



1 **TYPE EXAMINATION CERTIFICATE**

- 2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 3 Certificate Number: Sira 17ATEX3260X

Issue: 4

- 4 Equipment: HZB**2N, HZJB**2N and ALB7**2****N Safesite LED Area Light
- 5 Applicant: **Dialight Corporation**
- 6 Address: 1501 Route 34 South Farmingdale New Jersey 07727 USA
- 7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 8 CSA Group Netherlands B.V., certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of Category 3 equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-28:2015 EN 60079-7:2015/ A1:2018 EN 60079-31:2014 EN 60079-18:2015/ A1:2017

EN 60079-3

- 10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.
- 11 This Type Examination Certificate relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.
- 12 The marking of the equipment shall include the following:

II 3GD Ex mc ec op is IIC T4 Gc Ex tc op is IIIC T135°C Dc Ta = -40°C to +65°C



Signed: Michelle Halliwell



Title: Director of Operations

Project Number 80170717

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(Ex)





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13 **DESCRIPTION OF EQUIPMENT**

Breakdown of the model numbers:

Model	Type designation key	Designator & application
ALB7**2*****N	1st asterisk:	A: 180
	Reflector	B: 360
		W: Wide
	2nd asterisk:	C: 5000K Ra 80
	CCT & CRI	N: 4000K Ra 80
		W: 2700K Ra 80
	3rd asterisk:	2: 0,1-2K
	Typical lumen Output	4: 3,1-4K
		5: 4,1-5K
		6: 5,1-6K
		7: 6,1-7K
		9: 8,1-9K
	4th asterisk:	N: No Options
	Controls	D: Continuous dimming down to 5%(for future purposes)
	5th asterisk:	B: Swivel Bracket
	Mounting Options	N: Standard
		S: Universal Mounting Adapter - 45° Stanchion Mount
		U: Universal Mounting Adapter – Mounting Hub
		V: Universal Mounting Adapter – 0° Wall Mount
		W: Universal Mounting Adapter - 45° Wall Mount
		Y: Universal Mounting Adapter – 34mm Conveyor Mount
	6th asterisk:	J: Junction Box
	Hardware/Cable	N: No Option
	Accessories	T: 1.5'[0.5 meter] Power Cable
		U: 3'[1 meter] Power Cable
		V: 6'[1.8 meter] Power Cable
		W: 10'[3 meter] Power Cable
	7th asterisk:	A: Armored Cable and Cable Gland
	Electrical Accessories	N: No Option/Standard
		T: Weidmuller 5 Position Terminal Block
		U: Wago 5 Position Terminal Block
	8th asterisk:	G: Gray (RAL 7040)
	Coatings	K: ACP Black (RAL 9017)
		O: Orange (RAL 2001)
		W: White (RAL 9010)
		Y: Yellow (RAL 1018)
		Z: Bronze (RAL 7022)





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Model	Type designation key	Designator & application
HZB**2N	1st asterisk:	2: 0,1-2K
	Typical Lumen	4: 3,1-4K
	Output	5: 4,1-5K
		6: 5,1-6K
		7: 6,1-7K
		9: 8,1-9K
	2nd asterisk:	C: 5000K Ra 80
	CCT & CRI	N: 4000K Ra 80
		W: 2700K Ra 80
HZJB**2N	1st asterisk:	2: 0,1-2K
	Typical Lumen	4: 3,1-4K
	Output	5: 4,1-5K
		6: 5,1-6K
		7: 6,1-7K
		9: 8,1-9K
	2nd asterisk:	C: 5000K Ra 80
	CCT & CRI	N: 4000K Ra 80
		W: 2700K Ra 80

The Safesite LED Area Light comprises a cast aluminium body with a hinged aluminium frame and a 6mm thick glass window; held together by sixteen, M8 x 25 mm, stainless steel, socket head type screws. The window is secured within the enclosure by the compression of the cast ring/frame to the main body. Internally, the following may be fitted: an encapsulated driver, up to 207 LEDs dissipating a maximum of 0.3W each, a reflector, a terminal block and two pluggable internal connectors. An aluminium, steel or stainless steel bracket for mounting purposes is fixed via the rear of the enclosure.

The equipment utilises one threaded entry in the rear of the main LED enclosure for the use of suitably approved Ex e IIC Gb, Ex nA IIC Gc or Ex tc IIIC Dc (for zone 2/22) and Ex tb IIIC Db (for zone 21) cable entry devices or blanking elements.

The Safesite LED Area Light may optionally be fitted with an additional 'Ex e' enclosure, fitted with certified terminals. The terminal box is fitted to the rear of the main body of the LED Area Light via a silicone gasket and four M4 screws. The 'Ex e' enclosure may utilise up to two, M20 entries in the side wall and up to five, M20 entries on the front wall, for the use of suitably approved, Ex e IIC Gb or Ex tb IIIC Db cable entry devices or blanking elements.

Entity parameters: 100 – 277 VAC; 50/60 Hz; 71 W, or 120 - 250 VDC; 71 W





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Variation 1 - This variation introduced the following changes:

- i. Allow alternative part numbers for few components having same rating and similar package sizes in the potted driver PCB.
- ii. Modify the power supply cable from 5 conductors to 3 conductors.
- iii. Modification of the input connector in the driver PCB.
- iv. Models HZB**2N and HZJB**2N were retrospectively recognised, these are similar to model, ALB7**2*****N.

Variation 2 - This variation introduced the following changes:

- i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2012/A11:2013, EN 60079-7:2015 and EN 60079-18:2015 were replaced by EN IEC 60079-0:2018, EN 60079-7:2015/A1:2018 and 18:2015/A1:2017, the Condition of Manufacture was amended to recognise the new standard.
- ii. This includes the gap analyses for the previously certified components associated with the hereby equipment.

Variation 3 - This variation introduced the following changes:

i. Drawing revision to 1500-STW-0005-02.

14 **DESCRIPTIVE DOCUMENTS**

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	12 June 2018	R70107142A	The release of the prime certificate.
1	22 October 2018	R70192184A	 This Issue covers the following changes: The introduction of Variation 1. A typographical error was corrected in the address section. This amendment is of an administrative nature only, no technical changes were involved.
2	15 October 2019	0450	Transfer of certificate Sira 17ATEX3260X from Sira Certification Service to CSA Group Netherlands B.V.
3	07 November 2022	R80118617A	The introduction of Variation 2.
4	10 July 2023	R80170716A	The introduction of Variation 3.

15 **SPECIFIC CONDITIONS OF USE** (denoted by an 'X' after the certificate number)

- 15.1 When the equipment is coated with a paint finish, the enclosure is non-conducting. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, 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.
- 15.2 All cable entry holes shall be fitted with either an ATEX certified cable gland or an ATEX certified stopping plug that is suitable for the application. The type of cable, glands and stopping plugs shall have temperature ratings of at least +76°C.





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- 15.3 When supplied with a component certified enclosure, the end user shall install a suitably certified gland with a seal or gasket, to maintain the IP rating of the equipment. The seal or gasket shall be suitable for a minimum service temperature range of -40°C to +75°C.
- 15.4 The terminals shall only be fitted with wires that have cross sectional area falling within the following limitations:
 - WAGO 4-conductor series terminals: single-core, finely stranded and standard: min. 0.08 mm² to 6 mm²
 - Weidmüller Type MK6 range of terminals: solid conductor: 0.5 mm² to 6 mm², flexible: 0.5 mm² to 4 mm²
- 15.5 All fixing bolts will be torqued to 4.6 Nm.
- 15.6 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.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF MANUFACTURE**

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.
- 17.2 Holders of Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- 17.3 In accordance with EN 60079-7:2015/A1:2018 clause 7.1, each manufactured sample of the equipment shall be subjected to an electric strength test using the following test voltage(s) for 60 s +5/-0s: 1554 Vrms +5/-0 % applied between the input terminals (Live and Neutral) and metal enclosure. Alternatively, a test shall be carried out at the test voltage 1865Vrms for at least 100 ms. There shall be no evidence of flashover or breakdown.
- 17.4 In accordance with EN 60079-18:2015/A1:2017 clause 9.1, each manufactured item 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.
- 17.5 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 CSA of any modifications of the devices that may impinge upon the explosive safety design of their products.
- 17.6 The specific conditions of use detailed in the individual certificates of the junction box enclosure, terminals and stopping plug that forms part of the equipment Area Light shall be adhered to.
- 17.7 The equipment incorporates the following, component-certified and equipment-certified device as listed below;



16,

32758 Detmold, Germany



SCHEDULE

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Empty terminal enclosure			
Manufacturer	Туре	Certificate No.	Code
ROSE Systemtechnik	Empty enclosure type 25*****	PTB 98 ATEX3101U	Ex eb IIC Gb
GmbH, Erbeweg 13, 32457			Ex tb IIIC Db
Porta Westfalica, Germany			
WAGO Terminal Blocks			
Manufacturer	Туре	Certificate No.	Code
WAGO Kontakttechnik	WAGO 4 conductor device	PTB	Ex eb IIC Gb
GmbH & Co. KG,	connector type 862-****/999-950	03ATEX1189U:	Ex eb I Mb
Hansastraße 27, 32423			
Minden, Germany			
Weidmüller Terminal Blocks			
Manufacturer	Туре	Certificate No.	Code
Weidmüller Interface GmbH	Type MK 6 Range of Terminal	SIRA 01ATEX3249U	Ex e II
& Co, Klingenbergstrasse	Strips		

Stopping Plug			
Manufacturer	Туре	Certificate No.	Code
HUMMEL AG, Lise-	Blanking elements (stopping	DMT 03ATEXE049	Ex e IIC Gb
Meitner-Straße 2, 79211	plugs) and thread adapters		Ex ta III C
Denzlingen,	(reducers) type V-Ex, V-MS-*, V-		Da
Germany	INOX-* (blanking elements),		
	RSD-**-Ex (thread adapters)		

Certificate Annexe



Certificate Number:	Sira 17ATEX3260X
Equipment:	HZB**2N, HZJB**2N and ALB7**2*****N Safesite LED Area Light
Applicant:	Dialight Corporation

Issue 0

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
8854-HZB-0001-00	1 to 14	10	30 Jan 18	General Assembly, Name Plate, Schematic, Parts list,
				PCB Layout Of Potted Driver, 117LEDs & 207LEDs
1500-DRV-0005-EX	1 of 1	02	30 Jan 18	Artwork, Potted Driver PCB
1500-HZC-0019-00	1 of 1	Α	30 Jan 18	Artwork, 117LEDs PCB
1500-STW-0005-02	1 of 1	А	30 Jan 18	Artwork, 207LEDs PCB

Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
8854-HZB-0001-00	14	12	16 Oct 18	General Assembly, Name Plate, Schematic, Parts list,
				PCB Layout Of Potted Driver, 117LEDs & 207LEDs

Issue 2. No new drawings were introduced

Issue 3

Drawing	Sheets	Rev.	Date (Stamp)	Title
8854-HZB-0001-00	1 to 14	13	09 Sep 22	ZONE 2, AREA LIGHT W/ WIRE BOX

Issue 4

Drawing	Sheets	Rev.	Date (Stamp)	Title
1500-STW-0005-02	1 of 1	В	20 Jun 23	Artwork, 207LEDs PCB