IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx EUT 20.0025X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2020-11-30		
Applicant:	**CORTEM SpA** Via Aquileia 10 34070 Villesse (GO) **Italy**		
Equipment:	**Lighting fixtures EVNL**		
Optional accessory:			
Type of Protection:	**Restricted flow, Tight dust**		
Marking:	Ex nR IIC T4...T6 Gc Ta: -60/-40°C to +40/50/60° C Ex tb IIIC T135...T85 °C Db IP66		

Approved for issue on behalf of the IECEx Certification Body: **Dionisio Bucchieri**

Position: **Head of IECEx CB**

Signature: (for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

Eurofins Product Testing Italy S.r.l.
Via Cuorgnè
n.21 - 10156 Torino
Italy

eurofins | Product Testing

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Certificate No.: **IECEx EUT 20.0025X**

Date of issue: 2020-11-30

Issue No: 0

Manufacturer: **CORTEM SpA**
Via Aquileia 10
34070 Villesse (GO)
Italy

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-15:2017 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

IT/EUT/ExTR20.0027/00

Quality Assessment Report:

IT/CES/QAR06.0002/14

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The lighting fixtures series EVNL are composed of an enclosure in aluminum or stainless steel and a light transmitting part fixed on that enclosure by a bracket. The light transmitting part is made of glass or two different types of polycarbonate. The housing has fins for the dissipation of the heat and it is closed on the bottom by a cover fixed with screws. The glass is plate and temperate, and on it is mounted a gasket. The enclosures contain the LED board or a LED array, the driver and the terminals.

SPECIFIC CONDITIONS OF USE: YES as shown below:
When the polycarbonate lens is used, due to the risk of static hazards, the equipment shall only be cleaned with a damp cloth.

The equipment shall be used only with cable gland / plug with separate certificate IECEx IMQ 15.0009X, IECEx IMQ_17.0010X or other cable glands Ex nR and Ex tb certified.

The equipment shall be subjected to a pressure test in accordance with IEC 60079- 15 clause 12.2.2.1.2. Each unit shall be subjected to an internal pressure of at least 0.3 kPa below atmospheric. The unit should hold at least half of the initial value for at least 90 seconds. The pressure test is to be conducted through a cable entry point. Refer to instructions for methodology.

Annex:

EVNL COC ANNEX_.pdf

Annex to certificate: **IECEx EUT 20.0025 X Issue 0**

Product variants

The characteristics of luminaires series **EVNL** are codified according to the following schema:

Code of the series

060,070,080 or **100** for the size of lighting fixture

020,030,040,050,060,070,080,090,100,110,120,130,140,150,160,170,180,190,200,210 or 220 for the power of lighting fixture

A combination of 4 characters to distinguish the all possible EVNL versions in base on:
- Type of power supply,
- Glass or polycarbonate window,
- If dimmable or not,
- Type of light source,
- Type of mounting,
- Ambient temperature,
- Other possible electrical / mechanical variants present in this certificate.

Rated characteristics:

- Maximum rated voltage: 277 Vac/Dc
- Rated frequency: 50/60 Hz
- Maximum rated power: 225 W

Annex to certificate: **IECEx EUT 20.0025 X Issue 0**

MODEL (with glass window)	MAX POWER	POWER SUPPLY	FREQUENCY
EVNL-060020..	25W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-060030..	33W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-060040..	45W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-060050..	55W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-070030..	35W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-070040..	45W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-070050..	55W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-070060..	65W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-070070..	75W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-070080..	85W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-080080..	85W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-080090..	95W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-080100..	105W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-080110..	115W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-080120..	125W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100120..	125W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100130..	135W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100140..	145W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100150..	155W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100160..	165W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100170..	175W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100180..	185W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100190..	195W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100200..	205W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100210..	215W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100220..	225W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
MODEL (with polycarbonate window)	**MAX POWER**	**POWER SUPPLY**	**FREQUENCY**
EVNL-060..	30W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-070..	60W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-080..	90W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz
EVNL-100..	160W	12, 24, 42, 48, 100-277VAC/DC	0/50/60 Hz

Annex to certificate: **IECEx EUT 20.0025 X Issue 0**

Temperature classes and Maximum surface temperature

Glass window

EVNL size	Power consumption	Max ambient temperature		
		+40°C	+50°C	+60°C
EVNL-060..	P ≤ 33W	T6 (85°C)	T6 (85°C)	T5 (100°C)
	33W < P ≤ 45W	T6 (85°C)	T5 (100°C)	T4 (135°C)
	45W < P ≤ 55W	T5 (100°C)	T4 (135°C)	T4 (135°C)
EVNL-070..	P ≤ 45W	T6 (85°C)	T5 (100°C)	T4 (135°C)
	45W < P ≤ 65W	T5 (100°C)	T5 (100°C)	T4 (135°C)
	65W < P ≤ 85W	T4 (135°C)	T4 (135°C)	T4 (135°C)
EVNL-080..	P ≤ 85W	T5 (100°C)	T4 (135°C)	T4 (135°C)
	85W < P ≤125W	T4 (135°C)	T4 (135°C)	T4 (135°C)
EVNL-100..	P ≤ 225W	T4 (135°C)	T4 (135°C)	T4 (135°C)

Polycarbonate window (for type 1 polycarbonate minimum Ta -40°C)

EVNL size	Power consumption	Max ambient temperature		
		+40°C	+50°C (Only with type 1 polycarbonate)	+60°C (Only with type 1 polycarbonate)
EVNL-060..	P ≤ 30W	T6 (85°C)	T6 (85°C)	T5 (100°C)
EVNL-070..	P ≤ 60W	T4 (135°C)	T4 (135°C)	
EVNL-080..	P ≤ 90W	T4 (135°C)	T4 (135°C)	
EVNL-100..	P ≤ 160W	T4 (135°C)	T4 (135°C)	

Warning label

"Do not open when an explosive atmosphere is present".

"Do not open when energized".

"Use cable suitable for a temperature of 85°C".

"Potential electrostatic charging hazard see instructions".

Only for EVNL-.. transportable versions: "Warning – Do not transport when energized"

Only for EVNL-.. pole mounting versions - "Warning – Use a sealing fitting to preserve the IP protection degree".

Annex to certificate: **IECEx EUT 20.0025 X Issue 0**

Routine tests

The equipment shall be subjected to a routine pressure test in accordance with IEC 60079- 15 clause 12.2.2.1.2. Each unit shall be subjected to an internal pressure of at least 0.3 kPa below atmospheric. The unit should hold at least half of the initial value for at least 90 seconds. The pressure test is to be conducted through a cable entry point.

Each unit manufactured shall be subjected to an electric strength test in accordance with IEC 60079-15 clause 12.1. It shall be carried out either at 1000 V + 2U for 60 seconds or at 1.2 times this test voltage for at least 100 ms.