

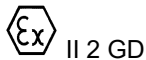
UK Type Examination Certificate CML 21UKEX3646X Issue 0**United Kingdom Conformity Assessment**

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **Worklite Type WL-** Luminaire**
- 3 Manufacturer **The Wolf Safety Lamp Co. Limited**
- 4 Address **Saxon Road Works,
Sheffield, S8 0YA,
United Kingdom**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

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 specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.
- 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 IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018 EN 60079-11:2012
EN 60079-18:2015+A1:2017 IEC 60079-31:2022 Ed. 3

- 10 The equipment shall be marked with the following:



Ex eb ib mb IIC T4 Gb

Ex tb IIIC T135°C Db

IP64¹/66/67T_{amb}= -20°C to +40°C/+45°C²/+50°C³¹ Not WL-50 or WL-50HT² WL-50 Only³ WL-50HT Only



CML 21UKEX3646X
Issue 0

11 Description

The Wolf Worklite Type WL-** is a portable battery powered luminaire for use in a hazardous area. It comprises a 12 V, sealed lead acid battery and encapsulated electronics, these are housed inside a stainless-steel enclosure that is intended to provide an ingress protection to at least IP64/66/67. The enclosure comprises a welded frame which secures a lamp head containing an array of LEDs. The lamp housing can be swivelled to point the light in the desired direction. Also attached to the welded frame above the lamp housing is a carry handle made from stainless steel.

There are six versions of the Worklite:

WL-85 Worklite -18 LED lamp head, 12 V, 35 Ah battery

WL-80 Worklite -18 LED lamp head, 12 V, 18 Ah battery

WL-75 Worklite-12 LED lamp head, 12 V, 35 Ah battery

WL-70 Worklite -12 LED lamp head, 12 V, 18 Ah battery

WL-50 Worklite –18 LED lamp head, 12 V, 10 Ah battery

WL-50HT Worklite -18 LED lamp head, 12 V, 9 Ah battery.

The battery and the encapsulated electronic block are situated inside the steel housing and are held in place using plastic packing material. The battery is fitted with vents to allow gases generated by the cells to escape outside the battery housing.

The lamp comprises a panel of high output LEDs (either an array of 12 or 18) and a terminal block, both mounted behind a 5.8mm toughened glass window and inside an extruded aluminium heat sink, which forms part of the lamp housing. Connections between the lamp and the encapsulated electronics are made via a braided, multi-core cable through Ex e approved glands at each end.

The encapsulated control electronics ensure a constant current supply to the lamp LEDs giving maximum light output. Fitted to the battery enclosure lid is an intrinsically safe push-button, this controls the output in high power or low power mode, offering extended battery life on the low power setting. Also fitted to the lid is an intrinsically safe indication LED, this indicates the state of charge for the battery. The control circuit uses a microcontroller to monitor the battery voltage and cut off the connection to the battery to prevent deep discharge. The battery is recharged in the safe area and the charging socket is fitted with a blanking cover.

Design Options:

Option 1 -Alternative internal wiring scheme using a 6-way terminal block in place of the existing 8-way terminal block was recognised.

Option 2 -Adhesive label marking option.

Option 3 -Option to use an anti-static protective bag with the WL-50 / WL-50HT versions



CML 21UKEX3646X
Issue 0

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	06 May 2022	R14154B/00	Issue of the prime certificate.

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

13 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. Each encapsulated LED Array and 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.
- iii. 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.
- iv. Each encapsulated Driver shall be subject to a routine dielectric strength test of 700 Vdc, for a period of 60 seconds, without breakdown between the charge input crowbar PCB connection lead and the surface of the potting compound directly above the charge input crowbar PCB, alternatively a test at 1.2 times the test voltage may be applied for at least 100 ms. These test locations shall be chosen irrespective of the internal or external fitting of crowbar circuit.
- v. Each set of component certified terminals fitted into the Battery Housing or LED Housing shall be subject to a routine dielectric strength test of 700 Vdc, 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.
- vi. Each battery used within the equipment shall be subject to a routine insulation resistance test of 100 V between the battery terminal and the battery enclosure, producing a resistance reading of not less than 1 MΩ.
- vii. Each luminaire shall be subject to a routine dielectric strength test of 700 Vdc, for a period of 60 seconds, without breakdown between the positive charging socket pin and the carry handle. Alternatively, a test at 1.2 times the test voltage may be applied for at least 100 ms.
- viii. The manufacturer shall fit suitably certified cable entry devices that are certified to EN 60079-0, EN 60079-7, and EN 60079-31. The cable entry devices shall maintain the degree of ingress protection IP64/66/67 considering the interface sealing arrangement and limiting temperatures of the equipment. The cable entry devices shall be suitable for the final application.



**CML 21UKEX3646X
Issue 0**

ix. The WL-50 versions of the equipment shall include ventilation openings for when the battery is being charged.

14 Specific Conditions of Use

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

i. The equipment is approved with a range of accessories that are designed to protect the product. Only authorised spare parts shall be used, refer to the manufacturer's instructions regarding the replacement frequency of the approved accessories.

Certificate Annex

Certificate Number CML 21UKEX3646X
Equipment Worklite Type WL-** Luminaire
Manufacturer The Wolf Safety Lamp Co. Limited



The following documents describe the equipment defined in this certificate:

Issue 0

For all drawings, refer to attached certificate CML 18ATEX3373X.