



(1) EC-TYPE EXAMINATION CERTIFICATE

(2) Equipment or protective system intended for use in potentially explosive atmospheres
Directive 94/9/EC

(3) EC-Type Examination Certificate number: **LOM 02ATEX2013 X**

(4) Equipment or Protection System Fluorescent luminaires
Type AB12...

(5) Applicant: Cooper, Crouse-Hinds Division, CEAG
CEAG Nortem, S.A.

(6) Address: Avda. Santa Eulalia, 290
08223 TARRASA (BARCELONA)
SPAIN

(7) This equipment or protective system and any acceptable variation there to is specified in the schedule to this certificate and the documents therein referred to.


(8) Laboratorio Oficial J.M. Madariaga (LOM), notified body number 0163 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament 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 nr. **LOM 00.421 FP**

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- Standards **EN 50014:1997 + A1:1999 + A2:1999**
EN 50018:2000
EN 50281-1-1: 1998


(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 this certificate schedule.

(11) This EC-Type Examination Certificate relates only to the design and construction of this specified equipment or protective system in accordance with the Directive 94/9/EC. Further requirements of the Directive applies to the manufacture 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:

 II 2 G D EEx d IIB T5..T6 / EEx d IIC T5..T6
IP67 T... °C
Ta: -20 °C / +55 °C

Madrid, 21 April 2002


Carlos Fernández Ramón
DIRECTOR OF THE LABORATORY




Angel Vega Remesal
Head of ATEX area

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LABORATORIO OFICIAL J. M. MADARIAGA

(A1) SCHEDULE

(A2) EC-Type Examination Certificate: **LOM 02ATEX2013 X**

(A3) Description of equipment or protective system

Cilindric luminaires for tubular fluorescent lamps.

The transparent part is made of glass. It has two different thickness: type S, 7 mm, and type K, 5 mm .

Characteristics

Type	Length (mm)	Number of tubes	Power (W)	Grupe	Class I		Class II	
					Temperature class		Surface temperature	
					Ta (°C) -20 /+40	Ta (°C) -20 /+55	Ta (°C) -20 /+40	Ta (°C) -20 /+55
AB12 120*	707	1	18/20	IIB	T5	T5	T 78 °C	T 93 °C
AB12 140*	1320	1	36/40	IIB				
AB12 16*	1620	1	58/65	IIB				
AB12 220*	707	2	18/20	IIB				
AB12 240*	1320	2	36/40	IIB				
AB12 265*	1620	2	58/65	IIB				
AB12 108C	460	1	8	IIC	T6	T5	T 58 °C	T 73 °C
AB12 111PL	460	1	11	IIC				
AB12 218PL	460	2	18	IIC				
AB12 124PL	460	1	24	IIC	T5	T5	T 76 °C	T 91 °C
AB12 155PL	707	1	55	IIB				
AB12 236PL	707	2	36	IIB				

* = C Electromagnetic ballast and starter
Rated voltage: 220 -230 V 50/60 Hz

* = E Electronic ballast
Rated voltage : 198 -254 V 50/60 Hz
175-280 Vdc

(A4) Test report: LOM 00.421 FP

(A5) Special conditions for safe use

Luminaires can be use only in places with low impact danger of mechanical danger except types AB12*40C and AB12 * 65C having type S glass.

(A6) Essential Health and Safety Requirements

Each manufactured unit must be submitted to a static pressure test, according to paragraph 15.3.1 of EN 50018:2000, to:

- 650 kPa for types AB12 120C, AB12 220C, AB12 155PL y AB12 236PL
- 1100 kPa for the rest of the types

Explosion safe requirements are covered by application of the standards indicated in page 1/3 of this certificate.



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LABORATORIO OFICIAL J. M. MADARIAGA

(A1) SCHEDULE

(A2) EC-Type Examination Certificate: **LOM 02ATEX2013 X**

(A7) Descriptive documents:

		<u>Rev.</u>	<u>Date</u>
Description nr.	AB12.doc (7 pp)	2	2002-04-12
Part list		1	2001-10-22
Drawings nr:	N601114D0037	E	2002-04-16
	N506112-0022	-	2000-05-10
	N506112-0025	-	2000-11-20
	N506112-0026	-	2000-11-20
	N506112A0033	A	2000-11-20
	N506112A0034	A	2000-11-20
	N506112A0035	A	2000-11-20
	N506112A0036	A	2000-11-20
	N506112A0037	A	2000-11-20
	N506112A0033	A	2000-11-20
Schemas nr.:	N506114A0023	A	2000-11-20
	N506114A0024	A	2000-11-20
	N506114A0025	A	2000-11-20
	N506114A0026	A	2000-11-20
	N506114A0027	A	2000-11-20
	N506114A0028	A	2000-11-20
	N506114A0030	A	2000-11-20
	N506114A0031	A	2000-11-20
	N506114A0032	A	2000-11-20
	N506114A0033	A	2000-11-20
	N506114A0034	A	2000-11-20
	N506114A0035	A	2000-11-20
	N506114-0042	-	2000-11-20
	N506114-0043	-	2000-11-20
	N506114-0044	-	2000-11-20
	N506114-0045	-	2000-11-16
	N506114-0046	-	2000-11-16
	N506114-0047	-	2000-11-16
	N506114-0048	-	2000-05-24
	N506114-0049	-	2000-05-24
	N506114-0050	-	2000-05-24
	N506114-0051	-	2000-05-24
	N506114-0052	-	2000-11-27
	N506114-0053	-	2000-11-27
	N506114-0054	-	2000-11-27
	N506114-0055	-	2000-11-27
	N506114-0056	-	2000-11-28
	N506114-0059	-	2002-04-16



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(1) **SUPLEMENTO DE CERTIFICADO DE EXAMEN CE DE TIPO**

(2) Equipos y sistemas de protección destinados a ser utilizados en atmósferas potencialmente explosivas.
Directiva 94/9/CE

(3) Suplemento número nº 1 del Certificado de Examen CE de Tipo **LOM 02ATEX2013X**

(4) Equipo o sistema de protección Luminarias fluorescentes
Tipo AB12...

(5) Solicitante Cooper, Crouse-Hinds Division, CEAG
CEAG Nortem, S.A.

(6) Dirección Avda. Santa Eulalia, 290
08223 TARRASA (BARCELONA)
ESPAÑA

(7) Protocolo de ensayos nº **LOM 03.620 GP**

(8) Variaciones incluidas en este certificado

Aumentar la cobertura del certificado para incluir una variante en el modelo AB 12 EI consistente en incorporar en el interior de la luminaria barreras fotoeléctricas, emisor o receptor.

(9) Documentos descriptivos

		<u>Rev.</u>	<u>Fecha</u>
- Descripción nº	AB12/1.doc	-	2003-11-17
- Plano nº:	N5061112-0041	-	2003-10-30

Carlos Fernández Ramón
DIRECTOR DEL LABORATORIO



Madrid, 10 de noviembre de 2004

Angel Vega Remesal
Responsable del área ATEX

Este suplemento deberá formar parte inseparable del certificado base LOM 02ATEX2013
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(1) **EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

(2) Equipment or protective system intended for use in potentially explosive atmospheres.
Directive 94/9/EC

(3) Supplement nr. **2** of EC-Type Examination Certificate: **LOM 02ATEX2013 X**

(4) Equipment or protective system: Luminaries
Type AB12...

(5) Applicant: Cooper Crouse-Hinds, S.A.

(6) Address: Avda. Santa Eulalia, 290
08223 TARRASA (BARCELONA)
SPAIN

(7) Test report: **LOM 05.411 DP**

(8) Variations included in this certificate

To include a variant type AB12 NAV 70 that use a H.P. sodium lamp of 70 W plus electric equipment -ballast-.

To increase the use for an ambient temperature Ta: -50 °C /+55 °C valid only for IIB group.

This variant uses the 460 mm enclosure.

Class temperature for this variant is T3 for an ambient temperature Ta: -50 /+40 °C or Ta: -50 /+55 °C

(8) Marking changes

Those that affect to electrical and thermal characteristics and type.

(9) Change in individual tests

None

(10) Descriptive documents

	<u>Rev.</u>	<u>Date</u>
- Description nr. AB12 NAV 70.doc	0	2005-09-08

Madrid, 19th September 2005

Carlos Fernández Ramón
DIRECTOR OF THE LABORATORY



Angel Vega Remesal
Head of ATEX area

This supplement must be an inseparable part together with the base certificate **LOM 02ATEX2013X**
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(1) EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT

(2) Equipment or protective system intended for use in potentially explosive atmospheres. Directive 94/9/EC

(3) Supplement nr. 3 of EC-Type Examination Certificate: LOM 02ATEX2013 X

(4) Equipment or protective system Luminaries Type AB12...

(5) Applicant COOPER Crouse-Hinds

(6) Address Avda. Santa Eulalia, 290 08223-TERRASSA (BARCELONA) SPAIN

(7) Test report nr.: LOM 08.312 SP

(8) Variations included in this certificate

- 1 Update to the standards EN 60079-0:2006, EN 60079-1:2007, EN 61241-0:2006 y EN 61241-1:2004
2 Update of the manufacturer/applicant name
3 Update of type codification for the application of 8W: AB12 I08 C with electromagnetic ballast AB12 I08 EVG with electronic ballast
4 To extend the use of the variant AB12 NAV70 for 220-240 V 60 Hz

(9) Changes in marking

Ex II 2 GD Ex d IIB T5..T6 / Ex d IIC T5..T6 Ex tD A21 IP67 T...°C

Temperature classes, surface temperatures and ambient temperature ranges are indicated in the base certificate and previous supplements.

(10) Descriptive documents

Table with 4 columns: Description nr., Drawings nr., Rev., Date. Rows include AB12_E3, N506112B0036, CCH-0805001 and revision dates from 2008-05-14 to 2008-05-16.

Madrid, 2nd March, 2009

Signature of Carlos Fernández Ramón, Director of the Laboratory, with LOM official stamp.

Signature of Angel Vega Remesal, Head of ATEX area.

This supplement must be an inseparable part together with the base certificate LOM 02ATEX2013 X

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(1) **EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

(2) Equipment or protective system intended for use in potentially explosive atmospheres.
Directive 94/9/EC

(3) Supplement nr. **4** of EC-Type Examination Certificate: **LOM 02ATEX2013 X**

(4) Equipment or protective system
Luminaires
Type AB12...

(5) Manufacturer
COOPER Crouse-Hinds

(6) Address
Avda. Santa Eulalia, 290
08223-TERRASSA (BARCELONA)
SPAIN

(7) Test report nr.: **LOM 10.406 GP**

(8) Variations included in this certificate

- Update to the standards EN 60079-0:2009, EN 60079-1:2007 y EN 60079-31:2009
- To permit the use in combustible dust by application of the protection by enclosures "Ex t" type of protection on all variants of this luminaire
- To include new electronic ballasts to be used with fluorescent tubes from 14 to 58 W having a universal supply of 120/277 V 60Hz and 110/260 V 0..60Hz
- To include T8 LED tubes with direct mains supply up to 277 V and consumed power up to 50 W per tube.

The thermal class of the 460 mm luminaire with T8/14 W florescent tube is T6 /85°C when Ta ≤ +40 °C.

All the variants with LED tube are marked with "LED" suffix, instead "C" or "E" that corresponds to electromagnetic or electronic ballast respectively. The temperature class of LED variants is T6 /T85 °C

(9) Changes in the special conditions for a safe use

None

(10) Changes in individual tests

None



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LABORATORIO OFICIAL J. M. MADARIAGA

(3) Supplement nr. 4 of EC-Type Examination Certificate **LOM 02ATEX2013 X**

(11) Changes in marking



II 2 GD

Ex d IIB T5..T6 Gb / Ex d IIC T5..T6 Gb
Ex t IIIC T... °C Db
-20 °C ≤ Ta ≤ +55 °C

And those that correspond to the name of type


Temperature class, surface temperature and ambient temperature ranges are indicated on the base certificate and previous supplements.


(12) Descriptive documents

	Rev.	Date
- Description nr.: AB12 _ Extensión nr.5	2	2011.05.17
AB12 _ Extensión nr.6	1	2011.04.28
- Drawings nr.: CCH20111011	-	2011-10-11
N506114A0064	-	2011-07-28
N601114-0056	-	2000-11-28



Getafe, 2011-10-11


Carlos Fernández Ramón
DIRECTOR OF THE LABORATORY


Ángel Vega Remesal
Head of ATEX area



(1) **EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

(2) Equipment or protective system intended for use in potentially explosive atmospheres.
Directive 94/9/EC

(3) Supplement nr. **5** of EC-Type Examination Certificate: **LOM 02ATEX2013 X**

(4) Equipment or protective system
Luminaires
Type AB12...

(5) Manufacturer
COOPER Crouse-Hinds

(6) Address
Avda. Santa Eulalia, 290
08223-TERRASSA (BARCELONA)
SPAIN

(7) Test report nr.: **LOM 11.591 VP**

(8) Variations included in this certificate

To include the model AB 12 LED 15 VOES as new variant. This variant consists of a voltage converter, a active LED module and four passive LED modules. The temperature class and surface temperature for this variant is T6, T85 ° C.

Electrical characteristics Supply rated voltage: 120-240V, 0 to 60 Hz
Maximum power of converter: 35 W
Efficiency of converter at maximum power: 90%

(9) Changes in the special conditions for a safe use

None

(10) Changes in individual tests

None

(11) Changes in marking

There are no changes to Supplement nr. 4, except the model name or type

(12) Descriptive documents

	Rev.	Date
- Description nº: AB12_ Suplemento Nº 5	0	2011-12-13
- Drawings nr.: 21750058009 (Pz)	-	2011-11-18
31750058051(Pz)	-	2011-11-18

Getafe, 2012-01-31

Carlos Fernández Ramón
DIRECTOR OF THE LABORATORY



Angel Vega Remesal
Head of ATEX area

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(1) **EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

(2) Equipment or protective system intended for use in potentially explosive atmospheres
Directive 94/9/EC

(3) Supplement nr. **6** to EC-Type Examination Certificate number **LOM 02ATEX2013 X**

(4) Equipment or Protection System
Luminaires
Type AB12...

(5) Manufacturer
COOPER Crouse-Hinds

(6) Address
Avda. Santa Eulalia, 290
08223-TERRASSA (BARCELONA)
SPAIN

(7) Test report nr.: **LOM 13.108 ECP**



(8) Variations included in this certificate

- To include new luminaire variant called "AB12 NAV70 Siberia". This variant has screw caps on both ends of the tube and rearrangement of inner mounting plate. This mounting plate is also applied to the variant "AB12 NAV70"
- To permit the use of electromagnetic ballast up to 250 V/ 50-60 Hz
- Correct the number of two drawings referenced in supplement nr. 4: N601114-0056 should be N506114-0056
N506114A0064 should be N506114-006

Type	Group	Ambient temperature	Temperature class	Surface temperature
AB12 NAV70 Siberia	IIC	-50 °C ≤ Ta ≤ +40 °C	T3	T140 °C
AB12 NAV70	IIB	-45 °C ≤ Ta ≤ +55 °C	T3	T155 °C
AB12 NAV70	IIC	-20 °C ≤ Ta ≤ +55 °C	T3	T155 °C

(9) Changes in marking

The marking remains unchanged from the previous supplements except variant names and characteristics.

(10) Changes in the special conditions for a safe use

Without changes

(11) Variaciones en los ensayos individuales

The luminaires AB12 NAV70 Siberia and all variants of AB12 with length of 460 mm marked with group IIC and low ambient of -45 °C and -50 °C must be submitted to overpressure tests at 19,2 bar

Este suplemento deberá formar parte inseparable del certificado base **LOM 02ATEX2013 X**

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LABORATORIO OFICIAL J. M. MADARIAGA


(3) Supplement nr. 6 to EC-Type Examination Certificate number **LOM 02ATEX2013 X**

(12) Descriptive documents

		<u>Rev.</u>	<u>Date</u>
- Description nr.	AB12_Suplemento N° 6	0	2013-02-18
- Drawings nr.:	11750000352Pz	-	2013-02-18
	21750352000Pz	A	2013-04-17
	31750301083Pz	A	2013-04-16

Getafe, 2013-04-22




Carlos Fernández Ramón
Head of Certification Committee



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(1) EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT

- (2) Equipment or protective system intended for use in potentially explosive atmospheres
Directive 94/9/EC
- (3) Supplement nr. **7** to EC-Type Examination Certificate number **LOM 02ATEX2013 X**

(4) Equipment or Protection System
Luminaires
Type AB12

(5) Manufacturer
COOPER Crouse-Hinds

(6) Address
Avda. Santa Eulalia, 290
08223-TERRASSA (BARCELONA)
SPAIN

(7) Test report nr.: **LOM 14.443 NP**

(8) Variations included in this certificate

To include new luminaire variant called "AB12 NAV70 Arctic" with characteristics:

Type	Group	Ambient temperature	Temperature class	Surface temperature
AB12 NAV70 Arctic	IIC	-50 °C ≤ Ta ≤ +40 °C	T3	T140 °C

This variant also includes new alternative ballasts.

(9) Changes in marking

The marking remains unchanged from the previous supplements except variant name and characteristics.

(10) Changes in the special conditions for a safe use

Without changes

(11) Changes in the individual tests

The luminaires AB12 NAV70 Arctic must be submitted to overpressure tests at 19,2 bar

(12) Descriptive documents

	Rev.	Date
Description nr. AB12_Suplemento Nº 7	0	2014-05-01
Drawings nr. 21750353000		2014-04-14
31750301083	B	2014-05-12
31750301085	B	2014-08-12
31750301087	B	2014-08-12

Getafe, 2015-02-05

Carlos Fernández Ramón
Head of Certification Committee

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