



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 18.0198X

Issue No: 1

Certificate history:

Issue No. 1 (2019-08-21)

Issue No. 0 (2019-02-21)

Status: **Current**

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Date of Issue: **2019-08-21**

Applicant: **Wolf Safety Lamp Company Ltd.**
Saxon Road Works,
Sheffield, S8 0YA
United Kingdom

Equipment: **WF-300xxx and WF-250xxx LED Floodlight Luminaires**
Optional accessory:

Type of Protection: **Increased Safety, Encapsulation, Optical Radiation and Dust Protection by Enclosure**

Marking:

Ex eb mb op is IIC T4 Gb

Ex tb op is IIIC T118°C Db

Ta= -40°C to +55°C or

Ta= -40°C to +40°C when the optional protective cover is fitted

Approved for issue on behalf of the IECEx
Certification Body:

A Snowdon MIET

Position:

Certification Officer

Signature:
(for printed version)

Date:

August 21, 2019

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:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: **Wolf Safety Lamp Company Ltd.**
Saxon Road Works,
Sheffield, S8 0YA
United Kingdom

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 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 : 2017 Edition:7.0 | Explosive atmospheres - Part 0: Equipment - General requirements |
| IEC 60079-18 : 2014 Edition:4.0 | Explosive atmospheres – Part 18: Equipment protection by encapsulation "m" |
| 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/ExTR19.0006/00](#) [GB/CML/ExTR19.0140/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0017/08](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Wolf LED Floodlite comprises a two-part aluminium body with clear glass panel in the front cover, which is available in two sizes – the WF300xxx and the WF250xxx. The front cover is secured to the base unit via four M5 screws. The luminaire is intended for use in temporary or fixed installations and is provided with appropriate mounting brackets for this purpose.

Refer to certificate Annex for full product description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to certificate Annex for Specific Conditions of Use.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 1 / Issue 1

Refer to certificate annex for certificate changes.

Annex:

[IECEX CML 18.0198X Iss 1 Annex.pdf](#)

Annexe to: IECEx CML 18.0198X, Issue 1
Applicant: Wolf Safety Lamp Company Ltd.
Apparatus: WF-300xxx and WF-250xxx LED Floodlite
Luminaires



Description

The Wolf LED Floodlite comprises a two-part aluminium body with clear glass panel in the front cover, which is available in two sizes – the WF300xxx and the WF250xxx. The front cover is secured to the base unit via four M5 screws. The luminaire is intended for use in temporary or fixed installations and is provided with appropriate mounting brackets for this purpose.

Certified Increased Safety terminals, which provide connection facilities for incoming cables and internal wiring connections, are fitted to a retention bracket. One or two encapsulated driver modules are mounted on the retention bracket that is secured to the rear enclosure via two M5 screws. Each module powers an LED array mounted in the base unit. The LED array comprises 18 LEDs, each LED has an optic fitted over it and the complete assembly is encapsulated. Within the luminaire range there is a choice of optics giving different beam/illumination patterns.

Internal and external earthing facilities are provided and up to two cable entry holes are provided depending on customer requirements. Increased Safety/Dustproof certified glands or blanking plugs are used in conjunction with the cable entry holes. LV versions are certified between 0 to 50 V ac/dc and operate between 18V or 19V to 50 V. HV versions are certified between 0 to 264 V ac/dc.

Within the luminaire range linkable products can be specified which allow for numerous luminaires to be interlinked so power is fed from one point to multiple luminaires in a string configuration. The luminaire is certified for use with approved, sacrificial accessories.

Variation 1 / Issue 1

This variation introduced the following changes:

- i. The introduction of the model type WF-250xxx.
- ii. Update of standard to IEC 60079-0 Ed. 7.
- iii. To allow alternative component certified terminals to be utilised.
- iv. Amendment to the wording of a condition of manufacture.

Conditions of Manufacture

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

- i. 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.
- ii. At the conclusion of manufacture, and before shipping, each encapsulated LED Array, LV Driver, and HV driver shall be subject to a routine visual inspection to ensure no damage of the encapsulant is evident, such as cracks in the compound, exposure of the encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion, or softening.

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- iii. At the conclusion of manufacture, and before shipping, each encapsulated LV driver shall be subject to a routine dielectric strength test of 500 Vac rms, for a period of 60 seconds, without breakdown between the potting compound surface and the enclosure. Alternatively, a test at 1.2 times the test voltage may be applied for at least 100 ms. The test is also permitted to be conducted at a dc voltage of 140% of the specified rms test voltage.
- iv. At the conclusion of manufacture, and before shipping, each encapsulated HV driver shall be subject to a routine dielectric strength test of 1,528 V rms, for a period of 60 seconds, without breakdown between the potting compound surface and the enclosure. Alternatively, a test at 1.2 times the test voltage may be applied for at least 100 ms. The test is also permitted to be conducted at a dc voltage of 140% of the specified rms test voltage.
- v. At the conclusion of manufacture, and before shipping, each encapsulated LED Array shall be subject to a routine dielectric strength test of 700 Vdc, for a period of 60 seconds, without breakdown between the positive solder pad of the folded PCB and the surface of the potting compound directly above the positive solder pad. Alternatively, a test at 1.2 times the test voltage may be applied for at least 100 ms.
- vi. The equipment covered by this certificate incorporates component certified terminals; it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these terminals. The manufacturer shall inform CML of any modifications of the terminals that may impinge upon the explosion safety design of their products.
- vii. At the conclusion of manufacture, and before shipping, each set of component certified terminals fitted into the HV luminaires shall be subject to a routine dielectric strength test of 1,528 V rms, for a period of 60 seconds, without breakdown between the un-insulated live parts and the enclosure. Alternatively, a test at 1.2 times the test voltage may be applied for at least 100 ms. The test is also permitted to be conducted at a dc voltage of 140% of the specified rms test voltage.
- viii. Where the manufacturer fits cable entry devices, the manufacturer shall fit suitably IECEx equipment certified cable entry devices, marked Ex eb IIC and Ex tb IIIC Db. The cable entry devices shall maintain the degree of ingress protection IP64/67 and be suitable for an upper temperature of at least 75°C, as well as the lower ambient.
- ix. At the conclusion of manufacture, and before shipping, each set of component certified terminals fitted into the LV luminaires shall be subject to a routine dielectric strength test of 500 V rms, for a period of 60 seconds, without breakdown between the un-insulated live parts and the enclosure. Alternatively, a test at 1.2 times the test voltage may be applied for at least 100 ms. The test is also permitted to be conducted at a dc voltage of 140% of the specified rms test voltage.



Specific Conditions of Use

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

- i. The enclosure's paint-coated surface may be non-conducting and may generate an ignition-capable level of electrostatic charge under certain extreme conditions within a dust atmosphere. The user shall ensure that the equipment shall not be used in a location where the external conditions are conducive to the build-up of electrostatic charge on non-conductive surfaces. Additionally, the equipment shall only be cleaned with a damp cloth.
- ii. The equipment is certified for use with an approved range of accessories that are designed to protect the product and must be supplied by Wolf Safety. Refer to the manufacturer's instructions regarding the replacement frequency of the approved accessories.
- iii. Fitting the Protective Cover lowers the maximum ambient temperature from +55°C to +40°C.