

ECO-RAYS BR

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/SV2: Asymmetrical optic for very narrow urban streets or highway entrance/exit turns. S05: Asymmetrical optic for street, urban and green areas lighting. S: Symmetrical optic for urban lighting and green areas. Colour temperature: 4000K (3000K optional) CRI ≥ 70 LOR= 100%, DLOR= 100%, ULOR= 0% Photobiological safety class: EXEMPT GROUP LED source efficiency: 168 lm/W @ 525mA, 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 | Post-top Ø60mm, Ø70mm, Ø76mm, Ø102mm |
| Tilt angle | 0° |
| LED modules | Removable / Replaceable |
| 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

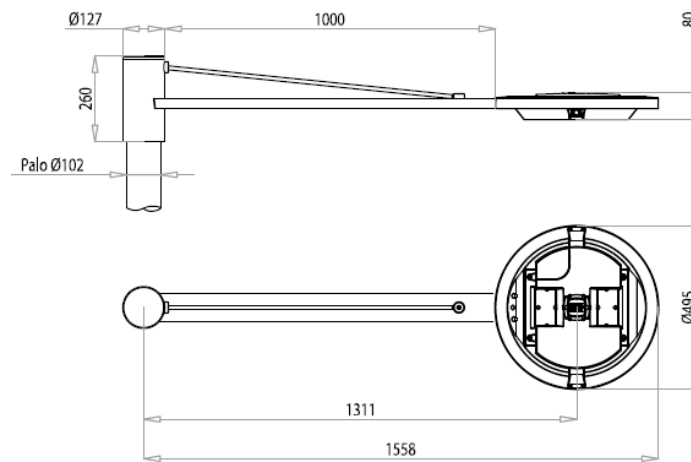
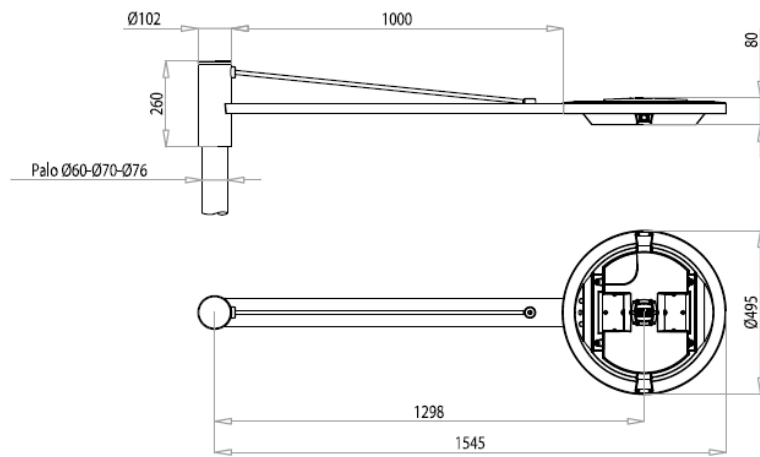
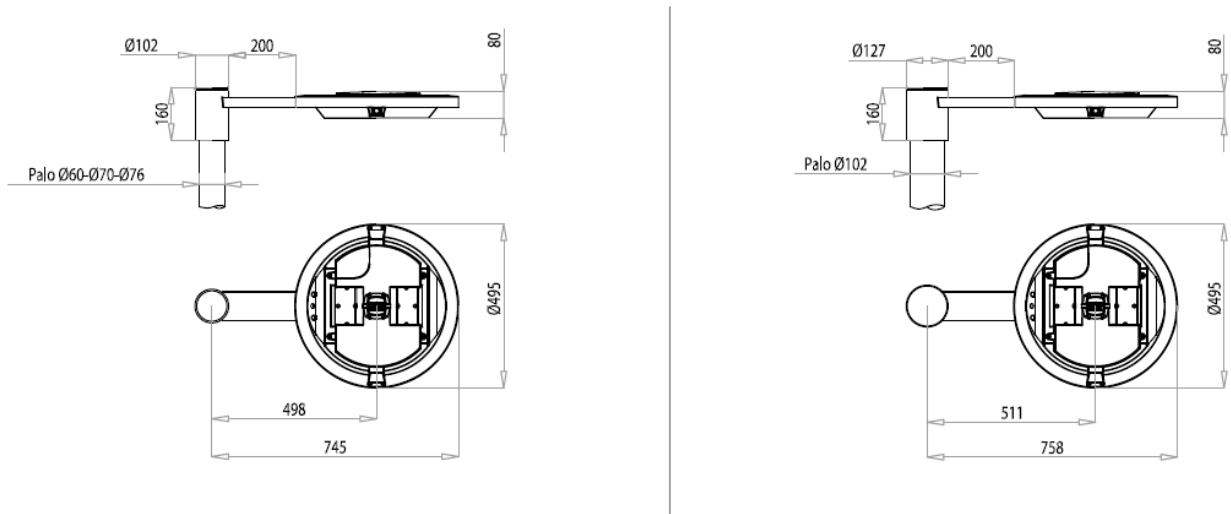
| | |
|---|---|
| Rated voltage | 220÷240V 50/60Hz |
| Power factor | >0,9 (at full load) |
| Mains connection | Cable H07RN-F nx1.5mm ² Optional: connector M/F IP66/68 for cables max. 2.5mm ² , Ø max. 12mm |
| Surge protection | Up to 10kV With SPD (optional) 10kV / 10kV CM/DM |
| SPD (optional) | 10kV-10kA, 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. WL: Wireless single point communication system. 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, 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. Alluminum grade class A+ (DIN EN 16268) |
| Screen | Flat tempered glass, 5mm thickness, high transparency. |
| Gable gland | Plastic M20x1.5 - IP68 |
| Gasket | Polyurethane |
| Colour | Grafite - Cod. 01 |

DIMENSIONAL DRAWINGS

Product sheet



| LUMINAIRE | OPTIC | 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 BR 0F2H1 S 4.5-2M | S | 3690 | 30.5 | 120 | 4368 | 26 |
| ECO RAYS BR 0F2H1 S 4.7-2M | S | 4720 | 40 | 118 | 5530 | 36 |
| ECO RAYS BR 0F2H1 S05 4.5-1M | S05 | 1880 | 16 | 117 | 2184 | 13 |
| ECO RAYS BR 0F2H1 S05 4.5-2M | | 3690 | 30.5 | 120 | 4368 | 26 |
| ECO RAYS BR 0F2H1 S05 4.7-1M | S05 | 2420 | 21.5 | 112 | 2765 | 18 |
| ECO RAYS BR 0F2H1 S05 4.7-2M | | 4720 | 40 | 118 | 5530 | 36 |
| ECO RAYS BR 0F2H1 STU-M 4.5-1M | STU-M | 1880 | 16 | 117 | 2184 | 13 |
| ECO RAYS BR 0F2H1 STU-M 4.5-2M | | 3690 | 30.5 | 120 | 4368 | 26 |
| ECO RAYS BR 0F2H1 STU-M 4.7-1M | STU-M | 2420 | 21.5 | 112 | 2765 | 18 |
| ECO RAYS BR 0F2H1 STU-M 4.7-2M | | 4720 | 40 | 118 | 5530 | 36 |
| ECO RAYS BR 0F2H1 STU-S 4.5-1M | STU-S | 1880 | 16 | 117 | 2184 | 13 |
| ECO RAYS BR 0F2H1 STU-S 4.5-2M | | 3690 | 30.5 | 120 | 4368 | 26 |
| ECO RAYS BR 0F2H1 STU-S 4.7-1M | STU-S | 2420 | 21.5 | 112 | 2765 | 18 |
| ECO RAYS BR 0F2H1 STU-S 4.7-2M | | 4720 | 40 | 118 | 5530 | 36 |
| ECO RAYS BR 0F2H1 SV 4.5-1M | SV | 1880 | 16 | 117 | 2184 | 13 |
| ECO RAYS BR 0F2H1 SV 4.5-2M | | 3690 | 30.5 | 120 | 4368 | 26 |
| ECO RAYS BR 0F2H1 SV 4.7-1M | SV | 2420 | 21.5 | 112 | 2765 | 18 |
| ECO RAYS BR 0F2H1 SV 4.7-2M | | 4720 | 40 | 118 | 5530 | 36 |



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|------------------------------|-------|---|--|---------------------------------------|---|----------------------------------|
| ECO RAYS BR 0F2H1 SV2 4.5-1M | SV2 | 1880 | 16 | 117 | 2184 | 13 |
| ECO RAYS BR 0F2H1 SV2 4.5-2M | | 3690 | 30.5 | 120 | 4368 | 26 |
| ECO RAYS BR 0F2H1 SV2 4.7-1M | SV2 | 2420 | 21.5 | 112 | 2765 | 18 |
| ECO RAYS BR 0F2H1 SV2 4.7-2M | | 4720 | 40 | 118 | 5530 | 36 |
| ECO RAYS BR 0F3 STE-M 4.5-1M | STE-M | 2610 | 21.5 | 121 | 2950 | 17 |
| ECO RAYS BR 0F3 STE-M 4.5-2M | | 5160 | 39 | 132 | 5900 | 34 |
| ECO RAYS BR 0F3 STE-M 4.7-1M | STE-M | 3270 | 28 | 116 | 3735 | 24 |
| ECO RAYS BR 0F3 STE-M 4.7-2M | | 6530 | 52 | 125 | 7470 | 48 |
| ECO RAYS BR 0F3 STE-S 4.5-1M | STE-S | 2610 | 21.5 | 121 | 2950 | 17 |
| ECO RAYS BR 0F3 STE-S 4.5-2M | | 5160 | 39 | 132 | 5900 | 34 |
| ECO RAYS BR 0F3 STE-S 4.7-1M | STE-S | 3270 | 28 | 116 | 3735 | 24 |
| ECO RAYS BR 0F3 STE-S 4.7-2M | | 6530 | 52 | 125 | 7470 | 48 |
| ECO RAYS BR 0F3 STW 4.5-1M | STW | 2610 | 21.5 | 121 | 2950 | 17 |
| ECO RAYS BR 0F3 STW 4.5-2M | | 5160 | 39 | 132 | 5900 | 34 |
| ECO RAYS BR 0F3 STW 4.7-1M | STW | 3270 | 28 | 116 | 3735 | 24 |
| ECO RAYS BR 0F3 STW 4.7-2M | | 6530 | 52 | 125 | 7470 | 48 |

*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: $\pm 5\%$.

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 | 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 BR 0F2H1 S 3.5-2M | S | 3430 | 30.5 | 112 | 3980 | 26 |
| ECO RAYS BR 0F2H1 S 3.7-2M | S | 4390 | 40 | 109 | 5040 | 36 |
| ECO RAYS BR 0F2H1 S05 3.5-1M | S05 | 1750 | 16 | 109 | 1990 | 13 |
| ECO RAYS BR 0F2H1 S05 3.5-2M | | 3430 | 30.5 | 112 | 3980 | 26 |
| ECO RAYS BR 0F2H1 S05 3.7-1M | S05 | 2250 | 21.5 | 104 | 2520 | 18 |
| ECO RAYS BR 0F2H1 S05 3.7-2M | | 4390 | 40 | 109 | 5040 | 36 |
| ECO RAYS BR 0F2H1 STU-M 3.5-1M | STU-M | 1750 | 16 | 109 | 1990 | 13 |
| ECO RAYS BR 0F2H1 STU-M 3.5-2M | | 3430 | 30.5 | 112 | 3980 | 26 |
| ECO RAYS BR 0F2H1 STU-M 3.7-1M | STU-M | 2250 | 21.5 | 104 | 2520 | 18 |
| ECO RAYS BR 0F2H1 STU-M 3.7-2M | | 4390 | 40 | 109 | 5040 | 36 |
| ECO RAYS BR 0F2H1 STU-S 3.5-1M | STU-S | 1750 | 16 | 109 | 1990 | 13 |
| ECO RAYS BR 0F2H1 STU-S 3.5-2M | | 3430 | 30.5 | 112 | 3980 | 26 |
| ECO RAYS BR 0F2H1 STU-S 3.7-1M | STU-S | 2250 | 21.5 | 104 | 2520 | 18 |
| ECO RAYS BR 0F2H1 STU-S 3.7-2M | | 4390 | 40 | 109 | 5040 | 36 |
| ECO RAYS BR 0F2H1 SV 3.5-1M | SV | 1750 | 16 | 109 | 1990 | 13 |
| ECO RAYS BR 0F2H1 SV 3.5-2M | | 3430 | 30.5 | 112 | 3980 | 26 |
| ECO RAYS BR 0F2H1 SV 3.7-1M | SV | 2250 | 21.5 | 104 | 2520 | 18 |
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|------------------------------|-------|---|--|---------------------------------------|---|----------------------------------|
| ECO RAYS BR 0F2H1 SV2 3.5-1M | SV2 | 1750 | 16 | 109 | 1990 | 13 |
| ECO RAYS BR 0F2H1 SV2 3.5-2M | | 3430 | 30.5 | 112 | 3980 | 26 |
| ECO RAYS BR 0F2H1 SV2 3.7-1M | SV2 | 2250 | 21.5 | 104 | 2520 | 18 |
| ECO RAYS BR 0F2H1 SV2 3.7-2M | | 4390 | 40 | 109 | 5040 | 36 |
| ECO RAYS BR 0F3 STE-M 3.5-1M | STE-M | 2430 | 21.5 | 113 | 2701 | 17 |
| ECO RAYS BR 0F3 STE-M 3.5-2M | | 4800 | 39 | 123 | 5402 | 34 |
| ECO RAYS BR 0F3 STE-M 3.7-1M | STE-M | 3040 | 28 | 108 | 3420 | 24 |
| ECO RAYS BR 0F3 STE-M 3.7-2M | | 6070 | 52 | 116 | 6840 | 48 |
| ECO RAYS BR 0F3 STE-S 3.5-1M | STE-S | 2430 | 21.5 | 113 | 2701 | 17 |
| ECO RAYS BR 0F3 STE-S 3.5-2M | | 4800 | 39 | 123 | 5402 | 34 |
| ECO RAYS BR 0F3 STE-S 3.7-1M | STE-S | 3040 | 28 | 108 | 3420 | 24 |
| ECO RAYS BR 0F3 STE-S 3.7-2M | | 6070 | 52 | 116 | 6840 | 48 |
| ECO RAYS BR 0F3 STW 3.5-1M | STW | 2430 | 21.5 | 113 | 2701 | 17 |
| ECO RAYS BR 0F3 STW 3.5-2M | | 4800 | 39 | 123 | 5402 | 34 |
| ECO RAYS BR 0F3 STW 3.7-1M | STW | 3040 | 28 | 108 | 3420 | 24 |
| ECO RAYS BR 0F3 STW 3.7-2M | | 6070 | 52 | 116 | 6840 | 48 |

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