

# vizULO

# Eagle





#### **Ventilation cable gland**

Pressure equalisation. It ensures high air flow rates as well as high water protection capacity

#### **Glass**

Flat glass. Glass is fixed to die-cast aluminium frame and can easily be replaced

#### **LED module**

High quality LED's with optimal thermal resistance and energy consumption characteristic, for high lumen output and long expected life time. Color temperature available: 2700 K, 3000 K, 4000 K

*(1800 K, 2200 K, 3500 K, 5000 K, 5700 K, 6500 K available on customer request)*

#### **Sockets**

Zhaga and NEMA sockets compatible

#### **Module temperature control**

The LED driver will start reducing the light output when the LED's approach critical temperature. The temperature is measured via a sensor placed on the PCB

*(function available on customer request)*

#### **Body**

Die-cast aluminium

#### **Lighting protection**

Built-in surge protection 10 kV

#### **Light regulation**

EAGLE drivers offer integrated midnight dimming and network-controlled 1 - 10 V, DALI and DMX protocols

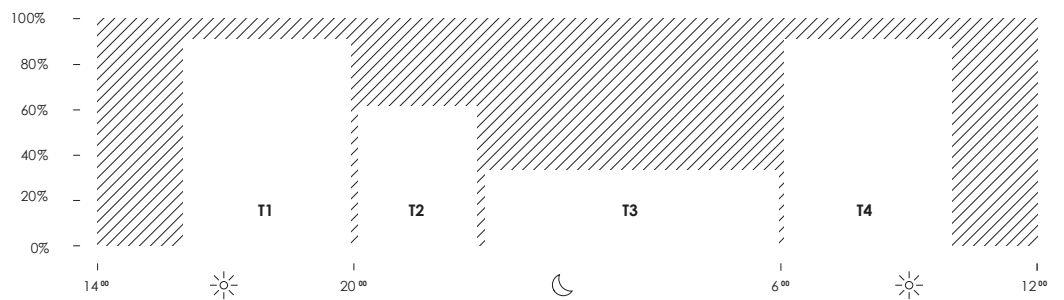
#### **Protection**

IP66 for the complete luminaire



## Midnight dimming

Midnight dimming provides multi-stage night-time power reduction based on an internal timer referenced to the power on/off time. There is no need for an external control infrastructure. The unit automatically performs a dimming profile based on the predefined scheduled reference to the midpoint, which is calculated based on the power on/off times.

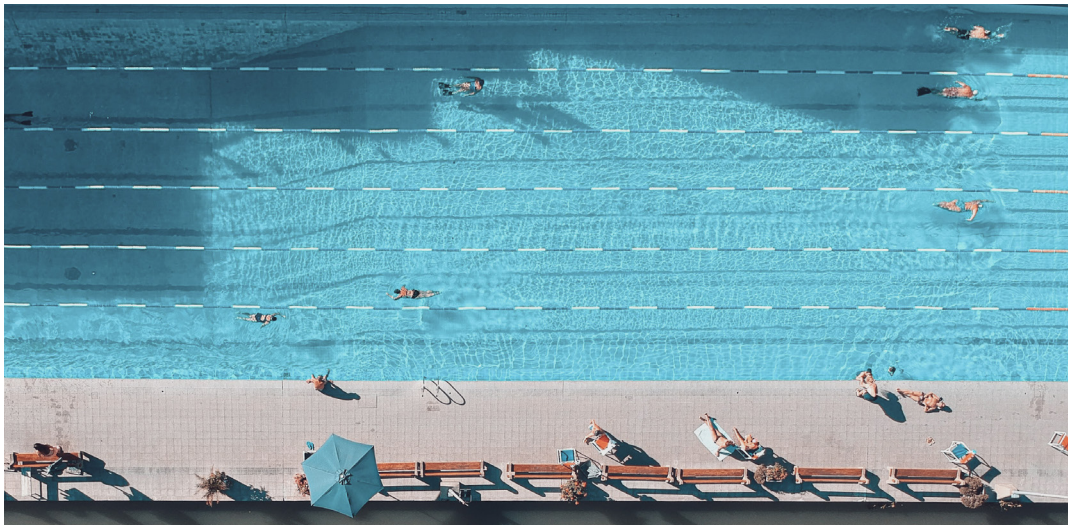


# Application

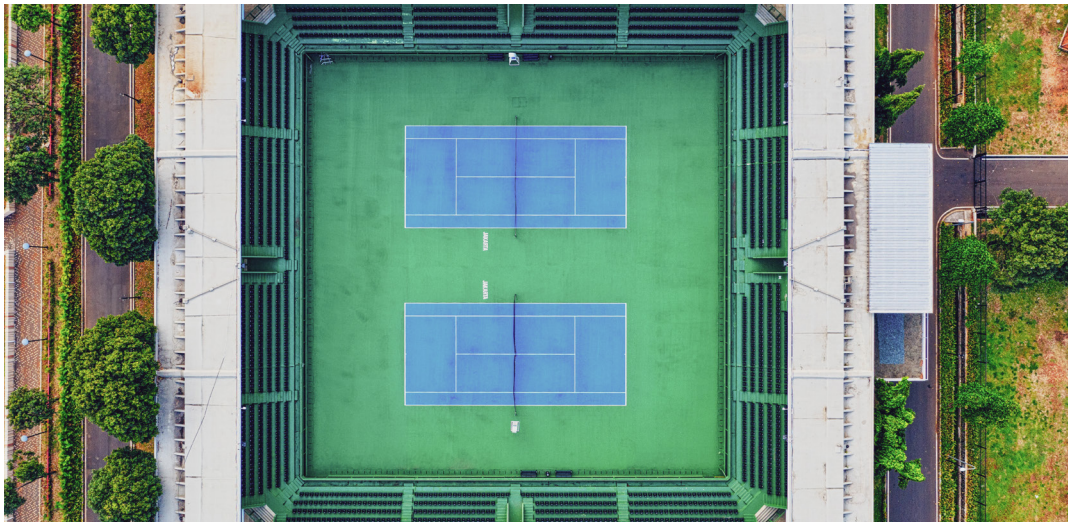
▾ Football fields



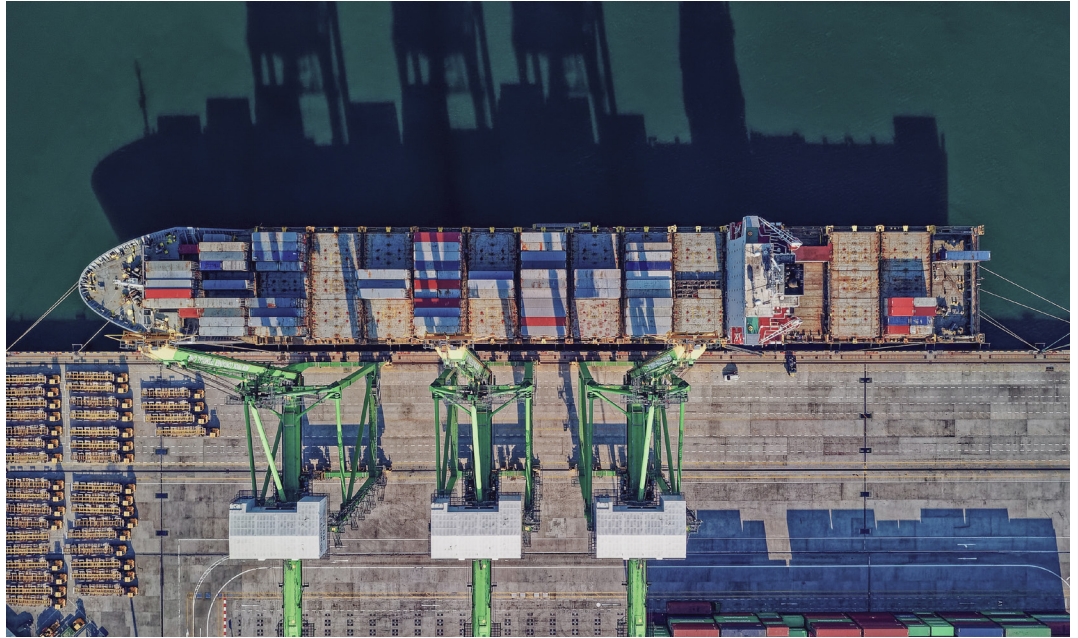
▾ Swimming pools



▾ Tennis courts



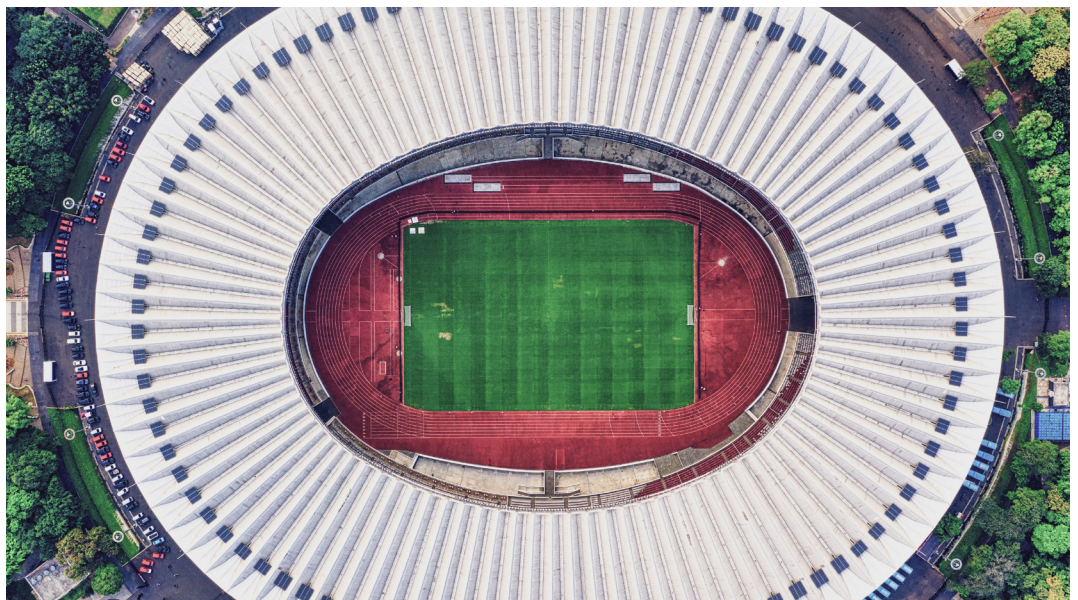
Ports



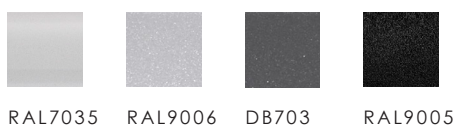
Industrial areas



Stadiums



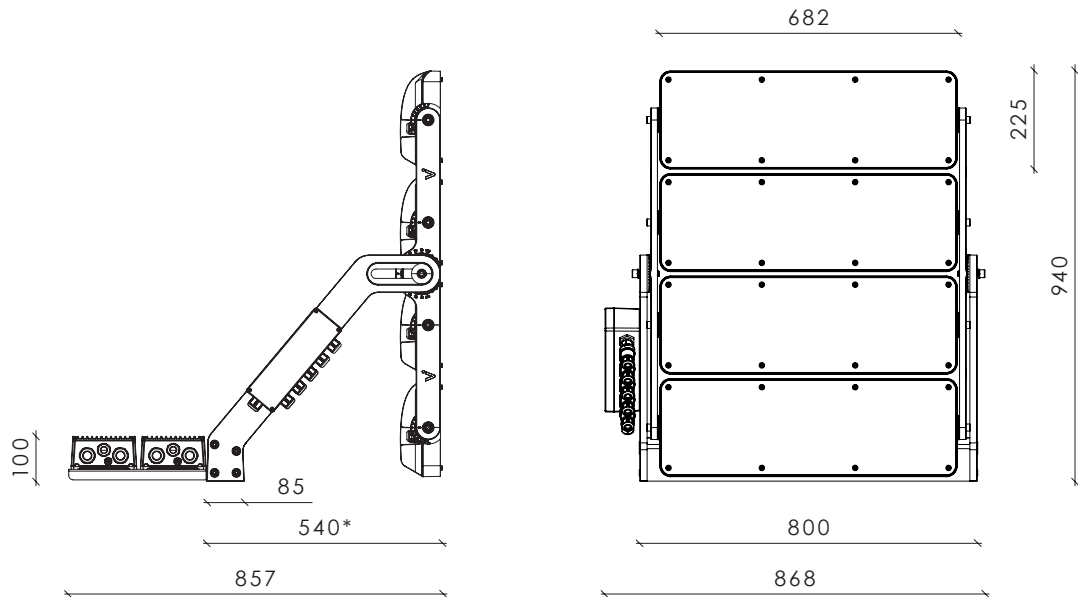
# Eagle 4 heads



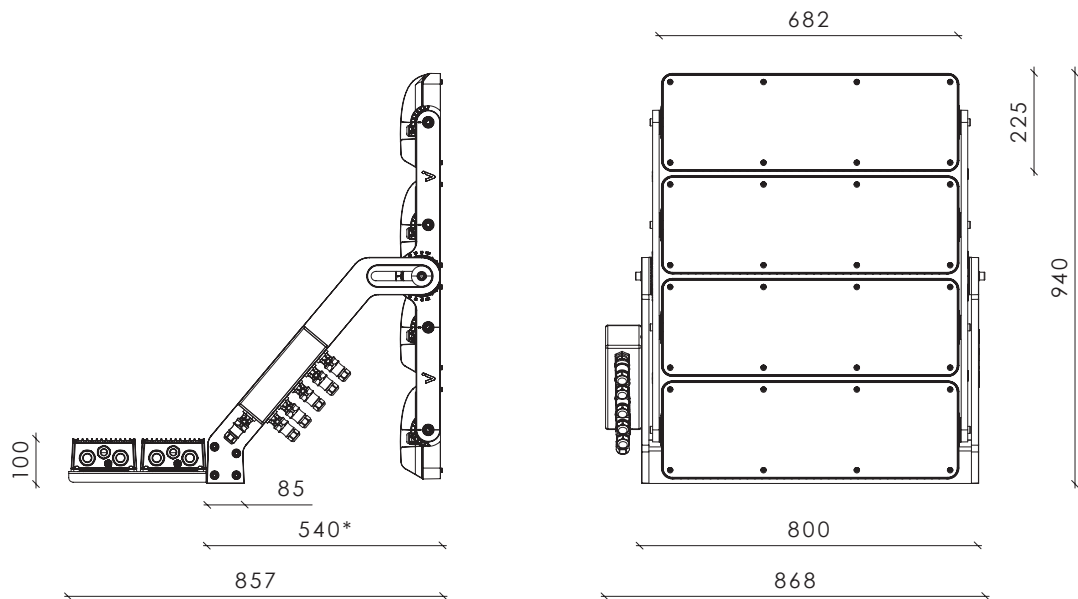
Other colors  
available on request

## Dimensions with DELTA driver

### Standard

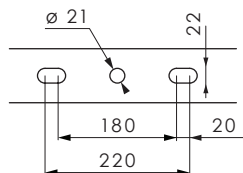


### Premium



\* Dimensions valid for EAGLE Split version (with external driver)

### Mounting bracket



### Wind load

$$SC_x = 0.23 \text{ m}^2$$

Maximal wind load with driver box depending to the angle relative to the ground

	0°	15°	30°	45°	60°	75°	90°
SC <sub>x</sub> , m <sup>2</sup>	0.23	0.36	0.48	0.58	0.64	0.68	0.69

## Technical information

4 heads  
480 / 576 LED



<b>V</b>	198 - 264 / 110 - 277 <sup>(1)</sup>
<b>Hz</b>	50 - 60
<b>W</b>	1020 - 2190   480 LED version 1020 - 2400   576 LED version
<b>lm</b>	Up to 301 450 <sup>(2)</sup>
<b>lm/W</b>	Up to 156
<b>K</b>	4000 / 5000 / 5700 <sup>(3)</sup>
<b>°C</b>	-40 to +50
<b>CRI</b>	>70 / >80 / >90 <sup>(3)</sup>

<b>Body:</b>	Die-cast aluminium
<b>Dimming:</b>	DALI / 1 - 10 V / DMX / Midnight dimming / Step dimming / Mains dimming
<b>TLCI:</b>	>90 <sup>(4)</sup>
<b>Initial chromaticity:</b>	MacAdam 5
<b>Lifetime:</b>	Up to 100 000 h (L98B10) at Ta = 25 °C*
<b>Warranty:</b>	5 years
<b>Installation:</b>	On bracket / wall / ceiling
<b>Socket:</b>	NEMA / Top Zhaga
<b>Intelligent Control:</b>	Stand-alone / Group / CMS
<b>Sensor:</b>	Daylight
<b>Surge protection:</b>	10 kV
<b>Corrosion protection:</b>	Up to C5
<b>Neto weight:</b>	Up to 41.7 kg

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

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

<sup>3)</sup> 1800 / 2200 / 2700 / 3000 / 3500 / 6500 K available on request along with other not listed CRI and CCT

<sup>4)</sup> For CRI > 90 and CCT 5000, 5700 K

<sup>5)</sup> Ball proof: tested according to DIN 57710-13

\*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.

## ECO

\* Data for L01 optic.

Check VIZULO members section for additional information

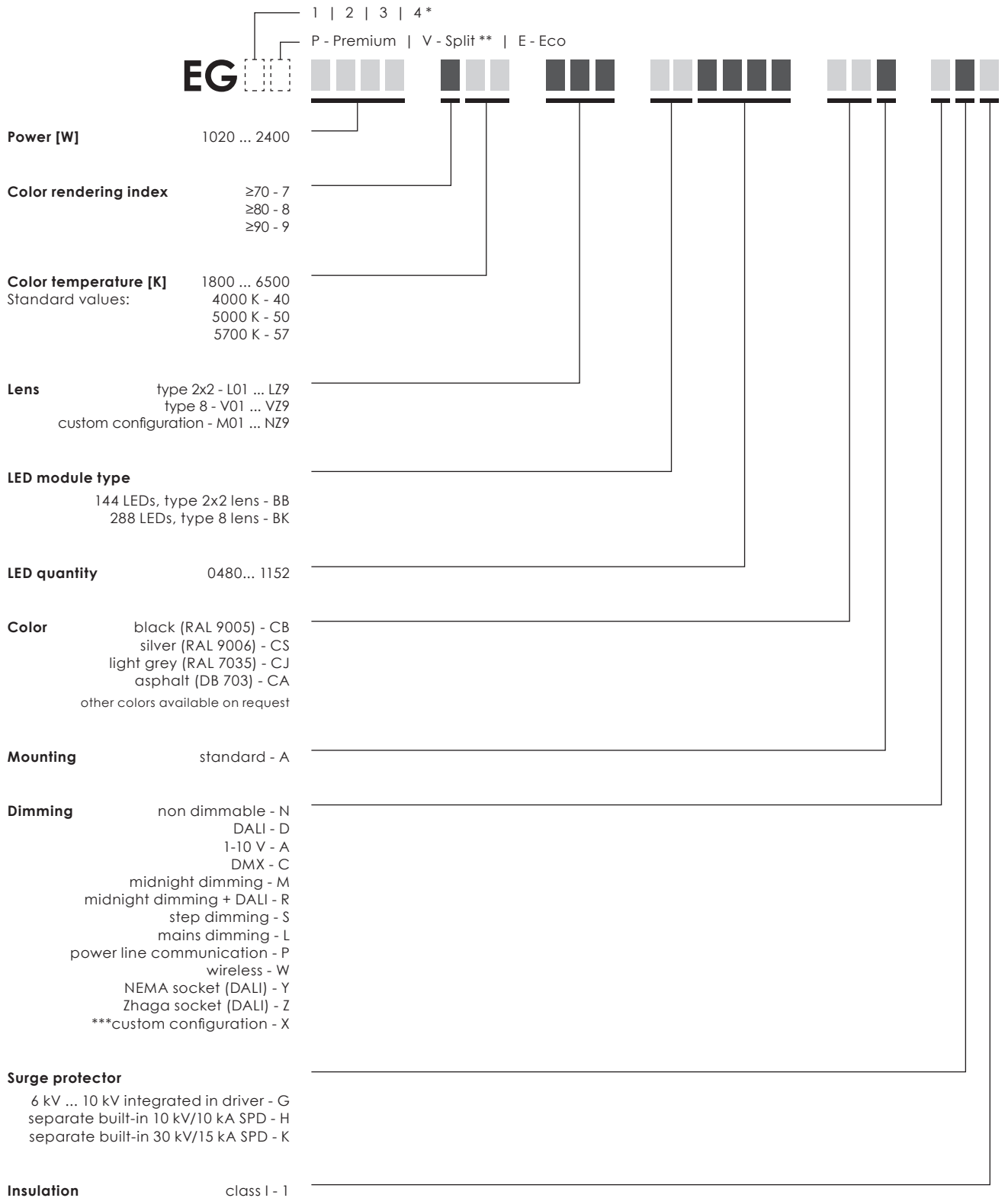
4000 K | CRI 70

Number of LED's	480			576		
	Nominal current, mA	360	510	690	300	480
Power, W	1020	1500	2100	1020	1700	2400
Luminous Flux, lm	154510	208610	261980	159315	233590	301450
Efficacy, lm/W	151	139	125	156	137	126
Power factor, PF	Up to 0.99			Up to 0.99		

Luminaire efficacy	2700 K	1020 - 2400 W	144758 - 282352 lm	117 - 142 lm/W
	3000 K	1020 - 2400 W	150675 - 293910 lm	122 - 147 lm/W
	5000 K	1020 - 2400 W	154510 - 301450 lm	125 - 156 lm/W
	5700 K	1020 - 2400 W	154510 - 301450 lm	125 - 156 lm/W



# Model name principles



**EXAMPLE** EG4E 2080 740 L87 BB0576 CSA DG1

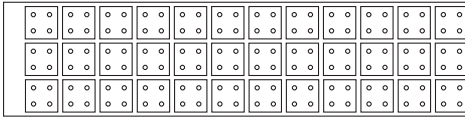
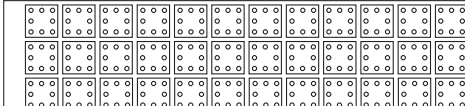
\* Head count

\*\* External driver

\*\*\* 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
BB	4	120	144	576	-	Eco	type 2x2 L01...LZ9	
BK	4	240	288	1152	-	Eco	type 8 V01...VZ9	

# 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 <sup>(1)</sup>	4 <sup>(1)</sup>
None	Mains dimming	L	3	2
Zhaga	DALI	Z	3 <sup>(2)</sup>	2 <sup>(2)</sup>
Zhaga	Midnight dimming	X	3	2
Zhaga	Mains dimming	X	3	2
NEMA	DALI	Y	3 / 5 <sup>(3)</sup>	2 / 4 <sup>(3)</sup>
NEMA	Midnight dimming	X	3	2
NEMA	Step dimming	X	5 <sup>(1)</sup>	4 <sup>(1)</sup>
NEMA	Mains dimming	X	3	2

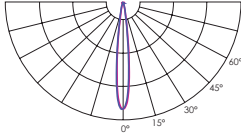
<sup>1)</sup> 1 core unused

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

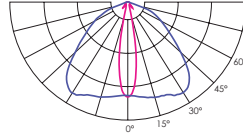
<sup>3)</sup> +2 cores for external DALI connection

# Optics

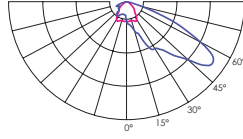
L15



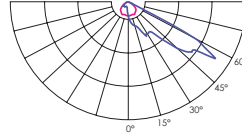
L16



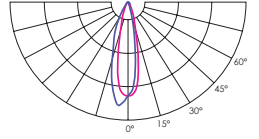
L87



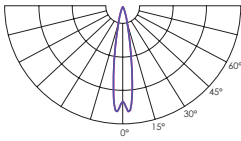
L88



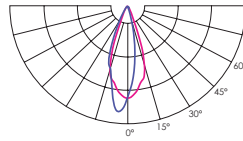
L89



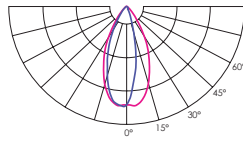
LB6



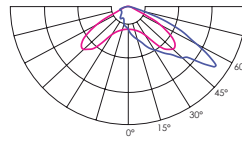
LB8



LB9

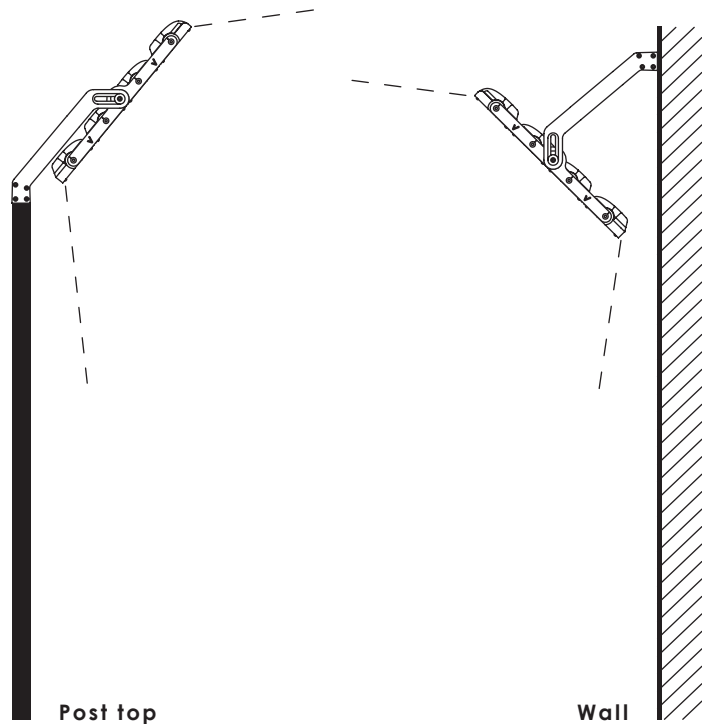
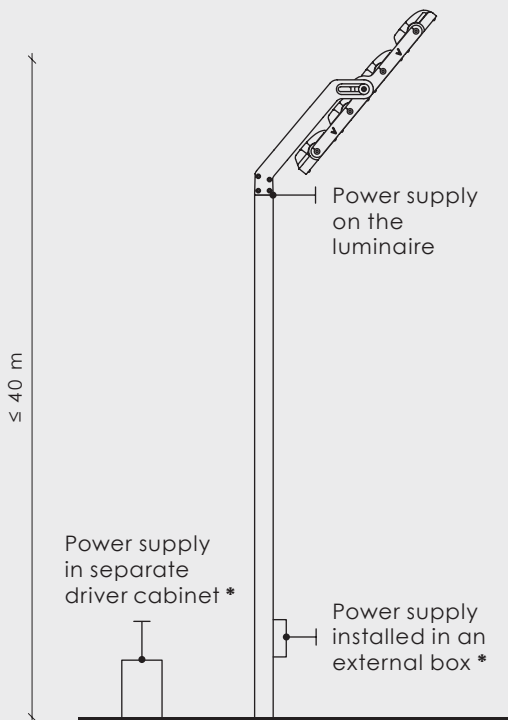


LC1



# Installation possibilities

## Mounting options



Max. cable length between drivers and luminaire/LED modules: **<200 m\*\***

Min. conductor cross section area: **1.5 mm<sup>2</sup>**

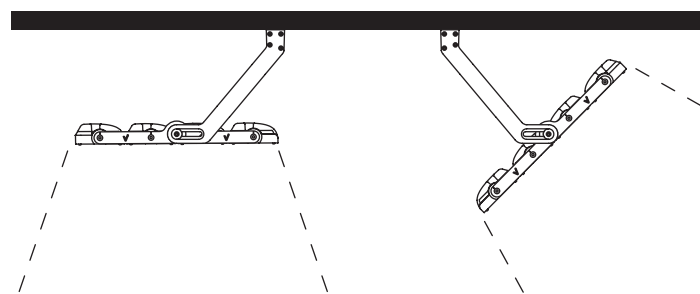
Cable core quantity:

- 1 head - **3 cores** | x1 cable \*
- 2 heads - **5 cores** | x1 cable \*
- 3 heads - **7 cores** | x1 cable \*
- 4 heads - **5 cores** | x2 cables \*

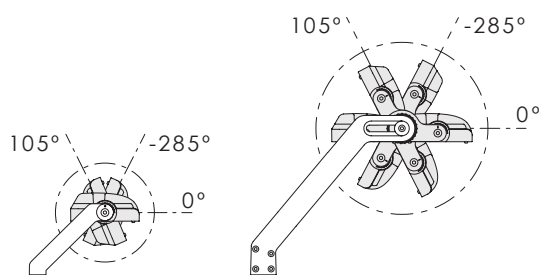
\* Luminaire to driver cable must be ordered separately from the accessories list

\*\* For detailed information on specific LED drivers please contact VIZULO sales representative

## Surface

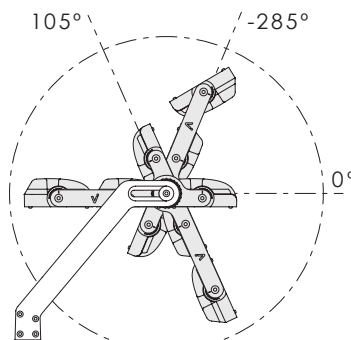


## Rotation options

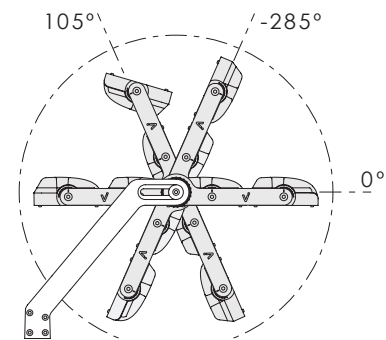


1 LED module

2 LED module



3 LED module

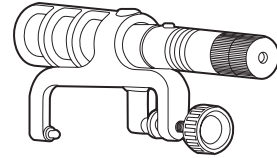


4 LED module

# Accessories

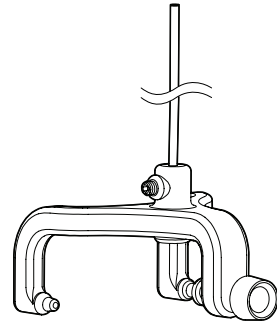
## Laser pointer with bracket

Art. 70000714



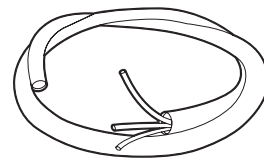
## Axis target with bracket

Art. 70000729



## 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.



**Ball-proof** – compliance with the requirements of the DIN 57710-13 testing standard

The ball-proof test is described in the standard DIN 57710-13 (Luminaires with operating voltages below 1000 V; luminaires safety to ball throwing). The standard defines the requirements set for impact resistance of luminaires meant for use in indoor sports facilities. It states that a luminaire struck by a ball must withstand any damage that could cause parts of the luminaire to fall to the ground.



**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.



**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.



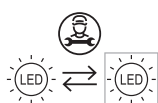
**ENEC** - compliance with European standards for electrical equipment

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.



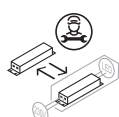
**International EPD System** – Environmental Product Declaration available

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 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.

# References



↘  
Stade Mathieu Bodmer,  
Evreux, France



↘  
Beynes,  
France



## VIZULO

Bukultu street 11  
Riga, LV – 1005, Latvia

Sales: + 371 67 383 023  
Production: + 371 67 383 024

[sales@vizulo.com](mailto:sales@vizulo.com)  
[www.vizulo.com](http://www.vizulo.com)

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