

CATALOGUE 2023

/ 3F Filippi


















23

3F Filippi

/Product range

Update  New 

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This Catalogue 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.

/ The Group

Three companies, one reality that shares common values, expressions of Made in Italy.

With extensive experience and the combination of their respective expertise in technical and architectural lighting the three brands together provide a complete portfolio of products that proudly bring Made in Italy to more than 50 countries worldwide.

Today the Group can meet and satisfy any kind of design and project requirements. Our partners can choose from a huge selection of products and solutions; from high-tech and functional products from the 3F Filippi catalogue to indoor and outdoor architectural lighting fixtures designed by Targetti, right up to a wide range of LED lamps and fixtures from the Duralamp brand.



/ 3F Filippi

3F Filippi, a Company that has shaped the history of lighting in Italy is now a reality at the service of professionals and designers looking for quality solutions.

The most important value: absolute transparency with the market. 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 values



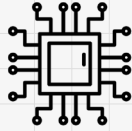
We want to contribute to spread and develop a new consumption model that is not based on a “disposable” economy but on products that can be updated over time.

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).



/ **RELIABILITY** first of all

Our commitment is to offer its customers the best technology available on the market. Whenever a customer chose from our product he must be certain he is choosing the best **technology available** on the market in terms of **technical performance, reduced energy consumption, and reliability.**



/ **SAFETY** at the maximum level

All 3F Filippi products are tested in-house in special laboratories in accordance with the current national CEI 34-21, European EN 60598-1 and international IEC 60598-1 standards, guaranteeing the **safety, quality and long life** of the devices.



/ 100% **SUSTAINABLE**

We have always been **environmentally** sensitive: each product is designed as a platform adaptable to our customers' needs, so that it can be reused, reconditioned, improved (upgraded) and recycled.



/ **READY** for any emergency

3F Filippi is one of the few companies in Europe to have the tools to certify its products according to the recent standards UNI EN 13032 and IES LM-79 which determines the requirements for the **emergency lighting** with or without interchangeable luminous sources.



/ Ecodesign and sustainability

We use photovoltaic panels that cover 30% of the energy needs, with the remaining 70% from certified renewable energy sources.

At 3F Filippi, we make products that are increasingly efficient and less impactful on the environment, with the aim of achieving the goal of reducing greenhouse gas emissions by 2030.

For this reason, for several years now we have undertaken various actions that focus particularly on the application of **Lean Production** - a production system that aims to minimise waste to the point of eliminating it - and through the use of **Life Cycle Assessment**

- assessment of the life cycle of a product to achieve the highest possible energy efficiency and maximisation of its lifespan: we currently already reach 100,000 hours of operation, an important result that we intend to surpass in the coming years.

/ The laboratories

3F Filippi is one of the very few companies in Europe to own a Goniophotometer with a rotating mirror.

The use of this technology allows us **to guarantee quality, reliability and authenticity of the data reported**, through tests such as: **photometric measurements** (intensity, distribution, luminance), **colorimetric measurements** (light spectrum, colour temperature, colour rendering) and punctual **thermal measurements** on the luminaire's internal components.

3F Filippi also has a **Photometric Laboratory** and a **Test and Inspection Laboratory** that have obtained the **Customer Testing Facilities CTF Stage2 recognition from IMQ S.p.A.** capable of carrying out its activities under the supervision of one of Italy's major certification bodies, IMQ S.p.A.

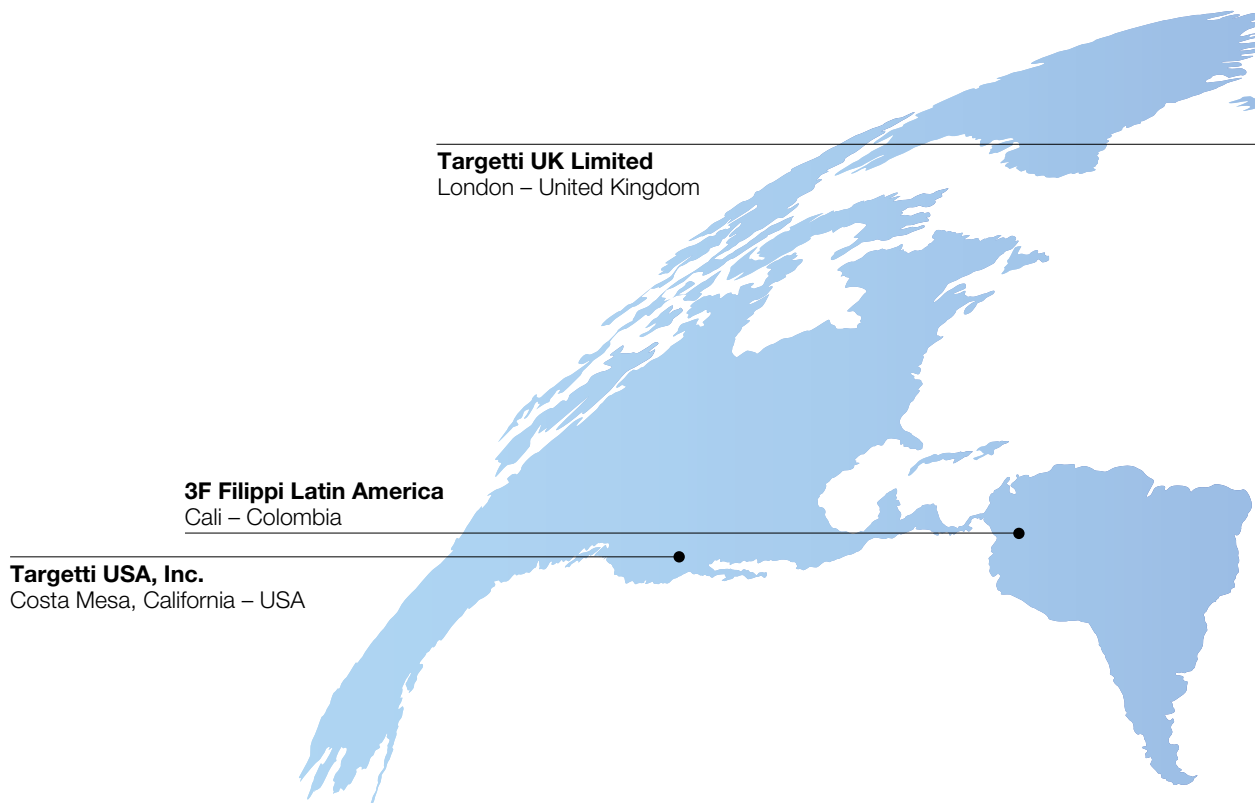
This makes it possible **to carry out tests valid for product certification independently**, guaranteeing the quality and durability of products to the benefit of the customer.

Within our laboratories, the following tests can be 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



/ Connected. Everywhere.



The company works through a close-knit network of regional and foreign offices in the European, Latin American, Asian, and Oceanian markets.

The 3F Filippi | Targetti group, represents a cohesive reality that presents itself as a unique partner at the service of professionals and designers in search of quality solutions, providing them with the most advanced tools and the support of our Sales Offices present all over the world.



3F Filippi S.p.A.
Pianoro (BO)
Italy

3F Filippi GmbH
Munich
Germany

Targetti India
Bangalore
India

Targetti Lighting Co., Ltd
Beijing/Shanghai/Changzhou
China

Targetti Sankey S.p.A.
(Dubai Branch)
Dubai - EAU

3F Filippi | Targetti France S.a.S
Paris
France

3F Filippi | Targetti Spain S.A.U.
Barcelona
Spain

/ Photobiological safety

Among 3F Filippi's top priorities there is the well-being of the people illuminated by our products: for this reason we use only the best sources with low health impact, paying the utmost attention to photobiological safety.

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:

RG0 (Risk Exempt)

The source does not cause any photo-biological 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).

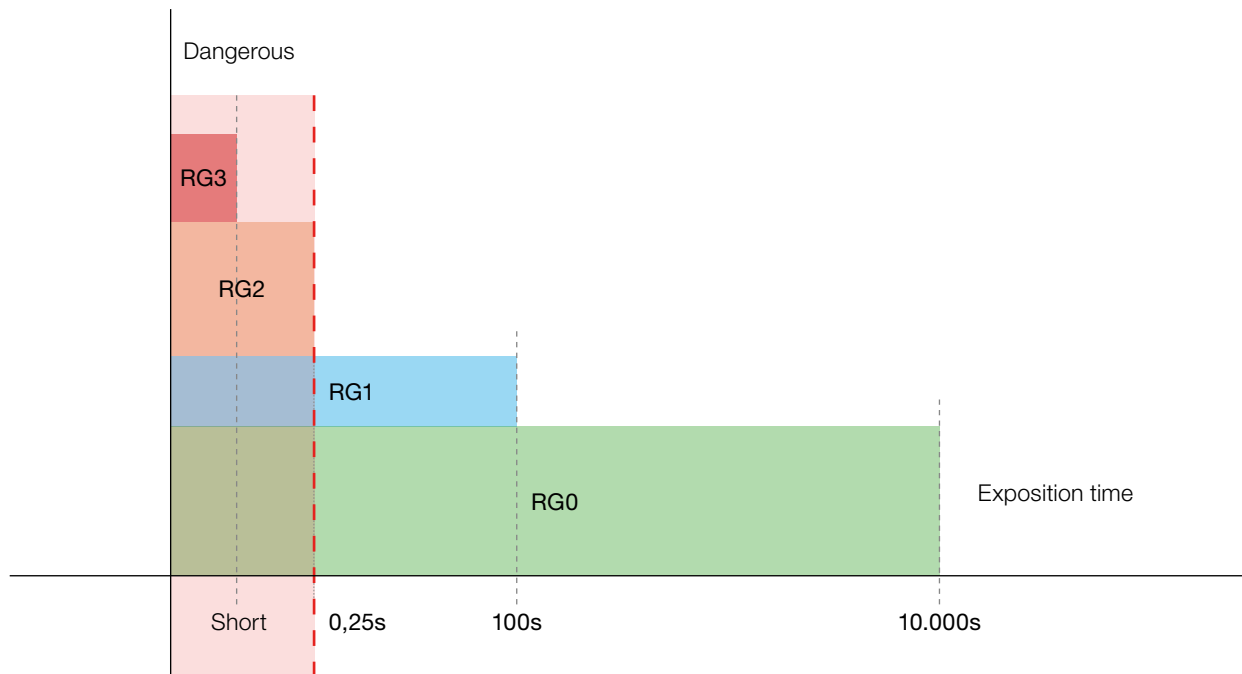
RG3 (High Risk)

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.

Note:

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.

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.



The standard **EN 60598-1:2021** on indoor luminaires states in **paragraph 4.24.2:**

“For luminaires that use light sources from risk group RG1 (unlimited), in accordance with IEC/TR 62778, or which have been judged as being finished products ready for use, belonging to risk group 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.

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.

/ Instruments

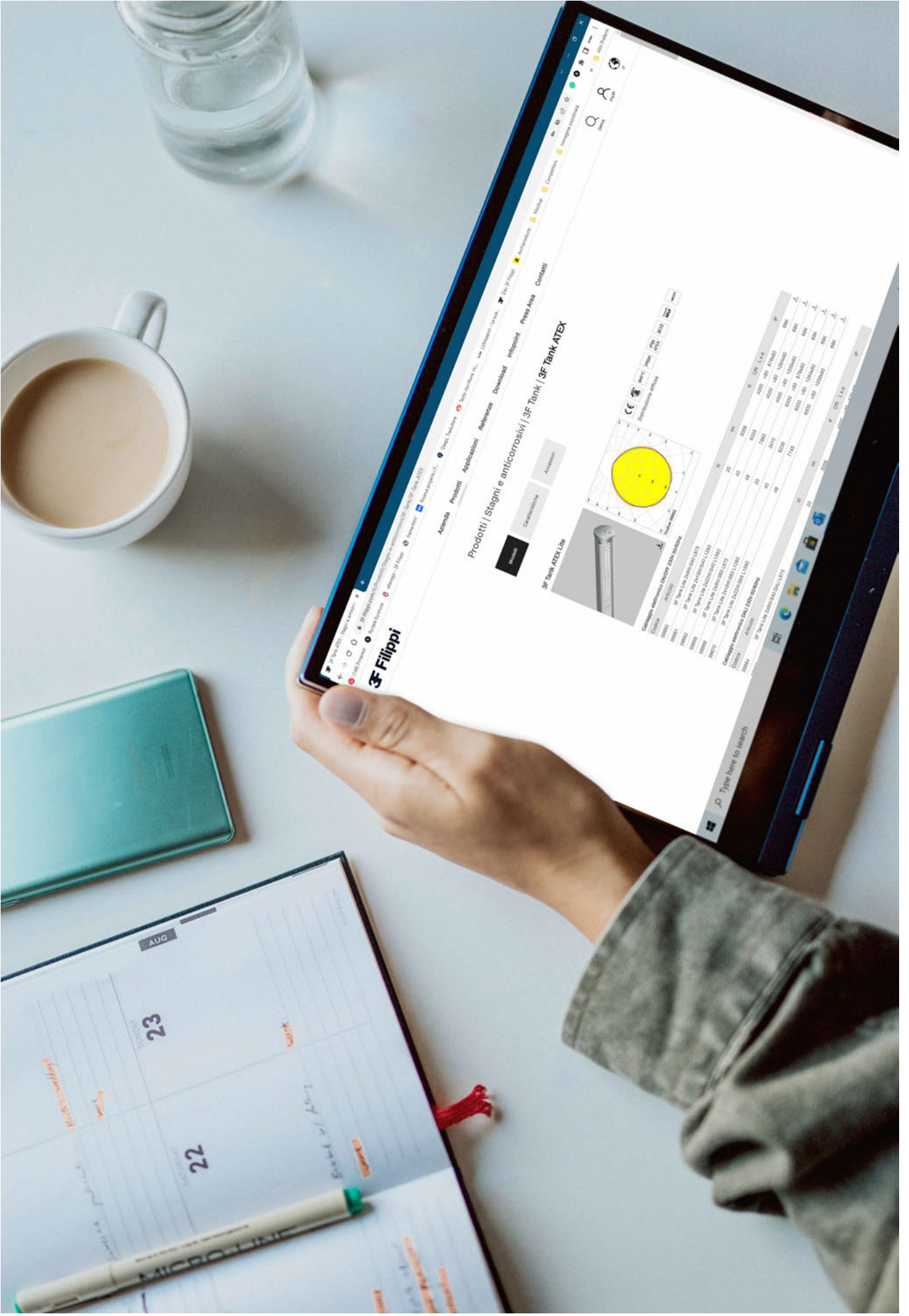
All the results we report are measurements made in full compliance with regulations. This way we provide lighting designers with absolutely real and reliable values.

The **3f-filippi.com** website has been designed to make the research process more straightforward.

We decided to structure the information following the “**Research by code**” that leads directly to the item, the “**Product filter**” to choose the most suitable product from a dynamic screen and the ‘**Configurators**’ that also helps less practised users with guided creation of modular products.

All of our fixtures have identity cards showing their technical features and performance.

Once product has been selected on our website, it is possible to download its data sheet with all the required information.




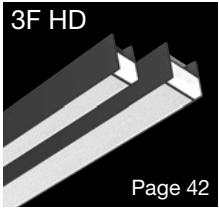
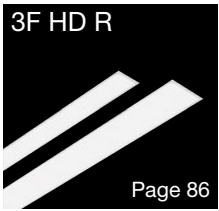




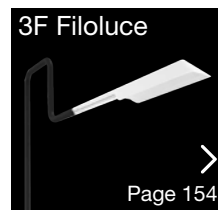



/ catalogue

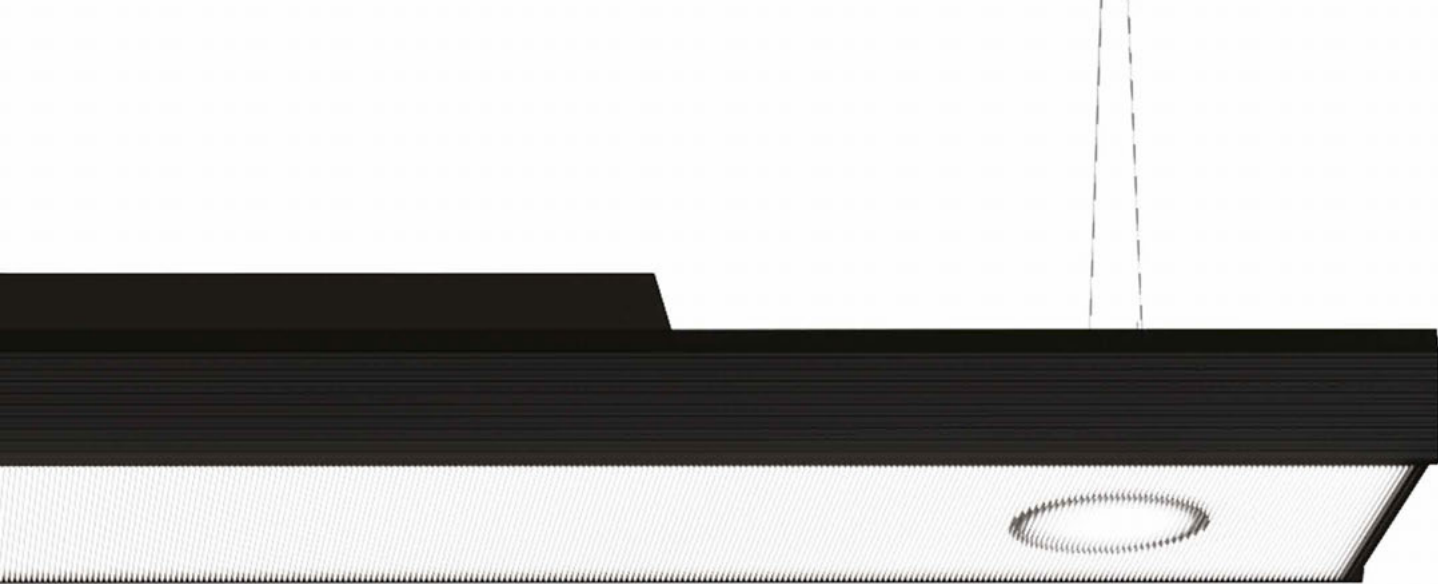
_3F Architectural

/ 3F Filippi



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3F HD Direct Channel Page 66	3F HD Direct/Indirect Single Page 72	3F HD Direct/Indirect Channel Page 78	3F HD R  Page 86	3F HD R Recessed Single Page 90	3F HD R Recessed Channel Page 96
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3F Filoluce  Page 154	3F Filoluce Page 160	3F Eldorado  Page 164	3F Eldorado Frame Page 168	3F Eldorado Twin Page 172	





3F Hal

> www.3F-Filippi.com/3F Hal

3F Hal is the new linear product in the 3F Architectural line, developed in collaboration with architect Alessandro Scandurra. Elegant and clean design characterise the aesthetics of the product which is equipped with the most advanced LED technology on the lighting scene.

The uniqueness of 3F Hal is represented by an internal spot located between the light source and the LGS screen that can act as a courtesy or accent light, thus creating unique and multi-purpose lighting scenarios.

In this way, up to 6 light combinations can be created with a single luminaire.

Thanks to this enormous distinguishing feature, 3F Hal, just like its cinematic counterpart, succeeds in "conducting" everyday life of every single person, taking care of the smallest details, making it more pleasant and comfortable according to their needs.

Page		Product
32	NEW	3F Hal Direct
36	NEW	3F Hal Direct/Indirect

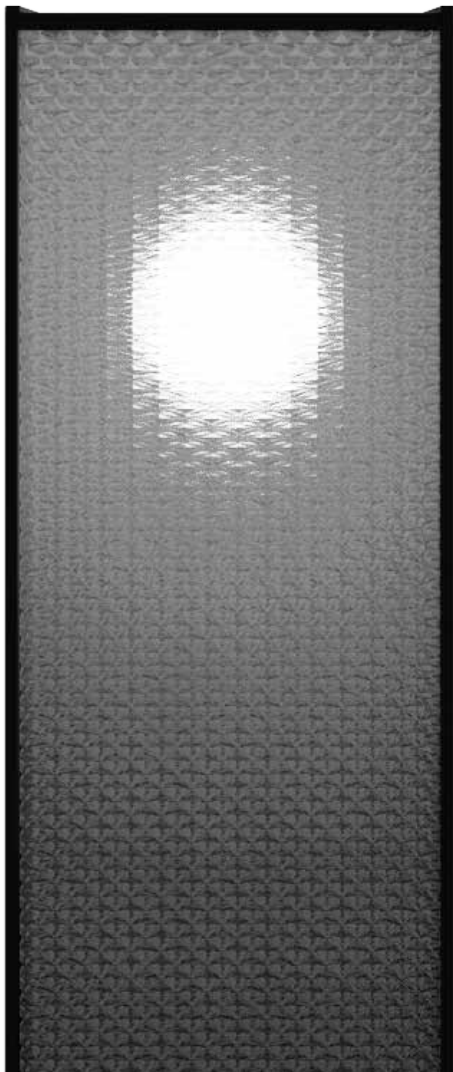
Screens and finishes

3F Hal is composed of a microprismatic screen that guarantees very high luminous uniformity with a luminance control $<3000 \text{ cd/m}^2$ and an internal spot mounted between the light source and the LGS screen, which characterises the product by being invisible when the luminaire is switched off.

This feature, which makes 3F Hal unique, transforms and varies according to the type of configuration it is chosen for the luminaire, making this product capable of recreating multiple lighting combinations according to different needs.

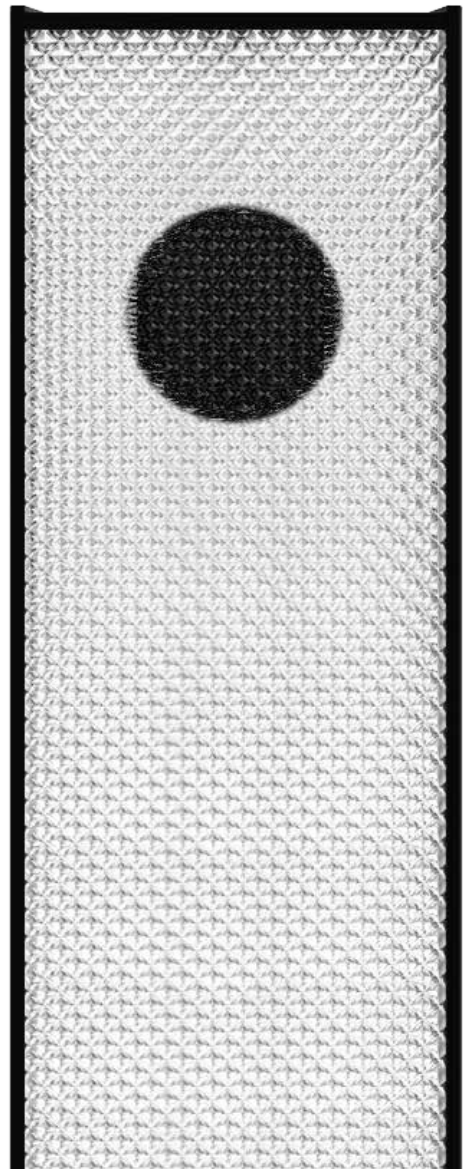
3F Hal Spotlight

Interior Spotlight
accent lighting



3F Hal Spotlight

LGS screen
comfortable lighting



Finishes



White



Black

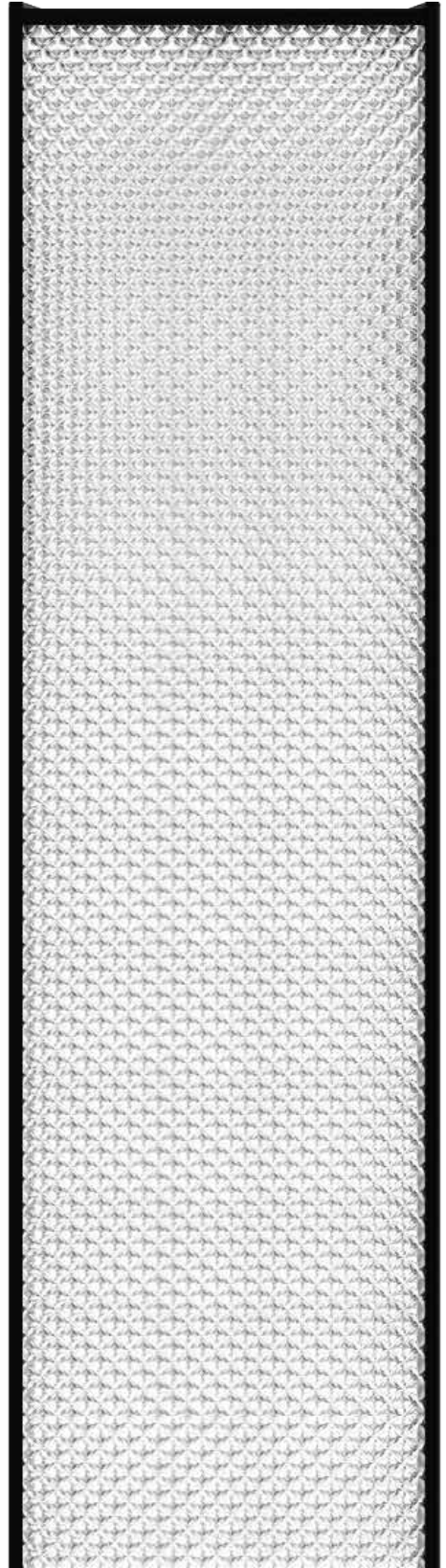
3F Hal Spotlight

Interior spot + LGS screen
full lighting



3F Hal

LGS screen,
UGR <19



Versatility

3F Hal is available in 3 widths (75, 150 and 300 mm) and in 4 lengths (600, 1200, 1500 and 1800 mm), each characterised by horizontal stripes that naturally slender the luminaire only 45 mm high, thanks to the wiring that is remotely mounted above the product.

Inside the product, the spot is mounted differently depending on the type of version, due to its different width.

For the 75 version, in fact, the spotlight is installed centrally, while in the other two versions - 150 and 300 - the spot is asymmetrically positioned towards one of the two closing heads.

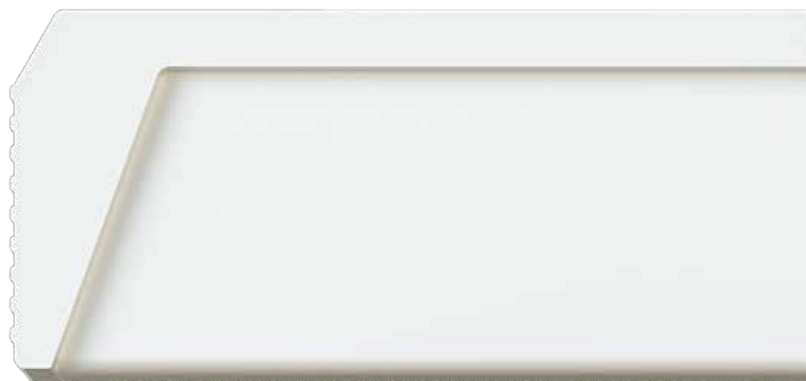
This diversified set-up increases the versatility of the product, which is therefore able to meet the numerous design requests while also offering the possibility of being configured as anyone wishes.

A. Hal 75
central Spot,
single suspension cable.

B. Hal 150
side Spot,
Y-shaped / four suspension cables.

C. Hal 300
side Spot,
Y-shaped / four suspension cables.

C



Scale 1:1
mm

A



75

B



150



300

Product advantages

All versions of 3F Hal, can also be channel mounted. This type of solution is made possible by specially designed accessories that allow the product to be easily and quickly aligned and mounted head-to-head for pendant and ceiling installations.

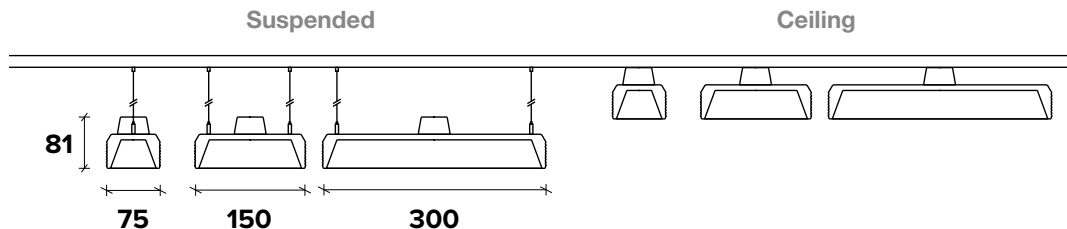
Furthermore, 3F Hal has been designed with DALI wiring to guarantee the regulability of the 3 different emissions (direct, indirect and spot) individually and independently.

This incredible versatility makes 3F Hal the perfect choice for multifunctional spaces, both in terms of practicality and efficiency.



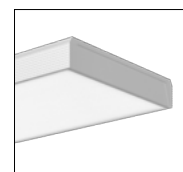
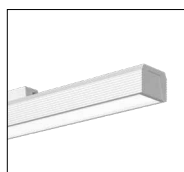


Product range



3F Hal
Direct
Emission

3F Hal



Version

75

150

300

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

<3000

<3000

<3000

UGR

<19

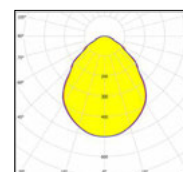
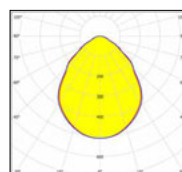
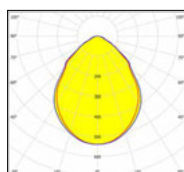
<19

<19

Finishes

White | Black

**Photometric
distribution**



Installation steps

Dt

1,11

1,16

1,17

DI

1,16

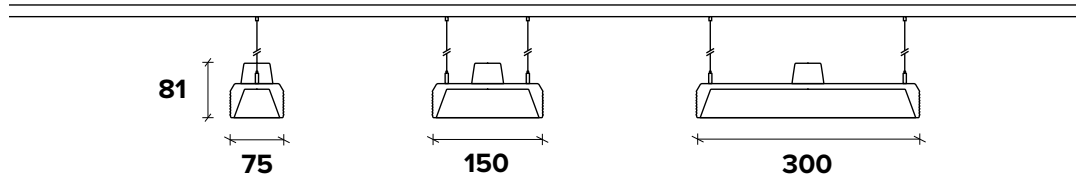
1,18

1,18

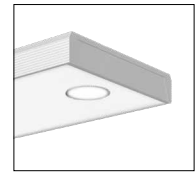
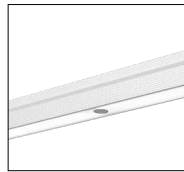
3F Hal

Direct / Indirect
Emission

Suspended



3F Hal Spotlight



Version

75

150

300

Average luminance
for angles > 65
(cd / m²)

<3000

<3000

<3000

UGR

<19

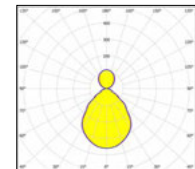
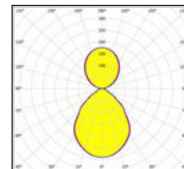
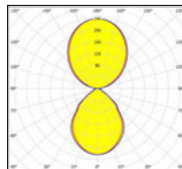
<19

<19

Finishes

White | Black

Photometric
distribution



Installation steps

Dt

1,11

1,16

1,17

DI

1,16

1,18

1,18

NEW

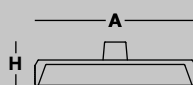
/ 3F Architectural



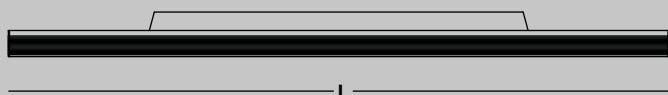
75



150



300





3F Hal Direct

ILLUMINOTECHNICAL

Direct symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

Linear LED modules and COBs.
Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

Extruded aluminium housing with linear side grooves.
Steel end caps.
Removable flow recuperator.
LGS micro-prismatic flat diffuser in transparent methacrylate (PMMA), multi-lenticular exterior, 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.

Spotlight version

Invisible interior spot in central position (75 mm version) or lateral position (150 and 300 mm versions), for accent or service lighting.
Internal parabolic element in black aluminium.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
5-pole terminal block, single 230V circuit, 2 DALI addresses (depending on the type of lighting fixture).
5-pole transparent power cable protrudes by 1.5 m with sheared end.

INSTALLATION

Ceiling mounted or suspension installation.

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.

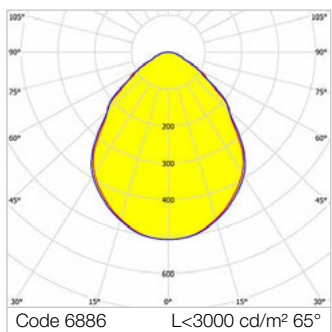
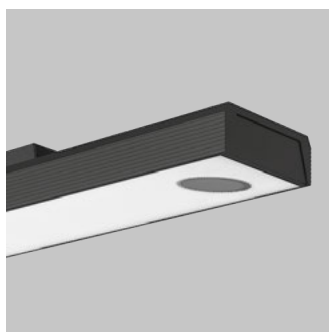
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different powers or colour temperatures
- housing in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F Hal Spotlight



Version with central spot (SC) or side spot (SL).

3F Hal 75 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6880 ^{NEW}	3F Hal75 WH 12/830+1SC10 D LGS L12	26	1764	3000	>80	1200x75x72
○ 6881 ^{NEW}	3F Hal75 WH 16/830+1SC10 D LGS L15	31	2277	3000	>80	1500x75x72
○ 6882 ^{NEW}	3F Hal75 WH 18/830+1SC10 D LGS L18	32.5	2533	3000	>80	1800x75x72
● 6911 ^{NEW}	3F Hal75 BK 12/830+1SC10 D LGS L12	26	1764	3000	>80	1200x75x72
● 6912 ^{NEW}	3F Hal75 BK 16/830+1SC10 D LGS L15	31	2277	3000	>80	1500x75x72
● 6913 ^{NEW}	3F Hal75 BK 18/830+1SC10 D LGS L18	32.5	2533	3000	>80	1800x75x72

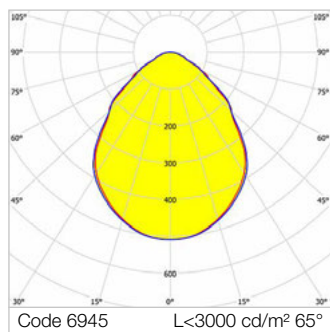
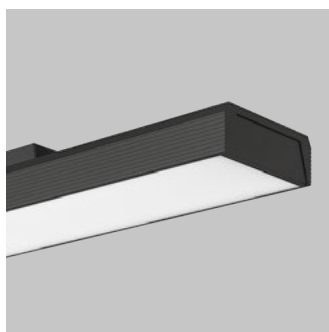
3F Hal 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6884 ^{NEW}	3F Hal150 WH 11/830+1SL10 D LGS L06	26	2137	3000	>80	600x150x81
○ 6885 ^{NEW}	3F Hal150 WH 22/830+1SL10 D LGS L12	38	3682	3000	>80	1200x150x81
○ 6886 ^{NEW}	3F Hal150 WH 28/830+1SL10 D LGS L15	44	4454	3000	>80	1500x150x81
○ 6887 ^{NEW}	3F Hal150 WH 33/830+1SL10 D LGS L18	49	5213	3000	>80	1800x150x81
● 6915 ^{NEW}	3F Hal150 BK 11/830+1SL10 D LGS L06	26	2137	3000	>80	600x150x81
● 6916 ^{NEW}	3F Hal150 BK 22/830+1SL10 D LGS L12	38	3682	3000	>80	1200x150x81
● 6917 ^{NEW}	3F Hal150 BK 28/830+1SL10 D LGS L15	44	4454	3000	>80	1500x150x81
● 6918 ^{NEW}	3F Hal150 BK 33/830+1SL10 D LGS L18	49	5213	3000	>80	1800x150x81

3F Hal 300 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6890 ^{NEW}	3F Hal300 WH 43/830+1SL10 D LGS L12	60	6804	3000	>80	1200x300x81
○ 6891 ^{NEW}	3F Hal300 WH 54/830+1SL10 D LGS L15	72	8289	3000	>80	1500x300x81
○ 6892 ^{NEW}	3F Hal300 WH 65/830+1SL10 D LGS L18	84	9774	3000	>80	1800x300x81
● 6921 ^{NEW}	3F Hal300 BK 43/830+1SL10 D LGS L12	60	6804	3000	>80	1200x300x81
● 6922 ^{NEW}	3F Hal300 BK 54/830+1SL10 D LGS L15	72	8289	3000	>80	1500x300x81
● 6923 ^{NEW}	3F Hal300 BK 65/830+1SL10 D LGS L18	84	9774	3000	>80	1800x300x81

3F Hal



Version without spot.

3F Hal 75 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6879 <small>NEW</small>	3F Hal75 WH 6/830 D LGS L06	8.5	785	3000	>80	600x75x72
○ 6940 <small>NEW</small>	3F Hal75 WH 12/830 D LGS L12	14	1571	3000	>80	1200x75x72
○ 6941 <small>NEW</small>	3F Hal75 WH 16/830 D LGS L15	19	2095	3000	>80	1500x75x72
○ 6942 <small>NEW</small>	3F Hal75 WH 18/830 D LGS L18	20.5	2356	3000	>80	1800x75x72
● 6910 <small>NEW</small>	3F Hal75 BK 6/830 D LGS L06	8.5	785	3000	>80	600x75x72
● 6960 <small>NEW</small>	3F Hal75 BK 12/830 D LGS L12	14	1571	3000	>80	1200x75x72
● 6961 <small>NEW</small>	3F Hal75 BK 16/830 D LGS L15	19	2095	3000	>80	1500x75x72
● 6962 <small>NEW</small>	3F Hal75 BK 18/830 D LGS L18	20.5	2356	3000	>80	1800x75x72

3F Hal 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6943 <small>NEW</small>	3F Hal150 WH 11/830 D LGS L06	14	1575	3000	>80	600x150x81
○ 6944 <small>NEW</small>	3F Hal150 WH 22/830 D LGS L12	26	3150	3000	>80	1200x150x81
○ 6945 <small>NEW</small>	3F Hal150 WH 28/830 D LGS L15	32	3938	3000	>80	1500x150x81
○ 6946 <small>NEW</small>	3F Hal150 WH 33/830 D LGS L18	37	4712	3000	>80	1800x150x81
● 6963 <small>NEW</small>	3F Hal150 BK 11/830 D LGS L06	14	1575	3000	>80	600x150x81
● 6964 <small>NEW</small>	3F Hal150 BK 22/830 D LGS L12	26	3150	3000	>80	1200x150x81
● 6965 <small>NEW</small>	3F Hal150 BK 28/830 D LGS L15	32	3938	3000	>80	1500x150x81
● 6966 <small>NEW</small>	3F Hal150 BK 33/830 D LGS L18	37	4712	3000	>80	1800x150x81

3F Hal 300 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6947 <small>NEW</small>	3F Hal300 WH 43/830 D LGS L12	48	6064	3000	>80	1200x300x81
○ 6948 <small>NEW</small>	3F Hal300 WH 54/830 D LGS L15	60	7581	3000	>80	1500x300x81
○ 6949 <small>NEW</small>	3F Hal300 WH 65/830 D LGS L18	72	9097	3000	>80	1800x300x81
● 6967 <small>NEW</small>	3F Hal300 BK 43/830 D LGS L12	48	6064	3000	>80	1200x300x81
● 6968 <small>NEW</small>	3F Hal300 BK 54/830 D LGS L15	60	7581	3000	>80	1500x300x81
● 6969 <small>NEW</small>	3F Hal300 BK 65/830 D LGS L18	72	9097	3000	>80	1800x300x81

NEW

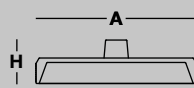
/ 3F Architectural



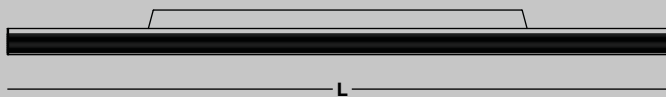
75



150



300



L





3F Hal Direct/Indirect

ILLUMINOTECHNICAL

Symmetric direct-indirect distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

Linear LED modules and COBs.
Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

Extruded aluminium housing with linear side grooves.
Steel end caps.
Removable flow recuperator.
LGS micro-prismatic flat diffuser in transparent methacrylate (PMMA), multi-lenticular exterior, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.
Translucent polycarbonate upper diffuser.
Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Spotlight version

Invisible interior spot in central position (75 mm version) or lateral position (150 and 300 mm versions), for accent or service lighting.
Internal parabolic element in black aluminium.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
5-pole terminal block, single 230V circuit, 2 DALI addresses (depending on the type of lighting fixture).
5-pole transparent power cable protrudes by 1.5 m with sheared end.

INSTALLATION

Suspension installation.

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.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different powers or colour temperatures
- housing in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F Hal DI Spotlight



650°C

IP40

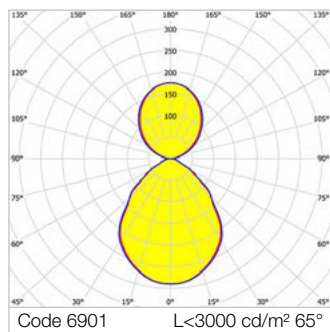
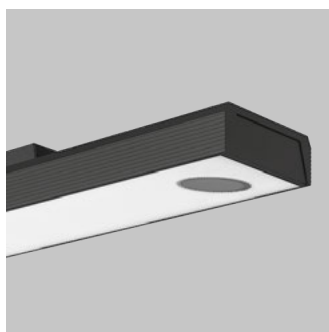
0,2J

IK02



Driver/LED

SELV



Version with central spot (SC) or side spot (SL).

3F Hal 75 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6895 ^{NEW}	3F Hal75DI WH 12+23/830+1SC10 D LGS L12	52	4742	3000	>80	1200x75x81
○ 6896 ^{NEW}	3F Hal75DI WH 16+23/830+1SC10 D LGS L15	57	5255	3000	>80	1500x75x81
○ 6897 ^{NEW}	3F Hal75DI WH 18+23/830+1SC10 D LGS L18	58	5511	3000	>80	1800x75x81
● 6926 ^{NEW}	3F Hal75DI BK 12+23/830+1SC10 D LGS L12	52	4742	3000	>80	1200x75x81
● 6927 ^{NEW}	3F Hal75DI BK 16+23/830+1SC10 D LGS L15	57	5255	3000	>80	1500x75x81
● 6928 ^{NEW}	3F Hal75DI BK 18+23/830+1SC10 D LGS L18	58	5511	3000	>80	1800x75x81

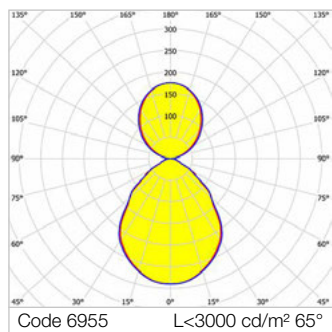
3F Hal 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6899 ^{NEW}	3F Hal150DI WH 11+20/830+1SL10 D LGS L06	49	4725	3000	>80	600x150x81
○ 6900 ^{NEW}	3F Hal150DI WH 22+23/830+1SL10 D LGS L12	64	6660	3000	>80	1200x150x81
○ 6901 ^{NEW}	3F Hal150DI WH 28+23/830+1SL10 D LGS L15	69	7432	3000	>80	1500x150x81
○ 6902 ^{NEW}	3F Hal150DI WH 33+23/830+1SL10 D LGS L18	75	8191	3000	>80	1800x150x81
● 6930 ^{NEW}	3F Hal150DI BK 11+20/830+1SL10 D LGS L06	49	4725	3000	>80	600x150x81
● 6931 ^{NEW}	3F Hal150DI BK 22+23/830+1SL10 D LGS L12	64	6660	3000	>80	1200x150x81
● 6932 ^{NEW}	3F Hal150DI BK 28+23/830+1SL10 D LGS L15	69	7432	3000	>80	1500x150x81
● 6933 ^{NEW}	3F Hal150DI BK 33+23/830+1SL10 D LGS L18	75	8191	3000	>80	1800x150x81

3F Hal 300 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6905 ^{NEW}	3F Hal300DI WH 43+23/830+1SL10 D LGS L12	86	9782	3000	>80	1200x300x81
○ 6906 ^{NEW}	3F Hal300DI WH 54+23/830+1SL10 D LGS L15	98	11267	3000	>80	1500x300x81
○ 6907 ^{NEW}	3F Hal300DI WH 65+23/830+1SL10 D LGS L18	110	12752	3000	>80	1800x300x81
● 6936 ^{NEW}	3F Hal300DI BK 43+23/830+1SL10 D LGS L12	86	9782	3000	>80	1200x300x81
● 6937 ^{NEW}	3F Hal300DI BK 54+23/830+1SL10 D LGS L15	98	11267	3000	>80	1500x300x81
● 6938 ^{NEW}	3F Hal300DI BK 65+23/830+1SL10 D LGS L18	110	12752	3000	>80	1800x300x81

3F Hal DI



Version without spot.

3F Hal 75 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6950 ^{NEW}	3F Hal75DI WH 12+23/830 D LGS L12	40	4549	3000	>80	1200x75x81
○ 6951 ^{NEW}	3F Hal75DI WH 16+23/830 D LGS L15	45	5073	3000	>80	1500x75x81
○ 6952 ^{NEW}	3F Hal75DI WH 18+23/830 D LGS L18	46	5334	3000	>80	1800x75x81
● 6970 ^{NEW}	3F Hal75DI BK 12+23/830 D LGS L12	40	4549	3000	>80	1200x75x81
● 6971 ^{NEW}	3F Hal75DI BK 16+23/830 D LGS L15	45	5073	3000	>80	1500x75x81
● 6972 ^{NEW}	3F Hal75DI BK 18+23/830 D LGS L18	46	5334	3000	>80	1800x75x81

3F Hal 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6953 ^{NEW}	3F Hal150DI WH 11+20/830 D LGS L06	37	4163	3000	>80	600x150x81
○ 6954 ^{NEW}	3F Hal150DI WH 22+23/830 D LGS L12	52	6128	3000	>80	1200x150x81
○ 6955 ^{NEW}	3F Hal150DI WH 28+23/830 D LGS L15	57	6916	3000	>80	1500x150x81
○ 6956 ^{NEW}	3F Hal150DI WH 33+23/830 D LGS L18	63	7690	3000	>80	1800x150x81
● 6973 ^{NEW}	3F Hal150DI BK 11+20/830 D LGS L06	37	4163	3000	>80	600x150x81
● 6974 ^{NEW}	3F Hal150DI BK 22+23/830 D LGS L12	52	6128	3000	>80	1200x150x81
● 6975 ^{NEW}	3F Hal150DI BK 28+23/830 D LGS L15	57	6916	3000	>80	1500x150x81
● 6976 ^{NEW}	3F Hal150DI BK 33+23/830 D LGS L18	63	7690	3000	>80	1800x150x81

3F Hal 300 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6957 ^{NEW}	3F Hal300DI WH 43+23/830 D LGS L12	74	9042	3000	>80	1200x300x81
○ 6958 ^{NEW}	3F Hal300DI WH 54+23/830 D LGS L15	86	10559	3000	>80	1500x300x81
○ 6959 ^{NEW}	3F Hal300DI WH 65+23/830 D LGS L18	98	12075	3000	>80	1800x300x81
● 6977 ^{NEW}	3F Hal300DI BK 43+23/830 D LGS L12	74	9042	3000	>80	1200x300x81
● 6978 ^{NEW}	3F Hal300DI BK 54+23/830 D LGS L15	86	10559	3000	>80	1500x300x81
● 6979 ^{NEW}	3F Hal300DI BK 65+23/830 D LGS L18	98	12075	3000	>80	1800x300x81

3F Hal | Accessories



Code	Item
A01587 ^{NEW}	Slid.brack.w/reg.susp. 3F Hal 75

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

In the case of purchase of only one sliding bracket with controller (code A01587), the suspension cable must be made of galvanised steel with 49 elementary wires of minimum 1.5 mm diameter (for a weight of 15 kg).



Code	Item
A01588 ^{NEW}	kit 4 adjust. 1m susp. 3F Hal 150-300

Suspension installation kit consisting of 4 cables in galvanised steel and regulators.



Code	Item
A01591 ^{NEW}	Y-Susp. 3F Hal 150
A01592 ^{NEW}	Y-Susp. 3F Hal 300

Fixed suspension for Y-shaped installations.

These accessories must ALWAYS be used with one of the following codes: A20485 - A20486.



Code	Item
A20485	Suspension without adjustment - 0.5 m
A20486	Suspension without adjustment - 1 m

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



Code	Item
A01593 ^{NEW}	5 pole round rose Ø90 (no cable) WH
A01594 ^{NEW}	5 pole round rose Ø90 (no cable) BK

Electric supply with polycarbonate case.



Code	Item
A01598 ^{NEW}	Conn. brack. for susp. 3F Hal 75
A01599 ^{NEW}	Conn. brack. for susp. 3F Hal 150
A01600 ^{NEW}	Conn. brack. for susp. 3F Hal 300

Pair of galvanised steel connecting brackets to form linear channels, for suspended installation.



Code	Item
A01595 ^{NEW}	Pair of brack. ceiling instal. 3F Hal 75
A01596 ^{NEW}	Pair of brack. ceiling instal. 3F Hal 150
A01597 ^{NEW}	Pair of brack. ceiling instal. 3F Hal 300

Free-position sliding brackets in galvanised steel. Accessory dedicated to ceiling installation.

Accessory A01596 not compatible with 3F Hal150 L06 versions.



Code	Item
A01672 ^{NEW}	Conn. brack. for ceiling instal. 3F Hal 75
A01673 ^{NEW}	Conn. brack. for ceiling instal. 3F Hal 150
A01674 ^{NEW}	Conn. brack. for ceiling instal. 3F Hal 300

Pair of galvanized steel connecting brackets to form linear channels, for ceiling installation.





3F HD

> www.3F-Filippi.com/3F HD

Design by **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. 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.

This product is also available in this version 3F HD R (page 86).

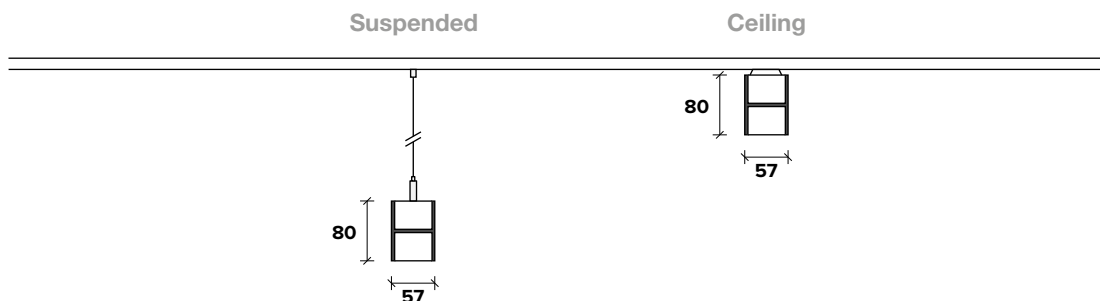
+ Overview

- Luminous efficacy up to 123 lumen/watt.
- Luminous fluxes from 1250 to 13135 lumens.
- Average luminance <200 cd/m² (OCB version).
- Extensive installation pitch.
- UGR <16 (OCB version).
- LEED Compliant.
- Available with OC lenticular optics or diffusers.
- Module lengths optimised to reduce installation time and required accessories by up to 20%.
- Quick and easy cleaning.
- Luminous end caps.
- Seamless screens (up to 15 metres in length).
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Thanks to the FastWiring system, the installation time is drastically reduced.

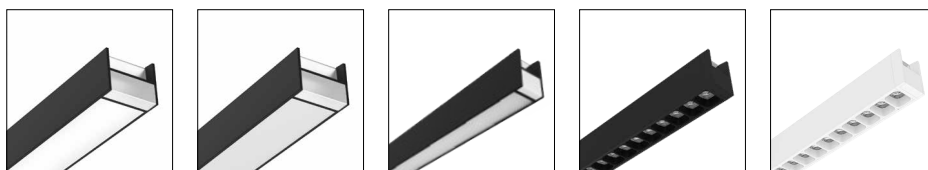
Page	Product	Ceiling	Suspended
52	3F HD Direct - Single	•	•
62	3F HD Direct - Single - Tunable White	•	•
66	3F HD Direct - Channel	•	•
72	3F HD Direct/Indirect - Single		•
78	3F HD Direct/Indirect - Channel		•

Product range

3F HD 50 Single/Channel



3F HD Direct Emission



FDO FDP GSP OCB OCW

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

>3000 <3000 <3000 <200 <1500

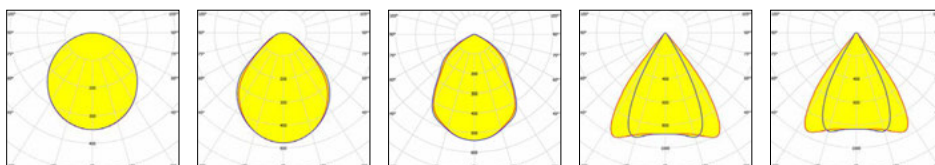
UGR

<21 <19 <19 <16 <16

Finishes

Silver | White | Black

**Photometric
distribution**



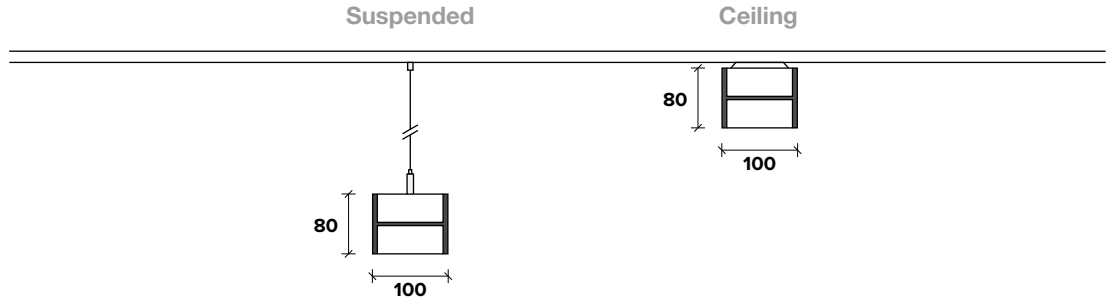
Installation steps

	Dt	1,29	1,16	1,14	1,34	1,32
	DI	1,24	1,18	1,18	1,00	1,00

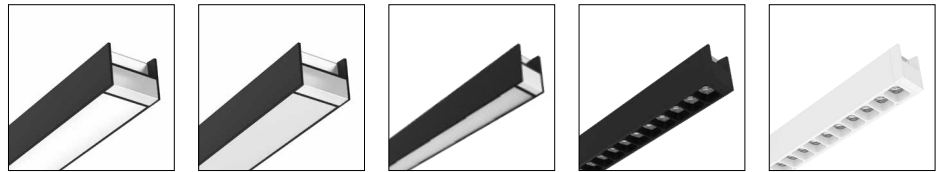
NEW

Arrange the version that best suits your needs quickly and easily
www.3f-illipi.com/en/3F-HD-configurator

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
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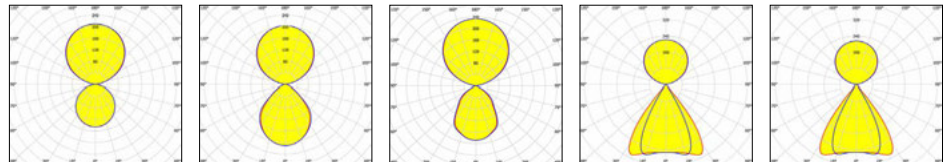
UGR

<21	<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

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.

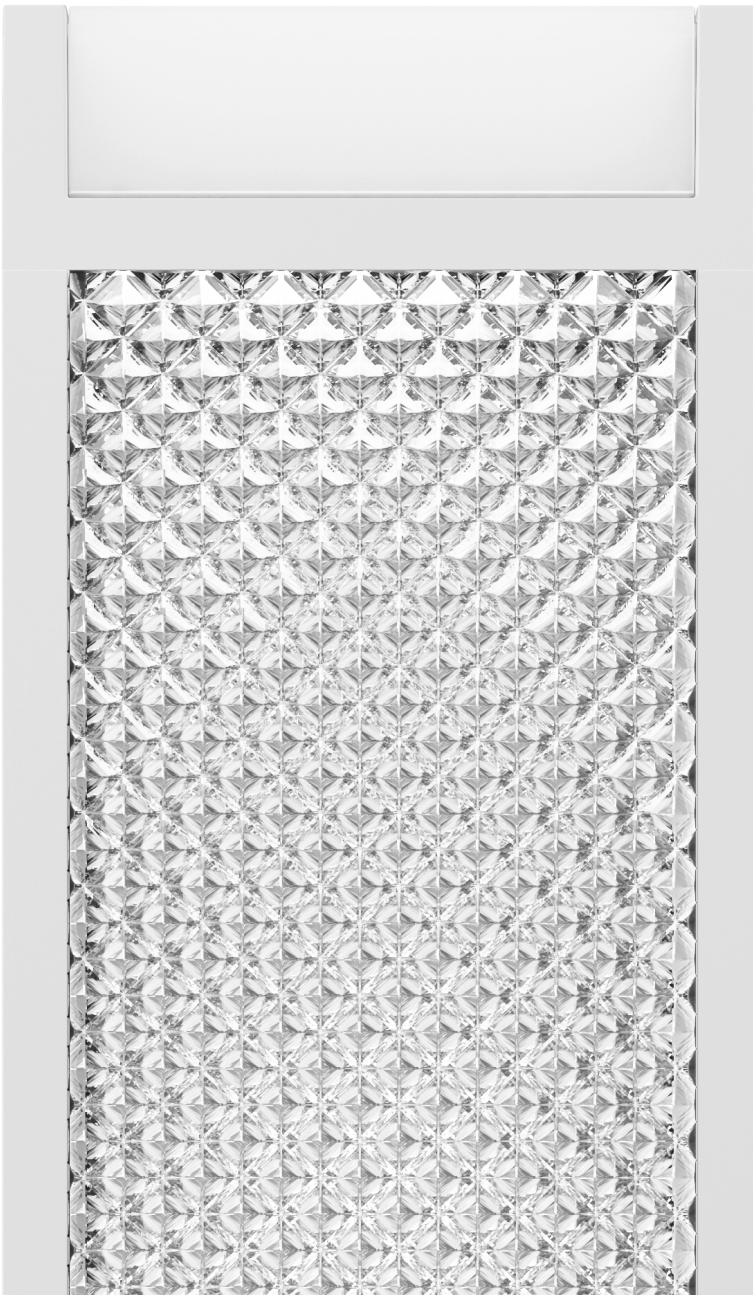
The FDO opal screen is suitable for areas that are not visually demanding such as waiting rooms and corridors, while the FDP (Flat Diffuser Micro prismatic) standard micro prismatic one ensures increased visual comfort for work stations.

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° (<2500 cd/m²) and those of more than 65° (<200 cd/m²).

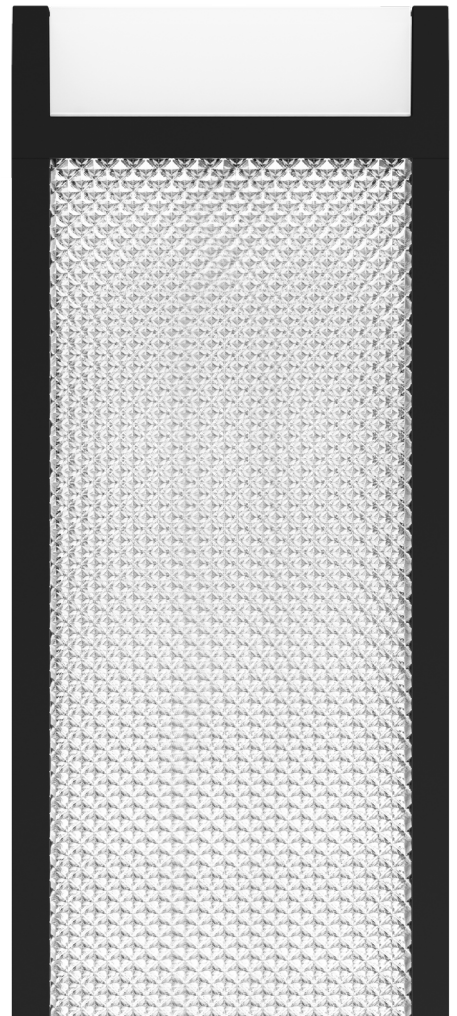
GSP

Prismatic screen

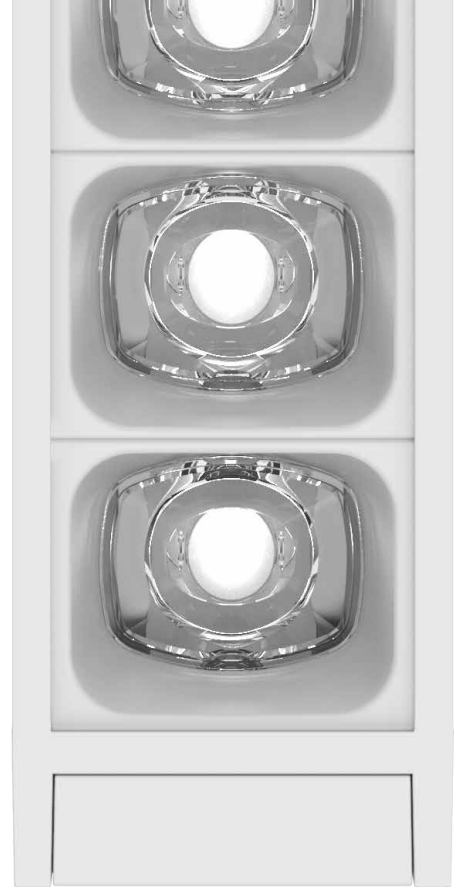
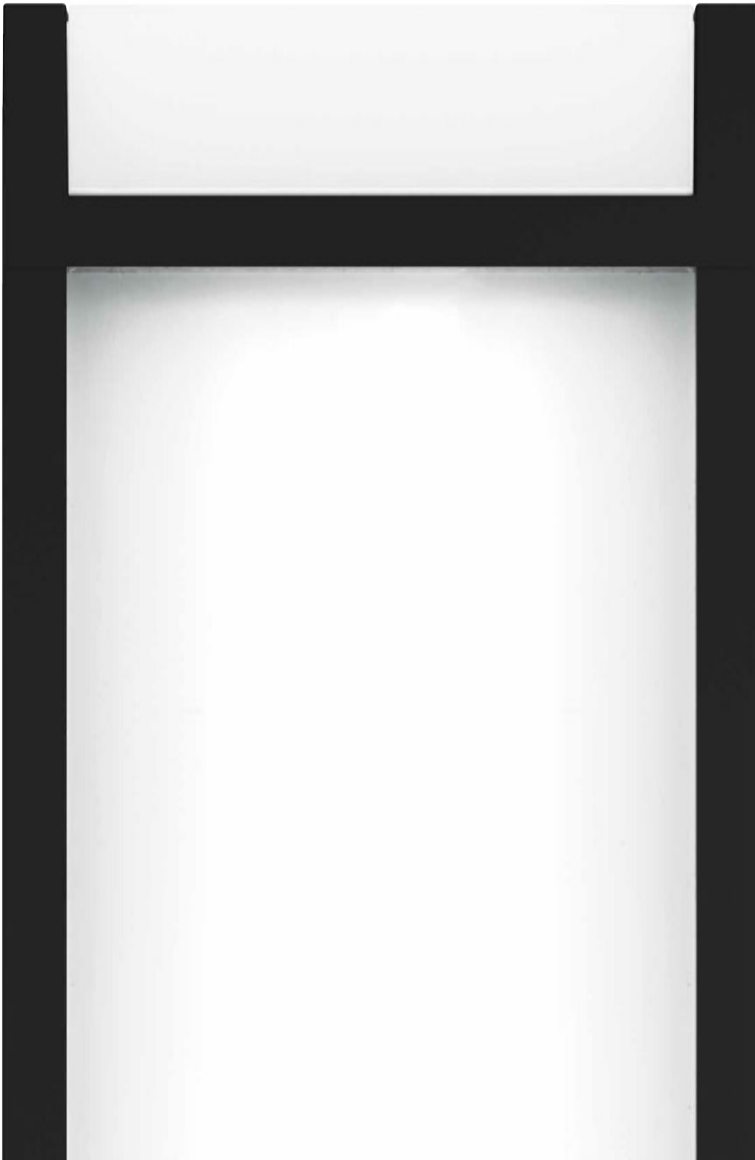


FDP

Flat micro prismatic diffuser



FDO
Flat opal diffuser



OCW
Optics Control White
Complies with LEED regulations

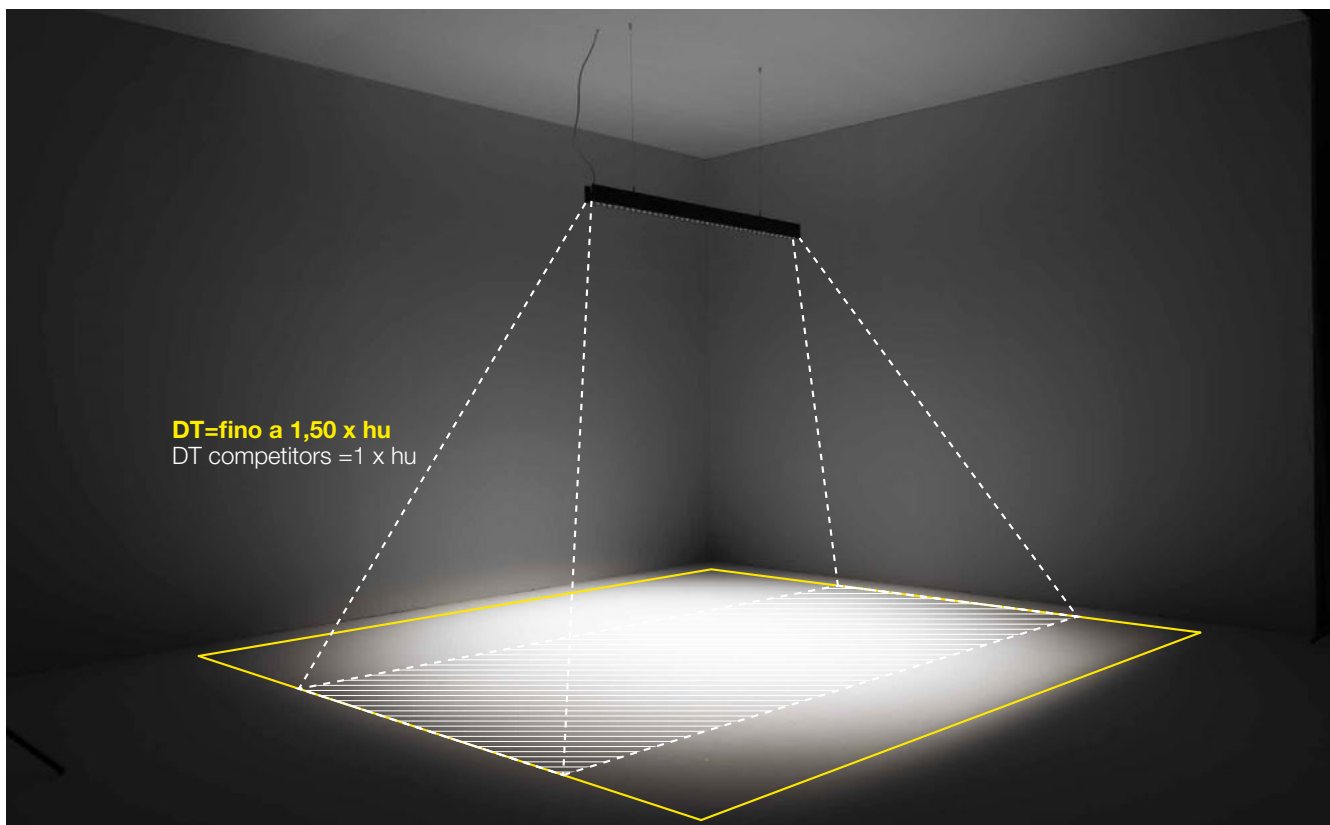
OCB
Optics Control Black
Complies with LEED regulations



Scale 1:1

Optimized distribution

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

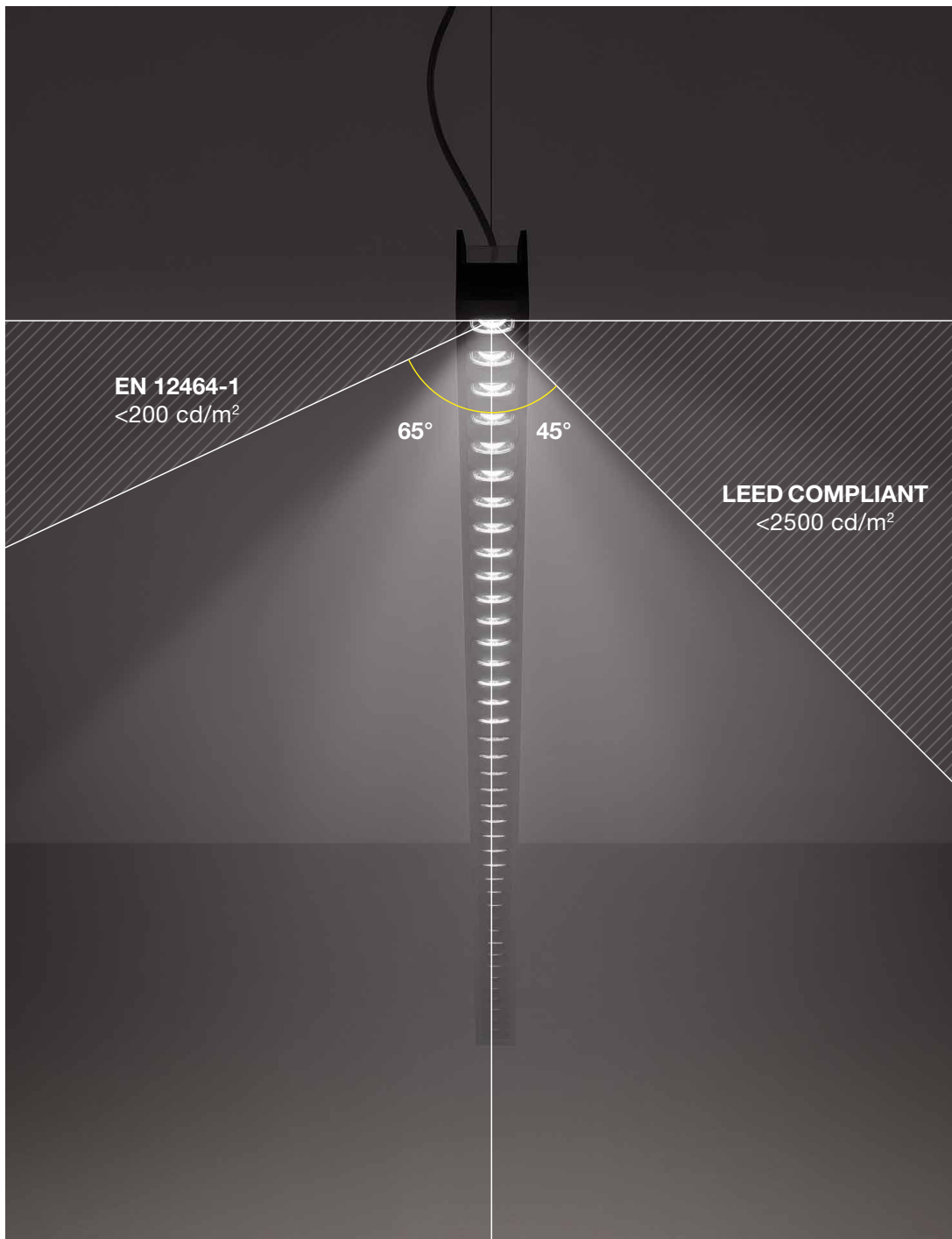


Competitors



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 with UGR value <16.**



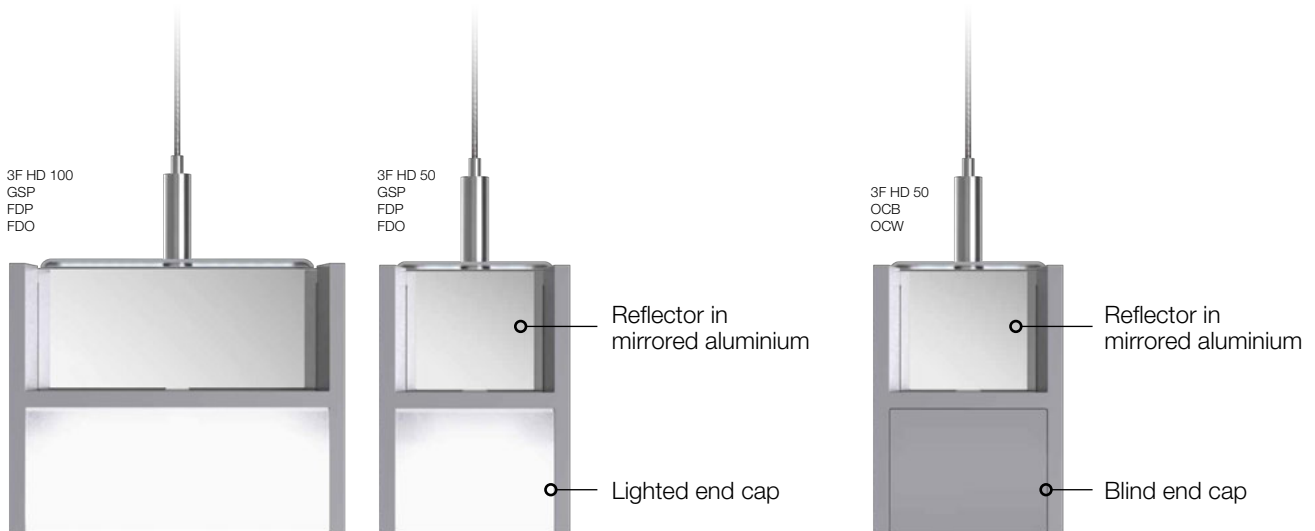
Product advantages

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.

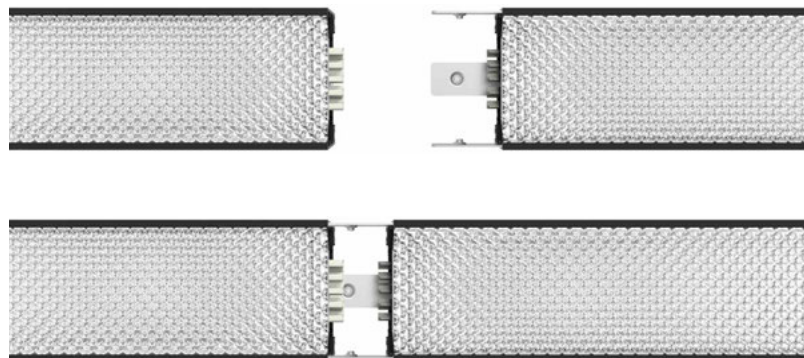


FASTWIRING SYSTEM

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.







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Bastia Umbra
Italia/Italy





3F HD Direct - Single

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Extruded aluminium housing.
Removable gear-tray.
Lighting head caps with specular aluminium frieze.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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.

INSTALLATION

Ceiling mounted or suspension installation.

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.

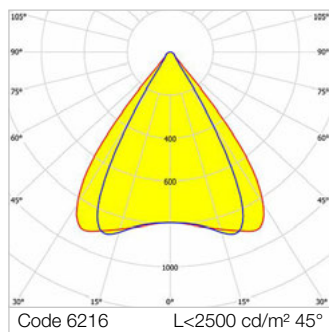
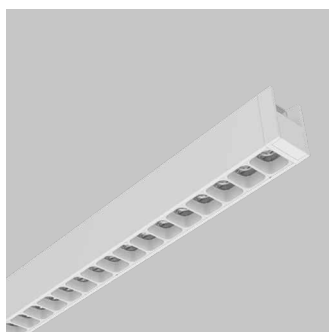
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different powers or colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F HD OCW Single

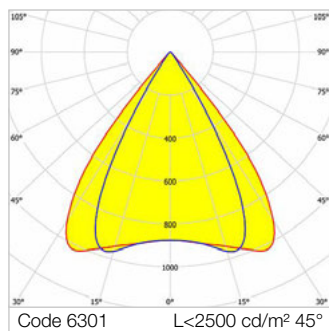
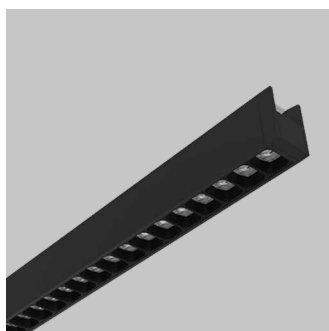
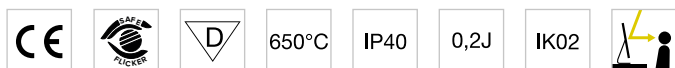


Average luminance <2500 cd/m² for angles >45°.
 Average luminance <1500 cd/m² for angles >65°.
 Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.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

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6215	3F HD50 WH 12/830 DALI OCW L1214	14.5	1713	3000	>80	1214x57x80
○ 6216	3F HD50 WH 15/830 DALI OCW L1508	18	2143	3000	>80	1508x57x80
○ 6217	3F HD50 WH 30/830 DALI OCW L2975	33	4285	3000	>80	2975x57x80

3F HD OCB Single

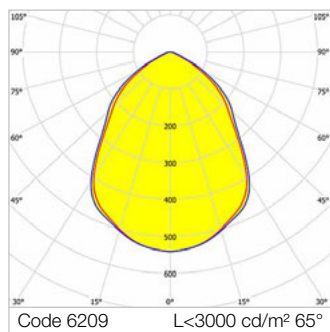
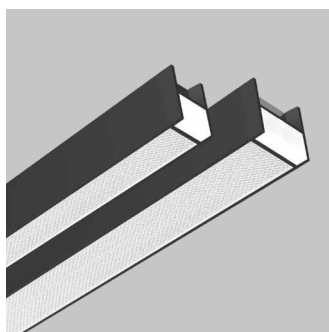


Average luminance <2500 cd/m² for angles >45°.
 Average luminance <200 cd/m² for angles >65°.
 Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.
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

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

Code	Item	W	lm	K	CRI	L x A x H
● 6300	3F HD50 BK 12/830 DALI OCB L1214	14.5	1586	3000	>80	1214x57x80
● 6301	3F HD50 BK 15/830 DALI OCB L1508	18	1984	3000	>80	1508x57x80
● 6302	3F HD50 BK 30/830 DALI OCB L2975	33	3967	3000	>80	2975x57x80
○ 6385	3F HD50 AL 12/830 DALI OCB L1214	14.5	1586	3000	>80	1214x57x80
○ 6386	3F HD50 AL 15/830 DALI OCB L1508	18	1984	3000	>80	1508x57x80
○ 6387	3F HD50 AL 30/830 DALI OCB L2975	33	3967	3000	>80	2975x57x80

3F HD GSP Single



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

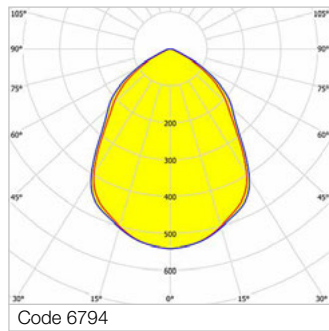
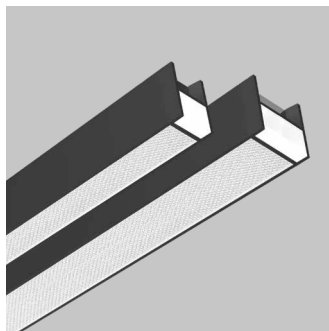
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6208	3F HD50 WH 13/840 DALI GSP L1214	14	1374	4000	>80	1214x57x80
○ 6209	3F HD50 WH 16/840 DALI GSP L1508	18	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	18	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	18	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

Code	Item	W	lm	K	CRI	L x A x H
○ 6227	3F HD100 WH 22/840 DALI GSP L1214	24	2617	4000	>80	1214x100x80
○ 6228	3F HD100 WH 26/840 DALI GSP L1508	29	3271	4000	>80	1508x100x80
○ 6229	3F HD100 WH 52/840 DALI GSP L2975	56	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	29	3271	4000	>80	1508x100x80
● 6314	3F HD100 BK 52/840 DALI GSP L2975	56	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	29	3271	4000	>80	1508x100x80
○ 6399	3F HD100 AL 52/840 DALI GSP L2975	56	6428	4000	>80	2975x100x80

3F HD HO GSP Single



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

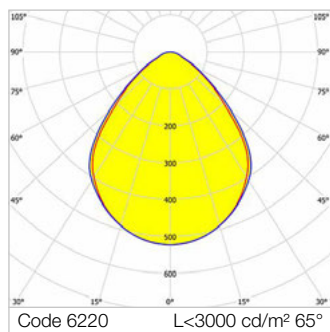
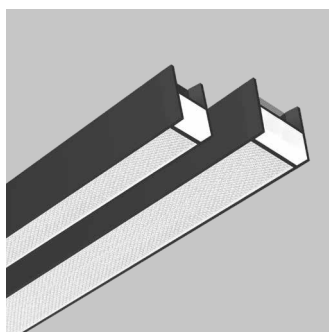
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6793	3F HD50 WH HO 22/840 DALI GSP L1214	25	2596	4000	>80	1214x57x80
○ 6794	3F HD50 WH HO 26/840 DALI GSP L1508	30	3246	4000	>80	1508x57x80
○ 6795	3F HD50 WH HO 52/840 DALI GSP L2975	58	6492	4000	>80	2975x57x80
● 6799	3F HD50 BK HO 22/840 DALI GSP L1214	25	2596	4000	>80	1214x57x80
● 6800	3F HD50 BK HO 26/840 DALI GSP L1508	30	3246	4000	>80	1508x57x80
● 6801	3F HD50 BK HO 52/840 DALI GSP L2975	58	6492	4000	>80	2975x57x80
○ 6805	3F HD50 AL HO 22/840 DALI GSP L1214	25	2596	4000	>80	1214x57x80
○ 6806	3F HD50 AL HO 26/840 DALI GSP L1508	30	3246	4000	>80	1508x57x80
○ 6807	3F HD50 AL HO 52/840 DALI GSP L2975	58	6492	4000	>80	2975x57x80

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6796	3F HD100 WH HO 36/840 DALI GSP L1214	39	4434	4000	>80	1214x100x80
○ 6797	3F HD100 WH HO 44/840 DALI GSP L1508	49	5542	4000	>80	1508x100x80
○ 6798	3F HD100 WH HO 88/840 DALI GSP L2975	98	11085	4000	>80	2975x100x80
● 6802	3F HD100 BK HO 36/840 DALI GSP L1214	39	4434	4000	>80	1214x100x80
● 6803	3F HD100 BK HO 44/840 DALI GSP L1508	49	5542	4000	>80	1508x100x80
● 6804	3F HD100 BK HO 88/840 DALI GSP L2975	98	11085	4000	>80	2975x100x80
○ 6808	3F HD100 AL HO 36/840 DALI GSP L1214	39	4434	4000	>80	1214x100x80
○ 6809	3F HD100 AL HO 44/840 DALI GSP L1508	49	5542	4000	>80	1508x100x80
○ 6810	3F HD100 AL HO 88/840 DALI GSP L2975	98	11085	4000	>80	2975x100x80

3F HD FDP Single



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.

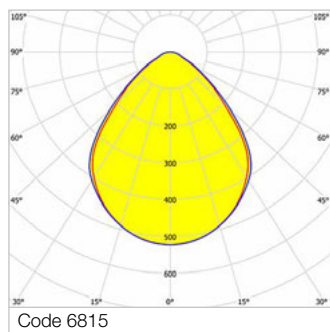
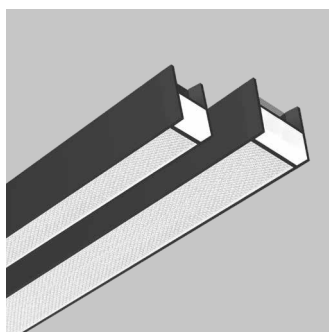
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6200	3F HD50 WH 13/840 DALI FDP L1214	14	1292	4000	>80	1214x57x80
○ 6201	3F HD50 WH 16/840 DALI FDP L1508	18	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	18	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	18	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

Code	Item	W	lm	K	CRI	L x A x H
○ 6219	3F HD100 WH 22/840 DALI FDP L1214	24	2468	4000	>80	1214x100x80
○ 6220	3F HD100 WH 26/840 DALI FDP L1508	29	3085	4000	>80	1508x100x80
○ 6221	3F HD100 WH 52/840 DALI FDP L2975	56	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	29	3085	4000	>80	1508x100x80
● 6306	3F HD100 BK 52/840 DALI FDP L2975	56	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	29	3085	4000	>80	1508x100x80
○ 6391	3F HD100 AL 52/840 DALI FDP L2975	56	6062	4000	>80	2975x100x80

3F HD HO FDP Single



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.

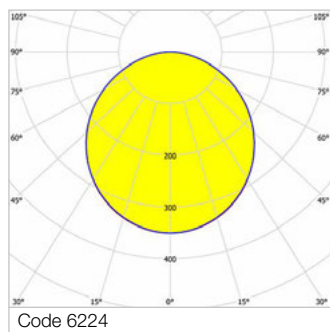
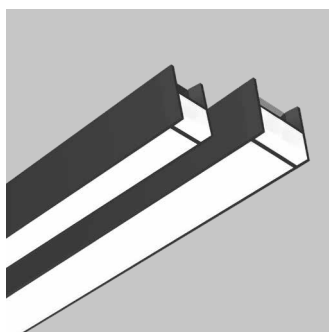
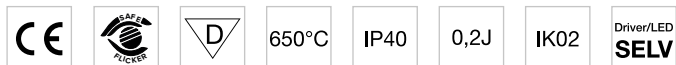
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6811	3F HD50 WH HO 22/840 DALI FDP L1214	25	2448	4000	>80	1214x57x80
○ 6812	3F HD50 WH HO 26/840 DALI FDP L1508	30	3061	4000	>80	1508x57x80
○ 6813	3F HD50 WH HO 52/840 DALI FDP L2975	58	6122	4000	>80	2975x57x80
● 6817	3F HD50 BK HO 22/840 DALI FDP L1214	25	2448	4000	>80	1214x57x80
● 6818	3F HD50 BK HO 26/840 DALI FDP L1508	30	3061	4000	>80	1508x57x80
● 6819	3F HD50 BK HO 52/840 DALI FDP L2975	58	6122	4000	>80	2975x57x80
○ 6823	3F HD50 AL HO 22/840 DALI FDP L1214	25	2448	4000	>80	1214x57x80
○ 6824	3F HD50 AL HO 26/840 DALI FDP L1508	30	3061	4000	>80	1508x57x80
○ 6825	3F HD50 AL HO 52/840 DALI FDP L2975	58	6122	4000	>80	2975x57x80

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6814	3F HD100 WH HO 36/840 DALI FDP L1214	39	4182	4000	>80	1214x100x80
○ 6815	3F HD100 WH HO 44/840 DALI FDP L1508	49	5227	4000	>80	1508x100x80
○ 6816	3F HD100 WH HO 88/840 DALI FDP L2975	98	10454	4000	>80	2975x100x80
● 6820	3F HD100 BK HO 36/840 DALI FDP L1214	39	4182	4000	>80	1214x100x80
● 6821	3F HD100 BK HO 44/840 DALI FDP L1508	49	5227	4000	>80	1508x100x80
● 6822	3F HD100 BK HO 88/840 DALI FDP L2975	98	10454	4000	>80	2975x100x80
○ 6826	3F HD100 AL HO 36/840 DALI FDP L1214	39	4182	4000	>80	1214x100x80
○ 6827	3F HD100 AL HO 44/840 DALI FDP L1508	49	5227	4000	>80	1508x100x80
○ 6828	3F HD100 AL HO 88/840 DALI FDP L2975	98	10454	4000	>80	2975x100x80

3F HD FDO Single



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

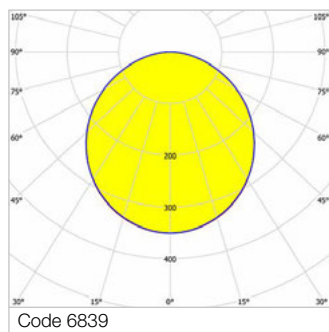
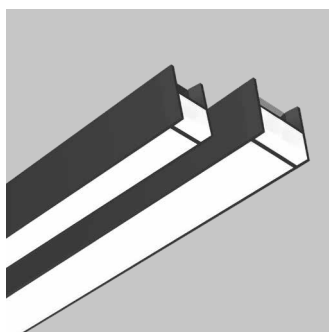
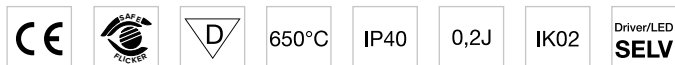
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6204	3F HD50 WH 13/840 DALI FDO L1214	14	1250	4000	>80	1214x57x80
○ 6205	3F HD50 WH 16/840 DALI FDO L1508	18	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	18	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	18	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

Code	Item	W	lm	K	CRI	L x A x H
○ 6223	3F HD100 WH 22/840 DALI FDO L1214	24	2304	4000	>80	1214x100x80
○ 6224	3F HD100 WH 26/840 DALI FDO L1508	29	2880	4000	>80	1508x100x80
○ 6225	3F HD100 WH 52/840 DALI FDO L2975	56	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	29	2880	4000	>80	1508x100x80
● 6310	3F HD100 BK 52/840 DALI FDO L2975	56	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	29	2880	4000	>80	1508x100x80
○ 6395	3F HD100 AL 52/840 DALI FDO L2975	56	5660	4000	>80	2975x100x80

3F HD HO FDO Single



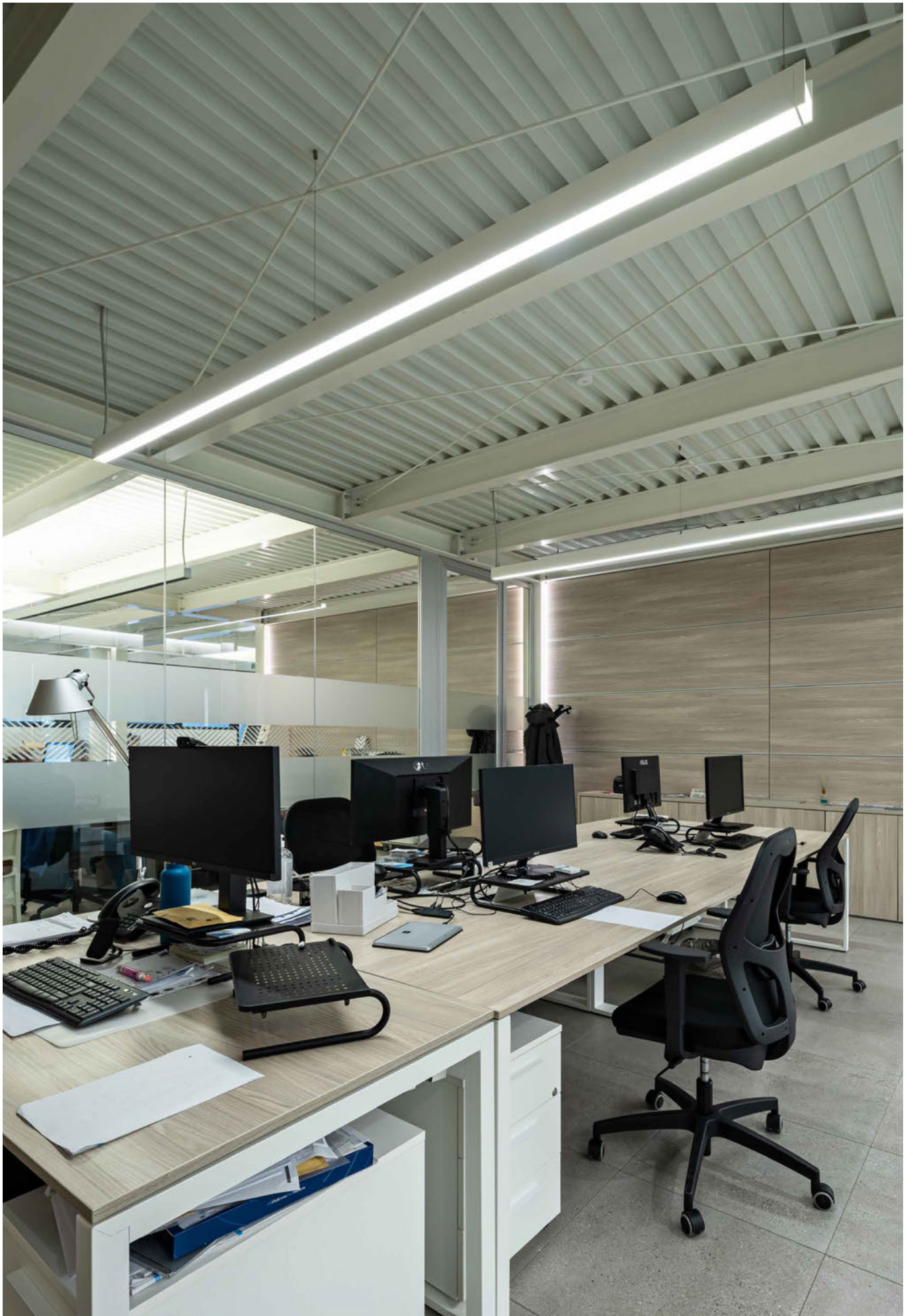
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Flat opal anti-glare polycarbonate diffuser.

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6829	3F HD50 WH HO 22/840 DALI FDO L1214	25	2286	4000	>80	1214x57x80
○ 6830	3F HD50 WH HO 26/840 DALI FDO L1508	30	2858	4000	>80	1508x57x80
○ 6831	3F HD50 WH HO 52/840 DALI FDO L2975	58	5716	4000	>80	2975x57x80
● 6835	3F HD50 BK HO 22/840 DALI FDO L1214	25	2286	4000	>80	1214x57x80
● 6836	3F HD50 BK HO 26/840 DALI FDO L1508	30	2858	4000	>80	1508x57x80
● 6837	3F HD50 BK HO 52/840 DALI FDO L2975	58	5716	4000	>80	2975x57x80
○ 6841	3F HD50 AL HO 22/840 DALI FDO L1214	25	2286	4000	>80	1214x57x80
○ 6842	3F HD50 AL HO 26/840 DALI FDO L1508	30	2858	4000	>80	1508x57x80
○ 6843	3F HD50 AL HO 52/840 DALI FDO L2975	58	5716	4000	>80	2975x57x80

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6832	3F HD100 WH HO 36/840 DALI FDO L1214	39	3904	4000	>80	1214x100x80
○ 6833	3F HD100 WH HO 44/840 DALI FDO L1508	49	4880	4000	>80	1508x100x80
○ 6834	3F HD100 WH HO 88/840 DALI FDO L2975	98	9760	4000	>80	2975x100x80
● 6838	3F HD100 BK HO 36/840 DALI FDO L1214	39	3904	4000	>80	1214x100x80
● 6839	3F HD100 BK HO 44/840 DALI FDO L1508	49	4880	4000	>80	1508x100x80
● 6840	3F HD100 BK HO 88/840 DALI FDO L2975	98	9760	4000	>80	2975x100x80
○ 6844	3F HD100 AL HO 36/840 DALI FDO L1214	39	3904	4000	>80	1214x100x80
○ 6845	3F HD100 AL HO 44/840 DALI FDO L1508	49	4880	4000	>80	1508x100x80
○ 6846	3F HD100 AL HO 88/840 DALI FDO L2975	98	9760	4000	>80	2975x100x80





Martignoni concessionario
Volkswagen
Gallarate (VA)
Italia/Italy





3F HD Direct - Single - Tunable White

ILLUMINOTECHNICAL

Direct symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
The colour temperature can be adjusted between 2700 K and 6500 K.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Extruded aluminium housing.
Removable gear-tray.
Lighting end caps with mirrored aluminium frieze.
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.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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.
Cable with a DALI DT8 driver.
5-pole terminal block (L-N-PE-DA/DA) for line connection with connection capacity 2x2.5 mm² per poles.

INSTALLATION

Ceiling mounted or suspension installation.

APPLICATIONS

Any environments requiring light which aims for the wellness of people.
Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

LIGHT MANAGEMENT

Tunable White products can be controlled with wired control systems (page 742) or 3F & Casambi (page 746).

ON REQUEST

- different power levels or colour rendering indices
- housing in different RAL colours
- emergency versions

3F HD Tunable White FDP



650°C

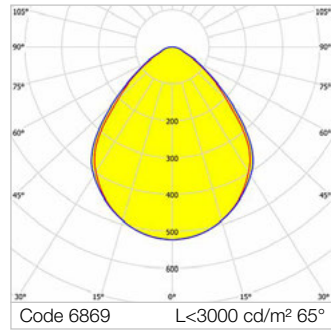
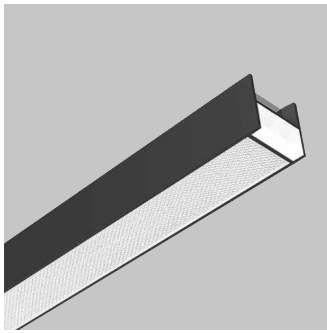
IP40

0,2J

IK02



Driver/LED
SELV



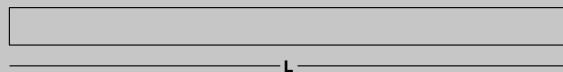
Variable light intensity and colour temperature.

3F HD 100 - DALI DT8 electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6868	3F HD100 WH 22 DT8 TW FDP L1214	27 26 25	2387	2700 4000 6500	>80	1214x100x80
○ 6869	3F HD100 WH 26 DT8 TW FDP L1508	34 32.5 31	2984	2700 4000 6500	>80	1508x100x80
○ 6870	3F HD100 WH 52 DT8 TW FDP L2975	66 63 60	5967	2700 4000 6500	>80	2975x100x80
● 6871	3F HD100 BK 22 DT8 TW FDP L1214	27 26 25	2387	2700 4000 6500	>80	1214x100x80
● 6872	3F HD100 BK 26 DT8 TW FDP L1508	34 32.5 31	2984	2700 4000 6500	>80	1508x100x80
● 6873	3F HD100 BK 52 DT8 TW FDP L2975	66 63 60	5967	2700 4000 6500	>80	2975x100x80
○ 6874	3F HD100 AL 22 DT8 TW FDP L1214	27 26 25	2387	2700 4000 6500	>80	1214x100x80
○ 6875	3F HD100 AL 26 DT8 TW FDP L1508	34 32.5 31	2984	2700 4000 6500	>80	1508x100x80
○ 6876	3F HD100 AL 52 DT8 TW FDP L2975	66 63 60	5967	2700 4000 6500	>80	2975x100x80

COMUNE DI BASTIA UMBRA





Allen & Overy
Milano
Italia/Italy



3F HD Direct - Channel

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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/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.

INSTALLATION

Ceiling mounted or suspension installation.

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.

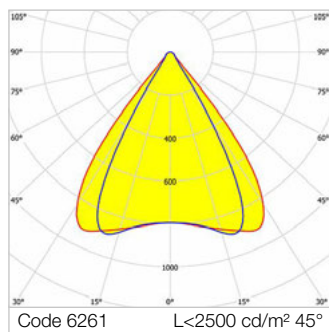
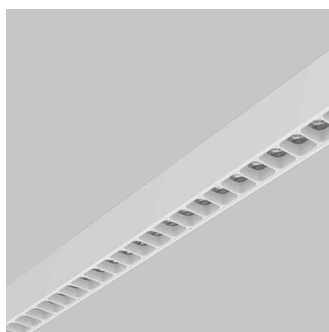
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different powers or colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F HD OCW Channel

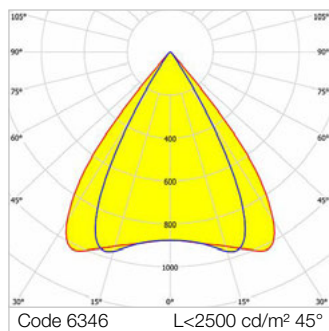
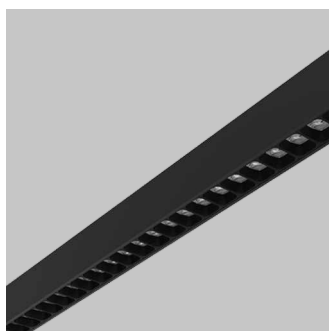


Average luminance <math><2500 \text{ cd/m}^2</math> for angles >45°.
 Average luminance <math><1500 \text{ cd/m}^2</math> for angles >65°.
 Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification. Offices with video terminals and administrative,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

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6260	3F HD50 WH 12/830 DALI 5P OCW L1174	14.5	1713	3000	>80	1174x57x80
○ 6261	3F HD50 WH 15/830 DALI 5P OCW L1468	18	2143	3000	>80	1468x57x80
○ 6262	3F HD50 WH 30/830 DALI 5P OCW L2935	33	4285	3000	>80	2935x57x80

3F HD OCB Channel

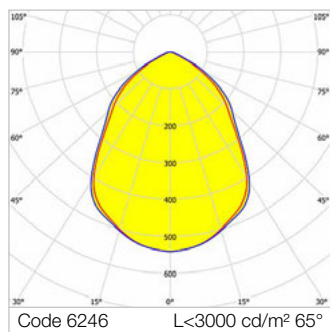
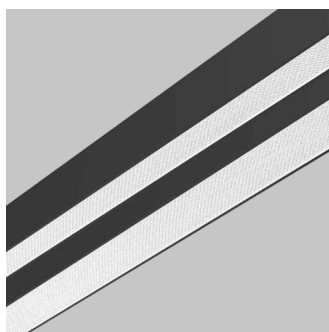


Average luminance <math><2500 \text{ cd/m}^2</math> for angles >45°.
 Average luminance <math><200 \text{ cd/m}^2</math> for angles >65°.
 Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification. Offices with video terminals and administrative,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

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

Code	Item	W	lm	K	CRI	L x A x H
● 6345	3F HD50 BK 12/830 DALI 5P OCB L1174	14.5	1586	3000	>80	1174x57x80
● 6346	3F HD50 BK 15/830 DALI 5P OCB L1468	18	1984	3000	>80	1468x57x80
● 6347	3F HD50 BK 30/830 DALI 5P OCB L2935	33	3967	3000	>80	2935x57x80
○ 6430	3F HD50 AL 12/830 DALI 5P OCB L1174	14.5	1586	3000	>80	1174x57x80
○ 6431	3F HD50 AL 15/830 DALI 5P OCB L1468	18	1984	3000	>80	1468x57x80
○ 6432	3F HD50 AL 30/830 DALI 5P OCB L2935	33	3967	3000	>80	2935x57x80

3F HD GSP Channel



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 (PMMA) diffuser, prismatic outside, antiglare.
 Anti-glare opal polycarbonate filter for brightness uniformity.

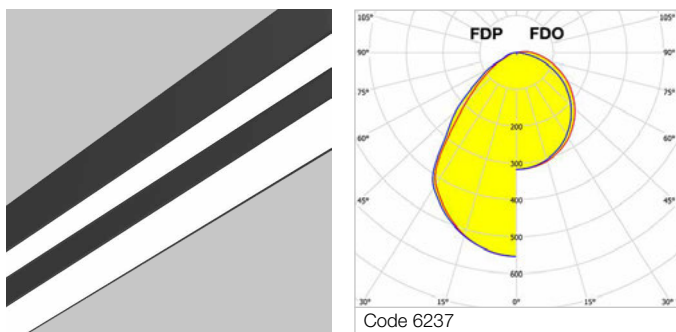
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 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	18	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	18	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	18	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

Code	Item	W	lm	K	CRI	L x A x H
○ 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	29	3271	4000	>80	1468x100x80
○ 6280	3F HD100 WH 52/840 DALI 5P GSP L2935	56	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	29	3271	4000	>80	1468x100x80
● 6365	3F HD100 BK 52/840 DALI 5P GSP L2935	56	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	29	3271	4000	>80	1468x100x80
○ 6450	3F HD100 AL 52/840 DALI 5P GSP L2935	56	6428	4000	>80	2935x100x80

3F HD FD Channel



Average luminance <math><3000\text{ cd/m}^2</math> for angles $>65^\circ$ (FDP).
 Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
 For diffusers see accessories (page 83).

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

Code	Item	W	lm	K	CRI	L x A x H
○ 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	18	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	18	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	18	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

Code	Item	W	lm	K	CRI	L x A x H
○ 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	29	3085 FDP 2880 FDO	4000	>80	1468x100x80
○ 6271	3F HD100 WH 52/840 DALI 5P FD L2935	56	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	29	3085 FDP 2880 FDO	4000	>80	1468x100x80
● 6356	3F HD100 BK 52/840 DALI 5P FD L2935	56	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	29	3085 FDP 2880 FDO	4000	>80	1468x100x80
○ 6441	3F HD100 AL 52/840 DALI 5P FD L2935	56	6062 FDP 5660 FDO	4000	>80	2935x100x80





Radio DeeJay
Milano
Italia/Italy





3F HD Direct/Indirect - Single

ILLUMINOTECHNICAL

Direct-indirect distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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.

INSTALLATION

Suspension installation.

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.

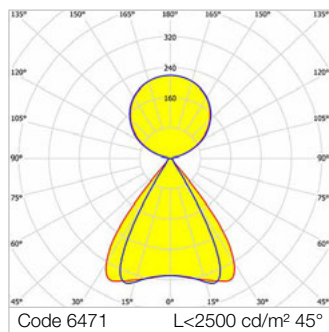
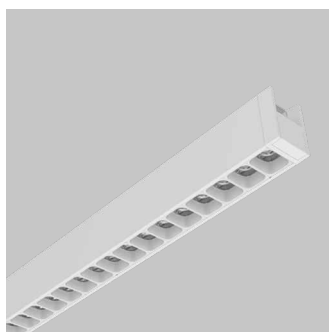
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different powers or colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F HD DI OCW Single

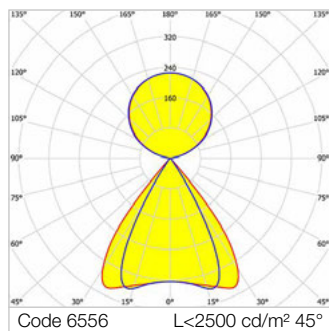
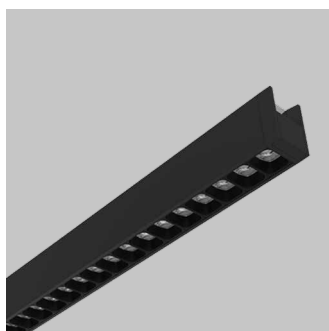
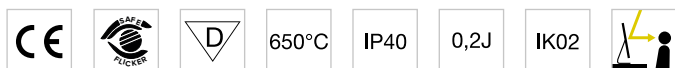


Average luminance < 2500 cd/m² for angles > 45°.
 Average luminance < 1500 cd/m² for angles > 65°.
 Environments with very exacting visual tasks and control of luminance at angles of > 45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.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

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6470	3F HD50DI WH 12+20/830 DALI OCW L1214	37	4312	3000	>80	1214x57x80
○ 6471	3F HD50DI WH 15+26/830 DALI OCW L1508	48	5451	3000	>80	1508x57x80
○ 6472	3F HD50DI WH 30+52/830 DALI OCW L2975	90	10914	3000	>80	2975x57x80

3F HD DI OCB Single

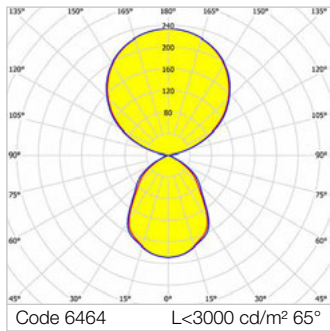
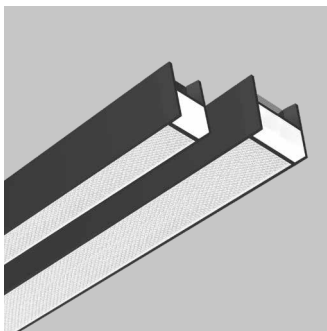


Average luminance < 2500 cd/m² for angles > 45°.
 Average luminance < 200 cd/m² for angles > 65°.
 Environments with very exacting visual tasks and control of luminance at angles of > 45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.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

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

Code	Item	W	lm	K	CRI	L x A x H
● 6555	3F HD50DI BK 12+20/830 DALI OCB L1214	37	4185	3000	>80	1214x57x80
● 6556	3F HD50DI BK 15+26/830 DALI OCB L1508	48	5292	3000	>80	1508x57x80
● 6557	3F HD50DI BK 30+52/830 DALI OCB L2975	90	10596	3000	>80	2975x57x80
○ 6640	3F HD50DI AL 12+20/830 DALI OCB L1214	37	4185	3000	>80	1214x57x80
○ 6641	3F HD50DI AL 15+26/830 DALI OCB L1508	48	5292	3000	>80	1508x57x80
○ 6642	3F HD50DI AL 30+52/830 DALI OCB L2975	90	10596	3000	>80	2975x57x80

3F HD DI GSP Single



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 (PMMA) diffuser, prismatic outside, antiglare. Anti-glare opal polycarbonate filter for brightness uniformity.

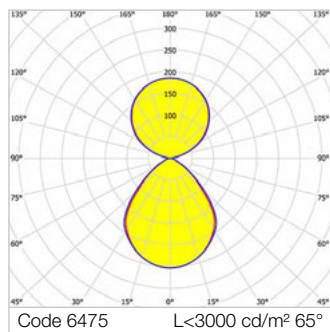
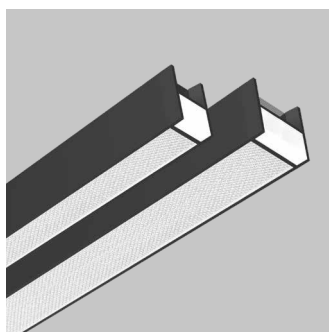
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6463	3F HD50DI WH 13+20/840 DALI GSP L1214	37	4081	4000	>80	1214x57x80
○ 6464	3F HD50DI WH 16+26/840 DALI GSP L1508	46	5164	4000	>80	1508x57x80
○ 6465	3F HD50DI WH 32+52/840 DALI GSP L2975	91	10340	4000	>80	2975x57x80
● 6548	3F HD50DI BK 13+20/840 DALI GSP L1214	37	4081	4000	>80	1214x57x80
● 6549	3F HD50DI BK 16+26/840 DALI GSP L1508	46	5164	4000	>80	1508x57x80
● 6550	3F HD50DI BK 32+52/840 DALI GSP L2975	91	10340	4000	>80	2975x57x80
○ 6633	3F HD50DI AL 13+20/840 DALI GSP L1214	37	4081	4000	>80	1214x57x80
○ 6634	3F HD50DI AL 16+26/840 DALI GSP L1508	46	5164	4000	>80	1508x57x80
○ 6635	3F HD50DI AL 32+52/840 DALI GSP L2975	91	10340	4000	>80	2975x57x80

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6482	3F HD100DI WH 22+20/840 DALI GSP L1214	46	5394	4000	>80	1214x100x80
○ 6483	3F HD100DI WH 26+26/840 DALI GSP L1508	61	6805	4000	>80	1508x100x80
○ 6484	3F HD100DI WH 52+52/840 DALI GSP L2975	113	13510	4000	>80	2975x100x80
● 6567	3F HD100DI BK 22+20/840 DALI GSP L1214	46	5394	4000	>80	1214x100x80
● 6568	3F HD100DI BK 26+26/840 DALI GSP L1508	61	6805	4000	>80	1508x100x80
● 6569	3F HD100DI BK 52+52/840 DALI GSP L2975	113	13510	4000	>80	2975x100x80
○ 6652	3F HD100DI AL 22+20/840 DALI GSP L1214	46	5394	4000	>80	1214x100x80
○ 6653	3F HD100DI AL 26+26/840 DALI GSP L1508	61	6805	4000	>80	1508x100x80
○ 6654	3F HD100DI AL 52+52/840 DALI GSP L2975	113	13510	4000	>80	2975x100x80

3F HD DI FDP Single



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. Opal polycarbonate internal anti-glare filter for lighting uniformity.

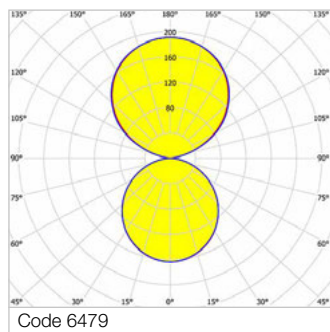
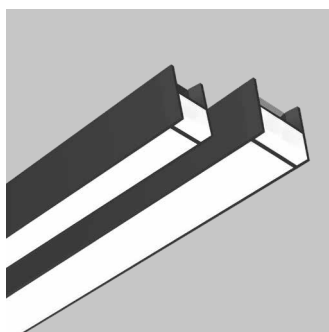
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6455	3F HD50DI WH 13+20/840 DALI FDP L1214	37	3999	4000	>80	1214x57x80
○ 6456	3F HD50DI WH 16+26/840 DALI FDP L1508	46	5061	4000	>80	1508x57x80
○ 6457	3F HD50DI WH 32+52/840 DALI FDP L2975	91	10134	4000	>80	2975x57x80
● 6540	3F HD50DI BK 13+20/840 DALI FDP L1214	37	3999	4000	>80	1214x57x80
● 6541	3F HD50DI BK 16+26/840 DALI FDP L1508	46	5061	4000	>80	1508x57x80
● 6542	3F HD50DI BK 32+52/840 DALI FDP L2975	91	10134	4000	>80	2975x57x80
○ 6625	3F HD50DI AL 13+20/840 DALI FDP L1214	37	3999	4000	>80	1214x57x80
○ 6626	3F HD50DI AL 16+26/840 DALI FDP L1508	46	5061	4000	>80	1508x57x80
○ 6627	3F HD50DI AL 32+52/840 DALI FDP L2975	91	10134	4000	>80	2975x57x80

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6474	3F HD100DI WH 22+20/840 DALI FDP L1214	46	5245	4000	>80	1214x100x80
○ 6475	3F HD100DI WH 26+26/840 DALI FDP L1508	61	6619	4000	>80	1508x100x80
○ 6476	3F HD100DI WH 52+52/840 DALI FDP L2975	113	13144	4000	>80	2975x100x80
● 6559	3F HD100DI BK 22+20/840 DALI FDP L1214	46	5245	4000	>80	1214x100x80
● 6560	3F HD100DI BK 26+26/840 DALI FDP L1508	61	6619	4000	>80	1508x100x80
● 6561	3F HD100DI BK 52+52/840 DALI FDP L2975	113	13144	4000	>80	2975x100x80
○ 6644	3F HD100DI AL 22+20/840 DALI FDP L1214	46	5245	4000	>80	1214x100x80
○ 6645	3F HD100DI AL 26+26/840 DALI FDP L1508	61	6619	4000	>80	1508x100x80
○ 6646	3F HD100DI AL 52+52/840 DALI FDP L2975	113	13144	4000	>80	2975x100x80

3F HD DI FDO Single



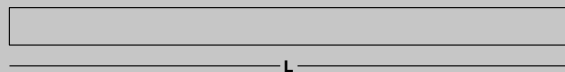
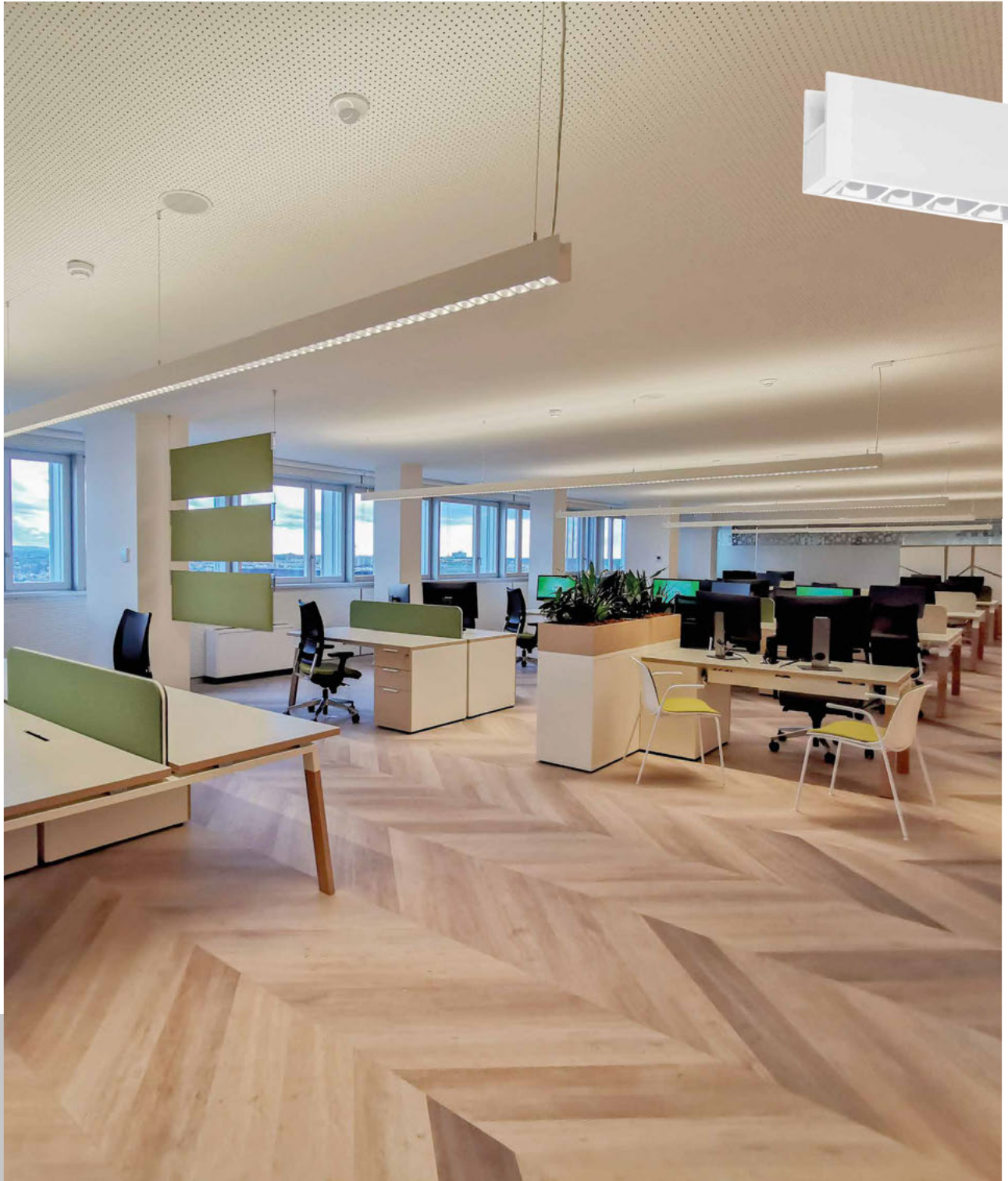
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator. Flat opal anti-glare polycarbonate diffuser.

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6459	3F HD50DI WH 13+20/840 DALI FDO L1214	37	3957	4000	>80	1214x57x80
○ 6460	3F HD50DI WH 16+26/840 DALI FDO L1508	46	5009	4000	>80	1508x57x80
○ 6461	3F HD50DI WH 32+52/840 DALI FDO L2975	91	10031	4000	>80	2975x57x80
● 6544	3F HD50DI BK 13+20/840 DALI FDO L1214	37	3957	4000	>80	1214x57x80
● 6545	3F HD50DI BK 16+26/840 DALI FDO L1508	46	5009	4000	>80	1508x57x80
● 6546	3F HD50DI BK 32+52/840 DALI FDO L2975	91	10031	4000	>80	2975x57x80
○ 6629	3F HD50DI AL 13+20/840 DALI FDO L1214	37	3957	4000	>80	1214x57x80
○ 6630	3F HD50DI AL 16+26/840 DALI FDO L1508	46	5009	4000	>80	1508x57x80
○ 6631	3F HD50DI AL 32+52/840 DALI FDO L2975	91	10031	4000	>80	2975x57x80

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6478	3F HD100DI WH 22+20/840 DALI FDO L1214	46	5081	4000	>80	1214x100x80
○ 6479	3F HD100DI WH 26+26/840 DALI FDO L1508	61	6414	4000	>80	1508x100x80
○ 6480	3F HD100DI WH 52+52/840 DALI FDO L2975	113	12742	4000	>80	2975x100x80
● 6563	3F HD100DI BK 22+20/840 DALI FDO L1214	46	5081	4000	>80	1214x100x80
● 6564	3F HD100DI BK 26+26/840 DALI FDO L1508	61	6414	4000	>80	1508x100x80
● 6565	3F HD100DI BK 52+52/840 DALI FDO L2975	113	12742	4000	>80	2975x100x80
○ 6648	3F HD100DI AL 22+20/840 DALI FDO L1214	46	5081	4000	>80	1214x100x80
○ 6649	3F HD100DI AL 26+26/840 DALI FDO L1508	61	6414	4000	>80	1508x100x80
○ 6650	3F HD100DI AL 52+52/840 DALI FDO L2975	113	12742	4000	>80	2975x100x80



HDI Assicurazioni
Roma
Italia/Italy



3F HD Direct/Indirect - Channel

ILLUMINOTECHNICAL

Direct-indirect distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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.

INSTALLATION

Suspension installation.

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.

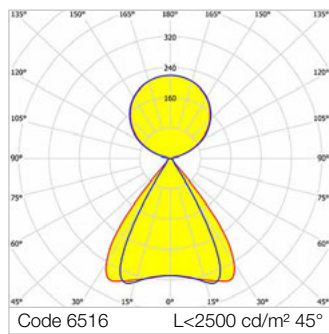
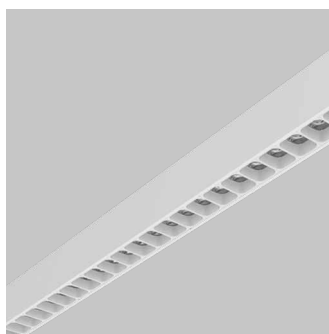
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different powers or colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F HD DI OCW Channel

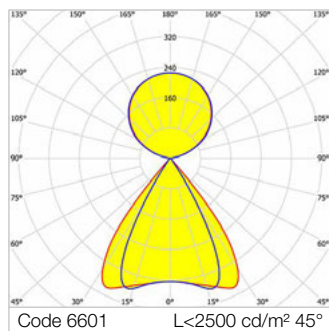
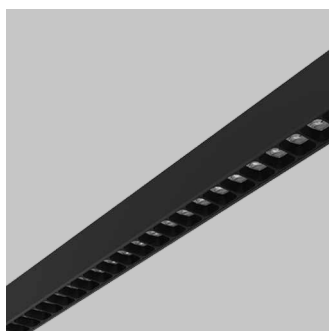
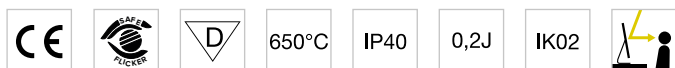


Average luminance < 2500 cd/m² for angles > 45°.
 Average luminance < 1500 cd/m² for angles > 65°.
 Environments with very exacting visual tasks and control of luminance at angles of > 45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.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

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6515	3F HD50DI WH 12+20/830 DALI 5P OCW L1174	37	4312	3000	>80	1174x57x80
○ 6516	3F HD50DI WH 15+26/830 DALI 5P OCW L1468	48	5451	3000	>80	1468x57x80
○ 6517	3F HD50DI WH 30+52/830 DALI 5P OCW L2935	90	10914	3000	>80	2935x57x80

3F HD DI OCB Channel

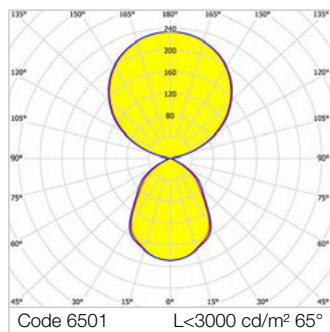
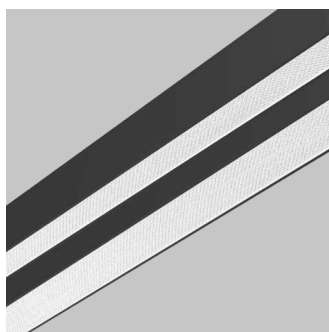


Average luminance < 2500 cd/m² for angles > 45°.
 Average luminance < 200 cd/m² for angles > 65°.
 Environments with very exacting visual tasks and control of luminance at angles of > 45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.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

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

Code	Item	W	lm	K	CRI	L x A x H
● 6600	3F HD50DI BK 12+20/830 DALI 5P OCB L1174	37	4185	3000	>80	1174x57x80
● 6601	3F HD50DI BK 15+26/830 DALI 5P OCB L1468	48	5292	3000	>80	1468x57x80
● 6602	3F HD50DI BK 30+52/830 DALI 5P OCB L2935	90	10596	3000	>80	2935x57x80
○ 6685	3F HD50DI AL 12+20/830 DALI 5P OCB L1174	37	4185	3000	>80	1174x57x80
○ 6686	3F HD50DI AL 15+26/830 DALI 5P OCB L1468	48	5292	3000	>80	1468x57x80
○ 6687	3F HD50DI AL 30+52/830 DALI 5P OCB L2935	90	10596	3000	>80	2935x57x80

3F HD DI GSP Channel



Average luminance <3000 cd/m² for angles >65°.
 Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
 SP transparent methacrylate (PMMA) diffuser, prismatic outside, antiglare.
 Anti-glare opal polycarbonate filter for brightness uniformity.

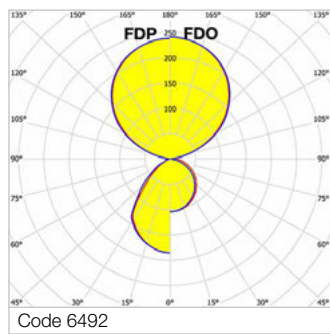
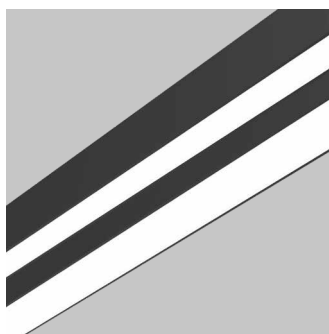
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6500	3F HD50DI WH 13+20/840 DALI 5P GSP L1174	37	4081	4000	>80	1174x57x80
○ 6501	3F HD50DI WH 16+26/840 DALI 5P GSP L1468	46	5164	4000	>80	1468x57x80
○ 6505	3F HD50DI WH 32+52/840 DALI 5P GSP L2935	91	10340	4000	>80	2935x57x80
● 6585	3F HD50DI BK 13+20/840 DALI 5P GSP L1174	37	4081	4000	>80	1174x57x80
● 6586	3F HD50DI BK 16+26/840 DALI 5P GSP L1468	46	5164	4000	>80	1468x57x80
● 6590	3F HD50DI BK 32+52/840 DALI 5P GSP L2935	91	10340	4000	>80	2935x57x80
○ 6670	3F HD50DI AL 13+20/840 DALI 5P GSP L1174	37	4081	4000	>80	1174x57x80
○ 6671	3F HD50DI AL 16+26/840 DALI 5P GSP L1468	46	5164	4000	>80	1468x57x80
○ 6675	3F HD50DI AL 32+52/840 DALI 5P GSP L2935	91	10340	4000	>80	2935x57x80

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

Code	Item	W	lm	K	CRI	L x A x H
○ 6530	3F HD100DI WH 22+20/840 DALI 5P GSP L1174	46	5394	4000	>80	1174x100x80
○ 6531	3F HD100DI WH 26+26/840 DALI 5P GSP L1468	61	6805	4000	>80	1468x100x80
○ 6535	3F HD100DI WH 52+52/840 DALI 5P GSP L2935	113	13510	4000	>80	2935x100x80
● 6615	3F HD100DI BK 22+20/840 DALI 5P GSP L1174	46	5394	4000	>80	1174x100x80
● 6616	3F HD100DI BK 26+26/840 DALI 5P GSP L1468	61	6805	4000	>80	1468x100x80
● 6620	3F HD100DI BK 52+52/840 DALI 5P GSP L2935	113	13510	4000	>80	2935x100x80
○ 6700	3F HD100DI AL 22+20/840 DALI 5P GSP L1174	46	5394	4000	>80	1174x100x80
○ 6701	3F HD100DI AL 26+26/840 DALI 5P GSP L1468	61	6805	4000	>80	1468x100x80
○ 6705	3F HD100DI AL 52+52/840 DALI 5P GSP L2935	113	13510	4000	>80	2935x100x80

3F HD DI FD Channel



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 (page 83).

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

Code	Item	W	lm	K	CRI	L x A x H	
○ 6491	3F HD50DI WH 13+20/840 DALI 5P FD L1174	37	3999 3957	FDP FDO	4000	>80	1174x57x80
○ 6492	3F HD50DI WH 16+26/840 DALI 5P FD L1468	46	5061 5009	FDP FDO	4000	>80	1468x57x80
○ 6496	3F HD50DI WH 32+52/840 DALI 5P FD L2935	91	10134 10031	FDP FDO	4000	>80	2935x57x80
● 6576	3F HD50DI BK 13+20/840 DALI 5P FD L1174	37	3999 3957	FDP FDO	4000	>80	1174x57x80
● 6577	3F HD50DI BK 16+26/840 DALI 5P FD L1468	46	5061 5009	FDP FDO	4000	>80	1468x57x80
● 6581	3F HD50DI BK 32+52/840 DALI 5P FD L2935	91	10134 10031	FDP FDO	4000	>80	2935x57x80
○ 6661	3F HD50DI AL 13+20/840 DALI 5P FD L1174	37	3999 3957	FDP FDO	4000	>80	1174x57x80
○ 6662	3F HD50DI AL 16+26/840 DALI 5P FD L1468	46	5061 5009	FDP FDO	4000	>80	1468x57x80
○ 6666	3F HD50DI AL 32+52/840 DALI 5P FD L2935	91	10134 10031	FDP FDO	4000	>80	2935x57x80

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

Code	Item	W	lm	K	CRI	L x A x H	
○ 6521	3F HD100DI WH 22+20/840 DALI 5P FD L1174	46	5245 5081	FDP FDO	4000	>80	1174x100x80
○ 6522	3F HD100DI WH 26+26/840 DALI 5P FD L1468	61	6619 6414	FDP FDO	4000	>80	1468x100x80
○ 6526	3F HD100DI WH 52+52/840 DALI 5P FD L2935	113	13144 12742	FDP FDO	4000	>80	2935x100x80
● 6606	3F HD100DI BK 22+20/840 DALI 5P FD L1174	46	5245 5081	FDP FDO	4000	>80	1174x100x80
● 6607	3F HD100DI BK 26+26/840 DALI 5P FD L1468	61	6619 6414	FDP FDO	4000	>80	1468x100x80
● 6611	3F HD100DI BK 52+52/840 DALI 5P FD L2935	113	13144 12742	FDP FDO	4000	>80	2935x100x80
○ 6691	3F HD100DI AL 22+20/840 DALI 5P FD L1174	46	5245 5081	FDP FDO	4000	>80	1174x100x80
○ 6692	3F HD100DI AL 26+26/840 DALI 5P FD L1468	61	6619 6414	FDP FDO	4000	>80	1468x100x80
○ 6696	3F HD100DI AL 52+52/840 DALI 5P FD L2935	113	13144 12742	FDP FDO	4000	>80	2935x100x80

3F HD | Accessories



850°C



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

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 and 3F HD DI FD Channel.

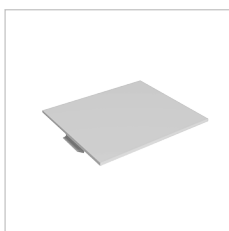


850°C

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

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

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



Code	Item
A01563	Dilator joint FD channels>15m - HD50 WH
A01564	Dilator joint FD channels>15m - HD100 WH
A01568	Dilator joint FD channels>15m - HD50 BK
A01569	Dilator joint FD channels>15m - HD100 BK
A01570	Dilator joint FD channels>15m - HD50 AL
A01571	Pair of end caps 3F HD50R WH channel GSP

Dilator coupling to connect flat diffusers FDP or FDO.

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

To be used for channels longer than 15 metres.



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

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

Accessory compatible with 3F HD OCW Channel, 3F HD OCB Channel, 3F HD DI OCW Channel and 3F HD DI OCB Channel.

These accessories are not suitable for single-unit installation.



Code	Item
A01578	Pair of end caps for 3F HD50 WH channel GSP
A01579	Pair of end caps for 3F HD50 BK channel GSP
A01580	Pair of end caps for 3F HD50 AL channel GSP
A01581	Pair of end caps for 3F HD100 WH channel GSP
A01582	Pair of end caps for 3F HD100 BK channel GSP
A01583	Pair of end caps for 3F HD100 AL channel GSP

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

**Accessory compatible with 3F HD GSP Channel and 3F HD DI GSP Channel.
These accessories are not suitable for single-unit installation.**



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

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

**Accessory compatible with 3F HD FD Channel and 3F HD DI FD Channel.
These accessories are not suitable for single-unit installation.**



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

Stainless steel sliding bracket that can be positioned freely. Accessory dedicated to ceiling installation.



Code	Item
A01532	Slid.brack.w/reg.susp.instal. 3F HD50
A01528	Slid.brack.w/reg.susp.instal. 3F HD100

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



Code	Item
A20485	Suspension without adjustment - 0.5 m
A20486	Suspension without adjustment - 1 m
A20487	Suspension without adjustment - 2 m
A20488	Suspension without adjustment - 3 m
A20489	Suspension without adjustment - 4 m
A20490	Suspension without adjustment - 5 m
A20491	Suspension without adjustment - 6 m

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

Accessory compatible with sliding bracket code A01532 and A01528.

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



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

Galvanised 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
A0714	Clamp 2 holes susp.- 100 pcs The pack contains 100 pieces.

Clamp in nickel-plated brass suitable for fixing and adjustment of galvanised 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
A01567	3F HD - 5P socket/plug terminal block

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 - Direct - Single - Tunable White, 3F HD - Direct - Channel, 3F HD - Direct/Indirect - Channel.

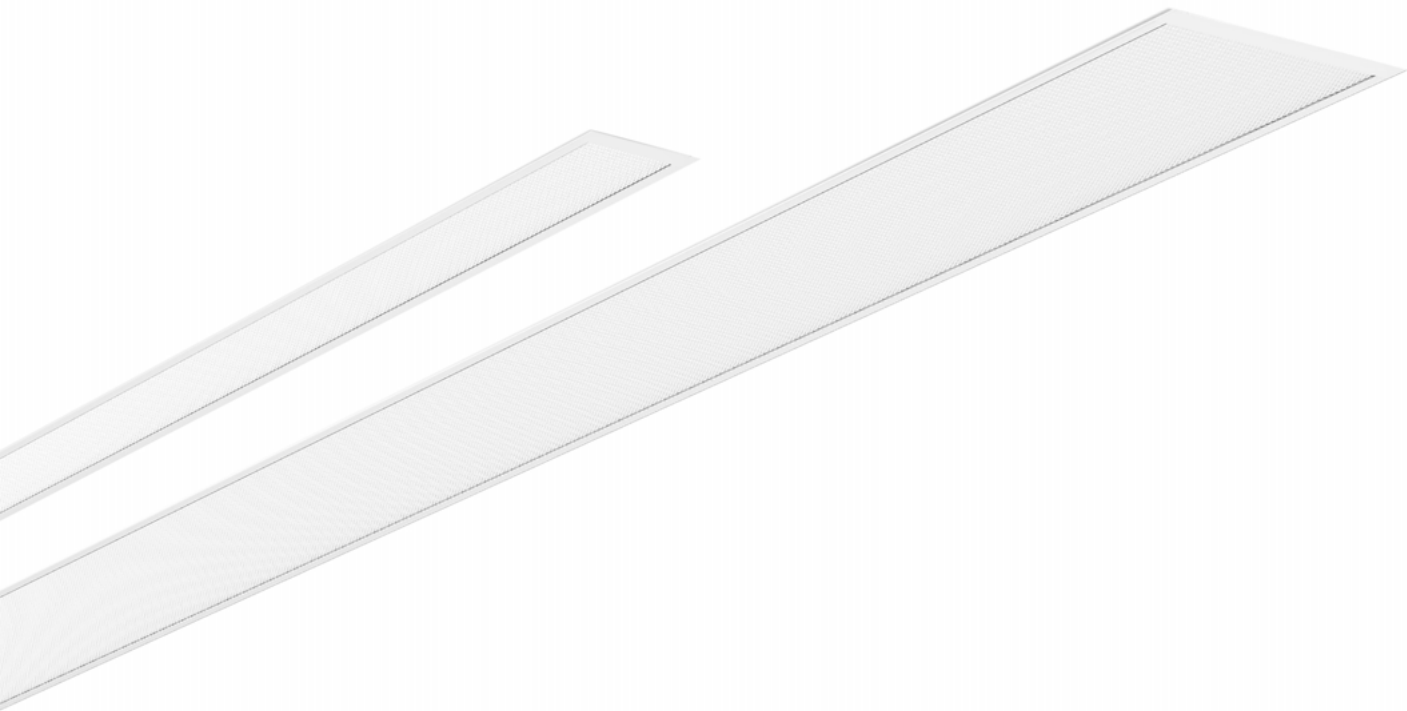


Code	Item
A0679	5 pole rectangular rose (no cable) WH

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

Accessory compatible with 3F HD - Direct - Single, 3F HD - Direct - Single - Tunable White, 3F HD - Direct/Indirect - Single, 3F HD - Direct/Indirect - Channel.





3F HD R

> www.3F-Filippi.com/3F HD R

Design by **Park Associati**

3F HD R 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 R is composed of an H section aluminium linear profile and it 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.

This product is also available in this version 3F HD (page 42).

+ Overview

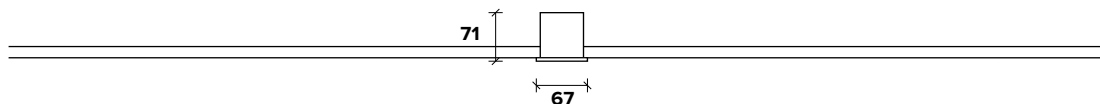
- Luminous efficacy up to 123 lumen/watt.
- Luminous fluxes from 1250 to 9997 lumens.
- Average luminance <200 cd/m² (OCB version).
- Extensive installation pitch.
- UGR <16 (OCW version).
- LEED Compliant.
- Available with OC lenticular optics or diffusers.
- Module lengths optimised to reduce installation time and required accessories by up to 20%.
- Quick and easy cleaning.
- Seamless screens (up to 15 metres in length).
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Mechanical and electrical assembly without tools.
- Thanks to the FastWiring system, the installation time is drastically reduced.

Page	Product	Recessed
90	3F HD R Recessed - Single	•
96	3F HD R Recessed - Channel	•

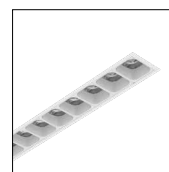
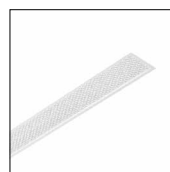
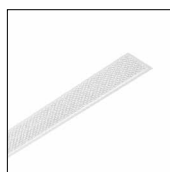
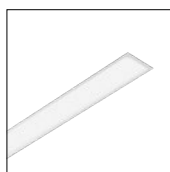
Product range

Recessed

3F HD R 50



3F HD 50 R



FDO

FDP

GSP

OCW

Average luminance
for angles > 65
(cd / m²)

>3000

<3000

<3000

<1500

UGR

<21

<19

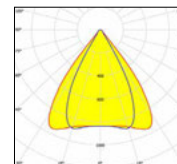
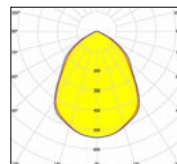
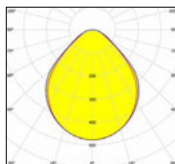
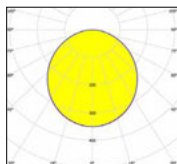
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<16

Finishes

White

Photometric
distribution



Installation steps

Dt 1,29

1,16

1,14

1,32

DI 1,24

1,18

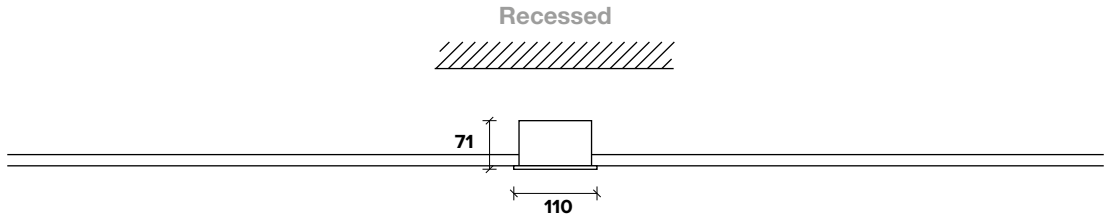
1,18

1,00

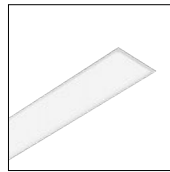
NEW

Arrange the version that best suits your needs quickly and easily
www.3f-illipi.com/en/3F-HD-configurator

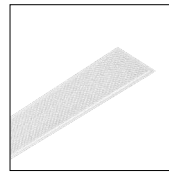
3F HD R 100



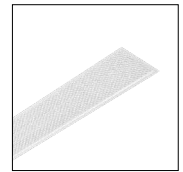
3F HD 100 R



FDO



FDP



GSP

Average luminance for angles > 65 (cd / m²)

>3000

<3000

<3000

UGR

<21

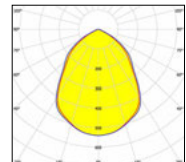
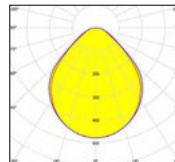
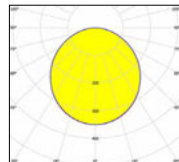
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<19

Finishes

White

Photometric distribution



Installation steps

Dt 1,40

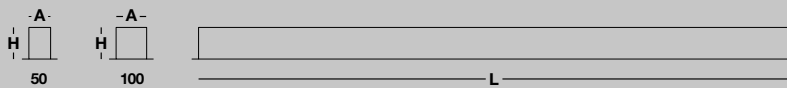
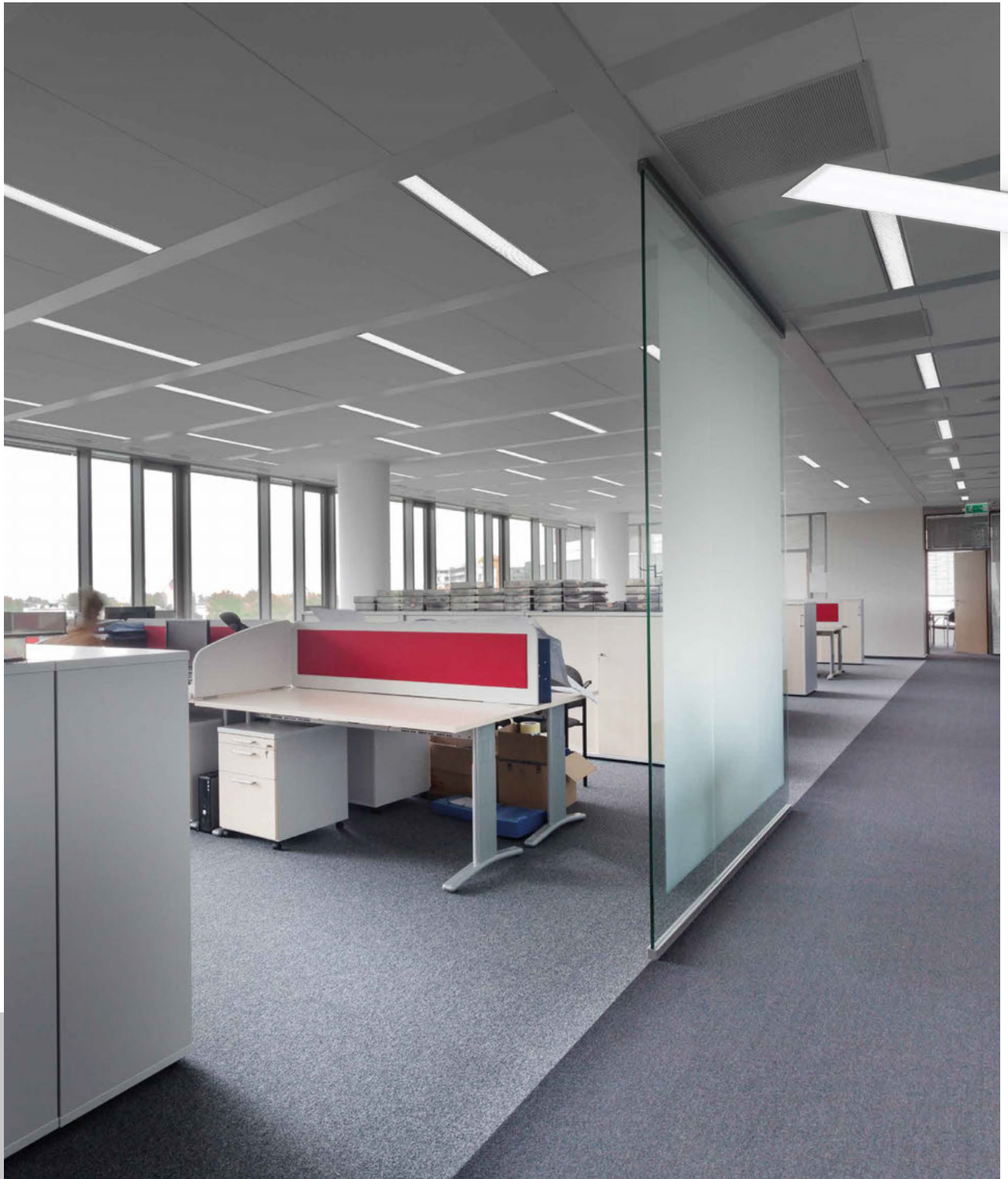
1,50

1,45

DI 1,20

1,25

1,25



3F HD R Recessed - Single

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in white painted extruded aluminium.
Removable gear-tray.
End caps in white steel.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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.

INSTALLATION

Recessed installation.

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.

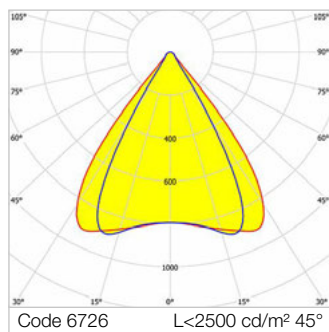
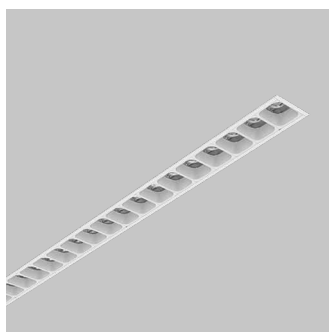
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different powers or colour temperatures
- housing in different RAL colours
- optic in different RAL colours
- wiring: CLO (page 752)
- Optics Control Black
- CRI >90 sources
- emergency versions

3F HD R OCW Single

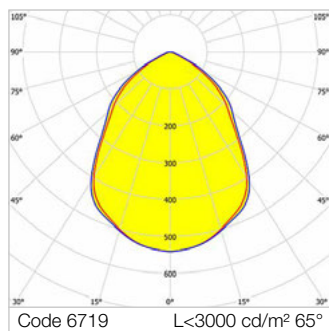
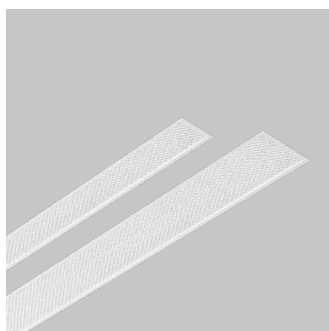


Average luminance < 2500 cd/m² for angles > 45°.
 Average luminance < 1500 cd/m² for angles > 65°.
 Environments with very exacting visual tasks and control of luminance at angles of > 45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.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

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

Code	Item	W	lm	K	CRI	L x A x H
6725	3F HD50R WH 12/830 DALI OCW L1188	14.5	1713	3000	>80	1188x67x71
6726	3F HD50R WH 15/830 DALI OCW L1482	18	2143	3000	>80	1482x67x71
6727	3F HD50R WH 30/830 DALI OCW L2949	33	4285	3000	>80	2949x67x71

3F HD R GSP Single



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

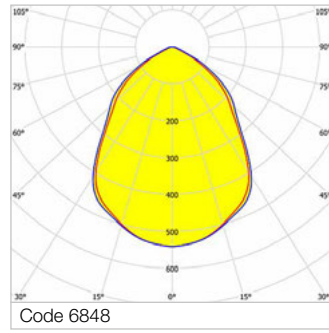
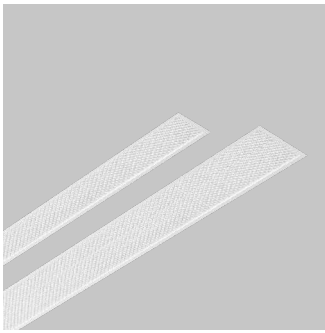
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
6718	3F HD50R WH 13/840 DALI GSP L1188	14	1374	4000	>80	1188x67x71
6719	3F HD50R WH 16/840 DALI GSP L1482	18	1718	4000	>80	1482x67x71
6720	3F HD50R WH 32/840 DALI GSP L2949	35	3435	4000	>80	2949x67x71

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

Code	Item	W	lm	K	CRI	L x A x H
6737	3F HD100R WH 22/840 DALI GSP L1188	24	2617	4000	>80	1188x110x71
6738	3F HD100R WH 26/840 DALI GSP L1482	29	3271	4000	>80	1482x110x71
6739	3F HD100R WH 52/840 DALI GSP L2949	56	6428	4000	>80	2949x110x71

3F HD R HO GSP Single



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

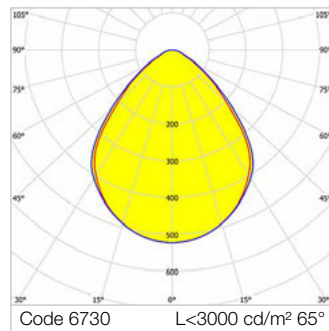
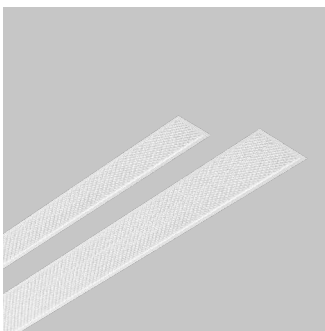
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
6847	3F HD50R WH HO 22/840 DALI GSP L1188	25	2596	4000	>80	1188x67x71
6848	3F HD50R WH HO 26/840 DALI GSP L1482	30	3246	4000	>80	1482x67x71
6849	3F HD50R WH HO 52/840 DALI GSP L2949	58	6492	4000	>80	2949x67x71

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

Code	Item	W	lm	K	CRI	L x A x H
6850	3F HD100R WH HO 36/840 DALI GSP L1188	39	4434	4000	>80	1188x110x71
6851	3F HD100R WH HO 44/840 DALI GSP L1482	49	5542	4000	>80	1482x110x71
6852	3F HD100R WH HO 88/840 DALI GSP L2949	98	11085	4000	>80	2949x110x71

3F HD R FDP Single



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.
 Externally micro prismatic transparent flat anti-glare polycarbonate diffuser.
 Anti-glare opal polycarbonate filter for brightness uniformity.

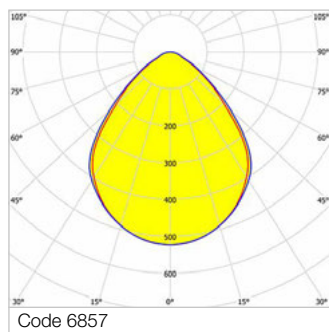
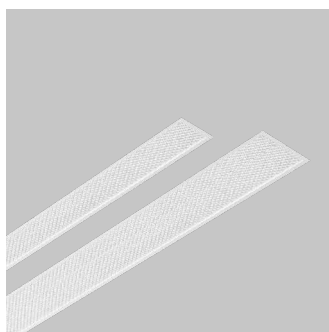
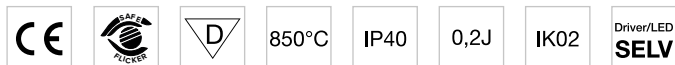
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
6710	3F HD50R WH 13/840 DALI FDP L1188	14	1292	4000	>80	1188x67x71
6711	3F HD50R WH 16/840 DALI FDP L1482	18	1615	4000	>80	1482x67x71
6712	3F HD50R WH 32/840 DALI FDP L2949	35	3229	4000	>80	2949x67x71

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

Code	Item	W	lm	K	CRI	L x A x H
6729	3F HD100R WH 22/840 DALI FDP L1188	24	2468	4000	>80	1188x110x71
6730	3F HD100R WH 26/840 DALI FDP L1482	29	3085	4000	>80	1482x110x71
6731	3F HD100R WH 52/840 DALI FDP L2949	56	6062	4000	>80	2949x110x71

3F HD R HO FDP Single



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.

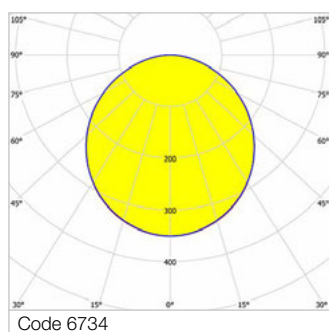
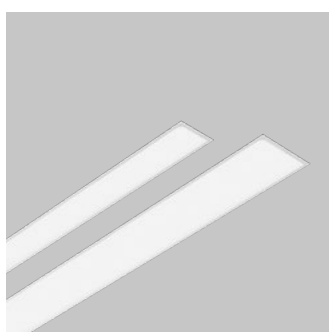
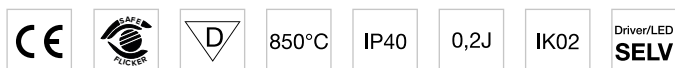
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
6853	3F HD50R WH HO 22/840 DALI FDP L1188	25	2448	4000	>80	1188x67x71
6854	3F HD50R WH HO 26/840 DALI FDP L1482	30	3061	4000	>80	1482x67x71
6855	3F HD50R WH HO 52/840 DALI FDP L2949	58	6122	4000	>80	2949x67x71

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

Code	Item	W	lm	K	CRI	L x A x H
6856	3F HD100R WH HO 36/840 DALI FDP L1188	39	4182	4000	>80	1188x110x71
6857	3F HD100R WH HO 44/840 DALI FDP L1482	49	5227	4000	>80	1482x110x71
6858	3F HD100R WH HO 88/840 DALI FDP L2949	98	10454	4000	>80	2949x110x71

3F HD R FDO Single



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

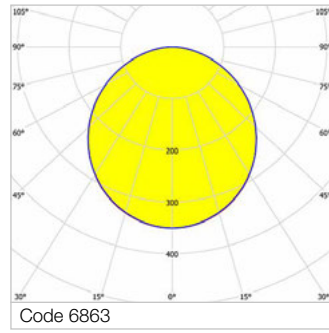
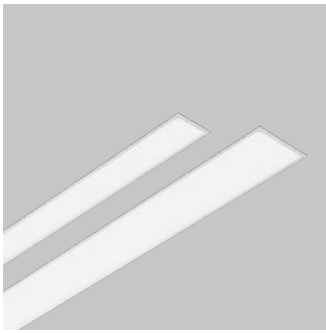
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
6714	3F HD50R WH 13/840 DALI FDO L1188	14	1250	4000	>80	1188x67x71
6715	3F HD50R WH 16/840 DALI FDO L1482	18	1563	4000	>80	1482x67x71
6716	3F HD50R WH 32/840 DALI FDO L2949	35	3126	4000	>80	2949x67x71

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

Code	Item	W	lm	K	CRI	L x A x H
6733	3F HD100R WH 22/840 DALI FDO L1188	24	2304	4000	>80	1188x110x71
6734	3F HD100R WH 26/840 DALI FDO L1482	29	2880	4000	>80	1482x110x71
6735	3F HD100R WH 52/840 DALI FDO L2949	56	5660	4000	>80	2949x110x71

3F HD R HO FDO Single



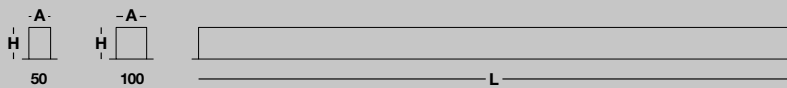
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Flat opal anti-glare polycarbonate diffuser.

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

Code	Item	W	lm	K	CRI	L x A x H
6859	3F HD50R WH HO 22/840 DALI FDO L1188	25	2286	4000	>80	1188x67x71
6860	3F HD50R WH HO 26/840 DALI FDO L1482	30	2858	4000	>80	1482x67x71
6861	3F HD50R WH HO 52/840 DALI FDO L2949	58	5716	4000	>80	2949x67x71

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

Code	Item	W	lm	K	CRI	L x A x H
6862	3F HD100R WH HO 36/840 DALI FDO L1188	39	3904	4000	>80	1188x110x71
6863	3F HD100R WH HO 44/840 DALI FDO L1482	49	4880	4000	>80	1482x110x71
6864	3F HD100R WH HO 88/840 DALI FDO L2949	98	9760	4000	>80	2949x110x71



3F HD R Recessed - Channel

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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/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.

INSTALLATION

Recessed installation.

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.

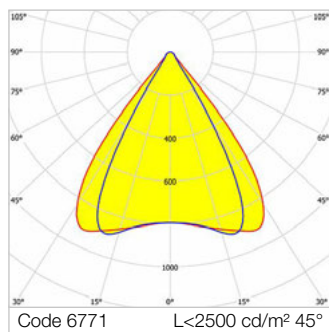
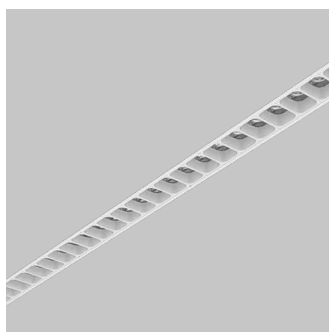
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different powers or colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F HD R OCW Channel

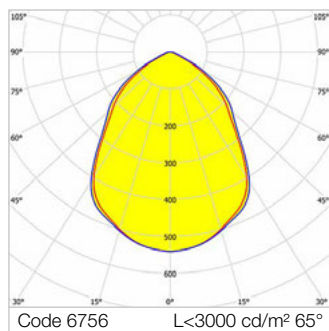
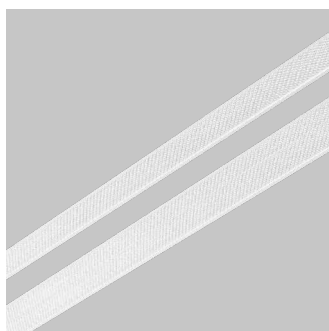


Average luminance < 2500 cd/m² for angles > 45°.
 Average luminance < 1500 cd/m² for angles > 65°.
 Environments with very exacting visual tasks and control of luminance at angles of > 45° compared to the LEED certification. Offices with video terminals and administrative, information and school offices.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

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

Code	Item	W	lm	K	CRI	L x A x H
6770	3F HD50R WH 12/830 DALI 5P OCW L1174	14.5	1713	3000	>80	1174x67x71
6771	3F HD50R WH 15/830 DALI 5P OCW L1468	18	2143	3000	>80	1468x67x71
6772	3F HD50R WH 30/830 DALI 5P OCW L2935	33	4285	3000	>80	2935x67x71

3F HD R GSP Channel



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

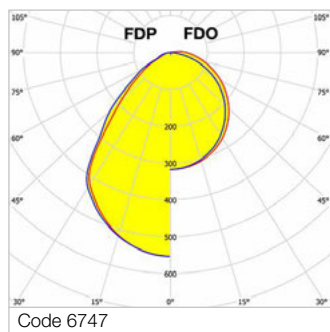
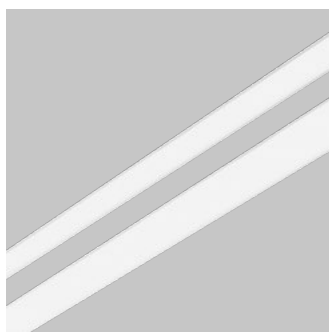
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
6755	3F HD50R WH 13/840 DALI 5P GSP L1174	14	1374	4000	>80	1174x67x71
6756	3F HD50R WH 16/840 DALI 5P GSP L1468	18	1718	4000	>80	1468x67x71
6760	3F HD50R WH 32/840 DALI 5P GSP L2935	35	3435	4000	>80	2935x67x71

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

Code	Item	W	lm	K	CRI	L x A x H
6785	3F HD100R WH 22/840 DALI 5P GSP L1174	24	2617	4000	>80	1174x110x71
6786	3F HD100R WH 26/840 DALI 5P GSP L1468	29	3271	4000	>80	1468x110x71
6790	3F HD100R WH 52/840 DALI 5P GSP L2935	56	6428	4000	>80	2935x110x71

3F HD R FD Channel



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 (page 100).

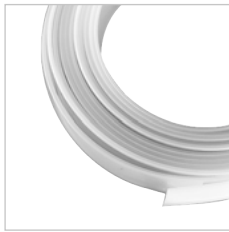
3F HD 50 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
6746	3F HD50R WH 13/840 DALI 5P FD L1174	14	1292 FDP 1250 FDO	4000	>80	1174x67x71
6747	3F HD50R WH 16/840 DALI 5P FD L1468	18	1615 FDP 1563 FDO	4000	>80	1468x67x71
6751	3F HD50R WH 32/840 DALI 5P FD L2935	35	3229 FDP 3126 FDO	4000	>80	2935x67x71

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

Code	Item	W	lm	K	CRI	L x A x H
6776	3F HD100R WH 22/840 DALI 5P FD L1174	24	2468 FDP 2304 FDO	4000	>80	1174x110x71
6777	3F HD100R WH 26/840 DALI 5P FD L1468	29	3085 FDP 2880 FDO	4000	>80	1468x110x71
6781	3F HD100R WH 52/840 DALI 5P FD L2935	56	6062 FDP 5660 FDO	4000	>80	2935x110x71

3F HD R | Accessories



850°C



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

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 R FD Channel.



850°C

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

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

Accessory compatible with 3F HD R FD Channel.



Code	Item
A01563	Dilator joint FD channels>15m - HD50 WH
A01564	Dilator joint FD channels>15m - HD100 WH
A01568	Dilator joint FD channels>15m - HD50 BK
A01569	Dilator joint FD channels>15m - HD100 BK
A01570	Dilator joint FD channels>15m - HD50 AL
A01571	Pair of end caps 3F HD50R WH channel GSP

Dilator coupling to connect flat diffusers FDP or FDO.

Accessory compatible with 3F HD R FD Channel.

To be used for channels longer than 15 metres.



Code	Item
A01561	Pair end caps 3F HD50R WH chan. FD
A01562	Pair end caps 3F HD100R WH chan. FD
A01572	Dilator joint FD channels>15m - HD100 AL
A01573	Pair of end caps 3F HD100R WH chann GSP
A01574	Pair of end caps 3F HD50R WH channel OCW

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.

These accessories are not suitable for single-unit installation.



Code	Item
A01565	Pair fixing brack. plasterboard 3F HD50R
A01566	Pair fixing brack.plasterboard 3F HD100R

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



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

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 R - Recessed - Channel.





3F Mirella

> www.3F-Filippi.com/3F Mirella

Design by **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 (PMMA) 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.

This product is also available in this version 3F Mirella Floor (page 122).

+ Overview

- Luminous efficacy up to 110 lumen/watt.
- Luminous fluxes from 4741 to 9051 lumens.
- Average luminance <3000 cd/m².
- Extensive installation pitch.
- UGR <19 (SP version).
- Driver integrated in the fixture.
- Quick and easy cleaning.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Suspended
106	3F Mirella Direct	•
110	3F Mirella Direct/Indirect	•
114	3F Mirella Soft Direct	•
118	3F Mirella Soft Direct/Indirect	•

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



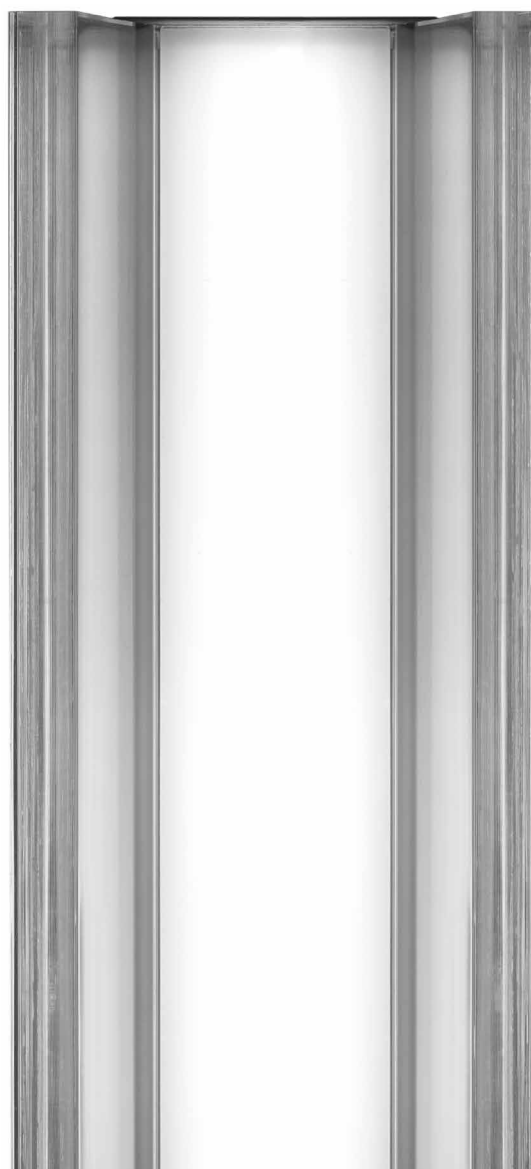
Silver

A. Secondary transparent PMMA lens to optimise light distribution.

B. Secondary satin PMMA lens for soft lighting.

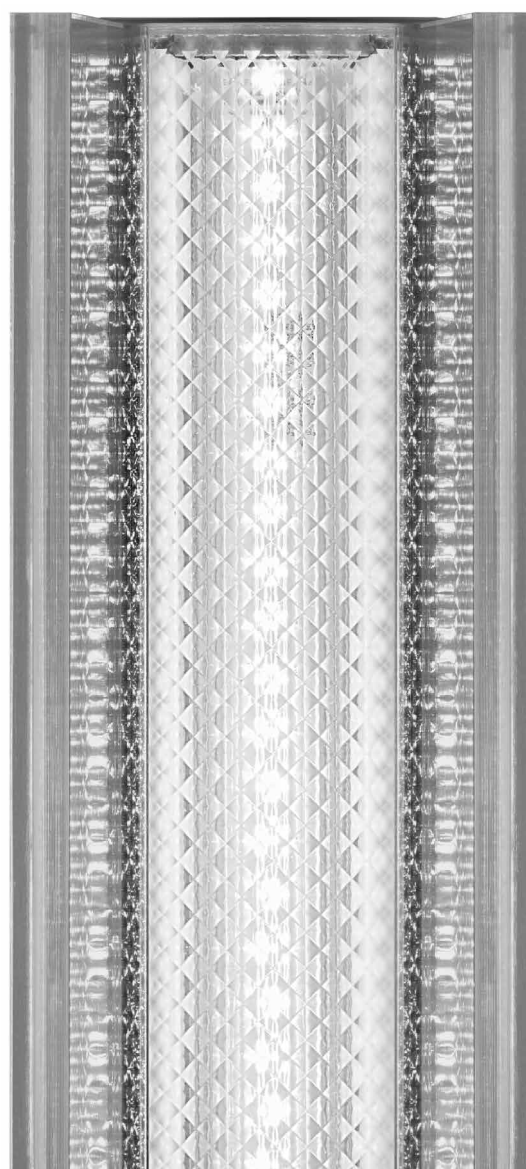
OP

Flat opal PMMA filter
Transparent lens



SP

Flat prismatic PMMA filter
Transparent lens





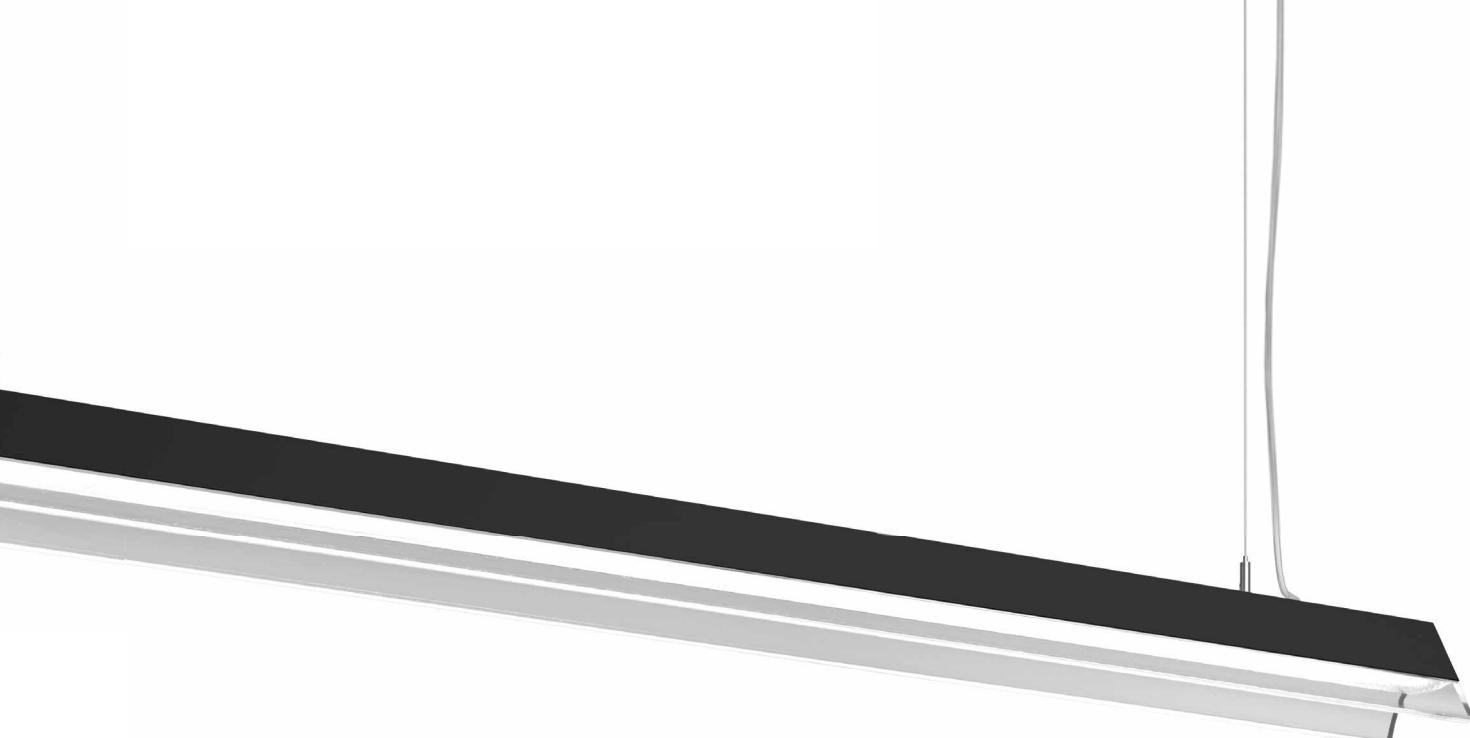
A

B



Ciotti Associates
Varese
Italia/Italy





3F Mirella Direct

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

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.

INSTALLATION

Suspension installation.

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.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- power and suspension cables of >2 m long
- CRI >90 sources
- emergency versions

3F Mirella SP



650°C

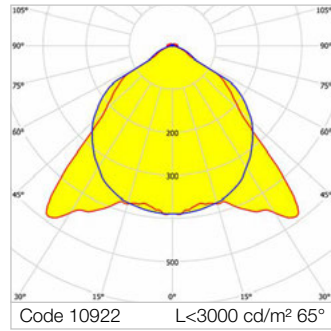
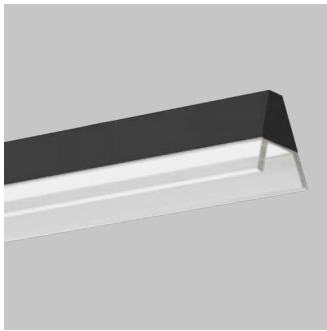
IP40

1J

IK06



Driver/LED
SELV



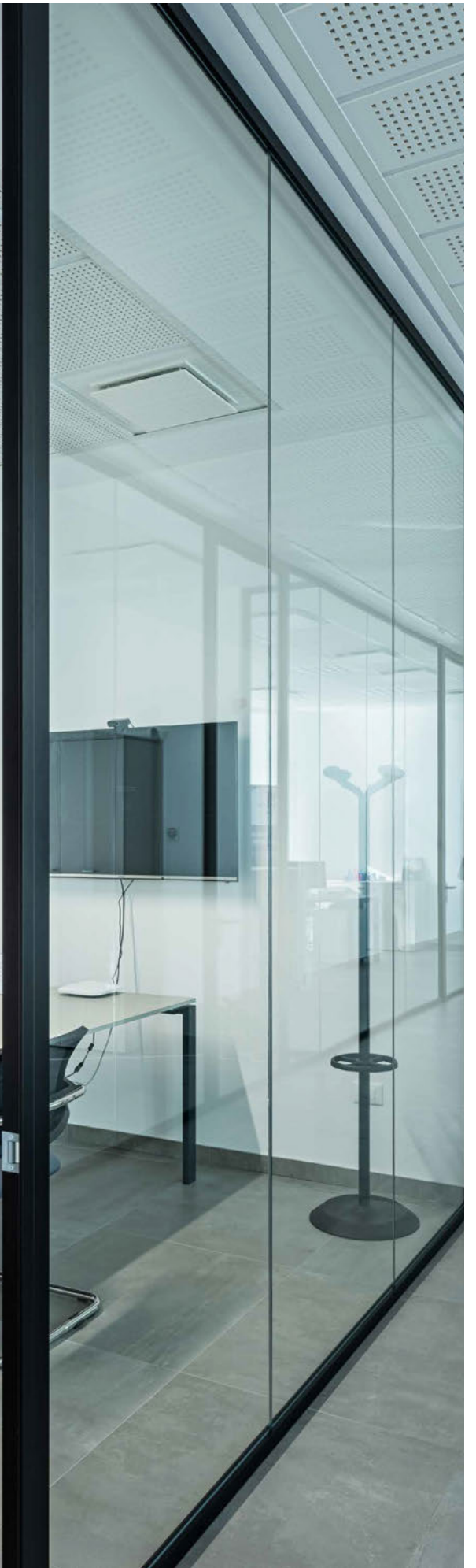
Average luminance <3000 cd/m² for radial angles >65°.
Methacrylate (PMMA) primary lens for total source shielding.
Flat transparent prismatic methacrylate (PMMA) filter,
multi-lenticular exterior, anti-glare.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 10920	3F Mirella WH 40 SP L1480	46	4741	4000	>80	1480x112x91
○ 10921	3F Mirella WH 60 SP L2200	66	7112	4000	>80	2200x112x91
● 10898	3F Mirella BK 40 SP L1480	46	4741	4000	>80	1480x112x91
● 10899	3F Mirella BK 60 SP L2200	66	7112	4000	>80	2200x112x91
○ 10942	3F Mirella AL 40 SP L1480	46	4741	4000	>80	1480x112x91
○ 10943	3F Mirella AL 60 SP L2200	66	7112	4000	>80	2200x112x91

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 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





LCA Architetti
Varese
Italia/Italy





3F Mirella Direct/Indirect

ILLUMINOTECHNICAL

Direct-indirect distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

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.

INSTALLATION

Suspension installation.

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.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- power and suspension cables of >2 m long
- twin-circuit
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F Mirella DI SP



650°C

IP40

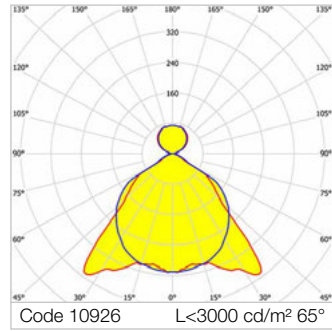
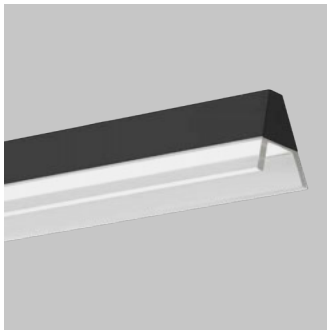
1J

IK06



Driver/LED

SELV



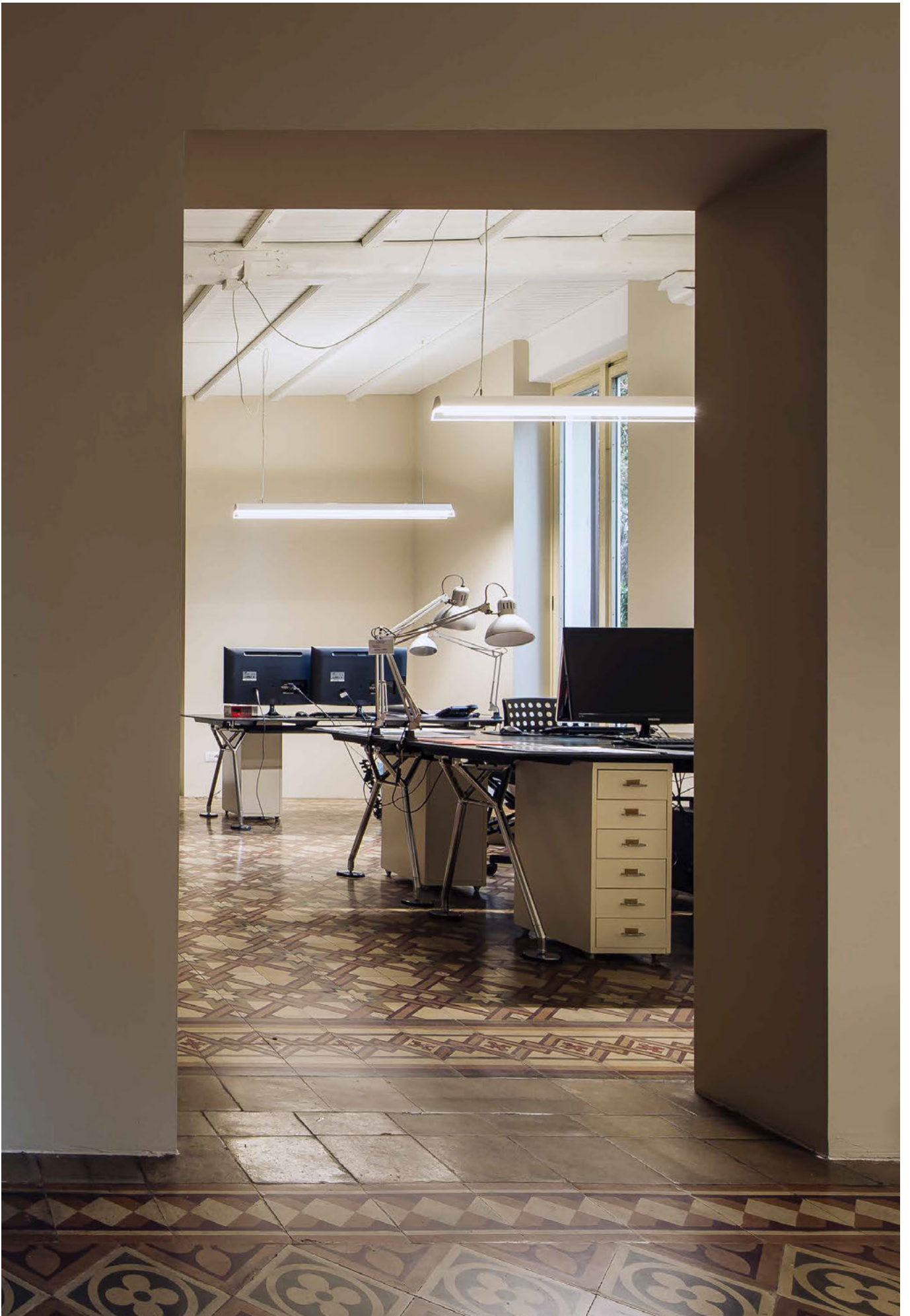
Methacrylate (PMMA) primary lens for total source shielding.
Flat transparent prismatic methacrylate (PMMA) filter,
multi-lenticular exterior, anti-glare.
Average luminance <math><3000 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 10924	3F Mirella WH DI 40+8 SP L1480	58	5849	4000	>80	1480x112x91
○ 10925	3F Mirella WH DI 60+14 SP L2200	84	8907	4000	>80	2200x112x91
● 10902	3F Mirella BK DI 40+8 SP L1480	58	5849	4000	>80	1480x112x91
● 10903	3F Mirella BK DI 60+14 SP L2200	84	8907	4000	>80	2200x112x91
○ 10946	3F Mirella AL DI 40+8 SP L1480	58	5849	4000	>80	1480x112x91
○ 10947	3F Mirella AL DI 60+14 SP L2200	84	8907	4000	>80	2200x112x91

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 10926	3F Mirella WH DI 40+8 DALI SP L1480	58	5849	4000	>80	1480x112x91
○ 10927	3F Mirella WH DI 60+14 DALI SP L2200	84	8907	4000	>80	2200x112x91
● 10904	3F Mirella BK DI 40+8 DALI SP L1480	58	5849	4000	>80	1480x112x91
● 10905	3F Mirella BK DI 60+14 DALI SP L2200	84	8907	4000	>80	2200x112x91
○ 10948	3F Mirella AL DI 40+8 DALI SP L1480	58	5849	4000	>80	1480x112x91
○ 10949	3F Mirella AL DI 60+14 DALI SP L2200	84	8907	4000	>80	2200x112x91





OLI S.p.A.
Medolla (MO)
Italia/Italy





3F Mirella Soft Direct

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Extruded aluminium body, zamak heads.
Methacrylate (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 methacrylate (PMMA).
Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

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.

INSTALLATION

Suspension installation.

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.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- power and suspension cables of >math>2\text{ m}</math> long
- CRI >math>90</math> sources
- emergency versions

3F Mirella Soft SP



650°C

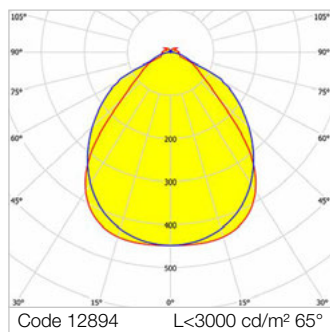
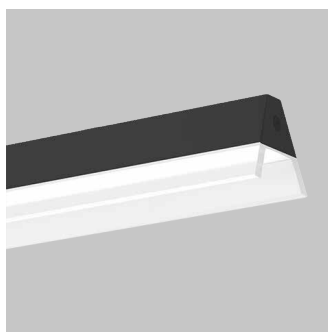
IP40

1J

IK06



Driver/LED
SELV



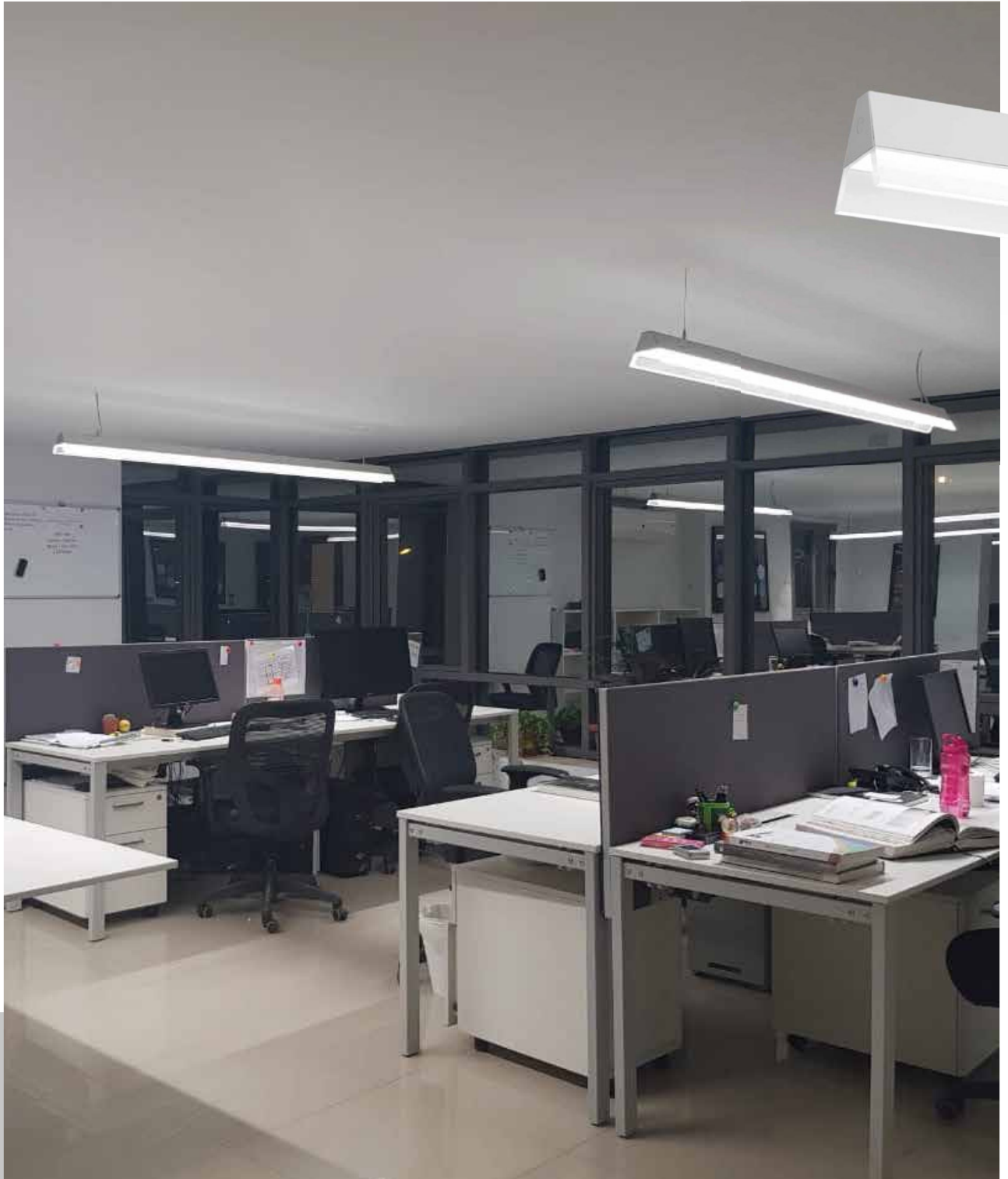
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 12892	3F Mirella SF WH 40 SP L1480	46	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	46	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	46	3964	4000	>80	1480x112x91
○ 12915	3F Mirella SF AL 60 SP L2200	66	5947	4000	>80	2200x112x91

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 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





Huda Lighting
Il Cairo
Misr/Egypt





3F Mirella Soft Direct/Indirect

ILLUMINOTECHNICAL

Direct-indirect distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Extruded aluminium body, zamak heads.
Methacrylate (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 methacrylate (PMMA).
Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

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.

INSTALLATION

Suspension installation.

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.

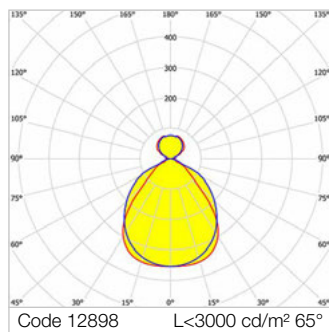
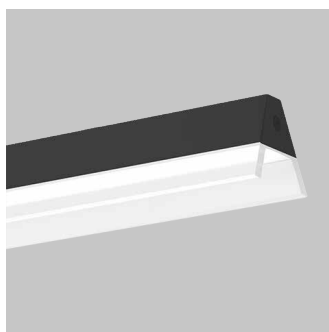
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- power and suspension cables of >2 m long
- twin-circuit
- CRI >90 sources
- emergency versions

3F Mirella Soft DI SP

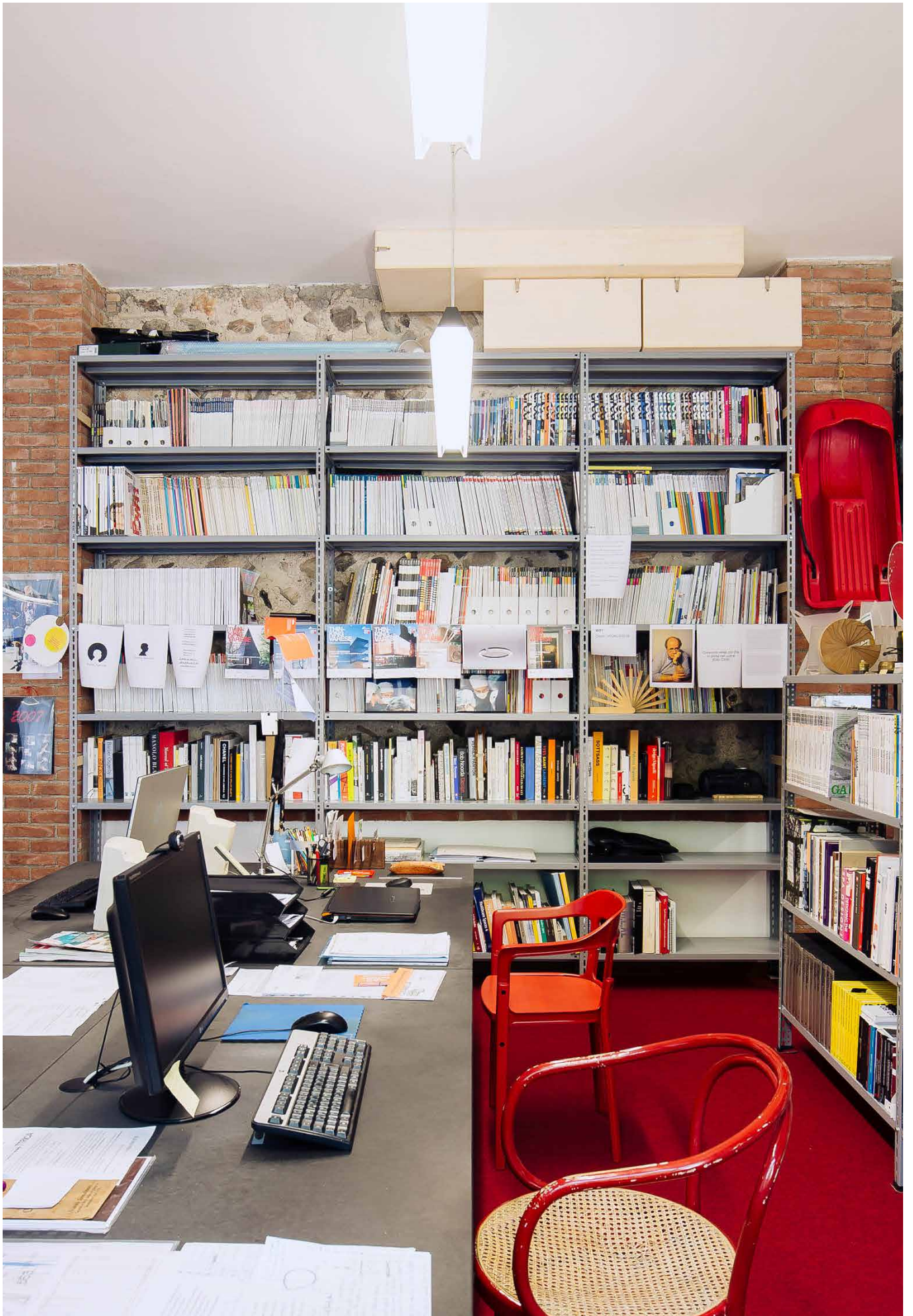


ON/OFF electronic wiring 230V-50/60Hz

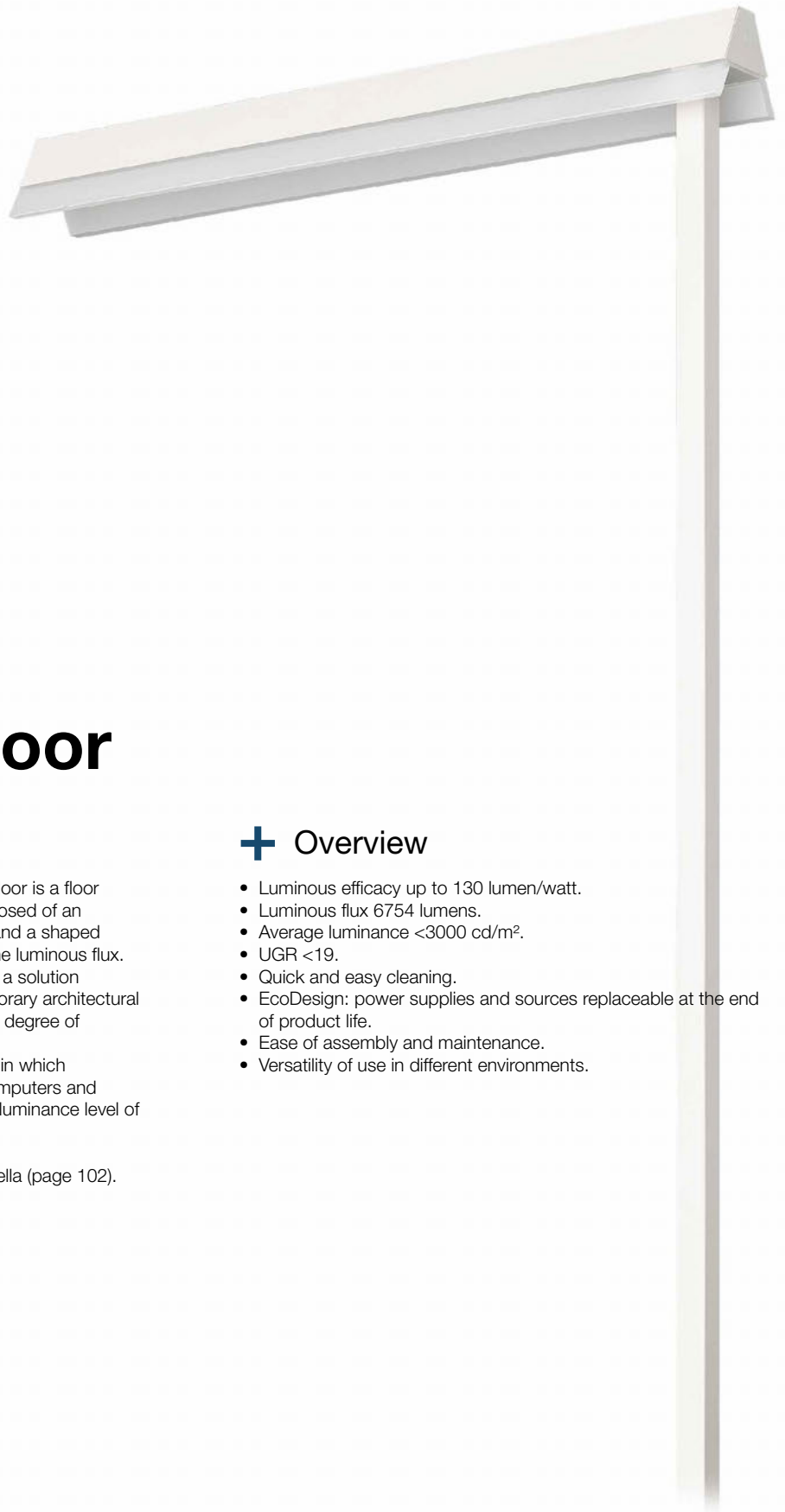
Code	Item	W	lm	K	CRI	L x A x H
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○ 12897	3F Mirella SF WH DI 60+14 SP L2200	84	7641	4000	>80	2200x112x91
● 12874	3F Mirella SF BK DI 40+8 SP L1480	58	5018	4000	>80	1480x112x91
● 12875	3F Mirella SF BK DI 60+14 SP L2200	84	7641	4000	>80	2200x112x91
○ 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	84	7641	4000	>80	2200x112x91

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 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	84	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	84	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	84	7641	4000	>80	2200x112x91







3F Mirella Floor

> www.3F-Filippi.com/3F Mirella Floor

Design by **Andrea Ciotti**

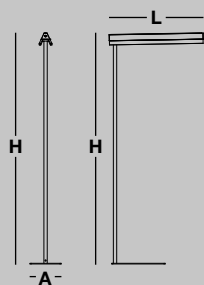
Essential yet at the same time refined, 3F Mirella Floor is a floor lamp that can be freely positioned in space, composed of an aluminium body that houses the LED technology and a shaped methacrylate (PMMA) volume that accompanies the luminous flux. Elaborate, essential and flexible, 3F Mirella Floor is a solution suitable for the multiple configurations of contemporary architectural spaces - smart working above all - in which a high degree of flexibility of the individual workstations is required. Its light (direct-indirect) is perfect for environments in which electronic equipment such as tablets, personal computers and smartphones are used daily, thanks to its average luminance level of less than 3000 cd/m² for radial angles >65°.

This product is also available in this version 3F Mirella (page 102).

+ Overview

- Luminous efficacy up to 130 lumen/watt.
- Luminous flux 6754 lumens.
- Average luminance <3000 cd/m².
- UGR <19.
- Quick and easy cleaning.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Floor
124	3F Mirella Floor	•





3F Mirella Floor

ILLUMINOTECHNICAL

Direct-indirect distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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 methacrylate (PMMA).
Painted stainless steel square section pole.
Base in painted steel.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Power supply with a 2.5 m long transparent cable, schuko plug.

ON/OFF versions

Foot switch, single switch-on.

DALI versions

TOUCH DALI control integrated in the stem.

INSTALLATION

Floor installation.

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

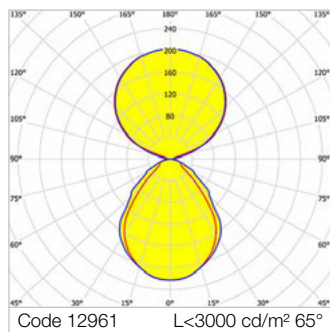
DALI versions

The TOUCH DALI control integrated in the stem, allows independent switching on, off and adjustment of the two emissions.

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- body, pole and base in different RAL colours
- wiring: CLO (page 752)
- different power cables
- CRI >90 sources

3F Mirella Floor



ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 12961	3F Mirella Floor SF WH 23+23	52	7042	4000	>80	843x280x2060
● 12960	3F Mirella Floor SF BK 23+23	52	7042	4000	>80	843x280x2060

TOUCH DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 12965	3F Mirella Floor SF WH 23+23 Touch DALI	52	7042	4000	>80	843x280x2060
● 12964	3F Mirella Floor SF BK 23+23 Touch DALI	52	7042	4000	>80	843x280x2060







3F Trittico

> [www.3F-Filippi.com/3F Trittico](http://www.3F-Filippi.com/3F_Trittico)

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

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.

This product is also available in this version 3F Solo (page 138).

+ Overview

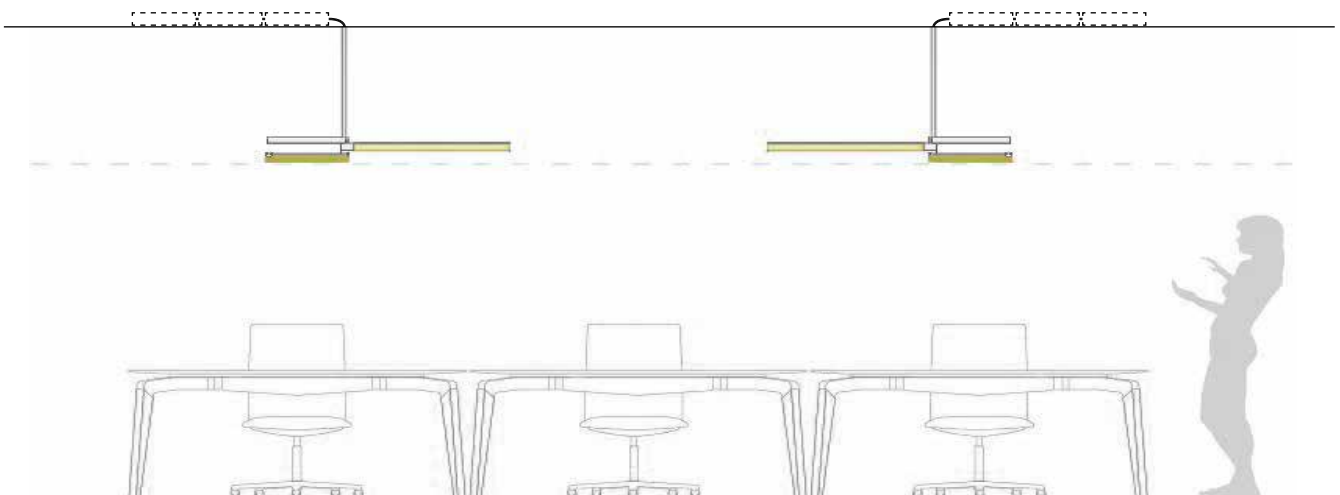
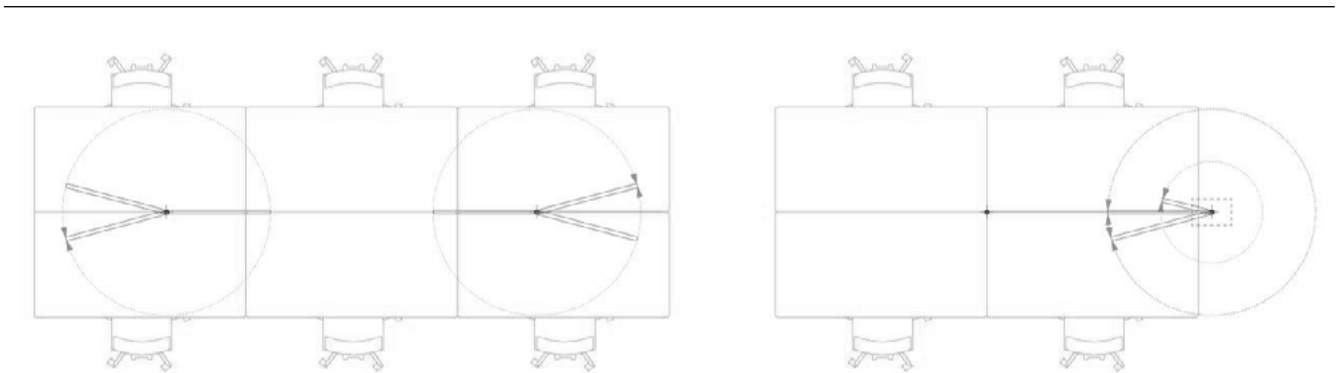
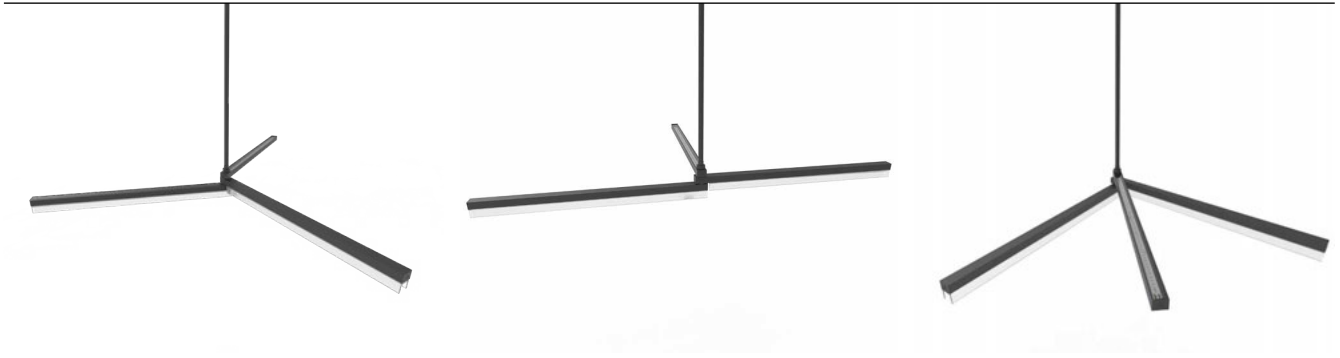
- Luminous efficacy up to 130 lumen/watt.
- Luminous flux 5841 lumens.
- Average luminance <3000 cd/m².
- Adjustable light source according to customer needs.
- UGR <19.
- Quick and easy cleaning.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Suspended
134	3F Trittico	•



Versatility

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



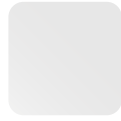
Screens and finishes

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

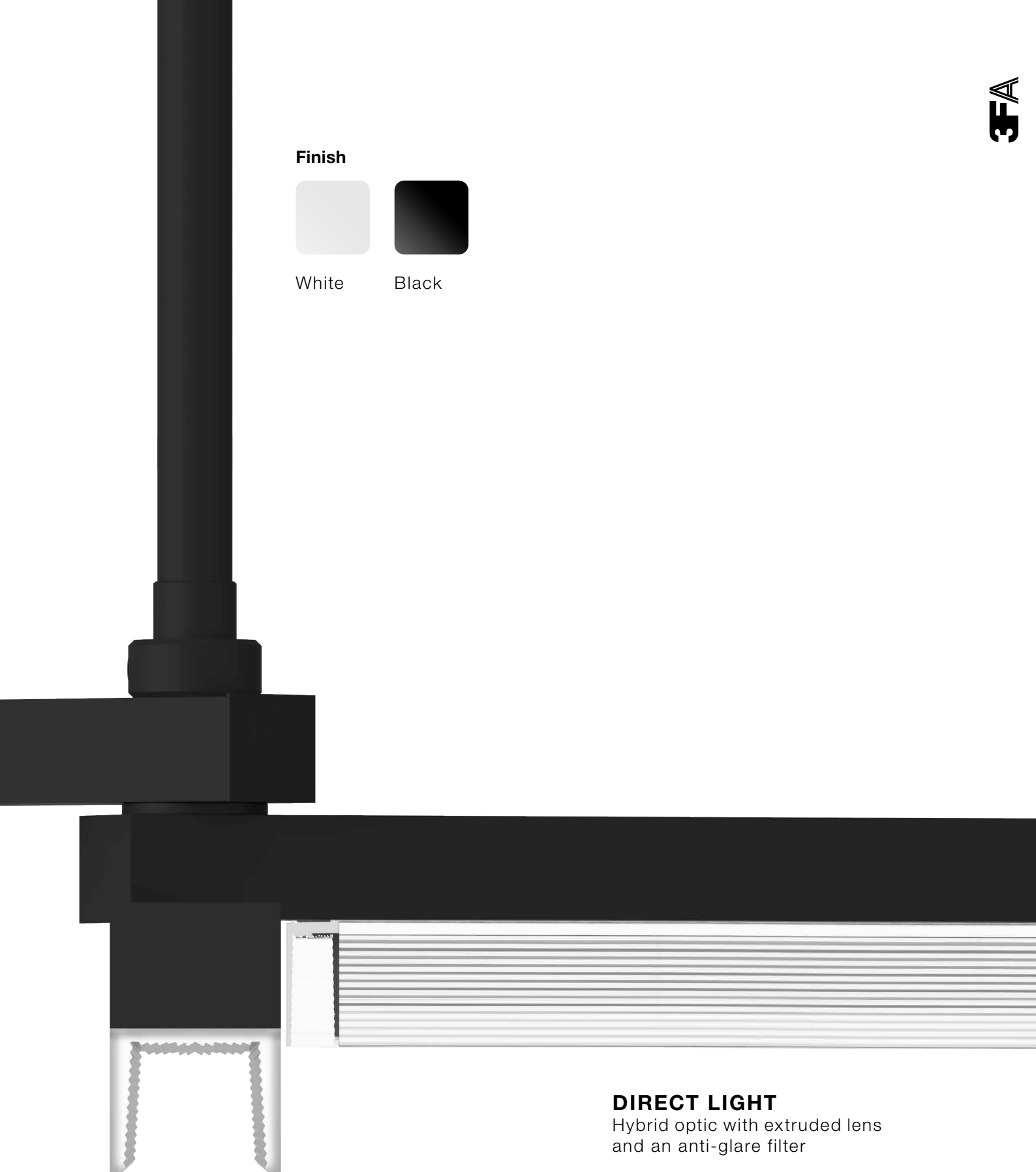
Finish



White

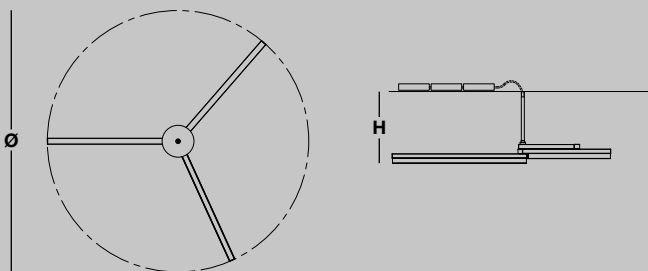


Black



DIRECT LIGHT

Hybrid optic with extruded lens
and an anti-glare filter



Banca Ersel
Milano
Italia/Italy





3F Trittico

ILLUMINOTECHNICAL

Direct-indirect distribution.
Lifetime (L85/B10): 50000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Extruded aluminium housing with horizontal side stripes.
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 methacrylate (PMMA) anti-glare filter.
Arms for direct lighting with satin methacrylate (PMMA) 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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Peripheral cabling unit to recess into the ceiling.

Class II.
4-pole terminal block, single 230V circuit, 2 DALI addresses.

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.

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.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different colour temperatures
- housing in different RAL colours
- wiring: CLO (page 752)
- version for ceiling installation
- maximum pole height 1.3 m
- CRI >90 sources
- emergency versions

3F Trittico



650°C

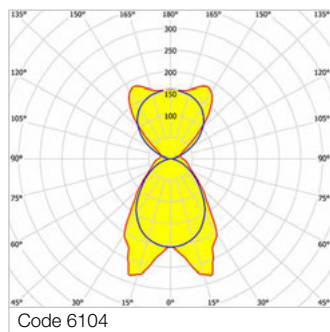
IP20

0,2J

IK02



Driver/LED
SELV



DALI electronic wiring 230V-50/60Hz

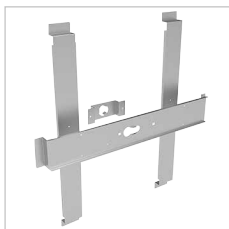
Code	Item	W	lm	K	CRI	ø x H
○ 6157	3F Trittico WH 12+12+15/830 DALI H300	45	5901	3000	>80	1560x300
○ 6160	3F Trittico WH 12+12+15/830 DALI H500	45	5901	3000	>80	1560x500
○ 6163	3F Trittico WH 12+12+15/830 DALI H800	45	5901	3000	>80	1560x800
● 6158	3F Trittico BK 12+12+15/830 DALI H300	45	5901	3000	>80	1560x300
● 6161	3F Trittico BK 12+12+15/830 DALI H500	45	5901	3000	>80	1560x500
● 6164	3F Trittico BK 12+12+15/830 DALI H800	45	5901	3000	>80	1560x800

3F Trittico | Accessories



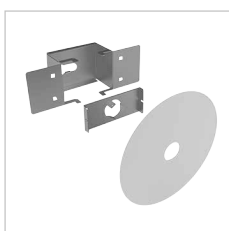
Code	Item
A0828	Trittico fixing metal panels 60x60

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



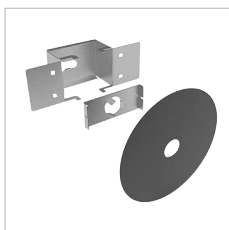
Code	Item
A0829	Trittico fixing mineral fiber pan. 60x60

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



Code	Item
A0830	Fixing Trittico plasterboard WH

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
A0831	Fixing Trittico plasterboard BK

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.





3F Solo

> www.3F-Filippi.com/3F Solo

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

The excellence of light combined with the elegance of the shape. 3F Solo is the result of the thinking behind the creation of the 3F Trittico: it is a simple, linear element that integrates discretely into environments.

An elegant, deliberately simple product enriched with technical details that become significant aesthetic characteristics.

The design of the fluted lens developed by the 3F Filippi optical laboratory, ensures that the light is diffused into the space softly and without glaring: the complex shape characterised by horizontal lines becomes a symmetry motif of the entire fixture in an interplay of surfaces that lighten the body when the fixture is lit.

In the version with the prismatic screen the contrast between the smooth surface of the body and the fluted diffuser creates a dualism that enhances its technical spirit.

The direct and indirect versions provide a feeling of greater space to the surrounding environment and make the product appear even more suspended in space.

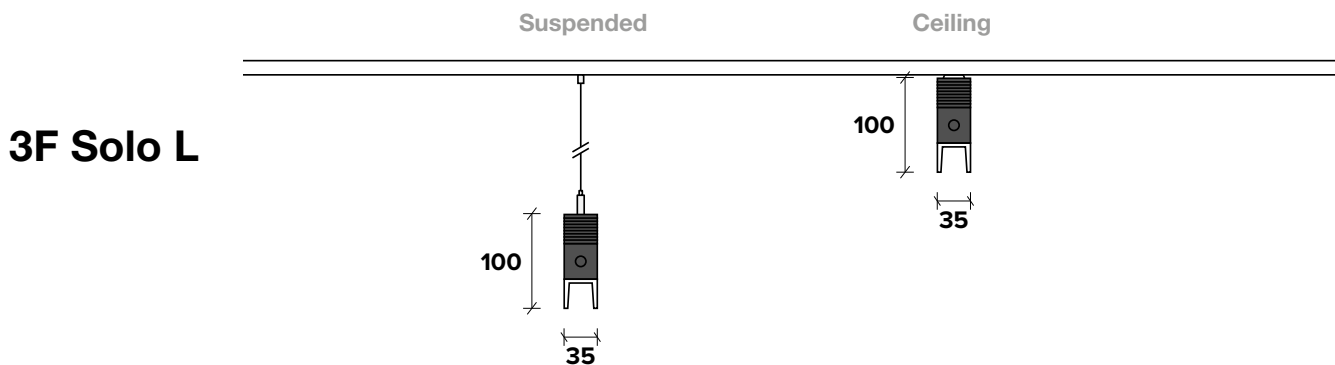
This product is also available in this version 3F Trittico (page 128).

+ Overview

- Luminous efficacy up to 130 lumen/watt.
- Luminous fluxes from 1826 to 15689 lumens.
- Average luminance <3000 cd/m² (L version).
- Extensive installation pitch.
- UGR <19.
- Driver integrated in the fixture.
- Quick and easy cleaning.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Ceiling	Suspended
144	3F Solo Direct	•	•
148	3F Solo Direct/Indirect		•

Product range



3F Solo Direct Emission



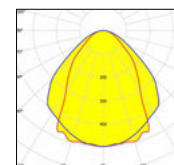
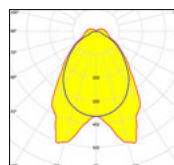
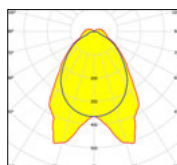
Model	L	L HO	HO SP
-------	---	------	-------

Average luminance for angles > 65 (cd / m ²)	<3000	>3000	>3000
--	-------	-------	-------

Percentage of emission D/DI (%)	Up	0	0	0
	Down	100	100	100

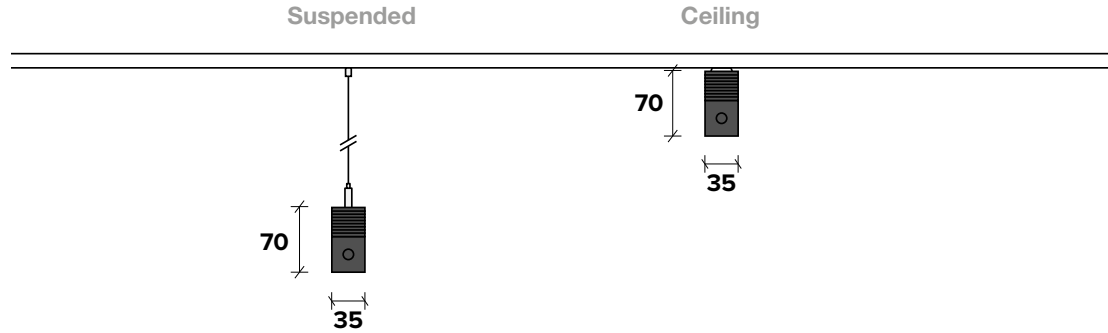
Finishes White | Black

Photometric distribution



Installation steps	Dt	1,35	1,35	1,06
	DI	1,13	1,13	1,25

3F Solo SP



3F Solo Direct / Indirect Emission



Model

L

L HO

HO SP

Average luminance for angles > 65 (cd / m²)

<3000

>3000

>3000

Percentuale di emissione D/DI (%)

Up

76

61

60

Down

24

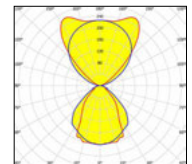
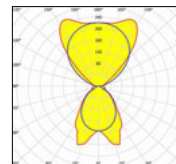
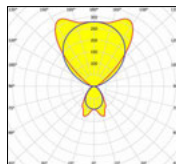
39

40

Finishes

White | Black

Photometric distribution



Installation steps

Dt

1,35

1,35

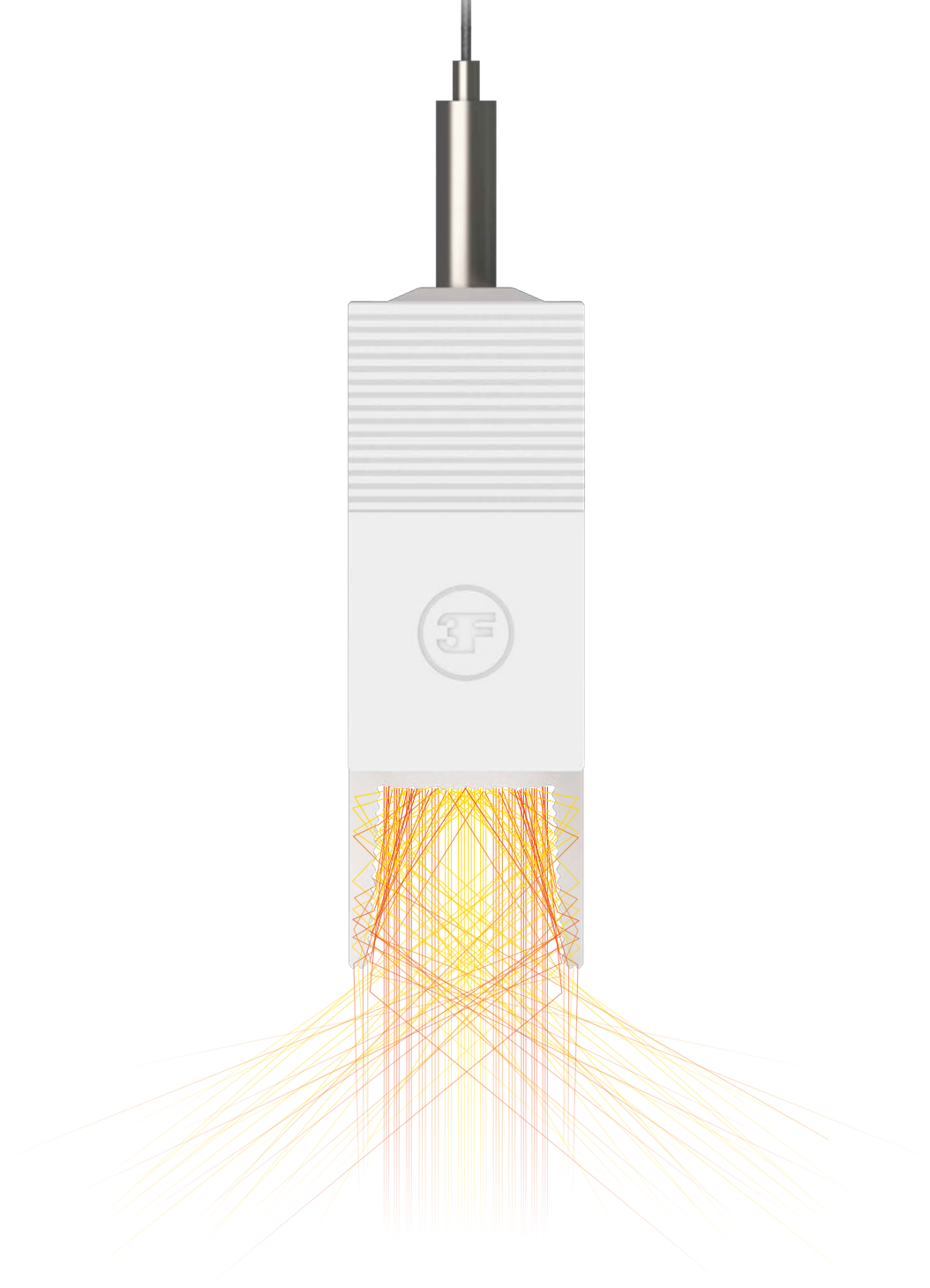
1,06

DI

1,13

1,13

1,25



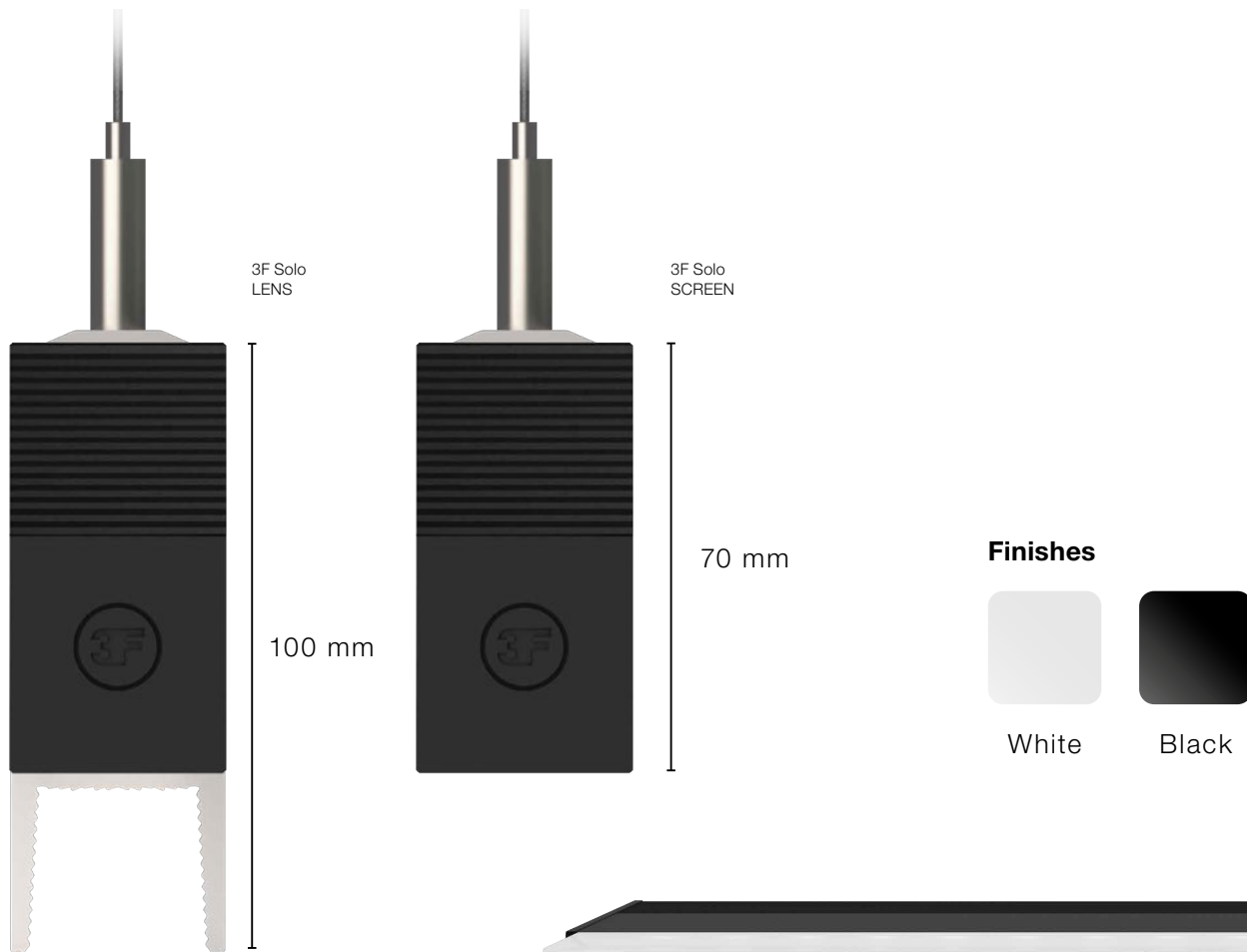
PRECISION LIGHTING

3F Solo distinguishes itself given the precision of the lighting provided and as a result complete visual comfort. In particular, the version equipped with a fluted U shaped opaque PMMA lens makes it possible to widen the distance between fixtures without increasing luminance and decreasing the number of products installed in the space. Luminous flux of the fixture from 1800 to 15000 lumen. Symmetrical direct (or direct and indirect) distribution. Installation distance $Dt = 1,35 \times hu$ - $DI = 1,13 \times hu$. Average luminance $<3000 \text{ cd/m}^2$ for $>65^\circ$ radial angles. UGR <19 (EN 12464-1). Product length from 1475 mm, 2205 mm and 2935 mm.

Screens and finishes

3F Solo is designed as a flexible element thanks to the various options provided by the designer. In addition to being able to choose the version with the prismatic screen or the one with the U-shaped fluted lens, lighting designers can choose from a black or white finish to facilitate the insertion of the fixture

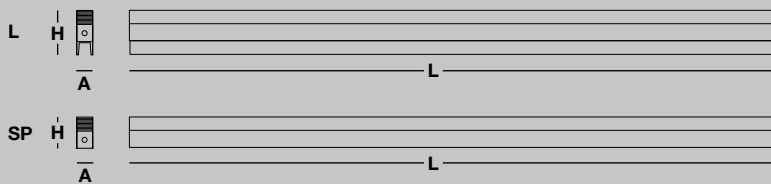
into the architectural context of the workplace. Developed as a single element the light fixture comes in three different lengths (1500mm, 2200mm and 2900mm), to increase the options available to architects and lighting designers.



LENS
in frosted PMMA

SCREEN
Flat PMMA prismatic
diffuser





Banca Ersel
Milano
Italia/Italy





3F Solo Direct

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L85/B10): 50000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Extruded aluminium housing with horizontal side stripes.
End caps in polycarbonate.
Upper film in translucent polycarbonate, self-extinguishing, UV stabilised.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
5-pole terminal block, single 230V circuit.
5-pole transparent power cable of 2 m long.

INSTALLATION

Ceiling mounted or suspension installation.
Warning: to install this fixture it is necessary to buy the accessory (A0820 - A0821), according to the type of installation.

APPLICATIONS

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

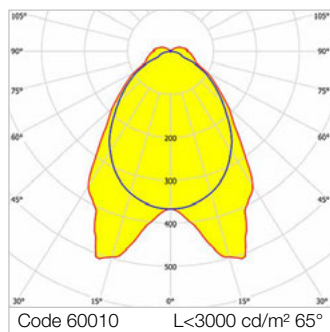
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different colour temperatures
- housing in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F Solo L

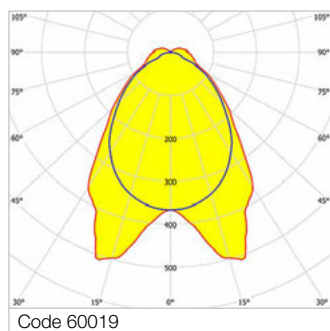


Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
 Transparent methacrylate (PMMA) anti-glare filter and striped-satin methacrylate (PMMA) lens.
 Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 60010	3F Solo L WH 14/830 DALI L1475	17	1845	3000	>80	1475x35x100
● 60011	3F Solo L BK 14/830 DALI L1475	17	1845	3000	>80	1475x35x100
○ 60013	3F Solo L WH 21/830 DALI L2205	24	2768	3000	>80	2205x35x100
● 60014	3F Solo L BK 21/830 DALI L2205	24	2768	3000	>80	2205x35x100
○ 60016	3F Solo L WH 28/830 DALI L2935	32	3690	3000	>80	2935x35x100
● 60017	3F Solo L BK 28/830 DALI L2935	32	3690	3000	>80	2935x35x100

3F Solo L HO

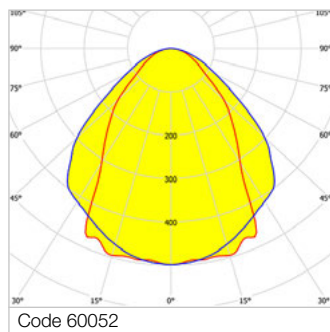


Transparent methacrylate (PMMA) anti-glare filter and striped-satin methacrylate (PMMA) lens.
 Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 60019	3F Solo L WH HO 28/830 DALI L1475	33	3510	3000	>80	1475x35x100
● 60020	3F Solo L BK HO 28/830 DALI L1475	33	3510	3000	>80	1475x35x100
○ 60022	3F Solo L WH HO 41/830 DALI L2205	46	5265	3000	>80	2205x35x100
● 60023	3F Solo L BK HO 41/830 DALI L2205	46	5265	3000	>80	2205x35x100
○ 60025	3F Solo L WH HO 54/830 DALI L2935	58	6660	3000	>80	2935x35x100
● 60026	3F Solo L BK HO 54/830 DALI L2935	58	6660	3000	>80	2935x35x100

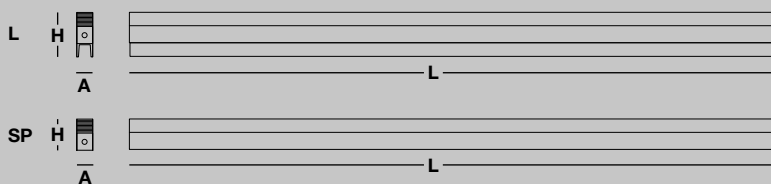
3F Solo HO SP



SP flat diffuser in transparent methacrylate (PMMA), outside prismatic, anti-glare.
White aluminium non-iridescent high efficiency.

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 60052	3F Solo WH HO 28/830 DALI SP L1475	33	3505	3000	>80	1475x35x70
● 60053	3F Solo BK HO 28/830 DALI SP L1475	33	3505	3000	>80	1475x35x70
○ 60055	3F Solo WH HO 41/830 DALI SP L2205	46	5258	3000	>80	2205x35x70
● 60056	3F Solo BK HO 41/830 DALI SP L2205	46	5258	3000	>80	2205x35x70
○ 60058	3F Solo WH HO 54/830 DALI SP L2935	58	6651	3000	>80	2935x35x70
● 60059	3F Solo BK HO 54/830 DALI SP L2935	58	6651	3000	>80	2935x35x70



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Milano
Italia/Italy





3F Solo Direct/Indirect

ILLUMINOTECHNICAL

Symmetric direct-indirect distribution.
Lifetime (L85/B10): 50000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Extruded aluminium housing with horizontal side stripes.
End caps in polycarbonate.
Upper film in translucent polycarbonate, self-extinguishing, UV stabilised.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
5-pole terminal block, single 230V circuit.
5-pole transparent power cable of 2 m long.

INSTALLATION

Suspension installation.
Warning: to install this fixture it is necessary to buy the accessory A0820.

APPLICATIONS

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

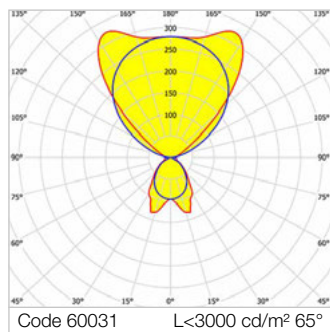
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different colour temperatures
- housing in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F Solo L DI

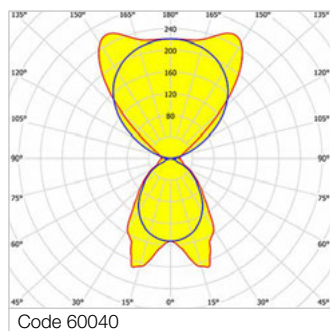


Average luminance < 3000 cd/m² for radial angles > 65°.
 Transparent methacrylate (PMMA) anti-glare filter and striped-satin methacrylate (PMMA) lens.
 Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 60031	3F Solo L WH DI 14+38/830 DALI L1475	57	7022	3000	>80	1475x35x100
● 60032	3F Solo L BK DI 14+38/830 DALI L1475	57	7022	3000	>80	1475x35x100
○ 60034	3F Solo L WH DI 21+58/830 DALI L2205	92	10900	3000	>80	2205x35x100
● 60035	3F Solo L BK DI 21+58/830 DALI L2205	92	10900	3000	>80	2205x35x100
○ 60037	3F Solo L WH DI 28+67/830 DALI L2935	99	12884	3000	>80	2935x35x100
● 60038	3F Solo L BK DI 28+67/830 DALI L2935	99	12884	3000	>80	2935x35x100

3F Solo L DI HO

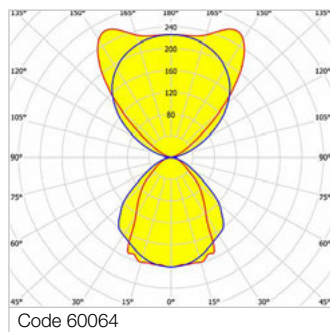


Transparent methacrylate (PMMA) anti-glare filter and striped-satin methacrylate (PMMA) lens.
 Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 60040	3F Solo L WH DI HO 28+38/830 DALI L1475	73	8687	3000	>80	1475x35x100
● 60041	3F Solo L BK DI HO 28+38/830 DALI L1475	73	8687	3000	>80	1475x35x100
○ 60043	3F Solo L WH DI HO 41+58/830 DALI L2205	115	13397	3000	>80	2205x35x100
● 60044	3F Solo L BK DI HO 41+58/830 DALI L2205	115	13397	3000	>80	2205x35x100
○ 60046	3F Solo L WH DI HO 54+67/830 DALI L2935	127	15854	3000	>80	2935x35x100
● 60047	3F Solo L BK DI HO 54+67/830 DALI L2935	127	15854	3000	>80	2935x35x100

3F Solo DI HO SP



SP flat diffuser in transparent methacrylate (PMMA), outside prismatic, anti-glare. White aluminium non-iridescent high efficiency.

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 60064	3F Solo WH DI HO 28+38/830 DALI SP L1475	73	8682	3000	>80	1475x35x70
● 60065	3F Solo BK DI HO 28+38/830 DALI SP L1475	73	8682	3000	>80	1475x35x70
○ 60067	3F Solo WH DI HO 41+58/830 DALI SP L2205	115	13390	3000	>80	2205x35x70
● 60068	3F Solo BK DI HO 41+58/830 DALI SP L2205	115	13390	3000	>80	2205x35x70
○ 60070	3F Solo WH DI HO 54+67/830 DALI SP L2935	127	15845	3000	>80	2935x35x70
● 60071	3F Solo BK DI HO 54+67/830 DALI SP L2935	127	15845	3000	>80	2935x35x70

3F Solo | Accessories



Code	Item
A0820	Pair of sliding brack. + reg. susp. 3F Solo

Free-position sliding bracket with regulator in stainless steel. Accessory dedicated to suspended installation.
This accessory must ALWAYS be used with one of the following codes: A20485 - A20486 - A20487.



Code	Item
A0821	Pair of sliding brack. ceiling 3F Solo

Stainless steel sliding bracket that can be positioned freely. Accessory dedicated to ceiling installation.



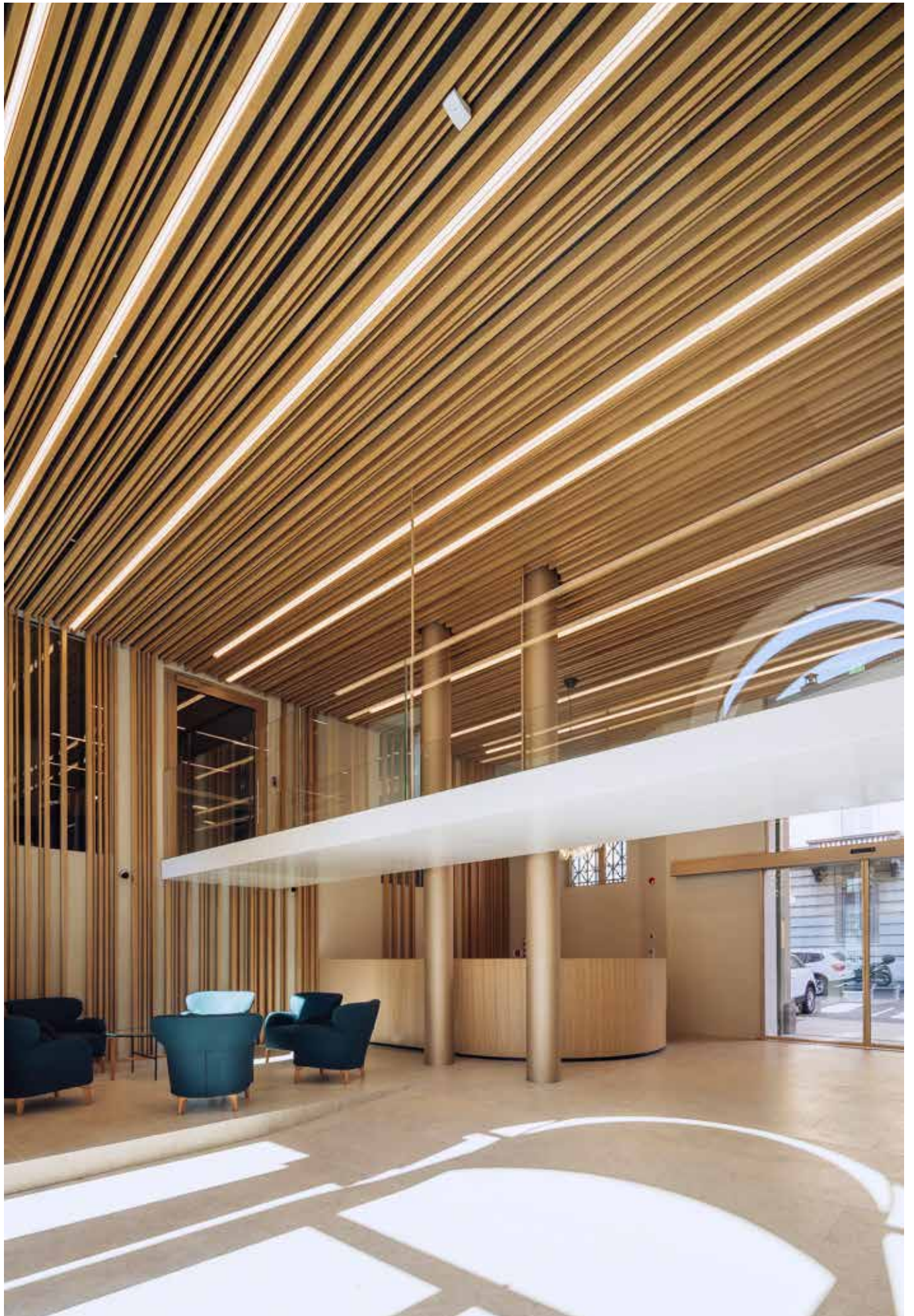
Code	Item
A20485	Suspension without adjustment - 0.5 m
A20486	Suspension without adjustment - 1 m
A20487	Suspension without adjustment - 2 m

Suspension without controller, galvanised steel cable 1.5 mm diameter, load 15 kg.
Attention: each product requires two suspensions with regulator.



Code	Item
A0679	5 pole rectangular rose (no cable) WH

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







3F Filoluce

> [www.3F-Filippi.com/3F Filoluce](http://www.3F-Filippi.com/3F_Filoluce)

Design by **GEZA Architettura**

A free-standing steel luminaire fitted with a white opal methacrylate (PMMA) 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.

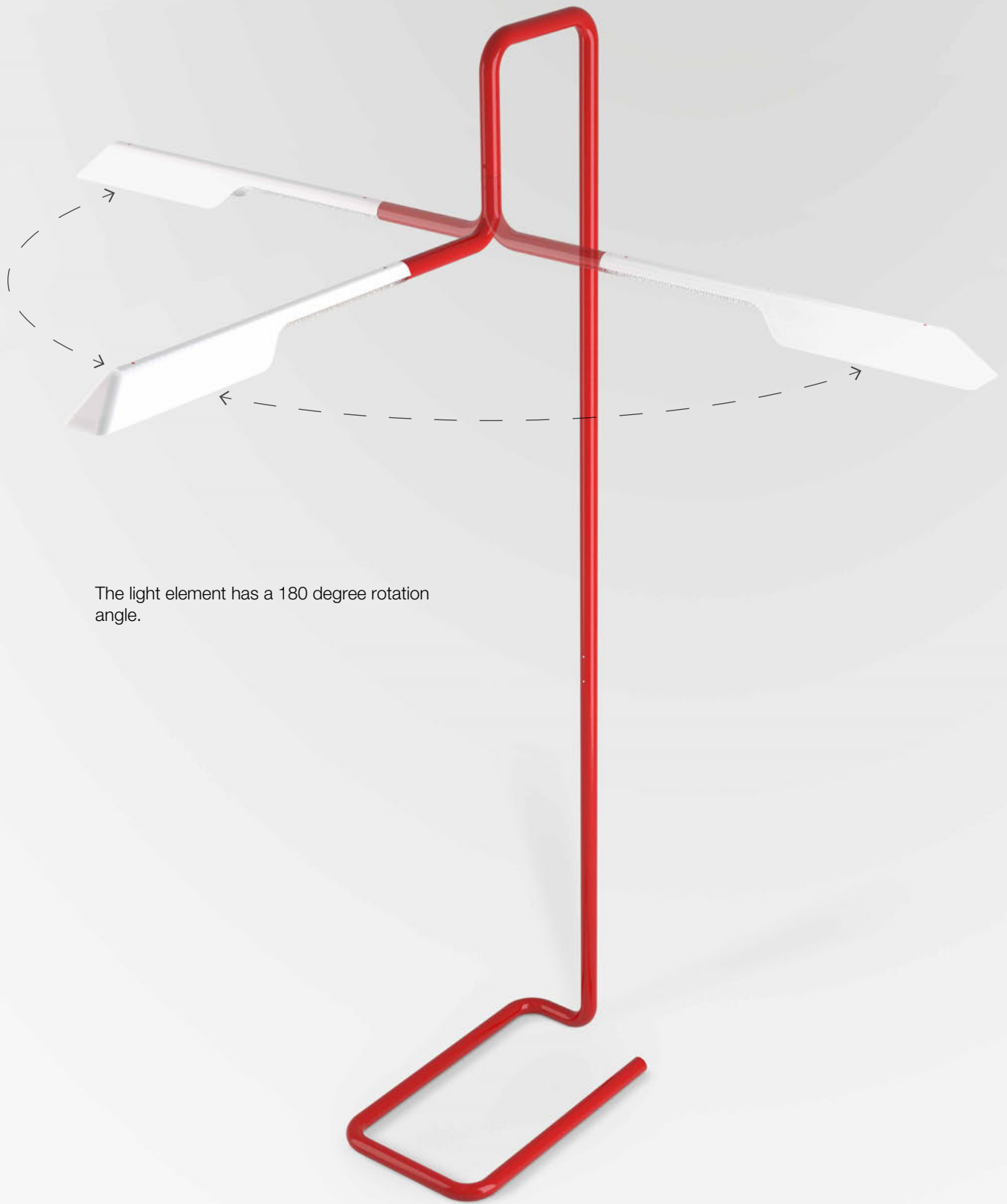
Fitted with a touch ignition system located in the vertical part the fixture provides comfortable lighting that is particularly suitable for office environments.

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.

+ Overview

- Luminous efficacy up to 110 lumen/watt.
- Luminous fluxes from 4706 to 4953 lumens.
- Average luminance <3000 cd/m².
- Adjustable light source according to customer needs.
- UGR <19.
- Quick and easy cleaning.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Floor
160	3F Filoluce	•



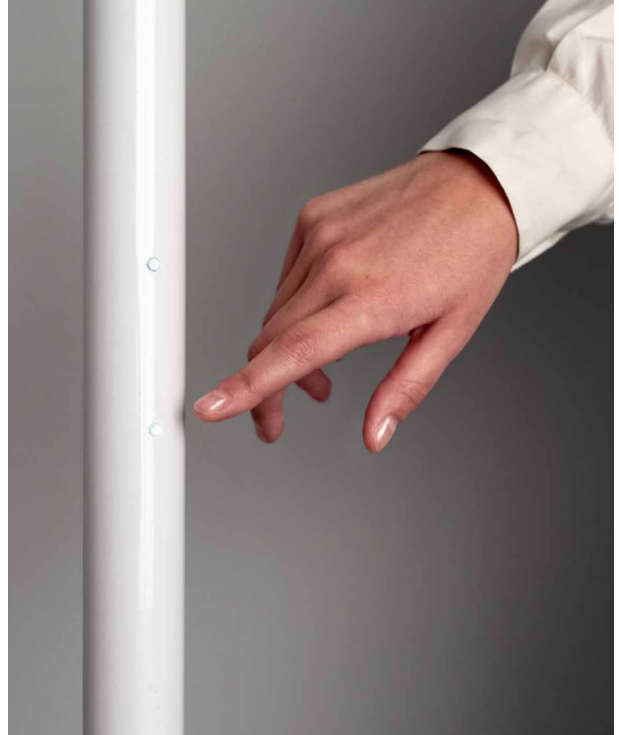
The light element has a 180 degree rotation angle.

Product advantages

Particularly eye-catching opal and transparent prismatic PMMA diffuser to optimise light distribution.



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.



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

Finishes



White



Black

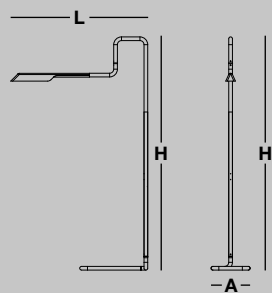
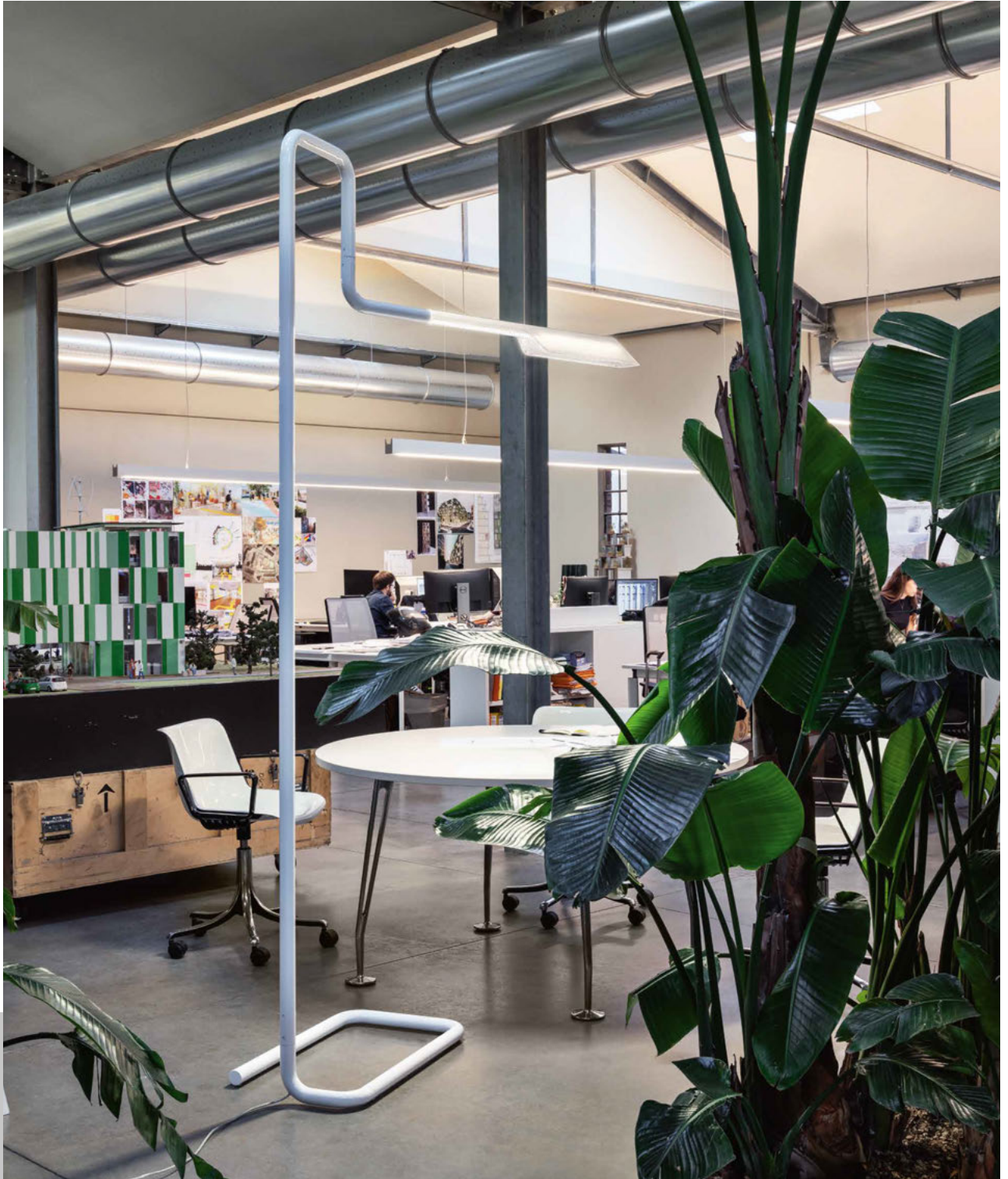


Red



Anthracite







3F Filoluce

ILLUMINOTECHNICAL

Direct-indirect distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math> (direct emission).
Lifetime (L85/B10): 50000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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

ELECTRICAL

In compliance with EN 60598-1.
TOUCH DALI control integrated in the stem.
Power supply with a 2.5 m long transparent cable, schuko plug.

INSTALLATION

Floor installation.

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.

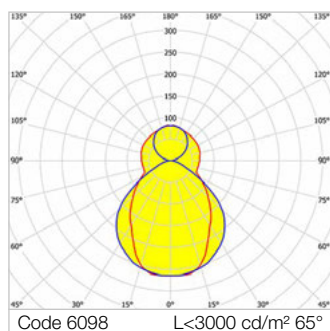
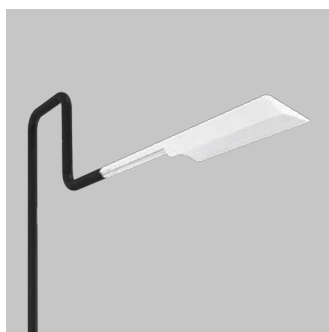
LIGHT MANAGEMENT

The TOUCH DALI control integrated in the stem, allows independent switching on, off and adjustment of the two emissions.

ON REQUEST

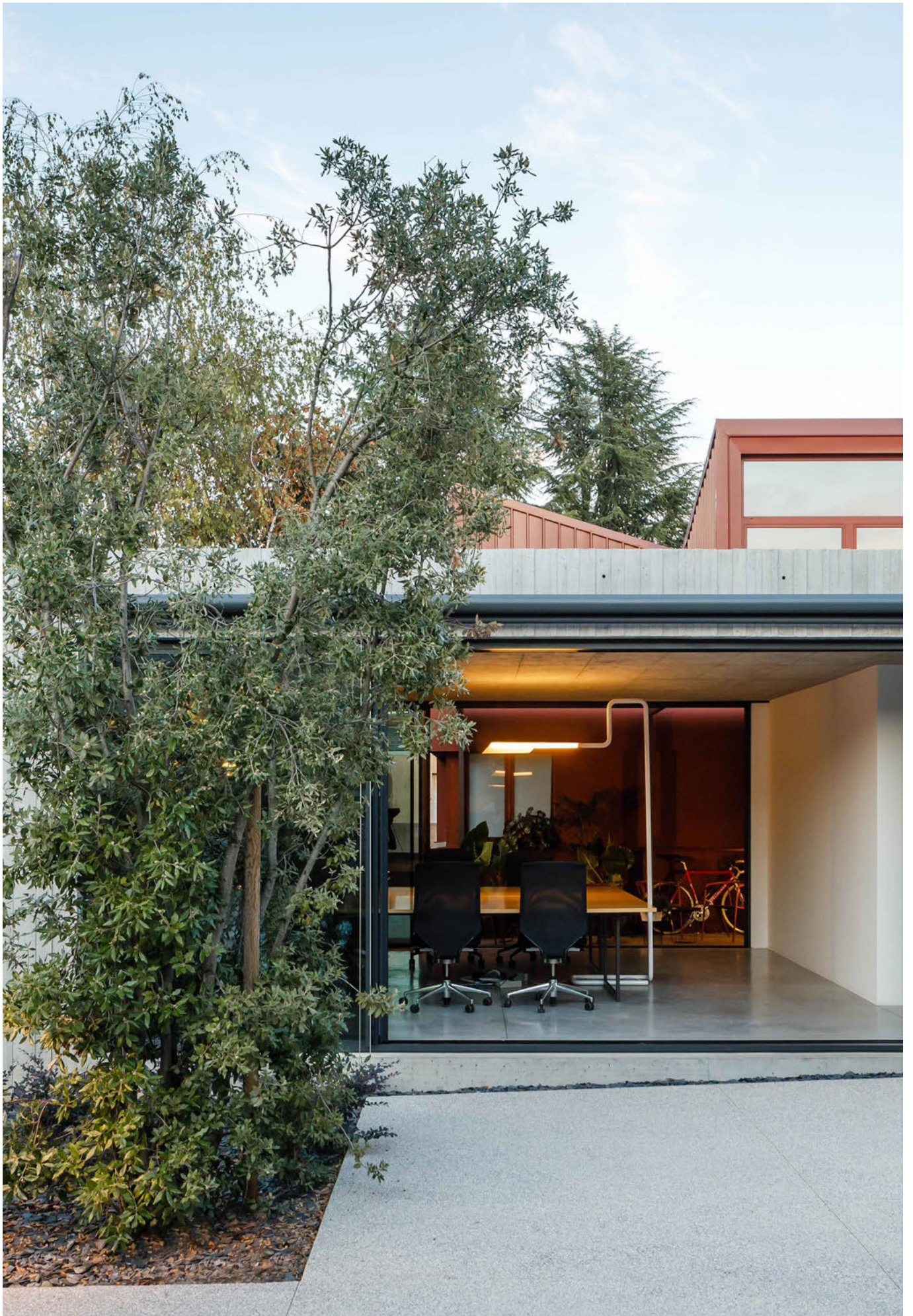
- different power levels, colour rendering indices and colour temperatures
- single-circuit wiring
- different power cables
- CRI >90 sources

3F Filoluce

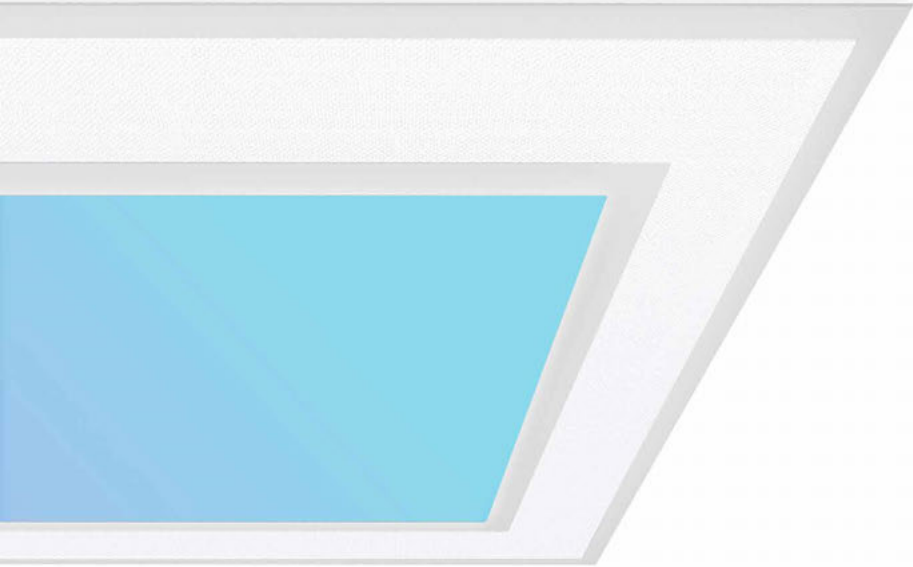


TOUCH DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6063	3F Filoluce WH 16+23W/830 Touch DALI	45	4754	3000	>80	1410x400x2400
○ 6098	3F Filoluce WH 16+23W/840 Touch DALI	45	4953	4000	>80	1410x400x2400
● 6064	3F Filoluce BK 16+23W/830 Touch DALI	45	4754	3000	>80	1410x400x2400
● 6099	3F Filoluce BK 16+23W/840 Touch DALI	45	4953	4000	>80	1410x400x2400
● 6065	3F Filoluce AN 16+23W/830 Touch DALI	45	4754	3000	>80	1410x400x2400
● 6100	3F Filoluce AN 16+23W/840 Touch DALI	45	4953	4000	>80	1410x400x2400
● 6066	3F Filoluce RD 16+23W/830 Touch DALI	45	4754	3000	>80	1410x400x2400
● 6101	3F Filoluce RD 16+23W/840 Touch DALI	45	4953	4000	>80	1410x400x2400







3F Eldorado

> [www.3F-Filippi.com/3F Eldorado](http://www.3F-Filippi.com/3F_Eldorado)

The world of work is constantly evolving, codes are renewing and behaviour and the way we experience environments are changing: smart working, flexible workstations and the use of smartphones and tablets.

As a result of increasingly careful investments by those building or renovating workplaces it is necessary to design products with a multifunctional approach: this is why we developed 3F Eldorado as an open platform capable of integrating products and extra functions simply to meet the needs of workers. All this by placing lighting quality at the centre of our research.

3F Eldorado is equipped with state-of-the-art sources and a prismatic diffuser that can light environments in an effective way and minimise the level of glare as required by the most stringent international regulations.

3F Eldorado is a unique, customisable product capable of integrating seamlessly into different areas and furnishings in the workplace, being able to act on various aspects such as:

- colour temperature variable over time
- integration of spot fixtures
- diffused lighting with custom graphics
- emergency lighting
- aesthetic and functional finishes that provide added value to the product and the lighting and architectural design
- audio or sound-absorption functions

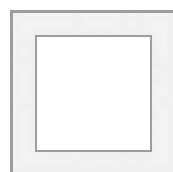
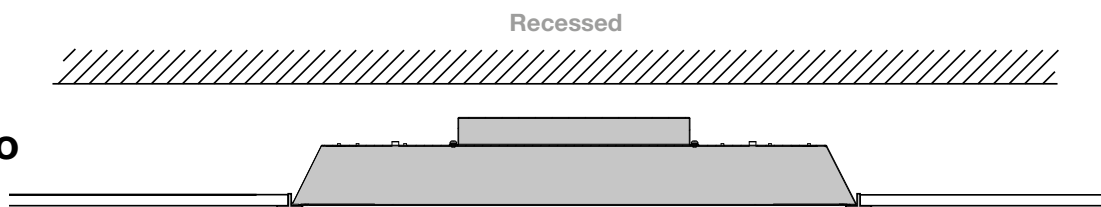
For further information we invite you to consult our website www.3F-Filippi.com

Page	Product	Recessed
168	3F Eldorado Frame	•
172	3F Eldorado Twin	•

Product range

3F Eldorado

Lay-in
installation



Model

Frame

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

<3000

Output flux (lm)

3000 | 4000

UGR

<19

CCT (K)

4000

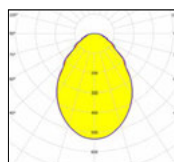
Protection class

IP40

Finishes

White

**Photometric
distribution**



Installation steps

Dt

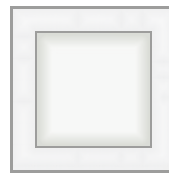
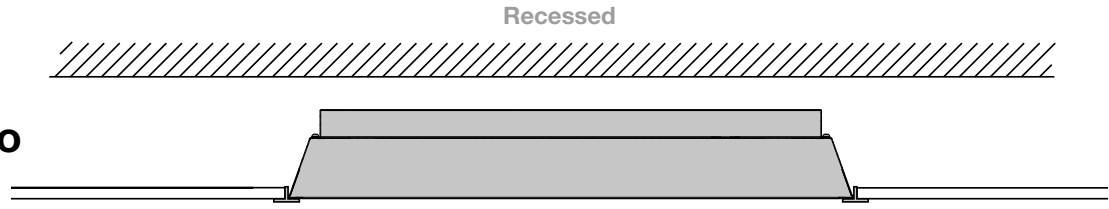
1,08

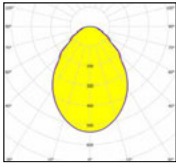
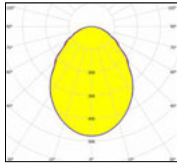
DI

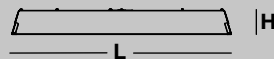
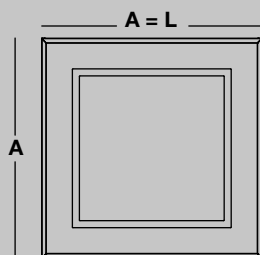
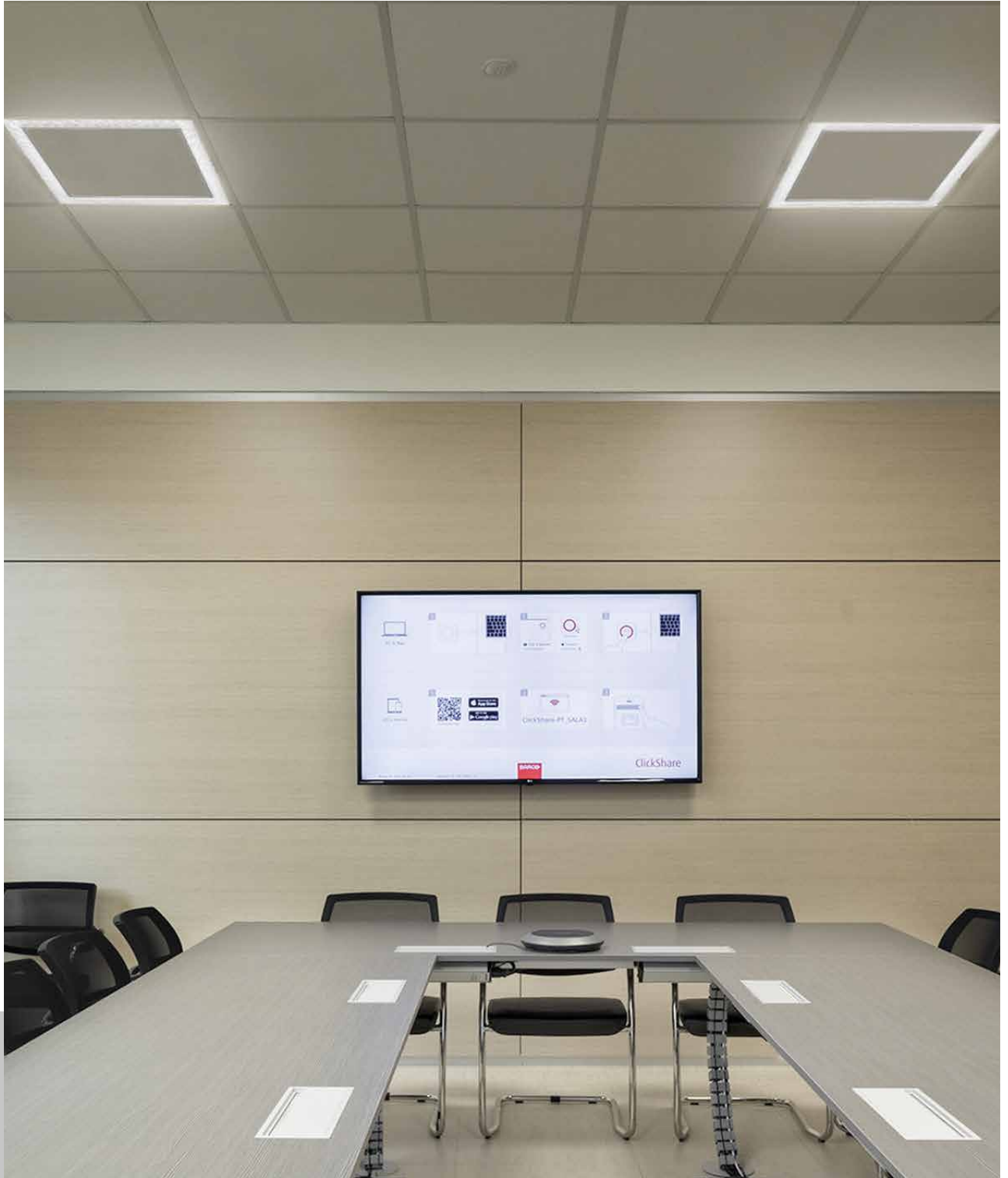
1,08

3F Eldorado

Pull-up
installation



Model	Twin (Frame)	Twin (Centre)	
Average luminance for angles > 65 (cd / m ²)	<3000	>3000	
Output flux (lm)	3000 4000	3000	
UGR	<19	<22	
CCT (K)	4000		
Protection class	IP40		
Finishes	White		
Photometric distribution			
Installation steps	Dt	1,08	1,20
	DI	1,08	1,20





3F Eldorado Frame

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester.
LGS micro-prismatic flat diffuser in transparent methacrylate (PMMA), multi-lenticular exterior, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.
Central part in hot-galvanised steel, painted in white polyester.
The 621x621 version is dedicated to false ceilings that have modular dimensions of 625x625.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

INSTALLATION

Lay-in installation.

APPLICATIONS

Any environment in which flexibility of lighting and customisation is required, capable of integrating perfectly into the areas and furnishings of different workspaces.
Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

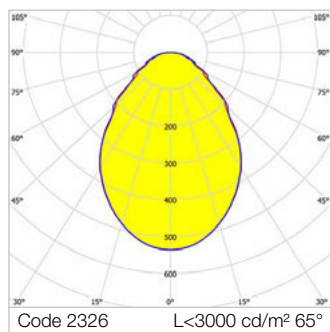
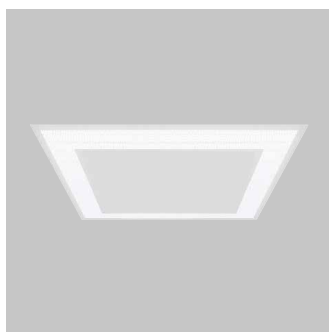
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- emergency versions
- different central screens and screen prints
- equippable central covers

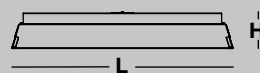
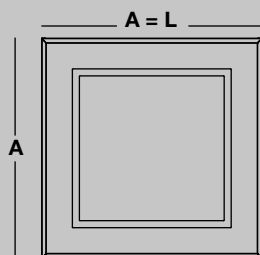
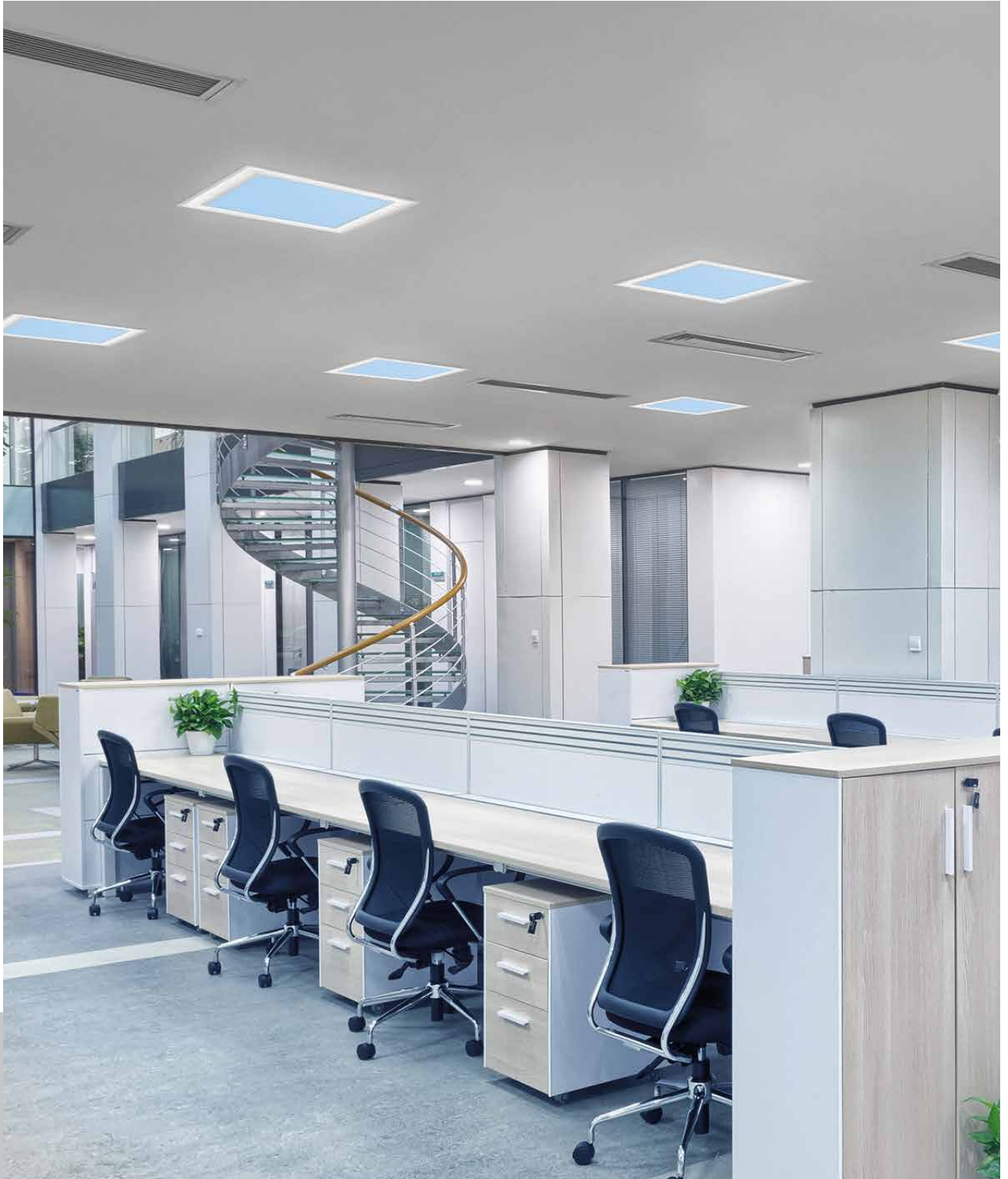
3F Eldorado Frame White LGS



DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
2326	3F Eldorado 29/840 DALI LGS 596	33	3251	4000	>80	596x596x65
2327	3F Eldorado 39/840 DALI LGS 596	45	4256	4000	>80	596x596x65
2328	3F Eldorado 29/840 DALI LGS 621	33	3251	4000	>80	621x621x65
2329	3F Eldorado 39/840 DALI LGS 621	45	4256	4000	>80	621x621x65







3F Eldorado Twin

ILLUMINOTECHNICAL

Symmetrical distribution controlled and diffused according to the type of use.

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

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

Photobiological safety RG0 (page 16).

SOURCE

Squared or linear LED modules.

Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

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

LGS micro-prismatic flat perimeter diffuser in transparent methacrylate (PMMA), multi-lenticular exterior, anti-glare.

Anti-glare opal polycarbonate filter for brightness uniformity.

OP flat screen in the central part in opal methacrylate (PMMA), anti-glare.

The 621x621 version is dedicated to false ceilings that have modular dimensions of 625x625.

ELECTRICAL

In compliance with EN 60598-1.

Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Twin-circuit.

INSTALLATION

Lay-in installation.

APPLICATIONS

Any environment in which flexibility of lighting and customisation is required, capable of integrating perfectly into the areas and furnishings of different workspaces.

Environments: with VDTs, meeting rooms, offices.

Environments: architectural, commercial, staterooms, banks.

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

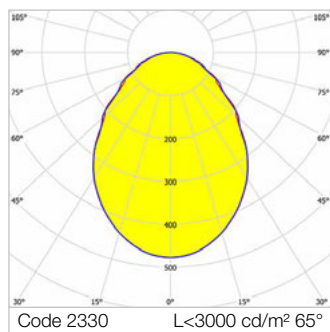
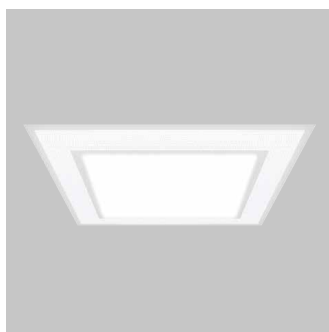
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- emergency versions
- different central screens and screen prints

3F Eldorado Twin White LGS + OP



Dual lighting functionality.

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
2330	3F Eldorado 29+30/840 DALI LGS+OP 596	67	5940	4000	>80	596x596x95
2331	3F Eldorado 39+30/840 DALI LGS+OP 596	78	6945	4000	>80	596x596x95
2332	3F Eldorado 29+30/840 DALI LGS+OP 621	67	5940	4000	>80	621x621x95
2333	3F Eldorado 39+30/840 DALI LGS+OP 621	78	6945	4000	>80	621x621x95

3F Eldorado | Accessories



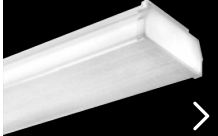











Code	Item
A0579	Safety wire with brackets

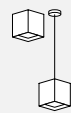
Anti-fall safety cable with pair of brackets for fixing the housing to the building structure. Length 2.5 m.

/ catalogue

_Surface luminaires and suspensions

/ 3F Filippi

<p>Zero 3F</p>  <p>Page 178</p>	<p></p> <p>Zero 3F</p> <p>Page 182</p>	<p></p> <p>Zero 3F Channel</p> <p>Page 188</p>	<p>Zero 3F Tunable White</p> <p>Page 194</p>	<p>3F C8</p>  <p>Page 198</p>	<p>3F C8 Direct</p> <p>Page 198</p>
<p>3F C8 Direct/Indirect</p> <p>Page 202</p>	<p>3F Travetta</p>  <p>Page 206</p>	<p>3F Travetta Direct</p> <p>Page 206</p>	<p>3F Travetta Direct/Indirect</p> <p>Page 210</p>	<p>3F Travetta Tunable White</p> <p>Page 214</p>	<p>3F Zeta</p>  <p>Page 222</p>
<p>3F Zeta L</p> <p>Page 222</p>	<p>3F Zeta D</p> <p>Page 228</p>	<p>3F Zeta DR</p> <p>Page 232</p>	<p></p> <p>3F Zeta DT</p> <p>Page 238</p>	<p>3F Diagon P</p>  <p>Page 244</p>	<p>3F Diagon P</p> <p>Page 244</p>
<p>3F Diagon P Tunable White</p> <p>Page 248</p>	<p>3F Petra</p>  <p>Page 252</p>	<p>3F Petra</p> <p>Page 252</p>	<p>3F Petra Sensor</p> <p>Page 256</p>	<p>3F Petra Suspended</p> <p>Page 260</p>	<p>P 200</p>  <p>Page 264</p>
<p>P 200</p> <p>Page 264</p>	<p>P 200 IP54</p> <p>Page 268</p>	<p>P 250</p>  <p>Page 272</p>	<p>P 250</p> <p>Page 272</p>	<p>P 250 Diffused Light</p> <p>Page 276</p>	<p>Mira</p>  <p>Page 280</p>
<p>Mira Wall</p> <p>Page 280</p>					





 **Classici**



 **Classici italiani del '900**





Zero 3F

> www.3F-Filippi.com/Zero 3F

In modern study and work spaces, the homogeneity of light is a fundamental element to reduce shadow areas and improve volume perception. Minimising the contrast between areas that are lit differently limits eye stress making the environment more comfortable. The new Zero 3F was designed specifically to cope with visual tasks efficiently in task-areas, thanks to an increase in the surrounding and background areas. Light is distributed widely even on the walls to limit the "cave effect" and to enhance the furnishings and information present on vertical surfaces.

This product is also available in this version Zero 3F Track (page 422).

+ Overview

- Luminous efficacy up to 140 lumen/watt.
- Luminous fluxes from 1897 to 6227 lumens.
- Average luminance <3000 cd/m².
- Extensive installation pitch.
- UGR <19.
- Uniformly illuminated screen.
- Asymmetrical version.
- Driver integrated in the fixture.
- Quick and easy cleaning.
- Luminous end caps.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Can be installed on the 3F Linux S electrified track.
- Versatility of use in different environments.
- Continuous Channel version.
- Tunable White version.

Page	Product	Ceiling	Suspended	Wall
182	UPDATE Zero 3F	•	•	•
188	UPDATE Zero 3F Channel	•	•	•
194	Zero 3F Tunable White	•	•	•

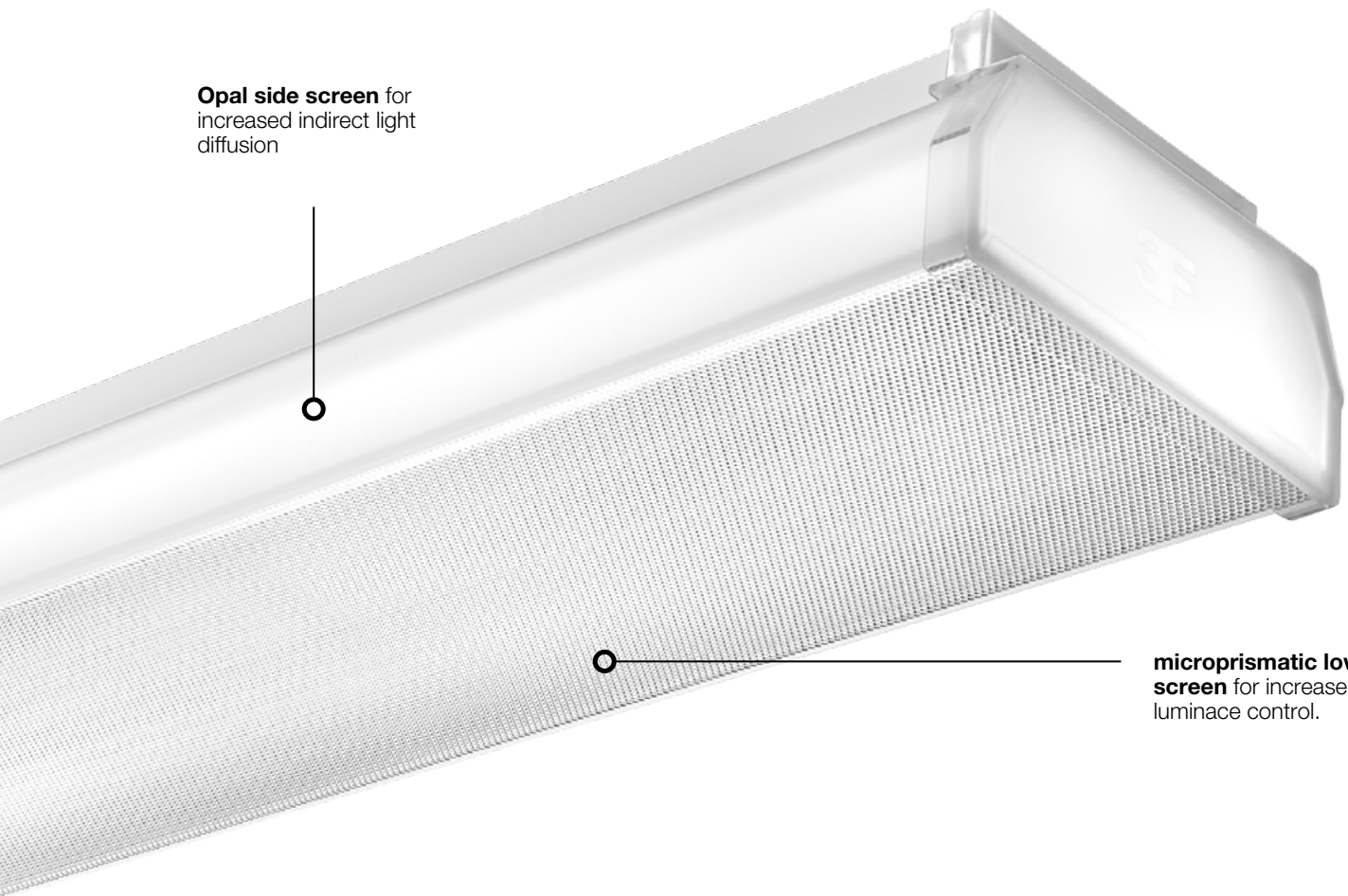
Zero 3F

QUALITY OF LIGHT

Zero 3F is the result of more than a decade of experience of 3F Filippi in school and work environments, where visual comfort and light diffusion are the basis of a lighting project. To obtain low luminance values we maximised the area of the emitting surface to obtain the best luminous intensity possible.

The result is a fixture with a micro prismatic lower surface to obtain the shielding required by regulations and an opal side area to softly diffuse light into the space and give a sensation of suspension to the fixture. It is a simple, clean design that integrates discreetly in all types of environment.

Opal side screen for increased indirect light diffusion



microprismatic lower screen for increased luminance control.



To obtain a perfect 360° light we created an end cap using the best mould technology available and using state-of-the-art LED sources that are not visible from any angle.

The diffusion and homogeneity obtained give a sense of incomparable luminance fullness to enhance any environment to the full whether it is a school classroom, an office or simply a corridor.



THE BENEFITS OF HOMOGENEOUSLY DIFFUSED LIGHT

As you can see from the simulations below increasing the luminosity of vertical surfaces is a significant element that improves the visibility of information like that contained in bookshelves. The indirect light component reduces visual contrast and makes the product seem to be suspended even

if it is installed on the ceiling, and the mix between this and the direct light rays generate a uniform light right up to the joins between the walls and the ceiling.



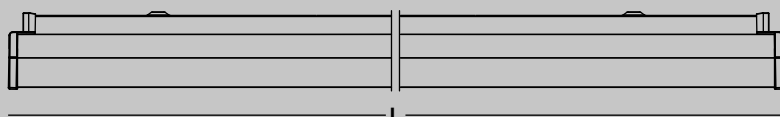
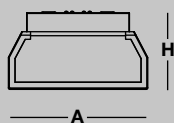
Standard fixture
Direct
photometric distribution



Zero 3F
Direct/indirect
photometric distribution

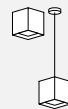
UPDATE

/ Surface luminaires and suspensions



IIS "Podesti - Calzecchi Onesti"
Chiaravalle (AN)
Italia/Italy





Zero 3F

ILLUMINOTECHNICAL

Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester.
Diffuser with differentiated geometry, made of transparent methacrylate (PMMA) with microprismatic finish, anti-glare on the flat part and opal on the side.
Anti-glare opal methacrylate (PMMA) filter for brightness uniformity.
Lighting end caps in methacrylate (PMMA) opal.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

INSTALLATION

Ceiling, suspension or wall installation.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).
Thanks to the full compatibility for dimensions and fixing distances, this product becomes the perfect solution for updating existing installations.

APPLICATIONS

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

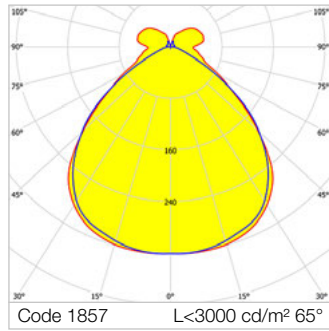
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- emergency versions

Zero 3F



Controlled symmetric distribution.
Average luminance $< 3000 \text{ cd/m}^2$ for radial angles $> 65^\circ$.

ON/OFF electronic wiring 230V-50/60Hz

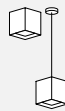
Code	Item	W	lm	K	CRI	L x A x H
1811 <small>NEW</small>	03F 14W/830 L620	16	1933	3000	>80	620x119x64
1812 <small>NEW</small>	03F 28W/830 L1204	31	3868	3000	>80	1204x119x64
1813 <small>NEW</small>	03F 35W/830 L1506	40	5251	3000	>80	1506x119x64
1814 <small>NEW</small>	03F 42W/830 L1787	46	5800	3000	>80	1787x119x64
1855	03F 14W/840 L620	16	2014	4000	>80	620x119x64
1856	03F 28W/840 L1204	31	4029	4000	>80	1204x119x64
1857	03F 35W/840 L1506	40	5469	4000	>80	1506x119x64
1858	03F 42W/840 L1787	46	6042	4000	>80	1787x119x64
1859	03F 18W/940 L620	20	1983	4000	>90	620x119x64
1860	03F 35W/940 L1204	42	4152	4000	>90	1204x119x64
1861	03F 44W/940 L1506	50	5190	4000	>90	1506x119x64
1862	03F 53W/940 L1787	58	6227	4000	>90	1787x119x64

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1815 <small>NEW</small>	03F 14W/830 DALI L620	16	1933	3000	>80	620x119x64
1816 <small>NEW</small>	03F 28W/830 DALI L1204	31	3868	3000	>80	1204x119x64
1817 <small>NEW</small>	03F 35W/830 DALI L1506	40	5251	3000	>80	1506x119x64
1818 <small>NEW</small>	03F 42W/830 DALI L1787	46	5800	3000	>80	1787x119x64
1863	03F 14W/840 DALI L620	16	2014	4000	>80	620x119x64
1867	03F 18W/940 DALI L620	20	1983	4000	>90	620x119x64
1868	03F 35W/940 DALI L1204	40	4152	4000	>90	1204x119x64
1869	03F 44W/940 DALI L1506	49	5190	4000	>90	1506x119x64
1870	03F 53W/940 DALI L1787	57	6227	4000	>90	1787x119x64

DALI-2 DATI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1864	03F 28W/840 DALI L1204	31	4029	4000	>80	1204x119x64
1865	03F 35W/840 DALI L1506	39	5469	4000	>80	1506x119x64
1866	03F 42W/840 DALI L1787	46	6042	4000	>80	1787x119x64



EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
1819 ^{NEW}	03F 28W/830 EP L1204	32	3868	3000	>80	1204x119x64
1820 ^{NEW}	03F 35W/830 EP L1506	40	5251	3000	>80	1506x119x64
1821 ^{NEW}	03F 42W/830 EP L1787	47	5800	3000	>80	1787x119x64
1871	03F 28W/840 EP L1204	32	4029	4000	>80	1204x119x64
1872	03F 35W/840 EP L1506	41	5469	4000	>80	1506x119x64
1873	03F 42W/840 EP L1787	47	6042	4000	>80	1787x119x64
1874	03F 35W/940 EP L1204	43	4152	4000	>90	1204x119x64
1875	03F 44W/940 EP L1506	51	5190	4000	>90	1506x119x64
1876	03F 53W/940 EP L1787	59	6227	4000	>90	1787x119x64

DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
1822 ^{NEW}	03F 28W/830 DALI EP L1204	32	3868	3000	>80	1204x119x64
1823 ^{NEW}	03F 35W/830 DALI EP L1506	40	5251	3000	>80	1506x119x64
1824 ^{NEW}	03F 42W/830 DALI EP L1787	47	5800	3000	>80	1787x119x64
1877	03F 28W/840 DALI EP L1204	32	4029	4000	>80	1204x119x64
1878	03F 35W/840 DALI EP L1506	40	5469	4000	>80	1506x119x64
1879	03F 42W/840 DALI EP L1787	47	6042	4000	>80	1787x119x64
1880	03F 35W/940 DALI EP L1204	41	4152	4000	>90	1204x119x64
1881	03F 44W/940 DALI EP L1506	50	5190	4000	>90	1506x119x64
1882	03F 53W/940 DALI EP L1787	58	6227	4000	>90	1787x119x64

Zero 3F AS



650°C

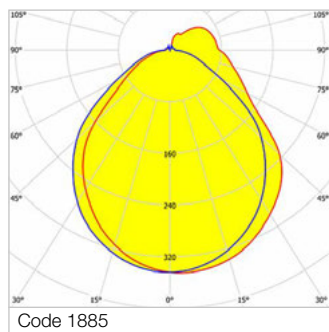
IP40

1J

IK06

Driver/LED
SELV

HACCP



Asymmetric distribution.
Internal recuperator in white painted steel.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1825 ^{NEW}	03F 14W/830 AS L620	16	1933	3000	>80	620x119x64
1826 ^{NEW}	03F 28W/830 AS L1204	31	3868	3000	>80	1204x119x64
1827 ^{NEW}	03F 35W/830 AS L1506	40	5251	3000	>80	1506x119x64
1828 ^{NEW}	03F 42W/830 AS L1787	46	5800	3000	>80	1787x119x64
1883	03F 14W/840 AS L620	16	1927	4000	>80	620x119x64
1884	03F 28W/840 AS L1204	31	3854	4000	>80	1204x119x64
1885	03F 35W/840 AS L1506	40	5232	4000	>80	1506x119x64
1886	03F 42W/840 AS L1787	46	5780	4000	>80	1787x119x64
1887	03F 18W/940 AS L620	20	1897	4000	>90	620x119x64
1888	03F 35W/940 AS L1204	42	3971	4000	>90	1204x119x64
1889	03F 44W/940 AS L1506	50	4965	4000	>90	1506x119x64
1890	03F 53W/940 AS L1787	58	5957	4000	>90	1787x119x64

Zero 3F HO



650°C

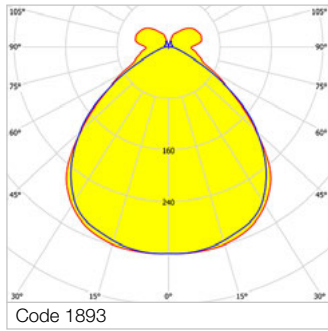
IP40

1J

IK06

Driver/LED
SELV

HACCP



Controlled symmetric distribution.

ON/OFF electronic wiring 230V-50/60Hz

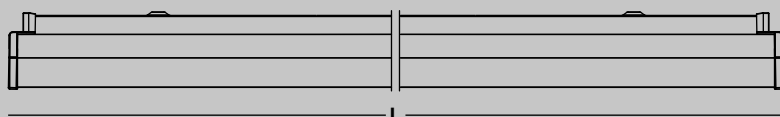
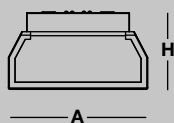
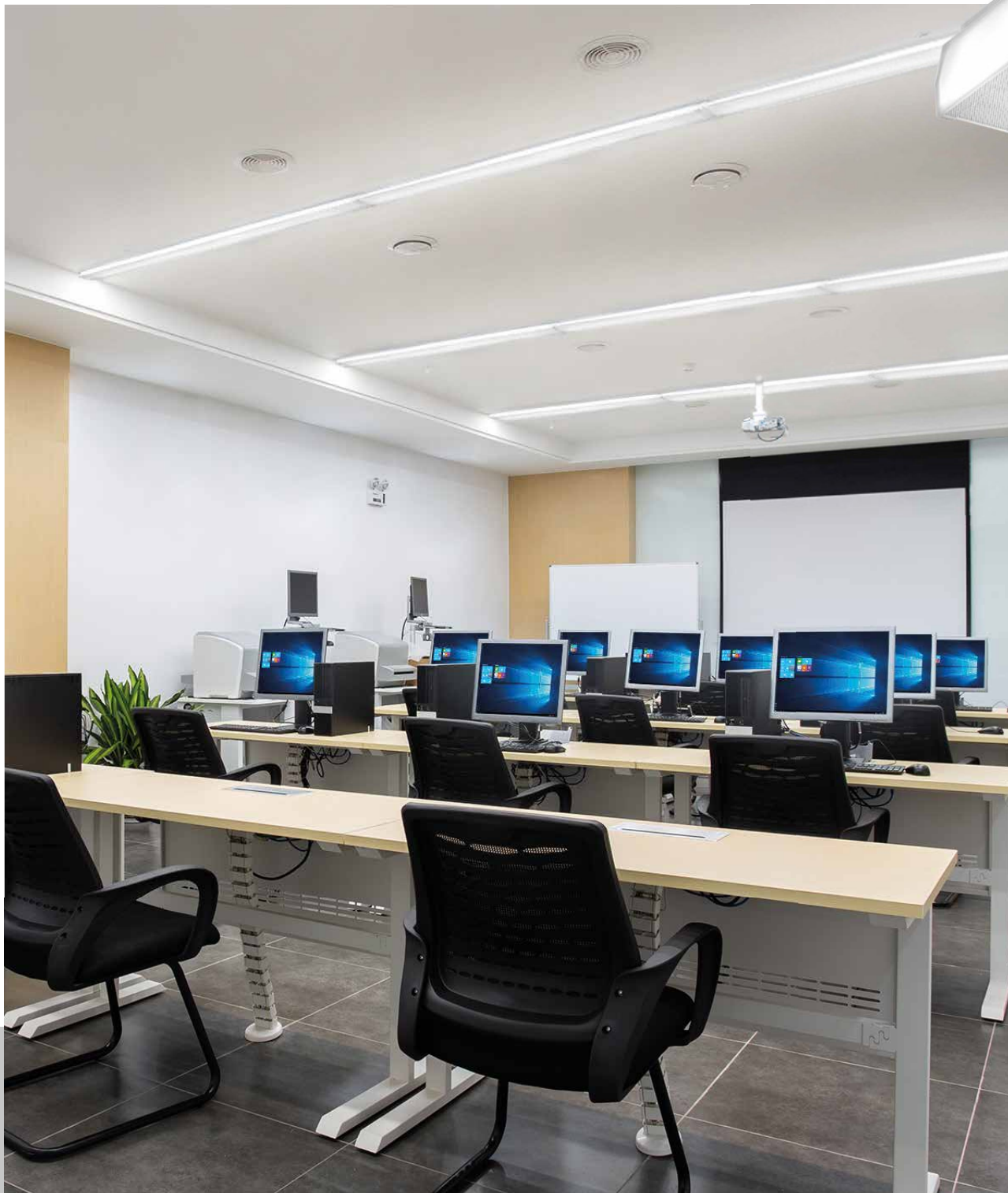
Code	Item	W	lm	K	CRI	L x A x H
1829 ^{NEW}	03F HO 18W/830 L620	20	2322	3000	>80	620x119x64
1830 ^{NEW}	03F HO 35W/830 L1204	40	4860	3000	>80	1204x119x64
1831 ^{NEW}	03F HO 44W/830 L1506	49	6076	3000	>80	1506x119x64
1832 ^{NEW}	03F HO 53W/830 L1787	57	7290	3000	>80	1787x119x64
1891	03F HO 18W/840 L620	20	2418	4000	>80	620x119x64
1892	03F HO 35W/840 L1204	40	5063	4000	>80	1204x119x64
1893	03F HO 44W/840 L1506	49	6329	4000	>80	1506x119x64
1894	03F HO 53W/840 L1787	57	7593	4000	>80	1787x119x64

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1833 ^{NEW}	03F HO 18W/830 DALI L620	20	2322	3000	>80	620x119x64
1834 ^{NEW}	03F HO 35W/830 DALI L1204	40	4860	3000	>80	1204x119x64
1835 ^{NEW}	03F HO 44W/830 DALI L1506	49	6076	3000	>80	1506x119x64
1836 ^{NEW}	03F HO 53W/830 DALI L1787	57	7290	3000	>80	1787x119x64
1895	03F HO 18W/840 DALI L620	20	2418	4000	>80	620x119x64
1896	03F HO 35W/840 DALI L1204	40	5063	4000	>80	1204x119x64
1897	03F HO 44W/840 DALI L1506	49	6329	4000	>80	1506x119x64
1898	03F HO 53W/840 DALI L1787	57	7593	4000	>80	1787x119x64

UPDATE

/ Surface luminaires and suspensions





Zero 3F Channel

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester.
Diffuser with differentiated geometry, made of transparent methacrylate (PMMA) with microprismatic finish, anti-glare on the flat part and opal on the side.
Anti-glare opal methacrylate (PMMA) filter for brightness uniformity.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Entrance to the upper power supply in proximity to a power head.
5 mm² section 1.5 pin through line with an irreversible quick coupling plug/ socket fixed on the body for rapid electrical connection.

INSTALLATION

Continuous light channel installation on ceiling or suspension.

APPLICATIONS

Environments: with VDTs, meeting rooms, offices.
Environments: recreational, transit areas, corridors, schools, stairwells.
Environments where soft diffuse light is required for optimal visual comfort.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

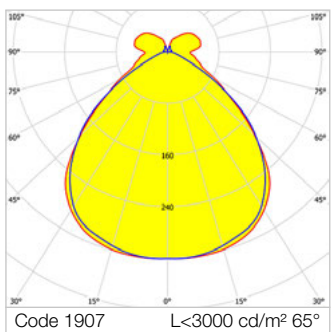
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- emergency versions

Zero 3F Starting channel



Opal methacrylate (PMMA) luminous end cap.
Hot-dip galvanised steel connecting element in white.
White polycarbonate union collar.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1775 ^{NEW}	03F 28W/840 3P SC L1204	31	4029	4000	>80	1204x119x64
1776 ^{NEW}	03F 35W/840 3P SC L1506	40	5469	4000	>80	1506x119x64
1777 ^{NEW}	03F 42W/840 3P SC L1787	46	6042	4000	>80	1787x119x64
1778 ^{NEW}	03F 28W/830 3P SC L1204	31	3868	3000	>80	1204x119x64
1779 ^{NEW}	03F 35W/830 3P SC L1506	40	5251	3000	>80	1506x119x64
1780 ^{NEW}	03F 42W/830 3P SC L1787	46	5800	3000	>80	1787x119x64

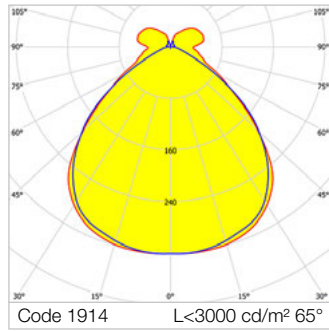
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1837 ^{NEW}	03F 28W/830 DALI 5P SC L1204	31	3868	3000	>80	1204x119x64
1838 ^{NEW}	03F 35W/830 DALI 5P SC L1506	40	5251	3000	>80	1506x119x64
1839 ^{NEW}	03F 42W/830 DALI 5P SC L1787	46	5800	3000	>80	1787x119x64

DALI-2 DATI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1905	03F 28W/840 DALI 5P SC L1204	31	4029	4000	>80	1204x119x64
1906	03F 35W/840 DALI 5P SC L1506	39	5469	4000	>80	1506x119x64
1907	03F 42W/840 DALI 5P SC L1787	46	6042	4000	>80	1787x119x64

Zero 3F Central channel



Hot-dip galvanised steel connecting element in white.
White polycarbonate union collar.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1781 ^{NEW}	03F 28W/840 3P CC L1204	31	4029	4000	>80	1204x119x64
1782 ^{NEW}	03F 35W/840 3P CC L1506	40	5469	4000	>80	1506x119x64
1783 ^{NEW}	03F 42W/840 3P CC L1787	46	6042	4000	>80	1787x119x64
1784 ^{NEW}	03F 28W/830 3P CC L1204	31	3868	3000	>80	1204x119x64
1785 ^{NEW}	03F 35W/830 3P CC L1506	40	5251	3000	>80	1506x119x64
1786 ^{NEW}	03F 42W/830 3P CC L1787	46	5800	3000	>80	1787x119x64

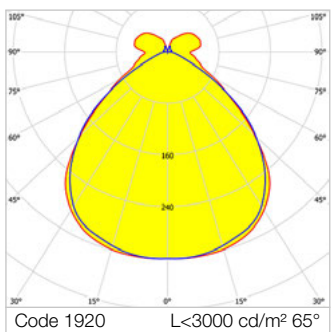
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1840 ^{NEW}	03F 28W/830 DALI 5P CC L1204	31	3868	3000	>80	1204x119x64
1841 ^{NEW}	03F 35W/830 DALI 5P CC L1506	40	5251	3000	>80	1506x119x64
1842 ^{NEW}	03F 42W/830 DALI 5P CC L1787	46	5800	3000	>80	1787x119x64

DALI-2 DATI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1912	03F 28W/840 DALI 5P CC L1204	31	4029	4000	>80	1204x119x64
1913	03F 35W/840 DALI 5P CC L1506	39	5469	4000	>80	1506x119x64
1914	03F 42W/840 DALI 5P CC L1787	46	6042	4000	>80	1787x119x64

Zero 3F End channel



Opal methacrylate (PMMA) luminous end cap.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1787 ^{NEW}	03F 28W/840 3P EC L1204	31	4029	4000	>80	1204x119x64
1788 ^{NEW}	03F 35W/840 3P EC L1506	40	5469	4000	>80	1506x119x64
1789 ^{NEW}	03F 42W/840 3P EC L1787	46	6042	4000	>80	1787x119x64
1790 ^{NEW}	03F 28W/830 3P EC L1204	31	3868	3000	>80	1204x119x64
1791 ^{NEW}	03F 35W/830 3P EC L1506	40	5251	3000	>80	1506x119x64
1792 ^{NEW}	03F 42W/830 3P EC L1787	46	5800	3000	>80	1787x119x64

DALI electronic wiring 230V-50/60Hz

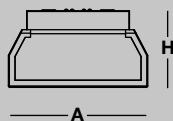
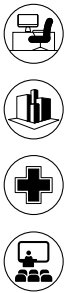
Code	Item	W	lm	K	CRI	L x A x H
1843 ^{NEW}	03F 28W/830 DALI 5P EC L1204	31	3868	3000	>80	1204x119x64
1844 ^{NEW}	03F 35W/830 DALI 5P EC L1506	40	5251	3000	>80	1506x119x64
1845 ^{NEW}	03F 42W/830 DALI 5P EC L1787	46	5800	3000	>80	1787x119x64

DALI-2 DATI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1918	03F 28W/840 DALI 5P EC L1204	31	4029	4000	>80	1204x119x64
1919	03F 35W/840 DALI 5P EC L1506	39	5469	4000	>80	1506x119x64
1920	03F 42W/840 DALI 5P EC L1787	46	6042	4000	>80	1787x119x64

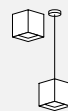


/ Surface luminaires and suspensions



IIS "Podesti - Calzecchi Onesti"
Chiaravalle (AN)
Italia/Italy





Zero 3F Tunable White

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
The colour temperature can be adjusted between 2700 K and 6500 K.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester.
Diffuser with differentiated geometry, made of transparent methacrylate (PMMA) with microprismatic finish, anti-glare on the flat part and opal on the side.
Anti-glare opal methacrylate (PMMA) filter for brightness uniformity.
Lighting end caps in methacrylate (PMMA) opal.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Cable with a DALI DT8 driver.
5-pole terminal block (L-N-PE-DA/DA) for line connection with connection capacity 2x2.5 mm² per poles.

INSTALLATION

Ceiling, suspension or wall installation.
Thanks to the full compatibility for dimensions and fixing distances, this product becomes the perfect solution for updating existing installations.

APPLICATIONS

Any environments requiring light which aims for the wellness of people.
Environments: with VDTs, meeting rooms, offices.
Environments: recreational, transit areas, corridors, schools, stairwells.
Environments where soft diffuse light is required for optimal visual comfort.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

LIGHT MANAGEMENT

Tunable White products can be controlled with wired control systems (page 742) or 3F & Casambi (page 746).

ON REQUEST

- different power levels or colour rendering indices
- emergency versions

Zero 3F Tunable White



650°C

IP40

1J

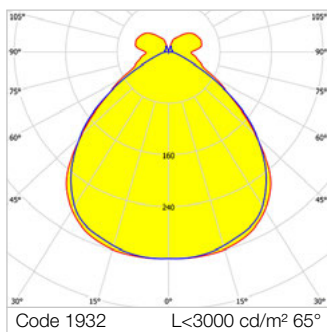
IK06



TW

Driver/LED
SELV

HACCP



Variable light intensity and colour temperature.

DALI DT8 electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1930	03F 28W DT8 TW L1204	35 34 33	4115	2700 4000 6500	>80	1204x119x64
1931	03F 35W DT8 TW L1506	43 41.5 40	5144	2700 4000 6500	>80	1506x119x64
1932	03F 42W DT8 TW L1787	50 49 47	6172	2700 4000 6500	>80	1787x119x64

Zero 3F | Accessories



Code	Item
A0052	Wall-mounting brack

Wall-mounting bracket, in white painted steel.



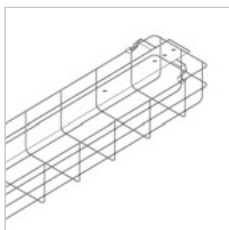
Code	Item
A0660	Suspension with adjustment - 1 m
A0661	Suspension with adjustment - 2 m
A0662	Suspension with adjustment - 3 m
A0663	Suspension with adjustment - 4 m
A0664	Suspension with adjustment - 5 m
A0665	Suspension with adjustment - 6 m

Suspension with regulator, galvanised steel cable 1.5 mm diameter, load 15 kg.
Attention: each product requires two suspensions with regulator.



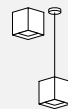
Code	Item
A0679	5 pole rectangular rose (no cable) WH

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

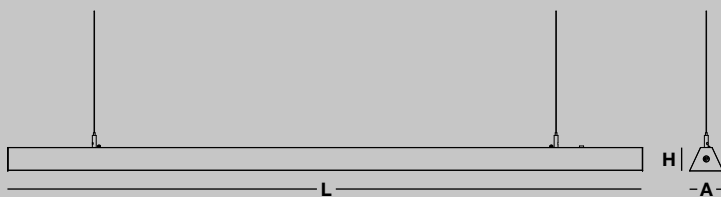


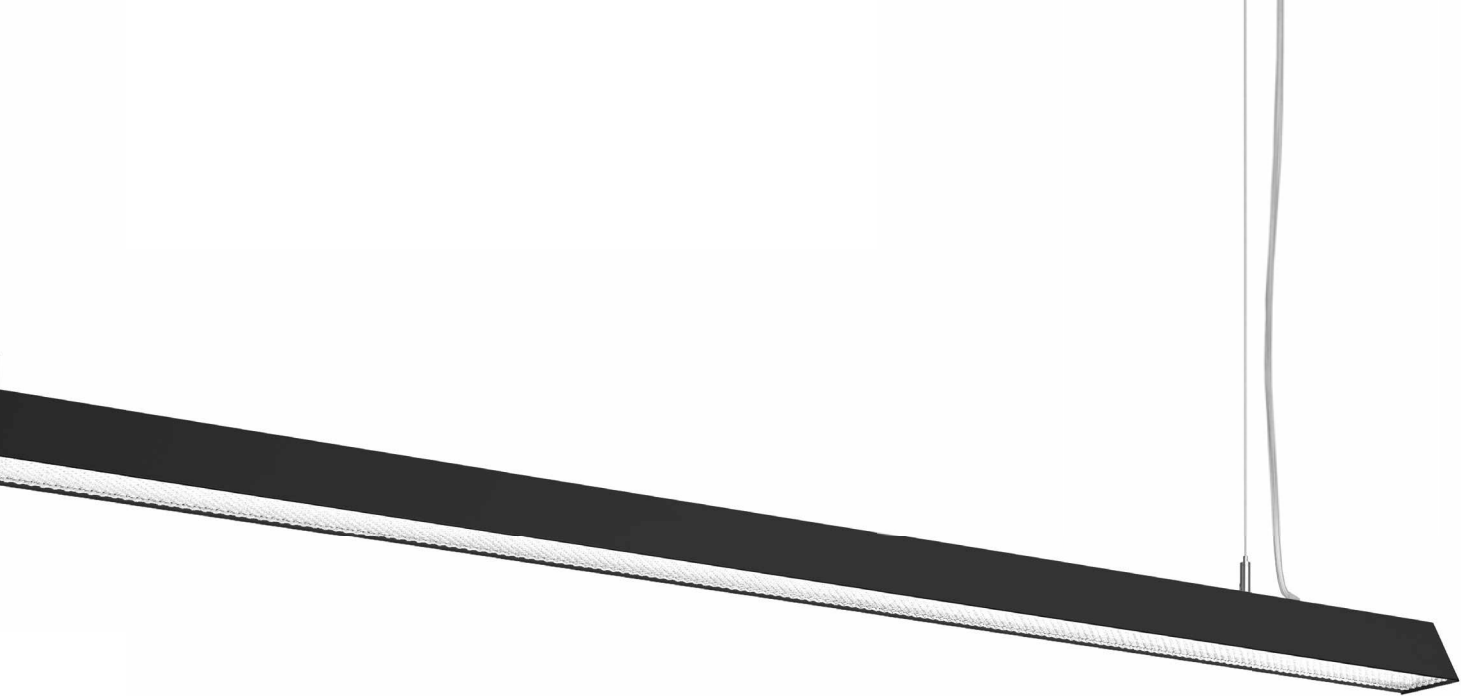
Code	Item
A0455	Wireguard 180x1330 3F Linda
A0456	Wireguard 180x1630 3F Linda

Wire-guard for applications in dry environments, against shocks coming from any directions, galvanised steel rod \varnothing 5 mm.
Only for luminaires fixed without hooks.



/ Surface luminaires and suspensions





3F C8 Direct

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Extruded aluminium body, zamak heads.
SP flat diffuser in transparent methacrylate (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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Transparent 5-pole power cable with white ceiling power supply case.

INSTALLATION

Suspension installation.

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.

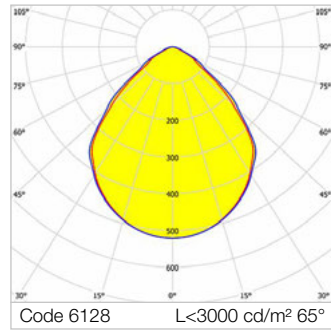
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- power and suspension cables of >2 m long
- different dimensions
- housing in different RAL colours
- emergency versions

3F C8 GSP

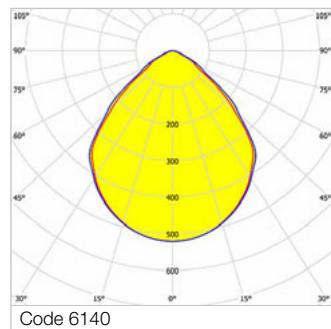
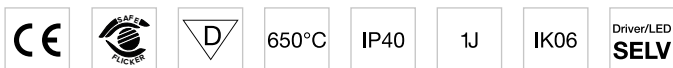


Average luminance <math>< 3000 \text{ cd/m}^2</math> for angles >65°.

DALI electronic wiring 230V-50/60Hz

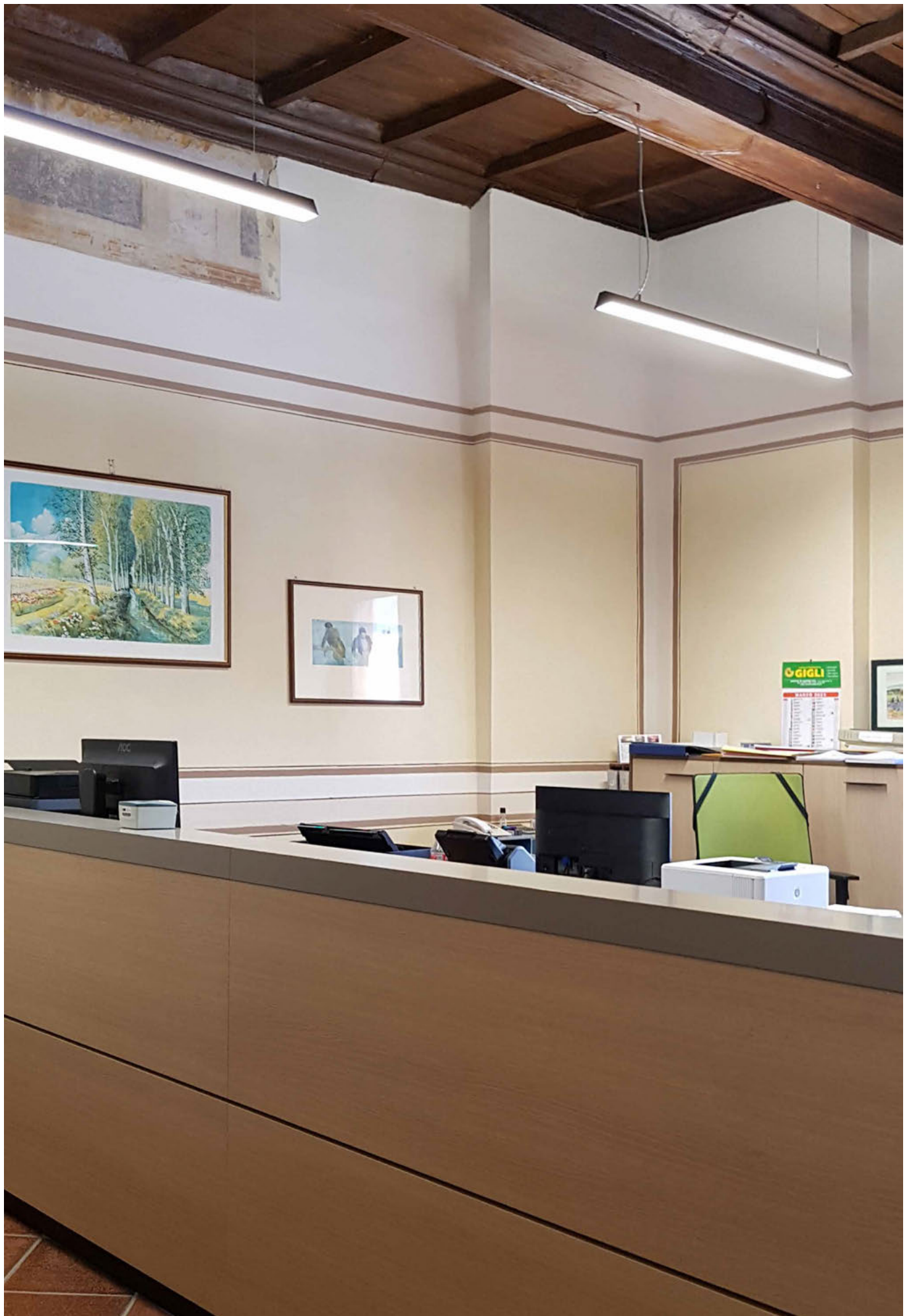
Code	Item	W	lm	K	CRI	L x A x H
○ 6128	3F C8 WH 30/840 DALI GSP L1480	35	2880	4000	>80	1480x77x54
● 6136	3F C8 BK 30/840 DALI GSP L1480	35	2880	4000	>80	1480x77x54

3F C8 HO GSP

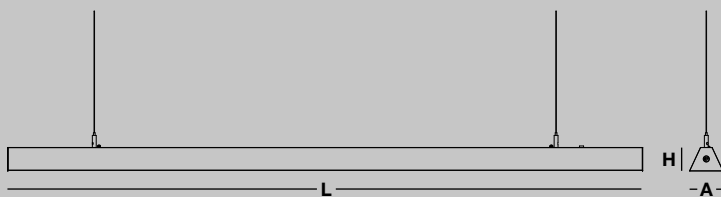
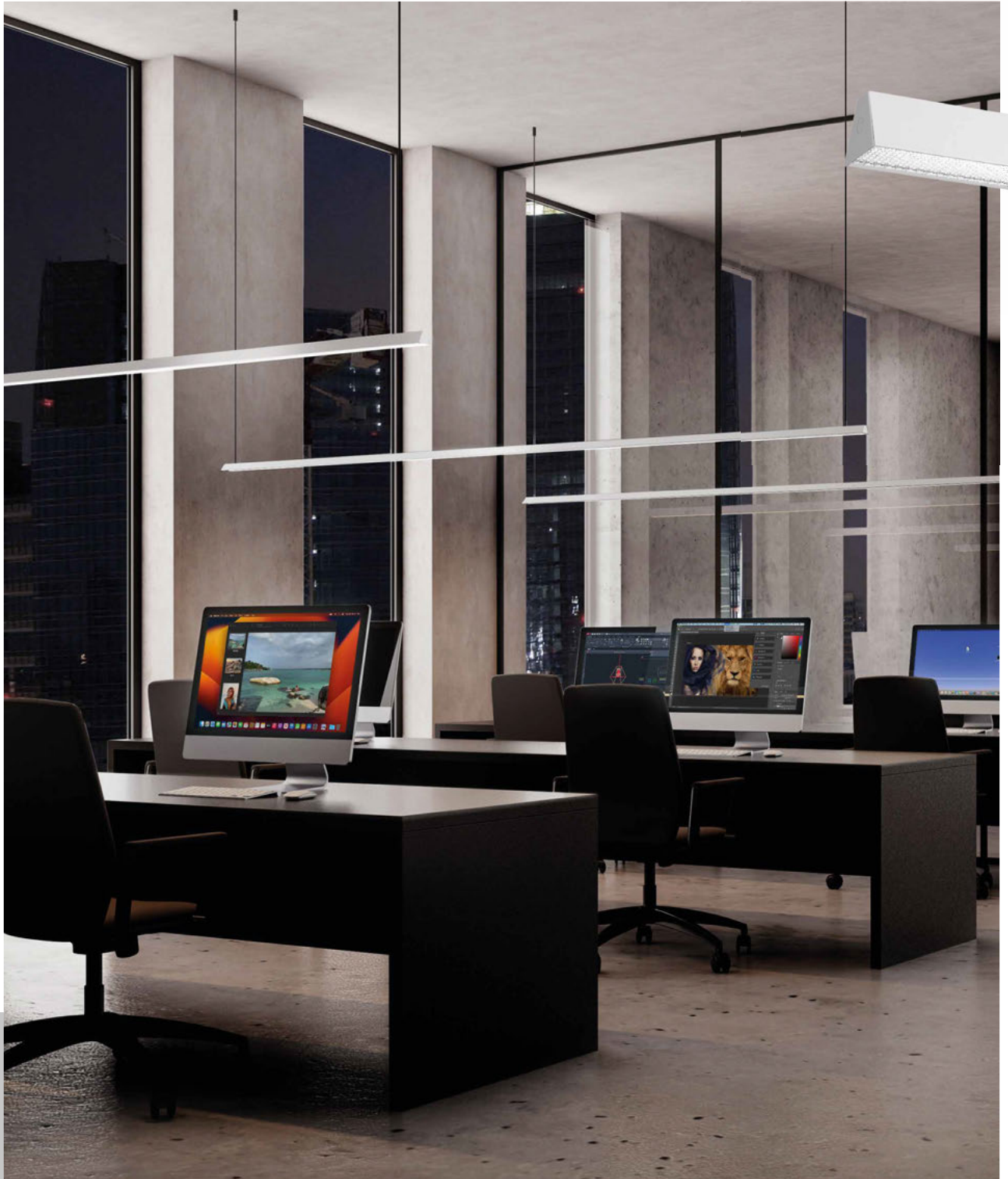


DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6140	3F C8 WH HO 44/840 DALI GSP L1480	51	3912	4000	>80	1480x77x54
● 6148	3F C8 BK HO 44/840 DALI GSP L1480	51	3912	4000	>80	1480x77x54



/ Surface luminaires and suspensions





3F C8 Direct/Indirect

ILLUMINOTECHNICAL

Symmetric direct-indirect distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Extruded aluminium body, zamak heads.
SP flat diffuser in transparent methacrylate (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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
5-pole transparent power cable with white power supply case for ceiling, single 230V circuit, 2 DALI addresses.

INSTALLATION

Suspension installation.

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.

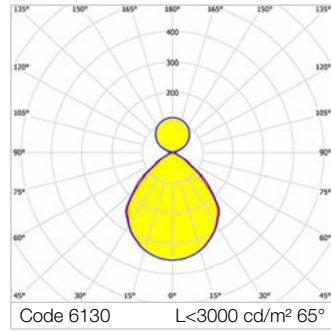
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- power and suspension cables of >2 m long
- twin-circuit
- different dimensions
- housing in different RAL colours
- emergency versions

3F C8 DI GSP

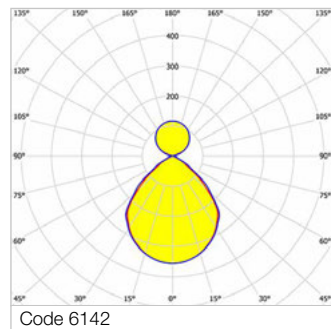


Average luminance < 3000 cd/m² for angles > 65°.

DALI electronic wiring 230V-50/60Hz

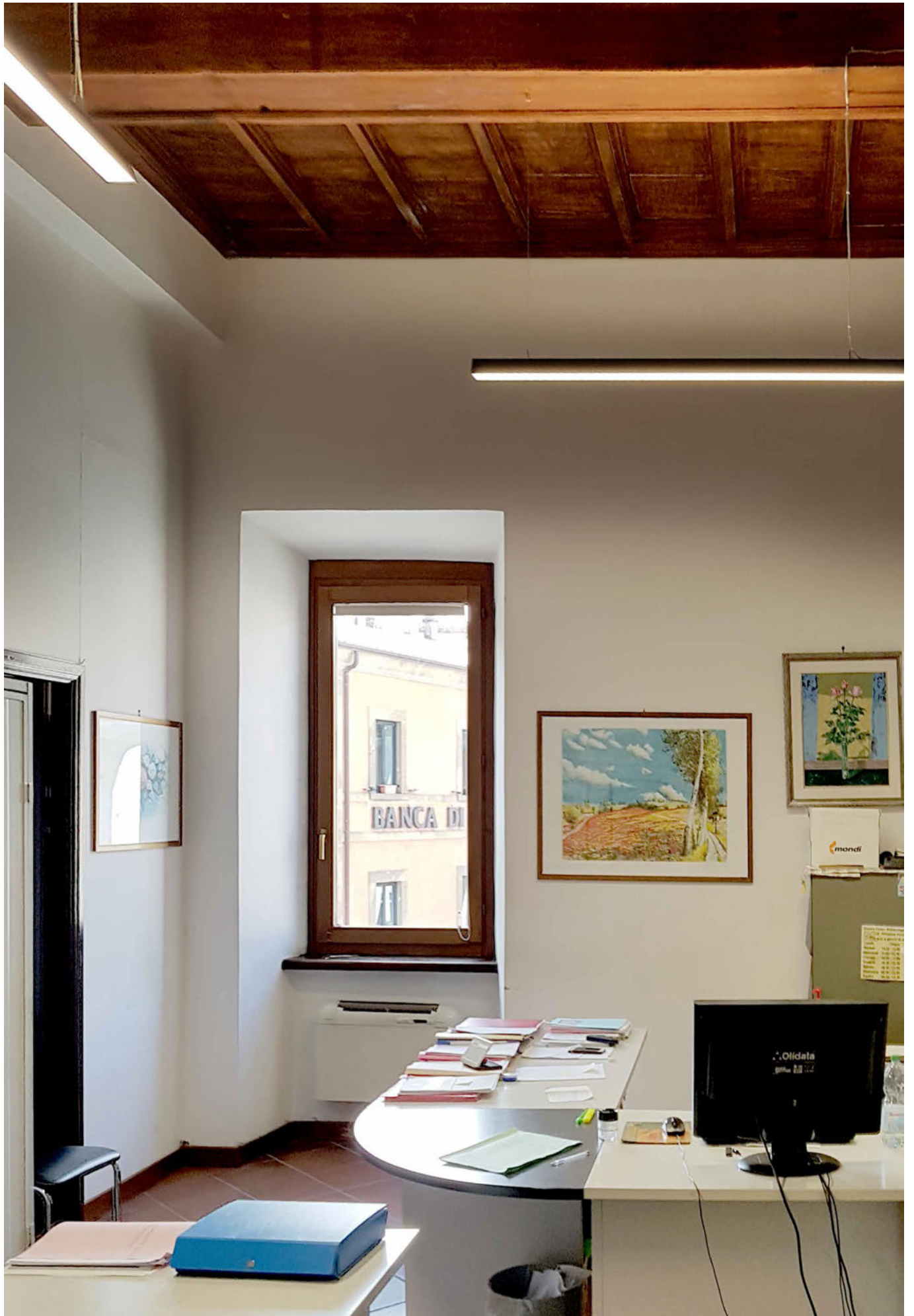
Code	Item	W	lm	K	CRI	L x A x H
○ 6130	3F C8 WH DI 30+8/840 DALI GSP L1480	45	4147	4000	>80	1480x77x54
● 6138	3F C8 BK DI 30+8/840 DALI GSP L1480	45	4147	4000	>80	1480x77x54

3F C8 DI HO GSP

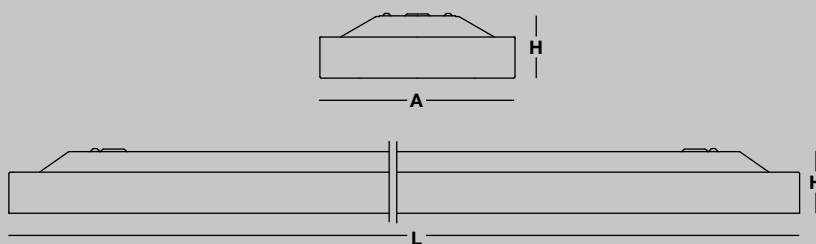
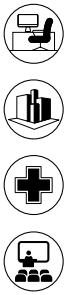
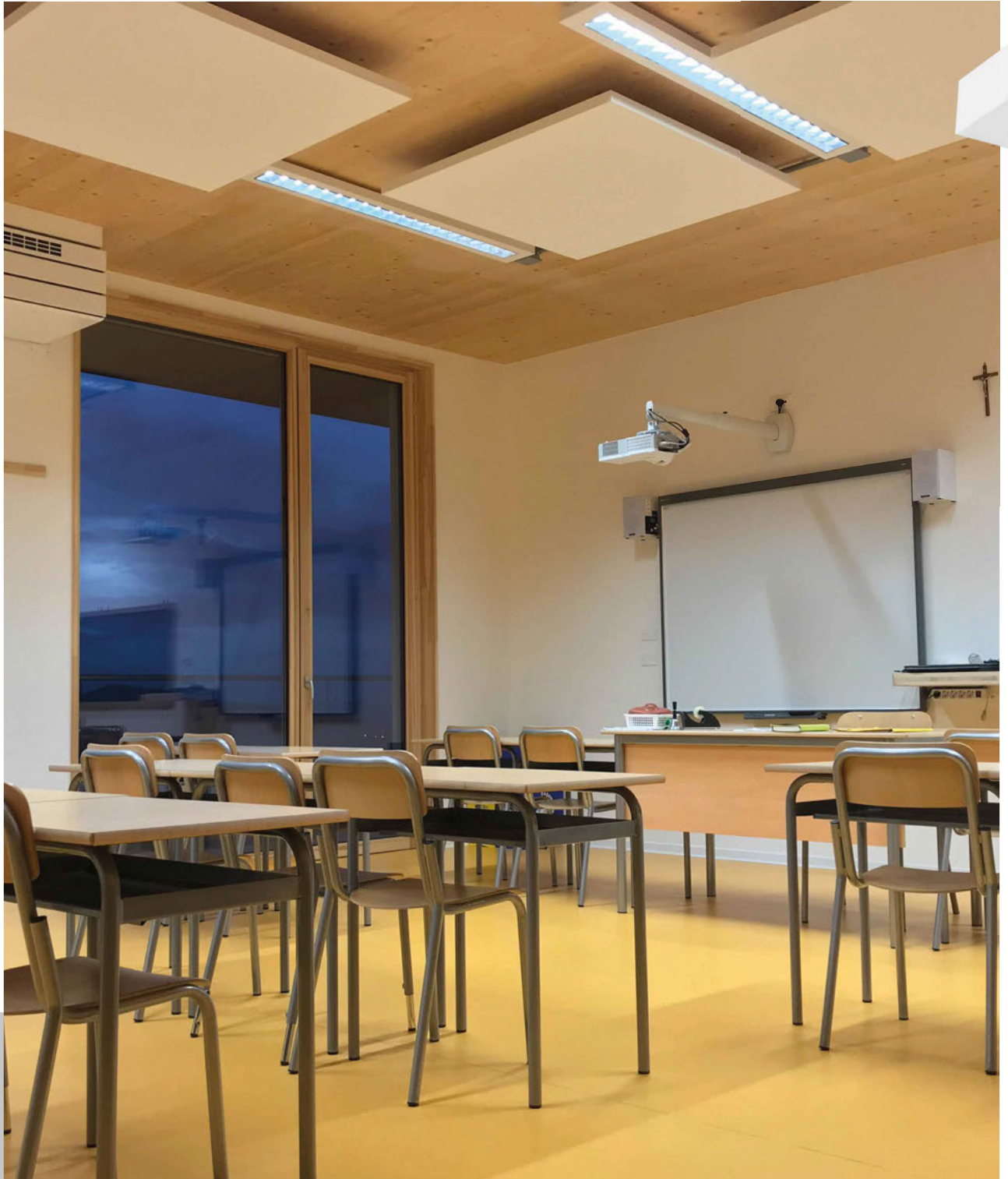


DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
○ 6142	3F C8 WH DI HO 44+8/840 DALI GSP L1480	62	5179	4000	>80	1480x77x54
● 6150	3F C8 BK DI HO 44+8/840 DALI GSP L1480	62	5179	4000	>80	1480x77x54

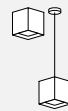


/ Surface luminaires and suspensions



Scuola primaria "R. Mazzetti"
Loiano (BO)
Italia/Italy





3F Travetta Direct

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Terminal block for cascade line connection with connection capacity 2x2.5 mm².

INSTALLATION

Ceiling mounted or suspension installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

APPLICATIONS

Environments: exhibition areas, staterooms, with VDTs, halls, shops, great halls, offices.
Environments where soft diffuse light is required for optimal visual comfort.

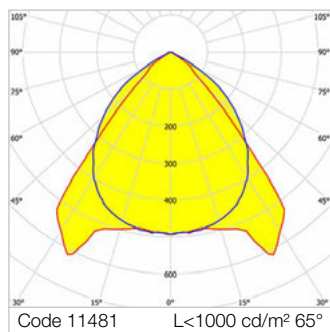
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- different dimensions
- housing and accessories in different RAL colours
- wiring: CLO (page 752)
- emergency versions

3F Travetta 2MG

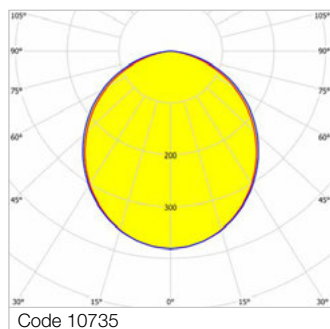
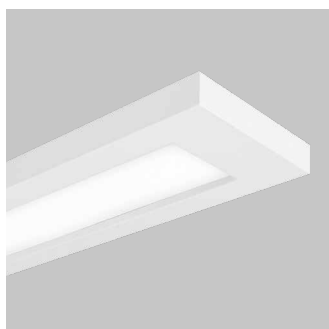


Average luminance <math><1000\text{ cd/m}^2</math> for radial angles >65°. 2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top. Prismatic methacrylate (PMMA) diffuser for total shielding of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

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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
11515	3F Travetta LED 1x30W/940 DALI 2MG L1590	34	3264	4000	>90	1590x190x60
11516	3F Travetta LED 2x22W/940 DALI 2MG L1590	49	5114	4000	>90	1590x190x60

3F Travetta OP



OP opal methacrylate (PMMA) flat diffuser, anti-glare. Flow recuperator in semi-specular aluminium, high efficiency.

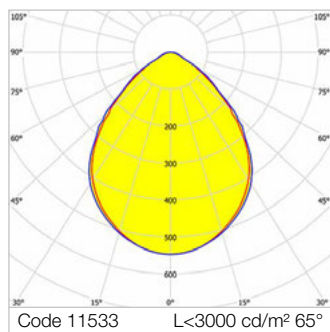
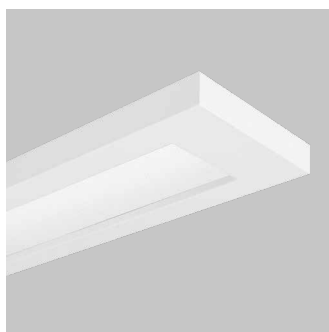
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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	45	4887	4000	>80	2200x190x60
10735	3F Travetta LED 2x22W OP L1590	49	5683	4000	>80	1590x190x60
10777	3F Travetta LED 2x40W OP L2200	90	9511	4000	>80	2200x190x60

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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	45	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	90	9511	4000	>80	2200x190x60

3F Travetta LGS



Average luminance < 3000 cd/m² for radial angles > 65°.
 Flow recuperator in semi-specular aluminium, high efficiency.
 LGS micro-prismatic flat diffuser in transparent methacrylate (PMMA), multi-lenticular exterior, anti-glare.
 Anti-glare opal polycarbonate filter for brightness uniformity.

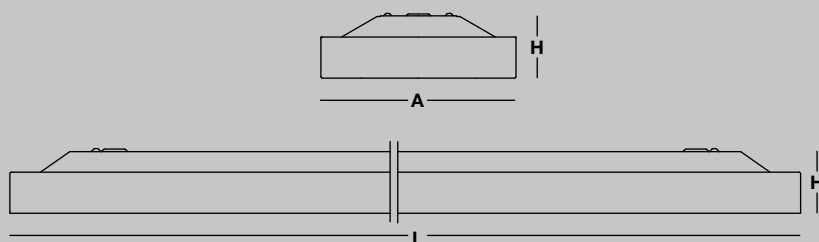
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
11528	3F Travetta LED 1x24W LGS L1290	27	3022	4000	>80	1290x190x60
11530	3F Travetta LED 1x30W LGS L1590	34	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
11566	3F Travetta LED 1x24W/940 LGS L1290	27	2478	4000	>90	1290x190x60
11567	3F Travetta LED 1x30W/940 LGS L1590	34	3102	4000	>90	1590x190x60
11568	3F Travetta LED 2x18W/940 LGS L1290	40	3846	4000	>90	1290x190x60
11569	3F Travetta LED 2x22W/940 LGS L1590	49	4809	4000	>90	1590x190x60

DALI electronic wiring 230V-50/60Hz

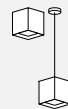
Code	Item	W	lm	K	CRI	L x A x H
11537	3F Travetta LED 1x24W DALI LGS L1290	27	3022	4000	>80	1290x190x60
11539	3F Travetta LED 1x30W DALI LGS L1590	34	3783	4000	>80	1590x190x60
11540	3F Travetta LED 2x18W DALI LGS L1290	40	4690	4000	>80	1290x190x60
11542	3F Travetta LED 2x22W DALI LGS L1590	49	5865	4000	>80	1590x190x60
11570	3F Travetta LED 1x24W/940 DALI LGS L1290	27	2478	4000	>90	1290x190x60
11571	3F Travetta LED 1x30W/940 DALI LGS L1590	34	3102	4000	>90	1590x190x60
11572	3F Travetta LED 2x18W/940 DALI LGS L1290	40	3846	4000	>90	1290x190x60
11573	3F Travetta LED 2x22W/940 DALI LGS L1590	49	4809	4000	>90	1590x190x60

/ Surface luminaires and suspensions



Municipio di Bastia Umbra
Bastia Umbra
Italia/Italy





3F Travetta Direct/Indirect

ILLUMINOTECHNICAL

Direct-indirect distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing with squared shape in white painted galvanized steel, with nonreflecting surface.
Upper holes closing film made of opal polycarbonate.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Terminal block for cascade line connection with connection capacity 2x2.5 mm².

INSTALLATION

Suspension installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

APPLICATIONS

Environments: exhibition areas, staterooms, with VDTs, halls, shops, great halls, offices.
Environments where soft diffuse light is required for optimal visual comfort.

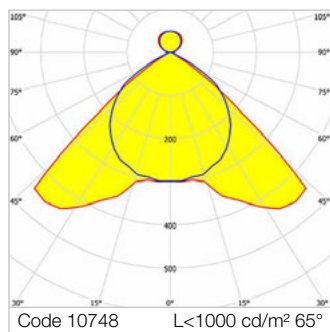
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).
The DALI Sensor (LS) products are all fitted with light and presence sensors integrated (page 730).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- different dimensions
- housing and accessories in different RAL colours
- wiring: CLO (page 752)
- emergency versions

3F Travetta DI 2MG



Average luminance < 1000 cd/m² for radial angles > 65°.
 Light emission: direct 85%, indirect 15%.
 2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top.
 Prismatic methacrylate (PMMA) diffuser for total shielding of the louvre compartment.
 Film protective against dust and finger marks, adhesive, attached to louvre.

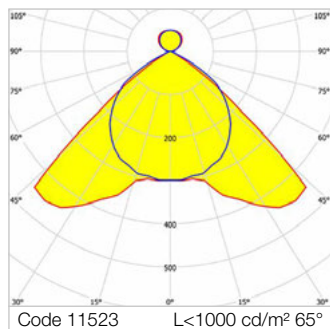
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10747	3F Travetta LED DI 2x15W 2MG L1590	33	3958	4000	>80	1590x190x60
10748	3F Travetta LED DI 2x22W 2MG L1590	49	5865	4000	>80	1590x190x60
10758	3F Travetta LED DI 2x15W/940 2MG L1590	33	3245	4000	>90	1590x190x60
10759	3F Travetta LED DI 2x22W/940 2MG L1590	49	4809	4000	>90	1590x190x60

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
11503	3F Travetta LED DI 2x15W DALI 2MG L1590	33	3958	4000	>80	1590x190x60
11504	3F Travetta LED DI 2x22W DALI 2MG L1590	49	5865	4000	>80	1590x190x60
11596	3F Trav. LED DI 2x15W/940 DALI 2MG L1590	33	3245	4000	>90	1590x190x60
11597	3F Trav. LED DI 2x22W/940 DALI 2MG L1590	49	4809	4000	>90	1590x190x60

3F Travetta DI DALI Sensor 2MG

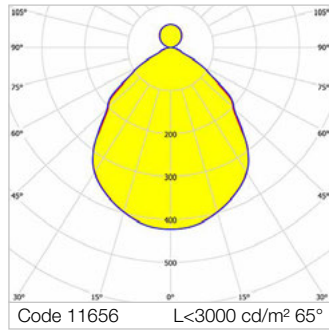


Average luminance < 1000 cd/m² for radial angles > 65°.
 Light emission: direct 85%, indirect 15%.
 2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top.
 Prismatic methacrylate (PMMA) diffuser for total shielding of the louvre compartment.
 Film protective against dust and finger marks, adhesive, attached to louvre.
 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.

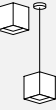
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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 DI LGS



Average luminance <math><3000 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. Light emission: direct 85%, indirect 15%. Flow recuperator in semi-glossy aluminium. LGS micro-prismatic flat diffuser in transparent methacrylate (PMMA), multi-lenticular exterior, anti-glare. Anti-glare opal polycarbonate filter for brightness uniformity. On request, indirect emission versions enhanced.



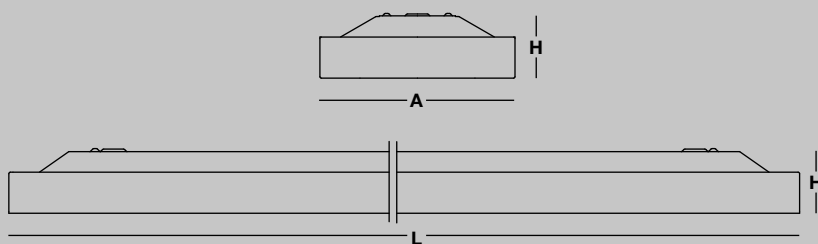
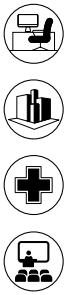
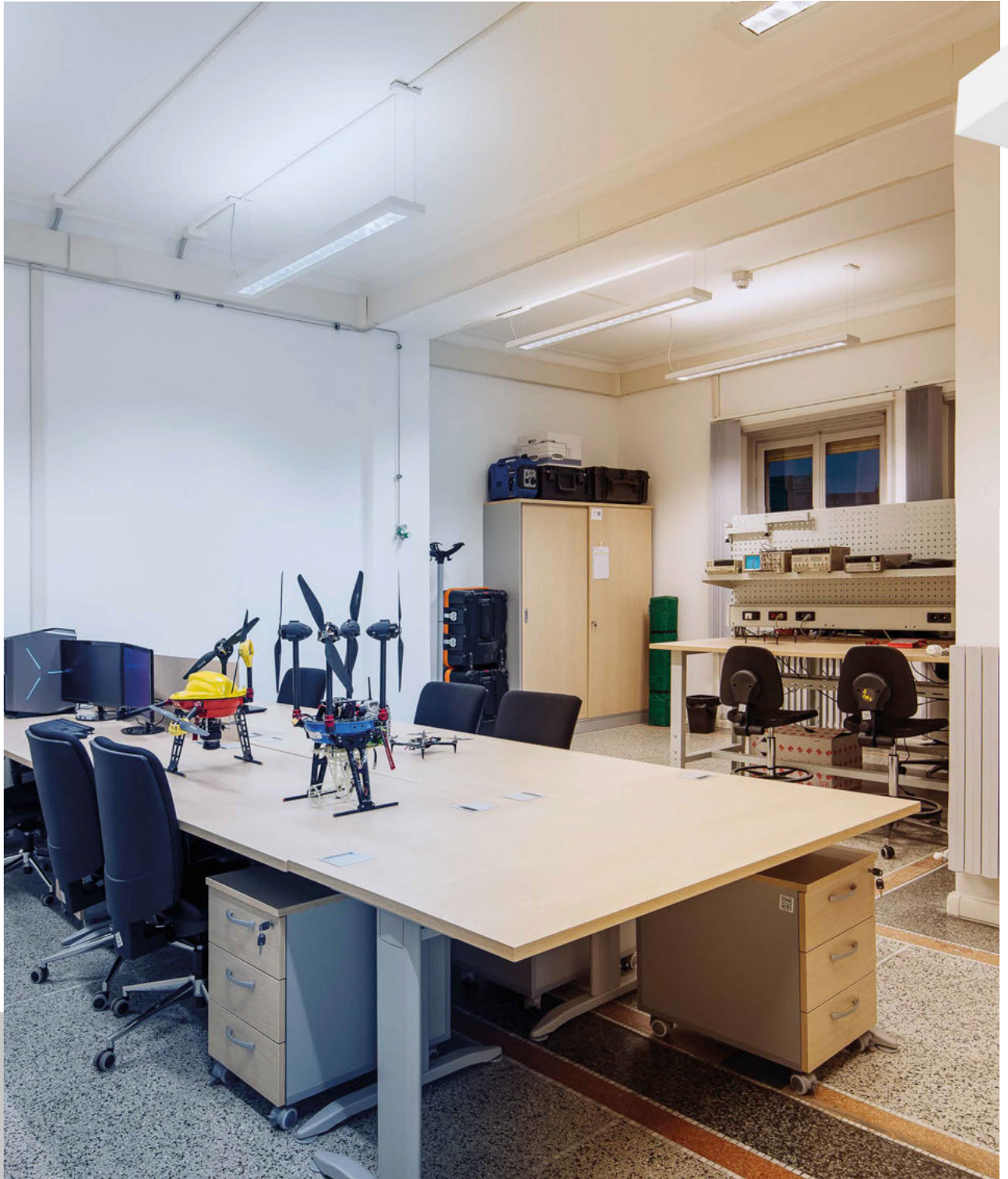
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
11656	3F Travetta LED DI 2x18W LGS L1290	40	4076	4000	>80	1290x190x60
11657	3F Travetta LED DI 2x24W LGS L1290	54	5116	4000	>80	1290x190x60
11599	3F Travetta LED DI 2x22W LGS L1590	49	5096	4000	>80	1590x190x60
11600	3F Travetta LED DI 2x30W LGS L1590	66	6403	4000	>80	1590x190x60
11658	3F Travetta LED DI 2x18W/940 LGS L1290	40	3342	4000	>90	1290x190x60
11659	3F Travetta LED DI 2x24W/940 LGS L1290	54	4195	4000	>90	1290x190x60
11602	3F Travetta LED DI 2x22W/940 LGS L1590	49	4179	4000	>90	1590x190x60
11603	3F Travetta LED DI 2x30W/940 LGS L1590	66	5251	4000	>90	1590x190x60

DALI electronic wiring 230V-50/60Hz

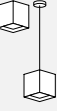
Code	Item	W	lm	K	CRI	L x A x H
11660	3F Travetta LED DI 2x18W DALI LGS L1290	40	4076	4000	>80	1290x190x60
11661	3F Travetta LED DI 2x24W DALI LGS L1290	54	5116	4000	>80	1290x190x60
11629	3F Travetta LED DI 2x22W DALI LGS L1590	49	5096	4000	>80	1590x190x60
11630	3F Travetta LED DI 2x30W DALI LGS L1590	66	6403	4000	>80	1590x190x60
11662	3F Trav. LED DI 2x18W/940 DALI LGS L1290	40	3342	4000	>90	1290x190x60
11663	3F Trav. LED DI 2x24W/940 DALI LGS L1290	54	4195	4000	>90	1290x190x60
11632	3F Trav. LED DI 2x22W/940 DALI LGS L1590	49	4179	4000	>90	1590x190x60
11633	3F Trav. LED DI 2x30W/940 DALI LGS L1590	66	5251	4000	>90	1590x190x60

/ Surface luminaires and suspensions



Politecnico di Torino
Torino
Italia/Italy





3F Travetta Tunable White

ILLUMINOTECHNICAL

Direct symmetric distribution.
Average luminance $<1000 \text{ cd/m}^2$ for radial angles $>65^\circ$.
The colour temperature can be adjusted between 2700 K and 6500 K.
Lifetime (L70/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing with squared shape in white painted galvanized 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 (PMMA) diffuser for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Cable with a DALI DT8 driver.
5-pole terminal block (L-N-PE-DA/DA) for line connection with connection capacity $2 \times 2.5 \text{ mm}^2$ per poles.

INSTALLATION

Ceiling mounted or suspension installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

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.

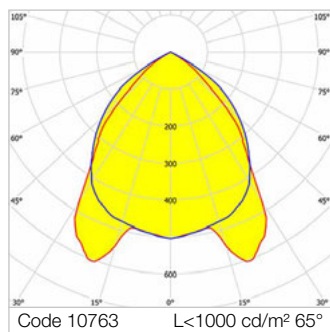
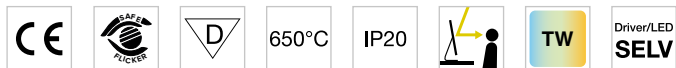
LIGHT MANAGEMENT

Tunable White products can be controlled with wired control systems (page 742) or 3F & Casambi (page 746).

ON REQUEST

- different power levels or colour rendering indices
- different dimensions
- housing and accessories in different RAL colours
- emergency versions

3F Travetta Tunable White 2MG



Variable light intensity and colour temperature.

DALI DT8 electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10763	3F TRAV. LED 2X22W DALI DT8 TW 2MG L1590	50	5550 6236 6236	2700 4000 6500	>80	1590x190x60

3F Travetta | Accessories



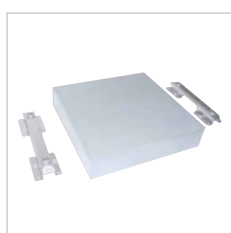
Code	Item
A0052	Wall-mounting brack

Wall-mounting bracket, in white painted steel.



Code	Item
A0875	Connecting bracket Travetta

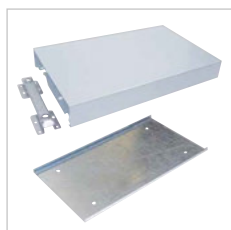
Connecting bracket to form linear channels or branches of single luminaires, in galvanised steel with upper holes for adjustable suspensions.



Code	Item
A0892	White connect.elem.190x190 3F Travetta
A0894	White connect.elem.190x210 3F Travetta
A0895	White connect.elem.190x510 3F Travetta
A0896	White connect.elem.190x810 3F Travetta
A0897	White connect.elem.190x1110 3F Travetta
A0941	White con.elem.lum/wall 810 3F Travetta
A0942	Wh.conn.elem.lum/wall 1110 3F Travetta

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.

On request: elements of desired length. Connecting elements for false ceiling 625x625.



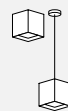
Code	Item
A0951	White branch elem. 190x310 3F Travetta
A0952	White branches elem. 190x460 3F Travetta
A0877	Bracket for T-branch for 3F Travetta
A0878	Bracket for X-branch for 3F Travetta

Branching in correspondence with the steel linear connecting elements with a white colour accessory cover. **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.**



Code	Item
A0870	White conn. elem. with boss for lum.
A0872	White conn.elem. to wall w/boss for lum.

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
A01368	Travetta B joint closing cap

Linear connecting element end cap to be used when there are connecting elements at the beginning or end of a channel.



Code	Item
A01318	White rectangular case adj. susp. 1 m
A01325	Wired adj. susp. 5P wh.rect.case 1 m

Adjustable suspension with polycarbonate case in white colour, internal bracket in galvanised 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.

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.



Code	Item
A01314	White rectangular case fixed susp. 0,3m
A01315	White rectangular case fixed susp. 0,5m
A01317	White rectangular case fixed susp. 1m
A01321	Wired fixed susp. 5P wh.rect.case 0,3m
A01322	Wired fixed susp. 5P wh.rect.case 0,5m
A01324	Wired fixed susp. 5P wh.rect.case 1m

Fixed suspension with white polycarbonate case, internal bracket in galvanised 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
A0620	Spool stain.ste.cab.diam. 1,25mm 100 m The pack contains 100 metres.

Coil of stainless steel cable Ø 1.25 mm, length 100 m.



Code	Item
A0622	Clamp 1 hole suspension - 100 pcs The pack contains 100 pieces.

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
A0679	5 pole rectangular rose (no cable) WH

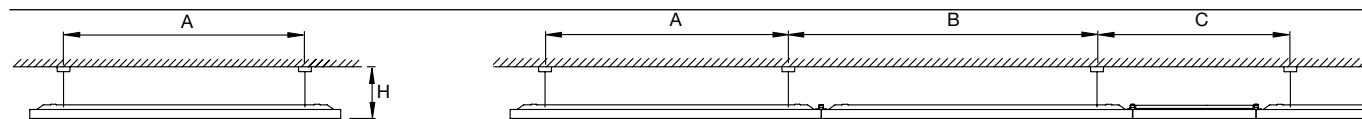
Electric supply with white polycarbonate case, internal bracket in galvanised steel.



3F Travetta LED

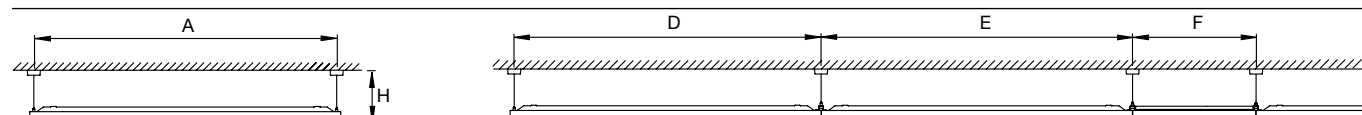
Installations

Mounting with fixed suspension H = 300-500-1000mm



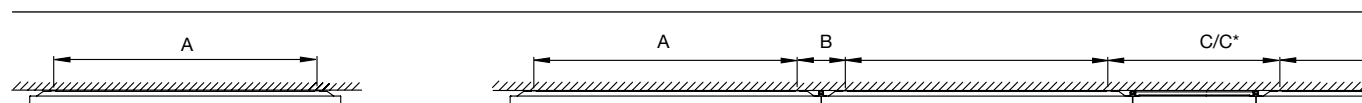
Versions	A	Connecting bracket code	B	Connecting element code	C
3F Travetta 1290	1200	A0875	1290	A0892	280
				A0894	300
				A0895	600
				A0896	900
				A0897	1200
3F Travetta 1590	1200	A0875	1590	A0892	580
				A0894	600
				A0895	900
				A0896	1200
				A0897	1500
3F Travetta 2200	1800	A0875	2200	A0892	590
				A0894	610
				A0895	910
				A0896	1210
				A0897	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	190
					A0894	210
					A0895	510
					A0896	810
					A0897	1110
3F Travetta 1590	1550	A0875	1570	1590	A0892	190
					A0894	210
					A0895	510
					A0896	810
					A0897	1110
3F Travetta 2200	2160	A0875	2180	2200	A0892	190
					A0894	210
					A0895	510
					A0896	810
					A0897	1110

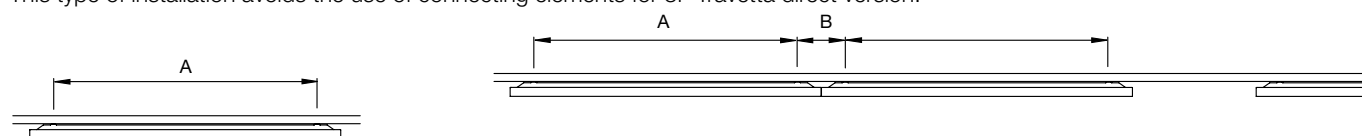
Ceiling mounting



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	425	710
				A0895	725	1010
				A0896	1025	1310
				A0897	1325	1610

Installation on 3F Linux system

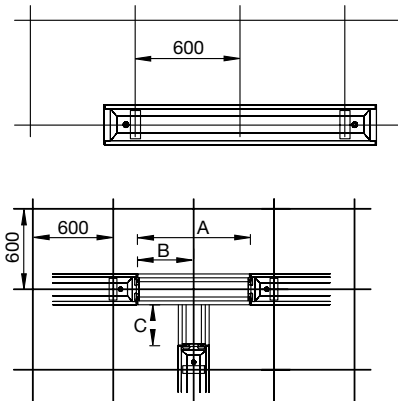
This type of installation avoids the use of connecting elements for 3F Travetta direct version.



Versions	A	B
3F Travetta 1290	1075	215
3F Travetta 1590	1375	215
3F Travetta 2200	1700	500

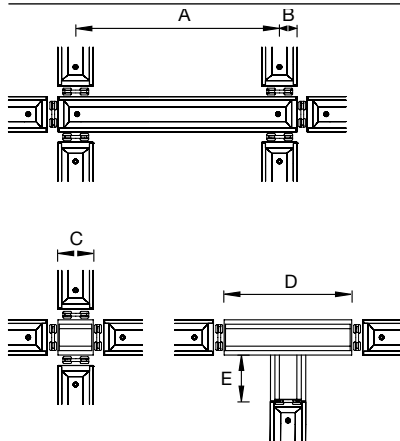
Installation to false ceiling with exposed structure 600x600 - 600x1200

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	

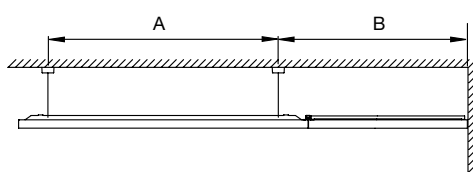
Formation of composition or branch



Versions	A	B
3F Travetta 1290	1100	95
3F Travetta 1590	1400	95

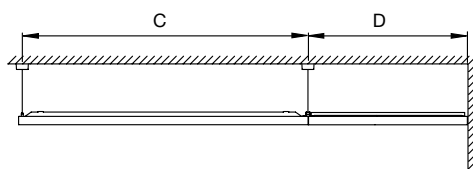
Linear connecting elements codes					Connecting elements for branches codes	
A0892	A0894	A0895	A0896	A0897	A0951	A0952
C	D	D	D	D	E	E
190	210	510	810	1110	310	460

Wall power-supply



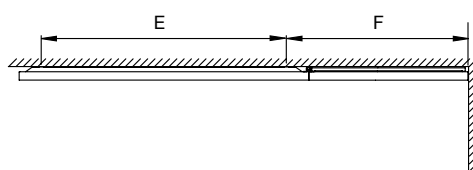
Fixed suspension

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

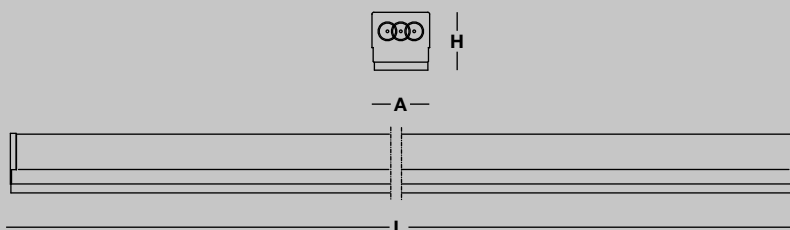
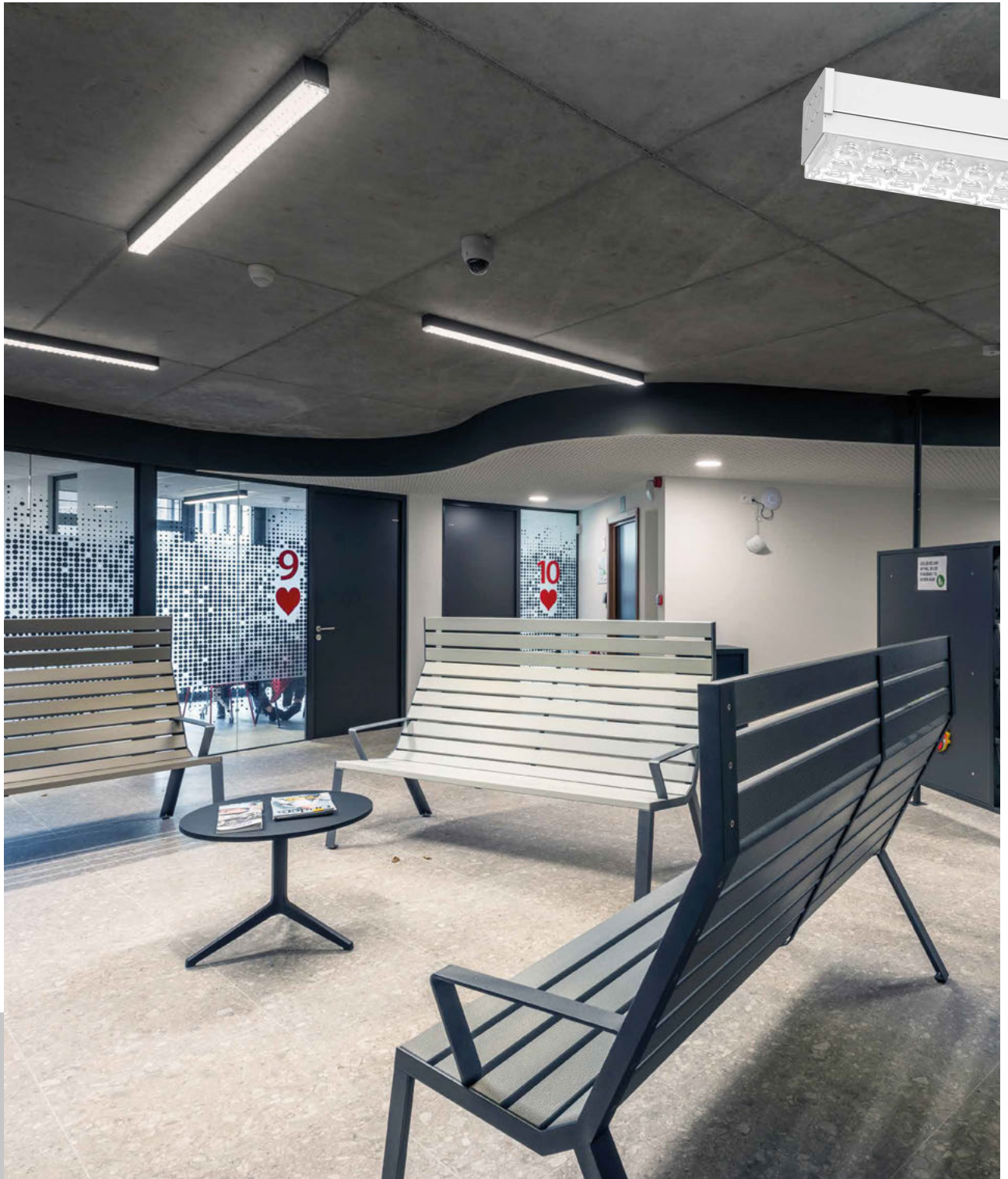
Versions	C	Connecting bracket code	D
3F Travetta 1290	1270	A0941 A0942	810 1110
3F Travetta 1590	1570	A0941 A0942	810 1110
3F Travetta 2200	2180	A0941 A0942	810 1110



Ceiling mounting

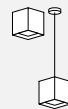
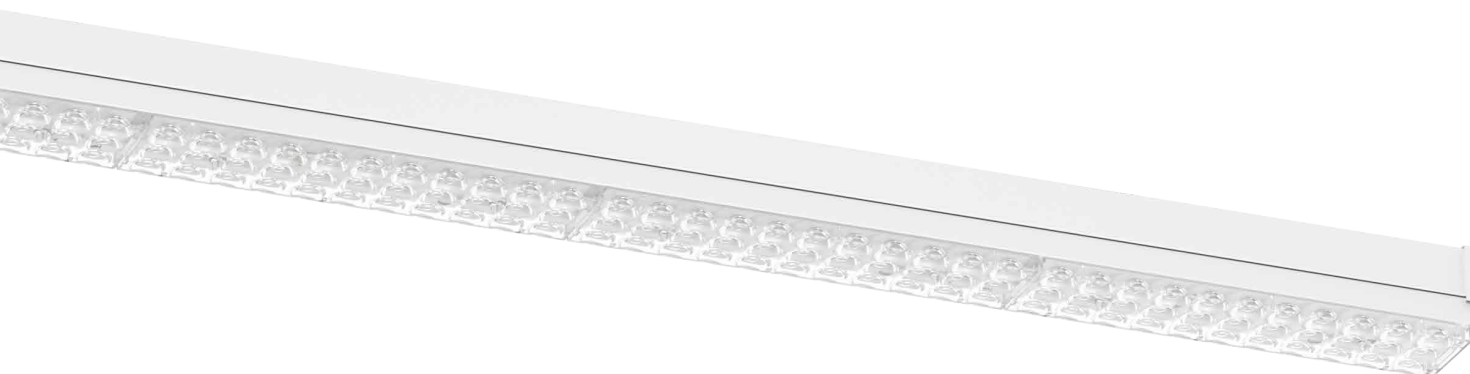
Versions	E	Connecting bracket code	F
3F Travetta 1290	1075	A0941 A0942	918 1218
3F Travetta 1590	1375	A0941 A0942	918 1218
3F Travetta 2200	1700	A0941 A0942	1060 1360

/ Surface luminaires and suspensions



CAW (Centrum Algemeen Welzijn)
Turnhout
Belgique/Belgium





3F Zeta L

ILLUMINOTECHNICAL

Wide, direct and asymmetric controlled distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

L UGR version

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

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process.
Light unit in hot-galvanised 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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

INSTALLATION

Ceiling, suspension or wall installation.

APPLICATIONS

Environments: architectural, commercial, transit areas, cornices, boards.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

L UGR version

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

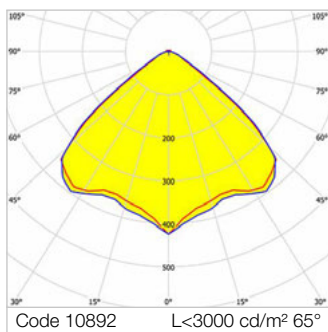
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (page 752)
- HACCP versions for use in the food industry
- IP54 version
- emergency versions

3F Zeta L



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

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10894	3F Zeta L 15 LED L605	17	2749	4000	>80	605x62x65
10893	3F Zeta L 30 LED L1194	31	5498	4000	>80	1194x62x65
10892	3F Zeta L 40 LED L1489	41	6872	4000	>80	1489x62x65
10891	3F Zeta L 50 LED L1783	46	8247	4000	>80	1783x62x65

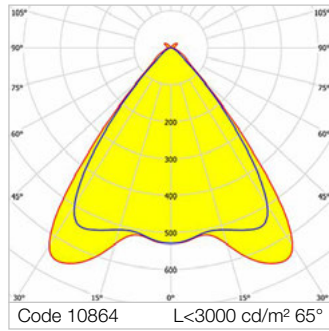
DALI-2 DATI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10977	3F Zeta L 30 LED DALI L1194	31	5498	4000	>80	1194x62x65
10976	3F Zeta L 40 LED DALI L1489	41	6872	4000	>80	1489x62x65
10975	3F Zeta L 50 LED DALI L1783	46	8247	4000	>80	1783x62x65

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
10988	3F Zeta L 40 LED EP L1489	42	6872	4000	>80	1489x62x65
10987	3F Zeta L 50 LED EP L1783	47	8247	4000	>80	1783x62x65

3F Zeta L UGR



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

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10864	3F Zeta L UGR 30 LED L1194	31	5481	4000	>80	1194x62x65
10840	3F Zeta L UGR 30/940 LED L1194	33	4494	4000	>90	1194x62x65
10863	3F Zeta L UGR 40 LED L1489	39	6851	4000	>80	1489x62x65
10839	3F Zeta L UGR 40/940 LED L1489	40	5618	4000	>90	1489x62x65
11026	3F Zeta L UGR 50 LED L1783	46	8221	4000	>80	1783x62x65
11027	3F Zeta L UGR 50/940 LED L1783	50	6742	4000	>90	1783x62x65

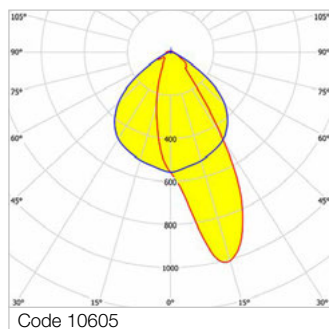
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10867	3F Zeta L UGR 30 LED DALI L1194	31	5481	4000	>80	1194x62x65
10842	3F Zeta L UGR 30/940 LED DALI L1194	33	4494	4000	>90	1194x62x65
10866	3F Zeta L UGR 40 LED DALI L1489	39	6851	4000	>80	1489x62x65
10841	3F Zeta L UGR 40/940 LED DALI L1489	40	5618	4000	>90	1489x62x65
11028	3F Zeta L UGR 50 LED DALI L1783	46	8221	4000	>80	1783x62x65
11029	3F Zeta L UGR 50/940 LED DALI L1783	50	6742	4000	>90	1783x62x65

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
10844	3F Zeta L UGR 30 LED EP L1194	32	5481	4000	>80	1194x62x65
10846	3F Zeta L UGR 30/940 LED EP L1194	34	4494	4000	>90	1194x62x65
10843	3F Zeta L UGR 40 LED EP L1489	40	6851	4000	>80	1489x62x65
10845	3F Zeta L UGR 40/940 LED EP L1489	41	5618	4000	>90	1489x62x65
11030	3F Zeta L UGR 50 LED EP L1783	47	8221	4000	>80	1783x62x65
11031	3F Zeta L UGR 50/940 LED EP L1783	51	6742	4000	>90	1783x62x65

3F Zeta L AS



Transparent methacrylate (PMMA) asymmetric distribution lenses with a flat external surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10605	3F Zeta L AS 40 LED L1489	39	6894	4000	>80	1489x62x65

DALI electronic wiring 230V-50/60Hz

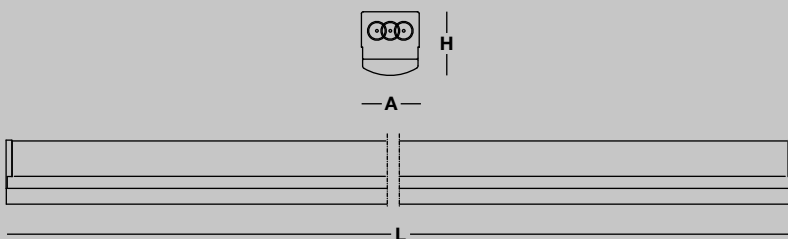
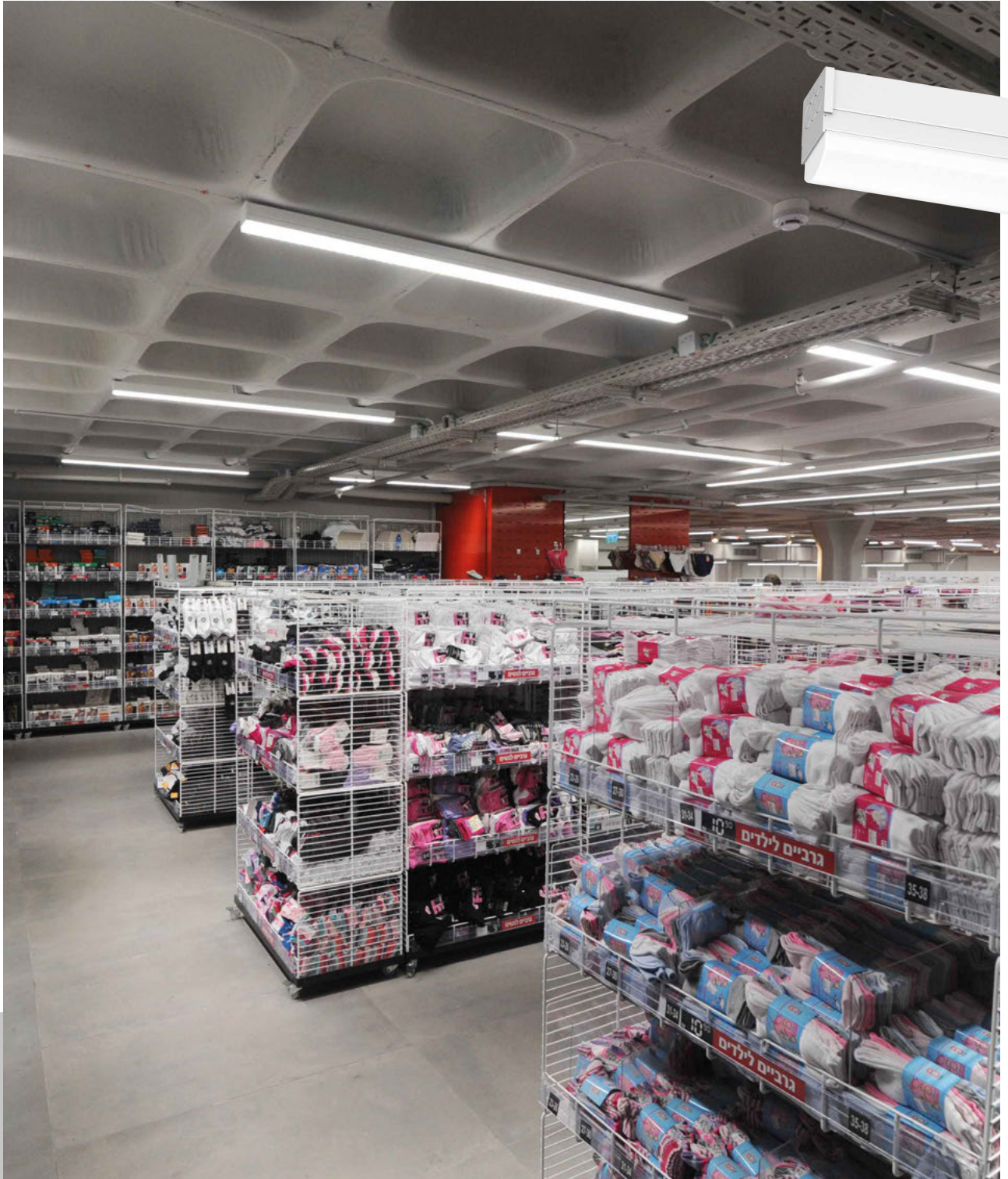
Code	Item	W	lm	K	CRI	L x A x H
10606	3F Zeta L AS 40 LED DALI L1489	39	6894	4000	>80	1489x62x65

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
10607	3F Zeta L AS 40 LED EP L1489	40	6894	4000	>80	1489x62x65

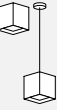


/ Surface luminaires and suspensions



Hangar Fashion
Bat Yam
Yisra'el/Israel





3F Zeta D

ILLUMINOTECHNICAL

Diffused symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

INSTALLATION

Ceiling, suspension or wall installation.

APPLICATIONS

Environments: architectural, commercial, transit areas, cornices, large mirrors, boards.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

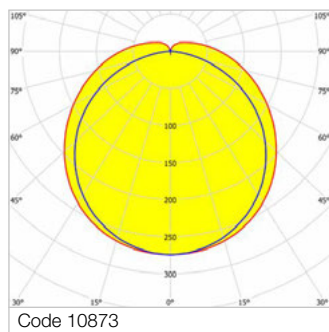
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (page 752)
- class II
- emergency versions

3F Zeta D



ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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

Code	Item	W	lm	K	CRI	L x A x H
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 (page 772)

Code	Item	W	lm	K	CRI	L x A x H
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

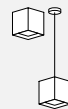


/ Surface luminaires and suspensions



- A -





3F Zeta DR

ILLUMINOTECHNICAL

Diffused, direct and asymmetric controlled distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process.
Light unit in hot-galvanised 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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

INSTALLATION

Ceiling, suspension or wall installation.

APPLICATIONS

Environments: architectural, commercial, transit areas, cornices, large mirrors, boards.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

UGR version

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

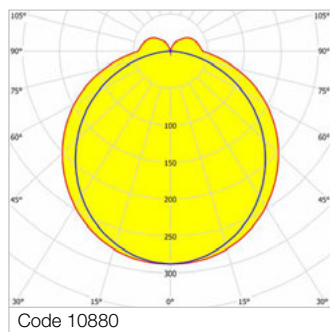
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (page 752)
- class II
- CRI >90 sources
- emergency versions

3F Zeta DR



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

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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

Code	Item	W	lm	K	CRI	L x A x H
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 (page 772)

Code	Item	W	lm	K	CRI	L x A x H
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



850°C

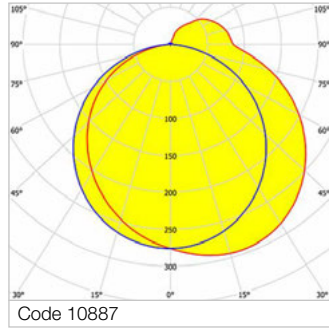
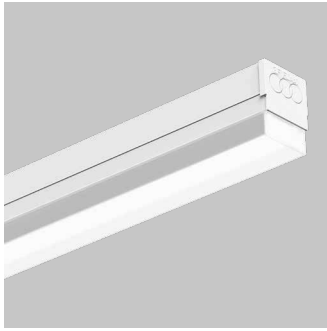
IP40

1J

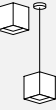
IK06

Driver/LED
SELV

HACCP



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



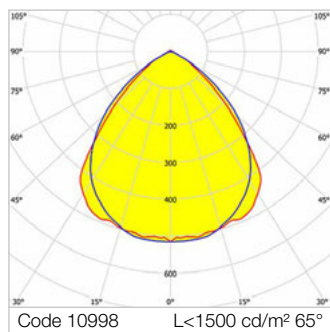
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10886	3F Zeta DR AS 1x30 LED L1489	34	3451	4000	>80	1489x62x81
10887	3F Zeta DR AS 2x22 LED L1489	49	5096	4000	>80	1489x62x81

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10973	3F Zeta DR AS 1x30 LED DALI L1489	34	3451	4000	>80	1489x62x81
10974	3F Zeta DR AS 2x22 LED DALI L1489	49	5096	4000	>80	1489x62x81

3F Zeta DR UGR



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 (PMMA) filter above the louvre blades for complete

shielding of the louvre compartment.

ON/OFF electronic wiring 230V-50/60Hz

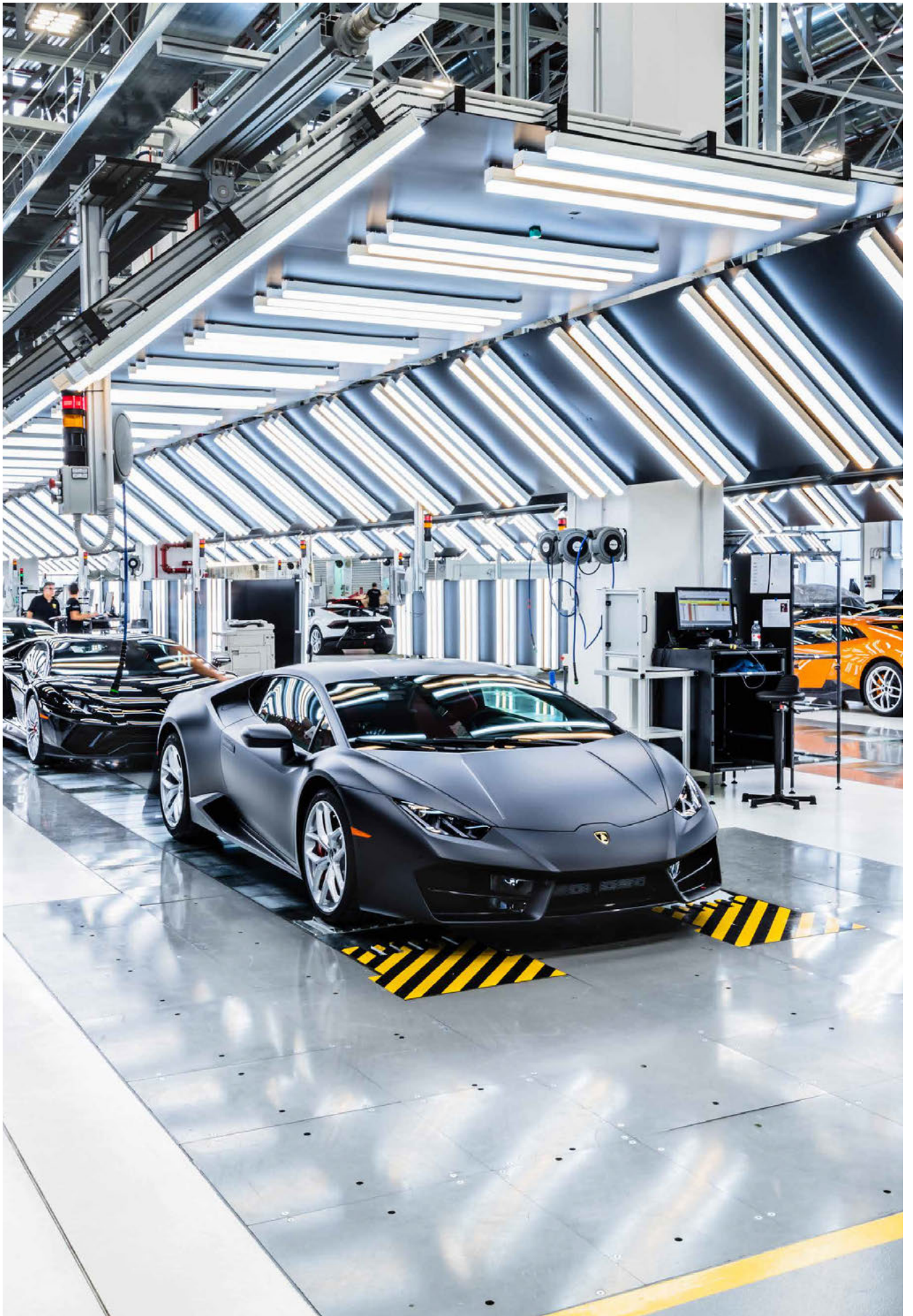
Code	Item	W	lm	K	CRI	L x A x H
10599	3F Zeta DR UGR 1x12 LED L605	14	1497	4000	>80	605x62x81
10598	3F Zeta DR UGR 2x9 LED L605	20	2144	4000	>80	605x62x81
10592	3F Zeta DR UGR 1x24 LED L1194	27	2786	4000	>80	1194x62x81
10998	3F Zeta DR UGR 1x30 LED L1783	34	3487	4000	>80	1783x62x81
10591	3F Zeta DR UGR 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	4396	4000	>90	1783x62x81

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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	27	2786	4000	>80	1194x62x81
11000	3F Zeta DR UGR 1x30 LED DALI L1783	34	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	4396	4000	>90	1783x62x81

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
11002	3F Zeta DR UGR 1x30 LED EP L1783	35	3487	4000	>80	1783x62x81
11001	3F Zeta DR UGR 2x22 LED EP L1783	50	5361	4000	>80	1783x62x81



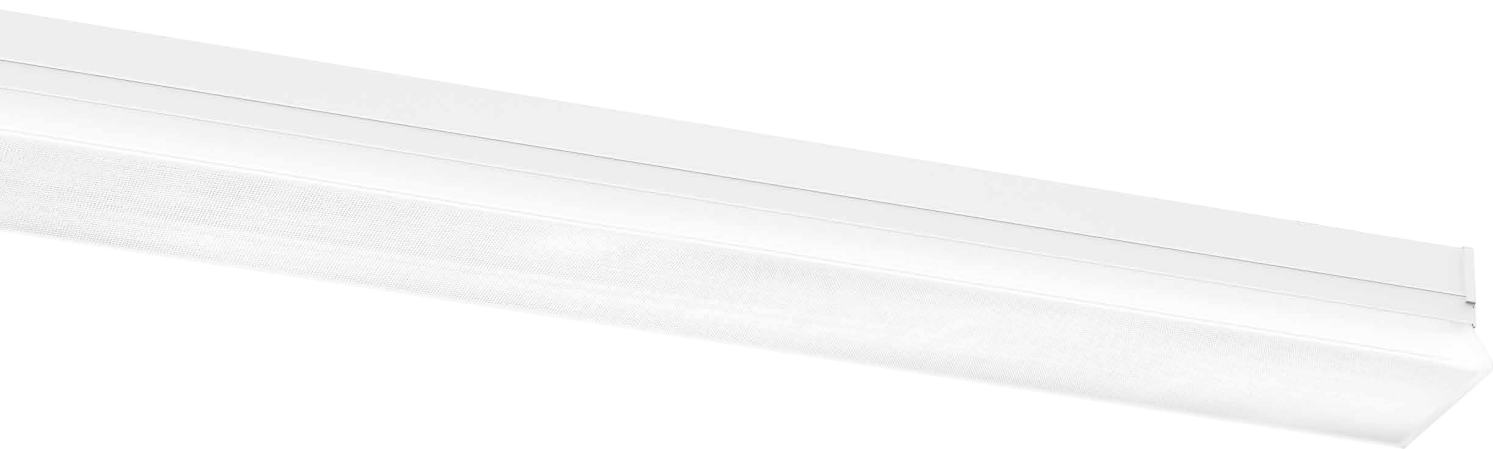
NEW

/ Surface luminaires and suspensions



Belval Campus
Esch-sur-Alzette
Luxembourg





3F Zeta DT

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process.
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
Diffuser with differentiated geometry, made of transparent methacrylate (PMMA) with microprismatic finish, anti-glare on the flat part and opal on the side.
Anti-glare opal methacrylate (PMMA) filter for brightness uniformity.
End caps in white polycarbonate.
Stainless steel mounting brackets with anti-slip screws.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

INSTALLATION

Ceiling, suspension or wall installation.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

APPLICATIONS

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

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (page 752)
- class II
- emergency versions

3F Zeta DT UGR



650°C

IP40

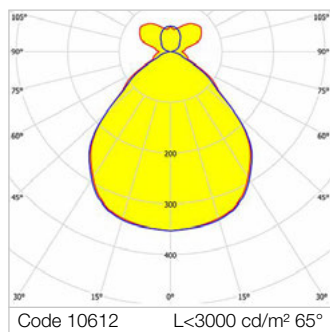
1J

IK06



Driver/LED
SELV

HACCP



ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10612 ^{NEW}	3F Zeta DT UGR 2x22 LED L1783	49	7261	4000	>80	1783x118x95
10613 ^{NEW}	3F Zeta DT UGR 2x15 LED L1489	34	4900	4000	>80	1489x118x95
10614 ^{NEW}	3F Zeta DT UGR 2x12 LED L1194	28	3915	4000	>80	1194x118x95
10615 ^{NEW}	3F Zeta DT UGR 2x6 LED L605	15	1953	4000	>80	605x118x95

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10616 ^{NEW}	3F Zeta DT UGR 2x22 LED DALI L1783	49	7261	4000	>80	1783x118x95
10617 ^{NEW}	3F Zeta DT UGR 2x15 LED DALI L1489	34	4900	4000	>80	1489x118x95
10618 ^{NEW}	3F Zeta DT UGR 2x12 LED DALI L1194	28	3915	4000	>80	1194x118x95
10619 ^{NEW}	3F Zeta DT UGR 2x6 LED DALI L605	15	1953	4000	>80	605x118x95

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
10620 ^{NEW}	3F Zeta DT UGR 2x22 LED EP L1783	50	7261	4000	>80	1783x118x95
10621 ^{NEW}	3F Zeta DT UGR 2x15 LED EP L1489	35	4900	4000	>80	1489x118x95
10622 ^{NEW}	3F Zeta DT UGR 2x12 LED EP L1194	29	3915	4000	>80	1194x118x95

3F Zeta | Accessories



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

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

Attention: each product requires two suspensions with regulator.



Code	Item
A02562	Caddy for exposed profiles of 24 mm

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

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.



Code	Item
A20452	Stainless steel hook for chain

Hook to suspended luminaires to a chain.



Code	Item
A20433	Linear connecting element

Element to connect in hot-galvanised steel.



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

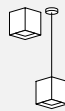
Galvanised steel cable, diameter 1.5 mm, composed of 49 wires. 15 kg capacity (ratio 5:1).

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



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

Clamp in nickel-plated brass suitable for fixing and adjustment of galvanised 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
A0659	Adjustable clamp 2 holes - 10 pcs The pack contains 10 pieces.

Clamp suitable for fixing and adjustment of galvanised 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.

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



Code	Item
A20478	Anti-slip term. incli. 3F Linux

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

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



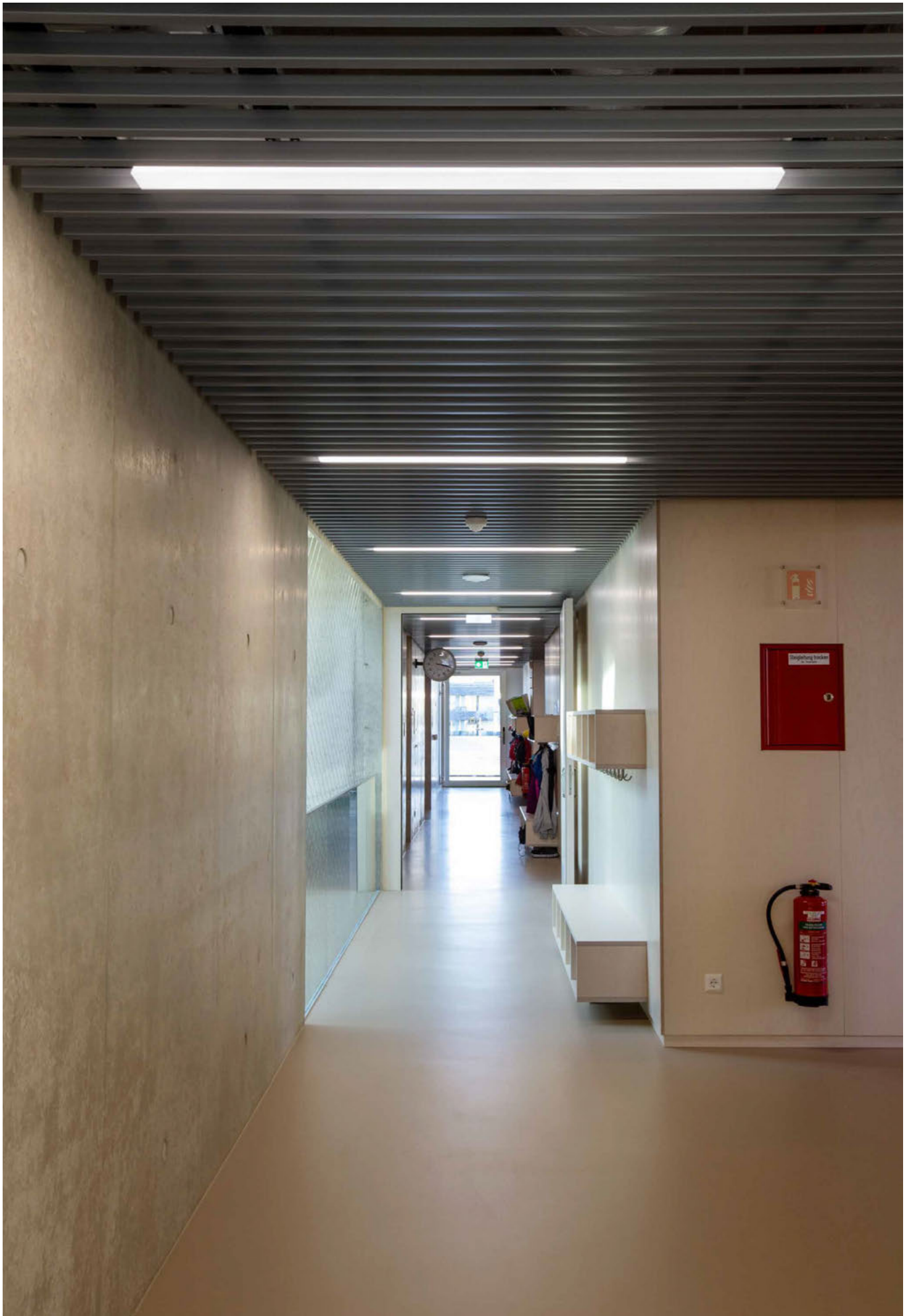
Code	Item
A0052	Wall-mounting brack

Wall-mounting bracket, in white painted steel.

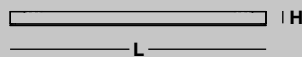
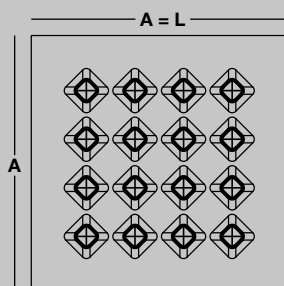


Code	Item
A0679	5 pole rectangular rose (no cable) WH

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

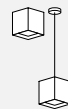
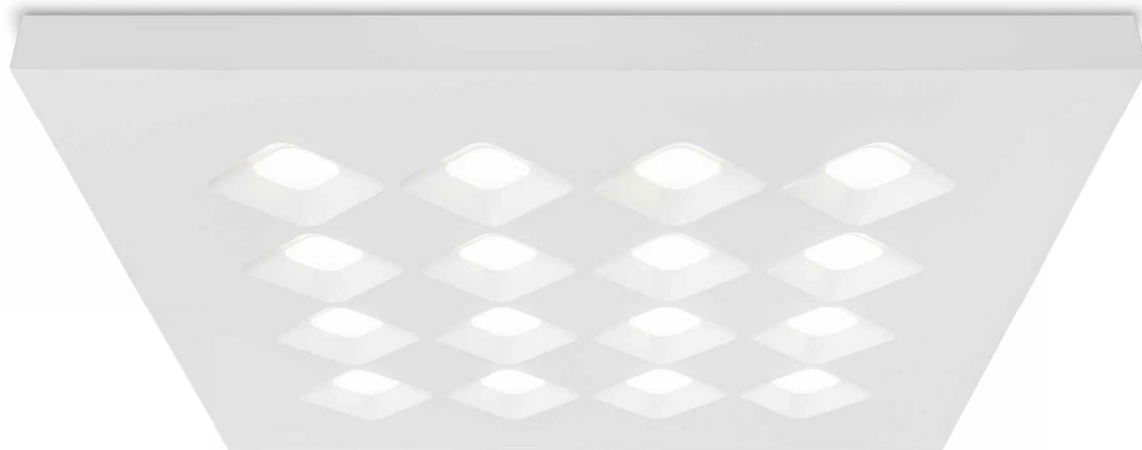


/ Surface luminaires and suspensions



Ospedale di Avigliana
Torino
Italia/Italy





3F Diagon P

ILLUMINOTECHNICAL

Direct symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math>.
Colour temperature available /830 - /840, /930 - /940.
Lifetime (L75/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

White painted frame.
Height only 40 mm.
Housing in hot-galvanised steel, painted in white polyester.
Honeycombed diagonal screen in white anti-glare polycarbonate.
Opal methacrylate (PMMA) rhomboid lenses with differentiated, engraved and prismatic surfaces for diffused, soft lighting and excellent visual comfort.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Quick connection.

INSTALLATION

Ceiling installation.

APPLICATIONS

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

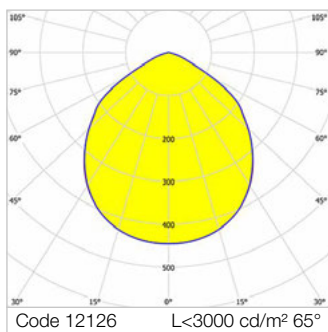
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- suspension installation
- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- DALI Sensor version
- transparent lens versions
- emergency versions

3F Diagon P Soft UGR



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

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
12126	3F Diagon P 25W/830 SOFT UGR 596x596	28	3532	3000	>80	596x596x40
12130	3F Diagon P 25W/840 SOFT UGR 596x596	28	3679	4000	>80	596x596x40
12134	3F Diagon P 39W/930 SOFT UGR 596x596	40	3890	3000	>90	596x596x40
12138	3F Diagon P 39W/940 SOFT UGR 596x596	40	4116	4000	>90	596x596x40

DALI electronic wiring 230V-50/60Hz

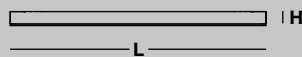
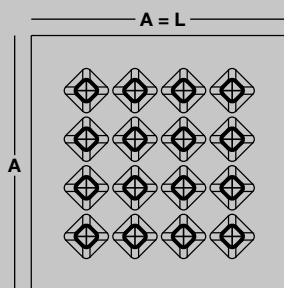
Code	Item	W	lm	K	CRI	L x A x H
12127	3F Diagon P 25W/830 DALI SOFT UGR 596x596	28	3532	3000	>80	596x596x40
12131	3F Diagon P 25W/840 DALI SOFT UGR 596x596	28	3679	4000	>80	596x596x40
12135	3F Diagon P 39W/930 DALI SOFT UGR 596x596	40	3890	3000	>90	596x596x40
12139	3F Diagon P 39W/940 DALI SOFT UGR 596x596	40	4116	4000	>90	596x596x40

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
12128	3F Diagon P 25W/830 EP SOFT UGR 596x596	29	3532	3000	>80	596x596x40
12132	3F Diagon P 25W/840 EP SOFT UGR 596x596	29	3679	4000	>80	596x596x40
12136	3F Diagon P 39W/930 EP SOFT UGR 596x596	41	3890	3000	>90	596x596x40
12140	3F Diagon P 39W/940 EP SOFT UGR 596x596	41	4116	4000	>90	596x596x40

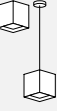


/ Surface luminaires and suspensions



Ospedale di Avigliana
Torino
Italia/Italy





3F Diagon P Tunable White

ILLUMINOTECHNICAL

Direct symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for angles >math>65^\circ</math>.
The colour temperature can be adjusted between 2700 K and 6500 K.
Lifetime (L75/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

White painted frame.
Height only 40 mm.
Housing in hot-galvanised steel, painted in white polyester.
Honeycombed diagonal screen in white anti-glare polycarbonate.
Opal methacrylate (PMMA) rhomboid lenses with differentiated, engraved and prismatic surfaces for diffused, soft lighting and excellent visual comfort.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Cable with a DALI DT8 driver.
Quick connection.

INSTALLATION

Ceiling installation.

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.

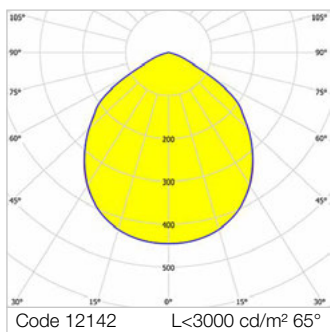
LIGHT MANAGEMENT

Tunable White products can be controlled with wired control systems (page 742) or 3F & Casambi (page 746).

ON REQUEST

- suspension installation
- different power levels or colour rendering indices
- emergency versions

3F Diagon P Soft UGR Tunable White



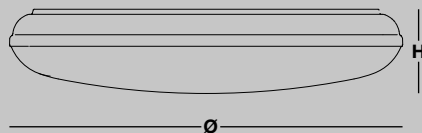
Installation Interdistance Transv.D = 1.20 x hu - Long.D = 1.20 x hu.

DALI DT8 electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
12142	3F Diagon P 25W DT8 TW SOFT UGR 596x596	30	3567	2700	>80	596x596x40
		29		4000		
		28		6500		

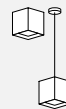


/ Surface luminaires and suspensions



Scuola dell'infanzia
Cappella (CR)
Italia/Italy





3F Petra

ILLUMINOTECHNICAL

Diffuse distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in self-extinguishing V2 polycarbonate, UV stabilised, injection moulded, glazed.
Ecologic anti-aging injected sealing gasket.
Diffuser in opal methacrylate (PMMA), injection moulded.
Gear-tray reflector unit in aluminium, painted in white epoxy-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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Entry for power-supply cable at the top by means of sealing grommet or lateral after drilling.

INSTALLATION

Wall or ceiling installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

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.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

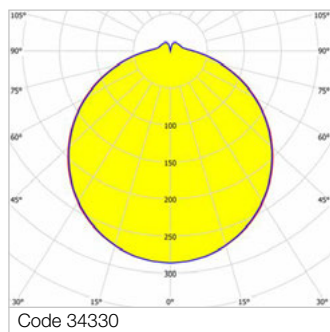
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- emergency versions

3F Petra



ON/OFF electronic wiring 230V-50/60Hz

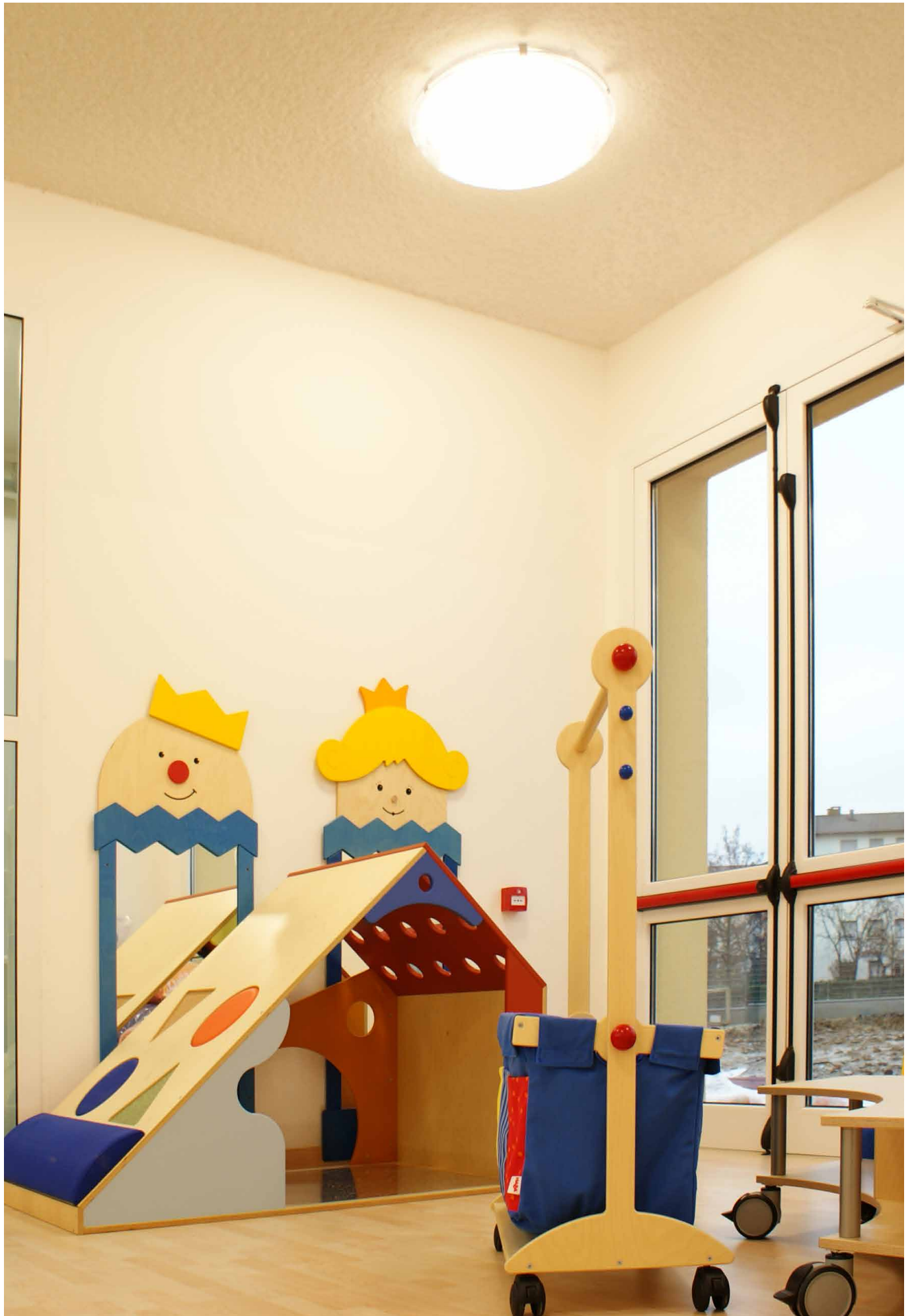
Code	Item	W	lm	K	CRI	ø x H
34229	3F Petra OP 300 12W LED	14	1660	4000	>80	300x120
34234	3F Petra OP 300 12W/940 LED	14	1361	4000	>90	300x120
34330	3F Petra OP 380 22W LED	25	2978	4000	>80	380x117
34335	3F Petra OP 380 22W/940 LED	25	2442	4000	>90	380x117
34407	3F Petra OP 620 50W LED	53	5955	4000	>80	620x134

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	ø x H
34230	3F Petra OP 300 12W LED DALI	14	1660	4000	>80	300x120
34235	3F Petra OP 300 12W/940 LED DALI	14	1361	4000	>90	300x120
34331	3F Petra OP 380 22W LED DALI	25	2978	4000	>80	380x117
34336	3F Petra OP 380 22W/940 LED DALI	25	2442	4000	>90	380x117
34408	3F Petra OP 620 50W LED DALI	52	5955	4000	>80	620x134

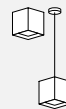
EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	ø x H
34231	3F Petra OP 300 12W LED EP	15	1660	4000	>80	300x120
34236	3F Petra OP 300 12W/940 LED EP	15	1361	4000	>90	300x120
34332	3F Petra OP 380 22W LED EP	26	2978	4000	>80	380x117
34337	3F Petra OP 380 22W/940 LED EP	26	2442	4000	>90	380x117
34409	3F Petra OP 620 50W LED EP	54	5955	4000	>80	620x134



/ Surface luminaires and suspensions





3F Petra Sensor

ILLUMINOTECHNICAL

Diffuse distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in self-extinguishing V2 polycarbonate, UV stabilised, injection moulded, glazed.
Ecologic anti-aging injected sealing gasket.
Diffuser in opal methacrylate (PMMA), injection moulded.
Gear-tray reflector unit in aluminium, painted in white epoxy-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

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.

INSTALLATION

Wall or ceiling installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

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.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

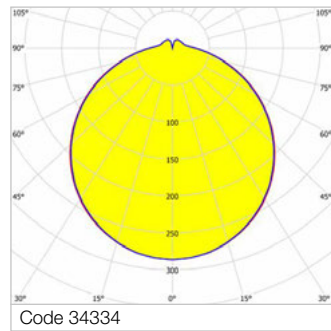
LIGHT MANAGEMENT

The products use 3F Sensor technology (page 726).

ON REQUEST

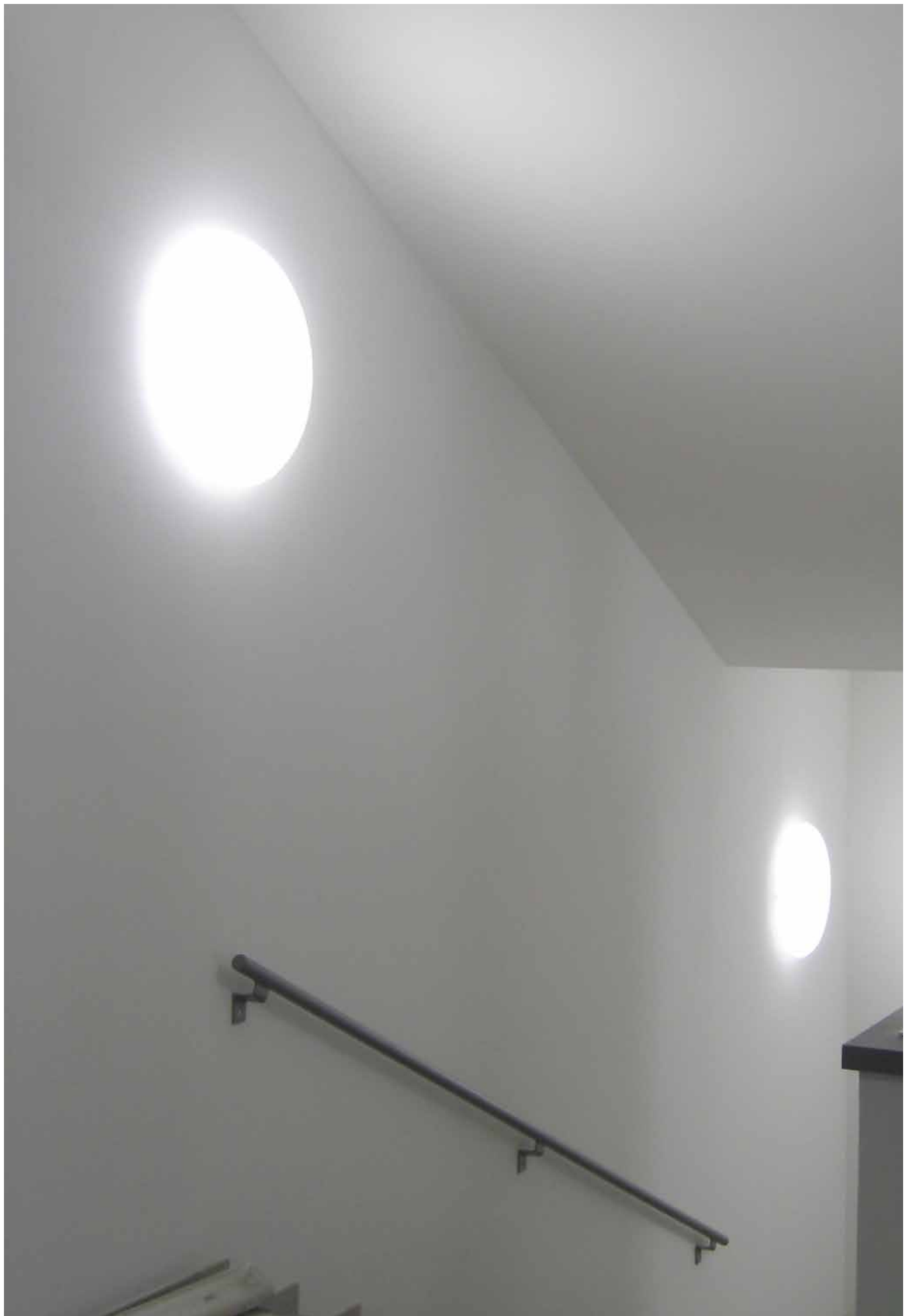
- 3F Petra OP 620 50W Sensor
- different power levels, colour rendering indices and colour temperatures
- emergency versions

3F Petra Sensor

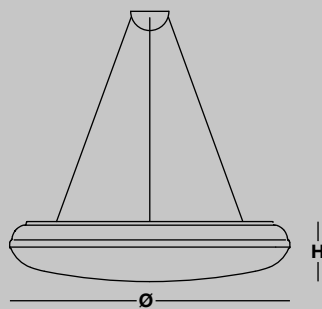
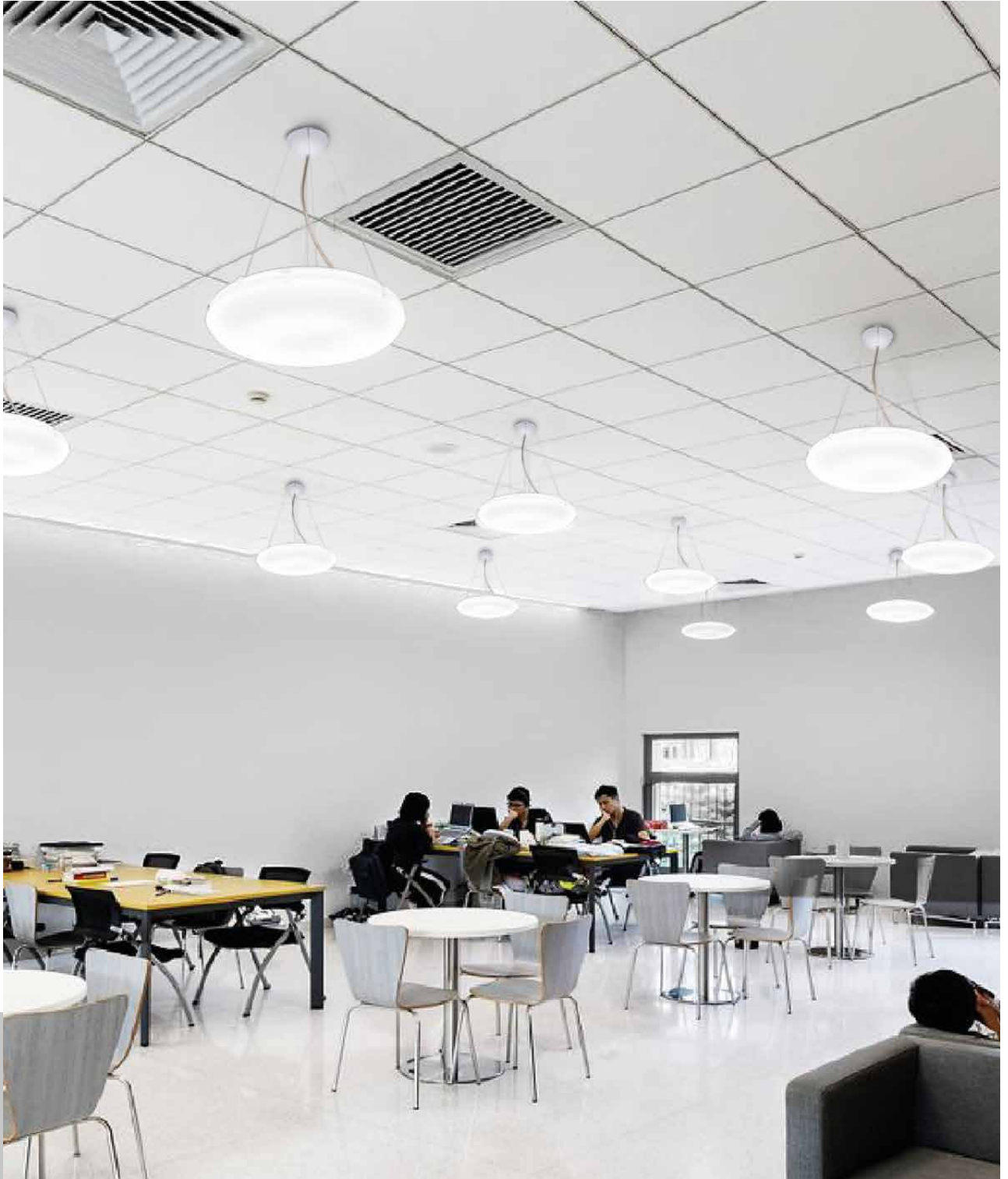


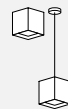
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	ø x H
34233	3F Petra OP 300 12W LED Sensor	15	1660	4000	>80	300x120
34334	3F Petra OP 380 22W LED Sensor	26	2978	4000	>80	380x117



/ Surface luminaires and suspensions





3F Petra Suspended

ILLUMINOTECHNICAL

Diffuse distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in self-extinguishing V2 polycarbonate, UV stabilised, injection moulded, glazed.
Ecologic anti-aging injected sealing gasket.
Diffuser in opal methacrylate (PMMA), injection moulded.
Gear-tray reflector unit in aluminium, painted in white epoxy-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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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.

INSTALLATION

Suspension installation.

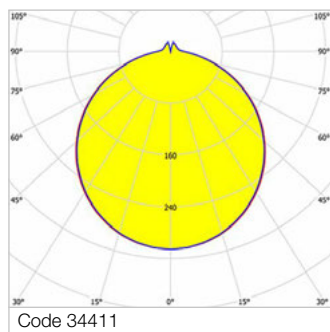
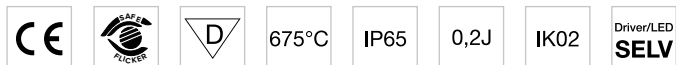
APPLICATIONS

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.

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: dimmable, CLO (page 752)
- emergency versions

3F Petra Suspended

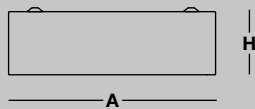


ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	ø x H
34411	3F Petra OP 620 50W LED SO	53	5955	4000	>80	620x134

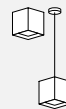


/ Surface luminaires and suspensions



Ospedale SS. Salvatore
San Giovanni in Persiceto (BO)
Italia/Italy





P 200

ILLUMINOTECHNICAL

Direct symmetric distribution.
Average luminance <math><1000\text{ cd/m}^2</math> for radial angles >65°.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

Linear LED modules.

10W version

Colour initial tolerance (MacAdam): SDCM 2.

24W, 30W versions

Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

Housing in galvanized steel, painted in white epoxy-polyester.
2US parabolic louvre in semi-glossy aluminium with transverse blades closed at the top and prismatic methacrylate (PMMA) diffusers for total shielding of the louvre compartment.
Prismatic methacrylate (PMMA) diffuser for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

INSTALLATION

Ceiling mounted installation.

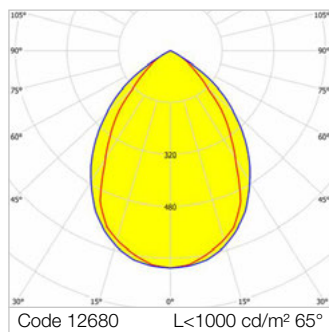
APPLICATIONS

Environments: with VDTs, schools, offices.

ON REQUEST

- parabolic louvres 2M, 2MG, 3AO
- different power levels, colour rendering indices and colour temperatures
- housing in RAL colours
- wiring: dimmable, CLO (page 752)
- emergency versions

P 200 2US

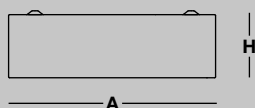
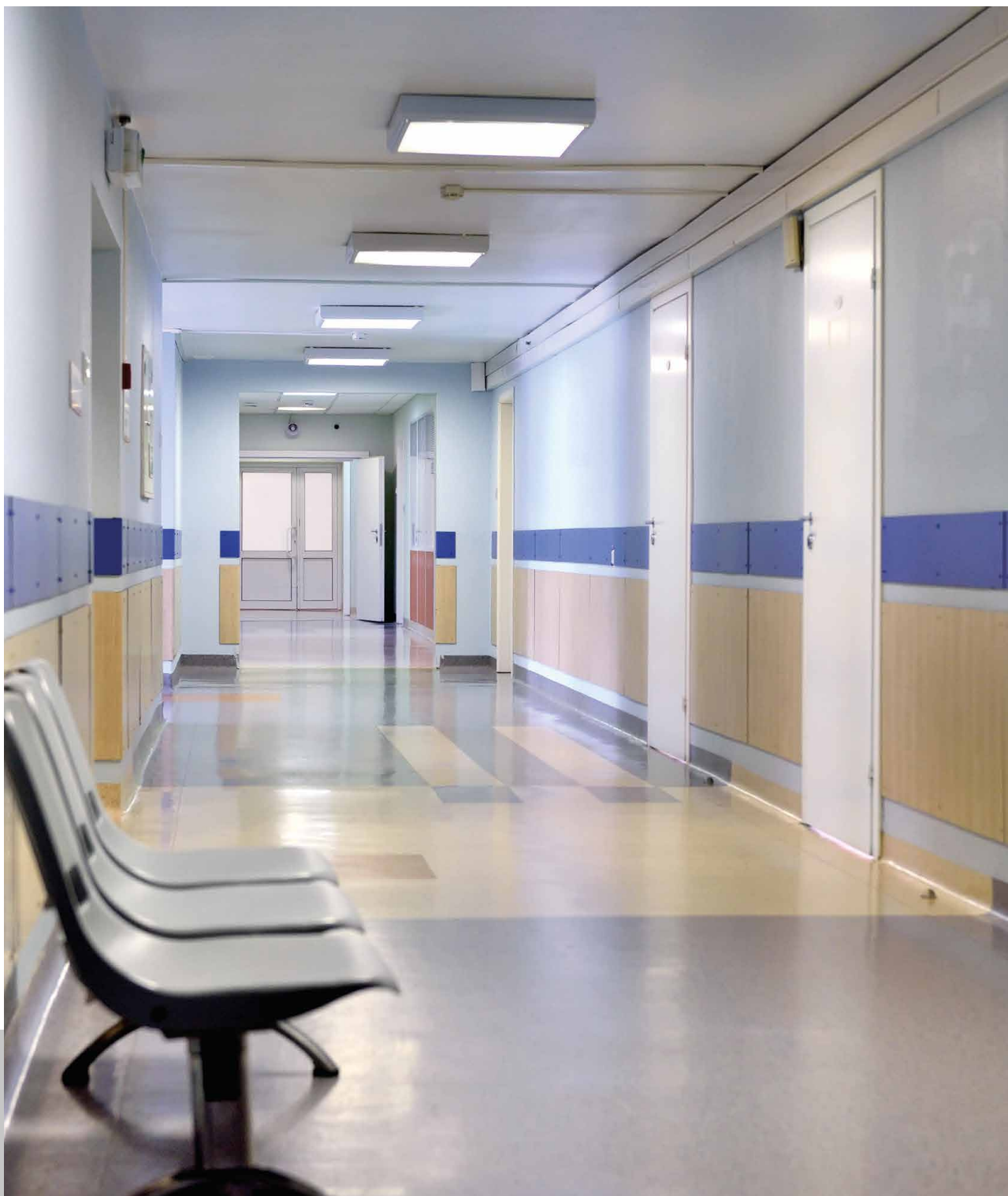


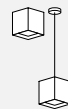
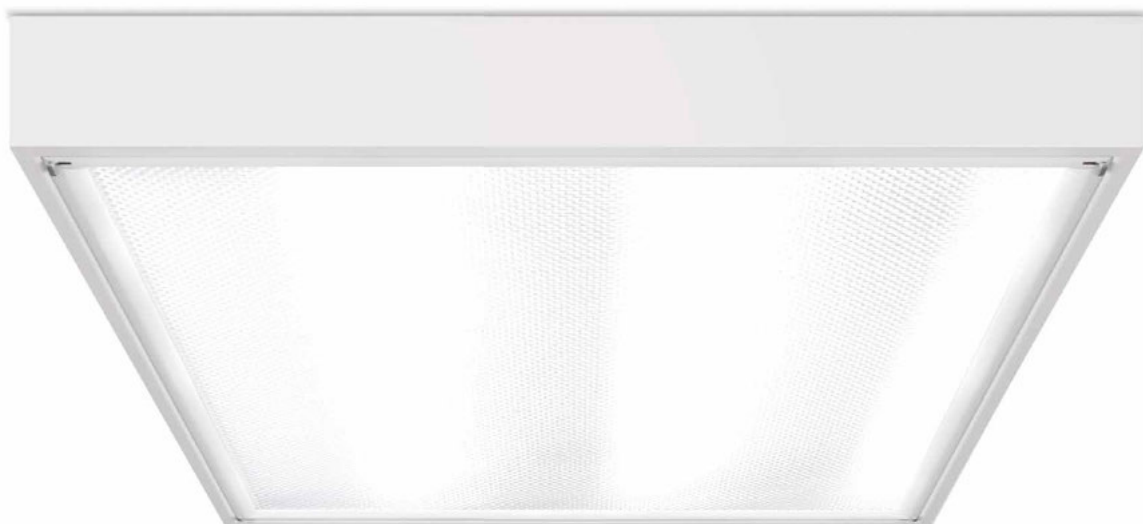
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
12675	P 201x30W LED 2US 156x1531	34	3529	4000	>80	1531x156x82
12692	P 203x10W LED 2US 596x596	34	3748	4000	>80	596x596x82
12687	P 202x24W LED 2US 270x1231	54	5531	4000	>80	1231x270x82
12680	P 202x24W LED 2US 196x1231	54	5871	4000	>80	1231x196x82
12689	P 202x30W LED 2US 270x1531	66	6922	4000	>80	1531x270x82
12682	P 202x30W LED 2US 196x1531	66	7348	4000	>80	1531x196x82



/ Surface luminaires and suspensions





P 200 IP54

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

Linear LED modules.

10W version

Colour initial tolerance (MacAdam): SDCM 2.

24W version

Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

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

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

INSTALLATION

Ceiling mounted installation.

APPLICATIONS

Environments: sterilized, aseptic.

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.

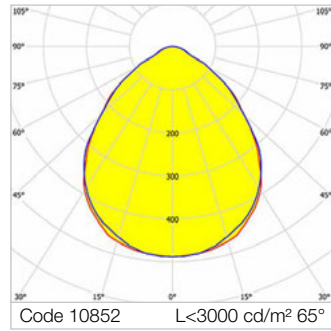
SP version

Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- diffuser in SMP microprismatic methacrylate (PMMA) or SP polycarbonate, Selfextinguishing V2
- housing in different RAL colours
- wiring: dimmable, CLO (page 752)
- emergency versions

P 200 IP54 VS

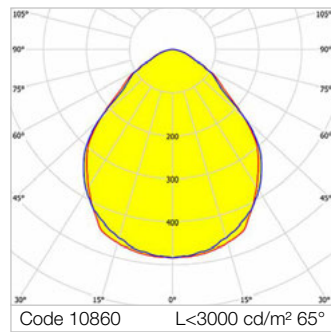


3x - Average luminance <1500 cd/m² for radial angles >65°.
 4x - Average luminance <3000 cd/m² for radial angles >65°.
 VS moulded glass, anti-glare, tempered, non-combustible, thickness 4 mm, locked to the white painted aluminium perimetrical frame, sealing gasket, hinged opening.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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	54	6302	4000	>80	1231x196x82

P 200 IP54 SP



3x - 4x - Average luminance <3000 cd/m² for radial angles >65°.
 SP transparent methacrylate (PMMA) diffuser, prismatic, anti-glare, locked to the pre-painted white aluminium perimeter frame with sealing gasket, hinged opening.

ON/OFF electronic wiring 230V-50/60Hz

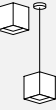
Code	Item	W	lm	K	CRI	L x A x H
10859	P 203x10W LED SP IP54 596x596	34	4142	4000	>80	596x596x82
10860	P 204x10W LED SP IP54 596x596	45	5474	4000	>80	596x596x82
10856	P 202x24W LED SP IP54 196x1231	54	6567	4000	>80	1231x196x82

P 200 | Accessories

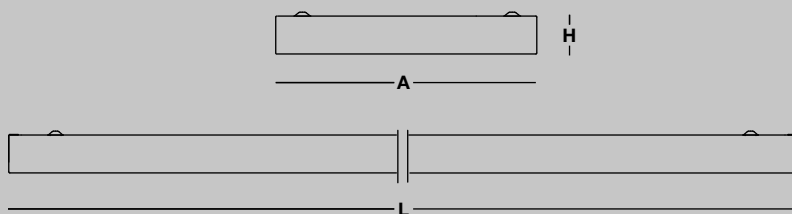


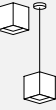
Code	Item
A0052	Wall-mounting brack

Wall-mounting bracket, in white painted steel.
Accessory compatible with 196 mm wide versions.



/ Surface luminaires and suspensions





P 250

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

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°.

SOURCE

Linear LED modules.

10W version

Colour initial tolerance (MacAdam): SDCM 2.

24W, 30W versions

Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

Housing in galvanized steel, painted in white epoxy-polyester.
Height only 55 mm.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

INSTALLATION

Ceiling mounted installation.

APPLICATIONS

Particularly suitable for low height environments.

SP version

Environments with video terminals, 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.

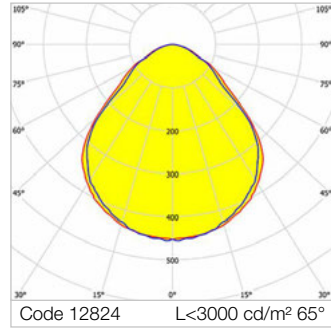
LGS version

Environments: with video terminals, representative areas, offices.
Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- diffuser in SMP microprismatic methacrylate (PMMA) or SP polycarbonate, Selfextinguishing V2
- housing in different RAL colours
- wiring: dimmable, CLO (page 752)
- emergency versions

P 250 SP

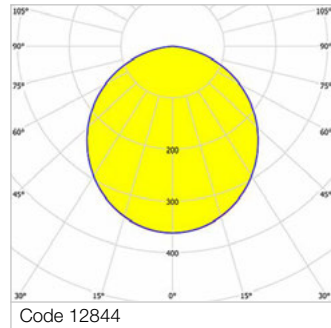
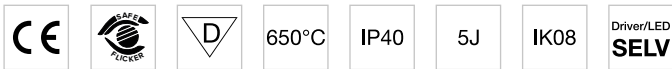


Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°. SP transparent methacrylate (PMMA) diffuser, prismatic, anti-glare, locked to the pre-painted white aluminium perimeter frame with sealing gasket, hinged opening.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
12824	P 253x10W LED SP 596x596	34	4360	4000	>80	596x596x55
12815	P 251x30W LED SP 156x1531	34	4364	4000	>80	1531x156x55
12826	P 254x10W LED SP 596x596	45	5765	4000	>80	596x596x55
12820	P 252x24W LED SP 196x1231	54	6916	4000	>80	1231x196x55
12822	P 252x30W LED SP 196x1531	66	8655	4000	>80	1531x196x55

P 250 OP

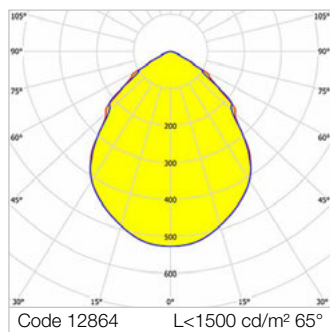


OP opal methacrylate (PMMA) flat diffuser, anti-glare, locked to the pre-painted white aluminium perimeter frame with sealing gasket, hinged opening.

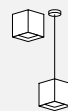
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
12844	P 253x10W LED OP 596x596	34	4080	4000	>80	596x596x55
12835	P 251x30W LED OP 156x1531	34	4084	4000	>80	1531x156x55
12846	P 254x10W LED OP 596x596	45	5405	4000	>80	596x596x55
12840	P 252x24W LED OP 196x1231	54	6484	4000	>80	1231x196x55
12842	P 252x30W LED OP 196x1531	66	8116	4000	>80	1531x196x55

P 250 LGS



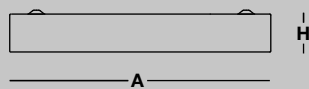
Average luminance <math><1500 \text{ cd/m}^2</math> for radial angles >65°.
 LGS micro-prismatic flat diffuser in transparent methacrylate (PMMA), multilenticular exterior, anti-glare, locked to the white painted aluminium perimetral frame, sealing gasket, hinged opening.
 Anti-glare opal polycarbonate filter for brightness uniformity.

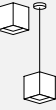
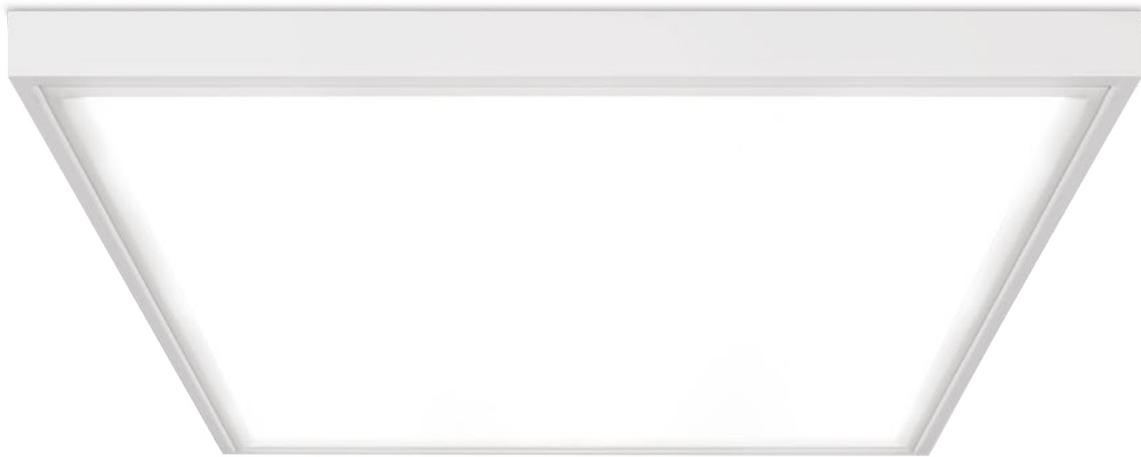


ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
12864	P 253x10W LED LGS 596x596	34	3696	4000	>80	596x596x55
12855	P 251x30W LED LGS 156x1531	34	3700	4000	>80	1531x156x55
12866	P 254x10W LED LGS 596x596	45	4894	4000	>80	596x596x55
12860	P 252x24W LED LGS 196x1231	54	5871	4000	>80	1231x196x55
12862	P 252x30W LED LGS 196x1531	66	7348	4000	>80	1531x196x55

/ Surface luminaires and suspensions





P 250 Diffused Light

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B20): 50000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

LGS version

Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >65°.

SOURCE

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

MECHANICAL

Housing in galvanized steel, painted in white epoxy-polyester.
Height only 55 mm.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

INSTALLATION

Ceiling mounted installation.

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.

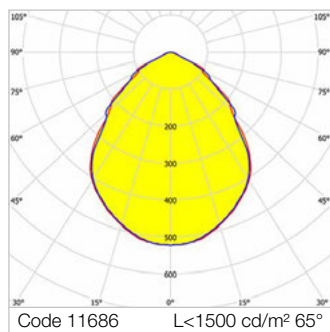
OP version

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

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- diffuser in SMP microprismatic methacrylate (PMMA) or SP polycarbonate, Selfextinguishing V2
- housing in different RAL colours
- emergency versions

P 250 Diffused Light LGS



Average luminance <math>< 1500 \text{ cd/m}^2</math> for radial angles >65°. LGS micro-prismatic flat diffuser in transparent methacrylate (PMMA), multi-lenticular exterior, anti-glare, locked to the white painted aluminium perimeter frame, hinged opening. Anti-glare opal polycarbonate filter for brightness uniformity.

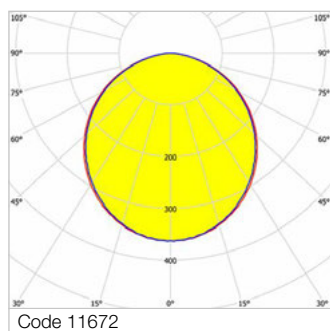
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10048	P 250 28W LED LGS 596x596	31	3707	4000	>80	596x596x55

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10049	P 250 28W LED DALI LGS 596x596	31	3707	4000	>80	596x596x55

P 250 Diffused Light OP



OP opal methacrylate (PMMA) flat diffuser, anti-glare, locked to the pre-painted white aluminium perimeter frame, hinged opening.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10051	P 250 28W LED OP 596x596	31	4083	4000	>80	596x596x55

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
10053	P 250 28W LED DALI OP 596x596	31	4083	4000	>80	596x596x55

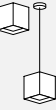
P 250 | Accessories



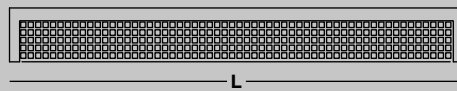
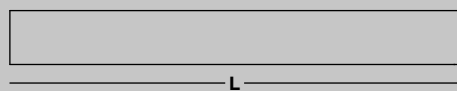
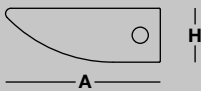
Code	Item
A0052	Wall-mounting brack

Wall-mounting bracket, in white painted steel.

Accessory compatible with 196 mm wide versions.

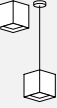


/ Surface luminaires and suspensions



Liceo Brocchi
Bassano del Grappa (VI)
Italia/Italy





Mira Wall

ILLUMINOTECHNICAL

Asymmetric indirect distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in galvanized steel, painted in white epoxy-polyester with reticular slots for high direct light emission.
Flow recuperator in specular aluminium with superficial titanium-magnesium treatment.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

INSTALLATION

Wall installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

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.

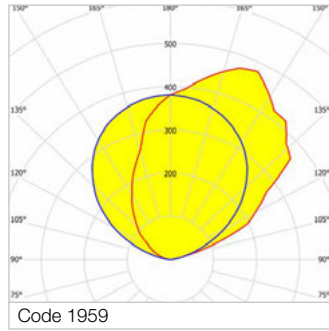
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- housing in different RAL colours
- wiring: dimmable, CLO (page 752)
- emergency versions

Mira Par Ind



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

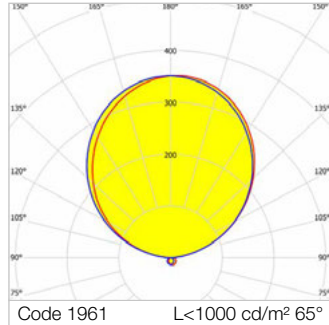
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1959	MIRA PAR LED 4x12W IND L675	56	6453	4000	>80	675x230x80

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1960	Mira Par LED 4x12W DALI IND L675	54	6453	4000	>80	675x230x80

Mira Par Dec



Average luminance <1000 cd/m² for radial angles >65°.
Indirect and direct decorative lighting.
Body with reticular slots.
Opal acrylic upper diffuser.
Opal polycarbonate Inlay Cover for perforated housings.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
1961	MIRA PAR LED DE 4x12W L675	56	6321	4000	>80	675x230x80

DALI electronic wiring 230V-50/60Hz

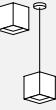
Code	Item	W	lm	K	CRI	L x A x H
1963	Mira Par LED DE 4x12W DALI L675	54	6321	4000	>80	675x230x80

Mira | Accessories



Code	Item
A0090	Bracket/5-pole terminal block
















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



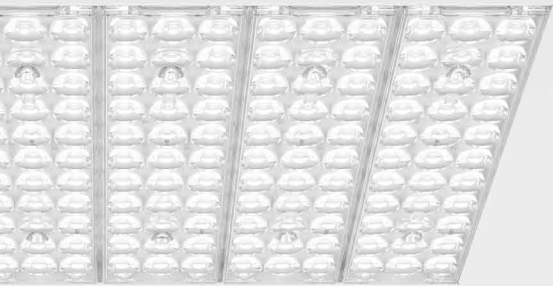
/ catalogue

_Recessed luminaires

/ 3F Filippi

<p>3F Six R</p>  <p>></p> <p>Page 286</p>	<p>3F Six R</p> <p>Page 290</p>	<p>3F LED Panel</p>  <p>></p> <p>Page 296</p>	<p></p> <p>3F LED Panel</p> <p>Page 298</p>	<p>3F Diagon</p>  <p>></p> <p>Page 302</p>	<p>3F Diagon</p> <p>Lay-in installation</p> <p>Page 310</p>
<p>3F Diagon</p> <p>Lay-in installation</p> <p>Tunable White</p> <p>Page 316</p>	<p>3F Diagon</p> <p>Pull-up installation</p> <p>Page 320</p>	<p>L 320</p>  <p>></p> <p>Page 326</p>	<p>L 320</p> <p>Page 326</p>	<p>L 340</p>  <p>></p> <p>Page 338</p>	<p>L 340</p> <p>Diffused Light</p> <p>Page 340</p>
<p>L 340</p> <p>Lite</p> <p>Page 348</p>	<p>L 340</p> <p>Tunable White</p> <p>Page 352</p>	<p>L 350</p>  <p>></p> <p>Page 356</p>	<p>L 350</p> <p>Page 356</p>	<p>L 360</p>  <p>></p> <p>Page 362</p>	<p>L 360</p> <p>Page 362</p>
<p>L 490</p>  <p>></p> <p>Page 366</p>	<p></p> <p>L 490</p> <p>Page 366</p>	<p>L 560</p>  <p>></p> <p>Page 370</p>	<p>L 560</p> <p>Page 370</p>	<p>L 600</p>  <p>></p> <p>Page 376</p>	<p>L 600</p> <p>Diffused Light</p> <p>Page 376</p>
<p>L 650</p>  <p>></p> <p>Page 384</p>	<p>L 650</p> <p>Diffused Light</p> <p>Page 384</p>	<p>3F Reno</p>  <p>></p> <p>Page 390</p>	<p>3F Reno</p> <p>White</p> <p>Page 396</p>	<p>3F Reno</p> <p>Black</p> <p>Page 406</p>	<p>Lucequadro</p>  <p>></p> <p>Page 414</p>
<p>Lucequadro</p> <p>Page 414</p>					





3F Six R

> www.3F-Filippi.com/3F Six R

3F Six R is the new recessed luminaire particularly suitable for shopping centres, exhibition areas and warehouses with important installation heights.

Thanks to the use of six methacrylate (PMMA) optical lenses installed on the fixture is it possible to obtain customised luminous distribution by choosing from the three types of optics available: wide, medium 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 R 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.

This product is also available in this version 3F Six (page 488).

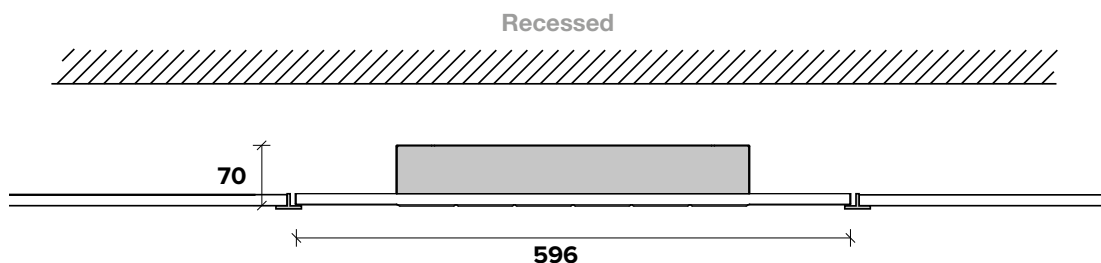
+ Overview

- Luminous efficacy up to 154 lumen/watt.
- Luminous fluxes from 6628 to 13622 lumens.
- Average luminance <3000 cd/m² (UGR version).
- UGR <19 (UGR version).
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

Page	Product	Lay-installation	Pull-up installation
290	3F Six R	•	with accessory

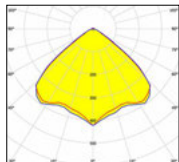
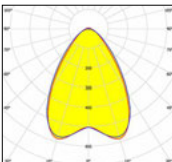
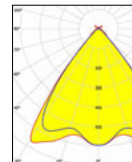
Product range

3F Six R



3F Six R



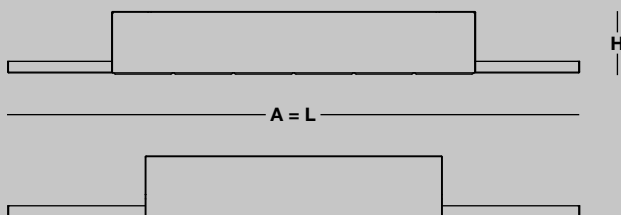
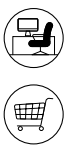
Model	Wide	Medium	UGR
Average luminance for angles > 65 (cd / m ²)	>3000	>3000	<3000
UGR	<21	<21	<19
Protection class	IP40		
Photometric distribution			
Installation steps	Dt 1,39 DI 1,43	1,16 1,19	1,39 1,30

10

PORTA OGGETTI CUCINA
ACCESSORI STOVIGLIE
VASI DA CONSERVA
CONTENITORI IN VETRO
CONTENITORI IN PLASTICA

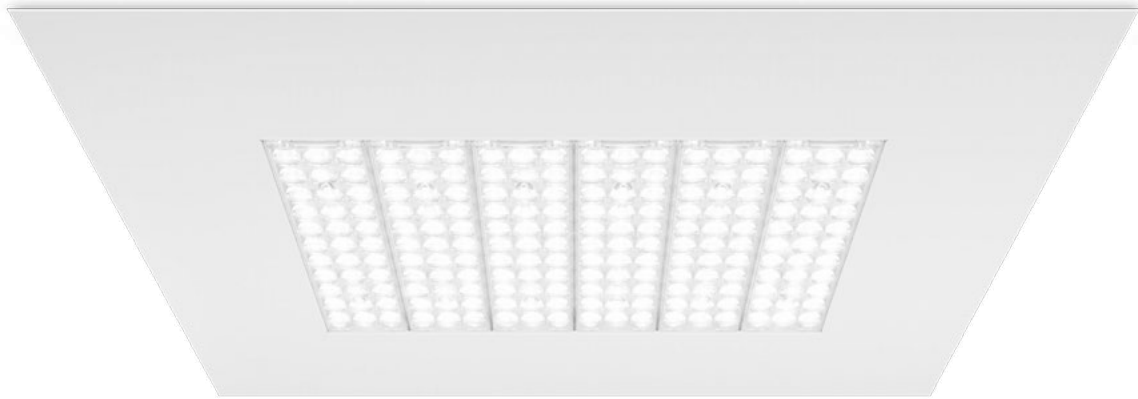


/ Recessed luminaires



Ipercoop Centro Borgo
Bologna
Italia/Italy





3F Six R

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in galvanized steel, painted in white epoxy-polyester.
Methacrylate (PMMA) lenses with external flat surface.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Power cable type H05Z1Z1-F 3-5x1.5 mm² that protrudes by 1 m with sheared ends.

INSTALLATION

Lay-in installation.

APPLICATIONS

Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

UGR version

Environments that need luminance control.

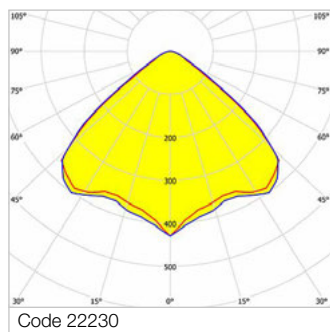
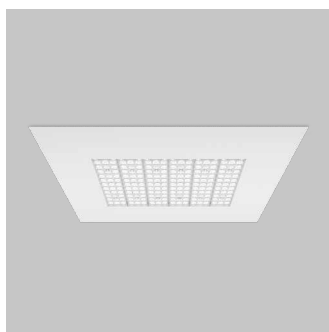
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different light distributions
- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- different dimensions
- emergency versions

3F Six R Wide



Wide distribution.

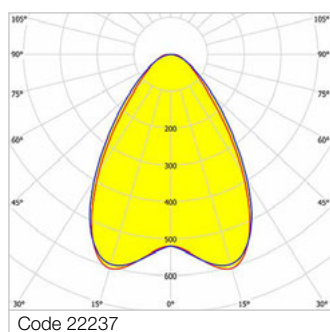
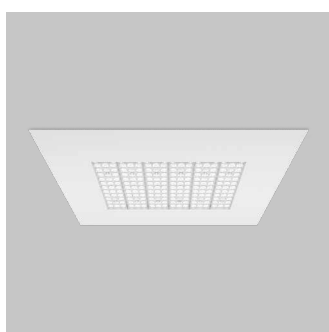
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22230	3F Six R 85/840 WIDE 596x596	83	13622	4000	>80	596x596x70
22231	3F Six R 70/840 WIDE 596x596	67	11050	4000	>80	596x596x70
22232	3F Six R 60/840 WIDE 596x596	55.5	9530	4000	>80	596x596x70

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22233	3F Six R 85/840 DALI WIDE 596x596	83	13622	4000	>80	596x596x70
22234	3F Six R 70/840 DALI WIDE 596x596	67	11050	4000	>80	596x596x70
22235	3F Six R 60/840 DALI WIDE 596x596	55.5	9530	4000	>80	596x596x70

3F Six R Medium



Medium distribution.

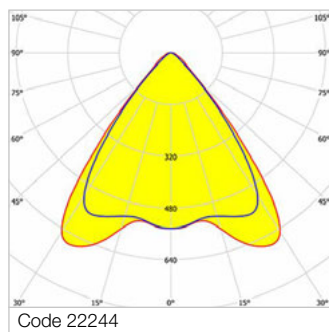
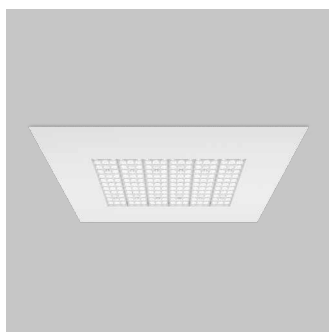
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22237	3F Six R 85/840 MEDIUM 596x596	83	13157	4000	>80	596x596x70
22238	3F Six R 70/840 MEDIUM 596x596	67	10673	4000	>80	596x596x70
22239	3F Six R 60/840 MEDIUM 596x596	55.5	9205	4000	>80	596x596x70

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22240	3F Six R 85/840 DALI MEDIUM 596x596	83	13157	4000	>80	596x596x70
22241	3F Six R 70/840 DALI MEDIUM 596x596	67	10673	4000	>80	596x596x70
22242	3F Six R 60/840 DALI MEDIUM 596x596	55.5	9205	4000	>80	596x596x70

3F Six R UGR



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

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22244	3F Six R 40/840 UGR 596x596	40	6621	4000	>80	596x596x70

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22245	3F Six R 40/840 DALI UGR 596x596	40	6621	4000	>80	596x596x70

3F Six R | Accessories



Code	Item
A0798	621x621 frame + brackets

Adapter frame in white-painted steel, for installing luminaries with dimensions of 596x596 mm for pull-up installations on plasterboard false ceilings.



Code	Item
A0579	Safety wire with brackets

Anti-fall safety cable with pair of brackets for fixing the housing to the building structure. Length 2.5 m.



Code	Item
A01489	3FLPLAFO604 - 60x60 ceiling frame kit

White aluminium frame. Height 80 mm.







3F LED Panel

> www.3F-Filippi.com/3F LED Panel

3F LED Panel is 3F Filippi's new entry-level proposal: a functional product that aims to provide good lighting in indoor environments. Simplicity does not mean economy: the LED sources (available with CRI >80 and CRI >90) don't cause any photobiological risk, belonging to the RG0 class (Risk Exempt). Furthermore, the very low level of Flickering guarantees more comfort and safety, especially after prolonged use in environments with VDTs.

The aluminium body guarantees lightness and gives a remarkable rigidity to the product, supplied as standard with the anti-fall safety cable to secure the body to the building structure.

Particular attention was paid to the frame that outlines the perimeter (made in a single piece) and to the rapidity of installation: the quick-coupling terminal block also allows the connection in cascade of several appliances.

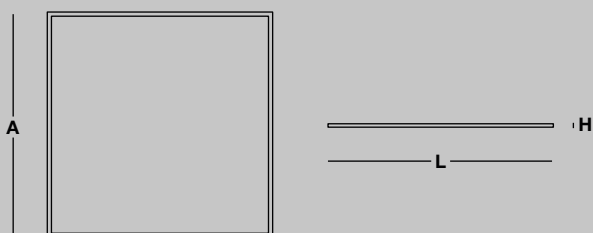
+ Overview

- Luminous efficacy up to 130 lumen/watt.
- Luminous fluxes from 2316 to 5272 lumens.
- Average luminance <3000 cd/m².
- Extensive installation pitch.
- UGR <19.
- Excellent quality/price ratio.
- Technology by 3F Filippi.
- Multi-current power supply to choose different lighting levels.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Mechanical and electrical assembly without tools.
- Reliability guaranteed over time.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

Page	Product	Lay-installation
298	UPDATE 3F LED Panel	•

UPDATE

/ Recessed luminaires



Porto di Savona
Savona
Italia/Italy





3F LED Panel

ILLUMINOTECHNICAL

Direct symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
Lifetime (L75/B20): 80000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in white painted epoxy-polyester powder aluminium.
Diffuser in SMP transparent microprismatic methacrylate (PMMA) externally, anti-glare with high transmittance.
Perimetral frame in white polycarbonate.
Anti-fall safety cable.

ELECTRICAL

In compliance with EN 60598-1.
Multi-current power supply, to be ordered separately, that allows you to choose the driving current of the fixture at the time of installation according to the required illuminance.
Fixtures in compliance with EN 60598-2-22, for power supply from a centralised CPSS emergency system.
Class II.
EP permanent emergency kit, to be ordered separately, compliant with the EN S60598-2-22, high risk areas excluded.

INSTALLATION

Lay-in or pull-up installation, Ceiling or suspension via accessory.

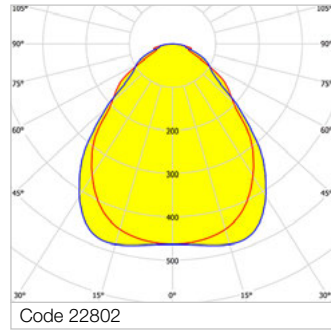
APPLICATIONS

Environments: with VDTs, meeting rooms, offices.
Environments: recreational, transit areas, corridors, schools, stairwells.
Environments where soft diffuse light is required for optimal visual comfort.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).
In electrical systems without a regulation system (manual or automatic) and DALI bus, a suitable jumper must be made on the DA-DA terminals of the appliance.

3F LED Panel



23W, 27W, 29W, 31W, 34W, 36W, 39W, and 43W powers, are available with DALI wiring.
 27W, 29W, 31W, 34W and 36W powers, are available with ON/OFF wiring.

Code	Item	W	lm	K	CRI	L x A x H
22790	3FLP6060UGR-830	23	2755	600mA	3000	>80
		27	3207	700mA		
		29	3437	750mA		
		31	3640	800mA		
		34	3830	850mA		
		36	4010	900mA		
		39	4471	1000mA		
22791	3FLP6060UGR-840	23	2990	600mA	4000	>80
		27	3480	700mA		
		29	3730	750mA		
		31	3950	800mA		
		34	4160	850mA		
		36	4350	900mA		
		39	4850	1000mA		
22796 ^{NEW}	3FLP30120UGR-840	23	2690	600mA	4000	>80
		27	3131	700mA		
		29	3355	750mA		
		31	3554	800mA		
		34	3744	850mA		
		36	3922	900mA		
		39	4372	1000mA		
22792	3FLP6060UGR-930	23	2316	600mA	3000	>90
		27	2696	700mA		
		29	2890	750mA		
		31	3060	800mA		
		34	3220	850mA		
		36	3370	900mA		
		39	3758	1000mA		
22793	3FLP6060UGR-940	23	2513	600mA	4000	>90
		27	2925	700mA		
		29	3135	750mA		
		31	3320	800mA		
		34	3500	850mA		
		36	3660	900mA		
		39	4081	1000mA		
22794	3FLP30120UGR-940	23	2263	600mA	4000	>90
		27	2634	700mA		
		29	2823	750mA		
		31	2990	800mA		
		34	3150	850mA		
		36	3300	900mA		
		39	3679	1000mA		
43	4000	1100mA				

3F LED Panel | Accessories



Code	Item
A01485	ZK700-900EL DRIVER ON-OFF DIP-SWITCH
A01486	DELT40C-MEL DRIVER DALI DIP-SWITCH

3F LED Panel Driver



Code	Item
A01490	3FLPLAFO603 - 60x60 ceiling frame kit
A01491	3FLPLAFO1203 - 30x120 ceiling frame kit

Frame for ceiling installation of the product (driver included), made of white extruded aluminium. Kit to assemble. Dowels and screws supplied as standard.

Attention: the code 3FLPLAF0603 is dedicated to 60x60 cm panels, while the code 3FLPLAF01203 is dedicated to 120x30 cm panels.



Code	Item
A01495	600x600 carter for metal panels

600x600 carter in white painted steel, for installing 596x596 mm luminaires in abutment on false ceilings with metal panels.

This accessory is suitable for square products only.



Code	Item
A01492	3FKTLP-SPU - Suspension with adjustment - 1,5m

Adjustable suspension with 1.5 m long cables.



Code	Item
A01493	3FKTLPW1-MS - Built-in springs

Kit of 4 metal springs for recessed installation of the product.

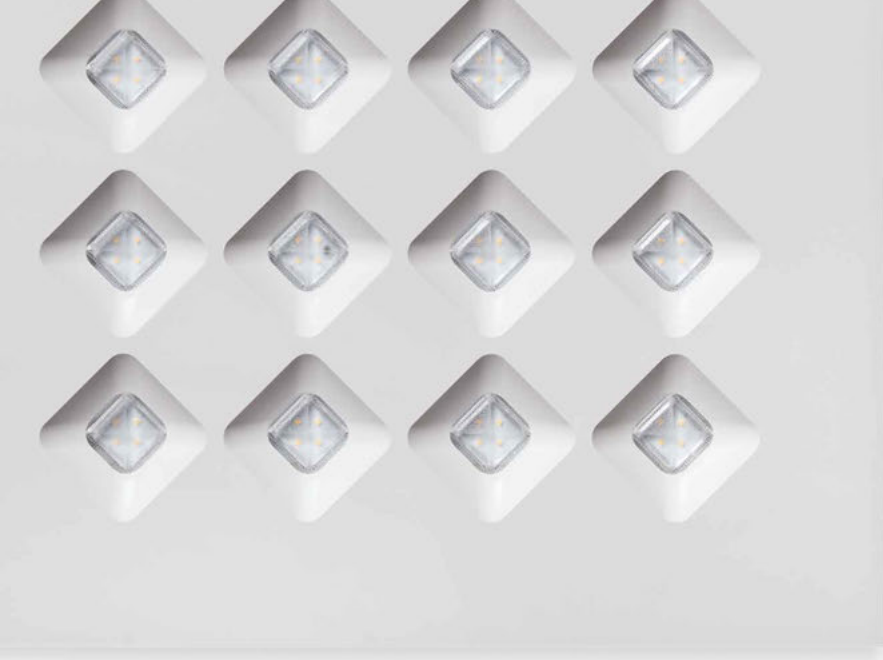


Code	Item
A01496 ^{NEW}	3FLP Kit EP 1h-24h
A01497 ^{UPDATE}	3FLP Kit EP 3h-24h

EP maintained emergency wiring, 1h or 3hrs duration with 24hrs recharge. EN 60598-2-22 standard compliant, high-risk areas excluded. Dimensions 135x45x23 mm.

EP





3F Diagon

> [www.3F-Filippi.com/3F Diagon](http://www.3F-Filippi.com/3F_Diagon)

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 160 lm/ W for the version with transparent lenses and up to 135 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.

This product is also available in this version 3F Diagon P (page 244).

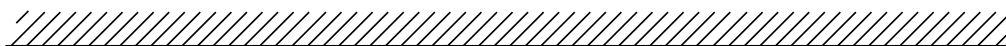
+ Overview

- Luminous efficacy up to 161 lumen/watt.
- Luminous fluxes from 2738 to 5547 lumens.
- Average luminance <1500 cd/m².
- UGR <16.
- Optics with 45° oriented light cells.
- Available with integrated sensors.
- Emergency version with kit integrated into the body.
- Driver integrated in the fixture.
- Essential and functional design.
- Tunable White version.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Mechanical and electrical assembly without tools.

Page	Product	Lay-installation	Pull-up installation
310	3F Diagon Lay-in installation	•	
316	3F Diagon Lay-in installation - Tunable White	•	
320	3F Diagon Pull-up installation		•

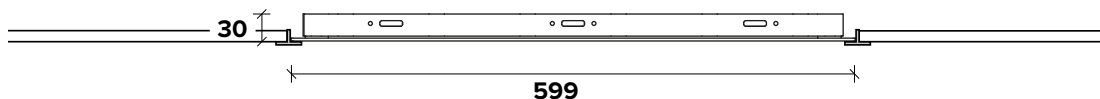
Product range

Recessed



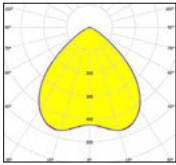
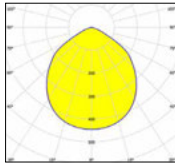
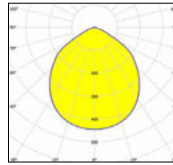
3F Diagon

Lay-in installation



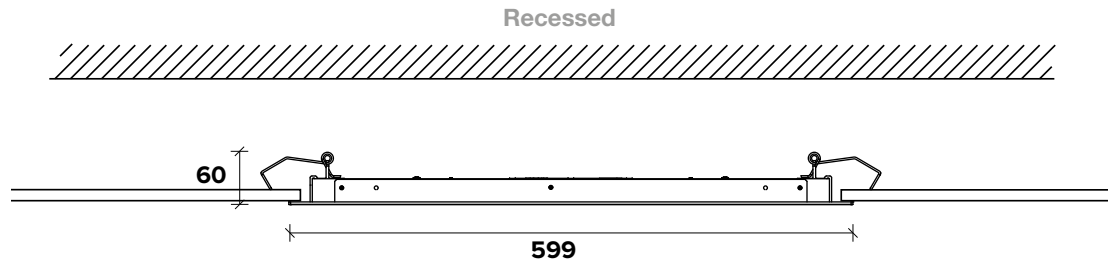
3F Diagon
Lay-in
installation



Model	Standard	Soft UGR	Soft UGR TW
Average luminance for angles > 65 (cd / m ²)	<1500	<3000	<3000
UGR	<19	<19	<19
Protection class		IP20 IP43	
Photometric distribution			
Installation steps	Dt 1,40 DI 1,40	1,20 1,20	1,20 1,20

3F Diagon

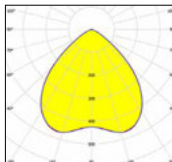
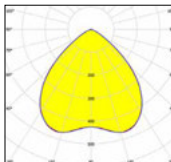
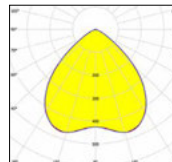
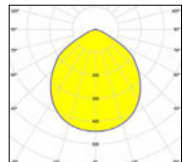
Pull-up
installation



More information on the “Mounting details” page

3F Diagon
Pull-up installation



Model	FCL	FCH	FP	FP Soft UGR
Average luminance for angles > 65 (cd / m ²)	<1500	<1500	<1500	<3000
UGR	<19	<19	<19	<19
Protection class	IP20 IP43			
Photometric distribution				
Installation steps	Dt 1,40	1,40	1,40	1,20
	DI 1,40	1,40	1,40	1,20

Screens and finishes

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.



Finishes



White

On request



Black

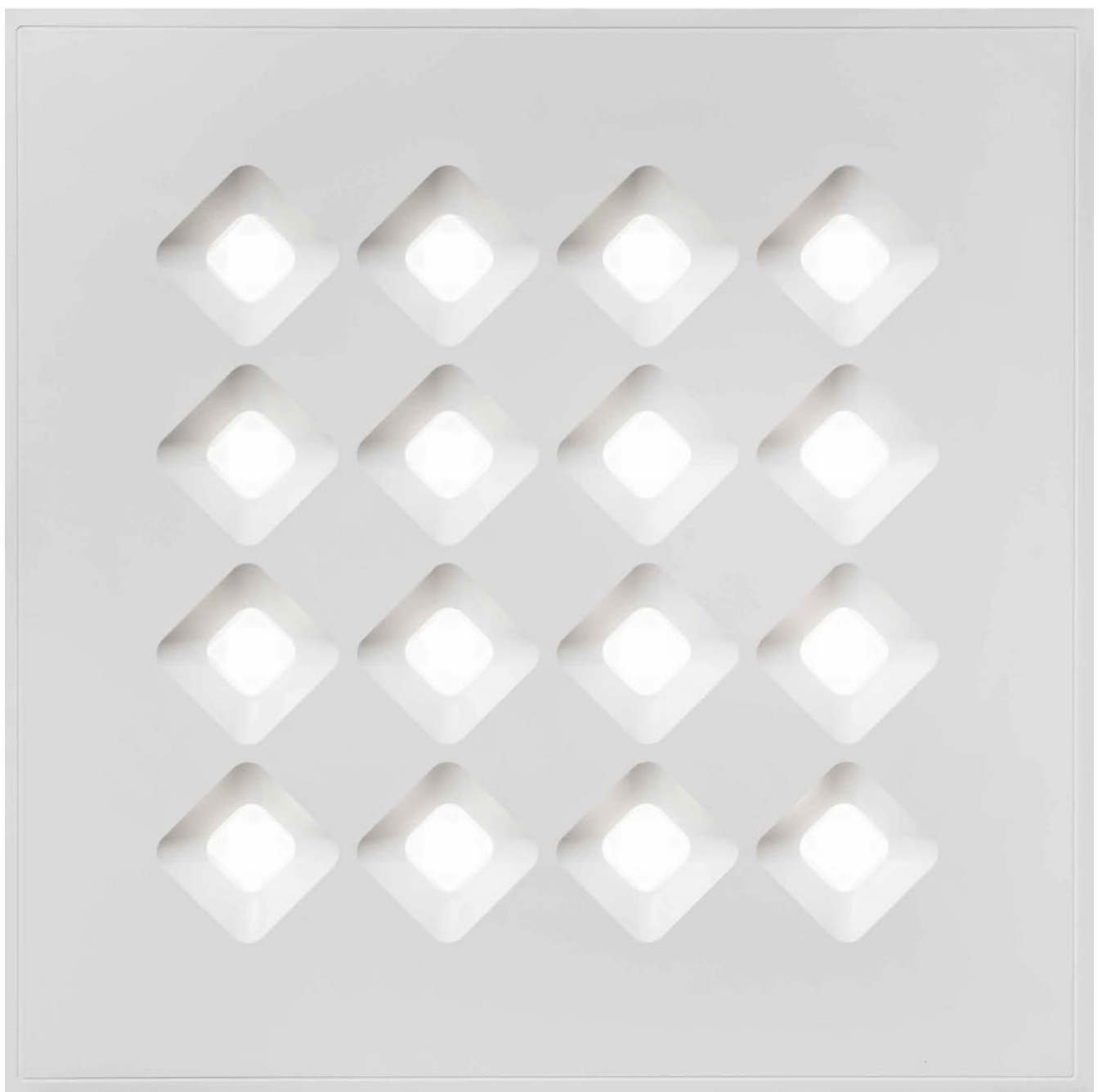


Grey

3F Diagon | Soft UGR lenses

The versions equipped with Soft UGR lens are particularly suitable for illuminating environments where maximum comfort is required for diffused and soft lighting.

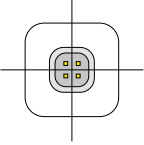
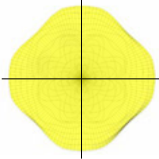
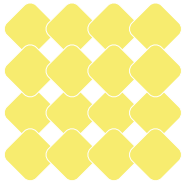
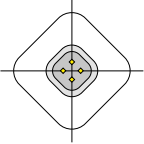
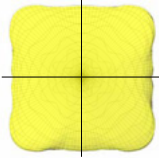
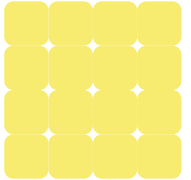
Suitable for representative environments, with video terminals, offices, meeting rooms, transit areas, reception and waiting rooms. They provide luminance control with values lower than 3000 cd/m² for angles > 65°.



Product advantages

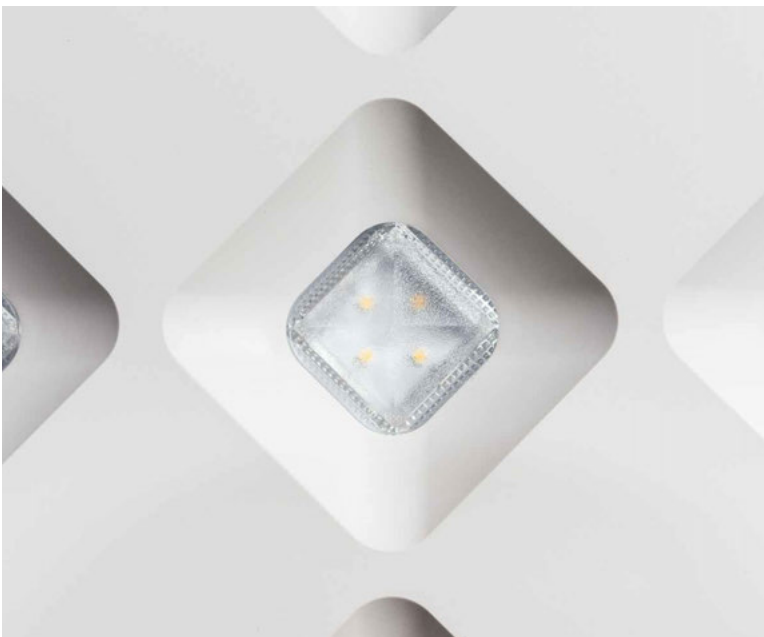
45° ANGLE CELLS

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:

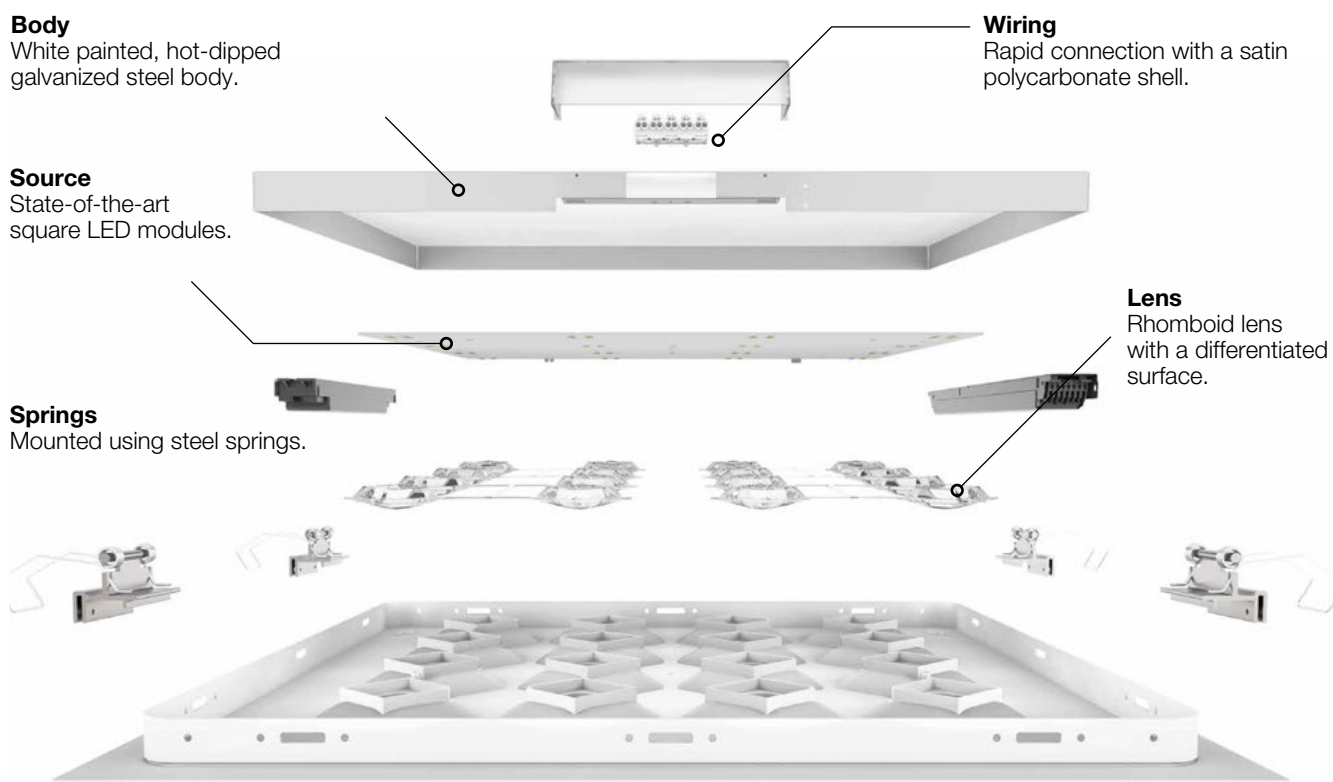
	Cell distribution	Light distribution of a single cell	Uniformity of light on the ground
Market solution			
3F Diagon			

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.

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 in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471).
- State-of-the-art square LED modules
- Initial colour tolerance (MacAdam): SDCM 3
- Transparent lens performance > 90%
- Soft UGR lens efficiency > 75%

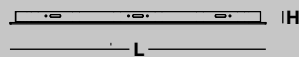
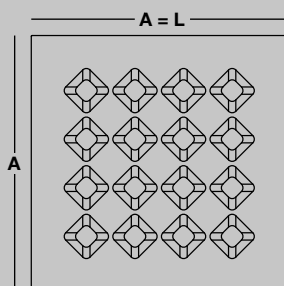
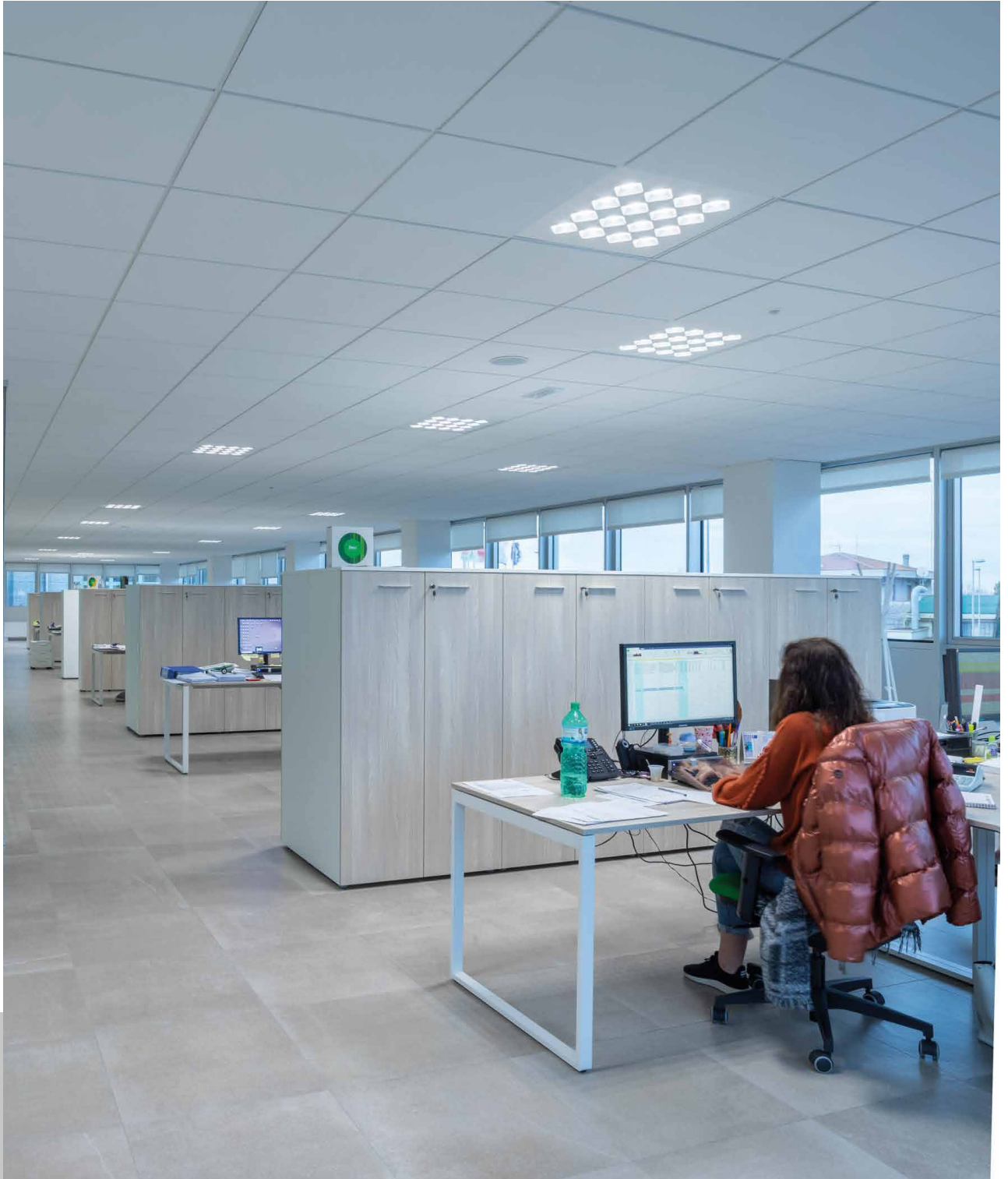


Screen
Anti-glare white polycarbonate alveolar diagonal screen.

Thanks to the compact height of 30 millimetres, 3F Diagon is the ideal solution for installation in false ceilings with limited space.



/ Recessed luminaires



Fimar
Villa Verucchio (RI)
Italia/Italy





3F Diagon Lay-in installation

ILLUMINOTECHNICAL

Direct symmetric distribution.
Colour temperature available /830 - /840, /930 - /940.
Lifetime (L75/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised 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 dedicated to false ceilings that have modular dimensions of 625x625.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Quick connection.

INSTALLATION

Lay-in installation.
Installation and assembly diagrams on page 319.

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.

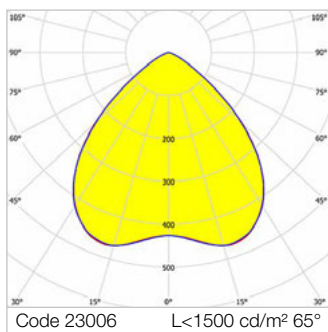
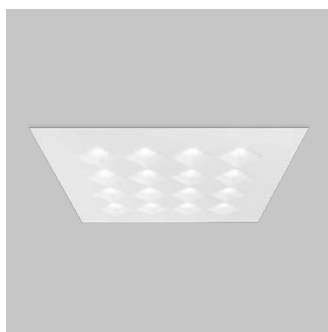
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: twin-circuit, CLO (page 752)
- Sensor version
- CRI >90 sources
- emergency versions

3F Diagon



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 (PMMA).

3F Diagon 596x596 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23025	3F Diagon 15W/840 596x596	17	2694	4000	>80	596x596x30
23024	3F Diagon 19W/840 596x596	21	3354	4000	>80	596x596x30
23098	3F Diagon 25W/930 596x596	28	3294	3000	>90	596x596x30
23122	3F Diagon 25W/940 596x596	28	3485	4000	>90	596x596x30
23002	3F Diagon 25W/830 596x596	28	4080	3000	>80	596x596x30
23026	3F Diagon 25W/840 596x596	28	4250	4000	>80	596x596x30
23027	3F Diagon 39W/840 596x596	40	5796	4000	>80	596x596x30
23123	3F Diagon 39W/940 596x596	40	4861	4000	>90	596x596x30

3F Diagon 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23029	3F Diagon 15W/840 DALI 596x596	17	2694	4000	>80	596x596x30
23028	3F Diagon 19W/840 DALI 596x596	21	3354	4000	>80	596x596x30
23102	3F Diagon 25W/930 DALI 596x596	28	3294	3000	>90	596x596x30
23126	3F Diagon 25W/940 DALI 596x596	28	3485	4000	>90	596x596x30
23006	3F Diagon 25W/830 DALI 596x596	28	4080	3000	>80	596x596x30
23127	3F Diagon 39W/940 DALI 596x596	40	4861	4000	>90	596x596x30

3F Diagon 596x596 - DALI-2 DATI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23030	3F Diagon 25W/840 DALI 596x596	28	4250	4000	>80	596x596x30
23031	3F Diagon 39W/840 DALI 596x596	40	5796	4000	>80	596x596x30

3F Diagon 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23033	3F Diagon 15W/840 EP 596x596	18	2694	4000	>80	596x596x30
23032	3F Diagon 19W/840 EP 596x596	22	3354	4000	>80	596x596x30
23106	3F Diagon 25W/930 EP 596x596	29	3294	3000	>90	596x596x30
23130	3F Diagon 25W/940 EP 596x596	29	3485	4000	>90	596x596x30
23010	3F Diagon 25W/830 EP 596x596	29	4080	3000	>80	596x596x30
23034	3F Diagon 25W/840 EP 596x596	29	4250	4000	>80	596x596x30
23035	3F Diagon 39W/840 EP 596x596	41	5796	4000	>80	596x596x30
23131	3F Diagon 39W/940 EP 596x596	41	4861	4000	>90	596x596x30

3F Diagon 621x621 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23409	3F Diagon 15W/840 621x621	17	2694	4000	>80	621x621x30
23408	3F Diagon 19W/840 621x621	21	3354	4000	>80	621x621x30
23482	3F Diagon 25W/930 621x621	28	3294	3000	>90	621x621x30
23506	3F Diagon 25W/940 621x621	28	3485	4000	>90	621x621x30
23386	3F Diagon 25W/830 621x621	28	4080	3000	>80	621x621x30
23410	3F Diagon 25W/840 621x621	28	4250	4000	>80	621x621x30
23411	3F Diagon 39W/840 621x621	40	5796	4000	>80	621x621x30
23507	3F Diagon 39W/940 621x621	40	4861	4000	>90	621x621x30

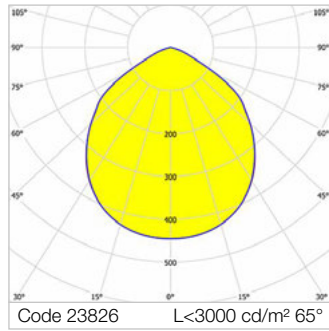
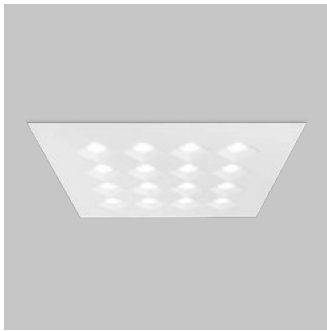
3F Diagon 621x621 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23413	3F Diagon 15W/840 DALI 621x621	17	2694	4000	>80	621x621x30
23412	3F Diagon 19W/840 DALI 621x621	21	3354	4000	>80	621x621x30
23486	3F Diagon 25W/930 DALI 621x621	28	3294	3000	>90	621x621x30
23510	3F Diagon 25W/940 DALI 621x621	28	3485	4000	>90	621x621x30
23390	3F Diagon 25W/830 DALI 621x621	28	4080	3000	>80	621x621x30
23414	3F Diagon 25W/840 DALI 621x621	28	4250	4000	>80	621x621x30
23415	3F Diagon 39W/840 DALI 621x621	40	5796	4000	>80	621x621x30
23511	3F Diagon 39W/940 DALI 621x621	40	4861	4000	>90	621x621x30

3F Diagon 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23417	3F Diagon 15W/840 EP 621x621	18	2694	4000	>80	621x621x30
23416	3F Diagon 19W/840 EP 621x621	22	3354	4000	>80	621x621x30
23490	3F Diagon 25W/930 EP 621x621	29	3294	3000	>90	621x621x30
23514	3F Diagon 25W/940 EP 621x621	29	3485	4000	>90	621x621x30
23394	3F Diagon 25W/830 EP 621x621	29	4080	3000	>80	621x621x30
23418	3F Diagon 25W/840 EP 621x621	29	4250	4000	>80	621x621x30
23419	3F Diagon 39W/840 EP 621x621	41	5796	4000	>80	621x621x30
23515	3F Diagon 39W/940 EP 621x621	41	4861	4000	>90	621x621x30

3F Diagon Soft UGR



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 (PMMA).

3F Diagon 596x596 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23826	3F Diagon 25W/830 SOFT UGR 596x596	28	3532	3000	>80	596x596x30
23812	3F Diagon 25W/840 SOFT UGR 596x596	28	3679	4000	>80	596x596x30
23842	3F Diagon 39W/930 SOFT UGR 596x596	40	3890	3000	>90	596x596x30
23834	3F Diagon 39W/940 SOFT UGR 596x596	40	4116	4000	>90	596x596x30

3F Diagon 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23828	3F Diagon 25W/830 DALI SOFT UGR 596x596	28	3532	3000	>80	596x596x30
23814	3F Diagon 25W/840 DALI SOFT UGR 596x596	28	3679	4000	>80	596x596x30
23844	3F Diagon 39W/930 DALI SOFT UGR 596x596	40	3890	3000	>90	596x596x30
23836	3F Diagon 39W/940 DALI SOFT UGR 596x596	40	4116	4000	>90	596x596x30

3F Diagon 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23827	3F Diagon 25W/830 EP SOFT UGR 596x596	29	3532	3000	>80	596x596x30
23813	3F Diagon 25W/840 EP SOFT UGR 596x596	29	3679	4000	>80	596x596x30
23843	3F Diagon 39W/930 EP SOFT UGR 596x596	41	3890	3000	>90	596x596x30
23835	3F Diagon 39W/940 EP SOFT UGR 596x596	41	4116	4000	>90	596x596x30

3F Diagon 621x621 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23830	3F Diagon 25W/830 SOFT UGR 621x621	28	3532	3000	>80	621x621x30
23819	3F Diagon 25W/840 SOFT UGR 621x621	28	3679	4000	>80	621x621x30
23846	3F Diagon 39W/930 SOFT UGR 621x621	40	3890	3000	>90	621x621x30
23838	3F Diagon 39W/940 SOFT UGR 621x621	40	4116	4000	>90	621x621x30

3F Diagon 621x621 - DALI electronic wiring 230V-50/60Hz

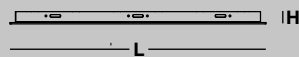
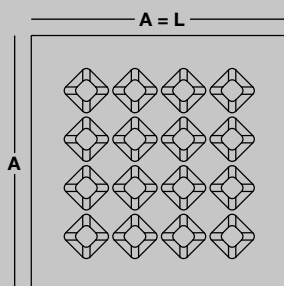
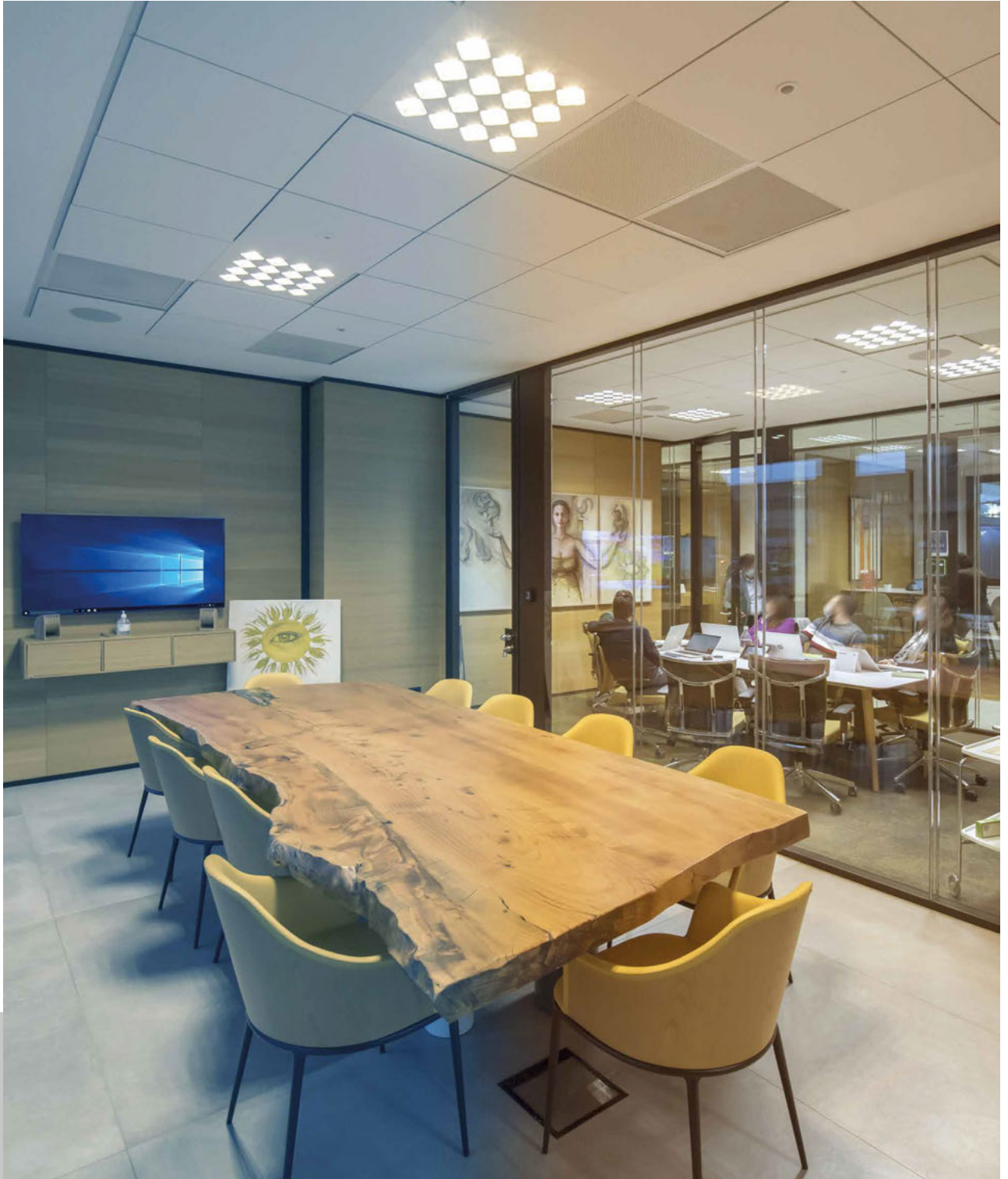
Code	Item	W	lm	K	CRI	L x A x H
23832	3F Diagon 25W/830 DALI SOFT UGR 621x621	28	3532	3000	>80	621x621x30
23821	3F Diagon 25W/840 DALI SOFT UGR 621x621	28	3679	4000	>80	621x621x30
23848	3F Diagon 39W/930 DALI SOFT UGR 621x621	40	3890	3000	>90	621x621x30
23840	3F Diagon 39W/940 DALI SOFT UGR 621x621	40	4116	4000	>90	621x621x30

3F Diagon 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23831	3F Diagon 25W/830 EP SOFT UGR 621x621	29	3532	3000	>80	621x621x30
23820	3F Diagon 25W/840 EP SOFT UGR 621x621	29	3679	4000	>80	621x621x30
23847	3F Diagon 39W/930 EP SOFT UGR 621x621	41	3890	3000	>90	621x621x30
23839	3F Diagon 39W/940 EP SOFT UGR 621x621	41	4116	4000	>90	621x621x30



/ Recessed luminaires



Andriani S.p.A.
Gravina di Puglia (BA)
Italia/Italy





3F Diagon Lay-in installation - Tunable White

ILLUMINOTECHNICAL

Direct symmetric distribution.
The colour temperature can be adjusted between 2700 K and 6500 K.
Lifetime (L75/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester.
Honeycombed diagonal screen in white anti-glare polycarbonate.
Height only 30 mm.
Installation in false ceilings with exposed structure.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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 per poles.

INSTALLATION

Lay-in installation.
Installation and assembly diagrams on page 319.

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.

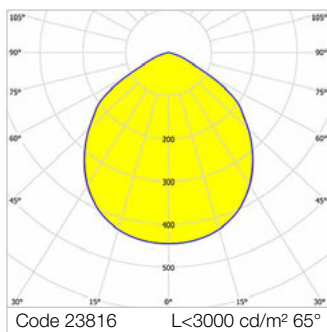
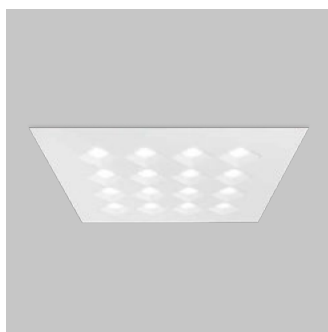
LIGHT MANAGEMENT

Tunable White products can be controlled with wired control systems (page 742) or 3F & Casambi (page 746).

ON REQUEST

- different power levels or colour rendering indices
- CRI >90 sources
- emergency versions

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.
 Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in opal methacrylate (PMMA).

3F Diagon 596x596 - DALI DT8 electronic wiring 230V-50/60Hz

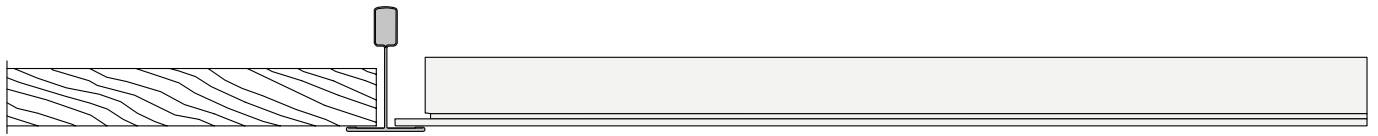
Code	Item	W	lm	K	CRI	L x A x H
23816	3F Diagon 25W DT8 TW SOFT UGR 596x596	30 29 28	3567	2700 4000 6500	>80	596x596x30

3F Diagon 621x621 - DALI DT8 electronic wiring 230V-50/60Hz

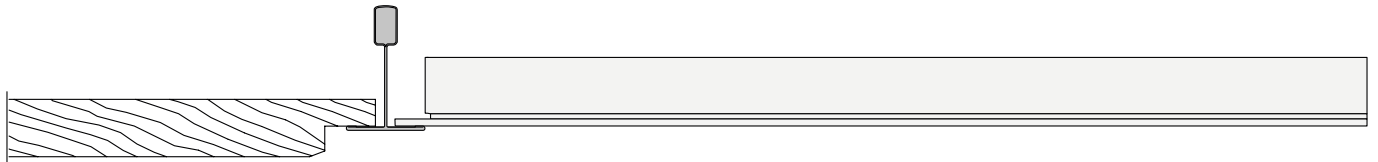
Code	Item	W	lm	K	CRI	L x A x H
23823	3F Diagon 25W DT8 TW SOFT UGR 621x621	30 29 28	3567	2700 4000 6500	>80	621x621x30

Mounting details 3F Diagon | Lay-in installation

Standard versions

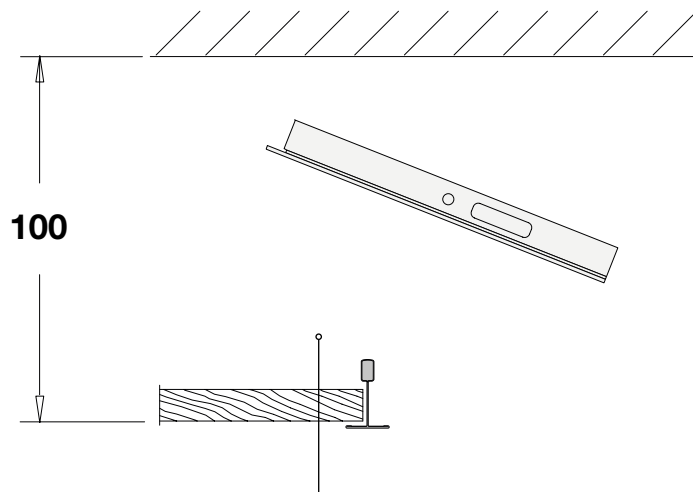


Panels in mineral fibre with exposed structure 600x600 or 625x625.

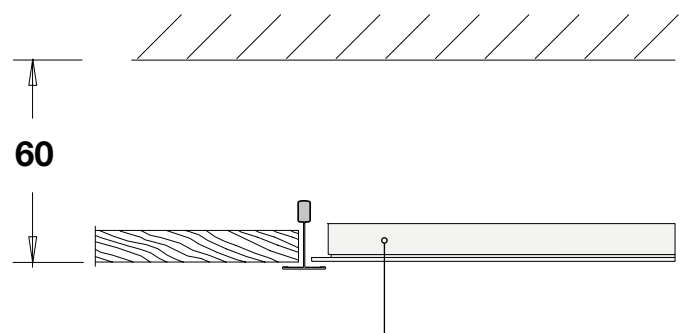


Panels in mineral fibre with decoration in relief 600x600.

Installation

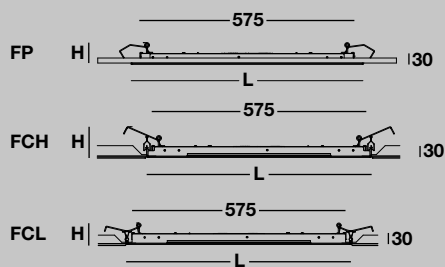
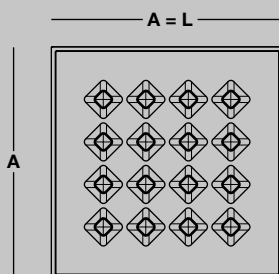


Installation following false ceiling mounting, supported by the exposed structure, minimum void of 110 mm from the structure's lower edge.



Installation simultaneously with the false ceiling, minimum void of 60 mm from the structure's lower edge.

/ Recessed luminaires



Sushi Zero
Varese
Italia/Italy





3F Diagon Pull-up installation

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L75/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised 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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Quick connection.

INSTALLATION

Pull-up installation.
Installation and assembly diagrams on page 324.
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.

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.

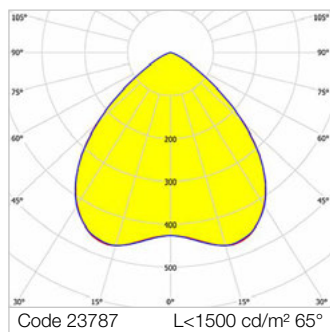
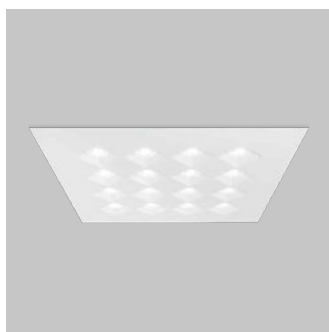
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: twin-circuit, CLO (page 752)
- luminaires for pull-up installation with brackets
- 3F Tunable White versione
- 3F Diagon Soft UGR, for FCL and FCH versions
- CRI >90 sources
- emergency versions

3F Diagon FCL



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 (PMMA).

3F Diagon 599x599 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23785	3F Diagon FCL 19W/840 599x599	21	3354	4000	>80	599x599x60
23786	3F Diagon FCL 25W/840 599x599	28	4250	4000	>80	599x599x60

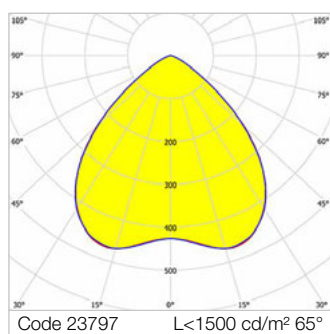
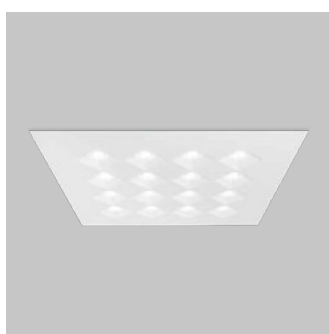
3F Diagon 599x599 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23787	3F Diagon FCL 19W/840 DALI 599x599	21	3354	4000	>80	599x599x60
23788	3F Diagon FCL 25W/840 DALI 599x599	28	4250	4000	>80	599x599x60

3F Diagon 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23789	3F Diagon FCL 19W/840 EP 599x599	22	3354	4000	>80	599x599x60
23790	3F Diagon FCL 25W/840 EP 599x599	29	4250	4000	>80	599x599x60

3F Diagon FCH



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 (PMMA).

3F Diagon 599x599 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23795	3F Diagon FCH 19W/840 599x599	21	3354	4000	>80	599x599x60
23796	3F Diagon FCH 25W/840 599x599	28	4250	4000	>80	599x599x60

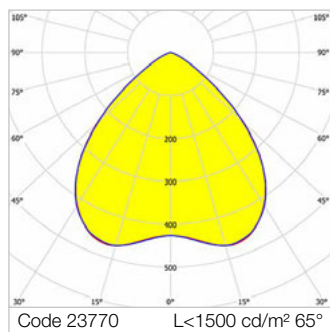
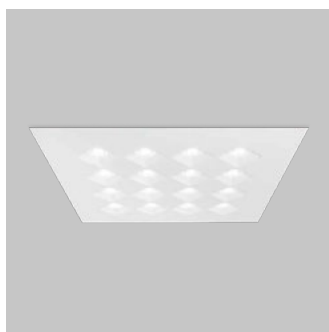
3F Diagon 599x599 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23797	3F Diagon FCH 19W/840 DALI 599x599	21	3354	4000	>80	599x599x60
23798	3F Diagon FCH 25W/840 DALI 599x599	28	4250	4000	>80	599x599x60

3F Diagon 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23799	3F Diagon FCH 19W/840 EP 599x599	22	3354	4000	>80	599x599x60
23800	3F Diagon FCH 25W/840 EP 599x599	29	4250	4000	>80	599x599x60

3F Diagon FP



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 (PMMA).

3F Diagon 599x599 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
24048	3F Diagon FP 19W/840 599x599	21	3354	4000	>80	599x599x60
24049	3F Diagon FP 25W/840 599x599	28	4250	4000	>80	599x599x60

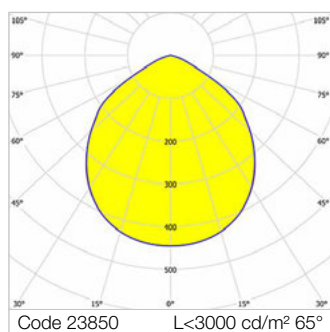
3F Diagon 599x599 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
24050	3F Diagon FP 19W/840 DALI 599x599	21	3354	4000	>80	599x599x60
24051	3F Diagon FP 25W/840 DALI 599x599	28	4250	4000	>80	599x599x60

3F Diagon 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
24052	3F Diagon FP 19W/840 EP 599x599	22	3354	4000	>80	599x599x60
24053	3F Diagon FP 25W/840 EP 599x599	29	4250	4000	>80	599x599x60

3F Diagon FP Soft UGR



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 (PMMA).

3F Diagon 599x599 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23853	3F Diagon FP 25W/840 SOFT UGR 599x599	28	3679	4000	>80	599x599x60

3F Diagon 599x599 - DALI electronic wiring 230V-50/60Hz

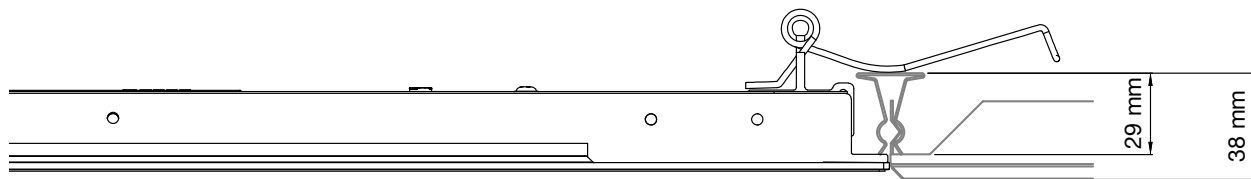
Code	Item	W	lm	K	CRI	L x A x H
23855	3F Diagon FP 25W/840 DALI SOFT UGR 599x599	28	3679	4000	>80	599x599x60

3F Diagon 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

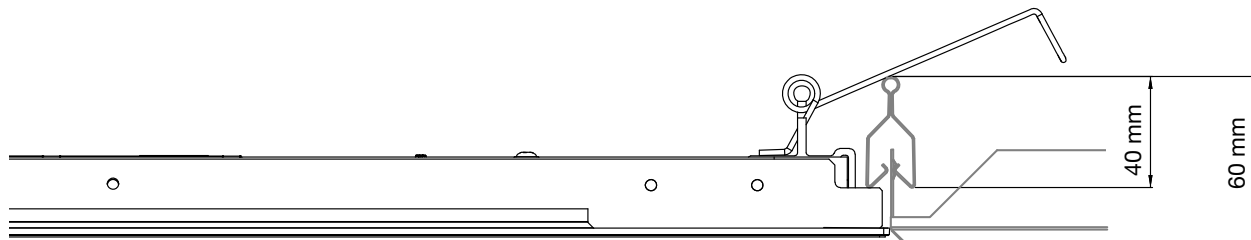
Code	Item	W	lm	K	CRI	L x A x H
23854	3F Diagon FP 25W/840 EP SOFT UGR 599x599	29	3679	4000	>80	599x599x60

Mounting details 3F Diagon | Pull-up installation

Standard versions

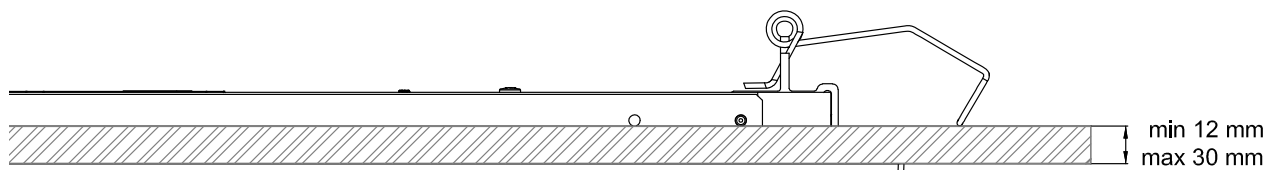


FCL - Version for metal panels with low structures



FCH - Version for metal panels with high structures

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.



FP - Version for Plasterboard

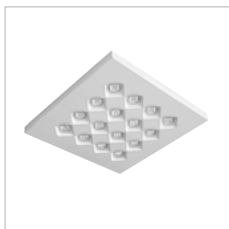
In the event that the type of false ceiling reported is not that envisaged by the installation, it is necessary to consult our Sales Network.

3F Diagon | Accessories



Code	Item
A0477	Safety wire

Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.



Code	Item
A0686	596x596 Diagon frame ceiling instal.

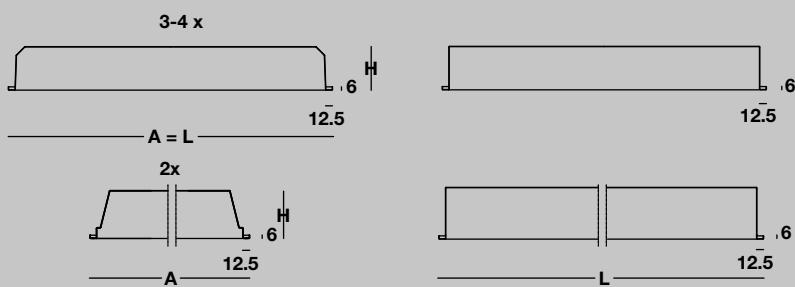
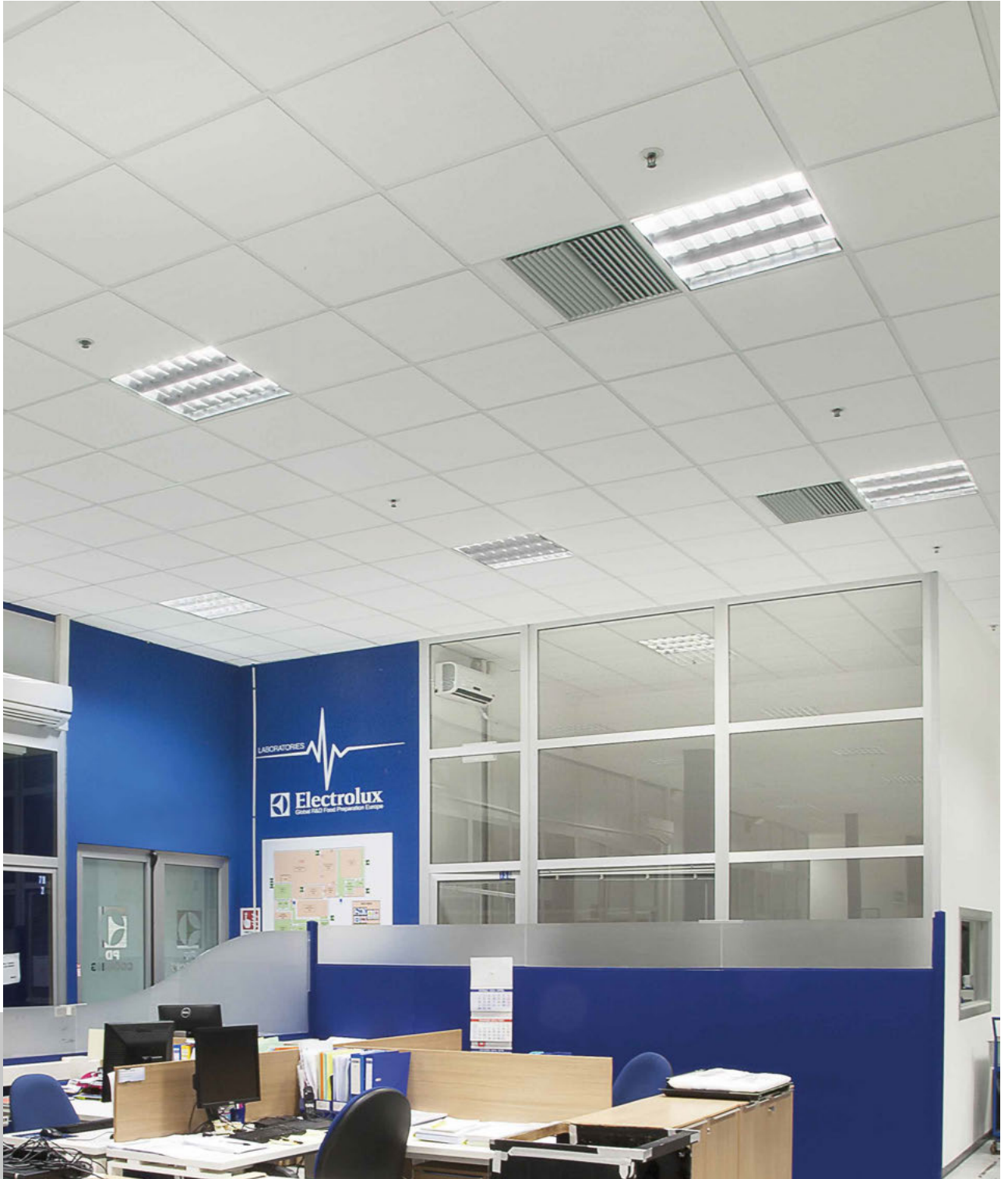
White painted polyester hot-dip galvanised steel frame for 3F Diagon Plafone. Height only 40 mm.
Accessory compatible with 3F Diagon - Lay-in installation, 3F Diagon - Lay-in installation - Tunable White.



Code	Item
A0702	Suction cup for Diagon maintenance

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.

/ Recessed luminaires



Electrolux
Forli
Italia/Italy





L 320

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

Linear LED modules.

10W version

Colour initial tolerance (MacAdam): SDCM 2.

18W version

Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

Housing in hot-galvanised 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

In compliance with EN 60598-1.

Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

INSTALLATION

Lay-in or pull-up installation with brackets.
Installation and assembly diagrams on page 336.

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, LGS versions

Environments: sterilized, aseptic.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

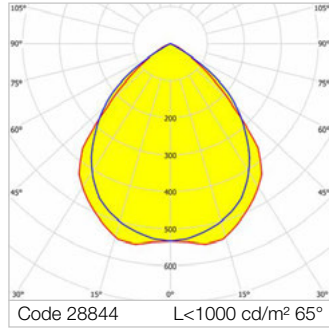
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- Sensor version
- diffuser in OP opal methacrylate (PMMA) or SP polycarbonate, self-extinguishing V2
- luminaires for pull-up installation with brackets
- CRI >90 sources
- emergency versions

L 320 2MG



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 methacrylate (PMMA) diffuser for total shielding of the louvre compartment. Film protective against dust and finger marks, adhesive, attached to louvre.

L 320 596x596 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
28844	L 323x10W LED 2MG 596x596	34	4287	4000	>80	596x596x80
22722	L 323x10W/940 LED 2MG 596x596	34	3515	4000	>90	596x596x80

L 320 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
28856	L 323x10W LED DALI 2MG 596x596	34	4287	4000	>80	596x596x80
22724	L 323x10W/940 LED DALI 2MG 596x596	34	3515	4000	>90	596x596x80

L 320 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
28847	L 323x10W LED EP 2MG 596x596	35	4287	4000	>80	596x596x80
22723	L 323x10W/940 LED EP 2MG 596x596	35	3515	4000	>90	596x596x80

L 320 296x1196 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
28846	L 322x18W LED 2MG 296x1196	40	5179	4000	>80	1196x296x95

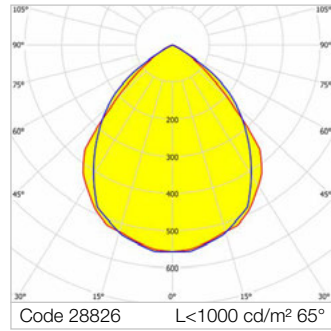
L 320 296x1196 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
28858	L 322x18W LED DALI 2MG 296x1196	40	5179	4000	>80	1196x296x95

L 320 296x1196 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
28849	L 322x18W LED EP 2MG 296x1196	41	5179	4000	>80	1196x296x95

L 320 2S



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 methacrylate (PMMA) diffuser for total shielding of the louvre compartment. Film protective against dust and finger marks, adhesive, attached to louvre.

L 320 596x596 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
28826	L 323x10W LED 2S 596x596	34	3997	4000	>80	596x596x80
22716	L 323x10W/940 LED 2S 596x596	34	3277	4000	>90	596x596x80

L 320 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
28838	L 323x10W LED DALI 2S 596x596	34	3997	4000	>80	596x596x80
22718	L 323x10W/940 LED DALI 2S 596x596	34	3277	4000	>90	596x596x80

L 320 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
28829	L 323x10W LED EP 2S 596x596	35	3997	4000	>80	596x596x80
22717	L 323x10W/940 LED EP 2S 596x596	35	3277	4000	>90	596x596x80

L 320 296x1196 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
28828	L 322x18W LED 2S 296x1196	40	4730	4000	>80	1196x296x95

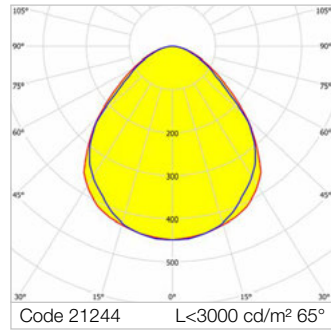
L 320 296x1196 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
28840	L 322x18W LED DALI 2S 296x1196	40	4730	4000	>80	1196x296x95

L 320 296x1196 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
28831	L 322x18W LED EP 2S 296x1196	41	4730	4000	>80	1196x296x95

L 320 SP



Average luminance < 3000 cd/m² for radial angles > 65°.
 SP transparent methacrylate (PMMA) diffuser, prismatic exterior, anti-glare, locked to the prepainted white aluminium perimeter frame with sealing gasket, hinged opening.

L 320 596x596 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21244	L 323x10W LED SP 596x596	34	4163	4000	>80	596x596x80
22701	L 323x10W/940 LED SP 596x596	34	3413	4000	>90	596x596x80
21245	L 324x10W LED SP 596x596	45	5516	4000	>80	596x596x80
22702	L 324x10W/940 LED SP 596x596	45	4523	4000	>90	596x596x80

L 320 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21256	L 323x10W LED DALI SP 596x596	34	4163	4000	>80	596x596x80
22703	L 323x10W/940 LED DALI SP 596x596	34	3413	4000	>90	596x596x80
21257	L 324x10W LED DALI SP 596x596	45	5516	4000	>80	596x596x80
22704	L 324x10W/940 LED DALI SP 596x596	45	4523	4000	>90	596x596x80

L 320 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
21262	L 323x10W LED EP SP 596x596	35	4163	4000	>80	596x596x80
22705	L 323x10W/940 LED EP SP 596x596	35	3413	4000	>90	596x596x80
21263	L 324x10W LED EP SP 596x596	46	5516	4000	>80	596x596x80
22706	L 324x10W/940 LED EP SP 596x596	46	4523	4000	>90	596x596x80

L 320 599x599 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21617	L 323x10W LED SP 599x599	34	4163	4000	>80	599x599x80
21618	L 323x10W/940 LED SP 599x599	34	3413	4000	>90	599x599x80

L 320 599x599 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21619	L 323x10W LED DALI SP 599x599	34	4163	4000	>80	599x599x80
21620	L 323x10W/940 LED DALI SP 599x599	34	3413	4000	>90	599x599x80

L 320 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
21621	L 323x10W LED EP SP 599x599	35	4163	4000	>80	599x599x80
21622	L 323x10W/940 LED EP SP 599x599	35	3413	4000	>90	599x599x80

L 320 296x1196 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21287	L 322x18W LED SP 296x1196	40	5272	4000	>80	1196x296x95

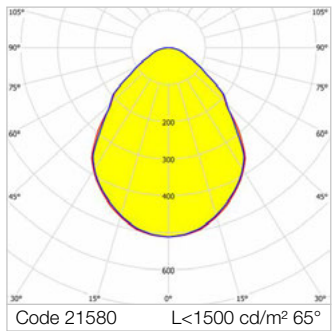
L 320 296x1196 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21290	L 322x18W LED DALI SP 296x1196	40	5272	4000	>80	1196x296x95

L 320 296x1196 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
21293	L 322x18W LED EP SP 296x1196	41	5272	4000	>80	1196x296x95

L 320 LGS



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 (PMMA), multilenticular exterior, anti-glare, locked to the white painted aluminium perimetral frame, sealing gasket, hinged opening.
 Anti-glare opal polycarbonate filter for brightness uniformity.

L 320 596x596 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21580	L 323x10W LED LGS 596x596	34	3178	4000	>80	596x596x80
21581	L 324x10W LED LGS 596x596	45	4292	4000	>80	596x596x80
22709	L 324x10W/940 LED LGS 596x596	45	3520	4000	>90	596x596x80

L 320 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21586	L 323x10W LED DALI LGS 596x596	34	3178	4000	>80	596x596x80
21587	L 324x10W LED DALI LGS 596x596	45	4292	4000	>80	596x596x80
22710	L 324x10W/940 LED DALI LGS 596x596	45	3520	4000	>90	596x596x80

L 320 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
21589	L 323x10W LED EP LGS 596x596	35	3178	4000	>80	596x596x80
21590	L 324x10W LED EP LGS 596x596	46	4292	4000	>80	596x596x80
22711	L 324x10W/940 LED EP LGS 596x596	46	3520	4000	>90	596x596x80

L 320 599x599 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21623	L 324x10W LED LGS 599x599	45	4292	4000	>80	599x599x80
21624	L 324x10W/940 LED LGS 599x599	45	3520	4000	>90	599x599x80

L 320 599x599 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21625	L 324x10W LED DALI LGS 599x599	45	4292	4000	>80	599x599x80
21626	L 324x10W/940 LED DALI LGS 599x599	45	3520	4000	>90	599x599x80

L 320 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
21627	L 324x10W LED EP LGS 599x599	46	4292	4000	>80	599x599x80
21628	L 324x10W/940 LED EP LGS 599x599	46	3520	4000	>90	599x599x80

L 320 296x1196 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21600	L 322x18W LED LGS 296x1196	40	4102	4000	>80	1196x296x95

L 320 296x1196 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21603	L 322x18W LED DALI LGS 296x1196	40	4102	4000	>80	1196x296x95

L 320 296x1196 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

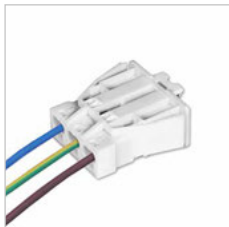
Code	Item	W	lm	K	CRI	L x A x H
21606	L 322x18W LED EP LGS 296x1196	41	4102	4000	>80	1196x296x95

L 320 | Accessories



Code	Item
A0477	Safety wire

Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.



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

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.

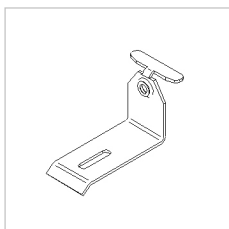
This accessory is suitable for square products only.



Code	Item
A0798	621x621 frame + brackets

Adapter frame in white-painted steel, for installing luminaires with dimensions of 596x596 mm for pull-up installations on plasterboard false ceilings.

This accessory is suitable for square products only.

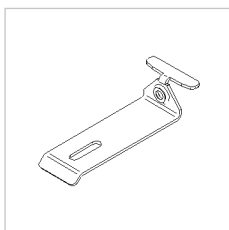


Code	Item
A0173	15HI Brackets - L320-L350-L450 The pack contains 4 pieces.

Galvanised steel fixing bracket for pull-up installation on plasterboard. Pack for 1 luminaire.

Excursion min. 0 mm, max. 25 mm.

This accessory is suitable for square products only.



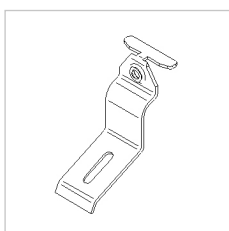
Code	Item
A0177	15ZH Brackets - L320-L350-L560 The pack contains 4 pieces.

Fixing bracket in galvanised steel. Pack for 1 luminaire.

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.

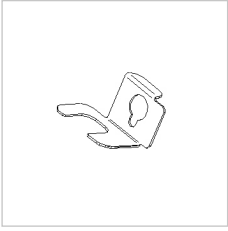


Code	Item
A0170	15BS Brackets - L320-L400-L560 The pack contains 4 pieces.

Fixing bracket in galvanised steel for ceiling pull-up installation. Pack for 1 luminaire.

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.

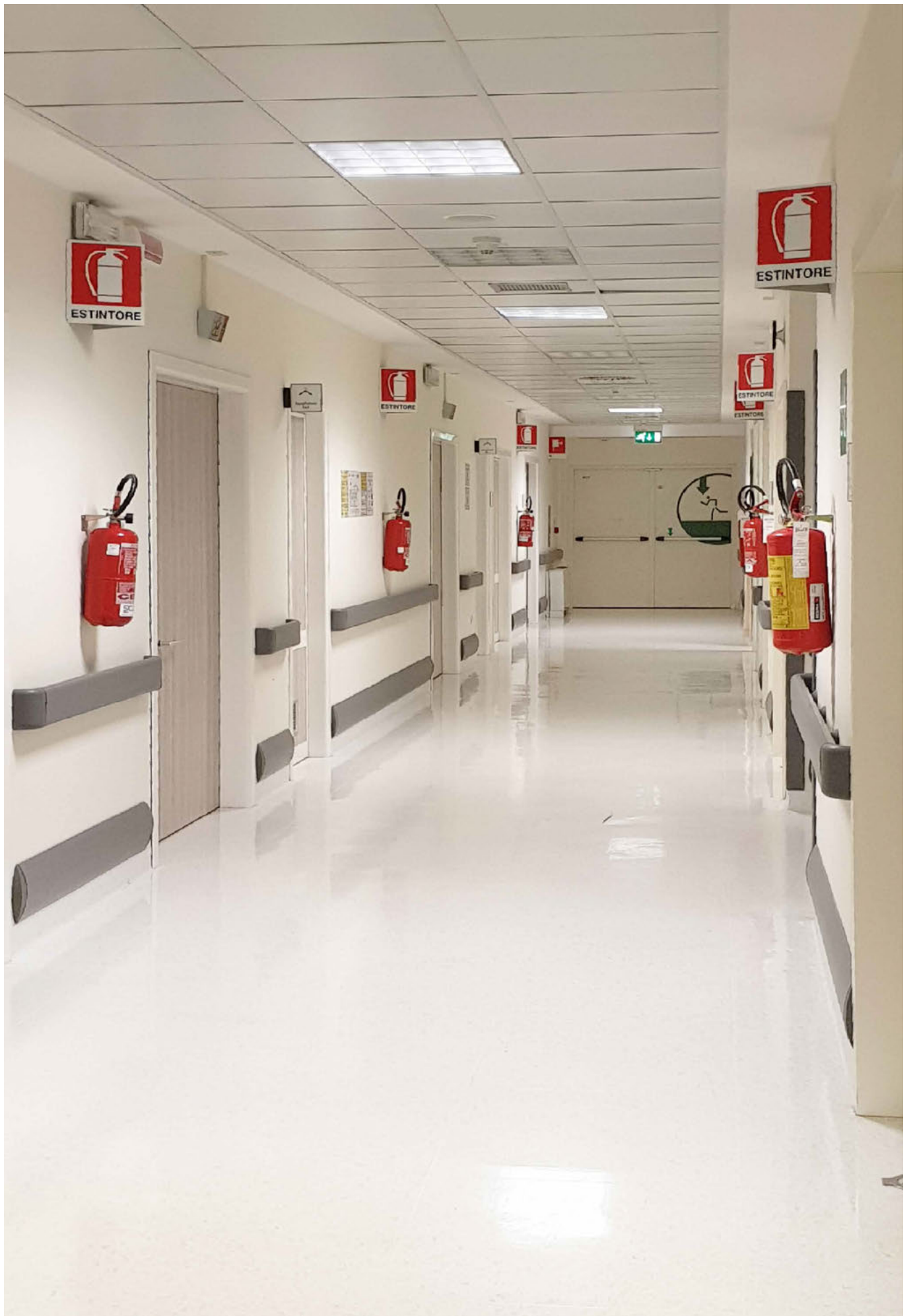


Code	Item
A0179	15LB Brackets - L320-350 met.pan. The pack contains 4 pieces.

Fixing bracket in galvanised steel for installation coplanar with metal panels with concealed structure. Pack for 1 luminaire.

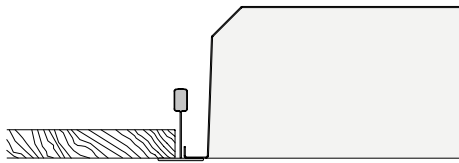
For square luminaires with louvre, mounting in two positions (23/36 mm, 53/66 mm) with diffuser (36 mm and 66 mm).

Not suitable for diffused light recessed luminaires.

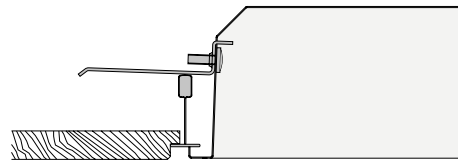


L 320 Mounting details

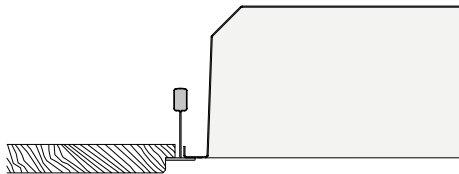
H80 version - 596x596



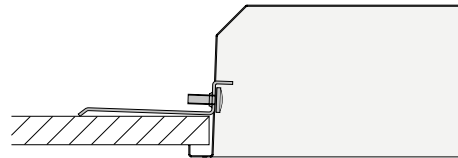
Panels in mineral fibre with exposed structure 600x600.



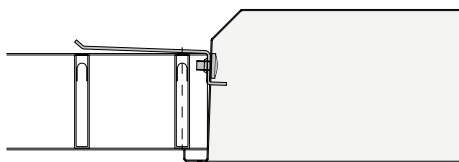
Panels in mineral fibre with decoration 600x600, small voids.
Installed flush with bracket accessory 15 ZH.



Panels in mineral fibre with decoration in relief 600x600.

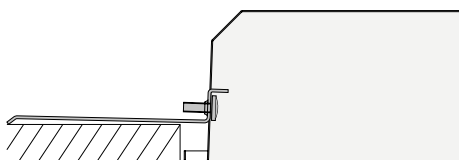


Plasterboard.
Installed flush with bracket accessory 15 ZH.

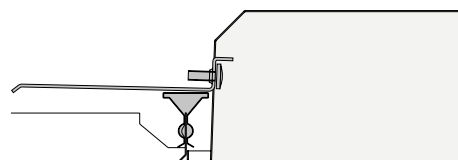


Pull-up installation on grid false ceilings.
Installed flush with bracket accessory 15 ZH.

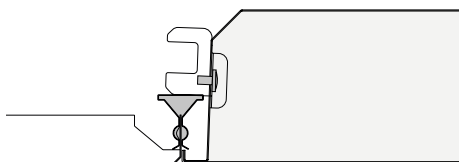
H80 version - 599x599



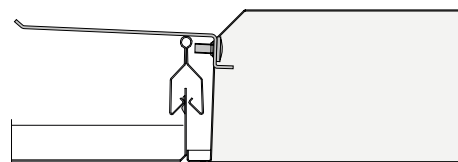
Plasterboard.
Installed flush with bracket accessory 15 ZH.



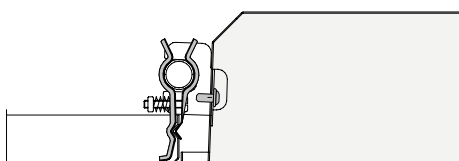
Metal panels with structures 600x600.



Metal panels with structures 600x600.

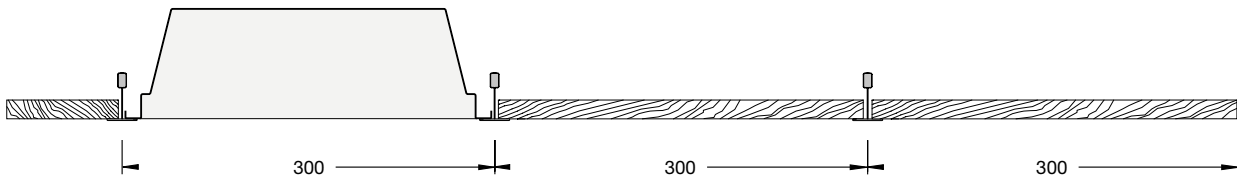


Metal panels with structures 600x600.



Metal panels with structures 600x600.

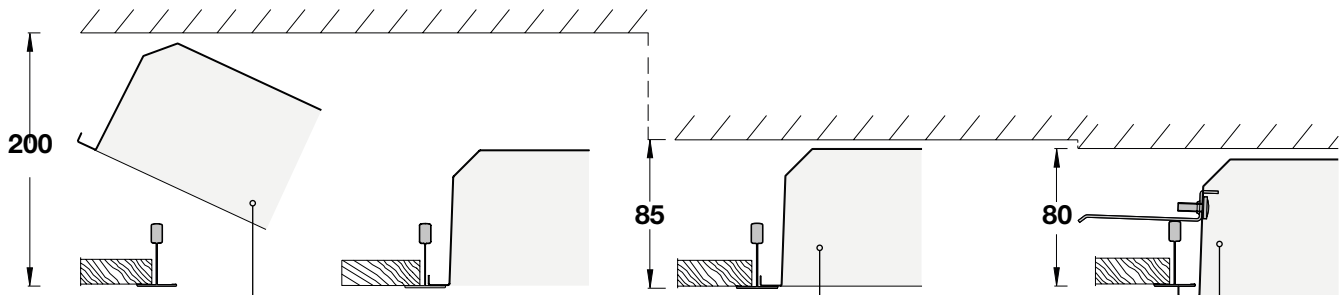
H80 version - 296x1196



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

H80 version



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.

Minimum void of 80 mm from the structure's lower edge.
Luminaires on request, installed flush with bracket accessory 15 ZH.





L 340

> [www.3F-Filippi.com/L 340](http://www.3F-Filippi.com/L_340)

L 340 is the new recessed fixture dedicated to the world of offices, banks, architectural environments and commercial and representative spaces.

Thanks to the low glare values obtained using glass or methacrylate (PMMA) prismatic and micro prismatic diffusers, it is particularly suitable for environments with video terminals, meeting rooms and offices where diffused and soft lighting is required for excellent visual comfort and to completely shield the source.

Furthermore, the L 340 is suitable from a hygiene point of view for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

The fixture can be installed on lintels or abutments (thanks to the frame accessory).

From a photometric point of view the excellent visual comfort is supported by LGS methacrylate (PMMA) (average luminance <1500 cd/m² >65° radial), SP (average luminance <3000 cd/m² >65° radials) and VS glass screens (Average luminance <3000 cd/m² >65° radials).

The L 340 is available in a version with on/off electronic cabling or DALI, while there are also versions with Permanent Emergency cabling.

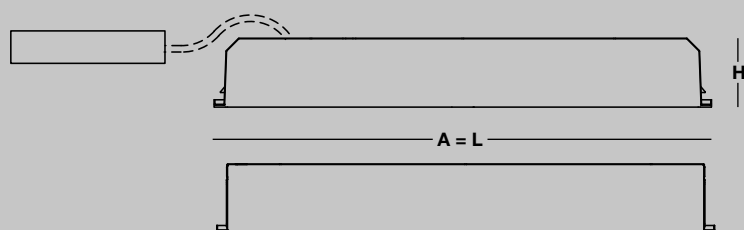
Versions equipped with DALI drivers can be controlled manually with 3F Easy Dim technology or automatically/manually with 3F Smart Dimming technology.

+ Overview

- Luminous efficacy up to 131 lumen/watt.
- Luminous fluxes from 3338 to 6537 lumens.
- Average luminance <1500 cd/m² (LGS version).
- UGR <19.
- Uniformly illuminated screen.
- Essential and functional design.
- IP65 version, visible part for more severe applications.
- Tunable White version.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

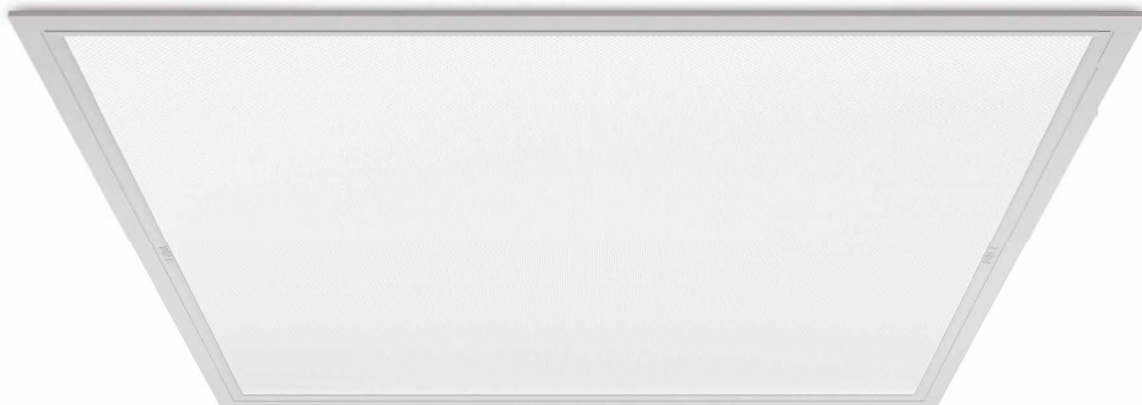
Page	Product	Lay-installation	Pull-up installation
340	L 340 Diffused Light	•	with accessory
348	L 340 Lite	•	with accessory
352	L 340 Tunable White	•	with accessory

/ Recessed luminaires



Porto di Savona
Savona
Italia/Italy





L 340 Diffused Light

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester.
Perimetral frame in white polycarbonate.
The 621x621 version is dedicated to false ceilings that have modular dimensions of 625x625.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Wiring on a separate unit.
Class II.

INSTALLATION

Lay-on or pull-up installation using the frame accessory.

APPLICATIONS

In environments requiring protection and simplified cleaning.
Hospitals, pharmaceutical, chemical, aseptic laboratories, sterilised rooms.
Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

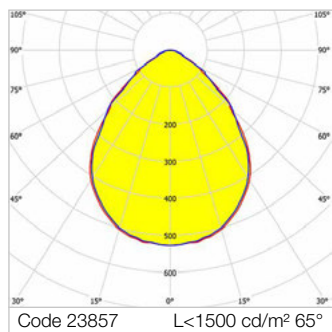
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- diffuser in SP prismatic methacrylate (PMMA) or SP polycarbonate, Selfextinguishing V2
- emergency versions

L 340 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 (PMMA), multi-lenticular exterior, anti-glare. Anti-glare opal polycarbonate filter for brightness uniformity.

L 340 596x596 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23857	L 340 25W/840 LGS 596x596	29	3785	4000	>80	596x596x80
23881	L 340 29W/940 LGS 596x596	35	3611	4000	>90	596x596x80
23858	L 340 38W/840 LGS 596x596	45	5677	4000	>80	596x596x80
23859	L 340 45W/840 LGS 596x596	52	6537	4000	>80	596x596x80
23882	L 340 45W/940 LGS 596x596	52	5361	4000	>90	596x596x80

L 340 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23863	L 340 25W/840 DALI LGS 596x596	29	3785	4000	>80	596x596x80
23885	L 340 29W/940 DALI LGS 596x596	35	3611	4000	>90	596x596x80
23864	L 340 38W/840 DALI LGS 596x596	43	5677	4000	>80	596x596x80
23865	L 340 45W/840 DALI LGS 596x596	50	6537	4000	>80	596x596x80
23886	L 340 45W/940 DALI LGS 596x596	52	5361	4000	>90	596x596x80

L 340 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23869	L 340 25W/840 EP LGS 596x596	30	3785	4000	>80	596x596x80
23889	L 340 29W/940 EP LGS 596x596	36	3611	4000	>90	596x596x80
23870	L 340 38W/840 EP LGS 596x596	46	5677	4000	>80	596x596x80
23871	L 340 45W/840 EP LGS 596x596	53	6537	4000	>80	596x596x80
23890	L 340 45W/940 EP LGS 596x596	53	5361	4000	>90	596x596x80

L 340 621x621 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23860	L 340 25W/840 LGS 621x621	29	3785	4000	>80	621x621x80
23883	L 340 29W/940 LGS 621x621	35	3611	4000	>90	621x621x80
23861	L 340 38W/840 LGS 621x621	45	5677	4000	>80	621x621x80
23862	L 340 45W/840 LGS 621x621	52	6537	4000	>80	621x621x80
23884	L 340 45W/940 LGS 621x621	52	5361	4000	>90	621x621x80

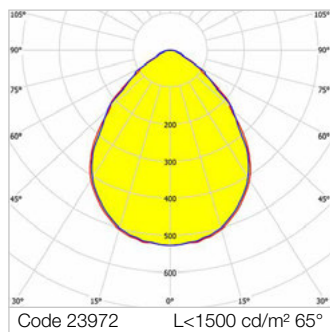
L 340 621x621 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23866	L 340 25W/840 DALI LGS 621x621	29	3785	4000	>80	621x621x80
23887	L 340 29W/940 DALI LGS 621x621	35	3611	4000	>90	621x621x80
23867	L 340 38W/840 DALI LGS 621x621	43	5677	4000	>80	621x621x80
23868	L 340 45W/840 DALI LGS 621x621	50	6537	4000	>80	621x621x80
23888	L 340 45W/940 DALI LGS 621x621	52	5361	4000	>90	621x621x80

L 340 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23891	L 340 29W/940 EP LGS 621x621	36	3611	4000	>90	621x621x80
23872	L 340 25W/840 EP LGS 621x621	30	3785	4000	>80	621x621x80
23873	L 340 38W/840 EP LGS 621x621	46	5677	4000	>80	621x621x80
23874	L 340 45W/840 EP LGS 621x621	53	6537	4000	>80	621x621x80
23892	L 340 45W/940 EP LGS 621x621	53	5361	4000	>90	621x621x80

L 340 Diffused Light LGS IP65V



Average luminance <math><1500 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 LGS micro-prismatic flat diffuser in transparent methacrylate (PMMA), multi-lenticular exterior, anti-glare.
 Anti-glare opal polycarbonate filter for brightness uniformity.

L 340 596x596 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23972	L 340 25W/840 LGS IP65V 596x596	29	3785	4000	>80	596x596x80
23996	L 340 29W/940 LGS IP65V 596x596	35	3611	4000	>90	596x596x80
23973	L 340 38W/840 LGS IP65V 596x596	45	5677	4000	>80	596x596x80
23974	L 340 45W/840 LGS IP65V 596x596	52	6537	4000	>80	596x596x80
23997	L 340 45W/940 LGS IP65V 596x596	52	5361	4000	>90	596x596x80

L 340 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23978	L 340 25W/840 DALI LGS IP65V 596x596	29	3785	4000	>80	596x596x80
24000	L 340 29W/940 DALI LGS IP65V 596x596	35	3611	4000	>90	596x596x80
23979	L 340 38W/840 DALI LGS IP65V 596x596	43	5677	4000	>80	596x596x80
23980	L 340 45W/840 DALI LGS IP65V 596x596	50	6537	4000	>80	596x596x80
24001	L 340 45W/940 DALI LGS IP65V 596x596	52	5361	4000	>90	596x596x80

L 340 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23984	L 340 25W/840 EP LGS IP65V 596x596	30	3785	4000	>80	596x596x80
24004	L 340 29W/940 EP LGS IP65V 596x596	36	3611	4000	>90	596x596x80
23985	L 340 38W/840 EP LGS IP65V 596x596	46	5677	4000	>80	596x596x80
23986	L 340 45W/840 EP LGS IP65V 596x596	53	6537	4000	>80	596x596x80
24005	L 340 45W/940 EP LGS IP65V 596x596	53	5361	4000	>90	596x596x80

L 340 621x621 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23975	L 340 25W/840 LGS IP65V 621x621	29	3785	4000	>80	621x621x80
23998	L 340 29W/940 LGS IP65V 621x621	35	3611	4000	>90	621x621x80
23976	L 340 38W/840 LGS IP65V 621x621	45	5677	4000	>80	621x621x80
23977	L 340 45W/840 LGS IP65V 621x621	52	6537	4000	>80	621x621x80
23999	L 340 45W/940 LGS IP65V 621x621	52	5361	4000	>90	621x621x80

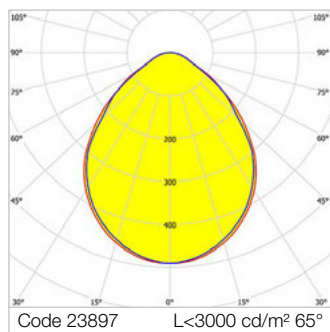
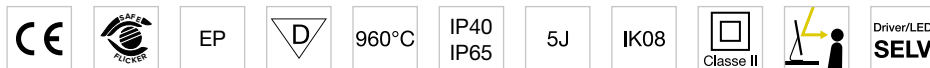
L 340 621x621 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23981	L 340 25W/840 DALI LGS IP65V 621x621	29	3785	4000	>80	621x621x80
24002	L 340 29W/940 DALI LGS IP65V 621x621	35	3611	4000	>90	621x621x80
23982	L 340 38W/840 DALI LGS IP65V 621x621	43	5677	4000	>80	621x621x80
23983	L 340 45W/840 DALI LGS IP65V 621x621	50	6537	4000	>80	621x621x80
24003	L 340 45W/940 DALI LGS IP65V 621x621	52	5361	4000	>90	621x621x80

L 340 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23987	L 340 25W/840 EP LGS IP65V 621x621	30	3785	4000	>80	621x621x80
24006	L 340 29W/940 EP LGS IP65V 621x621	36	3611	4000	>90	621x621x80
23988	L 340 38W/840 EP LGS IP65V 621x621	46	5677	4000	>80	621x621x80
23989	L 340 45W/840 EP LGS IP65V 621x621	53	6537	4000	>80	621x621x80
24007	L 340 45W/940 EP LGS IP65V 621x621	53	5361	4000	>90	621x621x80

L 340 Diffused Light VS IP65V



Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°. VS moulded glass, anti-glare, tempered, non-combustible, thickness 4 mm.

L 340 596x596 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23897	L 340 25W/840 VS IP65V 596x596	29	3499	4000	>80	596x596x80
23921	L 340 29W/940 VS IP65V 596x596	35	3338	4000	>90	596x596x80
23898	L 340 38W/840 VS IP65V 596x596	45	5248	4000	>80	596x596x80
23899	L 340 45W/840 VS IP65V 596x596	52	6044	4000	>80	596x596x80
23922	L 340 45W/940 VS IP65V 596x596	52	4956	4000	>90	596x596x80

L 340 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23903	L 340 25W/840 DALI VS IP65V 596x596	29	3499	4000	>80	596x596x80
23925	L 340 29W/940 DALI VS IP65V 596x596	35	3338	4000	>90	596x596x80
23904	L 340 38W/840 DALI VS IP65V 596x596	43	5248	4000	>80	596x596x80
23905	L 340 45W/840 DALI VS IP65V 596x596	50	6044	4000	>80	596x596x80
23926	L 340 45W/940 DALI VS IP65V 596x596	52	4956	4000	>90	596x596x80

L 340 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23909	L 340 25W/840 EP VS IP65V 596x596	30	3499	4000	>80	596x596x80
23929	L 340 29W/940 EP VS IP65V 596x596	36	3338	4000	>90	596x596x80
23910	L 340 38W/840 EP VS IP65V 596x596	46	5248	4000	>80	596x596x80
23911	L 340 45W/840 EP VS IP65V 596x596	53	6044	4000	>80	596x596x80
23930	L 340 45W/940 EP VS IP65V 596x596	53	4956	4000	>90	596x596x80

L 340 621x621 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23900	L 340 25W/840 VS IP65V 621x621	29	3499	4000	>80	621x621x80
23923	L 340 29W/940 VS IP65V 621x621	35	3338	4000	>90	621x621x80
23901	L 340 38W/840 VS IP65V 621x621	45	5248	4000	>80	621x621x80
23902	L 340 45W/840 VS IP65V 621x621	52	6044	4000	>80	621x621x80
23924	L 340 45W/940 VS IP65V 621x621	52	4956	4000	>90	621x621x80

L 340 621x621 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23906	L 340 25W/840 DALI VS IP65V 621x621	29	3499	4000	>80	621x621x80
23927	L 340 29W/940 DALI VS IP65V 621x621	35	3338	4000	>90	621x621x80
23907	L 340 38W/840 DALI VS IP65V 621x621	43	5248	4000	>80	621x621x80
23908	L 340 45W/840 DALI VS IP65V 621x621	50	6044	4000	>80	621x621x80
23928	L 340 45W/940 DALI VS IP65V 621x621	52	4956	4000	>90	621x621x80

L 340 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

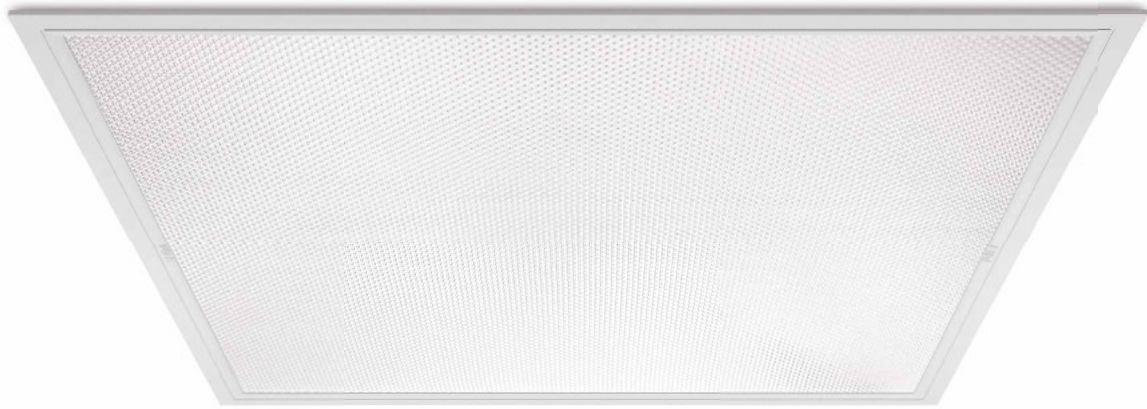
Code	Item	W	lm	K	CRI	L x A x H
23912	L 340 25W/840 EP VS IP65V 621x621	30	3499	4000	>80	621x621x80
23931	L 340 29W/940 EP VS IP65V 621x621	36	3338	4000	>90	621x621x80
23913	L 340 38W/840 EP VS IP65V 621x621	46	5248	4000	>80	621x621x80
23914	L 340 45W/840 EP VS IP65V 621x621	53	6044	4000	>80	621x621x80
23932	L 340 45W/940 EP VS IP65V 621x621	53	4956	4000	>90	621x621x80

/ Recessed luminaires



Unicoop
Pontedera (PI)
Italia/Italy





L 340 Lite

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester.
Perimetral frame in white polycarbonate.
The 621x621 version is dedicated to false ceilings that have modular dimensions of 625x625.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Wiring on a separate unit.
Class II.

INSTALLATION

Lay-on or pull-up installation using the frame accessory.

APPLICATIONS

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

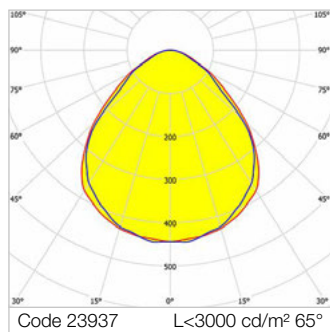
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- Sensor version
- IP65 exposed part version
- diffuser in LGS microprismatic methacrylate (PMMA) or SP polycarbonate, Selfextinguishing V2
- emergency versions

L 340 Lite SP



Average luminance <math>< 3000 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. SP transparent methacrylate (PMMA) diffuser, prismatic outside, antiglare.

L 340 596x596 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23937	L 343x10W/840 SP 596x596	34	4318	4000	>80	596x596x80
23940	L 343x12W/940 SP 596x596	43	4502	4000	>90	596x596x80

L 340 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23938	L 343x10W/840 DALI SP 596x596	34	4318	4000	>80	596x596x80
23941	L 343x12W/940 DALI SP 596x596	43	4502	4000	>90	596x596x80

L 340 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23939	L 343x10W/840 EP SP 596x596	35	4318	4000	>80	596x596x80
23942	L 343x12W/940 EP SP 596x596	44	4502	4000	>90	596x596x80

L 340 621x621 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23957	L 343x10W/840 SP 621x621	34	4318	4000	>80	621x621x80
23960	L 343x12W/940 SP 621x621	43	4502	4000	>90	621x621x80

L 340 621x621 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23958	L 343x10W/840 DALI SP 621x621	34	4318	4000	>80	621x621x80
23961	L 343x12W/940 DALI SP 621x621	43	4502	4000	>90	621x621x80

L 340 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
23959	L 343x10W/840 EP SP 621x621	35	4318	4000	>80	621x621x80
23962	L 343x12W/940 EP SP 621x621	44	4502	4000	>90	621x621x80



43

8

EUROKRAFT
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SORIN GROUP
Perfusion Tubing Systems

SORIN GROUP
Perfusion Tubing Systems

/ Recessed luminaires



Porto di Savona
Savona
Italia/Italy





L 340 Tunable White

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester.
Perimetral frame in white polycarbonate.
The 621x621 version is dedicated to false ceilings that have modular dimensions of 625x625.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Wiring on a separate unit.
Class II.

INSTALLATION

Lay-on or pull-up installation using the frame accessory.

APPLICATIONS

Any environments requiring light which aims for the wellness of people.
Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

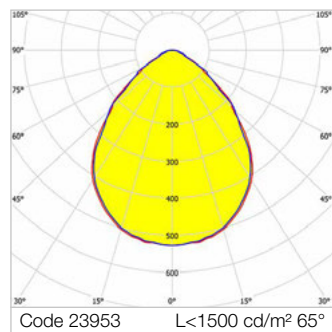
LIGHT MANAGEMENT

Tunable White products can be controlled with wired control systems (page 742) or 3F & Casambi (page 746).

ON REQUEST

- different power levels or colour rendering indices
- diffuser in SP prismatic methacrylate (PMMA) or SP polycarbonate, Selfextinguishing V2
- IP65 exposed part version
- emergency versions

L 340 Tunable White LGS



Average luminance <math>< 1500 \text{ cd/m}^2</math> for radial angles >65°.
 LGS micro-prismatic flat diffuser in transparent methacrylate (PMMA), multi-lenticular exterior, anti-glare.
 Anti-glare opal polycarbonate filter for brightness uniformity.

L 340 596x596 - DALI DT8 electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23953	L 340 25W DALI DT8 TW LGS 596x596	31 30 29	3785	2700 4000 6500	>80	596x596x80

L 340 621x621 - DALI DT8 electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
23954	L 340 25W DALI DT8 TW LGS 621x621	31 30 29	3785	2700 4000 6500	>80	621x621x80

L 340 | Accessories



Code	Item
A0579	Safety wire with brackets

Anti-fall safety cable with pair of brackets for fixing the housing to the building structure. Length 2.5 m.

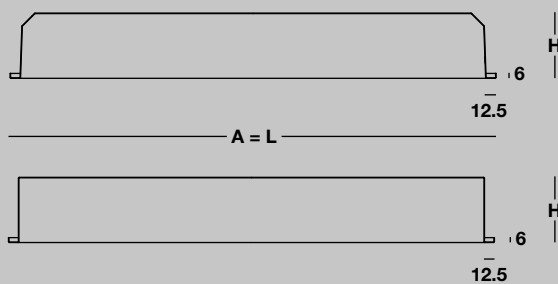


Code	Item
A0798	621x621 frame + brackets

Adapter frame in white-painted steel, for installing luminaires with dimensions of 596x596 mm for pull-up installations on plasterboard false ceilings.



/ Recessed luminaires



Ipercoop
Imola (BO)
Italia/Italy





L 350

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L70/B20): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

Linear LED modules.
Colour initial tolerance (MacAdam): SDCM 3.
Zhaga Book 7 compliant.

MECHANICAL

Housing in hot-galvanised 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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection.

INSTALLATION

Lay-in or pull-up installation with brackets.
Installation and assembly diagrams on page 360.

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.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- SELV luminaires for pull-up installation with brackets
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

L 350 SP

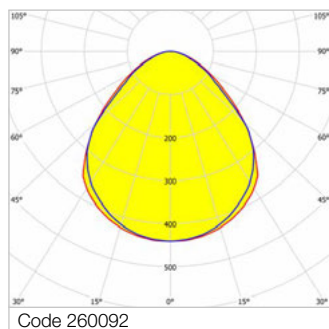


650°C

IP20
IP54

1J

IK06



SP transparent methacrylate (PMMA) diffuser, prismatic exterior, anti-glare, locked to the prepainted white aluminium perimeter frame with sealing gasket, hinged opening.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
260092	L 353x14W LED SP 54V 596x596	47	6297	4000	>80	596x596x80

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
260094	L 353x14W LED DALI SP 54V 596x596	47	6297	4000	>80	596x596x80

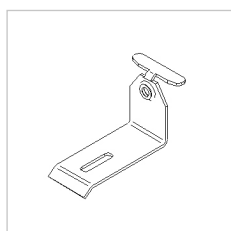
L 350 | Accessories



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

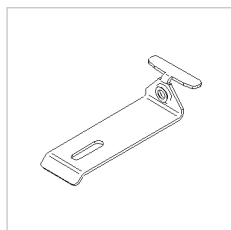
Plug for quick connection of the luminaire, 3-pole irreversible to be snapped (Snap-in), with integrated locking device, H07 V2-U HT90° 1.5 mm² cables, for the connection to the terminal block of the luminaire. Connection for single-circuit wiring: order white plug. Connection for twin-circuit, dimmable, emergency wiring: order white plug plus black plug.

This accessory is suitable for square products only.



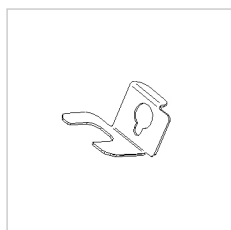
Code	Item
A0173	15HI Brackets - L320-L350-L450 The pack contains 4 pieces.

Galvanised steel fixing bracket for pull-up installation on plasterboard. Pack for 1 luminaire.
Excursion min. 0 mm, max. 25 mm.



Code	Item
A0177	15ZH Brackets - L320-L350-L560 The pack contains 4 pieces.

Fixing bracket in galvanised steel. Pack for 1 luminaire.
**3AO (excursion min. 0 mm, max. 60 mm).
SP (excursion min. 15 mm, max. 60 mm).
Suitable for pull-up installation on plasterboard.**



Code	Item
A0179	15LB Brackets - L320-350 met.pan. The pack contains 4 pieces.

Fixing bracket in galvanised steel for installation coplanar with metal panels with concealed structure. Pack for 1 luminaire.
For square luminaires with louvre, mounting in two positions (23/36 mm, 53/66 mm) with diffuser (36 mm and 66 mm).



Code	Item
A0477	Safety wire

Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.



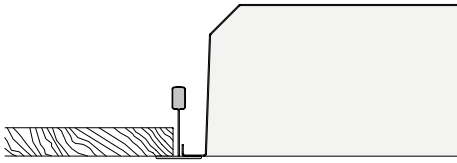
Code	Item
A0798	621x621 frame + brackets

Adapter frame in white-painted steel, for installing luminaires with dimensions of 596x596 mm for pull-up installations on plasterboard false ceilings.

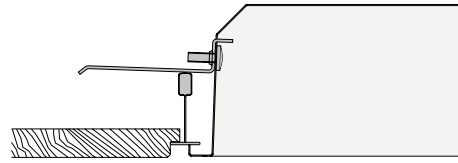
This accessory is suitable for square products only.

L 350 Mounting details

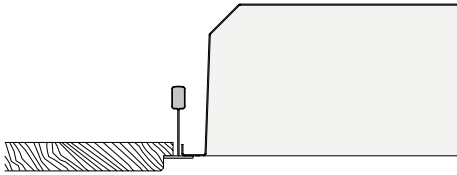
H80 version - 596x596



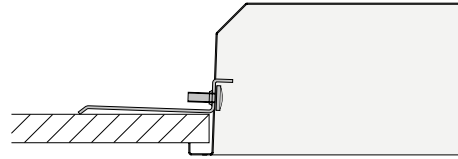
Panels in mineral fibre with exposed structure 600x600.



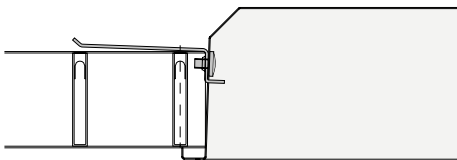
Panels in mineral fibre with decoration 600x600, small voids.
Installed flush with bracket accessory 15 ZH.



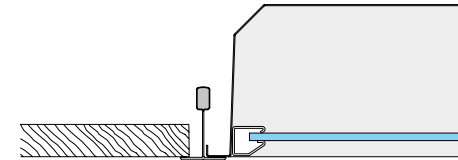
Panels in mineral fibre with decoration in relief 600x600.



Plasterboard.
Installed flush with bracket accessory 15 ZH.



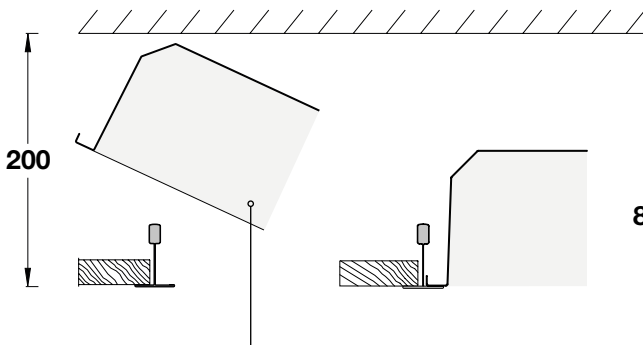
Pull-up installation on grid false ceilings.
Installed flush with bracket accessory 15 ZH.



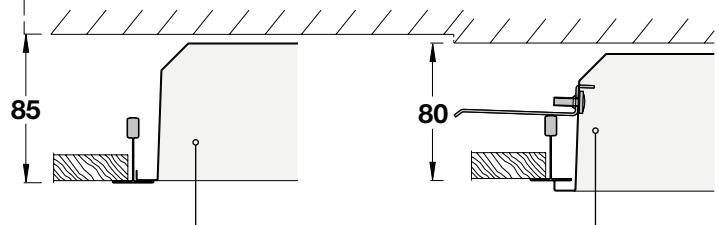
L 350 SP IP54 exposed part

Installation

H80 version

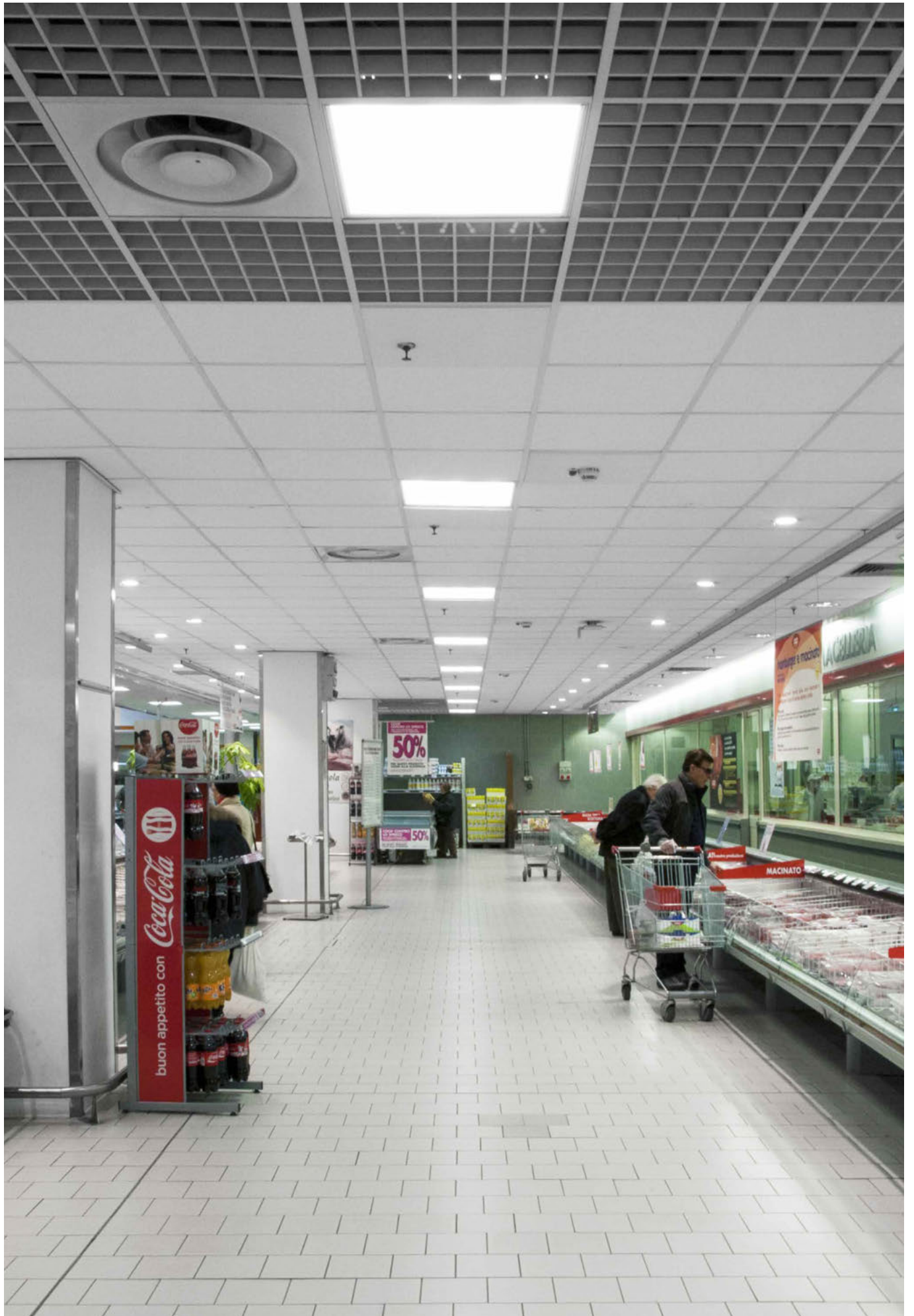


Installation following false ceiling mounting supported by the exposed structure, minimum void of 200 mm from the structure's lower edge.

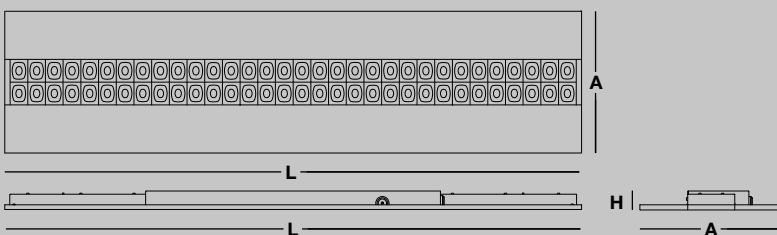


Installation simultaneously with the false ceiling, minimum void of 85 mm from the structure's lower edge.
3x25 version with minimum void of 200 mm and with capability of heat dissipation.

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

ILLUMINOTECHNICAL

Direct symmetric distribution.
Average luminance <math><2500\text{ cd/m}^2</math> for angles >45°.
Average luminance <math><1500\text{ cd/m}^2</math> for angles >65°.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in galvanized steel, painted in white epoxy-polyester.
Transparent methacrylate (PMMA) lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective white polycarbonate alveolar optic.
The 308x1246 version is dedicated to false ceilings that have modular dimensions of 312x1250.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

INSTALLATION

Lay-in installation.

APPLICATIONS

Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- anti-reflective black polycarbonate alveolar optic
- CRI >90 sources
- different dimensions
- emergency versions

L 360 OCW

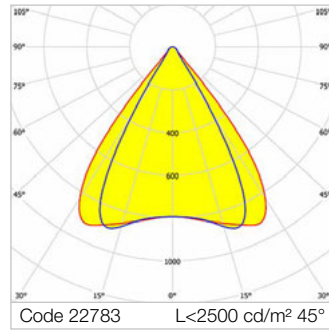


650°C

IP40

0,2J

IK02



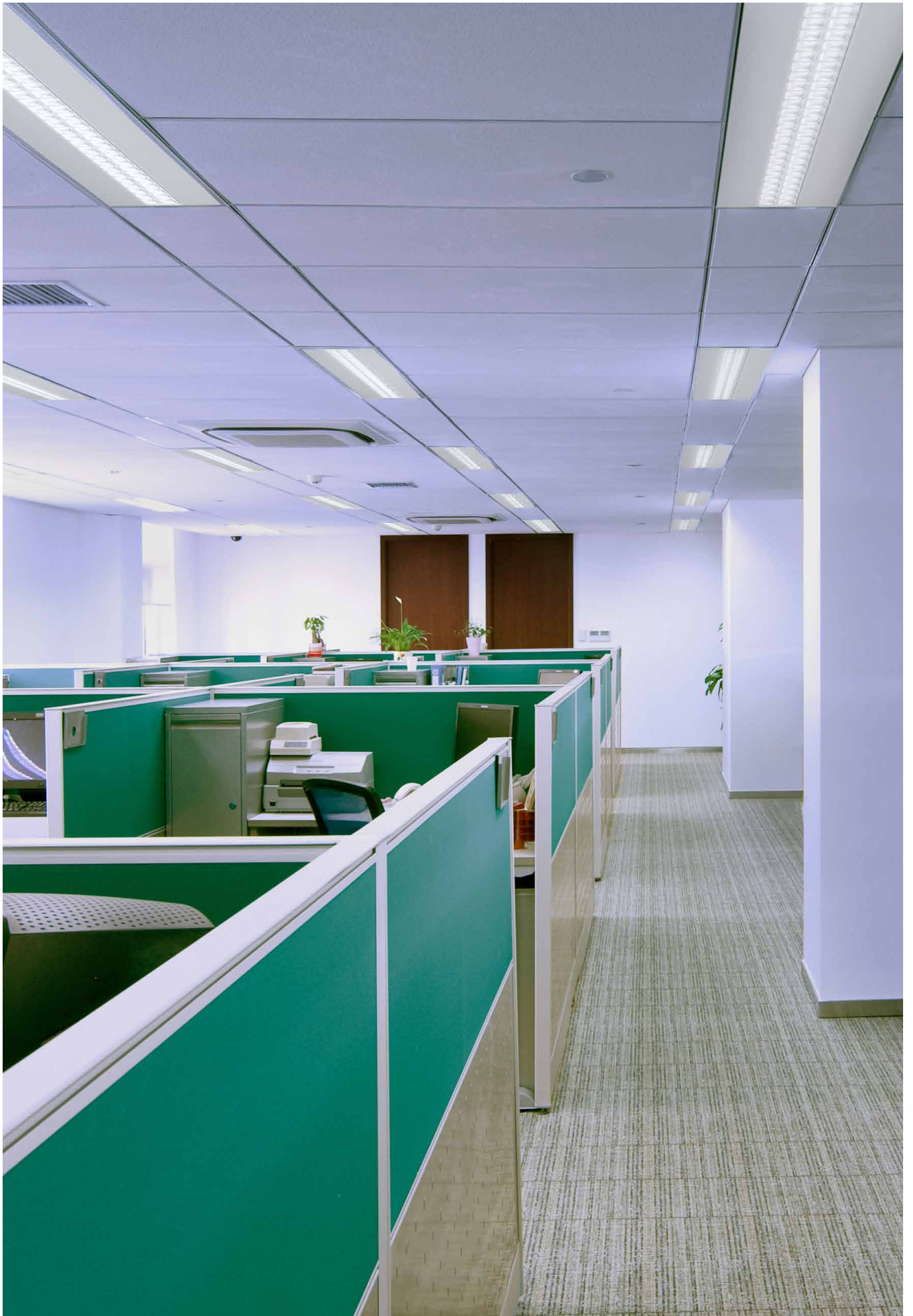
Optics Control White - LEED Compliant.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22782	L 362x12W LED OCW 296x1196	27	3570	4000	>80	1196x296x40
22786	L 362x12W LED OCW 308x1246	27	3570	4000	>80	1246x308x40

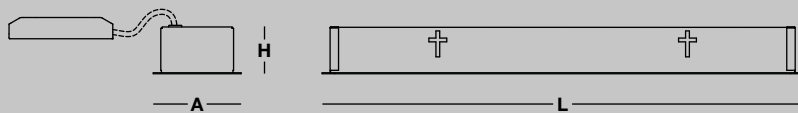
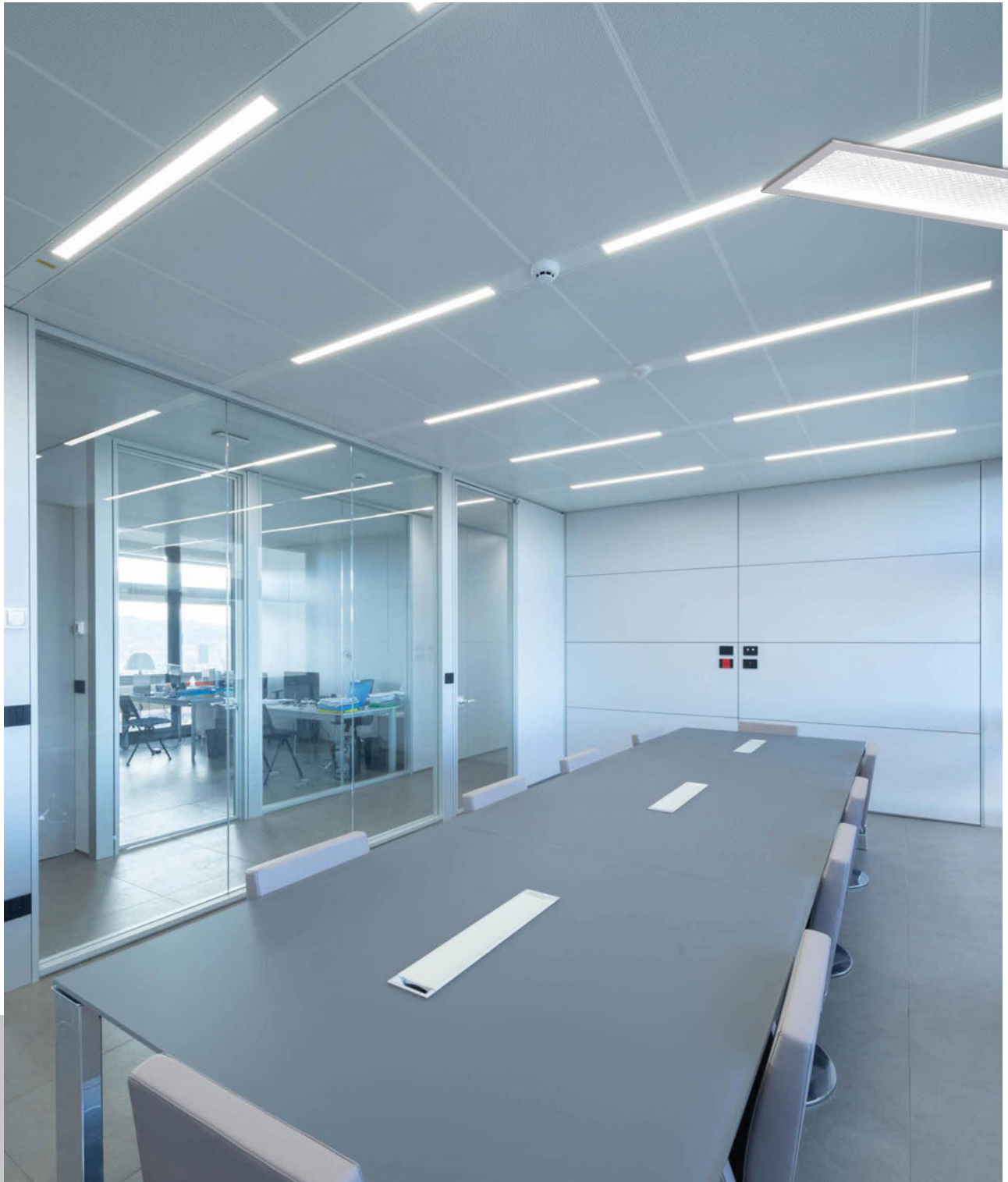
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22783	L 362x12W LED DALI OCW 296x1196	27	3570	4000	>80	1196x296x40
22787	L 362x12W LED DALI OCW 308x1246	27	3570	4000	>80	1246x308x40



NEW

/ Recessed luminaires



CNA
Bologna
Italia/Italy





L 490

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

Linear LED module.
Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

Housing in steel painted in white epoxy-polyester.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection of the power supply from the outside of the body with the possibility of cascade connection in / out.
Wiring on a separate unit.
Class II.

INSTALLATION

Pull-up installation with 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.

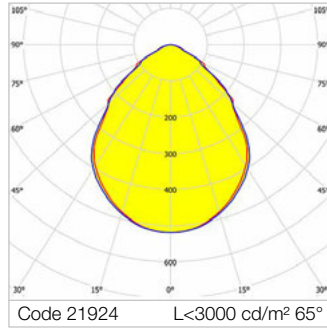
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: ON-OFF, CLO (page 752)
- CRI >90 sources

L 490 GSP



Average luminance < 3000 cd/m² for radial angles > 65°.
 SP transparent methacrylate (PMMA) diffuser, prismatic outside, antiglare.
 Anti-glare opal polycarbonate filter for brightness uniformity.

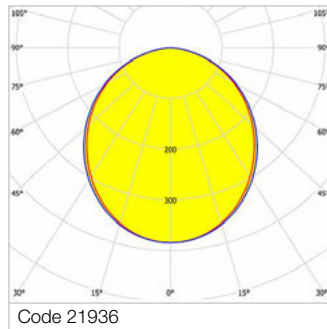
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21922 <small>NEW</small>	L 490 12W LED DALI GSP 125x625	14	1251	4000	>80	625x125x65
21923 <small>NEW</small>	L 490 24W LED DALI GSP 125x1225	27	2504	4000	>80	1225x125x65
21924 <small>NEW</small>	L 490 30W LED DALI GSP 125x1525	33.5	3134	4000	>80	1525x125x65

DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
21925 <small>NEW</small>	L 490 12W LED DALI EP GSP 125x625	15	1251	4000	>80	625x125x65
21926 <small>NEW</small>	L 490 24W LED DALI EP GSP 125x1225	28	2504	4000	>80	1225x125x65
21927 <small>NEW</small>	L 490 30W LED DALI EP GSP 125x1525	34.5	3134	4000	>80	1525x125x65

L 490 OP



OP opal methacrylate (PMMA) flat diffuser, anti-glare.

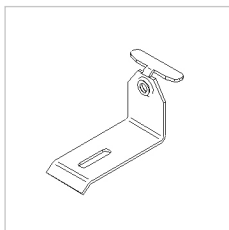
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21934 <small>NEW</small>	L 490 12W LED DALI OP 125x625	14	1392	4000	>80	625x125x65
21935 <small>NEW</small>	L 490 24W LED DALI OP 125x1225	27	2786	4000	>80	1225x125x65
21936 <small>NEW</small>	L 490 30W LED DALI OP 125x1525	33.5	3487	4000	>80	1525x125x65

DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

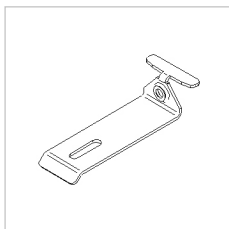
Code	Item	W	lm	K	CRI	L x A x H
21937 <small>NEW</small>	L 490 12W LED DALI EP OP 125x625	15	1392	4000	>80	625x125x65
21938 <small>NEW</small>	L 490 24W LED DALI EP OP 125x1225	28	2786	4000	>80	1225x125x65
21939 <small>NEW</small>	L 490 30W LED DALI EP OP 125x1525	34.5	3487	4000	>80	1525x125x65

L 490 | Accessories



Code	Item
A0173	15HI Brackets - L320-L350-L450 The pack contains 4 pieces.

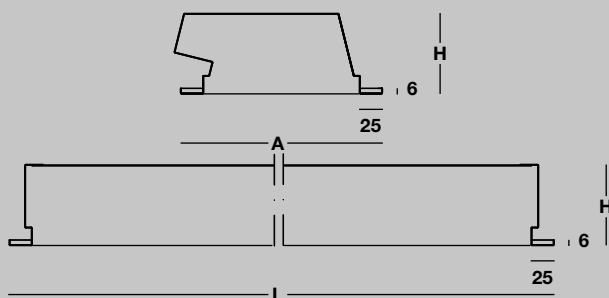
Galvanised steel fixing bracket for pull-up installation on plasterboard. Pack for 1 luminaire.
Excursion min. 0 mm, max. 20 mm.



Code	Item
A0177	15ZH Brackets - L320-L350-L560 The pack contains 4 pieces.

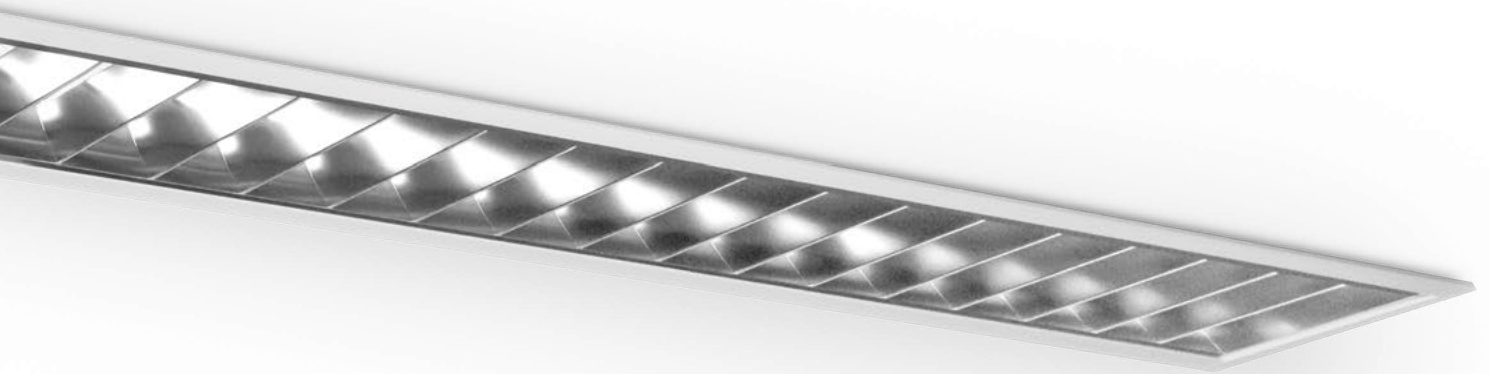
Fixing bracket in galvanised steel. Pack for 1 luminaire.
Excursion min. 20 mm, max. 40 mm.

/ Recessed luminaires



Autostazione di Bologna
Bologna
Italia/Italy





L 560

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in galvanized steel, painted in white epoxy-polyester.
Attention: before ordering these products, we ask you to check the installation instructions if the type of installation requires accessory brackets.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

INSTALLATION

Slat ceiling installation.
Installation and assembly diagrams on page 374.

APPLICATIONS

2S version

Environments: with VDTs, schools, offices.

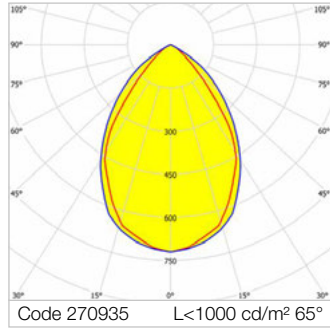
SP version

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

ON REQUEST

- parabolic louvres 2M, 2MG, 2US, 3AO
- different power levels, colour rendering indices and colour temperatures
- diffuser in SMP microprismatic methacrylate (PMMA) or SP polycarbonate, Selfextinguishing V2
- wiring: dimmable, CLO (page 752)
- CRI >90 sources
- emergency versions

L 560 2S

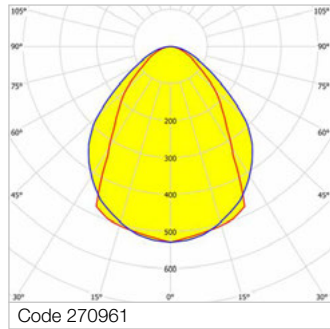


1x - Average luminance < 1000 cd/m² for radial angles > 65°.
 2x - Average luminance < 1500 cd/m² for radial angles > 65°.
 2S parabolic louvre in semi-specular aluminium, non-reflecting, with transverse blades closed at the top.
 Prismatic methacrylate (PMMA) diffuser for total shielding of the louvre compartment.
 Film protective against dust and finger marks, adhesive, attached to louvre.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
270931	L 561x12W LED 2S 221x647	14	1452	4000	>80	647x221x95
270933	L 561x24W LED 2S 221x1256	27	2906	4000	>80	1256x221x95
270937	L 562x12W LED 2S 221x647	28	2771	4000	>80	647x221x95
270935	L 561x30W LED 2S 221x1556	34	3637	4000	>80	1556x221x95
270939	L 562x24W LED 2S 221x1256	54	5547	4000	>80	1256x221x95
270941	L 562x30W LED 2S 221x1556	66	6943	4000	>80	1556x221x95

L 560 SP

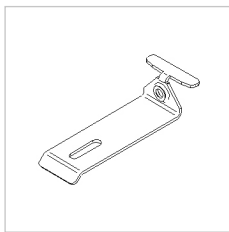


SP transparent methacrylate (PMMA) diffuser, prismatic exterior, anti-glare, locked to the prepainted white aluminium perimeter frame with sealing gasket, hinged opening.

ON/OFF electronic wiring 230V-50/60Hz

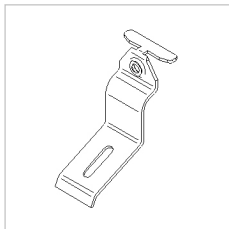
Code	Item	W	lm	K	CRI	L x A x H
270957	L 561x12W LED SP 221x647	14	1466	4000	>80	647x221x95
270959	L 561x24W LED SP 221x1256	27	2935	4000	>80	1256x221x95
270963	L 562x12W LED SP 221x647	28	2875	4000	>80	647x221x95
270961	L 561x30W LED SP 221x1556	34	3674	4000	>80	1556x221x95
270965	L 562x24W LED SP 221x1256	54	5755	4000	>80	1256x221x95
270967	L 562x30W LED SP 221x1556	66	7202	4000	>80	1556x221x95

L 560 | Accessories



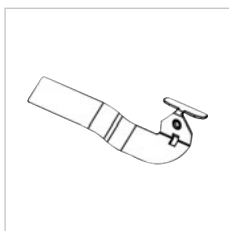
Code	Item
A0177	15ZH Brackets - L320-L350-L560 The pack contains 4 pieces.

Fixing bracket in galvanised steel. Pack for 1 luminaire.
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).



Code	Item
A0170	15BS Brackets - L320-L400-L560 The pack contains 4 pieces.

Fixing bracket in galvanised steel for ceiling pull-up installation. Pack for 1 luminaire.
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).



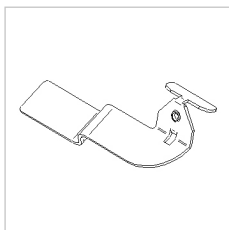
Code	Item
A0174	15DP Brackets - L560 The pack contains 4 pieces.

Head fixings bracket for installation of the luminaire on load bearing structures (transverse by the luminaire). Pack for 1 luminaire.
The bracket protruding 55 mm beyond the head side. Excursion min. 55 mm, max. 75 mm. Not suitable for diffused light recessed luminaires.



Code	Item
A0175	15GF Brackets - L560 The pack contains 4 pieces.

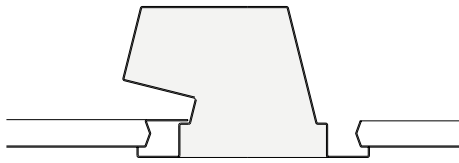
Head fixings bracket for installation of the luminaire on load bearing structures (transverse by the luminaire). Pack for 1 luminaire.
The bracket protruding 60 mm beyond the head side. Excursion min. 37 mm, max. 55 mm.



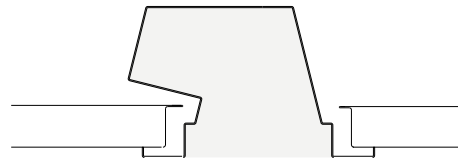
Code	Item
A0176	15XB Brackets - L560 The pack contains 4 pieces.

Head fixings bracket for installation of the luminaire on load bearing structures (transverse by the luminaire). Pack for 1 luminaire.
The bracket protruding 55 mm beyond the head side. Excursion min. 20 mm, max. 37 mm.

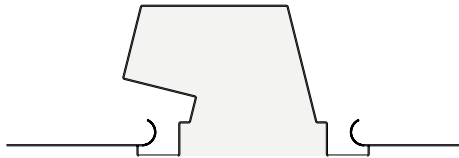
L 560 Mounting details



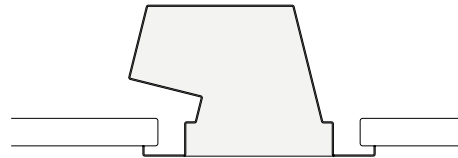
Staves spaced 100
Fixing brackets item 15 DP, 15 GF, 15 XB.



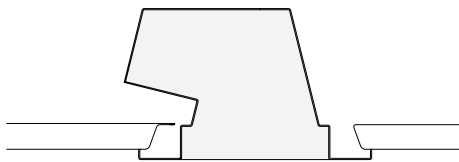
Staves spaced 100-200
Fixing brackets item 15 DP, 15 GF.



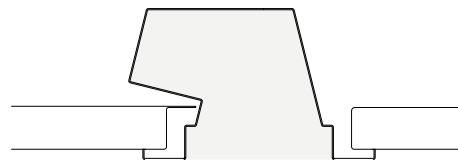
HD staves, spaced 100
Fixing brackets item 15 DP, 15 GF.



Staves spaced 100-200
Fixing brackets item 15 DP, 15 GF.



Staves spaced 100
Fixing brackets item 15 DP, 15 GF, 15 XB.

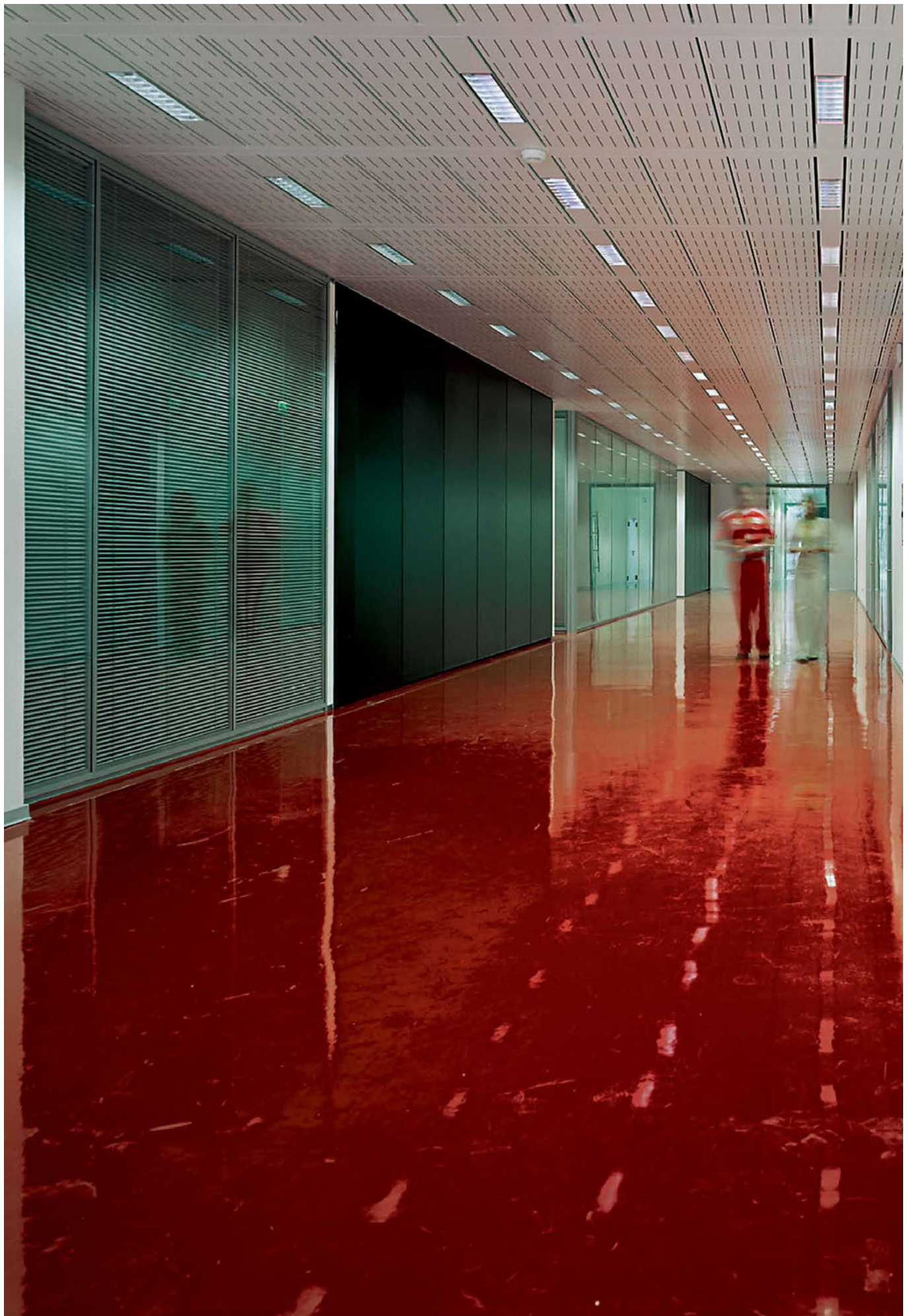


Staves spaced 100-200
Fixing brackets item 15 DP, 15 GF.

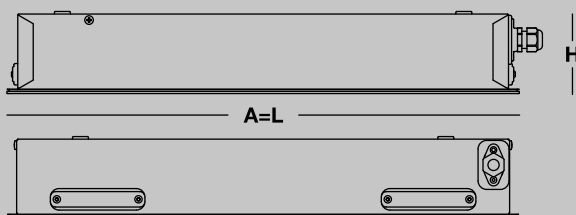
Spacing of load-bearing profiles



For perfect installation of the luminaires, the load-bearing profile sections should be positioned at the distances indicated above (net space between profiles).

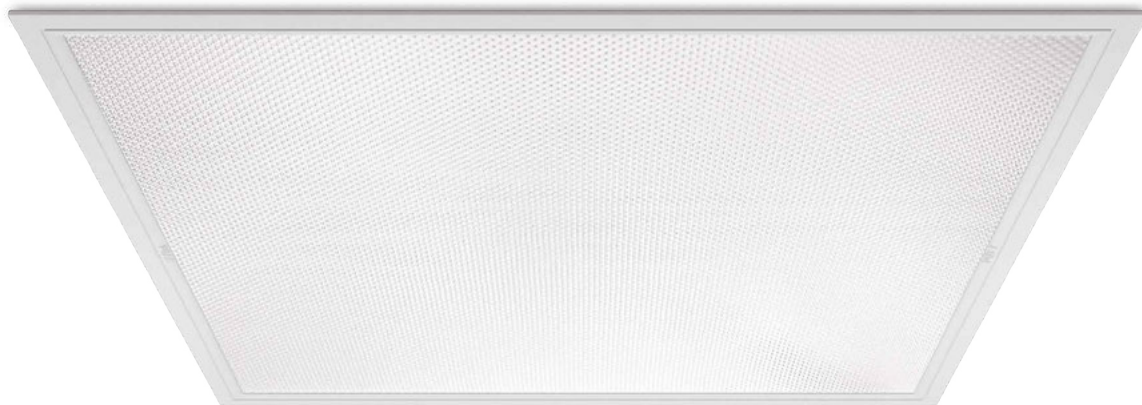


/ Recessed luminaires



Ospedale Maggiore "Carlo Alberto Pizzardi"
Bologna
Italia/Italy





L 600 Diffused Light

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in galvanized steel, painted in white epoxy-polyester.
Perimetral frame in white polycarbonate with sealing gasket.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
5-pole terminal block (L-N-PE-DA/DA) quick connection for line connection with connection capacity 2x2.5 mm² per poles.

INSTALLATION

596 version

Lay-on or pull-up installation using the frame accessory.

599 version

Coplanar installation with inspectable metal panels, through an accessory which is always required.

621 version

Lay-in installation.

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 with suitable frame can also be supplied.

LGS, VSS versions

Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

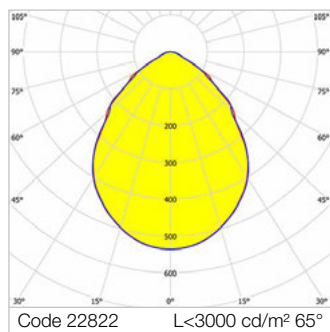
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- diffuser in OP opal methacrylate (PMMA) or SP polycarbonate, self-extinguishing V2
- different power levels, colour rendering indices and colour temperatures
- 3F Tunable White versione
- wiring: CLO (page 752)
- brackets for pull-up installation
- emergency versions

L 600 Diffused Light LGS



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

L 600 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22821	L 600 28W/840 DALI LGS 596x596	32.5	3978	4000	>80	596x596x95
22839	L 600 35W/940 DALI LGS 596x596	39	3978	4000	>90	596x596x95
22822	L 600 42W/840 DALI LGS 596x596	45	5776	4000	>80	596x596x95
22840	L 600 52W/940 DALI LGS 596x596	55.5	5843	4000	>90	596x596x95
22823	L 600 63W/840 DALI LGS 596x596	67	8000	4000	>80	596x596x95
22841	L 600 75W/940 DALI LGS 596x596	81.5	7936	4000	>90	596x596x95

L 600 596x596 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
22830	L 600 28W/840 DALI EP LGS 596x596	33.5	3978	4000	>80	596x596x95
22848	L 600 35W/940 DALI EP LGS 596x596	40	3978	4000	>90	596x596x95
22831	L 600 42W/840 DALI EP LGS 596x596	46	5776	4000	>80	596x596x95
22849	L 600 52W/940 DALI EP LGS 596x596	56.5	5843	4000	>90	596x596x95
22832	L 600 63W/840 DALI EP LGS 596x596	68	8000	4000	>80	596x596x95
22850	L 600 75W/940 DALI EP LGS 596x596	82.5	7936	4000	>90	596x596x95

L 600 599x599 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22824	L 600 28W/840 DALI LGS 599x599	32.5	3978	4000	>80	599x599x95
22842	L 600 35W/940 DALI LGS 599x599	39	3978	4000	>90	599x599x95
22825	L 600 42W/840 DALI LGS 599x599	45	5776	4000	>80	599x599x95
22843	L 600 52W/940 DALI LGS 599x599	55.5	5843	4000	>90	599x599x95
22826	L 600 63W/840 DALI LGS 599x599	67	8000	4000	>80	599x599x95
22844	L 600 75W/940 DALI LGS 599x599	81.5	7936	4000	>90	599x599x95

L 600 599x599 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
22833	L 600 28W/840 DALI EP LGS 599x599	33.5	3978	4000	>80	599x599x95
22851	L 600 35W/940 DALI EP LGS 599x599	40	3978	4000	>90	599x599x95
22834	L 600 42W/840 DALI EP LGS 599x599	46	5776	4000	>80	599x599x95
22852	L 600 52W/940 DALI EP LGS 599x599	56.5	5843	4000	>90	599x599x95
22835	L 600 63W/840 DALI EP LGS 599x599	68	8000	4000	>80	599x599x95
22853	L 600 75W/940 DALI EP LGS 599x599	82.5	7936	4000	>90	599x599x95

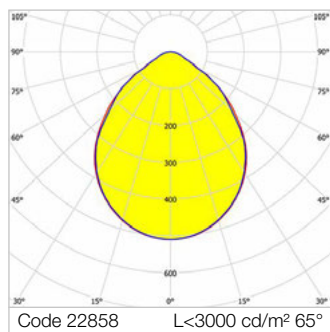
L 600 621x621 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22827	L 600 28W/840 DALI LGS 621x621	32.5	3978	4000	>80	621x621x95
22845	L 600 35W/940 DALI LGS 621x621	39	3978	4000	>90	621x621x95
22828	L 600 42W/840 DALI LGS 621x621	45	5776	4000	>80	621x621x95
22846	L 600 52W/940 DALI LGS 621x621	55.5	5843	4000	>90	621x621x95
22829	L 600 63W/840 DALI LGS 621x621	67	8000	4000	>80	621x621x95
22847	L 600 75W/940 DALI LGS 621x621	81.5	7936	4000	>90	621x621x95

L 600 621x621 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
22836	L 600 28W/840 DALI EP LGS 621x621	33.5	3978	4000	>80	621x621x95
22854	L 600 35W/940 DALI EP LGS 621x621	40	3978	4000	>90	621x621x95
22837	L 600 42W/840 DALI EP LGS 621x621	46	5776	4000	>80	621x621x95
22855	L 600 52W/940 DALI EP LGS 621x621	56.5	5843	4000	>90	621x621x95
22838	L 600 63W/840 DALI EP LGS 621x621	68	8000	4000	>80	621x621x95
22856	L 600 75W/940 DALI EP LGS 621x621	82.5	7936	4000	>90	621x621x95

L 600 Diffused Light VS



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.
 Anti-glare opal polycarbonate filter for brightness uniformity.

L 600 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22857	L 600 28W/840 DALI VS 596x596	32.5	3863	4000	>80	596x596x95
22875	L 600 35W/940 DALI VS 596x596	39	3863	4000	>90	596x596x95
22858	L 600 42W/840 DALI VS 596x596	45	5612	4000	>80	596x596x95
22876	L 600 52W/940 DALI VS 596x596	55.5	5677	4000	>90	596x596x95
22859	L 600 63W/840 DALI VS 596x596	67	7785	4000	>80	596x596x95
22877	L 600 75W/940 DALI VS 596x596	81.5	7724	4000	>90	596x596x95

L 600 596x596 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
22866	L 600 28W/840 DALI EP VS 596x596	33.5	3863	4000	>80	596x596x95
22884	L 600 35W/940 DALI EP VS 596x596	40	3863	4000	>90	596x596x95
22867	L 600 42W/840 DALI EP VS 596x596	46	5612	4000	>80	596x596x95
22885	L 600 52W/940 DALI EP VS 596x596	56.5	5677	4000	>90	596x596x95
22868	L 600 63W/840 DALI EP VS 596x596	68	7785	4000	>80	596x596x95
22886	L 600 75W/940 DALI EP VS 596x596	82.5	7724	4000	>90	596x596x95

L 600 599x599 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22860	L 600 28W/840 DALI VS 599x599	32.5	3863	4000	>80	599x599x95
22878	L 600 35W/940 DALI VS 599x599	39	3863	4000	>90	599x599x95
22861	L 600 42W/840 DALI VS 599x599	45	5612	4000	>80	599x599x95
22879	L 600 52W/940 DALI VS 599x599	55.5	5677	4000	>90	599x599x95
22862	L 600 63W/840 DALI VS 599x599	67	7785	4000	>80	599x599x95
22880	L 600 75W/940 DALI VS 599x599	81.5	7724	4000	>90	599x599x95

L 600 599x599 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
22869	L 600 28W/840 DALI EP VS 599x599	33.5	3863	4000	>80	599x599x95
22887	L 600 35W/940 DALI EP VS 599x599	40	3863	4000	>90	599x599x95
22870	L 600 42W/840 DALI EP VS 599x599	46	5612	4000	>80	599x599x95
22888	L 600 52W/940 DALI EP VS 599x599	56.5	5677	4000	>90	599x599x95
22871	L 600 63W/840 DALI EP VS 599x599	68	7785	4000	>80	599x599x95
22889	L 600 75W/940 DALI EP VS 599x599	82.5	7724	4000	>90	599x599x95

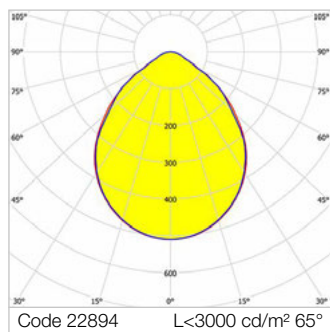
L 600 621x621 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22863	L 600 28W/840 DALI VS 621x621	32.5	3863	4000	>80	621x621x95
22881	L 600 35W/940 DALI VS 621x621	39	3863	4000	>90	621x621x95
22864	L 600 42W/840 DALI VS 621x621	45	5612	4000	>80	621x621x95
22882	L 600 52W/940 DALI VS 621x621	55.5	5677	4000	>90	621x621x95
22865	L 600 63W/840 DALI VS 621x621	67	7785	4000	>80	621x621x95
22883	L 600 75W/940 DALI VS 621x621	81.5	7724	4000	>90	621x621x95

L 600 621x621 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
22872	L 600 28W/840 DALI EP VS 621x621	33.5	3863	4000	>80	621x621x95
22890	L 600 35W/940 DALI EP VS 621x621	40	3863	4000	>90	621x621x95
22873	L 600 42W/840 DALI EP VS 621x621	46	5612	4000	>80	621x621x95
22891	L 600 52W/940 DALI EP VS 621x621	56.5	5677	4000	>90	621x621x95
22874	L 600 63W/840 DALI EP VS 621x621	68	7785	4000	>80	621x621x95
22892	L 600 75W/940 DALI EP VS 621x621	82.5	7724	4000	>90	621x621x95

L 600 Diffused Light VSS



Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. VSS moulded laminated dipped glass, non-combustible, thickness 7 mm. Anti-glare opal polycarbonate filter for brightness uniformity.

L 600 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22893	L 600 35W/940 DALI VSS 596x596	39	3593	4000	>90	596x596x95
22894	L 600 52W/940 DALI VSS 596x596	55.5	5283	4000	>90	596x596x95
22895	L 600 75W/940 DALI VSS 596x596	81.5	7187	4000	>90	596x596x95

L 600 596x596 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
22902	L 600 35W/940 DALI EP VSS 596x596	40	3593	4000	>90	596x596x95
22903	L 600 52W/940 DALI EP VSS 596x596	56.5	5283	4000	>90	596x596x95
22904	L 600 75W/940 DALI EP VSS 596x596	82.5	7187	4000	>90	596x596x95

L 600 621x621 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
22899	L 600 35W/940 DALI VSS 621x621	39	3593	4000	>90	621x621x95
22900	L 600 52W/940 DALI VSS 621x621	55.5	5283	4000	>90	621x621x95
22901	L 600 75W/940 DALI VSS 621x621	81.5	7187	4000	>90	621x621x95

L 600 621x621 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
22908	L 600 35W/940 DALI EP VSS 621x621	40	3593	4000	>90	621x621x95
22909	L 600 52W/940 DALI EP VSS 621x621	56.5	5283	4000	>90	621x621x95
22910	L 600 75W/940 DALI EP VSS 621x621	82.5	7187	4000	>90	621x621x95

L 600 | Accessories



Code	Item
A0579	Safety wire with brackets

Anti-fall safety cable with pair of brackets for fixing the housing to the building structure. Length 2.5 m.
Accessory compatible with luminaires with dimensions of 596x596 mm or 621x621 mm.



Code	Item
A0477	Safety wire

Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.
Accessory compatible with luminaires with dimensions of 599x599 mm.



Code	Item
A0798	621x621 frame + brackets

Adapter frame in white-painted steel, for installing luminaires with dimensions of 596x596 mm for pull-up installations on plasterboard false ceilings.
Accessory not compatible with VSS versions.



Code	Item
A0537	Pair of flush ceiling mounting brackets

Pair of brackets in galvanised steel, for installing luminaires with dimensions of 599x599 mm coplanar with metal panels with concealed structure. For square luminaires (height profiles min. 29.6 mm, max 62.5 mm) with possible intermediate adjustments of 3.7 mm.



Code	Item
A0187	Anti-condensation cable gland

Anti-condensation diffuser cable gland.
Recommended for installations in environments with temperature sudden changes or subject to condensation.
Suitable only for concealed profiles of max. height 42 mm.



Code	Item
A0521	Reducing sealing ring diam.8mm

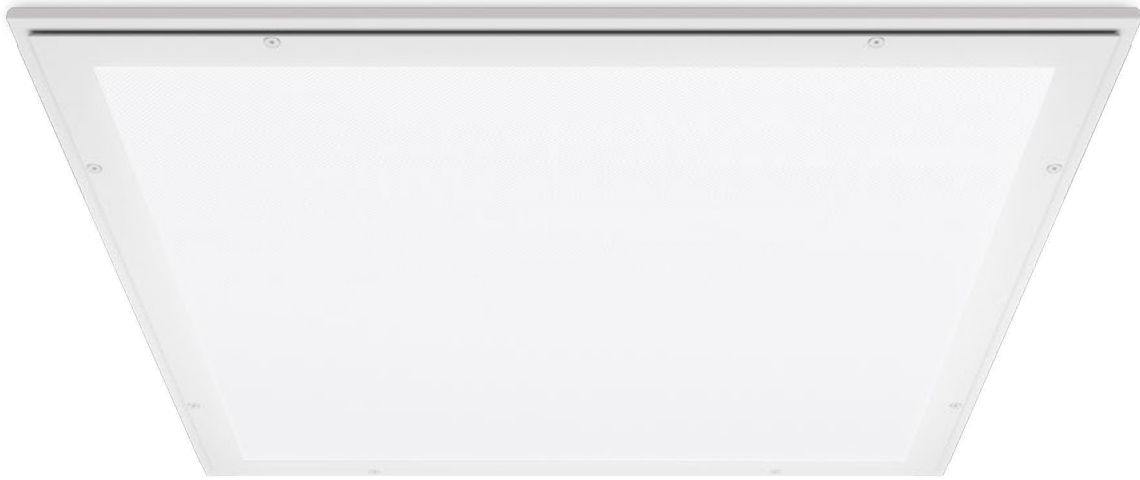
Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.
These accessories must ALWAYS be used with one of the following codes: A0187.

/ Recessed luminaires



Ospedale S. Maria delle Croci
Ravenna
Italia/Italy





L 650 Diffused Light

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in galvanized steel, painted in white epoxy-polyester.
Perimetral frame in white stainless steel.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
5-pole terminal block (L-N-PE-DA/DA) quick connection for line connection with connection capacity 2x2.5 mm² per poles.

INSTALLATION

596 version

Lay-in installation.

599 version

Coplanar installation with inspectable metal panels, through an accessory which is always required.

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 and simplified cleaning.

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

Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

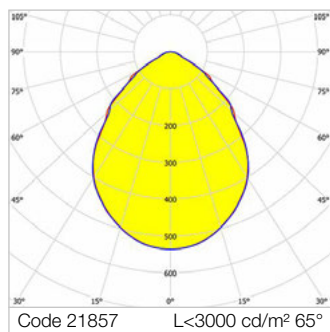
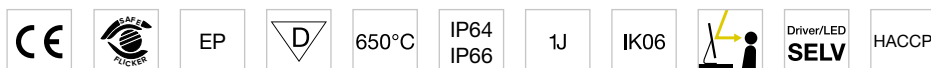
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- diffuser in OP opal methacrylate (PMMA) or SP polycarbonate, self-extinguishing V2
- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- emergency versions

L 650 Diffused Light LGS



Average luminance <math><3000 \text{ cd/m}^2</math> for radial angles >65°.
 LGS micro-prismatic flat diffuser in transparent methacrylate (PMMA), multi-lenticular exterior, anti-glare.
 Anti-glare opal polycarbonate filter for brightness uniformity.

L 650 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21856	L 650 28W/840 DALI LGS 596x596	33	3780	4000	>80	596x596x90
21868	L 650 35W/940 DALI LGS 596x596	40	3780	4000	>90	596x596x90
21857	L 650 42W/840 DALI LGS 596x596	47	5488	4000	>80	596x596x90
21869	L 650 52W/940 DALI LGS 596x596	57	5551	4000	>90	596x596x90
21858	L 650 63W/840 DALI LGS 596x596	69	7605	4000	>80	596x596x90
21870	L 650 75W/940 DALI LGS 596x596	81	7545	4000	>90	596x596x90

L 650 596x596 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
21862	L 650 28W/840 DALI EP LGS 596x596	34	3780	4000	>80	596x596x90
21874	L 650 35W/940 DALI EP LGS 596x596	41	3780	4000	>90	596x596x90
21863	L 650 42W/840 DALI EP LGS 596x596	48	5488	4000	>80	596x596x90
21875	L 650 52W/940 DALI EP LGS 596x596	58	5551	4000	>90	596x596x90
21864	L 650 63W/840 DALI EP LGS 596x596	70	7605	4000	>80	596x596x90
21876	L 650 75W/940 DALI EP LGS 596x596	82	7545	4000	>90	596x596x90

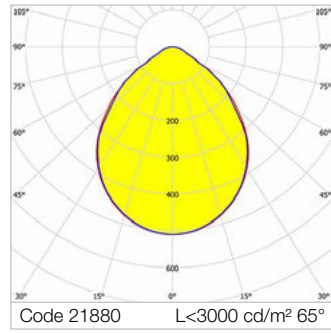
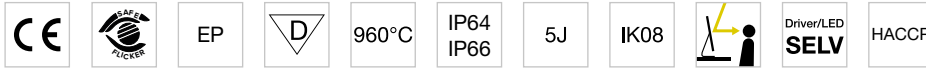
L 650 599x599 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21859	L 650 28W/840 DALI LGS 599x599	33	3780	4000	>80	599x599x90
21871	L 650 35W/940 DALI LGS 599x599	40	3780	4000	>90	599x599x90
21860	L 650 42W/840 DALI LGS 599x599	47	5488	4000	>80	599x599x90
21872	L 650 52W/940 DALI LGS 599x599	57	5551	4000	>90	599x599x90
21861	L 650 63W/840 DALI LGS 599x599	69	7605	4000	>80	599x599x90
21873	L 650 75W/940 DALI LGS 599x599	81	7545	4000	>90	599x599x90

L 650 599x599 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
21865	L 650 28W/840 DALI EP LGS 599x599	34	3780	4000	>80	599x599x90
21877	L 650 35W/940 DALI EP LGS 599x599	41	3780	4000	>90	599x599x90
21866	L 650 42W/840 DALI EP LGS 599x599	48	5488	4000	>80	599x599x90
21878	L 650 52W/940 DALI EP LGS 599x599	58	5551	4000	>90	599x599x90
21867	L 650 63W/840 DALI EP LGS 599x599	70	7605	4000	>80	599x599x90
21879	L 650 75W/940 DALI EP LGS 599x599	82	7545	4000	>90	599x599x90

L 650 Diffused Light VSS



Average luminance <3000 cd/m² for radial angles >65°. VSS moulded laminated dipped glass, non-combustible, thickness 7 mm. Anti-glare opal polycarbonate filter for brightness uniformity.

L 650 596x596 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21880	L 650 28W/840 DALI VSS 596x596	33	3411	4000	>80	596x596x90
21892	L 650 35W/940 DALI VSS 596x596	40	3411	4000	>90	596x596x90
21881	L 650 42W/840 DALI VSS 596x596	47	4965	4000	>80	596x596x90
21893	L 650 52W/940 DALI VSS 596x596	57	5023	4000	>90	596x596x90
21882	L 650 63W/840 DALI VSS 596x596	69	6884	4000	>80	596x596x90
21894	L 650 75W/940 DALI VSS 596x596	81	6830	4000	>90	596x596x90

L 650 596x596 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
21886	L 650 28W/840 DALI EP VSS 596x596	34	3411	4000	>80	596x596x90
21898	L 650 35W/940 DALI EP VSS 596x596	41	3411	4000	>90	596x596x90
21887	L 650 42W/840 DALI EP VSS 596x596	48	4965	4000	>80	596x596x90
21899	L 650 52W/940 DALI EP VSS 596x596	58	5023	4000	>90	596x596x90
21888	L 650 63W/840 DALI EP VSS 596x596	70	6884	4000	>80	596x596x90
21900	L 650 75W/940 DALI EP VSS 596x596	82	6830	4000	>90	596x596x90

L 650 599x599 - DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
21883	L 650 28W/840 DALI VSS 599x599	33	3411	4000	>80	599x599x90
21895	L 650 35W/940 DALI VSS 599x599	40	3411	4000	>90	599x599x90
21884	L 650 42W/840 DALI VSS 599x599	47	4965	4000	>80	599x599x90
21896	L 650 52W/940 DALI VSS 599x599	57	5023	4000	>90	599x599x90
21885	L 650 63W/840 DALI VSS 599x599	69	6884	4000	>80	599x599x90
21897	L 650 75W/940 DALI VSS 599x599	81	6830	4000	>90	599x599x90

L 650 599x599 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
21889	L 650 28W/840 DALI EP VSS 599x599	34	3411	4000	>80	599x599x90
21901	L 650 35W/940 DALI EP VSS 599x599	41	3411	4000	>90	599x599x90
21890	L 650 42W/840 DALI EP VSS 599x599	48	4965	4000	>80	599x599x90
21902	L 650 52W/940 DALI EP VSS 599x599	58	5023	4000	>90	599x599x90
21891	L 650 63W/840 DALI EP VSS 599x599	70	6884	4000	>80	599x599x90
21903	L 650 75W/940 DALI EP VSS 599x599	82	6830	4000	>90	599x599x90

L 650 | Accessories



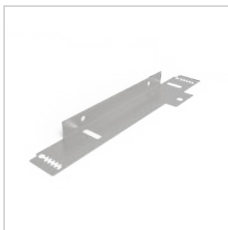
Code	Item
A0579	Safety wire with brackets

Anti-fall safety cable with pair of brackets for fixing the housing to the building structure. Length 2.5 m.
Accessory compatible with luminaries with dimensions of 596x596 mm.



Code	Item
A0477	Safety wire

Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.
Accessory compatible with luminaries with dimensions of 599x599 mm.



Code	Item
A0537	Pair of flush ceiling mounting brackets

Pair of brackets in galvanised steel, for installing luminaries with dimensions of 599x599 mm coplanar with metal panels with concealed structure. For square luminaires (height profiles min. 29.6 mm, max 62.5 mm) with possible intermediate adjustments of 3.7 mm.



Code	Item
A0187	Anti-condensation cable gland

Anti-condensation diffuser cable gland.
Recommended for installations in environments with temperature sudden changes or subject to condensation.
Suitable only for concealed profiles of max. height 42 mm.

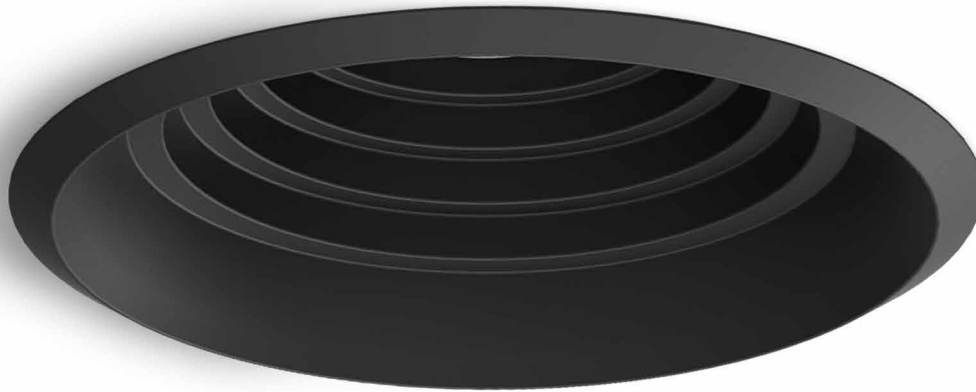


Code	Item
A0521	Reducing sealing ring diam.8mm

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.
These accessories must ALWAYS be used with one of the following codes: A0187.







3F Reno

> www.3F-Filippi.com/3F Reno

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.

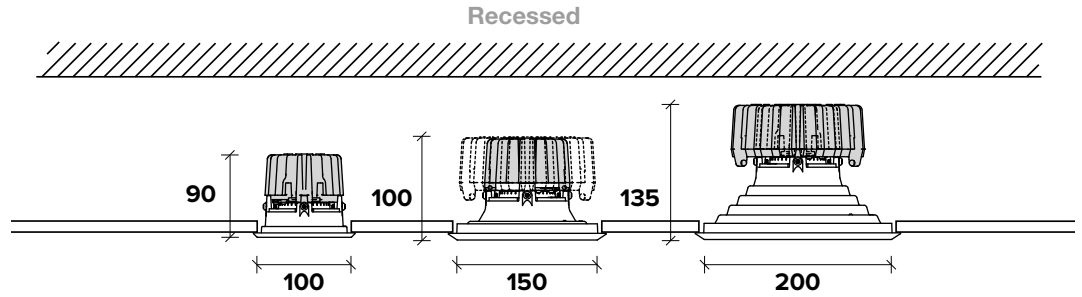
+ Overview

- Luminous efficacy up to 125 lumen/watt.
- Luminous fluxes from 1150 to 4103 lumens.
- Extensive installation pitch.
- UGR <16 (UGR version).
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

Page	Product	Pull-up installation
396	3F Reno White	downlight
406	3F Reno Black	downlight

Product range

3F Reno

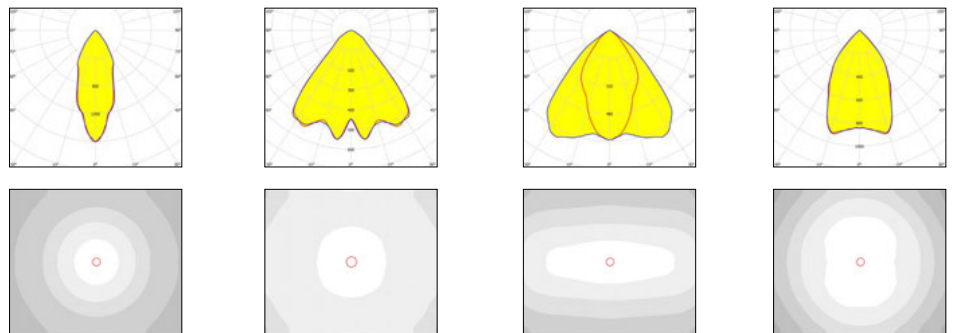


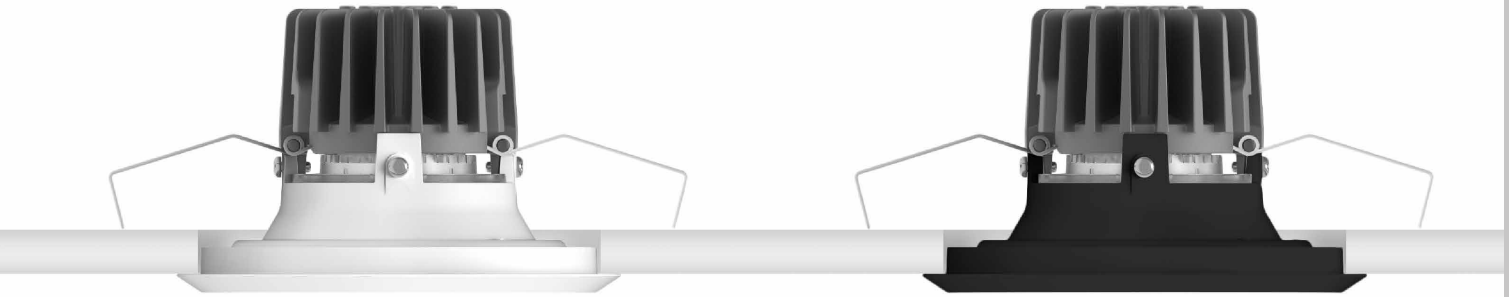
3F Reno White



Model	SPOT	Wide	Elliptical	UGR
Average luminance for angles > 65 (cd / m ²)	<3000	>3000	>3000	<1000
UGR	100 <21	150 <21	200 <19	/

Photometric distribution

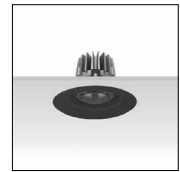
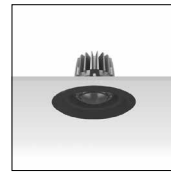
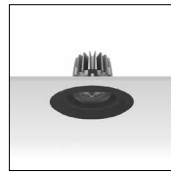
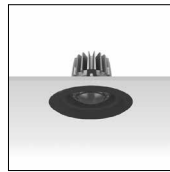




3F Reno 150
White

3F Reno 150
Black

3F Reno
Black



Model

SPOT

Wide

Elliptical

UGR

Average luminance
for angles > 65
(cd / m²)

<3000

>3000

>3000

<500

UGR

100

<21

/

<21

/

150

<21

<21

<21

<19

200

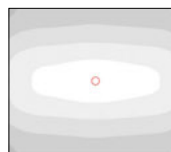
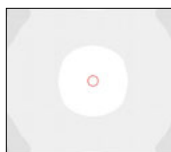
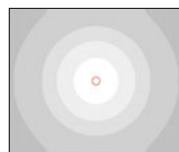
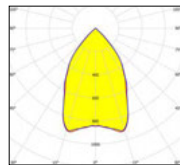
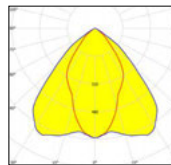
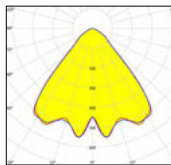
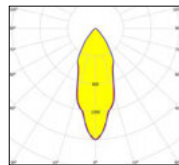
<19

<19

<21

<19

Photometric
distribution



Product advantages

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

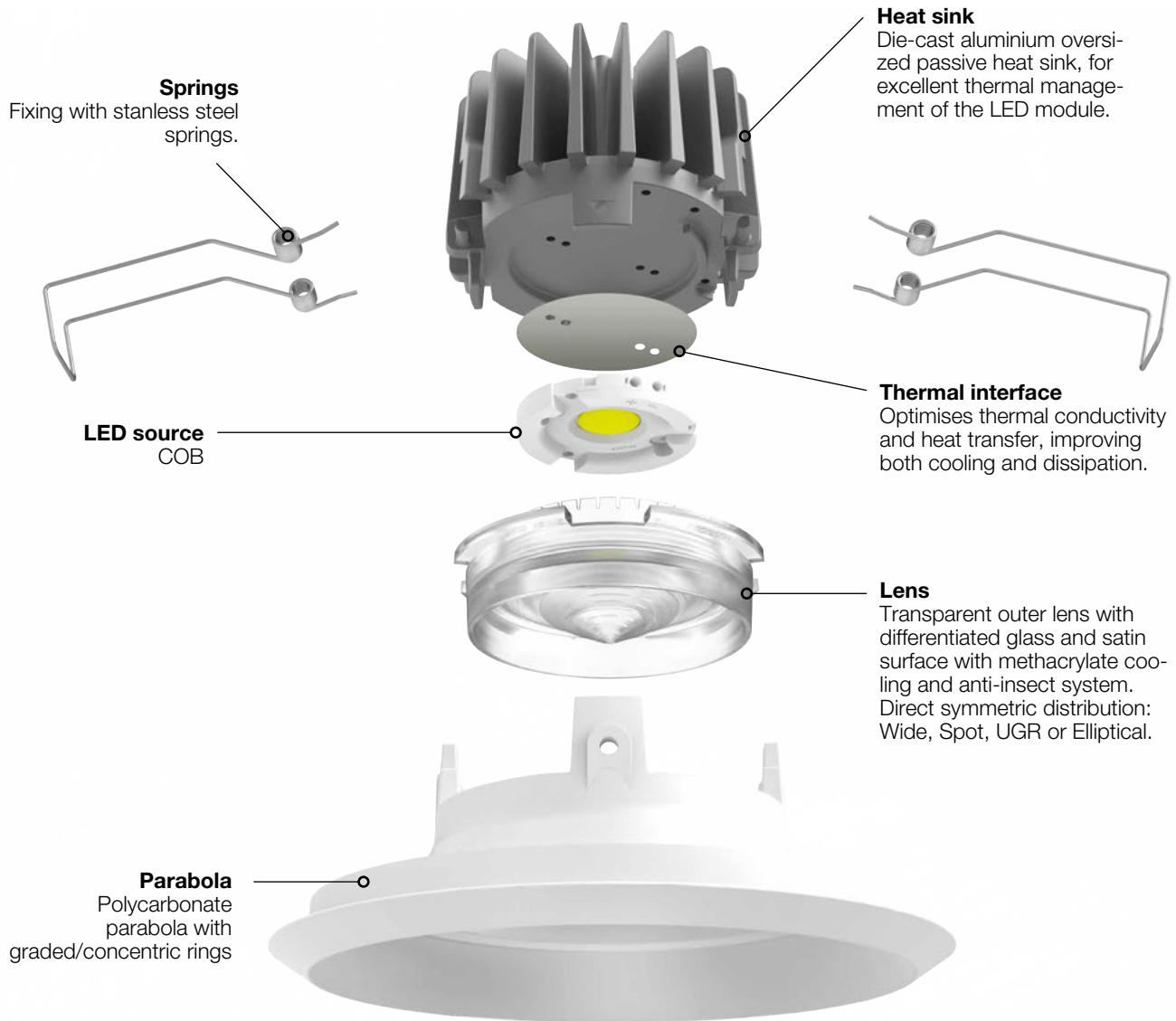
VERSIONS WITH A BLACK REFLECTOR (BK):



3F Reno 100 BK

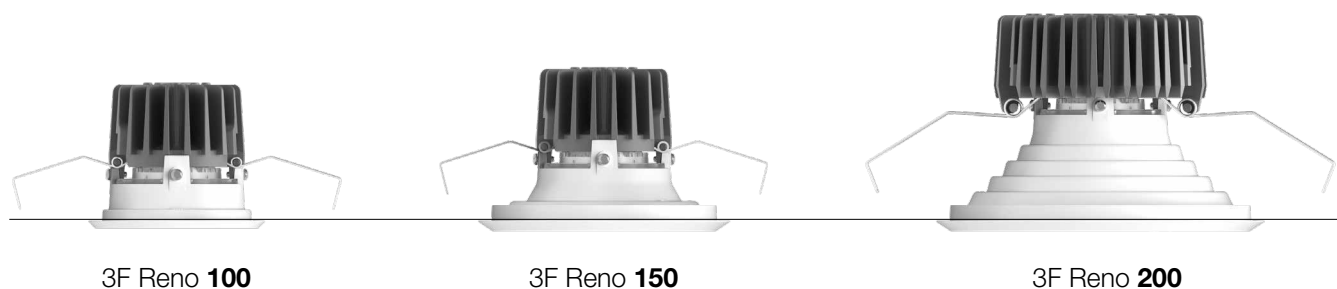
3F Reno 150 BK

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.

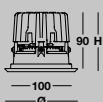
All versions share a significant advantage in terms of practicality: we have developed a highly efficient, compact heat sink that facilitates installation in shallow technical spaces, ensuring that these sizes do not vary **regardless of the photometric distribution used** (unlike what happens for most products on the market). This way the recessed dimensions from the external edge of the plasterboard are as follows:



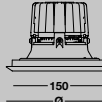
/ Recessed luminaires



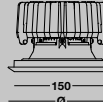
3F Reno 100
1000 - 2000



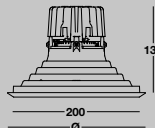
3F Reno 150
1500 - 2000



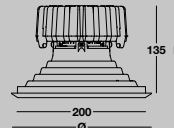
3F Reno 150
3000



3F Reno 200
2000



3F Reno 200
2500 - 3000 -



Concessionario Peugeot Cuneo
Cuneo
Italia/Italy





3F Reno White

ILLUMINOTECHNICAL

Direct symmetric distribution: wide, spot, UGR, elliptical.
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°.

SOURCE

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

MECHANICAL

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 (PMMA).
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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Wiring on a separate unit.
Class II.

INSTALLATION

Pull-up installation.

APPLICATIONS

Environments: architectural, commercial, exhibition areas, transit areas, corridors, shops, display windows, service areas.
In false ceilings with narrow voids.

Wide version

Luminaires suitable 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.

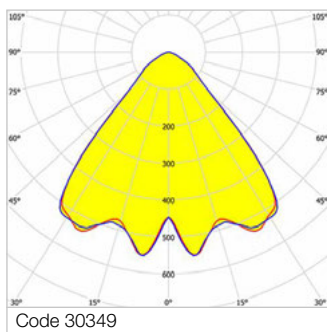
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- emergency versions

3F Reno White Wide



Wide lens in transparent methacrylate (PMMA).
Photobiological safety RG0, excluding versions 4000 - RG1 (page 16).

3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30073	3F Reno 100 WH 1000/930 WIDE	84°	14	1173	3000	>90	116x95
30069	3F Reno 100 WH 1000/840 WIDE	84°	14	1288	4000	>80	116x95
30077	3F Reno 100 WH 2000/840 WIDE	84°	20	1992	4000	>80	116x95
30081	3F Reno 100 WH 2000/930 WIDE	84°	24	1907	3000	>90	116x95

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

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30107	3F Reno 100 WH 1000/930 DALI WIDE	84°	14	1173	3000	>90	116x95
30103	3F Reno 100 WH 1000/840 DALI WIDE	84°	14	1288	4000	>80	116x95
30111	3F Reno 100 WH 2000/840 DALI WIDE	84°	20	1992	4000	>80	116x95
30115	3F Reno 100 WH 2000/930 DALI WIDE	84°	24	1907	3000	>90	116x95

3F Reno 100 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30090	3F Reno 100 WH 1000/930 EP WIDE	84°	15	1173	3000	>90	116x95
30086	3F Reno 100 WH 1000/840 EP WIDE	84°	15	1288	4000	>80	116x95
30094	3F Reno 100 WH 2000/840 EP WIDE	84°	21	1992	4000	>80	116x95
30098	3F Reno 100 WH 2000/930 EP WIDE	84°	25	1907	3000	>90	116x95

3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30341	3F Reno 150 WH 2000/840 WIDE	84°	20	2054	4000	>80	166x107
30345	3F Reno 150 WH 2000/930 WIDE	84°	24	1967	3000	>90	166x107
30349	3F Reno 150 WH 3000/840 WIDE	84°	28	2757	4000	>80	166x107
30353	3F Reno 150 WH 3000/930 WIDE	84°	37	2766	3000	>90	166x107

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30375	3F Reno 150 WH 2000/840 DALI WIDE	84°	20	2054	4000	>80	166x107
30379	3F Reno 150 WH 2000/930 DALI WIDE	84°	24	1967	3000	>90	166x107
30383	3F Reno 150 WH 3000/840 DALI WIDE	84°	28	2757	4000	>80	166x107
30387	3F Reno 150 WH 3000/930 DALI WIDE	84°	37	2766	3000	>90	166x107

3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30358	3F Reno 150 WH 2000/840 EP WIDE	84°	21	2054	4000	>80	166x107
30362	3F Reno 150 WH 2000/930 EP WIDE	84°	25	1967	3000	>90	166x107
30366	3F Reno 150 WH 3000/840 EP WIDE	84°	29	2757	4000	>80	166x107
30370	3F Reno 150 WH 3000/930 EP WIDE	84°	38	2766	3000	>90	166x107

3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30621	3F Reno 200 WH 2000/840 WIDE	85°	20	1963	4000	>80	216x142
30625	3F Reno 200 WH 2000/930 WIDE	85°	24	1880	3000	>90	216x142
30629	3F Reno 200 WH 3000/840 WIDE	85°	28	2635	4000	>80	216x142
30637	3F Reno 200 WH 4000/840 WIDE	85°	36	3521	4000	>80	216x142
30633	3F Reno 200 WH 3000/930 WIDE	85°	37	2644	3000	>90	216x142
30641	3F Reno 200 WH 4000/930 WIDE	85°	43	3192	3000	>90	216x142

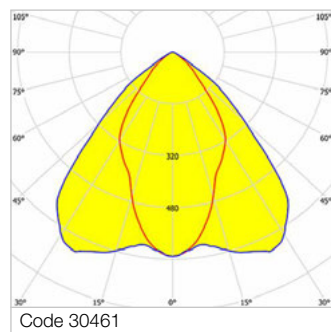
3F Reno 200 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30671	3F Reno 200 WH 2000/840 DALI WIDE	85°	20	1963	4000	>80	216x142
30675	3F Reno 200 WH 2000/930 DALI WIDE	85°	24	1880	3000	>90	216x142
30679	3F Reno 200 WH 3000/840 DALI WIDE	85°	28	2635	4000	>80	216x142
30687	3F Reno 200 WH 4000/840 DALI WIDE	85°	36	3521	4000	>80	216x142
30683	3F Reno 200 WH 3000/930 DALI WIDE	85°	37	2644	3000	>90	216x142
30691	3F Reno 200 WH 4000/930 DALI WIDE	85°	43	3192	3000	>90	216x142

3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30646	3F Reno 200 WH 2000/840 EP WIDE	85°	21	1963	4000	>80	216x142
30650	3F Reno 200 WH 2000/930 EP WIDE	85°	25	1880	3000	>90	216x142
30654	3F Reno 200 WH 3000/840 EP WIDE	85°	29	2635	4000	>80	216x142
30662	3F Reno 200 WH 4000/840 EP WIDE	85°	37	3521	4000	>80	216x142
30658	3F Reno 200 WH 3000/930 EP WIDE	85°	38	2644	3000	>90	216x142
30666	3F Reno 200 WH 4000/930 EP WIDE	85°	44	3192	3000	>90	216x142

3F Reno White Elliptical



Internal elliptical louvre in metallic polycarbonate.
External lens in transparent methacrylate (PMMA).
Photobiological safety RG1 (page 16).

3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30209	3F Reno 100 WH 1000/930 ELL	90° - 64°	14	1246	3000	>90	116x95
30205	3F Reno 100 WH 1000/840 ELL	90° - 64°	14	1368	4000	>80	116x95
30213	3F Reno 100 WH 2000/840 ELL	90° - 64°	20	2116	4000	>80	116x95
30217	3F Reno 100 WH 2000/930 ELL	90° - 64°	24	2026	3000	>90	116x95

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

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30243	3F Reno 100 WH 1000/930 DALI ELL	90° - 64°	14	1246	3000	>90	116x95
30239	3F Reno 100 WH 1000/840 DALI ELL	90° - 64°	14	1368	4000	>80	116x95
30247	3F Reno 100 WH 2000/840 DALI ELL	90° - 64°	20	2116	4000	>80	116x95
30251	3F Reno 100 WH 2000/930 DALI ELL	90° - 64°	24	2026	3000	>90	116x95

3F Reno 100 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30226	3F Reno 100 WH 1000/930 EP ELL	90° - 64°	15	1246	3000	>90	116x95
30222	3F Reno 100 WH 1000/840 EP ELL	90° - 64°	15	1368	4000	>80	116x95
30230	3F Reno 100 WH 2000/840 EP ELL	90° - 64°	21	2116	4000	>80	116x95
30234	3F Reno 100 WH 2000/930 EP ELL	90° - 64°	25	2026	3000	>90	116x95

3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30453	3F Reno 150 WH 2000/840 ELL	90° - 62°	20	2139	4000	>80	166x107
30457	3F Reno 150 WH 2000/930 ELL	90° - 62°	24	2048	3000	>90	166x107
30461	3F Reno 150 WH 3000/840 ELL	90° - 62°	28	2871	4000	>80	166x107
30465	3F Reno 150 WH 3000/930 ELL	90° - 62°	37	2880	3000	>90	166x107

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30487	3F Reno 150 WH 2000/840 DALI ELL	90° - 62°	20	2139	4000	>80	166x107
30491	3F Reno 150 WH 2000/930 DALI ELL	90° - 62°	24	2048	3000	>90	166x107
30495	3F Reno 150 WH 3000/840 DALI ELL	90° - 62°	28	2871	4000	>80	166x107
30499	3F Reno 150 WH 3000/930 DALI ELL	90° - 62°	37	2880	3000	>90	166x107

3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30470	3F Reno 150 WH 2000/840 EP ELL	90° - 62°	21	2139	4000	>80	166x107
30474	3F Reno 150 WH 2000/930 EP ELL	90° - 62°	25	2048	3000	>90	166x107
30478	3F Reno 150 WH 3000/840 EP ELL	90° - 62°	29	2871	4000	>80	166x107
30482	3F Reno 150 WH 3000/930 EP ELL	90° - 62°	38	2880	3000	>90	166x107

3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30785	3F Reno 200 WH 2000/840 ELL	90° - 65°	20	2093	4000	>80	216x142
30789	3F Reno 200 WH 2000/930 ELL	90° - 65°	24	2005	3000	>90	216x142
30793	3F Reno 200 WH 3000/840 ELL	90° - 65°	28	2810	4000	>80	216x142
30801	3F Reno 200 WH 4000/840 ELL	90° - 65°	36	3754	4000	>80	216x142
30797	3F Reno 200 WH 3000/930 ELL	90° - 65°	38	2819	3000	>90	216x142
30805	3F Reno 200 WH 4000/930 ELL	90° - 65°	43	3404	3000	>90	216x142

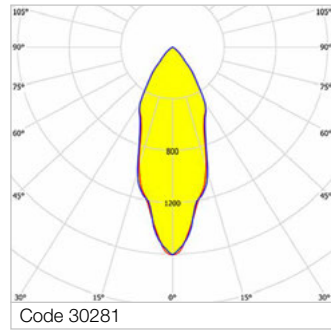
3F Reno 200 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30835	3F Reno 200 WH 2000/840 DALI ELL	90° - 65°	20	2093	4000	>80	216x142
30839	3F Reno 200 WH 2000/930 DALI ELL	90° - 65°	24	2005	3000	>90	216x142
30843	3F Reno 200 WH 3000/840 DALI ELL	90° - 65°	28	2810	4000	>80	216x142
30851	3F Reno 200 WH 4000/840 DALI ELL	90° - 65°	36	3754	4000	>80	216x142
30847	3F Reno 200 WH 3000/930 DALI ELL	90° - 65°	37	2819	3000	>90	216x142
30855	3F Reno 200 WH 4000/930 DALI ELL	90° - 65°	43	3404	3000	>90	216x142

3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30810	3F Reno 200 WH 2000/840 EP ELL	90° - 65°	21	2093	4000	>80	216x142
30814	3F Reno 200 WH 2000/930 EP ELL	90° - 65°	25	2005	3000	>90	216x142
30818	3F Reno 200 WH 3000/840 EP ELL	90° - 65°	29	2810	4000	>80	216x142
30826	3F Reno 200 WH 4000/840 EP ELL	90° - 65°	37	3754	4000	>80	216x142
30822	3F Reno 200 WH 3000/930 EP ELL	90° - 65°	38	2819	3000	>90	216x142
30830	3F Reno 200 WH 4000/930 EP ELL	90° - 65°	44	3404	3000	>90	216x142

3F Reno White Spot



Internal spotlight louvre in metallic polycarbonate.
External lens in transparent methacrylate (PMMA).
Photobiological safety RG1 (page 16).

3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30005	3F Reno 100 WH 1000/930 SPOT	37°	14	1453	3000	>90	116x95
30001	3F Reno 100 WH 1000/840 SPOT	37°	14	1595	4000	>80	116x95
30009	3F Reno 100 WH 2000/840 SPOT	37°	20	2467	4000	>80	116x95
30013	3F Reno 100 WH 2000/930 SPOT	37°	24	2362	3000	>90	116x95

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

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30039	3F Reno 100 WH 1000/930 DALI SPOT	37°	14	1453	3000	>90	116x95
30035	3F Reno 100 WH 1000/840 DALI SPOT	37°	14	1595	4000	>80	116x95
30043	3F Reno 100 WH 2000/840 DALI SPOT	37°	20	2467	4000	>80	116x95
30047	3F Reno 100 WH 2000/930 DALI SPOT	37°	24	2362	3000	>90	116x95

3F Reno 100 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30022	3F Reno 100 WH 1000/930 EP SPOT	37°	15	1453	3000	>90	116x95
30018	3F Reno 100 WH 1000/840 EP SPOT	37°	15	1595	4000	>80	116x95
30026	3F Reno 100 WH 2000/840 EP SPOT	37°	21	2467	4000	>80	116x95
30030	3F Reno 100 WH 2000/930 EP SPOT	37°	25	2362	3000	>90	116x95

3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30273	3F Reno 150 WH 2000/840 SPOT	37°	20	2473	4000	>80	166x107
30277	3F Reno 150 WH 2000/930 SPOT	37°	24	2368	3000	>90	166x107
30281	3F Reno 150 WH 3000/840 SPOT	37°	28	3319	4000	>80	166x107
30285	3F Reno 150 WH 3000/930 SPOT	37°	37	3330	3000	>90	166x107

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30307	3F Reno 150 WH 2000/840 DALI SPOT	37°	20	2473	4000	>80	166x107
30311	3F Reno 150 WH 2000/930 DALI SPOT	37°	24	2368	3000	>90	166x107
30315	3F Reno 150 WH 3000/840 DALI SPOT	37°	28	3319	4000	>80	166x107
30319	3F Reno 150 WH 3000/930 DALI SPOT	37°	37	3330	3000	>90	166x107

3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	$\phi \times H$
30290	3F Reno 150 WH 2000/840 EP SPOT	37°	21	2473	4000	>80	166x107
30294	3F Reno 150 WH 2000/930 EP SPOT	37°	25	2368	3000	>90	166x107
30298	3F Reno 150 WH 3000/840 EP SPOT	37°	29	3319	4000	>80	166x107
30302	3F Reno 150 WH 3000/930 EP SPOT	37°	38	3330	3000	>90	166x107

3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\phi \times H$
30521	3F Reno 200 WH 2000/840 SPOT	37°	20	2461	4000	>80	216x142
30525	3F Reno 200 WH 2000/930 SPOT	37°	24	2357	3000	>90	216x142
30529	3F Reno 200 WH 3000/840 SPOT	37°	28	3303	4000	>80	216x142
30537	3F Reno 200 WH 4000/840 SPOT	37°	36	4414	4000	>80	216x142
30533	3F Reno 200 WH 3000/930 SPOT	37°	37	3315	3000	>90	216x142
30541	3F Reno 200 WH 4000/930 SPOT	37°	43	4002	3000	>90	216x142

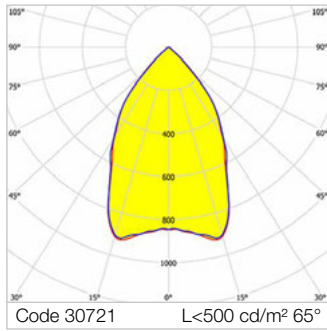
3F Reno 200 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\phi \times H$
30571	3F Reno 200 WH 2000/840 DALI SPOT	37°	20	2461	4000	>80	216x142
30575	3F Reno 200 WH 2000/930 DALI SPOT	37°	24	2357	3000	>90	216x142
30579	3F Reno 200 WH 3000/840 DALI SPOT	37°	28	3303	4000	>80	216x142
30587	3F Reno 200 WH 4000/840 DALI SPOT	37°	36	4414	4000	>80	216x142
30583	3F Reno 200 WH 3000/930 DALI SPOT	37°	37	3315	3000	>90	216x142
30591	3F Reno 200 WH 4000/930 DALI SPOT	37°	43	4002	3000	>90	216x142

3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	$\phi \times H$
30546	3F Reno 200 WH 2000/840 EP SPOT	37°	21	2461	4000	>80	216x142
30550	3F Reno 200 WH 2000/930 EP SPOT	37°	25	2357	3000	>90	216x142
30554	3F Reno 200 WH 3000/840 EP SPOT	37°	29	3303	4000	>80	216x142
30562	3F Reno 200 WH 4000/840 EP SPOT	37°	37	4414	4000	>80	216x142
30558	3F Reno 200 WH 3000/930 EP SPOT	37°	38	3315	3000	>90	216x142
30566	3F Reno 200 WH 4000/930 EP SPOT	37°	44	4002	3000	>90	216x142

3F Reno White UGR



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 (PMMA).
 Photobiological safety RG1 (page 16).

3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	ø x H
30408	3F Reno 150 WH 1500/840 UGR	64°	14	1846	4000	>80	166x107
30409	3F Reno 150 WH 2000/840 UGR	64°	20	2478	4000	>80	166x107

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	ø x H
30430	3F Reno 150 WH 1500/840 DALI UGR	64°	14	1846	4000	>80	166x107
30431	3F Reno 150 WH 2000/840 DALI UGR	64°	20	2478	4000	>80	166x107

3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	ø x H
30419	3F Reno 150 WH 1500/840 EP UGR	64°	15	1846	4000	>80	166x107
30420	3F Reno 150 WH 2000/840 EP UGR	64°	21	2478	4000	>80	166x107

3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz

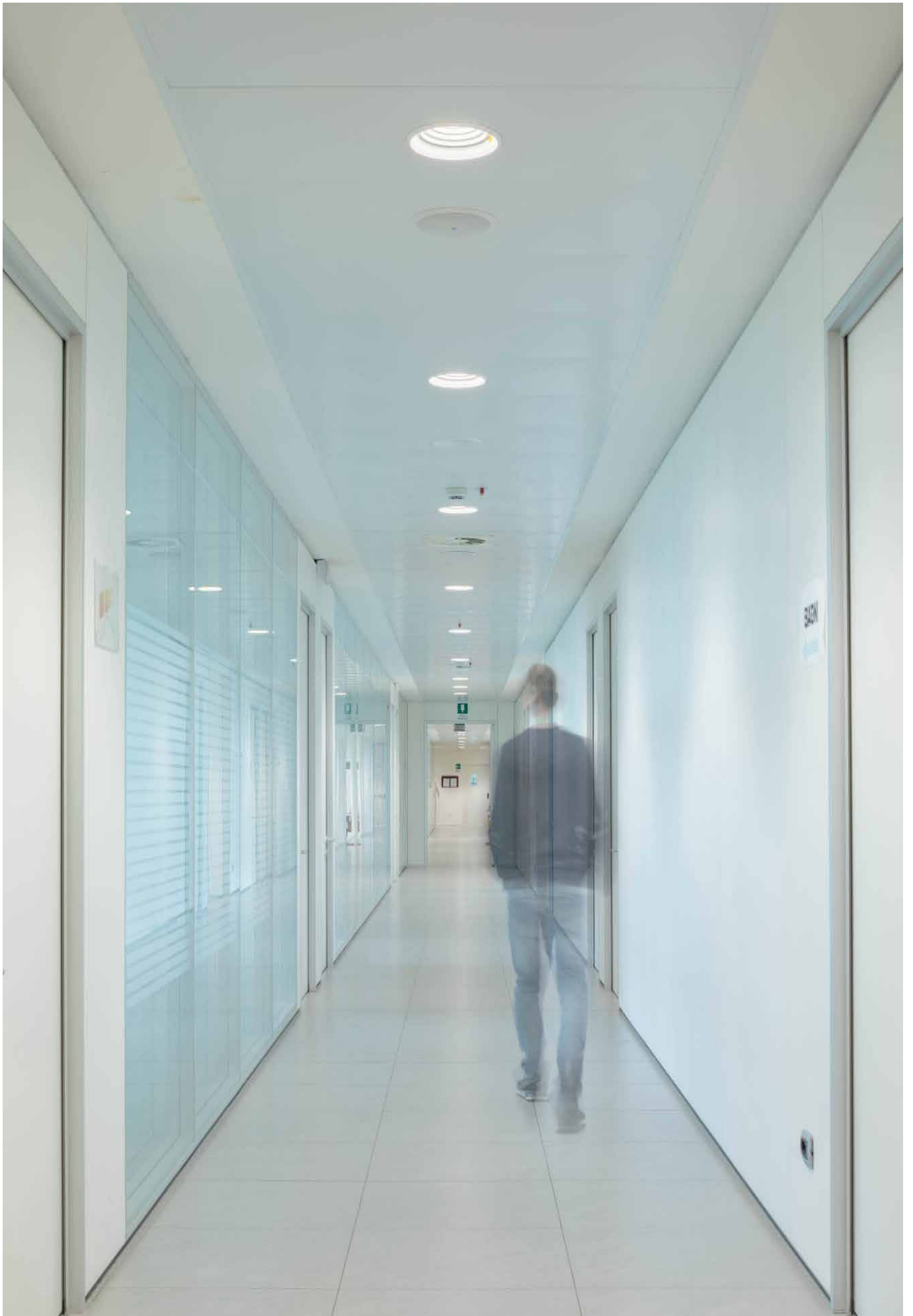
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30721	3F Reno 200 WH 2000/840 UGR	65°	20	2458	4000	>80	216x142
30725	3F Reno 200 WH 2000/930 UGR	65°	24	2354	3000	>90	216x142
30730	3F Reno 200 WH 2500/930 UGR	65°	29	2689	3000	>90	216x142
30726	3F Reno 200 WH 3000/840 UGR	65°	28	3300	4000	>80	216x142

3F Reno 200 - DALI electronic wiring 230V-50/60Hz

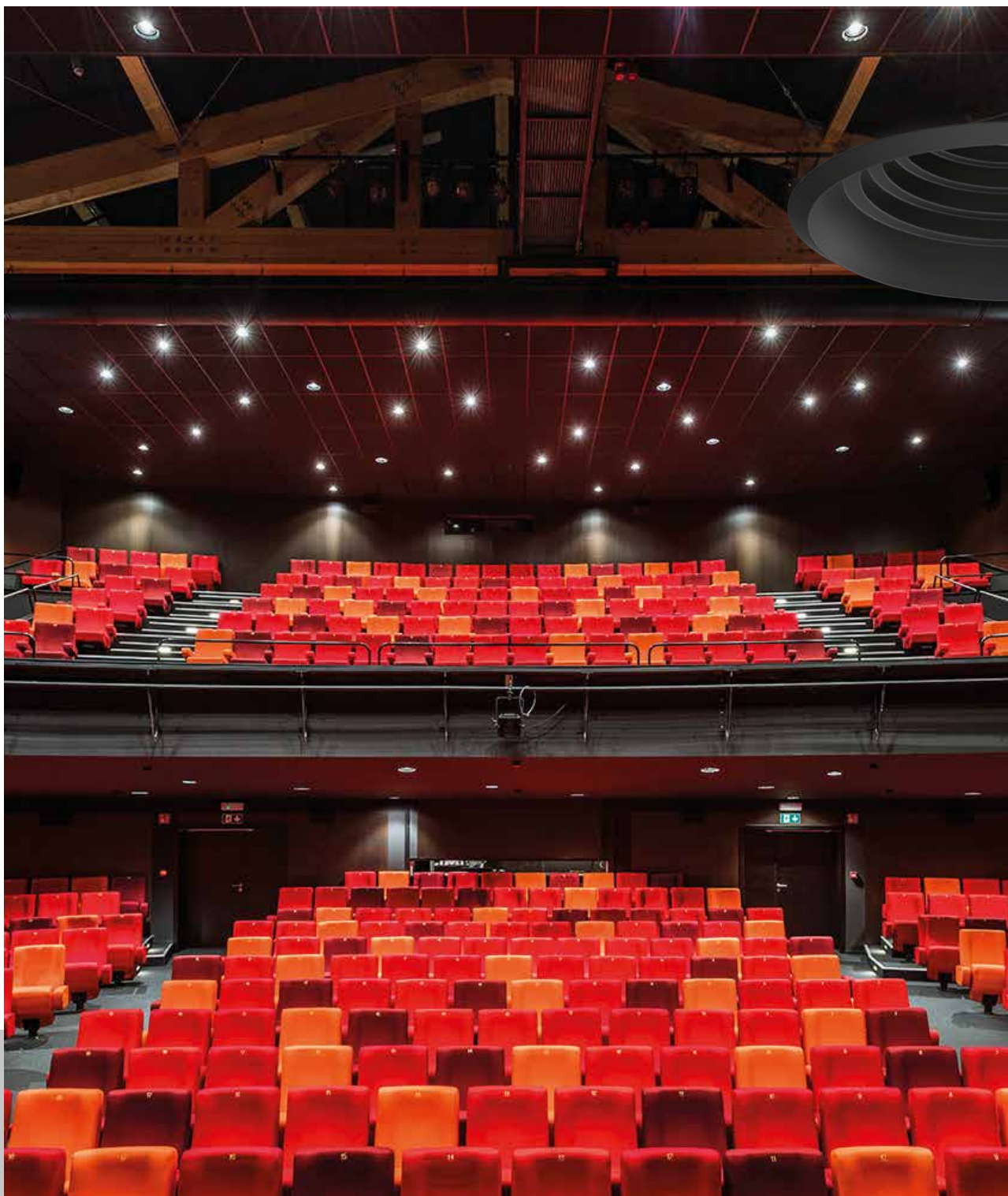
Code	Item	α°	W	lm	K	CRI	ø x H
30753	3F Reno 200 WH 2000/840 DALI UGR	65°	20	2458	4000	>80	216x142
30757	3F Reno 200 WH 2000/930 DALI UGR	65°	24	2354	3000	>90	216x142
30762	3F Reno 200 WH 2500/930 DALI UGR	65°	29	2689	3000	>90	216x142
30758	3F Reno 200 WH 3000/840 DALI UGR	65°	28	3300	4000	>80	216x142

3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

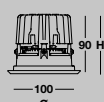
Code	Item	α°	W	lm	K	CRI	ø x H
30737	3F Reno 200 WH 2000/840 EP UGR	65°	21	2458	4000	>80	216x142
30741	3F Reno 200 WH 2000/930 EP UGR	65°	25	2354	3000	>90	216x142
30746	3F Reno 200 WH 2500/930 EP UGR	65°	29	2689	3000	>90	216x142
30742	3F Reno 200 WH 3000/840 EP UGR	65°	29	3300	4000	>80	216x142



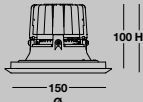
/ Recessed luminaires



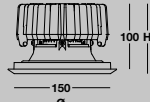
3F Reno 100
2000



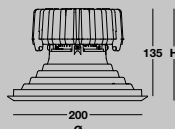
3F Reno 150
2000



3F Reno 150
3000

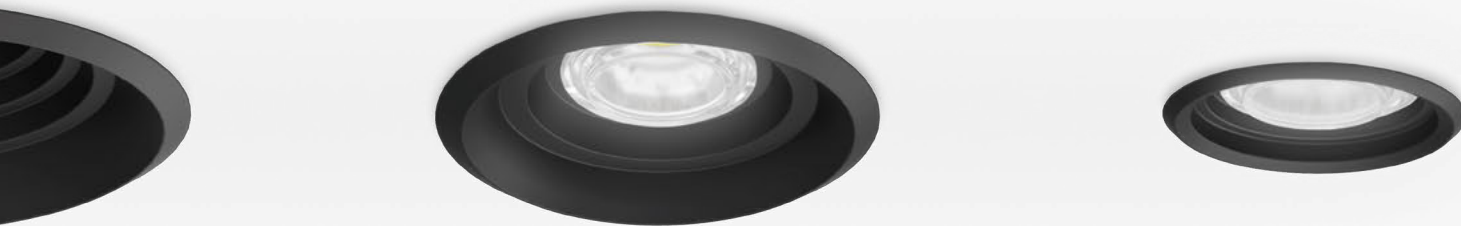


3F Reno 200
2500 - 3000 -



Cultural Centrum of Gembloux
Gembloux
Belgique/Belgium





3F Reno Black

ILLUMINOTECHNICAL

Direct symmetric distribution: wide, spot, UGR, elliptical.
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°.

SOURCE

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

MECHANICAL

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 (PMMA).
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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Wiring on a separate unit.
Class II.

INSTALLATION

Pull-up installation.

APPLICATIONS

Environments: architectural, commercial, exhibition areas, transit areas, corridors, shops, display windows, service areas.
In false ceilings with narrow voids.

Wide version

Luminaires suitable 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.

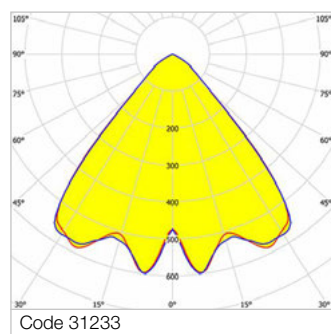
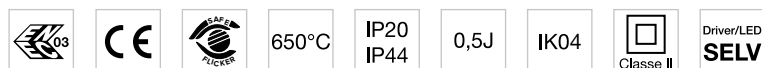
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F Reno Black Wide



Wide lens in transparent methacrylate (PMMA).
Photobiological safety RG0, excluding versions 4000 - RG1 (page 16).

3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30961	3F Reno 100 BK 2000/840 WIDE	83°	20	1737	4000	>80	116x95
30965	3F Reno 100 BK 2000/930 WIDE	83°	24	1663	3000	>90	116x95

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

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30995	3F Reno 100 BK 2000/840 DALI WIDE	83°	20	1737	4000	>80	116x95
30999	3F Reno 100 BK 2000/930 DALI WIDE	83°	24	1663	3000	>90	116x95

3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31233	3F Reno 150 BK 3000/840 WIDE	83°	28	2385	4000	>80	166x107
31237	3F Reno 150 BK 3000/930 WIDE	83°	37	2393	3000	>90	166x107

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31267	3F Reno 150 BK 3000/840 DALI WIDE	83°	28	2385	4000	>80	166x107
31271	3F Reno 150 BK 3000/930 DALI WIDE	83°	37	2393	3000	>90	166x107

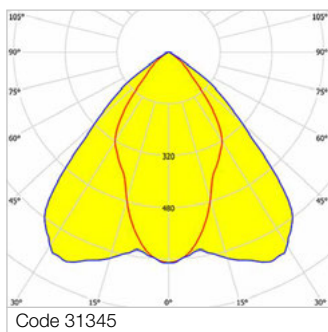
3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31521	3F Reno 200 BK 4000/840 WIDE	84°	36	3013	4000	>80	216x142
31525	3F Reno 200 BK 4000/930 WIDE	84°	43	2732	3000	>90	216x142

3F Reno 200 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31571	3F Reno 200 BK 4000/840 DALI WIDE	84°	36	3013	4000	>80	216x142
31575	3F Reno 200 BK 4000/930 DALI WIDE	84°	43	2732	3000	>90	216x142

3F Reno Black Elliptical



Internal elliptical louvre in metallic polycarbonate.
External lens in transparent methacrylate (PMMA).
Photobiological safety RG1 (page 16).

3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31097	3F Reno 100 BK 2000/840 ELL	89° - 62°	20	1955	4000	>80	116x95
31101	3F Reno 100 BK 2000/930 ELL	89° - 62°	24	1872	3000	>90	116x95

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

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31131	3F Reno 100 BK 2000/840 DALI ELL	89° - 62°	20	1955	4000	>80	116x95
31135	3F Reno 100 BK 2000/930 DALI ELL	89° - 62°	24	1872	3000	>90	116x95

3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31345	3F Reno 150 BK 3000/840 ELL	89° - 61°	28	2662	4000	>80	166x107
31349	3F Reno 150 BK 3000/930 ELL	89° - 61°	37	2671	3000	>90	166x107

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31379	3F Reno 150 BK 3000/840 DALI ELL	89° - 61°	28	2662	4000	>80	166x107
31383	3F Reno 150 BK 3000/930 DALI ELL	89° - 61°	37	2671	3000	>90	166x107

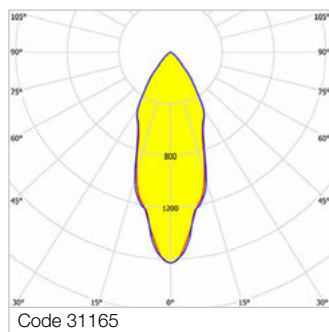
3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31685	3F Reno 200 BK 4000/840 ELL	89° - 62°	36	3353	4000	>80	216x142
31689	3F Reno 200 BK 4000/930 ELL	89° - 62°	43	3041	3000	>90	216x142

3F Reno 200 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31735	3F Reno 200 BK 4000/840 DALI ELL	89° - 62°	36	3353	4000	>80	216x142
31739	3F Reno 200 BK 4000/930 DALI ELL	89° - 62°	43	3041	3000	>90	216x142

3F Reno Black Spot



Internal spotlight louvre in metallic polycarbonate.
External lens in transparent methacrylate (PMMA).
Photobiological safety RG1 (page 16).

3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30893	3F Reno 100 BK 2000/840 SPOT	37°	20	2422	4000	>80	116x95
30897	3F Reno 100 BK 2000/930 SPOT	37°	24	2319	3000	>90	116x95

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

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
30927	3F Reno 100 BK 2000/840 DALI SPOT	37°	20	2422	4000	>80	116x95
30931	3F Reno 100 BK 2000/930 DALI SPOT	37°	24	2319	3000	>90	116x95

3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31165	3F Reno 150 BK 3000/840 SPOT	37°	28	3254	4000	>80	166x107
31169	3F Reno 150 BK 3000/930 SPOT	37°	37	3265	3000	>90	166x107

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31199	3F Reno 150 BK 3000/840 DALI SPOT	37°	28	3254	4000	>80	166x107
31203	3F Reno 150 BK 3000/930 DALI SPOT	37°	37	3265	3000	>90	166x107

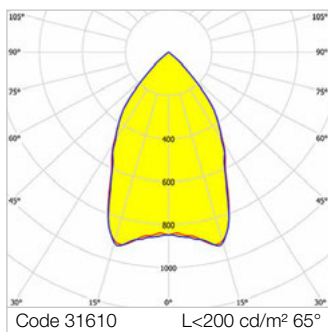
3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31421	3F Reno 200 BK 4000/840 SPOT	37°	36	4287	4000	>80	216x142
31425	3F Reno 200 BK 4000/930 SPOT	37°	43	3887	3000	>90	216x142

3F Reno 200 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31471	3F Reno 200 BK 4000/840 DALI SPOT	37°	36	4287	4000	>80	216x142
31475	3F Reno 200 BK 4000/930 DALI SPOT	37°	43	3887	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 (PMMA).
 Photobiological safety RG1 (page 16).

3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31293	3F Reno 150 BK 2000/840 UGR	65°	20	2461	4000	>80	166x107

3F Reno 150 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31315	3F Reno 150 BK 2000/840 DALI UGR	65°	20	2461	4000	>80	166x107

3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31614	3F Reno 200 BK 2500/930 UGR	64°	29	2645	3000	>90	216x142
31610	3F Reno 200 BK 3000/840 UGR	64°	28	3246	4000	>80	216x142

3F Reno 200 - DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times H$
31646	3F Reno 200 BK 2500/930 DALI UGR	64°	29	2645	3000	>90	216x142
31642	3F Reno 200 BK 3000/840 DALI UGR	64°	28	3246	4000	>80	216x142

3F Reno | Accessories



Code	Item
A01035	VS 3F RENO WH 150
A01037	VS 3F RENO WH 200

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.

1J

IK06



Code	Item
A01036	VS 3F RENO BK 150
A01038	VS 3F RENO BK 200

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.

1J

IK06



Code	Item
A01023	VT 3F RENO WH 150
A01025	VT 3F RENO WH 200

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.

1J

IK06



Code	Item
A01024	VT 3F RENO BK 150
A01026	VT 3F RENO BK 200

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.

1J

IK06



Code	Item
A01046	SMP 3F RENO WH 150
A01048	SMP 3F RENO WH 200

Micro-prismatic SMP antiglare diffuser in methacrylate (PMMA), locked and in line with the trim, in white polycarbonate. Accessory suitable for versions with wide distribution.

Accessory compatible with 3F Reno - White.

0,7J

IK05

HACCP



0,7J

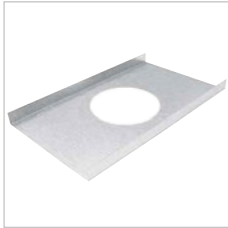
IK05

HACCP

Code	Item
A01047	SMP 3F RENO BK 150
A01049	SMP 3F RENO BK 200

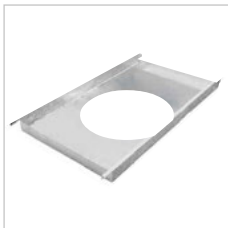
Micro-prismatic SMP ant glare diffuser in methacrylate (PMMA), locked and in line with the trim, in black polycarbonate. Accessory suitable for versions with wide distribution.

Accessory compatible with 3F Reno - Black.



Code	Item
A0804	SF 3F Reno 150
A0805	SF 3F Reno 200

Reinforcing bracket for panels 600x600, 600x1200 with exposed structure, in hot-galvanised steel.



Code	Item
A0806	SM 3F Reno 150
A0807	SM 3F Reno 200

Reinforcing bracket for metal panels 600x600 with concealed structure, in hot-galvanised steel.



Code	Item
A01090	WH adapter ring for 220 mm hole
A01091	WH adapter ring for 255 mm hole

White adapter ring for 3F Reno 200 installation in holes with a diameter of 220 or 255 millimetres. Realised in steel.

Accessory compatible only with 3F Reno 200 models.

Versions for the 3F Reno 100 and 3F Reno 150 models are available on request.



Code	Item
A01092	WH adapter ring for hole 300 mm <9 mm
A01093	WH adapter ring for hole 300 mm >9 mm

White adapter ring for 3F Reno 200 installation in holes with a diameter of 300 millimetres, supplied with a reinforcing bracket for false ceilings with a thickness of less than or higher than 9 mm. Realised in steel.

Accessory compatible only with 3F Reno 200 models.

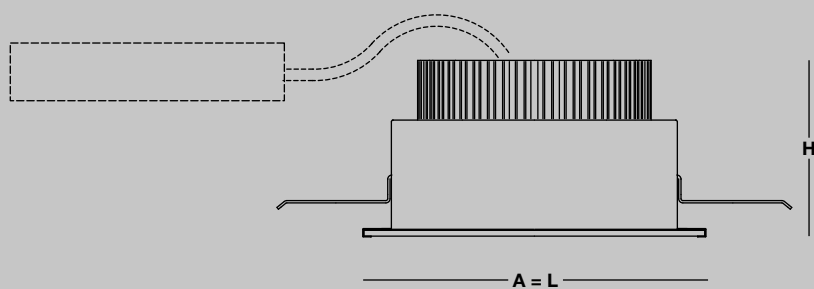
Versions for the 3F Reno 100 and 3F Reno 150 models are available on request.



Code	Item
A0477	Safety wire

Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.

/ Recessed luminaires



Centro Porsche Erre Esse
Torino
Italia/Italy





Lucequadro

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L70/B10): 80000 h. (tq+25°C)
Photobiological safety RG1 (page 16).

SOURCE

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

MECHANICAL

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/methacrylate (PMMA) in the lateral seats in specular aluminium.
Fixing brackets in galvanised steel, supplied.

ELECTRICAL

In compliance with EN 60598-1.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Wiring on a separate unit.
Class II.

INSTALLATION

Pull-up installation.

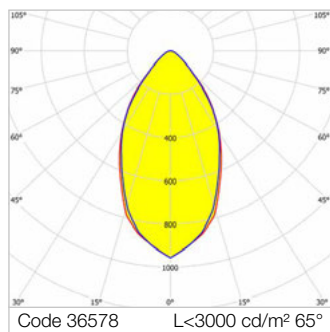
APPLICATIONS

Environments: commercial, exhibition areas, transit areas, halls, shops, great halls, display windows.

ON REQUEST

- asymmetric louvre
- different power levels, colour rendering indices and colour temperatures
- wiring: dimmable, CLO (page 752)
- IP54 version
- ceiling version
- CRI >90 sources
- emergency versions

Lucequadro VS



Average luminance <3000 cd/m² for radial angles >65°. VS moulded glass, anti-glare, tempered, non-combustible, thickness 4 mm.

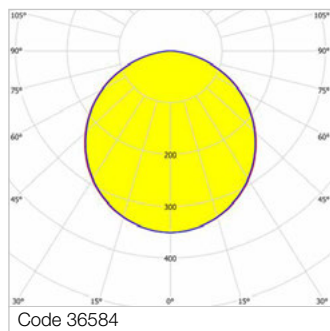
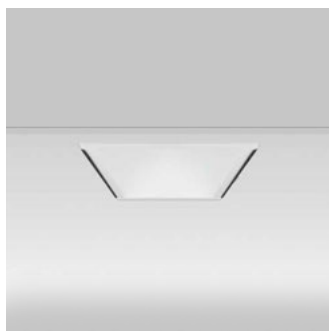
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	L x A x H
36575	Lucequadro LED 2000 VS	58°	20	2291	4000	>80	235x235x116
36578	Lucequadro LED 3000 VS	58°	28	3076	4000	>80	235x235x116

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	L x A x H
36576	Lucequadro LED 2000 EP VS	58°	21	2291	4000	>80	235x235x116
36579	Lucequadro LED 3000 EP VS	58°	29	3076	4000	>80	235x235x116

Lucequadro VOP



Glazed VOP opal glass, tempered, non-combustible, thickness 4 mm.

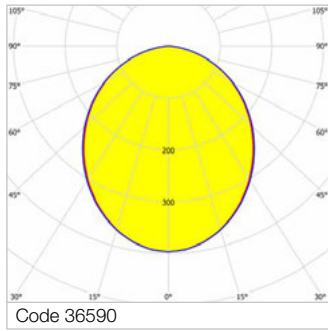
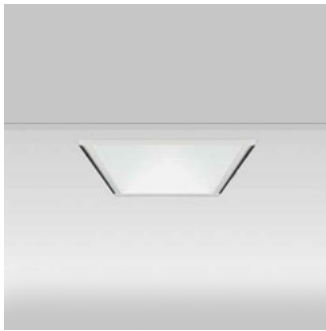
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	L x A x H
36581	Lucequadro LED 2000 VOP	113°	20	1437	4000	>80	235x235x116
36584	Lucequadro LED 3000 VOP	113°	28	1929	4000	>80	235x235x116

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	α°	W	lm	K	CRI	L x A x H
36582	Lucequadro LED 2000 EP VOP	113°	21	1437	4000	>80	235x235x116
36585	Lucequadro LED 3000 EP VOP	113°	29	1929	4000	>80	235x235x116

Lucequadro SOP



SOP opal methacrylate (PMMA) flat diffuser, anti-glare.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	L x A x H
36587	Lucequadro LED 2000 SOP	101°	20	2238	4000	>80	235x235x116
36590	Lucequadro LED 3000 SOP	101°	28	3003	4000	>80	235x235x116

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

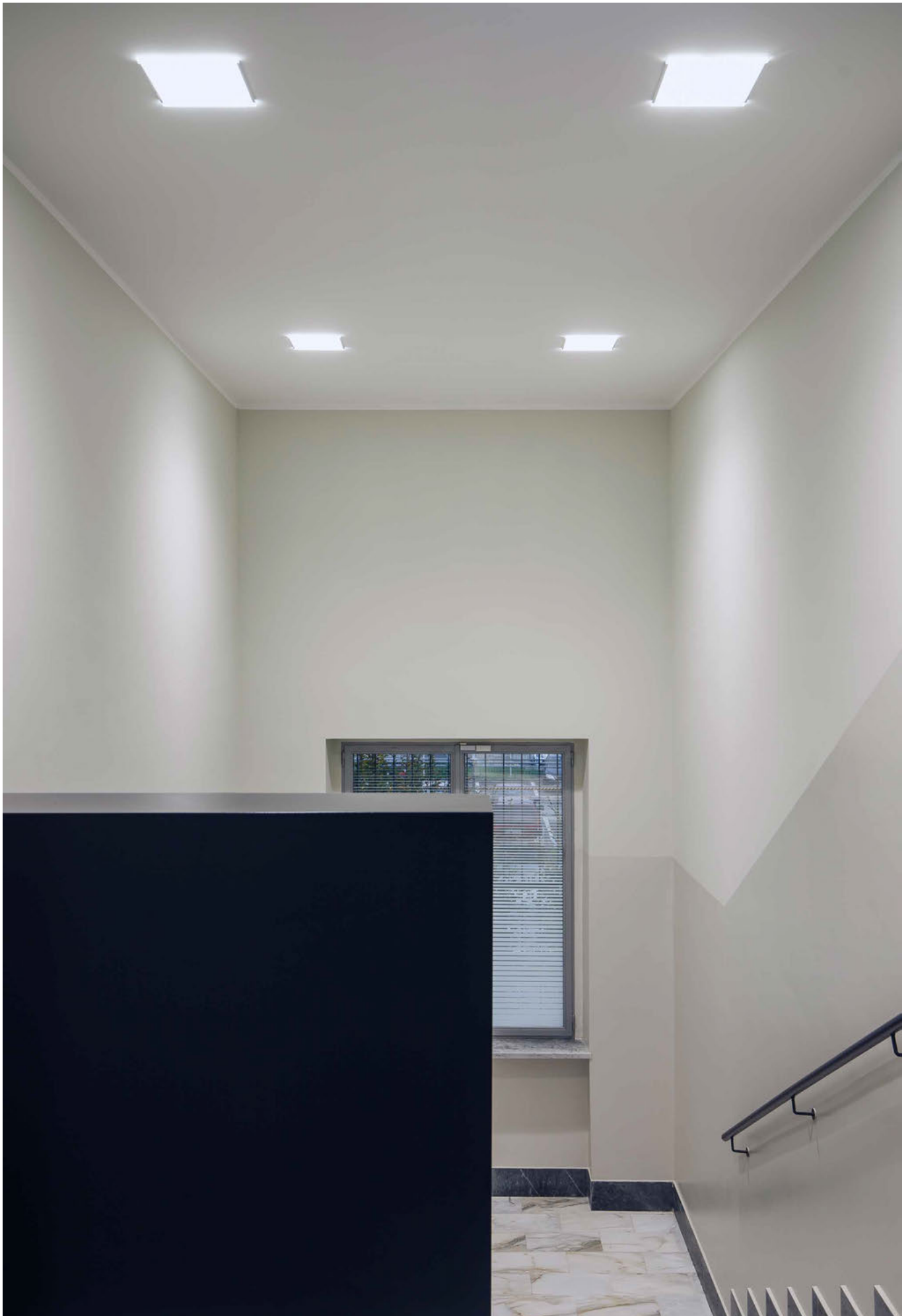
Code	Item	α°	W	lm	K	CRI	L x A x H
36588	Lucequadro LED 2000 EP SOP	101°	21	2238	4000	>80	235x235x116
36591	Lucequadro LED 3000 EP SOP	101°	29	3003	4000	>80	235x235x116

Lucequadro | Accessories



Code	Item
A0189	Reinf. brack. Lucequadro pan./plast.


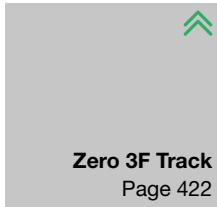

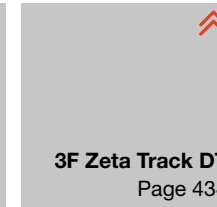


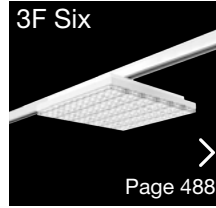


Pair of reinforcing brackets for mineral fibre, metal and plasterboard panels, height 20 mm.



/ catalogue

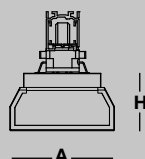
_Systems and track-mounted products

/ 3F Filippi

 <p>Zero 3F Track Page 422</p>	 <p>Zero 3F Track Page 422</p>	 <p>3F Zeta Track Page 426</p>	<p>3F Zeta Track L Page 426</p>	<p>3F Zeta Track DR Page 430</p>	 <p>3F Zeta Track DT Page 434</p>
 <p>3F Linux Page 438</p>	<p>3F Linux S IP40 Page 446</p>	<p>3F Linux S IP54 Page 450</p>	<p>3F Linux L Page 454</p>	<p>3F Linux D Page 466</p>	<p>3F Linux DR Page 470</p>
 <p>3F Linux DT Page 474</p>	<p>3F Linux Track Page 478</p>	 <p>3F Six Page 488</p>	<p>3F Six Track Page 492</p>	<p>3F Six Blindo Page 498</p>	 <p>3F Emilio Track Page 502</p>
<p>3F Emilio Track Page 508</p>	 <p>Binario 3F Page 514</p>	<p>Binario 3F Page 516</p>			

UPDATE

/ Systems and track-mounted products





Zero 3F Track

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester.
Diffuser with differentiated geometry, made of transparent methacrylate (PMMA) with microprismatic finish, anti-glare on the flat part and opal on the side.
Anti-glare opal methacrylate (PMMA) filter for brightness uniformity.
Lighting end caps in methacrylate (PMMA) opal.
Supporting mechanical adapter.

ELECTRICAL

In compliance with EN 60598-1.
Track adapter, 4/6-way.

INSTALLATION

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 514).

APPLICATIONS

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

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- emergency versions



Zero 3F Track



650°C

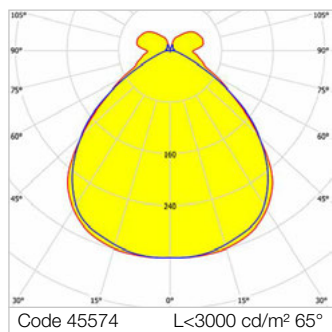
IP40

1J

IK06



Driver/LED
SELV



ON/OFF electronic wiring 230V-50/60Hz

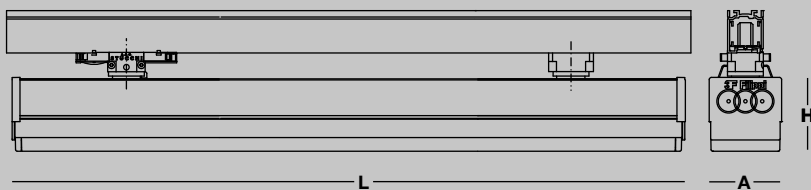
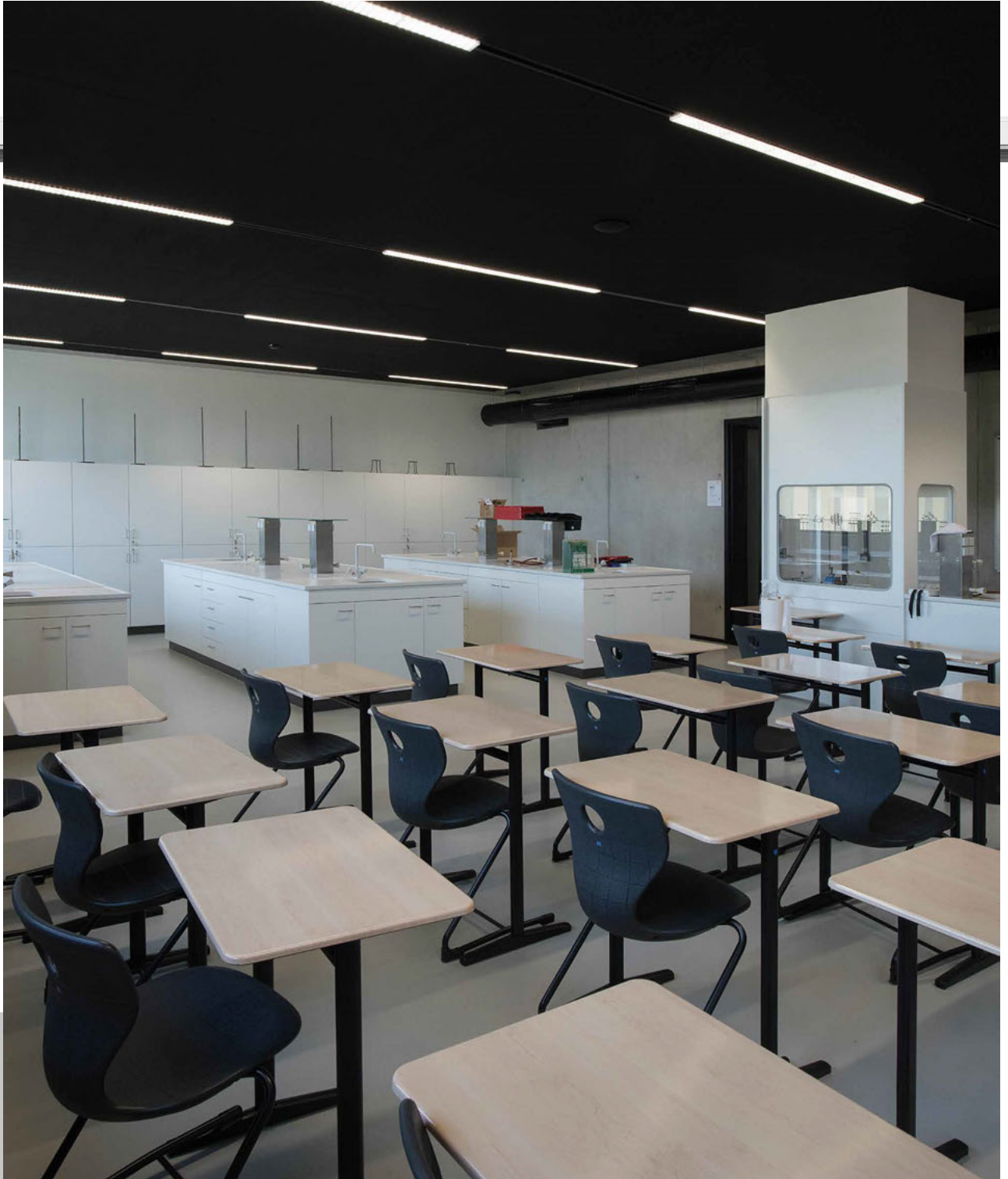
Code	Item	W	lm	K	CRI	L x A x H
45561 <small>NEW</small>	03F TK 14W/840 L620	16	2014	4000	>80	620x119x64
45562 <small>NEW</small>	03F TK 28W/840 L1204	31	4029	4000	>80	1204x119x64
45563 <small>NEW</small>	03F TK 35W/840 L1506	40	5469	4000	>80	1506x119x64
45564 <small>NEW</small>	03F TK 42W/840 L1787	46	6042	4000	>80	1787x119x64
45565 <small>NEW</small>	03F TK 18W/940 L620	20	1983	4000	>90	620x119x64
45566 <small>NEW</small>	03F TK 35W/940 L1204	40	4152	4000	>90	1204x119x64
45567 <small>NEW</small>	03F TK 44W/940 L1506	49	5190	4000	>90	1506x119x64
45568 <small>NEW</small>	03F TK 53W/940 L1787	57	6227	4000	>90	1787x119x64

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
45569 <small>NEW</small>	03F TK 14W/840 DALI L620	16	2014	4000	>80	620x119x64
45570 <small>NEW</small>	03F TK 28W/840 DALI L1204	31	4029	4000	>80	1204x119x64
45571 <small>NEW</small>	03F TK 35W/840 DALI L1506	40	5469	4000	>80	1506x119x64
45572 <small>NEW</small>	03F TK 42W/840 DALI L1787	46	6042	4000	>80	1787x119x64
45573	03F TK 18W/940 DALI L620	20	1983	4000	>90	620x119x64
45574	03F TK 35W/940 DALI L1204	40	4152	4000	>90	1204x119x64
45575	03F TK 44W/940 DALI L1506	49	5190	4000	>90	1506x119x64
45576	03F TK 53W/940 DALI L1787	57	6227	4000	>90	1787x119x64



/ Systems and track-mounted products



Topsportschool Hasselt
Hasselt
Belgique/Belgium





3F Zeta Track L

ILLUMINOTECHNICAL

Wide direct distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

LED modules.
Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process with adapters to busbar in white polycarbonate. Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel. Methacrylate (PMMA) lenses with external flat surface. Supporting mechanical adapter. End caps in white polycarbonate.

ELECTRICAL

In compliance with EN 60598-1.
Track adapter, 4/6-way.

INSTALLATION

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 514).

APPLICATIONS

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

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different light distributions
- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions



3F Zeta Track L Wide



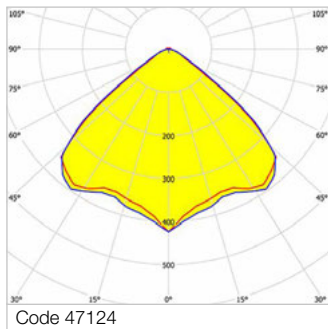
650°C

IP40

1J

IK06

Driver/LED
SELV



ON/OFF electronic wiring 230V-50/60Hz

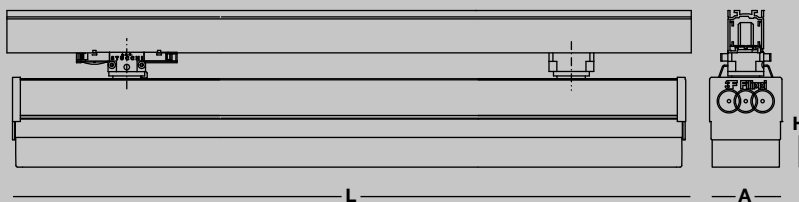
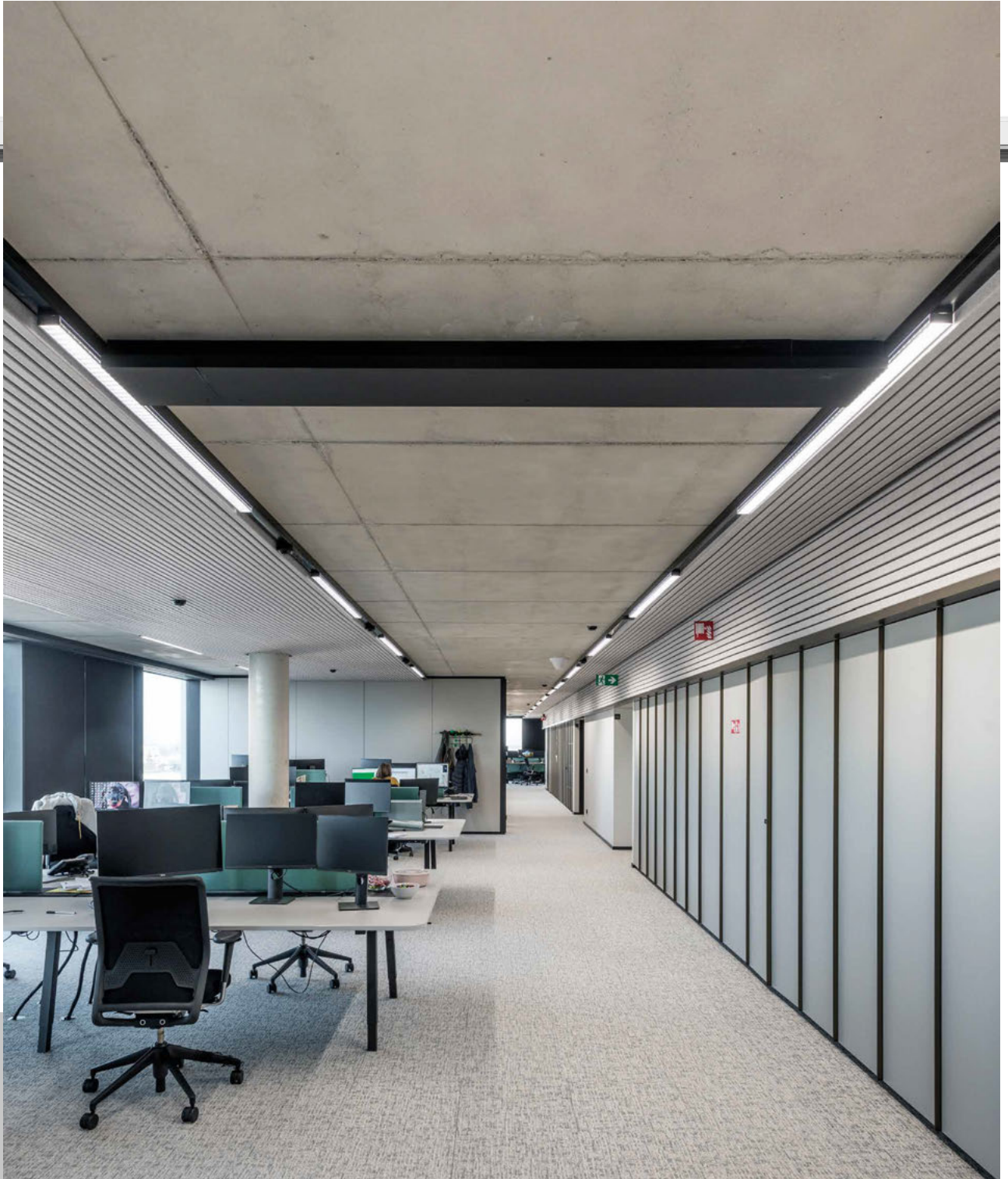
Code	Item	W	lm	K	CRI	L x A x H
47136	3F Zeta TK L 15 AMPIO L605	17	2749	4000	>80	605x62x67
47132	3F Zeta TK L 30 AMPIO L1194	31	5498	4000	>80	1194x62x67
47124	3F Zeta TK L 50 AMPIO L1783	46	8247	4000	>80	1783x62x67

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47152	3F Zeta TK L 15 DALI AMPIO L605	17	2749	4000	>80	605x62x67
47148	3F Zeta TK L 30 DALI AMPIO L1194	31	5498	4000	>80	1194x62x67
47140	3F Zeta TK L 50 DALI AMPIO L1783	46	8247	4000	>80	1783x62x67



/ Systems and track-mounted products



Stadhuis
Hasselt
Belgique/Belgium





3F Zeta Track DR

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Average luminance <math><1500\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process with adapters to busbar in white polycarbonate.
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
Rectangular transparent polycarbonate diffuser.
Semi-specular aluminium internal louvre with prismatic methacrylate (PMMA) filter above the louvre blades for complete shielding of the louvre compartment.
Supporting mechanical adapter.
End caps in white polycarbonate.

ELECTRICAL

In compliance with EN 60598-1.
Track adapter, 4/6-way.

INSTALLATION

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 514).

APPLICATIONS

Environments: exhibition areas, with VDTs, halls, shops, great halls, schools.

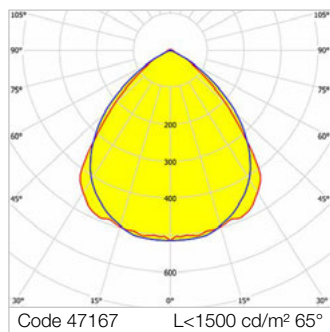
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- emergency versions

3F Zeta Track DR UGR

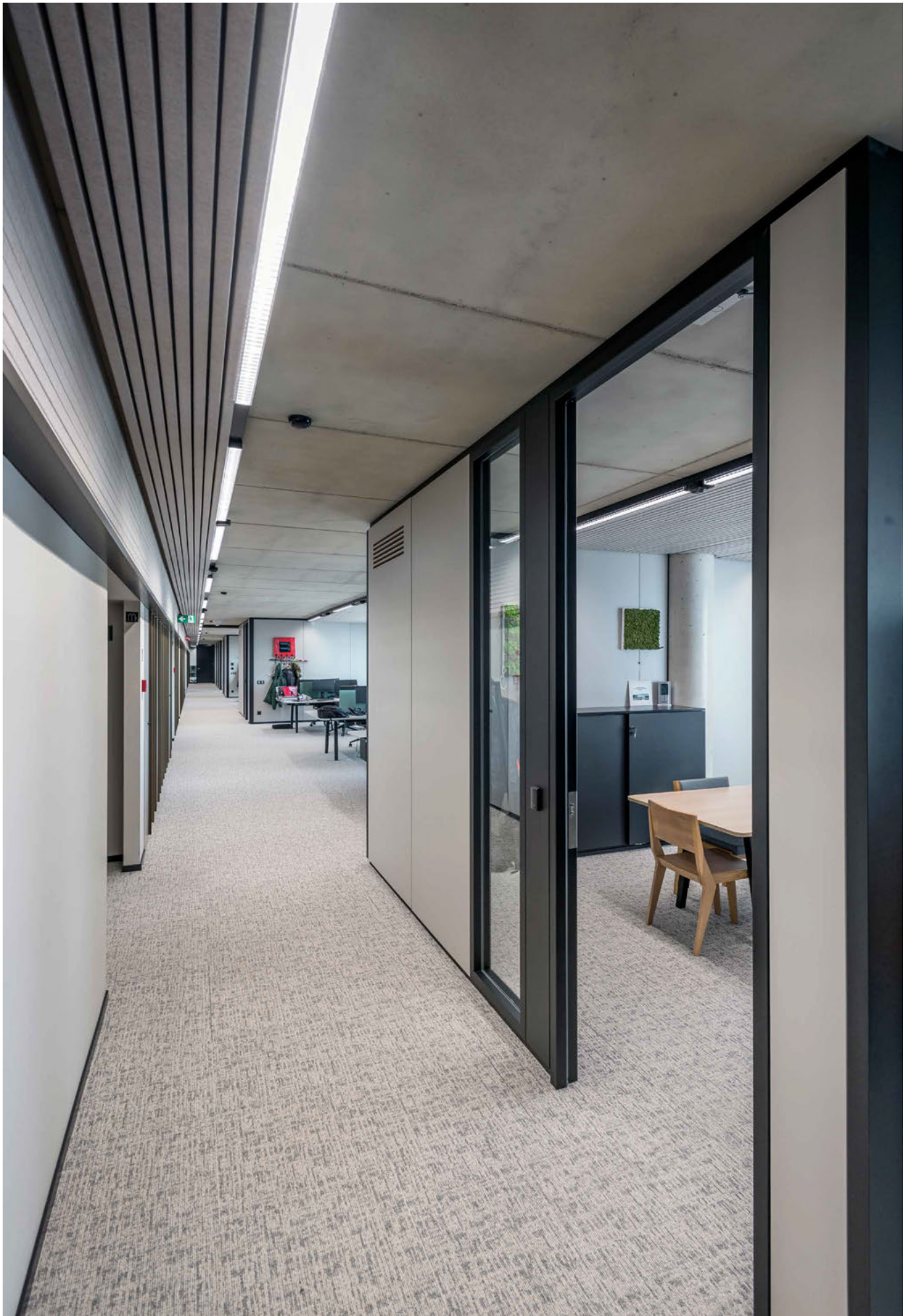


ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47167	3F Zeta TK DR UGR 1x24/940 L1194	27	2285	4000	>90	1194x62x67
47168	3F Zeta TK DR UGR 1x30/940 L1783	34	2859	4000	>90	1783x62x67

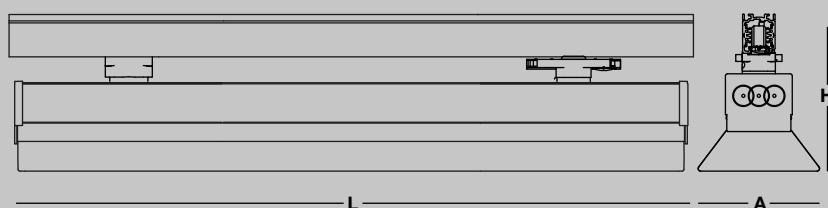
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47169	3F Zeta TK DR UGR 1x24/940 DALI L1194	27	2285	4000	>90	1194x62x67
47170	3F Zeta TK DR UGR 1x30/940 DALI L1783	34	2859	4000	>90	1783x62x67



NEW

/ Systems and track-mounted products



Topsportschool
Hasselt
Belgique/Belgium





3F Zeta Track DT

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >65°.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process.
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
Diffuser with differentiated geometry, made of transparent methacrylate (PMMA) with microprismatic finish, anti-glare on the flat part and opal on the side.
Anti-glare opal methacrylate (PMMA) filter for brightness uniformity.
End caps in white polycarbonate.

ELECTRICAL

In compliance with EN 60598-1.
Track adapter, 4/6-way.

INSTALLATION

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 514).

APPLICATIONS

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

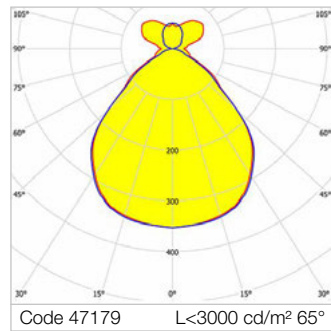
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (page 752)
- emergency versions

3F Zeta Track DT UGR



ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47175 ^{NEW}	3F Zeta TK DT UGR 2x18/840 L1194	40	5807	4000	>80	1194x118x95
47178 ^{NEW}	3F Zeta TK DT UGR 2x22/840 L1489	49	7261	4000	>80	1489x118x95
47179 ^{NEW}	3F Zeta TK DT UGR 2x30/840 L1783	66	9122	4000	>80	1783x118x95

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47180 ^{NEW}	3F Zeta TK DT UGR 2x18/840 DALI L1194	40	5807	4000	>80	1194x118x95
47181 ^{NEW}	3F Zeta TK DT UGR 2x22/840 DALI L1489	49	7261	4000	>80	1489x118x95
47182 ^{NEW}	3F Zeta TK DT UGR 2x30/840 DALI L1783	66	9122	4000	>80	1783x118x95







3F Linux

> www.3F-Filippi.com/3F Linux

3F Linux is more than a continuous line system: it was designed to compose channels in a simple and efficient way and significantly reduce the installation and maintenance costs of the system. Whether it's a relamping or a new project, 3F Linux is the winning choice in terms of performance and ease of installation: it has already been chosen by many big players in the retail, logistics and industrial production sectors all over the world. 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.

+ Overview

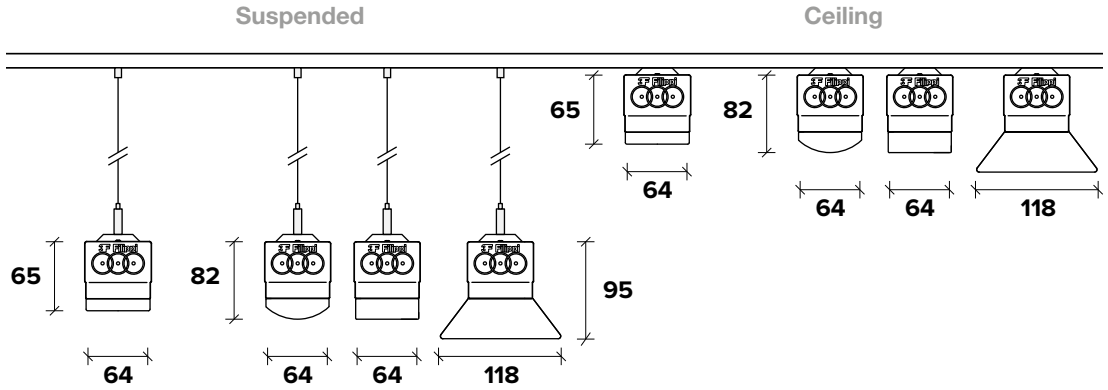
- Luminous efficacy up to 162 lumen/watt.
- Luminous fluxes from 3487 to 14130 lumens.
- Average luminance <1500 cd/m² (DR UGR version).
- Extensive installation pitch.
- UGR <19 (UGR version).
- Available with lenticular optics, recuperator or diffusers.
- Asymmetrical version.
- Version with electrified track.
- Module lengths optimised to reduce installation time and required accessories by up to 20%.
- Available on request with integrated sensors.
- Driver integrated in the fixture.
- Essential and functional design.
- Double anti-fall springs in case of accidental impacts.
- Through line up to 11 poles (on request).
- IP54 version for more severe applications.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Versatility of use in different environments.
- Mechanical and electrical assembly without tools.
- Union joint already assembled.
- Thanks to the FastWiring system, the installation time is drastically reduced.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

Page	Product	Screen	Optic	Lens
446	3F Linux S IP40			
450	3F Linux S IP54			
454	3F Linux L			•
466	3F Linux D	•		
470	3F Linux DR	•	•	
474	NEW 3F Linux DT			
478	3F Linux Track			

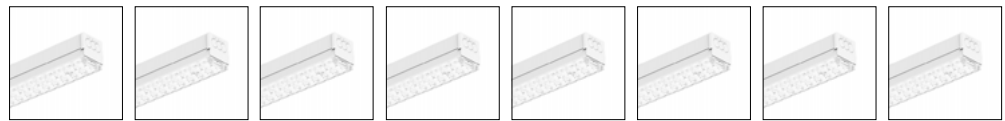
Product range

3F Linux S IP40

- 3F Linux L
- 3F Linux D
- 3F Linux DR
- 3F Linux DT



3F Linux L

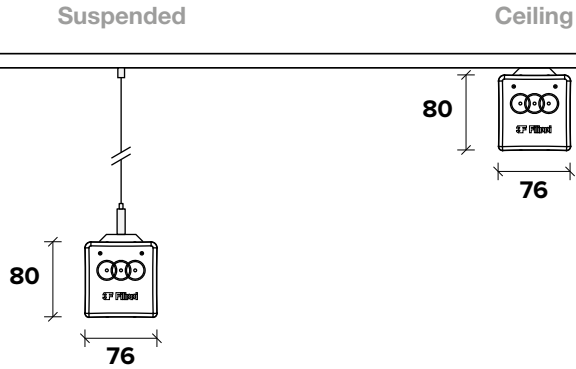


Model	Wide	Medium	UGR	AS	BAT	BAT WD	Conc	Iperconc
Average luminance for angles > 65 (cd / m ²)	>3000	>3000	<3000	/	>3000	>3000	>3000	>3000
UGR	<21	<21	<19	/	<21	<21	<21	<21
Protection class	IP40 IP54							
Photometric distribution								
Power level	40	40	50	40	40	40	60	60
	50	50		50	50	50	85	85
	60	60		60	60	60		
	85	85		85				

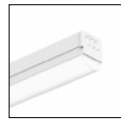
NEW

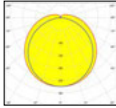
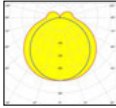
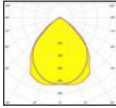
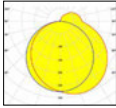
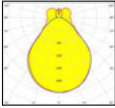
Arrange the version that best suits your needs quickly and easily
www.3f-filippi.com/en/3F-Linear-configurator

3F Linux S IP54 3F Linux L



3F Linux D 3F Linux DR 3F Linux DT



Model	D	DR	DR UGR	DR AS	DT UGR
Average luminance for angles > 65 (cd / m ²)	>3000	>3000	<3000	/	<3000
UGR	<21	<21	<19	/	<19
Protection class	IP40				
Photometric distribution					
Power level	2x22 2x30	2x22 2x30	1x30 2x22	2x30	2x30

Screens and finishes



3F Linux DR | IP40
Rectangular screen in self-extinguishing polycarbonate



3F Linux L | IP40
PMMA lenses with external flat surface



3F Linux D | IP40
Curved screen in self-extinguishing polycarbonate



3F Linux DT | IP40
Trapezoidal screen in self-extinguishing polycarbonate



3F Linux L | IP54
PMMA lenses with external flat surface.
Transparent polycarbonate IP54 cover element



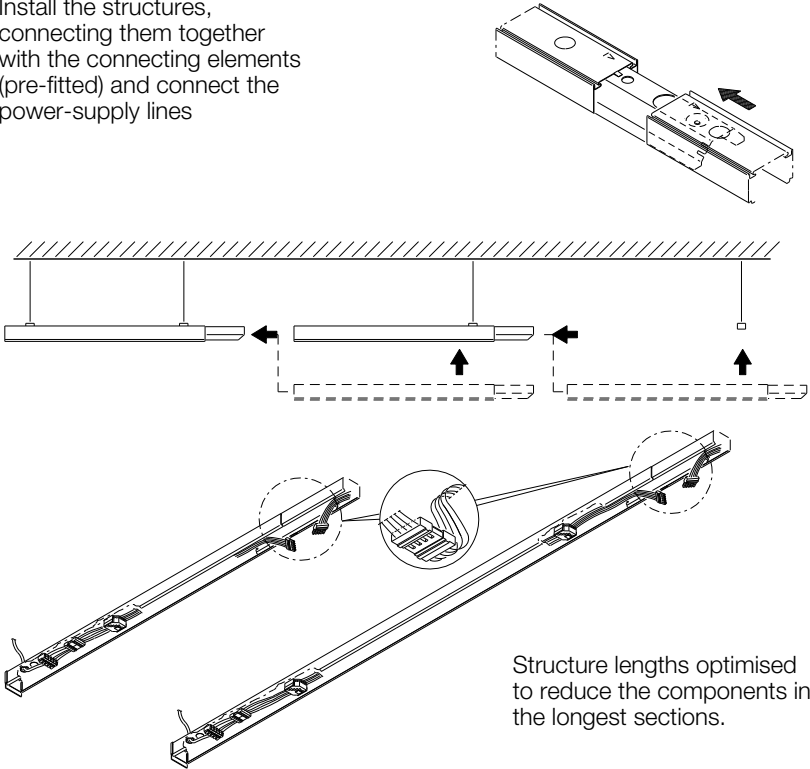
Simply modular



The **FastWiring system** reduces the time necessary to create a lighting channel:

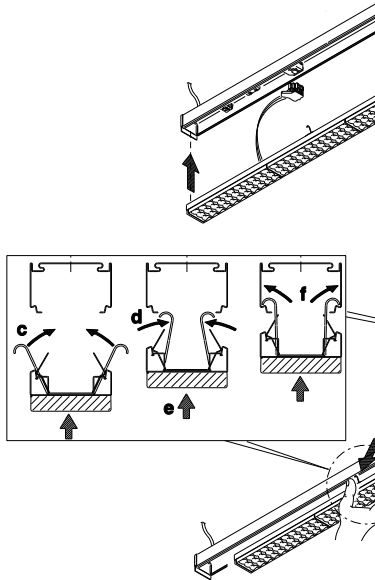
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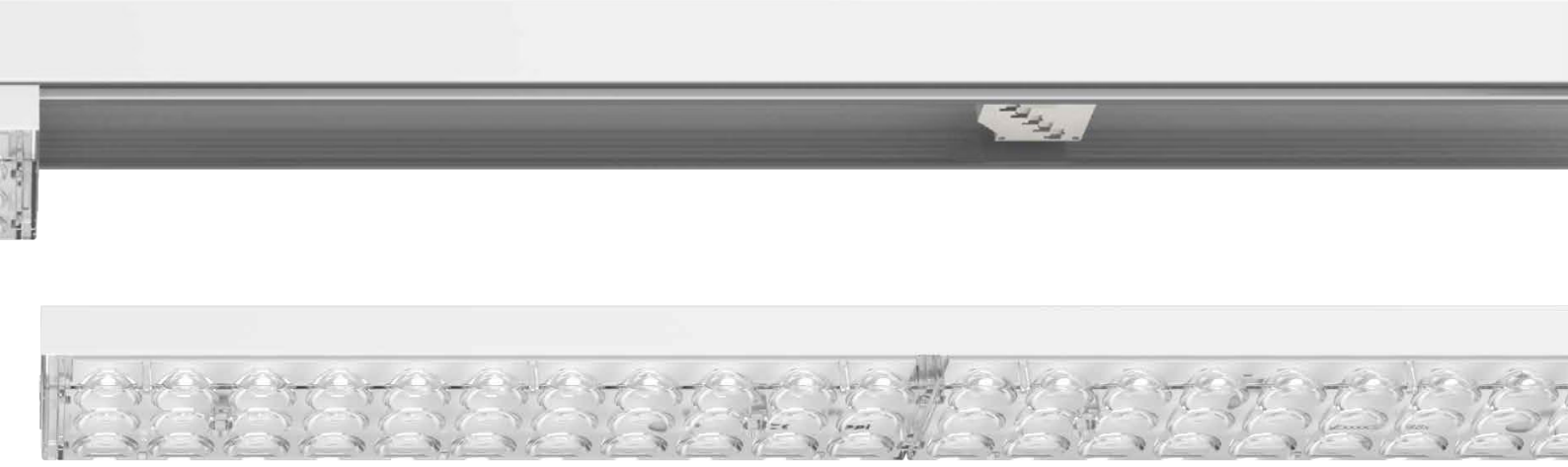
Install the structures, connecting them together with the connecting elements (pre-fitted) and connect the power-supply lines



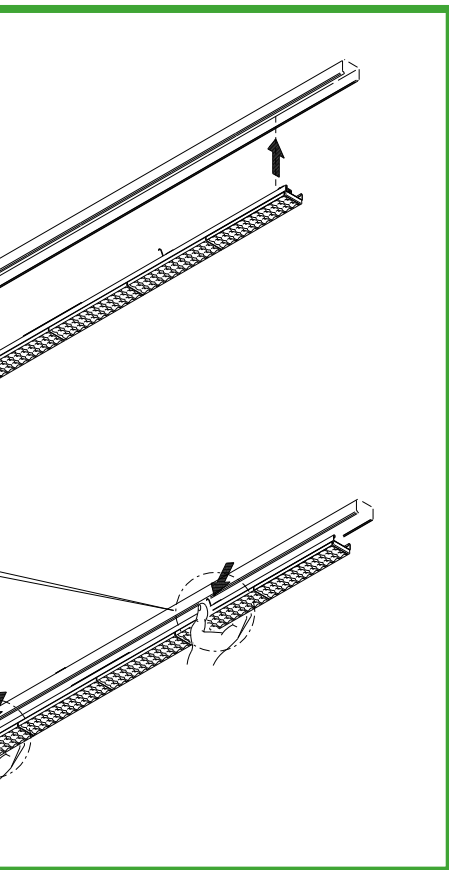
2

Connect the power-supply plug and secure the lighting element to the structure, moving it to the required point



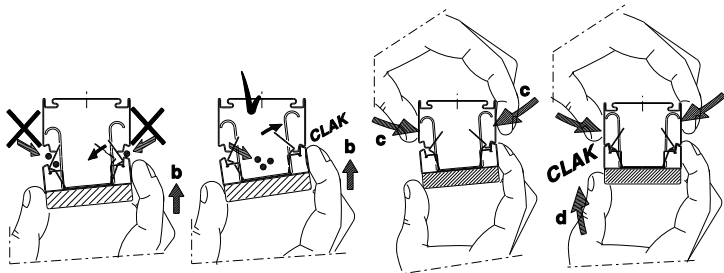
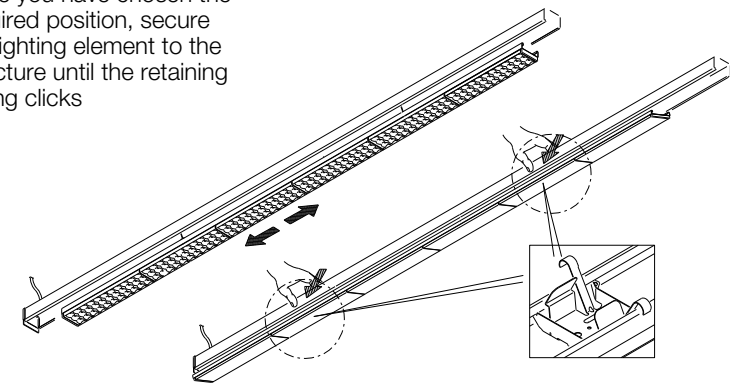


Installation requires just 3 steps, with limited tools required.

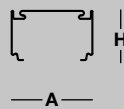
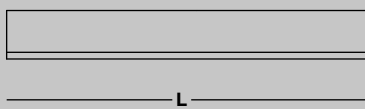
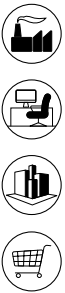
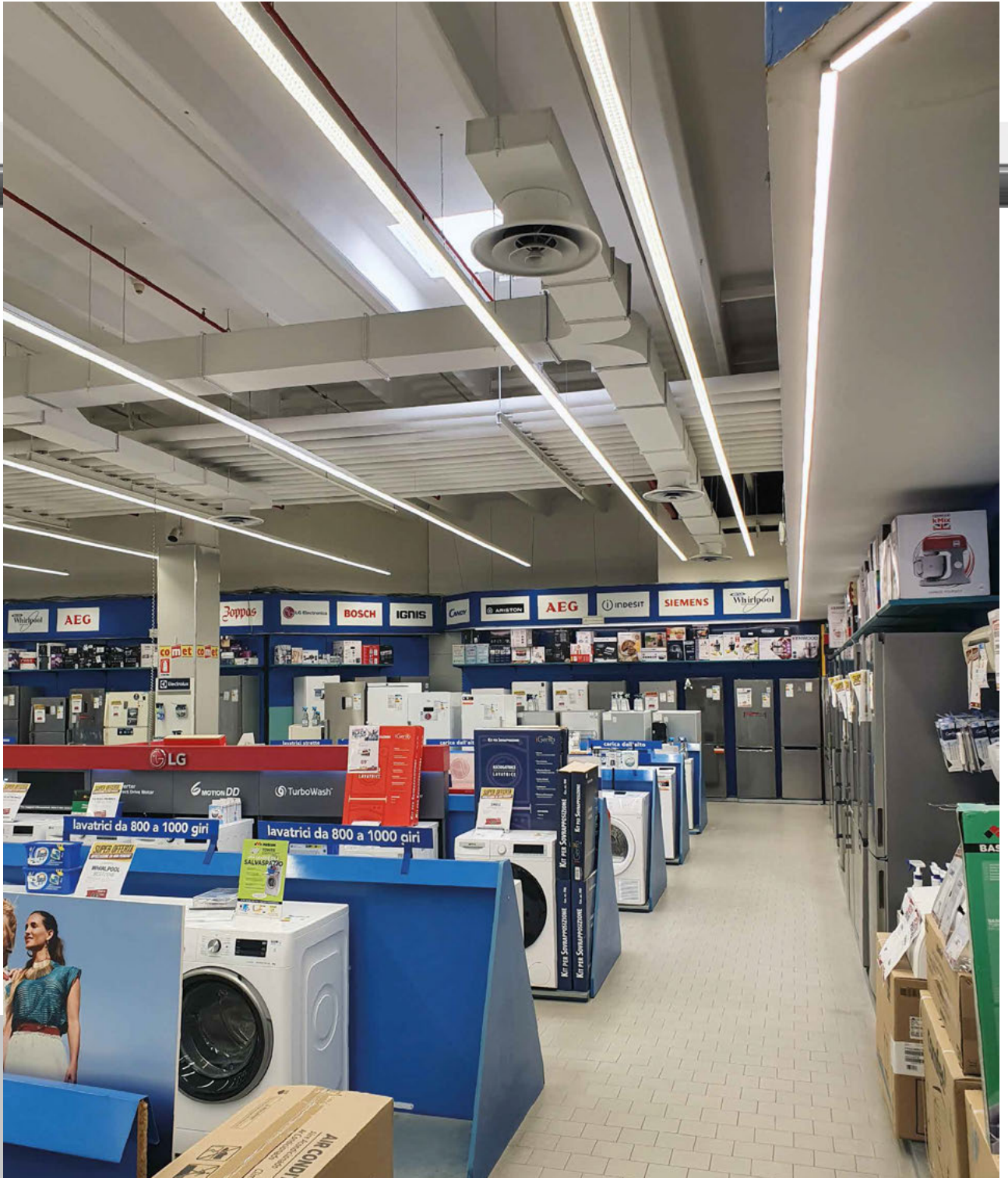


3

Once you have chosen the required position, secure the lighting element to the structure until the retaining spring clicks



/ Systems and track-mounted products



Comet
Reggio Emilia
Italia/Italy





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.

MECHANICAL

Hot-galvanised wired structure, painted in polyester base white, obtained through rolling process. Linear connecting element in hot galvanised steel for the formation of continuous channels. Standard on L3556 versions (optional for other lengths). For the completion accessories see accessories on page 481.

INSTALLATION

Ceiling, suspension or wall installation.

APPLICATIONS

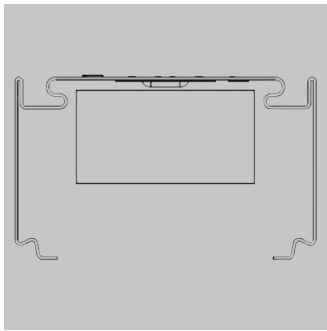
Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops, schools. Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

ON REQUEST

- structure and accessories in different RAL colours
- through-wiring up to 11 poles



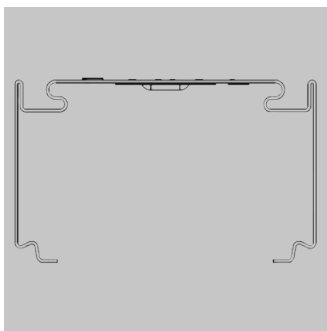
3F Linux S IP40



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	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



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	L x A x H
A20012	3F Linux S NL L1778	1778x62x38
A20011	3F Linux S NL L3556	3556x62x38



/ Systems and track-mounted products



Vimar
Marostica (VI)
Italia/Italy





3F Linux S IP54

This fixture makes it possible to create light channels with IP54 protection.

MECHANICAL

Hot-galvanised wired structure, painted in polyester base white, obtained through rolling process, with expanded EPDM rubber profiles. Linear connecting element in hot galvanised steel with gasket for the formation of continuous channels, standard on L3556 versions (optional for other lengths).

Transparent polycarbonate IP54 cover element with methacrylate (PMMA) flexible parts.

The L3556 versions have a locking collar for joining the covers. For the completion accessories see accessories on page 481.

ELECTRICAL

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.

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.

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.

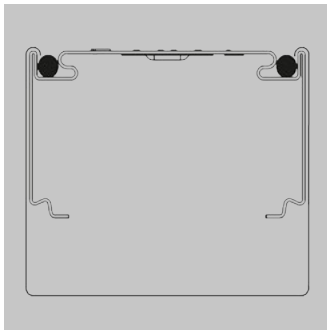
Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.

For specific applications please contact our technical offices. Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

ON REQUEST

- structure and accessories in different RAL colours
- through-wiring up to 11 poles

3F Linux S IP54

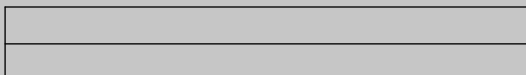
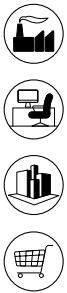
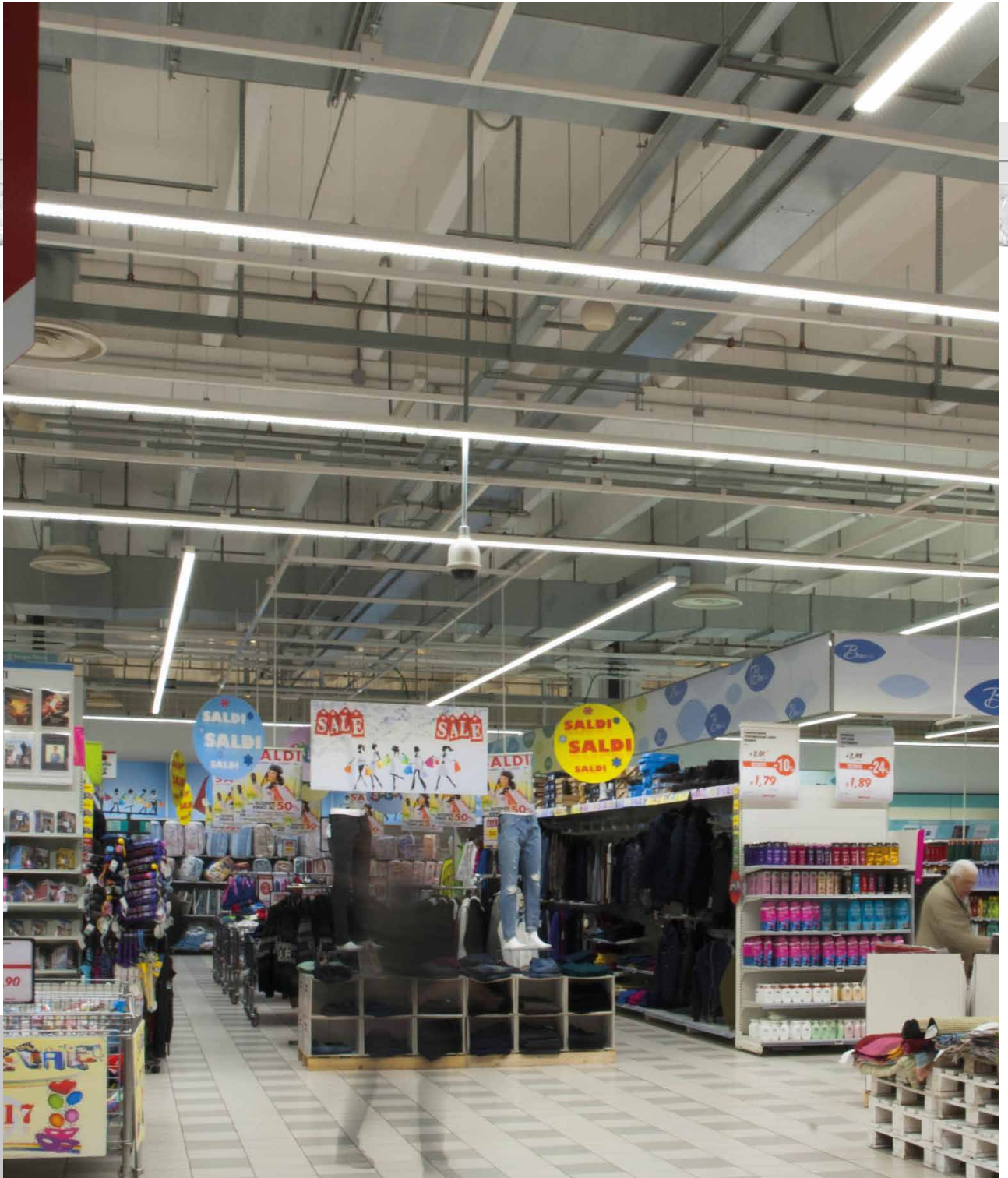


All product codes include the support structure and cover element.
In the L3556 versions there is also an IP54 element that is used to protect the joints between the covers.

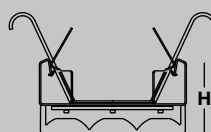
Code	Item	L x A x H
A20726	3F Linux 5P IP54 L1778 System	1778x64x72
A20724	3F Linux 7P IP54 L1778 System	1778x64x72
A20725	3F Linux 5P IP54 L3556 System	3556x64x72
A20723	3F Linux 7P IP54 L3556 System	3556x64x72



/ Systems and track-mounted products



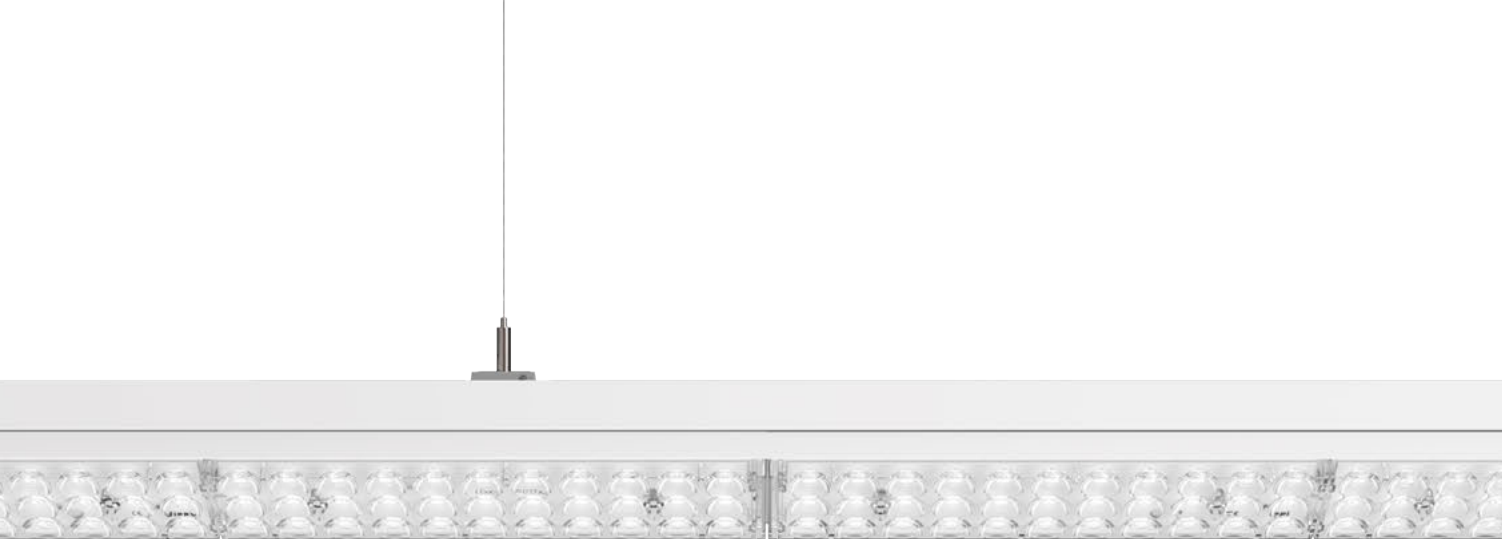
— L —



— A —

Novacoop
Torino
Italia/Italy





3F Linux L

ILLUMINOTECHNICAL

Direct distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
Methacrylate (PMMA) lenses with external flat surface (superimposed to obtain full protection of LED modules).

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Connection to the structure with mobile plug with phase selection (H05Z-U Halogen Free cable section 0,5 mm² HT90).

INSTALLATION

This lighting unit can be installed on profile 3F Linux S | IP40 and 3F Linux S | IP54 (see dedicated product pages).

APPLICATIONS

Environments: industrial, commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

UGR version

Environments: staterooms, with VDTs, offices.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different powers or colour temperatures
- integrated light sensor
- HACCP versions for use in the food industry
- housing in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F Linux L Wide



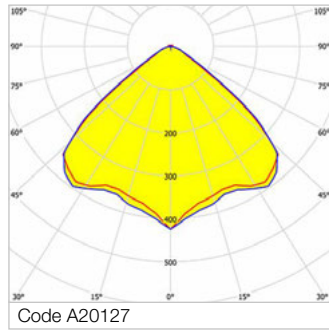
650°C

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.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A20127	3F Linux L 40 LED AMPIO L1778	43	6936 6607	IP40 IP54	4000 >80	1778x62x32
A20126	3F Linux L 50 LED AMPIO L1778	50	8247 7856	IP40 IP54	4000 >80	1778x62x32
A20125	3F Linux L 60 LED AMPIO L1778	62	9855 9388	IP40 IP54	4000 >80	1778x62x32
A20124	3F Linux L 85 LED AMPIO L1778	93	14086 13418	IP40 IP54	4000 >80	1778x62x32

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A20141	3F Linux L 40 LED DALI AMPIO L1778	43	6936 6607	IP40 IP54	4000 >80	1778x62x32
A20140	3F Linux L 50 LED DALI AMPIO L1778	50	8247 7856	IP40 IP54	4000 >80	1778x62x32
A20139	3F Linux L 60 LED DALI AMPIO L1778	62	9855 9388	IP40 IP54	4000 >80	1778x62x32
A20138	3F Linux L 85 LED DALI AMPIO L1778	93	14086 13418	IP40 IP54	4000 >80	1778x62x32

3F Linux L Medium



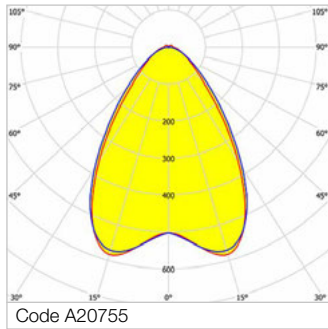
650°C

IP40

1J

IK06

HACCP



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.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20757	3F Linux L 40 LED MEDIO L1778	43	6843 6499	IP40 IP54	4000	>80	1778x62x32
A20756	3F Linux L 50 LED MEDIO L1778	50	8136 7728	IP40 IP54	4000	>80	1778x62x32
A20755	3F Linux L 60 LED MEDIO L1778	62	9723 9235	IP40 IP54	4000	>80	1778x62x32
A20754	3F Linux L 85 LED MEDIO L1778	93	13898 13200	IP40 IP54	4000	>80	1778x62x32

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20762	3F Linux L 40 LED DALI MEDIO L1778	43	6843 6499	IP40 IP54	4000	>80	1778x62x32
A20761	3F Linux L 50 LED DALI MEDIO L1778	50	8136 7728	IP40 IP54	4000	>80	1778x62x32
A20760	3F Linux L 60 LED DALI MEDIO L1778	62	9723 9235	IP40 IP54	4000	>80	1778x62x32
A20759	3F Linux L 85 LED DALI MEDIO L1778	93	13898 13200	IP40 IP54	4000	>80	1778x62x32

3F Linux L UGR



650°C

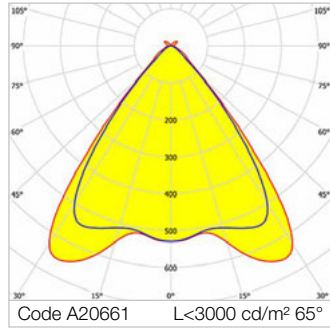
IP40

1J

IK06



HACCP



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.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20661	3F Linux L 50 LED UGR L1778	50	8221 7924	IP40 IP54	4000	>80	1778x62x32
A20662	3F Linux L 40 LED UGR L1778	43	6914 6664	IP40 IP54	4000	>80	1778x62x32
A20664	3F Linux L 50/940 LED UGR L1778	50	6742 6498	IP40 IP54	4000	>90	1778x62x32
A20665	3F Linux L 40/940 LED UGR L1778	43	5670 5464	IP40 IP54	4000	>90	1778x62x32

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20667	3F Linux L 50 LED DALI UGR L1778	50	8221 7924	IP40 IP54	4000	>80	1778x62x32
A20668	3F Linux L 40 LED DALI UGR L1778	43	6914 6664	IP40 IP54	4000	>80	1778x62x32
A20670	3F Linux L 50/940 LED DALI UGR L1778	50	6742 6498	IP40 IP54	4000	>90	1778x62x32
A20671	3F Linux L 40/940 LED DALI UGR L1778	43	5670 5464	IP40 IP54	4000	>90	1778x62x32

3F Linux L AS



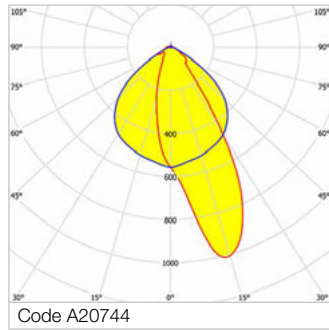
650°C

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.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20747	3F Linux L 40 LED AS L1778	43	6957 6664	IP40 IP54	4000	>80	1778x62x32
A20746	3F Linux L 50 LED AS L1778	50	8272 7924	IP40 IP54	4000	>80	1778x62x32
A20745	3F Linux L 60 LED AS L1778	62	9886 9469	IP40 IP54	4000	>80	1778x62x32
A20744	3F Linux L 85 LED AS L1778	93	14130 13535	IP40 IP54	4000	>80	1778x62x32

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20752	3F Linux L 40 LED DALI AS L1778	43	6957 6664	IP40 IP54	4000	>80	1778x62x32
A20751	3F Linux L 50 LED DALI AS L1778	50	8272 7924	IP40 IP54	4000	>80	1778x62x32
A20750	3F Linux L 60 LED DALI AS L1778	62	9886 9469	IP40 IP54	4000	>80	1778x62x32
A20749	3F Linux L 85 LED DALI AS L1778	93	14130 13535	IP40 IP54	4000	>80	1778x62x32

3F Linux L BAT



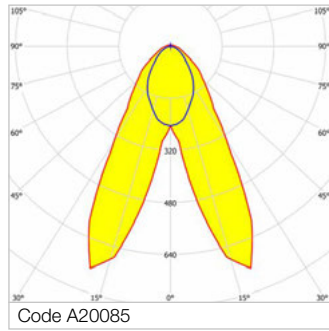
650°C

IP40

1J

IK06

HACCP



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.

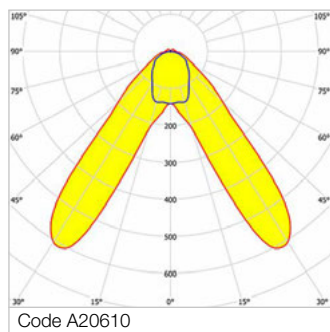
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A20085	3F Linux L 40 LED BAT L1778	43	6950 6599	IP40 IP54	4000 >80	1778x62x32
A20084	3F Linux L 50 LED BAT L1778	50	8264 7847	IP40 IP54	4000 >80	1778x62x32
A20083	3F Linux L 60 LED BAT L1778	62	9876 9378	IP40 IP54	4000 >80	1778x62x32

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A20099	3F Linux L 40 LED DALI BAT L1778	43	6950 6599	IP40 IP54	4000 >80	1778x62x32
A20098	3F Linux L 50 LED DALI BAT L1778	50	8264 7847	IP40 IP54	4000 >80	1778x62x32
A20097	3F Linux L 60 LED DALI BAT L1778	62	9876 9378	IP40 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.

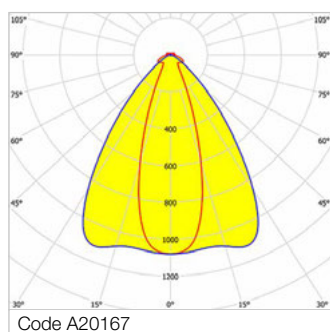
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20610	3F Linux L 40 LED BAT WD L1778	43	6928 6528	IP40 IP54	4000	>80	1778x62x32
A20609	3F Linux L 50 LED BAT WD L1778	50	8238 7762	IP40 IP54	4000	>80	1778x62x32
A20608	3F Linux L 60 LED BAT WD L1778	62	9845 9276	IP40 IP54	4000	>80	1778x62x32

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20624	3F Linux L 40 LED DALI BAT WD L1778	43	6928 6528	IP40 IP54	4000	>80	1778x62x32
A20623	3F Linux L 50 LED DALI BAT WD L1778	50	8238 7762	IP40 IP54	4000	>80	1778x62x32
A20622	3F Linux L 60 LED DALI BAT WD L1778	62	9845 9276	IP40 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 metres from the ground.

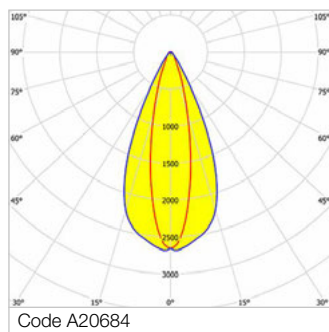
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20167	3F Linux L 60 LED CONC L1778	62	9662 9154	IP40 IP54	4000	>80	1778x62x32
A20166	3F Linux L 85 LED CONC L1778	93	13810 13084	IP40 IP54	4000	>80	1778x62x32

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20181	3F Linux L 60 LED DALI CONC L1778	62	9662 9154	IP40 IP54	4000	>80	1778x62x32
A20180	3F Linux L 85 LED DALI CONC L1778	93	13810 13084	IP40 IP54	4000	>80	1778x62x32

3F Linux L Iperconcentrated



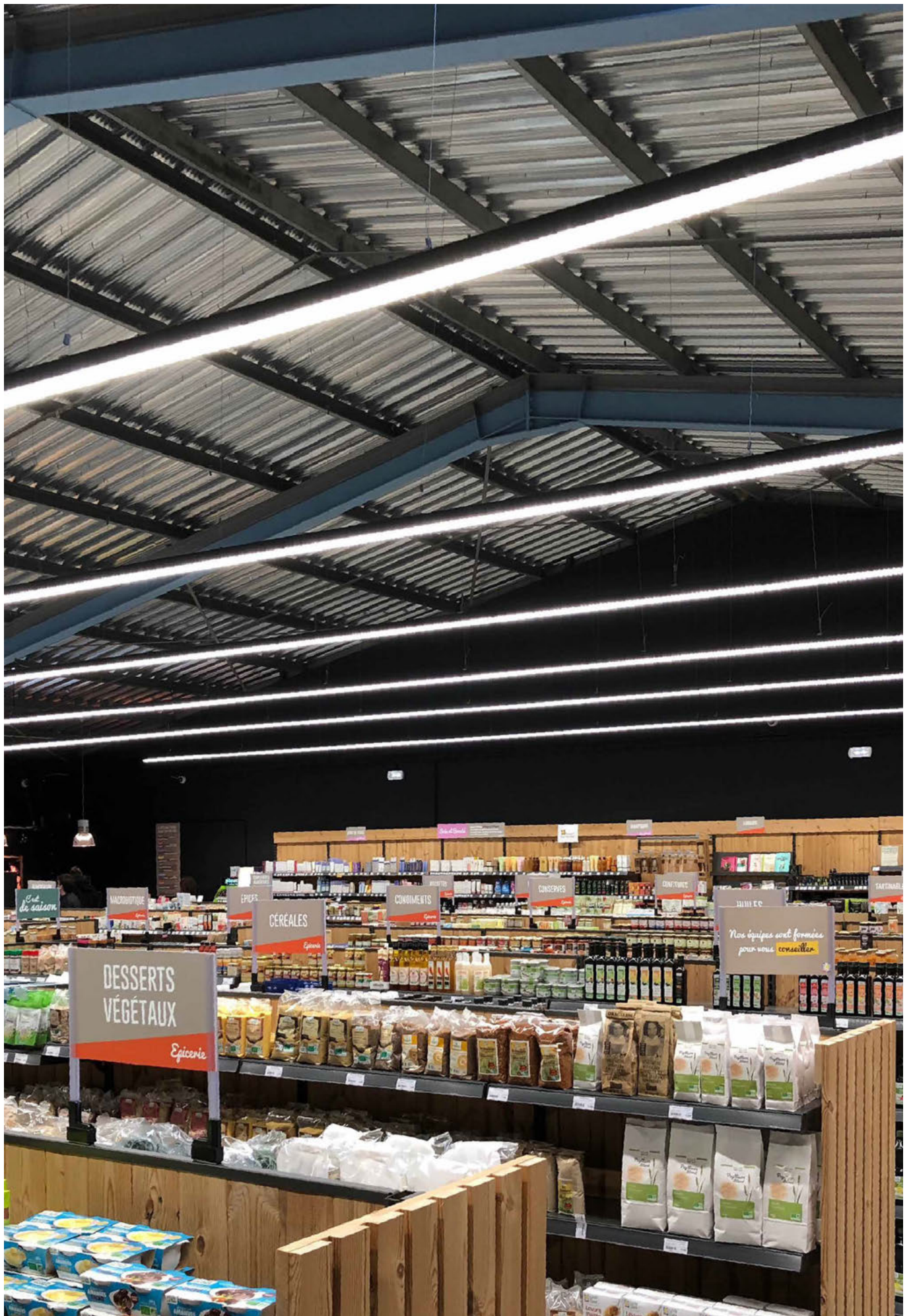
Symmetrical elliptical hyperconcentrated distribution.
 Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
 Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.
 Recommended minimum installation height: 5 metres from the ground.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20685	3F Linux L 60 LED IPERCONC L1778	62	9418 8910	IP40 IP54	4000	>80	1778x62x32
A20684	3F Linux L 85 LED IPERCONC L1778	93	13462 12736	IP40 IP54	4000	>80	1778x62x32

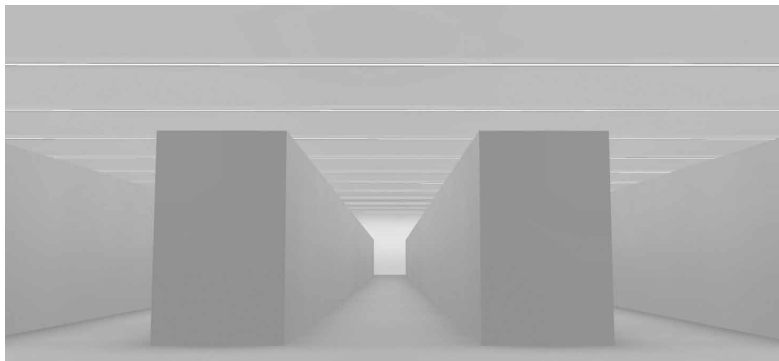
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H	
A20699	3F Linux L 60 LED DALI IPERCONC L1778	62	9418 8910	IP40 IP54	4000	>80	1778x62x32
A20698	3F Linux L 85 LED DALI IPERCONC L1778	93	13462 12736	IP40 IP54	4000	>80	1778x62x32



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

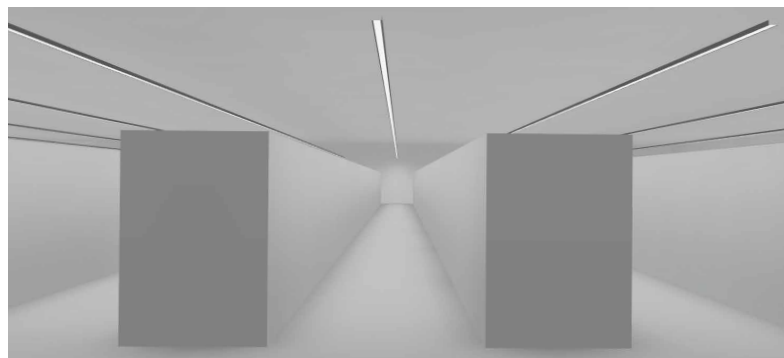
Notes:

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

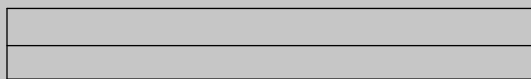
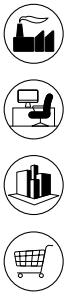
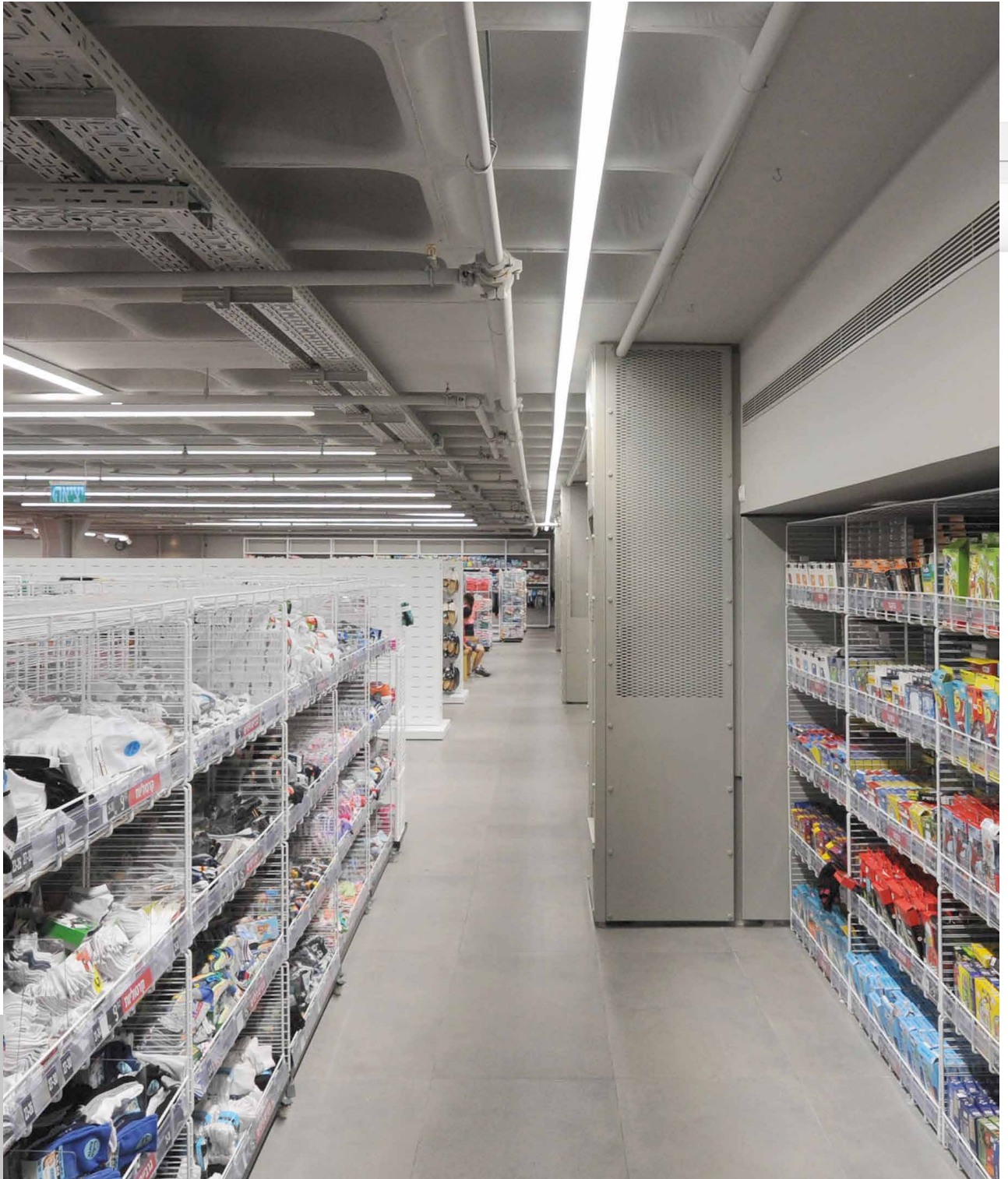
Design data:

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%				

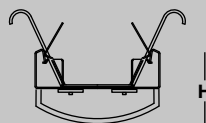
Luminaire: **3F Linux L CONC**

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

/ Systems and track-mounted products



— L —



— A —

Hangar
Bat Yam
Yisra'el/Israel





3F Linux D

ILLUMINOTECHNICAL

Diffused symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
Curved screen in self-extinguishing polycarbonate, UV stabilised, opal, with smooth outer surface.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Connection to the structure with mobile plug with phase selection (H05Z-U Halogen Free cable section 0,5 mm² HT90).

INSTALLATION

This lighting unit can be installed only on profile 3F Linux S | IP40 (see dedicated product pages).

APPLICATIONS

Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops, schools.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- asymmetric lighting distribution
- different powers or colour temperatures
- housing in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F Linux D



850°C

IP40

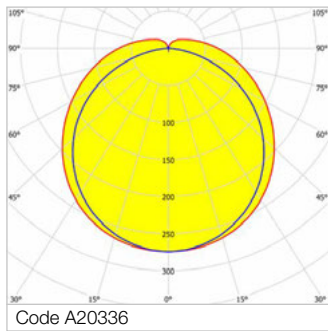
1J

IK06

Driver/LED

SELV

HACCP



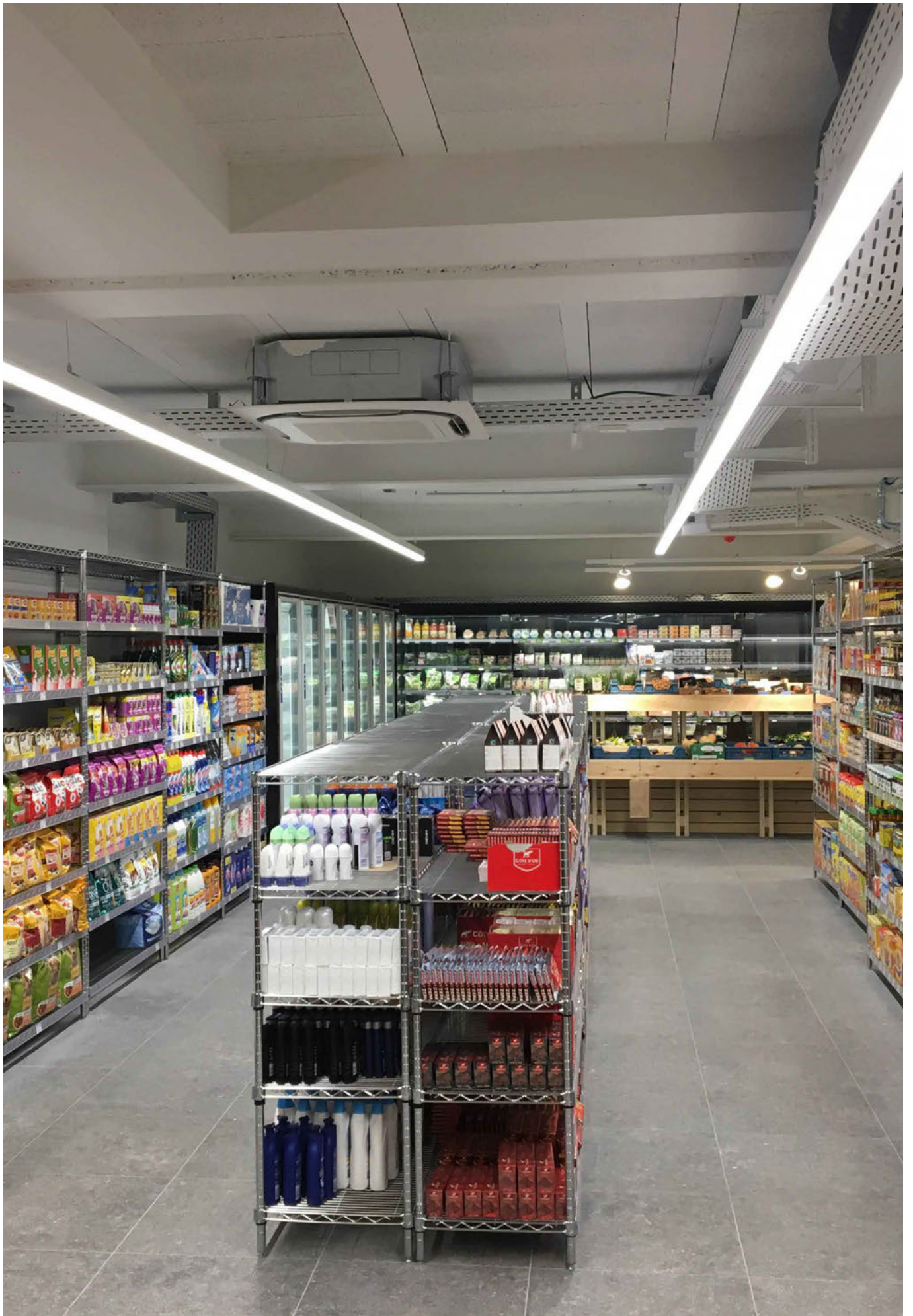
Diffuse distribution.
Structure height (3F Linux S + 3F Linux D) equal to 81 mm.

ON/OFF electronic wiring 230V-50/60Hz

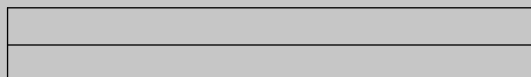
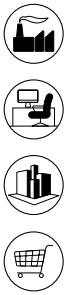
Code	Item	W	lm	K	CRI	L x A x H
A20336	3F Linux D 2x22 LED L1778	49	6236	4000	>80	1778x62x47
A20335	3F Linux D 2x30 LED L1778	66	7835	4000	>80	1778x62x47

DALI electronic wiring 230V-50/60Hz

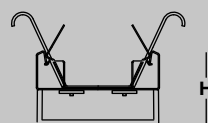
Code	Item	W	lm	K	CRI	L x A x H
A20350	3F Linux D 2x22 LED DALI L1778	49	6236	4000	>80	1778x62x47
A20349	3F Linux D 2x30 LED DALI L1778	66	7835	4000	>80	1778x62x47



/ Systems and track-mounted products



L



A





3F Linux DR

ILLUMINOTECHNICAL

Direct distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
Rectangular screen in self-extinguishing polycarbonate, UV stabilised, with smooth outer surface.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Connection to the structure with mobile plug with phase selection (H05Z-U Halogen Free cable section 0,5 mm² HT90).

INSTALLATION

This lighting unit can be installed only on profile 3F Linux S | IP40 (see dedicated product pages).

APPLICATIONS

Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops, schools.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

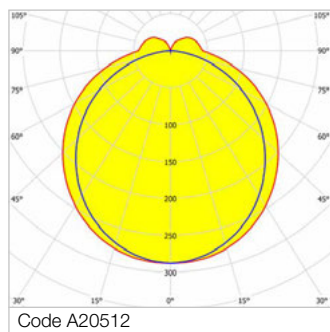
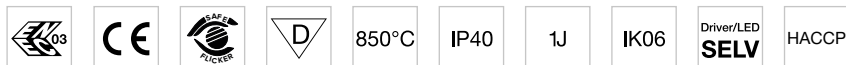
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different powers or colour temperatures
- housing in different RAL colours
- wiring: CLO (page 752)
- CRI >90 sources
- emergency versions

3F Linux DR



Diffused symmetric distribution.
Rectangular opal polycarbonate diffuser.
Structure height (3F Linux S + 3F Linux DR) equal to 81 mm.

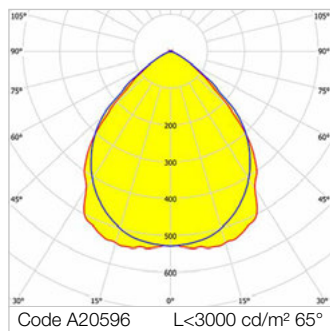
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A20512	3F Linux DR 2x22 LED L1778	49	6253	4000	>80	1778x62x47
A20511	3F Linux DR 2x30 LED L1778	66	7856	4000	>80	1778x62x47

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A20526	3F Linux DR 2x22 LED DALI L1778	49	6253	4000	>80	1778x62x47
A20525	3F Linux DR 2x30 LED DALI L1778	66	7856	4000	>80	1778x62x47

3F Linux DR UGR



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 (PMMA) filter above the louvre blades for complete shielding of the louvre compartment.
Structure height (3F Linux S + 3F Linux DR) equal to 81 mm.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A20595	3F Linux DR 1x30 LED UGR L1778	34	3487	4000	>80	1778x62x47
A20596	3F Linux DR 2x22 LED UGR L1778	49	5361	4000	>80	1778x62x47

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A20599	3F Linux DR 1x30 LED DALI UGR L1778	34	3487	4000	>80	1778x62x47
A20600	3F Linux DR 2x22 LED DALI UGR L1778	49	5361	4000	>80	1778x62x47

3F Linux DR AS



850°C

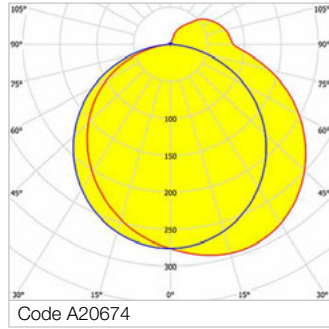
IP40

1J

IK06

Driver/LED
SELV

HACCP



Asymmetric distribution.
Rectangular opal polycarbonate diffuser.
Internal flow recuperator in white steel.
Structure height (3F Linux S + 3F Linux DR) equal to 81 mm.

ON/OFF electronic wiring 230V-50/60Hz

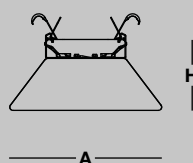
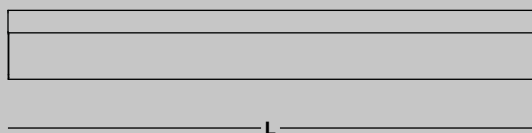
Code	Item	W	lm	K	CRI	L x A x H
A20674	3F Linux DR 2x30 LED AS L1778	66	6403	4000	>80	1778x62x47

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A20679	3F Linux DR 2x30 LED DALI AS L1778	66	6403	4000	>80	1778x62x47

NEW

/ Systems and track-mounted products



Colzani Moto
Torino
Italia/Italy





3F Linux DT

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process.
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
Diffuser with differentiated geometry, made of transparent methacrylate (PMMA) with microprismatic finish, anti-glare on the flat part and opal on the side.
Anti-glare opal methacrylate (PMMA) filter for brightness uniformity.
End caps in white polycarbonate.

ELECTRICAL

In compliance with EN 60598-1.
Truck adapter, 4/6-way.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (page 752)

3F Linux DT UGR



650°C

IP40

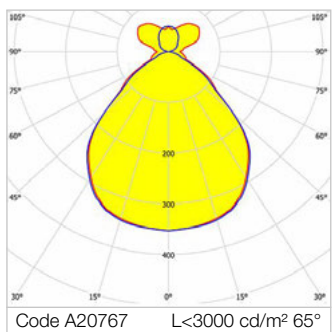
1J

IK06



Driver/LED
SELV

HACCP

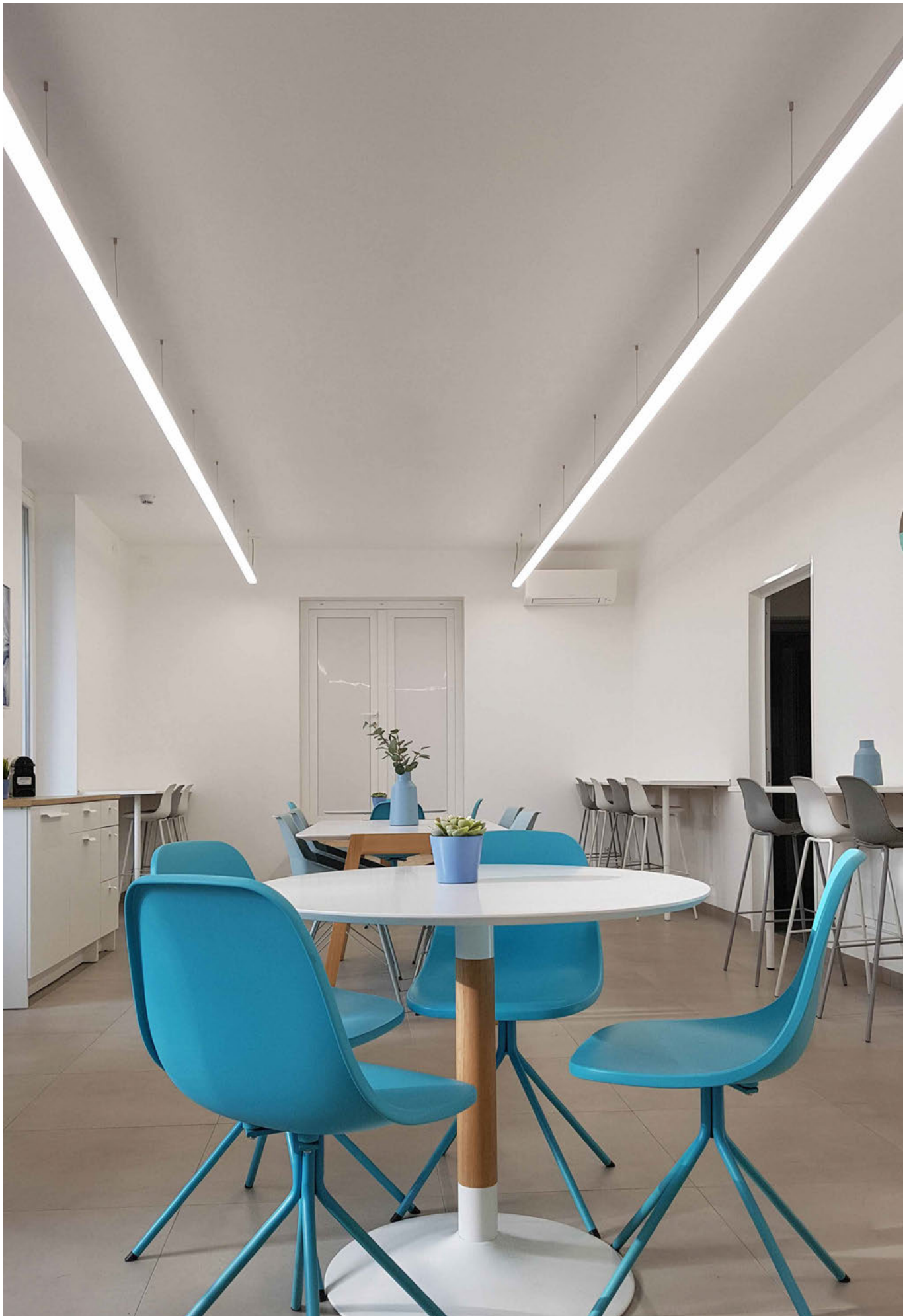


ON/OFF electronic wiring 230V-50/60Hz

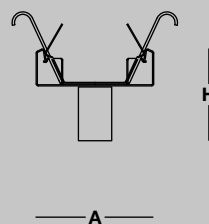
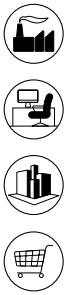
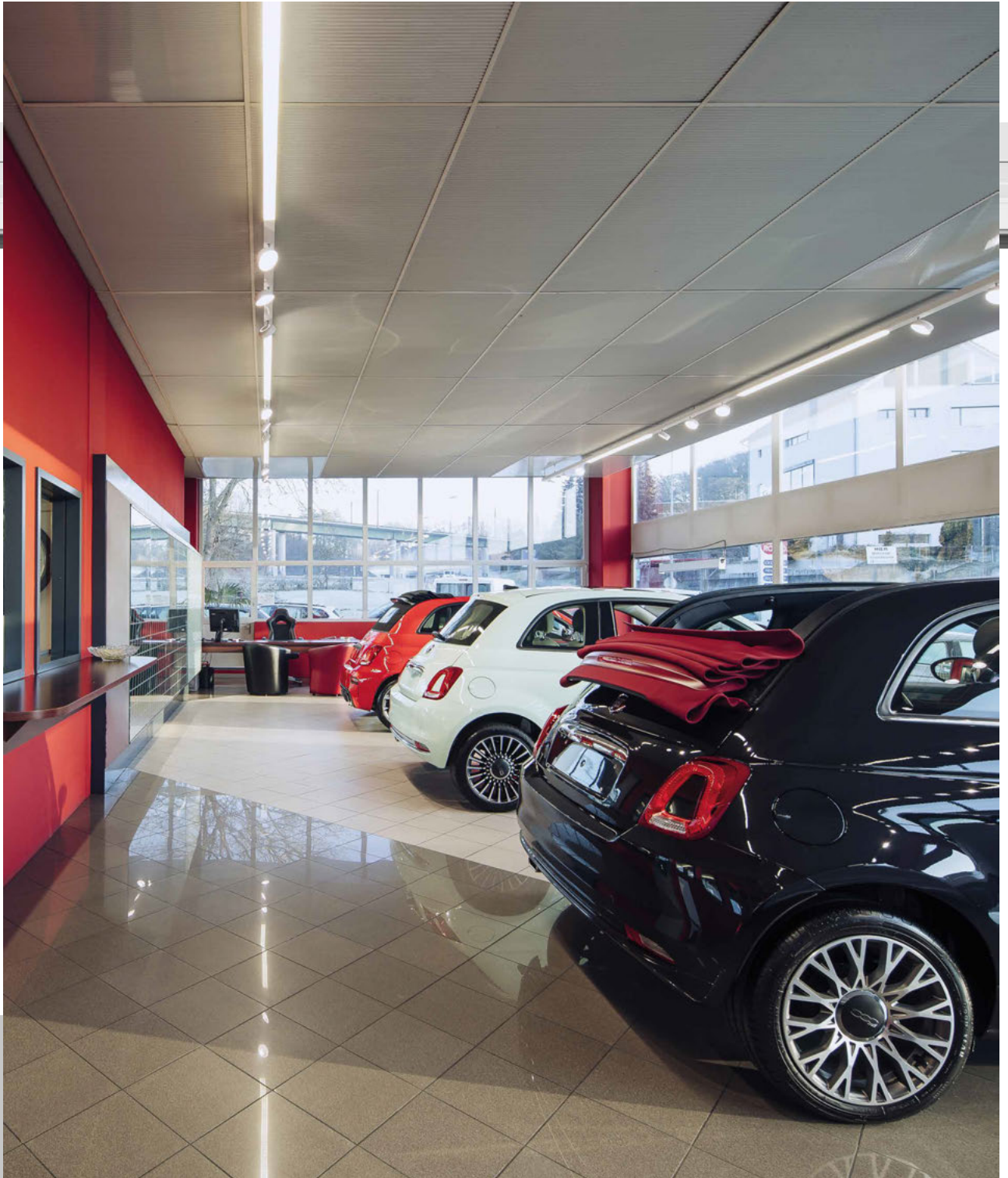
Code	Item	W	lm	K	CRI	L x A x H
A20766 ^{NEW}	3F Linux DT 2x15 LED UGR L1778	34	4900	4000	>80	1778x118x95
A20767 ^{NEW}	3F Linux DT 2x30 LED UGR L1778	66	9122	4000	>80	1778x118x95

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A20768 ^{NEW}	3F Linux DT 2x15 LED DALI UGR L1778	34	4900	4000	>80	1778x118x95
A20769 ^{NEW}	3F Linux DT 2x30 LED DALI UGR L1778	66	9122	4000	>80	1778x118x95



/ Systems and track-mounted products



Garage Vecchio
Melligen
Switzerland





3F Linux Track

MECHANICAL

Light unit in hot-galvanised 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

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.

INSTALLATION

This unit can be installed only on profile 3F Linux S | IP40 (see dedicated product pages).

ON REQUEST

- black and grey electrified busbar



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	L x A x H
A20424	3F Linux TK L1778	1778x62x57

3F Linux | Accessories



Code	Item
A20450	Slid.invis.brack.w/adj.for susp.3F Linux

Free-position invisible sliding bracket with regulator in stainless steel.

Accessory compatible with 3F Linux S - IP40, 3F Linux S - IP54, 3F Linux DT.

The suspension cable must be made of galvanised 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).



Code	Item
A20451	Slid.invis.brack.ceiling instal.3F Linux

Free-position sliding bracket in stainless steel.

Accessory compatible with 3F Linux S - IP40, 3F Linux S - IP54, 3F Linux DT.



Code	Item
A20453	S-shaped chain hook w/slid.bra. 3F Linux

Free-position sliding bracket in stainless steel.

Accessory compatible with 3F Linux S - IP40, 3F Linux S - IP54, 3F Linux DT.

Supplied with S-hook for galvanised steel chain.



Code	Item
A0052	Wall-mounting brack

Wall-mounting bracket, in white painted steel.



Code	Item
A20474	Safety screw locking slid.bra.3F Linux S

Safety screw for locking the sliding bracket, made of hot galvanised steel.

Accessory compatible with 3F Linux S - IP40, 3F Linux S - IP54, 3F Linux DT.

These accessories must ALWAYS be used with one of the following codes: A20450 - A20451 - A20453.



Code	Item
A20452	Stainless steel hook for chain

Hook to suspended luminaires to a chain.

Accessory compatible with 3F Linux S - IP40, 3F Linux S - IP54, 3F Linux DT.

These accessories must ALWAYS be used with one of the following codes: A20451.



Code	Item
A20485	Suspension without adjustment - 0.5 m
A20486	Suspension without adjustment - 1 m
A20487	Suspension without adjustment - 2 m
A20488	Suspension without adjustment - 3 m
A20489	Suspension without adjustment - 4 m
A20490	Suspension without adjustment - 5 m
A20491	Suspension without adjustment - 6 m

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

Accessory compatible with 3F Linux S - IP40, 3F Linux S - IP54, 3F Linux DT.

In the case of purchase of only one sliding bracket with controller (code A20450), the suspension cable must be made of galvanised steel with 49 elementary wires of minimum 1.5 mm diameter (for a weight of 15 kg).



Code	Item
A02562	Caddy for exposed profiles of 24 mm

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, 3F Linux DT.

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.



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

Galvanised 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, 3F Linux DT.

These accessories must ALWAYS be used with one of the following codes: A20450, (A20452+A0714) o (A20451+A0659).



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

Clamp in nickel-plated brass suitable for fixing and adjustment of galvanised 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, 3F Linux DT.



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

Clamp suitable for fixing and adjustment of galvanised 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, 3F Linux DT.

This accessory can be used with one of the following codes: A20450 - A0716 - A0717 - A0718.



Code	Item
A20433	Linear connecting element

Element to connect in hot-galvanised steel.
Accessory compatible with 3F Linux S - IP40, 3F Linux DT.



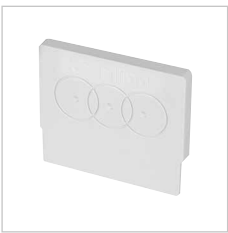
Code	Item
A20434	T-Connecting element 3F Linux

T-shaped connecting element in hot-galvanised steel.
Accessory compatible with 3F Linux S - IP40, 3F Linux DT.



Code	Item
A20436	L-Connecting element 3F L Linux

L-shaped connecting element in hot-galvanised steel.
Accessory compatible with 3F Linux S - IP40, 3F Linux DT.



Code	Item
A20448	Pair of closing end 3F Linux

Pair of closing end 3F Linux S, made of white polycarbonate.
Accessory compatible with 3F Linux S - IP40, 3F Linux DT.

850°C



Code	Item
A20478	Anti-slip term. incli. 3F Linux

Safety bracket in white painted steel to secure lighting elements if installed vertically.
Accessory compatible with 3F Linux S - IP40, 3F Linux DT.
This accessory must always be used in combination with end terminals.



Code	Item
A20442	Closing Top HIGH - L1778

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, 3F Linux DT.

650°C



650°C

Code	Item
A20743	IP54 - L1778 Closing Top

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, 3F Linux DT.



650°C

Code	Item
A20428	Closing Top LOW - L1778

Cutttable 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 and without 3F Linux L, 3F Linux D or 3F Linux DR light units.



Code	Item
A20475	3F Linux Cable Support (10 pcs) The pack contains 10 pieces.

Electric cable support. One every 50 cm is recommended. Made of polycarbonate.

Accessory compatible with 3F Linux S - IP40, 3F Linux S - IP54, 3F Linux DT.



Code	Item
A20470	Pair of mounting brack. lum. 3F Linux S

Brackets for the installation of luminaries on 3F Linux S and S-NL bars (check the compatibility with our technical departments). Made of hot galvanised steel.

Accessory compatible with 3F Linux S - IP40, 3F Linux DT.



Code	Item
A20504	Pair brack.3F Linda instal.in 3F Linux S

Brackets for installation of 3F Linda luminaries on 3F Linux S structures. Made from hot-galvanised steel.



Code	Item
A20740	IP54 3F Linux End terminal

Closing end 3F Linux S IP54, made of white polycarbonate.

Accessory compatible with 3F Linux S - IP54, 3F Linux DT.



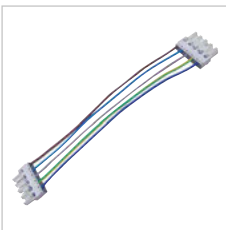
Code	Item
A20741	IP54 3F Linux End terminal with 1 hole

IP54 end terminal with a power-supply line entry hole.
Accessory compatible with 3F Linux S - IP54, 3F Linux DT.



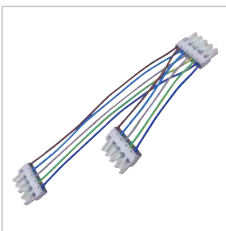
Code	Item
A20742	IP54 3F Linux End terminal with 2 holes

IP54 end terminal with two power-supply line entry holes.
Accessory compatible with 3F Linux S - IP54, 3F Linux DT.



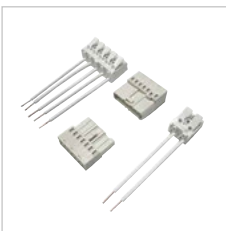
Code	Item
A20459	5-pole socket-plug L-branch 3F Linux S
A20460	7-pole socket-plug L-branch 3F Linux S

Electric branch with plug-socket to realise L-shaped connections.
Accessory compatible with 3F Linux S - IP40, 3F Linux DT.
These accessories must always be used in conjunction with L connecting elements. Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).



Code	Item
A20464	5-pole socket-plug T-branch 3F Linux S
A20465	7-pole socket-plug T-branch 3F Linux S

Electric branch with plug-socket to realise T-shaped connections.
Accessory compatible with 3F Linux S - IP40, 3F Linux DT.
These accessories must always be used in conjunction with T connecting elements. Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).



Code	Item
A20454	5-pole socket-plug term.block 3F Linux S
A20455	7-pole socket-plug term.block 3F Linux S

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, 3F Linux DT.
Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).



Code	Item
A20500	Cen.pow-sup.soc-plug ter-blo.3FLinuxS 5P
A20501	Cen.pow-sup.soc-plug ter-blo.3FLinuxS 7P

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, 3F Linux DT.
Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).



Code	Item
A0490	Connection to the earth

Connection to the earth, by means of galvanised 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, 3F Linux DT.



Code	Item
A20479	Power cable for luminaires 3P-3F Linux
A20480	Power cable for luminaires 5P-3F Linux

Power cable for luminaires not part of the 3F Linux system.

Accessory compatible with 3F Linux S - IP40, 3F Linux DT.

Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).



Code	Item
A0801	Electric ext. with plug 3F Linux DALI-EP
A0802	Electric extension with plug 3F Linux

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, 3F Linux DT.

Attention: the code A0801 is supplied with a 5-pole electric line, while the code A0802 is supplied with a 3-pole electric line.

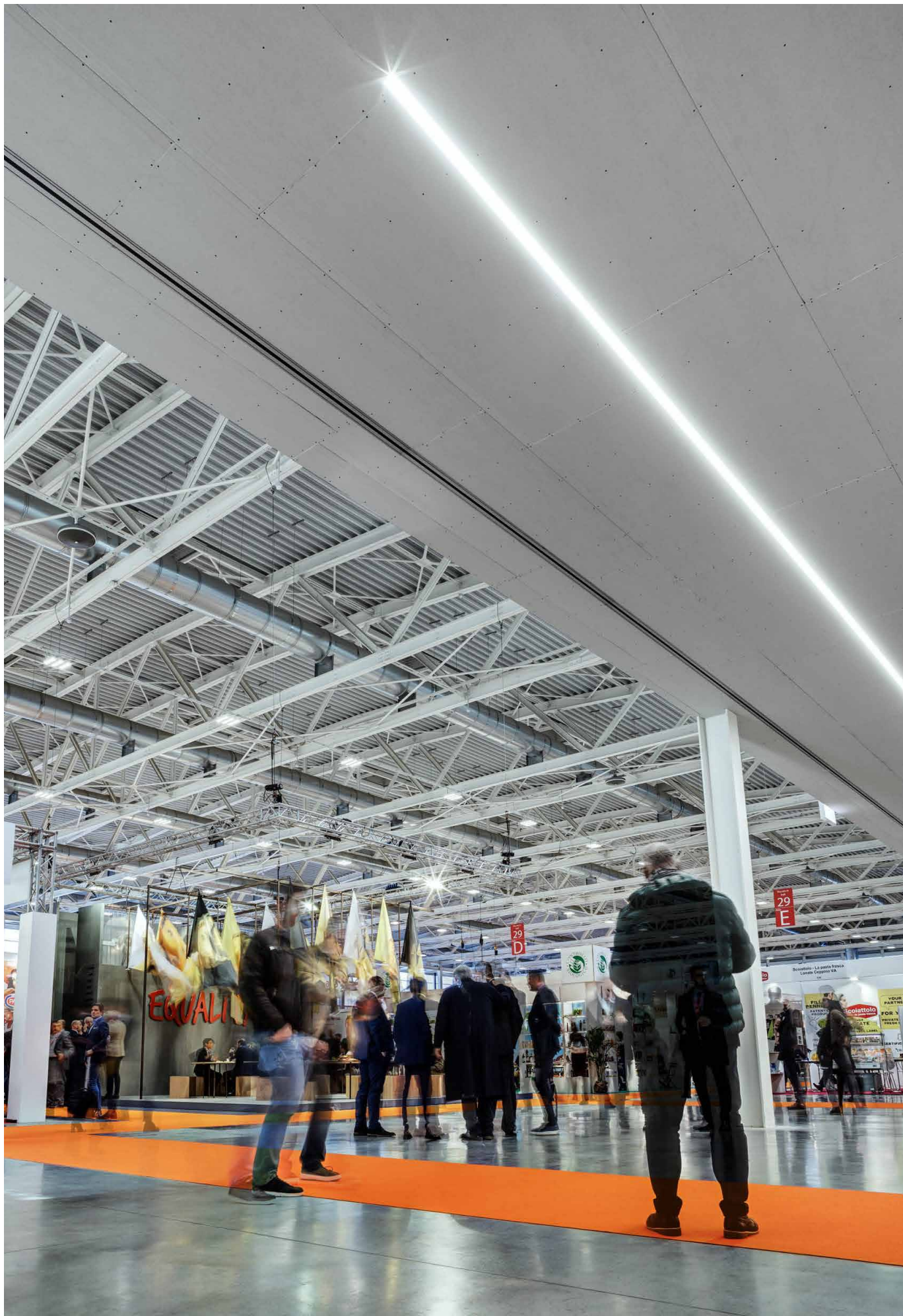


Code	Item
A20476	Contact pin for 3F Linux plug (50 pcs.) The pack contains 50 pieces.

Additional contact for light unit plug.

Accessory compatible with 3F Linux S - IP40, 3F Linux L, 3F Linux D, 3F Linux DR, 3F Linux DT, 3F Linux Track.

Accessory not compatible with 3F Linux S-NL (cod.: A20011, A20012).



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Pavesi

Pavesini

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1,45
0,75
2,99
0,60

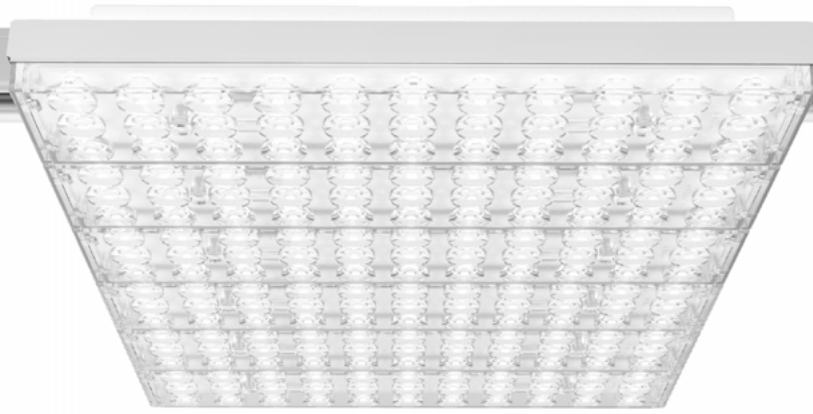
0,89
1,08

Atene
Atene

OMIA

Atene





3F Six

> www.3F-Filippi.com/3F Six

3F Six is the new compact fixture designed by 3F Filippi. 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 (PMMA) optical lenses installed on the fixture is it 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.

This product is also available in this version 3F Six R (page 286).

+ Overview

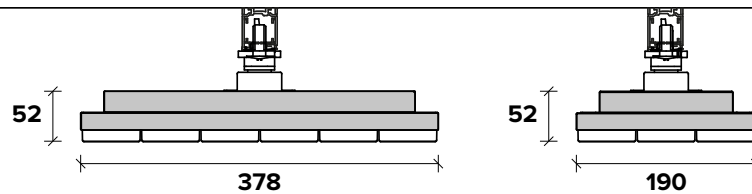
- Luminous efficacy up to 162 lumen/watt.
- Luminous fluxes from 6843 to 14086 lumens.
- Average luminance <3000 cd/m² (UGR version).
- Extensive installation pitch.
- UGR <19 (UGR version).
- Driver integrated in the fixture.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Versatility of use in different environments.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

Page	Product	Lens
492	3F Six Track	•
498	3F Six Blindo	•

Product range

Track

3F Six Track



3F Six Track

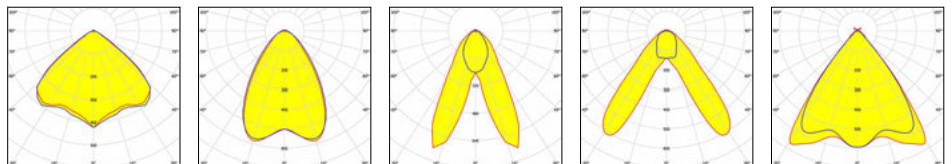


Model	Wide	Medium	BAT	BAT WD	UGR
Average luminance for angles > 65 (cd / m ²)	>3000	>3000	>3000	>3000	<3000
UGR	<21	<21	<21	<21	<19

Protection class

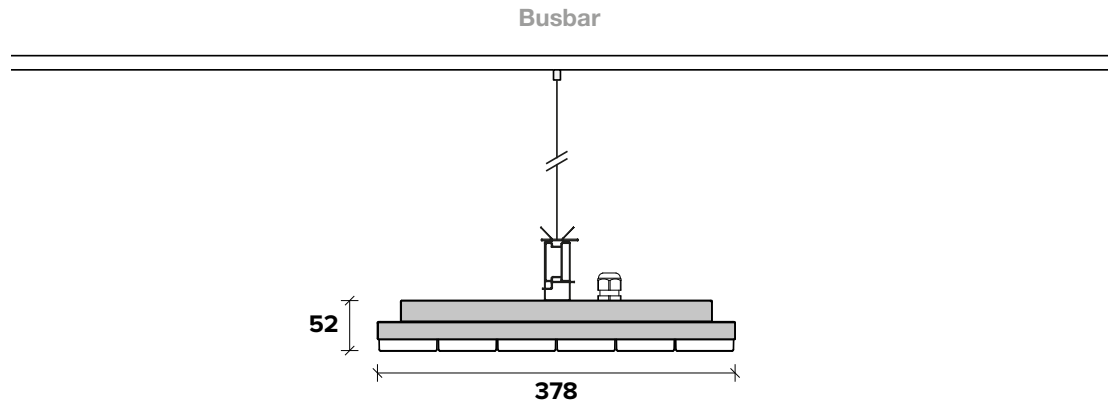
IP40

Photometric distribution

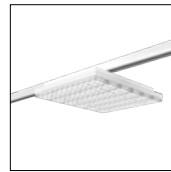
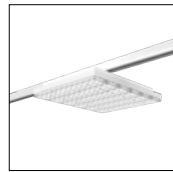


Installation steps	Dt	1,39	1,16	/	/	1,39
	DI	1,43	1,19	/	/	1,30

3F Six Blindo



3F Six Blindo



Model

Wide

Medium

UGR

Average luminance for angles > 65 (cd / m²)

>3000

>3000

<3000

UGR

<21

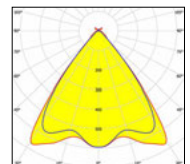
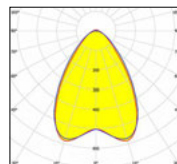
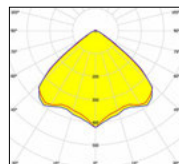
<21

<19

Protection class

IP40

Photometric distribution



Installation steps

Dt 1,39

1,16

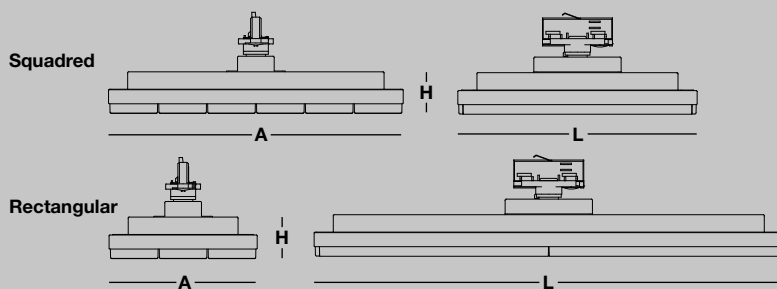
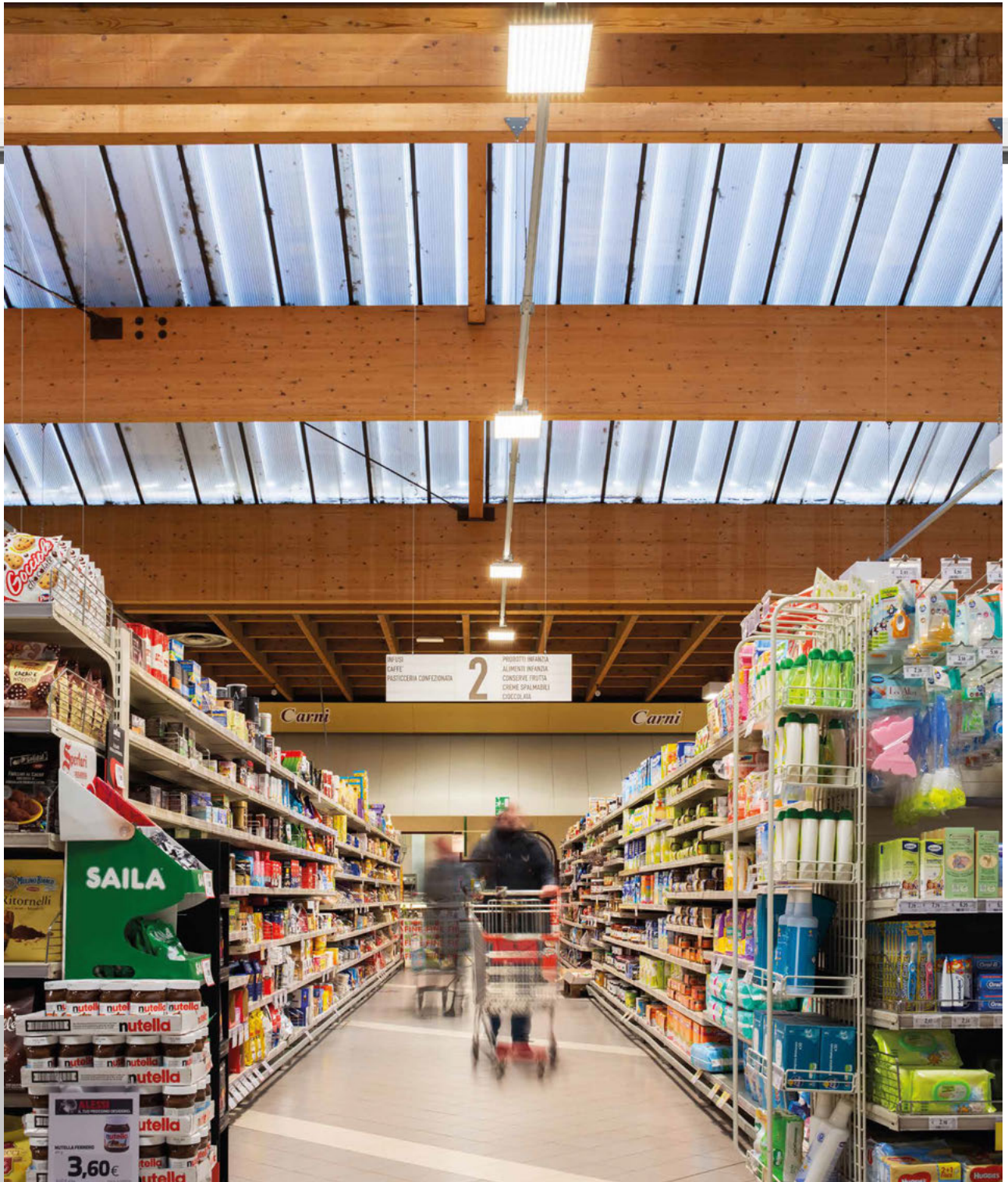
1,39

DI 1,43

1,19

1,30

/ Systems and track-mounted products



Coop Saffi
Bologna
Italia/Italy





3F Six Track

ILLUMINOTECHNICAL

Direct distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in galvanized steel, painted in white epoxy-polyester.
Height only 52 mm.
Methacrylate (PMMA) lenses with external flat surface.
The fixture can be rotated horizontally from 0° to 330°.

ELECTRICAL

In compliance with EN 60598-1.
Track adapter, 4/6-way.

INSTALLATION

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 514).

APPLICATIONS

Environments: industrial, commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops.

UGR version

Environments that need luminance control.

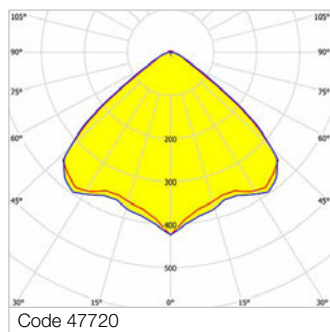
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different light distributions
- different powers or colour temperatures
- housing in different RAL colours
- wiring: CLO (page 752)
- fixture rotation lock bracket
- CRI >90 sources
- emergency versions

3F Six Track Wide



Wide distribution.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47722	3F Six TK WH 40/840 WIDE 307x378	40	6936	4000	>80	307x378x52
47742	3F Six TK WH 40/840 WIDE 190x602	40	6936	4000	>80	602x190x52
47721	3F Six TK WH 50/840 WIDE 307x378	46	8247	4000	>80	307x378x52
47741	3F Six TK WH 50/840 WIDE 190x602	46	8247	4000	>80	602x190x52
47720	3F Six TK WH 60/840 WIDE 307x378	55.5	9855	4000	>80	307x378x52
47740	3F Six TK WH 60/840 WIDE 190x602	55.5	9855	4000	>80	602x190x52

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47725	3F Six TK WH 40/840 DALI WIDE 307x378	40	6936	4000	>80	307x378x52
47745	3F Six TK WH 40/840 DALI WIDE 190x602	40	6936	4000	>80	602x190x52
47724	3F Six TK WH 50/840 DALI WIDE 307x378	46	8247	4000	>80	307x378x52
47744	3F Six TK WH 50/840 DALI WIDE 190x602	46	8247	4000	>80	602x190x52
47723	3F Six TK WH 60/840 DALI WIDE 307x378	55.5	9855	4000	>80	307x378x52
47743	3F Six TK WH 60/840 DALI WIDE 190x602	55.5	9855	4000	>80	602x190x52

3F Six Track Medium

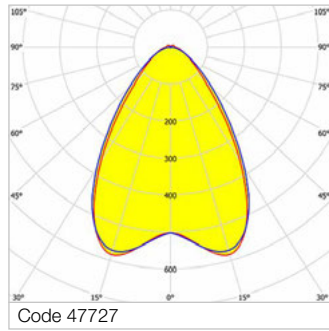


650°C

IP40

1J

IK06



Medium distribution.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47729	3F Six TK WH 40/840 MEDIUM 307x378	40	6843	4000	>80	307x378x52
47728	3F Six TK WH 50/840 MEDIUM 307x378	46	8136	4000	>80	307x378x52
47727	3F Six TK WH 60/840 MEDIUM 307x378	55.5	9723	4000	>80	307x378x52

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47732	3F Six TK WH 40/840 DALI MEDIUM 307x378	40	6843	4000	>80	307x378x52
47731	3F Six TK WH 50/840 DALI MEDIUM 307x378	46	8136	4000	>80	307x378x52
47730	3F Six TK WH 60/840 DALI MEDIUM 307x378	55.5	9723	4000	>80	307x378x52

3F Six Track BAT

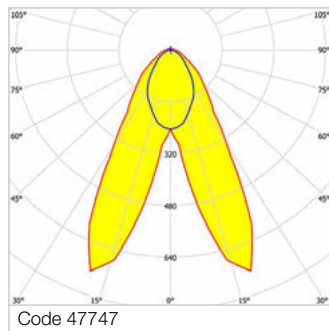


650°C

IP40

1J

IK06



Double asymmetrical distribution.

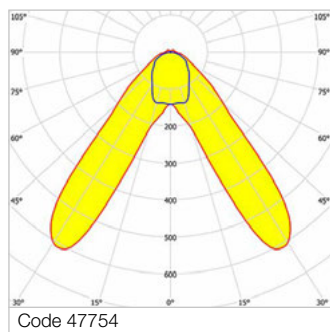
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47749	3F Six TK WH 40/840 BAT 190x602	40	6950	4000	>80	602x190x52
47748	3F Six TK WH 50/840 BAT 190x602	46	8264	4000	>80	602x190x52
47747	3F Six TK WH 60/840 BAT 190x602	55.5	9876	4000	>80	602x190x52

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47752	3F Six TK WH 40/840 DALI BAT 190x602	40	6950	4000	>80	602x190x52
47751	3F Six TK WH 50/840 DALI BAT 190x602	46	8264	4000	>80	602x190x52
47750	3F Six TK WH 60/840 DALI BAT 190x602	55.5	9876	4000	>80	602x190x52

3F Six Track BAT WD



Wide double symmetric distribution.

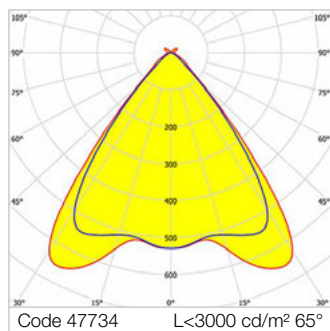
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47756	3F Six TK WH 40/840 BAT WD 190x602	40	6928	4000	>80	602x190x52
47755	3F Six TK WH 50/840 BAT WD 190x602	46	8238	4000	>80	602x190x52
47754	3F Six TK WH 60/840 BAT WD 190x602	55.5	9845	4000	>80	602x190x52

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47759	3F Six TK WH 40/840 DALI BAT WD 190x602	40	6928	4000	>80	602x190x52
47758	3F Six TK WH 50/840 DALI BAT WD 190x602	46	8238	4000	>80	602x190x52
47757	3F Six TK WH 60/840 DALI BAT WD 190x602	55.5	9845	4000	>80	602x190x52

3F Six Track UGR



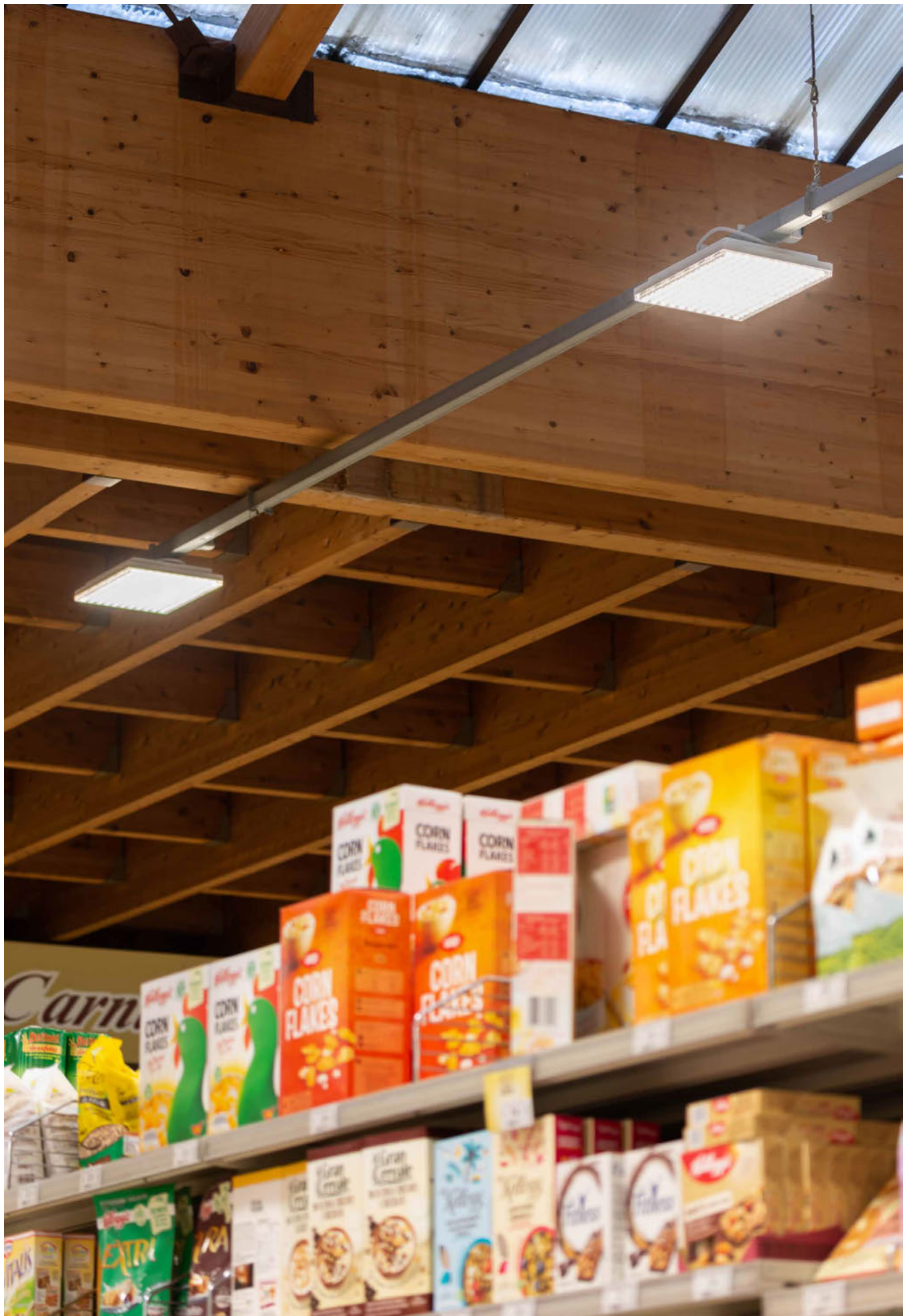
Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.

ON/OFF electronic wiring 230V-50/60Hz

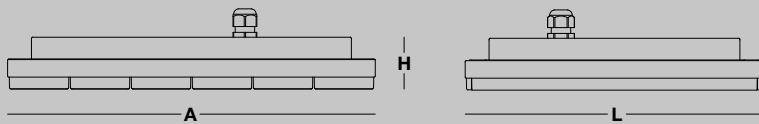
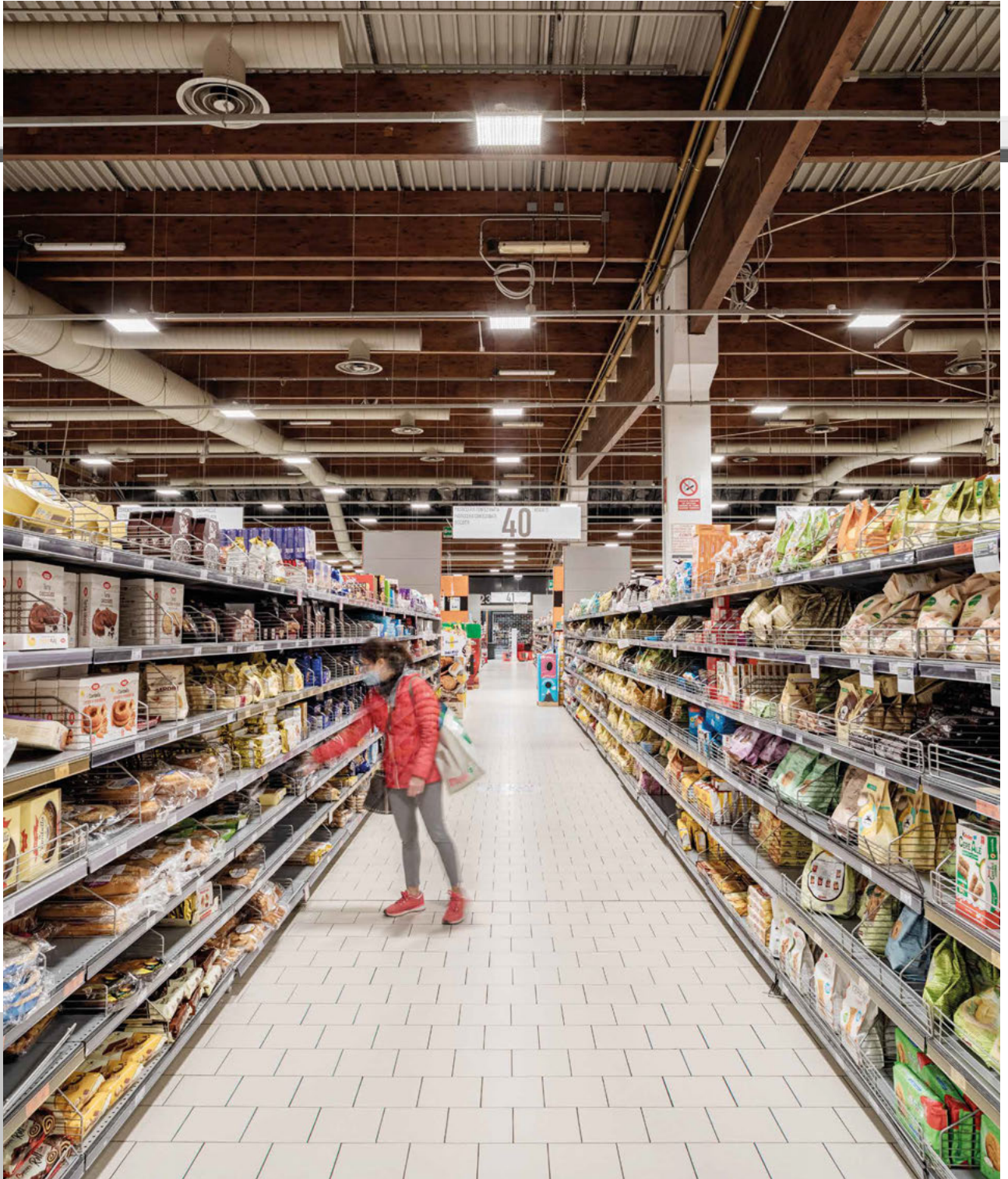
Code	Item	W	lm	K	CRI	L x A x H
47761	3F Six TK WH 40/840 UGR 190x602	40	6914	4000	>80	602x190x52
47734	3F Six TK WH 40/840 UGR 307x378	40	6914	4000	>80	307x378x52

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47762	3F Six TK WH 40/840 DALI UGR 190x602	40	6914	4000	>80	602x190x52
47735	3F Six TK WH 40/840 DALI UGR 307x378	40	6914	4000	>80	307x378x52



/ Systems and track-mounted products



Ipercoop Centro Borgo
Bologna
Italia/Italy





3F Six Blindo

ILLUMINOTECHNICAL

Direct distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in galvanized steel, painted in white epoxy-polyester.
Height only 52 mm.
Methacrylate (PMMA) lenses with external flat surface.
Can be positioned transversally or longitudinally to the busway.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Power cable type H05Z1Z1-F 3-5x1.5 mm² that protrudes by 1 m with sheared ends.

INSTALLATION

This product is suitable for installation on a busway (hooking brackets not included).

APPLICATIONS

Environments: industrial, commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops.
Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

UGR version

Environments that need luminance control.

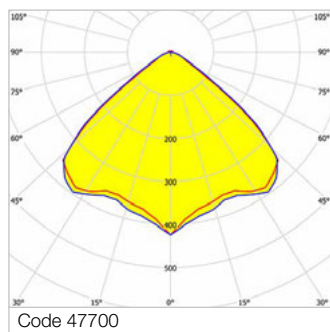
LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different light distributions
- different powers or colour temperatures
- housing in different RAL colours
- wiring: CLO (page 752)
- versions with rectangular shape
- CRI >90 sources
- different dimensions
- emergency versions

3F Six Blindo Wide



Wide distribution.

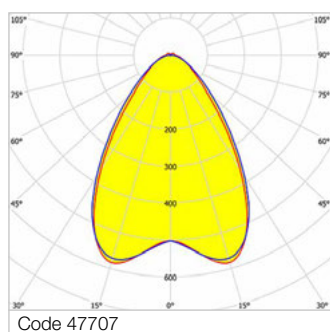
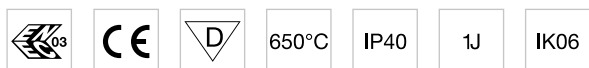
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47700	3F Six WH 60/840 WIDE 307x378	55.5	9855	4000	>80	307x378x52
47699	3F Six WH 70/840 WIDE 307x378	67	11427	4000	>80	307x378x52
47698	3F Six WH 85/840 WIDE 307x378	83	14086	4000	>80	307x378x52

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47703	3F Six WH 60/840 DALI WIDE 307x378	55.5	9855	4000	>80	307x378x52
47702	3F Six WH 70/840 DALI WIDE 307x378	67	11427	4000	>80	307x378x52
47701	3F Six WH 85/840 DALI WIDE 307x378	83	14086	4000	>80	307x378x52

3F Six Blindo Medium



Medium distribution.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47707	3F Six WH 60/840 MEDIUM 307x378	55.5	9723	4000	>80	307x378x52
47706	3F Six WH 70/840 MEDIUM 307x378	67	11273	4000	>80	307x378x52
47705	3F Six WH 85/840 MEDIUM 307x378	83	13898	4000	>80	307x378x52

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47710	3F Six WH 60/840 DALI MEDIUM 307x378	55.5	9723	4000	>80	307x378x52
47709	3F Six WH 70/840 DALI MEDIUM 307x378	67	11273	4000	>80	307x378x52
47708	3F Six WH 85/840 DALI MEDIUM 307x378	83	13898	4000	>80	307x378x52

3F Six Blindo UGR

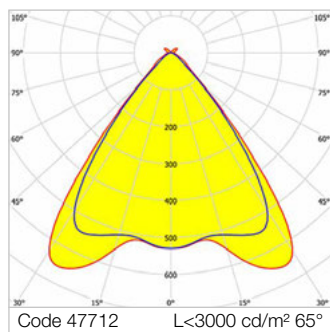


650°C

IP40

1J

IK06



Controlled symmetric distribution.
Average luminance $< 3000 \text{ cd/m}^2$ for radial angles $> 65^\circ$.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47712	3F Six WH 40/840 UGR 307x378	40	6914	4000	>80	307x378x52

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
47713	3F Six WH 40/840 DALI UGR 307x378	40	6914	4000	>80	307x378x52

Boulangerie Michel d'Ohain

BY FOODIE'S MARKET



FOODIE'S
Pâtisserie artisanale
partenaire depuis 1982
de Paris
Pain soufflé entièrement
cuisiné à la main
Carré artisanal
En sachet au
€0,99

**Le Pain de
Michel d'Ohain**
Le Pain de Michel d'Ohain
est un pain de tradition
française, fait avec
des ingrédients de qualité
et cuit à la main.
C'est un pain qui a
un goût unique et
une texture moelleuse.
Il est idéal pour
le petit-déjeuner ou
pour un goûter.
Le Pain de Michel d'Ohain
est disponible en
sachet au €0,99.

Bio



3F Emilio Track

> [www.3F-Filippi.com/3F Emilio Track](http://www.3F-Filippi.com/3F%20Emilio%20Track)

3F Emilio is the high-end LED spotlight designed by Belgian designers Serge and Robert Cornelissen.

The 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.

+ Overview

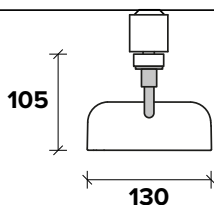
- Luminous efficacy up to 131 lumen/watt.
- Luminous fluxes from 1823 to 4086 lumens.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Lens
508	3F Emilio Track	•

Product range

3F Emilio Track

Track

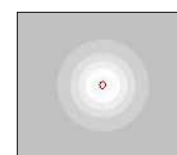
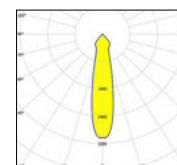
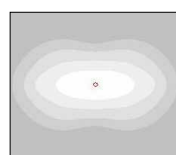
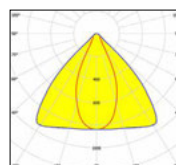
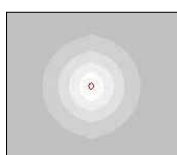
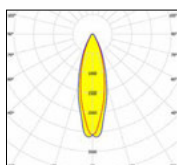


3F Emilio Track



Model		SPOT	Elliptical	Iperconc
Beam angle		29°-39°	42°-88°	23°
CCT (K)	BREAD	2400	2400	2400
		2700	2700	2700
		3000	3000	3000
	MEAT CRISP	3000	3000	3000
		3000	3000	3000
		4000	4000	4000

Photometric distribution





Different accents to create your light



3F Emilio Track is the 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.

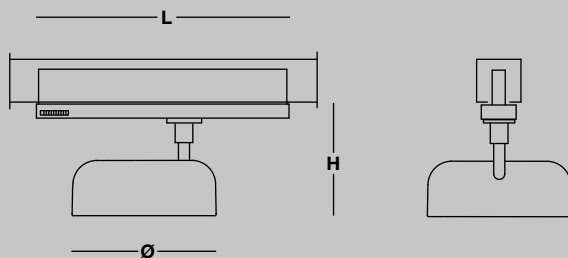


Here is a brief guide for choosing the correct colour temperature version:

	/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.

/ Systems and track-mounted products



Foodies Market
Waterloo
Belgique/Belgium





3F Emilio Track

ILLUMINOTECHNICAL

Symmetrical (TK), elliptical (TK ELL) and hyperconcentrated (TK IPER) spot distribution.

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

Photobiological safety RG1 (page 16).

SOURCE

Compact LED module.

Compact LED modules, /MEAT (version for meats), /BREAD (version for bakery) /CRISP (version for wardrobe with white enhancement).

Colour initial tolerance (MacAdam): SDCM 3.

Zhaga Book 3 compliant.

MECHANICAL

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 methacrylate (PMMA) with glossy surface and differentiated photo-etched.

Positioning arm in galvanised brass with sphere to allow for vertical positioning at angles from 0° to 90° and horizontal positioning from 0° to 360°.

ELECTRICAL

In compliance with EN 60598-1.

Wiring unit separate from the body, invisible and integrated into the busbar.

Class II.

INSTALLATION

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 514).

APPLICATIONS

Environments: commercial, museums, shops.

LIGHT MANAGEMENT

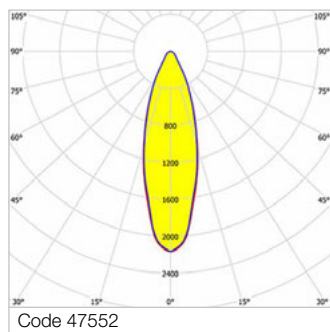
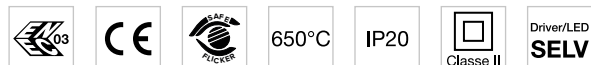
The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- housing in different RAL colours
- CRI >90 sources



3F Emilio Track Spot



Spot lens.
Body and wired unit in polycarbonate with busbar adaptor.

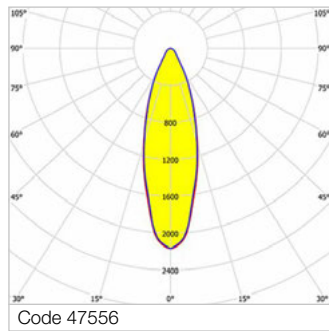
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times L \times H$
○ 47551	3F Emilio TK LED 3000/840	29°	29	3067	4000	>80	130x230x105
○ 47562	3F Emilio TK LED 2000/930	29°	29	2462	3000	>90	130x230x105
○ 47555	3F Emilio TK LED 3000/830	29°	31	3106	3000	>80	130x230x105
○ 47559	3F Emilio TK LED 3000/827	29°	34	3142	2700	>80	130x230x105
○ 47552	3F Emilio TK LED 4000/840	31°	34	3961	4000	>80	130x230x105
○ 47566	3F Emilio TK LED 4000/830	31°	34	3807	3000	>80	130x230x105
○ 47561	3F Emilio TK LED 3000/940	29°	36	3137	4000	>90	130x230x105
○ 47563	3F Emilio TK LED 3000/930	29°	35	2868	3000	>90	130x230x105
● 47576	3F Emilio TK BK LED 3000/840	29°	29	2822	4000	>80	130x230x105
● 47587	3F Emilio TK BK LED 2000/930	29°	29	2266	3000	>90	130x230x105
● 47580	3F Emilio TK BK LED 3000/830	29°	31	2858	3000	>80	130x230x105
● 47591	3F Emilio TK BK LED 4000/830	31°	34	3502	3000	>80	130x230x105
● 47584	3F Emilio TK BK LED 3000/827	29°	34	2891	2700	>80	130x230x105
● 47577	3F Emilio TK BK LED 4000/840	31°	34	3644	4000	>80	130x230x105
● 47588	3F Emilio TK BK LED 3000/930	29°	35	2639	3000	>90	130x230x105
● 47586	3F Emilio TK BK LED 3000/940	29°	36	2887	4000	>90	130x230x105

DALI electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times L \times H$
○ 47536	3F Emilio TK LED 2000/930 DALI	29°	29	2462	3000	>90	130x260x105
○ 47535	3F Emilio TK LED 3000/830 DALI	29°	31	3106	3000	>80	130x260x105
○ 47534	3F Emilio TK LED 3000/840 DALI	29°	29	3067	4000	>80	130x260x105

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.

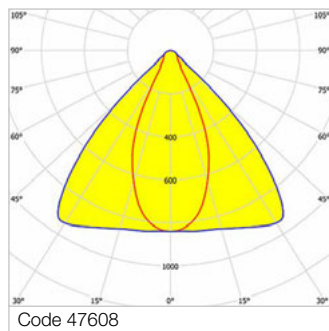
Crisp - specific source for illuminating textile products and enhancing white colours.

Body and wired unit in polycarbonate with busbar adaptor.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times L \times H$
○ 47556	3F Emilio TK LED 2000/MEAT	31°	32	2147	3000	87	130x230x105
○ 47574	3F Emilio TK LED 2500/CRISP	31°	32	2433	3000	92	130x230x105
○ 47572	3F Emilio TK LED 2000/BREAD	39°	35	1982	2400	>90	130x230x105
● 47581	3F Emilio TK BK LED 2000/MEAT	31°	32	1975	3000	87	130x230x105
● 47599	3F Emilio TK BK LED 2500/CRISP	31°	33	2238	3000	92	130x230x105
● 47597	3F Emilio TK BK LED 2000/BREAD	39°	35	1823	2400	>90	130x230x105

3F Emilio Track Elliptical



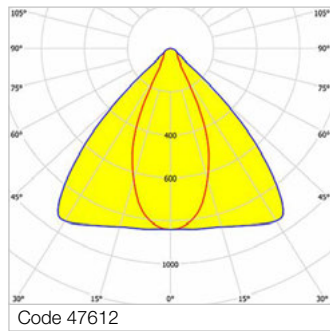
Horizontal ELL elliptical lens provides extensive installation pitch.

Body and wired unit in white polycarbonate with busbar adaptor.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times L \times H$
○ 47607	3F Emilio TK LED 3000/840 ELL	42° - 85°	29	3203	4000	>80	130x230x105
○ 47618	3F Emilio TK LED 2000/930 ELL	42° - 85°	29	2571	3000	>90	130x230x105
○ 47611	3F Emilio TK LED 3000/830 ELL	42° - 85°	31	3243	3000	>80	130x230x105
○ 47615	3F Emilio TK LED 3000/827 ELL	42° - 85°	34	3281	2700	>80	130x230x105
○ 47608	3F Emilio TK LED 4000/840 ELL	46° - 88°	34	4086	4000	>80	130x230x105
○ 47622	3F Emilio TK LED 4000/830 ELL	46° - 88°	34	3927	3000	>80	130x230x105
○ 47617	3F Emilio TK LED 3000/940 ELL	42° - 85°	36	3275	4000	>90	130x230x105
○ 47619	3F Emilio TK LED 3000/930 ELL	42° - 85°	35	2994	3000	>90	130x230x105

3F Emilio Track Elliptical Meat/Bread/Crisp

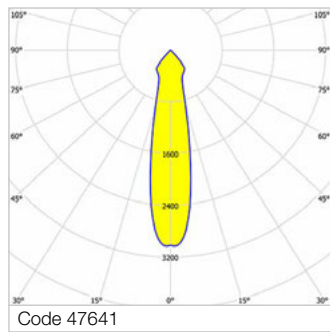
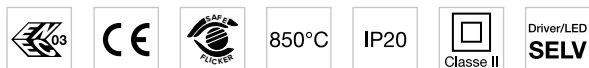


Horizontal ELL elliptical lens provides extensive installation pitch.
 Meat - Specific source to light up meat and cold cuts.
 Bread - Specific source to light up bread.
 Crisp - specific source for illuminating textile products and enhancing white colours.
 Body and wired unit in white polycarbonate with busbar adaptor.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times L \times H$
○ 47612	3F Emilio TK LED 2000/MEAT ELL	46° - 88°	32	2215	3000	87	130x230x105
○ 47630	3F Emilio TK LED 2500/CRISP ELL	46° - 88°	33	2509	3000	92	130x230x105
○ 47628	3F Emilio TK LED 2000/BREAD ELL	53° - 88°	35	1998	2400	>90	130x230x105

3F Emilio Track Iperconcentrated

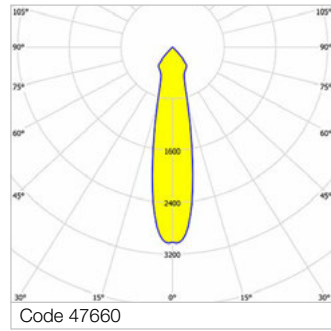


Bright anodised parabola in semi-specular, anti-reflective, anti-iridescent aluminium.
 Body and wired unit in polycarbonate with busbar adaptor.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times L \times H$
○ 47640	3F Emilio TK LED 3000/840 IPER	23°	29	3137	4000	>80	130x230x105
○ 47654	3F Emilio TK LED 2000/930 IPER	23°	29	2518	3000	>90	130x230x105
○ 47644	3F Emilio TK LED 3000/830 IPER	23°	31	3176	3000	>80	130x230x105
○ 47648	3F Emilio TK LED 3000/827 IPER	23°	34	3213	2700	>80	130x230x105
○ 47645	3F Emilio TK LED 4000/830 IPER	23°	34	3794	3000	>80	130x230x105
○ 47641	3F Emilio TK LED 4000/840 IPER	23°	34	3948	4000	>80	130x230x105
○ 47655	3F Emilio TK LED 3000/930 IPER	23°	35	2933	3000	>90	130x230x105
○ 47652	3F Emilio TK LED 3000/940 IPER	23°	36	3208	4000	>90	130x230x105
● 47668	3F Emilio TK BK LED 3000/840 IPER	23°	29	3137	4000	>80	130x230x105
● 47682	3F Emilio TK BK LED 2000/930 IPER	23°	29	2518	3000	>90	130x230x105
● 47672	3F Emilio TK BK LED 3000/830 IPER	23°	31	3176	3000	>80	130x230x105
● 47676	3F Emilio TK BK LED 3000/827 IPER	23°	34	3213	2700	>80	130x230x105
● 47673	3F Emilio TK BK LED 4000/830 IPER	23°	34	3794	3000	>80	130x230x105
● 47669	3F Emilio TK BK LED 4000/840 IPER	23°	34	3948	4000	>80	130x230x105
● 47683	3F Emilio TK BK LED 3000/930 IPER	23°	35	2933	3000	>90	130x230x105
● 47680	3F Emilio TK BK LED 3000/940 IPER	23°	36	3208	4000	>90	130x230x105

3F Emilio Track Iperconcentrated Meat/Bread/Crisp



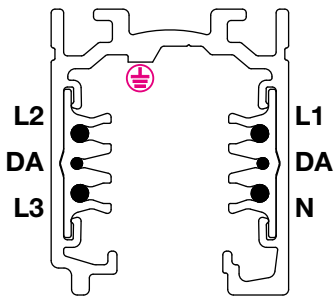
Bright anodised parabola in semi-specular, anti-reflective, anti-iridescent aluminium.
 Meat - Specific source to light up meat and cold cuts.
 Bread - Specific source to light up bread.
 Crisp - specific source for illuminating textile products and enhancing white colours.
 Body and wired unit in polycarbonate with busbar adaptor.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	α°	W	lm	K	CRI	$\varnothing \times L \times H$
○ 47657	3F Emilio TK LED 2000/MEAT IPER	23°	32	2140	3000	87	130x230x105
○ 47664	3F Emilio TK LED 2500/CRISP IPER	23°	33	2425	3000	92	130x230x105
○ 47660	3F Emilio TK LED 2000/BREAD IPER	23°	35	1975	2400	>90	130x230x105
● 47685	3F Emilio TK BK LED 2000/MEAT IPER	23°	33	2140	3000	87	130x230x105
● 47692	3F Emilio TK BK LED 2500/CRISP IPER	23°	33	2425	3000	92	130x230x105
● 47688	3F Emilio TK BK LED 2000/BREAD IPER	23°	35	1975	2400	>90	130x230x105

Binario 3F

Busbar



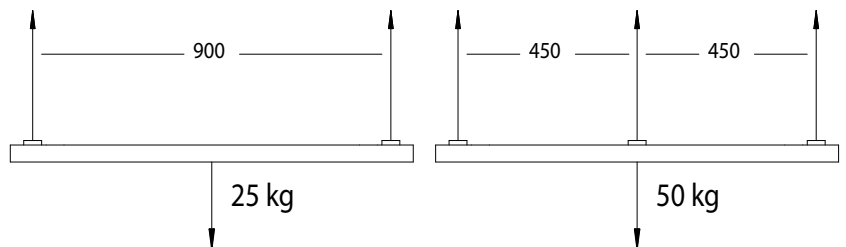
Scale: 1:1

Characteristics

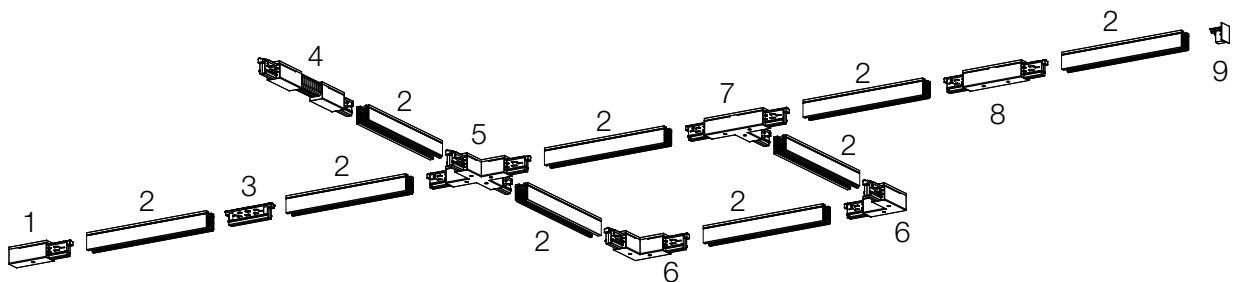
Binario 3F is an extruded aluminium busbar housing 6 conductors (4 for three-phase mode, 2 for DALI mode); the 3 phase conductors (with common neutral) form 3 distinct circuits, allowing 3 separate on commands.

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

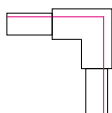


In the S (LH) version, the conductor is located on the left when looking at the composition from above.

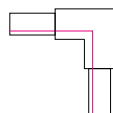


In the D (RH) version, the conductor is located on the right when looking at the composition from above.

L connector



In the EXT version, the conductor is located on the outside when looking at the composition from above.

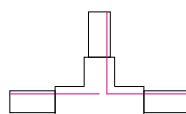


In the INT version, the conductor is located on the inside when looking at the composition from above.

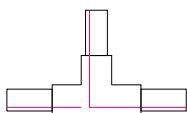
T connector



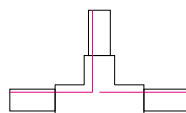
In the EXT + D (external + RHS) version, the third conductor is located on the right when looking at the composition from above.



In the INT + D (internal + RHS) version, the third conductor is located on the right when looking at the composition from above.

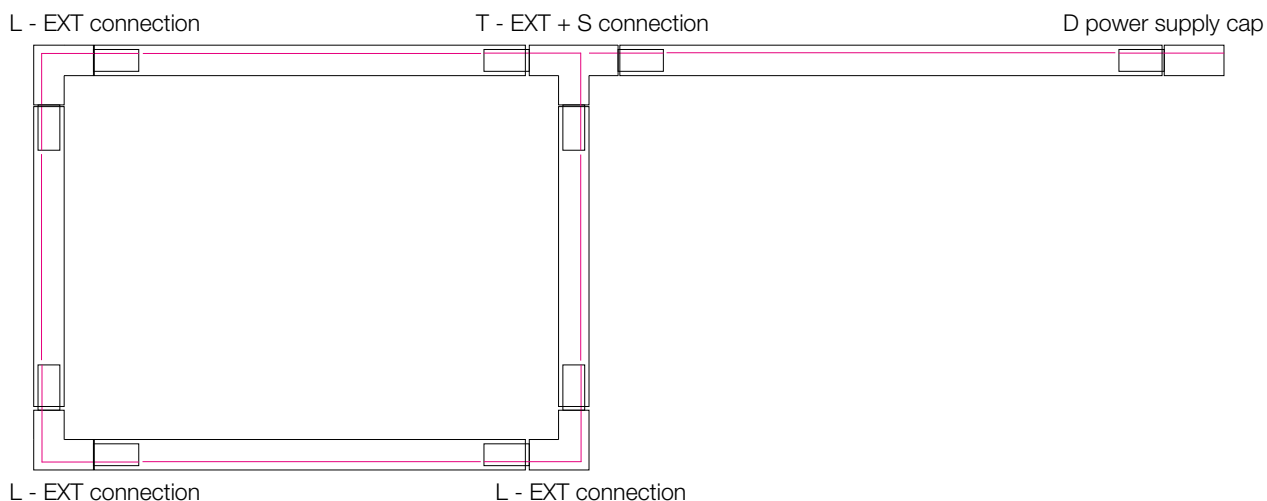


In the EXT + S (external + LHS) version, the third conductor is located on the left when looking at the composition from above.

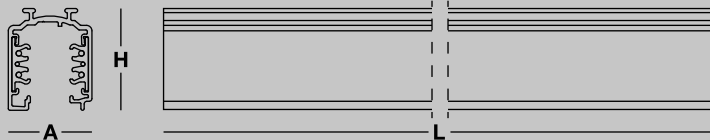


In the INT + S (internal + LHS) version, the third conductor is located on the left when looking at the composition from above.

Structure composition example - top-down view



/ Systems and track-mounted products



RSA "Beata Vergine Delle Grazie"
Bologna
Italia/Italy



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

MECHANICAL

Electrified track made from extruded aluminium, Eurostandard Plus compliant.

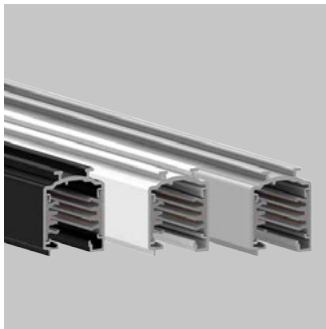
The wires are enclosed in rigid extruded profiles made of PVC insulating material with high dielectric strength.

Length: 1000-2000-3000-4000 mm.

(L1/L2/L3/N/GRD/DA/DA) 16A/440V 2x1A/50V FELV AC (DALI).
Copper conductors.



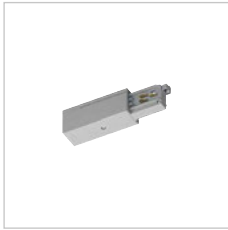
Binario 3F



Aluminium extruded track with 6 copper conductors (L1/L2/L3/N/GRD/DA/DA) 16A/440V.

Code	Item	L x A x H
○ A4070	Binario 3F A - L1000 - WH	1000x31x38
○ A4071	Binario 3F A - L2000 - WH	2000x31x38
○ A4072	Binario 3F A - L3000 - WH	3000x31x38
○ A4073	Binario 3F A - L4000 - WH	4000x31x38
○ A4076	Binario 3F A - L1000 - GR	1000x31x38
○ A4077	Binario 3F A - L2000 - GR	2000x31x38
○ A4078	Binario 3F A - L3000 - GR	3000x31x38
○ A4079	Binario 3F A - L4000 - GR	4000x31x38
● A4064	Binario 3F A - L1000 - BK	1000x31x38
● A4065	Binario 3F A - L2000 - BK	2000x31x38
● A4066	Binario 3F A - L3000 - BK	3000x31x38
● A4067	Binario 3F A - L4000 - BK	4000x31x38

Binario 3F | Accessories



Code	Item
A4174	Power-supply head DX - WH
A4166	Power-supply head DX - GR
A4209	Power-supply head DX - BK
A4196	Power-supply head SX - WH
A4190	Power-supply head SX - GR
A4218	Power-supply head SX - BK

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.



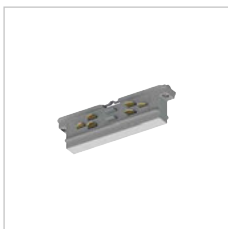
Code	Item
A4175	Central power-supply - WH
A4167	Central power-supply - GR
A4210	Central power-supply - BK

Central power supply with polycarbonate body and copper alloy contacts.



Code	Item
A4180	End cap - WH
A4172	End cap - GR
A4215	End cap - BK

Polycarbonate closing cap with locking screw.



Code	Item
A4188	Linear connecting element - WH
A4182	Linear connecting element - GR
A4217	Linear connecting element - BK

Linear connecting element with a polycarbonate body and copper alloy contacts.



Code	Item
A4176	Flexible connecting element - WH
A4168	Flexible connecting element - GR
A4211	Flexible connecting element - BK

Flexible connecting element with polycarbonate body and copper alloy contacts.



Code	Item
A4177	L-joint - EXT - WH
A4169	L-joint - EXT - GR
A4212	L-joint - EXT - BK
A4197	L-joint - INT - WH
A4191	L-joint - INT - GR
A4219	L-joint - INT - BK

"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
A4198	T-joint - EXT + DX - WH
A4178	T-joint - EXT + SX - WH
A4192	T-joint - EXT + DX - GR
A4170	T-joint - EXT + SX - GR
A4220	T-joint - EXT + DX - BK
A4213	T-joint - EXT + SX - BK
A4200	T-joint - INT + DX - WH
A4199	T-joint - INT + SX - WH
A4194	T-joint - INT + DX - GR
A4193	T-joint - INT + SX - GR
A4222	T-joint - INT + DX - BK
A4221	T-joint - INT + SX - BK

"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.



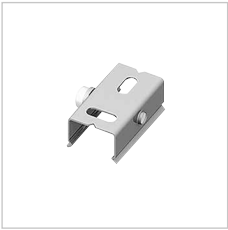
Code	Item
A4179	Cross joint - WH
A4171	Cross joint - GR
A4214	Cross joint - BK

Cross-shaped connecting element with polycarbonate body and copper alloy contacts.



Code	Item
A4181	PVC closing top - L1000 - WH
A4173	PVC closing top - L1000 - GR
A4216	PVC closing top - L1000 - BK

PVC cover for track closing.



Code	Item
A4183	Steel bracket for ceiling installation

Sliding ceiling bracket with locking screw in galvanised steel.



Code	Item
A4204	Adj. susp. boss + 1.5m bracket
A4205	Adj. susp. boss + 3m bracket
A4206	Adj. susp. boss + 5m bracket

Adjustable suspension kit with galvanised steel sliding bracket and locking screw, metal rose and steel cable with diameter of 1.5 mm.



Code	Item
A4225	Rigid support bracket

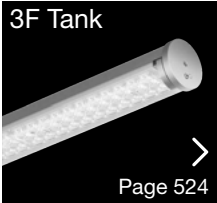
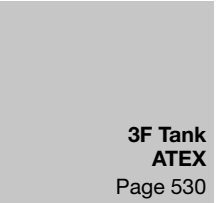
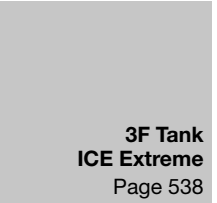
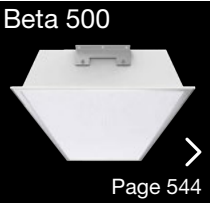
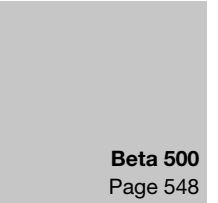






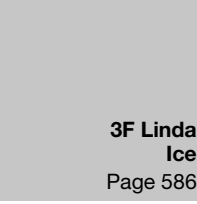
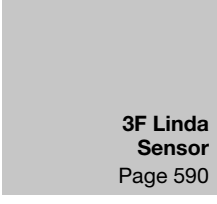

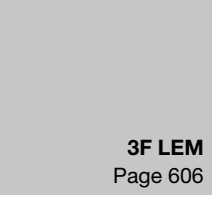
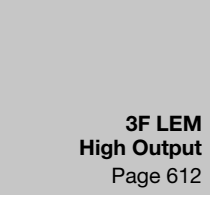
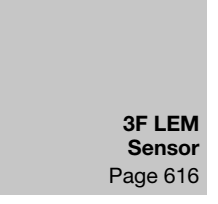
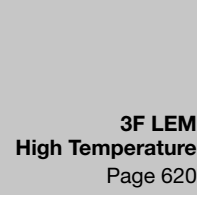



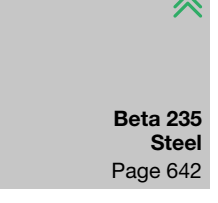
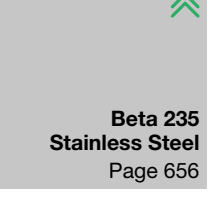

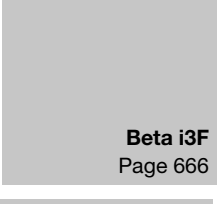
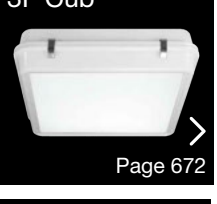
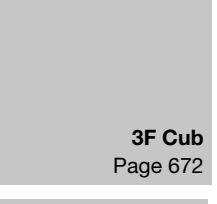
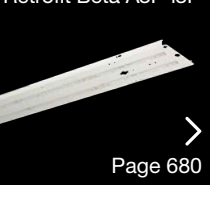
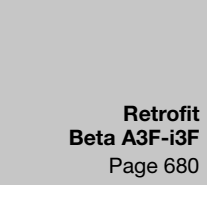


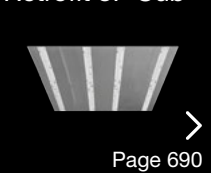
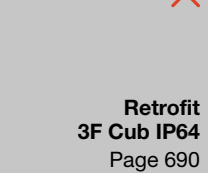
Rigid support bracket.



/ catalogue

_Waterproof and corrosion-proof

/ 3F Filippi

 <p>3F Tank Page 524</p>	 <p>3F Tank ATEX Page 530</p>	 <p>3F Tank ICE Extreme Page 538</p>	 <p>Beta 500 Page 544</p>	 <p>Beta 500 Page 548</p>	 <p>3F Linda Page 554</p>
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3F Tank

> www.3F-Filippi.com/3F Tank

Safety is important in every workplace, but in high-risk production contexts it is fundamental.

3F Filippi has created 3F Tank ATEX, the light fixture that ensures maximum safety for workers and provides quality lighting at the same time.

The state-of-the-art LED sources are protected by a polycarbonate cylinder that ensures maximum protection from dust, water and impact.

This fixture is the ultimate answer for those looking for the safest lighting solution for more challenging industrial contexts thanks to its IK10 maximum mechanical resistance and IP69K (IP66 ATEX applications) protection rating, that makes it suitable for contexts where equipment is cleaned intensely with high-pressure water or steam.

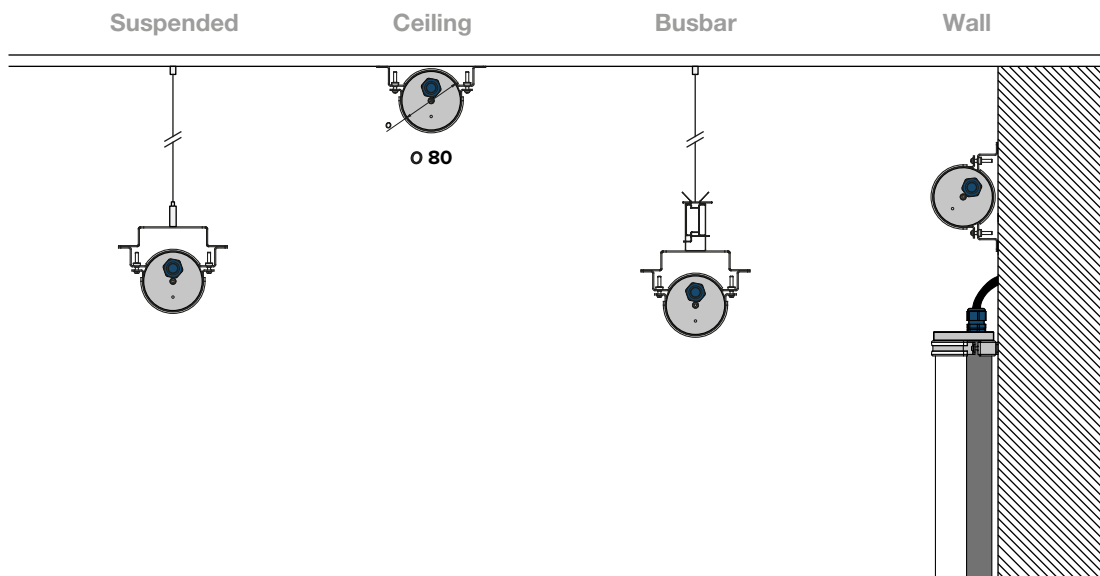
+ Overview

- Luminous efficacy up to 158 lumen/watt.
- Luminous fluxes from 1820 to 9767 lumens.
- Average luminance <3000 cd/m² (UGR version).
- Extensive installation pitch.
- UGR <19 (UGR version).
- 5 different photometric distributions.
- Quick and easy cleaning.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- ATEX - Group II, Category 3D, Ex tc IIIC T85°C Dc.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).
- ICE Extreme - Version for use at low temperatures (down to -30°C).

Page	Product	Polycarbonate
530	3F Tank ATEX	•
538	3F Tank ICE Extreme	•

Product range

3F Tank



3F Tank ATEX

Model

Lite

Average luminance for angles > 65 (cd / m²)

>3000

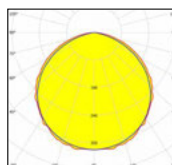
UGR

<21

ATEX Certification
(Excluding Ice Extreme version)

 **Group II, Category 3D, Ex tc IIIC T85°C Dc.**

Photometric distribution



Power level

2x29
2x18
2x22

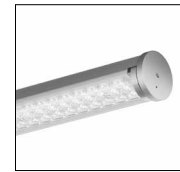


3F Tank ATEX Lite



3F Tank ATEX
3F Tank ICE Extreme

3F Tank ATEX
3F Tank ICE Extreme



Model

Wide

Medium

UGR

Concentrated

Average luminance
for angles > 65
(cd / m²)

>3000

>3000

<3000

>3000

UGR

<21

<21

<19

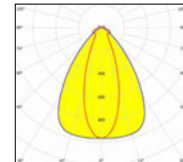
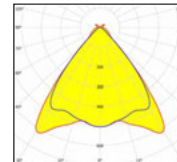
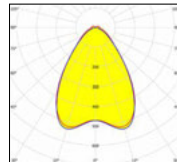
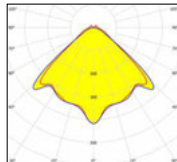
<21

ATEX Certification
(Excluding Ice Extreme version)



Group II, Category 3D, Ex tc IIIC T85°C Dc.

Photometric
distribution



Power level

13

13

35

13

45

45

40

45

55

55

55

55

70

70

70



Challenging environments

3F Tank ATEX meets the compliance requirements listed in two EU ATEX directives, the acronym of “ATmosphere EXplosive” relating to equipment intended for environments with explosive atmospheres and the safety conditions for those working in these particular contexts.

3F Tank ATEX is a fixture that is designed to be installed on horizontal/vertical surfaces that, thanks to its dust proof body ensures a very high level of protection in areas where explosive atmospheres may be present in the air (for short periods) in the form of flammable dust clouds .

Scale 1:1



Fixture suitable for environments with temperature from -30°C to $+40^{\circ}\text{C}$ with a humidity degree up to 95%. The **Ice Extreme** version is not suitable for environments with explosive atmospheres ATEX.



Fixture suitable for environments with explosive atmospheres ATEX, group II, category 3D, Ex tc IIIC $T85^{\circ}\text{C}$ Dc. Compliant with directive 2014/34/EU and standard IEC/EN 60079. IP66 protection degree.



Good resistance in the marine environment and railway applications thanks to the 6082-T6 aluminium head and AISI 316 stainless steel brackets/screws.



Fixture with an IP69K protection rating designed for environments where cleaning of work areas is carried out intensely with high pressure water or steam.



Fixture suitable from a hygiene point of view to be used in production plants in the food industry (HACCP, IFS, BRC Standard).



Fixture made of polycarbonate with a HS (Hard Skin) finish that guarantees high resistance in environments where aggressive chemical agents are present (high resistance especially to ammonia NH_3).



On request: Fixture suitable for outdoor installation, resistant to UV rays. If you require more information, contact our technical offices.

Product advantages

Exceptional results are obtained by paying attention to the smallest details. To develop 3F Tank ATEX and offer it as the ultimate solution we considered every single detail of the fixture very carefully.

BRACKETS FOR INSTALLATION

The screws and the brackets to install the fixture are made of stainless steel to avoid oxidation and wear over time.



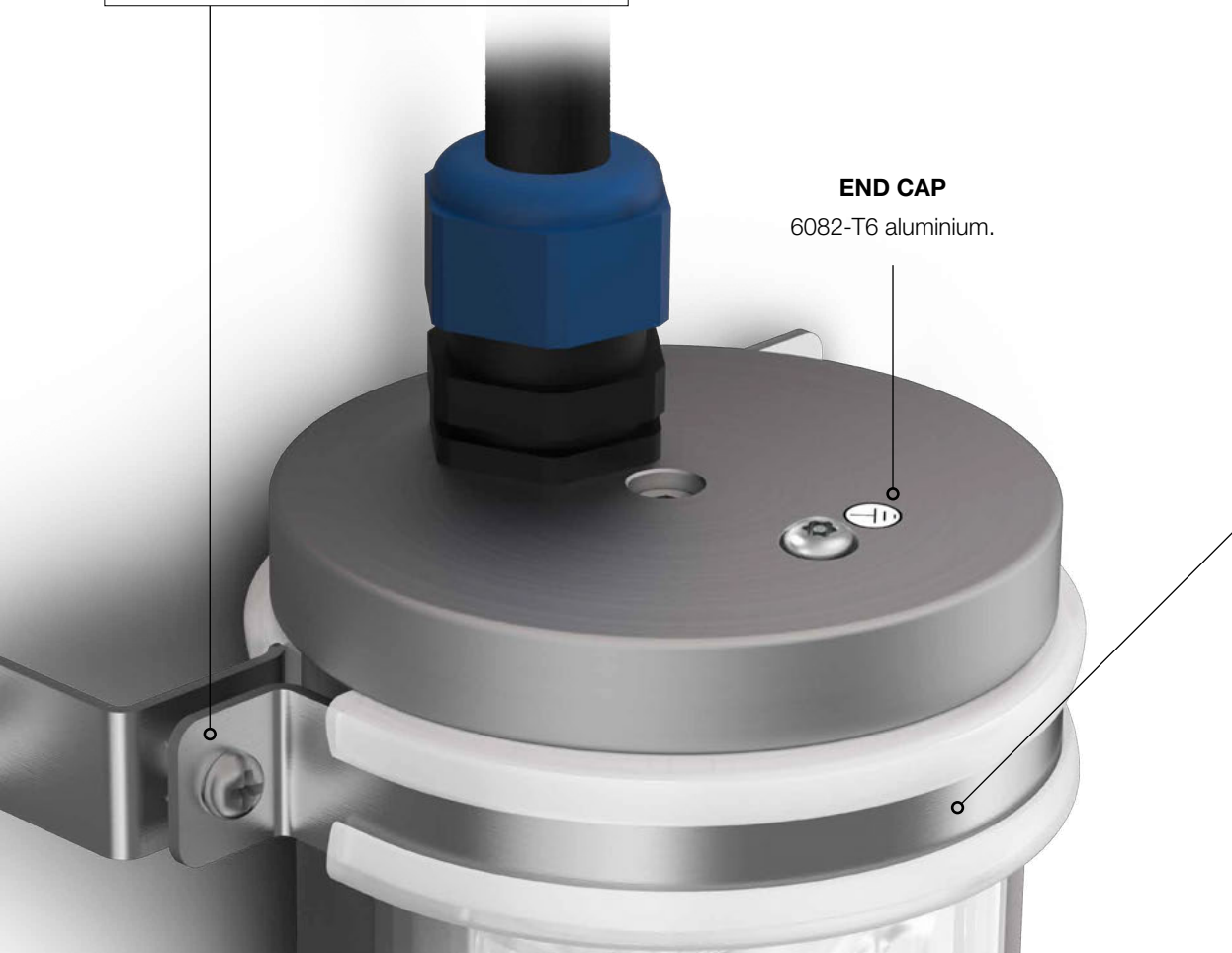
WATERTIGHT

A very thick polycarbonate cylinder with a high performance silicone seal ensure it is completely watertight.

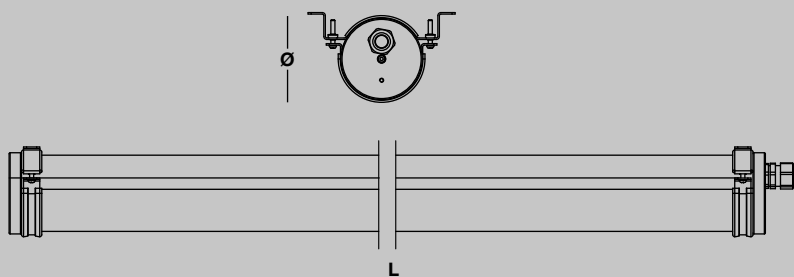
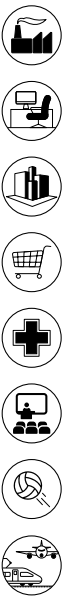


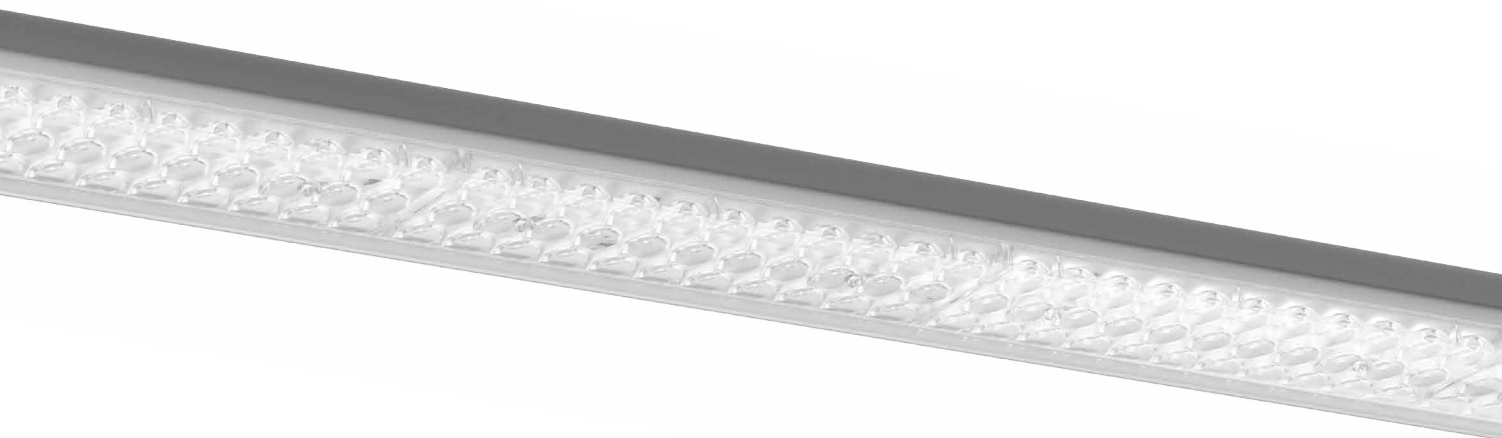
END CAP

6082-T6 aluminium.



/ Waterproof and corrosion-proof





3F Tank ATEX

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+40°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

High thickness tubular body in high transparency polycarbonate surface treatment, which guarantees resistance to aggressive chemical agents.
Aluminium 6082-T6 end caps.
Sealing gasket.
Gear-holder reflector in hot-dip galvanised steel, painted with white polyester base.
Fixing brackets and screws in AISI 316 stainless steel.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection via M20x1.5 cable gland in fibreglass reinforced polyamide with 2m H07RN-F 3/5G1.5mm² cable.

INSTALLATION

Ceiling, suspension or wall installation.

APPLICATIONS

Environments with ATEX explosive atmosphere, group II, category 3D, T85°C, Zone 22 Dc (compliance with directive 2014/34/EU and IEC/EN 60079 standard), severe industrial, food and agri-food industries, scientific and food processing laboratories, environments with high humidity, swimming pools, railway, aeronautical and port applications.

Hygienically suitable product for installation in food production plants (HACCP), IFS (Food Version 6), BRC (GSFS Food Version 7).

In environments with temperature from -20°C to +40°C, except the ones where the luminaire materials are unsuitable.

Body resistant to the following substances: Ethyl alcohol (24 hours at 20°C), aqueous detergents, hydrochloric acid (produces a slight halo), DOT4 brake oil, sulfuric acid (produces a slight halo), 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.

Temperature and concentration of the chemical agent can have a decisive impact on the materials and influence the LED technology. For specific applications please contact our technical offices.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

ON REQUEST

- different light distributions
- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (page 752)
- CRI >90 sources
- AISI 316 stainless steel end caps
- UV Resistant versions
- emergency versions



3F Tank ATEX Lite



850°C

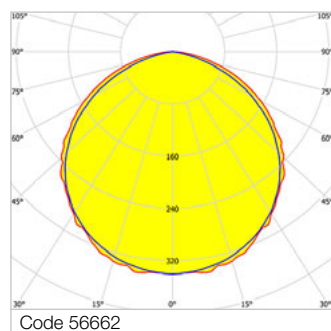
IP69K

IP66
ATEX

IK10

Driver/LED
SELV

HACCP



Diffuse distribution.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ø
56660	3F Tank Lite 2x9W/840 L675	20	3056	4000	>80	676x80
56661	3F Tank Lite 2x18W/840 L1265	40	6333	4000	>80	1264x80
56662	3F Tank Lite 2x22W/840 L1560	49	7863	4000	>80	1558x80
56668	3F Tank Lite 2x9W/865 L675	20	3056	6500	>80	676x80
56669	3F Tank Lite 2x18W/865 L1265	40	6333	6500	>80	1264x80
56670	3F Tank Lite 2x22W/865 L1560	49	7863	6500	>80	1558x80

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ø
56664	3F Tank Lite 2x9W/840 DALI L675	20	3056	4000	>80	676x80
56665	3F Tank Lite 2x18W/840 DALI L1265	40	6333	4000	>80	1264x80
56666	3F Tank Lite 2x22W/840 DALI L1560	49	7863	4000	>80	1558x80
56672	3F Tank Lite 2x9W/865 DALI L675	20	3056	6500	>80	676x80
56673	3F Tank Lite 2x18W/865 DALI L1265	40	6333	6500	>80	1264x80
56674	3F Tank Lite 2x22W/865 DALI L1560	49	7863	6500	>80	1558x80

3F Tank ATEX Wide



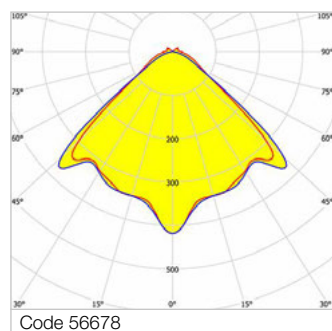
850°C

IP69K

IP66
ATEX

IK10

HACCP



Wide distribution.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ø
56676	3F Tank 13W/840 WIDE L675	15	2051	4000	>80	676x80
56677	3F Tank 45W/840 WIDE L1265	49	7231	4000	>80	1264x80
56678	3F Tank 55W/840 WIDE L1560	62	8073	4000	>80	1558x80
56679	3F Tank 70W/840 WIDE L1850	72	10846	4000	>80	1852x80
56684	3F Tank 13W/865 WIDE L675	15	1856	6500	>80	676x80
56685	3F Tank 45W/865 WIDE L1265	50	6459	6500	>80	1264x80
56686	3F Tank 55W/865 WIDE L1560	62	8073	6500	>80	1558x80
56687	3F Tank 70W/865 WIDE L1850	74	9688	6500	>80	1852x80

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ø
56680	3F Tank 13W/840 DALI WIDE L675	15	2051	4000	>80	676x80
56681	3F Tank 45W/840 DALI WIDE L1265	49	7231	4000	>80	1264x80
56682	3F Tank 55W/840 DALI WIDE L1560	62	8073	4000	>80	1558x80
56683	3F Tank 70W/840 DALI WIDE L1850	72	10846	4000	>80	1852x80
56688	3F Tank 13W/865 DALI WIDE L675	15	1856	6500	>80	676x80
56689	3F Tank 45W/865 DALI WIDE L1265	50	6459	6500	>80	1264x80
56690	3F Tank 55W/865 DALI WIDE L1560	62	8073	6500	>80	1558x80
56691	3F Tank 70W/865 DALI WIDE L1850	74	9688	6500	>80	1852x80



3F Tank ATEX Medium



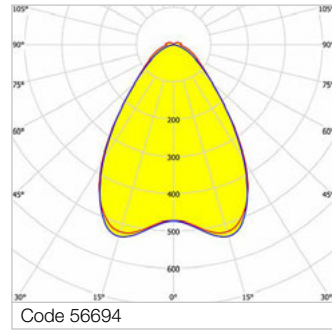
850°C

IP69K

IP66
ATEX

IK10

HACCP



Medium distribution.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ø
56692	3F Tank 13W/840 MEDIUM L675	15	2042	4000	>80	676x80
56693	3F Tank 45W/840 MEDIUM L1265	49	7197	4000	>80	1264x80
56694	3F Tank 55W/840 MEDIUM L1560	62	8035	4000	>80	1558x80
56695	3F Tank 70W/840 MEDIUM L1850	72	10796	4000	>80	1852x80
56700	3F Tank 13W/865 MEDIUM L675	15	1847	6500	>80	676x80
56701	3F Tank 45W/865 MEDIUM L1265	50	6429	6500	>80	1264x80
56702	3F Tank 55W/865 MEDIUM L1560	62	8035	6500	>80	1558x80
56703	3F Tank 70W/865 MEDIUM L1850	74	9643	6500	>80	1852x80

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ø
56696	3F Tank 13W/840 DALI MEDIUM L675	15	2042	4000	>80	676x80
56697	3F Tank 45W/840 DALI MEDIUM L1265	49	7197	4000	>80	1264x80
56698	3F Tank 55W/840 DALI MEDIUM L1560	62	8035	4000	>80	1558x80
56699	3F Tank 70W/840 DALI MEDIUM L1850	72	10796	4000	>80	1852x80
56704	3F Tank 13W/865 DALI MEDIUM L675	15	1847	6500	>80	676x80
56705	3F Tank 45W/865 DALI MEDIUM L1265	50	6429	6500	>80	1264x80
56706	3F Tank 55W/865 DALI MEDIUM L1560	62	8035	6500	>80	1558x80
56707	3F Tank 70W/865 DALI MEDIUM L1850	74	9643	6500	>80	1852x80

3F Tank ATEX UGR



850°C

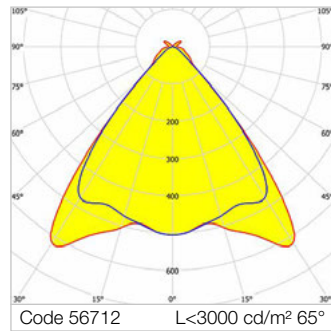
IP69K

IP66
ATEX

IK10



HACCP



Controlled distribution.
Average luminance <math><3000 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ø
56708	3F Tank 35W/840 UGR L1560	39	5258	4000	>80	1558x80
56709	3F Tank 40W/840 UGR L1850	41	6536	4000	>80	1852x80
56712	3F Tank 35W/865 UGR L1560	39	5258	6500	>80	1558x80
56713	3F Tank 40W/865 UGR L1850	47	6536	6500	>80	1852x80

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ø
56710	3F Tank 35W/840 DALI UGR L1560	39	5258	4000	>80	1558x80
56711	3F Tank 40W/840 DALI UGR L1850	41	6536	4000	>80	1852x80
56714	3F Tank 35W/865 DALI UGR L1560	39	5258	6500	>80	1558x80
56715	3F Tank 40W/865 DALI UGR L1850	47	6536	6500	>80	1852x80



3F Tank ATEX Concentrated



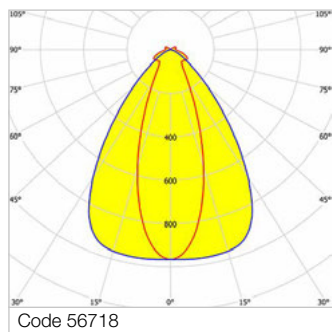
850°C

IP69K

IP66
ATEX

IK10

HACCP



Concentrated distribution.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

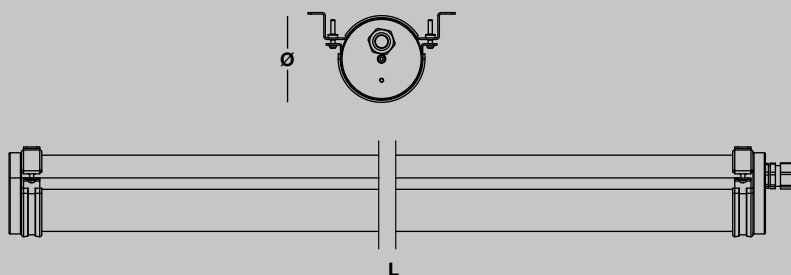
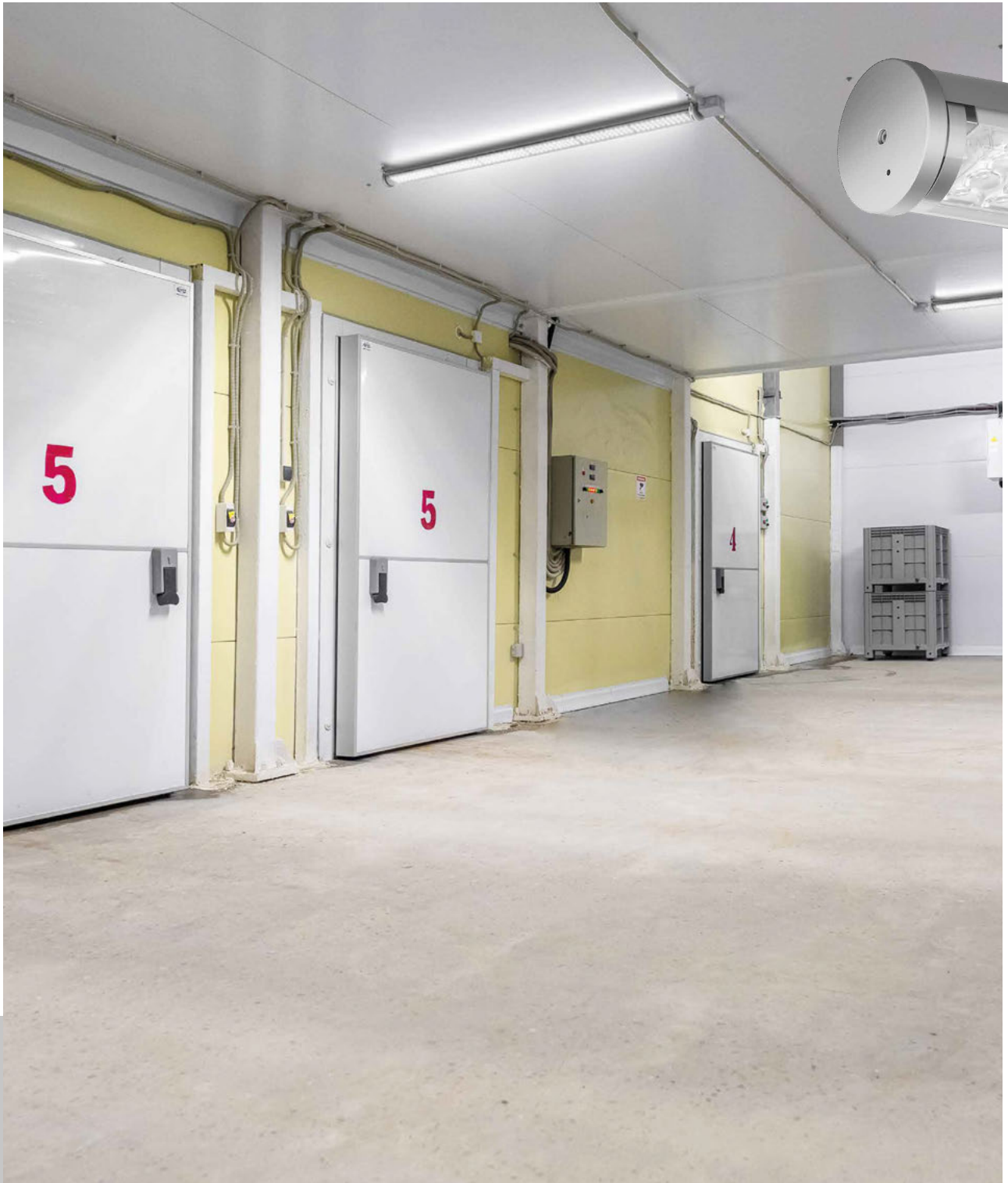
Code	Item	W	lm	K	CRI	L x ø
56716	3F Tank 13W/840 CONC L675	15	2068	4000	>80	676x80
56717	3F Tank 45W/840 CONC L1265	49	7290	4000	>80	1264x80
56718	3F Tank 55W/840 CONC L1560	62	8139	4000	>80	1558x80
56719	3F Tank 70W/840 CONC L1850	72	10935	4000	>80	1852x80
56724	3F Tank 13W/865 CONC L675	15	1871	6500	>80	676x80
56725	3F Tank 45W/865 CONC L1265	50	6511	6500	>80	1264x80
56726	3F Tank 55W/865 CONC L1560	62	8139	6500	>80	1558x80
56727	3F Tank 70W/865 CONC L1850	74	9767	6500	>80	1852x80

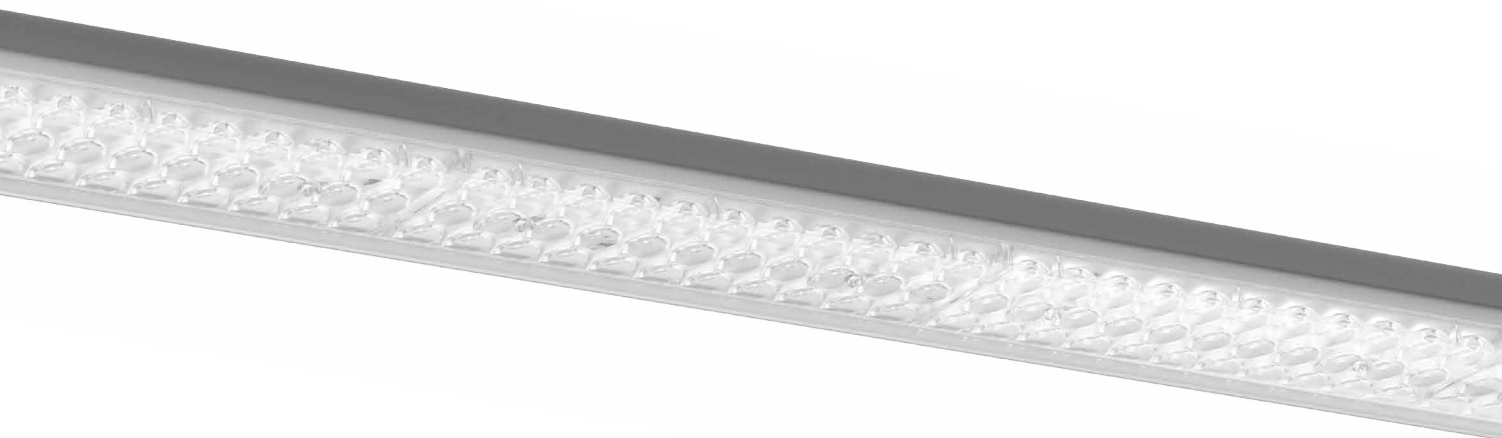
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ø
56720	3F Tank 13W/840 DALI CONC L675	15	2068	4000	>80	676x80
56721	3F Tank 45W/840 DALI CONC L1265	49	7290	4000	>80	1264x80
56722	3F Tank 55W/840 DALI CONC L1560	62	8139	4000	>80	1558x80
56723	3F Tank 70W/840 DALI CONC L1850	72	10935	4000	>80	1852x80
56728	3F Tank 13W/865 DALI CONC L675	15	1871	6500	>80	676x80
56729	3F Tank 45W/865 DALI CONC L1265	50	6511	6500	>80	1264x80
56730	3F Tank 55W/865 DALI CONC L1560	62	8139	6500	>80	1558x80
56731	3F Tank 70W/865 DALI CONC L1850	74	9767	6500	>80	1852x80



/ Waterproof and corrosion-proof





3F Tank ICE Extreme

ILLUMINOTECHNICAL

Direct symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Luminous flux at -30°C: +7%.
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

High thickness tubular body in high transparency polycarbonate surface treatment, which guarantees resistance to aggressive chemical agents.
Aluminium 6082-T6 end caps.
Sealing gasket.
Gear-holder reflector in hot-dip galvanised steel, painted with white polyester base.
Fixing brackets and screws in AISI 316 stainless steel.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection via M20x1.5 cable gland in fibreglass reinforced polyamide with 2m H07RN-F 3/5G1.5mm² cable.

INSTALLATION

Ceiling, suspension or wall installation.

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.

Hygienically suitable product for installation in food production plants (HACCP), IFS (Food Version 6), BRC (GSFS Food Version 7).

For specific applications please contact our technical offices.

ON REQUEST

- different light distributions
- different power levels, colour rendering indices and colour temperatures
- UV Resistant versions



3F Tank ICE Extreme Wide

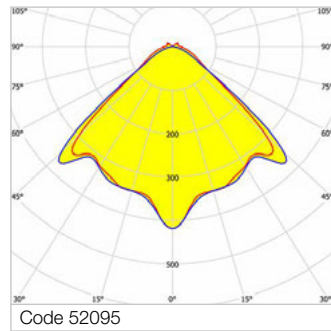


850°C

IP69K

IK10

HACCP



Wide distribution.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ø
52094	3F Tank ICE XT 45W/840 WIDE L1265	49	7231	4000	>80	1264x80
52095	3F Tank ICE XT 55W/840 WIDE L1560	62	8073	4000	>80	1558x80
52096	3F Tank ICE XT 70W/840 WIDE L1850	72	10846	4000	>80	1852x80

3F Tank ICE Extreme Medium

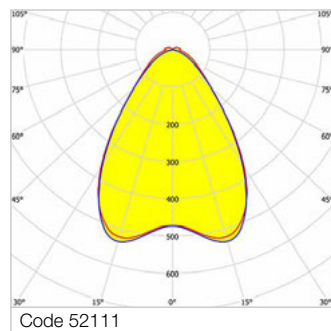


850°C

IP69K

IK10

HACCP

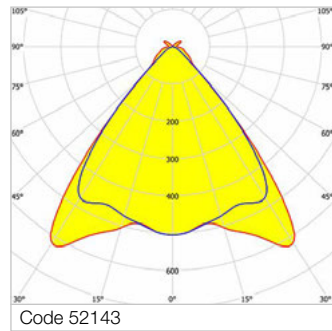


Medium distribution.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ø
52110	3F Tank ICE XT 45W/840 MEDIUM L1265	49	7197	4000	>80	1264x80
52111	3F Tank ICE XT 55W/840 MEDIUM L1560	62	8035	4000	>80	1558x80
52112	3F Tank ICE XT 70W/840 MEDIUM L1850	72	10796	4000	>80	1852x80

3F Tank ICE Extreme UGR

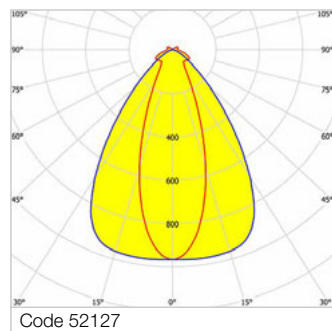


Controlled distribution.
Average luminance <math><3000\text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ϕ
52142	3F Tank ICE XT 45W/840 UGR L1265	49	7037	4000	>80	1264x80
52143	3F Tank ICE XT 55W/840 UGR L1560	62	7857	4000	>80	1558x80
52144	3F Tank ICE XT 70W/840 UGR L1850	72	10556	4000	>80	1852x80

3F Tank ICE Extreme Concentrated



Concentrated distribution.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x ϕ
52126	3F Tank ICE XT 45W/840 CONC L1265	49	7290	4000	>80	1264x80
52127	3F Tank ICE XT 55W/840 CONC L1560	62	8139	4000	>80	1558x80
52128	3F Tank ICE XT 70W/840 CONC L1850	72	10935	4000	>80	1852x80



3F Tank | Accessories



Code	Item
A0305	Pair of suspension brackets

Pair of AISI 316 stainless steel brackets for suspended installation.



Code	Item
A0835	Pair brack.+hooks for wall

Pair of mounting brackets and hooks for wall-mounting, with nuts and bolts for luminaire fastening, everything in stainless steel.
This accessory must always be used in combination with pair of suspension brackets.

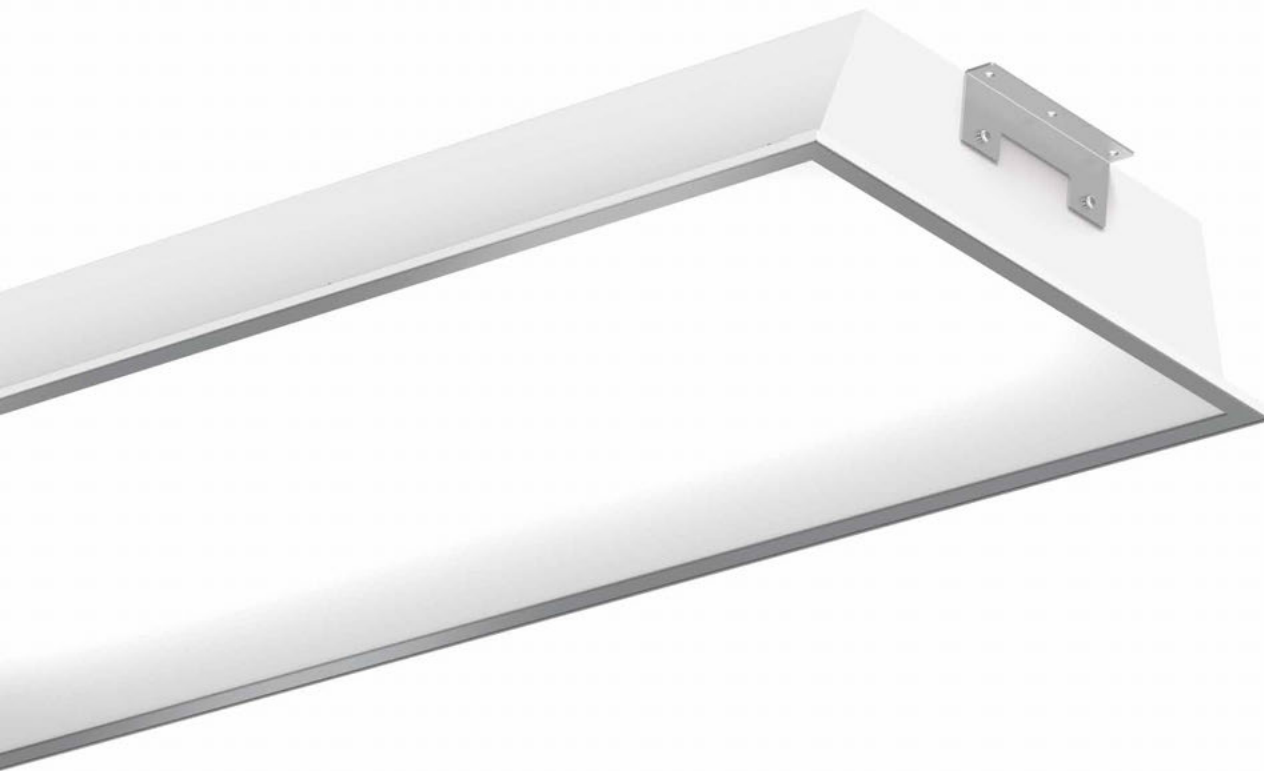


Code	Item
A0660	Suspension with adjustment - 1 m
A0661	Suspension with adjustment - 2 m
A0662	Suspension with adjustment - 3 m
A0663	Suspension with adjustment - 4 m
A0664	Suspension with adjustment - 5 m
A0665	Suspension with adjustment - 6 m

Suspension with regulator, galvanised steel cable 1.5 mm diameter, load 15 kg.
Attention: each product requires two suspensions with regulator.







Beta 500

> www.3F-Filippi.com/Beta 500

Beta 500 is an extremely functional product that makes solidity and power its strengths: it is the result of 3F Filippi's many years of experience in the industry.

Thanks to its high degree of protection IP66, it is totally protected against dust and powerful water jets: its shape facilitates cleaning operations and this makes it suitable for many areas of application, including food and pharmaceuticals sectors.

Product reliability has been taken care of down to the smallest detail: to obtain correct thermal management and guarantee the quality of light for many years, our designers have combined a sturdy aluminium body and a frame made of stainless steel to house first-class LEDs and drivers.

The uniformity of its light leaves maximum freedom of layout configuration in today's and future production departments, supported by innovative diffusers or "3F Lens" optics entirely developed and manufactured by 3F Filippi.

The latest generation LED sources are available with 4000K or 6500K colour temperatures, offering lighting designers a wide range of luminous fluxes (from 18,000 to more than 40,000 lumens).

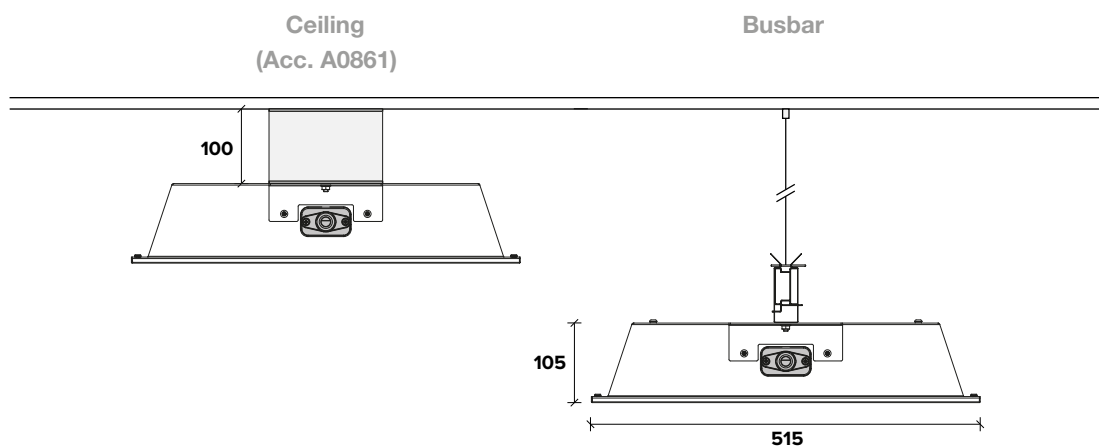
+ Overview

- Luminous efficacy up to 160 lumen/watt.
- Luminous fluxes from 23732 to 44310 lumens.
- Extensive installation pitch.
- Uniformly illuminated screen.
- 3 different photometric distributions.
- Quick and easy cleaning.
- Essential and functional design.
- Ease of assembly and maintenance.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Versatility of use in different environments.
- Thanks to the FastWiring system, the installation time is drastically reduced.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

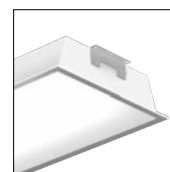
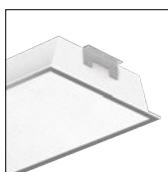
Page	Product	Stainless steel
548	Beta 500	•

Product range

Beta 500



Beta 500



Model

SP

VA

UGR

<21

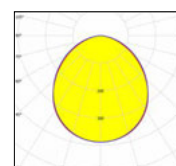
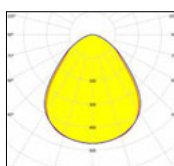
<21

Finishes

Prismatic PMMA

Frosted glass

Photometric distribution



Installation steps

Dt

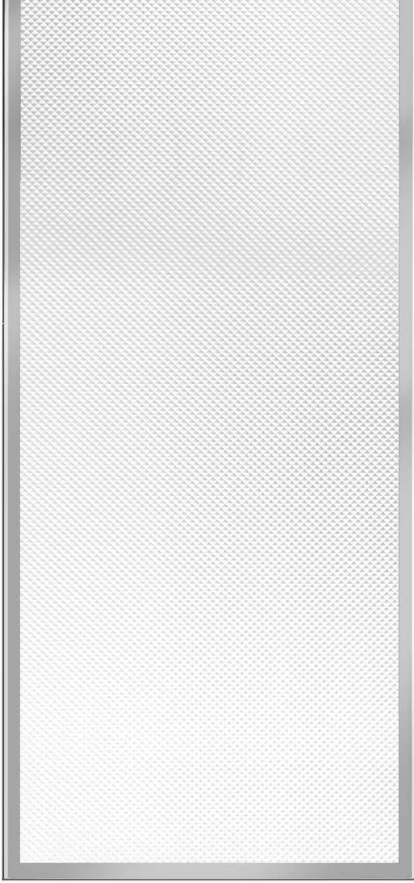
1,25

1,25

DI

1,25

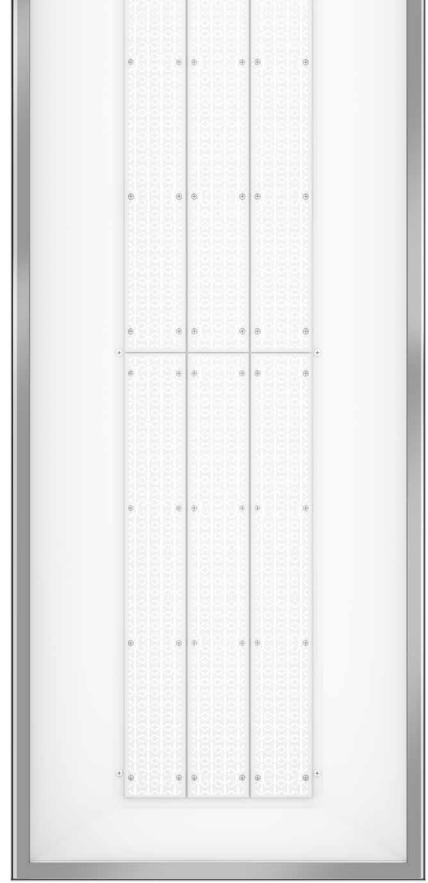
1,25



Beta 500 **SP**



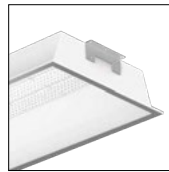
Beta 500 **VA**



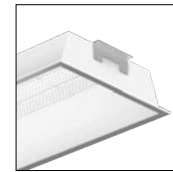
Beta 500 **SL** | Beta 500 **VT**

Beta 500

Model



**SL
Conc**



**VT
Conc**

UGR

<21

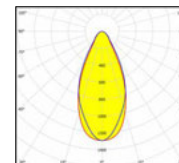
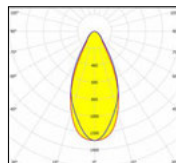
<21

Finishes

Trasparent PMMA

Trasparent glass

**Photometric
distribution**



Installation steps

Dt

0,75

0,75

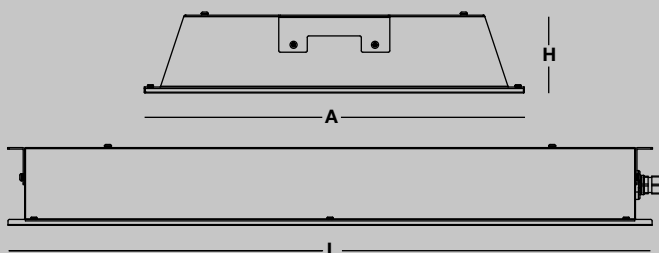
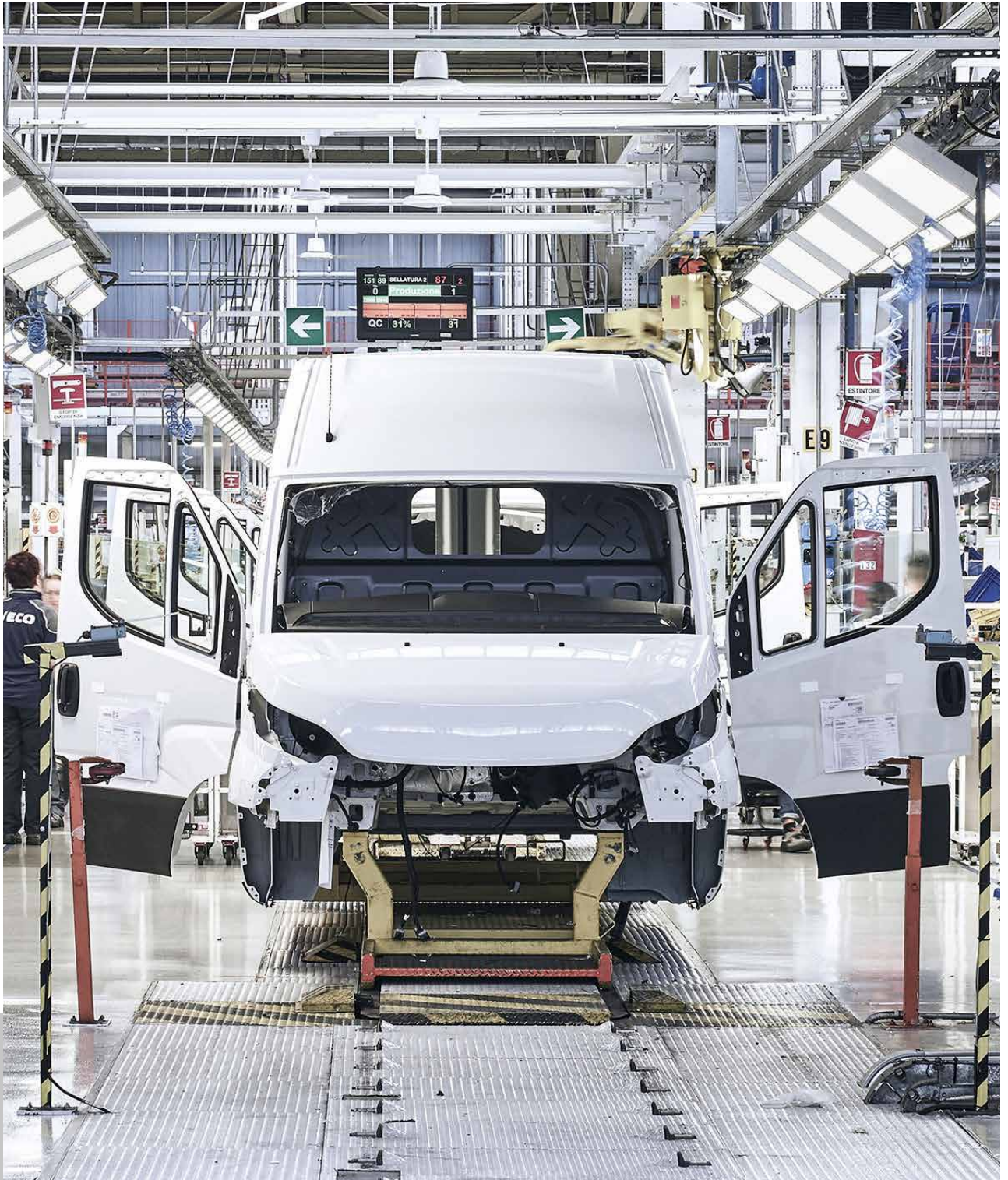
DI

0,75

0,75

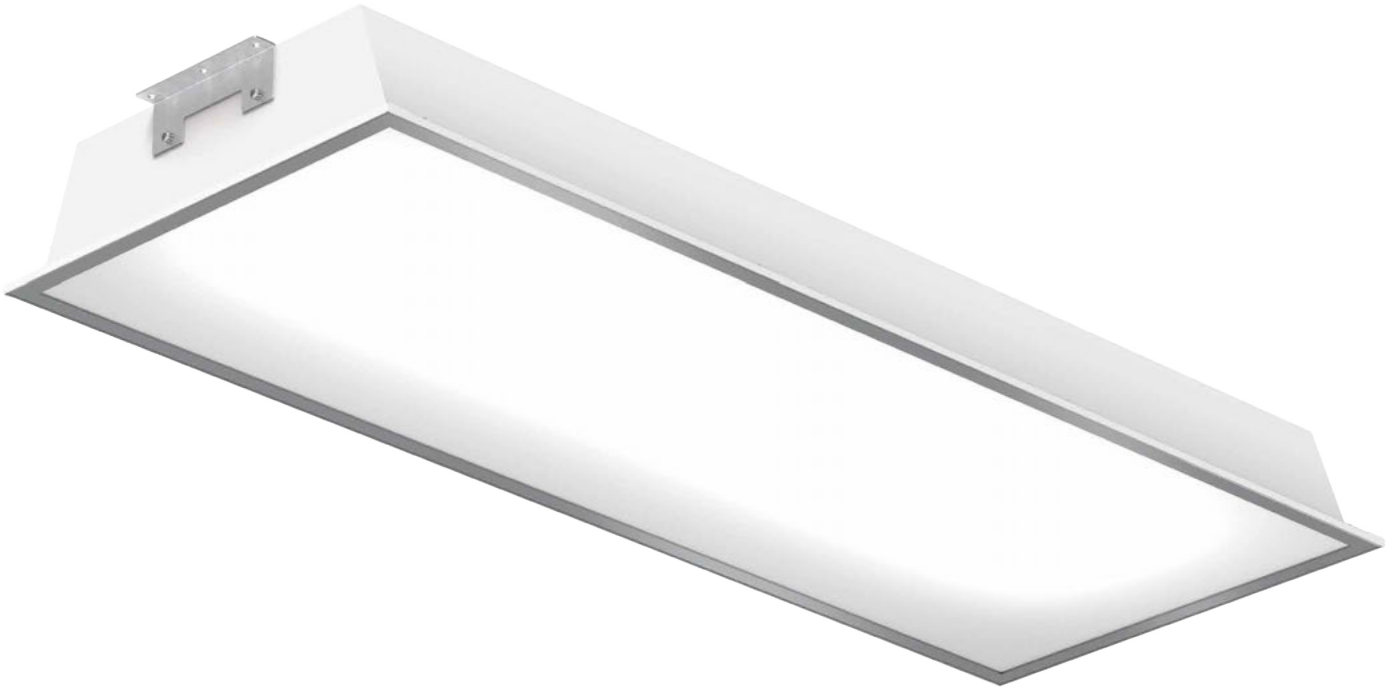


/ Waterproof and corrosion-proof



Stabilimento FCA
Suzzara (MN)
Italia/Italy





Beta 500

ILLUMINOTECHNICAL

Direct symmetric distribution.
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in white painted epoxy-polyester powder aluminium.
 White aluminium non-iridescent high efficiency.
 Perimetrical frame in stainless steel with vandal-proof opening and stainless steel nuts and bolts.
 Polyurethane foam seal, ecological, anti-aging, installed using a continuous automatic process with no joints.
 Fixing bracket in stainless steel.

ELECTRICAL

In compliance with EN 60598-1.
 Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
 Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.
 ON/OFF electronic wiring: twin-circuit for 200W versions 300W.

INSTALLATION

Ceiling mounted, suspension or busway installation.

APPLICATIONS

Ambient temperature from -20°C to +45°C.
 Commercial and industrial environments and warehouses.
 Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

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.

WARNING

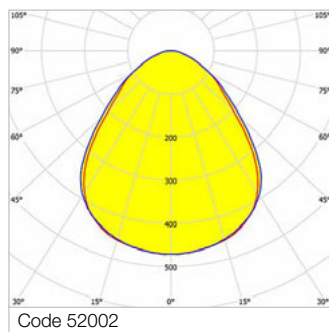
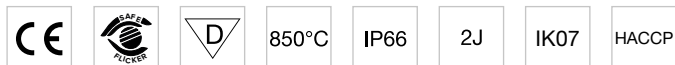
Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- transparent or frosted polycarbonate diffuser, laminated glass
- wiring: dimmable, CLO (page 752), single-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions



Beta 500 SP



Medium distribution.
SP transparent methacrylate (PMMA) diffuser, prismatic outside, antiglare.

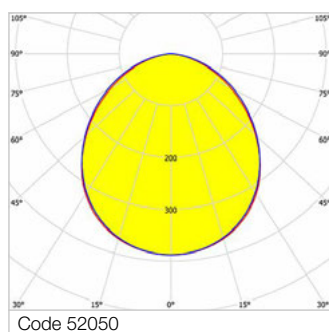
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52056	Beta 500 150W/840 SP L870	162	25755	4000	>80	870x515x105
52002	Beta 500 200W/840 SP L870	198	29399	4000	>80	870x515x105
52003	Beta 500 300W/840 SP L1230	298	46720	4000	>80	1230x475x130

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52057	Beta 500 150W/840 DALI SP L870	162	25755	4000	>80	870x515x105
52005	Beta 500 200W/840 DALI SP L870	198	29399	4000	>80	870x515x105
52006	Beta 500 300W/840 DALI SP L1230	298	46720	4000	>80	1230x475x130

Beta 500 VA



Medium distribution.
Frosted glass HST tempered, non-combustible.

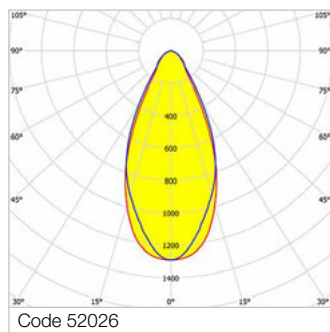
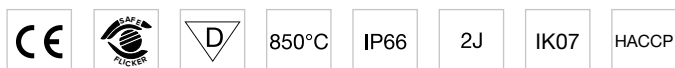
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52072	Beta 500 150W/840 VA L870	162	26733	4000	>80	870x515x105
52050	Beta 500 200W/840 VA L870	198	30886	4000	>80	870x515x105
52051	Beta 500 300W/840 VA L1230	298	47690	4000	>80	1230x475x130

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52073	Beta 500 150W/840 DALI VA L870	162	26733	4000	>80	870x515x105
52053	Beta 500 200W/840 DALI VA L870	198	30886	4000	>80	870x515x105
52054	Beta 500 300W/840 DALI VA L1230	298	47690	4000	>80	1230x475x130

Beta 500 SL Concentrated



Concentrated distribution.
3F Lens lenses with high luminous efficiency, transparent methacrylate (PMMA), fixed to the LED modules.
SL transparent methacrylate (PMMA) flat diffuser.

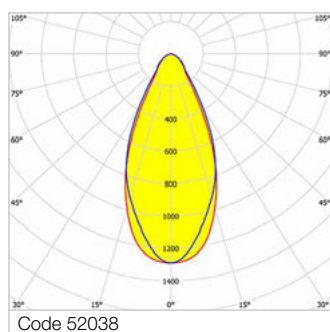
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52064	Beta 500 150W/840 CONC SL L870	162	26336	4000	>80	870x515x105
52026	Beta 500 200W/840 CONC SL L870	198	30001	4000	>80	870x515x105
52027	Beta 500 300W/840 CONC SL L1230	298	47576	4000	>80	1230x475x130

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52065	Beta 500 150W/840 DALI CONC SL L870	162	26336	4000	>80	870x515x105
52029	Beta 500 200W/840 DALI CONC SL L870	198	30001	4000	>80	870x515x105
52030	Beta 500 300W/840 DALI CONC SL L1230	298	47576	4000	>80	1230x475x130

Beta 500 VT Concentrated



Concentrated distribution.
3F Lens lenses with high luminous efficiency, transparent methacrylate (PMMA), fixed to the LED modules.
Transparent glass HST tempered, non-combustible.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52068	Beta 500 150W/840 CONC VT L870	162	26336	4000	>80	870x515x105
52038	Beta 500 200W/840 CONC VT L870	198	30001	4000	>80	870x515x105
52039	Beta 500 300W/840 CONC VT L1230	298	47576	4000	>80	1230x475x130

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52069	Beta 500 150W/840 DALI CONC VT L870	162	26336	4000	>80	870x515x105
52041	Beta 500 200W/840 DALI CONC VT L870	198	30001	4000	>80	870x515x105
52042	Beta 500 300W/840 DALI CONC VT L1230	298	47576	4000	>80	1230x475x130

Beta 500 | Accessories



Code	Item
A0187	Anti-condensation cable gland

Anti-condensation diffuser cable gland.
Recommended for installations in environments with temperature sudden changes or subject to condensation.



Code	Item
A0521	Reducing sealing ring diam.8mm

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.



Code	Item
A0858	Bracket for central suspension L870
A0859	Bracket for central suspension L1230

Stainless steel brackets for suspended installation.



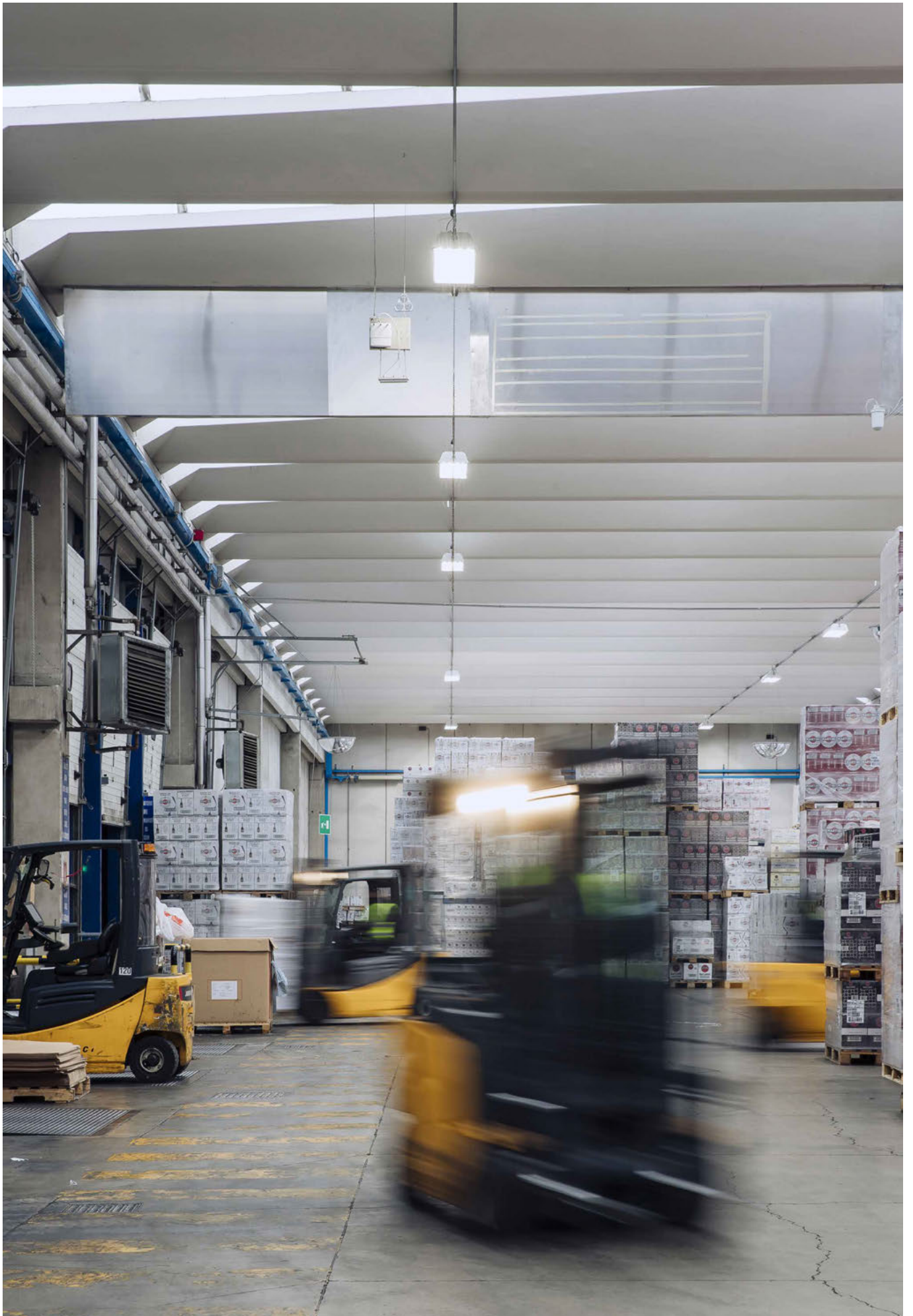
Code	Item
A0860	Adjustable suspension kit 2m

Suspension installation kit consisting of ceiling plate, 2 metre long galvanised steel cables and regulators.



Code	Item
A0861	Pair of brack. ceiling instal. Beta500

Brackets for mounting of luminaire on ceiling.







3F Linda

> www.3F-Filippi.com/3F Linda

3F Linda LED 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 LED 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 LED is now even higher-performance and economical, with improved diffusion and softer light, and increased visual comfort.

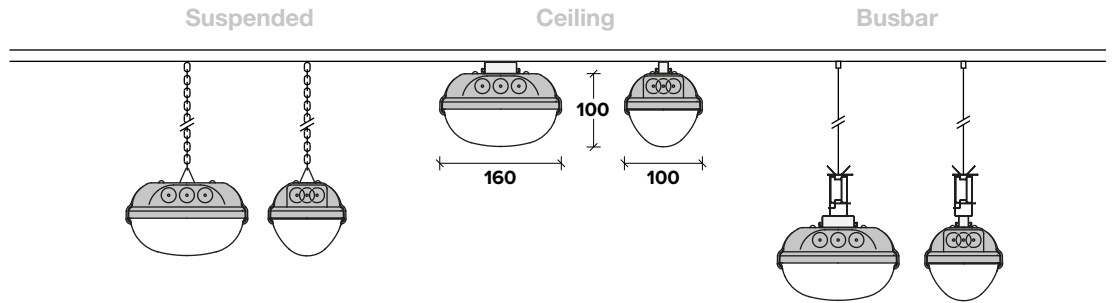
+ Overview

- Luminous efficacy up to 140 lumen/watt.
- Luminous fluxes from 461 to 9533 lumens.
- Extensive installation pitch.
- 5 different photometric distributions.
- Available with integrated sensors.
- Emergency version with kit integrated into the body.
- Quick and easy cleaning.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Fast relamping thanks to the fixing centres compatible with previous generations.
- Versatility of use in different environments.
- ATEX - Group II, Category 3D, Ex tc IIIC T85°C Dc.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

Page	Product	Polycarbonate
560	UPDATE 3F Linda	•
570	3F Linda ATEX	•
574	3F Linda HS	•
578	NEW 3F Linda HT	
582	UPDATE 3F Linda Transparent	•
586	3F Linda Ice	•
590	3F Linda Sensor	•

Product range

3F Linda



3F Linda



Model	Standard/HQ		HO	Wide		Concentrated		Basic		Soft		ATEX	
UGR	<21		<22	<21		<21		<21		<21		<21	
Photometric distribution													
Dimensions	100	160	100	160		160		100	160	100	160	100	160
Installation steps	Dt	1,77 1,52	1,74	3,54		0,89		1,77 1,35	1,39 1,35	1,77 1,52			
	DI	1,17 1,17	1,23	1,32		1,18		1,17 1,24	1,21 1,24	1,17 1,17			



3F Linda 100 mm



3F Linda 160 mm

3F Linda



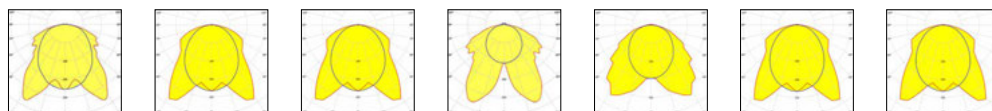
Model

Compact HS HT Transparent Ice Sensor Sensor Bluetooth

UGR

<21 <21 <21 <21 <21 <21 <21

Photometric distribution



Dimensions

100 160 100 160 100 160 100 160 100 160 100 160 100 160

Installation steps

Dt	1,87	1,32	1,77	1,52	1,77	1,52	1,72	1,54	1,77	1,52	1,77	1,52	1,77	1,35
DI	1,39	1,45	1,17	1,17	1,17	1,17	1,16	1,17	1,17	1,17	1,17	1,17	1,17	1,24



Product advantages

EFFICIENT AND ECOLOGICAL. FOR YOU, FOR THE WORLD.

3F Linda LED 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 LED. 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.
- 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 LED 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.



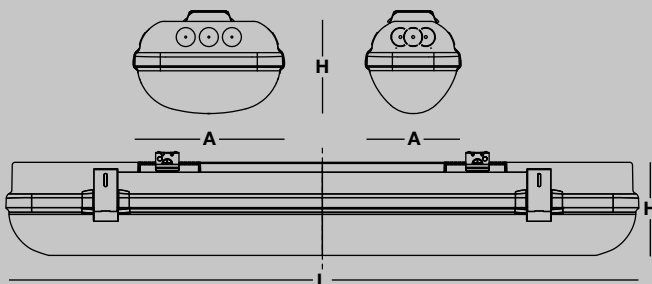
- Recyclable green packaging, like all of 3F Filippi's products, in recycled cardboard.
- Installation is quick and safe thanks to the fixing brackets made entirely of stainless steel (both the internal and external part); the weight is distributed optimally.
- For installations with direct exposure 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 LED 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).

"New Fiat 500e" production line - Photo Courtesy: FCA



UPDATE

/ Waterproof and corrosion-proof



Stabilimento FCA
Melfi (PZ)
Italia/Italy





3F Linda

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised 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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

APPLICATIONS

Dry, dusty indoor environments, subject to occasional water splashes. Virtually shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (page 805).
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 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.

WARNING

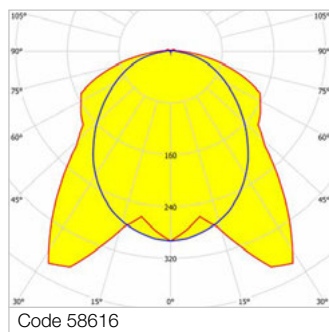
Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different colour rendering indices and colour temperatures
- wiring: CLO (page 752), class II
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions



3F Linda



Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
Fixing brackets in stainless steel.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58563	3F Linda LED 1x6W L660	7.5	1029	4000	>80	660x100x100
58561	3F Linda LED 1x12W L660	14	1918	4000	>80	660x100x100
58586	3F Linda LED 1x18W L1270	20	3442	4000	>80	1270x100x100
58608	3F Linda LED 1x22W L1570	25	4275	4000	>80	1570x100x100
58583	3F Linda LED 1x24W L1270	28	4340	4000	>80	1270x100x100
58585	3F Linda LED 1x24W/830 L1270	28	4167	3000	>80	1270x100x100
58584	3F Linda LED 1x24W/865 L1270	28	4340	6500	>80	1270x100x100
58572	3F Linda LED 2x12W L660	28	3895	4000	>80	660x160x100
58605	3F Linda LED 1x30W L1570	33.5	5391	4000	>80	1570x100x100
58607	3F Linda LED 1x30W/830 L1570	33.5	5176	3000	>80	1570x100x100
58606	3F Linda LED 1x30W/865 L1570	33.5	5391	6500	>80	1570x100x100
58597	3F Linda LED 2x18W L1270	40	6168	4000	>80	1270x160x100
58619	3F Linda LED 2x22W L1570	49	7659	4000	>80	1570x160x100
58594	3F Linda LED 2x24W L1270	54.5	7778	4000	>80	1270x160x100
58596	3F Linda LED 2x24W/830 L1270	54.5	7467	3000	>80	1270x160x100
58595	3F Linda LED 2x24W/865 L1270	54.5	7778	6500	>80	1270x160x100
58616	3F Linda LED 2x30W L1570	66	9657	4000	>80	1570x160x100
58618	3F Linda LED 2x30W/830 L1570	66	9271	3000	>80	1570x160x100
58617	3F Linda LED 2x30W/865 L1570	66	9657	6500	>80	1570x160x100

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58549	3F Linda LED 1x12W DALI L660	15	1918	4000	>80	660x100x100
58550	3F Linda LED 2x12W DALI L660	28	3895	4000	>80	660x160x100
58551	3F Linda LED 1x24W DALI L1270	28	4340	4000	>80	1270x100x100
58553	3F Linda LED 1x30W DALI L1570	33.5	5391	4000	>80	1570x100x100
58552	3F Linda LED 2x24W DALI L1270	54.5	7778	4000	>80	1270x160x100
58554	3F Linda LED 2x30W DALI L1570	66	9657	4000	>80	1570x160x100

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
58569	3F Linda LED 1x6W EP LA L660	8.5	1029	4000	>80	660x160x100
58567	3F Linda LED 1x12W EP LA L660	15	1918	4000	>80	660x160x100
58592	3F Linda LED 1x18W EP L1270	21	3442	4000	>80	1270x100x100
58614	3F Linda LED 1x22W EP L1570	26	4275	4000	>80	1570x100x100
58589	3F Linda LED 1x24W EP L1270	29	4340	4000	>80	1270x100x100
58591	3F Linda LED 1x24W/830 EP L1270	29	4167	3000	>80	1270x100x100
58590	3F Linda LED 1x24W/865 EP L1270	29	4340	6500	>80	1270x100x100
58611	3F Linda LED 1x30W EP L1570	34.5	5391	4000	>80	1570x100x100
58613	3F Linda LED 1x30W/830 EP L1570	34.5	5176	3000	>80	1570x100x100
58612	3F Linda LED 1x30W/865 EP L1570	34.5	5391	6500	>80	1570x100x100
58603	3F Linda LED 2x18W EP L1270	41	6168	4000	>80	1270x160x100
58626	3F Linda LED 2x22W EP L1570	50	7659	4000	>80	1570x160x100
58600	3F Linda LED 2x24W EP L1270	55.5	7778	4000	>80	1270x160x100
58602	3F Linda LED 2x24W/830 EP L1270	55.5	7467	3000	>80	1270x160x100
58601	3F Linda LED 2x24W/865 EP L1270	55.5	7778	6500	>80	1270x160x100
58623	3F Linda LED 2x30W EP L1570	67	9657	4000	>80	1570x160x100
58625	3F Linda LED 2x30W/830 EP L1570	67	9271	3000	>80	1570x160x100
58624	3F Linda LED 2x30W/865 EP L1570	67	9657	6500	>80	1570x160x100

ENP non-permanent emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
58705	3F Linda LED 1x12W ENP LA L660		543	4000	>80	660x160x100
58713	3F Linda LED 1x24W ENP L1270		544	4000	>80	1270x100x100



3F Linda HQ



850°C

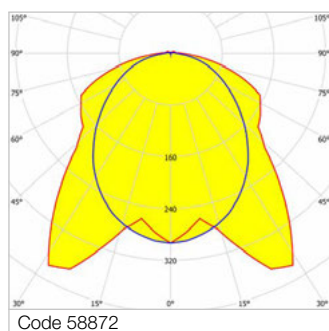
IP66

20J

IK10

Driver/LED
SELV

HACCP



LED sources with colour rendering index CRI >90.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
Fixing brackets in stainless steel.

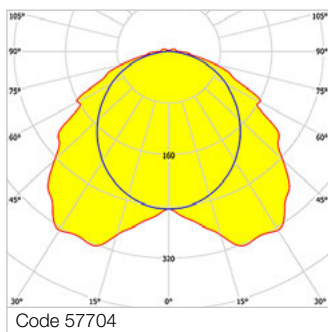
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58867	3F Linda LED 1x12W/940 L660	14	1573	4000	>90	660x100x100
58868	3F Linda LED 2x12W/940 L660	28	3194	4000	>90	660x160x100
58869	3F Linda LED 1x24W/940 L1270	28	3559	4000	>90	1270x100x100
58870	3F Linda LED 2x24W/940 L1270	54.5	6378	4000	>90	1270x160x100
58871	3F Linda LED 1x30W/940 L1570	33.5	4421	4000	>90	1570x100x100
58872	3F Linda LED 2x30W/940 L1570	66	7919	4000	>90	1570x160x100

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58873	3F Linda LED 1x12W/940 DALI L660	15	1573	4000	>90	660x100x100
58874	3F Linda LED 2x12W/940 DALI L660	28	3194	4000	>90	660x160x100
58875	3F Linda LED 1x24W/940 DALI L1270	28	3559	4000	>90	1270x100x100
58876	3F Linda LED 2x24W/940 DALI L1270	54.5	6378	4000	>90	1270x160x100
58877	3F Linda LED 1x30W/940 DALI L1570	33.5	4421	4000	>90	1570x100x100
58878	3F Linda LED 2x30W/940 DALI L1570	66	7919	4000	>90	1570x160x100

3F Linda HO



High lumen output LED sources.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
57703 ^{NEW}	3F Linda LED HO 1x50W/840 L1270	56	9042	4000	>80	1270x100x100
57704 ^{NEW}	3F Linda LED HO 1x62W/840 L1570	69	11194	4000	>80	1570x100x100

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
57711 ^{NEW}	3F Linda LED HO 1x50W/840 EP L1270	57	9042	4000	>80	1270x100x100
57712 ^{NEW}	3F Linda LED HO 1x62W/840 EP L1570	70	11194	4000	>80	1570x100x100

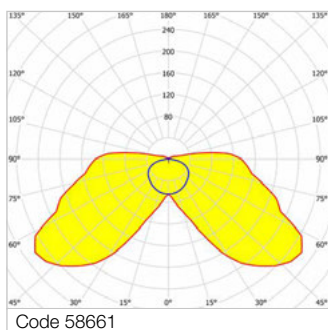
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
57719 ^{NEW}	3F Linda LED HO 1x50W/840 DALI L1270	56	9042	4000	>80	1270x100x100
57720 ^{NEW}	3F Linda LED HO 1x62W/840 DALI L1570	69	11194	4000	>80	1570x100x100

DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
57727 ^{NEW}	3F Linda LED HO 1x50W/840 DALI EP L1270	57	9042	4000	>80	1270x100x100
57728 ^{NEW}	3F Linda LED HO 1x62W/840 DALI EP L1570	70	11194	4000	>80	1570x100x100

3F Linda Wide



Wide distribution.
Flux recuperator in specular aluminium, high efficiency.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58659	3F Linda LED 2x24W AMPIO L1270	54.5	7761	4000	>80	1270x160x100
58661	3F Linda LED 2x30W AMPIO L1570	66	9635	4000	>80	1570x160x100



3F Linda Concentrated



850°C

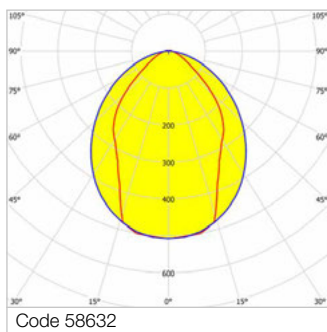
IP66

20J

IK10

Driver/LED
SELV

HACCP



Concentrated elliptical distribution.
Flux recuperator in specular aluminium, high efficiency.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58630	3F Linda LED 2x24W CONC L1270	54.5	7623	4000	>80	1270x160x100
58632	3F Linda LED 2x30W CONC L1570	66	9464	4000	>80	1570x160x100

3F Linda Basic



850°C

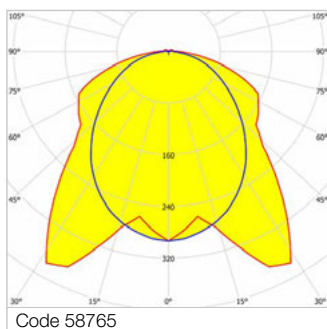
IP66

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.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58762	3F Linda LED Basic 1x19W L1270	22	2956	4000	>80	1270x100x100
58764	3F Linda LED Basic 1x23W L1570	29	3708	4000	>80	1570x100x100
58766	3F Linda LED Basic ST 2x16W L1270	36	5005	4000	>80	1270x100x100
58763	3F Linda LED Basic 2x19W L1270	41	5357	4000	>80	1270x160x100
58767	3F Linda LED Basic ST 2x20W L1570	45	6291	4000	>80	1570x100x100
58765	3F Linda LED Basic 2x23W L1570	49	6722	4000	>80	1570x160x100

3F Linda Soft



850°C

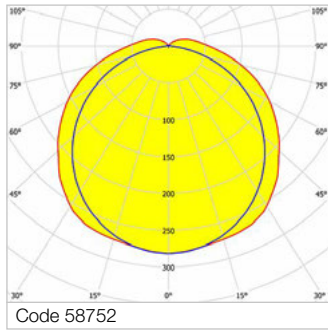
IP66

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.

ON/OFF electronic wiring 230V-50/60Hz

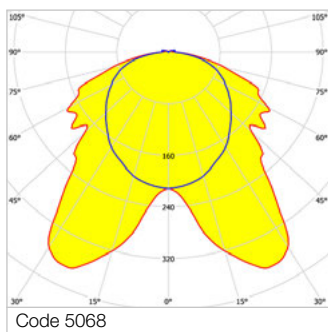
Code	Item	W	lm	K	CRI	L x A x H
58731	3F Linda LED Soft 1x12W L660	14	1760	4000	>80	660x100x100
58732	3F Linda LED Soft 2x12W L660	28	3523	4000	>80	660x160x100
58733	3F Linda LED Soft 1x24W L1270	28	3984	4000	>80	1270x100x100
58734	3F Linda LED Soft 1x30W L1570	33.5	4949	4000	>80	1570x100x100
58751	3F Linda LED Soft 2x22W L1570	49	6928	4000	>80	1570x160x100
58737	3F Linda LED Soft 2x24W L1270	54.5	7036	4000	>80	1270x160x100
58752	3F Linda LED Soft 2x30W L1570	66	8735	4000	>80	1570x160x100

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58735	3F Linda LED Soft 1x24W DALI L1270	28	3984	4000	>80	1270x100x100
58736	3F Linda LED Soft 1x30W DALI L1570	33.5	4949	4000	>80	1570x100x100
58753	3F Linda LED Soft 2x22W DALI L1570	49	6928	4000	>80	1570x160x100
58738	3F Linda LED Soft 2x24W DALI L1270	54.5	7036	4000	>80	1270x160x100
58754	3F Linda LED Soft 2x30W DALI L1570	66	8735	4000	>80	1570x160x100



3F Linda Compact



In compliance with EN 60598-1.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
5066	3F Linda LED 1x6W L300	7.5	883	4000	>80	300x100x100
5067	3F Linda LED 1x6W LA L300	7.5	870	4000	>80	300x160x100
5068	3F Linda LED 2x6W L300	13	1646	4000	>80	300x160x100

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

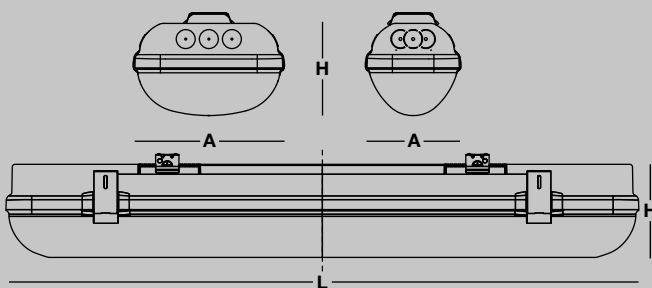
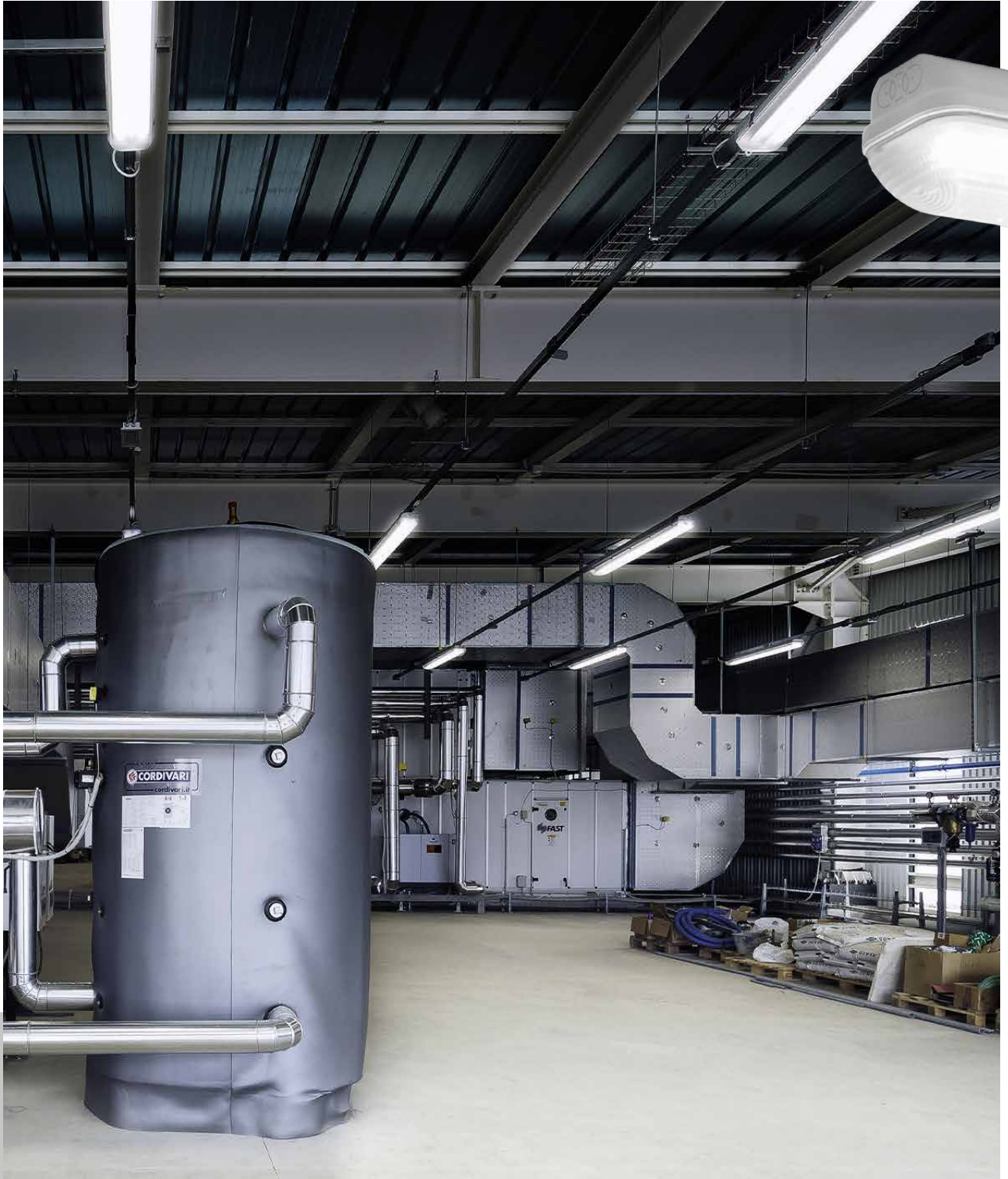
Code	Item	W	lm	K	CRI	L x A x H
5069	3F Linda LED 1x6W EP LA L300	8.5	870	4000	>80	300x160x100
5070	3F Linda LED 2x6W EP L300	14	1646	4000	>80	300x160x100

ENP non-permanent emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
5071	3F Linda LED 1x6W ENP LA L300		557	4000	>80	300x160x100



/ Waterproof and corrosion-proof



Porto di Savona
Savona
Italia/Italy





3F Linda ATEX

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised 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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

APPLICATIONS

Environments with ATEX explosive atmosphere, group II, category 3D, T85°C, Zone 22 Dc (compliance with directive 2014/34/EU and IEC/EN 60079 standard), severe industrial, food and agri-food industries, scientific and food processing laboratories, environments with high humidity, swimming pools, railway, aeronautical and port applications.

Dry, dusty indoor environments, subject to occasional water splashes. Virtually shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (page 805).

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 in production plants in the food industry (HACCP / IFS / BRC-Standard).

For specific applications please contact our technical offices.

WARNING

Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different colour rendering indices and colour temperatures
- wiring: CLO (page 752), dimmable, class II
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology



3F Linda ATEX



850°C

IP66

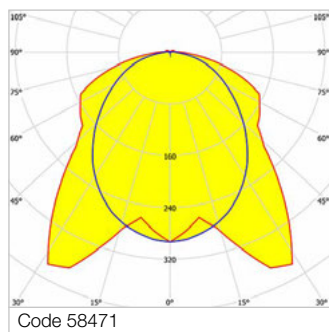
ATEX

20J

IK10



HACCP

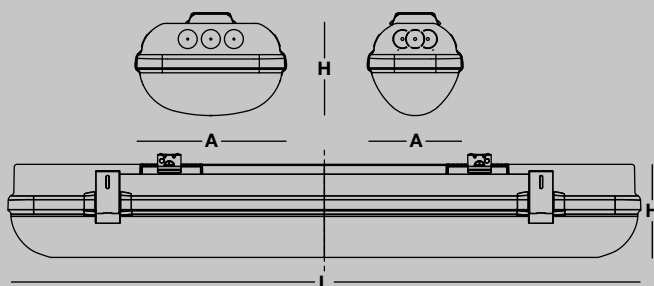


ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58470	3F Linda LED 1x12W ATEX 3D L660	14	1918	4000	>80	660x100x100
58471	3F Linda LED 2x12W ATEX 3D L660	28	3895	4000	>80	660x160x100
58472	3F Linda LED 1x24W ATEX 3D L1270	28	4340	4000	>80	1270x100x100
58474	3F Linda LED 1x30W ATEX 3D L1570	33.5	5391	4000	>80	1570x100x100
58473	3F Linda LED 2x24W ATEX 3D L1270	54.5	7778	4000	>80	1270x160x100
58475	3F Linda LED 2x30W ATEX 3D L1570	66	9657	4000	>80	1570x160x100



/ Waterproof and corrosion-proof



Forming AG
Möhlin
Switzerland





3F Linda HS

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

Linear anti-sulfur LED modules (SiO₂), with special protection against aggressive chemically-volatile substances, for standard LED technology.

Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

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-galvanised 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

In compliance with EN 60598-1.

Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

APPLICATIONS

Dry, dusty indoor environments, subject to occasional water splashes. Hygienically suitable product for installation in food production plants (HACCP), IFS (Food Version 6), BRC (GSFS Food Version 7). Virtually shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (page 805).

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 (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 (page 805).

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.

WARNING

Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different colour temperatures
- wiring: dimmable, CLO (page 752), class II
- emergency versions



3F Linda HS



850°C

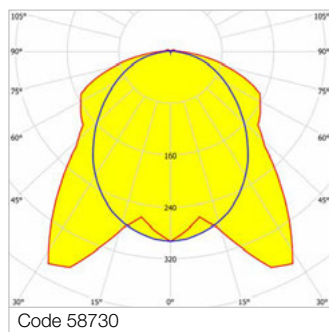
IP66

20J

IK10

Driver/LED
SELV

HACCP



Luminaire complete with linear LED modules (SiO₂), with special protection against aggressive chemically-volatile substances, for standard LED technology.

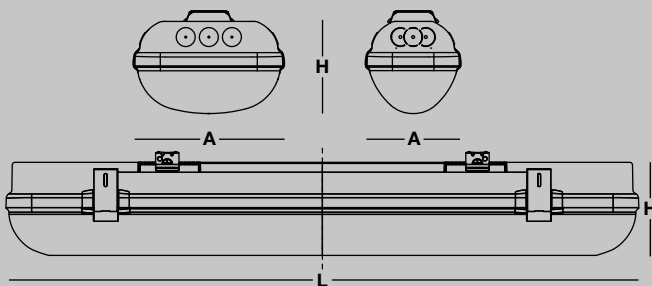
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58722	3F Linda LED HS 1x24W L1270	28	4340	4000	>80	1270x100x100
58724	3F Linda LED HS 1x30W L1570	33.5	5391	4000	>80	1570x100x100
58728	3F Linda LED HS 2x24W L1270	54.5	7778	4000	>80	1270x160x100
58730	3F Linda LED HS 2x30W L1570	66	9657	4000	>80	1570x160x100



NEW

/ Waterproof and corrosion-proof



Forming AG
Möhlin
Switzerland





3F Linda HT

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Luminous flux at +55°C: -10%.
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised 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.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

APPLICATIONS

Ambient temperatures up to +55°C.
Dry, dusty indoor environments, subject to occasional water splashes.

WARNING

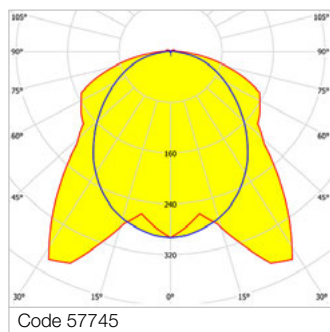
Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different colour rendering indices and colour temperatures
- wiring: electronic, dimmable, DALI, CLO (page 752), class II
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology



3F Linda HT

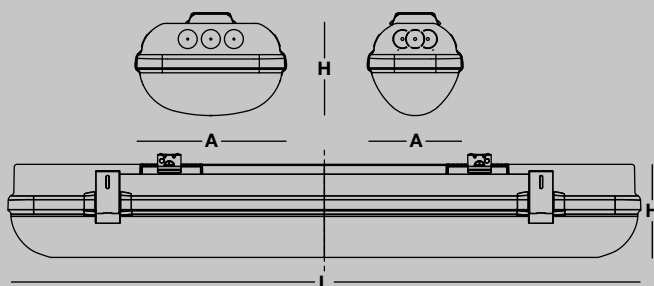
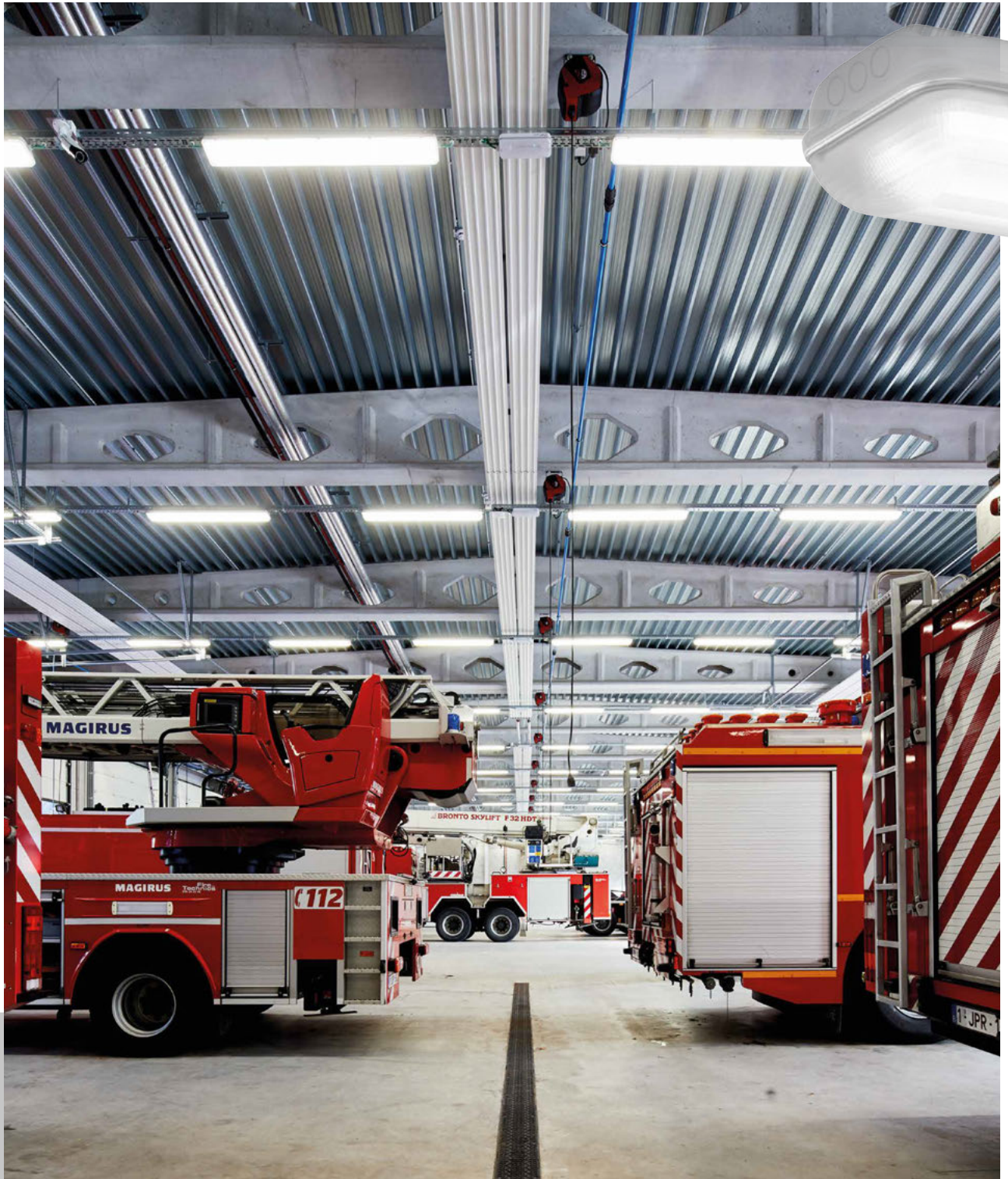


ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
57743 ^{NEW}	3F Linda LED HT 1x18W/840 L1570	21	3232	4000	>80	1570x100x100
57744 ^{NEW}	3F Linda LED HT 2x13W/840 L1570	30	4781	4000	>80	1570x160x100
57745 ^{NEW}	3F Linda LED HT 2x18W/840 L1570	40	6289	4000	>80	1570x160x100
57747 ^{NEW}	3F Linda LED HT 1x18W/865 L1570	21	3232	6500	>80	1570x100x100
57748 ^{NEW}	3F Linda LED HT 2x13W/865 L1570	30	4781	6500	>80	1570x160x100
57749 ^{NEW}	3F Linda LED HT 2x18W/865 L1570	40	6289	6500	>80	1570x160x100



/ Waterproof and corrosion-proof



Brandweer Hasselt
Hasselt
Belgique/Belgium





3F Linda Transparent

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Lifetime (L75/B10): 80000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Housing in transparent self-extinguishing V2 polycarbonate, injection moulded.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised 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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

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 shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (page 805).
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 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.

WARNING

Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different colour rendering indices and colour temperatures
- wiring: dimmable, CLO (page 752), class II
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- CRI >90 sources
- emergency versions



3F Linda Transparent



850°C

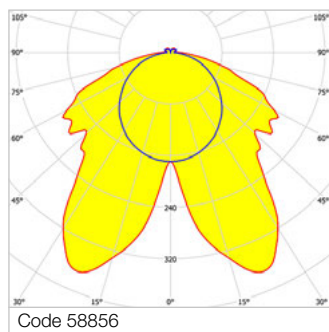
IP66

20J

IK10

Driver/LED
SELV

HACCP



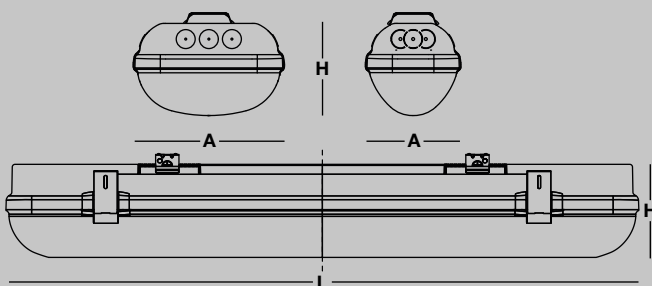
Transparent polycarbonate housing.
Snug fit safety snap-lock clips in stainless steel.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58852	3F Linda LED Lite TR 1x12W L660	14	1992	4000	>80	660x100x100
58853	3F Linda LED Lite TR 1x19W L1270	22	2962	4000	>80	1270x100x100
58854	3F Linda LED Lite TR 1x23W L1570	29	3716	4000	>80	1570x100x100
58855	3F Linda LED Lite TR 2x16W L1270	36	4923	4000	>80	1270x160x100
58856	3F Linda LED Lite TR 2x20W L1570	45	6188	4000	>80	1570x160x100



/ Waterproof and corrosion-proof



Cantine Banfi
Montalcino (SI)
Italia/Italy





3F Linda Ice

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Lifetime (L90/B10): 50000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

Linear LED modules UR95.
Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised 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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Solid single-core silicone rubber insulated wiring cable with fibreglass braid type UG4T2/2 cross section 0.75 mm².

APPLICATIONS

Cells with temperature from -30°C to + 40°C with a humidity degree up to 95%.

Virtually shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (page 805).

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 in production plants in the food industry (HACCP / IFS / BRC-Standard).

NOTES

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:

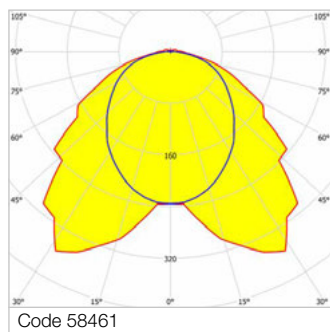
- power consumption lower than for fluorescent versions
- no heat transfer from the luminaire to the cooled environment

ON REQUEST

- different colour rendering indices and colour temperatures
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology



3F Linda Ice 1x

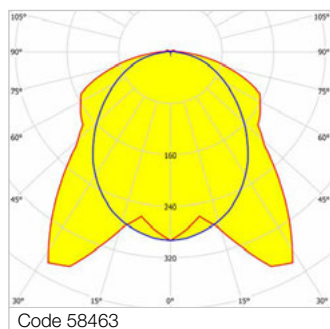


Controlled wide distribution.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58457	3F Linda LED Ice 1x24W UR95 L1270	28	4340	4000	>80	1270x100x100
58461	3F Linda LED Ice 1x30W UR95 L1570	33.5	5391	4000	>80	1570x100x100

3F Linda Ice 2x



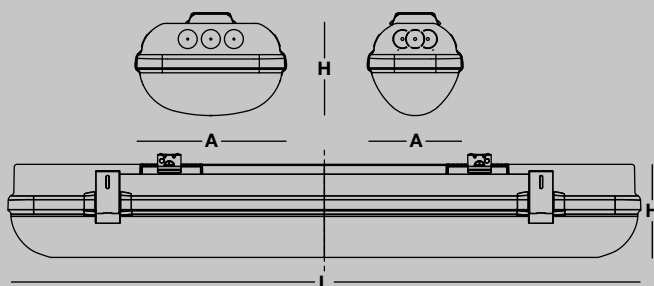
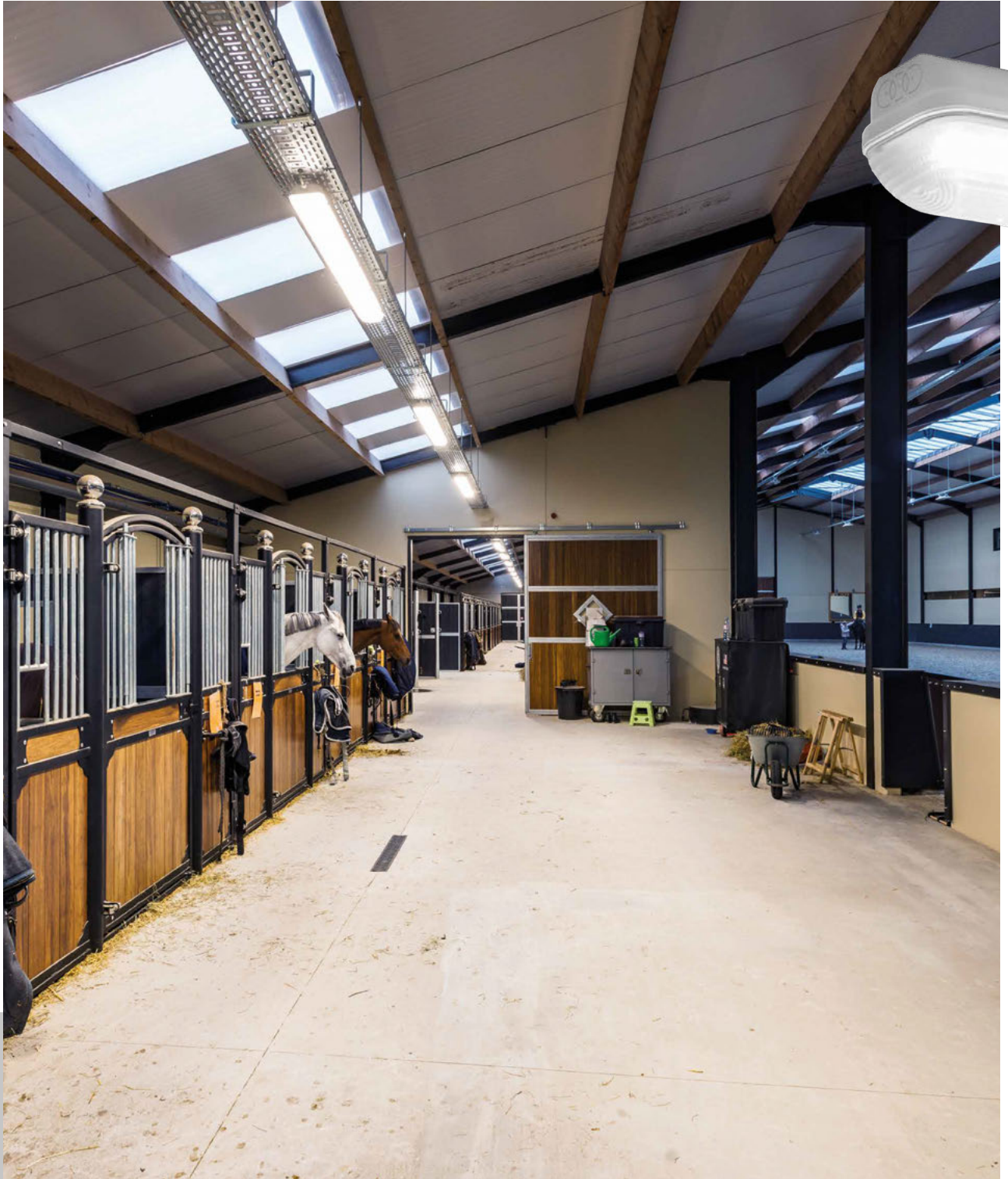
Controlled wide distribution.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58459	3F Linda LED Ice 2x24W UR95 L1270	54.5	7778	4000	>80	1270x160x100
58463	3F Linda LED Ice 2x30W UR95 L1570	66	9657	4000	>80	1570x160x100



/ Waterproof and corrosion-proof



Hippisch Centrum Ruiterslijk
Genoegen
Oud Turnhout
Belgique/Belgium





3F Linda Sensor

ILLUMINOTECHNICAL

Controlled symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised 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

In compliance with EN 60598-1.
Integrated presence sensor.

APPLICATIONS

Dry, dusty indoor environments, subject to occasional water splashes.
Environments: transit areas, parking lots.
Virtually shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (page 805).
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 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.

LIGHT MANAGEMENT

The products use 3F Sensor technology (page 726).

WARNING

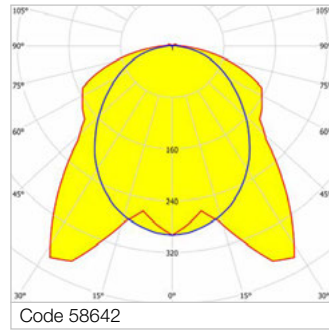
Fixture not suitable for cold stores with an ambient temperature $<0^{\circ}\text{C}$ and/or relative humidity $>85\%$.

ON REQUEST

- different colour rendering indices and colour temperatures
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions



3F Linda Sensor

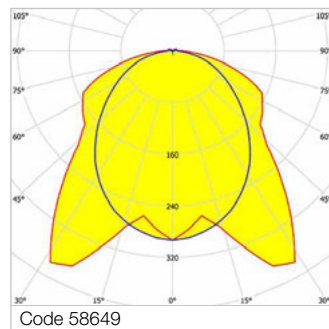


Integrated presence sensor with ON/OFF function.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58638	3F Linda LED 1x30W Sensor L1570	34.5	5391	4000	>80	1570x100x100
58642	3F Linda LED 2x30W Sensor L1570	67	9657	4000	>80	1570x160x100

3F Linda Sensor Corridor Function

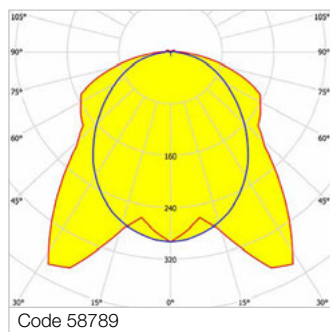


Integrated presence sensor with Corridor Function mode, even with the environment free of people, the luminous flux is maintained at 10%.

CF (Corridor Function) electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58645	3F Linda LED 1x30W Sensor CF L1570	34.5	5391	4000	>80	1570x100x100
58649	3F Linda LED 2x30W Sensor CF L1570	67	9657	4000	>80	1570x160x100

3F Linda Sensor Bluetooth



Integrated Bluetooth presence sensor that allows to adjust and create a wireless network between DALI-BLE fixtures.

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58786	3F Linda LED 1x24W Sensor DALI-BLE L1270	29	4340	4000	>80	1270x100x100
58787	3F Linda LED 1x30W Sensor DALI-BLE L1570	34.5	5391	4000	>80	1570x100x100
58788	3F Linda LED 2x24W Sensor DALI-BLE L1270	55.5	7778	4000	>80	1270x160x100
58789	3F Linda LED 2x30W Sensor DALI-BLE L1570	67	9657	4000	>80	1570x160x100



3F Linda | Accessories



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

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

Attention: each product requires two suspensions with regulator.

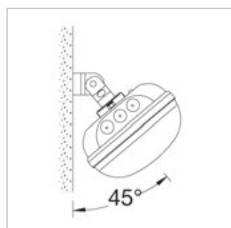
Accessory not compatible with 3F Linda LED Compact versions.



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.

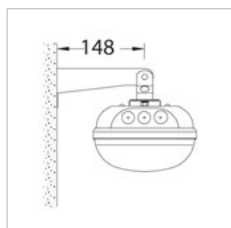
Snug fit snap-lock clips for diffuser mounting, in stainless steel, safety opening.

Accessory compatible with 3F Linda, 3F Linda - ATEX, 3F Linda - HT.



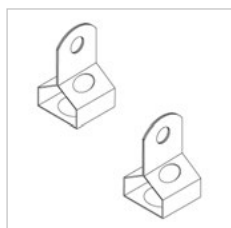
Code	Item
A0449	15 GZI w/brack.+ hooks Linda L300
A0450	15 RIT w/bra.+hooks Linda L660-1270-1570

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°.



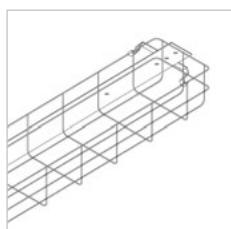
Code	Item
A0451	15 MBI w/brack.+ hooks Linda L300
A0452	15 FBR w/bra.+hooks Linda L660-1270-1570

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
A0462	13 GSI (pair of susp. hooks Linda L300)
A0463	13 TRM pair of susp.hooks Linda

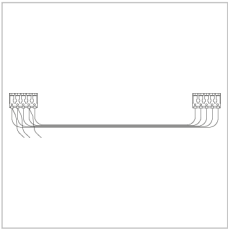
Pair of stainless steel hooks for suspended installation, with cable clip and nuts and bolts for installation to 3F Linda.



Code	Item
A0455	Wireguard 180x1330 3F Linda
A0456	Wireguard 180x1630 3F Linda
A0457	Wireguard 280x1330 3F Linda/3F Beta
A0458	Wireguard 280x1630 3F Linda/3F Beta

Wire-guard for applications in dry environments, against shocks coming from any directions, galvanised steel rod Ø 5 mm.

Only for luminaires fixed without hooks.



Code	Item
A0447	3F Linda through-line L1570

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, 3F Linda - ATEX, 3F Linda - HS, 3F Linda - HT, 3F Linda - Ice, 3F Linda - Sensor.

Accessory not compatible with ST versions of 3F Linda LED Basic.



Code	Item
A0187	Anti-condensation cable gland

Anti-condensation diffuser cable gland.

Recommended for installations in environments with temperature sudden changes or subject to condensation.



Code	Item
A0521	Reducing sealing ring diam.8mm

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.



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)

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
A0434	Safety screw locking Linda - 20 pcs The pack contains 20 pieces.
A0435	Safety screw locking Linda - 100 pcs The pack contains 100 pieces.

Safety screw for 3F Linda locking bracket



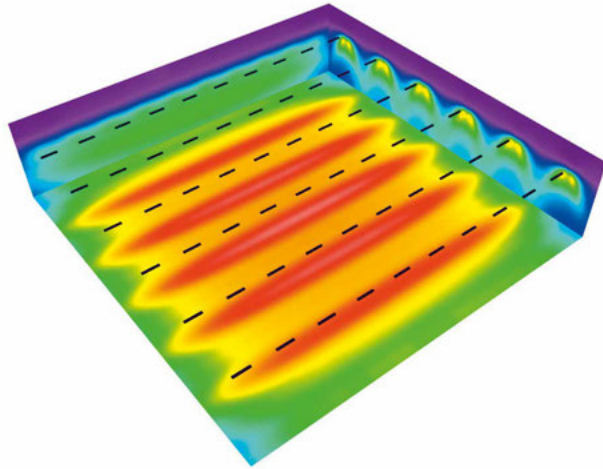
3F Linda LED

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			
	2x36W	starter	90	3F Linda LED Basic ST 2x16W L1270	36	60%
		HF	71			
	2x18W	starter	45	3F Linda LED 1x12W L660	15	67%
		HF	35			
	1x58W	starter	70	3F Linda LED Basic 1x23W L1570	29	59%
		HF	55			
	1x36W	starter	45	3F Linda LED Basic 1x19W L1270	21	53%
		HF	36			
	1x18W	starter	27	3F Linda LED 1x6W L660	7.5	72%
		HF	19			
T5	2x49W		106	3F Linda LED Basic ST 2x20W L1570	45	58%
			76			
	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

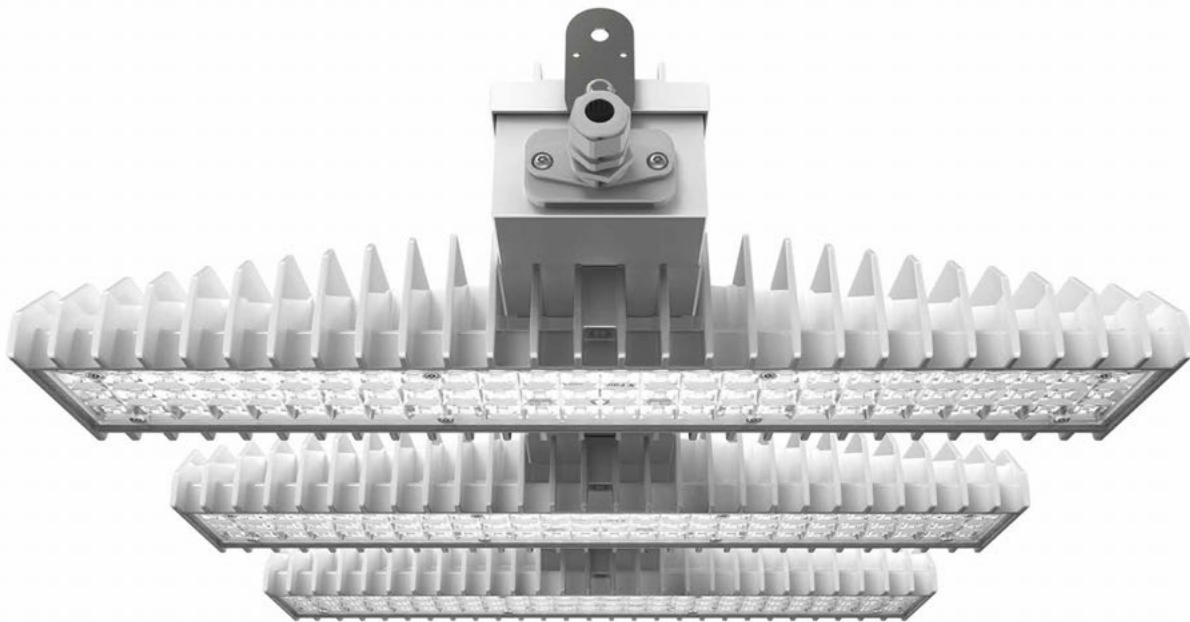
- Longer life means less maintenance.
 Less maintenance means greater savings.
 Less maintenance means fewer problems.
 Fewer problems means greater peace of mind.





Your are in
30
D

Your are in
30
C



3F LEM

> www.3F-Filippi.com/3F LEM

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.

+ Overview

- Luminous efficacy up to 163 lumen/watt.
- Luminous fluxes from 7066 to 56175 lumens.
- Extensive installation pitch.
- UGR <22.
- 3 different photometric distributions.
- Resistance against ball impacts in accordance with DIN 18032-3.
- Available with integrated sensors.
- Quick and easy cleaning.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Thanks to the FastWiring system, the installation time is drastically reduced.

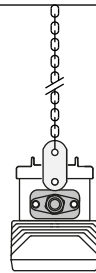
Page	Product	Steel	Stainless steel
606	3F LEM	•	•
612	3F LEM High Output	•	•
616	3F LEM Sensor	•	•
620	3F LEM High Temperature	•	•
624	3F LEM Sport	•	•
628	3F LEM Sport High Output	•	•

Product range

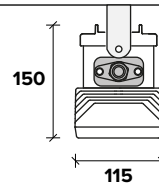
3F LEM

3F LEM 1
3F LEM 1+1

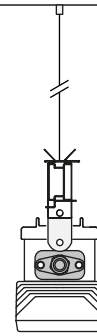
Suspended



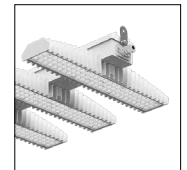
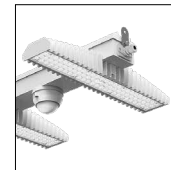
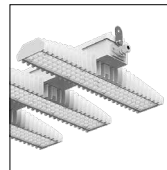
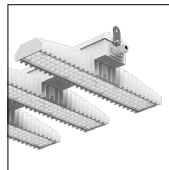
Ceiling



Busbar



3F LEM



Standard

High Output

Sensor

High Temperature

Versions

3F LEM 1
3F LEM 1+1
3F LEM 2
3F LEM 3
3F LEM 4
3F LEM 5

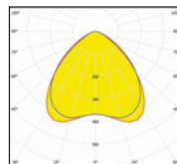
3F LEM 1
3F LEM 1+1
3F LEM 2
3F LEM 3
3F LEM 4
3F LEM 5

3F LEM 2
3F LEM 3
3F LEM 4

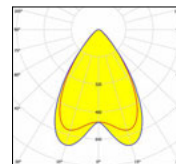
3F LEM 2
3F LEM 3
3F LEM 4
3F LEM 5

Photometric distribution

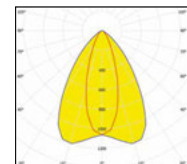
Wide



Medium



Concentrated



Installation steps

Dt
DI

1,50
1,40

1,20
1,20

0,60
1,20

UGR

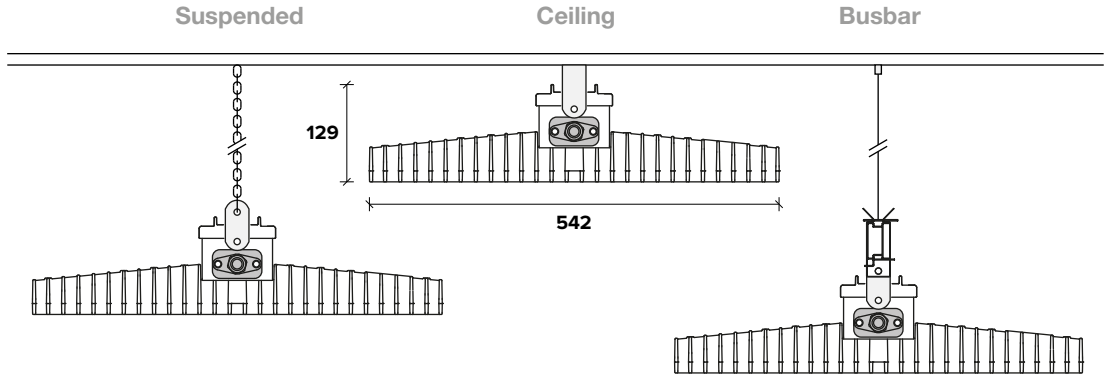
<21

<19

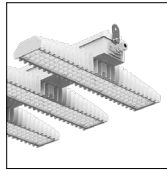
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3F LEM

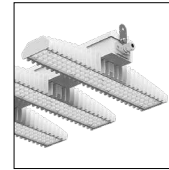
- 3F LEM 2
- 3F LEM 3
- 3F LEM 4
- 3F LEM 5



3F LEM



Sport



Sport High Output

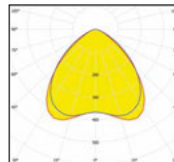
Versions

- 3F LEM 2
- 3F LEM 3
- 3F LEM 4

- 3F LEM 2
- 3F LEM 3

Photometric distribution

Wide



Installation steps

Dt
DI

1,50
1,40

UGR

<21



Optimized distribution

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).

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:

PMMA lenses with high luminous efficiency.

WIDE
DISTRIBUTION



MEDIUM
DISTRIBUTION



CONCENTRATED
DISTRIBUTION

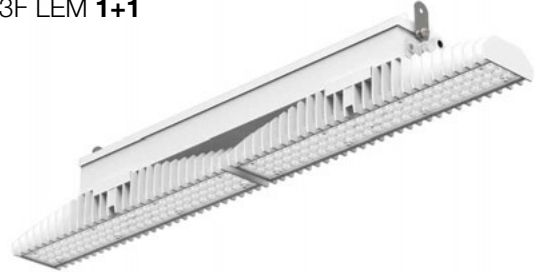


Versions

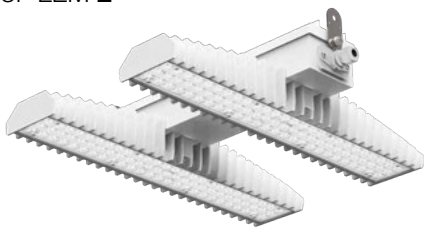
3F LEM 1



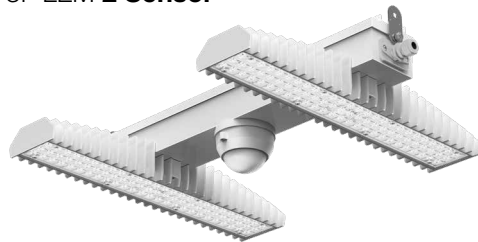
3F LEM 1+1



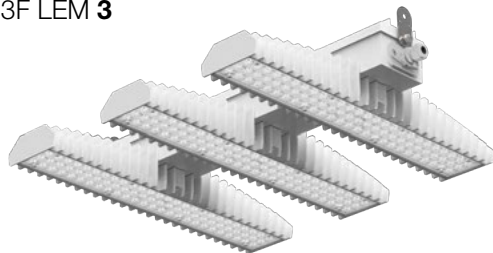
3F LEM 2



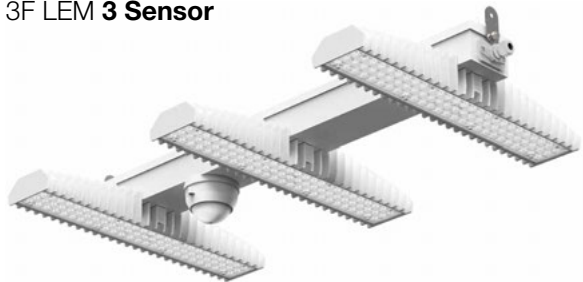
3F LEM 2 Sensor



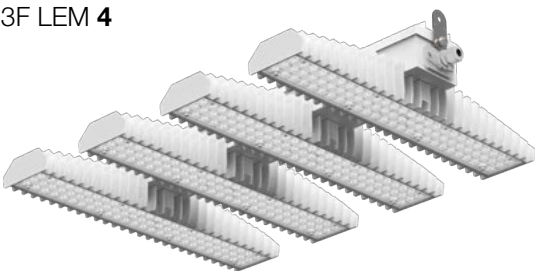
3F LEM 3



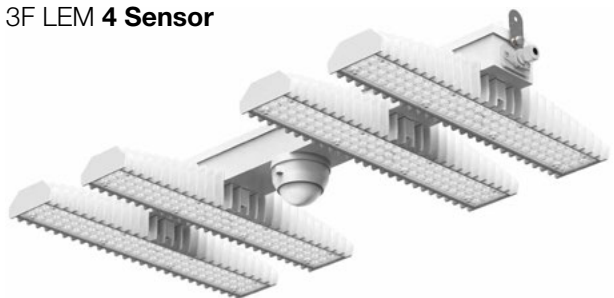
3F LEM 3 Sensor



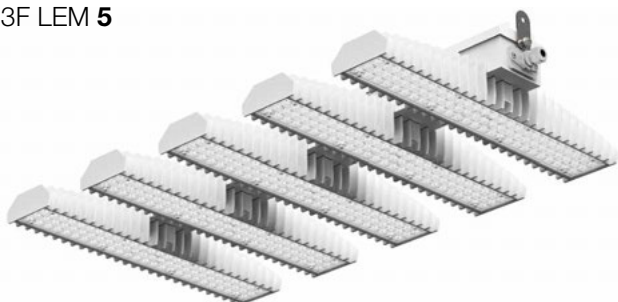
3F LEM 4



3F LEM 4 Sensor



3F LEM 5



Product range

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. Aerodynamic analysis has allowed dust deposits on the heat dissipators to be avoided.

Wiring compartment separate from heat dissipators

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, upgraded to next-generation sources.

Mid-Power LED

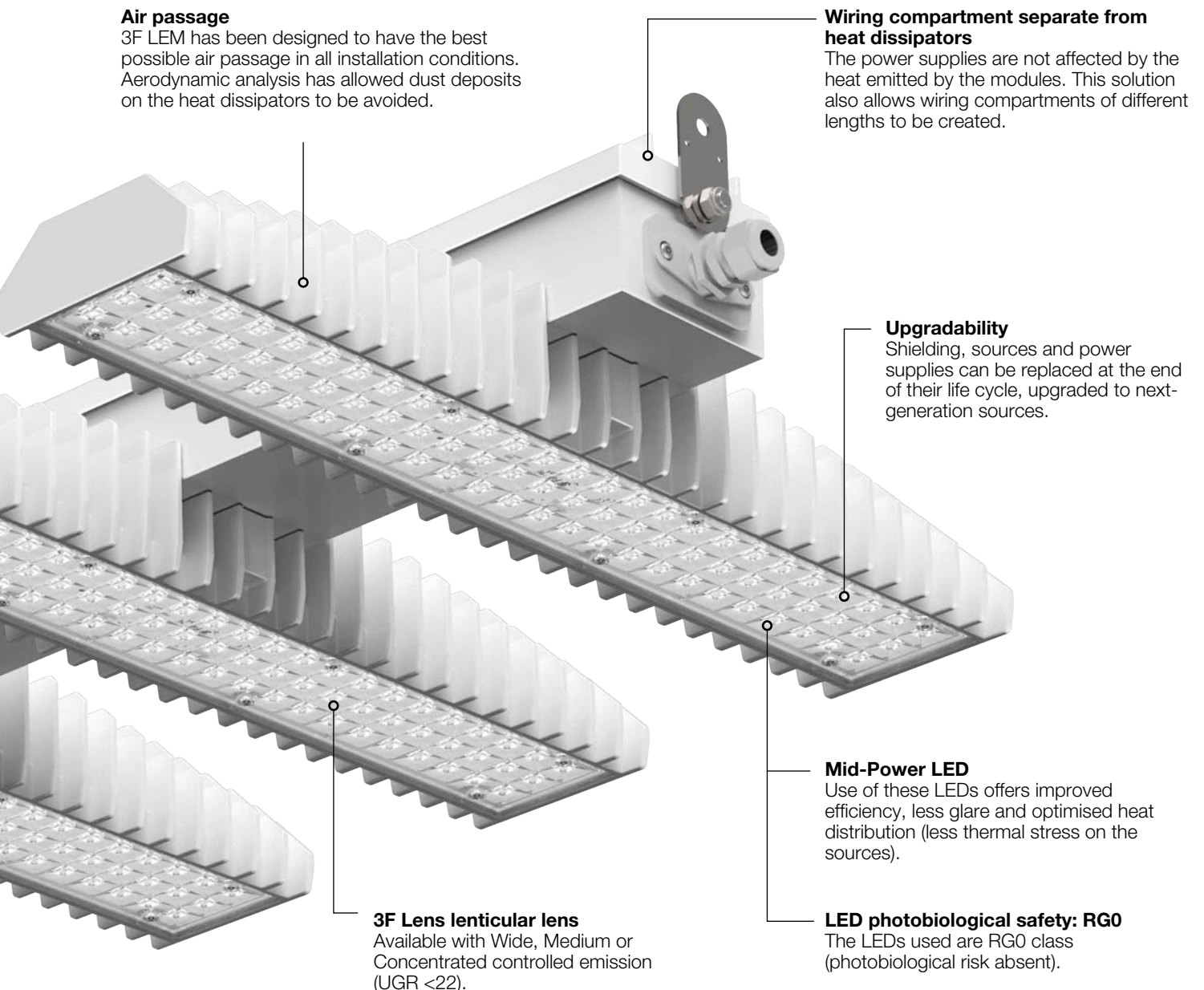
Use of these LEDs offers improved efficiency, less glare and optimised heat distribution (less thermal stress on the sources).

LED photobiological safety: RG0

The LEDs used are RG0 class (photobiological risk absent).

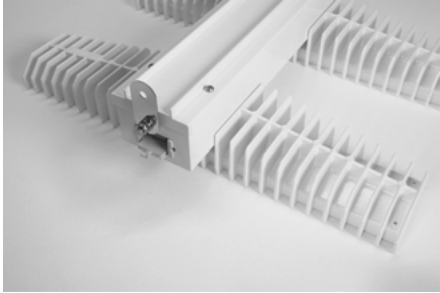
3F Lens lenticular lens

Available with Wide, Medium or Concentrated controlled emission (UGR <22).



QUICK CONNECTION

Thanks to the FastWiring system, the installation time for 3f lem is significantly reduced:



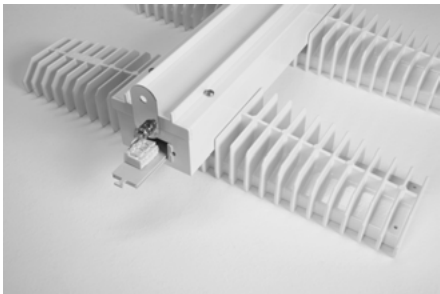
1

3F LEM is supplied with our new "FastWiring" quick connector. Here is what it looks like when removed from the packaging.



2

Remove the support by grasping the tab.



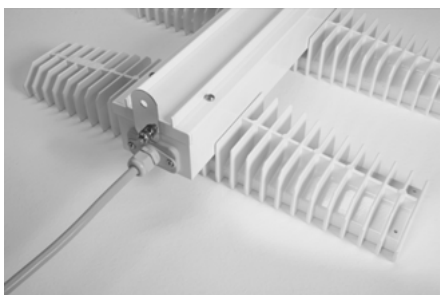
3

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.



4

Push the sliding support into the luminaire and screw down the two phillips head screws on the closing cap.

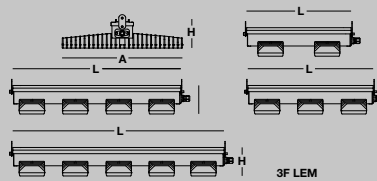
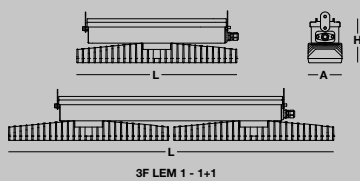


5

Done!
3F LEM is now ready for installation.

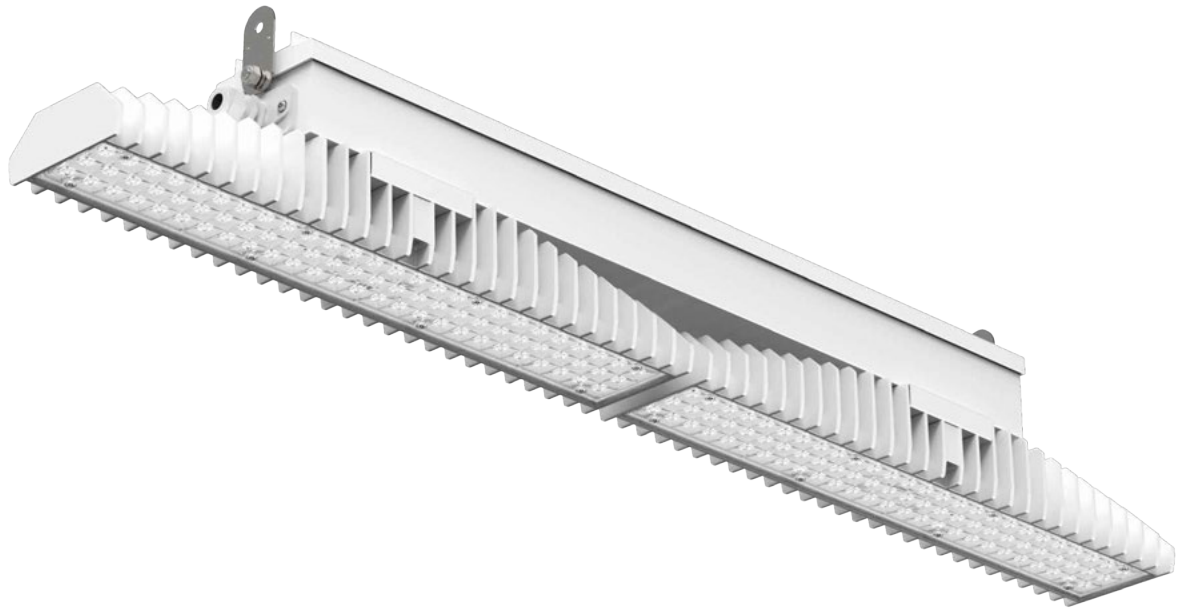


/ Waterproof and corrosion-proof



Fonderia Augusta s.r.l.
Bergamo
Italia/Italy





3F LEM

ILLUMINOTECHNICAL

Wide, medium, concentrated symmetric elliptical distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Passive modular heatsinks in die-casted aluminium, painted in white colour.
To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
Wiring body in aluminium and galvanised steel anchored solidly to the sinks and thermally separated.
3F Lens lenses with high luminous efficiency, transparent methacrylate (PMMA), fixed to the LED modules.
Fixing brackets in stainless steel.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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.

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 can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

WARNING

Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- double quick connection
- polycarbonate lenses (IK08 - 5J)
- wiring: twin-circuit, CLO (page 752)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- HACCP versions for use in the food industry
- emergency versions



3F LEM Wide

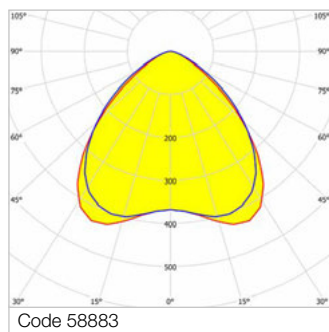
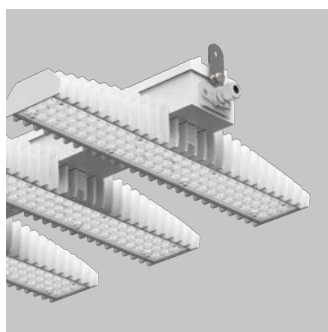


650°C

IP65

1J

IK06



Wide distribution with rectangular shape.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58881	3F LEM 1 LED 50 CR AMPIO	56	8369	4000	>80	542x115x150
59157	3F LEM 1 LED 50/865 CR AMPIO	56	8369	6500	>80	542x115x150
58885	3F LEM 1+1 LED 100 CR AMPIO	109	16738	4000	>80	1099x115x150
59161	3F LEM 1+1 LED 100/865 CR AMPIO	109	16738	6500	>80	1099x115x150
58882	3F LEM 2 LED 100 CR AMPIO	109	16738	4000	>80	470x542x129
59158	3F LEM 2 LED 100/865 CR AMPIO	109	16738	6500	>80	470x542x129
58883	3F LEM 3 LED 150 CR AMPIO	165	25106	4000	>80	657x542x129
59159	3F LEM 3 LED 150/865 CR AMPIO	165	25106	6500	>80	657x542x129
58884	3F LEM 4 LED 200 CR AMPIO	218	33475	4000	>80	757x542x129
59160	3F LEM 4 LED 200/865 CR AMPIO	218	33475	6500	>80	757x542x129
58886	3F LEM 5 LED 250 CR AMPIO	274	41844	4000	>80	952x542x129

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58899	3F LEM 1 LED 50 DALI CR AMPIO	56	8369	4000	>80	542x115x150
58903	3F LEM 1+1 LED 100 DALI CR AMPIO	109	16738	4000	>80	1099x115x150
58900	3F LEM 2 LED 100 DALI CR AMPIO	109	16738	4000	>80	470x542x129
58901	3F LEM 3 LED 150 DALI CR AMPIO	165	25106	4000	>80	657x542x129
58902	3F LEM 4 LED 200 DALI CR AMPIO	218	33475	4000	>80	757x542x129
58904	3F LEM 5 LED 250 DALI CR AMPIO	274	41844	4000	>80	952x542x129

3F LEM Medium

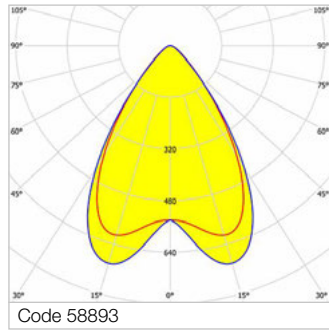
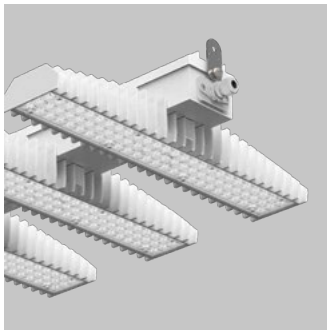


650°C

IP65

1J

IK06



Medium distribution with square shape.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58896	3F LEM 1+1 LED 100 CR MEDIO	109	17133	4000	>80	1099x115x150
58893	3F LEM 2 LED 100 CR MEDIO	109	17133	4000	>80	470x542x129
58894	3F LEM 3 LED 150 CR MEDIO	165	25700	4000	>80	657x542x129
58895	3F LEM 4 LED 200 CR MEDIO	218	34266	4000	>80	757x542x129
58897	3F LEM 5 LED 250 CR MEDIO	274	42833	4000	>80	952x542x129

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58914	3F LEM 1+1 LED 100 DALI CR MEDIO	109	17133	4000	>80	1099x115x150
58911	3F LEM 2 LED 100 DALI CR MEDIO	109	17133	4000	>80	470x542x129
58912	3F LEM 3 LED 150 DALI CR MEDIO	165	25700	4000	>80	657x542x129
58913	3F LEM 4 LED 200 DALI CR MEDIO	218	34266	4000	>80	757x542x129
58915	3F LEM 5 LED 250 DALI CR MEDIO	274	42833	4000	>80	952x542x129



3F LEM Concentrated

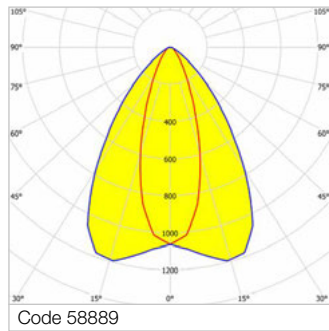
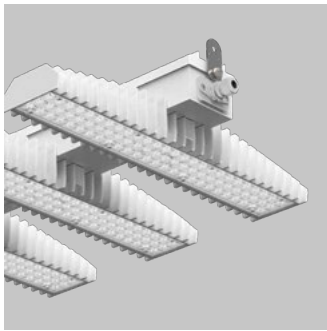


650°C

IP65

1J

IK06



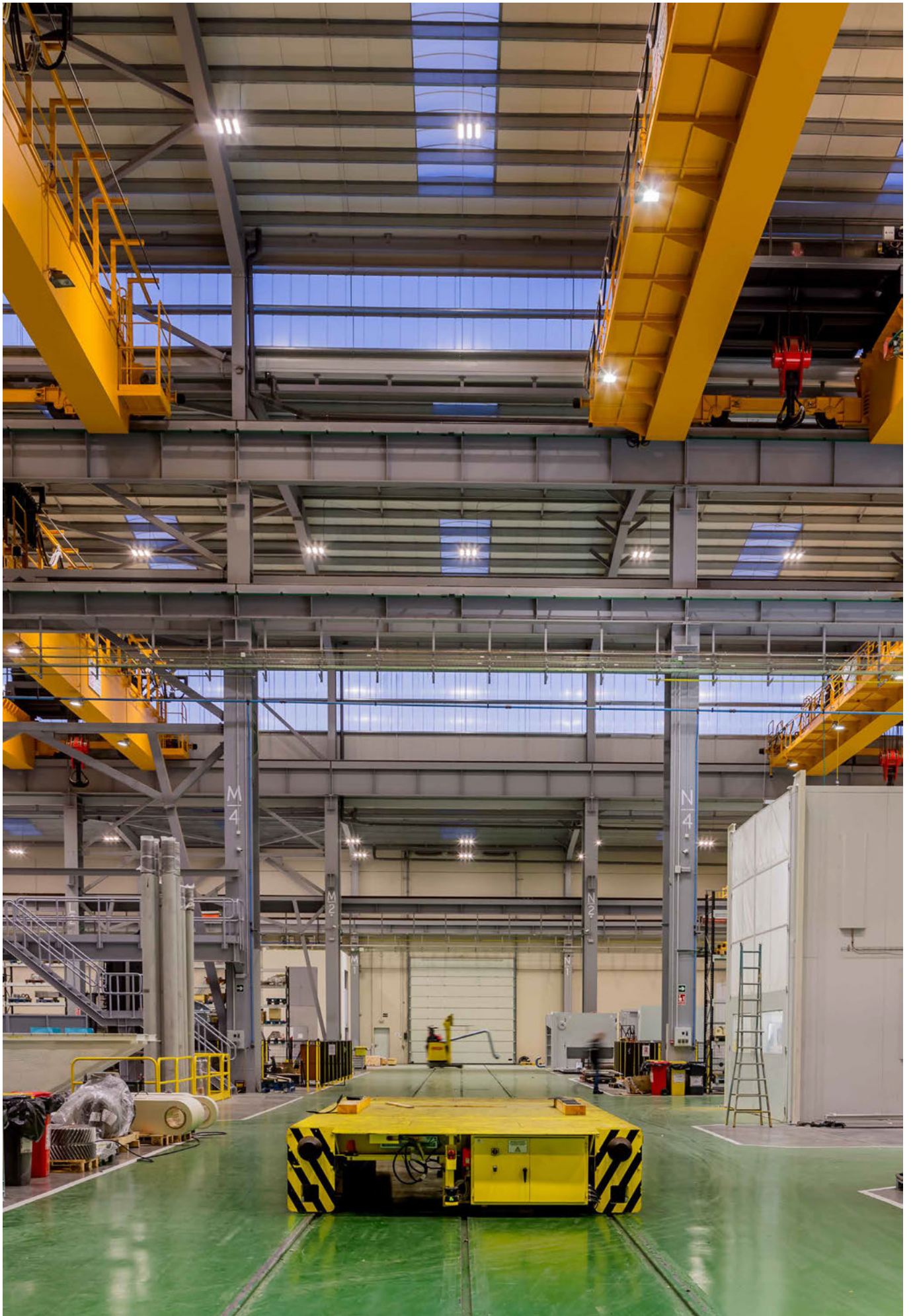
Concentrated elliptical distribution.

ON/OFF electronic wiring 230V-50/60Hz

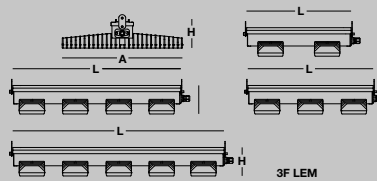
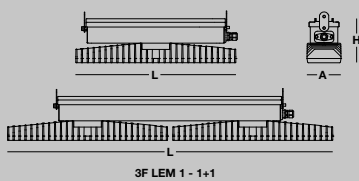
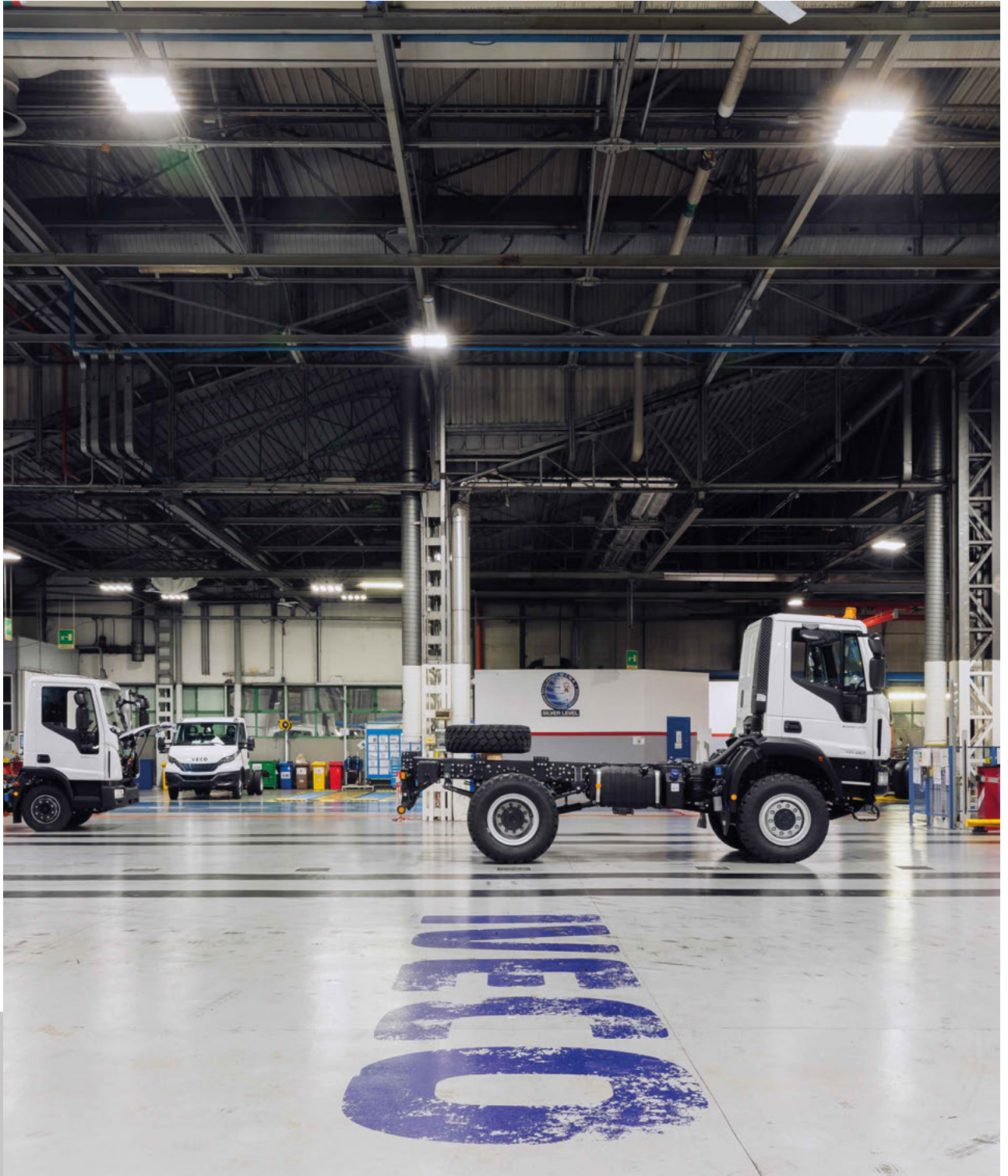
Code	Item	W	lm	K	CRI	L x A x H
58887	3F LEM 1 LED 50 CR CONC	56	8567	4000	>80	542x115x150
58888	3F LEM 2 LED 100 CR CONC	109	17133	4000	>80	470x542x129
59164	3F LEM 2 LED 100/865 CR CONC	109	17133	6500	>80	470x542x129
58889	3F LEM 3 LED 150 CR CONC	165	25700	4000	>80	657x542x129
59165	3F LEM 3 LED 150/865 CR CONC	165	25700	6500	>80	657x542x129
58890	3F LEM 4 LED 200 CR CONC	218	34266	4000	>80	757x542x129
59166	3F LEM 4 LED 200/865 CR CONC	218	34266	6500	>80	757x542x129

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58905	3F LEM 1 LED 50 DALI CR CONC	56	8567	4000	>80	542x115x150
58906	3F LEM 2 LED 100 DALI CR CONC	109	17133	4000	>80	470x542x129
58907	3F LEM 3 LED 150 DALI CR CONC	165	25700	4000	>80	657x542x129
58908	3F LEM 4 LED 200 DALI CR CONC	218	34266	4000	>80	757x542x129

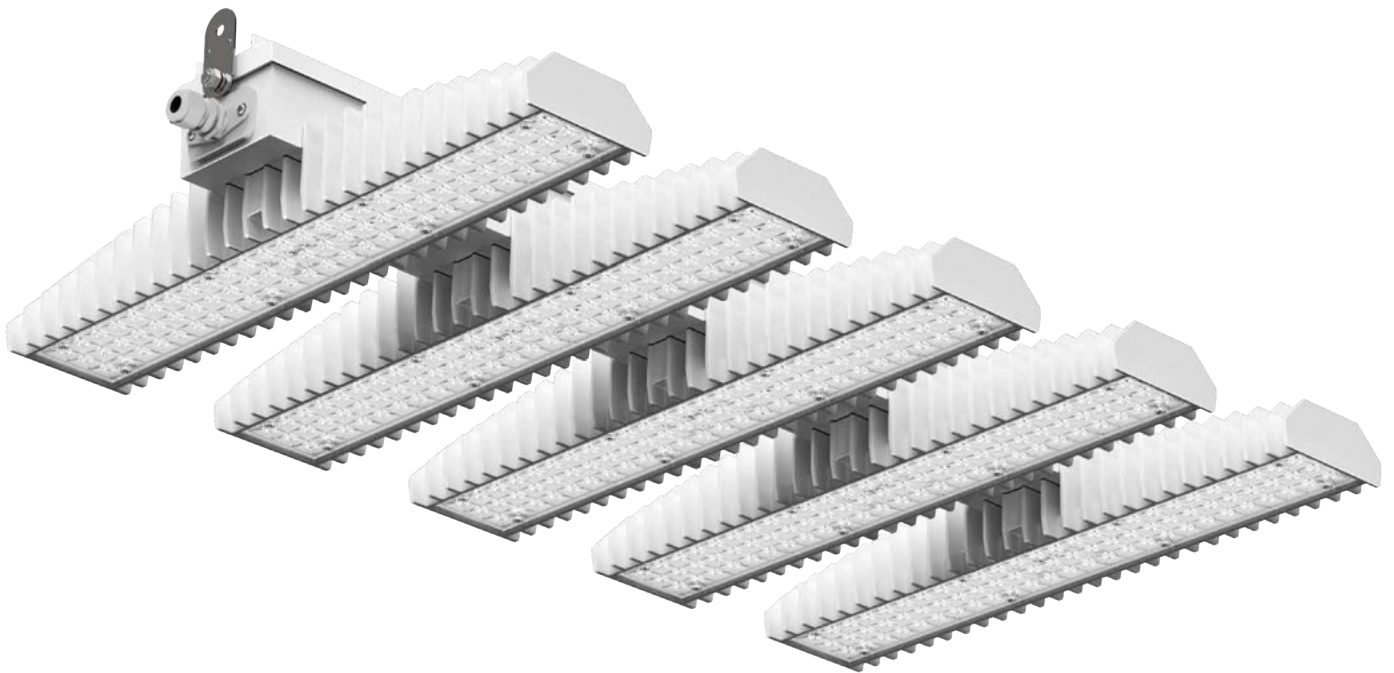


/ Waterproof and corrosion-proof



Iveco Brescia
Brescia
Italia/Italy





3F LEM High Output

ILLUMINOTECHNICAL

Wide, medium, concentrated symmetric elliptical distribution.
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Passive modular heatsinks in die-casted aluminium, painted in white colour.
 To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
 Wiring body in aluminium and galvanised steel anchored solidly to the sinks and thermally separated.
 3F Lens lenses with high luminous efficiency, transparent methacrylate (PMMA), fixed to the LED modules.
 Fixing brackets in stainless steel.

ELECTRICAL

In compliance with EN 60598-1.
 Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
 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.

APPLICATIONS

Ambient temperature from -30°C to +45°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 can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

WARNING

Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- double quick connection
- polycarbonate lenses (IK08)
- wiring: twin-circuit, CLO (page 752)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- HACCP versions for use in the food industry
- emergency versions



3F LEM HO Wide

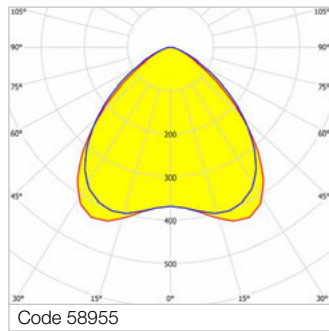
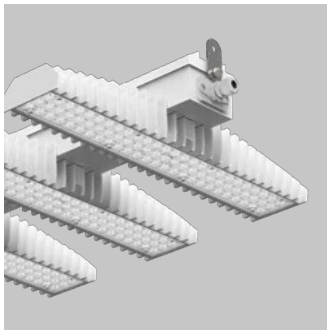


650°C

IP65

1J

IK06



Wide distribution with rectangular shape.

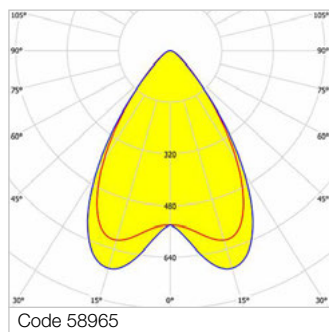
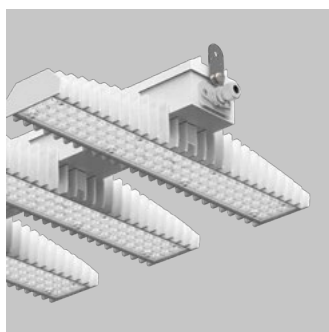
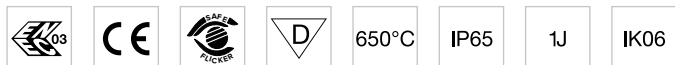
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58953	3F LEM 1 HO LED 70 CR AMPIO	71	11136	4000	>80	542x115x150
58957	3F LEM 1+1 HO LED 140 CR AMPIO	138	22271	4000	>80	1099x115x150
58954	3F LEM 2 HO LED 140 CR AMPIO	138	22271	4000	>80	470x542x129
58955	3F LEM 3 HO LED 210 CR AMPIO	207	33407	4000	>80	657x542x129
58956	3F LEM 4 HO LED 280 CR AMPIO	276	44543	4000	>80	757x542x129
58958	3F LEM 5 HO LED 350 CR AMPIO	345	55678	4000	>80	952x542x129

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58971	3F LEM 1 HO LED 70 DALI CR AMPIO	71	11136	4000	>80	542x115x150
58975	3F LEM 1+1 HO LED 140 DALI CR AMPIO	138	22271	4000	>80	1099x115x150
58972	3F LEM 2 HO LED 140 DALI CR AMPIO	138	22271	4000	>80	470x542x129
58973	3F LEM 3 HO LED 210 DALI CR AMPIO	207	33407	4000	>80	657x542x129
58974	3F LEM 4 HO LED 280 DALI CR AMPIO	276	44543	4000	>80	757x542x129
58976	3F LEM 5 HO LED 350 DALI CR AMPIO	345	55678	4000	>80	952x542x129

3F LEM HO Medium



Medium distribution with square shape.

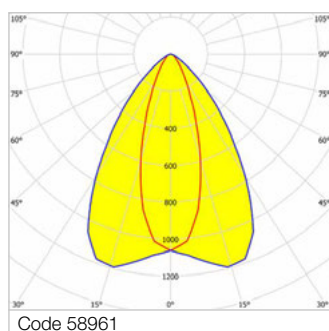
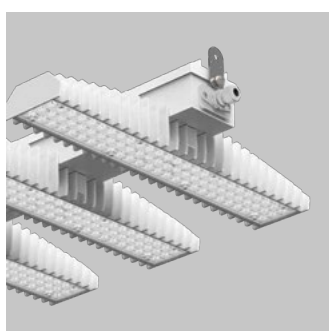
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58968	3F LEM 1+1 HO LED 140 CR MEDIO	138	22798	4000	>80	1099x115x150
58965	3F LEM 2 HO LED 140 CR MEDIO	138	22798	4000	>80	470x542x129
58966	3F LEM 3 HO LED 210 CR MEDIO	207	34196	4000	>80	657x542x129
58967	3F LEM 4 HO LED 280 CR MEDIO	276	45595	4000	>80	757x542x129
58969	3F LEM 5 HO LED 350 CR MEDIO	345	56994	4000	>80	952x542x129

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58986	3F LEM 1+1 HO LED 140 DALI CR MEDIO	138	22798	4000	>80	1099x115x150
58983	3F LEM 2 HO LED 140 DALI CR MEDIO	138	22798	4000	>80	470x542x129
58984	3F LEM 3 HO LED 210 DALI CR MEDIO	207	34196	4000	>80	657x542x129
58985	3F LEM 4 HO LED 280 DALI CR MEDIO	276	45595	4000	>80	757x542x129
58987	3F LEM 5 HO LED 350 DALI CR MEDIO	345	56994	4000	>80	952x542x129

3F LEM HO Concentrated



Concentrated elliptical distribution.

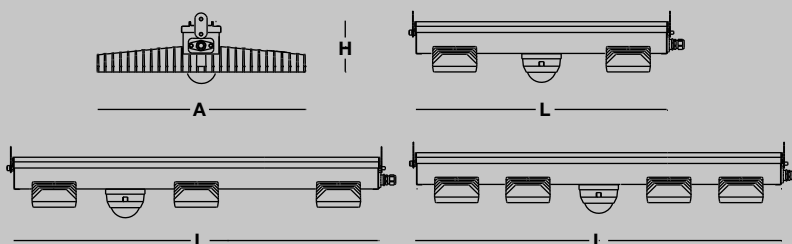
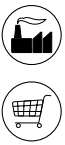
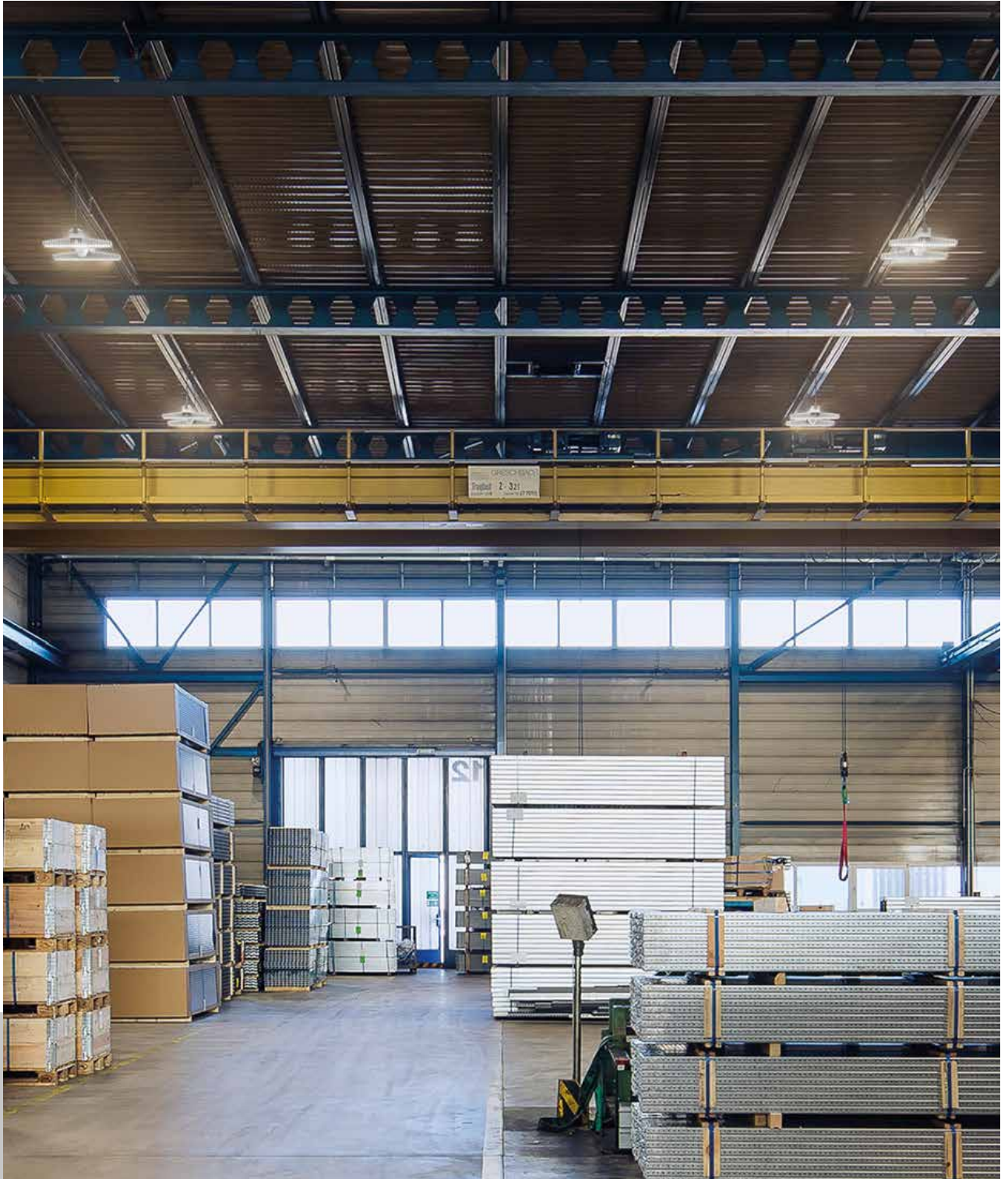
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
58959	3F LEM 1 HO LED 70 CR CONC	71	11399	4000	>80	542x115x150
58960	3F LEM 2 HO LED 140 CR CONC	138	22798	4000	>80	470x542x129
58961	3F LEM 3 HO LED 210 CR CONC	207	34196	4000	>80	657x542x129

DALI electronic wiring 230V-50/60Hz

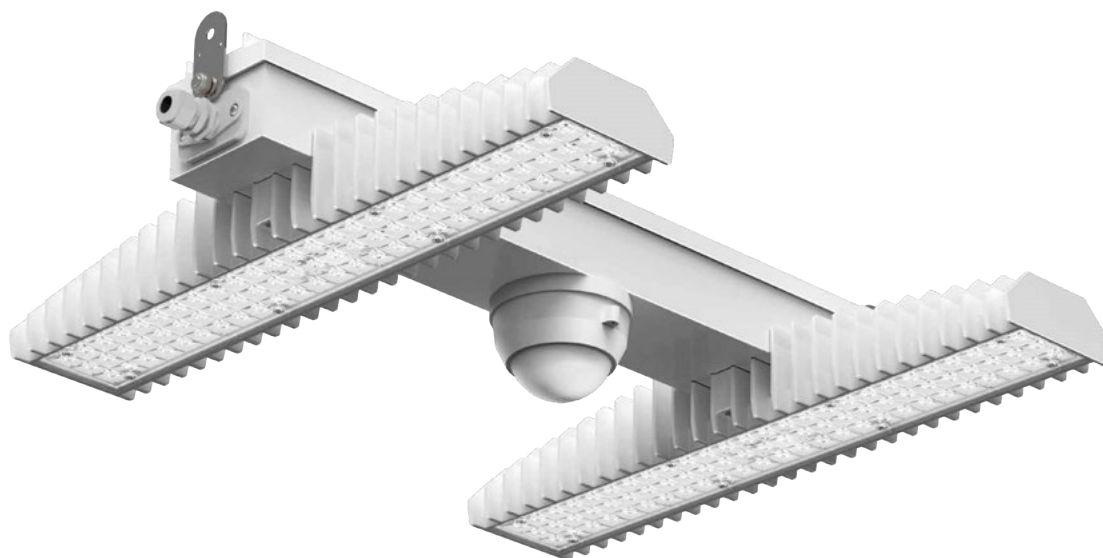
Code	Item	W	lm	K	CRI	L x A x H
58977	3F LEM 1 HO LED 70 DALI CR CONC	71	11399	4000	>80	542x115x150
58978	3F LEM 2 HO LED 140 DALI CR CONC	138	22798	4000	>80	470x542x129
58979	3F LEM 3 HO LED 210 DALI CR CONC	207	34196	4000	>80	657x542x129

/ Waterproof and corrosion-proof



Forming AG
Möhlin
Switzerland





3F LEM Sensor

ILLUMINOTECHNICAL

Wide, medium, concentrated symmetric elliptical distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Passive modular heatsinks in die-casted aluminium, painted in white colour.
To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
Wiring body in aluminium and galvanised steel anchored solidly to the sinks and thermally separated.
3F Lens lenses with high luminous efficiency, transparent methacrylate (PMMA), fixed to the LED modules.
Fixing brackets in stainless steel.

ELECTRICAL

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.
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 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.

INSTALLATION

Recommended maximum height 13 m.

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 (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 Sensor products are all fitted with light and presence sensors integrated (page 730).

WARNING

Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

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
- emergency versions



3F LEM Sensor Wide

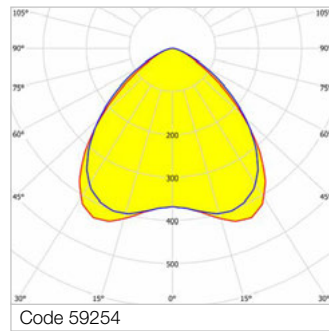
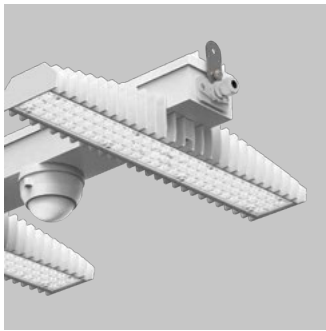


650°C

IP54

0,5J

IK04



Wide distribution with rectangular shape.

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.

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
59253	3F LEM 2 LED 100 DALI Sensor CR AMPIO	110	16738	4000	>80	657x542x129
59254	3F LEM 3 LED 150 DALI Sensor CR AMPIO	166	25106	4000	>80	952x542x129
59255	3F LEM 4 LED 200 DALI Sensor CR AMPIO	219	33475	4000	>80	952x542x129

3F LEM Sensor Medium

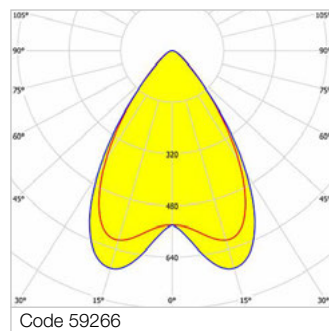
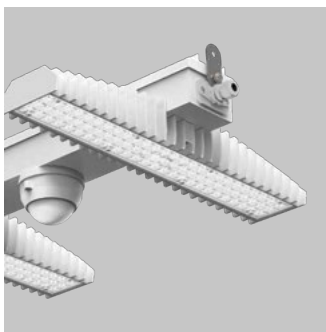


650°C

IP54

0,5J

IK04



Medium distribution with square shape.

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.

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
59265	3F LEM 2 LED 100 DALI Sensor CR MEDIO	110	17133	4000	>80	657x542x129
59266	3F LEM 3 LED 150 DALI Sensor CR MEDIO	166	25700	4000	>80	952x542x129
59267	3F LEM 4 LED 200 DALI Sensor CR MEDIO	219	34266	4000	>80	952x542x129

3F LEM Sensor Concentrated

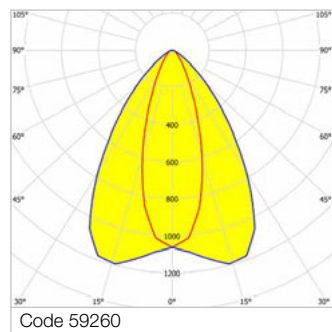
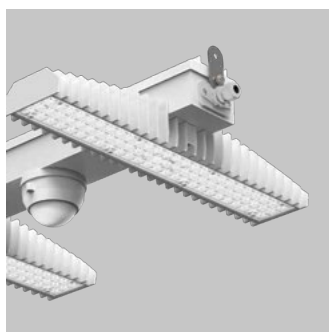


650°C

IP54

0,5J

IK04



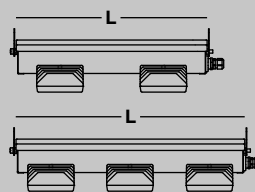
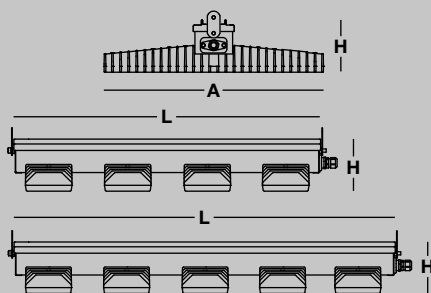
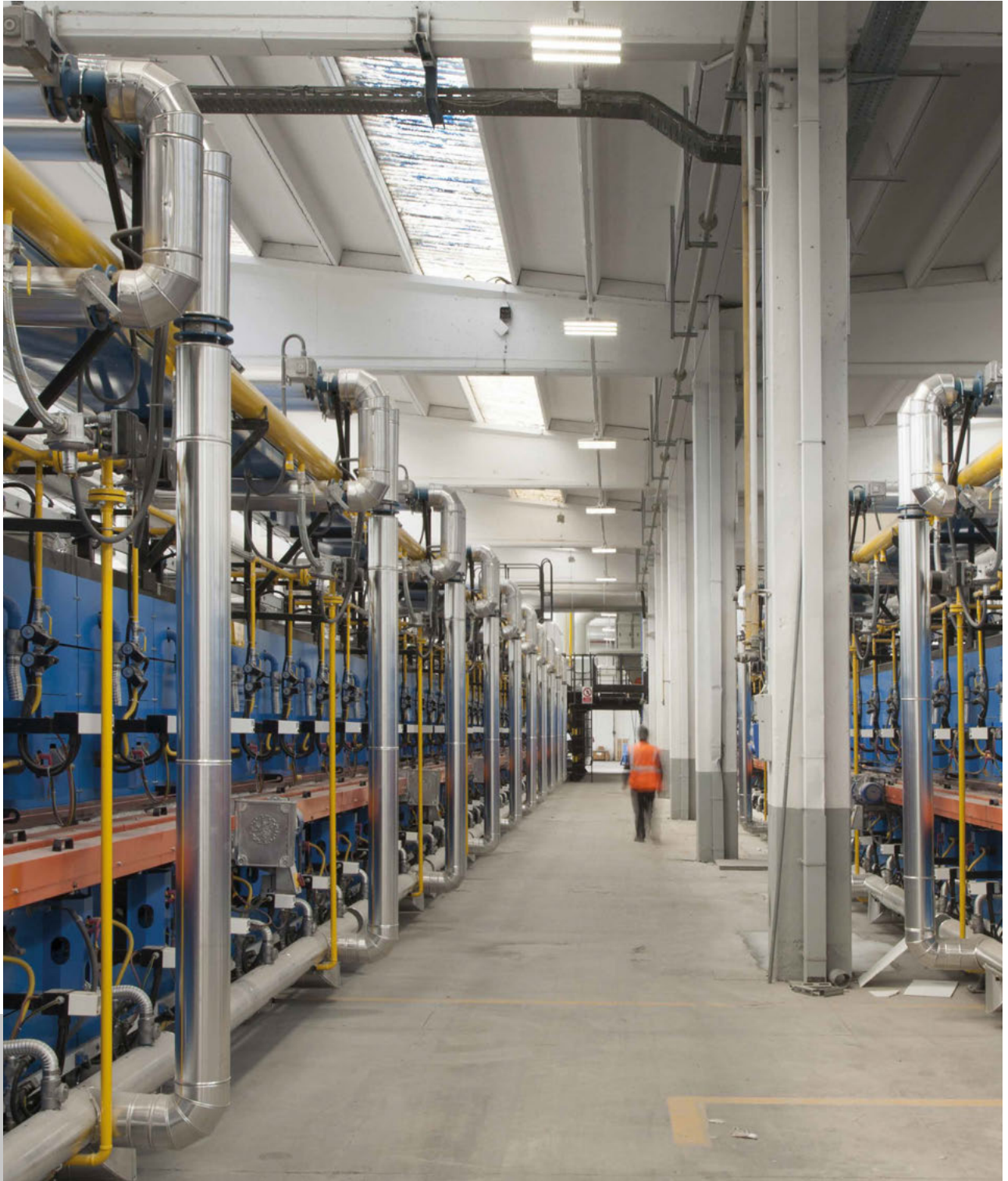
Concentrated elliptical distribution.
 Integrated DALI light and presence sensor on the luminaire, to keep lighting levels constant in accordance with the amount of natural light and the presence of persons.
 Turns on and off and is regulated according to the level of light and the presence of persons.

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
59259	3F LEM 2 LED 100 DALI Sensor CR CONC	110	17133	4000	>80	657x542x129
59260	3F LEM 3 LED 150 DALI Sensor CR CONC	166	25700	4000	>80	952x542x129
59261	3F LEM 4 LED 200 DALI Sensor CR CONC	219	34266	4000	>80	952x542x129

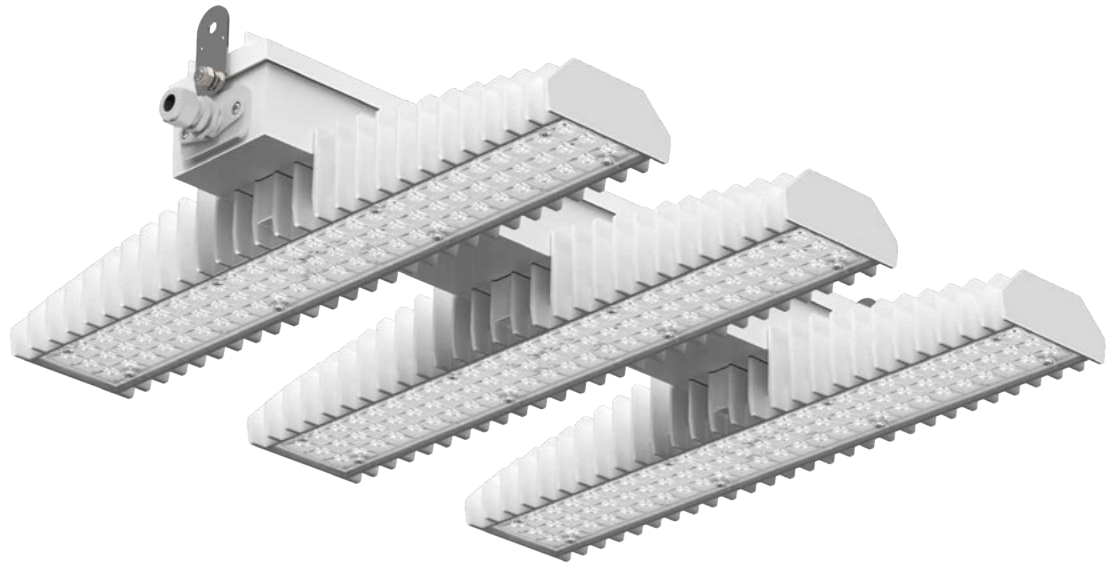


/ Waterproof and corrosion-proof



Gruppo Del Conca
Savignano sul Panaro (MO)
Italia/Italy





3F LEM High Temperature

ILLUMINOTECHNICAL

Wide, medium, concentrated symmetric elliptical distribution.
 Lifetime (L80/B10): 100000 h. (tq+25°C)
 Luminous flux at +70°C: -13.5%.
 Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Passive modular heatsinks in die-casted aluminium, painted in white colour.
 To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
 Wiring body in aluminium and galvanised 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

In compliance with EN 60598-1.
 Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
 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.

APPLICATIONS

Ambient temperature from -30°C to +70°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.

WARNING

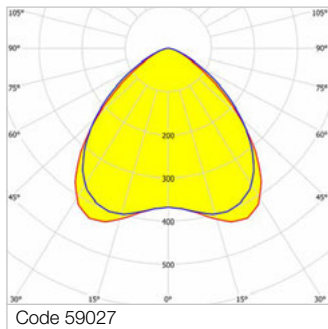
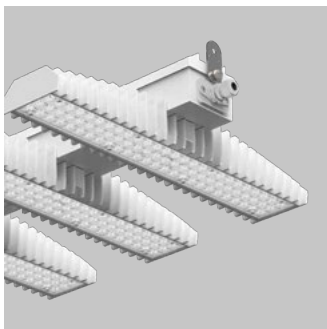
Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- double quick connection
- wiring: twin-circuit, dimmable, CLO (page 752)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- HACCP versions for use in the food industry



3F LEM HT Wide

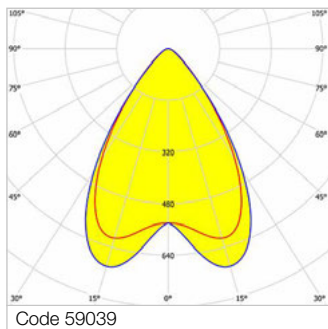
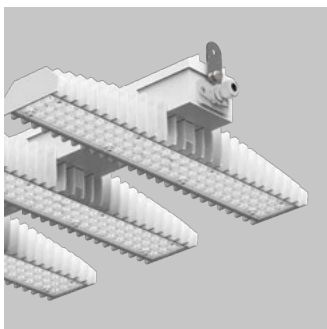


Wide distribution with rectangular shape.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
59039	3F LEM 4 HT LED 120 CR MEDIO	136	21725	4000	>80	757x542x129
59041	3F LEM 5 HT LED 150 CR MEDIO	170	27156	4000	>80	952x542x129

3F LEM HT Concentrated

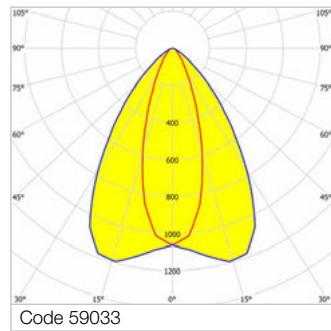
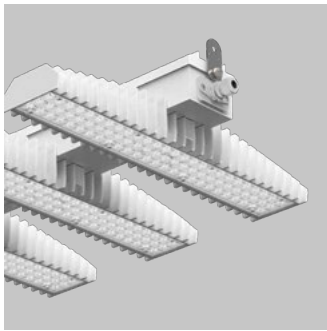


850°C

IP65

5J

IK08



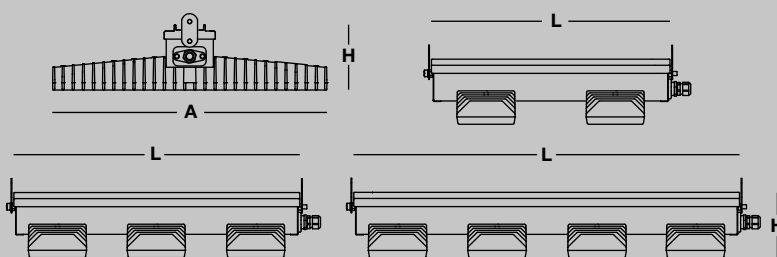
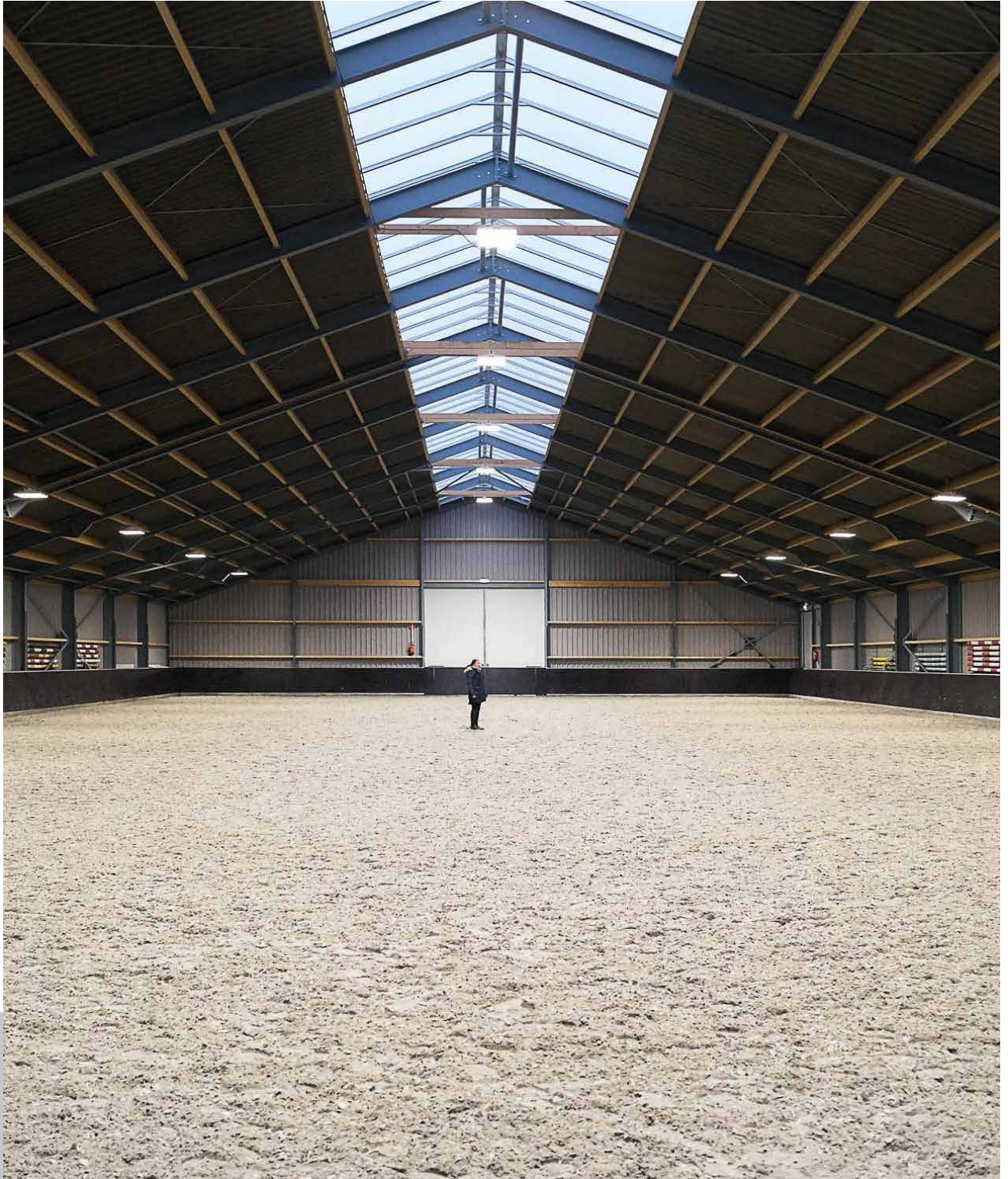
Concentrated elliptical distribution.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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

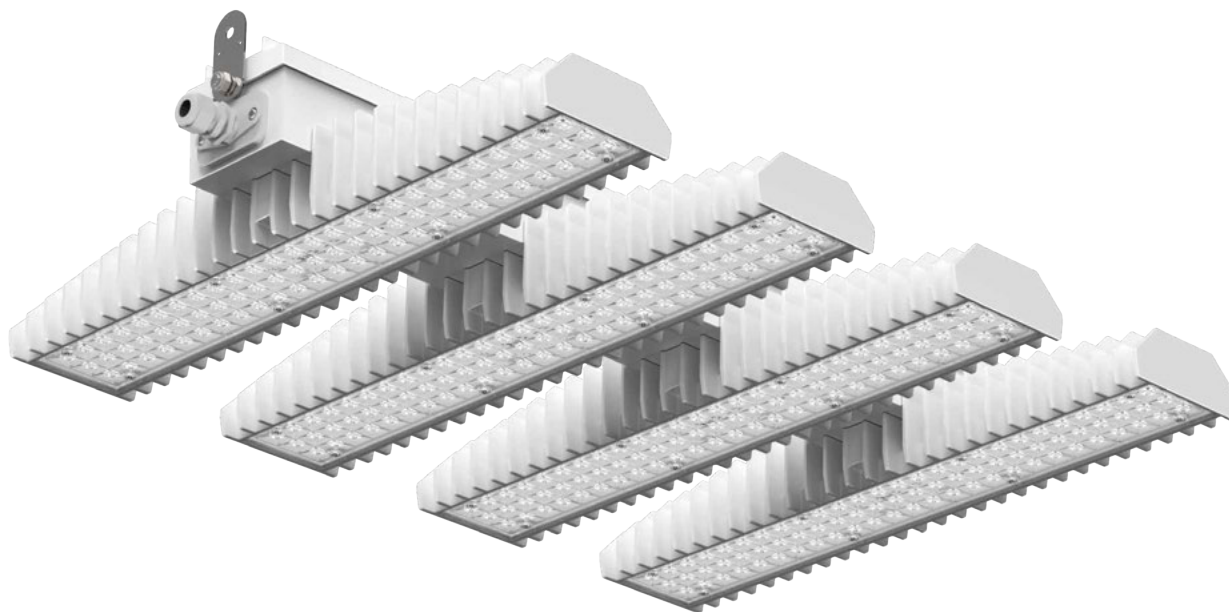


/ Waterproof and corrosion-proof



Nunspeetse Ruitersclub
Doornspijk
Nederland/Netherlands





3F LEM Sport

ILLUMINOTECHNICAL

Wide symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Passive modular heatsinks in die-casted aluminium, painted in white colour.
To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
Wiring body in aluminium and steel in white colour, specially strengthened, anchored solidly to the sinks and thermally separated.
3F Lens lenses with high luminous efficiency, transparent methacrylate (PMMA), fixed to the LED modules.
Fixing brackets in stainless steel.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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.

APPLICATIONS

Ambient temperature from -30°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 (page 802).

Dry, dusty indoor environments, subject to occasional water splashes.

WARNING

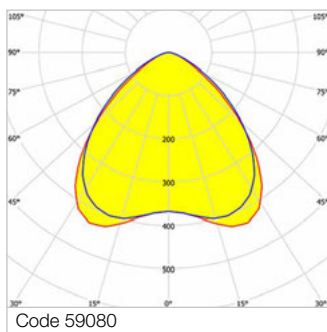
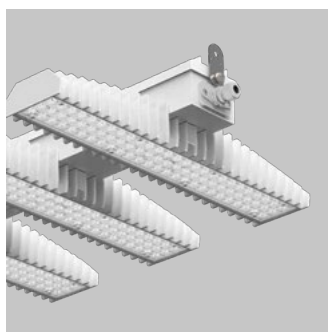
Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different powers or colour temperatures
- double quick connection
- polycarbonate lenses (IK08 - 5J)
- wiring: twin-circuit, CLO (page 752)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions



3F LEM Sport Wide



Wide distribution with rectangular shape.

ON/OFF electronic wiring 230V-50/60Hz

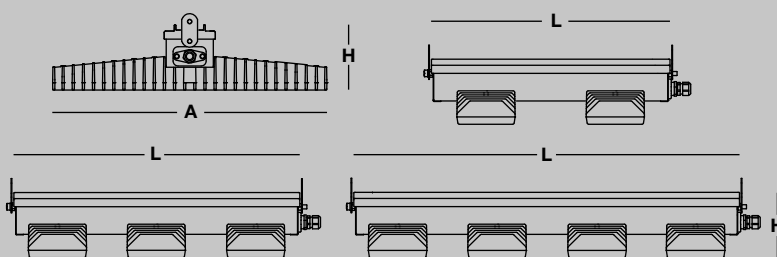
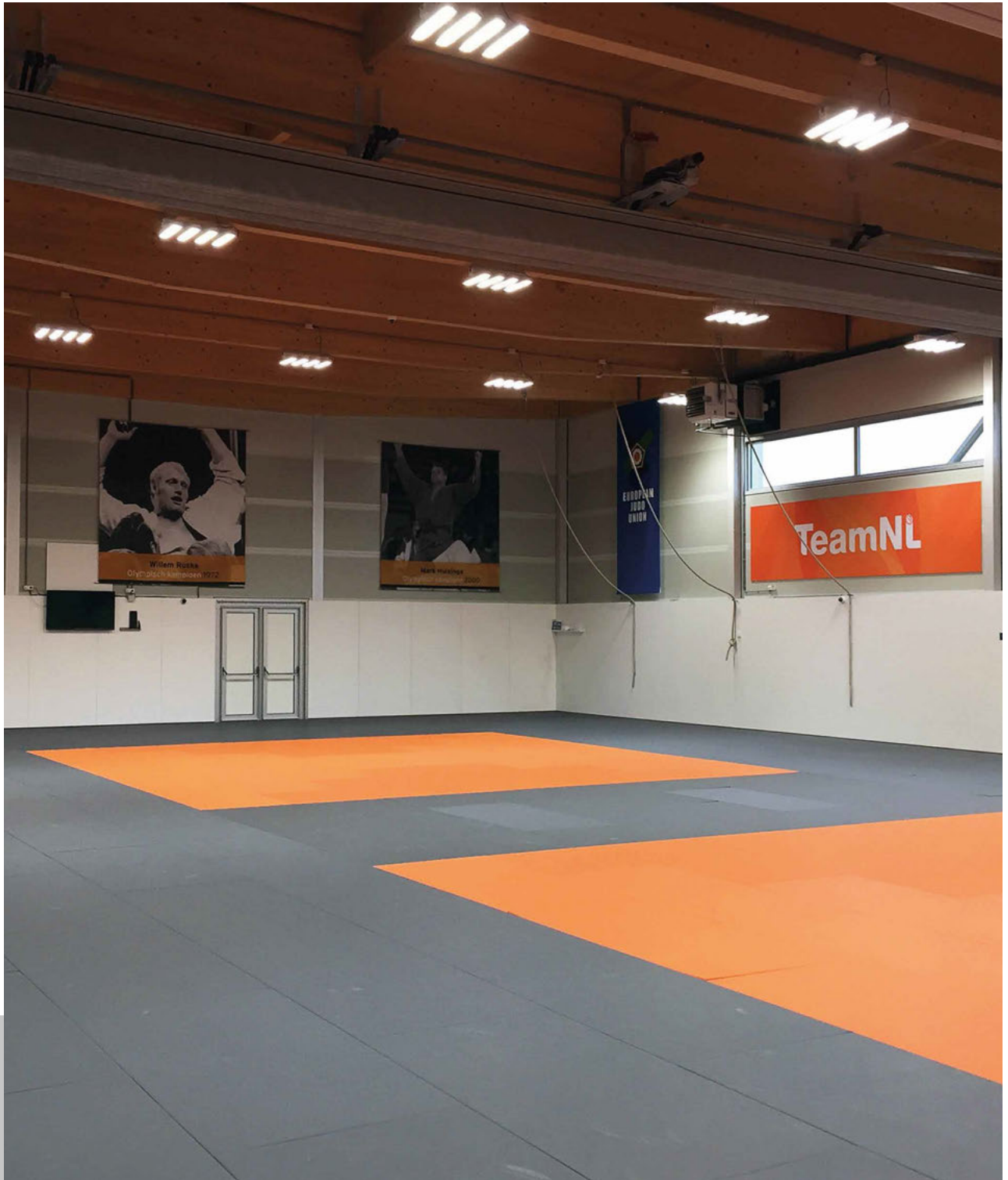
Code	Item	W	lm	K	CRI	L x A x H
59080	3F LEM 2 SPORT LED 100 CR AMPIO	109	16738	4000	>80	470x542x129
59081	3F LEM 3 SPORT LED 150 CR AMPIO	165	25106	4000	>80	657x542x129
59082	3F LEM 4 SPORT LED 200 CR AMPIO	218	33475	4000	>80	757x542x129
59275	3F LEM 2 SPORT LED 100/940 CR AMPIO	109	13725	4000	>90	470x542x129
59276	3F LEM 3 SPORT LED 150/940 CR AMPIO	165	20587	4000	>90	657x542x129
59277	3F LEM 4 SPORT LED 200/940 CR AMPIO	218	27450	4000	>90	757x542x129

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
59093	3F LEM 2 SPORT LED 100 DALI CR AMPIO	109	16738	4000	>80	470x542x129
59094	3F LEM 3 SPORT LED 150 DALI CR AMPIO	165	25106	4000	>80	657x542x129
59095	3F LEM 4 SPORT LED 200 DALI CR AMPIO	218	33475	4000	>80	757x542x129
59281	3F LEM 2 SPORT LED 100/940 DALI CR AMPIO	109	13725	4000	>90	470x542x129
59282	3F LEM 3 SPORT LED 150/940 DALI CR AMPIO	165	20587	4000	>90	657x542x129
59283	3F LEM 4 SPORT LED 200/940 DALI CR AMPIO	218	27450	4000	>90	757x542x129

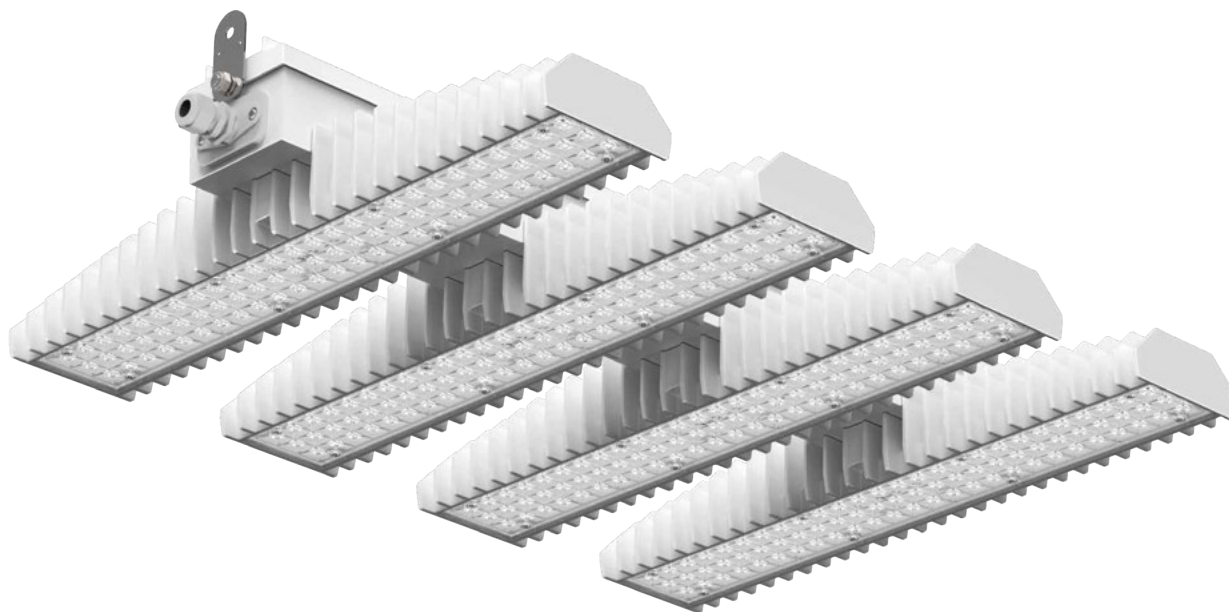


/ Waterproof and corrosion-proof



Centro Sportivo
Papendal
Nederland/Netherlands





3F LEM Sport High Output

ILLUMINOTECHNICAL

Wide symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Passive modular heatsinks in die-casted aluminium, painted in white colour.
To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
Wiring body in aluminium and steel in white colour, specially strengthened, anchored solidly to the sinks and thermally separated.
3F Lens lenses with high luminous efficiency, transparent methacrylate (PMMA), fixed to the LED modules.
Fixing brackets in stainless steel.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
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.

APPLICATIONS

Ambient temperature from -30°C to +45°C.
Luminaire suitable for gyms as well as sports, commercial, exhibition and industrial environments.

Resistance against ball impacts in accordance with DIN 18032-3 (page 802).

Dry, dusty indoor environments, subject to occasional water splashes.

WARNING

Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different powers or colour temperatures
- double quick connection
- polycarbonate lenses (IK08 - 5J)
- wiring: twin-circuit, CLO (page 752)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions



3F LEM Sport HO Wide

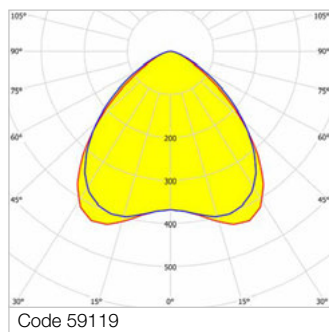
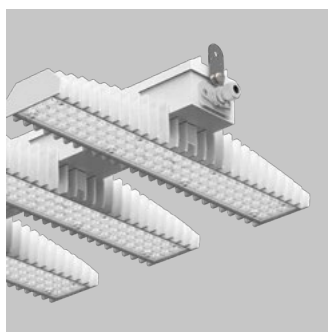


650°C

IP65

1J

IK06



Wide distribution with rectangular shape.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
59119	3F LEM 2 HO SPORT LED 140 CR AMPIO	138	22271	4000	>80	470x542x129
59120	3F LEM 3 HO SPORT LED 210 CR AMPIO	207	33407	4000	>80	657x542x129
59287	3F LEM 2 HO SPORT LED 140/940 CR AMPIO	147	17143	4000	>90	470x542x129
59288	3F LEM 3 HO SPORT LED 210/940 CR AMPIO	222	25715	4000	>90	657x542x129

DALI electronic wiring 230V-50/60Hz

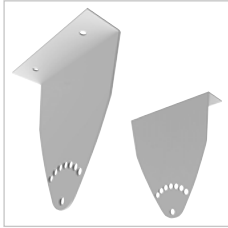
Code	Item	W	lm	K	CRI	L x A x H
59132	3F LEM 2 HO SPORT LED 140 DALI CR AMPIO	138	22271	4000	>80	470x542x129
59133	3F LEM 3 HO SPORT LED 210 DALI CR AMPIO	207	33407	4000	>80	657x542x129
59293	3F LEM 2 HO SPORT LED 140/940 DALI CR AMPIO	147	17143	4000	>90	470x542x129
59294	3F LEM 3 HO SPORT LED 210/940 DALI CR AMPIO	222	25715	4000	>90	657x542x129

3F LEM | Accessories



Code	Item
A0652	Pair of brack. ceiling instal. 3F LEM

Brackets for mounting of luminaire on ceiling or on bus ducts, stainless steel.
Please note: these brackets do NOT provide free orientation of the luminaire. To allow free orientation, accessories A0651+A0632 must be installed.



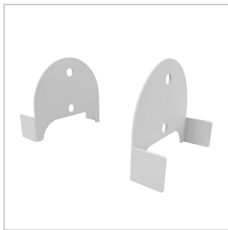
Code	Item
A0632	Pair of brack. ceiling instal. 3F LEM

Brackets for ceiling mounting, in hot-galvanised steel painted in white polyester.
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.



Code	Item
A0654	Pair of wall brackets - 3F LEM

Brackets for wall mounting, in hot-galvanised steel painted in white polyester.
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.



Code	Item
A0651	Bracket rotation support 3F LEM

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-galvanised steel painted in white polyester.
This accessory must ALWAYS be used with one of the following codes: A0632 - A0654.



Code	Item
A0776	Horiz. rot. bracket 90° 3F LEM 1-2
A0777	Horiz. rot. brack. 90° 3F LEM 3-2 Sensor
A0778	Horizontal rotating bracket 90° 3F LEM 4

Brackets for rotating luminaires mounted on ceilings or on bus ducts.

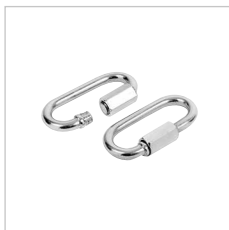


Code	Item
A0728	Cover for food appl. 3F LEM 1
A0733	Cov.food appl.single mod.3F LEM(2-3-4-5)

Dust covers for food processing areas in white-painted galvanised steel.
For a LEM 3, for example, 3 pcs of the cod. A0733 must be ordered. Not available for the 1+1 version. Note: the maximum ambient operating temperatures of the fixtures decrease by 10°C in all families, except for the High Output versions in which the reduction is 5°C. The reduction in the luminous flux emitted is equal to 3% in all models in the range.

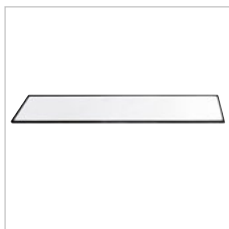
HACCP





Code	Item
A0653	Pair of fixing carab.for chain instal.

Snap hooks clips for chain suspension, galvanised steel.



Code	Item
A0811	Transparent glass with gasket (10pcs) The pack contains 10 pieces.
A0812	Moulded glass with gasket (10pcs) The pack contains 10 pieces.

Glass with gasket to protect the louvre compartment from dust. Recommended for use in very dirty environments.



Code	Item
A0242	15SS galvanised steel cable coil 100m The pack contains 100 metres.
A0243	15BF galvanised steel cable coil 500m The pack contains 500 metres.

Anti-fall safety cable \varnothing 2 mm for fastening the body to the building structure.

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.



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

Clamp in nickel-plated brass suitable for fixing and adjustment of galvanised 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
A0521	Reducing sealing ring diam.8mm

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.



Code	Item
A3021	IR DALI - Remote controller

IR remote control for user, compatible with DALI sensors (incompatible with On-Off and Slave sensors).
Accessory compatible with 3F LEM - Sensor.





Code	Item
A3020	IR DALI - Programmer

IR remote control for programmer, compatible with DALI sensors (incompatible with On-Off and Slave sensors).

Accessory compatible with 3F LEM - Sensor.



Code	Item
A3022	IR - Adapter for Smartphone

IR adapter for Smartphones, compatible with all programmable sensors. Free App available for Android and iOS devices.

Accessory compatible with 3F LEM - Sensor.

Accessory always required to exclude the sensor presence function.



3F LEM

Examples of design

Comparison to 400W JM reflector

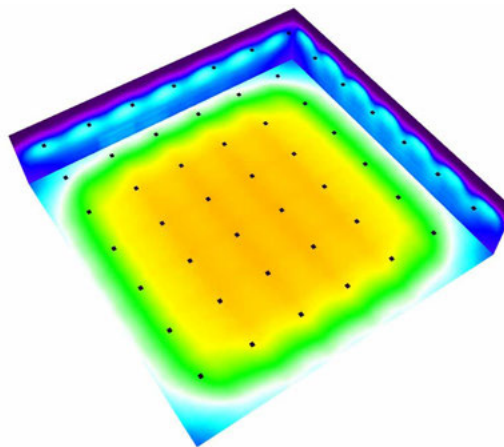
Design data:

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	385 lx (MEDIO) - 361 lx (AMPIO)	325 lx (MEDIO) - 301 lx (AMPIO)
Number of light points	49	49	20
Total luminaire	21.560 W	6.762 W	5.520 W
Difference		-69%	-74%
Average source life	8.000 hours	>100.000 hours	>100.000 hours

Comparison to 250W JM reflector

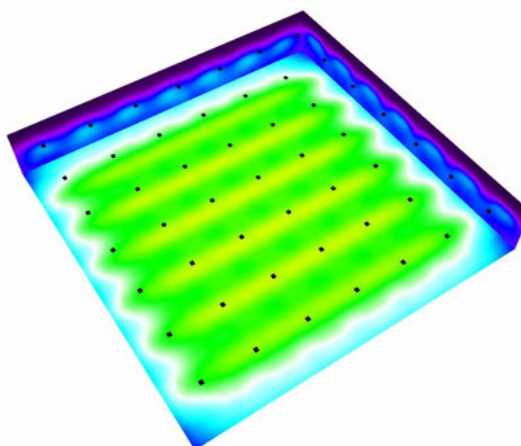
Design data:

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	287 lx (MEDIO) - 276 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







Beta 235

> www.3F-Filippi.com/Beta 235

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.

This product is also available in this version Beta i3F (page 666).

+ Overview

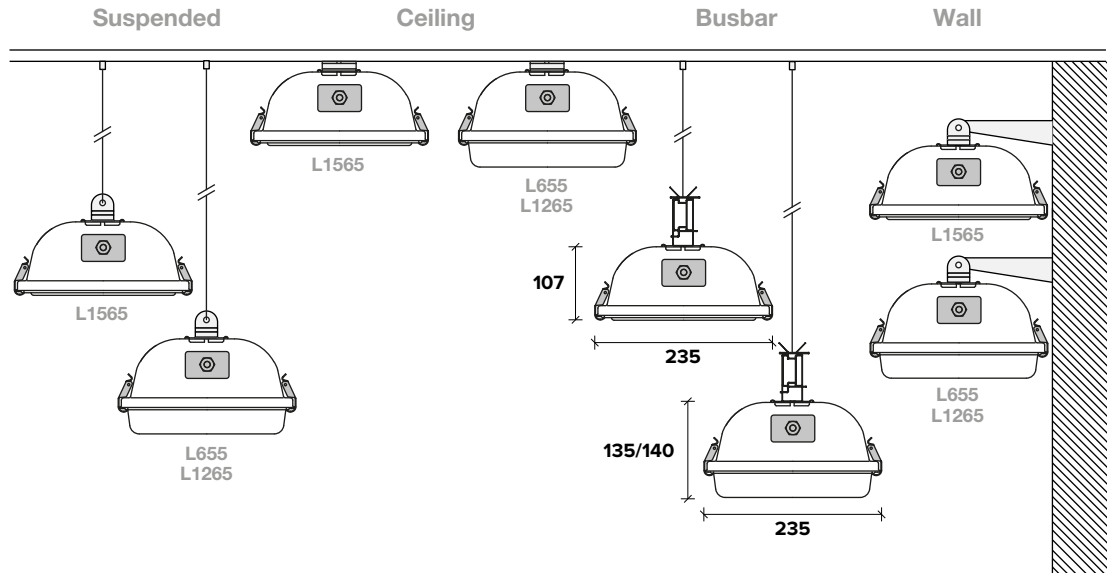
- Luminous efficacy up to 149 lumen/watt.
- Luminous fluxes from 3372 to 16990 lumens.
- Extensive installation pitch.
- 4 different photometric distributions.
- Quick and easy cleaning.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Fast relamping thanks to the fixing centres compatible with previous generations.
- Versatility of use in different environments.
- Thanks to the FastWiring system, the installation time is drastically reduced.

Page	Product	Steel	Stainless steel
642	UPDATE Beta 235 Steel	•	
656	UPDATE Beta 235 Stainless Steel		•

Product range

Beta 235

Polycarbonate screen / glass screen



Beta 235 PC

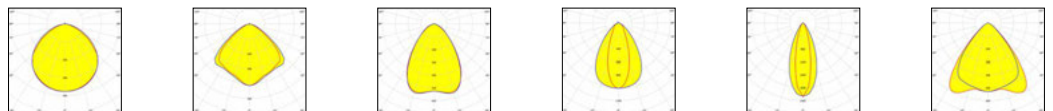


Model	PC Lite	PC Wide	PC Medium	PC Conc	PC Iperconc	PC UGR
UGR	<22	<21	<19	<19	<19	<19







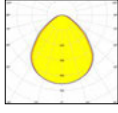
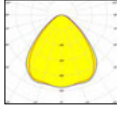
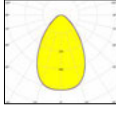
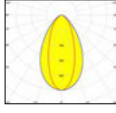
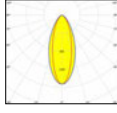
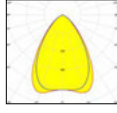
Finishes






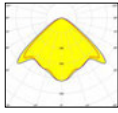
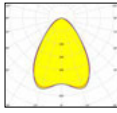
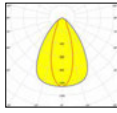
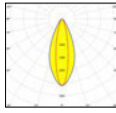
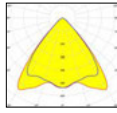
Steel | Stainless steel

Photometric distribution



Installation steps	Dt	1,27	1,20	1,17	0,60	0,40	1,41
	DI	1,27	1,30	1,16	1,10	0,70	1,26

Beta 235 VS						
						
Model	VS Lite	VS Wide	VS Medium	VS Conc	VS Iperconc	VS UGR
UGR	<22	<21	<19	<19	<19	<19
Finishes	Steel Stainless steel					
Photometric distribution						
Installation steps	Dt 1,24 DI 1,25	1,30 1,30	1,00 1,00	0,60 0,90	0,50 0,70	1,16 1,08

Beta 235 VT					
					
Model	VT Wide	VT Medium	VT Conc	VT Iperconc	VT UGR
UGR	<21	<19	<19	<19	<19
Finishes	Steel Stainless steel				
Photometric distribution					
Installation steps	Dt 1,20 DI 1,20	1,20 1,19	0,60 1,10	0,40 0,70	1,48 1,36



Product advantages

SCREENS AND FINISHES

Beta 235 is available in two different versions and three different diffuser types:

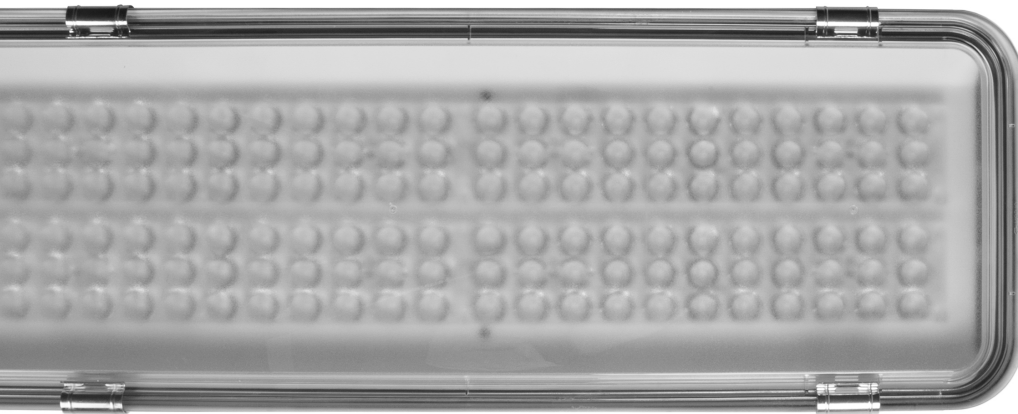
Finishes



Steel



Stainless steel



PC
Polycarbonate Diffuser



VS
Moulded Glass



VT
Transparent Glass

QUICK CONNECTION

Thanks to the FastWiring system, the installation time for Beta 235 is significantly reduced:



1

Beta 235 is supplied with our new "FastWiring" quick connector. Here is what it looks like when removed from the packaging.



2

Remove the support by grasping the tab.



3

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.



4

Push the sliding support into the luminaire and screw down the two phillips head screws on the closing cap.



5

Done!
Beta 235 is now ready for installation.



UPDATE

/ Waterproof and corrosion-proof



Polycarbonate

Beta 235 L

Glass



Polycarbonate

Beta 235 L 1265 -

Glass



Borghi S.p.A.
Castelfranco Emilia (MO)
Italia/Italy





Beta 235 Steel

ILLUMINOTECHNICAL

Symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

LED modules.
Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

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.
Galvanised steel snap-lock clips for attaching screens (safety n° 4 per fixture).

ELECTRICAL

Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.

INSTALLATION

Ceiling, suspended, on busbar or wall-mounted.
For mounting hooks and brackets see accessories on page 663.

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 in production plants in the food industry (HACCP / IFS / BRC-Standard).

VT version

On request, HACCP versions for use in the food industry.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

WARNING

Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- laminated glass
- wiring: CLO (page 752), twin-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions



Beta 235 75 PC Lite



850°C

IP65

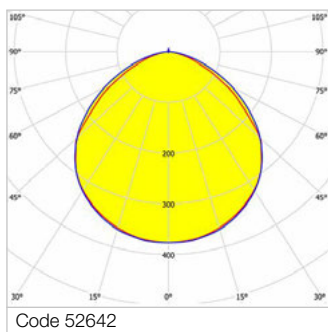
20J

10J
L1565

IK10

IK09
L1565

HACCP



Symmetric distribution.

Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, 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).

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52639 ^{NEW}	Beta 235 LED 751x50 L1265	56	8119	4000	>80	1265x235x135
52640 ^{NEW}	Beta 235 LED 751x60 L1565	65	9425	4000	>80	1565x235x107
52641 ^{NEW}	Beta 235 LED 752x45 L1265	92	14253	4000	>80	1265x235x135
52642 ^{NEW}	Beta 235 LED 752x55 L1565	112	16599	4000	>80	1565x235x107

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52643 ^{NEW}	Beta 235 LED 751x50 DALI L1265	56	8119	4000	>80	1265x235x135
52644 ^{NEW}	Beta 235 LED 751x60 DALI L1565	65	9425	4000	>80	1565x235x107
52645 ^{NEW}	Beta 235 LED 752x45 DALI L1265	92	14253	4000	>80	1265x235x135
52646 ^{NEW}	Beta 235 LED 752x55 DALI L1565	112	16599	4000	>80	1565x235x107

Beta 235 75 PC Wide



850°C

IP65

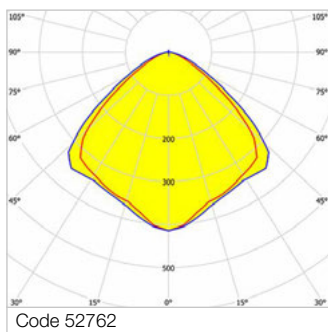
20J

10J
L1565

IK10

IK09
L1565

HACCP



Wide symmetric lighting distribution.

Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, 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).
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

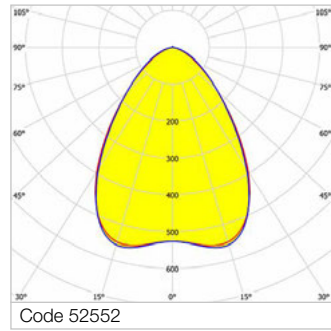
Code	Item	W	lm	K	CRI	L x A x H
52931	Beta 235 LED 751x25 AMPIO L655	27.5	3326	4000	>80	655x235x140
52930	Beta 235 LED 752x20 AMPIO L655	42	6533	4000	>80	655x235x140
52849	Beta 235 LED 751x50 AMPIO L1265	56	8174	4000	>80	1265x235x135
52765	Beta 235 LED 751x60 AMPIO L1565	65	9259	4000	>80	1565x235x107
52846	Beta 235 LED 752x45 AMPIO L1265	92	14369	4000	>80	1265x235x135
52762	Beta 235 LED 752x55 AMPIO L1565	112	16300	4000	>80	1565x235x107

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52807	Beta 235 LED 751x60 DALI AMPIO L1565	65	9259	4000	>80	1565x235x107
52888	Beta 235 LED 752x45 DALI AMPIO L1265	92	14369	4000	>80	1265x235x135
52804	Beta 235 LED 752x55 DALI AMPIO L1565	112	16300	4000	>80	1565x235x107



Beta 235 75 PC Medium



Medium symmetric distribution.
 Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, 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).
 Methacrylate (PMMA) lenses with external flat surface.

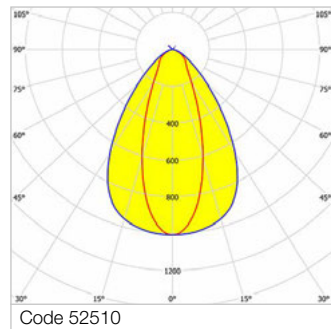
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52567	Beta 235 LED 751x50 MEDIO L1265	56	7585	4000	>80	1265x235x135
52553	Beta 235 LED 751x60 MEDIO L1565	65	8813	4000	>80	1565x235x107
52566	Beta 235 LED 752x45 MEDIO L1265	92	13252	4000	>80	1265x235x135
52552	Beta 235 LED 752x55 MEDIO L1565	112	15424	4000	>80	1565x235x107

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52574	Beta 235 LED 751x50 DALI MEDIO L1265	56	7585	4000	>80	1265x235x135
52560	Beta 235 LED 751x60 DALI MEDIO L1565	65	8813	4000	>80	1565x235x107
52573	Beta 235 LED 752x45 DALI MEDIO L1265	92	13252	4000	>80	1265x235x135
52559	Beta 235 LED 752x55 DALI MEDIO L1565	112	15424	4000	>80	1565x235x107

Beta 235 75 PC Concentrated



Concentrated elliptical distribution.
 Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, 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).
 Methacrylate (PMMA) lenses with external flat surface.

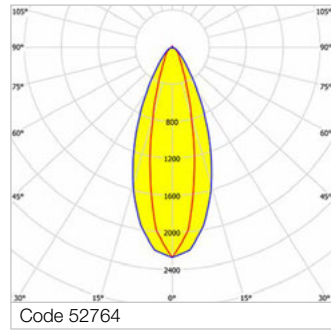
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52511	Beta 235 LED 751x60 CONC L1565	65	8813	4000	>80	1565x235x107
52524	Beta 235 LED 752x45 CONC L1265	92	13397	4000	>80	1265x235x135
52510	Beta 235 LED 752x55 CONC L1565	112	15461	4000	>80	1565x235x107

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52518	Beta 235 LED 751x60 DALI CONC L1565	65	8813	4000	>80	1565x235x107
52531	Beta 235 LED 752x45 DALI CONC L1265	92	13397	4000	>80	1265x235x135
52517	Beta 235 LED 752x55 DALI CONC L1565	112	15461	4000	>80	1565x235x107

Beta 235 75 PC Iperconcentrated



Symmetrical elliptical hyperconcentrated distribution. Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, 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).
 Methacrylate (PMMA) lenses with external flat surface.
 Recommended minimum installation height: 4 metres from the ground.

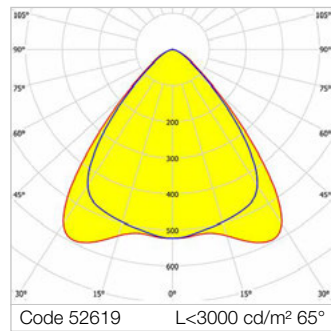
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52848	Beta 235 LED 752x45 IPERCONC L1265	92	13051	4000	>80	1265x235x135
52764	Beta 235 LED 752x55 IPERCONC L1565	112	15293	4000	>80	1565x235x107

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52890	Beta 235 LED 752x45 DALI IPERCONC L1265	92	13051	4000	>80	1265x235x135
52806	Beta 235 LED 752x55 DALI IPERCONC L1565	112	15293	4000	>80	1565x235x107

Beta 235 75 PC UGR



Controlled symmetric distribution. Average luminance <math><3000 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>. Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, 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).
 Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52614 ^{NEW}	Beta 235 LED 751x50 UGR L1265	56	8027	4000	>80	1265x235x135
52615 ^{NEW}	Beta 235 LED 751x60 UGR L1565	65	9176	4000	>80	1565x235x107
52616 ^{NEW}	Beta 235 LED 752x45 UGR L1265	92	14023	4000	>80	1265x235x135
52617 ^{NEW}	Beta 235 LED 752x55 UGR L1565	112	16076	4000	>80	1565x235x107

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52618 ^{NEW}	Beta 235 LED 751x50 DALI UGR L1265	56	8027	4000	>80	1265x235x135
52619 ^{NEW}	Beta 235 LED 751x60 DALI UGR L1565	65	9176	4000	>80	1565x235x107
52620 ^{NEW}	Beta 235 LED 752x45 DALI UGR L1265	92	14023	4000	>80	1265x235x135
52621 ^{NEW}	Beta 235 LED 752x55 DALI UGR L1565	112	16076	4000	>80	1565x235x107

Beta 235 76 VS Lite

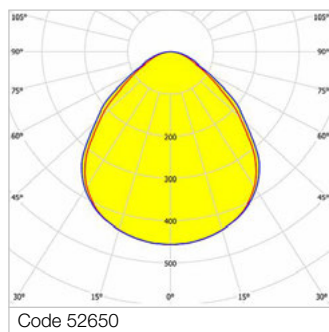


960°C

IP65

10J

IK09



Symmetric distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanised steel.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52647 <small>NEW</small>	Beta 235 LED 761x50 VS L1265	56	7548	4000	>80	1265x235x105
52648 <small>NEW</small>	Beta 235 LED 761x60 VS L1565	65	8502	4000	>80	1565x235x105
52649 <small>NEW</small>	Beta 235 LED 762x45 VS L1265	92	12902	4000	>80	1265x235x105
52650 <small>NEW</small>	Beta 235 LED 762x55 VS L1565	112	14603	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52651 <small>NEW</small>	Beta 235 LED 761x50 DALI VS L1265	56	7548	4000	>80	1265x235x105
52652 <small>NEW</small>	Beta 235 LED 761x60 DALI VS L1565	65	8502	4000	>80	1565x235x105
52653 <small>NEW</small>	Beta 235 LED 762x45 DALI VS L1265	92	12902	4000	>80	1265x235x105
52654 <small>NEW</small>	Beta 235 LED 762x55 DALI VS L1565	112	14603	4000	>80	1565x235x105

Beta 235 76 VS Wide

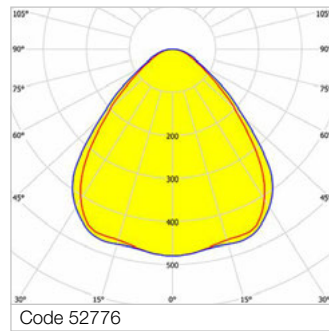


960°C

IP65

10J

IK09



Wide symmetric lighting distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanised steel.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52937	Beta 235 LED 761x25 AMPIO VS L655	27.5	3045	4000	>80	655x235x110
52936	Beta 235 LED 762x20 AMPIO VS L655	42	5821	4000	>80	655x235x110
52863	Beta 235 LED 761x50 AMPIO VS L1265	56	7484	4000	>80	1265x235x105
52779	Beta 235 LED 761x60 AMPIO VS L1565	65	8429	4000	>80	1565x235x105
52860	Beta 235 LED 762x45 AMPIO VS L1265	92	12803	4000	>80	1265x235x105
52776	Beta 235 LED 762x55 AMPIO VS L1565	112	14491	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52821	Beta 235 LED 761x60 DALI AMPIO VS L1565	65	8429	4000	>80	1565x235x105
52902	Beta 235 LED 762x45 DALI AMPIO VS L1265	92	12803	4000	>80	1265x235x105
52818	Beta 235 LED 762x55 DALI AMPIO VS L1565	112	14491	4000	>80	1565x235x105



Beta 235 76 VS Medium

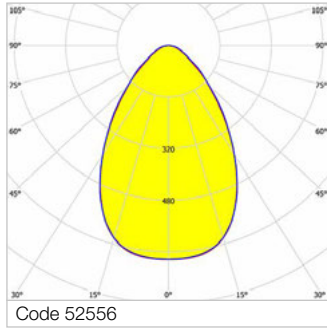


960°C

IP65

10J

IK09



Medium symmetric distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanised steel.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52571	Beta 235 LED 761x50 MEDIO VS L1265	56	7023	4000	>80	1265x235x105
52557	Beta 235 LED 761x60 MEDIO VS L1565	65	7911	4000	>80	1565x235x105
52570	Beta 235 LED 762x45 MEDIO VS L1265	92	12111	4000	>80	1265x235x105
52556	Beta 235 LED 762x55 MEDIO VS L1565	112	13708	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52578	Beta 235 LED 761x50 DALI MEDIO VS L1265	56	7023	4000	>80	1265x235x105
52564	Beta 235 LED 761x60 DALI MEDIO VS L1565	65	7911	4000	>80	1565x235x105
52577	Beta 235 LED 762x45 DALI MEDIO VS L1265	92	12111	4000	>80	1265x235x105
52563	Beta 235 LED 762x55 DALI MEDIO VS L1565	112	13708	4000	>80	1565x235x105

Beta 235 76 VS Concentrated

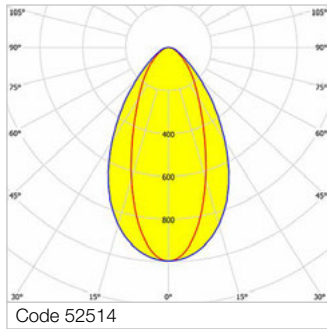


960°C

IP65

10J

IK09



Concentrated elliptical distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanised steel.
Methacrylate (PMMA) lenses with external flat surface.

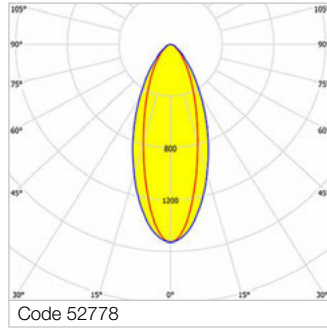
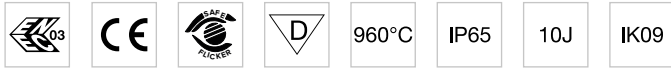
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52515	Beta 235 LED 761x60 CONC VS L1565	65	7932	4000	>80	1565x235x105
52528	Beta 235 LED 762x45 CONC VS L1265	92	12260	4000	>80	1265x235x105
52514	Beta 235 LED 762x55 CONC VS L1565	112	13876	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52522	Beta 235 LED 761x60 DALI CONC VS L1565	65	7932	4000	>80	1565x235x105
52535	Beta 235 LED 762x45 DALI CONC VS L1265	92	12260	4000	>80	1265x235x105
52521	Beta 235 LED 762x55 DALI CONC VS L1565	112	13876	4000	>80	1565x235x105

Beta 235 76 VS Iperconcentrated



Symmetrical elliptical hyperconcentrated distribution.
 VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanised steel.
 Methacrylate (PMMA) lenses with external flat surface.
 Recommended minimum installation height: 4 metres from the ground.

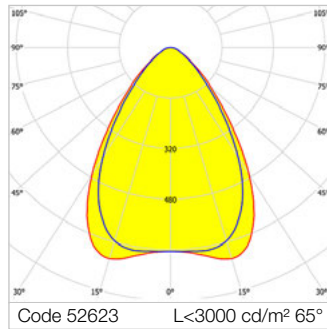
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52862	Beta 235 LED 762x45 IPERCONC VS L1265	92	12293	4000	>80	1265x235x105
52778	Beta 235 LED 762x55 IPERCONC VS L1565	112	13913	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52904	Beta 235 LED 762x45 DALI IPERCONC VS L1265	92	12293	4000	>80	1265x235x105
52820	Beta 235 LED 762x55 DALI IPERCONC VS L1565	112	13913	4000	>80	1565x235x105

Beta 235 76 VS UGR



Controlled symmetric distribution.
 Average luminance <math><3000 \text{ cd/m}^2</math> for radial angles >math>65^\circ</math>.
 VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanised steel.
 Methacrylate (PMMA) lenses with external flat surface.

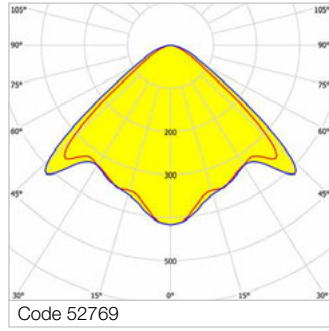
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52622 ^{NEW}	Beta 235 LED 761x50 UGR VS L1265	56	7318	4000	>80	1265x235x105
52623 ^{NEW}	Beta 235 LED 761x60 UGR VS L1565	65	8243	4000	>80	1565x235x105
52624 ^{NEW}	Beta 235 LED 762x45 UGR VS L1265	92	12606	4000	>80	1265x235x105
52625 ^{NEW}	Beta 235 LED 762x55 UGR VS L1565	112	14267	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52626 ^{NEW}	Beta 235 LED 761x50 DALI UGR VS L1265	56	7318	4000	>80	1265x235x105
52627 ^{NEW}	Beta 235 LED 761x60 DALI UGR VS L1565	65	8243	4000	>80	1565x235x105
52628 ^{NEW}	Beta 235 LED 762x45 DALI UGR VS L1265	92	12606	4000	>80	1265x235x105
52629 ^{NEW}	Beta 235 LED 762x55 DALI UGR VS L1565	112	14267	4000	>80	1565x235x105

Beta 235 76 VT Wide



Wide symmetric lighting distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanised steel.
Methacrylate (PMMA) lenses with external flat surface.

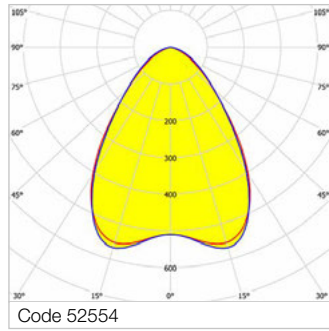
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52856	Beta 235 LED 761x50 AMPIO VT L1265	56	8367	4000	>80	1265x235x105
52772	Beta 235 LED 761x60 AMPIO VT L1565	65	9425	4000	>80	1565x235x105
52853	Beta 235 LED 762x45 AMPIO VT L1265	92	14468	4000	>80	1265x235x105
52769	Beta 235 LED 762x55 AMPIO VT L1565	112	16375	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52814	Beta 235 LED 761x60 DALI AMPIO VT L1565	65	9425	4000	>80	1565x235x105
52895	Beta 235 LED 762x45 DALI AMPIO VT L1265	92	14468	4000	>80	1265x235x105
52811	Beta 235 LED 762x55 DALI AMPIO VT L1565	112	16375	4000	>80	1565x235x105

Beta 235 76 VT Medium



Medium symmetric distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanised steel.
Methacrylate (PMMA) lenses with external flat surface.

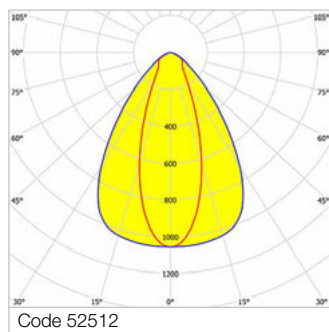
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52569	Beta 235 LED 761x50 MEDIO VT L1265	56	7889	4000	>80	1265x235x105
52555	Beta 235 LED 761x60 MEDIO VT L1565	65	8885	4000	>80	1565x235x105
52568	Beta 235 LED 762x45 MEDIO VT L1265	92	13710	4000	>80	1265x235x105
52554	Beta 235 LED 762x55 MEDIO VT L1565	112	15517	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52576	Beta 235 LED 761x50 DALI MEDIO VT L1265	56	7889	4000	>80	1265x235x105
52562	Beta 235 LED 761x60 DALI MEDIO VT L1565	65	8885	4000	>80	1565x235x105
52575	Beta 235 LED 762x45 DALI MEDIO VT L1265	92	13710	4000	>80	1265x235x105
52561	Beta 235 LED 762x55 DALI MEDIO VT L1565	112	15517	4000	>80	1565x235x105

Beta 235 76 VT Concentrated



Concentrated elliptical distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanised steel.
Methacrylate (PMMA) lenses with external flat surface.

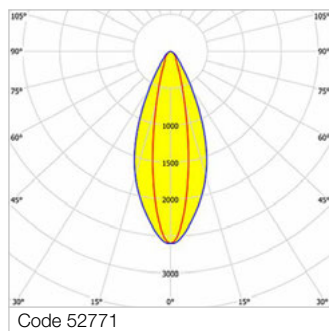
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52513	Beta 235 LED 761x60 CONC VT L1565	65	8823	4000	>80	1565x235x105
52526	Beta 235 LED 762x45 CONC VT L1265	92	13693	4000	>80	1265x235x105
52512	Beta 235 LED 762x55 CONC VT L1565	112	15498	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52520	Beta 235 LED 761x60 DALI CONC VT L1565	65	8823	4000	>80	1565x235x105
52533	Beta 235 LED 762x45 DALI CONC VT L1265	92	13693	4000	>80	1265x235x105
52519	Beta 235 LED 762x55 DALI CONC VT L1565	112	15498	4000	>80	1565x235x105

Beta 235 76 VT Iperconcentrated



Symmetrical elliptical hyperconcentrated distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanised steel.
Methacrylate (PMMA) lenses with external flat surface.
Recommended minimum installation height: 4 metres from the ground.

ON/OFF electronic wiring 230V-50/60Hz

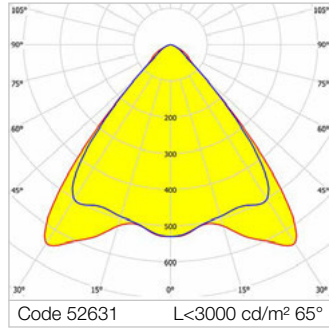
Code	Item	W	lm	K	CRI	L x A x H
52855	Beta 235 LED 762x45 IPERCONC VT L1265	92	13578	4000	>80	1265x235x105
52771	Beta 235 LED 762x55 IPERCONC VT L1565	112	15368	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52897	Beta 235 LED 762x45 DALI IPERCONC VT L1265	92	13578	4000	>80	1265x235x105
52813	Beta 235 LED 762x55 DALI IPERCONC VT L1565	112	15368	4000	>80	1565x235x105



Beta 235 76 VT UGR



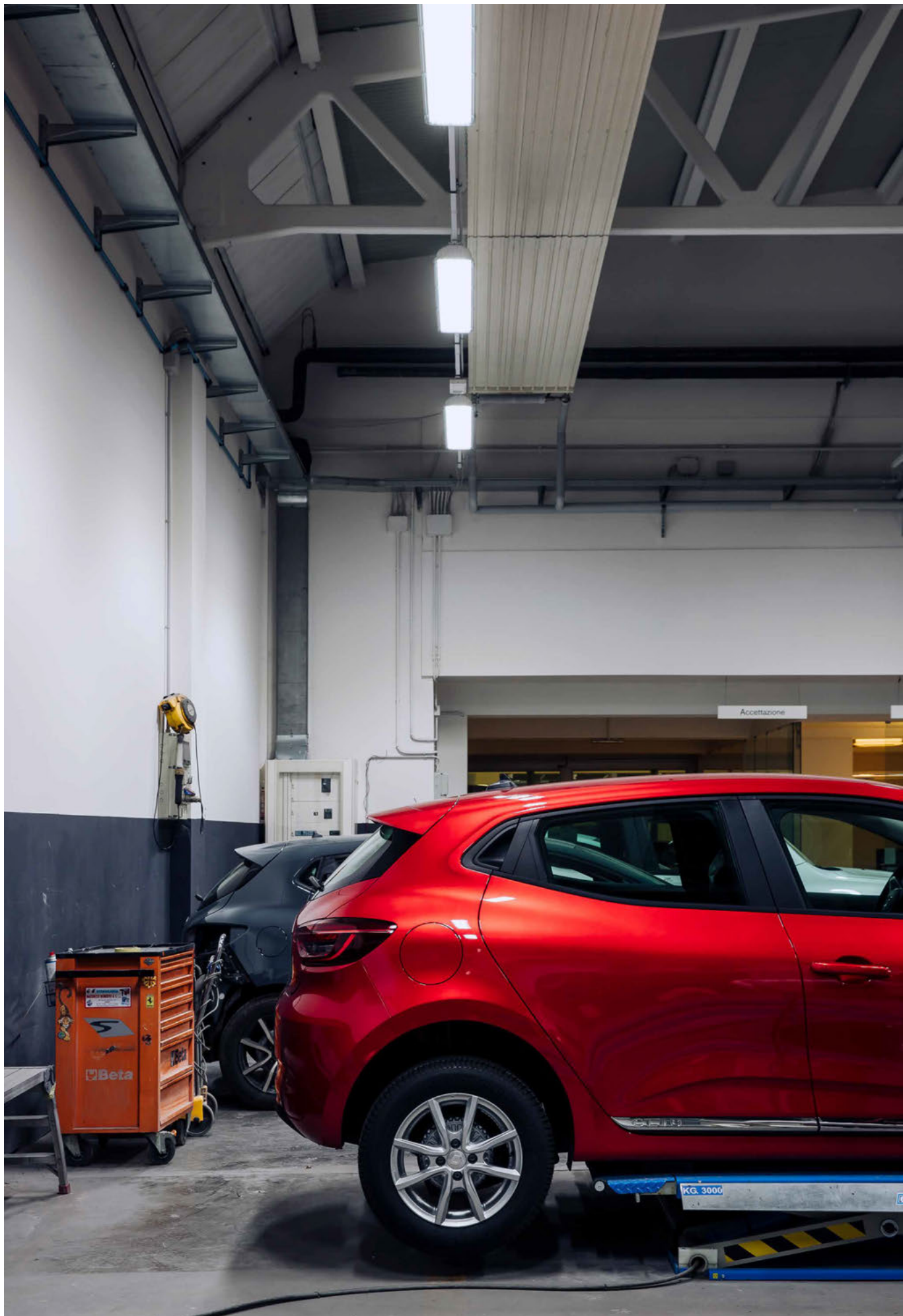
Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanised steel.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52630 <small>NEW</small>	Beta 235 LED 761x50 UGR VT L1265	56	8202	4000	>80	1265x235x105
52631 <small>NEW</small>	Beta 235 LED 761x60 UGR VT L1565	65	9238	4000	>80	1565x235x105
52632 <small>NEW</small>	Beta 235 LED 762x45 UGR VT L1265	92	14253	4000	>80	1265x235x105
52633 <small>NEW</small>	Beta 235 LED 762x55 UGR VT L1565	112	16132	4000	>80	1565x235x105

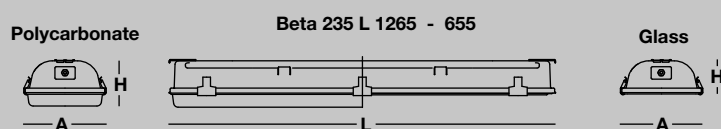
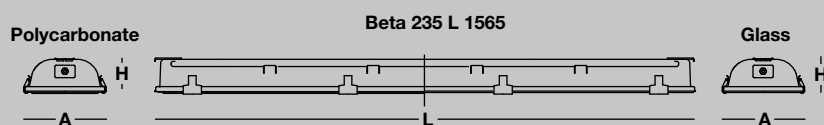
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52634 <small>NEW</small>	Beta 235 LED 761x50 DALI UGR VT L1265	56	8202	4000	>80	1265x235x105
52635 <small>NEW</small>	Beta 235 LED 761x60 DALI UGR VT L1565	65	9238	4000	>80	1565x235x105
52636 <small>NEW</small>	Beta 235 LED 762x45 DALI UGR VT L1265	92	14253	4000	>80	1265x235x105
52637 <small>NEW</small>	Beta 235 LED 762x55 DALI UGR VT L1565	112	16132	4000	>80	1565x235x105



UPDATE

/ Waterproof and corrosion-proof



Carrozzeria Ford Azzurra
Cuneo
Italia/Italy





Beta 235 Stainless Steel

ILLUMINOTECHNICAL

Symmetric distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

LED modules.
Colour initial tolerance (MacAdam): SDCM 3.

MECHANICAL

Housing in AISI 304 stainless steel, pressed in one single piece.
Oversized gear-tray reflector unit in highly reflective white painted hot-galvanised steel.
Stainless steel snap-lock clips for attaching screens (safety n° 4 per fixture).

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.

INSTALLATION

Ceiling, suspended, on busbar or wall-mounted.
For mounting hooks and brackets see accessories on page 663.

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 in production plants in the food industry (HACCP / IFS / BRC-Standard).

VT version

On request, HACCP versions for use in the food industry.

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

WARNING

Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- laminated glass
- wiring: CLO (page 752), twin-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions



Beta 235 92 PC Lite



850°C

IP65

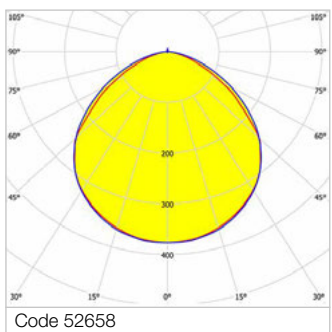
20J

10J
L1565

IK10

IK09
L1565

HACCP



Symmetric distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, 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).

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52655 <small>NEW</small>	Beta 235 LED 921x50 L1265	56	7981	4000	>80	1265x235x135
52656 <small>NEW</small>	Beta 235 LED 921x60 L1565	65	9259	4000	>80	1565x235x107
52657 <small>NEW</small>	Beta 235 LED 922x40 L1265	84	12738	4000	>80	1265x235x135
52658 <small>NEW</small>	Beta 235 LED 922x50 L1565	103	14557	4000	>80	1565x235x107

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52659 <small>NEW</small>	Beta 235 LED 921x50 DALI L1265	56	7981	4000	>80	1265x235x135
52660 <small>NEW</small>	Beta 235 LED 921x60 DALI L1565	65	9259	4000	>80	1565x235x107
52661 <small>NEW</small>	Beta 235 LED 922x40 DALI L1265	84	12738	4000	>80	1265x235x135
52662 <small>NEW</small>	Beta 235 LED 922x50 DALI L1565	103	14557	4000	>80	1565x235x107

Beta 235 92 PC Wide



850°C

IP65

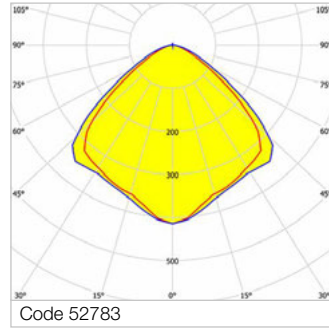
20J

10J
L1565

IK10

IK09
L1565

HACCP



Wide symmetric lighting distribution.

Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, 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).
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52940	Beta 235 LED 921x25 AMPIO L655	27.5	3270	4000	>80	655x235x140
52939	Beta 235 LED 922x15 AMPIO L655	34.5	6421	4000	>80	655x235x140
52870	Beta 235 LED 921x50 AMPIO L1265	56	8036	4000	>80	1265x235x135
52786	Beta 235 LED 921x60 AMPIO L1565	65	9103	4000	>80	1565x235x107
52867	Beta 235 LED 922x40 AMPIO L1265	80	12843	4000	>80	1265x235x135
52783	Beta 235 LED 922x50 AMPIO L1565	99	14290	4000	>80	1565x235x107

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52828	Beta 235 LED 921x60 DALI AMPIO L1565	65	9103	4000	>80	1565x235x107
52909	Beta 235 LED 922x40 DALI AMPIO L1265	80	12843	4000	>80	1265x235x135
52825	Beta 235 LED 922x50 DALI AMPIO L1565	99	14290	4000	>80	1565x235x107

Beta 235 92 PC Iperconcentrated



850°C

IP65

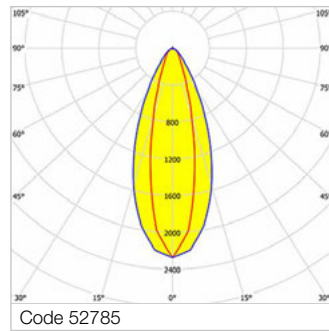
20J

10J
L1565

IK10

IK09
L1565

HACCP



Symmetrical elliptical hyperconcentrated distribution.

Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, 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).
Methacrylate (PMMA) lenses with external flat surface.

Recommended minimum installation height: 4 metres from the ground.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52869	Beta 235 LED 922x40 IPERCONC L1265	80	11674	4000	>80	1265x235x135
52785	Beta 235 LED 922x50 IPERCONC L1565	99	13409	4000	>80	1565x235x107

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52911	Beta 235 LED 922x40 DALI IPERCONC L1265	80	11674	4000	>80	1265x235x135
52827	Beta 235 LED 922x50 DALI IPERCONC L1565	99	13409	4000	>80	1565x235x107

Beta 235 93 VS Lite

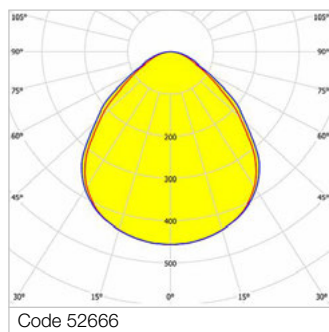


960°C

IP65

10J

IK09



Symmetric distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in stainless steel.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52663 ^{NEW}	Beta 235 LED 931x50 VS L1265	56	7419	4000	>80	1265x235x105
52664 ^{NEW}	Beta 235 LED 931x60 VS L1565	65	8357	4000	>80	1565x235x105
52665 ^{NEW}	Beta 235 LED 932x40 VS L1265	84	11539	4000	>80	1265x235x105
52666 ^{NEW}	Beta 235 LED 932x50 VS L1565	103	12810	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52667 ^{NEW}	Beta 235 LED 931x50 DALI VS L1265	56	7419	4000	>80	1265x235x105
52668 ^{NEW}	Beta 235 LED 931x60 DALI VS L1565	65	8357	4000	>80	1565x235x105
52669 ^{NEW}	Beta 235 LED 932x40 DALI VS L1265	84	11539	4000	>80	1265x235x105
52670 ^{NEW}	Beta 235 LED 932x50 DALI VS L1565	103	12810	4000	>80	1565x235x105

Beta 235 93 VS Wide

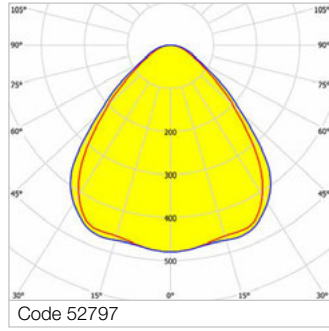


960°C

IP65

10J

IK09



Wide symmetric lighting distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in stainless steel.
Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52946	Beta 235 LED 931x25 AMPIO VS L655	27.5	2993	4000	>80	655x235x110
52945	Beta 235 LED 932x15 AMPIO VS L655	34.5	5724	4000	>80	655x235x110
52884	Beta 235 LED 931x50 AMPIO VS L1265	56	7355	4000	>80	1265x235x105
52800	Beta 235 LED 931x60 AMPIO VS L1565	65	8284	4000	>80	1565x235x105
52881	Beta 235 LED 932x40 AMPIO VS L1265	80	11449	4000	>80	1265x235x105
52797	Beta 235 LED 932x50 AMPIO VS L1565	99	12710	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52842	Beta 235 LED 931x60 DALI AMPIO VS L1565	65	8284	4000	>80	1565x235x105
52923	Beta 235 LED 932x40 DALI AMPIO VS L1265	80	11449	4000	>80	1265x235x105
52839	Beta 235 LED 932x50 DALI AMPIO VS L1565	99	12710	4000	>80	1565x235x105

Beta 235 93 VS Iperconcentrated

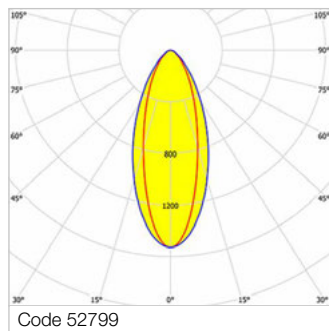


960°C

IP65

10J

IK09



Symmetrical elliptical hyperconcentrated distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in stainless steel.
Methacrylate (PMMA) lenses with external flat surface.
Recommended minimum installation height: 4 metres from the ground.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52883	Beta 235 LED 932x40 IPERCONC VS L1265	80	10985	4000	>80	1265x235x105
52799	Beta 235 LED 932x50 IPERCONC VS L1565	99	12194	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52925	Beta 235 LED 932x40 DALI IPERCONC VS L1265	80	10985	4000	>80	1265x235x105
52841	Beta 235 LED 932x50 DALI IPERCONC VS L1565	99	12194	4000	>80	1565x235x105

Beta 235 93 VT Wide

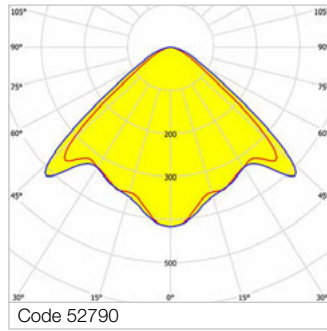


960°C

IP65

10J

IK09



Wide symmetric lighting distribution.

VT transparent glass, non-combustible, single-piece perimeter frame in stainless steel.

Methacrylate (PMMA) lenses with external flat surface.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52877	Beta 235 LED 931x50 AMPIO VT L1265	56	8229	4000	>80	1265x235x105
52793	Beta 235 LED 931x60 AMPIO VT L1565	65	9269	4000	>80	1565x235x105
52874	Beta 235 LED 932x40 AMPIO VT L1265	80	12933	4000	>80	1265x235x105
52790	Beta 235 LED 932x50 AMPIO VT L1565	99	14357	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52835	Beta 235 LED 931x60 DALI AMPIO VT L1565	65	9269	4000	>80	1565x235x105
52916	Beta 235 LED 932x40 DALI AMPIO VT L1265	80	12933	4000	>80	1265x235x105
52832	Beta 235 LED 932x50 DALI AMPIO VT L1565	99	14357	4000	>80	1565x235x105

Beta 235 93 VT Iperconcentrated

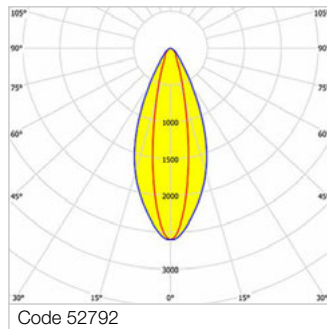


960°C

IP65

10J

IK09



Symmetrical elliptical hyperconcentrated distribution.

VT transparent glass, non-combustible, single-piece perimeter frame in stainless steel.

Methacrylate (PMMA) lenses with external flat surface.

Recommended installation height: 4 metres from the ground.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52876	Beta 235 LED 932x40 IPERCONC VT L1265	80	12139	4000	>80	1265x235x105
52792	Beta 235 LED 932x50 IPERCONC VT L1565	99	13475	4000	>80	1565x235x105

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
52918	Beta 235 LED 932x40 DALI IPERCONC VT L1265	80	12139	4000	>80	1265x235x105
52834	Beta 235 LED 932x50 DALI IPERCONC VT L1565	99	13475	4000	>80	1565x235x105

Beta 235 | Accessories



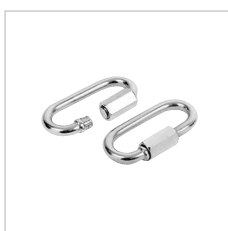
Code	Item
A0187	Anti-condensation cable gland

Anti-condensation diffuser cable gland.
Recommended for installations in environments with temperature sudden changes or subject to condensation.



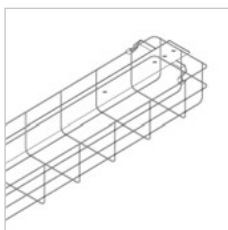
Code	Item
A0521	Reducing sealing ring diam.8mm

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.



Code	Item
A0653	Pair of fixing carab.for chain instal.

Snap hooks clips for chain suspension, galvanised steel.



Code	Item
A0457	Wireguard 280x1330 3F Linda/3F Beta
A0458	Wireguard 280x1630 3F Linda/3F Beta

Wire-guard for applications in dry environments, against shocks coming from any directions, galvanised steel rod \varnothing 5 mm.

Only for luminaires fixed without hooks.



Code	Item
A0324	Pair fixed brack. for ceiling Beta 235

Pair of mounting brackets and hooks for ceiling mounting, with nuts and bolts for fastening the luminaire, everything in stainless steel.



Code	Item
A0835	Pair brack.+hooks for wall

Pair of mounting brackets and hooks for wall-mounting, with nuts and bolts for luminaire fastening, everything in stainless steel.



Code	Item
A0836	Pair of galv.hooks for susp.- Beta 235
A0837	Pair of stain.steel hooks susp.-Beta 235

Pair of steel hooks for suspended installation, with nuts and bolts for luminaire fastening.
In case of chain suspension installation, ALWAYS use one of the following codes: A0653.





Code	Item
A0838	Pair of S-hooks for chain - Beta 235

Pair of hooks in galvanized steel for suspended installation, with nuts and bolts for luminaire fastening.

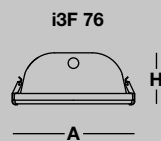
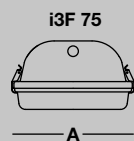
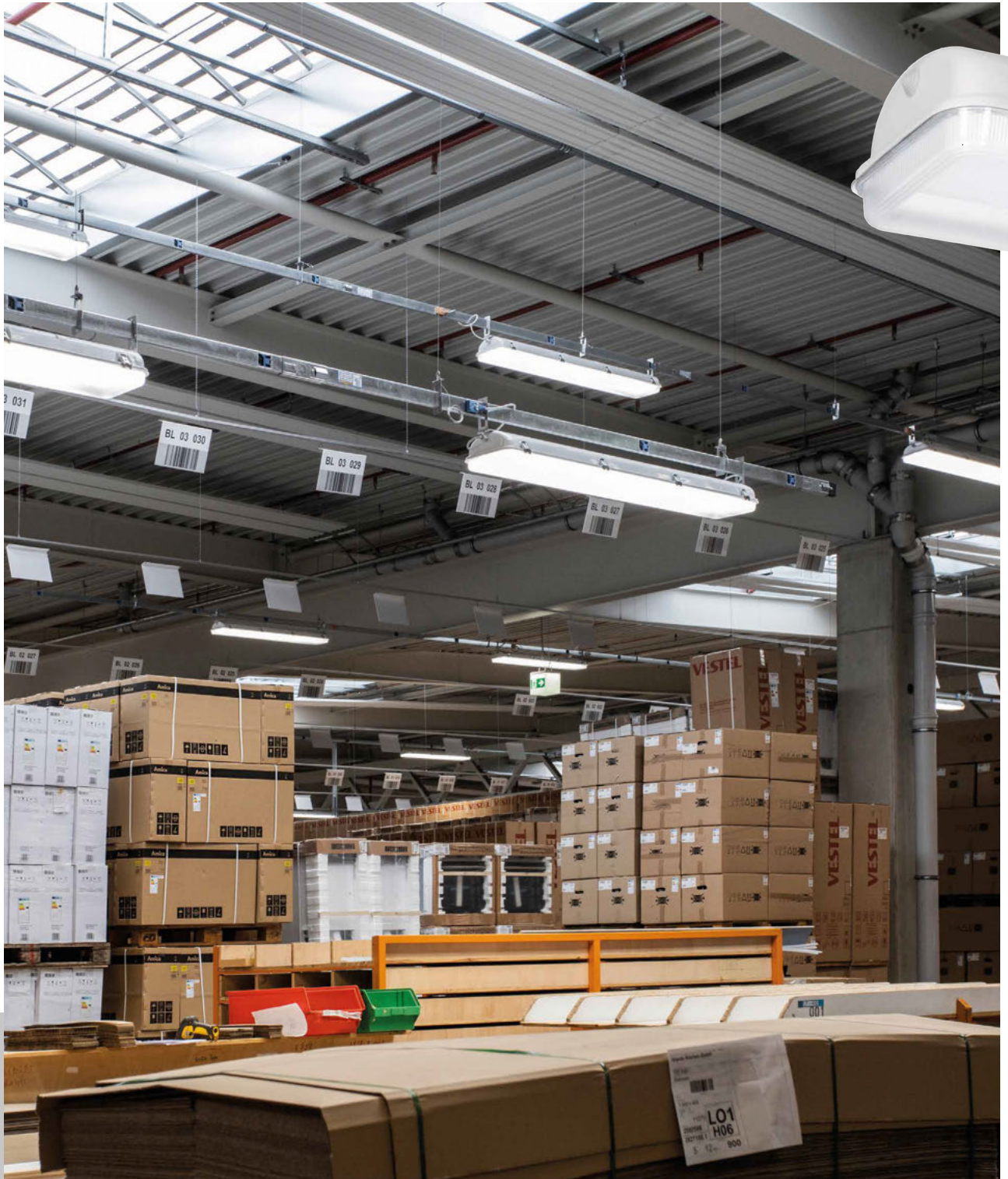


Code	Item
A0325	Mounting kit on busbar - Beta 235

Safety screw for locking to busbar.



/ Waterproof and corrosion-proof



Impuls Küchen
Brilon
Deutschland/Germany





Beta i3F

ILLUMINOTECHNICAL

Wide or concentrated direct distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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-galvanised steel, painted in white polyester, fixed to the housing by means of "Ribloc" rapid devices in galvanised steel, hinged opening.
Stainless steel screen fixing clips.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Entry for power-supply cable at one end cap, through M20x1,5 self-extinguishing nylon cable gland.

INSTALLATION

Ceiling, suspended, on busbar or wall-mounted.
For mounting hooks and brackets see accessories on page 671.

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.

WARNING

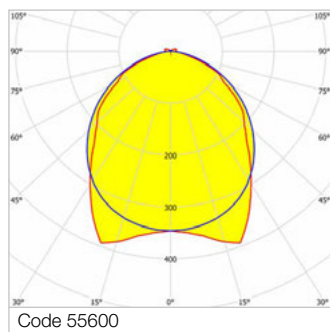
Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- laminated glass
- wiring: dimmable, CLO (page 752), 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 aluminium or stainless steel
- emergency versions



Beta i3F 75 PC Wide



Wide distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, 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).

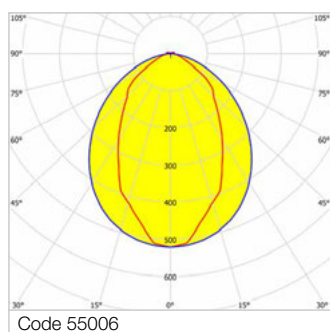
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
55596	i3F LED 752x12W AMPIO L655	28	3732	4000	>80	655x235x140
55598	i3F LED 752x24W AMPIO L1265	54	7471	4000	>80	1265x235x135
55600	i3F LED 752x30W AMPIO L1565	66	9351	4000	>80	1565x235x135

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
55607	i3F LED 752x12W EP AMPIO L655	29	3732	4000	>80	655x235x140
55609	i3F LED 752x24W EP AMPIO L1265	55	7471	4000	>80	1265x235x135
55611	i3F LED 752x30W EP AMPIO L1565	67	9351	4000	>80	1565x235x135

Beta i3F 75 PC Concentrated



Concentrated elliptical distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, 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).

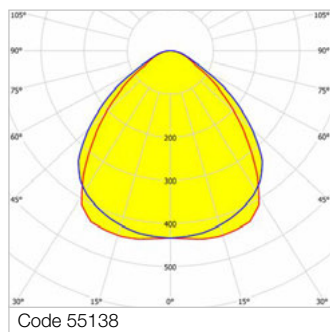
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
55006	i3F LED 752x30W CONC L1565	66	9236	4000	>80	1565x235x135

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
55017	i3F LED 752x30W EP CONC L1565	67	9236	4000	>80	1565x235x135

Beta i3F 76 VS Wide



Wide distribution.
VS molded antiglare glass, non-combustible, monobloc perimetrical frame in galvanised steel, with sealing gasket, hinged opening.
On request, HACCP versions for use in the food industry.

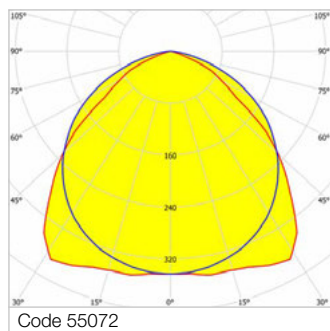
ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
55134	i3F LED 762x12W AMPIO VS L655	28	3388	4000	>80	655x235x110
55136	i3F LED 762x24W AMPIO VS L1265	54	6783	4000	>80	1265x235x105
55138	i3F LED 762x30W AMPIO VS L1565	66	8489	4000	>80	1565x235x105

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
55145	i3F LED 762x12W EP AMPIO VS L655	29	3388	4000	>80	655x235x110
55147	i3F LED 762x24W EP AMPIO VS L1265	55	6783	4000	>80	1265x235x105
55149	i3F LED 762x30W EP AMPIO VS L1565	67	8489	4000	>80	1565x235x105

Beta i3F 76 VT Wide



Wide distribution.
VT transparent glass, non-combustible, monobloc perimetrical frame in galvanised steel, with sealing gasket, hinged opening.
On request, HACCP versions for use in the food industry.

ON/OFF electronic wiring 230V-50/60Hz

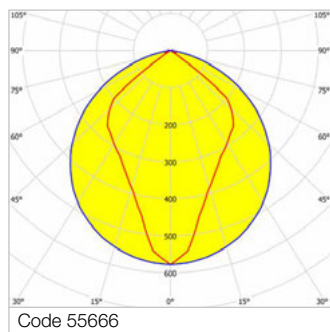
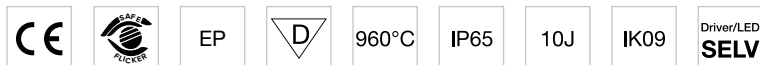
Code	Item	W	lm	K	CRI	L x A x H
55072	i3F LED 762x30W AMPIO VT L1565	66	9402	4000	>80	1565x235x105

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
55083	i3F LED 762x30W EP AMPIO VT L1565	67	9402	4000	>80	1565x235x105



Beta i3F 76 VT Concentrated



Concentrated elliptical distribution.
 VT transparent glass, non-combustible, monobloc perimetrical frame in galvanised steel, with sealing gasket, hinged opening.
 On request, HACCP versions for use in the food industry.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
55666	i3F LED 762x30W CONC VT L1565	66	9454	4000	>80	1565x235x105

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
55677	i3F LED 762x30W EP CONC VT L1565	67	9454	4000	>80	1565x235x105

Beta i3F | Accessories



Code	Item
A0503	15 CD pair of bracket/hooks A3F

Pair of mounting brackets and hooks for wall-mounting, with nuts and bolts for luminaire fastening, everything in stainless steel.



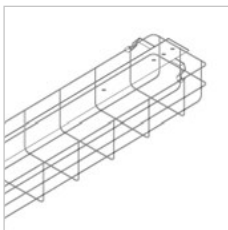
Code	Item
A0500	13 DH pair susp.galv.steel hooks i3F
A0501	13 HC pair susp.stain.steel hooks A3F

Pair of steel hooks for suspended installation, with nuts and bolts for luminaire fastening.
In case of chain suspension installation, ALWAYS use one of the following codes: A0653.



Code	Item
A0508	20 TKA (casc. conn. line i3F/A3F 1265)
A0509	20 ZFE (casc. conn. line i3F/A3F 1565)

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
A0457	Wireguard 280x1330 3F Linda/3F Beta
A0458	Wireguard 280x1630 3F Linda/3F Beta

Wire-guard for applications in dry environments, against shocks coming from any directions, galvanised steel rod Ø 5 mm.

Only for luminaires fixed without hooks.



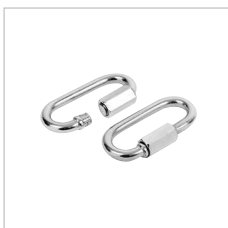
Code	Item
A0187	Anti-condensation cable gland

Anti-condensation diffuser cable gland.
Recommended for installations in environments with temperature sudden changes or subject to condensation.



Code	Item
A0521	Reducing sealing ring diam.8mm

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

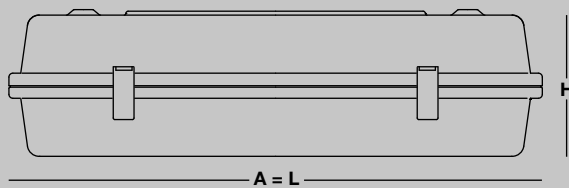
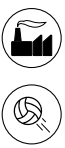
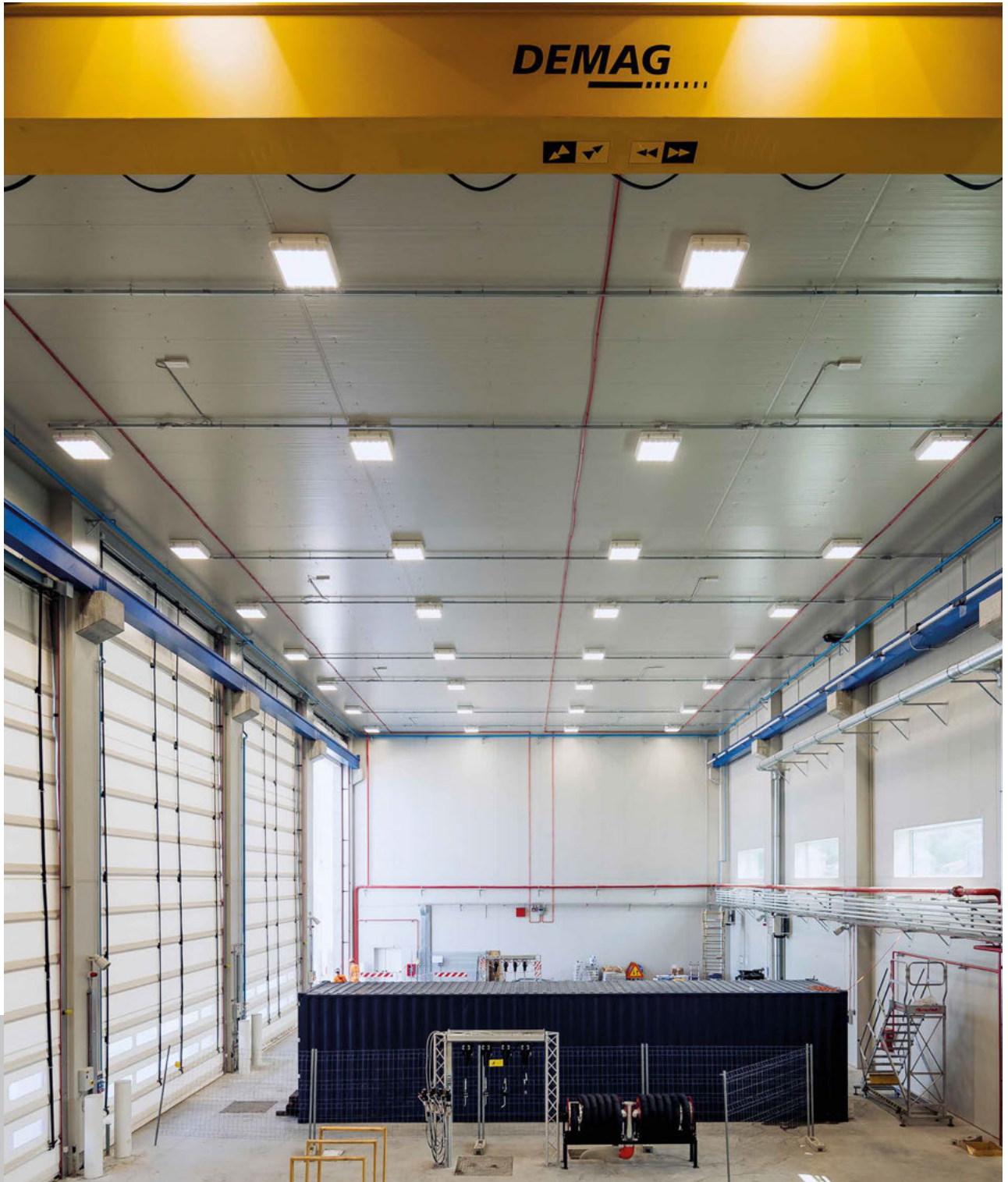


Code	Item
A0653	Pair of fixing carab.for chain instal.

Snap hooks clips for chain suspension, galvanised steel.



/ Waterproof and corrosion-proof



Porto di Savona
Savona
Italia/Italy





3F Cub

ILLUMINOTECHNICAL

Wide symmetric distribution.
Lifetime (L70/B20): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

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

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection.

INSTALLATION

Suspension mounted on a bus bar or with a chain attached to the ceiling.
For brackets see accessories on page 676.

APPLICATIONS

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.

100W version

Ambient temperature from -20°C to +45°C.

150W version

Ambient temperature from -20°C to +40°C.

SP version

Luminaires suitable in production plants in the food industry (HACCP / IFS / BRC-Standard).

LIGHT MANAGEMENT

The DALI products can be controlled with 3F Easy Dim (page 722) or 3F Smart Dimming technology (page 732).

WARNING

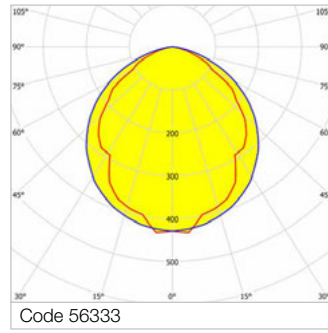
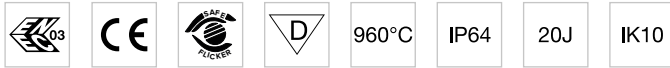
Fixture not suitable for cold stores with an ambient temperature <0°C and/or relative humidity >85%.

ON REQUEST

- different colour rendering indices and colour temperatures
- concentrated distribution
- laminated glass
- wiring: single-circuit, CLO (page 752)
- 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
- emergency versions



3F Cub VT



Transparent glass VT tempered, non-combustible.

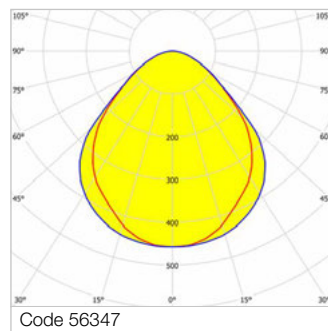
ON/OFF electronic wiring 230V-50/60Hz, twin-circuit

Code	Item	W	lm	K	CRI	L x A x H
56330	3F CUB LED 100W CR VT	108	15195	4000	>80	680x680x187
56333	3F CUB LED 150W CR VT	159	22588	4000	>80	680x680x187

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
56332	3F CUB LED 100W DALI CR VT	108	15195	4000	>80	680x680x187
56335	3F CUB LED 150W DALI CR VT	159	22588	4000	>80	680x680x187

3F Cub SP



SP transparent methacrylate (PMMA) diffuser, prismatic outside, antiglare.

ON/OFF electronic wiring 230V-50/60Hz, twin-circuit

Code	Item	W	lm	K	CRI	L x A x H
56344	3F CUB LED 100W CR SP	108	14323	4000	>80	680x680x187
56347	3F CUB LED 150W CR SP	159	21176	4000	>80	680x680x187

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
56346	3F CUB LED 100W DALI CR SP	108	14323	4000	>80	680x680x187
56349	3F CUB LED 150W DALI CR SP	159	21176	4000	>80	680x680x187

3F Cub VS

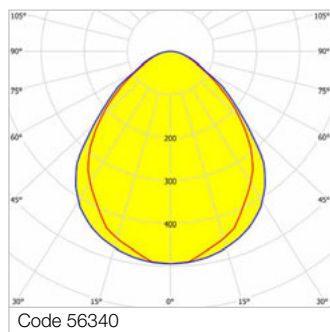


960°C

IP64

20J

IK10



VS moulded glass, anti-glare, tempered, non-combustible.

ON/OFF electronic wiring 230V-50/60Hz, twin-circuit

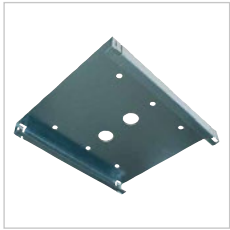
Code	Item	W	lm	K	CRI	L x A x H
56337	3F CUB LED 100W CR VS	108	13981	4000	>80	680x680x187
56340	3F CUB LED 150W CR VS	159	20740	4000	>80	680x680x187

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
56339	3F CUB LED 100W DALI CR VS	108	13981	4000	>80	680x680x187
56342	3F CUB LED 150W DALI CR VS	159	20740	4000	>80	680x680x187

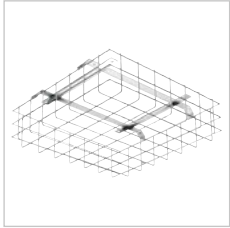


3F Cub | Accessories



Code	Item
A0213	Ceiling-mounted bracket

Ceiling-mounted bracket in hot-galvanised steel.



Code	Item
A0210	Wireguard 3F Cub

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 galvanised steel rod Ø 5 mm. To install it, ceiling-mounted bracket code A0213 is always necessary.



Code	Item
A0521	Reducing sealing ring diam.8mm

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.



3F Cub LED

Examples of design

Comparison to 400W JM reflector

Design data:

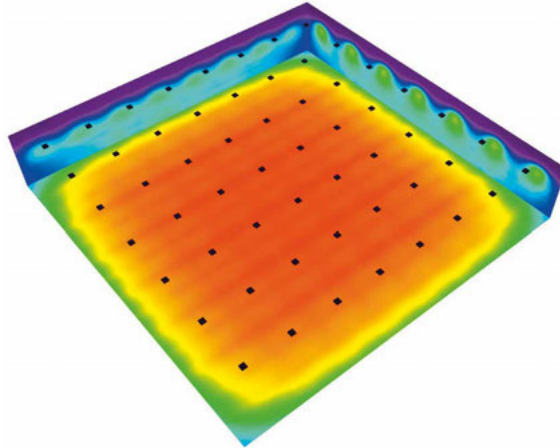
Room dimensions 50x50 metres
 Room height 9 metres
 Installation height 8 metres

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:

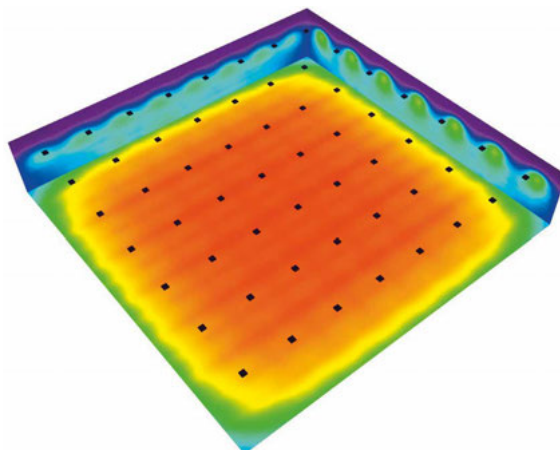
Room dimensions 50x50 metres
 Room height 9 metres
 Installation height 8 metres

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

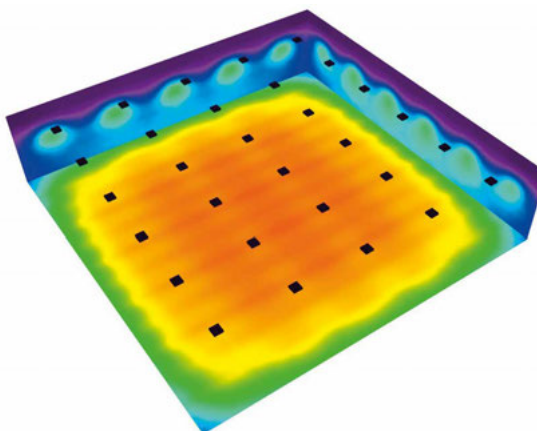


	3F Cub R90 4x55 IP43	3F Cub LED 150W CR VT	Difference
Lighting values	334 lx	381 lx	+ 14%
Luminaire power	240 W	163 W	- 32%
Circuit type	Twin circuit (50% - 100%)	Twin circuit (50% - 100%)	
Regulation of luminous flux and power?	Yes, depending on requirements	Yes, depending on requirements	
Source life	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?



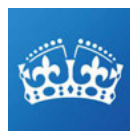
Never-ending light

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



Fischer Italia
Padova
Italia/Italy





Retrofit Beta A3F-i3F

ILLUMINOTECHNICAL

Wide or concentrated direct distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Gear-tray in hot galvanised steel, painted in white polyester, to be fixed to the body by rapid devices "Ribloc".

2x40W version

Methacrylate (PMMA) lenses with external flat surface.
For installations prior to 2010, the hinge opening is lost.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

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.

WARNING

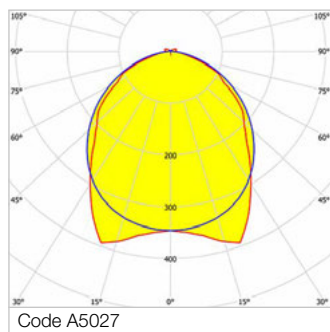
Fixture not suitable for cold stores with an ambient temperature $<0^{\circ}\text{C}$ and/or relative humidity $>85\%$.

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
- different power levels, colour rendering indices and colour temperatures
- wiring: dimmable, CLO (page 752), twin-circuit
- version with asymmetric lighting distribution
- wide flux recuperator to increase luminous flux by 5%
- emergency versions



Kit LED Retrofit for polycarbonate 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 (PMMA) 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.

Version without recuperator - Driver/LED SELV - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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	66	8790	4000	>80	1565x235x135

Version with CONCENTRATED recuperator - Driver/LED SELV - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5013	Kit LED i3F75,A3F 90,A3F 92-L1565-2X22W CONC+PC	49	7351	4000	>80	1565x235x135

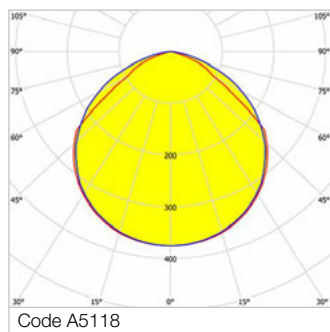
High output version with WIDE lenses - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5215	Kit LED i3F 75,A3F 90 - L1565 - L 2x40W AMPIO + PC	80	12768	4000	>80	1565x235x135

High output version with CONCENTRATED lenses - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5217	Kit LED i3F 75,A3F 90 - L1565 - L 2x40W CONC + PC	80	12330	4000	>80	1565x235x135

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 (PMMA) lenses (only for 2x40W version).
 Glass diffuser is NOT included in the kit.
 The high output versions are NOT SELV.

Version without recuperator - Driver/LED SELV - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
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	66	8718	4000	>80	1565x235x105

Version with CONCENTRATED recuperator - Driver/LED SELV - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5104	Kit LED i3F 76, A3F 91, A3F 93-L1565-2X22W CONC	49	7525	4000	>80	1565x235x135

High output version with WIDE lenses - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5210	Kit LED i3F 76,A3F 91 - L1565 - L 2x40W AMPIO	80	12632	4000	>80	1565x235x105

High output version with CONCENTRATED lenses - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5212	Kit LED i3F 76,A3F 91 - L1565 - L 2x40W CONC	80	12481	4000	>80	1565x235x105



Retrofit Beta A3F-i3F | Accessories



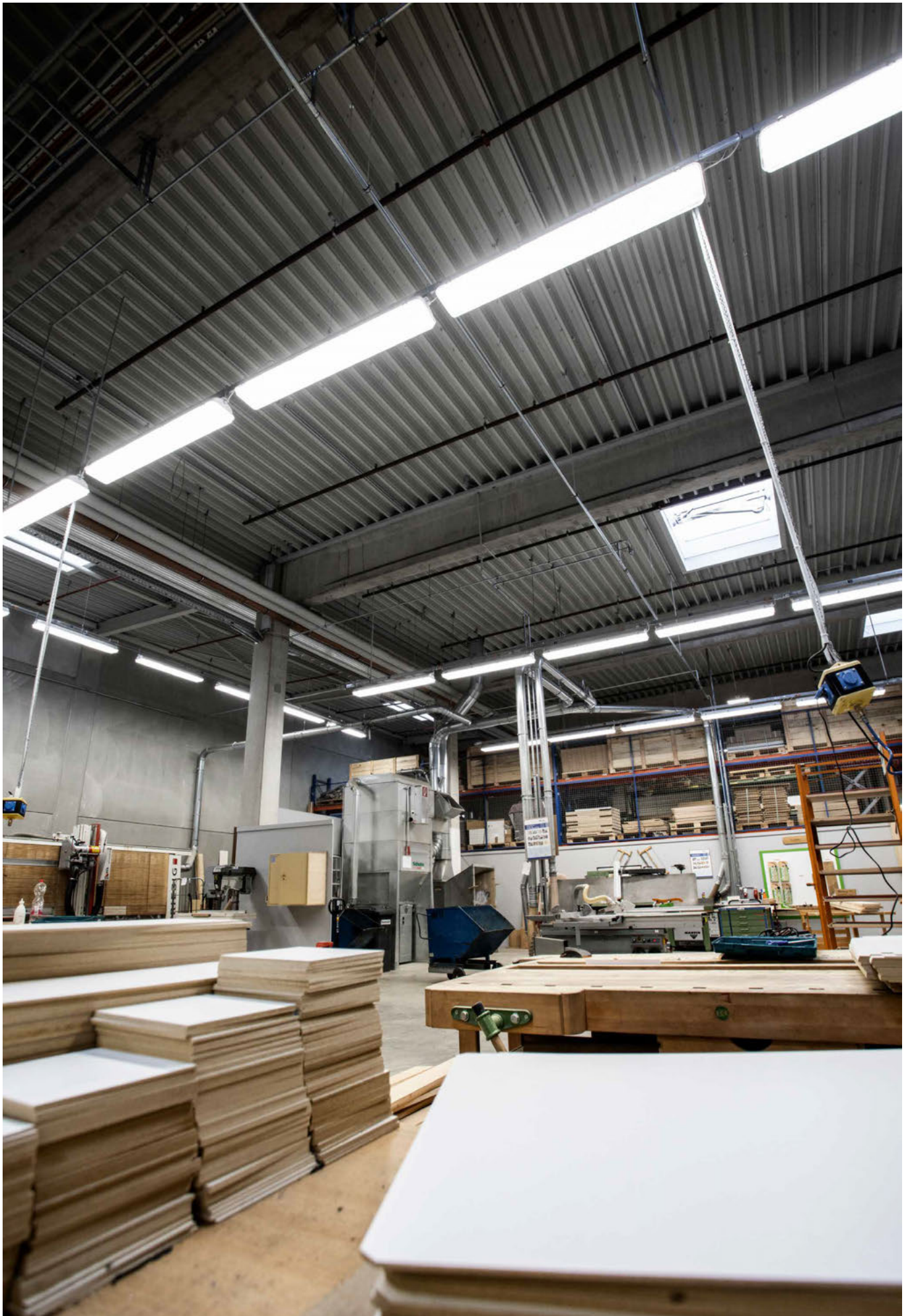
Code	Item
A5184	Moulded glass Beta 2x i3F 76 - L1565
A5185	Moulded glass Beta 2x i3F 76 - L1265

Moulded anti-glare glass for retrofit LED kit, 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.

960°C

10J

IK09



/ Waterproof and corrosion-proof



Bon Prix
Valdengo (BI)
Italia/Italy





Retrofit Beta 430

ILLUMINOTECHNICAL

Wide or concentrated direct distribution.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Gear-tray unit hot-galvanised steel, painted in white polyester.
Methacrylate (PMMA) lenses with external flat surface.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Twin-circuit.

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.

WARNING

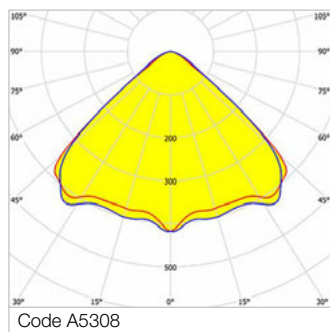
Fixture not suitable for cold stores with an ambient temperature $<0^{\circ}\text{C}$ and/or relative humidity $>85\%$.

ON REQUEST

- different powers
- wiring: CLO (page 752), dimmable
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions



Kit Retrofit 2X



Wide or concentrated symmetric lighting distribution.
Transparent methacrylate (PMMA) lenses.
To replace the 4x80W - 6x49W T5 Amalgam version.

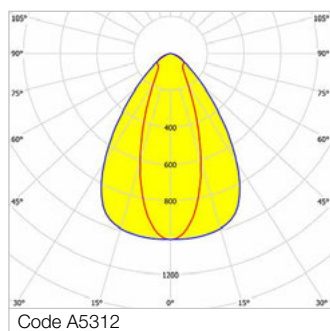
Version with WIDE lenses - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5308	Kit LED Beta 430 - L1551- 2X65W AMPIO	132	19205	4000	>80	1551x430x159

Version with CONCENTRATED lenses - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5309	Kit LED Beta 430 - L1551- 2X65W CONC	132	18071	4000	>80	1551x430x159

Kit Retrofit 3X



Wide or concentrated symmetric lighting distribution.
Transparent methacrylate (PMMA) lenses.
To replace the 4x49W T5 Amalgam or the 4x58W T8 version.

Version with WIDE lenses - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5311	Kit LED Beta 430 - L1551- 3X65W AMPIO	198	28294	4000	>80	1551x430x159

Version with CONCENTRATED lenses - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5312	Kit LED Beta 430 - L1551- 3X65W CONC	198	27524	4000	>80	1551x430x159

Retrofit Beta 430 | Accessories



5J

IK08

Code	Item
A5322	Moulded glass with frame Beta 430-L1551

Moulded anti-glare glass for retrofit LED kit, 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.



Code	Item
A0521	Reducing sealing ring diam.8mm

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.



NEW

/ Waterproof and corrosion-proof



Pratic
Fagagna (UD)
Italia/Italy





Retrofit 3F Cub IP64

ILLUMINOTECHNICAL

Wide symmetric distribution.
Lifetime (L70/B20): 100000 h. (tq+25°C)
Lifetime (L70/B10): 50000 h. (tq+40°C)
Photobiological safety RG0 (page 16).

SOURCE

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

MECHANICAL

Aluminium gear-tray unit.
Tamper-proof closures (2 pieces) to replace the two existing ones.

ELECTRICAL

In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

INSTALLATION

Retrofit.
Correct installation of the retrofit LED kit, compliant with EN 60598-1 and CE marked, inside the 3F Filippi - 3F Cub Fluorescent luminaires 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.

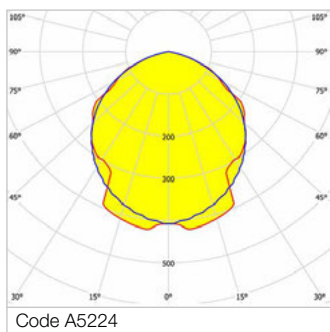
WARNING

Fixture not suitable for cold stores with an ambient temperature $<0^{\circ}\text{C}$ and/or relative humidity $>85\%$.
In order to maintain the degree of protection of the device and for the purposes of validity of the guarantee of the new retrofit kits, it is imperative:

- follow the safety and operating instructions described in the installation instructions
- the use of the two self-drilling screws supplied (one for each driver), will perform the dual function of drilling the body and fixing the driver, while maintaining the fixture's degree of protection
- the replacement of existing tamper-proof closures with new ones
- clean the screen glass to improve efficiency



Kit LED Retrofit 3F Cub IP64



To replace the 4x55W IP64 version.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5223 <small>NEW</small>	Kit LED 3F Cub - 100W/840	108	12988	4000	>80	680x680x187
A5224 <small>NEW</small>	Kit LED 3F Cub - 150W/840	159	19764	4000	>80	680x680x187

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
A5225 <small>NEW</small>	Kit LED 3F Cub - 100W/840 EP	109	12988	4000	>80	680x680x187
A5226 <small>NEW</small>	Kit LED 3F Cub - 150W/840 EP	160	19764	4000	>80	680x680x187

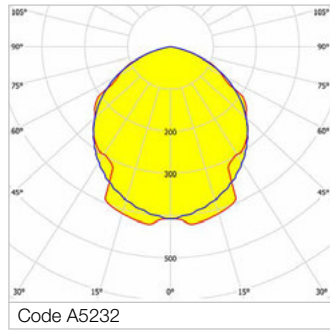
DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5227 <small>NEW</small>	Kit LED 3F Cub - 100W/840 DALI	108	12988	4000	>80	680x680x187
A5228 <small>NEW</small>	Kit LED 3F Cub - 150W/840 DALI	159	19764	4000	>80	680x680x187

DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
A5229 <small>NEW</small>	Kit LED 3F Cub - 100W/840 EP DALI	109	12988	4000	>80	680x680x187
A5230 <small>NEW</small>	Kit LED 3F Cub - 150W/840 EP DALI	160	19764	4000	>80	680x680x187

Kit LED Retrofit 3F Cub IP64 CR



To replace the 4x55W IP64 CR version.

ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5231 ^{NEW}	Kit LED 3F Cub CR - 100W/840	108	12988	4000	>80	680x680x187
A5232 ^{NEW}	Kit LED 3F Cub CR - 150W/840	159	19764	4000	>80	680x680x187

EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

Code	Item	W	lm	K	CRI	L x A x H
A5233 ^{NEW}	Kit LED 3F Cub CR - 100W/840 EP	109	12988	4000	>80	680x680x187
A5234 ^{NEW}	Kit LED 3F Cub CR - 150W/840 EP	160	19764	4000	>80	680x680x187

DALI electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
A5235 ^{NEW}	Kit LED 3F Cub CR - 100W/840 DALI	108	12988	4000	>80	680x680x187
A5236 ^{NEW}	Kit LED 3F Cub CR - 150W/840 DALI	159	19764	4000	>80	680x680x187

DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (page 772)

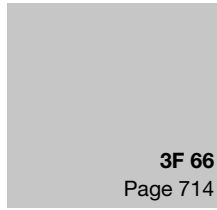
Code	Item	W	lm	K	CRI	L x A x H
A5237 ^{NEW}	Kit LED 3F Cub CR - 100W/840 EP DALI	109	12988	4000	>80	680x680x187
A5238 ^{NEW}	Kit LED 3F Cub CR - 150W/840 EP DALI	160	19764	4000	>80	680x680x187



/ catalogue

_Outdoor

/ 3F Filippi







3F Manta

> www.3F-Filippi.com/3F Manta

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.

+ Overview

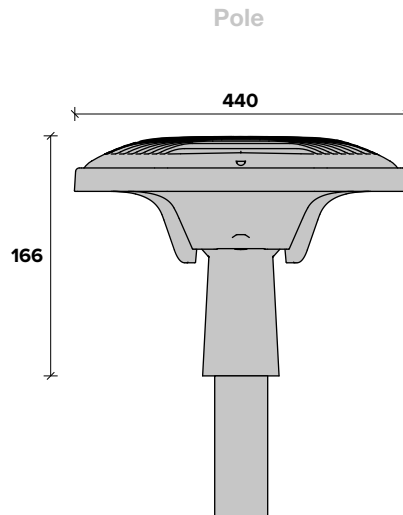
- Luminous efficacy up to 139 lumen/watt.
- Luminous fluxes from 6193 to 22451 lumens.
- Extensive installation pitch.
- 3 different photometric distributions.
- Available on request with integrated sensors.
- Quick and easy cleaning.
- Essential and functional design.
- LED sources with colour rendering: >70, >80.
- Class wiring: Class I, Class II.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.

Page	Product	Wall	Bollard
708	UPDATE 3F Manta	•	•

Product range

3F Manta

Pole
installation



3F HD
3F HD R
Direct Emission



Wide



Medium

Insulation classes

Class I | Class II

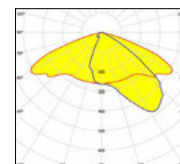
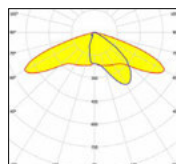
Protection class

IP66

Mechanical strength
to impact

IK08

Photometric
distribution

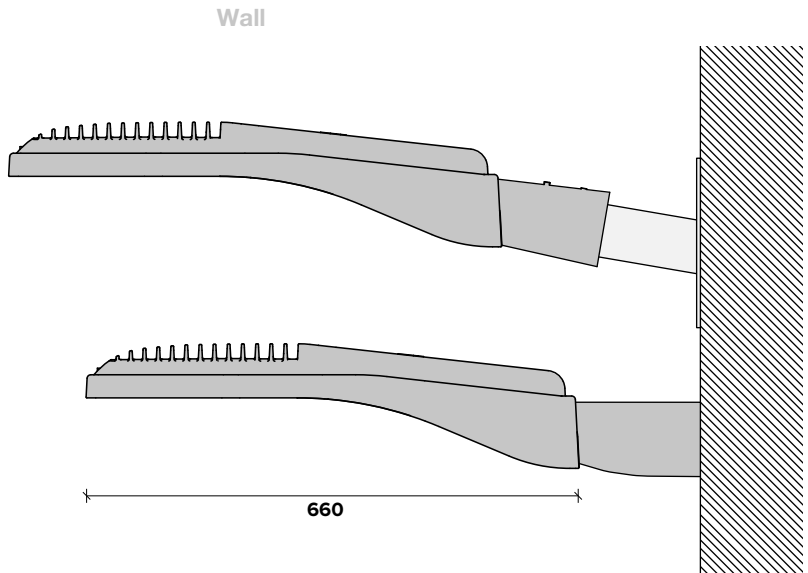


3F Manta

Wall
installation

(Acc. A01479)

(Acc. A01480)



3F HD
Direct / Indirect
Emission



Front

Insulation classes

Class I | Class II

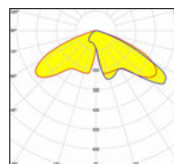
Protection class

IP66

Mechanical strength
to impact

IK08

Photometric
distribution



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.

Versatile parabolic sides, with double optical focus, designed to provide different beam angles and optimise installation in different applications.

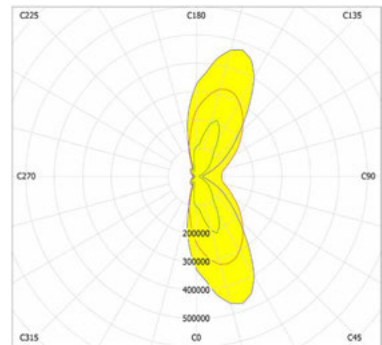
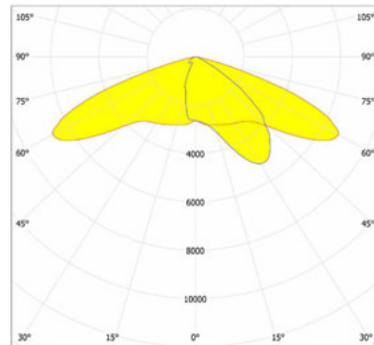
Specifically modelled blades to create the right optical shielding and optimise asymmetrical frontal distribution without flux dispersion on the back of the fixture.

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 three different optics, are designed for lighting large spaces, meeting the depth or width requirements.

WIDE

Asymmetric Optic Front 30° - Side 60°

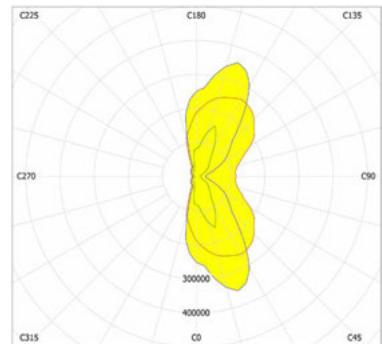
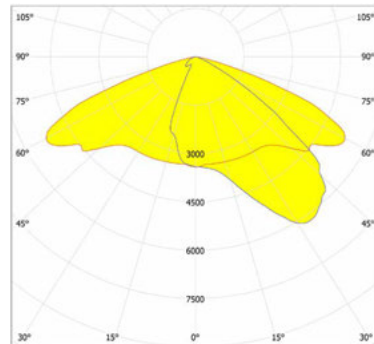
Asymmetric distribution with wide bilateral emission.



MEDIUM

Asymmetric Optic Front 40° - Side 60°

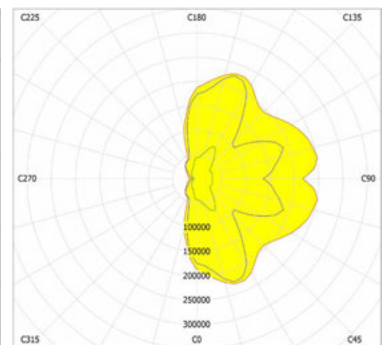
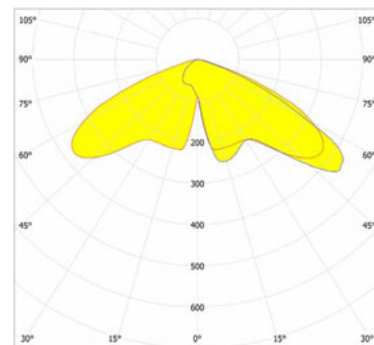
Asymmetric distribution with medium bilateral emission.



FRONT

Asymmetric Optic Front 50° - Side 50°

Asymmetric distribution with wide bilateral and front emission.



Design examples

Loading / unloading area

Wall installation

3F Manta 135/830 Wide

Installation height 8 m

Installation spacing 20 m

Average illumination at the ground 35 lux

Site perimeter

Pole installation

3F Manta 50/830 Front

Installation height 8 m

Installation spacing 20 m

Average illumination at the ground 10 lux

Perimeter road

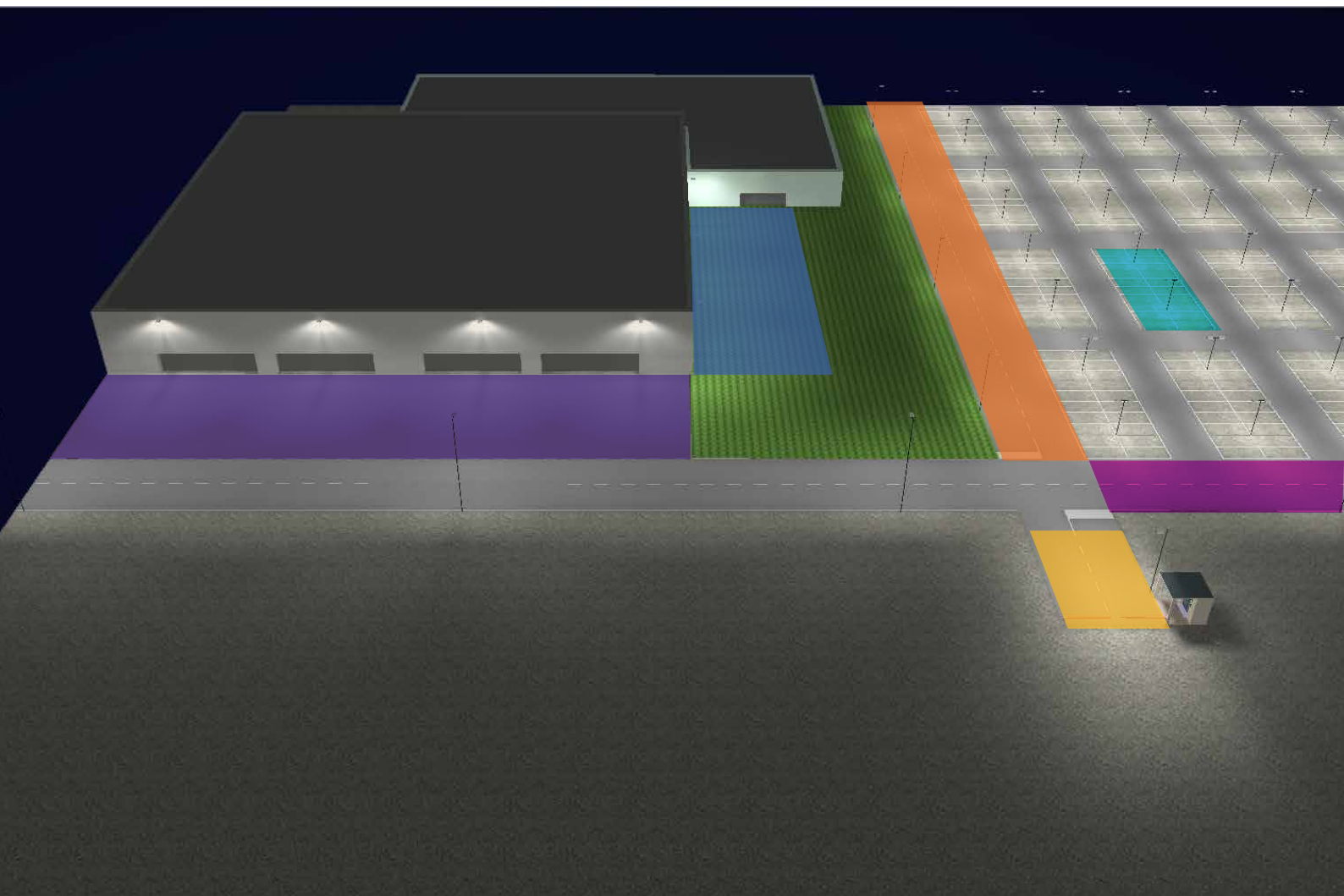
Pole installation

3F Manta 75/830 Wide

Installation height 8 m

Installation spacing 32 m

Average illumination at the ground 25 lux



Input

Pole installation

3F Manta 185/830 Medium

Installation height 8 m

Average illumination at the ground 50 lux

Roadway

Pole installation

3F Manta 100/830 Wide

Installation height 12 m

Installation spacing 48 m

Average illumination at the ground 20 lux

Parking Lot

Pole installation

3F Manta 50/830 Medium

Installation height 5 m

Installation spacing 15 m

Average illumination at the ground 65 lux



Product advantages

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.

Gasket in polyurethane

The watertight seal and IP66 protection rating are also guaranteed by the gaskets made of polyurethane, which is particularly resistant to weather and pollution.

Nema Socket - Ready (Zhaga Book 18)

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.).

SPD System

The SPD (Surge Protective Device) technology ensures adequate protection against atmospheric or electrical surges.

NTC System

The LED module is equipped with a thermistor to prevent exceeding the expected operating temperatures.

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.

INSULATION CLASSES

3F Manta is available in two insulation Classes:

Class I - connection to the earth system is necessary and mandatory.

Class II - connection to the earth system is prohibited.

This version is simplified for installation in systems without the earthing system.

Practical and flexible installation

The wide 40° adjustment angle allows the luminaire to be tilted based on different needs, even after installation is complete.

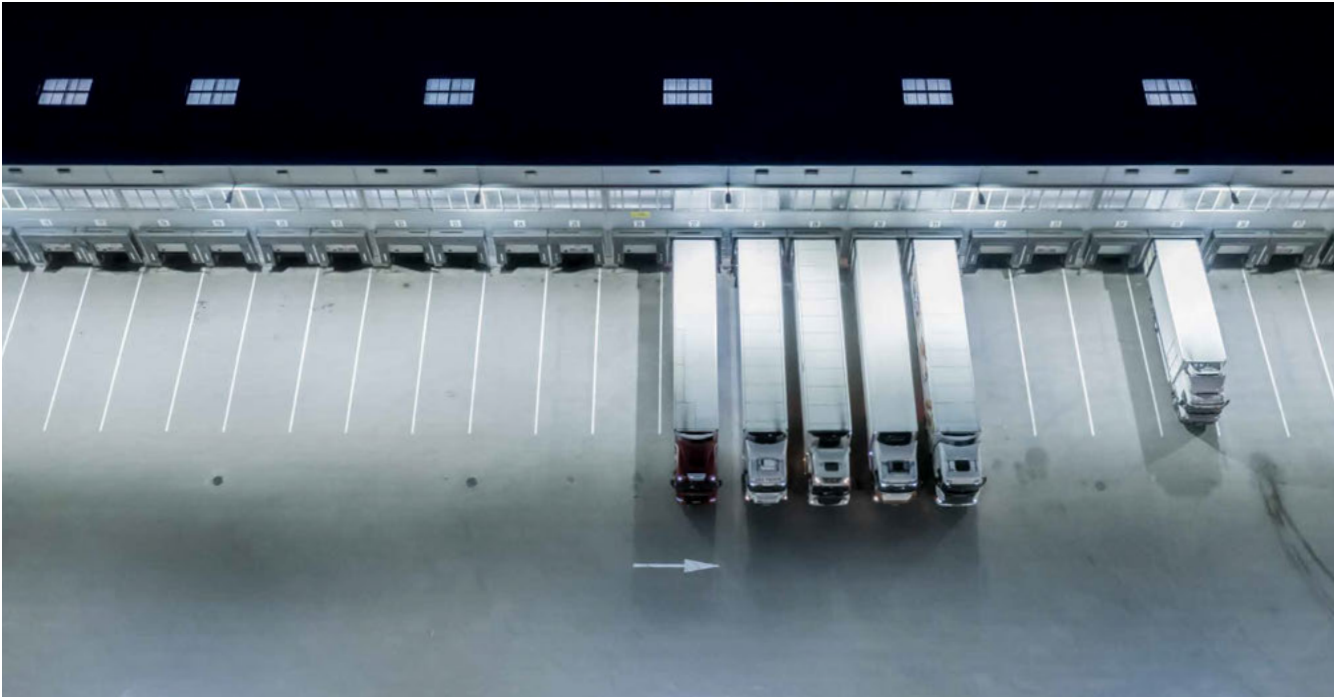


Safe and quick installation

The bayonet terminal block and the anticlosure block eliminate the risk of accidents when working on the luminaire.



Work well at night



During the design phase of 3F Manta fundamental factors to support work in external areas were taken into consideration:

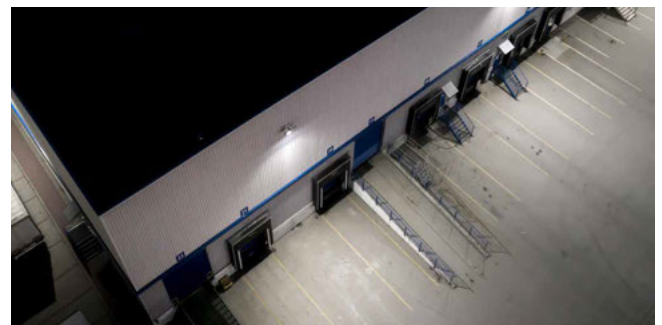
- correct perception of space and objects to identify possible dangers and workers working alone
- maximum light diffusion in work areas and attenuation of shadows and glare to reduce visual adaptation time when moving from lit to dark environments and vice versa
- compliance with regulations on limiting upward dispersion of luminous flux in Zone 1 (UNI 10819) and sources with temperatures of 3000K (to align ourselves with recommendations from main regional regulations)

For this reason we equipped our fixtures with the best LED sources available with different colour rendering indexes:



CRI 70 for:

- roads
- traffic areas
- open areas
- car parks



CRI 80 for:

- maintenance areas
- vehicle loading/unloading areas
- work areas with reading systems and where tools are used
- passenger passage areas
- fruit and vegetable markets
- port and airport areas

Virtual midnight

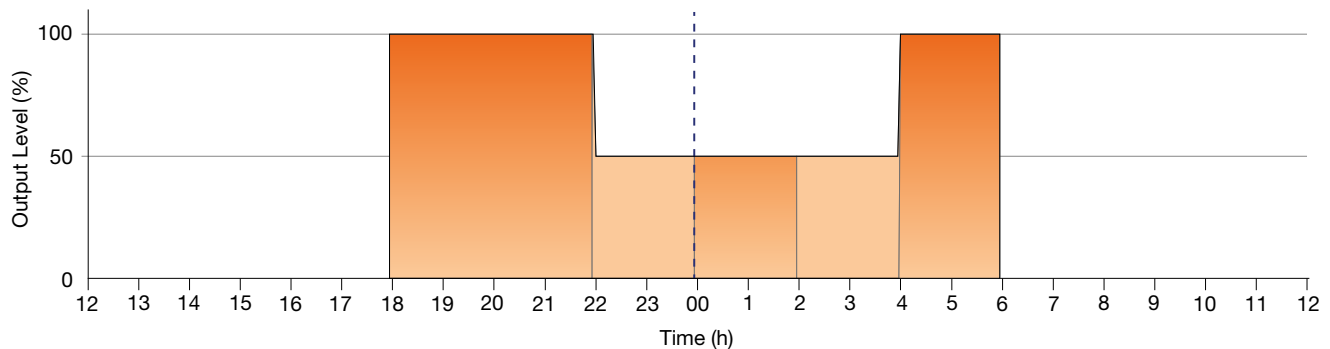
In order to further increase energy savings when lighting outdoor areas (and others), when the light does not need to be operating at full power, the “virtual midnight” system allows the creation of a stand-alone control of the fixtures without the need for an external control infrastructure or any change 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%.

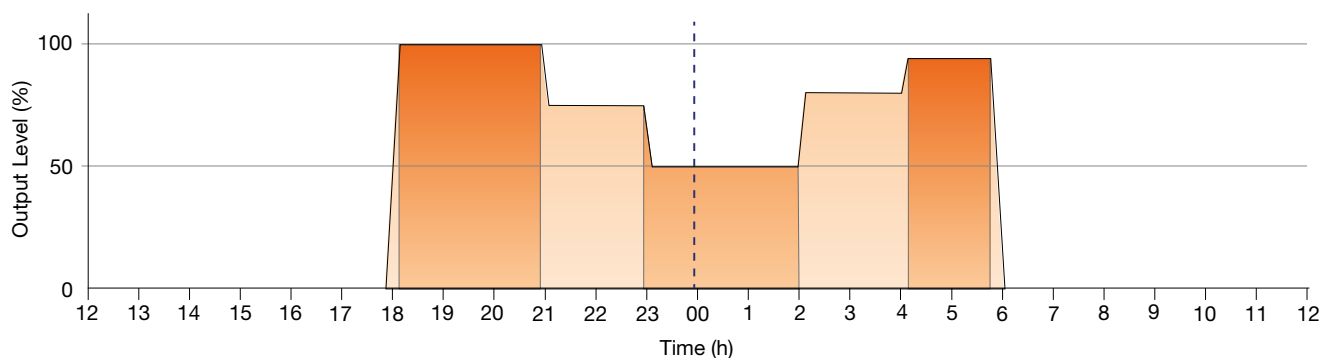
A microprocessor calculates the reduction time starting from “virtual midnight”. The default setting calls for 2 hours before and 4 hours after “virtual midnight” as follows:



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:

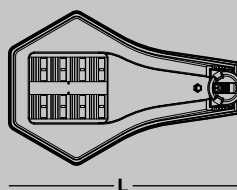
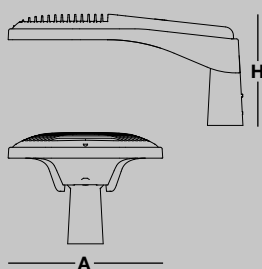
1. Set the output levels in an interval between 10% and 100%, with 1% increases divided over 5 different time intervals.
2. Create the passage from one adjustment level to the next by means of a fade with a programmed duration.
3. Switch the light on and off through a fade. This function allows further 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.



UPDATE

/ Outdoor



GAB Tamagnini
Reggio Emilia
Italia/Italy





3F Manta

ILLUMINOTECHNICAL

Asymmetric distribution with frontal, wide or medium bilateral.
No higher ULOR emission.
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

Squared LED module with special protection against aggressive chemically-volatile substances, for standard LED technology.
Colour initial tolerance (MacAdam): SDCM 5.

MECHANICAL

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 stabilised, 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.
Stainless steel internal and external screws.

ELECTRICAL

In compliance with EN 60598-1, EN 60598-2-3.
Flicker: <10%.
Safety break switch to shut off the power supply when opening the device.
Insulation voltage 6kV via Surge Protector.
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.

INSTALLATION

Pole or wall mounted using always necessary accessories (see on page 713).

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.

ON REQUEST

- different power levels, colour rendering indices and colour temperatures
- wiring: DALI, CLO (page 752), D1-10V, Wireless
- Customised Virtual Midnight up to 5 independent intervals / levels
- watertight socket / plug connectors

3F Manta Wide

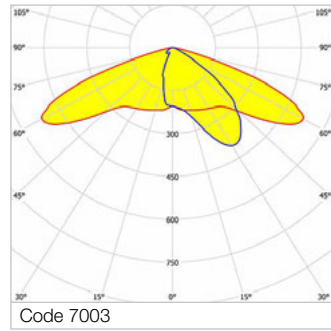


960°C

IP66

5J

IK08



Asymmetric distribution with wide bilateral.

This model is available in two different Protection Classes against electric shock (page 792).

Class I - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
7400 ^{NEW}	3F Manta AN 30/730 WIDE	34.5	5115	3000	>70	660x440x166
7001	3F Manta AN 50/730 WIDE	53	6950	3000	>70	660x440x166
7002	3F Manta AN 75/730 WIDE	78	9717	3000	>70	660x440x166
7003	3F Manta AN 100/730 WIDE	103	13101	3000	>70	660x440x166
7004	3F Manta AN 135/730 WIDE	149	17458	3000	>70	660x440x166
7401 ^{NEW}	3F Manta AN 30/830 WIDE	34.5	4572	3000	>80	660x440x166
7022	3F Manta AN 50/830 WIDE	53	6227	3000	>80	660x440x166
7023	3F Manta AN 75/830 WIDE	78	8707	3000	>80	660x440x166
7024	3F Manta AN 100/830 WIDE	103	11738	3000	>80	660x440x166
7025	3F Manta AN 135/830 WIDE	149	15642	3000	>80	660x440x166

Class II - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
7402 ^{NEW}	3F Manta AN 30/730 II WIDE	34.5	5115	3000	>70	660x440x166
7026	3F Manta AN 50/730 II WIDE	53	6950	3000	>70	660x440x166
7027	3F Manta AN 75/730 II WIDE	78	9717	3000	>70	660x440x166
7028	3F Manta AN 100/730 II WIDE	103	13101	3000	>70	660x440x166
7029	3F Manta AN 135/730 II WIDE	149	17458	3000	>70	660x440x166
7403 ^{NEW}	3F Manta AN 30/830 II WIDE	34.5	4572	3000	>80	660x440x166
7030	3F Manta AN 50/830 II WIDE	53	6227	3000	>80	660x440x166
7031	3F Manta AN 75/830 II WIDE	78	8707	3000	>80	660x440x166
7032	3F Manta AN 100/830 II WIDE	103	11738	3000	>80	660x440x166
7033	3F Manta AN 135/830 II WIDE	149	15642	3000	>80	660x440x166

3F Manta Medium

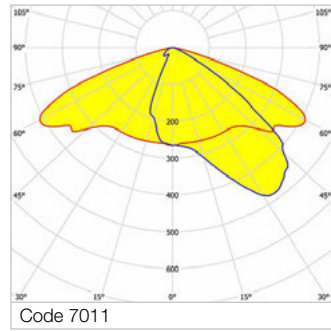


960°C

IP66

5J

IK08



Asymmetric distribution with medium bilateral.

This model is available in two different Protection Classes against electric shock (page 792).

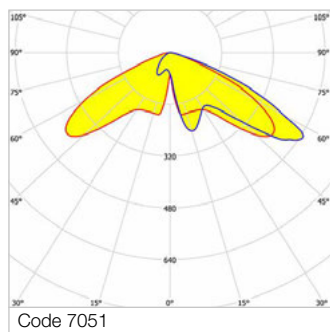
Class I - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
7404 ^{NEW}	3F Manta AN 30/730 MEDIUM	34.5	5087	3000	>70	660x440x166
7009	3F Manta AN 50/730 MEDIUM	53	6912	3000	>70	660x440x166
7010	3F Manta AN 75/730 MEDIUM	78	9663	3000	>70	660x440x166
7011	3F Manta AN 100/730 MEDIUM	103	13028	3000	>70	660x440x166
7012	3F Manta AN 135/730 MEDIUM	149	17360	3000	>70	660x440x166
7020	3F Manta AN 185/730 MEDIUM	195	22451	3000	>70	660x440x166
7405 ^{NEW}	3F Manta AN 30/830 MEDIUM	34.5	4547	3000	>80	660x440x166
7035	3F Manta AN 50/830 MEDIUM	53	6193	3000	>80	660x440x166
7036	3F Manta AN 75/830 MEDIUM	78	8658	3000	>80	660x440x166
7037	3F Manta AN 100/830 MEDIUM	103	11673	3000	>80	660x440x166
7038	3F Manta AN 135/830 MEDIUM	149	15555	3000	>80	660x440x166
7039	3F Manta AN 185/830 MEDIUM	195	20116	3000	>80	660x440x166

Class II - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
7406 ^{NEW}	3F Manta AN 30/730 II MEDIUM	34.5	5087	3000	>70	660x440x166
7040	3F Manta AN 50/730 II MEDIUM	53	6912	3000	>70	660x440x166
7041	3F Manta AN 75/730 II MEDIUM	78	9663	3000	>70	660x440x166
7042	3F Manta AN 100/730 II MEDIUM	103	13028	3000	>70	660x440x166
7043	3F Manta AN 135/730 II MEDIUM	149	17360	3000	>70	660x440x166
7044	3F Manta AN 185/730 II MEDIUM	195	22451	3000	>70	660x440x166
7407 ^{NEW}	3F Manta AN 30/830 II MEDIUM	34.5	4547	3000	>80	660x440x166
7045	3F Manta AN 50/830 II MEDIUM	53	6193	3000	>80	660x440x166
7046	3F Manta AN 75/830 II MEDIUM	78	8658	3000	>80	660x440x166
7047	3F Manta AN 100/830 II MEDIUM	103	11673	3000	>80	660x440x166
7048	3F Manta AN 135/830 II MEDIUM	149	15555	3000	>80	660x440x166
7049	3F Manta AN 185/830 II MEDIUM	195	20116	3000	>80	660x440x166

3F Manta Front



Asymmetric distribution with deep bilateral.

This model is available in two different Protection Classes against electric shock (page 792).

Class I - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
7408 ^{NEW}	3F Manta AN 30/730 FRONT	34.5	4578	3000	>70	660x440x166
7051	3F Manta AN 50/730 FRONT	51	7242	3000	>70	660x440x166
7052	3F Manta AN 75/730 FRONT	76	10266	3000	>70	660x440x166
7053	3F Manta AN 100/730 FRONT	105	12830	3000	>70	660x440x166
7054	3F Manta AN 135/730 FRONT	141	15913	3000	>70	660x440x166
7409 ^{NEW}	3F Manta AN 30/830 FRONT	34.5	4092	3000	>80	660x440x166
7055	3F Manta AN 50/830 FRONT	51	6474	3000	>80	660x440x166
7056	3F Manta AN 75/830 FRONT	76	9177	3000	>80	660x440x166
7057	3F Manta AN 100/830 FRONT	105	11969	3000	>80	660x440x166
7058	3F Manta AN 135/830 FRONT	141	14226	3000	>80	660x440x166

Class II - ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
7410 ^{NEW}	3F Manta AN 30/730 II FRONT	34.5	4578	3000	>70	660x440x166
7059	3F Manta AN 50/730 II FRONT	51	7242	3000	>70	660x440x166
7060	3F Manta AN 75/730 II FRONT	76	10266	3000	>70	660x440x166
7061	3F Manta AN 100/730 II FRONT	105	12830	3000	>70	660x440x166
7062	3F Manta AN 135/730 II FRONT	141	15913	3000	>70	660x440x166
7411 ^{NEW}	3F Manta AN 30/830 II FRONT	34.5	4092	3000	>80	660x440x166
7063	3F Manta AN 50/830 II FRONT	51	6474	3000	>80	660x440x166
7064	3F Manta AN 75/830 II FRONT	76	9177	3000	>80	660x440x166
7065	3F Manta AN 100/830 II FRONT	105	11969	3000	>80	660x440x166
7066	3F Manta AN 135/830 II FRONT	141	14226	3000	>80	660x440x166

3F Manta | Accessories



Code	Item
A0439	Pole mounting diameter 60mm
A0440	Pole mounting diameter 76mm

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.

Not suitable for fixing on fibreglass pole.



Code	Item
A0441	Reducer from 76 mm to 60 mm

Reducer in galvanised steel, suitable for poles with a diameter of 76 mm.

To install this accessory, it is always necessary to use the pole connection code A0439.



Code	Item
A01480	Fixed position wall bracket

Galvanised steel bracket for fixing on flat facades. 3 mm thick and 200 mm long arm. Powder coated polyester paint, anthracite colour. This bracket DOES NOT allow adjustment of the inclination of the product.

Options on request: painting in different RAL colour.



Code	Item
A01479	Wall bracket 15° diam 60mm

Galvanised steel bracket for fixing on flat facades. Arm length 250 mm, diameter 60 mm, inclination of 15° . This bracket allows adjustment of the inclination of the product.

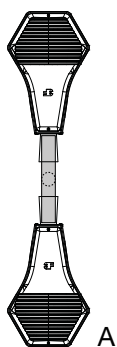
To install this accessory, it is always necessary to use the pole connection code A0439. Options on request: painting in RAL colours / 500 mm outreach / horizontal pole.



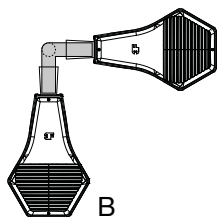
Code	Item
A01481	Corner wall bracket 15° diam 60mm

Galvanised steel bracket for fixing on the corner between facades. Arm length 250 mm, diameter 60 mm, inclination of 15° . This bracket allows adjustment of the inclination of the product.

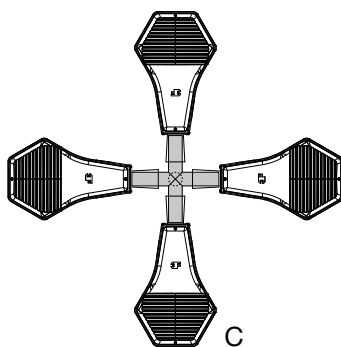
To install this accessory, it is always necessary to use the pole connection code A0439. Options on request: painting in RAL colours / 500 mm outreach / horizontal pole.



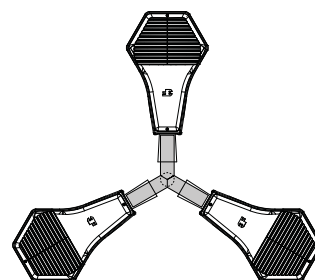
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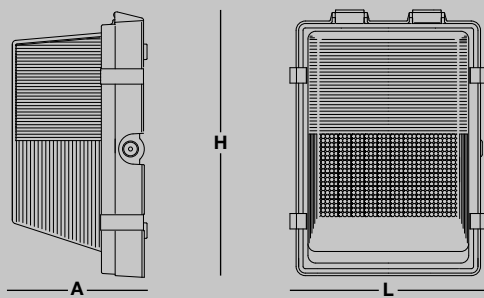
C



D

If you require more information, do not hesitate to contact our Sales Network or our Technical Offices.

/ Outdoor



3F Filippi
Pianoro (BO)
Italia/Italy





3F 66

ILLUMINOTECHNICAL

Downward bilateral distribution.
Lifetime (L70/B10): 50000 h. (tq+25°C)
Photobiological safety RG0 (page 16).

SOURCE

LED modules.
Colour initial tolerance (MacAdam): SDCM 4.

MECHANICAL

Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
Flow recuperator in specular aluminium with superficial titanium-magnesium treatment, non-iridescent.
Transparent methacrylate (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

In compliance with EN 60598-1.
Double insulated cables.
Line entry at rear through rubber seal or at side after drilling.
Class II.

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.

ON REQUEST

- different powers or colour temperatures
- emergency versions

3F 66



650°C

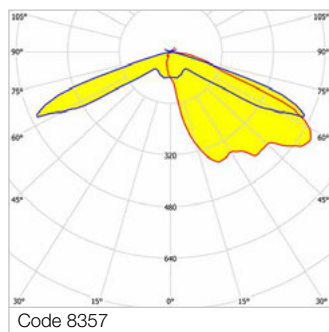
IP65

5J

IK08

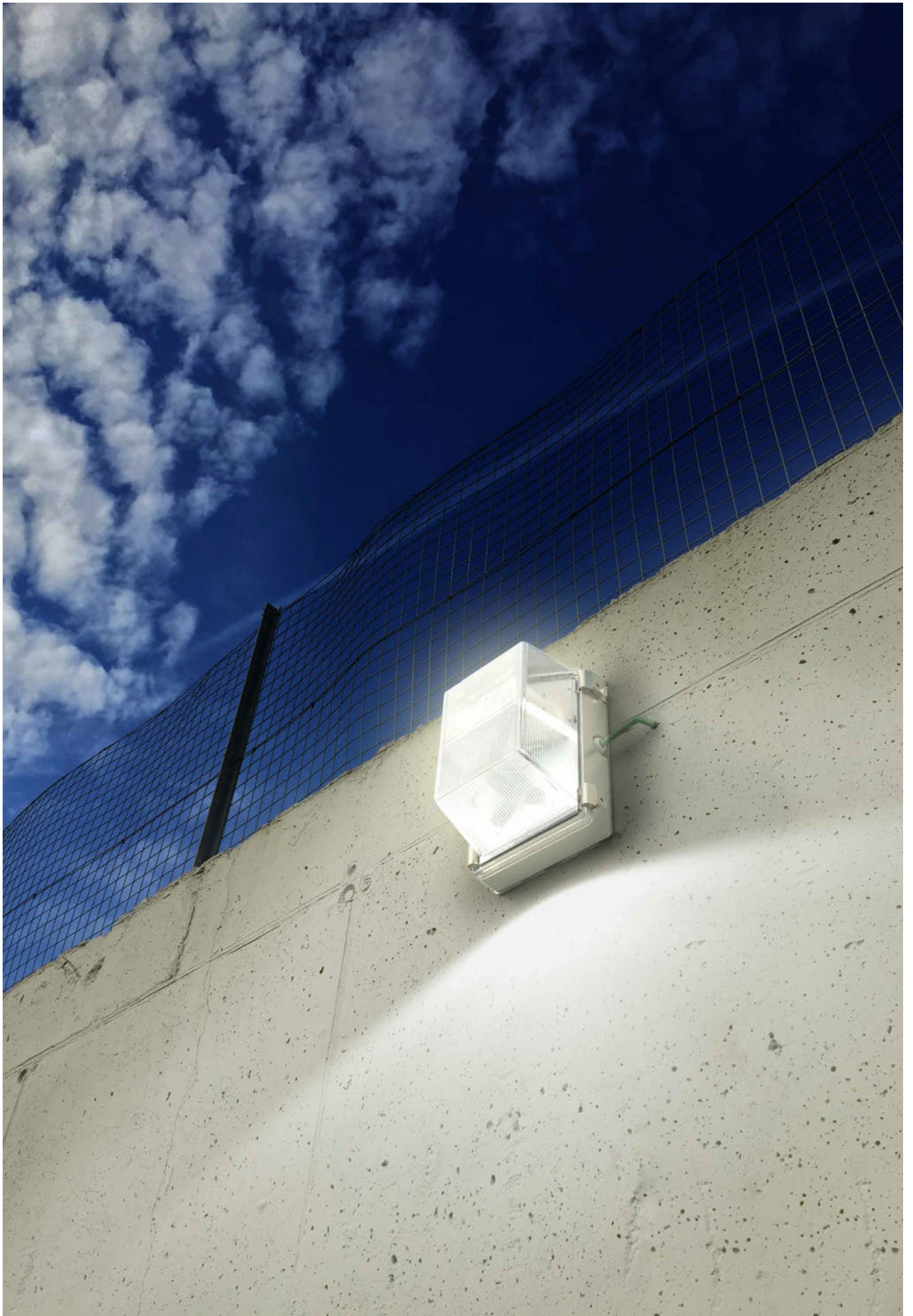


Driver/LED
SELV



ON/OFF electronic wiring 230V-50/60Hz

Code	Item	W	lm	K	CRI	L x A x H
8357	3F 66 1 LED 6 II	9	774	4000	>80	255x176x344
8358	3F 66 2 LED 12 II	15	1530	4000	>80	255x176x344



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/ Light Management

3F Smart Lighting. Good for you, excellent for the environment.

3F Filippi is always at the forefront when it comes to proposing quality and comfortable lighting while respecting the energy impact and the environment, proposing lighting management systems in accordance with the UNI EN 15232 standard, which introduces a division into 4 energy efficiency classes for the control functions of technical installations in buildings.

3F Filippi uses the following tools to improve everyday life in the workspace:

- 3F Easy Dim
- 3F Smart Dimming
- 3F Sensor (BT)
- 3F DALI Sensor
- 3F HCL for TW fixtures
- 3F CLO
- 3F & Casambi
- 3F & KNX
- 3F Wireless

The implementation costs of these solutions are largely absorbed by the **simplification** of the electrical wiring and installation: the **reduction** in the number of conductors required, conduits, power and control panels means that the payback time of the investment is drastically reduced.

Note:

Our sales and technical departments are at your disposal to support you in choosing the best available solutions, which can also be tailor-made for your application.



/ 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.

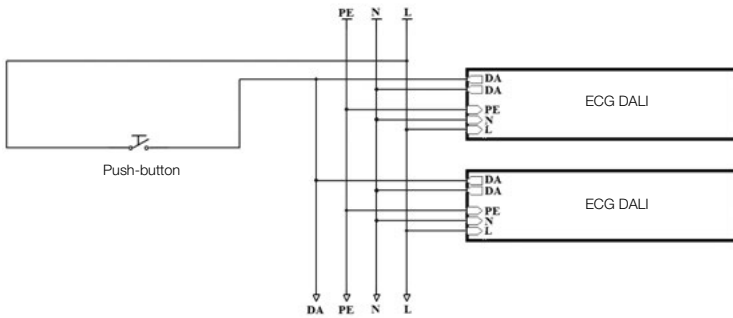
ADVANTAGES

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



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.

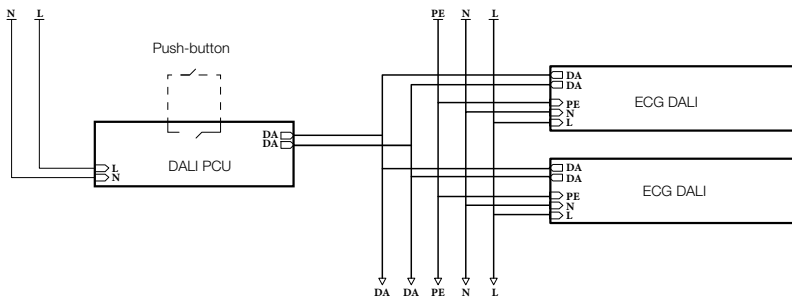
Components required

- 1 commercial push-button.

Note:

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.

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.

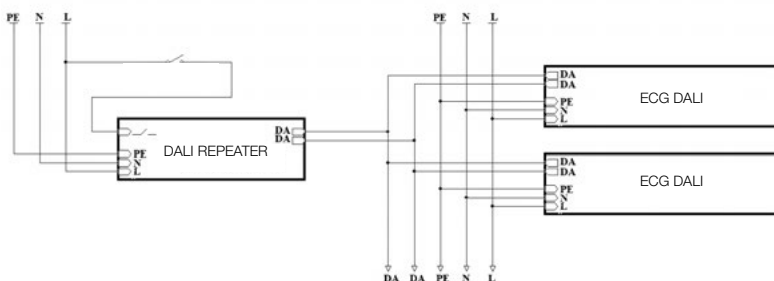
Compatible luminaires

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 15 cm – max 100 cm).

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



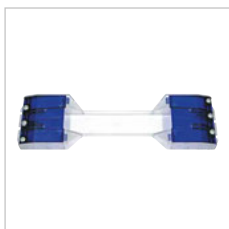
Code	Item
A3008	DALI ext - Repeater

Signal Repeater for expansion of DALI systems (64 drivers 300 metres of line), size 189x30x21 mm, integrated installation into the device or into the Box (cod. A3010).



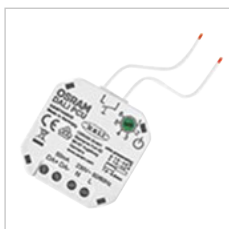
Code	Item
A3009	DALI DIN - Repeater

Signal Repeater for expansion of DALI systems (64 drivers 300 metres of line), size 96x72x62 mm, DIN rail mounting.



Code	Item
A3010	DALI - Box for repeater

Box mounted housing DALI Repeater ext (cod. A3008), size 261x71x27 mm.



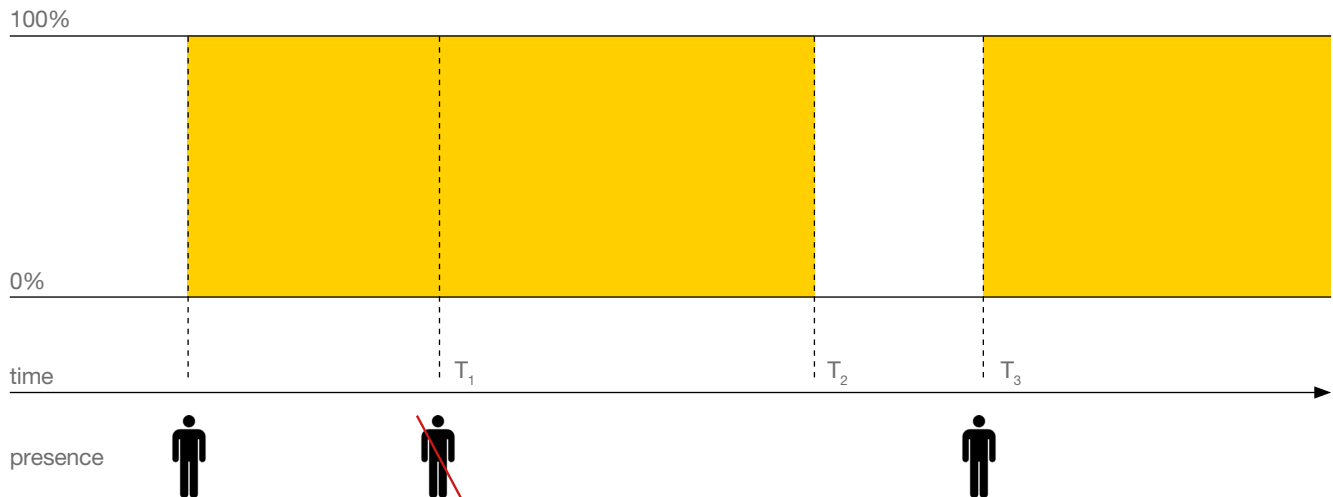
Code	Item
A3007	DALI PCU - push button interface

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).



/ 3F Sensor

3F Sensor



Legend:

$T_1 \rightarrow T_2$ - switch-off delay - **default 10s**

$T_2 \rightarrow T_3$ - period of zero luminous flux

A **SMALL** revolution. Great advantages.

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:

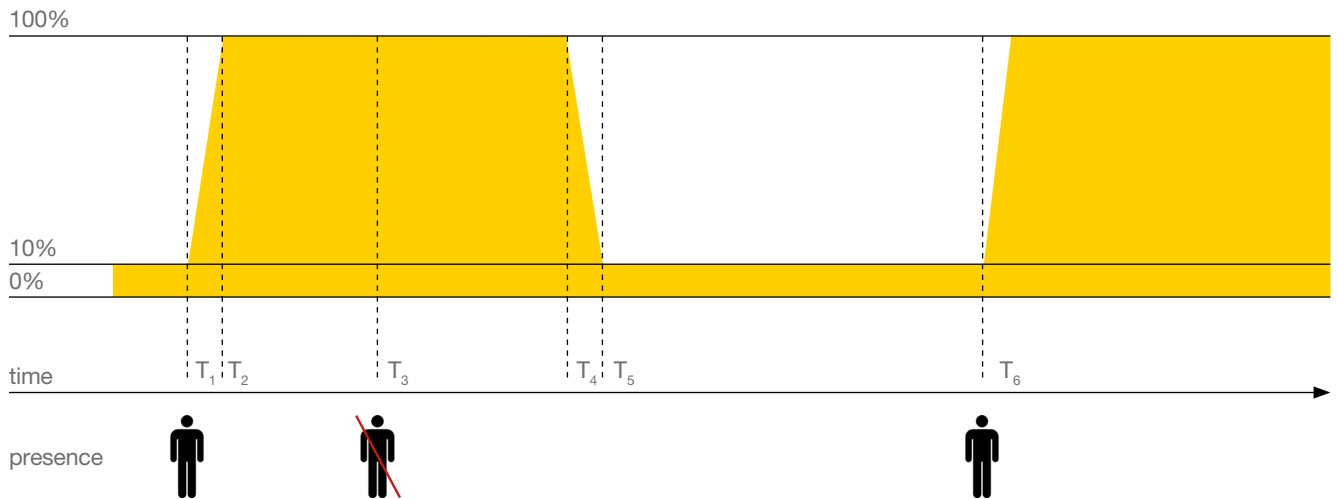
- **Time savings during installation:** no sensor network required.
- **Cost savings:** fewer materials and reduced calibration times.
- **Ease of installation:** existing installations are not modified. Simply connect the devices to the mains.
- **Customisation of brightness levels:** each unit is independent of the others.

SAVINGS

For the customer the benefits are tangible:

- **Installation:** no expenditure on electrical equipment.
- **Independence and precision:** each luminaire manages itself.
- **Simplicity:** no loss of time when adjusting the system.
- **Integration with existing installations:** no expenditure on adapting installations.

3F Sensor CF



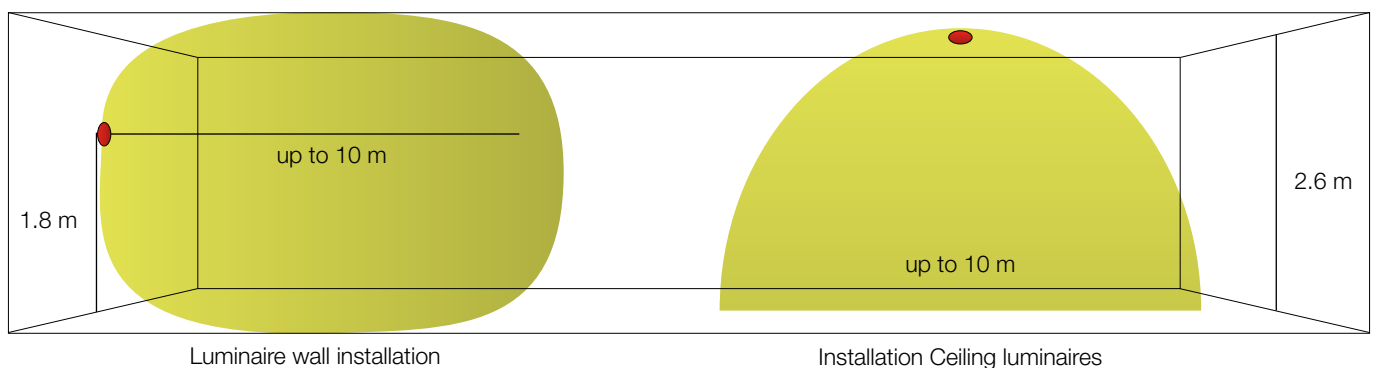
Legend:

$T_1 \rightarrow T_2$ - luminous flux increase time

$T_3 \rightarrow T_4$ - switch-off delay - **default 10s**

$T_4 \rightarrow T_5$ - luminous flux decrease time

$T_5 \rightarrow T_6$ - luminous flux reduced 10%



Note:

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.

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")	
Switch-off delay	From 10 seconds to 30 minutes (default setting 10s)	
Sensitivity/detection field	20% - 30% - 50% - 75% - 100% (default setting 75%)	



/ 3F Sensor Bluetooth



CHARACTERISTICS

We have integrated a high frequency DALI radar motion detector (HF) 5.8GHz inside the 3F Linda Sensor DALI-BLE 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.

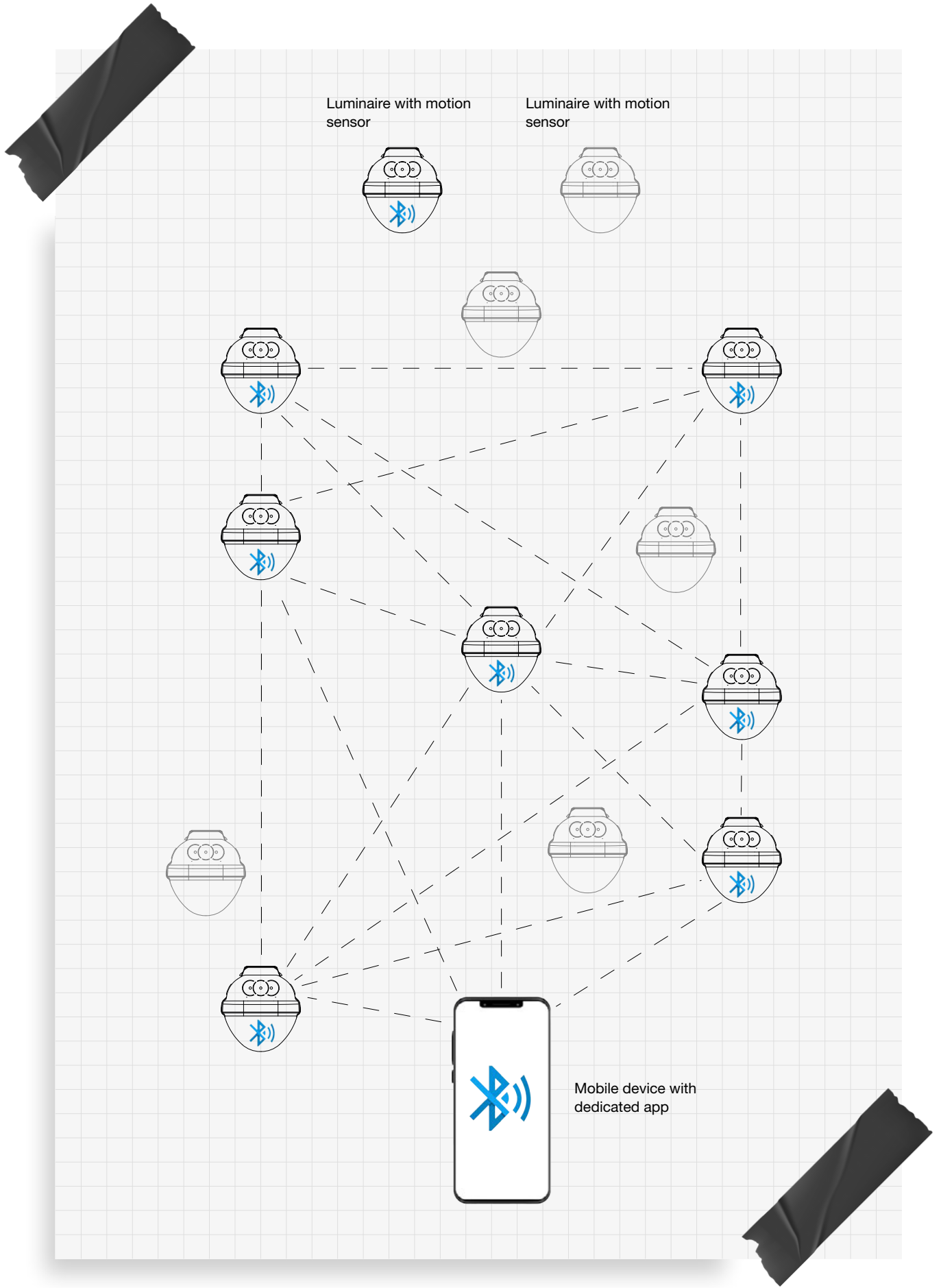
ADVANTAGES

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:

1. Bluetooth communication between fixtures.
2. The creation of groups of fixtures without any other physical connections.
3. 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.



IMPORTANT:

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 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 (to exclude the presence detection, accessory A3022 and the BEG APP are required).

Luminaires with 3F DALI Sensor technology can be installed in the two following ways:

1. 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.

2. 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.

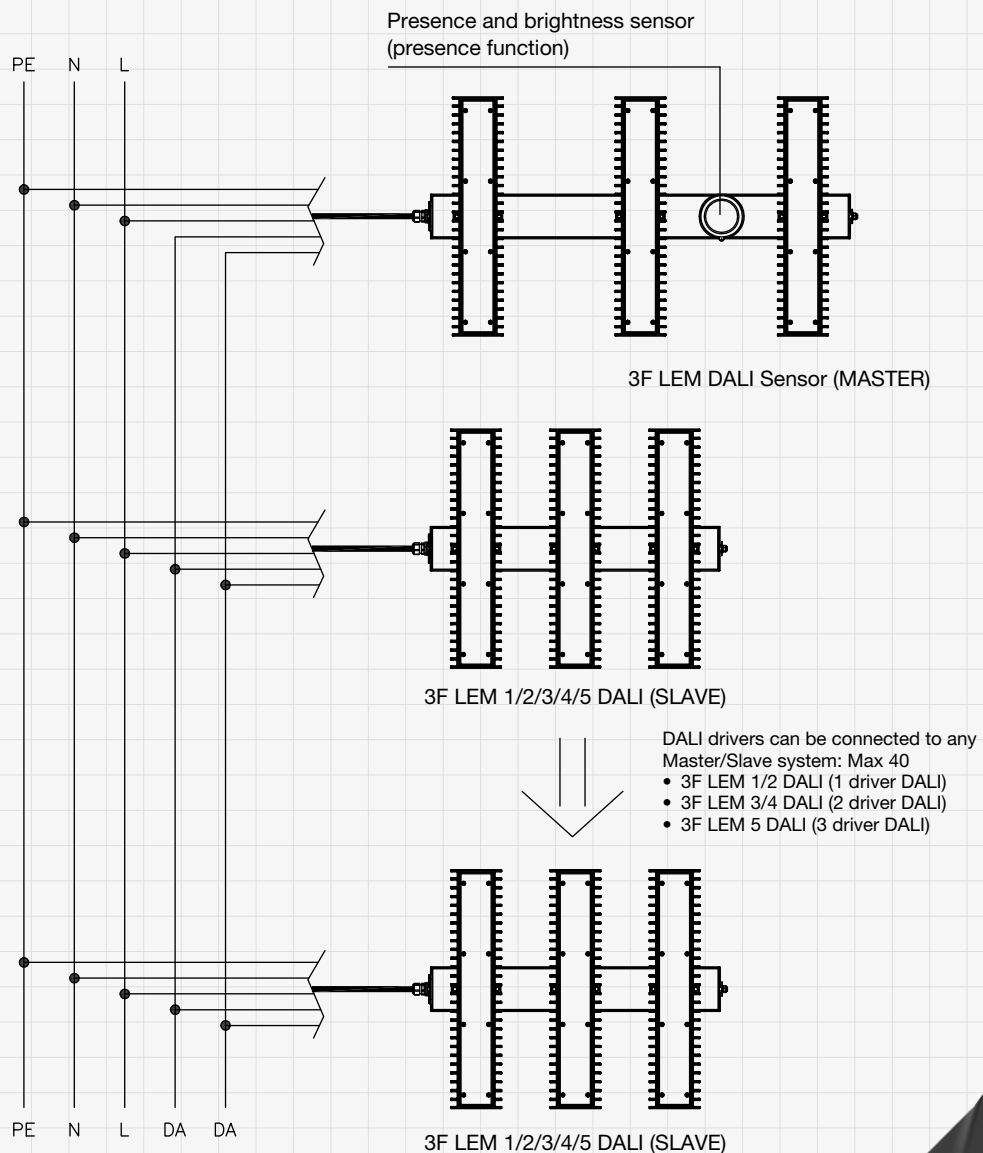
In both solutions, the initial programming of the sensor can be performed simply and conveniently with the use of the DALI IR programmer (code A3020) or the IR adapter for Smartphones (code A3022).

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 when motion is detected and with the twilight threshold set, as well as centralised on/off commands when motion is detected and with the twilight threshold set. (to exclude the presence detection, accessory A3022 and the BEG APP are required).



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 - 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.

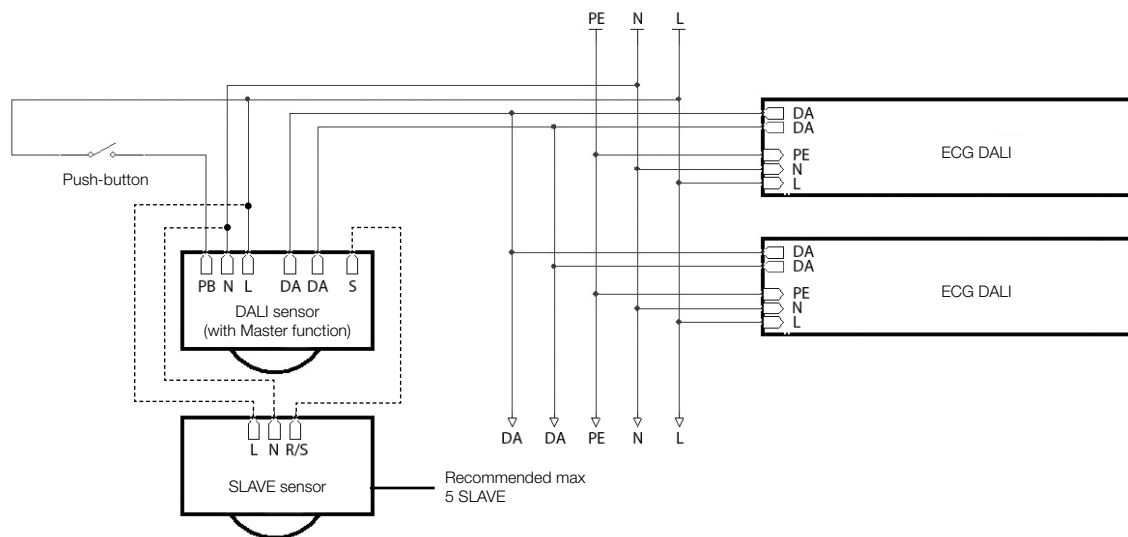
Compatible luminaires

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, accessory A3022 and the BEG APP are required.



/ 3F Smart Dimming

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.

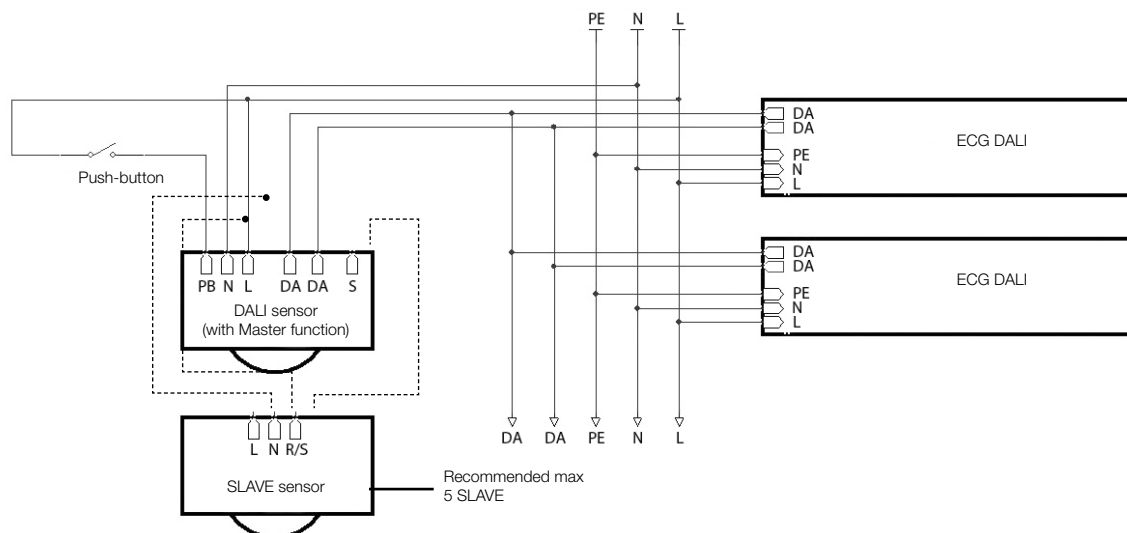
Compatible luminaires

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, accessory A3022 and the BEG APP are required.

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

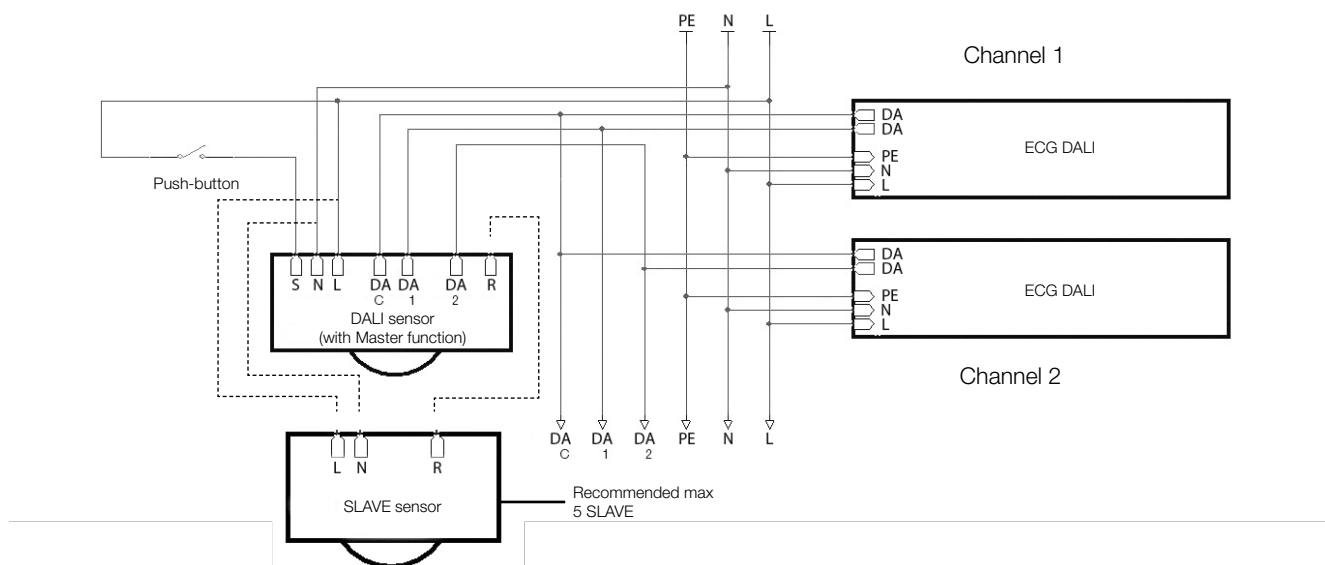
Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast.

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, accessory A3022 and the BEG APP are required.



3F Smart Dimming | Accessories

Type A sensors (H max = 5mt)



IP20

Code	Item
A3013	A on/off - Sensor

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.

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.



IP20
IP54

Code	Item
A3014	A on/off-ext - 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 10 m, with Master function. Integrated twilight sensor. IP20/IP54 rated (exposed part).

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.



IP20

Code	Item
A3039	A DALI-2 - Sensor

Presence detector On/Off, recessed, with one DALI-2 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 40 DALI drivers. IP20 protection degree.

On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.



IP54

Code	Item
A3040	IP54 ceiling base for A DALI-2 sensor

IP54 base for ceiling installation of A DALI-2 Sensor.



IP20

Code	Item
A3025	A SLAVE - Sensor

Recessed Slave presence detector, compatible with sensors with Master function, such as Sensor A DALI-2 and Sensor A on/off, circular detection area Ø 10 m. IP20 protection degree.

Type A sensors (H max = 5mt)



Code	Item
A3026	A SLAVE-ext - Sensor

Ceiling mounted Slave presence detector, compatible with sensors with Master function, such as Sensor A DALI-2 and Sensor A on/off, circular detection area Ø 10 m. IP20/IP54 rated (exposed part).

On request: IP54 cap code A3024, to obtain total IP54 rating.



IP20
IP54

Type B sensors (H max = 10mt)



Code	Item
A3018	B on/off - Sensor

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.

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.



IP20



Code	Item
A3019	B on/off-ext - 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).

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.



IP20
IP54



Code	Item
A3041	B DALI-2 - Sensor

Presence detector On/Off, recessed, with one DALI-2 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 40 DALI drivers. IP20 protection degree.

On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.



IP20



Code	Item
A3042	IP54 ceiling base for B DALI-2 sensor

IP54 base for ceiling installation of B DALI-2 Sensor.



IP54



Type B sensors (H max = 10mt)



Code	Item
A3027	B SLAVE - Sensor

Recessed Slave presence detector, compatible with sensors with Master function, such as Sensor B DALI-2 and Sensor B on/off, circular detection area Ø 24 m. IP20 protection degree.



Code	Item
A3028	B SLAVE-ext - Sensor

Ceiling mounted Slave presence detector, compatible with sensors with Master function, such as Sensor B DALI-2 and Sensor B on/off, circular detection area Ø 24 m. IP54 protection degree.



Code	Item
A3015	B Dual-DALI - Sensor

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.

On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.

Type B GH sensors (H max = 16mt)



Code	Item
A3043	DALI-2 Sensor - Type B - GH

Presence detector with one DALI-2 interface, ceiling mounted, for mounting at great heights, transverse detection area Ø 30 m, with Master function. Maximum installation height 16 m. Telescopic external light sensor for precise light measurement in a single application. Integrated twilight sensor. IP54 protection degree.



Code	Item
A3038	IR DALI GH - Programmer

IR remote control for programmer, compatible with DALI sensors (incompatible with On-Off and Slave sensors), especially for long distances.

Type Corr sensors



IP20

Code	Item
A3029	Corridor on/off - 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.

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.



IP54

Code	Item
A3030	Corridor on/off-ext - 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.

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.



Code	Item
A3044	Corridor det. lens for B DALI-2 sensor

Corridors detection area lens for B DALI-2 recessed and/or surface mounted sensors.



IP20

Code	Item
A3033	Corridor SLAVE - Sensor

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.



IP54

Code	Item
A3034	Corridor SLAVE-ext - Sensor

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.



Cap for ceiling mounted sensors



Code	Item
A3024	IP54 White fixing

Cap for ceiling mounted sensors, to obtain IP54 rating (total) for H 15 mm. Compatible with the following sensors:

- Sensor A on/off ext code A3014
- Sensor B on/off ext code A3019
- Sensor A SLAVE ext code A3026



IP54

Sensor programmers



Code	Item
A3020	IR DALI - Programmer

IR remote control for programmer, compatible with DALI sensors (incompatible with On-Off and Slave sensors).



Code	Item
A3021	IR DALI - Remote controller

IR remote control for user, compatible with DALI sensors (incompatible with On-Off and Slave sensors).



Code	Item
A3022	IR - Adapter for Smartphone

IR adapter for Smartphones, compatible with all programmable sensors. Free App available for Android and iOS devices.



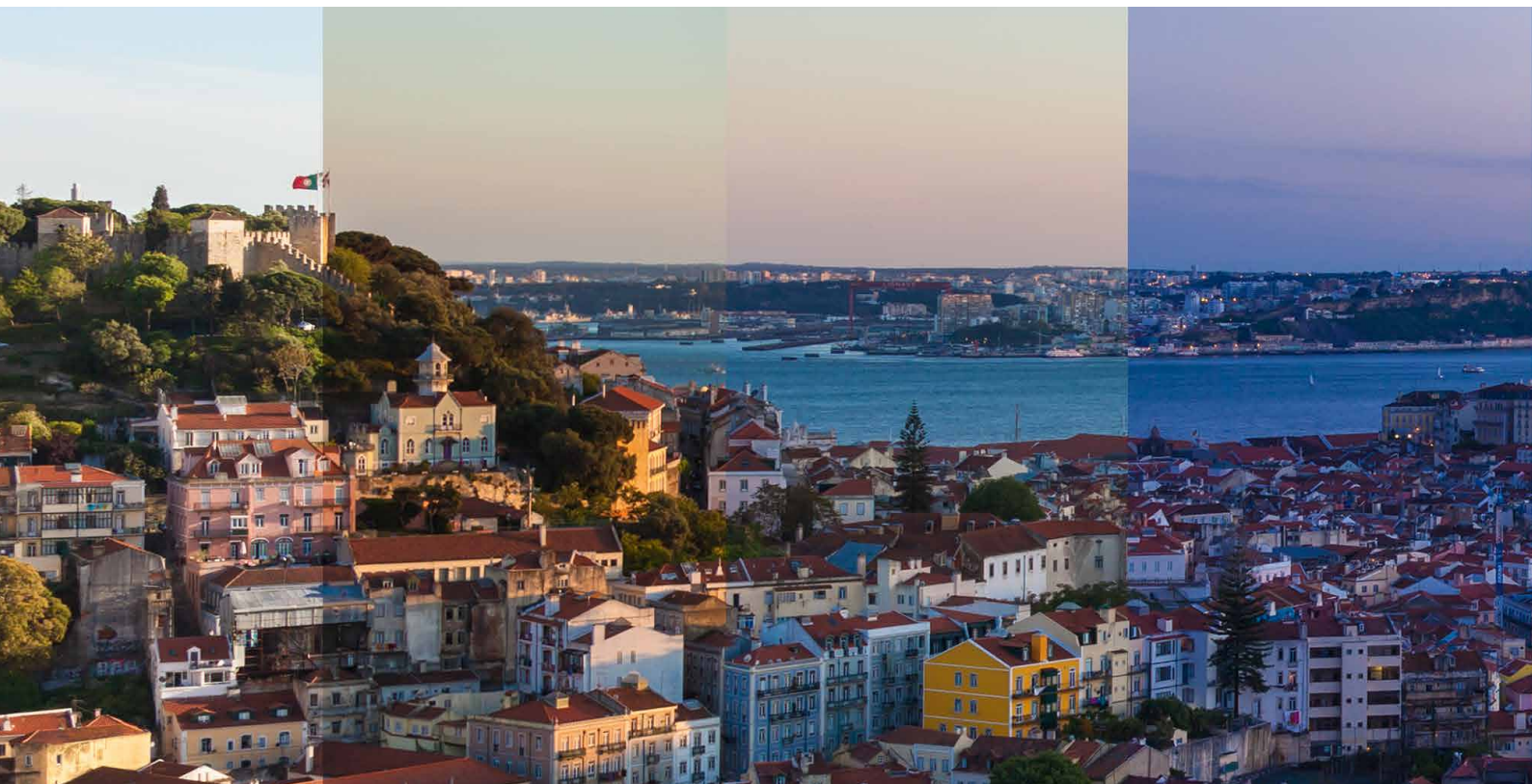
Code	Item
A3023	IR on/off - Programmer

IR remote control for programming on/off sensors incompatible with DALI and Slave sensors).





/ 3F HCL for Tunable White fixtures



Colour **TEMPERATURE** variation.

The new standard EN 12464-1:2021 elaborates on the importance of lighting concepts in the workplace and the impact lighting has on circadian rhythms and moods leading to improved performance and well-being of people.

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.

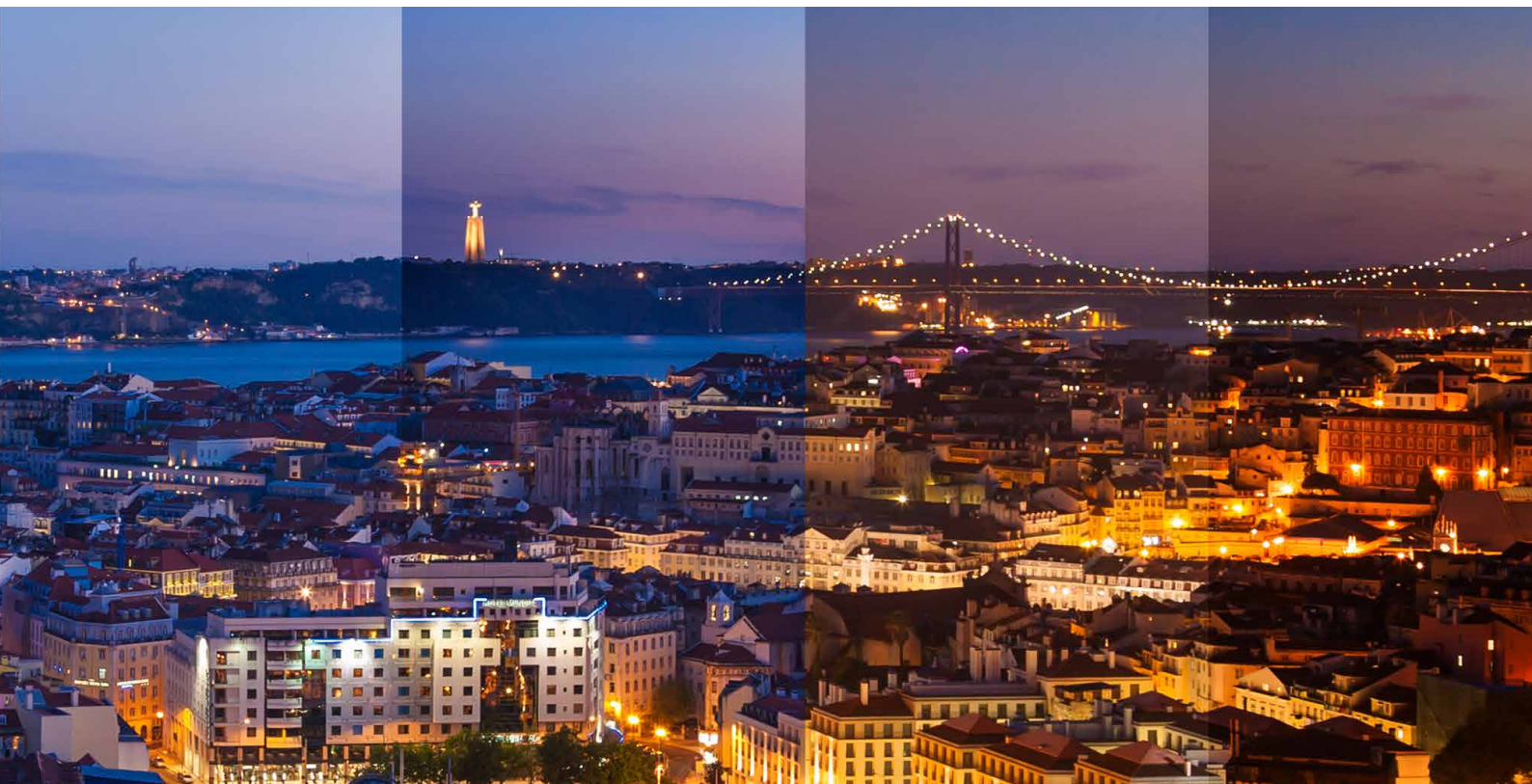
- Symmetrical light diffusion.
- Freedom of use for each individual.

HCL luminaires allow users to change both intensity and temperature of the emitted light, thus improving comfort and increasing the feeling of well-being.

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.

Note:

If you require more information, do not hesitate to contact our Sales Network or our Technical Offices.



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.

HCL technology allows for:

- 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.

ATTENTION: 2-channel DT8 driver - constant colorimetric on all attenuation levels:

The TW Tunable White fixtures can be regulated using two different systems:

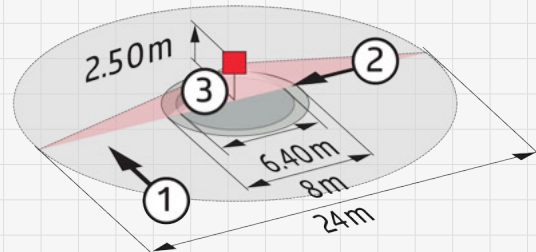
1. Wired automatic control system.
2. 3F Casambi control system.

Detection scheme

The HCL DT8 presence and light sensors allow the management of a group of Tunable White (TW) devices, up to a maximum of 50 drivers.

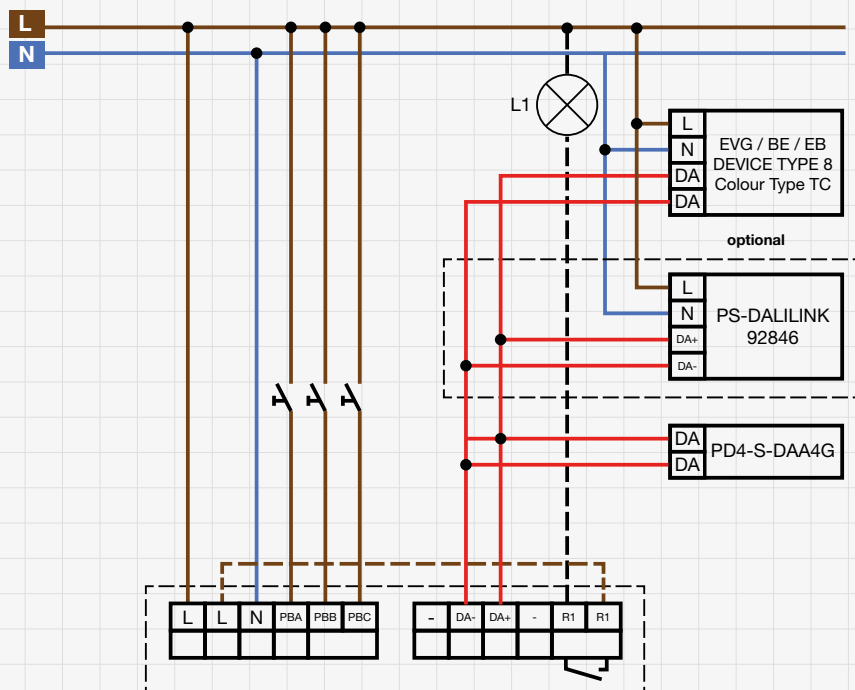
The sensors have the following characteristics:

- Integrated presence detector capable of controlling up to 50 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



1. Transversal approach to the detector
2. Frontal approach to the detector
3. Fixed position: h 2,5 m

Electrical connection diagram



3F HCL | Accessories



Code	Item
A3045	HCL2 DT8 - Sensor

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 50 DALI drivers. Maximum installation height 10 m.



IP20



Code	Item
A3046	HCL2 DT8-ext - Sensor

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 50 DALI drivers. Maximum installation height 10 m.



Code	Item
A3022	IR - Adapter for Smartphone

IR adapter for Smartphones, compatible with all programmable sensors. Free App available for Android and iOS devices.

Mandatory accessory for programming the HCL DT8 sensors.



/ 3F & Casambi

FUNCTIONS

Control Type:

Casambi control can be done using:

- Buttons and switches (manual control).
- App (manual digital control).
- Sensors and timers (automatic digital control).

Grouping:

Different fixtures can be grouped together to be managed all together or individually. Grouping is easy and the same as grouping apps on smart devices.

Scenes:

It is possible to:

- Create lighting scenes for different occasions.
- Manage several fixtures with just one touch to create the perfect atmosphere for specific needs.
- Use the same fixture in different scenes.

Tunable control:

Casambi provides complete colour temperature control for those permitted in the range for LED sources. Just swipe your finger over the icon for the source to change the colour temperature.

Animation:

It is possible to create dynamic scenes with fades from scene to scene. Animated scenes can be recalled again or repeated as required. It is possible to set both the duration of each scene and fade times between scenes.

Gallery:

The exclusive gallery function makes control intuitive. Taking a photo of an environment or uploading a floor plan on the app it is possible to mark the fixtures and then recall them. Images are saved in a special gallery on the app with the fixtures displayed. Users only have to touch the ones they want to manage.

Gateway:

With the gateway function it is possible to access a Casambi network remotely. Casambi enabled fixtures can be managed and network settings (administration rights required) can be changed. To enable the remote access feature, an iOS or Android device must act as a gateway on the Casambi network.

Adaptable:

The Casambi system is adaptable to both simple as well as more complex projects. It is based on the possibility to create an unlimited number of networks that can be turned on and off.

Calendar:

With the calendar and timer function it is possible to activate and deactivate scenes and animated scenes based on parameters such as: timetables, weekly scheduling, seasonality etc. This makes it possible to meet the needs of different users and the environments to be lit. All Casambi units keep track of time.



INSTALLATION SEQUENCE

- 1**

Choose 3F Filippi fixtures by opting for the 3F Filippi Casambi Ready package or Casambi accessory components.
- 2**

Download the Casambi iOS or Android App depending on the device used.
- 3**

Launch the App: the fixtures in operation will be detected automatically.
- 4**

Create one or two networks depending on the characteristics of the environment.
- 5**

Create groups of devices as needed.
- 6**

Program scenes and/or sequences.
- 7**

Set the level of network sharing.



3F & Casambi | Accessories



IP20

Code	Item
A3090	BLE DALI Radio Module

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 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.

For further details regarding all the functions obtainable from Bluetooth accessories, please contact our technical offices.



IP40

Code	Item
A3091	BLE DALI Radio push-button panel

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.



IP20

Code	Item
A3092 ^{NEW}	BLE DALI DT8 radio module

BLE DALI DT8 radio module, a wireless control unit with a DALI DT8 interface for TW fixtures. The module can only be used in a closed system and must not be connected to an existing DALI network. The module is 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.

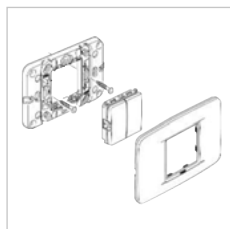
For further details regarding all the functions obtainable from Bluetooth accessories, please contact our technical offices.



IP40

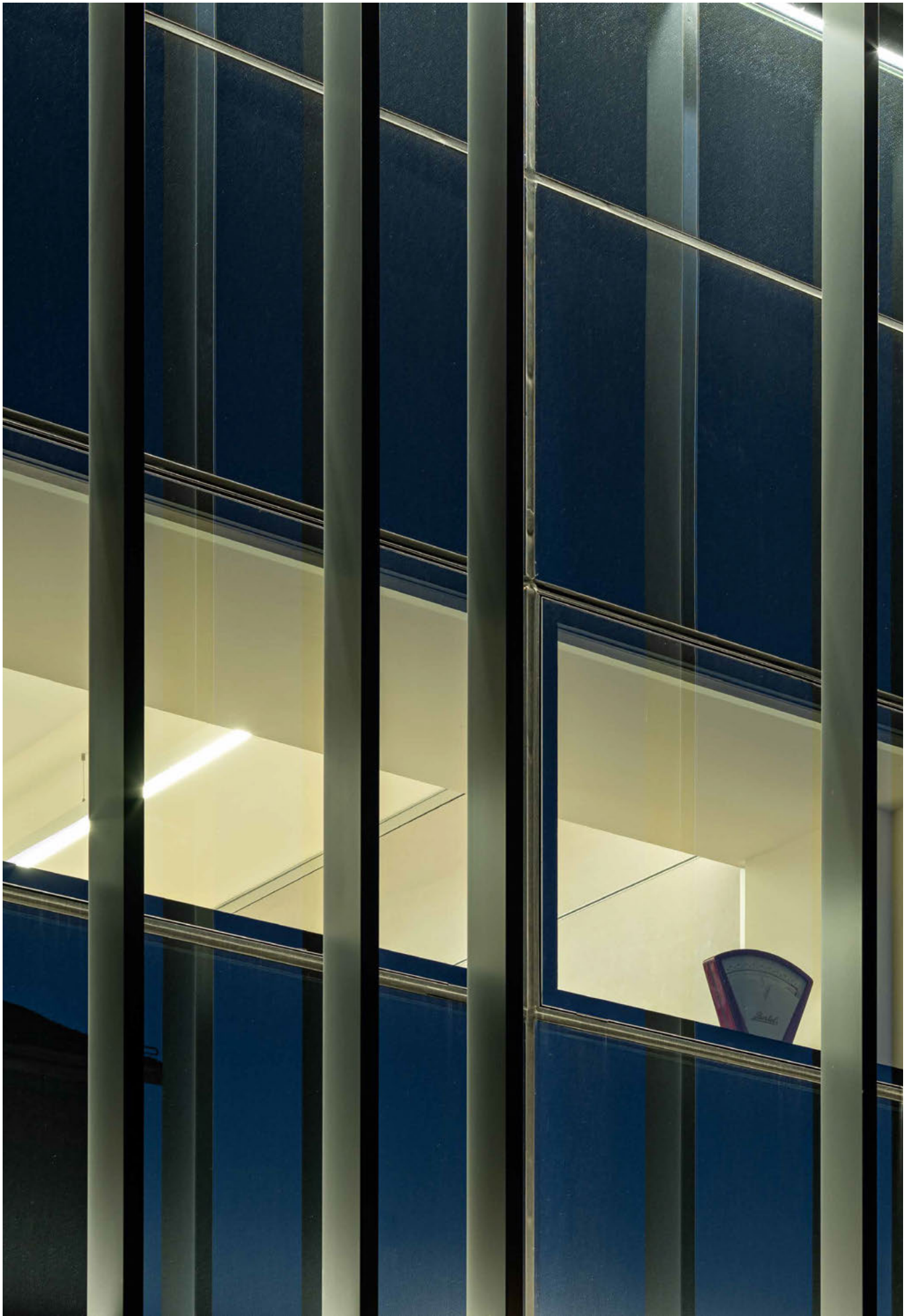
Code	Item
A3099	BLE Radio control

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
A3100	Kit ArkE support buttons plate for A3099

Arkè support kit, 2 buttons (4 switches) and a terminal panel to control the transmitter (code A3099).



/ 3F & KNX

Building automation



BUILDING management.

CHARACTERISTICS

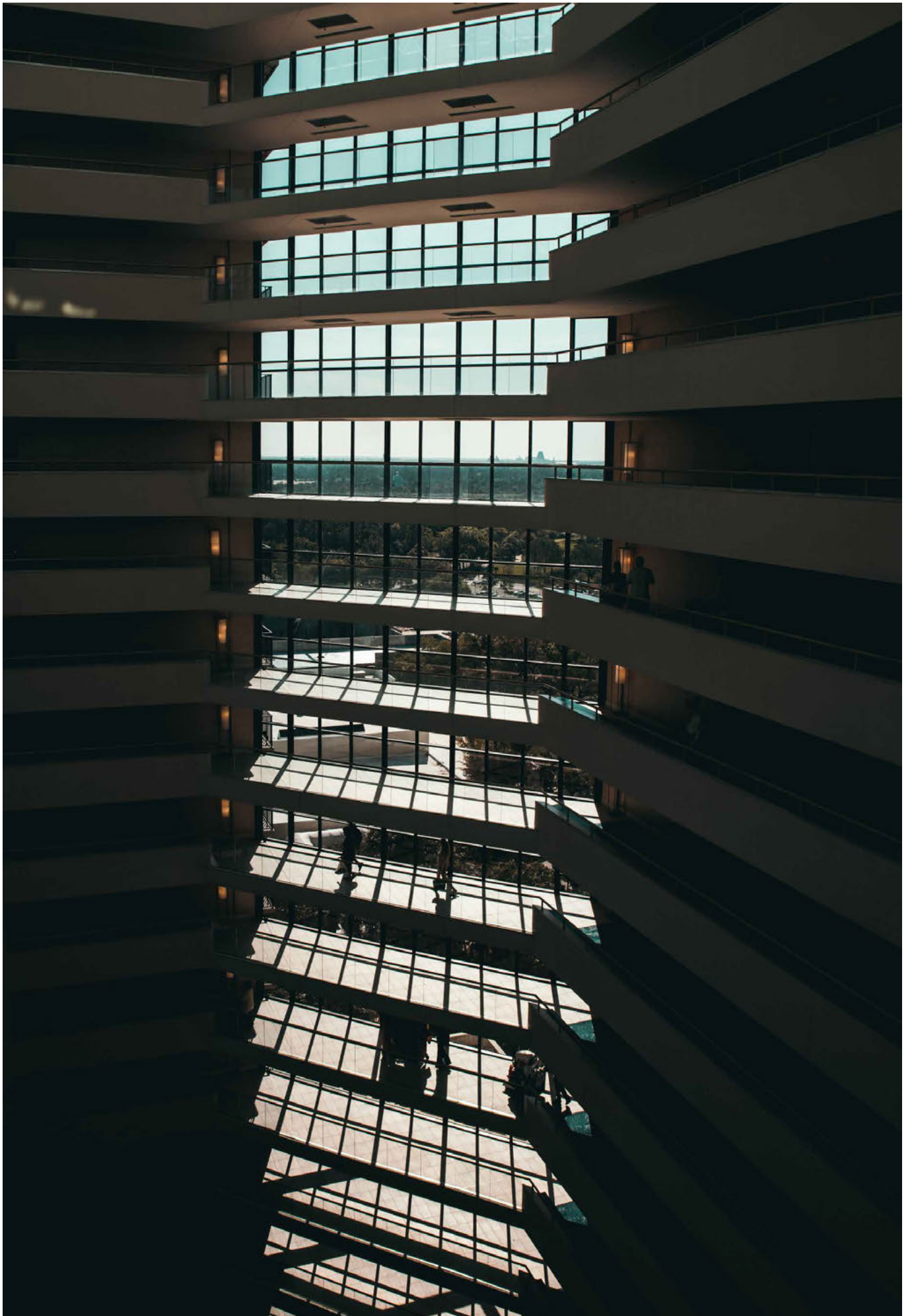
KNX is a worldwide open standard which meets the most important European and international standards and offers automated and decentralised management of technological systems for: commercial, industrial, public and office buildings, schools and many other structures besides.

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.

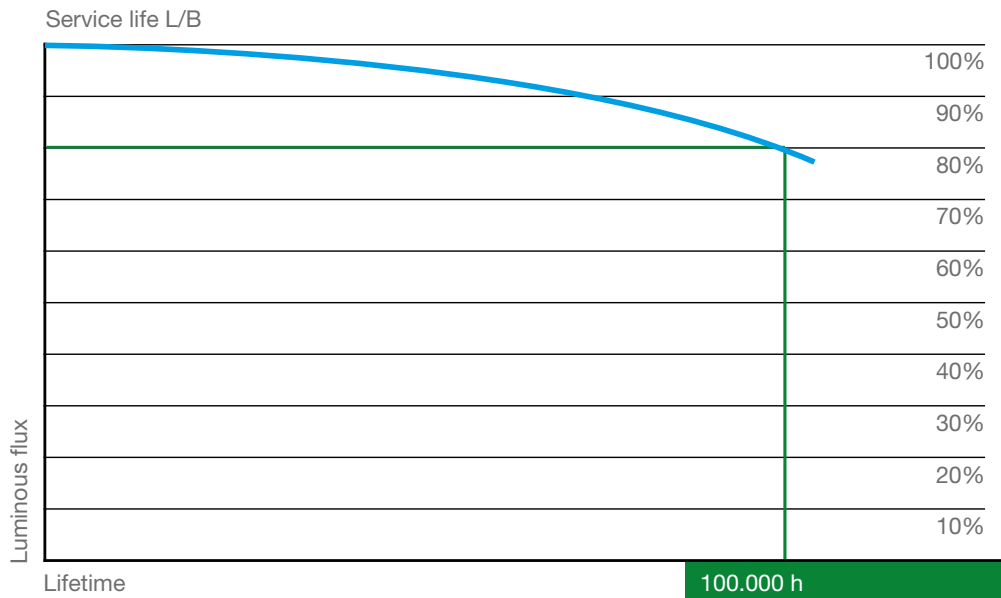
KNX improves comfort and security, as well as providing a strong contribution to energy savings (up to 50% for lighting and heating management) and to reducing environmental impact. The KNX system can be used both in new and existing buildings.

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).

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. Light remains.

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.

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.

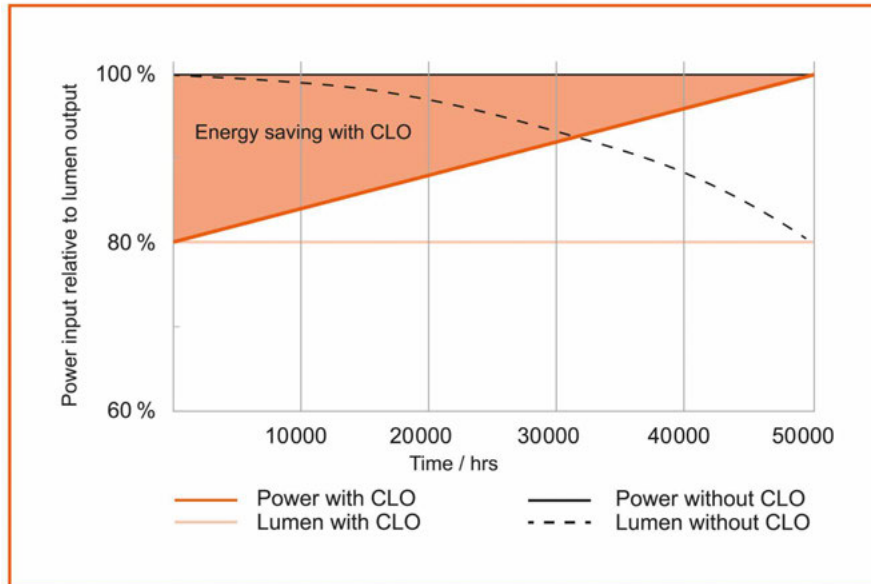
Fixtures equipped with this function initially emit, and subsequently in a constant way, a luminous output decreased by 15% in consideration of the decay of the light.

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).

Note:

(*) 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 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

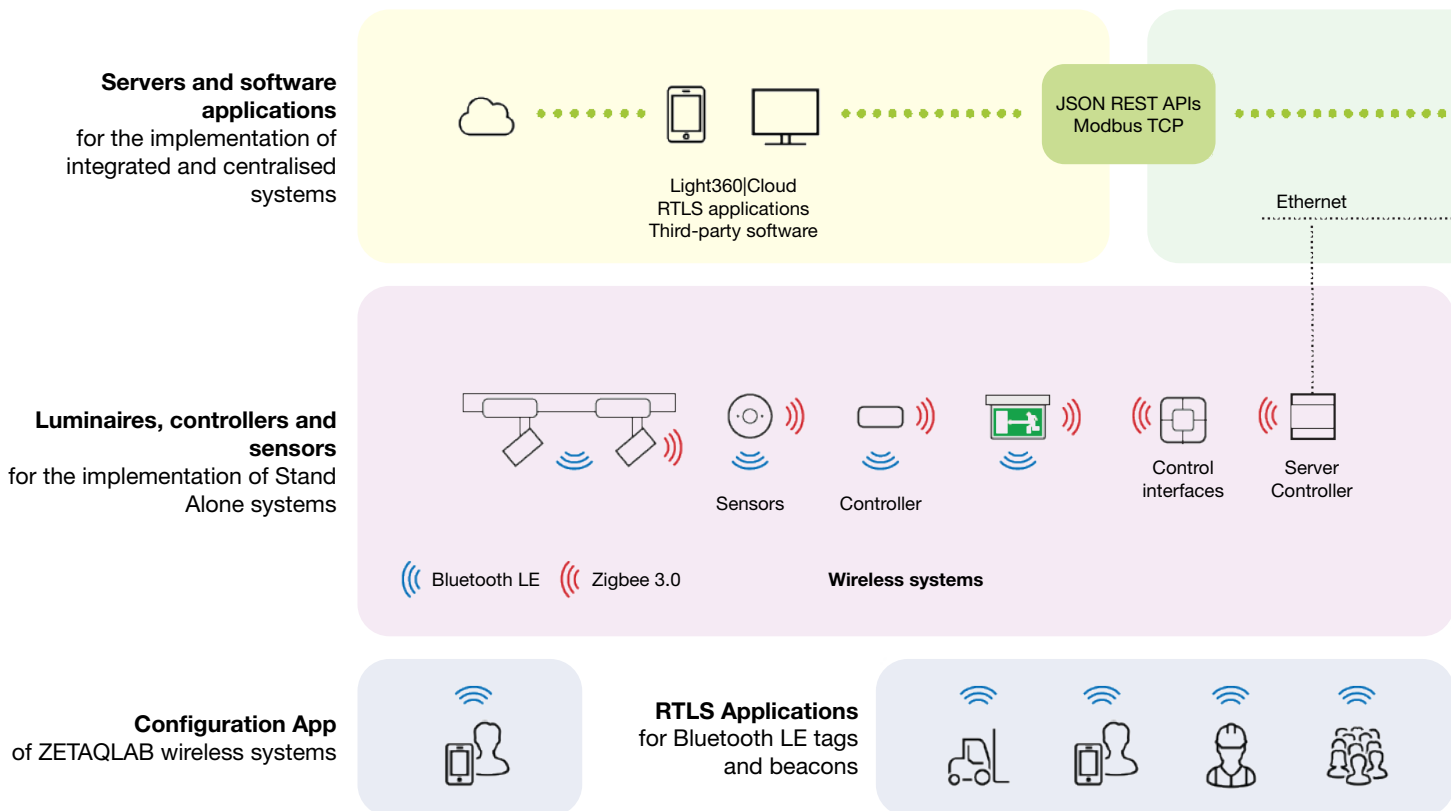
The light fixtures will be constant throughout their entire life. Drivers with the CLO function are able to compensate for the decay in luminous output of the LED sources and avoid output peaks/excess power at the beginning of the installation while maintaining the required luminance values constant over time.

Energy consumption will increase over time to reach maximum consumption which would normally occur when first turned on, only after 100,000 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



3F & ZETAQLAB.

CHARACTERISTICS

Thanks to the 3F Wireless control modules, it is possible to manage DALI digital dimmable luminaires and sensors directly via wireless.

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:** Management of devices on a local network or via the cloud.
- **Monitoring of consumption:** Monitored energy consumption in building automation contexts.
- **Mesh Network:** Communication

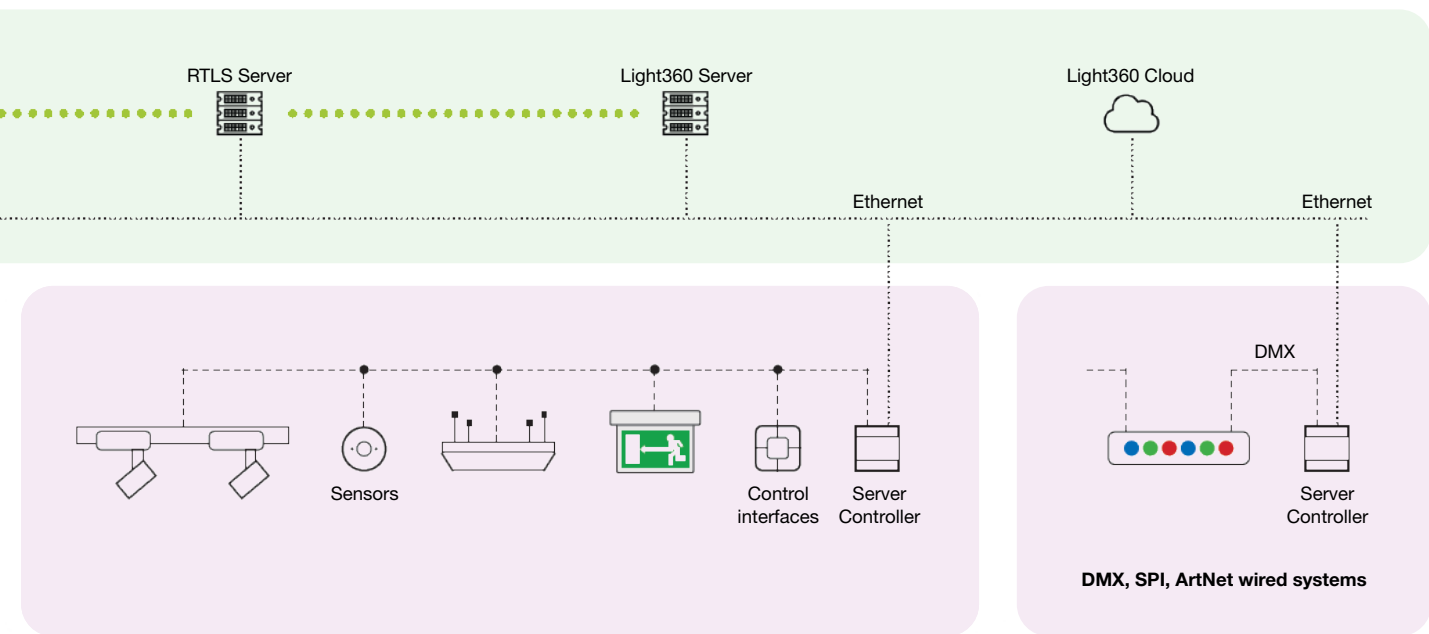
between the 3F Wireless system modules takes place via radio frequency signals with extremely robust and encrypted 868 MHz Mesh Network technology.

- **Supervision and Control:** Configuration through manual and automatic, calendar-based algorithms to control each connected device.
- **Smartphone configuration:** For the configuration and control of the sensors, the dedicated web-app can be used from any mobile device.

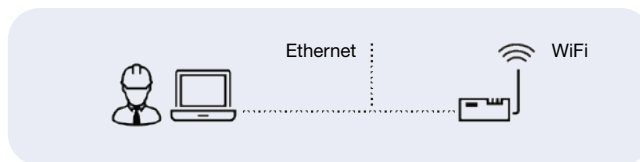
SAVINGS

The advantages are real and tangible in these aspects for the end customer:

- **Installation.**
- **Integration with existing installations.**
- **Energy savings.**
- **Quicker return on investment.**



Configuration Applications of ZETAQLAB wireless systems



Cod. ZQ11-00R0
Z-NODE
 Controller wireless 2.4 GHz per apparecchi DALI e DALI-2 D4i
<https://zetaqlab.com/datasheets/znode.pdf>



Cod. ZQ16-00R0
Z-SENSOR-MB
 Sensore wireless 2.4 GHz per apparecchi industriali 1/10V, DALI e DALI-2 D4i per altezze Mid Bay (max 10m)
<https://zetaqlab.com/datasheets/zsensor.pdf>



Cod. ZQ16-01R0
Z-SENSOR-HB
 Sensore wireless 2.4 GHz per apparecchi industriali 1/10V, DALI e DALI-2 D4i per altezze High Bay (max 17m)
<https://zetaqlab.com/datasheets/zsensor.pdf>

Technical Features	Z-NODE	Z-SENSOR-MB	Z-SNESNOR-HB
Power supply	120-230 Vac 50/60Hz, 1W	85-305 Vac 47/63 Hz, 2W	
Wireless Technology	2.4 GHz Mesh Network Bluetooth/Zigbee compatible, transmission power +10 dBm		
Relay output	-	Normally closed, 500VA	
Analogue output 1/10V	-	Max 32 driver	
DALI digital output	Max. 4 broadcast and addressed drivers, DALI-2 D4i compatible	Max. 32 broadcast and addressed drivers, DALI-2 D4i compatible	
PIR motion sensor	-	Hmax 10m - FOV 108°	Hmax 17m - FOV 69°
Brightness sensor	-	Range 5-500 lux (direct) - Note: Hmax for constant light control 10-12m	
Housing	Plastic IP20, 120x33x20 mm	Plastic IP54, 109x109x50 mm	



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774 Lighting calculations

779 UGR - Unified Glare Rating: glare control

781 UNI EN 12464-1 - Illumination of indoor workplaces

791 12464-2: 2012 standard - Outdoor environments

792 Electrical engineering and Electronics

792 Electrical engineering: Marks and Standards

794 Explosive atmospheres (ATEX)

798 Electronic wiring

800 Mechanics

800 Mechanics and Design

802 Ball throw resistance certification (DIN 18032-3)

804 Mechanics: Marks and Standards

805 Resistance to corrosive substances

806 Analytical guide

806 Standards for correct use of products

808 Analytical guide

/ Infopoint

The real revolution is simplicity.

To create the new LED products, 3F Filippi has put more than 70 years of experience in the field at the side of designers.

And you can see the difference: in a market for efficient sources that is evolving and updating day by day, 3F Filippi has decided to equip its luminaires with sources made from the best possible components.

One of the most common problems among lighting designers is, unfortunately, the lack of a standardised way in which lighting companies declare performance: these 'tricks' make it difficult to understand and compare products.

Notes:

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.



/ 3F LED Technology

Comparison chart between luminaires of the same length

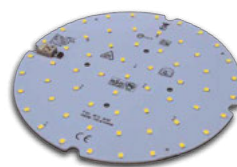
	Total luminaire of luminaire	Total energy consumption	Annual saving
2x58W Fluorescent Wiring low-loss EEI=B2	141W	102 €	0%
2x58W Fluorescent Wiring EEI A2 electronic wiring	109W	78 €	24%
2x30W LED wiring ballast	70W	50 €	51%
2x22W LED electronic ballast	49W	35 €	66%



linear



COB



circular



square

The revolution is **SIMPLICITY.**

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.

ADVANTAGES

Lighting:

- High luminous efficiency LED: up to 200 lm/W.
- Immediate light on.
- Control of the light flow, directed light.
- Absence of emission of IR and UV components.
- 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:

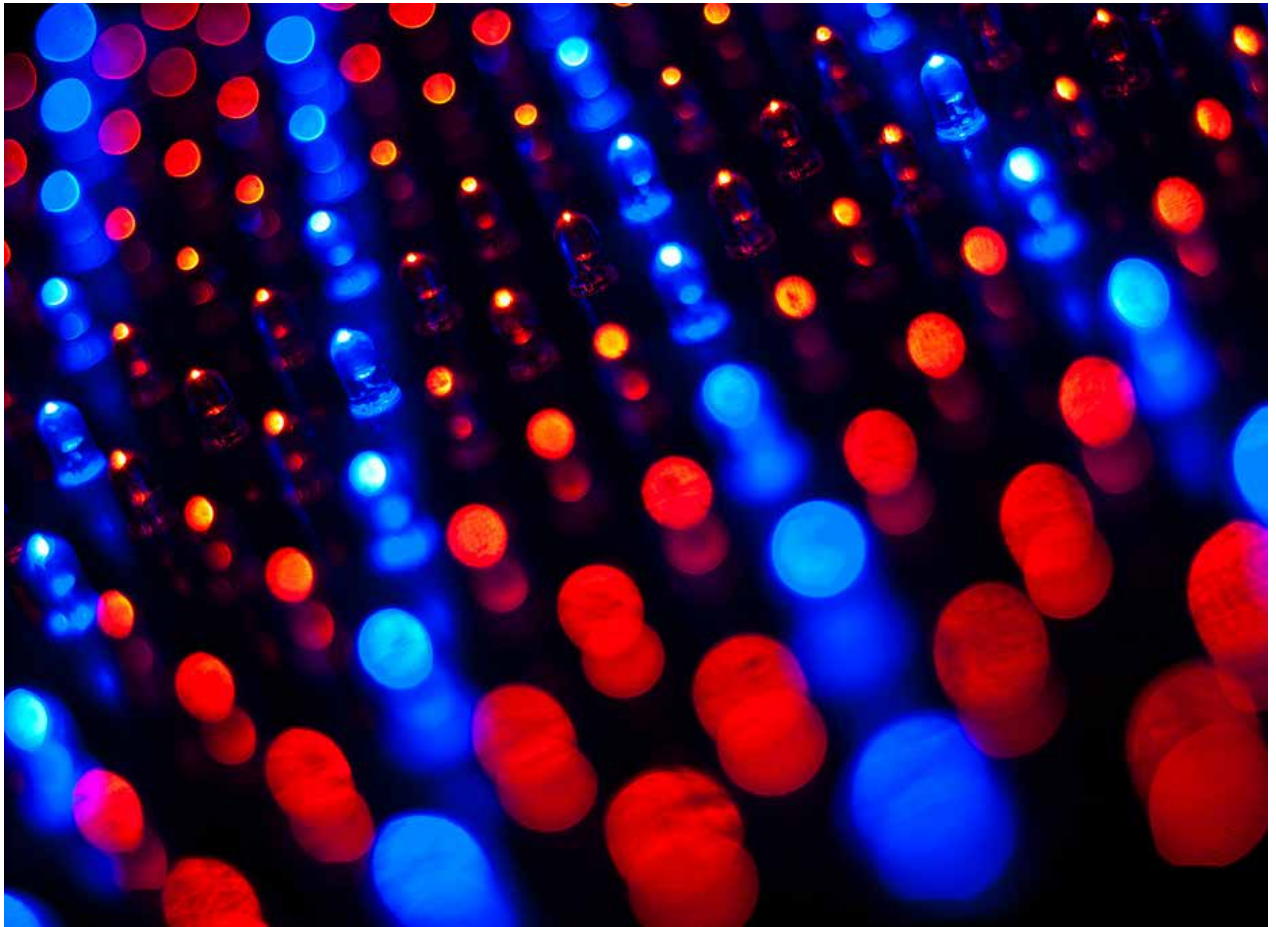
- Reduction of energy costs.
- Reduction of maintenance costs.
- Fast return on investment.

Note:

Table supposes electricity cost of €0.18 per kWh and total annual operation of 4,000 hours.



/ 3F LED Technology



HOW TO CHOOSE AN LED LUMINAIRE?

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.

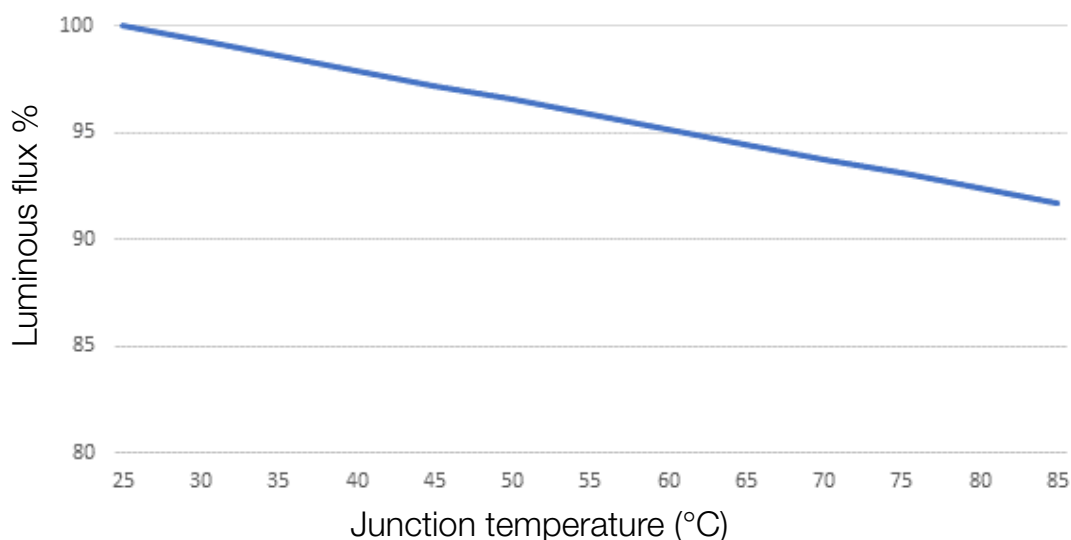
IEC EN 60598-1

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 to ensure the correct operating temperature of the LEDs, 3F Filippi performs a series of thermal and lighting tests on its luminaires, which allow an optimal combination of thermal dissipation, luminous flux and power rating..



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

AMBIENT PERFORMANCE TEMPERATURE “TQ”
(IEC 62722-2-1)

This value indicates the nominal ambient temperature recorded around the tested device.

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

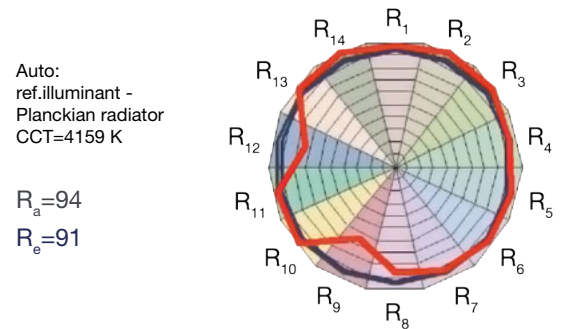
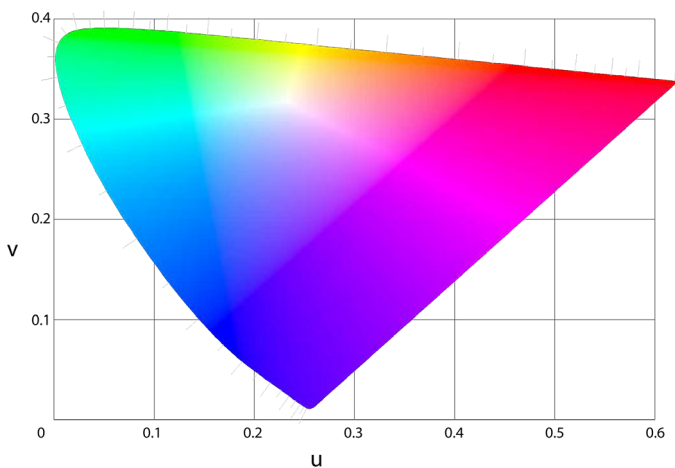
To increase LED luminaires’ reliability to the maximum, correct thermal dissipation is essential. The temperature is fundamentally important as it influences the luminosity and lifetime of the LED component.

3F Filippi pays great attention to this factor and as a result we develop luminaires which ensure optimum heat dissipation.

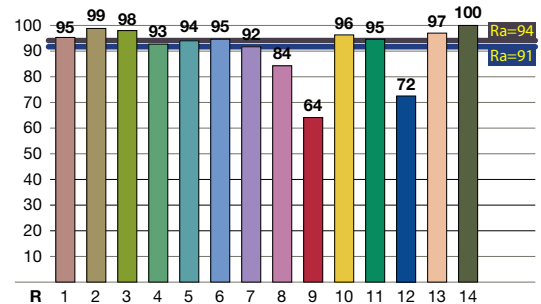
Note:

Graph correlating performance values at different junction temperatures Tj.

/ 3F LED Technology



Auto: ref.illuminant - Planckian radiator CCT=4159 K



CRI. Colour rendering index.

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.

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.

Note:

All 3F Filippi LEDs have an average colour rendering index Ra of 85. it is possible to request high colour rendering index Ra>90 on some products.

CRI METHOD

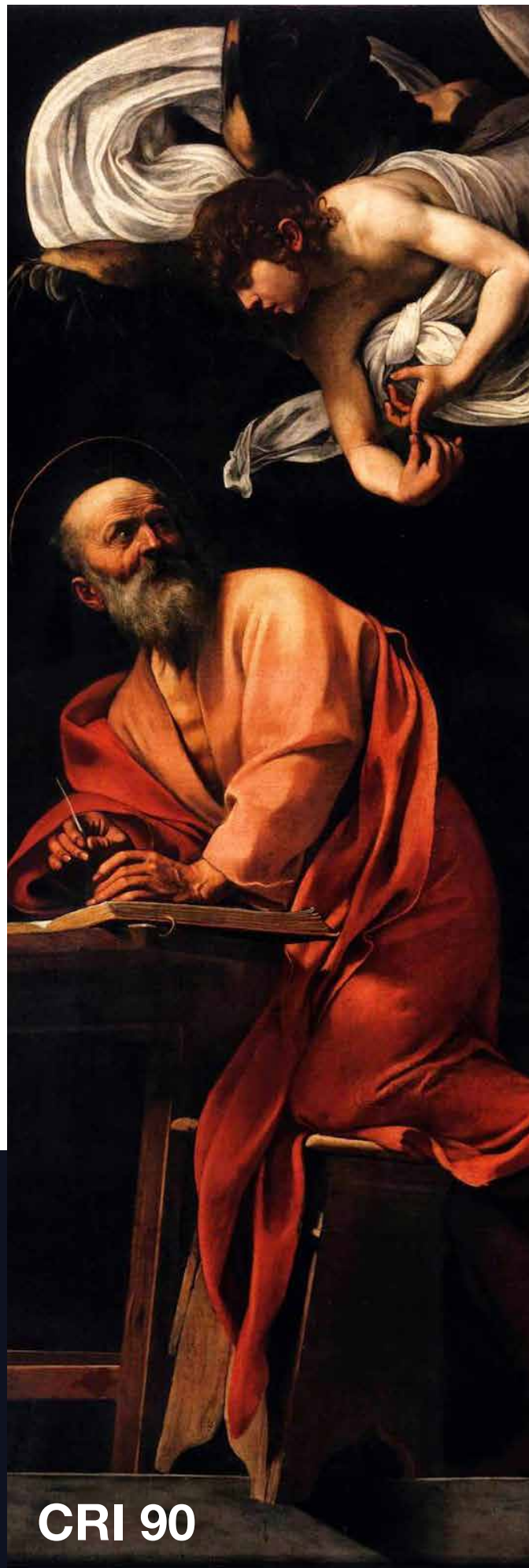
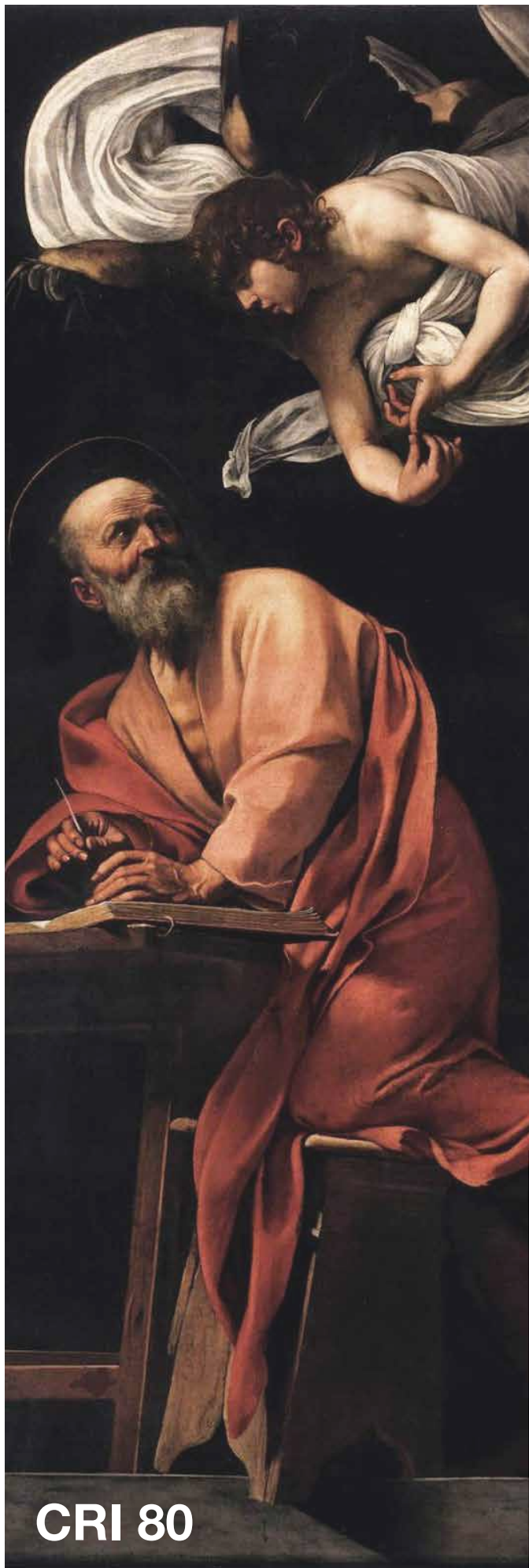
CRI (Color Rendering Index) is a measurement method for assessing the ability to recognize a color, developed by CIE 13.3.

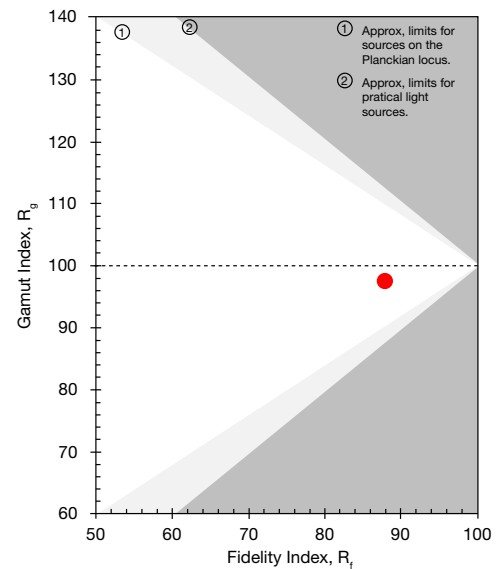
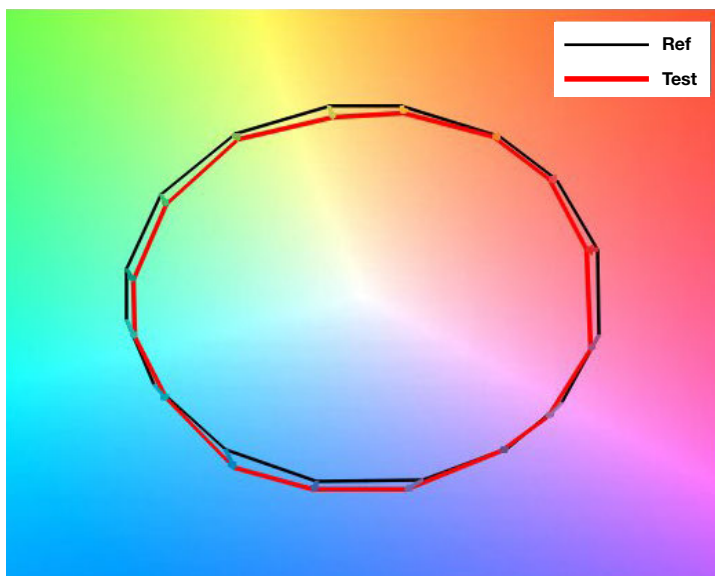
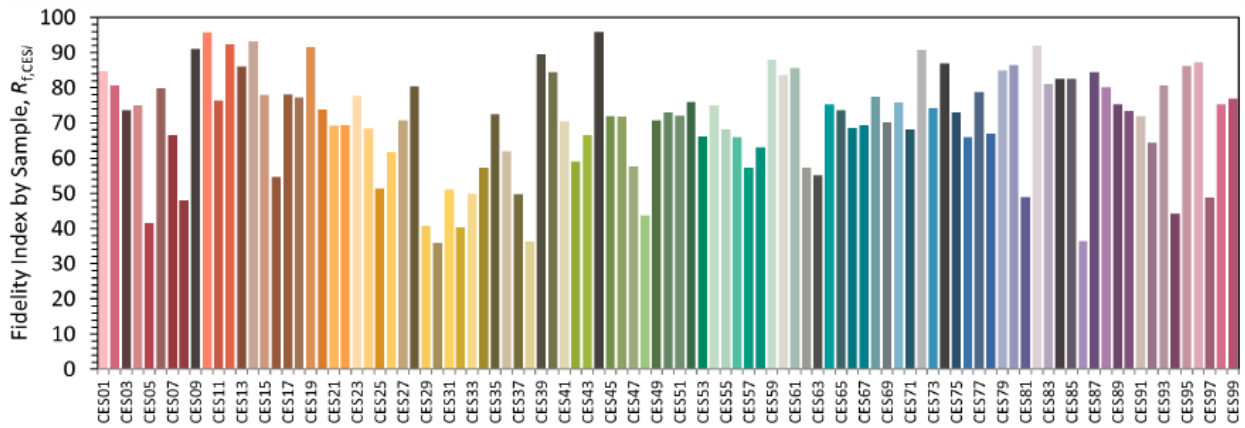
The Ra parameter provides an average indication over the entire light spectrum and is obtained from the average of the colour rendering indexes of 8 unsaturated colors (normally individually referred to as R1 to R8).

The less used parameter Re, 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.





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 sample colors (Color Evaluation Samples - CES).

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).

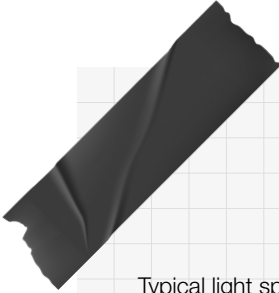
A value of 100 indicates that, on average, the test source does not change the hue and saturation of the ESCs, compared with the sample source. A value > 100 indicates an increase in color saturation and therefore more vivid colors.

A value < 100 indicates a decrease in saturation.

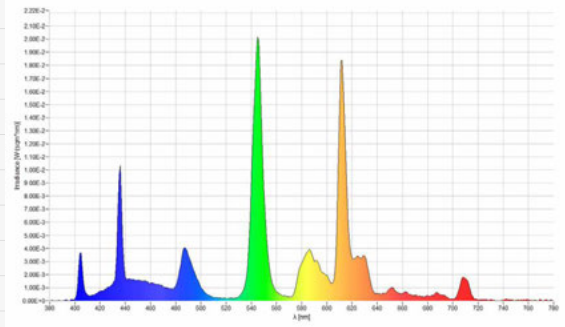
CORRELATED COLOR TEMPERATURE (CCT)

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.

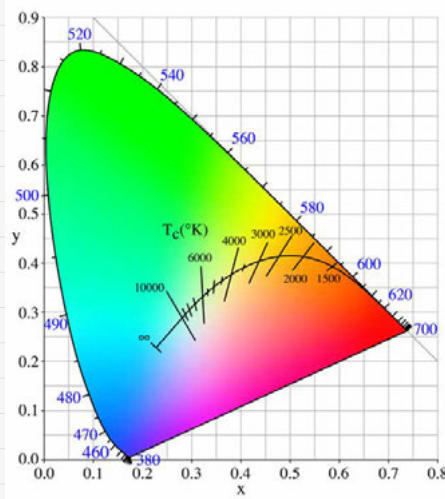
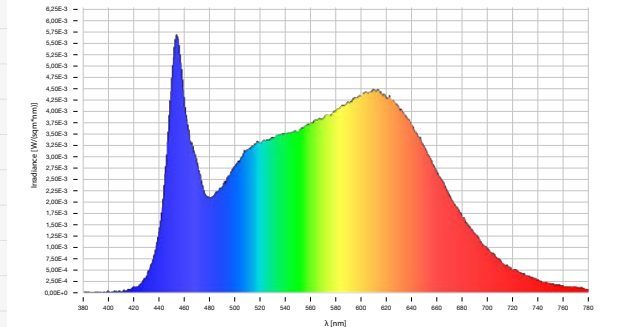
It is important to specify that CCT is totally independent of the color rendering of the source and does not provide any information on it.



Typical light spectrum of fluorescence



Typical light spectrum of LED



A warm light normally hovers around 3,000K, a neutral white hovers around 4,000K while a cold white hovers around 6,000K.



Note:

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.



/ 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.

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).



/ 3F LED Technology



FLICKER

Flicker is defined as “the rapid variation of the intensity of a light source over time”; in particular that relating to the frequency range between 0-80Hz.

When fluctuations on the other hand belong to the interval between 80Hz-2KHz this are called “Stroboscopic effects” in which light fluctuation produces an incorrect perception of the movement of objects lit by the same source by a static observer.

This phenomenon became increasingly important following the introduction of LED light sources for general lighting given the combination of the following aspects:

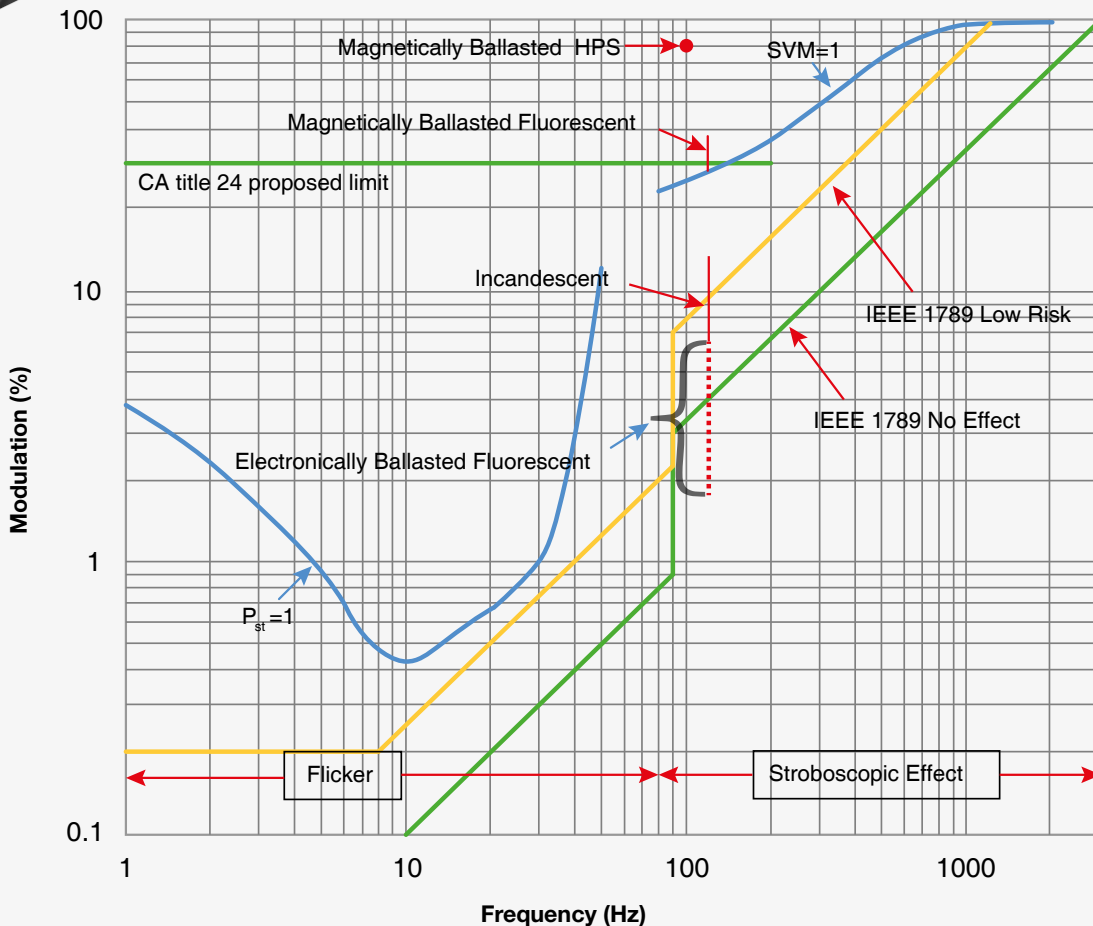
- LED sources are characterised by a high speed response to fluctuations in the power supply which translate into variations of the light emitted.
- Unwanted residual fluctuations of the driving current of LED sources generated by the electronic power supplies used.
- Modulation of the driving current of LED sources for example PWM (Pulse Width Modulation), necessary to adjust the emission level.
- Any instability in the operation of dimmers connected externally to the LED source power supplies.

This fluctuation in light intensity, according to the frequency, intensity, viewing angle, level of light in the environment, age of the observer and their sensitivity level, can be perceptible on a conscious and/or unconscious level and generate a series of side effects depending on the sensitivity level such as: headaches, visual fatigue, distraction etc.

In order to mitigate the risks on health in lighting contexts using LED sources, recommendations have been developed for the American market (see: IEEE Std 1789™- 015), and the European market with Technical Reports IEC TR 61547-1 and IEC TR 63158.

Note:

The graph on the opposite page summarises the limits set by the two different ‘regulatory’ frameworks, based on different evaluation mechanisms, for determining when a device is ‘SAFE’ for the observer.



Fixtures with the “SAFE FLICKER” logo have parameters of $P_{st} LM=1$ and $SVM \leq 0,4$, in compliance with regulations IEC TR 61547-1 and IEC TR 63158, to ensure a more comfortable and safe light.

$P_{st} LM$ (Short-Term flicker) Quantifies visible Flicker that is harmful to human health caused by the modulation of light in the frequency range between 0.3Hz and 80Hz. **The recommended threshold is $P_{st} LM = 1$.**

Note – This value was determined based on a representative test group of people and identifies the average perception threshold of visible flicker.

SVM (Stroboscopic Visibility Measure) Quantifies stroboscopic effects that can occur in situations relating to objects in movement in the presence of modulation of light in the frequency range between 80Hz and 20KHz.

$SVM=0,4$ represents the visibility threshold in a test group of people that quantifies the stroboscopic effect in defined laboratory conditions.

Fixtures that do not bear the “SAFE FLICKER” logo on the other hand show the flicker value declared by the driver manufacturer which is not determined according to IEC criteria.

Constant renewal of drivers will bring about the introduction of new models in line with IEC requirements.

For more details and/or specific needs please contact our technical department.



/ Emergency



EP LED PERMANENT EMERGENCY LIGHTING

When power is on, EP luminaires operate like normal luminaires. The LED module connected to the emergency kit turns on or remains on automatically in the absence of mains voltage.

The luminous flux declared on the datasheets are the minimum required for the entire duration of nominal autonomy as required by the regulation CEI EN 60598-2-22 and are those to be considered in the design phase. The luminous flux indicated are the OUTPUT ratio of the fixture.

ENP NON-PERMANENT EMERGENCY LED LIGHTING

In ENP luminaires, the LED module switches on only in emergency mode, when there is a power cut. The luminous flux declared on the datasheets are the minimum required for the entire duration of nominal autonomy as required by the regulation CEI EN 60598-2-22 and are those to be considered in the design phase. The luminous flux indicated are the OUTPUT ratio of the fixture.

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.
- Emergency lighting with 2 hours battery life and 12 hours charging (according to feasibility), for the emergency lighting luminous flux percentage contact our Sales team or our technical department.
- Wiring with intelligent control systems and centralised or local self-diagnostics of emergency lighting.



CENTRALISED EMERGENCY LIGHTING POWER SUPPLY

Fixtures in compliance with EN 60598-2-22 to power a centralised emergency system CPSS (Central Power Supply System), not integrated into the fixture – excluding high risk areas.

230Vdc Centralised power supply (As an example and subject to change without notice)

Normally when the centralised source is in 230Vdc direct current (nominal), in emergency lighting the following functions occur:

- Fixtures equipped with DALI drivers by default reduce their power and as a consequence their output flow by 15%.
- Fixtures equipped with NON

ADJUSTABLE drivers maintain their power and as a result their output flow at a maximum level.

230Vac Centralised power supply (As an example and subject to change without notice)

When the centralised source is in 230Vac alternating current, in emergency lighting the following functions occur:

- Fixtures equipped with DALI drivers by default increase their power and as a result their output flow at a maximum level (100%) (when the DALI system fails).
- Fixtures equipped with NON ADJUSTABLE drivers maintain their power and as a result their output flow at a maximum level.

To check compliance with EN 60598-2-22 and AC/DC operating see the datasheets that can be downloaded from the website. Assessment of compatibility between the centralised source and drivers as well as compliance with switching times between normal and emergency power supplies and battery life is the exclusive responsibility of the electrical systems designer. For more information please do not hesitate to contact our Sales Network or Technical Department.

/ Lighting engineering



DIALUX LIGHTING CALCULATION

3F Filippi provides its customers with a free lighting design service thanks to the Dialux calculation software by means of which it is possible to process and calculate in detail the illuminance level and uniformity on horizontal and vertical working planes, and to carry out the calculation on irregularly shaped rooms.

This is possible thanks to a 2D and 3D simulation of the reference environment.

The advantages of this system are:

- 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 is UNI EN ISO 9001 certified for lighting engineering design too.

The photometric tests are performed by procedures in

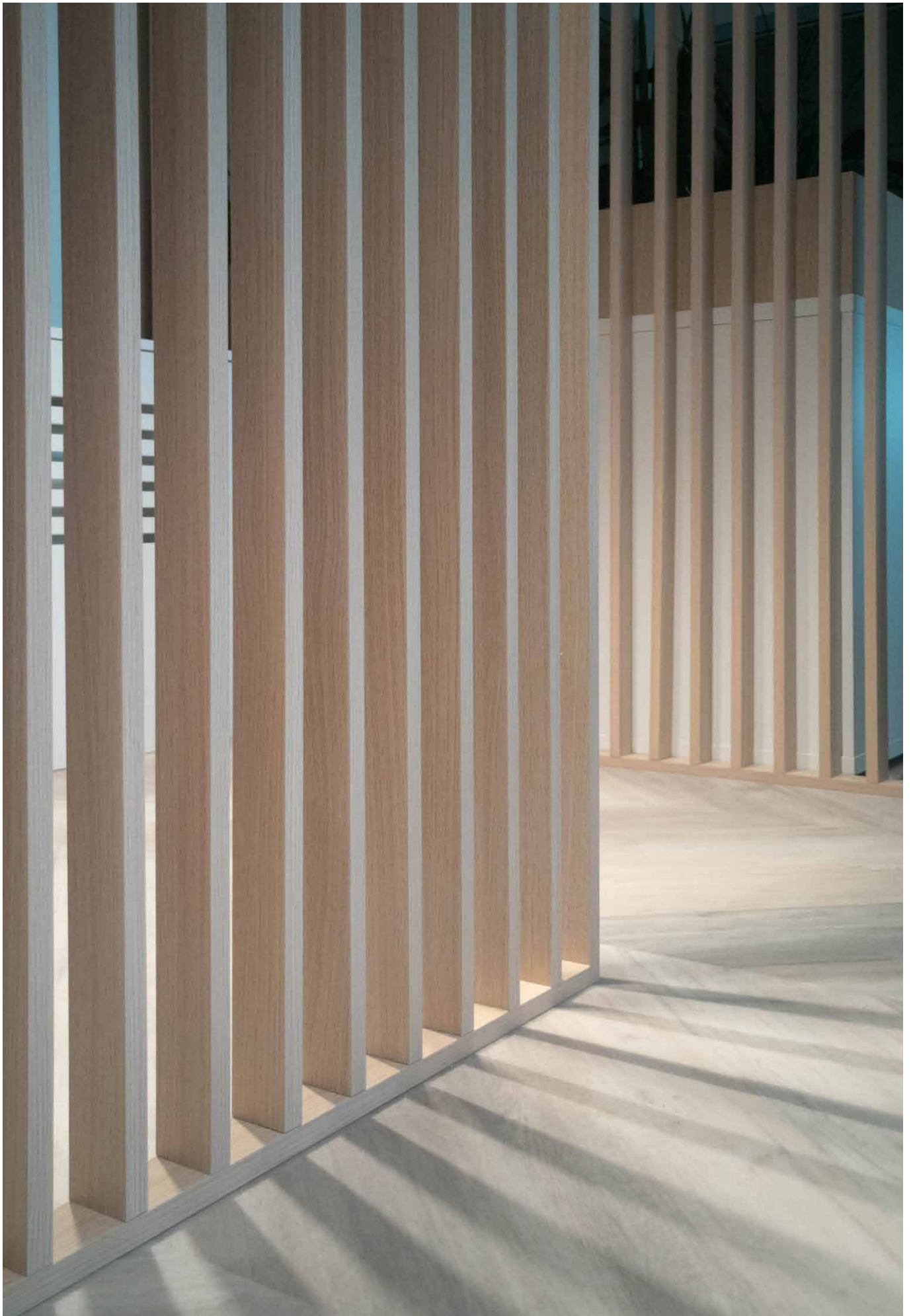
accordance with the UNI EN 13032 and CIE 121 standards.

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.

Note:

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.



Standards - Indoor lighting

EN 12464-1: 2011

Illumination of interior workplaces

This European standard for illumination of interior workplaces replaces the previous one from 2011, with an increase in the importance of illumination to allow workers to perform their visual tasks efficiently and accurately.

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.

Three calculation areas are defined:

1) TASK AREA

Task area where mean and maintained illuminances (E_m) are required as minimum values and for normal visual conditions. If the task area cannot be determined, the whole area of the room at an illuminance specified by the designer shall be considered and the uniformity shall be as indicated in the table of values, always not less than $U_0 \geq 0.40$.

NB: When more than one task is carried out in the area, the requirements for all individual tasks must be met.

Illuminance scale:

5	7,5	10	15	20	30	50	75	100	150	200	300	500	750	1000	1500	2000	3000	5000	7500	10000
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Context modifiers for increase of maintained illuminance:

- visual work is critical;
- errors are costly to rectify;
- accuracy, higher productivity or increased concentration is of great importance;
- task details are of unusually small size or low contrast;
- the task is undertaken for an unusually long time;
- the task area or activity area has a low daylight provision;
- the visual capacity of the worker is below normal.

Context modifiers for decrease of required maintained illuminance:

- task details are of an unusually large size or high contrast;
- the task is undertaken for an unusually short time.

2) IMMEDIATE SURROUNDING AREA

Area of at least 50 cm around the task area requiring minimal lighting changes to avoid visual stress and discomfort.

The size and position of the immediate surrounding area must be stated and documented.

The illuminance of the immediate surrounding area may be lower than the illuminance on the task area, but shall be not less than the values given below for each illuminance scale.

The uniformity of the area must always be at least $U \geq 0,40$.

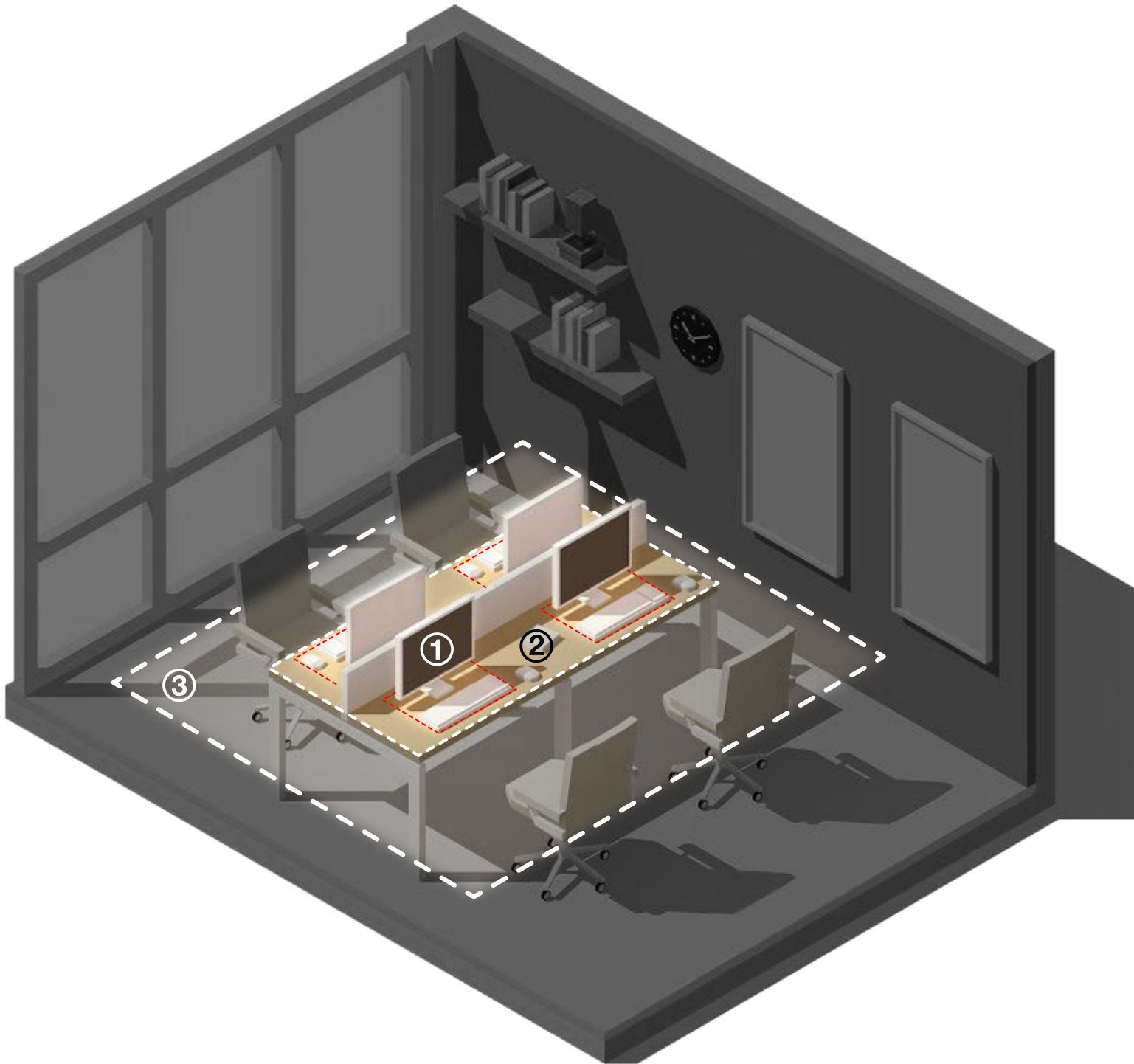
Task Area	Immediate surrounding area
≥ 750 lx	500 lx
500 lx	300 lx
300 lx	200 lx
200 lx	150 lx
≤ 150 lx	same as task area

3) BACKGROUND AREA

The background area is a horizontal area on floor level and it is adjacent to the immediate surrounding area within the limits of space. For larger rooms the band shall be at least 3 m wide. To avoid high impact on uniformity from calculation points near the wall, a band next to the wall can be excluded from the calculation except when the task area is in or extends into this border area. The width of this band is specified as 15 % of the smallest dimension of the area under consideration or 0,5 m (whichever of the two is smaller).

The required maintained illuminance shall be at least 1/3 of the value of the immediate surrounding area and the illuminance uniformity must always be at least $U_0 \geq 0,10$.

The size and position of the background area shall be stated and documented.



Standards - Indoor lighting

CYLINDRICAL ILLUMINANCE AND MODELLING

For a good visual communication and recognition of objects it becomes very important to assess the volume of space occupied by people, highlight objects, reveal texture and improve the appearance of people within the space. The terms that describe this lighting conditions are:

- Cylindrical illuminance;
- Modelling.

Cylindrical illuminance

The cylindrical illuminance \bar{E}_z is calculated from the average of the vertical illuminances around the measuring point. Special attention is given to those spaces where visual recognition and communication is of higher importance. The required maintained average cylindrical illuminance ($\bar{E}_{m,z}$) to be determined on a horizontal plane. The height of the horizontal plane shall be 1,2 m for seated people and 1,6 m for standing people above the floor. The uniformity of the average cylindrical illuminance shall be $U_0 \geq 0,10$.

Modelling

The lighting should not be too directional or it will produce harsh shadows, neither should it be too diffuse or the modelling effect will be lost entirely, resulting in a very dull luminous environment. Modelling describes the balance between diffuse and directed light and should be considered as ratio of cylindrical to horizontal illuminance at a point is an indicator of modelling. Good modelling is achieved with a value between 0,3 and 0,6. Daylight has a large impact on modelling. For this reason, the benefits can compensate the above values.

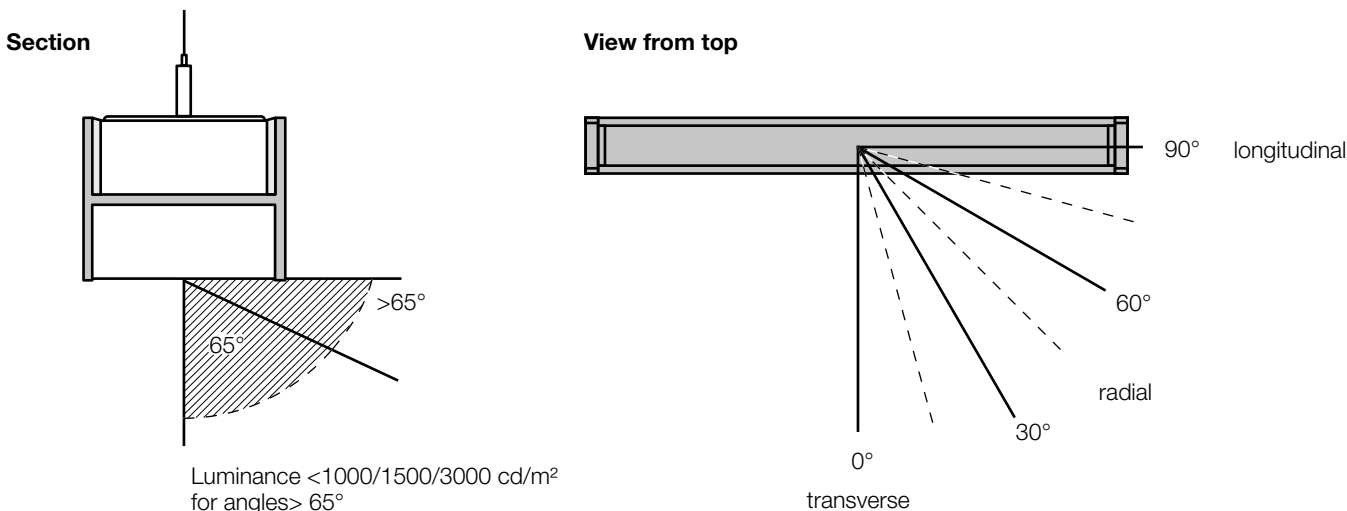
Surfaces illuminance

Illuminance on walls and ceilings (E_m wall e E_m ceiling), together with surface reflection factors, contribute to the illuminance value of the task and to the perception of room brightness. I valori minimi di illuminamento medio sono riportati dalla norma in tabella e le uniformità delle singole superfici dovrà essere sempre almeno $U_0 \geq 0,10$. In areas with high distance to the ceiling or where the surfaces do not contribute to the perception of brightness (e.g. industrial halls) the illuminance levels can be accepted with reduced values or exclude the high parts of walls and ceiling.

LIMITS OF THE LUMINAIRE LUMINANCE

The average luminance limits of luminaires required by EN 12464-1: 2021 to avoid disturbing reflections on computer screens:

Limits for the average luminaire luminance for radial angles >65°		
Screen high state 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 concerning colour and details of the shown information, as used in office, education, etc.)	$\leq 3000 \text{ cd}\cdot\text{m}^{-2}$	$\leq 1500 \text{ cd}\cdot\text{m}^{-2}$
Case B (negative polarity and/or higher requirements concerning colour and details of the shown information, as used for CAD, colour inspection, etc.)	$\leq 1500 \text{ cd}\cdot\text{m}^{-2}$	$\leq 1000 \text{ cd}\cdot\text{m}^{-2}$



U.G.R. - Unified Glare Rating

EN 12464-1 requires for each individual application/activity a UGR limit value (RUGL) which can only be determined from the UGR table provided by the manufacturer of the luminaire for standard reference conditions such as regular room, one type of luminaire and symmetrical arrangement.

In case these conditions are not applicable it is possible:

- Consider possible practices for implementing the calculation (see Appendix A of the standard).
- Consider, only if the observer's position and viewing direction are known, determining the value using the point UGR formula for analysis purposes only. In this case, the values resulting from the formula must be considered as a reference only, and not obligatory for compliance with the limits required by the standard, and may be useful to the designer for evaluating the optimal position of the operator inside the room.

It should be noted that the UGR value required by the standard for compliance with the individual application is an installation value obtained from various factors (room dimensions, reflections, characteristics and installation orientation of the luminaire, etc.) and therefore must be calculated for each project.

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).

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%.

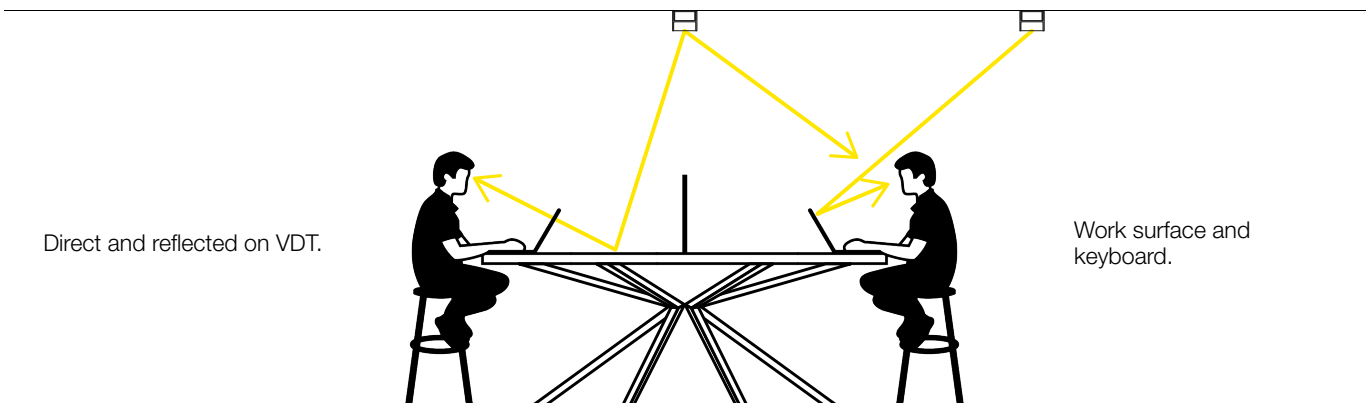
Calculations

- 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

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	
Enviroments	Transverse view of luminaire					Longitudinal view of luminaire					
X	Y										
2H	2H	14.9	15.6	15.1	15.8	16.0	09.4	10.1	09.7	10.3	10.5
	3H	14.9	15.6	15.2	15.8	16.0	10.1	10.7	10.3	11.0	11.2
	4H	15.0	15.6	15.3	15.8	16.1	10.4	11.0	10.7	11.3	11.5
	6H	15.0	15.6	15.3	15.9	16.2	10.7	11.3	11.0	11.5	11.8
	8H	15.0	15.6	15.4	15.9	16.2	10.8	11.3	11.1	11.6	11.9
	12H	15.0	15.6	15.4	15.9	16.2	10.8	11.3	11.2	11.6	12.0
4H	2H	14.7	15.4	15.0	15.6	15.9	09.6	10.2	09.9	10.5	10.7
	3H	14.9	15.4	15.7	15.7	16.0	10.5	11.0	10.9	11.3	11.6
	4H	15.0	15.5	15.8	15.8	16.1	11.0	11.4	11.4	11.8	12.1
	6H	15.1	15.5	15.9	15.9	16.3	11.4	11.8	11.8	12.2	12.5
	8H	15.2	15.5	15.9	15.9	16.3	11.6	11.9	12.0	12.3	12.7
	12H	15.2	15.5	15.9	15.9	16.3	11.6	11.9	12.1	12.3	12.8
8H	4H	15.0	15.3	15.4	15.7	16.1	11.2	11.6	11.6	11.9	12.3
	6H	15.2	15.5	15.6	15.9	16.3	11.8	12.0	12.2	12.4	12.9
	8H	15.3	15.5	15.7	15.9	16.4	12.0	12.2	12.4	12.6	13.1
	12H	15.3	15.5	15.8	16.0	16.5	12.1	12.3	12.6	12.7	13.2
12H	4H	15.0	15.3	15.4	15.7	16.1	11.2	11.5	11.7	11.9	12.3
	6H	15.2	15.4	15.6	15.8	16.3	11.8	12.0	12.3	12.5	12.9
	8H	15.3	15.5	15.8	15.9	16.4	12.1	12.2	12.5	12.7	13.2

GLARE



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 Lx).

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.

Average illuminations maintained by EN 12464-1: 2021 (indoor environments)

Main tasks and activities	\bar{E}_m lx	U _o	R _a	R UGL	\bar{E}_m ,z lx	\bar{E}_m , wall lx U _o ≥0,10	\bar{E}_m , ceiling lx
TRANSIT AREAS AND ROOMS FOR GENERAL USE IN BUILDINGS							
Circulation areas and corridors (Illumination on the floor.)	100	0,4	40	28	50	50	30
Stairs, escalators, moving walkways, lifts, hoists (Illumination on the floor.)	100	0,4	40	25	50	50	30
Area in front of lifts, lifts and escalators (Illumination on the floor.)	200	0,4	40	25	75	75	50
Loading ramps/bays	150	0,4	40	25	50	50	-
Building entrance with canopy	30	0,4	-	-	-	-	-
COMMON SPACES IN BUILDINGS							
Canteens and break areas	200	0,4	80	22	75	75	50
Rest rooms	100	0,4	80	22	50	50	30
Exercise rooms	300	0,4	80	22	100	100	75
Cloakrooms, toilets, bathrooms, changing rooms, lockers, showers, washbasins and toilets	200	0,4	80	25	75	75	50
General cleaning	100	0,4	-	-	50	50	30
OFFICES							
Filing and copying	300	0,4	80	19	100	100	100
Writing, typing, reading, data processing, CAD workstations, conference and meeting rooms	500	0,6	80	19	150	150	100
Technical drawing	750	0,7	80	16	150	150	100
Reception desk	300	0,6	80	22	100	100	75
Archives	200	0,4	80	25	75	75	50
SCHOOLS							
Nurseries: Playroom and crèche	300	0,4	80	22	100	100	75
Kindergartens: classrooms for handicrafts	300	0,6	80	19	100	100	75
Classrooms - general activities, auditorium, reading rooms	500	0,6	80	19	150	150	100
Seating areas in auditoriums and training rooms	200	0,6	80	19	75	75	50
Blackboards and screens (Vertical illuminance.)	500	0,7	80	19	-	-	-
Display board (Vertical illuminance.)	200	0,6	80	19	-	-	-
Computer room	300	0,6	80	19	100	100	75
Art education classrooms in art schools (4 000 K ≤ T _{cp} ≤ 6 500 K)	750	0,7	90	19	150	150	100
Technical drawing rooms	750	0,6	80	19	150	150	100
Classrooms for technical education and handicraft workshops	500	0,6	80	19	150	150	100
Preparation rooms and workshops	500	0,6	80	22	150	150	100
Entrances	200	0,4	80	22	75	75	50
Circulation areas, corridors, storage of teaching materials (Illumination on the floor.)	100	0,4	80	25	50	50	30
Stairs (Illumination on the floor.)	150	0,4	80	25	50	50	30
Common rooms for students and lecture hall	200	0,4	80	22	75	75	50
Teachers' rooms	300	0,6	80	19	100	100	50
Buildings, gyms, swimming pools (See also EN 12193.)	300	0,6	80	22	100	75	30
Canteen	200	0,4	80	22	75	75	50
Kitchen	500	0,6	80	22	100	100	75

Average illuminations maintained by EN 12464-1: 2021 (indoor environments)

Main tasks and activities	\bar{E}_m lx	U_o	R_a	R UGL	\bar{E}_m, z lx	\bar{E}_m , wall lx $U_o \geq 0,10$	\bar{E}_m , ceiling lx
LIBRARIES							
Shelves (Vertical illumination on shelves.)	200	0,4	80	19	-	-	-
Reading areas	500	0,6	80	19	100	100	50
Public service areas	500	0,6	80	19	150	150	50
General lighting	300	0,4	80	22	75	75	50
COMMON SPACES IN PUBLIC PLACES							
Inputs	100	0,4	80	22	50	50	30
Wardrobe	200	0,4	80	25	75	75	50
Waiting rooms	200	0,4	80	22	75	75	50
Ticket offices	300	0,6	80	22	75	75	50
RESTAURANTS AND HOTELS							
Reception desk, cashier's desk, doorman's desk	300	0,6	80	22	100	100	75
Kitchen	500	0,6	80	22	100	100	75
Self-service restaurants	200	0,4	80	22	75	75	50
Buffet	300	0,6	80	22	75	75	50
Conference rooms	500	0,6	80	19	150	150	100
Corridors (Illumination on the floor.)	100	0,4	80	25	50	50	30
THEATRES, CONCERT HALLS, CINEMAS, PLACES OF ENTERTAINMENT							
Test rooms	300	0,6	80	22	100	100	75
fitting rooms	300	0,6	90	22	100	100	75
Spectator seats - maintenance, cleaning (Illumination on the floor.)	200	0,5	80	22	50	50	30
Stage area - facilities (Illumination on the floor.)	300	0,4	80	25	75	75	30
INDOOR PARKING							
Entrance/exit ramps (day) (Illumination on the floor.)	300	0,4	40	25	75	75	50
Traffic lanes, internal ramps, pedestrian paths, entrance/exit ramps (at night) (Illumination on the floor.)	75	0,4	40	25	50	50	30
Parking areas - not open to the public (Illumination on the floor.)	75	0,25	40	-	50	30	15
Parking areas - open to the public with a large number of users (shopping centres, etc.) (Illumination on the floor.)	150	0,4	40	-	50	50	15
Ticket office	300	0,6	80	19	75	75	50
COMMERCIAL AND/OR EXHIBITION AREAS							
Sales areas	300	0,4	80	22	75	75	30
Cash desks	500	0,6	80	19	100	75	30
Packaging desk	500	0,6	80	22	100	-	50
Storage area	300	0,4	80	25	50	-	-
Changing room / dressing room	300	0,4	90	-	-	-	-
Trade fairs, exhibition halls (general lighting)	300	0,4	80	22	50	50	30
CONTROL ROOMS							
Plant rooms, switch room	200	0,4	80	25	50	50	30
Mail sorting, control panels	500	0,6	80	19	150	150	100
Surveillance station	300	0,6	80	19	100	100	75

Average illuminations maintained by EN 12464-1: 2021 (indoor environments)

Main tasks and activities	\bar{E}_m lx	U_o	R_a	R UGL	$\bar{E}_{m,z}$ lx	\bar{E}_m , wall lx $U_o \geq 0,10$	\bar{E}_m , ceiling lx
INDUSTRIAL AND CRAFT ENVIRONMENTS							
Refrigerated warehouses							
Warehouses, storage areas (200 lx if continuously occupied)	100	0,4	80	25	50	50	30
Handling, packaging, shipping areas	300	0,6	80	25	100	50	30
Handout	200	0,4	80	25	-	-	-
Logistics and warehouses							
Loading/unloading area	200	0,4	80	25	50	50	30
Packing and grouping area	300	0,5	80	25	100	100	30
Configuration and editing	750	0,6	80	22	150	150	30
Open goods depot	200	0,4	80	25	50	50	30
Warehouse aisles: with staff and storage shelves (Illumination on the floor.)	150	0,5	80	25	-	-	30
Storage shelves - front (On the shelf side of the corridor.)	75	0,4	80	-	-	-	-
Central logistic corridor (heavy traffic)	300	0,6	80	25	100	100	30
Automated areas (unmanned)	75	0,4	80	25	-	-	-
Agriculture							
Loading and handling of goods, moving equipment	200	0,4	80	25	50	50	-
Livestock buildings	50	0,4	40	-	-	-	-
Preparation of fodder, dairies, tool washing, sick animal areas, farrowing cells	200	0,6	80	25	50	50	-
Ovens, bakeries and pastry shops							
Preparation, baking	300	0,6	80	22	100	100	50
Finishing, glazing, decorating	500	0,7	80	22	150	150	75
Cement, concrete and brick industry							
Drying	50	0,4	20	28	-	-	-
Preparation of materials, oven and mixer work	200	0,4	40	28	50	50	-
General machining, coarse shaping	300	0,6	80	25	100	100	-
Ceramic, tile and glass industry							
Drying	50	0,4	20	28	-	-	-
Preparation, general machining, enamelling, laminating, moulding, forming of simple parts, assembly, glassblowing	300	0,6	80	25	100	100	-
Glass grinding, engraving, polishing, precision forming, glass instrument manufacture	750	0,7	80	19	150	150	100
Optical glass and crystal grinding, hand grinding and engraving	750	0,7	80	16	150	150	100
Precision work, e.g. decorative grinding, hand-painting (4 000 K ≤ T _{cp} ≤ 6 500 K)	1 000	0,7	90	16	150	150	100
Manufacture of synthetic precious stones (4 000 K ≤ T _{cp} ≤ 6 500 K)	1 500	0,7	90	16	150	150	100
Chemical, plastic and rubber industry							
Remote controlled process plant	50	0,4	20	-	-	-	-
Process plant with limited manual intervention	150	0,4	40	28	50	50	30
Workstations in process plants with continuous staff presence	300	0,6	80	25	100	100	50
Precision measurement environments, laboratories	500	0,6	80	19	150	150	75
Pharmaceutical and tyre production	500	0,6	80	22	150	150	75
Colour control (4 000 K ≤ T _{cp} ≤ 6 500 K)	1 000	0,7	90	19	150	150	100
Cutting, finishing, inspection	750	0,7	80	19	150	150	100

Average illuminations maintained by EN 12464-1: 2021 (indoor environments)

Main tasks and activities	\bar{E}_m lx	U_o	R_a	R UGL	$\bar{E}_{m,z}$ lx	\bar{E}_m , wall lx $U_o \geq 0,10$	\bar{E}_m , ceiling lx
INDUSTRIAL AND CRAFT ENVIRONMENTS							
Electrical and electronics industry							
Large coil winding, cable and wire manufacture, coil impregnation and galvanising, coarse assembly (e.g. large transformers)	300	0,6	80	25	100	100	50
Medium-sized coil winding, medium assembly (e.g. electrical panels)	500	0,6	80	22	150	150	75
Winding small reels, fine assembly (e.g. telephones, radios and IT equipment such as computers)	750	0,7	80	19	150	150	100
Precision assembly (e.g. measuring instruments, printed circuit boards)	1 000	0,7	80	16	150	150	100
Electronic laboratory, testing, fine-tuning	1 500	0,7	80	16	150	150	100
Food industries							
Workplaces							
in breweries, malt fermentation, sugar factories, tobacco fermentation and drying, fermentation cellars, washing, barrel filling, cleaning, sieving, peeling, cooking in canning and chocolate factories	200	0,4	80	25	50	50	30
Sorting and washing products, chopping, mixing, packaging, Vegetable and fruit cutting and sorting	300	0,6	80	25	100	100	50
Workstations and critical areas in slaughterhouses, butchers, dairies, mills, filtering in sugar refineries	500	0,6	80	25	150	150	75
Gastronomic production, kitchen work, cigar and cigarette production, glass and bottle control, product control, garnishing, sorting	500	0,6	80	22	150	150	75
Laboratories (4 000 K ≤ T _{cp} ≤ 6 500 K)	500	0,6	80	19	150	150	100
Colour inspection	1 000	0,7	90	19	150	150	100
Foundries							
Maintenance tunnels, basements, etc.	50	0,4	20	-	-	-	-
Platforms	100	0,4	40	25	50	50	30
Sand preparation, changing rooms, workstations at the cupola and mixer, casting area, detaching area, machine moulding	200	0,4	80	25	50	50	30
Manual core moulding	300	0,6	80	25	100	100	50
Die-casting	300	0,6	80	25	100	100	50
Model construction	500	0,6	80	22	150	150	75
Laundries and dry cleaners							
Garment collection, marking and sorting, dry cleaning and washing, Ironing, steam ironing	300	0,6	80	25	100	100	50
Inspection and repair	750	0,7	80	19	150	150	100
Leather industry							
Interior work, tank, pit	200	0,4	80	25	75	75	30
Fleshing, fulling, pulling, polishing of skins	300	0,4	80	25	100	100	50
Saddlery work, shoe manufacture: stitching, polishing, shaping, cutting, drilling, leather dyeing (by machine), shoe and glove manufacture	500	0,6	80	22	150	150	100
Selection (4 000 K ≤ T _{cp} ≤ 6 500 K)	500	0,6	90	22	150	150	100
Quality control	1 000	0,7	80	19	150	150	100
Colour inspection (4 000 K ≤ T _{cp} ≤ 6 500 K)	1 000	0,7	90	19	150	150	100

Average illuminations maintained by EN 12464-1: 2021 (indoor environments)

Main tasks and activities	\bar{E}_m lx	U _o	R _a	R UGL	\bar{E}_m ,z lx	\bar{E}_m , wall lx U _o ≥0,10	\bar{E}_m , ceiling lx
INDUSTRIAL AND CRAFT ENVIRONMENTS							
Metal working and transformation							
Welding, die forging, drawing workshop, tube construction, cold forming, galvanising	300	0,6	80	25	75	75	30
Machining: coarse and medium: tolerance ≥ 0.1 mm, sheet processing: thickness <5mm	300	0,6	80	22	75	75	30
Precision machining; grinding; tolerances < 0.1 mm	500	0,7	80	19	150	150	75
Coarse assembly, free forging and laminate processing: thickness ≥ 5 mm	200	0,6	80	25	50	50	30
Medium assembly	300	0,6	80	25	75	75	30
Fine assembly	500	0,6	80	22	150	150	75
Precision assembly, scribing, inspection, tool making and cutting tools	750	0,7	80	19	150	150	100
Surface preparation and painting	750	0,7	80	25	150	150	100
Equipment, preparation of templates and gauges, precision mechanics, micromechanics	1 000	0,7	80	19	150	150	100
Paper industry and paper objects							
Dough preparation and refining	200	0,4	80	25	50	50	30
Paper manufacturing and converting, paper and corrugated board machinery, paperboard manufacture	300	0,6	80	25	75	75	50
Binding work, e.g. folding, sorting, gluing, cutting, embossing, sewing	500	0,6	80	22	150	150	100
Power plants							
Fuel supply system	50	0,4	20	-	-	-	-
Boiler rooms	100	0,4	40	28	50	50	30
Annexed rooms, e.g.: pump rooms, condenser rooms, internal control panels, machine rooms	200	0,4	80	25	50	50	30
Control stations	500	0,7	80	19	150	150	100
Printworks							
Cutting, gilding, relief printing, stone engraving, stone and plate work, printing machines, matrix construction, sheet sorting and hand printing	500	0,6	80	19	150	150	75
Character editing, retouching, lithography	1 000	0,7	80	19	150	150	100
Colour control in polychrome prints (4 000 K ≤ T _{cp} ≤ 6 500 K)	1 500	0,7	90	16	150	150	100
Engraving on steel and copper	2 000	0,7	80	16	150	150	100
Rolling mills, iron and steel processing							
Production systems without manual intervention	50	0,4	20	-	-	-	-
Production plants with occasional manual intervention	150	0,4	40	28	50	50	30
Production equipment with continuous manual intervention, furnace	200	0,6	80	25	50	50	30
Rolling stock, maintenance tunnels, belt section, underground, etc.	50	0,4	20	-	-	-	-
Rolling train, winders, cutting line	300	0,6	40	25	75	75	30
Control platforms, control panels	300	0,6	80	22	75	75	30
Testing, measurement and control	500	0,6	80	22	150	150	100

Average illuminations maintained by EN 12464-1: 2021 (**indoor environments**)

Main tasks and activities	\bar{E}_m lx	U _o	R _a	R UGL	\bar{E}_m ,z lx	\bar{E}_m , wall lx U _o ≥0,10	\bar{E}_m , ceiling lx
INDUSTRIAL AND CRAFT ENVIRONMENTS							
Textile processing and manufacturing							
Workstations at the side of the washing tanks, opening of bales	200	0,6	60	25	50	50	30
Carding, washing, ironing, drawing, combing, sizing, gluing, punching cartons, pre-spinning, spinning jute and hemp	300	0,6	40	22	100	100	50
Warping, weaving, braiding, knitting, spinning, twisting, reeling, bobbinage	500	0,6	60	22	150	150	75
Sewing, fine knitting, linking, darning	750	0,7	80	22	150	150	100
Hand drawing, weft drawing (4 000 K ≤ T _{cp} ≤ 6 500 K)	750	0,7	90	22	150	150	100
Finishing, dyeing, manufacturing hair	500	0,6	80	22	150	150	100
Drying chamber	100	0,4	60	28	50	50	30
Automatic fabric printing	500	0,6	90	25	100	100	50
Knotting, weft control, trimmings	1 000	0,7	80	19	150	150	100
Colour control, fabric control (4 000 K ≤ T _{cp} ≤ 6 500 K)	1 000	0,7	90	19	150	150	100
Invisible mending (4 000 K ≤ T _{cp} ≤ 6 500 K)	1 500	0,7	90	19	150	150	100
Automotive							
Bodywork and assembly (automatic line), Large parts printing department	300	0,6	80	25	100	50	30
Bodywork and assembly (manual welding), Printing department visual inspection	500	0,6	80	22	150	50	30
Painting, spraying chamber, polishing chamber	750	0,7	80	22	150	150	30
Painting, inspection, touching up and polishing, final inspection (4 000 K ≤ T _{cp} ≤ 6 500 K)	1 000	0,7	90	19	150	150	30
Upholstery production (manual)	1 000	0,7	80	19	150	50	30
Assembly of sub-parts (doors, dashboard, upholstery, chassis), engine and mechanical assembly, transport line final assembly	750	0,7	80	22	150	50	30
Working with electronics (4 000 K ≤ T _{cp} ≤ 6 500 K)	750	0,6	90	22	150	50	30
General vehicle services, repair and testing	500	0,6	80	22	100	50	30
Lavorazione e manifattura del legno							
Processi automatici, per esempio: essiccazione, fabbricazione compensato	50	0,4	40	28	-	-	-
Camere del vapore	150	0,4	40	28	50	50	30
Lavori al banco di falegnameria, incollaggio, assemblaggio, sega	300	0,6	80	25	100	100	50
Lucidatura, verniciatura, falegnameria di fantasia	750	0,7	80	22	150	150	100
Lavorazioni su macchine per lavorazione del legno, per esempio: tornitura, scannellatura, sgrossatura, ribassatura, taglio, segatura, cavatura	500	0,6	80	19	150	150	75
Selezione legno per impiallacciatura, intarsio, lavoro di intarsio (4 000 K ≤ T _{cp} ≤ 6 500 K)	750	0,7	90	22	150	150	100
Verifica e controllo di qualità (4 000 K ≤ T _{cp} ≤ 6 500 K)	1 000	0,7	90	19	150	150	100

Average illuminations maintained by EN 12464-1: 2021 (indoor environments)

Main tasks and activities	\bar{E}_m lx	U _o	R _a	R UGL	$\bar{E}_{m,z}$ lx	\bar{E}_m , wall lx U _o ≥0,10	\bar{E}_m , ceiling lx
HEALTHCARE STRUCTURES							
General use rooms							
Waiting rooms and service lifts	200	0,4	80	22	75	75	30
Corridors: during the day and cleaning (Illumination on the floor.)	100	0,4	80	22	50	50	30
Corridors: during the night (Illumination on the floor.)	50	0,4	80	22	-	-	-
Multi-purpose corridors (e.g. pre-examinations of patients) (Illumination at task level.)	200	0,6	80	22	75	75	50
Day rooms	300	0,6	80	22	75	75	50
Lifts, passenger and visitor lifts (Illumination on the floor.)	100	0,6	80	22	50	50	30
Staff rooms	300	0,6	80	19	100	100	50
Night light, surveillance light (Illumination on the floor. 2 200 K ≤ T _{cp} ≤ 3 000 K)	5	-	80	-	-	-	-
Toilets, patient toilets	200	0,4	90	22	75	75	50
Maternity wards							
Lanes (General lighting) (Illumination on the floor.)	100	0,4	80	19	50	50	30
Simple visit and reading light	300	0,6	80	19	100	100	75
Delivery rooms (General lighting)	300	0,6	90	19	100	100	75
Diagnostic and examination rooms							
Infirmary	500	0,6	80	19	150	150	100
General lighting (4 000 K ≤ T _{cp} ≤ 5 000 K)	500	0,6	90	19	150	150	100
Examination and treatment (4 000 K ≤ T _{cp} ≤ 5 000 K)	1 000	0,7	90	19	150	150	100
Analysis rooms							
General lighting	300	0,6	80	19	100	100	75
Analysis with image amplifiers and television systems	50	-	80	19	-	-	-
Treatment rooms (general)							
Dialysis, plaster cast	500	0,6	80	19	150	150	100
Dermatology	500	0,6	90	19	150	150	100
Endoscopy, medical baths, massage and radiotherapy	300	0,6	80	19	100	100	75
Sterilisation and disinfection	500	0,6	80	22	100	100	75
Operating theatres							
Pre-operative local and recovery	500	0,6	90	19	150	150	100
Area surrounding the operating zone	1 000	0,6	90	19	150	150	100
Operating theatre	1 000	0,6	90	19	-	-	-
Autopsy and dissection table	5 000	0,7	90	-	150	150	100
Resuscitation and intensive care							
General lighting (Illumination on the floor.)	300	0,6	90	19	50	50	30
Simple visit (Illumination at bed level)	500	0,6	90	19	100	100	75
Examination and treatment (Illumination at bed level)	1 000	0,7	90	19	150	150	100
Night surveillance	20	-	90	19	-	-	-
Laboratories and pharmacies							
General lighting	500	0,6	80	19	150	150	100
Colour control (4 000 K ≤ T _{cp} ≤ 6 500 K)	1 000	0,7	90	19	150	150	100

Average illuminations maintained by EN 12464-1: 2021 (indoor environments)

Main tasks and activities	\bar{E}_m lx	U_o	R_a	R UGL	\bar{E}_m, z lx	\bar{E}_m , wall lx $U_o \geq 0,10$	\bar{E}_m , ceiling lx
TRANSPORT							
Airports							
Arrival and departure halls, baggage claim areas	200	0,4	80	22	75	75	30
Connecting zones	150	0,4	80	22	50	50	30
Information desks, reception	500	0,7	80	19	150	150	100
Customs and passport control	500	0,7	80	19	150	150	100
Waiting rooms	200	0,4	80	22	50	50	30
Luggage storage	200	0,4	80	25	50	50	30
Security control zones	300	0,6	80	19	100	100	75
Air traffic control tower	500	0,6	80	16	50	-	-
Hangar: Repair and testing, Motor control zones, Measurement zones	500	0,6	80	22	50	50	30
Railway installations							
Subways, platforms, stairs and escalators with small number of passengers (Illumination on the floor.)	50	0,3	80	-	-	-	-
Subways, platforms, stairs and escalators with medium number of passengers (Illumination on the floor.)	100	0,4	80	-	-	-	-
Subways, platforms, stairs and escalators with large numbers of passengers (Illumination on the floor.)	200	0,5	80	-	-	-	-
Atria and counters (Illumination on the floor.)	200	0,5	80	28	75	75	50
Ticket offices and luggage storage	300	0,5	80	19	100	100	75
Waiting rooms	200	0,4	80	22	75	75	30
Entrances, station halls	200	0,4	80	-	75	75	30
Switch rooms and installations	200	0,5	80	28	50	50	30
Railway control centre (dispatch area)	200	0,5	80	16	-	-	-
Access tunnels (Illumination on the floor.)	50	0,4	20	-	-	-	-
Coarse assembly work in maintenance halls	200	0,4	80	-	-	-	-
Medium assembly work in maintenance halls	300	0,5	80	-	-	-	-
Fine assembly work in maintenance halls	500	0,6	80	-	-	-	-
Precision assembly work in maintenance halls	750	0,7	80	-	-	-	-
Traffic zones in railway vehicle maintenance halls (without vehicle traffic)	100	0,25	80	-	-	-	-
Traffic zones in railway vehicle maintenance halls (with vehicle traffic)	150	0,4	80	-	-	-	-

LEGEND

\bar{E}_m Average illuminance maintained on the task plane, if not specified, generally referred to a height of 0.85 m from the floor for civil work areas and 1 m industrial and floor for transit areas.

U_o Illuminance uniformity in the reference plane.

R_a Minimum colour rendering index of the light source (see page 764 and 766).

T_{cp} Correlated colour temperature of the light source.

RUGL Unified "limit" value of glare within the room based on installation characteristics (room size and reflections, luminaire type, operator viewing direction, luminaire layout) developed by the CIE and required by European standard EN 12464-1 (See page 779).

\bar{E}_m, z Average illuminance maintained cylindrical (see page 778).

\bar{E}_m wall Average illuminance maintained on the walls of the room.

\bar{E}_m ceiling Average illuminance maintained on the ceiling of the room.

Emergency lighting EN 1838 : 2013 (**indoor environments**)

Main tasks and activities	\bar{E}_m lx	U_o	R_a	R UGL	\bar{E}_m, z lx	\bar{E}_m , wall lx $U_o \geq 0,10$	\bar{E}_m , ceiling lx
EMERGENCY LIGHTING (EN 1838 : 2013)							
General lighting (minimum value) (Illumination on the floor.)	0,5	-	80	-	-	-	-
Escape routes (minimum value in the middle of the route) (Illumination on the floor. Escape route width 2m.)	1	-	80	-	-	-	-
Exit routes in public places such as theatres, cinemas, concert halls, entertainment (minimum value D.M.) (Illuminance 1m above the floor.)	2	-	80	-	-	-	-
Stairs and proximity to emergency exits (minimum value D.M.) (Illuminance 1m above the floor.)	5	-	80	-	-	-	-
High-risk task area (minimum value) (Illuminance on the floor. Illuminance >10% expected under standard power conditions.)	15	0,1	80	-	-	-	-
Fire-fighting equipment, call point and first aid point (minimum value) (Vertical illuminance.)	5	-	-	-	-	-	-
For all calculations the light contribution from ambient inter-reflections must be ignored. In the case of indirect or upward directed luminaires only the first surface reflection may be considered.							

Illuminations in indoor sports environments (EN 12193 : 2019)

Activities	Reference area	Category	Horizontal illuminance (PA)		Vertical illuminance		Ra
			Ē _m (lx)	U _o	Ē _m (lx)	U _o	
Bowls	PA 13,7-40 x 1,8-4,5 m	III	300	0,50	--	--	60
		II	500	0,80	--	--	60
		I	500	0,80	--	--	80
School sports competitions (physical education)	PA 10 x 10 m TA 17 x 17 m	III	200	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Judo	PA 10 x 10 m TA 17 x 17 m	III	200	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Freestyle wrestling	PA 9 x 9 m TA 12x 12 m	III	200	0,50	1000	0,80	60
		II	500	0,70	1000	0,80	60
		I	750	0,70	1000	0,80	80
Swim	PA 25-50 x 15-22 m	III	200	0,50	--	--	60
		II	300	0,70	--	--	60
		I	500	0,70	--	--	80
Basketball	PA 28 x 15 m TA 32 x 19 m	III	200	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Volleyball	PA 24 x 15 m	III	200	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Boxing (300 lx for training in all categories.)	PA 7,1 x 11,1 m	III	500	0,50	--	--	60
		II	1000	0,80	--	--	60
		I	2000	0,80	--	--	80
Tennis	PA 30 x15 m TA 36 x18 m	III	300	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Fencing (Vertical illuminance at 1.5m from floor level)	PA 14 x 2 m TA 18 x 5 m	III	300	0,70	200	0,70	60
		II	500	0,70	300	0,70	60
		I	750	0,70	500	0,70	80
Weight lifting	PA 4 x 4 m TA 6 x 6 m	III	200	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Table tennis	PA 9 x 4,5 m	III	300	0,70	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Archery (Vertical illuminance based on 25 m distance (for 50 m distance, doubled illuminance levels))	PA 18-30 x 1,3 m	III	200	0,50	1000	0,80	60
		II	200	0,50	1000	0,80	60
		I	200	0,50	1000	0,80	80

LEGEND

PA: Actual playing area for the performance of a given sport.

TA: Area generally comprising the main area (PA) plus an additional safety area outside the main area. The illuminance and uniformity of this area should be >75% of that of the main area (PA).

Categories according to the level of competition carried out

Category I : Very high level competition (international and national competitions with many spectators and long viewing distances.

Category II : Intermediate level competition (regional or local competitions with medium spectators and medium viewing distances.

Suitable for high level training.

Category III : Low level competition (local competitions with low presence or absence of spectators. Suitable for general training, physical education, school sports competitions or recreational activities.

Luminaire installation: No luminaires should be positioned on the part of the ceiling above the main area.

Average illuminations maintained by EN 12464-2: 2012 (**outdoor environments**)

Outdoor activities, task and activities	\bar{E}_m (lx)	u_0	R UGL	Ra
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

\bar{E}_m : Average horizontal illuminances maintained referring to the reference surface of the application.




U_0 : Minimum uniformity of illumination on the reference plane.

Ra: Minimum color rendering indexes for sources (see pages 764 and 766).

RUGL: 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.

/ Electrical engineering and electronics

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	Main features of the material	Safety precautions voltage	Symbols
Classe 0	No earthing protection device	Environment without earth	
Classe I	Earthing protection device provided	Connection to protective earth	
Classe II	Additional insulation but no earthing protection device	No precaution necessary	
Classe III	Intended for very low safety voltage	Connection to very low safety voltage	

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 be 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 2014/34/UE ATEX “ATmosphere EXplosive” directive.
- The RoHS 2011/65/EU directive.

- The Ecodesign directive 2009/125/EC.
- The 2017/2102/EU directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
- The 2012/19/EU directive on waste electrical and electronic equipment (WEEE).
- The 2019/2020/EU directive, setting eco-design requirements for light sources and separate ballasts.

The acronym EN refers to the European standards issued by CENELEC (European Committee for Electrotechnical 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 EN IEC 60598-1 and IEC 60598-2-22 (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 EN IEC 60598-1.

Luminaires are divided into four classes according to the type of protection provided against electric shock.



/ Electrical engineering and electronics



Explosive atmospheres (ATEX).


EXPLOSIVE ATMOSPHERES (ATEX)

ATEX is the French acronym for "ATmosphères EXplosives", which means "explosive atmospheres". The ATEX 2014/34/EU Directive (relating to protective equipment and systems intended to be used in potentially explosive atmospheres), published by the Official Journal of the European Union (n° OJ EU L96) on 29th of March 2014 and implemented on the 30 March 2014, pursuant to article 43, ratified the repeal of the previous Directive 94/9/CE with effect from the 20 April 2016, without a transitional period. This applies to all electrical and mechanical products intended for potentially dangerous places.

Example of certification

ATEX:  **II 3D Ex Tc IIIC T85 ° C Dc**

Legend:

 = Specific mark of explosion protection.

II = Group II: equipment for surface work belongs to this group.

3D = Category 3 - equipment or protective systems that guarantee a normal level of protection - D: Dust.

Ex tc = Protection method by means of "t" enclosures in the presence of combustible dusts.

IIIC = Conductive dust.

T85°C = Maximum allowed surface temperature of the equipment.

Dc = Level of protection (EPL

Dc): equipment for explosive atmospheres due to the presence of dust, with an "increased" level of protection which does not constitute a source of ignition during normal operation and which may have additional protections to ensure that it remains inactive how ignition source in the event of regular and expected failures.



Directive 2014/34/EU classifies and divides ATEX equipment into two groups:

Group I: equipment for work in mines with the presence of mine gas and/or combustible dust is included in this group. Group I in turn is divided into 2 categories:

- M1 - equipment or systems of protection that guarantee a very high level of protection; they must remain operational in the presence of explosive atmospheres.
- M2 - equipment or systems of protection that guarantee a high level of protection; they must be de-energised in the presence of gas.

Group II: equipment for work on the surface is included in this group. Group II in turn is divided into 3

categories on the basis of the level of protection (area of use); the categories are identified as number 1, 2, 3 followed by the letter G (Gas) or D (Dust).

- Category 1 - equipment or systems of protection that guarantee a very high level of protection; for areas in which explosive atmospheres caused by mixtures of air and gases, vapours or mists or by air/dust mixtures are present continuously, for long periods or frequently. Equipment in this category must ensure the requisite level of protection, even in the event of rare incidents relating to equipment.
- Category 2 - equipment or systems of protection that guarantee a high level of protection; for use in areas in which explosive atmospheres

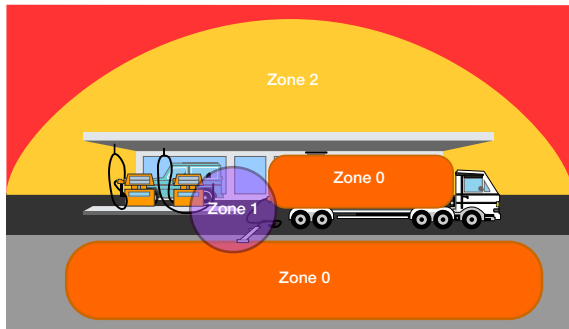
caused by gases, vapours, mists or air/dust mixtures are likely to occur occasionally. Equipment in this category must ensure the requisite level of protection, even in the event of frequently occurring disturbances or equipment faults which normally have to be taken into account.

- Category 3 - equipment or systems of protection that guarantee a normal level of protection; for use in areas in which explosive atmospheres caused by gases, vapours, mists, or air/dust mixtures are unlikely to occur or, if they do occur, are likely to do so only infrequently and for a short period only. Equipment in this category must ensure the requisite level of protection during normal operation.

To summarise:

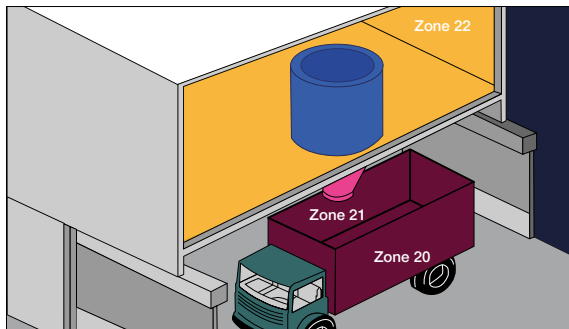
Dust	Gas
1D Suitability in zones 20, 21 and 22	1G Suitability in zones 0, 1 and 2
2D Suitability in zones 21 and 22	2G Suitability in zones 1 and 2
3D Suitability in zone 22	3G Suitability in zone 2

Areas classified for the presence of gas, mists or vapours on the basis of the probability of the existence of the explosive atmosphere are divided into three zones:



Zone 0	Zone 1	Zone 2
An area in which an explosive mixture of gas is continuously present or frequently present for long periods.	An area in which an explosive mixture is likely to occur occasionally in normal operation.	An area in which an explosive mixture is not likely to occur in normal operation and if it occurs it will exist only for a short time.

In areas classified for the presence of dust the zones are identified on the basis of the frequency and duration of the formation of an explosive atmosphere:



Zone 20	Zone 21	Zone 22
An area in which an explosive mixture of dust in the form of a dust cloud is continuously present or frequently present for long periods .	An area in which an explosive mixture of dust in the form of a dust cloud, is likely to occur occasionally in normal operation.	An area in which an explosive mixture of dust in the form of a dust cloud, is not likely to occur in normal operation and if it occurs it will exist only for a short time.

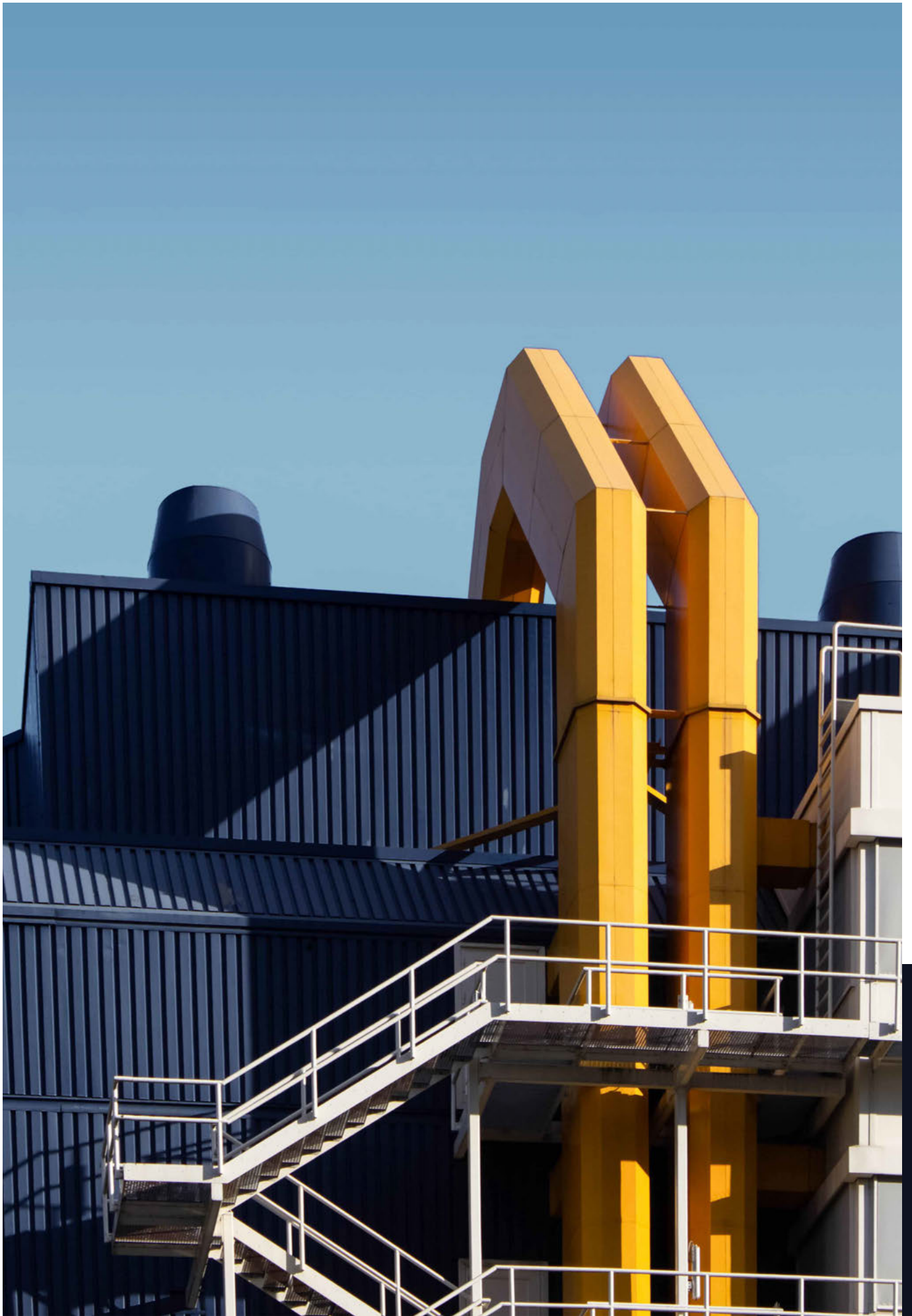
COMPLIANCE procedures.

Per la marcatura degli apparecchi For equipment to be marked there are various compliance procedures according to the product function and the category they belong to.

- All electrical equipment in Category 1 and Category 2 must mandatorily be certified by ATEX (Notified Bodies), or bodies to which the national authority has assigned the task of verifying conformity with the Directive. Companies that manufacture electrical equipment in Category 1 and Category 2 are obliged to report and audit the quality systems and the identification number of the body must be displayed on the data plate label alongside the CE marking.

- All electrical equipment in Category 3 can be self-certified by the manufacturer (CE marking), with internal manufacturing controls.

- (1) ATEX (G) for zones with GAS
- (2) ATEX (D) for zones with Dust



/ Electrical engineering and electronics



Electronic **WIRING.**

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.
- Constant current LED power supply.
- Safe FLICKER (Pst LM \leq 1; SVM \leq 0,4).

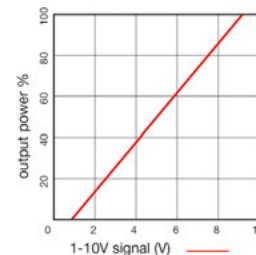
3F Filippi uses two constant current driver types, depending on the type of luminaire:

- 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.

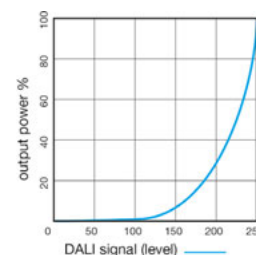
DIMMABLE ELECTRONIC WIRING

Adjustable electronic wiring can be realised with:

- Drivers with 1-10V interface, with dimming by means of an analogue signal ranging from 1V DC (minimum light) to 10V (maximum light). For signals <1V the device switches off.



- Drivers with DALI interface with digital dimming (Digital Addressable Lighting Interface protocol).



Note:

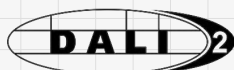
For further information and for use in harsh environments please contact our Technical Offices.

DALI - D2 (DALI-2) - D2D (DALI-2 DATI) - D4i



DALI® is the standard protocol for bi-directional digital communication between lighting control devices, standardised by the global standard IEC 65386. It is evenly designated by the DALI Alliance (DiiA - Digital Illumination Interface Alliance) and applied globally.

NB: Luminaires containing DALI-certified drivers are identified by the abbreviation “**DALI**” or “**D**”.



DALI-2™ is the latest version of the DALI protocol. DALI-2™ guarantees interoperability through trademarked testing and certification. DALI-2 certified drivers follow a standardised control curve and are fully compatible with DALI-1 systems.

NB: 3F Filippi’s luminaires containing DALI-2 certified drivers are identified by the initials “**D2**”.



Within the DALI-2 certification programme there are drivers that can also include the following features:

Part 251 - Luminaire Data

Drivers can store luminaire information, e.g. ID code, light output, CCT and CRI, light distribution, etc.).

Part 252 - Energy Data Reporting

Drivers provide real time power.

Part 253 - Diagnostics Data

Drivers provide operational data, operating and fault conditions.

NB: 3F Filippi’s luminaires containing DALI-2 certified drivers also with Parts 251, 252, 253 are identified by the abbreviation “**D2D**”.



The luminaire, equipped with a **D4i** driver, in addition to being DALI-2 certified with Parts 251, 252, 253 makes power available on the DALI line (Part 250) and ensures interoperability between nodes and sensors with the same certification.

NB: 3F Filippi’s luminaires containing those certified drivers are identified by the abbreviation “**D4i**”.

WARNING!

Devices with DALI, D2 and D2D 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 or on the DA-DA circuits of the supplied power cable (bridge prohibited in D4i equipment), if present. 3F Filippi however recommends connecting DALI, D2, D4i 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.

/ 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.

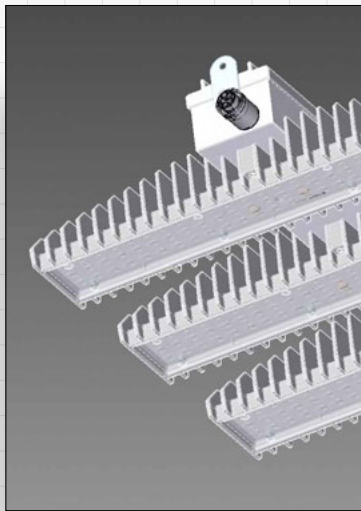
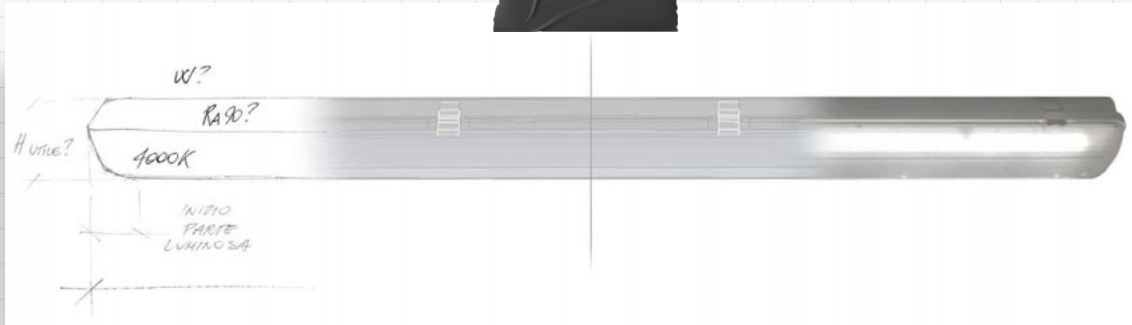
Our products are made with a craftsman's passion and constant innovation, research and attention to design and details: they combine aesthetics and functionality, elements of precision and new technologies, maintenance and reliability facilities, and are excellent value for money.

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.

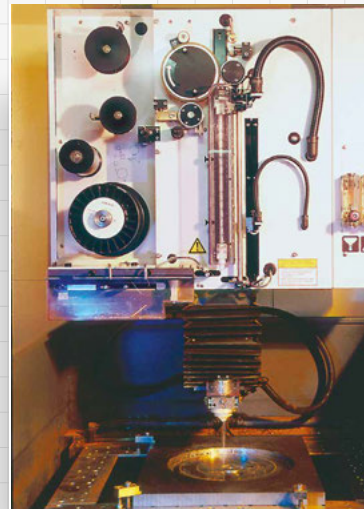
Our care for the environment goes hand-in-hand with our 0-mile production, whereby all our products are assembled in the same Bologna plant where they are produced.



3D modelling



Mould



EDM tool

/ Mechanics and Design



BALL throw.

BALL THROW RESISTANCE CERTIFICATION (DIN 18032-3)

This certification ensures the suitability of the device in gyms, environments with gymnastic and sports activities.

3F LEM Sport luminaires (codes 59080 and 59081) 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

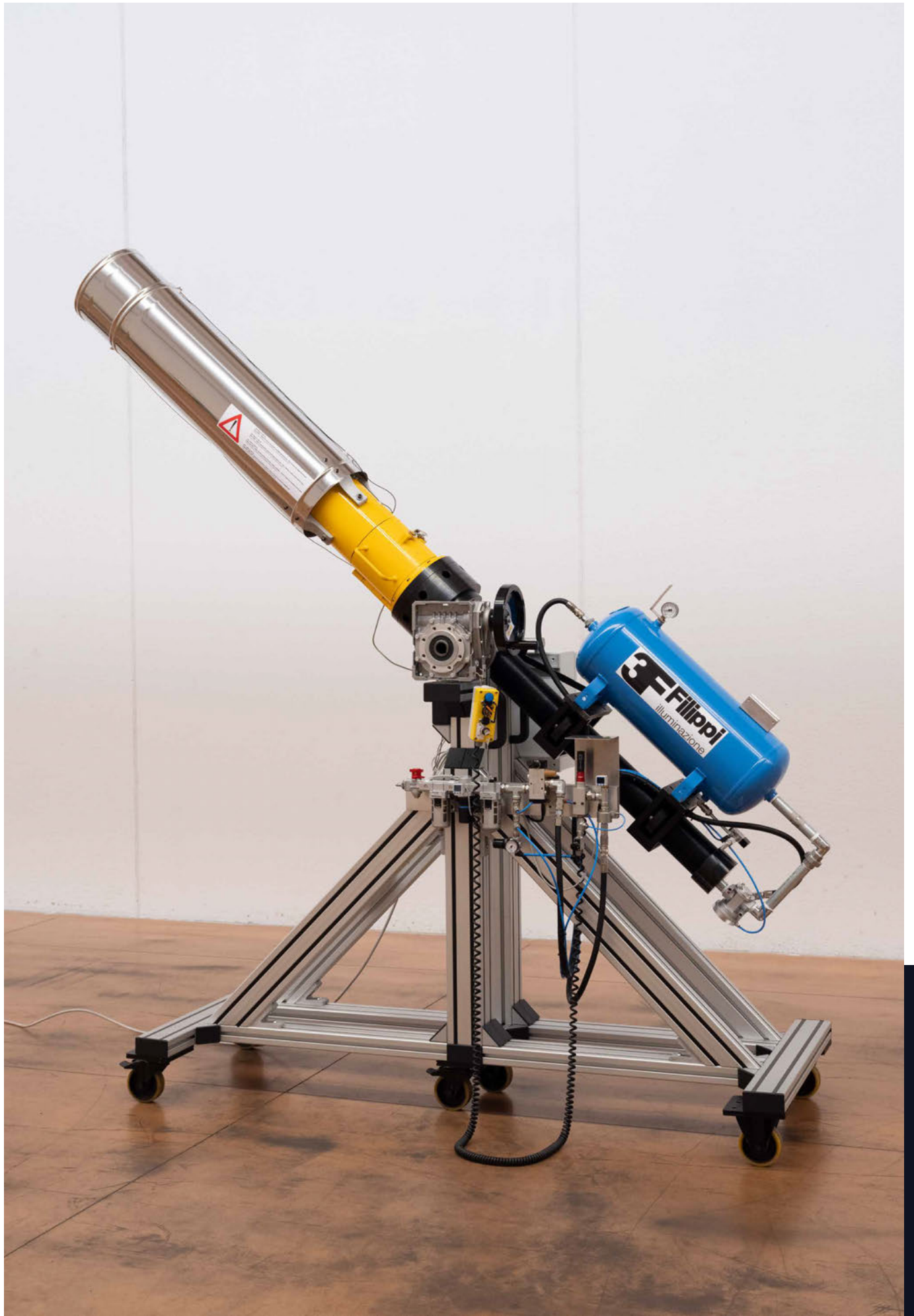
The device is hit 36 times by a handball (almost half a kilo) at a speed of 16.5 ± 0.8 m/s (~ 60 km/h). 12 times the ball must be thrown perpendicularly against the device and 12 times from two different directions (transversal and longitudinal) at an angle of 60°.

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°.

Note:

At the end of the tests, the luminaire must not show any alterations that limit its solidity, operation and safety.



Marks and standards



Luminaires with electronic wiring bearing this mark are versions with **limited surface temperature** (EN 60598-2-24), 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 IEC 60598-1.

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.
7	Protected against the effects of temporary submersion in water.
8 m	Protected against the effects of continuous submersion for long periods with indications of the maximum depth in metres.
9 (80°C)	Protected against the effects of high pressure and high temperature water.
9 (15°C)	Protected against the effects of high pressure cold water.
9K	Protected against the effects of cleaning with high pressure water or steam. The standard "ISO 20653 Road vehicles (IP code)" introduces code "K" that describes the special requirements for road vehicles not covered by "EN 60529 (IP code)".

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
1 J	Resistance to a blow from an object weighing 500 g dropped from a height of 20 cm.	IK06
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

1. Polyester-based paint, **white** or **grey Ral 9006**, UV stabilised, on hot galvanised steel sheet. Salt spray resistance over 500hrs.
2. 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.

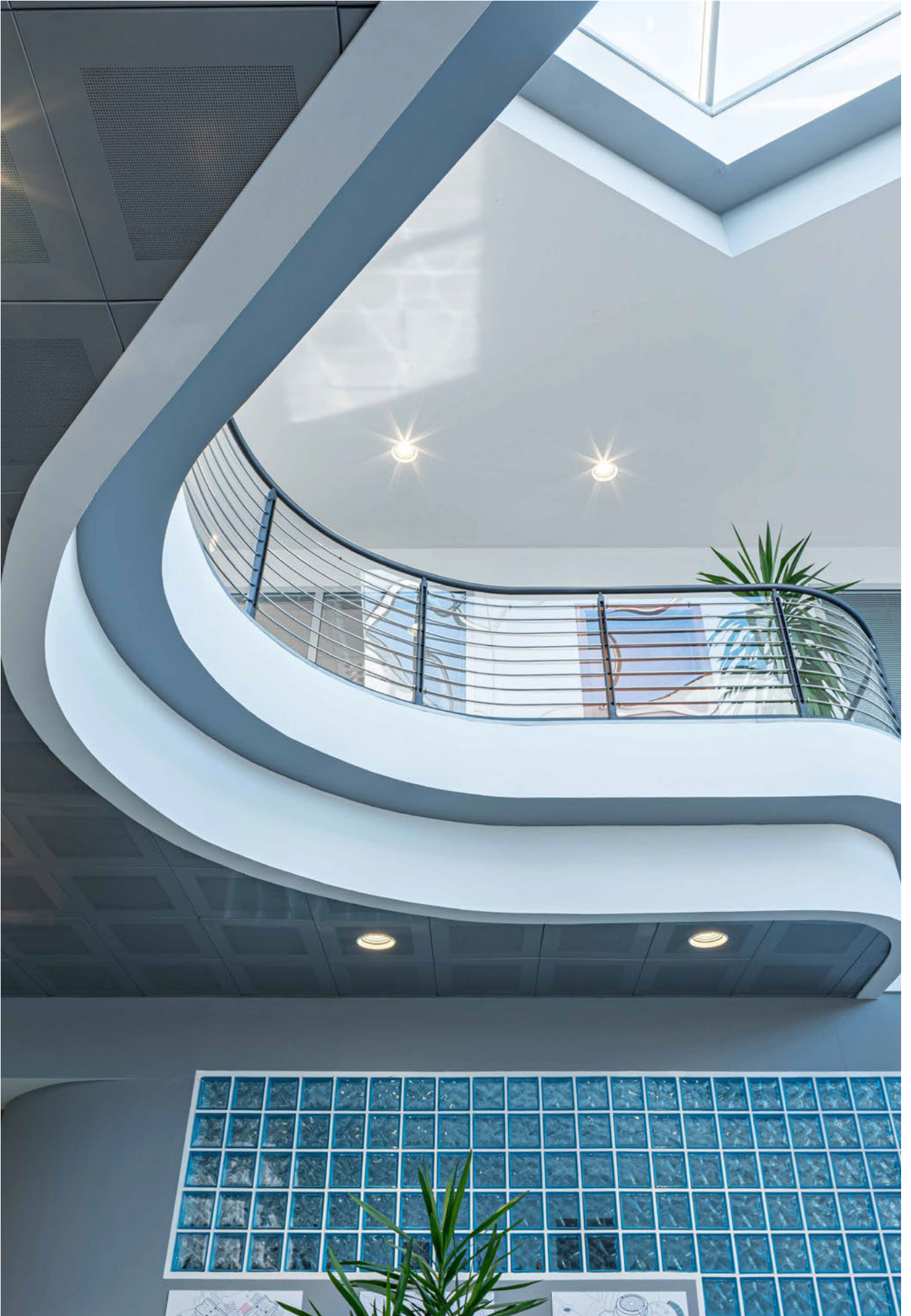
Some versions of 3F luminaires are also proposed with laminated glass which, in addition to being resistant to the substances listed above, allows for these to be used in environments with food products or with machines with moving parts, with sudden temperature changes and, in general, in all environments 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 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

Price list May 2023

General **CONDITIONS** of sale.

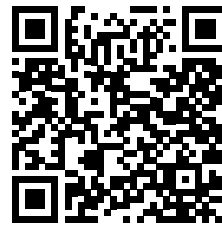
The acceptance of orders is always subject to the following conditions:

- 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.
- The prices in this price list can be changed without prior notice and obligation of prior communication.
- 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.



/Commercial Network

Credits

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/Legend

/Catalogue sections



3F Architectural



Systems and track-mounted products



Light Management



Surface luminaires and suspensions



Waterproof and corrosionproof



Infopoint



Recessed luminaires



Outdoor

/Applications



Industry



Retail



Sport



Offices



Healthcare



Transport



Architecture



Schools

/Symbols



Certification



Watertight product suitable for installation in cold rooms



Resistance against ball impacts in accordance with DIN 18032-3



ENEC Certified product



Glow wire resistance temperature



Protection against electric shock - Appliance class



Product compliant with IEC TR 61547-1 and IEC TR 63158 standards ("Infopoint" section)



Overall IP rating



Luminaire suitable for offices



Maintained emergency wiring



IP rating of recessed part
IP rating of exposed part



Tunable White



Non-permanent emergency wiring



Product compliant with ATEX regulations ("Infopoint" section)



Safety Extra-Low Voltage Separated power source



Luminaires with electronic wiring and limited surface temperature



Mechanical strength to impacts



Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard)

/Colors



WH | White / Matt White



AL | Aluminium



GR | Grey



BK | Black / Matt Black



AN | Anthracite



RD | Red

/Legend

/Acronyms

1x -> 6x	Number of sources	IND	Indirect light output
2MG	specular louvre, high efficiency	INT	Internal
2S	semi-specular louvre	IPERCONC	Iperconcentrated distribution
2US	semi-glossy louvre	L	Lenses
3AO	Matt silver decorative louvre	LA	Wide version luminaire
3DEC	White decorative louvre	LED	Light emitting diode
AB	White trim	LGS	Flat PMMA, with low luminance microprismatic cover
AMPIO	Wide distribution	Lxxxx	Appliance length xxxx millimetres
AS	Asymmetric	MEDIUM	Medium distribution
BAT	Batwing distribution - dual asymmetric	MEDIO	Medium distribution
BAT WD	Batwing distribution - dual asymmetric wide	NL	No power line
CLO	Constant light output ("Management of light" section)	OCB	Optics Control Black - LEED Compliant
CONC	Concentrated distribution	OCW	Optics Control White - LEED Compliant
CR	Fast connection	OP	Opal
D	Curved diffuser	P	Surface luminaire
D1-10V	Dimmable 1 - 10 volt wiring	PC	Polycarbonate
DA	Twin-circuit	PCD	Phase cut dimmable wiring
DALI	DALI digital dimmable wiring	R	Recessed version
DALI DT8	DALI dimmable cabling for Tunable White	RSP	Flow recuperator with prismatic screen
DE	Dual emission	RVS	Flow recuperator and molded glass
DI	Direct – indirect light output	RVSS	Flux recuperator and laminated moulded glass
DR	Rectangular diffuser	S	Structure
DT	Trapezoidal diffuser	Sensor	Sensor ("Management of light" section)
DX	Right	Sensor CF	Sensor with corridor function ("Management of light" section)
E	Efficiency	SL	Flat smooth diffuser in methacrylate
ELL	Elliptical transparent methacrylate lenses	SMP	Flat cover microprismatic
ENP	Non-permanent emergency lighting	SOP	Opal PMMA flat diffuser
EP	Permanent emergency lighting	SP	Flat diffuser, prismatic in methacrylate
EXT	External	SP PC	Flat PMMA prismatic cover
FCH	Version for metal panels with high structures	SPOT	Concentrated distribution
FCL	Version for metal panels with low structures	ST	Narrow body
FD	Fixture suitable FDP or FDO	SX	Left
FDO	Flat Diffuser Opal	TK	Product installable on Binario 3F
FDP	Flat Diffuser Microprismatic	TW	Tunable White
FP	Version for Plasterboard	UGR	Luminance control lens
FRONT	Asymmetric distribution with deep bilateral	UR95	Resistent to relative humidity up to 95%
GSP	Glare Screen Prismatic	VA	Frosted glass
HCL	Human centric lighting (section"Management of light")	VOP	Opal enamelled glass
HO	High Output	VS	Moulded glass
HS	Hard Skin - high chemical resistant body	VSS	Laminated moulded glass
HST	Glass stabilised via heat soak test	VT	Transparent glass
HT	High temperature	WIDE	Wide distribution

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