



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 CSA 24.0052X** Page 1 of 4 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2025-01-15

Applicant: **Red Sky Lighting LLC**
Room 516, No.8 Hengfei Road, Nanjing Economic and Technological Development Zone, Nanjing, Jiangsu, China
Nanjing 210046
China

Equipment: **LED Explosion-proof Floodlight; Model number: BLX- * - 100-277 - * - * - * - X1 - * - * - * - ***

Optional accessory:

Type of Protection: **Increased safety 'eb', Dust enclosure 'tb' , Encapsulation 'mb'**

Marking: **For model BLX-7L/15L (Standard & Emergency)**
Ex eb mb IIC T5 Gb
Ex tb IIIC T85°C Db
IP 66/67

For model BLX-20L/25L/30L (Standard)
Ex eb mb IIC T4 Gb
Ex tb IIIC T85°C Db
IP 66/67

-20 °C ≤ Tamb ≤ +55 °C (Standard)
0 °C ≤ Tamb ≤ +55 °C (Emergency)

Approved for issue on behalf of the IECEx
Certification Body:

Dave Magee

Position:

Senior Director of Operations, Toronto

Signature:
(for printed version)

Date:
(for printed version)

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.
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Certificate issued by:

CSA Group
178 Rexdale Boulevard
Toronto, Ontario M9W 1R3
Canada





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Manufacturer: **Red Sky Lighting LLC**
Room 516, No.8 Hengfei Road, Nanjing Economic and Technological Development Zone, Nanjing, Jiangsu, China
Nanjing 210046
China

Manufacturing locations:	Red Sky Lighting LLC Room 516, No.8 Hengfei Road, Nanjing Economic and Technological Development Zone, Nanjing, Jiangsu, China Nanjing 210046 China	Red Sky Lighting LLC Building C8, Zhongnan Zhigu Industrial Park, No. 8, Xiaoqi Road, Xiongzhou Street, Luhe District, Nanjing, Jiangsu, China Nanjing 211500 China
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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 60079-18:2017](#) Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

[IEC 60079-31:2022](#) Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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:

[CA/CSA/ExTR25.0001/00](#)

Quality Assessment Report:

[DE/TPS/QAR17.0003/09](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The BLX Series LED Explosion-proof Floodlight comprises an Aluminium alloy enclosure and a 5mm thickness glass window. The glass window is secured within the enclosure by the compression of the body cover. Internally, the following may be fitted: a LED PCB assembly, up to 118 LEDs, a wiring PCB assembly, LED drivers, terminal fixed brackets and internal connectors. LEDs are encapsulated with the optics part which is made of plastic, and the LED board is potted by compound and installed inside the light source housing.

The equipment utilises four M25 or M20 entries in the tank enclosure for the use of suitably approved cable entry devices or blanking elements with suitable IP code. The equipment may optionally be fitted with an aluminium shield, with a stainless protective Net.

The equipment can be mounted via hook, loop, chain mount or mounting bracket with different installation angles range through 0° to 90°.

The Ni-CD battery packs are used in model BLX-7L/15L-***-EM(Emergency), which is installed inside the tank body. The specification of battery packs is 9.6Vdc/6Ah.

See annexe for more information

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1 The equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
- 2 All cable entry holes shall be fitted with either an IECEx certified cable gland or an IECEx certified stopping plug that is suitable for the application.
- 3 The input terminals shall only be fitted with wires that have cross sectional area falling within the following limitations:
 - Type-221-482 series terminals: finely stranded and standard: min. 1 mm² to 4 mm² or AWG 18 to AWG 12.
 - Type-221-483 series terminals: finely stranded and standard: min. 1 mm² to 4 mm² or AWG 18 to AWG 12.
 - Type-221-485 series terminals: finely stranded and standard: min. 1 mm² to 4 mm² or AWG 18 to AWG 12.
- 4 The tighten torque of the screws used to fix the tank cover shall be equal to 6N.m.
- 5 The equipment shall be installed such that the supply cable is protected from mechanical damage. The cable shall not be subjected to tension or torque. If the cable is to be terminated within an explosive atmosphere then the free end shall be terminated in a suitably certified termination facility.
- 6 Clean the luminaire regularly to prevent dust accumulation.
- 7 The stop plug shall be used where a protection against rise of mechanical damage is provided.
- 8 When assembly, operation and maintenance, the operator should follow the requirements of IEC 60079-14 Explosive atmospheres-part 14: Electrical installations design, selection and erection, beside of the manufacturer's operating instructions.



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Equipment (continued):

Conditions of Manufacture

1. The equipment shall be subjected to a visual inspection. No damage shall be evident, such as cracks in the compound, exposure of the encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion (separation of any adhered parts) or softening, as required by clause 9.1 of IEC 60079-18:2017
2. The LED board and Wire PCB of model BLX-7L/15L/7L-EM/15L-EM shall be subjected to a dielectric strength test with 500 Vac or 700 Vdc for least 60 s without dielectric breakdown occurring between input circuit and metallic enclosure, and between input circuit and the surface of the compound separately, as required by clause 9.2 of IEC 60079-18:2017. Alternatively, the above LED board and Wire PCB shall be subjected to a batch test with 1.5 times the above test voltage in according to Annex C of IEC 60079-18:2017.
3. The LED board and Wire PCB of model BLX-20L/25L/30L shall be subjected to a dielectric strength test with 1500 Vac or 2100 Vdc for least 60 s without dielectric breakdown occurring between input circuit and metallic enclosure, and between input circuit and the surface of the compound separately, as required by clause 9.2 of IEC 60079-18:2017. Alternatively, the above LED board and Wire PCB shall be subjected to a batch test with 1.5 times the above test voltage in according to Annex C of IEC 60079-18:2017.
4. The battery pack shall be subjected to a dielectric strength test at 500 Vac or 700 Vdc for at least 60 s without dielectric breakdown occurring between input circuit and metallic enclosure, and between input circuit and the surface of the compound separately, as required by clause 9.2 of IEC 60079-18:2017. Alternatively, the battery pack shall be subjected to a batch test with 1.5 times the above test voltage in according to Annex C of IEC 60079-18:2017.
5. In according with IEC 60079-7:2017, the equipment shall be subjected to a dielectric strength test at 1554 Vac or 2200 Vdc for at least 60 s without dielectric breakdown occurring between input terminal of luminaire and metal enclosure. Alternatively, the test may be carried out at 1865 Vac or 2638 Vdc for at least 100 ms.
6. The equipment covered by this certificate incorporates previously certified devices which is listed in section 3.12 of the assessment report, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform CSA of any modifications of the devices that may impinge upon the explosive safety design of their products.
7. The specific conditions of use detailed in the individual certificates of the terminal blocks, stopping plug and LED drives that forms part of the equipment shall be adhered to.

Annex:

[IECEx CSA 24.0052X Issue 0 Annexe.pdf](#)

Annexe to: IECEx CSA 24.0052X Issue 0

Applicant: Red Sky Lighting LLC



Apparatus: LED Explosion-proof Floodlight; Model number: BLX- * - 100-277 - * -
* - * - X1 - * - * - * - * - *

EQUIPMENT (continued)

Breakdown of the model number of BLX Series is as follows:

Type designation key	BLX- * - 100-277 - * - * - * - X1 - * - * - * - * - 1 2 3 4 5 6 7 8 9 10 11 12
1st character: Designate basic luminaire model series	BLX
2nd character: Lumen Level	7L: 7,000Lm 15L: 15,000Lm 20L: 20,000Lm 25L: 25,000Lm 30L: 30,000Lm
3rd character: Rated voltage	100 - 277 Vac
4th character: Designates LED Color temperature	57K: 5700K 4K: 4000K 3K: 3000K
5th character: Designates internal code	Blank HAR XXX-custom. Each "X" stands any one from A to Z
6th character: Designates Optic Beam Angle	30: 30° 60: 60° 90: 90° 120: 120°
7th character: Rating	X1-Zone 1, 21
8th character: Designates Lens type:	CG: Clear Glass DG: Diffuse Glass * *Diffuse Glass only available for 7L and 15L
9th character: Designates Color of Enclosure	GRY: Grey BLK: Black WHT: White BRZ: Bronze
10th character: Designates Mount type	SYK: Straight Yoke AYK: Angled Yoke
11th character: Battery	Blank: non-emergency (Standard) EM01: emergency 01 ** EM02: emergency 02 ** **EM only available for 7L and 15L
12th character: Cable entries	M20: 4 X M20 M25: 4 X M25

Rating and Temperature class are as follows:

Model	Voltage (Vac)	Power(W@220Vac)	Ambient temperature:	T-code
BLX-7L	100-277, 50Hz/60Hz	40W	-20 to +55°C	T5/T85°C
BLX-7L-***-EM	100-277, 50Hz/60Hz	40W	0°C to +55°C	T5/T85°C
BLX-15L	100-277, 50Hz/60Hz	90W	-20 to +55°C	T5/T85°C
BLX-15L-***-EM	100-277, 50Hz/60Hz	90W	0°C to +55°C	T5/T85°C
BLX-20L	100-277, 50Hz/60Hz	115W	-20 to +55°C	T4/T85°C

Date: 15 January 2025

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CSA Group Testing & Certification Inc.
178 Rexdale Boulevard,
Toronto, Ontario M9W 1R3

Annexe to: IECEx CSA 24.0052X Issue 0

Applicant: Red Sky Lighting LLC



Apparatus: LED Explosion-proof Floodlight; Model number: BLX- * - 100-277 - * -
* - * - X1 - * - * - * - * - *

Model	Voltage (Vac)	Power(W@220Vac)	Ambient temperature:	T-code
BLX-25L	100-277, 50Hz/60Hz	145W	-20 to +55 °C	T4/T85 °C
BLX-30L	100-277, 50Hz/60Hz	180W	-20 to +55 °C	T4/T85 °C