VEGA ⓪①②

LED LIGHTING

rayon progressive lighting

Vega series luminaire is the ideal Led lighting solution for any road, street or pedestrian area.

Vega create a more attractive urban living environment and visual comfort for public and residential zone.

Competitive and efficient, it will fit perfectly in renovation projects as well as new installations on highways, roundabouts and urban roads.

The proposed Vega range consists of three sizes.

The VEGA 0 up to 48 LEDs is good choice for service roads, lighting residential streets, ground park and car parks. The VEGA 1 up to 96 LEDs is ideally suited for urban roads, lighting residential streets, and car parks, while the Vega 2 up to 144 LEDs is perfect for avenues, large roads and motorways.

With its light-level efficiency, long lifetime, easy and limited maintenance requirements, the Vega range minimizes your total cost of ownership.

CE

IP66

IK09

55°C

VEGA⓪ VEGA① VEGA②

01 Key advantages

ECOLOGY

The Vega is designed with sustainable materials (aluminum and glass) without the use of glue improving the recyclability of the product.

The optical system's high-level performances combined with various dimming and management options limit energy consumption and consequently the CO2 emissions.

PERFORMANCE

The choice of number of Led modules offers a wide range of lumen packages and future proof solutions. Each Led is associated with a specific lens that generates the photometric distribution of the luminaire. These photometric engines combined with the driving currents and dimming options ensure the optimal lighting performance. The thermal design of Vega range is based on the heat extraction to maintain the luminous flux over time and ensure the life time of the Leds.

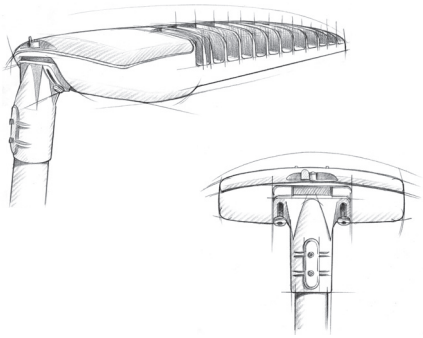
MAINTENANCE

With the reversible fixation device, it's easy to install the Vega range in side-entry or post-top mountings. When supplied with a factory fitted power cable the luminaire can be installed and adjusted on-site without being opened. The tool free access of the IP66 gear and electronic compartment combined with the tool free removable gear tray provide an easy and quick maintenance. The high-level tightness of the optical compartment sealed with an extra-clear glass protector ensures a high quality transmission of the luminous flux.

SECURITY

The luminaire is protected for a high voltage surcharge of 10/20kV.

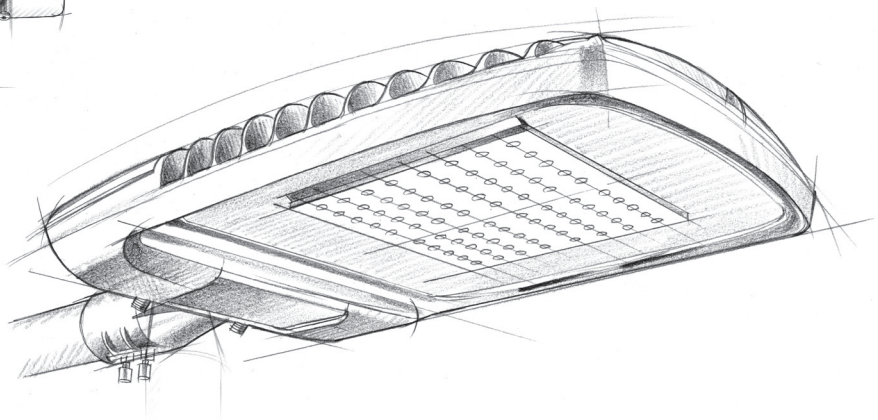
The design

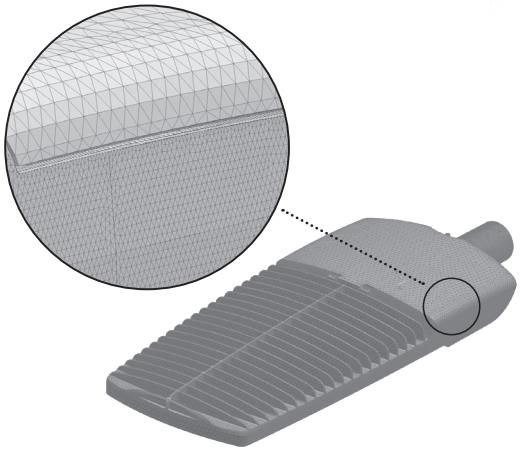


AESTHETIC

A unique style at the top of its category. The Vega range is the result of the symbiosis between shape and function for a performance level without compromise.

All the features are perfectly integrated into a fluid and light aesthetic.

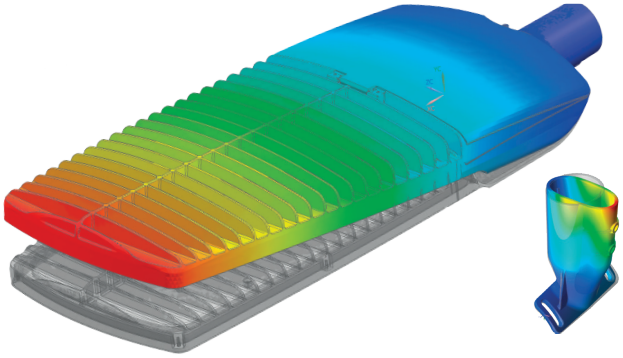




FINITE ELEMENT METHOD

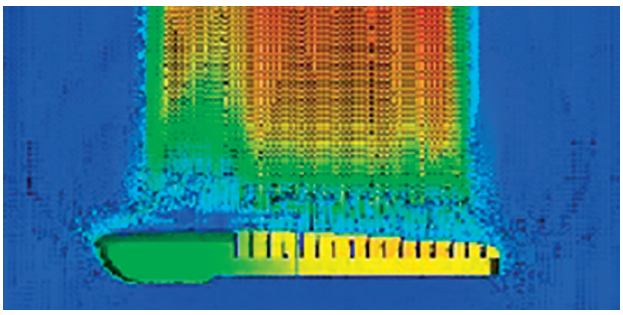
Finite Element Analysis (FEA) is a computerized method to predict how a product reacts to real-world, forces, vibrations, heat, fluid flow and other physical effects.

Element analysis works by breaking down a real object into a large number of finite elements, such as little cubes. Mathematical equations help predict the behavior of each elements.



MECHANICAL SRESS AND VIBRATION

FEA is used to understand the physical behavior of the luminaire (mechanical stress and displacements) under the conditions of vibration, of wind speed and of tightening torque of the fixation device. The modifications of the geometry of the luminaire are done until we reach the optimal design.



THERMAL SIMULATION

The temperatures are computed considering conduction, internal and external natural convection. The model is defined to work under 55 degrees of ambient temperature while respecting the acceptable maximal temperatures of the various components.

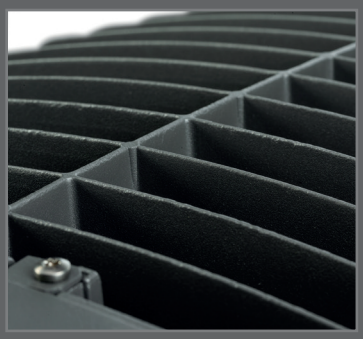
The final geometry of the thermal extractor is defined after having optimized the thickness, the height and the quantity of the cooling fins.

IP66 optical compartment sealed with an extra-clear glass protector for an optimal luminous flux transmission

Durable and recyclable materials: Aluminum and Glass

The choice of number of Led modules offers a wide range of lumen packages and future proof solutions

Tool free access to gear and electronic compartment



Design for an optimal heat dissipation that withstand high temperature (+55°C)

Post-top and side-entry mountings are done with a reversible fixation device that allows a precise on-site adjustment of the luminaire.

Each Led is associated with a specific lens that generates the photometric distribution of the light.

Lights details

LUMEN PACKAGE AND POWER

VEGA⓪

Amber 2200K		1M	2M	3M
350 mA	Nominal flux (lm)*	2178	4356	6171
	Power consumption (W)	18	36	51
525 mA	Nominal flux (lm)*	3029.4	5834.4	8751.6
	Power consumption (W)	27	52	78
700 mA	Nominal flux (lm)*	3959	7490	10914
	Power consumption (W)	37	70	102

VEGA①

Amber 2200K		1M	2M	3M	4M	5M	6M
350 mA	Nominal flux (lm)*	2178	4356	6171	8228	10043	12100
	Power consumption (W)	18	36	51	68	83	100
525 mA	Nominal flux (lm)*	3029.4	5834.4	8751.6	11444.4	14249.4	17166.6
	Power consumption (W)	27	52	78	102	127	153
700 mA	Nominal flux (lm)*	3959	7490	10914	14552	18297	22256
	Power consumption (W)	37	70	102	136	171	208**

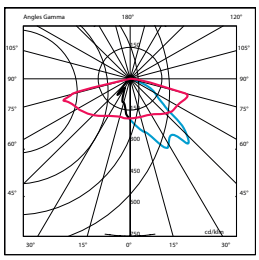
VEGA②

Amber 2200K		4M	5M	6M	7M	8M	9M
350 mA	Nominal flux (lm)*	8228	10043	12100	14036	16335	18150
	Power consumption (W)	68	83	100	116	135	150
525 mA	Nominal flux (lm)*	11444.4	14249.4	17166.6	19971.6	23001	25918.2
	Power consumption (W)	102	127	153	178	205	231
700 mA	Nominal flux (lm)*	14552	18297	22256	25680	29211	32849
	Power consumption (W)	136	171	208	240	273	307**

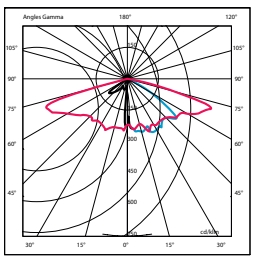
* The indicated flux is @ Tp 25°C and based on Led manufacturer's data. Such flux can improve with the advance of Led technology.
** Limited to 50 °C Ta
Note: Led module geometry according to Zhaga book 15.

APPLICATION TYPE

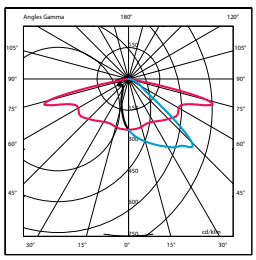
LIGHT DISTRIBUTION



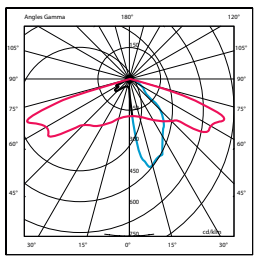
RESIDENTIAL



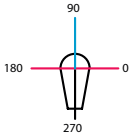
URBAN



NARROW



MOTORWAY



C Demi-plans
270.0
180.00
.0
90.0

NB: Other light distributions available on demand in compliance with the Ledil 2x2 Strada range

LUMEN PACKAGE AND POWER

VEGA⓪

Pale Yellow 2700K		1M	2M	3M
350 mA	Nominal flux (lm)*	2455.2	4910	6956.4
	Power consumption (W)	18	36	51
525 mA	Nominal flux (lm)*	3445.2	6635.2	9952.8
	Power consumption (W)	27	52	78
700 mA	Nominal flux (lm)*	4551	8610	12546
	Power consumption (W)	37	70	102

VEGA①

Pale Yellow 2700K		1M	2M	3M	4M	5M	6M
350 mA	Nominal flux (lm)*	2455.2	4910	6956.4	9275	11321	13640
	Power consumption (W)	18	36	51	68	83	100
525 mA	Nominal flux (lm)*	3445.2	6635.2	9952.8	13015.2	16205.2	19522.8
	Power consumption (W)	27	52	78	102	127	153
700 mA	Nominal flux (lm)*	4551	8610	12546	16728	21033	25584
	Power consumption (W)	37	70	102	136	171	208**

VEGA②

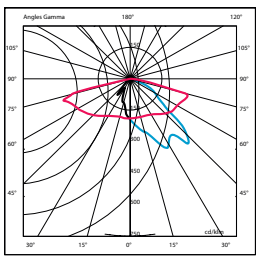
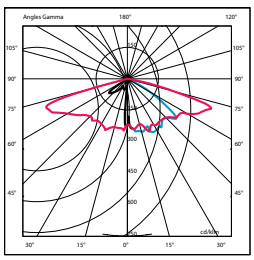
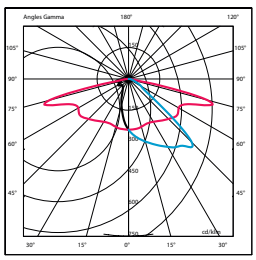
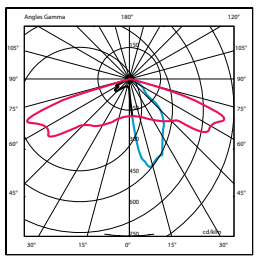
Pale Yellow 2700K		4M	5M	6M	7M	8M	9M
350 mA	Nominal flux (lm)*	9275	111321	13640	15822.4	18414	20460
	Power consumption (W)	68	83	100	116	135	150
525 mA	Nominal flux (lm)*	13015.2	16205.2	19522.8	22712.8	26158	29475.6
	Power consumption (W)	102	127	153	178	205	231
700 mA	Nominal flux (lm)*	16728	21033	25584	29520	33579	37761
	Power consumption (W)	136	171	208	240	273	307**

* The indicated flux is @ Tp 25°C and based on Led manufacturer's data. Such flux can improve with the advance of Led technology.
** Limited to 50 °C Ta
Note: Led module geometry according to Zhaga book 15.

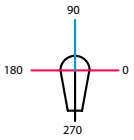
APPLICATION TYPE



LIGHT DISTRIBUTION

RESIDENTIAL URBAN NARROW MOTORWAY



C Demi-plans
270.0
180.00
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NB: Other light distributions available on demand in compliance with the Ledil 2x2 Strada range

Lights details

LUMEN PACKAGE AND POWER

VEGA⓪

Warm white 3000K		1M	2M	3M
350 mA	Nominal flux (lm)*	2628	5256	7446
	Power consumption (W)	18	36	51
525 mA	Nominal flux (lm)*	3699	7124	10686
	Power consumption (W)	27	52	78
700 mA	Nominal flux (lm)*	4884	9240	13464
	Power consumption (W)	37	70	102

VEGA①

Warm white 3000K		1M	2M	3M	4M	5M	6M
350 mA	Nominal flux (lm)*	2628	5256	7446	9928	12118	14600
	Power consumption (W)	18	36	51	68	83	100
525 mA	Nominal flux (lm)*	3699	7124	10686	13974	17399	20961
	Power consumption (W)	27	52	78	102	127	153
700 mA	Nominal flux (lm)*	4884	9240	13464	17952	22572	27456
	Power consumption (W)	37	70	102	136	171	208**

VEGA②

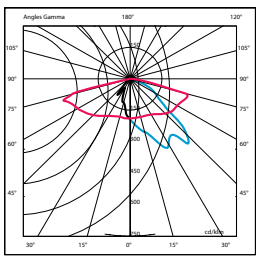
Warm white 3000K		4M	5M	6M	7M	8M	9M
350 mA	Nominal flux (lm)*	9928	12118	14600	16936	19710	21900
	Power consumption (W)	68	83	100	116	135	150
525 mA	Nominal flux (lm)*	13974	17399	20961	24386	28085	31647
	Power consumption (W)	102	127	153	178	205	231
700 mA	Nominal flux (lm)*	17952	22572	27456	31680	36036	40524
	Power consumption (W)	136	171	208	240	273	307**

* The indicated flux is @ Tp 25°C and based on Led manufacturer's data. Such flux can improve with the advance of Led technology.
** Limited to 50 °C Ta
Note: Led module geometry according to Zhaga book 15.

APPLICATION TYPE



LIGHT DISTRIBUTION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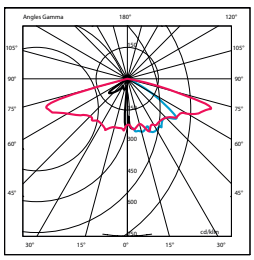
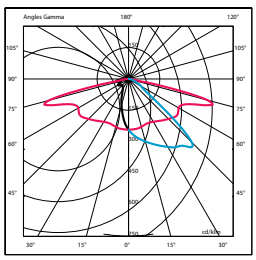

URBAN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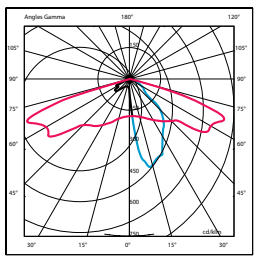
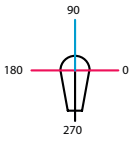

MOTORWAY



C Demi-plans
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NB: Other light distributions available on demand in compliance with the Ledil 2x2 Strada range

LUMEN PACKAGE AND POWER

VEGA⓪

Neutral white 4000K		1M	2M	3M
350 mA	Nominal flux (lm)*	2802.6	5605.2	7940.7
	Power consumption (W)	18	36	51
525 mA	Nominal flux (lm)*	3969	7644	11466
	Power consumption (W)	27	52	78
700 mA	Nominal flux (lm)*	5198.5	9835	14331
	Power consumption (W)	37	70	102

VEGA①

Neutral white 4000K		1M	2M	3M	4M	5M	6M
350 mA	Nominal flux (lm)*	2802.6	5605.2	7940.7	10587.6	12923.1	15570
	Power consumption (W)	18	36	51	68	83	100
525 mA	Nominal flux (lm)*	3969	7644	11466	14994	18669	22491
	Power consumption (W)	27	52	78	102	127	153
700 mA	Nominal flux (lm)*	5198.5	9835	14331	19108	24025.5	29224
	Power consumption (W)	37	70	102	136	171	208**

VEGA②

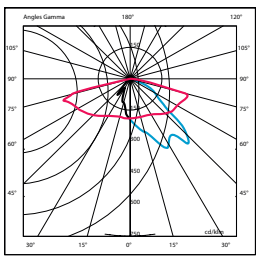
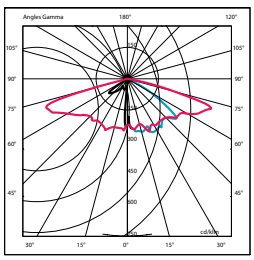
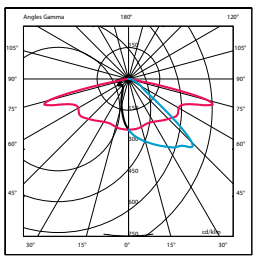
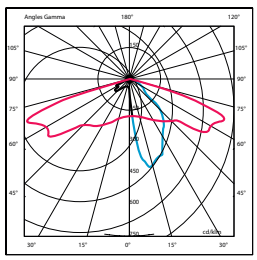
Neutral white 4000K		4M	5M	6M	7M	8M	9M
350 mA	Nominal flux (lm)*	10587.6	12923.1	15570	18061.2	21019.5	23355
	Power consumption (W)	68	83	100	116	135	150
525 mA	Nominal flux (lm)*	14994	18669	22491	26166	30135	33957
	Power consumption (W)	102	127	153	178	205	231
700 mA	Nominal flux (lm)*	19108	24025.5	29224	33720	38356.5	39419
	Power consumption (W)	136	171	208	240	273	307**

* The indicated flux is @ Tp 25°C and based on Led manufacturer's data. Such flux can improve with the advance of Led technology. ** Limited to 50 °C Ta along with old lumen package as per design. New Lumen Package is 43133.
Note: Led module geometry according to Zhaga book 15.

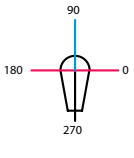
APPLICATION TYPE



LIGHT DISTRIBUTION

RESIDENTIAL URBAN NARROW MOTORWAY



C Demi-plans
270.0
180.00
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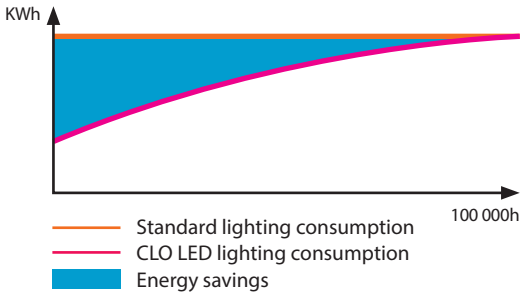
90.0

NB: Other light distributions available on demand in compliance with the Ledil 2x2 Strada range

OPTIONS

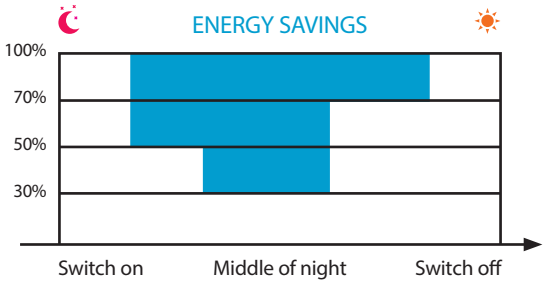
CONSTANT LUMEN OUTPUT

The constant lumen maintenance feature of the driver helps to maintain the required output of the fixture at a constant level throughout its lifetime. In general, Leds lumen output will depreciate over time and in order to maintain sufficient light level towards the end of lifetime, the Leds are drivenat a higher current than initially and will result in more energy consumption. The constant lumen maintenance will give the flexibility to drive the Leds at optimal driving current throughout its lifetime. This helps in energy savings, constant light output and enhanced reliability of the system.



TIME RELATED DIMING SYSTEM

This dimming system provides multistage night-time power reductions based on an internal timer; there is no need for an external control infrastructure nor external control wiring. Compared with conventional system there are significant cost savings, reduction of light pollution and extension of lifetime for drivers and Leds.

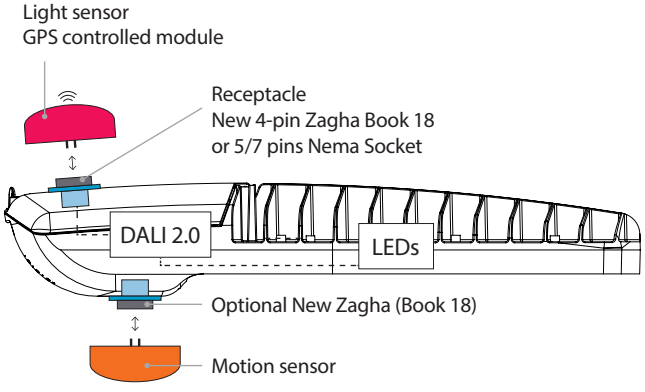


New 4-pin
Zhaga Book 18

5/7 pin
Nema Socket

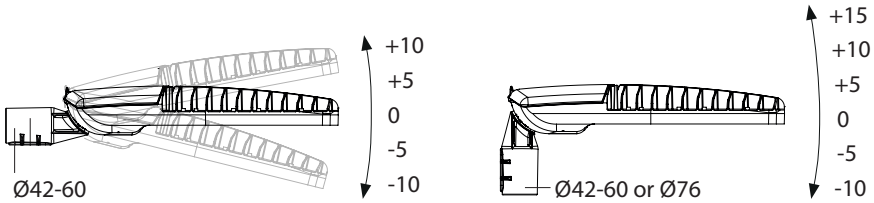
SMART CITY CONNECTIVITY

Vega luminaires could be equipped with a 5-7 pin contacts Nema receptacle (conform to ANSI C136 41 standard) allowing the use of any connector node. Vega luminaire equipped with the new 4 pin contacts Zhaga book 18 receptacle combined with drivers based on DALI 2.0 interface will make your luminaires ready for current and future IoT possibilities. An additional new 4 pin contacts Zhaga book 18 receptacle can also be used to attach a downward motion sensor to the luminaire.

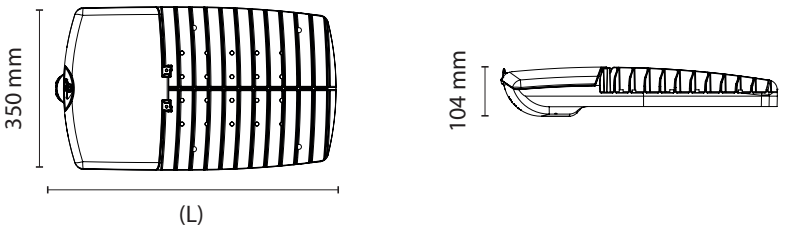


MEASURES

MOUNTING



DIMENSIONS



	L	Weight	C x S*	Height
VEGA⓪	484 mm	8,2 kg	0,03933 m²	4 to 10 m
VEGA①	585 mm	11,2 kg	0,0413 m²	4 to 14 m
VEGA②	785mm	14,9kg	0,0480m2	8 to 30 m

* Aerodynamic resistance

CHARACTERISTICS

Insulation class	Class I (II in option)
Nominal voltage	120V - 277V or 347V-480 V 50-60 Hz
Thightness level	IP66 for gear and optical compartment
Impact resistance	IK09
Gear tray	Removable without tool
Gear acces	Free tool acces
Operating temperature	-40°C > +55°C

MATERIALS

Fixation-Body-Cover	Die-cast aluminium EN1706 AC 47100 powder painted
Protector	Extra clear tempered glass. Anti-reflective glass in option
Color	Grey AKZO 900 sand. All RAL color in option
Gasket	Extruded silicone

LED SOURCE

LED module	Removable & Future Proof (according to ZHAGA book 15)
LED source efficiency	176 lm/W @ 350mA Tj=85°C 4000K
LED current	350 mA / 525 mA / 700 mA
Surge protection	Integrated surge protection device 10/20kV
Color rendering index	CRI > 70
Life time (Tq=25°C)	L70 B30 > 100 000 hrs @ 700 mA L80 B20 > 100 000 hrs @ 700 mA

OPTIONS

Light distributions	All distributions compatible with the 2x2 strada lenses from Ledil
Color temperature	CCT 3000K other CCTs on demand
Color rendering index	CRI > 80
Programmations	Constant Lumen Output / Time-related dimming system
Lighting management system	All versions folowing Zagha Book 18 / Drivers based on DALI 2.0 interface
Installation	Pre-cable with custom lenght
Life time (Tq=25°C)	L90 B10 > 100 000 hrs @ 700 mA

VEGA
LED LIGHTING

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