Dialight Daylight Harvesting Sensor (DLH) User Guide

Revision A

Dialight

Contents
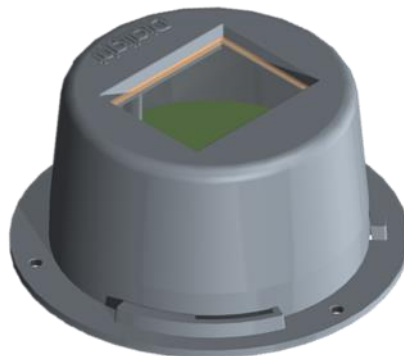
Welcome to the Dialight Daylight Harvesting Sensor (DLH) overview. This product allows you to customize your entire lighting network using independent Daylight Harvesting Sensors throughout your facility while maintaining your desired light levels throughout the day.

Gathering ambient light readings and dimming your light fixtures ensures that the customer reduces power consumption and saves money.

The DLH sensor can be used in single sensor or multi-sensor mode. In single sensor mode, light output is controlled directly by a single sensor to deliver the user's desired light level. In multi-sensor mode, the user is able to adjust their desired light level by using the lowest LUX reading, average LUX reading, or highest LUX reading from two or more sensors.

End users and installers are responsible for installing these fixtures in an appropriate and safe environment.

It is recommended that DLH sensors be mounted away from direct sunlight.

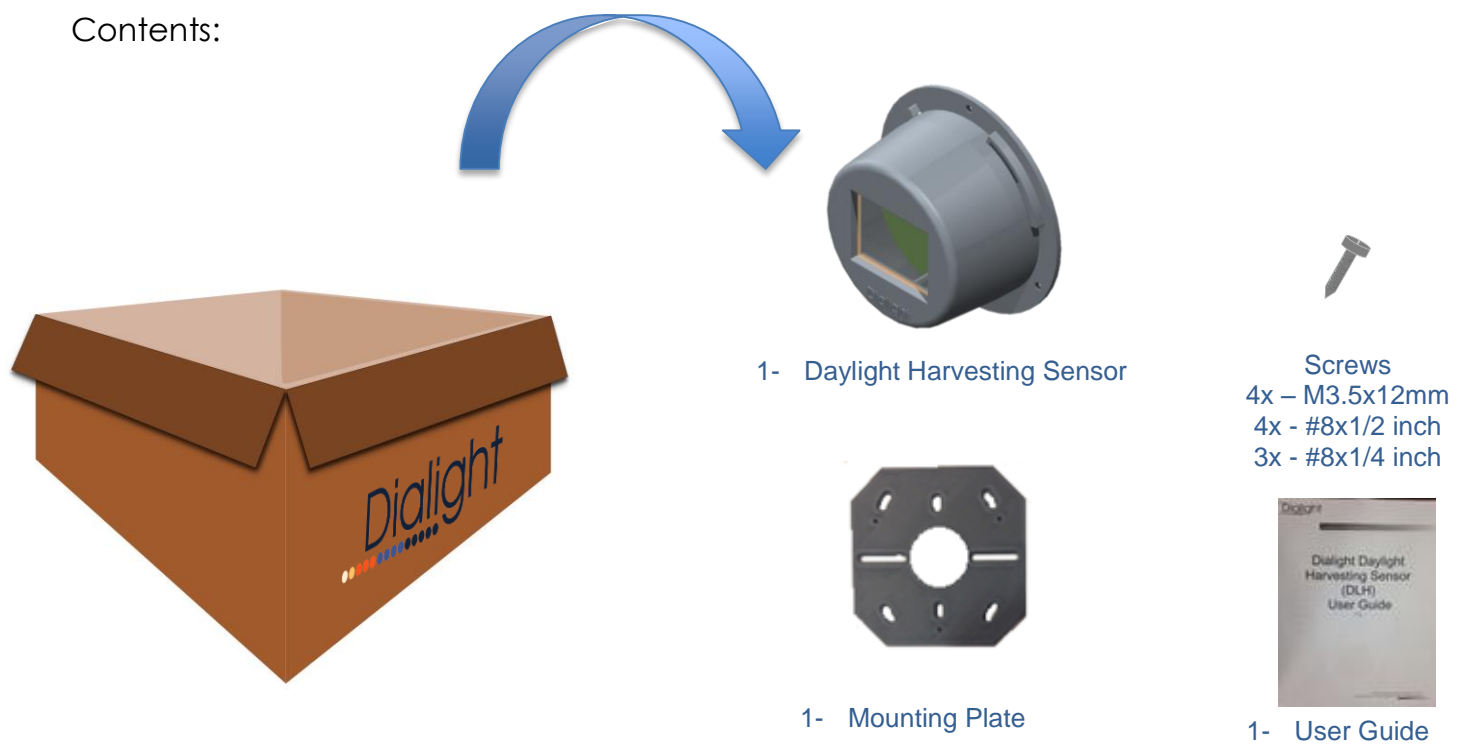This guide provides you with the information you need to get started.
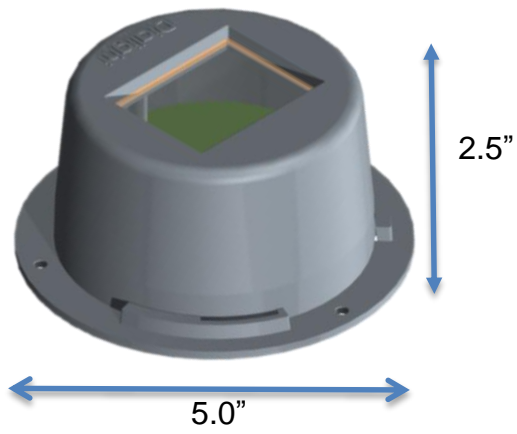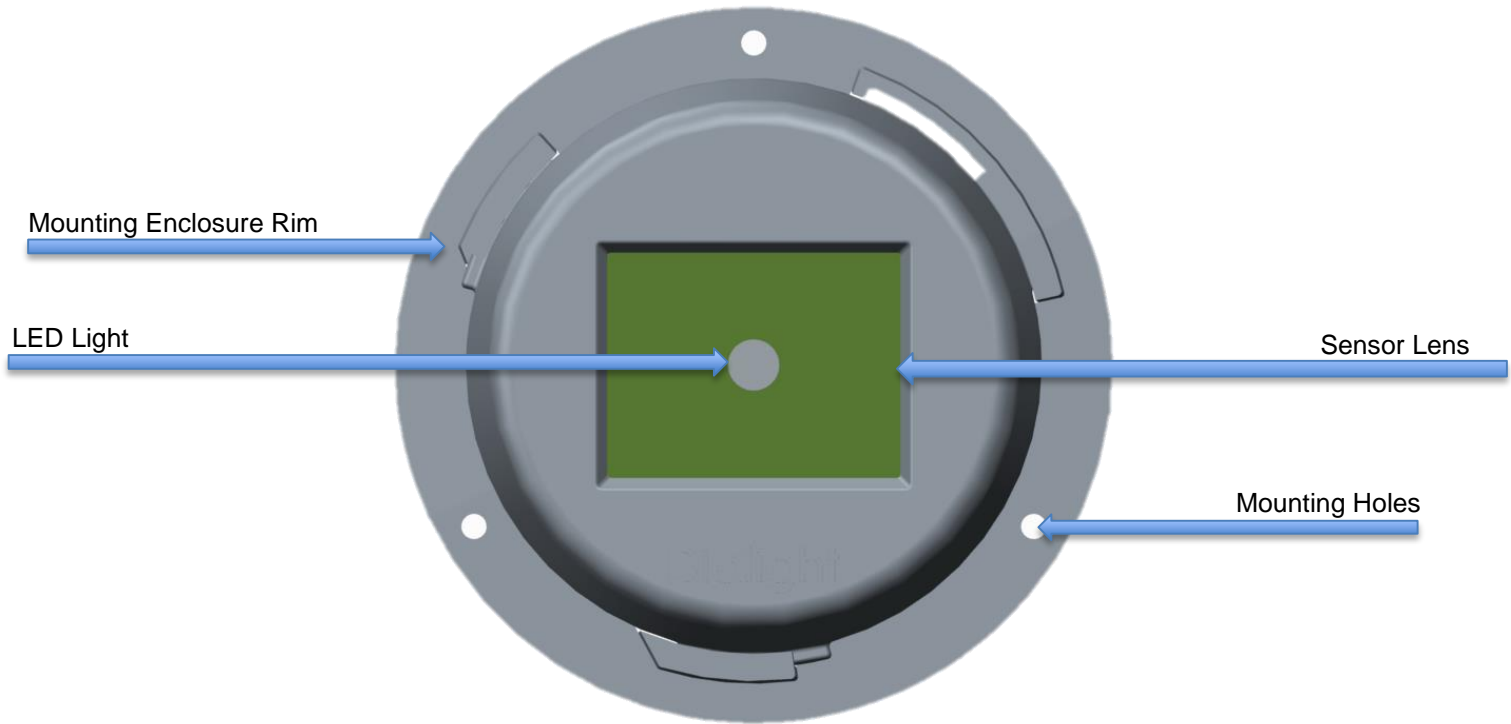
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Certification	UL 916 - Energy Management Equipment CSA C22.2 No. 205 - Signal Equipment Electromagnetic Compatibility Directive 2004/108/EC EN 55022: 2008 EN 61000-4-5: 2014 EN61000-4-6: 2014 EN 61000-4-11: 2004
AC Power Input	100-277VAC 50/60Hz, 100mA Max.
Operating Temperature For Indoor Use Only	Operating Temperature: -25 to 65°C
RF Frequency	2.4Ghz
Object Detection	Light
Dimensions	5"D x 2.5"H
Weight	10 oz.
Green LED	Double blink means the sensor is ready to join a network
Dialight Part #	DLHU124UG

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Contents:

1- Daylight Harvesting Sensor

Screws
4x – M3.5x12mm
4x - #8x1/2 inch
3x - #8x1/4 inch

1- Mounting Plate

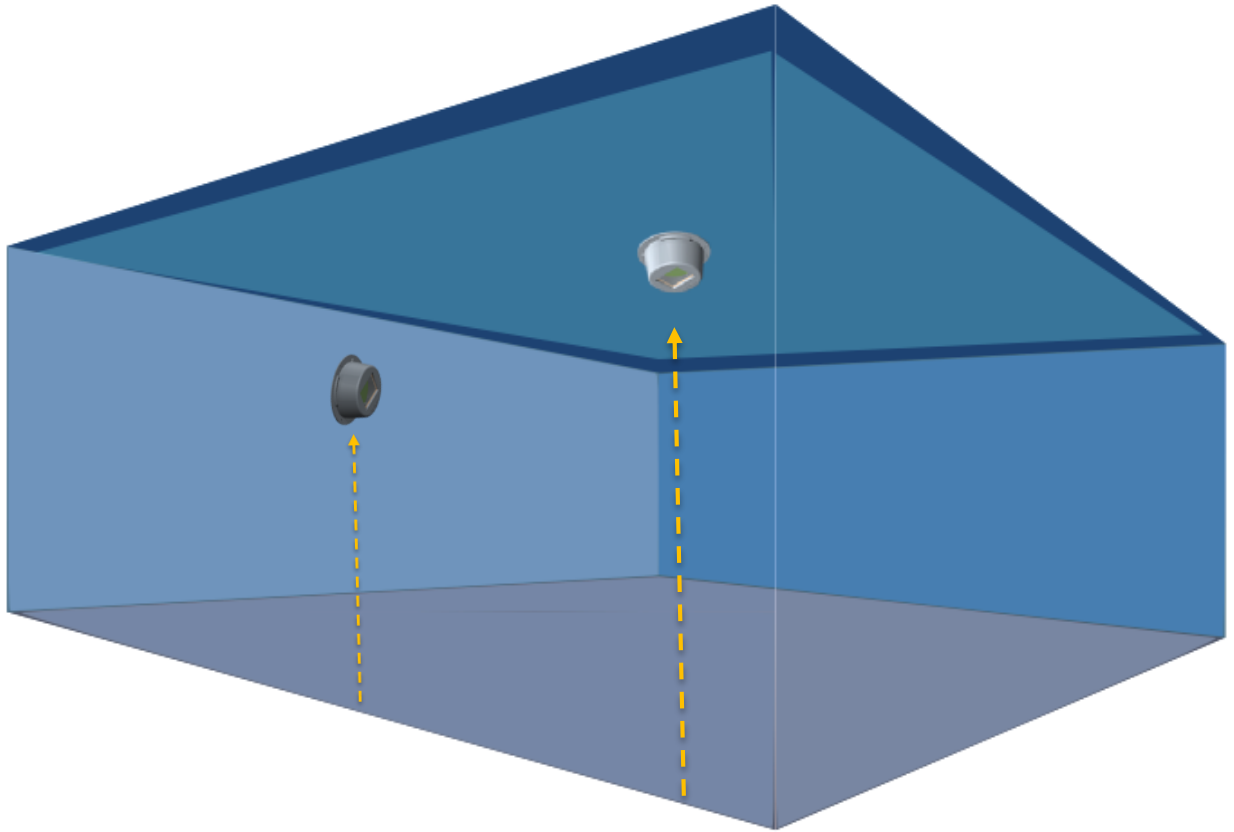1- User Guide

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Mounting Enclosure Rim

LED Light

Sensor Lens

Mounting Holes

2.5"

5.0"
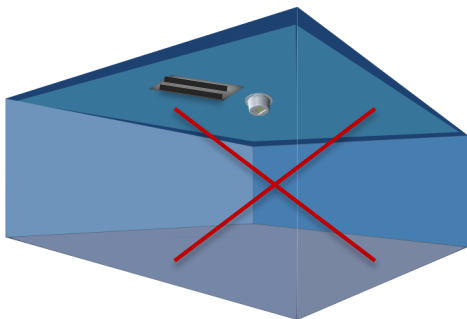
Where to Mount

The DLH sensor can be used as a ceiling or wall mount sensor. This will be user defined depending on the layout of the facility and available ambient light sources.

Sensor should be mounted away from direct sunlight.

How to Mount

Installation to be performed in accordance with applicable local, regional, and federal regulations.

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.

To avoid electric shock be certain electrical power is OFF before and during installation and maintenance.
Make sure the supply voltage is the same as the rated device voltage.

1. Install the mounting plate to a suitable outlet/junction box using flat head screws. (#8-1/2" or M3.5x12mm screws provided)

2. Connect the power cable conductors as follows:
   Black wire connects to Line
   White wire connects to Neutral

3. Feed wires into outlet/junction box through mounting plate and affix device using 3x #8x1/4"long screws.

4. Restore power and verify operation. The sensor will begin to double flash green indicating it's ready to be added to your gateway.

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It is advised to mount the sensor before discovering it in your network.

Adding Sensor to Gateway

1. When the green LED double blinks on the sensor, the sensor is ready to be discovered by the gateway.
2. On your gateway turn discovery on. (Please refer to your gateway owner's manual for further instructions.)
3. Once the sensor has been added to the gateway, the green blinking LED will stop. You have now connected the sensor to the gateway.

Scheduling a DLH event

Note: in order for the DLH to function, a schedule needs to be created which turns the DLH feature ON. The DLH will only function when this "ON" condition is met.

1. Once DLH sensor is connected to respective gateway, schedule a DLH event using schedule screen
   a. Navigate to schedule screen and create a **DLH Event.**
      i. Select **Harvest** from buttons on left (Dimmer, Harvest, Occ)
      ii. Select "**ON**" and select event start time
      iii. Add to schedule
      iv. Select event "**OFF**" time if needed
      v. Save schedule
   b. **NOTE:** for a more in-depth guide on scheduling, please see Gateway User Manual

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2. Select DLH profile
   a. Navigate to **Harvest Settings** (see below)
   b. Select desired light level
      i. **TIP:** an easy way to commission a DLH profile is to set desired light level at night. With no ambient light influencing readings, this will ensure that your system is always at an acceptable light level

   c. If you are using multiple sensors, select desired **Multi-sensor mode**

      NOTE: This feature is only available if you are using multiple sensors for a single grouping of lights

      i. **LO -** this mode with use the lowest reading from multiple sensors to reach desired light level
      ii. **AVG -** this mode will use an average of multiple sensors to reach desired light level
      iii. **HI –** this mode will use the highest reading from multiple sensors to reach desired light level
   d. Select Save Settings
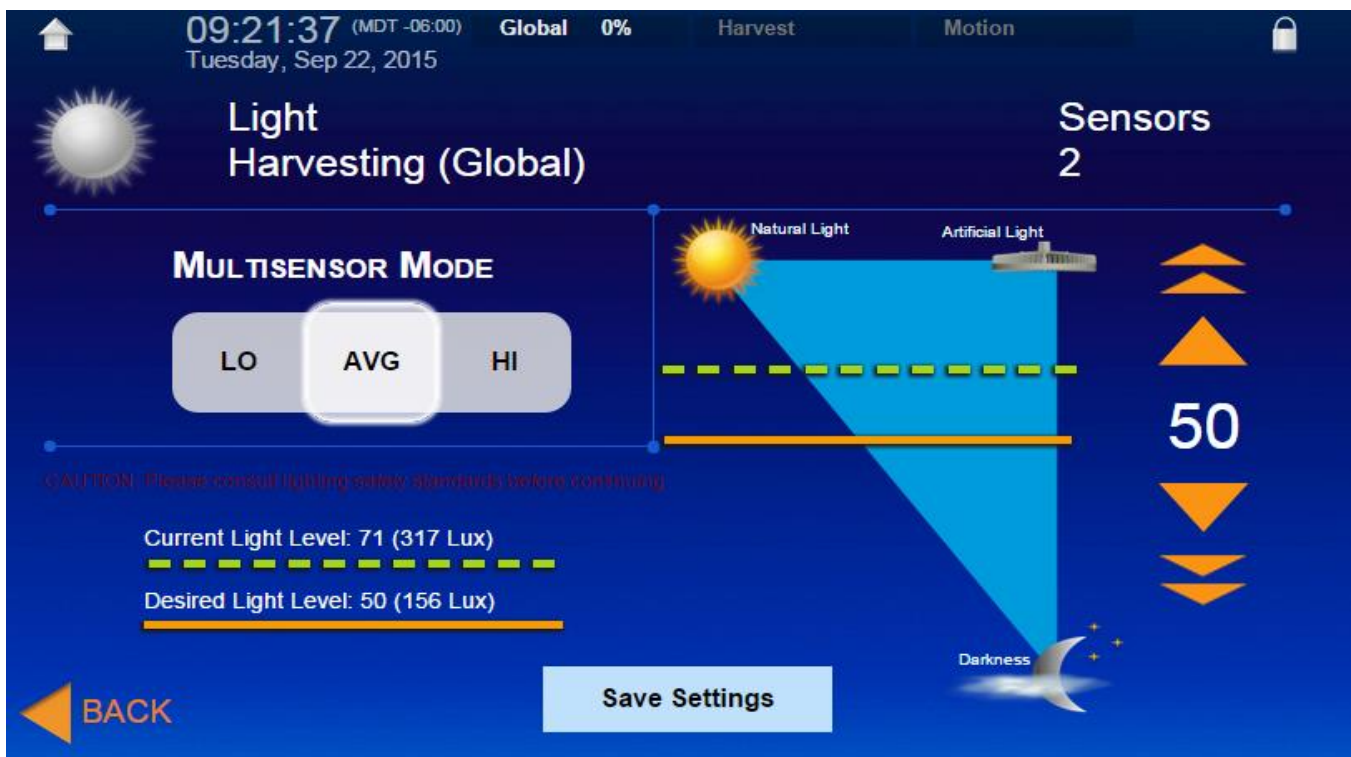
Removing Sensor from Gateway

1.	Begin by deleting the sensor from your gateway. (Please refer to your gateway owner's manual for further instructions)
2.	Once deleted the green LED will periodically double blink indicating it is now removed from the network.
3.	Your sensor is now ready to be added to another gateway.

Trouble Shooting

Sensor is not discovered by the gateway.

Steps to solve:

1. On the lighting controller web page turn discovery on.
2. Check the condition of the LED light through the front lens of the sensor.
3. If the green light is double blinking then the sensor is still trying to join a network, then:
    a. Verify that it is within 70 ft. of a light that has already joined the network.
    b. Verify the nearby lights are powered by commanding them to turn on from the web page.
    c. If the DLH sensor still doesn't discover, replace the sensor.
4. If the green light is not blinking at all then:
    d. Unplug sensor and plug in again. You should see the green LED double blink at least once.
    e. If it does not blink then replace the sensor.
    f. If it blinks and stops then it has joined a gateway. See if it has joined the gateway you intend. If it has not then check to see if it has joined another gateway in the building.