

nLight AIR



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Welcome



The Acuity Brands CLAIRITY + mobile app is a one-stop resource for a variety of Acuity Brands digital solutions. CLAIRITY + is available for both Android™ and iOS devices. This guide explains all the features and functionality within the CLAIRITY + mobile app when selecting the nLight AIR module.

Startup Process Overview

nLight® AIR consists of fixtures (with and without integrated radios), wall switches, and sensors. There are no communication wires between the devices. Installers and other onsite personnel use the CLAIRITY + mobile app to define how these devices interoperate to achieve the result our customers request.

An overview of the startup process we recommend you follow is shown below.

NOTE

A definition of terms section is located near the end of this guide.

- 1. Install and energize the equipment. You can proceed to the next step once all nLight® AIR equipment has been installed in a given functional area of the building.
- 2. Download the CLAIRITY + app and select nLight AIR (first time users must follow the steps to create a user account).
- 3. Create the site.
- 4. Create the first group, identify devices, and associate with the grid.
- 5. Set behavior zones for each group and save to complete the commissioning process for a single group.
- 6. Return to step 4 when you're ready to move to the next group.

Out of Box Functionality

The devices at the site will operate under their out of box functionality but can be customized and programmed to suit the needs of the customer. Please refer to device specs sheets for specific information.

- Indoor fixtures with integrated occupancy sensors All operate independently, and have occupancy and daylighting enabled.
- Switches Do not control any fixtures
- Other indoor fixtures will turn on when powered.
- Outdoor fixtures with integrated occupancy sensors will turn on at night and off in the morning and have occupancy enabled.

Download CLAIRITY +

Start by downloading the CLAIRITY + mobile app from the Apple App Store or Google Play Store (CLAIRITY +). The app is no charge.

To proceed to nLight AIR, select the nLight AIR module.



Enable Bluetooth On Your Mobile Device



Once the app has downloaded, ensure that Bluetooth® is enabled on mobile device. If you're unsure, follow the steps below for either an Android or iOS device.

NOTE

Disconnect from any existing Bluetooth devices before commissioning.

For **Android** Devices:

- . Open your device's **Settings** menu. 🕸
- 2. Under Wireless & Networks, touch Bluetooth.
- 3. Touch the switch to turn Bluetooth On.
- 4. A Bluetooth icon ** at the top of your screen will indicate when Bluetooth is turned on.

For **iOS** Devices:

- 1. On your iOS device, tap **Settings >Bluetooth.**
- 2. Tap the switch to turn Bluetooth **On.**
- 3. Once complete, look for the Bluetooth icon in the status bar of your device.

Create a User Account

If this is your first time using the CLAIRITY + app, follow the steps below to create a new user account.

- 1. Select nLight Products.
- 2. Download the CLAIRITY + App.
- 3. Tap on the **Sign Up** link on the sign in page and then select the sign up now link.
- 4. Enter your information, including your email address, what you'd like your password to be, first name, last name, and your display name.
- 5. Once complete, tap on the **Send Verification Code** button.
- 6. Check your email.
- 7. You will receive an email with a verification code.
- 8. Go back to the app and enter the verification code you received.
- 9. Click on the **Create** Button.
- 10. Sign into the app with your email and password (Figure 01).



Figure 01: CLAIRITY + Sign In

Forgot My Password

If you've forgotten your password, tap on the **Can't Access My Account** link after tapping the **Sign In** button. Follow the steps to reset your password.

Sign into the App



If you already have an account, use your email address and password to sign into CLAIRITY +.

Once you've successfully signed in, you'll see the **Sync** screen (Figure 02). While this screen is shown, the application is connecting to the cloud to retrieve your sites.

NOTE

You must have a connection to the Internet to complete this process.

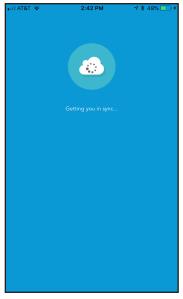
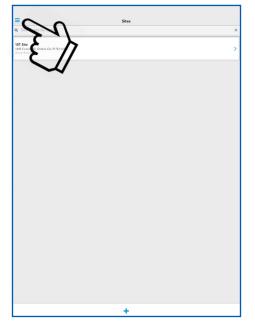


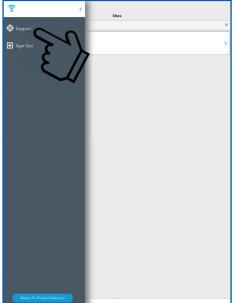
Figure 02: CLAIRITY + Sync Screen

Support

Navigate to the **Support** page from the **Sites** screen by tapping on the me to left portion of the screen. The **Support** page (Figure 03) provides contact information for Acuity Brands, a link to a how-to video for CLAIRITY +, a link to this user guide, a means to submit diagnostic information from your application to Acuity Brands technical support (**Send Report**), and information on your application. User guides and other documentation for nLight support can be found at: https://nlight.acuitybrands.com/resources/user-guides

For new users we strongly recommend to view the **Quick Start Guide** and startup video to become familiar with the process and the app.





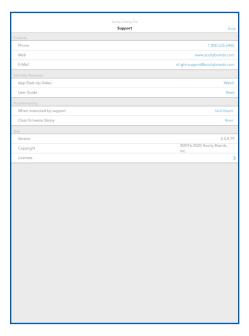


Figure 03: Support Page

Saving and Retrieving Site Information



Saving and retrieving previously saved sites in CL**AIR**ITY + is very easy. All the data you enter is saved in cloud-based servers for your future use. If you're not familiar with the cloud, that's OK – we take care of the technical components of the site behind the scenes using our 5 tier security system. Just know that your data is very secure and is ready for your use when you need it. The best part of the cloud is the ability to share it with others using the link https://air.acuitynext.com/.

As you make changes and proceed through the screens, information is saved either on your mobile device or in the cloud. In the event that you do not have a wireless or cellular connection to the Internet while making changes, no problem. Those changes are held within the app and pushed to the cloud as soon as you have a connection.

Sites Screen

The **Sites** screen lists all of your sites that you have either created or been give access to. After the app retrieves your sites from the cloud, it will display a list of those available to you. To work on a site, simply tap it in the list. If you need access to a site that you're not seeing in your list, please contact Acuity or contact the individual who has access to the site.

NOTE

All programming changes must be made in the immediate proximity to the area you are programming

NOTE

Internet connectivity is no longer required after you select a site to work in, and data is downloaded from the cloud.

Create a New Site

NOTE

To create a new site, follow the steps below.

If you are adding equipment to an existing installation, you must add the equipment to the existing site if the design calls for the equipment to work together.

- 1. From the mobile app, navigate to the **Site** Screen (Figure 04) and click on the **+** at the bottom of the screen.
- 2. Enter the information about the site you're creating. The more information you enter, the easier the site will be to search for and find the site in CLAIRITY + in the future. Site Name the name of the site or project; It will typically be the name of the building in which you're working (e.g. the White House). We recommend that you do not abbreviate to make it easier to find the site in the future. Organization / Company The startup service provider should select the name of the customer (e.g. The US Government).

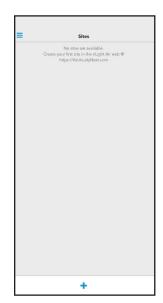


Figure 04: Sites Page - No Available

Search for an Existing Site

The Sites Screen will display all the sites to which the user can access. For some users who visit numerous sites, you can either search the sites you have created or been added to at the top of the **Sites** page using the search bar, or simply select the site you wish to access from the available items shown.

NOTE

The search is not case sensitive.

Edit an Existing Site Name or Address



Site details can be edited from the **Site Overview** screen (Figure 05) by tapping on the information that needs to change, making the change, and tapping **Done** when completed.



Figure 05: Site Overview

Create a New Group

Typically a group is created for each room. However, a group can not contain more than 127 devices.

To create a new group, follow these steps:

- 1. Tap on the + icon on the **Groups** screen (Figure 06).
- 2. Enter a name for the group. The group name is typically going to be the name of the room.
- 3. Tap the **Create** button.
- 4. You will then be taken to the **Group Overview** screen for the group that you created.
- 5. If you wish to edit a different group, simply select the **Group** icon in the top left to navigate back to the Groups screen.

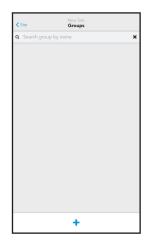


Figure 06: Groups

Edit an Existing Group



The **Groups** screen shows all of the groups within a site.

To edit an existing group, select it from the list of available groups (Figure 07).

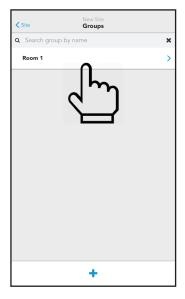


Figure 07: Groups Page

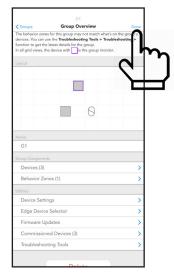


Figure 08: Groups Overview

Modify the group details and tap ${f Done}$ when completed (Figure 08).

Search for an Existing Group

The Group Screen will display all the existing groups in the site. For large sites with many groups, we have made it easy to search for the group you need. Groups can be sorted by name, signal strength, creation date, or last modified date. You can also filter to show only groups in BLE range or connected to a nLight Eclypse (EDGE Connected). To access the group search feature:

- 1. Navigate to the **Groups** Screen.
- 2. Enter the name of the group in the search bar at the top of the screen or tap the filter icon next to the search bar to access filtering or sorting options.
- 3. The list of groups that match your search criteria will update automatically.
- 4. Select the group you need to access from the list of groups.

NOTE

The search is not case sensitive.



The **Group Overview** screen (Figure 09) is used as a main landing point in the CL**AIR**ITY + app. It is the screen that allows for initial device identification and the assignment of behaviors.



Figure 09: Group Overview

Discovering New nLight AIR Devices & Adding Devices to a Group

To discover new nLight AIR devices, following the steps below:

- 1. From the **Group Overview** screen, tap the **Devices** link (Figure 10).
- 2. The **Device Layout** screen will open. Tap the + icon on the bottom left of the grid (Figure 11).
- 3. The **Identify Devices** screen (Figure 12) will provide a list of nLight AIR devices, sorted by signal strength. If you click the **Refresh** button, the devices will re-sort based on the signal strength. If you do not see any devices in the list, ensure your mobile device's bluetooth is turned on, make sure you're in range of the devices (within about 60ft), and make sure that the device type is included in the filter at the top. Some devices, such as switches and battery powered sensors, require a button push in order to wake them up and turn the bluetooth radio on. **Note:** the list of devices has two views those that are available and those that have already been assigned to a group.



Figure 10: Groups Overview

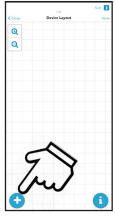


Figure 11: Device Layout



Figure 12: Identify and Select Devices

Discovering New nLight AIR Devices & Adding Devices to a Group - cont'd



- 4. To identify a fixture, tap the **Identify** button. Then look at the fixtures.
 - If you do not see one flashing on and off in the area, it is very possible that you are flashing a fixture in an adjacent room. So, please take care in this identifying process.
 - If you see a fixture flashing in the area you are working in, tap **Identify** again to stop
 the fixture from identifying, then click the arrow to the right to place the device on the
 grid.
- 5. To add the fixture to the grid, tap its relative position on the grid (Figure 13). Once the fixture has been added to the grid, it will not longer appear in the list of available devices. It will be added to the list of assigned devices. Once the fixture is added to the grid, you'll see the actual light level of the fixture change to a lower light output. Use this as a way to track how many more fixtures need to be added to the grid from the room you're in.
- 6. Continue this process until all fixtures in the area have been identified and added to the grid.



A group may not contain more than 128 devices.

NOTE

The assigned tab has three distinct colors/symbols. A gray arrow indicates the device is assigned to the current group you are in. A blue arrow indicates the device is assigned to another group than the one you are currently in. A purple check indicates this device is a group monitor (and may or may not be in the current group you are in). All these devices are beaconing through their BLE radio.

NOTE

If you're working in a large area, you may find it necessary to move around the area to see all the devices. The list of devices will not automatically refresh. If you've moved within the area, we recommend tapping the refresh button. The list will update to show you those devices that have the strongest signal strength for your present location.

NOTE

You can pan around the grid by dragging your finger across the grid. You may also zoom in and zoom out by using the +/- buttons or by pinching or spreading with your fingers on the screen.

- 7. Once you're ready to begin discovering wall switches, tap on the + button.
- 8. Choose the **Switch** option on the **Identify Devices** screen.
- 9. Press a button on the actual wall switch the physical device on the wall. Wall switches will not remain in the list. They go to sleep after 1 minute of inactivity. Press any button on the switch to wake the device.
- 10. After the button is pressed, you'll see a wall switch on the device screen.
- 11. Press **Identify** and validate that the LED's on the front of the switch begin flashing.
- 12. Associate that device with its location on the grid by tapping on its relative position in the grid (Figure 14).
- 13. If you have stand-alone sensors in the space, tap on the + button.
- 14. Choose the sensor option on the **Identify Devices** screen.
- 15. For battery powered sensors, press the button next to the lens twice to wake it. They go to sleep after 1 minute of inactivity. Once the sensor is listed, press **Identify** and validate the LEDs on the sensor blink (**note** motion will also cause the sensor to blink. So, stand motionless below the sensor during this step).
- 16. Associate that device with its position on the grid relative to the other devices.

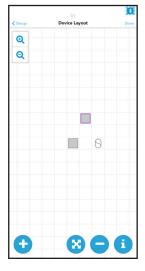


Figure 13: Device Layout - Grid





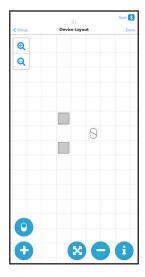


Figure 14: Device Layout - Wall Switch

Moving Devices on the Grid



- 1. To move a device on the grid, select the arrow button between the plus and minus buttons.
- 2. Select the device that needs to move by tapping it on the grid.
- 3. Select a new location for the device by tapping on the grid.

Removing Devices from the Grid

In the event a device needs to be removed from the group (whether it has been fully programmed or not), follow these steps:

- 1. Ensure you're physcally located in the group.
- 2. Navigate to the group in the app.
- 3. Open the **Group Overview** screen.
- 4. Select **Devices**.
- 5. From the grid view, select the button at the bottom of the screen.
- 6. Tap on the device that needs to be removed.

NOTE

You must be located in the vicinity of the devices to perform this action. Removing a device may require changes to the Behavior Zones to ensure proper operation.

Device Information

Additional device information can be retrieved while on the grid screen. To do this, follow these steps:

- 1. Navigate to the grid screen.
- 2. Select the "i" icon in the lower right corner of the grid (Figure 15).
- 3. Tap on any device. This will show the device type, BLE ID, Device ID, Firmware versions, and label. Label default is BLE ID_GroupName. This label can be edited simply by tapping on the label, editing, and tapping the save button.
- 4. By tapping on any additional device, or the same device, you will flash the fixture once. You can repeatedly select the same device for an additional flash on each tap.



Figure 15: Moving Devices on the Grid

Creating Group Behavior Zones



- 1. Once the desired devices within a group have been added to the grid select **Done** in the top right corner of the page (Figure 16). This will take you to the **Behavior Zones** page where you will create or edit the behavior zones of the devices within your group. Optionally, you can navigate to behavior zones from the **Group Overview** screen, just below **Devices**.
- 2. On the **Behavior Zones** page your first option will be to select from behavior zone **Templates** where you can select **Description** to understand more about this template. If you wish to add one of these templates simply select the **+ Add** button (Figure 17). When a behavior zone template is added, a set of behavior zones will be created and listed at the top of the page.
- 3. The behavior zone identifies the number of outputs, sensors, and switches in the specific behavior as a function of the total number within the group. The specific settings that have been applied within a behavior zone are displayed as well. Once a behavior zone has been created, you can either delete or edit the behavior to further customize your behavior zones (Figure 18).
- 4. You also have the option of foregoing the behavior zone templates and creating your own behavior zone by selecting **Create a Behavior Zone** just below the Templates (Figure 17). Based upon the devices that have been added to your group, you will have the option to select from different behavior types (switch control, occupancy-common sensors, occupancy-individual sensors, photocell-individual sensors, and External Input) (Figure 19).

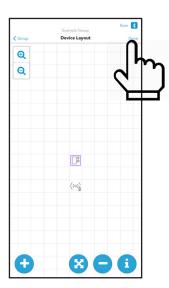


Figure 16: Device Layout Done



Figure 17: Add Behavior Zones



Figure 18: Behavior Zone Templates



Figure 19: Behavior Zone Template

Creating Group Behavior Zones, cont'd



- 5. Select the behavior type that you would like to apply. Then tap the devices on the grid that you want to be part of this behavior zone (they will turn orange) (Figure 20). You can also click **Select All** or **Clear Selection** at the bottom of the page. After selecting the desired devices, you can either tap **Done** to create the Behavior Zone or tap the **Settings** tab to further define the settings.
- 6. If you have selected the **Settings** tab you can further customize your behavior set (Figure 21). Change the settings as required based upon your needs. Tap **Done** when complete with the behavior zone and you will return to the behavior zones screen with your newly applied behavior zone.
- 7. Configuration flags are added just above Behavior Zones to alert users of either a non-ideal Behavior Zone or to prevent saving altogether. An orange triangle (Figure 22) is a cautionary flag, but you can still proceed with saving. A red triangle (Figure 23) indicates an incorrect setting, and you cannot proceed with saving until the issue has been resolved.
- 8. Once you have resolved any issues, or chosen to move on with cautions if applicable, click the **Save** button in the upper right corner. This will network your devices together and send the behavior zone information to each device. In some cases, a battery powered sensor may return to a sleep state prior to this step. If this occurs, the app will instruct you to walk to each sensor and wake the device via motion. Alternatively, you can wake battery powered sensors via double tap of the button next to the lens. After waking all sensors, the save process will proceed. You have now commissioned these devices.

NOTE

When commissioning devices for the first time, some behaviors may take up to 2 minutes to respond correctly.

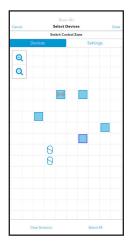


Figure 20: Select Devices from Grid



Figure 21: Settings Tab



Figure 22: Orange Triangle



Figure 23: Red Triangle

Behavior Zones Explained

Below is a summary of all behavior zones and how they can be configured.

- 1. Switch Control:
 - Can be applied to any group that has at least one fixture and one switch.
 - You may select if the light comes on to full bright or if it turns on to the prior dim level when the on button is pressed.
 - If combined with daylighting turning the lights on will make the fixtures go to their day lighting level. If the switch has raise and lower buttons, the user may raise the light level above the daylighting level.
 - If combined with occupancy the switch will override the occupancy behavior for 1 minute.
- 2. Occupancy:
 - Can be applied to any group with at least 1 sensor.
 - Configurable parameters include
 - 1. On by:
 - Occupancy (Auto on) lights will turn on when at least 1 sensor in the zone sees motion. Lights will dim down after "X" minutes of no activity.
 - Switch (Manual On) Lights must be turned on via a switch. Lights will dim down after "X" minutes of no activity.



- 2. Turn on to xx% when occupied.
- 3. Dim to % The level the lights will dim to after "X" minutes of no activity.
- 4. After "X" minutes of no activity The time delay between the sensors no longer sensing motion and the lights dimming to the dim to %.
- 5. Turn off time The time delay between the dim to light level and the lights turning off. Total time between no motion and the lights turning off is the sum of the turn off time and the dim after time.
- 6. Maintain Dim for Open Office If multiple zones within the same group are not all unoccupied, this setting forces this specific zone to remain at its dimmed state when unoccupied, until all zones within the group are unoccupied.
- 7. PIR Sensitivity Options for sensitivity level of PIR.
- 8. Microphonics Sensitivity Options for sensitivity level of Microphone.
- Immediately after sending programming values to the fixtures, the fixtures require a few minutes to synchronize before following the programmed time outs.

Photocell:

- Can be applied to any group with at least 1 sensor.
- Photocells must be calibrated after behavior zones have been saved to a group. This can be done by navigating to the group overview screen, selecting device settings, and selecting photosensor calibration.
- Users must select individual or common for photocell or occupancy behavior types. Individual sensors will control only the fixture it is associated with. It will result in an inconsistent lighting look on the ceiling, but it may be more consistent on the work surface. Common sensors will result in all the fixtures within a behavior zone responding to the one sensor, or multiple sensors, that the user selects. This option will result in a common look across the ceiling or lot.

4. Preset Scene Selector:

- Only applies to groups with a scene switch in them.
- Scenes allow users to customize their outputs by selecting different levels of light for each scene number available.
- For each scene switch, users can add as many scenes as are available on the scene switch. If a scene switch has four numbers, four different scenes may be added to the behavior zone. More than 1 scene switch may be added per group, with up to 16 scenes available to be added per group.
- You may select multiple scene buttons per each scene behavior zone. For instance, if one desires scenes 1 and 3 to have 50% output, select both numbers and then select the devices. Once created, a preset scene will set all output devices in a group to the saved static level through a single button press.
- Set up instructions:
 - 1. Select **Create A(nother) Behavior Zone** (Figure 24) and select **Preset Scene** (Figure 25).
 - 2. Select a scene switch (2 or 4 square device on grid), choose the number you would like to edit on the switch and then tap **Done** (Figure 26).
 - 3. On the grid, select the devices you would like this scene to affect then navigate to the **Settings** tab (Figure 27).
 - 4. In the settings tab, drag the cursor to the desired light output. Users can also select to prohibit or allow manual change on the scene switch. If prohibited, scenes can only be edited through the CLAIRITY + application (Figure 28).

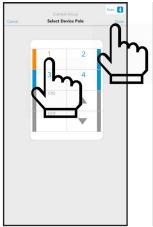
NOTE

CLAIRITY + will gray out a condition if the setup of your system will not support it.



Figure 24: Create Behavior Zone





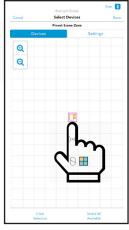




Figure 25: Preset Scene

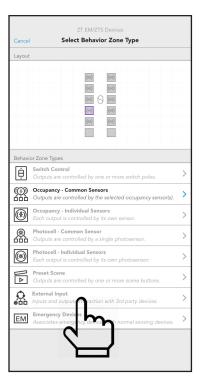
Figure 26: Select Scene Button

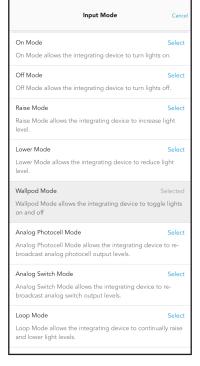
Figure 27: Select Device

Figure 28: Adjust Settings



- 5. External Input:
 - Can be applied to a group with at least 1 scene input device (rSI).
 - Users may select one or both poles on one or more scene input devices to apply to the behavior zone.
 - Settings options will vary depending on the Input Mode selected (Figure 30). Wallpod Mode is the default. See Figures 31 to 40 for more
 information.
 - Input Mode Type must be selected for Input Modes where connection to a dry contact output is expected. The Input Mode Type should match the expected time during which a connection to an output device will be closed. E.g., an output device that is closed for a brief time period and is not expected to be closed continuously would be configured as a Momentary Input. An output device that is closed for the duration of a signal (possibly lasting several seconds) would be configured as a Maintained Input.
 - The below are available when a device is set to Analog Photocell Mode:
 - The High Trim setting adjusts when a controlled device will reach 100% output.
 - The Mid Trim setting adjusts when a controlled device will reach 50% output.
 - The Low Trim setting adjusts when a controlled device will reach 1% output.
 - Connected Device is used to quickly invert the default High Trim, Mid Trim, and Low Trim settings. Adjusting to 0-10V will swap the settings for High Trim and Low Trim.
 - Photocell Transition ON Time adjusts the length of time that a connected analog output must be above the Low Trim before lights will transition on.
 - Photocell Transition OFF Time adjusts the length of time that a connected analog output must be below the Low Trim and Photocell Deadband before lights will transition off.
 - The Photocell Deadband is used as a buffer between the trim and output voltage to delay or prevent transitions. For example, with a Low Trim value of 2V, and a Photocell Deadband value of 0.5V, once the photosensor reaches 1.5V (2V 0.5V = 1.5V) the lights will begin transitioning off. If the desire is for the lights to only reach minimum dim and never go off, set the Photocell Deadband to the maximum of 2.5V, and the Low Trim to 2.5V or less.
 - The below are available when a device is set to Analog Swtich Mode:
 - An off command is sent when the connected analog output drops below 0.85V.
 - Dimming curve is preset per the below.
 - 1V = 1% output
 - 5.5V = 50% output
 - 10V = 100% output





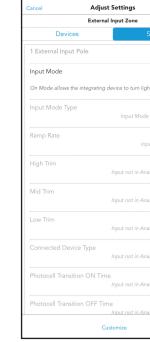


Figure 29: Behavior Zone Type

Figure 30: Input Mode

Figure 31: On Mode





Example

Cancel Adjust Settings

Done

External Input Zone

Devices Settings

1 External Input Pole

Input Mode

Raise Mode allows the integrating device to increase light level.

Input Mode

Type

Maintained Input
Light level increases while the input is closed.

Momentary Input
Light level increases by 5% each time the input is closed.

Ramp Rate

N/A

Input not in loop mode

High Trim

N/A

Input not in Analog Photocell mode

Low Trim

N/A

Input not in Analog Photocell mode

Connected Device Type

N/A

Input not in Analog Photocell mode

Connected Device Type

N/A

Input not in Analog Photocell mode

Photocell Transition ON Time

Customize

Example

Cancel Adjust Settings Done

External Input Zone

Devices Settings

1 External Input Pole
Input Mode Lower Mode Input Mode
Lower Mode allows the integrating device to reduce light level.
Input Mode Maintained Input Light level decreases while the input is closed.

O Momentary Input Light level decreases by 5% each time the input is closed.

Ramp Rate N/A
Input not in Analog Photocell mode

Mid Trim N/A
Input not in Analog Photocell mode

Low Trim N/A
Input not in Analog Photocell mode

Connected Device Type N/A
Input not in Analog Photocell mode

Photocell Transition ON Time N/A
Input not in Analog Photocell mode

Figure 32: Off Mode

Figure 33: Raise Mode

Figure 34: Lower Mode

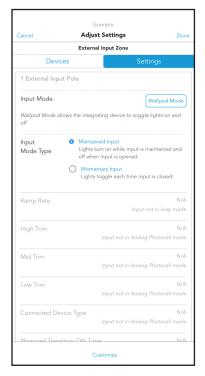


Figure 35: Wallpod Mode

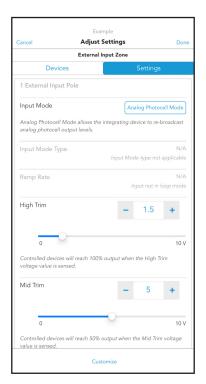


Figure 36: Analog Photocell Mode

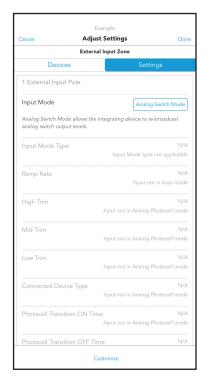
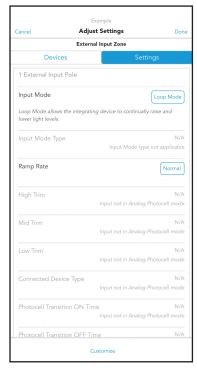
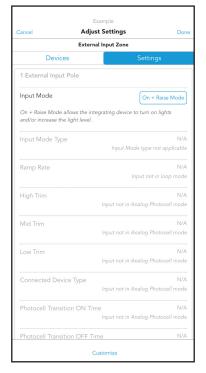


Figure 37: Analog Swtich Mode







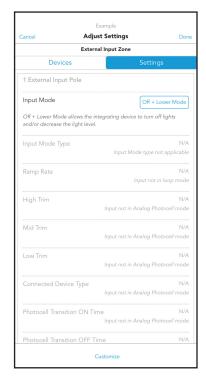


Figure 38: Loop Mode

Figure 39: On + Raise Mode

Figure 40: Off + Lower Mode

Emergency Devices:

- Can be applied to a group with at least 1 device with EM option. EM device(s) in the group must have firmware version 3.4 or later for this behavior zone type to be selectable.
- Once this group is created, EM devices will automatically be selected and cannot be deselected.
- Users may select up to three devices on normal power to provide normal power sensing (NPS) broadcasts to EM devices in the Emergency
 Devices behavior zone. Selection of only one NPS is recommended. Also, it is recommended that user-selected NPS devices be closest to the
 center of the group.
- Up to 50 NPS devices across up to 50 groups may be associated with any one nLight AIR adapter (nECYD).
- EM devices may be set to Modern or Legacy operation (Figure 41):
 - Modern operation configures EM devices to monitor NPS devices in the group to know when normal power is or is not available. EM devices will remain at full output and are uncontrollable until all NPS devices in their group identify that normal power is available. EM devices manufactured on or after May 6, 2022 are configured for Modern operation by default.
 - Legacy operation configures EM devices to monitor their connected power to detect when normal power is lost. After normal power loss has been sensed, devices remain at full output and are uncontrollable for 90 minutes or until a device connected to normal power identifies that normal power is available (may take up to 30 seconds).
 - Legacy operation is not recommended for devices manufactured on or after May 6, 2022, unless they are used for replacement purposes.
- EM devices remain at full output and are uncontrollable until they are associated with an Emergency Devices behavior zone. Warnings are presented to identify that EM devices will remain at full output and be uncontrollable until assigned to a properly configured Emergency Devices behavior zone (Figures 42 and 43).
- The Run Simulation button can be used to test emergency response after an NPS device stops broadcasting that normal power is available (Figure 44). Within 6 seconds after pressing the Run Simulation button, the EM devices in the group will go to full output and ignore control attempts for 35 seconds.







Test

✓ Group

Warning

No Emergency Behavior is set up for the group.

EM devices will remain at full output.

Cancel

Occupancy - Common Sensors Zone

Ocuputs

3/3

Sensors

2/2

Sensors

Dim After
PIR Sensitivity
Microphonics Sensitivity
On By
Turn On Level
Dim to Level
Dim to Level
10%
Turn Off After
Maintain Dim
Fade Off Time
Customized Settings
3

Delete

Edit

Behavior Zone Templates Available

Auto-On
Description

+ Add

Manual-On
Description

+ Add

Manual-On
Description

+ Add

Manual-On
Description

+ Add

Figure 41: Modern and Legacy Settings

Figure 42: Missing Behavior Zone

Figure 43: Warning After Attempting Save





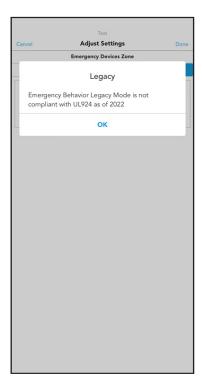


Figure 45: Not Compliant

Creating Customized Settings



Customized settings allows a user to add additional devices to a zone with different settings. To create customized settings, follow these steps:

- 1. To customize a behavior zone, navigate to the behavior zone and select the **Settings** tab. Then select the **Customize** button located at the bottom of the page (Figure 46).
- This will pull up a menu that contains either the switch or the sensor as well as the outputs. The

 icon at the bottom allows you to add additional controllers or outputs with different settings
 (Figure 47).
- 3. Select **Output** or **Controller** as the device(s) for the customized setting (Figure 48).
- 4. Next, select the devices you wish to have a different setting applied (Figure 49).
- 5. Change the settings as needed and tap **List** in the upper left corner to return to the **Customized Settings** menu (Figure 50).
- 6. You have now created a new customized setting and will see the new details in the device list. Tap **Next** to complete this customized setting for the behavior zone (Figure 51).

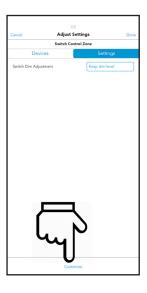


Figure 46: Choose Customize

NOTE

If a customized setting has been created while editing a behavior zone, you will need to edit that customized setting from the customized setting screen. Click Edit to navigate to the customized settings screen, then select the desired customized setting to enter the grid screen. When editing a behavior zone, if there is no customized setting, you will simply return to the grid screen.



Figure 47:Customize



Figure 48: Select Output

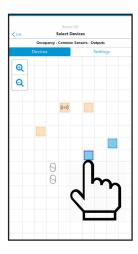


Figure 49: Select Next Devices



Figure 50: Select Settings



Figure 51: Select Next

Preset Scene Customization



When creating a preset scene, users have the option to "customize" and create different setpoints for different devices all within the same scene. Each device within a single scene can only adhere to one setpoint percentage.

Setting up customized scenes example:

- 1. Once a preset scene has been established with required devices, navigate to the settings tab and select the set point as you normally would.
- 2. At the bottom of the settings tab, select the **Customize** button (Figure 52).
- 3. This will take you to the customized settings tab within your scene. From here you can see the setpoints you have already created. To add a new setpoint, tap the "+" button on the bottom of the page (Figure 53).
- 4. A new customized device setting box will appear, select output. Now, select the devices you want for your new setpoint (Figure 54).
- 5. Navigate to the settings tab and adjust the setpoint as you would normally do when creating a preset scene and select the **Lists** button in the top left corner (Figure 54).
- 6. This will take you back to the customized settings screen where you will see the setpoint you have just added (Figure 55).
- 7. You can continue to customize your scene and edit different device setpoints until the desired settings are met.

NOTE

If a device has already been selected previously, it will appear in light orange and you will not be able to select it. You can make it available by returning to the Customized Settings list, selecting the zone it belongs to, and deselecting that device (it will turn blue) (Figure 56).



Figure 52: Adjust Settings



Figure 53: Customized Settings

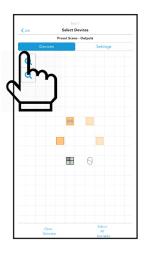


Figure 54: Select Devices



Figure 55: Customized Settings

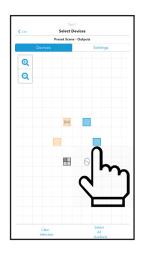


Figure 56: Deselect Devices

Commissioning an nLight AIR Adapter

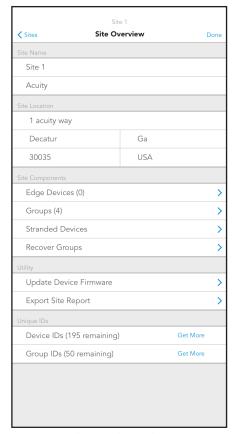


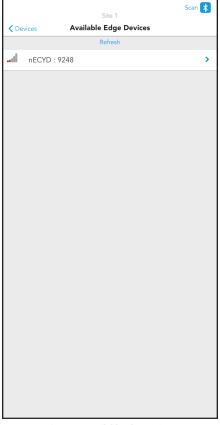
To commission a new nLight AIR adapter, permanently mount the adapter. Do not commission the adapter before it is permanently mounted. Moving it can result in unstable RF connections to devices you've commissioned.

Once the adapter has been mounted and plugged into the ECLYPSE, allow 2 minutes before adding it to CLAIRITY +. For the first 2 minutes, the Adapter is determining the clearest communication frequency to use. If you try to commission it too quickly after power on, CLAIRITY + will provide you with a warning.

- 1. Navigate to the **Site Overview** screen (Figure 57).
- 2. Select **Edge Devices** (Figure 58).
- 3. Walk within about 30 feet of the Adapter you need to add.
- 4. Tap on the + to add a new Adapter.
- 5. Select the adapter from the list of available adapters.
- 6. Unless otherwise instructed by Technical Support, keep automatic mode enabled, and tap **Commission** (Figure 59).

If the project has more than one adapter, it is strongly recommended that you name the adapters. To do so, tap on it and rename it in CLAIRITY +.





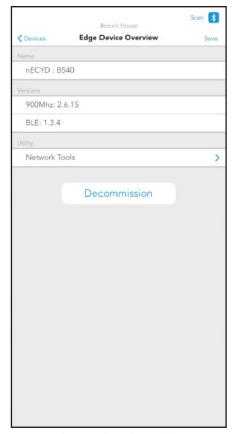


Figure 57: Site Overview

Figure 58: Available Edge Devices

Figure 59: Edge Device Overview

Network Tools



The Edge Device Overview screen includes a Network Tools utility that includes two key functions: Network Troubleshooting and Connectivity Check. Both functions can be ran while within range of the Adapter (30 feet).

Network Troubleshooting triggers a query between CLAIRITY + and the edge device (Adapter), updating the Adapter firmware version recorded in CLAIRITY + if the firmware were updated from SensorView after initial discovery, listing any groups that are missing from the Adapter database, listing groups that may be missing from CLAIRITY + that are present in the Adapter database, and giving a complete list of devices and groups that appear in both CLAIRITY + and the Adapter database.

Network Troubleshooting should be run after updates are provided to devices from SensorView. It allows for synchronization between CLAIRITY + and an Adapter, and synchronization is required for CLAIRITY + to communicate effectively with the edge device, to create a database with device information, and to update information on connected devices.

Connectivity Check performs a test between the edge device and all non-battery, connected devices, listing devices and groups and flagging devices that have poor signal strength with the edge device.

Associate a Group with an nLight AIR Adapter

To associate an existing group with the nLight AIR Adapter, navigate to the Group Overview Screen. Walk to the physical space that correlates with the group. Tap on the **Edge Device Selector** option. Pick the appropriate Adapter from the list. Tap on the **Assign** button. CL**AIR**ITY + will make the appropriate RF Channel changes so the devices can communicate with the Adapter you've chosen.

CLAIRITY + will also instruct the devices to attempt to communicate with the Adapter. The app will tell you once this process is complete. Once complete, the group will show as a networked group on the group screen with an icon next to the name. It will also be accessible in the Sensorview software.

CLAIRITY + will show you any devices that are unable to communicate to the Adapter. You may retry. But, if the devices are unable to reach the adapter, please choose a different one on the project.

nLight AIR Adapter Recovery

If an adapter was force removed for any reason, the Recover Edge Devices tool will allow you to recover this device.

To recover edge devices within the CLAIRITY + app, select "recovery tools" from the site overview screen, then select "recover edge devices" (Figure 60).

Navigate to the "unknown" tab and any unknown devices will be shown, allowing you to recover them to factory settings (Figure 61).



Figure 60: Site Recovery Tools



Figure 61: Edge Device Recovery

Move a Group from one nLight AIR Adapter to Another



To move a group from one nLight AIR Adapter to another, navigate to the Group Overview Screen. Walk to the physical space that correlates with the group. Tap on **Networked Edge Device** and tap on the **Unassign** button. Once complete, the group will no longer be associated with that Adapter.

Now follow the steps to Associate a Group with the nLight AIR Adapter.

Calibrating the Daylighting in an Area

To calibrate daylighting, follow the steps below:

- 1. Navigate to the **Group**.
- 2. From **Device Settings**, select **Photosensor Calibration** (Figure 62).
- 3. Manually adjust the set-point or choose to auto-calibrate the photosensor.



Figure 62: Photocell Calibration

Disable a Sensor

To optimize occupancy performance, sometimes it is necessary to disable sensors in fixtures. It may be necessary to do this to the fixture close to a doorway so it does not detect hallway traffic or in cases where sensors are very close to HVAC ducts.

To enable or disable particular sensors, simply select the sensors that you want applied (or not applied) to a specific behavior zone within the behavior zone workflow.

Set Dual Zone Offset

Offset is a sensor setting that commonly allows users to dim a second row of fixtures differently than the row closest to the windows in cases when only one sensor is being used. This feature is not needed in cases when each fixture has a sensor embedded.

To enable this feature, you must create a customized setting within a daylight harvesting zone. Create a custom behavior zone, choose photocell-common sensor, and select the first row of fixtures and the sensor. Go to the settings tab and select **Customize**.

Select + to add an output, and then select the devices that should dim less than the others by selecting them on the grid. Note, you may select more than one device at a time. Tap on the **Offset % Value** to make an adjustment. Note, a value less than 100% will cause the fixtures selected to dim less than those not selected. Finish by going back via **List** in the upper left corner, and then selecting **Next** in the upper right corner.



Figure 63: Offset

Microphonics Sensitivity



To optimize occupancy performance, you have the ability to adjust the microphonics sensitivity (for devices that have this capability).

To adjust microphonics sensitivity, select **Occupancy** under **Create a Behavior Zone**. Navigate to the **Settings** tab once you have selected the desired devices, tap **Microphonic Sensitivity** and select the level you would like the fixtures to respond to.

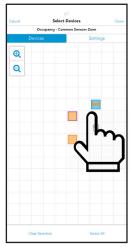






Figure 65: Microphonics Sensitivity

PIR Sensitivity

Groups with occupancy sensors can set and adjust PIR sensitivity. nLight AIR devices are intially programmed for high sensitivity, allowing you to decrease in situations where there are an increased number of false trips. To adjust sensitivity, follow the steps below:

- 1. Create an occupancy behavior zone.
- 2. Select the devices on the grid you want to adjust and navigate to the **Settings** tab.
- 3. Select **Low**, **Medium**, or **High** sensitivity (Figure 66).



Figure 66: PIR Sensitivity

Set High/Low End Trim for Power Packs, rLSXRs, rSBORs, and rSDGRs

To adjust the maximum or minimum light level an output device can achieve, you can adjust the **High/Low End Trim**.

To do so, navigate to the **Group Overview** screen and choose the **Devices Settings** option (Figure 68). For 0-10V devices (such as the rPP20 Power Pack, rLSXR, rSDGR, and rSBOR), tap the **Low Voltage High/Low End Trim** option (Figure 67).

Tap on the devices you wish to change, use the sliders to make the adjustment, and tap **Save**.



Figure 67: Hi/Low Trim Settings

Set High/Low End Trim for rES7, rIO, rMSOD and rSBG Based Fixtures



To adjust the maximum or minimum light level an output device can achieve, you can adjust the **High/Low End Trim**.

To do so, navigate to the **Group Overview** screen and choose the **Devices Settings** option. For rES7, rIO, rMSOD and rSBG Based fixtures, tap the **Digital High/Low End Trim** option.

Tap on the devices you wish to change, use the sliders to make the adjustment, and tap **Save**.

Group Firmware Updates

Group Updates - The CLAIRITY + mobile app is able to update the firmware in the nLight AIR devices. This should only be done when instructed by Acuity Tech Support or upon receiving a notification from the mobile app.

To do so, ensure you're physically located in range of the group to be updated. Navigate to the appropriate group in the CLAIRITY + mobile app. Near the bottom of the group overview screen (Figure 68), tap **Firmware Updates**. The **Firmware** screen (Figure 69) will show the latest version of firmware available and a summary of the firmware versions of the devices in the group. To update all devices in a group, tap **Install**.

Devices that are assigned to a group may also be updated individually. This is done by selecting the **Individual** tab (Figure 70) and clicking **Update** beside the device that needs an update.

NOTE

This process may take 2 - 5 minutes. You may leave the area when the progress bar reaches 100%. CLAIRITY + will tell you when you can move on to new areas.

NOTE

Wall switches and battery powered sensors can only be updated via the Individual tab.

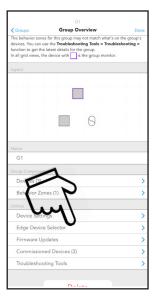


Figure 68: Group Overview



Figure 69: Group Firmware Update



Figure 70: Individual Firmware Update

Individual Device Firmware Updates



To update an individual device before it is commissioned, navigate to the **Site Overview** page (Figure 71) and tap on **Update Device Firmware**. Once a device has been commissioned, it will no longer appear in this list and will only be updateable in the Group Firmware Updates screen.

From the list of devices, identify the device you want to update by using the **Identify** link (Figure 72). Tap **Update** to start the firmware update process.

NOTE

You must remain within 60 feet of the device you're updating for the duration of the update, which may be 3-4 minutes.



Figure 71: Site Overview



Figure 72: Update Firmware

Site Access

For any site you create, you will have access to that site upon subsequent logins. However, you will not be able to see sites you did not create until access is granted to you. Please contact the original site creator to request access or reach out to Acuity. If you're not sure who created the site for the equipment you need to program, please reach out to Acuity Technical Support.

Sharing Sites

Sites may be shared with colleagues or customers. To do so, follow these steps (as detailed in Figure 73):

- 1. In your browser, go to air.acuitynext.com.
- 2. Sites that can be shared are listed under the Site Share tab.
- 3. Click on a listed site or search for the site you wish to share.
- Enter the CLAIRITY + user ID for another user into the Users search field.
- 5. Click Add User to grant the user access to the site.

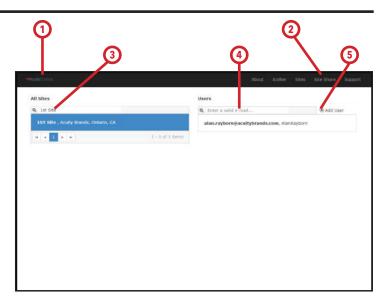


Figure 73: nLight AIR Website

NOTE

You'll be unable to share a site with someone who has not gone through the process of creating a CLAIRITY + account.

Communication Architecture



The communication between the app and the devices behaves differently before and after the initial grouping process.

Prior to devices being added to a group:

• The app communicates directly to each device via Bluetooth.

After devices have been added to a group:

- The app communicates with only one device (called the group monitor) within the group. That device then communicates to all the others on a different frequency.
- While the Bluetooth communication distance is approximately 100ft, it is possible the group monitor is out of range of the Bluetooth communication based on where you are standing within the area (especially for very large areas). If the CLAIRITY + app fails to connect to the Group Monitor, the application will display a grid representation of the group and indicate which device to move toward to facilitate communications.

Troubleshooting Tools

Troubleshooting tools provide a few ways to check the health of your system or connect with previously commissioned groups. In the **Group Overview** screen, navigate to **Troubleshooting Tools**. From here, you are presented with several options: **Troubleshooting, Connectivity Check, Health Check, Repeater Diagnostic Tool,** and **Group Monitor Tool.**

Troubleshooting provides a few different checks for the group. First, it runs a connectivity check for all devices, verifying the devices can be reached by the group monitor. Those will be shown in green, with devices not found in red and devices not checked unchanged (in blue) (Figure 74). In addition to this check, this task will also download the latest device settings (including behaviors) applied to each device. Further information can be seen by selecting **Details**, tapping the **i** button and then selecting a device (Figure 75). When changes are made in SensorView, Troubleshooting will pull those changes across into CLAIRITY +.

Connectivity Check will verify all output and sensor devices within the group are able to be reached by the group monitor.

Health Check prepares a group-specific report for that can be sent through the "Send Report" button found under the Support screen.

Repeater Diagnostics Tool will yield information on devices that could act as repeaters. This menu will show items such as hop layer, daughter count, and repeater status per device when the information button is pressed (Figure 76).

Group Monitor Tool allows a user to select a new group monitor. This is done by selecting the "i" button selecting a non-battery powered device, and selecting Make Group Monitor (Figure 77).



Figure 74: Troubleshooting



Figure 75: Troubleshooting Results

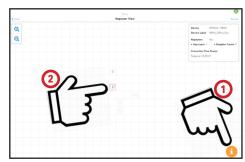


Figure 76: Repeater Diagnostics

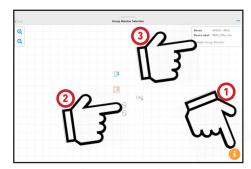


Figure 77 Group Monitor

Who to Call if You Have Questions



For support with your nLight AIR controls system and the CLAIRITY + mobile app, please contact Acuity Technical Support at 1-800-535-2465.

Updating CLAIRITY +

In the event that a new version of CLAIRITY + is developed, you'll receive a notification through the app store that a new version has been made available. We recommend reading through the release notes associated with the new version so you can learn of the new features and capabilities of the new version prior to downloading it.

Multiple Users on One Site

More than one service provider may use the CLAIRITY + app at one time. This is most common in the case of large sites with relatively short construction cycles. Each user can run through the startup process (create groups, create zones, set behaviors). We have a few recommendations for how to maximize their efficiency.

- Any user who has access to the site can grant access to others.
- We suggest each resource work in a different portion of the building. The distance between resources minimizes the likelihood that devices will be flashed in someone else's area. Resources cannot perform startup activities within the same group.
- In the event that simultaneous users are in a building that has poor cellular coverage, we recommend regular communication with your colleagues to ensure each knows who is starting up which portion of the building, as changes they make on their mobile device will not show on your mobile device until those changes can be pushed to the cloud through a cellular or wireless connection.

Reprogramming an Area

If changes need to be made to a given area, navigate to the group that corresponds with that area. The same process is followed for button reprogramming, occupancy sensor adjustments, and photosensor recalibration.

- On the Group Overview screen, tap on **Behavior Zones**
- Adjust the behavior zones accordingly. The behavior zones screen allows for the adjustment of occupancy parameters and switch settings.
- Tap **Save** and the programming will be pushed to the nLight AIR devices.
- For other device settings, such as photosensor calibration, navigate to the **Device Settings** screen from **Group Overview**, select the setting to adjust, and follow the instructions.

Whole Group Decommissioning

Whole group decommissioning is a process that will destroy all programming, zoning, and grouping. Essentially the fixtures will return to their out of box default state. Whole group decommissioning should NOT be used to modify zoning or programming parameters.

Whole group decommissioning should rarely be used. However, there are some circumstances where it makes sense. These include renovation of a previously commissioned nLight AIR space and product demonstrations.

To decommission a group:

- 1. Navigate to the **Group Overview** screen.
- Click on the Commissioned Devices link (Figure 78). The commissioned devices screen will load.
- 3. To proceed with decommissioning, tap the **Decommission All** link (Figure 79).







Figure 79: Commissioned Devices

NOTE

You must be located in the vicinity of the devices to perform this action.

Physically Removing Equipment



In the event that equipment needs to be physically removed from an area, you must first follow the **Removing Devices from the Grid** process described earlier in this document. Failing to do so will result in the inability to reprogram the device that has been removed.

Definition of Terms

Account	One or more sites that are all affiliated with one end user.
Area	A descriptor for a physical geographical area, within a customer site, that has some common use or purpose
Behavior Zone	A collection of devices expected to work together, defined by a specific behavior type. This is also referred to as the sequence of operation.
Commission	The act of finalizing device programming or pairing a device to a site.
Daylighting	A lighting control strategy that accounts for the presence of natural light and changes the artificial light to achieve a desired light level
Device	A generic term used to describe the individual units that comprise a system.
Fixture	A piece of equipment that outputs light
Group	All the devices within one area
Identify	A process by which a device provides some visual feedback (e.g the flashing of a fixture) so it's location can be determined.
Mobile Device	A personal handheld communication device that provides connectivity to wifi, cellular, or bluetooth
Occupancy Sensor	A control device that detects motion
Photosensor	A device that detects the presence of light.
Repeater	A device that forwards status and/or setting information to other devices that are out of range of initial broadcasting range of a transmitting device (such as the nLight AIR Adapter).
Site	An installation of lighting control equipment for one customer at one location
Startup	The act of troubleshooting and programming a new installation of equipment
Switch	A piece of equipment that, is typically mounted on a wall, that a user may interact with to control lights in their vicinity
Template	A pre-defined collection of behavior zones that create the described operation.