HBDB High Bay Fixture with Occupancy Sensor

INSTALLATION INSTRUCTIONS

The High Bay Luminaire is ideal for installations with mounting heights over 20 feet. The fixture can be mounted with a hook or pendant with flexible adjustments to create uniform light from fixture to fixture.

WARNING:

- This product must be installed in accordance with applicable local, state, and national electrical codes by a licensed person familiar with the construction and operation of the product and hazards involved.
- This luminaire must be adequately grounded for protection against shock hazards and to assure proper operation.
- Disconnect power before servicing.
- Suspend from adequate structure that can safely support the fixture.
- MIN 90°C SUPPLY CONDUCTORS
- Do not operate in ambient temperatures above those indicated on the luminaire Label.
- Make sure the supply voltage is within the voltage range stated on the Label
- Use only UL or IEC approved wire for input/output connections. Minimum size 18 AWG

General: Provide at least 12" of clearance from the top of the fixture to any ceiling or surface above.

The luminaire is provided with an occupancy sensor that will switch the light from off to on when motion is detected or under the selected ambient light level setting.

[Notes]

1. Ensure to place the sensor at least 5 feet (1.5m) away from air supply ducts as rapid air flow may cause false activations.

2. The sensor cannot "see" the movements behind obstacles, such as furniture, shelf, glass or partition. Each occupant needs to be able to clearly view the sensor unit.

Pre-Assemble Sensor Box to the luminaire by the provided M4 Screw.
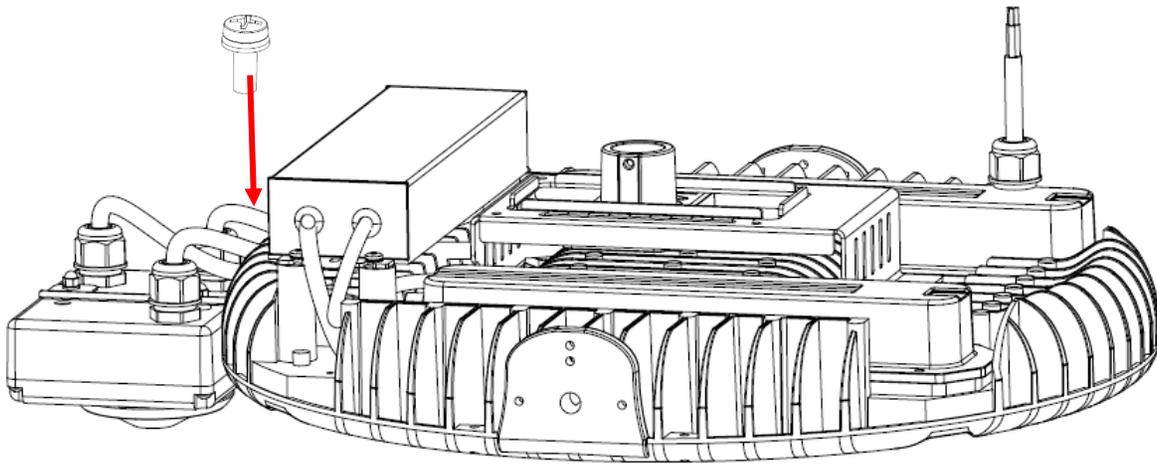
Sensor that raises or lowers the electric lighting level to high, low or off based on motion and/or daylight contribution. Typically, once the sensor stops detecting movement and the time delay elapses, lights will first fade to low mode, and eventually switch off. When motion is detected, the sensor ramps the light level to high mode unless the daylight contribution is sufficient. The integral photocell can also switch the lights on and off for dusk to dawn control.

Initial setup and subsequent sensor adjustments are made using a wireless handheld configuration tool **(inquire Delta for this tool)**. This remote tool enables adjustment of sensor parameters including high/low mode, sensitivity, time delay, cut off and more.

The remote tool can read current parameter settings, and stores up to six sensor parameter profiles to speed commissioning of multiple sensors.

Power On/Off
Back
Left
Down
Home/Main Menu
Up
Right/Next
Select
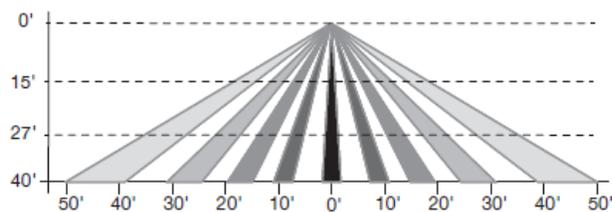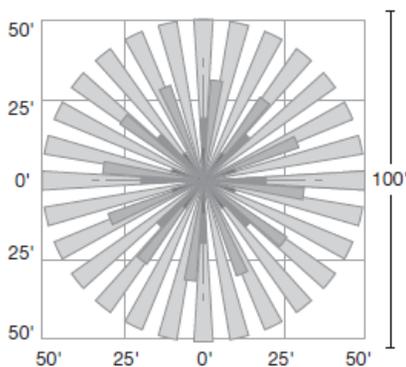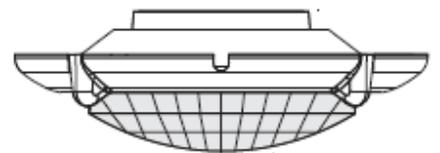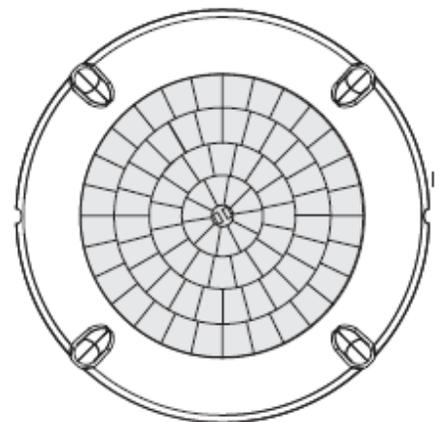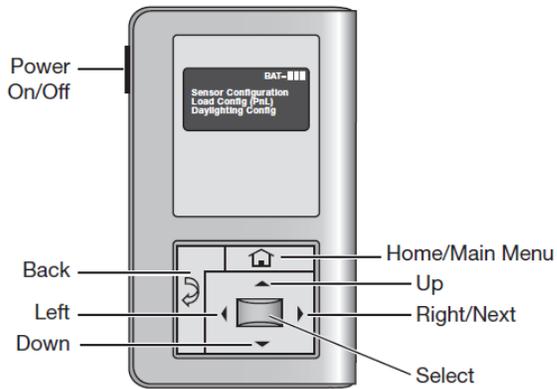
High Mode: When the sensor detects motion the dimming control output ramps up to the selected HIGH light level (default is 10V).

```
      FSP-211 Settings
High Mode:      <10 Volts>
Low Mode:        <1 Volts>
Time Delay:        <5 Min>
Cut Off:          <1 hour>
Sensitivity:         <Max>
Setpoint:            <Dis>
 NEXT               SEND
```

Low Mode: After the sensor stops detecting motion and the time delay expires the dimming control output fades down to the selected LOW light level (default is 1V).

```
      FSP-211 Settings
High Mode:      <10 Volts>
Low Mode:        <1 Volts>
Time Delay:        <5 Min>
Cut Off:          <1 hour>
Sensitivity:         <Max>
Setpoint:            <Dis>
 NEXT               SEND
```

Time Delay: The selected time. period that must elapse after the last time the sensor detects motion for the electric lights to fade to LOW mode (default is 5 minutes).

```
      FSP-211 Settings
High Mode:      <10 Volts>
Low Mode:        <1 Volts>
Time Delay:        <5 Min>
```

```
      FSP-211 Settings
High Mode:      <10 Volts>
Low Mode:        <1 Volts>
Time Delay:        <5 Min>
Cut Off:          <1 hour>
Sensitivity:         <Max>
Setpoint:            <Dis>
 NEXT               SEND
```

3

Cut Off: The time period that must elapse after the lights fade to LOW mode and the sensor detects no motion for the electric lights to turn OFF (default is 1 hour).

Sensitivity: The response of the PIR detector to motion within the sensor coverage area (default is max).

```
       FSP-211 Settings
High Mode:        <10 Volts>
Low Mode:          <1 Volts>
Time Delay:          <5 Min>
Cut Off:            <1 hour>
Sensitivity:          <Max>
Setpoint:             <Dis>
 NEXT                 SEND
```

Setpoint: When enabled, the selectable ambient light level threshold that will hold the electric lights off or at LOW level when the sensor detects motion (default is disabled).

```
       FSP-211 Settings
High Mode:        <10 Volts>
Low Mode:          <1 Volts>
Time Delay:          <5 Min>
Cut Off:            <1 hour>
Sensitivity:          <Max>
Setpoint:             <Dis>
 NEXT                 SEND
```

Photocell On/Off: When enabled, the sensor will force the load OFF after the light level has exceeded the selected Photocell setpoint for at least a minute. It will also force the load ON when the light level goes below the setpoint, even if no motion is detected (default if disabled). Once ON (initially at High), the load will dim to Low following the Time Delay, and to OFF following the Cut Off time. To ensure dusk to dawn control, Cut Off must be disabled.

```
      FSP-211 Settings

Ramp Up:             <Dis>
Fade Down:           <Dis>
Photocell:           <Dis>


PRIOR      SAVE      SEND
```

The Photocell On/Off setpoint is automatically set to maintain a deadband of at least 10 fc above the Hold Off Setpoint to prevent cycling if the two features are used together.

Ramp Up Time: Time period for light level to increase from LOW to HIGH (default is disabled; lights switch instantly).

Fade Down Time: Time period for light level to decrease from HIGH to LOW (default is disabled; lights switch instantly).

```
      FSP-211 Settings


Ramp Up:             <Dis>
Fade Down:           <Dis>
Photocell:           <Dis>

PRIOR      SAVE      SEND
```

Lock Settings: Time delayed IR communication lock initiated.
from the FSIR-100 to prevent unauthorized changes of FSP-211 parameters until power is cycled to the sensor (default is disabled).
To lock settings, select Lock Delay, set a time, and press SEND to send the parameter change to the FSP-211. After the countdown, the FSP-211 will no longer respond to the FSIR-100. If additional configuration is required, cycle the power to the FSP-211 off and then back on. To disable the lock parameter after the power cycle, select Lock Delay, select Disable, and press SEND.

FSP-211 Settings

Ramp Up:	<Dis>
Fade Down:	<Dis>
Photocell:	<Dis>

PRIOR   SAVE   SEND
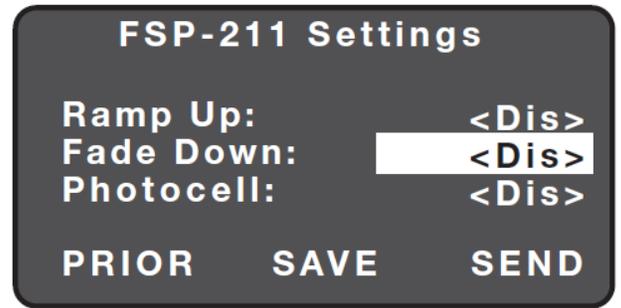
HOOK MOUNT INSTALLATION:

1. To pre-assemble hook and hub. Make sure to fix anti-rotation M4 screw.
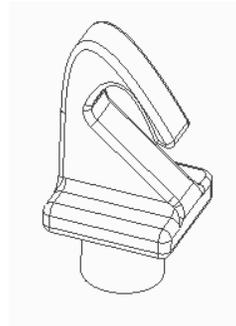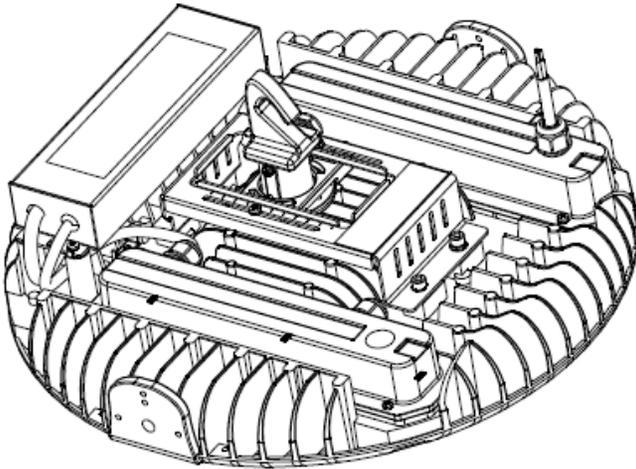
2. The Weight of High Bay fixture is approximately 22 lbs with the occupancy sensor. Please ensure the structure and the suspending cable/chain are suitable for the weight of the fixture.
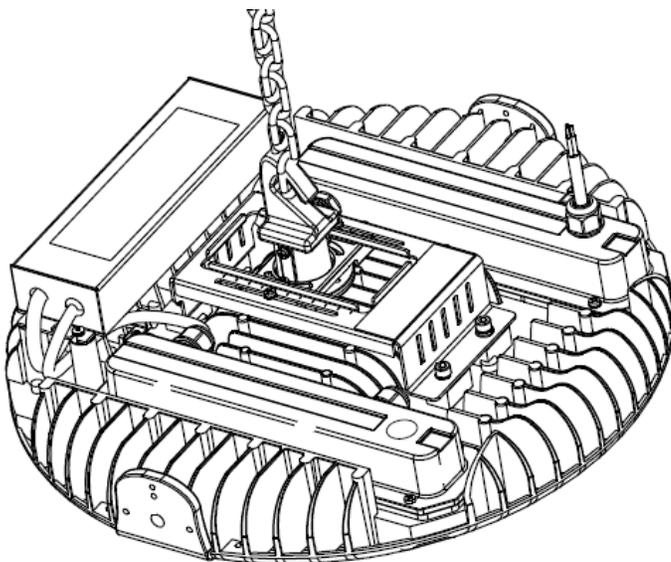
3. To make electrical connections, attach the lead wires according to the colors below.
   - ➢ Green wire connects to Safety Ground.
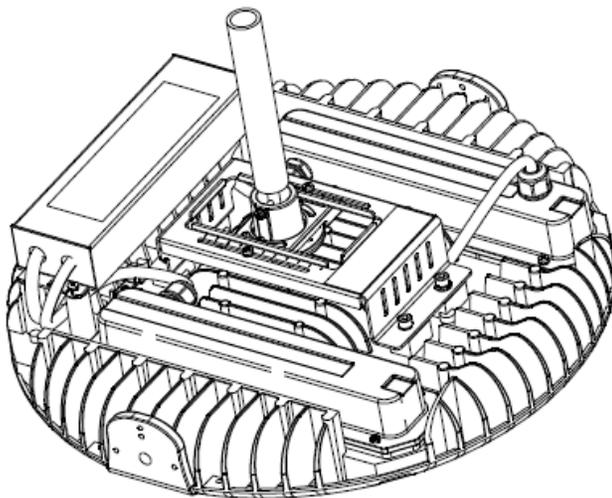   - ➢ White wire connects to Neutral.
   - ➢ Black wire connects to Live

4. The fixture should already be factory set for correct balance. If additional balancing is necessary, make corrections using the adjustment screws in the locations shown below. Make sure to tighten the screws after adjustment.
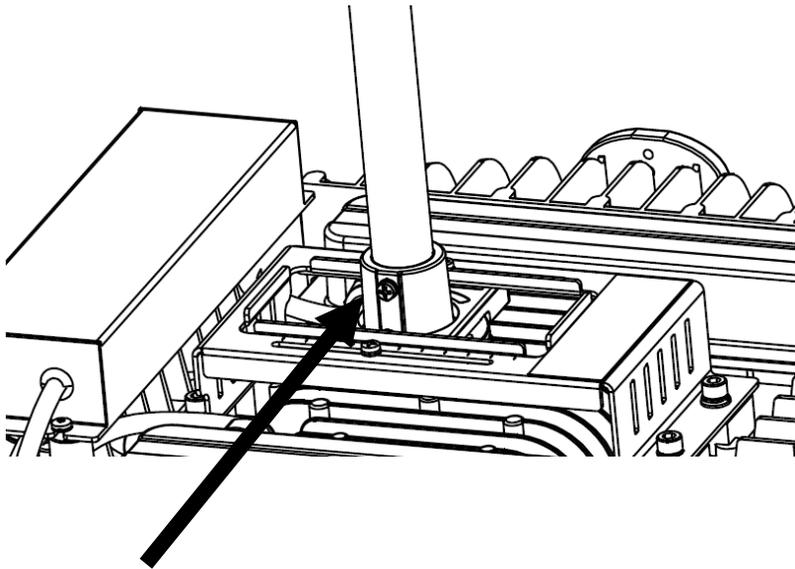

Adjustment screws
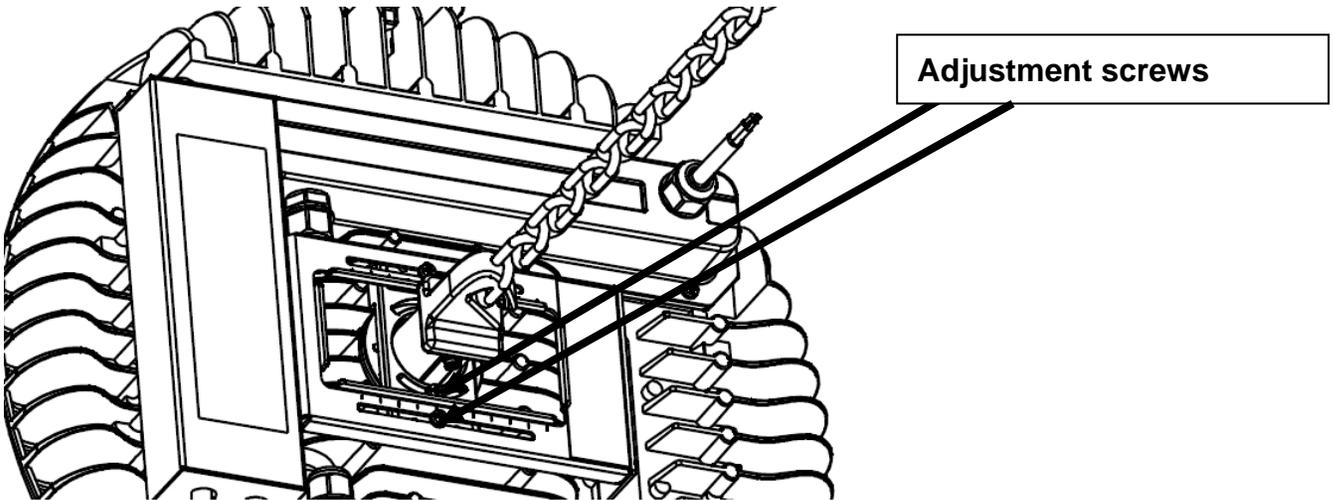
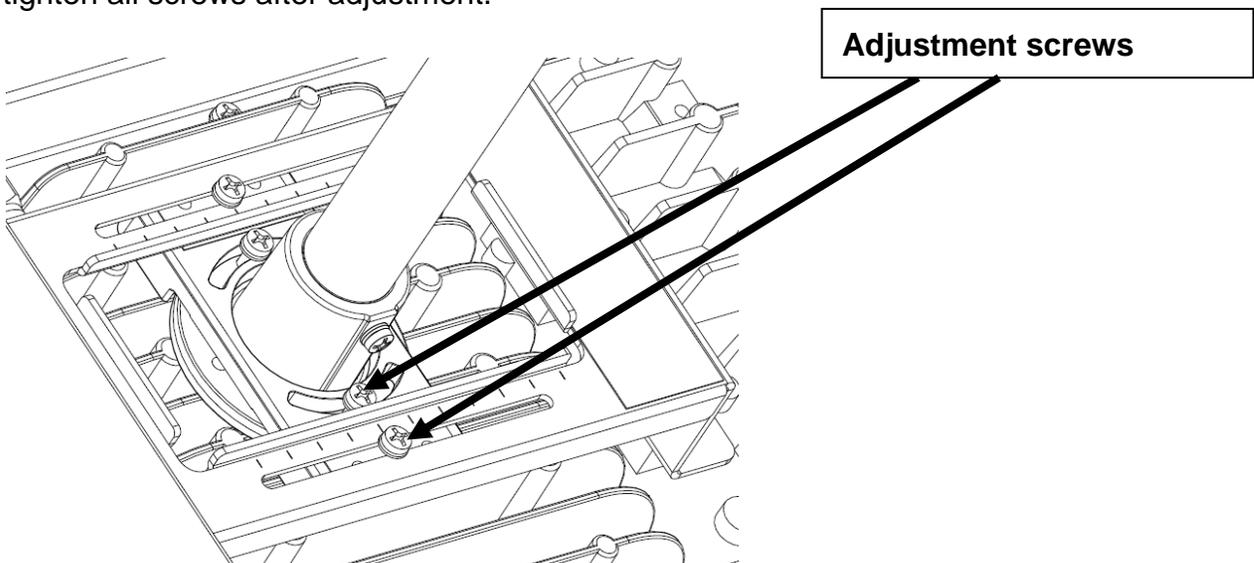## PENDANT MOUNT INSTALLATION:

The fixture mounting receiver is threaded for 3/4" NPT pipe.
1. Feed the power cable through the conduit, and into the junction box. Attach the fixture to the conduit.

2. Insert set screw in order to secure the fixture to the Pipe.

3. The fixture should already be factory set for correct balance and orientation. If adjusting balance or orientation is necessary, make corrections using the adjustment screws in the locations shown, and tighten all screws after adjustment.

Adjustment screws

4. Make wire connections inside the junction box according to the following color wires :
   - ➢ Green wire connects to Safety Ground.
   - ➢ White wire connects to Neutral.
   - ➢ Black wire connects to Live

WALL MOUNT INSTALLATION

1. Assemble the bracket on to the luminaire. Use screws and washers to fix the luminaire on the structure. Suggest to use 3/8" (M10) Screw and T 2.0 min washer.

Bracket
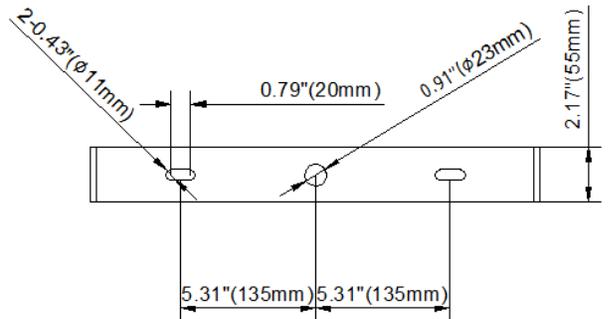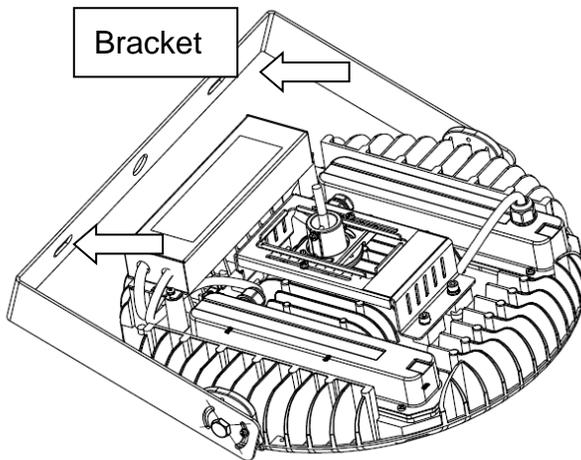
2. Loosen the M10 and M4 screw, and rotate the luminaire to the desired direction. Tighten all screws.

M10

M4
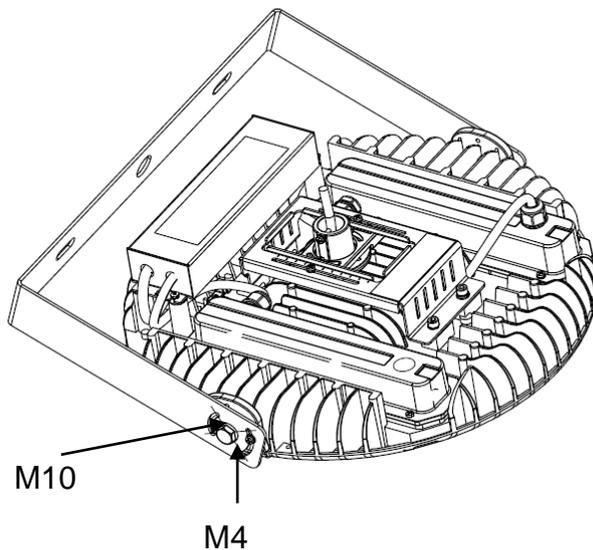
Torque Suggestion:

M10: 18 ft-lbs (245 Kgf.cm)
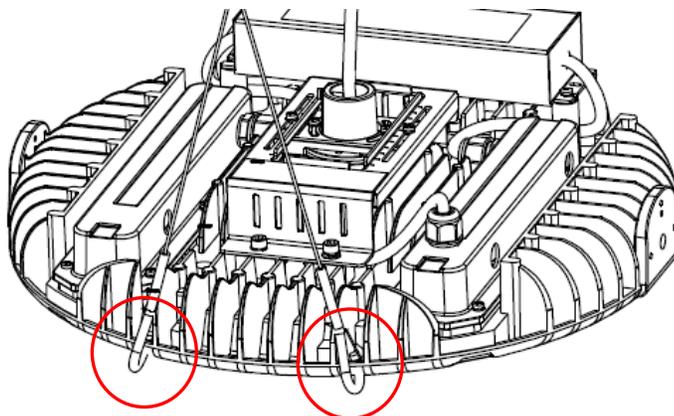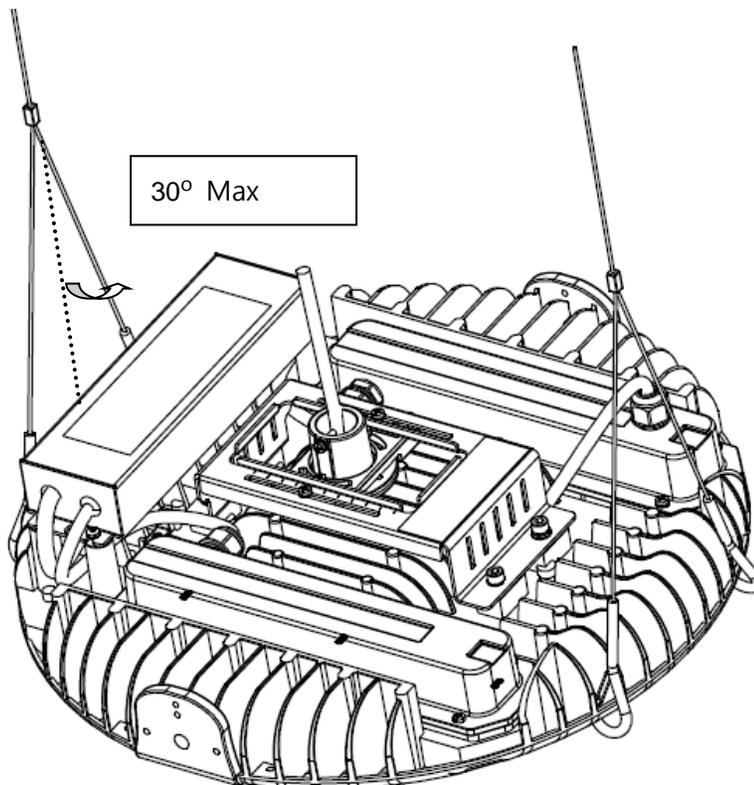M4: 1 ft-lbs (14 Kgf.cm)

3. Connect power cable conductors as follows:
   - ➤ Green wire connects to Safety Ground.
   - ➤ White wire connects to Neutral
   - ➤ Black wire connects to Live

AIRCRAFT CABLE INSTALLATION:

1. Aircraft cable assemblies to the luminaire with two aircraft cable assembly as shown below

Notes: a. The assembly location must be shown below
      b. Do not exceeded angle greater than a 30° between the cables and the gravity line

30° Max

2. Connect power cable conductors as follows:
    - ➢ Green wire connects to Safety Ground.
    - ➢ White wire connects to Neutral
    - ➢ Black wire connects to Live

SAFETY CABLE INSTALLATION:

1. Attach one end of the included safety cable through the hole between the fins on the luminaire. Ensure the safety cable is secured on the fixture.
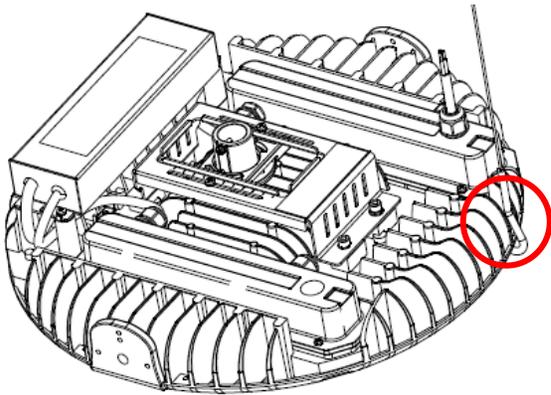
2. Secure the other end of the safety cable to the mounting structure.