LIC
SUSTAINABLE SOLUTIONS

STREETLIGHT SMART CITIES

THE NETHERLANDS
COLOMBIA
SPAIN
CHINA

LIC SUSTAINABLE SOLUTIONS

NODE:
OPTION 1:
ANSI C136 NEMA socket
(optional 3 pin or 7 pin)

OPTION 2:
Zhagabook 18 socket
(optional 1 or 2 conectors)

CASE:
Aluminum alloy ADC-12

Corrosion resistant

Lightweight

Dimensional stability

ANGLE:
Variable tilt angle
between -20 and
+20 degrees

Suitable for horizontal
and vertical installation

Passive cooling structure

GLASS:
Safety Tempered Flat Glass

PMMA polyamide lenses

IK08 Class

ZHAGA CONNECTION:
For sensor installation
(Optional: installation of 1 or 2 connectors)

SECURITY:
Double conical bolt
(self-drilling)

Double conical bolt
anti-theft

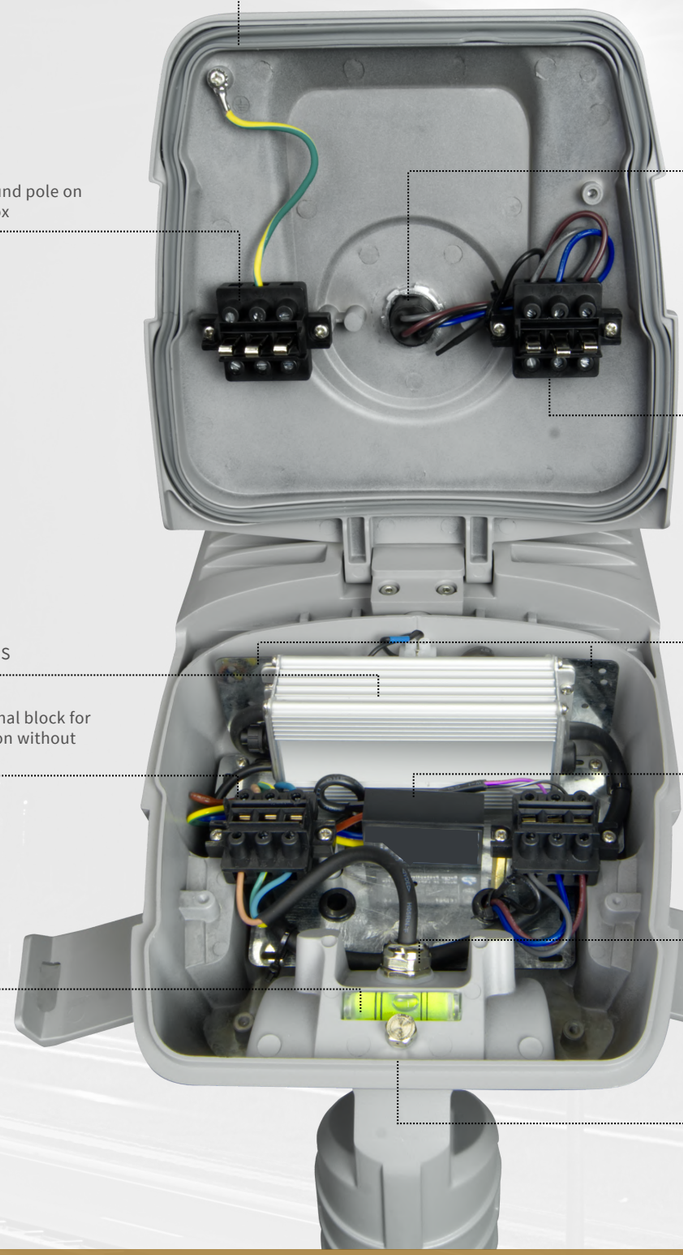
OPENING:
Tool-free opening
IP66 degree of tightness

Rubber weatherstrip for sealing
Waterproof IP66 Class

NODE:
OPTION 1:
ANSI C136 NEMA socket
(optional 3 pin or 7 pin)

OPTION 2:
Zhagabook 18 socket
(optional 1 or 2 conectors)

Power switch and ground pole on
cover and electrical box



Terminal block for control
wiring, avoids loose cables at the
opening of the luminaire

Fixing materials made
of stainless steel

Driver with internal DPS

Electrical power terminal block for
opening and connection without
electrical risk

Additional external DPS

Stainless steel
cable gland

Hand level
(bubble)

Vent valve IP68

ISO 9001:2015 CERTIFIED COMPANY

DALI Alliance

Zhaga

CE

RETILAP
REGLAMENTO TÉCNICO DE ILUMINACIÓN Y ALUMBRADO PÚBLICO

UL CERTIFIED

RoHS

LIC SUSTAINABLE SOLUTIONS

Product reference	measure	LIC2011004	LIC2011011	LIC2011021	LIC2011027	LIC2011037
supplier	LIC	LIC Sustainable Solutions	LIC Sustainable Solutions	LIC Sustainable Solutions	LIC Sustainable Solutions	LIC Sustainable Solutions
manufacturer	LIC	LIC Sustainable Solutions	LIC Sustainable Solutions	LIC Sustainable Solutions	LIC Sustainable Solutions	LIC Sustainable Solutions
length	(mm)	565	620	690	810	810
width	(mm)	200	235	260	320	320
height	(mm)	120	125	130	135	135
weight	(kg)	3,7	5,0	6,2	8,7	8,7
power	(W)	35	70	120	150	200
input voltage	(VAC)	90 - 305	90 - 305	90 - 305	90 - 305	90 - 305
frequence	(Hz)	47 - 63	47 - 63	47 - 63	47 - 63	47 - 63
power factor	(PF)	0,95	0,95	0,95	0,95	0,95
luminous flux	(lm)	6.825	13.650	23.400	29.250	39.000
efficiency	(lm/W)	195 ± 5%	195 ± 5%	195 ± 5%	195 ± 5%	195 ± 5%
insulation class		I	I	I	I	I
IP rating	(IP)	IP66	IP66	IP66	IP66	IP66
IK rating	(IK)	IK08 (window IK08)	IK08 (window IK08)	IK08 (window IK08)	IK08 (window IK08)	IK08 (window IK08)
window	(mm)	tempered glass 4mm	tempered glass 4mm	tempered glass 4mm	tempered glass 4mm	tempered glass 4mm
product life cycle	(hrs)	100.000	100.000	100.000	100.000	100.000
lumen maintenance		L90B10 @ 50.000	L90B10 @ 50.000	L90B10 @ 50.000	L90B10 @ 50.000	L90B10 @ 50.000
material finishing		electrostatic powder	electrostatic powder	electrostatic powder	electrostatic powder	electrostatic powder
material housing		aluminum ADC12	aluminum ADC12	aluminum ADC12	aluminum ADC12	aluminum ADC12
isolation material		EPDM	EPDM	EPDM	EPDM	EPDM
power connection socket		✓	✓	✓	✓	✓
photocell base 7-pin		✓	✓	✓	✓	✓
toolless opening		✓	✓	✓	✓	✓
installation diameter	(mm)	50 - 70	50 - 70	50 - 70	50 - 70	50 - 70
installation angle	(°)	+ / - 20	+ / - 20	+ / - 20	+ / - 20	+ / - 20
LED brand		Philips 3030 / 5050	Philips 3030 / 5050	Philips 3030 / 5050	Philips 3030 / 5050	Philips 3030 / 5050
color temperature	(K)	2.200 - 6.500	2.200 - 6.500	2.200 - 6.500	2.200 - 6.500	2.200 - 6.500
color rendering index	(Ra)	>70	>70	>70	>70	>70
LED lumen maintenance		L70 @ 100.000	L70 @ 100.000	L70 @ 100.000	L70 @ 100.000	L70 @ 100.000
surge protection device	(V)	12.000 + 20.000	12.000 + 20.000	12.000 + 20.000	12.000 + 20.000	12.000 + 20.000
control options		0-10V, DALI 2 (D4i)	0-10V, DALI 2 (D4i)	0-10V, DALI 2 (D4i)	0-10V, DALI 2 (D4i)	0-10V, DALI 2 (D4i)
total harmonic distortion	(%)	8%	8%	8%	8%	8%
current protection		✓	✓	✓	✓	✓
short circuit protection		✓	✓	✓	✓	✓
voltage protection		✓	✓	✓	✓	✓
temperature protection		✓	✓	✓	✓	✓

LIGHT CHARACTERISTICS

- The LEDs are mounted in modules, over a wide heat dissipation area. The matrix of these modules has an optimal design that allows maximum luminaire efficiency to be achieved, keeping its working temperature and current under control versus useful life and light depreciation. All this has been verified with temperature tests that ensure a useful life of more than 100,000 hours in the luminaire.
- The minimum effective efficacy of the luminaire is 195 lumens per watt.
- The lenses are made of PMMA polyamide, in such a way that their physical and chemical characteristics do not change over time. Its fixation to the body of the lamp is uniform, guaranteeing lighting levels and uniformity on the street, as well as controlling glare and light pollution. Its material in PMMA or polycarbonate (PC) guarantees resistance against UV rays.
- The useful life of the diode (LED chip) is greater than 100,000 hours, verified according to IES LM80: 2008 and considering the long-term projection of the luminous flux maintained, according to IES TM 21:2011. Certificate for LM-80 and TM-21 test are available.
- Color Correlated Temperature (CCT) is available between 2,200 and 6,500 Kelvin.
- The color rendering index (CRI) is greater than or equal to 70 (Ra ≥ 70).

ELECTRICAL CHARACTERISTICS

- The nominal supply voltage of the luminaire must be between 90 and 305VAC with a frequency between 47 and 63Hz.
- The power factor (PF) is greater than or equal to 0.95.
- Total Harmonic Distortion (THD) is less than 8%.
- The driver has an internal protection (DPS) of 12kV – 12kA against surges.
- The luminaire has an external SPD, additional to the driver, of 20kV – 20kA.
- The luminaire has the Zhaga and/or NEMA type photocontrol and remote management bases.
- The luminaire is equipped with an automatic switch from the current line to the opening of the electronic assembly.
- The driver is protected against overvoltages, overcurrents, overtemperature and short circuits.
- The working temperature of the luminaire is between -40°C to 65°C.
- The electrical insulation class is Class I.
- The electronic assembly is mounted on an equipment tray, made of galvanized steel sheet, easy to disassemble to facilitate maintenance.

MECHAICAL CHARACTERISTICS

- The body of the luminaire is made of non-corrosive injected aluminum, ADC-12 quality.
- The closing and opening of the electronic assembly is done by means of a hinged lid and latches, without the need to use tools.
- The finish of the housing is covered in electrostatically applied paint, with UV protection for outdoor use.
- The optical assembly of the luminaire is protected with a flat tempered safety glass (closed with the body of the luminaire) of high translucency, with a smooth finish and a minimum thickness of 4mm, which ensures the hermetic and impact index IK08, thus avoiding the dirt or wear of the optical lenses of the LED modules and an increase in the cost of cleaning and loss of luminous flux due to deterioration.
- The degree of protection of the luminaire: IP ≥ 66 & IK ≥ 08
- Cable entry to the luminaire is made through stainless steel cable glands.
- To guarantee the degree of tightness of the IP66 luminaire, the coupling or gasket between the glass and the casing is made with an element resistant to high temperatures of EPDM material.
- The fixing system of the luminaire allows the inclination with respect to the horizontal of the optical assembly in steps of -15°, -10°, -5°, 0°, 5°, 10° and 15° for horizontal mounting (mounting on arm) and the inclination with respect to the horizontal of the optical assembly in steps of 10°, 15° and 20° for vertical mounting.
- Fixing the luminaire to the arm is done with anti-theft screws.

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