

EVML

- Zone 1, 2, 21, 22
- Excellent heat dissipation
- Saves in energy and high efficiency
- Suitable for low temperature
- Easy to install
- Small size

Painted aluminium body

Supporting bracket

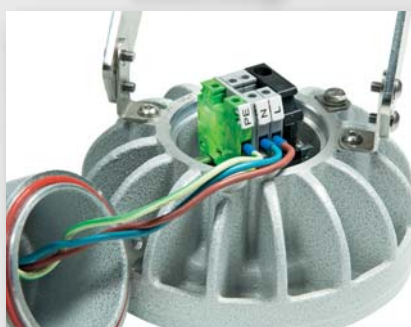
Cooling fins

Transparent resin

LED resin-bonded electronic board

Cable entry

Orientable bracket detail



EVML Low Bay LED lighting fixture

EVML lighting fixtures have been designed to offer a Low Bay lighting fixture that could replace incandescent equivalents with lower costs. They are suitable for the illumination of small areas in which it's necessary to limit the obstruction such as tunnels, passages, corridors, stairways, perimeter walls and command and control cabins. They can also be used to illuminate and monitor hazardous materials contained inside tanks and cisterns.

The EVML series features the 'Ex e mb' method of protection: the electronic board and LEDs are protected with silicone of high transparency. The Low Bay LED lighting fixtures has been specifically designed to meet the technical requirements of LEDs. In effect, the body fins act as a heat dissipater for the LED plate meaning that more powerful lighting can be installed without causing any deterioration of the actual LEDs. The universal steel mounting bracket complies with all application requirements and it allows the directionality of the light and an easy installation at low heights in all those areas defined as dangerous for the presence of explosive gas and dust as Zone 1, 2, 21, 22. The protective flat glass is resistant to impact and high temperatures and ensures nonpolluting illumination to the surrounding environment.

Application sectors:



Oil refineries



Chemical and petrochemical plants



Anti light pollution



Offshore plants



Onshore plants



Perimeter lighting



Oil loading/unloading jetties



Stairs Handrails

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 e mb IIC T6 Gb - Ex e tb IIIC T60°C Db IP66

Certification:

ATEX ITS 15 ATEX 18233

Work in progress

IEC Ex ITS 15.0008

Work in progress

Standards:

CENELEC EN 60079-0: 2012, EN 60079-7: 2007, EN 60079-18: 2009, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 94/9/EC: 1994
IEC 60079-0: 2012, IEC 60079-7: 2007, IEC 60079-18: 2009, IEC 60079-31: 2014
European Directive 2006/95 Low voltage
European Directive 2004/108 Electromagnetic compatibility
European Directive 2003/108 WEEE Waste electrical and electronic equipment
European Directive 2011/64 RoHS

Class temperature:



60°C (T6)

Ambient temperature:



-40°C +55°C



Degree of protection:

IP66

EVML Low Bay LED lighting fixture

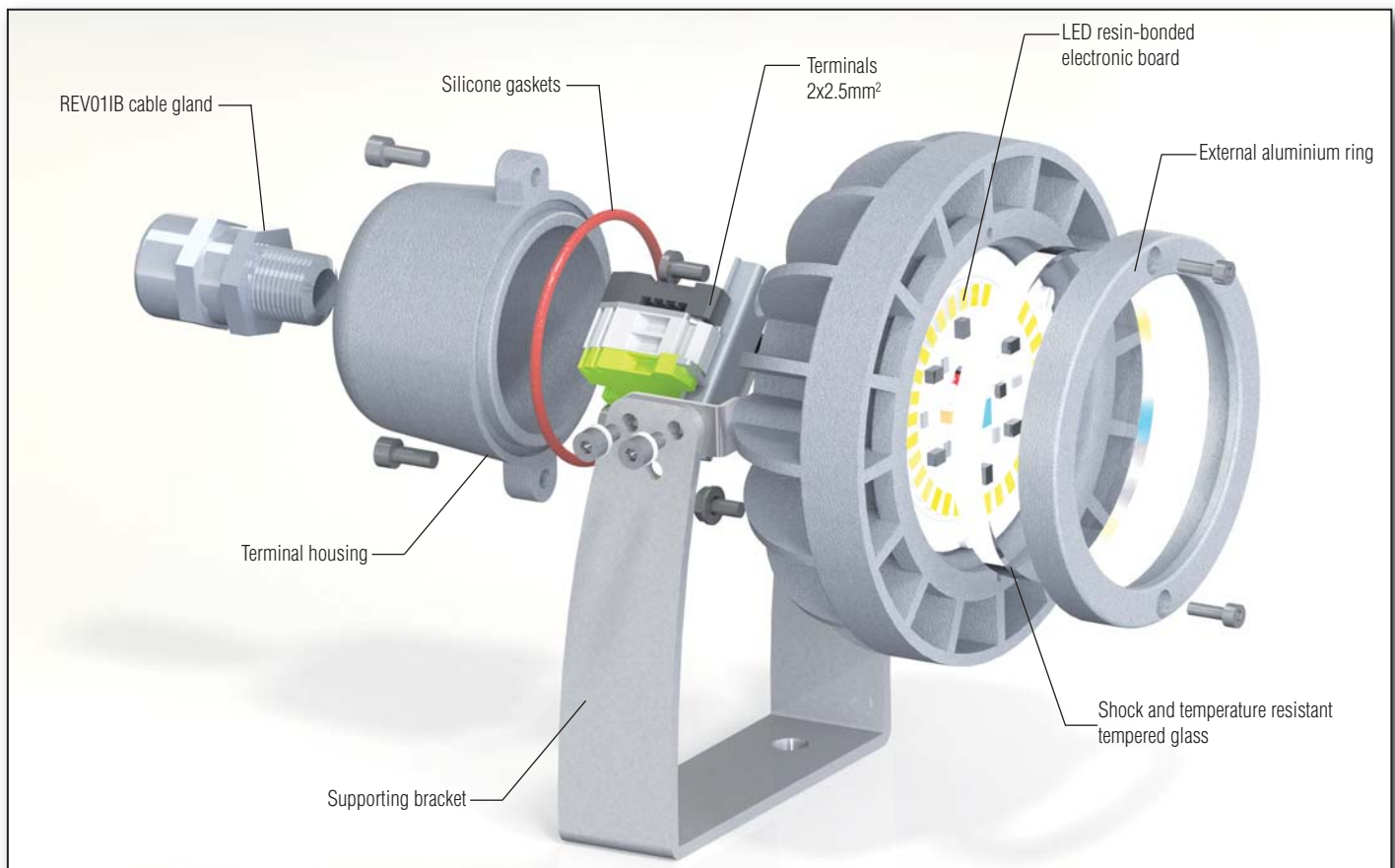


ORIGINAL PRODUCT

MECHANICAL FEATURES

Body:	Low copper content aluminium alloy fitted with cooling fins for better heat dissipation
Glass face:	Shock and temperature resistant tempered glass
Gaskets:	Acid, hydrocarbon and high temperature resistant silicone
Supporting bracket:	Stainless steel AISI 316L
Bolts and screws:	Stainless steel
Entries:	1 x ISO M16 entries. Fixture supplied with REV01IB 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 EVML LIGHTING FIXTURE



EVML Low Bay LED lighting fixture

Electrical features	EVML-50	EVML-50/110
Power supply:	220 -240 Vac	110 Vac/dc
Rated frequency:	50-60 Hz	50-60 /0 Hz
Power consumption:	19 W	12 W
Connection:	Direct connection to terminal board L, N, Pe. Section 2,5mm ² , suitable for loop-in/loop-out	
Power factor:	>0,95	>0,96
Rated current:	75 mA	100 mA
EMC (electromagnetic compatibility):	EN 55015, EN 61547, IEC 61000-3-2, IEC 61000-3-3, IEC 61000-4-...	
THD (total harmonic distortion):	<25%	
Over-voltage protection:	4 kV	5 kV
Photometric features		
LED Multichip:	Seoul (Cool color)	Seoul (Cool color)
Viewing angle:	120°	120°
Colour temperature:	5000 K	4200 K
CRI:	80	80
Instant Restrike:	YES	YES
Lumen:	1032 lm	790 lm (*)
Maximum light intensity:	385 cd	290 cd (*)
Overall efficiency:	57 lm/W	57 lm/W


* Data being updated

ACCESSORIES AVAILABLE / SPECIAL REQUESTS

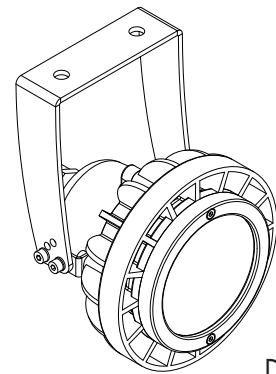
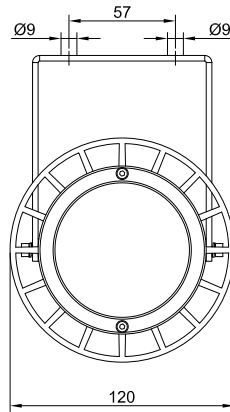
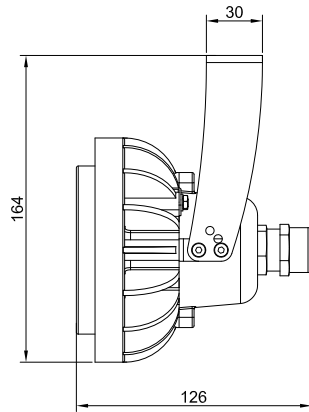
U bolt for pole mounting



EVML Low Bay LED lighting fixture

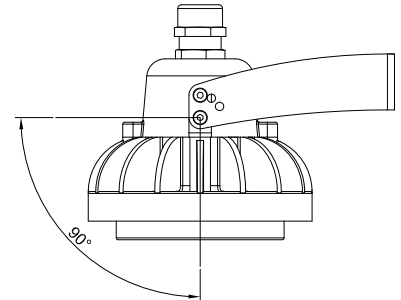
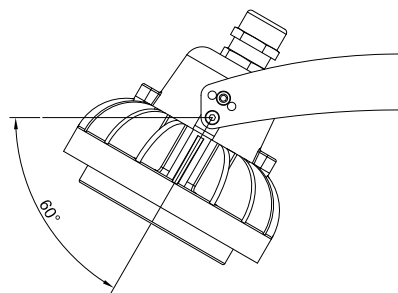
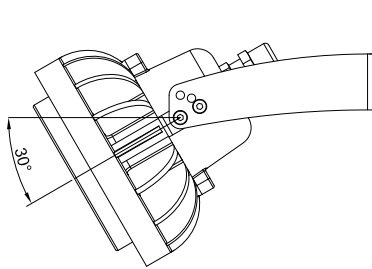
Code	Type Lamp	Watt	Class (Ta = +40°C)	Max surface temperature °C (Ta = +40°C)	Weight Kg	
EVML-50	LED	19 W	T6	60	1,1	
EVML-50/110	LED	12 W	T6	60	1,1	

DIMENSIONAL DRAWING

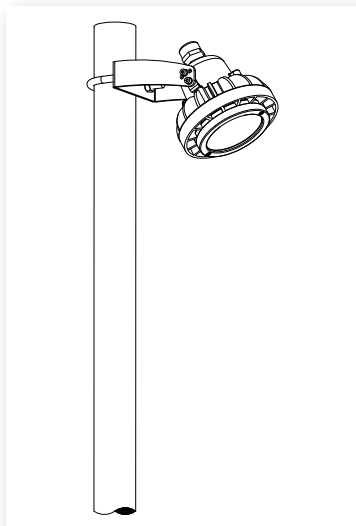


Dimension in mm

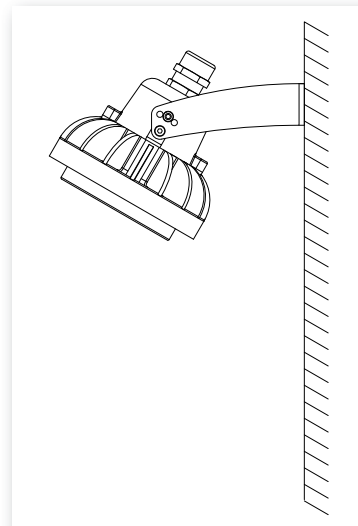
Tilt degrees for lighting fixture installation



INSTALLATION AND MOUNTING EXAMPLE










Example pole mounting

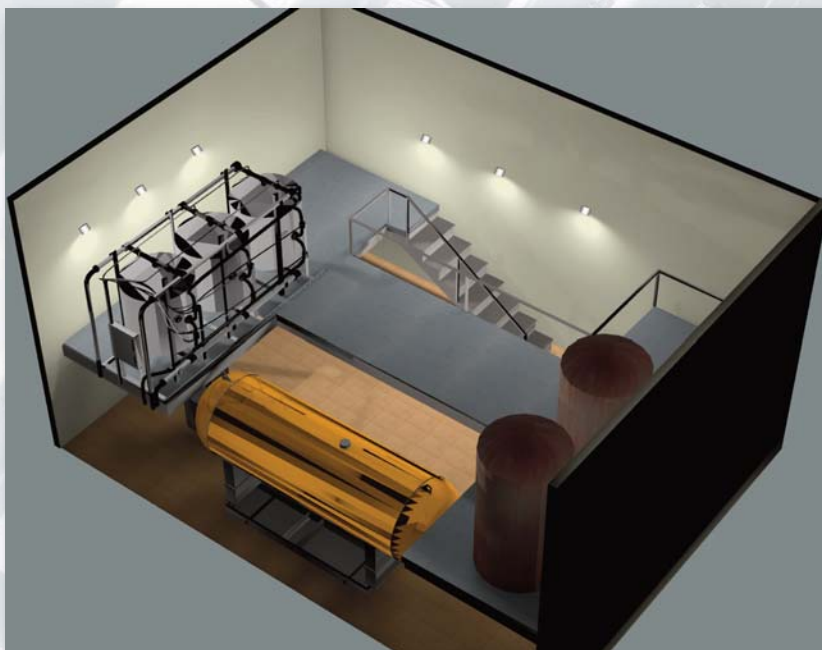


Example of wall or structure mounting

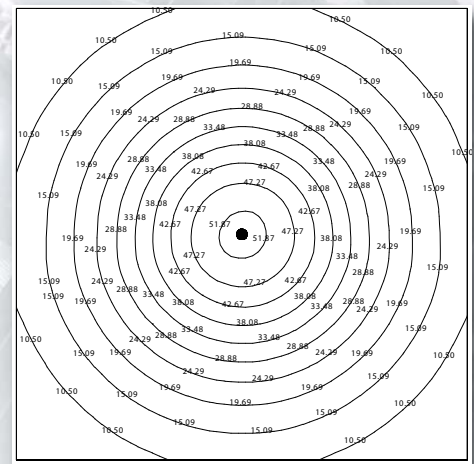
EVML Low Bay LED lighting fixture

EVML-..., Example of equivalents

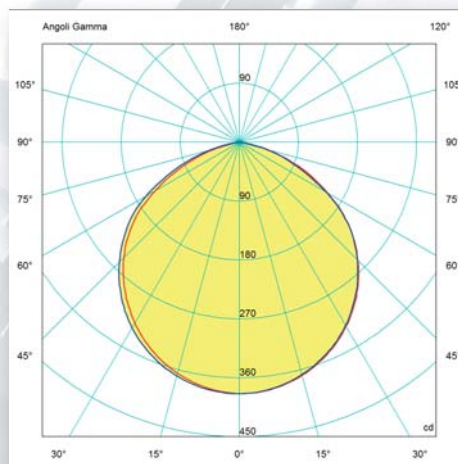
			
EVML-50 (19W) LED	(100W) Incandescent	(70W) Halogen	(23W) Electronic
Typical energy savings			



Example of lighting design made with EVML-50 LED
Low Bay lighting fixtures



EVML-50 illumination on the floor expressed in lux in a room 5m x 5m with the lighting fixtures centrally placed at 2,5m in height.



EVML-50 Luminous flux: 1032 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 C 0180