1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 10ATEX5117X** Issue: **2**

4 Equipment: **Wolf LED Floodlite WF-3XX**

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

6 Address: Saxon Road Works
Sheffield
S8 0YA
UK

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 Article 9 of Directive 94/9/EC of 23 March 1994, 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 60079-0:2006 EN 60079-7:2007 IEC 60079-18:2009 EN 61241-0:2006 EN 61241-1:2004
IEC 60079-0:2007 (used for guidance in respect of marking)

10 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.

11 This EC 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 2GD
Ex emb IIC T4 Gb Ta = -20°C to +50°C
Ex t IIIC T103°C Db IP66/IP67

Project Number 26505

D R Stubbings BA MIET
Certification Manager







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13 **DESCRIPTION OF EQUIPMENT**

The Wolf LED Floodlite WF-3XX comprises an aluminium or stainless steel rectangular base with clear or translucent polycarbonate cover. The cover is secured to the base by four M6 x 16mm screws. The module is intended for use in temporary fixed installations and is provided with appropriate mounting brackets for this purpose.

The base of the enclosure houses an encapsulated power supply and control board. An LED assembly is mounted to the base of the enclosure and sits above the encapsulated power supply and control board, but behind the outer polycarbonate cover. The LED assembly comprises two compartments, each with integral polycarbonate cover, which are effectively encapsulated onto an aluminium base plate. Each compartment is fitted with 24 LEDs; the LEDs can be white, infra red, coloured or a combination.

The base of the enclosure is also fitted with Exe certified terminals which provide connection facilities for incoming cables and between the control board and LED assembly. The interior of the enclosure may also be fitted with an encapsulated fuse assembly. Internal and external earthing facilities are provided.

Up to 8 cable entry holes may be provided depending on customer requirements.

The units are designed for use on an electrical supply of 100-240V 50/60Hz or alternatively 24V ac/dc.

An optional photocell may be supplied, which is located in an appropriate cable entry hole and provided with a steel or stainless steel shroud.

Up to 6 modules may be interlinked to provide overall higher output assemblies.

**Variation 1** - This variation introduced the following changes:

i. The Wolf LED Floodlite WF-3XX has now been assessed and approved for use with a stand as a portable product, without the need for special condition for safe use 15.1. from the original certification.
ii. The optional application of a removable plastic film to the exterior of the polycarbonate cover is approved.
iii. The recognition of a modification to Special Condition for Safe Use 15.9 from the original certification. The Special Condition for Safe Use is modified to state: “The LED assembly shall be replaced following the failure of no more than 8 individual LEDs.”
iv. The optional addition of a coloured glass plate to the inside of the LED assembly housing was endorsed.

**Variation 2** - This variation introduced the following changes:

i. The inclusion of two alternative encapsulated power supply and control board assemblies was approved.
ii. The optional addition of an aluminium battery housing to the rear of the unit, to allow battery operation was endorsed.





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## 14 DESCRIPTIVE DOCUMENTS

### 14.1 Drawings

Refer to Certificate Annexe.

### 14.2 Associated Sira Reports and Certificate History

| Issue | Date | Report number | Comment |
|---|---|---|---|
| 0 | 19 April 2010 | R21229A/00 | The release of the prime certificate. |
| 1 | 21 October 2010 | R23565A/00 | The introduction of Variation 1. |
| 2 | 09 March 2012 | R26505A/00 | The introduction of Variation 2. |

14.3 Certificate number Sira 10ATEX5115X Issue 2

## 15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

15.1 The Wolf LED Floodlite WF-3XX shall not be moved while connected to an electrical supply. When in use, the equipment shall be supported and mounted in a fixed and stable arrangement.

15.2 Except for internal wiring, not more than one single or multiple strand lead shall be connected into either side of any terminal, unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated crimped boot lace ferrule.

15.3 Leads connected to the terminals shall be insulated for the appropriate voltage and this insulation shall extend to within 1 mm of the metal of the terminal throat.

15.4 When terminals in accordance with certificate IECEx SIR 05.0035U are used, all terminal screws, used and unused, shall be tightened down to between 0.5 Nm and 0.7 Nm.

15.5 When terminals in accordance with certificate IECEx SIR 05.0037U are used, all terminal screws, used and unused, shall be tightened down to between 1.2 Nm and 2 Nm.

15.6 When terminals in accordance with certificates IECEx SIR 05.0035U and IECEx SIR 05.0037U are used, they shall only be installed and wired with cable within a temperature range of -10°C to 80°C.

15.7 When cross-connecting combs are used on terminals to certificates IECEx SIR 05.0035U and IECEx SIR 05.0037U, the relevant conditions of certification associated with those certificates shall be applied.

15.8 Cable entry holes shall be fitted with either an appropriately certified cable gland or appropriately certified blanking element. These shall provide and maintain a minimum enclosure ingress protection of IP66 or IP67 as appropriate.

15.9 The LED assembly shall be replaced following the failure of no more than 8 individual LEDs.

15.10 When the optional fuse is not fitted, the supply circuit must be protected by a fuse capable of withstanding a prospective short circuit current of 1500A.

## 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.





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## 17 CONDITIONS OF CERTIFICATION

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

17.3 Every unit, including fuse assembly when fitted, shall be subjected to a routine dielectric strength test of at least 1508 V r.m.s. a.c. applied for at least 1 s, or at least 1810 V r.m.s. a.c. applied for at least 100 ms, between all terminals and the equipment enclosure, in accordance with Clause 9.2 of IEC 60079-18:2009.

17.4 Every unit shall be subjected to a visual inspection in accordance with Clause 9.1 of IEC 60079-18:2009.





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# Certificate Annexe

**Certificate Number:** **Sira 10ATEX5117X**

**Equipment:** **Wolf LED Floodlite WF-3XX**

**Applicant:** **Wolf Safety Lamp Co. Ltd.**

**Issue 0**

| Drawing No. | Sheets | Rev. | Date (Sira stamp) | Title |
|---|---|---|---|---|
| WF – 901 | 1 of 1 | 1 | 19 Apr 10 | Floodlite Approval Label |

**Issues 1 and 2** No new drawings were introduced.







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