



# TYPE EXAMINATION CERTIFICATE

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

Type Examination Certificate Number : **BAS98ATEX3378**

Equipment: **800 SERIES FLOODLIGHT LUMINAIRES**

Manufacturer: **CHALMIT LIGHTING LTD**

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

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

The Electrical Equipment Certification Service 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 N°

**98(C)0591 dated 26 March 1999**

Compliance with the Essential Health and Safety Requirements has been assessed by reference to:

**EN 50021: 1999**

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

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.

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

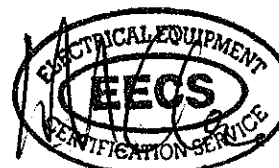
The marking of the equipment shall include the following:-

 **II 3 G**      **EEx n R II T (see schedule)**

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

File No: EECS 0068/03/036

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



Electrical Equipment Certification Service  
Health and Safety Executive  
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**I M CLEARE**  
**DIRECTOR**  
**17 June 1999**



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**Description of Equipment**

The 800 Series Floodlight Luminaires consists of the 844, 854 and 864 luminaires which are designed for fitting SON/T, MBI/T and Tungsten Halogen lamps at various ratings. The luminaires are rated at 200 to 254V at 50 Hz, or 210 to 254V at 60 Hz. An autotransformer may be included with the 864 luminaires to permit operation on 110V supplies.

Construction

The luminaires consist of a mild steel or stainless steel body with a toughened glass lens fitted to a lid assembly. The enclosures are classified as 'restricted breathing' and have degree of protection IP66/67. When 400W SON/T 864 luminaires are used with a 110V supply, a remote control gear box is also included. The gear box is not classified as restricted breathing.

Internally the enclosure contains bracket mounted control gear, reflector and lampholder. Holes in the body allow access for suitably glanded supply cables which are terminated on a component certified terminal block covered by BAS98ATEX3379U. Supply cables may be looped in using arrangements covered by this component certification.

The enclosure may be fitted with an anti-glare shield or a protective guard and cover retaining chains may also be fitted. Whilst the luminaire is designed to be mounted on a bracket fixed to bosses welded on the external surface, alternative methods which do not penetrate the enclosure may be used.

Control gear

The control gear comprises ballast, ignitor and capacitors covered by BAS98ATEX3379U. The 864 control gear may also include an autotransformer for 110V supplies. This arrangement is covered by this certificate. The control gear is selected using the following data:

Luminaire	Ballast		Ignitor Tc (min)
	Tw (min)	Δt (max)	
864	130°C	75°C	90°C
854	130°C	60°C	90°C
844	130°C	60°C	90°C

The capacitors and ballast may be omitted from the luminaire and may be located in a remote control gear box. The gear box may contain any ballast suitable for sodium or metal halide lamps in accordance with the lamp manufacturer's specification, provided that all ballasts comply with IEC 922 and IEC 923, or EN 60 922: 1991 and EN 60923: 1991 and have third party assessment.



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Mounting position

The beam of the floodlight may be aimed at any angle but the control gear is always mounted on or below the axis of rotation of the luminaire.

Marking

The luminaires may be marked depending on lamp type as follows:

Luminaire Type	Lamp	T class	T <sub>amb</sub> range
864 240 volt	400W SON/T	T3	-40°C to +50°C
	400W MBI/T	T3	-25°C to +45°C
	250W SON/T	T3	-40°C to +55°C
	250W MBI/T	T3	-25°C to +55°C
854 240 volt	100W SON/T	T4	-40°C to +55°C
	150W SON/T	Either T4	-40°C to +50°C
		Or T3	-25°C to +55°C
	250W SON/T	T4	-40°C to +40°C
	250W MBI/T	T4	-25°C to +40°C
	400W SON/T *	T3	-40°C to +40°C
	400W MBI/T *	T3	-25°C to +40°C
	500W TH	Either T3	-45°C to +45°C
		Or T2	-45°C to +60°C
844 240 volt	70W SON/T	Either 150°C (T3)	-40°C to +50°C
		Or T4	-40°C to +40°C
864 110 volt	150W SON/T	T3	-40°C to +55°C
	250W SON/T	T3	-40°C to +55°C
(ext. transformer)	400W SON/T	T3	-40°C to +55°C

\*These luminaires supplied by control gear (ballast and optional capacitor) in remote gear box. The remote box is not restricted breathing and carries the marking EEx nA II T3  
Luminaires fitted with SON lamps but NOT fitted with capacitors may be used down to -45°C

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**Essential Health and Safety Requirements**

<b>Essential Health &amp; Safety Requirements not covered by Standards listed at (9)</b>		
<b>ESR</b>	<b>Subject</b>	<b>Compliance: Report Clause</b>
1.0.2	Analysis of possible operating faults and misuse	see report 98(C)0591 clause 4.1.0.2
1.0.5	Marking	see report 98(C)0591 clause 4.1.0.5
1.0.6	Instructions	see report 98(C)0591 clause 4.1.0.6
1.1.1	Materials not to trigger off explosions	see report 98(C)0591 clause 4.1.1.1
1.1.2	Constructional materials not to degrade or reduce protection	see report 98(C)0252 clause 4.1.1.2
1.1.3	Changes in characteristics of materials	see report 98(C)0591 clause 4.1.1.3
1.2.2	Components for incorporation or replacement	see report 98(C)0591 clause 4.1.2.2
1.2.5	Additional means of protection	see report 98(C)0591 clause 4.1.2.5
1.2.6	Safe opening	see report 98(C)0591 clause 4.1.2.6
1.2.7	Protection against other hazards	see report 98(C)0591 clause 4.1.2.7
1.3.3	Hazards arising from stray electric and leakage currents	see report 98(C)0591 clause 4.1.3.3
1.4.1	Safe function in changing external conditions	see report 98(C)0591 clause 4.1.4.1
1.4.2	Withstanding attack by stresses or aggressive substances	see report 98(C)0591 clause 4.1.4.2
1.6.4	Hazards arising from connections	see report 98(C)0591 clause 4.1.6.4

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**DRAWINGS**

<b>Number</b>	<b>Sheet</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
D1871	1	-	16.12.98	Components and notes
D1871	2	-	16.12.98	General arrangement
D1871	3	-	16.12.98	General arrangement
D1871	4	-	16.12.98	Internal arrangement
D1871	5	-	16.12.98	Wiring diagrams and gearbox layout

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BASEEFA List Keywords  
2FLODLUM



1 **SUPPLEMENTARY TYPE EXAMINATION CERTIFICATE**

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

3 Supplementary Type Examination Certificate Number: **BAS98ATEX3378/1**

4 Equipment: **800 Series Floodlight Luminaires**

5 Manufacturer: **Chalmit Lighting**

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

7 This supplementary certificate extends Type Examination Certificate No. **BAS98ATEX3378** to apply to equipment designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

The original certificate was issued by The Electrical Equipment Certification Service, which retains responsibility for its original documentation. Baseefa is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate it has issued.

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


Baseefa Customer Reference No. **0068**

Project File No. **08/0327**

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**

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PP R S SINCLAIR  
DIRECTOR  
On behalf of  
Baseefa



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**Certificate Number BAS98ATEX3378/1**

**15 Description of the variation to the Equipment**

**Variation 1.1**

To permit the luminaires to be used within a combustible dust atmosphere (Zone 22) following an assessment to EN 50281-1-1: 1999.

The luminaires are additional marked  $\text{Ex}$  II 3GD T \*\*°C as indicated below.

Luminaire Type	Lamp	T Class	Maximum Surface Temperature	T <sub>amb</sub> Range
864 240V	400W SON/T	T3	T200°C	-40°C to +50°C
	400W MBI/T	T3	T200°C	-25°C to +45°C
	250W SON/T	T3	T200°C	-40°C to +55°C
	250W MBI/T	T3	T200°C	-25°C to +55°C
854 240V	100W SON/T	T4	T135°C	-40°C to +55°C
	150W SON/T	T4	T135°C	-40°C to +50°C
		T3	T200°C	-25°C to +55°C
	250W SON/T	T4	T135°C	-40°C to +40°C
	250W MBI/T	T4	T135°C	-25°C to +40°C
	400W SON/T*	T3	T200°C	-40°C to +40°C
	400W MBI/T*	T3	T200°C	-25°C to +40°C
	500W TH	T3	T200°C	-45°C to +45°C
T2		T300°C	-45°C to +60°C	
844 240V	70W SON/T	T3	T150°C	-40°C to +50°C
		T4	T135°C	-40°C to +40°C
864 110V	150W SON/T	T3	T200°C	-40°C to +55°C
	250W SON/T	T3	T200°C	-40°C to +55°C
Ext. transformer	400W SON/T	T3	T200°C	-40°C to +55°C

\* These luminaires supplied by control gear (ballast and optional capacitor) in remote gear box.

Luminaires fitted with SON lamps but NOT fitted with capacitors may be used down to -45°C.

The remote gear box is not restricted breathing and carries the marking EEx nA II T3 T200°C.



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**16 Report Number**

Baseefa report 08(C)0327.

**17 Special Conditions for Safe Use**

None.

**18 Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

**19 Drawings and Documents**

<b>Number</b>	<b>Sheet</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
D1781	1	01	06.05.08	Components and Notes