

Spin

GEN3



KEY BENEFITS

- Tool-free top opening
- Up to 11 different fixations
- Durability and sturdiness: IP66 + IK10.
- Die-cast aluminium. Low copper content (Cu <0.1%)
- Energy Efficient: GEN3: up to 172 lm/W
- Up to 22 different photometric distributions
- Smart Ready: Designed to accommodate a communications node, both on the top and bottom.
- Future Proof: Zhaga-compliant
- Lifetime L90B10 100,000h (Ta 25°C)
- Night Friendly: ULR Arrêté du 27 décembre 2018
- Cover fastening rod for easier installation
- Optional disconnecter for enhanced safety during installation and maintenance
- Capability to integrate a presence sensor on the luminaire
- Optional 20 mm cable glands
- 5 years warranty



*Awaiting certification approval



RAL 7015
Textured (7015T)



Dark-Sky Association certification
≤ 3.000K not available for 4.000K.
Mechanical adjustment: max. + or - 15 degrees to allow leveling in the field.



DESCRIPTION

Spin is a luminaire designed to blend naturally into any environment, offering a unique combination of flexibility, design and performance. Its wide range of fixations and optical distributions allows it to adapt to the needs of each city, ensuring efficient lighting without compromising the identity of the urban landscape.



Optional CR>80

STANDARDS / CERTIFICATES

- CE
- RoHS
- UNE-EN 60598-1
- UNE-EN 60598-2-3 o 60598-2-5
- UNE-EN 62471
- UNE-EN 61000-3-2
- UNE-EN 61000-3-3
- UNE-EN 55015
- UNE-EN 61547
- UNE-EN 62031
- UNE-EN 61347-2-13
- UNE-EN 62384
- UNE-EN 13032-4
- UNE-EN ISO 9227 NSS (1000h)

	GEN3 1.330lm - 16.805 lm		7.5 Kg
	GEN3: 172 lm/W		-40°C - +50°C
	Tool-free access to control gear		0,00% - 0,08% FHS/ULR
	0,24 m² - 0,30 m²		

*Test reports from independent ENAC accredited laboratories or equivalent. Measurements taken at ISO 17025 approved laboratory.
Meets the minimum CEI - IDAE requirements.

220 - 240 V / 100 V - 277 V
50-60 Hz
L90B10 100,000 h
Ta 25°C

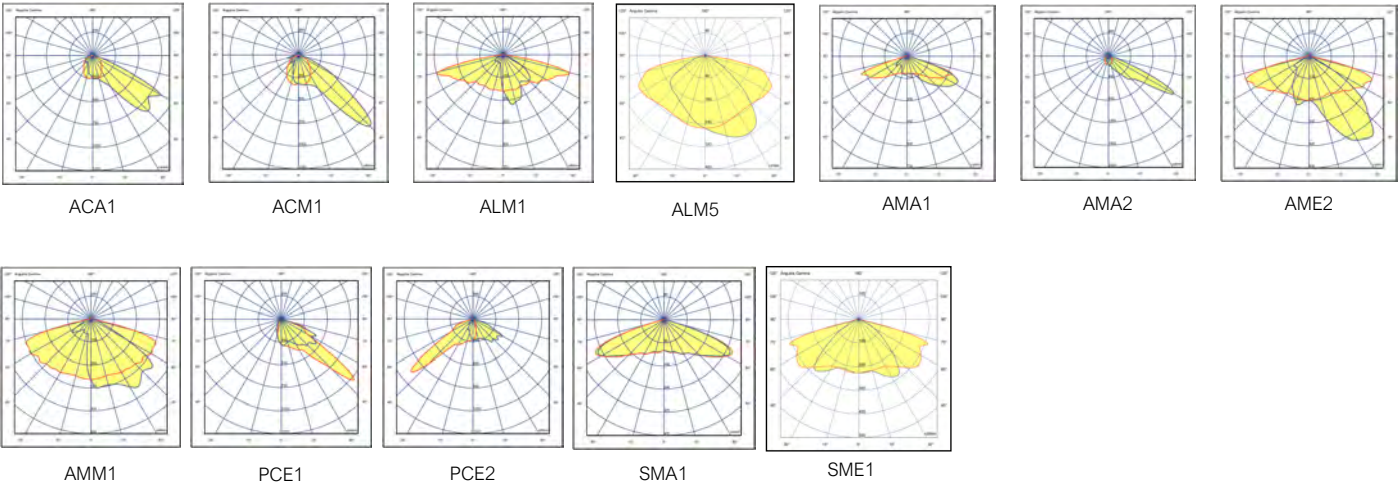
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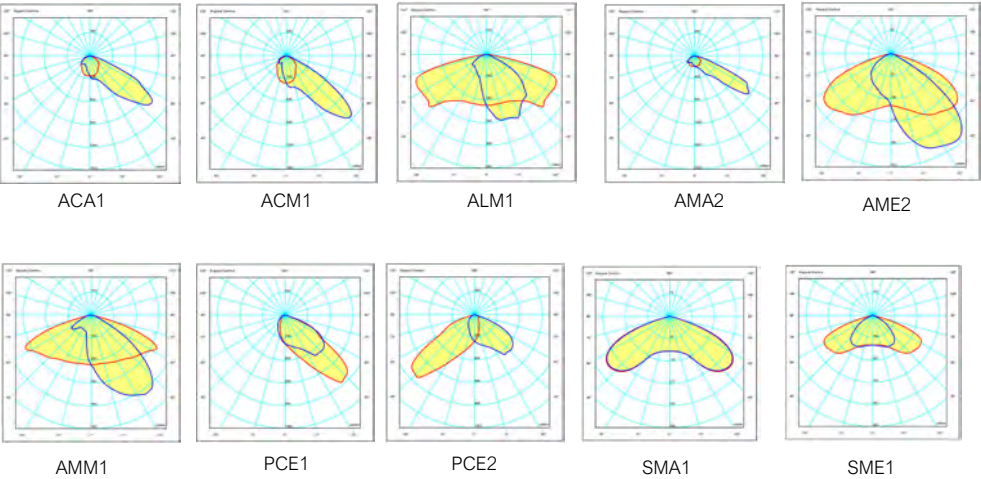
PHOTOMETRIC DISTRIBUTIONS

It has the 22 photometric distributions used for the environments in which this type of luminaire is installed, allows it to adapt to all needs:

CERAMIC LED



POLYMERIC LED



SPIN CHARACTERISTICS

GENERAL INFORMATION

Sustainability	Valorisation: 99,29% Carbon footprint per use: 0,029149 kg kW/h de CO2
CE mark	Yes
RoHS-compliant	Yes
Testing standards	LM 79-80 (all measurements at ISO17025 certified laboratory)

GENERAL CHARACTERISTICS

Body, Cover and Bracket	Pressure die-cast aluminium EN AC-44100 (LM6) with low copper content <0.1%. Includes a moulded silicone gasket in the perimeter channel.
Entry	Sealed connector Standard configuration SE2, PT2, VB1, BT1, FM3, FM5 - 2 plastic cable entries - or 1 cable gland (plastic or metal) + 1 plug HM1, HM2, H01, H02, CT1 - 1 cable gland (plastic or metal) + 1 plug (ensures IP tightness) Optional - 2 cable glands (plastic or metal) - 2 plastic cable entries (The luminaire features 2 cable entry points)
Enclosure	5 mm thick flat tempered glass.
Exterior nuts and bolts	Stainless steel (AISI304).
General ingress protection	IP66 (EN 60598-1 and EN 60529)
Level of protection against impacts	IK10 (EN 62262)
Operating temperature	Ta -40°C to +50°C According to luminaire configuration.
Lifetime	L90B10 100,000 h at Ta 25°C. Light maintenance values at 25°C. Calculated by TM-21 based on LM-80 data.

ELECTRICAL CHARACTERISTICS

Electrical class	Class I Class II
Input voltage	220 V - 240 V / 50 Hz - 60 Hz Optional 100 V- 277 V
Power factor	> 0.9
Harmonic distortion	< 10%
Protection	Surge protection (1.2/50) 10 kV. Maximum current (8/20) 10kA. Maximum voltage (L-N) 320 V. Maximum voltage (L/N-GND) 400 V. Optional surge protection: 20 kA, 20 kV. Disconnecter

LIGHTING CHARACTERISTICS

Package real light	GEN3: 1.330lm - 16.805 lm (12W - 103W)
LED color temperature (CRI)	4,000 K (Neutral White, nw). 3,000 K (Warm White, ww). 2,700 K (Warm White, ww). 2,200 K (Warm White, ww). Amber optic colour temperature
Color Rendering Index	CRI>70. CRI80 upon request
LEDs	Includes 12, 24, 36 or 48 LEDs.
ULR	Between 0.00% and 0.08%
Optics	PMMA polymethylmethacrylate.
Photometric distribution	ACA1: Throw angle 65° spread angle 60° (Type III). ACM1: Throw angle 60° spread angle 50° (Type III). ALM1: Throw angle 70° spread angle 75° (Type III). ALM5: Throw angle 70° spread angle 75° (Type III). AMA1: Throw angle 70° spread angle 65° (Type IV). AMA2: Throw angle 70° spread angle 60° (Type III). AMA3: Throw angle 70° spread angle 60° (Type IV). AME2: Throw angle 60° spread angle 75° (Type II). AMM1: Throw angle 50° spread angle 70° (Type II). BCA1: ACA1 (Throw angle 65° spread angle 60° (Type III)), with external back-light shield 60mm. BCM1: ACM1 (Throw angle 60° spread angle 50° (Type III)), with external back-light shield 60mm. BLM1: ALM1 (Throw angle 70° spread angle 75° (Type III)), with external back-light shield 60mm. BMA1: AMA1 (Throw angle 70° spread angle 65° (Type IV)), with external back-light shield 60mm. BMA2: AMA2 (Throw angle 70° spread angle 60° (Type III)), with external back-light shield 60mm. BMA3: AMA3 (Throw angle 70° spread angle 60° (Type IV)), with external back-light shield 60mm. BME2: AME2 (Throw angle 60° spread angle 75° (Type II)), with external back-light shield 60mm. BMM1: AMM1 (Throw angle 50° spread angle 70° (Type II)), with external back-light shield 60mm. IMA1: AMA1 (Throw angle 70° spread angle 65° (Type IV)), with internal back-light shield. IMA3: AMA3 (Throw angle 70° spread angle 60° (Type IV)), with internal back-light shield. IMM1: AMM1 (Throw angle 50° spread angle 70° (Type II)), with internal back-light shield. PCE1: Throw angle 70° spread angle 65° (Type IV). PCE2: Throw angle 70° spread angle 15° (Type II). SMA1: Throw angle 70° spread angle 70° (Type VS). SME1: Throw angle 60° spread angle 75° (Type II).
LED thermal management	Heat dissipation via conduction, radiation and convection based on a design for LED technology.

SPIN CHARACTERISTICS

MAINTENANCE AND ASSEMBLY

Installation and maintenance	Tool-free luminaire access system designed by Carandini. Access to the driver from the top.
Fixation	SE2: Lateral fixation - 60mm. PT2: Vertical fixation - 60mm. VB1: Single arm fixation - 60mm. HM1: Wall bracket - 75mm. HM2: Wall bracket - 150mm. H01: Bracket. H02: Bracket 30°/60°. BT1: Tubular arm fixation - 60 mm. FM3: Wall fixation- 250mm. FM5: Wall fixation- 500mm. CT1: Catenary fixation.
Total weight	SE2: 7,9 kg PT2: 7,9 kg VB1: 8,6 kg HM1: 7,5 kg HM2: 7,6 kg H01: 8,4 kg H02: 10,7 kg BT1: 9,1 kg FM3: 8,9 kg FM5: 11 kg CT1: 8,4 kg
Wind resistance	0,24 m² - 0,30 m²
Pressure equalisation valve	The luminaire integrates a valve that equalises internal pressure, preventing moisture condensation inside and thereby extending the service life of the components.
Cables	Class I/II Cable from 2 to 9 metres Cross-section : 2x1,5 ; 3x1,5 ; 4x1,5 ; 5x1,5 ; 2x2,5 ; 3x2,5
Accessories	FMC: 382828 Decorative wall cover. BT2: 382760 Tubular double arm fixation. BT3: 382832 Tubular triple arm fixation. RJV: 382761 Anti-vandal grille. AR: 319847 Reduction coupling 34/42mm

MANAGEMENT AND CONTROL

Equipment	1N: 1 Level RD: DALI RL: Pulse adjustable LED SR: Smart Ready (D4i) AF: 1 - 10 V
Autonomous regulation	Regulations programmed from the factory: 56: 50% from 00:00 to 06:00 76: 70% from 00:00 to 06:00 SC: As requested by the client.
CLO regulation	Flow rate during the life of the product: 7: 70% luminous flux throughout the life of the luminaire. 8: 80% luminous flux throughout the life of the luminaire. 9: 90% luminous flux throughout the life of the luminaire.
Socket connection	7-W: NEMA socket 7 pins without/with IP66 cover X: Zhaga 4-pin upper socket with IP66 cover Y: Zhaga 4-pin lower socket with IP66 cover Q: Zhaga 4-pin upper/lower socket with IP66 cover
Sensor	1: Photocell for NEMA 3, 5 and 7 pin socket (20 LUX) 2: Photocell for upper ZHAGA socket (20 LUX) 3: Presence sensor for lower Zhaga socket
Node	CD: CITIDIM

FINISHES

Predefined luminaire colour

RAL 7015	Gray powder paint RAL 7015 Textured (7015T).
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Corrosion protection

SEA SIDE SUITABLE	Marine Finish (1.000h) optional
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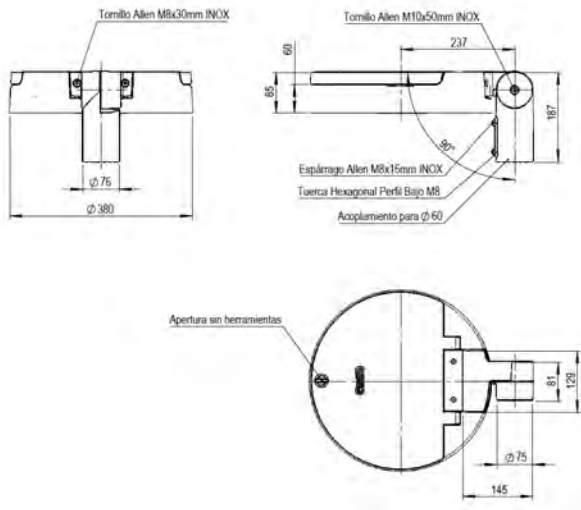
APPLICATIONS

Greenways and bike lane, train and bus stations, facades and monuments, parks, squares and gardens, residential and pedestrian areas.

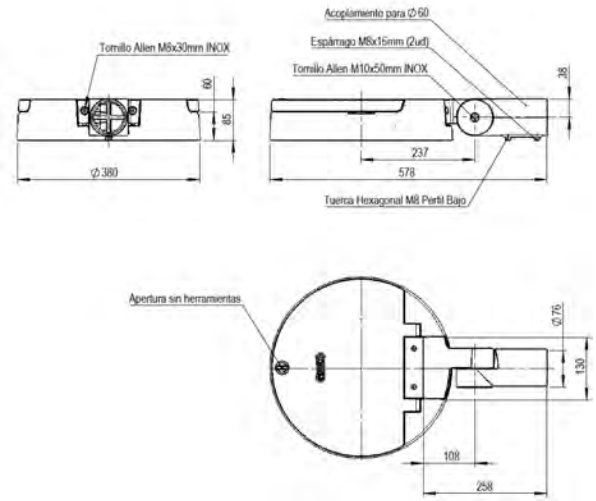


DIMENSIONS

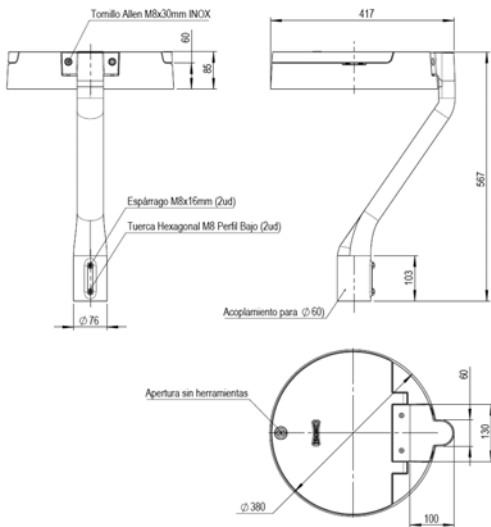
PT2: Vertical fixation - 60mm



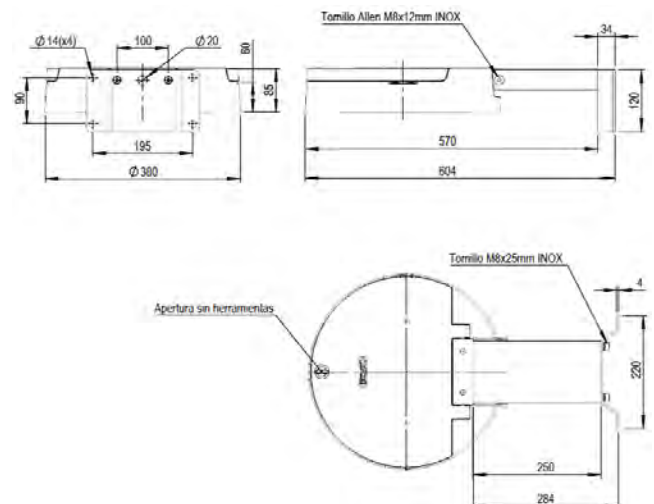
SE2: Lateral fixation - 60mm



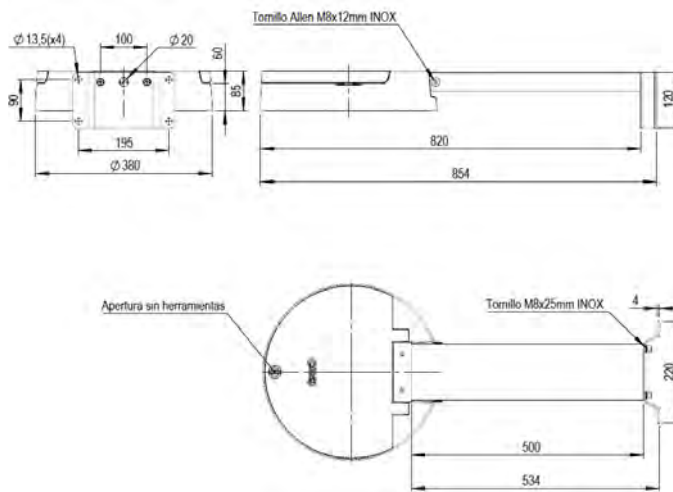
VB1: Single arm fixation - 60mm.



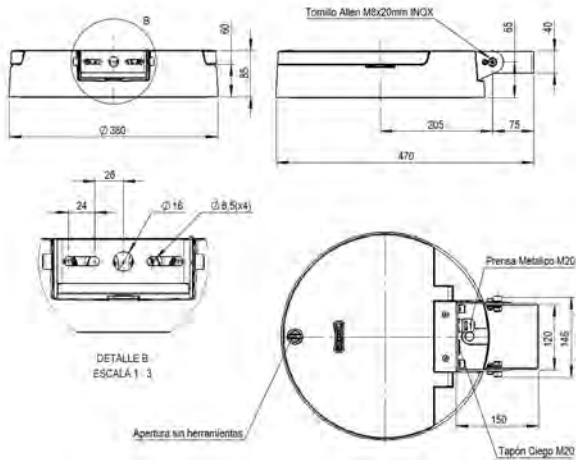
FM3: Wall fixation - 250mm



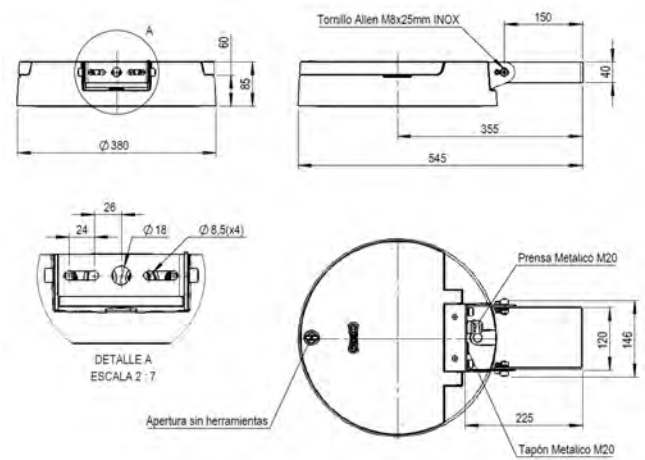
FM5: Wall fixation - 500mm.



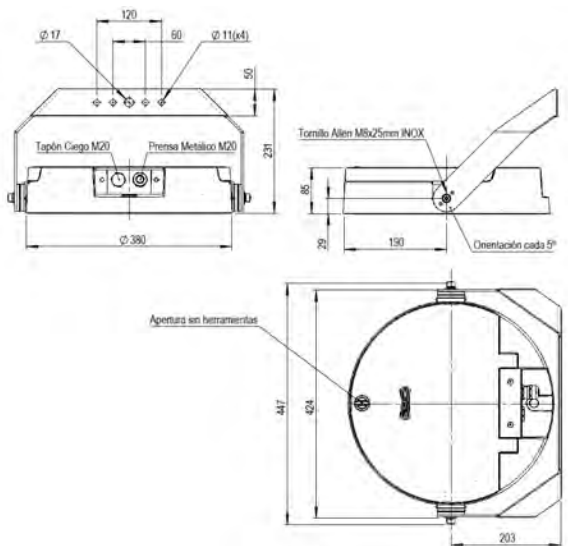
HM1: Wall bracket - 75mm.



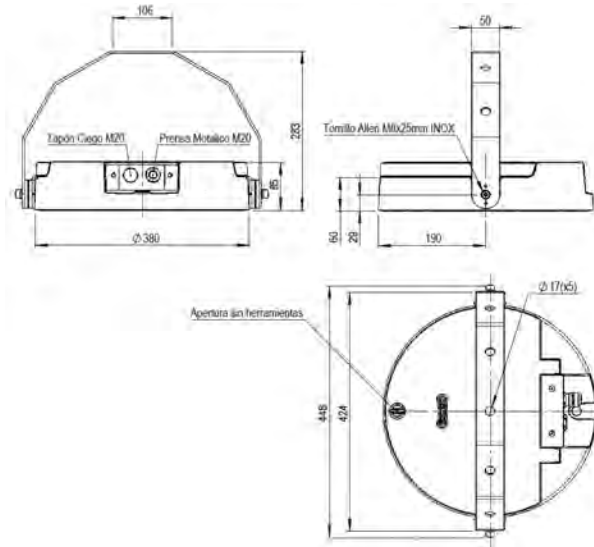
HM2: Wall bracket - 150mm.



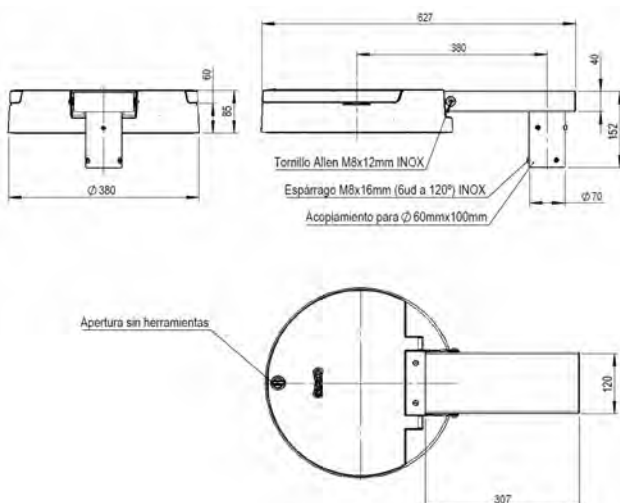
H01: Bracket



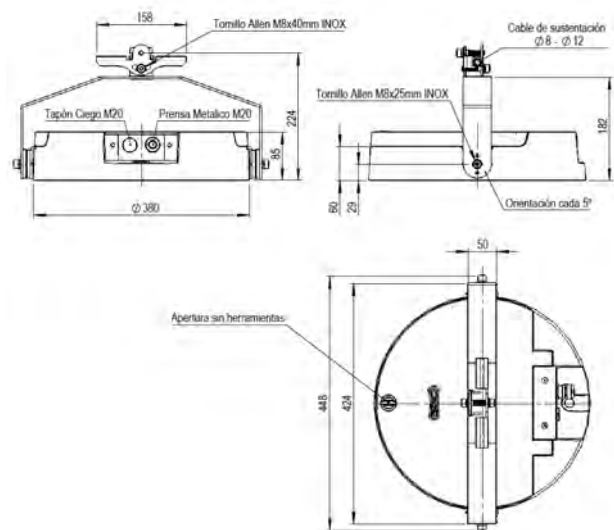
H02: Bracket 30°/60°



BT1: Tubular arm fixation - 60 mm.



CT1: Catenary fixation.



FIXATIONS



PT2: Vertical fixation - 60mm



SE2: Lateral fixation - 60mm



VB1: Single arm fixation - 60mm.



HM1: Wall fixation - Bracket 75mm.



HM2: Wall fixation- Bracket150mm.



H01: Bracket



H02: Bracket - 30°/60°



CT1: Catenary fixation.



BT1: Tubular arm fixation - 60 mm.



FM3: Wall fixation - 250mm +
FMC: Decorative wall cover



FM5: Wall fixation - 500mm. +
FMC: Decorative wall cover



SFX: Spin without fixation (2 units) +
BT2: Tubular double arm fixation



SFX: Spin without fixation (3 units) +
BT3: Tubular triple arm fixation

ACCESSORIES

BT2: Tubular double arm fixation
Ref. 382760



BT3: Tubular triple arm fixation
Ref. 382832



FMC: Decorative wall cover
Ref. 382828



City Council coat of arms (custo)



RJV: Anti-vandal grille
Ref. 382761



AR: Reduction coupling 34/42mm
Ref. 319847



LOGISTICAL INFORMATION

European base	SE2 / PT2	VB1	HM1	HM2	H01
Box size	590 x 395 x 140 mm	590 x 390 x 250 mm	590 x 390 x 250 mm	590 x 390 x 250 mm	590 x 390 x 250 mm
Box weight	7.9kg	8.8 kg	7,9	8	8,8
Number of boxes	40	24	24	24	24
Overall dimensions	1200 x 800 x 1670 mm	1200 x 800 x 1670 mm	1200 x 800 x 1670 mm	1200 x 800 x 1670 mm	1200 x 800 x 1670 mm
Number of levels	10 (4 boxes per level)	6 (4 boxes per level)	6 (4 boxes per level)	6 (4 boxes per level)	6 (4 boxes per level)
Total gross weight	320kg	230 kg	209,6	212	231,2

European base	H02	BT1	FM3	FM5	CT1
Box size	590 x 390 x 250 mm	590 x 390 x 250 mm	590 x 390 x 250 mm	590 x 390 x 250 mm	590 x 390 x 250 mm
Box weight	11,1	9,5	9,3	11,4	8,8
Number of boxes	24	24	24	24	24
Overall dimensions	1200 x 800 x 1670 mm	1200 x 800 x 1670 mm	1200 x 800 x 1670 mm	1200 x 800 x 1670 mm	1200 x 800 x 1670 mm
Number of levels	6 (4 boxes per level)	6 (4 boxes per level)	6 (4 boxes per level)	6 (4 boxes per level)	6 (4 boxes per level)
Total gross weight	286,4	248	243,2	293,6	231,2

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LUMINAIRE ADJUSTMENT

By programming the driver

Programming profile

The driver can be programmed so that luminous flux is reduced from the luminaire during the least busy hours at night while always meeting the required lighting and uniformity levels.

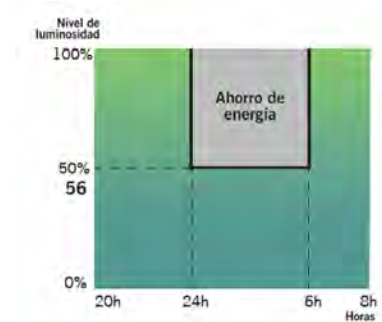
Programming profile 56

From 00:00 to 06:00 the luminaire reduces its initial intensity by 50%.

Up to

26%
savings

NOTE: Programming the Dynadimmer using the multitone scheduling tool is done for wintertime. In summer everything is delayed by an hour.



Using the CLO function

While taking lumen depreciation over the years into account, the driver is programmed so that it starts at a reduced level and gradually increases power over the lifetime of the luminaire. This saves energy and increases the lifetime of the system. Furthermore, the light level in the area where the luminaire is installed remains constant over time.

Constant luminous flux 8

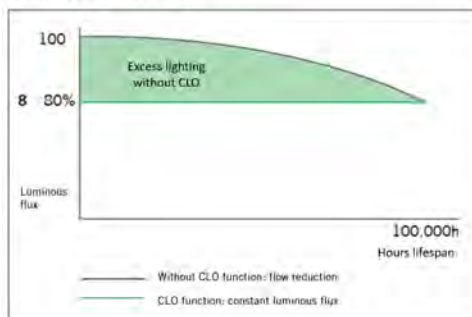
Luminous flux from the luminaire at 80% to maintain light levels throughout its lifetime.

Up to

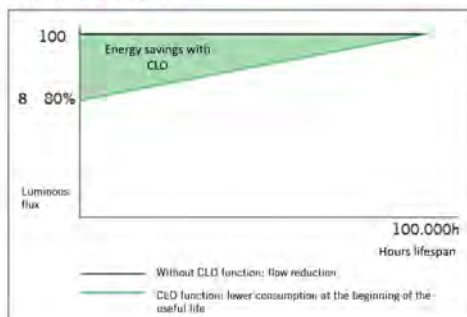
10%
savings

and increase in luminaire service life

Luminous flux chart



Consumption graph



By incorporating an additional device

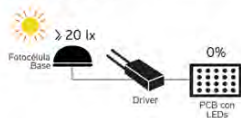
Photocell

A photocell enables the luminaire to be switched on or off based on the solar light intensity detected.

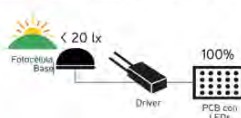
This is extremely useful so the luminaires are not switched on during the day when there is still sufficient natural light.

Ejemplo con fotocélula de 20 lx:

Si la fotocélula detecta más de 20 lx no activará el encendido de la luminaria.



Es cuando los niveles luminicos empiezan a bajar que la fotocélula detecta 20 lx y activa el encendido de la luminaria.



INNOVATIVE AND UPDATABLE OVER TIME (Zhaga/ ZD4i)

"All luminaires incorporating Nema Bases or Zhaga Bases, where the control system is not the responsibility of Carandini, must always incorporate IP 66 covers in order to ensure the correct safety and operation of the product.

The sale of luminaires with Nema or Zhaga Bases without the IP 66 cover will only be permitted upon receipt of a written assurance from the customer that the control system using NEMA or ZHAGA Nodes will be installed by the customer at the same time as the luminaires".

Zhaga

Zhaga - Future Proof

Zhaga is an industry-wide consortium that aims to standardise specifications for interfaces between LED luminaires and light sources. The aim is to achieve interchangeability between products made by different manufacturers. Zhaga defines test procedures for luminaire and LED light sources so that the luminaire can receive the LED source.



Zhaga D4i - Sensor Ready

The Zhaga consortium joined up with DiiA to create a unique Zhaga-D4i certification that combines Zhaga's Book 18 version 2 outdoor connectivity specifications with Dii4's D4i specifications for intra-luminaire DALI.

BOOKS PER APPLICATION. A COST-EFFECTIVE SOLUTION.

ZHAGA Consortium		Book 1-25 Overview by application	
	Office & Industry	Retail & Hospitality	Outdoor
Integrated LED light engines	14 2.8	17 16	
LED modules (non-integrated)	7 21 14	12 9 5 3,10	4 15 19
Drivers	13	LED set 22,23	24,25
Sensor and communication modules		20	18

The specifications that mark a component as Zhaga-compliant are contained in a series of books, available only to consortium members, that allow you to design to the marked standard. The benefits for society are evident since, apart from reducing the consumption of materials, it favours the reuse of luminaires, aiming towards a circular economy.

CERTIFICATION PROGRAMME

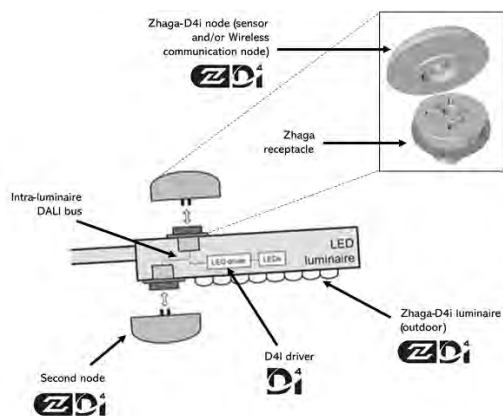
Zhaga-D4i certification covers all the essential characteristics, including automatic adjustment, digital communication, data reporting and power requirements in any single luminaire, ensuring plug-and-play interoperability for luminaires (drivers) and peripherals, such as connectivity nodes.

STANDARDISATION AS A MEANS TO ACHIEVE SUSTAINABILITY

The Spin luminaire has been designed to function with the latest available market-proven technology based on standards. This also enables it to meet the CARANDINI sustainability requirements and become a product ready for maintenance in the future under better guarantees while respecting the environment and society.

The luminaires marked as Zhaga are a "Future Proof" design, meaning it is based on and designed around standard Zhaga components. These components are mainly the LED modules and the drivers. The electric compartment and dissipation area for LED modules has space and additional mountings to include any driver compliant with Zhaga "Book 13" based on market driver dimensions, or any LED module compliant with Zhaga "Book 15" based on LED controller interface specifications.

This makes it possible to have a sustainable product that can be updated over time.



CONNECTIVITY

D4i specifications take the best of the standard DALI2 protocol and adapt it to an interconnected lighting environment, but with certain limitations. Only the control devices installed in the luminaires can be combined with a Zhaga-D4i luminaire. According to the specifications, the control devices are respectively limited to an average power consumption of 2 W and 1 W.

SMART CITY

Luminaires marked ZD4i are a "Smart Ready" design, which means they are designed to house both indoor and outdoor communication nodes through connection sockets compliant with the Zhaga "Book 18" & Zhaga-D4i standard on sensor and communication node interoperability.