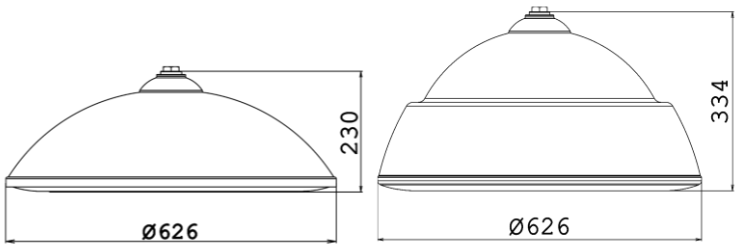
Product Sheet



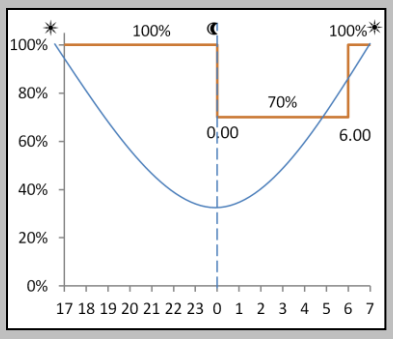
Armonia 1 Armonia 2

ARMONIA LED 0H

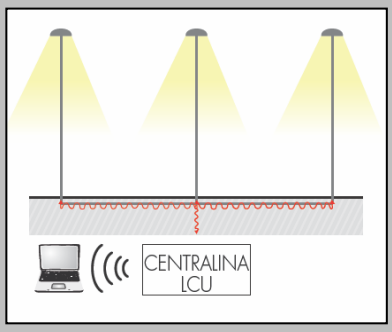
MAIN CHARACTERISTICS	
Applications	Urban and street lighting.
Optic	ST: Asymmetric optic for street lighting. OC: Asymmetric optic for pedestrian and cycle path lighting S: Symmetric optic for urban lighting. Colour temperature: 4000K (3000K optional) CRI typical: 75 Photobiological safety class: EXEMPT GROUP LED source efficiency:139 lm/W @ 525mA, Tj=85°C Photometrical classification: Cut-off.
Insulation class	II (I optional)
Protection degree	IP66
Tilt angle	0°
Mounting	Installation on brackets MA - MK/S - MP - MG (1/2" GAS)
Gear tray	Removable
LED modules	Removable, mantaining IP degree of the optical unit.
Dimensions and weight	Armonia 1: Ø626x227mm – 11Kg Armonia 2: Ø626x334mm – 11.5Kg
Side surface	Armonia 1: 0.9m^2 Armonia 2: 0.14m^2
Top surface	0.31m^2
Main reference standards	EN 60598-1, EN 60598-2-3, EN 62471 EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3
CE IP66 EXEMPT GROUP	
ELECTRICAL CHARACTERISTICS	
Rated voltage	220÷240V 50/60Hz
LED current	525mA – 700mA
Power factor	>0,9 (at full load)
Control system	F: Fixed output. DA: Automatic dimming with default profile. DAC: Custom DA profile. PLM: Single point communication module.
Surge protection	Pulse withstand CL.I: up to 10kV. Pulse withstand CL. II: from 5kV to 7kV
Connection	Connector for cables max section 2.5mm^2
Optical unit lifetime (Ta=25°C)	**525mA**
	>70.000hr B20L80 (including critical failures) >100.000hr L80, TM21
	700mA
	>60.000hr B20L80 (including critical failures) >100.000hr L80, TM21
MATERIALS	
Fixing	Aluminium
Body	Aluminium
Lower frame	Die-cast aluminium UNI EN 1706
Heatsink	Extruded aluminium (on each LED module)
Optic	Polycarbonate, metalized high efficiency
Screen	Flat tempered glass, 4mm thickness (on each LED module)
Gasket	EPDM
Colour	Graphite (Cod. 01)

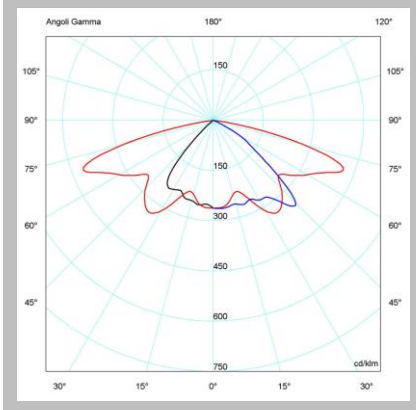
ARMONIA

DA Profile



PLM





ST Optic

All the published photometrical data has been obtained according to EN 13032-1

Product Sheet

ARMONIA

The tables below describe the flux and output power of the available versions. These parameters are necessary in order to guarantee a correct comparison of the luminaire performance.
In particular, the luminaire efficiency (expressed in lm/W) must be calculated as the ratio between the output luminous flux of the luminaire and the power absorbed by the input power supply unit.
For the sake of completeness the tables also show the data of the nominal flow and power of the used LED.

LUMINAIRE FLUX[1] (Ta=25°C, 4000K, lm)		
N. LED	525mA	700mA
	ST Optic	
18	2660	3310
27	3990	4960
36	5320	6610
N. LED	OC Optic	
18	2570	3170
27	3850	4760
36	5130	6350

RATED LED FLUX[2] (Tj=85°C, 4000K, lm)	
525mA	700mA
3618	4590
5427	6885
7236	9180

RATED LUMINAIRE POWER[1] (Ta=25°C, Vin=230Vac, W) F and DA version at full load		
N. LED	525mA	700mA
18	30	40
27	45	60
36	60	80

RATED LED POWER[2] (Tj=85°C, W)	
525mA	700mA
26	35
39	53
52	71

LUMINAIRE EFFICACY (Ta=25°C, lm/W)				
N. LED	525mA	700mA	525mA	700mA
	ST Optic		OC Optic	
18	89	83	86	79
27	89	83	86	79
36	89	83	86	79

Note: The characteristics of the product listed above are subjected to change.
They will have to be confirmed in case of order.
Values indicated in this technical sheet are to be considered rated values subject to a tolerance of +/-5%.

1:Rated data obtained in laboratory
2:Rated data extrapolated from LED manufacturer datasheet.

*Multiplier to obtain the **flux** as a function of Ta and Tk.*

Ta(°C)	Multiplier
50	0,95
40	0,97
25	1,00
15	1,01
5	1,02
0	1,03
Tk(K)	**Multiplier**
3000	0.90
4000	1.00

*Multiplier to obtain the **power** as a function of Ta.*

Ta (°C)	Moltiplicatore
50	0,99
25	1,00
0	1,01

Legend:

Ta =Ambient temperature.

Tk = Colour temperature.

Example of luminaire data calculation
Ta=40°C
Tk=4000K
36 LED, 525mA ST Optic
Flux: 5320 x 0,97 = 5160.4 lm
Power: 60 x 0,99 = 59.4 W
Efficiency: 5160.4 / 59.4 = 87 lm/W