

TRILUX
SIMPLIFY YOUR LIGHT.



LIVELINK ONE

QUICK START GUIDE FOR LIVELINK PREMIUM

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1. NOTES

Observe and follow the following notes:



IMPORTANT. Indicates dangers which can result in material damage or malfunctions.



TIP. Indicates information containing advice or a useful note.

2. INSTALL THE LIVELINK ONE APP



Download the LiveLink ONE app for your **iOS device** from **the AppStore**:
<https://apps.apple.com/de/app/livmlink-one/id1621987669>



Download the LiveLink ONE app for your **Android device** from **GooglePlay**:
<https://play.google.com/store/apps/details?id=com.trilux.livmlink>



Download the LiveLink ONE app for your **Windows device** from:
<https://www.trilux.com/en/service/downloads/software/>

3. CONNECT WITH LIVELINK NETWORK



Allow the app to access location data and network access in order to use it.

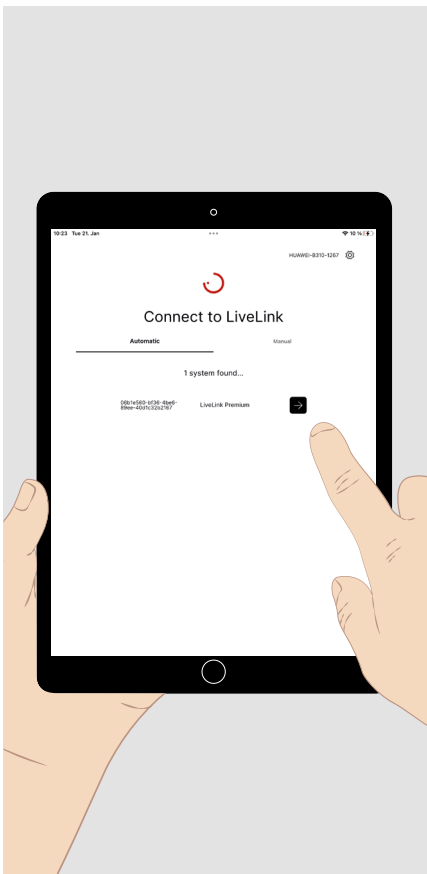
- In the system settings of the end device, select the WLAN of the router of your LiveLink Premium system.
- Log in with the SSID of the router.



TIP. The LiveLink Premium system can be integrated into an existing network if required. The login (see below) is then performed by manually entering the assigned IP address.

If there is an internet connection in the network, the LiveLink Premium system enables you to use monitoring functions for which a connection to the LiveLink Cloud is offered in the TRILUX ONE portal on trilux.com.

4. LOGIN



Open the **LiveLink ONE app**. The start screen is displayed.

Briefly tap the login field of the LiveLink Premium system you want to access, or manually enter the IP address of a system in the network (see above).

Enter the **user name and password** to log in.

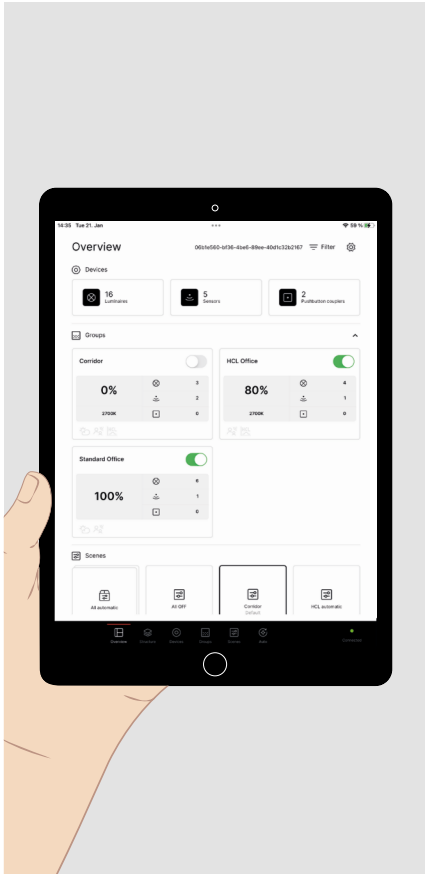
- For commissioning or configuring the system:
User name: **administrator**
Password on delivery: **livelink**
- To operate the system:
User name: **user**
Password on delivery: **livelink**

Briefly tap the “Connect” field to log in.



TIP. After logging in as “administrator” the passwords can be changed. A new password must be set for the administrator when logging in for the first time.

5. OVERVIEW (OPERATION)



TIP. To operate a fully set-up LiveLink system, log in as “user”.

After logging in, the main menu **Overview (operation)** is shown.

Displayed are:

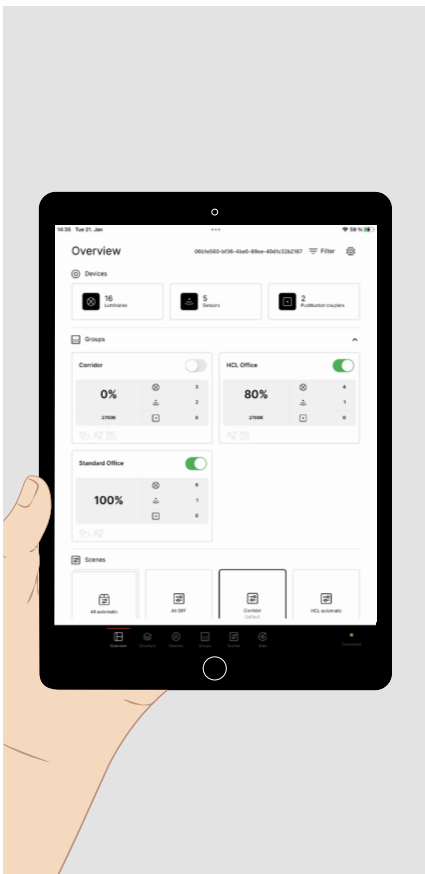
- the devices connected to the LiveLink system,
- the groups created in LiveLink with
 - the number of luminaires, sensors and push-buttons assigned to them,
 - the currently set light level and colour temperature,
 - the assigned sensor functions,
- the light scenes created in the LiveLink system.



TIP. The green status LED (at bottom right) indicates that your end device is connected to the LiveLink system. If the indicator is red there is no connection.



TIP. Briefly tap “Filter” (at top right) to limit the display to groups and scenes that are relevant to you.



Adjust the settings for the lighting as follows:

Briefly tap the switch symbol of a luminaire group to switch it on or off.

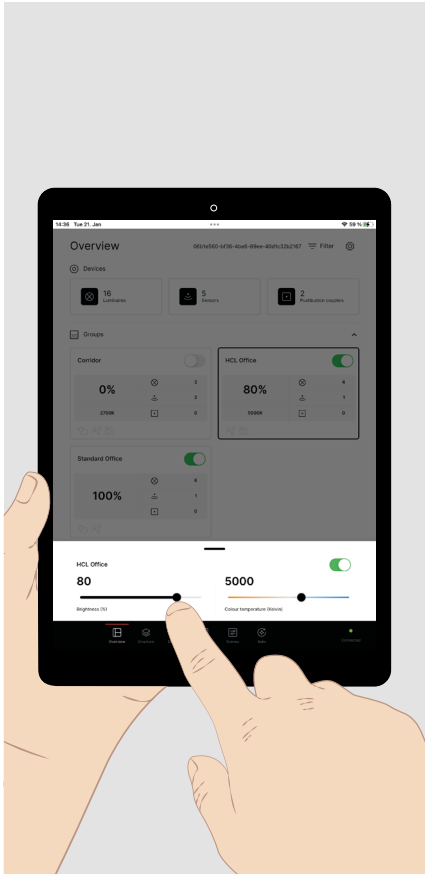
Briefly tap in the field of the luminaire group. An **operating area** opens at the bottom of the screen to change the settings of the **luminaire group manually** (see below).

Briefly tap a light scene to call up a preconfigured light situation.



TIP. **Light scenes** can be both static (unchangeable), or fully / partially controlled dynamically by time functions or sensor functions.

5.1. Manual light control



The **operating area** for the **manual settings** of the luminaire group:

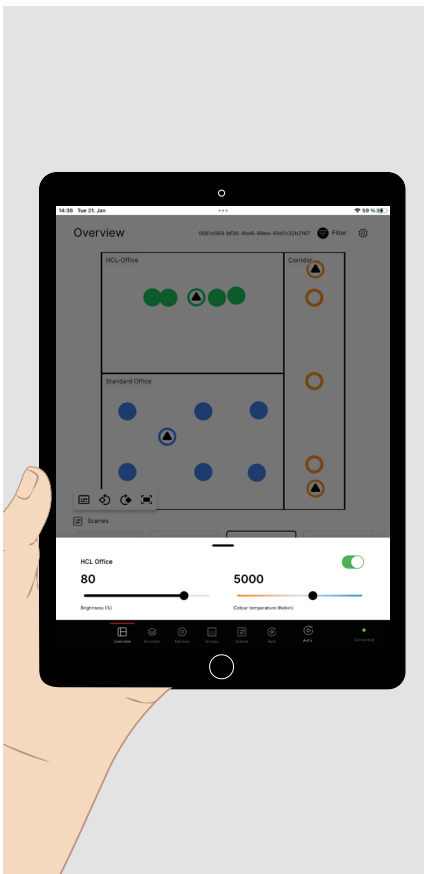
Briefly tap the field of the **switch** to switch the luminaire group on or off.

Briefly tap the desired position on the **brightness** bar to set the appropriate brightness value (in percent).

Tap **and hold** and move the slider to adjust the value.

Briefly tap the position on the **colour temperature** bar to set the desired light colour (in Kelvin).

Tap **and hold** and move the slider to adjust the value.



Alternatively, you can make identical **lighting settings** in the **building plan** display (see above) if this was created during commissioning.

Briefly tap a luminaire in the luminaire group to be operated. An **operating area** opens at the bottom of the screen to change the settings of the **luminaire group manually** (see above).

Briefly tap a light scene to call up a preconfigured light situation.

5.2. Operation with push-buttons

In addition to using the LiveLink ONE app, the lighting can be operated using push-buttons connected to the LiveLink system. The following button functions can be assigned to these:

Brightness:

- **Short** button press
 - On: Press the push-button **briefly** to switch on the assigned luminaire groups.
 - Off: Press the push-button **briefly** to switch off the assigned luminaire groups.
 - On/Off: (default) See above.
- **Long** button press
 - Inactive: A **long** press of the button has no function.
 - Dim up: Press and **hold** the button to dim the assigned luminaire groups upwards (brighter). An active brightness setpoint control may be interrupted.
 - Dim down: Press and hold the button to dim the assigned luminaire groups downwards. An active brightness setpoint control may be interrupted.
 - Dim up/down: (default) See above, dimming with **alternating dimming direction**.

Colour temperature:

- **Short** button press
 - Change warm/cool: (default) **Briefly** press the button to change the colour temperature between warm white and cool white.
- **Long** button press
 - Inactive: A **long** press of the button has no function.
 - Dim warm: Press and **hold** the button to change the colour temperature (light colour) of the assigned luminaire groups from cool to warm.
 - Dim cool: Press and **hold** the button to change the colour temperature (light colour) of the assigned luminaire groups from warm to cool.
 - Dim warm/cool: (default) See above, dimming with **alternating dimming direction**.

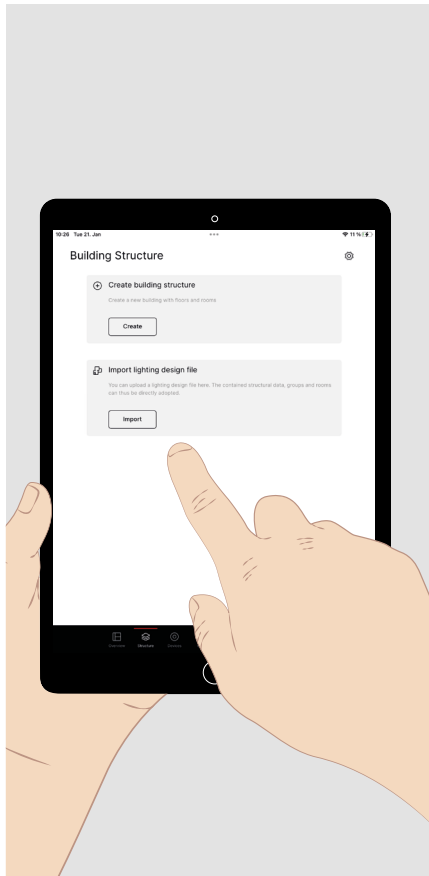
Scenes:

- **Short** button press
 - Call up scene: Press the button **briefly** to call up a stored scene.
 - Change scenes: Press the button **briefly** to switch between two stored scenes.



TIP. When the lighting is in switched off state, the switch-on behaviour (brightness and/or colour temperature) and, if applicable, the control behaviour (brightness setpoint control) of the last activated light scene are active by default. An exception to this is after a manual switch-off for scenes with automatic switch-on function for presence detection (automatic mode). The light is only automatically switched on again after a follow-up time has elapsed without people being present. If no light scene was defined when the system was commissioned, the luminaires switch on at 100%.

6. STRUCTURE



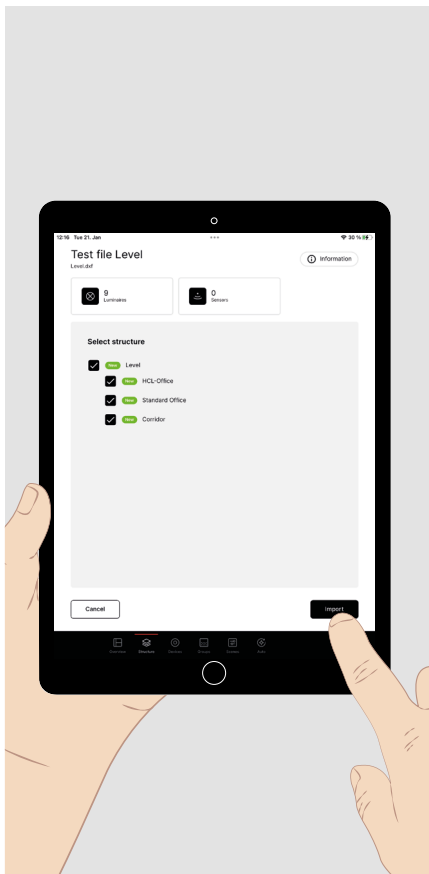
Log in as administrator and **briefly** tap the main menu “**Structure**” at the bottom of the screen.

Here you can create a “building structure” in which you can categorise the components and functions of the system to be set up. There are two alternative ways to do this:

1. **Briefly** tap “**Create**” to manually create a **tree structure** made up of **floors** and **rooms**.
2. **Briefly** tap “**Import**” to import a **building plan** in dxf format (only possible with LiveLink Premium).



TIP. Not only the room geometry, but also the positions of luminaires and sensors can be transferred directly to the building plan. To do this however, your data must be saved in a suitable format. Dxf files exported from the DIALux and Relux lighting design programmes can be processed accordingly in a CAD programme.



After calling up the dxf file, the contained areas are displayed as a **structure tree**.

The number of luminaires and sensors contained in the dxf file is displayed.

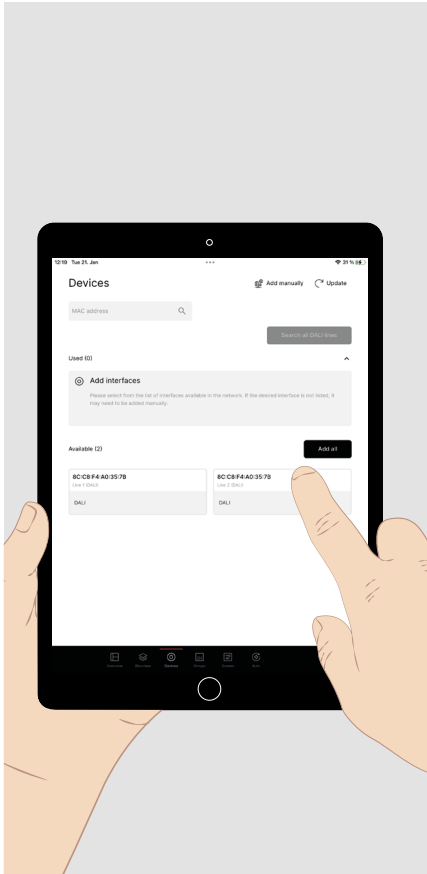
In the structure tree, **briefly** tap on the relevant areas covered by the control to be set up in order to select them.

Now **briefly** tap on “**Import**” at the bottom right of the screen to load the floor plan of the selected areas.



TIP. If **luminaires and sensors** are not, or not completely, included in the dxf file, they can be **added** later in the floor plan under the main menu “**Devices**”.

7. DEVICES

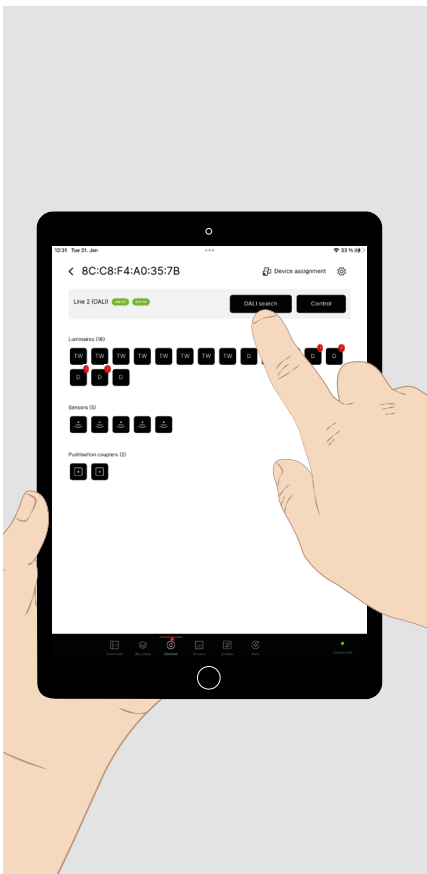


Briefly tap on the main menu “**Devices**” at the bottom of the screen to enter the components connected to the LiveLink system.

Initially, all the DALI lines available in the system from the Ethernet-DALI-gateways connected to the LiveLink server are shown.



TIP. There is **no pre-configuration** in LiveLink Premium. The push-buttons and sensors have no function. Unlike with a LiveLink WiFi system or LiveLink LAN DR, operation and testing of the installation (switching on and off via DALI) is only possible after DALI addressing.



Briefly tap on “**DALI search**” and carry out a **DALI addressing**. DALI addresses are assigned to all connected components.

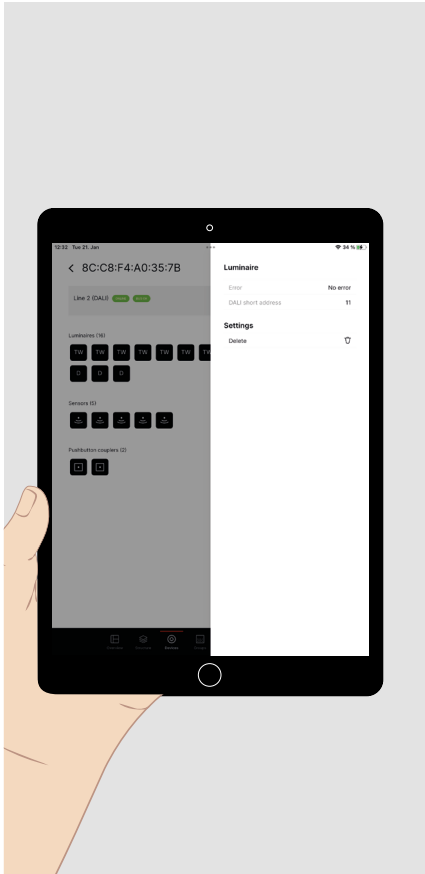
All detected **DALI components** of the **DALI line** are displayed:

- Luminaires with letter identification
 - TW: Tunable White (DT8)
 - D: dimmable (DT6)
 - E: DALI emergency luminaire (DT1)
- Sensors
- Push-button couplers

Briefly tap on “**Control**” to call up the operating area (see the “Manual light control” section) and switch and dim all luminaires as a test.

If everything is OK, **briefly** tap on “**Device assignment**”.

Faulty DALI devices have a “**!**” if applicable.



If **faulty luminaires** are displayed, briefly tap on one of these luminaires to display the detected fault.

If the faulty luminaire should be **replaced**, proceed as follows:

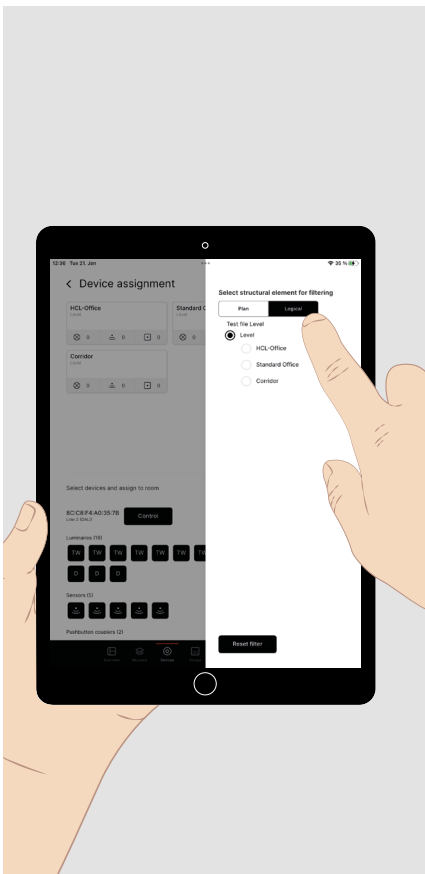
- **Briefly** tap on **“Device assignment”** to open the device assignment menu (also see Page 10) and
 - tap on the symbol of the faulty luminaire to **identify** it in the installation and
 - then exit the **“Device assignment”** menu with the back arrow,
- replace the luminaire in the installation and
- delete the DALI address in the error display menu.

Briefly tap on **“DALI search”** to assign the replaced luminaire DALI addresses.

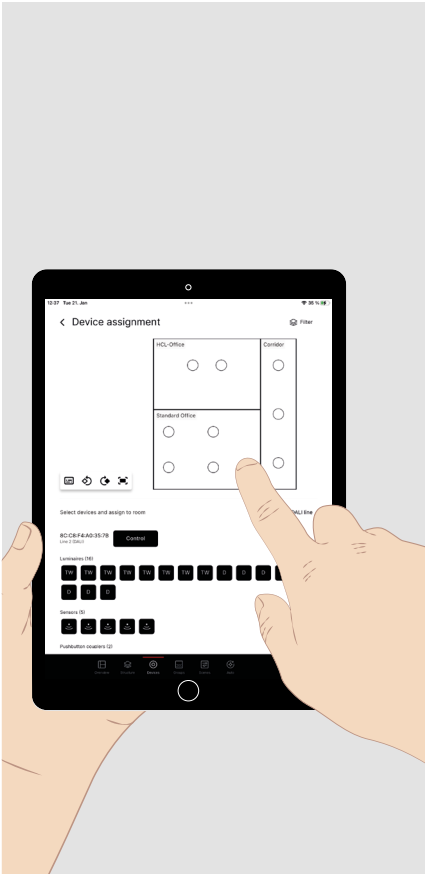
Final test:

If not all luminaires can be controlled **as a test (see above)**, check the installation and **briefly** tap on **“DALI search”** again.

Then **briefly** tap on **“Device assignment”**.



TIP. In the filter menu you can select between the **building plan** and the **logical building structure**. If no building plan is available, the luminaires are always assigned to the rooms created in the logical building structure (see the “Structure” section). In the building plan, the luminaires can be assigned directly to their positions in rooms.



For the **device assignment**, all luminaires and sensors contained in the dxf file of the building plan are indicated by **symbols at their positions**. Below this, the **symbols** of all **DALI components recognised** on the selected DALI line are displayed.

Briefly tap the symbol of a **DALI component**. In the installation, the corresponding **luminaire** or **LED in the sensor** flashes.

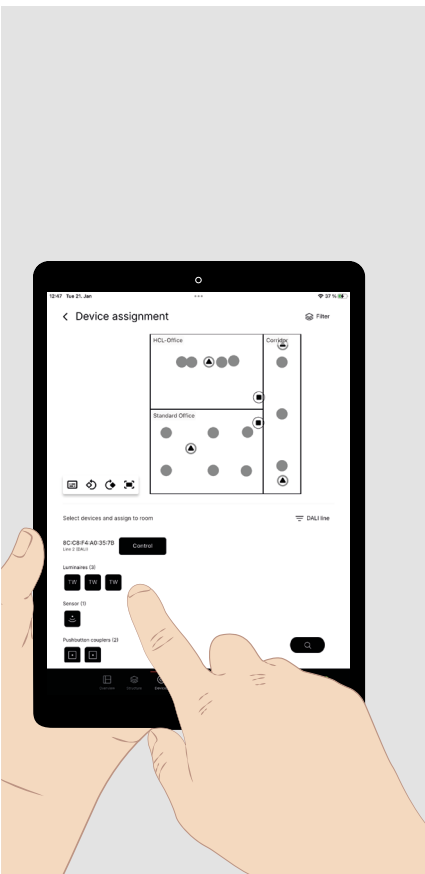
Briefly tap the **symbol in the floor plan** where the flashing luminaire or sensor is.

Tap and hold on a **symbol** in the floor plan to change the device type. If a device has already been assigned, this will be cancelled.

Tap and hold on an **empty position** in the floor plan where you wish to **add** a symbol for a **component** (luminaire, sensor, push-button coupler).



TIP. Tap the **magnifying glass** to **automatically** call up the DALI components in the order displayed (see Page 12)



Complete the symbols so that **all DALI components** located in the area of the building floor plan can be assigned.

In this **example**, ten **symbols** have been added for

- four sensors,
- two push-button couplers,
- the assignment of additional DALI addresses for two luminaires, each of which contains two control gear units,
- and two additional downlights in the “standard office”.

Four luminaires are located outdoors, outside the building floor plan.

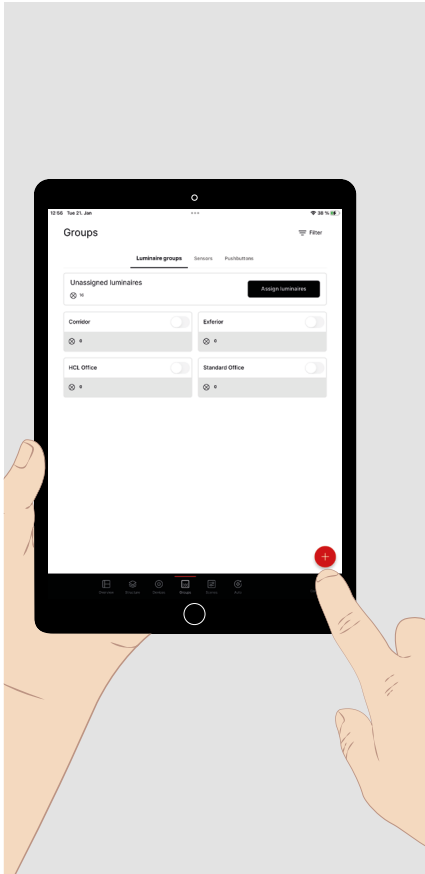


TIP. Luminaires with **high luminous fluxes** or **separately controllable light components** can have **several control gear units**.



TIP. To exit the device assignment, **briefly** tap the back arrow.

8. GROUPS / 8.1. Luminaire groups



Briefly tap the main menu “**Groups**” at the bottom of the screen to configure the system components.

The menu contains three submenus:

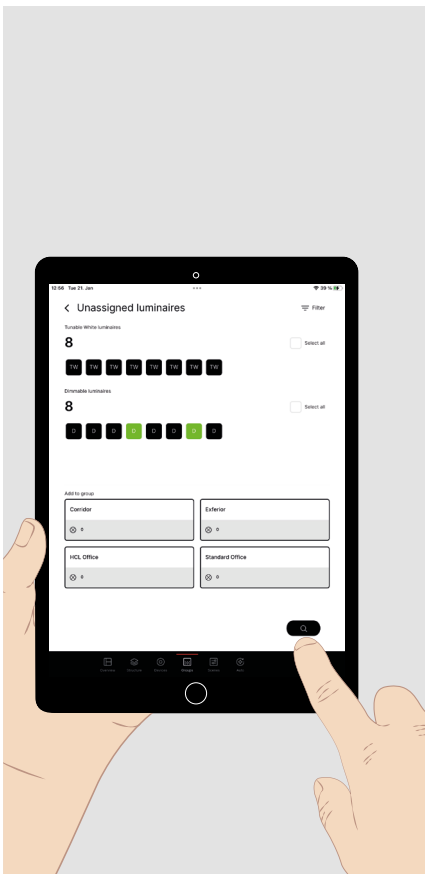
- Luminaire groups
- Sensors
- Pushbuttons

When called up, the “Luminaire groups” submenu is shown.

Briefly tap the **plus sign** to add a luminaire group. Give the luminaire group a name. It then appears in this menu.

Briefly tap “**Assign luminaires**” to display all unassigned luminaires.

Tap and hold a luminaire group to delete it completely.



All **unassigned luminaires** are **displayed**.

All **luminaire groups** and, if applicable, the **number** of luminaires assigned to them are **displayed below**.

If further luminaires are to be assigned there are two options.

1. **Briefly** tap a luminaire to **select** it. The luminaire flashes. **Multiple selection** is possible.

Tap **again briefly** to **deselect** the luminaire again.

Briefly tap on the luminaire group to add the selected luminaire(s).

Repeat this until you have added all the desired luminaires to the group.

2. **Briefly** tap the **magnifying glass** to start an **automated selection** of the luminaires. This makes it easier to assign the luminaires (see the next diagram).

With **automated selection**, all available luminaires are selected one after the other in the order displayed. The selected luminaire flashes.

Briefly tap on the group to **add** the luminaire to the group. The **next** luminaire is now selected and flashes.

Briefly tap the **right arrow** to select the **next luminaire**.

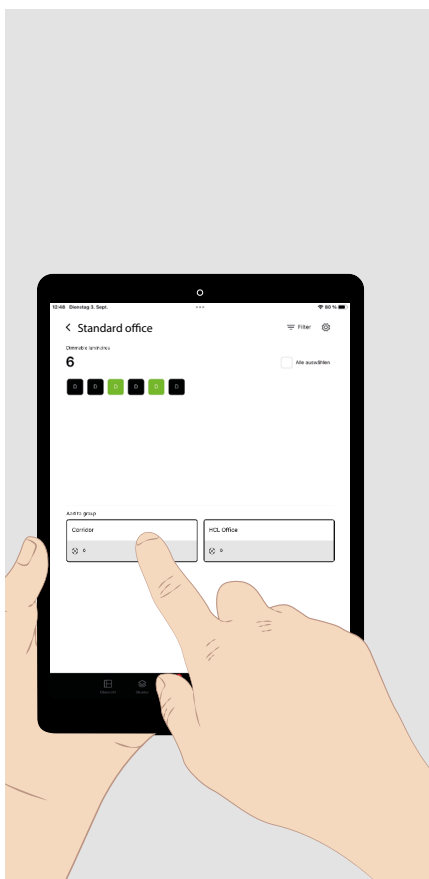
Briefly tap the **left arrow** to select the **previous luminaire**.

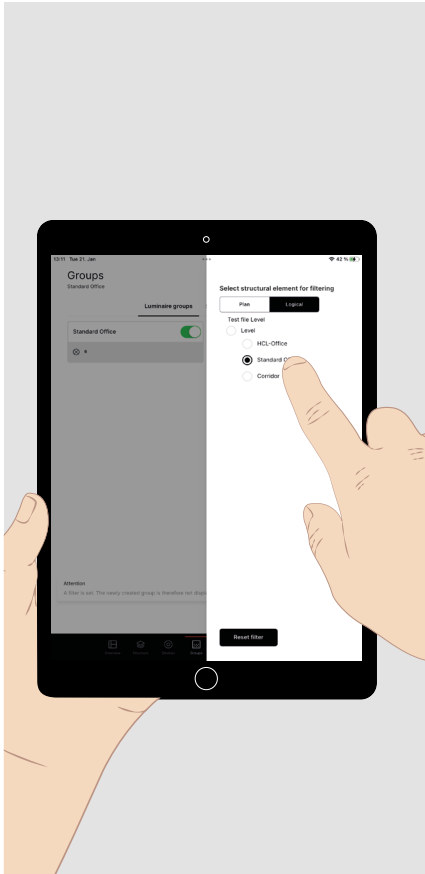


These can be edited and reorganised in the luminaire group menu. Briefly tap a luminaire group to open it.

The luminaires in the group are displayed.

- **Briefly** tap on one or more luminaires in the displayed group to call them up.
- **Briefly** tap on the luminaire group to which the selected luminaires are to be transferred.

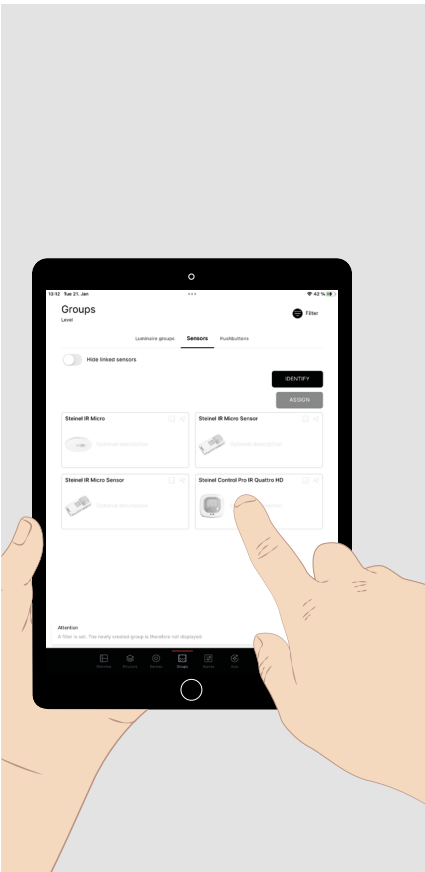




TIP. In **large projects** in particular, it is helpful to sensibly limit the number of luminaires and luminaire groups for their assignment. To do this, open the **building structure of the filter menu** and select the area (a floor or a room) in which you want to divide the luminaires into groups.

This also applies to the sensors and push-button couplers.

8.2. Sensors



In the **“Sensors”** submenu of the **“Groups”** main menu, the functions of the sensors can be assigned to the created luminaire groups.

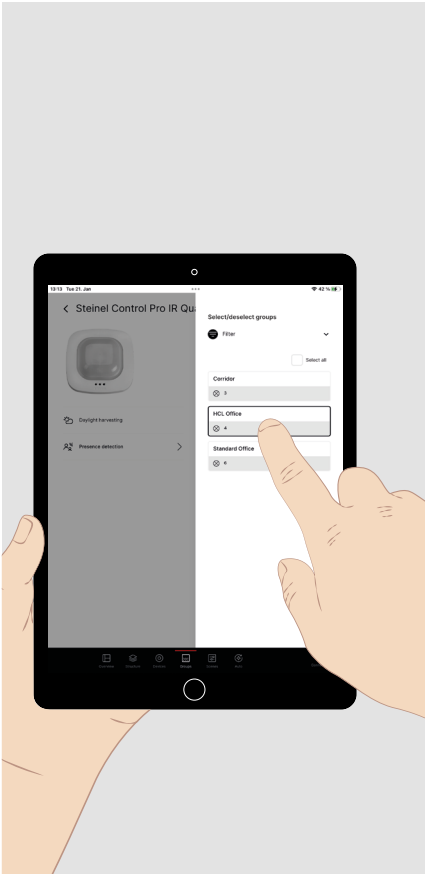
DALI-2 sensors from the **TRILUX product range** are displayed in the menu with their full **reference** and a **product image**.

Briefly tap on the desired sensor that you wish to configure to display the **submenu** of the available functions of the sensor and the luminaire groups (see next diagram).

If there are several **identical** sensors, **briefly** tap the **“Identify”** button. Then **briefly** tap the respective images of the sensors until the searched-for sensor flashes in the installation. **Briefly** tap the **“Assign”** button or the **“End identification”** button to call up the submenu mentioned above.



TIP. To determine the detection range, a green symbol appears in the installed sensor as soon as movement is detected.



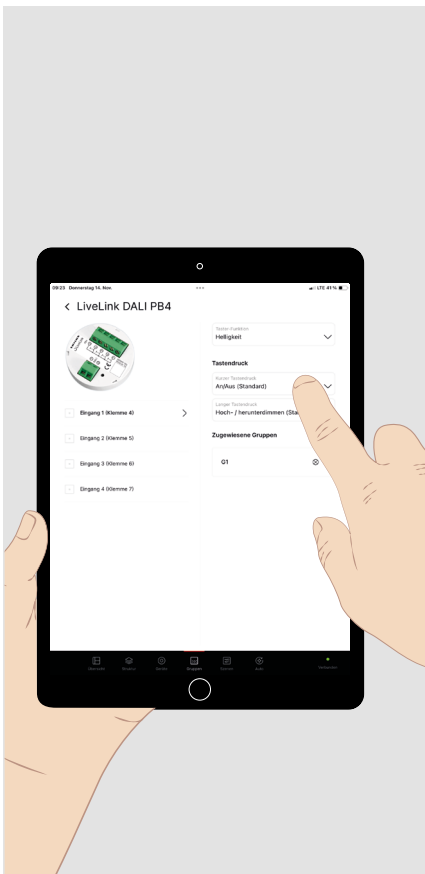
In this menu, the **functions** of the sensor can be called up and assigned to **one or more luminaire groups**.

Briefly tap the desired sensor function.

The luminaire groups assigned to this function are shown.

Briefly tap on “+” to assign further luminaire groups to the selected function.

8.3. Push-buttons



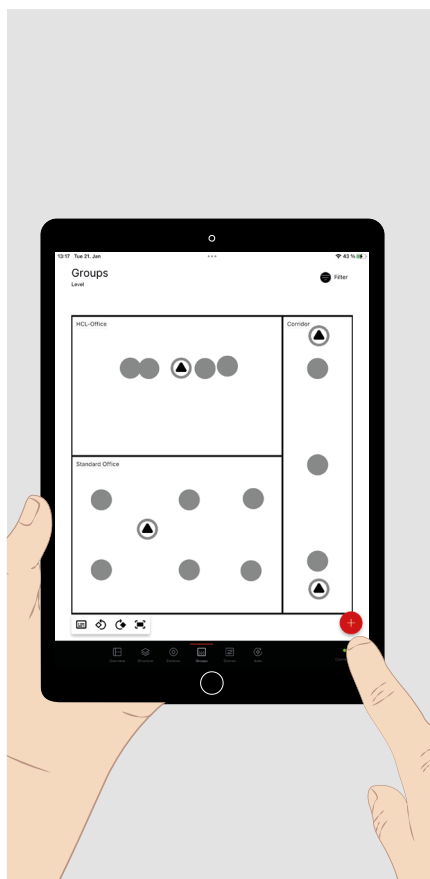
In this menu, the functions of the push-buttons of a push-button coupler can be called up and assigned to one or more luminaire groups or scenes.

Briefly tap the desired push-button input.

Briefly tap on the arrow in the pull-down menu of the push-button function to select the parameter (brightness, colour temperature, scene, scene change) to which you then assign the desired behaviour with short and long button presses (see Page 6). Light scenes are created in the next main menu.

Briefly tap on “+” to assign the desired luminaire groups or scenes to the selected function.

8.4. Grouping in the building plan



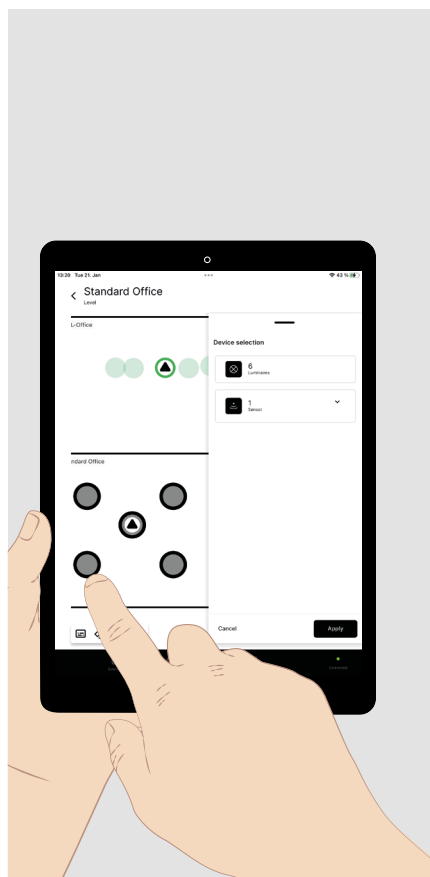
The grouping can alternatively be carried out completely in the **building plan** if this is available.

Luminaires can only be assigned to **one group**.

Sensors can be assigned to **several groups**.

Briefly tap the **plus** sign to create a group.

- Give the group a name.
- A window for **device selection** opens.



- **Briefly** tap the symbols of the components that you wish to assign to the group.
- The assigned components and their quantity are displayed in the **device selection** window.
- A submenu can be opened for sensors to assign their functions to the group.
- **Briefly** tap on **Apply** to add the selection to the group.

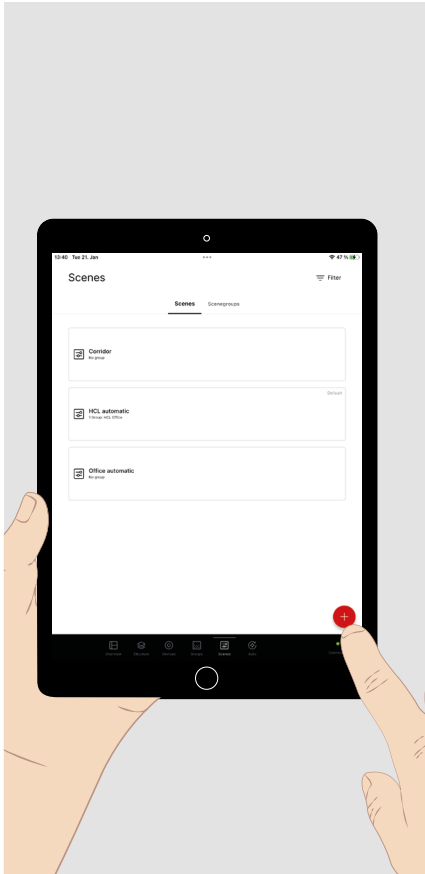
Created groups are colour-coded.

Briefly tap on a component of a group to reopen the device selection. The colour and name of the group can be subsequently modified, luminaires can be removed from the group and the entire group can be deleted.



TIP. To mark several devices at the same time, you can draw a rectangle by using two fingers. If necessary, **briefly** tap a single component to deselect its marking.

9. SCENES



Light scenes and **scene groups** are defined in this menu to enable predefined light situations to be called up. With this app, they can fundamentally be called up in the **Overview** menu or with a button.

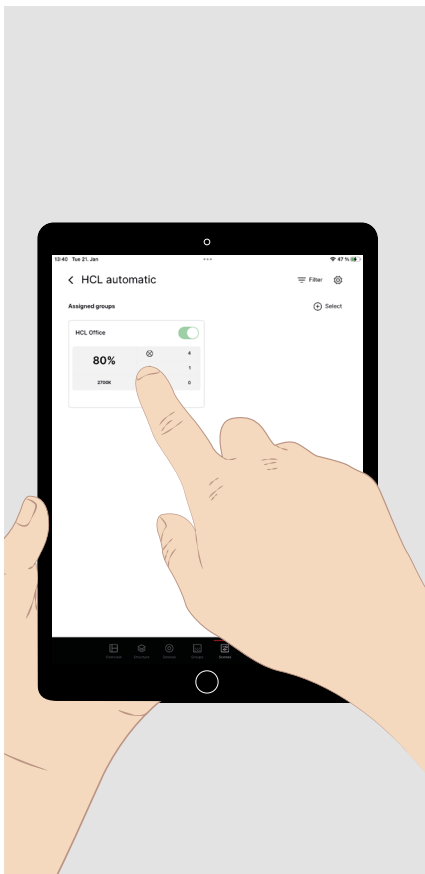
Briefly tap on “+” to create a **new light scene**, to name it and give it a symbol.

Briefly tap the light scene that you wish to configure.

Tap and hold a **configured light scene** to set it as the default light scene or to completely delete it. For multiple selection, **briefly** tap additional light scenes before finishing the action.



TIP. Light scenes can extend across **one or more luminaire groups**. Light scenes across **several groups** are always useful if the resulting lighting situation is to be **called up** for all the groups concerned. If **several groups**, possibly also in different areas of the overall control structure, are to be controlled together on certain occasions, several scenes can be combined into a scene group (see the “Scene groups” section, Page 19).



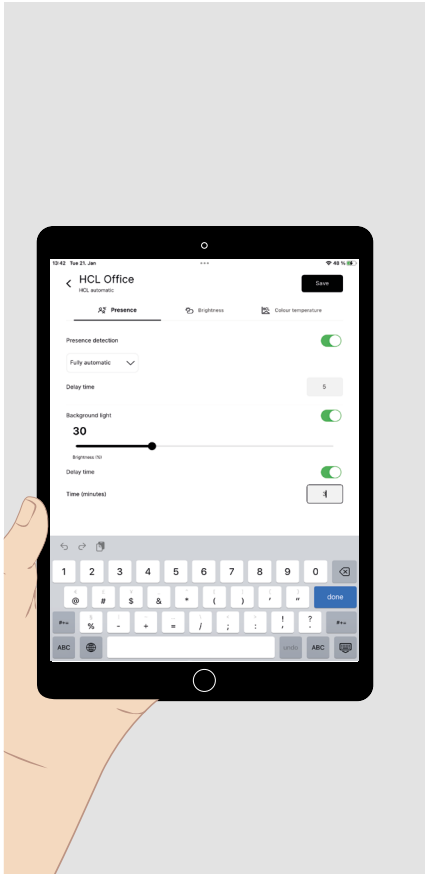
If you have selected a light scene for parameterising, the assigned luminaire groups are displayed.

Briefly tap “+ Select” at top right to assign one **or more luminaire groups** to the scene.

Briefly tap an assigned luminaire group to parameterise it.

The functions already parameterised in the light scene for the relevant luminaire group are shown.

9.1. Presence detection

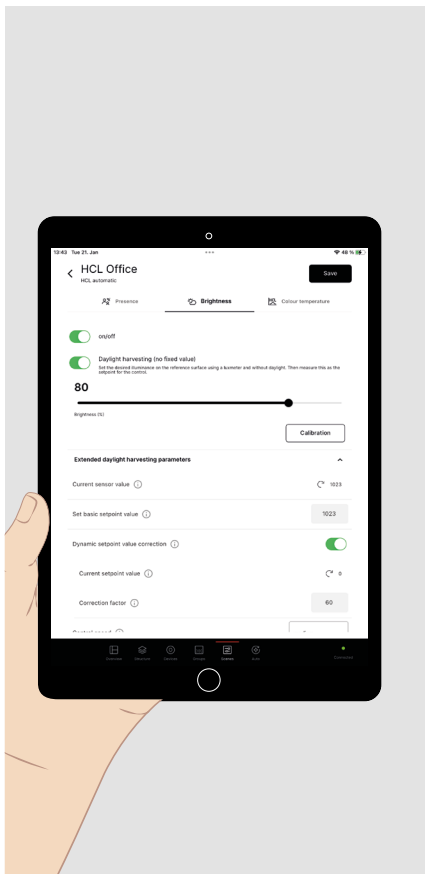


When parameterising a group in a light scene, functions for presence detection, brightness control and (with Tunable White luminaires) colour temperature control can be set.

The following **parameters/options** are available for **presence detection**:

- Fully automatic (automatic on/off switching).
- Semi-automatic (manual switch-on and automatic switch-off).
- Follow-up time (time delay in the event of absence until the lighting is switched off and the light scene is ended or until the general light function is activated).
- Background light (optional light level after the follow-up time has elapsed).
- Follow-up time of the background light (additional time delay for optional switching off of the background light and ending the scene).

9.2. Brightness control



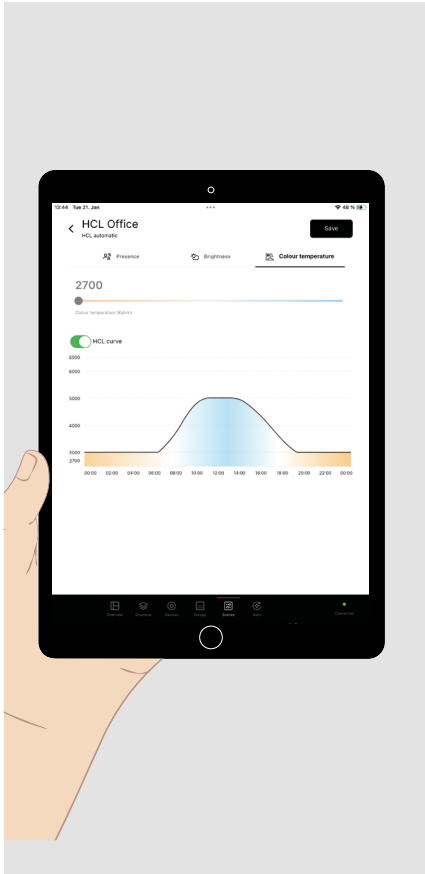
The following **parameters/options** are available for **brightness control**:

- Fixed luminous flux value (preset level of luminous flux set when the scene is called up).
- Daylight harvesting (setpoint control of the lighting to a preset illuminance value).

To define the setpoint value for illuminance (see also the “**Display of brightness values**” section), proceed as follows:

- Make sure that no or only little ambient light (e.g. daylight) affects the measurement.
- Use a **class B** illuminance meter (in accordance with CIE publication 69/1987 “Methods of characterising illuminance meters and luminance meters; performance, characteristics and specification”).
- Place the meter in the area of the visual task to be measured.
- Set the luminous flux so that the required illuminance is achieved.
- To measure the setpoint value, briefly tap the “**Calibrate**” button and then tap “**Save**”.
- By opening the “**Extended daylight harvesting parameters**” pull-down menu, the setpoint control function can be adapted to external conditions if necessary. For an explanation of the parameters, tap the **info** button of the respective parameter.

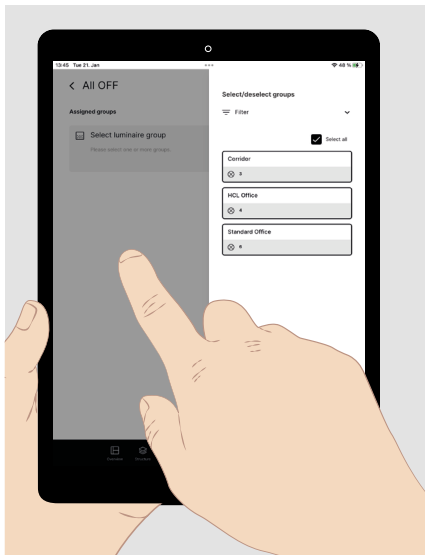
9.3. Colour temperature control



For luminaire groups containing luminaires with variable colour temperature (Tunable White), **colour temperature control** can be set up with the following **parameters/options**:

- Fixed colour temperature value (preset value of colour temperature, specified in Kelvin, set when the scene is called up).
- HCL curve (time-based sequence of colour temperature, based on the circadian sequence of daylight).

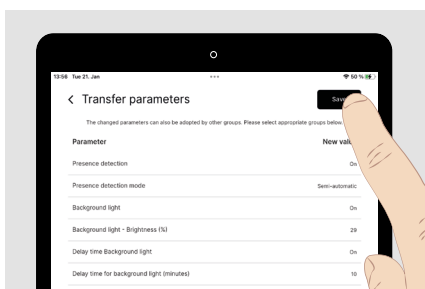
9.4. Transferring parameterisation



If several luminaire groups are to behave identically in a light scene, the parameterisation of one group can be transferred to other luminaire groups. An example of such a scene can be a central **Off function**.

After parameterising the first group, open the **“Select groups”** window.

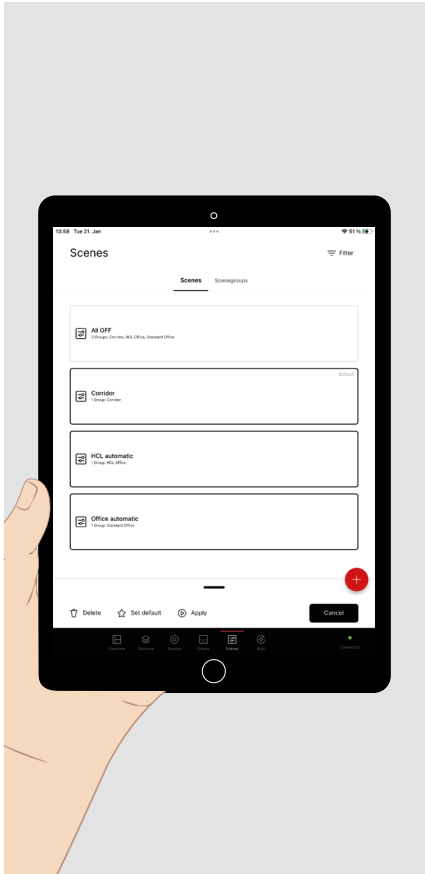
- **Briefly** tap each of the other groups to be assigned.
- Briefly tap the greyed-out area on the left-hand side of the screen. The selection window closes.



The parameters of the control functions and the assigned groups are displayed.

- **Briefly** tap on **“Save”**.

9.5. Default light scene



If a light scene is set as the **default light scene**, it is called up after switching on the mains supply to the lighting.



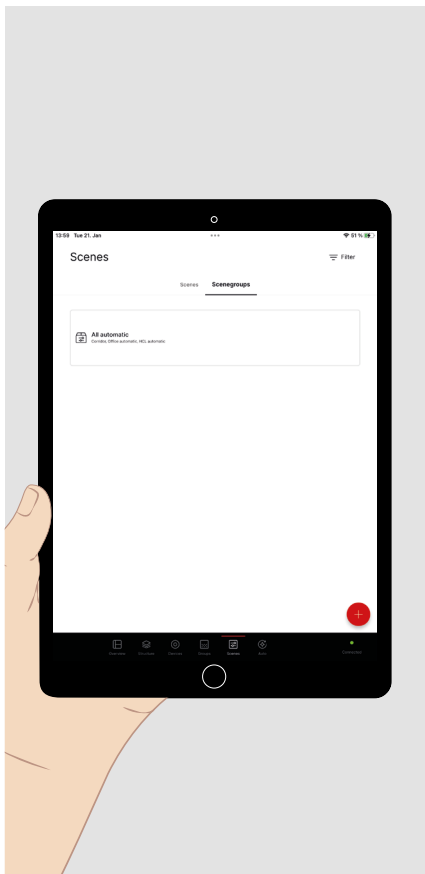
TIP. Default light scenes are mainly used to define the **switch-on behaviour** of the **individual luminaire groups** after a power failure. For reasons of clarity, it can nevertheless be useful to **combine** the parameterisation of several groups in a default light scene.

If no default light scene is assigned to a **luminaire group**, it switches on again at 100% brightness.

All default light scenes of a LiveLink Premium project must be set together in a **multiple selection** (see above).

All previous default light scenes are **reset**.

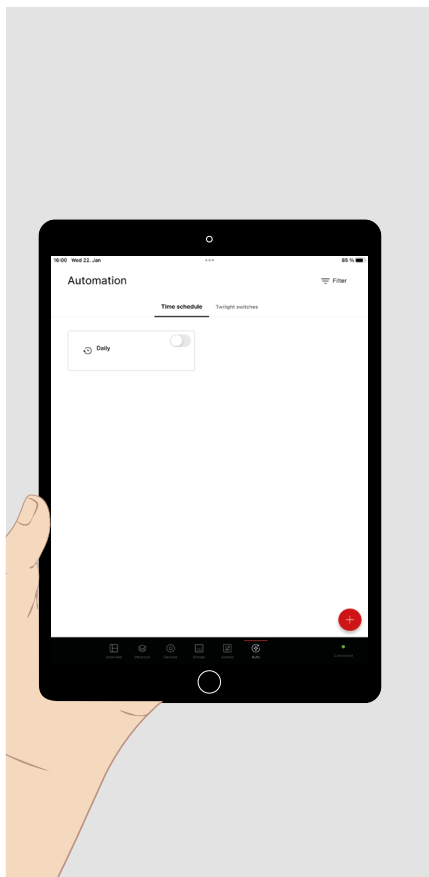
9.6. Scenegrups



If you want to set up a method of calling up several scenes together, e.g. from different areas in the structure of a large project, you can combine them into a **scenegrup**.

Scenegrups are called up in the same way as calling up individual scenes.

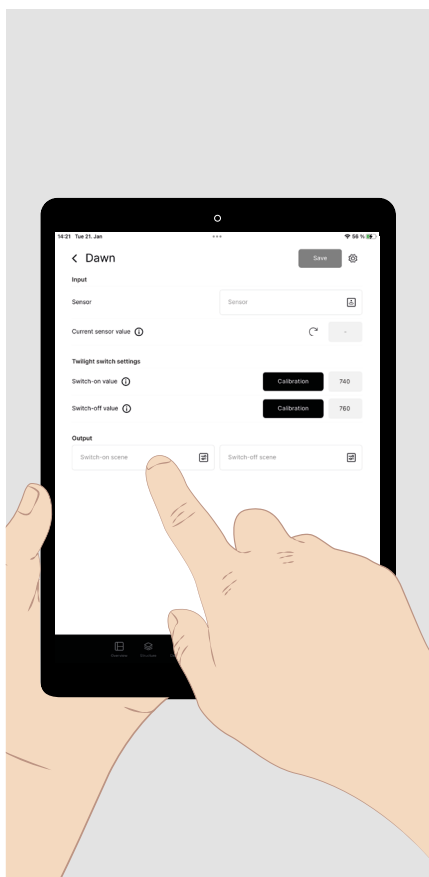
10. AUTOMATION



In the main menu **“Auto”**, you can set up the time-dependent automated calling up of light scenes.

- **Briefly** tap **“Schedule”** to display the available time schedules or to create a new one.
- **Briefly** tap on **“Twilight switch”** to display the available twilight switches or to create a new one.
- Schedules and twilight switches can only be **activated and deactivated** here by a user logged in as an **administrator**. Assigning the call-up action to a push-button is not possible.

10.1. Twilight switch



Set up a twilight switch to automate switching on the lighting when it gets dark and switching it off when daylight comes.

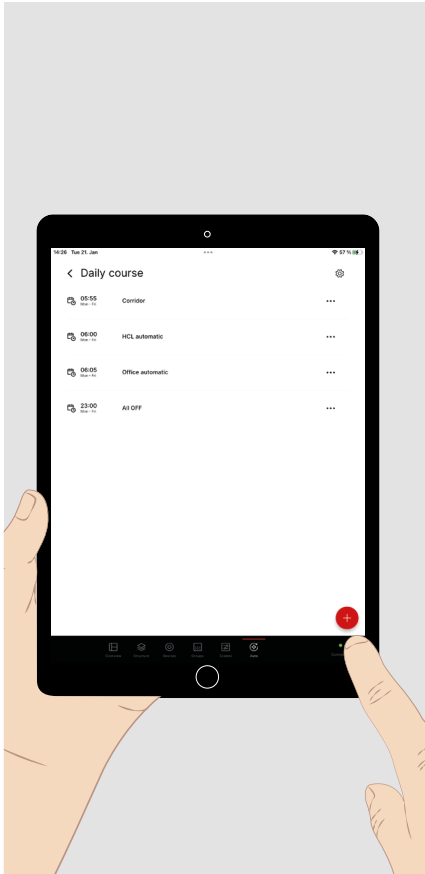
- Assign a **sensor** to the function. The brightness detected at the sensor is shown as the current sensor value.
- Measure the **threshold values** for switching on and off or enter them as numerical values.
- Assign a light scene to each of the switch-on and switch-off functions that are to be called up when the threshold value is reached.

The switch-on value must be lower than the switch-off value.



TIP. A scene group instead of a scene can also be selected.

10.2. Schedules



Schedules are time-based sequences of scene calls. The scenes called up can relate to different areas (luminaire groups). In each area, the last scene called up always stays active until the next scene relating to this area is called up. The call of a scene can be configured as an **event** by assigning it a **start time** on predefined **days of the week**.

- Briefly tap **“Schedule”** in the **“Scenes”** main menu.
- Then briefly tap the plus sign to create a new schedule.
- Give the schedule a name, e.g. **“Daily sequence”**, and save it.

You are now in the configuration of the newly created schedule.

- Briefly tap the **plus sign** to add an event to the list.



Briefly tap in the time field and select the **start time** for calling up the light scene.

Briefly tap the **pull-down menu** to select the **time function** (fixed time or relative to sunrise or sunset). Then select the **days of the week** on which the scene is to be called up.

Select the **light scene** or **scene group** that is to be called up via the event.



TIP. Events **cannot be triggered simultaneously**. Therefore, select different start times for the events.

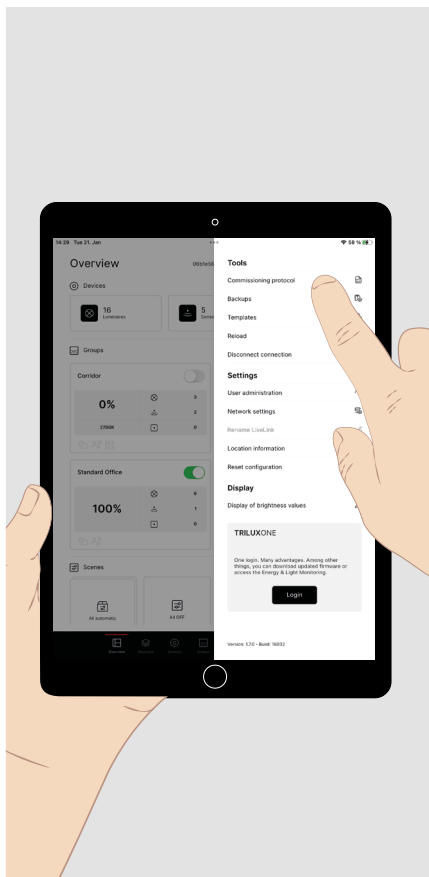


TIP. Manual settings with which an active scene has been overwritten (e.g. setpoint control deactivated) are also overwritten again when a new scene is called up during the schedule.



TIP. If sunrise and sunset are selected as reference times, the system requires location information to calculate these.

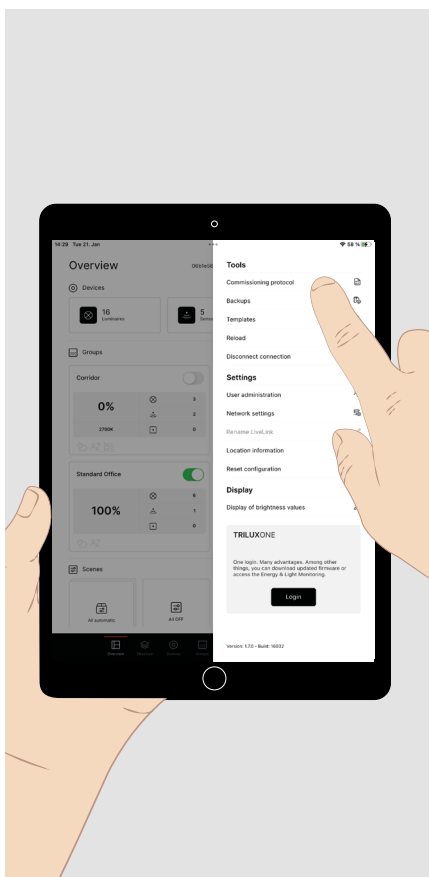
11. ADMINISTRATOR SETTINGS



If you logged in as “**administrator**”, the necessary steps for commissioning are also available. For these, tap “**Structure**”, “**Devices**”, “**Groups**” or “**Scenes**” at the bottom of the screen. The main menu called up is shown in a light-coloured font and with a red indicator bar (see the following section).

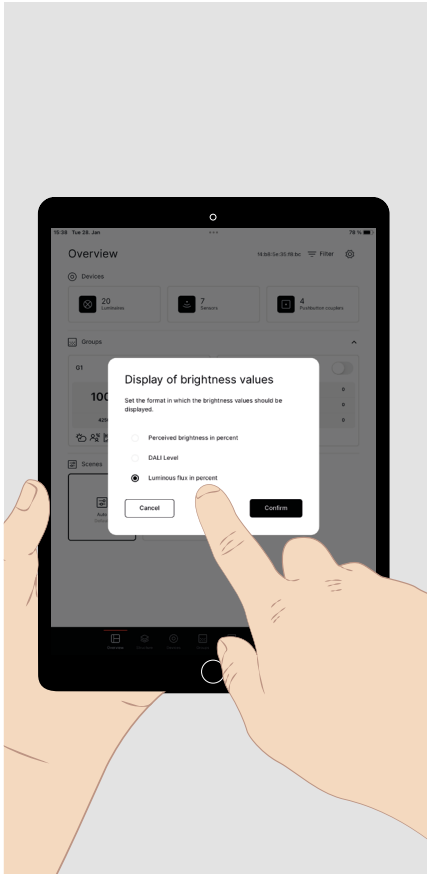
There are also “**Settings**” available which may be helpful during commissioning. For these, **briefly** tap the **tool symbol** (at top right) on the overview screen:

- You can create additional users with the “user” profile, each with their own password. This allows you to grant several people selective access to several systems.
- You can create a commissioning log as a pdf file.
- You can reset the complete system configuration to factory settings.
- In the network settings, you can integrate the system into a higher-level infrastructure.



- You can save a backup of the configuration in order to restore a defined status at a later date.
- You can save the system configuration as a template to reuse it in another system.
- You can select the **display of brightness values** (see next diagram).
- You can use the “**LOG IN**” button to register or log in to the TRILUX ONE portal to use the LiveLink Cloud to monitor your lighting or to download a firmware update (see Page 23).

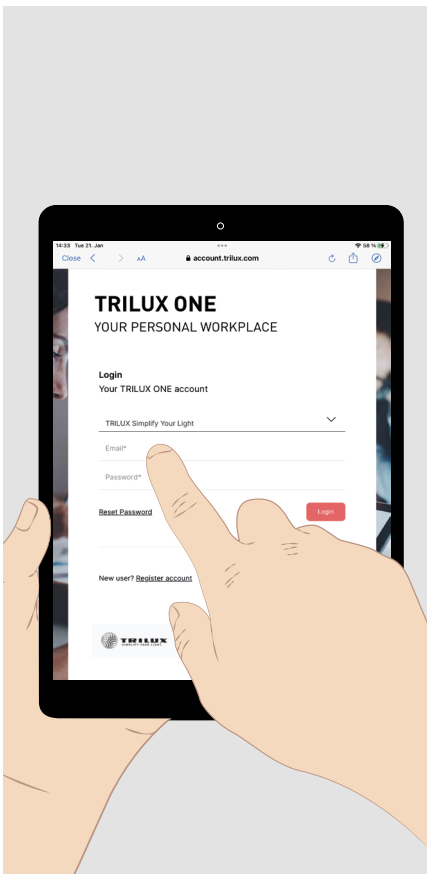
11.1. Display of brightness values



The **display of brightness values** can be customised to the requirements of the **user** and the **commissioning engineer**.

- The **“perceived brightness”** display enables the user to conveniently adjust the brightness in the manual settings menu of the luminaire group via the slider.
- The **DALI level** display enables the expert to use the light level as a DALI value (0 to 254).
- The **“Luminous flux in percent”** display enables the commissioning engineer to precisely set the luminous flux when calibrating the setpoint of the daylight-dependent control.

12. TRILUX ONE LOG-IN



- Tap the LOG IN button. Your browser opens and offers you a connection to the TRILUX ONE portal. Connection to the internet is required for this.
- Open the portal screen to connect the LiveLink system to the LiveLink Cloud or to download any firmware updates for your LiveLink system.
- To continue using the LiveLink ONE app, switch back to the WLAN of your light management system in the Settings menu if necessary.

Note: To be able to connect a LiveLink to the cloud, the LiveLink network must be in a higher-level network with internet access.

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