



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX PRE 19.0058X** Page 1 of 4 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-01-21

Applicant: **Cooper Electric (Changzhou) Co., Ltd.**
No.189 Liuyanghe Road, Xinbei District, Changzhou, 213031, Jiangsu,
China

Equipment: **HPLN Series LED Explosion protected luminaire**

Optional accessory:

Type of Protection: **Ex db, Ex eb, Ex mb, Ex op is, Ex tb**

Marking: Ex db eb mb op is IIC T4 Gb
Ex tb op is IIIC T95°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Bjørn Spongsveen

Position:

Certification Manager

Signature:
(for printed version)

Date:

2020-01-22

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 www.iecex.com or use of this QR Code.



Certificate issued by:

DNV GL Presafe AS
Veritasveien 3
1363 Høvik
Norway





IECEX Certificate of Conformity

Certificate No.: **IECEX PRE 19.0058X** Page 2 of 4

Date of issue: 2020-01-21 Issue No: 0

Manufacturer: **Cooper Electric (Changzhou) Co., Ltd.**
No.189 Liuyanghe Road, Xinbei District, Changzhou, 213031, Jiangsu,
China

Additional manufacturing locations: **Cooper Industries Middle East LLC**
(Cooper Crouse Hinds)
111th Road, Al Jubail Street
2nd Industrial Area
Dammam 31952
31952 (PO Box 70160)
Saudi Arabia

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-18:2014 Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
Edition:4.0

IEC 60079-28:2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

This Certificate **does not** indicate compliance with 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:

Test Report:

[NO/PRE/EXTR19.0054/00](#)

Quality Assessment Reports:

[GB/BAS/QAR07.0041/09](#)

[GB/BAS/QAR16.0002/03](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX PRE 19.0058X**

Page 3 of 4

Date of issue: 2020-01-21

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The HPLN Series LED Explosion protected luminaire consists one Ex e driver chamber and one Ex d LED light source chamber, a Ex bushing is installed in the heatsink to do the electrical connection of those two chambers. The whole product meets the requirements of Ex tb also, and there is a small breather chamber located in the side of heatsink, the breather chamber is relevant to Ex tb only.

There are three configurations of the products, the difference between them are the heatsink and adaptor, the other parts are the same.

In the driver chamber, one or two Ex driver(s), some Ex terminals and one SPD (optional) are installed.

In the LED chamber, the LED light sources meet the requirements of inherently safe optical radiation.

Type designation

See annex.

Electrical Data

See annex.

Degrees of protection (IP Code)

IP66

Ambient temperature:

-40°C to +55°C (when the INVENTRONICS LED driver and/or CLB... bushing are installed)

-50°C to +55°C (when the Eaton LED driver and LB... bushing are installed)

Routine tests

- Each flameproof enclosure of 11L must be subjected to routine overpressure test of 1.6 MPa for at least 10 s according to clause 16 of IEC 60079-1.

- The flameproof enclosure of 15L and 25L must be subjected to batch overpressure test of 1.6 MPa for at least 10 s according to clause 16 of IEC 60079-1.

- A dielectric strength test shall be carried out at 1500V for at least 1 min. according to requirements of clause 7.1 (6.1) of IEC 60079-7:2015.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The product must be connected to electricity supplies with a prospective short-circuit current of max.1500A.

- Repairs of the flameproof joints must be made in compliance with the structural specifications provided by the manufacturer. Repairs must not be made on the basis of values specified in table 4 of IEC 60079-1.

- Before application, separate IECEx certified Ex eb IIC Gb or/and Ex tb IIIC Db IP66 cable gland or plug should be incorporated in the Ex e chamber.

- Before application, separate IECEx certified Ex tb IIIC Db IP66 plug or breather/drains should be incorporated in the heatsink.

Annex:



IECEX Certificate of Conformity

Certificate No.: **IECEX PRE 19.0058X**

Page 4 of 4

Date of issue: 2020-01-21

Issue No: 0

[IECEX PRE 19.0058X_issue 0_annex_updated.pdf](#)

Annex to certificate: IECEx PRE 19.0058X Issue 0

Type designation

HPLN	-	□	-	□	-	□	-	□	-	□	-	□	-	□	-	□	-	□	-	□
																			<p>Ta: Default: -40°C LT: -50°C</p>	
																			<p>Breather Valve: Default: Without breather valve BV: Breather valve</p>	
																			<p>Surge protect device: Default: Standard version S: High version</p>	
																			<p>Suffixes: S812: Trunnion mount kit with pin S831: Safety cable S890: Quick clip</p>	
																			<p>Guard: Default: Without guard G: With guard</p>	
																			<p>Glass type: Default: Clear glass F: Foggy glass</p>	
																			<p>Beam angle: Default: without lens W: Wide angle (120°) M: Medium angle (60°) N: Narrow angle (25°)</p>	



Mounting type:

Blank=no cover (an option of the luminaire body which must be assembled to the cover in field to make up a complete assembled luminaire)

J: 1½" stanchion, 25° angled

P: 1½" stanchion, straight

2A: ¾" Pendant 3A: 1" Pendant

20A: 20mm Pendant 25A: 25mm Pendant

2B: ¾" Cone Pendant 3B: 1" Cone Pendant

2C: ¾" Ceiling 3C: 1" Ceiling

20C: 20mm Ceiling 25C: 25mm Ceiling

2HA: ¾" Flexible Pendant

2TW: ¾" Wall 3TW: 1" Wall

20TW: 20mm Wall 25TW: 25mm Wall

LED color temperature:

W1: 2700K W2: 3000K C1: 4000K

C2: 5000K C3: 5700K

Total Luminous Flux.:

3L: 3000 Lm 5L: 5000 Lm 7L: 7000 Lm

9L: 9000 Lm 11L: 11000 Lm

15L: 15000 Lm

21L: 21000 Lm 25L: 25000 Lm

HPLN: Basic catalog series designation

Electrical Data

Rated voltage: 100~240 V a.c. 50/60 Hz or 125~250 V d.c.

Rated parameters:

Type	LED PCB	Max. power	Driver
HPLN-3L...		95 W	1 x MU060H105AQ_MB or 1 x EUD-060S120DT-FT01
HPLN-5L...			
HPLN-7L...			
HPLN-9L...	30 pcs. connection in series	130 W	1 x MU100H120AQ_MB or 1 x EUD-096S105DTAFT01
HPLN-11L...	36 pcs. connection in series		
HPLN-15L...	2x (23 pcs. connection in series)	205 W	2 x MU060H105AQ_MB or 2 x EUD-060S120DT-FT01
HPLN-21L...	2x (35 pcs. connection in series)		
HPLN-25L...	2x (41 pcs. connection in series)		2 x MU100H120AQ_MB or 2 x EUD-096S105DTAFT01