

### Issued 14 February 2003 Page 1 of 4

**EC - TYPE EXAMINATION CERTIFICATE** 

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

3 EC - Type Examination

Baseefa02ATEX0117X

Certificate Number:

Equipment or Protective System:

THE CURIE RANGE OF RECESSIBLE LUMINAIRES

5 Manufacturer:

**CHALMIT LIGHTING** 

6 Address:

1

4

388 Hillington Road, Glasgow, G52 4BL

- 7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Baseefa (2001) Ltd. Notified body number 1180, 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.

The examination and test results are recorded in confidential Report No. 02(C)0045 dated 14 February 2003

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

EN 50014: 1997 + Amendments 1 & 2, EN 50017: 1998, EN 50019: 2000,

EN 50028: 1987 + Amendment 1, EN50281-1-1: 1998

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 or protective system 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 or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- 12 The marking of the equipment or protective system shall include the following:

⟨Ex⟩ II 2GD T70°C

EEx eqm II T4

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

Baseefa (2001) Ltd. Customer Reference No. 0068

Project File No. 02/0045

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.



## Issued 14 February 2003 Page 2 of 4

13

14

### **Schedule**

### Certificate Number Baseefa02ATEX0117X

#### 15 Description of Equipment or Protective System

The Curie Range of Recessible Luminaires comprises twin, three and four lamp units of 18W and 36W in emergency and non-emergency units. The rectangular luminaire body is fabricated steel with a polycarbonate or glass diffuser held in an aluminium frame. Ingress protection of at least *IP65* is maintained by a closed cell silicone rubber gasket between the diffuser and the aluminium frame and between the aluminium frame and the steel body. The gasket is either self adhesive or adhered to one surface with silicone rtv sealant. The diffuser frame is secured to the body using up to 10 M6 screws.

The luminaire is intended for flush ceiling mounting with the body located in a recess in the ceiling. At least four mounting clamps are provided to fasten the luminaire body in place.

The following non-emergency models are included in the range:

Model	Control Gear	Lamps	Voltage (v)	T <sub>amb</sub> (°C)	T Class	Max Surface temperature (°C)
Non-modular	2 x LEVA CH12	4 x 18W	220-254	-20 to 40	T4	70
	1 x LEVA CH14	2 x 36W	(47-63Hz)			
	1 x LEVA CH12 &	3 x 36W	or			
	1 x LEVA CH14		220-300 dc			
	2 x LEVA CH14	4 x 36W				
	2 x LEVA CH18	4 x 18W	110-120	]		
	1 x LEVA CH20	2 x 36W	(47-63Hz)			
	1 x LEVA CH18 &	3 x 36W	or			
	1 x LEVA CH20		110-150 dc			
	2 x LEVA CH20	4 x 36W				
Modular	2 x LEVA CH12	4 x 18W	220-254			
	1 x LEVA CH14	2 x 36W	(47-63Hz)		;	
	2 x LEVA CH14	4 x 36W	or			
			200-300 dc			
	2 x LEVA CH18	4 x 18W	110-120			
1	1 x LEVA CH20	2 x 36W	(47-63Hz)			
	2 x LEVA CH20	4 x 36W	or			
			110-150 dc			

The LEVA electronic control gear is ATEX approved by certificate KEMA00ATEX2121U. It is located beneath a white painted gear tray within the luminaire body. The LEVA ballast is interchangeable with the parallel circuit type ILB with certificate number KEMA00ATEX2121U. The same certificate covers CNEVA electronic control gear incorporating an inverter for use on emergency models. Emergency models have a 6 volt battery made up of 5 Nickel-cadmium batteries connected in series rated at either 4 or 7 Ah. Modified 36W CNEVA types may alternatively use 4Ah batteries. The following emergency models are included in the range:



### Issued 14 February 2003 Page 3 of 4

Model	Control Gear	Battery (Ah)	Lamps	Voltage (v)	T <sub>amb</sub> (°C)	T Class	Max Surface temperature (°C)
Non-	1 x LEVA CH12 & 1	4	4 x 18W	220-254	-20 to 40	T4	70
modular	x CNEVA CH22	}		(47-63Hz)			, ,
	2 x CNEVA CH22	2 x 4	4 x 18W				
	1 x CNEVA CH24	7	2 x 36W				
	1 x LEVA CH12 & 1	1	3 x 36W				;
	x CNEVA CH24						
	1 x LEVA CH14 & 1	]	4 x 36W				
	x CNEVA CH24						
	2 x CNEVA CH24	2 x 7	4 x 36W				
	1 x LEVA CH18 & 1	4	4 x 18W	110-120			
	x CNEVA CH21			(47-63Hz)			
	2 x CNEVA CH21	2 x 4	4 x 18W				
	1 x CNEVA CH23	7	2 x 36W				
	1 x LEVA CH18 & 1		3 x 36W				
	x CNEVA CH23						
	1 x LEVA CH20 & 1		4 x 36W				
	x CNEVA CH23						
	2 x CNEVA CH23	2 x 4	4 x 36W				
Modular	1 x LEVA CH12 & 1	4	4 x 18W	220-254			
	x CNEVA CH22			(47-63Hz)	İ		
	2 x CNEVA CH22	2 x 4	4 x 18W				
	1 x CNEVA CH24	7	2 x 36W				
	1 x LEVA CH14 & 1		4 x 36W				
	x CNEVA CH24						
	2 x CNEVA CH24	2 x 7	4 x 36W		1		
	1 x LEVA CH18 & 1	4	4 x 18W	110-120			
	x CNEVA CH21			(47-63Hz)			
	2 x CNEVA CH21	2 x 4	4 x 18W				
	1 x CNEVA CH23	7	2 x 36W				
	1 x LEVA CH20 & 1		4 x 36W				
	x CNEVA CH23						
	2 x CNEVA CH23	2 x 7	4 x 36W				

The CNEVA control gear controls the charging and discharging of the battery providing under-voltage and over-voltage protection and preventing reverse polarity charging of the cells.

ATEX EEx e approved terminals covered by certificates BAS99ATEX2123U, SIRA02ATEX3247U or PTB98ATEX2135U are provided for the connection of the external supply using cables with up to 6 mm<sup>2</sup> conductors.

Internal wiring is by 1/0.8 solid copper conductor with heat resistant PVC insulation. Looping cables, where required, are 2.5mm<sup>2</sup> stranded copper conductor with silicone insulation. Through-going wiring is by 2.5mm<sup>2</sup> or 4mm<sup>2</sup> flexible conductor with high temperature PVC insulation and heat resistant oversleeve when required. When two conductors enter one terminal way they are fitted with a crimp-on blade connector.

The enclosure is provided with cable entry holes which must be fitted with ATEX EEx e approved cable glands which maintain the ingress protection of the enclosure. Unused entries must be fitted with ATEX EEx e approved stopping plugs.



## Issued 14 February 2003 Page 4 of 4

# 16 Report Number

02(C)0045

### 17 Special Conditions for Safe Use

1. Emergency luminaires must not be powered up without the battery fitted.

# 18 Essential Health and Safety Requirements

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

Drawing	Sheet	Issue	Date	Title
D2072	1	0	4/12/01	Certification details
D2072	2	0	7/12/01	General arrangement
D2072	3	0	7/12/01	Gear tray layout
D2072	4	0	7/12/01	External dimensions
D2072	5	0	8/10/02	Modular type dimensions
D2072	6	0	17/12/02	Non-modular gear tray layout
B1333	1	0	3/2/03	Circuit diagram



### Issued 23 August 2004 Page 1 of 2

# 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

Baseefa02ATEX0117X/1

Examination Certificate Number:

Equipment or Protective System:

The Curie Range of Recessible Luminaires

5 Manufacturer:

**Chalmit Lighting** 

6 Address:

388 Hillington Road, Glasgow, G52 4BL

This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0117X 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, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. 0068

Project File No. 04/0208

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.



### Issued 23 August 2004 Page 2 of 2

13

# Schedule

14

### Certificate Number Baseefa02ATEX0117X/1

# 15 Description of the variation to the Equipment or Protective System

### Variation 1.1

To permit the range of luminaries to be used in a reduced ambient temperature of -40°C.

## 16 Report Number

Baseefa Certification Report 02(C)0208

## 17 Special Conditions for Safe Use

None additional to those listed previously

### 18 Essential Health and Safety Requirements

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

Number	Issue	Date	Description
D2072 sheets 1 to 6 inc.	01	17.08.04	Certification Details



### Issued 8 March 2006 Page 1 of 2

# 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: Baseefa02ATEX0117X/2

4 Equipment or Protective System:

The Curie Range of Recessible Luminaires

5 Manufacturer:

**Chalmit Lighting** 

6 Address:

1

388 Hillington Road, Glasgow, G52 4BL

This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX117X/2 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, without any change, schedule included.

Baseefa Customer Reference No. 0068

Project File No. 06/0011

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

R SSINCLAÍR

DIRECTOR On behalf of Baseefa (2001) Ltd.



### lssued 8 March 2006 Page 2 of 2

13

### Schedule

14

# Certificate Number Baseefa02ATEX0117X/2

15 Description of the variation to the Equipment or Protective System

#### Variation 2.1

The ballasts used in these luminaires, covered by KEMA00ATEX2121U, have been tested and comply with the requirements of Annex H of draft standard IEC60079-7 edition 4.0 for both the Asymmetric Pulse Test and Asymmetric Power Test as described in Amendments 4 and 5 of the KEMA certificate.

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.

Drawing	Sheet	Issue	Date	Title
D6061	. 1	-	21/12/05	NEDAP Ballast EOL Certification Correlation



Issued 5 April 2007 Page 1 of 2

# 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: Baseefa02ATEX0117X/3

4 Equipment or Protective System:

The Curie Range of Recessible Luminaires

5 Manufacturer:

**Chalmit Lighting** 

6 Address:

388 Hillington Road, Glasgow, G52 4BL

This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0117X 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, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. 0068

Project File No. 07/0153

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

Ř S SINCLAIR

DIRECTOR On behalf of

Baseefa (2001) Ltd.



### Issued 5 April 2007 Page 2 of 2

13

### Schedule

14

### Certificate Number Baseefa02ATEX0117X/3

15 Description of the variation to the Equipment or Protective System

#### Variation 3.1

To recognise that the battery packs, without additional encapsulant, comply with the requirements of Clause 5.7.2 of EN 60079-7: 2007 and therefore may be used in the arrangement as detailed in the scheduled drawing.

16 Report Number

N/A

### 17 Special Conditions for Safe Use

None additional to those listed previously

### 18 Essential Health and Safety Requirements

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

Number	Sheet	Issue	Date	Description
D1954	1	1	15/02/07	Battery Certification Details To EN 60079-7: 2007



### 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

#### **ADDITION**

in accordance with Directive 94/9/EC Annex III No. 6

to the EC Type Examination Certificate Baseefa02ATEX0117X

Equipment:

The Curie Range of Recessible Luminaires

Marking:

Manufacturer:

Chalmit Lighting

Address:

388 Hillington Road, Glasgow, G52 4BL

#### Description of additions and amendments

The ballast used in these luminaires may also be manufactured with a modified electronic circuit.

The electronic ballast types CHE-EOL -42, -43, -44, -45, -46, -47, -48, -49, -50, -51, -52, -53, and CH-EOL -40, -41, -54 meet the requirements of IEC 61347-2-3 (Simulation of 'end-of-life-the effects' of fluorescent lamps, 'Test asymmetric pulse' —Test 1 and 'Asymmetric output test' - Test 2 conforming to the test conditions in the draft IEC 60079-7 ed. 4 Annex H).

### Applied standards

EN 50014:1997 + A1 + A2, EN 50017:1998, EN 50019:2000, EN50028:1987 + A1, EN50281-1-1:1998

### **Tests**

The tests were witnessed by KEMA as reported in their letter ref:208823500-QUA/IND EtH and have not been validated by Baseefa.

David Brearley Certification Manager

Dealey

14th February 2006