

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 areas in which it's necessary to limit the obstruction such as tunnels, passages, corridors, stairways and command and control cabins (code EVML-50). They can also be used to illuminate and monitor hazardous materials contained inside tanks and cisterns thanks to a bracket for the coupling with the porthole flange (code EVML-50/O..). The model with the side entry meets, at last, some specific installation needs, reducing the overall dimensions (code EVML-50L).

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 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 non polluting illumination to the surrounding environment.

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 e mb IIC T.. Gb - Ex tb IIC T..°C Db IP66			
Certification:	ATEX ITS 15 ATEX 18233			
	IEC Ex ITS 15.0008	All IEC Ex and TR CU certification data can be downloaded at www.cortemgroup.com		
	TR CU AVAILABLE			
Standards:	CENELEC EN 60079-0: 2012, EN 60079-7: 2007, EN 60079-18: 2009, EN 60079-31: 2014 and alla DIRETTIVA EUROPEA 2014/34/UE IEC 60079-0: 2012, IEC 60079-7: 2007, IEC 60079-18: 2009, IEC 60079-31: 2014 Direttiva Europea 2006/95 Bassa tensione Direttiva Europea 2004/108 Compatibilità elettromagnetica Direttiva Europea 2003/108 RAEE Direttiva Europea 2011/64 RoHS			
Class temperature:	60°C (T6)	75°C (T6)	80°C (T5)	
Ambient temperature:	-40°C +40°C (T6)	-40°C +55°C (T6)	-40°C +60°C (T5)	
Degree of protection:	IP66			

EVML Low Bay LED lighting fixture



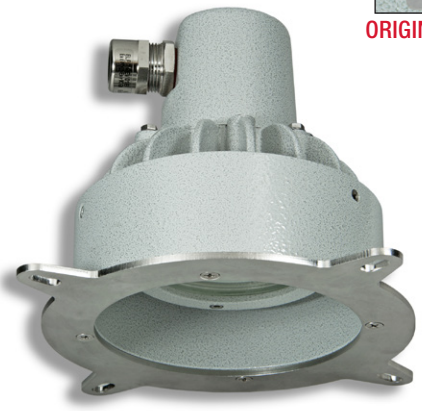
ORIGINAL PRODUCT



EVML-50



EVML-50L

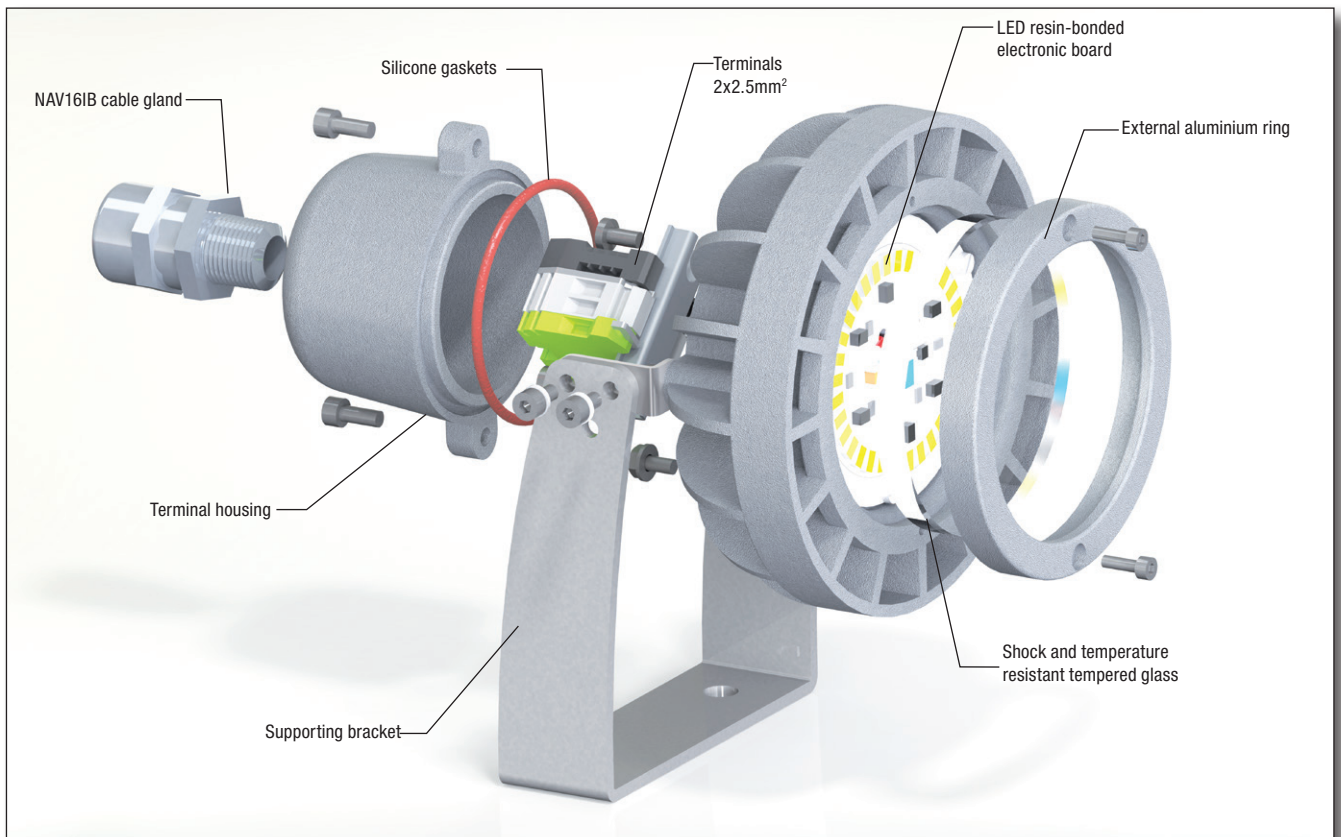


EVML-50/O

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 brackets:	Stainless steel AISI 316L
Bolts and screws:	Stainless steel
Entries:	1 x ISO M16 entries. Fixture supplied with REV011B 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 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

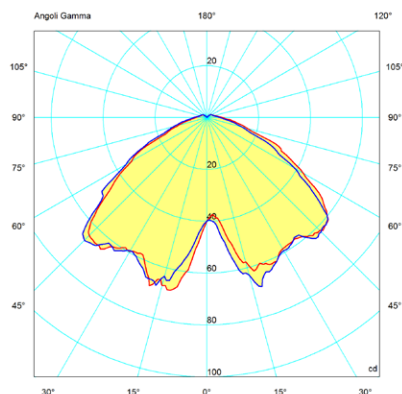
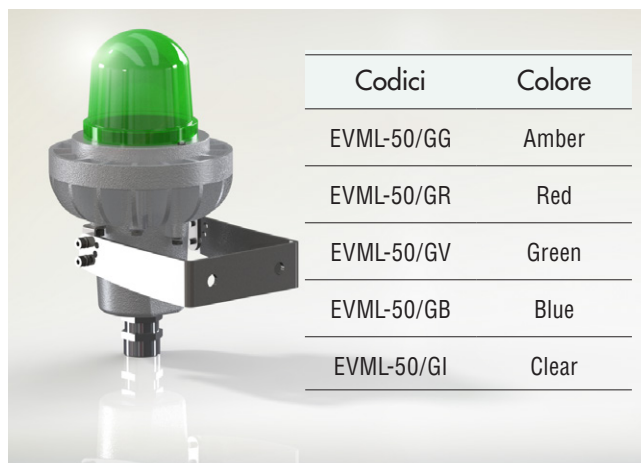
Electrical features	EVML-50	EVML-50/110
Power supply:	220 -240 Vac	110 Vac/dc
Rated frequency:	50-60 Hz	50-60 /0 Hz
Power consumption:	19 W	12 W
Connection:	Direct connection to terminal board L, N, Pe. Section 2,5mm ²	
Power factor:	>0,95	>0,96
Rated current:	75 mA	100 mA
EMC (electromagnetic compatibility):	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	Seoul
Viewing angle:	120°	120°
Colour temperature:	5000 K	4200 K
CRI:	80	80
Instant Restrike:	SI	SI
Lumen:	1032 lm	520 lm
Maximum light intensity:	385 cd	207 cd
Overall efficiency:	57 lm/W	62 lm/W

ACCESSORIES AVAILABLE / SPECIAL REQUESTS


U bolt for pole mounting

Obstruction lighting EVML-50/G...

EVML-50/G are the new lighting fixtures which feature a LED plate and a globe of different colours: blue, red, green, amber or clear. 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.

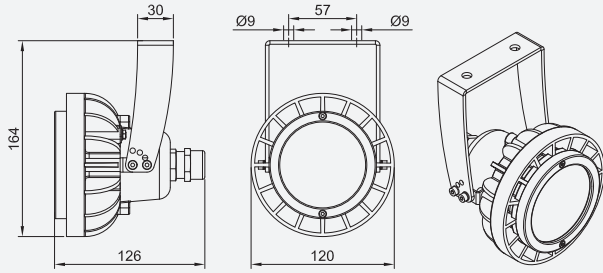


EVML Low Bay LED lighting fixture

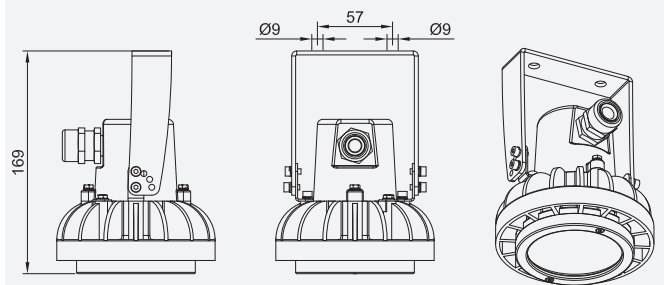
Code	Type Lamp	Watt	Class (Ta= +40°C)	Max Surface temperature °C (Ta= +40°C)	Weight kg	 mm
EVML-50	LED	19 W	T6	60	1,1	162x140x157
EVML-50L	LED	19 W	T6	60	1,1	162x140x157
EVML-50/110	LED	12 W	T6	60	1,1	162x140x157

DIMENSIONAL DRAWINGS

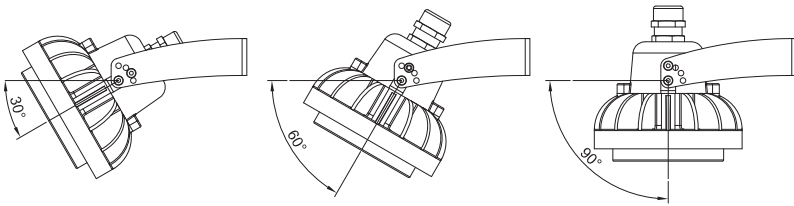
EVML-50 (rear cable entry)



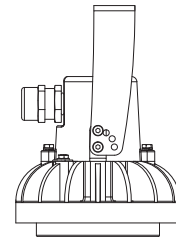
(side cable entry) EVML-50L



Tilt degrees for lighting fixture installation EVML-50

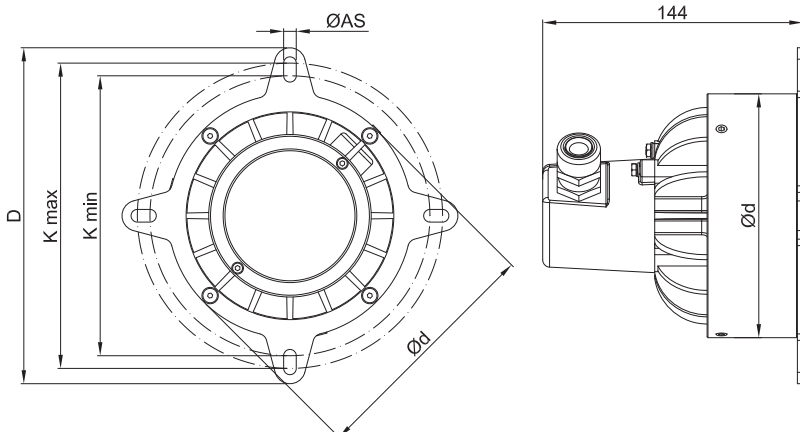


Additional tilt degrees for lighting fixture EVML-50L










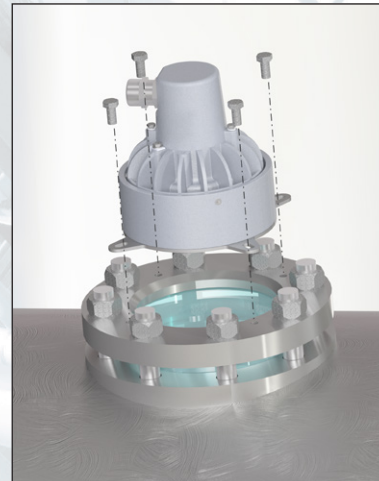
EVML-50/O.. TANK/VESSEL INSPECTION LIGHTING FIXTURES

Code	Watt	Kmax	Kmin	ØAS	D	Ød	Round window acc. DIN28120
EVML-50/O10	19 W	169	155	7	186	135	100
EVML-50/O12	19 W	194	180	7	211	160	125
EVML-50/O15	19 W	222	208	9	243	185	150
EVML-50/O20	19 W	282	258	9	303	235	200



EVML Low Bay LED lighting fixture

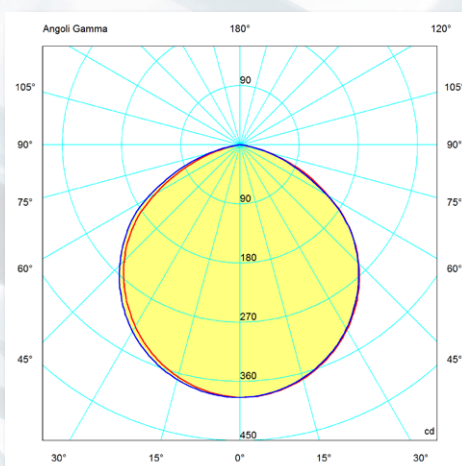
			
EVML-50 (19W) LED	(100W) Incandescent	(70W) Halogen	(23W) Electronic
Typical energy savings			
	81%	73%	17%



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

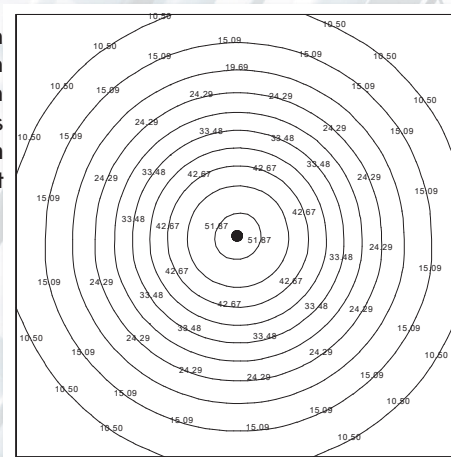


Application example made with EVML-50/O12 LED lighting fixtures with round windows



EVML-50 Luminous flux: 1032 lm

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



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

MSU Signalling lightings

The new MSU series signalling lighting equipment is designed to be used in hazardous areas as indicator of dangers and for any communication need, replacing also acoustic signals. It is a multi-unit device formed by a metal sheet base, fixable on walls, poles, etc., by EVML-50/G signalling lighting equipment and by an 'Ex e' aluminum junction box SA series. The new EVML- 50/G signalling lighting equipment are available with a LED and globe of different colours: blue, red, green, amber and clear.



MECHANICAL FEATURES

- Pre-wired ready to use multi-signalling unit
- Corrosion resistant
- Coating RAL7035
- Suitable for offshore / onshore & harsh environments
- 'Ex e' termination area
- Quick and easy to terminate
- High ingress protection IP66
- Extreme temperature range -40°C ... +60°C
- Light enhancing lens, 5 colour options
- Up to 5 beacon positions
- Power supply: 230 Vac
- Rated frequency: 50-60 Hz
- Lumen (single signal lamps): 1032 lm
- Max. light intensity (single signal lamps): 385 cd

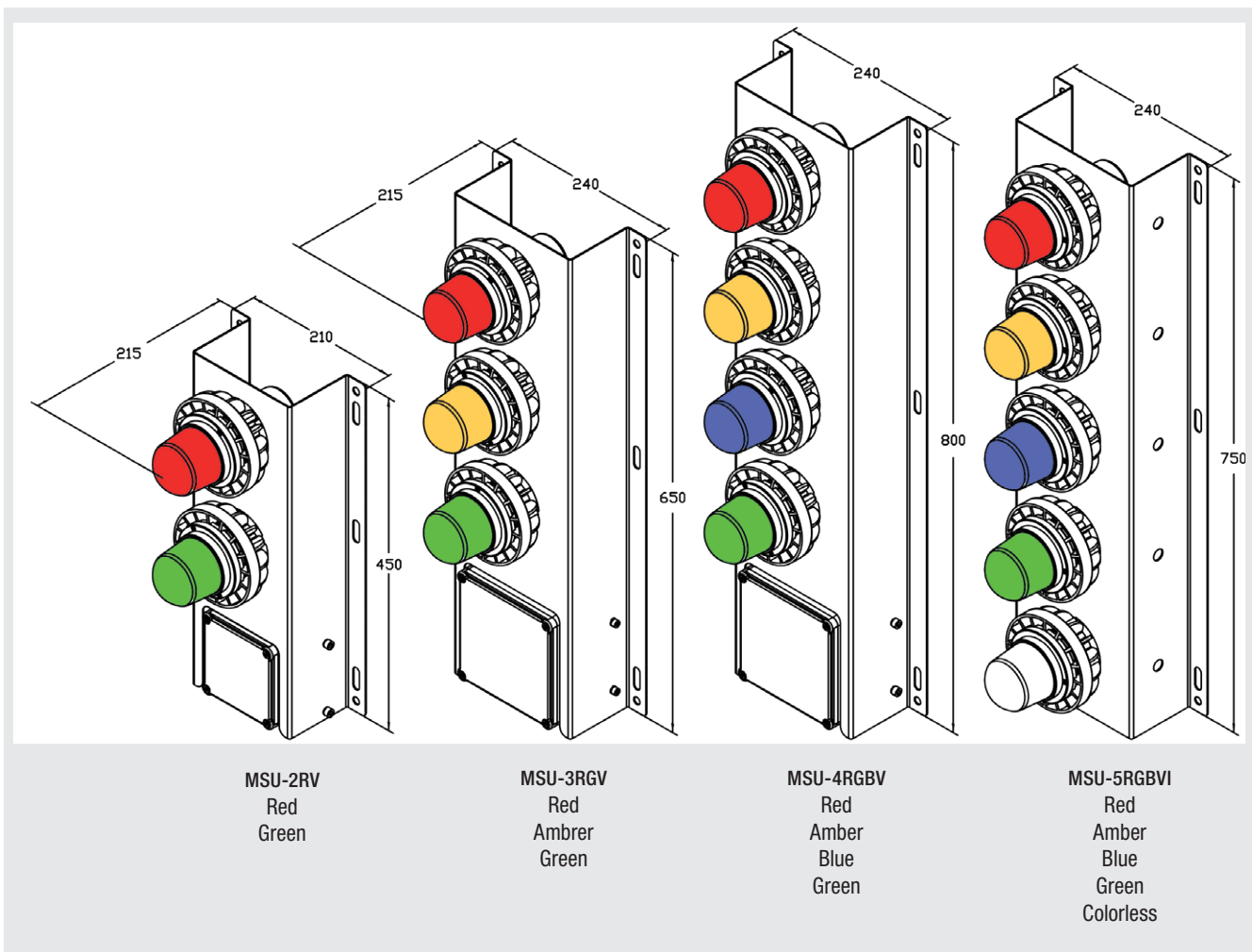
ACCESSORIES AVAILABLE / SPECIAL REQUESTS

Different rated voltage 110 Vac/dc

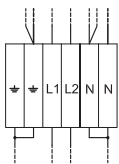
Code	Type Lamp	Device	Watt	Class (Ta = +40°C)	Max surface temperature °C (Ta= +40°C)
MSU-2RV	LED	2-way	19 W	16	60
MSU-3RGV	LED	3-way	19 W	16	60
MSU-4RGBV	LED	4 -way	19 W	16	60
MSU-5RGBVI	LED	5-way	19 W	16	60

MSU Signalling lightings

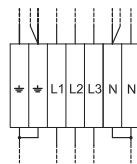
DIMENSIONAL DRAWINGS



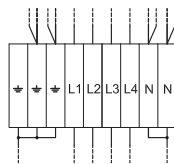
ELECTRICAL CONNECTION



MSU-2RV



MSU-3RGV



MSU-4RGBV

Wiring inside the junction box

