

Veka S

GEN 2



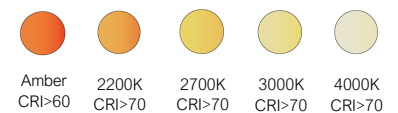
KEY ADVANTAGES

- Up to 5 fixations.
- Tool-free access from the top
- Durability and sturdiness: IP66 + IK10.
- Die Cast aluminium (Cu<0.1%).
- Energy Efficient: GEN2: 164lm/W
- Up to 20 optical distributions.
- Smart Ready: Designed to house both indoor and outdoor communication nodes.
- Future Proof: Zhaga-compliant.
- Lifetime L90B10 100.000h (T_A^a) 25Å°C.
- Night Friendly: ULR Arrêté du 27/12/ 2018.
- Cover fastening rod that facilitates installation
- Optional disconnecter for increased safety during installation and maintenance.
- High speed Sensor capability.
- 5 years warranty.



DESCRIPTION

Veka is the new luminaire family for public street lighting by Carandini. Its elegant design, latest generation LED technology and optical distributions make it a high quality solution for urban streets, secondary roads, motorways, residential streets, car parks and bike lanes.



STANDARDS / CERTIFICATES

- CE
- RoHS
- UNE-EN 60598-1
- UNE-EN 60598-2-3
- UNE-EN 62471:2009
- 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 (1,000 h)

	GEN2: 757lm - 14.618 lm		PT: 0.10695 m ² SE: 0.11343 m ² FM: 0.10659 m ² FT: 0.10759 m ²
	GEN2: 164lm/W Luminaire		-40°C - +50°C
	5,3 Kg		0,0% FHS/ULR
	Tool-free access to control gear		

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

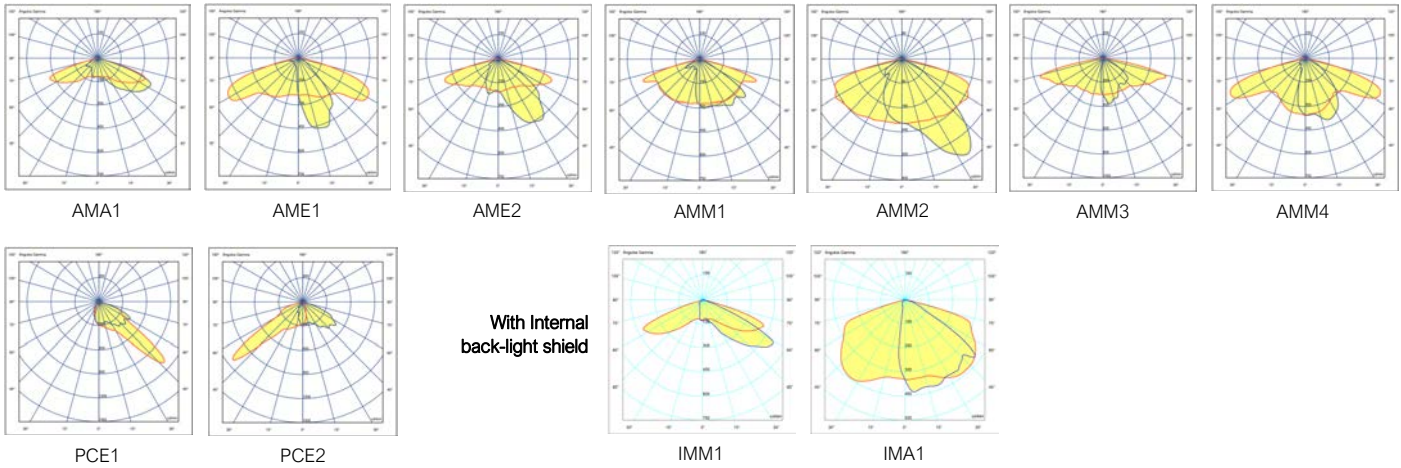
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-carandini@carandini.com - www.carandini.com

PHOTOMETRIC DISTRIBUTIONS

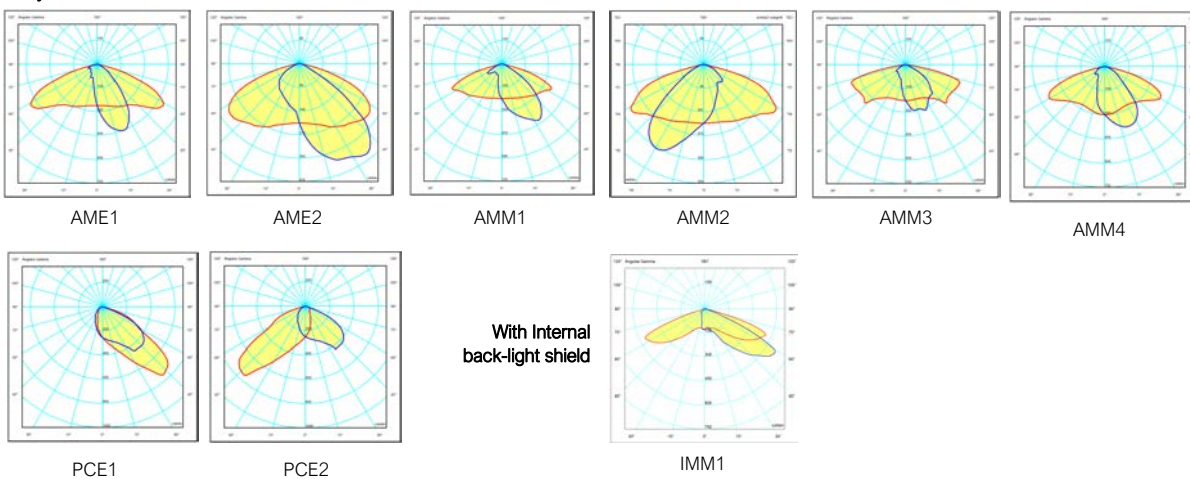
GEN2

It has the 20 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 :



APPLICATIONS

Urban streets, secondary roads, residential streets, car parks and bike lanes.



VEKA S CHARACTERISTICS

GENERAL INFORMATION

Sustainability	Valorisation: 99,38% Carbon footprint per use: 0,029149 Kg kW/h CO2
CE mark	Yes
ENEC Certificate	Yes
RoHS-compliant	Yes
Testing standards	LM 79-80 (all measurements at ISO17025 certified laboratory)

GENERAL CHARACTERISTICS

Body and mounting	Die cast aluminum EN AC-44100 with low copper content <0.1%.
Closure	Tempered glass 5mm
Nuts outer and bolts	Stainless steel (AISI304).
Watertightness	IP66 (EN 60598-1 and EN 60529)
Impact protection grade	IK10 (EN 62262)
Operating temperature	Ta -40 °C a +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.
Cable	Class I/II Cable from 4 to 10 metres Cross-section: 2x1.5 ; 3x1.5 ; 4x1.5 ; 5x1.5; 2x2.5; 3x2.5

ELECTRICAL CHARACTERISTICS

Electrical class	Class I or Class II
Voltage / Frequency	220V - 240V / 50Hz - 60Hz Optional 100V - 277V
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: 20kA, 20kV Disconnecter Cable gland

LIGHTING CHARACTERISTICS

Package real light	GEN2: 757 lm - 14.618lm (12 - 112W) 164lm/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 color temperature.
Index of reproduction chromatic (CRI)	CRI>70. Optional CRI80.
LEDs	Includes 16, 24, 36 and 48 LEDs.
FHS/ULR	0,0%
Optics	PMMA polymethylmethacrylate.
Photometric distributions	AMA1 => Throw 65° Spread 70° (Type IV) AME1 => Throw 45° Spread 70° (Type I) AME2 => Throw 60° Spread 75° (Type II) AMM1 => Throw 55° Spread 70° (Type III) AMM2 => Throw 65° Spread 75° (Type II) AMM3 => Throw 60° Spread 75° (Type III) AMM4 => Throw 65° Spread 70° (Type II) IMA1 => Throw 60° Spread 65° (Type III) IMM1 => Throw 55° Spread 75° (Type II) PCE1 => Throw 70° Spread 65° (Type III) PCE2 => Throw 65° Spread 15° (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).

FINISHES

PREDEFINED COLOUR OF THE LUMINAIRE

 RAL 9006	Grey polyester powder coat paint RAL 9006 Smooth Gloss (9006B).
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Corrosion protection

 SEA SIDE SUITABLE	Marine Finish (1.000h) (Optional)
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ACCESSORIES

Internal back-light shield



External back-light shield

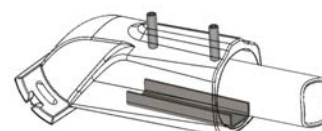
120mm Ref. 321385

60mm Ref. 319141



Reduction coupling ø34/42

Ref. 111637



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-carandini@carandini.com - www.carandini.com

VEKA S CHARACTERISTICS

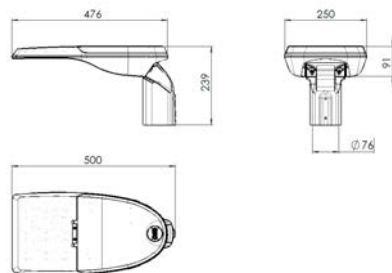
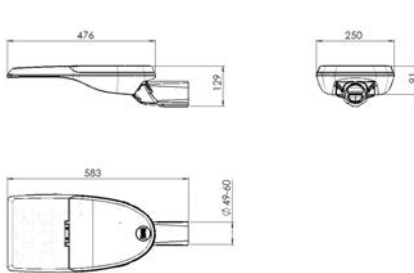
MAINTENANCE AND ASSEMBLY

Installation and maintenance	Tool-free luminaire access system designed by Carandini. Access to the driver from the top.
Fixation	PT1: Vertical fixation $\varnothing$ 76mm.* SE1: Lateral fixation $\varnothing$ 34/42 SE2/PT2: Lateral/vertical fixation $\varnothing$ 49/60mm. FM1: Wall fixation . Includes bracket for direct installation on wall. FT1: Ceiling fixation. Incorporates bracket for direct ceiling mounting. * * The PT1/PT2 fixations shall be supplied horizontally mounted (SE) for sustainability. *The FT1 fixation will be supplied semi-assembled.
Mechanical adjustment	Vertical and lateral fixation offers an angle of inclination range of $\pm 20^\circ$ every 2.5° . The bracket for wall installation offers a range of inclination of $\pm 40^\circ$ every 2.5° .
Equipped weight	PT1: 5,8 kg / PT2: 5,6 kg SE1: 5,3 kg / SE2: 5,6 kg FM1: 5,5 kg FT1: 5,6 kg
Wind Surf.	PT: 0.10695 m ² SE: 0.11343 m ² FM: 0.10659 m ² FT: 0.10759 m ²
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.

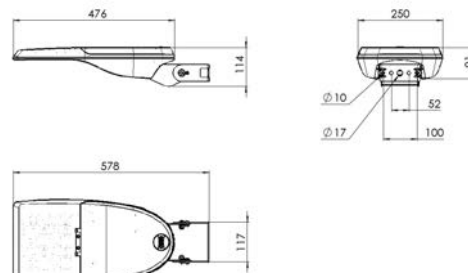
MANAGEMENT AND CONTROL

Equipment	1N: 1 Level RD: DALI AF: 1 - 10 V RL: Pulse adjustable LED SR: Smart Ready (D4i)
Autonomous regulation	Regulations programmed from the factory: 56: 50% of the 24: 00h at 6: 00h. 66: 60% of the 24: 00h at 6: 00h. 76: 70% of the 24: 00h at 6: 00h. SC: Programming according to 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 7 pin socket with/without IP66 cover. X: ZHAGA top socket 4 pins with IP66 cover Y: ZHAGA socket 4 pin lower with cover IP66 Q: ZHAGA lower and upper socket with cover IP66
Sensor	1: Photocell for NEMA 3, 5 and 7 pin socket (20 lux) 2: Photocell for larger Zhaga socket (20 lux) 3: Motion sensor for smaller Zhaga socket.
Node	CD: Citydim

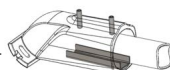
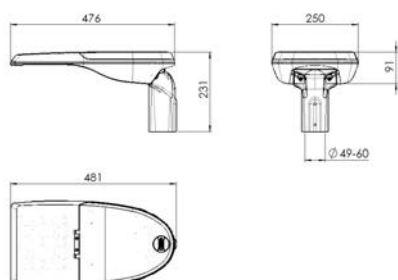
DIMENSIONS

Vertical fixation $\varnothing$ 76 mm (PT1)Lateral fixation $\varnothing$ 49/60 mm (SE2)

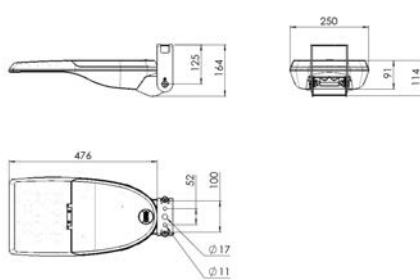
Wall fixation. Bracket included (FM1)



*For fixation on $\varnothing$ 34/42 (SE1), add reduction coupling

Vertical fixation $\varnothing$ 49/60 mm (PT2)

Ceiling fixation. Includes bracket for direct installation on wall. (FT1)



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-carandini@carandini.com - www.carandini.com

LOGISTICAL INFORMATION

VEKA S

Box dimensions: 630 x 300 x 170 mm

Box weight: 6.4 kg

Number of boxes: 32 units

European pallet: 1200 x 800 x 1540 mm

Number of levels: 8 levels

Total gross weight: 225 kg

NOTE: By sustainability reasons PT fixing accessories will be supplied assembled by side entry (SE)

MOTION SENSOR

The FDP sensor series allows your fixture to participate in the internet-of-things (IoT) revolution. This sensor family features bi-directional communication between sensor and driver, enabling connected systems for smarter, more energy efficient and data-driven applications. The FDP sensor series is compatible with various intelligent drivers. By connecting to an intelligent driver, the FDP sensor series does not need its own power supply which will save cost and space inside the luminaire.

CHARACTERISTICS

- SR-certified by Philips (FDP-301SR only)*
- 4 pin connector (for Zhaga book 18 socket installation)
- DALI 103 and 303* compatible (FDP-301 only)
- High or low trim fully adjustable from 1 to 10V
- Time delay from 30 seconds to 30 minutes
- Optional cut off delay
- Ramp up and fade down times (2 seconds; 10 seconds)
- 2 lens configurations for 8°/15 ft or 40 ft
- Bluetooth Commissioning utilizing the Wattstopper Configuration App
- Polycarbonate construction; flame retardant, UV resistant, impact resistant, recyclable UL244A and UL508; IP66 rated (when fully assembled and installed) for use in wet locations
- This product meets the materials restrictions of RoHS.



OPERATION

Typically, the sensor ramps lighting On to the selected High mode level when motion is detected and the ambient light level is below the hold off setpoint. After the sensor stops detecting movement and the time delay elapses, lights fade to the Low mode level. If there is no motion during the subsequent cut off time delay, the lights will turn Off. For dusk to dawn control, the integral photocell can switch the lights On and Off based on the ambient light level so that lighting remains on overnight even without motion detection.

For more information see product data sheet.

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LUMINAIRE DIMMING

By programming the driver

Smart luminaires 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.

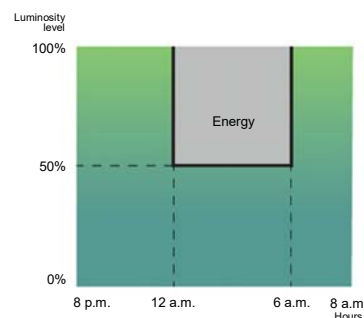
Programming profile 56

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.



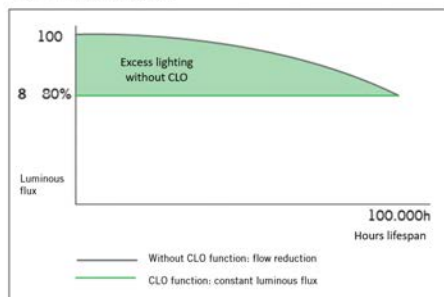
Using the CLO function

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.

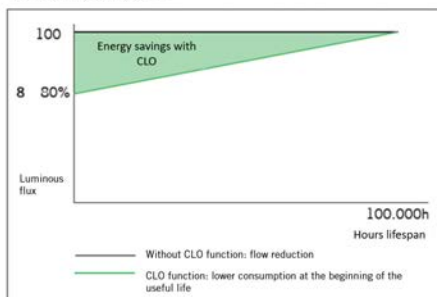
Constant luminous flux 8

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:



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-carandini@carandini.com - www.carandini.com

INNOVATIVE AND UPDATABLE OVER TIME (Zhaga/ ZD4i)

"All luminaires incorporating Nema Sockets or Zhaga Sockets, 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 Sockets 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 DiiA's D4i specifications for intra-luminaire DALI.

BOOKS PER APPLICATION. A COST-EFFECTIVE SOLUTION.

Z H A G A 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
Drivers	13			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

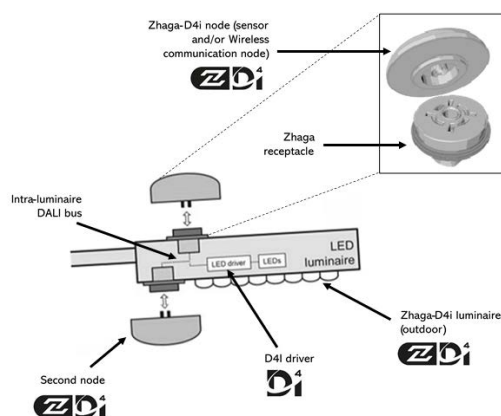
Zhaga-D4i certification covers all the essential characteristics, including automatic adjustment, digital communication, data reporting and power requirements in any single luminaire, ensuring plug-and-play interoperability for luminaires (drivers) and peripherals, such as connectivity nodes.

STANDARDISATION AS A MEANS TO ACHIEVE SUSTAINABILITY

The Veka S 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 2W and 1W.

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 bases compliant with the Zhaga "Book 18" & Zhaga-D4i standard on sensor and communication node interoperability.