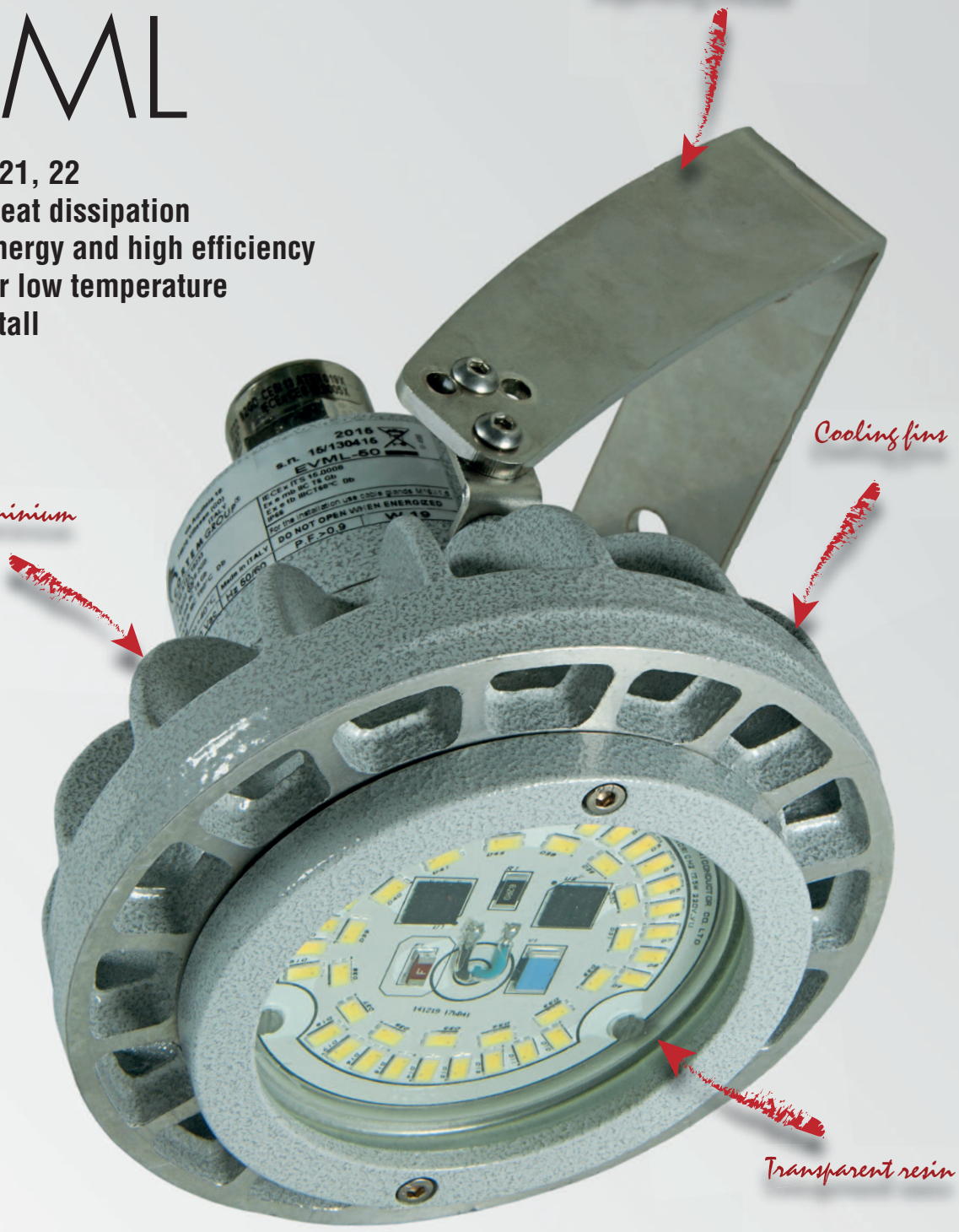
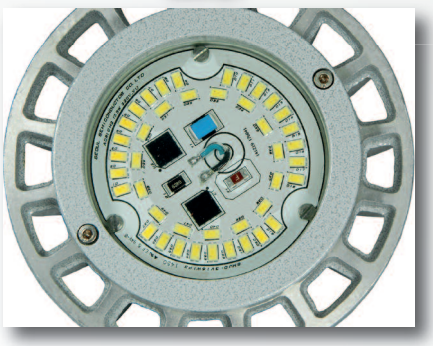
EVML

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

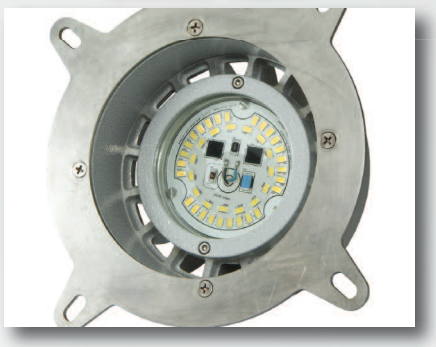


LED resin-bonded electronic board



Orientable bracket detail

Lighting fixture with round windows detail



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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:

Oil refineries | Chemical and petrochemical plants | Anti light pollution | Offshore plants | Onshore plants | Perimeter lighting | Oil loading/ unloading jetties | Stairs Handrails

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 IIIC 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 EUROPEAN DIRECTIVE 2014/34/UE 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)	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			

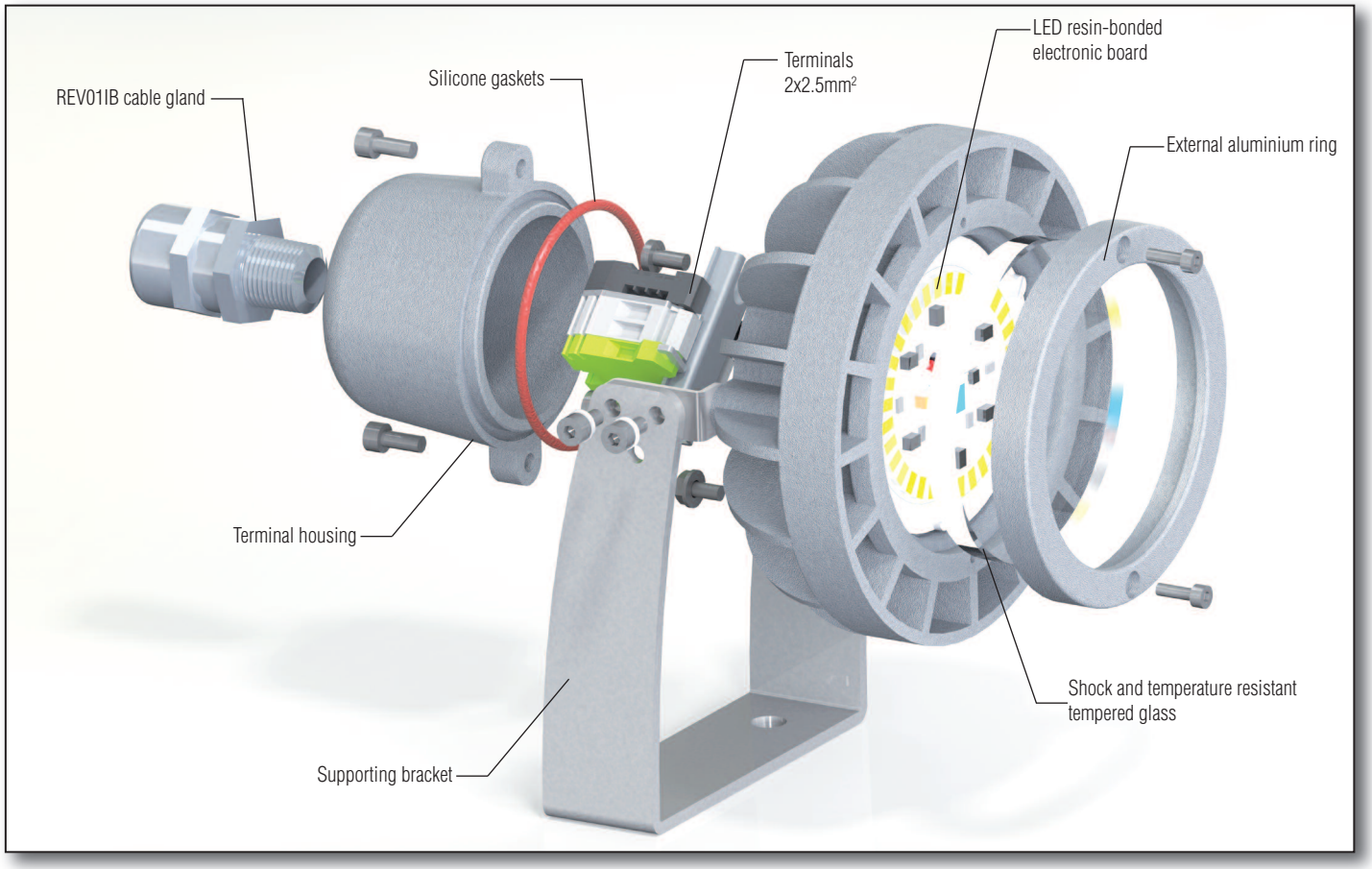
EVML Low Bay LED lighting fixture

ORIGINAL PRODUCT

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 REV01IB 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



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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:	YES	YES
Lumen:	**1032 lm**	**520 lm**
Maximum light intensity:	**385 cd**	**207 cd**
Overall efficiency:	**57 lm/W**	**62 lm/W**

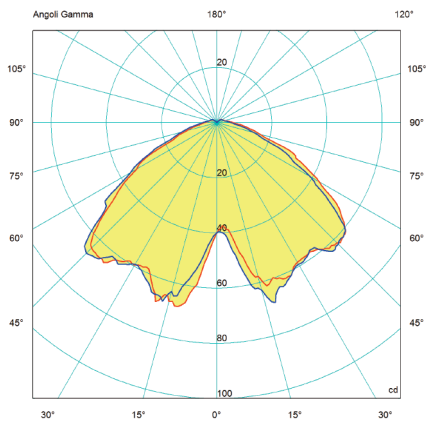
ACCESSORIES AVAILABLE / SPECIAL REQUESTS

U bolt for pole mounting

Obstruction lighiting 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.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.

Code	Color
EVML-50/GG	Amber
EVML-50/GR	Red
EVML-50/GV	Green
EVML-50/GB	Blue

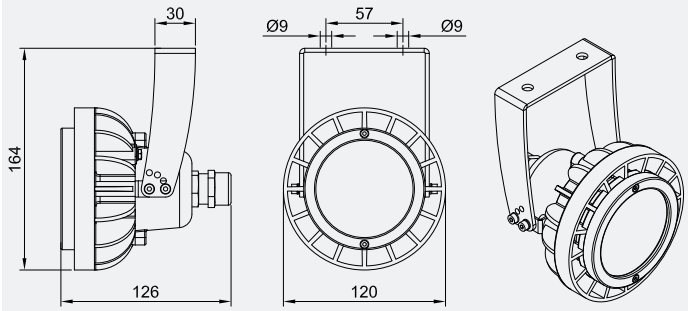


EVML Low Bay LED lighting fixture

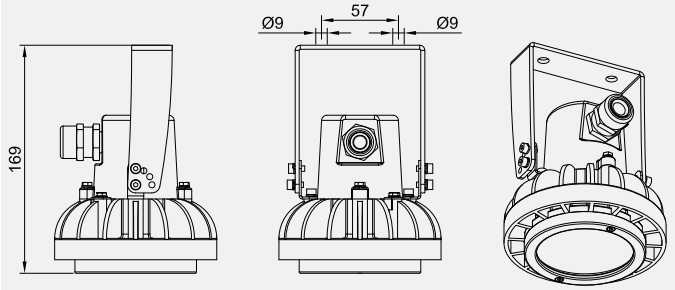
Code	Type Lamp	Watt	Class (Ta = +40°C)	Max surface temperature °C (Ta = +40°C)	Weight Kg	mm
EVML-50	LED	19 W	T6	60	1,1	162x140x157
EVML-50L	LED	19 W	T6	60	1,1	162x140x157
EVML-50/110	LED	12 W	T6	60	1,1	162x140x157

DIMENSIONAL DRAWINGS

EVML-50 (rear cable entry)

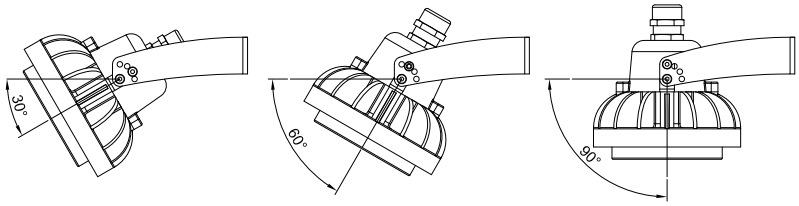


(side cable entry) **EVML-50L**

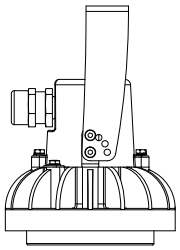


Dimension in mm

Tilt degrees for lighting fixture installation EVML-50

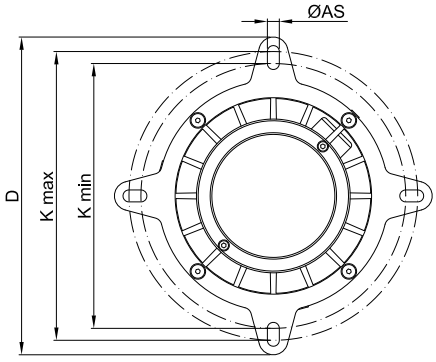


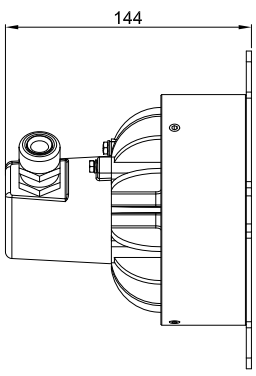
Additional tilt degrees for lighting fixture EVML-50L



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

Code	Watt	Kmax	Kmin	ØAS	D	d	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





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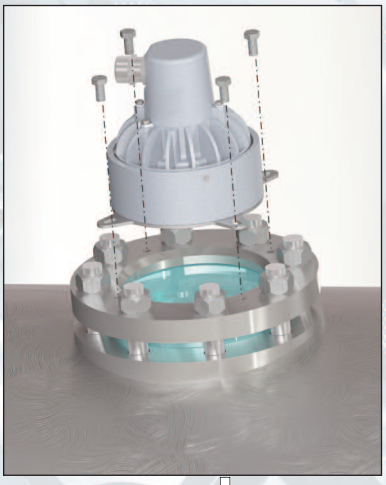
EVML Low Bay LED lighting fixture

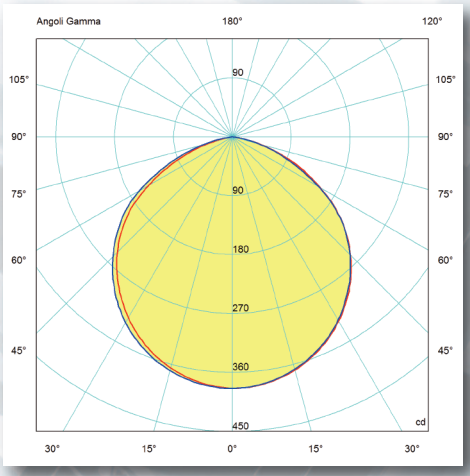
EVML-..., Example of equivalents

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



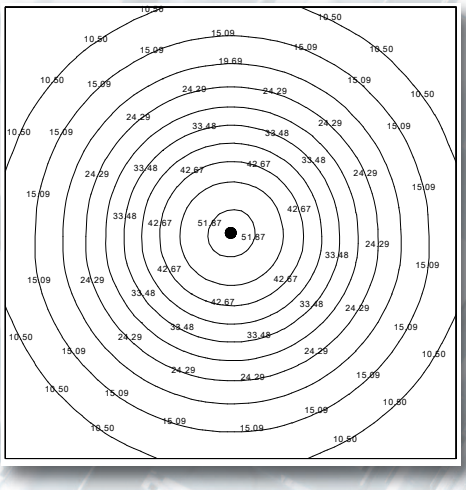
Example of lighting design made with EVML-50 LED Low Bay lighting fixtures

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