

# Century



## KEY BENEFITS

- Up to 4 fixings
  - Tool-free opening from the top
  - Durability and sturdiness: IP66 + IK10
  - Die-cast aluminium (Cu<0,1%)
  - Energy Efficient:  
GEN1: 149 lm/W  
GENA: 163 lm/W
  - Up to 19 photometric distributions
  - Smart Ready: Designed to house both indoor and outdoor communication nodes.
  - Future Proof: Zhaga standard compliant
  - Lifetime L90B10 100,000h (Ta) 25°C
  - Night Friendly: ULR Arrêté du 27 décembre 2018.
- 5 years warranty.



RAL 7015  
Textured

Marine finish  
(RAL M7015T)

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



## DESCRIPTION

Century is the new Carandini luminaire for amenity applications with a unique design. It presents a contemporary and elegant aesthetic, giving to the landscape an harmonious visual effect with the environment during the day, while at night it generates a pleasant atmosphere offering a feeling of warmth and security to people.

Thanks to the versatility of fixations and optical distributions that it has, it shapes the light taking it where it is required, thus creating comfortable environments in all types of urban spaces such as parks, walks, squares, pedestrian spaces, residential areas or historic centers .

		CRI>60	CRI>70	CRI>70	CRI>70	CRI>70	
		Amber optic + 4000K	PC amber	2200K	2700K	3000K	4000K
U500	GEN1	<0,2%	<0,25%	<6%	<10%	<15%	< 22%
	GENA	-	-	-	-	12,36%	19,7%

## STANDARD COMPLIANCE

- CE
- RoHS
- UNE-EN 60598-1
- UNE-EN 60598-2-3 o 60598-2-5
- UNE-EN 62471:2009
- UNE-EN 60598
- 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: 2017 (1000h)

GEN1:  
621lm - 14.431lm  
GENA:  
1.019lm - 15.831lm

VB: 11,7 Kg  
PT/SE: 11 Kg  
CT: 10 Kg

GEN1:  
149 lm/W  
GENA:  
163 lm/W  
Luminaire

-40°C - +50°C

0,00% - 0,09%  
FHS/ULR

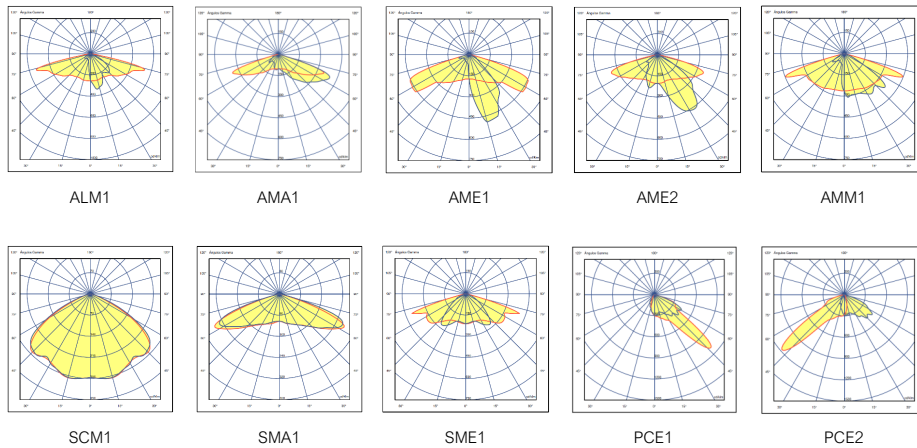
0,11 m<sup>2</sup> - 0,48 m<sup>2</sup>

220 - 240V / 120V - 277V  
50-60Hz  
L90B10 100.000h  
Ta 25°C

## PHOTOMETRIC DISTRIBUTIONS

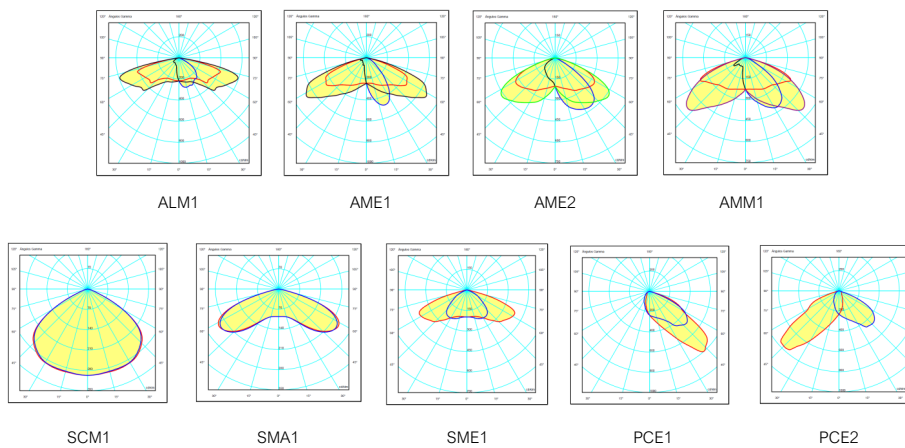
### GEN1

It has the 10 photometric distributions used for the environments in which this type of luminaire is installed, allows it to adapt to all needs:



### GENA

It has the 9 photometric distributions used for the environments in which this type of luminaire is installed, allows it to adapt to all needs:



## APPLICATIONS

Streets and avenues, residential and pedestrian areas, parks, squares and gardens, greenways and bike lane, shopping areas, train and bus stations.



## CENTURY CHARACTERISTICS

### GENERAL INFORMATION

Sustainability	Valorisation: 99.09%. Maximum carbon footprint per use: 0,026677 kg kWh CO2
CE marking	Yes
ENEC Certificate	Yes
RoHS compliance	Yes
Test standard	LM 79-80 (all measurements in the laboratory certified according to ISO17025)

### GENERAL CHARACTERISTICS

Armor and couplings	Die cast aluminum EN AC-44300 with low copper content <0.1%.
Closure	Tempered glass 5mm
Nuts outer and bolts	Stainless steel (AISI304).
Watertightness	IP66 (EN 60598-1 and EN 60598-2-3)
Impact protection grade	IK10 (EN 62262)
Operating temperature	Ta -40°C to +50°C According to luminaire configuration.
Lifetime	L90B10 100,000h at Ta of 25°C. Light maintenance assessments to TM-21 based on LM-80 data.
Cables	Class I/II Cable from 4 to 10 metres Cross-section: 2x1,5 ; 3x1,5; 4x1,5; 5x1,5; 2x2,5;

### ELECTRICAL CHARACTERISTICS

Electrical class	Class I o Class II
Voltage / Frequency	220V - 240V / 50Hz - 60Hz Optional 120V - 277V
Power factor	> 0,9
Harmonic distortion	< 15%
Surge protector	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 overvoltage protection: 20kA, 20kV

### MAINTENANCE AND ASSEMBLY

Installation and maintenance	Opening system of the luminaire without tools designed by Carandini. Access to the driver from the
Fixation	Double arm fixation VB2: ø 60 mm. Lateral fixation SE2: ø 49/60 mm. Vertical fixation PT2: ø 60 mm. Catenary fixation
Accessories	Optional pre- or post-installation shielding for these luminaires
Weight with equipment	Double arm fixation (VB): 11,7 Kg Vertical/latera fixationl (PT/SE): 11 Kg Catenary fixation (CT): 10 Kg
Mechanical regulation	The vertical PT fixation has a degree of inclination of -10° to + 20°. The lateral fixation SE has a degree of inclination of -20° to + 20°. You can see the angle inclination from the outside as it is marked on the couplings.
Pressure compensation valve	The integration of the valve extends the projected life of the joints and internal parts by reducing the pressure that is exerted on them and prevents moisture from entering the interior that can cause condensation.

### LIGHTING CHARACTERISTICS

Package real light	GEN1: 621lm - 14.431lm (9 W - 103 W) GENA: 1.019lm - 15.831lm (9 W - 103 W)
LED colour temperature	4,000K (Neutral White, nw). 3,000K (Warm White, ww). 2,700K (Warm White, ww). 2,200K (Warm White, ww). Amber
Index of reproduction chromatic (CRI)	CRI>70. Optional CRI80.
LED	Incorporate from 12, 24, 36 and 48 LED.
ULR	<0,09%
Optics	PMMA polymethylmethacrylate.
Photometric distributions	<b>ALM1:</b> Throw 75° Spread 10°/50° (Type III) <b>AMA1:</b> Throw 70° Spread 65° (Type IV) <b>AME1:</b> Throw 60° Spread 20° (Type II) <b>AME2:</b> Throw 70° Spread 15°/35° (Type II) <b>AMM1:</b> Throw 70° Spread 30°/50° (Type II) <b>SCM1:</b> Throw 50° Spread 50° (Type VS) <b>SMA1:</b> Throw 65° Spread 65° (Type VS) <b>SME1:</b> Throw 70° Spread 35° (Type II) <b>PCE1:</b> Throw 50° Spread 55°/60° (Type III) <b>PCE2:</b> Throw 50° Spread 45°/55° (Type II)
LED thermal control	Heat dissipation by conduction through the specific design for this luminaire, since it has been specifically designed for LED technology. (Heatsink).

### MANAGEMENT AND CONTROL

Equipment	<b>1N:</b> 1 Level <b>RC:</b> Controller dimmed <b>RD:</b> DALI <b>AF:</b> 1 - 10 V <b>RL:</b> Pulse adjustable LED <b>2N:</b> 2 Level <b>SR:</b> Smart Ready (D4i)
Autonomous regulation	Regulations programmed from the factory: <b>56:</b> 50% of the 24: 00h at 6: 00h. <b>66:</b> 60% of the 24: 00h at 6: 00h. <b>76:</b> 70% of the 24: 00h at 6: 00h. <b>SC:</b> Programming according to client.
CLO regulation	Flow rate during the life of the product: <b>7:</b> 70% luminous flux throughout the life of the luminaire. <b>8:</b> 80% luminous flux throughout the life of the luminaire. <b>9:</b> 90% luminous flux throughout the life of the luminaire.
Socket connection	<b>3-U:</b> NEMA 3 pin socket with/without IP66 cover <b>5-V:</b> NEMA 5 pin socket with/without IP66 cover <b>7-W:</b> NEMA 7 pin socket with/without IP66 cover <b>4-X:</b> Zhaga socket with/without IP66 cover
Sensor	<b>1:</b> Photocell for NEMA 3, 5 and 7 pin socket (20 lux) <b>2:</b> Photocell for larger Zhaga socket (20 lux)
Node	<b>CD:</b> Citydim <b>BS:</b> Controlux Basic IMCU

### FINISHES

#### Predefined luminaire colour

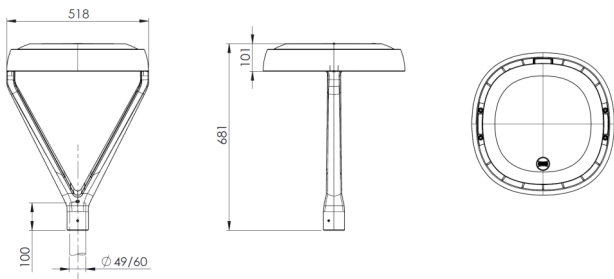
	RAL-7015 Slate grey textured
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#### Corrosion protection

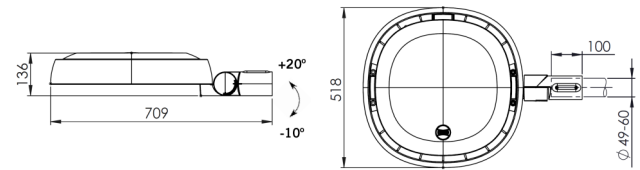
	Marine Finish (1.000h)
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**DIMENSIONS (mm)**

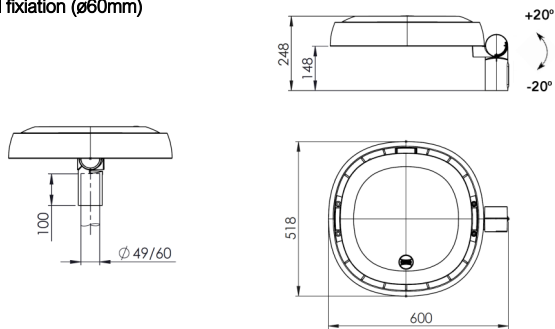
Double arm fixation (ø60mm)



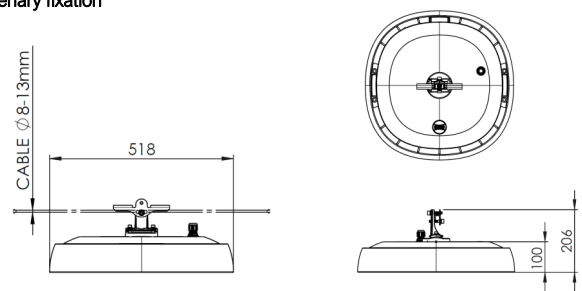
Lateral fixation (ø60mm)



Vertical fixation (ø60mm)



Catenary fixation



**LOGISTICAL INFORMATION**

European pallet

	CENTURY VB2	CENTURY SE2	CENTURY PT2
Box dimensions:	630 x 540 x 260 mm	727 x 536 x 164 mm	618 x 536 x 301 mm
Box weight:	13,0 kg.	11,0 kg.	11,8 kg.
Number of boxes:	10 units	16 units	10 units
Total dimensión:	1200 x 800 x 1450 mm	1200 x 800 x 1512 mm	1200 x 800 x 1650 mm
Number of levels:	5 levels	8 levels	5 levels
Total gross weight:	150 kg.	196 kg.	138 kg.
Total net weight:	130 kg.	176 kg.	118 kg.

## LUMINAIRE DIMMING

### By programming the driver

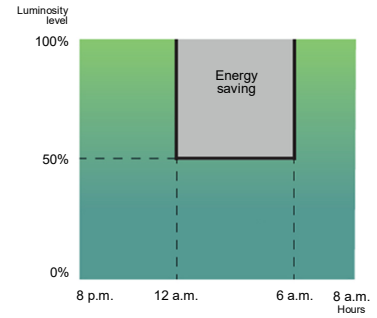
Smart luminaire drivers can be programmed in the factory without needing a control system, additional wiring or maintenance costs. A schedule is pre-programmed for light flow to be automatically reduced at quieter times of the night while respecting light levels and uniformity.

#### 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.



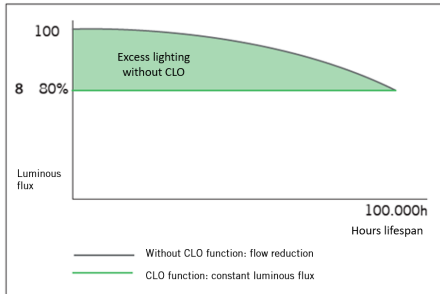
### Using the CLO function

Taking into account lighting depreciation over the years, the driver is programmed to start at a reduced level and gradually increase power over the lifetime of the luminaire, which saves energy and increases the service life of the system. In addition, the level of illumination of the area in which it is located is always kept constant.

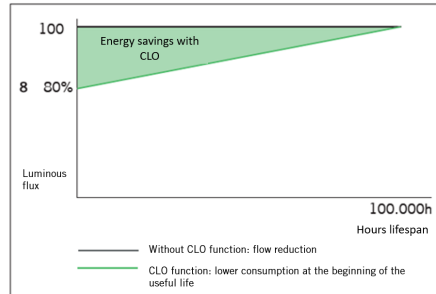
#### Constant luminous flux 8

Luminaire luminous flux at 80% to maintain light levels throughout its service life.

Luminous flux chart



Consumption graph



Up to  
**10%**  
savings  
and increase in luminaire  
service life

### By adding an extra element

#### Photocell

The photocell allows the luminaire to be switched on or off depending on the intensity of the sunlight it captures.

This is very useful, to avoid having luminaires on at times when there is still enough natural light.

Example with 20 lx photocell:



**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 - 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 DiiA's D4i specifications for intra-luminaire DALI.

**BOOKS PER APPLICATION. A COST-EFFECTIVE SOLUTION.**



	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**

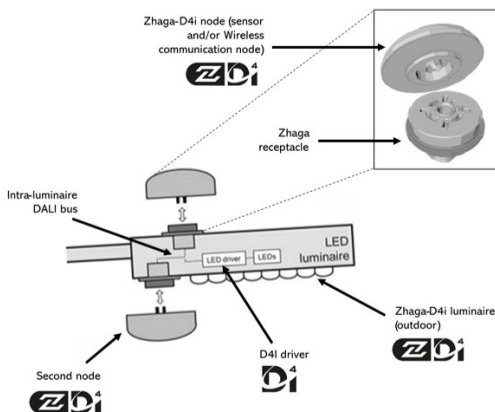
Zhaga-D4i certification covers all essential features, including automatic setting, digital communication, data reporting and power requirements within a single luminaire, ensuring plug-and-play interoperability for luminaires (drivers) and peripherals such as connectivity nodes.

**STANDARDISATION AS A MEANS TOWARDS SUSTAINABILITY**

The **Century** luminaire has been designed to operate with the latest tried and tested technology available on the market, in accordance with current standards, which allows it to meet CARANDINI's values of sustainability, making it a product that conforms to CARANDINI's values of sustainability and that can guarantee future maintenance while respecting society and the environment.

Luminaires marked as **Zhaga** feature **Future Proof** design, meaning that they are based on and designed around Zhaga standard components. These components are mainly LED modules and drivers. The electrical compartment and dissipation area for the LED modules have additional space and mountings to integrate any driver that complies with Zhaga standard Book 13, based on the required dimensions for drivers on the market or any LED module that complies with Zhaga Book 15, based on the LED driver interface specifications.

Eso permite tener un producto sostenible y actualizable en el tiempo.



**CONNECTIVITY**

The D4i specification takes the best of the standard protocol and adapts it to an intra-luminaire environment, but it has certain limitations. Only the control devices installed within the luminaires can be combined with a Zhaga-D4i luminaire. In accordance with the specification, the control devices are limited to an average power consumption of 2W and 1W respectively.

**SMART CITY**

Luminaires marked as **ZD4i** are a **Smart Ready design**, meaning they are designed to accommodate both interior and exterior communication nodes through docking stations which comply with Zhaga & Zhaga-D4i standard Book 18 on interoperability of sensors and communication nodes.