



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Type Examination Certificate Number: Sira 03ATEX4566X

4 Equipment: CZ2F and HDL220 Ranges of Fluorescent Luminaires

5 Applicant: Hadar Lighting

6 Address: Jubilee Industrial Estate  
Ashington  
Northumberland  
NE63 8UG  
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 numbers R53A10704, R51V12495A, R51A15451A and R51A15097A.

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 50021:1999  
EN 50281-1-1:1998 (A1)

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:



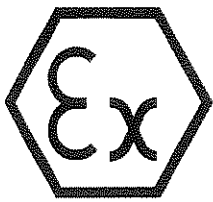
II 3 G D  
EEx nA II T# (Ta = -#°C to +#°C)  
EEx nC IIC T# (Ta = -#°C to +#°C)  
IP65 T#°C  
(# see schedule)

Project Number 51A15097  
Date 17 December 2003  
Latest issue 26 January 2007  
C. Index 05

C Ellaby  
Certification Officer

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**Sira Certification Service**  
Rake Lane, Eccleston, Chester. CH4 9JN, England



## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 03ATEX4566X

Re-issued 5 February 2004 to include emergency versions and recognise modified report.  
Re-issued 26 January 2007 to introduce the changes that are described in report number R51A15097A and to incorporate variations 1 and 2 dated 19 July 2005 and 2 October 2006 respectively.

#### 13 DESCRIPTION OF EQUIPMENT

The CZ2F and HDL220 Ranges of Fluorescent Luminaires comprise a GRP body with polycarbonate diffuser that are secured together by clips. Cable entry holes for suitably certified cable glands are provided at each end of the body to facilitate through wiring of the luminaires or looping of connections. Fixing holes in the body are provided to secure the luminaire to the mounting surface. Inside the enclosures a metal gear tray is secured to the body with spring clips. The gear tray supports bi-pin lampholders that are clipped into holes at each end. On the reverse side of the gear tray the control gear and terminal blocks are fixed with screws or rivets.

The following Luminaires are included:

#### Standard (A) Luminaires:

- Either a ballast manufactured by Clalight type T8S
- Or a CZ2F...BL ballast coded EEx nA II covered by Sira 04ATEX4042U
- Terminal blocks
- BJB type 26.291.4011.50 lampholders

#### Standard (B) Luminaires:

- Tridonic electronic ballast Type PC T8 PRO
- Terminal blocks
- BJB type 26.291.4011.50 lampholders

#### Emergency (1) Luminaires

- Either a ballast manufactured by Clalight type T8S with Mackwell inverter unit Type SR480 or SR555
- Or CZ2F...BL ballast (A) coded EEx nA II and CZ2FI... inverter coded EEx nC IIC covered by Sira 04ATEX4042U
- Battery pack, Tridonic type Accu NiCd comprising three or four cells
- BJB type 26.291.4011.50 lampholders
- LED charge indicator

#### Emergency (2) Luminaires

- Tridonic Combo ballast/inverter unit or CZ2F...COM ballast coded EEx nC IIC covered by Sira 04ATEX4042U
- Battery pack, Tridonic type Accu NiCd comprising three or four cells
- BJB type 26.291.4011.50 lampholders
- LED charge indicator

#### Emergency (3) Luminaires

- Tridonic electronic ballast Type PC T8 PRO (B) and Mackwell inverter unit Type SR480 or SR555
- Battery pack, Tridonic type Accu NiCd comprising three or four cells
- BJB type 26.291.4011.50 lampholders
- LED charge indicator

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The CZ2F and HDL220 Ranges of Fluorescent Luminaires operate at 220 to 240 V a.c., 50 or 60 Hz with the following ratings:

Luminaire configuration		Type	Code	T Dust	Ambient temp. range
1 x 18 W 1 x 36 W	2 x 18 W 2 x 36 W	Standard (A)	EEx nA II T4	T135°C	Ta = -20°C to +55°C
1 x 18 W 1 x 36 W	2 x 18 W 2 x 36 W	Standard (B)	EEx nA II T4	T135°C	Ta = -20°C to +40°C
1 x 58 W	2 x 58 W	Standard (A)	EEx nA II T3	T140°C	Ta = -20°C to +50°C
1 x 58 W	2 x 58 W	Standard (B)	EEx nA II T3	T140°C	Ta = -20°C to +50°C
1 x 58 W	2 x 58 W	Standard (A) or (B)	EEx nA II T4	T140°C	Ta = -20°C to +40°C
1 x 18 W 1 x 36 W	2 x 18 W 2 x 36 W	Emergency (1)	EEx nC IIC T4	T135°C	Ta = -15°C to +33°C
1 x 18 W 1 x 36 W	2 x 18 W 2 x 36 W	Emergency (1)	EEx nC IIC T3	T135°C	Ta = -15°C to +40°C
1 x 18 W 1 x 36 W	2 x 18 W 2 x 36 W	Emergency (2)	EEx nC IIC T4	T135°C	Ta = -15°C to +40°C
1 x 18 W 1 x 36 W	2 x 18 W 2 x 36 W	Emergency (3)	EEx nC IIC T4	T135°C	Ta = -15°C to +33°C
1 x 18 W 1 x 36 W	2 x 18 W 2 x 36 W	Emergency (3)	EEx nC IIC T3	T135°C	Ta = -15°C to +40°C
1 x 58 W	2 x 58 W	Emergency (1)	EEx nC IIC T4	T140°C	Ta = -15°C to +30°C
1 x 58 W	2 x 58 W	Emergency (2)	EEx nC IIC T4	T140°C	Ta = -15°C to +40°C
1 x 58 W	2 x 58 W	Emergency (3)	EEx nC IIC T4	T140°C	Ta = -15°C to +30°C

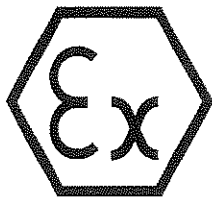
## 14 DESCRIPTIVE DOCUMENTS

14.1	Drawing No.	Sheet	Rev.	Date	Description
	CED3018	1 of 3	1	16 Oct 06	General arrangement
	CED3018	2 of 3	3	16 Jan 07	General arrangement
	CED3018	3 of 3	0	15 Aug 03	General arrangement
	CED3065	1 of 1	0	05 Jan 04	Wiring diagrams
	CED3216-GA	1 of 1	2	27 Jul 06	Certification Labels

14.2 Report numbers R53A10704, R51V12495A, R51A15451A and R51A15097A

Date Date

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- 15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)
- 15.1 The luminaires shall only be mounted in a location where there is a low risk of impact.
- 15.2 When fixed to the mounting surface the installer shall use sealing washers as necessary to maintain the ingress protection rating of IP65.
- 15.3 The stainless steel clips securing the lens shall be fitted with a screw to secure them in the closed position.
- 15.4 Through wired luminaires or looped connections are permitted provided the maximum current rating of the terminal block is not exceeded.
- 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 numbers R53A10704, R51V12495A, R51A15451A and R51A15097A.
- 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 The manufacturer shall carry out an electric strength test on each unit manufactured at 1500 V ac rms between the supply conductors and earth for 1 minute. There shall be no breakdown.
- 17.4 A fitting kit shall be provided with each unit that comprises:
- screws to secure the stainless steel lens clips in the closed position
  - sealing washers for enclosure fixing screws



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