



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 SIR 18.0001X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 5	Issue 4 (2023-05-11) Issue 3 (2022-05-30) Issue 2 (2019-07-24) Issue 1 (2019-03-29) Issue 0 (2018-11-08)
Date of Issue:	2025-06-19		
Applicant:	Dialight Corporation 1501 Route 34 South Farmingdale New Jersey 07727 United States of America		
Equipment:	Safesite LED High Bay Luminaire		
Optional accessory:			
Type of Protection:	Flameproof "db", Increased Safety "eb", Optical Isolation "op is" and Dust Protection by Enclosure "tb"		
Marking:	Refer to certificate Annexe.		

Approved for issue on behalf of the IECEx
Certification Body:

Michelle Halliwell

Position:

Senior Director of Operations

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.
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:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom





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Manufacturer: **Dialight Corporation**
1501 Route 34 South
Farmingdale, NJ 07727
United States of America

Manufacturing locations: **Dialight de Mexico S. De R.L. De C.V Dialight Corporation Penang Sdn Bhd**
Calle Lirios S/N
Col. Carlos Pacheco
Ensenada Baja California 22830
Mexico 1478B, Lorong Perusahaan Maju 8
Pulau Pinang 13600 Perai
Malaysia

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 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

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 60079-7:2017 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 Reports:

[GB/SIR/ExTR18.0200/00](#)
[GB/SIR/ExTR22.0040/00](#)

[GB/SIR/ExTR19.0099/00](#)
[GB/SIR/ExTR23.0095/00](#)

[GB/SIR/ExTR19.0198/00](#)
[GB/SIR/ExTR25.0056/00](#)

Quality Assessment Report:

[GB/SIR/QAR11.0014/15](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Safesite LED High Bay Luminaire comprises a cast aluminium body and frame with a glass window. The window is clamped between the frame and main body by twelve, M8 X 35 mm, stainless steel, button-head or cap-head type screws with a minimum property class A2-70.

Refer to the Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. When the fixed installation equipment is coated with a paint finish and marked for use in IIIC atmospheres, the enclosure is non-conducting and may generate an ignition capable level of electrostatic charge under certain extreme conditions. The user shall ensure that the equipment is not installed in a location where it might be subjected to external conditions that might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, cleaning of the equipment shall be done only with a damp cloth.
2. When the fixed installation equipment is supplied with a film cover on the glass lens and marked for use in IIB, IIB+H₂ or IIIC atmospheres, the enclosure is non-conducting and may generate an ignition capable level of electrostatic charge under certain extreme conditions. The user shall ensure that the equipment is not installed in a location where it might be subjected to external conditions that might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, cleaning of the equipment shall be done only with a damp cloth.
3. When the equipment is supplied with an optional anti-static coated sand blast shield and marked for use in IIB or IIB+H₂ atmospheres, the user must follow the manufacturer's instructions on the bonding connection and anti-static coating durability.
4. External fasteners used for securing flameproof joints shall have a minimum property class of A2-70.
5. The equipment has flamepaths which differ from those in IEC 60079-1 and are not intended for repair.
6. 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.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, Issue 5, recognises the following changes; refer to the certificate annex to view a comprehensive history:

1. Alternate housing option (8854-HEA-0003-EX series), $\frac{3}{4}$ " NPT options for cable gland and line bushing.
2. Alternate gasket profile and material (Wynca Tinyo TY26E9-60DT).
3. Alternate sand blast shield material (TEIJIN LN-2250Y).
4. Alternate power supply encapsulation material and configuration (EPIC S7527).
5. Alternate round optic for LED subassembly.
6. Addition of Gas Group IIB+H2 requirements.
7. Addition of IIB (with IIB retaining ring) overpressure test (4 x Reference Pressure for Gr. IIB).
8. Update drawing 8854-HEA-0003-EX.
9. Update Operating Instructions.
10. Address of the Malaysia manufacturing location was amended.
11. The product description was updated to recognise text from ExTR GB/SIR/ExTR22.0040/00.

Annex:

[IECEx SIR 18.0001X Annex Issue 5.pdf](#)

Marking

Standard model:

Ex db op is IIB T5 Gb

Ex tb op is IIIC T100°C Db

Ta = -40°C to +60°C

Standard models with alternate power supply:

Ex db IIB T5 Gb

Ex tb IIIC T100°C Db

Ta = -40°C to +60°C

Standard models with alternate power supply:

Ex db IIB+H₂ T5 Gb

Ex tb IIIC T100°C Db

Ta = -40°C to +60°C

Standard models with integral junction box:

Ex db eb op is IIB T5 Gb

Ex tb op is IIIC T100°C Db

Ta = -40°C to +60°C

Standard models with integral junction box and alternate power supply:

Ex db eb IIB T5 Gb

Ex tb IIIC T100°C Db

Ta = -40°C to +60°C

Standard models with integral junction box and alternate power supply:

Ex db eb IIB+H₂ T5 Gb

Ex tb IIIC T100°C Db

Ta = -40°C to +60°C

Equipment (continued)

Safesite LED High Bay Luminaire

Model Type	Model Number
Standard Type:	HE****2*****N
Integrated Junction Box:	HW****2*****N
Safesite Floodlight	FS****2*****N

Rating:

100 – 277 V AC; 50/60Hz; Maximum 195 Watts, or

120 – 250 V DC; Maximum 195 Watts

Annexe to: IECEx SIR 18.0001X Issue 5

Applicant: Dialight Corporation



Apparatus: Safesite LED High Bay Luminaire

Type designation key:	
1 st Asterisk: Certification:	For standard models or standard models with integral junction box: A: IECEx/ATEX Zone 1, 21 Group IIB (Retaining Ring Material: A360 ANSI/AA Grade)
	For standard models with alternate power supply or with integral junction box and alternate power supply: A: IECEx/ATEX Zone 1, 21 Group IIB (Retaining Ring Material: A360 ANSI/AA Grade) H: IECEx/ATEX Zone 1, 21 Group IIB+H2 (Retaining Ring Material: 6061T6 IADS/ASTM Grade)
2 nd Asterisk: Lens Material:	7: Glass, Clear 8: Glass, Diffused G: Glass, Clear with G-Film Covering
3 rd Asterisk: Reflector:	6: NEMA 6 Symmetric N: Narrow 7: NEMA 7x6 Asymmetric W: Wide E: Oval M: Medium R: Round
4 th Asterisk: CCT & CRI:	C: Cool White 5000K – 80 CRI N: Neutral White 4000K – 80 CRI W: Warm White 2700K – 80 CRI
5 th Asterisk: Lumen Type:	A: 9,001 – 12,000 Lumens B: 12,001 – 15,000 Lumens C: 15,001 – 18,000 Lumens E: 22,001 – 26,000 Lumens
6 th Asterisk: Controls:	D: Continuous dimming down to 5% (5 Conductor) N: No Options (3 Conductor) A: DALI
7 th Asterisk: Mounting Options:	A: Swivel Bracket – Aluminium B: Swivel Bracket, Locking – 304 Stainless Steel C: Swivel Bracket, Locking – 316 Stainless Steel D: Forward Throw Bracket – 304 Stainless Steel E: Forward Throw Bracket – 316 Stainless Steel F: Swivel Bracket, Variable – 304 Stainless Steel G: Swivel Bracket, Variable – 316 Stainless Steel Q: Safety Retention Tabs with Swivel Bracket - Aluminium S: Safety Retention Tabs with Swivel Bracket, Locking – 304 Stainless Steel T: Safety Retention Tabs with Swivel Bracket, Locking – 316 Stainless Steel U: Safety Retention Tabs with Forward Throw Bracket – 304 Stainless Steel V: Safety Retention Tabs with Forward Throw Bracket – 316 Stainless Steel W: Safety Retention Tabs with Swivel Bracket, Variable – 316 Stainless Steel Y: Safety Retention Tabs with Swivel Bracket, Variable – 304 Stainless Steel Z: Transportable Bracket
8 th Asterisk: Accessories 1, Power Cable:	2: 16' (5 meter) power cable 3: 23' (7 meter) power cable 4: 32' (10 meter) power cable 5: 39' (12 meter) power cable 6: 49' (15 meter) power cable 8: 59' (18 meter) power cable 9: 65' (20 meter) power cable

Type designation key:	
	N: No Option
	T: 1.5' (0.5 meter) Power Cable (only valid for part numbers beginning HW & FS)
	U: 3' (1 meter) Power Cable (only valid for part numbers beginning HW & FS)
	V: 6' (1.8 meter) Power Cable (only valid for part numbers beginning HW & FS)
	W: 10' (3 meter) Power Cable
9 th Asterisk: Accessories 2, Electrical Accessories;	M: M20 Entrance (Wago 862 terminals)
	N: Standard / No Option / M25 Entrance (Wago 862 terminals)
	W: M25 Entrance (Weidmuller MK terminals)
	Y: M25 Entrance (Wago 2004 terminals)
10 th Asterisk: Coatings;	E: Green (RAL 6020)
	F: Gray (RAL 7005)
	G: Gray (RAL 7040)
	K: Black (RAL 9017), Advanced Corrosion Protection
	O: Orange (RAL 2001)
	W: White (RAL 9010)
	Y: Yellow (RAL 1018)

Internal construction comprises a potted power supply, reflector and up to 702 LEDs. Variation 1 is the originally evaluated equipment and contains a hexagonally shaped power supply with options for dimming. Variation 2 contains a rectangular power supply with an option for dimming or DALI light controls.

In the base of the enclosure there is a single 3/4" -14 NPT threaded entry which is fitted with a suitably certified and dimensioned cable entry device accommodating a permanently attached cable that is supplied in a minimum 3m length. An aluminium, steel or stainless steel bracket for mounting purposes is fixed via the rear of the enclosure.

Alternatively, the luminaire can be supplied with an increased safety enclosure fitted with component certified increased safety terminals. This enclosure is mounted to the base of the light and is connected to the flameproof enclosure via an equipment certified line bushing.

The alternative design has an optional stainless-steel stand and mounting bracket enabling the equipment to be portable.

The details for the component certified terminals and certified line bushing associated with the equipment are listed below:

Component / Equipment	IEC Certificate
Weidmüller Interface GbmH & Co Terminal Strips	IECEx SIR 05.0037U
Wago Kontakttechnik GmbH & Co Terminals	IECEx PTB 05.0003U
Wago Kontakttechnik GmbH	IECEx PTB 05.0033U
Quintex GmbH Line bushing.	IECEx EPS 11.0004X

Conditions of Manufacture

- i. Each enclosure with "op is" marking shall be subjected to a routine overpressure test of 13.52 bar for at least 10 seconds as required by clause 16.1 of IEC 60079-1. There shall be no permanent deformation or damage to the enclosure.
- ii. When supplied with an integrated junction box / Ex e enclosure, the manufacturer shall conduct a routine dielectric strength test of 2.61 kV DC between Live and Neutral and Live and Neutral to Earth for at least 100 ms, in accordance with clause 7.1 of IEC 60079-7. There shall be no breakdown.
- iii. The equipment covered by this certificate incorporates previously certified devices, 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 Sira of any modifications of the devices that may impinge upon the explosive safety design of their products.
- iv. The manufacturer shall not mark the equipment for IIIC atmospheres when supplied for portable applications.

Full certificate change history

Issue 1 – this Issue introduced the following change:

1. To record the addition of alternative manufacturing plant as follows:

Dialight Corporation Penang Sdn Bhd
2593, Jalan Perusahaan,
Kawasan Perusahaan Perai,
13600 Perai, Pulau Penang
Malaysia

Issue 2 – this Issue introduced the following change:

1. Following appropriate assessment for the existing products to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2011 Ed. 6 was replaced by IEC 60079-0:17 Ed. 7.

Issue 3 – this Issue introduced the following changes:

1. New variation with alternate power supply and light engine.
2. New Model Option (6th Asterisk) "A" for DALI lighting control function.
3. Various machining modifications for internal mounting of new parts.
4. New drawing specific to the new equipment variation: 8854-HEA-0003-EX.

Issue 4 – this Issue introduced the following changes:

1. To bring the drawings and instruction manual associated with IECEx SIR 18.0001X and Sira 18ATEX1001X in line with those associated with CSAE 21UKEX1404X.

Issue 5 – this Issue introduced the following changes:

1. Alternate housing option (8854-HEA-0003-EX series), 3/4" NPT options for cable gland and line bushing.
2. Alternate gasket profile and material (Wynca Tinyo TY26E9-60DT).
3. Alternate sand blast shield material (TEIJIN LN-2250Y).
4. Alternate power supply encapsulation material and configuration (EPIC S7527).
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