

### 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

**WARNING:**

To avoid the risk of fire, explosion, or electric shock, this product should be installed, inspected, and maintained by a qualified electrician only, in accordance with all applicable electrical codes.

**Safety Instruction:**

To avoid electric shock:

- Be certain electrical power is OFF before and during installation and maintenance.
- Luminaire must be connected to a wiring system with an equipment-grounding conductor.
- Make sure the supply voltage is the same as the rated luminaire voltage.
- The technical data indicated on the LED luminaires are to be observed.
- Changes of the design and modifications to the LED luminaire are not permitted.
- Observe the national electrical safety rules and regulations during installation.
- No field replaceable parts.
- No user serviceable parts inside.

**Introduction**

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

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

An internal power-factor-corrected switch-mode supply allows it to be used at a nominal 100-277VAC, 110-277VAC, or 230/240VAC at 50/60Hz supply without any variation in light output. For supply connections, use suitable cable.

**WARNING:** If the High/Low Bay fixture is equipped with a strain relief. Tampering with this strain relief may compromise IP rating of luminaire

**General Mounting Information**

For maximum long term reliability and light output, the light must be installed in free air. The High/Low 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.

The High Bay luminaire is fitted with a 3m long cable that can be extended if required. High Bay models HB\*\*\*\*EUH, HE\*\*\*\*\*H\*\*, HE\*\*\*\*\*E\*\* are fitted with a snap hook in order to hang the luminaire from an appropriately sized mounting point. High Bay models, HF\*\*\*\*\*, HJ\*\*\*\*\* are fitted with an integral junction box.

Rear alignment mark should be observed when installing the oval light output version, model types HB6\*\*\*EU, HB7\*\*\*EU, HBE\*\*\*EU, HE\*6\*\*\*\*\*, HE\*7\*\*\*\*\*, H(E/F/J)\*E\*\*\*\*\*, H(E/F/J)\*N\*\*\*\*\*.

Recommended mounting height:

High Bay: 6-12m [20-40ft]

Low Bay: 4-6m [12-20ft]

**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 Legacy 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.

The controlgear has mains-connected windings. LED controlgear 8800HIB004289 is exclusively for use within Dialight Models H(E/F/J)xx(M/R/N)x4PN-xxx only. LED controlgear 8800HIB004296 is exclusively for use within Dialight Models H(E/F/J)xx(M/R/N)x4PKN-xxx only. They are not intended for use with other LED Modules.

**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:

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

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

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

Connections to be made inside a junction box with minimum IP44 rating. Connections to be made using appropriately rated terminal blocks. 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

For HE(F/J) models only: Torque junction box cover screws to 2-2.5 Nm.

Technical Data	General Units
<b>Rated Input Voltage:</b>	
H2****N****	110-277V AC, 50/60Hz
H(E/F/J)****P****	110-277V AC, 50/60Hz
HLC****EU**	230/240V AC, 50/60Hz
HE*****L(K)***:	230-240V AC, 50/60Hz
All Others	100-277V AC, 50/60Hz
<b>Supply Current:</b>	
<b>(Nominal @ 230V)</b>	
H2****N****	0.8A
HB**4M/4N0.7A	
HB**4P	0.7A
HB**MP	0.8A
H(E/F/J)****P****	1.0A
H(E/F/J)****K****	0.7A
H(E/F/J)****G****	0.5A
H(E/F/J)****D****	0.4A
<b>Power consumption:</b>	
LBW****EU	80W
H2****N****	180W
HB**4M/4N146W	
HB**4P	161W
HB**MP	172W
H(E/F/J)****P****	212W
H(E/F/J)****K****	144W
H(E/F/J)****G****	112W
H(E/F/J)****D****	88W
HLC****EU**	270W
<b>Operating Ambient Temp:</b>	
	-40°C to +65°C
<b>Power factor:</b>	
	>0.9
<b>ATHD:</b>	
	<20% @230/240V AC
<b>Dimensions:</b>	
<b>cm [in]</b>	
Diameter	40.6 [16]
Height	12.7-36.8 [5-14.5]
<b>Weight:</b>	
<b>kg [lbs]</b>	
LBW****EU	8.2 [18]
H2****N****	9 [20]
H(E/F/J)*****	9 [20]
HLC****EU**	14.5 [32]
All other models	7.7 [17]



### Electrical Installation of Junction Box

The cable glands and cable used with this luminaire 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 suitable 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:** Do not over tighten the cable glands as the protection rating may be compromised. Always refer to gland manufacturer's data for torque settings

The terminal block is suitable for multi-stranded and single core cables up to a maximum of 4mm<sup>2</sup>, strip length 10mm. Push down at the 'cross point', insert correct cable and release, ensuring the cable has been securely retained.

### Loop through Electrical Connections

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.

### Interfacing to a PIR or Occupancy Sensor

The Dialight High/Low Bay fixture is ideally suited for control by an occupancy sensor in order to maximize energy savings based on its instant-on behavior and low power consumption. Instructions for connecting the High Bay fixture to an occupancy sensor are listed below.

**WARNING:** To be installed/used in accordance with appropriate electrical codes and regulations.

**WARNING:** Controlling a load in excess of the specified ratings of the occupancy sensor could damage the unit and pose risk of fire, electric shock, personal injury, or death. Check load ratings to determine the unit's suitability for your application.

**WARNING:** To avoid fire and electrical shock, turn off power at circuit breaker or fuse and test that the power is off before wiring.

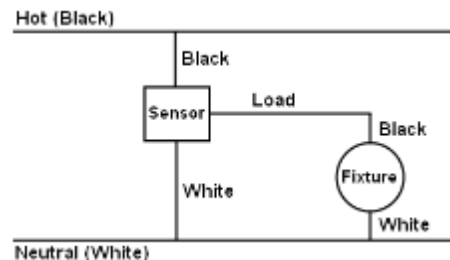
The Dialight High/Low Bay fixture is also suited for control by an external occupancy sensor (not sold by Dialight) in order to maximize energy savings based on its instant-on behavior and low power consumption. Instructions for connecting the High Bay fixture to an occupancy sensor are listed below.

1) Install occupancy sensor as per sensor instructions to provide desired coverage of area.

2) Connect luminaire wires as follows:

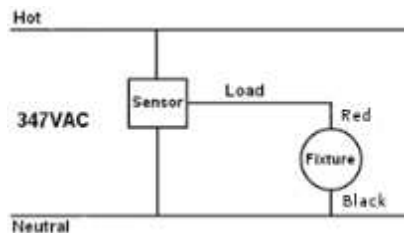
For 120-277VAC operation:

Black lead to load of the occupancy sensor, White lead to the line (neutral), Green lead to earth ground. Multiple luminaires may be connected to a sensor, pending the rated load of the sensor is not exceeded.



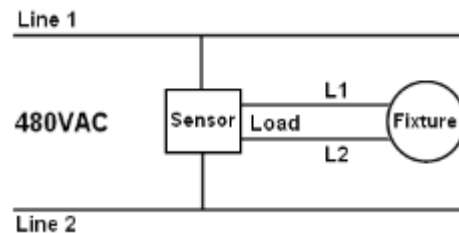
For 347VAC operation:

Red lead to load of the occupancy sensor, Black lead to the line (neutral), Green lead to earth ground.



For 480VAC operation:

Red and black leads to load of occupancy sensor, green lead to earth ground. Multiple fixtures may be connected to a sensor, as long as the rated load of the sensor is not exceeded.



3) Restore power at circuit breaker or fuse.

4) Verify operation of system. If the light will not turn on, check the operation of the luminaire and sensor individually and check that the wiring is done correctly. If the light will not turn off or turns off and on quickly, see the sensor's installation instructions for further guidance.

5) For sensor operation instructions, see sensor manufacturer's manual.

### Dimming Models Only(HxxxxxDxxx)

The Dialight High/Low Bay fixture supports variable dimming through a two wire interface. Using this interface, it is possible to reduce the light level of the fixture, saving energy and setting the level exactly as desired.

The dimmable High/Low Bay has a single cable (five wires total) interface. The power cable houses two wires which are used to power the unit (Black and White, Hot and Neutral, respectively), one which is used as a safety ground/Earth (Green), and two wires (Violet and Gray) which form the dimming interface and can be used in the ways described below.

Dimming is controlled by means of a 0-10 VDC signal (to be provided by the installer) to control the level of dimming. At 10 volts, the output of the unit is 100%; at 0 volts, the output will be approximately 30%. The DC dimming voltage should not exceed 15 VDC. Increasing the voltage from 10VDC to 15VDC will not result in additional light output.

Violet wire connects to +, Grey wire connects to -.

### Important Notes

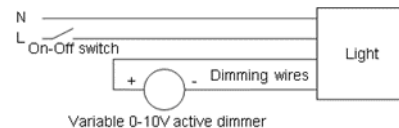
- The low voltage Dimming wires are connected to the grounded output section of the driver inside the light. Never connect either one to the Hot or Neutral supply wires.
- The '-' wire (Black) is at ground potential.
- Never use these wires for any purpose other than dimming.

### 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.

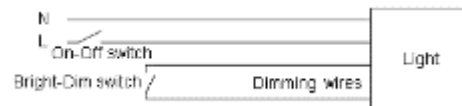
The dimmer must be capable of sinking 0.5mA per light. Light output will vary approximately linearly with control voltage, with 10V corresponding to 100% light output.

**Note:** If the control voltage exceeds 10V the light output will not increase beyond the normal maximum brightness, but it is recommended that the control voltage be limited to under 15V.



### 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 30% of its full light output, with a corresponding decrease in input power.



### Maintenance

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

**WARNING:** The external flexible cable of this luminaire cannot be replaced; if the cord is damaged, the luminaire must be taken out of service.

**WARNING:** Removal of the lens will void the warranty. The lens could be cleaned periodically as needed to ensure continued photometric performance. Clean the lens with a damp, non-abrasive, lint-free cloth. If not sufficient, use mild soap or a liquid cleaner.

During any maintenance 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 cloth if needed.

### Secondary Retention

When using a safety cable for secondary retention, ensure minimum slack (no greater than 0,3 metres) in



cable after installation. Connect safety cable to outer band of fixture. Cable type, size, material, and attachment method to meet customer application and to be appropriate with all local and regional regulations.

### Technical Diagrams

#### Chemical Compatibility Guide

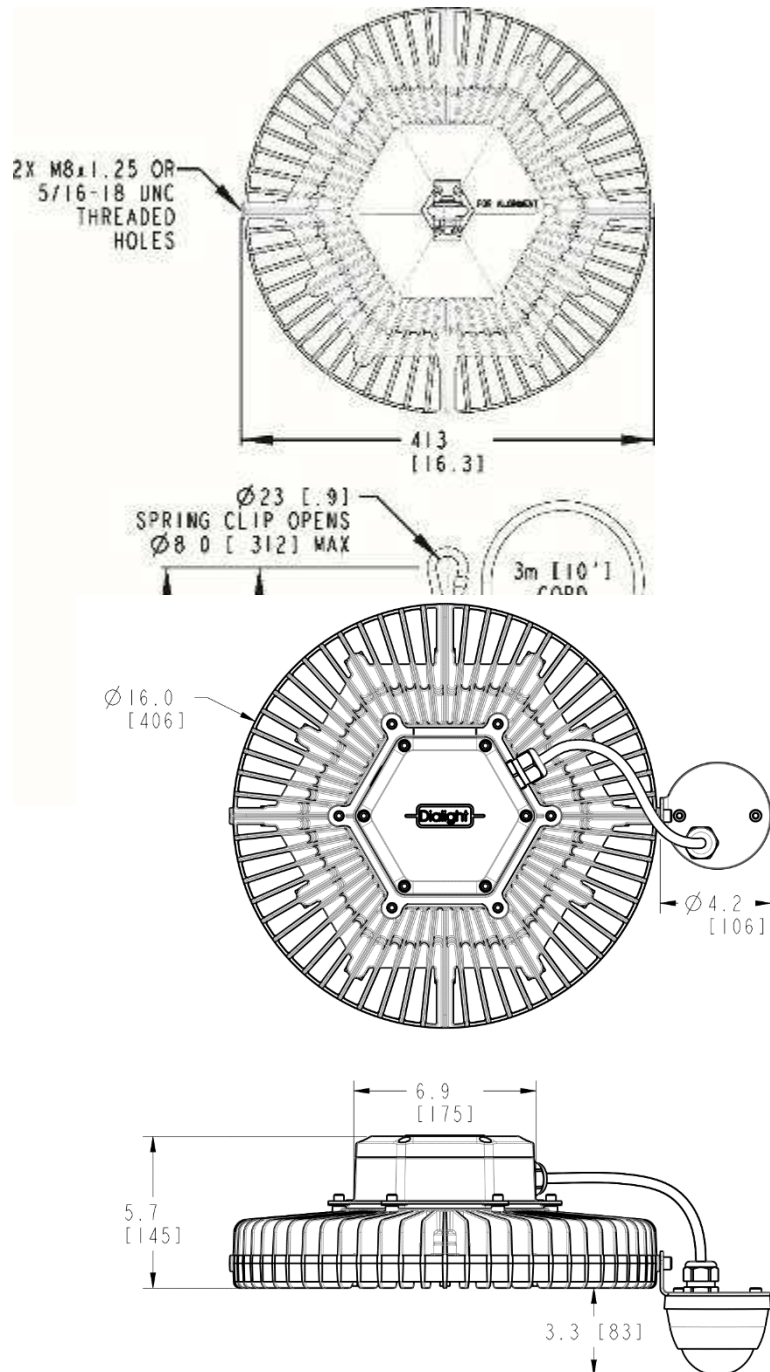
The chemical compatibility data referenced in this manual was supplied by the raw material manufacturers and is intended as a general guide. The data represents the basic material properties and does not necessarily represent the performance of the final product due to manufacturing process and design 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.

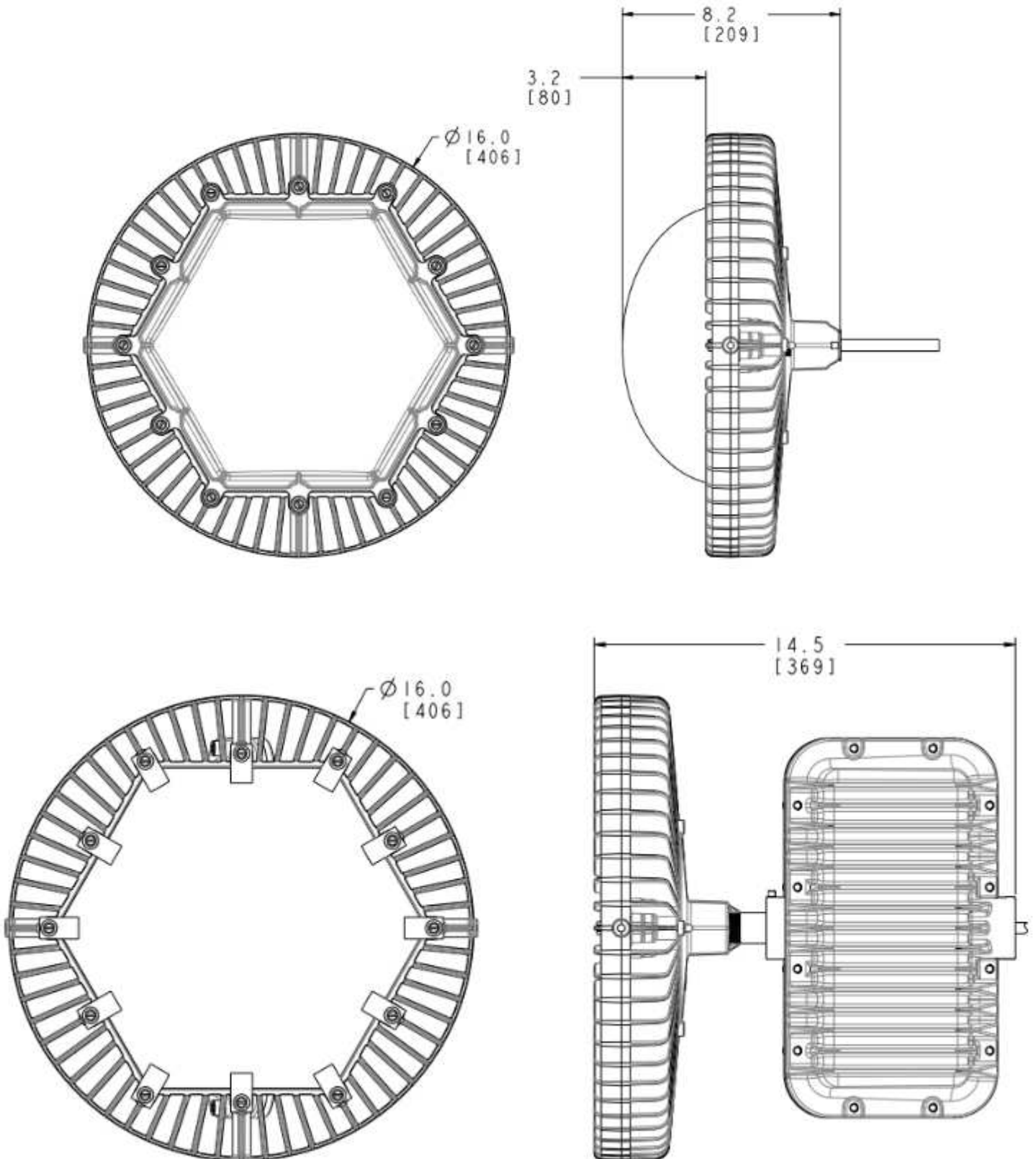
[www.dialight.com/pubs/MDTFCHEMRFLX001.pdf](http://www.dialight.com/pubs/MDTFCHEMRFLX001.pdf)

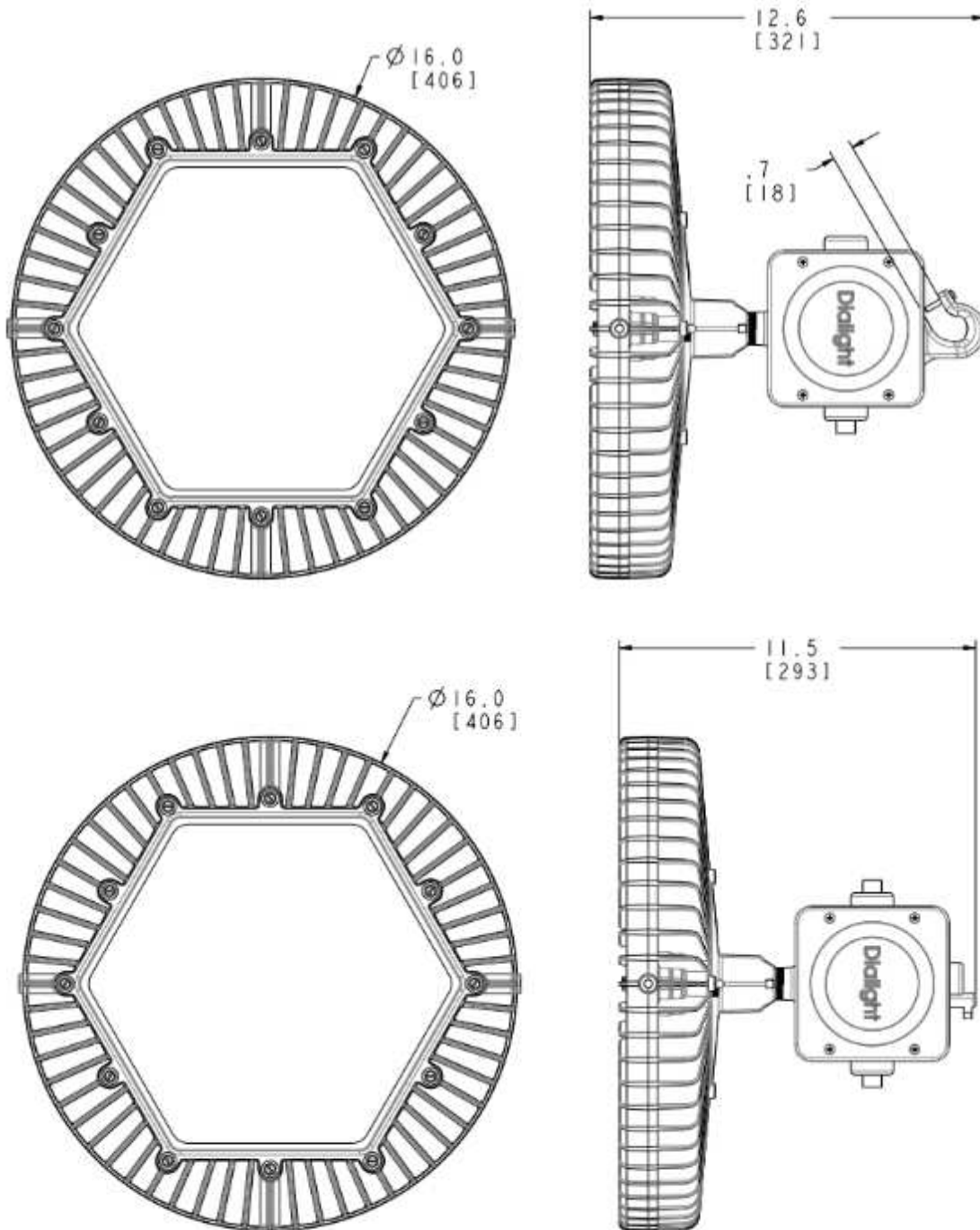
Electrical Parameters (LED Module Only)			
Model No	Max Tc (F1)	Supply Current Rating (nom)	Working Voltage (nom)
H2****N****	140°C	0.042A	50V
HB**4MEU & HB**4NEU	140°C	0.500A	42V
HB**4PEU	140°C	0.450A	51V
HB**MPEU	140°C	0.617A	45V
H(E/F/J)****K****	140°C	0.100A	39V
H(E/F/J)****P****	140°C	0.095A	51V
H(E/F/J)****D****	140°C	0.092A	45V
H(E/F/J)****G****	140°C	0.092A	45V

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

For models without a factory installed junction box: Terminal block not included. Installation may require advice from a qualified person.







### 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.

