



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 17ATEX3035X** Issue: **1**

4 Equipment: **WF-300xxx LED Floodlite Luminaire**

5 Applicant: **Wolf Safety Lamp Company Ltd.**

6 Address: Saxon Road Works
Sheffield S8 0YA
England

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012+A11:2013 EN 60079-7:2015 EN 60079-18:2015
EN 60079-28:2015 EN 60079-31:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2 G D
Ex eb mb op is IIC T4 Gb
Ex tb op is IIIC T118°C Db
Ta = -40°C to +55°C

P.P. A.G. Boyes

Project Number 70157427

C Ellaby
Deputy Certification Manager

This certificate and its schedules may only be reproduced in its entirety and without change.

Sira Certification Service

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13 DESCRIPTION OF EQUIPMENT

The Wolf LED Floodlite comprises a two part aluminium metal body with clear glass panel in the front cover. The front cover is secured to the base unit using 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. Two encapsulated driver modules are mounted on the retention bracket that is secured to the rear enclosure using two M5 screws. Each module powers an LED array mounted in the base unit. The LED array comprises of 18 LEDs, each LED has an optic fitted over it and the complete assembly is encapsulated. Within the luminaire ranges there is a choice of optics giving different beam/illumination patterns.

Internal and external earthing facilities are provided, 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. The LV version is certified between 0 to 50V AC/DC and operates between 18V to 50V. The HV version is certified between 0 to 264V AC/DC and has an operational voltage of 90V to 264V.

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.

Variation 1 - This variation introduced the following changes:

- i. Update of certification drawings to cover minor amendments.
- ii. Removal of the paint spray cover in the form of a plastic bag and the shot blast cover as approved accessories, the marking, product description, Conditions of Manufacture, and Specific Conditions Of Use were amended accordingly.
- iii. Addition of optional top and bottom retention plates for the glass window.
- iv. Reissuance and renumbering of driver drawings.
- v. Alteration of the electronic components in the driver circuit.
- vi. Addition of new driver encapsulant material.
- vii. The Specific Conditions Of Use regarding the electrostatic charging hazard was clarified.
- viii. The Condition of Manufacture regarding the paint spray cover in the form of a plastic bag was removed.
- ix. The Condition of Manufacture regarding the component certified terminals was clarified for the HV luminaires.
- x. A Condition of Manufacture regarding the component certified terminals was added for the LV luminaires.
- xi. The Specific Conditions Of Use regarding the paint spray cover in the form of a plastic bag was removed.
- xii. The product description was clarified relating to the product name/model number and the lower voltage range of the LV version of the product was changed from 19V to 18V.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

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14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	08 August 2017	R70055377A	The release of the prime certificate.
1	06 December 2017	R70157427A	The introduction of Variation 1.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 The enclosures paint coated surface is 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 installed 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.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- 17.3 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.
- 17.4 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 ac rms test voltage.
- 17.5 At the conclusion of manufacture, and before shipping, each encapsulated HV driver shall be subject to a routine dielectric strength test of 1528 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 ac rms test voltage..
- 17.6 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.
- 17.7 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 Sira of any modifications of the terminals that may impinge upon the explosion safety design of their products.

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- 17.8 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 1528Vac 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 ac rms test voltage.
- 17.9 Where the manufacturer fits cable entry devices, the manufacturer shall fit suitably certified cable entry devices that are certified to the same edition of EN 60079-0, EN 60079-7, and EN 60079-31 to which the equipment is certified. The cable entry devices shall maintain the degree of ingress protection IP64/67.
- 17.10 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 500Vac 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 ac rms test voltage.

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Certificate Annexe

Certificate Number: Sira 17ATEX3035X
Equipment: WF-300xxx LED Floodlite Luminaire
Applicant: Wolf Safety Lamp Company Ltd.



Issue 0

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
WF-701	1 to 1	H	04 Aug 17	WF-300XL – General Assembly
WF-711	1 to 1	H	04 Aug 17	WF-300XL – Approval
WF-804	1 to 1	D	04 Aug 17	Folded PCB LED Array
LX-803	1 to 1	2	04 Aug 17	LED LinkEx Compact HV MK2 Potted Driver Assembly
LX-825	1 to 1	2	04 Aug 17	LED LinkEx Compact LV MK2 Potted Driver Assembly

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Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
WF-701	1 to 1	2	04 Dec 17	WF-300XL – General Assembly
WF-711	1 to 1	3	05 Dec 17	WF-300XL – Approval
WF-804	1 to 1	2	04 Dec 17	Folded PCB LED Array
WF-803	1 to 1	1	31 Oct 17	HV MK2 Potted Driver for WF-300XL
WF-825	1 to 1	1	31 Oct 17	LV MK2 Potted Driver for WF-300XL

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