

vizULO

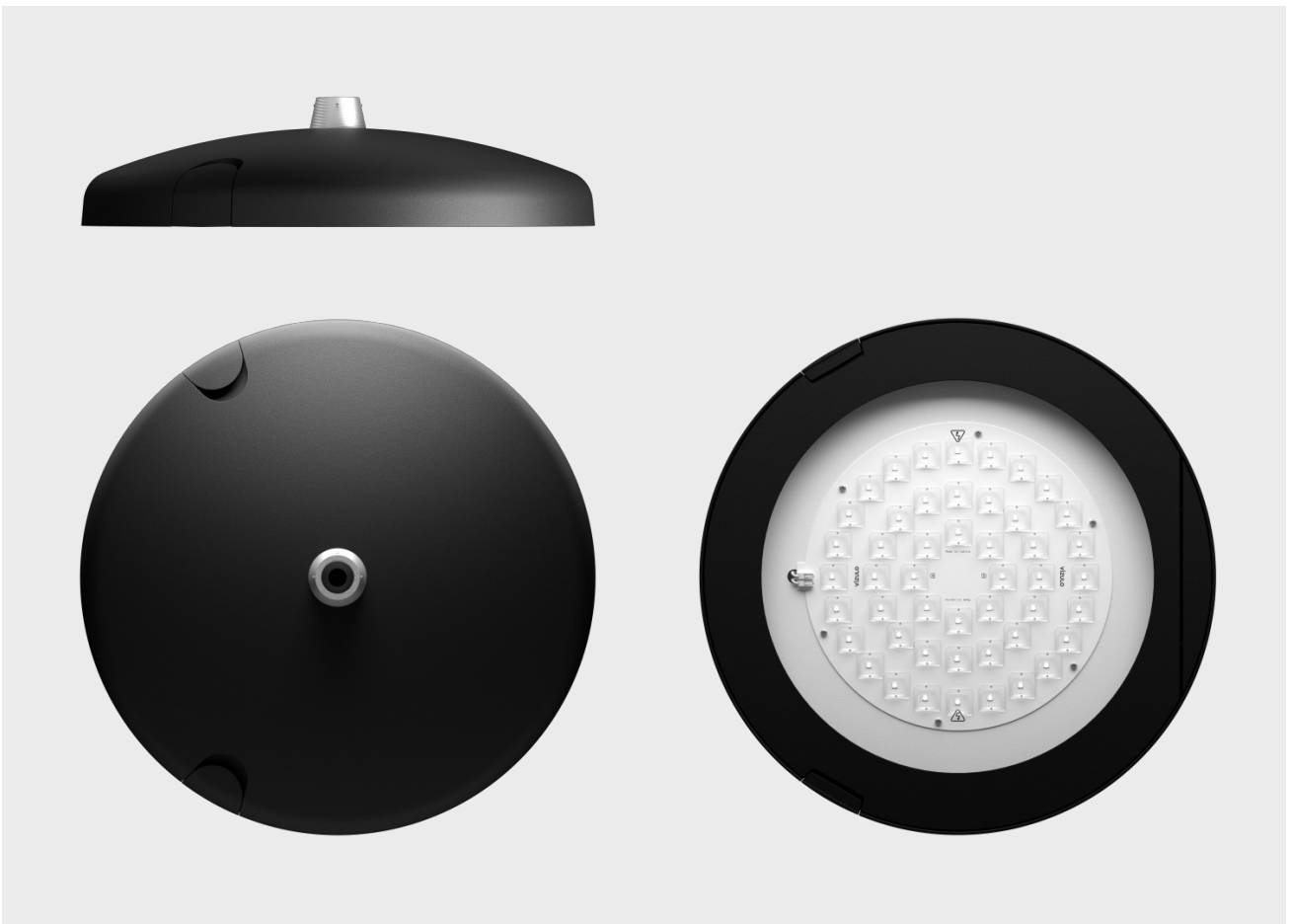
LAPWING

Top entry | Tool-less



Lapwing

top entry | tool-less



RAL7035



RAL9006

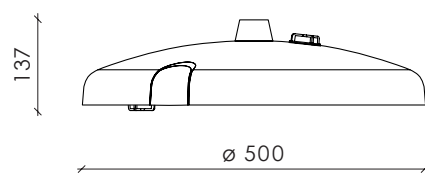
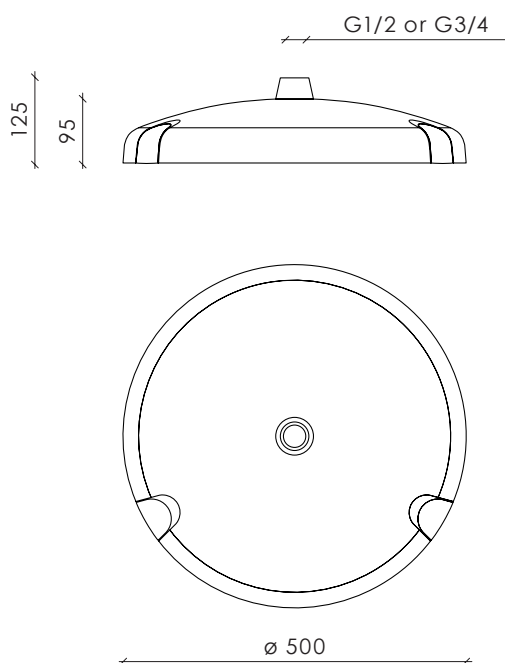


DB703



RAL9005

Other colors
available on request



Dimensions with 2 Zhaga connectors



Features

▮ BLACK PCB

Chosen for its sleek, modern aesthetic, the black PCB offers a distinctive look with a modest reduction in lumen output of up to 10%

Note! Black PCB available on request



▮ MATT GLASS

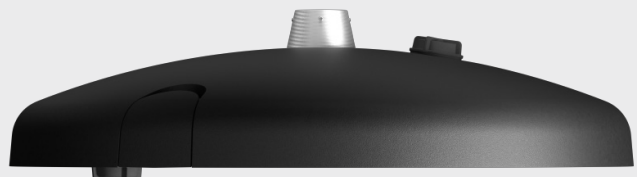
Matt glass softens and diffuses light, reducing glare and bright spots for a more comfortable, uniform glow

Note! Matt glass available on request



▮ ZHAGA TOP AND BOTTOM

Connect up to 2 Zhaga Book 18 devices for motion detection and luminaire control



Technical information



V	198 - 264 / 110 - 277 ⁽¹⁾
Hz	50 - 60
W	5 - 150
lm	Up to 24 057 ⁽²⁾
lm/W	Up to 186
K	2700 / 3000 / 4000 ⁽³⁾
°C	-40 up to +55 ⁽⁴⁾
CRI	>70 / >80 / >90 ⁽³⁾

Body:	Die-cast aluminium
Dimming:	DALI / 1-10 V / Midnight dimming / Step dimming / Mains dimming
Initial chromaticity:	MacAdam 5
Lifetime:	Eco 100 000 h (L90B10) at Ta = 25 °C* Standard 100 000 h (L98B10) at Ta = 25 °C* High density 100 000 h (L98B10) at Ta = 25 °C*
Warranty:	5 years
Installation:	Tool-less / Pre-wired cable 30 cm ⁽⁵⁾
Mounting:	On console with G1/2 G3/4 thread
Socket:	NEMA Top / Zhaga Top and Bottom
Intelligent Control:	Stand-alone / Group / CMS
Sensor:	Motion / Motion + Daylight / Daylight
Surge protection:	4 / 6 / 10 kV ⁽⁶⁾
Nature friendly:	PC Amber / Red / 1800 K
Corrosion protection:	Up to C5
Neto weight:	Up to 9.9 kg
Max. wind load area, SCd:	Up to 0.04 m ²

¹⁾ Maximum operating voltage, ENEC certificate voltage 198 - 264 V, UL certificate voltage 110 - 277 V

²⁾ Lumen output indicated at CRI > 70

³⁾ 1800 / 2200 / 3500 / 5000 / 5700 / 6500 K available on request along with other not listed CRI and CCT

⁴⁾ Operating temperature differs depending on chosen output wattage

⁵⁾ Other lengths available on request

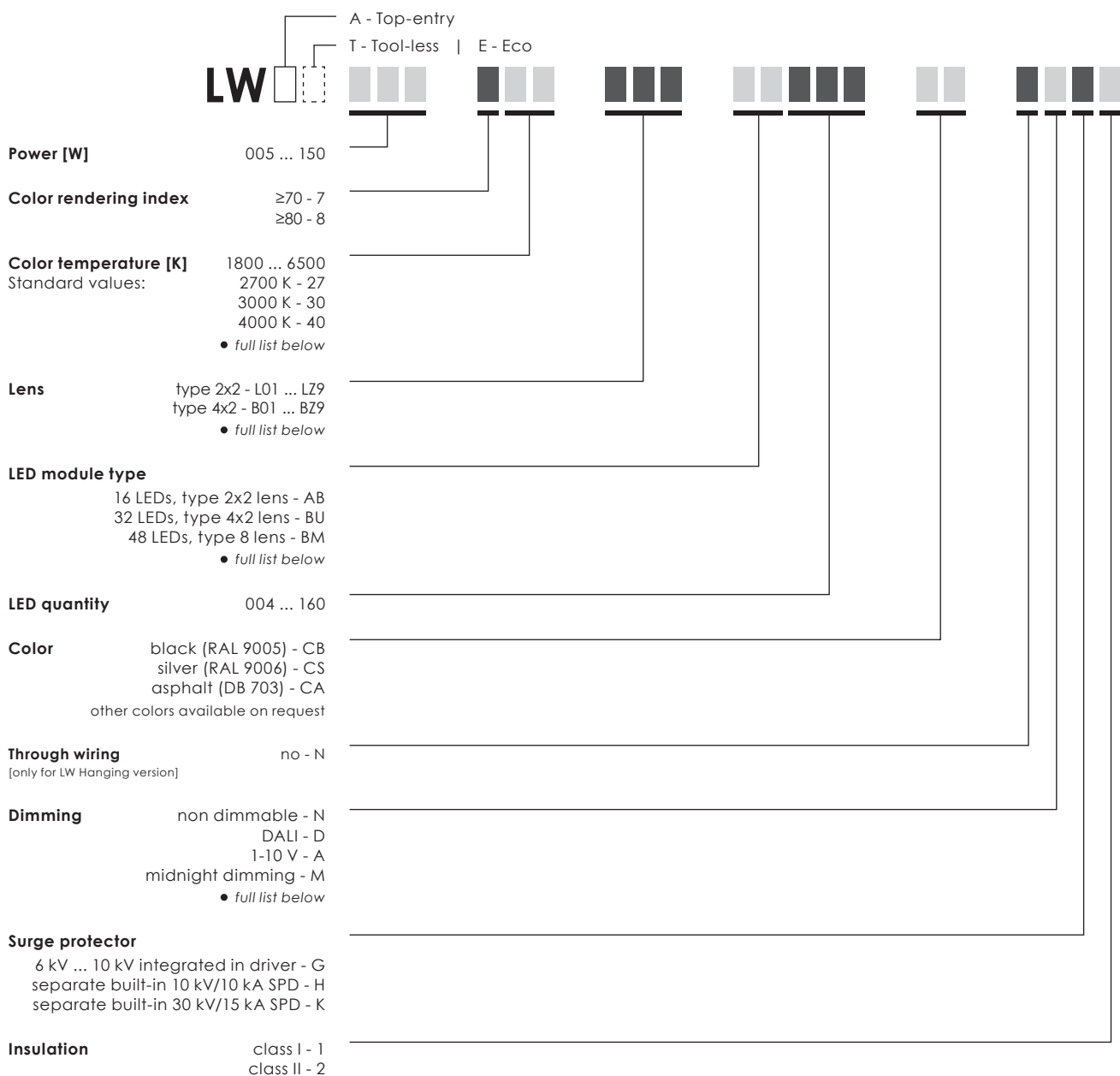
⁶⁾ 10 kV (L-N; L/N-PE) surge protection device available on request

⁷⁾ Coming soon

* This value is only informative and may change according to selected article. LED Lifetime is strongly depending from LEDs current and junction temperature – increase in LED current and luminaire power lead to increase of junction temperature and as consequence lifetime decrease. Thus, luminaire models with lower power, lower current (and lower junction temperature) will have higher lifetime than standard models. And high power and high current luminaire models may have negative lifetime deviation comparing to standard models. To receive precise value please contact VIZULO export representatives.

Technical parameters for final product can differ from typical data by 7% due to special conditions of LED manufacturing processes.

Model name principles



EXAMPLE LWAT 050 730 L01 AB032 CB NDG1

• Full list of options

Color temperature [K]

1800 ... 6500
 2700 K - 27
 3000 K - 30
 4000 K - 40
 Nature Friendly Red - NR
 Nature Friendly Amber - NA
 Nature Friendly 1800 K - NK

Lens

type 2x2 - L01 ... LZ9
 type 2x3 - J01 ... JZ9
 type 4x2 - B01 ... BZ9
 type 8 - V01 ... VZ9
 type 1 - Z01 ... ZZ9
 custom configuration - M01 ... NZ9

LED module type

8 LEDs, type 2x2 lens - AA
 16 LEDs, type 2x2 lens - AB
 24 LEDs, type 2x2 lens - BL
 12 LEDs, type 2x3 lens - BY
 24 LEDs, type 2x3 lens - BZ
 16 LEDs, type 4x2 lens - BT
 32 LEDs, type 4x2 lens - BU
 8 LEDs, type 8 lens - BH
 16 LEDs, type 8 lens - AF
 32 LEDs, type 8 lens - AG
 48 LEDs, type 8 lens - BM
 24 LEDs, type 1 lens - BJ
 40 LEDs, type 1 lens - BW
 48 LEDs, type 1 lens - BN
 80 LEDs, type 1 lens - BP

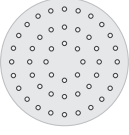
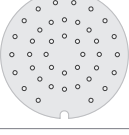
Dimming

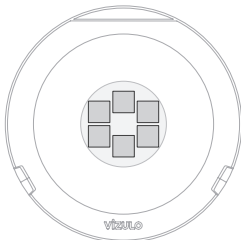
non dimmable - N
 DALI - D
 1-10 V - A
 midnight dimming - M
 midnight dimming + DALI - R
 step dimming - S
 mains dimming - L
 wireless - W
 NEMA socket (DALI) - Y
 Zhaga socket (DALI) - Z
 * custom configuration - X

* CUSTOM CONFIGURATION EXAMPLE

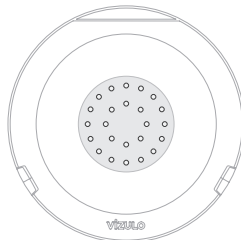
NEMA socket + Zhaga socket; NEMA socket + Zhaga socket + midnight dimming; etc.
 Custom configuration information is available in order confirmation.

LED modules

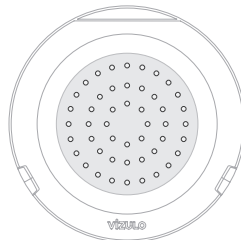
Type	Max module QTY	Min LED QTY per module	Max LED QTY per module	Max LED QTY per luminaire	LED step	LED type	Lens type	LED module
BL	1	16	24	24	2	Standard Eco	type 2x2 L01...LZ9	
BM	1	32	48	48	4	Standard	type 8 V01...VZ9	
BJ	1	8	24	24	-	Standard Eco	type 1 Z01...ZZ9	
BN	1	36	48	48	-	Eco	type 1 Z01...ZZ9	
BW*	1	40	40	40	-	Eco	type 1 Z01...ZZ9	



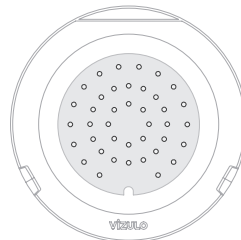
BL / BM



BJ



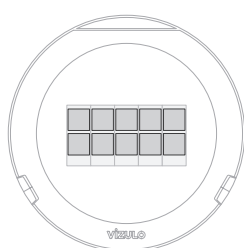
BN



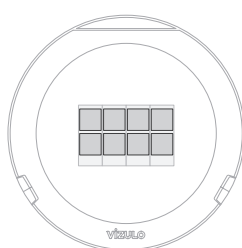
BW*

* Specially designed for Bottom Zhaga socket

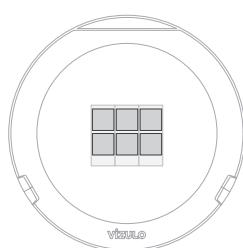
Type	Max module QTY	Min LED QTY per module	Max LED QTY per module	Max LED QTY per luminaire	LED step	LED type	Lens type	LED module
AA	5	4	8	40	2	Standard Eco	type 2x2 L01...LZ9	
BY	5	6	12	60	6	Eco	type 2x3 J01...JZ9	
AF	5	4	16	80	2	Standard	type 8 V01...VZ9	
BT	5	4	16	80	8	Standard Eco	type 4x2 B01...BZ9	



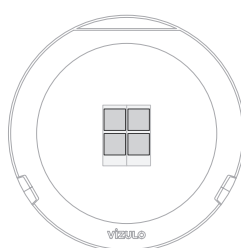
5 LED modules



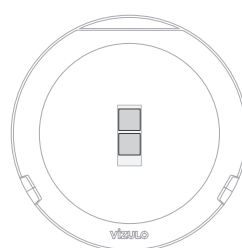
4 LED modules



3 LED modules

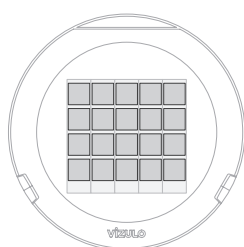


2 LED modules

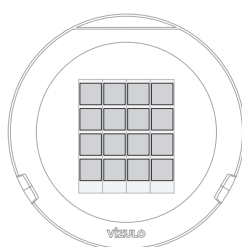


1 LED module

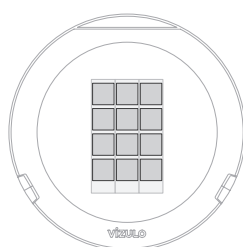
Type	Max module QTY	Min LED QTY per module	Max LED QTY per module	Max LED QTY per luminaire	LED step	LED type	Lens type	LED module
AB	5	8	16	80	2	Standard Eco	type 2x2 L01...LZ9	
BZ	5	18	24	120	6	Eco	type 2x3 J01...JZ9	
AG	5	16	32	160	2	Standard	type 8 V01...VZ9	
BU	5	16	32	160	8	Standard Eco	type 4x2 B01...BZ9	



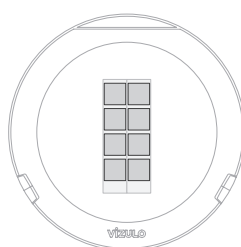
5 LED modules



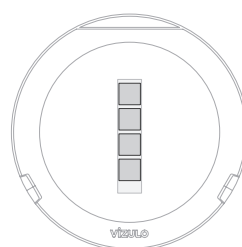
4 LED modules



3 LED modules



2 LED modules



1 LED module

Cable core count

Socket	Dimming	Model number abbreviation	Input cable core count Class I	Input cable core count Class II
None	None	N	3	2
None	DALI	D	5	4
None	Midnight dimming	M	3	2
None	Midnight dimming + DALI	R	5	4
None	Step dimming	S	5 ⁽¹⁾	4 ⁽¹⁾
None	Mains dimming	L	3	2
Zhaga	DALI	Z	3 ⁽²⁾	2 ⁽²⁾
Zhaga	Midnight dimming	X	3	2
Zhaga	Mains dimming	X	3	2
NEMA	DALI	Y	3 / 5 ⁽³⁾	2 / 4 ⁽³⁾
NEMA	Midnight dimming	X	3	2
NEMA	Step dimming	X	5 ⁽¹⁾	4 ⁽¹⁾
NEMA	Mains dimming	X	3	2

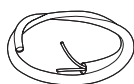
¹⁾ 1 core unused

²⁾ DALI wires used only for internal connection between driver and Zhaga socket(s)

³⁾ +2 cores for external DALI connection

Cable order information*

* Custom cable lengths available on request

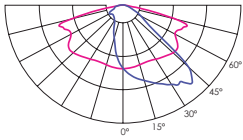


Cable length [m]	2 x 1.5 mm ²	3 x 1.5 mm ²	4 x 1.5 mm ²	5 x 1.5 mm ²
0.5	Art. 70100184	Art. 70100179	Art. 70100402	Art. 70100409
1	Art. 70100156	Art. 70100193	Art. 70000527	Art. 70100220
1.5	Art. 70100391	Art. 70100258	Art. 70100403	Art. 70100410
2	Art. 70100202	Art. 70100177	Art. 70000515	Art. 70100262
2.5	Art. 70100392	Art. 70100213	Art. 70100404	Art. 70100411
3	Art. 70100166	Art. 70100178	Art. 70000529	Art. 70100217
4	Art. 70100172	Art. 70100144	Art. 70000530	Art. 70100189
5	Art. 70100173	Art. 70100146	Art. 70000531	Art. 70100185
6	Art. 70100099	Art. 70000512	Art. 70000532	Art. 70000370
7	Art. 70100174	Art. 70100182	Art. 70000533	Art. 70100201
8	Art. 70100152	Art. 70000630	Art. 70000534	Art. 70100212
9	Art. 70100176	Art. 70000381	Art. 70000535	Art. 70100192
10	Art. 70100153	Art. 70000631	Art. 70000536	Art. 70000387
11	Art. 70100191	Art. 70100143	Art. 70000537	Art. 70000388
12	Art. 70100167	Art. 70100147	Art. 70000538	Art. 70100200
13	Art. 70100186	Art. 70100187	Art. 70000539	Art. 70100412
14	Art. 70100204	Art. 70100164	Art. 70000540	Art. 70100165
15	Art. 70100380	Art. 70100030	Art. 70000541	Art. 70100183
20	Art. 70100393	Art. 70100397	Art. 70100405	Art. 70100413
25	Art. 70100276	Art. 70100398	Art. 70100406	Art. 70100414

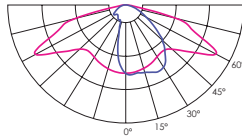
Optics

Standard modules

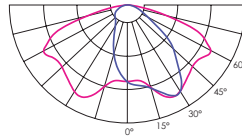
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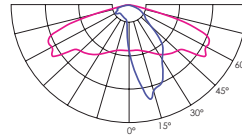
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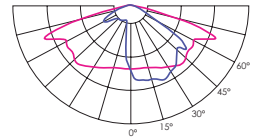
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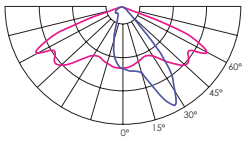
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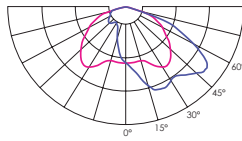
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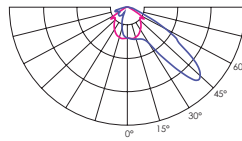
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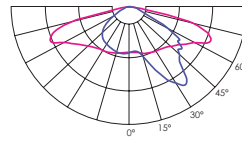
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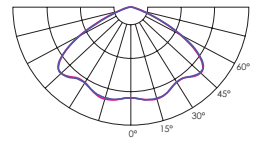
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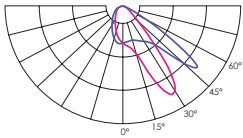
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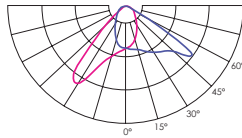
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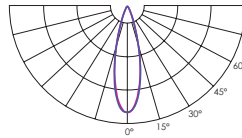
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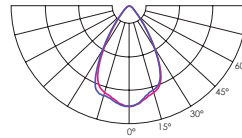
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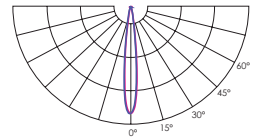
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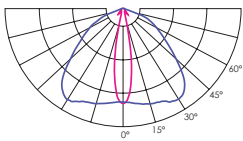
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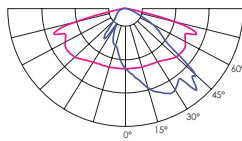
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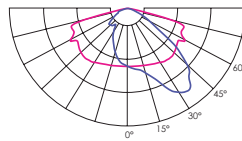
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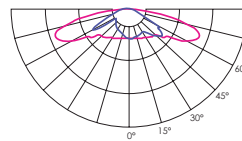
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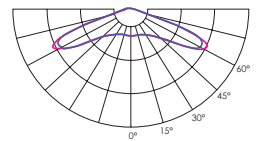
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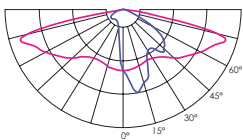
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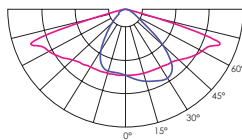
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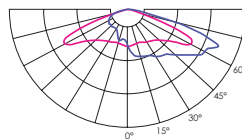
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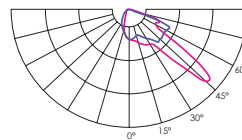
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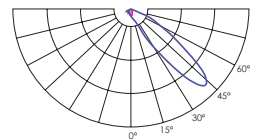
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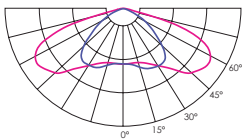
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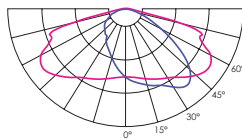
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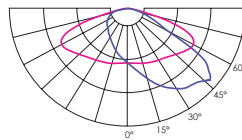
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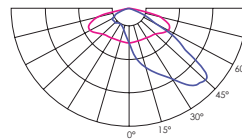
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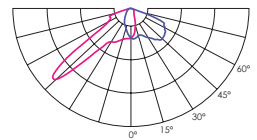
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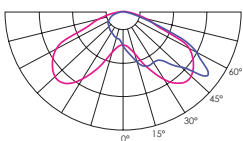
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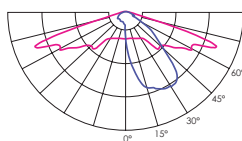
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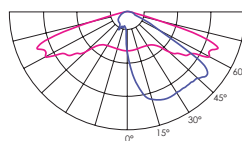
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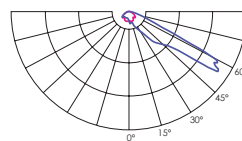
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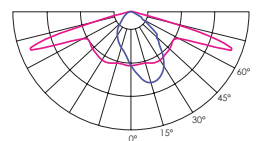
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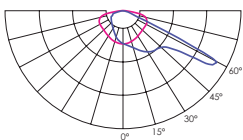
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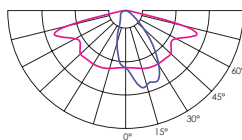
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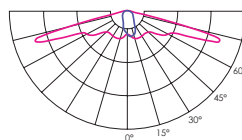
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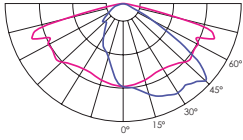


L94

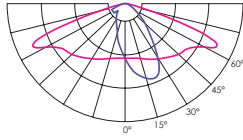


High density modules

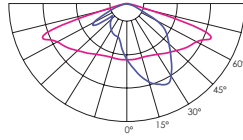
V01



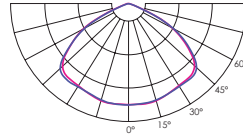
V04



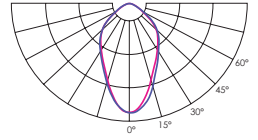
V05



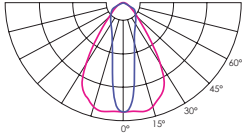
V10



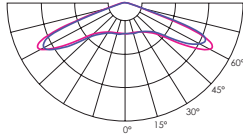
V13



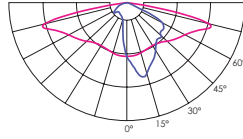
V16



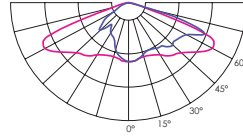
V20



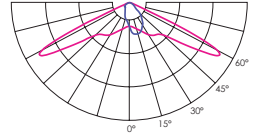
V22



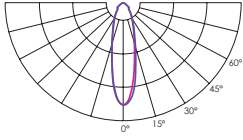
V35



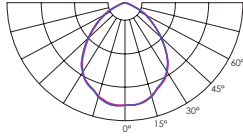
V45



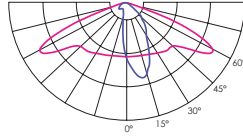
V52



V53



V57





Pedestrian crossing optics



V	198 - 264 / 110 - 277 ⁽¹⁾
Hz	50 - 60
W	5 - 150
lm	Up to 15 131 ⁽²⁾ Up to 24 057 ⁽³⁾
lm/W	Up to 164 ⁽²⁾ Up to 186 ⁽³⁾
K	2700 / 3000 / 4000 ⁽⁴⁾
°C	-40 up to +55 ⁽⁵⁾
CRI	>70 / >80 / >90 ⁽⁴⁾

Body:	Die-cast aluminium
Dimming:	DALI / 1-10 V / Midnight dimming / Step dimming / Mains dimming
Initial chromaticity:	MacAdam 5
Lifetime:	Eco 100 000 h (L90B10) at Ta = 25 °C* Standard 100 000 h (L98B10) at Ta = 25 °C*
Warranty:	5 years
Installation:	Tool-less / Pre-wired cable 30 cm ⁽⁶⁾
Mounting:	On console with G1/2 G3/4 thread
Socket:	NEMA Top / Zhaga Top and Bottom
Intelligent Control:	Stand-alone / Group / CMS
Sensor:	Motion / Motion + Daylight / Daylight
Surge protection:	4 / 6 / 10 kV ⁽⁷⁾
Nature friendly:	PC Amber / Red / 1800 K
Corrosion protection:	Up to C5
Neto weight:	Up to 9.9 kg
Max. wind load area,	
SCd:	Up to 0.04 m ²

¹⁾ Maximum operating voltage, ENEC certificate voltage 198 - 264 V, UL certificate voltage 110 - 277 V

²⁾ Standard modules, lumen output indicated at CRI > 70

³⁾ Eco modules, lumen output indicated at CRI > 70

⁴⁾ 1800 / 2200 / 3500 / 5000 / 5700 / 6500 K available on request along with other not listed CRI and CCT

⁵⁾ Operating temperature differs depending on chosen output wattage

⁶⁾ Other lengths available on request

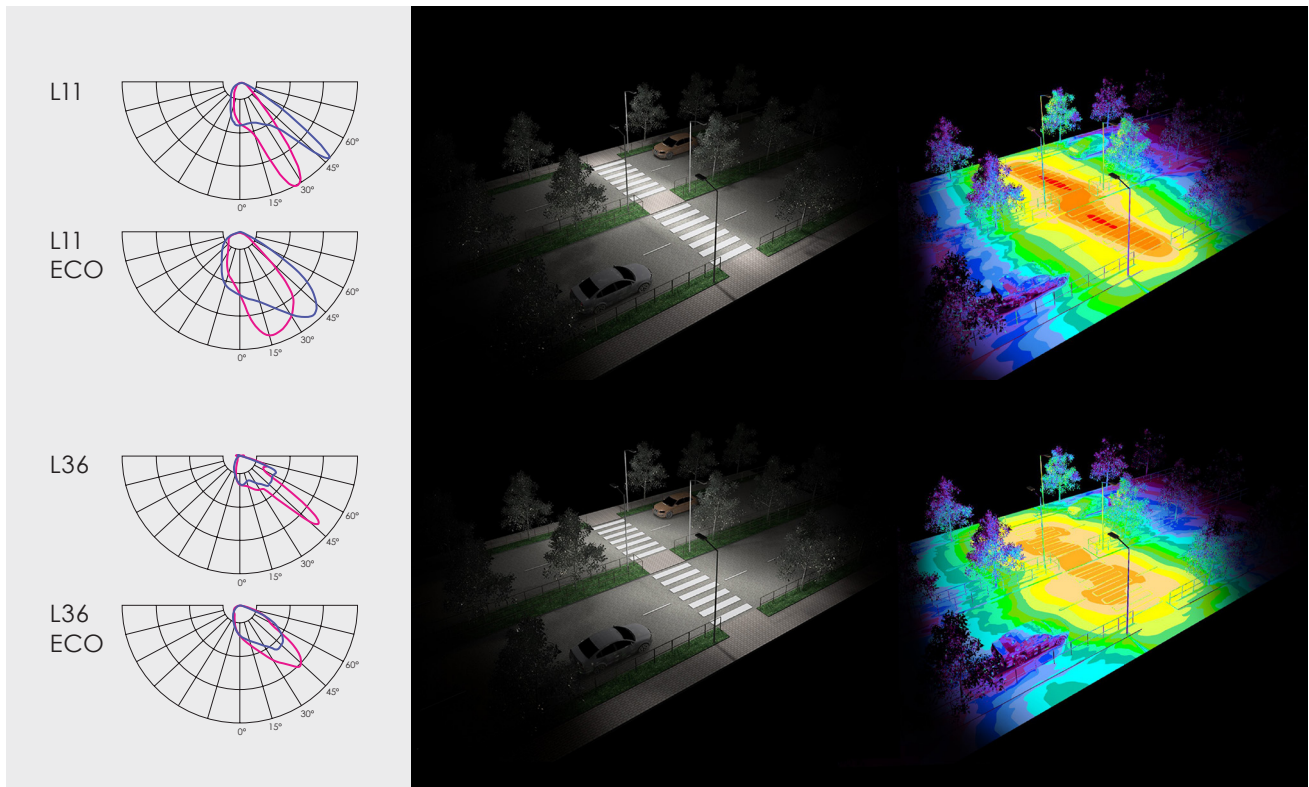
⁷⁾ 10 kV (L-N; L/N-PE) surge protection device available on request

⁸⁾ Coming soon

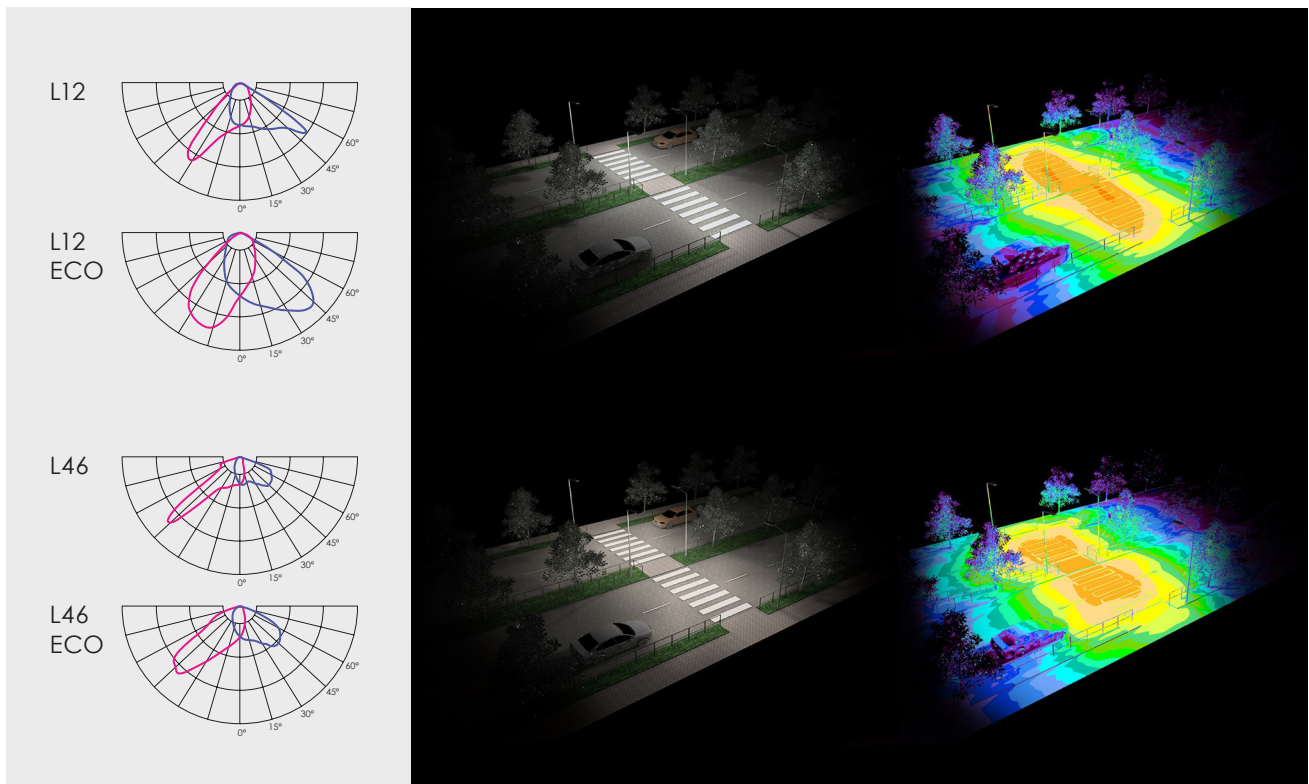
* This value is only informative and may change according to selected article. LED Lifetime is strongly depending from LEDs current and junction temperature – increase in LED current and luminaire power lead to increase of junction temperature and as consequence lifetime decrease. Thus, luminaire models with lower power, lower current (and lower junction temperature) will have higher lifetime than standard models. And high power and high current luminaire models may have negative lifetime deviation comparing to standard models. To receive precise value please contact VIZULO export representatives.

Technical parameters for final product can differ from typical data by 7% due to special conditions of LED manufacturing processes.

Right side traffic



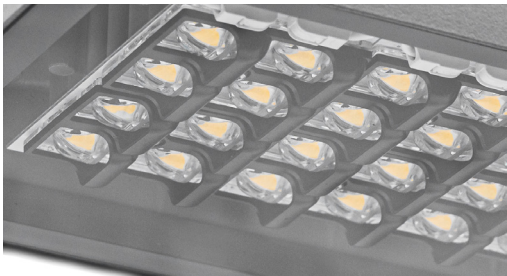
Left side traffic



Backlight cutter

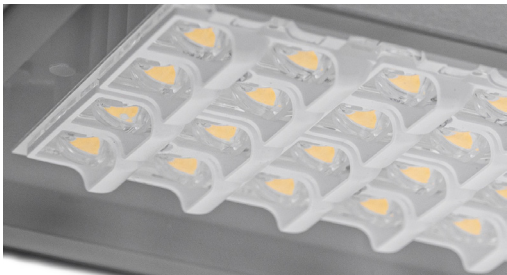
Backlight cutter | black

Art. 70000661



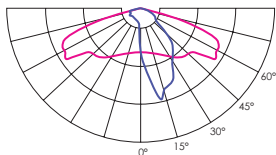
Backlight cutter | white

Art. 70000662

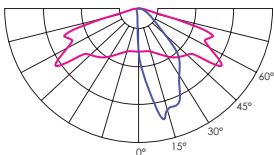


Optical losses from 10% to 31% depending from used optic.

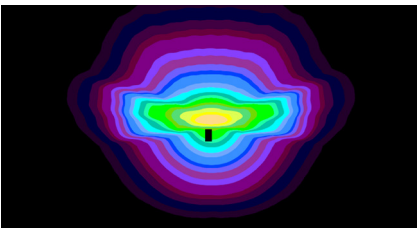
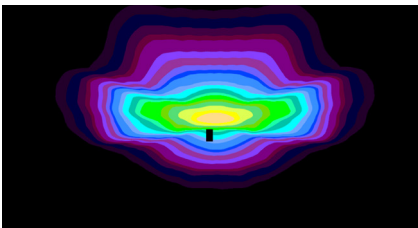
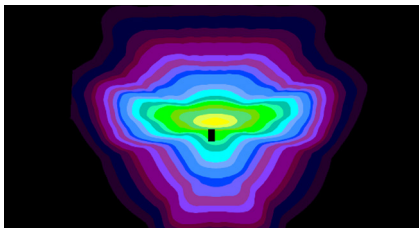
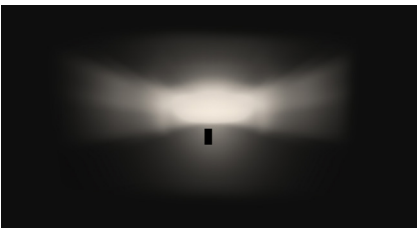
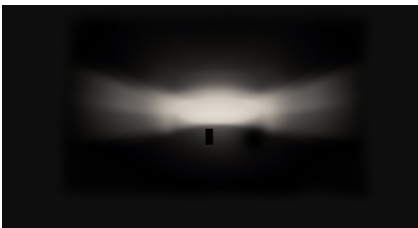
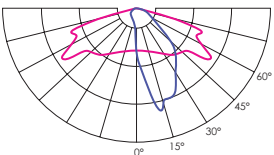
Without backlight cutter



Backlight cutter | black



Backlight cutter | white

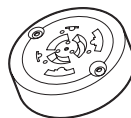


Accessories

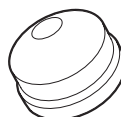
NEMA Socket

operating temperature up to 105 °C

2213362-3, 5 pin NEMA socket Art. 70000362
2213362-4, 7 pin NEMA socket Art. 70000333

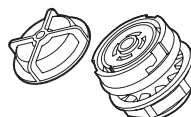


Dummy Link for NEMA Socket Art. 70000113



Zhaga Socket

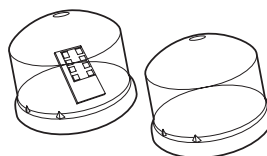
with cap Art. 70000613
without cap Art. 70000612



Luminaire controller for Zhaga-standard connectors

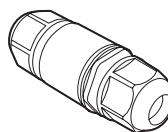
ø 80 mm

MSLC205RG controller with radar Art. 70010027
MSLC205RGL controller Art. 70010029



IP68 rated wire cable connector

2 wire cable connector Art. 70000676
3 wire cable connector Art. 70000677
4 wire cable connector Art. 70000725
5 wire cable connector Art. 70000678



Certification



CE – conformity with European Union's health, safety and environmental protection standards

The CE mark is placed on products to state conformity with the relevant EU health, safety and environmental protection standards. In case of electronic products, the standards are, for example, the Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) directive, Waste Electrical and Electronic Equipment (WEEE) directive, the Electromagnetic Compatibility (EMC) directive etc. The mark ensures that the product can be sold anywhere in the European Economic Area (EEA).



UKCA - conformity with the relevant essential requirements of Great Britain

UKCA is a product mark intended to demonstrate compliance with the directives set by Great Britain (England, Scotland and Wales). It is analogous to the European Union's CE marking, meaning that depending on the type of product the applicable regulations are different. In case of LED lighting, the relevant requirements are compliance with the Electromagnetic Compatibility Regulations, the Electrical Equipment (Safety) Regulations, the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations and the Ecodesign for Energy-Related Products and Energy Information (Lighting Products) Regulations.



RoHS – compliance with European Union's RoHS directive

The RoHS (Restriction of Hazardous Substances in Electrical and Electronic Equipment) directive restricts (with exceptions) the use of ten hazardous materials in the manufacture of various types of electronic and electrical equipment. The aim of the directive is to prevent the risks posed to human health and the environment related to the management of electronic and electrical waste.



UL - compliance with UL standards for LED lighting **[Coming soon]**

UL stands for Underwriter Laboratories, a third-party certification company that's been around for over a century. UL sets industry-wide standards for products and performs testing according to these standards to ensure that the products marked with the UL mark are safe and high quality.



Zhaga-D4i - compliance with the requirements of Zhaga Book 18 or 20 and DALI standard

The Zhaga-D4i Mark represents the fact that a product is certified following the Zhaga-D4i joint certification program – a program established by Zhaga and the DALI Alliance (DiiA). The Zhaga part of the Mark represents that a product meets the requirements of Zhaga Book 18 or 20 – Zhaga standards that describe a smart interface between outdoor luminaires and sensing/ communication nodes. The DALI Alliance part of the Mark signifies that the product conforms with the DALI standard for intelligent, IoT-ready luminaires.



ENEC - compliance with European standards for electrical equipment

The ENEC Mark is the high quality European Mark for electrical equipment. It is governed by the European Testing Inspection Certification System which ensures that the testing of products is conducted at ENEC – accredited laboratories, following additional requirements regarding the testing procedures. The ENEC Mark means that the testing procedure was followed scrupulously and that the consumer can be certain of the product's safety and quality.



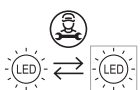
ENEC+ - compliance with European standards for LED – based electronic products

The ENEC+ Mark is the high quality European Mark for LED – based electronic products. It demonstrates the product's compliance with the IEC standards for performance of LED modules and LED based luminaires. The ENEC+ Mark can only be granted to a product that has already acquired the ENEC Mark.



International EPD System – Environmental Product Declaration available **[Coming soon]**

An Environmental Product Declaration (EPD) is a declaration of the materials, energy, transportation and other resources involved in the production, use and end-of life of a specific product. It is based on a Life Cycle Assessment (LCA) study that complies with standards EN ISO 14040 and EN ISO 14044. A product's EPD can help evaluate its impact on the environment and make sustainable choices.



LED module replaceable by a professional

This pictogram shows that the LED modules included in the luminaire are only replaceable by a professional. This labeling is a requirement following the introduction of European Union's Regulation on energy labelling for light sources (EU) 2019/2015.



LED driver replaceable by a professional

This pictogram shows that the LED driver included in the luminaire is only replaceable by a professional. This labeling is a requirement following the introduction of European Union's Regulation on energy labelling for light sources (EU) 2019/2015.



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