

EVL

- Zone 1, 2, 21, 22
- Replaces traditional discharge lamps of up to 400W
- Saves in energy, maintenance and installation costs
- Instant, bright illumination
- Suitable for GAS category IIC

Supporting bracket

Cooling fins

Internal reflector

Shock-resistant tempered glass

Ex e terminal housing for a quick connection

Entries

LED Multichip



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 the new LED lighting system "COB" (ChipOnBoard). It features Multichip LED formed by a matrix of LEDs connected together and covered with a layer of diffused phosphorus. This technology obtains high values of lumen output and the installation at low heights, without the risk of disturbing the operator. The EVL series consists of three 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 up to 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: 94/9/EC | 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 de IIC T.. Gb - Ex tb IIIC T.. °C Db IP66 | | | |
| Certification: | ATEX ITS 14 ATEX 18144 | | | |
| | IEC Ex IECEx ITS 14.0061 | | | |
| Standards: | CENELEC EN 60079-0: 2012, EN 60079-1: 2009, EN 60079-7: 2007, EN60079-31: 2009 and EUROPEAN DIRECTIVE 94/9/EC: 1994 IEC 60079-0: 2011, IEC 60079-1: 2007-04, IEC 60079-31: 2013, IEC 60079-7: 2006-07 | | | |
| Ambient temperature: | See "ambient temperature range" table | | | |
| Degree of protection: | IP66 | | | |

STANDARD AMBIENT TEMPERATURE RANGE FOR EVL LIGHTING FIXTURES

| LED LIGHTING FIXTURE | EVL-60 | | EVL-70 | | EVL-80 | |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| AMBIENT TEMPERATURE | -20°C +40°C | -20°C +60°C | -20°C +40°C | -20°C +60°C | -20°C +40°C | -20°C +60°C |
| CLASS TEMPERATURE | T6 | T5 | T4 | T4 | T4 | T4 |
| MAXIMUM SURFACE TEMPERATURE | 85°C | 100°C | 135°C | 135°C | 135°C | 135°C |

EVL series High bay LED lighting fixture

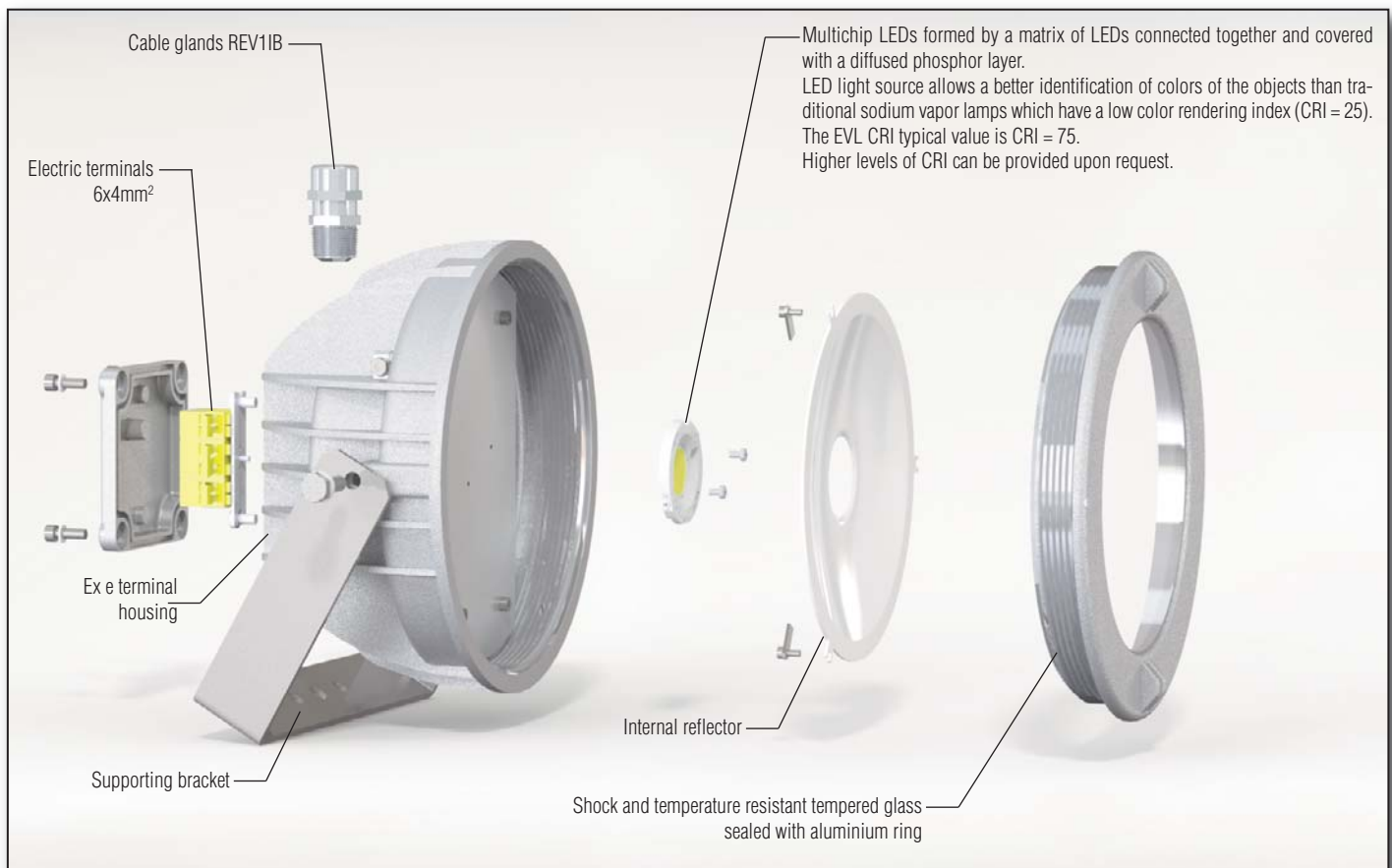


ORIGINAL PRODUCT

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 316L |
| Bolts and screws: | Stainless steel |
| Entries: | 2 x ISO M20 entries. Fixture kit with PLG1IB plug and REV1IB cable gland |
| Coating: | Epoxy coating Ral 7035 (Light grey) |
| Corrosion Resistance: | The STANDARD of the aluminium alloy used by Cortem has passed the tests required by standards EN60068-2-30 (hot/humid cycles) and EN60068-2-11 (salt mist tests) |

EXPLODED DIAGRAM OF EVL-70 LIGHTING FIXTURE



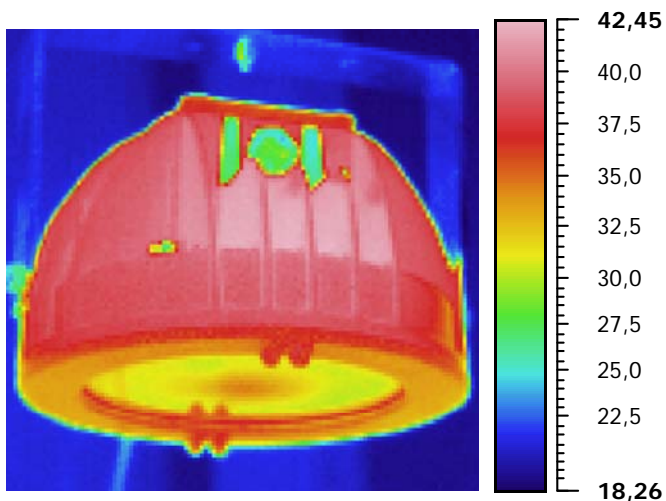
EVL series High bay LED lighting fixture

| Electrical features | EVL-60 | EVL-70 | EVL-80 |
|--------------------------------------|---|--------------------|--------------------|
| Power supply: | 120-277 Vac | 120-277 Vac | 220-240 Vac |
| Rated frequency: | 50-60 Hz $\pm 5\%$ | 50-60 Hz $\pm 5\%$ | 50-60 Hz $\pm 5\%$ |
| Power consumption: | 29 W | 55 W | 86 W |
| Connection: | Direct connection to terminal board L, N, Pe. Section 4mm ² , suitable for loop-in/loop-out | | |
| Power factor: | >0,90 | >0,90 | >0,95 |
| Rated current: | 130 mA | 250 mA | 380 mA |
| EMC (electromagnetic compatibility): | EN 55015, EN 61547, IEC 61000-3-2, IEC 61000-3-3, IEC 61000-4-... | | |
| THD (total harmonic distortion): | <15% 100-240 Vac | | |
| Over-voltage protection: | 2 kV | 2 kV | 6kV |
| Driver performances: | Over-Voltage protection, Over-Current protection, Short-Circuit protection | | |
| Dimmer: | YES (0-10 Vdc) | YES (0-10 Vdc) | On request |
| Photometric features | | | |
| LED Multichip: | Cree CXA | Cree CXA | Cree CXA |
| Viewing angle: | 120° | 115° | 115° |
| Colour temperature: | 6500 K | 6500 K | 5000 K |
| CRI: | 75 | 75 | 75 |
| Instant Restrike: | Yes | Yes | Yes |
| Lumen: | 2500 lm | 5260 lm | 8110 lm |
| Maximum light intensity: | 1165 cd | 2150 cd | 3330 cd |
| Overall efficiency: | 86 lm/W | 96 lm/W | 94 lm/W |

ACCESSORIES AVAILABLE / SPECIAL REQUESTS

CRI values higher
U bolt for pole mounting
Eyebolt

EVL series series selection chart




THERMAL IMAGING EVL-70

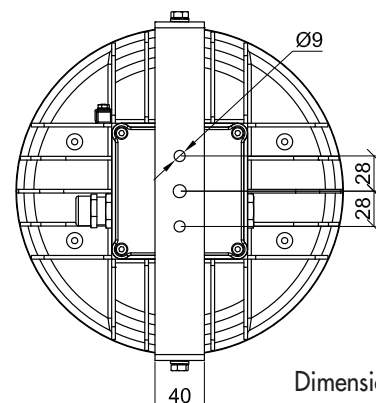
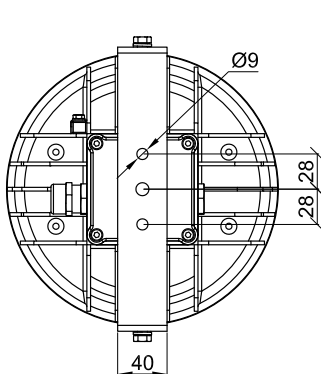
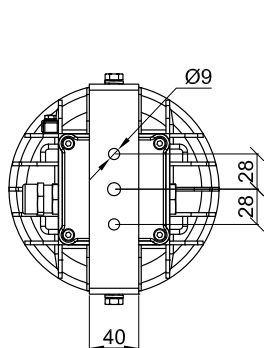
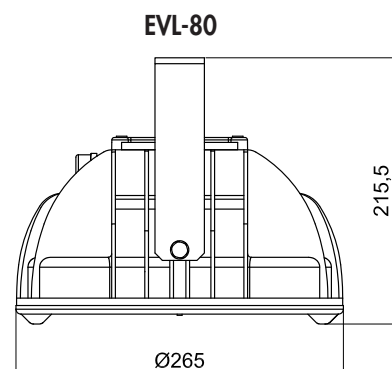
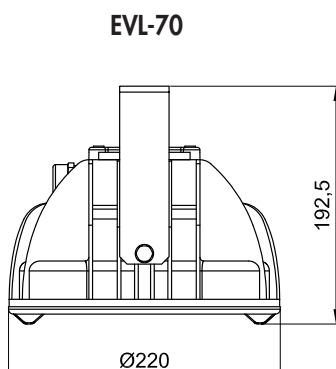
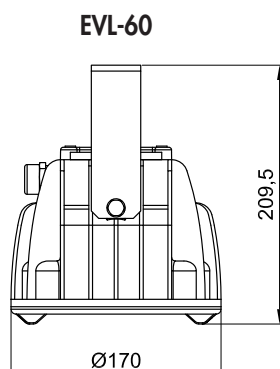
Following a very brief initial period, the lighting fixture reaches thermal stability. This image shows the detected heat. With the ambient temperature at 18°C (as shown by the blue background) the LED lamp barely touches 42°C at the hottest point.

This thermal performance is tangible proof of the high efficiency of LED lamps as a source of light.

It is also worth noting the distribution of heat on the fins that are the result of sophisticated Thermal Management.

| Code | Type Lamp | Watt | Class (Ta = +40°C) | Max surface temperature °C (Ta = +40°C) | Weight Kg |  |
|--------|-----------|------|-----------------------|---|--------------|---|
| EVL-60 | LED | 30 W | T6 | 85 | 3,5 | |
| EVL-70 | LED | 52 W | T4 | 135 | 5,2 | |
| EVL-80 | LED | 90 W | T4 | 135 | 7,2 | |

DIMENSIONAL DRAWING



Dimensions in mm

DON'T FORGET TO ORDER THE ACCESSORIES

Example: Type of lighting fixture
EVL-80

+

GOF-8
Pendant eyebolt

+

other...see key



EVL series Accessories and spare parts available on request

| ILLUSTRATION | DESCRIPTION | MODEL | FEATURES | CODE | KEY |
|---|--------------------------|-------------------|---|------------|---|
|  | Pendant eyebolt | Ø internal 20 | Material: galvanised steel | G0F-8 |   |
|  | U bolt for pole mounting | for Ø1 1/2" holes | Material: stainless steel 316L | UBD5GS |   |
|  | Supporting bracket | EVL-60 | Material: stainless steel 316L | G-764 |  |
| | | EVL-70 | | G-765 | |
| | | EVL-80 | | G-766 | |
|  | Holder | EVL-60 | Material body: PBT Contacts: CuSn | HOLDEVL-60 |  |
| | | EVL-70 | | HOLDEVL-70 | |
| | | EVL-80 | | HOLDEVL-80 | |
|  | Power supply circuit | EVL-60 | 120-277 Vac | LEDDEVL60 |  |
|  | | EVL-70 | 120-277 Vac | LEDDEVL70 | |
| | | EVL-80 | 220-240 Vac | LEDDEVL80 | |
|  | Cable gland | ISO M20 | std. range cavo 7÷12 | REV11B |  |
|  | Front ring with glass | EWL-70 | Aluminium ring Borosilicate glass face | G60-0587 |  |
| | | EWL-80 | | G70-0587 | |
| | | EWL-100 | | G80-0587 | |