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 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 eb mb op is IIC T.. Gb - Ex tb op is IIIC T..°C Db IP66			
Certification:	ATEX CML 19 ATEX 3019X			
	IEC Ex IECEx CML 19.0003X	All IEC Ex, TR CU certification contact comm@antideflagrantigce.com		
	TR CU AVAILABLE			
Standards:	CENELEC EN 60079-0: 2018, EN 60079-7: 2015, EN 60079-18: 2015, EN 60079-28: 2015, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC 60079-0: 2017, IEC 60079-18: 2014, IEC 60079-28: 2015, IEC 60079-31: 2013, IEC 60079-7: 2015 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:	See selection table EVML-50			
Ambient temperature:	-40°C +40°C	-40°C +50°C	-40°C +60°C	
Degree of protection:	IP66			

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EVML Low Bay LED lighting fixture

EVML-50

EVML-50L

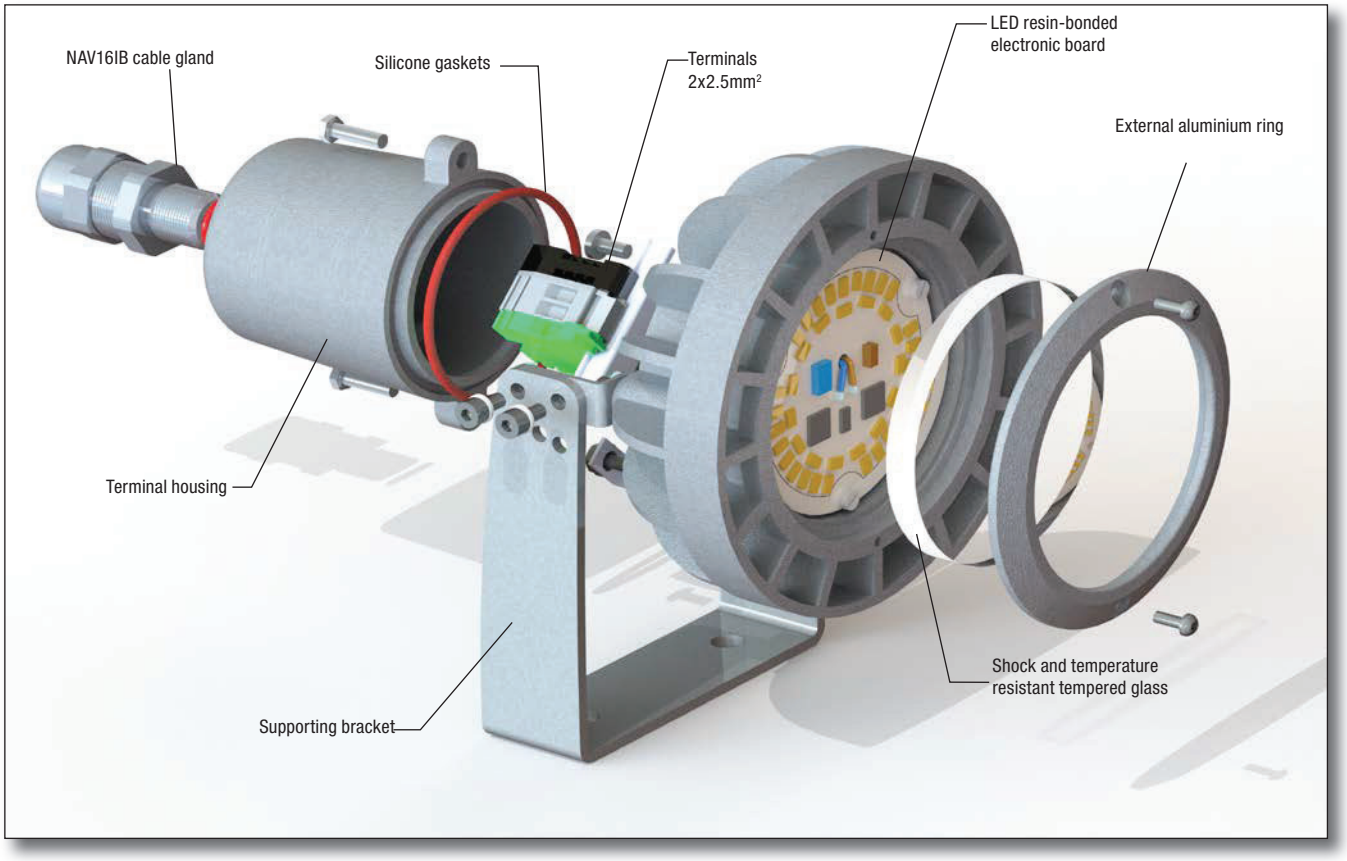
EVML-50/O

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 cable gland
Coating:	Polyester coating Ral 7035 (Light grey)
Corrosion Resistance:	The STANDARD of the aluminium alloy used by manufacturer has passed the tests required by standards EN60068-2-30 (hot/humid cycles) and EN60068-2-11 (salt mist tests)

EXPLODED DIAGRAM OF EVML-50 LIGHTING FIXTURE



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EVML-50 and EVML-50L series selection chart

Code	Watt	Supply voltage	Class temperature*			Weight kg	mm
			Ta <+40°C	Ta <+50°C	Ta <+60°C		
EVML-50(L)	17 W	220-240 Vac	T5/95°C	T4/105°C	T4/115°C	1,1	162x140x157
EVML-50(L)**/110**	12 W	110 Vac/dc	T6/64°C	T6/74°C	T5/84°C	1,1	162x140x157
EVML-50(L)**/12**	15 W	12 Vac/dc	T6/66°C	T6/76°C	T5/86°C	1,1	162x140x157
EVML-50(L)**/24D**	15 W	24 Vdc	T6/66°C	T6/76°C	T5/86°C	1,1	162x140x157
EVML-50(L)**/24A**	12 W	24 Vac	T6/64°C	T6/74°C	T5/84°C	1,1	162x140x157
EVML-50(L)**/48D**	14 W	48 Vdc	T5/81°C	T5/91°C	T4/101°C	1,1	162x140x157
EVML-50(L)**/48A**	14 W	48 Vac	T6/77°C	T5/87°C	T4/97°C	1,1	162x140x157

* Temperature classes valid for the installation of the lighting fixture in a vertical position.
For improved temperature classes, check the different possible installation inclinations of the lighting fixture in the safety, use and maintenance instructions

Electrical features*	EVML-50	EVML-50/110
Power supply:	220-240 Vac	110 Vac
Rated frequency:	50-60 Hz	50-60 /0 Hz
Power consumption:	17 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:	**1282 lm**	**720 lm**
Maximum light intensity:	**543 cd**	**287 cd**
Overall efficiency:	**75 lm/W**	**60 lm/W**

* In the case of installations in harsh environments with strong peaks or impurities on the power supply line, it is advisable to use a surge protector for greater protection of the lighting fixture. Manufaturer offers the G-1064 surge protector which can be installed in a safe area or inside an explosion-proof enclosure.

EVML LOW VOLTAGE

Electrical features	EVML-50/12	EVML-50/24D	EVML-50/24A	EVML-50/48D	EVML-50/48A
Power supply:	12 Vac/dc	24 Vdc	24 Vac	48 Vdc	48 Vac
Rated frequency:	50-60 /0 Hz	0 Hz	50-60 Hz	0 Hz	50-60 Hz
Power consumption:	15 W	15 W	12 W	14 W	14 W
Connection:	Direct connection to terminal board L, N, Pe. Section 2,5 mm^2				
Power factor:	>0,95	-	>0,95	-	>0,95
Rated current:	1,47 A	630 mA	540 mA	307 mA	318 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:	5 kV	5 kV	5 kV	5 kV	5 kV
Photometric features					
LED Multichip:	Samsung	Samsung	Samsung	Samsung	Samsung
Viewing angle:	120°	120°	120°	120°	120°
Colour temperature:	5700 K	5700 K	5700 K	5700 K	5700 K
CRI:	80	80	80	80	80
Instant Restrike:	YES	YES	YES	YES	YES
Lumen:	**1365 lm (dc)**	**1458 lm**	**1092 lm**	**1361 lm**	**1256 lm**
Maximum light intensity:	**565 cd**	**371 cd**	**368 cd**	**569 cd**	**373 cd**
Overall efficiency:	**88 lm/W**	**97 lm/W**	**91 lm/W**	**96 lm/W**	**90 lm/W**

ACCESSORIES AVAILABLE / SPECIAL REQUESTS

U bolt for pole mounting
Different colour temperature (code EVML-50**/3000K**)

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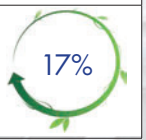
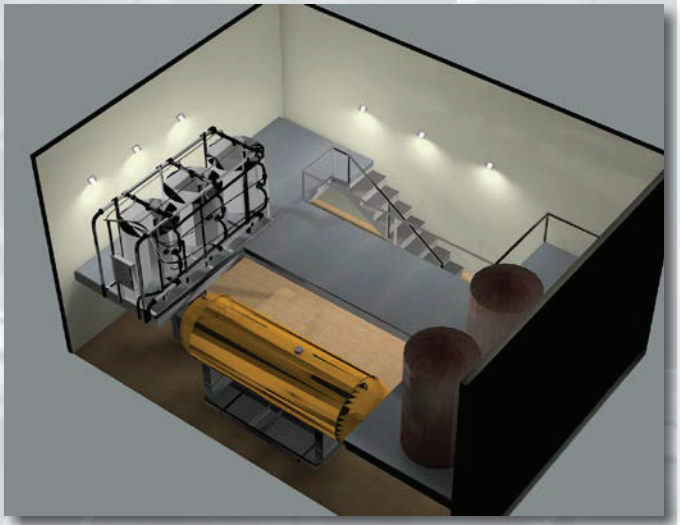
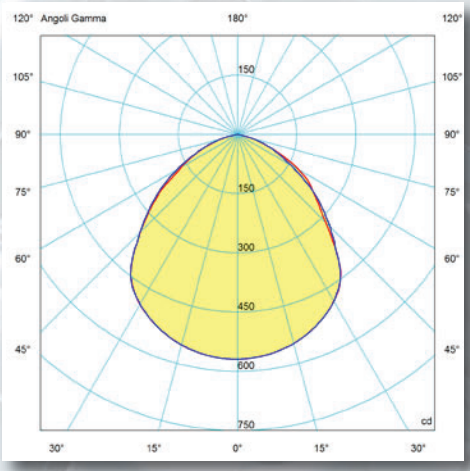
EVML-..., equivalenze

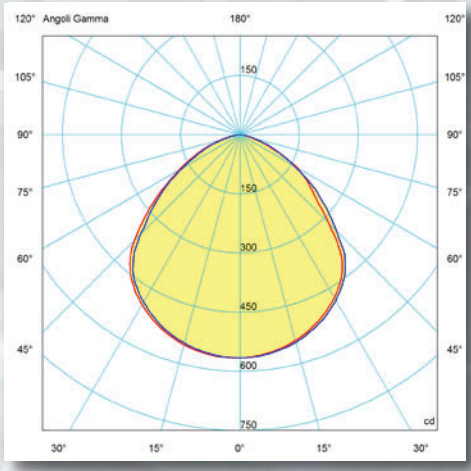
			
EVML-50 (17W) LED	(100W) Incandescent	(70W) Halogen	(23W) Electronic
Typical energy savings	 81%	 73%	 17%



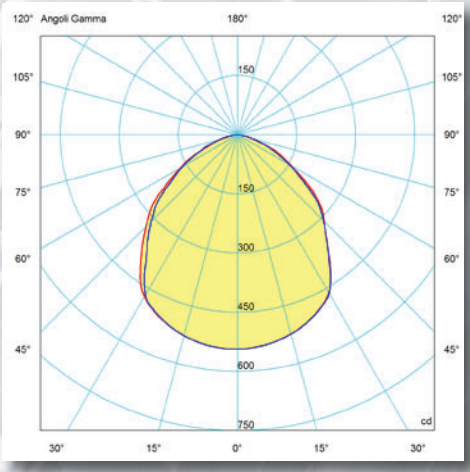
Example of lighting design made with EVML-50 LED Low Bay lighting fixtures



EVML-50/48D Luminous flux: 1361 lm

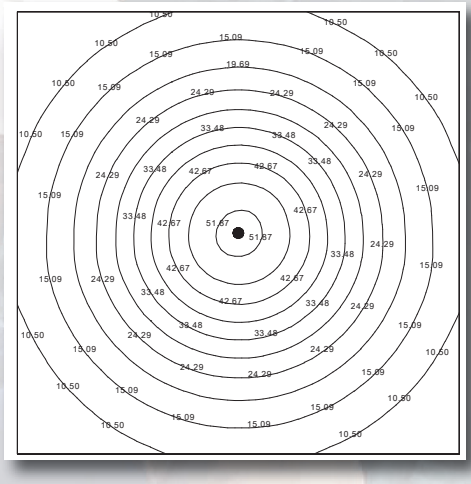


EVML-50/48D Luminous flux: 1361 lm



EVML-50 Luminous flux: 1282 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



= plane 90270

= plane 0180

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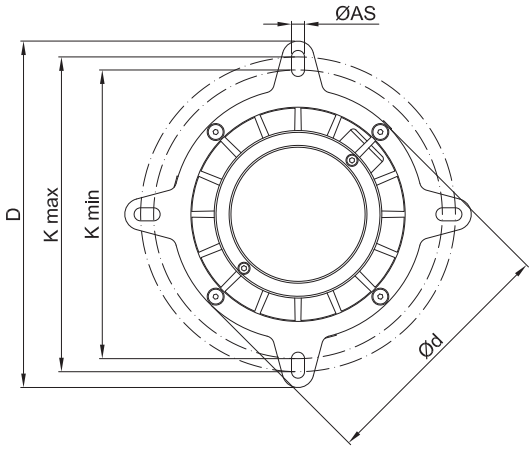
EVML-50/O.. TANK/VESSEL INSPECTION LIGHTING FIXTURES

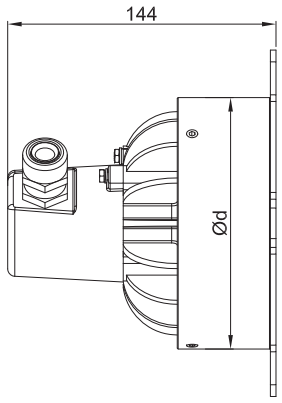
Code		Kmax	Kmin	ØAS	D	Ød	Round window acc. DIN28120
EVML-50/.../010	①	169	155	7	186	135	100
EVML-50/.../012	②	194	180	7	211	160	125
EVML-50/.../015	③	222	208	9	243	185	150
EVML-50/.../020	④	282	258	9	303	235	200

/...:			
	No number	For 220 Vac	**24A** For 24 Vac
	110	For 110 Vac/dc	**48D** For 48 Vdc
	12	For 12 Vac/dc	**48A** For 48 Vac
	24D	For 24 Vdc	

NEW

DIMENSIONAL DRAWING





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

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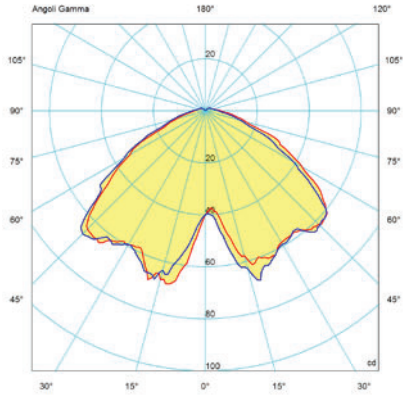
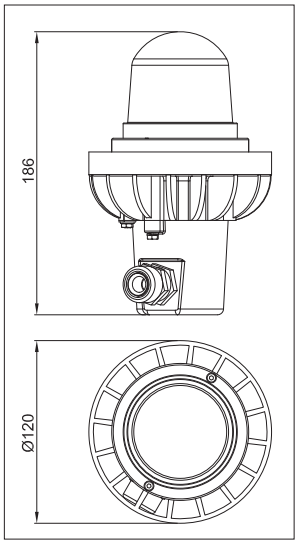
Obstruction lighting EVML-50/G...

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.

Code	Colour
EVML-50/.../GG	Amber
EVML-50/.../GR	Red
EVML-50/.../GV	Green
EVML-50/.../GB	Blue
EVML-50/.../GI	Clear



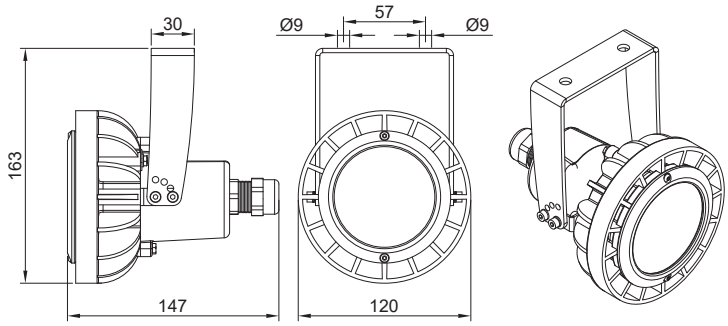


NEW

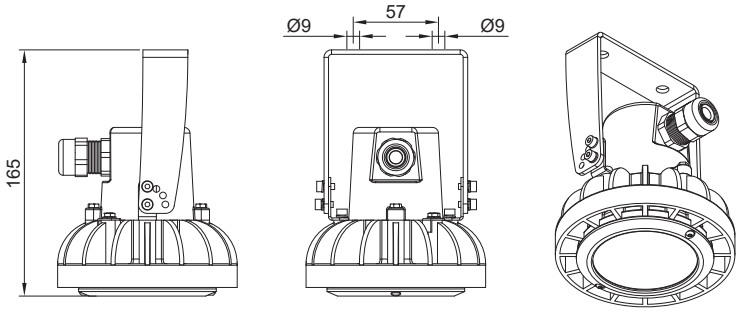
/...:		
	No number	For 220 Vac
	110	For 110 Vac/dc
	12	For 12 Vac/dc
	24D	For 24 Vdc
	24A	For 24 Vac/dc
	48D	For 48 Vdc
	48A	For 48 Vac

DIMENSIONAL DRAWINGS

EVML-50 (rear cable entry)



EVML-50L (side cable entry)



Tilt degrees for lighting fixture installation EVML-50