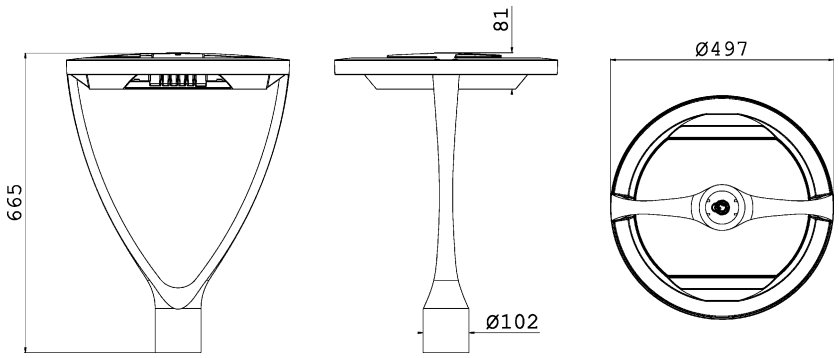
Product sheet



ECO·RAYS

ECO·RAYS TP

MAIN CHARACTERISTICS

Applications	Urban and street lighting.
Optic	STU-M / S: Asymmetrical optic for street lighting (urban). SV: Asymmetrical optic for narrow urban streets or highway entrance/exit turns. S: Symmetrical optic for urban and street lighting. S05: Asymmetrical optic for urban and street lighting. Colour temperature: 4000K (3000K optional) | CRI ≥ 70 Photobiological safety class: EXEMPT GROUP LED source efficiency: 158 lm/W @ 525mA, Tj=85°C, 4000K
Insulation class	II, I
Protection degree	IP66
Impact protection	IK08
LED modules	Removable
Tilt angle	0°
Dimensions	Ø497x665x81mm
Weight	7 kg
Exposed surface	Side: 0.07m^2 – Top: 0.17m^2
Mounting	Post-top Ø60-Ø76mm
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

IK08 IP66 EXEMPT GROUP HIGH PERFORMANCE OPTIC AEC THERMO FLOW

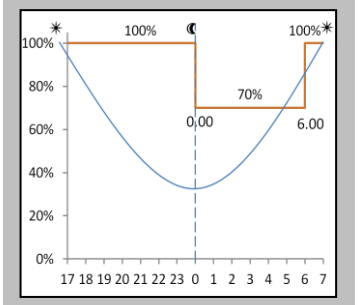
ELECTRICAL CHARACTERISTICS

Rated voltage	220÷240V 50/60Hz
LED current	525mA , 700mA
Power factor	>0,9 (at full load)
Mains connection	External connector for cables max. 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. FLC: Constant light flux. PLM: Power Line single point communication system. WL: Wireless single point communication system. DALI: Digital dimming interface DALI. NEMA: Socket 7 pin (ANSI C136.41).
Optical unit lifetime (Tq=25°C, 700mA)	≥100.000hr L90B10 ≥100.000hr L90, TM-21

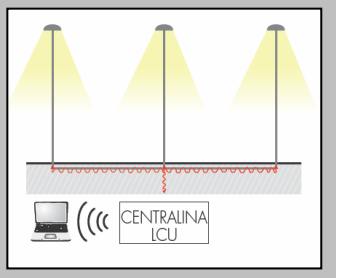
MATERIALS

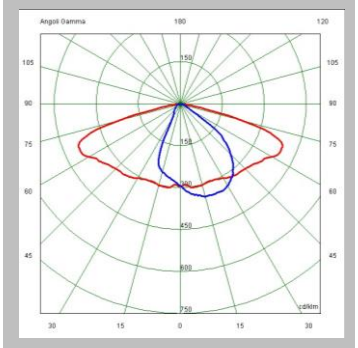
Fixing	Die-cast aluminium UNI EN1706 powder painted.
Body	
Optic	99.85% aluminium with a surface finish in 99.95% with vacuum-sealed deposition. Aluminum grade class A+ (DIN EN 16268)
Screen	Flat tempered glass, 4mm thickness, high transparency
Gable gland	Plastic M20x1.5 - IP68
Gasket	Polyurethane
Colour	Graphite Cod. 01

DA Profile



PLM





STU-M Optic

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

GREENLIGHT

Product sheet

4000K

LUMINAIRE	OPTICS	LED Current (mA)	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)
ECORAYS TP 0R2C1 4.50-1M	STU-M STU-S	525	1660	16	104	1954	12
ECORAYS TP 0R2C1 4.5-2M			3220	31,5	102	4120	26
ECORAYS TP 0R2C1 4.7-1M	STU-M STU-S	700	2210	22,5	98	2637	18
ECORAYS TP 0R2C1 4.7-2M			4060	42	97	5274	35
ECORAYS TP 0R2C1 4.50-1M	S05	525	1730	16	108	1954	12
ECORAYS TP 0R2C1 4.5-2M			3470	31,5	110	4120	26
ECORAYS TP 0R2C1 4.7-1M	S05	700	2280	22,5	101	2637	18
ECORAYS TP 0R2C1 4.7-2M			4380	42	104	5274	35
ECORAYS TP 0R2C1 4.50-1M	SV	525	1550	16	97	1954	12
ECORAYS TP 0R2C1 4.5-2M			3400	31,5	108	4120	26
ECORAYS TP 0R2C1 4.7-1M	SV	700	2040	22,5	91	2637	18
ECORAYS TP 0R2C1 4.7-2M			4280	42	102	5274	35
ECORAYS TP 0R2C1 4.5-2M	S	525	3500	31,5	111	4120	26
ECORAYS TP 0R2C1 4.7-2M	S	700	4420	42	105	5274	35

3000K

LUMINAIRE	OPTICS	LED Current (mA)	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)
ECORAYS TP 0F2H1 3.50-1M	STU-M STU-S	525	1500	15	100	1966	13
ECORAYS TP 0F2H1 3.5-2M			3090	30,5	101	3932	26
ECORAYS TP 0F2H1 3.7-1M	STU-M STU-S	700	2020	21,5	94	2489	18
ECORAYS TP 0F2H1 3.7-2M			3940	40	99	4977	36
ECORAYS TP 0F2H1 3.50-1M	S05	525	1540	15	103	1966	13
ECORAYS TP 0F2H1 3.5-2M			3150	30,5	103	3932	26
ECORAYS TP 0F2H1 3.7-1M	S05	700	2070	21,5	96	2489	18
ECORAYS TP 0F2H1 3.7-2M			4030	40	101	4977	36
ECORAYS TP 0F2H1 3.50-1M	SV	525	1430	15	95	1966	13
ECORAYS TP 0F2H1 3.5-2M			2920	30,5	96	3932	26
ECORAYS TP 0F2H1 3.7-1M	SV	700	1920	21,5	89	2489	18
ECORAYS TP 0F2H1 3.7-2M			3740	40	94	4977	36
ECORAYS TP 0F2H1 3.5-2M	S	525	3150	30,5	103	3932	26
ECORAYS TP 0F2H1 3.7-2M	S	700	4030	40	101	4977	36

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.
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%.

LUMINAIRE	OPTICS	LED Current (mA)	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)
ECORAYS TP 0R2C1 4.50-1M	STU-M STU-S	525	360	15	14 / 23 / 35	23 / 39 / 59	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.5-2M			250	30	10 / 17 / 28	17 / 28 / 45	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.7-1M	STU-M STU-S	700	360	15	14 / 23 / 35	23 / 39 / 59	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.7-2M			250	30	10 / 17 / 28	17 / 28 / 45	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.50-1M	S05	525	360	15	14 / 23 / 35	23 / 39 / 59	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.5-2M			250	30	10 / 17 / 28	17 / 28 / 45	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.7-1M	S05	700	360	15	14 / 23 / 35	23 / 39 / 59	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.7-2M			250	30	10 / 17 / 28	17 / 28 / 45	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.50-1M	SV	525	360	15	14 / 23 / 35	23 / 39 / 59	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.5-2M			250	30	10 / 17 / 28	17 / 28 / 45	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.7-1M	SV	700	360	15	14 / 23 / 35	23 / 39 / 59	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.7-2M			250	30	10 / 17 / 28	17 / 28 / 45	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.5-2M	S	525	250	30	10 / 17 / 28	17 / 28 / 45	10 / 10	9 / 10
ECORAYS TP 0R2C1 4.7-2M	S	700	250	30	10 / 17 / 28	17 / 28 / 45	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.