



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 CML 22.0083X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2023-11-23

Applicant: **The Wolf Safety Lamp Co. Limited**
Saxon Road Works
Sheffield S8 0YA
United Kingdom

Equipment: **Turbolite- Models A-TL44C & A-TL45C**

Optional accessory:

Type of Protection: **Special Protection "Ex s"**

Marking: Ex sb IIC T4 Gb
Ex sb IIIC T135°C Db
A-TL44C Ta= -15°C to +55°C
A-TL45C Ta= -20°C to +55°C

Approved for issue on behalf of the IECEx
Certification Body:

L A Brisk

Position:

Assistant Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

23 Nov 2023

1. This certificate and schedule may only be reproduced in full.
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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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Certificate No.: **IECEX CML 22.0083X**

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Date of issue: 2023-11-23

Issue No: 0

Manufacturer: **The Wolf Safety Lamp Co. Limited**
Saxon Road Works
Sheffield S8 0YA
United Kingdom

Manufacturing locations: **The Wolf Safety Lamp Co. Limited**
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 60079-33:2012](#) Explosive atmospheres – Part 33: Equipment protection by special protection “s”
Edition:1.0

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 Report:

[GB/CML/ExTR22.0212/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0017/11](#)



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Certificate No.: **IECEX CML 22.0083X**

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Date of issue: 2023-11-23

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Turbolite Luminaire is fitted with a 250W lamp and is powered by a compressed air driven integral turbine generator at 4 to 8 bar.

See Annex for full description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

See Annex for Specific Conditions of Use.

Annex:

[IECEX CML CML 22.0083X Iss. 0 Certificate Annex.pdf](#)

Annexe to: IECEx CML CML 22.0083X Issue 0
Applicant: Wolf Safety Lamp Company Ltd
Apparatus: Turbolite- Models A-TL44C & A-TL45C

Description

The Turbolite Luminaire is fitted with a 250W lamp and is powered by a compressed air driven integral turbine generator at 4 to 8 bar. The luminaire is manufactured from aluminium with either a reflector head assembly Type 45 or a bay light assembly Type 44. The air outlet is fitted with a particle trap that vents into the hazardous area. When the particle trap is replaced with additional hose fitted to the air outlet to take air to a safe area, this permits the luminaire to be used where there is a hazard from dust or fibres. The enclosure has blind threaded holes that provide mounting facilities. A bridle assembly may be fixed to these holes to permit the luminaire to be mounted on a hook.

The luminaire is connected to the air supply via suitable anti-static hose. The air inlet to the equipment includes an air regulator that is capable of adjustment using special tools. Adjustment of the regulator to achieve the correct lamp output is carried out in the safe area according to the manufacturer's instructions. The air supply is fed through the enclosure to the reflector head or bay light assembly, then back to the generator housing to power the turbine generator. The generator comprises a rotor fitted with permanent magnets, turbine wheel and ball bearings that runs inside a wound stator. The air is directed on to the turbine wheel and then exits the enclosure through the turbine housing cover via a particle trap or hose depending on the type reference. The housing cover is fixed in position by a machined spigot joint and three cap head screws.

The stator winding leads are connected to insulated connection screws with crimped cable lugs. The studs pass through the wall of the enclosure and further leads from the lamp holder are fitted to them with crimped cable lugs. The lamp holder is fixed to the turbine enclosure with screws and is able to accept M36 or M33 type lamps rated at 250W, 24V

The reflector head assembly comprises a conical housing with a toughened glass lens retained by a lens ring and high tensile strength cap head screws. A moulded gasket is used to seal the lens in the reflector head. A reflector is fitted inside the housing and this is also retained by the lens ring. The reflector head is fitted to the generator housing by a screw thread and an O-ring is used to seal the joint.

The bay light assembly comprises a ball glass fitted with a sealing gasket that fits into a recess in the generator housing. A metal washer is fitted over the gasket and a polycarbonate guard with integral lock screw ring is screwed on to the generator housing to provide clamping pressure. The lock screw ring has a number of holes to prevent the guard becoming pressurised in the event of a seal or ball glass failure.



Certificate Annex IECEx
 Version: 9.0 Approval: Approved

Eurofins E&E CML Limited
 Newport Business Park
 New Port Road
 Ellesmere Port
 CH65 4LZ

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

www.cmlex.com

Company Reg No. 8554022 VAT No. GB163023642



Conditions of Manufacture

None

Specific Conditions of Use

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

- i. The equipment shall only be supplied with air from a clean dry source, free from contamination with hazardous gas, dust or fibres.
- ii. When used in the presence of combustible dust the equipment air outlet shall be fitted with additional hose so that this can be piped to a safe area instead of venting into the hazardous area.
- iii. Hoses fitted to the equipment shall be anti-static with a resistance between 10^4 and 10^8 ohms