

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

Page Number

English

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Note: Save these instructions for future use



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 IEC 60079-14.

- 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.
- Repairs must only be carried out by a qualified electrician with hazardous area knowledge.
- No user serviceable parts inside.
- No field replaceable parts.

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.
5. The external plastic guard on the LED Luminaire with Sand Blast Shield is to be cleaned with a damp cloth only.
6. **FOR HLA UNITS ONLY**
The maximum flameproof gap in the flange of the power supply enclosure is 0.1 mm.

Introduction

The High Bay lights are designed for illumination of industrial locations and use the latest in solid state lighting technology for long life, low maintenance, and high efficiency.

The unique optical design focuses light downward to where it is needed, giving improved efficiency over a conventional HID luminaire.

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: 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

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.

General Mounting Information

For maximum long term reliability and light output, the light must be installed in free air. The High Bay luminaire 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 temporarily reduced at higher ambient temperatures.

Recommended mounting height: 6-12m [20-40ft]

Stirrup Mounting Information

The 'Stirrup Bracket' is fixed into place using 2 bolts and the threaded holes on the side of the luminaire. When secured into the desired position the 2 bolts should be tightened to 8.0 – 10.0Nm [6 – 8ft.lbs].

For 25K (HLA) models:

M8 bolts: 19Nm

M6 bolts: 7Nm

Electrical Installation of Luminaire

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 electrical 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.

Note: Electrical installation of the extension should be carried out by a qualified electrician.

For connecting the coloured fitted power cable conductors is as follows:

- Brown wire connects to Live.
- Blue wire connects to Neutral.
- Green/Yellow wire connects to Safety Ground (Earth).

For connecting the numbered fitted power cable conductors is as follows:

- Wire 1 connects to Live.
- Wire 2 connects to Neutral.
- Wire 3 connects to Safety Ground (Earth).

WARNING: Do not remove or tamper with the certified cable gland. The Ex 'd' rated gland has been supplied and installed to the luminaire in accordance with the manufacturer's instructions. Tampering with this cable gland may compromise the IP66 rating and result in flame propagation into the atmosphere.

Electrical Installation of Junction Box

The cable glands used with this luminaire must be certified to the Ex 'e' requirements. The cable used must be suitable for the site application and/or the site requirements.

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 certified blanking plug. 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 IP66 to maintain the protection level of the luminaire.

NOTE: This fixture is supplied with one dust cap and one certified blanking plug.

NOTE: Do not over tighten the cable glands as the protection rating may be compromised. Refer to gland manufacturer's data for torque settings.

The push terminal block (WAGO 862 series)* is suitable for multi-stranded and single core cables up to a maximum of 4mm², strip length 10mm. Push down at the 'cross point', insert correct cable and release, ensuring the cable has been securely retained.

The screw terminal block (Weidmüller MK 6/2/E)* is suitable for multi-stranded and single core cables up to a maximum of 6mm², strip length 9mm. Unscrew retaining tab, insert wire and tighten the screw to 1.2-2 Nm, ensuring the cable has been securely retained.

Loop Through Electrical Connections (for push terminal block only)

Connect incoming cable as above then connect the outgoing cable to the associated adjoining connection to pass to the next luminaire.

NOTE: Only one cable to be used on each terminal entry point.

Any improper installation, operation, or maintenance of these luminaires may result in the invalidation of the warranty.

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.

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

* All product names, logos, and brands are property of their respective owners. All company, product and service names used in this document are for identification purposes only. Use of these names, logos, and brands does not imply endorsement.



Conditions for Use

The supply to the luminaire must include a fuse which is capable of interrupting a 1500A short circuit current. When used with steel wired armour or braided cable the basket weave armour or braid is unable to carry the cable load without fracture. The cable must therefore be clamped and cleated to prevent pulling on the cable being transmitted to the cable terminations.

Luminaires supplied with the fitted 3 metre 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 or 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 High Bay luminaire design incorporates an over-temperature control circuit that reduces power to the LEDs should internal temperatures reach a maximum level. In this event light output may be reduced.

The length of the conductors between the cord anchorage and the terminals shall be such that should the cable or cord move out of the cord anchorage, the current-carrying conductors become taut before the earthing conductor

Maintenance

To avoid personal injury, disconnect power to the light and allow the unit to cool down before performing maintenance.

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.

Repairs / Overhaul / Modification

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

Technical Data

General Units

Rated Input Voltage:

HEA****P**** 110-277VAC 50/60Hz
All Other Units 100-277VAC 50/60Hz

Supply Current: (Nominal @ 230V)

HB(A/H)**4M 0.7A
HB(A/H)**4P 0.7A
HB(A/H)**MP 0.8A
HBJ(A/H)**4M 0.7A
HBJ(A/H)**4P 0.7A
HBJ(A/H)**MP 0.8A
HE(A/H)****P**** 1.0A
HE(A/H)****K**** 0.7A
HE(A/H)****G**** 0.5A
HE(A/H)****D**** 0.4A
HEJ(A/H)****P**** 1.0A
HEJ(A/H)****K**** 0.7A
HEJ(A/H)****G**** 0.5A
HEJ(A/H)****D**** 0.4A
HLA**4** 1.2A

Operating

Ambient Temp: -40°C to +60°C

Housing Material: Copper Free Aluminium

Housing Colour: Window Grey

Protection Glass: Toughened Soda-Lime Glass

Technical Data

HLA series

Category of application:

Ex d IIB T5 Gb
Ex tb IIIC T100°C Db
IP66
Ex II 2GD

IECEx/ATEX IECEx BAS 10.0074X
Baseefa 10 ATEX 0148X

Rated Input Power: 315 W MAX.

Cable Entries: Fixed 3 metre cable

Weight: 18.1 Kg (40 lbs)

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

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.

Technical Data:

HBH, HBJH, HEH, & HEJH series

Category of application:

165W Versions Ex d IIB+H₂ T5 Gb
Ex tb IIIC T100°C Db
IP66
II 2GD

195W/235W Version: Ex d IIB+H₂ T4 Gb
Ex tb IIIC T135°C Db
IP66
II 2GD

165W Version Junction Box: Ex d e IIB+H₂ T5 Gb
Ex tb IIIC T100°C Db
IP66
II 2GD

195W/235W Version Junction Box: Ex d e IIB+H₂ T4 Gb
Ex tb IIIC T135°C Db
IP66
II 2GD

IECEx / ATEX: IECEx BAS 12.0044X
Baseefa12ATEX0070X

Cable Entries: With Junction Box: Fixed 3 metre cable
2x M20
(M25 optional)

Weight: With Junction Box: 11.4 Kg (25 lbs)
15.1 Kg (33.3 lbs)

Technical Data

HBA, HBJA, HEA, & HEJA series

Category of application:

165W Versions: Ex d IIB T5 Gb
Ex tb IIIC T100°C Db
IP66
II 2GD

195W/235W Version: Ex d IIB T4 Gb
Ex tb IIIC T135°C Db
IP66
II 2GD

165W Version Junction Box: Ex d e IIB T5 Gb
Ex tb IIIC T100°C Db
IP66
II 2GD

195W/235W Version Junction Box: Ex d e IIB T4 Gb
Ex tb IIIC T135°C Db
IP66
II 2GD

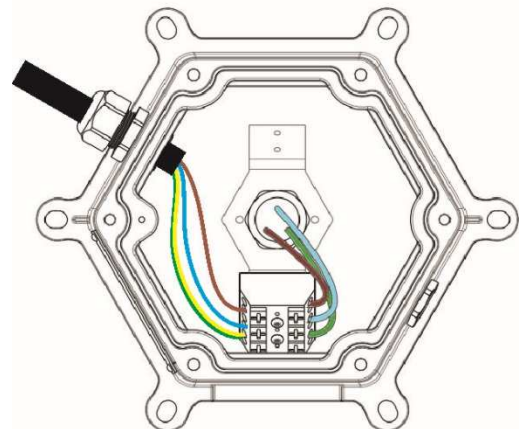
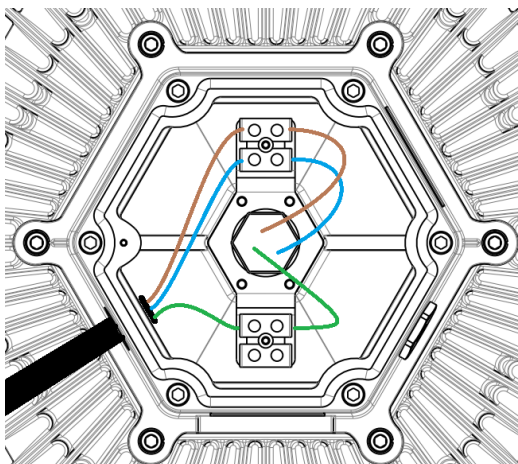
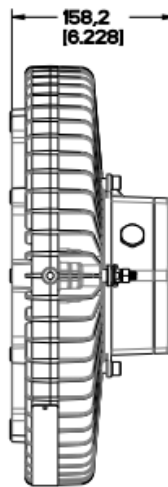
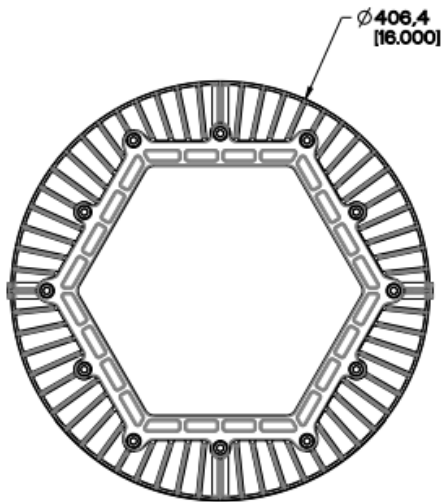
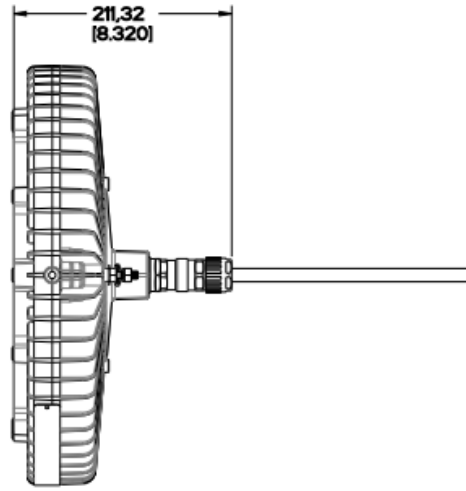
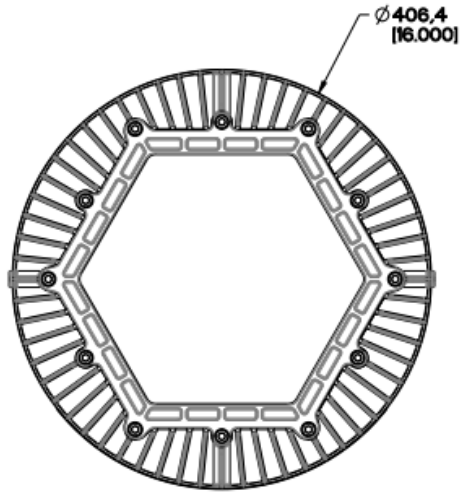
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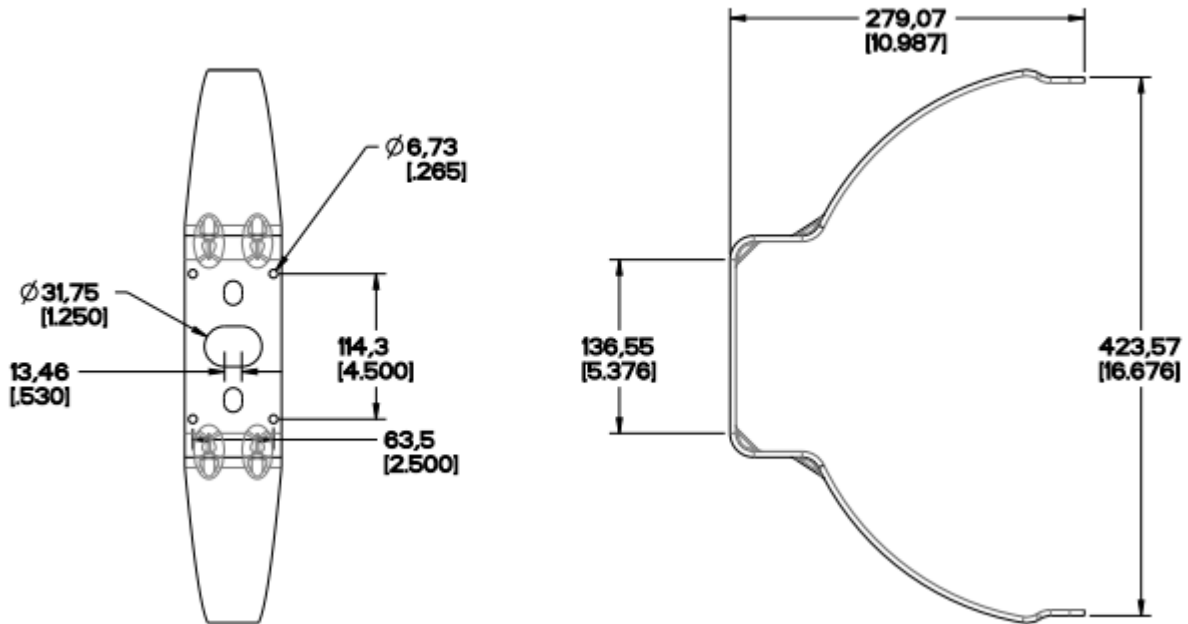
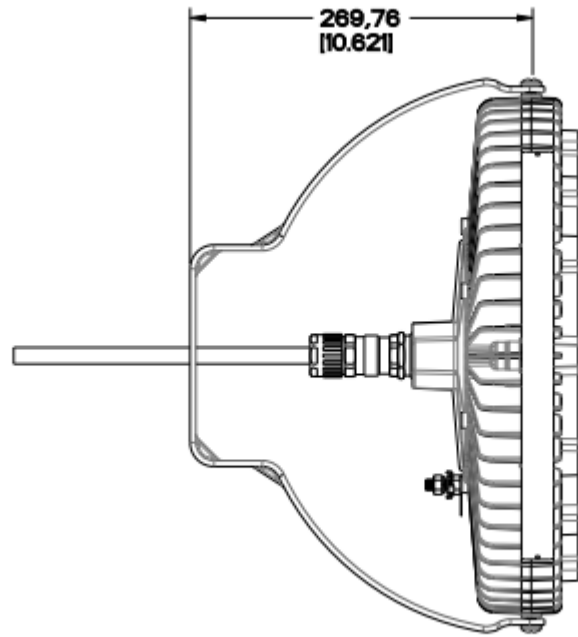
Cable Entries: With Junction Box: Fixed 3 metre cable
2x M20
(M25 optional)

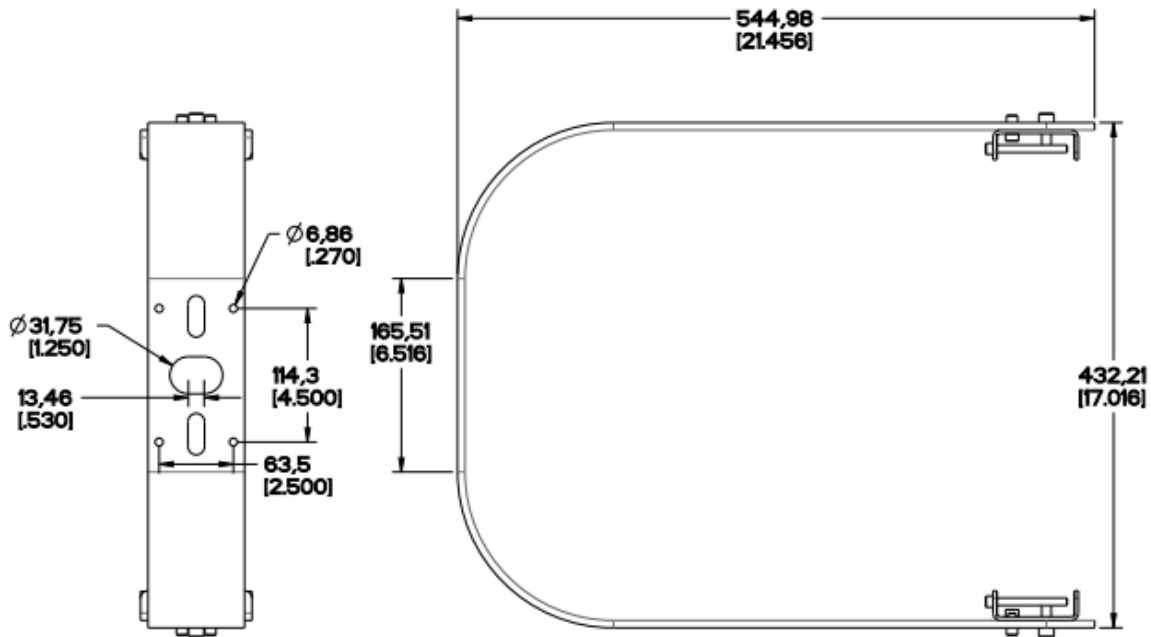
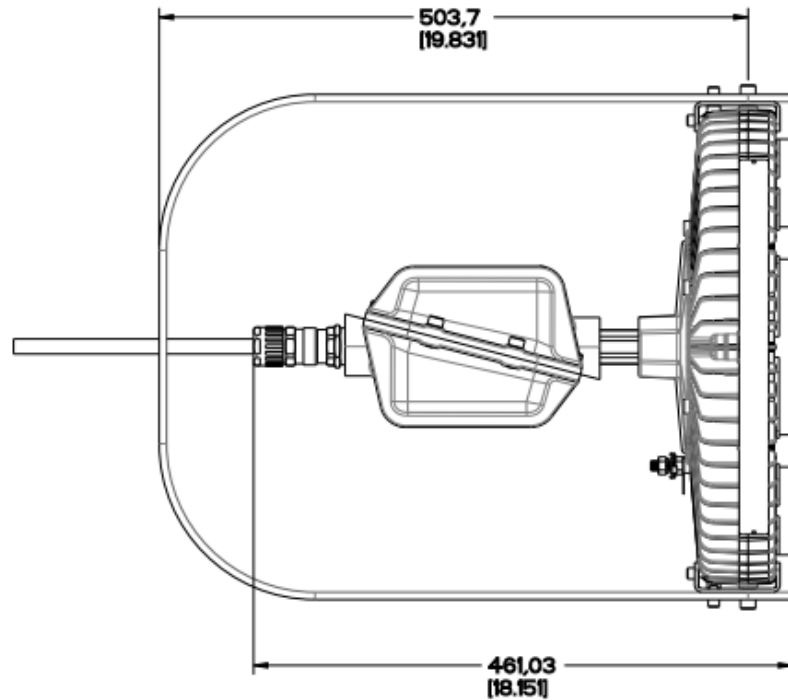
Weight: With Junction Box: 11.4 Kg (25 lbs)
15.1 Kg (33.3 lbs)



Technical Diagrams







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.

EU DECLARATION OF CONFORMITY

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

Equipment: High Bay IECEx LED Light

Model Series: HBA, HLA, HEA, FLA Series


Directives: Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres
Directive 2014/34/EU
Low Voltage Directive 2014/35/EU
Electromagnetic Compatibility Directive 2014/30/EU
Restriction of the Use of Certain Hazardous Substances (RoHS) Directive 2011/65/EU

Standards:


Luminaires - Part I: General Requirements	EN 60598-1:2008
Radio Disturbance	EN 55015:2013+A1 :2015
EMC - Harmonic Currents	EN 61000-3-2:2006 + A2:2009
EMC - Immunity	EN 61547:2009
Explosive Atmospheres - General Requirements	EN 60079-0:2009
Explosive Atmospheres – Part 1 : Flameproof Enclosures "d"	EN 60079-1:2007
Explosive Atmospheres – Part 7 : Increased Safety "e"	EN 60079-7:2007
Explosive Atmospheres – Part 31 : Dust Ignition Protection "t"	EN 60079-31:2009

Equipment Marking is based on type examination via Baseefa, file Baseefa 10ATEX0148X / IECEx BAS 10.0074X


315 W Max

 II 2 GD
Ex d IIB T5 Gb
Ex tb IIIC T100°C Db IP66
Ta: -40°C to +60°C

195 W & 235 W Max

 II 2 GD
Ex d IIB T4 Gb (factory fitted cable)
Ex d e IIB T4 Gb (factory fitted junction box)
Ex tb IIIC 135°C Db IP66
Ta : -40°C to +60°C

165 W Max

 II 2 GD
Ex d IIB T5 Gb (factory fitted cable)
Ex d e IIB T5 Gb (factory fitted junction box)
Ex tb IIIC 100°C Db IP66
Ta : -40°C to +60°C

Quality Assurance Notification: SIRA file (13ATEXM587).

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  Date: 13-Apr-2017

Rizwan Ahmad, VP Engineering & Technology - Power & Connectivity
1501 Route 34 South, Farmingdale, NJ 07727 USA

Authorized contact:

Dialight Corporation
Compliance Department
1501 Route 34 South, Farmingdale, NJ 07727 USA
+1 (732) – 919 – 3119



Year CE Mark Affixed:

12

EU DECLARATION OF CONFORMITY

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+1 (732) – 919 – 3119

Equipment: High Bay IECEx LED Light

Model Series: HBH, HEH, FLH Series

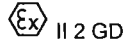
Directives: Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres
Directive 2014/34/EU
Low Voltage Directive 2014/35/EU
Electromagnetic Compatibility Directive 2014/30/EU
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Explosive Atmospheres – Part 31 : Dust Ignition Protection "t"	EN 60079-31:2009

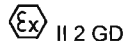
Equipment Marking is based on type examination via Baseefa, file Baseefa 12ATEX0070X / IECEx BAS 12.0044X

195 W & 235 W Max



Ex d IIB+H2 T4 Gb (factory fitted cable)
Ex d e IIB+H2 T4 Gb (factory fitted junction box)
Ex tb IIIC 135°C Db IP66
Ta : -40°C to +60°C

165 W Max



Ex d IIB+H2 T5 Gb (factory fitted cable)
Ex d e IIB+H2 T5 Gb (factory fitted junction box)
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