



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:	IECEX CML 16.0118	Issue No: 0	Certificate history: Issue No. 0 (2017-02-01)
Status:	Current	Page 1 of 3	
Date of Issue:	2017-02-01		
Applicant:	Cortem Group via Aquileia 10 34070 Villesse Gorizia Italy		
Equipment:	EWL Series LED Floodlights		
Optional accessory:			
Type of Protection:	db eb, op ls, tb		
Marking:	Ex db eb op ls IIC Tx Gb Ex tb IIIC Tx°C Db IP 66 For Tx and further details see Annex		

Approved for issue on behalf of the IECEx
Certification Body:

D R Stubbings MIET

Position:

Technical Director

Signature:
(for printed version)

Date:

2017-02-01

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 the Official IECEx Website.

Certificate issued by:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





IECEX Certificate of Conformity

Certificate No: IECEX CML 16.0118

Issue No: 0

Date of Issue: 2017-02-01

Page 2 of 3

Manufacturer: **Cortem Group**
via Aquileia 10
34070 Villesse
Gorizia
Italy

Additional Manufacturing location(s):

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 electrical apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-28 : 2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

This Certificate does not indicate compliance with electrical 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:

GB/CML/EXTR16.0154/00

Quality Assessment Report:

IT/CES/QAR06.0002/10



IECEX Certificate of Conformity

Certificate No: IECEX CML 16.0118

Issue No: 0

Date of Issue: 2017-02-01

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The EWL ... Series are LED Lighting Fixtures and Floodlights suitable for fixed installation in hazardous gas and dust environments.

See Annex for Full Description

CONDITIONS OF CERTIFICATION: NO

Annex:

Certificate Annex IECEX CML 16.0118.pdf

Annexe to: IECEx CML 16.0118 Issue 0
Applicant: Cortem S.p.A.
Apparatus: EWL Series LED Lighting Fixtures and Floodlights



1 Marking

The equipment shall be marked with the following:

Internal Power Supply EWL-*. ..

Ex db eb op is IIC Tx Gb

Ex tb IIIC Tx°C Db

External Power Supply: EWL-80..SB

Ex db op is IIC Tx Gb

Ex tb IIIC Tx°C Db

EWL-80/..:

Ta = -20 °C to +40 °C or

Ta = -20 °C to +60 °C

Tx and Tx°C see Table below:

EWL-70/.., EWL-80..C/.., EWL-100/..:

Ta = -40 °C to +40 °C or

Ta = -40 °C to +60 °C

Type	EPL	Temperature Class		Max Surface Temperature (°C)	
		Tamb ≤ 40°C	Tamb ≤ 60 °C	Tamb ≤ 40°C	Tamb ≤ 60 °C
EWL-70	Gb, Db	T6	T6	65	85
EWL-80	Gb, Db	T6	T6	65	85
EWL-801	Gb, Db	T6	T5	80	100
EWL-100	Gb, Db	T6	T5	80	100
EWL-1001	Gb, Db	T6	T5	80	100

2 Description

The EWL ... Series are LED Lighting Fixtures and Floodlights suitable for fixed installation in hazardous gas and dust environments.

The LED Floodlights have the following dimensions:

Model	LED Enclosure Diameter (mm)	Overall Length (mm)
EWL-70..	215	273
EWL-80..	261	268
EWL-80..C..	261	306
EWL-100..	385	387
EWL-1001	385	387

The Floodlights are constructed from three separate enclosures for LED Board, LED Feeder Circuit and Terminal Enclosure. The LED Board enclosure has a cemented tempered glass window that is retained either by a threaded ring (EWL-70.., EWL-80.., EWL-80..C.) or bracket (EWL-100..). The LED Feeder Circuit enclosure incorporates the separate Terminal Enclosure.

Unit 1, Newport Business Park
 New Port Road
 Ellesmere Port
 CH65 4LZ

T +44 (0) 151 559 1160
 E info@cml ex.com

www.cml ex.com

Company Reg No. 8554022 VAT No. GB163029642





The LED Board and the LED Feeder Circuits Enclosures are joined mechanically by a threaded joint. The LED Board, LED Feeder and the Terminal Enclosure are connected using certified sealed bushings. The Terminal Enclosure contains suitably certified terminals for external connections by means of suitably certified cable glands.

The EWL-80..SB Version is powered from an External Power Source through a suitably certified barrier gland. It consists of a single lamp enclosure that containing an LED Board.

The Floodlights have an environmental protection rating of IP 66.

Nomenclature:

EWL / ...

Where

- ... Size 70, 80 100
- ... C Particular Model for Cold Environments (Size 80)
- SB Version VDC with only LED board
- / ... /10 versions with optic lens 10°
- /20 versions with optic lens 20°
- /40 versions with optic lens 40°
- /12 versions with 12 VDC (Size 80, 100)
- /24 versions with 24 VDC (Size 80, 100)
- /48 versions with 48 VDC (Size 80, 100)

The equipment has the following ratings:

Model	Input Power			LED BOARD
	Voltage	Frequency	Power	No of LED's
EWL-70 EWL-70/..	220 - 240 Vac	50-60 Hz	40W	18
EWL-80 EWL-80/.. EWL-80C EWL-80C/..	100 - 277 Vac	50-60 Hz	55W	
EWL-80/..12 EWL-80/..24 EWL-80/..48	12/ 24/ 48 Vdc	-	55W	
EWL-801 EWL-801/.. EWL-801C/..	220 - 240 Vac	50-60 Hz	110W	
EWL-80..SB	12/24/48Vdc	-	110W	
EWL-100	100 – 240 Vac	50-60 Hz	188W	



EWL-100/..	277 Vac 127 - 431 Vdc	-	
EWL-100/.. /12 EWL-100/.. /24 EWL-100/.. /48	12/ 24/ 48 Vdc	-	183W
EWL-1001	100 - 240 Vac 277 Vac 127 - 431 Vdc	50-60 Hz	177W

3 Conditions of manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- 3.1 Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- 3.2 The routine overpressure test shall be carried out on the flameproof enclosure with the static method (clause 15.1.3.1 of 60079-1 standard) at the pressure indicated on following table.

Model	Pressure values bar (PSI)	
	LED board compartment	Ballast compartment
EWL-80 EWL-801	12 (174)	10 (145)
EWL-70 EWL-80C EWL-801C	16 (232)	15.9 (231)
EWL-100 EWL-1001	15.3 (222)	23.4 (339)

- 3.3 The power and voltage rating marking on the label will be allocated in accordance with the table detailed in the description. The manufacturer will take all reasonable steps to ensure that the power dissipated by the terminal box does not exceed the maximum value stipulated in the table detailed in the description, and shall supply all the relevant information that will allow the installer/user to calculate the power dissipation (Watts) in accordance with IEC/EN 60079-7, Annex E, E.2 for each terminal box and install in accordance with IEC/EN 60079-14
- 3.4 All internal bushings are appropriately certified Ex components. They shall be installed in accordance with the certification documentation and the manufacturer's instructions. All specific Conditions of Certification/ Special Conditions for Safe Use/ Schedule of Limitations must be satisfied.
- 3.5 When terminals and terminal blocks are supplied with the enclosure they shall be appropriately certified Ex components. They shall be installed in accordance with the



certification documentation and the manufacturer's instructions. All specific Conditions of Certification/ Special Conditions for Safe Use/ Schedule of Limitations must be satisfied. A copy of the approved terminals certification shall be provided with the terminal box documents.

All creepage and clearance distances as defined in IEC 60079-7 Table 2 shall be observed for the voltage rating marking.

The terminals and terminal blocks fitted shall be suitable for the lower operating temperature marked on the certification label and must have a minimum operating temperature suitable for the temperature class as specified in the table below:

Temperature Class	Minimum Upper Continuous Operating Temperature
T6/ T85°C	80 °C
T5/ T100°C	90 °C

- 3.6 If the terminals are fitted with cables/wiring by the manufacturer; all creepage and clearance distances as defined in IEC 60079-7 Table 2 shall be observed. A routine dielectric strength test shall be carried out on each unit in accordance with IEC/EN 60079-7:2015, clause 7.1.

The test voltage shall be determined on the basis of the marked maximum rated voltage, with the appropriate safety factor and test duration applied in accordance with IEC/EN 60079-7:2015, clause 6.1. No flashover or breakdown shall occur.

A routine dielectric strength test shall be carried out on each unit in accordance with IEC/EN 60079-7:2015, clause 7.1.

The test voltage shall be 1500 V with the appropriate safety factor and test duration applied in accordance with IEC/EN 60079-7:2015, clause 6.1. No flashover or breakdown shall occur.

4 Conditions of Certification

None. Refer to manufacturer's instructions.