



**LENA**  
LIGHTING

INDUSTRY

# The new generation high-bay

Excellent parameters, modern technology,  
nature-inspired design.

OCULUS LED  
Industrial luminaires



POLISH PRODUCTION  
POLISH TECHNOLOGY

# We are responsible for the highest quality of lighting

It is worth choosing products supplied by renowned manufacturers, who employ highly-skilled engineering staff with the long-time experience in designing lighting systems and have laboratories with equipment that enables the constant quality control.

Thanks to the professional R&D facilities, the state-of-the-art laboratory operated by specialists and with the constantly controlled production process, Lena Lighting offers full 5-year warranty for each OCULUS LED fitting it manufactures.



Innovative  
LED production line  
in Środa Wielkopolska

# Polish manufacturer global standards

We are a manufacturer of lighting present on the market for 30 years, and thanks to our experience we know everything about luminaires and lighting systems: we design, test, produce and explore the possibilities.



Środa Wielkopolska, Poland



LENA LIGHTING S.A. has been one of the lighting market leaders for 30 years. Based on 100% Polish capital, it designs, constructs and manufactures professional lighting solutions. It is one of the largest companies and one of the most recognised brands in the region of Greater Poland, where its headquarters

and production facilities are located. The company has been listed on the main market of the Warsaw Stock Exchange since 2005. By developing exports to 70 countries around the world, it has achieved the position of an undisputed leader of professional luminaire exporters among Polish manufacturers.

# Highly efficient industrial lighting

## OCULUS LED

We present HIGH-BAY luminaire from the NEXT GEN product line, constituting a new generation of luminaires dedicated to LED technology.

Due to the use of highly efficient diodes, it is distinguished by very high luminous flux up to 35850 lm and luminous efficiency up to 176 lm/W.

Its undeniable, noteworthy advantages include: durability, energy efficiency and ability to work in high temperatures up to 60°C.

Primary technical data:

Colour temperature: 4,000 K

Power: 72-206 W

Luminous flux: 12,250 lm - 35,850 lm

Working temperature: up to 60°C

Lifespan: up to 108,000 h



Scan the QR code and get access to the product technical data sheet



NEXT GEN

176 lm/W

SDCM ≤ 3

A++



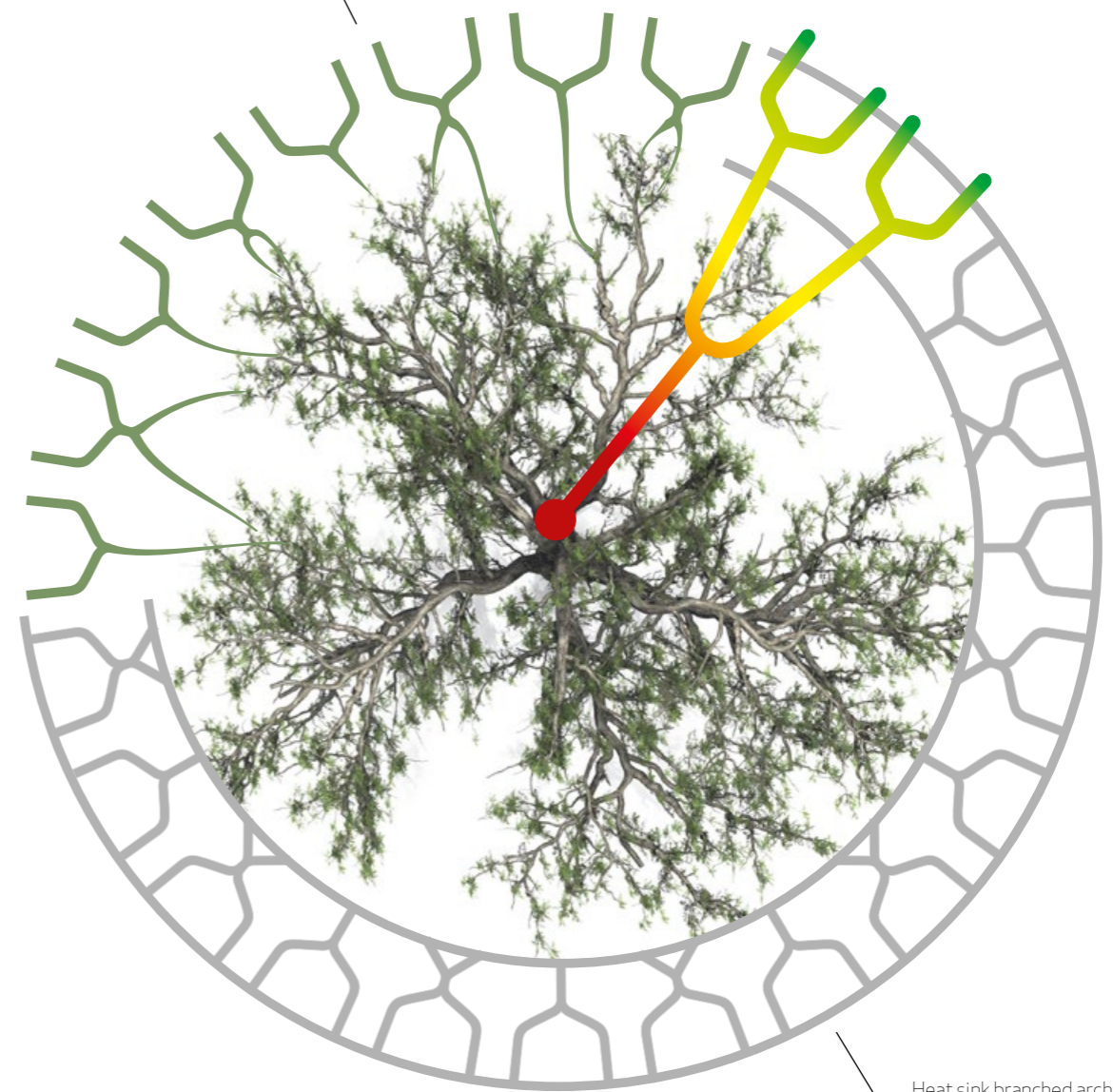
# Inspired by nature

Care for the natural environment is one of the values which guide our activities – we use eco-friendly components and provide our products with highly energy-efficient solutions.

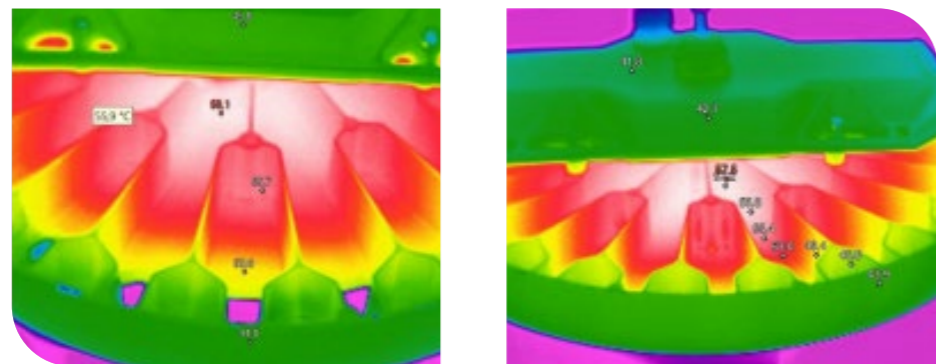
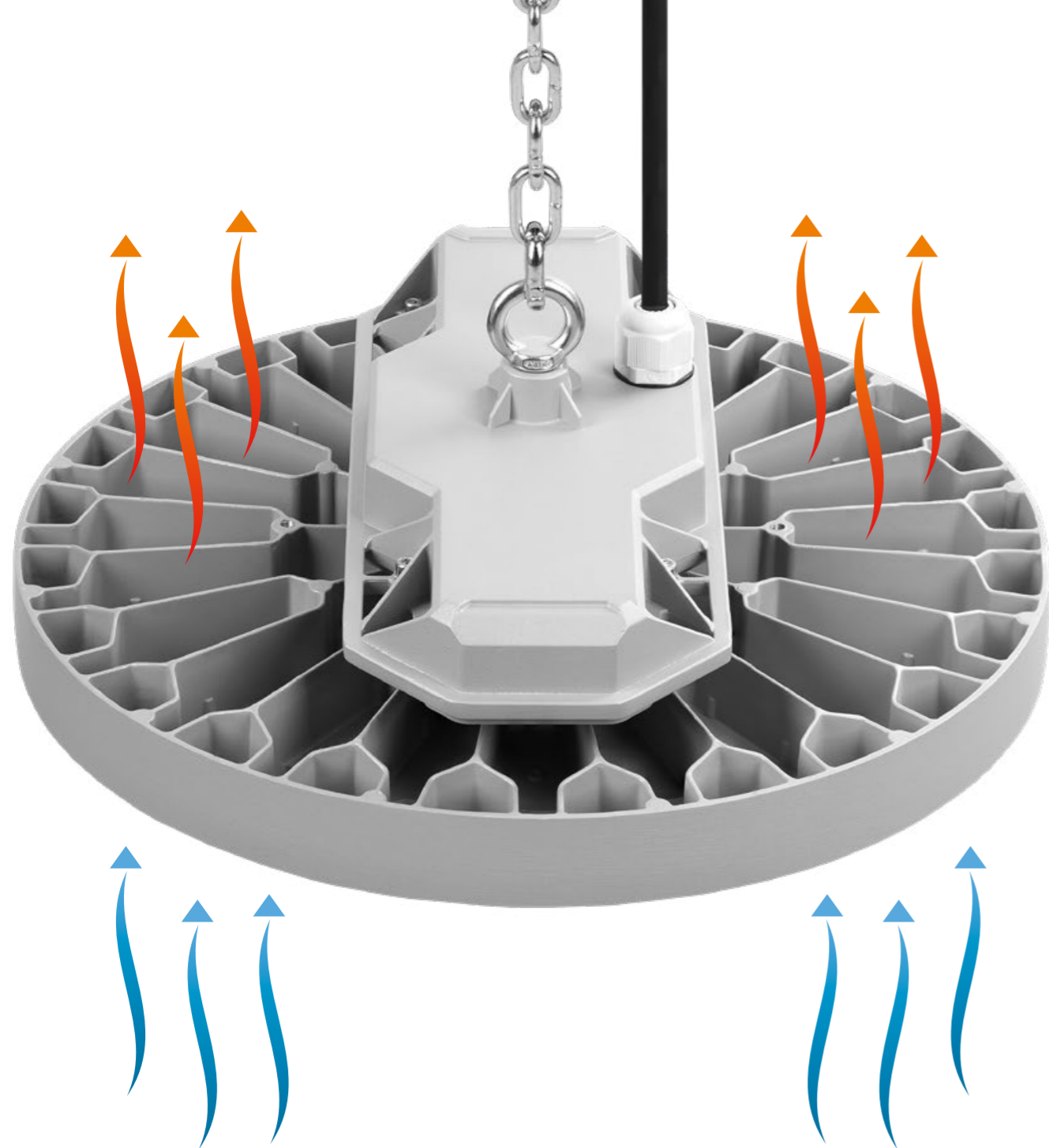
When designing OCULUS LED – we went one step further. Solutions concerning the luminaire’s heat management have been modelled on natural phenomena. The heat sink design – based on branched architecture to dissipate heat as efficiently as possible – is inspired by the shape of plants.



Heat sink design inspired by the shape of a tree



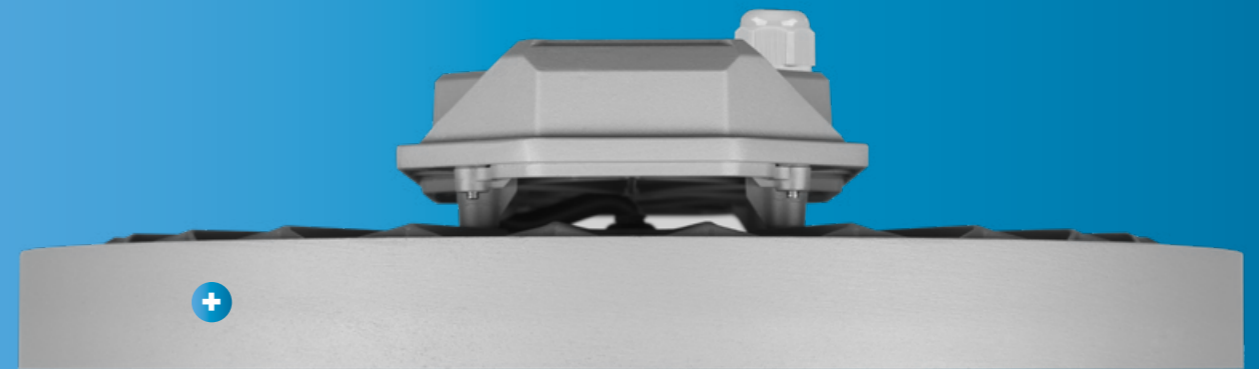
Heat sink branched architecture effectively dissipates heat



Thermal imaging photos of the 26,400 lm (146 W) version at 45°C showing temperature distribution at the heat sink.

# Perfect heat dissipation management

The luminaire structure and materials used for its construction ensure excellent heat management. Due to the conduction and convection effects as well as the designed shapes and surface finish, heat is effectively removed from the luminaire, guaranteeing optimal thermal conditions for the operation of the power supply system.



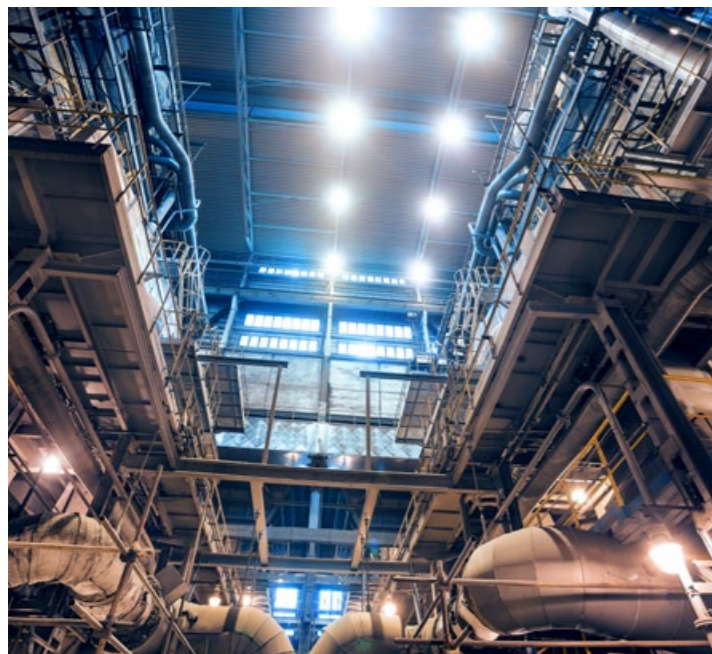
The shape of the body with an integrated, effective heat sink and high-quality materials ensure maximum heat dissipation from the LED module.

The driver's external compartment, separated from the body, guarantees optimal thermal working conditions for the power supply system.



# Proven in difficult conditions

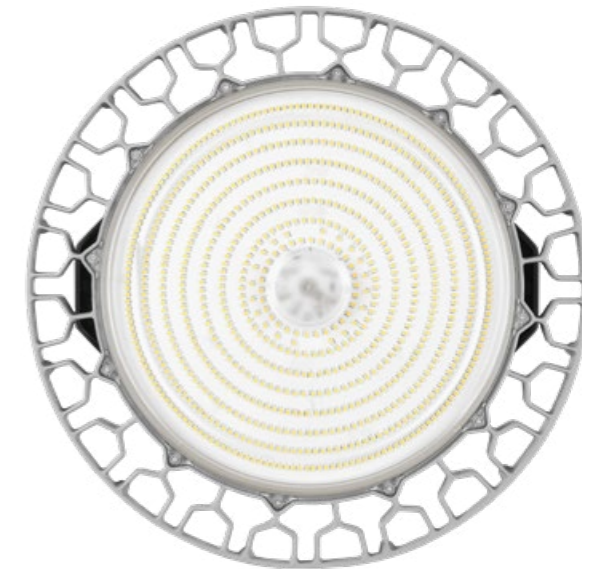
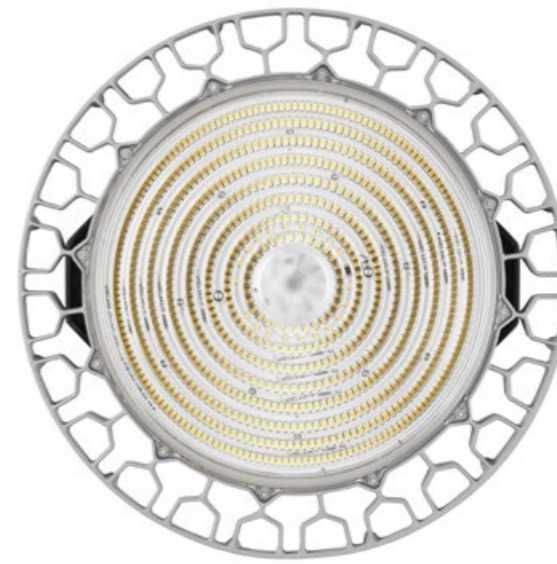
OCULUS LED is a great solution not only for large-format warehouse halls and logistics centres, but also a solution that will work well in demanding production conditions with high humidity, dust or temperature up to 60°C. Due to its high ingress protection, it can be mounted outside of buildings.





# Powerful and precise optical system

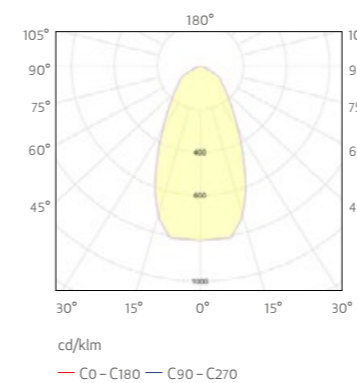
The luminaire uses a modern optical system. It is available in two versions. One with a glass diffuser (105° light distribution) and the other with a diffuser made of polycarbonate. The polycarbonate version can be delivered with a smooth diffuser (105° distribution) or a diffuser with an integrated linear lens matrix (55°, 75° light distribution).



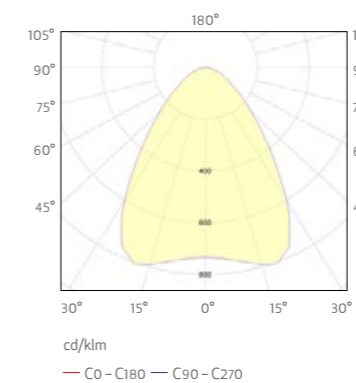
Luminaire with a polycarbonate diffuser and an integrated linear lens matrix – 55° and 75° light distribution

Luminaire with a glass or polycarbonate diffuser – 105° light distribution

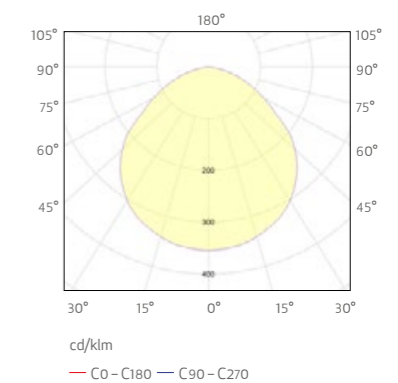
55° light distribution



75° light distribution



105° light distribution







**IK09**  
Impact resistance  
class

## Solid body and high impact resistant class

The robust aluminium body and diffuser made of polycarbonate (PC) or tempered glass provide the luminaire with a high level of impact resistance IK 09.

**IP66**  
Ingress protection  
class

## Perfect for applications in humid and dusty spaces

OCULUS LED is equipped with silicone sealing and a breathable gland, which protect the luminaire against moisture condensation inside and provide it with a very high level of ingress protection IP 66. Thus, it can be used in areas with increased humidity and dust concentration.



## Version with emergency module

Option with an emergency module ensures proper lighting of evacuation routes.



## Mounting

OCULUS LED is suited for suspended mounting and - with the use of additional accessories - also on surface (ceiling and wall with tilt adjustment).

## Low weight



Luminaire's low weight significantly simplifies the mounting process and, as a result reduces its cost. The installation is also faster due to only one mounting point.

OCULUS LED comes standard with a 0.3 m long HO7RN-F cable and with an additional male and female connector for easier mounting. Savings related to the ergonomics of the mounting process are also noticeable during servicing.

# Environment with high ambient temperature

## OCULUS LED ENDURA

# +75°C



Scan the QR code and get access to the product technical data sheet



In areas with high temperatures, it is necessary to use luminaires which will cope with the demanding conditions while maintaining their high operational parameters. OCULUS LED ENDURA has proven its performance in ambient temperatures up to 75°C. Adverse environmental conditions will not affect the luminaire's reliability.

# Lighting control



## RCR

Microwave motion sensor

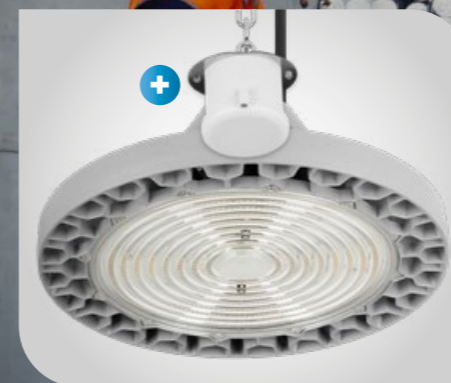
## DIMM DALI

Communication & Dimming

Lighting control systems are convenient, give a sense of comfort, save time, but above all optimise processes and are energy-saving and environmentally friendly.

Active RCR and dusk sensor provide a more efficient use of lighting – reducing energy consumption and the corresponding costs of energy. The sensor identifies the illuminance (day-night), working time (switch off delay) and effective range of operation (detection field radius). It allows to adjust the luminaire's operation mode to save up to 90% of the energy consumed.

The ergonomic and efficient use of lighting can also be achieved through matching OCULUS LED luminaires in their DIMM DALI versions. Communication between luminaires and the dimming function have a significant impact on the comfort of use and energy-efficiency of the solution.



RCR and dusk sensor



RCR set



Fewer  
luminaires  
better  
effect

# Case study

The investor has modernised the lighting in the warehouse hall. Facility dimensions: 80x33 m (2640 m<sup>2</sup>), luminaire mounting height: 11 m.

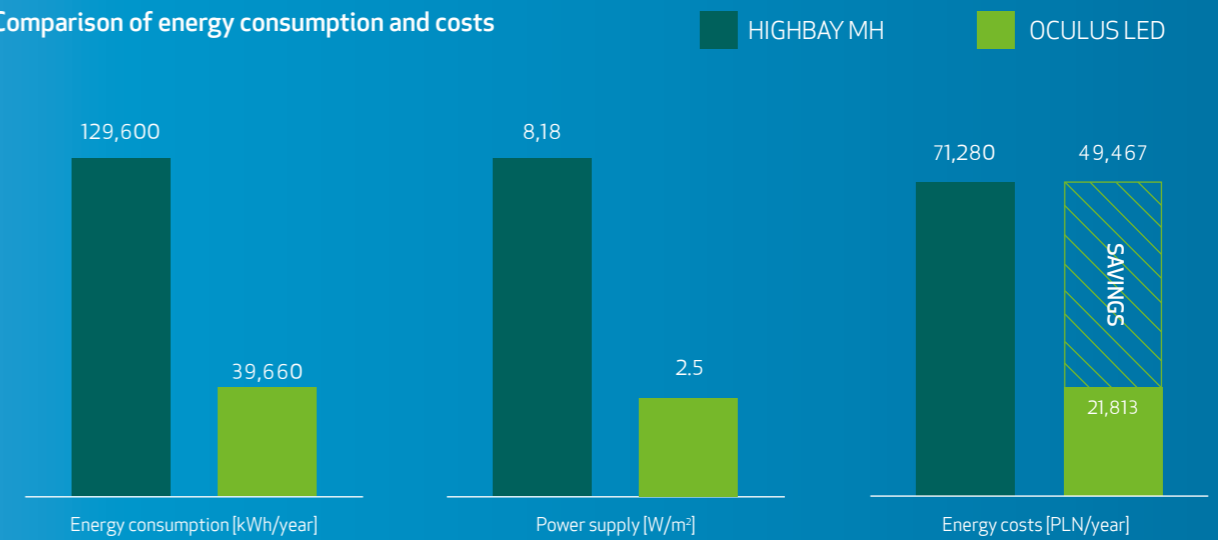
Due to the functional purpose of the space, a lighting level of 150 lx on the work surface was required. Energy efficiency was the most important criterion of the choice, due to 16 hours working time duration. Another requirement for choosing the product was its reliability, because each downtime in the logistics process generates unnecessary costs.

So far, the facility has been fitted with HIGH-BAY luminaires equipped with 400 W metal halide discharge sources. Considering investor's key requirements, we proposed replacing them with OCULUS LED 126 W, 4000 K, 21,950 lm, IP66 luminaires.

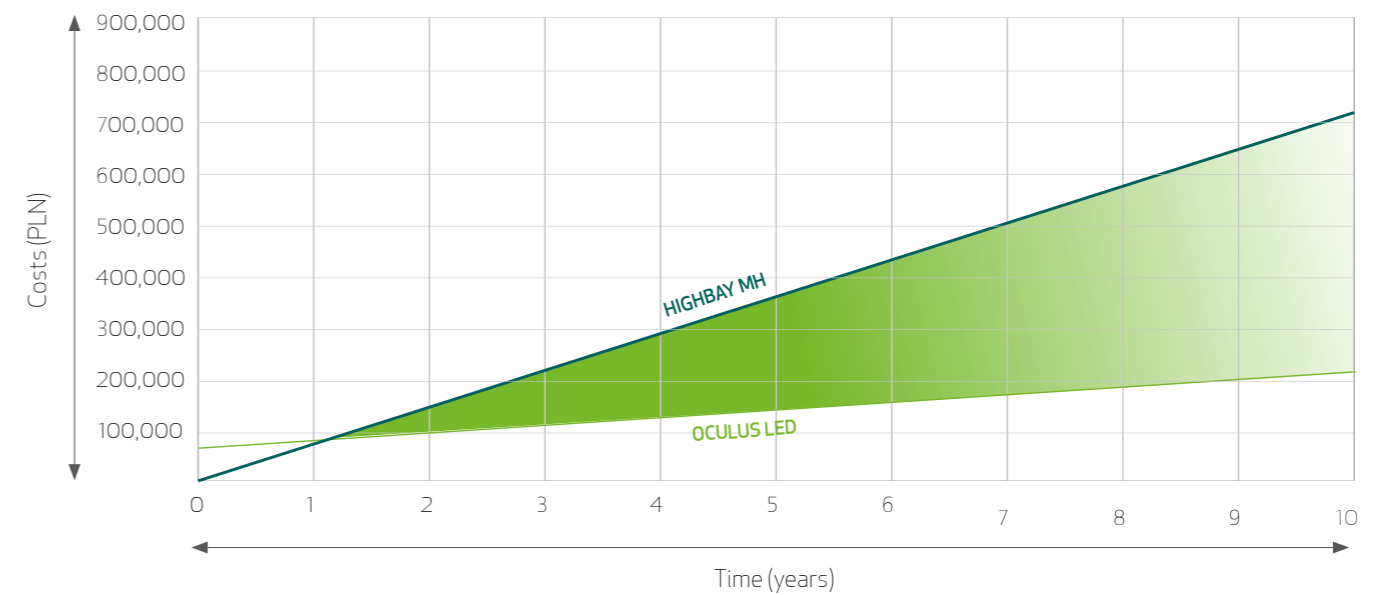
50 pcs  
OCULUS LED 126 W

54 pcs  
HIGH-BAY MH 400 W

Comparison of energy consumption and costs



Depreciation of costs



The comparative analysis has shown multiple benefits resulting from using LED luminaires. As per the proposed design, the number of installed luminaires was reduced by 4. With OCULUS LED luminaires, the energy costs have substantially decreased. This is due to the reduction in electricity consumption by almost 70% and minimisation of luminaire servicing costs (e.g. replacement of traditional sources), made possible through fitting the LEDs with modern LED GO! light modules, characterised by a long-lasting period of operation. The cost of purchasing OCULUS LED luminaires is offset by a reduction in the cost of electricity and return on investment is less than 16 months. After that period, the investor will experience a constant and dynamic increase in profits due to the use of LED luminaires.

**Basic assumptions:**

The luminaire's working time is 16 hours per day; price for 1 kWh = PLN 0.55 (EUR 0.128); market cost of lamps according to the knowledge of Lena Lighting S.A.; lamp replacement frequency – according to the declared service life.

**69,4%**

ENERGY SAVINGS

**15,77 months**

TIME OF RETURN ON INVESTMENT



# Entrust your design to professionals

The type of lighting and its arrangement require the right selection in the design process. Each room has different lighting requirements, which is why it is so important to meet them.

Engineers working in our design office will prepare a project that meets all standards and guarantees comfort of use. The client receives free-of-charge consultancy and project documentation, which guarantee high quality and compliance with standards.

The comprehensive design often includes a lighting control system, ensuring the greatest possible energy savings during use. We support our clients in the selection of the lighting concept and individual products – we also make visualisations.

**DIALux**

**AUTODESK  
REVIT**

**SOLIDWORKS**



## OCULUS LED

Nominal power [W]	CCT [K]	Luminous flux [lm]	Beam angle [°]	Diffuser material	DIMM DALI	EEL	Index
72	4000	13300	105	PC	-	A++	964145
72	4000	12850	55	PC	-	A++	964169
72	4000	12850	75	PC	-	A++	964152
72	4000	12500	105	Glass	-	A++	964916
73	4000	12650	105	PC	-	A++	963957
73	4000	12250	55	PC	-	A++	963971
73	4000	12250	75	PC	-	A++	963964
101	4000	17000	105	PC	-	A++	963896
101	4000	16450	55	PC	-	A++	963919
101	4000	16450	75	PC	-	A++	963902
104	4000	19000	105	PC	-	A++	964060
104	4000	18300	55	PC	-	A++	964084
104	4000	18300	75	PC	-	A++	964077
104	4000	17900	105	Glass	-	A++	964923
104	4000	19000	105	PC	Yes	A++	964206
104	4000	18300	55	PC	Yes	A++	964220
104	4000	18300	75	PC	Yes	A++	964213
104	4000	17900	105	Glass	Yes	A++	964978
126	4000	22700	105	PC	-	A++	964039
126	4000	21950	55	PC	-	A++	964053
126	4000	21950	75	PC	-	A++	964046
126	4000	21300	105	Glass	-	A++	964930
141	4000	23000	105	PC	-	A++	963926
141	4000	22250	55	PC	-	A++	963940
141	4000	22250	75	PC	-	A++	963933
146	4000	26400	105	PC	-	A++	964022
146	4000	25500	55	PC	-	A++	964015
146	4000	25500	75	PC	-	A++	964008
146	4000	24800	105	Glass	-	A++	964947
206	4000	35850	105	PC	-	A++	964114
206	4000	34650	55	PC	-	A++	964107
206	4000	34650	75	PC	-	A++	964091
206	4000	33600	105	Glass	-	A++	964954
206	4000	35850	105	PC	Yes	A++	964190
206	4000	34650	55	PC	Yes	A++	964183
206	4000	34650	75	PC	Yes	A++	964176
206	4000	33600	105	Glass	Yes	A++	964992



## OCULUS LED ENDURA

Nominal power [W]	CCT [K]	Luminous flux [lm]	Beam angle [°]	Diffuser material	DIMM DALI	EEL	Index
203	4000	27000	55	PC	-	A+	964282
203	4000	27000	75	PC	-	A+	964275
203	4000	28300	105	PC	-	A++	964268



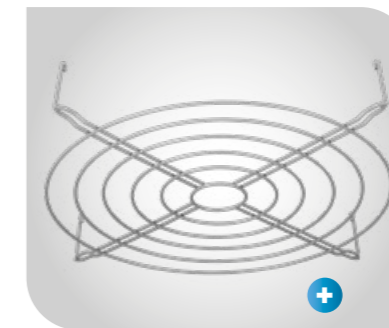
## OCULUS LED EMERGENCY

Nominal power [W]	CCT [K]	Luminous flux [lm]	Beam angle [°]	Diffuser material	Emergency luminous flux [lm]	Emergency lighting [h]	Emergency type	EEL	Index
72	4000	13000	105	PC	950	3	NM	A++	964374
72	4000	12850	55	PC	850	3	NM	A++	963889
72	4000	12850	75	PC	850	3	NM	A++	964381
104	4000	19000	105	PC	950	3	NM	A++	964336
104	4000	18300	55	PC	850	3	NM	A++	963865
104	4000	18300	75	PC	850	3	NM	A++	964343
126	4000	22700	105	PC	950	3	NM	A++	964312
126	4000	21950	55	PC	850	3	NM	A++	963858
126	4000	21950	75	PC	850	3	NM	A++	964329
146	4000	26400	105	PC	950	3	NM	A++	964305
146	4000	25500	55	PC	850	3	NM	A++	963841
146	4000	25500	75	PC	850	3	NM	A++	964299
206	4000	35850	105	PC	950	3	NM	A++	964367
206	4000	34650	55	PC	850	3	NM	A++	963872
206	4000	34650	75	PC	850	3	NM	A++	964350

### Accessories



OCULUS LED  
RCR and dusk sensor



OCULUS LED  
Protective grid



OCULUS LED  
Surface mounting bracket



OCULUS LED  
Multi-purpose mounting bracket

Name	Index
RCR and dusk sensor (excluding ENDURA)	964244
Protective grid	964862
Surface mounting bracket	964893
Multi-purpose mounting bracket	964886




All our products meet the requirements of the European Union's declaration

Luminaire parameters are given with tolerance permitted by the standard. The manufacturer reserves the right to change the parameters of the product not for the worse, in the course of its improvement, and to make design changes or upgrade the product. Materials presented in the booklet are not a commercial offer. The complete, current offer of Lena Lighting along with current parameters can be found at [www.lenalighting.pl](http://www.lenalighting.pl).

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# We are here for You

In order to get more detailed information about distribution, products and prices please contact our employees responsible for Your area.

 [www.lenalighting.pl/en/contact/sales-department](http://www.lenalighting.pl/en/contact/sales-department)



Lena Lighting S.A.  
ul. Kórnicka 52  
63-000 Środa Wielkopolska  
POLAND  
tel. +48 (61) 28 60 300  
e-mail: [office@lenalighting.pl](mailto:office@lenalighting.pl)  
[www.lenalighting.pl/en](http://www.lenalighting.pl/en)





INDUSTRY



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ul. Kórnicka 52  
63-000 Środa Wielkopolska  
tel. +48 (61) 28 60 300  
email: office@lenalighting.pl

[www.lenalighting.pl](http://www.lenalighting.pl)  
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