

Quick Start Guide

HubSense® Commissioning Tools

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Light is OSRAM

Please note:

All information in this guide has been prepared with great care. OSRAM, however, does not accept liability for possible errors, changes and/or omissions. Please check under <https://platform.hubsense.eu> for an updated copy of this user manual. This user guide is for information purposes only and aims to support you in tackling the challenges and taking full advantage of all opportunities the technology has to offer. Individual applications may not be covered and need different handling.

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Introduction

This guide will help you:

- Prepare a plan of the project that you want to commission in the HubSense web app.
- Set up and pre-commission each zone in your project.
- On site - add lighting devices to each zone and upload pre-commissioned configurations automatically using the HubSense mobile app.
- Calibrate sensors.

HubSense Commissioning

HubSense is a set of software tools that allows commissioning agents, installers and facility managers to configure, control and manage commercial lighting infrastructures with “Works with OSRAM HubSense” components based on qualified Bluetooth mesh.

Commissioning Process

HubSense Commissioning divides the commissioning process into 2 stages: **planning** using the [HubSense Commissioning web app](#)¹ and **implementation** using the [HubSense Commissioning mobile app](#)² (iOS only) (see Fig. 1).

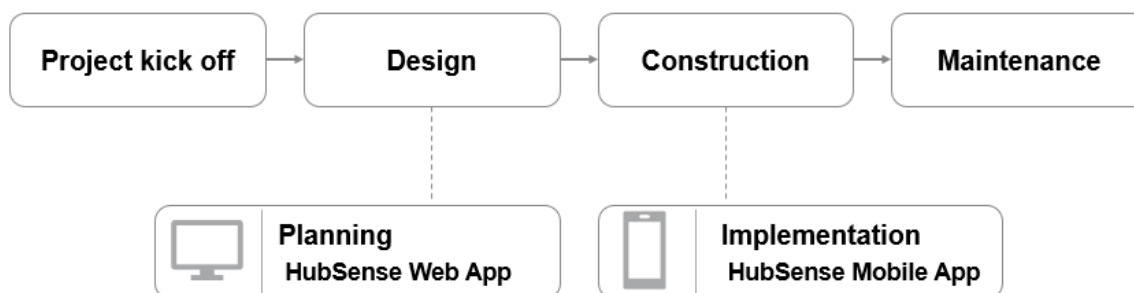

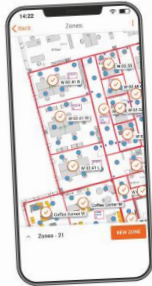


Fig. 1 - Project stages

¹ To start using the HubSense Commissioning web app, create an account in our web app. The app requires Chrome v. 70 and an internet connection.

² The HubSense Commissioning mobile app requires an iOS device with iOS12+ and Bluetooth enabled, as well as an internet connection (WiFi or cellular, minimum 3G). Please check in advance if an internet connection is available on site.

To manage your lighting installations, HubSense offers two applications:

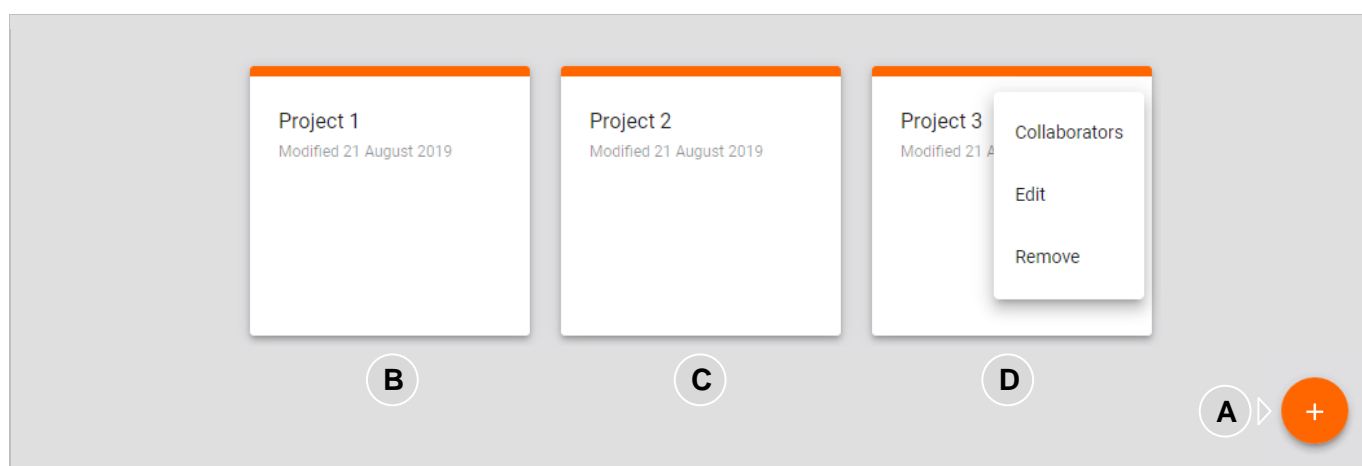
HubSense Commissioning web app <u>Planning stage</u>	HubSense Commissioning mobile app <u>Implementation stage</u>
	
<p>Prepare your commissioning plan off site, before anything is built on site, by mapping the individual zones on a floorplan and defining lighting control profiles.</p>	<p>Once the installation is in place, add the installed devices to the zones you set up earlier and automatically upload the configuration, so they work in the way you defined during the planning stage.</p>
<div> <div data-bbox="161 1184 233 1240"> </div> <div data-bbox="282 1169 1318 1296"> <p>NOTE: Once you have commissioned the site, if you adjust the settings in the project using the web app (e.g. any of the profile settings), you will have to use the mobile app to transfer these changes into the devices on site.</p> </div> <div data-bbox="1353 1184 1461 1276"> </div> </div>	

1. Planning stage

with the HubSense Commissioning web app (Chrome Browser)
available at <https://platform.hubsense.eu>

Before you start, please make sure you've got everything you need:


- A HubSense account (register via the [HubSense Commissioning web app](#) or [HubSense Commissioning mobile app](#). After signing up check your email and locate the confirmation email (subject: "HubSense. Verify your email"). Follow the steps in the email to confirm your email address. Please check also the junk e-mail box).
- A floor plan or a site plan, if required (as a png or jpg image file only.)
- The lighting control profiles for your space.

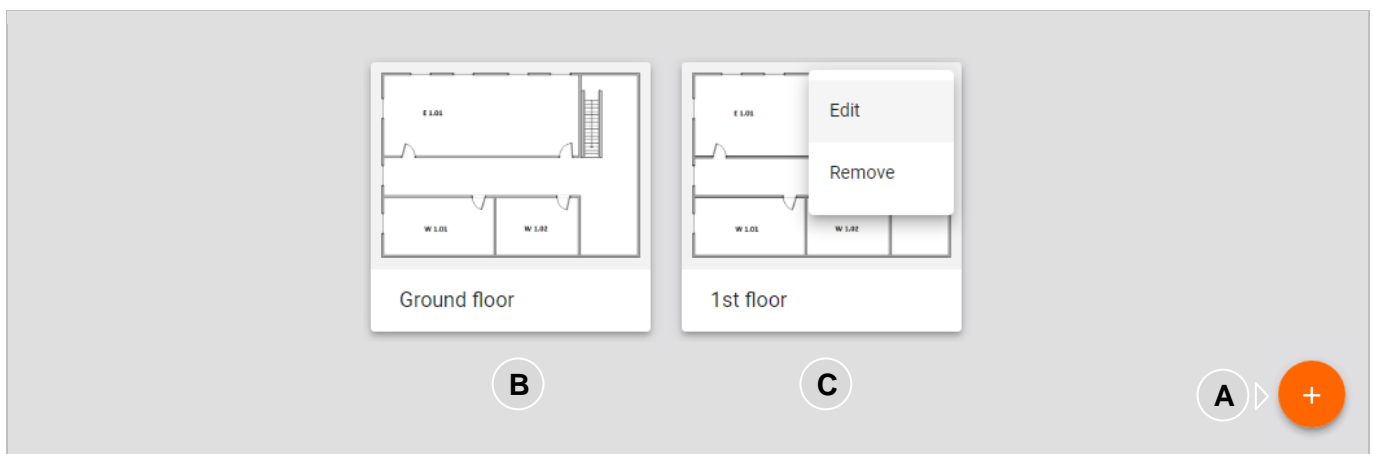


STEP 1. Create a project and add collaborators

A - Create project: click the + button to add a new project.

B, C - Projects: can represent a single room, a floor or a whole building. Each project is a single mesh network.


D - Collaborators: click the  button to edit or remove your project or to add collaborators. To accelerate commissioning, you can share your project with others and let them participate in the process. Click the "Collaborators" button to send invitations to all contributors who should be involved.

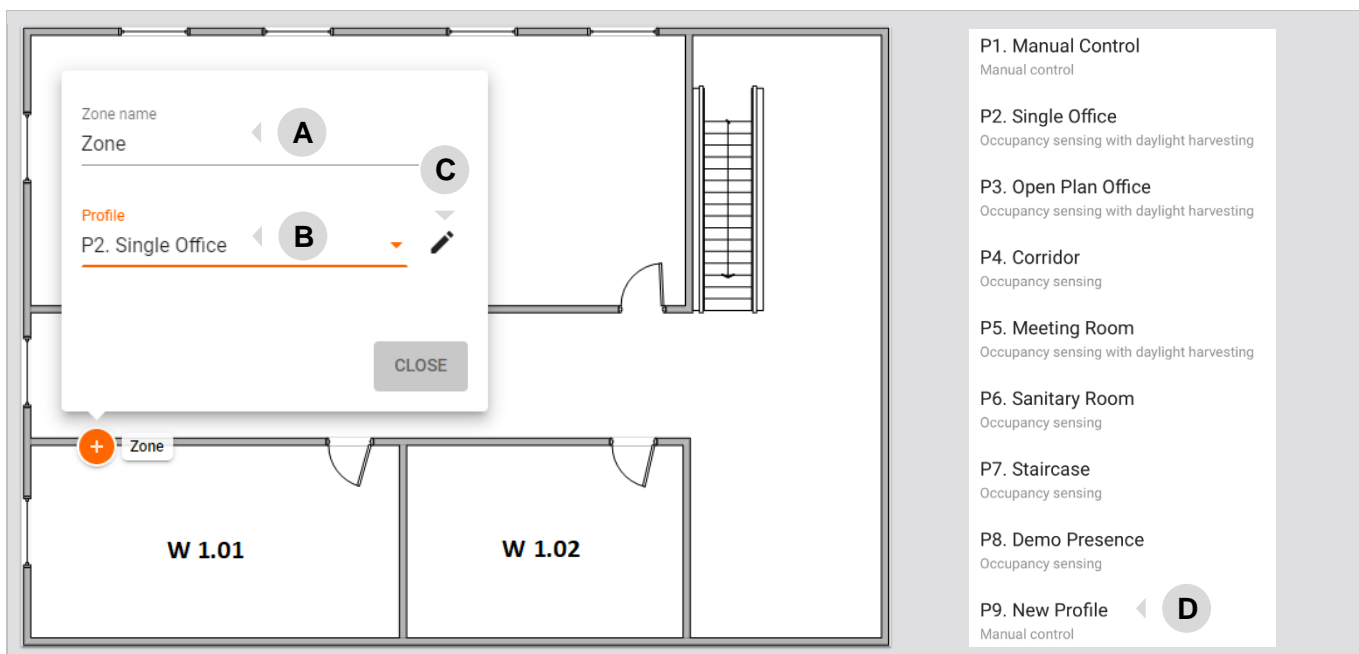


STEP 2. Create areas and upload floor plans

A - Create area: click the + button to create an area. During area creation you can upload a floor plan (optional) by selecting an image. An area should not contain more than 200 devices.

B, C - Add plans: plans are jpg or png visualizations of areas on your site. There can be more than one area in a project (e.g. each floor in a building is a separate area).

C - Edit: click the  button on the plan to edit or remove the plan.



STEP 3. Add lighting zones and define control profiles

Click on the floor plan where you want to add a new zone. If required, click again for adding another zone or if you need to remove a zone, you can do so with a right click on the zone and select “Remove”. You can click and drag zones to the right place on the plan anytime.

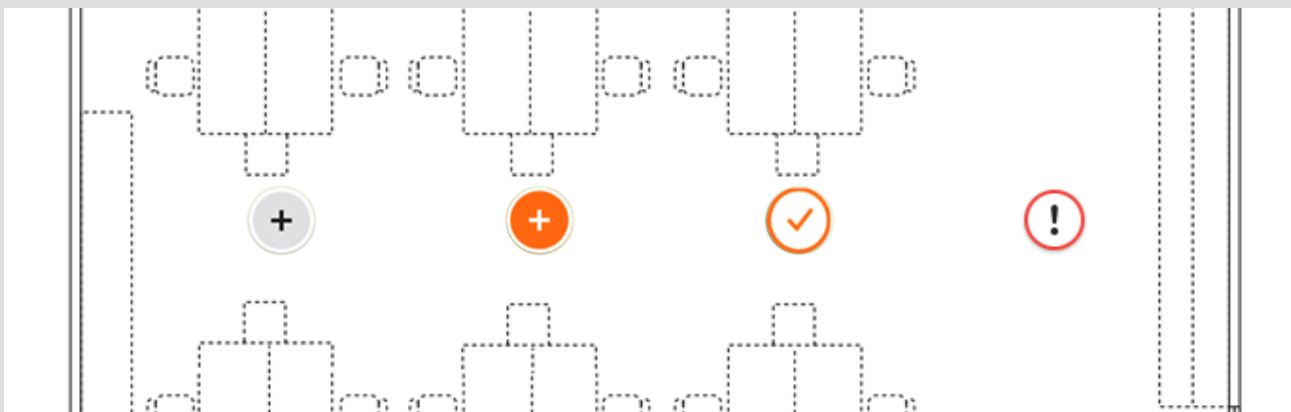
A - add the zone name. A zone is a group of devices that operate with a selected profile. It doesn't have to be a physical space (e.g. a room) as a room may contain one or more zones, e.g. multiple daylight zones. More than one zone can be added to the same area.

B - select a control profile. A control profile is a set of lighting behavior settings. Currently we allow you to select from 8 predefined control profiles. You must select one for the zone to function.

C - (optional) customize/edit a profile. Each profile can be customized for the needs of your project. **NOTE:** changes made to a profile will affect all zones in all areas of a project where this profile is used.

D - (optional) add a customized profile template. Expand the list of profiles (B) and select “New profile” from the profiles dropdown. A new profile panel will open.

You can use the customized profile template(s) in multiple zones across the projects.



When you create a zone, it is marked on the plan with a circle indicator. There are 4 different zone indicators that reflect the status of the zone:



DRAFT: the zone is created, but it does not have an assigned profile. Select a profile for the zone in the HubSense Commissioning web app.



READY TO BE COMMISSIONED: the zone has been assigned a profile, but no devices have been added yet. Send someone to site to commission the zone.



COMMISSIONED: devices in the zone have been successfully commissioned using the HubSense Commissioning mobile app. If you use another commissioning app, this will not be registered within HubSense Commissioning.



WARNING: this indicator appears when the zone has been commissioned but requires reconfiguration (e.g. settings were changed in the web or mobile app but have not yet been transferred to the devices). The indicator is visible only after devices have been commissioned using the HubSense Commissioning mobile app.

Your planning is complete, and your project is ready for on-site commissioning!

- You should now have a plan with defined zones and profiles.
 - Remember: you can always come back to your project and change the zone position, name or profile, add or delete zones or change the floor plan images.
- Now that you have completed the planning stage you can progress to [project implementation](#).


HINT: The HubSense Commissioning web app allows you to implement more advanced features like **zone linking** or **scheduling**. Find out more in the [HubSense Commissioning Tools User Manual](#) which can be downloaded from the [HubSense Commissioning web app](#) → **My Projects** → **Release notes**.

2. Implementation Stage

with the [HubSense Commissioning mobile app](#) for iOS

Before you start, please make sure you've got everything you need:

- Your installation is ready for commissioning: all required devices are running qualified Bluetooth mesh (OSRAM QBM), are properly installed and powered ON.
- You have installed the HubSense Commissioning mobile app on your iOS device (running iOS 12 or newer).
- You have a HubSense Commissioning account and access to the project in the HubSense Commissioning apps.
- When you are on site, you need internet access (WiFi or cellular (minimum 3G)) and Bluetooth enabled on your mobile device.

HINT: Projects can be shared with other **collaborators**. Find this feature in the HubSense Commissioning web app → My projects → click the  button on the project → select **“COLLABORATORS”**. More information about adding collaborators available in the [HubSense Commissioning User Manual](#).

- (optional) Easyfit Bluetooth switches mounted in the zones that you will commission.

HINT: Installation of an Easyfit Bluetooth switch requires a QR code which is usually printed on or inside the switch, or on its packaging. Make sure to keep this QR code in a safe place as it may be necessary if you wish to reconfigure your installation at a later date.

- (optional) Light meter - if any of the zones use daylight harvesting.

Implementation Steps:

STEP 1. Go to the place where your devices are physically installed

The project you created earlier in the HubSense Commissioning web app will be accessible on your HubSense Commissioning mobile app. Make sure that the devices in the zone you wish to commission are powered and ON.

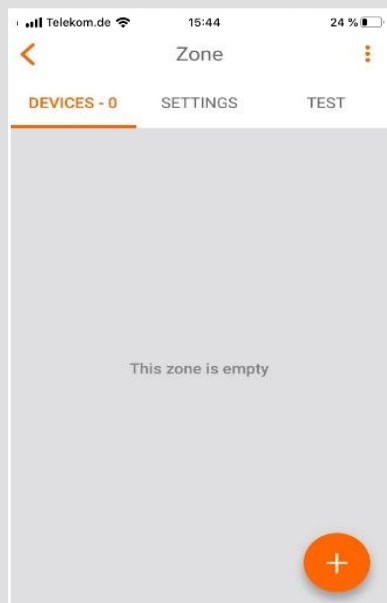
You need to be within range (approximately < 15m) of a device to commission it.


STEP 2. Use the HubSense Commissioning mobile app

Open the HubSense Commissioning mobile app on your iOS device.

Select: Project → Area → and the zone that represents your current location.

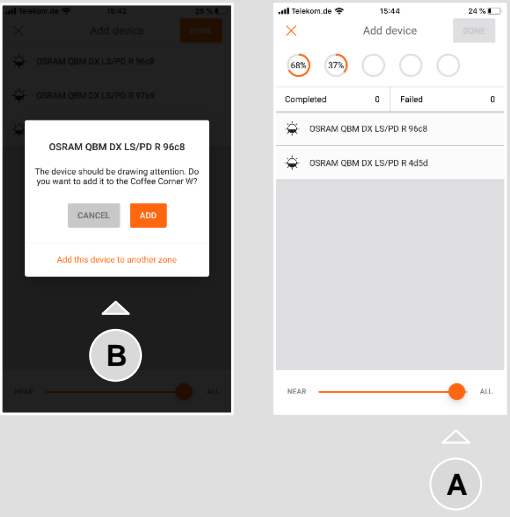
STEP 3. Add devices



Press  at the bottom of the screen to add devices.

A list of devices will appear. Choosing one will force it to identify itself by flashing. If this is the right device for the zone, select 'Add device'. If not, move on to the next device.

»» **NOTE:** For zones where multiple sensors are used to control daylight harvesting, **the FIRST device added will perform the primary light measurement.**



B

A

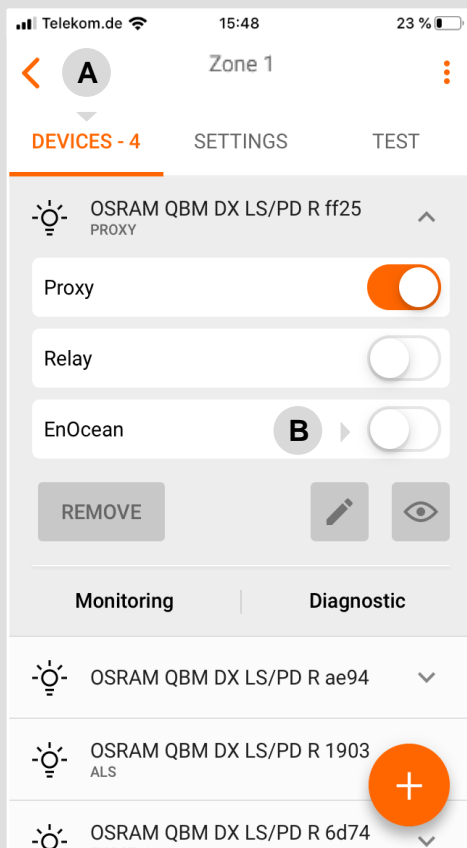
A - Slider: to help manage the number of available devices displayed, move the slider to the left (local). This filters them by signal strength and may be useful on large installations.

B - Other zones: you can add devices to zones other than the one you are currently commissioning. Select “Add this device to another zone” and then choose the desired zone from the floor plan.

NOTE: Each device can only be added to one Zone

STEP 4. (optional) Add an Easyfit Bluetooth switch

You can control the lights in a zone via an Easyfit Bluetooth switch by setting up one of the devices in the zone to act as an EnOcean adapter (see [Application note EnOcean switch](#) which can be downloaded from the [HubSense Commissioning web app](#) → **My Projects** → **Release notes**).



Select one of the devices already added to the zone to be the EnOcean adapter (we recommend choosing the nearest one).

A - DEVICES: click on a device and expand the device attributes

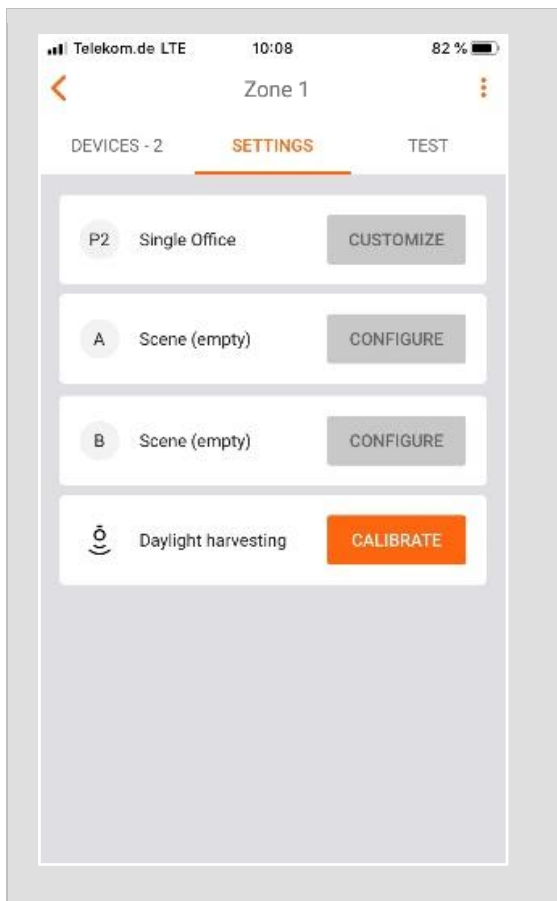
B - EnOcean: switch the EnOcean toggle to the right to activate this device as EnOcean adapter.

The mobile device camera will be switched on automatically. Use it to scan the QR code included with the EnOcean switch.

The EnOcean switch (double switch version) will now control this zone:

- Top left
 - short press: All ON / Auto ON (switches automatic control ON, if set up in the planning phase)
 - long press: Dim up
- Bottom left
 - short press: All OFF
 - long press: Dim down
- Top right
 - Scene A (if configured)
- Bottom right
 - Scene B (if configured)

HINT: After enabling the EnOcean switch - test it. Check under [Release notes in the web app](#) for more information on EnOcean switch settings and mesh network performance for best practices.



HINT: **Scenes** can also be activated via the EnOcean switch. Read more about how to set up scenes in our [HubSense Commissioning User Manual](#).

STEP 5. Set up Daylight Calibration

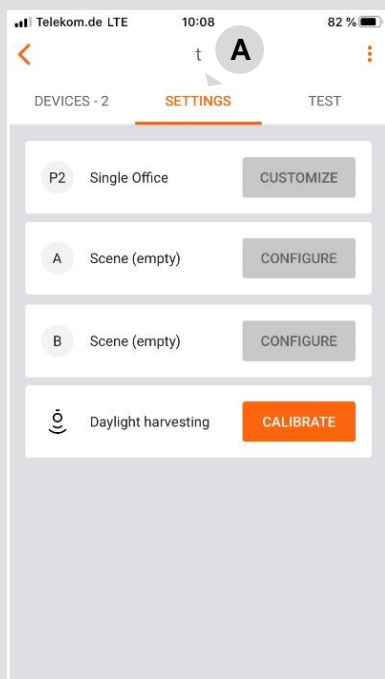
For zones utilizing the “**Daylight Harvesting**” scenario, you **must perform sensor and controller calibration** for each zone. Failure to do so will result in erratic lighting control performance.

You will need a lux meter to perform calibration.

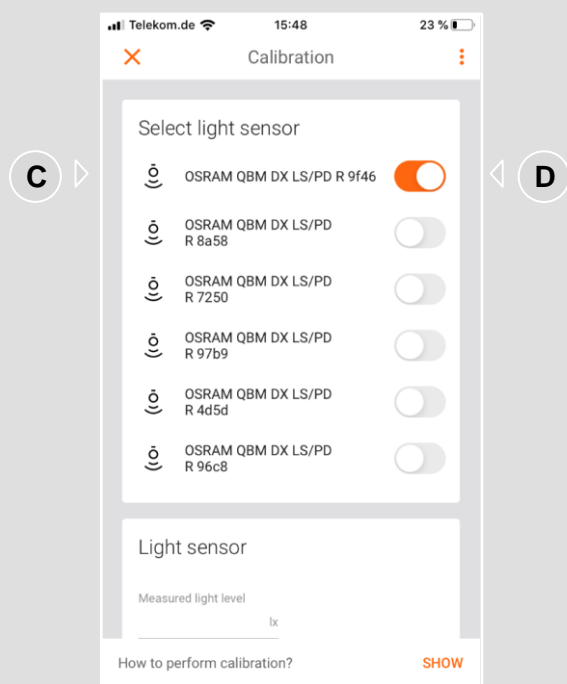
HINT: You can easily check the scenario selected for a zone in the HubSense mobile app by selecting Project → Plan → Zone → Settings.





NOTE: Do not position the light sensor too close to window areas but also not too far inside the room. Avoid any interference with the daylight sensing area during the calibration (i.e. movement / shadows). The calibration process should be done during twilight as influence of naturally occurring daylight shall be kept at an absolute minimum. See details in the [HubSense Commissioning Tools User Manual](#).

STEP 5.**1/3. Select the sensor**

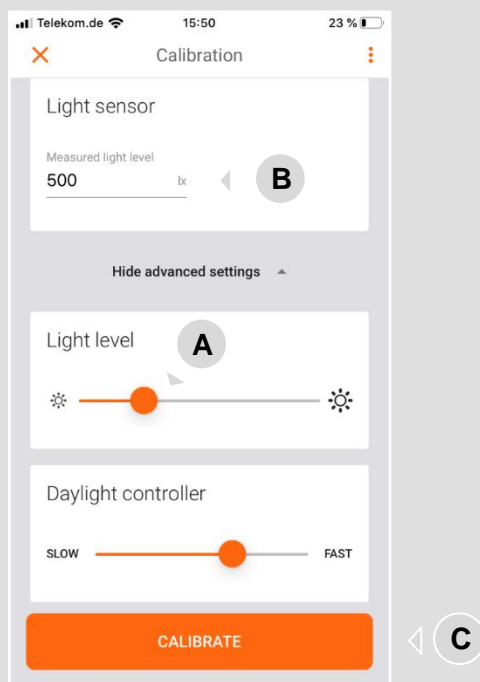
- **A - SETTINGS:** Open the SETTINGS in the zone
- **B - CALIBRATE:** Press the CALIBRATE button



- **C -** To quickly identify the luminaire, press the sensor icon . The luminaire with the integrated sensor starts blinking
- **D -** Select the light sensor, which should control the zone (switch the toggle  next to the light sensor to the right)

STEP 5.**2/3. Prepare the ambient conditions**

- Place a light meter on the surface where you want to maintain the desired light level.
HINT: The light meter is relevant as you want to measure the light where it is needed, e.g. on the desk. The light level at the sensor is different as it is measured by the sensor itself at its mounting position, e.g. at the ceiling!
- Switch ON the light (Advanced settings → Light level = ☀️)
Verify on the light meter, if the target light level (e.g. 500 Lux) is exceeded. If not, a calibration is not possible.
- Switch OFF the light (Advanced settings → Light level = 🌙) and
Verify on the light meter, if the measured light level is above 50 Lux and below the target light level (e.g. 500 Lux). If not, a proper calibration is not possible.
- If the required light level cannot be achieved due to incoming daylight or light reflections, adjusting the blinds in this zone can be helpful during calibration



STEP 5.**3/3. Calibration**

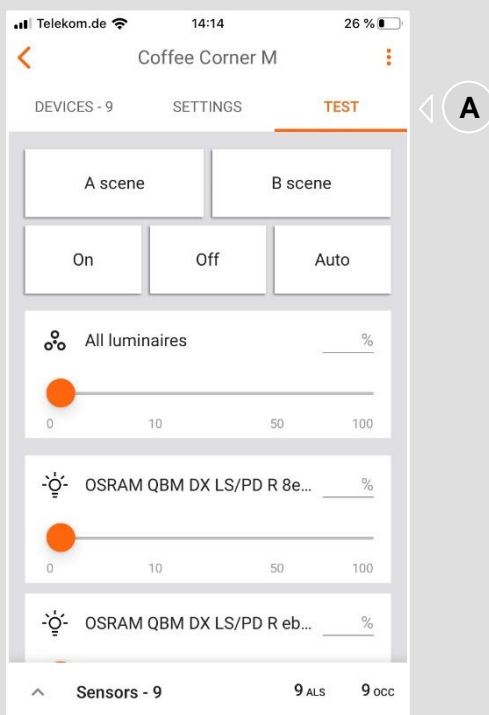
- **A - Light level:** In the “Advanced settings”, adjust the light level to the desired target value for this zone measured with the light meter.
- **B - Light sensor:** Enter the LUX value measured by the light meter in the **Measured light level** field.
- **C - CALIBRATE:** Press CALIBRATE to start the calibration and save the settings for the zone.

Your zones are now commissioned!

- The implementation phase is now complete, and the lighting devices in your zones will behave according to the predefined profiles.
- To be sure that everything works correctly, perform the following steps:


3. Quick tests before you leave a zone

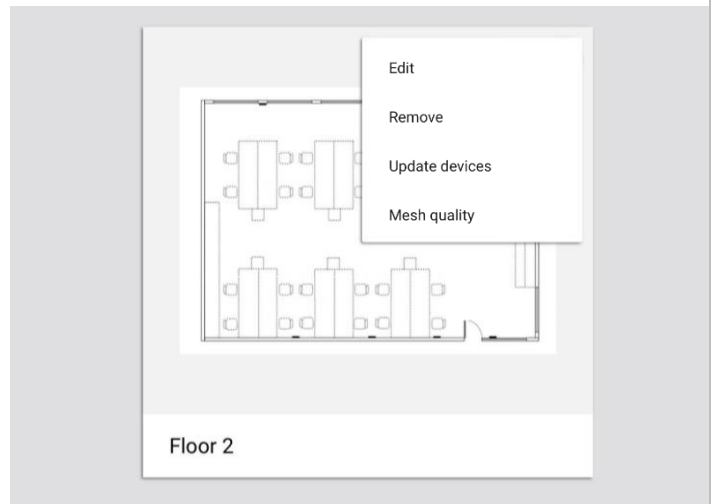
Item	Test Steps
1. Check EnOcean switch functionality.	<ul style="list-style-type: none"> – Press the switch. – Observe the behavior of the lights in the zone.
2. Check the zones status. (you can do it in the HubSense Commissioning web & mobile apps)	<ul style="list-style-type: none"> – Open the project view on the HubSense Commissioning mobile app. – For zones with the orange check  make sure that the zone has a commissioned zone icon next to its name. – The warning icon  indicates that there are configuration problems in the zone. <p>HINT: If the warning icon appears, tap on that zone → open DEVICES tab → tap “CONFIGURE ALL”. The devices added to the zone should be automatically configured one-by-one.</p>
3. Test basic lighting control per zone (available in the HubSense Commissioning mobile app only)	<ul style="list-style-type: none"> – Select the desired zone. – A - TEST: Select the TEST tab and choose the test that you wish to run. The luminaires should react to the test commands immediately. <p>For more information on the TEST tab, see the HubSense Commissioning User Manual (<i>Test your zone section</i>).</p>



4. Ensure mesh network connection quality in the zone.

(test available in the HubSense Commissioning mobile app)

- In the areas list, tap on  context menu and select “**Mesh quality**”.
- Press “**START TEST**” button.



- Observe the results (green / red circles) next to the zones names.

To find out more see [Application Guide Optimizing Mesh Network Performance](#) which can be downloaded from the [HubSense Commissioning web app](#) → **My Projects** → **Release notes**.

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