

Veka N



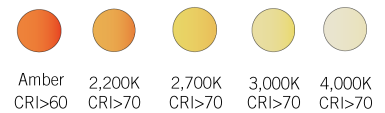
KEY ADVANTAGES

- Up to 5 installation methods
- Tool-free access from the top
- Sturdiness: IP66 + IK10
- Die-cast aluminium (Cu<0.1%)
- Energy Efficient: 142 lm/W
- Up to 9 optical distributions
- Smart Ready: Designed to house both indoor and outdoor communications nodes
- Future Proof: Zhaga-compliant
- Life span L90B10 100,000h (Ta) 25°C
- Night Friendly: ULR Arrêté du 27 décembre 2018
- Can incorporate presence sensor in luminaire



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 quality solution for urban streets, secondary roads, residential streets, car parks and bike lanes.



STANDARDS / CERTIFICATES

- CE
- RoHS
- UNE-EN 60598-1
- UNE-EN 60598-2-3
- 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: 2017 (1,000 h)

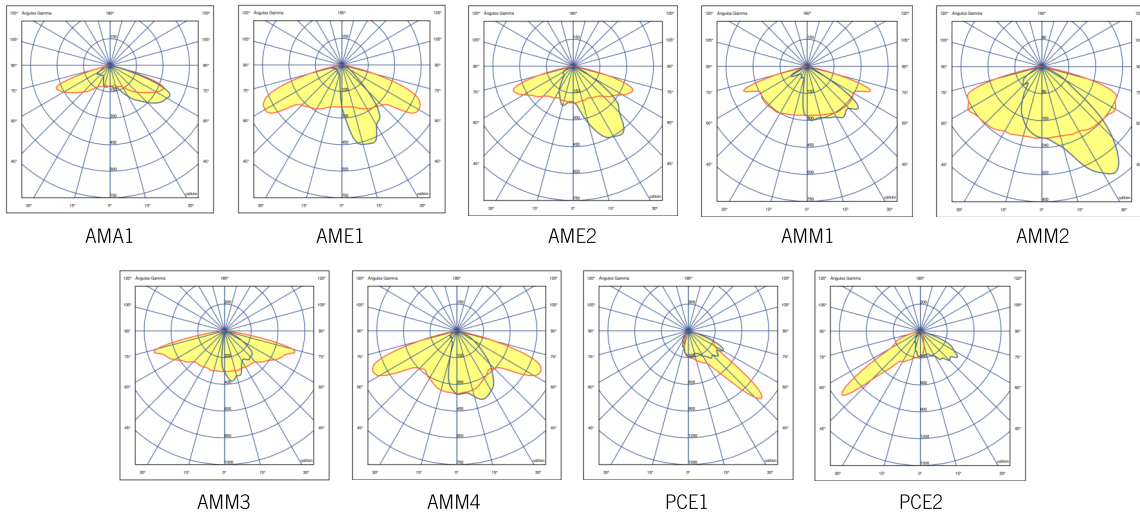
***Test reports from independent ENAC accredited laboratories or equivalent**
 Measurements taken at ISO 17025 approved laboratory.
 Meets the minimum CEI - IDAE requirements.

- 700lm - 9,500lm
- PT: 0.08m²
SE: 0.09m²
FM: 0.08m²
- 142lm /W Luminaire
- 40°C - +55°C
- 5.3 Kg
- 0.00% - 0.33%
FHS/ULR
- Tool-less access to control gear

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

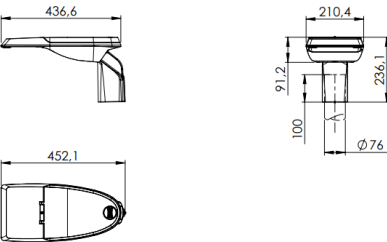
PHOTOMETRIC CONFIGURATIONS

9 photometric configurations are available for use in the various environments where this type of luminaire might be installed, meaning it can be adapted to suit all

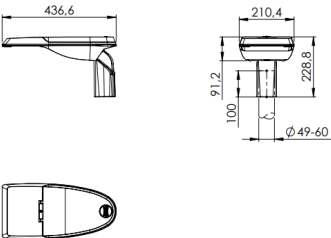


DIMENSIONS

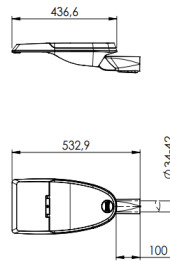
Vertical installation $\varnothing 76$ mm (PT1)



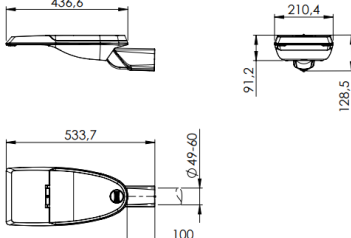
Vertical installation $\varnothing 49/60$ mm (PT2)



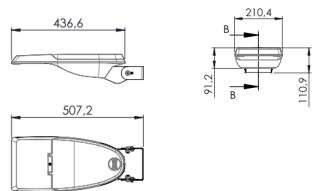
Lateral installation $\varnothing 34/42$ mm



Lateral installation $\varnothing 49/60$ mm (SE2)



Wall installation. Fork included (FM1)



APPLICATIONS

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



VEKA N CHARACTERISTICS

GENERAL INFORMATION

Sustainability	Recyclability: 94.57% Carbon footprint per use: 0.019039 kg kWh de 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	Pressure die-cast aluminium EN AC-44100 (LM6) with low copper content <0.1%.
Finish	Grey polyester powder coat paint RAL 9006 Smooth Gloss (906B). Other finishes, upon request.
Light enclosure	5mm toughened flat glass
Exterior nuts and bolts	Stainless steel (AISI304).
General ingress protec-	IP66 (EN 60598-1 and EN 60529)
Degree of protection against impacts	IK10 (EN 62262)
Operating temperature	Ta -40 °C a +50 °C According to luminaire configuration.
Estimated life	L90B10 100,000 h at 25°C. Light maintenance values at 25 °C. Calculated by TM -21 based on LM-80 data.

ELECTRICAL CHARACTERISTICS

Electrical class	Class I or Class II
Input voltage	220V - 240V / 50Hz - 60Hz Optional 100 V- 277 V
Power factor	> 0.9
Harmonic distortion	< 10%
Overvoltage protection	Overvoltage 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

LIGHTING CHARACTERISTICS

Real light package	700 lm to 9,500 lm (6 - 75W)
LED colour temperature	4,000K (Neutral White, nw). 3,000K (Warm White, ww). 2,700K (Warm White, ww). 2,200K (Warm White, ww). Amber, upon request
Colour rendering index (CRI)	CRI>70. CRI80 upon request.
LEDs	Includes various types of 8, 16 and 24 LED modules.
FHS/ULR	Between 0.00% and 0.33%
Optics	Acrylic PMMA lenses especially designed for LEDs.
Photometric configurations	AMA1=> Throw 70° Spread 65° (Type IV) AME1=> Throw 65° Spread 15° (Type I) AME2=> Throw 70° Spread 35° (Type II) AMM1=> Throw 70° Spread 35°/50° (Type III) AMM2=> Throw 60° Spread 35° (Type II) AMM3=> Throw 75° Spread 5°/20° (Type III) AMM4=> Throw 65° Spread 20° (Type II) PCE1=> Throw 50° Spread 55°/60° (Type III) PCE2=> Throw 50° Spread 45°/55° (Type II)
LED thermal manage-	Heat dissipation via conduction, radiation and con- vection based on a design for LED technology.

VEKA N CHARACTERISTICS

MAINTENANCE AND ASSEMBLY

Installation and maintenance	Tool-free luminaire access system designed by Carandini. Access to the driver from the top.
Installation	PT1: Vertical installation \varnothing 76mm.* PT2: Vertical installation \varnothing 60mm.* SE1: Lateral installation \varnothing 34/42mm. SE2: Lateral installation \varnothing 49/60mm. FM1: Wall installation. Includes fork for direct installation on wall. * The PT1/ PT2 fixings shall be supplied horizontally mounted with SE for sustainability.
Mechanical adjustment	Vertical and lateral installations offers an angle of inclination range of $\pm 10^\circ$ every 2.5°. The fork for wall installation offers a range of inclination of $\pm 40^\circ$ every 2.5°.
Equipped weight	PT1: 5.3 Kg / PT2: 5.1 Kg SE1: 4.8 Kg / SE2: 5.1 Kg FM1: 5 Kg
Wind Surf.	PT: 0.08m ² SE: 0.09m ² FM: 0.08m ²
Pressure equalisation valve	The luminaire is fitted with a valve that compensates any interior pressure to prevent the build-up of condensation, thereby extending the lifespan of the components.

MANAGEMENT AND CONTROL

Devices	1N: LED 1 level RC: Adjustable LED in head RD: Adjustable LED Protocol DALI AF: Adjustable LED Protocol 1-10V RL: Pulse adjustable LED 2N: Dual level SR: Smart Ready D4i
Autonomous regulation	Factory-programmable regulation: 56: 50% from 24:00 to 06:00 66: 60% from 24:00 to 06:00 76: 70% from 24:00 to 06:00 SC: As requested by the client.
CLO regulation	Percentage flow during product lifespan: 7: 70% luminous flux during luminaire lifespan. 8: 80% luminous flux during luminaire lifespan. 9: 90% luminous flux during luminaire lifespan.
Sockets	3-U: NEMA 3 pin socket with/without IP66 cover. 5-V: NEMA 5 pin socket with/without IP66 cover. 7-W: NEMA 7 pin socket with/without IP66 cover. 4-X: Larger Zhaga socket with/without IP66 cover. O-Y: Smaller Zhaga socket with/without IP66 cover. P -Q: Smaller/larger Zhaga socket with/without IP66 cover.
Photocells	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. 4: Photocell for larger Zhaga socket (20 lux) and motion sensor for smaller Zhaga socket.
Node	BS: Controlux Basic

ACCESSORIES

C.SENS column mounted presence



VEKA N PHOTOGRAPHS



LOGISTICAL INFORMATION

VEKA N PT

Box size: 470 x 229 x 279 mm

Box weight: 5.3 kg.

Number of boxes: 42 units

American base: 1200 x 800 x 1875 mm

Stack height: 6 levels

Area occupied: 78.5%

Volume used: 73%

Total gross weight: 242 kg

NOTE: By sustainability reasons PT1 & PT2 fixing accessories will be supplied assembled by side entry (SE) .

VEKA N SE

Box size: 525 x 250 x 170 mm

Box weight: 5.3 kg.

Number of boxes: 54 units

American base: 1200 x 800 x 1850 mm

Stack height: 9 levels

Area occupied: 82%

Volume used: 78%

Total gross weight: 306 kg.

LUMINAIRE ADJUSTMENT

By programming the driver

Programming profile

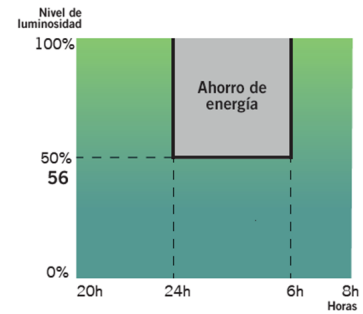
The driver can be programmed so that luminous flux is reduced from the luminaire during the least busy hours at night while always meeting the required lighting and uniformity levels.

Programming profile 56

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

Hasta un

26%
de ahorro



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 lifespan of the luminaire. This saves energy and increases the lifespan 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 lifespan.

Hasta un

10%
de ahorro

y se incrementa la vida de la luminaria

Gráfico de flujo luminoso

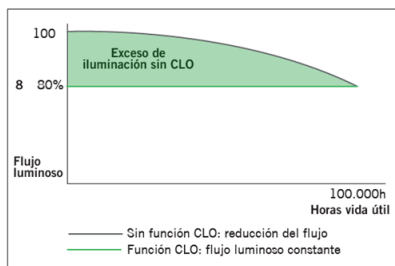
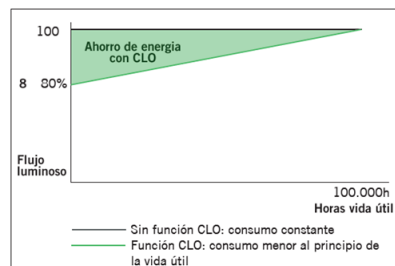


Gráfico de consumo



By incorporating an additional device

Presence sensor

By using a presence sensor, lighting can be adjusted according to the level of activity in the area where the luminaire is installed.



The light level is raised when a pedestrian or vehicle is detected in the area.



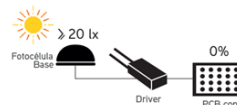
Photocell

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

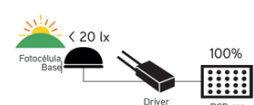
This is extremely useful so the luminaires are not switched on during the day when there is still sufficient natural light.

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)

Zhaga

Zhaga — “Future Proof”

Zhaga is an industrial consortium that seeks to standardise the specifications used for interfaces between LED luminaires and light sources. The goal is to achieve interchangeability between products made by different manufacturers. Zhaga defines the testing procedures for light sources from luminaires and LEDs so that the luminaires accept the LED source.



Zhaga D4i — “Sensor Ready”

The Zhaga consortium merged with DiiA to create one single Zhaga-D4i certificate that combines the specifica-

“BOOKS” PER APPLICATION. A PROFITABLE 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	4, 15, 19	
Drivers	13	LED set 22,23		24,25	
Sensor and communication modules		20		18	

The specifications indicating that a component is Zhaga can be found in a series of books that are only available to consortium members and enable designs to be produced according to the marked standard. The advantages for society are clear given that, besides reducing the consumption of resources, luminaire re-use is increased with a focus on achieving a circular economy.

CERTIFICATION PROGRAMME

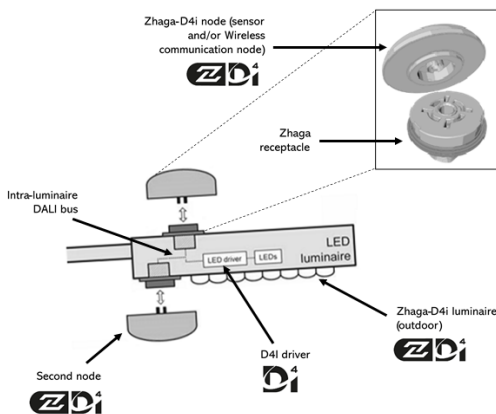
Zhaga-D4i certification covers all the essential characteristics, including automatic adjustment, digital communication, data reporting and power requirements in any single luminaire, ensuring plug-and-play interoperability for luminaires (drivers) and peripherals, such as connectivity nodes.

STANDARDISATION AS A MEANS TO ACHIEVE SUSTAINABILITY

The Veka N 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.