Linmore LED UltraLink Wireless Controls Simplified Instruction Manual

Linmore LED UltraLink Wireless Controls Simplified Instruction Manual

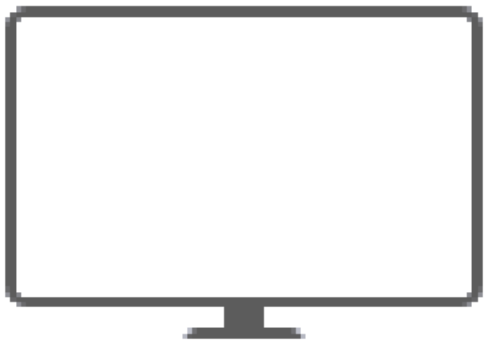
Contents

Introduction

UltraLink Activation is a set of tools used to activate and manage commercial lighting installations based on qualified Bluetooth mesh technology. The activation consists of three stages:

1. Planning (with the **UltraLink web app** before anything is built on site)
2. Implementation on site (with the **UltraLink mobile app for iOS/iPadOS**)
3. Verification (with the UltraLink mobile app for iOS/iPadOS and the UltraLink web app)

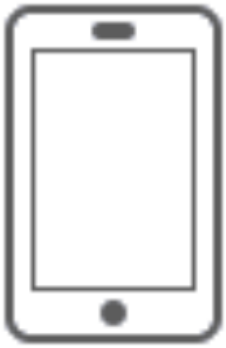
Planning



UltraLink web app

1. Design a lighting control plan based on the expected light behavior in each part of your lighting installation.
2. Create a project.
3. Add collaborators who will be helping you with the activating.
4. Create areas and upload floor or site plan images.
5. Create zones and set up light control profiles. The configuration will be stored in the cloud.

   Implementation

   UltraLink mobile app for iOS/iPadOS
6. Go on site, add luminaires and occupancy sensors to the zones, and test the lighting control. The configuration previously created in the UltraLink web app is automatically sent to these devices.
7. Assign switches to the zones.
8. Calibrate any ambient light sensors

   Verification

UltraLink mobile app for iOS/iPadOS, UltraLink web app

9. Make sure that there are no errors in the areas.
10. Test the quality of the mesh network.
11. Analyze the commissioning report.

To use more advanced features not included in this guide, see these documents:

- Zone linking: **UltraLink Activation and Commissioning user manual**.
- Scheduling: **UltraLink Scheduling**.
- Emergency lighting testing: **Silvair Emergency Lighting Testing**.
- Occupancy monitoring: **Silvair Occupancy Monitoring**.
- Energy monitoring: **Silvair Energy Monitoring**.

To troubleshoot issues that may have occurred during activation, see the **UltraLink Activation troubleshooting guide**.

Planning

Preparing

1. Design a lighting control plan based on the required light behavior in each part of your lighting installation.

   Take into account the properties of radio communication. Think about how you will group your luminaires, sensors, and switches into areas and zones.
2. Create a UltraLink account in the **UltraLink web app**.
3. Prepare a floor or site plan image as a JPEG, PNG, or PDF file.
4. See the **Silvair Lighting Control application note**.
5. If your project meets at least one of the following criteria, see **Recommendations for complex lighting installations**:
   - Has more than approximately 200 devices.
   - At least some devices are placed along a straight line.
   - Distances between devices are large.
   - Uses a daylight harvesting scenario.

Creating a project

A project is a separate lighting installation created in the UltraLink Web Portal. It can be as large as a whole

building or site, or as small as a single room. Each project is a single Bluetooth mesh network that is separated from other such networks. A project can consist of multiple areas.

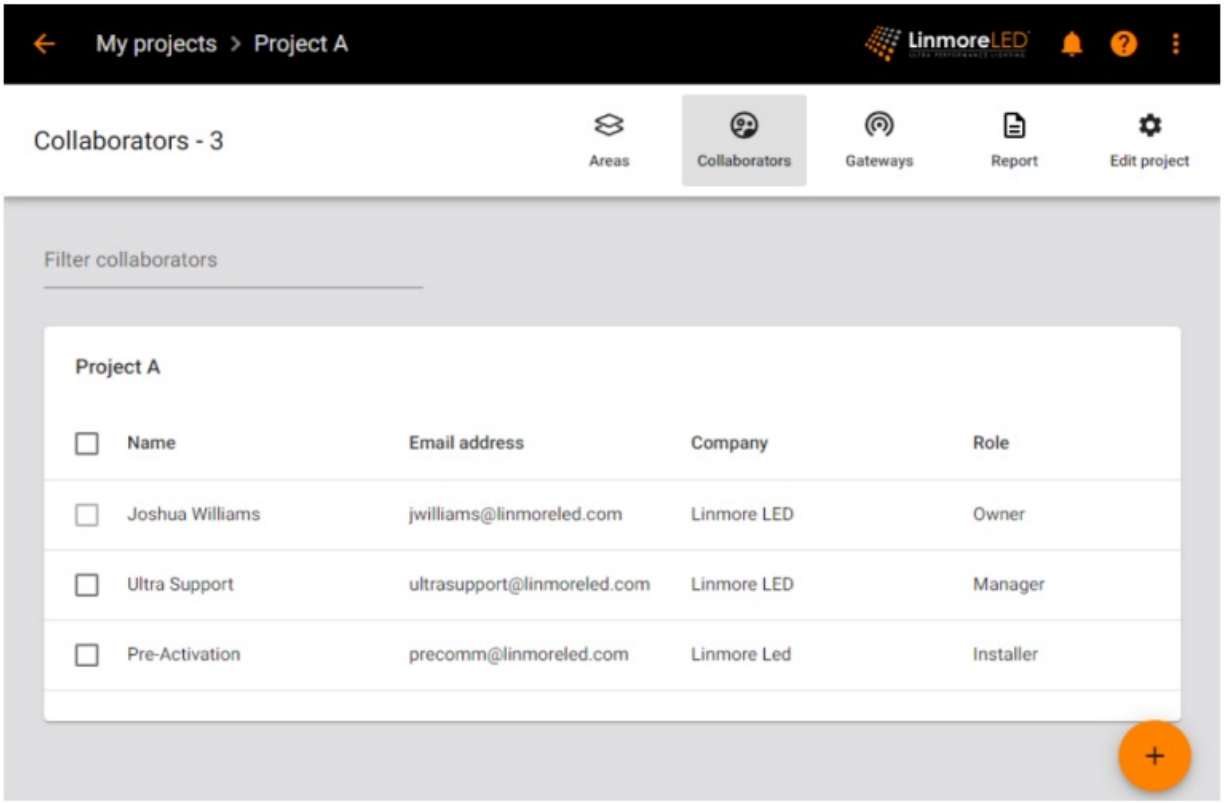
1. Log in to the UltraLink web app.
2. Click + to create a project.
3. Enter a name for the project, select the correct time zone, and click Create.

Adding collaborators

To speed up the work, you can share your project with others so they can participate in the activation.

1. Open the project and click Collaborators.
2. Click + and enter the email addresses to invite to commissioning.

Collaborators can be given the role of Owner, Manager, Installer, or End User. For more information about user roles, see the **UltraLink Activation and Commissioning user manual**.



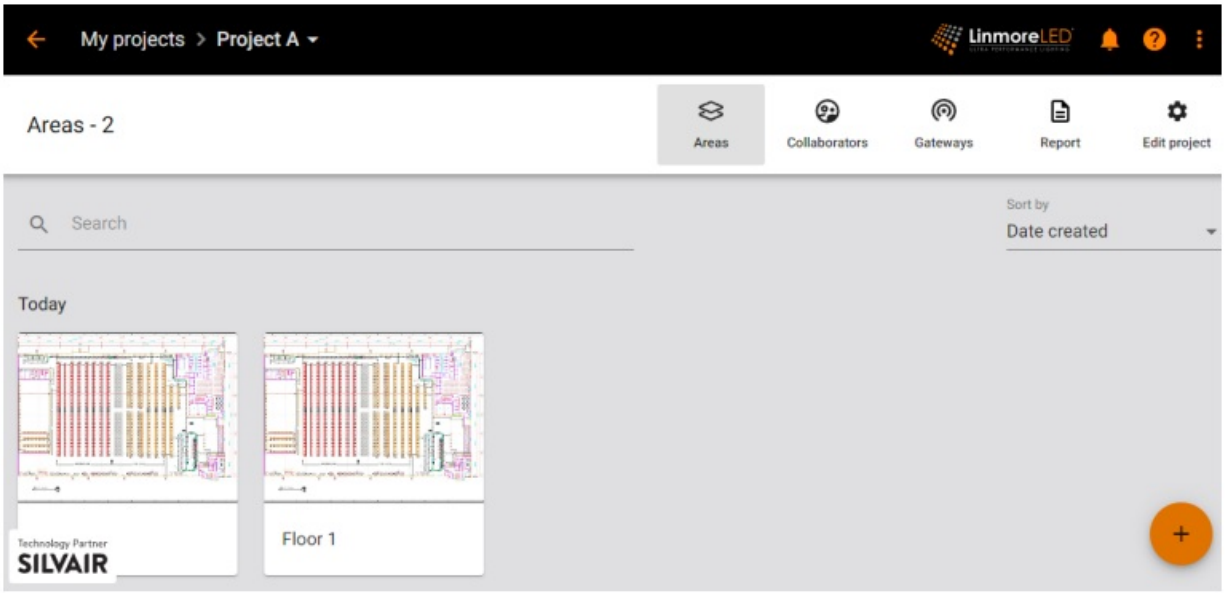
Creating areas and uploading floor or site plan images

A project can be divided into areas for better clarity and easier navigation. For example, an area can be a room, a floor, or a whole site, or a part of a floor, site, or building. All devices in an area must be in range of the Bluetooth mesh network and each area must be connected to other areas. Areas can include a floor or site plan to help the user navigate the project.

If an area is separated from other areas in the project and cannot communicate with them, it should be set up

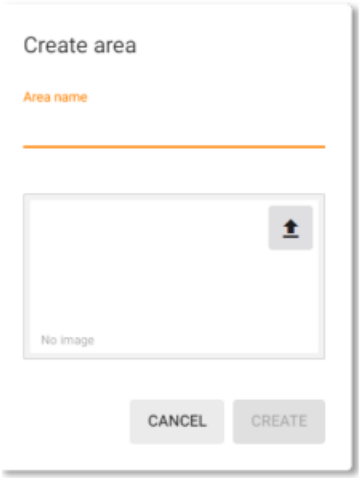
as a separate project.

1. Open the project.
2. Click + to create an area.



3. Enter a name for the area.
4. Click and open a JPEG, PNG, or PDF file with a floor or site plan image.

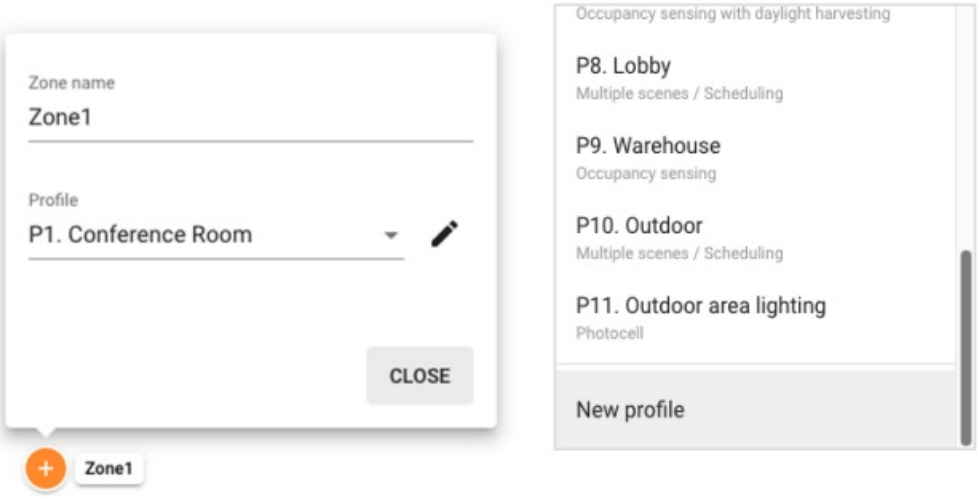
   The image will help you put the zones in the correct place during commissioning.
5. Click Create.
6. Repeat steps 2–5 to create more areas and upload a floor or site plan image to each area.



Creating zones and setting up control profiles

An area consists of zones that contain devices (luminaires, sensors, and switches) that have been commissioned using the UltraLink mobile app. A zone can be a whole room or a part of it, or a separate space. All luminaires in the zone operate according to the control profile set up for the zone.

1. Open an area.
2. Click on the floor or site plan to add a zone. To move the zone, drag it to where you want it.
3. Enter a name for the zone. Each change is saved automatically.



4. Select a control profile from the list of default profiles, or create a new profile.

   A control profile is a scenario with settings used to control a zone. A scenario defines how the light behaves in the zone. If you set a different scenario for a profile, different settings may be available.
5. Click ✎ to edit the parameters of the profile.
6. Repeat steps 2–5 to create more zones in this area and assign a control profile to each zone.

   At any time, you can change the zone position, name, or profile, add or delete zones, or change the floor or site plan image.

   For more information about control profiles and scenarios, see the **UltraLink Activation and Commissioning user manual** and **Silvair Lighting Control**.
7. Go to the remaining areas and repeat steps 2–6 to create zones and assign a control profile to each zone.

Implementation

Preparing

1. Make sure that all devices are correctly installed and powered on in your building or site, and that they support qualified Bluetooth mesh technology.
2. Install the UltraLink mobile app on your iOS mobile device.
3. Make sure that your mobile device is connected to the internet when you are on site.
4. Make sure that Bluetooth on your mobile device is turned on.
5. If any of the zones use a control profile with a daylight harvesting scenario, bring a light meter.
6. If you want to control a zone manually, install a Bluetooth EnOcean switch in the zone.

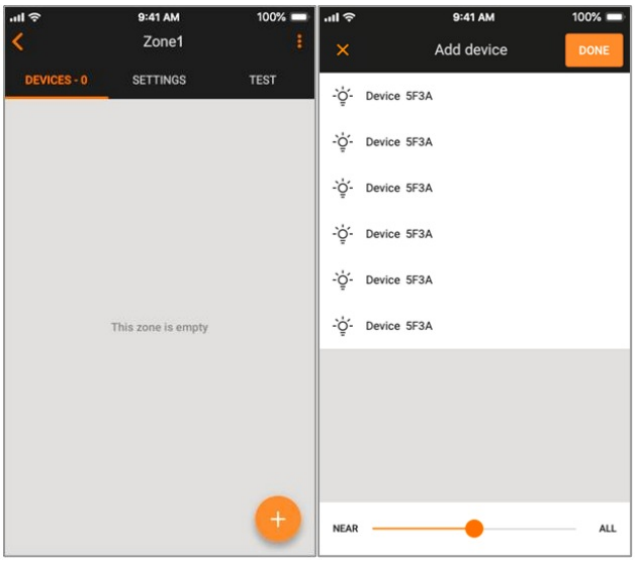
Keep the QR code of the EnOcean switch in a safe place. You will need the code if you want to assign the switch to a different device.

Activating the project

Adding luminaires to the zones

1. Go on site where the devices are installed.
2. Log in to the UltraLink mobile app for iOS/iPadOS and go to the project and area.

3. Go to the zone where you want to add devices.
4. Move as close as possible to the device and tap +.



A list of devices will appear.

If you want to see only the nearest devices, move the slider to the left.

If the device you want to add does not appear, it means that it has already been added to a different zone or project.

5. Tap a device to add it to the zone. The device will identify itself by flashing. If this is the correct device, tap Add.

If you want to add this device to a different zone, tap Add this device to another zone, and then tap the correct zone on the floor or site plan.

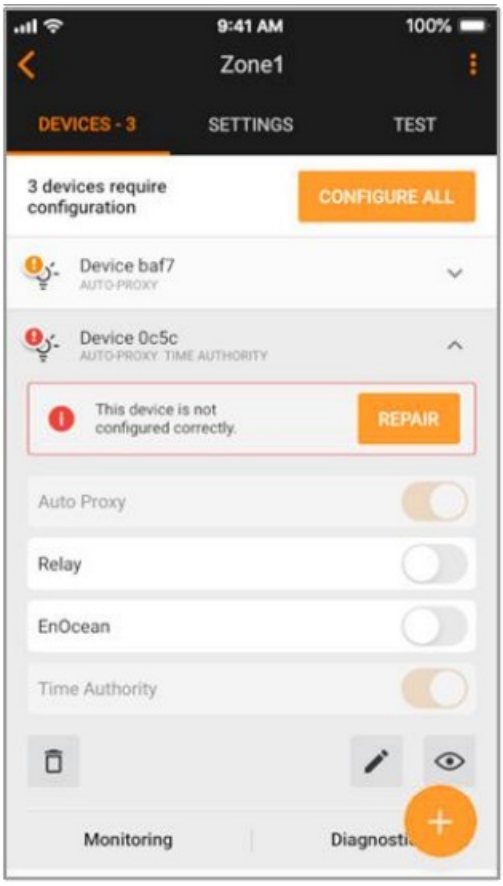
6. Add the remaining devices to the zone.
7. Tap Done.
8. If a red sign appears next to a device name and refers to configuration, tap Repair to configure the device or tap Configure all to configure all devices that require configuration in this zone.

If an orange sign appears, it means that this device does not fully support the features required by the control profile and may not work as intended.

9. Go to the Test tab and tap to make sure that all devices in the zone flash.

For more information about testing the zones, see the **UltraLink Activation and Commissioning user manual**.

10. Repeat steps 3–9 to add devices to the remaining zones in this area.
11. Go to the remaining areas and repeat steps 3–10 to add devices to zones.

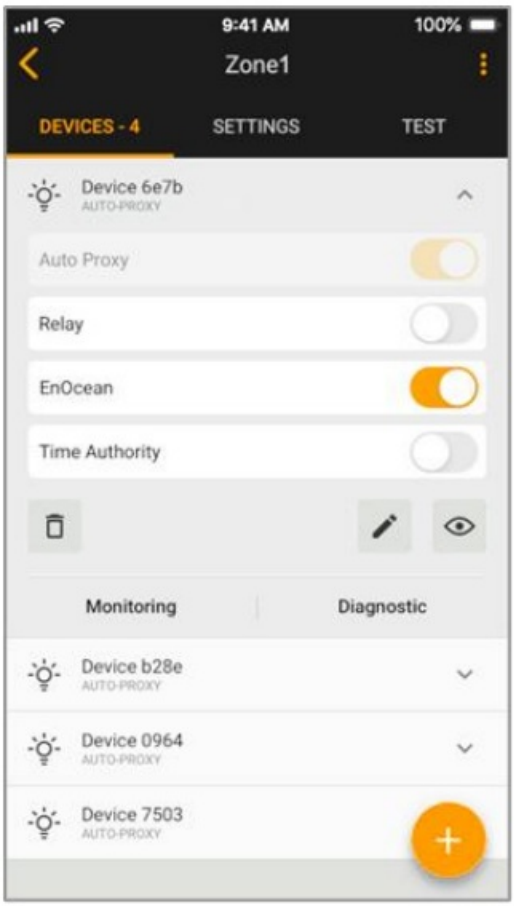


Assigning EnOcean switches to the zones

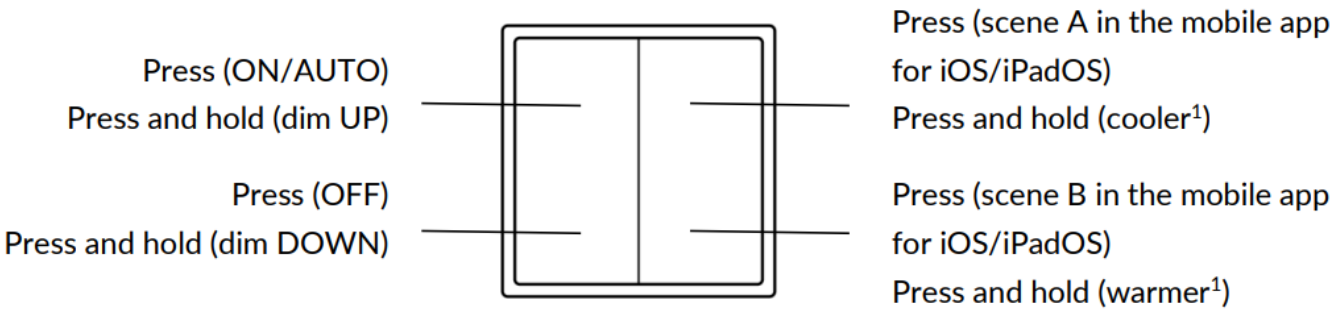
If you want to control the light in a zone with an EnOcean switch, perform these steps:

1. Make sure that a Bluetooth EnOcean switch is installed in the zone.
2. Select a device to act as an EnOcean adapter. This device must be close enough to the EnOcean switch.
3. Go to the zone and on the Devices tab, tap the device you have selected.
   To find the device, tap next to a device name to make sure that the correct device flashes.

   To find the device, tap next to a device name to make sure that the correct device flashes.
4. Tap the EnOcean toggle switch to set this device as an EnOcean adapter.
   Make sure that this device is not also set up to act as a static proxy or a relay.
5. If the app asks for permission to access the camera, tap OK.
6. Point the camera at the QR code on the back of the EnOcean switch or on its packaging. The app will read the code and configure the connection.
7. Use the buttons of the EnOcean switch to make sure that all devices in the zone respond as intended.



The left button is used for manual control (ON/AUTO / OFF) and dimming (dim UP/DOWN).
The right button (if available) is used to recall scenes (scene A, scene B; if configured in the mobile app for iOS/iPadOS) and control color temperature (cooler/warmer).



8. Repeat steps 1–7 for all zones that you want to control with an EnOcean switch.

For more information about the EnOcean switch, see **Silvair EnOcean switch**.

For information about how to set up and trigger scenes with the EnOcean switch, see the **UltraLink Activation and Commissioning user manual**.

For information about mesh network best practices, see **Optimizing mesh network performance**.

1 Only for zones with compatible tunable white fixtures and UltraLink firmware version 2.15 or later. Otherwise, the press and hold action of the right button will not work.

Calibrating the light sensors

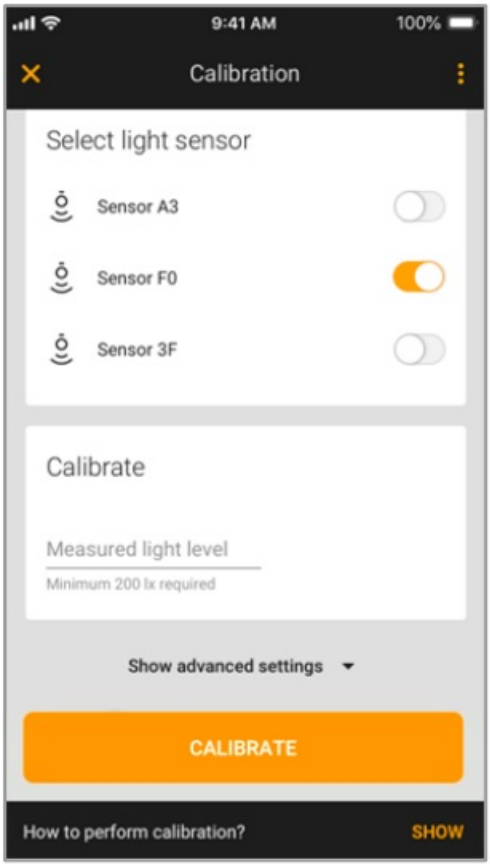
If the zone uses a daylight harvesting or a photocell scenario, perform these steps:

1. Go to the zone and on the Devices or Settings tab, tap Calibrate.
2. Select the correct sensor for the zone. To find the sensor, tap next to a sensor name to make sure that the correct sensor flashes.
3. For a daylight harvesting scenario, put a light meter vertically below the sensor onto the surface where you want to maintain the required light level.
4. For a daylight harvesting scenario, read the value shown on the light meter in lux (lx) and enter it into the Measured light level field.

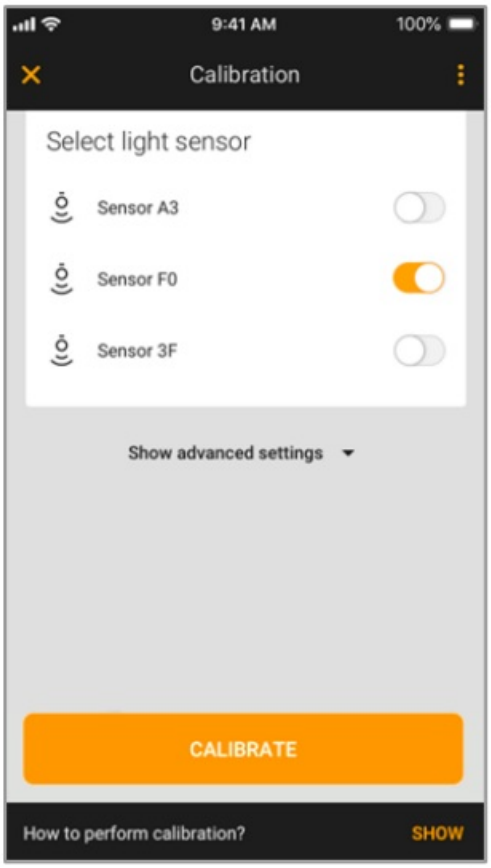
   Make sure that the measured light level is at least the minimum specified below the Measured light level field.

   If the required minimum light level cannot be achieved, because for example you must calibrate at night, see **Silvair Daylight Harvesting**.

   Daylight harvesting



Photocell



5. Tap Calibrate.
6. Repeat steps 1–5 for all zones with a daylight harvesting scenario and steps 1, 2, and 5 for all zones with a photocell scenario.

Verification

Making sure that there are no errors in the areas

UltraLink mobile app for iOS/iPadOS

1. In the UltraLink mobile app for iOS/iPadOS, go to an area and make sure that a blue checkmark appears for each zone.

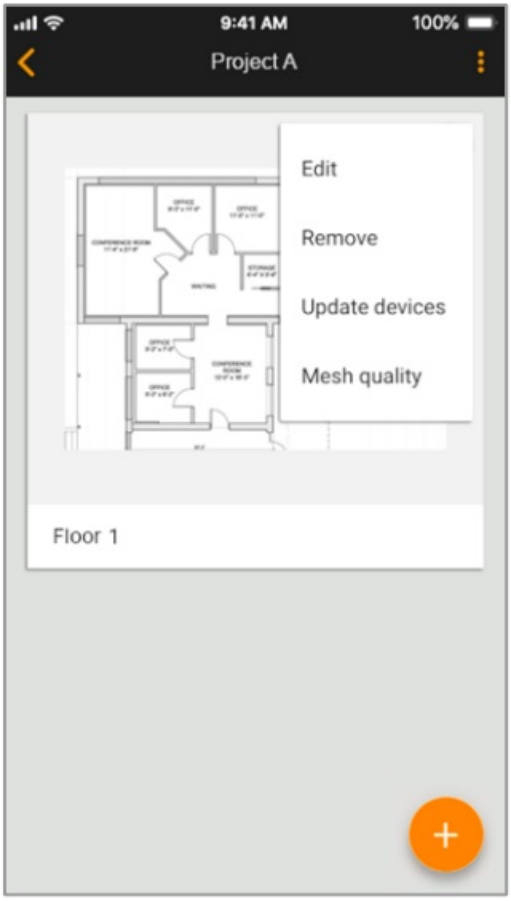
   All devices in the zone have been activated.

   There are some issues in the zone.
2. If there are issues related to configuration, tap Configure to configure all devices that require configuration in this area.
3. If the issues are not related to configuration, go to each zone with the exclamation mark, read the alerts, and refer to the UltraLink Activation and Commissioning user manual to resolve the issues.
4. Repeat steps 1–3 for the remaining areas.

Testing the quality of the mesh network

UltraLink mobile app for iOS/iPadOS

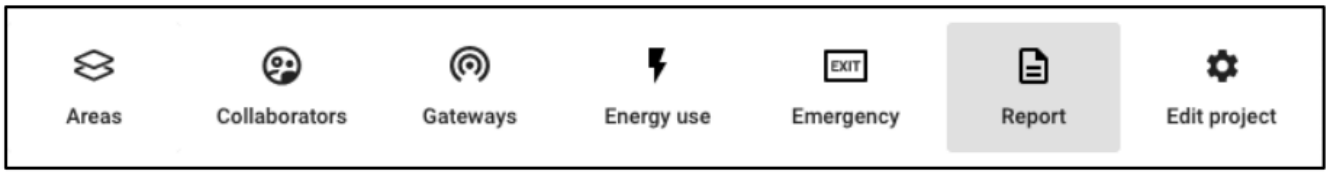
1. Go on site to an area.
2. In the UltraLink mobile app for iOS/iPadOS, go to the project.
3. In the area field, tap ⋮ > Mesh quality > Start test.
4. If some zones are marked red after the test has been completed, see **Optimizing mesh network performance**.
5. Repeat steps 1–4 for the remaining areas.



Analyzing the commissioning report

UltraLink web app

1. In the UltraLink web app, open the project and click Report > Download.



2. Analyze the report to make sure that everything is set up correctly.

   The commissioning of your lighting system is now complete. The luminaires in all zones will behave as configured in the UltraLink web app.

   The commissioning report includes details about the project, areas, zones, devices, control profiles, zone linking, scheduling, energy monitoring, gateways, mesh quality, and collaborators. For more information about the report, see the **UltraLink Activation and Commissioning user manual**.

Contact information

Support:
ultrasupport@linmoreled.com
559-485-6010

For more information please visit:
www.linmoreled.com/ultralink/

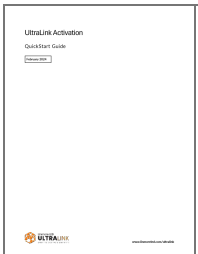
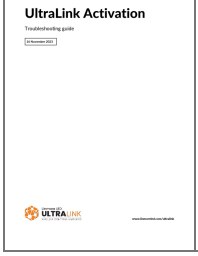
www.ultralink.linmoreled.com

Our offices:
California
2360 S Orange Ave
Fresno, CA 93725
USA

Texas
710 Century Pkwy
Allen, TX 75013
USA

ultrasupport@linmoreled.com
www.linmoreled.com/ultralink

Documents / Resources

	Linmore LED UltraLink Wireless Controls Simplified [pdf] Instruction Manual UltraLink Wireless Controls Simplified, UltraLink, Wireless Controls Simplified, Controls Simplified, Simplified
	Linmore LED UltraLink Wireless Controls Simplified [pdf] Installation Guide UltraLink Wireless Controls Simplified, UltraLink, Wireless Controls Simplified, Controls Simplified, Simplified

References

- UltraLink | Wireless Controls using Bluetooth® Mesh | Linmore LED
- UltraLink | Wireless Controls using Bluetooth® Mesh | Linmore LED
- Linmore LED UltraLink
- User Manual