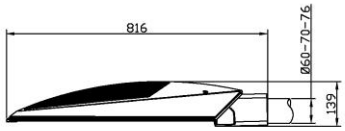
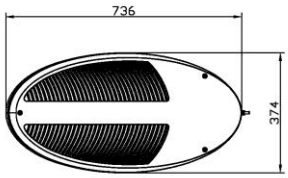
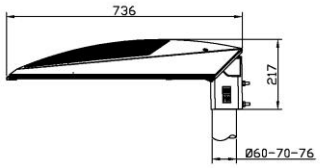
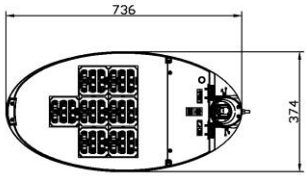
Product Sheet



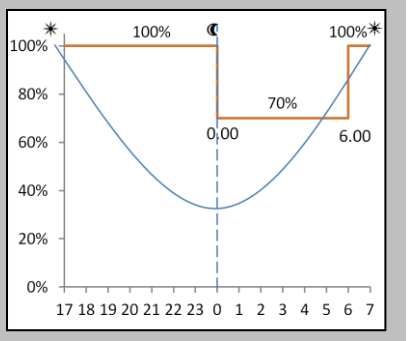




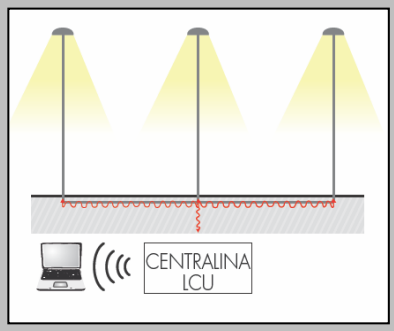


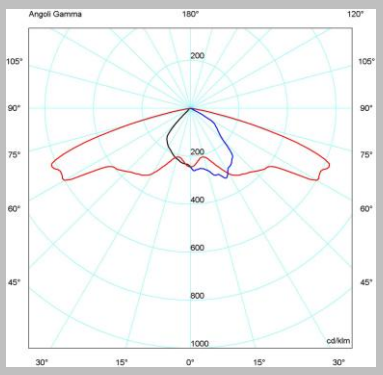
LED-in 1H	
MAIN CHARACTERISTICS	
Applications	Street lighting
Optic	ST: Asymmetric optic for street lighting. OC: Asymmetric optic for pedestrian and cycle path lighting. Colour temperature: 4000K (3000K optional) CRI ≥ 70 Photobiological Safety Class: EXEMPT GROUP LED source efficiency: 139 lm/W @ 525mA, Tj=85°C Photometric classification : Cut-off
Insulation class	II (I optional)
Impact protection	IK09
Protection degree	IP66
Tilt angle	Post-top : 0°, 5°, 10°, 15° Bracket : 0°, -5°, -10°, -15°
Mounting	Post-top or bracket. Ø60-70-76mm
Gear tray	Removable.
Dimensions	816x374x139mm (bracket) 736x374x217mm (post-top) Weight:10Kg
Side surface	0.07 m^2
Top surface	0.21m^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.
Connection	External connector IP66/67 for cables max. section 2.5mm^2. Max external diameter of cable: 9÷12mm.
Surge protection	Pulse withstand class I: up to 10kV Pulse withstand class II: from 5kV to 7kV
Optical unit lifetime (Ta=25°C)	**525mA**
	>70.000hr B20L80 (including critical failures) >100.000hr L80, TM-21
	700mA
	>60.000hr B20L80 (including critical failures) >100.000hr L80, TM-21
MATERIALS	
Fixing	Die-cast aluminium UNI EN 1706
Heatsink	Die-cast aluminium UNI EN 1706
Frame	Die-cast aluminium UNI EN 1706
Upper canopy	Aluminium
Optic	Polycarbonate, metalized with high-efficiency aluminium
Screen	Flat tempered glass, 4mm thickness
Cable gland	Plastic M20x1.5 - IP68
Gasket	Polyurethane

DA Profile

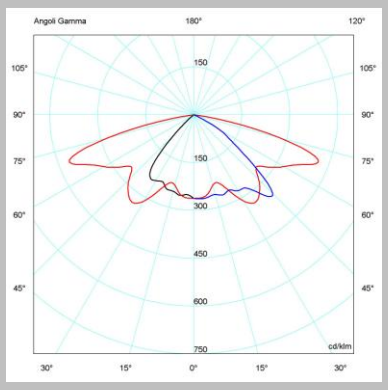


PLM





OC Optic



ST Optic

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

Product Sheet

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 flux and power of the used LED.

LUMINAIRE FLUX[1] (Ta=25°C, 4000K, lm)		
N. LED	525mA	700mA
	ST Optic	
18	2820	3610
27	4210	5360
36	5620	7060
45	7020	8680
54	8420	10370
63	9830	12050
72	11230	-
81	12640	-
90	13950	-
	OC Optic	
18	2710	3470
27	4050	5160
36	5410	6790
45	6760	8350
54	8110	9980
63	9460	11590
72	10810	-
81	12160	-
90	13430	-

RATED LED FLUX[2] (Tj=85°C, 4000K, lm)	
525mA	700mA
3618	4590
5427	6885
7236	9180
9045	11475
10854	13770
12663	16065
14472	-
16281	-
18090	-

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	46	60
36	60	79
45	74	98
54	89	115
63	103	133
72	117	-
81	131	-
90	145	-

RATED LED POWER[2] (Tj=85°C, W)	
525mA	700mA
26	35
39	53
52	71
65	88
78	106
91	-
104	-
117	-
130	-

LUMINAIRE EFFICACY (Ta=25°C, lm/W)				
N. LED	525mA	700mA	525mA	700mA
	ST Optic		OC Optic	
18	94	90	90	87
27	92	89	88	86
36	94	89	90	86
45	95	89	91	85
54	95	90	91	87
63	95	91	92	87
72	96	-	92	-
81	96	-	93	-
90	96	-	93	-

Note: The characteristics of the product listed above are subjected to change.
They will 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.

LED-in

*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
45 LED, 525mA ST Optic
Flux: 7020 x 0,97 = 6809,4
Power: 76 x 0,99 = 75,2
Efficiency: 6809,4 / 75,2 = 91