



1 **EC-TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use**
3 **in Potentially Explosive Atmospheres**
4 **Directive 94/9/EC**

5 EC-Type Examination Certificate Number : **BAS98ATEX2373**

6 Equipment or Protective System: **EVOLUTION (200 SERIES Mk III) FLOODLIGHT IIC**

7 Manufacturer: **CHALMIT LIGHTING LIMITED**

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

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

10 The Electrical Equipment Certification Service, notified body number 600 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

11 The examination and test results are recorded in confidential Report N°

BASEEFA Certification Report No. 98(C)0619/1 dated 5 July 1999

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

EN 50014: 1997 EN 50018: 1994 EN 50019: 1994

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

13 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

14 This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

15 The marking of the equipment or protective system shall include the following:-

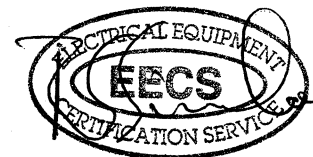
 **II 2 G EEx de IIC T* (T_{amb} = -20°C to **°C)**

Where * is the temperature classification and ** is the maximum ambient temperature as detailed in item 15 of the Schedule.

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

File No. EECS 0068/01/013

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.



HSE
Health & Safety
Executive

Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244

I M CLEARE
DIRECTOR
15 July 1999



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Schedule

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EC-TYPE EXAMINATION CERTIFICATE N° BAS98ATEX2373

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Description of Equipment or Protective System

The Evolution (200 Series Mk III) Floodlight IIC, rated at up to 254V a.c., 50Hz or 277V a.c., 60Hz, having a maximum lamp rating of 600W, comprises a cast aluminium rectangular lamp housing and integral, increased safety control gear housing, which has a cylindrical capacitor housing cast inside. Cemented into a recess in the top of the lamp housing is a glass window, which is retained by a rectangular frame, secured by twelve socket head cap screws, grade A2-70. The heads of the screws are potted during manufacture to prevent removal. The luminaire may optionally be fitted with either an anti-glare shield, a louvered shield or a wire guard. Passing through the rear of the control gear housing, and into the lamp housing is a cast aluminium ignitor and lampholder housing, forming a spigot joint flamepath.

The integral leads from the potted ignitor pass through the sidewall of the ignitor housing into the control gear housing. The cylindrical capacitor housing has a threaded cover, into which is fitted a Bartec line bushing Type 07-9101-H02D, component certificate PTB 97 ATEX 1047U, coded EEx d IIC, and marked (Ex)II 2 G, from which the leads are connected into terminals in the control gear housing. Insertion of the ignitor housing into the main enclosure is controlled by two bolts, onto which the ignitor is rotated and located. The cover of the increased safety control gear housing is hinged, and secured by a single, central bolt, which also acts as an anti-rotation device for the ignitor housing.

The increased safety control gear housing contains a ballast and connection facilities. Up to two Klippon Type MK6, six way terminals, BASEEFA Component Certificate BAS Ex 813095U, coded EEx e II, are fitted inside the control gear housing, for internal and external connections.

Internal and external earthing facilities are provided.

Cable entries are provided in the increased safety control gear housing for the fitment of cable glands providing an ingress protection of at least IP54, and capable of withstanding an impact of 7J.

The temperature classification and ambient temperature, and the components which may be fitted within the lamp, capacitor, ignitor, and increased safety housings, are as detailed in the table below.

Electrical Control Gear, Lamp Schedule, Ratings and Temperature Classifications										
Lamp Type	Type	Wattage	Voltage	Lamp Cap	Ignitor	Ballast	Capacitor	Cable Temp Rise	T _{amb} (Max)	T Class
Tungsten Halogen	TH	500W Max.	270V Max.	E40	-	-	-	50°C	40°C	T3
Tungsten Halogen	TH	500W Max.	270V Max.	R7s	-	-	-	40°C	55°C	T3



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EC-TYPE EXAMINATION CERTIFICATE N° BAS98ATEX2373

Electrical Control Gear, Lamp Schedule, Ratings and Temperature Classifications												
Lamp Type	Type	Wattage	Voltage	Lamp Cap	Ignitor	Ballast	Capacitor	Cable Temp Rise	T _{amb} (Max)	T Class		
HPS	SON/T	150W	220/230/ 240/254 50 Hz	E40	Parry S.I.P. PCX40S or equivalent	Parry	20/30µF	40°C	40°C	T4		
								35°C	55°C	T3		
HPS	SON/T	250W					or	Parry S.I.P. PCX40S or equivalent	30/40µF	40°C	40°C	T4
										35°C	55°C	T3
HPS	SON/T	400W	240/250/ 260/277 50 Hz	E40	Parry S.I.P. PXE000 or equivalent	40/50µF	40°C	40°C	T3			
							55°C	T3				
HPS	SON/T	600W				Remote	55°C	35°C	T3			
MBI	MBIT	150W	or	Parry S.I.P. PCX40S or equivalent	20/30µF	40°C	40°C	T4				
						35°C	55°C	T3				
MBI	MBIT	250W	or	Parry S.I.P. PCX40H or equivalent	30/40µF	40°C	40°C	T4				
						35°C	55°C	T3				
MBI	MBIT	400W	or	Parry S.I.P. PXE000 or equivalent	40/50µF	40°C	40°C	T3				
						35°C	55°C	T3				

16 **Report Nos.**

BASEEFA Certification Report No. 98(C)0619/1 dated 15/07/1999

17 **SPECIAL CONDITIONS FOR SAFE USE**

None

18 **Essential Health and Safety Requirements**

Essential Health and Safety Requirements not covered by Standards listed at item 6		
ESR	Subject	Compliance Report
1.0.2	Analysis of possible operating faults	BASEEFA Report No. 98(C)0619/1
1.0.3	Special checking and maintenance conditions	Not applicable
1.0.4	Surrounding area conditions	BASEEFA Report No. 98(C)0619/1
1.2.2	Components for incorporation or replacement	BASEEFA Report No. 98(C)0619/1
1.2.4	Dust deposits	Not applicable
1.2.5	Additional means of protection	Not applicable
1.2.7	Protection against other hazards	BASEEFA Report No. 98(C)0619/1
1.3.1	Hazards arising from different ignition sources	BASEEFA Report No. 98(C)0619/1



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EC-TYPE EXAMINATION CERTIFICATE N° BAS98ATEX2373

Essential Health and Safety Requirements not covered by Standards listed at item 6		
ESR	Subject	Compliance Report
1.3.5	Hazards arising from pressure compensation operations	Not applicable
1.4.2	Withstanding attack by aggressive substances	BASEEFA Report No. 98(C)0619/1
1.5	General requirements for safety devices	Not applicable
1.6.1	Manual override	Not applicable
1.6.2	Emergency shutdown	Not applicable
1.6.3	Hazards arising from power failure	Not applicable
1.6.5	Placing of warning devices as parts of equipment	Not applicable
2	Category M	Not applicable
2.1	Category 1	Not applicable
2.2.1	Category 2G	BASEEFA Report No. 98(C)0619/1
2.2.2	Category 2D	Not applicable
2.3	Category 3	Not applicable
3	Requirements for protective systems	Not applicable

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DRAWINGS

<u>Number</u>	<u>Issue</u>	<u>Date</u>	<u>Description</u>
D1911 Sheets 1 to 5	-	28.04.99	Evolution (200 Series Mk III) Floodlight IIC

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

BASEEFA List Keywords
2FLODLUM



1 SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE

**Equipment or Protective System Intended for use
in Potentially explosive atmospheres
Directive 94/9/EC**

3 Supplementary EC-Type Examination Certificate Number: BAS98ATEX2373/1

4 Equipment or Protective System: EVOLUTION (200 SERIES Mk III) FLOODLIGHT IIC

5 Manufacturer: CHALMIT LIGHTING

6 Address: Glasgow, G52 4BL

7 This supplementary certificate extends EC-Type Examination Certificate No. BAS98ATEX2373 to apply to equipment or protective systems 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.

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

File No: EECS 0068/01/013

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
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: +44(0)1298 28000 Fax: +44(0)1298 28244
Internet: www.bascefa.com e-mail: bascefa.info.eecs@hsl.gov.uk



**I M CLEARE
DIRECTOR
14 March 2002**



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Schedule

14 SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE N° BAS98ATEX2373/1

Description of the Variation to the Equipment or Protective System

To permit the following:-

A change of cables to Type H07G-K and alternative potting compound Type Hysol E01016, or the use of a certified line bushing to the ignitor housing.

To add a thermal cut-out to the ballast.

To permit the luminaire to be used within a combustible dust atmosphere.

The floodlight is recoded (Ex) II 2 GD EEx de IIC T*°C (T_{amb} -20°C to +**°C)

Where * is the maximum surface temperature and ** is the maximum ambient temperature as detailed below.

Lamp Type	Maximum External Surface Temperature (*)	Maximum Ambient Temperature (**)
150W SON/T	130°C	40°C
	175°C	55°C
250W SON/T	130°C	40°C
	175°C	55°C
400W SON/T	175°C	40°C
	175°C	55°C
600W SON/T	195°C	35°C
150W MBI/T	130°C	40°C
	175°C	55°C
250W MBI/T	130°C	40°C
	175°C	55°C
250W MBI/T	130°C	40°C
	175°C	55°C
500W T/H E40	195°C	40°C
500W T/H R7s	195°C	55°C

16 Report No.

BASEEFA Certification Report No. 01(C)0090 dated 12 March 2002.

17 Special Conditions For Safe Use

None.



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14 SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE N° BAS98ATEX2373/1

18 Essential Health and Safety Requirements

See original certificate.

19 DRAWINGS

Number	Issue	Date	Description
D1911 Sheets 1 to 5 inc.	1	01.11.01	Evolution (200 Series Mk III) Floodlight IIC

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1 SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE

**2 Equipment or Protective System Intended for use
in Potentially explosive atmospheres
Directive 94/9/EC**

3 Supplementary EC-Type Examination Certificate Number: BAS98ATEX2373/2X

4 Equipment or Protective System: EVOLUTION (200 SERIES Mk III) FLOODLIGHT IIC

5 Manufacturer: CHALMIT LIGHTING

6 Address: Glasgow, G52 4BL

7 This supplementary certificate extends EC-Type Examination Certificate No. BAS98ATEX2373 to apply to equipment or protective systems 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.

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

File No: EECS 0068/01/013

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Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: +44(0)1298 28000 Fax: +44(0)1298 28244
internet: www.basseea.com e-mail: basseea.info.eecs@hsl.gov.uk



I M CLEARE
DIRECTOR
26 July 2002



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Schedule

14 SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE N° BAS98ATEX2373/2X

Description of the Variation to the Equipment or Protective System

To include a 110-120 volt version utilising a toroidal step-up transformer located within the EEx e part of the housing.

The following SON/T fittings are included in the 110-120 volt range:

Lamp	Dust Rating (°C)	Gas Rating	Ambient (°C)
150W	130	T4	40
	150	T3	55
250W	130	T4	40
	150	T3	55
400W	175	T3	55

Report No.

BASEEFA Certification Report No. 02(C)0034 dated 24 July 2002

Special Conditions For Safe Use

1. 110-120 volt luminaires must be mounted horizontally, $\pm 10^\circ$.

Essential Health and Safety Requirements

See original certificate.

DRAWING

Number	Issue	Date	Description
*D2091	1	22/3/02	110-120 volt General Arrangement

*This drawing is common to Certificate BAS98ATEX2372/2X

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



1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

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

**3 Supplementary EC - Type Examination Certificate BAS98ATEX2373/3
Number :**

4 Equipment or protective system: Evolution (200 Series MKIII) Floodlight IIC

5 Manufacturer : Chalmit Lighting Limited

6 Address : Glasgow, Scotland G52 4BL

7 This supplementary certificate, issued by Baseefa (2001) Ltd., Notified Body Number 1180, extends EC - Type Examination Certificate No. BAS98ATEX2373 to apply to equipment or protective systems 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 Electrical Equipment Certification Service, Notified Body Number 0600, retains responsibility for its original documentation. Baseefa (2001) Ltd. is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate that it has issued.

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

Baseefa (2001) Ltd. Customer Reference No. 0068

Project File No. 02/0524

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

**R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.**

Baseefa (2001) Ltd.

Health and Safety Laboratory Site, Harpur Hill,
Buxton, Derbyshire SK17 9JN

Telephone +44 (0) 1298 28255 Fax +44 (0) 1298 28216

e-mail info@baseefa2001.biz web site www.baseefa2001.biz

Registered in England No. 4305578 at 13 Dovedale Crescent, Buxton,
Derbyshire. SK17 9BJ



Schedule

Description of the variation to the Equipment or Protective System

Variation 3.1

Alternative arrangement of the capacitor enclosure cover fitted with either a threaded line bushing to PTB97ATEX1047U or with potted cables.

Report No.

None

Special Conditions for Safe Use

None

Essential Health and Safety Requirements

See original certificate

Drawings and Documents

Number	Sheet	Issue	Date	Description
B1314	11		11.12.02	"B" Type Capacitor Housing with a Line Bushing
B1315	11		11.12.02	"B" Type Capacitor Housing with Potted Cables

These drawings are common to and held with certificate BAS98ATEX2372



1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

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

3 Supplementary EC - Type Examination Certificate Number: **BAS98ATEX2373/4**

4 Equipment or Protective System: **Evolution (200 Series MKIII) Floodlight IIC**

5 Manufacturer: **Chalmit Lighting**

6 Address: **Glasgow, G52 4BL**

7 This supplementary certificate extends EC – Type Examination Certificate No. **BAS98ATEX2373** to apply to equipment or protective systems 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, Notified Body Number 0600, which retains responsibility for its original documentation. Baseefa (2001) Ltd., Notified Body Number 1180, 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 (2001) Ltd. Customer Reference No. 0068

Project File No. 04/0663

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

Baseefa (2001) Ltd.

Health and Safety Laboratory Site, Harpur Hill,
Buxton, Derbyshire SK17 9JN
Telephone +44 (0) 1298 28255 Fax +44 (0) 1298 28216
e-mail info@baseefa2001.biz web site www.baseefa2001.biz
Registered in England No. 4305578 at 13 Dovedale Crescent, Buxton,
Derbyshire, SK17 9BJ

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.



13

Schedule

14

Certificate Number BAS98ATEX2373/4

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Description of the variation to the Equipment or Protective System

Variation 4.1

To permit the use of terminals to SIRA01ATEX3248U & SIRA01ATEX3249U and minor changes to facilitate production. The maximum input voltage is 275V when terminals to SIRA01ATEX3248U are used.

16

Report Number

None

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

Number	Sheet	Issue	Date	Description
D1911 Sheets 1 to 5	-	02	10.09.04	Evolution (200 Series MKIII) Floodlight IIB
*D2091	1	01	10.09.04	110-120 Volt General Arrangement

* This drawing is common to Certificate BAS98ATEX2372 and held on that file.



1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

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

3 Supplementary EC - Type Examination Certificate **See Schedule**
Number:

4 Equipment or protective system: **See Schedule**

5 Manufacturer: **Chalmit Lighting**

6 Address: **Glasgow, G52 4BL**

7 This supplementary certificate extends the EC - Type Examination Certificates listed in the Schedule to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedules of the said Certificates but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

A copy of this Supplementary Certificate shall be attached to each of the original Certificates.

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


Baseefa Customer Reference No. **0068**

Project File No. **06/0355**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. 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 web site www.baseefa.com
Baseefa is a trading name of Baseefa (2001) Ltd
Registered in England No. 4305578 at the above address


PP R S SINCLAIR

DIRECTOR
On behalf of
Baseefa (2001) Ltd.



Schedule

Description of the variation to the Equipment or Protective System

To allow the use of ballasts and transformers manufactured by any alternative supplier meeting the original specifications.

Certificate No.	Supplement No.	Equipment Type
Baseefa04ATEX0155	4	Evolution II Luminaire
BAS01ATEX2270	3	Universal Gearbox
BAS98ATEX2372	5	Evolution (200 Series Mk III) Floodlight IIB
BAS98ATEX2373	5	Evolution (200 Series Mk III) Floodlight IIC

Report No.

None

Special Conditions for Safe Use

None

Essential Health and Safety Requirements

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

Drawings and Documents

Number	Sheet	Issue	Date	Description
B1766	1 of 1	-	12/14/2005	Ballast and Transformer Manufacturing Detail