vizulo

S T G R K LITTLE STSTER FLOOD S MOOTH



Ventilation cable gland

Combines pressure equalization and cable gland in a single unit. It ensures high air flow rates as well as high water protection capacity

Glass

Flat glass. Glass is fixed to die-cast aluminium frame with metal clips 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)

Intelligent light control system

Power line or radio frequency

Protection

IP66 for the complete luminaire

Impact resistance

IK10 (Vandal protected) for the complete luminaire

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 starting from 3 kV till 10 kV

Light regulation

STORK drivers offer integrated midnight dimming and network-controlled 1 - 10 V and DALI protocols

Opening

Die-cast aluminium clip for tool-less opening or closing, fixed to the frame with stainless steel spring for easy maintanace

Safety switch

Safety switch disconnects power on opening

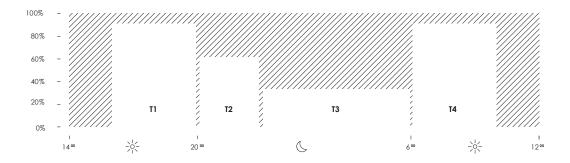
Sockets Zhaga and NEMA sockets compatible



Architectural & Landscape	Traffic Roads
Outdoor Industrial Area	Pedestrian Roads
Residental Street/Area	City Centre

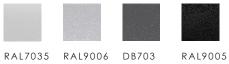
Midnight dimming

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.

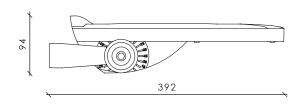


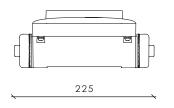
Stork little sister floodlight smooth

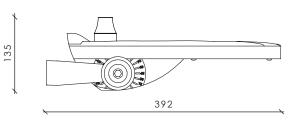




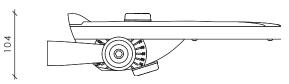
Other colors available on request



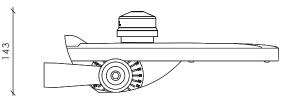




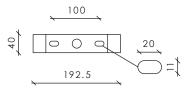
Dimensions with RF antenna



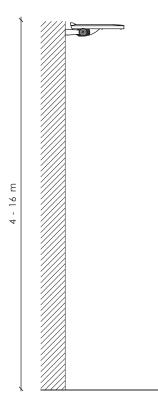
Dimensions with 2 Zhaga connectors



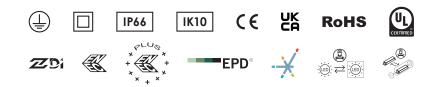
Dimensions with NEMA



Mounting console



Technical information



V	198 - 264 / 110 - 277 (1
Hz	50 - 60
W	5 - 50
lm	430 - 7100 (2
lm/W	86 - 148
Κ	2700 / 3000 / 4000 (3
°C	-40 to +50
CRI	>70 / >80 / >90 (3

Body: Dimming:	Die-cast aluminium DALI / 1 - 10 V / Midnight dimming / Step dimming / Mains dimming
Initial chromaticity: Lifetime:	MacAdam 5 Eco 100 000 h (L90B10) at Ta = 25 °C* /
Lifeinite.	Standard 100 000 h (L98B10) at Ta = $25 ^{\circ}C^*$ / High density 100 000 h (L98B10) at Ta = $25 ^{\circ}C^*$ /
Warranty:	5 years
Installation:	Tool-less
Mounting:	On bracket / wall / ceiling
Socket:	NEMA / Top and Bottom Zhaga
Intelligent Control:	Stand-alone / Group / CMS
Sensor:	Motion / Motion + Daylight / Daylight
Surge protection:	4 / 6 / 10 kV ⁽⁴
Nature friendly:	PC Amber / Red / 1800 K
Corrosion protection:	Up to C5
Neto weight:	Up to 3.5 kg
Max. wind load	
area, SCd, m²:	0.026

- ¹⁾ Maximum operating voltage, ENEC certificate voltage 198 264 V, UL certificate voltage 110 277 V
- $^{\rm 2)}$ 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⁾ 10 kV (L-N; L/N-PE) surge protection device available on request

*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.

Standard modules

4000 K | CRI 70

Number of LED's		4			8			16	
Nominal current, mA	270	500	730	140	500	700	280	490	770
Power, W	5	8	11	5	15	19	15	25	39
Luminous Flux, Im	500	890	1250	560	1900	2500	2150	3500	5300
Efficacy, Im/W	100	111	114	112	127	132	143	140	136
Power factor, PF	ι	Jp to 0.93	3		Up to 0.94	4		Up to 0.9	8
Luminaire efficacy	2700 K	5 - 39	W	430 -	4400 lm	86	- 119 lr	n/W	
	3000 k	5 - 39	W W	470 -	4800 lm	94	- 130 Ir	n/W	
	5000 k	5 - 39	W	500 -	5300 lm	10	0 - 143	lm/W	
	5700 K	5 - 39	W	500 -	5300 lm	10	0 - 143	lm/W	

High density modules

* Data for V01 optic. Check VIZULO members section for additional information

4000 K | CRI 70

Number of LED's		16		3	32	
Nominal current, mA	280	490	770	270	500	
Power, W	15	25	39	27	50	
Luminous Flux, Im	2150	3500	5300	4000	7100	
Efficacy, Im/W	143	140	136	148	142	
Power factor, PF	L	Jp to 0.98	8	Up to	o 0.94	
Luminaire efficacy	2700 K	15 - 5	50 W	1820 -	6100 lm	113 - 127 lm/W
	3000 k	(15 - 5	50 W	2000 -	6700 lm	126 - 141 lm/W
	5000 k	(15 - 5	50 W	2100 -	7100 lm	133 - 148 lm/W
	5700 K	15 - 5	50 W	2100 -	7100 lm	133 - 148 lm/W

ECO

* Data for L01 optic. Check VIZULO members section for additional information

4000 K | CRI 70

				I			1			1	
Number of LED's		4			8			12		1	6
Nominal current, mA	140	490	670	280	500	710	280	500	640	280	500
Power, W	5	14	19	15	26	38	22	39	50	28	50
Luminous Flux, Im	550	1600	2200	2200	3700	5100	3100	5100	6100	4200	7100
Efficacy, Im/W	110	114	116	147	142	134	141	131	122	150	142
Power factor, PF	U	p to 0.94	4	Ι ι	Jp to 0.98	3	l	Up to 0.97	7	Up to	0.97
Luminaire efficacy	2700 K	5 - 50	W	500 - 6	600 lm	10	0 - 143	lm/W			
	3000 K	5 - 50	W	540 - 6	800 lm	10	8 - 146	lm/W			
	5000 K	5 - 50	W	550 - 7	'100 lm	110) - 147	m/W			
	5700 K	5 - 50	w c	550 - 7	'100 lm	110) - 147	m/W			
	5700 K	5 - 50		000 /	100 1111	110	5 177 1	,			

Model name principles

	X - Extended F - Flood (flood light) S - Smooth (finless) E - Eco
SRU	
Power 005 050	
Color rendering index	
-	
≥70 - 7 ≥80 - 8	
Color temperature [K]	
1800 6500 Standard values: 2700 K - 27 3000 K - 30 4000 K - 40	
Lens	
type 2x2 - L01 L99 type 8 - V01 V99 type 1 - Z01 Z99	
custom configuration - M01 N99	
LED module type	
8 LEDs, type 2x2 lens - AA 16 LEDs, type 8 lens - AF 32 LEDs, type 16 lens - AQ 32 LEDs, type 2x2 lens - AS 2 LEDs, type 1 lens - AP	
LED quantity 004 128	
Color	
black (RAL 9005) - CB silver (RAL 9006) - CS asphalt (DB 703) - CA	
other colors available on request	
Console	
*side-entry / post top, 60 mm - N side-entry / post top, ±90°, 60 mm - R side-entry / post top, ±90°, 76 mm - P flood light - F	
Dimming	
non dimmable - N DALI - D 1-10 V - A midnight dimming - M midnight dimming + DALI - R step dimming - L power line communication - P wireless - W NEMA socket (DALI) - Y Zhaga socket (DALI) - Z **custom configuration - X	
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 SRUF 080 730 L01 AA016 CSN NG1

* Console regulation range - side entry: +15° ... -25° | post top: +40° ... -5°

** CUSTOM CONFIGURATION EXAMPLE:

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

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
AA	2	4	8	16	2	Standard Eco	type 2x2 L01LZ9	0 0 0 0 0 0 0 0 0 0 0
AF	2	4	16	32	4	Standard	type 8 V01VZ9	

Cable core count

Socket	Dimming	Model number abbreviation	Input cable core count - Class I	Input cable core count - Class II
None	None	Ν	3	2
None	DALI	D	5	4
None	Midnight dimming	Μ	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	Х	3	2
Zhaga	Mains dimming	Х	3	2
NEMA	DALI	Y	3 / 5 (3	2 / 4 (3
NEMA	Midnight dimming	Х	3	2
NEMA	Step dimming	Х	5 (1	4 (1
NEMA	Mains dimming	Х	3	2

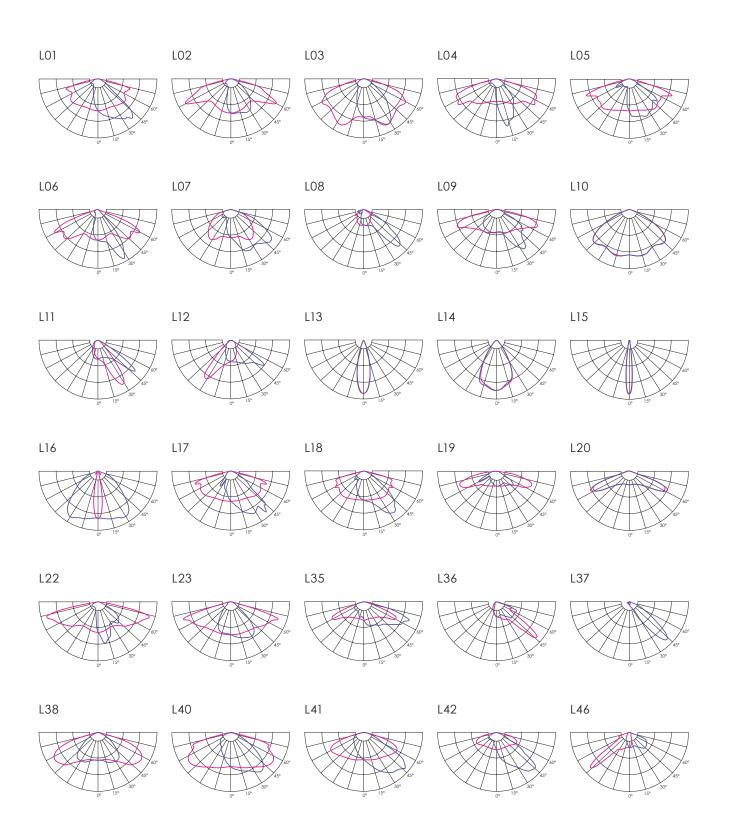
⁽¹ 1 core unused

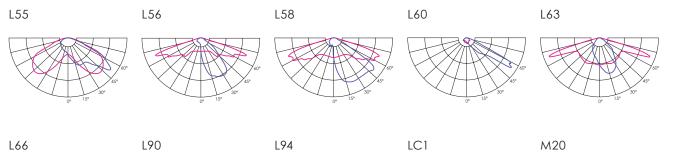
⁽² DALI wires used only for internal connection between driver and Zhaga socket(s)

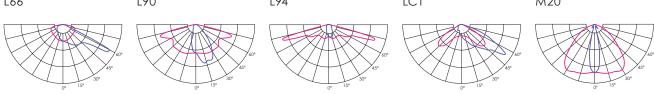
⁽³ +2 cores for external DALI connection

Optics

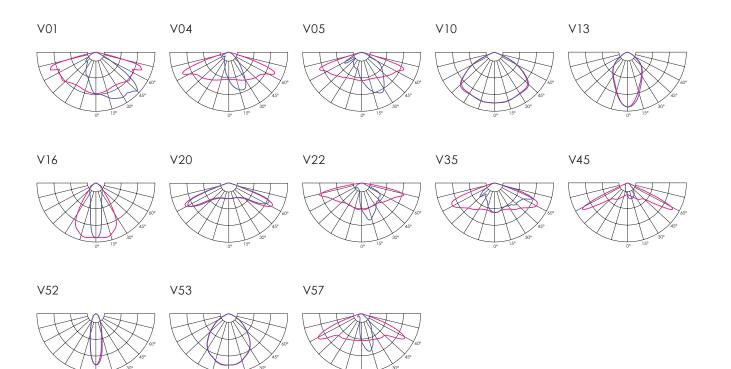
Standard modules







High density modules





Pedestrian crossing optics



V	198 - 264 / 110 - 277 ⁽¹
Hz	50 - 60
W	5 - 39 (2
	15 - 50 ⁽³
lm	Up to 5300 ⁽²
	Up to 7100 ⁽³
lm/W	84 - 143 (2
	100 - 148 ⁽³
Κ	2700 / 3000 / 4000 (4
°C	-40 to +50
CRI	>70 / >80 / >90 (4

Body: Dimming:	Die-cast aluminium DALI / 1 - 10 V / Midnight dimming / Step dimming / Mains dimming
Initial chromaticity: Lifetime:	MacAdam 5 Eco 100 000 h (L90B10) at Ta = 25 °C* / Standard 100 000 h (L98B10) at Ta = 25 °C*
Warranty: Installation: Mounting: Socket: Intelligent Control: Sensor: Surge protection: Nature friendly: Corrosion protection: Neto weight:	5 years Tool-less On bracket / wall / ceiling NEMA / Top and Bottom Zhaga Stand-alone / Group / CMS Motion / Motion + Daylight / Daylight 4 / 6 / 10 kV ⁽⁵ PC Amber / Red / 1800 K Up to C5 Up to 3.5 kg
Max. wind load area, SCd, m ² :	0.026

 $^{1)}$ 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

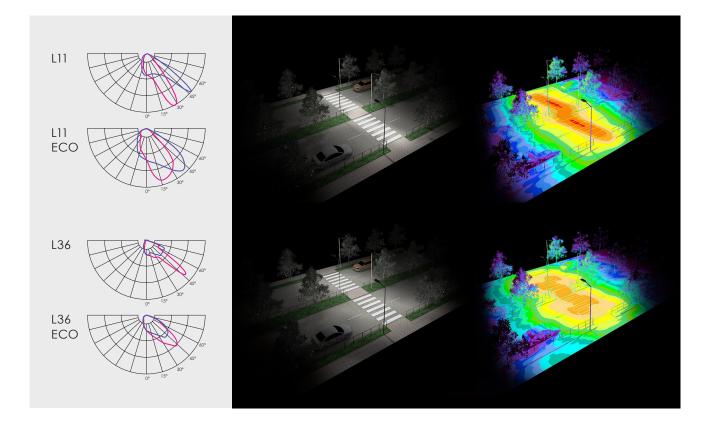
⁴⁾ 1800 / 2200 / 3500 / 5000 / 5700 / 6500 K available on request along with other not listed CRI and CCT

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

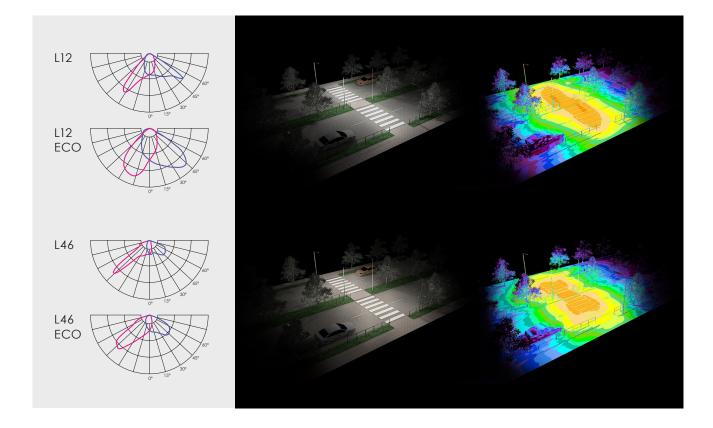
*This value is only informative and may change according to selected article. LED Lifetime is strongly depending from LEDs current and junction temperature – increase in LED current and luminaire power lead to increase of junction temperature and as consequence lifetime decrease. Thus, luminaire models 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.

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Right side traffic



Left side traffic



Backlight cutter

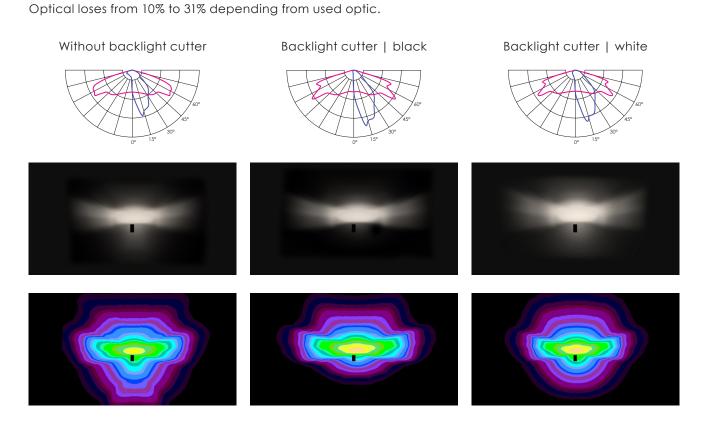
Backlight cutter | black

 $\langle \mathbf{r} \rangle$





Backlight cutter | white Art. 70000662

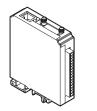


Accessories

Citintelly Segment controller

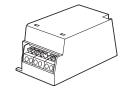
communication.

Segment Controller receives commands from Citintelly server via GSM and transmits tasks to Luminaire Controller via radio frequency Art. 70010004



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_{oc} = 10 kV I_{max} = 10 kA I_{nom} = 5 kA



Radio Frequency Antenna

Heavy duty IP67 enclosure Mounted in cabinet or luminaire body with 14 mm screw SMA connector Art. 70000108

Art. 70020001



NEMA Socket

2213362-3, 5 pin NEMA socket 105°C wires
2213362-4, 7 pin NEMA socket 105°C wires

Art. 70000362 Art. 70000333



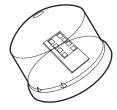
Dummy Link for NEMA Socket

Art. 70000113



MSLC205RG Luminaire controller + radar, Zhaga, 80 mm

Art. 70010027



MSLC205RGL Luminaire controller, Zhaga, 80 mm Art. 70010029





Zhaga sockeł no cap	Art. 70000612	
Zhaga socket with cap	Art. 70000613	
Device connector IP66 rated connector offers easy installation of the street luminaires. 4 wire cable connector without PE connection.	Art. 70000315	
Connector IP66 rated connector offers easy installation of the street luminaires. 3 wire cable connector	Art. 70000313	
Connector IP66 rated connector offers easy installation of the street luminaires. 5 wire cable connector	Art. 70000304	
Connection cable Male - free end, length 1 m, RST20i3, 3 pole, 250 V, 16 A, cable type H05VV, cross section 1,5 mm ²	Art. 70000363	
Pre-installed cable sets		

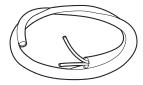
Pre-installed cable sets For external power supply

0,5 m long cable	Art. 70000436
5 m long cable	Art. 70000437
6 m long cable	Art. 70000438
8 m long cable	Art. 70000439
10 m long cable	Art. 70000440
12 m long cable	Art. 70000441
18 m long cable	Art. 70000442
20 m long cable	Art. 70000443
22 m long cable	Art. 70000444
25 m long cable	Art. 70000445



Pre-installed cable sets

For iternal power supply:	
2 x 1,5mm - 0,5m long cable	Art. 70000418
2 x 1,5mm - 5m long cable	Art. 70000342
2 x 1,5mm - 6m long cable	Art. 70000337
2 x 1,5mm - 8m long cable	Art. 70000344
2 x 1,5mm - 10m long cable	Art. 70000338
2 x 1,5mm - 12m long cable	Art. 70000345
2 x 1,5mm - 18m long cable	Art. 70000419





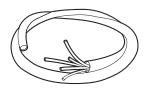
Pre-installed cable sets

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





FOr	iternal 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 - 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

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.



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.



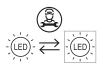
International EPD System – Environmental Product Declaration available

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.



Synergrid approved - compliance with Synergid requirements for LED lighting

Synergrid is a federation of electricity and natural gas network operators in Belgium. The Synergrid approval mark means that the product is compliant with the design, safety and performance requirements set by Synergrid. The approval can be confirmed by checking the official list of Synergrid approved luminaires on the Synergrid website.



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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O VIZULOSOLUTIONS

