealing gasket, hinged opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|------------|
| 21801 | L 583x10W LED SP IP54 596x596 | 34 | 4142 | 4000 | >80 | 596x596x95 |
| 21802 | L 584x10W LED SP IP54 596x596 | 45 | 5474 | 4000 | >80 | 596x596x95 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------------------------|------------------------------------|----|------|------|-----|------------|
| 21829 <small>NEW</small> | L 583x10W LED DALI SP IP54 596x596 | 34 | 4142 | 4000 | >80 | 596x596x95 |
| 21830 <small>NEW</small> | L 584x10W LED DALI SP IP54 596x596 | 45 | 5474 | 4000 | >80 | 596x596x95 |

Wide edge - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|------------|
| 21808 | L 583x10W LED SP IP54 621x621 | 34 | 4142 | 4000 | >80 | 621x621x95 |
| 21809 | L 584x10W LED SP IP54 621x621 | 45 | 5474 | 4000 | >80 | 621x621x95 |

Wide edge - DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------------------------|------------------------------------|----|------|------|-----|------------|
| 21836 <small>NEW</small> | L 583x10W LED DALI SP IP54 621x621 | 34 | 4142 | 4000 | >80 | 621x621x95 |
| 21837 <small>NEW</small> | L 584x10W LED DALI SP IP54 621x621 | 45 | 5474 | 4000 | >80 | 621x621x95 |





L 590 LED IP65

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester.

Flow recuperator in specular aluminium, high efficiency, with superficial titanium-magnesium treatment, non-iridescent.

Perimetrical frame in white painted stainless steel, sealing gasket, hinged opening, stainless steel closing screws. Total IP65 protection degree.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 2.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: dimmable D1-10V, CLO (more information on page 542), emergency
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- brackets for pull-up installation

Applications

Environments: hospital premises, transit areas, laboratories, platform-roof, underpasses.

Environments: sterilized, aseptic. In hospital environments, food industry or machines with parts in motion, with considerable sudden temperature changes, and in general in any environments requiring total protection against falling fragments, use luminaires with laminated glass only.

Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.

Environments requiring a high level of protection, high levels of light, lamp shielding and simplified cleaning. Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.

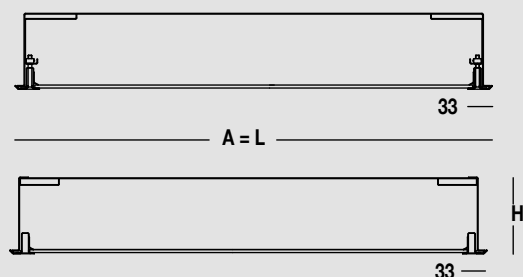
Installation

Lay-in or pull-up installation.

Light Management

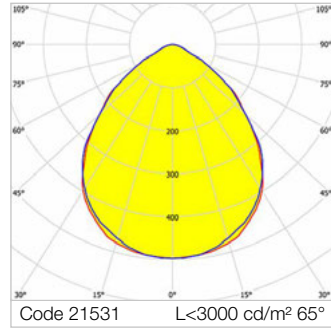
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



L 590 LED RVS

Flow recuperator and molded glass



VS moulded glass, anti-glare, tempered, non-combustible, thickness 4 mm, locked to the white painted stainless steel perimetrical frame, sealing gasket, hinged opening. On request, HACCP versions for use in the food industry.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

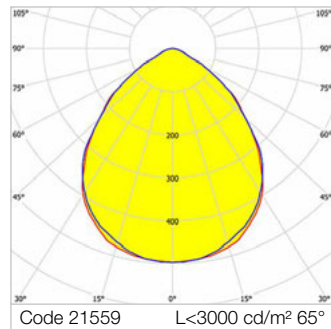
| | | | | | | |
|-------|--------------------------------|----|------|------|-----|-------------|
| 21522 | L 594x10W LED RVS 599x599 | 45 | 5516 | 4000 | >80 | 599x599x95 |
| 21529 | L 594x10W/940 LED RVS 599x599 | 45 | 4413 | 4000 | >90 | 599x599x95 |
| 22754 | L 592x24W/940 LED RVS 299x1199 | 56 | 5294 | 4000 | >90 | 1199x299x95 |
| 21524 | L 596x10W LED RVS 599x599 | 70 | 8274 | 4000 | >80 | 599x599x95 |
| 21531 | L 596x10W/940 LED RVS 599x599 | 70 | 6619 | 4000 | >90 | 599x599x95 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|-------------------------------------|----|------|------|-----|-------------|
| 21536 ^{NEW} | L 594x10W LED DALI RVS 599x599 | 45 | 5516 | 4000 | >80 | 599x599x95 |
| 21538 ^{NEW} | L 596x10W LED DALI RVS 599x599 | 70 | 8274 | 4000 | >80 | 599x599x95 |
| 21543 ^{NEW} | L 594x10W/940 LED DALI RVS 599x599 | 45 | 4413 | 4000 | >90 | 599x599x95 |
| 21545 ^{NEW} | L 596x10W/940 LED DALI RVS 599x599 | 70 | 6619 | 4000 | >90 | 599x599x95 |
| 22757 ^{NEW} | L 592x24W/940 LED DALI RVS 299x1199 | 56 | 5294 | 4000 | >90 | 1199x299x95 |

L 590 LED RVSS

Flux recuperator and laminated moulded glass



VSS moulded laminated dipped glass, non-combustible, thickness 7 mm, stuck to the perimeter frame in white painted stainless steel, with sealing gasket, hinged opening. Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------|----|------|------|-----|-------------|
| 21557 | L 594x10W/940 LED RVSS 599x599 | 45 | 4103 | 4000 | >90 | 599x599x95 |
| 22755 | L 592x24W/940 LED RVSS 299x1199 | 56 | 4922 | 4000 | >90 | 1199x299x95 |
| 21559 | L 596x10W/940 LED RVSS 599x599 | 70 | 6154 | 4000 | >90 | 599x599x95 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|--------------------------------------|----|------|------|-----|-------------|
| 21571 ^{NEW} | L 594x10W/940 LED DALI RVSS 599x599 | 45 | 4103 | 4000 | >90 | 599x599x95 |
| 21573 ^{NEW} | L 596x10W/940 LED DALI RVSS 599x599 | 70 | 6154 | 4000 | >90 | 599x599x95 |
| 22758 ^{NEW} | L 592x24W/940 LED DALI RVSS 299x1199 | 56 | 4922 | 4000 | >90 | 1199x299x95 |

L 590 Accessories



Anti-condensation diffuser cable gland.

| Code | Item |
|-------|-------------------------------|
| A0187 | Anti-condensation cable gland |

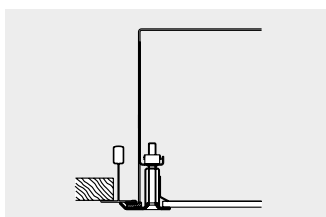
Recommended for installations in environments with temperature sudden changes or subject to condensation.



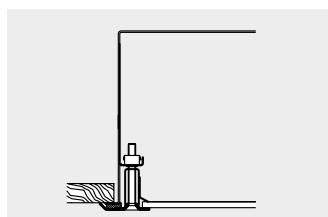
Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

| Code | Item |
|----------------------|----------------------------------|
| A0521 ^{NEW} | Reducing sealing ring – diam.8mm |

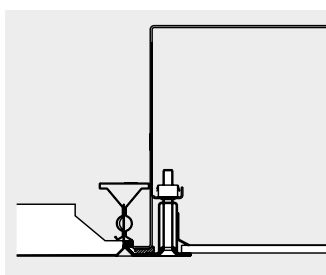
Mounting details



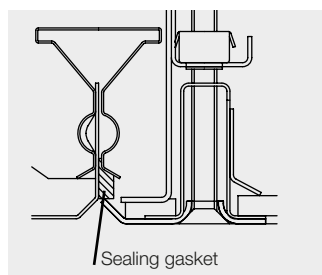
Mineral fibre panels
with exposed structure.
Hanging from rough ceiling.



Plasterboard.
Hanging from rough ceiling.



false-ceiling with metal panels,
we recommend installing
adhesive gasket
(not supplied by 3F Filippi)
on the side of the panels
surrounding the luminaire.



Notes:

- Luminaires for false ceilings with exposed structure 600x600 and plasterboard, pull-up installation.





Barraluce L LED

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in white painted extruded aluminium.
 Removable gear-tray, functions as flux recuperator, in specular aluminium, high efficiency, with titanium-magnesium surface treatment, non-iridescent.

Electrical characteristics

In compliance with EN 60598-1.
 1+1 wiring in twincircuit.
 Head entrance feeding.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- wiring: dimmable, CLO (more information on page 542), emergency
- possibility to create lighting corners
- micro-prismatic diffuser

Applications

Environments: with VDTs, meeting rooms, offices.
 Environments: architectural, commercial, staterooms, banks.

OP version

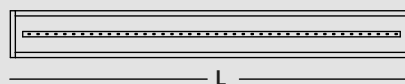
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

Installation

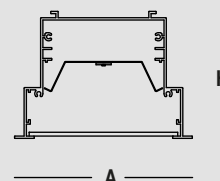
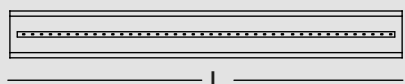
Pull-up installation.

Dimensions

Single

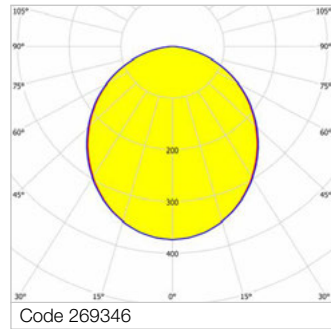


Channel



Barraluce L LED OP - Single

Opal PMMA flat diffuser



650°C

IP40



Luminaire for standalone installation with aluminium end caps (included).
OP opal methacrylate flat diffuser, anti-glare.

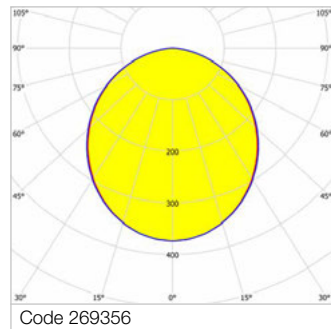
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|----------------------------------|----|------|------|-----|--------------|
| 269346 | Barraluce L 1x30W LED OP L1496 | 35 | 3726 | 4000 | >80 | 1496x140x100 |
| 269348 | Barraluce L 1+1x30W LED OP L2962 | 70 | 7451 | 4000 | >80 | 2962x140x100 |

Barraluce L LED OP - Channel

Opal PMMA flat diffuser



650°C

IP40



Luminaire for continuous channel installation (end caps not included).
OP opal methacrylate flat diffuser, anti-glare.
Through-wiring, 5-pole, 2.5 mm² section with irreversible fastconnection plug/socket, with irreversible fast-connection socket for branch, connecting to the socket positioned on the gear-tray unit.

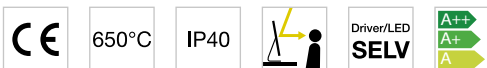
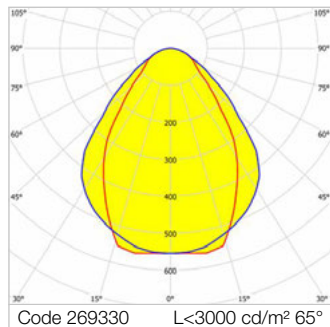
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-------------------------------------|----|------|------|-----|--------------|
| 269354 | Barraluce L 1x30W LED OP 5P L1466 | 35 | 3726 | 4000 | >80 | 1466x140x100 |
| 269356 | Barraluce L 1+1x30W LED OP 5P L2932 | 70 | 7451 | 4000 | >80 | 2932x140x100 |

Barraluce L LED SP - Single

Flat diffuser, prismatic in methacrylate



Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°. Luminaire for standalone installation with aluminium end caps (included). SP flat diffuser in PMMA transparent prismatic methacrylate, anti-glare.

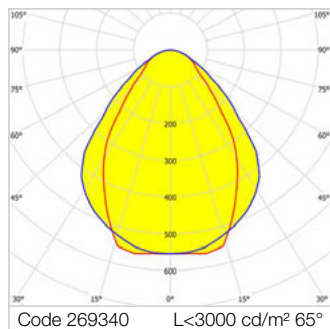
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|----------------------------------|----|------|------|-----|--------------|
| 269330 | Barraluce L 1x30W LED SP L1496 | 35 | 4027 | 4000 | >80 | 1496x140x100 |
| 269332 | Barraluce L 1+1x30W LED SP L2962 | 70 | 8053 | 4000 | >80 | 2962x140x100 |

Barraluce L LED SP - Channel

Flat diffuser, prismatic in methacrylate



Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°. Luminaire for continuous channel installation (end caps not included). SP flat diffuser in PMMA transparent prismatic methacrylate, anti-glare. Through-wiring, 5-pole, 2.5 mm² section with irreversible fastconnection plug/socket, with irreversible fast-connection socket for branch, connecting to the socket positioned on the gear-tray unit.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-------------------------------------|----|------|------|-----|--------------|
| 269338 | Barraluce L 1x30W LED SP 5P L1466 | 35 | 4027 | 4000 | >80 | 1466x140x100 |
| 269340 | Barraluce L 1+1x30W LED SP 5P L2932 | 70 | 8053 | 4000 | >80 | 2932x140x100 |

Barraluce L Accessories



Free-position sliding bracket in stainless steel.

| Code | Item |
|-------|-----------------------------|
| A0483 | Sliding bracket Barraluce L |

To be used with inspectable false-ceilings.



Hot-dip galvanised steel required to install the fixture on plasterboard.

| Code | Item |
|--------|---------------------------------|
| A01420 | Couple brackets for Barraluce L |



Linear connecting elements in hot-galvanized steel with grub screws for fast and rigid installation.

| Code | Item |
|--------|--------------------------------------|
| A01423 | Linear connecting elements Barraluce |

These accessories are not suitable for single-unit installation.



Pair of end caps for channels in white painted aluminium, with screws for fixing to housing, always required for the channel version. Thickness: 15 mm each cap.

| Code | Item |
|--------|--|
| A01417 | Pair end caps Barraluce L channel diffuser |

These accessories are not suitable for single-unit installation.



Terminal block (plug/socket) with irreversible snap-in double clamp, for power-supply connection at beginning and end of the channel, 5 poles.

| Code | Item |
|--------|---|
| A02484 | 5P socket/plug terminal block Beginning/End Channel |

These accessories are not suitable for single-unit installation.

Lucequadro LED

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
Lifetime (L90/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in white painted steel.
Passive heat dissipator in anodised aluminium, oversized, for optimum thermal management of the LED module.
Flow recuperator in specular aluminium with superficial titanium-magnesium treatment, non-iridescent.
Lock-in mounting of the glass/PMMA in the lateral seats in specular aluminium.
Fixing brackets in galvanized steel, supplied.

Electrical characteristics

In compliance with EN 60598-1.
Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.
Wiring on a separate unit.
Class II.

Source characteristics

- Compact LED module.
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- asymmetric louvre
- different power levels, colour rendering indices and colour temperatures
- wiring: dimmable, CLO (more information on page 542)
- on/off ballast, compliant with EN 60598-2-22 (high-risk areas excluded)
- IP54 version
- ceiling version

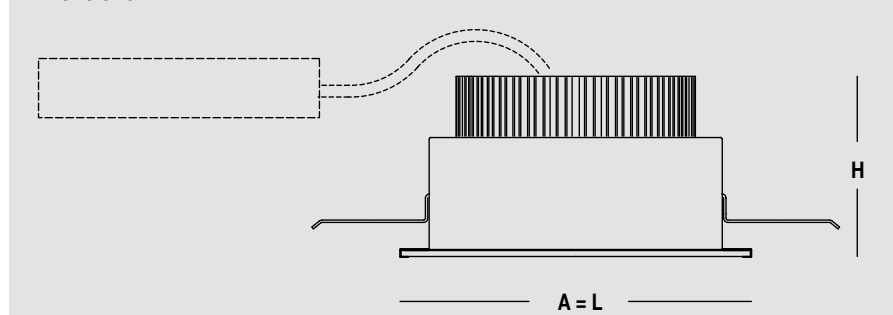
Applications

Environments: commercial, exhibition areas, transit areas, halls, shops, great halls, display windows.

Installation

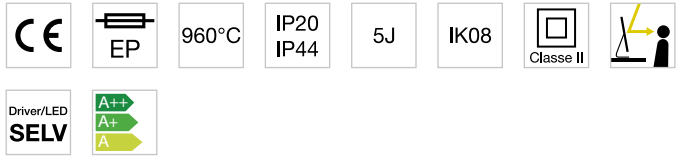
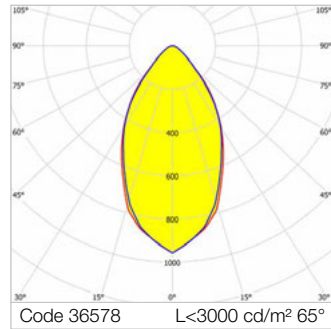
Pull-up installation.

Dimensions



Lucequadro LED VS

Moulded glass



Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. VS moulded glass, anti-glare, tempered, non-combustible, thickness 4 mm.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|------------|--------------------|------------------|---------|-----|----------------------|
|------|------|------------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

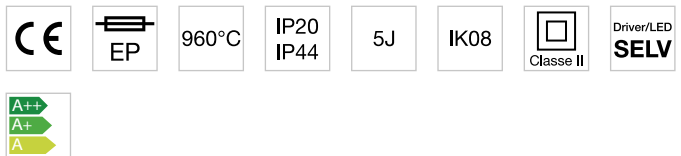
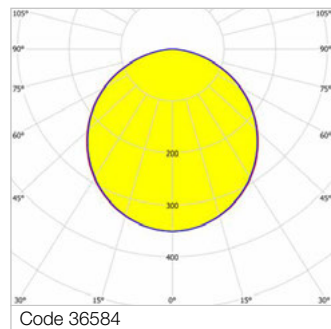
| | | | | | | | |
|-------|------------------------|-----|------|------|------|-----|-------------|
| 36575 | Lucequadro LED 2000 VS | 58° | 18.7 | 2297 | 4000 | >80 | 235x235x116 |
| 36578 | Lucequadro LED 3000 VS | 58° | 27.2 | 3036 | 4000 | >80 | 235x235x116 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|---------------------------|-----|------|------|------|-----|-------------|
| 36576 | Lucequadro LED 2000 EP VS | 58° | 19.7 | 2297 | 4000 | >80 | 235x235x116 |
| 36579 | Lucequadro LED 3000 EP VS | 58° | 28.2 | 3036 | 4000 | >80 | 235x235x116 |

Lucequadro LED VOP

Opal enamelled glass



Glazed VOP opal glass, tempered, non-combustible, thickness 4 mm.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|------------|--------------------|------------------|---------|-----|----------------------|
|------|------|------------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

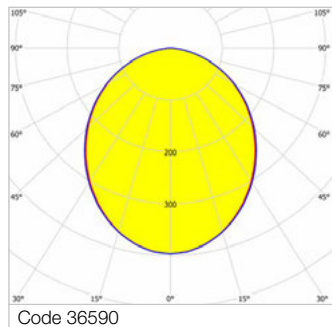
| | | | | | | | |
|-------|-------------------------|------|------|------|------|-----|-------------|
| 36581 | Lucequadro LED 2000 VOP | 113° | 18.7 | 1441 | 4000 | >80 | 235x235x116 |
| 36584 | Lucequadro LED 3000 VOP | 113° | 27.2 | 1904 | 4000 | >80 | 235x235x116 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|----------------------------|------|------|------|------|-----|-------------|
| 36582 | Lucequadro LED 2000 EP VOP | 113° | 19.7 | 1441 | 4000 | >80 | 235x235x116 |
| 36585 | Lucequadro LED 3000 EP VOP | 113° | 28.2 | 1904 | 4000 | >80 | 235x235x116 |

Lucequadro LED SOP

Opal PMMA flat diffuser



SOP opal methacrylate flat diffuser, anti-glare.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|------------|--------------------|------------------|---------|-----|----------------------|
|------|------|------------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-------------------------|------|------|------|------|-----|-------------|
| 36587 | Lucequadro LED 2000 SOP | 101° | 18.7 | 2243 | 4000 | >80 | 235x235x116 |
| 36590 | Lucequadro LED 3000 SOP | 101° | 27.2 | 2965 | 4000 | >80 | 235x235x116 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|----------------------------|------|------|------|------|-----|-------------|
| 36588 | Lucequadro LED 2000 EP SOP | 101° | 19.7 | 2243 | 4000 | >80 | 235x235x116 |
| 36591 | Lucequadro LED 3000 EP SOP | 101° | 28.2 | 2965 | 4000 | >80 | 235x235x116 |

Accessories



Pair of reinforcing brackets for mineral fibre, metal and plasterboard panels, height 20 mm.

| Code | Item |
|-------|--|
| A0189 | Reinforcing bracket Lucequadro for pan./plast. |





Galassia 220

Construction characteristics

Illuminotechnical characteristics

Direct symmetric distribution.
 Lifetime (L85/B10): 30000 h. (tq+25°C)
 Lifetime (L80/B10): 50000 h. (tq+25°C)
 Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing and fixing brackets in galvanized steel.
 Passive heat dissipator in anodised aluminium, oversized, for optimum thermal management of the LED module.
 Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent.

Electrical characteristics

In compliance with EN 60598-1.
 Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.
 Wiring on a separate unit.
 Class II.

Source characteristics

- Compact LED module.
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542)
- on/off ballast, compliant with EN 60598-2-22 (high-risk areas excluded)

Applications

Environments: architectural, commercial, exhibition areas, transit areas, corridors, shops, display windows.
 In false ceilings with narrow voids.

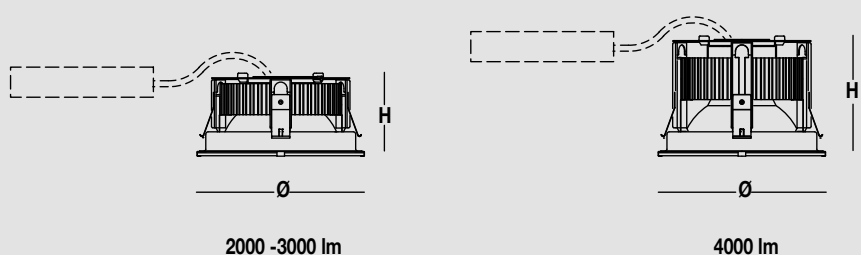
Installation

Pull-up installation.

Light Management

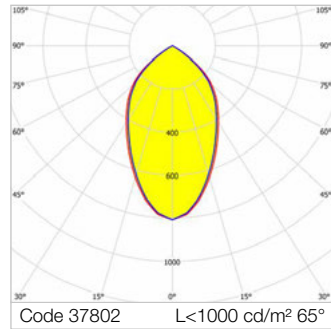
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Galassia 220 VT

Transparent glass



Average luminance <math>< 1000 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent. Circular anti-glare LED shielding lens in opal PMMA for good visual comfort. VT transparent glass, tempered, not flammable, locked and in line with the trim. It does not allow the access of the insects into the luminous compartment, avoiding unpleasant visual effects and extraordinary maintenance.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions $\varnothing \times H$ |
|------|------|------------|--------------------|------------------|---------|-----|-----------------------------------|
|------|------|------------|--------------------|------------------|---------|-----|-----------------------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|--------------------------|-----|------|------|------|-----|---------|
| 37759 | Galassia 220 LED 2000 VT | 63° | 18.7 | 2127 | 4000 | >80 | 221x103 |
| 37802 | Galassia 220 LED 3000 VT | 63° | 27.2 | 2811 | 4000 | >80 | 221x103 |
| 37834 | Galassia 220 LED 4000 VT | 63° | 34.2 | 3701 | 4000 | >80 | 221x151 |

DALI electronic wiring 230V-50/60Hz

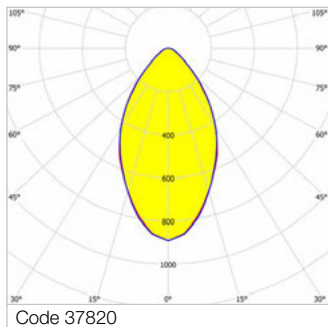
| | | | | | | | |
|-------|-------------------------------|-----|------|------|------|-----|---------|
| 37760 | Galassia 220 LED 2000 DALI VT | 63° | 18.7 | 2127 | 4000 | >80 | 221x103 |
| 37803 | Galassia 220 LED 3000 DALI VT | 63° | 27.2 | 2811 | 4000 | >80 | 221x103 |
| 37836 | Galassia 220 LED 4000 DALI VT | 63° | 34.2 | 3701 | 4000 | >80 | 221x151 |










EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|-----------------------------|-----|------|------|------|-----|---------|
| 37761 | Galassia 220 LED 2000 EP VT | 63° | 19.7 | 2127 | 4000 | >80 | 221x103 |
| 37804 | Galassia 220 LED 3000 EP VT | 63° | 28.2 | 2811 | 4000 | >80 | 221x103 |

Galassia 220 VS

Moulded glass



2000 - Average luminance <3000 cd/m² for radial angles >65°. Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent. Anti-glare microprismatic VS moulded glass, tempered, not flammable, locked and in line with the trim. It does not allow the access of the insects into the luminous compartment, avoiding unpleasant visual effects and extraordinary maintenance.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|--------------------------|-----|------|------|------|-----|---------|
| 37777 | Galassia 220 LED 2000 VS | 60° | 18.7 | 2382 | 4000 | >80 | 221x103 |
| 37820 | Galassia 220 LED 3000 VS | 60° | 27.2 | 3148 | 4000 | >80 | 221x103 |
| 37838 | Galassia 220 LED 4000 VS | 60° | 34.2 | 4145 | 4000 | >80 | 221x151 |

DALI electronic wiring 230V-50/60Hz

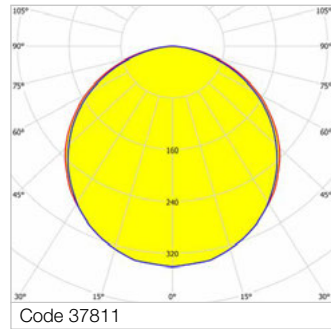
| | | | | | | | |
|-------|-------------------------------|-----|------|------|------|-----|---------|
| 37778 | Galassia 220 LED 2000 DALI VS | 60° | 18.7 | 2382 | 4000 | >80 | 221x103 |
| 37821 | Galassia 220 LED 3000 DALI VS | 60° | 27.2 | 3148 | 4000 | >80 | 221x103 |
| 37840 | Galassia 220 LED 4000 DALI VS | 60° | 34.2 | 4145 | 4000 | >80 | 221x151 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|-----------------------------|-----|------|------|------|-----|---------|
| 37779 | Galassia 220 LED 2000 EP VS | 60° | 19.7 | 2382 | 4000 | >80 | 221x103 |
| 37822 | Galassia 220 LED 3000 EP VS | 60° | 28.2 | 3148 | 4000 | >80 | 221x103 |

Galassia 220 VOP

Opal enamelled glass



960°C

IP20
IP44

5J

IK08

Driver/LED
SELV

Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent.

Glazed OP opal glass, tempered, non-combustible, locked in line with the trim.

It does not allow the access of the insects into the luminous compartment, avoiding unpleasant visual effects and extraordinary maintenance.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|---------------------|
|------|------|------------|--------------------|------------------|---------|-----|---------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|---------------------------|------|------|------|------|-----|---------|
| 37768 | Galassia 220 LED 2000 VOP | 114° | 18.7 | 1466 | 4000 | >80 | 221x103 |
| 37811 | Galassia 220 LED 3000 VOP | 114° | 27.2 | 1938 | 4000 | >80 | 221x103 |
| 37842 | Galassia 220 LED 4000 VOP | 114° | 34.2 | 2551 | 4000 | >80 | 221x151 |

DALI electronic wiring 230V-50/60Hz

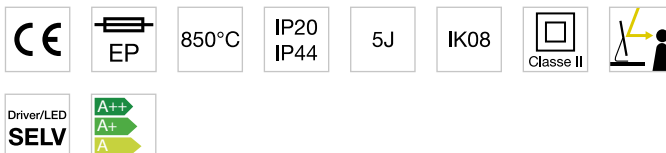
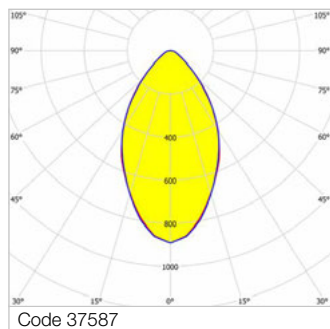
| | | | | | | | |
|-------|--------------------------------|------|------|------|------|-----|---------|
| 37769 | Galassia 220 LED 2000 DALI VOP | 114° | 18.7 | 1466 | 4000 | >80 | 221x103 |
| 37812 | Galassia 220 LED 3000 DALI VOP | 114° | 27.2 | 1938 | 4000 | >80 | 221x103 |
| 37844 | Galassia 220 LED 4000 DALI VOP | 114° | 34.2 | 2551 | 4000 | >80 | 221x151 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|------------------------------|------|------|------|------|-----|---------|
| 37770 | Galassia 220 LED 2000 EP VOP | 114° | 19.7 | 1466 | 4000 | >80 | 221x103 |
| 37813 | Galassia 220 LED 3000 EP VOP | 114° | 28.2 | 1938 | 4000 | >80 | 221x103 |

Galassia 220 AB VS

Moulded glass



2000 - Average luminance <math><3000\text{ cd/m}^2</math> for radial angles $>65^\circ$.
 AB trim in white moulded Bayblend.
 Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent.
 Anti-glare microprismatic VS moulded glass, tempered, not flammable, locked and in line with the trim.
 It does not allow the access of the insects into the luminous compartment, avoiding unpleasant visual effects and extraordinary maintenance.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions $\varnothing \times H$ |
|------|------|------------|--------------------|------------------|---------|-----|-----------------------------------|
|------|------|------------|--------------------|------------------|---------|-----|-----------------------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------|-----|------|------|------|-----|---------|
| 37551 | Galassia 220 LED AB 2000 VS | 60° | 18.7 | 2382 | 4000 | >80 | 226x103 |
| 37587 | Galassia 220 LED AB 3000 VS | 60° | 27.2 | 3148 | 4000 | >80 | 226x103 |
| 37604 | Galassia 220 LED AB 4000 VS | 60° | 34.2 | 4145 | 4000 | >80 | 226x151 |

DALI electronic wiring 230V-50/60Hz

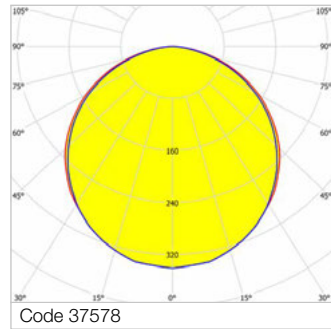
| | | | | | | | |
|-------|----------------------------------|-----|------|------|------|-----|---------|
| 37552 | Galassia 220 LED AB 2000 DALI VS | 60° | 18.7 | 2382 | 4000 | >80 | 226x103 |
| 37588 | Galassia 220 LED AB 3000 DALI VS | 60° | 27.2 | 3148 | 4000 | >80 | 226x103 |
| 37606 | Galassia 220 LED AB 4000 DALI VS | 60° | 34.2 | 4145 | 4000 | >80 | 226x151 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|--------------------------------|-----|------|------|------|-----|---------|
| 37553 | Galassia 220 LED AB 2000 EP VS | 60° | 19.7 | 2382 | 4000 | >80 | 226x103 |
| 37589 | Galassia 220 LED AB 3000 EP VS | 60° | 28.2 | 3148 | 4000 | >80 | 226x103 |

Galassia 220 AB VOP

Opal enamelled glass



850°C

IP20
IP44

6,5J

IK08

Driver/LED
SELV

AB trim in white moulded Bayblend.

Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent.

Glazed OP opal glass, tempered, non-combustible, locked in line with the trim.

It does not allow the access of the insects into the luminous compartment, avoiding unpleasant visual effects and extraordinary maintenance.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x H |
|------|------|------------|--------------------|------------------|---------|-----|------------------|
|------|------|------------|--------------------|------------------|---------|-----|------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|------------------------------|------|------|------|------|-----|---------|
| 37542 | Galassia 220 LED AB 2000 VOP | 114° | 18.7 | 1466 | 4000 | >80 | 226x103 |
| 37578 | Galassia 220 LED AB 3000 VOP | 114° | 27.2 | 1938 | 4000 | >80 | 226x103 |
| 37608 | Galassia 220 LED AB 4000 VOP | 114° | 34.2 | 2551 | 4000 | >80 | 226x151 |

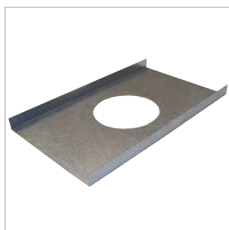
DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|-------|-----------------------------------|------|------|------|------|-----|---------|
| 37543 | Galassia 220 LED AB 2000 DALI VOP | 114° | 18.7 | 1466 | 4000 | >80 | 226x103 |
| 37579 | Galassia 220 LED AB 3000 DALI VOP | 114° | 27.2 | 1938 | 4000 | >80 | 226x103 |
| 37610 | Galassia 220 LED AB 4000 DALI VOP | 114° | 34.2 | 2551 | 4000 | >80 | 226x151 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | | |
|-------|---------------------------------|------|------|------|------|-----|---------|
| 37544 | Galassia 220 LED AB 2000 EP VOP | 114° | 19.7 | 1466 | 4000 | >80 | 226x103 |
| 37580 | Galassia 220 LED AB 3000 EP VOP | 114° | 28.2 | 1938 | 4000 | >80 | 226x103 |

Galassia Accessories



Reinforcing bracket for panels 600x600, 600x1200 with exposed structure, in hot-galvanized steel.

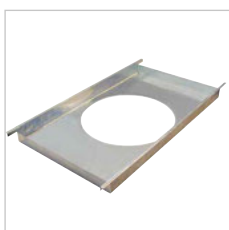
| Code | Item |
|-------|---|
| A0202 | False ceiling bracket - for luminaire D.220 |



Anti-rotation adapter for gridded ceiling with closing mats (always suggested to avoid stray light). Adapter made in steel - white color, RAL 9010.

| Code | Item |
|--------|--|
| A0204 | Grid bracket h40mm - for luminaire D.220 |
| A01523 | Grid bracket h50mm - for luminaire D.220 |

On request: RAL colour.
Bracket size 289x289 mm for 50x50, 75x75, 100x100 mesh, slat 10 mm thick.



Reinforcing bracket for metal panels 600x600 with concealed structure, in hot-galvanized steel.

| Code | Item |
|-------|--------------------------------------|
| A0214 | Metal pan. reinforcing bracket D.220 |

3F Six



3F Linux



3F Emilio



3F Zeta Track



Binario 3F



Systems and track-mounted products

| Page | Product | Screen | Optic | Lens |
|------|-----------------------------|--------|-------|------|
| 310 | 3F Six | | | |
| 312 | 3F Six Track | | | • |
| 316 | 3F Six Blindo | | | • |
| 320 | 3F Linux | | | |
| 330 | 3F Linux S IP40 | | | |
| 332 | 3F Linux S IP54 | | | |
| 334 | 3F Linux L Light modules | | | • |
| 344 | 3F Linux D Light modules | • | | |
| 346 | 3F Linux DR Light modules | • | • | |
| 350 | 3F Linux Track | | | |
| 358 | 3F Emilio | | | |
| 364 | 3F Emilio Track | | | • |
| 370 | 3F Emilio Track DALI | | | • |
| 372 | 3F Emilio Track Bluetooth | | | • |
| 374 | 3F Zeta Track | | | |
| 374 | 3F Zeta Track L | | | • |
| 376 | Binario 3F | | | |
| 378 | Binario 3F | | | |

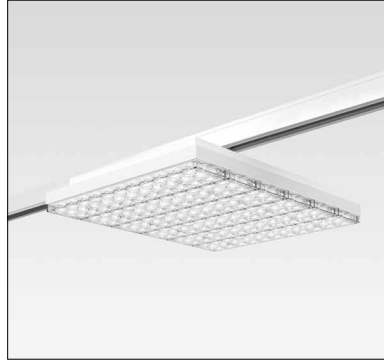
Systems and track-mounted products

3F Six

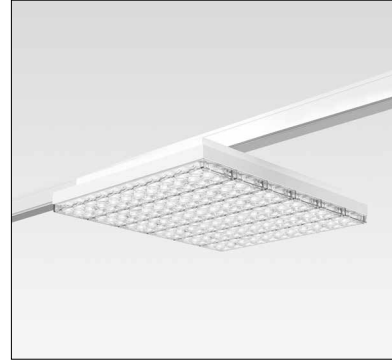


Compact efficiency

3F Six Track 307x378



3F Six Blindo 307x378



3F Six Track 190x602



3F Six Blindo 190x602

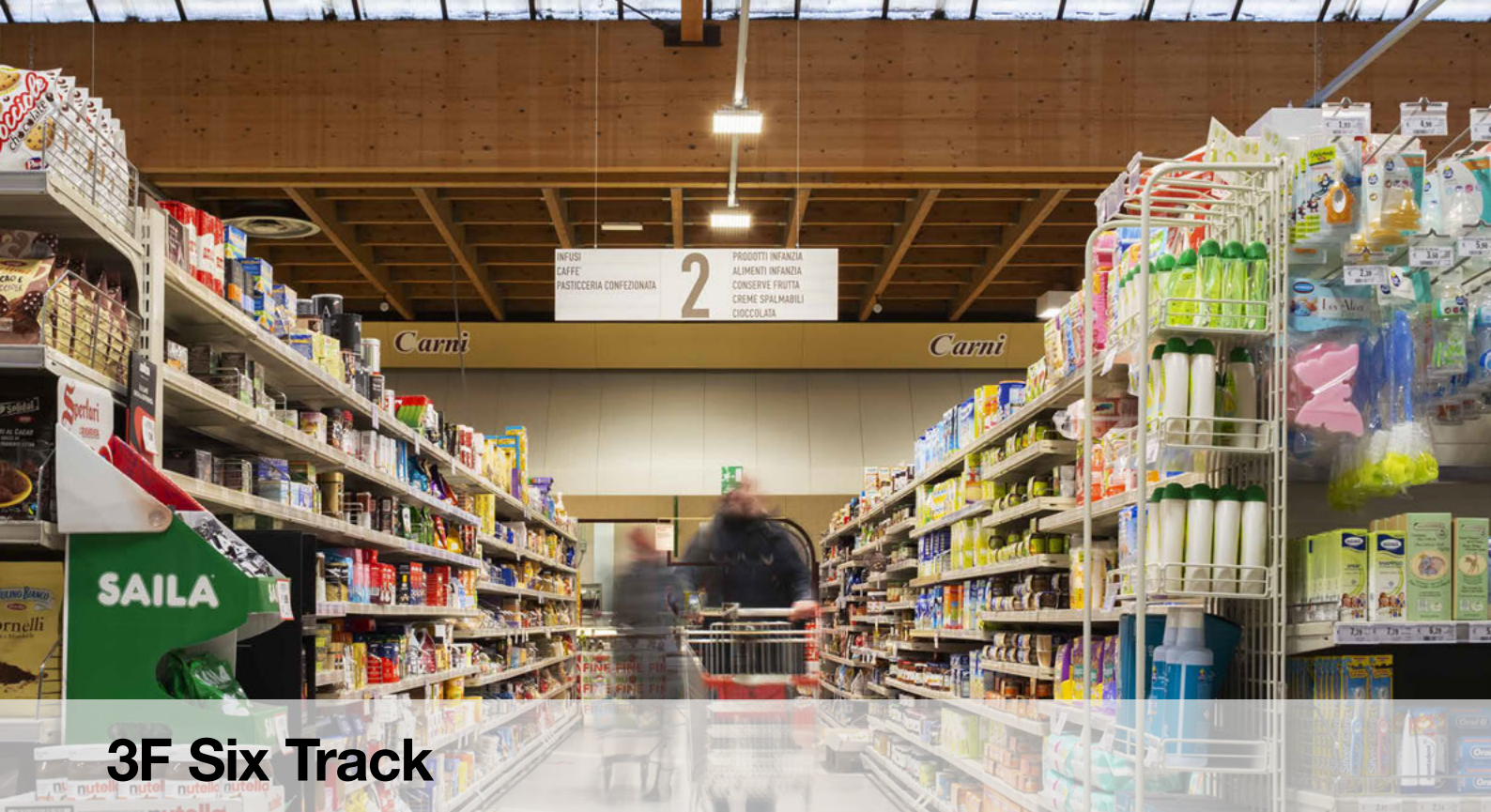
3F Six is the new compact fixture designed by 3F Filippi that thanks to its compact height and flat shape with a visible edge of only 3 cm, is particularly suitable for shopping centres, exhibition areas and warehouses.

The fixture (available in both a square and rectangular version), can be installed in a flexible way on busways or electrified tracks.

Thanks to the use of six methacrylate optical lenses installed on the fixture it is possible to obtain customised luminous distribution by choosing from the eight types of optics available: wide, double asymmetric, wide double asymmetric, asymmetric, medium, concentrated, hyper concentrated and UGR.

The latter configuration, designed to be used in environments with more stringent vision requirements or where there are VDTs, uses lenses with controlled luminance and a UGR<19 glare index.

3F Six is available in a version with ON/OFF wiring or DALI control to manage the fixture and the energy consumption of the entire lighting system.



3F Six Track

Construction characteristics

Illuminotechnical characteristics

Direct distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in white painted steel.

Height only 52 mm.

PMMA lenses with external flat surface.

The fixture can be rotated horizontally from 0° to 330°.

Electrical characteristics

Track adapter, 4/6-way.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different light distributions
- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- wiring: CLO (more information on page 542)
- fixture rotation lock bracket

Applications

Environments: industrial, commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops.

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

UGR version

Environments that need luminance control.

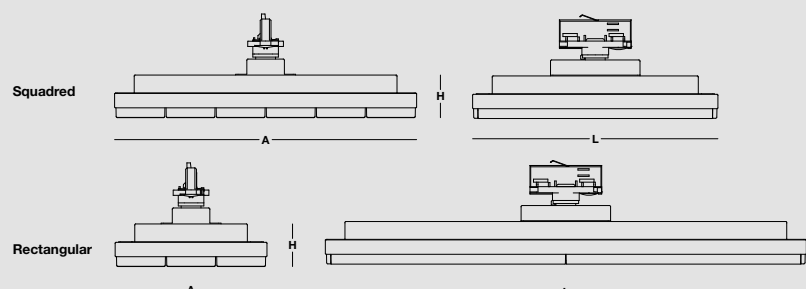
Installation

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 376).

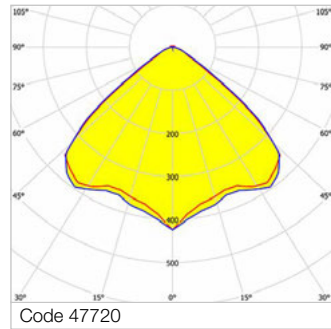
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Six Track Wide



650°C

IP40

1J

IK06



Wide distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

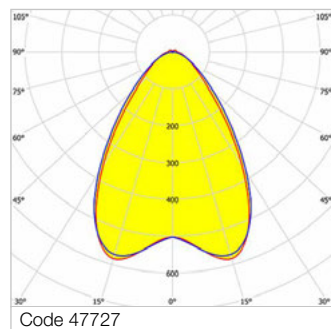
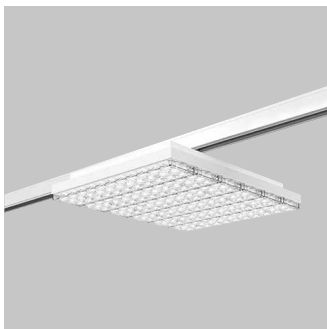
Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|------------|
| 47722 | 3F Six TK WH 40 AMPIO 307x378 | 43 | 6936 | 4000 | >80 | 307x378x52 |
| 47742 | 3F Six TK WH 40 AMPIO 190x602 | 43 | 6936 | 4000 | >80 | 602x190x52 |
| 47721 | 3F Six TK WH 50 AMPIO 307x378 | 52 | 8247 | 4000 | >80 | 307x378x52 |
| 47741 | 3F Six TK WH 50 AMPIO 190x602 | 52 | 8247 | 4000 | >80 | 602x190x52 |
| 47720 | 3F Six TK WH 60 AMPIO 307x378 | 62 | 9855 | 4000 | >80 | 307x378x52 |
| 47740 | 3F Six TK WH 60 AMPIO 190x602 | 62 | 9855 | 4000 | >80 | 602x190x52 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------------|----|------|------|-----|------------|
| 47725 | 3F Six TK WH 40 DALI AMPIO 307x378 | 43 | 6936 | 4000 | >80 | 307x378x52 |
| 47745 | 3F Six TK WH 40 DALI AMPIO 190x602 | 43 | 6936 | 4000 | >80 | 602x190x52 |
| 47724 | 3F Six TK WH 50 DALI AMPIO 307x378 | 52 | 8247 | 4000 | >80 | 307x378x52 |
| 47744 | 3F Six TK WH 50 DALI AMPIO 190x602 | 52 | 8247 | 4000 | >80 | 602x190x52 |
| 47723 | 3F Six TK WH 60 DALI AMPIO 307x378 | 62 | 9855 | 4000 | >80 | 307x378x52 |
| 47743 | 3F Six TK WH 60 DALI AMPIO 190x602 | 62 | 9855 | 4000 | >80 | 602x190x52 |

3F Six Track Medium



650°C

IP40

1J

IK06



Medium distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

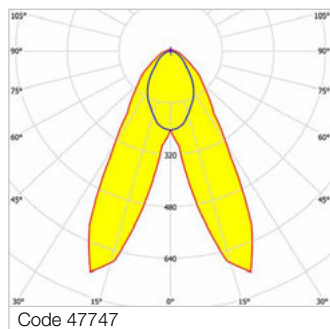
Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|------------|
| 47729 | 3F Six TK WH 40 MEDIO 307x378 | 43 | 6843 | 4000 | >80 | 307x378x52 |
| 47728 | 3F Six TK WH 50 MEDIO 307x378 | 52 | 8136 | 4000 | >80 | 307x378x52 |
| 47727 | 3F Six TK WH 60 MEDIO 307x378 | 62 | 9723 | 4000 | >80 | 307x378x52 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------------|----|------|------|-----|------------|
| 47732 | 3F Six TK WH 40 DALI MEDIO 307x378 | 43 | 6843 | 4000 | >80 | 307x378x52 |
| 47731 | 3F Six TK WH 50 DALI MEDIO 307x378 | 52 | 8136 | 4000 | >80 | 307x378x52 |
| 47730 | 3F Six TK WH 60 DALI MEDIO 307x378 | 62 | 9723 | 4000 | >80 | 307x378x52 |

3F Six Track BAT



Double asymmetrical distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

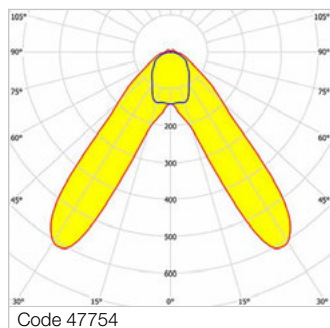
Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-----------------------------|----|------|------|-----|------------|
| 47749 | 3F Six TK WH 40 BAT 190x602 | 43 | 6950 | 4000 | >80 | 602x190x52 |
| 47748 | 3F Six TK WH 50 BAT 190x602 | 52 | 8264 | 4000 | >80 | 602x190x52 |
| 47747 | 3F Six TK WH 60 BAT 190x602 | 62 | 9876 | 4000 | >80 | 602x190x52 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------------|----|------|------|-----|------------|
| 47752 | 3F Six TK WH 40 DALI BAT 190x602 | 43 | 6950 | 4000 | >80 | 602x190x52 |
| 47751 | 3F Six TK WH 50 DALI BAT 190x602 | 52 | 8264 | 4000 | >80 | 602x190x52 |
| 47750 | 3F Six TK WH 60 DALI BAT 190x602 | 62 | 9876 | 4000 | >80 | 602x190x52 |

3F Six Track BAT WD



Wide double symmetric distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

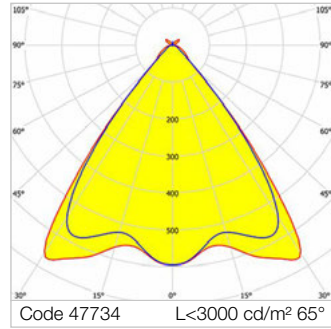
Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------|----|------|------|-----|------------|
| 47756 | 3F Six TK WH 40 BAT WD 190x602 | 43 | 6928 | 4000 | >80 | 602x190x52 |
| 47755 | 3F Six TK WH 50 BAT WD 190x602 | 52 | 8238 | 4000 | >80 | 602x190x52 |
| 47754 | 3F Six TK WH 60 BAT WD 190x602 | 62 | 9845 | 4000 | >80 | 602x190x52 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------------|----|------|------|-----|------------|
| 47759 | 3F Six TK WH 40 DALI BAT WD 190x602 | 43 | 6928 | 4000 | >80 | 602x190x52 |
| 47758 | 3F Six TK WH 50 DALI BAT WD 190x602 | 52 | 8238 | 4000 | >80 | 602x190x52 |
| 47757 | 3F Six TK WH 60 DALI BAT WD 190x602 | 62 | 9845 | 4000 | >80 | 602x190x52 |

3F Six Track UGR



Controlled symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-----------------------------|----|------|------|-----|------------|
| 47761 | 3F Six TK WH 40 UGR 190x602 | 43 | 6921 | 4000 | >80 | 602x190x52 |
| 47734 | 3F Six TK WH 40 UGR 307x378 | 43 | 6921 | 4000 | >80 | 307x378x52 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------------|----|------|------|-----|------------|
| 47762 | 3F Six TK WH 40 DALI UGR 190x602 | 43 | 6921 | 4000 | >80 | 602x190x52 |
| 47735 | 3F Six TK WH 40 DALI UGR 307x378 | 43 | 6921 | 4000 | >80 | 307x378x52 |



3F Six Blindo

Construction characteristics

Illuminotechnical characteristics

Direct distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in white painted steel.

Height only 52 mm.

PMMA lenses with external flat surface.

Can be positioned transversally or longitudinally to the busway.

Electrical characteristics

Power cable type H05Z1Z1-F

3-5x1,5 mm² that protrudes by 1 m with sheared ends.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different light distributions
- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- wiring: CLO (more information on page 542)
- versions with rectangular shape

Applications

Environments: industrial, commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops.

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

UGR version

Environments that need luminance control.

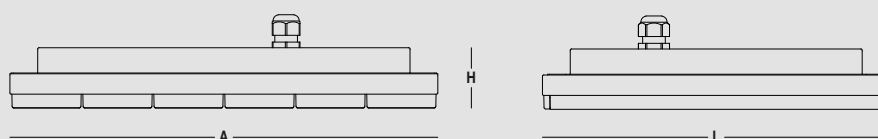
Installation

This product is suitable for installation on a busway (hooking brackets not included).

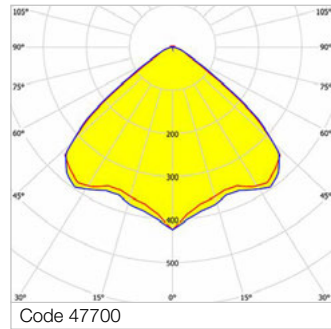
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Six Blindo Wide



Wide distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

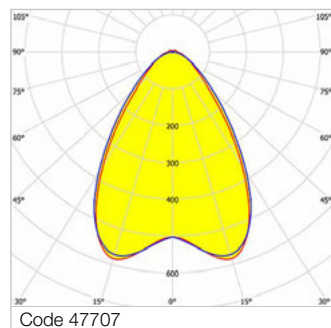
Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------|----|-------|------|-----|------------|
| 47700 | 3F Six WH 60 AMPIO 307x378 | 62 | 9855 | 4000 | >80 | 307x378x52 |
| 47699 | 3F Six WH 70 AMPIO 307x378 | 72 | 11427 | 4000 | >80 | 307x378x52 |
| 47698 | 3F Six WH 85 AMPIO 307x378 | 94 | 14086 | 4000 | >80 | 307x378x52 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------|----|-------|------|-----|------------|
| 47703 | 3F Six WH 60 DALI AMPIO 307x378 | 62 | 9855 | 4000 | >80 | 307x378x52 |
| 47702 | 3F Six WH 70 DALI AMPIO 307x378 | 72 | 11427 | 4000 | >80 | 307x378x52 |
| 47701 | 3F Six WH 85 DALI AMPIO 307x378 | 94 | 14086 | 4000 | >80 | 307x378x52 |

3F Six Blindo Medium



Medium distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

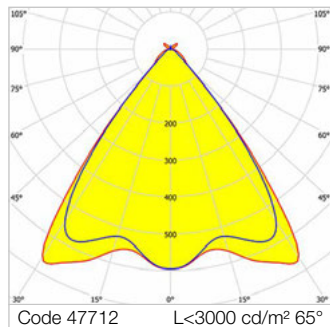
Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------|----|-------|------|-----|------------|
| 47707 | 3F Six WH 60 MEDIO 307x378 | 62 | 9723 | 4000 | >80 | 307x378x52 |
| 47706 | 3F Six WH 70 MEDIO 307x378 | 72 | 11273 | 4000 | >80 | 307x378x52 |
| 47705 | 3F Six WH 85 MEDIO 307x378 | 94 | 13898 | 4000 | >80 | 307x378x52 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------|----|-------|------|-----|------------|
| 47710 | 3F Six WH 60 DALI MEDIO 307x378 | 62 | 9723 | 4000 | >80 | 307x378x52 |
| 47709 | 3F Six WH 70 DALI MEDIO 307x378 | 72 | 11273 | 4000 | >80 | 307x378x52 |
| 47708 | 3F Six WH 85 DALI MEDIO 307x378 | 94 | 13898 | 4000 | >80 | 307x378x52 |

3F Six Blindo UGR






650°C

IP40

1J

IK06



A++
A+
A

Controlled symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------|----|------|------|-----|------------|
| 47712 | 3F Six WH 40 UGR 307x378 | 43 | 6921 | 4000 | >80 | 307x378x52 |
|-------|--------------------------|----|------|------|-----|------------|

DALI electronic wiring 230V-50/60Hz

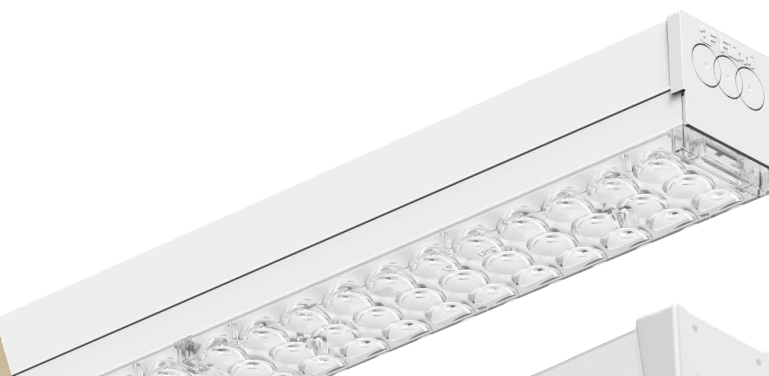
| | | | | | | |
|-------|-------------------------------|----|------|------|-----|------------|
| 47713 | 3F Six WH 40 DALI UGR 307x378 | 43 | 6921 | 4000 | >80 | 307x378x52 |
|-------|-------------------------------|----|------|------|-----|------------|



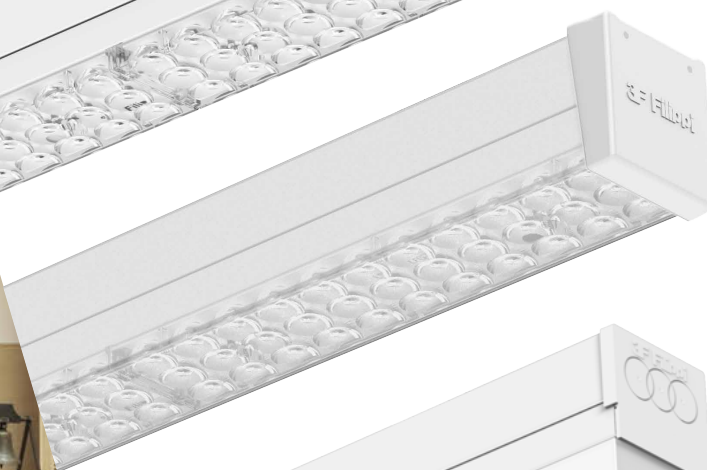
3F Linux



Simply modular



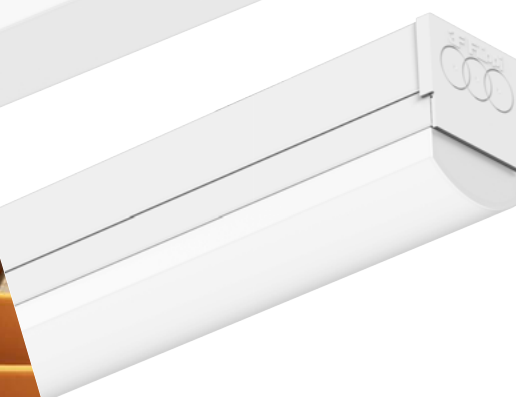
3F Linux L | IP40



3F Linux L | IP54



3F Linux DR | IP40



3F Linux D | IP40

Systems and
track-mounted products

3F Linux is a modular system designed to allow you to compose channels as simply and efficiently as possible.

Like all products in the 3F Filippi range, it is fitted with high-efficiency LED sources and features a compact body, modular components and accessories which give unrivalled freedom in terms of planning the installations.

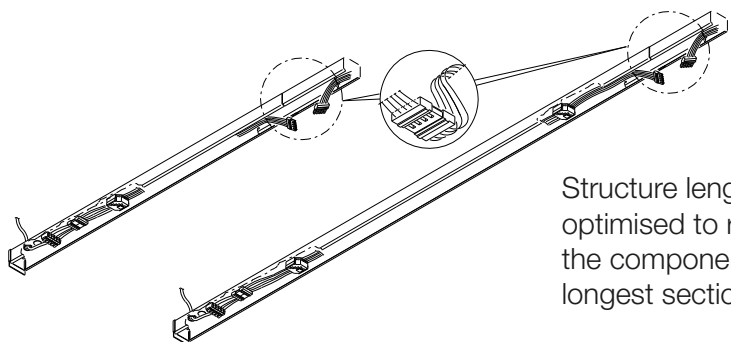
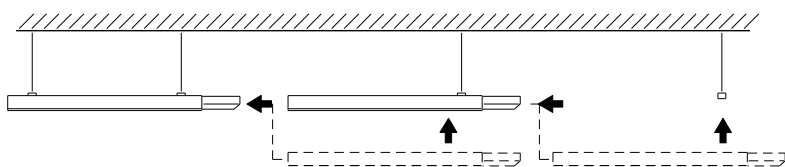
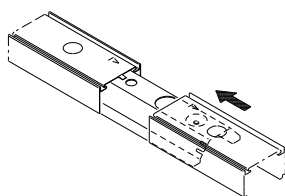
3F Linux

Simply modular



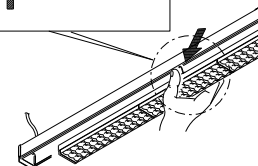
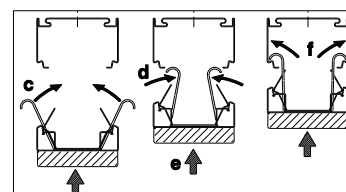
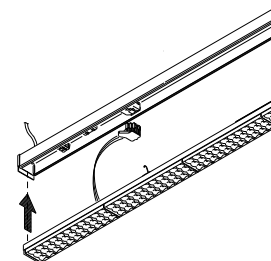
The FastWiring system reduces the time necessary to create a lighting channel:

- 1 Install the structures, connecting them together with the connecting elements (pre-fitted) and connect the power-supply lines



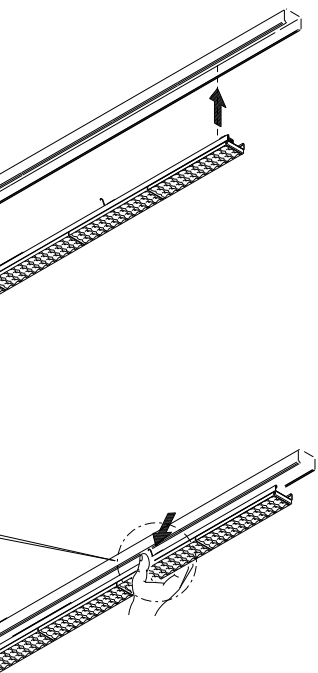
Structure lengths optimised to reduce the components in the longest sections.

- 2 Connect the power-supply plug and secure the lighting element to the structure, moving it to the required point

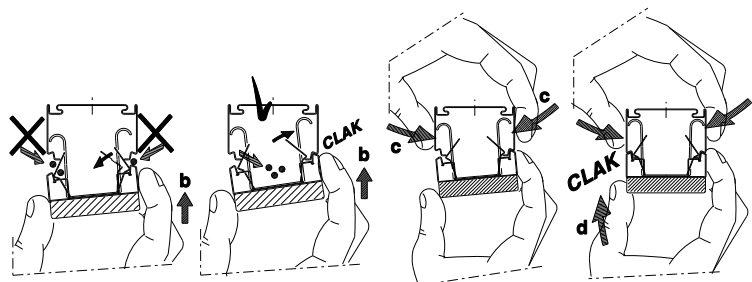
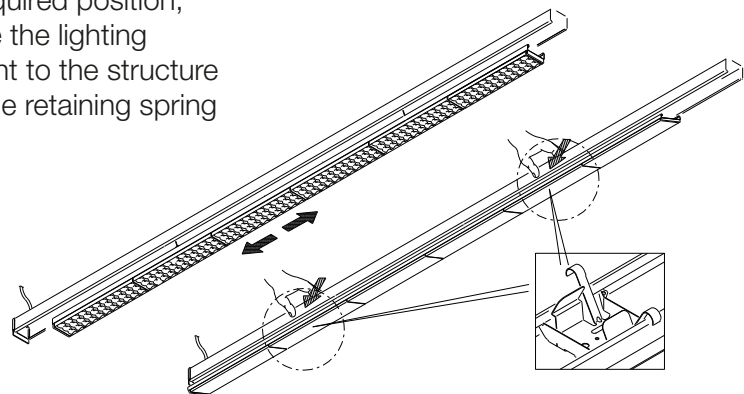


- System for the creation and composition of channels which combines the various electrical requirements with the specific lighting design requirements.
- Clean, minimalist lines.
- An IP54 version for more severe applications
- Its flexibility lends it to installation in commercial environments requiring high levels of lighting, and in circulation areas where it can be installed invisibly even in corners.
- Quick and easy installation.
- different luminous distributions for multiple applications.
- Lengths of the structures and lighting units optimised in order to reduce installation times and investment (-20 % accessories to be purchased and installed with respect to standard lengths).
- All mechanical and electrical installation phases are tool free.
- Easy maintenance.
- Hidden sliding bracket on the structure.
- Quick adjuster for fast levelling.
- Connecting element already fitted.
- Through line up to 11 poles with power-supply pedestal and through plug/socket.
- Dual hidden springs for support and to prevent the lamp from falling, for maximum protection against accidental falls.
- Possibility of lighting units with different louvres, translucent polycarbonate diffusers and closing covers.
- Lighting units with different power ratings and cable types, integrated sensors also possible.

Installation requires just 3 steps, with limited tools required.



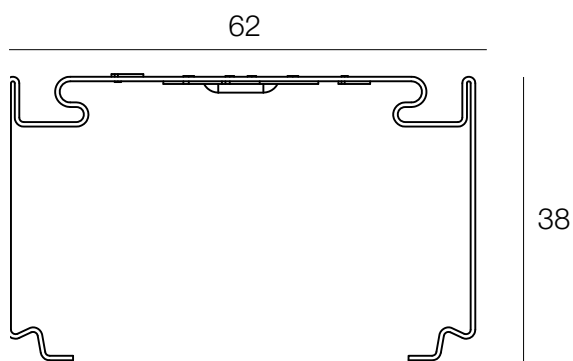
3 Once you have chosen the required position, secure the lighting element to the structure until the retaining spring clicks



3F Linux

Dimensions and finishes

3F Linux S | IP40



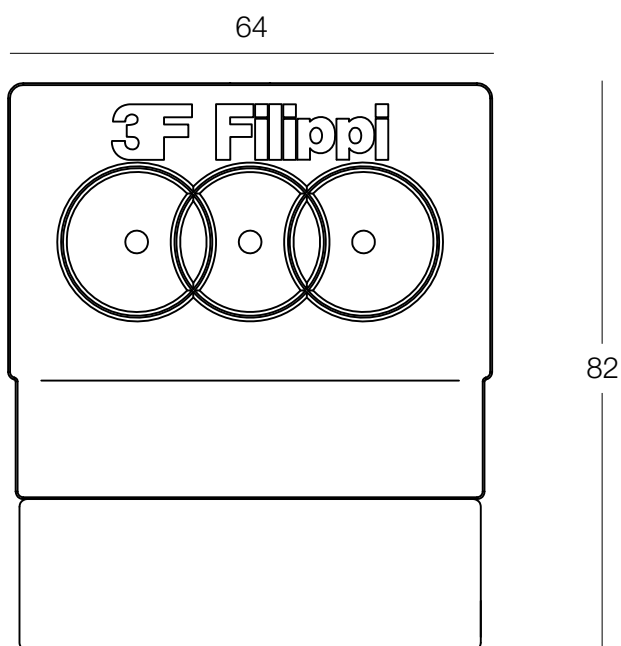
Dimensions

Structures - 3F Linux S
1778 - 3556 mm

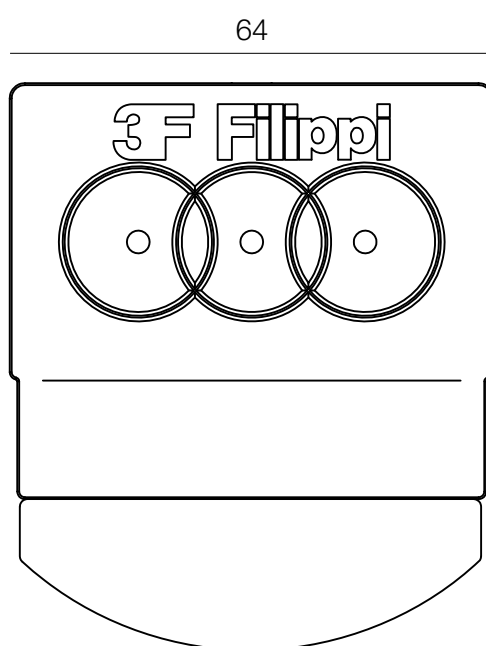
Light modules - 3F Linux L / DR / D
1778 mm

Non-illuminated modules - 3F Linux Track / Top
1778 mm

3F Linux S | IP40 + 3F Linux DR



3F Linux S | IP40 + 3F Linux D



Drawings in 1: 1 scale - Dimensions in millimeters

Finishes



White

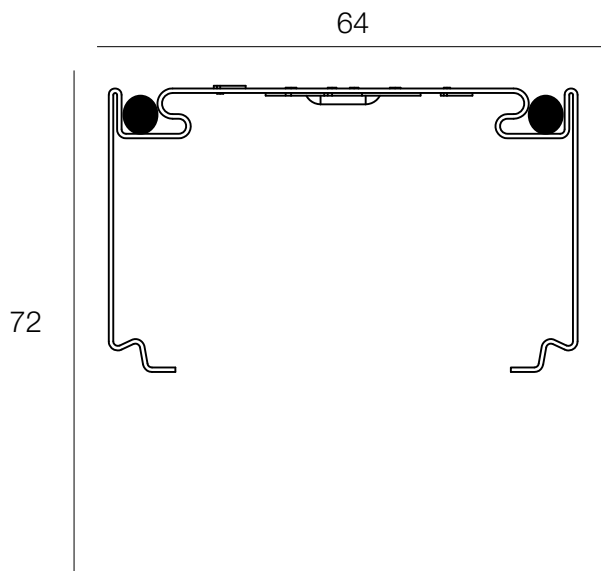


Matt black
On demand

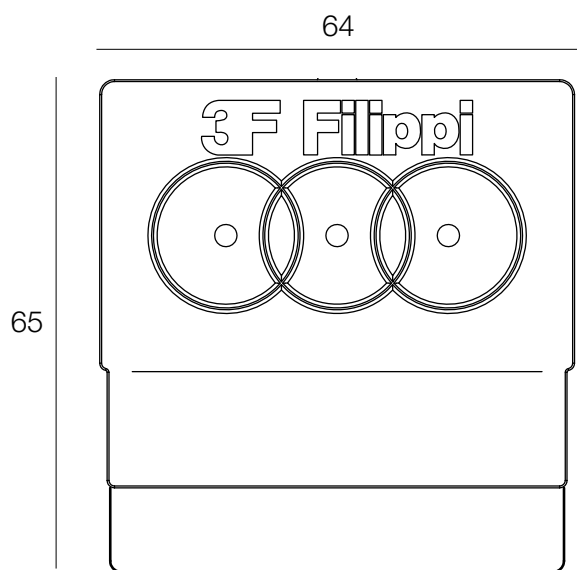


Gray
On demand

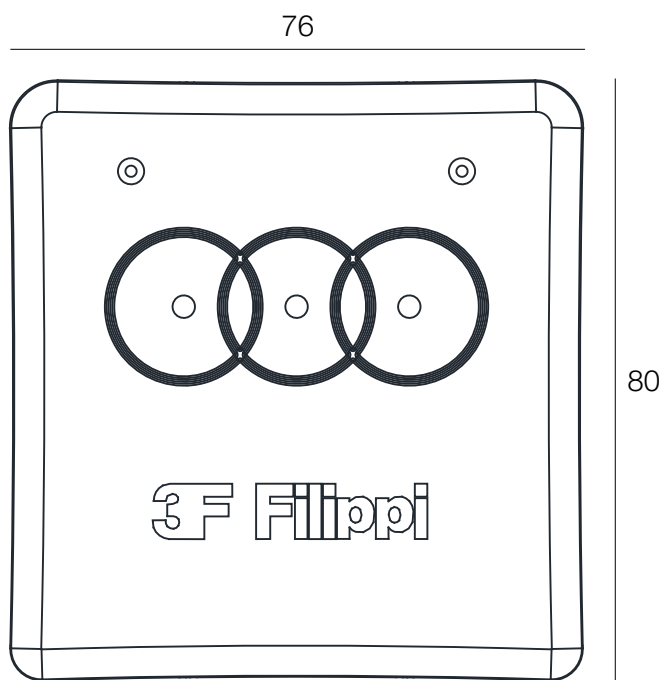
3F Linux S | IP54



**3F Linux S | IP40
+
3F Linux L**

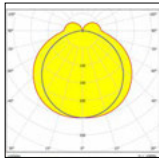
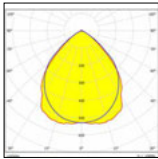
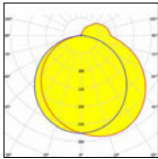
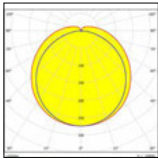


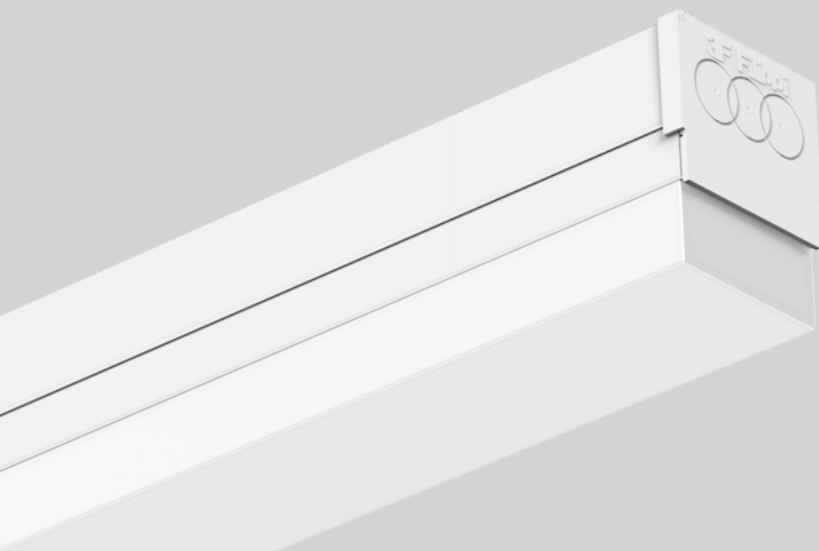
**3F Linux S | IP54
+
3F Linux L**



3F Linux

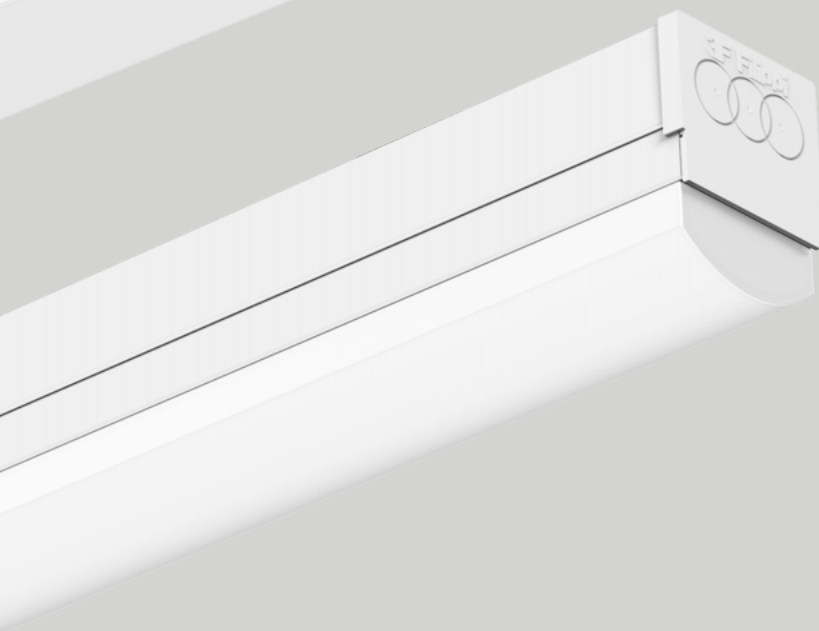
Product range

| Range | 3F Linux DR | | | 3F Linux D |
|--------------------------|---|--|---|---|
| Template | DR | DR UGR | DR AS | D |
| Power level | 2x22 2x30 | 1x30 2x22 | 2x30 | 2x22 2x30 |
| Photometric distribution |  |  |  |  |



3F Linux DR | IP40

- DR UGR
- DR
- DR AS



3F Linux D | IP40

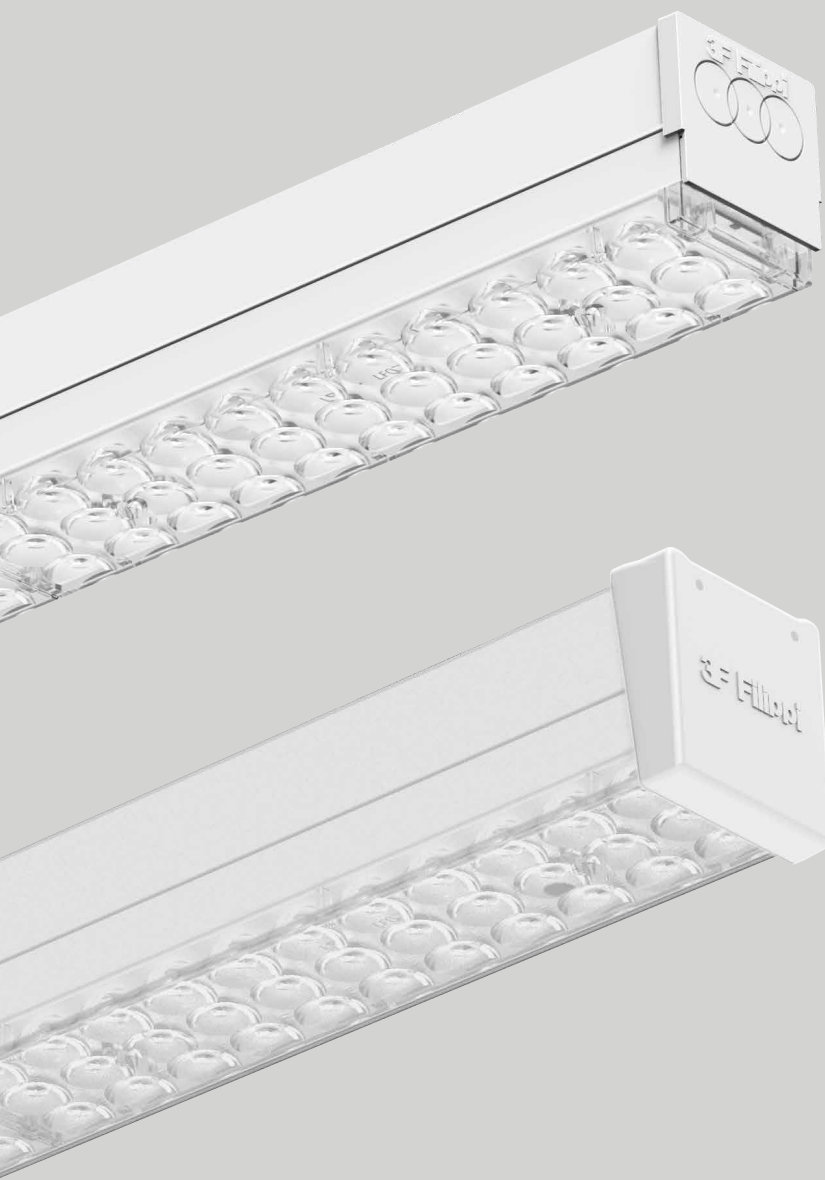
- D

| | | |
|-----------------------------|---|---------------------------------|
| Available facilities | 3F Linux S IP40 | 3F Linux S IP54 |
| Matching modules | 3F Linux L 3F Linux DR 3F Linux D 3F Linux Track* IP40 closing top* | 3F Linux L IP54 closing top* |

*Non-illuminated modules

3F Linux L

| WIDE | MEDIUM | UGR | AS | BAT | BAT WD | CONCENTRATED | IPERCONCENTRATED |
|----------------------|----------------------|-----|----------------------|----------------|----------------|--------------|------------------|
| 40 50 60 85 | 40 50 60 85 | 50 | 40 50 60 85 | 40 50 60 | 40 50 60 | 60 85 | 60 85 |
| | | | | | | | |



3F Linux L | IP40

- Wide
- Medium
- UGR
- AS
- BAT
- BAT WD
- Concentrated
- Iperconcentrated

3F Linux L | IP54

- Wide
- Medium
- UGR
- AS
- BAT
- BAT WD
- Concentrated
- Iperconcentrated

Lighting channels composition guide IP40



| Item | Structure length (metres) | | | | | | | | | | | | | | | | | |
|---|---------------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 3.56 | 5.33 | 7.11 | 8.89 | 10.67 | 12.45 | 14.22 | 16.00 | 17.78 | 19.56 | 21.34 | 23.11 | 24.89 | 26.67 | 28.45 | 30.23 | 35.56 | 40.89 |
| 3F Linux S 5P/7P L3556 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 10 | 11 |
| 3F Linux S 5P/7P L1778 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| 3F Linux L-D-DR L1778 lighting units | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 20 | 23 |
| Pair of 3F Linux closing end caps | | | | | | | | | 1 | | | | | | | | | |
| Sliding bracket 0483 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 11 | 13 |
| 3F Linux S 5P/7P plug-socket terminal block | | | | | | | | | 1 | | | | | | | | | |
| Suspensions for 3F Linux without regulator | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 11 | 13 |
| Earth | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |

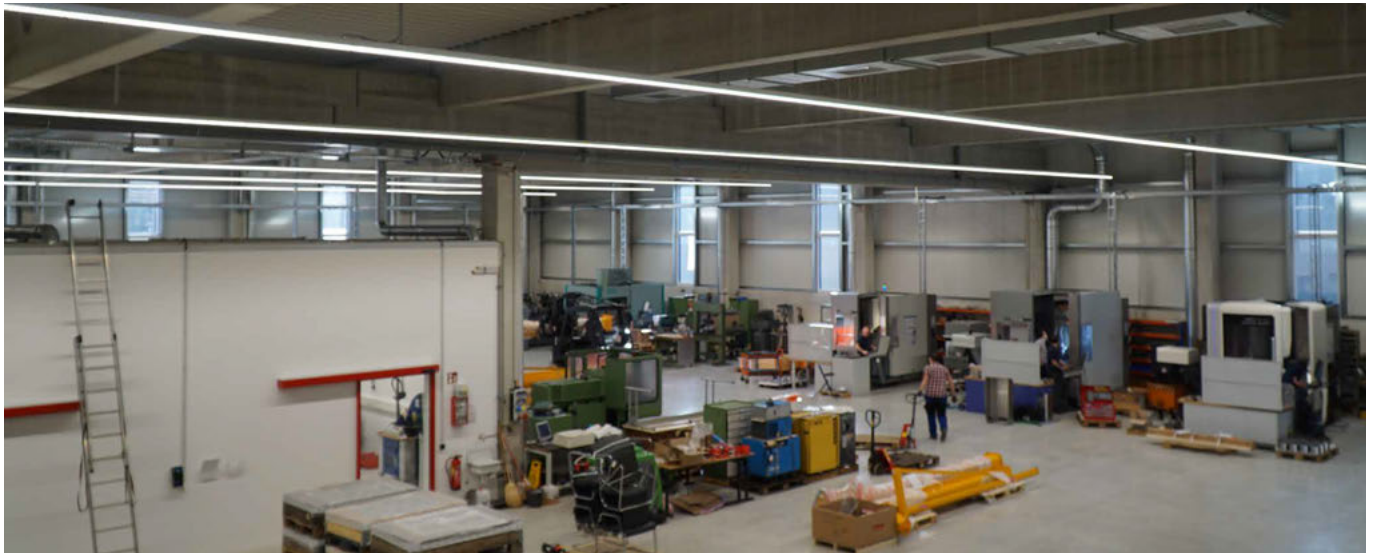
The number of sliding brackets and suspensions has been calculated on the basis of 2 for the first bar and 1 for the following ones making up the channel. The installer must check whether existing structural limitations require the number to be increased.

Optional components: replace (in the same number) the standard components which perform the same functions.

| Item | Structure length (metres) | | | | | | | | | | | | | | | | | |
|--|---------------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 3.56 | 5.33 | 7.11 | 8.89 | 10.67 | 12.45 | 14.22 | 16.00 | 17.78 | 19.56 | 21.34 | 23.11 | 24.89 | 26.67 | 28.45 | 30.23 | 35.56 | 40.89 |
| Closing top L1778 for 3F Linux L-D | | | | | | | | | | 0 | | | | | | | | |
| Plug-socket terminal block 5P/7P for power supply from centre of channel | | | | | | | | | | 1 | | | | | | | | |
| Loose contact for plug | | | | | | | | | | 1 | | | | | | | | |
| Hook for chain, stainless steel | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 11 | 13 |
| S hook for chain with 3F Linux sliding bracket | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 11 | 13 |

Note: the closing top has a value of zero because it is the same length as the lighting units (and so can be substituted for them in the same measure).

Lighting channels composition guide IP54



| Item | Structure length (metres) | | | | | | | | | | | | | | | | | |
|---|---------------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 3.56 | 5.33 | 7.11 | 8.89 | 10.67 | 12.45 | 14.22 | 16.00 | 17.78 | 19.56 | 21.34 | 23.11 | 24.89 | 26.67 | 28.45 | 30.23 | 35.56 | 40.89 |
| 3F Linux S 5P/7P IP54 L3556 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 10 | 11 |
| 3F Linux S 5P/7P IP54 L1778 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| 3F Linux L L1778 lighting units | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 20 | 23 |
| IP54 3F Linux end terminal | 2 | | | | | | | | | | | | | | | | | |
| Sliding bracket 0483 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 11 | 13 |
| 3F Linux S 5P/7P plug-socket terminal block | 1 | | | | | | | | | | | | | | | | | |
| Suspensions for 3F Linux without regulator | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 11 | 13 |
| Earth | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |

The number of sliding brackets and suspensions has been calculated on the basis of 2 for the first bar and 1 for the following ones making up the channel. The installer must check whether existing structural limitations require the number to be increased. Each product code "3F Linux S | IP54" includes the supporting structure and the cover element. Every product code includes the supporting structure and the cover element. In L3556 versions there is also an IP54 seal element that is used to protect the junction areas between the covers.

Optional components: replace (in the same number) the standard components which perform the same functions.

| Item | Structure length (metres) | | | | | | | | | | | | | | | | | |
|--|---------------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 3.56 | 5.33 | 7.11 | 8.89 | 10.67 | 12.45 | 14.22 | 16.00 | 17.78 | 19.56 | 21.34 | 23.11 | 24.89 | 26.67 | 28.45 | 30.23 | 35.56 | 40.89 |
| Closing top L1778 for 3F Linux L | 0 | | | | | | | | | | | | | | | | | |
| Plug-socket terminal block 5P/7P for power supply from centre of channel | 1 | | | | | | | | | | | | | | | | | |
| Loose contact for plug | 1 | | | | | | | | | | | | | | | | | |
| Hook for chain, stainless steel | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 11 | 13 |
| S hook for chain with 3F Linux sliding bracket | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 11 | 13 |

Note: the closing top has a value of zero because it is the same length as the lighting units (and so can be substituted for them in the same measure).



3F Linux S | IP40

This fixture makes it possible to create light channels with IP40 protection.

Modular and flexible structural system with small dimensions to create continuous channels and compositions, transport electrical lines and fixing of various types of products.

Quick and easy ceiling or pendant installation.

Construction characteristics

Mechanical characteristics

Hot-galvanized wired structure, painted in polyester base white, obtained through rolling process.

Linear connecting element in hot galvanized steel for the formation of continuous channels. Standard on L3556 versions (optional for other lengths). For the completion accessories see accessories on page 352.

On request

- structure and accessories in different RAL colors
- through-wiring up to 11 poles

Applications

Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops, schools.

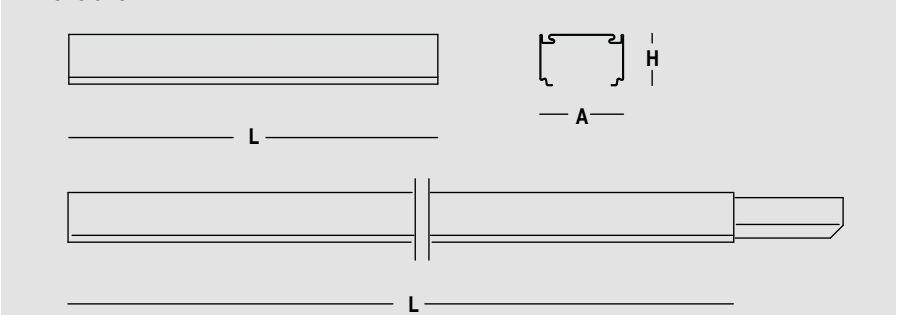
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

Installation

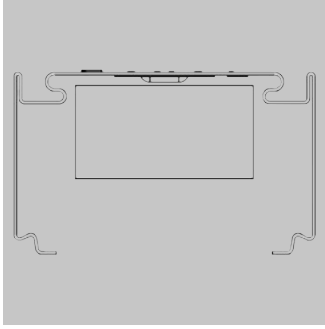
Ceiling, suspension or wall installation.

For more information, refer to the IP40 light channel composition guide (on page 328).

Dimensions



3F Linux S | IP40



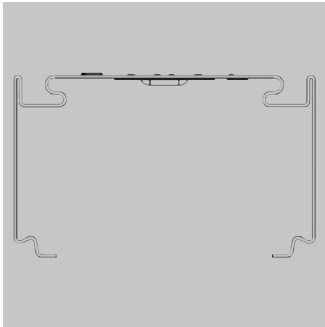
Supporting structure with 5 or 7-pole through power supply lines with H07Z-U Halogen Free cables (2.5 mm² HT90 cross-section), equipped with quick connection start/end channel terminal blocks, non-reversible with intermediate power sockets.

2 sockets for 3556 mm structures, 1 socket for 1778 mm structures (5P=N/T/1/2/3, 7P=N/T/1/2/3/+/-).

Feeding input on top (at the beginning or in the middle of the structure).

| Code | Item | Dimensions L x A x H |
|--------|---------------------|-------------------------|
| A20019 | 3F Linux S 5P L1778 | 1778x62x38 |
| A20026 | 3F Linux S 7P L1778 | 1778x62x38 |
| A20017 | 3F Linux S 5P L3556 | 3556x62x38 |
| A20024 | 3F Linux S 7P L3556 | 3556x62x38 |

3F Linux S-NL | IP40



IP40

Supporting structure WITHOUT power supply line.

Polycarbonate reinforced cable supports (for use every 500 mm approx.).

Feeding input on top (at the beginning or in the middle of the structure).

| Code | Item | Dimensions L x A x H |
|--------|---------------------|-------------------------|
| A20012 | 3F Linux S NL L1778 | 1778x62x38 |
| A20011 | 3F Linux S NL L3556 | 3556x62x38 |



3F Linux S | IP54

This fixture makes it possible to create light channels with IP54 protection.

Construction characteristics

Mechanical characteristics

Hot-galvanized wired structure, painted in polyester base white, obtained through rolling process, with expanded EPDM rubber profiles.

Linear connecting element in hot galvanized steel with gasket for the formation of continuous channels, standard on L3556 versions (optional for other lengths).

Transparent polycarbonate IP54 cover element with methacrylate flexible parts. The L3556 versions have a locking collar for joining the covers.

For the completion accessories see accessories on page 352.

Electrical characteristics

Supporting structure with 5 or 7-pole through power supply lines with H07Z-U Halogen Free cables (2.5 mm² HT90 cross-section), equipped with quick connection start/end channel terminal blocks, non-reversible with intermediate power sockets.

2 sockets for 3556 mm structures,

1 socket for 1778 mm structures

(5P=N/T/1/2/3, 7P=N/T/1/2/3/+/-).

Feeding input on top at the beginning of the structure or at end cap.

On request

- structure and accessories in different RAL colors
- through-wiring up to 11 poles

Applications

Dry, dusty indoor environments, subject to occasional water splashes.

Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials.

Not suitable in environments where chlorine fumes, ligroin, hydrocarbon mixtures, mineral oil vapours or fumes of lubricating emulsions to cool down machine tools are present.

Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.

For specific applications please contact our technical offices.

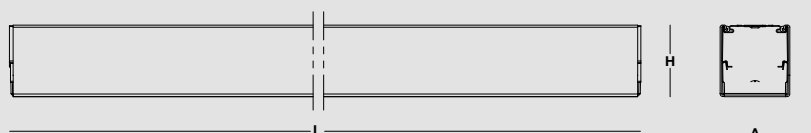
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

Installation

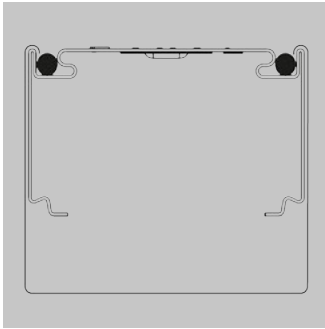
Ceiling mounted or suspension installation. Attention: to obtain a light system with IP54 protection rating, it is necessary to use 3F Linux L light modules (or alternatively IP54 closing top) + closing terminals.

For more information, refer to the IP54 light channel composition guide (on page 329).

Dimensions



3F Linux S | IP54



650°C

IP54

HACCP

All product codes include the support structure and cover element.
In the L3556 versions there is also an IP54 element that is used to protect the joints between the covers.

| Code | Item | Dimensions L x A x H |
|--------|-------------------------------|-------------------------|
| A20726 | 3F Linux system 5P IP54 L1778 | 1778x64x72 |
| A20724 | 3F Linux system 7P IP54 L1778 | 1778x64x72 |
| A20725 | 3F Linux system 5P IP54 L3556 | 3556x64x72 |
| A20723 | 3F Linux system 7P IP54 L3556 | 3556x64x72 |



3F Linux L | Light modules

Construction characteristics

Illuminotechnical characteristics

Direct distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Light unit in hot-galvanized steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.

PMMA lenses with external flat surface (superimposed to obtain full protection of LED modules).

Electrical characteristics

Connection to the structure with mobile plug with phase selection (H05Z-U Halogen Free cable section 0,5 mm² HT90).

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- maintained emergency
- integrated light sensor
- HACCP versions for use in the food industry
- housing in different RAL colours
- wiring: CLO (more information on page 542)

Applications

Environments: industrial, commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops.

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

UGR version

Environments: staterooms, with VDTs, offices.

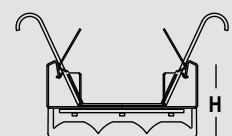
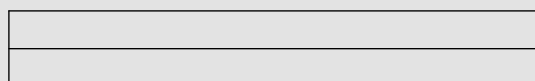
Installation

This lighting unit can be installed on profile 3F Linux S | IP40 and 3F Linux S | IP54 (see dedicated product pages).

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

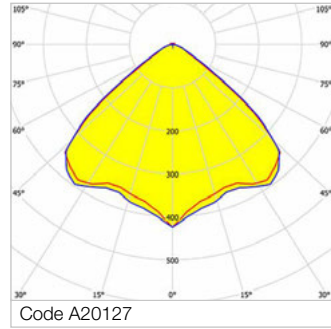
Dimensions



L

A

3F Linux L Wide



650°C

IP40

1J

IK06

HACCP



Wide distribution.

Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.

Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

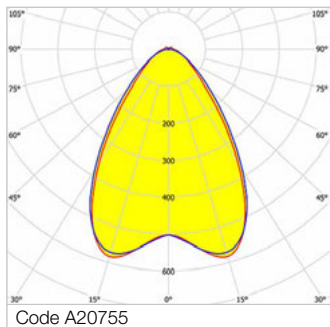
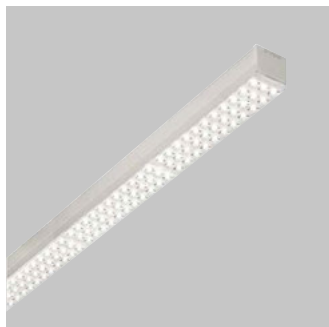
Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-------------------------------|----|--------------------------|------|-----|------------|
| A20127 | 3F Linux L 40 LED AMPIO L1778 | 43 | 6936 IP40 6607 IP54 | 4000 | >80 | 1778x62x32 |
| A20126 | 3F Linux L 50 LED AMPIO L1778 | 52 | 8247 IP40 7856 IP54 | 4000 | >80 | 1778x62x32 |
| A20125 | 3F Linux L 60 LED AMPIO L1778 | 62 | 9855 IP40 9388 IP54 | 4000 | >80 | 1778x62x32 |
| A20124 | 3F Linux L 85 LED AMPIO L1778 | 94 | 14086 IP40 13418 IP54 | 4000 | >80 | 1778x62x32 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|------------------------------------|----|--------------------------|------|-----|------------|
| A20141 | 3F Linux L 40 LED DALI AMPIO L1778 | 43 | 6936 IP40 6607 IP54 | 4000 | >80 | 1778x62x32 |
| A20140 | 3F Linux L 50 LED DALI AMPIO L1778 | 52 | 8247 IP40 7856 IP54 | 4000 | >80 | 1778x62x32 |
| A20139 | 3F Linux L 60 LED DALI AMPIO L1778 | 62 | 9855 IP40 9388 IP54 | 4000 | >80 | 1778x62x32 |
| A20138 | 3F Linux L 85 LED DALI AMPIO L1778 | 94 | 14086 IP40 13418 IP54 | 4000 | >80 | 1778x62x32 |

3F Linux L Medium



Medium distribution.
 Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
 Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

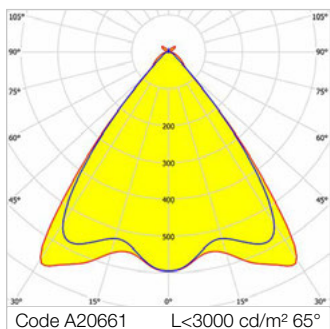
Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-------------------------------|----|--------------------------|------|-----|------------|
| A20757 | 3F Linux L 40 LED MEDIO L1778 | 43 | 6843 IP40 6499 IP54 | 4000 | >80 | 1778x62x32 |
| A20756 | 3F Linux L 50 LED MEDIO L1778 | 52 | 8136 IP40 7728 IP54 | 4000 | >80 | 1778x62x32 |
| A20755 | 3F Linux L 60 LED MEDIO L1778 | 62 | 9723 IP40 9235 IP54 | 4000 | >80 | 1778x62x32 |
| A20754 | 3F Linux L 85 LED MEDIO L1778 | 94 | 13898 IP40 13200 IP54 | 4000 | >80 | 1778x62x32 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|------------------------------------|----|--------------------------|------|-----|------------|
| A20762 | 3F Linux L 40 LED DALI MEDIO L1778 | 43 | 6843 IP40 6499 IP54 | 4000 | >80 | 1778x62x32 |
| A20761 | 3F Linux L 50 LED DALI MEDIO L1778 | 52 | 8136 IP40 7728 IP54 | 4000 | >80 | 1778x62x32 |
| A20760 | 3F Linux L 60 LED DALI MEDIO L1778 | 62 | 9723 IP40 9235 IP54 | 4000 | >80 | 1778x62x32 |
| A20759 | 3F Linux L 85 LED DALI MEDIO L1778 | 94 | 13898 IP40 13200 IP54 | 4000 | >80 | 1778x62x32 |

3F Linux L UGR



Controlled symmetric distribution.
 Average luminance <3000 cd/m² for radial angles >65°.
 Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
 Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

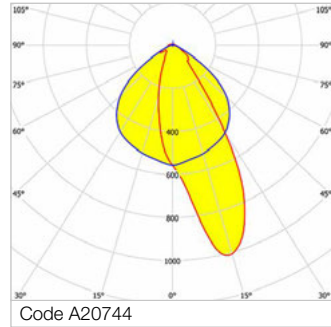
Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-----------------------------|----|------------------------|------|-----|------------|
| A20661 | 3F Linux L 50 LED UGR L1778 | 52 | 8230 IP40 7932 IP54 | 4000 | >80 | 1778x62x32 |
|--------|-----------------------------|----|------------------------|------|-----|------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|----------------------------------|----|------------------------|------|-----|------------|
| A20667 | 3F Linux L 50 LED DALI UGR L1778 | 52 | 8230 IP40 7932 IP54 | 4000 | >80 | 1778x62x32 |
|--------|----------------------------------|----|------------------------|------|-----|------------|

3F Linux L AS



650°C

IP40

1J

IK06

HACCP



Asymmetric distribution.

Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.

Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

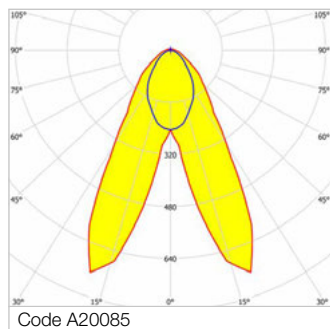
Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|----------------------------|----|--------------------------|------|-----|------------|
| A20747 | 3F Linux L 40 LED AS L1778 | 43 | 6957 IP40 6664 IP54 | 4000 | >80 | 1778x62x32 |
| A20746 | 3F Linux L 50 LED AS L1778 | 52 | 8272 IP40 7924 IP54 | 4000 | >80 | 1778x62x32 |
| A20745 | 3F Linux L 60 LED AS L1778 | 62 | 9886 IP40 9469 IP54 | 4000 | >80 | 1778x62x32 |
| A20744 | 3F Linux L 85 LED AS L1778 | 94 | 14130 IP40 13535 IP54 | 4000 | >80 | 1778x62x32 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|---------------------------------|----|--------------------------|------|-----|------------|
| A20752 | 3F Linux L 40 LED DALI AS L1778 | 43 | 6957 IP40 6664 IP54 | 4000 | >80 | 1778x62x32 |
| A20751 | 3F Linux L 50 LED DALI AS L1778 | 52 | 8272 IP40 7924 IP54 | 4000 | >80 | 1778x62x32 |
| A20750 | 3F Linux L 60 LED DALI AS L1778 | 62 | 9886 IP40 9469 IP54 | 4000 | >80 | 1778x62x32 |
| A20749 | 3F Linux L 85 LED DALI AS L1778 | 94 | 14130 IP40 13535 IP54 | 4000 | >80 | 1778x62x32 |

3F Linux L BAT



Double asymmetrical distribution.
 Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
 Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

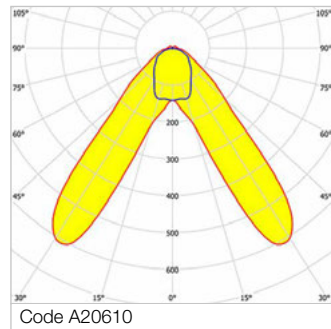
Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-----------------------------|----|------------------------|------|-----|------------|
| A20085 | 3F Linux L 40 LED BAT L1778 | 43 | 6950 IP40 6599 IP54 | 4000 | >80 | 1778x62x32 |
| A20084 | 3F Linux L 50 LED BAT L1778 | 52 | 8264 IP40 7847 IP54 | 4000 | >80 | 1778x62x32 |
| A20083 | 3F Linux L 60 LED BAT L1778 | 62 | 9876 IP40 9378 IP54 | 4000 | >80 | 1778x62x32 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|----------------------------------|----|------------------------|------|-----|------------|
| A20099 | 3F Linux L 40 LED DALI BAT L1778 | 43 | 6950 IP40 6599 IP54 | 4000 | >80 | 1778x62x32 |
| A20098 | 3F Linux L 50 LED DALI BAT L1778 | 52 | 8264 IP40 7847 IP54 | 4000 | >80 | 1778x62x32 |
| A20097 | 3F Linux L 60 LED DALI BAT L1778 | 62 | 9876 IP40 9378 IP54 | 4000 | >80 | 1778x62x32 |

3F Linux L BAT WD



Wide double symmetric distribution.

Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.

Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

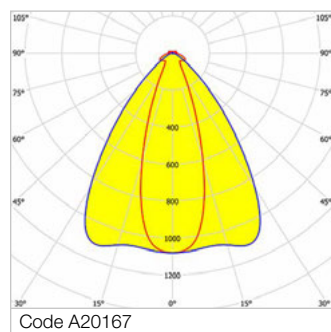
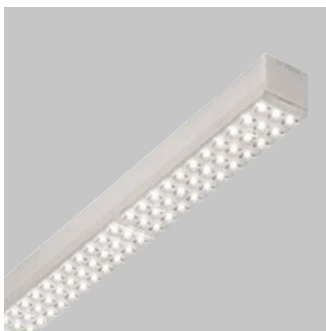
Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|--------------------------------|----|------------------------|------|-----|------------|
| A20610 | 3F Linux L 40 LED BAT WD L1778 | 43 | 6928 IP40 6528 IP54 | 4000 | >80 | 1778x62x32 |
| A20609 | 3F Linux L 50 LED BAT WD L1778 | 52 | 8238 IP40 7762 IP54 | 4000 | >80 | 1778x62x32 |
| A20608 | 3F Linux L 60 LED BAT WD L1778 | 62 | 9845 IP40 9276 IP54 | 4000 | >80 | 1778x62x32 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-------------------------------------|----|------------------------|------|-----|------------|
| A20624 | 3F Linux L 40 LED DALI BAT WD L1778 | 43 | 6928 IP40 6528 IP54 | 4000 | >80 | 1778x62x32 |
| A20623 | 3F Linux L 50 LED DALI BAT WD L1778 | 52 | 8238 IP40 7762 IP54 | 4000 | >80 | 1778x62x32 |
| A20622 | 3F Linux L 60 LED DALI BAT WD L1778 | 62 | 9845 IP40 9276 IP54 | 4000 | >80 | 1778x62x32 |

3F Linux L Concentrated



Concentrated elliptical distribution.

Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.

Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

Recommended minimum installation height: 5 meters from the ground.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

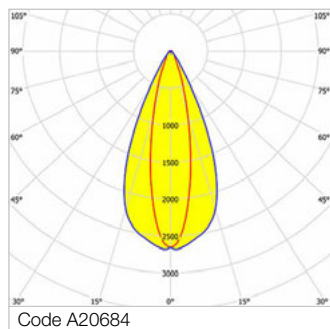
Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|------------------------------|----|--------------------------|------|-----|------------|
| A20167 | 3F Linux L 60 LED CONC L1778 | 62 | 9662 IP40 9154 IP54 | 4000 | >80 | 1778x62x32 |
| A20166 | 3F Linux L 85 LED CONC L1778 | 94 | 13810 IP40 13084 IP54 | 4000 | >80 | 1778x62x32 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-----------------------------------|----|--------------------------|------|-----|------------|
| A20181 | 3F Linux L 60 LED DALI CONC L1778 | 62 | 9662 IP40 9154 IP54 | 4000 | >80 | 1778x62x32 |
| A20180 | 3F Linux L 85 LED DALI CONC L1778 | 94 | 13810 IP40 13084 IP54 | 4000 | >80 | 1778x62x32 |

3F Linux L Iperconcentrated



Symmetrical elliptical hyperconcentrated distribution.
 Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
 Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.
 Recommended minimum installation height: 5 meters from the ground.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|----------------------------------|----|--------------------------|------|-----|------------|
| A20685 | 3F Linux L 60 LED IPERCONC L1778 | 62 | 9418 IP40 8910 IP54 | 4000 | >80 | 1778x62x32 |
| A20684 | 3F Linux L 85 LED IPERCONC L1778 | 94 | 13462 IP40 12736 IP54 | 4000 | >80 | 1778x62x32 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|---------------------------------------|----|--------------------------|------|-----|------------|
| A20699 | 3F Linux L 60 LED DALI IPERCONC L1778 | 62 | 9418 IP40 8910 IP54 | 4000 | >80 | 1778x62x32 |
| A20698 | 3F Linux L 85 LED DALI IPERCONC L1778 | 94 | 13462 IP40 12736 IP54 | 4000 | >80 | 1778x62x32 |



SALDI
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SALE

SCORRETE FINO AL 50%

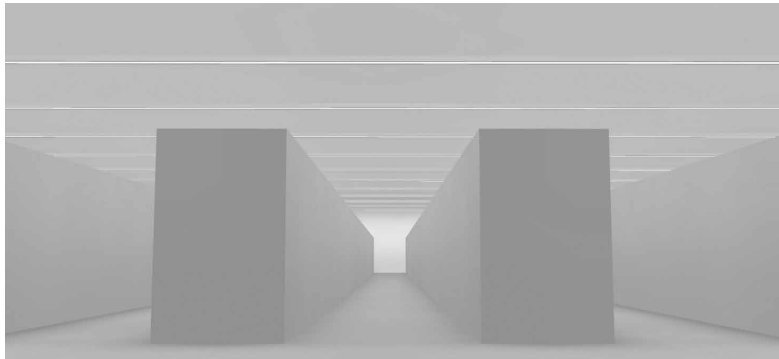
SCORRETE FINO AL 50%

SCORRETE FINO AL 50%

SALE

3F Linux L

Design reference tables - Installation **ACROSS** aisles



Design data:

| | |
|---------------------|---------------------------------------|
| Maintenance factor | K = 0.90 |
| Reflection | ceiling 50% walls 50% floor 40% |
| Shelves | height 2.20 metres reflection 40% |
| Work surface height | 0.85 metres |
| Aisle width | 2 metres |

Luminaire: 3F Linux L 85 AMPIO

| Installation pitch (metres) | Calculation surface | Installation height (metres) | | | | |
|-----------------------------|---------------------|------------------------------|-----------------|-----------------|-----------------|------|
| | | 3 | 3.5 | 4 | 4.5 | 5 |
| 3 | Horizontal aisle | 1601 | 1598 | 1571 | 1561 | 1569 |
| | Vertical shelf | 813 | 802 | 800 | 792 | 798 |
| 3.5 | Horizontal aisle | Not recommended | 1353 | 1348 | 1336 | 1341 |
| | Vertical shelf | Not recommended | 684 | 687 | 679 | 686 |
| 4 | Horizontal aisle | Not recommended | 1181 | 1177 | 1167 | 1172 |
| | Vertical shelf | Not recommended | 599 | 600 | 594 | 598 |
| 4.5 | Horizontal aisle | Not recommended | Not recommended | 1050 | 1042 | 1043 |
| | Vertical shelf | Not recommended | Not recommended | 540 | 529 | 532 |
| 5 | Horizontal aisle | Not recommended | Not recommended | Not recommended | 939 | 937 |
| | Vertical shelf | Not recommended | Not recommended | Not recommended | 481 | 478 |
| 5.5 | Horizontal aisle | Not recommended | Not recommended | Not recommended | Not recommended | 859 |
| | Vertical shelf | Not recommended | Not recommended | Not recommended | Not recommended | 439 |

Luminaire: 3F Linux L 60 AMPIO

| Installation pitch (metres) | Calculation surface | Installation height (metres) | | | | |
|-----------------------------|---------------------|------------------------------|-----------------|-----------------|-----------------|------|
| | | 3 | 3.5 | 4 | 4.5 | 5 |
| 3 | Horizontal aisle | 1196 | 1194 | 1173 | 1166 | 1171 |
| | Vertical shelf | 607 | 599 | 598 | 591 | 596 |
| 3.5 | Horizontal aisle | Not recommended | 1010 | 1007 | 997 | 1002 |
| | Vertical shelf | Not recommended | 511 | 513 | 508 | 512 |
| 4 | Horizontal aisle | Not recommended | 882 | 879 | 871 | 876 |
| | Vertical shelf | Not recommended | 447 | 448 | 443 | 446 |
| 4.5 | Horizontal aisle | Not recommended | Not recommended | 784 | 778 | 779 |
| | Vertical shelf | Not recommended | Not recommended | 403 | 395 | 398 |
| 5 | Horizontal aisle | Not recommended | Not recommended | Not recommended | 702 | 700 |
| | Vertical shelf | Not recommended | Not recommended | Not recommended | 359 | 357 |
| 5.5 | Horizontal aisle | Not recommended | Not recommended | Not recommended | Not recommended | 641 |
| | Vertical shelf | Not recommended | Not recommended | Not recommended | Not recommended | 328 |

Luminaire: 3F Linux L 50 AMPIO

| Installation pitch (metres) | Surface surface | Installation height (metres) | | | | |
|-----------------------------|------------------|------------------------------|-----------------|-----------------|-----------------|-----|
| | | 3 | 3.5 | 4 | 4.5 | 5 |
| 3 | Horizontal aisle | 1014 | 1012 | 995 | 989 | 993 |
| | Vertical shelf | 515 | 508 | 507 | 501 | 506 |
| 3.5 | Horizontal aisle | Not recommended | 856 | 854 | 846 | 849 |
| | Vertical shelf | Not recommended | 434 | 435 | 430 | 435 |
| 4 | Horizontal aisle | Not recommended | 748 | 745 | 739 | 743 |
| | Vertical shelf | Not recommended | 379 | 381 | 376 | 378 |
| 4.5 | Horizontal aisle | Not recommended | Not recommended | 666 | 660 | 660 |
| | Vertical shelf | Not recommended | Not recommended | 341 | 335 | 337 |
| 5 | Horizontal aisle | Not recommended | Not recommended | Not recommended | 595 | 594 |
| | Vertical shelf | Not recommended | Not recommended | Not recommended | 305 | 303 |
| 5.5 | Horizontal aisle | Not recommended | Not recommended | Not recommended | Not recommended | 544 |
| | Vertical shelf | Not recommended | Not recommended | Not recommended | Not recommended | 278 |

Luminaire: 3F Linux L 40 AMPIO

| Installation pitch (metres) | Surface surface | Installation height (metres) | | | | |
|-----------------------------|------------------|------------------------------|-----------------|-----------------|-----------------|-----|
| | | 3 | 3.5 | 4 | 4.5 | 5 |
| 3 | Horizontal aisle | 854 | 852 | 838 | 833 | 836 |
| | Vertical shelf | 434 | 428 | 427 | 423 | 425 |
| 3.5 | Horizontal aisle | Not recommended | 722 | 719 | 712 | 716 |
| | Vertical shelf | Not recommended | 365 | 367 | 363 | 366 |
| 4 | Horizontal aisle | Not recommended | 630 | 628 | 622 | 625 |
| | Vertical shelf | Not recommended | 319 | 320 | 317 | 319 |
| 4.5 | Horizontal aisle | Not recommended | Not recommended | 561 | 555 | 557 |
| | Vertical shelf | Not recommended | Not recommended | 287 | 282 | 284 |
| 5 | Horizontal aisle | Not recommended | Not recommended | Not recommended | 501 | 499 |
| | Vertical shelf | Not recommended | Not recommended | Not recommended | 257 | 255 |
| 5.5 | Horizontal aisle | Not recommended | Not recommended | Not recommended | Not recommended | 458 |
| | Vertical shelf | Not recommended | Not recommended | Not recommended | Not recommended | 234 |

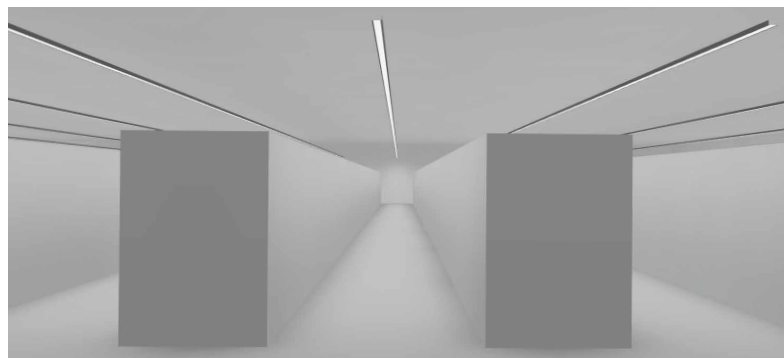
Notes:

The values in the tables are given in lux (lx).

■ Wide distrib.

■ Not recommended

Design reference tables - Installation **ALONG** aisles Up to 5 metres height



Design data:

| | |
|---------------------|---------------------------------------|
| Maintenance factor | K = 0.90 |
| Reflection | ceiling 50% walls 50% floor 40% |
| Shelves | height 2.20 metres reflection 40% |
| Work surface height | 0.85 metres |
| Aisle width | 2 metres |

Luminaire: **3F Linux L AMPIO**

| Luminaire power | Calculation surface | Installation height (metres) | | | | |
|-----------------|---------------------|------------------------------|------|------|------|------|
| | | 3 | 3.25 | 3.5 | 3.75 | 4 |
| 85 AMPIO | Horizontal aisle | 1946 | 1728 | 1604 | 1483 | 1416 |
| | Vertical shelf | 1161 | 1064 | 947 | 855 | 782 |
| 60 AMPIO | Horizontal aisle | 1453 | 1290 | 1198 | 1108 | 1058 |
| | Vertical shelf | 867 | 795 | 707 | 639 | 584 |
| 50 AMPIO | Horizontal aisle | 1233 | 1094 | 1015 | 939 | 897 |
| | Vertical shelf | 736 | 674 | 600 | 542 | 495 |
| 40 AMPIO | Horizontal aisle | 1038 | 921 | 855 | 791 | 756 |
| | Vertical shelf | 619 | 568 | 505 | 457 | 418 |

Luminaire: **3F Linux L MEDIUM**

| Luminaire power | Calculation surface | Installation height (metres) | | | | |
|-----------------|---------------------|------------------------------|------|------|------|------|
| | | 3 | 3.25 | 3.5 | 3.75 | 4 |
| 85 MEDIUM | Horizontal aisle | 2513 | 2331 | 2170 | 2032 | 1918 |
| | Vertical shelf | 1050 | 1060 | 1034 | 988 | 934 |
| 60 MEDIUM | Horizontal aisle | 1877 | 1741 | 1621 | 1518 | 1432 |
| | Vertical shelf | 784 | 792 | 772 | 738 | 697 |
| 50 MEDIUM | Horizontal aisle | 1592 | 1477 | 1375 | 1287 | 1215 |
| | Vertical shelf | 666 | 672 | 654 | 625 | 591 |
| 40 MEDIUM | Horizontal aisle | 1341 | 1243 | 1158 | 1084 | 1023 |
| | Vertical shelf | 561 | 566 | 551 | 527 | 498 |

Luminaire: **3F Linux L BAT**

| Luminaire power | Calculation surface | Installation height (metres) | | | | |
|-----------------|---------------------|------------------------------|------|------|------|-----|
| | | 3 | 3.25 | 3.5 | 3.75 | 4 |
| 60 BAT | Horizontal aisle | 1408 | 1251 | 1116 | 995 | 923 |
| | Vertical shelf | 890 | 863 | 825 | 792 | 740 |
| 50 BAT | Horizontal aisle | 1194 | 1061 | 947 | 844 | 783 |
| | Vertical shelf | 755 | 731 | 700 | 672 | 628 |
| 40 BAT | Horizontal aisle | 1005 | 894 | 797 | 711 | 659 |
| | Vertical shelf | 636 | 616 | 589 | 566 | 529 |

Luminaire: **3F Linux BAT WD**

| Luminaire power | Calculation surface | Installation height (metres) | | | | |
|-----------------|---------------------|------------------------------|------|-----|------|-----|
| | | 3 | 3.25 | 3.5 | 3.75 | 4 |
| 60 BAT WD | Horizontal aisle | 1073 | 915 | 803 | 699 | 616 |
| | Vertical shelf | 1028 | 969 | 869 | 763 | 655 |
| 50 BAT WD | Horizontal aisle | 909 | 776 | 682 | 593 | 523 |
| | Vertical shelf | 872 | 822 | 737 | 648 | 555 |
| 40 BAT WD | Horizontal aisle | 766 | 653 | 573 | 499 | 440 |
| | Vertical shelf | 735 | 692 | 621 | 545 | 467 |

Notes:

The values in the tables are given in lux (lx).

Design reference tables - Installation **ALONG** aisles Over 5 metres height

Design data:

| | | | | | |
|-------------------|-----|----------------|------------------------------|----------------------------|-------------|
| Reflection | | Shelves | | Work surface height | 0.85 metres |
| ceiling | 50% | height | 4.5 / 5.5 / 6.5 / 7.5 metres | Aisle width | 2 metres |
| walls | 50% | reflection | 40% | | |
| floor | 40% | | | | |

Luminaire: **3F Linux L CONC**

| Luminaire power | Calculation surface | Installation height (metres) | | | |
|-----------------|---------------------|------------------------------|------|------|------|
| | | 5 | 6 | 7 | 8 |
| 85 CONC | Horizontal aisle | 2106 | 1830 | 1595 | 1403 |
| | Vertical shelf | 541 | 506 | 473 | 439 |
| 60 CONC | Horizontal aisle | 1573 | 1366 | 1191 | 1048 |
| | Vertical shelf | 404 | 377 | 353 | 328 |



3F Linux D | Light modules

Construction characteristics

Illuminotechnical characteristics

Diffused symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Light unit in hot-galvanized steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
 Curved screen in self-extinguishing polycarbonate, UV stabilized, opal, with smooth outer surface.

Electrical characteristics

Connection to the structure with mobile plug with phase selection (H05Z-U Halogen Free cable section 0,5 mm² HT90).

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- asymmetric lighting distribution
- different powers
- LED sources with different colour temperatures
- maintained emergency
- housing in different RAL colours
- wiring: CLO (more information on page 542)

Applications

Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops, schools.

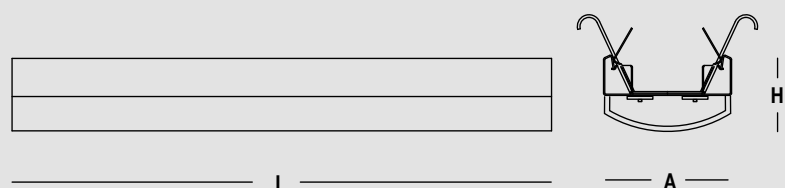
Installation

This lighting unit can be installed only on profile 3F Linux S | IP40 (see dedicated product pages).

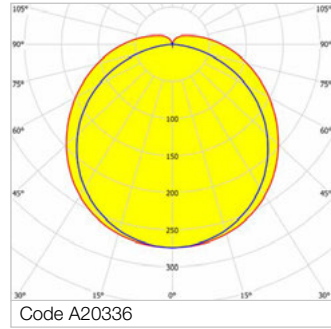
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Linux D



850°C

IP40

1J

IK06

Driver/LED
SELV

Diffuse distribution.
Structure height (3F Linux S + 3F Linux D) equal to 81 mm.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|---------------------------|----|------|------|-----|------------|
| A20336 | 3F Linux D 2x22 LED L1778 | 49 | 6236 | 4000 | >80 | 1778x62x47 |
| A20335 | 3F Linux D 2x30 LED L1778 | 70 | 7835 | 4000 | >80 | 1778x62x47 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|--------------------------------|----|------|------|-----|------------|
| A20350 | 3F Linux D 2x22 LED DALI L1778 | 49 | 6236 | 4000 | >80 | 1778x62x47 |
| A20349 | 3F Linux D 2x30 LED DALI L1778 | 70 | 7835 | 4000 | >80 | 1778x62x47 |



3F Linux DR | Light modules

Construction characteristics

Illuminotechnical characteristics

Direct distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Light unit in hot-galvanized steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.

Rectangular screen in self-extinguishing polycarbonate, UV stabilized, with smooth outer surface.

Electrical characteristics

Connection to the structure with mobile

plug with phase selection (H05Z-U

Halogen Free cable section 0,5 mm² HT90).

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- maintained emergency
- housing in different RAL colours
- wiring: CLO (more information on page 542)

Applications

Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops, schools.

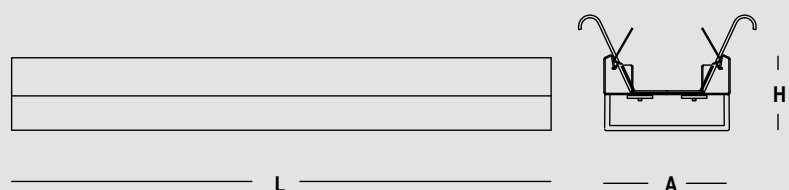
Installation

This lighting unit can be installed only on profile 3F Linux S | IP40 (see dedicated product pages).

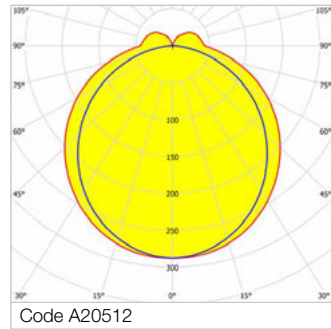
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Linux DR



850°C

IP40

1J

IK06

Driver/LED
SELV

Diffused symmetric distribution.
Rectangular opal polycarbonate diffuser.
Structure height (3F Linux S + 3F Linux DR) equal to 81 mm.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

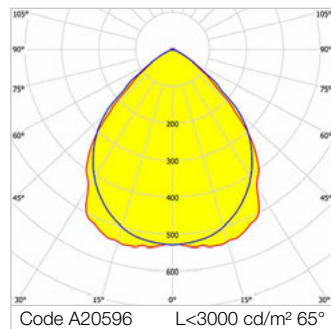
Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|----------------------------|----|------|------|-----|------------|
| A20512 | 3F Linux DR 2x22 LED L1778 | 49 | 6253 | 4000 | >80 | 1778x62x47 |
| A20511 | 3F Linux DR 2x30 LED L1778 | 70 | 7856 | 4000 | >80 | 1778x62x47 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|---------------------------------|----|------|------|-----|------------|
| A20526 | 3F Linux DR 2x22 LED DALI L1778 | 49 | 6253 | 4000 | >80 | 1778x62x47 |
| A20525 | 3F Linux DR 2x30 LED DALI L1778 | 70 | 7856 | 4000 | >80 | 1778x62x47 |

3F Linux DR UGR



850°C

IP40

1J

IK06

Driver/LED
SELV

Controlled symmetric distribution.
1x30 - Average luminance <1500 cd/m² for radial angles >65°.
2x22 - Average luminance <3000 cd/m² for radial angles >65°.
Rectangular transparent polycarbonate diffuser.
Semi-specular aluminium internal louvre with prismatic methacrylate filter above the louvre blades for complete shielding of the louvre compartment.
Structure height (3F Linux S + 3F Linux DR) equal to 81 mm.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

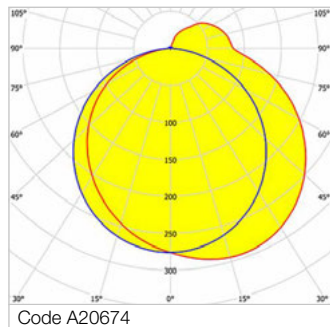
Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|--------------------------------|----|------|------|-----|------------|
| A20595 | 3F Linux DR 1x30 LED UGR L1778 | 35 | 3487 | 4000 | >80 | 1778x62x47 |
| A20596 | 3F Linux DR 2x22 LED UGR L1778 | 49 | 5361 | 4000 | >80 | 1778x62x47 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-------------------------------------|----|------|------|-----|------------|
| A20599 | 3F Linux DR 1x30 LED DALI UGR L1778 | 35 | 3487 | 4000 | >80 | 1778x62x47 |
| A20600 | 3F Linux DR 2x22 LED DALI UGR L1778 | 49 | 5361 | 4000 | >80 | 1778x62x47 |

3F Linux DR AS



Asymmetric distribution.
 Rectangular opal polycarbonate diffuser.
 Internal flow recuperator in white steel.
 Structure height (3F Linux S + 3F Linux DR) equal to 81 mm.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|-------------------------------|----|------|------|-----|------------|
| A20674 | 3F Linux DR 2x30 LED AS L1778 | 70 | 6403 | 4000 | >80 | 1778x62x47 |
|--------|-------------------------------|----|------|------|-----|------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|--------|------------------------------------|----|------|------|-----|------------|
| A20679 | 3F Linux DR 2x30 LED DALI AS L1778 | 70 | 6403 | 4000 | >80 | 1778x62x47 |
|--------|------------------------------------|----|------|------|-----|------------|





3F Linux Track

Construction characteristics

Mechanical characteristics

Light unit in hot-galvanized steel with white polyester powder coating, with retractable fastening clips and stainless steel safety hooks.

Electrified busbar made from extruded white aluminium, Eurostandard Plus compliant.

The wires are enclosed in rigid extruded profiles made of PVC insulating material with high dielectric strength.

Length of the electrified busbar: 1500 mm.

Electrical characteristics

Connection to the structure with mobile 7-pin plug with phase selection (H05Z-U Halogen Free cable section 0.5 mm² HT90).
(L1/L2/L3/N/GRD/DA/DA) 16A/440V
2x1A/50V FELV AC (DALI).
Copper conductors.

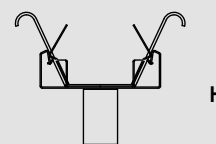
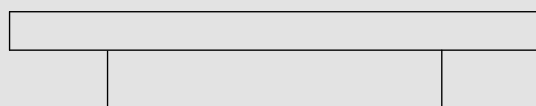
On request

- black electrified busbar

Installation

This unit can be installed only on profile 3F Linux S (see dedicated product pages).

Dimensions



3F Linux Track



960°C

IP20

Eurostandard Plus 6-conductor (plus earth) busbar (L1/L2/L3/N/GRD/DA/DA) 16A/440V with power supply cap and closing cap.

| Code | Item | Dimensions L x A x H |
|--------|-------------------|-------------------------|
| A20424 | 3F Linux TK L1778 | 1778x62x57 |

3F Linux Accessories



Free-position invisible sliding bracket with regulator in stainless steel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|--------|--|
| A20450 | Sliding bracket with regulator for suspension installation |

The suspension cable must be made of galvanized steel with 49 elementary wires of minimum 1.5 mm diameter (for a weight of 15 kg) and 2 mm (for a weight of 25 kg).



Free-position sliding bracket in stainless steel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|--------|--|
| A20451 | Sliding bracket for ceiling installation |



Free-position sliding bracket in stainless steel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|--------|---|
| A20453 | S-shaped chain hook with sliding bracket 3F Linux |

Supplied with S-hook for galvanized steel chain.



Safety screw for locking the sliding bracket, made of hot galvanized steel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|--------|--|
| A20474 | Safety screw for locking the sliding bracket |

These accessories must ALWAYS be used with one of the following codes: A20450 - A20451 - A20453.



Hook to suspended luminaires to a chain.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|--------|--------------------------------|
| A20452 | Stainless steel hook for chain |

These accessories must ALWAYS be used with one of the following codes: A20451.



Suspension without controller, galvanized steel cable 1.5 mm diameter, load 15 kg.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|--------|---|
| A20485 | Susp. without adjustment for Linux/HD - 0,5 m |
| A20486 | Susp. without adjustment for Linux/HD - 1 m |
| A20487 | Susp. without adjustment for Linux/HD - 2 m |
| A20488 | Susp. without adjustment for Linux/HD - 3 m |
| A20489 | Susp. without adjustment for Linux/HD - 4 m |
| A20490 | Susp. without adjustment for Linux/HD - 5 m |
| A20491 | Susp. without adjustment for Linux/HD - 6 m |

In the case of purchase of only one sliding bracket with controller (code A20450), the suspension cable must be made of galvanized steel with 49 elementary wires of minimum 1.5 mm diameter (for a weight of 15 kg).



Caddy hook to create a point from which to suspend the system or the loads to false ceilings with visible profiles.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|--------|-------------------------------------|
| A02562 | Caddy for exposed profiles of 24 mm |

To be installed on exposed profiles (width 24 mm) of false ceilings. We recommend reinforcing the false-ceiling fixing at the point where the Caddy is to be installed. Supplied complete with nut and washer. The suspension must be purchased separately. These accessories must ALWAYS be used with one of the following codes: A20485 - A20486 - A20487 - A20488 - A20489 - A20490 - A20491.



Galvanized steel cable, diameter 1.5 mm, composed of 49 wires. 15 kg capacity (ratio 5:1).

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|-------|---|
| A0716 | Coil galvanized cable diam. 1.5mm - 100m The pack contains 100 metres. |
| A0717 | Coil galvanized cable diam. 1.5mm - 500m The pack contains 500 metres. |
| A0718 | Coil galvanized cable diam. 1.5mm - 1000m The pack contains 1000 metres. |

These accessories must ALWAYS be used with one of the following codes: A20450, (A20452+A0714) o (A20451+A0659).



Clamp in nickel-plated brass suitable for fixing and adjustment of galvanized steel wire (diameter 1,25 mm - 1,5 mm - 2 mm), complete with locking screws. The 2 hole clamp allows to block and adjust the cable on a bearing element (part of the building) or on rounded eye bolt.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|-------|--|
| A0714 | Clamp 2 holes - 100 pcs The pack contains 100 pieces. |



Clamp suitable for fixing and adjustment of galvanized steel wire (diameter 1.5 mm), with quick adjustment through unlock buttons. The clamp with 2 holes allow to fix and adjust the cable on the carrier structural element (belonging to the building) or with eye screw fixing.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|-------|---|
| A0659 | Adjustable clamp 2 holes - 10 pcs The pack contains 10 pieces. |

This accessory can be used with one of the following codes: A20451 - A0716 - A0717 - A0718.



Element to connect in hot-galvanized steel.

Accessory compatible with 3F Linux S | IP40.

| Code | Item |
|--------|--|
| A20433 | Linear connecting element for 3F Linux |



T-shaped connecting element in hot-galvanized steel.

Accessory compatible with 3F Linux S | IP40.

| Code | Item |
|--------|-----------------------------------|
| A20434 | T-Connecting element for 3F Linux |



L-shaped connecting element in hot-galvanized steel.

Accessory compatible with 3F Linux S | IP40.

| Code | Item |
|--------|---------------------------------|
| A20436 | L-Connecting element 3F L Linux |



Pair of closing end 3F Linux S, made of white polycarbonate.

Accessory compatible with 3F Linux S | IP40.

| Code | Item |
|--------|------------------------------|
| A20448 | Pair of closing end 3F Linux |

850°C



Safety bracket in white painted steel to secure lighting elements if installed vertically.

Accessory compatible with 3F Linux S | IP40.

| Code | Item |
|--------|---|
| A20478 | Anti-slip terminal for inclined 3F Linux installation |

This accessory must always be used in combination with end terminals.



High closing top, with a length of 1778 mm that can be cut to 889 mm, made of impact-resistant white PVC.

Accessory compatible with 3F Linux S | IP40.

| Code | Item |
|--------|--------------------------|
| A20442 | Closing Top HIGH - L1778 |

650°C



IP54 high closing top, with a length of 1778 mm that can be cut to 889 mm, made of impact-resistant white PVC.

Accessory compatible with 3F Linux S | IP54.

| Code | Item |
|--------|--------------------------|
| A20743 | Closing Top IP54 - L1778 |

650°C



Cuttable low closing top, with a length of 1778 mm that can be cut, made of impact-resistant white PVC.

Accessory compatible ONLY with 3F Linux S-NL | IP40.

| Code | Item |
|--------|-------------------------|
| A20428 | Closing Top LOW - L1778 |

650°C



Electric cable support. One every 50 cm is recommended. Made of polycarbonate.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

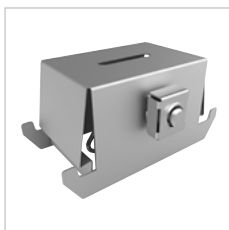
| Code | Item |
|--------|---|
| A20475 | 3F Linux Cable Support (10 pcs) The pack contains 10 pieces. |



Brackets for the installation of luminaires on 3F Linux S and S-NL bars (check the compatibility with our technical departments). Made of hot galvanized steel.

Accessory compatible with 3F Linux S | IP40.

| Code | Item |
|--------|---|
| A20470 | Pair of mounting brackets 3F devices on Linux S |



Brackets for installation of 3F Linda luminaires on 3F Linux S structures. Made from hot-galvanized steel.

Accessory compatible with 3F Linux S | IP40.

| Code | Item |
|--------|---|
| A20498 | Couple of brackets for 3F Linda installation - 3F Linux S |



Closing end 3F Linux S IP54, made of white polycarbonate.

Accessory compatible with 3F Linux S | IP54.

| Code | Item |
|--------|----------------------------|
| A20740 | IP54 3F Linux end terminal |



IP54 end terminal with a power-supply line entry hole.

Accessory compatible with 3F Linux S | IP54.

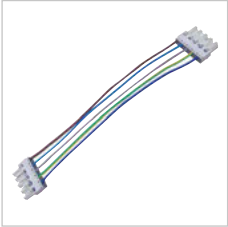
| Code | Item |
|--------|--|
| A20741 | IP54 3F Linux end terminal with 1 hole |



IP54 end terminal with two power-supply line entry holes.

Accessory compatible with 3F Linux S | IP54.

| Code | Item |
|--------|---|
| A20742 | IP54 3F Linux end terminal with 2 holes |

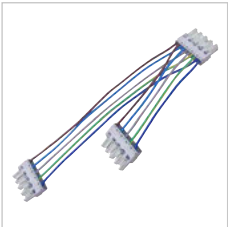


Electric branch with plug-socket to realize L-shaped connections.

Accessory compatible with 3F Linux S | IP40.

| Code | Item |
|--------|---|
| A20459 | 5-poles socket-pin branch (L-shaped) 3F Linux S |
| A20460 | 7-poles socket-pin branch (L-shaped) 3F Linux S |

These accessories must always be used in conjunction with L connecting elements. **Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).**



Electric branch with plug-socket to realize T-shaped connections.

Accessory compatible with 3F Linux S | IP40.

| Code | Item |
|--------|---|
| A20464 | 5-poles socket-pin branch (T-shaped) 3F Linux S |
| A20465 | 7-poles socket-pin branch (T-shaped) 3F Linux S |

These accessories must always be used in conjunction with T connecting elements. **Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).**



Quick connection non-reversible plug-socket terminal block, for connection to the power line at the start or end of the channel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|--------|--|
| A20454 | 5-poles socket-pin terminal block 3F Linux S |
| A20455 | 7-poles socket-pin terminal block 3F Linux S |

Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).



Quick connection non-reversible plug-socket terminal block, for connection to the power line at the centre of the channel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|--------|--|
| A20500 | Central feeding 5-poles socket-pin terminal block 3F Linux S |
| A20501 | Central feeding 7-poles socket-pin terminal block 3F Linux S |

Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).



Connection to the earth, by means of galvanized M5 screw and nut, for Ø 6 mm hole at the end of every structure.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|-------|-------------------------|
| A0490 | Connection to the earth |



Power cable for luminaires not part of the 3F Linux system.

Accessory compatible with 3F Linux S | IP40.

| Code | Item |
|--------|------------------------------------|
| A20479 | Power cable for luminaires, 3-pole |
| A20480 | Power cable for luminaires, 5-pole |

Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).



Extension cord to connect some light modules interspersed with blind covers with a length of 889 mm (contact our technical department).

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

| Code | Item |
|-------|---|
| A0801 | Electric extension with 3F Linux plug DALI-EP |
| A0802 | Electric extension with 3F Linux plug |

Attention: the code A0801 is supplied with a 5-pole electric line, while the code A0802 is supplied with a 3-pole electric line.



Additional contact for light unit plug.

Accessory compatible with 3F Linux S | IP40, 3F Linux L | Light modules, 3F Linux D | Light modules, 3F Linux DR | Light modules, 3F Linux Track.

| Code | Item |
|--------|--|
| A20476 | Single contact pin The pack contains 50 pieces. |

Accessory not compatible with 3F Linux S-NL (cod.: A20011, A20012).

3F Emilio



Accent lighting at its best



Systems and
track-mounted products

3F Emilio is the new high-end LED spotlight designed by Belgian designers Serge and Robert Cornelissen.

The new lighting body has been designed to obtain the best energy and lighting performance in various contexts.

In order to obtain excellent thermal efficiency with a high size to luminous flux ratio, the body of the spotlight has inner fins, while the outside is smooth to facilitate cleaning.

The 3F Filippi technology used in this system also allows effective control of luminance, without affecting the optical performance and visual comfort.

Its simple and refined lines, which alongside its reduced size represent an additional advantage, makes 3F Emilio the most suitable solution for numerous environments, from retail to contract.

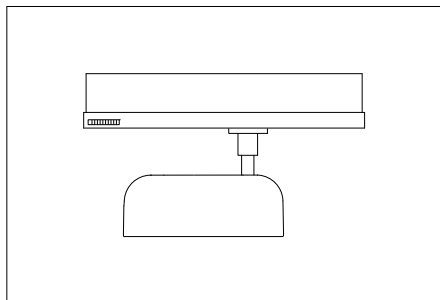
3F Emilio

Product range

3F Emilio is available in the following versions:

3F Emilio Track

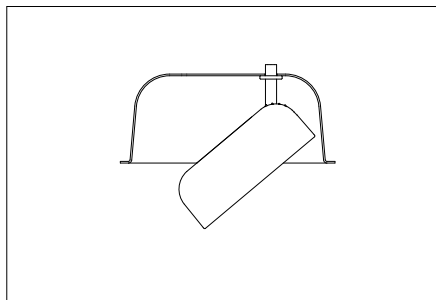
For "Binario 3F" three-phase busbars



3F Emilio R

for recessed installation

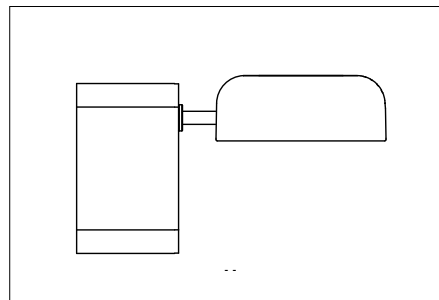
This product is available in the "Surface luminaires and suspensions" section.



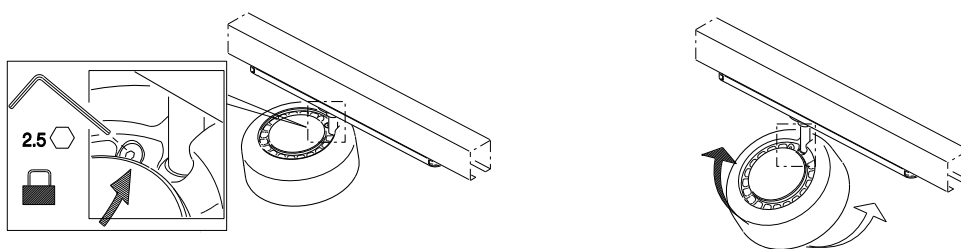
3F Emilio Wall

For ceiling or wall installation

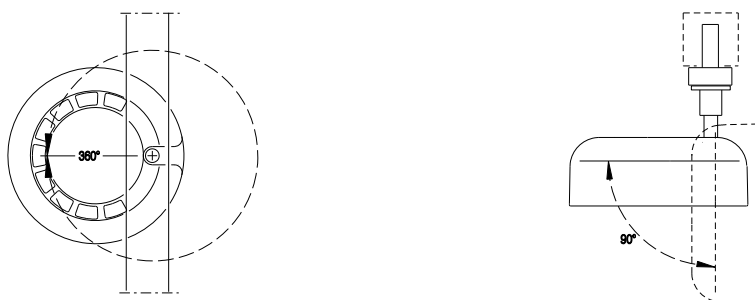
This product is available in the "Surface luminaires and suspensions" section.



Thanks to the **FastFix** system, the time necessary to create a lighting channel is reduced:



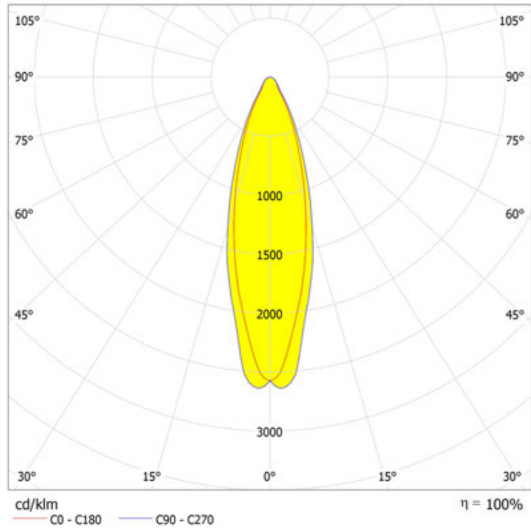
Just release the screw on the rear of the housing, point 3F Emilio in the desired direction, and tighten the screw again.



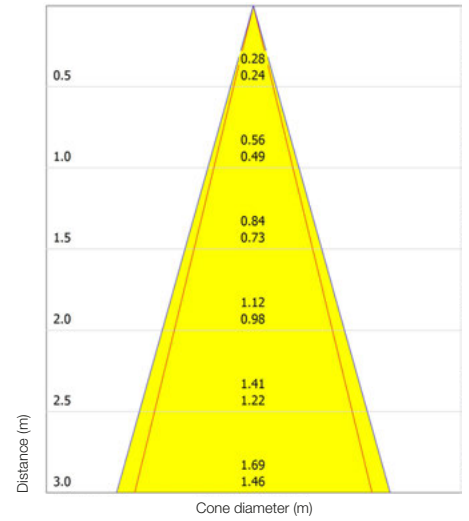
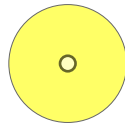
The body can rotate by 360° for 3F Emilio Track, while for other applications it can rotate by 290° on the arm axis and 90° with respect to the horizontal plane.

Photometric distributions

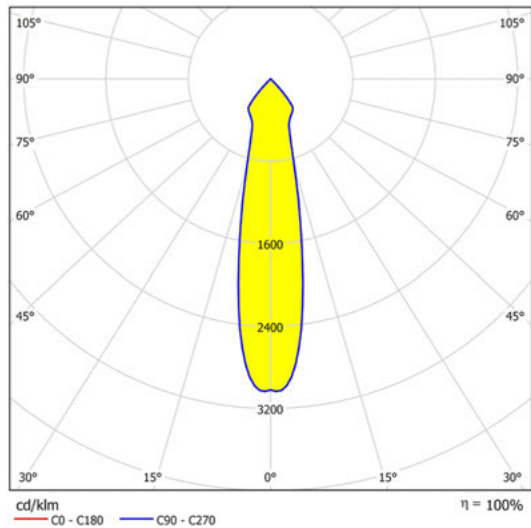
SPOT DISTRIBUTION Recommended for highlighting and enhancing individual products



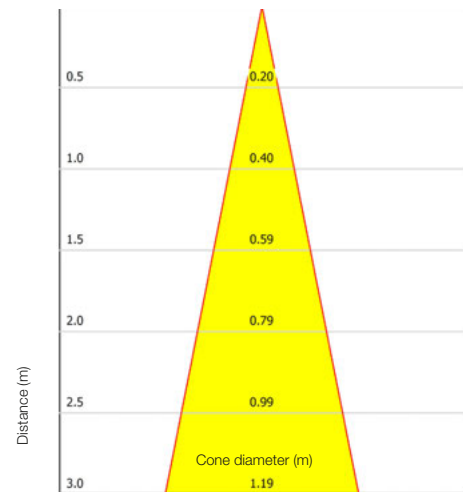
Circular ground projection



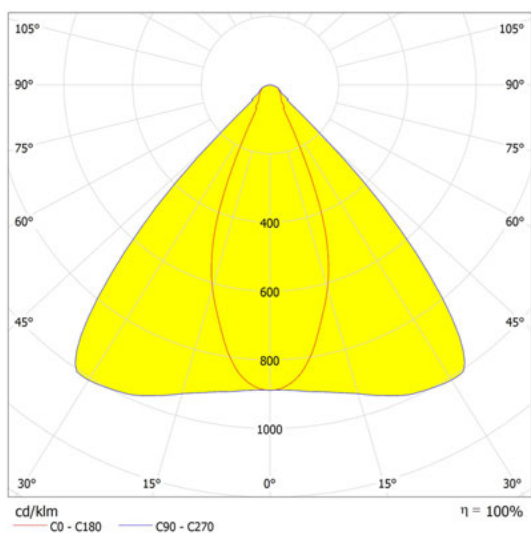
HYPER CONCENTRATED DISTRIBUTION Recommended to accentuate the spot effect or in the event of the fixture being positioned at a distance.



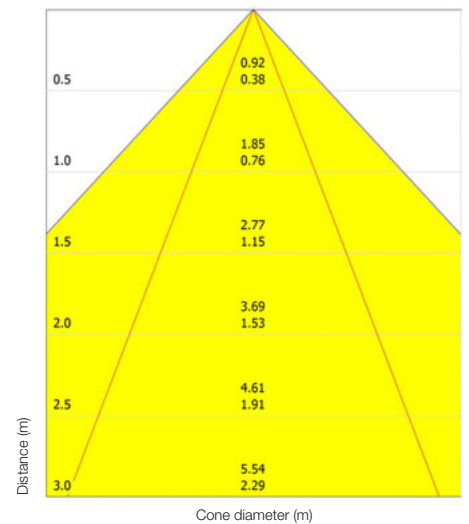
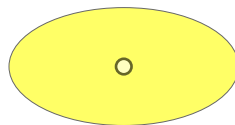
HYPER CONCENTRATED ground projection



ELLIPTICAL DISTRIBUTION Recommended for product counters and shelves with wide spacing



Elliptical ground projection



3F Emilio

Different accents to create your light

3F Emilio is the new LED spotlight with a simple and refined design which, thanks to its high efficiency, represents the ideal solution for emphasising products in points of sale, even those of significant size.

The following versions of LED sources are available:

- Warm white (2700K).
- White (3000K).
- Neutral white (4000K).
- Meat (specific version for lighting meat).
- Crisp (specific version for clothing and perfumes).
- Bread (specific version for lighting bread).
- High colour rendering index (CRI) on request.

Here is a brief guide for choosing the correct colour temperature version:

| | /840 | /830 | /827 | /940 | /930 | /MEAT | /BREAD | /CRISP |
|--------------------------|------|------|------|------|------|-------|--------|--------|
| General | • | | | | | | | |
| Fish/seafood | • | | | • | | | | |
| Wine | | • | • | | • | | | |
| Fruit/veg | | • | | | • | | | |
| Cheese/dairy | | • | • | | • | | | |
| Meat | | | | | | • | | |
| Deli | | • | | | • | • | | |
| Bread/baked goods | | | • | | | | • | |
| Clothing | | | | • | • | | | • |
| Chicken/roisserie | | • | | | • | • | | |
| Pastries | | | • | | | | • | |
| Perfumes | • | | | • | | | | • |
| Flowers/plants | | • | | • | • | | | |

These are just provided as design tips and are not intended to replace personal taste or the choices of individual lighting designers, rather they are meant only as a quick consultation tool.

Boulangerie Michel d'Ohain

BY FOODIE'S MARKET



Small bread labels

FORWARD
Pâtisserie artisanale portugaise depuis 1962
Véritable recette du Pastel de Nata
Pâte feuilletée entièrement faite à la main
Certifié Artisanal
En collaboration avec

Les Sandwichs de l'Ohain
Les Sandwichs de l'Ohain
C'est le meilleur sandwich que vous n'avez jamais goûté.
C'est un sandwich artisanal fait à la main.
C'est un sandwich qui vous fait découvrir une nouvelle saveur.
C'est un sandwich qui vous fait découvrir un nouveau monde.
C'est un sandwich qui vous fait découvrir un nouveau plaisir.
C'est un sandwich qui vous fait découvrir un nouveau bonheur.





3F Emilio Track

Construction characteristics

Illuminotechnical characteristics

Symmetrical (TK), elliptical (TK ELL) and hyperconcentrated (TK IPER) spot distribution.

Lifetime (L90/B20): 30000 h. (tq+25°C)

Lifetime (L80/B20): 50000 h. (tq+25°C)

Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Wired unit in polycarbonate with busbar adaptor.

Single-piece in die-cast aluminium with passive dissipation with perimeter cooling slots on upper edge, giving a crown of light effect to the fitting.

Invisible lock for positioning the luminous flux.

Lens made from transparent PMMA methacrylate with glossy surface and differentiated photo-etched.

Positioning arm in galvanized brass with sphere to allow for vertical positioning at angles from 0° to 90° and horizontal positioning from 0° to 360°.

Electrical characteristics

Wiring unit separate from the body, invisible and integrated into the busbar. Class II.

Source characteristics

- Compact LED module.
- Compact LED modules, /MEAT (version for meats), /BREAD (version for bakery) / CRISP (version for wardrobe with white enhancement).
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- housing in different RAL colours

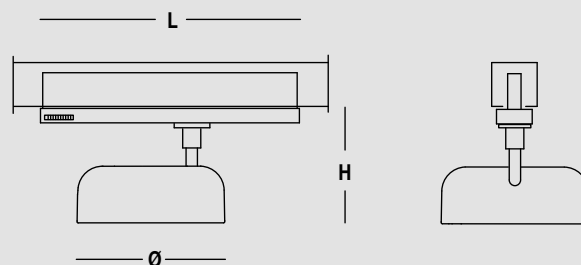
Applications

Environments: commercial, museums, shops.

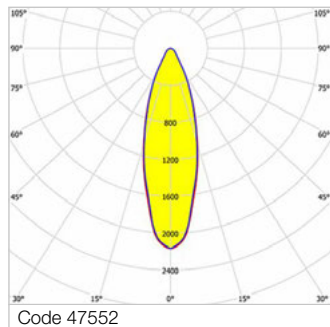
Installation

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 376).

Dimensions



3F Emilio Track Spot



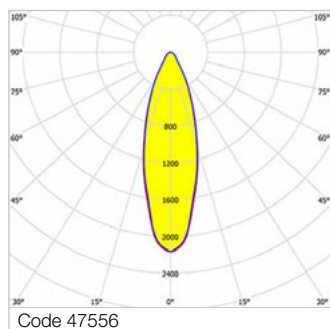
Spot lens.
Body and wired unit in polycarbonate with busbar adaptor.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x L x H |
|------|------|------------|--------------------|------------------|---------|-----|----------------------|
|------|------|------------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | | |
|---|-------|------------------------------|-----|------|------|------|-----|-------------|
| ○ | 47551 | 3F Emilio TK LED 3000/840 | 29° | 28.7 | 3067 | 4000 | >80 | 130x230x105 |
| ○ | 47562 | 3F Emilio TK LED 2000/930 | 29° | 29.1 | 2462 | 3000 | >90 | 130x230x105 |
| ○ | 47555 | 3F Emilio TK LED 3000/830 | 29° | 30.9 | 3106 | 3000 | >80 | 130x230x105 |
| ○ | 47559 | 3F Emilio TK LED 3000/827 | 29° | 33.8 | 3142 | 2700 | >80 | 130x230x105 |
| ○ | 47552 | 3F Emilio TK LED 4000/840 | 31° | 34.1 | 3961 | 4000 | >80 | 130x230x105 |
| ○ | 47566 | 3F Emilio TK LED 4000/830 | 31° | 34.1 | 3807 | 3000 | >80 | 130x230x105 |
| ○ | 47561 | 3F Emilio TK LED 3000/940 | 29° | 36.1 | 3137 | 4000 | >90 | 130x230x105 |
| ○ | 47563 | 3F Emilio TK LED 3000/930 | 29° | 36.1 | 2868 | 3000 | >90 | 130x230x105 |
| ● | 47576 | 3F Emilio TK BK LED 3000/840 | 29° | 28.7 | 2822 | 4000 | >80 | 130x230x105 |
| ● | 47587 | 3F Emilio TK BK LED 2000/930 | 29° | 29.1 | 2266 | 3000 | >90 | 130x230x105 |
| ● | 47580 | 3F Emilio TK BK LED 3000/830 | 29° | 30.9 | 2858 | 3000 | >80 | 130x230x105 |
| ● | 47591 | 3F Emilio TK BK LED 4000/830 | 31° | 34.1 | 3502 | 3000 | >80 | 130x230x105 |
| ● | 47584 | 3F Emilio TK BK LED 3000/827 | 29° | 33.8 | 2891 | 2700 | >80 | 130x230x105 |
| ● | 47577 | 3F Emilio TK BK LED 4000/840 | 31° | 34.1 | 3644 | 4000 | >80 | 130x230x105 |
| ● | 47588 | 3F Emilio TK BK LED 3000/930 | 29° | 36.1 | 2639 | 3000 | >90 | 130x230x105 |
| ● | 47586 | 3F Emilio TK BK LED 3000/940 | 29° | 36.1 | 2887 | 4000 | >90 | 130x230x105 |

3F Emilio Track Spot - Meat/Bread/Crisp



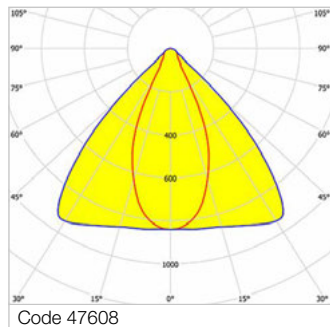
Spot lens.
Meat - Specific source to light up meat and cold cuts.
Bread - Specific source to light up bread.
Crisp - specific source for illuminating textile products and enhancing white colours.
Body and wired unit in polycarbonate with busbar adaptor.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x L x H |
|------|------|------------|--------------------|------------------|---------|-----|----------------------|
|------|------|------------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | | |
|---|-------|--------------------------------|-----|------|------|------|-----|-------------|
| ○ | 47556 | 3F Emilio TK LED 2000/MEAT | 31° | 32.2 | 2147 | 3000 | 87 | 130x230x105 |
| ○ | 47574 | 3F Emilio TK LED 2500/CRISP | 31° | 32.7 | 2433 | 3000 | 92 | 130x230x105 |
| ○ | 47572 | 3F Emilio TK LED 2000/BREAD | 39° | 35.1 | 1982 | 2400 | >90 | 130x230x105 |
| ● | 47581 | 3F Emilio TK BK LED 2000/MEAT | 31° | 32.2 | 1975 | 3000 | 87 | 130x230x105 |
| ● | 47599 | 3F Emilio TK BK LED 2500/CRISP | 31° | 32.7 | 2238 | 3000 | 92 | 130x230x105 |
| ● | 47597 | 3F Emilio TK BK LED 2000/BREAD | 39° | 35.1 | 1823 | 2400 | >90 | 130x230x105 |

3F Emilio Track Elliptical



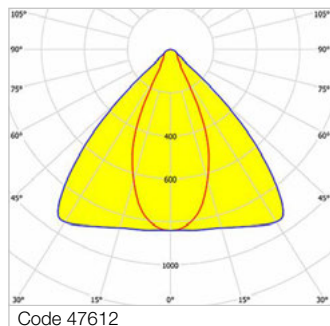
Horizontal ELL elliptical lens provides greater installation distances. Body and wired unit in white polycarbonate with busbar adaptor.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x L x H |
|------|------|------------|--------------------|------------------|---------|-----|----------------------|
|------|------|------------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|---------|-------------------------------|-----------|------|------|------|-----|-------------|
| ○ 47607 | 3F Emilio TK LED 3000/840 ELL | 42° - 85° | 28.7 | 3203 | 4000 | >80 | 130x230x105 |
| ○ 47618 | 3F Emilio TK LED 2000/930 ELL | 42° - 85° | 29.1 | 2571 | 3000 | >90 | 130x230x105 |
| ○ 47611 | 3F Emilio TK LED 3000/830 ELL | 42° - 85° | 30.9 | 3243 | 3000 | >80 | 130x230x105 |
| ○ 47615 | 3F Emilio TK LED 3000/827 ELL | 42° - 85° | 33.8 | 3281 | 2700 | >80 | 130x230x105 |
| ○ 47608 | 3F Emilio TK LED 4000/840 ELL | 46° - 88° | 34.1 | 4086 | 4000 | >80 | 130x230x105 |
| ○ 47622 | 3F Emilio TK LED 4000/830 ELL | 46° - 88° | 34.1 | 3927 | 3000 | >80 | 130x230x105 |
| ○ 47617 | 3F Emilio TK LED 3000/940 ELL | 42° - 85° | 36.1 | 3275 | 4000 | >90 | 130x230x105 |
| ○ 47619 | 3F Emilio TK LED 3000/930 ELL | 42° - 85° | 36.1 | 2994 | 3000 | >90 | 130x230x105 |

3F Emilio Track Elliptical - Meat/Bread/Crisp



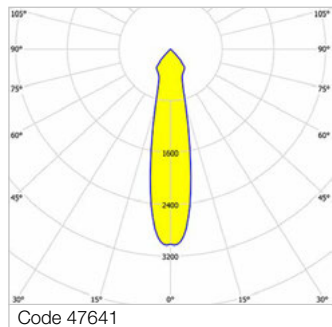
Horizontal ELL elliptical lens provides greater installation distances.
 Meat - Specific source to light up meat and cold cuts.
 Bread - Specific source to light up bread.
 Crisp - specific source for illuminating textile products and enhancing white colours.
 Body and wired unit in white polycarbonate with busbar adaptor.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x L x H |
|------|------|------------|--------------------|------------------|---------|-----|----------------------|
|------|------|------------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | |
|---------|---------------------------------|-----------|------|------|------|-----|-------------|
| ○ 47612 | 3F Emilio TK LED 2000/MEAT ELL | 46° - 88° | 32.2 | 2215 | 3000 | 87 | 130x230x105 |
| ○ 47630 | 3F Emilio TK LED 2500/CRISP ELL | 46° - 88° | 32.7 | 2509 | 3000 | 92 | 130x230x105 |
| ○ 47628 | 3F Emilio TK LED 2000/BREAD ELL | 53° - 88° | 35.1 | 1998 | 2400 | >90 | 130x230x105 |

3F Emilio Track Iperconcentrated











Bright anodised parabola in semi-specular, anti-reflective, anti-iridescent aluminum.
 Body and wired unit in polycarbonate with busbar adaptor.

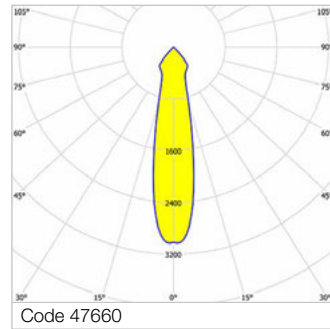
| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x L x H |
|------|------|------------|--------------------|------------------|---------|-----|----------------------|
|------|------|------------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | | |
|---|-------|-----------------------------------|-----|------|------|------|-----|-------------|
| ○ | 47640 | 3F Emilio TK LED 3000/840 IPER | 23° | 28.7 | 3137 | 4000 | >80 | 130x230x105 |
| ○ | 47654 | 3F Emilio TK LED 2000/930 IPER | 23° | 29.1 | 2518 | 3000 | >90 | 130x230x105 |
| ○ | 47644 | 3F Emilio TK LED 3000/830 IPER | 23° | 30.9 | 3176 | 3000 | >80 | 130x230x105 |
| ○ | 47648 | 3F Emilio TK LED 3000/827 IPER | 23° | 33.8 | 3213 | 2700 | >80 | 130x230x105 |
| ○ | 47645 | 3F Emilio TK LED 4000/830 IPER | 23° | 34.1 | 3794 | 3000 | >80 | 130x230x105 |
| ○ | 47641 | 3F Emilio TK LED 4000/840 IPER | 23° | 34.1 | 3948 | 4000 | >80 | 130x230x105 |
| ○ | 47655 | 3F Emilio TK LED 3000/930 IPER | 23° | 36.1 | 2933 | 3000 | >90 | 130x230x105 |
| ○ | 47652 | 3F Emilio TK LED 3000/940 IPER | 23° | 36.1 | 3208 | 4000 | >90 | 130x230x105 |
| ● | 47668 | 3F Emilio TK BK LED 3000/840 IPER | 23° | 28.7 | 3137 | 4000 | >80 | 130x230x105 |
| ● | 47682 | 3F Emilio TK BK LED 2000/930 IPER | 23° | 29.1 | 2518 | 3000 | >90 | 130x230x105 |
| ● | 47672 | 3F Emilio TK BK LED 3000/830 IPER | 23° | 30.9 | 3176 | 3000 | >80 | 130x230x105 |
| ● | 47676 | 3F Emilio TK BK LED 3000/827 IPER | 23° | 33.8 | 3213 | 2700 | >80 | 130x230x105 |
| ● | 47673 | 3F Emilio TK BK LED 4000/830 IPER | 23° | 34.1 | 3794 | 3000 | >80 | 130x230x105 |
| ● | 47669 | 3F Emilio TK BK LED 4000/840 IPER | 23° | 34.1 | 3948 | 4000 | >80 | 130x230x105 |
| ● | 47683 | 3F Emilio TK BK LED 3000/930 IPER | 23° | 36.1 | 2933 | 3000 | >90 | 130x230x105 |
| ● | 47680 | 3F Emilio TK BK LED 3000/940 IPER | 23° | 36.1 | 3208 | 4000 | >90 | 130x230x105 |

Systems and track-mounted products

3F Emilio Track Iperconcentrated - Meat/Bread/Crisp



Bright anodised parabola in semi-specular, anti-reflective, anti-iridescent aluminum.

Meat - Specific source to light up meat and cold cuts.

Bread - Specific source to light up bread.

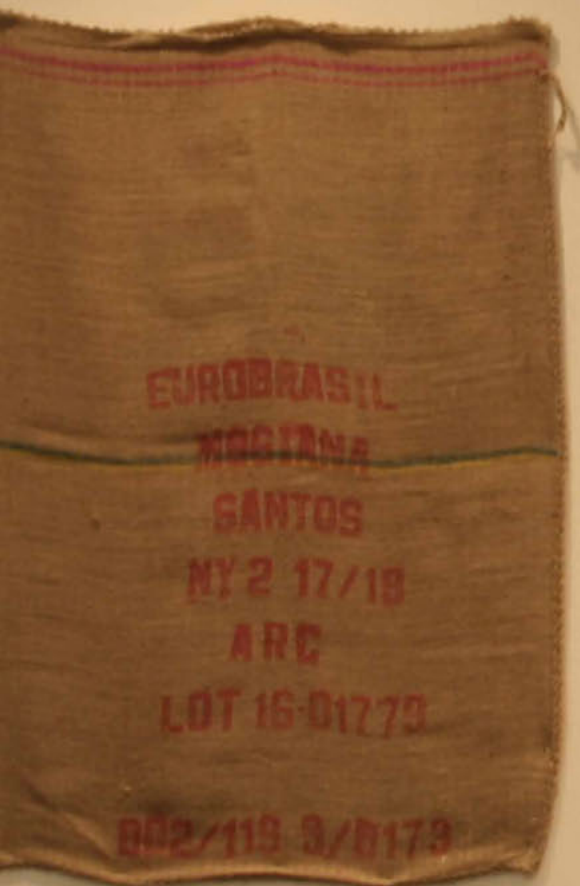
Crisp - specific source for illuminating textile products and enhancing white colours.

Body and wired unit in polycarbonate with busbar adaptor.

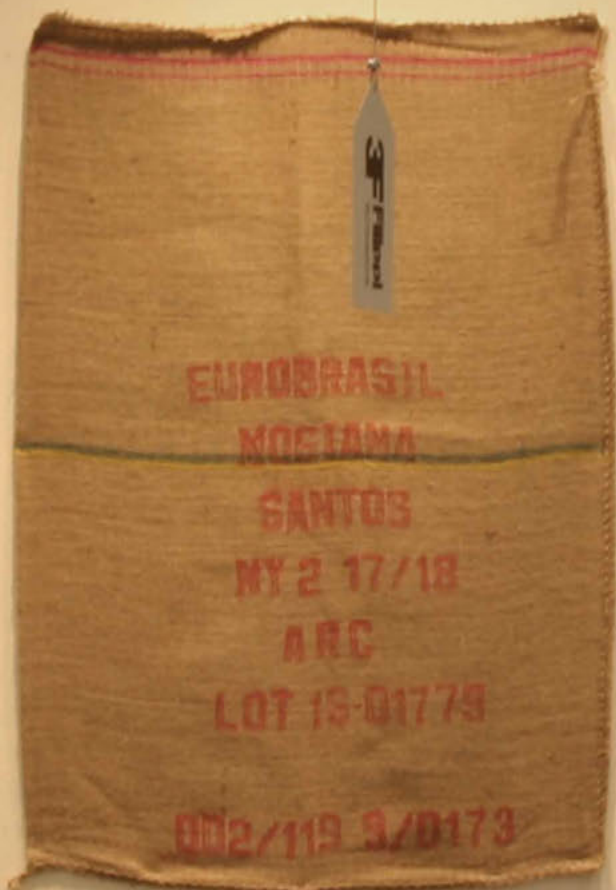
| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x L x H |
|------|------|------------|--------------------|------------------|---------|-----|-------------------------|
|------|------|------------|--------------------|------------------|---------|-----|-------------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | | | |
|---|-------|-------------------------------------|-----|------|------|------|-----|-------------|
| ○ | 47657 | 3F Emilio TK LED 2000/MEAT IPER | 23° | 32.2 | 2140 | 3000 | 87 | 130x230x105 |
| ○ | 47664 | 3F Emilio TK LED 2500/CRISP IPER | 23° | 32.7 | 2425 | 3000 | 92 | 130x230x105 |
| ○ | 47660 | 3F Emilio TK LED 2000/BREAD IPER | 23° | 35.1 | 1975 | 2400 | >90 | 130x230x105 |
| ● | 47685 | 3F Emilio TK BK LED 2000/MEAT IPER | 23° | 32.2 | 2140 | 3000 | 87 | 130x230x105 |
| ● | 47692 | 3F Emilio TK BK LED 2500/CRISP IPER | 23° | 32.7 | 2425 | 3000 | 92 | 130x230x105 |
| ● | 47688 | 3F Emilio TK BK LED 2000/BREAD IPER | 23° | 35.1 | 1975 | 2400 | >90 | 130x230x105 |



3F Emilio TK - Round spot - 2500K - CRISP



3F Emilio TK - Round spot - 3000K - CRI -90



3F Emilio Track DALI

Construction characteristics

Illuminotecnical characteristics

Symmetrical (TK) spot distribution.
 Lifetime (L90/B20): 30000 h. (tq+25°C)
 Lifetime (L80/B20): 50000 h. (tq+25°C)
 Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Wired unit in polycarbonate with busbar adaptor.
 Single-piece in die-cast aluminium with passive dissipation with perimeter cooling slots on upper edge, giving a crown of light effect to the fitting.
 Invisible lock for positioning the luminous flux.
 Lens made from transparent PMMA methacrylate with glossy surface and differentiated photo-etched.
 Positioning arm in galvanized brass with sphere to allow for vertical positioning at angles from 0° to 90° and horizontal positioning from 0° to 360°.

Electrical characteristics

Wiring unit separate from the body, invisible and integrated into the busbar.
 Class II.

Source characteristics

- Compact LED module.
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- housing in different RAL colours

Applications

Environments: commercial, museums, shops.

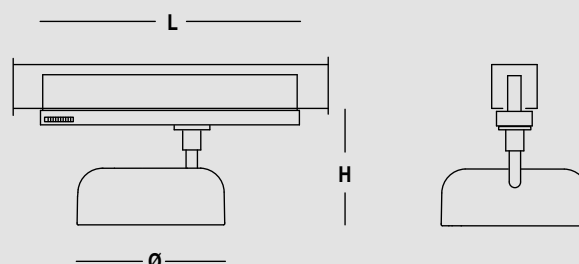
Installation

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 376).

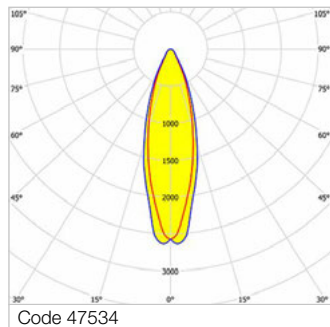
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Emilio Track DALI Spot



Spot lens.
Body and wired unit in white polycarbonate with busbar adaptor.

| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x L x H |
|------|------|------------|--------------------|------------------|---------|-----|-------------------------|
|------|------|------------|--------------------|------------------|---------|-----|-------------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---------|--------------------------------|-----|------|------|------|-----|-------------|
| ○ 47536 | 3F Emilio TK LED 2000/930 DALI | 29° | 29.1 | 2462 | 3000 | >90 | 130x260x105 |
| ○ 47535 | 3F Emilio TK LED 3000/830 DALI | 29° | 30.9 | 3106 | 3000 | >80 | 130x260x105 |
| ○ 47534 | 3F Emilio TK LED 3000/840 DALI | 29° | 28.7 | 3067 | 4000 | >80 | 130x260x105 |

Systems and track-mounted products



3F Emilio Track Bluetooth

Construction characteristics

Illuminotecnical characteristics

Symmetrical (TK) spot distribution.
 Lifetime (L90/B20): 30000 h. (tq+25°C)
 Lifetime (L80/B20): 50000 h. (tq+25°C)
 Photobiological safety RG1, low risk, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Wired unit in polycarbonate with busbar adaptor.
 Single-piece in die-cast aluminium with passive dissipation with perimeter cooling slots on upper edge, giving a crown of light effect to the fitting.
 Invisible lock for positioning the luminous flux.
 Lens made from transparent PMMA methacrylate with glossy surface and differentiated photo-etched.
 Positioning arm in galvanized brass with sphere to allow for vertical positioning at angles from 0° to 90° and horizontal positioning from 0° to 360°.

Electrical characteristics

Cabling unit with 3F Sensor Bluetooth technology, separated from the body, invisible and integrated into the track.
 Class II.

Source characteristics

- Compact LED module.
- Compact LED modules.
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- housing in different RAL colours

Applications

Environments: commercial, museums, shops.

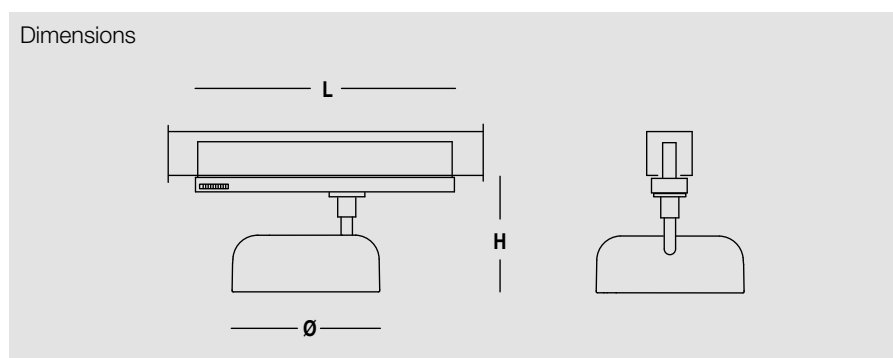
Installation

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 376).

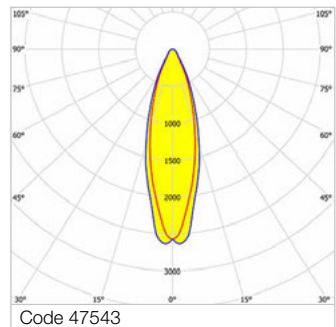
Light Management

Products in the BLE range can be controlled manually or automatically with 3F Sensor Bluetooth technology (see the chapter on "Light Management").

Dimensions



3F Emilio Track BLE Spot











| Code | Item | Beam angle | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions ø x L x H |
|------|------|------------|--------------------|------------------|---------|-----|----------------------|
|------|------|------------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | | |
|---------|------------------------------------|-----|------|------|------|-----|-------------|
| ○ 47545 | 3F Emilio TK LED 2000/930 DALI BLE | 29° | 29.1 | 2462 | 3000 | >90 | 130x260x105 |
| ○ 47544 | 3F Emilio TK LED 3000/830 DALI BLE | 29° | 30.9 | 3106 | 3000 | >80 | 130x260x105 |
| ○ 47543 | 3F Emilio TK LED 3000/840 DALI BLE | 29° | 28.7 | 3067 | 4000 | >80 | 130x260x105 |

Systems and track-mounted products



3F Zeta Track L

Construction characteristics

Illuminotechnical characteristics

Wide direct distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in hot-galvanized steel, painted in white polyester, obtained through rolling process with adapters to busbar in white polycarbonate.

Light unit in hot-galvanized steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.

PMMA lenses with external flat surface.

Supporting mechanical adapter.

End caps in white polycarbonate.

Electrical characteristics

Track adapter, 4/6-way.

Source characteristics

- LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different light distributions
- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: emergency, CLO (more information on page 542)

Applications

Environments: architectural, commercial, transit areas, cornices, boards.

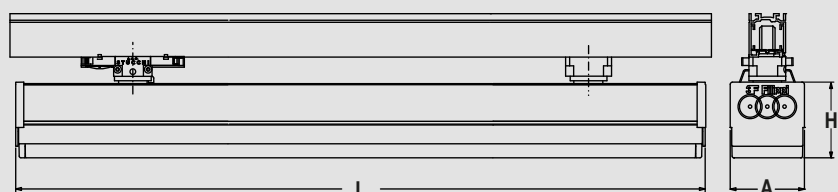
Installation

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 376).

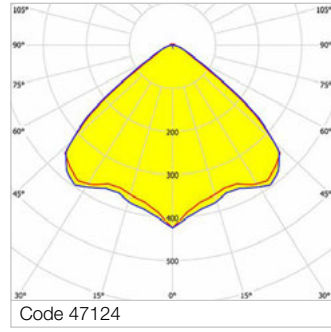
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Zeta Track L Wide



650°C

IP40

1J

IK06



Wide distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

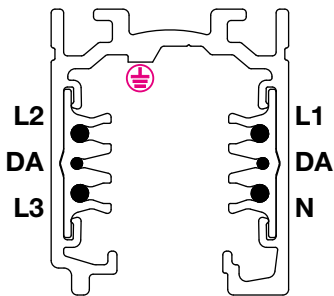
| | | | | | | |
|-------|-----------------------------|------|------|------|-----|------------|
| 47136 | 3F Zeta TK L 15 AMPIO L605 | 16.5 | 2749 | 4000 | >80 | 605x62x67 |
| 47132 | 3F Zeta TK L 30 AMPIO L1194 | 33 | 5498 | 4000 | >80 | 1194x62x67 |
| 47124 | 3F Zeta TK L 50 AMPIO L1783 | 50 | 8247 | 4000 | >80 | 1783x62x67 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------------|------|------|------|-----|------------|
| 47152 | 3F Zeta TK L 15 DALI AMPIO L605 | 16.5 | 2749 | 4000 | >80 | 605x62x67 |
| 47148 | 3F Zeta TK L 30 DALI AMPIO L1194 | 33 | 5498 | 4000 | >80 | 1194x62x67 |
| 47140 | 3F Zeta TK L 50 DALI AMPIO L1783 | 50 | 8247 | 4000 | >80 | 1783x62x67 |

Binario 3F

Busbar



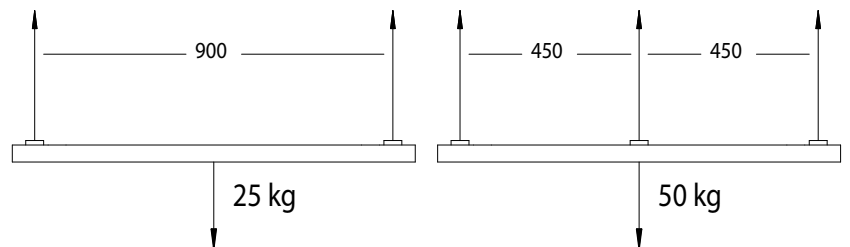
Scale: 1:1

Characteristics

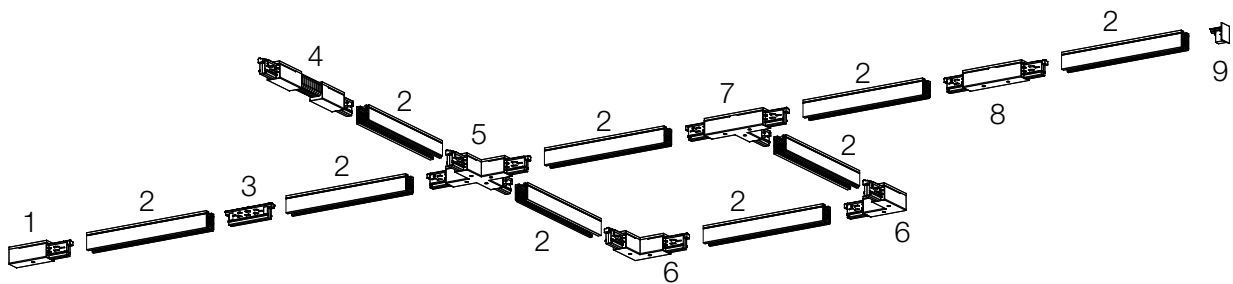
Binario 3F is an extruded aluminium busbar housing 6 conductors (4 for three-phase mode, 2 for DALI mode); the 3 phase conductors (with common neutral) form 3 distinct circuits, allowing 3 separate on commands.

The conductors are enclosed in rigid extruded profiles made from high-rigidity insulating material.

The versatility of this product allows the creation of ceiling-mount or suspended installations (within the maximum suspendable load limit). EN 60570 compliant.



Structural elements



- 1 - Power-supply cap
- 2 - Binario 3F busbar
- 3 - Linear connecting element

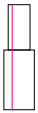
- 4 - Flexible connecting element
- 5 - Cross connector
- 6 - L connector

- 7 - T connector
- 8 - Central power supply
- 9 - Closing cap

Defining the earth conductor position

Note: the side positioning of the earth contact makes the busbar structure asymmetrical and the connectors must be chosen on the basis of this. In particular, this indication applies only to the following components:

Power-supply cap

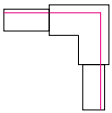


In the S (LH) version, the conductor is located on the left when looking at the composition from above.

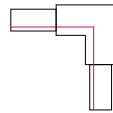


In the D (RH) version, the conductor is located on the right when looking at the composition from above.

L connector

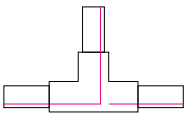


In the EXT version, the conductor is located on the outside when looking at the composition from above.

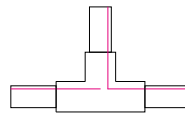


In the INT version, the conductor is located on the inside when looking at the composition from above.

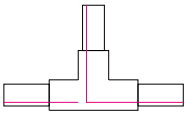
T connector



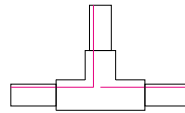
In the EXT + D (external + RHS) version, the third conductor is located on the right when looking at the composition from above.



In the INT + D (internal + RHS) version, the third conductor is located on the right when looking at the composition from above.

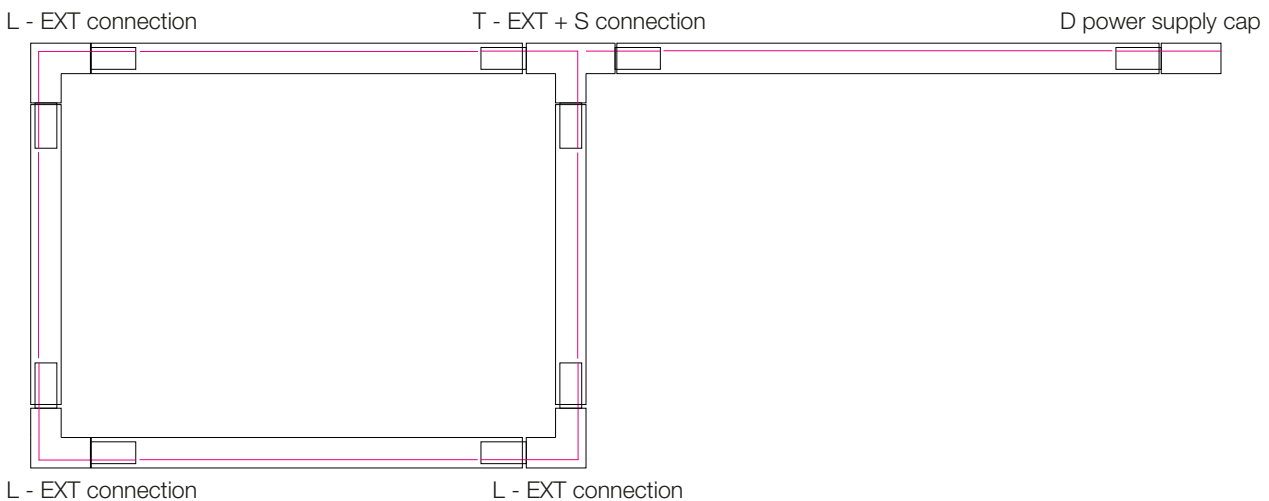


In the EXT + S (external + LHS) version, the third conductor is located on the left when looking at the composition from above.



In the INT + S (internal + LHS) version, the third conductor is located on the left when looking at the composition from above.

Structure composition example - top-down view





Binario 3F

The Binario 3F is a mixed 3-phase system with two extra conductors for the management of any signal (eg DALI). The system is certified according to EN 60570 and its installation must be performed by qualified personnel.

Three types of fixing:

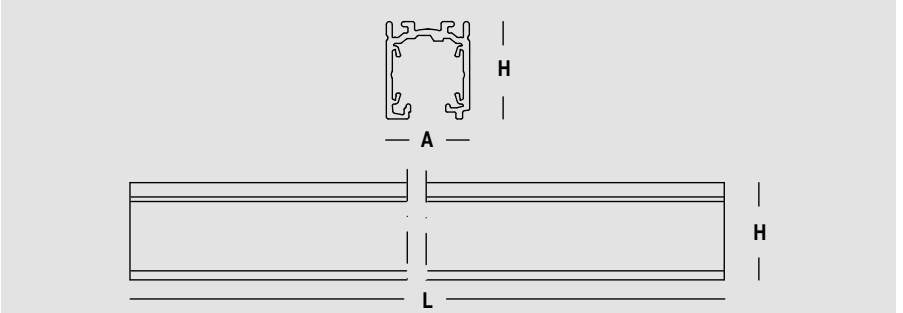
- directly on the surface (using the holes already provided in binary)
- surface mounted using the metal clip
- suspended by tension steel cables and various clamps and brackets without exceeding the maximum loads are planned

Construction characteristics

Mechanical characteristics

Electrified track made from extruded aluminium, Eurostandard Plus compliant. The wires are enclosed in rigid extruded profiles made of PVC insulating material with high dielectric strength. Length: 1000-2000-3000-4000 mm. Available colors: white (B) and anodized aluminium (GR).
 (L1/L2/L3/N/GRD/DA/DA) 16A/440V
 2x1A/50V FELV AC (DALI).
 Copper conductors.

Dimensions



Binario 3F



Aluminium extruded track with 6 copper conductors (L1/L2/L3/N/GRD/DA/DA) 16A/440V.

| Code | Item | Dimensions L x A x H |
|---------|-------------------------|-------------------------|
| ○ A4151 | Binario 3F - L1000 - WH | 1000x32x38 |
| ○ A4152 | Binario 3F - L2000 - WH | 2000x32x38 |
| ○ A4153 | Binario 3F - L3000 - WH | 3000x32x38 |
| ○ A4154 | Binario 3F - L4000 - WH | 4000x32x38 |
| ○ A4158 | Binario 3F - L1000 - GR | 1000x32x38 |
| ○ A4159 | Binario 3F - L2000 - GR | 2000x32x38 |
| ○ A4160 | Binario 3F - L3000 - GR | 3000x32x38 |
| ○ A4161 | Binario 3F - L4000 - GR | 4000x32x38 |
| ● A4144 | Binario 3F - L1000 - BK | 1000x32x38 |
| ● A4145 | Binario 3F - L2000 - BK | 2000x32x38 |
| ● A4146 | Binario 3F - L3000 - BK | 3000x32x38 |
| ● A4147 | Binario 3F - L4000 - BK | 4000x32x38 |

End feed



Power connection: polycarbonate body and copper alloy contacts.
Warning: as the track structure is asymmetrical because of the grounding element placed laterally, feeding heads and connecting joints must be chosen accordingly.

| Code | Item | Dimensions L x A x H |
|------------------------------|----------------------|-------------------------|
| Right (view from top) | | |
| ○ A4174 | Feeding head DX - WH | 95x32x38 |
| ○ A4166 | Feeding head DX - GR | 95x32x38 |
| ● A4209 | Feeding head DX - BK | 95x32x38 |
| Left (view from top) | | |
| ○ A4196 | feeding head SX - WH | 95x32x38 |
| ○ A4190 | Feeding head SX - GR | 95x32x38 |
| ● A4218 | Feeding head SX - BK | 95x32x38 |

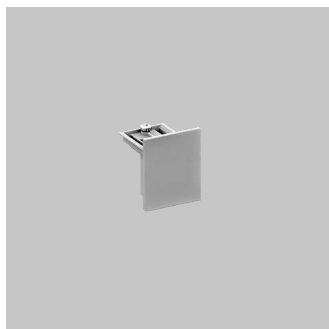
Central feeding



Central power supply with polycarbonate body and copper alloy contacts.

| Code | Item | Dimensions L x A x H |
|--|----------------------|-------------------------|
| <input type="radio"/> A4175 | Central feeding - WH | 148x32x38 |
| <input type="radio"/> A4167 | Central feeding - GR | 148x32x38 |
| <input checked="" type="radio"/> A4210 | Central feeding - BK | 148x32x38 |

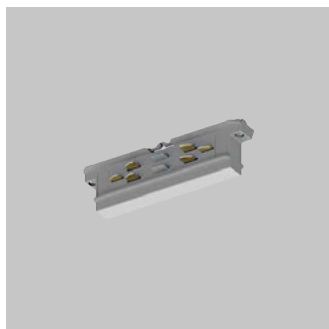
End cap



Polycarbonate closing cap with locking screw.

| Code | Item | Dimensions L x A x H |
|--|--------------|-------------------------|
| <input type="radio"/> A4180 | End cap - WH | 32x35x38 |
| <input type="radio"/> A4172 | End cap - GR | 32x35x38 |
| <input checked="" type="radio"/> A4215 | End cap - BK | 32x35x38 |

Linear junction element



Linear connecting element with a polycarbonate body and copper alloy contacts.

| Code | Item | Dimensions L x A x H |
|--|--------------------------------|-------------------------|
| <input type="radio"/> A4188 | Linear connecting element - WH | 115x25x38 |
| <input type="radio"/> A4182 | Linear connecting element - GR | 115x25x38 |
| <input checked="" type="radio"/> A4217 | Linear connecting element - BK | 115x25x38 |

Flexible connecting element



Flexible connecting element with polycarbonate body and copper alloy contacts.

| Code | Item | Dimensions L x A x H |
|--|----------------------------------|-------------------------|
| <input type="radio"/> A4176 | Flexible connecting element - WH | 265x32x38 |
| <input type="radio"/> A4168 | Flexible connecting element - GR | 265x32x38 |
| <input checked="" type="radio"/> A4211 | Flexible connecting element - BK | 265x32x38 |

L-junction



"L"-shaped connecting element with polycarbonate body and copper alloy contacts.
Warning: as the track structure is asymmetrical because of the grounding element placed laterally, feeding heads and connecting joints must be chosen accordingly.

| Code | Item | Dimensions L x A x H |
|------|------|-------------------------|
|------|------|-------------------------|

External (view from top)

| | | |
|--|--------------------|----------|
| <input type="radio"/> A4177 | L-joint - EXT - WH | 90x90x38 |
| <input type="radio"/> A4169 | L-joint - EXT - GR | 90x90x38 |
| <input checked="" type="radio"/> A4212 | L-joint - EXT - BK | 90x90x38 |

Internal (view from top)

| | | |
|--|--------------------|----------|
| <input type="radio"/> A4197 | L-joint - INT - WH | 90x90x38 |
| <input type="radio"/> A4191 | L-joint - INT - GR | 90x90x38 |
| <input checked="" type="radio"/> A4219 | L-joint - INT - BK | 90x90x38 |

T-junction



"T"-shaped connecting element with polycarbonate body and copper alloy contacts.
Warning: as the track structure is asymmetrical because of the grounding element placed laterally, feeding heads and connecting joints must be chosen accordingly.

| Code | Item | Dimensions L x A x H |
|------|------|-------------------------|
|------|------|-------------------------|

External (view from top)

| | | | |
|----------------------------------|-------|-------------------------|-----------|
| <input type="radio"/> | A4198 | T-joint - EXT + DX - WH | 148x90x38 |
| <input type="radio"/> | A4178 | T-joint - EXT + SX - WH | 148x90x38 |
| <input type="radio"/> | A4192 | T-joint - EXT + DX - GR | 148x90x38 |
| <input type="radio"/> | A4170 | T-joint - EXT + SX - GR | 148x90x38 |
| <input checked="" type="radio"/> | A4220 | T-joint - EXT + DX - BK | 148x90x38 |
| <input checked="" type="radio"/> | A4213 | T-joint - EXT + SX - BK | 148x90x38 |

Internal (view from top)

| | | | |
|----------------------------------|-------|-------------------------|-----------|
| <input type="radio"/> | A4200 | T-joint - INT + DX - WH | 148x90x38 |
| <input type="radio"/> | A4199 | T-joint - INT + SX - WH | 148x90x38 |
| <input type="radio"/> | A4194 | T-joint - INT + DX - GR | 148x90x38 |
| <input type="radio"/> | A4193 | T-joint - INT + SX - GR | 148x90x38 |
| <input checked="" type="radio"/> | A4222 | T-joint - INT + DX - BK | 148x90x38 |
| <input checked="" type="radio"/> | A4221 | T-joint - INT + SX - BK | 148x90x38 |

Cross joint

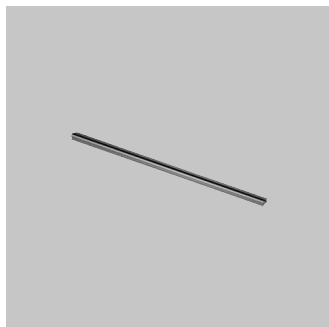


Cross-shaped connecting element with polycarbonate body and copper alloy contacts.

| Code | Item | Dimensions L x A x H |
|------|------|-------------------------|
|------|------|-------------------------|

| | | | |
|----------------------------------|-------|------------------|------------|
| <input type="radio"/> | A4179 | Cross joint - WH | 148x148x38 |
| <input type="radio"/> | A4171 | Cross joint - GR | 148x148x38 |
| <input checked="" type="radio"/> | A4214 | Cross joint - BK | 148x148x38 |

PVC closing element



PVC cover for track closing.

| Code | Item | Dimensions L x A x H |
|--|------------------------------|-------------------------|
| <input type="radio"/> A4181 | PVC closing top - L1000 - WH | 1000x20x10 |
| <input type="radio"/> A4173 | PVC closing top - L1000 - GR | 1000x20x10 |
| <input checked="" type="radio"/> A4216 | PVC closing top - L1000 - BK | 1000x20x10 |

Bracket for ceiling mounting



Sliding ceiling bracket with locking screw in galvanized steel.

| Code | Item |
|-------|------------------------------------|
| A4183 | Steel bracket for ceiling mounting |

Adjustable suspension kit



Adjustable suspension kit with galvanized steel sliding bracket and locking screw, metal rose and steel cable with diameter of 1.5 mm.

| Code | Item |
|-------|---|
| A4204 | Adjustable suspension boss + 1.5m bracket |
| A4205 | Adjustable suspension boss + 3m bracket |
| A4206 | Adjustable suspension boss + 5m bracket |

3F LEM



3F Linda



Beta 235



Beta A3F - i3F



Beta 430



3F Cub



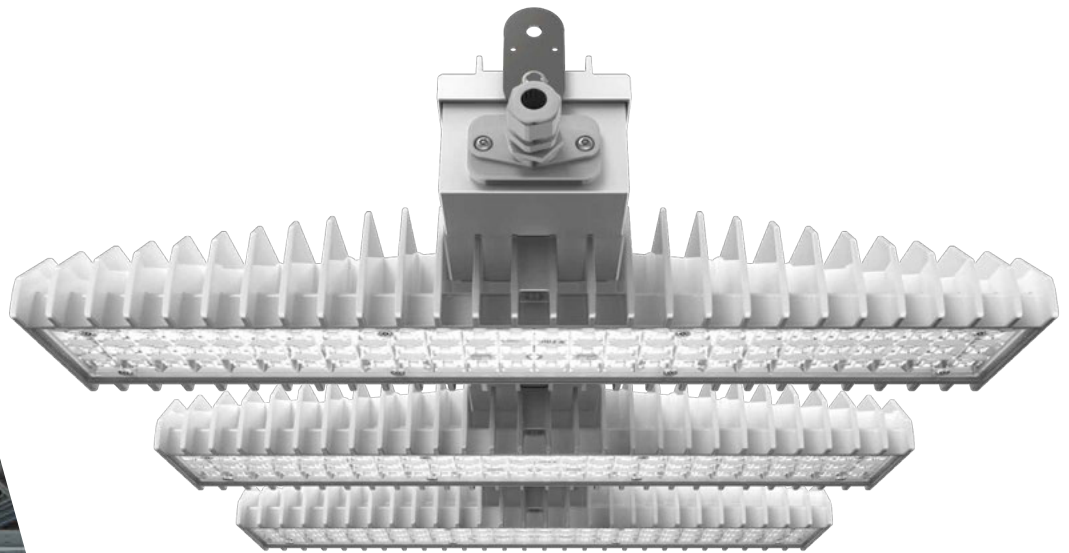
Waterproof and corrosion-proof

| Page | Product | Steel | Stainless steel | Stainless steel | Polycarbonate |
|------|-------------------------------|-------|-----------------|-----------------|---------------|
| 386 | 3F LEM | | | | |
| 396 | 3F LEM | • | • | | |
| 400 | 3F LEM DALI Sensor | • | • | | |
| 404 | 3F LEM High Output | • | • | | |
| 408 | 3F LEM High Temperature | • | • | | |
| 412 | 3F LEM Sport | • | • | | |
| 418 | 3F Linda | | | | |
| 424 | UPDATE 3F Linda LED | | | | • |
| 430 | 3F Linda LED HS | | | | • |
| 432 | 3F Linda LED Transparent | | | | • |
| 434 | 3F Linda LED Ice | | | | • |
| 436 | 3F Linda LED Sensor | | | | • |
| 444 | Beta 235 | | | | |
| 450 | Beta 235 LED Steel | • | | | |
| 458 | Beta 235 LED Stainless Steel | | | • | |
| 464 | Beta A3F - i3F | | | | |
| 464 | Beta i3F 75-76 LED | • | | | |
| 468 | Beta Ice LED | | • | | |
| 470 | Kit LED Retrofit for Beta 2x | | | | |
| 476 | Beta 430 | | | | |
| 476 | Beta 430 LED | • | | | |
| 478 | Kit LED Retrofit for Beta 430 | | | | |
| 482 | 3F Cub | | | | |
| 484 | 3F Cub LED | | • | | |

3F LEM



A new way of thinking about light



Patented

3F LEM is a highly specialised product, designed to satisfy customers who need to light large areas evenly.

We have designed and manufactured it with large injection-moulded shielding which permits different photometric distributions and lighting modules in aluminium alloy which are able to optimally dissipate the heat generated by the latest LED sources.

The design of the 3F LEM is based on simplification and modularity of design: "LEM" means "Light Emitting Modules", and thanks to common platforms and structures it is possible to obtain advantages for the customer in terms of the use, during installation and even when changing the sources at the end of the product life cycle.

Waterproof and
corrosion-proof



Toilette
—
Toilets



Ristoranti
—
Restaurant

2



Padiglione
—
Hall

3



Padiglione
—
Hall

1

Padiglione
—
Hall



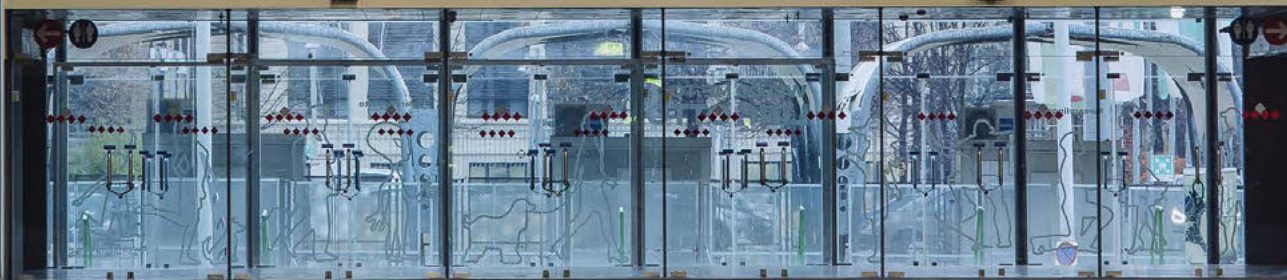
Uscita
—
Exit



Infermeria
—
Infirmary



**Uscita di
Emergenza**
—
Emergency Exit



Passion, experience and expertise

3F Filippi is an Emilia-Romagna-based company, and a passion for mechanical engineering is part of our culture and expertise. It is for precisely this reason that when creating the 3F LEM heatsink module we consulted the foremost authority in the field, the mechanical engineering department at the University of Bologna. Their precious support and expertise led to the creation of the heart of the 3F LEM, the heatsink, or dissipator, module. This is the common denominator across all modules in the product family, and the performance of LEDs depends in large part on their ability to dissipate the heat they generate. Our goal was to create a product which could be installed in high-temperature environments and which would be able to make the sources work correctly. The result is a body made from an innovative pressure die-cast body, which can be installed in environments with temperatures up to 70°C.

Heat dissipation is not the only innovation on 3F LEM:

Air passage

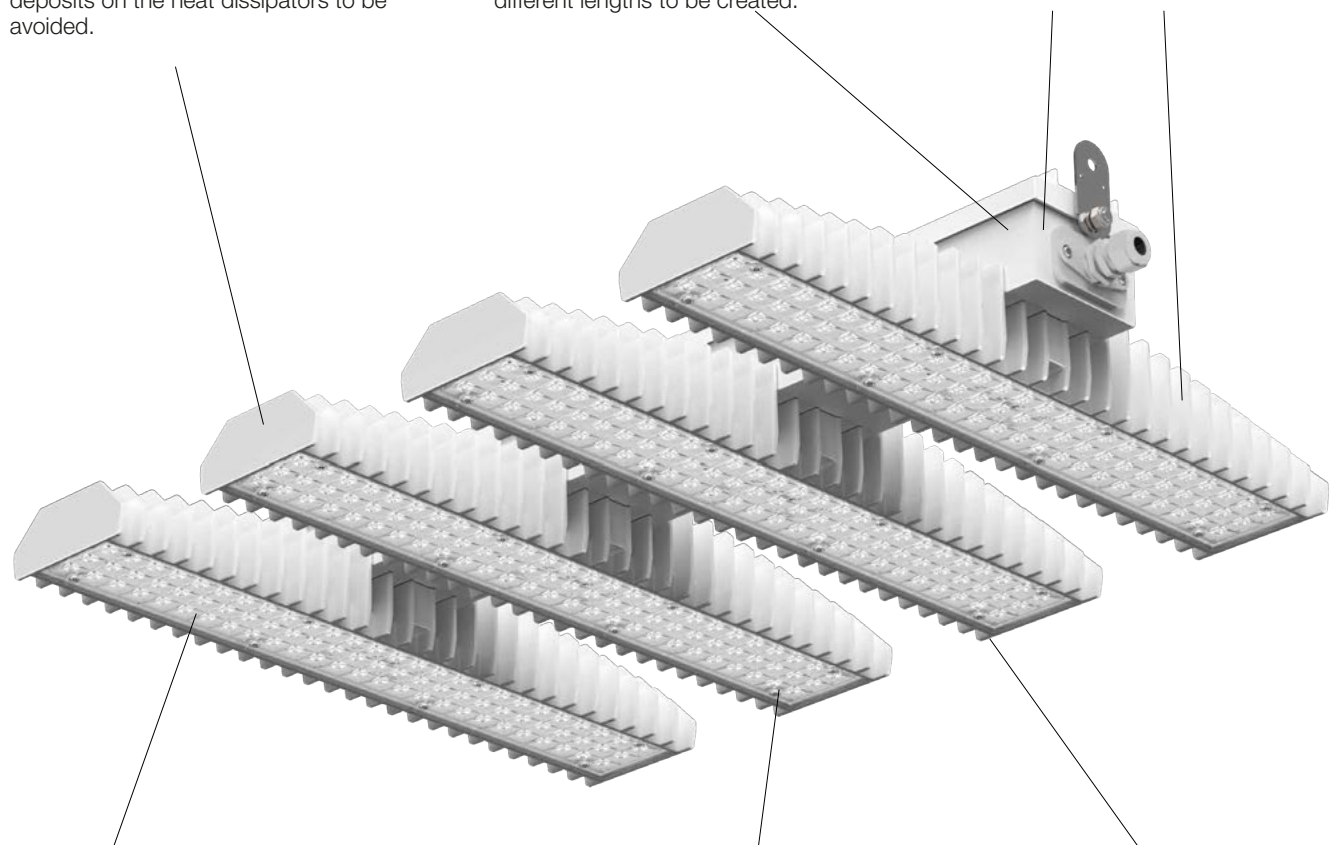
3F LEM has been designed to have the best possible air passage in all installation conditions, including ceiling mounted. Aerodynamic analysis has allowed dust deposits on the heat dissipators to be avoided.

Wiring compartment separate from heat dissipators

Thanks to this design, the power supplies are not affected by the heat emitted by the modules. This solution also allows wiring compartments of different lengths to be created.

Upgradability

Shielding, sources and power supplies can be replaced at the end of their life cycle, or upgraded to next-generation sources.



Mid-Power LED

Use of these LEDs offers improved efficiency (compared to High Power LEDs), less glare and optimised heat distribution (less thermal stress on the sources).

LED photobiological safety: RG0

The LEDs used are RG0 class (photobiological risk absent), that is they do not emit any radiation harmful to human organs.

3F Lens lenticular lens

Available with Wide, Medium or Concentrated controlled emission (UGR <22).

Waterproof and corrosion-proof

Product range

3F LEM is available in the following versions:

3F LEM - Standard version for environments with temperatures from -30°C to $+55^{\circ}\text{C}$

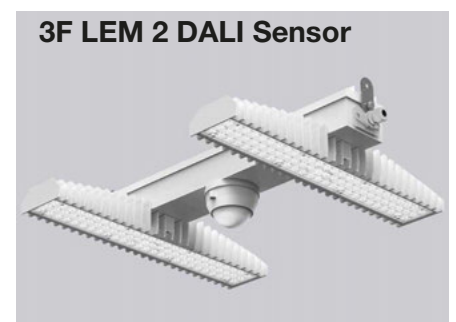
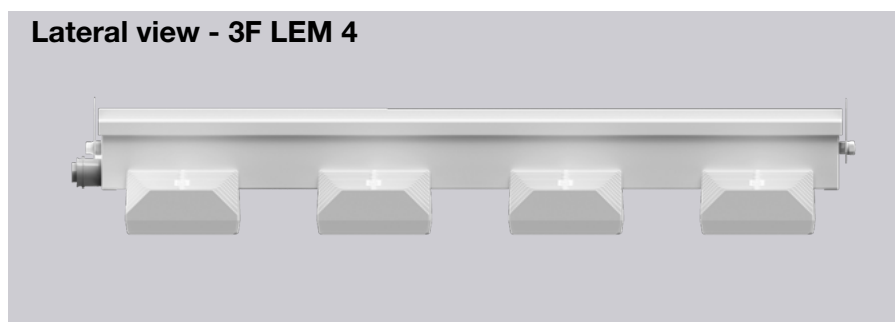
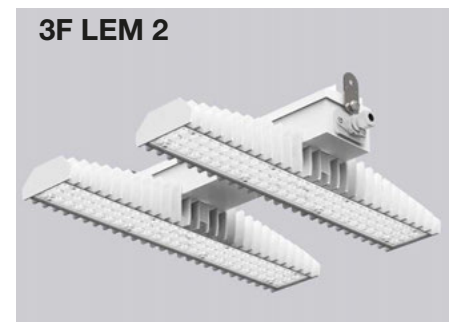
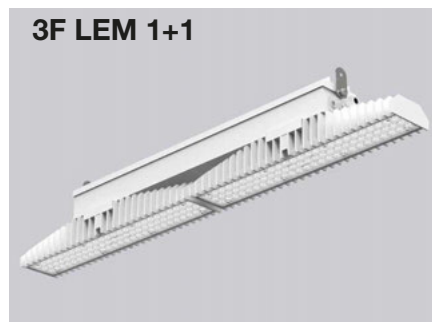
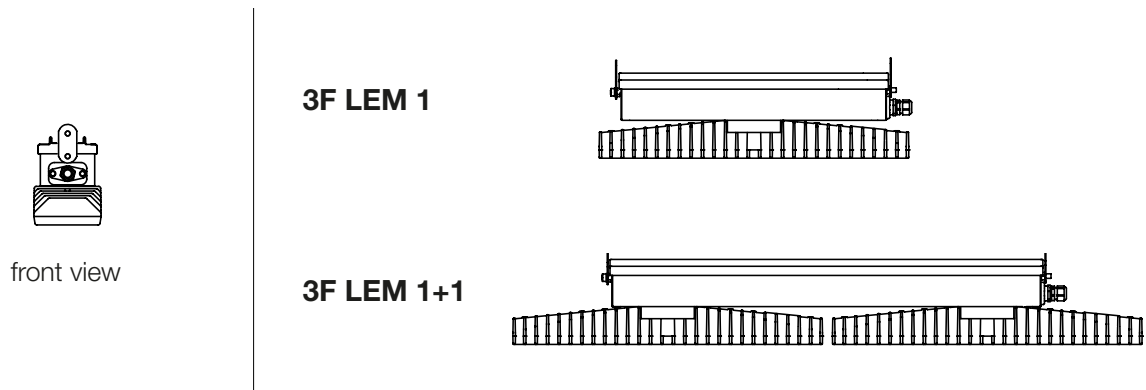
3F LEM HO - High luminous flux version for environments with temperatures from -30°C a $+45^{\circ}\text{C}$

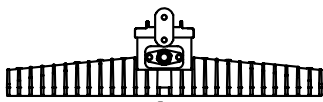
3F LEM DALI Sensor - Version with light level sensor, suitable for environments with temperatures from -25°C to $+50^{\circ}\text{C}$

3F LEM - Version for environments with temperatures from -30°C to $+70^{\circ}\text{C}$

3F LEM Sport - Version for sports environments with temperatures from -20°C to $+55^{\circ}\text{C}$

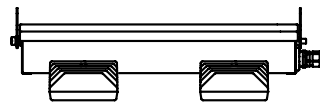
3F LEM is available with different module configurations:



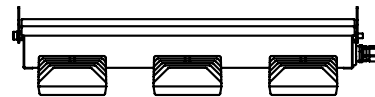


front view

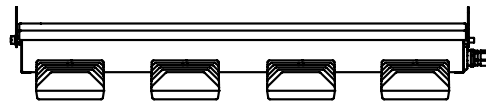
3F LEM 2



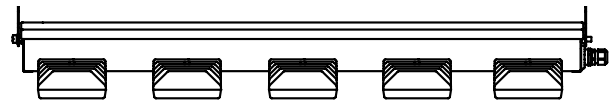
3F LEM 3



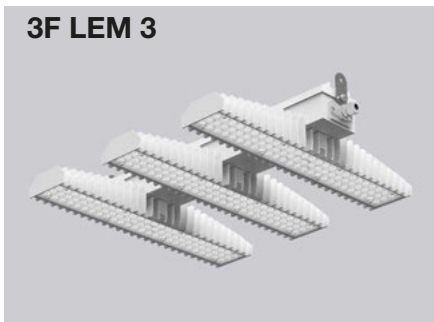
3F LEM 4



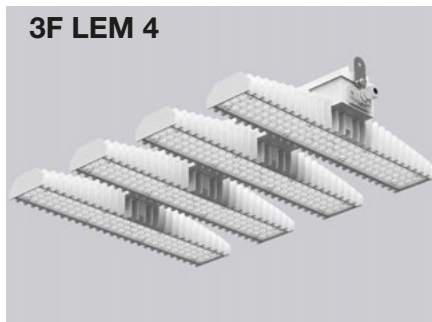
3F LEM 5



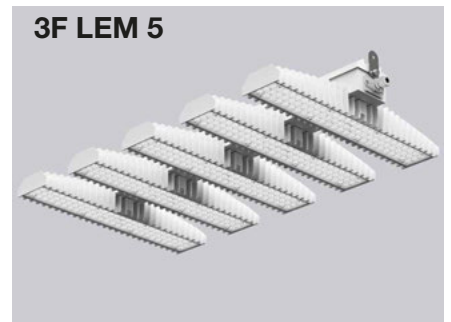
3F LEM 3



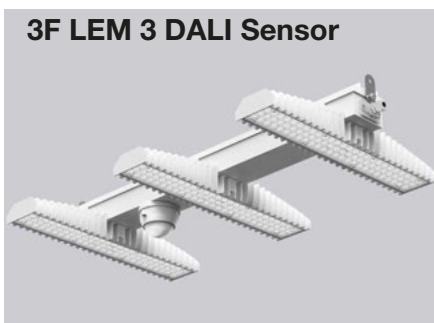
3F LEM 4



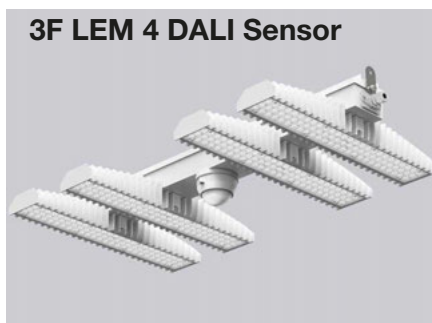
3F LEM 5



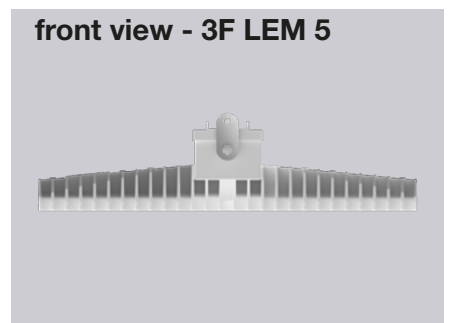
3F LEM 3 DALI Sensor



3F LEM 4 DALI Sensor



front view - 3F LEM 5



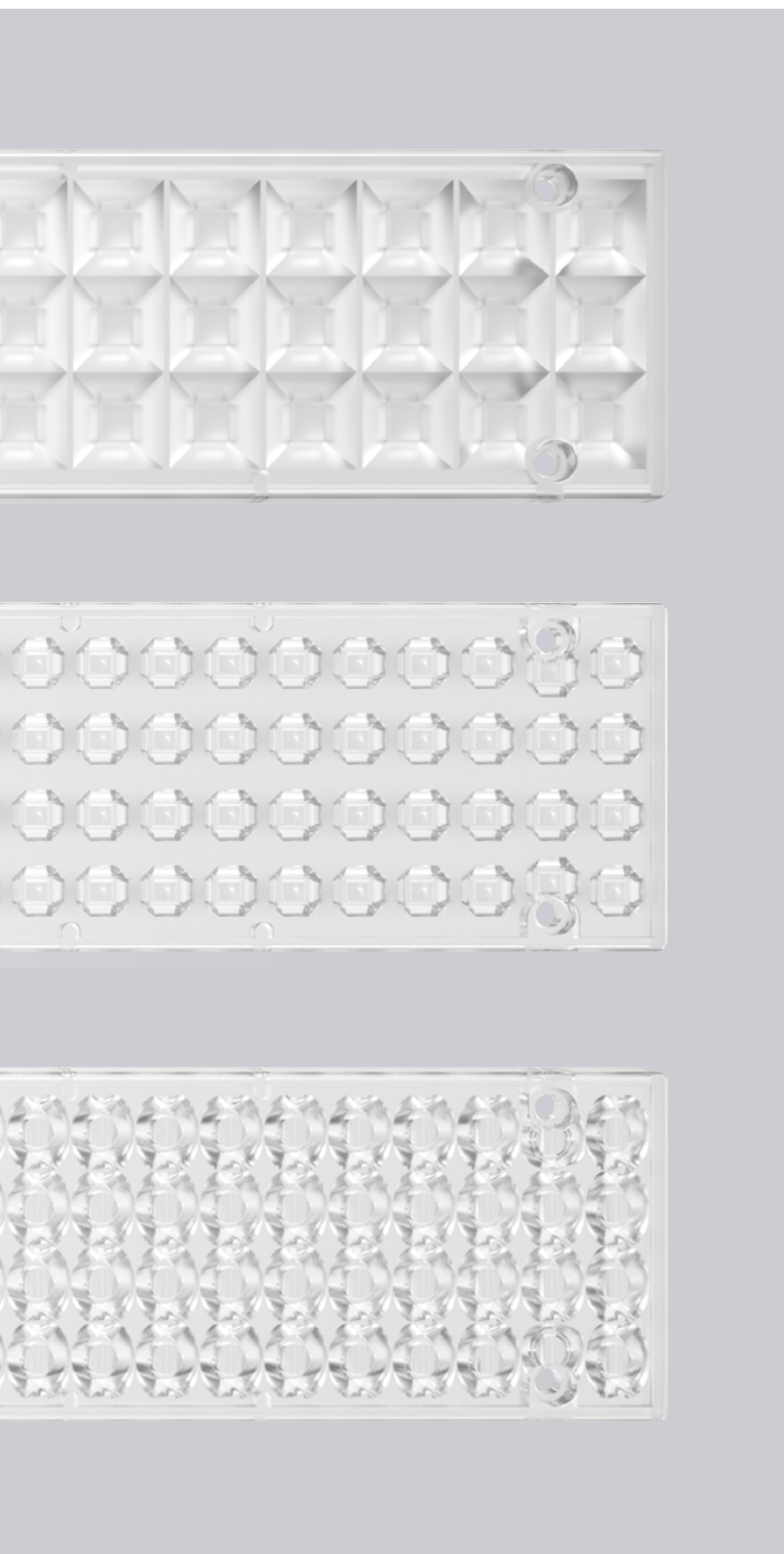
Waterproof and
corrosion-proof

Photometric distributions

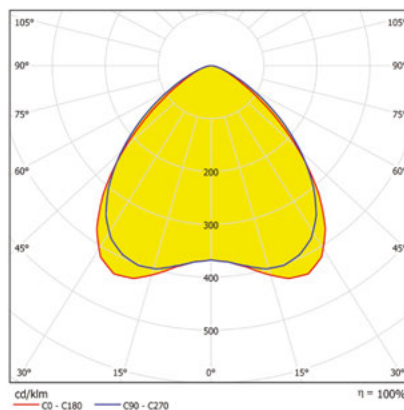
3F LEM is equipped with the highest quality LED sources with a CRI>80, but on request can be fitted with sources with CRI>90.

It is also possible to obtain light with a colour temperature of 4000K (neutral white), 6500K (cold white) and, on request, 3000K (warm white).

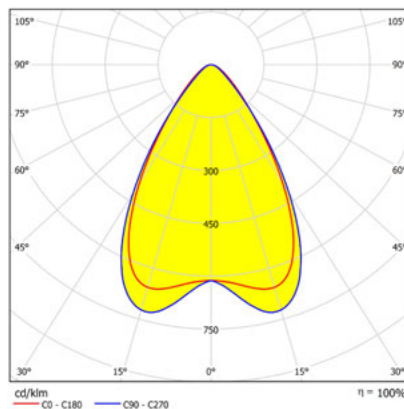
With a UGR value of <22, we respect the vision of those who work under 3F LEM lights, as well as respecting health by ensuring all luminaires are RG0 class (photobiological risk absent).



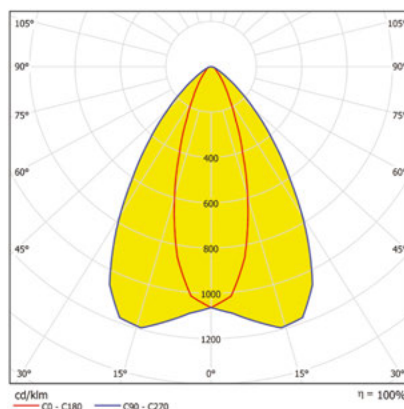
WIDE DISTRIBUTION



MEDIUM DISTRIBUTION

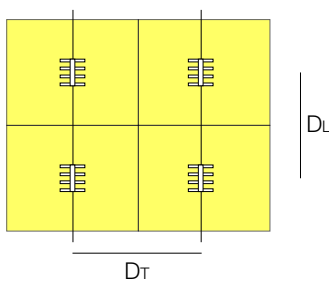


CONCENTRATED DISTRIBUTION



3F LEM fully complies with all applicable illuminotechnical standards and legislation: its lighting distribution comes from careful analysis of BS EN 12464-1 which covers lighting of indoor work environments. We have paid great attention to the requirements of the market and believe that the two different distributions are capable of satisfying even the most demanding customers:

**Rectangular ground projection
Recommended for industry**

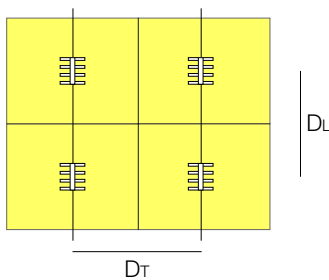


As there is no photometric overlap, the energy used and number of luminaires is optimised.

Uniformity

To obtain uniform lighting, the installation pitch is equal to:
 $DT = 1.5 \times hu$ $DL = 1.4 \times hu$
 hu = Effective installation height

**Rectangular ground projection
Recommended for industry**



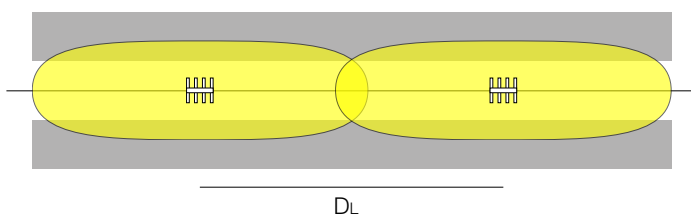
As there is no photometric overlap, the energy used and number of luminaires is optimised.

Uniformity

To obtain uniform lighting, the installation pitch is equal to:
 $DT = 1.1 \times hu$ $DL = 1.1 \times hu$
 hu = Effective installation height

Waterproof and
corrosion-proof

**Elliptical ground projection
Recommended for warehouses with large installation heights**



Allows large longitudinal pitch to obtain uniformity over the aisles and shelving.

Uniformity

To obtain uniform lighting, the installation pitch is equal to:
 $DL = 1.2 \times hu$
 hu = Effective installation height

You are in
hall
29
Aisle
E

RETAIL BRAND AREA
INTERNATIONAL
BUYERS LOUNGE
MEALS AND CONFERENCE
COLLECTIVE ENTRANCE

VOI SIETE NEL
YOU ARE IN
PAD | HALL
29 FOOD

←

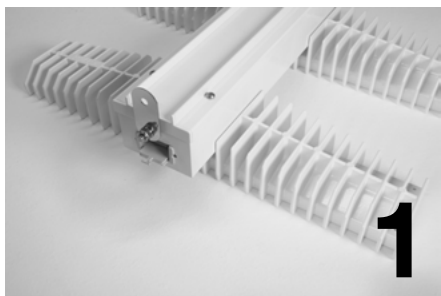
PAD | HALL
30 FOOD NON FOOD

←



Quick connection.

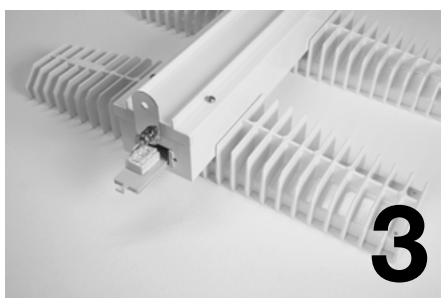
Thanks to the FastWiring system, the installation time for 3f lem is significantly reduced:



3F LEM is supplied with our new "FastWiring" quick connector. Here is what it looks like when removed from the packaging.



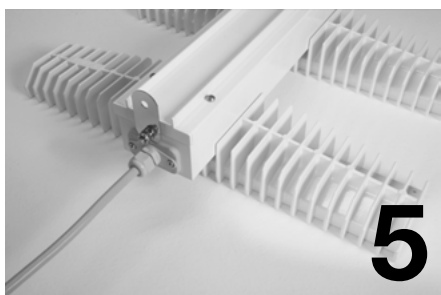
Remove the support by grasping the tab.



At this point the quick connection closing cap and the cable gland are inserted onto the cable and the electrical cables can be connected to the quick connect terminal board. No tools are required.



Push the sliding support into the luminaire and screw down the two phillips head screws on the closing cap.



Done!
3F LEM is now ready for installation.

Waterproof and
corrosion-proof



3F LEM

Construction characteristics

Illuminotechnical characteristics

Wide, medium, concentrated symmetric elliptical distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Passive modular heatsinks in die-casted aluminum, painted in white color.

To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.

Wiring body in aluminum and galvanized steel anchored solidly to the sinks and thermally separated.

3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.

Fixing brackets in stainless steel.

Electrical characteristics

Quick connection in polycarbonate with M20x1,5 cable gland, to access the

terminal block positioned on a removable runner.

Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- double quick connection
- polycarbonate lenses (IK08 - 5J)
- wiring: twin-circuit, CLO (more information on page 542)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- HACCP versions for use in the food industry

Applications

Ambient temperature from -30°C to +55°C.

Dry, dusty indoor environments, subject to occasional water splashes.

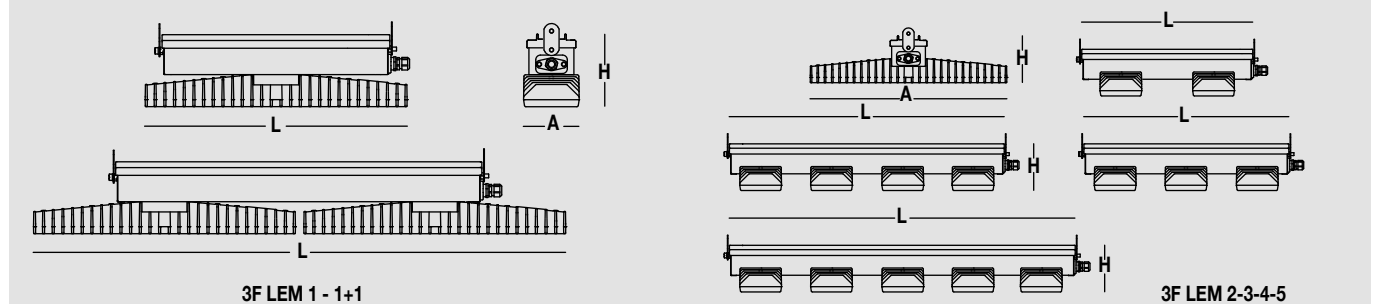
Commercial, industrial and sporting environments (with no high-flying balls), as well as warehouses.

Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with polycarbonate lenses.

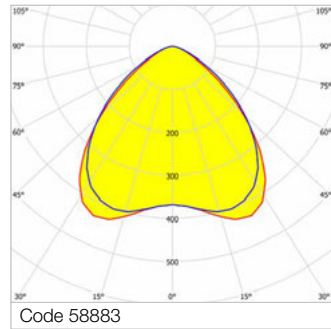
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F LEM Wide



Wide distribution with rectangular shape.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

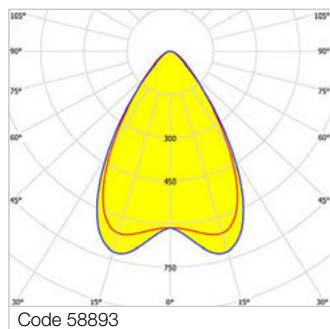
| | | | | | | |
|-------|---------------------------------|-----|-------|------|-----|--------------|
| 58881 | 3F LEM 1 LED 50 CR AMPIO | 56 | 8369 | 4000 | >80 | 542x115x150 |
| 59157 | 3F LEM 1 LED 50/865 CR AMPIO | 56 | 8076 | 6500 | >80 | 542x115x150 |
| 58885 | 3F LEM 1+1 LED 100 CR AMPIO | 110 | 16738 | 4000 | >80 | 1099x115x150 |
| 59161 | 3F LEM 1+1 LED 100/865 CR AMPIO | 110 | 16152 | 6500 | >80 | 1099x115x150 |
| 58882 | 3F LEM 2 LED 100 CR AMPIO | 110 | 16738 | 4000 | >80 | 470x542x129 |
| 59158 | 3F LEM 2 LED 100/865 CR AMPIO | 110 | 16152 | 6500 | >80 | 470x542x129 |
| 58883 | 3F LEM 3 LED 150 CR AMPIO | 169 | 25106 | 4000 | >80 | 657x542x129 |
| 59159 | 3F LEM 3 LED 150/865 CR AMPIO | 169 | 24228 | 6500 | >80 | 657x542x129 |
| 58884 | 3F LEM 4 LED 200 CR AMPIO | 220 | 33475 | 4000 | >80 | 757x542x129 |
| 59160 | 3F LEM 4 LED 200/865 CR AMPIO | 220 | 32303 | 6500 | >80 | 757x542x129 |
| 58886 | 3F LEM 5 LED 250 CR AMPIO | 284 | 41844 | 4000 | >80 | 952x542x129 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------------|-----|-------|------|-----|--------------|
| 58899 | 3F LEM 1 LED 50 DALI CR AMPIO | 56 | 8369 | 4000 | >80 | 542x115x150 |
| 58903 | 3F LEM 1+1 LED 100 DALI CR AMPIO | 110 | 16738 | 4000 | >80 | 1099x115x150 |
| 58900 | 3F LEM 2 LED 100 DALI CR AMPIO | 110 | 16738 | 4000 | >80 | 470x542x129 |
| 58901 | 3F LEM 3 LED 150 DALI CR AMPIO | 169 | 25106 | 4000 | >80 | 657x542x129 |
| 58902 | 3F LEM 4 LED 200 DALI CR AMPIO | 220 | 33475 | 4000 | >80 | 757x542x129 |
| 58904 | 3F LEM 5 LED 250 DALI CR AMPIO | 284 | 41844 | 4000 | >80 | 952x542x129 |

Waterproof and corrosion-proof

3F LEM Medium



Medium distribution with square shape.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

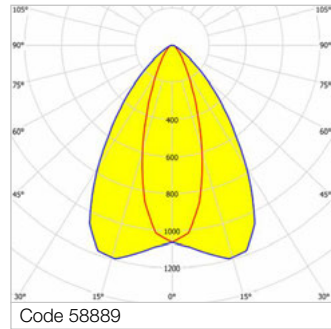
Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-----------------------------|-----|-------|------|-----|--------------|
| 58896 | 3F LEM 1+1 LED 100 CR MEDIO | 110 | 17097 | 4000 | >80 | 1099x115x150 |
| 58893 | 3F LEM 2 LED 100 CR MEDIO | 110 | 17097 | 4000 | >80 | 470x542x129 |
| 58894 | 3F LEM 3 LED 150 CR MEDIO | 169 | 25646 | 4000 | >80 | 657x542x129 |
| 58895 | 3F LEM 4 LED 200 CR MEDIO | 220 | 34194 | 4000 | >80 | 757x542x129 |
| 58897 | 3F LEM 5 LED 250 CR MEDIO | 284 | 42743 | 4000 | >80 | 952x542x129 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------------|-----|-------|------|-----|--------------|
| 58914 | 3F LEM 1+1 LED 100 DALI CR MEDIO | 110 | 17097 | 4000 | >80 | 1099x115x150 |
| 58911 | 3F LEM 2 LED 100 DALI CR MEDIO | 110 | 17097 | 4000 | >80 | 470x542x129 |
| 58912 | 3F LEM 3 LED 150 DALI CR MEDIO | 169 | 25646 | 4000 | >80 | 657x542x129 |
| 58913 | 3F LEM 4 LED 200 DALI CR MEDIO | 220 | 34194 | 4000 | >80 | 757x542x129 |
| 58915 | 3F LEM 5 LED 250 DALI CR MEDIO | 284 | 42743 | 4000 | >80 | 952x542x129 |

3F LEM Concentrated



Concentrated elliptical distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------|-----|-------|------|-----|-------------|
| 58887 | 3F LEM 1 LED 50 CR CONC | 56 | 8567 | 4000 | >80 | 542x115x150 |
| 58888 | 3F LEM 2 LED 100 CR CONC | 110 | 17133 | 4000 | >80 | 470x542x129 |
| 59164 | 3F LEM 2 LED 100/865 CR CONC | 110 | 16533 | 6500 | >80 | 470x542x129 |
| 58889 | 3F LEM 3 LED 150 CR CONC | 169 | 25700 | 4000 | >80 | 657x542x129 |
| 59165 | 3F LEM 3 LED 150/865 CR CONC | 169 | 24800 | 6500 | >80 | 657x542x129 |
| 58890 | 3F LEM 4 LED 200 CR CONC | 220 | 34266 | 4000 | >80 | 757x542x129 |
| 59166 | 3F LEM 4 LED 200/865 CR CONC | 220 | 33067 | 6500 | >80 | 757x542x129 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|-----|-------|------|-----|-------------|
| 58905 | 3F LEM 1 LED 50 DALI CR CONC | 56 | 8567 | 4000 | >80 | 542x115x150 |
| 58906 | 3F LEM 2 LED 100 DALI CR CONC | 110 | 17133 | 4000 | >80 | 470x542x129 |
| 58907 | 3F LEM 3 LED 150 DALI CR CONC | 169 | 25700 | 4000 | >80 | 657x542x129 |
| 58908 | 3F LEM 4 LED 200 DALI CR CONC | 220 | 34266 | 4000 | >80 | 757x542x129 |

Waterproof and corrosion-proof



3F LEM DALI Sensor

Construction characteristics

Illuminotechnical characteristics

Wide, medium, concentrated symmetric elliptical distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Passive modular heatsinks in die-casted aluminum, painted in white color.

To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.

Wiring body in aluminum and galvanized steel anchored solidly to the sinks and thermally separated.

3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.

Fixing brackets in stainless steel.

Electrical characteristics

In compliance with EN 60598-1.

Quick connection.

Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- presence function
- manual light intensity adjustment
- double quick connection
- polycarbonate lenses (IK08)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- HACCP versions for use in the food industry

Applications

Ambient temperature from -25°C to +50°C.

Recommended in environments with strong amount of natural light (or areas with staff present discontinuously).

Dry, dusty indoor environments, subject to occasional water splashes.

Commercial, industrial and sporting environments and warehouses and spaces where sports which involve high-flying balls etc. are not practised.

Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with polycarbonate lenses.

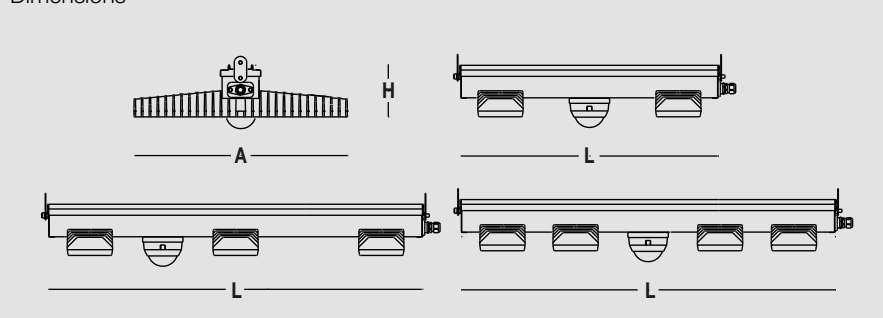
Installation

Recommended maximum height 13 m.

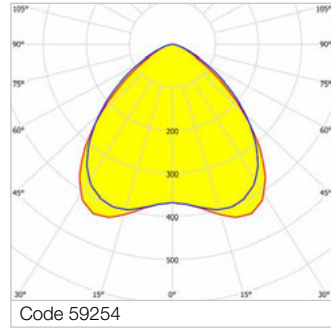
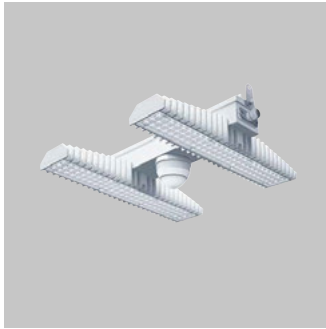
Light Management

The DALI SENSOR products from this product family are all fitted with DALI light sensors integrated into the luminaire (see "Light Management" chapter).

Dimensions



3F LEM DALI Sensor Wide









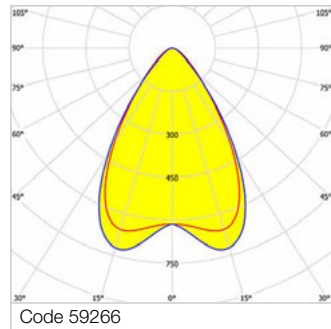
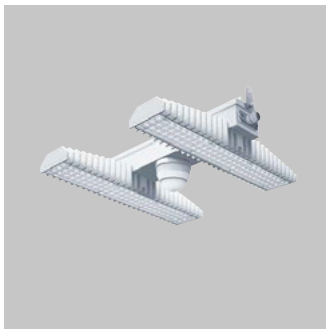

Wide distribution with rectangular shape. Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------------|-----|-------|------|-----|-------------|
| 59253 | 3F LEM 2 LED 100 DALI Sensor CR AMPIO | 111 | 16738 | 4000 | >80 | 657x542x129 |
| 59254 | 3F LEM 3 LED 150 DALI Sensor CR AMPIO | 170 | 25106 | 4000 | >80 | 952x542x129 |
| 59255 | 3F LEM 4 LED 200 DALI Sensor CR AMPIO | 221 | 33475 | 4000 | >80 | 952x542x129 |

3F LEM DALI Sensor Medium










Medium distribution with square shape. Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

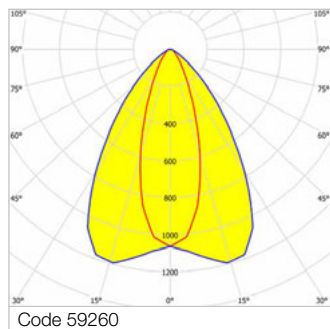
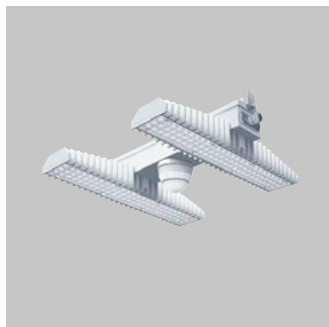
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------------|-----|-------|------|-----|-------------|
| 59265 | 3F LEM 2 LED 100 DALI Sensor CR MEDIO | 111 | 17097 | 4000 | >80 | 657x542x129 |
| 59266 | 3F LEM 3 LED 150 DALI Sensor CR MEDIO | 170 | 25646 | 4000 | >80 | 952x542x129 |
| 59267 | 3F LEM 4 LED 200 DALI Sensor CR MEDIO | 221 | 34194 | 4000 | >80 | 952x542x129 |

Waterproof and corrosion-proof

3F LEM DALI Sensor Concentrated



Concentrated elliptical distribution.
Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------------|-----|-------|------|-----|-------------|
| 59259 | 3F LEM 2 LED 100 DALI Sensor CR CONC | 111 | 17133 | 4000 | >80 | 657x542x129 |
| 59260 | 3F LEM 3 LED 150 DALI Sensor CR CONC | 170 | 25700 | 4000 | >80 | 952x542x129 |
| 59261 | 3F LEM 4 LED 200 DALI Sensor CR CONC | 221 | 34266 | 4000 | >80 | 952x542x129 |



M
5

N
5



3F LEM High Output

Construction characteristics

Illuminotechnical characteristics

Wide, medium, concentrated symmetric elliptical distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Passive modular heatsinks in die-casted aluminum, painted in white color.

To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.

Wiring body in aluminum and galvanized steel anchored solidly to the sinks and thermally separated.

3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.

Fixing brackets in stainless steel.

Electrical characteristics

Quick connection.

Power unit positioned on a separate

compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- double quick connection
- polycarbonate lenses (IK08)
- wiring: twin-circuit, CLO (more information on page 542)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- HACCP versions for use in the food industry

Applications

Ambient temperature from -30°C to +45°C. Dry, dusty indoor environments, subject to occasional water splashes.

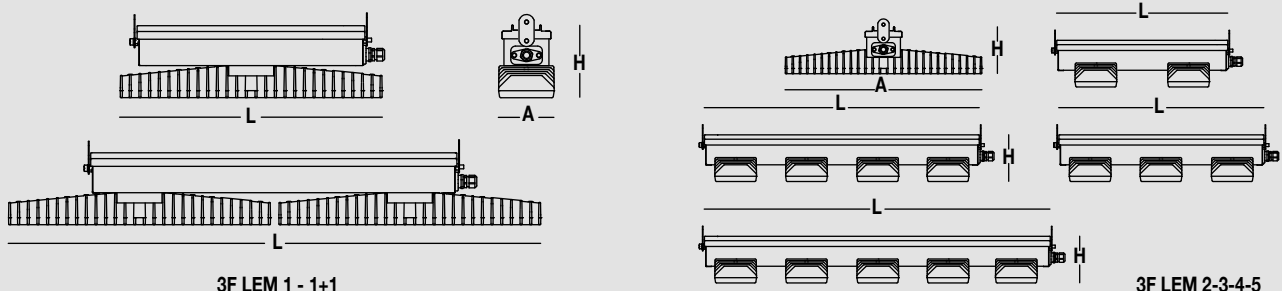
Commercial, industrial and sporting environments and warehouses and spaces where sports which involve high-flying balls etc. are not practised.

Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with polycarbonate lenses.

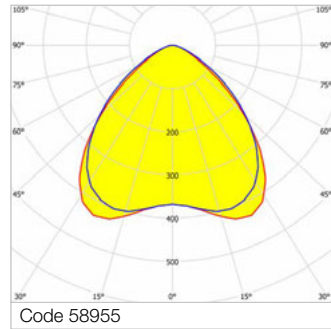
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F LEM HO Wide



Wide distribution with rectangular shape.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

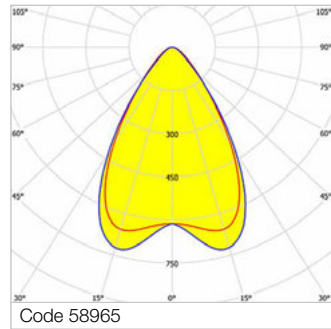
| | | | | | | |
|-------|--------------------------------|-----|-------|------|-----|--------------|
| 58953 | 3F LEM 1 HO LED 70 CR AMPIO | 73 | 10453 | 4000 | >80 | 542x115x150 |
| 58957 | 3F LEM 1+1 HO LED 140 CR AMPIO | 147 | 20907 | 4000 | >80 | 1099x115x150 |
| 58954 | 3F LEM 2 HO LED 140 CR AMPIO | 147 | 20907 | 4000 | >80 | 470x542x129 |
| 58955 | 3F LEM 3 HO LED 210 CR AMPIO | 222 | 31360 | 4000 | >80 | 657x542x129 |
| 58956 | 3F LEM 4 HO LED 280 CR AMPIO | 294 | 41813 | 4000 | >80 | 757x542x129 |
| 58958 | 3F LEM 5 HO LED 350 CR AMPIO | 370 | 52266 | 4000 | >80 | 952x542x129 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------------|-----|-------|------|-----|--------------|
| 58971 | 3F LEM 1 HO LED 70 DALI CR AMPIO | 73 | 10453 | 4000 | >80 | 542x115x150 |
| 58975 | 3F LEM 1+1 HO LED 140 DALI CR AMPIO | 147 | 20907 | 4000 | >80 | 1099x115x150 |
| 58972 | 3F LEM 2 HO LED 140 DALI CR AMPIO | 147 | 20907 | 4000 | >80 | 470x542x129 |
| 58973 | 3F LEM 3 HO LED 210 DALI CR AMPIO | 222 | 31360 | 4000 | >80 | 657x542x129 |
| 58974 | 3F LEM 4 HO LED 280 DALI CR AMPIO | 294 | 41813 | 4000 | >80 | 757x542x129 |
| 58976 | 3F LEM 5 HO LED 350 DALI CR AMPIO | 370 | 52266 | 4000 | >80 | 952x542x129 |

Waterproof and corrosion-proof

3F LEM HO Medium



Medium distribution with square shape.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

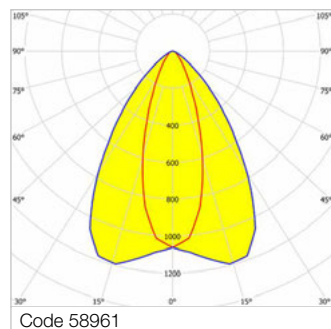
Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------|-----|-------|------|-----|--------------|
| 58968 | 3F LEM 1+1 HO LED 140 CR MEDIO | 147 | 21356 | 4000 | >80 | 1099x115x150 |
| 58965 | 3F LEM 2 HO LED 140 CR MEDIO | 147 | 21356 | 4000 | >80 | 470x542x129 |
| 58966 | 3F LEM 3 HO LED 210 CR MEDIO | 222 | 32033 | 4000 | >80 | 657x542x129 |
| 58967 | 3F LEM 4 HO LED 280 CR MEDIO | 294 | 42711 | 4000 | >80 | 757x542x129 |
| 58969 | 3F LEM 5 HO LED 350 CR MEDIO | 370 | 53389 | 4000 | >80 | 952x542x129 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------------|-----|-------|------|-----|--------------|
| 58986 | 3F LEM 1+1 HO LED 140 DALI CR MEDIO | 147 | 21356 | 4000 | >80 | 1099x115x150 |
| 58983 | 3F LEM 2 HO LED 140 DALI CR MEDIO | 147 | 21356 | 4000 | >80 | 470x542x129 |
| 58984 | 3F LEM 3 HO LED 210 DALI CR MEDIO | 222 | 32033 | 4000 | >80 | 657x542x129 |
| 58985 | 3F LEM 4 HO LED 280 DALI CR MEDIO | 294 | 42711 | 4000 | >80 | 757x542x129 |
| 58987 | 3F LEM 5 HO LED 350 DALI CR MEDIO | 370 | 53389 | 4000 | >80 | 952x542x129 |

3F LEM HO Concentrated



Concentrated elliptical distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-----------------------------|-----|-------|------|-----|-------------|
| 58959 | 3F LEM 1 HO LED 70 CR CONC | 73 | 10700 | 4000 | >80 | 542x115x150 |
| 58960 | 3F LEM 2 HO LED 140 CR CONC | 147 | 21401 | 4000 | >80 | 470x542x129 |
| 58961 | 3F LEM 3 HO LED 210 CR CONC | 222 | 32101 | 4000 | >80 | 657x542x129 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------------|-----|-------|------|-----|-------------|
| 58977 | 3F LEM 1 HO LED 70 DALI CR CONC | 73 | 10700 | 4000 | >80 | 542x115x150 |
| 58978 | 3F LEM 2 HO LED 140 DALI CR CONC | 147 | 21401 | 4000 | >80 | 470x542x129 |
| 58979 | 3F LEM 3 HO LED 210 DALI CR CONC | 222 | 32101 | 4000 | >80 | 657x542x129 |





3F LEM High Temperature

Construction characteristics

Illuminotechnical characteristics

Wide, medium, concentrated symmetric elliptical distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Luminous flux at +70°C: -13.5%.

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Passive modular heatsinks in die-casted aluminum, painted in white color.

To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.

Wiring body in aluminum and galvanized steel anchored solidly to the sinks and thermally separated.

3F Lens lenses with high luminous efficiency, transparent polycarbonate, fixed to the LED modules.

Fixing brackets in stainless steel.

Electrical characteristics

In compliance with EN 60598-1.

Quick connection.

Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- double quick connection
- wiring: twin-circuit, dimmable, CLO (more information on page 542)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- HACCP versions for use in the food industry

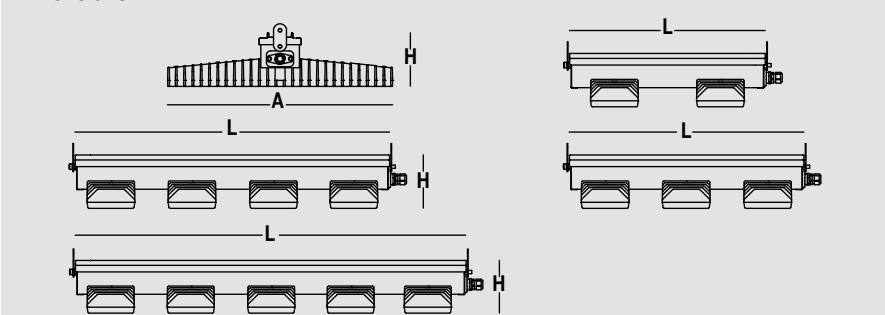
Applications

Ambient temperature from -30°C to +70°C. Dry, dusty indoor environments, subject to occasional water splashes.

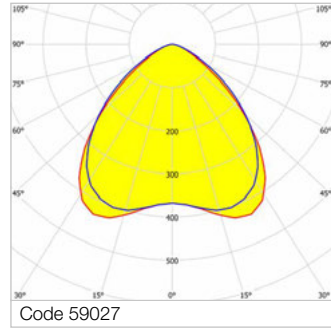
Commercial, industrial and sporting environments and warehouses and spaces where sports which involve high-flying balls etc. are not practised.

Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with polycarbonate lenses.

Dimensions



3F LEM HT Wide









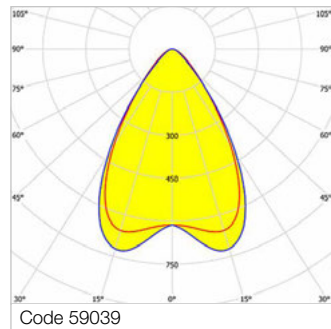

Wide distribution with rectangular shape.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------|-----|-------|------|-----|-------------|
| 59026 | 3F LEM 2 HT LED 60 CR AMPIO | 68 | 10615 | 4000 | >80 | 470x542x129 |
| 59027 | 3F LEM 3 HT LED 90 CR AMPIO | 102 | 15922 | 4000 | >80 | 657x542x129 |
| 59028 | 3F LEM 4 HT LED 120 CR AMPIO | 136 | 21230 | 4000 | >80 | 757x542x129 |
| 59030 | 3F LEM 5 HT LED 150 CR AMPIO | 170 | 26537 | 4000 | >80 | 952x542x129 |

3F LEM HT Medium










Medium distribution with square shape.

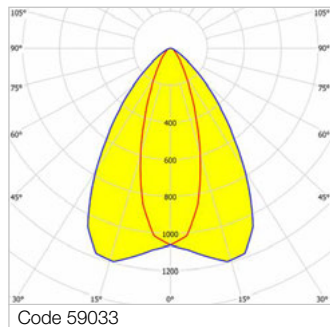
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------|-----|-------|------|-----|-------------|
| 59039 | 3F LEM 4 HT LED 120 CR MEDIO | 136 | 21676 | 4000 | >80 | 757x542x129 |
| 59041 | 3F LEM 5 HT LED 150 CR MEDIO | 170 | 27094 | 4000 | >80 | 952x542x129 |

Waterproof and corrosion-proof

3F LEM HT Concentrated



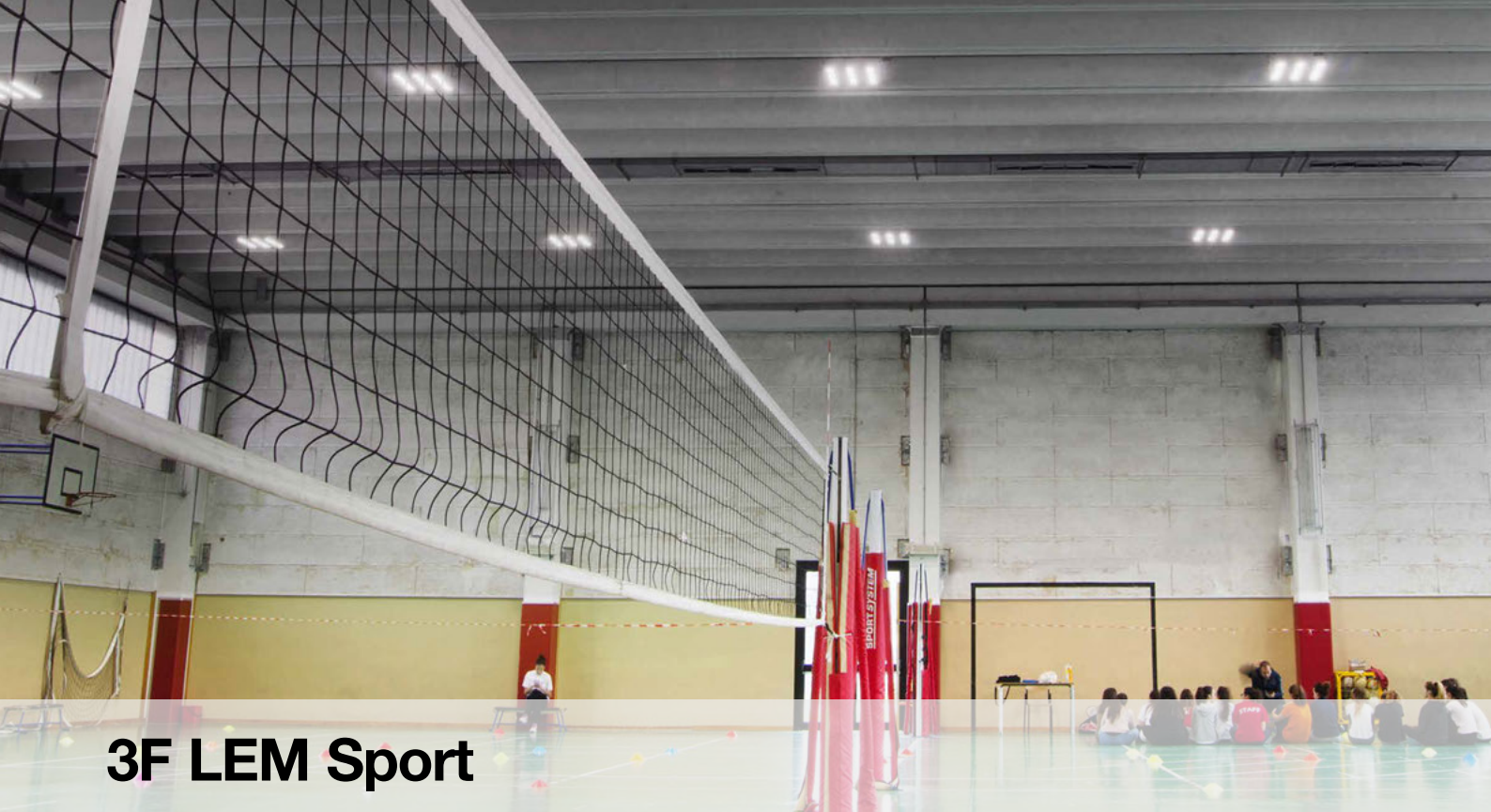
Concentrated elliptical distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-----------------------------|-----|-------|------|-----|-------------|
| 59032 | 3F LEM 2 HT LED 60 CR CONC | 68 | 10863 | 4000 | >80 | 470x542x129 |
| 59033 | 3F LEM 3 HT LED 90 CR CONC | 102 | 16294 | 4000 | >80 | 657x542x129 |
| 59034 | 3F LEM 4 HT LED 120 CR CONC | 136 | 21725 | 4000 | >80 | 757x542x129 |





3F LEM Sport

Construction characteristics

Illuminotechnical characteristics

Wide symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Passive modular heatsinks in die-casted aluminum, painted in white color.
 To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
 Wiring body in aluminum and steel in white colour, specially strengthened, anchored solidly to the sinks and thermally separated.
 3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.
 Fixing brackets in stainless steel.

Electrical characteristics

Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.
 Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- double quick connection
- polycarbonate lenses (IK08 - 5J)
- wiring: twin-circuit, CLO (more information on page 542)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

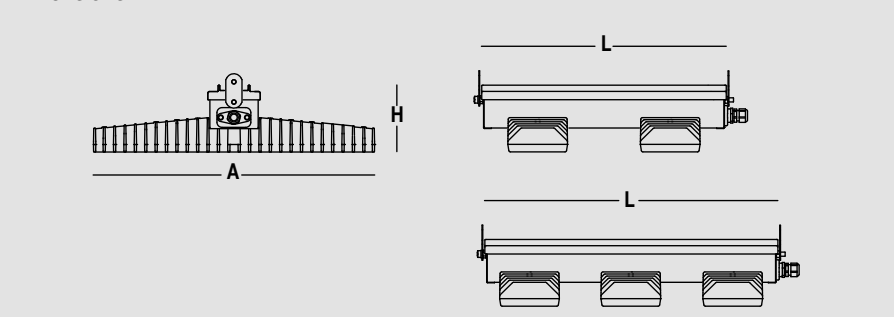
Applications

Ambient temperature from -20°C to +55°C.
 Luminaire suitable for gyms as well as sports, commercial, exhibition and industrial environments.

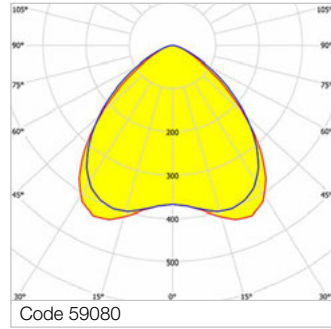
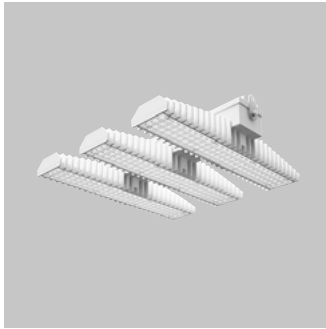
Resistance against ball impacts in accordance with DIN 18032-3, CSI certification (IMQ group) (more information on page 579).

Dry, dusty indoor environments, subject to occasional water splashes.

Dimensions



3F LEM Sport Wide



Wide distribution with rectangular shape.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------|-----|-------|------|-----|-------------|
| 59080 | 3F LEM 2 Sport LED 100 CR AMPIO | 110 | 16738 | 4000 | >80 | 470x542x129 |
| 59081 | 3F LEM 3 Sport LED 150 CR AMPIO | 169 | 25106 | 4000 | >80 | 657x542x129 |

Waterproof and corrosion-proof

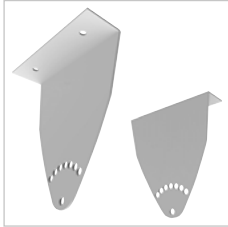
3F LEM Accessories



Brackets for mounting of luminaire on ceiling or on bus ducts, stainless steel.

| Code | Item |
|-------|--|
| A0652 | Couple of brackets for ceiling installation - 3F LEM |

Please note: these brackets do NOT provide free orientation of the luminaire. To allow free orientation, accessories A0651+A0632 must be installed.



Brackets for ceiling mounting, in hot-galvanized steel painted in white polyester.

| Code | Item |
|-------|--|
| A0632 | Couple of brackets for ceiling installation - 3F LEM |

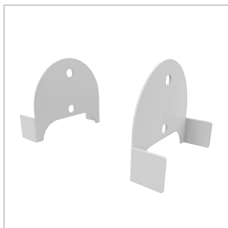
The bracket A0632 allows the luminaire to be ceiling mounted without the possibility to rotate it. To allow free orientation, both accessories (A0651+A0632) must be installed.



Brackets for wall mounting, in hot-galvanized steel painted in white polyester.

| Code | Item |
|-------|--------------------------------|
| A0654 | Pair of wall brackets - 3F LEM |

The bracket A0654 allows the luminaire to be wall mounted without the possibility to rotate it. To allow free orientation, both accessories (A0651+A0654) must be installed.



Additional bracket that, combined with the A0654 or A0632 accessories, makes it possible for the luminaires to be oriented on the ceiling or the wall, in hot-galvanized steel painted in white polyester.

| Code | Item |
|-------|---------------------------------|
| A0651 | 3F LEM bracket rotation support |

This accessory must ALWAYS be used with one of the following codes: A0632 o A0654.



Brackets for rotating luminaires mounted on ceilings or on bus ducts.

| Code | Item |
|-------|--|
| A0776 | Horizontal rotation bracket 90° 3F LEM 1-2 |
| A0777 | Horizontal rotating bracket 90° 3F LEM 3 - 3F LEM 2 Sensor |
| A0778 | Horizontal Rotating Bracket 90° 3F LEM 4 |



Dust covers for food processing areas in white-painted galvanized steel.

| Code | Item |
|-------|--|
| A0728 | Cover for food applications - for 3F LEM 1 |
| A0733 | Cover for food applications - for 3F LEM 2-3-4-5 (one for each module) |

For a LEM 3, for example, 3 pcs of the cod. A0733 must be ordered. Not available for the 1+1 version. To find out the maximum ambient operating temperature of the appliance fitted with the cover, contact our Sales Network or our Technical Offices.

HACCP



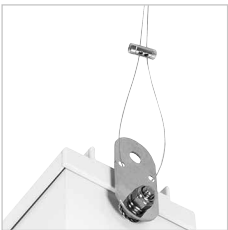
Snap hooks clips for chain suspension, galvanized steel.

| Code | Item |
|-------|---|
| A0653 | Couple of fixing carabiniers for chain installation |



Glass with gasket to protect the louvre compartment from dust and noxious fumes. Recommended for use in very dirty environments or in which aggressive chemical agents are used.

| Code | Item |
|-------|---|
| A0811 | Transparent glass with gasket (10pcs) The pack contains 10 pieces. |
| A0812 | Printed glass with gasket (10pcs) The pack contains 10 pieces. |



Anti-fall safety cable Ø 2 mm for fastening the body to the building structure.

| Code | Item |
|-------|---|
| A0242 | 100m galvanized steel cable coil The pack contains 100 metres. |
| A0243 | 500m galvanized steel cable coil The pack contains 500 metres. |

Coupling accessory A0714 to one of the two safety cables (A0242 or A0243) provides an anti-fall kit fixing and adjusting the cable on the load-bearing element of the building structure. The cable passes between the two passage holes on the hanging brackets mounted on the 3F LEM. Suitable for environments subject to impacts or seismic zones.



Clamp in nickel-plated brass suitable for fixing and adjustment of galvanized steel wire (diameter 1,25 mm - 1,5 mm - 2 mm), complete with locking screws. The 2 hole clamp allows to block and adjust the cable on a bearing element (part of the building) or on rounded eye bolt.

| Code | Item |
|-------|--|
| A0714 | Clamp 2 holes - 100 pcs The pack contains 100 pieces. |



Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

| Code | Item |
|----------------------|----------------------------------|
| A0521 ^{NEW} | Reducing sealing ring – diam.8mm |



IR remote control for user, compatible with DALI sensors (incompatible with On-Off and Slave sensors).

Accessory compatible with 3F LEM DALI Sensor.

| Code | Item |
|-------|---------------------------|
| A3021 | Remote controller IR DALI |





IR remote control for programmer, compatible with DALI sensors (incompatible with On-Off and Slave sensors).

Accessory compatible with 3F LEM DALI Sensor.

| Code | Item |
|-------|--------------------|
| A3020 | Programmer IR DALI |



IR adapter for Smartphones, compatible with all programmable sensors. Free App available for Android and iOS devices.

Accessory compatible with 3F LEM DALI Sensor.

| Code | Item |
|-------|---------------------------|
| A3022 | IR-Adapter for Smartphone |



3F LEM

Examples of design

Comparison to 400W JM reflector

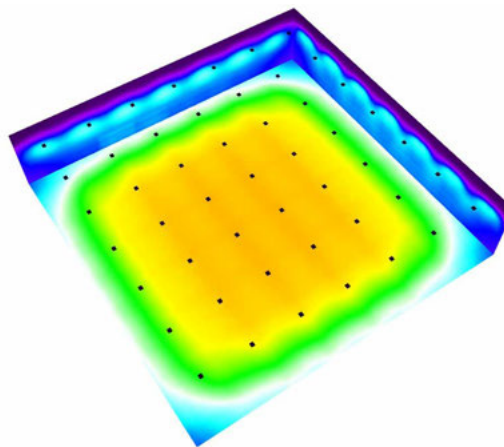
Design data:

Room dimensions 50x50 metres
 Room height 11 metres
 Installation height 10 metres

Like-for-like replacement of light points

Reflection ceiling 30%
 walls 30%
 floor 10%

Work surface height 0.85 metres



| | Current system 400 JM reflector | Like-for-like replacement of light points 3F LEM 2 HO LED 140 | Reduction in light points 3F LEM 4 HO LED 280 |
|------------------------|------------------------------------|--|--|
| Lighting values | 290 lx | 345 lx (MEDIO) - 325 lx (AMPIO) | 345 lx (MEDIO) - 325 lx (AMPIO) |
| Number of light points | 49 | 49 | 25 |
| Total luminaire | 21,560 W | 7,203 W | 7,350 W |
| Difference | | -67% | -66% |
| Average source life | 8,000 hours | >100,000 hours | >100,000 hours |

Comparison to 250W JM reflector

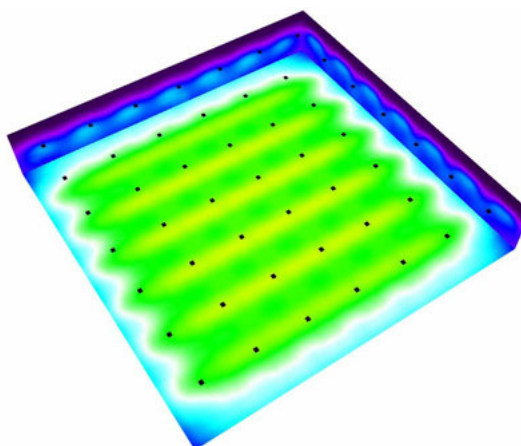
Design data:

Room dimensions 50x50 metres
 Room height 8 metres
 Installation height 7 metres

Like-for-like replacement of light points

Reflection ceiling 30%
 walls 30%
 floor 10%

Work surface height 0.85 metres



| | Current system 250 JM reflector | Like-for-like replacement of light points 3F LEM 2 LED 100 | Reduction in light points 3F LEM 2 LED 100 |
|------------------------|------------------------------------|---|---|
| Lighting values | 174 lx | 288 lx (MEDIO) - 275 lx (AMPIO) | 247 lx (MEDIO) - 237 lx (AMPIO) |
| Number of light points | 49 | 49 | 42 |
| Total luminaire | 14,210 W | 5,390 W | 4,620 W |
| Difference | | -62% | -67% |
| Average source life | 8,000 hours | >100,000 hours | >100,000 hours |

Waterproof and
corrosion-proof

3F Linda



Floval

MAGNET

MAGNET

MAGNET

MAGNET

Clean lines, compact and solid. Like always.

Patented

3F Linda has become famous for its soft and smooth lines, its patented snug fit snap-lock clips, its compact egg-shaped housing (110 millimetres maximum in the case of ceiling installation with brackets), its internal reinforcement structure and its elastic, shatterproof polycarbonate diffuser.

Thanks to its flexibility, it finds applications in residential, commercial and even food industry environments (**IFS, HACCP and BRC certification**).

3F Linda is available in three different lengths (600, 1200 and 1500 mm) with different power and luminous flux levels, and with both housing widths (100 millimetres and 160 millimetres).

Its efficient electronic wiring decreases power consumption and start-up times.

Thanks to the photo-etched diffuser, 3F Linda is now even higher-performance and economical, with improved diffusion and softer light, and increased visual comfort.

Waterproof and
corrosion-proof

Efficient and ecological. For you, for the world.

3F Linda shows off the best of 3F Filippi's design philosophy in looking for the best production solutions which respect the environment and lead to a reduction in materials and energy across the whole of the product's life cycle, by:

- Reducing power consumption and increasing the efficiency of our products thanks to the introduction of intelligent electronic wiring, high-efficiency sources and optimisation of the distribution of the luminous flux, thanks also to the possibility of installing flow recuperators.
- Limited use of different materials in order to facilitate the assembly, installation and recycling phases: only polycarbonate (body, diffuser, clips), aluminium or steel (flow recuperator, gear tray and stainless-steel clips) and the copper in the wires (completely removable) are used in 3F Linda. Moreover, connection between components are all reversible and use completely recyclable materials, facilitating disassembly and disposal of the product at the end of its lifetime.
- Recyclable green packaging, like all of 3F Filippi's products, in recycled cardboard.
- Reduced ecological footprint, with products manufactured with energy from PV solar panels and product handling following a "zero-mile" philosophy.
- Installation compatibility with previous versions: the new 3F Linda integrates perfectly in all environments, becoming the perfect solution to update existing installations – thanks to its full compatibility with the previous fluorescent version in terms of its size and accessories.
- Reuse of these elements means that less energy is used to create new products and accessories for adaption of previous installations.
- **Installation is quick and safe** thanks to the fixing brackets made entirely of stainless steel (both the internal and external part); the weight is distributed optimally. The sliding quick connection bracket can also be adjusted to suit the thermal expansion of the luminaire even in environments with a notable temperature range. The set of three fixing brackets is supplied with each luminaire.
- For installations with direct exposure to sunlight, use of the "Beta 235" or "Beta A3F - i3F" product is recommended.
- The sliding quick connection bracket can also be adjusted to suit the thermal expansion of the luminaire even in environments with a notable temperature range. The set of three fixing brackets is supplied with each luminaire.
- 3F Linda is a luminaire with Fire Reaction Class 1 as per Italian Ministerial Decree of 24 June 1984 (Classification of reaction to fire and type-approval of materials for fire-prevention purposes).
- This classification meets the requirements of Italian Ministerial Decrees of 11 January 1988 (Fire-prevention standards in subways) and of 28 October 2005 (Safety in railway tunnels).



| | | | | |
|----------------|-------------|-------------------|--------------|--------------|
| 100 | 2 | FINAL 2 | 33 | 31 |
| Pro. | 5 | Produzione | | Ass. |
| Team Alert | | Chiamato | Fermato | Tempo (h:mm) |
| | | 9 | 8 | 00:22 |
| GIRMAIN | ZNE01 | ZNE02 | ZNE03 | ZNE04 |
| ZNE05 | ZNE06 | ZNE07 | ZNE08 | |
| PORTE PIENI | PORTE VUOTI | SEDILI PIENI | SEDILI VUOTI | |
| 88 | 32 | 53 | 3 | |







3F Linda

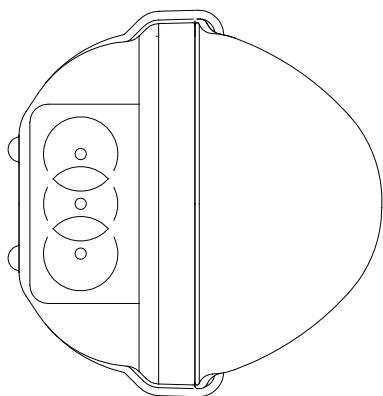
Product range

3F Linda is available in the following versions:

- 3F Linda LED** - High-performance watertight luminaire
- 3F Linda LED Wide** - Version with wide distribution
- 3F Linda LED Concentrated** - Version with concentrated distribution
- 3F Linda LED Basic** - The ideal solution for replacing old fluorescent solutions
- 3F Linda LED Soft** - Watertight luminaire with high visual comfort
- 3F Linda LED Compact** - Luminaire 300 mm in length
- 3F Linda LED HS** - Watertight luminaire for environments with corrosive substances
- 3F Linda LED Transparent** - Watertight luminaire with transparent body and diffuser
- 3F Linda LED Ice** - Watertight luminaire for refrigeration cells with temperatures down to -30°C
- 3F Linda LED Sensor** - Watertight luminaire with integrated presence sensor
- 3F Linda LED Sensor Bluetooth** - Watertight luminaire controlled via Bluetooth radio signal

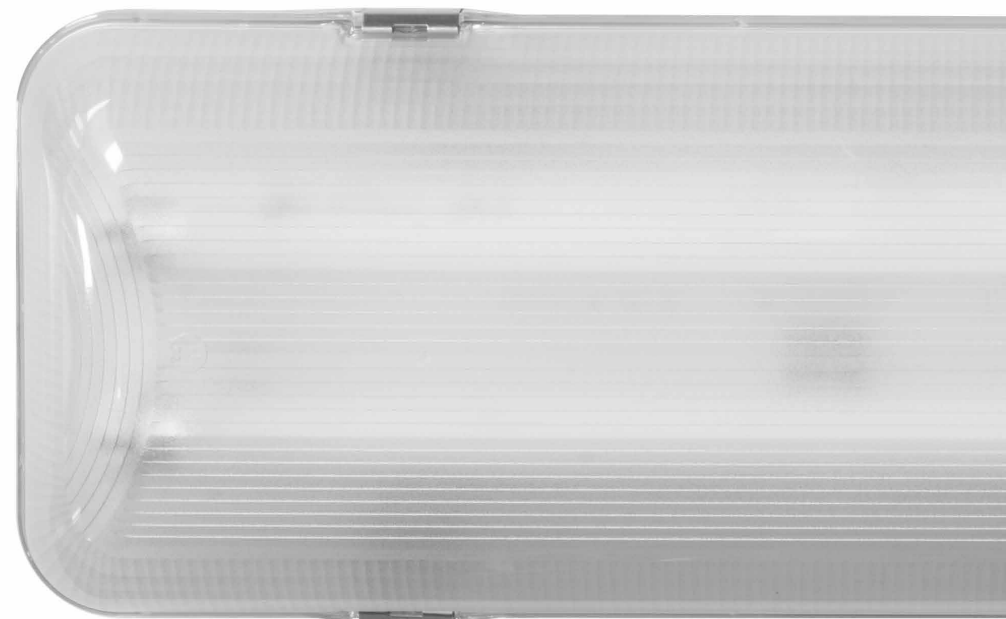
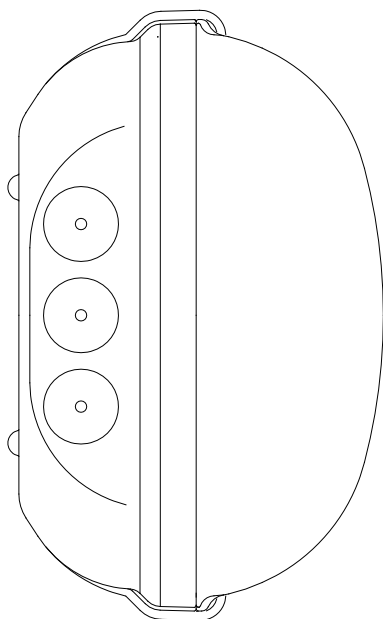
3F Linda is available with two different body widths:

3F Linda 100 mm



1:2 scale image

3F Linda 160 mm



1:2 scale image

Installation Details

3F Linda allows for quick and safe installation with various fixing methods.

Ceiling

3F Linda lengths 660mm, 1270 mm and 1570 mm.

Pair of stainless steel brackets, for quick connection, allow for wide tolerance for expansion and/or inaccurate fixing of the wall plug.



Ceiling

3F Linda length 300 mm

Suspension

Installation with hooks or chains.

3F Linda lengths 660 mm, 1270 mm and 1570 mm.

Pair of stainless steel springs, for quick connection.



Suspension

3F Linda and Pair of hooks for quick fastening, stainless steel.

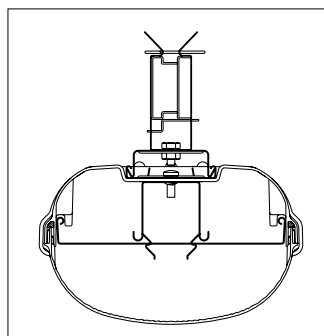
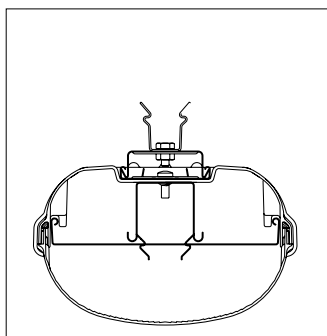
Accessories:

13 GSI for luminaires of 300 mm in length.

13 TRM for luminaires of other lengths.

Busbar

Installation on busbar with the brackets supplied with the busbar.

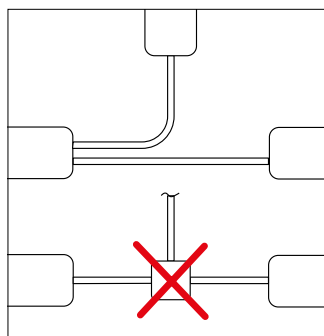


Busbar

Installation on busbar with the brackets supplied with the busbar.

Provision for **cascade connection line for the entire 3F Linda range with the exception of the transparent, OP and Basic models.**

The gear tray hinges **downwards** for easy maintenance.



Possibility of branch installation using the **cascade connection line** thanks to the **multiple holes** on the end cap, avoiding the use of junction boxes.

Safety snap-lock clips for diffuser mounting.

Opening performed by means of a screwdriver.



Closing the diffuser is easy and quick thanks to the centring aids on housing and the side snap-lock clips that just need to be pressed.

Waterproof and corrosion-proof



3F Linda LED

Construction characteristics

Illuminotechnical characteristics

Controlled symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
 Ecologic anti-aging injected sealing gasket.
 Gear-tray reflector unit in hot-galvanized steel, painted in white polyester, fixed to the housing by means of steel rapid devices, hinged opening.
 Diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded with smooth outer surface.
 Stainless steel fixing brackets, L=300 mm versions excluded.

Electrical characteristics

Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- wiring: CLO (more information on page 542), dimmable D1-10V, class II
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Applications

Dry, dusty indoor environments, subject to occasional water splashes.
 Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials.
 Not suitable in environments where chlorine fumes, ligroin, hydrocarbon mixtures, mineral oil vapours or fumes of lubricating emulsions to cool down machine tools are present.
 Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.
 Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).
 Suitable for illumination of public car parks and parking grounds referred to DIN 67528:2018-04.
 For specific applications please contact our technical offices.

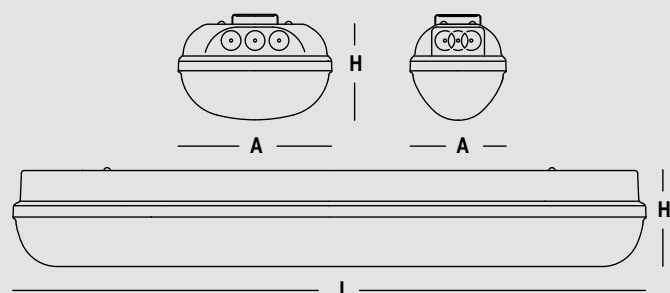
Wide version

Environments with low ceilings, parking lots or wide installation grids.

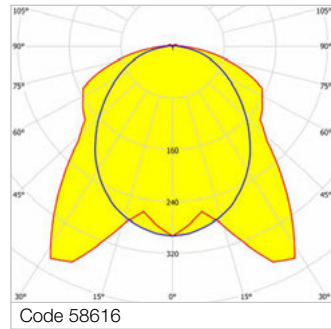
Concentrated version

Environments with high ceilings.

Dimensions



3F Linda LED



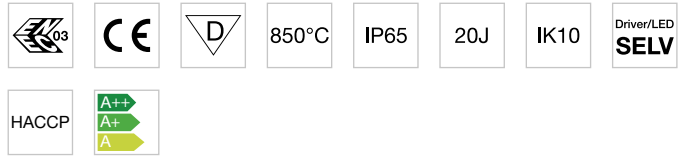
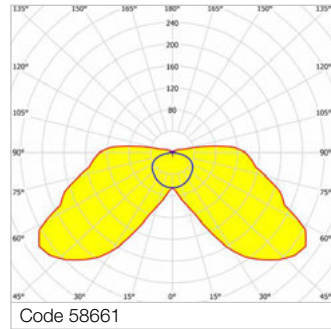
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.

Fixing brackets in stainless steel.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|--|---------------------------------|--------------------|------------------|---------|-----|----------------------|
| Electronic wiring 230V-50/60Hz | | | | | | |
| 58563 | 3F Linda LED 1x6W L660 | 7.5 | 1029 | 4000 | >80 | 660x100x100 |
| 58561 | 3F Linda LED 1x12W L660 | 15 | 1918 | 4000 | >80 | 660x100x100 |
| 58583 | 3F Linda LED 1x24W L1270 | 28 | 3914 | 4000 | >80 | 1270x100x100 |
| 58585 | 3F Linda LED 1x24W/830 L1270 | 28 | 3640 | 3000 | >80 | 1270x100x100 |
| 58584 | 3F Linda LED 1x24W/865 L1270 | 28 | 3777 | 6500 | >80 | 1270x100x100 |
| 58572 | 3F Linda LED 2x12W L660 | 30 | 3732 | 4000 | >80 | 660x160x100 |
| 58605 | 3F Linda LED 1x30W L1570 | 35 | 4899 | 4000 | >80 | 1570x100x100 |
| 58607 | 3F Linda LED 1x30W/830 L1570 | 35 | 4556 | 3000 | >80 | 1570x100x100 |
| 58606 | 3F Linda LED 1x30W/865 L1570 | 35 | 4727 | 6500 | >80 | 1570x100x100 |
| 58594 | 3F Linda LED 2x24W L1270 | 56 | 7617 | 4000 | >80 | 1270x160x100 |
| 58596 | 3F Linda LED 2x24W/830 L1270 | 56 | 7084 | 3000 | >80 | 1270x160x100 |
| 58595 | 3F Linda LED 2x24W/865 L1270 | 56 | 7350 | 6500 | >80 | 1270x160x100 |
| 58616 | 3F Linda LED 2x30W L1570 | 70 | 9533 | 4000 | >80 | 1570x160x100 |
| 58618 | 3F Linda LED 2x30W/830 L1570 | 70 | 8865 | 3000 | >80 | 1570x160x100 |
| 58617 | 3F Linda LED 2x30W/865 L1570 | 70 | 9199 | 6500 | >80 | 1570x160x100 |
| DALI electronic wiring 230V-50/60Hz | | | | | | |
| 58549 ^{NEW} | 3F Linda LED 1x12W DALI L660 | 15 | 1918 | 4000 | >80 | 660x100x100 |
| 58550 ^{NEW} | 3F Linda LED 2x12W DALI L660 | 30 | 3732 | 4000 | >80 | 660x160x100 |
| 58551 | 3F Linda LED 1x24W DALI L1270 | 28 | 3914 | 4000 | >80 | 1270x100x100 |
| 58553 | 3F Linda LED 1x30W DALI L1570 | 35 | 4899 | 4000 | >80 | 1570x100x100 |
| 58552 | 3F Linda LED 2x24W DALI L1270 | 56 | 7617 | 4000 | >80 | 1270x160x100 |
| 58554 | 3F Linda LED 2x30W DALI L1570 | 70 | 9533 | 4000 | >80 | 1570x160x100 |
| EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560) | | | | | | |
| 58569 | 3F Linda LED 1x6W EP LA L660 | 8.5 | 1029 | 4000 | >80 | 660x160x100 |
| 58567 | 3F Linda LED 1x12W EP LA L660 | 16 | 1918 | 4000 | >80 | 660x160x100 |
| 58589 | 3F Linda LED 1x24W EP L1270 | 29 | 3914 | 4000 | >80 | 1270x100x100 |
| 58591 | 3F Linda LED 1x24W/830 EP L1270 | 29 | 3640 | 3000 | >80 | 1270x100x100 |
| 58590 | 3F Linda LED 1x24W/865 EP L1270 | 29 | 3777 | 6500 | >80 | 1270x100x100 |
| 58611 | 3F Linda LED 1x30W EP L1570 | 36 | 4899 | 4000 | >80 | 1570x100x100 |
| 58613 | 3F Linda LED 1x30W/830 EP L1570 | 36 | 4556 | 3000 | >80 | 1570x100x100 |
| 58612 | 3F Linda LED 1x30W/865 EP L1570 | 36 | 4727 | 6500 | >80 | 1570x100x100 |
| 58600 | 3F Linda LED 2x24W EP L1270 | 57 | 7617 | 4000 | >80 | 1270x160x100 |
| 58602 | 3F Linda LED 2x24W/830 EP L1270 | 57 | 7084 | 3000 | >80 | 1270x160x100 |
| 58601 | 3F Linda LED 2x24W/865 EP L1270 | 57 | 7350 | 6500 | >80 | 1270x160x100 |
| 58623 | 3F Linda LED 2x30W EP L1570 | 71 | 9533 | 4000 | >80 | 1570x160x100 |
| 58625 | 3F Linda LED 2x30W/830 EP L1570 | 71 | 8865 | 3000 | >80 | 1570x160x100 |
| 58624 | 3F Linda LED 2x30W/865 EP L1570 | 71 | 9199 | 6500 | >80 | 1570x160x100 |
| ENP non-permanent emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560) | | | | | | |
| 58705 | 3F Linda LED 1x12W ENP LA L660 | | 543 | 4000 | >80 | 660x160x100 |
| 58713 | 3F Linda LED 1x24W ENP L1270 | | 544 | 4000 | >80 | 1270x100x100 |

Waterproof and corrosion-proof

3F Linda LED Wide



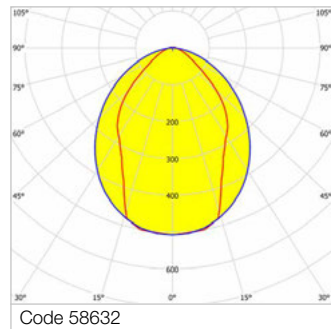
Wide distribution.
Flux recuperator in specular aluminium, high efficiency.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------|----|------|------|-----|--------------|
| 58659 | 3F Linda LED 2x24W AMPIO L1270 | 56 | 7600 | 4000 | >80 | 1270x160x100 |
| 58661 | 3F Linda LED 2x30W AMPIO L1570 | 70 | 9511 | 4000 | >80 | 1570x160x100 |

3F Linda LED Concentrated



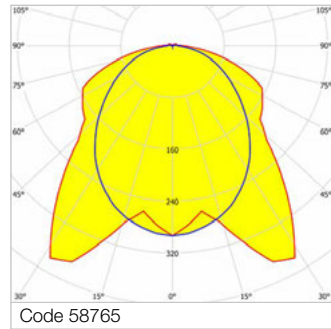
Concentrated elliptical distribution.
Flux recuperator in specular aluminium, high efficiency.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|--------------|
| 58630 | 3F Linda LED 2x24W CONC L1270 | 56 | 7465 | 4000 | >80 | 1270x160x100 |
| 58632 | 3F Linda LED 2x30W CONC L1570 | 70 | 9342 | 4000 | >80 | 1570x160x100 |

3F Linda LED Basic



850°C

IP65

20J

IK10

Driver/LED
SELV

HACCP



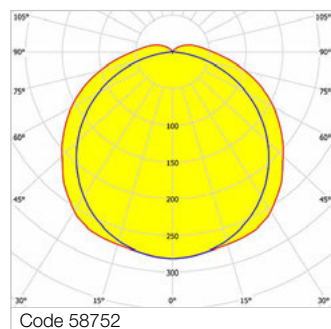
Snug fit snap-lock clips for diffuser mounting, in polycarbonate, tamper-proof screwdriver opening.
In compliance with EN 60598-1.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|--------------|
| 58762 | 3F Linda LED Basic 1x19W L1270 | 21 | 2738 | 4000 | >80 | 1270x100x100 |
| 58764 | 3F Linda LED Basic 1x23W L1570 | 29 | 3435 | 4000 | >80 | 1570x100x100 |
| 58766 | 3F Linda LED Basic ST 2x16W L1270 | 36 | 4952 | 4000 | >80 | 1270x100x100 |
| 58763 | 3F Linda LED Basic 2x19W L1270 | 42 | 5329 | 4000 | >80 | 1270x160x100 |
| 58767 | 3F Linda LED Basic ST 2x20W L1570 | 45 | 6225 | 4000 | >80 | 1570x100x100 |
| 58765 | 3F Linda LED Basic 2x23W L1570 | 56 | 6685 | 4000 | >80 | 1570x160x100 |

3F Linda LED Soft



850°C

IP65

20J

IK10

Driver/LED
SELV

HACCP



Soft opal diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
In compliance with EN 60598-1.

Waterproof and corrosion-proof

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

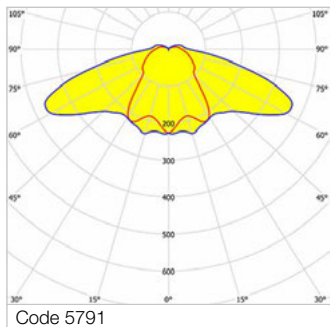
Electronic wiring 230V-50/60Hz

| | | | | | | |
|----------------------|-------------------------------|----|------|------|-----|--------------|
| 58731 ^{NEW} | 3F Linda LED Soft 1x12W L660 | 15 | 1760 | 4000 | >80 | 660x100x100 |
| 58732 ^{NEW} | 3F Linda LED Soft 2x12W L660 | 30 | 3376 | 4000 | >80 | 660x160x100 |
| 58733 ^{NEW} | 3F Linda LED Soft 1x24W L1270 | 28 | 3593 | 4000 | >80 | 1270x100x100 |
| 58734 ^{NEW} | 3F Linda LED Soft 1x30W L1570 | 35 | 4497 | 4000 | >80 | 1570x100x100 |
| 58751 | 3F Linda LED Soft 2x22W L1570 | 50 | 6838 | 4000 | >80 | 1570x160x100 |
| 58737 ^{NEW} | 3F Linda LED Soft 2x24W L1270 | 56 | 6890 | 4000 | >80 | 1270x160x100 |
| 58752 | 3F Linda LED Soft 2x30W L1570 | 70 | 8623 | 4000 | >80 | 1570x160x100 |

DALI electronic wiring 230V-50/60Hz


| | | | | | | |
|----------------------|------------------------------------|----|------|------|-----|--------------|
| 58735 ^{NEW} | 3F Linda LED Soft 1x24W DALI L1270 | 28 | 3593 | 4000 | >80 | 1270x100x100 |
| 58736 ^{NEW} | 3F Linda LED Soft 1x30W DALI L1570 | 35 | 4497 | 4000 | >80 | 1570x100x100 |
| 58753 | 3F Linda LED Soft 2x22W DALI L1570 | 50 | 6838 | 4000 | >80 | 1570x160x100 |
| 58738 ^{NEW} | 3F Linda LED Soft 2x24W DALI L1270 | 56 | 6890 | 4000 | >80 | 1270x160x100 |
| 58754 | 3F Linda LED Soft 2x30W DALI L1570 | 70 | 8623 | 4000 | >80 | 1570x160x100 |

3F Linda LED Compact












Wide longitudinal distribution.
 LED modules on an adjustable aluminium support and transparent methacrylate lenses.
 In compliance with EN 60598-1.
 Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

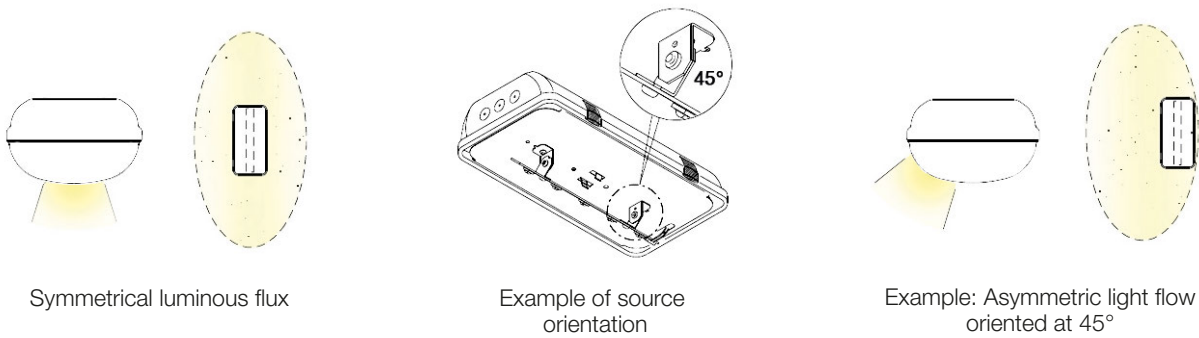
| | | | | | | |
|------|------------------------------------|-----|-----|------|-----|-------------|
| 5791 | 3F Linda Compatta LED 1x5W 160x300 | 7.5 | 464 | 4000 | >80 | 300x160x100 |
| 5790 | 3F Linda Compatta LED 1x5W 100x300 | 7.5 | 461 | 4000 | >80 | 300x100x100 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|------|---------------------------------------|-----|-----|------|-----|-------------|
| 5794 | 3F Linda Compatta LED 1x5W EP 160x300 | 8.5 | 464 | 4000 | >80 | 300x160x100 |
|------|---------------------------------------|-----|-----|------|-----|-------------|

The **Linda LED Compact** version is specially designed to be installed in corridors, emergency exits and transit areas: its light guides you along very clearly with its distribution which has been optimised to create light corridors.
 Thanks to a new type of LED specially designed for this device, consistent energy savings can be achieved and maintenance costs eliminated (average estimated LED source lifetime 80,000 h).

Both **Linda Compact LED** versions can be wall or ceiling mounted, and offer the possibility to direct the LED source, easily adapting the light strip to any type of installation.
 The rotating support the LED is fixed to allows the light flow to be oriented up to 45° in both directions, meeting any dedicated lighting requirements and allowing these adjustments to be made with great precision directly on site:







3F Linda LED HS

Construction characteristics

Illuminotechnical characteristics

Controlled symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Body and screen in polycarbonate with additional protective treatment for use in environments with aggressive substances. Ecologic anti-aging injected sealing gasket.
 Gear-tray reflector unit in hot-galvanized steel, painted in white polyester, fixed to the housing by means of steel rapid devices, hinged opening.
 Diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded with smooth outer surface.
 Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
 Fixing brackets in stainless steel.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- **Linear anti-sulfur LED modules (SiO₂), with special protection against aggressive chemically-volatile substances, for standard LED technology.**
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different colour temperatures
- wiring: dimmable, CLO (more information on page 542), class II

Applications

Dry, dusty indoor environments, subject to occasional water splashes.
 Product suitable for installation in food-production/processing environments (HACCP), IFS (Food Version 6), BRC (GSFS Food Version 7).
 Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials.
 Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.

Luminaire complete with linear anti-sulfur LED modules (SiO₂), with special protection against aggressive chemically-volatile substances, for standard LED technology.

Body and diffuser resistant to the following substances: Ethyl alcohol (24 hours at 20°C), aqueous detergents, hydrochloric acid 10% (leaves slight mark), DOT4 brake oil, sulphuric acid (leaves slight mark), ammonia.

When using this data, remember that it is the result of laboratory tests, and therefore valid only under those test conditions: the data is to be considered approximate and, in the absence of practical experience, it is advisable to carry out tests under actual operating conditions.

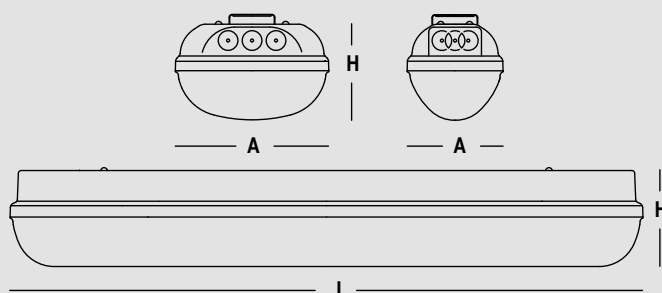
Please refer to the resistance to corrosive substances table on page 581.

The temperature and concentration of the chemical substance may significantly affect the materials and the LED technology.

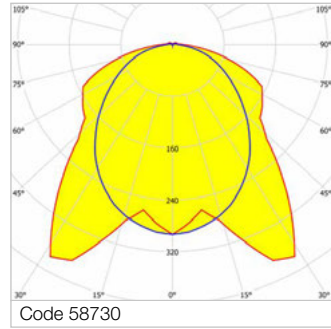
For specific applications please contact our technical offices.

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

Dimensions



3F Linda LED HS



Luminaire complete with linear LED modules (SiO₂), with special protection against aggressive chemically-volatile substances, for standard LED technology.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-----------------------------|----|------|------|-----|--------------|
| 58722 | 3F Linda LED HS 1x24W L1270 | 28 | 3914 | 4000 | >80 | 1270x100x100 |
| 58724 | 3F Linda LED HS 1x30W L1570 | 35 | 4899 | 4000 | >80 | 1570x100x100 |
| 58728 | 3F Linda LED HS 2x24W L1270 | 56 | 7617 | 4000 | >80 | 1270x160x100 |
| 58730 | 3F Linda LED HS 2x30W L1570 | 70 | 9533 | 4000 | >80 | 1570x160x100 |

Waterproof and corrosion-proof



3F Linda LED Transparent

Construction characteristics

Illuminotechnical characteristics

Controlled symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in transparent self-extinguishing V2 polycarbonate, injection moulded.
 Ecologic anti-aging injected sealing gasket.
 Gear-tray reflector unit in hot-galvanized steel, painted in white polyester, fixed to the housing by means of steel rapid devices, hinged opening.
 Diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded with smooth outer surface.
 Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
 Fixing brackets in stainless steel.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

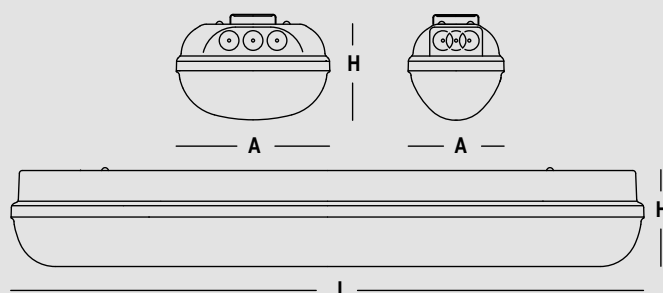
On request

- different colour rendering indices and colour temperatures
- wiring: dimmable, CLO (more information on page 542), class II
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

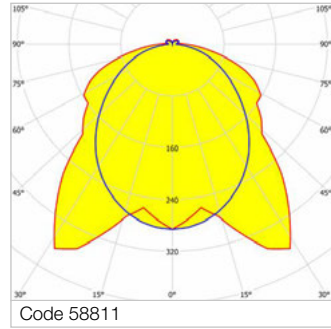
Applications

Dry, dusty indoor environments, subject to occasional water splashes.
 Environments: transit areas, parking lots.
 Environments where soft diffuse light is required for optimal visual comfort.
 Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials.
 Not suitable in environments where chlorine fumes, ligroin, hydrocarbon mixtures, mineral oil vapours or fumes of lubricating emulsions to cool down machine tools are present.
 Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.
 Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).
 Suitable for illumination of public car parks and parking grounds referred to DIN 67528:2018-04.

Dimensions



3F Linda LED Transparent



850°C

IP65

20J

IK10

Driver/LED
SELV

HACCP



Transparent polycarbonate housing.
Snug fit safety snap-lock clips in stainless steel.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------------|----|------|------|-----|--------------|
| 58806 | 3F Linda LED Trasparente 1x12W L660 | 15 | 1928 | 4000 | >80 | 660x100x100 |
| 58808 | 3F Linda LED Trasparente 1x24W L1270 | 28 | 3935 | 4000 | >80 | 1270x100x100 |
| 58810 | 3F Linda LED Trasparente 1x30W L1570 | 35 | 4925 | 4000 | >80 | 1570x100x100 |
| 58809 | 3F Linda LED Trasparente 2x24W L1270 | 56 | 7693 | 4000 | >80 | 1270x160x100 |
| 58811 | 3F Linda LED Trasparente 2x30W L1570 | 70 | 9628 | 4000 | >80 | 1570x160x100 |

Waterproof and corrosion-proof



3F Linda LED Ice

Construction characteristics

Illuminotechnical characteristics

Controlled symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
 Ecologic anti-aging injected sealing gasket.
 Gear-tray reflector unit in hot-galvanized steel, painted in white polyester, fixed to the housing by means of steel rapid devices, hinged opening.
 Diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded with smooth outer surface.
 Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
 Fixing brackets in stainless steel.

Electrical characteristics

In compliance with EN 60598-1.
 L-N-E line terminal block with ceramic isolator protection powder-filled fuse, rapid type, 5x20 mm, of suitable capacity, breaking capacity 1500 A.
 Solid single-core silicone rubber insulated wiring cable with fiberglass braid type UG4T2/2 cross section 0.75 mm².

Source characteristics

- Linear LED modules UR95.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- DALI version

Applications

Cells with temperature from -30°C to +40°C with a humidity degree up to 95%.
 Before installation, we recommend checking that there are no contraindications to the use of and polycarbonate inside the refrigerating room.

For applications in environments in which disturbances on the power network may be present and/or involve use at low temperatures, surge protection devices should be fitted on the power supply and any causes of undervoltages eliminated.

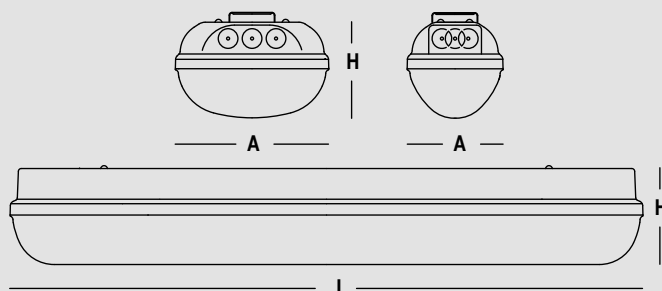
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

Installation

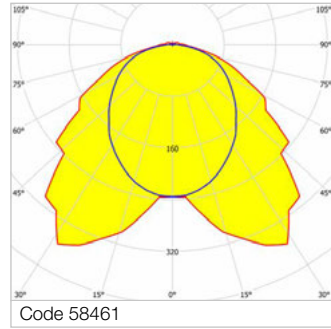
Thanks to new 3F LED technology, the advantages of using 3F Linda LED ICE technology are manifold:

- switch-on time less than 5 seconds
 - unlimited on cycles
 - lifetime of LED source does not decline in relation to the number of on cycles
- All this results in cost reductions thanks to:
- power consumption lower than for fluorescent versions
 - no heat transfer from the luminaire to the cooled environment

Dimensions



3F Linda LED Ice 1x



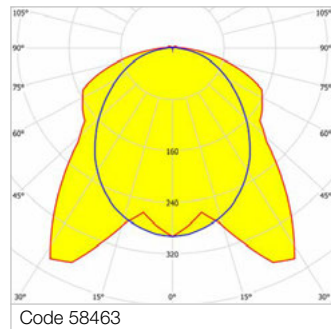
Controlled wide distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz, fuse

| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|--------------|
| 58457 | 3F Linda LED Ice 1x24W UR95 L1270 | 28 | 3914 | 4000 | >80 | 1270x100x100 |
| 58461 | 3F Linda LED Ice 1x30W UR95 L1570 | 35 | 4899 | 4000 | >80 | 1570x100x100 |

3F Linda LED Ice 2x



Controlled wide distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz, fuse

| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|--------------|
| 58459 | 3F Linda LED Ice 2x24W UR95 L1270 | 56 | 7617 | 4000 | >80 | 1270x160x100 |
| 58463 | 3F Linda LED Ice 2x30W UR95 L1570 | 70 | 9533 | 4000 | >80 | 1570x160x100 |

Waterproof and corrosion-proof



3F Linda LED Sensor

Construction characteristics

Illuminotechnical characteristics

Controlled symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
 Ecologic anti-aging injected sealing gasket.
 Gear-tray reflector unit in hot-galvanized steel, painted in white polyester, fixed to the housing by means of steel rapid devices, hinged opening.
 Diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded with smooth outer surface.
 Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
 Fixing brackets in stainless steel.

Electrical characteristics

In compliance with EN 60598-1.
 Integrated presence sensor.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- wiring: emergency
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

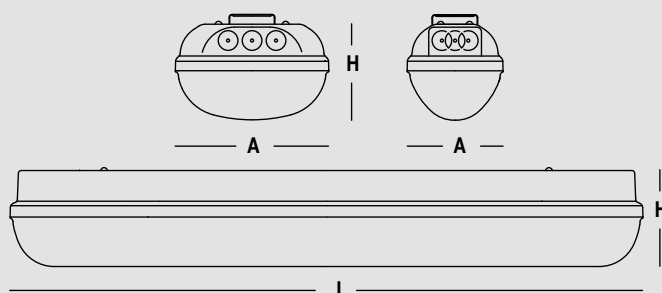
Applications

Dry, dusty indoor environments, subject to occasional water splashes.
 Environments: transit areas, parking lots.
 Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials.
 Not suitable in environments where chlorine fumes, ligroin, hydrocarbon mixtures, mineral oil vapours or fumes of lubricating emulsions to cool down machine tools are present.
 Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.
 For specific applications please contact our technical offices.
 Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).
 Suitable for illumination of public car parks and parking grounds referred to DIN 67528:2018-04.

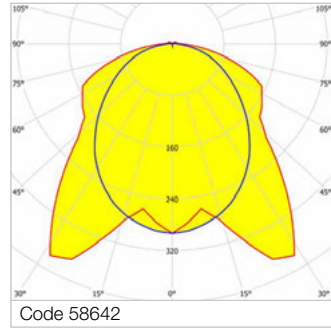
Light Management

For more information on 3F Sensor technology, refer to the specific chapter in the "Light Management" section.

Dimensions



3F Linda LED Sensor



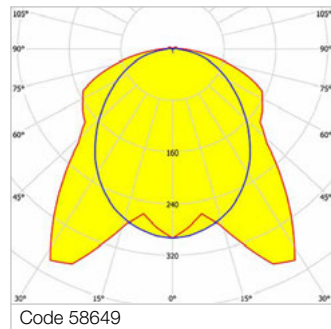
Integrated presence sensor with ON/OFF function.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------|----|------|------|-----|--------------|
| 58638 | 3F Linda LED 1x30W Sensor L1570 | 36 | 4899 | 4000 | >80 | 1570x100x100 |
| 58642 | 3F Linda LED 2x30W Sensor L1570 | 71 | 9533 | 4000 | >80 | 1570x160x100 |

3F Linda LED Sensor Corridor Function



Integrated presence sensor with Corridor Function mode, even with the environment free of people, the luminous flux is maintained at 10%.

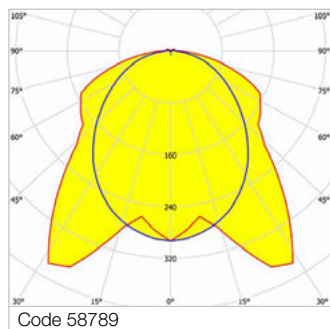
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------------|----|------|------|-----|--------------|
| 58645 | 3F Linda LED 1x30W Sensor CF L1570 | 36 | 4899 | 4000 | >80 | 1570x100x100 |
| 58649 | 3F Linda LED 2x30W Sensor CF L1570 | 71 | 9533 | 4000 | >80 | 1570x160x100 |

Waterproof and corrosion-proof

3F Linda LED Sensor Bluetooth



Integrated Bluetooth presence sensor that allows to adjust and create a wireless network between DALI-BLE fixtures.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--|----|------|------|-----|--------------|
| 58786 | 3F Linda LED 1x24W Sensor DALI-BLE L1270 | 29 | 3914 | 4000 | >80 | 1270x100x100 |
| 58787 | 3F Linda LED 1x30W Sensor DALI-BLE L1570 | 36 | 4899 | 4000 | >80 | 1570x100x100 |
| 58788 | 3F Linda LED 2x24W Sensor DALI-BLE L1270 | 57 | 7617 | 4000 | >80 | 1270x160x100 |
| 58789 | 3F Linda LED 2x30W Sensor DALI-BLE L1570 | 71 | 9533 | 4000 | >80 | 1570x160x100 |

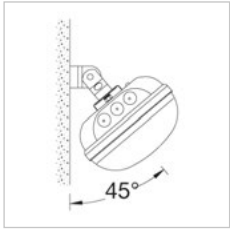
3F Linda Accessories



Snug fit snap-lock clips for diffuser mounting, in stainless steel, safety opening.

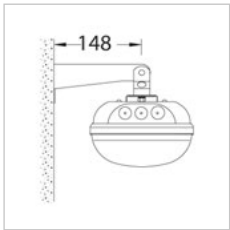
Accessory compatible with 3F Linda LED.

| Code | Item |
|-------|---|
| A0160 | Inox clips 3F Linda L660-4pcs The pack contains 4 pieces. |
| A0161 | Inox clips 3F Linda L1270-8pcs The pack contains 8 pieces. |
| A0162 | Inox clips 3F Linda L1570-10pcs The pack contains 10 pieces. |



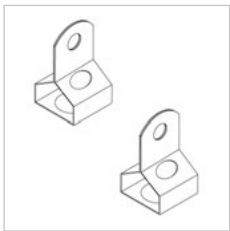
Pair of brackets and hooks in stainless steel, with nuts and bolts for fixing to 3F Linda, for ceiling or wall-mounting, single and twin-lamp luminaires. Minimum tilt angle = 45°.

| Code | Item |
|-------|---|
| A0449 | 15 GZI (w/brack. Linda L300) |
| A0450 | 15 RIT (w/brack.+ hooks Linda L660-1270-1570) |



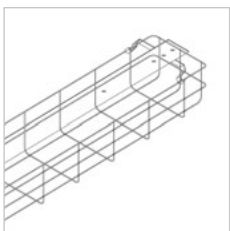
Pair of brackets and hooks in stainless steel, with nuts and bolts for fixing to 3F Linda, for wall-mounting, single and twin-lamp luminaires.

| Code | Item |
|-------|---|
| A0451 | 15 MBI (w/brack. Linda L300) |
| A0452 | 15 FBR (w/brack.+ hooks Linda L660-1270-1570) |



Pair of stainless steel hooks for suspended installation, with cable clip and nuts and bolts for installation to 3F Linda.

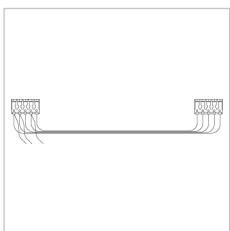
| Code | Item |
|-------|---|
| A0462 | 13 GSI (pair of susp. hooks Linda L300) |
| A0463 | 13 TRM (pair of susp. hooks Linda L660-1270-1570) |



Wire-guard for applications in dry environments, against shocks coming from any directions, galvanized steel rod Ø 5 mm.

| Code | Item |
|-------|------------------------------------|
| A0455 | Wire guard 180x1330 03F/Linda |
| A0456 | Wire guard 180x1330 03F/Linda |
| A0457 | Wire guard 280x1330 03F/Linda/Beta |
| A0458 | Wire guard 280x1630 03F/Linda/Beta |

Only for luminaires fixed without hooks.



5-pole cascade connection line, stiff cable H07 V2-U, HT 90°C, 1.5 mm², terminal blocks with connection capacity 2x2.5 mm².

Accessory compatible with 3F Linda LED, 3F Linda LED HS, 3F Linda LED Ice, 3F Linda LED Sensor.

| Code | Item |
|-------|----------------------------|
| A0447 | 3F Linda though line L1570 |



Anti-condensation diffuser cable gland.

| Code | Item |
|-------|-------------------------------|
| A0187 | Anti-condensation cable gland |

Recommended for installations in environments with temperature sudden changes or subject to condensation.



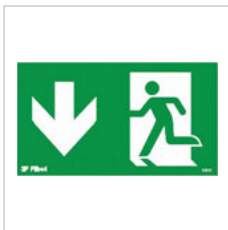
Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

| Code | Item |
|----------------------|----------------------------------|
| A0521 ^{NEW} | Reducing sealing ring – diam.8mm |



Pictograms for warning signs to be applied on emergency luminaire's diffusers 160 mm wide. Pictogram, 135 mm high, 240 mm long for L300 luminaires, 605 mm long for L660 luminaires. Pictograms complying with European standards concerning health and safety signals on the workplace.

| Code | Item |
|-------|----------------------------------|
| A0464 | 26 CSG (pictogram P1 Linda L300) |
| A0465 | 26 MTH (pictogram P1 Linda L660) |



Pictograms for warning signs to be applied on emergency luminaire's diffusers 160 mm wide. Pictogram, 135 mm high, 240 mm long for L300 luminaires, 605 mm long for L660 luminaires. Pictograms complying with European standards concerning health and safety signals on the workplace.

| Code | Item |
|-------|----------------------------------|
| A0466 | 26 DVI (pictogram P2 Linda L300) |
| A0467 | 26 MVL (pictogram P2 Linda L660) |



Pictograms for warning signs to be applied on emergency luminaire's diffusers 160 mm wide. Pictogram, 135 mm high, 240 mm long for L300 luminaires, 605 mm long for L660 luminaires. Pictograms complying with European standards concerning health and safety signals on the workplace.

| Code | Item |
|-------|----------------------------------|
| A0468 | 26 GZM (pictogram P3 Linda L300) |
| A0469 | 26 PXN (pictogram P3 Linda L660) |



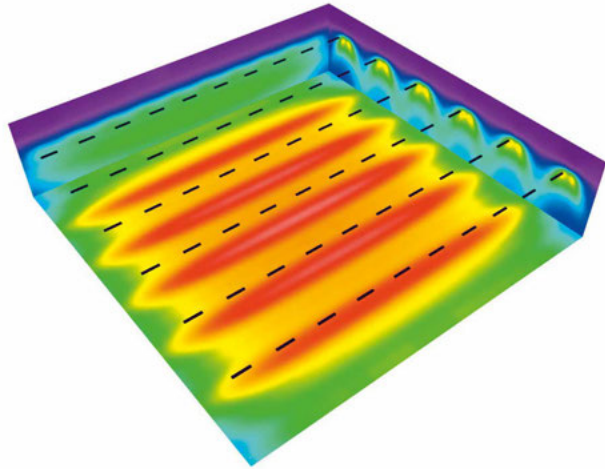
3F Linda LED

Examples of design

Comparison with waterproof Fluorescent 2x58 Starter

Design data:

| | |
|---|---------------------------------------|
| Room dimensions | 30x30 metres |
| Room height | 7 metres |
| Installation height | 5 metres |
| Number of luminaires: | 60 luminaires |
| Like-for-like replacement of light points | |
| Reflection | ceiling 30% walls 30% floor 10% |
| Work surface height | 0.85 metres |



| | Current system Waterproof Fluorescent 2x58W | Like-for-like replacement of light points 3F Linda LED Basic ST 2x20W L1570 | Reduction in light points 3F Linda LED 2x30W L1570 |
|------------------------|---|--|---|
| Lighting values | 300 lx | 321 lx | 329 lx |
| Number of light points | 60 | 60 | 42** |
| Total luminaire | 8,460 W (starter) 6,600 W (electronic) | 2,700 W | 2,940 W |
| Difference | | -68% (starter) -59% (electronic) | -65% (starter) -55% (electronic) |
| Average source life | 10,000 hours (starter) 18,000 hours (electronic) | >50,000 hours | >50,000 hours |

2,000 hours annual operation (8 hours per day) 0.18 €/kWh

| | | | |
|---|-----------------------------------|-------------------------------------|-------------------------------------|
| Energy costs | 51€ (starter) 40€ (electronic) | 16€ | 17€** |
| Energy savings for each luminaire currently installed | | 35€* (starter) 24€* (electronic) | 34€* (starter) 23€* (electronic) |

3000 hours annual operation (12 hours per day) 0.18 €/kWh

| | | | |
|---|-----------------------------------|-------------------------------------|-------------------------------------|
| Energy costs | 76€ (starter) 59€ (electronic) | 24€ | 26€** |
| Energy savings for each luminaire currently installed | | 52€* (starter) 35€* (electronic) | 50€* (starter) 33€* (electronic) |

*Savings from the drastic reduction in maintenance costs should then be added to this!

**Less investment for the fixture purchase and installation

Comparison table between fluorescent and LED luminaires

| Fluorescent Version | | | Power consumption (W) | Corresponding LED | Power consumption (W) | Savings |
|---------------------|-------|---------|-----------------------|-----------------------------------|-----------------------|---------|
| T8 | 2x58W | starter | 141 | 3F Linda LED Basic ST 2x20W L1570 | 45 | 68% |
| | | HF | 109 | | | 59% |
| | 2x36W | starter | 90 | 3F Linda LED Basic ST 2x16W L1270 | 36 | 60% |
| | | HF | 71 | | | 49% |
| | 2x18W | starter | 45 | 3F Linda LED 1x12W L660 | 15 | 67% |
| | | HF | 35 | | | 57% |
| | 1x58W | starter | 70 | 3F Linda LED Basic 1x23W L1570 | 29 | 59% |
| | | HF | 55 | | | 47% |
| | 1x36W | starter | 45 | 3F Linda LED Basic 1x19W L1270 | 21 | 53% |
| | | HF | 36 | | | 42% |
| | 1x18W | starter | 27 | 3F Linda LED 1x6W L660 | 7.5 | 72% |
| | | HF | 19 | | | 61% |
| T5 | 2x49W | | 106 | 3F Linda LED Basic ST 2x20W L1570 | 45 | 58% |
| | 2x35W | | 76 | 3F Linda LED 1x30W L1570 | 35 | 54% |
| | 2x28W | | 60 | 3F Linda LED 1x24W L1270 | 28 | 53% |
| | 2x14W | | 31 | 3F Linda LED 1x12W L660 | 15 | 52% |
| | 1x80W | | 86 | 3F Linda LED 1x30W L1570 | 35 | 59% |
| | 1x49W | | 53 | 3F Linda LED Basic 1x23W L1570 | 29 | 45% |
| | 1x35W | | 38 | 3F Linda LED Basic 1x19W L1270 | 21 | 45% |
| | 1x28W | | 31 | 3F Linda LED 1x12W L660 | 15 | 52% |
| | 1x14W | | 16 | 3F Linda LED 1x6W L660 | 7.5 | 53% |

Why choose 3F Linda LED?



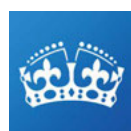
Never-ending light

3F Linda LED is equipped with new 3F LED technology whose sources specially developed for demanding applications guarantee an operating lifetime of over 50,000 hours, at the end of which at least 90% of the LED will still be providing 90% of their initial light output! (50,000h L90/B10).



You won't believe your wallet!

- 3F LED technology allows you to save up to 60% compared to traditional sources.
- Existing luminaires can be replaced while maintaining the same light locations and wiring system, but reducing energy consumption.
- Reduced maintenance significantly lowers running costs.



Beauty which doesn't blind!

The new 3F Linda LED photo-etched diffuser cancels out all glare to provide truly enviable lighting uniformity. Its clean, elegant lines make 3F Linda LED a luminaire which can fit in perfectly with any environment.



Eco-logical

- 3F Linda LED has been created according to the principles of Eco Design, and stands out for:
- Manufactured using energy from solar panels and assembled according to our "zero mileage" philosophy.
 - Limited use of different materials, facilitating assembly, installation and recycling.
 - Recyclable green packaging.



Significant reduction in maintenance costs

- Longer life means less maintenance.
Less maintenance means greater savings.
Less maintenance means fewer problems.
Fewer problems means greater peace of mind.

Beta 235



Tough and Versatile



An extremely versatile lighting body, 3F Beta 235 is the ideal lighting design solution for working environments requiring increased levels of protection.

It is equipped with LED sources with very high luminous fluxes. (135 lm/W) and is particularly suitable for environments such as warehouses, garages and production areas thanks to the wide range of operation, from -20° C to 45° C.

Available in 655 mm, 1,265 mm and 1,565 mm widths, 3F Beta 235 is composed of a steel or stainless steel body and offers a choice between a glass or polycarbonate diffuser to achieve the best performance for the specific installation location.

In addition to the technical performance and high strength of this product is its ease of installation and maintenance: the new quick connection reduces installation time and makes the work of the installers much easier.

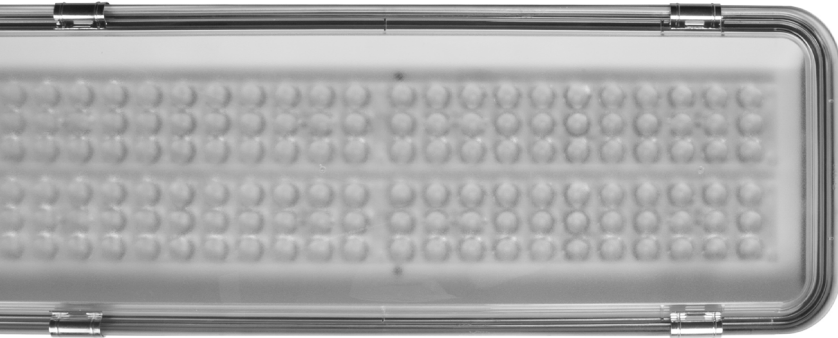
Waterproof and
corrosion-proof

Product range

Beta 235 is available in the following versions:

| | |
|----------------------------|---|
| Housing in steel | Beta 235 LED 75 PC - Polycarbonate Diffuser Beta 235 LED 76 VS - Moulded Glass Beta 235 LED 76 VT - Transparent Glass |
| Housing in stainless steel | Beta 235 LED 92 PC - Polycarbonate Diffuser Beta 235 LED 93 VS - Moulded Glass Beta 235 LED 93 VT - Transparent Glass |

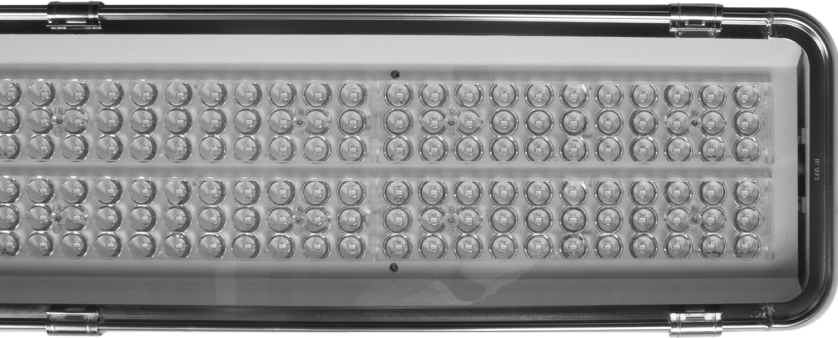
Beta 235 is available with three different diffuser types:



Polycarbonate diffuser



Moulded glass



Transparent glass

New quick connection.

Thanks to the FastWiring system, the installation time for the new Beta 235 is significantly reduced:



Beta 235 is supplied with our new "FastWiring" quick connector. Here is what it looks like when removed from the packaging.



Remove the support by grasping the tab.



At this point the quick connection closing cap and the cable gland are inserted onto the cable and the electrical cables can be connected to the quick connect terminal board. No tools are required.



Push the sliding support into the luminaire and screw down the two phillips head screws on the closing cap.



Done!
235 is now ready for installation.

Waterproof and
corrosion-proof

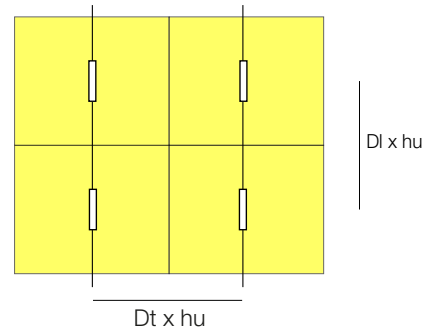
Photometric distributions

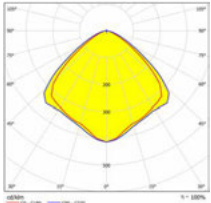
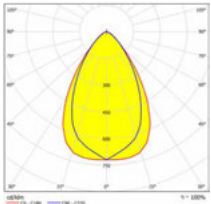
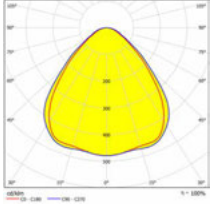
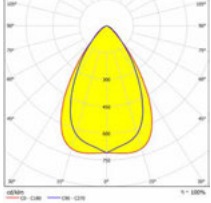
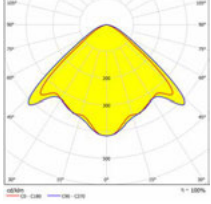
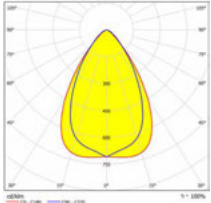
WIDE AND MEDIUM DISTRIBUTION

Rectangular ground projection

As there is no photometric overlap, the energy used and number of luminaires is optimised.

Dt= Transverse distance
 Dl= Longitudinal distance
 hu= Useful height (between luminaire and work surface)

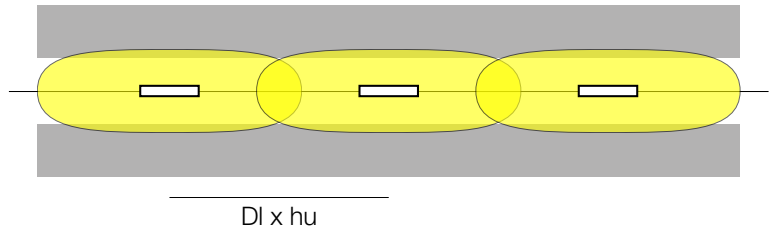


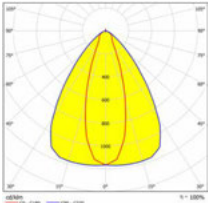
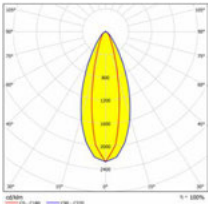
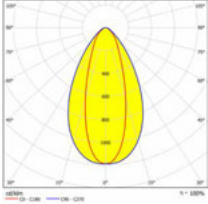
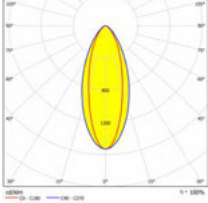
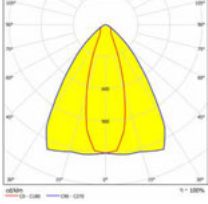
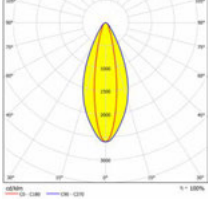
| Photometric curves | Models | D_T | D_L |
|--|---------------------------|-------|-------|
| WIDE  | Diffuser in Polycarbonate | 1.2 | 1.3 |
| MEDIUM  | | 1 | 0.9 |
| WIDE  | Moulded glass | 1.3 | 1.3 |
| MEDIUM  | | 0.9 | 0.8 |
| WIDE  | Transparent glass | 1.2 | 1.2 |
| MEDIUM  | | 1.1 | 0.9 |

HYPERCONCENTRATED AND CONCENTRATED DISTRIBUTION

Elliptical ground projection

Allows large longitudinal pitch to obtain uniformity over the aisles and shelving.



| Photometric curves | Models | D_T | D_L |
|---|---------------------------|-------|-------|
| CONCENTRATED  | Diffuser in Polycarbonate | 0.6 | 1.2 |
| HYPERCONCENTRATED  | | 0.4 | 0.7 |
| CONCENTRATED  | Moulded glass | 0.6 | 0.9 |
| HYPERCONCENTRATED  | | 0.5 | 0.7 |
| CONCENTRATED  | Transparent glass | 0.5 | 1.2 |
| HYPERCONCENTRATED  | | 0.4 | 0.7 |

Waterproof and corrosion-proof



Beta 235 LED Steel

Construction characteristics

Illuminotechnical characteristics

Symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Single-piece housing in pressed steel, powder-coated in white epoxy-polyester. Ecologic anti-aging injected sealing gasket.
 Highly reflective white polyester painted, hot-dip galvanised steel, oversized cable housing reflector, fixed to the body with screws.
 PMMA lenses with external flat surface (superimposed to obtain full protection of LED modules).
 Galvanised steel snap-lock clips for attaching screens (safety n° 4 per fixture).

Electrical characteristics

Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.

Source characteristics

- LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- different powers
- laminated glass
- wiring: CLO (more information on page 542), twin-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Applications

Ambient temperature from -20°C to +45°C. Dry, dusty indoor environments, subject to occasional water splashes. Industrial environments, warehouses, environments requiring safety luminaires, such as prisons, thanks to the clips that can be locked by bolts (on request). Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or

machines with moving parts or with extreme temperature changes), use luminaires with laminated glass. Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.

PC version

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

VT version

On request, HACCP versions for use in the food industry.

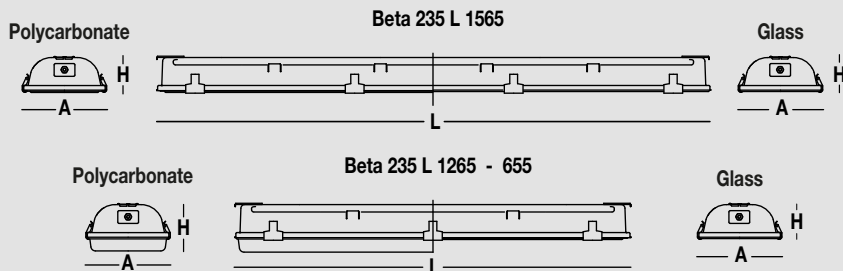
Installation

Ceiling, suspended, on busbar or wall-mounted.
 For mounting hooks and brackets see accessories on page 462.

Light Management

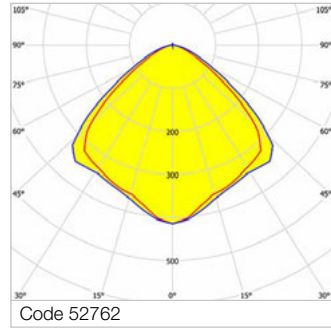
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Beta 235 LED 75 PC Wide

Steel housing | Polycarbonate diffuser



Wide symmetric lighting distribution.

Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilized, injection moulded.

Attention: the diffuser supplied with our L655 and L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

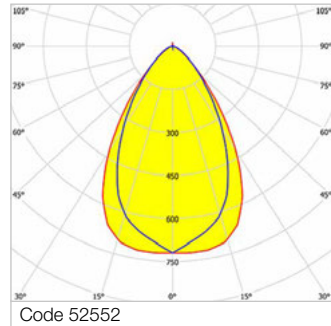
| | | | | | | |
|-------|---------------------------------|------|-------|------|-----|--------------|
| 52931 | Beta 235 LED 751x25 AMPIO L655 | 27.5 | 3683 | 4000 | >80 | 655x235x140 |
| 52930 | Beta 235 LED 752x20 AMPIO L655 | 42 | 6247 | 4000 | >80 | 655x235x140 |
| 52849 | Beta 235 LED 751x50 AMPIO L1265 | 56 | 7365 | 4000 | >80 | 1265x235x135 |
| 52765 | Beta 235 LED 751x60 AMPIO L1565 | 67 | 9259 | 4000 | >80 | 1565x235x107 |
| 52846 | Beta 235 LED 752x45 AMPIO L1265 | 94 | 13014 | 4000 | >80 | 1265x235x135 |
| 52762 | Beta 235 LED 752x55 AMPIO L1565 | 116 | 16300 | 4000 | >80 | 1565x235x107 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------------|-----|-------|------|-----|--------------|
| 52807 | Beta 235 LED 751x60 DALI AMPIO L1565 | 67 | 9259 | 4000 | >80 | 1565x235x107 |
| 52888 | Beta 235 LED 752x45 DALI AMPIO L1265 | 94 | 13014 | 4000 | >80 | 1265x235x135 |
| 52804 | Beta 235 LED 752x55 DALI AMPIO L1565 | 116 | 16300 | 4000 | >80 | 1565x235x107 |

Beta 235 LED 75 PC Medium

Steel housing | Polycarbonate diffuser



Medium symmetric distribution.

Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilized, injection moulded.

Attention: the diffuser supplied with our L655 and L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------|-----|-------|------|-----|--------------|
| 52567 | Beta 235 LED 751x50 MEDIO L1265 | 56 | 7440 | 4000 | >80 | 1265x235x135 |
| 52553 | Beta 235 LED 751x60 MEDIO L1565 | 67 | 9362 | 4000 | >80 | 1565x235x107 |
| 52566 | Beta 235 LED 752x45 MEDIO L1265 | 94 | 13059 | 4000 | >80 | 1265x235x135 |
| 52552 | Beta 235 LED 752x55 MEDIO L1565 | 116 | 16431 | 4000 | >80 | 1565x235x107 |

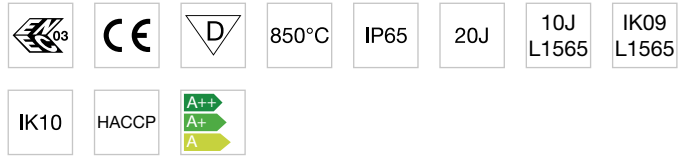
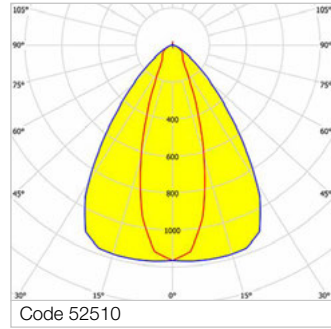
DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------------|-----|-------|------|-----|--------------|
| 52574 | Beta 235 LED 751x50 DALI MEDIO L1265 | 56 | 7440 | 4000 | >80 | 1265x235x135 |
| 52560 | Beta 235 LED 751x60 DALI MEDIO L1565 | 67 | 9362 | 4000 | >80 | 1565x235x107 |
| 52573 | Beta 235 LED 752x45 DALI MEDIO L1265 | 94 | 13059 | 4000 | >80 | 1265x235x135 |
| 52559 | Beta 235 LED 752x55 DALI MEDIO L1565 | 116 | 16431 | 4000 | >80 | 1565x235x107 |

Waterproof and corrosion-proof

Beta 235 LED 75 PC Concentrated

Steel housing | Polycarbonate diffuser



Concentrated elliptical distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilized, injection moulded.

Attention: the diffuser supplied with our L655 and L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

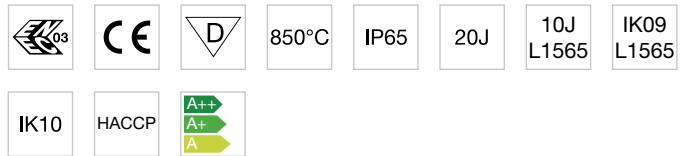
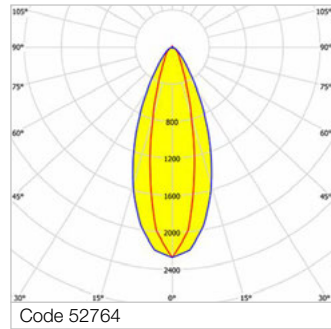
| | | | | | | |
|-------|--------------------------------|-----|-------|------|-----|--------------|
| 52511 | Beta 235 LED 751x60 CONC L1565 | 67 | 9155 | 4000 | >80 | 1565x235x107 |
| 52524 | Beta 235 LED 752x45 CONC L1265 | 94 | 12760 | 4000 | >80 | 1265x235x135 |
| 52510 | Beta 235 LED 752x55 CONC L1565 | 116 | 16431 | 4000 | >80 | 1565x235x107 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------------|-----|-------|------|-----|--------------|
| 52518 | Beta 235 LED 751x60 DALI CONC L1565 | 67 | 9155 | 4000 | >80 | 1565x235x107 |
| 52531 | Beta 235 LED 752x45 DALI CONC L1265 | 94 | 12760 | 4000 | >80 | 1265x235x135 |
| 52517 | Beta 235 LED 752x55 DALI CONC L1565 | 116 | 16431 | 4000 | >80 | 1565x235x107 |

Beta 235 LED 75 PC Iperconcentrated

Steel housing | Polycarbonate diffuser



Symmetrical elliptical hyperconcentrated distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilized, injection moulded.

Attention: the diffuser supplied with our L655 and L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).

Recommended minimum installation height: 4 meters from the ground.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

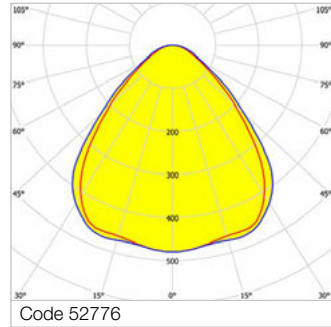
| | | | | | | |
|-------|------------------------------------|-----|-------|------|-----|--------------|
| 52848 | Beta 235 LED 752x45 IPERCONC L1265 | 94 | 11820 | 4000 | >80 | 1265x235x135 |
| 52764 | Beta 235 LED 752x55 IPERCONC L1565 | 116 | 15293 | 4000 | >80 | 1565x235x107 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|-----|-------|------|-----|--------------|
| 52890 | Beta 235 LED 752x45 DALI IPERCONC L1265 | 94 | 11820 | 4000 | >80 | 1265x235x135 |
| 52806 | Beta 235 LED 752x55 DALI IPERCONC L1565 | 116 | 16990 | 4000 | >80 | 1565x235x107 |

Beta 235 LED 76 VS Wide

Steel housing | Moulded glass



Wide symmetric lighting distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanized steel.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

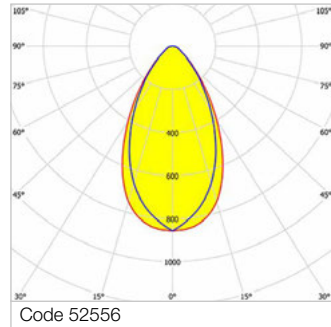
| | | | | | | |
|-------|------------------------------------|------|-------|------|-----|--------------|
| 52937 | Beta 235 LED 761x25 AMPIO VS L655 | 27.5 | 3372 | 4000 | >80 | 655x235x110 |
| 52936 | Beta 235 LED 762x20 AMPIO VS L655 | 42 | 5566 | 4000 | >80 | 655x235x110 |
| 52863 | Beta 235 LED 761x50 AMPIO VS L1265 | 56 | 6743 | 4000 | >80 | 1265x235x105 |
| 52779 | Beta 235 LED 761x60 AMPIO VS L1565 | 67 | 8429 | 4000 | >80 | 1565x235x105 |
| 52860 | Beta 235 LED 762x45 AMPIO VS L1265 | 94 | 11596 | 4000 | >80 | 1265x235x105 |
| 52776 | Beta 235 LED 762x55 AMPIO VS L1565 | 116 | 14491 | 4000 | >80 | 1565x235x105 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|-----|-------|------|-----|--------------|
| 52821 | Beta 235 LED 761x60 DALI AMPIO VS L1565 | 67 | 8429 | 4000 | >80 | 1565x235x105 |
| 52902 | Beta 235 LED 762x45 DALI AMPIO VS L1265 | 94 | 11596 | 4000 | >80 | 1265x235x105 |
| 52818 | Beta 235 LED 762x55 DALI AMPIO VS L1565 | 116 | 14491 | 4000 | >80 | 1565x235x105 |

Beta 235 LED 76 VS Medium

Steel housing | Moulded glass



Medium symmetric distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanized steel.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------------|-----|-------|------|-----|--------------|
| 52571 | Beta 235 LED 761x50 MEDIO VS L1265 | 56 | 6751 | 4000 | >80 | 1265x235x105 |
| 52557 | Beta 235 LED 761x60 MEDIO VS L1565 | 67 | 8440 | 4000 | >80 | 1565x235x105 |
| 52570 | Beta 235 LED 762x45 MEDIO VS L1265 | 94 | 11626 | 4000 | >80 | 1265x235x105 |
| 52556 | Beta 235 LED 762x55 MEDIO VS L1565 | 116 | 14528 | 4000 | >80 | 1565x235x105 |

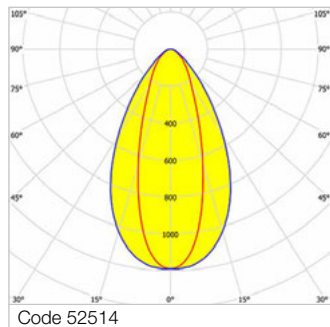
DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|-----|-------|------|-----|--------------|
| 52578 | Beta 235 LED 761x50 DALI MEDIO VS L1265 | 56 | 6751 | 4000 | >80 | 1265x235x105 |
| 52564 | Beta 235 LED 761x60 DALI MEDIO VS L1565 | 67 | 8440 | 4000 | >80 | 1565x235x105 |
| 52577 | Beta 235 LED 762x45 DALI MEDIO VS L1265 | 94 | 11626 | 4000 | >80 | 1265x235x105 |
| 52563 | Beta 235 LED 762x55 DALI MEDIO VS L1565 | 116 | 14528 | 4000 | >80 | 1565x235x105 |

Waterproof and
corrosion-proof

Beta 235 LED 76 VS Concentrated

Steel housing | Moulded glass



Concentrated elliptical distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanized steel.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

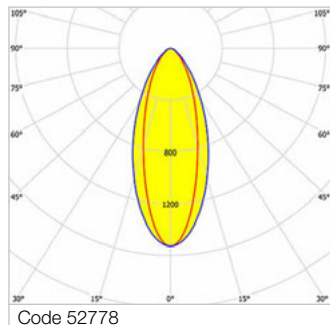
| | | | | | | |
|-------|-----------------------------------|-----|-------|------|-----|--------------|
| 52515 | Beta 235 LED 761x60 CONC VS L1565 | 67 | 8450 | 4000 | >80 | 1565x235x105 |
| 52528 | Beta 235 LED 762x45 CONC VS L1265 | 94 | 11820 | 4000 | >80 | 1265x235x105 |
| 52514 | Beta 235 LED 762x55 CONC VS L1565 | 116 | 14771 | 4000 | >80 | 1565x235x105 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--|-----|-------|------|-----|--------------|
| 52522 | Beta 235 LED 761x60 DALI CONC VS L1565 | 67 | 8450 | 4000 | >80 | 1565x235x105 |
| 52535 | Beta 235 LED 762x45 DALI CONC VS L1265 | 94 | 11820 | 4000 | >80 | 1265x235x105 |
| 52521 | Beta 235 LED 762x55 DALI CONC VS L1565 | 116 | 14771 | 4000 | >80 | 1565x235x105 |

Beta 235 LED 76 VS Iperconcentrated

Steel housing | Moulded glass



Symmetrical elliptical hyperconcentrated distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanized steel.
Recommended minimum installation height: 4 meters from the ground.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

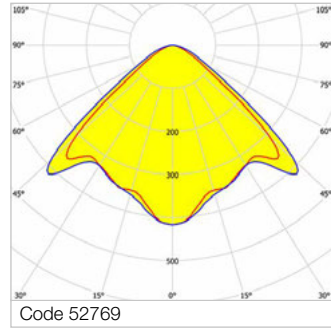
| | | | | | | |
|-------|---------------------------------------|-----|-------|------|-----|--------------|
| 52862 | Beta 235 LED 762x45 IPERCONC VS L1265 | 94 | 11133 | 4000 | >80 | 1265x235x105 |
| 52778 | Beta 235 LED 762x55 IPERCONC VS L1565 | 116 | 13913 | 4000 | >80 | 1565x235x105 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--|-----|-------|------|-----|--------------|
| 52904 | Beta 235 LED 762x45 DALI IPERCONC VS L1265 | 94 | 11133 | 4000 | >80 | 1265x235x105 |
| 52820 | Beta 235 LED 762x55 DALI IPERCONC VS L1565 | 116 | 13913 | 4000 | >80 | 1565x235x105 |

Beta 235 LED 76 VT Wide

Steel housing | Transparent glass



Wide symmetric lighting distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanized steel.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

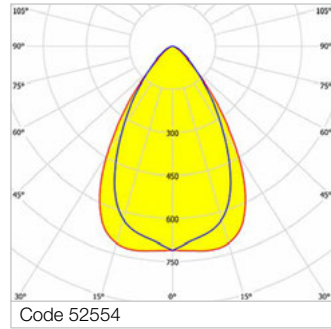
| | | | | | | |
|-------|------------------------------------|-----|-------|------|-----|--------------|
| 52856 | Beta 235 LED 761x50 AMPIO VT L1265 | 56 | 7539 | 4000 | >80 | 1265x235x105 |
| 52772 | Beta 235 LED 761x60 AMPIO VT L1565 | 67 | 9425 | 4000 | >80 | 1565x235x105 |
| 52853 | Beta 235 LED 762x45 AMPIO VT L1265 | 94 | 13103 | 4000 | >80 | 1265x235x105 |
| 52769 | Beta 235 LED 762x55 AMPIO VT L1565 | 116 | 16375 | 4000 | >80 | 1565x235x105 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|-----|-------|------|-----|--------------|
| 52814 | Beta 235 LED 761x60 DALI AMPIO VT L1565 | 67 | 9425 | 4000 | >80 | 1565x235x105 |
| 52895 | Beta 235 LED 762x45 DALI AMPIO VT L1265 | 94 | 13103 | 4000 | >80 | 1265x235x105 |
| 52811 | Beta 235 LED 762x55 DALI AMPIO VT L1565 | 116 | 16375 | 4000 | >80 | 1565x235x105 |

Beta 235 LED 76 VT Medium

Steel housing | Transparent glass



Medium symmetric distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanized steel.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------------|-----|-------|------|-----|--------------|
| 52569 | Beta 235 LED 761x50 MEDIO VT L1265 | 56 | 7556 | 4000 | >80 | 1265x235x105 |
| 52555 | Beta 235 LED 761x60 MEDIO VT L1565 | 67 | 9445 | 4000 | >80 | 1565x235x105 |
| 52568 | Beta 235 LED 762x45 MEDIO VT L1265 | 94 | 13267 | 4000 | >80 | 1265x235x105 |
| 52554 | Beta 235 LED 762x55 MEDIO VT L1565 | 116 | 16580 | 4000 | >80 | 1565x235x105 |

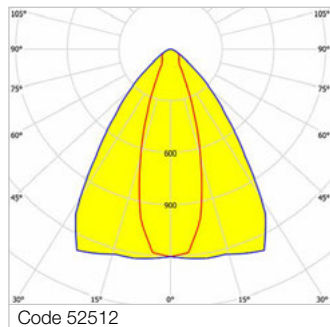
DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|-----|-------|------|-----|--------------|
| 52576 | Beta 235 LED 761x50 DALI MEDIO VT L1265 | 56 | 7556 | 4000 | >80 | 1265x235x105 |
| 52562 | Beta 235 LED 761x60 DALI MEDIO VT L1565 | 67 | 9445 | 4000 | >80 | 1565x235x105 |
| 52575 | Beta 235 LED 762x45 DALI MEDIO VT L1265 | 94 | 13267 | 4000 | >80 | 1265x235x105 |
| 52561 | Beta 235 LED 762x55 DALI MEDIO VT L1565 | 116 | 16580 | 4000 | >80 | 1565x235x105 |

Waterproof and corrosion-proof

Beta 235 LED 76 VT Concentrated

Steel housing | Transparent glass



Concentrated elliptical distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanized steel.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

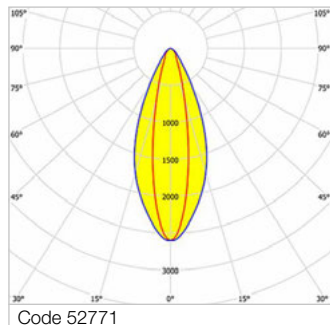
| | | | | | | |
|-------|-----------------------------------|-----|-------|------|-----|--------------|
| 52513 | Beta 235 LED 761x60 CONC VT L1565 | 67 | 9207 | 4000 | >80 | 1565x235x105 |
| 52526 | Beta 235 LED 762x45 CONC VT L1265 | 94 | 13103 | 4000 | >80 | 1265x235x105 |
| 52512 | Beta 235 LED 762x55 CONC VT L1565 | 116 | 16375 | 4000 | >80 | 1565x235x105 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--|-----|-------|------|-----|--------------|
| 52520 | Beta 235 LED 761x60 DALI CONC VT L1565 | 67 | 9207 | 4000 | >80 | 1565x235x105 |
| 52533 | Beta 235 LED 762x45 DALI CONC VT L1265 | 94 | 13103 | 4000 | >80 | 1265x235x105 |
| 52519 | Beta 235 LED 762x55 DALI CONC VT L1565 | 116 | 16375 | 4000 | >80 | 1565x235x105 |

Beta 235 LED 76 VT Iperconcentrated

Steel housing | Transparent glass



Symmetrical elliptical hyperconcentrated distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanized steel.
Recommended minimum installation height: 4 meters from the ground.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------------|-----|-------|------|-----|--------------|
| 52855 | Beta 235 LED 762x45 IPERCONC VT L1265 | 94 | 12297 | 4000 | >80 | 1265x235x105 |
| 52771 | Beta 235 LED 762x55 IPERCONC VT L1565 | 116 | 15368 | 4000 | >80 | 1565x235x105 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--|-----|-------|------|-----|--------------|
| 52897 | Beta 235 LED 762x45 DALI IPERCONC VT L1265 | 94 | 12297 | 4000 | >80 | 1265x235x105 |
| 52813 | Beta 235 LED 762x55 DALI IPERCONC VT L1565 | 116 | 15368 | 4000 | >80 | 1565x235x105 |



Accettazione

KG. 3000



Beta 235 LED Stainless Steel

Construction characteristics

Illuminotechnical characteristics

Symmetric distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in AISI 304 stainless steel, pressed in one single piece.
 Oversized gear-tray reflector unit in highly reflective white painted hot-galvanized steel.
 PMMA lenses with external flat surface (superimposed to obtain full protection of LED modules).
 Stainless steel snap-lock clips for attaching screens (safety n° 4 per fixture).

Electrical characteristics

Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.

Source characteristics

- LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- different powers
- laminated glass
- wiring: emergency, CLO (more information on page 542), twin-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Applications

Ambient temperature from -20°C to +45°C.
 Dry, dusty indoor environments, subject to occasional water splashes.
 Any environments except the ones where the luminaire materials are unsuitable. Environments requiring safety luminaires, such as prisons, thanks to the clips that can be locked by bolts (on request). Environments in which it is necessary a total protection against falling fragments

(eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with laminated glass. Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.

PC version

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

VT version

On request, HACCP versions for use in the food industry.

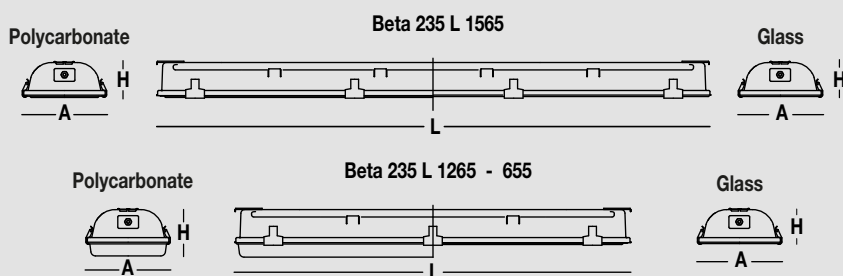
Installation

Ceiling, suspended, on busbar or wall-mounted.
 For mounting hooks and brackets see accessories on page 462.

Light Management

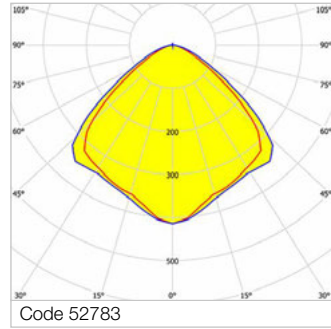
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Beta 235 LED 92 PC Wide

Stainless steel housing | Polycarbonate diffuser



850°C

IP65

20J

10J
L1565

IK09
L1565

IK10

HACCP

Wide symmetric lighting distribution.

Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilized, injection moulded.

Attention: the diffuser supplied with our L655 and L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

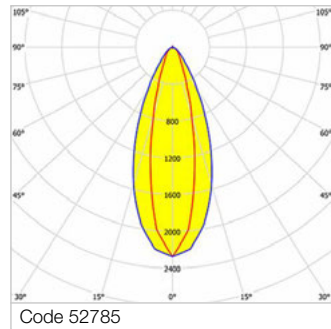
| | | | | | | |
|-------|---------------------------------|------|-------|------|-----|--------------|
| 52940 | Beta 235 LED 921x25 AMPIO L655 | 27.5 | 3620 | 4000 | >80 | 655x235x140 |
| 52939 | Beta 235 LED 922x15 AMPIO L655 | 34.5 | 4736 | 4000 | >80 | 655x235x140 |
| 52870 | Beta 235 LED 921x50 AMPIO L1265 | 56 | 7241 | 4000 | >80 | 1265x235x135 |
| 52786 | Beta 235 LED 921x60 AMPIO L1565 | 67 | 9103 | 4000 | >80 | 1565x235x107 |
| 52867 | Beta 235 LED 922x40 AMPIO L1265 | 82 | 11407 | 4000 | >80 | 1265x235x135 |
| 52783 | Beta 235 LED 922x50 AMPIO L1565 | 101 | 14290 | 4000 | >80 | 1565x235x107 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------------|-----|-------|------|-----|--------------|
| 52828 | Beta 235 LED 921x60 DALI AMPIO L1565 | 67 | 9103 | 4000 | >80 | 1565x235x107 |
| 52909 | Beta 235 LED 922x40 DALI AMPIO L1265 | 82 | 11407 | 4000 | >80 | 1265x235x135 |
| 52825 | Beta 235 LED 922x50 DALI AMPIO L1565 | 101 | 14290 | 4000 | >80 | 1565x235x107 |

Beta 235 LED 92 PC Iperconcentrated

Stainless steel housing | Polycarbonate diffuser



850°C

IP65

20J

10J
L1565

IK09
L1565

IK10

HACCP

Symmetrical elliptical hyperconcentrated distribution.

Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilized, injection moulded.

Attention: the diffuser supplied with our L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).

Recommended minimum installation height: 4 meters from the ground.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|------------------------------------|-----|-------|------|-----|--------------|
| 52869 | Beta 235 LED 922x40 IPERCONC L1265 | 82 | 10368 | 4000 | >80 | 1265x235x135 |
| 52785 | Beta 235 LED 922x50 IPERCONC L1565 | 101 | 13409 | 4000 | >80 | 1565x235x107 |

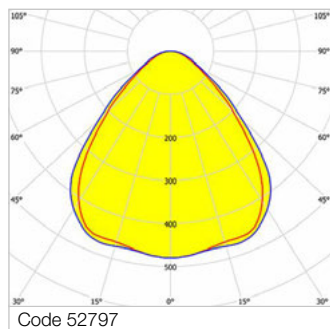
DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|-----|-------|------|-----|--------------|
| 52911 | Beta 235 LED 922x40 DALI IPERCONC L1265 | 82 | 10368 | 4000 | >80 | 1265x235x135 |
| 52827 | Beta 235 LED 922x50 DALI IPERCONC L1565 | 101 | 13409 | 4000 | >80 | 1565x235x107 |

Waterproof and corrosion-proof

Beta 235 LED 93 VS Wide

Stainless steel housing | Moulded glass



Wide symmetric lighting distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in stainless steel.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

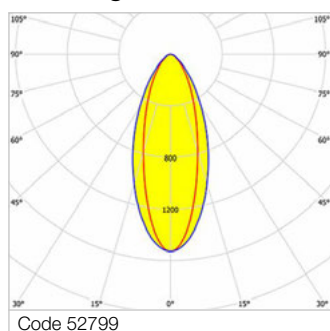
| | | | | | | |
|-------|------------------------------------|------|-------|------|-----|--------------|
| 52946 | Beta 235 LED 931x25 AMPIO VS L655 | 27.5 | 3372 | 4000 | >80 | 655x235x110 |
| 52945 | Beta 235 LED 932x15 AMPIO VS L655 | 34.5 | 4294 | 4000 | >80 | 655x235x110 |
| 52884 | Beta 235 LED 931x50 AMPIO VS L1265 | 56 | 6743 | 4000 | >80 | 1265x235x105 |
| 52800 | Beta 235 LED 931x60 AMPIO VS L1565 | 67 | 8429 | 4000 | >80 | 1565x235x105 |
| 52881 | Beta 235 LED 932x40 AMPIO VS L1265 | 82 | 10342 | 4000 | >80 | 1265x235x105 |
| 52797 | Beta 235 LED 932x50 AMPIO VS L1565 | 101 | 12926 | 4000 | >80 | 1565x235x105 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|-----|-------|------|-----|--------------|
| 52842 | Beta 235 LED 931x60 DALI AMPIO VS L1565 | 67 | 8429 | 4000 | >80 | 1565x235x105 |
| 52923 | Beta 235 LED 932x40 DALI AMPIO VS L1265 | 82 | 10342 | 4000 | >80 | 1265x235x105 |
| 52839 | Beta 235 LED 932x50 DALI AMPIO VS L1565 | 101 | 12926 | 4000 | >80 | 1565x235x105 |

Beta 235 LED 93 VS Iperconcentrated

Stainless steel housing | Moulded glass



Symmetrical elliptical hyperconcentrated distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in stainless steel.
Recommended minimum installation height: 4 meters from the ground.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

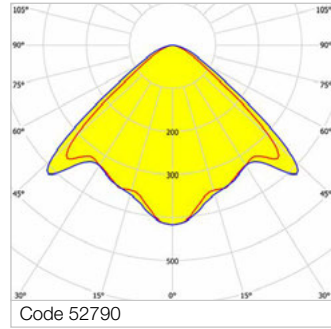
| | | | | | | |
|-------|---------------------------------------|-----|-------|------|-----|--------------|
| 52883 | Beta 235 LED 932x40 IPERCONC VS L1265 | 82 | 9929 | 4000 | >80 | 1265x235x105 |
| 52799 | Beta 235 LED 932x50 IPERCONC VS L1565 | 101 | 12410 | 4000 | >80 | 1565x235x105 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--|-----|-------|------|-----|--------------|
| 52925 | Beta 235 LED 932x40 DALI IPERCONC VS L1265 | 82 | 9929 | 4000 | >80 | 1265x235x105 |
| 52841 | Beta 235 LED 932x50 DALI IPERCONC VS L1565 | 101 | 12410 | 4000 | >80 | 1565x235x105 |

Beta 235 LED 93 VT Wide

Stainless steel housing | Transparent glass



Wide symmetric lighting distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in stainless steel.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

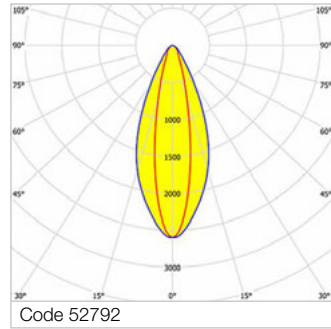
| | | | | | | |
|-------|------------------------------------|-----|-------|------|-----|--------------|
| 52877 | Beta 235 LED 931x50 AMPIO VT L1265 | 56 | 7539 | 4000 | >80 | 1265x235x105 |
| 52793 | Beta 235 LED 931x60 AMPIO VT L1565 | 67 | 9425 | 4000 | >80 | 1565x235x105 |
| 52874 | Beta 235 LED 932x40 AMPIO VT L1265 | 82 | 11686 | 4000 | >80 | 1265x235x105 |
| 52790 | Beta 235 LED 932x50 AMPIO VT L1565 | 101 | 14606 | 4000 | >80 | 1565x235x105 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|-----|-------|------|-----|--------------|
| 52835 | Beta 235 LED 931x60 DALI AMPIO VT L1565 | 67 | 9425 | 4000 | >80 | 1565x235x105 |
| 52916 | Beta 235 LED 932x40 DALI AMPIO VT L1265 | 82 | 11686 | 4000 | >80 | 1265x235x105 |
| 52832 | Beta 235 LED 932x50 DALI AMPIO VT L1565 | 101 | 14606 | 4000 | >80 | 1565x235x105 |

Beta 235 LED 93 VT Iperconcentrated

Stainless steel housing | Transparent glass



Symmetrical elliptical hyperconcentrated distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in stainless steel.
Recommended minimum installation height: 4 meters from the ground.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---------------------------------------|-----|-------|------|-----|--------------|
| 52876 | Beta 235 LED 932x40 IPERCONC VT L1265 | 82 | 10967 | 4000 | >80 | 1265x235x105 |
| 52792 | Beta 235 LED 932x50 IPERCONC VT L1565 | 101 | 13708 | 4000 | >80 | 1565x235x105 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--|-----|-------|------|-----|--------------|
| 52918 | Beta 235 LED 932x40 DALI IPERCONC VT L1265 | 82 | 10967 | 4000 | >80 | 1265x235x105 |
| 52834 | Beta 235 LED 932x50 DALI IPERCONC VT L1565 | 101 | 13708 | 4000 | >80 | 1565x235x105 |

Waterproof and corrosion-proof

Beta 235 Accessories



Anti-condensation diffuser cable gland.

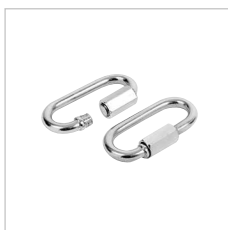
| Code | Item |
|-------|-------------------------------|
| A0187 | Anti-condensation cable gland |

Recommended for installations in environments with temperature sudden changes or subject to condensation.



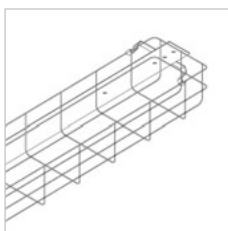
Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

| Code | Item |
|----------------------|----------------------------------|
| A0521 ^{NEW} | Reducing sealing ring – diam.8mm |



Snap hooks clips for chain suspension, galvanized steel.

| Code | Item |
|-------|---|
| A0653 | Couple of fixing carabiniers for chain installation |



Wire-guard for applications in dry environments, against shocks coming from any directions, galvanized steel rod Ø 5 mm.

| Code | Item |
|-------|------------------------------------|
| A0457 | Wire guard 280x1330 03F/Linda/Beta |
| A0458 | Wire guard 280x1630 03F/Linda/Beta |

Only for luminaires fixed without hooks.



Safety screw that prevents improper opening of the luminaire.

| Code | Item |
|-------|---|
| A0471 | Security screws - Beta 235 The pack contains 100 pieces. |

The products from the Beta 235 range are equipped with safety snap-lock clips: L655mm (4 clips), L1265 (6 clips) and L1565 (8 clips) - of which only 4 are equipped with pre-mounted safety screws. In applications requiring a total inaccessibility to the luminaire, the screws can be fitted to the open snap-lock clips.



Pair of mounting brackets and hooks for ceiling mounting, with nuts and bolts for fastening the luminaire, everything in stainless steel.

| Code | Item |
|-------|--|
| A0324 | Couple fixed brackets for ceiling - Beta 235 |



Pair of mounting brackets and hooks for wall-mounting, with nuts and bolts for luminaire fastening, everything in stainless steel.

| Code | Item |
|-------|---|
| A0835 | Couple brackets and hooks for wall - Beta 235 |



Pair of steel hooks for suspended installation, with nuts and bolts for luminaire fastening.

| Code | Item |
|-------|---|
| A0836 | Pair of galvanized hooks for suspension - Beta 235 |
| A0837 | Pair of stainless steel hooks for suspension - Beta 235 |

In case of chain suspension installation, ALWAYS use one of the following codes: A0653.



Pair of hooks in galvanized steel for suspended installation, with nuts and bolts for luminaire fastening.

| Code | Item |
|-------|--------------------------------------|
| A0838 | Pair of S-hooks for chain - Beta 235 |



Safety screw for locking to busbar.

| Code | Item |
|-------|-----------------------------------|
| A0325 | Mounting kit on busbar - Beta 235 |



Beta i3F 75-76 LED

Construction characteristics

Illuminotechnical characteristics

Wide or concentrated direct distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Single-piece housing in pressed steel, powder-coated in white epoxy-polyester.
 Oversized flux recuperator in specular aluminium, with titanium-magnesium surface treatment, non-iridescent.
 Gear-tray unit in hot-galvanized steel, painted in white polyester, fixed to the housing by means of "Ribloc" rapid devices in galvanized steel, hinged opening.
 Stainless steel screen fixing clips.

Electrical characteristics

In compliance with EN 60598-1.
 Luminaires with EP permanent emergency wiring are EN 60598-2-22 standard compliant.
 Entry for power-supply cable at one end cap, through M20x1,5 self-extinguishing nylon cable gland.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- different powers
- laminated glass
- wiring: dimmable, CLO (more information on page 542), twin-circuit, class II
- safety snap-lock clips
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- body in painted aluminum or stainless steel

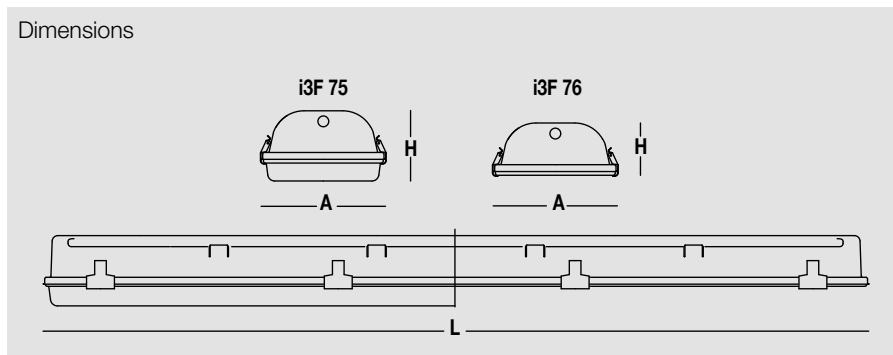
Applications

Ambient temperature from -20°C to +35°C.
 Dry, dusty indoor environments, subject to occasional water splashes.
 Industrial environments, warehouses, environments requiring safety luminaires, such as prisons, thanks to the clips that can be locked by bolts (on request).
 Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with laminated glass.
 Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.

Installation

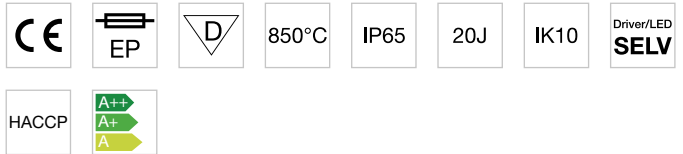
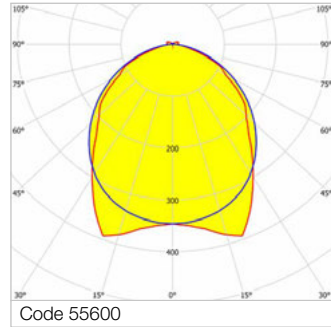
Ceiling, suspended, on busbar or wall-mounted.
 For mounting hooks and brackets see accessories on page 473.

Dimensions



Beta i3F LED 75 PC Wide

Steel housing | Polycarbonate diffuser



Wide distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilized, injection molded, sealing gasket, hinged opening. Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

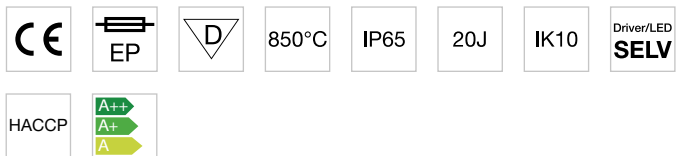
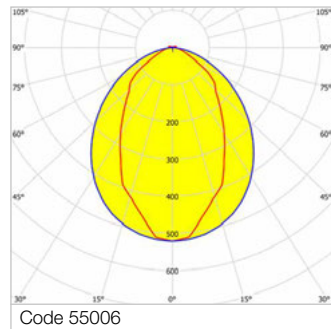
| | | | | | | |
|-------|-----------------------------|----|------|------|-----|--------------|
| 55596 | i3F LED 752x12W AMPIO L655 | 30 | 3732 | 4000 | >80 | 655x235x140 |
| 55598 | i3F LED 752x24W AMPIO L1265 | 56 | 7471 | 4000 | >80 | 1265x235x135 |
| 55600 | i3F LED 752x30W AMPIO L1565 | 70 | 9351 | 4000 | >80 | 1565x235x135 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|--------------------------------|----|------|------|-----|--------------|
| 55607 | i3F LED 752x12W EP AMPIO L655 | 31 | 3732 | 4000 | >80 | 655x235x140 |
| 55609 | i3F LED 752x24W EP AMPIO L1265 | 57 | 7471 | 4000 | >80 | 1265x235x135 |
| 55611 | i3F LED 752x30W EP AMPIO L1565 | 71 | 9351 | 4000 | >80 | 1565x235x135 |

Beta i3F LED 75 PC Concentrated

Steel housing | Polycarbonate diffuser



Concentrated elliptical distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilized, injection molded, sealing gasket, hinged opening. Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------|----|------|------|-----|--------------|
| 55006 | i3F LED 752x30W CONC L1565 | 70 | 9236 | 4000 | >80 | 1565x235x135 |
|-------|----------------------------|----|------|------|-----|--------------|

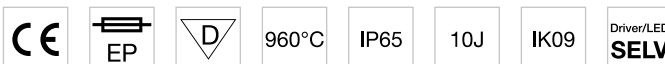
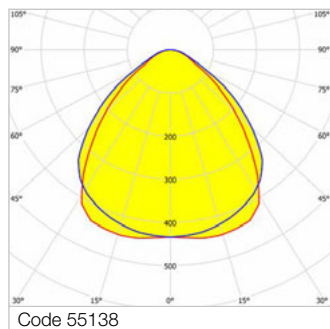
EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|--------------|
| 55017 | i3F LED 752x30W EP CONC L1565 | 71 | 9236 | 4000 | >80 | 1565x235x135 |
|-------|-------------------------------|----|------|------|-----|--------------|

Waterproof and
corrosion-proof

Beta i3F LED 76 VS Wide

Steel housing | Moulded glass



Wide distribution.
VS moulded antiglare glass, non-combustible, monobloc perimetrical frame in galvanized steel, with sealing gasket, hinged opening.
On request, HACCP versions for use in the food industry.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

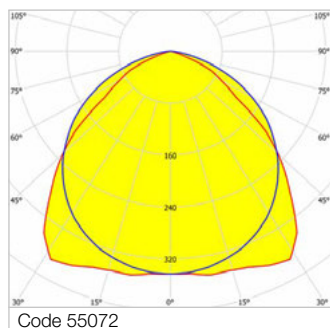
| | | | | | | |
|-------|--------------------------------|----|------|------|-----|--------------|
| 55134 | i3F LED 762x12W AMPIO VS L655 | 30 | 3388 | 4000 | >80 | 655x235x110 |
| 55136 | i3F LED 762x24W AMPIO VS L1265 | 56 | 6783 | 4000 | >80 | 1265x235x105 |
| 55138 | i3F LED 762x30W AMPIO VS L1565 | 70 | 8489 | 4000 | >80 | 1565x235x105 |

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|--------------|
| 55145 | i3F LED 762x12W EP AMPIO VS L655 | 31 | 3388 | 4000 | >80 | 655x235x110 |
| 55147 | i3F LED 762x24W EP AMPIO VS L1265 | 57 | 6783 | 4000 | >80 | 1265x235x105 |
| 55149 | i3F LED 762x30W EP AMPIO VS L1565 | 71 | 8489 | 4000 | >80 | 1565x235x105 |

Beta i3F LED 76 VT Wide

Steel housing | Transparent glass



Wide distribution.
VT transparent glass, non-combustible, monobloc perimetrical frame in galvanized steel, with sealing gasket, hinged opening.
On request, HACCP versions for use in the food industry.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

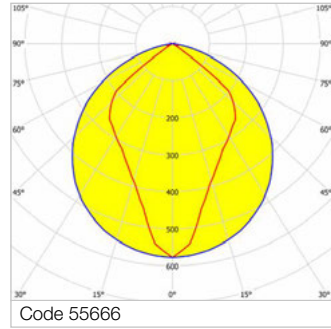
| | | | | | | |
|-------|--------------------------------|----|------|------|-----|--------------|
| 55072 | i3F LED 762x30W AMPIO VT L1565 | 70 | 9402 | 4000 | >80 | 1565x235x105 |
|-------|--------------------------------|----|------|------|-----|--------------|

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|-----------------------------------|----|------|------|-----|--------------|
| 55083 | i3F LED 762x30W EP AMPIO VT L1565 | 71 | 9402 | 4000 | >80 | 1565x235x105 |
|-------|-----------------------------------|----|------|------|-----|--------------|

Beta i3F LED 76 VT Concentrated

Steel housing | Transparent glass



Concentrated elliptical distribution.
VT transparent glass, non-combustible, monobloc perimetrical frame in galvanized steel, with sealing gasket, hinged opening. On request, HACCP versions for use in the food industry.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-------------------------------|----|------|------|-----|--------------|
| 55666 | i3F LED 762x30W CONC VT L1565 | 70 | 9454 | 4000 | >80 | 1565x235x105 |
|-------|-------------------------------|----|------|------|-----|--------------|

EP maintained emergency wiring, 1hr duration with 24hrs recharge, fuse (fluxes on page 560)

| | | | | | | |
|-------|----------------------------------|----|------|------|-----|--------------|
| 55677 | i3F LED 762x30W EP CONC VT L1565 | 71 | 9454 | 4000 | >80 | 1565x235x105 |
|-------|----------------------------------|----|------|------|-----|--------------|

Waterproof and corrosion-proof



Beta Ice LED

Construction characteristics

Illuminotechnical characteristics

Wide or concentrated direct distribution.
 Lifetime (L93/B10): 30000 h. (tq+25°C)
 Lifetime (L90/B10): 50000 h. (tq+25°C)
 Lifetime (L85/B10): 80000 h. (tq+25°C)
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Single-piece housing in pressed aluminium, powder-coated in white epoxy-polyester.
 Oversized flux recuperator in specular aluminium, with titanium-magnesium surface treatment, non-iridescent.
 Gear-tray unit in hot-galvanized steel, painted in white polyester, fixed to the housing by means of "Ribloc" rapid devices in galvanized steel, hinged opening.
 Mounting brackets and locking screen clips in stainless steel AISI 304.

Electrical characteristics

In compliance with EN 60598-1.
 Entry for power-supply cable at one end cap, through M20x1,5 self-extinguishing nylon cable gland.
 L-N-E line terminal block with ceramic isolator protection powder-filled fuse, rapid type, 5x20 mm, of suitable capacity, breaking capacity 1500 A.
 Solid single-core silicone rubber insulated wiring cable with fiberglass braid type UG4T2/2 cross section 0.75 mm².

Source characteristics

- Linear LED modules protected up to RH95 relative humidity.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- DALI version

Applications

12W version

Ambient temperature from -30°C to +45°C.

24W, 30W versions

Ambient temperature from -35°C to +45°C.

60W version

Ambient temperature from -35°C to +25°C.
 Before installation we recommend checking that there are no contraindications to the use of aluminium and polycarbonate inside the refrigeration cell.

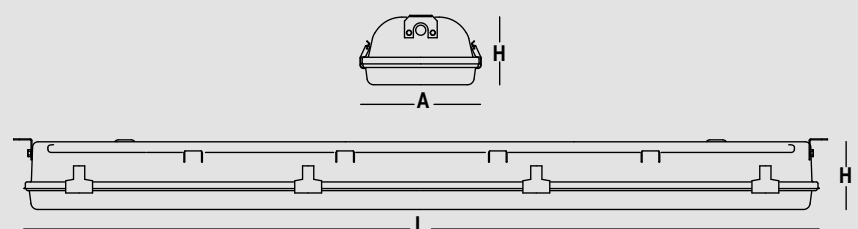
For applications in environments in which disturbances on the power network may be present and/or involve use at low temperatures, surge protection devices should be fitted on the power supply and any causes of undervoltages eliminated.

Installation

By means of slotted corner brackets and stainless steel nuts and bolts.

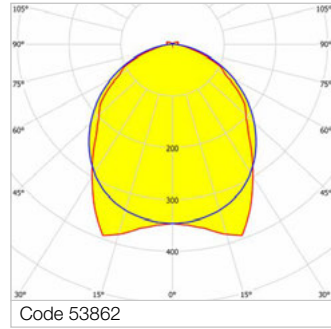
Beta Ice LED luminaires can be installed in environments with humidity rate up to 95%.

Dimensions



Beta Ice LED Wide

Polycarbonate diffuser | Aluminium housing



Wide distribution.
Galvanized steel screen fixing clips.

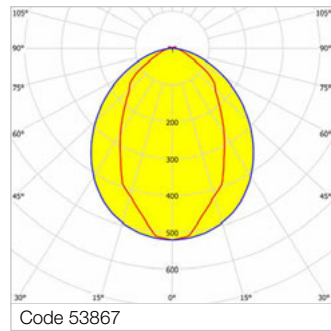
| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz, fuse

| | | | | | | |
|-------|--------------------------------------|-----|-------|------|-----|--------------|
| 53860 | A3F Ice LED 902x12W UR95 AMPIO L655 | 30 | 3732 | 4000 | >80 | 655x235x140 |
| 53861 | A3F Ice LED 902x24W UR95 AMPIO L1265 | 56 | 7471 | 4000 | >80 | 1265x235x135 |
| 53862 | A3F Ice LED 902x30W UR95 AMPIO L1565 | 70 | 9351 | 4000 | >80 | 1565x235x135 |
| 53863 | A3F Ice LED 902x60W UR95 AMPIO L1565 | 140 | 17435 | 4000 | >80 | 1565x235x135 |

Beta Ice LED Concentrated

Polycarbonate diffuser | Aluminium housing



Concentrated elliptical distribution.
Galvanized steel screen fixing clips.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz, fuse

| | | | | | | |
|-------|-------------------------------------|-----|-------|------|-----|--------------|
| 53867 | A3F Ice LED 902x30W UR95 CONC L1565 | 70 | 9236 | 4000 | >80 | 1565x235x135 |
| 53868 | A3F Ice LED 902x60W UR95 CONC L1565 | 140 | 17746 | 4000 | >80 | 1565x235x135 |

Waterproof and corrosion-proof



Kit LED Retrofit for Beta 2x

Construction characteristics

Illuminotechnical characteristics

Wide or concentrated direct distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Gear-tray in hot galvanized steel, painted in white polyester, to be fixed to the body by rapid devices "Ribloc".

2x40W version

PMMA lenses with external flat surface (superimposed to obtain full protection of LED modules).

For installations prior to 2010, the hinge opening is lost.

Electrical characteristics

In compliance with EN 60598-1.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- retrofit Kit for luminaires of length 655mm (1-2x18W), power 1x36W - 1x58W, for Beta Stainless A3F 92-93, for Beta Ice 90
- wiring: dimmable, CLO (more information on page 542), twin-circuit, different powers, emergency
- version with asymmetric lighting distribution
- wide flux recuperator to increase luminous flux by 5%
- different colour rendering indices and colour temperatures

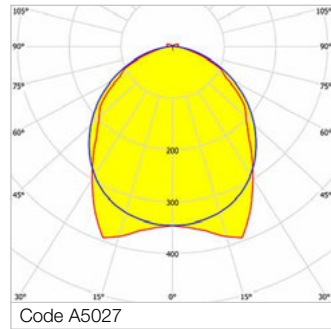
Installation

Correct installation of the Retrofit LED kit, compliant with EN 60598-1 and CE marked, must be only performed by qualified personnel to ensure compliance with the national installation standards.

Notes

Evaluate the use of moulded anti-glare glass according to the application.

Kit LED Retrofit for polycarbonate diffuser



40W
650°C

850°C



Wide or concentrated symmetric lighting distribution.
Flow recuperator in specular aluminium, with superficial titanium-magnesium treatment, non-iridescent (only for 2x22W CONCENTRATED version).
Internal transparent methacrylate lenses (only for 2x40W version).
Diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded, with smooth outer surface, sealing gasket.
The high output versions are NOT SELV.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Version without recuperator - Driver/LED SELV - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|----|------|------|-----|--------------|
| A5057 | Kit LED i3F 75,A3F 90-92 L1265 2x18W +PC | 40 | 5952 | 4000 | >80 | 1265x235x135 |
| A5027 | Kit LED i3F 75, A3F 90, A3F 92-L1565 - 2X22W+PC | 49 | 6996 | 4000 | >80 | 1565x235x135 |
| A5026 | KIT LED i3F 75, A3F 90-L1565 - 2x30W+PC | 70 | 8790 | 4000 | >80 | 1565x235x135 |

Version with CONCENTRATED recuperator - Driver/LED SELV - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|----|------|------|-----|--------------|
| A5013 | Kit LED i3F75,A3F 90,A3F 92-L1565-2X22W CONC+PC | 49 | 7351 | 4000 | >80 | 1565x235x135 |
|-------|---|----|------|------|-----|--------------|

High output version with WIDE lenses - Electronic wiring 230V-50/60Hz

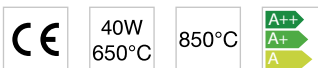
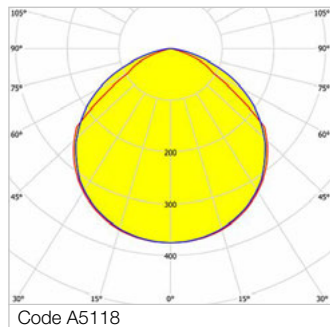
| | | | | | | |
|-------|--|----|-------|------|-----|--------------|
| A5215 | Kit LED i3F 75,A3F 90 - L1565 - L 2x40W AMPIO + PC | 84 | 11988 | 4000 | >80 | 1565x235x135 |
|-------|--|----|-------|------|-----|--------------|

High output version with CONCENTRATED lenses - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|----|-------|------|-----|--------------|
| A5217 | Kit LED i3F 75,A3F 90 - L1565 - L 2x40W CONC + PC | 84 | 11889 | 4000 | >80 | 1565x235x135 |
|-------|---|----|-------|------|-----|--------------|

Waterproof and corrosion-proof

Kit LED Retrofit for glass diffuser



Wide or concentrated symmetric lighting distribution.
 Flow recuperator in specular aluminium, with superficial titanium-magnesium treatment, non-iridescent (only for 2x22W CONCENTRATED version).
 Internal transparent methacrylate lenses (only for 2x40W version).
 Glass diffuser is NOT included in the kit.
 The high output versions are NOT SELV.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Version without recuperator - Driver/LED SELV - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--|----|------|------|-----|--------------|
| A5148 | KIT LED i3F 76,A3F 91,A3F 93-L1265-2x18W | 40 | 5549 | 4000 | >80 | 1265x235x105 |
| A5118 | Kit LED i3F 76, A3F 91, A3F 93 - L1565-2X22W | 49 | 6938 | 4000 | >80 | 1565x235x135 |
| A5117 | KIT LED i3F 76, A3F 91 - L1565-2x30W | 70 | 8718 | 4000 | >80 | 1565x235x105 |

Version with CONCENTRATED recuperator - Driver/LED SELV - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|----|------|------|-----|--------------|
| A5104 | Kit LED i3F 76, A3F 91, A3F 93-L1565-2X22W CONC | 49 | 7525 | 4000 | >80 | 1565x235x135 |
|-------|---|----|------|------|-----|--------------|

High output version with WIDE lenses - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|---|----|-------|------|-----|--------------|
| A5210 | Kit LED i3F 76,A3F 91 - L1565 - L 2x40W AMPIO | 84 | 11860 | 4000 | >80 | 1565x235x105 |
|-------|---|----|-------|------|-----|--------------|

High output version with CONCENTRATED lenses - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--|----|-------|------|-----|--------------|
| A5212 | Kit LED i3F 76,A3F 91 - L1565 - L 2x40W CONC | 84 | 11959 | 4000 | >80 | 1565x235x105 |
|-------|--|----|-------|------|-----|--------------|

Beta A3F - i3F

Accessories



Pair of mounting brackets and hooks for wall-mounting, with nuts and bolts for luminaire fastening, everything in stainless steel.

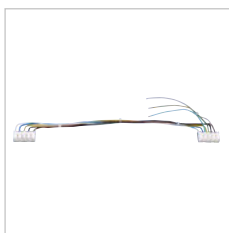
| Code | Item |
|-------|---------------------------------------|
| A0503 | 15 CD (pair of bracket and hooks A3F) |



Pair of steel hooks for suspended installation, with nuts and bolts for luminaire fastening.

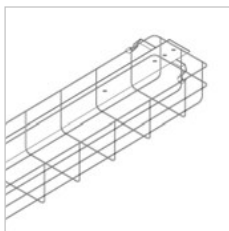
| Code | Item |
|-------|--|
| A0500 | 13 DH (pair of susp. galvanised steel hooks i3F) |
| A0501 | 13 HC (pair of susp. stainless steel hooks A3F) |

In case of chain suspension installation, ALWAYS use one of the following codes: A0653.



5-pole cascade connection line, stiff cable H07 V2-U, HT 90°C, 1.5 mm², terminal blocks with connection capacity 2x2.5 mm².

| Code | Item |
|-------|--|
| A0508 | 20 TKA (casc. conn. line i3F/A3F 1265) |
| A0509 | 20 ZFE (casc. conn. line i3F/A3F 1565) |



Wire-guard for applications in dry environments, against shocks coming from any directions, galvanized steel rod Ø 5 mm.

| Code | Item |
|-------|------------------------------------|
| A0457 | Wire guard 280x1330 03F/Linda/Beta |
| A0458 | Wire guard 280x1630 03F/Linda/Beta |

Only for luminaires fixed without hooks.



Anti-condensation diffuser cable gland.

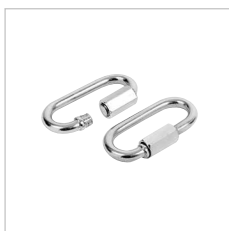
| Code | Item |
|-------|-------------------------------|
| A0187 | Anti-condensation cable gland |

Recommended for installations in environments with temperature sudden changes or subject to condensation.



Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

| Code | Item |
|----------------------|----------------------------------|
| A0521 ^{NEW} | Reducing sealing ring – diam.8mm |



Snap hooks clips for chain suspension, galvanized steel.

| Code | Item |
|-------|---|
| A0653 | Couple of fixing carabiniers for chain installation |



Moulded anti-glare glass for retrofit LED kits, non-combustible, tempered, mounted and locked by a galvanised steel mono-block perimetrical frame with a sealing gasket. For installations prior to 2010, the hinge opening is lost. On request: versions with stainless steel frame for Beta 2x A3F91 - A3F93.

Accessory compatible with Kit LED Retrofit for Beta 2x.

| Code | Item |
|-------|--------------------------------------|
| A5184 | Printed glass Beta 2x i3F 76 - L1565 |
| A5185 | Printed glass Beta 2x i3F 76 - L1265 |

960°C

10J

IK09



MANIGLIONE
ANTIPANICO
apertura a spinta



Beta 430 LED

Construction characteristics

Illuminotechnical characteristics

Wide symmetrical or hyperconcentrated distribution.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing in steel, powder-coated in white epoxy-polyester.

Total flow recuperator in specular aluminium, high efficiency, with superficial titanium-magnesium treatment, non-iridescent.

Single-piece perimeter frame in galvanized steel, sealing gasket, hinged opening by means of clips in galvanized steel.

Safety system to prevent diffuser from falling.

Transparent glass HST tempered, non-combustible.

SL transparent PMMA flat diffuser.

Electrical characteristics

In compliance with EN 60598-1.

Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.

Twin-circuit.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 7 compliant.

On request

- different colour rendering indices and colour temperatures
- anti-glare moulded VS glass
- laminated glass
- diffuser in prismatic PMMA or polycarbonate, either transparent or prismatic
- wiring: dimmable, CLO (more information on page 542), single-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Applications

Ambient temperature from -20°C to +35°C.

Environments: commercial, industrial, sports, stores, sports halls, gymnasiums.

Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with laminated glass.

Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.

Installation

Suspension mounted with a chain or a bus bar.

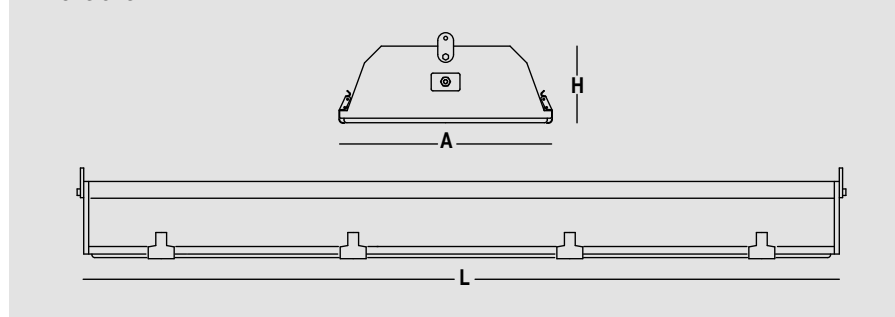
Notes

HST glass

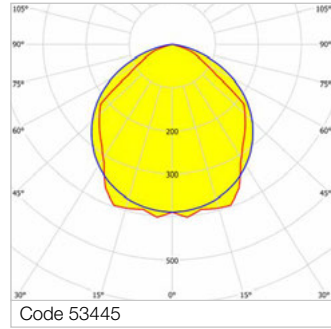
HST glass is composed of a tempered glass sheet which has undergone a thermal stabilisation process (Heat Soak Test) which reduces the risk of spontaneous breakage caused by nickel-sulfide inclusions inside the glass. It is not immune from harmless falling fragments, caused by shocks or, exceptionally, derived from the tempering process.

It is the user's responsibility to identify the most suitable type of diffuser for the application type.

Dimensions



Beta 430 LED Wide



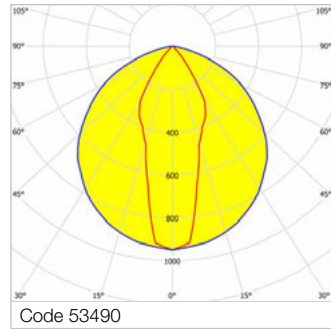
Wide symmetric lighting distribution.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|-----------------------------------|-----|-------|------|-----|--------------|
| 53438 | i3F LED 764x50W CR AMPIO VT L1251 | 209 | 31651 | 4000 | >80 | 1251x430x159 |
| 53452 | i3F LED 764x50W CR AMPIO SL L1251 | 209 | 31651 | 4000 | >80 | 1251x430x159 |
| 53445 | i3F LED 764x63W CR AMPIO VT L1551 | 261 | 39567 | 4000 | >80 | 1551x430x159 |
| 53459 | i3F LED 764x63W CR AMPIO SL L1551 | 261 | 39567 | 4000 | >80 | 1551x430x159 |

Beta 430 LED Iperconcentrated



Symmetrical elliptical hyperconcentrated distribution. Recommended minimum installation height: 4 meters from the ground.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--|-----|-------|------|-----|--------------|
| 53490 | Beta Iperconc LED 4x30W CR VT IP64 L1551 | 140 | 17975 | 4000 | >80 | 1551x430x159 |
| 53493 | Beta Iperconc LED 4x30W CR SL IP64 L1551 | 140 | 17975 | 4000 | >80 | 1551x430x159 |

Waterproof and corrosion-proof



Kit LED Retrofit for Beta 430

Construction characteristics

Illuminotechnical characteristics

Wide or concentrated direct distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Gear-tray unit in white pre-painted steel.
PMMA lenses with external flat surface (superimposed to obtain full protection of LED modules).

Electrical characteristics

In compliance with EN 60598-1.
Twin-circuit.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- wiring: CLO (more information on page 542), emergency, dimmable, different powers
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Installation

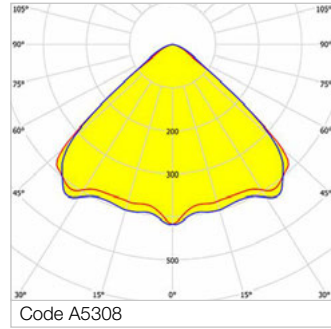
Correct installation of the Retrofit LED kit, compliant with EN 60598-1 and CE marked, must be only performed by qualified personnel to ensure compliance with the national installation standards.

Notes

Evaluate the use of moulded anti-glare glass according to the application.

Retrofit Kit

To replace the 4x49W T5 Amalgam or the 4x58W T8 version



650°C

Wide or concentrated symmetric lighting distribution.
Transparent methacrylate lenses.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Version with WIDE lenses - Electronic wiring 230V-50/60Hz

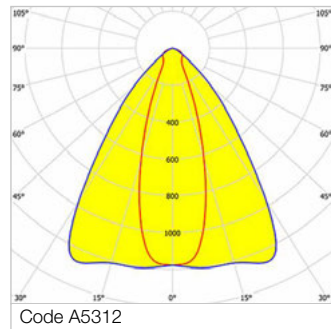
| | | | | | | |
|-------|---------------------------------------|-----|-------|------|-----|--------------|
| A5308 | Kit LED Beta 430 - L1551- 2X65W AMPIO | 133 | 18872 | 4000 | >80 | 1551x430x159 |
|-------|---------------------------------------|-----|-------|------|-----|--------------|

Version with CONCENTRATED lenses - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------------|-----|-------|------|-----|--------------|
| A5309 | Kit LED Beta 430 - L1551- 2X65W CONC | 133 | 18431 | 4000 | >80 | 1551x430x159 |
|-------|--------------------------------------|-----|-------|------|-----|--------------|

Retrofit Kit

To replace the 4x80W - 6x49W T5 Amalgam version



650°C

Wide or concentrated symmetric lighting distribution.
Transparent methacrylate lenses.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Version with WIDE lenses - Electronic wiring 230V-50/60Hz

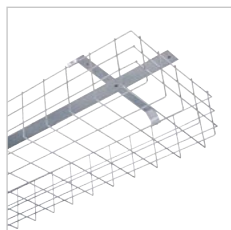
| | | | | | | |
|-------|---------------------------------------|-----|-------|------|-----|--------------|
| A5311 | Kit LED Beta 430 - L1551- 3X65W AMPIO | 200 | 27804 | 4000 | >80 | 1551x430x159 |
|-------|---------------------------------------|-----|-------|------|-----|--------------|

Version with CONCENTRATED lenses - Electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|--------------------------------------|-----|-------|------|-----|--------------|
| A5312 | Kit LED Beta 430 - L1551- 3X65W CONC | 200 | 27300 | 4000 | >80 | 1551x430x159 |
|-------|--------------------------------------|-----|-------|------|-----|--------------|

Waterproof and corrosion-proof

Beta 430 Accessories



Wire-guard for applications in dry environments, against shocks coming from any directions, in galvanized steel rod \varnothing 5 mm; only for luminaires fixed with no hooks.

Accessory compatible with Beta 430 LED.

| Code | Item |
|-------|--------------------------|
| A0528 | Wireguard Beta 430 L1251 |
| A0529 | Wireguard Beta 430 L1551 |



Moulded anti-glare glass for retrofit LED kits, non-combustible, tempered, mounted and locked by a galvanised steel mono-block perimetrical frame with a sealing gasket. For installations prior to 2010, the hinge opening is lost.

Accessory compatible with Kit LED Retrofit for Beta 430.

| Code | Item |
|-------|---|
| A5322 | Printed glass with Beta 430 frame - L1551 |

5J

IK08



Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

| Code | Item |
|----------------------|----------------------------------|
| A0521 ^{NEW} | Reducing sealing ring – diam.8mm |



3F Cub

Lighter. Brighter. More energy savings.
With quick connection.

The best Cub ever.



3F Cub is a luminaire for industry, sales areas and large spaces based on dedicated technologies allowing long lamp life and low maintenance, even in particularly tough conditions.

Patented

Thanks to Quick Connection, minimal time is required to install the luminaires: as it is no longer necessary to open them, the terminal block can be extracted quickly and simply from the upper opening for connection.

- Easy and quick installation
- Energy savings
- Light quality
- High efficiency
- High dependability
- Economical management

thermal shielding effect

dust flows upwards

3F Cub LED



Light quality

- Turning on and turning back on always immediate.
- Excellent colour rendering $R_a > 80$ (in line with European standard EN 12464 on workplace lighting).
- Reduced glare.
- No strobe effect.
- Wide tolerance on mains voltage ($\pm 10\%$).
- No UV emissions.
- Brightness of light.
- Adjustable luminous flux and/or lamp automatic switch-off thanks to sensors and photocells.

High efficiency

- Efficiency greater than 125 lm/W thanks to the oversized aluminium flow recuperator with titanium-magnesium treatment, with linear LED modules.

High dependability

- 3F Cub Led is suitable for ambient temperatures up to $+45^\circ\text{C}$ thanks to its oversized aluminium body which guarantees components optimum thermal balance.
- LED modules compliant with Zhaga specifications for changing LED strips.
- Photobiological risk absent (IEC/EN 62471:2010).

Economical Management

- Very high source lifetime, 100,000 hrs.
- Standard twin-circuit wiring.
- Less decrease of the source's light flow over time thanks to heat dissipation.
- Increased safety: the electronic wiring ensures automatic disconnection of the power supply in case of defective LED module.
- Highly efficient luminaire: over 125 lm/W.
- Mercury-free source.
- Less heat lost to the environment.
- No non-scheduled maintenance operations: faulty or burned-out strips do not compromise work.
- Easy and quick installation and power-supply connection also thanks to quick connection.
- 3F Cub LED has glass or diffuser for total protection, for environments with large quantities of dust to maintain lighting efficiency over time and minimise cleaning of reflecting surfaces.
- Very long lamp average life.

Energy savings

- Fast return on investment.
- Standard or dimmable electronic drivers.



3F Cub LED

Construction characteristics

Illuminotechnical characteristics

Wide symmetric distribution.
 Lifetime (L90/B10): 30000 h. (tq+25°C)
 Lifetime (L85/B10): 50000 h. (tq+25°C)
 Lifetime (L80/B20): 80000 h. (tq+25°C)
 Lifetime (L70/B20): 100000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Housing with double casing in pressed aluminium, powder-coated in white epoxy-polyester, hinged opening. Quick connection in polycarbonate M20x1.5 cable gland for access to the terminal block. Ecologic anti-aging injected sealing gaskets. Stainless steel clips. Total flow recuperator in specular aluminium, with superficial titanium-magnesium treatment, non-iridescent. Fixing bracket.

Electrical characteristics

Quick connection.

Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- concentrated distribution
- laminated glass
- wiring: single-circuit, emergency, CLO (more information on page 542)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- double quick connection
- HACCP versions for use in the food industry

Applications

100W version

Ambient temperature from -20°C to +45°C.

150W version

Ambient temperature from -20°C to +40°C.

Environments: commercial, industrial, sports, stores, sports halls, gymnasiums. Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use

luminaires with laminated glass.

Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.

SP version

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

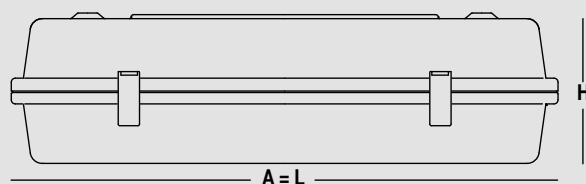
Installation

Suspension mounted on a bus bar or with a chain attached to the ceiling. For brackets see accessories on page 487.

Light Management

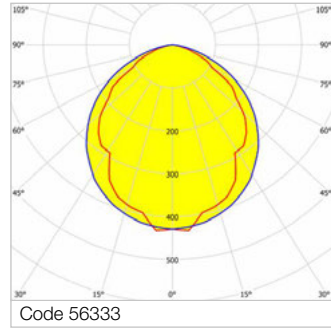
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F Cub LED VT

Transparent glass



Transparent glass VT tempered, non-combustible.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz, twin-circuit

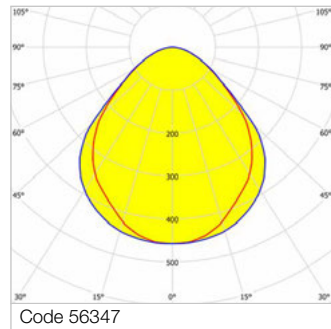
| | | | | | | |
|-------|-----------------------|-----|-------|------|-----|-------------|
| 56330 | 3F CUB LED 100W CR VT | 110 | 14957 | 4000 | >80 | 680x680x187 |
| 56333 | 3F CUB LED 150W CR VT | 163 | 22234 | 4000 | >80 | 680x680x187 |

DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------|-----|-------|------|-----|-------------|
| 56332 | 3F CUB LED 100W DALI CR VT | 110 | 14957 | 4000 | >80 | 680x680x187 |
| 56335 | 3F CUB LED 150W DALI CR VT | 163 | 22234 | 4000 | >80 | 680x680x187 |

3F Cub LED SP

Flat diffuser, prismatic in methacrylate



SP transparent methacrylate diffuser, prismatic outside, antiglare.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz, twin-circuit

| | | | | | | |
|-------|-----------------------|-----|-------|------|-----|-------------|
| 56344 | 3F CUB LED 100W CR SP | 110 | 14098 | 4000 | >80 | 680x680x187 |
| 56347 | 3F CUB LED 150W CR SP | 163 | 20844 | 4000 | >80 | 680x680x187 |

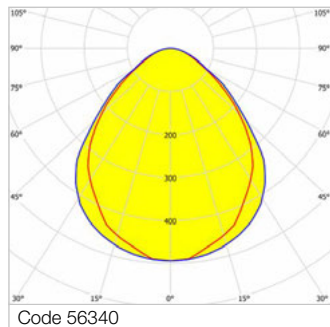
DALI electronic wiring 230V-50/60Hz

| | | | | | | |
|-------|----------------------------|-----|-------|------|-----|-------------|
| 56346 | 3F CUB LED 100W DALI CR SP | 110 | 14098 | 4000 | >80 | 680x680x187 |
| 56349 | 3F CUB LED 150W DALI CR SP | 163 | 20844 | 4000 | >80 | 680x680x187 |

Waterproof and corrosion-proof

3F Cub LED VS

Moulded glass



VS moulded glass, anti-glare, tempered, non-combustible.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz, twin-circuit

| | | | | | | |
|-------|-----------------------|-----|-------|------|-----|-------------|
| 56337 | 3F CUB LED 100W CR VS | 110 | 13762 | 4000 | >80 | 680x680x187 |
| 56340 | 3F CUB LED 150W CR VS | 163 | 20415 | 4000 | >80 | 680x680x187 |

DALI electronic wiring 230V-50/60Hz

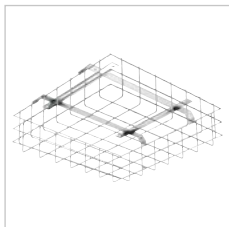
| | | | | | | |
|-------|----------------------------|-----|-------|------|-----|-------------|
| 56339 | 3F CUB LED 100W DALI CR VS | 110 | 13762 | 4000 | >80 | 680x680x187 |
| 56342 | 3F CUB LED 150W DALI CR VS | 163 | 20415 | 4000 | >80 | 680x680x187 |

3F Cub Accessories



Ceiling-mounted bracket in hot-galvanized steel.

| Code | Item |
|-------|-------------------------|
| A0213 | Ceiling-mounted bracket |



Wire-guard for indoor dry applications, with double fastening (wire-guard and luminaire), for shocks coming from any directions, not transmitting the shocks to the luminaire but to the ceiling; in galvanized steel rod Ø 5 mm. To install it, ceiling-mounted bracket code A0213 is always necessary.

| Code | Item |
|-------|------------------|
| A0210 | Wireguard 3F Cub |



Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

| Code | Item |
|----------------------|----------------------------------|
| A0521 ^{NEW} | Reducing sealing ring – diam.8mm |

3F Cub LED

Examples of design

Comparison to 400W JM reflector

Design data:

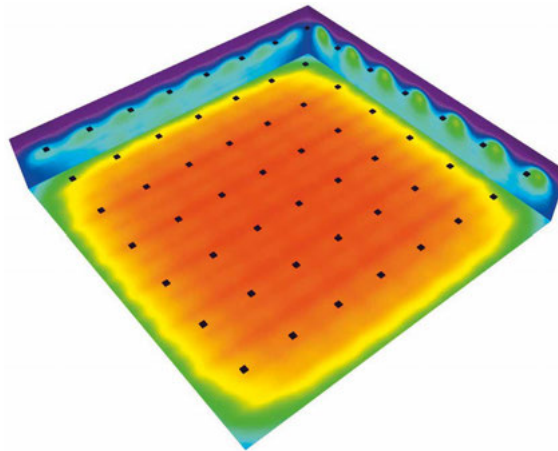
Room dimensions 50x50 metres
 Room height 9 metres
 Installation height 8 metres

Number of luminaires 56 luminaires
 (6.3x7.1 metre grid)

Like-for-like replacement of light points

Reflection ceiling 30%
 walls 30%
 floor 10%

Work surface height 0.85 metres



| | 400W JM reflector | 3F Cub LED 150W CR VT | Difference |
|--|-----------------------|--------------------------------|---------------|
| Lighting values | 345 lx | 381 lx | + 10% |
| Luminaire power | 440 W | 163 W | - 63% |
| Circuit type | Single circuit (100%) | Twin circuit (50% - 100%) | |
| Regulation of luminous flux and power? | No | Yes, depending on requirements | |
| Source life | 8,000 hours | >50,000 hours | +42,000 hours |

Comparison to 3F Cub R90 4x55 IP43

Design data:

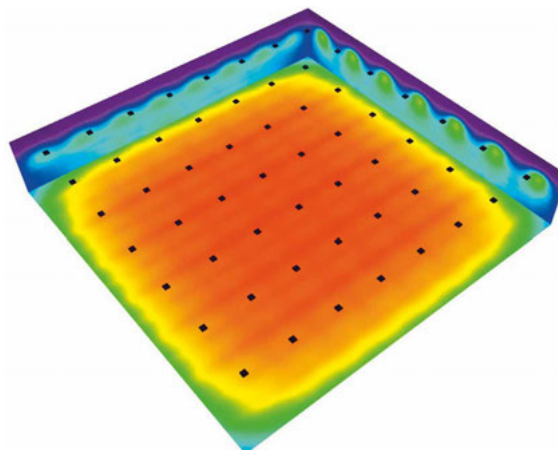
Room dimensions 50x50 metres
 Room height 9 metres
 Installation height 8 metres

Number of luminaires: 56 luminaires
 (6.3x7.1 metre grid)

Like-for-like replacement of light points

Reflection ceiling 30%
 walls 30%
 floor 10%

Work surface height 0.85 metres



| | 3F Cub R90 4x55 IP43 | 3F Cub LED 150W CR VT | Difference |
|--|--------------------------------|--------------------------------|---------------|
| Lighting values | 334 lx | 381 lx | + 14% |
| Luminaire power | 240 W | 163 W | - 32% |
| Circuit type | Twin circuit (50% - 100%) | Twin circuit (50% - 100%) | |
| Regulation of luminous flux and power? | Yes, depending on requirements | Yes, depending on requirements | |
| Source life | 15,000 hours | >50,000 hours | +35,000 hours |

Comparison to 3F Cub 4x55 VT IP64

Design data:

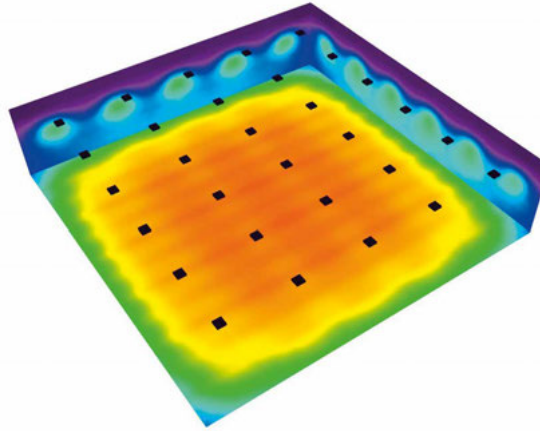
Room dimensions 30x30 metres
 Room height 7 metres
 Installation height 6 metres

Number of luminaires: 30 luminaires
 (6x5 metre grid)

Like-for-like replacement of light points

Reflection ceiling 30%
 walls 30%
 floor 10%

Work surface height 0.85 metres



| | 3F Cub 4x55 CR VT IP64 | 3F Cub LED 100W CR VT | Difference |
|--|--------------------------------|--------------------------------|---------------|
| Lighting values | 334 lx | 380 lx | + 14% |
| Luminaire power | 240 W | 110 W | - 54% |
| Circuit type | Twin circuit (50% - 100%) | Twin circuit (50% - 100%) | |
| Regulation of luminous flux and power? | Yes, depending on requirements | Yes, depending on requirements | |
| Source life | 15,000 hours | >50,000 hours | +35,000 hours |

Why choose 3F Cub LED?



Never-ending light

3F Cub LED is equipped with new 3F LED technology whose sources specially developed for demanding applications guarantee an operating lifetime of over 50,000 hours, at the end of which at least 50% of the LED will still be providing 80% of their initial light output.



You won't believe your wallet!

- 3F LED technology allows you to save up to 60% compared to traditional sources.
- Existing luminaires can be replaced while maintaining the same light locations and wiring system, but reducing energy consumption.
- Reduced maintenance significantly lowers running costs.



Beauty which doesn't blind!

The 3F Cub LED diffuser attenuates or cancels out all glare and creates a truly enviable lighting uniformity (in relation to the installation height). Its clean, elegant lines make 3F Cub LED a luminaire which can fit in perfectly with any environment.



Eco-logical

- 3F Cub LED has been created according to the principles of Eco Design, and stands out for:
- Manufactured using energy from solar panels and assembled according to our "zero mileage" philosophy.
 - Limited use of different materials, facilitating assembly, installation and recycling.
 - Recyclable green packaging.



Significant reduction in maintenance costs

Longer life means less maintenance.
 Less maintenance means greater savings.
 Less maintenance means fewer problems.
 Fewer problems means greater peace of mind.

Waterproof and corrosion-proof

3F Manta



3F 66



Outdoor

| Page | Product | Wall | Bollard |
|------|---------------------|------|---------|
| 492 | 3F Manta | | |
| 500 | NEW 3F Manta | • | • |
| 504 | 3F 66 | | |
| 504 | 3F 66 LED | • | |

3F Manta



Designed for those who work outdoors. 365 days a year.

3F Manta was created to bring the outstanding lighting technology that our company has been offering for over 60 years inside production facilities, retail areas, and architectural spaces outdoors. Thanks to the intense activity in its research laboratories, 3F Filippi is launching its first lighting fixture for outdoor work areas, a cutting edge solution dedicated to lighting private areas where vehicles and pedestrians pass through such as parking lots, perimeter areas of production facilities, loading/unloading docks, and other areas that refer to regulation EN 12464-2 "Lighting of outdoor work areas".

3F Manta is the result of precise design covering every facet, from the mechanical elements to the use of cutting-edge technological components. The sum of the individual details makes this fixture the ideal answer to the expectations of those who are looking for perfect, durable outdoor lighting.



Safety and reliability

3F Manta is made with top quality components to ensure excellent performance in every aspect. The cutting-edge technology also make 3F Manta a reliable technical solution that maintains its performance over time.

Since 1952 we have been working to facilitate the work of planners and installers, even through very strict tests that we perform in our CTFs Level 2 certified laboratories under the supervision of a recognised Third Party: 3F Manta followed strict internal protocols to minimise any faults over the longest possible period of time.



Stainless Steel hardware

They prevent oxidation over time and are also used inside the body, allowing easy access even in severe weather conditions.

Aluminium optics

They allow the photometric performance to remain constant over time.

HST glass and gasket in polyurethane

Particularly sturdy, it ensures significant resistance to temperature changes. The watertight seal and IP66 protection rating are also guaranteed by the gaskets made of polyurethane, which is particularly resistant to weather and pollution.

NTC System

The LED module is equipped with a thermistor to prevent exceeding the expected operating temperatures.

SPD System

The SPD (Surge Protective Device) technology ensures adequate protection against atmospheric or electrical surges.

Nema Socket - Ready

The upper part of the fixture is made ready for the installation of devices created for the creation of Smart Lighting solutions (sensors, wireless antennas, video cameras, etc.).



Installation and maintenance

The 3F Filippi Team has designed and developed 3F Manta considering many technical and practical aspects. Among these, our technicians were very attentive to installation and maintenance of the fixture in order to facilitate the installers' work, allowing them to reduce work times and operate with maximum safety.

Safe and quick installation

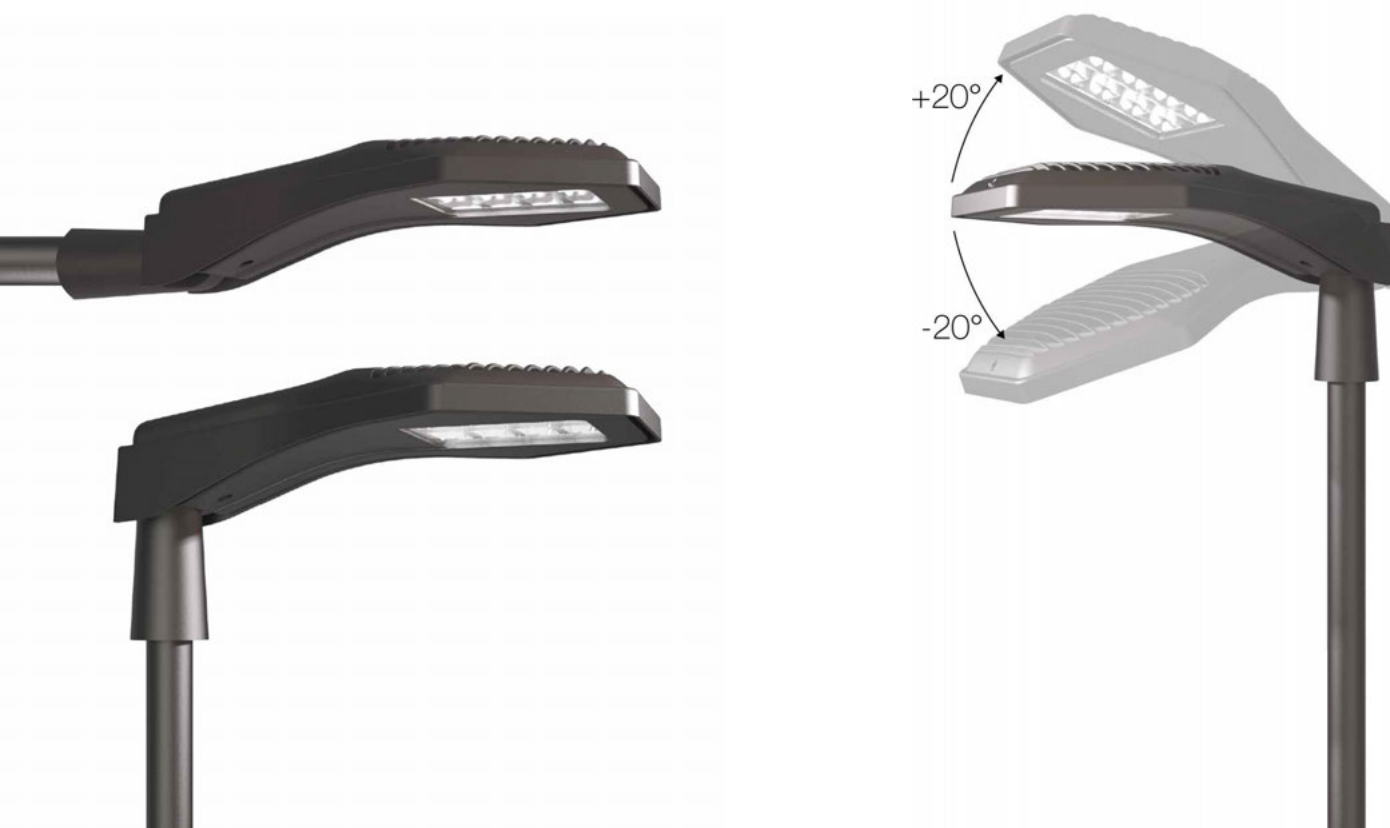
The bayonet terminal block and the anticlosure block eliminate the risk of accidents when working on the luminaire. Also, it is not necessary to open the fixture to adjust the installation angle and to connect it to the electrical mains because it is provided with an outlet cable. These measures significantly reduce installation time.



Practical and flexible installation

A single accessory (available for both 60 mm and 76 mm diameter pipes) allows installation on a pole or on the wall (pipe not supplied by 3F Filippi).

The wide 40° adjustment angle allows the luminaire to be tilted based on different needs, even after installation is complete.



Precision optics

For 3F Manta we developed an ad hoc multifaceted optics, with total luminous flux recovery cells, entirely made of semi-specular high reflection aluminium with titanium and magnesium surface treatment, without iridescence and luminous contrasts.



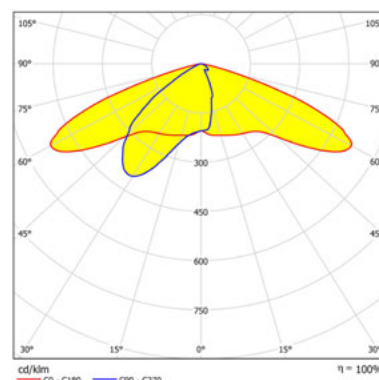
The aluminium allows the optical performance to be maintained over time, even in the most severe weather conditions, unlike chrome elements.

The versatile and mechanically solid optical group is comprised of:

- 8 completely separate optical compartments for maximum flux recovery
- Specifically modelled blades to create the right optical shielding and optimise asymmetrical frontal distribution without flux dispersion on the back of the fixture
- Versatile parabolic sides, with double optical focus, designed to provide different beam angles and optimise installation in different applications

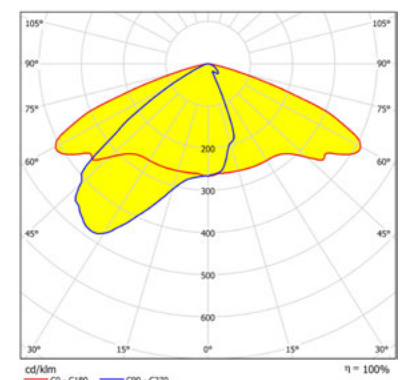
In designing and creating 3F Manta, special attention was paid to the light distribution, which is perfectly controlled and guarantee the cancellation of light pollution (in compliance with current standards). The distributions, with two different optics, are designed for lighting large spaces, meeting the depth or width requirements.

WIDE DISTRIBUTION



Light efficiency > 120 lm/W

MEDIUM DISTRIBUTION



Light efficiency > 120 lm/W

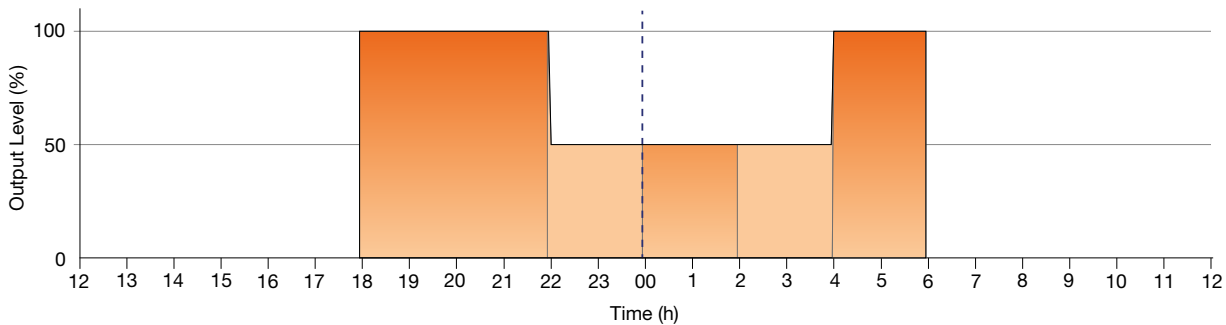
Virtual midnight (upon request)

In order to further increase energy savings when lighting outdoor areas (and others), when the light does not need to be operating at full power, the “virtual midnight” system allows the creation of a stand-alone control of the fixtures without the need for an external control infrastructure or any change to the existing system. It consists of activating a multi-level power reduction on the luminaire through a self-learning process that, based on previous times when switched on or off, determines the hypothetical “virtual midnight” between when it was switched on (sunset) and off (sunrise).

“Virtual midnight” is the reference point for applying the reduction of the output power according to the selected profile.

The default setting regulates it on two power levels: 100% and 50%.

A microprocessor calculates the reduction time starting from “virtual midnight”. The default setting calls for 2 hours before and 4 hours after “virtual midnight” as follows:

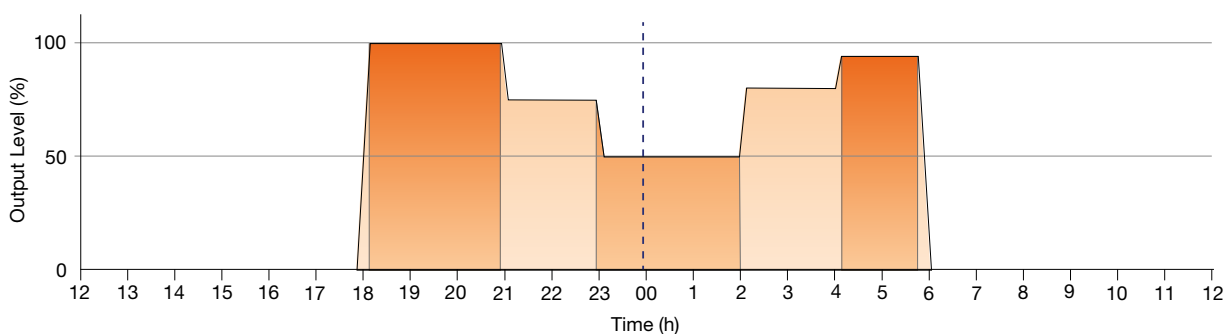


The system allows the implementation of customised adjustment profiles (optionals to be requested specifically during the order process), which allow even greater control flexibility.

In fact, it is possible to:

1. Set the output levels in an interval between 10% and 100%, with 1% increases divided over 5 different time intervals.
2. Create the passage from one adjustment level to the next by means of a fade with a programmed duration
3. Switch the light on and off through a fade. This function allows further energy savings during the twilight stages.
4. Activate an adjustments that also takes into account the sunrise and sunset in the location described by the geographic coordinates in order to further optimise the power reduction periods.

The graph below shows an example of a programming profiles that summarizes the possibilities described in points 1, 2, and 3



Design examples

Loading and unloading area

Wall installation

3F Manta 135W Wide

Installation height 6 m
Installation spacing 20 m
Average illumination at the ground 55 lux

Site perimeter

Pole installation

3F Manta 50W Medium

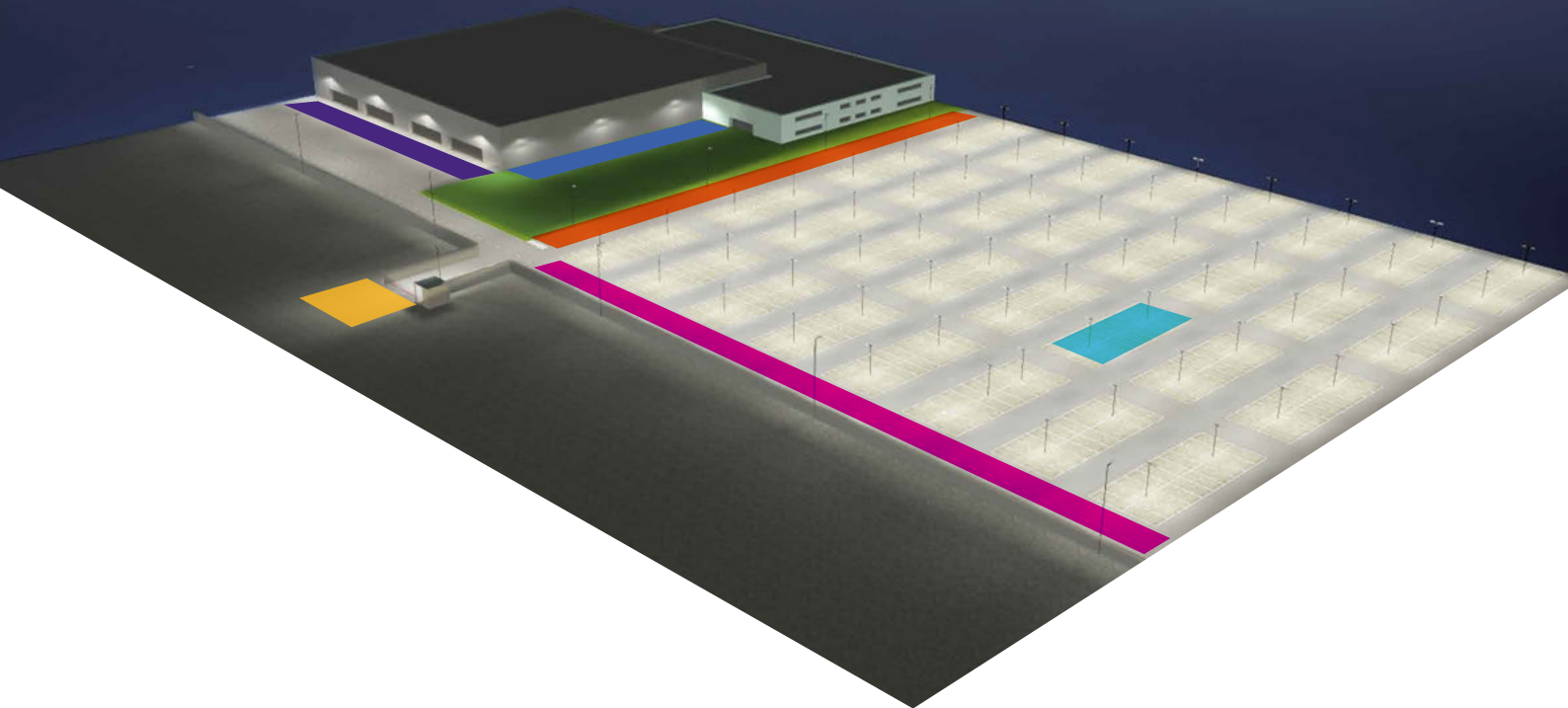
Installation height 6 m
Installation spacing 20 m
Average illumination at the ground 20 lux

Perimeter road

Pole installation

3F Manta 75W Wide

Installation height 8 m
Installation spacing 32 m
Average illumination at the ground 25 lux



Input

Pole installation

3F Manta 185W Medium

Installation height 8 m
Average illumination at the ground 50 lux

Roadway

Pole installation

3F Manta 100W Wide

Installation height 12 m
Installation spacing 48 m
Average illumination at the ground 25 lux

Parking Lot

Pole installation

3F Manta 50W Wide

Installation height 5 m
Installation spacing 15 m
Average illumination at the ground 60 lux





3F Manta

Construction characteristics

Illuminotechnical characteristics

Asymmetric distribution with wide or medium bilateral.

No higher ULOR emission.

Lifetime (L93/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L85/B10): 80000 h. (tq+25°C)

Lifetime (L80/B10): 100000 h. (tq+25°C)

Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Aerodynamically-shaped die-cast aluminium double-shell body for low wind resistance, equipped with fins to optimize the cooling of the internal components.

Shell closure using stainless steel screws on stainless steel bushings, with hinged opening for easy access to the wiring compartment, equipped with system against accidental closure.

Polyester powder coating with degreasing pre-treatment and phosphate layer deposit on the metal, UV stabilized, corrosion resistant, anthracite colour, salt spray resistance ISO 9227 >1000 h.

Parabolic cellular optics with total recovery, entirely made of semi-specular high reflection aluminium with titanium and magnesium surface treatment, to maintain optical performance over time.

Polyurethane foam seals, ecological, anti-aging, installed using a continuous automatic process with no joints.

VT extra transparent tempered glass diffuser, 4 mm thick, non-combustible, with Heat Soak Test (HST) thermal treatment, which drastically reduces the risk of spontaneous breakage.

Stainless steel internal and external screws.

Electrical characteristics

In compliance with EN 60598-1.

Flicker: <10%.

Safety break switch to shut off the power supply when opening the device.

SPD type 2+3 (combined) device to protect against voltage surges up to 10 kV in common and differential mode.

Thermal protection of the LED module via NTC sensor (Negative Temperature Coefficient).

M20x1.5 IP68 nylon cable gland for feeding input (cables with an min-max diameter 6-13mm).

Pressure compensating valve with anti-condensation effect.

Insulation rating I.

Source characteristics

- Squared LED module with special protection against aggressive chemically-volatile substances, for standard LED technology.
- Color initial tolerance (MacAdam): SDCM 5.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: DALI, CLO (more information on page 542), D1-10V, Wireless, class II
- Customised Virtual Midnight up to 5 independent intervals / levels
- watertight socket / plug connectors

Applications

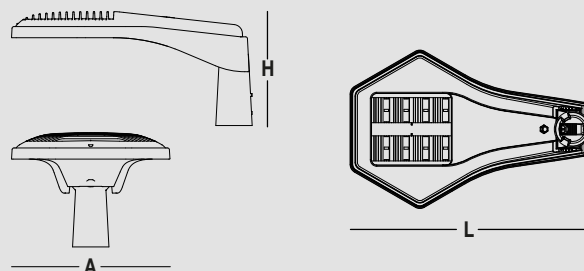
Ambient temperature from -30°C to +45°C. Outdoor environments, general lighting, work and roadway lighting, transit areas and building perimeters, parking lots, trade fairs.

Control of light pollution, in accordance with the legislative requirements in force.

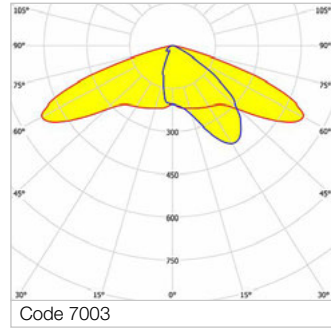
Installation

Pole or wall mounted using always necessary accessories (see on page 502).

Dimensions



3F Manta Wide



CE
960°C
IP66
10J
IK09
A++
A+
A

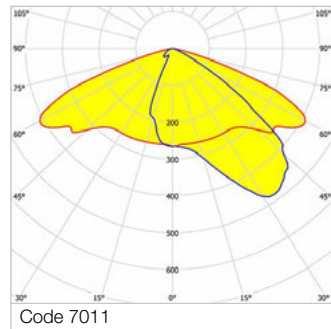
Asymmetric distribution with wide bilateral.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|---------------------|-------------------------------|-----|-------|------|-----|-------------|
| 7001 ^{NEW} | 3F Manta AN 50/730 WIDE L660 | 52 | 6845 | 3000 | >70 | 660x440x166 |
| 7002 ^{NEW} | 3F Manta AN 75/730 WIDE L660 | 77 | 9569 | 3000 | >70 | 660x440x166 |
| 7003 ^{NEW} | 3F Manta AN 100/730 WIDE L660 | 101 | 12902 | 3000 | >70 | 660x440x166 |
| 7004 ^{NEW} | 3F Manta AN 135/730 WIDE L660 | 147 | 17193 | 3000 | >70 | 660x440x166 |

3F Manta Medium



CE
960°C
IP66
10J
IK09
A++
A+
A

Asymmetric distribution with medium bilateral.

| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz

| | | | | | | |
|---------------------|---------------------------------|-----|-------|------|-----|-------------|
| 7009 ^{NEW} | 3F Manta AN 50/730 MEDIUM L660 | 52 | 6808 | 3000 | >70 | 660x440x166 |
| 7010 ^{NEW} | 3F Manta AN 75/730 MEDIUM L660 | 77 | 9516 | 3000 | >70 | 660x440x166 |
| 7011 ^{NEW} | 3F Manta AN 100/730 MEDIUM L660 | 101 | 12830 | 3000 | >70 | 660x440x166 |
| 7012 ^{NEW} | 3F Manta AN 135/730 MEDIUM L660 | 147 | 17097 | 3000 | >70 | 660x440x166 |
| 7020 ^{NEW} | 3F Manta AN 185/730 MEDIUM L660 | 195 | 22111 | 3000 | >70 | 660x440x166 |

3F Manta Accessories



Pole mount in die-cast aluminium with the same paint treatment as the body (for Ø 60 mm and Ø 76 mm poles) equipped with special teeth for adjusting the inclination on the head of the device by $\pm 20^\circ$ with an adjustment pitch of 5° . Possibility of installing on vertical pole (pole head) and horizontal pole (arm). Mounting on the device using the supplied stainless steel screws on self-locking stainless steel nuts.

| Code | Item |
|----------------------|-----------------------------|
| A0439 ^{NEW} | Pole mounting diameter 60mm |
| A0440 ^{NEW} | Pole mounting diameter 76mm |

Accessory always required.



Galvanized steel bracket for fixing on flat facades. 3 mm thick and 200 mm long arm. Powder coated polyester paint, anthracite color. This bracket DOES NOT allow adjustment of the inclination of the product.

| Code | Item |
|-----------------------|-----------------------------|
| A01480 ^{NEW} | Fixed position wall bracket |

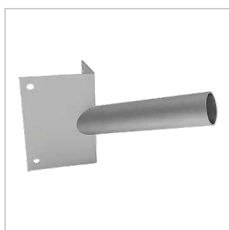
Options on request: painting in different RAL color / 500 mm outreach / horizontal pole.



Galvanized steel bracket for fixing on flat facades. Thickness 3 mm, arm length 250 mm and inclined by 15° . Suitable for 60 mm diameter poles. This bracket allows adjustment of the inclination of the product.

| Code | Item |
|-----------------------|-----------------------------------|
| A01479 ^{NEW} | Wall bracket 15° diam 60mm |

To install this accessory, it is always necessary to use the pole connection code A0439. Options on request: painting in RAL colors / 500 mm outreach / horizontal pole.



Galvanized steel bracket for fixing on the corner between facades. Thickness 3 mm, arm length 250 mm and inclined by 15° . Suitable for 60 mm diameter poles. This bracket allows adjustment of the inclination of the product.

| Code | Item |
|-----------------------|--|
| A01481 ^{NEW} | Corner wall bracket 15° diam 60mm |

To install this accessory, it is always necessary to use the pole connection code A0439. Options on request: painting in RAL colors / 500 mm outreach / horizontal pole.





3F 66 LED

Construction characteristics

Illuminotechnical characteristics

Downward bilateral distribution.
 Lifetime (L75/B10): 30000 h. (tq+25°C)
 Lifetime (L70/B10): 50000 h. (tq+25°C)
 Photobiological safety RG0, risk exempt, in compliance with IEC 62471, IEC/TR 62778 (further information on page 18).

Mechanical characteristics

Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
 Flow recuperator in specular aluminium with superficial titanium-magnesium treatment, non-iridescent.
 Transparent PMMA diffuser, injection moulded, with smooth outer surface and differentiated prismatic inner surface.
 Sealing gaskets between housing and diffuser in ecological anti-aging EPDM.
 Diffuser safety seal with 4 latches attaching it to the housing, in stainless steel.

Electrical characteristics

In compliance with EN 60598-1.
 Double insulated cables.
 Line entry at rear through rubber seal or at side after drilling.
 Class II.

Source characteristics

- LED modules.
- Color initial tolerance (MacAdam): SDCM 4.

On request

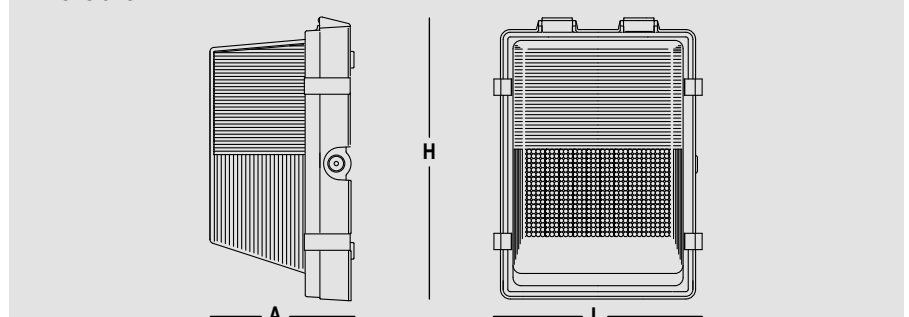
- LED sources with different colour temperatures
- different powers

Applications

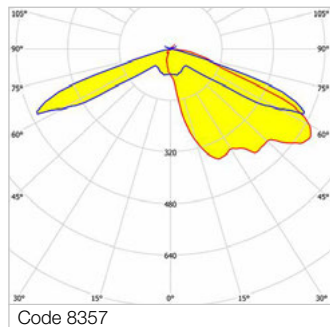
Wall mounting, particularly suitable for outdoor lighting of civil and industrial buildings, porticos, underpasses and walkways.









Downwards bilateral controlled distribution allows to optimise the perimeter lighting uniformity of buildings.
 Control of light pollution, in accordance with the legislative requirements in force.




Dimensions



3F 66 LED



| Code | Item | Absorbed power (W) | Output flux (lm) | CCT (K) | CRI | Dimensions L x A x H |
|------|------|--------------------|------------------|---------|-----|----------------------|
|------|------|--------------------|------------------|---------|-----|----------------------|

Electronic wiring 230V-50/60Hz, fuse

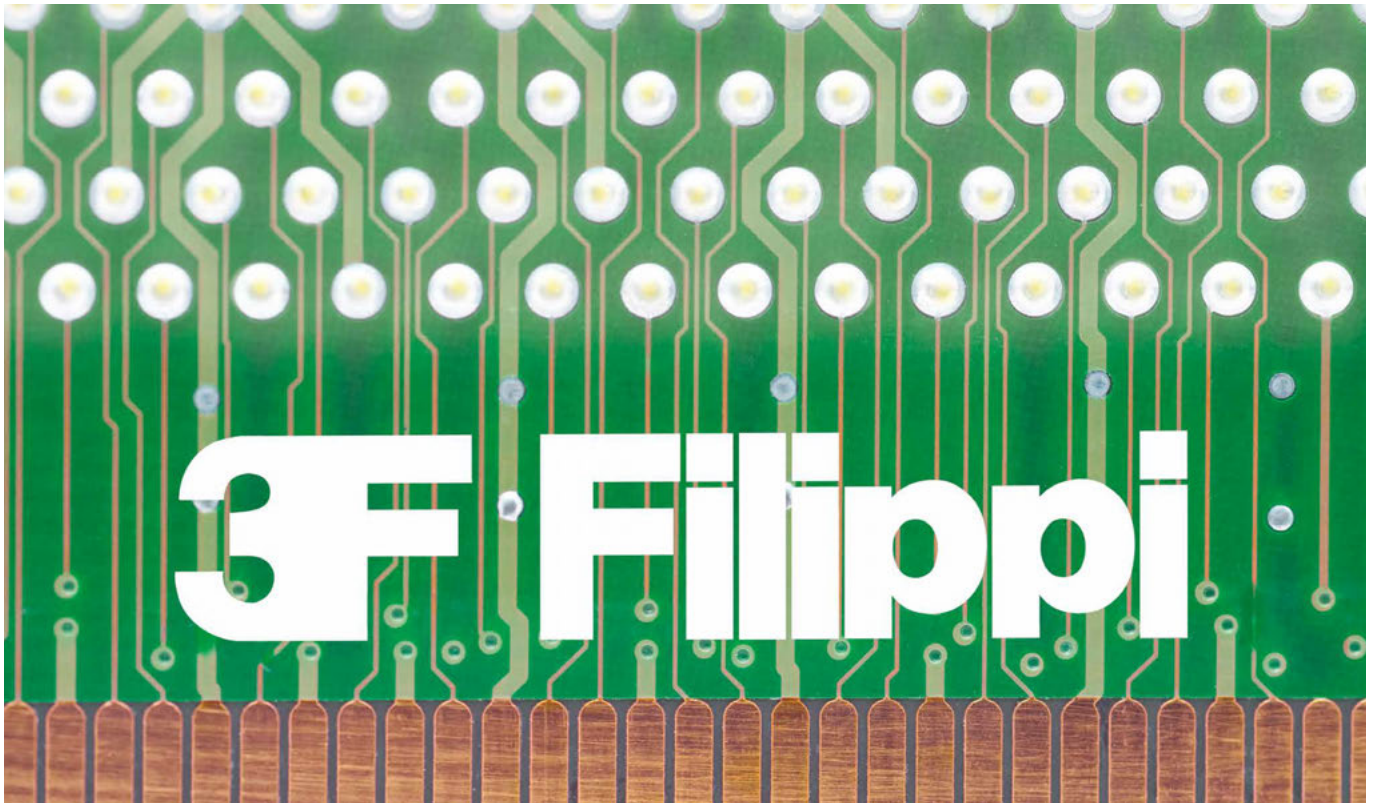
| | | | | | | |
|------|-------------------|----|------|------|-----|-------------|
| 8357 | 3F 66 1 LED 6 II | 10 | 689 | 4000 | >80 | 255x176x344 |
| 8358 | 3F 66 2 LED 12 II | 16 | 1361 | 4000 | >80 | 255x176x344 |

Light Management

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Light Management

Good for you, excellent for the environment.



3F Filippi is always at the forefront of energy savings and improving the efficiency of systems: this is why we are constantly striving to create luminaires which are able to interact with environments and with the people who live and work there.

One of the most important aspects of managing workplaces is certainly the lighting: it is indeed proven that poor illumination is not only harmful to workers, but creates both direct (higher power consumption or waste) and indirect (worker illness, decreases in productivity, stress or even physical issues) economic problems.

Good lighting may often seem difficult to obtain, but in reality small measures can obtain big results. Here are three useful tips:

- **Let in the sun:** natural light improves quality of life and saves you money!
- **Use low-energy sources:** luminaires fitted with LED sources are the best weapons in cutting costs, especially when they are optimised like those manufactured by 3F Filippi.
- **Use luminaires with luminous fluxes which can be regulated according to requirements:** dimming the luminaires lets you lower electricity consumption by up to 80%, at the same time creating a more pleasant and functional working environment.

Systems which are able to regulate the artificial lighting on the basis of the available natural light can be created, using only the power required to maintain an appropriate level of lighting in the environment, allowing you to save up to 80% on electricity bills. After performing analyses alongside lighting designers, we noticed that adopting control systems which can regulate lighting on the basis of the available natural light provides wide margins for improving the energy efficiency of systems, particularly during the summer months.

Adopting systems such as KNX - which can also be used throughout the building for automating all types of systems (HVAC, lighting, opening, blinds etc.) - combined with measurement of the natural light level provides excellent results, in part due to intelligent positioning of light measurement sensors in relation to the position of the workplace and geographical orientation.

3F Filippi offers light regulation systems to help you save energy and protect the environment: from manual regulation systems to luminaires able to turn on and off thanks to integrated brightness and presence sensors, energy management systems linked to building automation, right through to components which help you to create made-to-measure lighting installations with ease.

3F Filippi is at your side to offer you the best solutions both for your environment and your workers.

3F Smart Lighting

3F Easy Dim

Manual regulation systems which allow you to adjust the luminous flux of the luminaires.

3F Smart Dimming

Stand-alone sensors for ON/OFF control and regulation (DALI versions only) of groups of luminaires.

3F Sensor

Luminaires with integrated ON-OFF radar movement sensor.

3F DALI Sensor

DALI luminaires with integrated DALI sensor for automatic regulation and on/off control of the luminous flux on the basis of the natural light.

3F Sensor Bluetooth

Fixtures with DALI-BLE motion radar sensors to turn on and regulate groups of fixtures

3F HCL for TW fixtures

TW Tunable White fixtures for manual or automatic variation (with HCL systems) of colour temperature.

3F CLO

Automatic regulation system which compensates for the decline in luminous flux, providing a constant level of lighting over time.

3F & KNX

Luminaires equipped with DALI driver able to interface with KNX systems for automated remote management of the technological systems of a building.

3F Wireless

A 868MHz wireless control and regulation system that allows for communication between light fixtures and sensors

3F Bluetooth

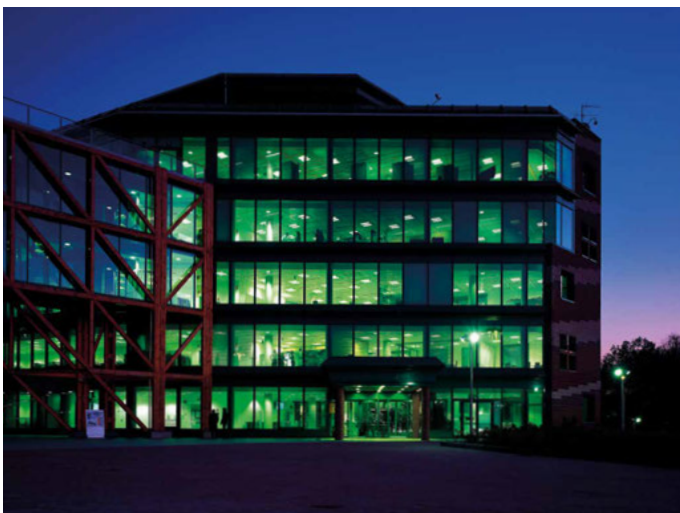
Bluetooth adjustment and control system, allows communication between lighting devices and management via APP

These lighting management systems comply with UNI EN 15232 "Energy performance of buildings. Impact of Building Automation, Controls and Building Management" which introduces four energy efficiency categories for the control functions of building technical systems.

Introducing **3F Smart Lighting** control and light management systems - even in systems already equipped with high-efficiency light sources - can provide significant further energy efficiency improvements.

A great advantage of automated systems, like **3F Sensor** and **3F Smart Dimming**, is that regulation is completely automatic, without any requirement for operators to intervene, ensuring that the systems is constantly adapting itself to the required conditions.

3F Filippi lighting and Smart Buildings



Both for new builds and for existing systems, the costs of implementing these solutions are more than offset by simplification of the electrical wiring and corresponding installation: this reduction in conductors, conduits, power and control switchboards means that the time required to see a return on investment is drastically reduced.

Our sales and technical offices are at your disposal to support you in choosing the best solutions available; these can also be customised to the application you require.

3F Easy Dim

Savings in your hands



Characteristics

3F Easy Dim technology lets you regulate luminous flux in an easy, low-cost and customisable manner. In terms of the system, it is composed of a commercially available push-button (up to 6 ballasts) and a DALI repeater (to manage up to 64 ballasts). This mode allows you to perform the following functions:

- Turning the luminaire **ON/OFF**.
- **Manual regulation of the luminaire's luminous flux** on the basis of specific requirements.

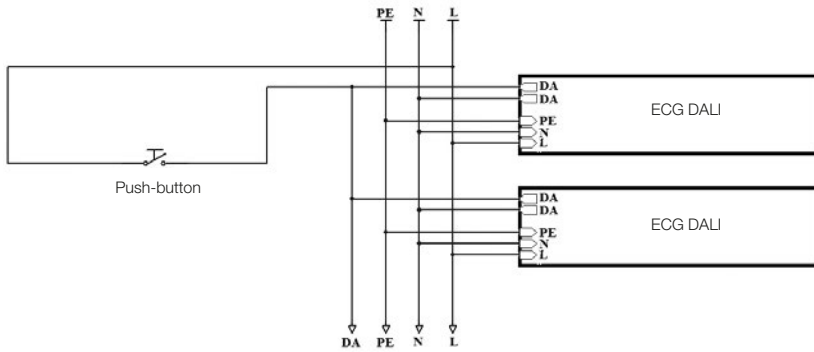
Advantages

The advantage of this technology is that it gives the user the possibility to customise the quantity of light present in the environment depending on taste and requirements, while using genuinely low-cost components. The control provided is manual, and as such savings will depend on how it is managed.

Savings

- **Installation phase:** up to 6 ballasts with PUSH DIM function, controlled via a commercially available push-button (environments without interference). Between 7 and 64 ballasts requires a DALI repeater.
- **Use:** if the luminous flux output is below 100%, power consumption of the luminaire is significantly reduced.

Up to 6 ballasts



N.b.: in environments where there is signal interference present, and with dimmer wire lengths of over 20 metres, the installation of a DALI repeater is advisable.

Results obtainable

- Manually turning the luminaire ON/OFF.
- Manual regulation of the luminaire's luminous flux on the basis of user requirements.

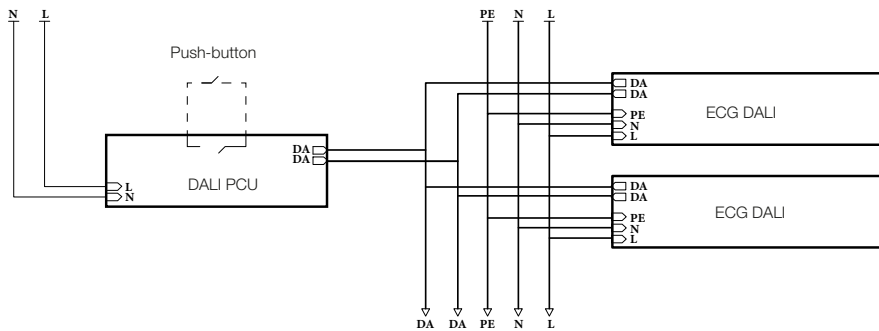
Compatible luminaires

Any luminaire from the 3F Filippi range, as long as it is equipped with DALI PUSH DIM ballast.

Components required

- 1 commercial push-button.

Up to 25 ballasts



Results obtainable

- Manually turning the luminaire ON/OFF.
- Manual regulation of the luminaire's luminous flux on the basis of user requirements.

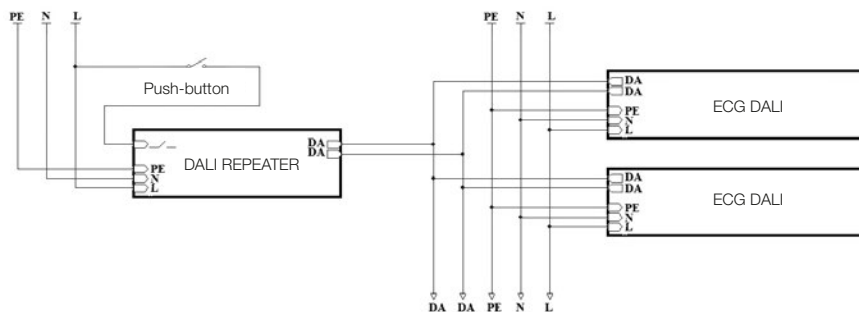
Compatible luminaires

Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast.

Components required

- 1 commercial push-button.
- 1 DALI PCU fixture for each button (button cable length 15cm – max 1m).

Up to 64 ballasts



Results obtainable

- Manually turning the luminaire ON/OFF.
- Manual regulation of the luminaire's luminous flux on the basis of user requirements.

Compatible luminaires

Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast.

Components required

- 1 commercial push-button.
- 1 DALI repeater.

3F Easy Dim Accessories



Signal Repeater for expansion of DALI systems (64 drivers - 300 meters of line), size 189x30x21 mm, integrated installation into the device or into the Box (cod. A3010).

| Code | Item |
|-------|-------------------|
| A3008 | Repeater DALI ext |



IP20

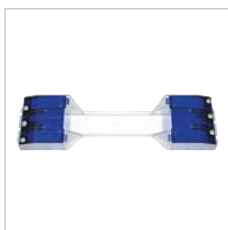


Signal Repeater for expansion of DALI systems (64 drivers - 300 meters of line), size 96x72x62 mm, DIN rail mounting.

| Code | Item |
|-------|-------------------|
| A3009 | Repeater DALI DIN |



IP20



Box mounted housing DALI Repeater ext (cod. A3008), size 261x71x27 mm.

| Code | Item |
|-------|-----------------------|
| A3010 | Box for Repeater DALI |



DALI control panel for recessed installation, dimensions 48x49x22 mm, allows to regulate the flow power on/off of a up to a maximum of 25 DALI drivers (max 300 m in a line) with just one commercial button (normally open).

| Code | Item |
|-------|--------------------------------|
| A3007 | DALI PCU push button interface |



IP20



3F Sensor

A small revolution bringing you big advantages.

Available luminaires

3F Petra LED Sensor - 3F Linda Sensor
L 320 LED Sensor CF - 3F Linda LED Sensor CF

Characteristics

Sensor technology allows you to make savings and manage your lighting systems in an easy, low-cost and customisable manner without investing significant capital in costly systems.

What we have done is extremely simple: we have incorporated an ON/OFF high-frequency (HF) 5.8GHz radar movement sensor inside the luminaire.

Advantages

The advantages of this technology create significant savings for the end customer:

- **Time savings during installation:** integrating these functions inside the luminaire means it is no longer necessary to install a network of sensors (and corresponding wiring) and connect it to the luminaires.
- **Cost savings:** you save money on installation time, electrical supplies and system calibration time.
- **Ease of installation:** it is no longer necessary to create or modify electrical systems. Just connect the luminaires to the mains
- **Customisation of brightness levels:** each luminaire "works" independently from the others, allowing you to create "made to measure" lighting.

Products equipped with 3F Sensor technology are individual, independent luminaires which cannot be connected together.

Savings

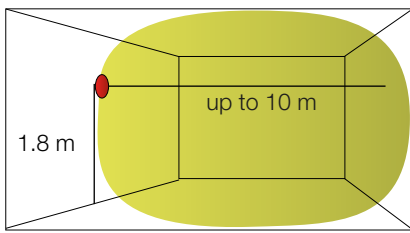
In practical terms, the advantages are real and tangible in these aspects for the end customer:

- **Installation:** to create a network of luminaires, it is no longer necessary to connect them physically; this means you no longer have to spend extra for wiring supplies and installation time.
- **Independence and precision:** Each luminaire is independent; this means that lights turn on in an increasingly localised and precise manner, with corresponding electricity savings.
- **Simplicity:** dimming and presence sensors are integrated and already operational. All that is left for you to do is to connect the phase, neutral and earth wires: wasting time setting up and adjusting the system is a thing of the past!
- **Integration with existing installations:** the same lighting connections, using standard electrical wiring: this means not wasting money adapting the systems.

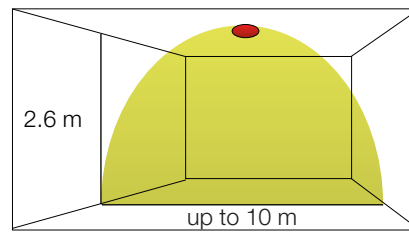
3F Sensor: saves you money even before the light is turned on.

| Versions | Sensor | Corridor Sensor Function |
|---------------------------------|--|--------------------------|
| Standard position (no movement) | Luminaire off | Kept on at 10% power |
| Automatic | Via ON/OFF high-frequency (HF) 5.8GHz radar movement sensor | |
| Mounting height | Wall installation at max 2.7 metres - Ceiling installation at max 4 metres | |
| Twilight function | Daylight / 300 lux / 150 lux / Twilight / Night / Programmable mode (default setting "daylight") | |
| On time | From 10 seconds to 30 minutes (default setting 900s) | |
| Sensitivity/detection field | 20% - 30% - 50% - 75% - 100% (default setting 75%) | |

Sensitivity



Luminaire wall installation



Installation Ceiling luminaires

RADAR technology goes beyond glass, wood and plasterboard, therefore for the correct functioning of the luminaire, the sensor detection field (see instruction sheet) must be adjusted according to the type of installation/room.

3F Sensor

Components required

- ON/OFF high-frequency (HF) 5.8GHz radar movement sensor incorporated in the luminaire.
- Luminaires with standard ON/OFF driver.

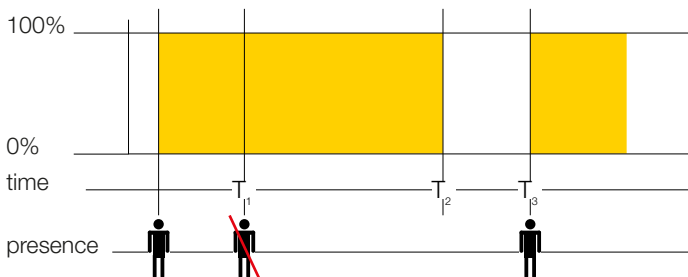
Results obtainable

- Luminaire switching on the basis of the chosen light level (deactivated by default, but can be modified to meet requirements) and movement of persons within the range of the sensor.
- Regulation of the luminaire's on time, on the basis of specific requirements.

Available luminaires

3F Petra LED Sensor, 3F Linda LED Sensor.

Operation graph



Legend:

$T_1 > T_2$ - latency time managed by the sensor - default 900s

$T_2 > T_3$ - period of zero luminous flux - unlimited time

3F Sensor CF

Components required

- ON/OFF high-frequency (HF) 5.8GHz radar movement sensor incorporated in the luminaire.
- Luminaires with DALI driver programmed with Corridor Function (CF).

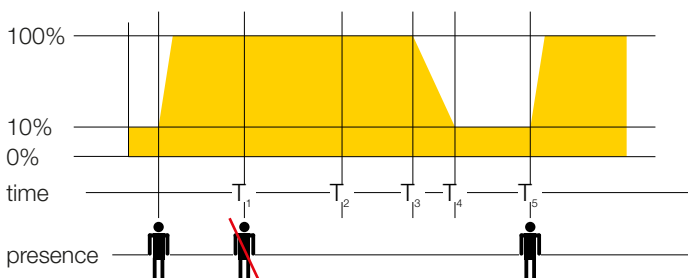
Results obtainable

- Two lighting levels (minimum 10% without movement and 100% with movement).
- The luminaire's luminous flux cannot be dimmed.

Available luminaires

L 320 LED Sensor CF, 3F Linda LED Sensor CF.

Operation graph



Legend:

$T_1 > T_2$ - latency time managed by the sensor - default 900s

$T_2 > T_3$ - latency time managed by the driver - 120 seconds

$T_3 > T_4$ - luminous flux decrease time - 32 seconds

$T_4 > T_5$ - period of minimum luminous flux - unlimited time

3F Bluetooth Sensor

Fixtures available

3F Linda Sensor DALI-BLE

Components

DALI-Bluetooth regulator with a high frequency radar motion detector (HF) 5.8GHz, integrated inside the fixture.
Smartphone or Tablet app to configure fixtures.

Obtainable result

The fixture switches on according to the brightness level chosen (default disabled but can be changed as needed) and the movement of people within the range of the sensor.

Preferred functions can be programmed using the APP.

It is also possible to set up a mesh network between DALI-BLE fixtures using Wireless Bluetooth communication.

The presence function can be excluded.

The corridor function can be set up with personalised times and levels.

Configure groups of fixtures (master-slave) without modifying the electrical system.

Characteristics

We have integrated a high frequency DALI radar motion detector (HF) 5.8GHz inside the fixture that operates Bluetooth with other DALI-BLE fixtures.

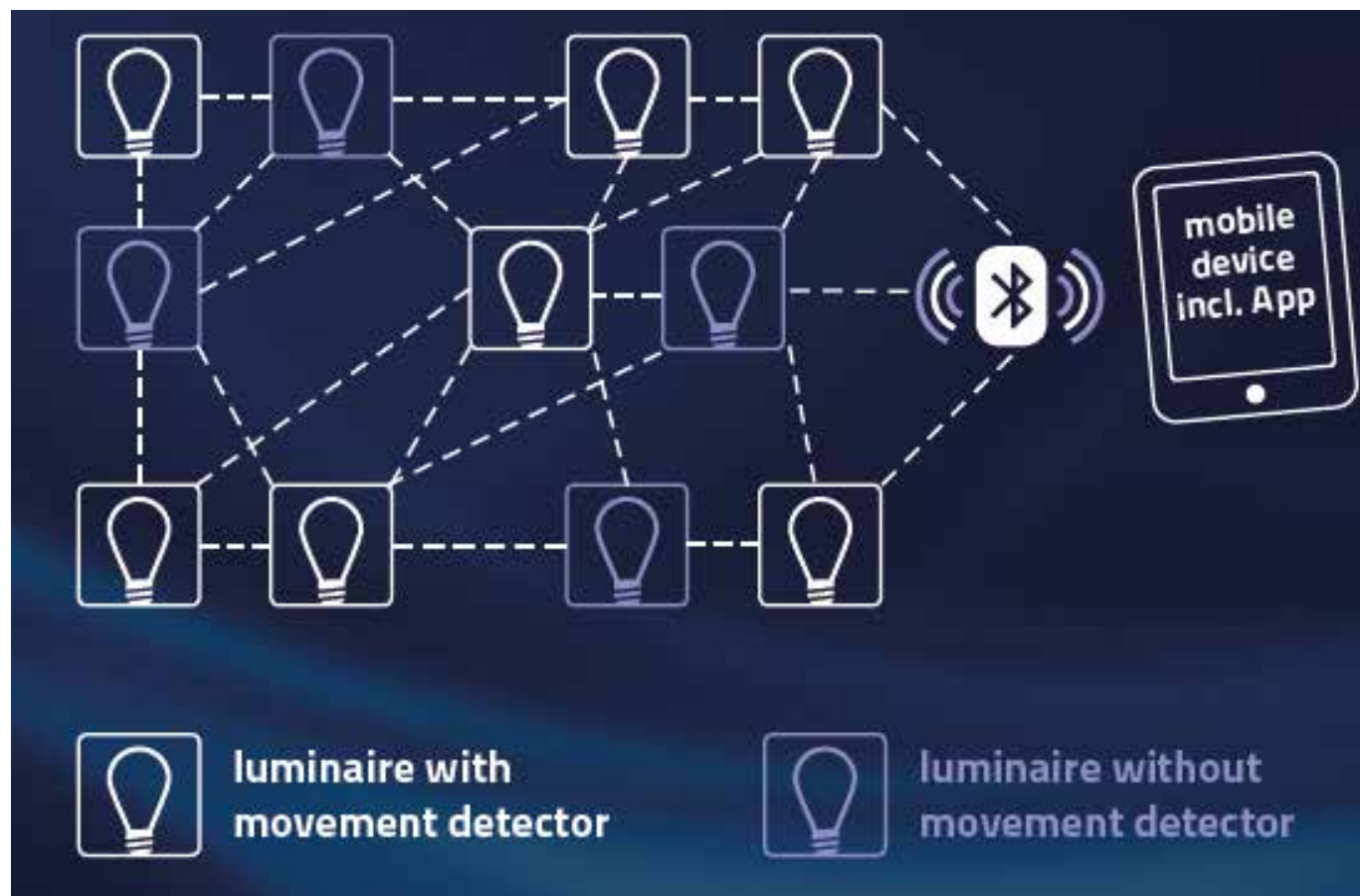
The onboard sensor makes it possible to regulate individual or groups of fixtures or profiles for a complete installation.

The distance between the fixtures can be up to 20 m for indoor installations. Fixtures with 3F Sensor Bluetooth technology can be managed in the following way:

Individually - every fixture turns on/off according to movement and adjusts according to programmed behaviour on the APP.

Master-Slave configuration --- using the APP it is possible to create groups of fixtures to manage each area

RADAR technology goes beyond glass, wood and plasterboard, therefore for the correct functioning of the luminaire, the sensor detection field (see instruction sheet) must be adjusted according to the type of installation/room.



Advantages

It is not necessary to modify the existing electrical system, you just need to connect the fixtures to the power grid, saving on installation time.

3F Sensor DALI-BLE technology unlike 3F Sensor allows for:

Bluetooth communication between fixtures

the creation of groups of fixtures without any other physical connections different function profiles that can be easily programmed by the end user using an APP on a tablet or smartphone (available for iOS and Android) for example:

- Sensitivity 10 ... 100%
- Hold time 5 seconds ... 60 minutes
- Daylight sensor 1 Lux ... 500 Lux; ; teach in
- DIM level 0 ... 100 %
- Program Mode On / Off, Permanent, Corridor,
- Soft-DIM: active / inactive

3F DALI Sensor

Available luminaires

3F LEM LED DALI Sensor

Characteristics

Luminaires with 3F DALI Sensor technology are equipped with a DALI brightness and presence sensor which allows the luminous flux to be switched on/off and regulated automatically on the basis of the natural light (the presence detection function is deactivated by default. It can be activated by removing the jumper on the sensor's R-L terminals).

Luminaires with 3F DALI Sensor technology can be installed in the two following ways:

Individually - each luminaire switches on/off and regulates its flow independently with respect to the other luminaires, and it is therefore no longer necessary to create or modify existing electrical systems, only to connect the luminaires to the mains supply, thus reducing installation times.

Master - Slave configuration – each 3F DALI Sensor luminaire can be connected to other standard 3F dimmable DALI luminaires by following the method given in the application examples. In this case, switching on/off and regulation of the luminous flux will be managed in zones/groups of luminaires, saving on the number of sensors in the field.

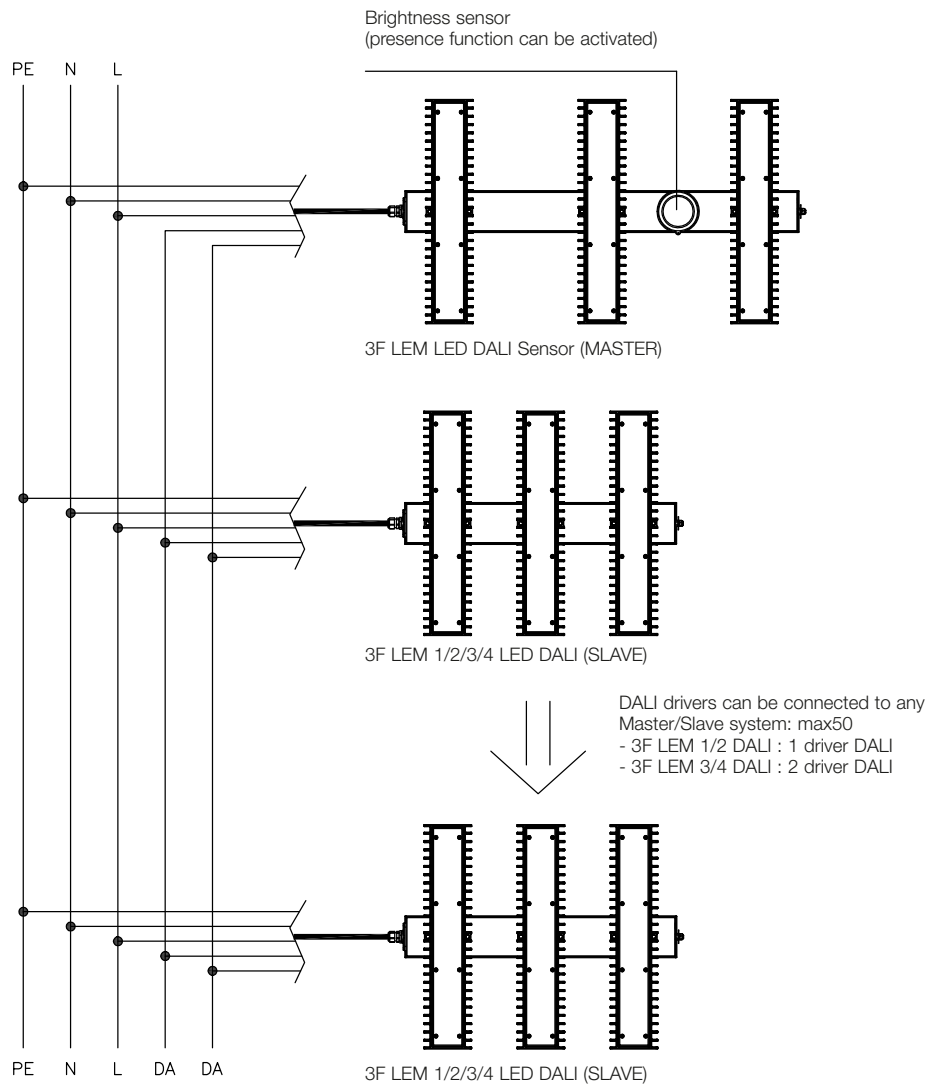
In both solutions, the initial programming of the sensor can be performed simply and conveniently with the use of the DALI IR programmer (code A3020).

For technical specifications and for further information, see the details in the **“3F Smart Dimming accessories”** chapter, or contact our technical department.



Typical application example for 3F LEM DALI Sensor

Connection diagram for broadcast operation, between the 3F Travetta LED DALI LS luminaire (with integrated DALI presence and brightness sensor - MASTER function) and 3F Travetta LED DALI luminaires (equipped with DALI drivers - SLAVE function). Allows the level of lighting to be kept constant between all connected luminaires, on the basis of the natural light, as well as centralised on/off commands (thus when motion is detected and with the twilight threshold set).



IMPORTANT: the DALI line of the MASTER luminaires cannot be connected to buttons!
If you require manual regulation, contact our technical department.

3F Smart Dimming



Characteristics

Smart Dimming technology allows you to make savings and manage your lighting systems in an easy, low-cost and customisable manner without investing significant capital in costly systems. Products in this range have functions such as:

- Turning on and automatically regulating the luminaire **on the basis of the chosen level of brightness**.
- Luminaire switching **on the basis of presence** of persons in the radius of operation of the luminaire (the detection area can be extended using slave sensors).
- **Manual regulation and ON/OFF** via accessory remote controls or push-buttons.

Advantages

The advantages of this technology offer significant energy savings for the end customer, calculated as being up to 80% compared to an on-off solution with combined sensors for light and presence regulation. It is also possible to create made-to-measure lighting based on the requirements of the environment and the light level required.

Savings

The advantages are real and tangible in these aspects for the end customer:

- **Quick, simple installation.**
- **Energy savings.**
- **Reduced time to see return on investment.**

Installation Reference - Corridor function



Standard position: the power output of the luminaires is dimmed to 10%, thus obtaining a minimum level of lighting.



As soon as the luminaires detect the presence of persons, or the level of natural light falls below a minimum set threshold, the CF function is activated and they switch to 100% power output for the set duration (this can be regulated during installation).

Results obtainable

- Luminous flux of 10% at rest, 100% flux when presence is detected via relay sensor.
- Activation of 100% of luminous flux depending on the amount of natural light and/or presence of personnel.
- Extension of the presence detection area through the use of slave sensors.

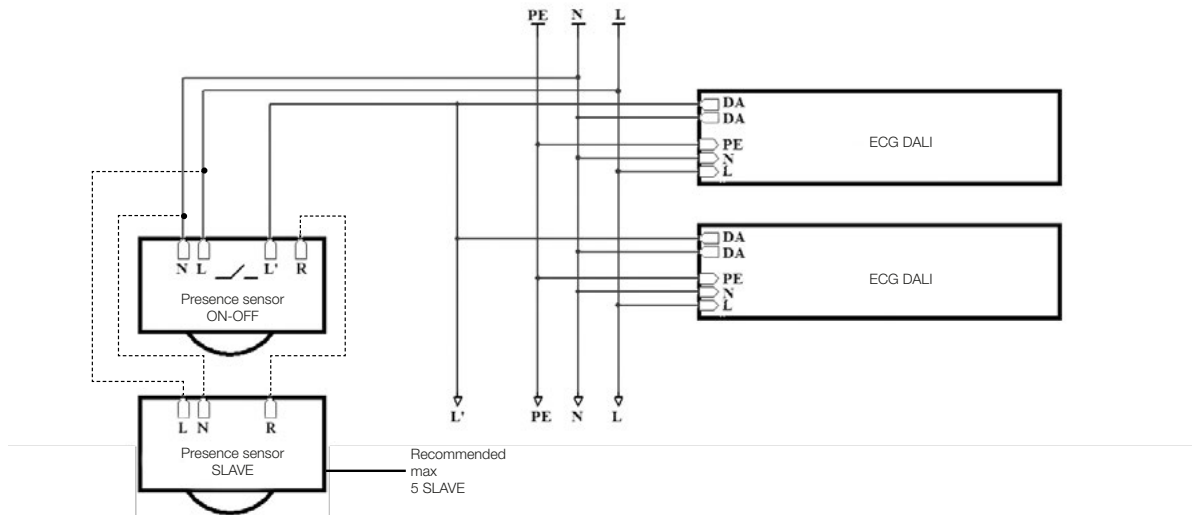
Compatible luminaires

Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast with Corridor Function (to be specified when ordering).

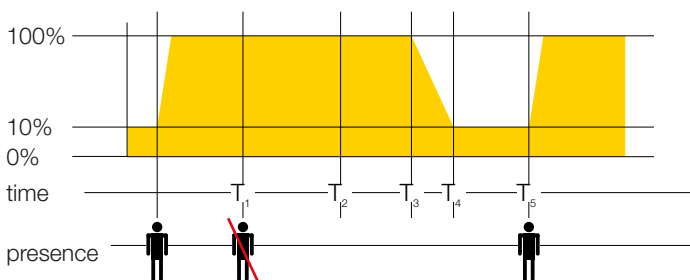
Components required

- Luminaire with activated DALI driver with Corridor Function.
 - IR adaptor for smartphones (optional) for managing the sensor.
 - ON/OFF IR programmer (optional).
 - 1 on-off Sensor A or 1 on/off-ext Sensor A (range of operation 10 metres).
- or
- 1 on-off Sensor B or 1 on/off-ext Sensor B (range of operation 24 metres).
- or
- 1 on-off CORR sensor or 1 on/off-ext CORR sensor (diameter of operation: tangential 40m, frontal 20m), can be used for installation heights up to 2.70m.
- In order to extend the presence detection area, it is possible to use:
- 1 Sensor A SLAVE or 1 Sensor A SLAVE-ext.
- or
- 1 Sensor B SLAVE or 1 Sensor B SLAVE-ext.
- or
- 1 Sensor CORR SLAVE or 1 Sensor CORR SLAVE-ext.

Wiring diagram



Operation graph



Legend:

- $T_1 > T_2$ - latency time managed by the sensor - adjustable
- $T_2 > T_3$ - latency time managed by the driver - 120 seconds
- $T_3 > T_4$ - luminous flux decrease time - 32 seconds
- $T_4 > T_5$ - period of minimum luminous flux - unlimited time

3F Smart Dimming

Installation Reference - Office / Open space

Up to 50 drivers/ballasts - Installation height up to 4 metres



Results obtainable

- **Manual ON/OFF/regulation** of the luminaire via optional remote control or push-button.
- **Automatic regulation of the luminaire's light flow** depending on the amount of natural light and/or presence of personnel.
- Extension of the presence detection area through the use of slave sensors.

Compatible luminaires

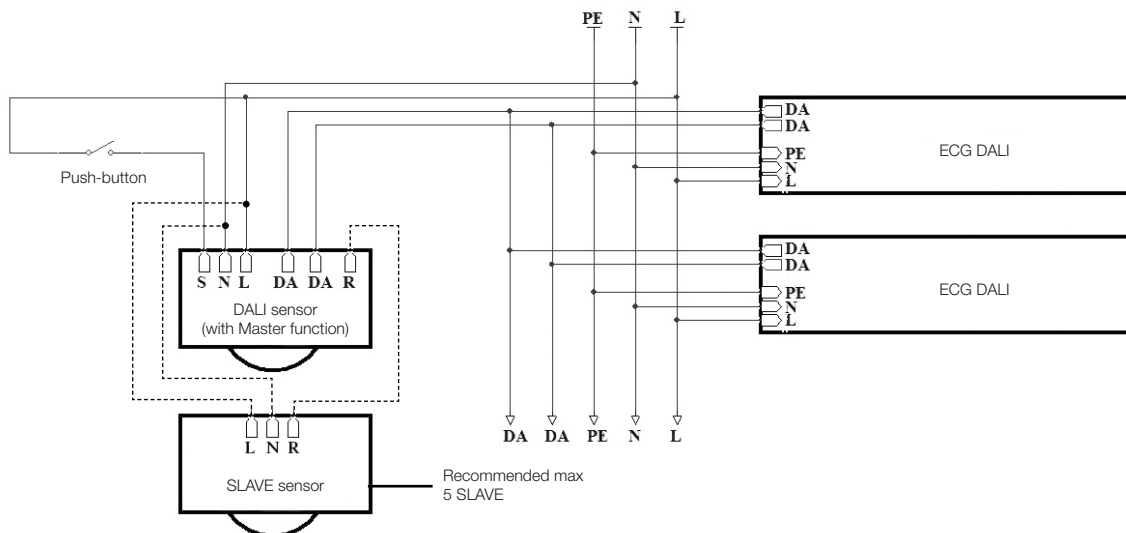
Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast.

On request, can also be implemented with 1-10V components (drivers and sensors).

Components required

- 1 commercially available push-button (optional).
- Luminaire with DALI driver.
- 1 DALI Sensor A (recessed) or DALI ext Sensor A (ceiling mount).
- IR adaptor for Smartphones (optional).
- DALI IR programmer (optional).
- DALI IR remote control (optional).
- 1 Sensor A SLAVE or 1 Sensor A SLAVE-ext (optional for extending the presence detection area).

Wiring diagram



Note: to deactivate presence sensing, jump R and L directly on the sensor (with master function).

Installation Reference - Industrial / Gymnasiums

Up to 50 ballasts - Installation height between 4 and 9 metres



Results obtainable

- **Manual ON/OFF/regulation** of the luminaire via optional remote control or push-button.
- **Automatic regulation of the luminaire's light flow** depending on the amount of natural light and/or presence of personnel.
- Extension of the presence detection area through the use of slave sensors.

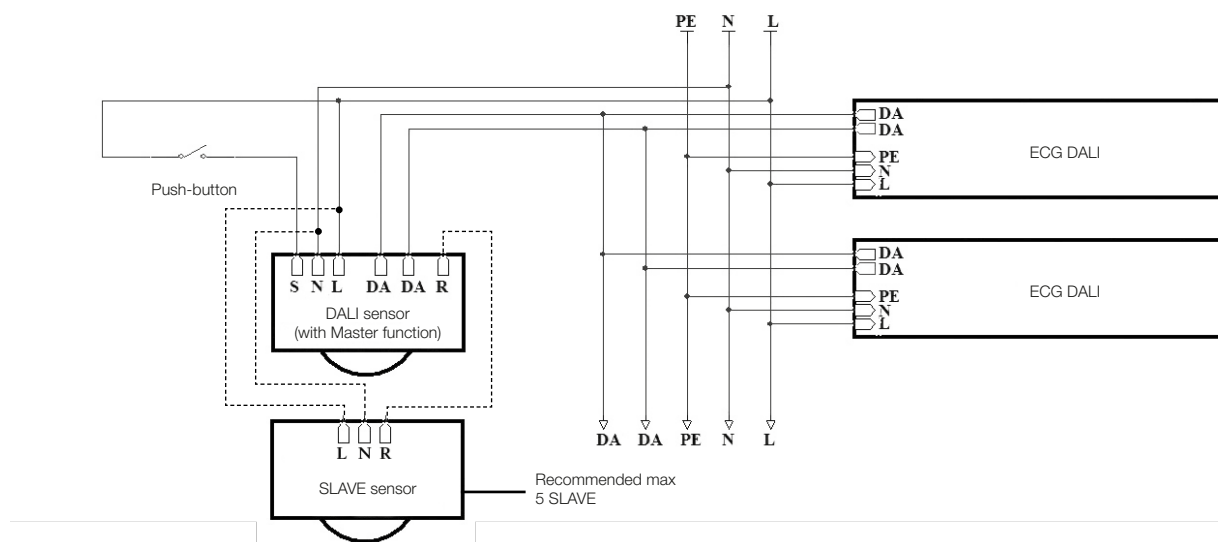
Compatible luminaires

Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast.
On request, can also be implemented with 1-10V components (drivers and sensors).

Components required

- 1 commercially available push-button (optional).
- Luminaire with DALI driver.
- 1 DALI Sensor B (recessed) or DALI ext Sensor B (ceiling mount).
- IR adaptor for Smartphones (optional).
- DALI IR programmer (optional).
- DALI IR remote control (optional).
- 1 Sensor B SLAVE or 1 Sensor B SLAVE-ext (optional for extending the presence detection area).

Wiring diagram



N.b.: to deactivate presence sensing, R and L must be jumped directly on the sensor.

3F Smart Dimming

Installation Reference - School classroom

Up to 50 ballasts



Results obtainable

- **Manual ON/OFF/regulation** of the luminaire via optional remote control or push-button.
- **Automatic regulation of the luminous flux** of the luminaires in a differentiated manner depending on the natural light present in two different areas: the sensor measures the brightness at two points (for example, near the window and in the darkest area of the classroom), and adjusts the fluxes of the luminaires lighting those areas as a consequence.
- Extension of the presence detection area through the use of slave sensors.

Compatible luminaires

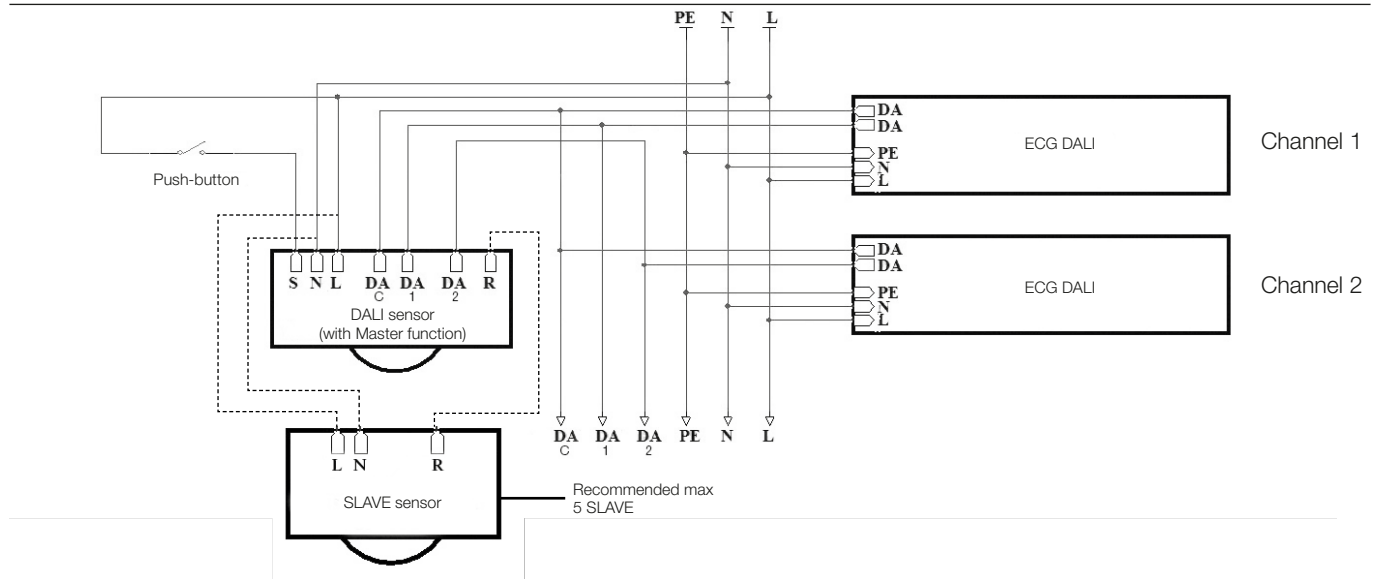
Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast.

On request, can also be implemented with 1-10V components (drivers and sensors).

Components required

- 1 commercially available push-button (optional).
- Luminaire with DALI driver.
- 1 Dual-DALI Sensor B.
- IR adaptor for Smartphones (optional).
- DALI IR programmer (optional).
- DALI IR remote control (optional).
- 1 Sensor B SLAVE or 1 Sensor B SLAVE-ext (optional for extending the presence detection area).

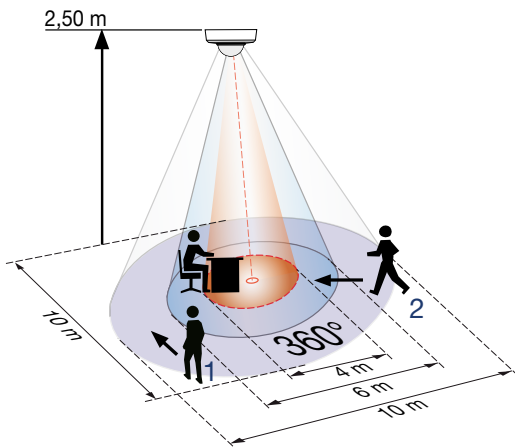
Wiring diagram



N.b.: to deactivate presence sensing, R and L must be jumped directly on the sensor.

Detection field

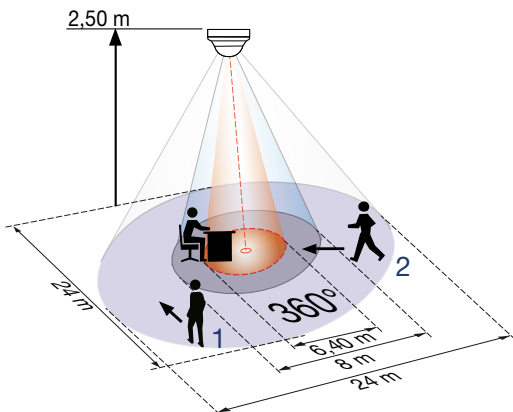
Sensor A DALI, Sensor A ON/OFF, Sensor A SLAVE



- 1 ■ Approaching transversely
- 2 ■ Approaching front-on
- Sedentary activity

| Range of action (circular detection area) with T=18° | | | |
|--|----------------|---------------------|-----------------------------------|
| Mounting height | Fixed position | Transverse movement | Approaching the detector front-on |
| 2.00 m | r=1.60 | r=4.00 | r=2.50 |
| 2.50 m | r=2.40 | r=5.00 | r=3.00 |
| 3.00 m | - | r=6.00 | r=3.70 |
| 3.50 m | - | r=7.00 | r=4.30 |
| 4.00 m | - | r=8.00 | r=4.80 |
| 4.50 m | - | r=9.00 | r=5.40 |
| 5.00 m | - | r=10.00 m | r=6.00 |

Sensor B DALI, Sensor B ON/OFF, Sensor B SLAVE, Sensor B Dual

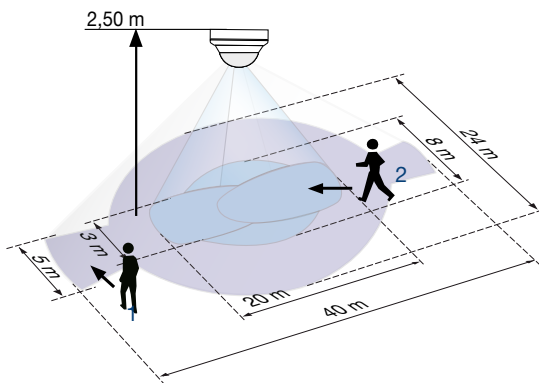


- 1 ■ Approaching transversely
- 2 ■ Approaching front-on
- Sedentary activity

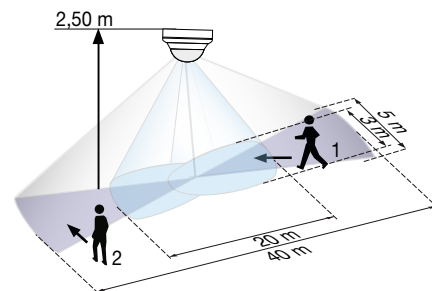
| Range of action (circular detection area) with T=18° | | | |
|--|----------------|---------------------|-----------------------------------|
| Mounting height | Fixed position | Transverse movement | Approaching the detector front-on |
| 2.00 m | r=2.60 | r=8.50 | r=3.20 |
| 2.50 m | r=3.20 | r=12.00 | r=4.00 |
| 3.00 m | r=3.80 | r=14.50 | r=4.80 |
| 3.50 m | r=4.50 | r=17.00 | r=5.50 |
| 4.00 m | - | r=19.50 | r=6.80 |
| 4.50 m | - | r=22.00 | r=7.20 |
| 5.00 m | - | r=24.00 m | r=8.00 |
| 10.00 m | - | r=24.00 m | r=8.00 |

Sensor Corr ON/OFF, Sensor Corr DALI

Sensor Corr Slave



- 1 ■ Approaching transversely
- 2 ■ Approaching front-on



- 1 ■ Approaching the detector front-on
- 2 ■ Approaching the detector diagonally

3F Smart Dimming

Accessories



Presence detector On/Off, recessed, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, circular detection area Ø 10 m, with Master function. Integrated twilight sensor. IP20 protection degree.

| Code | Item |
|-------|-----------------|
| A3013 | Sensor A on/off |

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.



IP20



Presence detector On/Off, recessed, with one DALI interface, can be controlled remotely, circular detection area Ø 10 m, with Master function. Integrated light sensor for automatic constant light control. Drive up to 50 DALI drivers. IP20 protection degree.

| Code | Item |
|-------|---------------|
| A3011 | Sensor A DALI |

On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.



IP20



Recessed Slave presence detector, compatible with sensors with Master function, such as Sensor A DALI and Sensor A on/off, circular detection area Ø 10 m. IP20 protection degree.

| Code | Item |
|-------|------------------|
| A3025 | A SLAVE - Sensor |



IP20



Presence detector On/Off, ceiling mounted, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, circular detection area Ø 10 m, with Master function. Integrated twilight sensor. IP20/IP54 rated (exposed part).

| Code | Item |
|-------|---------------------|
| A3014 | Sensor A on/off-ext |

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.



IP20
IP54



Presence detector, ceiling mounted, with one DALI interface, can be controlled remotely, circular detection area Ø 10 m, with Master function. Integrated light sensor for automatic constant light control. Drive up to 50 DALI drivers. IP20/IP54 rated (exposed part).

| Code | Item |
|-------|-------------------|
| A3012 | Sensor A DALI ext |

On request: IP54 cap code A3024, to obtain total IP54 rating. On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.



IP20
IP54



Ceiling mounted Slave presence detector, compatible with sensors with Master function, such as Sensor A DALI and Sensor A on/off, circular detection area Ø 10 m. IP20/IP54 rated (exposed part).

| Code | Item |
|-------|----------------------|
| A3026 | A SLAVE-ext - Sensor |

On request: IP54 cap code A3024, to obtain total IP54 rating.



Presence detector On/Off, recessed, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, circular detection area Ø 24 m, with Master function. Integrated twilight sensor. IP20 protection degree.

| Code | Item |
|-------|-----------------|
| A3018 | Sensor B on/off |

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.



Presence detector On/Off, recessed, with one DALI interface, can be controlled remotely, circular detection area Ø 24 m, with Master function. Integrated light sensor for automatic constant light control. Drive up to 50 DALI drivers. IP20 protection degree.

| Code | Item |
|-------|---------------|
| A3017 | Sensor B DALI |

On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.



Presence detector, recessed, with two DALI interfaces, can be controlled remotely, circular detection area Ø 24 m, with Master function. Two integrated light sensors for automatic constant light control. Drive up to 50 digital electronic drivers for each channel. IP20 protection degree.

| Code | Item |
|-------|--------------------|
| A3015 | Sensor B Dual-DALI |

On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.



Recessed Slave presence detector, compatible with sensors with Master function, such as Sensor B DALI and Sensor B on/off, circular detection area Ø 24 m. IP20 protection degree.

| Code | Item |
|-------|------------------|
| A3027 | B SLAVE - Sensor |





Presence detector On/Off, ceiling mounted, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, circular detection area Ø 24 m, with Master function. Integrated twilight sensor. IP20/IP54 rated (exposed part).

| Code | Item |
|-------|---------------------|
| A3019 | Sensor B on/off-ext |

On request: IP54 cap code A3024, to obtain total IP54 rating. On request: programming with remote control code A3023 or with smartphone via accessory code A3022.



Presence detector, ceiling mounted, with one DALI interface, can be controlled remotely, circular detection area Ø 24 m, with Master function. Integrated light sensor for automatic constant light control. Drive up to 50 DALI drivers. IP20-54 protection degree for the exposed part.

| Code | Item |
|-------|-------------------|
| A3016 | Sensor B DALI ext |

On request: IP54 cap code A3024, to obtain total IP54 rating. On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.



Ceiling mounted Slave presence detector, compatible with sensors with Master function, such as Sensor B DALI and Sensor B on/off, circular detection area Ø 24 m. IP54 protection degree.

| Code | Item |
|-------|----------------------|
| A3028 | B SLAVE-ext - Sensor |



Presence detector On/Off, recessed, special for corridors, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, detection area tangential Ø 40 m, frontal Ø 20 m, with Master function. Maximum installation height 2.70 m. Integrated twilight sensor. IP20 protection degree.

| Code | Item |
|-------|--------------------------|
| A3029 | Corridor on/off - Sensor |

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.



Presence detector with one DALI interface, recessed, special for corridors, can be controlled remotely, transverse detection area Ø 40 m, with Master function. Maximum installation height 2.70 m. Integrated light sensor for automatic constant light control. Drive up to 50 DALI drivers. IP20 protection degree.

| Code | Item |
|-------|------------------------|
| A3031 | Corridor DALI - Sensor |

On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.





Recessed Slave presence detector, special for corridors, compatible with sensors with Master function, such as Sensor Corr DALI and Sensor Corr on/off, tangential detection area Ø 40 m, frontal Ø 20 m. IP20 protection degree. Maximum installation height 2.70 m.

| Code | Item |
|-------|-------------------------|
| A3033 | Corridor SLAVE - Sensor |



Presence detector On/Off, ceiling mounted, special for corridors, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, detection area tangential Ø 40 m, frontal Ø 20 m, with Master function. Maximum installation height 2.70 m. Integrated twilight sensor. IP54 protection degree.

| Code | Item |
|-------|------------------------------|
| A3030 | Corridor on/off-ext - Sensor |

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.



Presence detector with one DALI interface, ceiling mounted, special for corridors, can be controlled remotely, transverse detection area Ø 40 m, with Master function. Maximum installation height 2.70 m. Integrated light sensor for automatic constant light control. Drive up to 50 DALI drivers. IP20/IP54 rated (exposed part).

| Code | Item |
|-------|----------------------------|
| A3032 | Corridor DALI-ext - Sensor |

On request: IP54 cap code A3024, to obtain total IP54 rating. On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.



Ceiling mounted Slave presence detector, special for corridors, compatible with sensors with Master function, such as DALI Corr sensor and Corr sensor on/off, tangential detection area Ø 40 m, frontal Ø 20 m. IP54 protection degree. Maximum installation height 2.70 m.

| Code | Item |
|-------|-----------------------------|
| A3034 | Corridor SLAVE-ext - Sensor |



IR remote control for programmer, compatible with DALI sensors (incompatible with On-Off and Slave sensors).

| Code | Item |
|-------|--------------------|
| A3020 | Programmer IR DALI |





IR remote control for user, compatible with DALI sensors (incompatible with On-Off and Slave sensors).

| Code | Item |
|-------|---------------------------|
| A3021 | Remote controller IR DALI |



IR adapter for Smartphones, compatible with all programmable sensors. Free App available for Android and iOS devices.

| Code | Item |
|-------|---------------------------|
| A3022 | IR-Adapter for Smartphone |



IR remote control for programming on/off sensors incompatible with DALI and Slave sensors).

| Code | Item |
|-------|----------------------|
| A3023 | IR on/off programmer |



Cap for ceiling mounted sensors, to obtain IP54 rating (total) for H 15 mm. Compatible with the following sensors:

- Sensor A DALI ext code A3012
- Sensor A on/off ext code A3014
- Sensor B DALI ext code A3016
- Sensor B on/off ext code A3019
- Sensor A SLAVE ext code A3026
- Corr Sensor DALI ext code A3032

| Code | Item |
|-------|-------------|
| A3024 | IP54 fixing |

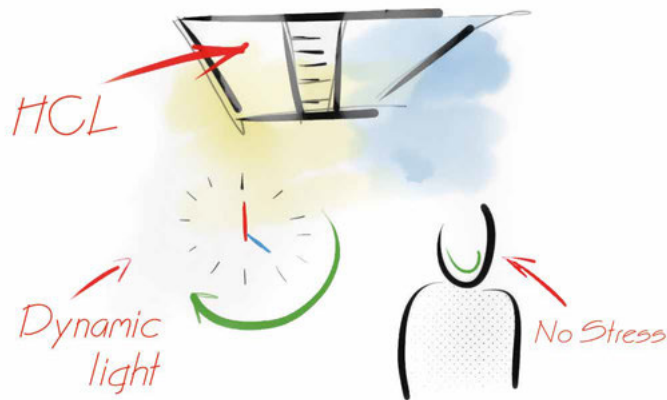


IP54



3F HCL for Tunable White fixtures

System to vary colour temperature



People and their requirements have always been at the centre of our attention when designing our products.

Thanks to the new HCL luminaires, ensuring the comfort and health of the individual finds a new point of reference thanks to a solution which can actively stimulate biorhythms.

Natural light is one of the most important sensory stimuli for our body, and it also has an enormous effect on our mental and emotional state. For this reason, HCL luminaires have been designed to replicate natural light, taking the following requirements into consideration:

- Dynamism of light over time.
- Dynamism of colour temperature over time.
- Symmetrical light diffusion.
- Freedom of use for each individual.

The latest research in the sector has shown that those who work in environments with windows and good lighting are exposed to 173% more natural light during working hours and sleep on average 46 minutes longer (each night) compared to others, as they are less affected by problems such as insomnia. The result is a general increase in well-being. There is ever-increasing evidence to support the fact that exposure to light during the day, particularly during the morning, is beneficial to health in terms of its effects on mood, mental lucidity and the metabolism:

Hospitals

In healthcare facilities, Human Centric Lighting can:

- Reduce sleep disturbances, thus limiting the need for drugs and reducing medical assistance requirements
- Improve patient well-being and activity during the day

Schools

In schools, Human Centric Lighting technology can significantly improve concentration and cognitive performance. A 45% reduction in errors and a 9% improvement in cognitive speed have been demonstrated.

Offices

In offices, Human Centric Lighting technology can increase employees' motivation and energy, improving day-to-day productivity, particularly in the period after lunch. What's more, in environments without natural light, it can help recreate daily biorhythms.

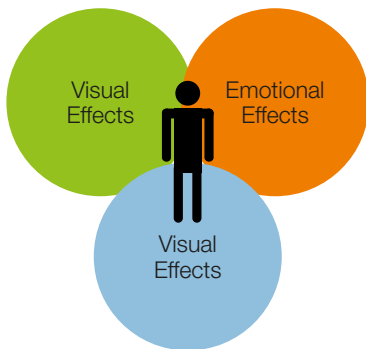
Commercial Premises

In commercial situations, Human Centric Lighting offers the possibility to diversify light distribution and colour on the basis of scenarios linked to the products or concepts being presented. This provides a flexibility of use at each point of sale which offers savings in terms of time and money.

Technology
HCL
3F Filippi

Individual well-being is strictly personal, and so this luminaire is managed by a control unit (external and not included with the product) which provides everyone the possibility to create "their own light cycle" which best meets their requirements.

If you require more information, do not hesitate to contact our Sales Network or our Technical Offices.



Light influences mood and can trigger both positive and negative emotions.

HCL luminaires allow users to change both intensity and temperature of the emitted light, thus improving comfort and increasing the feeling of well-being.

A third photoreceptor in the human eye was discovered in 2001, which is responsible for our light response for regulating our biological clock and circadian rhythms.

Recent studies (performed by Lighting Europe) have shown that HCL luminaires improve concentration as well as the safety and efficiency of the workplace or training and school environments. For this reason, 3F Filippi has decided to create a series of new luminaires to help people feel better by putting their requirements at the centre of the design, also from a biological point of view.

In order to take proper advantage of these luminaires, it is essential that:

- The artificial light follows the cycle of the natural light.
- The management systems can also be manually adjusted, according to each user's sensitivity.
- Right from the lighting design stage, factors such as exposure of the environment to natural light, the users' biological situations and the tasks they must perform are taken into account.
- Always consult a qualified and reliable lighting designer.

Biorhythms depend on signals which derive from the quantity and the quality of natural light and the environmental colour temperature:



The brain is stimulated:

- By cold light present during daylight hours (6,500 K) which allows us to be more active and concentrate harder.
- By warm light present in the morning and evening (2,700K) which induces a greater level of relaxation.

Thanks to HCL technology, everyone can improve their sleep cycles, mental and emotional states by themselves.

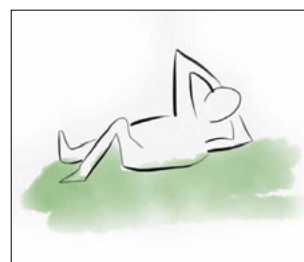
HCL technology allows for:



Comfort and well-being, particularly in environments in which a lot of time is spent.



Lighting which follows the **natural** daylight cycle.



Less **environmental stress**, which reduces physical and mental exertion.



Automatic and/or manual management of the light intensity and colour temperature.

Characteristics:

- Control of variation of the white colour temperature (Tunable-white).
- Simulated changing of daylight over the course of the day.
- Modulation of the colour temperature along the Planck curve from 2700K to 6500K.
- Colour rendering index CRI >80.
- Colour tolerance: 3 MacAdam ellipses.
- LED source luminous efficiency - up to 155 lm/W.

3F HCL for Tunable White fixtures

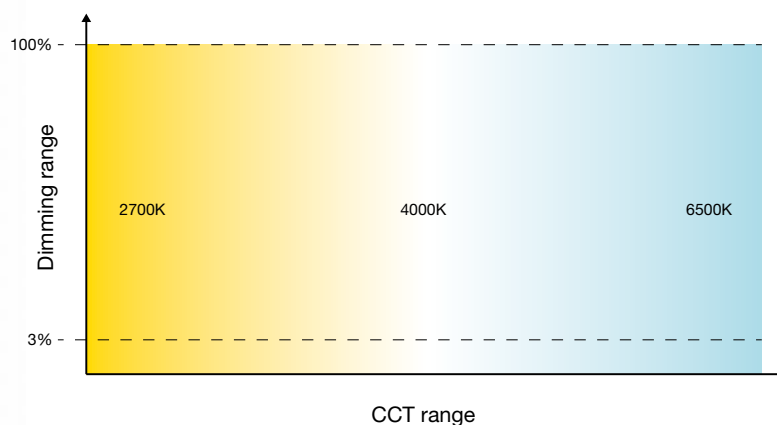
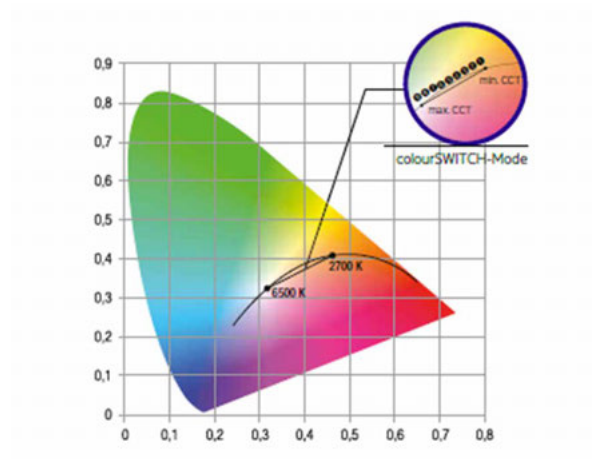
Fixtures available

- L 323x10W LED DT8 TW LGS 596x596
- 3F Diagon 25W DT8 TW SOFT UGR 596x596
- 3F Diagon 25W DT8 TW SOFT UGR 621x621
- 3F Diagon P 25W DT8 TW SOFT UGR 596x596
- 3F Travetta LED 2x22W DT8 TW 2MG L1590

2-channel DT8 driver - constant colorimetric on all attenuation levels

Second generation drivers provide even more room for maneuver in terms of design with the advanced adjustment range from 3% to 100%.

Color temperatures are precisely controlled and with infinite variability, while the drivers reliably maintain the selected range between all attenuation levels.



The TW Tunable White fixtures can be regulated using three different systems:

- Wired automatic control system
- 3F Bluetooth control system

Wired control system

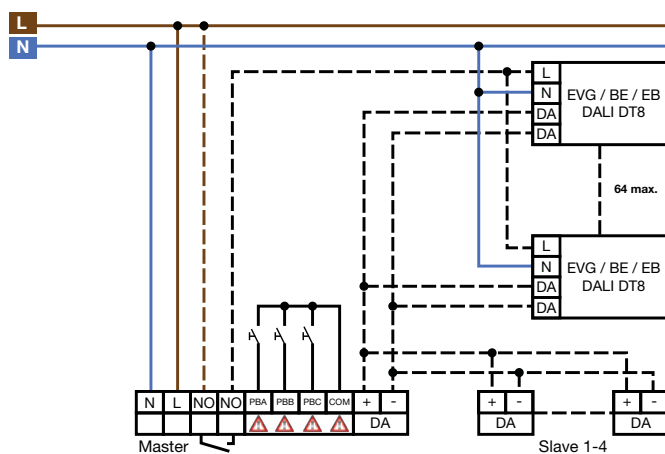
Features

The HCL DT8 presence and light sensors allow the management of a group of Tunable White (TW) devices, up to a maximum of 64 drivers.

The sensors have the following characteristics:

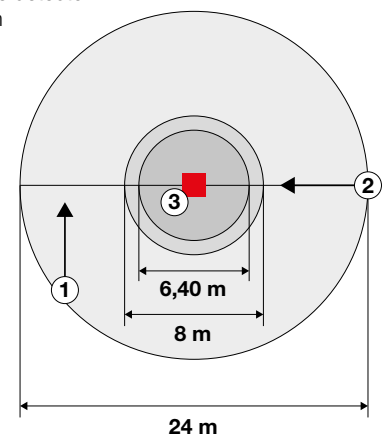
- Integrated presence detector capable of controlling up to 64 DALI DT8 devices;
- Integrated brightness detected for automatic adjustment of the luminous flux of the luminaires, based on the supply of natural light;
- Integrated clock for automatically adjusting the color temperature following the circadian rhythm by programming from the free APP;
- n. 3 output channels for HCL control of 3 groups of TW devices;
- n. 1 DALI output channel;
- n. 1 relay output channel (max 300W LED).
- n. 3 NO button inputs: 1 button to adjust the luminous flux of the HCL channel, 1 button for DALI channel control and 1 button for relay channel control.

Electrical connection diagram



Detection scheme

1. Diagonal approach to the detector
2. Frontal approach to the detector
3. Fixed position: h 2,5 m



Wired control systems

Accessories



Recessed presence detector with integrated clock for the management and control of Tunable White (TW) devices, remotely controllable, circular detection area Ø 24 m, equipped with Master function. Integrated light sensor for automatic regulation of constant light n. 3 output channels for HCL control of n. 3 groups of TW appliances, n. 1 DALI output channel, n. 1 relay output channel (max 300 W LED). Drive up to 64 DALI drivers.

| Code | Item |
|----------------------|-----------------|
| A3035 ^{NEW} | Sensore HCL DT8 |



IP20



Ceiling presence detector with integrated clock for the management and control of Tunable White (TW) devices, remotely controllable, circular detection area Ø 24 m, equipped with Master function. Integrated light sensor for automatic regulation of constant light n. 3 output channels for HCL control of n. 3 groups of TW appliances, n. 1 DALI output channel, n. 1 relay output channel (max 300 W LED). Drive up to 64 DALI drivers.

| Code | Item |
|----------------------|---------------------|
| A3036 ^{NEW} | Sensore HCL DT8-ext |



IP20



IR adapter for Smartphones, compatible with all programmable sensors. Free App available for Android and iOS devices.

| Code | Item |
|-------|---------------------------|
| A3022 | IR-Adapter for Smartphone |

Mandatory accessory for programming the HCL DT8 sensors.

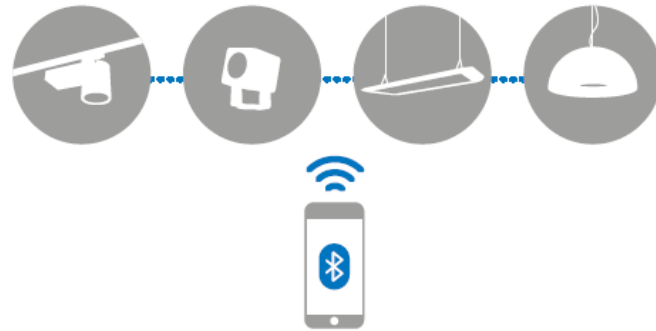




3F Bluetooth control system

Characteristics

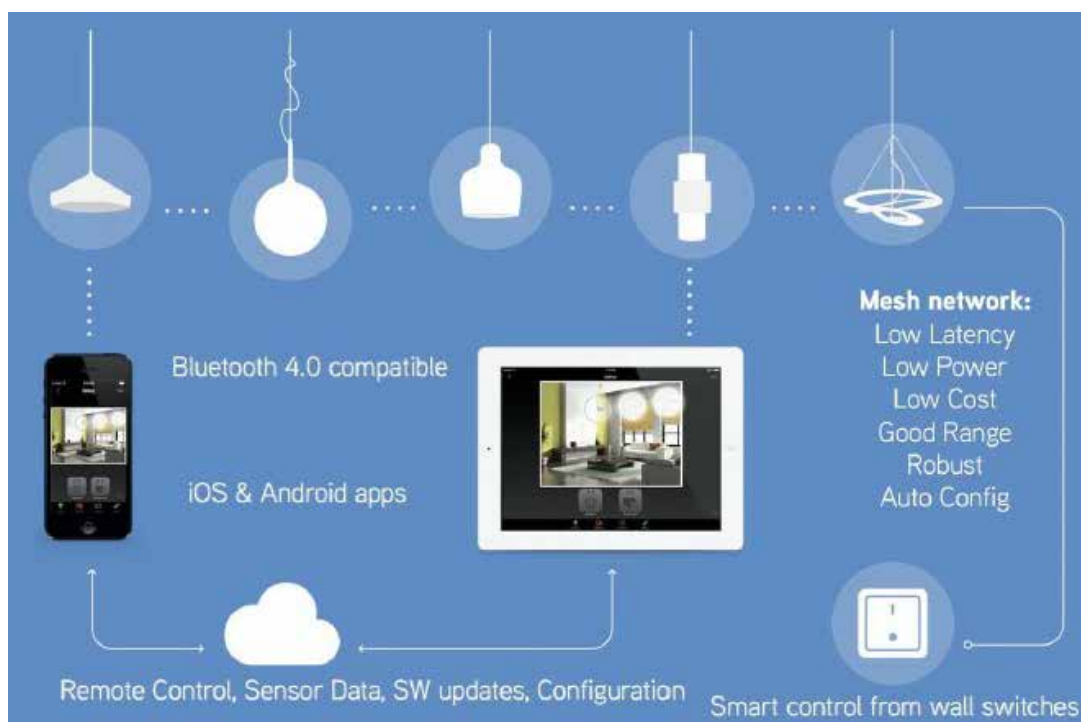
3F Bluetooth is the completely wireless regulation system that can manage DALI and Tunable White DALI DT8 fixtures. Thanks to the intuitive simplicity of the application developed for iOS and Android all you need is a mobile phone or another mobile device and anyone can create and manage their own lighting system autonomously by controlling fixtures individually or in groups according to the needs and functions required. It can also be managed through standard handsets using specific accessories.



Functions

With the 3F Bluetooth management system it is possible to create a “mesh network” of fixtures which can be managed using mobile devices or handsets:

- Turn the fixtures on/off
- Regulate luminous intensity
- Regulate colour temperature
- Configure lighting scenes
- Configure animated scenes (dynamic scenes or different sequences of scenes).
- Timer Function: set fade times between scenes and animated scenes, programme the date and duration
- Geolocation: by activating this function it is possible to programme to turn the fixtures on/off that can be associated automatically to sunrise and sunset independently of the time of year (astronomical clock).
- Cloud Function: allows to share different fixtures and access the network remotely. Remote access one fixture which acts as an access point while the others connect via the Cloud.



3F Bluetooth control system

Accessories



BLE DALI radio module, a wireless control unit with a DALI interface. The module can only be used in a closed system and must not be connected to an existing DALI network. The module is Bluetooth controlled using an app for smartphones and tablets using Bluetooth 4.0 technology. The fixtures automatically create an adaptive, robust and reliable Bluetooth mesh network allowing a large number of devices to be controlled in a simple and efficient way.

| Code | Item |
|-------|-----------------------|
| A3090 | BLE DALI Radio Module |



IP20



BLE radio panel, Bluetooth user interface for wall installation. The BLE radio panel in addition to switching the light fixtures on and off allows to dim, change the colour temperature in the case of fixtures equipped with such technology, individual control of fixtures and to manage lighting or animation scenes.

| Code | Item |
|-------|----------------------|
| A3091 | Radio BLE plate keys |



IP40



Extender IP20 1T5352, allows for Bluetooth control with DALI interface. Generates a local DALI bus with the capacity to drive up to 64 devices. Allows for control of groups of fixtures in indoor applications. It is also equipped with a relay that can control non-dimmable fixtures up to a maximum of 6A.

| Code | Item |
|-------|---------------|
| A3095 | EXTENDER IP20 |



IP20



BLE DALI IP67 1E3048 radio module to control individual fixtures externally equipped with a DALI driver. The module needs to be positioned in order to receive the radio signal. The distance from the lighting fixtures can be up to 50 m.

| Code | Item |
|-------|-----------------------|
| A3096 | IP67 BLE Radio Module |



IP67



Extender IP67 1E3049, allows for Bluetooth control with DALI interface. Generates a local DALI bus with the capacity to drive up to 64 devices. Allows for control of groups of fixtures in outdoor applications.

| Code | Item |
|-------|---------------|
| A3097 | EXTENDER IP67 |

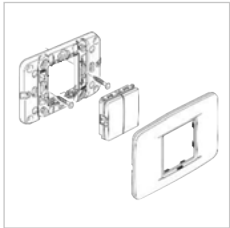


IP67



BLE radio control, flat four button command with a 2.4 GHz radio transmitter, standard Bluetooth Low Energy, energy harvesting power supplied by the integrated electrodynamic generator, optional version with dedicated colour buttons Eikon 20506 or 20506.2, Arké 19506 or 19506.2 or Plana 14506 or 14506.2 - 2 modules.

| Code | Item |
|-------|-------------------|
| A3099 | Radio BLE command |



Arkè support kit, 2 buttons (4 switches) and a terminal panel to control the transmitter (code A3099).

| Code | Item |
|-------|---------------------------------------|
| A3100 | Kit Arkè support plate keys for A3099 |



3F & KNX

Building automation with KNX systems.



Characteristics

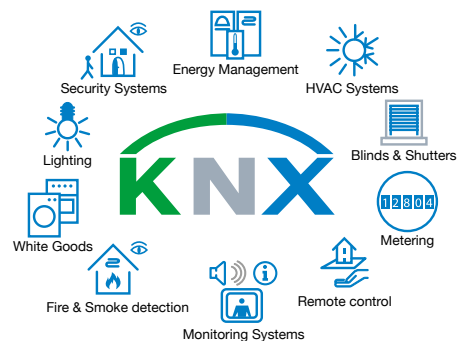
KNX is a worldwide open standard which meets the most important European and international standards and offers automated and decentralised management of technological systems for: commercial, industrial, public and office buildings, schools and many other structures besides.

KNX can be used in all applications and for control functions in buildings: from lighting to blinds, security, HVAC supervision, control of plumbing and alarms, energy management, electricity meters, domestic appliances, audio systems etc.

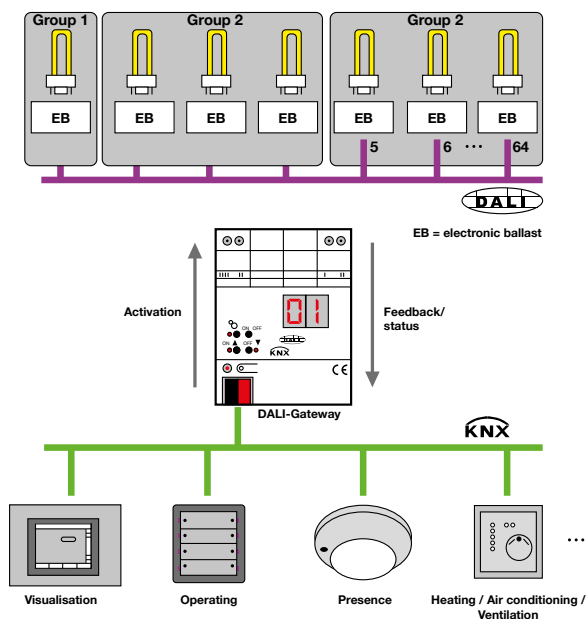
KNX improves comfort and security, as well as providing a strong contribution to energy savings (up to 50% for lighting and heating management) and to reducing environmental impact.

The KNX system can be used both in new and existing buildings.

KNX installations can be easily expanded and adapted to meet new requirements, quickly and with minimal financial investment (for example when new tenants enter a commercial building).



Example connection diagrams:



3F Filippi really believes in this standard, and it is for this reason that we offer a range of luminaires equipped with DALI ballasts which are able to interface with KNX systems seamlessly: the connection between the network and the luminaire occurs via gateways which allow information and commands to be transmitted via the LAN network.

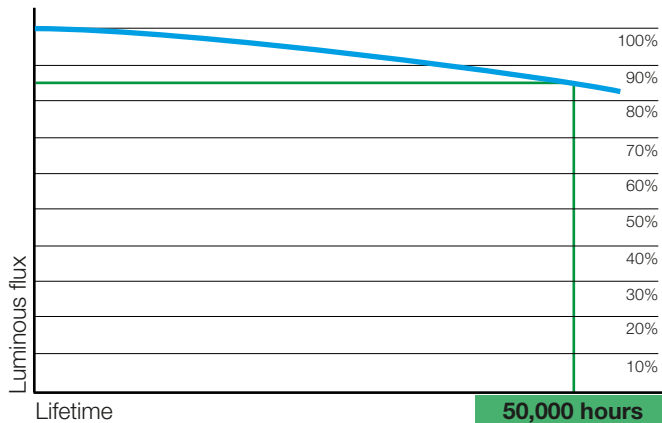
3F CLO

Time passes, the light stays the same

Introduction

The initial luminous flux of light sources diminishes gradually over time.

The percentage of decay of the luminous output referred to the hours of useful operation (50,000 hours) is determined with the parameter "L". LED sources classified as L85 (*) when they reach 50,000 hours will supply 85% of the initial output.



(*) data extrapolated from LM-80 (IES - Illuminating Engineering Society of North America) tests, performed as per standards after 6,000 hours of operation and calculated on the basis of the IESNA TM-21-11 guideline "Projecting Long Term Lumen Maintenance of LED Light Sources".

The task of the lighting designer is to look at all possible systems that can achieve energy savings for the final customer. 3F Filippi has always worked alongside professionals in the industry to find and transmit knowledge for a greener future.

What is CLO?

CLO is the acronym of Constant Light Output which is a function of the most evolved drivers to allow fixtures to emit constant output, following natural decay of LED source due to ageing.

Fixtures equipped with this function initially emit, and subsequently in a constant way, a luminous output decreased by 15% in consideration of the decay of the light.

At the same time the fixture has a reduced initial energy consumption (on average 15%) and an increasing regular consumption until it reaches the declared 100%.

The datasheets of fixtures equipped with this technology will show the initial Power and the final Power (for normal size electrical system)

What are the advantages of CLO?

Constant L100 luminous output for the entire life of the fixture.

Thanks to this technology adopted by 3F Filippi, it is no longer necessary to oversize from the first day of use the lighting system (on average 15%) as was done in the past, with an unprovoked energy expenditure.

This makes it possible to design lighting projects with K=1.00 maintenance factors, given that the fixture considers this integrated decay factor right from the first time it is turned on.

Energy savings

The drivers are designed in the Company to feed the LED sources initially at reduced power to then increase gradually over time.

Using the CLO function the energy savings that can be achieved over the life of the fixture is around 10% without any manual or system maintenance. You save simply without realising it.

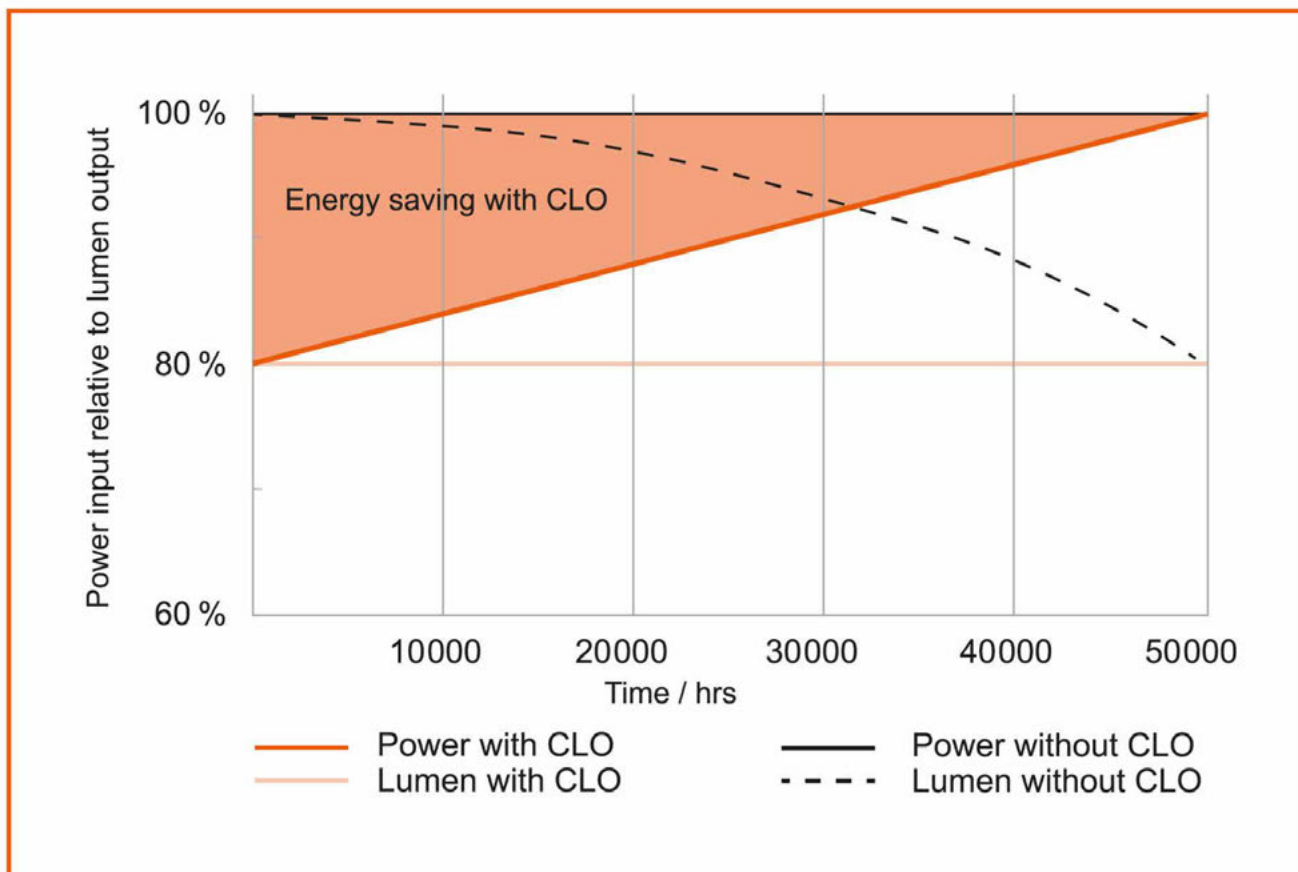
CLO and lighting design

The light fixtures will be constant throughout their entire life.

Drivers with the CLO function are able to compensate for the decay in luminous output of the LED sources and avoid output peaks/ excess power at the beginning of the installation while maintaining the required luminance values constant over time.

Energy consumption will increase over time to reach maximum consumption which would normally occur when first turned on, only after 50,000 operating hours.

Lighting levels required by regulations are ensured from the first to the last day without wasting any energy.



If you require more information, do not hesitate to contact our Sales Network or our Technical Offices.

3F Wireless

Wireless management and regulation of lighting systems

Introduction

Artificial lighting involves high energy consumption, due to the power used and the number of hours the system is switched on. Our LED luminaires, which are particularly efficient, allow existing systems to be updated, significantly reducing the power used and thus guaranteeing a fast return on investment. In order to achieve further energy savings, and therefore more significant economic advantages over the entire life cycle of the system, we recommend the use of control systems which are able to regulate the brightness of the luminaires on the basis of the natural light and presence of persons.

Replacing simply the lighting bodies without the need to run new cables for regulation of the luminaires is possible using a wireless system to let the luminaires communicate, and with appropriate sensors.

For this, 3F Filippi offers 3F Wireless technology, which allows luminaires and sensors to communicate via Radio Frequency signals using 868 MHz Mesh Network technology.

Characteristics

Thanks to the 3F Wireless control modules, it is possible to manage DALI digital dimmable luminaires and sensors directly via wireless, without running new cables for regulation of the luminaires.

The radio communication system is reliable and secure, protected against interception by robust encryption algorithms.

Advantages

3F Wireless technology is particularly suitable for retrofitting to existing networks which do not have regulation systems; by simply installing new LED luminaires with wireless kits, without modifying the existing electrical system, it is possible to obtain a management and regulation system with features such as:

- **Cloud Lighting**
Software allows management of the systems both via local networks (intranet) and via cloud architecture, based on a web (internet) connection.
- **Monitoring of consumption**
The system is able to control all types of luminaire and monitor the system's power consumption. By using the various hardware and software solutions available, it is possible to incorporate the system into Building Automation systems.
- **Mesh Network**
Communication between the 3F Wireless modules (luminaires, sensors, servers) uses Radio Frequency signals with 868 MHz Mesh Network technology: an extremely robust and secure solution thanks to encryption of the transmitted data. Each wireless node receives, regenerates and retransmits the commands received in order to extend the range of the entire system.
- **Supervision and Control**
Software allows configuration, monitoring and control of each integrated system and each connected device, both via manual operations and automatic algorithms, based on a calendar, events and conditional logic.
- **Smartphone configuration**
Any mobile device (tablet or smartphone) can be used to configure and control the sensors. The integrated application (Web-App) is displayed via the device's web browser, without the need to install any app on the device.

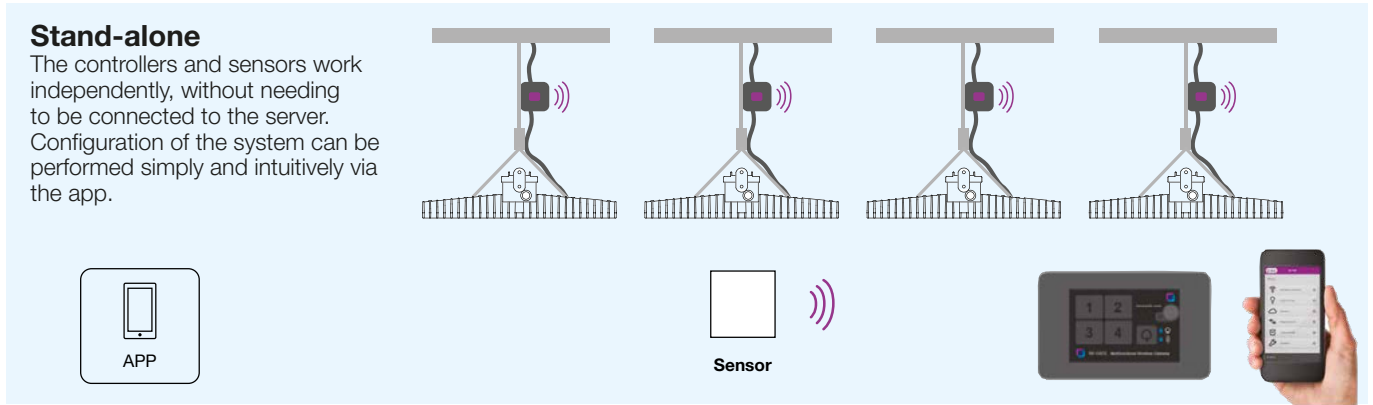
Savings

The advantages are real and tangible in these aspects for the end customer:

- **Installation:** the luminaires and sensors are connected via wireless, without running new cables for regulation of the luminaires; this means not spending more money for electrical supplies and installation labour.
- **Integration with existing installations:** the same lighting connections, using standard electrical wiring: this means not wasting money adapting the systems.
- **Energy savings:** the use of sensors combined with installation of analogue or digital dimmable luminaires permits significant energy savings for the end customer, calculated as being up to 80% compared to a solution with ON/OFF sensors.
- **Quicker return on investment:** savings in the materials and hours of labour for installation and/or updating of the existing systems, combined with the savings offered by the dimmable systems, provides a fast return on investment.

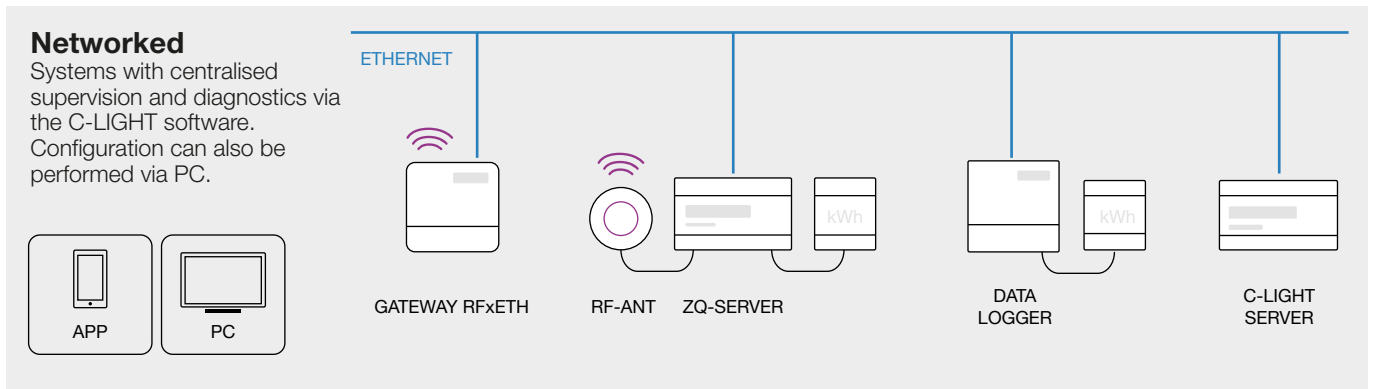
System architecture - What components are required?

Stand-alone. Each luminaire is equipped with a wireless control module which receives commands directly from the **brightness and presence sensor**. The entire wireless system is configured via **BLE RF Gateway** and **Smartphone** with dedicated APP.



Networked. Depending on requirements, the system can also be integrated with the servers which manage all necessary information, and the following can be connected to the system:

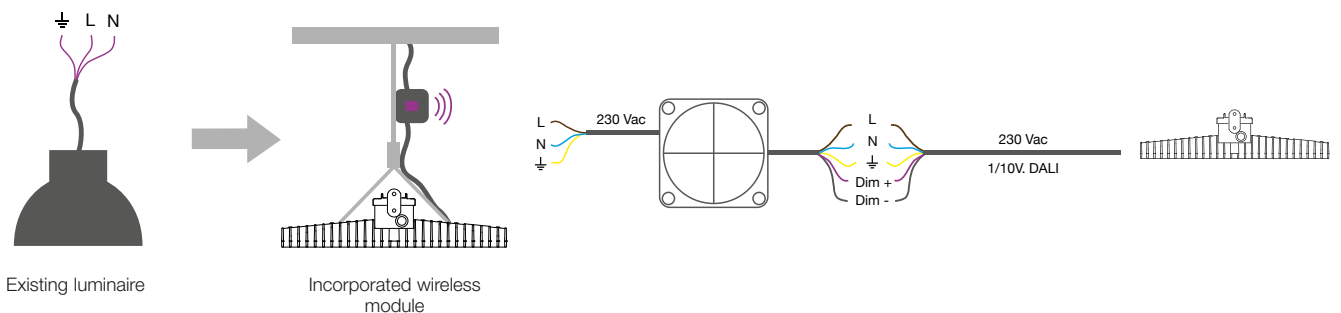
- **Buttons/switches** programmed to bring up control scenes.
- **Energy meters** to monitor the system's power consumption.
- **Control device:** a switch and/or a PC can be connected via the Ethernet interface, or even a Wifi Access Point to allow use of a mobile device (tablet, smartphone).



How to connect?

Management of the regulation system without modifying the existing system.

One of the fundamental advantages of using a wireless system is not having to modify the existing electrical system or, in the case of a new installation, to avoid running dedicated cables for regulation of the luminaires. One-by-one replacement of the individual lighting bodies therefore does not require any additional connection beyond the power supply line.



3F Wireless Accessories

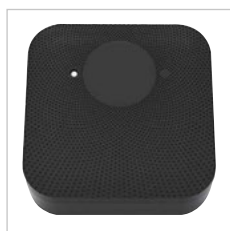


Portable 868 MHz Bluetooth Gateway, equipped with on button and 4 x configurable buttons for sending wireless commands; battery powered (9V), with integrated digital lux meter for configuration of the wireless systems, in combination with the free App for smartphones (App Store and Google Play). Can be wall mounted for use as a wireless push-button panel: see instructions given on technical data sheet.

| Code | Item |
|-------|----------------|
| A3052 | Gateway RF BLE |



IP20

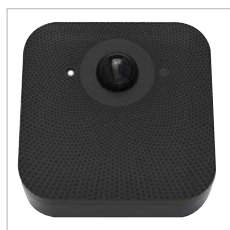


868 MHz wireless controller for the management of a DALI or D1-10V driver (possibility to connect through a DALI cable no. 4 driver, "broadcast" command), equipped with 500VA relay output and integrated wire antenna, housed inside a box made of plastic material 110x110x45mm, IP54 protection rating. 230Vac power supply.

| Code | Item |
|-------|---------------------|
| A3055 | RFXNODE IP54 module |



IP54

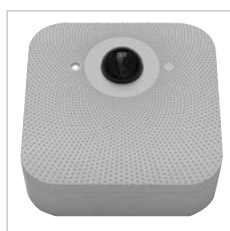


Brightness and movement sensor for high environment (Hmax 16m), equipped with 868 MHz wireless controller for the management of a DALI or D1-10V driver (possibility to connect via a DALI cable n.4 driver, "broadcast" command), 500VA relay output and integrated wire antenna, housed inside a box made of plastic material 110x110x45mm, IP54 protection rating. 230Vac power supply.

| Code | Item |
|-------|-----------------------|
| A3056 | RFXSENSOR IP54 Sensor |



IP54



Brightness and movement sensor for high environment (Hmax 16m), equipped with 868 MHz wireless controller for the management of a DALI or D1-10V driver (possibility to connect via a DALI cable n.4 driver, "broadcast" command or addressed), 500VA relay output, digital input, potential free contact and integrated wire antenna, housed inside a 110x110x45mm plastic case, IP54 protection rating. 230Vac power supply.

| Code | Item |
|-------|---------------------------|
| A3057 | DALI-SENSE-HB IP54 Sensor |



IP54



868 MHz wireless controller to manage a DALI or D1-10V driver (it is possible to connect 2 "broadcast" command DALI drivers using a cable), compatible with Philips Xitanium SR and Osram DEXAL, dimensions 83x30x19 mm, IP20 protection rating. DALI or 12 Vdc power supply.

| Code | Item |
|-------|-----------------------|
| A3058 | RFXDRIVER IP20 module |



IP20



IP66 polypropylene, RAL 7035 colour box, dimensions 110x110x66 mm, to house the RFXDRIVER wireless control module.

| Code | Item |
|-------|------------------------------|
| A3059 | IP66 box for wireless module |



DALI-SENSE-BMS manages a group of DALI/DALI DT8 fixtures that are cabled in automatic and manual mode using integrated brightness and movement sensors. DALI-SENSE-BMS works in an interconnected mode with all other components in the system and can therefore be used to create multi-group applications and can be centralised via Ethernet with BMS and third-party software.

| Code | Item |
|-------|-----------------------|
| A3060 | DALI-SENSE-BMS sensor |



SERVER to control cables DALI fixtures (max 64 drivers) and wireless 868 MHz. Includes the web-based xSERVER Setup app to configure the system. Ethernet interface. Powered DALI interface. 4 digital inputs, 4 digital outputs. RS485 interface. USB Input. SMA connector for external antenna. 24 Vdc power astronomical clock. DIN rail installation (L=105 mm).

| Code | Item |
|-------|------------------|
| A3062 | ZQxSERVER Server |



Gateway, module for centralisation of 868 MHz wireless nodes on the TCP/IP network. Ethernet interface. Integrated antenna. 230 Vac power supply. IP54.

| Code | Item |
|-------|----------------|
| A3063 | RFxETH Gateway |



App free to configure wireless 868 MHz ZETAQLAB devices, available for Apple (iOS) and Android smartphones and tablets.



DALI-SENSE App allows you to configure the operating parameters and working methods of the wireless multisensory DALI-SENSE and to manage the DALI fixtures connected manually. The DALISENSE App is compatible with smartphones and tablets with a Bluetooth Low Energy interface with Android or iOS operating systems and can connect directly with the DALISENSE sensors using a Bluetooth LE interface.



Software for local (intranet) and remote (internet) systems management that makes it possible to configure, monitor and control all integrated systems and all fixtures connected through manual operations and by using automatic algorithms based on calendar events and conditional logic. The software also allows to archive and export data relating to energy consumption and carry out automatic tests on Emergency devices and UPS, allowing to export the register of various activities, as prescribed by current regulations. For more information contact the headquarters or regional offices.

PASTICCERIA
INDUSTRIALE
BISCOTTI

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CAFFÈ / INFUSI
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FRIGORIFERO
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Infopoint

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3F LED Technology

The real revolution is simplicity



**3F LED Technology.
Easy.**

Introduction

3F Filippi has put more than 60 years of experience in the field to work alongside its designers to create its new LED product line. And the difference is plain to see: in a market full of efficient light sources which is evolving and developing from one day to the next, 3F Filippi has decided to equip its luminaires with sources manufactured using the highest quality components available.

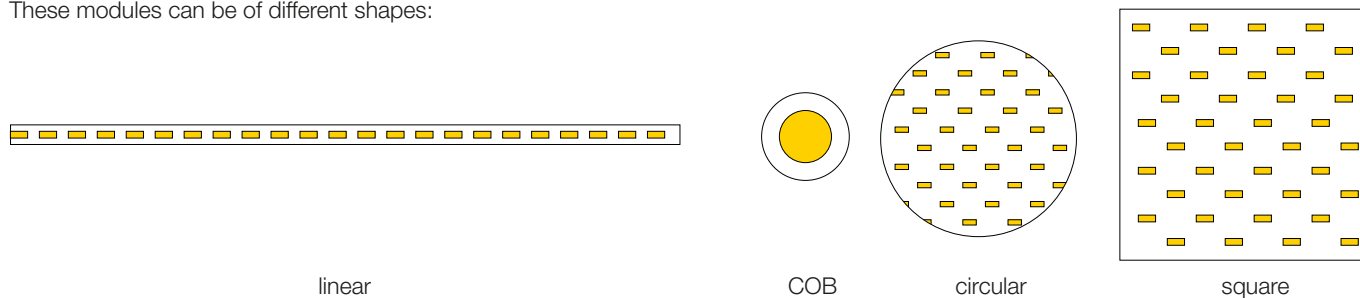
Unfortunately, one of the most common problems for lighting designers is the lack of a common standard to regulate how lighting companies advertise the performance of their products: these "tricks" hinder comprehension and comparability of products. For this reason, we have decided to shed light on the matter with this guide, by explaining LEDs and their most important characteristics simply yet exhaustively.

It is important to remember that the original technical features of LED lighting will change according to the operating conditions of each luminaire, and as such, it is incorrect to assume that every LED has the same characteristics in terms of service life, decrease of luminous flux (L) life expectancy (B), etc.

What is an LED?

LEDs are electronic components which emit light when an electrical current passes through them – the name, indeed, is an acronym for Light Emitting Diode. This is possible thanks to the optical properties of some semiconductors which emit photons when current is passed through them.

When a group of LEDs are installed on a printed circuit, this is known as an LED module. These modules can be of different shapes:



What are the advantages of 3F LED technology?

Illuminotechnical

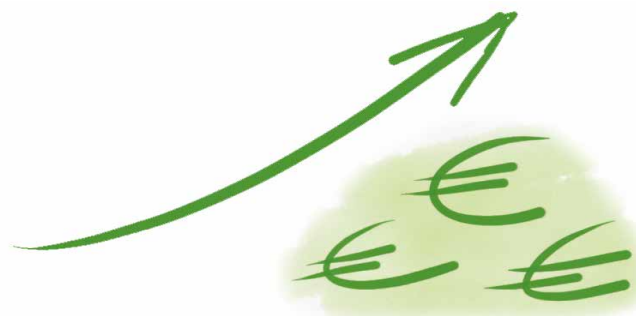
- High luminous efficiency LED, up to 200 lm/W.
- Immediate on.
- Control of the light flow, directed light.
- Absence of IR and UV components throughout the entire spectrum.
- Very long lifetime, > 50,000 hours (professional range).
- Lower power than traditional light sources with equal light output.
- Increased brightness.
- Adjustment of luminous flux from as low as 1%.

Environmental

- Mercury free.
- Lower CO₂ emissions thanks to lower power.
- Less use of polluting materials in LED production.
- Less heat lost to the environment.

For the customer

- Reduction of energy costs.
- Reduction of maintenance costs.
- Fast return on investment.



Comparison chart between luminaires of the same length

| | Total luminaire of luminaire | Total energy consumption | Annual saving |
|---|------------------------------|--------------------------|---------------|
| 2x58W Fluorescent Wiring low-loss EEI=B2 | 141W | €102 | 0% |
| 2x58W Fluorescent Wiring EEI A2 electronic wiring | 109W | €78 | 24% |
| 2x30W LED wiring ballast | 70W | €50 | 51% |
| 2x22W LED electronic ballast | 49W | €35 | 66% |

Table supposes electricity cost of €0.18 per kWh and total annual operation of 4,000 hours.

3F LED Technology

What are the aspects to consider when choosing an LED luminaire?

Reference standards

When studying and designing products, 3F Filippi refers to the most recent specific reference standards:

IEC 62722-2-1

Luminaire performance - Part 2-1: Particular requirements for LED luminaires

IEC 62717

LED modules for general lighting - Performance requirements

CIE 121

The Photometry and Goniophotometry of Luminaires

IEC TR 62778

Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires

IEC EN 62471

Photobiological safety of lamps and lamp systems

IEC EN 60598-1

Luminaires: General requirements and tests

REGULATION (EU) No. 1194/2012

sets out the rules for the application of European Parliament and European Council Directive 2009/125/EC on the specifics of environmentally-friendly design of directional lamps, lamps with light-emitting diodes and other relevant equipment.

Ideal operating temperature

In order for LED modules to be able to function correctly and ensure a long lifetime (>50,000 h), a limited drop in luminous flux over time (>L85) and high luminous efficiency (>140 lm/W), they must be able to correctly dissipate the heat they generate.

The rated data for LEDs applies only if the junction temperature (Tj) is not exceeded. For this reason, at 3F Filippi, we perform a series of thermal and illuminotechnical tests on our LED luminaires, which allow us to achieve the best combination of heat dissipation, luminous flux and rated power.

Ambient performance temperature "tq" (IEC 62722-2-1)

The "tq" value indicates the nominal ambient temperature recorded around the tested luminaire.

IEC standard 62722-2-1 "Luminaire performance - Part 2-1: Particular requirements for LED luminaires", requires the manufacturer to declare the technical performance data relating to the ambient temperature (tq) of +25°C. The luminous output, total power and the service life expectancy of fixtures indicated in official documents (web site, datasheets and photometric curves), therefore refer to the performance ambient temperature tq +25°C (according to EN13032 standard requirements by the 3F Filippi CTFs2 certified photometric laboratory).

In order for designers to evaluate the decays of different operating durations in advance and to set up maintenance programmes on the system 3F Filippi also includes the useful life (L) and life expectancy values (B) on the datasheet which refer to :

30,000 hours, at performance ambient temperature (tq+25°C);

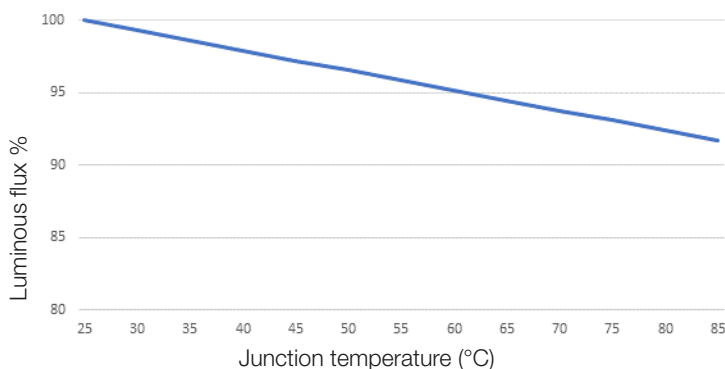
50,000 hours, at performance ambient temperature (tq+25°C);

80,000 hours, at performance ambient temperature (tq+25°C);

100,000 hours, at performance ambient temperature (tq+25°C)

50,000 hours, at the maximum operating temperature (tmax) for luminaires with operating temperatures greater than tq + 25° C.

Thermal management



| | | |
|--------------------------|----------|----------|
| LED Junction temperature | Tj 25°C | Tj 60°C |
| Lumens | 1000 | 950 |
| System | 178 lm/W | 169 lm/W |
| Useful life (@50,000h) | L 100 | L 85 |
| Life expectancy | B 0 | B 10 |

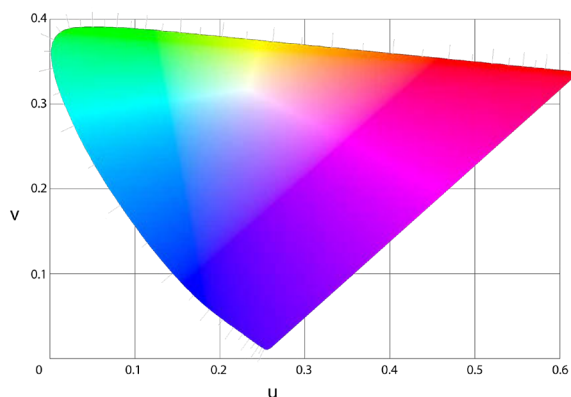
To increase LED luminaires' reliability to the maximum, correct thermal dissipation is essential.

The temperature is fundamentally important as it influences the luminosity and lifetime of the LED component.

3F Filippi pays great attention to this factor and as a result we develop luminaires which ensure optimum heat dissipation.

To the left, a chart that correlates the performance values at different junction temperatures Tj (the operating temperature).

Colour rendering index (CRI)



The colour rendering index is an important parameter for the performance of a light source, and evaluates the source's ability to provide an accurate perception of an object's real colours. All LEDs used by 3F Filippi have colour rendering $R_a > 80$, with a typical average value of around 85. Where not already provided for, high colour rendering of $R_a > 90$ can be requested on some products.

The CRI index of 100 has always been attributed to traditional incandescent sources, with a continuous spectrum but poor in shades of blue (therefore not very suitable for the enhancement of objects with dominant blue).

The LED sources, despite having a continuous spectrum with peaks on specific colors, have a maximum CRI of 98.

With LED technology it is also possible to combine LED sources with different colorimetric characteristics in the usual chip, in order to create a source rich in all wavelengths.

Below are the two main methods of measuring the color rendering of the light source or of what is emitted by the lighting luminaire (through its lenses, refractors or optical filters).

In the product documentation, the colorimetric characteristics are expressed both through the CRI method and through the TM30 method in order to provide the designer with all the information necessary for choosing the best light according to the specific need in the application to be illuminated.

CRI method

CRI (Color Rendering Index) is a measurement method for assessing the ability to recognize a color, developed by CIE 13.3.

The R_a parameter provides an average indication over the entire light spectrum and is obtained from the average of the color rendering indexes of 8 unsaturated colors (normally individually referred to as R1 to R8).

The less used parameter R_e , on the other hand, provides a more precise average indication of the entire light spectrum obtained in fact from the average of the color rendering indexes of 14 colors (normally called individually from R1 to R14).

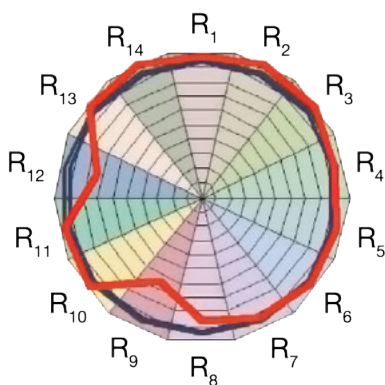
The added reference colors are the 6 most common typologies in daily life.

Index 100 means that the exposed color is recognized in a perfect way, as in sunlight, while lower indices indicate a greater growing difficulty in recognizing that particular color.

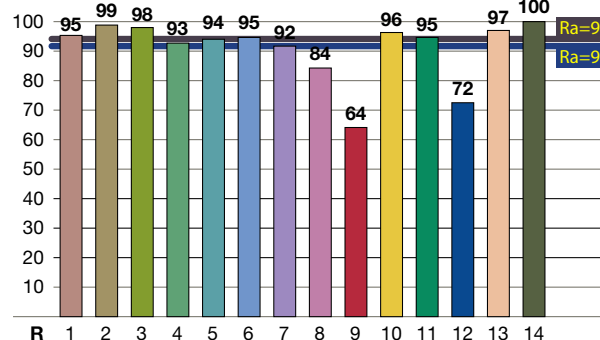
Auto:
ref.illuminant -
Planckian radiator
CCT=4159 K

$R_a = 94$

$R_e = 91$

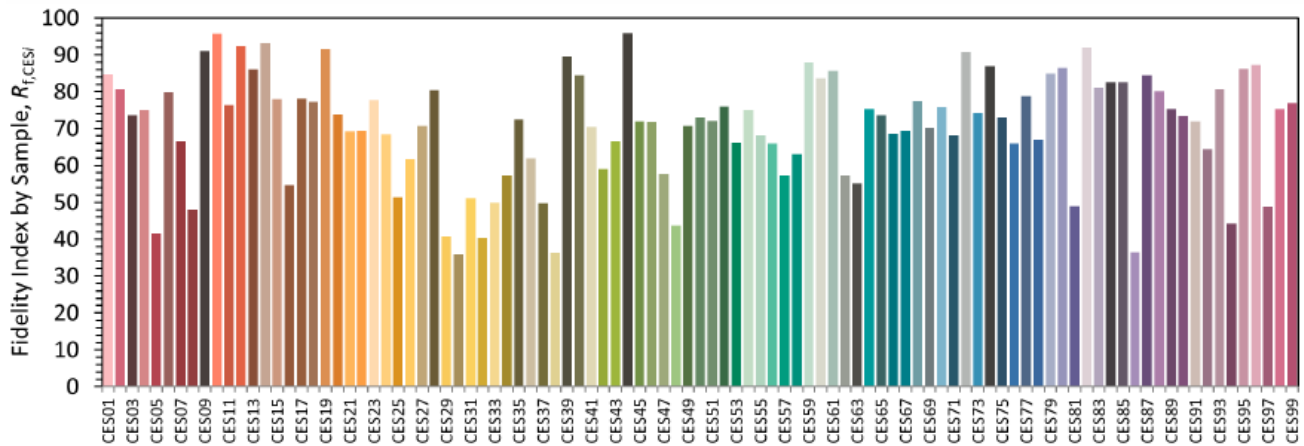


Auto: ref.illuminant - Planckian adiador CCT=4159 K



TM 30 method

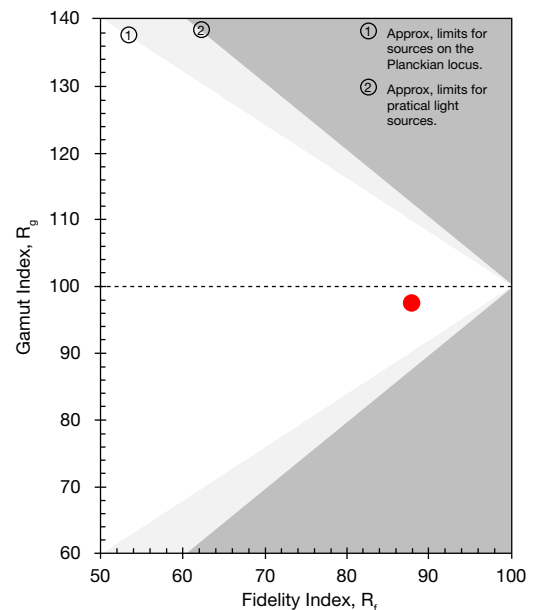
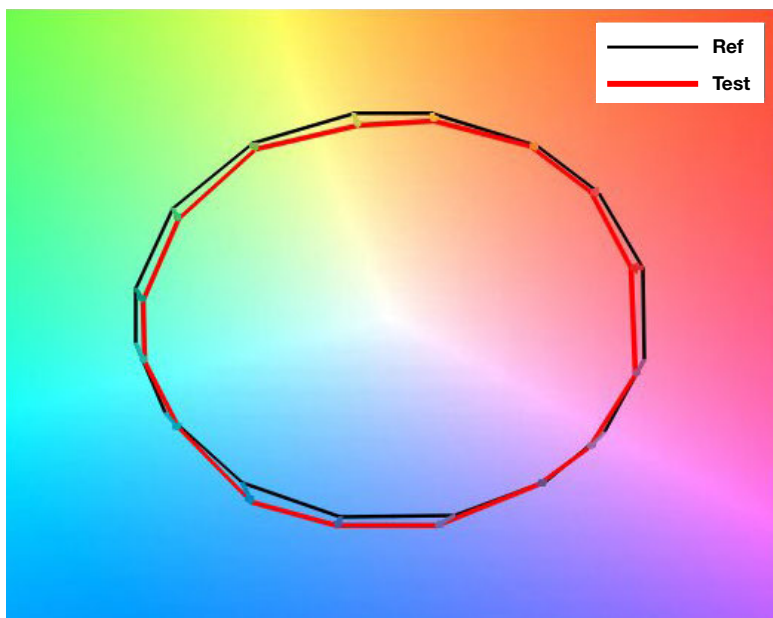
Very precise measurement method developed by the American IES (Illuminating Engineering Society), according to the TM30 as it is based on the color rendering comparison of 99 "color patches".



The spectroradiometric measurement provides the evaluation of two quantities:

- Rf Loyalty index
- Rg Saturation index (Gamut)

It also introduces important indications on the ability of the various sources to restore the fidelity of the materials and the color distortion diagram that represents the variations in hue and saturation of each source.



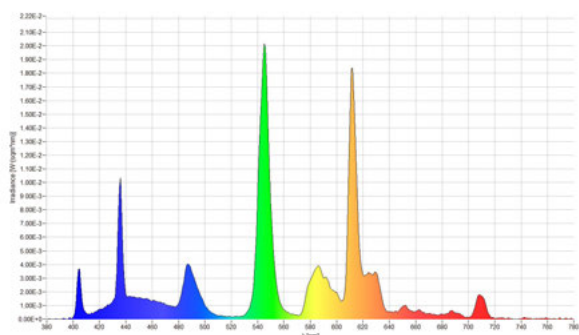
Rf (Fidelity) is similar to CRI but more precise and provides indications about the fidelity of color rendering. Its maximum value is 100.

Rg (Gamut) provides an indication of the source's ability to reproduce color saturation (amplitude of the color gamut). A value of 100 indicates that, on average, the test source does not change the hue and saturation of the ESCs, compared with the sample source. A value > 100 indicates an increase in color saturation and therefore more vivid colors. A value < 100 indicates a decrease in saturation.

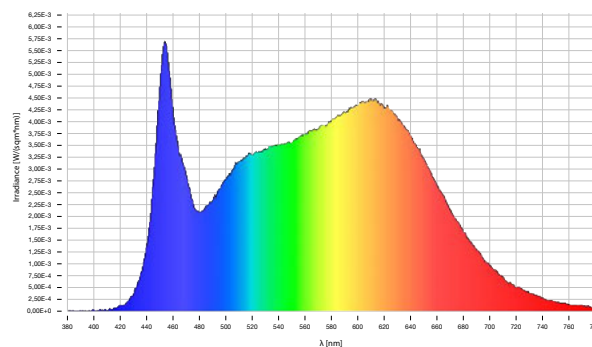
Combined with each other, "Rf" and "Rg" allow you to define the color rendering of a light source in a differentiated but more complete way.

Colorimetry and light spectrum

Typical light spectrum of fluorescence

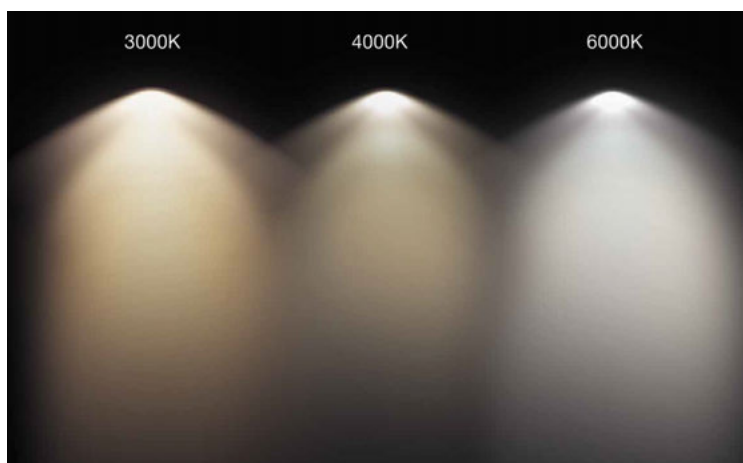
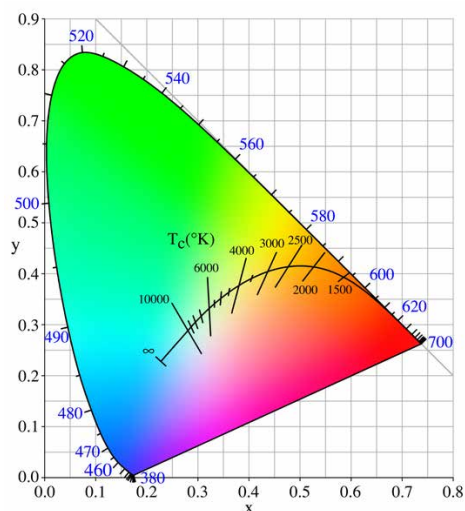


Typical light spectrum of LED



LED sources have a light spectrum with greater uniformity across the whole range of colours. Unlike traditional light sources, LEDs do not have interruptions in colour, thus ensuring complete and much-improved vision of the entire colour spectrum - very similar to that seen with natural light.

Correlated Color Temperature (CCT)



The CCT correlated color temperature is expressed in Kelvin and is defined on the basis of comparison with the light emitted by an ideal black body of reference at the different temperatures. A source will therefore have a color temperature of 4,000K, when the light emitted will have the same hue as that of the black body brought to the reference temperature of 4,000K. It is important to specify that CCT is totally independent of the color rendering of the source and does not provide any information on it.



A warm light normally hovers around 3,000K, a neutral white hovers around 4,000K while a cold white hovers around 6,000K.

Chemical compatibility

For LED luminaires, care must be taken to ensure chemical compatibility with the individual LED chips which, when exposed to given organic compounds, for example substances containing sulphur (S), chlorine (C) or other halogens (ammonia, diesel etc.) are liable to sulphuration (or oxidation) of the component. Sulphuration can cause reductions in flow and useful lifetime, a change in chromatic co-ordinates and, in extreme cases, interruption of the electrical circuit and breaking of the junction. Even for the LEDs inside IP65 lighting bodies, which also benefit from significant protection, this cannot be considered absolute. **On request: for particularly corrosive applications, LED modules with special protection can be used.**

3F LED Technology

Glossary



Luminous flux

The luminous flux, or light flow, coming from the luminaire represents the quantity of light actually coming out of the device, as its value is defined having already taken into account the luminous efficiency of the luminaire.

Luminous efficacy of the luminaire

The luminous efficacy of the luminaire is the most useful parameter for the designer to determine the right lighting luminaire because provides the practical data between the light emission and the overall absorption of the lighting luminaire.

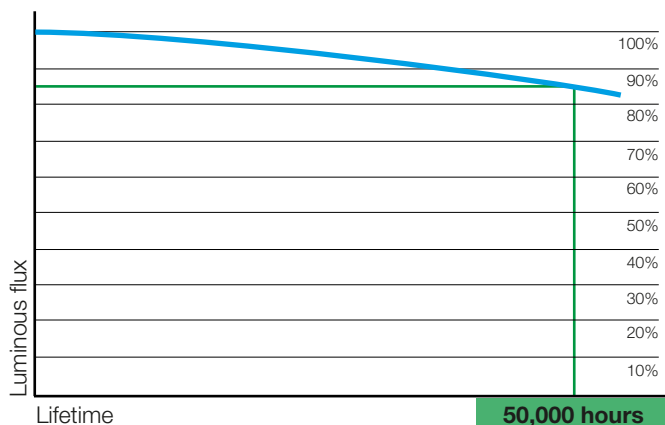
Relative humidity UR

For correct maintenance and operation of traditional LED modules over time, the maximum permissible humidity on the component is 85%.

For specific applications, UR95 LED modules may be required, guaranteeing correct operation at humidity values of up to 95%.

Lifetime (L value)

As previously mentioned, LED sources, unlike traditional lighting, do not tend to suddenly blow at the end of their lifetime; LEDs rather have a gradual reduction of their luminous output overtime before completely running out after a very long time.



The percentage decline of the luminous flux with reference to the useful number of operating hours (usually 50,000 hours) is therefore determined with the parameter "L".

L85:50000h therefore means that, having reached 50,000 h of operation, the LED module still provides 85% of its initial luminous flux.

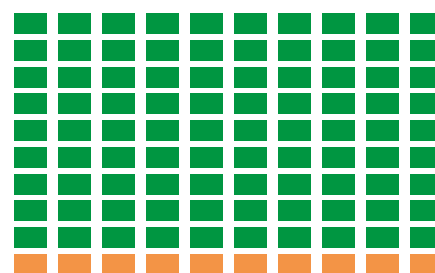
LED life expectancy (B value)

In LED ratings the value B, followed by a value normally between 10 and 50, indicates the quality of the component used as it defines the percentage of components which, after the normal 50,000 h has elapsed, maintain their rated luminous flux.

An LED with declared values of L85/B10=50,000h indicates that on reaching 50,000h, 90% (B10) of the components will have a residual luminous flux of at least 85% of the initial value (L85).

If, in the listed characteristics of the LED luminaire, the value B is not indicated, this is considered to be a B50 device - or in other words, 50% of the LEDs do not guarantee the average useful life value indicated.

We should clarify that this parameter is strongly influenced by the operating conditions of the LED inside the luminaire, and the result is therefore a combination of the quality of the component and good research.



■ equal to or more than 85% of the initial flux

■ less than 85% of the initial flux

LED failure rate (C value)

This value indicates the percentage of LEDs which are no longer operational at the end of their lifetime.

This value can be indicated with two combinations:

- L85/B10/C0: 50,000 hours - indicates that after 50,000 hours, the percentage of LEDs no longer working is 0%.
- L85/B10: 50,000 hours - L0/C10: 200,000 hours - indicates that after 200,000 hours, the percentage of LEDs no longer working is 10%.

All LEDs used by 3F Filippi have a failure rate C0 after 50,000 hours. If this value is not indicated, it should be considered C0.

Colour tolerance (MacAdam ellipses) - SDCM

Measurement of the chromatic co-ordinates performed during production of the LED allows selection (known as Binning) to classify the LEDs on the basis of their chromatic differences.

This classification, performed via analysis of the so-called MacAdam ellipses (which express colour deviations on the XY axes), allows constant tonality to be obtained among the individual LEDs in the same group and an SDCM (Standard Deviation of Colour Matching) which can be classified as:

- With the value 1 there is no chromatic difference between the individual LEDs.
- With values 2 and 3 the difference is not visible to the human eye and the LEDs are considered of good quality.
- With a value of 4, the difference begins to become visible to the human eye.
- As the value increases, the difference is increasingly noticeable, and the type of application will dictate whether these differences in colouration in the LED group used are acceptable or not.

3F Filippi provides both the initial value and the value over time. Indeed, due to the consumption of phosphors present in the LEDs, the colour tolerance can change over time.

All LEDs used by 3F Filippi always have an initial colour tolerance value of less than 3 MacAdams SDCM, and a colour tolerance value over time of less than 3.

Energy efficiency class

The Directive EU 874/2012 regarding the energy labelling of luminaires sold directly to end users stipulates that for all LED luminaires with integrated light sources, the Energy Efficiency Class (EEC) indicated must be as follows: A / A+ / A++.

Indicating a precise energy efficiency class means that the luminaire has been assessed as if it were a lamp/source.

As such, all 3F Filippi luminaires come with the best Energy Efficiency Class (EEC): A / A+ / A++ (EU 874/2012).

LED luminaire luminous fluxes and power in Emergency mode

Data updated as at: April 2020

The following tables show the percentages of luminous flux of LED luminaires in emergency operation (BLF). These fluxes are the minimum guaranteed during rated autonomy as required by EN 60598-2-22, and are therefore the ones to be used in the design stage. The luminous fluxes specified are REAL values, and refer to the OUTPUT of the luminaire.

LED emergency wiring characteristics

Wiring created with emergency lighting systems with the following characteristics:

- Rigid cables cross sectional area 0.50-0.75-1 mm² (0.75-1 mm² also Class II), HT heat resistant PVC 90°C, CEI 20-20.
- Protective fuse, same characteristics as starter wiring.
- 230V-50/60Hz electronic inverter with protection against excessive battery discharge.
- Sealed Nickel-Cadmium or Nickel-Metal Hydride NiMH.
- LED to signal presence of power supply and battery charging.
- Recharge time 24 hrs.
- Running time = 1h minimum under heaviest working conditions.
- 3-pole terminal block with incorporated disconnecting fuse for standard power supply live-earthing-neutral (LTN).
- 2 pole terminal block for power supply of the emergency recharging line.
- Complies with IIEC 60598-1, CEI EN 60598-1 (CEI 34-21) and CEI EN 60598-2-22 (CEI 34-22).
- Suitable for rooms with temperature from 0°C to +25°C.

On request:

- Emergency mode with 3 hours duration, 24 hours recharge, or 1.5 hours duration and 12 hours recharge (according to feasibility), maintaining the same percentage of the standard luminous flux.
- Wiring with intelligent control systems and centralised or local self-diagnostics of emergency lighting.

EP LED permanent emergency lighting

When power is on, EP luminaires operate like normal luminaires; in the event of power failure, the LED module connected to the emergency lighting system switches on or stays on automatically.

In EP luminaires with multiple LED modules, you can check how many modules remain on in emergency mode; for example, 1EP+2 indicates that on a 3x (3 LED modules) luminaire, one remains on in an emergency.

ENP non-permanent emergency LED lighting

In ENP luminaires, the LED module switches on only in emergency mode, when there is a power cut.

| Code | Item | Duration | Recharge | BLF Luminaire (%) | Module BLF (%) | Number of modules in emergency mode |
|------------------------------------|--|----------|----------|-------------------|----------------|-------------------------------------|
| Surface luminaires and suspensions | | | | | | |
| 10607 | 3F Zeta L AS 40 LED EP L1489 | 1h | 24h | 10,8 | 10,8 | 1EP |
| 10980 | 3F Zeta D 1x22 LED EP L1489 | 1h | 24h | 15,2 | 15,2 | 1EP |
| 10982 | 3F Zeta D 2x22 LED EP L1489 | 1h | 24h | 7,6 | 15,2 | 1EP+1 |
| 10984 | 3F Zeta DR 1x22 LED EP L1489 | 1h | 24h | 15,2 | 15,2 | 1EP |
| 10986 | 3F Zeta DR 2x22 LED EP L1489 | 1h | 24h | 7,6 | 15,2 | 1EP+1 |
| 10988 | 3F Zeta L 40 LED EP L1489 | 1h | 24h | 10,8 | 10,8 | 1EP |
| 11001 | 3F Zeta DR UGR 2x22 LED EP L1783 | 1h | 24h | 7,6 | 15,2 | 1EP+1 |
| 11002 | 3F Zeta DR UGR 1x30 LED EP L1783 | 1h | 24h | 11,4 | 11,4 | 1EP |
| 34332 | 3F Petra OP 380 22W LED EP | 1h | 24h | 15,7 | 15,7 | 1EP |
| 34409 | 3F Petra OP 620 50W LED EP | 1h | 24h | 6,9 | 13,7 | 1EP+1 |
| 12128 | 3F Diagon P 25W/830 EP Soft UGR 596x596 1h | 1h | 24h | 19,2 | 19,2 | 1EP |
| 12132 | 3F Diagon P 25W/840 EP Soft UGR 596x596 1h | 1h | 24h | 19,2 | 19,2 | 1EP |
| 12136 | 3F Diagon P 39W/930 EP Soft UGR 596x596 1h | 1h | 24h | 12,0 | 12,0 | 1EP |
| 12140 | 3F Diagon P 39W/940 EP Soft UGR 596x596 1h | 1h | 24h | 12,0 | 12,0 | 1EP |

| Code | Item | Duration | Recharge | BLF Luminaire (%) | Module BLF (%) | Number of modules in emergency mode |
|---------------------|--|----------|----------|-------------------------|----------------------|---|
| Recessed Luminaires | | | | | | |
| 21262 | L 323x10W LED EP SP 596x596 | 1h | 24h | 11,4 | 34,3 | 1EP+2 |
| 21263 | L 324x10W LED EP SP 596x596 | 1h | 24h | 8,6 | 17,2 | 2EP+2 |
| 21293 | L 322x18W LED EP SP 296x1196 | 1h | 24h | 9,5 | 19 | 1EP+1 |
| 21589 | L 323x10W LED EP LGS 596x596 | 1h | 24h | 11,4 | 34,3 | 1EP+2 |
| 21590 | L 324x10W LED EP LGS 596x596 | 1h | 24h | 8,6 | 17,2 | 2EP+2 |
| 21606 | L 322x18W LED EP LGS 296x1196 | 1h | 24h | 9,5 | 19 | 1EP+1 |
| 21642 | L 320 32W LED EP LGS 596x596 | 1h | 24h | 13,3 | 13,3 | 1EP |
| 21650 | L 320 32W LED EP OP 596x596 | 1h | 24h | 13,3 | 13,3 | 1EP |
| 21654 | L 320 32W LED EP LGS 621x621 | 1h | 24h | 13,3 | 13,3 | 1EP |
| 21662 | L 320 32W LED EP OP 621x621 | 1h | 24h | 13,3 | 13,3 | 1EP |
| 22705 | L 323x10W/940 LED EP SP 596x596 | 1h | 24h | 11,4 | 34,3 | 1EP+2 |
| 22706 | L 324x10W/940 LED EP SP 596x596 | 1h | 24h | 8,6 | 17,2 | 2EP+2 |
| 22711 | L 324x10W/940 LED EP LGS 596x596 | 1h | 24h | 8,6 | 17,2 | 2EP+2 |
| 22717 | L 323x10W/940 LED EP 2S 596x596 | 1h | 24h | 11,4 | 34,3 | 1EP+2 |
| 22723 | L 323x10W/940 LED EP 2MG 596x596 | 1h | 24h | 11,4 | 34,3 | 1EP+2 |
| 22734 | L 320 32W/940 LED EP LGS 596x596 | 1h | 24h | 13,3 | 13,3 | 1EP |
| 22744 | L 320 32W/940 LED EP OP 596x596 | 1h | 24h | 13,3 | 13,3 | 1EP |
| 12128 | 3F Diagon P 25W/830 EP SOFT UGR 596x596 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 12132 | 3F Diagon P 25W/840 EP SOFT UGR 596x596 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 12136 | 3F Diagon P 39W/930 EP SOFT UGR 596x596 | 1h | 24h | 13 | 13 | 1EP |
| 12140 | 3F Diagon P 39W/940 EP SOFT UGR 596x596 | 1h | 24h | 13 | 13 | 1EP |
| 23010 | 3F Diagon 25W/830 EP 596x596 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23032 | 3F Diagon 19W/840 EP 596x596 | 1h | 24h | 26,4 | 26,4 | 1EP |
| 23033 | 3F Diagon 15W/840 EP 596x596 | 1h | 24h | 32,9 | 32,9 | 1EP |
| 23034 | 3F Diagon 25W/840 EP 596x596 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23035 | 3F Diagon 39W/840 EP 596x596 | 1h | 24h | 13 | 13 | 1EP |
| 23106 | 3F Diagon 25W/930 EP 596x596 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23130 | 3F Diagon 25W/940 EP 596x596 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23394 | 3F Diagon 25W/830 EP 621x621 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23416 | 3F Diagon 19W/840 EP 621x621 | 1h | 24h | 26,4 | 26,4 | 1EP |
| 23417 | 3F Diagon 15W/840 EP 621x621 | 1h | 24h | 32,9 | 32,9 | 1EP |
| 23418 | 3F Diagon 25W/840 EP 621x621 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23419 | 3F Diagon 39W/840 EP 621x621 | 1h | 24h | 13 | 13 | 1EP |
| 23490 | 3F Diagon 25W/930 EP 621x621 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23514 | 3F Diagon 25W/940 EP 621x621 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23772 | 3F Diagon FP 19W/840 EP 621x621 | 1h | 24h | 26,4 | 26,4 | 1EP |
| 23773 | 3F Diagon FP 25W/840 EP 621x621 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23789 | 3F Diagon FCL 19W/840 EP 599x599 | 1h | 24h | 26,4 | 26,4 | 1EP |
| 23790 | 3F Diagon FCL 25W/840 EP 599x599 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23799 | 3F Diagon FCH 19W/840 EP 599x599 | 1h | 24h | 26,4 | 26,4 | 1EP |
| 23800 | 3F Diagon FCH 25W/840 EP 599x599 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23813 | 3F Diagon 25W/840 EP Soft UGR 596x596 | 1h | 24h | 19,2 | 19,2 | 1EP |
| 23820 | 3F Diagon 25W/840 EP Soft UGR 621x621 | 1h | 24h | 19,2 | 19,2 | 1EP |
| 23827 | 3F Diagon 25W/830 EP Soft UGR 596x596 | 1h | 24h | 19,2 | 19,2 | 1EP |
| 23831 | 3F Diagon 25W/830 EP Soft UGR 621x621 | 1h | 24h | 19,2 | 19,2 | 1EP |
| 23835 | 3F Diagon 39W/940 EP Soft UGR 596x596 | 1h | 24h | 12,0 | 12,0 | 1EP |
| 23839 | 3F Diagon 39W/940 EP Soft UGR 621x621 | 1h | 24h | 12,0 | 12,0 | 1EP |
| 23843 | 3F Diagon 39W/930 EP Soft UGR 596x596 | 1h | 24h | 12,0 | 12,0 | 1EP |
| 23847 | 3F Diagon 39W/930 EP Soft UGR 621x621 | 1h | 24h | 12,0 | 12,0 | 1EP |
| 23851 | 3F Diagon FP 25W/840 EP Soft UGR 621x621 | 1h | 24h | 19,2 | 19,2 | 1EP |
| 23813 | 3F Diagon 25W/840 EP SOFT UGR 596x596 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23820 | 3F Diagon 25W/840 EP SOFT UGR 621x621 | 1h | 24h | 19,8 | 19,8 | 1EP |

| Code | Item | Duration | Recharge | BLF Luminaire (%) | Module BLF (%) | Number of modules in emergency mode |
|-------|--|----------|----------|-------------------------|----------------------|---|
| 23827 | 3F Diagon 25W/830 EP SOFT UGR 596x596 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23831 | 3F Diagon 25W/830 EP SOFT UGR 621x621 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 23835 | 3F Diagon 39W/940 EP SOFT UGR 596x596 | 1h | 24h | 13 | 13 | 1EP |
| 23839 | 3F Diagon 39W/940 EP SOFT UGR 621x621 | 1h | 24h | 13 | 13 | 1EP |
| 23843 | 3F Diagon 39W/930 EP SOFT UGR 596x596 | 1h | 24h | 13 | 13 | 1EP |
| 23847 | 3F Diagon 39W/930 EP SOFT UGR 621x621 | 1h | 24h | 13 | 13 | 1EP |
| 23851 | 3F Diagon FP 25W/840 EP SOFT UGR 621x621 | 1h | 24h | 19,8 | 19,8 | 1EP |
| 28829 | L 323x10W LED EP 2S 596x596 | 1h | 24h | 11,4 | 34,3 | 1EP+2 |
| 28831 | L 322x18W LED EP 2S 296x1196 | 1h | 24h | 9,5 | 19 | 1EP+1 |
| 28847 | L 323x10W LED EP 2MG 596x596 | 1h | 24h | 11,4 | 34,3 | 1EP+2 |
| 28849 | L 322x18W LED EP 2MG 296x1196 | 1h | 24h | 9,5 | 19 | 1EP+1 |
| 30018 | 3F Reno 100 WH 1000/840 EP SPOT | 1h | 24h | 28,6 | 28,6 | 1EP |
| 30022 | 3F Reno 100 WH 1000/930 EP SPOT | 1h | 24h | 28,6 | 28,6 | 1EP |
| 30026 | 3F Reno 100 WH 2000/840 EP SPOT | 1h | 24h | 20 | 20 | 1EP |
| 30030 | 3F Reno 100 WH 2000/930 EP SPOT | 1h | 24h | 16,7 | 16,7 | 1EP |
| 30086 | 3F Reno 100 WH 1000/840 EP WIDE | 1h | 24h | 28,6 | 28,6 | 1EP |
| 30090 | 3F Reno 100 WH 1000/930 EP WIDE | 1h | 24h | 28,6 | 28,6 | 1EP |
| 30094 | 3F Reno 100 WH 2000/840 EP WIDE | 1h | 24h | 20 | 20 | 1EP |
| 30098 | 3F Reno 100 WH 2000/930 EP WIDE | 1h | 24h | 16,7 | 16,7 | 1EP |
| 30222 | 3F Reno 100 WH 1000/840 EP ELL | 1h | 24h | 28,6 | 28,6 | 1EP |
| 30226 | 3F Reno 100 WH 1000/930 EP ELL | 1h | 24h | 28,6 | 28,6 | 1EP |
| 30230 | 3F Reno 100 WH 2000/840 EP ELL | 1h | 24h | 20 | 20 | 1EP |
| 30234 | 3F Reno 100 WH 2000/930 EP ELL | 1h | 24h | 16,7 | 16,7 | 1EP |
| 30290 | 3F Reno 150 WH 2000/840 EP SPOT | 1h | 24h | 20 | 20 | 1EP |
| 30294 | 3F Reno 150 WH 2000/930 EP SPOT | 1h | 24h | 16,7 | 16,7 | 1EP |
| 30298 | 3F Reno 150 WH 3000/840 EP SPOT | 1h | 24h | 14,3 | 14,3 | 1EP |
| 30302 | 3F Reno 150 WH 3000/930 EP SPOT | 1h | 24h | 11,1 | 11,1 | 1EP |
| 30358 | 3F Reno 150 WH 2000/840 EP WIDE | 1h | 24h | 20 | 20 | 1EP |
| 30362 | 3F Reno 150 WH 2000/930 EP WIDE | 1h | 24h | 16,7 | 16,7 | 1EP |
| 30366 | 3F Reno 150 WH 3000/840 EP WIDE | 1h | 24h | 14,3 | 14,3 | 1EP |
| 30370 | 3F Reno 150 WH 3000/930 EP WIDE | 1h | 24h | 11,1 | 11,1 | 1EP |
| 30419 | 3F Reno 150 WH 1500/840 EP UGR | 1h | 24h | 28,6 | 28,6 | 1EP |
| 30420 | 3F Reno 150 WH 2000/840 EP UGR | 1h | 24h | 20 | 20 | 1EP |
| 30470 | 3F Reno 150 WH 2000/840 EP ELL | 1h | 24h | 20 | 20 | 1EP |
| 30474 | 3F Reno 150 WH 2000/930 EP ELL | 1h | 24h | 16,7 | 16,7 | 1EP |
| 30478 | 3F Reno 150 WH 3000/840 EP ELL | 1h | 24h | 14,3 | 14,3 | 1EP |
| 30482 | 3F Reno 150 WH 3000/930 EP ELL | 1h | 24h | 11,1 | 11,1 | 1EP |
| 30546 | 3F Reno 200 WH 2000/840 EP SPOT | 1h | 24h | 20 | 20 | 1EP |
| 30550 | 3F Reno 200 WH 2000/930 EP SPOT | 1h | 24h | 16,7 | 16,7 | 1EP |
| 30554 | 3F Reno 200 WH 3000/840 EP SPOT | 1h | 24h | 14,3 | 14,3 | 1EP |
| 30558 | 3F Reno 200 WH 3000/930 EP SPOT | 1h | 24h | 11,1 | 11,1 | 1EP |
| 30562 | 3F Reno 200 WH 4000/840 EP SPOT | 1h | 24h | 11,1 | 11,1 | 1EP |
| 30566 | 3F Reno 200 WH 4000/930 EP SPOT | 1h | 24h | 9,5 | 9,5 | 1EP |
| 30646 | 3F Reno 200 WH 2000/840 EP WIDE | 1h | 24h | 20 | 20 | 1EP |
| 30650 | 3F Reno 200 WH 2000/930 EP WIDE | 1h | 24h | 16,7 | 16,7 | 1EP |
| 30654 | 3F Reno 200 WH 3000/840 EP WIDE | 1h | 24h | 14,3 | 14,3 | 1EP |
| 30658 | 3F Reno 200 WH 3000/930 EP WIDE | 1h | 24h | 11,1 | 11,1 | 1EP |
| 30662 | 3F Reno 200 WH 4000/840 EP WIDE | 1h | 24h | 11,1 | 11,1 | 1EP |
| 30666 | 3F Reno 200 WH 4000/930 EP WIDE | 1h | 24h | 9,5 | 9,5 | 1EP |
| 30737 | 3F Reno 200 WH 2000/840 EP UGR | 1h | 24h | 20 | 20 | 1EP |
| 30741 | 3F Reno 200 WH 2000/930 EP UGR | 1h | 24h | 16,7 | 16,7 | 1EP |
| 30742 | 3F Reno 200 WH 3000/840 EP UGR | 1h | 24h | 14,3 | 14,3 | 1EP |
| 30746 | 3F Reno 200 WH 2500/930 EP UGR | 1h | 24h | 14,3 | 14,3 | 1EP |
| 30810 | 3F Reno 200 WH 2000/840 EP ELL | 1h | 24h | 20 | 20 | 1EP |

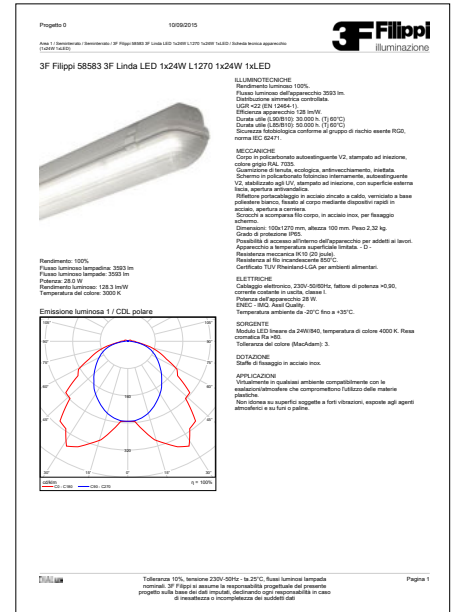
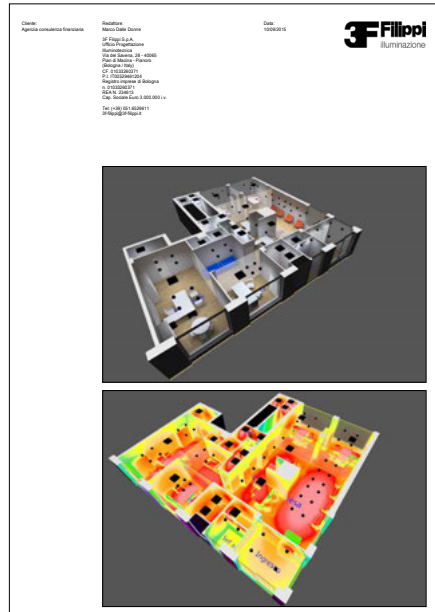
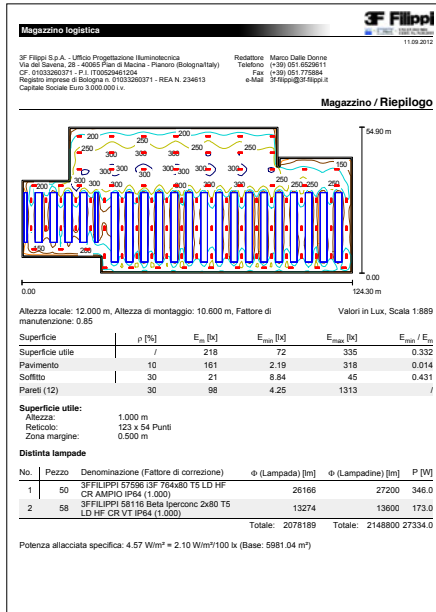
| Code | Item | Duration | Recharge | BLF Luminaire (%) | Module BLF (%) | Number of modules in emergency mode |
|---------------------------------------|---------------------------------------|----------|----------|-------------------------|----------------------|---|
| 30814 | 3F Reno 200 WH 2000/930 EP ELL | 1h | 24h | 16,7 | 16,7 | 1EP |
| 30818 | 3F Reno 200 WH 3000/840 EP ELL | 1h | 24h | 14,3 | 14,3 | 1EP |
| 30822 | 3F Reno 200 WH 3000/930 EP ELL | 1h | 24h | 11,1 | 11,1 | 1EP |
| 30826 | 3F Reno 200 WH 4000/840 EP ELL | 1h | 24h | 11,1 | 11,1 | 1EP |
| 30830 | 3F Reno 200 WH 4000/930 EP ELL | 1h | 24h | 9,5 | 9,5 | 1EP |
| 36576 | Lucequadro LED 2000 EP VS | 1h | 24h | 20 | 20 | 1EP |
| 36579 | Lucequadro LED 3000 EP VS | 1h | 24h | 14,3 | 14,3 | 1EP |
| 36582 | Lucequadro LED 2000 EP VOP | 1h | 24h | 20 | 20 | 1EP |
| 36585 | Lucequadro LED 3000 EP VOP | 1h | 24h | 14,3 | 14,3 | 1EP |
| 36588 | Lucequadro LED 2000 EP SOP | 1h | 24h | 20 | 20 | 1EP |
| 36591 | Lucequadro LED 3000 EP SOP | 1h | 24h | 14,3 | 14,3 | 1EP |
| 37544 | Galassia 220 LED AB 2000 EP VOP | 1h | 24h | 20 | 20 | 1EP |
| 37553 | Galassia 220 LED AB 2000 EP VS | 1h | 24h | 20 | 20 | 1EP |
| 37580 | Galassia 220 LED AB 3000 EP VOP | 1h | 24h | 14,3 | 14,3 | 1EP |
| 37589 | Galassia 220 LED AB 3000 EP VS | 1h | 24h | 14,3 | 14,3 | 1EP |
| 37752 | Galassia 220 LED 2000 EP | 1h | 24h | 20 | 20 | 1EP |
| 37761 | Galassia 220 LED 2000 EP VT | 1h | 24h | 20 | 20 | 1EP |
| 37770 | Galassia 220 LED 2000 EP VOP | 1h | 24h | 20 | 20 | 1EP |
| 37779 | Galassia 220 LED 2000 EP VS | 1h | 24h | 20 | 20 | 1EP |
| 37795 | Galassia 220 LED 3000 EP | 1h | 24h | 14,3 | 14,3 | 1EP |
| 37804 | Galassia 220 LED 3000 EP VT | 1h | 24h | 14,3 | 14,3 | 1EP |
| 37813 | Galassia 220 LED 3000 EP VOP | 1h | 24h | 14,3 | 14,3 | 1EP |
| 37822 | Galassia 220 LED 3000 EP VS | 1h | 24h | 14,3 | 14,3 | 1EP |
| Waterproof and corrosion-proof | | | | | | |
| 55017 | i3F LED 752x30W EP CONC L1565 | 1h | 24h | 5,7 | 11,4 | 1EP+1 |
| 55083 | i3F LED 762x30W EP AMPIO VT L1565 | 1h | 24h | 5,7 | 11,4 | 1EP+1 |
| 55145 | i3F LED 762x12W EP AMPIO VS L655 | 1h | 24h | 14,3 | 14,3 | 2EP |
| 55147 | i3F LED 762x24W EP AMPIO VS L1265 | 1h | 24h | 7,1 | 14,3 | 1EP+1 |
| 55149 | i3F LED 762x30W EP AMPIO VS L1565 | 1h | 24h | 5,7 | 11,4 | 1EP+1 |
| 55607 | i3F LED 752x12W EP AMPIO L655 | 1h | 24h | 14,3 | 14,3 | 2EP |
| 55609 | i3F LED 752x24W EP AMPIO L1265 | 1h | 24h | 7,1 | 14,3 | 1EP+1 |
| 55611 | i3F LED 752x30W EP AMPIO L1565 | 1h | 24h | 5,7 | 11,4 | 1EP+1 |
| 55677 | i3F LED 762x30W EP CONC VT L1565 | 1h | 24h | 5,7 | 11,4 | 1EP+1 |
| 58567 | 3F Linda LED 1x12W EP LA L660 | 1h | 24h | 28,6 | 28,6 | 1EP |
| 58569 | 3F Linda LED 1x6W EP LA L660 | 1h | 24h | 57,1 | 57,1 | 1EP |
| 58589 | 3F Linda LED 1x24W EP L1270 | 1h | 24h | 14,3 | 14,3 | 1EP |
| 58590 | 3F Linda LED 1x24W/865 EP L1270 | 1h | 24h | 14,3 | 14,3 | 1EP |
| 58591 | 3F Linda LED 1x24W/830 EP L1270 | 1h | 24h | 14,3 | 14,3 | 1EP |
| 58600 | 3F Linda LED 2x24W EP L1270 | 1h | 24h | 7,1 | 14,3 | 1EP+1 |
| 58601 | 3F Linda LED 2x24W/865 EP L1270 | 1h | 24h | 7,1 | 14,3 | 1EP+1 |
| 58602 | 3F Linda LED 2x24W/830 EP L1270 | 1h | 24h | 7,1 | 14,3 | 1EP+1 |
| 58611 | 3F Linda LED 1x30W EP L1570 | 1h | 24h | 11,4 | 11,4 | 1EP |
| 58612 | 3F Linda LED 1x30W/865 EP L1570 | 1h | 24h | 11,4 | 11,4 | 1EP |
| 58613 | 3F Linda LED 1x30W/830 EP L1570 | 1h | 24h | 11,4 | 11,4 | 1EP |
| 58623 | 3F Linda LED 2x30W EP L1570 | 1h | 24h | 5,7 | 11,4 | 1EP+1 |
| 58624 | 3F Linda LED 2x30W/865 EP L1570 | 1h | 24h | 5,7 | 11,4 | 1EP+1 |
| 58625 | 3F Linda LED 2x30W/830 EP L1570 | 1h | 24h | 5,7 | 11,4 | 1EP+1 |
| 58705 | 3F Linda LED 1x12W ENP LA L660 | 1h | 24h | 28,6 | 28,6 | 1ENP |
| 58713 | 3F Linda LED 1x24W ENP L1270 | 1h | 24h | 14,3 | 14,3 | 1ENP |
| 5794 | 3F Linda Compatta LED 1x5W EP 160x300 | 1h | 24h | 68,6 | 68,6 | 1EP |

Lighting engineering

Professional lighting engineering design and free consultancy

3F Filippi supplies its customers with a free lighting engineering design service thanks to the Dialux software which allows them to:

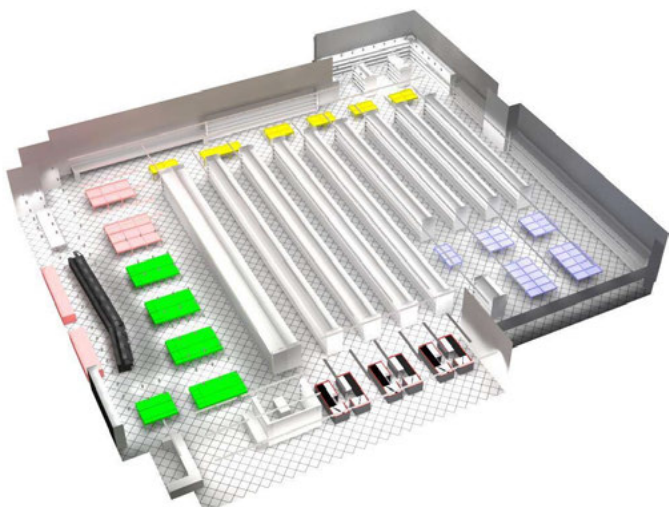
- Consult the photometric characteristics of the luminaire in order to establish the correct application.
- Calculate and check the level of illumination, luminance, as well as the uniformity over horizontal work surfaces (such as work tops and ceiling), vertical work surfaces (such as walls or inclined virtual planes, vertical walls in the room, etc.) and to perform calculation for irregular layouts. With these results, data sheets can be produced with the values shown in point-by-point, isolux, tables, room surfaces, as well as 2D and 3D views of the environment.



Medium and point-by-point illumination on all surfaces of the environment.

Graphical representations on the surfaces of the environment with the following documents: graph of values, rendering with staggered colours, isolines, tables, etc..

Product datasheet with indication of the lighting, mechanical and electrical characteristics.

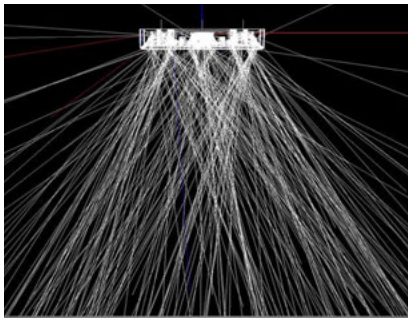


Rendering of a calculation environment

- To make the calculations more precise and create very realistic environments, architectural and furnishing elements can be placed inside the program's simulation environment.
- The software and the 3F Filippi plug-in are available free to designers, installers and electrical distributors.
- Updates of photometric files and of the lighting engineering software can be downloaded free of charge from our website.
- For further information, contact our technical consultants.



3F Filippi



3F Filippi is UNI EN ISO 9001 certified for lighting engineering design too.

3F Filippi guarantees photometric data sheets, according to the latest European and international recommendations and standards, thanks to the support of the photometric laboratory, in line with official European laboratories.

The photometric tests are performed by procedures in accordance with the UNI EN 13032 and CIE 121 standards.

3F Filippi has the most advanced computer programs for research and optimisation of louvres and flow recuperators in order to achieve maximum efficiency and suitable light distribution for the most widely varying applications.

This commitment has been recognised and certified by the CSQ (Italian Company Quality Systems Certification) also for the entire phase of lighting engineering design, thus allowing operation under a Quality Assurance system that also covers interior lighting design in accordance with good engineering practice.

Our ISO 9001 certification, awarded by CSQ (certificate no. 9130.3FFI) can be viewed on our website in the "Certifications and Guarantees" section.

3F Filippi, as further guarantee of the quality of its products and care to meet the strictest standards, is a sustainer of the most lighting engineering associations in the world:



AIDI (The Italian Illumination Association) carries out incisive and constant scientific, cultural and technical reporting to spread knowledge of lighting issues.

www.aidiluce.it



ASSIL (Italian Lighting Producers' Association) provides technical and normative support for quality and performance improvements of lighting technology on the market, while helping respect people's visual comfort, energy-efficiency requirements and environmental protection.

www.assil.it



IESNA (Illuminating Engineering Society of North America) is the American lighting body which promulgates lighting engineering standards on the American market for designers, producers and professionals in the sector.

www.iesna.org

Lighting engineering calculation software

Don't trust in words. Make your own calculations.

On our website we provide data sheets, product updates and specifications for our products - all of which are freely available and free of charge.

The Eulmdat files which you can find online can be used in any lighting engineering program, allowing you to continue using the software you prefer (e.g. DIALux, LITESTAR 4D Litecalc, AGi32 or 3D Studio Max).

In particular, 3F Filippi has decided to collaborate more closely with the software-houses Relux and DIAL to create plug-ins for their lighting engineering calculation programs:



RELUX®
light simulation tools
Relux



DIAL - DIALux evo

For particular requirements or to make a comparison, contact our Sales Network.



Lighting engineering

Reflection coefficients to use for lighting calculations

Reflections in % of painted surfaces and materials (ceiling max 85%; walls max 50%; floor max 30%).

| | | | |
|-----------------------|---------|--|---------|
| White | 75 ÷ 85 | Panels in light-coloured mineral fibre | 75 ÷ 85 |
| Light cream | 70 ÷ 80 | Panels in light-coloured wood | 50 ÷ 60 |
| Yellow | 60 ÷ 70 | Plaster | 70 ÷ 80 |
| Light grey | 45 ÷ 65 | White paper | 70 ÷ 80 |
| Pink | 45 ÷ 55 | Window panes | 06 ÷ 08 |
| Light red | 20 ÷ 30 | Light-coloured curtains with narrow mesh | 65 ÷ 70 |
| Medium grey | 20 ÷ 40 | Light-coloured curtains with wide mesh | 35 ÷ 40 |
| Light blue, green | 35 ÷ 55 | Cement, rough concrete | 20 ÷ 30 |
| Dark grey, green, red | 10 ÷ 20 | Light-coloured marble | 40 ÷ 60 |
| Black | 03 ÷ 05 | Granite | 15 ÷ 20 |

Maintenance factors to use for lighting calculations

The lighting of a room is the result of the interaction between the luminaires, their condition of use, the aging of the sources and the environment in which they are installed.

The reference standard is certainly ISO/CIE TS 22012 "Light and lighting - Maintenance factor determination - Way of working" which provides the designer with various information attachments with examples and reference values to be considered during the design phase.

The maintenance factor f_m is determined by the following formula:

$$f_M = f_{LF} \cdot f_S \cdot f_{LM} \cdot f_{SM}$$

f_{LF} (Luminous flux factor) is the decay factor of the luminous flux of the source over time (for LEDs it is the declared factor L_x). The luminous flux (lumen) of an operating source gradually decreases over time.

This reduction depends on the type of light source and on the operating conditions related to the thermal management of the lighting luminaire.

This factor is defined on the basis of the drop in luminous flux before performing maintenance (changing the lamp or luminaire). In the case of CLO (Constant light output) drivers the factor to be considered is 1.

f_S (Survival factor) represents the mortality rate of the light sources.

After a certain period of time the light sources can go out. This phenomenon suddenly reduces the level of lighting inside the rooms.

In the case of sources that do not have mortality due to their technology (for example the LED), this factor must be considered equal to 1.

f_{LM} (Luminaire maintenance factor) represents the reduction of the luminous flux of the luminaire due to dirt.

Dirt and dust present in almost all environments accumulate on the lamp, considerably reducing the amount of light emitted.

When they accumulate on the surfaces of the luminaire, the amount of light reflected or transmitted by these surfaces is also reduced.

This factor depends on the environment where the lighting luminaire is located, on the type of construction characteristics (for example: luminaire with or without screen, indirect lighting with greater dust deposit, degree of protection, any chimney effect that removes dust from the surfaces reflective), expected cleaning cycle (every 1-2-3-... years).

f_{SM} (Surface maintenance factor) represents the reduction of reflections on the surfaces of the room due to dirt.

Dirt on the surfaces of rooms tends to reduce the amount of reflected light.

Clean surfaces maintain the ambient lighting level more.

This factor depends on the type of activity carried out and the type of processing, for example in an office with weekly cleaning and repainting at regular intervals, this maintenance factor will be higher than in a factory with monthly cleaning intervals and repainting to be carried out only in case of real need.

Standards - Indoor lighting

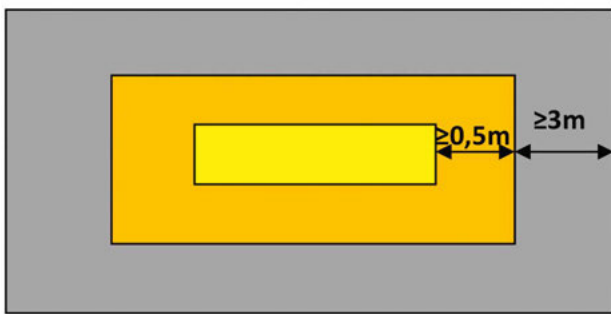
EN 12464-1: 2011

Illumination of interior workplaces

This European standard for illumination of interior workplaces replaces the previous one from 2004, with an increase in the importance of illumination to allow workers to perform their visual tasks efficiently and accurately.

Three calculation areas are defined:

- Task-area, determination of the visual task area. If this cannot be determined, the whole surface of the environment is considered.
- Immediately surrounding area, at least 50 cm around the task area.
- Background area, at least 3 m around the immediately surrounding area.



- Task area
- Immediately surrounding area
- Background area

Illumination of the immediately surrounding area may be lower than that of the task area but must not be lower than the values given below:

| Task area | Immediately surrounding area |
|-----------|------------------------------|
| ≥ 750 lx | 500 lx |
| 500 lx | 300 lx |
| 300 lx | 200 lx |
| 200 lx | 150 lx |
| 150 lx | Etask |
| 100 lx | Etask |
| ≤ 50 lx | Etask |

Lighting values are unchanged: the design must include calculation of a maintenance factor that considers both decrease of luminous flux of lamps and level of dust accumulation in the room.

For good visual communication and recognition of objects, two requirements gain importance:

- Cylindrical illuminance.
- Modelling.

Cylindrical illuminance is calculated by the average of the vertical illuminances around the measuring point. The standard requires the following:

| Average cylindrical illuminances in interior | |
|---|-----------------------|
| Seated persons 1.2m | $E_z > 50 \text{ lx}$ |
| Standing persons 1.7m | $E_z > 50 \text{ lx}$ |
| Good visual communication, e.g. offices, meeting rooms, teaching spaces, etc. | $E_z > 50 \text{ lx}$ |
| Uniformity | $U_o \geq 0,10$ |

Modelling represents the equilibrium between diffuse and directional light and is calculated as the relationship between the cylindrical and horizontal illuminance at the measurement point. Good modelling is obtained with a value between 0.3 and 0.6.

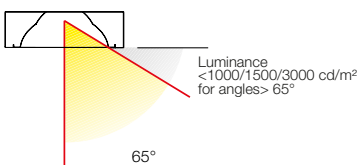
EN 12464-1: 2011 introduced new limits of average luminance for lighting devices which reflect on computer screens:

| Luminaire average luminance limits for radial angles >65° | | |
|--|---|--|
| Screen luminance | High luminance screen $L > 200 \text{ cd}\cdot\text{m}^{-2}$ | Medium luminance screen $L \leq 200 \text{ cd}\cdot\text{m}^{-2}$ |
| case A positive polarity and normal requirements regarding colours and details of information viewed, for example offices, schools etc. | $\leq 3000 \text{ cd}\cdot\text{m}^{-2}$ | $\leq 1500 \text{ cd}\cdot\text{m}^{-2}$ |

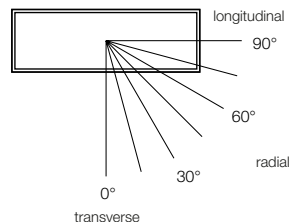
| | | |
|---|--|--|
| case B negative polarity with greater requirements regarding colours and details of information viewed, for example for CAD, colour inspections etc. | $\leq 1500 \text{ cd}\cdot\text{m}^{-2}$ | $\leq 1000 \text{ cd}\cdot\text{m}^{-2}$ |
|---|--|--|

Glare check for rooms with VDTs

Section



View from top



Lighting engineering

Average illuminations maintained by EN 12464-1: 2011 (**indoor environments**)

| Type of interior, task and activity | Em (lx) | Glare UGR _L | CRI |
|--|----------|------------------------|-----|
| OFFICES | | | |
| Writing and data processing | 500 | 19 | 80 |
| CAD stations | 500 | 19 | 80 |
| Technical drawing | 750 | 16 | 80 |
| Conference and meeting rooms | 500 | 19 | 80 |
| Filing and copying | 300 | 19 | 80 |
| Archives | 200 | 25 | 80 |
| Reception | 300 | 22 | 80 |
| SCHOOLS | | | |
| Playrooms in nursery schools | 300 | 19 | 80 |
| Handicraft rooms | 500 | 19 | 80 |
| Classrooms in secondary schools | 300 | 19 | 80 |
| Classrooms in evening and adult education schools, art education | 500 | 19 | 80 |
| Technical drawing rooms | 750 | 16 | 80 |
| Music practice rooms, language labs | 300 | 19 | 80 |
| Common rooms and main hall | 200 | 22 | 80 |
| Preparation rooms and workshops | 500 | 22 | 80 |
| Computer labs | 300 | 19 | 80 |
| Vertical illumination of blackboards | 500 | 19 | 80 |
| Entrances | 200 | 22 | 80 |
| Teachers' rooms | 300 | 19 | 80 |
| Storage rooms for teaching material | 100 | 25 | 80 |
| Sports facilities, swimming pools (general use) | 300 | 22 | 80 |
| Canteen | 200 | 22 | 80 |
| Kitchen | 500 | 22 | 80 |
| LIBRARIES | | | |
| Reading areas | 500 | 19 | 80 |
| Vertical illumination of shelves | 200 | 19 | 80 |
| Public service areas | 500 | 19 | 80 |
| CANTEENS, RESTAURANTS AND SELF-SERVICE | | | |
| General lighting | 200 | 22 | 80 |
| Conference rooms | 500 | 19 | 80 |
| Wardrobe | 200 | 25 | 80 |
| Buffet, reception, cash desk and porter | 300 | 22 | 80 |
| Kitchen | 500 | 22 | 80 |
| Self-service restaurants | 200 | 22 | 80 |
| Corridors | 100 | 25 | 80 |
| TRANSIT AREAS AND ROOMS FOR GENERAL USE IN BUILDINGS | | | |
| Circulation areas and corridors (floor lighting) | 100 | 28 | 40 |
| Stairs, lifts, escalators | 150 | 25 | 40 |
| Rest rooms | 100 | 22 | 80 |
| Infirmary | 500 | 19 | 80 |
| Technical rooms, control panels | 200 | 25 | 60 |
| Baths, toilets, wardrobe | 200 | 25 | 80 |
| Minimum general emergency lighting (EN 1838) | min. 0.5 | | 80 |
| Minimum emergency lighting in exit routes (EN 1838) | min. 1 | | 80 |
| COMMERCIAL AND/OR EXHIBITION AREAS | | | |
| Sales areas | 300 (1) | 22 (1) | 80 |
| Cash desks | 500 | 19 | 80 |
| Packaging desk | 500 | 19 | 80 |
| Fairs, exhibition halls (general lighting) | 300 | 22 | 80 |

Notes:

(1) Lighting and UGR depend on the type of shop.

Average illuminations maintained by EN 12464-1: 2011 (indoor environments)

| Type of interior, task and activity | Em (lx) | Glare UGR _L | CRI |
|--|---------|------------------------|-----|
| INDUSTRIAL AND ARTISANAL ENVIRONMENTS | | | |
| Agriculture | | | |
| - Loading and handling of goods, moving equipment | 200 | 25 | 80 |
| - Livestock buildings | 50 | | 40 |
| - Preparation of fodder, dairies, tool washing, delivery rooms | 200 | 25 | 80 |
| Chemical, plastic, rubber industry | | | |
| - Workplaces with continuous presence of personnel | 300 | 25 | 80 |
| - Rooms for precision measurement, laboratories | 500 | 19 | 80 |
| - Pharmaceutical production, tyres | 500 | 22 | 80 |
| - Colour inspection | 1000 | 16 | 90 |
| - Cutting, finishing, inspection | 750 | 19 | 80 |
| Food industries | | | |
| - Beer breweries, jam/chocolate/sugar production plants | 200 | 25 | 80 |
| - Product selection and washing, packaging | 300 | 25 | 80 |
| - Work zones in slaughterhouses, dairies, mills | 500 | 25 | 80 |
| - Inspection of glass and bottles, product check | 500 | 22 | 80 |
| - Food production, kitchen work, cigarette manufacture | 500 | 22 | 80 |
| - Laboratories | 500 | 19 | 80 |
| - Colour inspection | 1000 | 16 | 90 |
| Metal working and transformation | | | |
| - Rough and medium machining | 300 | 22 | 60 |
| - Fine machining | 500 | 19 | 60 |
| - Marking off, inspection | 750 | 19 | 60 |
| - Manufacture of tools and cutting equipment | 750 | 19 | 60 |
| - Rough assembly | 200 | 25 | 80 |
| - Medium assembly | 300 | 25 | 80 |
| - Fine assembly | 500 | 22 | 80 |
| - Precision assembly | 750 | 19 | 80 |
| Power plants | | | |
| - Fuel supply facilities | 50 | | 20 |
| - Boiler rooms | 100 | 28 | 40 |
| - Machine shop | 200 | 25 | 80 |
| - Pump rooms, condenser rooms, switching systems | 200 | 25 | 60 |
| - Control stations | 500 | 16 | 80 |
| - Outside control devices | 20 | | 20 |
| Textile production and processing | | | |
| - Workplace in vicinity of baths | 200 | 25 | 60 |
| - Washing, ironing, spinning | 300 | 22 | 80 |
| - Spinning, twining, spooling | 500 | 22 | 80 |
| - Finishing, dyeing, weaving | 500 | 22 | 80 |
| - Sewing, fine-gauge knitting, mending | 750 | 22 | 80 |
| - Colour inspection, quality control | 1000 | 16 | 90 |
| Automotive | | | |
| - Body and assembly | 500 | 22 | 80 |
| - Painting, polishing booth | 750 | 22 | 80 |
| - Painting: retouching, inspection | 1000 | 19 | 90 |
| - Upholstery, final inspection | 1000 | 19 | 80 |
| Woodworking and wood processing | | | |
| - Automatic processing | 50 | 28 | 40 |
| - Steaming beds | 150 | 28 | 40 |
| - Saw frame | 300 | 25 | 60 |
| - Bench work, assembly | 300 | 25 | 80 |
| - Smoothing, painting | 750 | 22 | 80 |
| - Machine work | 500 | 19 | 80 |
| - Wood selection, inlay | 750 | 22 | 90 |
| - Quality control, inspection | 1000 | 19 | 90 |
| WAREHOUSES AND COLD STORAGE ROOMS | | | |
| Storage areas | 100 | 25 | 60 |
| Handling, packing, shipping areas | 300 | 25 | 60 |
| Warehouses with racking – corridor without personnel (lighting at floor) | 20 | | 40 |
| Warehouses with racking – corridor with personnel (lighting at floor) | 150 | 22 | 60 |
| Control stations | 150 | 22 | 60 |

Lighting engineering

Average illuminations maintained by EN 12464-1: 2011 (**indoor environments**)

| Type of interior, task and activity | Em (lx) | Glare UGR _L | CRI |
|--|-------------|------------------------|-----|
| HEALTHCARE STRUCTURES | | | |
| Recovery rooms (general lighting, at floor) | 100 | 19 | 80 |
| Recovery rooms (lighting for reading and simple examination) | 300 | 19 | 80 |
| Corridors (day) | 200 | 22 | 80 |
| Corridors (night) | 50 | 22 | 80 |
| Public rooms | 200 | 22 | 80 |
| Diagnosis rooms (general lighting) | 500 | 19 | 90 |
| Diagnosis rooms (examination and treatment) | 1000 | 19 | 90 |
| Pre-operating rooms | 500 | 19 | 90 |
| Operating rooms | 1000 | 19 | 90 |
| Laboratory, pharmacy (general lighting) | 500 | 19 | 80 |
| Massage, radiotherapy, endoscopy, simple examinations | 300 | 19 | 80 |
| Examinations and intensive care | 1000 | 19 | 90 |
| Treatment, dialysis, plaster rooms | 500 | 19 | 80 |
| Dentists (general lighting) | 500 | 19 | 90 |
| Sterilisation and disinfection rooms | 300 | 22 | 80 |
| INDOOR SPORTS FACILITIES (2) - Standard EN 12193 | | | |
| Physical exercise rooms | 300 | | |
| Track and field | 200-300-500 | | |
| Lawn bowling | 200-300-500 | | |
| Swimming pool | 200-300-500 | | |
| Wrestling, weight-lifting, judo | 300-500 | | |
| Basketball, volleyball | 300-500-750 | | |
| Boxing | 300-500 | | |
| Tennis | 200-300-750 | | |
| Table tennis | 300-500-700 | | |
| Target-shooting (spring-board - target) | 300-500 | | |
| Archery | 150-300-400 | | |
| INDOOR PARKING | | | |
| Lanes and parking areas (floor lighting) | 75 | 25 | 20 |
| Entrance/exit ramps (day) (lighting at floor) | 300 | 25 | 20 |
| Entrance/exit ramps (night) (lighting at floor) | 75 | 25 | 20 |
| Ticket office | 300 | 19 | 80 |
| OUTDOOR AREAS (CIE 129) | | | |
| Parking areas for shops, schools, condominiums | 5 | | |
| Very rough work, loading and unloading | 20 | | |
| Rough work, transport and storage | 50 | | |
| Pedestrian walkways | 5 | | |

KEY

Em Average lighting level, generally referring to a height of 0.85 m from the floor for work zones and at floor level for transit zones.

UGR_L Unified glare rating in room based on characteristics of observation and lay-out of luminaires, developed by IEC and required by European standard EN 12464-1 (see page 574).

CRI Minimum colour rendering index of sources (see pages 555 et 556).

Notes: Indoor sports facilities provide for 3 levels of lighting based on their use, specifically: Non-competitive sports, Competitive sports at local level, Competitive sports at national and international level.

Lighting engineering

Average illuminations maintained by EN 12464-2: 2012 (**outdoor environments**)

| Outdoor activities, task and activities | Em (lx) | U _o | Glare RGL | CRI |
|---|---------|----------------|-----------|-----|
| GENERAL AREAS AND CLEANING OF WORKPLACES | | | | |
| Pavements | 5 | 0,25 | 50 | 20 |
| Circulation areas with slow vehicles (max. 10 km/h) | 10 | 0,25 | 50 | 20 |
| Movement of vehicles (max 40 km/h) | 20 | 0,40 | 45 | 20 |
| Pedestrian crossings and loading/unloading from vehicles | 50 | 0,40 | 50 | 20 |
| AIRPORTS | | | | |
| Hangar parking | 20 | 0,10 | 55 | 20 |
| Terminal parking | 20 | 0,25 | 50 | 20 |
| Loading Zone | 20 | 0,25 | 50 | 20 |
| Aircraft maintenance area | 200 | 0,50 | 45 | 60 |
| INDUSTRIAL SITES AND WAREHOUSES | | | | |
| Loading and unloading of large solid goods | 20 | 0,25 | 55 | 20 |
| Loading and unloading of goods, lifting and descending areas for cranes | 50 | 0,40 | 50 | 20 |
| Covered loading areas, information reading, use of tools | 100 | 0,50 | 45 | 20 |
| Demanding installations and inspections | 200 | 0,50 | 45 | 60 |
| PARKING AREAS | | | | |
| Light traffic (parking of shops and homes, bicycle parks) | 5 | 0,25 | 56 | 20 |
| Medium traffic (parking of supermarkets, offices, industrial plants, sports and multipurpose complexes) | 10 | 0,25 | 50 | 20 |
| Heavy traffic (parking in large shopping centers and complexes of sports and multipurpose buildings) | 20 | 0,25 | 50 | 20 |
| RAILWAYS AND TRAMWAYS | | | | |
| Open areas, train stops | 5 | 0,20 | 55 | 20 |
| Open areas, small number of passengers (e.g. rural and local trains) | 10 | 0,25 | 50 | 20 |
| Open areas, average number of passengers (e.g. suburban or regional trains or intercity services) | 20 | 0,30 | 45 | 20 |
| Open areas, large number of passengers (e.g. intercity services) | 50 | 0,40 | 45 | 20 |
| Open areas, freight areas | 20 | 0,40 | 50 | 20 |
| Covered areas, small number of passengers (e.g. suburban or regional trains or intercity services) | 50 | 0,40 | 45 | 40 |
| Covered areas, large number of passengers (e.g. intercity services) | 100 | 0,50 | 45 | 40 |
| Covered areas, goods areas, short-term service | 50 | 0,40 | 45 | 20 |
| Covered areas, goods areas, continuous service | 100 | 0,50 | 45 | 40 |
| Tracks in passenger station areas, including parking areas | 10 | 0,25 | 50 | 20 |
| Sidewalks in railway areas, open pedestrian bridges | 10 | 0,25 | 50 | 20 |
| Level crossings | 20 | 0,40 | 45 | 20 |
| Maintenance areas for trains and locomotives | 20 | 0,40 | 50 | 40 |
| Maintenance areas for railway yards | 30 | 0,40 | 50 | 20 |
| Stairways, small number of passengers | 50 | 0,40 | 45 | 40 |
| Stairways, large number of passengers | 100 | 0,50 | 45 | 40 |
| Inspection pit | 100 | 0,50 | 40 | 40 |

LEGEND

Em Average horizontal illuminances maintained referring to the reference surface of the application.

U_o Minimum uniformity of illumination on the reference plane.

RGL Limit value of the glare R_g (Glare Rating) based on the observation characteristics and the layout of the luminaires, developed by the CIE and required by the European standard EN 12464-2.

CRI: Minimum color rendering indexes for sources (see pages 555 and 556).

U.G.R. - Unified Glare Rating

UGR is a unified international index developed by CIE (Commission Internationale de l'Eclairage) in publication 117 of 1995, to **evaluate direct glare** in every specific application based on the position of luminaires, room characteristics (dimensions, reflections), and on the observation point of workers.

UGR reference values on CIE tables range between 10 and 30 in steps of 3 units (10, 13, 16, 19, 22, 25 and 28) and apply to both directions of view (transverse and longitudinal) to the luminaire: the lower the value, the less direct glare.

European standard EN 12464-1 for the lighting of indoor workplaces requires a UGR value for every application. Respecting the UGR value in workplaces with VDTs is a necessary but not sufficient condition because the average luminance requirement for luminaires (1000-3000 cd/m²) is still in effect (see the tables on the previous pages for specific values).

UGR tables are supplied for each luminaire, but are valid only for normal workplaces.

Example of calculation

office with 15W OCW luminaire
 EN 12464-1 requires a UGR value of ≤19 for this application.
 Data for room and installation:

- Room height: 3.2 m
- Height from worker's eye to luminaire H: 3.2-1.2= 2 m
- Transverse distance 8.0 m ÷ 2 m = 4H
- Longitudinal distance 16.0 m ÷ 2 m = 8H
- Reflection index: Ceiling 70%; Walls 50%; Floor 20%.

Calculations

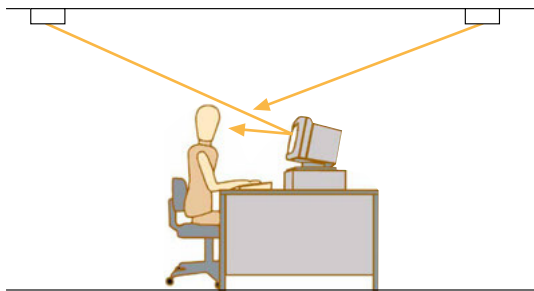
- Transverse UGR: 15.2 Value in direction of observation transverse to luminaires.
- Longitudinal UGR: 11.6 Value in direction of observation longitudinal to luminaires.

UGR Table - office luminaire 15W OCW

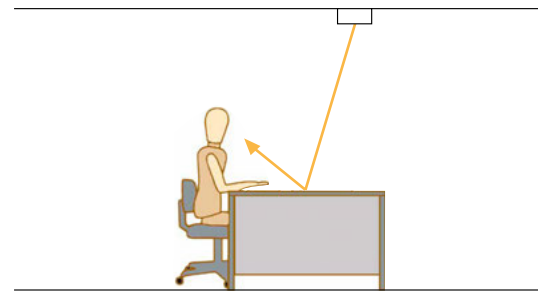
| Environment | | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
|-------------|-----|------------------------------|------|------|------|------|--------------------------------|------|------|------|------|
| Ceiling | | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls | | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| X | Y | Transverse view of luminaire | | | | | Longitudinal view of luminaire | | | | |
| | | 2H | 2H | 15.6 | 16.6 | 15.8 | 16.8 | 17.1 | 16.1 | 17.2 | 16.4 |
| | 3H | 15.4 | 16.4 | 15.7 | 16.6 | 16.9 | 16.0 | 16.9 | 16.3 | 17.2 | 17.4 |
| | 4H | 15.3 | 16.2 | 15.7 | 16.5 | 16.8 | 15.9 | 16.8 | 16.2 | 17.0 | 17.3 |
| | 6H | 15.3 | 16.1 | 15.6 | 16.4 | 16.7 | 15.8 | 16.6 | 16.1 | 16.9 | 17.2 |
| | 8H | 15.2 | 16.0 | 15.6 | 16.3 | 16.6 | 15.8 | 16.6 | 16.1 | 16.8 | 17.2 |
| | 12H | 15.2 | 16.0 | 15.6 | 16.3 | 16.6 | 15.7 | 16.5 | 16.1 | 16.8 | 17.1 |
| 4H | 2H | 15.5 | 16.4 | 15.8 | 16.7 | 16.9 | 15.9 | 16.8 | 16.3 | 17.1 | 17.4 |
| | 3H | 15.4 | 16.1 | 15.7 | 16.4 | 16.7 | 15.8 | 16.5 | 16.2 | 16.9 | 17.2 |
| | 4H | 15.3 | 15.9 | 15.7 | 16.3 | 16.6 | 15.7 | 16.4 | 16.1 | 16.7 | 17.1 |
| | 6H | 15.2 | 15.8 | 15.6 | 16.1 | 16.5 | 15.6 | 16.2 | 16.0 | 16.6 | 17.0 |
| | 8H | 15.2 | 15.7 | 15.6 | 16.1 | 16.5 | 15.6 | 16.1 | 16.0 | 16.5 | 16.9 |
| | 12H | 15.1 | 15.6 | 15.6 | 16.0 | 16.4 | 15.6 | 16.0 | 16.0 | 16.4 | 16.9 |
| 8H | 4H | 15.2 | 15.7 | 15.6 | 16.1 | 16.5 | 15.6 | 16.1 | 16.0 | 16.5 | 16.9 |
| | 6H | 15.1 | 15.5 | 15.5 | 15.9 | 16.4 | 15.5 | 16.0 | 16.0 | 16.4 | 16.8 |
| | 8H | 15.0 | 15.4 | 15.5 | 15.9 | 16.3 | 15.5 | 15.9 | 15.9 | 16.3 | 16.8 |
| | 12H | 15.0 | 15.3 | 15.5 | 15.8 | 16.3 | 15.4 | 15.8 | 15.9 | 16.2 | 16.7 |
| 12H | 4H | 15.1 | 15.6 | 15.6 | 16.0 | 16.4 | 15.6 | 16.0 | 16.0 | 16.4 | 16.9 |
| | 6H | 15.0 | 15.4 | 15.5 | 15.9 | 16.3 | 15.5 | 15.9 | 15.9 | 16.3 | 16.8 |
| | 8H | 15.0 | 15.3 | 15.5 | 15.8 | 16.3 | 15.4 | 15.8 | 15.9 | 16.2 | 16.7 |

Glare

Direct and reflected on VDT.



Work surface and keyboard.



Electrical engineering and electronics

Marks and standards



The single European mark ENEC (European Norms Electrical Certification) certifies that a luminaire conforms to EN European standards. IMQ is one of the European certification bodies belonging to ENEC. Luminaires approved by IMQ on the basis of European standards are therefore ENEC-certified.



All 3F Filippi luminaires bear the CE marking. This marking attests to the fact that the luminaires conform to the requirements set out in Community Directives for electrical materials and that they may be freely marketed throughout the European Union.

Directives applicable to lighting products are:

- the 2014/35/UE low-voltage directive
- the 2014/30/UE electromagnetic compatibility directive
- the Ecodesign directive 2009/125/EC
- the RoHS 2011/65/EU directive

The acronym EN refers to the European standards issued by CENELEC (European Committee for Electro-technical Standardisation). These must be adopted by all EU member states by means of national regulatory bodies (in Italy, the CEI).

For luminaires, the reference standards are IEC EN 60598-1 (CEI 34-21) and IEC EN 60598-2-22 (CEI 34-22, luminaires for emergency lighting).

Compliance with these standards ensures that the luminaires are properly manufactured and can be used to build electrical systems that conform to the requirements stipulated by the applicable legislation (for example, Italian Decree Law no. 37 of 22 January 2008).

Protection against electric shock

Standard IEC EN 60598-1 (CEI 34-21).

Luminaires are divided into four classes according to the type of protection provided against electric shock.

| | Main features of the material | Safety precautions voltage | Symbols |
|------------------|---|---------------------------------------|---------|
| Class 0 | No earthing protection device | Environment without earth | |
| Class I | Earthing protection device provided | Connection to protective earth | |
| Class II | Additional insulation but no earthing protection device | No precaution necessary | |
| Class III | Intended for very low safety voltage | Connection to very low safety voltage | |

Electrical engineering and electronics

Electronic wiring

The wiring of the Halogen Free LED luminaires are made with leading brand electronic drivers, which ensure extremely high levels of reliability and efficiency.

The main technical specifications of the typical LED drivers:

- 230Vac, 50-60Hz power supply, with tolerance +/- 10% of line voltage.
- 230Vdc power supply, with tolerance +/- 10%.
- Power factor greater than 0.95 (in general, with exceptions).
- Efficiency > 90%.
- Suitable for centralised emergency lighting pursuant to EN 50172 and EN 60598-2-22.
- ENEC certification.
- Thermal and short-circuit protection against overloads and voltage surges.
- Protection against excess temperatures.
- Suitable for environments with temperatures from -20°C to +30°C.
- Suitable for environments with max RH 85% (driver + LED).
- Protection class I; on request, we can check if it is possible to manufacture the luminaires with protection class II.
- Constant current LED power supply.
- Very low FLICKER value <4%: this value is not consciously perceivable to humans and does not interfere with video filming.

LED driver types:

3F Filippi uses two constant current driver types, depending on the type of luminaire:



- SELV **Safety Extra Low Voltage** output, below 60Vdc.
SELV Driver/LED devices can be used in total safety.
- NON SELV without output voltages greater than 60Vdc, which may represent a hazard if touched.
NON SELV Driver/LED luminaires may only be opened by a qualified electrician with special tools.

Installation notes:

For correct choice of the protective circuit breakers, check the inrush current and instructions provided by the manufacturers of the LED drivers. To assist in this task, when requested 3F Filippi will provide the technical data sheets for the drivers used and specify the quantity for each luminaire. These indications relate to the bill of materials at the time of communication and thus may be subject to changes due to technical developments and/or provisioning and production requirements; data should therefore be checked before proceeding with the order.

For use at low temperatures (down to -30°C) and/or high humidity environments, we recommend use of ICE series luminaires which provide protection against RH of up to 95% for the entire wiring system (driver + LED).

For applications in environments in which disturbances on the power network may be present and/or involve use at low temperatures, surge protection devices should be fitted on the power supply and any causes of undervoltages eliminated.

For further information on use in harsh conditions, for instance with the presence of corrosive chemicals, extreme temperatures, high humidity (e.g. composting systems, cold stores, mushroom beds, greenhouses, swimming pools, saunas, spas etc.), contact our Technical department.

Dimmable electronic wiring

Dimmable electronic drivers allow manually or automatically controlled “dynamic light systems” to be designed, in which the light level can be adapted to the visual task and/or to variation of natural light entering from the outside (see chapter on “Light Management”). In addition to the advantages of electronic wiring, dimmable drivers allow the light level to be adjusted over an extremely wide range, optimising the lighting system for energy savings and visual comfort.

The lamps are dimmed by a control signal carried by wires directly to the ballast from devices such as potentiometers, buttons, light and/or presence sensors, used individually or managed by control units.

Dimmable electronic wiring can be implemented with:

- Drivers with 1-10V interface, with dimming by means of an analogue signal ranging from 1V DC (minimum light) to 10V (maximum light).
- Drivers with DALI interface, with digital dimming according to the new standard Digital Addressable Lighting Interface protocol.

Dimmable electronic wiring, particularly DALI type, also allows creation of appropriate lighting systems for applications in plants managed by intelligent (Bus) systems.

For further information on use in harsh conditions, for instance with the presence of corrosive chemicals, extreme temperatures, high humidity (e.g. composting systems, cold stores, mushroom beds, greenhouses, swimming pools, saunas, spas etc.), contact our Technical department.

General information for luminaires with DALI drivers

Devices with DALI drivers can be used in systems without a control system (centralized and/or stand-alone) with provided that a "bridge" is made on the DA-DA terminals of the luminaire.


3F Filippi however recommends connecting DALI devices to control systems (centralized/stand-alone/DALI repeater).

3F Filippi shall therefore bear no responsibility for any "malfunctions" of DALI luminaires installed in systems without a regulation system, or with a poorly programmed one.

Assessing compatibility between regulation systems and drivers, as well as finding the technical data required for lighting design, are the sole responsibility of the designer of the electrical system.

To assist in this task, when requested 3F Filippi will provide the technical data sheets for the drivers used and specify the quantity for each luminaire. These indications relate to the bill of materials at the time of communication and thus may be subject to changes due to technical developments and/or provisioning and production requirements; data should therefore be checked before proceeding with the order.

Luminaires powered by a centralised safety source.

Luminaires equipped with EN 50171 and/or EN60598-2-22 compliant, and/or  marked drivers can be powered by a centralised emergency system not contained within the luminaire (e.g. auxiliary power units).

Centralised 230Vdc power supply

Normally, when the centralized source is in direct voltage 230Vdc (nominal), the following occurs in an emergency:

- Luminaires equipped with DALI drivers will reduce their power and thus their output flux by 15%.
- Luminaires equipped with NON-DIMMABLE drivers will maintain their power and thus their output flux at maximum level.
- For the 3F LEM range of luminaires, contact our sales or technical department.

Centralised 230Vac power supply

When the centralised source is 230Vac alternating current, the following operation will occur in emergency mode:

- Luminaires equipped with DALI drivers will increase (when the DALI system is offline), by default, their power and thus their output flux to the maximum level (100%).
- Luminaires equipped with NON-DIMMABLE drivers will maintain their power and thus their output flux at maximum level.

Assessing compatibility between the centralised source and the drivers, as well as that the communication times between the normal power supply and the emergency one and the duration, are the sole responsibility of the designer of the electrical system.

To check the conformity of the drivers with the EN 60598-2-22 standard and the AC/DC functions, consult the technical data sheets downloadable from website.

Mechanics and Design

From the design to the finished product

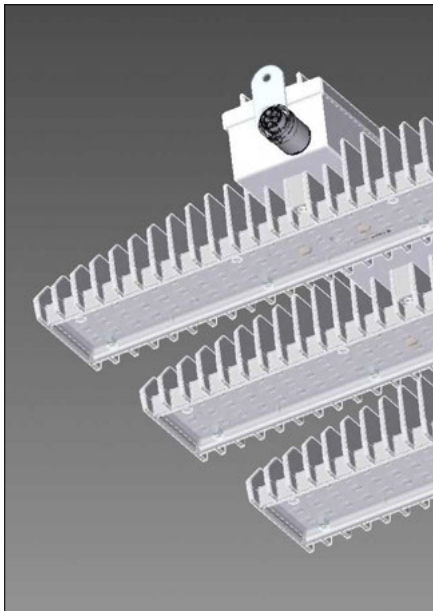
For 3F Filippi, attention to detail, the quality of the light and the reliability of our products are the starting point on the path we travel alongside our customers. Efficiency is the culmination of our journey – we create a light that can show and give emotion, while hiding its technical soul, able to highlight what it illuminates.

The right product starts first with a discussion, to gain an understanding of the customer's needs and expectations.



Our products are made with a craftsman's passion and constant innovation, research and attention to design and details: they combine aesthetics and functionality, elements of precision and new technologies, maintenance and reliability facilities, and are excellent value for money.

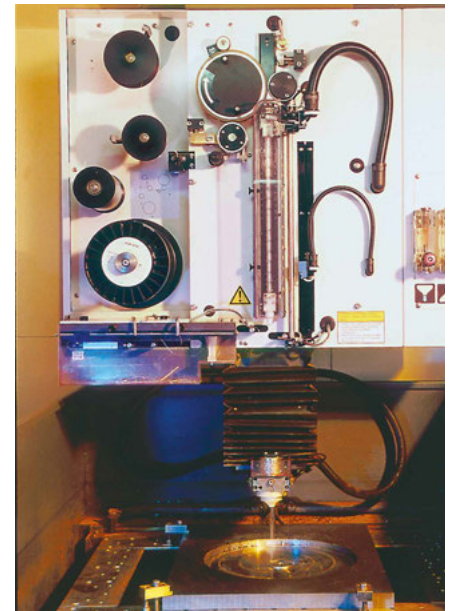
3F Filippi's entire production is performed inside the headquarters in Pian di Macina (province of Bologna, Italy), from moulding of plastics and metals to machining and soldering and painting, all totally automated. The thoroughness and precision of the checks throughout every phase of the company's processes guarantee constant quality of all our products over time.



3D modelling



Mould



EDM tool

Our care for the environment goes hand-in-hand with our 0-mile production, whereby all our products are assembled in the same Bologna plant where they are produced.

Ball throw resistance certification (DIN 18032-3)

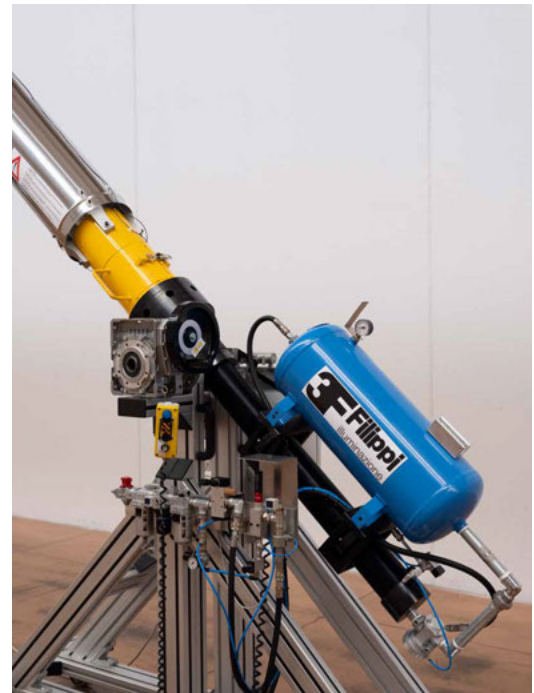
This certification ensures the suitability of the device in gyms, environments with gymnastic and sports activities.

The 3F LEM SPORT devices in the catalog are certified "Resistant to throwing the ball according to DIN 18032-3" CSI certification (IMQ group).

3F Filippi for the luminaires deriving from the standards issues an appropriate declaration of conformity and suitability following scrupulous tests laboratory.

The tests are performed in the 3F Filippi laboratories using a handball ball-gun.

The speed and launch angle of the gun is adjustable to meet the requirements of DIN 18032-3



Test for ceiling luminaires

The device is hit 36 times by a handball (almost half a kilo) at a speed of 16.5 ± 0.8 m/s (~ 60 km/h). 12 times the ball must be thrown perpendicularly against the device and 12 times from two different directions (transversal and longitudinal) at an angle of 60° .

Test for wall luminaires

The device is hit 54 times by a handball (almost half a kilo) at a speed of 23.5 ± 1.2 m/s (~ 85 km/h). For 30 times the ball must be thrown at 90° perpendicularly against the device and for 12 times from two different directions (transverse and longitudinal) at an angle of 45° .

At the end of the tests, the luminaire must not show any alterations that limit its solidity, operation and safety.

Mechanics

Marks and standards



Luminaires with electronic wiring bearing this mark are

versions with **limited surface temperature**

(EN 60598-2-24 and IEC 34-38), and therefore suitable for installation in environments with greater risk in case of fire as per variant V3 of IEC 64-8.



Luminaires not suitable for direct installation on normally flammable surfaces (suitable only for installation on non-flammable surfaces).

Note: the symbol is present in edition 9 of IEC EN 60598-1. Unless otherwise indicated by the above symbol, luminaires are suitable for installation on normally flammable surfaces. A surface is considered normally flammable if its ignition temperature is at least 200°C and if it does not deform or soften at such a temperature.



Flame and ignition resistance

650°C, 850°C, 960°C. The materials in luminaires bearing this mark have passed the glow-wire test at these temperatures in compliance with EN 60598-1 (IEC 34-21).

Temperature class

Standard 50014 defines the temperature classes as the maximum temperature of the external surface of the housing of the luminaire in the case of abnormal operation (EN 60598-1 Appendix C): T1 max 450°C, T2 max 300°C, T3 max 200°C, T4 max 135°C, T5 max 100°C, T6 max 85°C.



Mechanical strength

Luminaires must have adequate mechanical strength and be built to sustain stress deriving from any unprotected treatment during normal use. Luminaires with a closing diffuser must pass a test with impact energy of 6.5J; impact is produced by letting a 50 mm diameter, 0.51 kg steel ball fall from a height of 1.3 metres, in compliance with IEC EN 60598-1 (CEI 34-21). The IK Code designates the level of protection of electrical equipment housings against mechanical impact (EN 62262 and IEC 70-4).



Ingress protection of housing (IP rating)

As per EN 60598-1 (IEC 34-21).

1st number: protection against penetration by solid objects and against contact with live parts.

| | |
|---|--|
| 0 | No special protection. |
| 1 | Protected against solid objects larger than 50 mm. E.g. hands. |
| 2 | Protected against solid objects larger than 12 mm. E.g. fingers. |
| 3 | Protected against solid objects larger than 2.5 mm. E.g. tools. |
| 4 | Protected against solid objects larger than 1 mm. E.g. threads or tapes. |
| 5 | Protected against dust penetration that could damage the luminaire. |
| 6 | Fully protected against dust. |

2nd number: protection against penetration by liquids.

| | |
|---|--|
| 0 | No special protection. |
| 1 | Protected against vertical water drips. |
| 2 | Protected against vertical water drips when tilted up to 15°. |
| 3 | Protected against rain when tilted up to 60°. |
| 4 | Protected against splashes of water from any direction. |
| 5 | Protected against jets of water coming from any direction. |
| 6 | Totally protected against sea waves or powerful jets of water. |

Protection of housing from impacts (IK rating)

Requirements as per IEC 34-139.

Luminaires - application of code IEC 62262 IK

| | | |
|-------|---|------|
| 0.2 J | Resistance to a blow from an object weighing 200 g dropped from a height of 10 cm. | IK02 |
| 0.5 J | Resistance to a blow from an object weighing 250 g dropped from a height of 20 cm. | IK04 |
| 2 J | Resistance to a blow from an object weighing 500 g dropped from a height of 40 cm. | IK07 |
| 5 J | Resistance to a blow from an object weighing 1.7 kg dropped from a height of 30 cm. | IK08 |
| 10 J | Resistance to a blow from an object weighing 5 kg dropped from a height of 20 cm. | IK09 |
| 20 J | Resistance to a blow from an object weighing 5 kg dropped from a height of 40 cm. | IK10 |

Coating and standard colours

Polyester-based paint, **white** or **grey Ral 9006**, UV stabilised, on hot galvanised steel sheet. Salt spray resistance over 500hrs and damp resistance equal to 700hrs.

Epoxy-polyester powder-coated in **white Ral 9010**, or **grey Ral 9006**, UV stabilised, applied with triboelectric system for constant and uniform thickness, oven polymerised at 180°C, with phosphate degreasing pretreatment using heavy iron salts. Salt spray resistance of 500h.

Resistance to corrosive substances

| Chemical substance | Methacrylate | Polycarbonate | Glass | Aluminium | Steel | Stainless steel |
|-----------------------------|--------------|---------------|-------|-----------|-------|-----------------|
| Acetone | – | – | • | • | • | • |
| Acetic acid up to 10% | – | Δ | • | – | Δ | • |
| Arsenic acid up to 20% | • | • | Δ | – | Δ | – |
| Citric acid up to 10% | • | • | • | Δ | Δ | Δ |
| Hydrochloric acid up to 20% | • | • | Δ | – | – | – |
| Chromic acid | Δ | Δ | Δ | Δ | Δ | Δ |
| Formic acid up to 30% | Δ | – | – | – | Δ | Δ |
| Nitric acid up to 20% | Δ | Δ | Δ | – | – | Δ |
| Sulphuric acid up to 30% | • | • | Δ | – | – | – |
| Seawater | • | • | Δ | Δ | Δ | Δ |
| Ethyl alcohol | – | • | • | • | Δ | Δ |
| Isopropyl alcohol | Δ | – | • | Δ | Δ | Δ |
| Ammonia | • | – | Δ | • | Δ | • |
| Aniline | – | – | • | • | • | • |
| Petrol | • | Δ | • | • | • | • |
| Benzole | – | – | • | Δ | Δ | Δ |
| Bromine | – | Δ | • | Δ | – | – |
| White lime | • | Δ | – | – | • | • |
| Diesel oils | • | Δ | – | • | • | • |
| Sea climate | • | • | Δ | Δ | Δ | Δ |
| Liquid chlorine (fumes) | – | – | – | • | – | – |
| Chloroform | – | – | • | • | • | Δ |
| Calcium chloride | • | • | • | • | Δ | Δ |
| Ferric chloride | • | Δ | – | Δ | Δ | – |
| Hexane | • | Δ | • | • | Δ | Δ |
| Ether | – | – | – | • | • | • |
| Petroleum ether | • | Δ | – | • | • | • |
| Ethyl ether | • | – | • | • | • | • |
| Phenols | – | – | • | Δ | • | • |
| Glycerine | • | Δ | • | • | • | • |
| Hydrocarbons | – | – | • | • | • | • |
| Methanol | – | – | • | Δ | • | • |
| Silicone oils | Δ | • | • | • | • | • |
| Food oils and fats | • | Δ | • | • | • | • |
| Mineral oils | • | – | • | • | • | • |
| Vegetable oils | Δ | • | • | • | • | • |
| Diesel oil - naphtha | – | – | • | • | • | • |
| Ozone | • | – | • | • | Δ | • |
| Potassium permanganate | • | • | • | Δ | • | • |
| PVC with plasticizers | – | – | • | • | • | • |
| Soda | • | • | – | – | – | Δ |
| Caustic soda | • | – | – | – | – | • |
| Zinc sulphate | • | • | – | • | Δ | Δ |
| Aluminium sulphate | • | • | • | • | Δ | Δ |
| Copper sulphate | • | • | • | • | Δ | Δ |
| Carbon tetrachloride | – | – | • | • | • | • |
| Toluene | – | Δ | – | • | • | • |
| Trichloroethylene | – | – | – | • | Δ | Δ |

The table only provides a rough indication of the maximum amount of various chemical agents in different compositions.

When using these data, bear in mind that they are the results of laboratory tests and are therefore only valid under the same conditions in which the tests were performed; the data should therefore be considered indicative, and it is advisable to perform tests in their actual usage conditions if practical experience is not available.

It is not possible to talk about "compatibility" in general terms, since this depends on:

- Concentration.
- Temperature.
- Contact type.
- Contact duration.
- Mechanical action during contact.
- Simultaneous presence of multiple chemical compounds.
- The function of the potentially attacked material, mechanical stress to which it is exposed and numerous other factors, which are highly variable, making the indications given in this table truthful but general, and therefore not exhaustive.

Some versions of 3F luminaires are also proposed with laminated glass which, in addition to being resistant to the substances listed above, allows for these to be used in environments with food products or with machines with moving parts, with sudden temperature changes and, in general, in all environments requiring total protection against falling fragments.

- = resistant
- Δ = relatively resistant, suitability to be evaluated on basis of application
- = not resistant

Get the best from 3F Filippi

How to use our products correctly



3F Filippi take the utmost care when designing and manufacturing our luminaires so that they stand the test of time. Below are some important indications on how to use our products correctly: following these will allow you to enjoy our products for as long as possible.

- 3F Filippi can only guarantee products exclusively when they are installed according to the installation instructions provided with the luminaires. We therefore recommend you do not install our products in any other way than those indicated. In the event that you have differing requirements, please contact our Sales Network or the 3F Filippi Headquarters to request a technical assessment.
- As with installation, maintenance of 3F Filippi products must also be performed according to the instructions: we therefore recommend keeping these safe so that you can consult them before performing any kind of work on the luminaire.
- 3F Filippi products must only be installed on supports which are not subject to vibrations and mechanical stress – this is critical for their correct operation. In the event that it is not possible to avoid this kind of installation, you are invited to contact our Sales Network or the 3F Filippi Headquarters to request a technical assessment.
- Turning on a luminaire leads to an environmental "load" which is often not justified. Despite 3F Filippi's commitment to offering our customers the best energy-saving systems, using lighting only when strictly necessary is still the best way to save money and respect the environment.
- Correct and sensible lighting design can help save more money than you might think: 3F Filippi recommends that lighting projects are carried out by professional, reliable designers who can recommend the best solutions both for you and the environment. Lighting should only be used when necessary.
- 3F Filippi strongly believe in reusing raw materials, and for this reason we are constantly optimising our products to make them more environmentally-friendly. For example, we use a high percentage of recycled board in our packaging, and our luminaires are all produced in a single plant powered by solar panels: these simple measures allow us to limit transport and optimise resources. 3F Filippi invites users to do the same by recycling packaging after installation and correctly disposing of luminaires at the end of their life-cycle.

Analytical guide



April 2020

General conditions of sale

The acceptance of orders is always subject to the following conditions:

- The delivery terms are not binding and due to force majeure, they can be changed at any time without recognizing any damage or requests for penalties.
- Goods are delivered ex-works.
- Samples are always supplied carriage forward and invoiced.
- Goods travel at the customer's risk with any means of shipment, both carriage forward and carriage paid.
- The purchaser may not demand the partial or total cancellation of orders nor indemnification for delays and reductions of supply caused by force majeure.
- Payments will be valid if made directly to our headquarters.
- VAT is payable by the customer.
- The Court in whose district the seller has its headquarters will have exclusive jurisdiction in the event of any and all disputes.

Articles on request

Articles marked **On Request** are not normally in our warehouse. Where not specified, delivery dates and prices are to be arranged from time to time based on quantity, production availability, and material procurement times.

Because we are constantly improving our products, the luminaires supplied may differ in details, dimensions, equipment, and accessories from the dimensions and illustrations shown in this catalogue. Therefore, quantities, volumes, and indicated weights are not binding.

Sale through electrical distributors

Analytical guide

| Code | Item | Pack | | | Page |
|-------|--|------|----------------|--------------------|--------------------|
| | | Pcs | m ³ | Gross weight in kg | |
| A0006 | Fil 180 CP620 Structure | 1 | | 2.000 | 186 |
| A0008 | Fil 180 CP1240 Structure | 1 | | 3.820 | 186 |
| A0009 | Fil 180 CP1550 Structure | 1 | | 4.650 | 186 |
| A0016 | 32 IF (PVC closing top Fil 180-620) | 1 | | 0.230 | 188 |
| A0018 | 32 MH (PVC closing top Fil 180-1240) | 1 | | 0.430 | 188 |
| A0019 | 32 HA (PVC closing top Fil 180-1550) | 1 | | 0.530 | 188 |
| A0021 | Fil 180 AB620 (steel closing top) | 1 | | 0.250 | 188 |
| A0023 | Fil 180 AB1240 (steel closing top) | 1 | | 0.860 | 188 |
| A0024 | Fil 180 AB1550 (steel closing top) | 1 | | 1.030 | 188 |
| A0030 | Fil 180 CC (continuous channel kit) | 1 | | 0.044 | 186 |
| A0033 | Fil 180 DT (element for branch) | 1 | | 0.113 | 186 |
| A0034 | Pair of white cylinders | 1 | | 0.057 | 186 |
| A0035 | Aluminium tube 1.5 m white | 1 | | 0.500 | 186 |
| A0036 | Fil 180 BL (box for branch) | 1 | | 2.350 | 186 |
| A0038 | White articulated connecting element | 1 | | 0.150 | 186 |
| A0039 | Pair of white end caps Fil 180 | 1 | | 0.150 | 187 |
| A0042 | Fil 180 SS (sliding bracket) | 1 | | 0.150 | 187 |
| A0045 | Adjustable suspension for channel 1m | 1 | | 0.290 | 187 |
| A0046 | Adjustable suspension for channel 1.5m | 1 | | 0.300 | 187 |
| A0047 | Adjustable suspension for channel 2m | 1 | | 0.340 | 187 |
| A0052 | Fil 15 FP (wall-mounting bracket Fil 180) | 1 | | 0.340 | 188 |
| A0053 | Fil 19 BF (cable clip) | 1 | | 0.110 | 188 |
| A0066 | Strength. Brack.+Connect. Kit - Fil 180 | 1 | | 0.500 | 186 |
| A0090 | Bracket/5-pole terminal block | 1 | | 0.100 | 169 |
| A0114 | Rose 110 (Adjust. susp.1m wired with 5-pole cable) | 1 | | 0.490 | 187 |
| A0124 | Rose 110 (Adjust. susp.1m unwired) | 1 | | 0.170 | 187 |
| A0125 | Rose 110 (Adjust. susp.1m wired with 4-pole cable) | 1 | | 0.480 | 187 |
| A0160 | Inox clips 3F Linda L660-4pcs | 1 | | 0.050 | 439 |
| A0161 | Inox clips 3F Linda L1270-8pcs | 1 | | 0.100 | 439 |
| A0162 | Inox clips 3F Linda L1570-10pcs | 1 | | 0.150 | 439 |
| A0170 | 15BS - L320-L400-L560 | 1 | | 0.123 | 267, 282 |
| A0173 | 15HI - L320-L350-L450 | 1 | | 0.120 | 266, 272 |
| A0174 | 15DP - L560 | 1 | | 0.125 | 282 |
| A0175 | 15GF - L560 | 1 | | 0.125 | 282 |
| A0176 | 15XB - L560 | 1 | | 0.120 | 282 |
| A0177 | 15ZH - L320-L350-L560 | 1 | | 0.125 | 267, 272, 282 |
| A0179 | 15LB - L320-350 pann.met. | 1 | | 0.090 | 267, 272 |
| A0187 | Anti-condensation cable gland | 1 | | 0.020 | 290, 440, 462, 473 |
| A0189 | Reinforcing bracket Lucequadro for pan./plast. | 1 | | 0.480 | 298 |
| A0202 | False ceiling bracket - for luminaire D.220 | 1 | | 0.800 | 306 |
| A0204 | Grid bracket h40mm - for luminaire D.220 | 1 | | 0.750 | 306 |
| A0210 | Wireguard 3F Cub | 1 | | 5.500 | 487 |
| A0213 | Ceiling-mounted bracket | 1 | | 0.820 | 487 |
| A0214 | Metal pan. reinforcing bracket D.220 | 1 | | 1.200 | 306 |
| A0242 | 100m galvanized steel cable coil | 1 | | 1.720 | 415 |
| A0243 | 500m galvanized steel cable coil | 1 | | 8.900 | 415 |
| A0324 | Couple fixed brackets for ceiling - Beta 235 | 1 | | 0.100 | 462 |
| A0325 | Mounting kit on busbar - Beta 235 | 1 | | 0.150 | 463 |
| A0439 | Pole mounting diameter 60mm | 1 | | 1.250 | 502 |
| A0440 | Pole mounting diameter 76mm | 1 | | 1.250 | 502 |
| A0445 | Safety wire H55 | 1 | | 0.050 | 266 |
| A0447 | 3F Linda though line L1570 | 1 | | 0.200 | 439 |
| A0449 | 15 GZI (w/brack. Linda L300) | 1 | | 0.150 | 439 |
| A0450 | 15 RIT (w/brack.+ hooks Linda L660-1270-1570) | 1 | | 0.125 | 439 |
| A0451 | 15 MBI (w/brack. Linda L300) | 1 | | 0.250 | 439 |
| A0452 | 15 FBR (w/brack.+ hooks Linda L660-1270-1570) | 1 | | 0.250 | 439 |
| A0455 | Wire guard 180x1330 03F/Linda | 1 | | 3.500 | 439 |
| A0456 | Wire guard 180x1330 03F/Linda | 1 | | 4.000 | 439 |
| A0457 | Wire guard 280x1330 03F/Linda/Beta | 1 | | 4.000 | 439, 462, 473 |
| A0458 | Wire guard 280x1630 03F/Linda/Beta | 1 | | 4.500 | 439, 462, 473 |

| Code | Item | Pack | | Page |
|-------|--|------|-----------------------------------|-----------------------------------|
| | | Pcs | m ³ Gross weight in kg | |
| A0462 | 13 GSI (pair of susp. hooks Linda L300) | 1 | 0.060 | 439 |
| A0463 | 13 TRM (pair of susp. hooks Linda L660-1270-1570) | 1 | 0.070 | 439 |
| A0464 | 26 CSG (pictogram P1 Linda L300) | 1 | 0.025 | 440 |
| A0465 | 26 MTH (pictogram P1 Linda L660) | 1 | 0.025 | 440 |
| A0466 | 26 DVI (pictogram P2 Linda L300) | 1 | 0.025 | 440 |
| A0467 | 26 MVL (pictogram P2 Linda L660) | 1 | 0.025 | 440 |
| A0468 | 26 GZM (pictogram P3 Linda L300) | 1 | 0.025 | 440 |
| A0469 | 26 PXN (pictogram P3 Linda L660) | 1 | 0.025 | 440 |
| A0471 | Security screws - Beta 235 | 1 | 0.080 | 462 |
| A0477 | Safety wire | 1 | 0.050 | 250, 266, 272 |
| A0483 | Sliding bracket Barraluce L | 1 | 0.040 | 295 |
| A0490 | Connection to the earth | 1 | 0.003 | 356 |
| A0500 | 13 DH (pair of susp. galvanised steel hooks i3F) | 1 | 0.110 | 473 |
| A0501 | 13 HC (pair of susp. stainless steel hooks A3F) | 1 | 0.110 | 473 |
| A0503 | 15 CD (pair of bracket and hooks A3F) | 1 | 0.290 | 473 |
| A0508 | 20 TKA (casc. conn. line i3F/A3F 1265) | 1 | 0.200 | 473 |
| A0509 | 20 ZFE (casc. conn. line i3F/A3F 1565) | 1 | 0.200 | 473 |
| A0521 | Reducing sealing ring – diam.8mm | 1 | 0.025 | 290, 415, 440, 462, 473, 480, 487 |
| A0528 | Wireguard Beta 430 L1251 | 1 | 6.500 | 480 |
| A0529 | Wireguard Beta 430 L1551 | 1 | 8.000 | 480 |
| A0620 | Spool with stainless steel cable diam. 1,25mm 100 m | 1 | 0.800 | 181, 187 |
| A0622 | Clamp 1 hole - 100 pcs | 1 | 0.350 | 181, 187 |
| A0632 | Couple of brackets for ceiling installation - 3F LEM | 1 | 0.350 | 414 |
| A0651 | 3F LEM bracket rotation support | 1 | 0.350 | 414 |
| A0652 | Couple of brackets for ceiling installation - 3F LEM | 1 | 0.100 | 414 |
| A0653 | Couple of fixing carabiniers for chain installation | 1 | 0.150 | 415, 462, 473 |
| A0654 | Pair of wall brackets - 3F LEM | 1 | 3.200 | 414 |
| A0659 | Adjustable clamp 2 holes - 10 pcs | 1 | 0.100 | 158, 279, 353 |
| A0660 | Suspension with adjustment - 1m | 1 | 0.120 | 157 |
| A0661 | Suspension with adjustment - 2 m | 1 | 0.125 | 157 |
| A0662 | Suspension with adjustment - 3 m | 1 | 0.130 | 157 |
| A0663 | Suspension with adjustment - 4 m | 1 | 0.135 | 157 |
| A0664 | Suspension with adjustment - 5 m | 1 | 0.140 | 157 |
| A0665 | Suspension with adjustment - 6 m | 1 | 0.145 | 157 |
| A0679 | 5-pole rectangular rose (no cable) | 1 | 0.140 | 76, 158, 181, 203 |
| A0686 | 596x596 Diagon frame for Ceiling installation | 1 | 3.000 | 250 |
| A0693 | Suspension with adjustment for Barraluce P - 1m | 1 | 0.130 | 203 |
| A0694 | Suspension with adjustment for Barraluce P - 2 m | 1 | 0.135 | 203 |
| A0695 | Suspension with adjustment for Barraluce P - 3 m | 1 | 0.140 | 203 |
| A0696 | Suspension with adjustment for Barraluce P - 4 m | 1 | 0.145 | 203 |
| A0697 | Suspension with adjustment for Barraluce P - 5 m | 1 | 0.150 | 203 |
| A0698 | Suspension with adjustment for Barraluce P - 6 m | 1 | 0.160 | 203 |
| A0702 | Suction cup for Diagon maintenance | 1 | 0.100 | 250 |
| A0714 | Clamp 2 holes - 100 pcs | 1 | 0.400 | 76, 157, 279, 353, 415 |
| A0716 | Coil galvanized cable diam. 1.5mm - 100m | 1 | 1.000 | 76, 157, 279, 353 |
| A0717 | Coil galvanized cable diam. 1.5mm - 500m | 1 | 7.200 | 76, 157, 279, 353 |
| A0718 | Coil galvanized cable diam. 1.5mm - 1000m | 1 | 12.200 | 76, 157, 279, 353 |
| A0720 | Wieland (white plug) | 1 | 0.100 | 266, 272 |
| A0721 | Wago (white plug) | 1 | 0.100 | 266, 272 |
| A0722 | Ensto (white plug+ adapter) | 1 | 0.100 | 266, 272 |
| A0725 | Wieland (black plug) | 1 | 0.100 | 266, 272 |
| A0726 | Wago (black plug) | 1 | 0.100 | 266, 272 |
| A0727 | Ensto (black plug+ adapter) | 1 | 0.100 | 266, 272 |
| A0728 | Cover for food applications - for 3F LEM 1 | 1 | 0.900 | 414 |
| A0733 | Cover for food applications - for 3F LEM 2-3-4-5 (one for each module) | 1 | 0.900 | 414 |
| A0762 | Adjustable suspension for channel 3m | 1 | 0.400 | 187 |
| A0766 | Adjustable suspension for channel 4m | 1 | 0.520 | 187 |
| A0770 | Adjustable suspension for channel 6m | 1 | 0.610 | 187 |
| A0776 | Horizontal rotation bracket 90° 3F LEM 1-2 | 1 | 1.000 | 414 |
| A0777 | Horizontal rotating bracket 90° 3F LEM 3 - 3F LEM 2 Sensor | 1 | 1.600 | 414 |

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| | | Pcs | m ³ | Gross weight in kg | |
| A0778 | Horizontal Rotating Bracket 90° 3F LEM 4 | 1 | | 2.000 | 414 |
| A0798 | 621x621 frame + brackets | 1 | | 1.600 | 266, 272 |
| A0800 | Cable locker - 10 pcs | 1 | | 0.050 | 267 |
| A0801 | Electric extension with 3F Linux plug DALI-EP | 1 | | 0.180 | 357 |
| A0802 | Electric extension with 3F Linux plug | 1 | | 0.150 | 357 |
| A0804 | SF 3F Reno 150 | 1 | | 0.850 | 226 |
| A0805 | SF 3F Reno 200 | 1 | | 0.850 | 226 |
| A0806 | SM 3F Reno 150 | 1 | | 1.350 | 226 |
| A0807 | SM 3F Reno 200 | 1 | | 1.350 | 226 |
| A0811 | Transparent glass with gasket (10pcs) | 1 | | 5.000 | 415 |
| A0812 | Printed glass with gasket (10pcs) | 1 | | 5.000 | 415 |
| A0828 | Trittico fixing 60x60 metal panels | 1 | | 1.400 | 112 |
| A0829 | Trittico Fixing Mineral fiber panels 60x60 | 1 | | 1.900 | 112 |
| A0830 | Fixing Trittico plasterboard WH | 1 | | 0.800 | 112 |
| A0831 | Fixing Trittico plasterboard BK | 1 | | 0.800 | 112 |
| A0835 | Couple brackets and hooks for wall - Beta 235 | 1 | | 0.290 | 462 |
| A0836 | Pair of galvanized hooks for suspension - Beta 235 | 1 | | 0.110 | 463 |
| A0837 | Pair of stainless steel hooks for suspension - Beta 235 | 1 | | 0.110 | 463 |
| A0838 | Pair of S-hooks for chain - Beta 235 | 1 | | 0.100 | 463 |
| A0870 | White connecting element with boss for luminaires | 1 | | 0.350 | 180 |
| A0872 | White connecting element to wall with boss for luminaires | 1 | | 0.340 | 180 |
| A0875 | Connecting bracket for linear channels or branches | 1 | | 0.090 | 180 |
| A0877 | Bracket for T-branch for 3F Travetta | 1 | | 0.110 | 180 |
| A0878 | Bracket for X-branch for 3F Travetta | 1 | | 0.110 | 180 |
| A0892 | White connecting element 190x190 3F Travetta GR | 1 | | 0.930 | 180 |
| A0894 | White connecting element 190x210 3F Travetta GR | 1 | | 0.800 | 180 |
| A0895 | White connecting element 190x510 3F Travetta GR | 1 | | 1.900 | 180 |
| A0896 | White connecting element 190x810 3F Travetta GR | 1 | | 3.080 | 180 |
| A0897 | White connecting element 190x1110 3F Travetta GR | 1 | | 4.200 | 180 |
| A0941 | White connecting element lum/wall 810 3F Travetta | 1 | | 2.850 | 180 |
| A0942 | White connecting element lum/wall 1110 3F Travetta | 1 | | 3.950 | 180 |
| A0951 | White branches elem. 190x310 3F Travetta | 1 | | 1.100 | 180 |
| A0952 | White branches elem. 190x460 3F Travetta | 1 | | 1.650 | 180 |
| A3007 | DALI PCU push button interface | 1 | | 0.040 | 512 |
| A3008 | Repeater DALI ext | 1 | | 0.100 | 512 |
| A3009 | Repeater DALI DIN | 1 | | 0.200 | 512 |
| A3010 | Box for Repeater DALI | 1 | | 0.130 | 512 |
| A3011 | Sensor A DALI | 1 | | 0.250 | 526 |
| A3012 | Sensor A DALI ext | 1 | | 0.250 | 526 |
| A3013 | Sensor A on/off | 1 | | 0.250 | 526 |
| A3014 | Sensor A on/off-ext | 1 | | 0.250 | 526 |
| A3015 | Sensor B Dual-DALI | 1 | | 0.280 | 527 |
| A3016 | Sensor B DALI ext | 1 | | 0.280 | 528 |
| A3017 | Sensor B DALI | 1 | | 0.280 | 527 |
| A3018 | Sensor B on/off | 1 | | 0.280 | 527 |
| A3019 | Sensor B on/off-ext | 1 | | 0.280 | 528 |
| A3020 | Programmer IR DALI | 1 | | 0.080 | 416, 529 |
| A3021 | Remote controller IR DALI | 1 | | 0.100 | 415, 530 |
| A3022 | IR-Adapter for Smartphone | 1 | | 0.080 | 416, 530, 536 |
| A3023 | IR on/off programmer | 1 | | 0.100 | 530 |
| A3024 | IP54 fixing | 1 | | 0.200 | 530 |
| A3025 | A SLAVE - Sensor | 1 | | 0.300 | 526 |
| A3026 | A SLAVE-ext - Sensor | 1 | | 0.300 | 527 |
| A3027 | B SLAVE - Sensor | 1 | | 0.350 | 527 |
| A3028 | B SLAVE-ext - Sensor | 1 | | 0.350 | 528 |
| A3029 | Corridor on/off - Sensor | 1 | | 0.300 | 528 |
| A3030 | Corridor on/off-ext - Sensor | 1 | | 0.350 | 529 |
| A3031 | Corridor DALI - Sensor | 1 | | 0.300 | 528 |
| A3032 | Corridor DALI-ext - Sensor | 1 | | 0.350 | 529 |
| A3033 | Corridor SLAVE - Sensor | 1 | | 0.300 | 529 |

| Code | Item | Pack | | Page |
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| | | Pcs | m ³ Gross weight in kg | |
| A3034 | Corridor SLAVE-ext - Sensor | 1 | 0.350 | 529 |
| A3035 | Sensore HCL DT8 | 1 | 0.450 | 536 |
| A3036 | Sensore HCL DT8-ext | 1 | 0.490 | 536 |
| A3052 | Gateway RF BLE | 1 | 0.250 | 546 |
| A3055 | RFxNODE IP54 module | 1 | 0.250 | 546 |
| A3056 | RFxSENSOR IP54 Sensor | 1 | 0.250 | 546 |
| A3057 | DALI-SENSE-HB IP54 Sensor | 1 | 0.250 | 546 |
| A3058 | RFxDRIVER IP20 module | 1 | 0.030 | 546 |
| A3059 | IP66 box for wireless module | 1 | 0.150 | 547 |
| A3060 | DALI-SENSE-BMS sensor | 1 | 0.060 | 547 |
| A3062 | ZQxSERVER Server | 1 | 0.250 | 547 |
| A3063 | RFxETH Gateway | 1 | 0.250 | 547 |
| A3090 | BLE DALI Radio Module | 1 | 0.250 | 539 |
| A3091 | Radio BLE plate keys | 1 | 0.030 | 539 |
| A3095 | EXTENDER IP20 | 1 | 0.130 | 539 |
| A3096 | IP67 BLE Radio Module | 1 | 0.150 | 539 |
| A3097 | EXTENDER IP67 | 1 | 0.400 | 539 |
| A3099 | Radio BLE command | 1 | 0.030 | 540 |
| A3100 | Kit Arkè support plate keys for A3099 | 1 | 0.060 | 540 |
| A4144 | Binario 3F - L1000 - BK | 1 | 1.100 | 379 |
| A4145 | Binario 3F - L2000 - BK | 1 | 2.200 | 379 |
| A4146 | Binario 3F - L3000 - BK | 1 | 3.300 | 379 |
| A4147 | Binario 3F - L4000 - BK | 1 | 4.400 | 379 |
| A4151 | Binario 3F - L1000 - WH | 1 | 1.100 | 379 |
| A4152 | Binario 3F - L2000 - WH | 1 | 2.200 | 379 |
| A4153 | Binario 3F - L3000 - WH | 1 | 3.300 | 379 |
| A4154 | Binario 3F - L4000 - WH | 1 | 4.400 | 379 |
| A4158 | Binario 3F - L1000 - GR | 1 | 1.100 | 379 |
| A4159 | Binario 3F - L2000 - GR | 1 | 2.200 | 379 |
| A4160 | Binario 3F - L3000 - GR | 1 | 3.300 | 379 |
| A4161 | Binario 3F - L4000 - GR | 1 | 4.400 | 379 |
| A4166 | Feeding head DX - GR | 1 | 0.100 | 379 |
| A4167 | Central feeding - GR | 1 | 0.200 | 380 |
| A4168 | Flexible connecting element - GR | 1 | 0.210 | 381 |
| A4169 | L-joint - EXT - GR | 1 | 0.200 | 381 |
| A4170 | T-joint - EXT + SX - GR | 1 | 0.290 | 382 |
| A4171 | Cross joint - GR | 1 | 0.390 | 382 |
| A4172 | End cap - GR | 1 | 0.010 | 380 |
| A4173 | PVC closing top - L1000 - GR | 1 | 0.070 | 383 |
| A4174 | Feeding head DX - WH | 1 | 0.100 | 379 |
| A4175 | Central feeding - WH | 1 | 0.200 | 380 |
| A4176 | Flexible connecting element - WH | 1 | 0.210 | 381 |
| A4177 | L-joint - EXT - WH | 1 | 0.200 | 381 |
| A4178 | T-joint - EXT + SX - WH | 1 | 0.290 | 382 |
| A4179 | Cross joint - WH | 1 | 0.390 | 382 |
| A4180 | End cap - WH | 1 | 0.010 | 380 |
| A4181 | PVC closing top - L1000 - WH | 1 | 0.070 | 383 |
| A4182 | Linear connecting element - GR | 1 | 0.050 | 380 |
| A4183 | Steel bracket for ceiling mounting | 1 | 0.020 | 383 |
| A4188 | Linear connecting element - WH | 1 | 0.050 | 380 |
| A4190 | Feeding head SX - GR | 1 | 0.100 | 379 |
| A4191 | L-joint - INT - GR | 1 | 0.200 | 381 |
| A4192 | T-joint - EXT + DX - GR | 1 | 0.290 | 382 |
| A4193 | T-joint - INT + SX - GR | 1 | 0.290 | 382 |
| A4194 | T-joint - INT + DX - GR | 1 | 0.290 | 382 |
| A4196 | feeding head SX - WH | 1 | 0.100 | 379 |
| A4197 | L-joint - INT - WH | 1 | 0.200 | 381 |
| A4198 | T-joint - EXT + DX - WH | 1 | 0.200 | 382 |
| A4199 | T-joint - INT + SX - WH | 1 | 0.290 | 382 |
| A4200 | T-joint - INT + DX - WH | 1 | 0.200 | 382 |

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| | | Pcs | m ³ | Gross weight in kg | |
| A4204 | Adjustable suspension boss + 1.5m bracket | 1 | | 0.080 | 383 |
| A4205 | Adjustable suspension boss + 3m bracket | 1 | | 0.100 | 383 |
| A4206 | Adjustable suspension boss + 5m bracket | 1 | | 0.160 | 383 |
| A4209 | Feeding head DX - BK | 1 | | 0.100 | 379 |
| A4210 | Central feeding - BK | 1 | | 0.200 | 380 |
| A4211 | Flexible connecting element - BK | 1 | | 0.210 | 381 |
| A4212 | L-joint - EXT - BK | 1 | | 0.200 | 381 |
| A4213 | T-joint - EXT + SX - BK | 1 | | 0.290 | 382 |
| A4214 | Cross joint - BK | 1 | | 0.390 | 382 |
| A4215 | End cap - BK | 1 | | 0.010 | 380 |
| A4216 | PVC closing top - L1000 - BK | 1 | | 0.070 | 383 |
| A4217 | Linear connecting element - BK | 1 | | 0.050 | 380 |
| A4218 | Feeding head SX - BK | 1 | | 0.100 | 379 |
| A4219 | L-joint - INT - BK | 1 | | 0.200 | 381 |
| A4220 | T-joint - EXT + DX - BK | 1 | | 0.290 | 382 |
| A4221 | T-joint - INT + SX - BK | 1 | | 0.290 | 382 |
| A4222 | T-joint - INT + DX - BK | 1 | | 0.290 | 382 |
| A5013 | Kit LED i3F75,A3F 90,A3F 92-L1565-2X22W CONC+PC | 1 | 0.039 | 3.000 | 471 |
| A5026 | KIT LED i3F 75, A3F 90-L1565 - 2x30W+PC | 1 | 0.039 | 2.300 | 471 |
| A5027 | Kit LED i3F 75, A3F 90, A3F 92-L1565 - 2X22W+PC | 1 | 0.039 | 2.300 | 471 |
| A5057 | Kit LED i3F 75,A3F 90-92 L1265 2x18W +PC | 1 | 0.039 | 2.600 | 471 |
| A5104 | Kit LED i3F 76, A3F 91, A3F 93-L1565-2X22W CONC | 1 | 0.039 | 2.700 | 472 |
| A5117 | KIT LED i3F 76, A3F 91 - L1565-2x30W | 1 | 0.018 | 2.000 | 472 |
| A5118 | Kit LED i3F 76, A3F 91, A3F 93 - L1565-2X22W | 1 | 0.018 | 2.000 | 472 |
| A5148 | KIT LED i3F 76,A3F 91,A3F 93-L1265-2x18W | 1 | 0.018 | 1.600 | 472 |
| A5184 | Printed glass Beta 2x i3F 76 - L1565 | 1 | | 4.800 | 474 |
| A5185 | Printed glass Beta 2x i3F 76 - L1265 | 1 | | 4.000 | 474 |
| A5210 | Kit LED i3F 76,A3F 91 - L1565 - L 2x40W AMPIO | 1 | 0.018 | 3.200 | 472 |
| A5212 | Kit LED i3F 76,A3F 91 - L1565 - L 2x40W CONC | 1 | 0.018 | 3.200 | 472 |
| A5215 | Kit LED i3F 75,A3F 90 - L1565 - L 2x40W AMPIO + PC | 1 | 0.018 | 4.200 | 471 |
| A5217 | Kit LED i3F 75,A3F 90 - L1565 - L 2x40W CONC + PC | 1 | 0.018 | 4.200 | 471 |
| A5308 | Kit LED Beta 430 - L1551- 2X65W AMPIO | 1 | 0.073 | 8.000 | 479 |
| A5309 | Kit LED Beta 430 - L1551- 2X65W CONC | 1 | 0.073 | 8.000 | 479 |
| A5311 | Kit LED Beta 430 - L1551- 3X65W AMPIO | 1 | 0.073 | 8.000 | 479 |
| A5312 | Kit LED Beta 430 - L1551- 3X65W CONC | 1 | 0.073 | 8.000 | 479 |
| A5322 | Printed glass with Beta 430 frame - L1551 | 1 | | 7.900 | 480 |
| A01023 | VT 3F RENO WH 150 | 1 | | 0.160 | 225 |
| A01024 | VT 3F RENO BK 150 | 1 | | 0.160 | 225 |
| A01025 | VT 3F RENO WH 200 | 1 | | 0.300 | 225 |
| A01026 | VT 3F RENO BK 200 | 1 | | 0.300 | 225 |
| A01035 | VS 3F RENO WH 150 | 1 | | 0.160 | 225 |
| A01036 | VS 3F RENO BK 150 | 1 | | 0.160 | 225 |
| A01037 | VS 3F RENO WH 200 | 1 | | 0.300 | 225 |
| A01038 | VS 3F RENO BK 200 | 1 | | 0.300 | 225 |
| A01046 | SMP 3F RENO WH 150 | 1 | | 0.100 | 225 |
| A01047 | SMP 3F RENO BK 150 | 1 | | 0.100 | 226 |
| A01048 | SMP 3F RENO WH 200 | 1 | | 0.240 | 225 |
| A01049 | SMP 3F RENO BK 200 | 1 | | 0.240 | 226 |
| A01314 | White rectangular case suspension- fixed 0,3m | 1 | | 0.110 | 181 |
| A01315 | White rectangular case suspension- fixed 0,5m | 1 | | 0.120 | 181 |
| A01317 | White rectangular case suspension- fixed 1m | 1 | | 0.140 | 181 |
| A01318 | White rectangular case suspension-adj. 1 m | 1 | | 0.150 | 181 |
| A01321 | Wired susp. 5P white rectangular case-fixed 0,3m | 1 | | 0.390 | 181 |
| A01322 | Wired susp. 5P white rectangular case-fixed 0,5m | 1 | | 0.410 | 181 |
| A01324 | Wired suspension 5P white rectangular case-fixed 1m | 1 | | 0.530 | 181 |
| A01325 | Wired suspension 5P white rectangular case-adj.1 m | 1 | | 0.550 | 181 |
| A01368 | Travetta B joint closing cap | 1 | | 0.400 | 180 |
| A01417 | Pair end caps Barraluce L channel diffuser | 1 | | 0.100 | 295 |
| A01420 | Couple brackets for Barraluce L | 1 | | 0.400 | 295 |
| A01423 | Linear connecting elements Barraluce | 1 | | 0.200 | 203, 295 |

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| | | Pcs | m ³ | Gross weight in kg | |
| A01429 | Sliding bracket for Barraluce P | 1 | | 0.100 | 203 |
| A01434 | Pair of end caps for Barraluce L channels with diffuser | 1 | | 0.100 | 203 |
| A01479 | Wall bracket 15° diam 60mm | | | | 502 |
| A01480 | Fixed position wall bracket | | | | 502 |
| A01481 | Corner wall bracket 15° diam 60mm | | | | 502 |
| A01523 | Grid bracket h50mm - for luminaire D.220 | 1 | | 0.800 | 306 |
| A01528 | Sliding bracket with regulator for suspension installation 3F HD100DI | 1 | | 0.080 | 75 |
| A01530 | Ceiling/recessed sliding bracket 3F HD50 | 1 | | 0.040 | 75 |
| A01531 | Ceiling/recessed sliding bracket 3F HD100 | 1 | | 0.040 | 75 |
| A01532 | Sliding bracket with regulator for suspension installation 3F HD50DI | 1 | | 0.080 | 75 |
| A01536 | Channels diffusers 3F HD50 - FDP - 6m | 1 | | 0.850 | 74 |
| A01537 | Channels diffusers 3F HD50 - FDP - 9m | 1 | | 1.100 | 74 |
| A01538 | Channels diffusers 3F HD50 - FDP - 15m | 1 | | 1.600 | 74 |
| A01540 | Channels diffusers 3F HD50 - FDO - 6m | 1 | | 0.750 | 74 |
| A01541 | Channels diffusers 3F HD50 - FDO - 9m | 1 | | 1.000 | 74 |
| A01542 | Channels diffusers 3F HD50 - FDO - 15m | 1 | | 1.500 | 74 |
| A01544 | Channels diffusers 3F HD100 - FDP - 6m | 1 | | 1.800 | 74 |
| A01545 | Channels diffusers 3F HD100 - FDP - 9m | 1 | | 2.500 | 74 |
| A01546 | Channels diffusers 3F HD100 - FDP - 15m | 1 | | 4.100 | 74 |
| A01548 | Channels diffusers 3F HD100 - FDO - 6m | 1 | | 1.600 | 74 |
| A01549 | Channels diffusers 3F HD100 - FDO - 9m | 1 | | 2.300 | 74 |
| A01550 | Channels diffusers 3F HD100 - FDO - 15m | 1 | | 3.900 | 74 |
| A01552 | Pair of end caps for 3F HD50 WH channel | 1 | | 0.110 | 74 |
| A01553 | Pair of end caps for 3F HD50 BK channel | 1 | | 0.110 | 74 |
| A01554 | Pair of end caps for 3F HD50 AL channel | 1 | | 0.110 | 74 |
| A01555 | Pair of end caps for 3F HD100 WH channel | 1 | | 0.140 | 74 |
| A01556 | Pair of end caps for 3F HD100 BK channel | 1 | | 0.140 | 74 |
| A01557 | Pair of end caps for 3F HD100 AL channel | 1 | | 0.140 | 74 |
| A01558 | Pair of end caps for 3F HD50 WH OC channel | 1 | | 0.110 | 75 |
| A01559 | Pair of end caps for 3F HD50 BK OC channel | 1 | | 0.110 | 75 |
| A01560 | Pair of end caps for 3F HD50 AL OC channel | 1 | | 0.110 | 75 |
| A01561 | Pair of end caps for 3F HD50R WH channel FDP/FDO | 1 | | 0.080 | 75 |
| A01562 | Pair of end caps for 3F HD100R WH channel FDP/FDO | 1 | | 0.120 | 75 |
| A01563 | Dilator joint FD channles>15m - HD50 WH | 1 | | 0.090 | 74 |
| A01564 | Dilator joint FD channles>15m - HD100 WH | 1 | | 0.130 | 74 |
| A01565 | Couple fixed brackets for plasterboard 3F HD50R | 1 | | 0.800 | 75 |
| A01566 | Couple fixed brackets for plasterboard 3F HD100R | 1 | | 0.950 | 75 |
| A01567 | 3F HD - 5P socket/plug terminal block | 1 | | 0.045 | 76 |
| A01568 | Dilator joint FD channles>15m - HD50 BK | 1 | | 0.090 | 74 |
| A01569 | Dilator joint FD channles>15m - HD100 BK | 1 | | 0.130 | 74 |
| A01570 | Dilator joint FD channles>15m - HD50 AL | 1 | | 0.090 | 74 |
| A01571 | Dilator joint FD channles>15m - HD100 AL | 1 | | 0.130 | 74 |
| A01572 | Pair of end caps for 3F HD50R WH channel GSP | 1 | | 0.080 | 75 |
| A01573 | Pair of end caps for 3F HD100R WH channel GSP | 1 | | 0.120 | 75 |
| A01574 | Pair of end caps for 3F HD50R WH channel OCW | 1 | | 0.080 | 75 |
| A02484 | 5P socket/plug terminal block Beginning/End Channel | 1 | | 0.040 | 203, 295 |
| A02562 | Caddy for exposed profiles of 24 mm | 1 | | 0.050 | 157, 353 |
| A20011 | 3F Linux S NL L3556 | 1 | 0.022 | 3.500 | 331 |
| A20012 | 3F Linux S NL L1778 | 1 | 0.011 | 1.700 | 331 |
| A20017 | 3F Linux S 5P L3556 | 1 | 0.022 | 4.000 | 331 |
| A20019 | 3F Linux S 5P L1778 | 1 | 0.011 | 2.000 | 331 |
| A20024 | 3F Linux S 7P L3556 | 1 | 0.022 | 4.200 | 331 |
| A20026 | 3F Linux S 7P L1778 | 1 | 0.011 | 2.200 | 331 |
| A20083 | 3F Linux L 60 LED BAT L1778 | 1 | 0.009 | 2.650 | 338 |
| A20084 | 3F Linux L 50 LED BAT L1778 | 1 | 0.009 | 2.650 | 338 |
| A20085 | 3F Linux L 40 LED BAT L1778 | 1 | 0.009 | 2.650 | 338 |
| A20097 | 3F Linux L 60 LED DALI BAT L1778 | 1 | 0.009 | 2.700 | 338 |
| A20098 | 3F Linux L 50 LED DALI BAT L1778 | 1 | 0.009 | 2.700 | 338 |
| A20099 | 3F Linux L 40 LED DALI BAT L1778 | 1 | 0.009 | 2.700 | 338 |
| A20124 | 3F Linux L 85 LED AMPIO L1778 | 1 | 0.009 | 2.650 | 335 |

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| | | Pcs | m ³ | Gross weight in kg | |
| A20125 | 3F Linux L 60 LED AMPIO L1778 | 1 | 0.009 | 2.650 | 335 |
| A20126 | 3F Linux L 50 LED AMPIO L1778 | 1 | 0.009 | 2.650 | 335 |
| A20127 | 3F Linux L 40 LED AMPIO L1778 | 1 | 0.009 | 2.650 | 335 |
| A20138 | 3F Linux L 85 LED DALI AMPIO L1778 | 1 | 0.009 | 2.700 | 335 |
| A20139 | 3F Linux L 60 LED DALI AMPIO L1778 | 1 | 0.009 | 2.700 | 335 |
| A20140 | 3F Linux L 50 LED DALI AMPIO L1778 | 1 | 0.009 | 2.700 | 335 |
| A20141 | 3F Linux L 40 LED DALI AMPIO L1778 | 1 | 0.009 | 2.700 | 335 |
| A20166 | 3F Linux L 85 LED CONC L1778 | 1 | 0.009 | 2.650 | 339 |
| A20167 | 3F Linux L 60 LED CONC L1778 | 1 | 0.009 | 2.650 | 339 |
| A20180 | 3F Linux L 85 LED DALI CONC L1778 | 1 | 0.009 | 2.700 | 339 |
| A20181 | 3F Linux L 60 LED DALI CONC L1778 | 1 | 0.009 | 2.700 | 339 |
| A20335 | 3F Linux D 2x30 LED L1778 | 1 | 0.018 | 3.000 | 345 |
| A20336 | 3F Linux D 2x22 LED L1778 | 1 | 0.018 | 3.000 | 345 |
| A20349 | 3F Linux D 2x30 LED DALI L1778 | 1 | 0.018 | 3.000 | 345 |
| A20350 | 3F Linux D 2x22 LED DALI L1778 | 1 | 0.018 | 3.000 | 345 |
| A20424 | 3F Linux TK L1778 | 1 | 0.018 | 2.800 | 351 |
| A20428 | Closing Top LOW - L1778 | 1 | | 0.350 | 355 |
| A20433 | Linear connecting element for 3F Linux | 1 | | 0.200 | 157, 353 |
| A20434 | T-Connecting element for 3F Linux | 1 | | 0.400 | 354 |
| A20436 | L-Connecting element 3F L Linux | 1 | | 0.300 | 354 |
| A20442 | Closing Top HIGH - L1778 | 1 | | 0.400 | 354 |
| A20448 | Pair of closing end 3F Linux | 1 | | 0.060 | 354 |
| A20450 | Sliding bracket with regulator for suspension installation | 1 | | 0.052 | 352 |
| A20451 | Sliding bracket for ceiling installation | 1 | | 0.040 | 352 |
| A20452 | Stainless steel hook for chain | 1 | | 0.010 | 157, 352 |
| A20453 | S-shaped chain hook with sliding bracket 3F Linux | 1 | | 0.120 | 352 |
| A20454 | 5-poles socket-pin terminal block 3F Linux S | 1 | | 0.150 | 356 |
| A20455 | 7-poles socket-pin terminal block 3F Linux S | 1 | | 0.200 | 356 |
| A20459 | 5-poles socket-pin branch (L-shaped) 3F Linux S | 1 | | 0.150 | 356 |
| A20460 | 7-poles socket-pin branch (L-shaped) 3F Linux S | 1 | | 0.200 | 356 |
| A20464 | 5-poles socket-pin branch (T-shaped) 3F Linux S | 1 | | 0.250 | 356 |
| A20465 | 7-poles socket-pin branch (T-shaped) 3F Linux S | 1 | | 0.300 | 356 |
| A20470 | Pair of mounting brackets 3F devices on Linux S | 1 | | 0.190 | 355 |
| A20474 | Safety screw for locking the sliding bracket | 1 | | 0.010 | 352 |
| A20475 | 3F Linux Cable Support (10 pcs) | 1 | | 0.300 | 355 |
| A20476 | Single contact pin | 1 | | 0.250 | 357 |
| A20478 | Anti-slip terminal for inclined 3F Linux installation | 1 | | 0.060 | 158, 354 |
| A20479 | Power cable for luminaires, 3-pole | 1 | | 0.150 | 357 |
| A20480 | Power cable for luminaires, 5-pole | 1 | | 0.180 | 357 |
| A20485 | Susp. without adjustment for Linux/HD - 0,5 m | 1 | | 0.070 | 76, 279, 352 |
| A20486 | Susp. without adjustment for Linux/HD - 1 m | 1 | | 0.080 | 76, 279, 352 |
| A20487 | Susp. without adjustment for Linux/HD - 2 m | 1 | | 0.090 | 76, 279, 352 |
| A20488 | Susp. without adjustment for Linux/HD - 3 m | 1 | | 0.100 | 76, 279, 352 |
| A20489 | Susp. without adjustment for Linux/HD - 4 m | 1 | | 0.110 | 76, 279, 352 |
| A20490 | Susp. without adjustment for Linux/HD - 5 m | 1 | | 0.120 | 76, 279, 352 |
| A20491 | Susp. without adjustment for Linux/HD - 6 m | 1 | | 0.130 | 76, 279, 352 |
| A20498 | Couple of brackets for 3F Linda installation - 3F Linux S | 1 | | 0.200 | 355 |
| A20500 | Central feeding 5-poles socket-pin terminal block 3F Linux S | 1 | | 0.200 | 356 |
| A20501 | Central feeding 7-poles socket-pin terminal block 3F Linux S | 1 | | 0.250 | 356 |
| A20511 | 3F Linux DR 2x30 LED L1778 | 1 | 0.018 | 3.000 | 347 |
| A20512 | 3F Linux DR 2x22 LED L1778 | 1 | 0.018 | 3.000 | 347 |
| A20525 | 3F Linux DR 2x30 LED DALI L1778 | 1 | 0.018 | 3.000 | 347 |
| A20526 | 3F Linux DR 2x22 LED DALI L1778 | 1 | 0.018 | 3.000 | 347 |
| A20595 | 3F Linux DR 1x30 LED UGR L1778 | 1 | 0.018 | 3.700 | 347 |
| A20596 | 3F Linux DR 2x22 LED UGR L1778 | 1 | 0.018 | 3.800 | 347 |
| A20599 | 3F Linux DR 1x30 LED DALI UGR L1778 | 1 | 0.018 | 3.800 | 347 |
| A20600 | 3F Linux DR 2x22 LED DALI UGR L1778 | 1 | 0.018 | 3.900 | 347 |
| A20608 | 3F Linux L 60 LED BAT WD L1778 | 1 | 0.009 | 2.650 | 339 |
| A20609 | 3F Linux L 50 LED BAT WD L1778 | 1 | 0.009 | 2.650 | 339 |
| A20610 | 3F Linux L 40 LED BAT WD L1778 | 1 | 0.009 | 2.650 | 339 |

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| | | Pcs | m ³ | Gross weight in kg | |
| A20622 | 3F Linux L 60 LED DALI BAT WD L1778 | 1 | 0.009 | 2.700 | 339 |
| A20623 | 3F Linux L 50 LED DALI BAT WD L1778 | 1 | 0.009 | 2.700 | 339 |
| A20624 | 3F Linux L 40 LED DALI BAT WD L1778 | 1 | 0.009 | 2.700 | 339 |
| A20661 | 3F Linux L 50 LED UGR L1778 | 1 | 0.009 | 2.650 | 336 |
| A20667 | 3F Linux L 50 LED DALI UGR L1778 | 1 | 0.009 | 2.700 | 336 |
| A20674 | 3F Linux DR 2x30 LED AS L1778 | 1 | 0.018 | 3.200 | 348 |
| A20679 | 3F Linux DR 2x30 LED DALI AS L1778 | 1 | 0.018 | 3.200 | 348 |
| A20684 | 3F Linux L 85 LED IPERCONC L1778 | 1 | 0.009 | 2.650 | 340 |
| A20685 | 3F Linux L 60 LED IPERCONC L1778 | 1 | 0.009 | 2.650 | 340 |
| A20698 | 3F Linux L 85 LED DALI IPERCONC L1778 | 1 | 0.009 | 2.650 | 340 |
| A20699 | 3F Linux L 60 LED DALI IPERCONC L1778 | 1 | 0.009 | 2.650 | 340 |
| A20723 | 3F Linux system 7P IP54 L3556 | 1 | 0.022 | 5.800 | 333 |
| A20724 | 3F Linux system 7P IP54 L1778 | 1 | 0.011 | 2.900 | 333 |
| A20725 | 3F Linux system 5P IP54 L3556 | 1 | 0.022 | 5.600 | 333 |
| A20726 | 3F Linux system 5P IP54 L1778 | 1 | 0.011 | 2.800 | 333 |
| A20740 | IP54 3F Linux end terminal | 1 | | 0.150 | 355 |
| A20741 | IP54 3F Linux end terminal with 1 hole | 1 | | 0.150 | 355 |
| A20742 | IP54 3F Linux end terminal with 2 holes | 1 | | 0.180 | 356 |
| A20743 | Closing Top IP54 - L1778 | 1 | | 0.250 | 354 |
| A20744 | 3F Linux L 85 LED AS L1778 | 1 | 0.009 | 2.650 | 337 |
| A20745 | 3F Linux L 60 LED AS L1778 | 1 | 0.009 | 2.650 | 337 |
| A20746 | 3F Linux L 50 LED AS L1778 | 1 | 0.009 | 2.650 | 337 |
| A20747 | 3F Linux L 40 LED AS L1778 | 1 | 0.009 | 2.650 | 337 |
| A20749 | 3F Linux L 85 LED DALI AS L1778 | 1 | 0.009 | 2.700 | 337 |
| A20750 | 3F Linux L 60 LED DALI AS L1778 | 1 | 0.009 | 2.700 | 337 |
| A20751 | 3F Linux L 50 LED DALI AS L1778 | 1 | 0.009 | 2.700 | 337 |
| A20752 | 3F Linux L 40 LED DALI AS L1778 | 1 | 0.009 | 2.700 | 337 |
| A20754 | 3F Linux L 85 LED MEDIO L1778 | 1 | 0.009 | 2.650 | 336 |
| A20755 | 3F Linux L 60 LED MEDIO L1778 | 1 | 0.009 | 2.650 | 336 |
| A20756 | 3F Linux L 50 LED MEDIO L1778 | 1 | 0.009 | 2.650 | 336 |
| A20757 | 3F Linux L 40 LED MEDIO L1778 | 1 | 0.009 | 2.650 | 336 |
| A20759 | 3F Linux L 85 LED DALI MEDIO L1778 | 1 | 0.009 | 2.700 | 336 |
| A20760 | 3F Linux L 60 LED DALI MEDIO L1778 | 1 | 0.009 | 2.700 | 336 |
| A20761 | 3F Linux L 50 LED DALI MEDIO L1778 | 1 | 0.009 | 2.700 | 336 |
| A20762 | 3F Linux L 40 LED DALI MEDIO L1778 | 1 | 0.009 | 2.700 | 336 |
| 1959 | MIRA PAR LED 4x12W IND L675 | 1 | 0.013 | 3.700 | 169 |
| 1961 | MIRA PAR LED DE 4x12W L675 | 1 | 0.013 | 3.600 | 169 |
| 5790 | 3F Linda Compatta LED 1x5W 100x300 | 1 | 0.004 | 0.900 | 428 |
| 5791 | 3F Linda Compatta LED 1x5W 160x300 | 1 | 0.006 | 1.000 | 428 |
| 5794 | 3F Linda Compatta LED 1x5W EP 160x300 | 1 | 0.006 | 1.500 | 428 |
| 6001 | 3F Sound Lux 450 RE 35/930 DALI | 1 | 0.073 | 8.500 | 133 |
| 6005 | 3F Sound Lux 450 RS 35/930 DALI | 1 | 0.073 | 8.500 | 133 |
| 6007 | 3F Sound Lux 900 RE 70/930 DALI | 1 | 0.138 | 16.500 | 133 |
| 6011 | 3F Sound Lux 900 RS 70/930 DALI | 1 | 0.138 | 16.500 | 133 |
| 6013 | 3F Sound Lux 450 RE DI 35+8/930 DALI | 1 | 0.073 | 9.500 | 135 |
| 6017 | 3F Sound Lux 450 RS DI 35+8/930 DALI | 1 | 0.073 | 9.500 | 135 |
| 6019 | 3F Sound Lux 900 RE DI 70+16/930 DALI | 1 | 0.138 | 17.500 | 135 |
| 6023 | 3F Sound Lux 900 RS DI 70+16/930 DALI | 1 | 0.138 | 17.500 | 135 |
| 6090 | 3F Emilio Table WH 1000/930 PCD | 1 | | 5.500 | 147 |
| 6094 | 3F Filoluce WH 16+23W/835 Touch DALI | 1 | | 16.000 | 123 |
| 6095 | 3F Filoluce BK 16+23W/835 Touch DALI | 1 | | 16.000 | 123 |
| 6096 | 3F Filoluce AN 16+23W/835 Touch DALI | 1 | | 16.000 | 123 |
| 6097 | 3F Filoluce RD 16+23W/835 Touch DALI | 1 | | 16.000 | 123 |
| 6098 | 3F Filoluce WH 16+23W/840 Touch DALI | 1 | | 16.000 | 123 |
| 6099 | 3F Filoluce BK 16+23W/840 Touch DALI | 1 | | 16.000 | 123 |
| 6100 | 3F Filoluce AN 16+23W/840 Touch DALI | 1 | | 16.000 | 123 |
| 6101 | 3F Filoluce RD 16+23W/840 Touch DALI | 1 | | 16.000 | 123 |
| 6104 | 3F Trittico WH 12+12+15/835 DALI H300 | 1 | 0.038 | 3.400 | 111 |
| 6105 | 3F Trittico BK 12+12+15/835 DALI H300 | 1 | 0.038 | 3.400 | 111 |
| 6107 | 3F Trittico WH 12+12+15/835 DALI H500 | 1 | 0.038 | 3.700 | 111 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 6108 | 3F Trittico BK 12+12+15/835 DALI H500 | 1 | 0.038 | 3.700 | 111 |
| 6110 | 3F Trittico WH 12+12+15/835 DALI H800 | 1 | 0.038 | 4.000 | 111 |
| 6111 | 3F Trittico BK 12+12+15/835 DALI H800 | 1 | 0.038 | 4.000 | 111 |
| 6128 | 3F C8 WH 30 DALI GSP L1480 | 1 | | 4.500 | 139 |
| 6130 | 3F C8 WH DI 30+8 DALI GSP L1480 | 1 | | 4.800 | 141 |
| 6136 | 3F C8 BK 30 DALI GSP L1480 | 1 | | 4.500 | 139 |
| 6138 | 3F C8 BK DI 30+8 DALI GSP L1480 | 1 | | 4.800 | 141 |
| 6140 | 3F C8 WH HO 44 DALI GSP L1480 | 1 | | 4.500 | 139 |
| 6142 | 3F C8 WH DI HO 44+8 DALI GSP L1480 | 1 | | 4.800 | 141 |
| 6148 | 3F C8 BK HO 44 DALI GSP L1480 | 1 | | 4.500 | 139 |
| 6150 | 3F C8 BK DI HO 44+8 DALI GSP L1480 | 1 | | 4.800 | 141 |
| 6200 | 3F HD50 WH 13/840 DALI FDP L1214 | 1 | 0.006 | 5.000 | 42 |
| 6201 | 3F HD50 WH 16/840 DALI FDP L1508 | 1 | 0.007 | 5.500 | 42 |
| 6202 | 3F HD50 WH 32/840 DALI FDP L2975 | 1 | 0.014 | 10.200 | 42 |
| 6204 | 3F HD50 WH 13/840 DALI FDO L1214 | 1 | 0.006 | 5.000 | 44 |
| 6205 | 3F HD50 WH 16/840 DALI FDO L1508 | 1 | 0.007 | 5.500 | 44 |
| 6206 | 3F HD50 WH 32/840 DALI FDO L2975 | 1 | 0.014 | 10.200 | 44 |
| 6208 | 3F HD50 WH 13/840 DALI GSP L1214 | 1 | 0.006 | 5.000 | 40 |
| 6209 | 3F HD50 WH 16/840 DALI GSP L1508 | 1 | 0.007 | 5.500 | 40 |
| 6210 | 3F HD50 WH 32/840 DALI GSP L2975 | 1 | 0.014 | 10.200 | 40 |
| 6212 | 3F HD50 WH 12/835 DALI OCW L1214 | 1 | 0.006 | 3.800 | 39 |
| 6213 | 3F HD50 WH 15/835 DALI OCW L1508 | 1 | 0.007 | 4.200 | 39 |
| 6214 | 3F HD50 WH 30/835 DALI OCW L2975 | 1 | 0.014 | 8.400 | 39 |
| 6219 | 3F HD100 WH 22/840 DALI FDP L1214 | 1 | 0.010 | 5.800 | 42 |
| 6220 | 3F HD100 WH 26/840 DALI FDP L1508 | 1 | 0.012 | 6.300 | 42 |
| 6221 | 3F HD100 WH 52/840 DALI FDP L2975 | 1 | 0.024 | 11.000 | 42 |
| 6223 | 3F HD100 WH 22/840 DALI FDO L1214 | 1 | 0.010 | 5.800 | 44 |
| 6224 | 3F HD100 WH 26/840 DALI FDO L1508 | 1 | 0.012 | 6.300 | 44 |
| 6225 | 3F HD100 WH 52/840 DALI FDO L2975 | 1 | 0.024 | 11.000 | 44 |
| 6227 | 3F HD100 WH 22/840 DALI GSP L1214 | 1 | 0.010 | 5.800 | 40 |
| 6228 | 3F HD100 WH 26/840 DALI GSP L1508 | 1 | 0.012 | 6.300 | 40 |
| 6229 | 3F HD100 WH 52/840 DALI GSP L2975 | 1 | 0.024 | 11.000 | 40 |
| 6236 | 3F HD50 WH 13/840 DALI 5P FD L1174 | 1 | 0.006 | 5.200 | 49 |
| 6237 | 3F HD50 WH 16/840 DALI 5P FD L1468 | 1 | 0.007 | 5.700 | 49 |
| 6241 | 3F HD50 WH 32/840 DALI 5P FD L2935 | 1 | 0.014 | 10.600 | 49 |
| 6245 | 3F HD50 WH 13/840 DALI 5P GSP L1174 | 1 | 0.006 | 5.400 | 48 |
| 6246 | 3F HD50 WH 16/840 DALI 5P GSP L1468 | 1 | 0.007 | 5.900 | 48 |
| 6250 | 3F HD50 WH 32/840 DALI 5P GSP L2935 | 1 | 0.014 | 10.800 | 48 |
| 6254 | 3F HD50 WH 12/835 DALI 5P OCW L1174 | 1 | 0.006 | 4.000 | 47 |
| 6255 | 3F HD50 WH 15/835 DALI 5P OCW L1468 | 1 | 0.007 | 4.400 | 47 |
| 6259 | 3F HD50 WH 30/835 DALI 5P OCW L2935 | 1 | 0.014 | 8.800 | 47 |
| 6266 | 3F HD100 WH 22/840 DALI 5P FD L1174 | 1 | 0.010 | 6.000 | 49 |
| 6267 | 3F HD100 WH 26/840 DALI 5P FD L1468 | 1 | 0.012 | 6.500 | 49 |
| 6271 | 3F HD100 WH 52/840 DALI 5P FD L2935 | 1 | 0.024 | 11.200 | 49 |
| 6275 | 3F HD100 WH 22/840 DALI 5P GSP L1174 | 1 | 0.010 | 6.200 | 48 |
| 6276 | 3F HD100 WH 26/840 DALI 5P GSP L1468 | 1 | 0.012 | 6.700 | 48 |
| 6280 | 3F HD100 WH 52/840 DALI 5P GSP L2935 | 1 | 0.024 | 11.600 | 48 |
| 6285 | 3F HD50 BK 13/840 DALI FDP L1214 | 1 | 0.006 | 5.000 | 42 |
| 6286 | 3F HD50 BK 16/840 DALI FDP L1508 | 1 | 0.007 | 5.500 | 42 |
| 6287 | 3F HD50 BK 32/840 DALI FDP L2975 | 1 | 0.014 | 10.200 | 42 |
| 6289 | 3F HD50 BK 13/840 DALI FDO L1214 | 1 | 0.006 | 5.000 | 44 |
| 6290 | 3F HD50 BK 16/840 DALI FDO L1508 | 1 | 0.007 | 5.500 | 44 |
| 6291 | 3F HD50 BK 32/840 DALI FDO L2975 | 1 | 0.014 | 10.200 | 44 |
| 6293 | 3F HD50 BK 13/840 DALI GSP L1214 | 1 | 0.006 | 5.000 | 40 |
| 6294 | 3F HD50 BK 16/840 DALI GSP L1508 | 1 | 0.007 | 5.500 | 40 |
| 6295 | 3F HD50 BK 32/840 DALI GSP L2975 | 1 | 0.014 | 10.200 | 40 |
| 6297 | 3F HD50 BK 12/835 DALI OCB L1214 | 1 | 0.006 | 3.800 | 39 |
| 6298 | 3F HD50 BK 15/835 DALI OCB L1508 | 1 | 0.007 | 4.200 | 39 |
| 6299 | 3F HD50 BK 30/835 DALI OCB L2975 | 1 | 0.014 | 8.400 | 39 |
| 6304 | 3F HD100 BK 22/840 DALI FDP L1214 | 1 | 0.010 | 5.800 | 42 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 6305 | 3F HD100 BK 26/840 DALI FDP L1508 | 1 | 0.012 | 6.300 | 42 |
| 6306 | 3F HD100 BK 52/840 DALI FDP L2975 | 1 | 0.024 | 11.000 | 42 |
| 6308 | 3F HD100 BK 22/840 DALI FDO L1214 | 1 | 0.010 | 5.800 | 44 |
| 6309 | 3F HD100 BK 26/840 DALI FDO L1508 | 1 | 0.012 | 6.300 | 44 |
| 6310 | 3F HD100 BK 52/840 DALI FDO L2975 | 1 | 0.024 | 11.000 | 44 |
| 6312 | 3F HD100 BK 22/840 DALI GSP L1214 | 1 | 0.010 | 5.800 | 40 |
| 6313 | 3F HD100 BK 26/840 DALI GSP L1508 | 1 | 0.012 | 6.300 | 40 |
| 6314 | 3F HD100 BK 52/840 DALI GSP L2975 | 1 | 0.024 | 11.000 | 40 |
| 6321 | 3F HD50 BK 13/840 DALI 5P FD L1174 | 1 | 0.006 | 5.200 | 49 |
| 6322 | 3F HD50 BK 16/840 DALI 5P FD L1468 | 1 | 0.007 | 5.700 | 49 |
| 6326 | 3F HD50 BK 32/840 DALI 5P FD L2935 | 1 | 0.014 | 10.600 | 49 |
| 6330 | 3F HD50 BK 13/840 DALI 5P GSP L1174 | 1 | 0.006 | 5.400 | 48 |
| 6331 | 3F HD50 BK 16/840 DALI 5P GSP L1468 | 1 | 0.007 | 5.900 | 48 |
| 6335 | 3F HD50 BK 32/840 DALI 5P GSP L2935 | 1 | 0.014 | 10.800 | 48 |
| 6339 | 3F HD50 BK 12/835 DALI 5P OCB L1174 | 1 | 0.006 | 4.000 | 47 |
| 6340 | 3F HD50 BK 15/835 DALI 5P OCB L1468 | 1 | 0.007 | 4.400 | 47 |
| 6344 | 3F HD50 BK 30/835 DALI 5P OCB L2935 | 1 | 0.014 | 8.800 | 47 |
| 6351 | 3F HD100 BK 22/840 DALI 5P FD L1174 | 1 | 0.010 | 6.000 | 49 |
| 6352 | 3F HD100 BK 26/840 DALI 5P FD L1468 | 1 | 0.012 | 6.500 | 49 |
| 6356 | 3F HD100 BK 52/840 DALI 5P FD L2935 | 1 | 0.024 | 11.200 | 49 |
| 6360 | 3F HD100 BK 22/840 DALI 5P GSP L1174 | 1 | 0.010 | 6.200 | 48 |
| 6361 | 3F HD100 BK 26/840 DALI 5P GSP L1468 | 1 | 0.012 | 6.700 | 48 |
| 6365 | 3F HD100 BK 52/840 DALI 5P GSP L2935 | 1 | 0.024 | 11.600 | 48 |
| 6370 | 3F HD50 AL 13/840 DALI FDP L1214 | 1 | 0.006 | 5.000 | 42 |
| 6371 | 3F HD50 AL 16/840 DALI FDP L1508 | 1 | 0.007 | 5.500 | 42 |
| 6372 | 3F HD50 AL 32/840 DALI FDP L2975 | 1 | 0.014 | 10.200 | 42 |
| 6374 | 3F HD50 AL 13/840 DALI FDO L1214 | 1 | 0.006 | 5.000 | 44 |
| 6375 | 3F HD50 AL 16/840 DALI FDO L1508 | 1 | 0.007 | 5.500 | 44 |
| 6376 | 3F HD50 AL 32/840 DALI FDO L2975 | 1 | 0.014 | 10.200 | 44 |
| 6378 | 3F HD50 AL 13/840 DALI GSP L1214 | 1 | 0.006 | 5.000 | 40 |
| 6379 | 3F HD50 AL 16/840 DALI GSP L1508 | 1 | 0.007 | 5.500 | 40 |
| 6380 | 3F HD50 AL 32/840 DALI GSP L2975 | 1 | 0.014 | 10.200 | 40 |
| 6382 | 3F HD50 AL 12/835 DALI OCB L1214 | 1 | 0.006 | 3.800 | 39 |
| 6383 | 3F HD50 AL 15/835 DALI OCB L1508 | 1 | 0.007 | 4.200 | 39 |
| 6384 | 3F HD50 AL 30/835 DALI OCB L2975 | 1 | 0.014 | 8.400 | 39 |
| 6389 | 3F HD100 AL 22/840 DALI FDP L1214 | 1 | 0.010 | 5.800 | 42 |
| 6390 | 3F HD100 AL 26/840 DALI FDP L1508 | 1 | 0.012 | 6.300 | 42 |
| 6391 | 3F HD100 AL 52/840 DALI FDP L2975 | 1 | 0.024 | 11.000 | 42 |
| 6393 | 3F HD100 AL 22/840 DALI FDO L1214 | 1 | 0.010 | 5.800 | 44 |
| 6394 | 3F HD100 AL 26/840 DALI FDO L1508 | 1 | 0.012 | 6.300 | 44 |
| 6395 | 3F HD100 AL 52/840 DALI FDO L2975 | 1 | 0.024 | 11.000 | 44 |
| 6397 | 3F HD100 AL 22/840 DALI GSP L1214 | 1 | 0.010 | 5.800 | 40 |
| 6398 | 3F HD100 AL 26/840 DALI GSP L1508 | 1 | 0.012 | 6.300 | 40 |
| 6399 | 3F HD100 AL 52/840 DALI GSP L2975 | 1 | 0.024 | 11.000 | 40 |
| 6406 | 3F HD50 AL 13/840 DALI 5P FD L1174 | 1 | 0.006 | 5.200 | 49 |
| 6407 | 3F HD50 AL 16/840 DALI 5P FD L1468 | 1 | 0.007 | 5.700 | 49 |
| 6411 | 3F HD50 AL 32/840 DALI 5P FD L2935 | 1 | 0.014 | 10.600 | 49 |
| 6415 | 3F HD50 AL 13/840 DALI 5P GSP L1174 | 1 | 0.006 | 5.400 | 48 |
| 6416 | 3F HD50 AL 16/840 DALI 5P GSP L1468 | 1 | 0.007 | 5.900 | 48 |
| 6420 | 3F HD50 AL 32/840 DALI 5P GSP L2935 | 1 | 0.014 | 10.800 | 48 |
| 6424 | 3F HD50 AL 12/835 DALI 5P OCB L1174 | 1 | 0.006 | 4.000 | 47 |
| 6425 | 3F HD50 AL 15/835 DALI 5P OCB L1468 | 1 | 0.007 | 4.400 | 47 |
| 6429 | 3F HD50 AL 30/835 DALI 5P OCB L2935 | 1 | 0.014 | 8.800 | 47 |
| 6436 | 3F HD100 AL 22/840 DALI 5P FD L1174 | 1 | 0.010 | 6.000 | 49 |
| 6437 | 3F HD100 AL 26/840 DALI 5P FD L1468 | 1 | 0.012 | 6.500 | 49 |
| 6441 | 3F HD100 AL 52/840 DALI 5P FD L2935 | 1 | 0.024 | 11.200 | 49 |
| 6445 | 3F HD100 AL 22/840 DALI 5P GSP L1174 | 1 | 0.010 | 6.200 | 48 |
| 6446 | 3F HD100 AL 26/840 DALI 5P GSP L1468 | 1 | 0.012 | 6.700 | 48 |
| 6450 | 3F HD100 AL 52/840 DALI 5P GSP L2935 | 1 | 0.024 | 11.600 | 48 |
| 6455 | 3F HD50DI WH 13+20/840 DALI FDP L1214 | 1 | 0.006 | 5.200 | 53 |

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|------|---|------|----------------|--------------------|------|
| | | Pcs | m ³ | Gross weight in kg | |
| 6456 | 3F HD50DI WH 16+26/840 DALI FDP L1508 | 1 | 0.007 | 5.800 | 53 |
| 6457 | 3F HD50DI WH 32+52/840 DALI FDP L2975 | 1 | 0.014 | 10.700 | 53 |
| 6459 | 3F HD50DI WH 13+20/840 DALI FDO L1214 | 1 | 0.006 | 5.200 | 54 |
| 6460 | 3F HD50DI WH 16+26/840 DALI FDO L1508 | 1 | 0.007 | 5.800 | 54 |
| 6461 | 3F HD50DI WH 32+52/840 DALI FDO L2975 | 1 | 0.014 | 10.700 | 54 |
| 6463 | 3F HD50DI WH 13+20/840 DALI GSP L1214 | 1 | 0.006 | 5.200 | 52 |
| 6464 | 3F HD50DI WH 16+26/840 DALI GSP L1508 | 1 | 0.007 | 5.800 | 52 |
| 6465 | 3F HD50DI WH 32+52/840 DALI GSP L2975 | 1 | 0.014 | 10.700 | 52 |
| 6467 | 3F HD50DI WH 12+20/835 DALI OCW L1214 | 1 | 0.006 | 4.000 | 51 |
| 6468 | 3F HD50DI WH 15+26/835 DALI OCW L1508 | 1 | 0.007 | 4.500 | 51 |
| 6469 | 3F HD50DI WH 30+52/835 DALI OCW L2975 | 1 | 0.014 | 8.900 | 51 |
| 6474 | 3F HD100DI WH 22+20/840 DALI FDP L1214 | 1 | 0.010 | 6.000 | 53 |
| 6475 | 3F HD100DI WH 26+26/840 DALI FDP L1508 | 1 | 0.012 | 6.600 | 53 |
| 6476 | 3F HD100DI WH 52+52/840 DALI FDP L2975 | 1 | 0.024 | 11.500 | 53 |
| 6478 | 3F HD100DI WH 22+20/840 DALI FDO L1214 | 1 | 0.010 | 6.000 | 54 |
| 6479 | 3F HD100DI WH 26+26/840 DALI FDO L1508 | 1 | 0.012 | 6.600 | 54 |
| 6480 | 3F HD100DI WH 52+52/840 DALI FDO L2975 | 1 | 0.024 | 11.500 | 54 |
| 6482 | 3F HD100DI WH 22+20/840 DALI GSP L1214 | 1 | 0.010 | 6.000 | 52 |
| 6483 | 3F HD100DI WH 26+26/840 DALI GSP L1508 | 1 | 0.012 | 6.600 | 52 |
| 6484 | 3F HD100DI WH 52+52/840 DALI GSP L2975 | 1 | 0.024 | 11.500 | 52 |
| 6491 | 3F HD50DI WH 13+20/840 DALI 5P FD L1174 | 1 | 0.006 | 5.400 | 59 |
| 6492 | 3F HD50DI WH 16+26/840 DALI 5P FD L1468 | 1 | 0.007 | 6.000 | 59 |
| 6496 | 3F HD50DI WH 32+52/840 DALI 5P FD L2935 | 1 | 0.014 | 11.100 | 59 |
| 6500 | 3F HD50DI WH 13+20/840 DALI 5P GSP L1174 | 1 | 0.006 | 5.600 | 58 |
| 6501 | 3F HD50DI WH 16+26/840 DALI 5P GSP L1468 | 1 | 0.007 | 6.200 | 58 |
| 6505 | 3F HD50DI WH 32+52/840 DALI 5P GSP L2935 | 1 | 0.014 | 11.300 | 58 |
| 6509 | 3F HD50DI WH 12+20/835 DALI 5P OCW L1174 | 1 | 0.006 | 4.200 | 57 |
| 6510 | 3F HD50DI WH 15+26/835 DALI 5P OCW L1468 | 1 | 0.007 | 4.700 | 57 |
| 6514 | 3F HD50DI WH 30+52/835 DALI 5P OCW L2935 | 1 | 0.014 | 9.300 | 57 |
| 6521 | 3F HD100DI WH 22+20/840 DALI 5P FD L1174 | 1 | 0.010 | 6.200 | 59 |
| 6522 | 3F HD100DI WH 26+26/840 DALI 5P FD L1468 | 1 | 0.012 | 6.800 | 59 |
| 6526 | 3F HD100DI WH 52+52/840 DALI 5P FD L2935 | 1 | 0.024 | 11.700 | 59 |
| 6530 | 3F HD100DI WH 22+20/840 DALI 5P GSP L1174 | 1 | 0.010 | 6.400 | 58 |
| 6531 | 3F HD100DI WH 26+26/840 DALI 5P GSP L1468 | 1 | 0.012 | 7.000 | 58 |
| 6535 | 3F HD100DI WH 52+52/840 DALI 5P GSP L2935 | 1 | 0.024 | 12.100 | 58 |
| 6540 | 3F HD50DI BK 13+20/840 DALI FDP L1214 | 1 | 0.006 | 5.200 | 53 |
| 6541 | 3F HD50DI BK 16+26/840 DALI FDP L1508 | 1 | 0.007 | 5.800 | 53 |
| 6542 | 3F HD50DI BK 32+52/840 DALI FDP L2975 | 1 | 0.014 | 10.700 | 53 |
| 6544 | 3F HD50DI BK 13+20/840 DALI FDO L1214 | 1 | 0.006 | 5.200 | 54 |
| 6545 | 3F HD50DI BK 16+26/840 DALI FDO L1508 | 1 | 0.007 | 5.800 | 54 |
| 6546 | 3F HD50DI BK 32+52/840 DALI FDO L2975 | 1 | 0.014 | 10.700 | 54 |
| 6548 | 3F HD50DI BK 13+20/840 DALI GSP L1214 | 1 | 0.006 | 5.200 | 52 |
| 6549 | 3F HD50DI BK 16+26/840 DALI GSP L1508 | 1 | 0.007 | 5.800 | 52 |
| 6550 | 3F HD50DI BK 32+52/840 DALI GSP L2975 | 1 | 0.014 | 10.700 | 52 |
| 6552 | 3F HD50DI BK 12+20/835 DALI OCB L1214 | 1 | 0.006 | 4.000 | 51 |
| 6553 | 3F HD50DI BK 15+26/835 DALI OCB L1508 | 1 | 0.007 | 4.500 | 51 |
| 6554 | 3F HD50DI BK 30+52/835 DALI OCB L2975 | 1 | 0.014 | 8.900 | 51 |
| 6559 | 3F HD100DI BK 22+20/840 DALI FDP L1214 | 1 | 0.010 | 6.000 | 53 |
| 6560 | 3F HD100DI BK 26+26/840 DALI FDP L1508 | 1 | 0.012 | 6.600 | 53 |
| 6561 | 3F HD100DI BK 52+52/840 DALI FDP L2975 | 1 | 0.024 | 11.500 | 53 |
| 6563 | 3F HD100DI BK 22+20/840 DALI FDO L1214 | 1 | 0.010 | 6.000 | 54 |
| 6564 | 3F HD100DI BK 26+26/840 DALI FDO L1508 | 1 | 0.012 | 6.600 | 54 |
| 6565 | 3F HD100DI BK 52+52/840 DALI FDO L2975 | 1 | 0.024 | 11.500 | 54 |
| 6567 | 3F HD100DI BK 22+20/840 DALI GSP L1214 | 1 | 0.010 | 6.000 | 52 |
| 6568 | 3F HD100DI BK 26+26/840 DALI GSP L1508 | 1 | 0.012 | 6.600 | 52 |
| 6569 | 3F HD100DI BK 52+52/840 DALI GSP L2975 | 1 | 0.024 | 11.500 | 52 |
| 6576 | 3F HD50DI BK 13+20/840 DALI 5P FD L1174 | 1 | 0.006 | 5.400 | 59 |
| 6577 | 3F HD50DI BK 16+26/840 DALI 5P FD L1468 | 1 | 0.007 | 6.000 | 59 |
| 6581 | 3F HD50DI BK 32+52/840 DALI 5P FD L2935 | 1 | 0.014 | 11.100 | 59 |
| 6585 | 3F HD50DI BK 13+20/840 DALI 5P GSP L1174 | 1 | 0.006 | 5.600 | 58 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 6586 | 3F HD50DI BK 16+26/840 DALI 5P GSP L1468 | 1 | 0.007 | 6.200 | 58 |
| 6590 | 3F HD50DI BK 32+52/840 DALI 5P GSP L2935 | 1 | 0.014 | 11.300 | 58 |
| 6594 | 3F HD50DI BK 12+20/835 DALI 5P OCB L1174 | 1 | 0.006 | 4.200 | 57 |
| 6595 | 3F HD50DI BK 15+26/835 DALI 5P OCB L1468 | 1 | 0.007 | 4.700 | 57 |
| 6599 | 3F HD50DI BK 30+52/835 DALI 5P OCB L2935 | 1 | 0.014 | 9.300 | 57 |
| 6606 | 3F HD100DI BK 22+20/840 DALI 5P FD L1174 | 1 | 0.010 | 6.200 | 59 |
| 6607 | 3F HD100DI BK 26+26/840 DALI 5P FD L1468 | 1 | 0.012 | 6.800 | 59 |
| 6611 | 3F HD100DI BK 52+52/840 DALI 5P FD L2935 | 1 | 0.024 | 11.700 | 59 |
| 6615 | 3F HD100DI BK 22+20/840 DALI 5P GSP L1174 | 1 | 0.010 | 6.400 | 58 |
| 6616 | 3F HD100DI BK 26+26/840 DALI 5P GSP L1468 | 1 | 0.012 | 7.000 | 58 |
| 6620 | 3F HD100DI BK 52+52/840 DALI 5P GSP L2935 | 1 | 0.024 | 12.100 | 58 |
| 6625 | 3F HD50DI AL 13+20/840 DALI FDP L1214 | 1 | 0.006 | 5.200 | 53 |
| 6626 | 3F HD50DI AL 16+26/840 DALI FDP L1508 | 1 | 0.007 | 5.800 | 53 |
| 6627 | 3F HD50DI AL 32+52/840 DALI FDP L2975 | 1 | 0.014 | 10.700 | 53 |
| 6629 | 3F HD50DI AL 13+20/840 DALI FDO L1214 | 1 | 0.006 | 5.200 | 54 |
| 6630 | 3F HD50DI AL 16+26/840 DALI FDO L1508 | 1 | 0.007 | 5.800 | 54 |
| 6631 | 3F HD50DI AL 32+52/840 DALI FDO L2975 | 1 | 0.014 | 10.700 | 54 |
| 6633 | 3F HD50DI AL 13+20/840 DALI GSP L1214 | 1 | 0.006 | 5.200 | 52 |
| 6634 | 3F HD50DI AL 16+26/840 DALI GSP L1508 | 1 | 0.007 | 5.800 | 52 |
| 6635 | 3F HD50DI AL 32+52/840 DALI GSP L2975 | 1 | 0.014 | 10.700 | 52 |
| 6637 | 3F HD50DI AL 12+20/835 DALI OCB L1214 | 1 | 0.006 | 4.000 | 51 |
| 6638 | 3F HD50DI AL 15+26/835 DALI OCB L1508 | 1 | 0.007 | 4.500 | 51 |
| 6639 | 3F HD50DI AL 30+52/835 DALI OCB L2975 | 1 | 0.014 | 8.900 | 51 |
| 6644 | 3F HD100DI AL 22+20/840 DALI FDP L1214 | 1 | 0.010 | 6.000 | 53 |
| 6645 | 3F HD100DI AL 26+26/840 DALI FDP L1508 | 1 | 0.012 | 6.600 | 53 |
| 6646 | 3F HD100DI AL 52+52/840 DALI FDP L2975 | 1 | 0.024 | 11.500 | 53 |
| 6648 | 3F HD100DI AL 22+20/840 DALI FDO L1214 | 1 | 0.010 | 6.000 | 54 |
| 6649 | 3F HD100DI AL 26+26/840 DALI FDO L1508 | 1 | 0.012 | 6.600 | 54 |
| 6650 | 3F HD100DI AL 52+52/840 DALI FDO L2975 | 1 | 0.024 | 11.500 | 54 |
| 6652 | 3F HD100DI AL 22+20/840 DALI GSP L1214 | 1 | 0.010 | 6.000 | 52 |
| 6653 | 3F HD100DI AL 26+26/840 DALI GSP L1508 | 1 | 0.012 | 6.600 | 52 |
| 6654 | 3F HD100DI AL 52+52/840 DALI GSP L2975 | 1 | 0.024 | 11.500 | 52 |
| 6661 | 3F HD50DI AL 13+20/840 DALI 5P FD L1174 | 1 | 0.006 | 5.400 | 59 |
| 6662 | 3F HD50DI AL 16+26/840 DALI 5P FD L1468 | 1 | 0.007 | 6.000 | 59 |
| 6666 | 3F HD50DI AL 32+52/840 DALI 5P FD L2935 | 1 | 0.014 | 11.100 | 59 |
| 6670 | 3F HD50DI AL 13+20/840 DALI 5P GSP L1174 | 1 | 0.006 | 5.600 | 58 |
| 6671 | 3F HD50DI AL 16+26/840 DALI 5P GSP L1468 | 1 | 0.007 | 6.200 | 58 |
| 6675 | 3F HD50DI AL 32+52/840 DALI 5P GSP L2935 | 1 | 0.014 | 11.300 | 58 |
| 6679 | 3F HD50DI AL 12+20/835 DALI 5P OCB L1174 | 1 | 0.006 | 4.200 | 57 |
| 6680 | 3F HD50DI AL 15+26/835 DALI 5P OCB L1468 | 1 | 0.007 | 4.700 | 57 |
| 6684 | 3F HD50DI AL 30+52/835 DALI 5P OCB L2935 | 1 | 0.014 | 9.300 | 57 |
| 6691 | 3F HD100DI AL 22+20/840 DALI 5P FD L1174 | 1 | 0.010 | 6.200 | 59 |
| 6692 | 3F HD100DI AL 26+26/840 DALI 5P FD L1468 | 1 | 0.012 | 6.800 | 59 |
| 6696 | 3F HD100DI AL 52+52/840 DALI 5P FD L2935 | 1 | 0.024 | 11.700 | 59 |
| 6700 | 3F HD100DI AL 22+20/840 DALI 5P GSP L1174 | 1 | 0.010 | 6.400 | 58 |
| 6701 | 3F HD100DI AL 26+26/840 DALI 5P GSP L1468 | 1 | 0.012 | 7.000 | 58 |
| 6705 | 3F HD100DI AL 52+52/840 DALI 5P GSP L2935 | 1 | 0.024 | 12.100 | 58 |
| 6710 | 3F HD50R WH 13/840 DALI FDP L1188 | 1 | 0.006 | 4.700 | 62 |
| 6711 | 3F HD50R WH 16/840 DALI FDP L1482 | 1 | 0.007 | 5.100 | 62 |
| 6712 | 3F HD50R WH 32/840 DALI FDP L2949 | 1 | 0.015 | 9.400 | 62 |
| 6714 | 3F HD50R WH 13/840 DALI FDO L1188 | 1 | 0.006 | 4.700 | 63 |
| 6715 | 3F HD50R WH 16/840 DALI FDO L1482 | 1 | 0.007 | 5.100 | 63 |
| 6716 | 3F HD50R WH 32/840 DALI FDO L2949 | 1 | 0.015 | 9.400 | 63 |
| 6718 | 3F HD50R WH 13/840 DALI GSP L1188 | 1 | 0.006 | 4.700 | 61 |
| 6719 | 3F HD50R WH 16/840 DALI GSP L1482 | 1 | 0.007 | 5.100 | 61 |
| 6720 | 3F HD50R WH 32/840 DALI GSP L2949 | 1 | 0.015 | 9.400 | 61 |
| 6722 | 3F HD50R WH 12/835 DALI OCW L1188 | 1 | 0.006 | 3.500 | 61 |
| 6723 | 3F HD50R WH 15/835 DALI OCW L1482 | 1 | 0.007 | 3.800 | 61 |
| 6724 | 3F HD50R WH 30/835 DALI OCW L2949 | 1 | 0.015 | 7.600 | 61 |
| 6729 | 3F HD100R WH 22/840 DALI FDP L1188 | 1 | 0.010 | 5.400 | 62 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 6730 | 3F HD100R WH 26/840 DALI FDP L1482 | 1 | 0.012 | 5.800 | 62 |
| 6731 | 3F HD100R WH 52/840 DALI FDP L2949 | 1 | 0.024 | 10.000 | 62 |
| 6733 | 3F HD100R WH 22/840 DALI FDO L1188 | 1 | 0.010 | 5.400 | 63 |
| 6734 | 3F HD100R WH 26/840 DALI FDO L1482 | 1 | 0.012 | 5.800 | 63 |
| 6735 | 3F HD100R WH 52/840 DALI FDO L2949 | 1 | 0.024 | 10.000 | 63 |
| 6737 | 3F HD100R WH 22/840 DALI GSP L1188 | 1 | 0.010 | 5.400 | 61 |
| 6738 | 3F HD100R WH 26/840 DALI GSP L1482 | 1 | 0.012 | 5.800 | 61 |
| 6739 | 3F HD100R WH 52/840 DALI GSP L2949 | 1 | 0.024 | 10.000 | 61 |
| 6746 | 3F HD50R WH 13/840 DALI 5P FD L1174 | 1 | 0.006 | 4.900 | 68 |
| 6747 | 3F HD50R WH 16/840 DALI 5P FD L1468 | 1 | 0.007 | 5.300 | 68 |
| 6751 | 3F HD50R WH 32/840 DALI 5P FD L2935 | 1 | 0.015 | 9.800 | 68 |
| 6755 | 3F HD50R WH 13/840 DALI 5P GSP L1174 | 1 | 0.006 | 4.900 | 67 |
| 6756 | 3F HD50R WH 16/840 DALI 5P GSP L1468 | 1 | 0.007 | 5.300 | 67 |
| 6760 | 3F HD50R WH 32/840 DALI 5P GSP L2935 | 1 | 0.015 | 9.800 | 67 |
| 6764 | 3F HD50R WH 12/835 DALI 5P OCW L1174 | 1 | 0.006 | 3.700 | 67 |
| 6765 | 3F HD50R WH 15/835 DALI 5P OCW L1468 | 1 | 0.007 | 4.000 | 67 |
| 6769 | 3F HD50R WH 30/835 DALI 5P OCW L2935 | 1 | 0.015 | 8.000 | 67 |
| 6776 | 3F HD100R WH 22/840 DALI 5P FD L1174 | 1 | 0.010 | 5.600 | 68 |
| 6777 | 3F HD100R WH 26/840 DALI 5P FD L1468 | 1 | 0.012 | 6.000 | 68 |
| 6781 | 3F HD100R WH 52/840 DALI 5P FD L2935 | 1 | 0.024 | 10.400 | 68 |
| 6785 | 3F HD100R WH 22/840 DALI 5P GSP L1174 | 1 | 0.010 | 5.800 | 67 |
| 6786 | 3F HD100R WH 26/840 DALI 5P GSP L1468 | 1 | 0.012 | 6.300 | 67 |
| 6790 | 3F HD100R WH 52/840 DALI 5P GSP L2935 | 1 | 0.024 | 11.000 | 67 |
| 6793 | 3F HD50 WH HO 22/840 DALI GSP L1214 | 1 | 0.006 | 5.000 | 41 |
| 6794 | 3F HD50 WH HO 26/840 DALI GSP L1508 | 1 | 0.007 | 5.500 | 41 |
| 6795 | 3F HD50 WH HO 52/840 DALI GSP L2975 | 1 | 0.014 | 10.200 | 41 |
| 6796 | 3F HD100 WH HO 36/840 DALI GSP L1214 | 1 | 0.010 | 5.800 | 41 |
| 6797 | 3F HD100 WH HO 44/840 DALI GSP L1508 | 1 | 0.012 | 6.300 | 41 |
| 6798 | 3F HD100 WH HO 88/840 DALI GSP L2975 | 1 | 0.024 | 11.200 | 41 |
| 6799 | 3F HD50 BK HO 22/840 DALI GSP L1214 | 1 | 0.006 | 5.000 | 41 |
| 6800 | 3F HD50 BK HO 26/840 DALI GSP L1508 | 1 | 0.007 | 5.500 | 41 |
| 6801 | 3F HD50 BK HO 52/840 DALI GSP L2975 | 1 | 0.014 | 10.200 | 41 |
| 6802 | 3F HD100 BK HO 36/840 DALI GSP L1214 | 1 | 0.010 | 5.800 | 41 |
| 6803 | 3F HD100 BK HO 44/840 DALI GSP L1508 | 1 | 0.012 | 6.300 | 41 |
| 6804 | 3F HD100 BK HO 88/840 DALI GSP L2975 | 1 | 0.024 | 11.200 | 41 |
| 6805 | 3F HD50 AL HO 22/840 DALI GSP L1214 | 1 | 0.006 | 5.000 | 41 |
| 6806 | 3F HD50 AL HO 26/840 DALI GSP L1508 | 1 | 0.007 | 5.500 | 41 |
| 6807 | 3F HD50 AL HO 52/840 DALI GSP L2975 | 1 | 0.014 | 10.200 | 41 |
| 6808 | 3F HD100 AL HO 36/840 DALI GSP L1214 | 1 | 0.010 | 5.800 | 41 |
| 6809 | 3F HD100 AL HO 44/840 DALI GSP L1508 | 1 | 0.012 | 6.300 | 41 |
| 6810 | 3F HD100 AL HO 88/840 DALI GSP L2975 | 1 | 0.024 | 11.200 | 41 |
| 6811 | 3F HD50 WH HO 22/840 DALI FDP L1214 | 1 | 0.006 | 5.000 | 43 |
| 6812 | 3F HD50 WH HO 26/840 DALI FDP L1508 | 1 | 0.007 | 5.500 | 43 |
| 6813 | 3F HD50 WH HO 52/840 DALI FDP L2975 | 1 | 0.014 | 10.200 | 43 |
| 6814 | 3F HD100 WH HO 36/840 DALI FDP L1214 | 1 | 0.010 | 5.800 | 43 |
| 6815 | 3F HD100 WH HO 44/840 DALI FDP L1508 | 1 | 0.012 | 6.300 | 43 |
| 6816 | 3F HD100 WH HO 88/840 DALI FDP L2975 | 1 | 0.024 | 11.200 | 43 |
| 6817 | 3F HD50 BK HO 22/840 DALI FDP L1214 | 1 | 0.006 | 5.000 | 43 |
| 6818 | 3F HD50 BK HO 26/840 DALI FDP L1508 | 1 | 0.007 | 5.500 | 43 |
| 6819 | 3F HD50 BK HO 52/840 DALI FDP L2975 | 1 | 0.014 | 10.200 | 43 |
| 6820 | 3F HD100 BK HO 36/840 DALI FDP L1214 | 1 | 0.010 | 5.800 | 43 |
| 6821 | 3F HD100 BK HO 44/840 DALI FDP L1508 | 1 | 0.012 | 6.300 | 43 |
| 6822 | 3F HD100 BK HO 88/840 DALI FDP L2975 | 1 | 0.024 | 11.200 | 43 |
| 6823 | 3F HD50 AL HO 22/840 DALI FDP L1214 | 1 | 0.006 | 5.000 | 43 |
| 6824 | 3F HD50 AL HO 26/840 DALI FDP L1508 | 1 | 0.007 | 5.500 | 43 |
| 6825 | 3F HD50 AL HO 52/840 DALI FDP L2975 | 1 | 0.014 | 10.200 | 43 |
| 6826 | 3F HD100 AL HO 36/840 DALI FDP L1214 | 1 | 0.010 | 5.800 | 43 |
| 6827 | 3F HD100 AL HO 44/840 DALI FDP L1508 | 1 | 0.012 | 6.300 | 43 |
| 6828 | 3F HD100 AL HO 88/840 DALI FDP L2975 | 1 | 0.024 | 11.200 | 43 |
| 6829 | 3F HD50 WH HO 22/840 DALI FDO L1214 | 1 | 0.006 | 5.000 | 45 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 6830 | 3F HD50 WH HO 26/840 DALI FDO L1508 | 1 | 0.007 | 5.500 | 45 |
| 6831 | 3F HD50 WH HO 52/840 DALI FDO L2975 | 1 | 0.014 | 10.200 | 45 |
| 6832 | 3F HD100 WH HO 36/840 DALI FDO L1214 | 1 | 0.010 | 5.800 | 45 |
| 6833 | 3F HD100 WH HO 44/840 DALI FDO L1508 | 1 | 0.012 | 6.300 | 45 |
| 6834 | 3F HD100 WH HO 88/840 DALI FDO L2975 | 1 | 0.024 | 11.200 | 45 |
| 6835 | 3F HD50 BK HO 22/840 DALI FDO L1214 | 1 | 0.006 | 5.000 | 45 |
| 6836 | 3F HD50 BK HO 26/840 DALI FDO L1508 | 1 | 0.007 | 5.500 | 45 |
| 6837 | 3F HD50 BK HO 52/840 DALI FDO L2975 | 1 | 0.014 | 10.200 | 45 |
| 6838 | 3F HD100 BK HO 36/840 DALI FDO L1214 | 1 | 0.010 | 5.800 | 45 |
| 6839 | 3F HD100 BK HO 44/840 DALI FDO L1508 | 1 | 0.012 | 6.300 | 45 |
| 6840 | 3F HD100 BK HO 88/840 DALI FDO L2975 | 1 | 0.024 | 11.200 | 45 |
| 6841 | 3F HD50 AL HO 22/840 DALI FDO L1214 | 1 | 0.006 | 5.000 | 45 |
| 6842 | 3F HD50 AL HO 26/840 DALI FDO L1508 | 1 | 0.007 | 5.500 | 45 |
| 6843 | 3F HD50 AL HO 52/840 DALI FDO L2975 | 1 | 0.014 | 10.200 | 45 |
| 6844 | 3F HD100 AL HO 36/840 DALI FDO L1214 | 1 | 0.010 | 5.800 | 45 |
| 6845 | 3F HD100 AL HO 44/840 DALI FDO L1508 | 1 | 0.012 | 6.300 | 45 |
| 6846 | 3F HD100 AL HO 88/840 DALI FDO L2975 | 1 | 0.024 | 11.200 | 45 |
| 6847 | 3F HD50R WH HO 22/840 DALI GSP L1188 | 1 | 0.006 | 4.700 | 62 |
| 6848 | 3F HD50R WH HO 26/840 DALI GSP L1482 | 1 | 0.007 | 5.100 | 62 |
| 6849 | 3F HD50R WH HO 52/840 DALI GSP L2949 | 1 | 0.015 | 9.400 | 62 |
| 6850 | 3F HD100R WH HO 36/840 DALI GSP L1188 | 1 | 0.010 | 5.400 | 62 |
| 6851 | 3F HD100R WH HO 44/840 DALI GSP L1482 | 1 | 0.012 | 5.800 | 62 |
| 6852 | 3F HD100R WH HO 88/840 DALI GSP L2949 | 1 | 0.024 | 10.200 | 62 |
| 6853 | 3F HD50R WH HO 22/840 DALI FDP L1188 | 1 | 0.006 | 4.700 | 63 |
| 6854 | 3F HD50R WH HO 26/840 DALI FDP L1482 | 1 | 0.007 | 5.100 | 63 |
| 6855 | 3F HD50R WH HO 52/840 DALI FDP L2949 | 1 | 0.015 | 9.400 | 63 |
| 6856 | 3F HD100R WH HO 36/840 DALI FDP L1188 | 1 | 0.010 | 5.400 | 63 |
| 6857 | 3F HD100R WH HO 44/840 DALI FDP L1482 | 1 | 0.012 | 5.800 | 63 |
| 6858 | 3F HD100R WH HO 88/840 DALI FDP L2949 | 1 | 0.024 | 10.200 | 63 |
| 6859 | 3F HD50R WH HO 22/840 DALI FDO L1188 | 1 | 0.006 | 4.700 | 64 |
| 6860 | 3F HD50R WH HO 26/840 DALI FDO L1482 | 1 | 0.007 | 5.100 | 64 |
| 6861 | 3F HD50R WH HO 52/840 DALI FDO L2949 | 1 | 0.015 | 9.400 | 64 |
| 6862 | 3F HD100R WH HO 36/840 DALI FDO L1188 | 1 | 0.010 | 5.400 | 64 |
| 6863 | 3F HD100R WH HO 44/840 DALI FDO L1482 | 1 | 0.012 | 5.800 | 64 |
| 6864 | 3F HD100R WH HO 88/840 DALI FDO L2949 | 1 | 0.024 | 10.200 | 64 |
| 7001 | 3F Manta AN 50/730 AMPIO L660 | 1 | | 16.800 | 501 |
| 7002 | 3F Manta AN 75/730 AMPIO L660 | 1 | | 16.800 | 501 |
| 7003 | 3F Manta AN 100/730 AMPIO L660 | 1 | | 16.800 | 501 |
| 7004 | 3F Manta AN 135/730 AMPIO L660 | 1 | | 16.800 | 501 |
| 7009 | 3F Manta AN 50/730 MEDIO L660 | 1 | | 16.800 | 501 |
| 7010 | 3F Manta AN 75/730 MEDIO L660 | 1 | | 16.800 | 501 |
| 7011 | 3F Manta AN 100/730 MEDIO L660 | 1 | | 16.800 | 501 |
| 7012 | 3F Manta AN 135/730 MEDIO L660 | 1 | | 16.800 | 501 |
| 7020 | 3F Manta AN 185/730 MEDIO L660 | 1 | | 16.800 | 501 |
| 8357 | 3F 66 1 LED 6 II | 1 | 0.017 | 3.000 | 505 |
| 8358 | 3F 66 2 LED 12 II | 1 | 0.017 | 3.300 | 505 |
| 10591 | 3F Zeta DR UGR 2x18 LED L1194 | 1 | 0.008 | 3.700 | 156 |
| 10592 | 3F Zeta DR UGR 1x24 LED L1194 | 1 | 0.008 | 3.500 | 156 |
| 10593 | 3F Zeta DR UGR 2x18 LED DALI L1194 | 1 | 0.008 | 3.700 | 156 |
| 10594 | 3F Zeta DR UGR 1x24 LED DALI L1194 | 1 | 0.008 | 3.500 | 156 |
| 10598 | 3F Zeta DR UGR 2x9 LED L605 | 1 | 0.004 | 3.000 | 156 |
| 10599 | 3F Zeta DR UGR 1x12 LED L605 | 1 | 0.004 | 2.800 | 156 |
| 10600 | 3F Zeta DR UGR 2x9 LED DALI L605 | 1 | 0.004 | 3.000 | 156 |
| 10601 | 3F Zeta DR UGR 1x12 LED DALI L605 | 1 | 0.004 | 2.800 | 156 |
| 10605 | 3F Zeta L AS 40 LED L1489 | 1 | 0.010 | 4.000 | 150 |
| 10606 | 3F Zeta L AS 40 LED DALI L1489 | 1 | 0.010 | 4.000 | 150 |
| 10607 | 3F Zeta L AS 40 LED EP L1489 | 1 | 0.010 | 4.800 | 150 |
| 10731 | 3F Travetta LED 1x18W OP L1290 | 1 | 0.018 | 3.800 | 172 |
| 10732 | 3F Travetta LED 1x22W OP L1590 | 1 | 0.022 | 4.800 | 172 |
| 10734 | 3F Travetta LED 2x18W OP L1290 | 1 | 0.018 | 4.000 | 172 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 10735 | 3F Travetta LED 2x22W OP L1590 | 1 | 0.022 | 5.000 | 172 |
| 10747 | 3F Travetta LED DI 2x15W 2MG L1590 | 1 | 0.022 | 5.200 | 175 |
| 10748 | 3F Travetta LED DI 2x22W 2MG L1590 | 1 | 0.022 | 5.200 | 175 |
| 10763 | 3F TRAV. LED 2X22W DALI DT8 TW 2MG L1590 | 1 | 0.022 | 6.500 | 177 |
| 10775 | 3F Travetta LED 1x40W OP L2200 | 1 | 0.028 | 7.000 | 172 |
| 10777 | 3F Travetta LED 2x40W OP L2200 | 1 | 0.028 | 7.500 | 172 |
| 10848 | P 202x24W LED VS IP54 196x1231 | 1 | 0.022 | 6.300 | 193 |
| 10851 | P 203x10W LED VS IP54 596x596 | 1 | 0.037 | 7.700 | 193 |
| 10852 | P 204x10W LED VS IP54 596x596 | 1 | 0.037 | 7.800 | 193 |
| 10856 | P 202x24W LED SP IP54 196x1231 | 1 | 0.022 | 4.700 | 193 |
| 10859 | P 203x10W LED SP IP54 596x596 | 1 | 0.037 | 5.500 | 193 |
| 10860 | P 204x10W LED SP IP54 596x596 | 1 | 0.037 | 5.600 | 193 |
| 10864 | 3F Zeta L UGR 30 LED L1194 | 1 | 0.008 | 3.500 | 149 |
| 10867 | 3F Zeta L UGR 30 LED DALI L1194 | 1 | 0.008 | 3.500 | 149 |
| 10870 | 3F Zeta D 1x22 LED L1489 | 1 | 0.010 | 4.000 | 153 |
| 10871 | 3F Zeta D 1x18 LED L1194 | 1 | 0.008 | 3.500 | 153 |
| 10872 | 3F Zeta D 1x9 LED L605 | 1 | 0.004 | 2.800 | 153 |
| 10873 | 3F Zeta D 2x22 LED L1489 | 1 | 0.010 | 4.200 | 153 |
| 10874 | 3F Zeta D 2x18 LED L1194 | 1 | 0.004 | 3.700 | 153 |
| 10875 | 3F Zeta D 2x9 LED L605 | 1 | 0.004 | 3.000 | 153 |
| 10877 | 3F Zeta DR 1x22 LED L1489 | 1 | 0.010 | 4.000 | 155 |
| 10878 | 3F Zeta DR 1x18 LED L1194 | 1 | 0.008 | 3.500 | 155 |
| 10879 | 3F Zeta DR 1x9 LED L605 | 1 | 0.004 | 2.800 | 155 |
| 10880 | 3F Zeta DR 2x22 LED L1489 | 1 | 0.010 | 4.200 | 155 |
| 10881 | 3F Zeta DR 2x18 LED L1194 | 1 | 0.008 | 3.700 | 155 |
| 10882 | 3F Zeta DR 2x9 LED L605 | 1 | 0.004 | 3.000 | 155 |
| 10886 | 3F Zeta DR AS 1x30 LED L1489 | 1 | 0.010 | 4.500 | 155 |
| 10887 | 3F Zeta DR AS 2x22 LED L1489 | 1 | 0.010 | 4.700 | 155 |
| 10892 | 3F Zeta L 40 LED L1489 | 1 | 0.010 | 4.000 | 149 |
| 10893 | 3F Zeta L 30 LED L1194 | 1 | 0.008 | 3.500 | 149 |
| 10894 | 3F Zeta L 15 LED L605 | 1 | 0.004 | 2.800 | 149 |
| 10898 | 3F Mirella BK 40 SP L1480 | 1 | 0.027 | 6.100 | 89 |
| 10899 | 3F Mirella BK 60 SP L2200 | 1 | 0.039 | 8.700 | 89 |
| 10900 | 3F Mirella BK 40 DALI SP L1480 | 1 | 0.027 | 6.200 | 89 |
| 10901 | 3F Mirella BK 60 DALI SP L2200 | 1 | 0.039 | 8.800 | 89 |
| 10902 | 3F Mirella BK DI 40+8 SP L1480 | 1 | 0.027 | 6.400 | 93 |
| 10903 | 3F Mirella BK DI 60+14 SP L2200 | 1 | 0.039 | 9.100 | 93 |
| 10904 | 3F Mirella BK DI 40+8 DALI SP L1480 | 1 | 0.027 | 6.500 | 93 |
| 10905 | 3F Mirella BK DI 60+14 DALI SP L2200 | 1 | 0.039 | 9.200 | 93 |
| 10909 | 3F Mirella BK 40 OP L1480 | 1 | 0.027 | 6.100 | 90 |
| 10910 | 3F Mirella BK 60 OP L2200 | 1 | 0.039 | 8.700 | 90 |
| 10911 | 3F Mirella BK 40 DALI OP L1480 | 1 | 0.027 | 6.200 | 90 |
| 10912 | 3F Mirella BK 60 DALI OP L2200 | 1 | 0.039 | 8.800 | 90 |
| 10913 | 3F Mirella BK DI 40+8 OP L1480 | 1 | 0.027 | 6.400 | 94 |
| 10914 | 3F Mirella BK DI 60+14 OP L2200 | 1 | 0.039 | 9.100 | 94 |
| 10915 | 3F Mirella BK DI 40+8 DALI OP L1480 | 1 | 0.027 | 6.500 | 94 |
| 10916 | 3F Mirella BK DI 60+14 DALI OP L2200 | 1 | 0.039 | 9.200 | 94 |
| 10920 | 3F Mirella WH 40 SP L1480 | 1 | 0.027 | 6.100 | 89 |
| 10921 | 3F Mirella WH 60 SP L2200 | 1 | 0.039 | 8.700 | 89 |
| 10922 | 3F Mirella WH 40 DALI SP L1480 | 1 | 0.027 | 6.200 | 89 |
| 10923 | 3F Mirella WH 60 DALI SP L2200 | 1 | 0.039 | 8.800 | 89 |
| 10924 | 3F Mirella WH DI 40+8 SP L1480 | 1 | 0.027 | 6.400 | 93 |
| 10925 | 3F Mirella WH DI 60+14 SP L2200 | 1 | 0.039 | 9.100 | 93 |
| 10926 | 3F Mirella WH DI 40+8 DALI SP L1480 | 1 | 0.027 | 6.500 | 93 |
| 10927 | 3F Mirella WH DI 60+14 DALI SP L2200 | 1 | 0.039 | 9.200 | 93 |
| 10931 | 3F Mirella WH 40 OP L1480 | 1 | 0.027 | 6.100 | 90 |
| 10932 | 3F Mirella WH 60 OP L2200 | 1 | 0.039 | 8.700 | 90 |
| 10933 | 3F Mirella WH 40 DALI OP L1480 | 1 | 0.027 | 6.200 | 90 |
| 10934 | 3F Mirella WH 60 DALI OP L2200 | 1 | 0.039 | 8.800 | 90 |
| 10935 | 3F Mirella WH DI 40+8 OP L1480 | 1 | 0.027 | 6.400 | 94 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 10936 | 3F Mirella WH DI 60+14 OP L2200 | 1 | 0.039 | 9.100 | 94 |
| 10937 | 3F Mirella WH DI 40+8 DALI OP L1480 | 1 | 0.027 | 6.500 | 94 |
| 10938 | 3F Mirella WH DI 60+14 DALI OP L2200 | 1 | 0.039 | 9.200 | 94 |
| 10942 | 3F Mirella AL 40 SP L1480 | 1 | 0.027 | 6.100 | 89 |
| 10943 | 3F Mirella AL 60 SP L2200 | 1 | 0.039 | 8.700 | 89 |
| 10944 | 3F Mirella AL 40 DALI SP L1480 | 1 | 0.027 | 6.200 | 89 |
| 10945 | 3F Mirella AL 60 DALI SP L2200 | 1 | 0.039 | 8.800 | 89 |
| 10946 | 3F Mirella AL DI 40+8 SP L1480 | 1 | 0.027 | 6.400 | 93 |
| 10947 | 3F Mirella AL DI 60+14 SP L2200 | 1 | 0.039 | 9.100 | 93 |
| 10948 | 3F Mirella AL DI 40+8 DALI SP L1480 | 1 | 0.027 | 6.500 | 93 |
| 10949 | 3F Mirella AL DI 60+14 DALI SP L2200 | 1 | 0.039 | 9.200 | 93 |
| 10953 | 3F Mirella AL 40 OP L1480 | 1 | 0.027 | 6.100 | 90 |
| 10954 | 3F Mirella AL 60 OP L2200 | 1 | 0.039 | 8.700 | 90 |
| 10955 | 3F Mirella AL 40 DALI OP L1480 | 1 | 0.027 | 6.200 | 90 |
| 10956 | 3F Mirella AL 60 DALI OP L2200 | 1 | 0.039 | 8.800 | 90 |
| 10957 | 3F Mirella AL DI 40+8 OP L1480 | 1 | 0.027 | 6.400 | 94 |
| 10958 | 3F Mirella AL DI 60+14 OP L2200 | 1 | 0.039 | 9.100 | 94 |
| 10959 | 3F Mirella AL DI 40+8 DALI OP L1480 | 1 | 0.027 | 6.500 | 94 |
| 10960 | 3F Mirella AL DI 60+14 DALI OP L2200 | 1 | 0.039 | 9.200 | 94 |
| 10961 | 3F Zeta D 1x22 LED DALI L1489 | 1 | 0.010 | 4.000 | 153 |
| 10962 | 3F Zeta D 1x18 LED DALI L1194 | 1 | 0.008 | 3.500 | 153 |
| 10964 | 3F Zeta D 2x22 LED DALI L1489 | 1 | 0.010 | 4.200 | 153 |
| 10965 | 3F Zeta D 2x18 LED DALI L1194 | 1 | 0.004 | 3.700 | 153 |
| 10967 | 3F Zeta DR 1x22 LED DALI L1489 | 1 | 0.010 | 4.000 | 155 |
| 10968 | 3F Zeta DR 1x18 LED DALI L1194 | 1 | 0.008 | 3.500 | 155 |
| 10970 | 3F Zeta DR 2x22 LED DALI L1489 | 1 | 0.010 | 4.200 | 155 |
| 10971 | 3F Zeta DR 2x18 LED DALI L1194 | 1 | 0.008 | 3.700 | 155 |
| 10973 | 3F Zeta DR AS 1x30 LED DALI L1489 | 1 | 0.010 | 4.500 | 155 |
| 10974 | 3F Zeta DR AS 2x22 LED DALI L1489 | 1 | 0.010 | 4.700 | 155 |
| 10976 | 3F Zeta L 40 LED DALI L1489 | 1 | 0.010 | 4.000 | 149 |
| 10977 | 3F Zeta L 30 LED DALI L1194 | 1 | 0.008 | 3.500 | 149 |
| 10980 | 3F Zeta D 1x22 LED EP L1489 | 1 | 0.010 | 4.800 | 153 |
| 10982 | 3F Zeta D 2x22 LED EP L1489 | 1 | 0.010 | 5.000 | 153 |
| 10984 | 3F Zeta DR 1x22 LED EP L1489 | 1 | 0.010 | 4.800 | 155 |
| 10986 | 3F Zeta DR 2x22 LED EP L1489 | 1 | 0.010 | 5.000 | 155 |
| 10988 | 3F Zeta L 40 LED EP L1489 | 1 | 0.010 | 4.800 | 149 |
| 10997 | 3F Zeta DR UGR 2x22 LED L1783 | 1 | 0.012 | 5.500 | 156 |
| 10998 | 3F Zeta DR UGR 1x30 LED L1783 | 1 | 0.012 | 5.400 | 156 |
| 10999 | 3F Zeta DR UGR 2x22 LED DALI L1783 | 1 | 0.012 | 5.500 | 156 |
| 11000 | 3F Zeta DR UGR 1x30 LED DALI L1783 | 1 | 0.012 | 5.400 | 156 |
| 11001 | 3F Zeta DR UGR 2x22 LED EP L1783 | 1 | 0.012 | 6.100 | 156 |
| 11002 | 3F Zeta DR UGR 1x30 LED EP L1783 | 1 | 0.012 | 6.000 | 156 |
| 11003 | 3F Zeta DR UGR 2x22/940 LED L1783 | 1 | 0.012 | 5.500 | 156 |
| 11004 | 3F Zeta DR UGR 2x22/940 LED DALI L1783 | 1 | 0.012 | 5.500 | 156 |
| 11481 | 3F Travetta LED 1x22W DALI 2MG L1590 | 1 | 0.022 | 4.800 | 171 |
| 11484 | 3F Travetta LED 2x22W DALI 2MG L1590 | 1 | 0.022 | 5.000 | 171 |
| 11494 | 3F Travetta LED 1x18W DALI OP L1290 | 1 | 0.018 | 3.800 | 172 |
| 11495 | 3F Travetta LED 1x22W DALI OP L1590 | 1 | 0.022 | 4.800 | 172 |
| 11497 | 3F Travetta LED 2x18W DALI OP L1290 | 1 | 0.018 | 4.000 | 172 |
| 11498 | 3F Travetta LED 2x22W DALI OP L1590 | 1 | 0.022 | 5.000 | 172 |
| 11503 | 3F Travetta LED DI 2x15W DALI 2MG L1590 | 1 | 0.022 | 5.200 | 175 |
| 11504 | 3F Travetta LED DI 2x22W DALI 2MG L1590 | 1 | 0.022 | 5.200 | 175 |
| 11511 | 3F Travetta LED 1x40W DALI OP L2200 | 1 | 0.028 | 7.000 | 172 |
| 11513 | 3F Travetta LED 2x40W DALI OP L2200 | 1 | 0.028 | 7.500 | 172 |
| 11522 | 3F Trav. LED DI 2x15W DALI LS 2MG L1590 | 1 | 0.022 | 5.300 | 175 |
| 11523 | 3F Trav. LED DI 2x22W DALI LS 2MG L1590 | 1 | 0.022 | 5.300 | 175 |
| 11528 | 3F Travetta LED 1x24W LGS L1290 | 1 | 0.018 | 3.800 | 171 |
| 11530 | 3F Travetta LED 1x30W LGS L1590 | 1 | 0.022 | 4.800 | 171 |
| 11531 | 3F Travetta LED 2x18W LGS L1290 | 1 | 0.018 | 4.000 | 171 |
| 11533 | 3F Travetta LED 2x22W LGS L1590 | 1 | 0.022 | 5.000 | 171 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 11537 | 3F Travetta LED 1x24W DALI LGS L1290 | 1 | 0.018 | 3.800 | 171 |
| 11539 | 3F Travetta LED 1x30W DALI LGS L1590 | 1 | 0.022 | 4.800 | 171 |
| 11540 | 3F Travetta LED 2x18W DALI LGS L1290 | 1 | 0.018 | 4.000 | 171 |
| 11542 | 3F Travetta LED 2x22W DALI LGS L1590 | 1 | 0.022 | 5.000 | 171 |
| 11672 | P 250 32W LED OP 596x596 | 1 | 0.023 | 5.200 | 199 |
| 11674 | P 250 32W LED DALI OP 596x596 | 1 | 0.023 | 5.200 | 199 |
| 11686 | P 250 32W LED LGS 596x596 | 1 | 0.023 | 5.200 | 199 |
| 11688 | P 250 32W LED DALI LGS 596x596 | 1 | 0.023 | 5.200 | 199 |
| 12126 | 3F Diagon P 25W/830 SOFT UGR 596x596 | 1 | 0.016 | 6.400 | 143 |
| 12127 | 3F Diagon P 25W/830 DALI SOFT UGR 596x596 | 1 | 0.016 | 6.600 | 143 |
| 12128 | 3F Diagon P 25W/830 EP SOFT UGR 596x596 | 1 | 0.016 | 7.200 | 143 |
| 12130 | 3F Diagon P 25W/840 SOFT UGR 596x596 | 1 | 0.016 | 6.400 | 143 |
| 12131 | 3F Diagon P 25W/840 DALI SOFT UGR 596x596 | 1 | 0.016 | 6.600 | 143 |
| 12132 | 3F Diagon P 25W/840 EP SOFT UGR 596x596 | 1 | 0.016 | 7.200 | 143 |
| 12134 | 3F Diagon P 39W/930 SOFT UGR 596x596 | 1 | 0.016 | 6.400 | 143 |
| 12135 | 3F Diagon P 39W/930 DALI SOFT UGR 596x596 | 1 | 0.016 | 6.600 | 143 |
| 12136 | 3F Diagon P 39W/930 EP SOFT UGR 596x596 | 1 | 0.016 | 7.200 | 143 |
| 12138 | 3F Diagon P 39W/940 SOFT UGR 596x596 | 1 | 0.016 | 6.400 | 143 |
| 12139 | 3F Diagon P 39W/940 DALI SOFT UGR 596x596 | 1 | 0.016 | 6.600 | 143 |
| 12140 | 3F Diagon P 39W/940 EP SOFT UGR 596x596 | 1 | 0.016 | 7.200 | 143 |
| 12142 | 3F Diagon P 25W DT8 TW SOFT UGR 596x596 | 1 | 0.016 | 6.400 | 145 |
| 12403 | Fil 180 LED 2x24W RSP AMPIO L1280 | 1 | 0.021 | 5.000 | 183 |
| 12404 | Fil 180 LED 2x30W RSP AMPIO L1590 | 1 | 0.026 | 6.200 | 183 |
| 12601 | Fil 180 LED 1x24W 2US L1280 | 1 | 0.021 | 4.500 | 183 |
| 12603 | Fil 180 LED 1x30W 2US L1590 | 1 | 0.026 | 5.700 | 183 |
| 12605 | Fil 180 LED 2x24W 2US L1280 | 1 | 0.021 | 4.700 | 183 |
| 12607 | Fil 180 LED 2x30W 2US L1590 | 1 | 0.026 | 5.900 | 183 |
| 12614 | Fil 180 LED 1+1x30W 2US L3140 | 1 | 0.051 | 11.400 | 183 |
| 12618 | Fil 180 LED 2+2x30W 2US L3140 | 1 | 0.051 | 11.800 | 183 |
| 12675 | P 201x30W LED 2US 156x1531 | 1 | 0.022 | 4.900 | 191 |
| 12680 | P 202x24W LED 2US 196x1231 | 1 | 0.022 | 4.500 | 191 |
| 12682 | P 202x30W LED 2US 196x1531 | 1 | 0.028 | 5.800 | 191 |
| 12687 | P 202x24W LED 2US 270x1231 | 1 | 0.030 | 5.900 | 191 |
| 12689 | P 202x30W LED 2US 270x1531 | 1 | 0.040 | 6.700 | 191 |
| 12692 | P 203x10W LED 2US 596x596 | 1 | 0.037 | 5.300 | 191 |
| 12771 | Barraluce P 1x30W LED SP L1471 | 1 | 0.017 | 4.600 | 202 |
| 12773 | Barraluce P 1+1x30W LED SP L2937 | 1 | 0.033 | 9.200 | 202 |
| 12779 | Barraluce P 1x30W LED SP 5P L1466 | 1 | 0.017 | 4.900 | 202 |
| 12781 | Barraluce P 1+1x30W LED SP 5P L2932 | 1 | 0.033 | 9.800 | 202 |
| 12787 | Barraluce P 1x30W LED OP L1471 | 1 | 0.017 | 4.600 | 201 |
| 12789 | Barraluce P 1+1x30W LED OP L2937 | 1 | 0.033 | 9.200 | 201 |
| 12795 | Barraluce P 1x30W LED OP 5P L1466 | 1 | 0.017 | 4.900 | 201 |
| 12797 | Barraluce P 1+1x30W LED OP 5P L2932 | 1 | 0.033 | 9.200 | 201 |
| 12815 | P 251x30W LED SP 156x1531 | 1 | 0.015 | 5.000 | 195 |
| 12820 | P 252x24W LED SP 196x1231 | 1 | 0.015 | 4.400 | 195 |
| 12822 | P 252x30W LED SP 196x1531 | 1 | 0.019 | 5.600 | 195 |
| 12824 | P 253x10W LED SP 596x596 | 1 | 0.023 | 4.900 | 195 |
| 12826 | P 254x10W LED SP 596x596 | 1 | 0.023 | 5.100 | 195 |
| 12835 | P 251x30W LED OP 156x1531 | 1 | 0.015 | 5.000 | 195 |
| 12840 | P 252x24W LED OP 196x1231 | 1 | 0.015 | 4.400 | 195 |
| 12842 | P 252x30W LED OP 196x1531 | 1 | 0.019 | 5.600 | 195 |
| 12844 | P 253x10W LED OP 596x596 | 1 | 0.023 | 4.900 | 195 |
| 12846 | P 254x10W LED OP 596x596 | 1 | 0.023 | 5.100 | 195 |
| 12855 | P 251x30W LED LGS 156x1531 | 1 | 0.015 | 5.000 | 196 |
| 12860 | P 252x24W LED LGS 196x1231 | 1 | 0.015 | 4.400 | 196 |
| 12862 | P 252x30W LED LGS 196x1531 | 1 | 0.019 | 5.600 | 196 |
| 12864 | P 253x10W LED LGS 596x596 | 1 | 0.023 | 4.900 | 196 |
| 12866 | P 254x10W LED LGS 596x596 | 1 | 0.023 | 5.100 | 196 |
| 12870 | 3F Mirella SF BK 40 SP L1480 | 1 | 0.027 | 6.100 | 97 |
| 12871 | 3F Mirella SF BK 60 SP L2200 | 1 | 0.039 | 8.700 | 97 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 12872 | 3F Mirella SF BK 40 DALI SP L1480 | 1 | 0.027 | 6.200 | 97 |
| 12873 | 3F Mirella SF BK 60 DALI SP L2200 | 1 | 0.039 | 8.800 | 97 |
| 12874 | 3F Mirella SF BK DI 40+8 SP L1480 | 1 | 0.027 | 6.400 | 99 |
| 12875 | 3F Mirella SF BK DI 60+14 SP L2200 | 1 | 0.039 | 9.100 | 99 |
| 12876 | 3F Mirella SF BK DI 40+8 DALI SP L1480 | 1 | 0.027 | 6.500 | 99 |
| 12877 | 3F Mirella SF BK DI 60+14 DALI SP L2200 | 1 | 0.039 | 9.200 | 99 |
| 12892 | 3F Mirella SF WH 40 SP L1480 | 1 | 0.027 | 6.100 | 97 |
| 12893 | 3F Mirella SF WH 60 SP L2200 | 1 | 0.039 | 8.700 | 97 |
| 12894 | 3F Mirella SF WH 40 DALI SP L1480 | 1 | 0.027 | 6.200 | 97 |
| 12895 | 3F Mirella SF WH 60 DALI SP L2200 | 1 | 0.039 | 8.800 | 97 |
| 12896 | 3F Mirella SF WH DI 40+8 SP L1480 | 1 | 0.027 | 6.400 | 99 |
| 12897 | 3F Mirella SF WH DI 60+14 SP L2200 | 1 | 0.039 | 9.100 | 99 |
| 12898 | 3F Mirella SF WH DI 40+8 DALI SP L1480 | 1 | 0.027 | 6.500 | 99 |
| 12899 | 3F Mirella SF WH DI 60+14 DALI SP L2200 | 1 | 0.039 | 9.200 | 99 |
| 12914 | 3F Mirella SF AL 40 SP L1480 | 1 | 0.027 | 6.100 | 97 |
| 12915 | 3F Mirella SF AL 60 SP L2200 | 1 | 0.039 | 8.700 | 97 |
| 12916 | 3F Mirella SF AL 40 DALI SP L1480 | 1 | 0.027 | 6.200 | 97 |
| 12917 | 3F Mirella SF AL 60 DALI SP L2200 | 1 | 0.039 | 8.800 | 97 |
| 12918 | 3F Mirella SF AL DI 40+8 SP L1480 | 1 | 0.027 | 6.400 | 99 |
| 12919 | 3F Mirella SF AL DI 60+14 SP L2200 | 1 | 0.039 | 9.100 | 99 |
| 12920 | 3F Mirella SF AL DI 40+8 DALI SP L1480 | 1 | 0.027 | 6.500 | 99 |
| 12921 | 3F Mirella SF AL DI 60+14 DALI SP L2200 | 1 | 0.039 | 9.200 | 99 |
| 12960 | 3F Mirella Floor SF BK 23+23 | 1 | | 15.000 | 101 |
| 12961 | 3F Mirella Floor SF WH 23+23 | 1 | | 15.000 | 101 |
| 12964 | 3F Mirella Floor SF BK 23+23 Touch DALI | 1 | | 15.000 | 101 |
| 12965 | 3F Mirella Floor SF WH 23+23 Touch DALI | 1 | | 15.000 | 101 |
| 21244 | L 323x10W LED SP 596x596 | 1 | 0.031 | 5.000 | 255 |
| 21245 | L 324x10W LED SP 596x596 | 1 | 0.031 | 5.200 | 255 |
| 21256 | L 323x10W LED DALI SP 596x596 | 1 | 0.031 | 5.000 | 255 |
| 21257 | L 324x10W LED DALI SP 596x596 | 1 | 0.031 | 5.200 | 255 |
| 21262 | L 323x10W LED EP SP 596x596 | 1 | 0.031 | 5.900 | 255 |
| 21263 | L 324x10W LED EP SP 596x596 | 1 | 0.031 | 6.100 | 255 |
| 21282 | L 323x10W LED Sensor CF SP 596x596 | 1 | 0.031 | 5.200 | 265 |
| 21287 | L 322x18W LED SP 296x1196 | 1 | 0.039 | 5.400 | 255 |
| 21290 | L 322x18W LED DALI SP 296x1196 | 1 | 0.039 | 5.400 | 255 |
| 21293 | L 322x18W LED EP SP 296x1196 | 1 | 0.039 | 5.900 | 255 |
| 21522 | L 594x10W LED RVS 599x599 | 1 | 0.041 | 11.500 | 289 |
| 21524 | L 596x10W LED RVS 599x599 | 1 | 0.041 | 12.000 | 289 |
| 21529 | L 594x10W/940 LED RVS 599x599 | 1 | 0.041 | 11.500 | 289 |
| 21531 | L 596x10W/940 LED RVS 599x599 | 1 | 0.041 | 12.000 | 289 |
| 21536 | L 594x10W LED DALI RVS 599x599 | 1 | 0.041 | 11.500 | 289 |
| 21538 | L 596x10W LED DALI RVS 599x599 | 1 | 0.041 | 12.000 | 289 |
| 21543 | L 594x10W/940 LED DALI RVS 599x599 | 1 | 0.041 | 11.500 | 289 |
| 21545 | L 596x10W/940 LED DALI RVS 599x599 | 1 | 0.041 | 12.000 | 289 |
| 21557 | L 594x10W/940 LED RVSS 599x599 | 1 | 0.041 | 13.500 | 289 |
| 21559 | L 596x10W/940 LED RVSS 599x599 | 1 | 0.041 | 14.000 | 289 |
| 21571 | L 594x10W/940 LED DALI RVSS 599x599 | 1 | 0.041 | 13.500 | 289 |
| 21573 | L 596x10W/940 LED DALI RVSS 599x599 | 1 | 0.041 | 14.000 | 289 |
| 21580 | L 323x10W LED LGS 596x596 | 1 | 0.031 | 5.000 | 256 |
| 21581 | L 324x10W LED LGS 596x596 | 1 | 0.031 | 5.200 | 256 |
| 21586 | L 323x10W LED DALI LGS 596x596 | 1 | 0.031 | 5.000 | 256 |
| 21587 | L 324x10W LED DALI LGS 596x596 | 1 | 0.031 | 5.200 | 256 |
| 21589 | L 323x10W LED EP LGS 596x596 | 1 | 0.031 | 5.900 | 256 |
| 21590 | L 324x10W LED EP LGS 596x596 | 1 | 0.031 | 6.100 | 256 |
| 21598 | L 323x10W LED Sensor CF LGS 596x596 | 1 | 0.031 | 5.200 | 265 |
| 21600 | L 322x18W LED LGS 296x1196 | 1 | 0.039 | 5.400 | 256 |
| 21603 | L 322x18W LED DALI LGS 296x1196 | 1 | 0.039 | 5.400 | 256 |
| 21606 | L 322x18W LED EP LGS 296x1196 | 1 | 0.039 | 5.900 | 256 |
| 21615 | L 323x10W LED DALI DT8 TW LGS 596x596 | 1 | 0.039 | 5.200 | 263 |
| 21640 | L 320 32W LED LGS 596x596 | 1 | 0.023 | 4.900 | 260 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 21641 | L 320 32W LED DALI LGS 596x596 | 1 | 0.023 | 4.900 | 260 |
| 21642 | L 320 32W LED EP LGS 596x596 | 1 | 0.045 | 5.900 | 260 |
| 21648 | L 320 32W LED OP 596x596 | 1 | 0.023 | 4.900 | 259 |
| 21649 | L 320 32W LED DALI OP 596x596 | 1 | 0.023 | 4.900 | 259 |
| 21650 | L 320 32W LED EP OP 596x596 | 1 | 0.045 | 5.900 | 259 |
| 21652 | L 320 32W LED LGS 621x621 | 1 | 0.024 | 4.800 | 260 |
| 21653 | L 320 32W LED DALI LGS 621x621 | 1 | 0.024 | 4.800 | 260 |
| 21654 | L 320 32W LED EP LGS 621x621 | 1 | 0.054 | 5.800 | 260 |
| 21660 | L 320 32W LED OP 621x621 | 1 | 0.024 | 4.800 | 259 |
| 21661 | L 320 32W LED DALI OP 621x621 | 1 | 0.024 | 4.800 | 259 |
| 21662 | L 320 32W LED EP OP 621x621 | 1 | 0.054 | 5.800 | 259 |
| 21720 | 3F Emilio R LED 2000/840 SPOT | 1 | 0.006 | 1.600 | 229 |
| 21721 | 3F Emilio R LED 2000/930 SPOT | 1 | 0.006 | 1.600 | 229 |
| 21728 | 3F Emilio R LED 2000/840 ELL | 1 | 0.006 | 1.600 | 229 |
| 21729 | 3F Emilio R LED 2000/930 ELL | 1 | 0.006 | 1.600 | 229 |
| 21736 | 3F Emilio R LED 2000/840 IPER | 1 | 0.006 | 1.600 | 230 |
| 21737 | 3F Emilio R LED 2000/930 IPER | 1 | 0.006 | 1.600 | 230 |
| 21744 | 3F Emilio R LED 3000/840 IPER | 1 | 0.006 | 1.600 | 230 |
| 21801 | L 583x10W LED SP IP54 596x596 | 1 | 0.037 | 5.500 | 286 |
| 21802 | L 584x10W LED SP IP54 596x596 | 1 | 0.037 | 5.800 | 286 |
| 21808 | L 583x10W LED SP IP54 621x621 | 1 | 0.041 | 5.600 | 286 |
| 21809 | L 584x10W LED SP IP54 621x621 | 1 | 0.041 | 5.900 | 286 |
| 21815 | L 583x10W LED VS IP54 596x596 | 1 | 0.037 | 7.000 | 285 |
| 21816 | L 584x10W LED VS IP54 596x596 | 1 | 0.037 | 7.300 | 285 |
| 21822 | L 583x10W LED VS IP54 621x621 | 1 | 0.041 | 7.100 | 285 |
| 21823 | L 584x10W LED VS IP54 621x621 | 1 | 0.041 | 7.400 | 285 |
| 21829 | L 583x10W LED DALI SP IP54 596x596 | 1 | 0.037 | 5.500 | 286 |
| 21830 | L 584x10W LED DALI SP IP54 596x596 | 1 | 0.037 | 5.800 | 286 |
| 21836 | L 583x10W LED DALI SP IP54 621x621 | 1 | 0.041 | 5.600 | 286 |
| 21837 | L 584x10W LED DALI SP IP54 621x621 | 1 | 0.041 | 5.900 | 286 |
| 21843 | L 583x10W LED DALI VS IP54 596x596 | 1 | 0.037 | 7.000 | 285 |
| 21844 | L 584x10W LED DALI VS IP54 596x596 | 1 | 0.037 | 7.300 | 285 |
| 21850 | L 583x10W LED DALI VS IP54 621x621 | 1 | 0.041 | 7.100 | 285 |
| 21851 | L 584x10W LED DALI VS IP54 621x621 | 1 | 0.041 | 7.400 | 285 |
| 22701 | L 323x10W/940 LED SP 596x596 | 1 | 0.031 | 5.000 | 255 |
| 22702 | L 324x10W/940 LED SP 596x596 | 1 | 0.031 | 5.200 | 255 |
| 22703 | L 323x10W/940 LED DALI SP 596x596 | 1 | 0.031 | 5.000 | 255 |
| 22704 | L 324x10W/940 LED DALI SP 596x596 | 1 | 0.031 | 5.200 | 255 |
| 22705 | L 323x10W/940 LED EP SP 596x596 | 1 | 0.031 | 5.900 | 255 |
| 22706 | L 324x10W/940 LED EP SP 596x596 | 1 | 0.031 | 6.100 | 255 |
| 22709 | L 324x10W/940 LED LGS 596x596 | 1 | 0.031 | 5.200 | 256 |
| 22710 | L 324x10W/940 LED DALI LGS 596x596 | 1 | 0.031 | 5.200 | 256 |
| 22711 | L 324x10W/940 LED EP LGS 596x596 | 1 | 0.031 | 6.100 | 256 |
| 22716 | L 323x10W/940 LED 2S 596x596 | 1 | 0.031 | 4.850 | 254 |
| 22717 | L 323x10W/940 LED EP 2S 596x596 | 1 | 0.031 | 5.150 | 254 |
| 22718 | L 323x10W/940 LED DALI 2S 596x596 | 1 | 0.031 | 4.850 | 254 |
| 22722 | L 323x10W/940 LED 2MG 596x596 | 1 | 0.031 | 4.850 | 253 |
| 22723 | L 323x10W/940 LED EP 2MG 596x596 | 1 | 0.031 | 5.150 | 253 |
| 22724 | L 323x10W/940 LED DALI 2MG 596x596 | 1 | 0.031 | 4.850 | 253 |
| 22732 | L 320 32W/940 LED LGS 596x596 | 1 | 0.023 | 4.900 | 260 |
| 22733 | L 320 32W/940 LED DALI LGS 596x596 | 1 | 0.023 | 4.900 | 260 |
| 22734 | L 320 32W/940 LED EP LGS 596x596 | 1 | 0.045 | 5.900 | 260 |
| 22742 | L 320 32W/940 LED OP 596x596 | 1 | 0.023 | 4.900 | 259 |
| 22743 | L 320 32W/940 LED DALI OP 596x596 | 1 | 0.023 | 4.900 | 259 |
| 22744 | L 320 32W/940 LED EP OP 596x596 | 1 | 0.045 | 5.900 | 259 |
| 22754 | L 592x24W/940 LED RVSS 299x1199 | 1 | 0.042 | 11.000 | 289 |
| 22755 | L 592x24W/940 LED RVSS 299x1199 | 1 | 0.042 | 16.000 | 289 |
| 22757 | L 592x24W/940 LED DALI RVSS 299x1199 | 1 | 0.042 | 11.000 | 289 |
| 22758 | L 592x24W/940 LED DALI RVSS 299x1199 | 1 | 0.042 | 16.000 | 289 |
| 22767 | L 480 24W LED GSP 80x1210 | 1 | | 2.900 | 277 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 22768 | L 480 30W LED GSP 80x1510 | 1 | | 3.700 | 277 |
| 22770 | L 480 24W LED DALI GSP 80x1210 | 1 | | 3.000 | 277 |
| 22771 | L 480 30W LED DALI GSP 80x1510 | 1 | | 3.800 | 277 |
| 22773 | L 480 24W LED OP 80x1210 | 1 | | 2.900 | 277 |
| 22774 | L 480 30W LED OP 80x1510 | 1 | | 3.700 | 277 |
| 22776 | L 480 24W LED DALI OP 80x1210 | 1 | | 3.000 | 277 |
| 22777 | L 480 30W LED DALI OP 80x1510 | 1 | | 3.800 | 277 |
| 22782 | L 362x12W LED OCW 296x1196 | 1 | | 6.500 | 275 |
| 22783 | L 362x12W LED DALI OCW 296x1196 | 1 | | 6.700 | 275 |
| 22786 | L 362x12W LED OCW 308x1246 | 1 | | 6.800 | 275 |
| 22787 | L 362x12W LED DALI OCW 308x1246 | 1 | | 7.000 | 275 |
| 23002 | 3F Diagon 25W/830 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23006 | 3F Diagon 25W/830 DALI 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23010 | 3F Diagon 25W/830 EP 596x596 | 1 | 0.014 | 4.900 | 239 |
| 23024 | 3F Diagon 19W/840 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23025 | 3F Diagon 15W/840 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23026 | 3F Diagon 25W/840 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23027 | 3F Diagon 39W/840 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23028 | 3F Diagon 19W/840 DALI 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23029 | 3F Diagon 15W/840 DALI 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23030 | 3F Diagon 25W/840 DALI 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23031 | 3F Diagon 39W/840 DALI 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23032 | 3F Diagon 19W/840 EP 596x596 | 1 | 0.014 | 4.900 | 239 |
| 23033 | 3F Diagon 15W/840 EP 596x596 | 1 | 0.014 | 4.900 | 239 |
| 23034 | 3F Diagon 25W/840 EP 596x596 | 1 | 0.014 | 4.900 | 239 |
| 23035 | 3F Diagon 39W/840 EP 596x596 | 1 | 0.014 | 4.900 | 239 |
| 23098 | 3F Diagon 25W/930 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23102 | 3F Diagon 25W/930 DALI 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23106 | 3F Diagon 25W/930 EP 596x596 | 1 | 0.014 | 4.900 | 239 |
| 23122 | 3F Diagon 25W/940 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23126 | 3F Diagon 25W/940 DALI 596x596 | 1 | 0.014 | 4.100 | 239 |
| 23130 | 3F Diagon 25W/940 EP 596x596 | 1 | 0.014 | 4.900 | 239 |
| 23386 | 3F Diagon 25W/830 621x621 | 1 | 0.016 | 4.300 | 239 |
| 23390 | 3F Diagon 25W/830 DALI 621x621 | 1 | 0.016 | 4.300 | 240 |
| 23394 | 3F Diagon 25W/830 EP 621x621 | 1 | 0.016 | 5.100 | 240 |
| 23408 | 3F Diagon 19W/840 621x621 | 1 | 0.016 | 4.300 | 239 |
| 23409 | 3F Diagon 15W/840 621x621 | 1 | 0.016 | 4.300 | 239 |
| 23410 | 3F Diagon 25W/840 621x621 | 1 | 0.016 | 4.300 | 239 |
| 23411 | 3F Diagon 39W/840 621x621 | 1 | 0.016 | 4.300 | 239 |
| 23412 | 3F Diagon 19W/840 DALI 621x621 | 1 | 0.016 | 4.300 | 240 |
| 23413 | 3F Diagon 15W/840 DALI 621x621 | 1 | 0.016 | 4.300 | 240 |
| 23414 | 3F Diagon 25W/840 DALI 621x621 | 1 | 0.016 | 4.300 | 240 |
| 23415 | 3F Diagon 39W/840 DALI 621x621 | 1 | 0.016 | 4.300 | 240 |
| 23416 | 3F Diagon 19W/840 EP 621x621 | 1 | 0.016 | 5.100 | 240 |
| 23417 | 3F Diagon 15W/840 EP 621x621 | 1 | 0.016 | 5.100 | 240 |
| 23418 | 3F Diagon 25W/840 EP 621x621 | 1 | 0.016 | 5.100 | 240 |
| 23419 | 3F Diagon 39W/840 EP 621x621 | 1 | 0.016 | 5.100 | 240 |
| 23482 | 3F Diagon 25W/930 621x621 | 1 | 0.016 | 4.300 | 239 |
| 23486 | 3F Diagon 25W/930 DALI 621x621 | 1 | 0.016 | 4.300 | 240 |
| 23490 | 3F Diagon 25W/930 EP 621x621 | 1 | 0.016 | 5.100 | 240 |
| 23506 | 3F Diagon 25W/940 621x621 | 1 | 0.016 | 4.300 | 239 |
| 23510 | 3F Diagon 25W/940 DALI 621x621 | 1 | 0.016 | 4.300 | 240 |
| 23514 | 3F Diagon 25W/940 EP 621x621 | 1 | 0.016 | 5.100 | 240 |
| 23768 | 3F Diagon FP 19W/840 621x621 | 1 | 0.037 | 4.500 | 248 |
| 23769 | 3F Diagon FP 25W/840 621x621 | 1 | 0.037 | 4.500 | 248 |
| 23770 | 3F Diagon FP 19W/840 DALI 621x621 | 1 | 0.037 | 4.500 | 248 |
| 23771 | 3F Diagon FP 25W/840 DALI 621x621 | 1 | 0.037 | 4.500 | 248 |
| 23772 | 3F Diagon FP 19W/840 EP 621x621 | 1 | 0.037 | 5.300 | 248 |
| 23773 | 3F Diagon FP 25W/840 EP 621x621 | 1 | 0.037 | 5.300 | 248 |
| 23785 | 3F Diagon FCL 19W/840 599x599 | 1 | 0.037 | 4.500 | 247 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 23786 | 3F Diagon FCL 25W/840 599x599 | 1 | 0.037 | 4.500 | 247 |
| 23787 | 3F Diagon FCL 19W/840 DALI 599x599 | 1 | 0.037 | 4.500 | 247 |
| 23788 | 3F Diagon FCL 25W/840 DALI 599x599 | 1 | 0.037 | 4.500 | 247 |
| 23789 | 3F Diagon FCL 19W/840 EP 599x599 | 1 | 0.037 | 5.300 | 247 |
| 23790 | 3F Diagon FCL 25W/840 EP 599x599 | 1 | 0.037 | 5.300 | 247 |
| 23795 | 3F Diagon FCH 19W/840 599x599 | 1 | 0.037 | 4.500 | 247 |
| 23796 | 3F Diagon FCH 25W/840 599x599 | 1 | 0.037 | 4.500 | 247 |
| 23797 | 3F Diagon FCH 19W/840 DALI 599x599 | 1 | 0.037 | 4.500 | 247 |
| 23798 | 3F Diagon FCH 25W/840 DALI 599x599 | 1 | 0.037 | 4.500 | 247 |
| 23799 | 3F Diagon FCH 19W/840 EP 599x599 | 1 | 0.037 | 5.300 | 247 |
| 23800 | 3F Diagon FCH 25W/840 EP 599x599 | 1 | 0.037 | 5.300 | 247 |
| 23812 | 3F Diagon 25W/840 SOFT UGR 596x596 | 1 | 0.014 | 4.100 | 241 |
| 23813 | 3F Diagon 25W/840 EP SOFT UGR 596x596 | 1 | 0.014 | 4.900 | 241 |
| 23814 | 3F Diagon 25W/840 DALI SOFT UGR 596x596 | 1 | 0.014 | 4.100 | 241 |
| 23816 | 3F Diagon 25W DT8 TW SOFT UGR 596x596 | 1 | 0.014 | 4.100 | 243 |
| 23819 | 3F Diagon 25W/840 SOFT UGR 621x621 | 1 | 0.016 | 4.300 | 241 |
| 23820 | 3F Diagon 25W/840 EP SOFT UGR 621x621 | 1 | 0.016 | 5.100 | 241 |
| 23821 | 3F Diagon 25W/840 DALI SOFT UGR 621x621 | 1 | 0.016 | 4.300 | 241 |
| 23823 | 3F Diagon 25W DT8 TW SOFT UGR 621x621 | 1 | 0.016 | 4.300 | 243 |
| 23826 | 3F Diagon 25W/830 SOFT UGR 596x596 | 1 | 0.014 | 4.100 | 241 |
| 23827 | 3F Diagon 25W/830 EP SOFT UGR 596x596 | 1 | 0.014 | 4.900 | 241 |
| 23828 | 3F Diagon 25W/830 DALI SOFT UGR 596x596 | 1 | 0.014 | 4.100 | 241 |
| 23830 | 3F Diagon 25W/830 SOFT UGR 621x621 | 1 | 0.016 | 4.300 | 241 |
| 23831 | 3F Diagon 25W/830 EP SOFT UGR 621x621 | 1 | 0.016 | 5.100 | 241 |
| 23832 | 3F Diagon 25W/830 DALI SOFT UGR 621x621 | 1 | 0.016 | 4.300 | 241 |
| 23834 | 3F Diagon 39W/940 SOFT UGR 596x596 | 1 | 0.014 | 4.100 | 241 |
| 23835 | 3F Diagon 39W/940 EP SOFT UGR 596x596 | 1 | 0.014 | 4.900 | 241 |
| 23836 | 3F Diagon 39W/940 DALI SOFT UGR 596x596 | 1 | 0.014 | 4.100 | 241 |
| 23838 | 3F Diagon 39W/940 SOFT UGR 621x621 | 1 | 0.016 | 4.300 | 241 |
| 23839 | 3F Diagon 39W/940 EP SOFT UGR 621x621 | 1 | 0.016 | 5.100 | 241 |
| 23840 | 3F Diagon 39W/940 DALI SOFT UGR 621x621 | 1 | 0.016 | 4.300 | 241 |
| 23842 | 3F Diagon 39W/930 SOFT UGR 596x596 | 1 | 0.014 | 4.100 | 241 |
| 23843 | 3F Diagon 39W/930 EP SOFT UGR 596x596 | 1 | 0.014 | 4.900 | 241 |
| 23844 | 3F Diagon 39W/930 DALI SOFT UGR 596x596 | 1 | 0.014 | 4.100 | 241 |
| 23846 | 3F Diagon 39W/930 SOFT UGR 621x621 | 1 | 0.016 | 4.300 | 241 |
| 23847 | 3F Diagon 39W/930 EP SOFT UGR 621x621 | 1 | 0.016 | 5.100 | 241 |
| 23848 | 3F Diagon 39W/930 DALI SOFT UGR 621x621 | 1 | 0.016 | 4.300 | 241 |
| 23850 | 3F Diagon FP 25W/840 SOFT UGR 621x621 | 1 | 0.037 | 4.500 | 248 |
| 23851 | 3F Diagon FP 25W/840 EP SOFT UGR 621x621 | 1 | 0.037 | 5.300 | 248 |
| 23852 | 3F Diagon FP 25W/840 DALI SOFT UGR 621x621 | 1 | 0.037 | 4.500 | 248 |
| 28826 | L 323x10W LED 2S 596x596 | 1 | 0.031 | 4.850 | 254 |
| 28828 | L 322x18W LED 2S 296x1196 | 1 | 0.039 | 5.200 | 254 |
| 28829 | L 323x10W LED EP 2S 596x596 | 1 | 0.031 | 5.150 | 254 |
| 28831 | L 322x18W LED EP 2S 296x1196 | 1 | 0.039 | 6.000 | 254 |
| 28838 | L 323x10W LED DALI 2S 596x596 | 1 | 0.031 | 4.850 | 254 |
| 28840 | L 322x18W LED DALI 2S 296x1196 | 1 | 0.039 | 5.200 | 254 |
| 28844 | L 323x10W LED 2MG 596x596 | 1 | 0.031 | 4.850 | 253 |
| 28846 | L 322x18W LED 2MG 296x1196 | 1 | 0.039 | 5.200 | 253 |
| 28847 | L 323x10W LED EP 2MG 596x596 | 1 | 0.031 | 5.150 | 253 |
| 28849 | L 322x18W LED EP 2MG 296x1196 | 1 | 0.039 | 6.000 | 253 |
| 28856 | L 323x10W LED DALI 2MG 596x596 | 1 | 0.031 | 4.850 | 253 |
| 28858 | L 322x18W LED DALI 2MG 296x1196 | 1 | 0.039 | 5.200 | 253 |
| 30001 | 3F Reno 100 WH 1000/840 SPOT | 1 | 0.004 | 0.700 | 213 |
| 30005 | 3F Reno 100 WH 1000/930 SPOT | 1 | 0.004 | 0.700 | 213 |
| 30009 | 3F Reno 100 WH 2000/840 SPOT | 1 | 0.004 | 0.700 | 213 |
| 30013 | 3F Reno 100 WH 2000/930 SPOT | 1 | 0.004 | 0.700 | 213 |
| 30018 | 3F Reno 100 WH 1000/840 EP SPOT | 1 | 0.004 | 1.500 | 213 |
| 30022 | 3F Reno 100 WH 1000/930 EP SPOT | 1 | 0.004 | 1.500 | 213 |
| 30026 | 3F Reno 100 WH 2000/840 EP SPOT | 1 | 0.004 | 1.500 | 213 |
| 30030 | 3F Reno 100 WH 2000/930 EP SPOT | 1 | 0.004 | 1.500 | 213 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 30035 | 3F Reno 100 WH 1000/840 DALI SPOT | 1 | 0.004 | 0.700 | 213 |
| 30039 | 3F Reno 100 WH 1000/930 DALI SPOT | 1 | 0.004 | 0.700 | 213 |
| 30043 | 3F Reno 100 WH 2000/840 DALI SPOT | 1 | 0.004 | 0.700 | 213 |
| 30047 | 3F Reno 100 WH 2000/930 DALI SPOT | 1 | 0.004 | 0.700 | 213 |
| 30069 | 3F Reno 100 WH 1000/840 WIDE | 1 | 0.004 | 0.700 | 215 |
| 30073 | 3F Reno 100 WH 1000/930 WIDE | 1 | 0.004 | 0.700 | 215 |
| 30077 | 3F Reno 100 WH 2000/840 WIDE | 1 | 0.004 | 0.700 | 215 |
| 30081 | 3F Reno 100 WH 2000/930 WIDE | 1 | 0.004 | 0.700 | 215 |
| 30086 | 3F Reno 100 WH 1000/840 EP WIDE | 1 | 0.004 | 1.500 | 215 |
| 30090 | 3F Reno 100 WH 1000/930 EP WIDE | 1 | 0.004 | 1.500 | 215 |
| 30094 | 3F Reno 100 WH 2000/840 EP WIDE | 1 | 0.004 | 1.500 | 215 |
| 30098 | 3F Reno 100 WH 2000/930 EP WIDE | 1 | 0.004 | 1.500 | 215 |
| 30103 | 3F Reno 100 WH 1000/840 DALI WIDE | 1 | 0.004 | 0.700 | 215 |
| 30107 | 3F Reno 100 WH 1000/930 DALI WIDE | 1 | 0.004 | 0.700 | 215 |
| 30111 | 3F Reno 100 WH 2000/840 DALI WIDE | 1 | 0.004 | 0.700 | 215 |
| 30115 | 3F Reno 100 WH 2000/930 DALI WIDE | 1 | 0.004 | 0.700 | 215 |
| 30205 | 3F Reno 100 WH 1000/840 ELL | 1 | 0.004 | 0.700 | 217 |
| 30209 | 3F Reno 100 WH 1000/930 ELL | 1 | 0.004 | 0.700 | 217 |
| 30213 | 3F Reno 100 WH 2000/840 ELL | 1 | 0.004 | 0.700 | 217 |
| 30217 | 3F Reno 100 WH 2000/930 ELL | 1 | 0.004 | 0.700 | 217 |
| 30222 | 3F Reno 100 WH 1000/840 EP ELL | 1 | 0.004 | 1.500 | 217 |
| 30226 | 3F Reno 100 WH 1000/930 EP ELL | 1 | 0.004 | 1.500 | 217 |
| 30230 | 3F Reno 100 WH 2000/840 EP ELL | 1 | 0.004 | 1.500 | 217 |
| 30234 | 3F Reno 100 WH 2000/930 EP ELL | 1 | 0.004 | 1.500 | 217 |
| 30239 | 3F Reno 100 WH 1000/840 DALI ELL | 1 | 0.004 | 0.700 | 217 |
| 30243 | 3F Reno 100 WH 1000/930 DALI ELL | 1 | 0.004 | 0.700 | 217 |
| 30247 | 3F Reno 100 WH 2000/840 DALI ELL | 1 | 0.004 | 0.700 | 217 |
| 30251 | 3F Reno 100 WH 2000/930 DALI ELL | 1 | 0.004 | 0.700 | 217 |
| 30273 | 3F Reno 150 WH 2000/840 SPOT | 1 | 0.006 | 0.800 | 213 |
| 30277 | 3F Reno 150 WH 2000/930 SPOT | 1 | 0.006 | 0.800 | 213 |
| 30281 | 3F Reno 150 WH 3000/840 SPOT | 1 | 0.006 | 1.300 | 213 |
| 30285 | 3F Reno 150 WH 3000/930 SPOT | 1 | 0.006 | 1.300 | 213 |
| 30290 | 3F Reno 150 WH 2000/840 EP SPOT | 1 | 0.006 | 1.600 | 213 |
| 30294 | 3F Reno 150 WH 2000/930 EP SPOT | 1 | 0.006 | 1.600 | 213 |
| 30298 | 3F Reno 150 WH 3000/840 EP SPOT | 1 | 0.006 | 2.100 | 213 |
| 30302 | 3F Reno 150 WH 3000/930 EP SPOT | 1 | 0.006 | 2.100 | 213 |
| 30307 | 3F Reno 150 WH 2000/840 DALI SPOT | 1 | 0.006 | 0.800 | 213 |
| 30311 | 3F Reno 150 WH 2000/930 DALI SPOT | 1 | 0.006 | 0.800 | 213 |
| 30315 | 3F Reno 150 WH 3000/840 DALI SPOT | 1 | 0.006 | 1.300 | 213 |
| 30319 | 3F Reno 150 WH 3000/930 DALI SPOT | 1 | 0.006 | 1.300 | 213 |
| 30341 | 3F Reno 150 WH 2000/840 WIDE | 1 | 0.006 | 0.800 | 215 |
| 30345 | 3F Reno 150 WH 2000/930 WIDE | 1 | 0.006 | 0.800 | 215 |
| 30349 | 3F Reno 150 WH 3000/840 WIDE | 1 | 0.006 | 1.300 | 215 |
| 30353 | 3F Reno 150 WH 3000/930 WIDE | 1 | 0.006 | 1.300 | 215 |
| 30358 | 3F Reno 150 WH 2000/840 EP WIDE | 1 | 0.006 | 1.600 | 215 |
| 30362 | 3F Reno 150 WH 2000/930 EP WIDE | 1 | 0.006 | 1.600 | 215 |
| 30366 | 3F Reno 150 WH 3000/840 EP WIDE | 1 | 0.006 | 2.100 | 215 |
| 30370 | 3F Reno 150 WH 3000/930 EP WIDE | 1 | 0.006 | 2.100 | 215 |
| 30375 | 3F Reno 150 WH 2000/840 DALI WIDE | 1 | 0.006 | 0.800 | 215 |
| 30379 | 3F Reno 150 WH 2000/930 DALI WIDE | 1 | 0.006 | 0.800 | 215 |
| 30383 | 3F Reno 150 WH 3000/840 DALI WIDE | 1 | 0.006 | 1.300 | 215 |
| 30387 | 3F Reno 150 WH 3000/930 DALI WIDE | 1 | 0.006 | 1.300 | 215 |
| 30408 | 3F Reno 150 WH 1500/840 UGR | 1 | 0.006 | 0.800 | 219 |
| 30409 | 3F Reno 150 WH 2000/840 UGR | 1 | 0.006 | 0.800 | 219 |
| 30419 | 3F Reno 150 WH 1500/840 EP UGR | 1 | 0.006 | 1.600 | 219 |
| 30420 | 3F Reno 150 WH 2000/840 EP UGR | 1 | 0.006 | 1.600 | 219 |
| 30430 | 3F Reno 150 WH 1500/840 DALI UGR | 1 | 0.006 | 0.800 | 219 |
| 30431 | 3F Reno 150 WH 2000/840 DALI UGR | 1 | 0.006 | 0.800 | 219 |
| 30453 | 3F Reno 150 WH 2000/840 ELL | 1 | 0.006 | 0.800 | 217 |
| 30457 | 3F Reno 150 WH 2000/930 ELL | 1 | 0.006 | 0.800 | 217 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 30461 | 3F Reno 150 WH 3000/840 ELL | 1 | 0.006 | 1.300 | 217 |
| 30465 | 3F Reno 150 WH 3000/930 ELL | 1 | 0.006 | 1.300 | 217 |
| 30470 | 3F Reno 150 WH 2000/840 EP ELL | 1 | 0.006 | 1.600 | 217 |
| 30474 | 3F Reno 150 WH 2000/930 EP ELL | 1 | 0.006 | 1.600 | 217 |
| 30478 | 3F Reno 150 WH 3000/840 EP ELL | 1 | 0.006 | 2.100 | 217 |
| 30482 | 3F Reno 150 WH 3000/930 EP ELL | 1 | 0.006 | 2.100 | 217 |
| 30487 | 3F Reno 150 WH 2000/840 DALI ELL | 1 | 0.006 | 0.800 | 217 |
| 30491 | 3F Reno 150 WH 2000/930 DALI ELL | 1 | 0.006 | 0.800 | 217 |
| 30495 | 3F Reno 150 WH 3000/840 DALI ELL | 1 | 0.006 | 1.300 | 217 |
| 30499 | 3F Reno 150 WH 3000/930 DALI ELL | 1 | 0.006 | 1.300 | 217 |
| 30521 | 3F Reno 200 WH 2000/840 SPOT | 1 | 0.011 | 1.500 | 214 |
| 30525 | 3F Reno 200 WH 2000/930 SPOT | 1 | 0.011 | 1.100 | 214 |
| 30529 | 3F Reno 200 WH 3000/840 SPOT | 1 | 0.011 | 1.500 | 214 |
| 30533 | 3F Reno 200 WH 3000/930 SPOT | 1 | 0.011 | 1.500 | 214 |
| 30537 | 3F Reno 200 WH 4000/840 SPOT | 1 | 0.011 | 1.500 | 214 |
| 30541 | 3F Reno 200 WH 4000/930 SPOT | 1 | 0.011 | 1.500 | 214 |
| 30546 | 3F Reno 200 WH 2000/840 EP SPOT | 1 | 0.011 | 1.900 | 214 |
| 30550 | 3F Reno 200 WH 2000/930 EP SPOT | 1 | 0.011 | 1.900 | 214 |
| 30554 | 3F Reno 200 WH 3000/840 EP SPOT | 1 | 0.011 | 2.300 | 214 |
| 30558 | 3F Reno 200 WH 3000/930 EP SPOT | 1 | 0.011 | 2.300 | 214 |
| 30562 | 3F Reno 200 WH 4000/840 EP SPOT | 1 | 0.011 | 2.300 | 214 |
| 30566 | 3F Reno 200 WH 4000/930 EP SPOT | 1 | 0.011 | 2.300 | 214 |
| 30571 | 3F Reno 200 WH 2000/840 DALI SPOT | 1 | 0.011 | 1.100 | 214 |
| 30575 | 3F Reno 200 WH 2000/930 DALI SPOT | 1 | 0.011 | 1.100 | 214 |
| 30579 | 3F Reno 200 WH 3000/840 DALI SPOT | 1 | 0.011 | 1.500 | 214 |
| 30583 | 3F Reno 200 WH 3000/930 DALI SPOT | 1 | 0.011 | 1.500 | 214 |
| 30587 | 3F Reno 200 WH 4000/840 DALI SPOT | 1 | 0.011 | 1.500 | 214 |
| 30591 | 3F Reno 200 WH 4000/930 DALI SPOT | 1 | 0.011 | 1.500 | 214 |
| 30621 | 3F Reno 200 WH 2000/840 WIDE | 1 | 0.011 | 1.100 | 216 |
| 30625 | 3F Reno 200 WH 2000/930 WIDE | 1 | 0.011 | 1.100 | 216 |
| 30629 | 3F Reno 200 WH 3000/840 WIDE | 1 | 0.011 | 1.500 | 216 |
| 30633 | 3F Reno 200 WH 3000/930 WIDE | 1 | 0.011 | 1.500 | 216 |
| 30637 | 3F Reno 200 WH 4000/840 WIDE | 1 | 0.011 | 1.500 | 216 |
| 30641 | 3F Reno 200 WH 4000/930 WIDE | 1 | 0.011 | 1.500 | 216 |
| 30646 | 3F Reno 200 WH 2000/840 EP WIDE | 1 | 0.011 | 1.900 | 216 |
| 30650 | 3F Reno 200 WH 2000/930 EP WIDE | 1 | 0.011 | 1.900 | 216 |
| 30654 | 3F Reno 200 WH 3000/840 EP WIDE | 1 | 0.011 | 2.300 | 216 |
| 30658 | 3F Reno 200 WH 3000/930 EP WIDE | 1 | 0.011 | 2.300 | 216 |
| 30662 | 3F Reno 200 WH 4000/840 EP WIDE | 1 | 0.011 | 2.300 | 216 |
| 30666 | 3F Reno 200 WH 4000/930 EP WIDE | 1 | 0.011 | 2.300 | 216 |
| 30671 | 3F Reno 200 WH 2000/840 DALI WIDE | 1 | 0.011 | 1.100 | 216 |
| 30675 | 3F Reno 200 WH 2000/930 DALI WIDE | 1 | 0.011 | 1.100 | 216 |
| 30679 | 3F Reno 200 WH 3000/840 DALI WIDE | 1 | 0.011 | 1.500 | 216 |
| 30683 | 3F Reno 200 WH 3000/930 DALI WIDE | 1 | 0.011 | 1.500 | 216 |
| 30687 | 3F Reno 200 WH 4000/840 DALI WIDE | 1 | 0.011 | 1.500 | 216 |
| 30691 | 3F Reno 200 WH 4000/930 DALI WIDE | 1 | 0.011 | 1.500 | 216 |
| 30721 | 3F Reno 200 WH 2000/840 UGR | 1 | 0.011 | 1.100 | 219 |
| 30725 | 3F Reno 200 WH 2000/930 UGR | 1 | 0.011 | 1.100 | 219 |
| 30726 | 3F Reno 200 WH 3000/840 UGR | 1 | 0.011 | 1.500 | 219 |
| 30730 | 3F Reno 200 WH 2500/930 UGR | 1 | 0.011 | 1.500 | 219 |
| 30737 | 3F Reno 200 WH 2000/840 EP UGR | 1 | 0.011 | 1.900 | 219 |
| 30741 | 3F Reno 200 WH 2000/930 EP UGR | 1 | 0.011 | 1.900 | 219 |
| 30742 | 3F Reno 200 WH 3000/840 EP UGR | 1 | 0.011 | 2.300 | 219 |
| 30746 | 3F Reno 200 WH 2500/930 EP UGR | 1 | 0.011 | 2.300 | 219 |
| 30753 | 3F Reno 200 WH 2000/840 DALI UGR | 1 | 0.011 | 1.100 | 219 |
| 30757 | 3F Reno 200 WH 2000/930 DALI UGR | 1 | 0.011 | 1.100 | 219 |
| 30758 | 3F Reno 200 WH 3000/840 DALI UGR | 1 | 0.011 | 1.500 | 219 |
| 30762 | 3F Reno 200 WH 2500/930 DALI UGR | 1 | 0.011 | 1.500 | 219 |
| 30785 | 3F Reno 200 WH 2000/840 ELL | 1 | 0.011 | 1.100 | 218 |
| 30789 | 3F Reno 200 WH 2000/930 ELL | 1 | 0.011 | 1.100 | 218 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 30793 | 3F Reno 200 WH 3000/840 ELL | 1 | 0.011 | 1.500 | 218 |
| 30797 | 3F Reno 200 WH 3000/930 ELL | 1 | 0.011 | 1.500 | 218 |
| 30801 | 3F Reno 200 WH 4000/840 ELL | 1 | 0.011 | 1.500 | 218 |
| 30805 | 3F Reno 200 WH 4000/930 ELL | 1 | 0.011 | 1.500 | 218 |
| 30810 | 3F Reno 200 WH 2000/840 EP ELL | 1 | 0.011 | 1.900 | 218 |
| 30814 | 3F Reno 200 WH 2000/930 EP ELL | 1 | 0.011 | 1.900 | 218 |
| 30818 | 3F Reno 200 WH 3000/840 EP ELL | 1 | 0.011 | 2.300 | 218 |
| 30822 | 3F Reno 200 WH 3000/930 EP ELL | 1 | 0.011 | 2.300 | 218 |
| 30826 | 3F Reno 200 WH 4000/840 EP ELL | 1 | 0.011 | 2.300 | 218 |
| 30830 | 3F Reno 200 WH 4000/930 EP ELL | 1 | 0.011 | 2.300 | 218 |
| 30835 | 3F Reno 200 WH 2000/840 DALI ELL | 1 | 0.011 | 1.100 | 218 |
| 30839 | 3F Reno 200 WH 2000/930 DALI ELL | 1 | 0.011 | 1.100 | 218 |
| 30843 | 3F Reno 200 WH 3000/840 DALI ELL | 1 | 0.011 | 1.500 | 218 |
| 30847 | 3F Reno 200 WH 3000/930 DALI ELL | 1 | 0.011 | 1.500 | 218 |
| 30851 | 3F Reno 200 WH 4000/840 DALI ELL | 1 | 0.011 | 1.500 | 218 |
| 30855 | 3F Reno 200 WH 4000/930 DALI ELL | 1 | 0.011 | 1.500 | 218 |
| 30893 | 3F Reno 100 BK 2000/840 SPOT | 1 | 0.004 | 0.700 | 221 |
| 30897 | 3F Reno 100 BK 2000/930 SPOT | 1 | 0.004 | 0.700 | 221 |
| 30927 | 3F Reno 100 BK 2000/840 DALI SPOT | 1 | 0.004 | 0.700 | 221 |
| 30931 | 3F Reno 100 BK 2000/930 DALI SPOT | 1 | 0.004 | 0.700 | 221 |
| 30961 | 3F Reno 100 BK 2000/840 WIDE | 1 | 0.004 | 0.700 | 222 |
| 30965 | 3F Reno 100 BK 2000/930 WIDE | 1 | 0.004 | 0.700 | 222 |
| 30995 | 3F Reno 100 BK 2000/840 DALI WIDE | 1 | 0.004 | 0.700 | 222 |
| 30999 | 3F Reno 100 BK 2000/930 DALI WIDE | 1 | 0.004 | 0.700 | 222 |
| 31097 | 3F Reno 100 BK 2000/840 ELL | 1 | 0.004 | 0.700 | 223 |
| 31101 | 3F Reno 100 BK 2000/930 ELL | 1 | 0.004 | 0.700 | 223 |
| 31131 | 3F Reno 100 BK 2000/840 DALI ELL | 1 | 0.004 | 0.700 | 223 |
| 31135 | 3F Reno 100 BK 2000/930 DALI ELL | 1 | 0.004 | 0.700 | 223 |
| 31165 | 3F Reno 150 BK 3000/840 SPOT | 1 | 0.006 | 1.300 | 221 |
| 31169 | 3F Reno 150 BK 3000/930 SPOT | 1 | 0.006 | 1.300 | 221 |
| 31199 | 3F Reno 150 BK 3000/840 DALI SPOT | 1 | 0.006 | 1.300 | 221 |
| 31203 | 3F Reno 150 BK 3000/930 DALI SPOT | 1 | 0.006 | 1.300 | 221 |
| 31233 | 3F Reno 150 BK 3000/840 WIDE | 1 | 0.006 | 1.300 | 222 |
| 31237 | 3F Reno 150 BK 3000/930 WIDE | 1 | 0.006 | 1.300 | 222 |
| 31267 | 3F Reno 150 BK 3000/840 DALI WIDE | 1 | 0.006 | 1.300 | 222 |
| 31271 | 3F Reno 150 BK 3000/930 DALI WIDE | 1 | 0.006 | 1.300 | 222 |
| 31293 | 3F Reno 150 BK 2000/840 UGR | 1 | 0.006 | 0.800 | 224 |
| 31315 | 3F Reno 150 BK 2000/840 DALI UGR | 1 | 0.006 | 0.800 | 224 |
| 31345 | 3F Reno 150 BK 3000/840 ELL | 1 | 0.006 | 1.300 | 223 |
| 31349 | 3F Reno 150 BK 3000/930 ELL | 1 | 0.006 | 1.300 | 223 |
| 31379 | 3F Reno 150 BK 3000/840 DALI ELL | 1 | 0.006 | 1.300 | 223 |
| 31383 | 3F Reno 150 BK 3000/930 DALI ELL | 1 | 0.006 | 1.300 | 223 |
| 31421 | 3F Reno 200 BK 4000/840 SPOT | 1 | 0.011 | 1.300 | 221 |
| 31425 | 3F Reno 200 BK 4000/930 SPOT | 1 | 0.011 | 1.300 | 221 |
| 31471 | 3F Reno 200 BK 4000/840 DALI SPOT | 1 | 0.011 | 1.300 | 221 |
| 31475 | 3F Reno 200 BK 4000/930 DALI SPOT | 1 | 0.011 | 1.300 | 221 |
| 31521 | 3F Reno 200 BK 4000/840 WIDE | 1 | 0.011 | 1.500 | 222 |
| 31525 | 3F Reno 200 BK 4000/930 WIDE | 1 | 0.011 | 1.500 | 222 |
| 31571 | 3F Reno 200 BK 4000/840 DALI WIDE | 1 | 0.011 | 1.500 | 222 |
| 31575 | 3F Reno 200 BK 4000/930 DALI WIDE | 1 | 0.011 | 1.500 | 222 |
| 31610 | 3F Reno 200 BK 3000/840 UGR | 1 | 0.011 | 1.500 | 224 |
| 31614 | 3F Reno 200 BK 2500/930 UGR | 1 | 0.011 | 1.500 | 224 |
| 31642 | 3F Reno 200 BK 3000/840 DALI UGR | 1 | 0.011 | 1.500 | 224 |
| 31646 | 3F Reno 200 BK 2500/930 DALI UGR | 1 | 0.011 | 1.500 | 224 |
| 31685 | 3F Reno 200 BK 4000/840 ELL | 1 | 0.011 | 1.500 | 223 |
| 31689 | 3F Reno 200 BK 4000/930 ELL | 1 | 0.011 | 1.500 | 223 |
| 31735 | 3F Reno 200 BK 4000/840 DALI ELL | 1 | 0.011 | 1.500 | 223 |
| 31739 | 3F Reno 200 BK 4000/930 DALI ELL | 1 | 0.011 | 1.500 | 223 |
| 34229 | 3F Petra OP 300 12W LED | 1 | 0.013 | 1.200 | 161 |
| 34233 | 3F Petra OP 300 12W LED Sensor | 1 | 0.013 | 1.200 | 163 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 34330 | 3F Petra OP 380 22W LED | 1 | 0.020 | 2.000 | 161 |
| 34332 | 3F Petra OP 380 22W LED EP | 1 | 0.020 | 2.800 | 161 |
| 34334 | 3F Petra OP 380 22W LED Sensor | 1 | 0.020 | 2.000 | 163 |
| 34407 | 3F Petra OP 620 50W LED | 1 | 0.058 | 6.000 | 161 |
| 34409 | 3F Petra OP 620 50W LED EP | 1 | 0.058 | 6.500 | 161 |
| 34411 | 3F Petra OP 620 50W LED SO | 1 | 0.058 | 6.000 | 165 |
| 36575 | Lucequadro LED 2000 VS | 1 | 0.008 | 3.500 | 297 |
| 36576 | Lucequadro LED 2000 EP VS | 1 | 0.016 | 4.300 | 297 |
| 36578 | Lucequadro LED 3000 VS | 1 | 0.008 | 3.500 | 297 |
| 36579 | Lucequadro LED 3000 EP VS | 1 | 0.016 | 4.300 | 297 |
| 36581 | Lucequadro LED 2000 VOP | 1 | 0.008 | 3.500 | 297 |
| 36582 | Lucequadro LED 2000 EP VOP | 1 | 0.016 | 4.300 | 297 |
| 36584 | Lucequadro LED 3000 VOP | 1 | 0.008 | 3.500 | 297 |
| 36585 | Lucequadro LED 3000 EP VOP | 1 | 0.016 | 4.300 | 297 |
| 36587 | Lucequadro LED 2000 SOP | 1 | 0.008 | 3.200 | 298 |
| 36588 | Lucequadro LED 2000 EP SOP | 1 | 0.016 | 4.000 | 298 |
| 36590 | Lucequadro LED 3000 SOP | 1 | 0.008 | 3.200 | 298 |
| 36591 | Lucequadro LED 3000 EP SOP | 1 | 0.016 | 4.000 | 298 |
| 37542 | Galassia 220 LED AB 2000 VOP | 1 | 0.008 | 2.500 | 305 |
| 37543 | Galassia 220 LED AB 2000 DALI VOP | 1 | 0.008 | 2.500 | 305 |
| 37544 | Galassia 220 LED AB 2000 EP VOP | 1 | 0.014 | 3.500 | 305 |
| 37551 | Galassia 220 LED AB 2000 VS | 1 | 0.008 | 2.500 | 304 |
| 37552 | Galassia 220 LED AB 2000 DALI VS | 1 | 0.008 | 2.500 | 304 |
| 37553 | Galassia 220 LED AB 2000 EP VS | 1 | 0.014 | 3.500 | 304 |
| 37578 | Galassia 220 LED AB 3000 VOP | 1 | 0.008 | 2.500 | 305 |
| 37579 | Galassia 220 LED AB 3000 DALI VOP | 1 | 0.008 | 2.500 | 305 |
| 37580 | Galassia 220 LED AB 3000 EP VOP | 1 | 0.014 | 3.500 | 305 |
| 37587 | Galassia 220 LED AB 3000 VS | 1 | 0.008 | 2.500 | 304 |
| 37588 | Galassia 220 LED AB 3000 DALI VS | 1 | 0.008 | 2.500 | 304 |
| 37589 | Galassia 220 LED AB 3000 EP VS | 1 | 0.014 | 3.500 | 304 |
| 37604 | Galassia 220 LED AB 4000 VS | 1 | 0.012 | 3.000 | 304 |
| 37606 | Galassia 220 LED AB 4000 DALI VS | 1 | 0.012 | 3.000 | 304 |
| 37608 | Galassia 220 LED AB 4000 VOP | 1 | 0.012 | 3.000 | 305 |
| 37610 | Galassia 220 LED AB 4000 DALI VOP | 1 | 0.012 | 3.000 | 305 |
| 37759 | Galassia 220 LED 2000 VT | 1 | 0.008 | 2.500 | 301 |
| 37760 | Galassia 220 LED 2000 DALI VT | 1 | 0.008 | 2.500 | 301 |
| 37761 | Galassia 220 LED 2000 EP VT | 1 | 0.014 | 3.500 | 301 |
| 37768 | Galassia 220 LED 2000 VOP | 1 | 0.008 | 2.500 | 303 |
| 37769 | Galassia 220 LED 2000 DALI VOP | 1 | 0.008 | 2.500 | 303 |
| 37770 | Galassia 220 LED 2000 EP VOP | 1 | 0.014 | 3.500 | 303 |
| 37777 | Galassia 220 LED 2000 VS | 1 | 0.008 | 2.500 | 302 |
| 37778 | Galassia 220 LED 2000 DALI VS | 1 | 0.008 | 2.500 | 302 |
| 37779 | Galassia 220 LED 2000 EP VS | 1 | 0.014 | 3.500 | 302 |
| 37802 | Galassia 220 LED 3000 VT | 1 | 0.008 | 2.500 | 301 |
| 37803 | Galassia 220 LED 3000 DALI VT | 1 | 0.008 | 2.500 | 301 |
| 37804 | Galassia 220 LED 3000 EP VT | 1 | 0.014 | 3.500 | 301 |
| 37811 | Galassia 220 LED 3000 VOP | 1 | 0.008 | 2.500 | 303 |
| 37812 | Galassia 220 LED 3000 DALI VOP | 1 | 0.008 | 2.500 | 303 |
| 37813 | Galassia 220 LED 3000 EP VOP | 1 | 0.014 | 3.500 | 303 |
| 37820 | Galassia 220 LED 3000 VS | 1 | 0.008 | 2.500 | 302 |
| 37821 | Galassia 220 LED 3000 DALI VS | 1 | 0.008 | 2.500 | 302 |
| 37822 | Galassia 220 LED 3000 EP VS | 1 | 0.014 | 3.500 | 302 |
| 37834 | Galassia 220 LED 4000 VT | 1 | 0.012 | 3.000 | 301 |
| 37836 | Galassia 220 LED 4000 DALI VT | 1 | 0.012 | 3.000 | 301 |
| 37838 | Galassia 220 LED 4000 VS | 1 | 0.012 | 3.000 | 302 |
| 37840 | Galassia 220 LED 4000 DALI VS | 1 | 0.012 | 3.000 | 302 |
| 37842 | Galassia 220 LED 4000 VOP | 1 | 0.012 | 3.000 | 303 |
| 37844 | Galassia 220 LED 4000 DALI VOP | 1 | 0.012 | 3.000 | 303 |
| 47124 | 3F Zeta TK L 50 AMPIO L1783 | 1 | 0.022 | 6.100 | 375 |
| 47132 | 3F Zeta TK L 30 AMPIO L1194 | 1 | 0.022 | 3.700 | 375 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 47136 | 3F Zeta TK L 15 AMPIO L605 | 1 | 0.022 | 2.900 | 375 |
| 47140 | 3F Zeta TK L 50 DALI AMPIO L1783 | 1 | 0.022 | 6.100 | 375 |
| 47148 | 3F Zeta TK L 30 DALI AMPIO L1194 | 1 | 0.022 | 3.700 | 375 |
| 47152 | 3F Zeta TK L 15 DALI AMPIO L605 | 1 | 0.022 | 2.900 | 375 |
| 47509 | 3F Emilio P LED 3000/840 | 1 | 0.004 | 1.200 | 167 |
| 47534 | 3F Emilio TK LED 3000/840 DALI | 1 | 0.004 | 0.900 | 371 |
| 47535 | 3F Emilio TK LED 3000/830 DALI | 1 | 0.004 | 0.900 | 371 |
| 47536 | 3F Emilio TK LED 2000/930 DALI | 1 | 0.004 | 0.900 | 371 |
| 47543 | 3F Emilio TK LED 3000/840 DALI BLE | 1 | 0.004 | 1.100 | 373 |
| 47544 | 3F Emilio TK LED 3000/830 DALI BLE | 1 | 0.004 | 1.100 | 373 |
| 47545 | 3F Emilio TK LED 2000/930 DALI BLE | 1 | 0.004 | 1.100 | 373 |
| 47551 | 3F Emilio TK LED 3000/840 | 1 | 0.004 | 0.900 | 365 |
| 47552 | 3F Emilio TK LED 4000/840 | 1 | 0.004 | 0.900 | 365 |
| 47555 | 3F Emilio TK LED 3000/830 | 1 | 0.004 | 0.900 | 365 |
| 47556 | 3F Emilio TK LED 2000/MEAT | 1 | 0.004 | 0.900 | 365 |
| 47559 | 3F Emilio TK LED 3000/827 | 1 | 0.004 | 0.900 | 365 |
| 47561 | 3F Emilio TK LED 3000/940 | 1 | 0.004 | 0.900 | 365 |
| 47562 | 3F Emilio TK LED 2000/930 | 1 | 0.004 | 0.900 | 365 |
| 47563 | 3F Emilio TK LED 3000/930 | 1 | 0.004 | 0.900 | 365 |
| 47566 | 3F Emilio TK LED 4000/830 | 1 | 0.004 | 0.900 | 365 |
| 47572 | 3F Emilio TK LED 2000/BREAD | 1 | 0.004 | 0.900 | 365 |
| 47574 | 3F Emilio TK LED 2500/CRISP | 1 | 0.004 | 0.900 | 365 |
| 47576 | 3F Emilio TK BK LED 3000/840 | 1 | 0.004 | 0.900 | 365 |
| 47577 | 3F Emilio TK BK LED 4000/840 | 1 | 0.004 | 0.900 | 365 |
| 47580 | 3F Emilio TK BK LED 3000/830 | 1 | 0.004 | 0.900 | 365 |
| 47581 | 3F Emilio TK BK LED 2000/MEAT | 1 | 0.004 | 0.900 | 365 |
| 47584 | 3F Emilio TK BK LED 3000/827 | 1 | 0.004 | 0.900 | 365 |
| 47586 | 3F Emilio TK BK LED 3000/940 | 1 | 0.004 | 0.900 | 365 |
| 47587 | 3F Emilio TK BK LED 2000/930 | 1 | 0.004 | 0.900 | 365 |
| 47588 | 3F Emilio TK BK LED 3000/930 | 1 | 0.004 | 0.900 | 365 |
| 47591 | 3F Emilio TK BK LED 4000/830 | 1 | 0.004 | 0.900 | 365 |
| 47597 | 3F Emilio TK BK LED 2000/BREAD | 1 | 0.004 | 0.900 | 365 |
| 47599 | 3F Emilio TK BK LED 2500/CRISP | 1 | 0.004 | 0.900 | 365 |
| 47607 | 3F Emilio TK LED 3000/840 ELL | 1 | 0.004 | 0.900 | 366 |
| 47608 | 3F Emilio TK LED 4000/840 ELL | 1 | 0.004 | 0.900 | 366 |
| 47611 | 3F Emilio TK LED 3000/830 ELL | 1 | 0.004 | 0.900 | 366 |
| 47612 | 3F Emilio TK LED 2000/MEAT ELL | 1 | 0.004 | 0.900 | 366 |
| 47615 | 3F Emilio TK LED 3000/827 ELL | 1 | 0.004 | 0.900 | 366 |
| 47617 | 3F Emilio TK LED 3000/940 ELL | 1 | 0.004 | 0.900 | 366 |
| 47618 | 3F Emilio TK LED 2000/930 ELL | 1 | 0.004 | 0.900 | 366 |
| 47619 | 3F Emilio TK LED 3000/930 ELL | 1 | 0.004 | 0.900 | 366 |
| 47622 | 3F Emilio TK LED 4000/830 ELL | 1 | 0.004 | 0.900 | 366 |
| 47628 | 3F Emilio TK LED 2000/BREAD ELL | 1 | 0.004 | 0.900 | 366 |
| 47630 | 3F Emilio TK LED 2500/CRISP ELL | 1 | 0.004 | 0.900 | 366 |
| 47640 | 3F Emilio TK LED 3000/840 IPER | 1 | 0.004 | 0.900 | 367 |
| 47641 | 3F Emilio TK LED 4000/840 IPER | 1 | 0.004 | 0.900 | 367 |
| 47644 | 3F Emilio TK LED 3000/830 IPER | 1 | 0.004 | 0.900 | 367 |
| 47645 | 3F Emilio TK LED 4000/830 IPER | 1 | 0.004 | 0.900 | 367 |
| 47648 | 3F Emilio TK LED 3000/827 IPER | 1 | 0.004 | 0.900 | 367 |
| 47652 | 3F Emilio TK LED 3000/940 IPER | 1 | 0.004 | 0.900 | 367 |
| 47654 | 3F Emilio TK LED 2000/930 IPER | 1 | 0.004 | 0.900 | 367 |
| 47655 | 3F Emilio TK LED 3000/930 IPER | 1 | 0.004 | 0.900 | 367 |
| 47657 | 3F Emilio TK LED 2000/MEAT IPER | 1 | 0.004 | 0.900 | 368 |
| 47660 | 3F Emilio TK LED 2000/BREAD IPER | 1 | 0.004 | 0.900 | 368 |
| 47664 | 3F Emilio TK LED 2500/CRISP IPER | 1 | 0.004 | 0.900 | 368 |
| 47668 | 3F Emilio TK BK LED 3000/840 IPER | 1 | 0.004 | 0.900 | 367 |
| 47669 | 3F Emilio TK BK LED 4000/840 IPER | 1 | 0.004 | 0.900 | 367 |
| 47672 | 3F Emilio TK BK LED 3000/830 IPER | 1 | 0.004 | 0.900 | 367 |
| 47673 | 3F Emilio TK BK LED 4000/830 IPER | 1 | 0.004 | 0.900 | 367 |
| 47676 | 3F Emilio TK BK LED 3000/827 IPER | 1 | 0.004 | 0.900 | 367 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 47680 | 3F Emilio TK BK LED 3000/940 IPER | 1 | 0.004 | 0.900 | 367 |
| 47682 | 3F Emilio TK BK LED 2000/930 IPER | 1 | 0.004 | 0.900 | 367 |
| 47683 | 3F Emilio TK BK LED 3000/930 IPER | 1 | 0.004 | 0.900 | 367 |
| 47685 | 3F Emilio TK BK LED 2000/MEAT IPER | 1 | 0.004 | 0.900 | 368 |
| 47688 | 3F Emilio TK BK LED 2000/BREAD IPER | 1 | 0.004 | 0.900 | 368 |
| 47692 | 3F Emilio TK BK LED 2500/CRISP IPER | 1 | 0.004 | 0.900 | 368 |
| 47698 | 3F Six WH 85 AMPIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47699 | 3F Six WH 70 AMPIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47700 | 3F Six WH 60 AMPIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47701 | 3F Six WH 85 DALI AMPIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47702 | 3F Six WH 70 DALI AMPIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47703 | 3F Six WH 60 DALI AMPIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47705 | 3F Six WH 85 MEDIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47706 | 3F Six WH 70 MEDIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47707 | 3F Six WH 60 MEDIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47708 | 3F Six WH 85 DALI MEDIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47709 | 3F Six WH 70 DALI MEDIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47710 | 3F Six WH 60 DALI MEDIO 307x378 | 1 | 0.017 | 3.400 | 317 |
| 47712 | 3F Six WH 40 UGR 307x378 | 1 | 0.017 | 3.400 | 318 |
| 47713 | 3F Six WH 40 DALI UGR 307x378 | 1 | 0.017 | 3.400 | 318 |
| 47720 | 3F Six TK WH 60 AMPIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47721 | 3F Six TK WH 50 AMPIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47722 | 3F Six TK WH 40 AMPIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47723 | 3F Six TK WH 60 DALI AMPIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47724 | 3F Six TK WH 50 DALI AMPIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47725 | 3F Six TK WH 40 DALI AMPIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47727 | 3F Six TK WH 60 MEDIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47728 | 3F Six TK WH 50 MEDIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47729 | 3F Six TK WH 40 MEDIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47730 | 3F Six TK WH 60 DALI MEDIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47731 | 3F Six TK WH 50 DALI MEDIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47732 | 3F Six TK WH 40 DALI MEDIO 307x378 | 1 | 0.017 | 3.600 | 313 |
| 47734 | 3F Six TK WH 40 UGR 307x378 | 1 | 0.017 | 3.600 | 315 |
| 47735 | 3F Six TK WH 40 DALI UGR 307x378 | 1 | 0.017 | 3.600 | 315 |
| 47740 | 3F Six TK WH 60 AMPIO 190x602 | 1 | 0.017 | 3.600 | 313 |
| 47741 | 3F Six TK WH 50 AMPIO 190x602 | 1 | 0.017 | 3.600 | 313 |
| 47742 | 3F Six TK WH 40 AMPIO 190x602 | 1 | 0.017 | 3.600 | 313 |
| 47743 | 3F Six TK WH 60 DALI AMPIO 190x602 | 1 | 0.017 | 3.600 | 313 |
| 47744 | 3F Six TK WH 50 DALI AMPIO 190x602 | 1 | 0.017 | 3.600 | 313 |
| 47745 | 3F Six TK WH 40 DALI AMPIO 190x602 | 1 | 0.017 | 3.600 | 313 |
| 47747 | 3F Six TK WH 60 BAT 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47748 | 3F Six TK WH 50 BAT 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47749 | 3F Six TK WH 40 BAT 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47750 | 3F Six TK WH 60 DALI BAT 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47751 | 3F Six TK WH 50 DALI BAT 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47752 | 3F Six TK WH 40 DALI BAT 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47754 | 3F Six TK WH 60 BAT WD 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47755 | 3F Six TK WH 50 BAT WD 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47756 | 3F Six TK WH 40 BAT WD 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47757 | 3F Six TK WH 60 DALI BAT WD 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47758 | 3F Six TK WH 50 DALI BAT WD 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47759 | 3F Six TK WH 40 DALI BAT WD 190x602 | 1 | 0.017 | 3.600 | 314 |
| 47761 | 3F Six TK WH 40 UGR 190x602 | 1 | 0.017 | 3.600 | 315 |
| 47762 | 3F Six TK WH 40 DALI UGR 190x602 | 1 | 0.017 | 3.600 | 315 |
| 52510 | Beta 235 LED 752x55 CONC L1565 | 1 | 0.041 | 9.200 | 452 |
| 52511 | Beta 235 LED 751x60 CONC L1565 | 1 | 0.041 | 8.300 | 452 |
| 52512 | Beta 235 LED 762x55 CONC VT L1565 | 1 | 0.041 | 12.900 | 456 |
| 52513 | Beta 235 LED 761x60 CONC VT L1565 | 1 | 0.041 | 12.000 | 456 |
| 52514 | Beta 235 LED 762x55 CONC VS L1565 | 1 | 0.041 | 12.900 | 454 |
| 52515 | Beta 235 LED 761x60 CONC VS L1565 | 1 | 0.041 | 12.000 | 454 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 52517 | Beta 235 LED 752x55 DALI CONC L1565 | 1 | 0.041 | 9.200 | 452 |
| 52518 | Beta 235 LED 751x60 DALI CONC L1565 | 1 | 0.041 | 8.300 | 452 |
| 52519 | Beta 235 LED 762x55 DALI CONC VT L1565 | 1 | 0.041 | 12.900 | 456 |
| 52520 | Beta 235 LED 761x60 DALI CONC VT L1565 | 1 | 0.041 | 12.000 | 456 |
| 52521 | Beta 235 LED 762x55 DALI CONC VS L1565 | 1 | 0.041 | 12.900 | 454 |
| 52522 | Beta 235 LED 761x60 DALI CONC VS L1565 | 1 | 0.041 | 12.000 | 454 |
| 52524 | Beta 235 LED 752x45 CONC L1265 | 1 | 0.041 | 7.900 | 452 |
| 52526 | Beta 235 LED 762x45 CONC VT L1265 | 1 | 0.033 | 10.500 | 456 |
| 52528 | Beta 235 LED 762x45 CONC VS L1265 | 1 | 0.033 | 10.500 | 454 |
| 52531 | Beta 235 LED 752x45 DALI CONC L1265 | 1 | 0.041 | 7.900 | 452 |
| 52533 | Beta 235 LED 762x45 DALI CONC VT L1265 | 1 | 0.033 | 10.500 | 456 |
| 52535 | Beta 235 LED 762x45 DALI CONC VS L1265 | 1 | 0.033 | 10.500 | 454 |
| 52552 | Beta 235 LED 752x55 MEDIO L1565 | 1 | 0.041 | 9.200 | 451 |
| 52553 | Beta 235 LED 751x60 MEDIO L1565 | 1 | 0.041 | 8.300 | 451 |
| 52554 | Beta 235 LED 762x55 MEDIO VT L1565 | 1 | 0.041 | 12.900 | 455 |
| 52555 | Beta 235 LED 761x60 MEDIO VT L1565 | 1 | 0.041 | 12.000 | 455 |
| 52556 | Beta 235 LED 762x55 MEDIO VS L1565 | 1 | 0.041 | 12.900 | 453 |
| 52557 | Beta 235 LED 761x60 MEDIO VS L1565 | 1 | 0.041 | 12.000 | 453 |
| 52559 | Beta 235 LED 752x55 DALI MEDIO L1565 | 1 | 0.041 | 9.200 | 451 |
| 52560 | Beta 235 LED 751x60 DALI MEDIO L1565 | 1 | 0.041 | 8.300 | 451 |
| 52561 | Beta 235 LED 762x55 DALI MEDIO VT L1565 | 1 | 0.041 | 12.900 | 455 |
| 52562 | Beta 235 LED 761x60 DALI MEDIO VT L1565 | 1 | 0.041 | 12.000 | 455 |
| 52563 | Beta 235 LED 762x55 DALI MEDIO VS L1565 | 1 | 0.041 | 12.900 | 453 |
| 52564 | Beta 235 LED 761x60 DALI MEDIO VS L1565 | 1 | 0.041 | 12.000 | 453 |
| 52566 | Beta 235 LED 752x45 MEDIO L1265 | 1 | 0.041 | 7.900 | 451 |
| 52567 | Beta 235 LED 751x50 MEDIO L1265 | 1 | 0.041 | 7.200 | 451 |
| 52568 | Beta 235 LED 762x45 MEDIO VT L1265 | 1 | 0.033 | 10.500 | 455 |
| 52569 | Beta 235 LED 761x50 MEDIO VT L1265 | 1 | 0.033 | 9.800 | 455 |
| 52570 | Beta 235 LED 762x45 MEDIO VS L1265 | 1 | 0.033 | 10.500 | 453 |
| 52571 | Beta 235 LED 761x50 MEDIO VS L1265 | 1 | 0.033 | 9.800 | 453 |
| 52573 | Beta 235 LED 752x45 DALI MEDIO L1265 | 1 | 0.041 | 7.900 | 451 |
| 52574 | Beta 235 LED 751x50 DALI MEDIO L1265 | 1 | 0.041 | 7.200 | 451 |
| 52575 | Beta 235 LED 762x45 DALI MEDIO VT L1265 | 1 | 0.033 | 10.500 | 455 |
| 52576 | Beta 235 LED 761x50 DALI MEDIO VT L1265 | 1 | 0.033 | 9.800 | 455 |
| 52577 | Beta 235 LED 762x45 DALI MEDIO VS L1265 | 1 | 0.033 | 10.500 | 453 |
| 52578 | Beta 235 LED 761x50 DALI MEDIO VS L1265 | 1 | 0.033 | 9.800 | 453 |
| 52762 | Beta 235 LED 752x55 AMPIO L1565 | 1 | 0.041 | 9.200 | 451 |
| 52764 | Beta 235 LED 752x55 IPERCONC L1565 | 1 | 0.041 | 9.200 | 452 |
| 52765 | Beta 235 LED 751x60 AMPIO L1565 | 1 | 0.041 | 8.300 | 451 |
| 52769 | Beta 235 LED 762x55 AMPIO VT L1565 | 1 | 0.041 | 12.900 | 455 |
| 52771 | Beta 235 LED 762x55 IPERCONC VT L1565 | 1 | 0.041 | 12.900 | 456 |
| 52772 | Beta 235 LED 761x60 AMPIO VT L1565 | 1 | 0.041 | 12.000 | 455 |
| 52776 | Beta 235 LED 762x55 AMPIO VS L1565 | 1 | 0.041 | 12.900 | 453 |
| 52778 | Beta 235 LED 762x55 IPERCONC VS L1565 | 1 | 0.041 | 12.900 | 454 |
| 52779 | Beta 235 LED 761x60 AMPIO VS L1565 | 1 | 0.041 | 12.000 | 453 |
| 52783 | Beta 235 LED 922x50 AMPIO L1565 | 1 | 0.054 | 9.200 | 459 |
| 52785 | Beta 235 LED 922x50 IPERCONC L1565 | 1 | 0.054 | 9.200 | 459 |
| 52786 | Beta 235 LED 921x60 AMPIO L1565 | 1 | 0.054 | 8.300 | 459 |
| 52790 | Beta 235 LED 932x50 AMPIO VT L1565 | 1 | 0.041 | 12.900 | 461 |
| 52792 | Beta 235 LED 932x50 IPERCONC VT L1565 | 1 | 0.041 | 12.900 | 461 |
| 52793 | Beta 235 LED 931x60 AMPIO VT L1565 | 1 | 0.041 | 12.000 | 461 |
| 52797 | Beta 235 LED 932x50 AMPIO VS L1565 | 1 | 0.041 | 12.900 | 460 |
| 52799 | Beta 235 LED 932x50 IPERCONC VS L1565 | 1 | 0.041 | 12.900 | 460 |
| 52800 | Beta 235 LED 931x60 AMPIO VS L1565 | 1 | 0.041 | 12.000 | 460 |
| 52804 | Beta 235 LED 752x55 DALI AMPIO L1565 | 1 | 0.041 | 9.200 | 451 |
| 52806 | Beta 235 LED 752x55 DALI IPERCONC L1565 | 1 | 0.041 | 9.200 | 452 |
| 52807 | Beta 235 LED 751x60 DALI AMPIO L1565 | 1 | 0.041 | 8.300 | 451 |
| 52811 | Beta 235 LED 762x55 DALI AMPIO VT L1565 | 1 | 0.041 | 12.900 | 455 |
| 52813 | Beta 235 LED 762x55 DALI IPERCONC VT L1565 | 1 | 0.041 | 12.900 | 456 |
| 52814 | Beta 235 LED 761x60 DALI AMPIO VT L1565 | 1 | 0.041 | 12.000 | 455 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 52818 | Beta 235 LED 762x55 DALI AMPIO VS L1565 | 1 | 0.041 | 12.900 | 453 |
| 52820 | Beta 235 LED 762x55 DALI IPERCONC VS L1565 | 1 | 0.041 | 12.900 | 454 |
| 52821 | Beta 235 LED 761x60 DALI AMPIO VS L1565 | 1 | 0.041 | 12.000 | 453 |
| 52825 | Beta 235 LED 922x50 DALI AMPIO L1565 | 1 | 0.054 | 9.200 | 459 |
| 52827 | Beta 235 LED 922x50 DALI IPERCONC L1565 | 1 | 0.054 | 9.200 | 459 |
| 52828 | Beta 235 LED 921x60 DALI AMPIO L1565 | 1 | 0.054 | 8.300 | 459 |
| 52832 | Beta 235 LED 932x50 DALI AMPIO VT L1565 | 1 | 0.041 | 12.900 | 461 |
| 52834 | Beta 235 LED 932x50 DALI IPERCONC VT L1565 | 1 | 0.041 | 12.900 | 461 |
| 52835 | Beta 235 LED 931x60 DALI AMPIO VT L1565 | 1 | 0.041 | 12.000 | 461 |
| 52839 | Beta 235 LED 932x50 DALI AMPIO VS L1565 | 1 | 0.041 | 12.900 | 460 |
| 52841 | Beta 235 LED 932x50 DALI IPERCONC VS L1565 | 1 | 0.041 | 12.900 | 460 |
| 52842 | Beta 235 LED 931x60 DALI AMPIO VS L1565 | 1 | 0.041 | 12.000 | 460 |
| 52846 | Beta 235 LED 752x45 AMPIO L1265 | 1 | 0.041 | 7.900 | 451 |
| 52848 | Beta 235 LED 752x45 IPERCONC L1265 | 1 | 0.041 | 7.900 | 452 |
| 52849 | Beta 235 LED 751x50 AMPIO L1265 | 1 | 0.041 | 7.200 | 451 |
| 52853 | Beta 235 LED 762x45 AMPIO VT L1265 | 1 | 0.033 | 10.500 | 455 |
| 52855 | Beta 235 LED 762x45 IPERCONC VT L1265 | 1 | 0.033 | 10.500 | 456 |
| 52856 | Beta 235 LED 761x50 AMPIO VT L1265 | 1 | 0.033 | 9.800 | 455 |
| 52860 | Beta 235 LED 762x45 AMPIO VS L1265 | 1 | 0.033 | 10.500 | 453 |
| 52862 | Beta 235 LED 762x45 IPERCONC VS L1265 | 1 | 0.033 | 10.500 | 454 |
| 52863 | Beta 235 LED 761x50 AMPIO VS L1265 | 1 | 0.033 | 9.800 | 453 |
| 52867 | Beta 235 LED 922x40 AMPIO L1265 | 1 | 0.041 | 7.900 | 459 |
| 52869 | Beta 235 LED 922x40 IPERCONC L1265 | 1 | 0.041 | 7.900 | 459 |
| 52870 | Beta 235 LED 921x50 AMPIO L1265 | 1 | 0.041 | 7.200 | 459 |
| 52874 | Beta 235 LED 932x40 AMPIO VT L1265 | 1 | 0.033 | 10.500 | 461 |
| 52876 | Beta 235 LED 932x40 IPERCONC VT L1265 | 1 | 0.033 | 10.500 | 461 |
| 52877 | Beta 235 LED 931x50 AMPIO VT L1265 | 1 | 0.033 | 9.800 | 461 |
| 52881 | Beta 235 LED 932x40 AMPIO VS L1265 | 1 | 0.033 | 10.500 | 460 |
| 52883 | Beta 235 LED 932x40 IPERCONC VS L1265 | 1 | 0.033 | 10.500 | 460 |
| 52884 | Beta 235 LED 931x50 AMPIO VS L1265 | 1 | 0.033 | 9.800 | 460 |
| 52888 | Beta 235 LED 752x45 DALI AMPIO L1265 | 1 | 0.041 | 7.900 | 451 |
| 52890 | Beta 235 LED 752x45 DALI IPERCONC L1265 | 1 | 0.041 | 7.900 | 452 |
| 52895 | Beta 235 LED 762x45 DALI AMPIO VT L1265 | 1 | 0.033 | 10.500 | 455 |
| 52897 | Beta 235 LED 762x45 DALI IPERCONC VT L1265 | 1 | 0.033 | 10.500 | 456 |
| 52902 | Beta 235 LED 762x45 DALI AMPIO VS L1265 | 1 | 0.033 | 10.500 | 453 |
| 52904 | Beta 235 LED 762x45 DALI IPERCONC VS L1265 | 1 | 0.033 | 10.500 | 454 |
| 52909 | Beta 235 LED 922x40 DALI AMPIO L1265 | 1 | 0.041 | 7.900 | 459 |
| 52911 | Beta 235 LED 922x40 DALI IPERCONC L1265 | 1 | 0.041 | 7.900 | 459 |
| 52916 | Beta 235 LED 932x40 DALI AMPIO VT L1265 | 1 | 0.033 | 10.500 | 461 |
| 52918 | Beta 235 LED 932x40 DALI IPERCONC VT L1265 | 1 | 0.033 | 10.500 | 461 |
| 52923 | Beta 235 LED 932x40 DALI AMPIO VS L1265 | 1 | 0.033 | 10.500 | 460 |
| 52925 | Beta 235 LED 932x40 DALI IPERCONC VS L1265 | 1 | 0.033 | 10.500 | 460 |
| 52930 | Beta 235 LED 752x20 AMPIO L655 | 1 | 0.022 | 5.400 | 451 |
| 52931 | Beta 235 LED 751x25 AMPIO L655 | 1 | 0.022 | 5.000 | 451 |
| 52936 | Beta 235 LED 762x20 AMPIO VS L655 | 1 | 0.019 | 6.500 | 453 |
| 52937 | Beta 235 LED 761x25 AMPIO VS L655 | 1 | 0.019 | 6.100 | 453 |
| 52939 | Beta 235 LED 922x15 AMPIO L655 | 1 | 0.022 | 5.400 | 459 |
| 52940 | Beta 235 LED 921x25 AMPIO L655 | 1 | 0.022 | 5.000 | 459 |
| 52945 | Beta 235 LED 932x15 AMPIO VS L655 | 1 | 0.019 | 6.500 | 460 |
| 52946 | Beta 235 LED 931x25 AMPIO VS L655 | 1 | 0.019 | 6.100 | 460 |
| 53438 | i3F LED 764x50W CR AMPIO VT L1251 | 1 | 0.094 | 18.900 | 477 |
| 53445 | i3F LED 764x63W CR AMPIO VT L1551 | 1 | 0.117 | 20.900 | 477 |
| 53452 | i3F LED 764x50W CR AMPIO SL L1251 | 1 | 0.094 | 15.500 | 477 |
| 53459 | i3F LED 764x63W CR AMPIO SL L1551 | 1 | 0.117 | 17.500 | 477 |
| 53490 | Beta Iperconc LED 4x30W CR VT IP64 L1551 | 1 | 0.117 | 20.000 | 477 |
| 53493 | Beta Iperconc LED 4x30W CR SL IP64 L1551 | 1 | 0.117 | 17.000 | 477 |
| 53860 | A3F Ice LED 902x12W UR95 AMPIO L655 | 1 | 0.019 | 3.800 | 469 |
| 53861 | A3F Ice LED 902x24W UR95 AMPIO L1265 | 1 | 0.033 | 6.000 | 469 |
| 53862 | A3F Ice LED 902x30W UR95 AMPIO L1565 | 1 | 0.041 | 7.000 | 469 |
| 53863 | A3F Ice LED 902x60W UR95 AMPIO L1565 | 1 | 0.041 | 7.800 | 469 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 53867 | A3F Ice LED 902x30W UR95 CONC L1565 | 1 | 0.041 | 7.000 | 469 |
| 53868 | A3F Ice LED 902x60W UR95 CONC L1565 | 1 | 0.041 | 7.800 | 469 |
| 55006 | i3F LED 752x30W CONC L1565 | 1 | 0.054 | 7.500 | 465 |
| 55017 | i3F LED 752x30W EP CONC L1565 | 1 | 0.054 | 8.500 | 465 |
| 55072 | i3F LED 762x30W AMPIO VT L1565 | 1 | 0.041 | 10.500 | 466 |
| 55083 | i3F LED 762x30W EP AMPIO VT L1565 | 1 | 0.041 | 11.500 | 466 |
| 55134 | i3F LED 762x12W AMPIO VS L655 | 1 | 0.019 | 5.100 | 466 |
| 55136 | i3F LED 762x24W AMPIO VS L1265 | 1 | 0.033 | 8.450 | 466 |
| 55138 | i3F LED 762x30W AMPIO VS L1565 | 1 | 0.041 | 10.500 | 466 |
| 55145 | i3F LED 762x12W EP AMPIO VS L655 | 1 | 0.019 | 6.100 | 466 |
| 55147 | i3F LED 762x24W EP AMPIO VS L1265 | 1 | 0.033 | 9.450 | 466 |
| 55149 | i3F LED 762x30W EP AMPIO VS L1565 | 1 | 0.041 | 11.500 | 466 |
| 55596 | i3F LED 752x12W AMPIO L655 | 1 | 0.019 | 3.700 | 465 |
| 55598 | i3F LED 752x24W AMPIO L1265 | 1 | 0.041 | 6.200 | 465 |
| 55600 | i3F LED 752x30W AMPIO L1565 | 1 | 0.054 | 7.500 | 465 |
| 55607 | i3F LED 752x12W EP AMPIO L655 | 1 | 0.019 | 4.700 | 465 |
| 55609 | i3F LED 752x24W EP AMPIO L1265 | 1 | 0.041 | 7.200 | 465 |
| 55611 | i3F LED 752x30W EP AMPIO L1565 | 1 | 0.054 | 8.500 | 465 |
| 55666 | i3F LED 762x30W CONC VT L1565 | 1 | 0.041 | 10.500 | 467 |
| 55677 | i3F LED 762x30W EP CONC VT L1565 | 1 | 0.041 | 11.500 | 467 |
| 56330 | 3F CUB LED 100W CR VT | 1 | 0.196 | 11.800 | 485 |
| 56332 | 3F CUB LED 100W DALI CR VT | 1 | 0.196 | 11.800 | 485 |
| 56333 | 3F CUB LED 150W CR VT | 1 | 0.196 | 12.000 | 485 |
| 56335 | 3F CUB LED 150W DALI CR VT | 1 | 0.196 | 12.000 | 485 |
| 56337 | 3F CUB LED 100W CR VS | 1 | 0.196 | 11.800 | 486 |
| 56339 | 3F CUB LED 100W DALI CR VS | 1 | 0.196 | 11.800 | 486 |
| 56340 | 3F CUB LED 150W CR VS | 1 | 0.196 | 12.000 | 486 |
| 56342 | 3F CUB LED 150W DALI CR VS | 1 | 0.196 | 12.000 | 486 |
| 56344 | 3F CUB LED 100W CR SP | 1 | 0.196 | 9.800 | 485 |
| 56346 | 3F CUB LED 100W DALI CR SP | 1 | 0.196 | 9.800 | 485 |
| 56347 | 3F CUB LED 150W CR SP | 1 | 0.196 | 10.000 | 485 |
| 56349 | 3F CUB LED 150W DALI CR SP | 1 | 0.196 | 10.000 | 485 |
| 58457 | 3F Linda LED Ice 1x24W UR95 L1270 | 1 | 0.016 | 2.500 | 435 |
| 58459 | 3F Linda LED Ice 2x24W UR95 L1270 | 1 | 0.024 | 3.300 | 435 |
| 58461 | 3F Linda LED Ice 1x30W UR95 L1570 | 1 | 0.019 | 3.000 | 435 |
| 58463 | 3F Linda LED Ice 2x30W UR95 L1570 | 1 | 0.028 | 3.700 | 435 |
| 58549 | 3F Linda LED 1x12W DALI L660 | 1 | 0.008 | 1.420 | 425 |
| 58550 | 3F Linda LED 2x12W DALI L660 | 1 | 0.013 | 1.920 | 425 |
| 58551 | 3F Linda LED 1x24W DALI L1270 | 1 | 0.016 | 2.320 | 425 |
| 58552 | 3F Linda LED 2x24W DALI L1270 | 1 | 0.024 | 3.100 | 425 |
| 58553 | 3F Linda LED 1x30W DALI L1570 | 1 | 0.019 | 2.800 | 425 |
| 58554 | 3F Linda LED 2x30W DALI L1570 | 1 | 0.028 | 4.000 | 425 |
| 58561 | 3F Linda LED 1x12W L660 | 1 | 0.008 | 1.420 | 425 |
| 58563 | 3F Linda LED 1x6W L660 | 1 | 0.008 | 1.420 | 425 |
| 58567 | 3F Linda LED 1x12W EP LA L660 | 1 | 0.013 | 1.950 | 425 |
| 58569 | 3F Linda LED 1x6W EP LA L660 | 1 | 0.013 | 1.950 | 425 |
| 58572 | 3F Linda LED 2x12W L660 | 1 | 0.013 | 1.920 | 425 |
| 58583 | 3F Linda LED 1x24W L1270 | 1 | 0.016 | 2.320 | 425 |
| 58584 | 3F Linda LED 1x24W/865 L1270 | 1 | 0.016 | 2.320 | 425 |
| 58585 | 3F Linda LED 1x24W/830 L1270 | 1 | 0.016 | 2.320 | 425 |
| 58589 | 3F Linda LED 1x24W EP L1270 | 1 | 0.016 | 3.100 | 425 |
| 58590 | 3F Linda LED 1x24W/865 EP L1270 | 1 | 0.016 | 3.100 | 425 |
| 58591 | 3F Linda LED 1x24W/830 EP L1270 | 1 | 0.016 | 3.100 | 425 |
| 58594 | 3F Linda LED 2x24W L1270 | 1 | 0.024 | 3.100 | 425 |
| 58595 | 3F Linda LED 2x24W/865 L1270 | 1 | 0.024 | 3.100 | 425 |
| 58596 | 3F Linda LED 2x24W/830 L1270 | 1 | 0.024 | 3.100 | 425 |
| 58600 | 3F Linda LED 2x24W EP L1270 | 1 | 0.024 | 3.300 | 425 |
| 58601 | 3F Linda LED 2x24W/865 EP L1270 | 1 | 0.024 | 3.300 | 425 |
| 58602 | 3F Linda LED 2x24W/830 EP L1270 | 1 | 0.024 | 3.300 | 425 |
| 58605 | 3F Linda LED 1x30W L1570 | 1 | 0.019 | 2.800 | 425 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 58606 | 3F Linda LED 1x30W/865 L1570 | 1 | 0.019 | 2.800 | 425 |
| 58607 | 3F Linda LED 1x30W/830 L1570 | 1 | 0.019 | 2.800 | 425 |
| 58611 | 3F Linda LED 1x30W EP L1570 | 1 | 0.019 | 3.800 | 425 |
| 58612 | 3F Linda LED 1x30W/865 EP L1570 | 1 | 0.019 | 3.800 | 425 |
| 58613 | 3F Linda LED 1x30W/830 EP L1570 | 1 | 0.019 | 3.800 | 425 |
| 58616 | 3F Linda LED 2x30W L1570 | 1 | 0.028 | 3.800 | 425 |
| 58617 | 3F Linda LED 2x30W/865 L1570 | 1 | 0.028 | 3.700 | 425 |
| 58618 | 3F Linda LED 2x30W/830 L1570 | 1 | 0.028 | 3.700 | 425 |
| 58623 | 3F Linda LED 2x30W EP L1570 | 1 | 0.028 | 4.500 | 425 |
| 58624 | 3F Linda LED 2x30W/865 EP L1570 | 1 | 0.028 | 3.900 | 425 |
| 58625 | 3F Linda LED 2x30W/830 EP L1570 | 1 | 0.028 | 3.900 | 425 |
| 58630 | 3F Linda LED 2x24W CONC L1270 | 1 | 0.024 | 3.600 | 426 |
| 58632 | 3F Linda LED 2x30W CONC L1570 | 1 | 0.028 | 4.300 | 426 |
| 58638 | 3F Linda LED 1x30W Sensor L1570 | 1 | 0.019 | 3.000 | 437 |
| 58642 | 3F Linda LED 2x30W Sensor L1570 | 1 | 0.028 | 4.000 | 437 |
| 58645 | 3F Linda LED 1x30W Sensor CF L1570 | 1 | 0.019 | 3.000 | 437 |
| 58649 | 3F Linda LED 2x30W Sensor CF L1570 | 1 | 0.028 | 4.000 | 437 |
| 58659 | 3F Linda LED 2x24W AMPIO L1270 | 1 | 0.024 | 3.600 | 426 |
| 58661 | 3F Linda LED 2x30W AMPIO L1570 | 1 | 0.028 | 4.300 | 426 |
| 58705 | 3F Linda LED 1x12W ENP LA L660 | 1 | 0.013 | 1.750 | 425 |
| 58713 | 3F Linda LED 1x24W ENP L1270 | 1 | 0.016 | 2.550 | 425 |
| 58722 | 3F Linda LED HS 1x24W L1270 | 1 | 0.016 | 2.320 | 431 |
| 58724 | 3F Linda LED HS 1x30W L1570 | 1 | 0.019 | 2.800 | 431 |
| 58728 | 3F Linda LED HS 2x24W L1270 | 1 | 0.024 | 3.100 | 431 |
| 58730 | 3F Linda LED HS 2x30W L1570 | 1 | 0.028 | 3.700 | 431 |
| 58731 | 3F Linda LED Soft 1x12W L660 | 1 | 0.008 | 1.420 | 427 |
| 58732 | 3F Linda LED Soft 2x12W L660 | 1 | 0.013 | 1.920 | 427 |
| 58733 | 3F Linda LED Soft 1x24W L1270 | 1 | 0.016 | 2.320 | 427 |
| 58734 | 3F Linda LED Soft 1x30W L1570 | 1 | 0.019 | 2.800 | 427 |
| 58735 | 3F Linda LED Soft 1x24W DALI L1270 | 1 | 0.016 | 2.320 | 427 |
| 58736 | 3F Linda LED Soft 1x30W DALI L1570 | 1 | 0.019 | 2.800 | 427 |
| 58737 | 3F Linda LED Soft 2x24W L1270 | 1 | 0.024 | 3.100 | 427 |
| 58738 | 3F Linda LED Soft 2x24W DALI L1270 | 1 | 0.024 | 3.100 | 427 |
| 58751 | 3F Linda LED Soft 2x22W L1570 | 1 | 0.028 | 4.000 | 427 |
| 58752 | 3F Linda LED Soft 2x30W L1570 | 1 | 0.028 | 4.000 | 427 |
| 58753 | 3F Linda LED Soft 2x22W DALI L1570 | 1 | 0.028 | 4.000 | 427 |
| 58754 | 3F Linda LED Soft 2x30W DALI L1570 | 1 | 0.028 | 4.000 | 427 |
| 58762 | 3F Linda LED Basic 1x19W L1270 | 1 | 0.016 | 2.320 | 427 |
| 58763 | 3F Linda LED Basic 2x19W L1270 | 1 | 0.024 | 3.100 | 427 |
| 58764 | 3F Linda LED Basic 1x23W L1570 | 1 | 0.019 | 2.800 | 427 |
| 58765 | 3F Linda LED Basic 2x23W L1570 | 1 | 0.028 | 3.700 | 427 |
| 58766 | 3F Linda LED Basic ST 2x16W L1270 | 1 | 0.016 | 2.400 | 427 |
| 58767 | 3F Linda LED Basic ST 2x20W L1570 | 1 | 0.019 | 2.900 | 427 |
| 58786 | 3F Linda LED 1x24W Sensor DALI-BLE L1270 | 1 | 0.016 | 2.320 | 438 |
| 58787 | 3F Linda LED 1x30W Sensor DALI-BLE L1570 | 1 | 0.019 | 3.000 | 438 |
| 58788 | 3F Linda LED 2x24W Sensor DALI-BLE L1270 | 1 | 0.024 | 3.320 | 438 |
| 58789 | 3F Linda LED 2x30W Sensor DALI-BLE L1570 | 1 | 0.028 | 4.000 | 438 |
| 58806 | 3F Linda LED Trasparente 1x12W L660 | 1 | 0.008 | 1.420 | 433 |
| 58808 | 3F Linda LED Trasparente 1x24W L1270 | 1 | 0.016 | 2.320 | 433 |
| 58809 | 3F Linda LED Trasparente 2x24W L1270 | 1 | 0.024 | 3.100 | 433 |
| 58810 | 3F Linda LED Trasparente 1x30W L1570 | 1 | 0.019 | 2.800 | 433 |
| 58811 | 3F Linda LED Trasparente 2x30W L1570 | 1 | 0.028 | 3.700 | 433 |
| 58881 | 3F LEM 1 LED 50 CR AMPIO | 1 | 0.011 | 7.000 | 397 |
| 58882 | 3F LEM 2 LED 100 CR AMPIO | 1 | 0.044 | 10.500 | 397 |
| 58883 | 3F LEM 3 LED 150 CR AMPIO | 1 | 0.059 | 15.600 | 397 |
| 58884 | 3F LEM 4 LED 200 CR AMPIO | 1 | 0.067 | 18.000 | 397 |
| 58885 | 3F LEM 1+1 LED 100 CR AMPIO | 1 | 0.021 | 10.800 | 397 |
| 58886 | 3F LEM 5 LED 250 CR AMPIO | 1 | 0.081 | 22.400 | 397 |
| 58887 | 3F LEM 1 LED 50 CR CONC | 1 | 0.011 | 7.000 | 399 |
| 58888 | 3F LEM 2 LED 100 CR CONC | 1 | 0.044 | 10.500 | 399 |

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| | | Pcs | m ³ | Gross weight in kg | |
| 58889 | 3F LEM 3 LED 150 CR CONC | 1 | 0.059 | 15.600 | 399 |
| 58890 | 3F LEM 4 LED 200 CR CONC | 1 | 0.067 | 18.000 | 399 |
| 58893 | 3F LEM 2 LED 100 CR MEDIO | 1 | 0.044 | 10.500 | 398 |
| 58894 | 3F LEM 3 LED 150 CR MEDIO | 1 | 0.059 | 15.600 | 398 |
| 58895 | 3F LEM 4 LED 200 CR MEDIO | 1 | 0.067 | 18.000 | 398 |
| 58896 | 3F LEM 1+1 LED 100 CR MEDIO | 1 | 0.021 | 10.800 | 398 |
| 58897 | 3F LEM 5 LED 250 CR MEDIO | 1 | 0.081 | 22.400 | 398 |
| 58899 | 3F LEM 1 LED 50 DALI CR AMPIO | 1 | 0.011 | 7.000 | 397 |
| 58900 | 3F LEM 2 LED 100 DALI CR AMPIO | 1 | 0.044 | 10.500 | 397 |
| 58901 | 3F LEM 3 LED 150 DALI CR AMPIO | 1 | 0.059 | 15.600 | 397 |
| 58902 | 3F LEM 4 LED 200 DALI CR AMPIO | 1 | 0.067 | 18.000 | 397 |
| 58903 | 3F LEM 1+1 LED 100 DALI CR AMPIO | 1 | 0.021 | 10.800 | 397 |
| 58904 | 3F LEM 5 LED 250 DALI CR AMPIO | 1 | 0.081 | 22.400 | 397 |
| 58905 | 3F LEM 1 LED 50 DALI CR CONC | 1 | 0.011 | 7.000 | 399 |
| 58906 | 3F LEM 2 LED 100 DALI CR CONC | 1 | 0.044 | 10.500 | 399 |
| 58907 | 3F LEM 3 LED 150 DALI CR CONC | 1 | 0.059 | 15.600 | 399 |
| 58908 | 3F LEM 4 LED 200 DALI CR CONC | 1 | 0.067 | 18.000 | 399 |
| 58911 | 3F LEM 2 LED 100 DALI CR MEDIO | 1 | 0.044 | 10.500 | 398 |
| 58912 | 3F LEM 3 LED 150 DALI CR MEDIO | 1 | 0.059 | 15.600 | 398 |
| 58913 | 3F LEM 4 LED 200 DALI CR MEDIO | 1 | 0.067 | 18.000 | 398 |
| 58914 | 3F LEM 1+1 LED 100 DALI CR MEDIO | 1 | 0.021 | 10.800 | 398 |
| 58915 | 3F LEM 5 LED 250 DALI CR MEDIO | 1 | 0.081 | 22.400 | 398 |
| 58953 | 3F LEM 1 HO LED 70 CR AMPIO | 1 | 0.011 | 7.000 | 405 |
| 58954 | 3F LEM 2 HO LED 140 CR AMPIO | 1 | 0.044 | 10.800 | 405 |
| 58955 | 3F LEM 3 HO LED 210 CR AMPIO | 1 | 0.059 | 15.600 | 405 |
| 58956 | 3F LEM 4 HO LED 280 CR AMPIO | 1 | 0.067 | 18.600 | 405 |
| 58957 | 3F LEM 1+1 HO LED 140 CR AMPIO | 1 | 0.021 | 11.100 | 405 |
| 58958 | 3F LEM 5 HO LED 350 CR AMPIO | 1 | 0.081 | 23.000 | 405 |
| 58959 | 3F LEM 1 HO LED 70 CR CONC | 1 | 0.011 | 7.000 | 406 |
| 58960 | 3F LEM 2 HO LED 140 CR CONC | 1 | 0.044 | 10.800 | 406 |
| 58961 | 3F LEM 3 HO LED 210 CR CONC | 1 | 0.059 | 15.600 | 406 |
| 58965 | 3F LEM 2 HO LED 140 CR MEDIO | 1 | 0.044 | 10.800 | 406 |
| 58966 | 3F LEM 3 HO LED 210 CR MEDIO | 1 | 0.059 | 15.600 | 406 |
| 58967 | 3F LEM 4 HO LED 280 CR MEDIO | 1 | 0.067 | 18.600 | 406 |
| 58968 | 3F LEM 1+1 HO LED 140 CR MEDIO | 1 | 0.021 | 11.100 | 406 |
| 58969 | 3F LEM 5 HO LED 350 CR MEDIO | 1 | 0.081 | 23.000 | 406 |
| 58971 | 3F LEM 1 HO LED 70 DALI CR AMPIO | 1 | 0.011 | 7.000 | 405 |
| 58972 | 3F LEM 2 HO LED 140 DALI CR AMPIO | 1 | 0.044 | 10.800 | 405 |
| 58973 | 3F LEM 3 HO LED 210 DALI CR AMPIO | 1 | 0.059 | 15.600 | 405 |
| 58974 | 3F LEM 4 HO LED 280 DALI CR AMPIO | 1 | 0.067 | 18.600 | 405 |
| 58975 | 3F LEM 1+1 HO LED 140 DALI CR AMPIO | 1 | 0.021 | 11.100 | 405 |
| 58976 | 3F LEM 5 HO LED 350 DALI CR AMPIO | 1 | 0.081 | 23.000 | 405 |
| 58977 | 3F LEM 1 HO LED 70 DALI CR CONC | 1 | 0.011 | 7.000 | 406 |
| 58978 | 3F LEM 2 HO LED 140 DALI CR CONC | 1 | 0.044 | 10.800 | 406 |
| 58979 | 3F LEM 3 HO LED 210 DALI CR CONC | 1 | 0.059 | 15.600 | 406 |
| 58983 | 3F LEM 2 HO LED 140 DALI CR MEDIO | 1 | 0.044 | 10.800 | 406 |
| 58984 | 3F LEM 3 HO LED 210 DALI CR MEDIO | 1 | 0.059 | 15.600 | 406 |
| 58985 | 3F LEM 4 HO LED 280 DALI CR MEDIO | 1 | 0.067 | 18.600 | 406 |
| 58986 | 3F LEM 1+1 HO LED 140 DALI CR MEDIO | 1 | 0.021 | 11.100 | 406 |
| 58987 | 3F LEM 5 HO LED 350 DALI CR MEDIO | 1 | 0.081 | 23.000 | 406 |
| 59026 | 3F LEM 2 HT LED 60 CR AMPIO | 1 | 0.044 | 12.000 | 409 |
| 59027 | 3F LEM 3 HT LED 90 CR AMPIO | 1 | 0.059 | 14.800 | 409 |
| 59028 | 3F LEM 4 HT LED 120 CR AMPIO | 1 | 0.067 | 17.500 | 409 |
| 59030 | 3F LEM 5 HT LED 150 CR AMPIO | 1 | 0.081 | 22.400 | 409 |
| 59032 | 3F LEM 2 HT LED 60 CR CONC | 1 | 0.044 | 12.000 | 410 |
| 59033 | 3F LEM 3 HT LED 90 CR CONC | 1 | 0.059 | 14.800 | 410 |
| 59034 | 3F LEM 4 HT LED 120 CR CONC | 1 | 0.067 | 17.500 | 410 |
| 59039 | 3F LEM 4 HT LED 120 CR MEDIO | 1 | 0.067 | 17.500 | 409 |
| 59041 | 3F LEM 5 HT LED 150 CR MEDIO | 1 | 0.081 | 22.400 | 409 |
| 59080 | 3F LEM 2 SPORT LED 100 CR AMPIO | 1 | 0.044 | 10.600 | 413 |

Analytical guide

| Code | Item | Pack | | | Page |
|--------|---------------------------------------|------|----------------|--------------------|------|
| | | Pcs | m ³ | Gross weight in kg | |
| 59081 | 3F LEM 3 SPORT LED 150 CR AMPIO | 1 | 0.059 | 15.700 | 413 |
| 59157 | 3F LEM 1 LED 50/865 CR AMPIO | 1 | 0.011 | 7.000 | 397 |
| 59158 | 3F LEM 2 LED 100/865 CR AMPIO | 1 | 0.044 | 10.500 | 397 |
| 59159 | 3F LEM 3 LED 150/865 CR AMPIO | 1 | 0.059 | 15.600 | 397 |
| 59160 | 3F LEM 4 LED 200/865 CR AMPIO | 1 | 0.067 | 18.000 | 397 |
| 59161 | 3F LEM 1+1 LED 100/865 CR AMPIO | 1 | 0.021 | 10.800 | 397 |
| 59164 | 3F LEM 2 LED 100/865 CR CONC | 1 | 0.044 | 10.500 | 399 |
| 59165 | 3F LEM 3 LED 150/865 CR CONC | 1 | 0.059 | 15.600 | 399 |
| 59166 | 3F LEM 4 LED 200/865 CR CONC | 1 | 0.067 | 18.000 | 399 |
| 59253 | 3F LEM 2 LED 100 DALI Sensor CR AMPIO | 1 | 0.059 | 13.000 | 401 |
| 59254 | 3F LEM 3 LED 150 DALI Sensor CR AMPIO | 1 | 0.081 | 17.000 | 401 |
| 59255 | 3F LEM 4 LED 200 DALI Sensor CR AMPIO | 1 | 0.081 | 19.500 | 401 |
| 59259 | 3F LEM 2 LED 100 DALI Sensor CR CONC | 1 | 0.059 | 13.000 | 402 |
| 59260 | 3F LEM 3 LED 150 DALI Sensor CR CONC | 1 | 0.081 | 17.000 | 402 |
| 59261 | 3F LEM 4 LED 200 DALI Sensor CR CONC | 1 | 0.081 | 19.500 | 402 |
| 59265 | 3F LEM 2 LED 100 DALI Sensor CR MEDIO | 1 | 0.059 | 13.000 | 401 |
| 59266 | 3F LEM 3 LED 150 DALI Sensor CR MEDIO | 1 | 0.081 | 17.000 | 401 |
| 59267 | 3F LEM 4 LED 200 DALI Sensor CR MEDIO | 1 | 0.081 | 19.500 | 401 |
| 260078 | L 353x25W LED 3AO 596x596 | 1 | 0.031 | 4.500 | 271 |
| 260080 | L 353x25W LED DALI 3AO 596x596 | 1 | 0.031 | 4.500 | 271 |
| 260092 | L 353x14W LED SP 54V 596x596 | 1 | 0.031 | 5.000 | 271 |
| 260094 | L 353x14W LED DALI SP 54V 596x596 | 1 | 0.031 | 5.000 | 271 |
| 269330 | Barraluce L 1x30W LED SP L1496 | 1 | 0.023 | 4.600 | 294 |
| 269332 | Barraluce L 1+1x30W LED SP L2962 | 1 | 0.046 | 9.200 | 294 |
| 269338 | Barraluce L 1x30W LED SP 5P L1466 | 1 | 0.023 | 4.900 | 294 |
| 269340 | Barraluce L 1+1x30W LED SP 5P L2932 | 1 | 0.046 | 9.800 | 294 |
| 269346 | Barraluce L 1x30W LED OP L1496 | 1 | 0.023 | 4.600 | 293 |
| 269348 | Barraluce L 1+1x30W LED OP L2962 | 1 | 0.046 | 9.200 | 293 |
| 269354 | Barraluce L 1x30W LED OP 5P L1466 | 1 | 0.023 | 4.900 | 293 |
| 269356 | Barraluce L 1+1x30W LED OP 5P L2932 | 1 | 0.046 | 9.800 | 293 |
| 270931 | L 561x12W LED 2S 221x647 | 1 | 0.017 | 3.000 | 281 |
| 270933 | L 561x24W LED 2S 221x1256 | 1 | 0.032 | 5.000 | 281 |
| 270935 | L 561x30W LED 2S 221x1556 | 1 | 0.042 | 6.200 | 281 |
| 270937 | L 562x12W LED 2S 221x647 | 1 | 0.017 | 3.200 | 281 |
| 270939 | L 562x24W LED 2S 221x1256 | 1 | 0.032 | 5.200 | 281 |
| 270941 | L 562x30W LED 2S 221x1556 | 1 | 0.042 | 6.400 | 281 |
| 270957 | L 561x12W LED SP 221x647 | 1 | 0.017 | 3.200 | 281 |
| 270959 | L 561x24W LED SP 221x1256 | 1 | 0.032 | 5.200 | 281 |
| 270961 | L 561x30W LED SP 221x1556 | 1 | 0.042 | 6.400 | 281 |
| 270963 | L 562x12W LED SP 221x647 | 1 | 0.017 | 3.400 | 281 |
| 270965 | L 562x24W LED SP 221x1256 | 1 | 0.032 | 5.400 | 281 |
| 270967 | L 562x30W LED SP 221x1556 | 1 | 0.042 | 6.600 | 281 |



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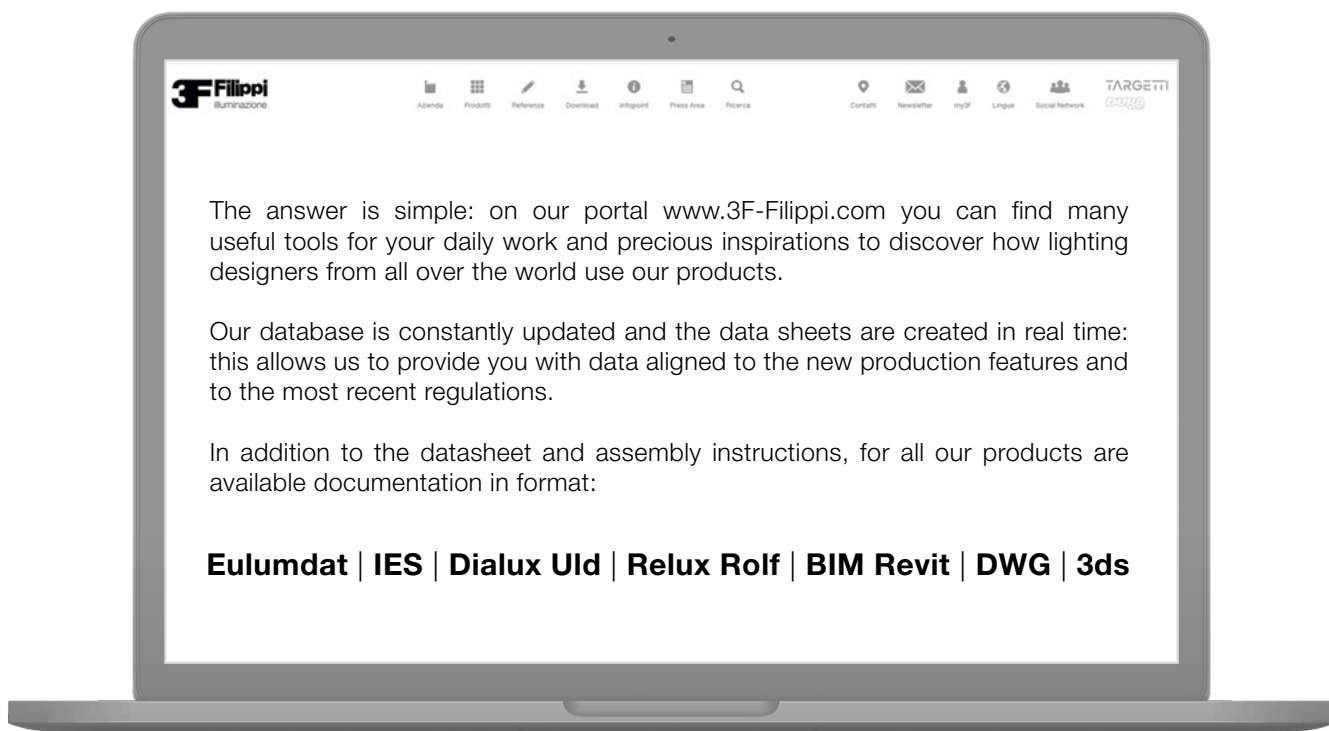
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