

[1]

# EU-TYPE EXAMINATION CERTIFICATE



[2]

**Equipment intended for use in potentially explosive atmospheres  
Directive 2014/34/EU ANNEX III**

[3]

Certificate Number: **EPT 16 ATEX 2405 X** **issue 2**

[4]

Equipment: **LED Explosion protected luminaire**

Series: **HPL**

[5]

Manufacturer: **COOPER ELECTRIC (CHANGZHOU) CO., LTD.**

[6]

Address: **No. 189 Liuyanghe Road, Xinbei District, Changzhou, Jiangsu, China**

[7]

This equipment and its accepted variations are specified in the annex to this Certificate.

[8]

Eurofins Product Testing Italy S.r.l., Notified Body n. 0477 in accordance with Article 21 of the Directive 2014/34/EU of the European Parliament and of the Council of 26th February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II of the Directive.

The examination and test results are recorded in the confidential Report N°EPT.17.REL.01/55754

[9]

Compliance with the essential health and safety is assured through the verification of them and by compliance with the standard:

**EN60079-0:2012+A11:2013; EN60079-1:2014; EN60079-7:2015; EN60079-18:2015; EN60079-28:2015;  
EN60079-31:2014**

[10]

If the sign "X" is placed after the Certificate number, it indicates that the equipment is subject to the special conditions for safe use specified in the annex to this Certificate.

[11]

This EU -TYPE EXAMINATION CERTIFICATE relates only to the design, the exam and the tests of the specified equipment.

Further requirements of the Directive 2014/34/EU apply to the manufacture and supply of this equipment. These requirements are not object of this Certificate.

[12]

The equipment shall include the sign  and the following string:

**II 2 G Ex db eb mb op is IIC T6 Gb**

**II 2 D Ex tb op is IIIC T80°C Db**

**-40°C ≤ Ta ≤ +40°C/+45°C/+50°C**

Place and date of issue:

**Torino, 2017-10-26**



*Dionisio Bucchieri*

Dionisio Bucchieri  
Directive Responsible

*Paolo Trisoglio*

Paolo Trisoglio  
Managing Director



**SGQ N° 133A**

**PRD N° 119B**

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This Certificate has 5 pages and it is reproducible only in its entirety. Conditions of validity are reported below.

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**[15] Equipment description**

The HPL series consists in an LED lighting fixture. The device is mainly made of cast aluminium alloy and it is composed by three functional blocks: increased safety terminal chamber, flameproof enclosure and encapsulated LEDs module.

The increased safety terminal chamber is used to power up the device and contains certified terminal strip. The flameproof enclosure contains the LED driver in the standard version and also battery pack and inverter in the emergency version. The device can be optionally provided with an M25 hole directly on the flameproof enclosure top side for wiring purpose (direct entry version). The internal wiring is made by cables having 18 AWG minimal cross section. A sealed bushing assembly (forming a cylindrical flameproof joint) is used between different chambers for electrical connection purposes. The encapsulated LEDs module is included in the lamp housing assembly that consists of heat-sink chassis, lens and tempered glass diffuser.

Only certified cable glands have to be used to wire the device and the unused entries need be blanked with suitable certified plugs.

The degree of protection of the enclosure is IP66, according to EN 60079-0 and EN 60529.

**Electrical parameters:**

Rated voltage range: AC: 100~240V 50/60Hz, DC: 108~250V

Rated power range: 25W~75W

**Warning label**

Warning – Do not open when an explosive gas atmosphere is present

**Routine tests**

- Batch overpressure test is conducted according to Clause 16.1 of EN 60079-1:2014:
  - For a production batch up to 100, a sampling of 8 needs to be tested at 1.5 times the reference pressure with no failures.
  - For a production batch from 101 to 1 000, a sampling of 32 needs to be tested at 1.5 times the reference pressure with no failures.
  - For a production batch from 1 001 up to 10 000, a sampling of 80 needs to be tested at 1.5 times the reference pressure with no failures.
  - Batches above 10 000 must be subdivided into smaller batches.
- If there is any non-compliant test result, 100 % of all remaining samples in the batch shall be tested at 1.5 times the reference pressure. Future batches should be routine tested at 1,5 times the reference pressure until confidence is established to reconsider batch testing.
- Dielectric test in the Ex eb compartment is conducted according to Clause 7.1 of EN 60079-7:2015. Applied 1500V r.m.s between terminals & enclosure maintained for 1 min without dielectric breakdown occurring.
- Dielectric test on the Ex mb equipment parts is conducted according to Clause 9.2 of EN 60079-18:2015. Applied 1500V r.m.s between input cables & surface compound maintained for 1 s without dielectric breakdown occurring.
- Ex mb parts have to be subjected to a visual inspection according to Clause 9.1 of EN 60079-18:2015, no damage has to be evident.



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**Catalogue Number Logic:**

Cat. No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
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(1) indicates basic catalogue series designation: HPL

(2) indicates total luminous flux: -3L — 3000 Lm; -4L — 4000 Lm; -5L — 5000 Lm; -6L — 6000 Lm; -7L — 7000 Lm; -8L — 8000 Lm

(3) indicates LED colour temperature: Default — 5700K, -W — 3000K

(4) indicates optics type: Default — type V optics standard

(5) indicates ballast voltage: Default — AC: 100-240V 50/60Hz, DC: 108~250V

(6) indicates entry type and size: -1M — M20, -2M — M25, -D1 — M25 (for direct entry use only)

(7) indicates entry quantity: Default — one entry, -S886 — dual entry

(8). Indicates Terminal -T1-Pillar terminal; -T2-MK 6/3; -T3-MK 6/6; -T4-MUT 4(3 pole); -T5-MUT 4(6 pole)

(9). Indicates Glass Default-Clear Glass; -F-Foggy Glass

(10). Indicates entry optional accessories:

Default-No entry acc;

-1P-two entries, with 1 Plug;

-2G-all entries, with plastic cable gland;

-3G-two entries, with 1 plastic plug, 1 cable gland

(11). Indicates Mounting Type.

Default—G3/4 Pendant mount only

-B1—With Painted bracket mount only

-B2—with 304SST bracket mount only

-B3—with 316SST bracket mount only

-B4—with both Painted bracket mount, also available for G3/4 Pendant mount

-B5—with both 304SST bracket mount, also available for G3/4 Pendant mount

-B6—with both 316SST bracket mount, also available for G3/4 Pendant mount

-B7—G3/4 Pendant mount, also with mounting bracket hole cut, but bracket need to order separated

-B8—only with mounting bracket hole cut, mounting bracket need to be ordered separated.

(12). Indicates emergency duration. Default—Normal version; EM1—1.5H, 30% Lm output; EM2—3H, 15% Lm output

(Note: for detailed electrical schematic diagram see Fig.4 of manufacturer's operating instruction)


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**[19] Descriptive documents**

The equipment objects of this Certificate are described by the following documents. Scheduled documents are indicated with the symbol "✓". They cannot be modified without the explicit authorization of the Notified Body.

Title	Drawing No.	Rev.	Date	Scheduled
Descriptive document	CCH-P121	3	2017-04-22	✓
HPL instruction sheet	IM0217	2	2017-10	✓
Certification drawing sheet 1 to 8	CHLAO0257	3	2016-01 2017-08	✓
Nameplate	CHLEP0553	1	2017-10-23	✓

**[20] Terms and conditions**

The product liability rests with the Manufacturer, his representative or, in the absence of a representative, with the importer, in accordance with the General Product Safety Directive 2001/95/EC.

The following conditions may render this certificate invalid:

- changes in the design or construction of the product;
- changes or amendments to the Directive;
- changes or amendments in the standards which form the basis for documenting compliance with the essential requirements of the 2014/34/EU Directive.

**[21] History**

Issue	Description	Issue Date
0	First Emission	2016-03-15
1	Change in classification of installation and use as indicated in the operating instructions.	2016-06-28
2	1. change product name from "LEL" to "HPL". 2. Add emergency type EM1 and EM2 to original type. The flameproof enclosure (central cover) of emergency type is in dimension larger than normal version. 3. Add power configuration 6L, 7L and 8L to original type. 4. Add foggy glass to original type. 5. Ambient temperature is extended from - 40°C ~ +45°C to - 40°C ~ +40°C/45°C/50°C. 6. Added direct entry option which is specified by D1. 7. Extended "op is" assessment to category 2 D	2017-10-26


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**Relationship between power, ambient temperature and temperature classes:**

Catalog No.	Power	Tamb	Gas T.Class	Dust T.Class
HPL-3L*****	25 W	- 40°C ~ +50°C	T6	T80°C
HPL-5L*****	50 W			
HPL-3L***-F**	50 W	- 40°C ~ +45°C		
HPL-4L***-F**				
HPL-5L***-F**				
HPL-3L*****	40 W	- 40°C ~ +50°C		
HPL-4L*****				
HPL-5L*****				
HPL-3L***-F**				
HPL-4L***-F**				
HPL-6L*****	50 W			
HPL-5L-W****				
HPL-7L*****	56~75 W	- 40°C ~ +45°C		
HPL-8L*****				
HPL-6L-W****				
HPL-5L***-F**		- 40°C ~ +40°C		
HPL-6L***-F**				
HPL-5L-W*-F**				

Catalog No.	Power	Tamb	Gas T.Class	Dust T.Class
HPL-*****EM*	25~50 W	- 40°C ~ +45°C	T6	T80°C

**[16] Assessment Report n°EPT.17.REL.01/ 55754**

This EU-Type Examination Certificate is released after the positive result of the conformity assessment of the Council Directive 2014/34/EU and to harmonized technical standards listed in this certificate performed by the Notified Body Eurofins Product Testing Italy S.r.l., and reported in the Assessment Report above cited.

**[17] Special condition for a safe use**

- The flameproof joints are not intended to be repaired;
- The enclosure exterior should be regularly cleaned to avoid combustible dust accumulation.

**[18] Essential Health and Safety Requirements**

Assured by compliance with harmonized standards.


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