INSTRUCTIONS

RTLED™ RETROFIT TROFFER FIELD-ADJUSTABLE INSTALLATION

RAB Lighting is committed to creating high-quality, affordable, well-designed and energy-efficient LED lighting and controls that make it easy for electricians to install and end users to save energy. We'd love to hear your comments. Please call the Marketing Department at 888-RAB-1000 or email: marketing@rablighting.com



1x4



2x2



2x4

IMPORTANT

READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.

RAB fixtures must be wired in accordance with the National Electrical Code and all applicable local codes. Proper grounding is required for safety. THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

WARNING: Make certain power is OFF before installing or maintaining fixture. No user serviceable parts inside.

WARNING: Risk of fire or electric shock. Luminaire wiring and electrical parts may be damaged when drilling for installation of LED retrofit kit. Check for enclosed wiring and components.

WARNING - Risk of fire or electric shock. Install this kit only in luminaires that have the construction features and dimensions shown in the photographs and/or drawings .

WARNING - To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.

WARNING – Risk of fire or electric shock. LED Retrofit Kit installation requires knowledge of luminaires electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.

Only those open holes indicated in the drawings may be made or altered as a result of kit installation. Do not leave any other open holes in an enclosure of wiring or electrical components.

Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.

This retrofit kit is accepted as a component of a luminaire where the suitability of the combination shall be determined by authorities having jurisdiction.

Suitable for damp locations.

RECESSED CEILING MOUNTING

The fixture is suitable only for INDOOR RECESSED CEILING application. To mount in an insulated or non-insulated ceiling exposed **Flat Tee Grid Ceiling** follow the steps below.

1. Remove existing lamps, door frame (*if applicable*), reflector and cover. Depending on clearance space, ballast may need to be removed.
2. Gently lift the original luminaire housing and slide in both **Side Brackets** between the **Housing** and the **T-Grid**. Lower the **Housing** to rest on the **Brackets**, securing them in place (*Fig. 1 & 2 next page*).
3. Hang the retrofit kit body by hooking the **T-hinges** into the respective on one mounting brackets (*Fig. 3 next page*).
4. Attach the **Safety Cables** to the original luminaire housing using the **Latch Bracket** *(provided)*.
5. Connect the retrofit kit power to the AC power.
6. Wire the existing fixture's green wire *(ground)* to the retrofit kit's green wire. If a ground wire is missing from the power supply, attach the retrofit kit's ground wire directly to the luminaire **Housing.**
7. Secure the **Housing** by locking to the **Side Brackets**. Secure the left and right side **Latch Bracket**. Be sure the **Side Brackets** are pushed close to retrofit kit.

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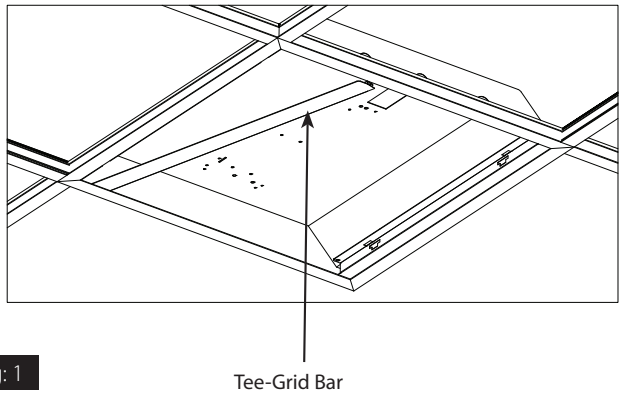


Fig: 1

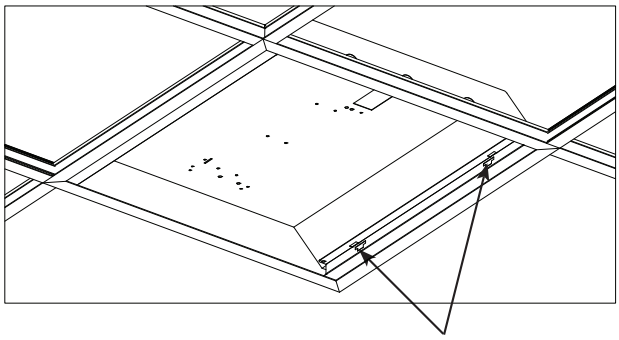


Fig: 2

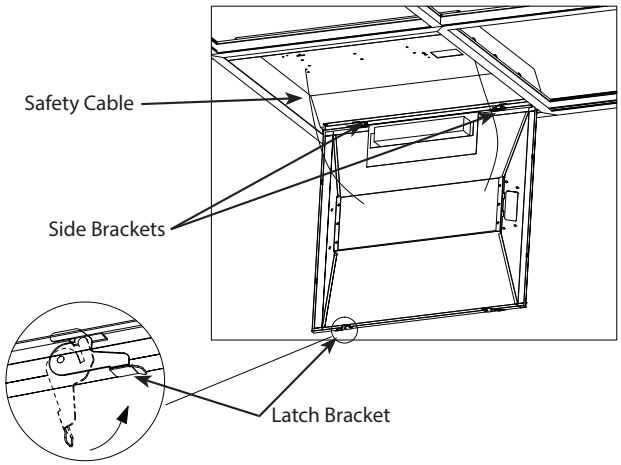


Fig: 3

FIELD ADJUSTMENT

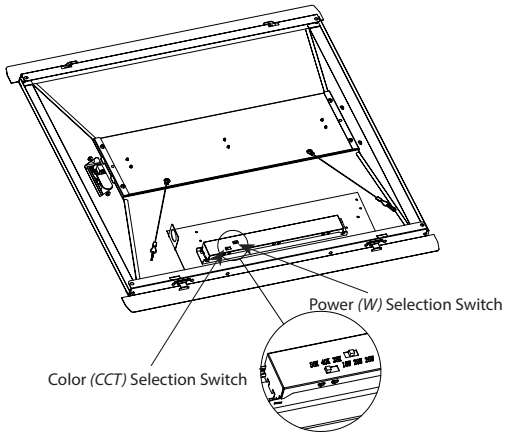
Follow instructions below to change the **Fixture Power** *(W)* and/or **Color Temperature** *(CCT)* from factory settings:

Factory Settings:

RTLED1X4 30W / 4000K
RTLED2X2 30W / 4000K
RTLED2X4 35W / 4000K

1. Locate the **Field Adjustable Switches** located on the back of the of **Fixture Housing** as shown in Fig. 4.
2. Select **Power** *(W) and/or* **Color Temperature** *(CCT)* by sliding respective switch to the desired value.

Fig: 4



PIR MODELS *(External)*

See factory settings below *(Fig. 5) (optional remote sold separately for custom settings, CAT# MSR1).*

Factory Settings:

- Brightness: 100%
- Hold Time: 20 Minutes
- Daylight: Disabled
- Sensitivity: 100%
- Stand-by dimming level: 20%
- Stand-by time: 1 Minute

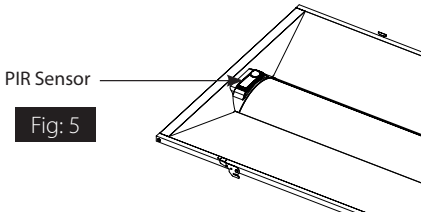


Fig: 5

MVS MODELS *(Internal)*

(optional remote sold separately for custom settings, CAT# MSR1).

Factory Settings:

- Brightness: 100%
- Hold Time: 20 Minutes
- Daylight: Disabled
- Sensitivity: 100%
- Stand-by dimming level: 20%
- Stand-by time: 1 Minute

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LIGHTCLOUD® BLUE MVS & PIR MODELS

This fixture includes the Lightcloud Blue 12V low voltage controller with an integrated occupancy sensor.
Sensors can work independently or to control a group. The sensor settings can be adjusted at the Area level in the Lightcloud Blue App.

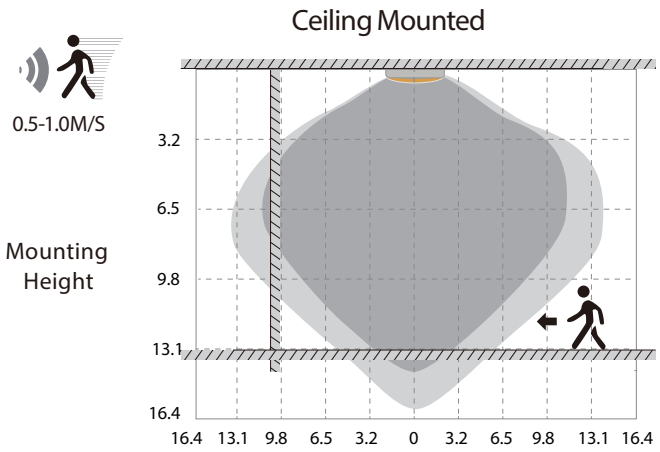
Factory Settings: Uncommissioned State

- Sensor Status: Enabled
- Motion Sensitivity: High
- Brightness when triggered: 100%
- Hold time: 1 Minute
- Standby to dim: 20%
- Stand-by time: 1 Minute

Factory Settings: Commissioned State

- Sensor Status: Disabled. *(When the sensor is enabled in the Lightcloud Blue app it will have the following settings.)*
- Motion Sensitivity: High
- Brightness when triggered: Last on status
- Hold time: 20 Minute
- When vacant: Off

MICROWAVE (MVS) DETECTION COVERAGE

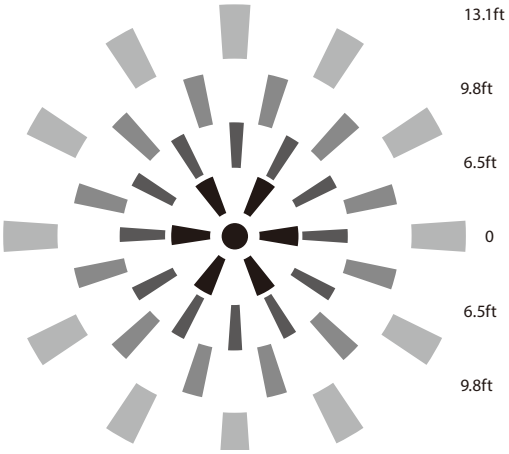


Highest mounting height is 13.1ft

This figure indicates the maximum distance at the highest mounting height with 100% sensitivity.

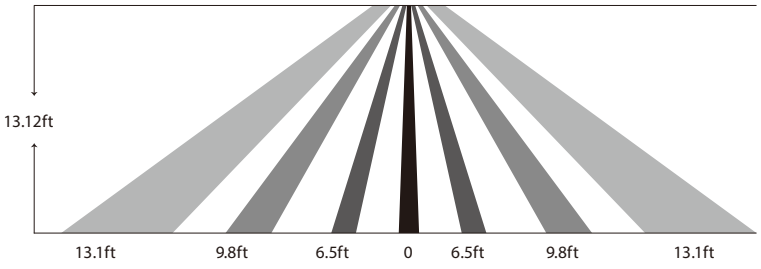
Well Detected Area Possibly Detected Area

PASSIVE INFRARED (PIR) DETECTION COVERAGE



Mounting Height
13.1ft Ceiling Mounted

Detection Distance
Radius: 6.5 - 13.1ft



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CONTROLLING LIGHTCLOUD BLUE DEVICE

1. Confirm your device is powered on.
2. Download the Lightcloud Blue app from the Apple® App store or Google Play™ store.
3. Launch the App and create an account or login.
4. Tap the "add device" icon in the app to start connecting devices.
5. Follow the remaining steps in the app. Create Areas and Groups and add Scenes to organize and control your devices.

RESET TO DEFAULT SETTINGS

To reset the Lightcloud Blue Low Voltage Luminaire Controller to factory default setting use the below methods.

Method 1: Delete from App

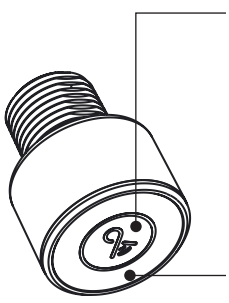
Open the app and access the device settings for the paired device. Be sure that the controller is online and select 'Delete". The luminaire with flash on/off 3 times and the indicator light on the controller will turn red.

Method 2: Manual

Press and hold the button at for 10 seconds to until the luminaire flashes on/off 3 times and the indicator light on the controller is red.

VERIFY POWER AND LOCAL

Once the fixture is paired to the Lightcloud Blue mobile app, the user should verify local control. Test the functions below using the Device Identification Button on the controller.



DEVICE IDENTIFICATION BUTTON

- Press once to rapid identify this device in the Lightcloud Blue mobile app when provisioned
- Press twice to toggle circuit on and off
- Press twice and hold to set dim level
- Press and hold for 10s to reset the device to factory settings and into pairing mode

STATUS INDICATOR

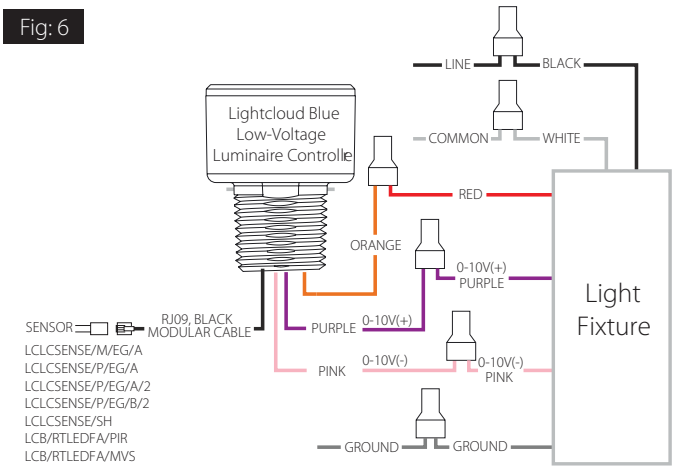
Solid GREEN when connected to your Lightcloud Blue network.
Blinking RED when unprovisioned.

0-10V DIMMABLE WIRING

Universal voltage driver permits operation at 120V through 277V, 50 or 60 Hz. 0-10V control wires must be rated for 300V minimum. For 0-10V dimming, follow the wiring directions shown below *(Fig. 6)*.

1. Connect the black fixture lead to the **LINE** supply lead.
2. Connect the white fixture lead to the **COMMON** supply lead.
3. Connect the **GROUND** wire from fixture to supply ground. Do NOT connect the **GROUND** of the dimming fixture to the output.
4. Connect the purple fixture lead to the (V+) DIM lead.
5. Connect the pink fixture lead to the (V-) DIM lead.

Fig: 6



TROUBLESHOOTING

1. Check that the line voltage at fixture is correct. Refer to wiring directions.
2. Be sure the fixture is grounded properly.
3. If the Lightcloud Blue-enabled fixture does not connect follow steps to enable device pairing mode and try to pair again.

CLEANING & MAINTENANCE

CAUTION: Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.

1. Clean polycarbonate lens & fixture with non-abrasive cleaning solution.
2. Do not open fixture to clean the LEDs. Do not touch the LEDs.

Note: These instructions do not cover all details or variations in equipment nor do they provide for every possible situation during installation, operation or maintenance.

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BATTERY BACKUP MODELS

WIRING

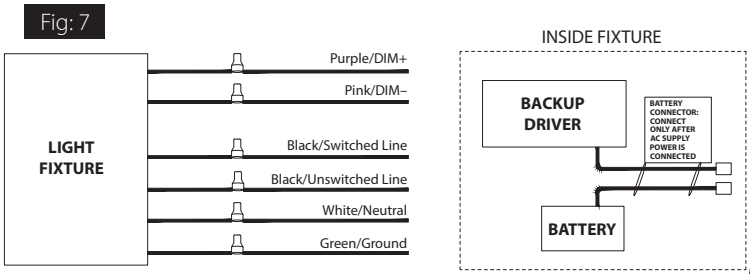
CAUTION: FOR BATTERY BACKUP FIXTURE. Voltage can be present in **BATTERY.** To prevent high voltage from being present on output leads, Inverter connector must be open. Do not join **BATTERY** connector until installation is complete and AC power is supplied to the emergency driver *(Fig. 7)*.

NOTE: Make sure that the necessary branch circuit wiring is available. An UNSWITCHED AC source of power is required. The emergency driver must be fed from the same branch circuit as the LED driver.

CAUTION: Do not use any supply voltage other than 120-277V 50/60 HZ.

1. Connect **UNSWITCHED HOT** fixture lead to **HOT AC** supply line.
2. If using an **UNSWITCHED** circuit, connect **UNSWITCHED** and **SWITCHED** lines together.
3. If using a **SWITCHED** circuit, connect **SWITCHED HOT** AC fixture lead to the external.
4. Connect the pink fixture lead to the (V-) DIM lead.
5. For 0-10V Dimming, connect **DIM** (+) and **DIM** (-) to the supply ground. Do not connect **GROUND** to the output leads.
6. All unused leads must be capped and insulated.
7. After installation is complete, supply AC power to the fixture and connect the **BATTERY.**
8. When power is on, the fixture should be on and the Charging Indicator Light should illuminate to indicate the battery is charging.
9. Once the BATTERY has charged for at least one hour, a short duration test may be performed by pressing the **Test Button** *(Fig. 8)* After the battery has charged for 24 hours, a long duration test can be performed by shutting power to the fixture.

Fig: 7



OPERATION

1. When AC power is applied, the charging indicator light is illuminated, indicating that the **BATTERY** is being charged.
2. When power fails, the standby power automatically switches to emergency power *(internal battery)*, operating at reduced illumination. The emergency driver supplies standby power for a minimum of 90 minutes.
3. When AC power is restored, the emergency driver automatically returns to charging mode.

MAINTENANCE

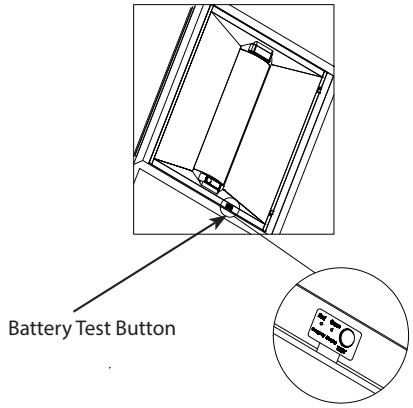
Although no routine maintenance is required to keep the emergency driver functional, it should be checked periodically to ensure that it is working. The following schedule is recommended:

1. Visually inspect the charging indicator light monthly. It should be illuminated.
2. Test the emergency operation of the fixture at 30-day intervals for a minimum of 30 seconds.
3. Conduct a 90-minute discharge test once a year. Fixture would operate at reduced illumination for a minimum of 90 minutes.

TROUBLESHOOTING

1. Is the fixture grounded properly?
2. If the charging indicator light does not illuminate after pressing the **Test Button**, check if battery is connected properly.

Fig: 8



Note: *These instructions do not cover all details or variations in equipment nor do they provide for every possible situation during installation, operation or maintenance.*

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RTLED-0424-P-100531

RAB WARRANTY: *RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty*

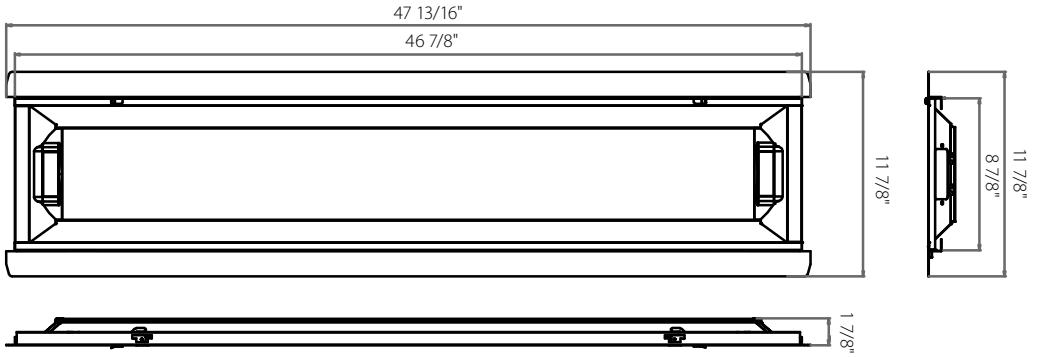
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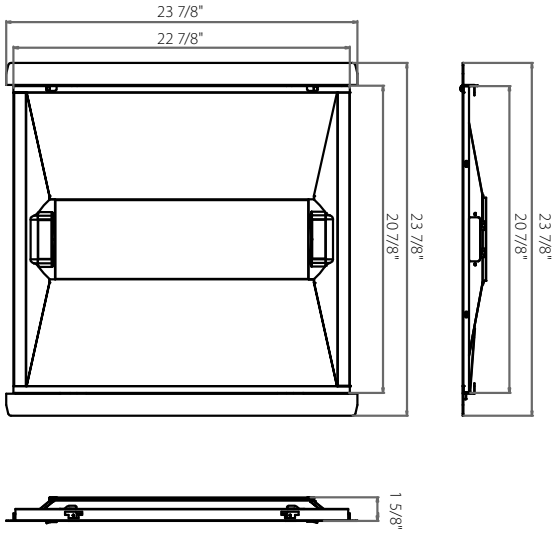
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DIMENSIONS

RTLED1X4



RTLED2X2



RTLED4X4

