



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 14.0034X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 3	Issue 2 (2018-10-30)
Date of Issue:	2021-02-17		Issue 1 (2015-11-17)
			Issue 0 (2014-12-18)
Applicant:	Hubbell Ltd T/A Chalmit Lighting 388 Hillington Road Glasgow G52 4BL United Kingdom		
Equipment:	Scotia Series and KF1L Series LED Luminaires		
Optional accessory:			
Type of Protection:	Flameproof "db", Increased Safety "eb", Dust Ignition "tb"		
Marking:	Ex db eb IIB (+H ₂ Option) T* Gb Ex tb IIIC T**°C Db IP66 (STD Version) Ta=-20°C to xx°C (LT Version) Ta=-50°C to xx°C See tables in full Description in Annex for T class and Ta		

Approved for issue on behalf of the IECEx
Certification Body:

R C Marshall

Position:

Operations Manager

Signature:
(for printed version)

Date:

2021-02-17

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



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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Manufacturer: **Hubbell Ltd T/A Chalmers Lighting**
388 Hillington Road
Glasgow
G52 4BL
United Kingdom

Additional manufacturing locations: **Killark, a Division of Hubbell Inc. (Delaware)**
3940 Dr. Martin Luther King Drive
St. Louis
Missouri 63113
USA
United States of America

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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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 Reports:

[GB/CML/ExTR14.0037/00](#)
[GB/CML/ExTR21.0019/00](#)

[GB/CML/ExTR15.0092/00](#)

[GB/CML/ExTR18.0164/00](#)

Quality Assessment Reports:

[GB/BAS/QAR06.0027/09](#)

[GB/SIR/QAR16.0021/04](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Scotia luminaires are LED based units that have integrated driver electronics and are rated at 120 to 277 V ac 50/60Hz.

Refer to Annex for full description and conditions of manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Annex for specific conditions of use.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1

This issue introduced the following modifications:

1. To allow alternative LED driver.
2. Transient suppressor is now optional
3. The dust surface temperatures have been aligned with the temperature classes

Issue 2

This issue introduced the following modifications:

1. The addition of new model numbers (KF1L series)
2. The addition of an alternative manufacturing location
3. Updates to the latest editions of the standards
4. Update of drawing to correct typographical error

Issue 3

This issue introduced the following modifications:

1. Change to Chalmit model numbers.
2. Clarification in drawing H031521 that low temperature hydrogen IIB+H2 version shall be routine pressure tested to 13 Bar for 15 seconds.

Annex:

[IECEx CML 14.0034X Iss. 3 Certificate Annex.pdf](#)

Annex to: IECEx CML 14.0034X Iss. 3
Applicant: Hubbell Ltd T/A Chalmit Lighting
Apparatus: Scotia and KF1L Series LED Luminaires



Description

The Scotia luminaires are LED based units that have integrated driver electronics and are rated at 120 to 277 V ac 50/60 Hz.

The enclosures are cast from an aluminium alloy, EN1706 AC-44100KF LM6. The cover of the luminaire is secured to the main enclosure using twelve M8 fastening screws, forming a flanged joint, and has a tempered glass rectangular window cemented into position. The array of LEDs is mounted inside a flameproof compartment, behind the window. There is a separate flameproof compartment housing the driver circuit which is segregated from the LED compartment by a component approved bushing. There is a flanged joint formed by a cover on the other side of the driver circuit compartment, on the back of the luminaire, secured by another twelve M8 fasteners. This back cover has another compartment moulded into it which houses some component approved increased safety terminals. This increased safety compartment is segregated from the driver circuit compartment by another bushing, has a cover which is secured by four fastening screws and has two M20 entries with the alternative option of M25 threaded entries in the sides. The luminaires may be fitted externally with a handle, a reflector and a wire guard.

There are several variants with different ratings, these are described in the tables below.

Type identification	Watts **	Current *A	T* @ Ta 40°C	T* @ Ta 55°C	T***C @ Ta 40°C	T***C @ Ta 55°C
SCOD/**L/LE/*	125	1.0 – 0.5	T6	T5	T85°C	T100°C
SCOD/**L/LE/*	110	0.9 – 0.4	T6	T5	T85°C	T100°C
SCOD/**L/LE/*	105	0.9 – 0.4	T6	T5	T85°C	T100°C
SCOD/**L/LE/*	90	0.8 – 0.4	T6	T5	T85°C	T100°C

** = Lumens (x1000) up to a maximum of 15

* = Options where LT is low temperature routine pressure testing see table below



Type Identification /*	Description
LT	Low temperature version, lower Ta = -50°C
M25	M25 entry option
H2	Gas group IIB+H ₂

All fasteners used to secure flameproof joints are stainless steel with a minimum grade of A4.

The equipment may also be supplied and marked with the following model numbers:

Type identification	Watts **	Current *A	T* @ Ta 40°C	T* @ Ta 55°C	T***C @ Ta 40°C	T***C @ Ta 55°C
KF1L19530	195	1.6 – 0.7	T5	N/A	T85°C	N/A
KF1L16530	165	1.4- 0.6	T5	N/A	T85°C	N/A
KF1L15030	150	1.3- 0.5	T5	N/A	T85°C	N/A
KF1L12530	129	1.0-0.5	T6	T5	T85°C	T100°C
KF1L11030	111	0.9-0.4	T6	T5	T85°C	T100°C
KF1L10530	103	0.9-0.4	T6	T5	T85°C	T100°C
KF1L09030	79	0.8-0.4	T6	T5	T85°C	T100°C

(N/A = combination of power and ambient temperature is not allowed).

Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- 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.
- The LED compartment of each unit marked for a low ambient temperature of -50°C and gas group IIB+H₂ shall be subjected to a 13 Bar hydrostatic routine overpressure test, for 15 seconds, in accordance with EN/IEC 60079-1 clause 16. There shall be no deformation or damage to the enclosure.

- iii. Each unit manufactured shall be subjected to a dielectric strength test of $(1,000 + 2U) \times 1.2$ which shall be applied for a minimum of 100 ms in accordance with EN/IEC 60079-7 clause 6.1 (the LED driver may be disconnected for the test). There shall be no breakdown.
- iv. Equipment shall be marked in accordance with the Tables in Section 11.
- v. When adaptors and stopping plugs are used in the construction of the luminaires, the manufacturer shall ensure that they are installed in accordance with any Special Conditions for Safe Use associated with them.

Specific Conditions of Use

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

- i. In accordance with EN/IEC 60079-1 clause 5.1, the critical dimensions of all non-threaded flamepaths are: 9.5 mm minimum in length with a 0.05 mm maximum gap.
- ii. The 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.
- iii. All terminal screws, used and unused, shall be tightened to between 1.2 Nm and 2 Nm.
- iv. The fixture shall only be installed and wired in an ambient temperature of -10°C to +80°C.