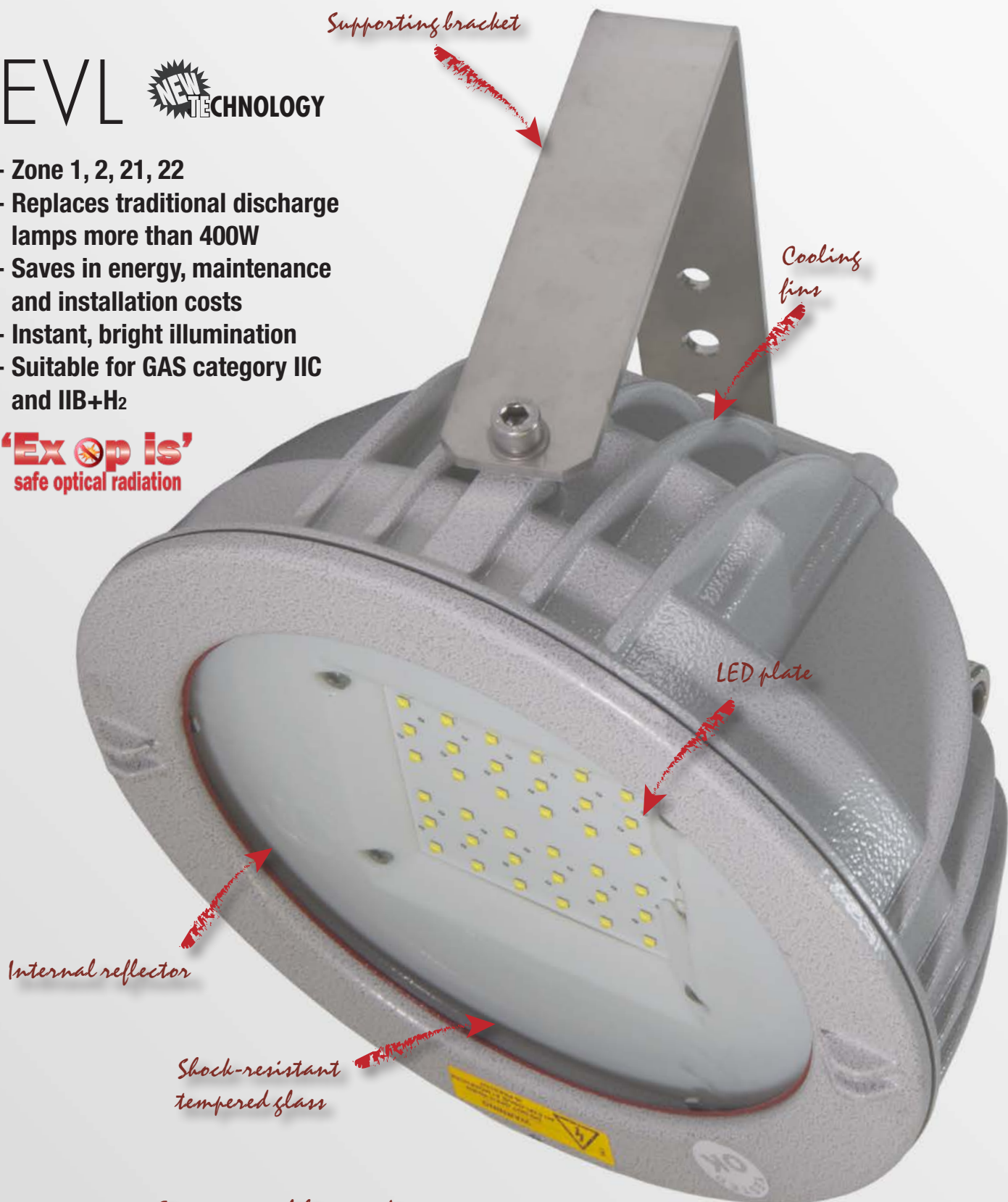


EVL TECHNOLOGY

- Zone 1, 2, 21, 22
- Replaces traditional discharge lamps more than 400W
- Saves in energy, maintenance and installation costs
- Instant, bright illumination
- Suitable for GAS category IIC and IIB+H₂

'Ex op is'
safe optical radiation



Ex e terminal housing for a quick connection



Entries



EVL series High bay LED lighting fixture

The new LED lighting fixtures EVL series has been developed with the aim of redefining the concepts of compactness, versatility and ease of installation thanks to high intensity and efficiency LED plates. The EVL series consists of four lighting fixtures sizes and represents the LED alternative for all those areas where it was normal to use lighting fixtures with discharge lamps of low and medium power greater than 400W. The body, made of aluminium alloy, is equipped with fins that act as a heat sink allowing a fast and effective dispersion of heat generated by the normal operation of the LED. The geometric conformation of the cooling fins was also designed with the objective of minimizing the deposit of combustible dust, allowing the self-cleaning of the lighting fixture by air or water present in the environment. Furthermore, thanks to the absence of UV emission, there is no ionization of the air particles around the lighting fixture, an intrinsic characteristic of LED technology which limits the attraction of dust and insects. The design of the lamp body, in addition to being functional to the duration of the system, gives the equipment very high light efficiency. The electrical connection is easier thanks to a 'Ex e' terminal housing which allows the entry with a 'Ex e' cable gland (no barrier). In addition, an opposed plugged hole permits the through wiring connection.

Application sectors:



CERTIFICATION DATA

| | | | | |
|----------------------------------|---|--------------------------|---|--|
| Classification: | Group II | Category 2GD | | |
| Installation: EN 60079.14 | zone 1 - zone 2 (Gas) | zone 21 - zone 22 (Dust) | | |
| Marking: | CE 0722 Ex II 2GD Ex db eb op is IIC T... Gb - Ex tb op is IIIC T...°C Db | | | |
| Certification: | ATEX | EPT 19 ATEX 3323 X | | |
| | IEC Ex | IECEX SEV 19.0043X | For all IEC Ex and TR CU certification data, download the certificate from www.cortemgroup.com | |
| | TR CU | AVAILABLE | | |
| Standards: | CENELEC EN 60079-0: 2018, EN 60079-1: 2014, EN 60079-7: 2015, EN 60079-28: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC 60079-0: 2017, IEC 60079-1: 2014, IEC 60079-28: 2015, IEC 60079-31: 2013, IEC 60079-7: 2015 European Directive 2004/108 Electromagnetic compatibility European Directive 2012/19/UE, 2002/96/CE, 2003/108/CE WEEE European Directive 2011/65/UE RoHS | | | |
| Ambient temperature: | -40°C(-60°C)* +60°C** | | | |
| Degree of protection: | IP66 | | | |

* For temperatures to -60°C contact our Sales Office.

** For maximum surface temperature see "EVL series selection chart" a pagina A.34.

EVL series High bay LED lighting fixture



EXEMPT FROM
PHOTOBIOLOGICAL RISK
(STANDARD IEC / EN 62471)

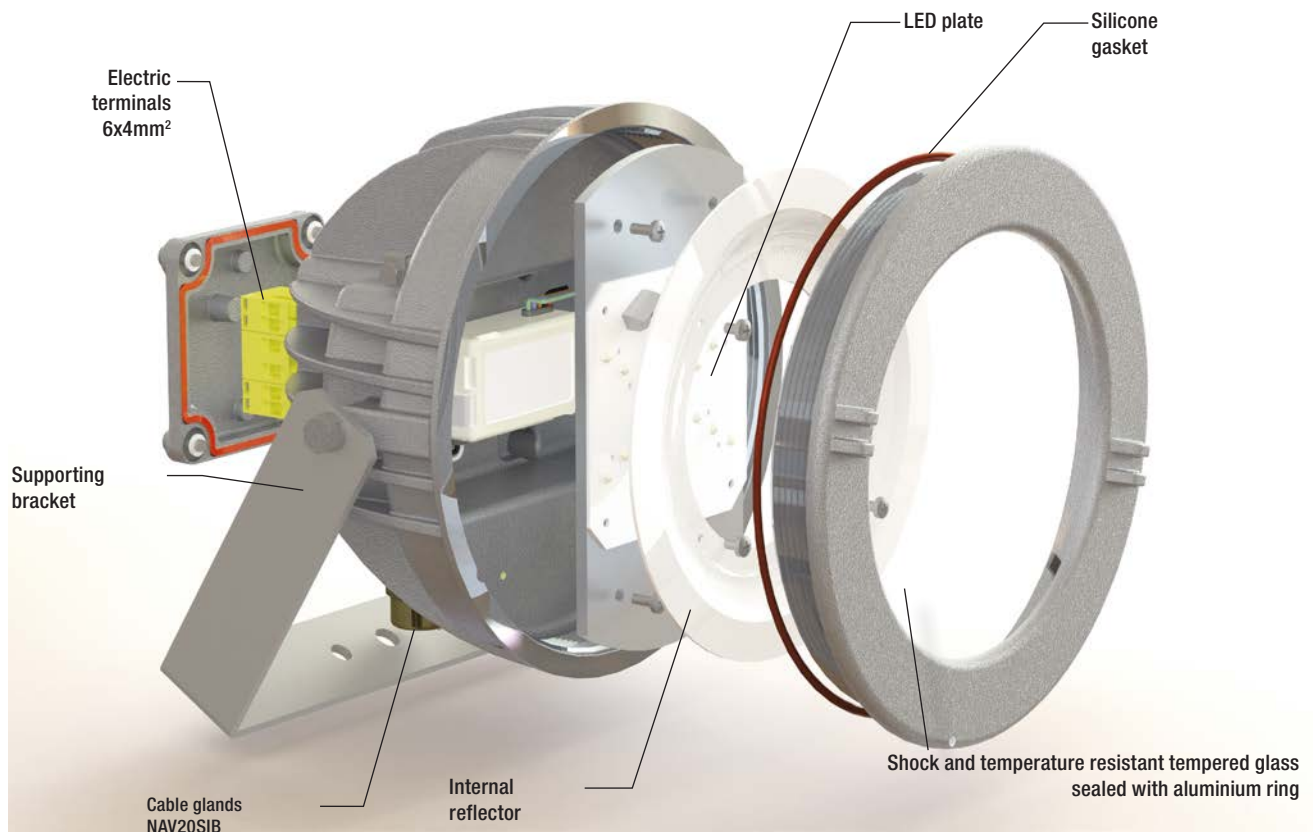


ORIGINAL PRODUCT

MECHANICAL FEATURES

| | |
|------------------------------|--|
| Body: | Low copper content aluminium alloy fitted with cooling fins for better heat dissipation |
| Glass face: | Shock and temperature resistant tempered glass sealed with aluminium ring |
| Gaskets: | Acid, hydrocarbon and high temperature resistant silicone |
| Supporting bracket: | Stainless steel AISI 316L |
| Bolts and screws: | Stainless steel |
| Entries: | 2 x ISO M20 entries. Fixture kit with PLG11B plug and NAV20SIB cable gland |
| Coating: | Polyester coating Ral 7035 (Light grey) |
| Corrosion Resistance: | The STANDARD of the aluminium alloy used by Cortem has passed the tests required by EN60068-2-30 (hot/humid cycles) and EN60068-2-11 (salt mist tests) |

EXPLODED DIAGRAM OF EVL-070 LIGHTING FIXTURE

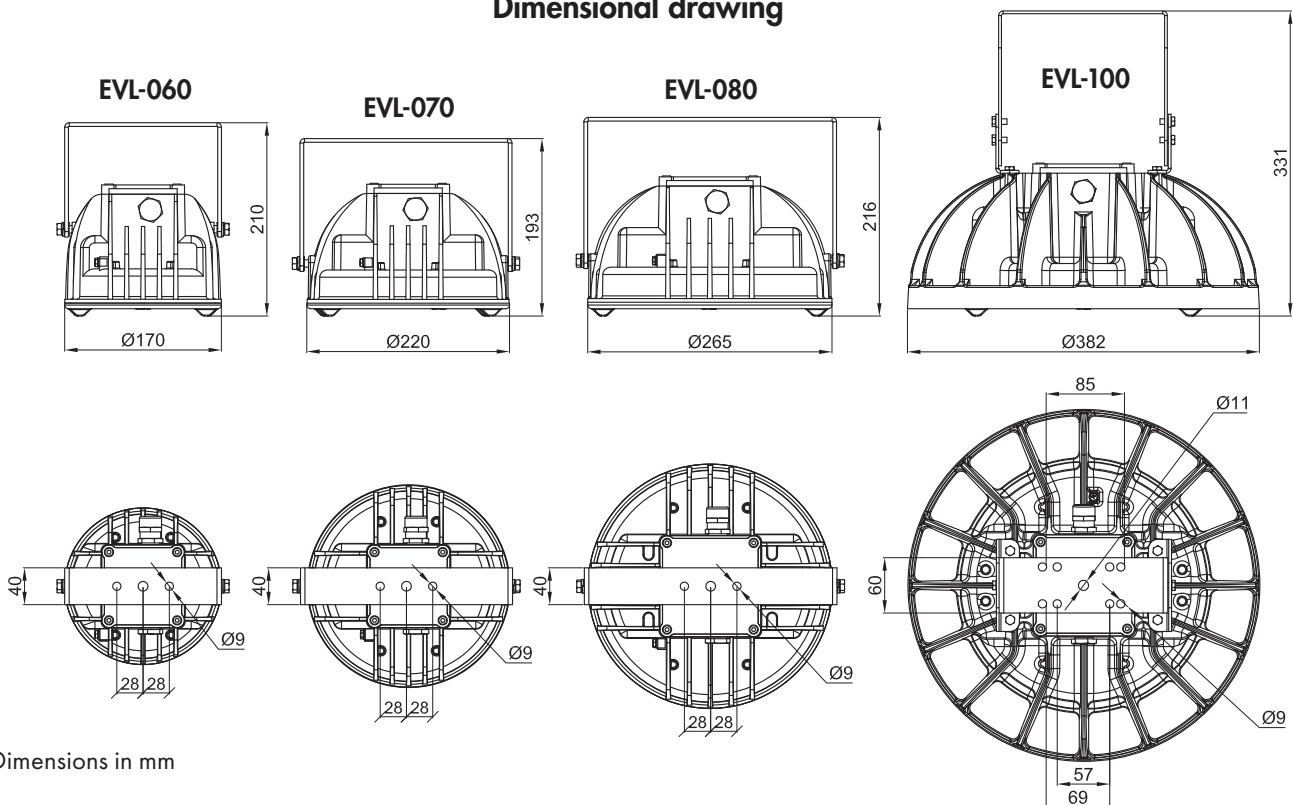


EVL series High bay LED lighting fixture

EVL series selection chart

| Code | Maximum permitted power value | Class / Max surface temp. °C | | | Lumen | Maximum light intensity | Overall efficiency | Weight kg |  mm |
|------------|-------------------------------|------------------------------|------------|------------|----------|-------------------------|--------------------|-----------|---|
| | | TA=+40°C | TA=+50°C | TA=+60°C | | | | | |
| EVL-060030 | 30 W | T6 / 85°C | T5 / 100°C | T5 / 100°C | 2778 lm | 1179 cd | 94,8 lm/W | 3,5 | 215x205x170 |
| EVL-060040 | 40 W | T6 / 85°C | T5 / 100°C | T5 / 100°C | 3992 lm | 1527 cd | 97,9 lm/W | 3,5 | 215x205x170 |
| EVL-060050 | 50 W | T5 / 100°C | N/A | N/A | 4643 lm | 1765 cd | 92,1 lm/W | 3,5 | 215x205x170 |
| EVL-070050 | 50 W | T5 / 100°C | T5 / 100°C | T4 / 135°C | 6332 lm | 2130 cd | 120,1 lm/W | 5,2 | 250x235x165 |
| EVL-070060 | 60 W | T5 / 100°C | T5 / 100°C | T4 / 135°C | 7259 lm | 2458 cd | 118,9 lm/W | 5,2 | 250x235x165 |
| EVL-070070 | 70 W | T5 / 100°C | N/A | N/A | 7852 lm | 2659 cd | 110,3 lm/W | 5,2 | 250x235x165 |
| EVL-070080 | 80 W | T5 / 100°C | N/A | N/A | 8237 lm | 2801 cd | 103,5 lm/W | 5,2 | 250x235x165 |
| EVL-080080 | 80 W | T5 / 100°C | T5 / 100°C | T4 / 135°C | 10630 lm | 3455 cd | 130,2 lm/W | 7,2 | 290x290x170 |
| EVL-080090 | 90 W | T4 / 135°C | T4 / 135°C | T4 / 135°C | 11768 lm | 3823 cd | 127,6 lm/W | 7,2 | 290x290x170 |
| EVL-080100 | 100 W | T4 / 135°C | N/A | N/A | 12653 lm | 4139 cd | 122,1 lm/W | 7,2 | 290x290x170 |
| EVL-080120 | 120 W | T4 / 135°C | N/A | N/A | 13924 lm | 4555 cd | 112,2 lm/W | 7,2 | 290x290x170 |
| EVL-100140 | 140 W | T4 / 135°C | T4 / 135°C | T4 / 135°C | 15872 lm | 5162 cd | 111,4 lm/W | 11,2 | 385x385x250 |
| EVL-100160 | 160 W | T4 / 135°C | T4 / 135°C | T4 / 135°C | 20363 lm | 6824 cd | 123,2 lm/W | 11,2 | 385x385x250 |
| EVL-100180 | 180 W | T4 / 135°C | T4 / 135°C | T4 / 135°C | 21467 lm | 7249 cd | 117,8 lm/W | 11,2 | 385x385x250 |
| EVL-100200 | 200 W | T4 / 135°C | N/A | N/A | 23502 lm | 7909 cd | 115,5 lm/W | 11,2 | 385x385x250 |
| EVL-100220 | 220 W | T4 / 135°C | N/A | N/A | 24533 lm | 8332 cd | 111,4 lm/W | 11,2 | 385x385x250 |

Dimensional drawing



EVL series High bay LED lighting fixture

| Electrical features | EVL-060.. | EVL-070.. | EVL-080.. | EVL-100.. |
|--------------------------------------|---|--------------------------------|--------------------------------|--------------------------------|
| Power supply: | 120-277 Vac | 120-277 Vac | 120-277 Vac | 120-277 Vac |
| Rated frequency: | 50-60 Hz ±5% | 50-60 Hz ±5% | 50-60 Hz ±5% | 50-60 Hz ±5% |
| Power consumption*: | ..030 30 W | ..050 50 W | ..080 80 W | ..140 140 W |
| | ..040 40 W | ..060 60 W | ..090 90 W | ..160 160 W |
| | ..050 50 W | ..070 70 W | ..100 100 W | ..180 180 W |
| | - | ..080 80 W | ..120 120 W | ..200 200 W |
| | - | - | - | ..220 220 W |
| Connection: | Direct connection to terminal board L, N, Pe. Section 4mm ² , suitable for loop-in/loop-out | | | |
| Power factor: | >0,93 | >0,95 | >0,97 | >0,96 |
| Rated current: | ..030 140 mA | ..050 230 mA | ..080 350 mA | ..140 640 mA |
| | ..040 180 mA | ..060 270 mA | ..090 400 mA | ..160 710 mA |
| | ..050 220 mA | ..070 310 mA | ..100 440 mA | ..180 800 mA |
| | - | ..080 360 mA | ..120 530 mA | ..200 890 mA |
| | - | - | - | ..220 970 mA |
| EMC (electromagnetic compatibility): | EN 55015, EN 61547, IEC 61000-3-2, IEC 61000-3-3, IEC 61000-4-... | | | |
| THD (total harmonic distortion): | <10% | | | |
| Over-voltage protection: | 4 kV | 4 kV | 4 kV | 4 kV |
| Driver performances: | Over-Voltage protection, Over-Current protection, Short-Circuit protection | | | |
| Dimmer (on request): | (0-10 V) or PWM or resistor | (0-10 V) or PWM or resistor | (0-10 V) or PWM or resistor | (0-10 V) or PWM or resistor |
| Photometric features | | | | |
| LED Multichip: | High power LED | High power LED | High power LED | High power LED |
| Viewing angle: | 120° | 120° | 120° | 120° |
| Colour temperature: | 5700 K | 5700 K | 5700 K | 5700 K |
| CRI: | >70 | >70 | >70 | >70 |
| Instant Restrike: | YES | YES | YES | YES |
| L90: | > 72600 h | > 72600 h | > 72600 h | > 72600 h |

* Test at 230Vac

ACCESSORIES AVAILABLE / SPECIAL REQUESTS

CRI values higher
 Dimmer
 Different colour temperature
 U bolt for pole mounting
 Eyebolt
 Cover with direct connection for pole
 Stanchion mounting with fixed orientation at 25°
 Additional NAV20SIB cable gland for unarmoured cable

EVL series High bay LED lighting fixture

| ILLUSTRATION | DESCRIPTION | MODEL | FEATURES | CODE | KEY |
|---|---------------------------------------|--------------------------|---|-----------------------|---|
|  | Pendant eyebolt | Ø interno 20 | Material: galvanised steel | GOF-8 |   |
|  | U bolt for pole mounting | Poste Ø1 1/2" | Material: stainless steel AISI 316L | UBD5S |   |
|  | Cover with direct connection for pole | EVL-060... EVL-070... | Material: aluminium alloy with threaded hole 3/4" NPT (Different threads on request) | B-498 |  |
| | | EVL-080... EVL-100... | | B-499 | |
|  | Supporting bracket | EVL-060... | Material: stainless steel AISI 316L | G-764 |  |
| | | EVL-070... | | G-765 | |
| | | EVL-080... | | G-766 | |
| | | EVL-100... | | G-827 | |
|  | Power supply | EVL-060030 | 120-277 Vac | LEDDEVL060/2 |  |
| | | EVL-060040 | | LEDDEVL060/2/1 | |
| | | EVL-060050 | | LEDDEVL060/2 | |
| | | EVL-070050 | 120-277 Vac | LEDDEVL070/1 | |
| | | EVL-070060 | | LEDDEVL070/1/2 | |
| | | EVL-070070 | | LEDDEVL070/1/3 | |
| | | EVL-070080 | | LEDDEVL080/4/1 | |
| | | EVL-080080 | 120-277 Vac | LEDDEVL080/4/2 | |
| | | EVL-080090 | | LEDDEVL080/4/3 | |
| | | EVL-080100 | | LEDDEVL080/4/4 | |
| | | EVL-080120 | | LEDDEVL080/5/2 | |
| | | EVL-100140 | 120-277 Vac | LEDDEVL100/1/1 | |
| | | EVL-100160 | | LEDDEVL100/1/5 | |
| | | EVL-100180 | | LEDDEVL100/1/2 | |
| EVL-100200 | LEDDEVL100/1/3 | | | | |
| EVL-100220 | LEDDEVL100/1/4 | | | | |
|  | Cable gland | ISO M20 | std. range cable 6,3÷11,6 | NAV20SIB |  |
|  | Front ring with glass | EVL-060... | Aluminium ring Borosilicate glass face | G60-0623 |  |
| | | EVL-070... | | G70-0623 | |
| | | EVL-080... | | G80-0623 | |
| | | EVL-100... | | G80-0623 | |

EVL series High bay LED lighting fixture

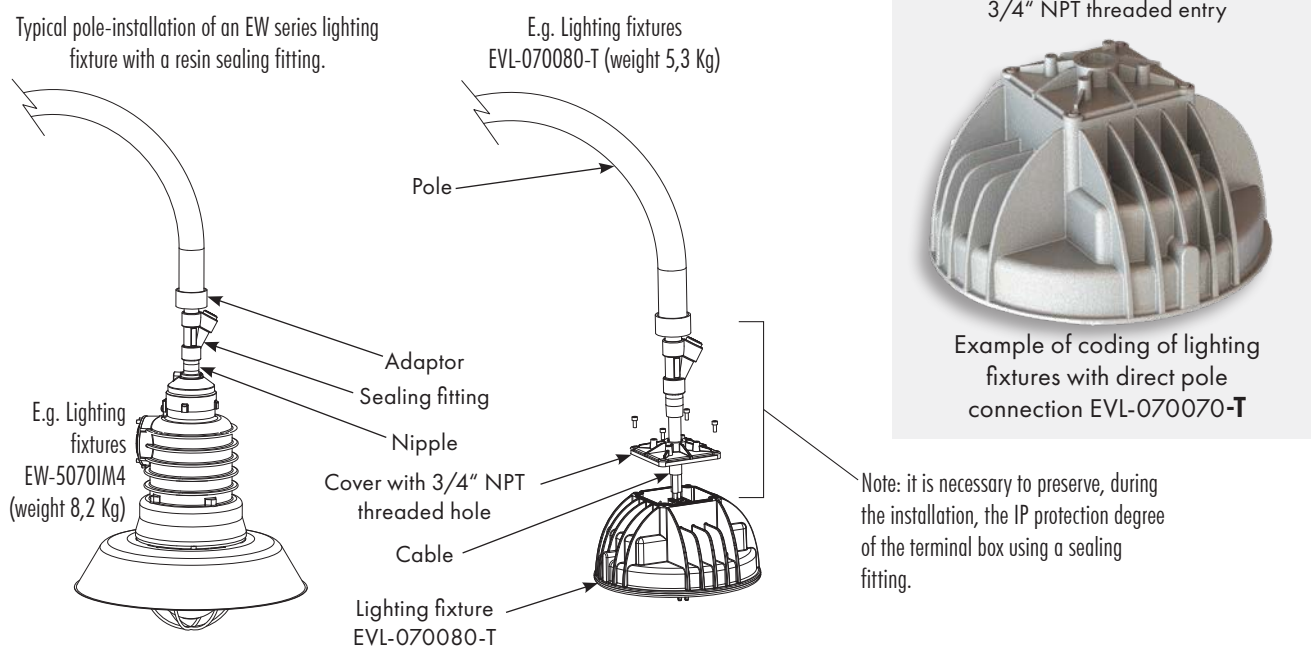
Obstruction lighting fixtures

The obstruction lighting fixtures are feature a LED plate and a globe of different colours: blue, red, green, amber. They can be installed in locations where obstacles, dangers are needed to be signalled and for any visual communication. They replace acoustic signals in places where they are not applicable.



REPLACEMENT OF OLD LIGHTING FIXTURES POLE-MOUNTED

Using the lighting fixture with direct connection for pole mounting EVL-...-T series, it is possible to replace the old lighting fixtures with 3/4" NPT or ISO 7/1 threaded entries.



Transportable version EVL-...-PS complete with cable 8 meters long, sockets model PY216B (200-250Vac) and plug model SPY216B .

To order the transportable lighting fixture without socket and plug, omit the S in the code: **EVL-...-P**.

Weight (without socket):

| | |
|---------------------|---------|
| EVL-060...-P | 7,5 Kg |
| EVL-070...-P | 9,2 Kg |
| EVL-080...-P | 11,2 Kg |
| EVL-100...-P | 15,2 Kg |

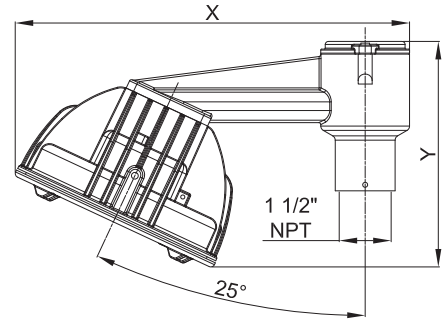
EVL series High bay LED lighting fixture

Stanchion mounting with fixed orientation at 25°



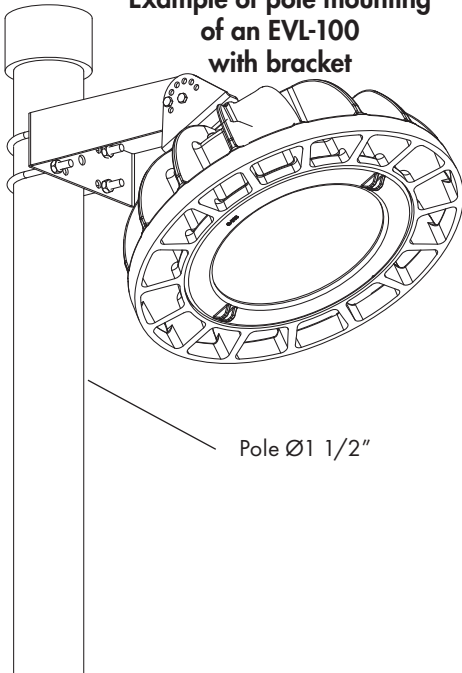
Direct connection to terminal board L, N, Pe.
Possible section 1.5mm² for loop-in/loop-out.
Input of 3 single cables up to 4mm², input-output with 6 single cables up to 1.5mm²

| Code | X | Y | Peso kg | mm |
|---------------|-----|-----|---------|-------------|
| EVL-060...-IX | 372 | 215 | 4,5 | 372x170x215 |
| EVL-070...-IX | 395 | 226 | 6,0 | 372x327x226 |
| EVL-080...-IX | 419 | 242 | 8,2 | 351x351x242 |
| EVL-100...-IX | 478 | 280 | 12,0 | 412x412x280 |

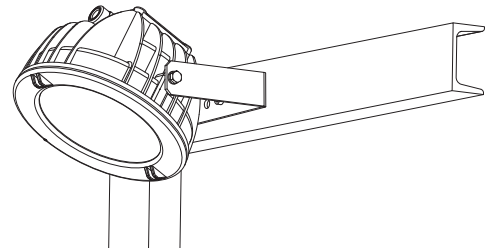


Installation and mounting methods

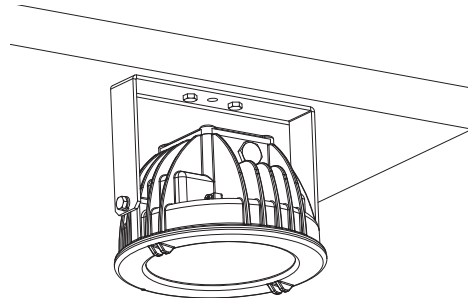
Example of pole mounting of an EVL-100 with bracket



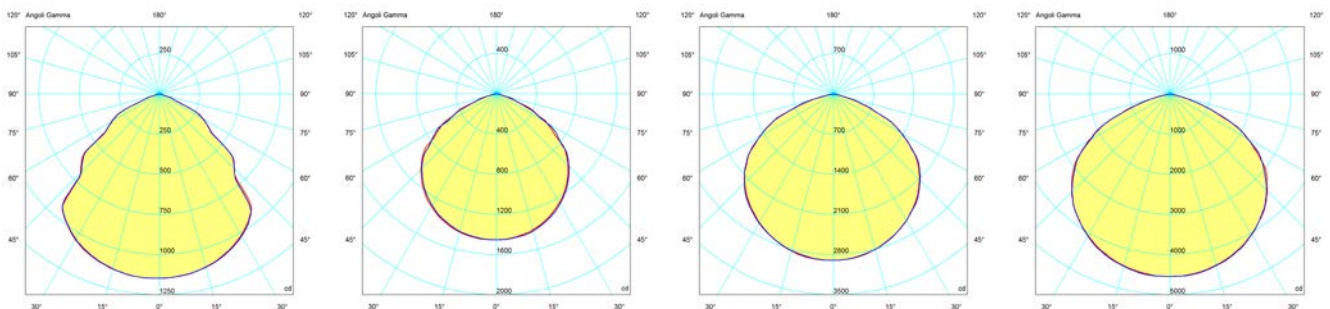
Example of wall or structure mounting of an EVL-070



Example of ceiling mounting of an EVL-070



Photometric diagrams



EVL-060030 Luminous flux: 2778 lm

EVL-070050 Luminous flux: 6332 lm

EVL-080080 Luminous flux: 10630 lm

EVL-100140 Luminous flux: 15872 lm

On Cortem Group web site you can download .LDT and .IES lighting data files for the design and simulation of lighting levels in 2D and 3D, rendering and ray tracing.

— = plane 90270
— = plane 0180