Smart IP66 PIR Integrated Fixture Mount Sensors

Smart Sensor App Guide

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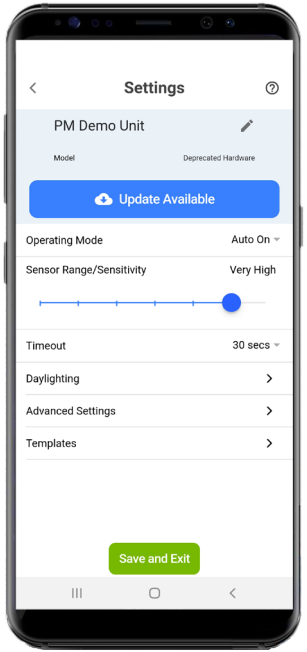
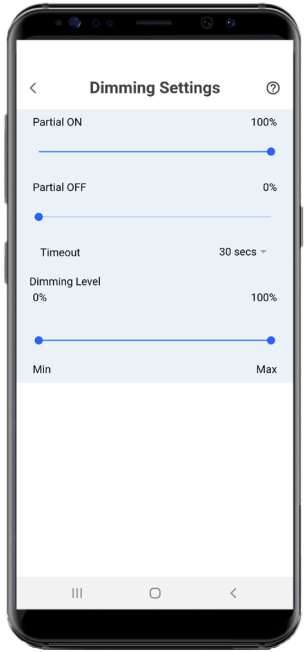
Smart Integrated Fixture Mount Sensors

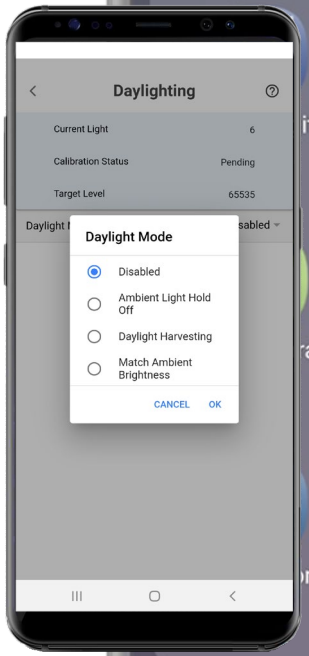
- Fixture Mount Sensors are shipped **ready to operate** in the following default mode:
  - Auto-ON
  - 20-minute timeout
  - Daylight Harvesting
- *No adjustments or app required to operate in this mode*
- Sensors will automatically start daylight calibration and remain ON for 24 hours
- Sensors will be fully calibrated after 24 hours and begin operating in default mode

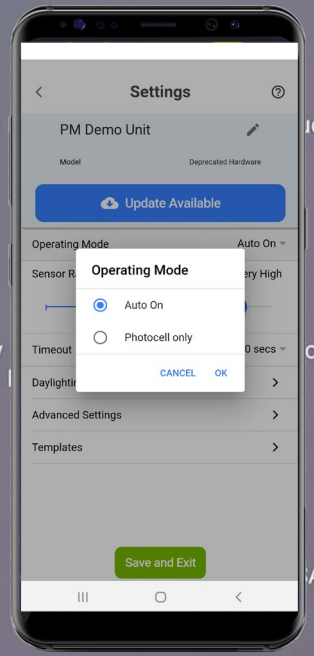
Smart Sensor App Overview

- Easy-to-use
- Intuitive
- Advanced occupancy and daylighting options
- Templates
- Options for grouping & scheduling
- Over-the-Air (OTA) updates allows for new features, easy updates

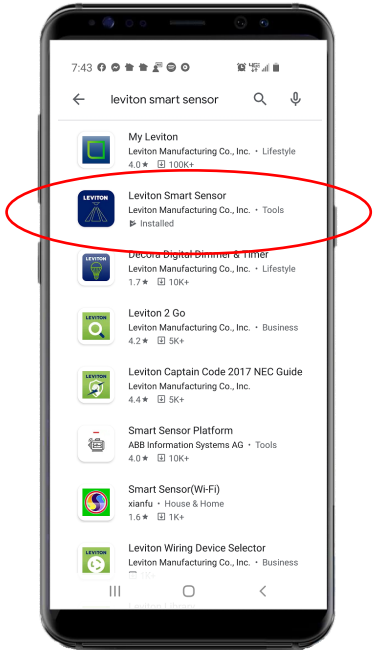


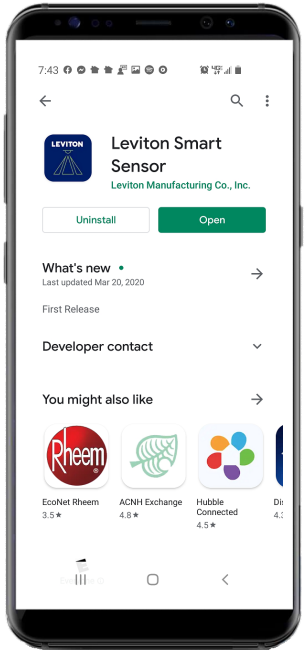






Download Smart Sensor App

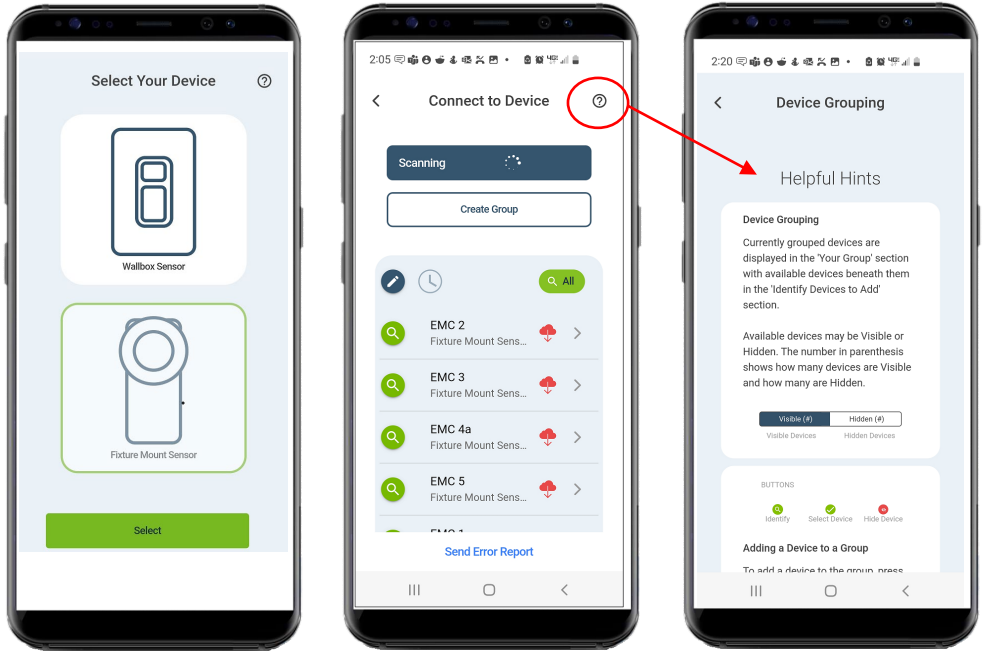




- Download the ***Leviton Smart Sensor*** App from Google Play Store or Apple App Store on a phone or tablet
- Connects to sensor via Bluetooth

Smart Sensor App Overview

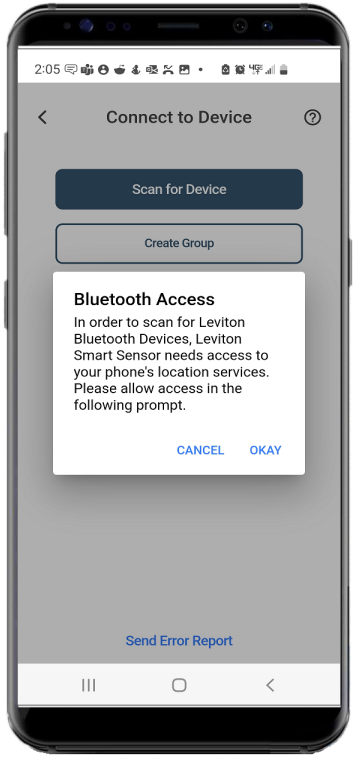
- Sensor default settings:
  - Auto-ON, 20-min timeout, Daylight Harvesting
  - *No configuration needed if using these settings*
- Smart Sensor App required for any changes to product configuration
- App is used for several Smart Sensor products
  - ➢ *Need to select **Fixture Mount Sensor***
- **(?)** Provides contextual help
  - Helpful hints
  - Available on each page in app
- No need to put sensors in pairing mode; always available to connect using App

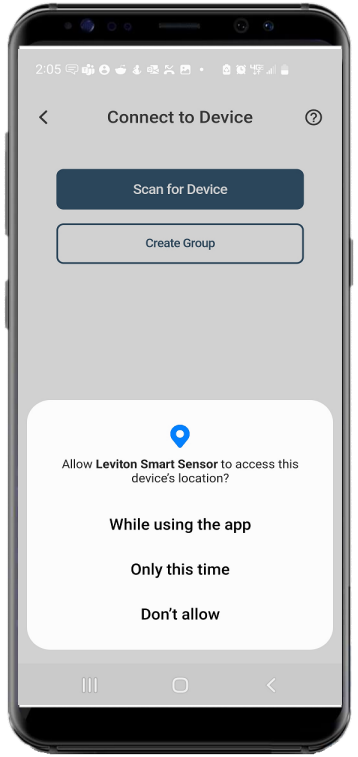


Product Configuration - Notes

For first time connections (if prompted):

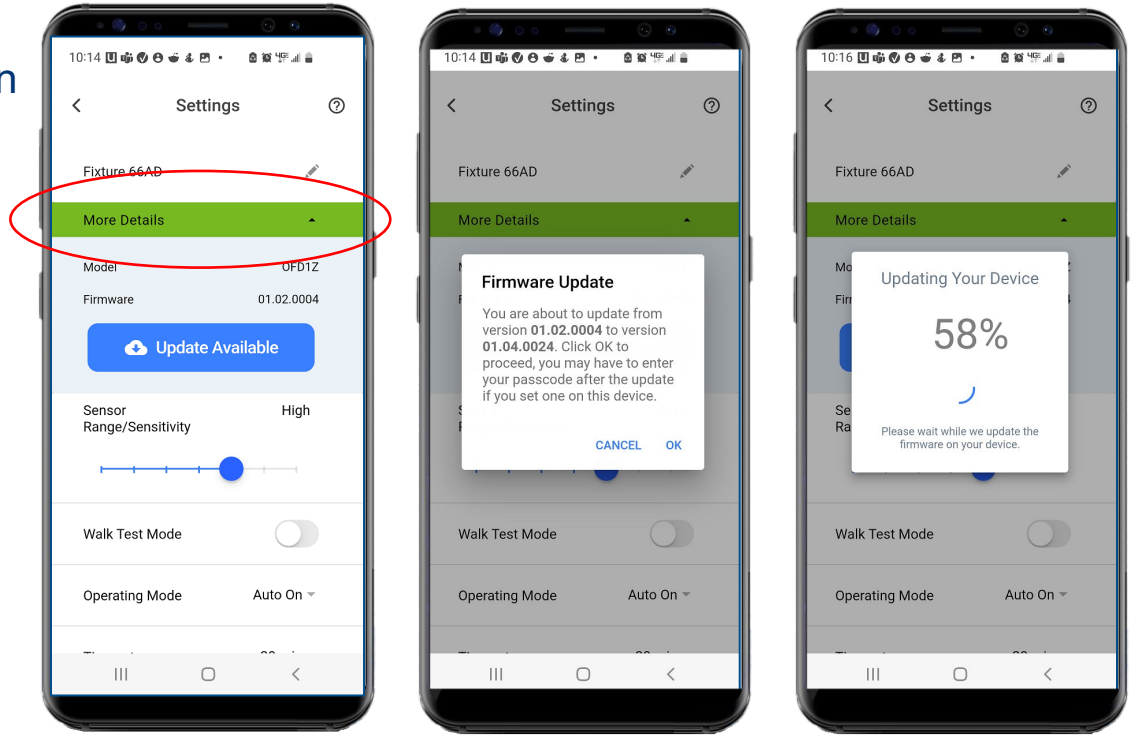
- Click OKAY for Bluetooth Access
- Allow Leviton Smart Sensor to access device location, either “While using the app” or “Only this time”





Firmware Updates

- Check “More Details” on main settings page to see current Model / Firmware details and whether any updates are available
- Clicking “Update Available” will update sensor to latest firmware level
- Updates take 1-2 mins
- **Note:** updates not required unless needed for latest feature set



Firmware Updates

Firmware Level	Features	Notes
1.0	Initial Release	
1.3	Grouping/ Misc Updates	Allows for grouping up to 16 sensors; misc. updates
1.4	Scheduling	For OFDUZ and ZLUDZ models only

- Most inventory currently at 1.3
- If UPDATE AVAILABLE shows, updating firmware will update to latest level (1.4)
- **Note:** Updates not required unless needed for latest feature set

Product Programming

App Guide

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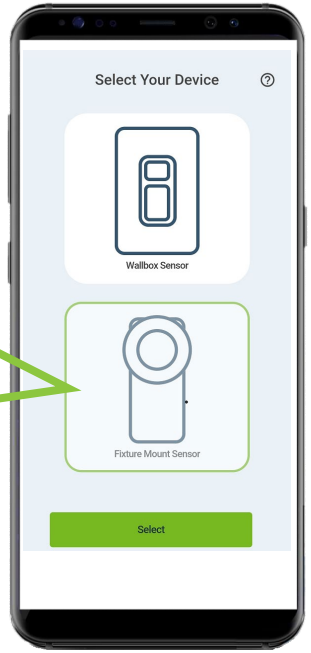
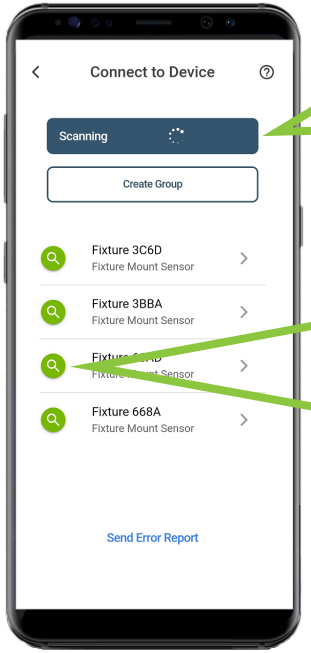
Product Configuration

- Open Smart Sensor App
- Stand near sensor(s)
- Select ***Fixture Mount Sensor***



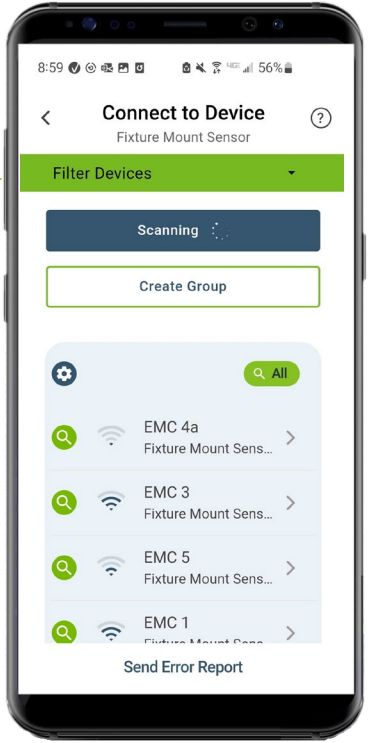


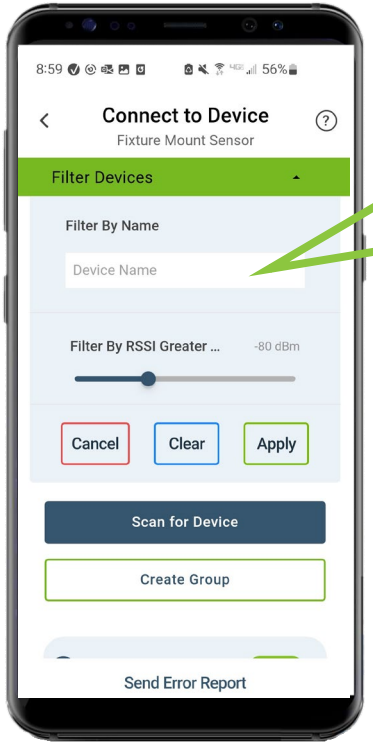
- Automatically starts scanning for available sensors
- Closest devices should show first on list
- Click ***Scanning*** to refresh list

- Before connecting to sensor, “identify” sensor to confirm connected to right device
- Identified sensor’s LEDs will blink BLUE/GREEN/RED and lights will turn ON/OFF
- If right sensor/fixture, click name of sensor or “>”

Scanning: Helpful Hints

If there are many available sensors in a space to connect to, it might be helpful to “Filter” the sensors to help you connect to the right one

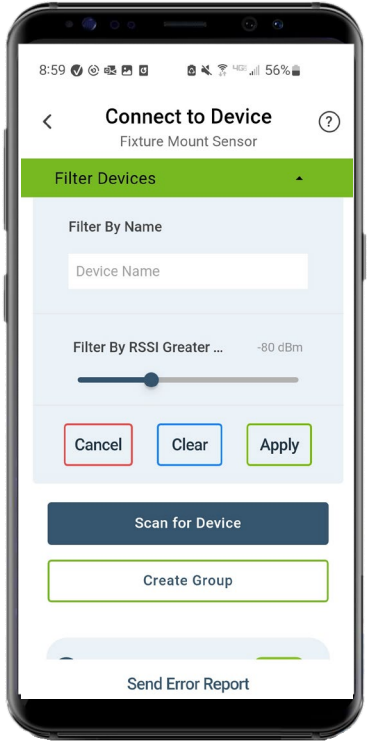




Enter sensor name to filter by name (works best if sensor name is known)

Scanning: Helpful Hints

- You can also filter by RSSI (Received Signal Strength Indicator) strength
- Lowering the dBm value reduces the list of sensors and shows only those in proximity or those with the strongest BLE signal



Filter by RSSI (dBm):

- Move slider to the left to increase range, and to the right to decrease range
- Move slider all the way to left to see all sensors in a space (this can be helpful if you are trying to catch any sensors that have not been renamed, etc.)

Note: Below 60dBm may not show any devices

Click “Apply” to implement your filters

Sensor Configuration – Main Settings Page

Adjust range/sensitivity

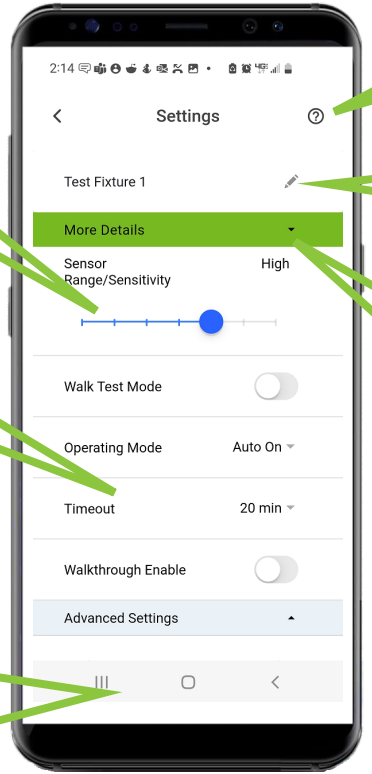
- From Min to Max

Walk-Test Mode Option

- Used to test sensor field-of-view (FOV); temporarily sets timeout to 15sec
- After 15mins, sensor resumes normal operation with Walk-Test Mode turned off

Enable Walkthrough Mode

- Allows sensor to timeout within 2-4mins if occupancy is only detected for a short time
- If occupancy continues to be detected, turns off after programmed timeout
- Ideal for spaces that are generally used as pass-through (examples: hallways)



(?) Helpful Hints

Name device (optional)

- Makes easier to identify (ie: Aisle 1, Light 1)

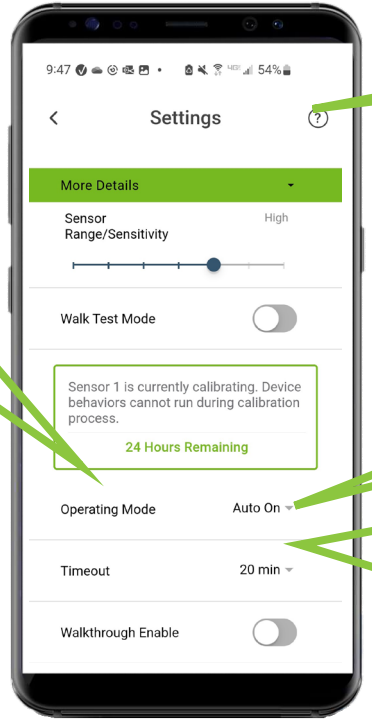
More Details:

- Access sensor model number and firmware level
- Shows if firmware updates are available

Sensor Configuration – Main Settings Page

Daylight Calibration

- Once sensor is initially connected, Daylight Calibration will start and take 24 hours.



(?) Helpful Hints

Operating Mode

- Auto-ON (Occupancy)
- Photocell Only (disables Occ sensor, for daylighting applications only)

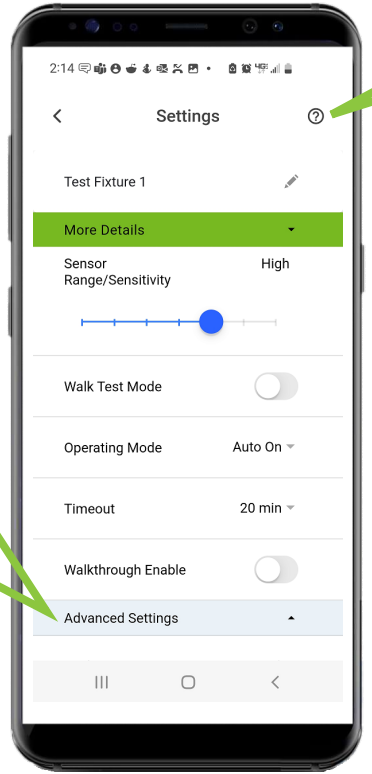
Timeout

- Amount of time sensor turns load OFF after space becomes vacant
- 30 seconds to 60 minutes

Sensor Configuration – Advanced Settings

Expand “Advanced Settings” to access configuration options for:

- Daylighting Settings
- Dimming and Load Settings
- Creating templates

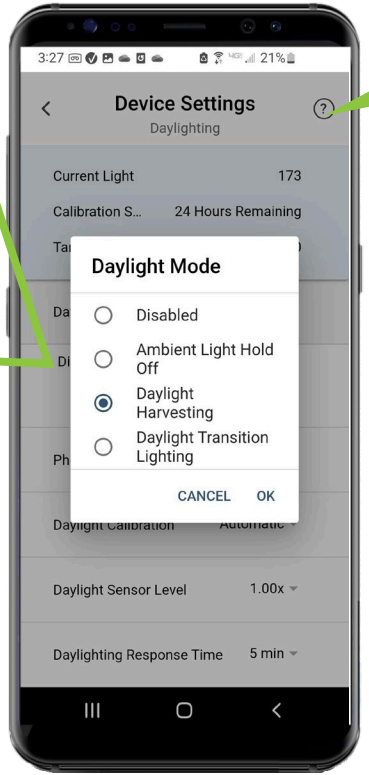


(?) Helpful Hints

Advanced Settings – Daylighting Options

Daylighting Mode options:

- **Disabled:** (OFF)
- **Ambient light hold-off:** holds lights OFF when sufficient ambient light is present to meet the target level; this mode does not dim, just turns lights ON or OFF (ideal for switching-only fixtures)
- **Daylight Harvesting:** dims the light output
  in relation to natural ambient light contribution; more natural light = less artificial light (for
  0-10V fixtures)
- **Daylight transition lighting:** reverse daylight harvesting; ideal for areas where light transitions from dark to light or light to dark; eases transition for eyes (safety). Ideal for parking garages, tunnels, etc.

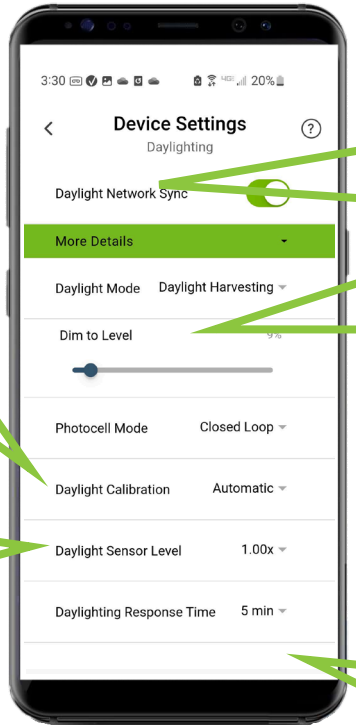


(?) Helpful Hints

Advanced Settings – Daylighting Options

Daylighting Calibration

- **Automatic:** Leviton's AutoCal process automatically configures the daylight settings (calibration process takes 24-hrs)
- **Manual:** user configures the daylight target level



Dim to Level

- Set a minimum dim level while in Daylight Harvesting or Daylight Transition Lighting Modes (0-99%)

Photocell mode

- Set the Photocell mode as Open or Closed Loop base on the application* (***Closed Loop is most common***
- For more information on Open Loop and Closed Loop, visit: www.LightingControlsAssociation.org

Daylight Sensor Level

- Option to increase or decrease the amount of ambient light required for sensor to start daylighting

Daylighting Response Time

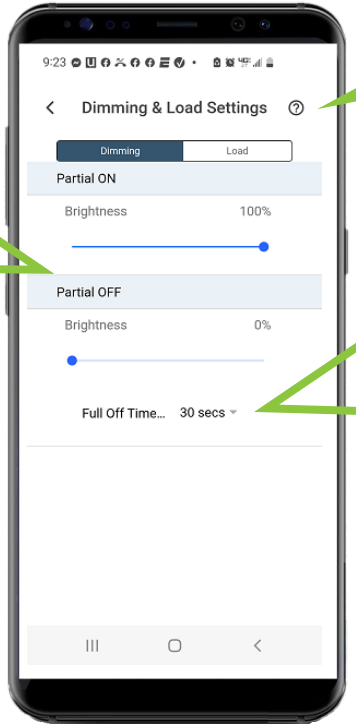
- Adjust the photocell response time to changing light conditions (1min-20min)

Advanced Settings – Dimming & Load

Dimming

- **Partial-ON:** set the target Auto ON level (1-100%; default is 100%)
- **Partial-OFF:** set the partial OFF level (0-99%; default is 0%)

Note: when in group, Partial-ON and Partial-OFF settings are sync'd to all devices

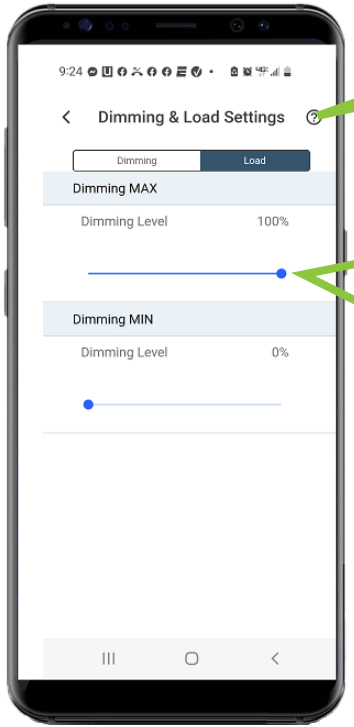


(?) Helpful Hints

Full Off Timeout

- Set secondary timeout to turn light(s) OFF completely
- Options for 30 seconds to Always ON

Advanced Settings – Dimming & Load



(?) Helpful Hints

Dimming Level allows you to trim the MIN and MAX lighting levels

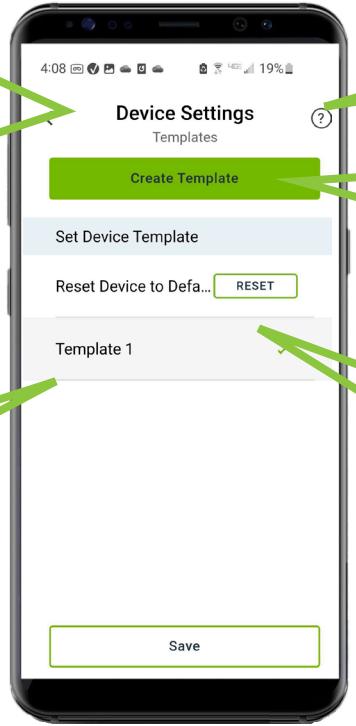
- MAX setting is used to reduce the maximum output of the fixture
- MIN setting is used to increase the lowest level before the fixture switches OFF

Note: when in group, trim settings are sync'd to all devices

Advanced Settings – Templates

Templates allows user to save current device settings as a Template for future use

Note: templates are stored on the smart devices they are created on



(?) Helpful Hints

To create a template, press the blue Create Template button

- Name the template and select **Create**
- Saves all current settings to named template

To load an existing template to an FMS sensor, select template from list on Templates page and press **Save**

Clear Template:

- To clear a device from the template currently assigned to it, press the **Reset** button. This will restore the device to default settings.

Sensor Grouping

App Guide

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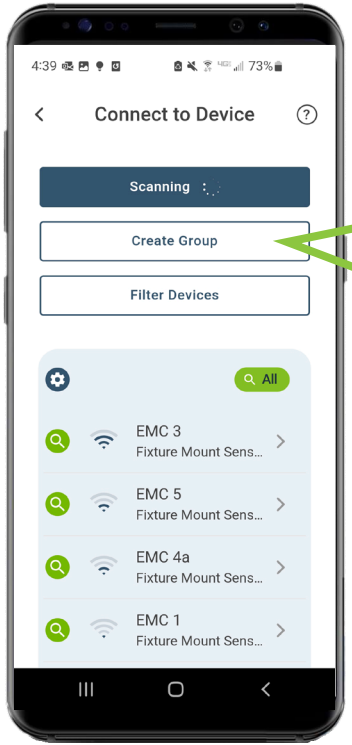
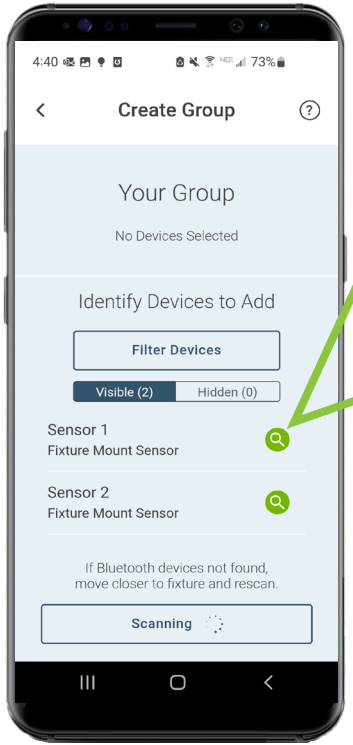
Grouping Overview

- Fixtures / Sensors to be wired and installed per installation instructions
- Up to 16 sensors can be grouped together
- Sensors are grouped together via BLE network
- Distance (end-to-end) is limited by Bluetooth signal range
- For best results:
  - Determine how you want your sensors grouped (ex: per aisle or space)
  - Grouping is done from the initial scan page
  - Select a sensor in middle of group as the “provisioner”, and add other sensors to the group from this sensor

Creating a Group

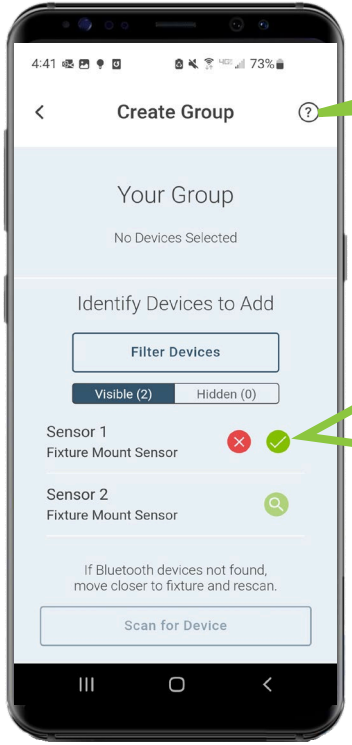


Select Create Group



Select the magnifying glass of sensor to be added to group

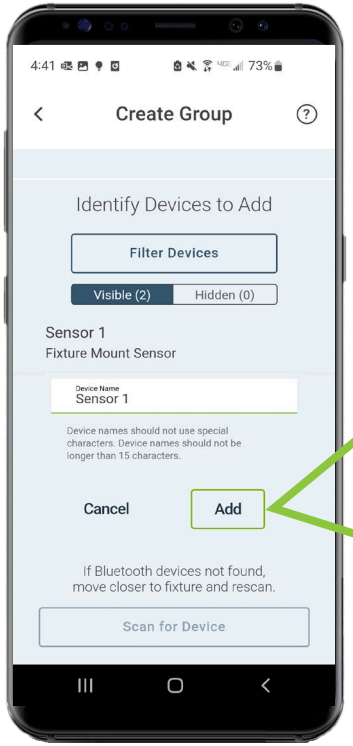
Note: start from Sensor in middle of group



Helpful Hints

Select the checkmark to confirm sensor to be added

Creating a Group, Cont'd

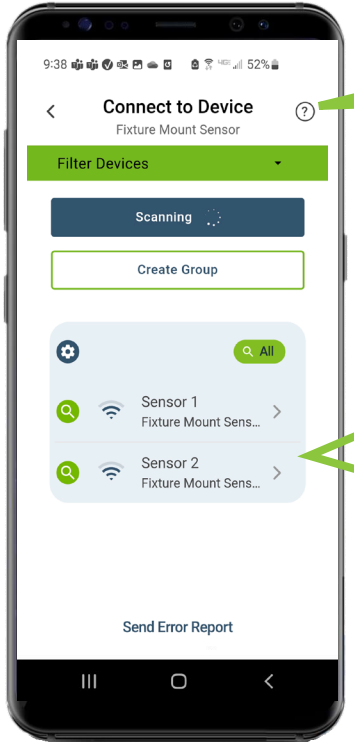


Scroll down and select "Add"

Note: sensor can be renamed if desired

*Repeat "Creating a Group" process for each sensor to be added to group

Note: up to 16 sensors can be added to a group

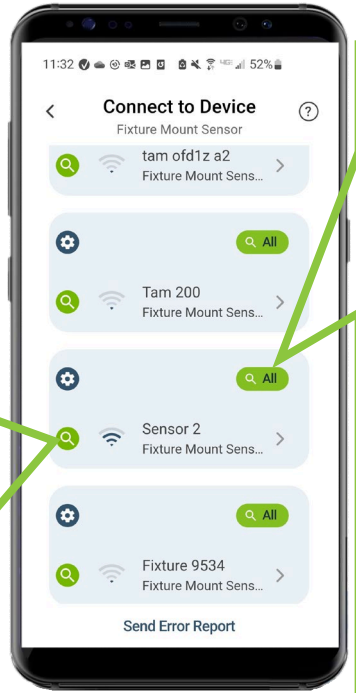


Helpful Hints

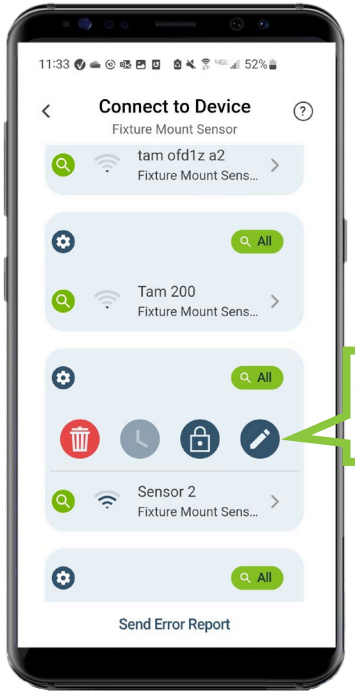
Grouped sensors will now appear in a light gray rectangle

Adding Additional Sensors to a Pre-Existing Group

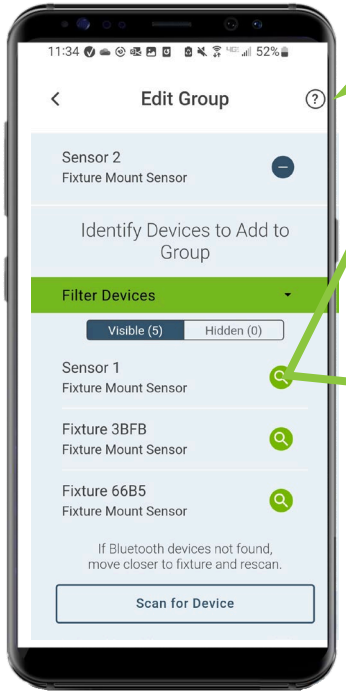
Select the Gear icon on group to add the sensor



Tip: Select Identify All to identify all sensors in a Group; RGB LED and fixture lights will blink ON/OFF for all sensors in the group



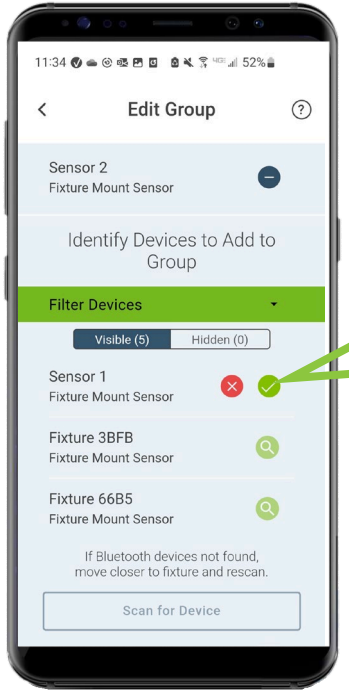
Select Pencil



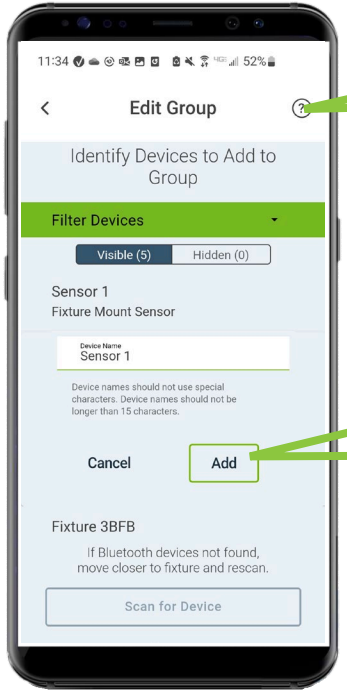
Helpful Hints

Select Magnifying Glass of the Sensor you would like to add; light with sensor attached will blink to indicate the sensor you've selected

Adding Additional Sensors to a Pre-Existing Group, Cont'd



Select "Check" to confirm sensor

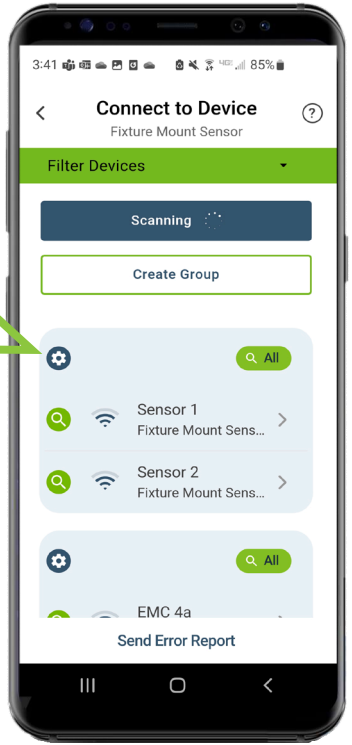


Helpful Hints

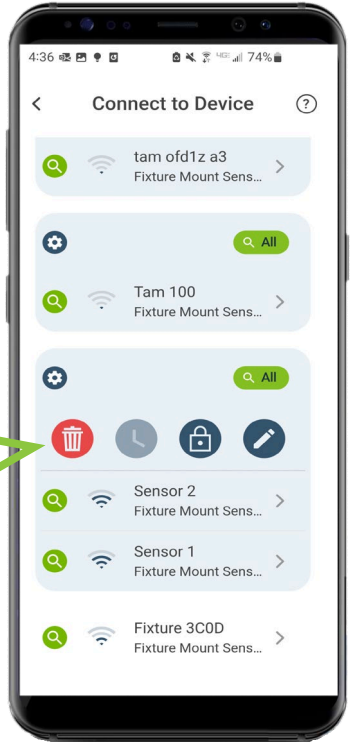
Select "Add"

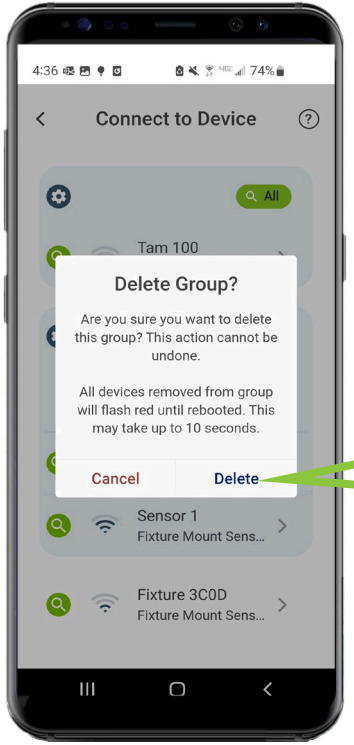
Removing a Group

Select Gear on the group



Select Trash Can





Select Delete

Scheduling

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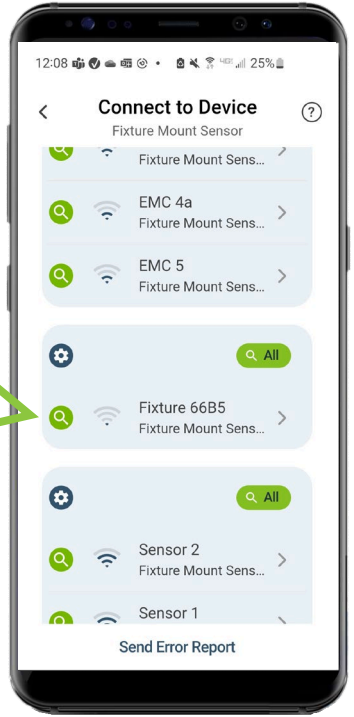
Scheduling Overview

- Scheduling allows sensors to behave differently based on the time of day or day of the week to maximize energy savings
  - Ability to change light level, operating mode, timeout, partial-ON & OFF, and daylight mode
- Scheduling can be done individually or shared across a group
- Only universal voltage models (ZLDUZ and OFDUZ) have the scheduling feature
  - Groups of mixed product including the non-universal voltage models (ZLD1Z and OFD1Z) can support scheduling if included with groups of ZLDUZ/OFDUZs
  - **Note:** must be connected to the ZLDUZ/OFDUZ via the Smart Sensor App to initiate the schedule feature

Creating Schedules and Behaviors for a Group of Sensors

Select Magnifying Glass on Sensor or Group of sensors you'd like to create a schedule for



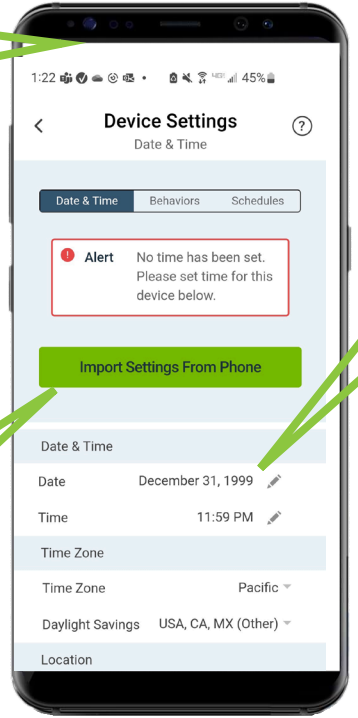
Select Clock icon

Helpful Hints

"Schedules and Behaviors" allows you to program certain lighting control behaviors to take effect during the schedules you choose

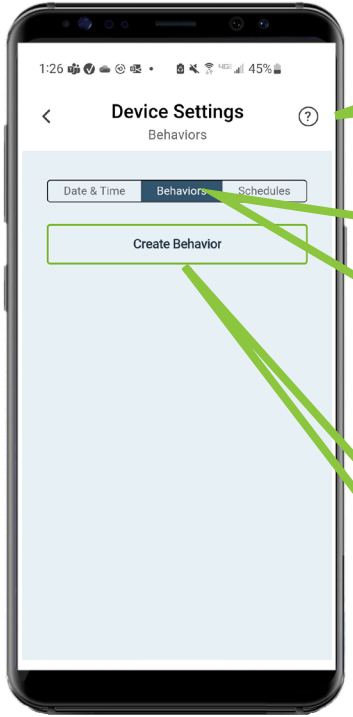
Creating Schedules and Behaviors for a Group of Sensors

Adjust date and time settings



Option B: manually set your settings

Easily import Time settings from your phone

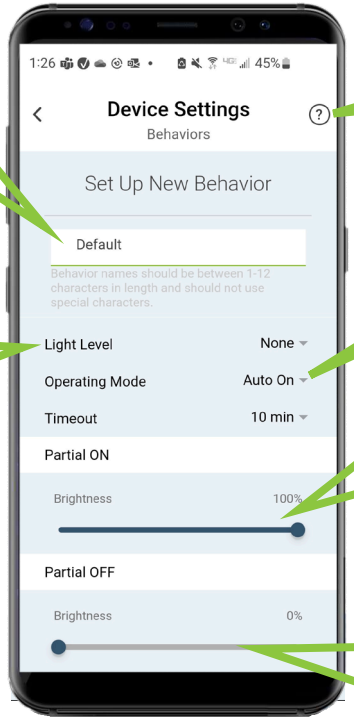


Helpful Hints

Select the next “Behaviors” Tab to move on to creating Behaviors for the schedule you would like to set

Select “Create Behavior”

Creating Schedules and Behaviors for a Group of Sensors



Enter new behavior name

Helpful Hints

Select Operating Mode

Set light level for behavior

Define brightness level for Partial ON setting, if activated

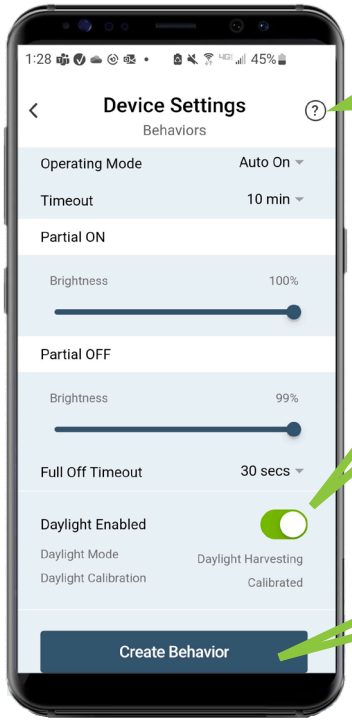
Define brightness level for Partial OFF setting, if activated

Operating mode options:

- Auto ON: Sensor automatically turns light ON with Occupancy, default is 100%; level can be adjusted
- Auto OFF: Sensor automatically turns light Lights turn off and OFF with Vacancy, default is 0%; level can be adjusted
- Photocell Only: Disables the occupancy sensor and lights ON and OFF and/or dims them UP or DOWN based on ambient lighting conditions only

Level: Devices will be held at the specified brightness level for the duration of the schedule running this behavior

Creating Schedules and Behaviors for a Group of Sensors



Helpful Hints

Scroll down to toggle on Daylight Enabled if desired

Select Create Behavior

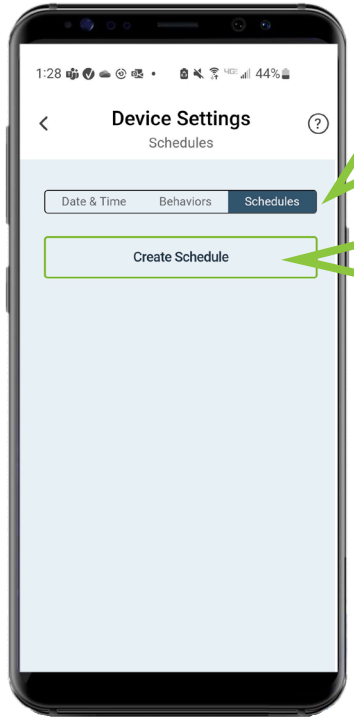
Timeout:

- Turns lights off to desired Auto Off level at desired time between 20 seconds and 60 minutes
- Not available in photocell only mode

Full Off Timeout:

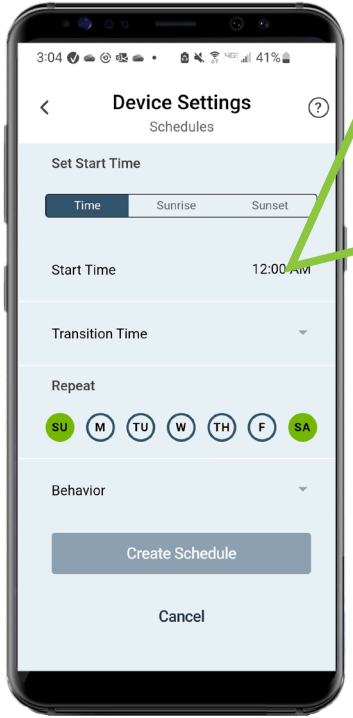
- Secondary Timeout feature; turn light off fully at desired time between 20 seconds and 60 minutes

Creating Schedules and Behaviors for a Group of Sensors

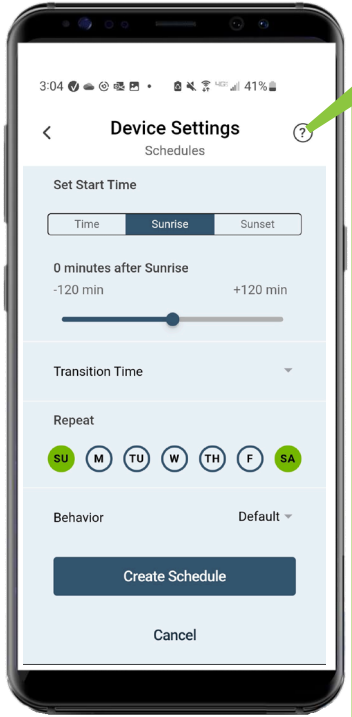


Select Schedules tab

Select Create Schedule



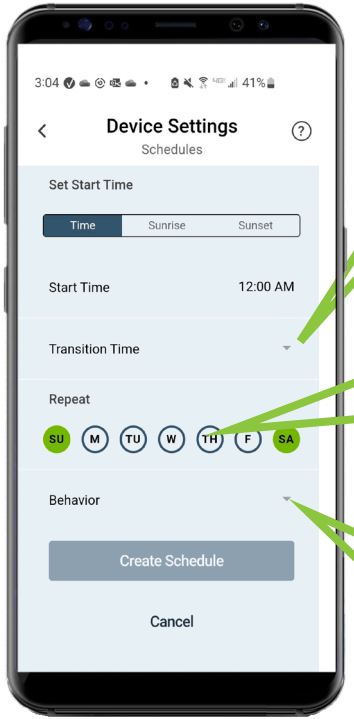
Select Start Time: choose between setting a manual time, or schedule to start before or after sunrise or sunset



Helpful Hints

Note: A schedule can be set to begin at a certain time, or to begin 120 minutes before or after sunrise or sunset. Select the Sunrise or Sunset tab to go through the same process of creating a schedule expect for starting before or after sunset rather than at a specific time

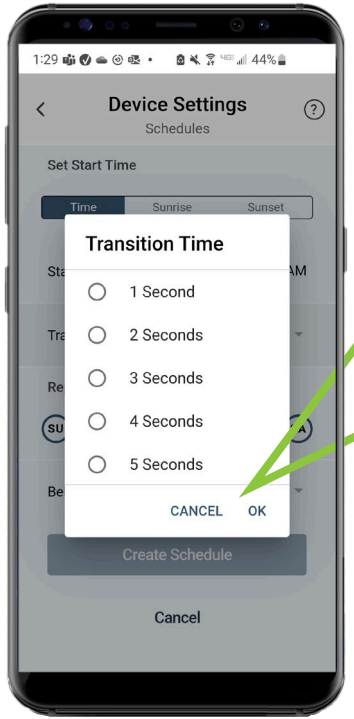
Creating Schedules and Behaviors for a Group of Sensors, Part 5



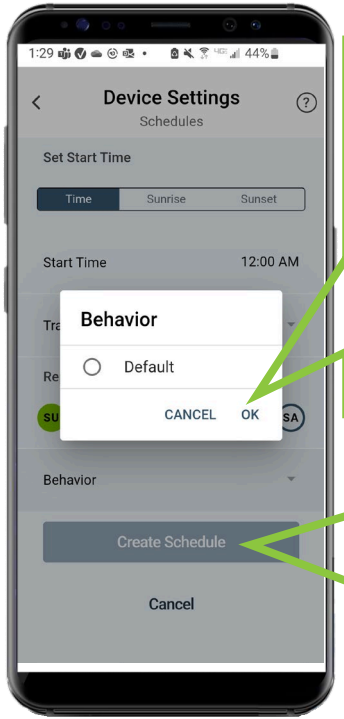
Select transition time

Select days to repeat schedule

Select behavior



Transition time sets how long the behavior will gradually transition from previous state. Select OK



Select previously created Behavior to apply to schedule. Select OK.

Select “Create Schedule” once satisfied with the settings

Thank You

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