# **VIZULO**



# Lapwing

POST TOP

# Lapwing post top







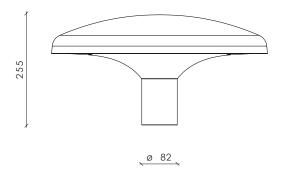
RAL7035 RAL9006 DB703

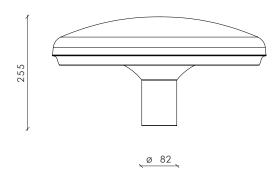




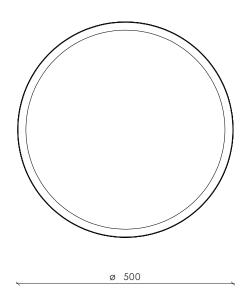
RAL9005

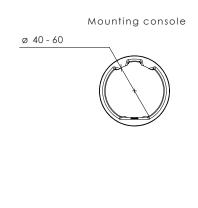
Other colors available on request





Dimensions with Halo





### Technical information























**V** 198 - 264 / 110 - 277 (1

**Hz** 50 - 60 **W** 5 - 130

Im Up to 18850 (2 Im/W Up to 160

**K** 2700 / 3000 / 4000 / TW 2700 - 6500 <sup>(3</sup>

°C -40 to +50 | 5 - 100 W

-40 to +35 | 100 - 130 W

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 (4)Mounting:32 - 40 mm (5 / 40 - 60 mm / 76 mm (5)Socket:NEMA / Top and Bottom ZhagaIntelligent Control:Stand-alone / Group / CMS

**Sensor:** Motion / Motion + Daylight / Daylight

Surge protection:  $4 / 6 / 10 \text{ kV}^{-16}$ 

Nature friendly: PC Amber / Red / 1800 K

**Corrosion protection:** Up to C5 **Neto weight:** Up to 9.5 kg

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

<sup>&</sup>lt;sup>1)</sup> Maximum operating voltage, ENEC certificate voltage 220 - 240 V, UL certificate voltage 110 - 277 V

<sup>&</sup>lt;sup>2)</sup> Lumen output indicated at CRI > 70

<sup>3)</sup> Available on request along with other not listed CRI and CCT

<sup>4)</sup> Other lengths available on request

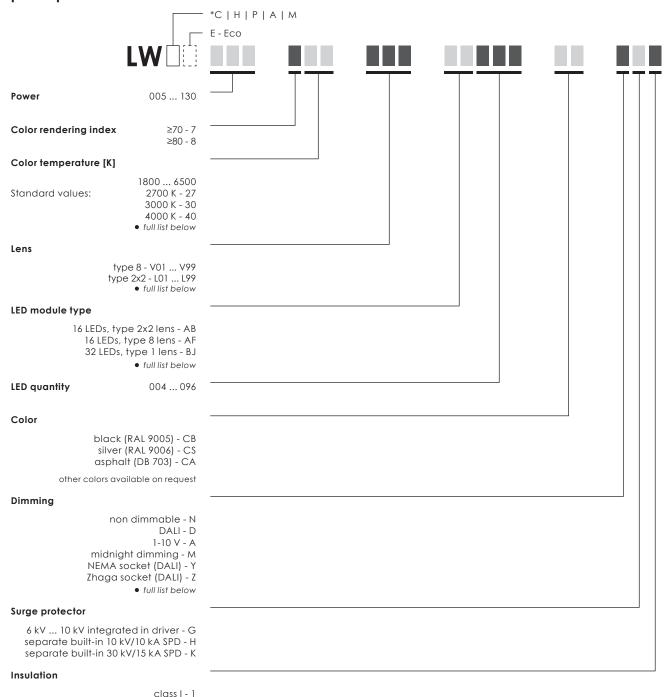
<sup>5)</sup> Achievable with an adapter for 40 - 60 mm spigot

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

<sup>7)</sup> Coming soon

<sup>\*</sup>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.

#### Model name principles



#### • Full list of options

Color temperature [K] Lens 1800 ... 6500 2700 K - 27 type 8 - V01 ... V99 type 2x2 - L01 ... L99 type 6x1 - T01 ... T99 3000 K - 30 type 12 - Y01 ... Y99 4000 K - 40

class II - 2

Tunable White 2700-6500 - TW Nature Friendly Red - NR Nature Friendly Amber - NA Nature Friendly 1800 K - NK

type 1 - Z01 ... Z99 custom configuration - M01 ... N99

#### 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

LED module type

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

#### Dimming

**EXAMPLE** LWP 050 730 L01 AB032 CB DG1

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

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

<sup>\*</sup> C - Street (side-entry) | H - Hanging | P - Post-top | A - Top-entry | M - Mushroom (42 - 60 mm)

<sup>\*\*</sup> CUSTOM CONFIGURATION EXAMPLE:

## **LED** modules

Туре	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 L01L79	
ВМ	1	24	48	48	-	Standard	type 8 V01VZ9	
ВЈ	1	8	24	24	2	Standard Eco	type 1 Z01ZZ9	
ВР	1	80	80	80	-	Standard	type 1 Z01ZZ9	

### 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	М	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	Χ	3	2
Zhaga	Mains dimming	Χ	3	2
NEMA	DALI	Υ	3 / 5 (3	2 / 4 (3
NEMA	Midnight dimming	Χ	3	2
NEMA	Step dimming	Х	5 (1	4 (1
NEMA	Mains dimming	Χ	3	2

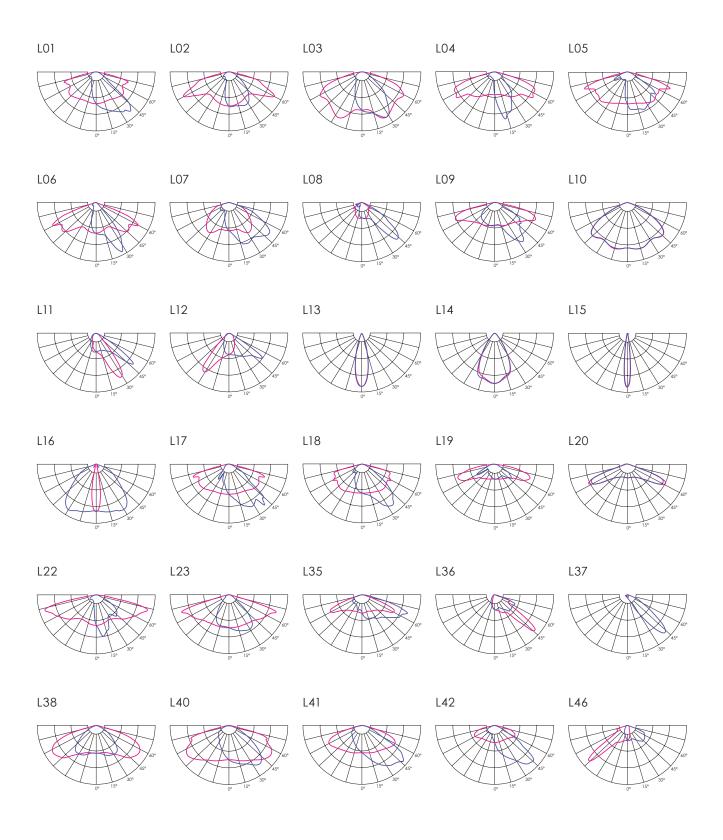
<sup>&</sup>lt;sup>(1</sup> 1 core unused

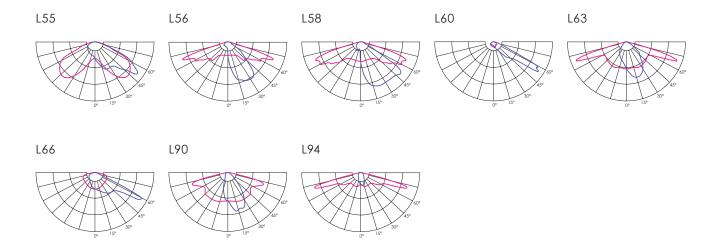
 $<sup>\</sup>sp(2)$  DALI wires used only for internal connection between driver and Zhaga socket(s)

<sup>(3 +2</sup> cores for external DALI connection

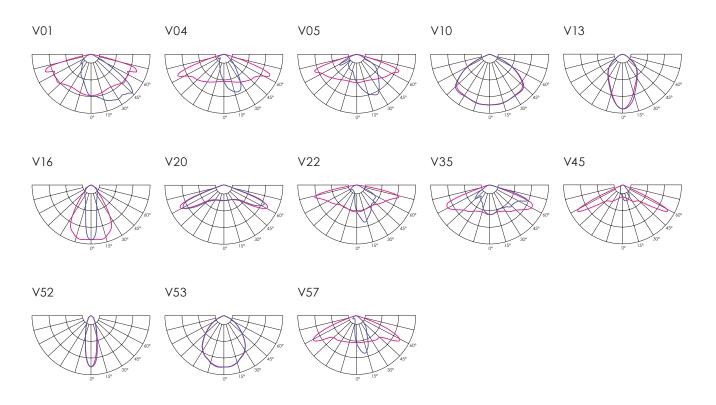
# **Optics**

### Standard modules





### High density modules





### Pedestrian crossing optics



























198 - 264 / 110 - 277 (1

50 - 60 Ηz 5 - 130 Up to 18850 (2 lm

Up to 160

2700 / 3000 / 4000 / TW 2700 - 6500 (3

°С -40 to +50 | 5 - 100 W

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Initial chromaticity: MacAdam 5

Lifetime: Eco 100 000 h (L90B10) at  $Ta = 25 \, ^{\circ}C^{*}$ 

Standard 100 000 h (L98B10) at  $Ta = 25 \, ^{\circ}\text{C}^{*}$ 

Warranty: 5 years

Installation: Tool-less / Pre-wired cable 30 cm (4) Mounting: 32 - 40 mm (5 / 40 - 60 mm / 76 mm (5 Socket: NEMA / Top and Bottom Zhaga Intelligent Control: Stand-alone / Group / CMS

Sensor: Motion / Motion + Daylight / Daylight

4 / 6 / 10 kV (6 Surge protection:

Nature friendly: PC Amber / Red / 1800 K

Corrosion protection: Up to C5 Neto weight: Up to 9.5 kg

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

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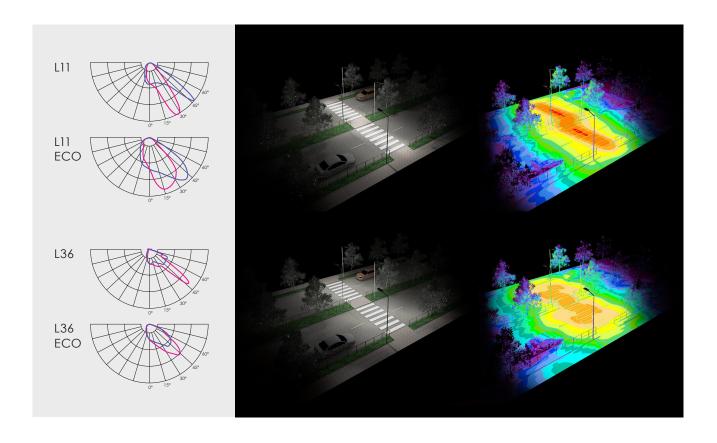
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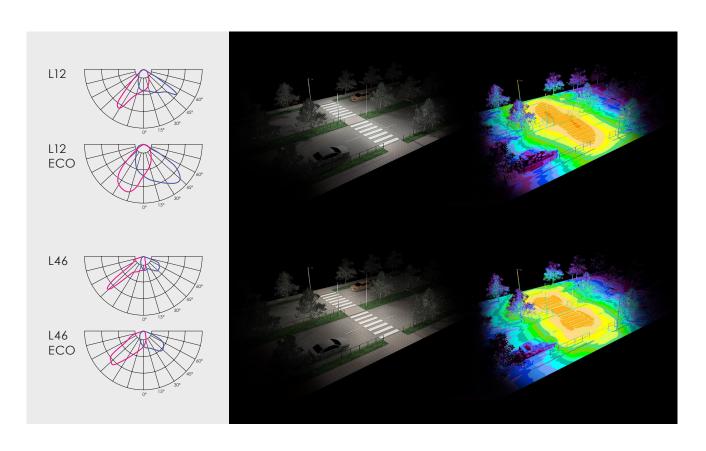
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#### Right side traffic



#### Left side traffic



# **Backlight cutter**

Backlight cutter | black
Art. 70000661





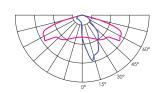
Backlight cutter | white Art. 70000662



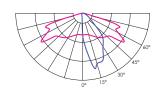


Optical loses from 10% to 31% depending from used optic.

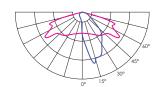
Without backlight cutter



Backlight cutter | black

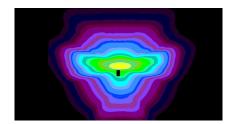


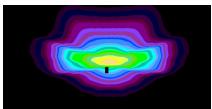
Backlight cutter | white

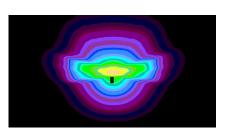










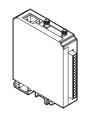


### **Accessories**

#### **Citintelly Segment controller**

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

Art. 70010004

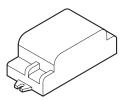


#### **Citintelly Luminaire controller**

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



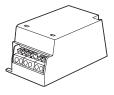
#### Citintelly Surge Protection device

Surge Protection device offersprotection against lighting surges;

Voltage Protection level up (L-N)  $\leq$  1,5 kV Voltage Protection level up (L/N-PE)  $\leq$  2,0 kV  $U_{\rm oc} = 10$  kV

 $I_{\text{max}} = 10 \text{ kA}$   $I_{\text{nom}} = 5 \text{ kA}$ 

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

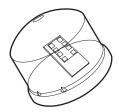
Art. 70000612





#### MSLC205RG Luminaire controller + radar, Zhaga, 80 mm

Art. 70010027



#### MSLC205RGL Luminaire controller, Zhaga, 80 mm

Art. 70010029



#### Connector

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

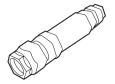


#### Connector

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

Art. 70000304

Art. 70000313



#### Pre-installed cable sets

For iternal 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



#### Pre-installed cable sets

For iternal power supply:

Tornormal power supply.	
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**

**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.



#### \* Coming soon

**UL** - compliance with UL standards for LED lighting

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.



#### \* Coming soon

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.

#### \* Coming soon



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.



#### \* Coming soon

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

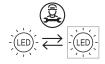
The ENEC+ Mark is the high quality European Mark for LED – based electronic products. It demonstrates the product's compliance with the IEC standards for performance of LED modules and LED based luminaires. The ENEC+ Mark can only be granted to a product that has already acquired the ENEC Mark.



#### \* Coming soon

International EPD System – Environmental Product Declaration available

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 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 following the introdution of European Union's Regulation on energy labelling for light sources (EU) 2019/2015.



#### VIZULO

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O VIZULOSOLUTIONS