

Wireless Battery-Powered Daylight Sensor
LRF3-DCRB 3 V 7 µA 868 MHz



Compatible Products
For a full list of compatible products visit www.lutron.com/globalenergysolutions

Product Description
Lutron's daylight sensor is a wireless, ceiling-mounted, battery-powered device that automatically controls lights through RF communication with a dimming or switching device.

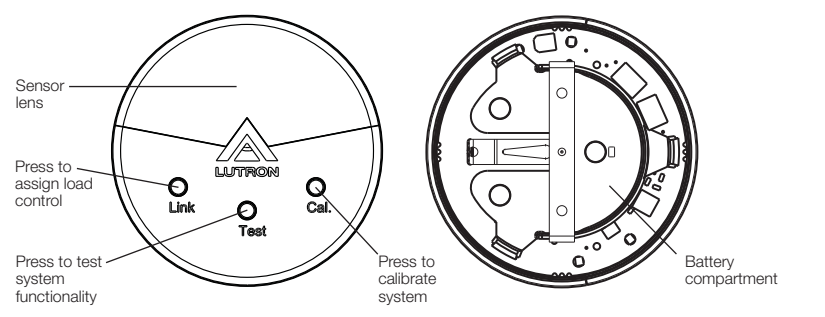
- Important Notes
1. This Sensor is part of a system and cannot be used to control a load without a compatible dimming or switching device.
2. Clean Sensor with a soft damp cloth only. DO NOT use any chemical cleaners.
3. The sensor is intended for indoor use only. Operate between 0 °C and 40 °C (32 °F and 104 °F).
4. DO NOT paint Sensor.
5. Use only high-quality lithium batteries, one (1) size CR2450, 3 V (ANSI-5029LRC, IEC-CR2450). DO NOT use rechargeable batteries.
6. The range and performance of the RF system is highly dependent on a variety of complex factors such as:
- Distance between system components
- Geometry of the building structure
- Construction of walls separating system components
- Electrical equipment located near system components

WARNING: Entrapment hazard. To avoid the risk of entrapment this product must not be used to control equipment which could create hazardous situations, such as entrapment, if operated accidentally.

Instructions Install a Sensor in as little as 15 minutes.

Getting Started:

- Key Features
• Easy Installation. No wiring required.
• Easy Set-Up. Default settings are ideal for most situations.
• Low Maintenance. 10-year battery life.
• Daylight Dimming and Switching. Sensors integrate with various Lutron dimmers and Switches.
• Multiple Devices. Each Sensor may be added to up to 10 receiving devices.



Sensor Operation: Daylight Sensor Only Switching - The lights must be manually turned on at the switching device.

Sensor Operation: Daylight & Occupancy Sensor Switching - The lights will automatically turn on when the space is occupied and there is not sufficient daylight available.

Pre-Installation

- 1. Before setting up the sensor, the corresponding dimming or switching device(s) should be installed.
2. Insert battery with the negative (-) side up.

Set-Up

In order for the sensor to operate properly, it must first be set up with a corresponding dimming or switching device. The procedure for setting up a sensor with a Rania wireless RF switch is detailed below.

- 1. Setting up a Sensor with a Rania Wireless RF Switch
1.1 While the Rania wireless RF switch is off, press and hold the On/Off button for approximately 6 seconds.

Hereby, Lutron Electronics Co., Inc. declares that the radio equipment type LRF3-DCRB is in compliance with Directive 2014/53/EU.

Customer Assistance

For questions concerning the installation or operation of this product, call the Lutron Customer Assistance. Please provide exact model number when calling.
United Kingdom
0800.282.107 or +44.(0)20.7702.0657

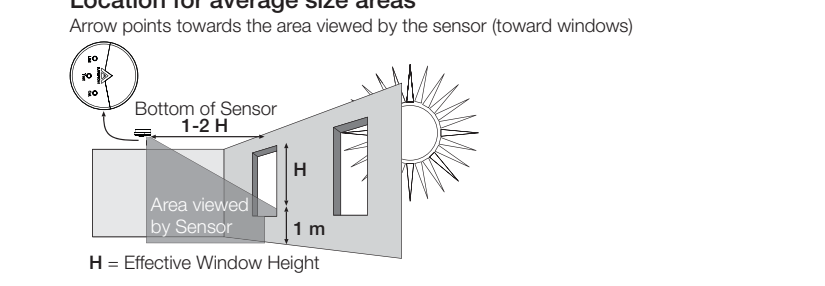
Lutron Electronics hereby declares that LRF3-DCRB and LRF4-DCRB are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Limited Warranty

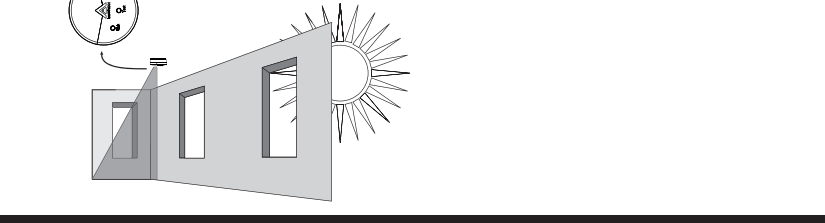
Lutron EA Ltd. ("Lutron EA") warrants each unit to be free from defects in material and workmanship and to perform under normal use and service. To the extent permitted by law, Lutron EA and Lutron Electronics Co. Inc. ("Lutron") make no warranties or representations as to the units except as set forth herein.

Sensor Placement

- Determine the daylight sensor mounting location using the diagrams below:
• The arrow on the daylight sensor points toward the area viewed by the sensor.
• Place the daylight sensor so its arrow is pointed at the nearest window at a distance from the window of one to two times the effective window height (H).
• The effective window height (H) starts at the window sill or 3 ft (1 m) up from the floor, whichever is higher, and ends at the top of the window.
• Ensure that the view of the daylight sensor is not obstructed.
• Do not position the daylight sensor above an electric light that shines up at the ceiling or at the sensor.
• Do not position the daylight sensor in the well of a skylight.
• For narrow areas where the daylight sensor cannot be placed 1-2 (H) from windows, place sensor near windows facing into the space.



Location for narrow areas (corridors, private offices) Arrow points towards the area viewed by the sensor (away from window)



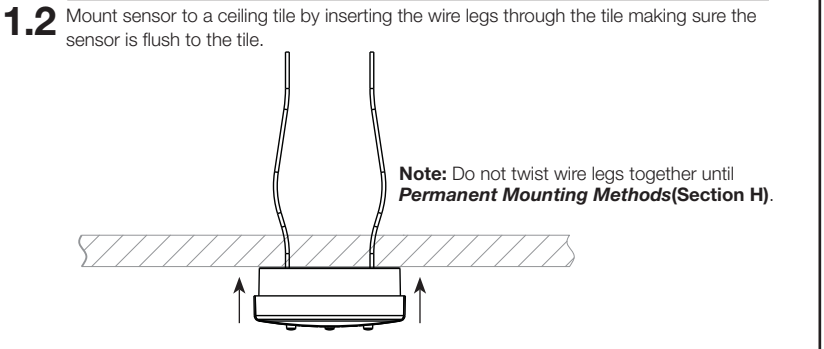
Temporary Mounting Methods

If you are uncertain about correctly positioning the sensor, the following temporary mounting and testing procedures are recommended to verify proper performance before permanently installing the sensor.

Temporary Mounting: Drop Ceiling

Use this procedure if the sensor will be mounted on a ceiling tile. The ceiling tile mounting wire is provided for both temporary and permanent mounting of the sensor to drop ceilings composed of multiple tiles.

- 1.1 Insert the ceiling tile mounting wire through the two smaller holes in the mounting bracket and replace the mounting bracket.
1.2 Mount sensor to a ceiling tile by inserting the wire legs through the tile making sure the sensor is flush to the tile.



- 1.3 Perform the calibration and test the sensor as described in sections E. Calibration and F. Testing the Daylight Sensor.

- 1.4 If the sensor does not perform satisfactorily from this location, it may be moved to another location by pulling the sensor straight down and repeating steps 1.2 and 1.3.
1.5 If the sensor's performance is satisfactory, it should be permanently attached to the ceiling tile, as described in section H. Permanent Mounting Methods.

Temporary Mounting: Solid Ceiling

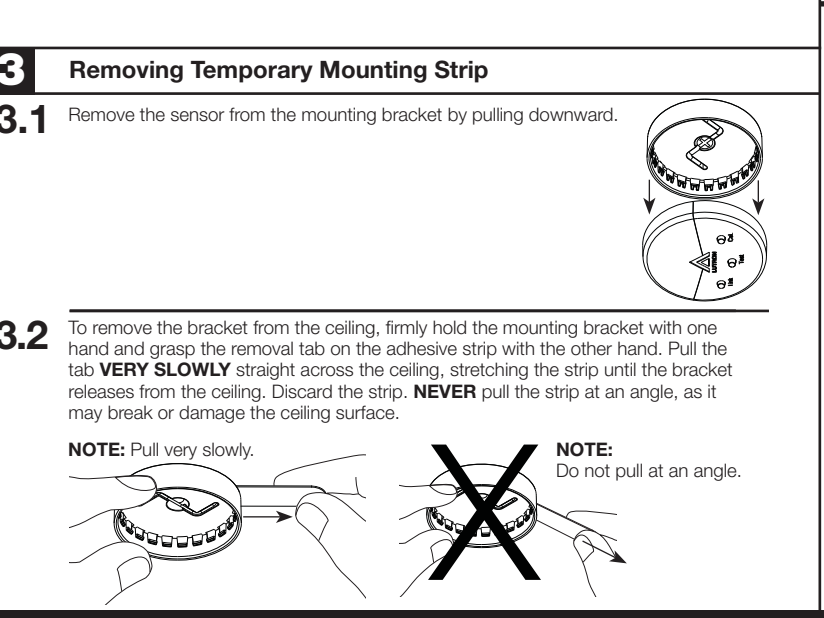
Use this procedure if the sensor will be mounted on a solid, continuous ceiling surface such as drywall, plaster, concrete, or wood. Two 3M Command adhesive strips are provided for temporarily mounting and testing the sensor on smooth, solid ceiling surfaces.

- 2.1 Peel the red "Command Strips" liner off of one of the adhesive strips and apply the strip to the flat side of the mounting bracket as shown in the diagram.
2.2 Identify a location for the sensor (see section C. Sensor Placement).
2.3 Remove the black "wall side" liner from the adhesive strip.
2.4 Position the mounting bracket on a clean, dry, dust-free ceiling and press firmly for several seconds.

- 2.5 Attach the sensor to the mounting bracket.
2.6 Perform the calibration and test the sensor as described in section E. Calibration and F. Testing the Daylight Sensor.
2.7 If the sensor does not perform satisfactorily from this location, it may be moved to another location.
2.8 If the sensor's performance is satisfactory, it should be permanently attached to the ceiling tile, as described in section H. Permanent Mounting Methods.

Removing Temporary Mounting Strip

- 3.1 Remove the sensor from the mounting bracket by pulling downward.
3.2 To remove the bracket from the ceiling, firmly hold the mounting bracket with one hand and grasp the removal tab on the adhesive strip with the other hand. Pull the tab VERY SLOWLY straight across the ceiling.



Calibration

Before calibrating, ensure power to the lighting circuit is ON and the lighting control system is set up.

WARNING: Electric Shock Hazard. Death or Serious Injury could occur if the lighting circuit is energized before wiring is complete and all persons are clear of fixtures/devices.

Calibration must be done when daylight is available but not extremely bright, i.e. when some artificial light is required to achieve the desired light level in the space.

- 1. Set Light Level to achieve the desired light level.
2. Activate the calibration procedure by pressing the "Cal" button on the front of the sensor for approximately 6 seconds.
3. Within 45 seconds select all Rania wireless RF switches that you want to calibrate by pressing the tap button.
4. Move out of the way of the sensor so as to not interfere with the light measurements.
5. Calibration will automatically begin approximately 45 seconds after pressing the "Cal" button.
6. The calibration is complete once the lights in the room flash three times.
7. To exit calibration prior to entering another mode tap the "Cal" button on the sensor.

Testing the Daylight Sensor

Before testing, ensure power to the lighting circuit is ON and the lighting control system is set up and calibrated properly.

WARNING: Electric Shock Hazard. Death or Serious Injury could occur if the lighting circuit is energized before wiring is complete and all persons are clear of fixtures/devices.

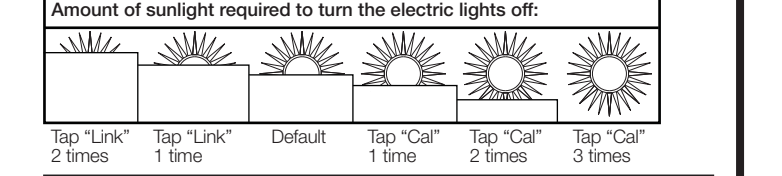
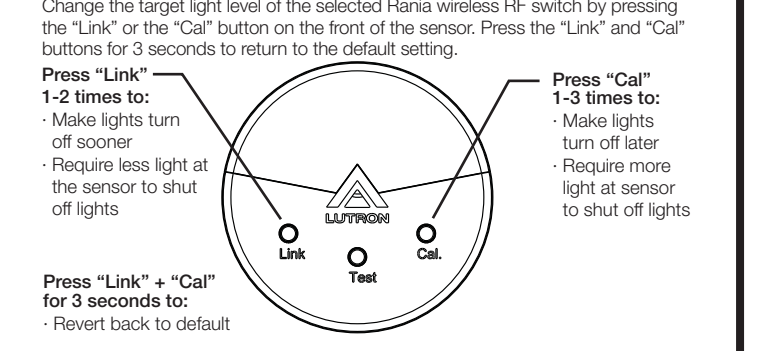
- 1. Activate test mode by tapping the "Test" button on the front of the sensor.
2. Select all Rania wireless RF switches that you want to test by pressing the tap button.
3. If lights are dim/off: Cover the sensor - The system should switch on the lights in the room. Shine light on the sensor - The system should switch off the lights in the room. Do nothing to the sensor - If the lights in the room cycle on and off, there is too much feedback from the electric lights.
4. To exit test mode prior to entering another mode, tap the "Test" button on the sensor.

Tuning the System (Optional)

Tuning can be used in rooms controlled with more than one switch. The following procedure can be used to make one zone of lights turn on and off at a different light level than the other zones in the space.

- Recommendation for tuning a 3-zone system:
• Zone 1: Near the window - Adjust the target light level by pressing "Link" 1-2 times.
• Zone 2: In the middle of the room - Adjust the target light level to the default value.
• Zone 3: Far from the window - Adjust the target light level by pressing "Cal" 1-3 times.

- 1. Activate tuning mode by pressing the "Test" button on the front of the sensor for approximately 6 seconds.
2. Select the Rania wireless RF switch that you want to adjust by pressing the tap button.
3. Change the target light level of the selected Rania wireless RF switch by pressing the "Link" or "Cal" button on the front of the sensor.



Permanent Mounting Methods

Do not permanently mount the sensor unless sections A - F have been completed and the system performs to your satisfaction.

Permanent Mounting: Drop Ceiling

- 1.1 After the sensor has been temporarily mounted, leave the sensor in place on the tile and either take the tile down or remove an adjacent tile to gain access to the legs of the mounting wire on the back of the tile.
1.2 Twist the wire legs together tightly so the mounting bracket remains snug against the tile.
1.3 Replace the tile.
1.4 If desired, repeat F. Testing the Daylight Sensor for verification.

Permanent Mounting: Solid Ceiling

- 2.1 Drill one 4.6 mm pilot hole for the provided screw anchor.
2.2 Press the anchor into the hole and tap flush with a hammer.
2.3 Place the flat side of the mounting bracket against the ceiling and install provided screw using a hand screwdriver.
2.4 Attach the sensor to the mounting bracket.
2.5 If desired, repeat F. Testing the Daylight Sensor for verification.

Troubleshooting

Table with 3 columns: Symptom, Possible Causes, Solution. Rows include issues like 'Room is too dark', 'Lights seem unnecessarily bright', 'Lights never turn back on', 'Lights never turn off when room gets bright', and 'The lights oscillate'.

