



ECO-RAYS TS	
MAIN CHARACTERISTICS	
Applications	Street and urban lighting.
Optic	TS: Symmetrical optic for centre road lighting. Colour temperature: 4000K, 3000K, 2700, 2200K (others in option) CRI ≥ 70 LOR= 100%, DLOR= 100%, ULOR= 0% Photobiological safety class: EXEMPT GROUP LED source efficiency: 185 lm/W @ 140mA, Tj=85°C, 4000K
Insulation class	II, I
Protection degree	IP66 IK08 total
Dimensions	See the drawing
Weight	max. 7 kg
Exposed surface	Side: 0.04m ² – Top: 0.17m ²
Mounting	Suspended installation on cable Ø5-12mm.
Tilt angle	Inclination on horizontal plane: ±15°. Rotation: 360° on vertical axis.
LED modules	Removable
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
ELECTRICAL CHARACTERISTICS	
Rated voltage	220÷240V 50/60Hz
Power factor	>0,9 (at full load)
Mains connection	Cable H07RN-F nx1.5mm ² Optional: connector M/F IP66/68 for cables max. 2.5mm ² , Ø max. 14mm
Surge protection	Up to 12kV With SPD: CL.II: 10kV / 10kV CM/DM CL.I: 12kV / 10kV CM/DM Without SPD: CL.II: 10kV / 6kV CM/DM CL.I: 10kV / 6kV CM/DM
SPD (optional)	12kV-10kA, type 2+3, with LED signal and thermo fuse to disconnect load at the end of life.
Control system (options)	F: Fixed power not dimmable. DA: Automatic dimming (virtual midnight) with default profile. DAC: Custom DA profile. FLC: Constant light flux. DALI: Digital dimming interface DALI. NEMA: Socket 7 pin (ANSI C136.41). ZHAGA: Socket 4 pin (ZHAGA Book 18).
Optical unit lifetime (Tq=25°C)	>100.000hr L90B10 >100.000hr L90, TM-21
MATERIALS	
Fixing	Stainless steel AISI 316L
Body	Die-cast aluminium UNI EN1706 powder painted.
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, 5mm thickness, high transparency.
Gable gland	Metallic M20x1.5 - IP68
Gasket	Polyurethane
Colour	Graphite - Cod. 01

LUMINAIRE	OPTIC	LED CURRENT (mA)	RATED LUMINAIRE FLUX* (Tq=25°C, 4000K, lm)	RATED LUMINAIRE POWER* (Tq=25°C, Vin=230Vac, F/DA/DAC, W)	LUMINAIRE EFFICACY (Tq=25°C, lm/W)	RATED LED FLUX* (Tj=85°C, 4000K, lm)	RATED LED POWER* (Tj=85°C, W)
ECO RAYS TS 5P5 7040.060-1M	TS	60	1700	11.9	142.8	1847	9.4
ECO RAYS TS 5P5 7040.060-2M			3410	23	148.2	3694	18.8
ECO RAYS TS 5P5 7040.100-1M		100	2780	19.1	145.5	3023	16
ECO RAYS TS 5P5 7040.100-2M			5560	37.4	148.6	6046	31.9
ECO RAYS TS 5P5 7040.140-1M		140	3840	26.8	143.2	4150	22.7
ECO RAYS TS 5P5 7040.140-2M			7620	52.3	145.6	8299	45.4

*RATED LUMINAIRE FLUX / RATED LUMINAIRE POWER: Rated data obtained in laboratory.

*RATED LED FLUX / RATED LED POWER: Rated data extrapolated from LED manufacturer datasheet.

Values indicated in this technical sheet are to be considered rated values. Flux tolerance: $\pm 7\%$. Power tolerance: $\pm 7\%$.

Power tolerance with ZHAGA version or power supply D4i/SR: $\pm 10\%$.

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

LUMINAIRE	OPTIC	LED CURRENT (mA)	RATED LUMINAIRE FLUX* (Tq=25°C, 3000K, lm)	RATED LUMINAIRE POWER* (Tq=25°C, Vin=230Vac, F/DA/DAC, W)	LUMINAIRE EFFICACY (Tq=25°C, lm/W)	RATED LED FLUX* (Tj=85°C, 3000K, lm)	RATED LED POWER* (Tj=85°C, W)
ECO RAYS TS 5P5 7030.060-1M	TS	60	1590	11.9	133.6	1736	9.4
ECO RAYS TS 5P5 7030.060-2M			3210	23	139.5	3472	18.8
ECO RAYS TS 5P5 7030.100-1M		100	2610	19.1	136.6	2842	16
ECO RAYS TS 5P5 7030.100-2M			5230	37.4	139.8	5683	31.9
ECO RAYS TS 5P5 7030.140-1M		140	3610	26.8	134.7	3901	22.7
ECO RAYS TS 5P5 7030.140-2M			7160	52.3	136.9	7801	45.4

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*RATED LED FLUX / RATED LED POWER: Rated data extrapolated from LED manufacturer datasheet.

Values indicated in this technical sheet are to be considered rated values. Flux tolerance: ±7%. Power tolerance: ±7%.

Power tolerance with ZHAGA version or power supply D4i/SR: ±10%.

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LUMINAIRE	OPTIC	LED CURRENT (mA)	RATED LUMINAIRE FLUX* (Tq=25°C, 2700K, lm)	RATED LUMINAIRE POWER* (Tq=25°C, Vin=230Vac, F/DA/DAC, W)	LUMINAIRE EFFICACY (Tq=25°C, lm/W)	RATED LED FLUX* (Tj=85°C, 2700K, lm)	RATED LED POWER* (Tj=85°C, W)
ECO RAYS TS 5P5 7027.060-1M	TS	60	1530	11.9	128.5	1662	9.4
ECO RAYS TS 5P5 7027.060-2M			3070	23	133.4	3324	18.8
ECO RAYS TS 5P5 7027.100-1M		100	2500	19.1	130.8	2721	16
ECO RAYS TS 5P5 7027.100-2M			5000	37.4	133.6	5441	31.9
ECO RAYS TS 5P5 7027.140-1M		140	3460	26.8	129.1	3735	22.7
ECO RAYS TS 5P5 7027.140-2M			6860	52.3	131.1	7469	45.4

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*RATED LED FLUX / RATED LED POWER: Rated data extrapolated from LED manufacturer datasheet.

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Power tolerance with ZHAGA version or power supply D4i/SR: ±10%.

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LUMINAIRE	OPTIC	LED CURRENT (mA)	RATED LUMINAIRE FLUX* (Tq=25°C, 2200K, lm)	RATED LUMINAIRE POWER* (Tq=25°C, Vin=230Vac, F/DA/DAC, W)	LUMINAIRE EFFICACY (Tq=25°C, lm/W)	RATED LED FLUX* (Tj=85°C, 2200K, lm)	RATED LED POWER* (Tj=85°C, W)
ECO RAYS TS 5P5 7022.060-1M	TS	60	1370	11.9	115.1	1496	9.4
ECO RAYS TS 5P5 7022.060-2M			2770	23	120.4	2992	18.8
ECO RAYS TS 5P5 7022.100-1M		100	2250	19.1	117.8	2449	16
ECO RAYS TS 5P5 7022.100-2M			4500	37.4	120.3	4897	31.9
ECO RAYS TS 5P5 7022.140-1M		140	3110	26.8	116	3361	22.7
ECO RAYS TS 5P5 7022.140-2M			6170	52.3	117.9	6722	45.4

*RATED LUMINAIRE FLUX / RATED LUMINAIRE POWER: Rated data obtained in laboratory.

*RATED LED FLUX / RATED LED POWER: Rated data extrapolated from LED manufacturer datasheet.

Values indicated in this technical sheet are to be considered rated values. Flux tolerance: ±7%. Power tolerance: ±7%.

Power tolerance with ZHAGA version or power supply D4i/SR: ±10%.

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