



## EU Type Examination Certificate CML 18ATEX3150X Issue 0

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment **Luminaire type LFEE**

3 Manufacturer **Cortem S.p.A.**

4 Address Via Aquileia 10  
34070 Villesse  
Gorizia  
Italy

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, Notified Body Number 2503, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN 60079-0:2012+A11:2013

EN 60079-1:2014


EN 60079-7:2015

EN 60079-18:2015

EN 60079-28:2015

EN 60079-31:2014

10 The equipment shall be marked with the following:

 II 2 G D

Ex db eb mb op is IIC T5/T6 Gb

Ex tb op is IIIC T70°C/T60°C Db IP66

-30°C ≤ Ta ≤ +55°C/+45°C (non-emergency versions)

-20°C ≤ Ta ≤ +55°C/+45°C (emergency versions)



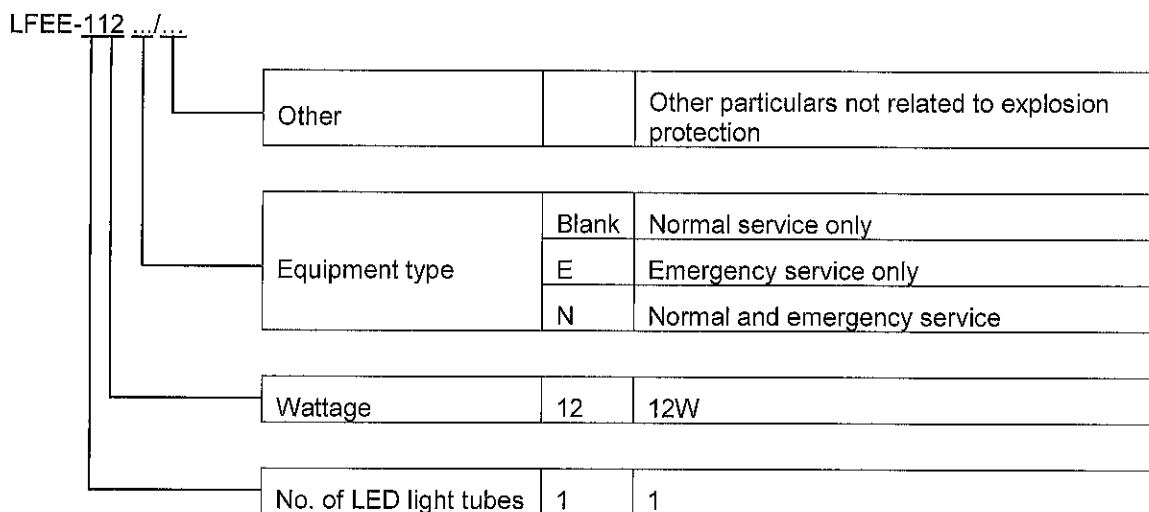
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### 11 Description

The Luminaires type LFEE are a series of increased safety LED luminaires for hazardous gas and dust environments requiring equipment protection levels Gb and Db.

The equipment comprises an encapsulated LED light tube, flameproof driver, optional flameproof inverter, and optional batteries, and optional indicator LED, all housed within a stainless steel enclosure with a glass or polycarbonate window. The equipment is intended to be mounted on a wall or bulkhead and one or two cable gland entries is provided for field wiring which is terminated to a component certified terminal block within the enclosure.

The part number defines the options available as follows:



### 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	15/06/2018	R11705A/00	Issue of prime certificate

Note: Drawings that describe the equipment or component are listed in the Annex.

### 13 Conditions of manufacture

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

- 13.1 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.



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- 13.2 The equipment shall be subjected to an electric strength test in accordance with IEC60079-7 Clause 6.1 using a test voltage of:
- 1500Vac applied between supply connections and frame, for a period of 60 secs
- Alternatively, a test voltage of 20% higher may be applied for 0.1 seconds.
- A DC test voltage is allowed as an alternative to the AC test voltage and shall be 140% of the specified AC r.m.s. test voltage.
- 13.3 Each encapsulated LED assembly shall be subjected to a routine dielectric strength test of 500V for 1 second, as per EN 60079-18 Clause 9.2. Alternatively, the test may be carried out at 1.2 times the test voltage for 100ms
- 13.4 The encapsulated LED assembly shall be subjected to a visual inspection. No damage shall be evident, such as cracks in the compound, exposure of the parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion, or softening.
- 13.5 When the equipment is supplied with integral Cortem NAV cable glands, the manufacturer shall ensure that copies of certificates IMQ 17ATEX016X and IECEx IMQ 17.0010X are made available to the equipment user and/or installer.

#### 14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- 14.1 For models with a polycarbonate window, under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
- 14.2 Cable entries into the equipment shall utilise suitably certified Ex eb IIC Gb/Ex tb IIIC Db cable glands and shall provide a minimum degree of protection of IP66, having a service temperature range of -30°C to +70°C.
- 14.3 Unused cable entry apertures shall be closed with suitably certified Ex eb IIC Gb/Ex tb IIIC Db blanking plugs which provide a minimum degree of protection of IP66, having a service temperature range of -30°C to +70°C.
- 14.4 This equipment contains flameproof joints. These are not intended to be repaired.

## Certificate Annex



**Certificate Number** CML 18ATEX3150X  
**Equipment** Luminaires type LFEE  
**Manufacturer** Cortem S.p.A.

The following documents describe the equipment or component defined in this certificate:

### Issue 0

Drawing No	Sheets	Rev	Approved date	Title
A4-7085 NT	1 to 3	0	15/06/2018	Luminaires Series LFEE Technical Note
A3-7084	1 to 4	0	15/06/2018	Lighting fixture series LFEE