

# 1 EU - Type Examination Certificate

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

3 Certificate Number: ExVeritas 19 ATEX 0586X Issue: 1

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

5 Manufacturer: Wolf Safety Lamp Company Ltd.

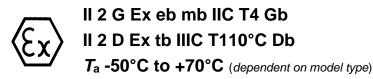
6 Address: Saxon Road Works, Sheffield, South Yorkshire, S8 0YA, United Kingdom

- 7 This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- 8 ExVeritas, Notified Body number 2804 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems for use in potentially explosive atmospheres given in Annex II to the Directive
- 9 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with the following Standards and section 16 of this certificate:

EN IEC 60079-0: 2018 EN IEC 60079-7:2015+A1:2018 EN 60079-18:2015+A1:2017

EN 60079-31:2014

- If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- This EU-Type Examination Certificate relates only to the design, construction, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- The marking of the equipment shall include the following:





On behalf of ExVeritas



Peter Lauritzen Managing Director

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# 13 <u>Description of Equipment or Protective System</u>

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.

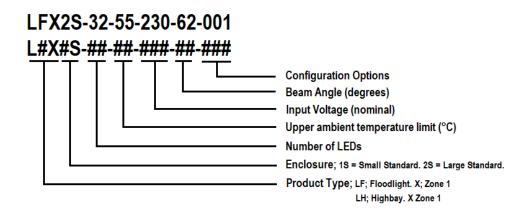
Internally, the luminaire contains LED drivers, one or two LED light engines, and terminal blocks for user connections. Cable entry into the equipment is via suitably certified cable glands (not considered as part of this equipment). Feed through terminals are provided for ease of connection of multiple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

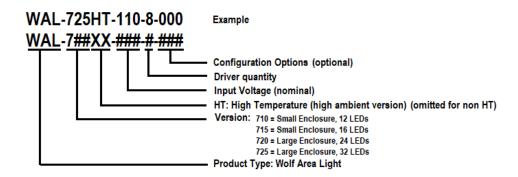
The equipment is available in two sizes, each with two LED light engine options and each with two LED current options.

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.

The model part numbers are broken down as shown below:





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# 14 <u>Descriptive Documents</u>

# 14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R3000/A/1	2021-09-08	0	Initial issue of the Prime Certificate
R3812/A/1	2024-01-23	1	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.

## 14.2 Compliance Drawings:

#### Issue 1

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  $^{\star}$  is included before the title of documents that are new or revised for Issue 1.

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# 15 <u>Conditions of Certification</u>

# 15.1 Special Conditions for Safe Use

- 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.

#### 15.2 Conditions for Manufacture - Routine tests

- 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.

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• 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.

# 16 Essential Health and Safety Requirements

Essential Health and Safety Requirements are addressed by the standards listed in section 9 and where required the report listed in section 14.1

The manufacturer shall inform the Notified Body of any modifications to the design of the product described by this schedule.

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