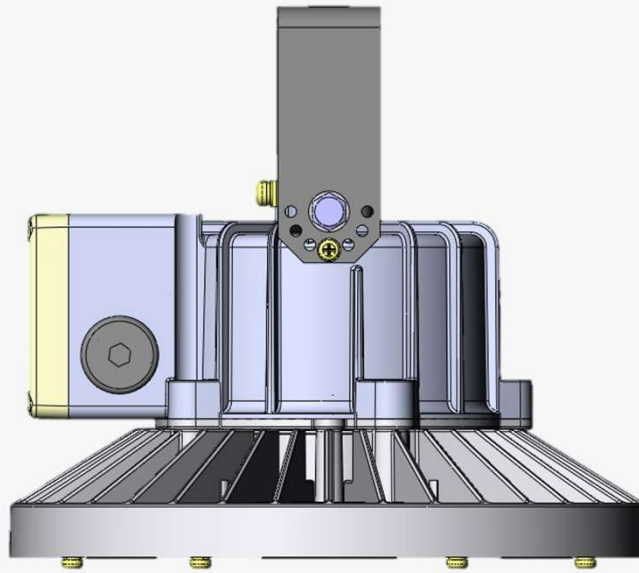
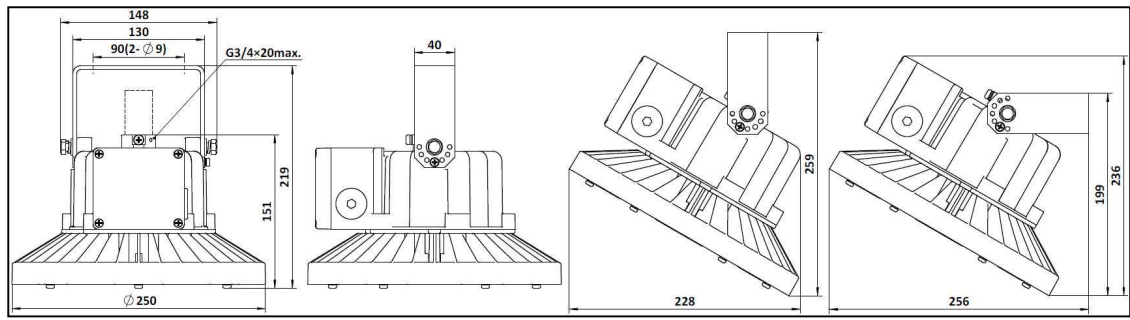


NLE Series LED Explosion Protected Luminaire



Powering Business Worldwide

1. Dimensions



2. Technical data

Hazardous area specification

Type of protection:	Ex nR, Dust protected enclosure
ATEX classification:	Group II Category 3 G 2 D
Certification Marking:	II3 G Ex nR IIC T5/T6 Gc II2 D Ex tb IIIC T80°C/T100°C Db IP6
Ambient temperature:	-40°C~+55 °C
Temperature class:	Refer to Type configuration
ATEX Certification No.:	EPT 16 ATEX 2452X
Degree of protection:	IP 66 acc. to EN60529/IEC60529
Approval of the production	
Quality assurance:	Baseefa ATEX 5952

Enclosure specification

Material of enclosure:	Aluminum alloy without Cu
Finish:	Painted polyester power coating
Material of globe:	Tempered glass
Mounting bracket:	Stainless steel or Steel painted
Fasteners:	All external fasteners stainless steel
Installation:	Mounting bracket with aiming quadrant
Weight:	Refer to Type Configuration.

Entry specification

Indirect entry: 2 × M20 × 1.5 or 2 × M25 × 1.5 cable entry.

Electrical specification

Wattage:	Refer to Type Configuration.
Voltage:	AC: 100V-240V 50/60Hz, DC: 108~250V
Lamp:	LED Arrays
CRI:	70
Insulation class:	I acc. to IEC60598
Terminals capacity:	3 core or 6 core conductor/cable Solid: 0.5~6mm ² , Flexible: 0.25~4mm ²

6. Cable gland recommend

Entry size	Part No.	Cable size	Torque (Nm)	
			screw-in enclosure	For cable
M20	CAP816609	8.5-16	20	20
M25	CAP816709	12-21	30	30

Note: Mounting the selected cable glands acc. type and dimensions of the main connection cable. Following their manufacturer instructions.

7. Type configuration and Temperature Ratings

Std. Cat No.	CCT	System power	T Class (Gas)	T °C (Dust)	Tamb. (°C)	Voltage	Weight (Kg)							
NLE-3L****	5700K	28W	T6	80	-40~+55	AC: 100-240V 50/60Hz DC: 108-250V	4.5							
NLE-3L**-F**		3000K						35W						
NLE-3L-W****								42W						
NLE-3L-W*-F**	5700K	50W						T5	100	-40~+55	AC: 100-240V 50/60Hz DC: 108-250V	4.5		
NLE-5L****													3000K	63W
NLE-5L**-F**														
NLE-5L-W****	3000K	63W												
NLE-7L****			5700K	63W										
NLE-5L-W*-F**	3000K	80W												
NLE-7L**-F**			5700K	80W										
NLE-8L****	5700K	80W												

3. Safety Instructions



This product should be installed, inspected, and maintained by a qualified electrician only, in accordance with national regulation, including the relevant standard and, where applicable, in acc. With IEC 60079-17 on electrical apparatus for explosive atmospheres.

The national safety rules and regulations for prevention of accidents and the following safety instructions in these operating instructions, will have to be observed!

- ❖ **The luminaire must not be operated in Zone0, Zone20 and Zone1 !**
- ❖ **When using in Zone21, Zone2 and Zone22, the requirements of IEC/EN 60079-14 relating to temperature must be observed. The indicated surface temperatures in table 7 are not related to a layers above 5 mm thickness.**
- ❖ **Do not install where the marked operating temperature exceed the ignition temperature of the hazardous atmosphere.**
- ❖ **Do not operate in ambient temperatures above those indicated on the luminaire nameplate.**
- ❖ **The luminaires shall be operated as intended and only in undamaged and perfect conditions! And Keep tightly closed when in operation!**
- ❖ **The technical data indicated on the luminaire are to be observed!**
- ❖ **Change of the design and modifications to the luminaire are not permitted!**
- ❖ **Multiple, short-term switching must be observed!**
- ❖ **Only genuine Cooper Crouse-Hinds spare parts may be used for replacement!**
- ❖ **Repairs that affect the explosion protection, may only be carried out by Eaton Crouse-Hinds or qualified electrician!**

4. Conformity with standards

This explosion protection floodlight meet the requirements of IEC/EN 60079-0, IEC/EN 60079-15, IEC/EN 60079-31. It also complies with the EC Directives for "Apparatus and protective system for use in explosion atmospheres" (2014/34/EU). It has been designed, manufactured and tested in accordance to the state of the art and according to ISO 9001:2000. The luminaires are suitable for use in explosive atmospheres Zone2 according to IEC60079-10-1 and dust area Zone22 according to IEC60079-10-2.

5. Fields of Application

The ATEX category 3 G 2 D Luminaire with a separate terminal box utilizes Ex nR protection and IP66 sealing making it suitable for use for potentially explosive atmospheres including ignitable gas and dust applications. The luminaire is designed for use in Zone2/Zone22 hazardous areas in indoors and outdoors in Marine and Wet locations, where moisture, dirt, corrosion, vibration and rough usage may be present. Application ambient temperature is -40°C~+55°C. Refer to the luminaire nameplate, For specific information, corresponding operating temperature(T-Code). The enclosure materials used, including any external metal parts, are High quality materials that ensure a corrosion resistance and resistance to chemical substances according to the requirements for use in a "normal" industrial atmosphere. In case of use in an extremely aggressive atmospheres, please refer to manufacture.

When the fixture is used as a portable product, the special condition for safe use should be follow:

Shall not be moved while connected to an electrical supply. When in use, the equipment shall be supported and mounted in a fixed and stable arrangement.

8. Installation

8.1 General

The respective national regulations IEC/EN 60079-14 as well as the general rules of engineering which apply to the installation and operation of explosion protected apparatus will have to be observed!

The improper installation and operation may result in the explosion protection and invalidation of the guarantee.

8.2 Mounting luminaire

8.2.1 Mounting the bracket

Only use the accompanying mounting bracket! Securely fasten the mounting bracket to a suitable

base with sufficient load-bearing capacity. The mounting should be secured with M8 bolts and relative lock washers, nuts should be used.

8.2.2 Adjustment of floodlight

The luminaire can be adjust and lock the luminaire to 30-degree intervals. The holes in the bracket gives increments of 30 degree. Loosen the set screw and fixing bolts to rotate the bracket to set the required tilt angle. Retighten the set screw and fixing screws. See Fig.1 for details.

Fig.1 Permissible angle of adjustment

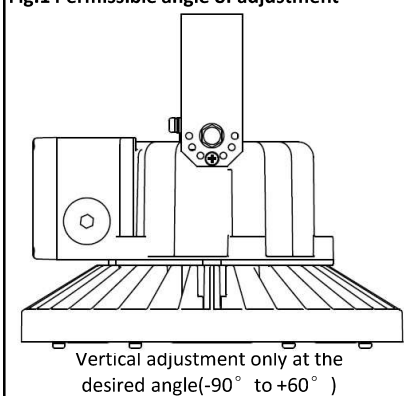


Fig.2 Electrical connection

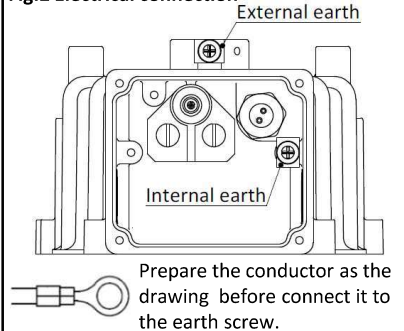
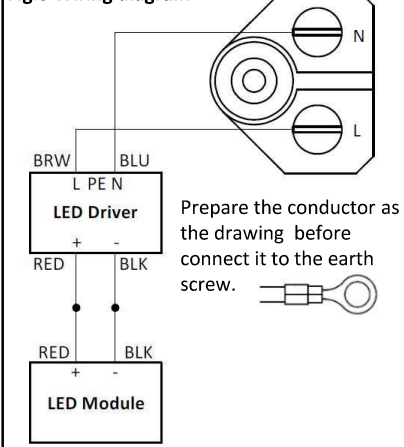


Fig.3 Wiring diagram



The minimum distance between the luminaire and illuminated surface, directly in front of the luminaire, is 0.5 meter. The lamp must not be illuminated when at a distance of less than 0.5m from inflammable material.

8.3 Cable entries/Blanking plugs

The "restricted-breathing (ExnR)" properties must be preserved when select and mount cable entry and plug. Unused holes must be closed with certified plug to establish the ExnR protection category. The cable glands and plugs should be Ex tb certified if the whole product is Ex tb certified also. **Cable entries sealing washer(if required by manual of cable gland/plug) must be used to obtain IP66.**

The authoritative mounting guidelines for the cable glands used must be observed. Mounting the selected cable entries acc. type and dimensions of the main connection cable following their manufacturer instructions. The cable temperatures are given as the rise over the max. rated ambient (Tamb). This allows the user to adjust the cable specification for actual maximum site ambient. Only heat resistant cable according to the data on the type label may be used! The max. conductor size is 4mm². The standard looping cable size is 4mm².

8.4 Opening/closing the luminaire

8.4.1 General

The opening of luminaire always shall be without voltage! All gasket seals must be clean and undamaged before closing the luminaire. Make sure the luminaires is well closed before operation! The Luminaire is ExnR type of protection. Make sure the type of protection without damaged during opening/closing.

8.4.2 Terminal chamber cover

Unscrew the screws and remove the terminal chamber cover. And carry out the steps in reverse order to close the luminaire. Check all screws to ensure a secure fit during operation (Torque for screws: 1.5 Nm).

8.5 Electrical connection

The electrical connection of the lamp must only be established by qualified electricians. Make sure the supply voltage is the same as the luminaire voltage! Use proper supply wiring as specified on the nameplate of the luminaire and in this instructions! Excessive tightening may affect or damage the connection.

8.5.1 Wire connection

The conductors shall be connected with special care in order to maintain the explosion category. The conductor itself shall not be damaged. The connectible min. and max. conductor cross-sections shall be observed (see technical data). All terminals, used and unused, shall be fully tightened to prevent incorrect selection between 1.2~2Nm for MK/6 and 0.5~0.7Nm for BK. 2.5Nm for Pillar terminals. 0.8Nm Max for MBK3 and MUT. Main connection: See wiring diagram. See Fig.2 and Fig.3 for details.

9. Putting into operation

Prior to putting the apparatus into operation, the tests specified in the relevant national regulations shall be carried out. Insulation measurements may only be carried out between PE and the external conductor L1 (L2, L3) as well as between PE and N.

- Measurement voltage: Max. 1 KV AC/DC
- Measurement current: Max.10 mA
- The luminaire may only be operated when closed.
- It is generally recommended (see IEC/EN 60079-14) that you ensure the type of protection of the construction is not impaired during installation.

10. Maintenance/Serviceing

10.1 General

The relevant national regulations which apply to the maintenance/servicing of electrical apparatus in

explosive atmospheres, shall be observed (EN/IEC 60079-17). The interval between maintenance depends upon the ambient conditions and the hours of operation. The recommendations given within EN/IEC 60079-17 for recurring checks must be observed.

10.2 Checks

The equipment must be de-energised before opening

Visual inspection should be carried out at a minimum of 12 monthly intervals and more frequently if conditions are severe, refer to EN/IEC 60079-17. The time between lamp changes could be very infrequent and this is too long a period without inspection.

10.3 Routine Examination

During maintenance, the parts affecting the level of protection must be checked in particular:

- Ensure the lamp is lit when energised and examine the enclosure and glass for any signs of cracks and damage.
- When de-energised and left to cool, there should be no significant sign of internal moisture. If there are signs of water ingress, the luminaire should be opened up, dried out, and any likely ingress points eliminated by re-gasketing, re-greasing or other replacement.
- Check the gasket of terminal chamber gasket and LED housing for any damage or permanent set and replace as required.
- Terminal, screw glands and blanking plugs for secure fitting.
- To maintain the light output, clean the protective glass periodically with a damp cloth or a mild cleaning fluid.
- If this product is used in the combustible dust area, outside of enclosure must be cleaned on a regular basis to prevent accumulation of dust.
- The terminal chamber should be opened periodically and checked for moisture and dirt ingress. The cable connections should be checked for tightness. The gasket should be checked for cracks or lack of elasticity, and if necessary, replaced. Cover bolt torque: 1.5Nm.
- Check that mountings are secure and the adjusting bolts are tight.

- If it has been suspected that the luminaire has mechanical damage, a stringent workshop overhaul will be required. Where spares are needed, these must be replaced with factory specified parts.

No modifications should be made without the knowledge and approval of the manufacturer.

11. Repair/Overhaul/Modifications

11.1 General

The national regulations EN/IEC60079-19 have to be observed! Repairs and overhaul may only be carried out with genuine Cooper Crouse-Hinds spare parts.

Before replacing or disassembling individual parts, observe the following:

Disconnect the power supply to the equipment before maintenance/repair.

Make sure that there is no explosive atmosphere when opening the equipment. See section 8.4 for notes on opening and closing the lamp.

Only use original spare parts. If the luminaire was previously in operation then wait to cool enough before opening. Repairs that affect the explosion protection, may only be carried out by Cooper Crouse-Hinds or a qualified electrician in compliance with the applicable national rules. Modifications to the device or changes to its design are not permitted.

After carrying out repair or overhaul work, ensure that the "ExnR" properties have not been affected.

Assistance may also be obtained through Cooper Electronic Technologies (Shanghai) Co., Ltd. Sales Service department,

955 ShengLi Road, Pudong Shanghai 201201

Phone (86) 21-28993943

12. Disposal/Recycling

When the apparatus is disposed of, the respective national regulations on waste disposal will have to be observed.

13. 产品分类与命名

型号	NLE	-3L	-W		-1M	-S886	*	*	*	*	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

- (1). NLE — Indicates basic catalog series designation.
- (2). Indicates Total Luminous Flux.
 -3L—3000Lm, -4L—4000Lm, -5L—5000Lm
 -6L—6000Lm, -7L—7000Lm, -8L—8000Lm
- (3). Indicates LED color temperature.
 Default — 5700K, -W — 3000K
- (4). Indicates Optics type.
 Default — Type V optic standard
- (5). Indicates ballast voltage.
 Default — 100-240V AC 50/60Hz, 108-250V DC
- (6). Indicates entry type and size.
 -1M — M20, -2M — M25
- (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) , -T4—MUT 4 (6 pole)
- (9). Indicates Glass
 Default—Clear Glass, -F—Foggy Glass
- (10). Indicates Entry Acc.
 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.

EPT16ATEX2452X

Wir / We / Nous

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

erklären in alleiniger Verantwortung, dass das Produkt
hereby declare in our sole responsibility, that the product
déclarons de notre seule responsabilité, que le produit

LED Explosion Protected Luminaire

II 3 G Ex nR T5/T6 Gc
II 2 D Ex tb IIIC T80°C/T100°C Db

NLE Series

den folgenden EU-Richtlinien, den entsprechenden harmonisierten Normen, und weiteren normativen Dokumenten entspricht,
complies with the following EU directives, their corresponding harmonised standards, and other normative documents.
correspond aux directives européennes suivantes, à leurs normes harmonisées, et aux autres documents normatifs suivants.

Bestimmungen der Richtlinie
Terms of the directive
Prescription de la directive

Titel und / oder Nr. sowie Ausgabedatum der Norm
Title and / or No. and date of issue of the standard
Titre et / ou No. ainsi que date d'émission des normes:

2014/34/EU: Geräte und Schutzsysteme zur bestimmungsgemäßen
Verwendung in explosionsgefährdeten Bereichen.
2014/34/EU: *Equipment and protective systems intended for*
use in potentially explosive atmospheres.
2014/34/UE: *Appareils et systèmes de protection destinés à*
être utilisés en atmosphères explosibles.

EN IEC 60079-0:2018
EN 60079-15:2010
EN60079-31:2014

2014/30/EU: Elektromagnetische Verträglichkeit
2014/30/EU: *Electromagnetic compatibility*
2014/30/UE: *Compatibilité électromagnétique*
Electromagnetic compatibility

EN 55015:2013
EN 61547:2009
EN 61000-3-2:2014
EN 61000-3-3:2013
EN 61000-6-4:2007+A1:2011
EN 61000-6-2:2005

2011/65/EU: RoHS –Richtlinie
2011/65/EU: *RoHS – directive*
2011/65/UE: *Directive RoHS*

EN 50 581: 2012

Shanghai, 2021.03.26

Ort und Datum
Place and date
Lieu et date

Head of quality department
Franklin Xu

Head of approval office
Joyce Zhang

⁽¹⁾ Benannte Stelle (EG-Baumusterprüfbescheinigung)
Notified body (EC-type examination certificate)
Organisme notifié (Examen CE de type)

Eurofins Product Testing Italy S.r.l (0477)
Via Cuorgne, 21
10156 Torino-Italia

QAN: Baseefa ATEX 5952

⁽²⁾ Benannte Stelle (Qualitätssicherung Produktion)
Notified body (Production Quality Assurance)
Organisme notifié (Assurance Qualité de Production)

SGS Fimko Oy (0598)
Takomotie 8, FI-00380 Helsinki Finland

Für den sicheren Betrieb des Betriebsmittels sind die Angaben der zugehörigen Betriebsanleitung zu beachten.
For the safe use of this apparatus, the information given in the accompanying operating instructions must be followed.
Afin d'assurer le bon fonctionnement de nos appareils, prière de respecter les directives du mode d'emploi correspondant à ceux-ci.