



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 05.0044X Issue No.: 0

Status: Current

Date of Issue: 2005-10-11 Page 1 of 3

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

Electrical Apparatus: Evolution II LT Luminaire
Optional accessory:

Type of Protection: de and tD


Marking: IECEx BAS 05.0044X
Ex de IIB T* (- **C ≤ ta ≤ + **C) and
Ex tD A21 IP67 T**C
(* see Annex)

Approved for issue on behalf of the IECEx
Certification Body:

 R S Sinclair

Position: Managing Director

Signature:
(for printed version)

 M POWNEY
11/10/05

Date:

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 (2001) Ltd.

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





IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0044X

Date of Issue: 2005-10-11

Issue No.: 0

Page 2 of 3

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 manufacture'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 60079-1 : 2003 Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
IEC 60079-7 : 2001 Edition: 3	Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'

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

IECEx ATR:
UK/BAS/04/0886

File Reference:
04/0886



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0044X

Date of Issue: 2005-10-11

Issue No.: 0

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Evolution II LT Luminaire comprises a rectangular lamp housing with an integral increased safety control gear housing at one end. The partition wall between the enclosures is fitted with a capacitor housing and a potted ignitor/lamp holder housing. Cemented into a recess in the lamp housing is a glass window which is secured with frame and socket head screws. The screws heads are filled with potting compound to prevent removal. An optional wire guard or anti glare shield may be fitted.

The increased safety enclosure is fitted with a ballast and two terminal strips. An optional step up toroidal transformer can be fitted to provide a low voltage version.

The wall between the increased safety and flameproof capacitor enclosure may be fitted with potted leads or a line bushing.

The luminaire is rated up to 277V 600W and can be fitted with tungsten halogen, SON/T or MBI/T lamps.

See Annex for the electrical data and variations.

CONDITIONS OF CERTIFICATION: YES as shown below:

The low voltage (110-120V) luminaires must be mounted with the lamp pointing horizontally $\pm 10^\circ$.

Annexe: IECEx BAS 05.0044X Annex.pdf

Baseefa (2001) Ltd.

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



ANNEX to IECEx BAS 05.0044X

Issue No. 0

Date: 2005/10/11

Lamp Type	Wattage	Voltage (V a.c.)	Temperature Classification	Maximum Temperature for Dust Atmospheres	Ambient Temperature Range	Cable Temperature Rise (K)	Delay Before Opening Time (Minutes)	
Tungsten Halogen E40 Lampholder	Up to 500W	100-277	T3	195°C	-50°C to +40°C	50	15	
Tungsten Halogen R7S Lampholder	Up to 500W	100-277	T3	195°C	-50°C to +55°C	40		
HPS SON/T	150W	110-277 50/60 HZ	T4	130°C	-50°C to +40°C	40		
			T3	175°C	-50°C to +55°C	35		
	250W		T4	130°C	-50°C to +40°C	40		
			T3	175°C	-50°C to +55°C	35		
			400W	T3	175°C	-50°C to +55°C		40
				600W	T3	195°C		-50°C to +35°C
MBI (MBI/T)	150W		T4	130°C	-50°C to +40°C	40		
			T3	175°C	-50°C to +55°C	35		
	250W		T4	130°C	-50°C to +40°C	40		
			T3	175°C	-50°C to +55°C	35		
	400W		T3	175°C	-50°C to +55°C	40		

Variation 0.1

To permit a larger increased safety enclosure fitted with a step up toroidal transformer to provide a low voltage version.

The luminaire is rated up to 120V 400W and can be fitted with SON/T or MBI/T lamps as indicated below.

Lamp Type	Wattage	Voltage (V a.c.)	Temperature Classification	Maximum Temperature for Dust Atmospheres	Ambient Temperature Range	Cable Temperature Rise (K)	Delay Before Opening Time (Minutes)
HPS SON/T	150W	110-120 50/60 HZ	T4	130°C	-50°C to +40°C	40	15
			T3	150°C	-50°C to +55°C	35	
	250W		T4	130°C	-50°C to +40°C	40	
			T3	150°C	-50°C to +55°C	35	
MBI (MBI/T)	400W		T3	175°C	-50°C to +55°C	40	
	150W		T4	130°C	-50°C to +40°C	40	
			T3	150°C	-50°C to +55°C	35	
	250W		T4	130°C	-50°C to +40°C	40	
		T3	150°C	-50°C to +55°C	35		
	400W	T3	175°C	-50°C to +55°C	40		



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INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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Certificate No.: IECEx BAS 05.0044X

Issue No: 1

Certificate history:

Status: Current

Page 1 of 4

Issue No. 1 (2013-12-17)

Issue No. 0 (2005-10-11)

Date of Issue: 2013-12-17

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

Electrical Apparatus: Evolution II LT Luminaire

Optional accessory:

Type of Protection: Flameproof, Increased Safety, Dust Protected, Encapsulation

Marking: Ex de IIB T⁺ Gb Ta -50°C to + ^{oo} °C
Ex tb IIIC T⁺ °C Db Ta -50°C to + ^{oo} °C IP67

(* see Annex)

Approved for issue on behalf of the IECEx
Certification Body:

R S Sinclair

Position:

General Manager

Signature:
(for printed version)

Date:

17-12-13

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Certificate issued by:

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





IECEx Certificate of Conformity

Certificate No: IECEx BAS 05.0044X

Issue No: 1

Date of Issue: 2013-12-17

Page 2 of 4

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

Additional 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 : 2007-10 Edition:5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-18 : 2009 Edition:3	Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
IEC 60079-31 : 2008 Edition:1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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

IECEx ATR:

UK/BAS/04/0886

GB/BAS/ExTR12.0052/00

File Reference:

04/0886

09/0559



IECEx Certificate of Conformity

Certificate No: IECEx BAS 05.0044X

Issue No: 1

Date of Issue: 2013-12-17

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Evolution II LT Luminaire comprises a rectangular lamp housing with an integral increased safety control gear housing at one end. The partition wall between the enclosures is fitted with a capacitor housing and a potted ignitor/lamp holder housing. Cemented into a recess in the lamp housing is a glass window which is secured with frame and socket head screws. The screws heads are filled with potting compound to prevent removal. An optional wire guard or anti glare shield may be fitted.

The increased safety enclosure is fitted with a ballast and two terminal strips. An optional step up toroidal transformer can be fitted to provide a low voltage version.

The wall between the increased safety and flameproof capacitor enclosure may be fitted with potted leads or a line bushing.

The luminaire is rated up to 277V 600W and can be fitted with tungsten halogen, SON/T or MBI/T lamps.

See Annex for the electrical data and variations.

CONDITIONS OF CERTIFICATION: YES as shown below:

The low voltage (110-120V) luminaires must be mounted with the lamp pointing horizontally $\pm 10^\circ$.



IECEx Certificate of Conformity

Certificate No: IECEx BAS 05.0044X

Issue No: 1

Date of Issue: 2013-12-17

Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 1.1

To confirm that the equipment covered by this certificate has been reviewed against the requirements of IEC 60079-0: 2011, IEC 60079-1: 2007, IEC 60079-7: 2006 and IEC 60079-31: 2008 in respect of the differences from the standards to which this certificate was issued; none of these differences affect this equipment, other than the code marking requirements which have been addressed.

The luminaire is coded.

Ex de IIB T^{*} Gb Ta -50°C to + ** °C
Ex tb IIIC T^{*} °C Db Ta -50°C to + ** °C IP67

* See previous issues of this certificate

Variation 1.2

To note the use of a ballast to IECEx BAS11.0046U and subsequent change of marking.

The luminaire is coded.

Ex de mb IIB T^{*} Gb Ta -50°C to + ** °C
Ex tb IIIC T^{*} °C Db Ta -50°C to + ** °C IP67

* See previous issues of this certificate

Variation 1.3

To note deletion of the line bushing to IECEx PTB06.0093U and of the toroidal transformer.

ExTR: GB/BAS/ExTR12.0052/00

File Reference: 09/0560

Annex:

[IECEx BAS 05.0044X Annex.pdf](#)



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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Certificate No.: IECEx BAS 05.0045X issue No.: 2

Status: Current

Date of Issue: 2014-04-28 Page 1 of 4

Certificate history:
Issue No. 2 (2014-4-28)
Issue No. 1 (2013-12-17)
Issue No. 0 (2005-10-11)

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

Electrical Apparatus: **Evolution II Luminaire**
Optional accessory:

Type of Protection: **Flameproof, Increased Safety, Dust Protected, Encapsulation**


Marking: **Ex de IIB T* Gb Ta -20°C to + ** °C**
Ex tb IIIC T*°C Db Ta -20°C to + ** °C IP67
(* see Annex)

Approved for issue on behalf of the IECEx
Certification Body:

 R S Sinclair 

Position: General Manager

Signature:
(for printed version)


28/4/14

Date:

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Certificate issued by:

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





IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0045X

Date of Issue: 2014-04-28

Issue No.: 2

Page 2 of 4

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

Additional 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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-18 : 2009 Edition: 3	Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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

IECEx ATR:
UK/BAS/04/0886
GB/BAS/ExTR12.0052/00
GB/BAS/ExTR14.0109/00

File Reference:
04/0886
09/0559
14/0155



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0045X

Date of Issue: 2014-04-28

Issue No.: 2

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Evolution II Luminaire comprises a rectangular lamp housing with an integral increased safety control gear housing at one end. The partition wall between the enclosures is fitted with a capacitor housing and a potted ignitor/lamp holder housing. Cemented into a recess in the lamp housing is a glass window which is secured with a frame and socket head screws. The screws heads are filled with potting compound to prevent removal. An optional wire guard or anti glare shield may be fitted.

The increased safety enclosure is fitted with a ballast and two terminal strips. An optional step up toroidal transformer can fitted to provide a low voltage version.

The wall between the increased safety and flameproof capacitor enclosure may be fitted with potted leads or a line bushing.

The luminaire is rated up to 277V 600W and can be fitted with tungsten halogen, SON/T or MBI/T lamps.

See Annex for the electrical data and variations.

CONDITIONS OF CERTIFICATION: YES as shown below:

The low voltage (110-120V) luminaires must be mounted with the lamp pointing horizontally $\pm 10^\circ$.



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0045X

Date of Issue: 2014-04-28

Issue No.: 2

Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 2.1

To allow the substitution of the existing potting compounds with a two-part potting compound in the capacitor and ignitor housings.

ExTR: GB/BAS/ExTR14.0109/00

File Reference: 14/0155



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 05.0044X issue No.: 3

Status: Current

Date of Issue: 2014-10-22 Page 1 of 4

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

Certificate history:
Issue No. 3 (2014-10-22)
Issue No. 2 (2014-4-28)
Issue No. 1 (2013-12-17)
Issue No. 0 (2005-10-11)

Electrical Apparatus: Evolution II LT Luminaire
Optional accessory:

Type of Protection: Flameproof, Increased Safety, Dust Protected, Encapsulation

Marking: Ex de IIB T^{*} Gb Ta -50°C to + ** °C
Ex tb IIIC T^{*} °C Db Ta -50°C to + ** °C IP67

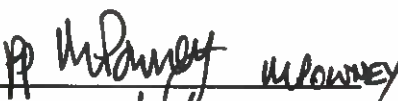
(* see Annex)

Approved for issue on behalf of the IECEx Certification Body: R S Sinclair

Position: General Manager

Signature:
(for printed version)

Date:


23/10/14

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Certificate issued by:

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





IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0044X

Date of Issue: 2014-10-22

Issue No.: 3

Page 2 of 4

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

Additional 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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-18 : 2009 Edition: 3	Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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

IECEx ATR:
GB/BAS/ExTR14.0142
GB/BAS/ExTR12.0052/00
GB/BAS/ExTR14.0109/00

File Reference:
14/0135
09/0559
14/0155



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0044X

Date of Issue: 2014-10-22

Issue No.: 3

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Evolution II LT Luminaire comprises a rectangular lamp housing with an integral increased safety control gear housing at one end. The partition wall between the enclosures is fitted with a capacitor housing and a potted ignitor/lamp holder housing. Cemented into a recess in the lamp housing is a glass window which is secured with frame and socket head screws. The screws heads are filled with potting compound to prevent removal. An optional wire guard or anti glare shield may be fitted.

The increased safety enclosure is fitted with a ballast and two terminal strips. An optional step up toroidal transformer can be fitted to provide a low voltage version.

The wall between the increased safety and flameproof capacitor enclosure may be fitted with potted leads or a line bushing.

The luminaire is rated up to 277V 600W and can be fitted with tungsten halogen, SON/T or MBI/T lamps.

See Annex for the electrical data and variations.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The low voltage (110-120V) luminaires must be mounted with the lamp pointing horizontally $\pm 10^\circ$.
2. The low voltage Evolution luminaires must be connected to a supply provided with a fuse suitable for a prospective short circuit current of 1500A.
3. The low voltage luminaires must be mounted horizontally $\pm 10^\circ$.



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0044X

Date of Issue: 2014-10-22

Issue No.: 3

Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 3.1

To permit the use of a Toroidal transformer for 110-120Vac applications.

The transformer is rated 110/120Vac input; 240Vac output 50/60Hz, 500W. The transformer is for use with the low voltage range of Evolution luminaires from the same manufacturer as indicated below.

Lamp	Temperature Classification	Maximum ambient temperature	Dust marking
400W HPS/MBI	T3	+ 55 °C	T175 °C
250W HPS/MBI	T4	+ 40 °C	T130 °C
	T3	+ 55 °C	T150 °C
150W HPS/MBI	T4	+ 40 °C	T130 °C
	T3	+ 55 °C	T150 °C

The low voltage luminaire is coded:-

Ex d e mb IIB T* Gb Ta-50 °C to + ** °C

Ex tb IIIC T* °C Db IP67 Ta-50 °C to + ** °C

* See table above

Variation 3.2

The addition of Conditions of Certification Nos. 2 and 3.

ExTR: GB/BAS/ExTR14.0142/00

File Reference: 14/0135