DuroSite® for CE & SafeSite® for ATEX/IECEx Area Light

Important Information:

These instructions contain safety information, read and follow them carefully. Dialight will not accept any responsibility for injury, damage or loss which may occur due to incorrect installation, operation or maintenance.

Operating Instructions

Languages

English

Note: Save these instructions for future use

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Dialight, 1501 Route 34 South, Farmingdale, NJ, USA 07727
Tel: 732 919 3119 Fax: 732 751 5778 www.dialight.com

Safety Instruction:
The installation, operation, and maintenance must be carried out by an electrician suitably trained in hazardous areas with knowledge of increased safety explosion protection:
CE Compliant
Zone 1, 21, 2, 22 - IEC 60079-14
Zone 2, 22 – IEC 60079-07

- Observe the national safety rules and regulations during installation.
- The technical data indicated on the LED luminaire is to be observed.
- Changes of the design and modifications to the LED luminaire are not permitted.
- Only genuine Dialight replacement must be used when unforeseen repairs are required.
- Repairs must only be carried out by a qualified electrician with hazardous area knowledge.
- No user serviceable parts inside.
- No field replaceable parts.
- Do not open when energized or when an explosive atmosphere may be present
- Potential electrostatic charging hazard – refer to instructions.
- WARNING: Cable entry may reach 93°C
- To minimise the risk from electrostatic discharge clean with a damp cloth.
- Do not let power cord touch hot surfaces.
- Do not mount near gas or electric heaters.
- Do not use this equipment for other than its intended use.
- WARNING: Polycarbonate lens susceptible to chemical attack. See reactivity list.
- The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.
- Luminaire must only be installed outside of arms reach.
- Do not attempt to repair the flamepaths of this equipment.

Conditions for Certification:

1. The unit is a factory sealed product, do not attempt to open; return to the manufacturer for service or repair.
2. The unit is to be suspended such that no tension is applied to the supply cable.
3. The integral cable is to be terminated in a suitable terminal or junction facility.
4. This equipment includes some external non-metallic parts, including the outer protective coating and lens. Cleaning shall only be carried out with a damp cloth.

Zone 1 Specific Conditions of use:

1. When the equipment is coated with a paint finish the enclosure is non-conducting and may generate an ignition capable level of electrostatic charge under certain extreme conditions. The user should 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 should be done only with a damp cloth.
2. External fasteners used for securing flameproof joints shall have a yield strength which is equal to or exceeding 450 N/mm2.

Conformity with Standards
This equipment conforms to the standards specified in the Declaration of Conformity. It has been designed, manufactured and tested in accordance with:

STW / ALE Series
BS EN 9001

HZ / ALA / ALB Series
BS EN 9001
ATEX Directive 2014/34/EU: Equipment and protective systems intended for use in potentially explosive atmospheres.
EMC Directive 2014/30/EU: For electromagnetic compatibility.

Equipment Application

STW / ALE Series
This lighting equipment is intended for indoor and outdoor use, and in environments where an accumulation of conductive dust on the luminaire may be expected.

HZA / ALA Series - Zone 1, 21, 2, 22
This lighting equipment is intended for use in a potentially explosive atmosphere in Zones 1, 21 and 2, 22 to the requirements of ATEX Directive 2014/34/EU. The product can be used inside or outside to illuminate areas with a potentially explosive atmosphere.

HZB / ALB Series - Zone 2, 22
This lighting equipment is intended for use in a potentially explosive atmosphere in Zones 2 and 22 to the requirements of ATEX Directive 2014/34/EU.

Installation
Ensure that the mains voltage supply is disconnected before connecting the luminaire. Install the equipment in accordance with the manufacturer's instructions as well as any other applicable electric codes.

Always transport and store the equipment in its original packaging and keep in a dry location. When unpacking check for any cracks or damage in the housing, glass, and glass frame. If in doubt, do not install.

For supply connections use wire rated for at least 90˚C

Models whip are factory supplied with 10feet (3m) of cable. If longer lengths of cables are required a minimum of 18awg (1.5mm diameter) is required. It is recommended that to ensure moisture does not flow through the cable a loop in the cord should be implemented where possible during installation. If this is not practical for the install than

Necessary precautions should be taken to prevent moisture entering the conduit thus entering the fixture.

Recommended mounting height: 8 feet to 24 feet (2.4 m to 7.3 m)

Junction Box Versions
Pay attention when re-fitting the lid to the enclosure; make sure the seals are clean and undamaged. Do not allow any cables to become trapped between the lid and the enclosure and tighten all four screws evenly to 1.7Nm.

Temperature Control
The Area Light series luminaire fixture design incorporates an over-temperature control circuit that reduces input power should internal temperatures reach a maximum level. As a result, light output may be reduced.

Mounting Luminaire
Secure the luminaire using the four fixing locations, see mounting bracket detail below. Cable can be passed through the central hole of stirrup bracket if required.

For best optical performance Dialight Corporation recommends mounting the 180° optic at a 45° angle with respect to the vertical mounting pole or wall. Note: Arrow point towards the direction of light pattern. Refer to www.dialight.com for the most up to date information on available mounting brackets, hardware and accessories.

Do not remove or tamper with cable gland. The gland has been supplied and installed to the luminaire accordance with the manufacturer's instructions. Tampering with this cable gland may compromise IPX6/X7 rating.

Improper installation and operation of this luminaire may invalidate the warranty. For maximum long term reliability and light output, the luminaire must be installed in free air.

Assemble the mounting bracket to the Luminaire with 2 M8 x 1.25 by 16mm bolts. Torque specification: 10.0nm maximum.

Use the further 2 M8 x 1.25 by 16mm bolts for locking the light fixture into position.

Secure the luminaire using the four fixing locations on the stirrup bracket using fixing bolts not supplied.

NOTE: When installing on or over an existing junction box, a cable gland must be used when routing cable through centre wiring hole on stirrup bracket.

Electrical Connection
The Wago terminal block is suitable for multi-stranded and single core cables up to a maximum of 4mm^2, with a strip length 10mm. If using the Weidmuller terminal block multi-stranded and single core cables up to a maximum of 6mm^2 may be used. Strip length 9mm and screws should be tightened to 1.2NM-2.0NM.

Wiring colours are dependent on the model type. Refer to the sections below for proper wiring.

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STW/ALE/HZB/ALB Series
For single phase (100 -277 VAC) or (120-250VDC):

WIRE(AC)	WIRE(DC)	COLOURED CABLE
AC LIVE	DC LIVE	BROWN
AC NEUTRAL	DC NEUTRAL	BLUE
GROUND	GROUND	GREEN
DIMMING +	DIMMING +	GREY
DIMMING -	DIMMING -	BLACK

Note: Only the live conductor is fused.

HZA/ALA Series
For single phase (100 -277 VAC) or (120-250VDC):

WIRE(AC)	WIRE(DC)	COLOURED CABLE
AC LIVE	DC LIVE	BLACK
AC NEUTRAL	DC NEUTRAL	WHITE
GROUND	GROUND	GREEN
DIMMING +	DIMMING +	RED
DIMMING -	DIMMING -	ORANGE

Note: Only the live conductor is fused.

Always restore power and verify operation.

When connecting the conductors extra care should be taken in order to maintain the hazardous protection. The insulation of the conductors shall reach up to the terminal block. The conductor itself shall not be damaged.

The connectible minimum and maximum conductor cross sections shall be observed (see electrical connection data). Remove any foreign bodies from the fixture

Single Fixture Electrical Connections
Push down at the 'cross point' on the terminal block, insert correct wire lead and release, ensuring the wire lead has been securely retained.

The cable used must be suitable for the site application and/or the site requirements.

Loop Thru Electrical Connections
Connect incoming cable then connect the outgoing cable to the associated adjoining connection to pass to the next luminaire.

NOTE: Only single cables to be used on each connection.

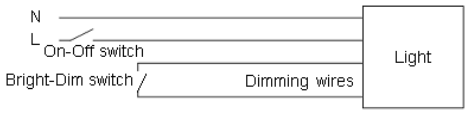
Dimming Models
The Dialight Area Light fixture supports variable dimming through a two wire interface, allowing precise light level setting and energy savings.

Dimming is controlled by means of a 0-10 VDC signal connected to the dimming wires (to be provided by the installer). The dimmer should be a 0-10V current sink type, capable of sinking 2mA per light.

Important Notes
- The low voltage dimming wires are connected to the grounded output section of the driver inside the light. Never connect either one to the Hot or Neutral supply wires.
- The '-' wire (Black) is at ground potential.
- Never use these wires for any purpose other than dimming.

Application Examples
1) Variable Voltage Control
An analog 0-10V active dimmer may be connected to the two wires to control the light output of the fixture. Multiple lights may be connected to the same dimmer, as long as the maximum current rating of the dimmer is not exceeded.

2) Step dimming
Simply shorting the two wires together will cause the light to dim to a low level. When this is done, the light will dim down to approximately 5% of its full light output, with a corresponding decrease in input power.



Cable Entries
When assembling the cable entries for the mains connection, always observe the manufacturer's specifications for the glands used. Unused cable entries must be closed and sealed by a suitably certified Ex e/Ex tb blanking element which includes a sealing o-ring.

When supplied with a component certified enclosure, a suitably certified gland with a seal or gasket must be installed in order 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.

Cable glands and blanking elements must be fitted with a locknut in order to maintain certification. Threaded entries are intended for guidance only.

Taking into Operation
Prior to operating, check the luminaire for its correct installation in compliance with these operating instructions and other applicable regulations.

NOTE: Only certified equipment may be put into operation.

WARNING:
Do not remove or tamper with certified cable gland. The Ex d rated gland has been supplied and installed to the luminaire accordance with the manufacturer's instructions.

WARNING:
Tampering with this cable gland may compromise IP66/67 rating and result in flame propagation into the atmosphere.

WARNING:
Do not over tighten as the protection rating may be compromised.

The cable entries should be securely tightened to ensure that the minimum protection rating is achieved. The cable entry should be rated to minimum of IPX6 to maintain the protection level of the fixture. Do not over tighten as the protection rating may be compromised.

Suitably certified cable entries must be used which include a sealing washer to maintain the IPX6/X7 rating of the enclosure.

Conditions for Use
When used with steel wired armor or braided cable the basket weave armor or braid is unable to carry the cable load without fracture. Therefore, the cable must be clamped and cleated to prevent pulling on the cable being transmitted to the cable terminations.

The external flexible cable or cord of this luminaire cannot be replaced; if the cord is damaged, the luminaire shall be destroyed.

Luminaires supplied with a fitted cable must be protected from direct or vibrational impact to prevent damage to the sheathing when operated in ambient temperatures below -30°C.

Improper installation and operation of this luminaire May invalidate the warranty. For maximum long term reliability and light output, the luminaire must be installed in free air.

The SafeSite Area Light fixture design incorporates an over- temperature control circuit that reduces input power should internal temperatures reach a maximum level. In this event light output may be reduced.

Maintenance
This LED Luminaire should require a minimum amount of maintenance. If any unforeseen repairs are required then always observe explosion protection regulations and requirements.

WARNING:
This LED Luminaire should not require any electrical maintenance. Never open the luminaire (other than the junction box lid if supplied); there are no user-serviceable parts inside.

Inspection
Within the scope of a maintenance or inspection routine the following should be included: protective hoses covering the connection cables. Cable entries must be free of corrosion. Perform visual mechanical and electrical inspections on a regular basis. We recommend routine checks to be made on a yearly basis. Frequency of use and environment should determine this. It is recommended to follow an Electrical Preventive Maintenance Program as described in NFPA 70B: Recommended Practice for Electrical Equipment

The lens should be cleaned periodically, as needed, to ensure continued photometric performance.

Clean the lens with a damp, non-abrasive, and lint-free cloth. If not sufficient, use mild soap or a liquid cleaner. Do not use and abrasive, strong alkaline, or acid cleaners as damage may occur.

Inspect the cooling fins on the luminaire to ensure that they are free of any obstructions or contamination (i.e. excessive dust build-up). Clean with a non-abrasive, damp cloth, if needed.

The light source of this luminaire is not replaceable; when the light source reaches its end of life the whole luminaire shall be replaced.

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Disposal Recycling
When the apparatus is disposed of, the respective national regulations on waste disposal should be observed. WEEE (Waste electrical & electronic equipment) registration number WEE/DC2678RY.

Repairs / Overhaul / Modification
The relevant national regulations which apply to the maintenance / servicing of electrical apparatus in explosive atmospheres shall be observed.

Should the luminaire enclosure be damaged, only a replacement will be permitted. In case of doubt, the equipment should be returned to point of purchase for inspection/repair/replacement.

WARNING:
Modifications to the device or changes to its design are not permitted. The equipment must be operated according to the intended purpose in a perfect and undamaged condition

Technical Data
STW-EU /ALE Series

Certifications
CE Compliant
IEC 55015
IEC 61597
IEC 62031
IEC 62471
NEMA 4x
IP66
EN60529

Nominal Supply Voltage
100-277V AC, 50-60Hz or 120-250VDC

Lumens	Input Power: [W]
9000	66
7000 (Wide Optic)	64
7000	52
6000	40
4000	30
3000	24

Power Factor >0.90
ATHD <20%

Temperature
-40°C to +65°C
[-40°F to +149°F]
T4 = -40°C to +65°C

Housing Material
Powder Coated Aluminum

Finish
Epoxy Powder Coat
Gray, RAL 7040
ACP Black, RAL 9017
Orange, RAL 2001
White, RAL 9010
Yellow, RAL 1018
Bronze, RAL 7022

Lens
Polycarbonate
Glass

Weight	[kg]
Without J/BOX PC	4.5
Without J/BOX GLS	7.44
With J/BOX GLS	7.67

Dimensions
See Technical Diagrams

Technical Data
HZA /ALA Series (Zone 1, 21, 2, 22)
HZJA /ALA Series (Zone 1, 21, 2, 22)

Category of application:
Ex II 2GD Ex db * op is IIC T4 Gb
(Ta = -40°C to +65°C)
Ex II 2GD Ex db * op is IIC T5 Gb
(Ta = -40°C to +42°C)
Ex tb op is IIIC T135°C Db IP 66/67
(Ta = -40°C to +65°C)
Ex tb op is IIIC T100°C Db IP 66/67
(Ta = -40°C to +42°C)

* When these lights are fitted with an increased safety enclosure and terminals, this marking becomes 'eb'.

IECEx: IECEx SIR 17.0037X
ATEX: SIRA 17ATEX1174X

Nominal Supply Voltage
100-277V AC, 50-60Hz or 120-250VDC

Lumens	Input Power: [W]
9000	66
7000 (Wide Optic)	64
7000	52
6000	40
4000	30
3000	24

Power Factor >0.90
ATHD <20%

Temperature
-40°C to +65°C
[-40°F to +149°F]
T4 = -40°C to +65°C
T5 = -40°C to +42°C

Housing Material
Powder Coated Aluminum

Finish
Epoxy Powder Coat
Gray, RAL 7040
ACP Black, RAL 9017
Orange, RAL 2001
White, RAL 9010
Yellow, RAL 1018
Bronze, RAL 7022

Lens
Glass

Weight:	[kg]
Without J/BOX	9.53
With J/BOX	9.03

Dimensions
See Technical Diagrams

Chemical Compatibility Guide
The chemical compatibility data referenced in this manual was supplied by the raw material manufacturers and is intended as a general guide. The data represents the basic material properties and does not necessarily represent the performance of the final product due to manufacturing process and design variations for each final product. Chemical compatibility is highly dependent on concentration, temperature, humidity, and other environmental conditions and therefore the customer assumes responsibility for evaluation of gaseous or direct contact chemical compatibility at their site prior to product installation.

www.dialight.com/pubs/MDTFCHEMRFLX001.pdf

Technical Data:
HZB /ALB Series (Zone 2, 22)
HZJB /ALB Series (Zone 2, 22)

Category of application:
Ex II 3GD
Ex nA nC IIC T4 Gc
Ex tc IIIC T130°C Dc IP66

IECEx: IECEx SIR 14.0042X
ATEX: Sira 14ATEX4097X

Nominal Supply Voltage
100-277V AC, 50-60Hz or 120-250VDC

Lumens	Input Power: [W]
9000	66
7000 (Wide Optic)	64
7000	52
6000	40
4000	30
3000	24

Power Factor >0.90
ATHD <20%

Temperature
-40°C to +65°C
[-40°F to +149°F]
T4 = -40°C to +65°C

Housing Material
Powder Coated Aluminum

Finish
Epoxy Powder Coat
Gray, RAL 7040
ACP Black, RAL 9017
Orange, RAL 2001
White, RAL 9010
Yellow, RAL 1018
Bronze, RAL 7022

Lens
Glass

Weight:	[kg]
Without J/BOX	7.44
With J/BOX	7.67

Dimensions
See Technical Diagrams

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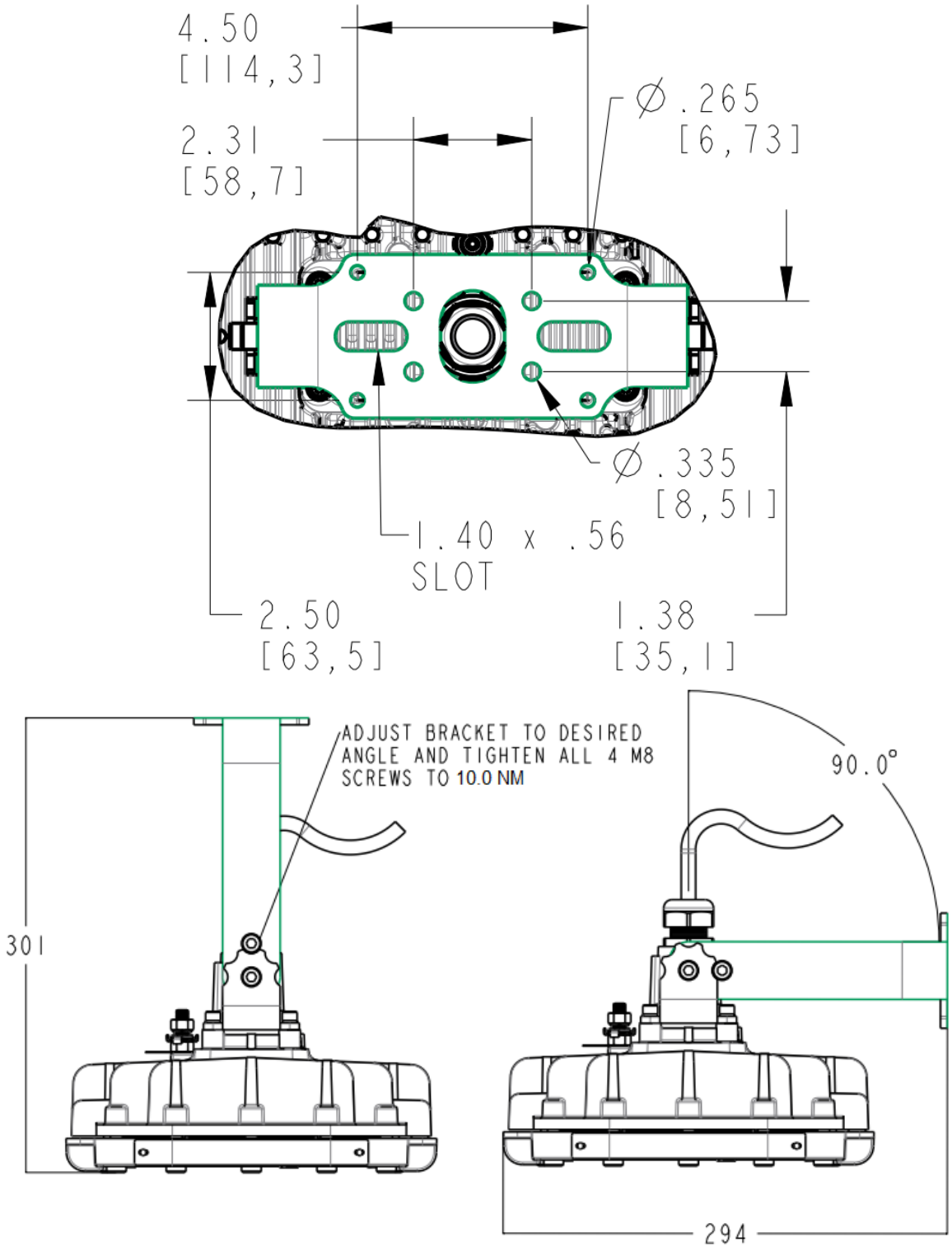
Technical Diagrams



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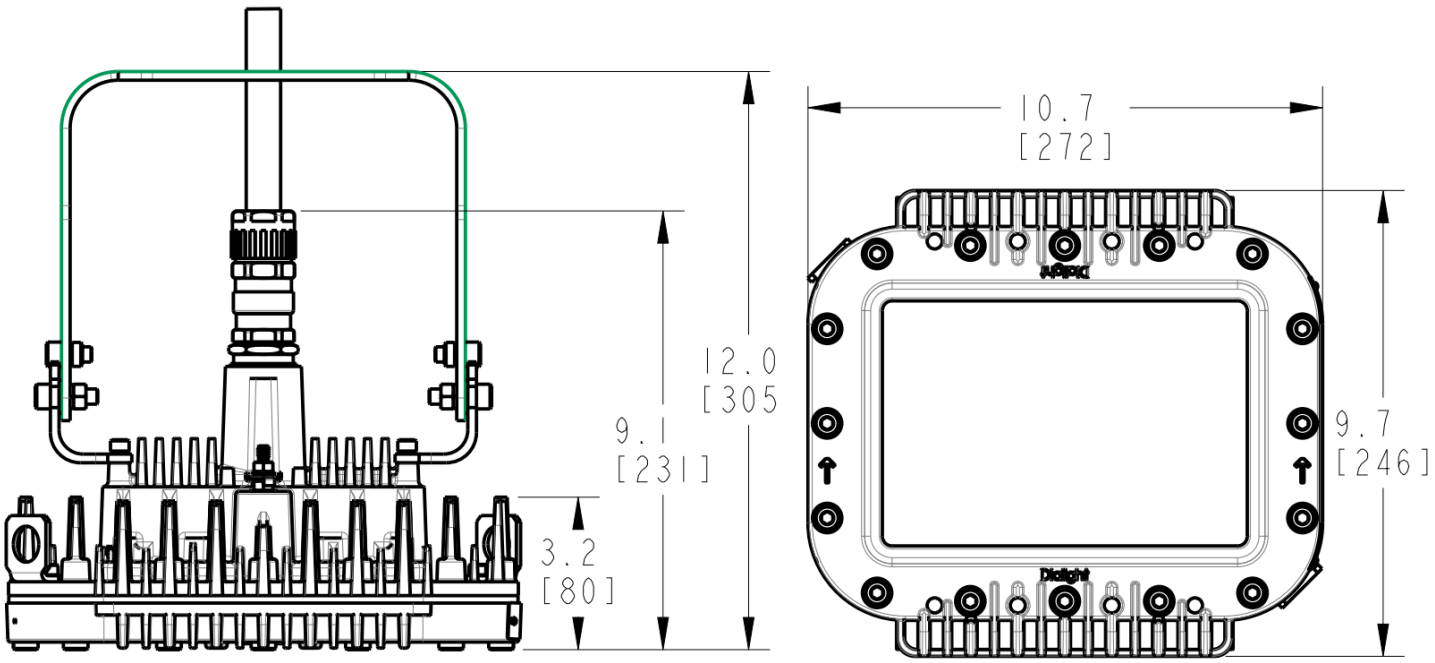

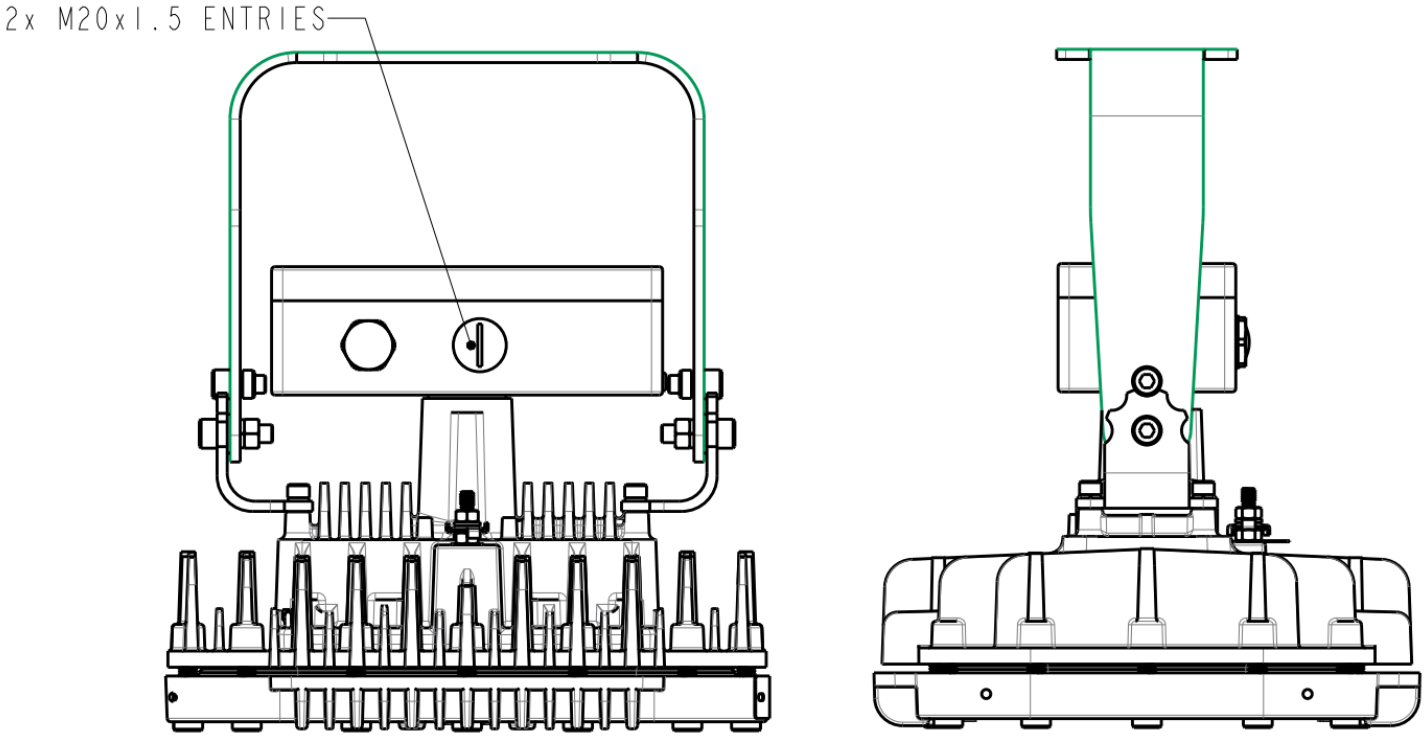

Official Statement

All statements, technical information, and recommendations contained herein are based on information and tests that Dialight believes to be reliable. The accuracy or completeness thereof is not guaranteed. In accordance with Dialight "Terms and Conditions of Sale" and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his or her intended use and assumes all risk and liability whatsoever in connection therewith.

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Year CE Mark Affixed: 12

EU DECLARATION OF CONFORMITY

Manufacturer: Dialight Corporation
1501 Route 34 South, Farmingdale, New Jersey, 07727, USA
+1 (732) 919 3119

Equipment: Vigilant Series LED Area Light

Model Series: ALE***2******N and STW**2*EU Series

Directives:	**Standards:**
Low Voltage Directive 2014/35/EU	EN 60598-1:2015 EN 60598-2-1 :1989 EN 60598-2-24 :2013 EN 62471:2008 EN 61347-2-13:2014+A1:2016
Electromagnetic Compatibility Directive 2014/30/EU	EN 55015:2013+A1:2015 EN 62493 :2015 EN 61547:2009 EN 61000-3-2:2015 EN 61000-3-3:2013
Restriction of the Use of Certain Hazardous Substances (RoHS) Directive 2011/65/EU	
Ecodesign Requirements for Energy-Related Products Directive 2009/125/EC	
Energy Labelling Directive 2010/30/EU	

Equipment Ratings is based on type examination via CB test Certificate SE-87598

100-277VAC, 50/60Hz or 120-250VDC,
Max 66W, IP66/67, Class I,
Ta -40 to +65°C, D-marked

CENELEC ENEC Agreement License Ref. No. SE/16036-1
Quality Management System Accreditation to ISO 9001: UL DQS file 10002116 QM08

We declare that our products to which this declaration relates are in conformity with the listed directives per the provisions of the aforementioned standards.

X Rizwan Ahmad Date: 27-July-2017

Rizwan Ahmad, VP Engineering & Technology - Power & Connectivity
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