# vizulo

# S T O R K LITTLE BROTHER



#### 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 LITTLE BROTHER 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

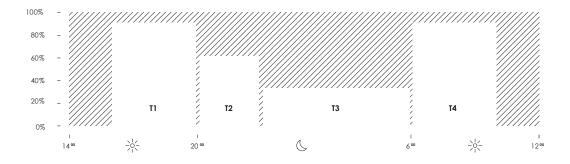
### Safety switch

Safety switch disconnects power on opening



### 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.

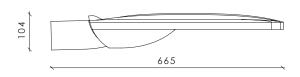


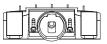
# Stork little brother

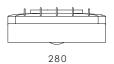


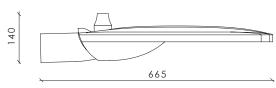
RAL7035 RAL9006 DB703 RAL9005

Other colors available on request





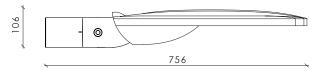




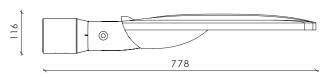
Dimensions with RF antenna



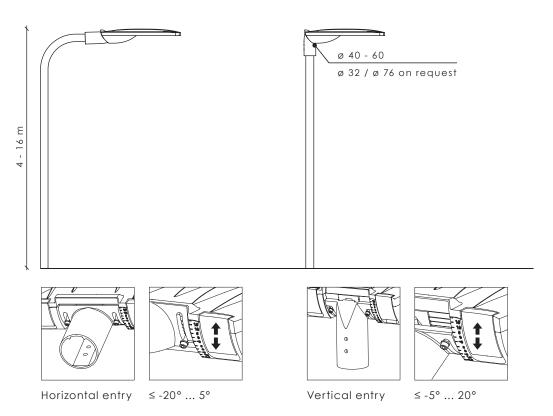
Dimensions with 2 Zhaga connectors



Dimensions with adjustable console ±90°, 60 mm



Dimensions with adjustable console ±90°, 76 mm



Data subject to change | Last modified | January 27, 2023

### Technical information



V	198 - 264 / 110 - 277 (1
Hz	50 - 60
W	5 - 200 (2
Im	487 - 26000 <sup>(3</sup>
lm/W	98 - 161
К	2700 / 3000 / 4000 /
	TW 2700 - 6500 <sup>(4</sup>
°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:	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 = $25 ^{\circ}C^*$
Warranty:	5 years
Installation:	Tool-less
Spigot:	32 - 40 mm <sup>(5</sup> / 40 - 60 mm / 60 - 76 mm
Socket:	NEMA / Top and Bottom Zhaga
Intelligent Control:	Stand-alone / Group / CMS
Sensor:	Motion / Motion + Daylight / Daylight
Surge protection:	4 / 6 / 10 kV <sup>(6</sup>
Nature friendly:	PC Amber / Red / 1800 K
Corrosion protection:	Up to C5
Neto weight:	Up to 8 kg
Max. wind load	
area, SCd, m²:	0.04

- <sup>1)</sup> Maximum operating voltage, ENEC certificate voltage 200 240 V, UL certificate voltage 110 277 V
- $^{\rm 2)}\,$  5 178 W with standard fins and 178 200 W with additional fins
- $^{\scriptscriptstyle 3)}$  Lumen output indicated at CRI > 70
- <sup>4)</sup> 1800 / 2200 / 3500 / 5000 / 5700 / 6500 K available on request along with other not listed CRI and CCT
- <sup>5)</sup> Achievable with an adapter for 40 60 mm spigot
- <sup>6)</sup> 10 kV (L-N; L/N-PE) surge protection device available on request
- 7) Check SundaHus web page for product assessment results

\*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.

### 4000 K | CRI 70

				I			I		
Number of LED's		8			16			32	
Nominal current, mA	140	500	700	280	500	760	280	500	750
Power, W	5	14	19	15	26	39	28	50	75
Luminous Flux, Im	570	1900	2540	2180	3600	5300	4500	7550	10650
Efficacy, lm/W	114	136	134	145	138	136	161	151	142
Power factor, PF	U	p to 0.9	24		Up to 0.9	8	Up to 0.97		
				I					
Number of LED's		48			64				
Nominal current, mA	270	500	690	250	500	700			
Power, W	40	75	102	50	98	137			
Luminous Flux, Im	6360	11000	14800	8000	15000	19800			
Efficacy, lm/W	159	147	145	160	153	145			
Power factor, PF	U	p to 0.9	6		Up to 0.9	8			
Luminaire efficacy	2700 K	5 - 13	37 W	487 -	17000 lm	ר 98	- 140 lm	n/W	
	3000 K	5 - 13	37 W	540 -	18500 lm	n 10	8 - 152 l	m/W	
	5000 K	5 - 13	37 W	570 -	19800 lm	ר 11∡	4 - 161 Ir	n/W	
	5700 K	5 - 13	37 W	570 -	19800 lm	ר ו	4 - 161 Ir	m/W	

High density modules

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

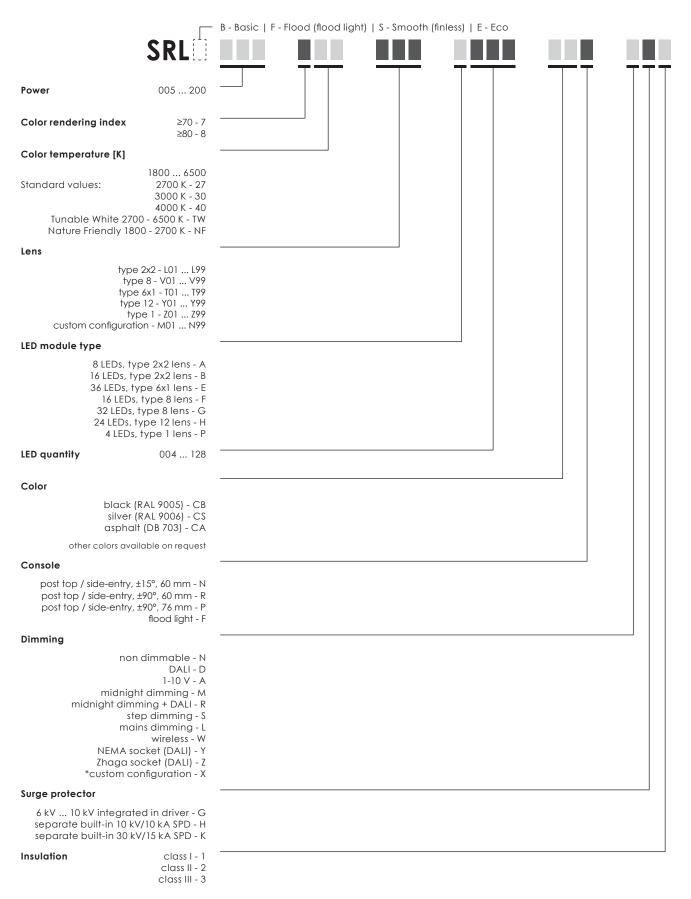
### 4000 K | CRI 70

Number of LED's		24			32			48			64	
Nominal current, mA	270	500	780	280	500	750	270	500	690	250	500	700
Power, W	21	38	59	28	50	75	40	75	102	50	98	137
Luminous Flux, Im	3100	5500	8000	4300	7400	10110	6300	11200	14500	7600	14000	18850
Efficacy, Im/W	148	145	136	154	148	135	158	149	142	152	143	138
Power factor, PF	U	p to 0.9	8	ι	Jp to 0.9	97		Up to 0.9	96	Up to 0.98		
				1								
Number of LED's		80			96			128				
Nominal current, mA	270	500	710	270	500	740	270	370	480			
Power, W	64	120	170	76	120	178	102	140	178			
Luminous Flux, Im	10000	17800	24000	12000	17700	25000	16000	21000	26000			
Efficacy, Im/W	156	148	141	158	148	140	157	150	146			
Power factor, PF	U	p to 0.9	8	Up to 0.98			Up to 0.98					
Luminaire efficacy	2700 K	21 -	178 W	2700 -	10000	lm 119	9 - 138	m/W				
	3000 K	21 -	178 W	2970 -	11000	m 129	9 - 152	m/W				
	5000 K	21	178 W	3100	26000		5 - 158					
								-				
	5700 K	21 -	178 W	3100 -	26000	m 13.	5 - 158	m/W				

4000 K | CRI 70

Number of LED's		8			16			24			32	
Nominal current, mA	280	490	700	280	490	700	270	500	700	250	500	700
Power, W	15	26	38	28	50	74	40	75	110	50	100	144
Luminous Flux, Im	2100	3400	4730	4100	6700	9100	6000	9700	13500	7500	13300	17500
Efficacy, lm/W	140	131	124	146	134	123	150	129	123	150	133	122
Power factor, PF		Up to 0.	98	ι	Jp to 0.9	97	(	Jp to 0.9	97	Up to 0.98		
							I					
Number of LED's		36			48			64				
Nominal current, mA	270	500	700	270	500	680	270	390	460			
Power, W	60	110	160	78	150	178	107	150	178			
Luminous Flux, Im	9500	15500	20000	11000	19500	22000	16500	21600	25000			
Efficacy, lm/W	158	141	125	141	130	124	154	144	140			
Power factor, PF		Up to 0.	98	Ι ι	Jp to 0.9	9	I	Jp to 0.9	98			
Luminaire efficacy	2700	K 15 -	178 W	1960 -	23100 l	m 115	5 - 148 li	m/W				
	3000	K 15 -	178 W	2040 -	24600	lm 12	1 - 154	m/W				
	5000	K 15-	178 W	2100 -	25000	m 12	3 - 158	m/W				
	5700	К 15-	178 W		25000		3 - 158	m/W				
								,				

### Model name principles



#### EXAMPLE SRLB 005 730 L01 A004 CSN NG1

#### \* 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
A	4	4	8	32	2	Standard Eco	type 2x2 L01LZ9	• • • •   • • • • •   • • • • •
F	4	4	16	64	4	Standard	type 8 V01VZ9	0 0 0 0 0   0 0 0 0 0 0   0 0 0 0 0 0
В	4	8	16	64	2	Standard Eco	type 2x2 L01LZ9	• •
G	4	16	32	128	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
	Mains anning	X	0	Z

<sup>(1</sup> 1 core unused

 $^{\scriptscriptstyle (2)}$  DALI wires used only for internal connection between driver and Zhaga socket(s)

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

# Console

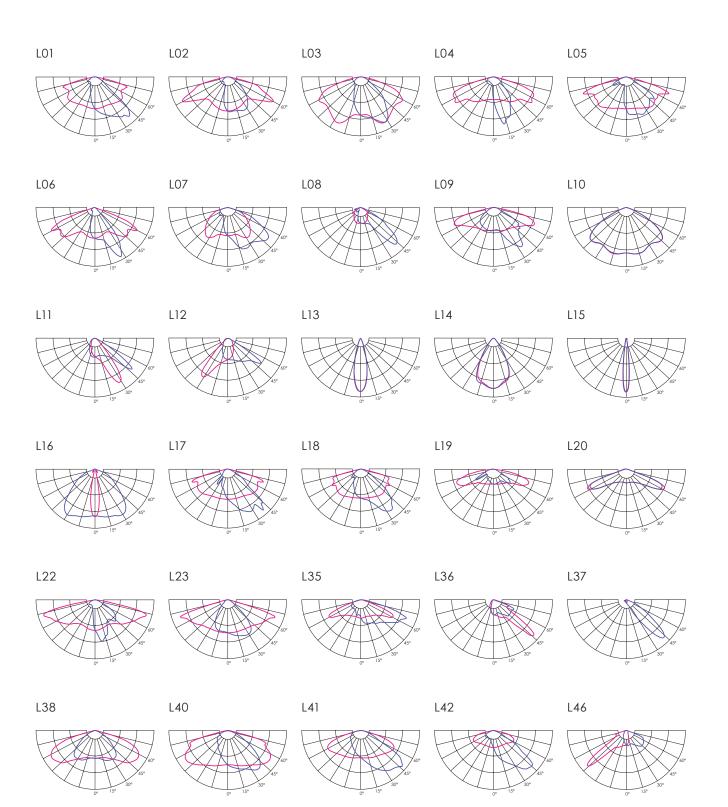


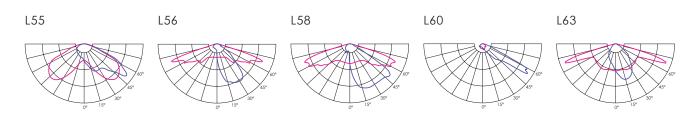




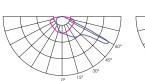
# Optics

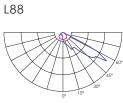
Standard modules

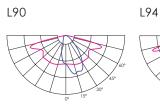


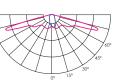


L66

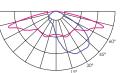


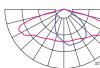




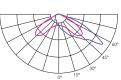


LB2



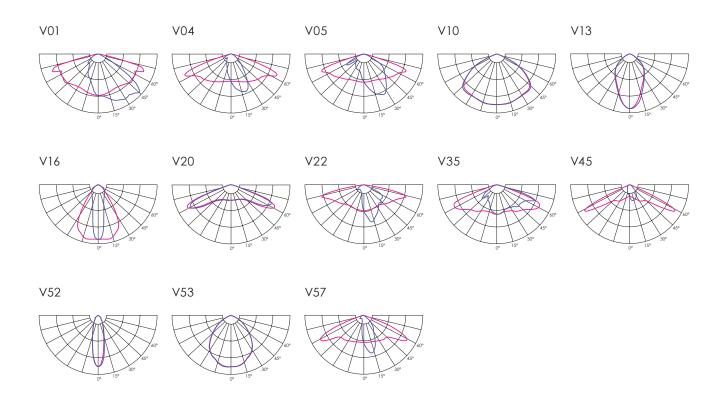


LB3



LC1

High density modules





# **Pedestrian crossing optics**

	<b>(1) ZD</b> i		SundaHus assessment available	 ©,≓
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V	198 - 264 / 110 - 277 <sup>(1</sup>
Hz	50 - 60
W	5 - 137 (2
	15 - 178 <sup>(3</sup>
lm	Up to 19800 <sup>(2</sup>
	Up to 25000 <sup>(3</sup>
lm/W	98 - 161 <sup>(2</sup>
	115 - 158 <sup>(3</sup>
Κ	2700 / 3000 / 4000 /
	TW 2700 - 6500 <sup>(4</sup>
°C	-40 to +50
CRI	>70 / >80 / >90 <sup>(4</sup>

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
Spigot:	32 - 40 mm <sup>(5</sup> / 40 - 60 mm / 60 - 76 mm
Socket:	NEMA / Top and Bottom Zhaga
Intelligent Control:	Stand-alone / Group / CMS
Sensor:	Motion / Motion + Daylight / Daylight
Surge protection:	4 / 6 / 10 kV <sup>(6</sup>
Nature friendly:	PC Amber / Red / 1800 K
Corrosion protection:	Up to C5
Neto weight:	Up to 8 kg
Max. wind load	
area, SCd, m <sup>2</sup> :	0.04

<sup>1)</sup> Maximum operating voltage, ENEC certificate voltage 200 - 240 V, UL certificate voltage 110 - 277 V

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

<sup>3)</sup> ECO modules, lumen output indicated at CRI > 70

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

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

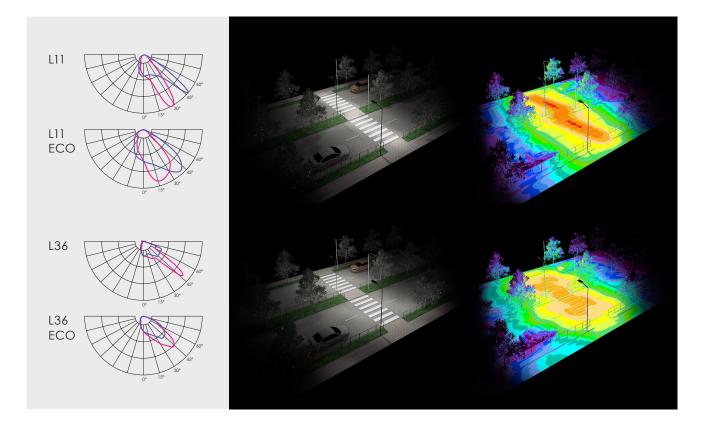
<sup>6)</sup> 10 kV (L-N; L/N-PE) surge protection device available on request

7) Check SundaHus web page for product assessment results

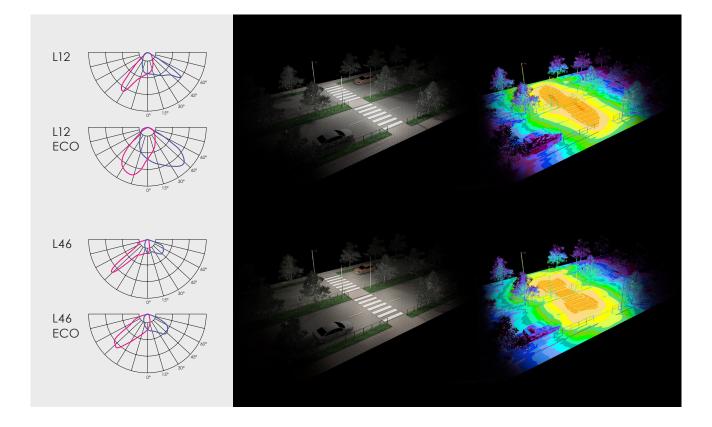
\*This value is only informative and may change according to selected article. LED Lifetime is strongly depending from LEDs current and junction temperature – increase in LED current and luminaire power lead to increase of junction temperature and as consequence lifetime decrease. Thus, luminaire models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

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

### Right side traffic



### Left side traffic



# **Backlight cutter**

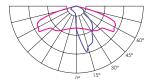
Backlight cutter | black



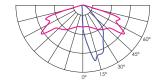
Backlight cutter | white Art. 70000662

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

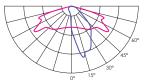
Without backlight cutter

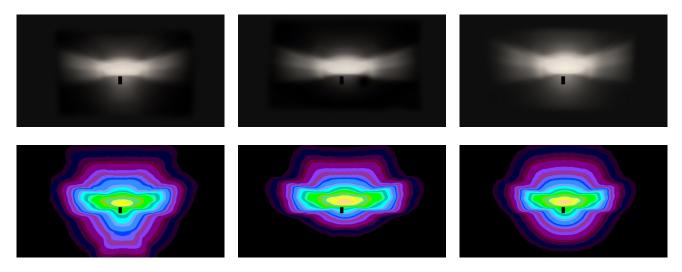


Backlight cutter | black



Backlight cutter | white





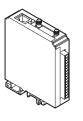
### Accessories

#### Citintelly Segment controller

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

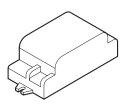
Citintelly Luminaire controller

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. 70010004



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<sub>oc</sub> = 10 kV I<sub>max</sub> = 10 kA I<sub>nom</sub> = 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	Art. 70000362
2213362-4, 7 pin NEMA socket 105°C wires	Art. 70000333

Dummy Link for NEMA Socket

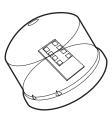
Art. 70000113





MSLC205RG Luminaire controller + radar, Zhaga, 80 mm

Art. 70010027



Data subject to change | Last modified | January 27, 2023

Art. 70000613 Zhaga socket with cap Console adapter 40 mm to 30 mm Art. 70055002 Console adapter Spigot size 60 - 76 mm Art. 70044002 Art. 70044001

Art. 70010029

Art. 70000612

Wall mounting bracket

Spigot size 40 - 60 mm

Wall mounting bracket

Vertical

Art. 70044004



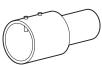


Zhaga socket no cap











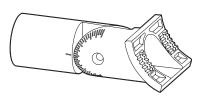
Data subject to change | Last modified | January 27, 2023

Console 76 mm 76 mm - Stork/ Stork LB

Art. 70044011 (R9006)



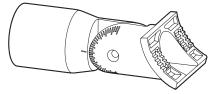
Adjustable Console ±90° 60 mm - Stork/ Stork LB Art. 70044080 (R9006)



### Adjustable Console ±90°

76 mm - Stork/ Stork LB

Art. 70044013

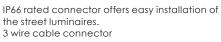


Device connector IP66 rated connector offers easy installation of the street luminaires. 4 wire cable connector without PE connection. Art. 70000315



Connector

Art. 70000313



### Connector

IP66 rated connector offers easy installation of the street luminaires. 5 wire cable connector Art. 70000304



**Connection cable** 

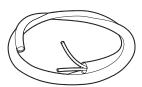
Male - free end, length 1 m, RST20i3, 3 pole, 250 V, 16 A, cable type H05VV, cross section 1,5 mm<sup>2</sup> Art. 70000363



#### 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

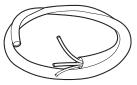
For iternal power supply:	
2 x 1,5 mm - 0,5 m long cable	Art. 70000418
2 x 1,5 mm - 5 m long cable	Art. 70000342
2 x 1,5 mm - 6 m long cable	Art. 70000337
2 x 1,5 mm - 8 m long cable	Art. 70000344
2 x 1,5 mm - 10 m long cable	Art. 70000338
2 x 1,5 mm - 12 m long cable	Art. 70000345
2 x 1,5 mm - 18 m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

### Pre-installed cable sets

For iternal power supply:	
3 x 1,5 mm - 0,5 m long cableArt. 70	0000319
3 x 1,5 mm - 5 m long cableArt. 70	0000320
3 x 1,5 mm - 6 m long cableArt. 70	0000321
3 x 1,5 mm - 8 m long cableArt. 70	0000322
3 x 1,5 mm - 10 m long cableArt. 70	0000323
3 x 1,5 mm - 12 m long cableArt. 70	0000324
3 x 1,5 mm - 18 m long cableArt. 70	0000325
3 x 1,5 mm - 20 m long cableArt. 70	0000425
3 x 1,5 mm - 22 m long cableArt. 70	0000426
3 x 1,5 mm - 25 m long cableArt. 70	0000427
3 x 1,5 mm - 32 m long cableArt. 70	0000430
3 x 1,5 mm - 42 m long cableArt. 70	0000431
3 x 1,5 mm - 50 m long cableArt. 70	000432

### Pre-installed cable sets

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

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).

### UK CA

### 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.

# EAC

EAC - compliance with the regulations of the Eurasian Customs Union

The EAC Mark demonstrates conformity with all technical regulations defined by the Eurasian Customs Union. The conformity is assessed by an accredited independent testing laboratory. The EAC marking is a requirement in order to place a product on the market of Russia and the Eurasian Economic Union.



ENEC - compliance with European standards for electrical equipment

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



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

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

### ZD

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.



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.

### 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.

### **EPD**<sup>®</sup>

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.

### SundaHus - product material data assessment

SundaHus i Linköping AB (publ) is a consulting company for the improvement of indoor environmental quality. The company conducts health and environmental assessments of building materials and assigns each product a letter evaluation:

- A products that provide minimal health risks
- **B** products that do no qualify for A, but do not match the criteria for C+, C- or D
- C+ products that risk exposure to substances of very high concern
- C- products that risk exposure to toxic or volatile substances, as well as negatively impact the environment
- **D** products that cannot be assessed due to insufficient data



### 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.



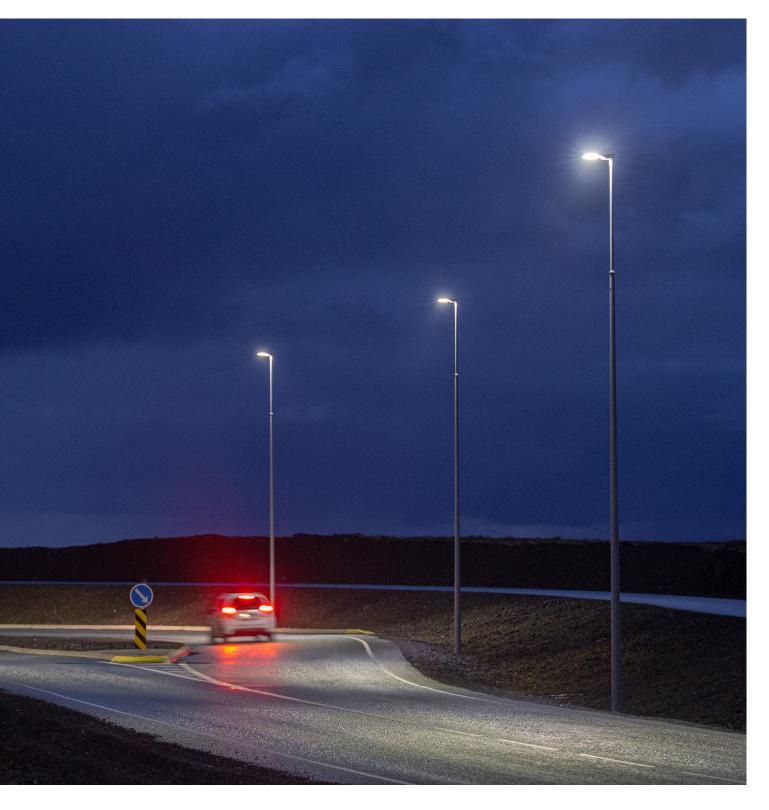
### LED driver replaceable by a professional

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.





Gothenburg | Sweden



Hafnarfjordur | Iceland

## References



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