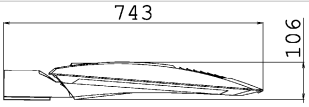
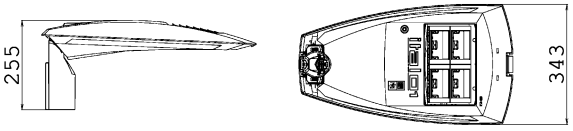
Product Sheet





ITALO 1

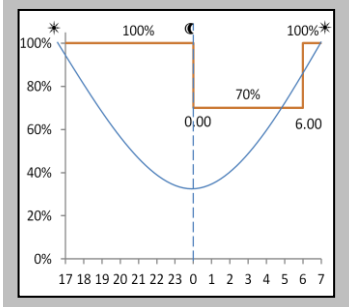
MAIN CHARACTERISTICS	
Applications	Street lighting.
Optic	STE-M/S: Asymmetrical optic for street lighting (suburban). STU-M/S: Asymmetrical optic for street lighting (urban). STW: Asymmetrical optic for wide roads and wet asphalts lighting. SV: Asymmetrical optic for narrow urban streets or highway entrance/exit turns. OP-DX / SX: Asymmetrical optic for crosswalks lighting. S05: Asymmetrical optic for urban and street lighting. STA / STA1: Asymmetrical optic for V and P categories. Colour temperature: 4000K, (optional 3000K, 5700K) | CRI ≥ 70 Photobiological safety class: EXEMPT GROUP LED source efficiency: 168 lm/W @ 525mA, Tj=85°C – 4000K
Insulation class	EU: II, I - US: 1
Protection degree	IP66 | IK 09 total
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 | SCx:0.04m^2
Mounting	Bracket or Post-top Ø60mm Ø33mm ÷ Ø60mm (optional) | Ø60mm ÷ Ø76mm (optional)
Gear tray	Removable plate.
Operating temp.	-40°C / +50°C
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

IK09 IP66 EXEMPT GROUP HIGH PERFORMANCE OPTIC AEC THERMO FLOW

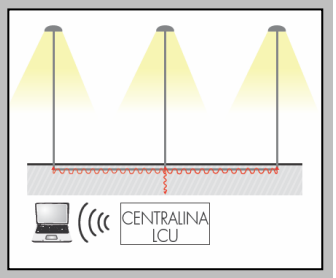
ELECTRICAL CHARACTERISTICS	
Rated voltage	220÷240V 50/60Hz *(Standard tolerance +/-10%, other voltages and tolerances upon request)*
LED current	525mA | 700mA
Power factor	>0,9 (at full load - PLM) >0,95 (at full load - F, DA, DAC)
On-load switch	Included, with integrated cable clamp.
Mains connection	For cables max section 4mm^2
Surge protection	SPD integrated 10kV-10kA, type II, with LED signal and thermo fuse to disconnect load at the end of life.
Control system (options)	F: Fixed power not dimmable. (Base version) DA: Automatic dimming (virtual midnight) with default profile. DAC: Custom DA profile. PLM: Power Line single point communication system. WL: Wireless single point communication system.
Optical unit lifetime (Tq=25°C, 700mA)	≥100.000hr L90B10 ≥100.000hr L90, TM-21

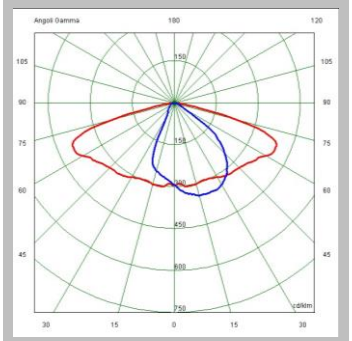
MATERIALS	
Fixing	Die-cast aluminum UNI EN1706 powder painted.
Heat-sink	
Lower frame	
Upper canopy	
Closure hook	Extruded aluminium with stainless steel spring.
Optic	99.85% aluminum with a surface finish in 99.95% with vacuum-sealed deposition. Aluminum grade class A+ (DIN EN 16268)
Screen	Flat tempered glass, 4mm thickness high transparency.
Cable gland	Plastic M20x1.5 - IP68
Gasket	Polyurethane
Colour	Semi-gloss satin grey Cod. 2B

DA Profile



PLM





STU-M Optic

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

Product sheet

4000K

LUMINAIRE	LED Current (mA)	OPTICS	RATED LUMINAIRE FLUX[1] (Tq=25°C, 4000K, lm)	RATED LUMINAIRE POWER[1] (Tq=25°C, Vin=230Vac, F / DA / DAC, W)	LUMINAIRE EFFICACY (Tq=25°C, lm/W)	RATED LED FLUX[2] (Tj=85°C, 4000K, lm)	RATED LED POWER[2] (Tj=85°C, W)
ITALO 1 0F2H1 4.5-1M	525	STU-S STU-M SV S05	1880	16	118	2184	13
ITALO 1 0F2H1 4.5-2M			3690	30,5	121	4369	26
ITALO 1 0F2H1 4.5-3M			5530	44	126	6553	39
ITALO 1 0F2H1 4.5-4M			7150	57	125	8737	53
ITALO 1 0F2H1 4.7-1M	700	STU-S STU-M SV S05	2420	21,5	113	2765	18
ITALO 1 0F2H1 4.7-2M			4720	40	118	5530	36
ITALO 1 0F2H1 4.7-3M			7030	58	121	8295	53
ITALO 1 0F2H1 4.7-4M			8990	76	118	11060	71
ITALO 1 0F3 4.5-1M	525	STE-S STE-M STW	2610	21,5	121	2951	18
ITALO 1 0F3 4.5-2M			5160	39	132	5901	35
ITALO 1 0F3 4.5-3M			7490	57	131	8852	53
ITALO 1 0F3 4.5-4M			9950	76	131	11803	70
ITALO 1 0F3 4.7-1M	700	STE-S STE-M STW	3270	28	117	3735	24
ITALO 1 0F3 4.7-2M			6530	52	126	7470	47
ITALO 1 0F3 4.7-3M			9420	76	124	11205	71
ITALO 1 0F3 4.7-4M			12550	102	123	14940	95
ITALO 1 0F6 4.5-1M	525	OP-DX OP-SX	5160	39	132	5901	35
ITALO 1 0F6 4.5-2M			9950	76	131	11803	70
ITALO 1 0F6 4.7-1M	700	OP-DX OP-SX	6530	52	126	7470	47
ITALO 1 0F6 4.7-2M			12550	102	123	14940	95

LUMINAIRE	LED Current (mA)	OPTICS	RATED LUMINAIRE FLUX[1] (Tq=25°C, 4000K, lm)	RATED LUMINAIRE POWER[1] (Tq=25°C, Vin=230Vac, F / DA / DAC, W)	LUMINAIRE EFFICACY (Tq=25°C, lm/W)	RATED LED FLUX[2] (Tj=85°C, 4000K, lm)	RATED LED POWER[2] (Tj=85°C, W)
ITALO 1 0F2 4.5-1M	525	STA STA1	1620	14	116	1967	12
ITALO 1 0F2 4.5-2M			3170	27	117	3934	23
ITALO 1 0F2 4.5-3M			4750	39	122	5901	35
ITALO 1 0F2 4.5-4M			6020	51	118	7868	47
ITALO 1 0F2 4.7-1M	700	STA STA1	2080	19,5	107	2490	16
ITALO 1 0F2 4.7-2M			4050	36	113	4980	32
ITALO 1 0F2 4.7-3M			6040	52	116	7470	47
ITALO 1 0F2 4.7-4M			7570	68	111	9960	63

The tables above 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.

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

Multiplier to obtain flux and power in function of Tq		
Tq (°C)	Flux multiplier	Power multiplier
50	0,94	0,99
40	0,96	-
25	1	1
15	1,02	-
5	1,05	-
0	1,05	1,01

Multiplier to obtain flux and power in function of Tk		
Tk (K)	Flux multiplier	Power multiplier
3000	0,88	1
4000	1	1
5700	1,02	1
CRI	Flux multiplier	Power multiplier
70	1	1
80	0,8	1,01

The characteristics of the product listed above are subjected to change without notice.
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%.

Product sheet

3000K

LUMINAIRE	LED Current (mA)	OPTICS	RATED LUMINAIRE FLUX[1] (Tq=25°C, 3000K, lm)	RATED LUMINAIRE POWER[1] (Tq=25°C, Vin=230Vac, F / DA / DAC, W)	LUMINAIRE EFFICACY (Tq=25°C, lm/W)	RATED LED FLUX[2] (Tj=85°C, 3000K, lm)	RATED LED POWER[2] (Tj=85°C, W)
ITALO 1 0F2H1 3.5-1M	525	STU-S STU-M SV S05	1650	16	103	1922	13
ITALO 1 0F2H1 3.5-2M			3250	30,5	107	3844	26
ITALO 1 0F2H1 3.5-3M			4870	44	111	5767	39
ITALO 1 0F2H1 3.5-4M			6290	57	110	7689	53
ITALO 1 0F2H1 3.7-1M	700	STU-S STU-M SV S05	2130	21,5	99	2433	18
ITALO 1 0F2H1 3.7-2M			4150	40	104	4866	36
ITALO 1 0F2H1 3.7-3M			6190	58	107	7300	53
ITALO 1 0F2H1 3.7-4M			7910	76	104	9733	71
ITALO 1 0F3 3.5-1M	525	STE-S STE-M STW	2300	21,5	107	2597	18
ITALO 1 0F3 3.5-2M			4540	39	116	5193	35
ITALO 1 0F3 3.5-3M			6590	57	116	7790	53
ITALO 1 0F3 3.5-4M			8760	76	115	10386	70
ITALO 1 0F3 3.7-1M	700	STE-S STE-M STW	2880	28	103	3287	24
ITALO 1 0F3 3.7-2M			5750	52	111	6574	47
ITALO 1 0F3 3.7-3M			8290	76	109	9860	71
ITALO 1 0F3 3.7-4M			11040	102	108	13147	95
ITALO 1 0F6 3.5-1M	525	OP-DX OP-SX	4540	39	116	5193	35
ITALO 1 0F6 3.5-2M			8760	76	115	10386	70
ITALO 1 0F6 3.7-1M	700	OP-DX OP-SX	5750	52	111	6574	47
ITALO 1 0F6 3.7-2M			11040	102	108	13147	95

LUMINAIRE	LED Current (mA)	OPTICS	RATED LUMINAIRE FLUX[1] (Tq=25°C, 3000K, lm)	RATED LUMINAIRE POWER[1] (Tq=25°C, Vin=230Vac, F / DA / DAC, W)	LUMINAIRE EFFICACY (Tq=25°C, lm/W)	RATED LED FLUX[2] (Tj=85°C, 3000K, lm)	RATED LED POWER[2] (Tj=85°C, W)
ITALO 1 0F2 3.5-1M	525	STA STA1	1430	14	102	1731	12
ITALO 1 0F2 3.5-2M			2790	27	103	3462	23
ITALO 1 0F2 3.5-3M			4180	39	107	5193	35
ITALO 1 0F2 3.5-4M			5300	51	104	6924	47
ITALO 1 0F2 3.7-1M	700	STA STA1	1830	19,5	94	2191	16
ITALO 1 0F2 3.7-2M			3560	36	99	4382	32
ITALO 1 0F2 3.7-3M			5320	52	102	6574	47
ITALO 1 0F2 3.7-4M			6660	68	98	8765	63

The tables above 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.

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

Multiplier to obtain flux and power in function of Tq		
Tq (°C)	Flux multiplier	Power multiplier
50	0,94	0,99
40	0,96	-
25	1	1
15	1,02	-
5	1,05	-
0	1,05	1,01

Multiplier to obtain flux and power in function of Tk		
Tk (K)	Flux multiplier	Power multiplier
3000	0,88	1
4000	1	1
5700	1,02	1
CRI	Flux multiplier	Power multiplier
70	1	1
80	0,8	1,01

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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%.

Product sheet

LUMINAIRE	LED Current (mA)	OPTICS	INRUSH CURRENT Duration 50%pk (µs)	INRUSH CURRENT Peak (A)	MCB B-Type 10A / 16A / 25A	MCB C-Type 10A / 16A / 25A	SURGE PROTECTION CL.I (CM / DM, kV)	SURGE PROTECTION CL.II (CM / DM, kV)
ITALO 1 0F2H1 4.5-1M	525	STU-S STU-M SV S05	360	15	14 / 23 / 35	23 / 39 / 59	10 / 10	7 / 10
ITALO 1 0F2H1 4.5-2M			250	30	10 / 17 / 28	17 / 28 / 44	10 / 10	9 / 10
ITALO 1 0F2H1 4.5-3M			230	55	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F2H1 4.5-4M			230	55	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F2H1 4.7-1M	700	STU-S STU-M SV S05	360	15	14 / 23 / 35	23 / 39 / 59	10 / 10	7 / 10
ITALO 1 0F2H1 4.7-2M			250	30	10 / 17 / 28	17 / 28 / 44	10 / 10	9 / 10
ITALO 1 0F2H1 4.7-3M			230	55	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F2H1 4.7-4M			210	57	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F3 4.5-1M	525	STE-S STE-M STW	360	15	14 / 23 / 35	23 / 39 / 59	10 / 10	7 / 10
ITALO 1 0F3 4.5-2M			230	55	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F3 4.5-3M			230	55	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F3 4.5-4M			210	57	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F3 4.7-1M	700	STE-S STE-M STW	250	30	10 / 17 / 28	17 / 28 / 44	10 / 10	7 /10
ITALO 1 0F3 4.7-2M			230	55	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F3 4.7-3M			210	57	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F3 4.7-4M			330	62	4 / 8 / 14	8 / 14 / 21	10 / 10	9 / 10
ITALO 1 0F6 4.5-1M	525	OP-DX OP-SX	5160	55	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F6 4.5-2M			9950	57	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F6 4.7-1M	700	OP-DX OP-SX	6530	55	7 / 12 / 20	12 / 20 / 32	10 / 10	9 / 10
ITALO 1 0F6 4.7-2M			12550	62	4 / 8 / 14	8 / 14 / 21	10 / 10	9 / 10

NOTE 1: The number of luminaires under a three-phase MCB is calculated multiplying by 3 the number in the table. These values are based on data declared by power supply manufacturer and tested on worst case MCB model. An inrush current limiter (i.e. Finder SSR 77.11.x.xxx.8250 (15A) or 77.31.x.xxx.8050 model (30A)) can improve the max.number of luminaire under the MCB
NOTE 2: Power supply manufacturer never did any considerations about 50A or 63A MCB. So we can't declare anything about using of MCB higher than 25A.