1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: Sira 05ATEX1299X

4 Equipment: Lomond and Lomond E Ranges of Luminaires

5 Applicant: Chalmit Lighting

6 Address: 388 Hillington Road
Glasgow
G52 4BL
Scotland
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 confidential report number R51A14320A.

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 60079-0:2004
EN 60079-1:2004
EN 60079-7:2003
EN 50281-1-1:1999

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:

Lomond:

II 2 G D
EEx d IIB T6 (T_a = -20°C to +55°C) or
EEx d IIC T6 (Ta = -20°C to +55°C) or
EEx d IIB T6 (T_a = -20°C to +53°C) or
EEx d IIB T6 (T_a = -20°C to +49°C) or
EEx d IIB T6 (T_a = -20°C to +44°C) or
EEx d IIB T5 (T_a = -20°C to +55°C)

Lomond E:

II 2 G D
EEx de IIB T6 (T_a = -20°C to +55°C) or
EEx de IIC T6 (Ta = -20°C to +55°C) or
EEx de IIB T6 (T_a = -20°C to +52°C) or
EEx de IIB T6 (T_a = -20°C to +48°C) or
EEx de IIB T5 (T_a = -20°C to +55°C)

Project Number 51A14320
Date 12 December 2005
C. Index 05

C Ellaby
Certification Officer

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 05ATEX1299X

13 **DESCRIPTION OF EQUIPMENT**

The Lomond and Lomond E ranges of luminaires comprises a lamp glass assembly with two end caps. The design allows the installation of either single or double, T8, fluorescent, bi-pin lamps. The end caps are manufactured from aluminium alloy and are sealed to the glass tube by Robnor Resins Type EL116F cement. The integrity of the cement seal is maintained by the external lamp reflector, which extends over the length of the lamp glass assembly and is permanently attached to each end cap. One end cap is designed to accommodate a ballast housing that is located by means of a conical spigot joint. The ballast housing is secured by means of two, M10 x 35, stainless steel screws. The ballast housing is manufactured from aluminium alloy and contains various types of lamp control gear that are potted in place. Alternatively, on the 8 W version, the lamp ballast may be installed on the gear tray behind the fluorescent tube/s to allow connection to UPS systems. Either two M25 or M20 threaded entry points are provided in the ballast housing wall for the installation of suitable cable or conduit entry devices. In addition, the ballast housing may also be supplied tapped with the neares,t equivalent, alternative cable entry threadform from the list below, to the standard metric type supplied compliant to BS3643:1981, medium fit (6H) for internal threads:

NPT to ANSI/ASME B1.20.1:1983, gauging to clause 8.2 for internal threads
NPT to USAS B2.1:1968, gauging to clause 37 for internal threads
ISO to 7/1:1982, gauging to ISO 7/2 clause 8.2 for internal threads (Rc)
BSPT to BS 21:1985, standard threads only as clause 5.4, gauging to clause 5.2, system A
BSPP to BS 2779:1986 for internal threads
PG to DIN 40430:1971
ET (conduit) to BS 31:1940 (1979) Table A

The Lomond range of luminaires are defined as follows:

Model	Length (feet)	Certification Code
8 W	1	EEx d IIB T6 (Ta = -20°C to +55°C) or EEx d IIC T6 (Ta = -20°C to +55°C)
18 W	2	EEx d IIB T6 (Ta = -20°C to +55°C) or EEx d IIC T6 (Ta = -20°C to +55°C)
36 W	4	EEx d IIB T6 (Ta = -20°C to +53°C) or EEx d IIB T5 (Ta = -20°C to +55°C)
58 W	5	EEx d IIB T6 (Ta = -20°C to +49°C) or EEx d IIB T5 (Ta = -20°C to +55°C)
70 W	6	EEx d IIB T6 (Ta = -20°C to +44°C) or EEx d IIB T5 (Ta = -20°C to +55°C)

The Type Lomond E range of luminaires are the same in design as the Type Lomond Range with the exception that the Lomond E are a range of emergency luminaires as they incorporate a battery pack. The Lomond E Range has the following certification codes

Model	Length (feet)	Certification Code
8 W	1	EEx de IIB T6 (Ta = -20°C to +55°C) or EEx de IIC T6 (Ta = -20°C to +55°C)
18 W	2	EEx de IIB T6 (Ta = -20°C to +55°C) or EEx de IIC T6 (Ta = -20°C to +55°C)
36 W	4	EEx de IIB T6 (Ta = -20°C to +52°C) or EEx de IIB T5 (Ta = -20°C to +55°C)
58 W	5	EEx de IIB T6 (Ta = -20°C to +48°C) or EEx de IIB T5 (Ta = -20°C to +55°C)

Date 12 December 2005

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE Sira 05ATEX1299X

14 **DESCRIPTIVE DOCUMENTS**

14.1

Drawing	Sheet	Rev.	Date (Sira stamp)	Description
A7496	1 of 1	-	07 Dec 05	Typical Lomond Nameplate
LA315	1 of 1	4	07 Dec 05	Type VL51A Flameproof Fluorescent Luminaire
LA320	1 of 1	3	07 Dec 05	Type VL52A Flameproof Emergency Fluorescent Luminaire
LA394	1 of 1	0	07 Dec 05	Types VL51A & VL52A Alternative Arrangements

14.2 Report number R51A14320A

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

15.1 The Lomond and Lomond E ranges of luminaires shall only be installed in areas where there is a low impact risk.

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 report number R51A14320A.

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 Each enclosure shall be subjected to a routine overpressure test in accordance with the table below:

Model	Length (feet)	Hydrostatic Overpressure Test Pressure Applied IIB		Hydrostatic Overpressure Test Pressure Applied IIC	
		bar	lbf/in^2	bar	lbf/in^2
8 W Lomond E	1	8.30	120.35	12.90	187.70
8 W Lomond	1	8.30	120.35	11.23	162.84
18 W Lomond & Lomond E	2	8.30	120.35	12.06	174.87
36 W Lomond & Lomond E	4	7.05	102.23		
58 W Lomond & Lomond E	5	9.84	142.68		
70 W Lomond	6	12.24	177.48		

When the luminaire is manufactured in accordance with drawing LA394, the routine overpressure test shall be in accordance with the table below:

Model	Length (feet)	Hydrostatic Overpressure Test Pressure Applied IIB	
		Bar	Lbf/in^2
18 W Lomond & Lomond E	2	10.9	158
36 W Lomond & Lomond E	4	9.4	137
58 W Lomond & Lomond E	5	12.0	174

In all cases the pressure shall be maintained for at least 10 s as required by clause 16.1 of EN 60079-1:2004. There shall be no permanent deformation or damage to the enclosure.

5.2 Only the labels that are shown on drawing number A7496 shall be fitted to the Lomond and Lomond E luminaires.

Date 12 December 2005

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1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 05ATEX1299X** Issue: **1**

4 Equipment: **Lomond and Lomond E Ranges of Luminaires**

5 Applicant: **Chalmit Lighting**

6 Address: 388 Hillington Road
Glasgow G52 4BL
Scotland
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 60079-0:2004 EN 60079-1:2004 EN 60079-7:2003 EN 50281-1-1:1999

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:

Lomond:

II 2 G D
Ex d IIB T6 (T_a = -20°C to +55°C) or
Ex d IIC T6 (Ta = -20°C to +55°C) or
Ex d IIB T6 (T_a = -20°C to +53°C) or
Ex d IIB T6 (T_a = -20°C to +49°C) or
Ex d IIB T6 (T_a = -20°C to +44°C) or
Ex d IIB T5 (T_a = -20°C to +55°C)

Lomond E:

II 2 G D
Ex de IIB T6 (T_a = -20°C to +55°C) or
Ex de IIC T6 (Ta = -20°C to +55°C) or
Ex de IIB T6 (T_a = -20°C to +52°C) or
Ex de IIB T6 (T_a = -20°C to +48°C) or
Ex de IIB T5 (T_a = -20°C to +55°C)

Project Number 23902

C Ellaby
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13 **DESCRIPTION OF EQUIPMENT**

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NPT to ANSI/ASME B1.20.1:1983, gauging to clause 8.2 for internal threads
NPT to USAS B2.1:1968, gauging to clause 37 for internal threads
ISO to 7/1:1982, gauging to ISO 7/2 clause 8.2 for internal threads (Rc)
BSPT to BS 21:1985, standard threads only as clause 5.4, gauging to clause 5.2, system A
BSPP to BS 2779:1986 for internal threads
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The Lomond range of luminaires are defined as follows:

Model	Length (feet)	Certification Code
8 W	1	Ex d IIB T6 (Ta = -20°C to +55°C) or Ex d IIC T6 (Ta = -20°C to +55°C)
18 W	2	Ex d IIB T6 (Ta = -20°C to +55°C) or Ex d IIC T6 (Ta = -20°C to +55°C)
36 W	4	Ex d IIB T6 (Ta = -20°C to +53°C) or Ex d IIB T5 (Ta = -20°C to +55°C)
58 W	5	Ex d IIB T6 (Ta = -20°C to +49°C) orEEx d IIB T5 (Ta = -20°C to +55°C)
70 W	6	Ex d IIB T6 (Ta = -20°C to +44°C) or Ex d IIB T5 (Ta = -20°C to +55°C)

The Type Lomond E range of luminaires are the same in design as the Type Lomond Range with the exception that the Lomond E are a range of emergency luminaires as they incorporate a battery pack. The Lomond E Range has the following certification codes

Model	Length (feet)	Certification Code
8 W	1	Ex de IIB T6 (Ta = -20°C to +55°C) or Ex de IIC T6 (Ta = -20°C to +55°C)
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36 W	4	Ex de IIB T6 (Ta = -20°C to +52°C) or Ex de IIB T5 (Ta = -20°C to +55°C)
58 W	5	Ex de IIB T6 (Ta = -20°C to +48°C) or Ex de IIB T5 (Ta = -20°C to +55°C)

Variation 1 - This variation introduced the following change:

i. The use of an alternative, certified cable gland was recognised.
ii. The marking was amended, the essential safety information being unaffected.

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE **Sira 05ATEX1299X**
Issue 1

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	12 December 2005	R51A14320A	The release of prime certificate.
1	25 January 2011	R23902A/00	This Issue covers the following changes: • All previously issued certification was rationalised into a single certificate, Issue 7, Issues 0 to 6 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format. • The introduction of Variation 1.

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

15.1 The Lomond and Lomond E ranges of luminaires shall only be installed in areas where there is a low impact risk.

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 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 Each enclosure shall be subjected to a routine overpressure test in accordance with the table below:

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		bar	lbf/in^2	bar	lbf/in^2
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8 W Lomond	1	8.30	120.35	11.23	162.84
18 W Lomond & Lomond E	2	8.30	120.35	12.06	174.87
36 W Lomond & Lomond E	4	7.05	102.23		
58 W Lomond & Lomond E	5	9.84	142.68		
70 W Lomond	6	12.24	177.48		

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When the luminaire is manufactured in accordance with drawing LA394, the routine overpressure test shall be in accordance with the table below:

Model	Length (feet)	Hydrostatic Overpressure Test Pressure Applied IIB	
		Bar	Lbf/in^2
18 W Lomond & Lomond E	2	10.9	158
36 W Lomond & Lomond E	4	9.4	137
58 W Lomond & Lomond E	5	12.0	174

In all cases the pressure shall be maintained for at least 10 s as required by clause 16.1 of EN 60079-1:2004. There shall be no permanent deformation or damage to the enclosure.

17.4 Only the labels that are shown on drawing number A7496 shall be fitted to the Lomond and Lomond E luminaires.

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Certificate Annexe

Certificate Number: Sira 05ATEX1299X

Equipment: Lomond and Lomond E Ranges of Luminaires

Applicant: Chalmit Lighting

sira CERTIFICATION

Issue 0

Number	Sheet	Rev.	Date (Sira stamp)	Description
A7496	1 of 1	-	07 Dec 05	Typical Lomond Nameplate
LA315	1 of 1	4	07 Dec 05	Type VL51A Flameproof Fluorescent Luminaire
LA320	1 of 1	3	07 Dec 05	Type VL52A Flameproof Emergency Fluorescent Luminaire
LA394	1 of 1	0	07 Dec 05	Types VL51A & VL52A Alternative Arrangements

Issue 1

Number	Sheet	Rev.	Date (Sira stamp)	Description
LA320	1 of 1	4	23 Dec 2010	Type VL52A Flameproof Emergency
A7496	1 of 1	1	12 Jan 2011	Typical Lomond Nameplate

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