



ECO-RAYS S

MAIN CHARACTERISTICS

Applications	Street and urban lighting.
Optic	<p>STE-M/S: Asymmetrical optic for suburban street lighting. STU-M/S: Asymmetrical optic for street, urban and cycle-path lighting. STW: Asymmetrical optic for wide urban and suburban road lighting, specific for wet asphalts. SV: Asymmetrical optic for very narrow urban streets or highway entrance/exit turns. S05/S07: Asymmetrical optic for street, urban and green areas lighting. STA: Asymmetrical optic for wide urban road and cycle-path lighting. S: Symmetrical optic for urban lighting and green areas. Colour temperature: 4000K, 3000K, 2700K, 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</p>
Insulation class	II, I
Protection degree	IP66 IK08 total
Dimensions	See the drawing
Weight	max. 7 kg
Exposed surface	Side: 0.03m ² – Top: 0.17m ²
Mounting	Suspended on brackets 1/2" GAS
Tilt angle	0°
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. 12mm
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)	<p>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).</p>
Optical unit lifetime (Tq=25°C)	>100.000hr L90B10 >100.000hr L90, TM-21

MATERIALS

Fixing	Stainless steel.
Body	Die-cast aluminium UNI EN1706 powder painted.
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, 5mm thickness, high transparency.
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 S 5P5 7040.060-1M	STE-M STU-M STA SV	60	1700	11.9	142.8	1847	9.4	
ECO RAYS S 5P5 7040.060-2M			3410	23	148.2	3694	18.8	
ECO RAYS S 5P5 7040.100-1M		100	2780	19.1	145.5	3023	16	
ECO RAYS S 5P5 7040.100-2M			5560	37.4	148.6	6046	31.9	
ECO RAYS S 5P5 7040.140-1M			140	3840	26.8	143.2	4150	22.7
ECO RAYS S 5P5 7040.140-2M				7620	52.3	145.6	8299	45.4
ECO RAYS S 5P5 7040.060-1M	S05 S07 STE-S STU-S	60	1660	11.9	139.4	1847	9.4	
ECO RAYS S 5P5 7040.060-2M			3340	23	145.2	3694	18.8	
ECO RAYS S 5P5 7040.100-1M		100	2720	19.1	142.4	3023	16	
ECO RAYS S 5P5 7040.100-2M			5440	37.4	145.4	6046	31.9	
ECO RAYS S 5P5 7040.140-1M			140	3750	26.8	139.9	4150	22.7
ECO RAYS S 5P5 7040.140-2M				7450	52.3	142.4	8299	45.4
ECO RAYS S 5P5 7040.060-1M	STW	60	1740	11.9	146.2	1847	9.4	
ECO RAYS S 5P5 7040.060-2M			3490	23	151.7	3694	18.8	
ECO RAYS S 5P5 7040.100-1M		100	2850	19.1	149.2	3023	16	
ECO RAYS S 5P5 7040.100-2M			5680	37.4	151.8	6046	31.9	
ECO RAYS S 5P5 7040.140-1M			140	3930	26.8	146.6	4150	22.7
ECO RAYS S 5P5 7040.140-2M				7790	52.3	148.9	8299	45.4
ECO RAYS S 5P5 7040.060-2M	S	60	3340	23	145.2	3694	18.8	
ECO RAYS S 5P5 7040.100-2M		100	5440	37.4	145.4	6046	31.9	
ECO RAYS S 5P5 7040.140-2M		140	7450	52.3	142.4	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 S 5P5 7030.060-1M	STE-M STU-M STA SV	60	1590	11.9	133.6	1736	9.4	
ECO RAYS S 5P5 7030.060-2M			3210	23	139.5	3472	18.8	
ECO RAYS S 5P5 7030.100-1M		100	2610	19.1	136.6	2842	16	
ECO RAYS S 5P5 7030.100-2M			5230	37.4	139.8	5683	31.9	
ECO RAYS S 5P5 7030.140-1M			140	3610	26.8	134.7	3901	22.7
ECO RAYS S 5P5 7030.140-2M				7160	52.3	136.9	7801	45.4
ECO RAYS S 5P5 7030.060-1M	S05 S07 STE-S STU-S	60	1560	11.9	131	1736	9.4	
ECO RAYS S 5P5 7030.060-2M			3140	23	136.5	3472	18.8	
ECO RAYS S 5P5 7030.100-1M		100	2560	19.1	134	2842	16	
ECO RAYS S 5P5 7030.100-2M			5110	37.4	136.6	5683	31.9	
ECO RAYS S 5P5 7030.140-1M			140	3530	26.8	131.7	3901	22.7
ECO RAYS S 5P5 7030.140-2M				7000	52.3	133.8	7801	45.4
ECO RAYS S 5P5 7030.060-1M	STW	60	1640	11.9	137.8	1736	9.4	
ECO RAYS S 5P5 7030.060-2M			3280	23	142.6	3472	18.8	
ECO RAYS S 5P5 7030.100-1M		100	2680	19.1	140.3	2842	16	
ECO RAYS S 5P5 7030.100-2M			5340	37.4	142.7	5683	31.9	
ECO RAYS S 5P5 7030.140-1M			140	3690	26.8	137.6	3901	22.7
ECO RAYS S 5P5 7030.140-2M				7320	52.3	139.9	7801	45.4
ECO RAYS S 5P5 7030.060-2M	S	60	3140	23	136.5	3472	18.8	
ECO RAYS S 5P5 7030.100-2M		100	5110	37.4	136.6	5683	31.9	
ECO RAYS S 5P5 7030.140-2M		140	7000	52.3	133.8	7801	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, 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 S 5P5 7027.060-1M	STE-M STU-M STA SV	60	1530	11.9	128.5	1662	9.4	
ECO RAYS S 5P5 7027.060-2M			3070	23	133.4	3324	18.8	
ECO RAYS S 5P5 7027.100-1M		100	2500	19.1	130.8	2721	16	
ECO RAYS S 5P5 7027.100-2M			5000	37.4	133.6	5441	31.9	
ECO RAYS S 5P5 7027.140-1M			140	3460	26.8	129.1	3735	22.7
ECO RAYS S 5P5 7027.140-2M				6860	52.3	131.1	7469	45.4
ECO RAYS S 5P5 7027.060-1M	S05 S07 STE-S STU-S	60	1500	11.9	126	1662	9.4	
ECO RAYS S 5P5 7027.060-2M			3010	23	130.8	3324	18.8	
ECO RAYS S 5P5 7027.100-1M		100	2450	19.1	128.2	2721	16	
ECO RAYS S 5P5 7027.100-2M			4900	37.4	131	5441	31.9	
ECO RAYS S 5P5 7027.140-1M			140	3380	26.8	126.1	3735	22.7
ECO RAYS S 5P5 7027.140-2M				6710	52.3	128.2	7469	45.4
ECO RAYS S 5P5 7027.060-1M	STW	60	1570	11.9	131.9	1662	9.4	
ECO RAYS S 5P5 7027.060-2M			3140	23	136.5	3324	18.8	
ECO RAYS S 5P5 7027.100-1M		100	2570	19.1	134.5	2721	16	
ECO RAYS S 5P5 7027.100-2M			5110	37.4	136.6	5441	31.9	
ECO RAYS S 5P5 7027.140-1M			140	3540	26.8	132	3735	22.7
ECO RAYS S 5P5 7027.140-2M				7010	52.3	134	7469	45.4
ECO RAYS S 5P5 7027.060-2M	S	60	3010	23	130.8	3324	18.8	
ECO RAYS S 5P5 7027.100-2M		100	4900	37.4	131	5441	31.9	
ECO RAYS S 5P5 7027.140-2M		140	6710	52.3	128.2	7469	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, 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 S 5P5 7022.060-1M	STE-M STU-M STA SV	60	1370	11.9	115.1	1496	9.4	
ECO RAYS S 5P5 7022.060-2M			2770	23	120.4	2992	18.8	
ECO RAYS S 5P5 7022.100-1M		100	2250	19.1	117.8	2449	16	
ECO RAYS S 5P5 7022.100-2M			4500	37.4	120.3	4897	31.9	
ECO RAYS S 5P5 7022.140-1M			140	3110	26.8	116	3361	22.7
ECO RAYS S 5P5 7022.140-2M				6170	52.3	117.9	6722	45.4
ECO RAYS S 5P5 7022.060-1M	S05 S07 STE-S STU-S	60	1350	11.9	113.4	1496	9.4	
ECO RAYS S 5P5 7022.060-2M			2710	23	117.8	2992	18.8	
ECO RAYS S 5P5 7022.100-1M		100	2200	19.1	115.1	2449	16	
ECO RAYS S 5P5 7022.100-2M			4410	37.4	117.9	4897	31.9	
ECO RAYS S 5P5 7022.140-1M			140	3040	26.8	113.4	3361	22.7
ECO RAYS S 5P5 7022.140-2M				6030	52.3	115.2	6722	45.4
ECO RAYS S 5P5 7022.060-1M	STW	60	1410	11.9	118.4	1496	9.4	
ECO RAYS S 5P5 7022.060-2M			2830	23	123	2992	18.8	
ECO RAYS S 5P5 7022.100-1M		100	2310	19.1	120.9	2449	16	
ECO RAYS S 5P5 7022.100-2M			4600	37.4	122.9	4897	31.9	
ECO RAYS S 5P5 7022.140-1M			140	3180	26.8	118.6	3361	22.7
ECO RAYS S 5P5 7022.140-2M				6310	52.3	120.6	6722	45.4
ECO RAYS S 5P5 7022.060-2M	S	60	2710	23	117.8	2992	18.8	
ECO RAYS S 5P5 7022.100-2M		100	4410	37.4	117.9	4897	31.9	
ECO RAYS S 5P5 7022.140-2M		140	6030	52.3	115.2	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.