



1 **TYPE EXAMINATION CERTIFICATE**

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

3 Type Examination Certificate Number: **Baseefa08ATEX0227**

4 Equipment: **Range of Protecta n fluorescent luminaires**

5 Manufacturer: **Chalmit Lighting**

6 Address: **388 Hillington Road, Glasgow, G52 4BL, UK**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment of Category 3 intended for use in potentially explosive atmospheres given in Annex II to European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR08.0155/00**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0:2006 EN 60079-15:2005 EN 61241-0:2006 EN 61241-1:2004**

except in respect of those requirements listed at item 18 of the Schedule.

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 TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured.

12 The marking of the equipment shall include the following :

**⊕ II 3GD Ex nA II T4 Ex tD A22 T85°C (\*Tamb see schedule)**

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0068**

Project File No. **07/0521**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

**Baseefa**

Rockhead Business Park, Staden Lane,  
Buxton, Derbyshire SK17 9RZ  
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601  
e-mail [info@baseefa.com](mailto:info@baseefa.com) web site [www.baseefa.com](http://www.baseefa.com)  
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Registered in England No. 4305578. Registered address as above.

**R S SINCLAIR**

**DIRECTOR**  
On behalf of  
Baseefa



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## Schedule

14

Certificate Number Baseefa08ATEX0227

### 15 Description of Equipment

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 0.5mm<sup>2</sup> 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)
PR2N/118/BI	1 X 18W	110 – 254V With HF Ballast	$-25^{\circ}\text{C} \leq \text{Ta} \leq +50^{\circ}\text{C}$	T4	85°C
PR2N/118/BI/SE					
PRSN/118/BI					
PR2N/218/BI	2 X 18W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +50^{\circ}\text{C}$		
PR2N/218/BI/SE					
PRSN/218/BI					
PR2N/136/BI	1 X 36W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +50^{\circ}\text{C}$		
PR2N/136/BI/SE					
PRSN/136/BI					
PR2N/236/BI	2 X 36W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +50^{\circ}\text{C}$		
PR2N/236/BI/SE					
PRSN/236/BI					
PR2N/158/BI	1 X 58W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +50^{\circ}\text{C}$		
PRSN/158/BI	1 X 58W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +40^{\circ}\text{C}$		
PR2N/258/BI	2 X 58W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +50^{\circ}\text{C}$		
PRSN/258/BI	2 X 58W	$-25^{\circ}\text{C} \leq \text{Ta} \leq +40^{\circ}\text{C}$			
PR2N/118/BI/120	1 X 18W	120V with Step-up Transformer And 220-254V HF Ballast	$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$	T4	85°C
PR2N/118/BI/120/SE					
PRSN/118/BI/120					
PR2N/218/BI/120	2 X 18W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$		
PR2N/218/BI/120/SE					
PRSN/218/BI/120					
PR2N/136/BI/120	1 X 36W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$		
PR2N/136/BI/120/SE					
PRSN/136/BI/120					
PR2N/236/BI/120	2 X 36W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$		
PR2N/236/BI/120/SE					
PRSN/236/BI/120					
PR2N/158/BI/120	1 X 58W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$		
PRSN/158/BI/120	1 X 58W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +30^{\circ}\text{C}$		
PR2N/258/BI/120	2 X 58W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$		
PRSN/258/BI/120	2 X 58W	$-25^{\circ}\text{C} \leq \text{Ta} \leq +30^{\circ}\text{C}$			

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)	
PR2N/118/BI/EM	1 X 18W	110 - 254V With HF Ballast	$-25^{\circ}\text{C} \leq \text{Ta} \leq +45^{\circ}\text{C}$	T4	85°C	
PR2N/118/BI/EM/SE						
PRSN/118/BI/EM						
PR2N/218/BI/EM	2 X 18W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +45^{\circ}\text{C}$			
PR2N/218/BI/EM/SE						
PRSN/218/BI/EM						
PR2N/136/BI/EM	1 X 36W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +45^{\circ}\text{C}$			
PR2N/136/BI/EM/SE						
PRSN/136/BI/EM						
PR2N/236/BI/EM	2 X 36W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +45^{\circ}\text{C}$			
PR2N/236/BI/EM/SE						
PRSN/236/BI/EM						
PR2N/158/BI/EM	1 X 58W		$-25^{\circ}\text{C} \leq \text{Ta} \leq +45^{\circ}\text{C}$			
PRSN/158/BI/EM	1 X 58W					$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$
PR2N/258/BI/EM	2 X 58W					
PRSN/258/BI/EM	2 X 58W	$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$				
PR2N/118/BI/EM/120	1 X 18W		120V with Step-up Transformer And 220-254V HF Ballast	T4	85°C	
PR2N/118/BI/EM/120/SE						
PRSN/118/BI/EM/120						
PR2N/218/BI/EM/120	2 X 18W	$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$				
PR2N/218/BI/EM/120/SE						
PRSN/218/BI/EM/120						
PR2N/136/BI/EM/120	1 X 36W	$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$				
PR2N/136/BI/EM/120/SE						
PRSN/136/BI/EM/120						
PR2N/236/BI/EM/120	2 X 36W	$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$				
PR2N/236/BI/EM/120/SE						
PRSN/236/BI/EM/120						
PR2N/158/BI/EM/120	1 X 58W	$-25^{\circ}\text{C} \leq \text{Ta} \leq +35^{\circ}\text{C}$				
PRSN/158/BI/EM/120	1 X 58W					$-25^{\circ}\text{C} \leq \text{Ta} \leq +25^{\circ}\text{C}$
PR2N/258/BI/EM/120	2 X 58W					
PRSN/258/BI/EM/120	2 X 58W	$-25^{\circ}\text{C} \leq \text{Ta} \leq +25^{\circ}\text{C}$				

Models :- PR2N = GRP Body, PRSN = St.St. Body, BI = Bi-Pin T8 Lamps  
Options :- /SE = Pole Mount Model, /120 = 120V with transformer, EM = 3hr Emergency duration

Alternatively if the enclosures are fitted with the silicone gasket they may be used within a lower ambient of  $-40^{\circ}\text{C}$ .

#### 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  $-20^{\circ}\text{C}$ .

**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.



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**16 Report Number**

GB/BAS/ExTR08.0155/00

**17 Special Conditions for Safe Use**

None

**18 Essential Health and Safety Requirements**

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

**19 Drawings and Documents**

<b>Number</b>	<b>Sheet</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
H010609 *	1 of 4	1	23/08/2005	Protection Certification Drawing
H010609 *	2 of 4	1	23/08/2005	Protection Certification Drawing
H010609 *	3 of 4	1	23/08/2005	Protection Certification Drawing
H010609 *	4 of 4	1	23/08/2005	Protection Certification Drawing
H010623 *	1 of 1	1	25/08/2008	Protection Cert Label

\* These drawings are common to, and held on, IECEx BAS 08.0075.