



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx BAS 08.0075 issue No.:0 Certificate history:

Status: **Current**

Date of Issue: **2008-11-24** Page 1 of 3

Applicant: **Chalmit Lighting**
388 Hillington Road
Glasgow
G52 4BL
United Kingdom

Electrical Apparatus: **Range of Protecta n fluorescent luminaires**
Optional accessory:

Type of Protection: **'nA' 'tD'**

Marking: **Ex nA II T4**
Ex tD A22 IP6X
Ex tD A21 IP6X

Approved for issue on behalf of the IECEx
Certification Body:

R S Sinclair

Position:

Managing Director

Signature:
(for printed version)

Date:

3-12-08

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Baseefa
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
United Kingdom





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Manufacturer: **Chalmit Lighting**
388 Hillington Road
Glasgow
G52 4BL
United Kingdom

Manufacturing location(s):

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 electrical apparatus 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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-15 : 2005-03 Edition: Ed 3	Electrical apparatus for explosive gas atmospheres Part 15: Construction, test and Marking of Type of Protection "n" electrical apparatus
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

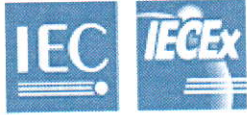
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/BAS/ExTR08.0155/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0027/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Protecta n and Protecta n Em (Emergency) range of fluorescent luminaires comprises of single and twin versions of 18W, 36W and 58W T8 bi-pin tubes. The standard voltage rating of the luminaires is 220–254V, alternatively a 110V–130V version of the luminaire is available with the use of a 110-130V HF ballast or with a 220-254V HF ballast using a nominal 120V step-up transformer. The emergency version has 3 hour battery backup.

Refer to the Annex to this certificate for full details of the equipment.

CONDITIONS OF CERTIFICATION: NO

Baseefa

Rockhead Business Park
 Staden lane, Buxton, Derbyshire
 SK17 9RZ
 United Kingdom



ANNEX to IECEx BAS 08.0075

Issue No. 0

Date: 24/11/2008

The Protecta n and Protecta n Em (Emergency) range of fluorescent luminaires comprises of single and twin versions of 18W, 36W and 58W T8 bi-pin tubes. The standard voltage rating of the luminaires is 220–254V, alternatively a 110V–130V version of the luminaire is available with the use of a 110-130V HF ballast or with a 220-254V HF ballast using a nominal 120V step-up transformer. The emergency version has 3 hour battery backup.

The luminaire body is manufactured from glass reinforced polyester resin or stainless steel and the diffuser is manufactured from polycarbonate Resin. The diffuser is hinged along one side to the body of the luminaire and along the other side a quick release snap-on clamp bar manufactured from glass reinforced polyester runs the entire length and is used to seal the diffuser to the body. The stainless steel body option has clips that are placed along the length of the luminaire. An EPDM or silicone gasket is secured in a groove in the body of the luminaire and forms an IP66/67 seal.

The control gear components are mounted within the body of the luminaire via a removable gear tray. An optional fused terminal can be fitted and consists of a non-indicating ceramic cartridge fuse fitted inside a clamped fuse carrier.

The body of the enclosure is fitted with 4 cable entries maximum two at each end. All unused cable entries shall be fitted with a blanking element. The permitted blanking elements to be used are detailed in the table below:

Component / Manufacturer	Part No.	Certificate No.	Temperature range / IP rating
Blanking element / Redapt	PD-U-	IECEX SIR 05.0042U / SIRA00ATEX1094	-50°C to +150°C (Nitrile O'ring) / IP66/68
Blanking element / Hawke	Type 375	IECEX BAS 06.0056U / Baseefa06ATEX0236U	-60°C to +75°C / IP66/67
	Type 387	IECEX BAS 06.0029U / Baseefa06ATEX0118U	-60°C to +80°C (Nitrile O'ring) -60°C to +160°C (Silicone O'ring) / IP66/67

The body is also fitted with 2x M8 bushes for mounting purposes. The stainless steel bodied version is supplied with external brackets for mounting purposes.

The luminaries are provided with the provision for through wiring fitted as standard. The internal wiring is rated for a minimum of 1500V with a +90°C operating temperature and is 0.5mm² as a minimum. When two conductors are to be terminated in one terminal way they are first crimped into a single suitable ferrule.

Brass earth continuity plates are fitted to the entries of the luminaires. The stainless steel body versions are fitted with an M5 internal and M8 external earth studs. An earth terminal is also fitted to the gear tray. All the earth points are connected together via earth conductors.

* The ambient temperature ranges for the different models of luminaire are shown in the tables 1 and 2 below.

TABLE 1 - SCHEDULE - HF GEAR - NON EMERGENCY - 110 to 254V

MODEL	LAMP	NOM VOLTS	AMBIENT TEMP	T RATING	MAX SURFACE TEMP (DUST)			
PR2N118/B	1 X 18W	110 - 254V With HF Ballast	$-25^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$	T4	85°C			
PR2N118/B/SE								
PRSN118/B								
PR2N218/B	2 X 18W		$-25^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$					
PR2N218/B/SE								
PRSN218/B								
PR2N136/B	1 X 36W		$-25^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$					
PR2N136/B/SE								
PRSN136/B								
PR2N236/B	2 X 36W		$-25^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$					
PR2N236/B/SE								
PRSN236/B								
PR2N158/B	1 X 58W		$-25^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$					
PRSN158/B	1 X 58W		$-25^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$					
PR2N258/B	2 X 58W		$-25^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$					
PRSN258/B	2 X 58W		$-25^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$					
PR2N118/B/120	1 X 18W		120V with Step-up Transformer And 220-254V HF Ballast			$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$	T4	85°C
PR2N118/B/120/GE								
PRSN118/B/120								
PR2N218/B/120	2 X 18W	$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$						
PR2N218/B/120/GE								
PRSN218/B/120								
PR2N136/B/120	1 X 36W	$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$						
PR2N136/B/120/GE								
PRSN136/B/120								
PR2N236/B/120	2 X 36W	$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$						
PR2N236/B/120/GE								
PRSN236/B/120								
PR2N158/B/120	1 X 58W	$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$						
PRSN158/B/120	1 X 58W	$-25^{\circ}\text{C} \leq T_a \leq +30^{\circ}\text{C}$						
PR2N258/B/120	2 X 58W	$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$						
PRSN258/B/120	2 X 58W	$-25^{\circ}\text{C} \leq T_a \leq +30^{\circ}\text{C}$						

Models :- PR2N = GRP Body, PRSN = St.St. Body, BI = Bi-Pin T8 Lamps
Options :- /SE = Pole Mount Model, /120 = 120V with transformer

TABLE 2 - SCHEDULE - HF GEAR - EMERGENCY - 110 to 254V								
MODEL	LAMP	NOM VOLTS	AMBIENT TEMP	T RATING	MAX SURFACE TEMP (DUST)			
PR2N118B/EM	1 X 18W	110 - 254V With HF Ballast	$-25^{\circ}\text{C} \leq T_a \leq +45^{\circ}\text{C}$	T4	85^{\circ}\text{C}			
PR2N118B/EM/SE								
PR3N118B/EM								
PR2N218B/EM	2 X 18W		$-25^{\circ}\text{C} \leq T_a \leq +45^{\circ}\text{C}$					
PR2N218B/EM/SE								
PR3N218B/EM								
PR2N136B/EM	1 X 36W		$-25^{\circ}\text{C} \leq T_a \leq +45^{\circ}\text{C}$					
PR2N136B/EM/SE								
PR3N136B/EM								
PR2N236B/EM	2 X 36W		$-25^{\circ}\text{C} \leq T_a \leq +45^{\circ}\text{C}$					
PR2N236B/EM/SE								
PR3N236B/EM								
PR2N156B/EM	1 X 56W		$-25^{\circ}\text{C} \leq T_a \leq +45^{\circ}\text{C}$					
PR3N156B/EM	1 X 56W		$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$					
PR2N256B/EM	2 X 56W		$-25^{\circ}\text{C} \leq T_a \leq +45^{\circ}\text{C}$					
PR3N256B/EM	2 X 56W		$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$					
PR2N118B/EM/120	1 X 18W		120V with Step up Transformer And 220-254V HF Ballast			$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$	T4	85^{\circ}\text{C}
PR2N118B/EM/120/SE								
PR3N118B/EM/120								
PR2N218B/EM/120	2 X 18W	$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$						
PR2N218B/EM/120/SE								
PR3N218B/EM/120								
PR2N136B/EM/120	1 X 36W	$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$						
PR2N136B/EM/120/SE								
PR3N136B/EM/120								
PR2N236B/EM/120	2 X 36W	$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$						
PR2N236B/EM/120/SE								
PR3N236B/EM/120								
PR2N156B/EM/120	1 X 56W	$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$						
PR3N156B/EM/120	1 X 56W	$-25^{\circ}\text{C} \leq T_a \leq +25^{\circ}\text{C}$						
PR2N256B/EM/120	2 X 56W	$-25^{\circ}\text{C} \leq T_a \leq +35^{\circ}\text{C}$						
PR3N256B/EM/120	2 X 56W	$-25^{\circ}\text{C} \leq T_a \leq +25^{\circ}\text{C}$						
Models :- PR2N = GRP Body, PR3N = St.St. Body, BI = Bi-Pin T8 Lamps Options :- /SE = Pole Mount Model, /120 = 120V with transformer, EM = 3hr Emergency duration								

Alternatively if the enclosures are fitted with the silicone gasket they may be used within a lower ambient of -40°C .

Variations:

0.1 An isolating switch may be fitted to the gear tray of the luminaire operated by raised lip on the diffuser. When the diffuser is opened the contacts of the switch open-circuit and de-energises the luminaire. When this optional switch is used the lower ambient of the luminaire is reduced to -20°C .

0.2 Variation of enclosure with pole mounting option. The base of the enclosure incorporates a sleeve for the pole. The sleeve is fitted internally with a certified cable gland and a silicone seal around the entry maintaining the IP66/67 rating of the luminaire. Grub screws are incorporated into the sleeve to secure the luminaire to the pole once mounted. When the pole mounted variation is used the luminaire is restricted to the temperature range and IP rating of the cable gland fitted.