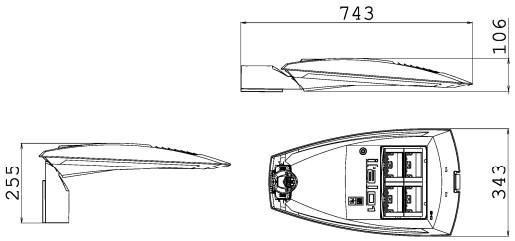
Product Sheet



ITALO 1

MAIN CHARACTERISTICS

Applications	Street lighting
Optic	STE-M/S: Asymmetrical optic for street lighting (extraurban). (0F3) STU-M/S: Asymmetrical optic for street lighting (urban). (0F2H1) STW: Asymmetrical optic for wide roads and wet asphalts lighting. (0F3) SV: Asymmetrical optic for narrow urban streets or highway entrance/exit turns. (0F2H1) STA / STA1: Asymmetrical optic for V and P categories. (0F2) OP-DX / SX: Asymmetrical optic for crosswalks lighting. SSP-7A1: Asymmetrical optic for street lighting. Colour temperature: 4000K , (optional 3000K) CRI ≥ 70 Photobiological safety class: EXEMPT GROUP CIE Photometrical classification: Semi cut-off IES Photometrical classification: Full cut-off LED source efficiency: 144 lm/W @ 700mA, Tj=85°C – 4000K
Insulation class	II (I optional)
Protection degree	IP66
Impact protection	IK09
LED Modules	Removable / Replaceable
Tilt Angle	Post-top: 0°, +5°, +10°, +15°, +20° | Bracket: 0°, -5°, -10°, -15°, -20°
Dimensions	See the drawing
Weight	6.8 kg max
Exposed surface	Side: 0.05m^2 – Top: 0.18m^2
Mounting	Bracket or Post-top Ø33mm ÷ Ø60mm Ø60mm ÷ Ø76mm (optional)
Gear tray	Removable plate.
Operating temp.	-40°C / +50°C (525mA, 700mA)
Storage temperature	-40°C / +80°C
Main reference standards	EN 60598-1, EN 60598-2-3, EN 62471, EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3

IP66 EXEMPT GROUP

ELECTRICAL CHARACTERISTICS

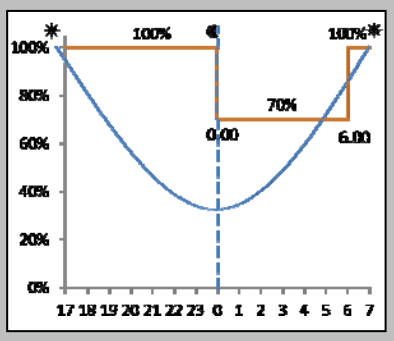
Rated voltage	220÷240V 50/60Hz (Standard tolerance +/-10%, other voltages and tolerances upon request)	
LED current	290mA | 525mA | 700mA	
Power factor	>0,9 (at full load)	
On-load switch	Included, with integrated cable clamp	
Connection	For cables max section 4mm^2	
Control system	F: Fixed output DA: Automatic dimming with default profile. DAC Custom DA profile. PLM: Single point communication module.	
Optical unit lifetime	**525mA (Ta=25°C)**	**700mA (Ta=25°C)**
	>70.000hr B20L80 (including critical fail.) >100.000hr L80, TM-21	>60.000hr B20L80 (including critical fail.) >100.000hr L80, TM-21
	525mA (Ta=50°C)	**700mA (Ta=50°C)**
	>60.000hr B20L80 (including critical fail.) >100.000hr L80, TM-21	>50.000hr B20L80 (including critical fail.) >100.000hr L80, TM-21

MATERIALS

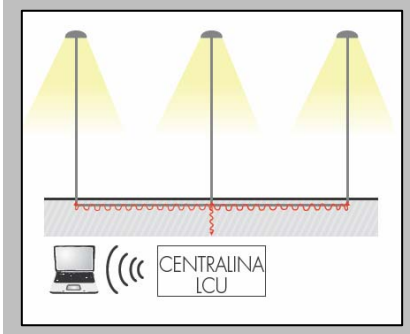
Fixing	Die-cast aluminium UNI EN1706 – Cu < 0.1% powder painted.
Heat-sink	Die-cast aluminium UNI EN1706 – Cu < 0.1% powder painted.
Lower frame	Die-cast aluminium UNI EN1706 – Cu < 0.1% powder painted.
Upper canopy	Die-cast aluminium UNI EN1706 – Cu < 0.1% powder painted.
Closure hook	Extruded aluminium with stainless steel spring.
Optic	99.85% aluminium with a surface finish in 99.95% with vacuum-sealed deposition. Alluminum grade class A+ (DIN EN 16268)
Screen	Flat tempered glass, 4mm thickness.
Cable gland	Plastic M20x1.5 - IP68
Gasket	Polyurethane

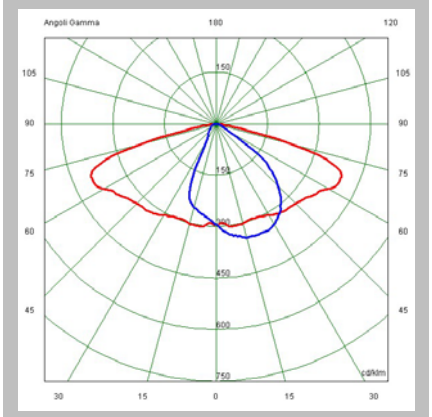
Optical unit lifetime could be different fot each size of the luminaire.
Data listed above are subject to change without notice.

DA Profile



PLM





STU-M 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)		
MODULES	525mA	700mA
	STE-M / STE-S / STW Optic	
1	2040	2720
2	4440	5570
3	6590	8240
4	8770	10940
MODULES	STU-M / STU-S / SV Optic	
1	1540	2030
2	3210	4060
3	4870	6130
4	6450	8140
MODULES	STA / STA1 Optic	
1	1285	1730
2	2750	3460
3	4130	5190
4	5440	6790
MODULES	OP-DX / OP-SX Optic	
1	4440	5570
2	8770	10940
MODULES	SSP-7A1 Optic	
	290mA	
1	2560	

RATED LED FLUX[2] (Tj=85°C, 4000K, lm)	
525mA	700mA
STE-M / STE-S / STW Optic	
2556	3234
5112	6468
7668	9702
10224	12936
STU-M / STU-S / SV Optic	
1905	2411
3810	4822
5715	7233
7620	9644
STA / STA1 Optic	
1704	2156
3408	4312
5112	6468
6816	8624
OP-DX / OP-SX Optic	
5112	6468
10224	12936
SSP-7A1 Optic	
290mA	
3260	

RATED LUMINAIRE POWER[1] (Ta=25°C, Vin=230Vac, W) F and DA version at full load		
MODULES	525mA	700mA
	STE-M / STE-S / STW Optic	
1	20	27,5
2	41,5	54,5
3	61	80
4	78	103
MODULES	STU-M / STU-S / SV Optic	
1	15,5	21
2	32,5	42,5
3	47	61
4	60	80
MODULES	STA / STA1 Optic	
1	13	19
2	28,5	37,5
3	43	56,5
4	54	71
MODULES	OP-DX / OP-SX Optic	
1	41	53,5
2	80	105
MODULES	SSP-7A1 Optic	
	290mA	
1	23	

RATED LED POWER[2] (Tj=85°C, W)	
525mA	700mA
STE-M / STE-S / STW Optic	
17	24
35	47
52	71
70	94
STU-M / STU-S / SV Optic	
13	18
26	35
39	53
52	71
STA / STA1 Optic	
12	16
23	31
35	47
46	63
OP-DX / OP-SX Optic	
35	47
70	94
SSP-7A1 Optic	
290mA	
18,8	

LUMINAIRE EFFICIENCY (Ta=25°C, lm/W)		
MODULES	525mA	700mA
	STE-M / STE-S / STW Optic	
1	102	99
2	107	102
3	108	103
4	112	106
MODULES	STU-M / STU-S / SV Optic	
1	99	97
2	99	96
3	104	100
4	108	102
MODULES	STA / STA1 Optic	
1	99	91
2	96	92
3	96	92
4	101	96
MODULES	OP-DX / OP-SX Optic	
1	108	104
2	110	104
MODULES	SSP-7A1 Optic	
	290mA	
1	111	

SURGE PROTECTION Diff. mode / Common Mode	
Class II	Class I
10/7 kV	10/10 kV
10/10 kV	10/10 kV
10/10 kV	10/10 kV
10/6 kV	10/10 kV

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

Ta(°C)	Multiplier
50	0,94
40	0,96
25	1,00
15	1,02
5	1,04
0	1,05
Tk(K)	Multiplier
3000	0.90
4000	1.00

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

*Ta (°C)	Multiplier
50	0,99
25	1.00
0	1,01

**Note : Valid only for allowed versions (see limits under Operating Temperatures)*

Legend:

Ta =Ambient temperature.

Tk = Colour temperature.

Example of luminaire data calculation

Ta=40°C
Tk=4000K
4 MODULES, 525mA STE Optic
Flux: 8090 x 0.96 = 7766.4 lm
Power: 77 x 0,99 = 76.2 W
Efficiency: 7766.4 / 76,2 = 102 lm/W

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%.Data listed above are subject to change without notice.

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