

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 EXV 19.0079X** Page 1 of 4 Certificate history: Issue 0 (2021-09-13)

Issue No: 1 Status: Current

Date of Issue: 2024-01-24

Applicant: Wolf Safety Lamp Co. Limited

Saxon Road Works Sheffield, S8 0YA **United Kingdom**

Equipment: LFX, LHX & WAL series Luminaires & WTL Towerlite

Optional accessory:

Type of Protection: Increased safety, encapsulation, and dust

Marking: Ex eb mb IIC T4 Gb

Ex tb IIIC T110°C Db

T_a -50°C to +70°C (dependent on model type)

Approved for issue on behalf of the IECEx Sean Clarke CEng MSc FIET

Certification Body:

Position: **Certification Manager**

Signature:

(for printed version)

(for printed version)

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Certificate issued by:

ExVeritas Limited Units 16-18 Abenbury Way Wrexham Ind. Est. Wrexham LL 139UZ **United Kingdom**





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Date of issue: 2024-01-24 Issue No: 1

Manufacturer: Wolf Safety Lamp Co. Limited

Saxon Road Works Sheffield, S8 0YA United Kingdom

Manufacturing Wolf Safety Lamp Co. Limited

locations: Saxon Road Works

Sheffield, S8 0YA United Kingdom

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 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"

Edition:4.1

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

Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition:5.1

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 Reports:

GB/EXV/ExTR19.0086/00 GB/EXV/ExTR24.0003/00

Quality Assessment Report:

GB/BAS/QAR06.0017/10



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The LFX and LHX Luminaires are LED floodlight luminaires for Group IIC gas and Group IIIC dust hazardous atmospheres. The equipment comprises an aluminium enclosure with gland apertures at one end. The cover incorporates a sealed glass window, and the entire cover is removed to provide access to the user wiring terminals. The enclosures are IP66/67 rated.

Internally, the luminaire contains LED drivers, one or two LED light engines, and terminal blocks for user connections. Cable entry into the equipment is via suitably certified cable glands (not considered as part of this equipment). Feed through terminals are provided for ease of connection of multiple units.

The equipment is available in two sizes, each with two LED light engine options and each with two LED current options.

The WAL portable versions have the same spec as the LFX series but are portable and therefore are suitable for re-positioning when in use.

The Wolf Tower Light is a transportable tower light comprising of a telescopic tower capable of extending up to 5.5 metres and can be fitted with up to three LFX floodlights.

See Annex for product range part number breakdown.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Cable entries into the equipment shall utilise suitably certified cable glands and shall provide a minimum degree of protection of IP66 or IP67 (dependent on the installation environment).
- Unused cable entry apertures shall be closed with suitably certified blanking plugs which provide a minimum degree of protection of IP66 or IP67 (dependent on the installation environment).
- When used in potentially hazardous dust atmospheres, the equipment shall be installed so as to minimize the risk from electrostatic discharge. In particular, the equipment shall not be installed where there is a likelihood of there being a static generating mechanism, such as steam generation or fast moving particles over the surface of the equipment.
- The equipment shall only be used with a power source having a prospective short circuit current which does not exceed 1500 A.
- LFX2S-32 and WAL-725 floodlights shall not be mounted with the cable entry at the top. Additionally, the manufacturer may mark this version with a reduced upper ambient limit for use in uplighting applications.



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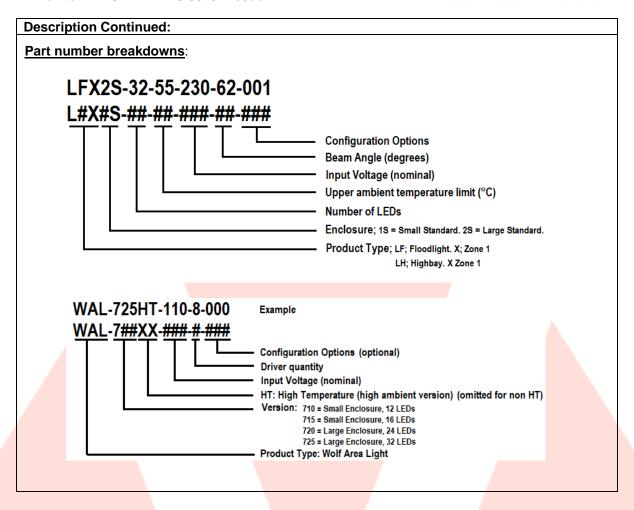
DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Introduction of a WTL Wolf Towerlite (tower light stand), a WAL Wolf Area Light portable model, new permitted orientations, new driver configurations and permitted ambient ranges.

Annex:

IECEx EXV 19.0079X Annex LFX.pdf





Routine Tests:

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

- 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.
- Each encapsulated LED assembly shall be subjected to a visual inspection. No damage shall be evident, such as cracks in the compound, exposure of the encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion (separation of any adhered parts) or softening.
- Each encapsulated LED assembly shall be subjected to an electric strength test in accordance with EN 60079-18, Clause 9.2, using a test voltage of:

500 Vac applied between the LED connection leads and the rear aluminium surface, for a period of 1 second.

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.

No flashover or breakdown shall occur.





The equipment shall be subjected to an electric strength test in accordance with EN 60079-7, Clause 6.1, using a test voltage of 1554 Vac 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.

No flashover or breakdown shall occur.

Manufacturer's documents:			
Title:	Drawing No.:	Rev. Level:	Date:
LD0203 - Encapsulated Light Engine Construction	LD-0203	03	10/03/2021
LD0204 - Small Floodlight Enclosure Construction (2 pages)	LD-0204	04	23/12/2020
LD0205 - Large Floodlight Enclosure Construction (2 pages)	LD-0205	04	15/03/2021
LD0206 – LFX12 LHX12 General Assembly	LD-0206	04	19/07/2021
LFX16 LHX16 General Assembly	LD-0207	04	28/02/2021
LD0208 – LFX24 LHX24 General Assembly	LD-0208	04	28/02/2021
LFX32 LHX32 General Assembly	LD-0209	04	28/02/2021
LE0006 PCB Layout	LD0210	2	12/03/2021
LE0007 PCB Layout	LD0211	2	12/03/2021
LD0212 Floodlight Lids General Assemblies (2 pages)	LD-0212	04	23/12/2020
Small Enclosure Floodlight Wiring Diagrams	LD-0213	04	20/01/2021
Large Enclosure Floodlight Wiring Diagrams	LD-0214	04	20/01/2021
LE0006 PCB Schematic	LD0218	2	12/03/2021
LE0007 PCB Schematic	LD0219	2	12/03/2021
*LFX LHX WAL Cert Label Drawings (2 pages)	LD-0220	05	21/12/2023
*LFX Floodlight & LHX High Bay Technical Manual (11 pages)	LD-0242	05	18/01/2024
*Wolf Portable Area Light (2 pages)	LD-0246	01	15/12/2023
*Tower Light (2 pages)	LD-0360	01	05/09/2023
*WTL Wolf Towerlite – Installation, Operation & Maintenance Instructions (5 pages)	LD-0361	1	-
*WAL Wolf Area Light – Operation and Maintenance Instructions (5 pages)	LD-0362	1	-

Note: An * is included before the title of documents that are new or revised for Issue 1.