VIZULO

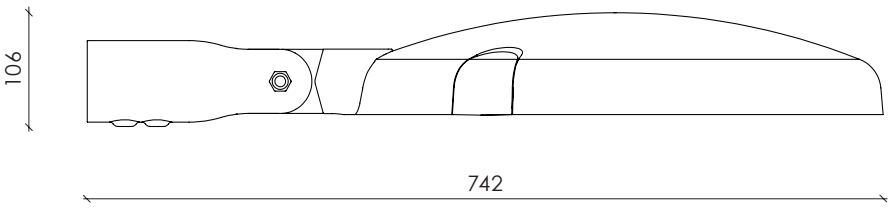
LAPWING

Side entry | Tool-less

Lapwing side entry tool-less

RAL7035 RAL9006 DB703 RAL9005

Other colors
available on request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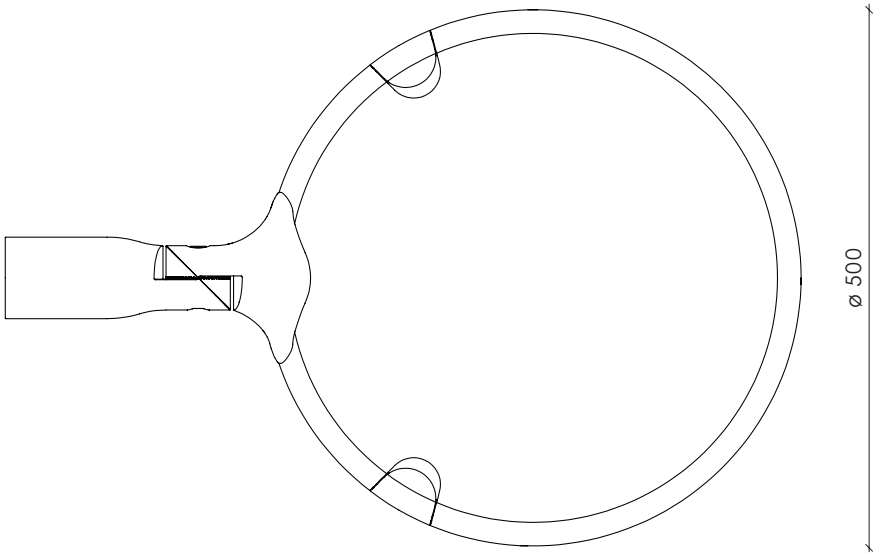
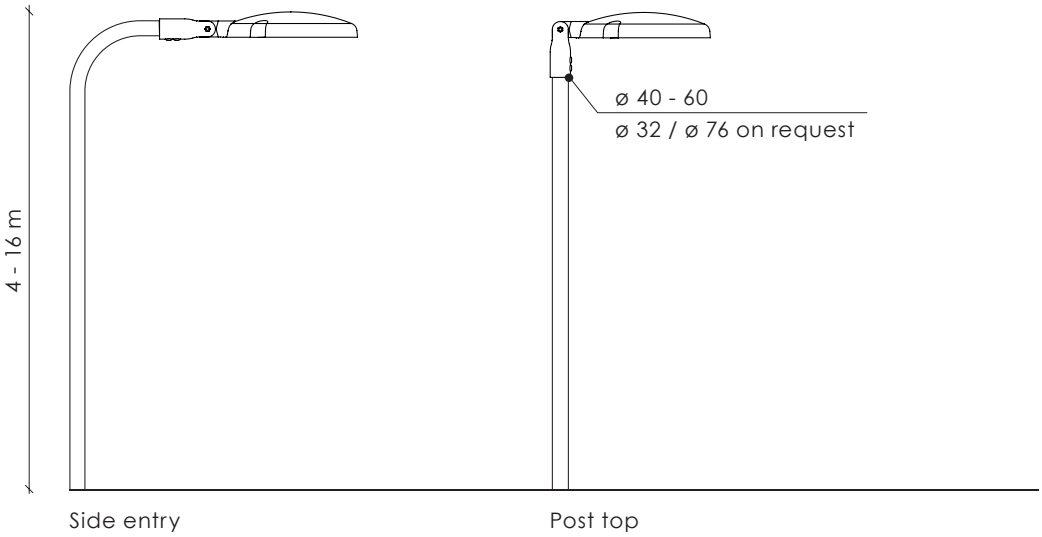

ø 500


4 - 16 m
ø 40 - 60
ø 32 / ø 76 on request
Side entry
Post top

Technical information

V	198 - 264 / 110 - 277 [1]
Hz	50 - 60
W	5 - 150
lm	Up to 24057 [2]
lm/W	Up to 186
K	2700 / 3000 / 4000 / TW 2700 - 6500 [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:	32 - 40 mm [6] / 40 - 60 mm / 76 mm [6]
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

1) Maximum operating voltage, ENEC certificate voltage 220 - 240 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) Achievable with an adapter for 40 - 60 mm spigot

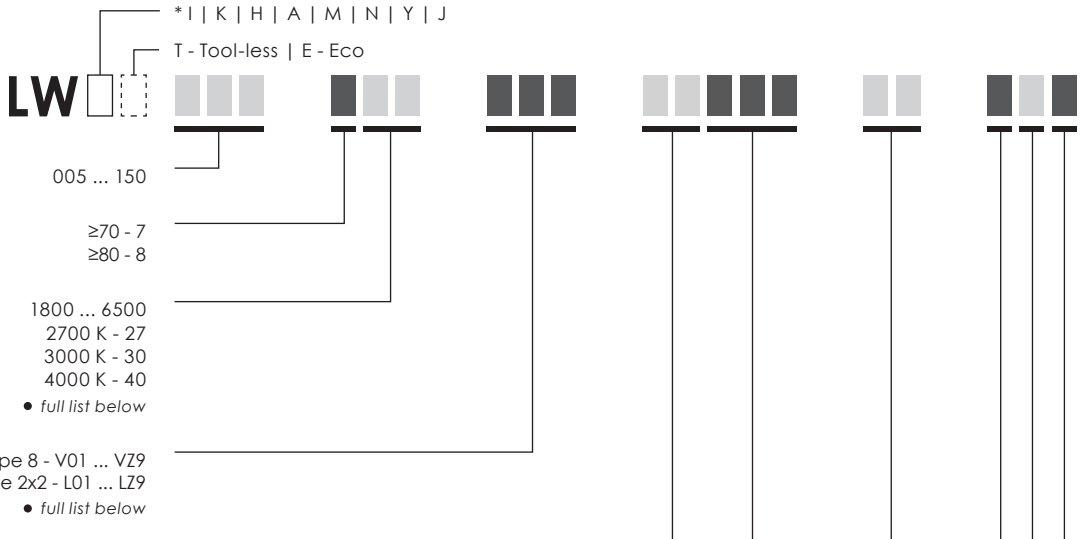
7) 10 kV (L-N; L/N-PE) surge protection device available on request

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.

Model name principles



Power [W] 005 ... 150

Color rendering index
≥70 - 7
≥80 - 8

Color temperature [K] 1800 ... 6500
Standard values:
2700 K - 27
3000 K - 30
4000 K - 40
• *full list below*

Lens
type 8 - V01 ... VZ9
type 2x2 - L01 ... LZ9
• *full list below*

LED module type
16 LEDs, type 2x2 lens - AB
16 LEDs, type 8 lens - AF
32 LEDs, type 1 lens - BJ
• *full list below*

LED quantity 004 ... 160

Color
black (RAL 9005) - CB
silver (RAL 9006) - CS
asphalt (DB 703) - CA
other colors available on request

Dimming
non dimmable - N
DALI - D
1-10 V - A
midnight dimming - M
NEMA socket (DALI) - Y
Zhaga socket (DALI) - Z
• *full list below*

Surge protector
6 kV ... 10 kV integrated in driver - G
separate built-in 10 kV/10 kA SPD - H
separate built-in 30 kV/15 kA SPD - K

Insulation
class I - 1
class II - 2

EXAMPLE LWIT 050 730 L01 AB032 CB DG1

• Full list of options

Color temperature [K]

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

Lens

type 8 - V01 ... VZ9
type 2x2 - L01 ... LZ9
type 6x1 - T01 ... TZ9
type 12 - Y01 ... YZ9
type 1 - Z01 ... ZZ9
custom configuration - M01 ... NZ9

LED module type

8 LEDs, type 2x2 lens - AA
16 LEDs, type 2x2 lens - AB
16 LEDs, type 8 lens - AF
32 LEDs, type 8 lens - AG
48 LEDs, type 2x2 lens - BE
96 LEDs, type 8 lens - BF
8 LEDs, type 8 lens - BH
24 LEDs, type 1 lens - BJ
24 LEDs, type 2x2 lens - BL
48 LEDs, type 8 lens - BM
48 LEDs, type 1 lens - BN
80 LEDs, type 1 lens - BP
16 LEDs, type 4x2 lens - BT
32 LEDs, type 4x2 lens - BU

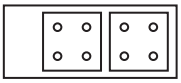
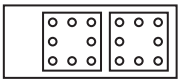
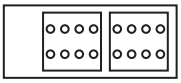
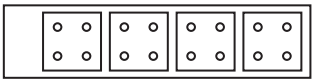
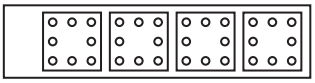
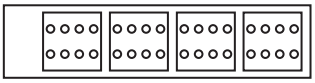
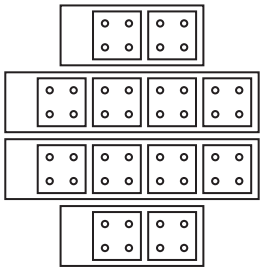
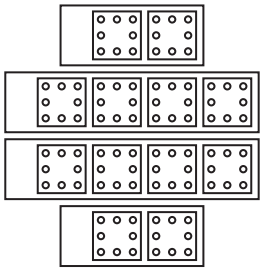
Dimming

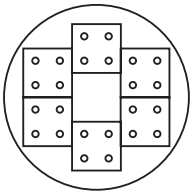
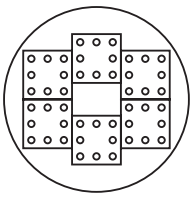
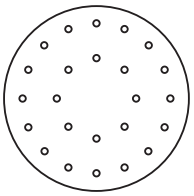
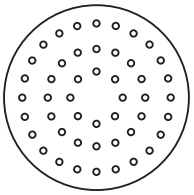
non dimmable - N
DALI - D
1-10 V - A
midnight dimming - M
midnight dimming + DALI - R
step dimming - S
mains dimming - L
wireless - W
NEMA socket (DALI) - Y
Zhaga socket (DALI) - Z
**custom configuration - X

* I - Post-top / Side-entry, ±90° (60 mm) | K - Post-top / Side-entry, ±90° (76 mm) | H - Hanging | A - Top-entry | M - Mushroom (60 mm) | N - Mushroom (76 mm) | Y - Y-type console | J - J-type console

** 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 quantity	Min LED quantity per module	Max LED quantity per module	Max LED quantity per luminaire	LED step	LED type	Lens type	Layout
AA	5	4	8	40	2	Standard Eco	type 2x2 L01…LZ9	
AF	5	4	16	80	4	Standard	type 8 V01…VZ9	
BT	5	4	16	80	4	Standard	type 4x2 B01…BZ9	
AB	5	8	16	80	2	Standard Eco	type 2x2 L01…LZ9	
AG	5	16	32	160	4	Standard	type 8 V01…VZ9	
BU	5	16	32	160	4	Standard	type 4x2 B01…BZ9	
BE	1	40	48	48	2	Standard Eco	type 2x2 L01…LZ9	
BF	1	72	96	96	4	Standard	type 8 V01…VZ9	

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

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

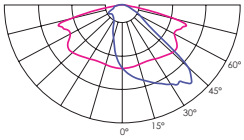
[2] DALI wires used only for internal connection between driver and Zhaga socket(s)

[3] +2 cores for external DALI connection

Optics

Standard modules

L01



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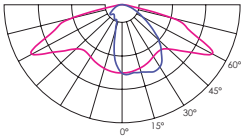

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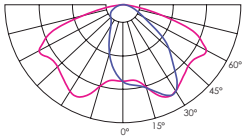

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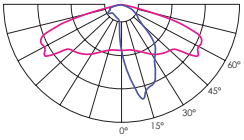

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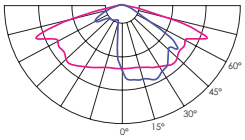

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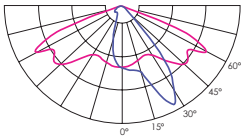

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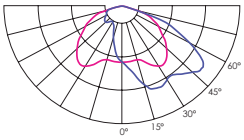

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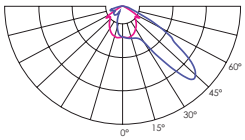

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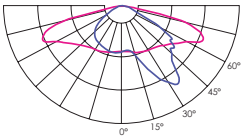

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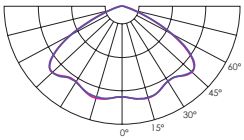

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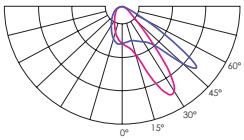

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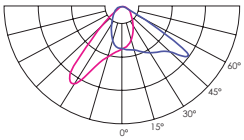

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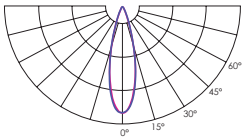

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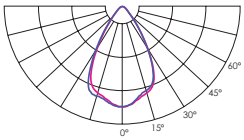

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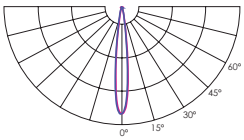

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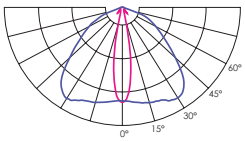

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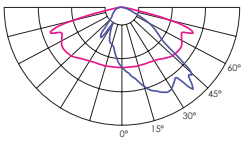

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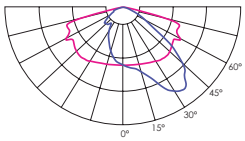

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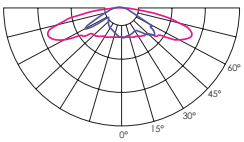

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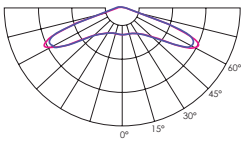

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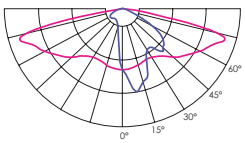

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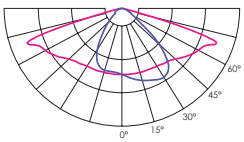

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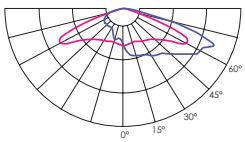

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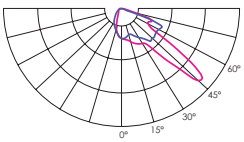

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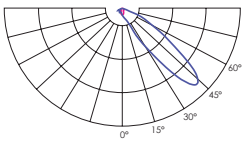

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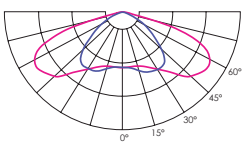

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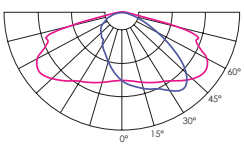

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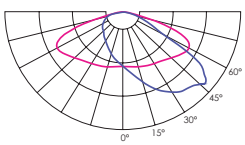
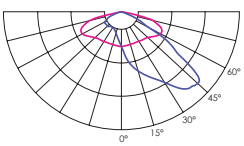
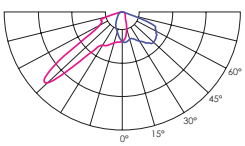


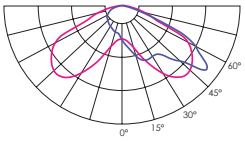
L42



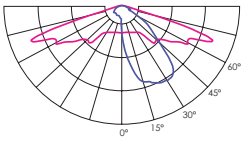
L46



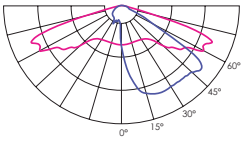
L55



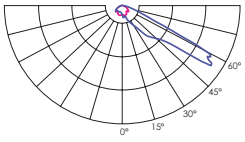
L56



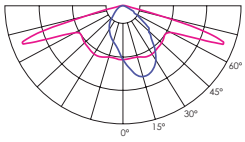
L58



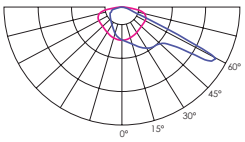
L60



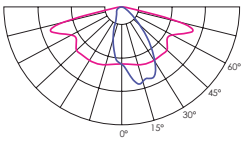
L63



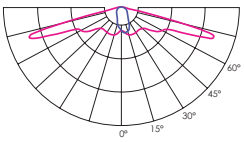
L66



L90

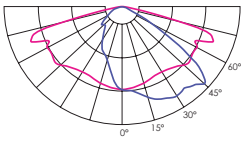


L94

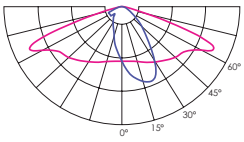


High density modules

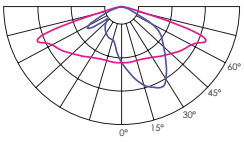
V01



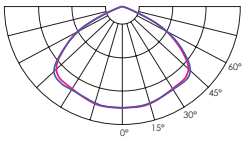
V04



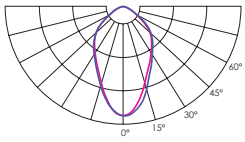
V05



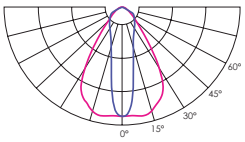
V10



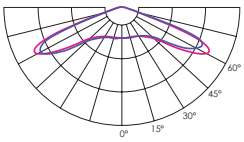
V13



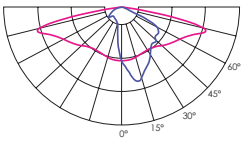
V16



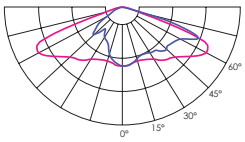
V20



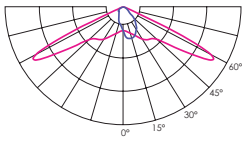
V22



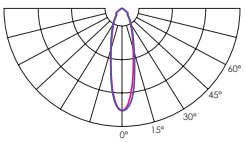
V35



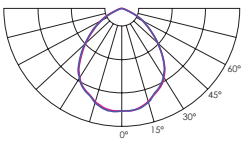
V45



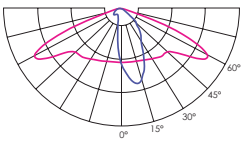
V52



V53



V57



Pedestrian crossing optics

IP66 IK10 RoHS

V	198 - 264 / 110 - 277 [1]
Hz	50 - 60
W	5 - 150
lm	Up to 15131 [2]
	Up to 24057 [3]
lm/W	Up to 164 [2]
	Up to 186 [3]
K	2700 / 3000 / 4000 /
	TW 2700 - 6500 [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:	32 - 40 mm [7] / 40 - 60 mm / 76 mm [7]
Socket:	NEMA Top / Zhaga Top and Bottom
Intelligent Control:	Stand-alone / Group / CMS
Sensor:	Motion / Motion + Daylight / Daylight
Surge protection:	4 / 6 / 10 kV [8]
Nature friendly:	PC Amber / Red / 1800 K
Corrosion protection:	Up to C5

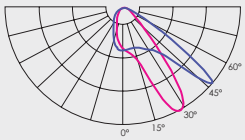
1) Maximum operating voltage, ENEC certificate voltage 220 - 240 V, UL certificate voltage 110 - 277 V
2) Standard modules, lumen output indicated at CRI > 70
3) ECO modules, lumen output indicated at CRI > 70
4) 1800 / 2200 / 3500 / 5000 / 5700 / 6500 K available on request along with other not listed CRI and CCT
5) Operating temperature differs depending on chosen output wattage
6) Other lengths available on request
7) Achievable with an adapter for 40 - 60 mm spigot
8) 10 kV (L-N; L/N-PE) surge protection device available on request
9) 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.

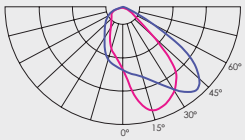
Technical parameters for final product can differ from typical data by 7% due to special conditions of LED manufacturing processes.

Right side traffic

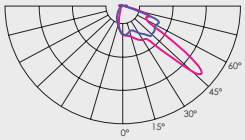
L11



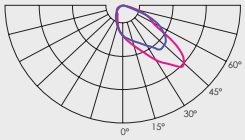
L11
ECO

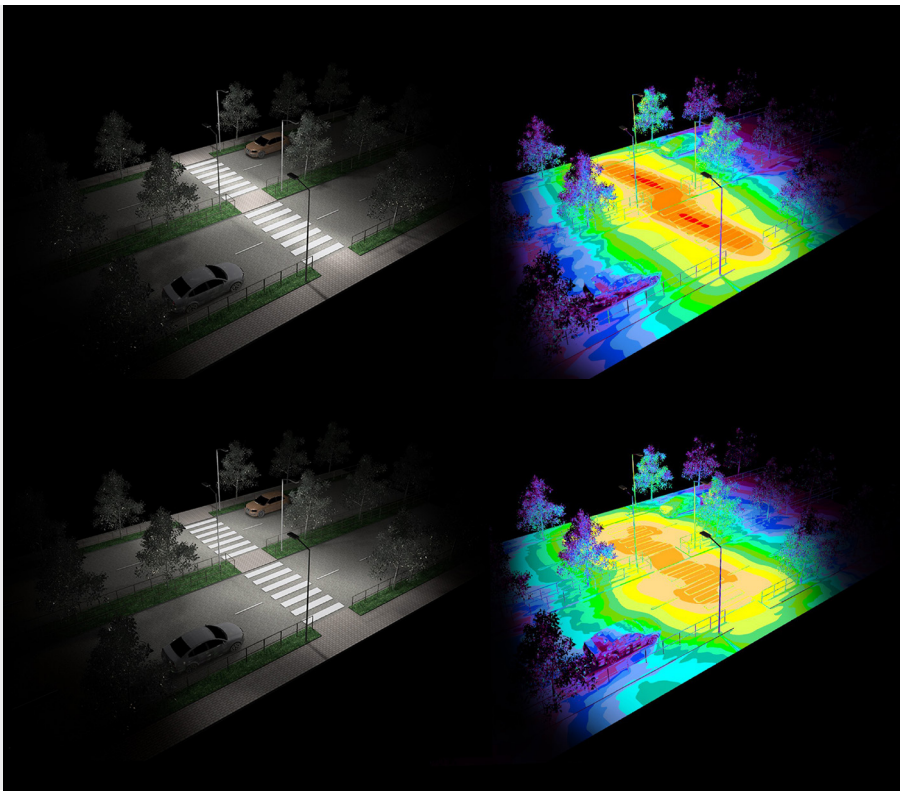


L36



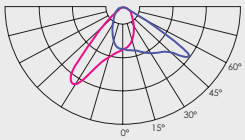
L36
ECO



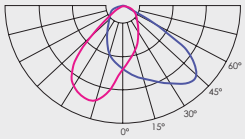


Left side traffic

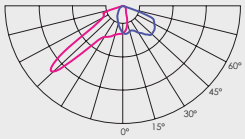
L12



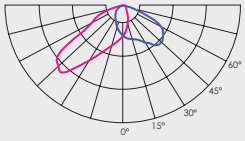
L12
ECO

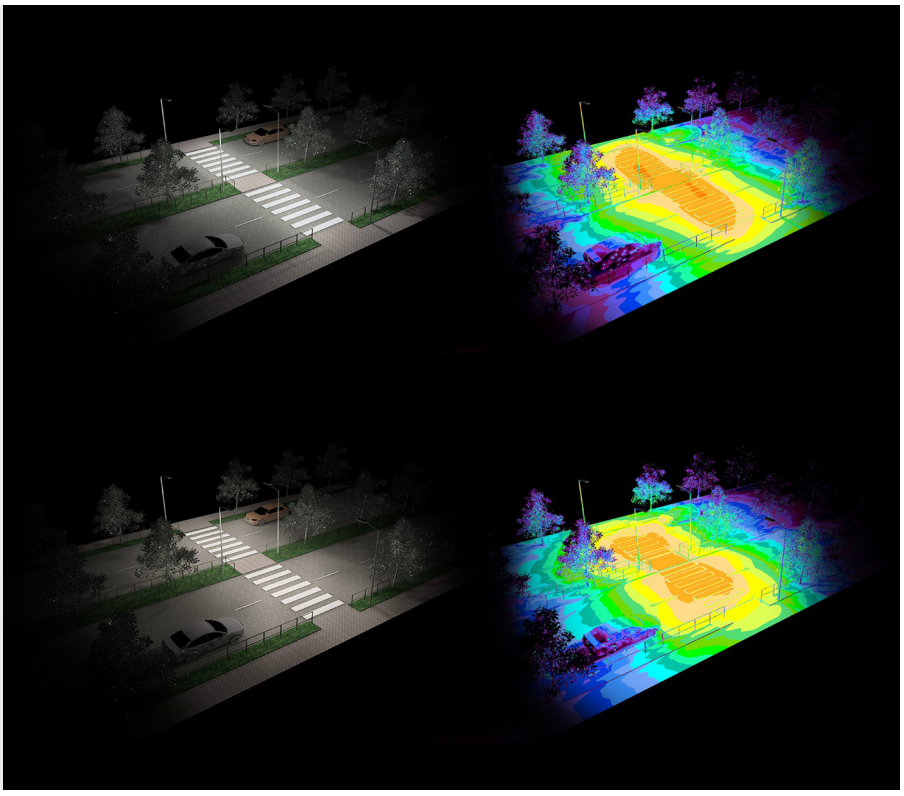


L46



L46
ECO

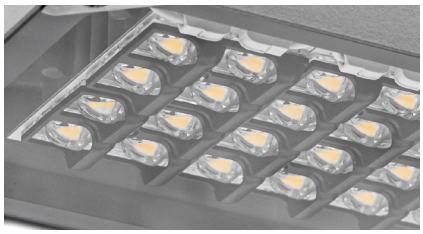




Backlight cutter

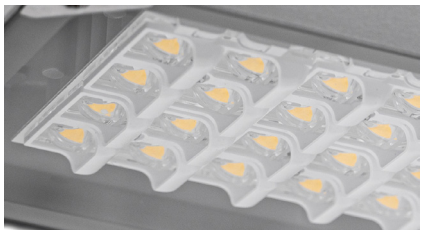
Backlight cutter | black

Art. 70000661



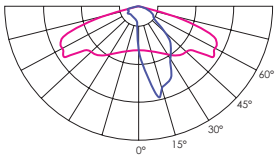
Backlight cutter | white

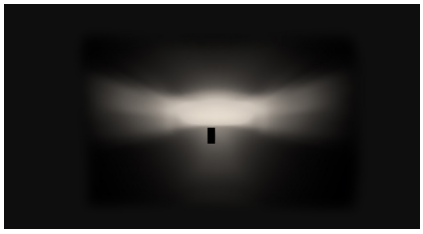
Art. 70000662

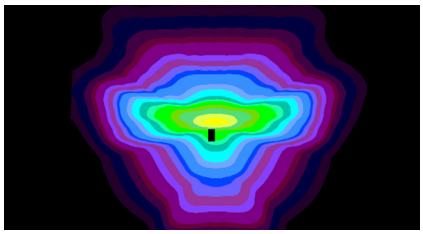


Optical loses from 10% to 31% depending from used optic.

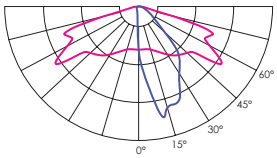
Without backlight cutter

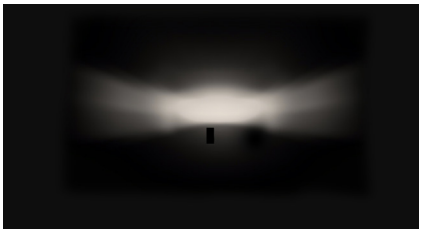


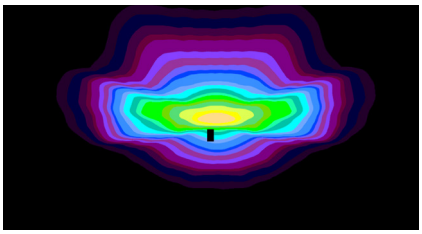




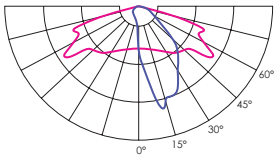
Backlight cutter | black

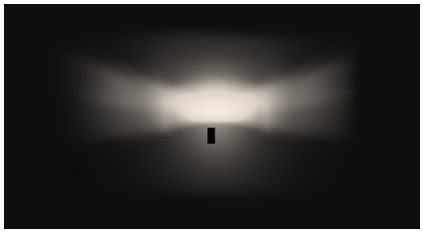


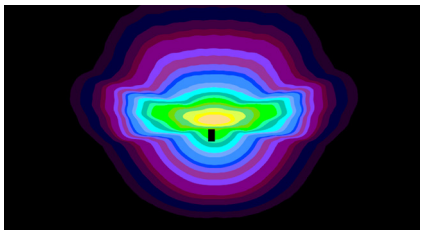




Backlight cutter | white





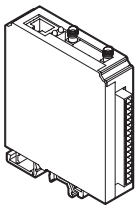


Accessories

MAUGLO Segment controller

Segment Controller receives commands from MAUGLO server via GSM and transmits tasks to Luminaire Controller via radio frequency communication.

Art. 70010004

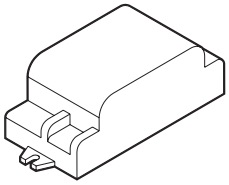


MAUGLO Luminaire controller

Luminaire Controller is wireless mesh-networking device that uses 868 MHz for communication with Segment Controller and other Luminaire Controllers. It is delivered in various configurations to meet the needs of your applications.

Art. 70010001 / LC2M-23-05-R Luminaire Controller - 2 relays

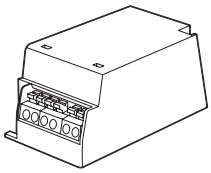
Art. 70010002 / LC2M-12-05-R Luminaire Controller - 1 relay



MAUGLO Surge Protection device

Surge Protection device offersprotection against lighting surges;
Voltage Protection level up (L-N) ≤ 1,5 kV
Voltage Protection level up (L/N-PE) ≤ 2,0 kV
U_{oc} = 10 kV
I_{max} = 10 kA
I_{nom} = 5 kA

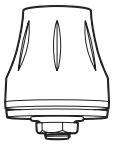
Art. 70020001



Radio Frequency Antenna

Heavy duty IP67 enclosure
Mounted in cabinet or luminaire body with 14 mm screw
SMA connector

Art. 70000108



NEMA Socket

2213362-3, 5 pin NEMA socket 105°C wires *Art. 70000362*

2213362-4, 7 pin NEMA socket 105°C wires *Art. 70000333*

Dummy Link for NEMA Socket

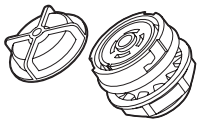
Art. 70000113

Zhaga socket no cap

Art. 70000612

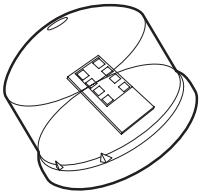
Zhaga socket with cap

Art. 70000613



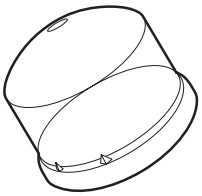
MSLC205RG Luminaire controller + radar, Zhaga, 80 mm

Art. 70010027



MSLC205RGL Luminaire controller, Zhaga, 80 mm

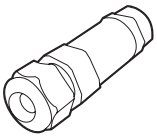
Art. 70010029



Connector

Art. 70000313

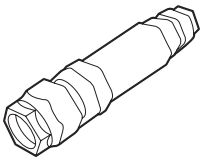
IP66 rated connector offers easy installation of the street luminaires.
3 wire cable connector



Connector

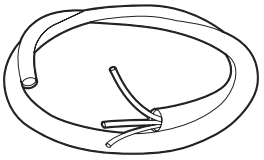
Art. 70000304

IP66 rated connector offers easy installation of the street luminaires.
5 wire cable connector

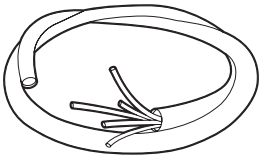


Pre-installed cable sets
For internal power supply

3 x 1,5 mm - 0,5 m long cable ..... *Art. 70000319*
3 x 1,5 mm - 5 m long cable ..... *Art. 70000320*
3 x 1,5 mm - 6 m long cable ..... *Art. 70000321*
3 x 1,5 mm - 8 m long cable ..... *Art. 70000322*
3 x 1,5 mm - 10 m long cable ..... *Art. 70000323*
3 x 1,5 mm - 12 m long cable ..... *Art. 70000324*
3 x 1,5 mm - 18 m long cable ..... *Art. 70000325*
3 x 1,5 mm - 20 m long cable ..... *Art. 70000425*
3 x 1,5 mm - 22 m long cable ..... *Art. 70000426*
3 x 1,5 mm - 25 m long cable ..... *Art. 70000427*
3 x 1,5 mm - 32 m long cable ..... *Art. 70000430*
3 x 1,5 mm - 42 m long cable ..... *Art. 70000431*
3 x 1,5 mm - 50 m long cable ..... *Art. 70000432*



5 x 1,5 mm - 0,5 m long cable ..... *Art. 70000305*
5 x 1,5 mm - 5 m long cable ..... *Art. 70000316*
5 x 1,5 mm - 6 m long cable ..... *Art. 70000317*
5 x 1,5 mm - 8 m long cable ..... *Art. 70000318*
5 x 1,5 mm - 10 m long cable ..... *Art. 70000306*
5 x 1,5 mm - 12 m long cable ..... *Art. 70000307*
5 x 1,5 mm - 18 m long cable ..... *Art. 70000308*
5 x 1,5 mm - 20 m long cable ..... *Art. 70000428*
5 x 1,5 mm - 22 m long cable ..... *Art. 70000429*
5 x 1,5 mm - 25 m long cable ..... *Art. 70000429*
5 x 1,5 mm - 32 m long cable ..... *Art. 70000433*
5 x 1,5 mm - 42 m long cable ..... *Art. 70000434*
5 x 1,5 mm - 50 m long cable ..... *Art. 70000435*



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 **[Coming soon]**

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 **[Coming soon]**

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.

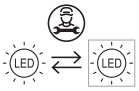
ENEC+ - compliance with European standards for LED – based electronic products **[Coming soon]**

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]**

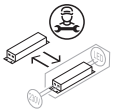
An Environmental Product Declaration (EPD) is a declaration of the materials, energy, transportation and other resources involved in the production, use and end-of life of a specific product. It is based on a Life Cycle Assessment (LCA) study that complies with standards EN ISO 14040 and EN ISO 14044. 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 folowing the introdution 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 folowing the introdution of European Union's Regulation on energy labelling for light sources (EU) 2019/2015.

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