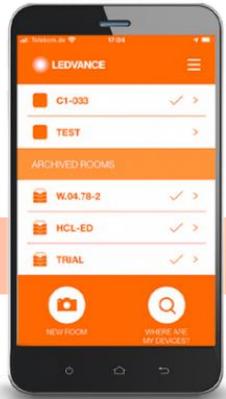


---

# HUMAN CENTRIC LIGHTING BIOLUX G2

## INSTALLATION GUIDE

# LEDVANCE BIOLUX – Human Centric Lighting System setup



**COMMISSIONING:**  
fast and simple via Smart phone  
App and QR Code

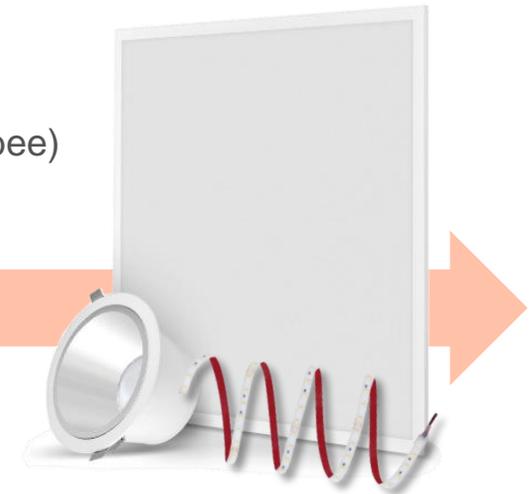


**CONTROL:**  
intuitively via unique Control Unit  
and pre-programmed lighting scenes

**INSTALLATION:**  
pragmatic and fast thanks to  
wireless technology (via zigbee)



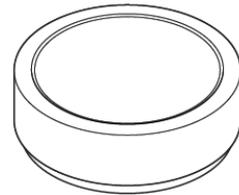
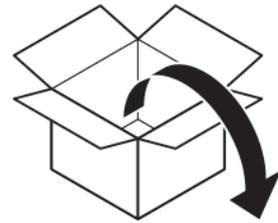
**FUNCTIONALITY:**  
no registration  
or cloud access needed



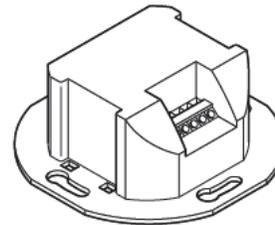
# INSTALLATION

## Content of packaging box

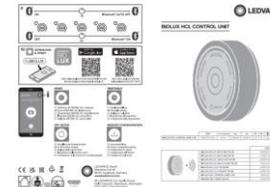
### BIOLUX HCL CONTROL UNIT



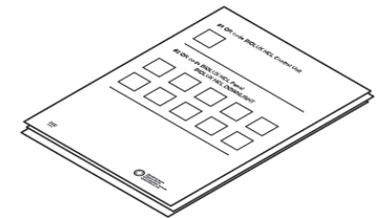
Control unit



Control unit  
power supply



User  
Instruction



QR code  
leaflet

# INSTALLATION

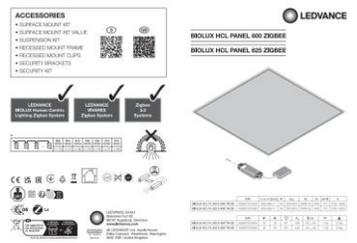
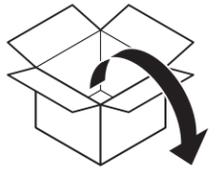
## BIOLUX HCL Luminaires



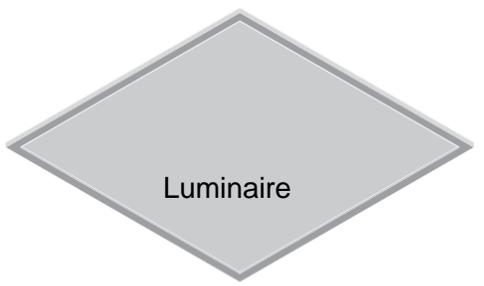
### Content of packaging box

**BIOLUX HCL PANEL 600 ZIGBEE**

**BIOLUX HCL PANEL 625 ZIGBEE**



User  
Instruction

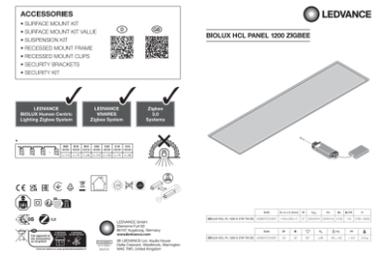
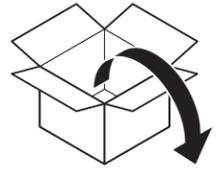


Luminaire

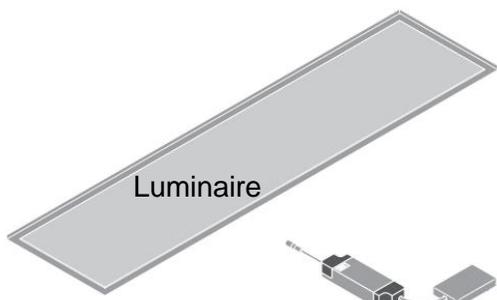


Driver & connector box

**BIOLUX HCL PANEL 1200 ZIGBEE**



User  
Instruction

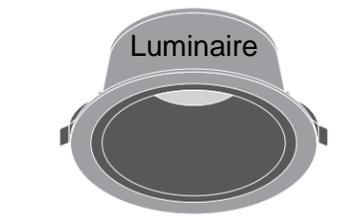
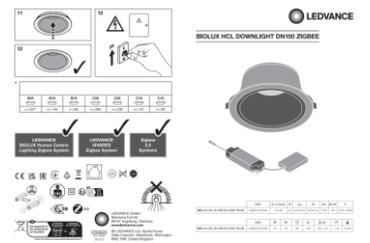
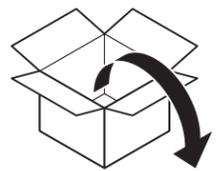


Luminaire

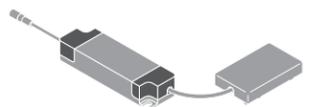


Driver & connector box

**BIOLUX HCL DOWNLIGHT DN150 ZIGBEE**



Luminaire

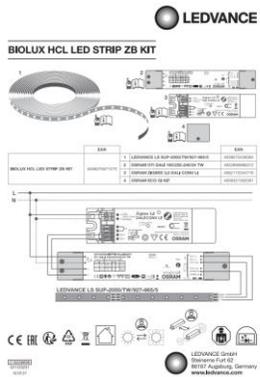
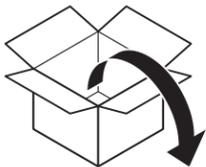


Driver & connector box

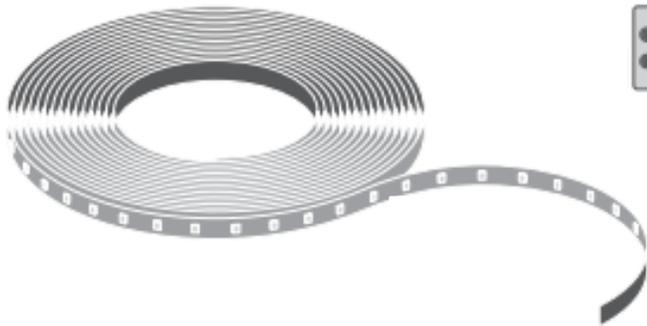
# INSTALLATION

## Content of packaging box

### BIOLUX HCL LED STRIP ZB KIT

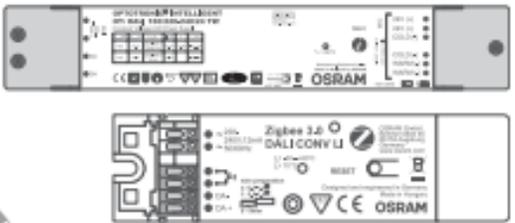


User Instruction



LED Strip  
Tunable White

DALI Tunable White driver



Zigbee to DALI  
converter

Endcap for  
converter

BIOLUX HCL  
LED Strip Kit



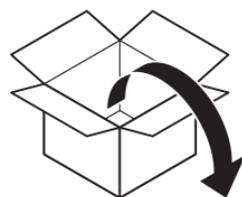
# INSTALLATION

## Content of packaging box

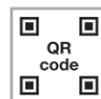
### VIVARES ZB Occupancy Sensor



#### VIVARES ZB SENSOR



#### VIVARES ZB SENSOR



	EAN	l x w x h [mm]	V <sub>AC</sub>	Hz	Input current (mA)	IP	ΔT (°C)
VIVARES ZB O SENS	4058075544222	85 x 85 x 65	220-240	50/60	8	20	0...+40

User Instruction



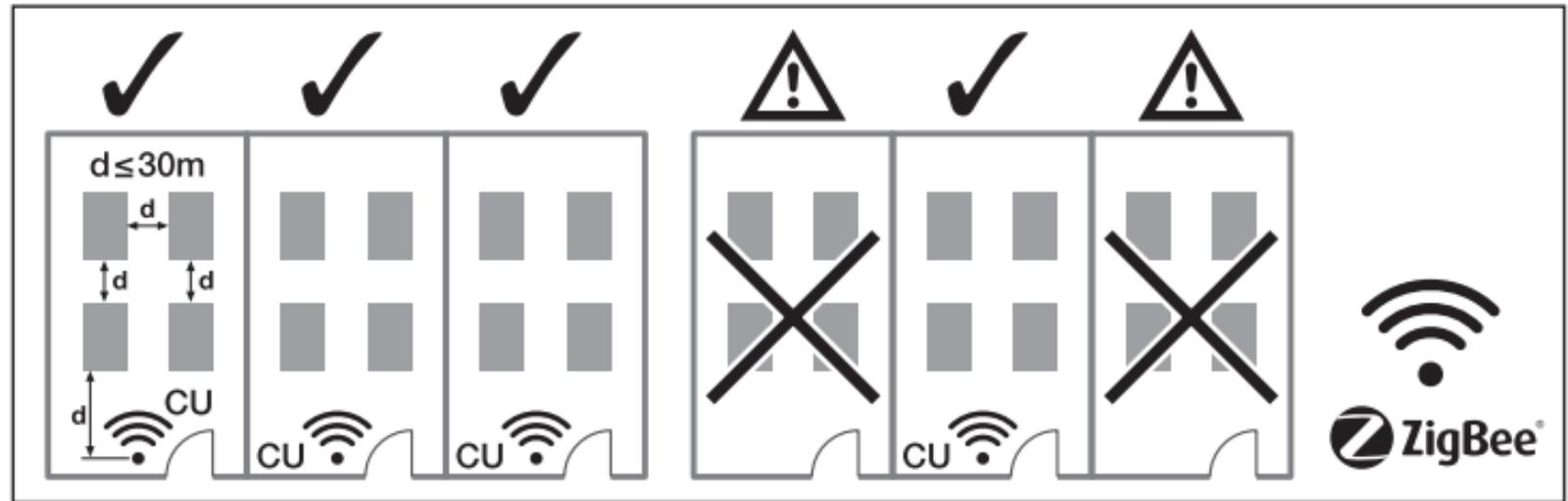
Sensor

# INSTALLATION

## BIOLUX HCL System



### General information



One Control Unit for luminaires in one room.

Max free air distance from Control Unit to first luminaire: 30m

Max free air distance from luminaire to luminaire: 30m

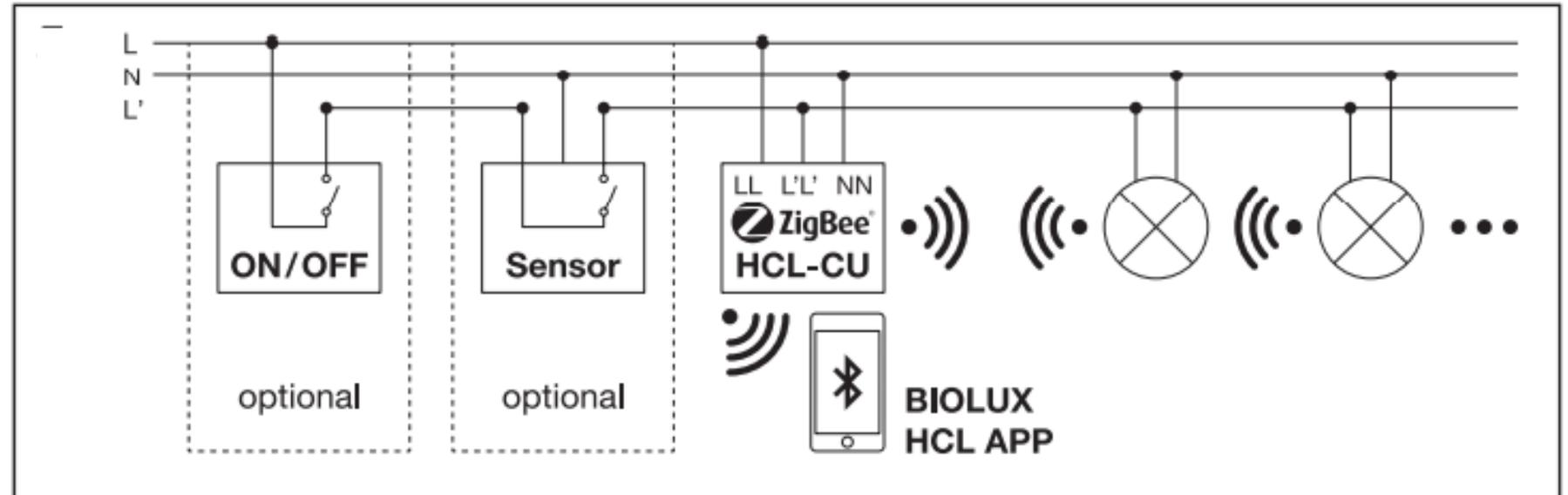
Max number of devices (luminaires, sensors, led strip kits) in one system: 48 pcs

# INSTALLATION

## BIOLUX HCL System



### Wiring diagram Option 1



The Control Unit shall be permanently connected to 230V (L, N). Otherwise it can take up to 10min before the Zigbee system network is stable working.

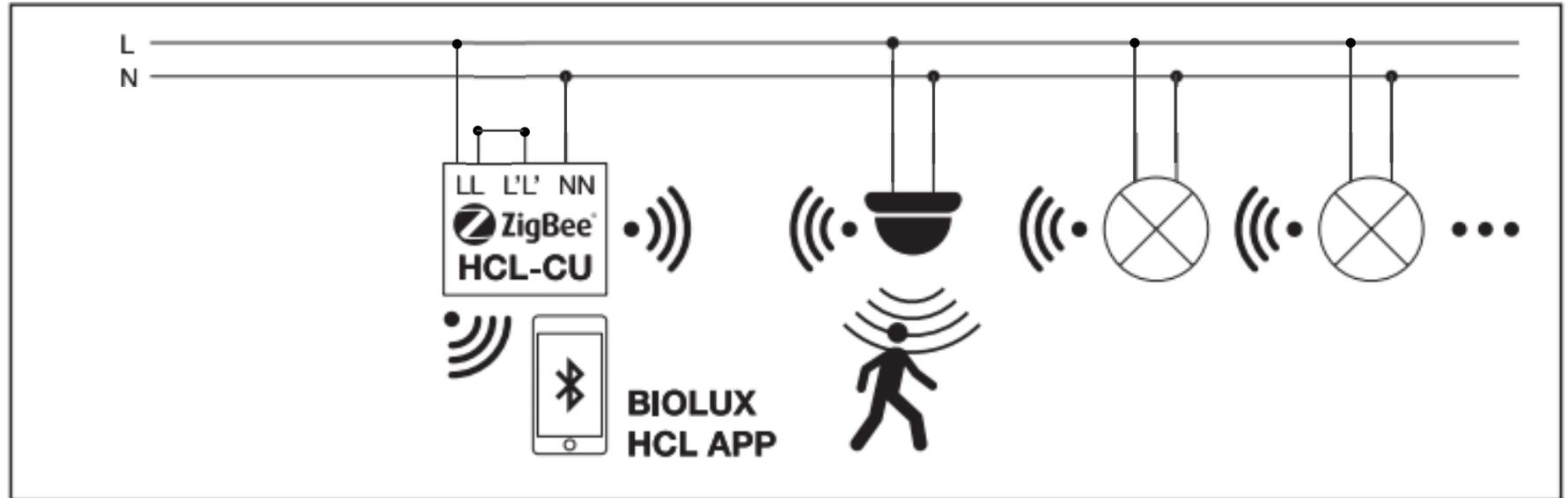
If a switching sensor (optional) or a switch (optional) is used, L' needs to be set to 230V (connected to L) via the switch or the switching sensor. Then L' will be switched on and off together with the luminaires. When L' is not connected to L, the Control Unit goes in a sleep mode.

# INSTALLATION

## BIOLUX HCL System



### Wiring diagram Option 2



The Control Unit shall be permanently connected to 230V (L, N). Otherwise it can take up to 10min before the Zigbee system network is working stable.

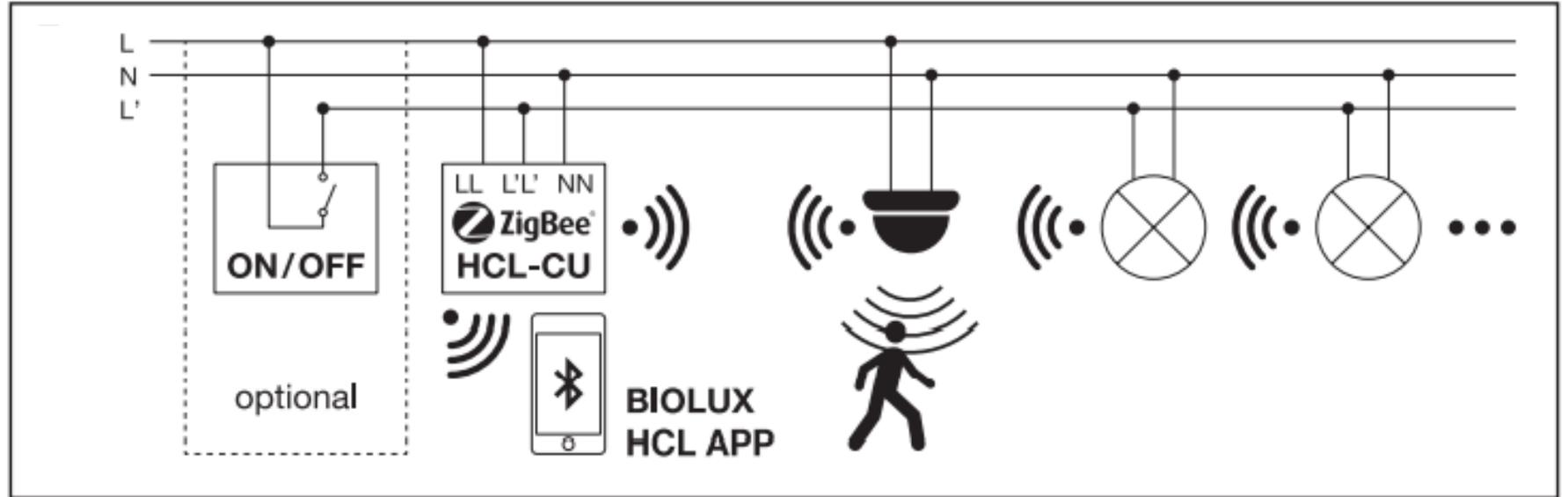
In case that no switching sensor and no switch is used, L' needs to be set as well to 230V (L and L' connected) permanently. When L' is not connected to L, the Control Unit goes in a sleep mode.

# INSTALLATION

## BIOLUX HCL System



### Wiring diagram Option 3



The Control Unit shall be permanently connected to 230V (L, N). Otherwise it can take up to 10min before the Zigbee system network is stable working.

If a switch is used in addition to the wireless sensor, L' needs to be set as well to 230V via the switch. Then L' can be switched on and off together with the luminaires.

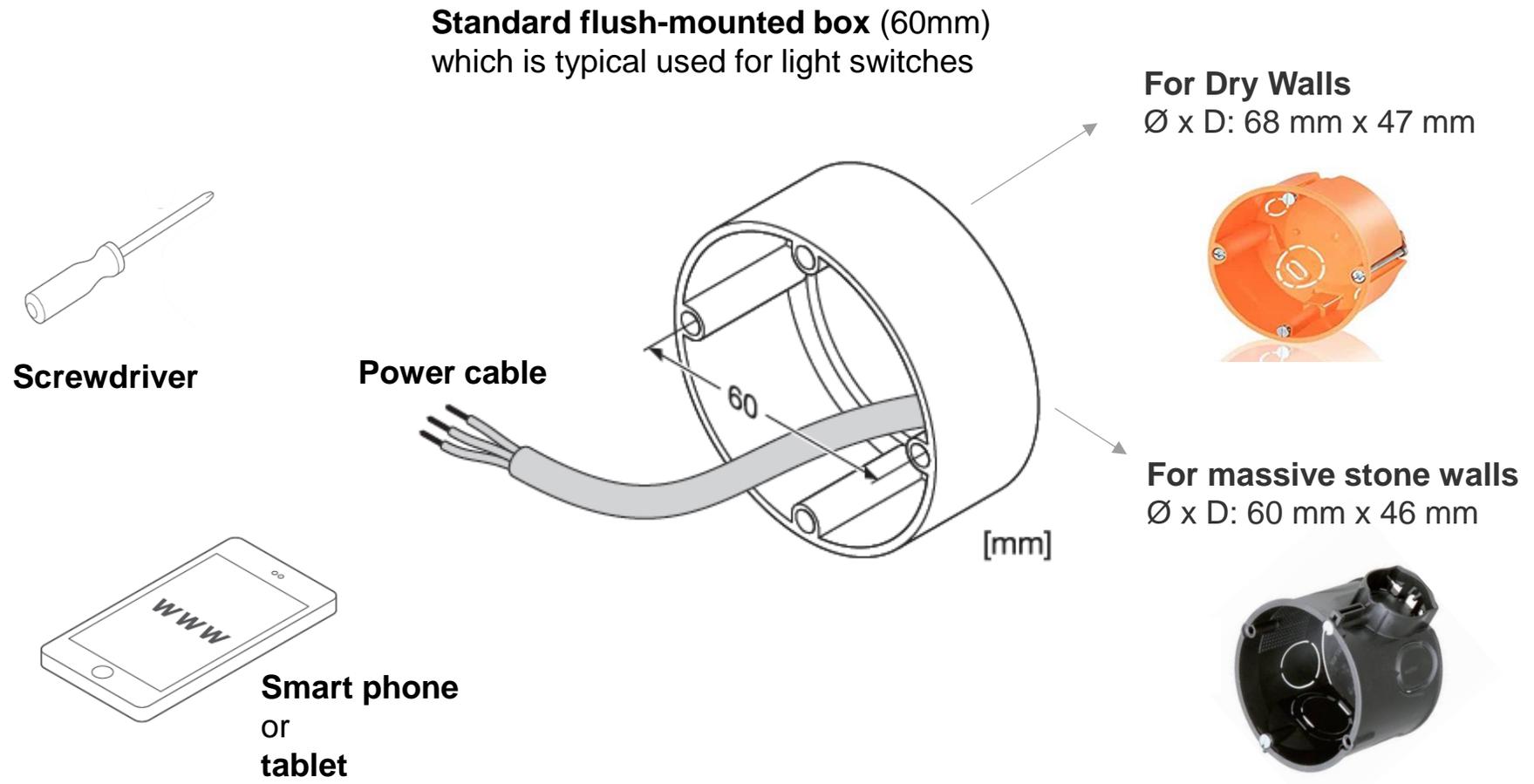
When L' is off, the Control Unit goes in sleep mode, but remains powered.

# INSTALLATION

## BIOLUX HCL CONTROL UNIT



### Required for the installation

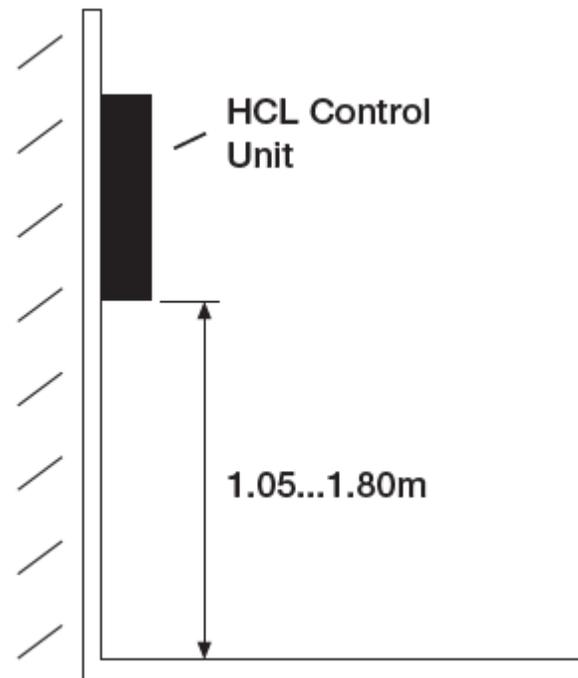


# INSTALLATION

## BIOLUX HCL Control Unit



## Installation of flush mounting box

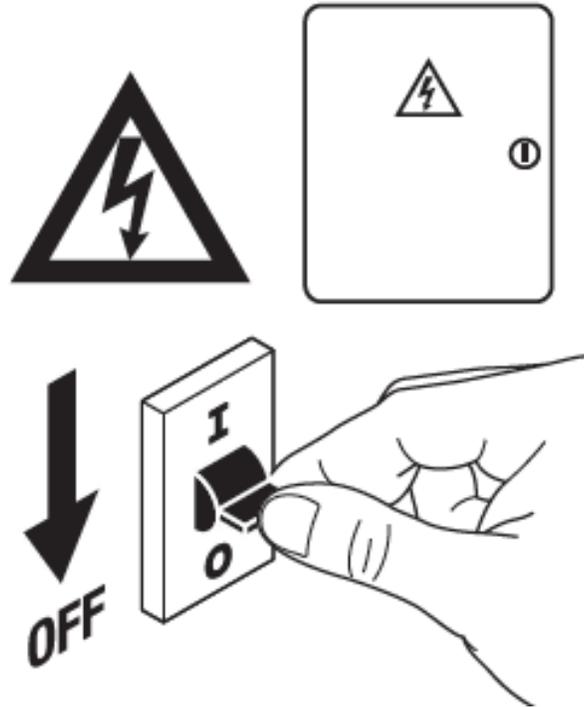


For ergonomic reasons  
installation height should be  
between 1.05 and 1.80 m

# INSTALLATION

## BIOLUX HCL System

### BIOLUX HCL System



For safety reasons make sure to turn mains off before installation

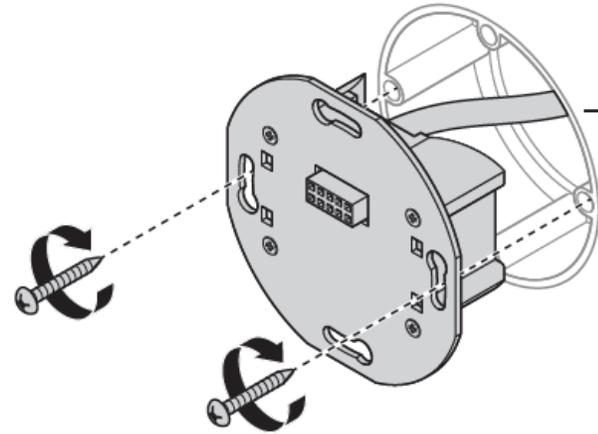
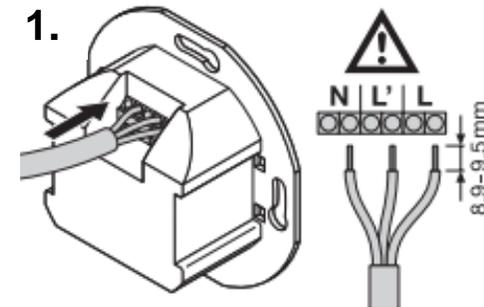
# INSTALLATION

## BIOLUX HCL Control Unit

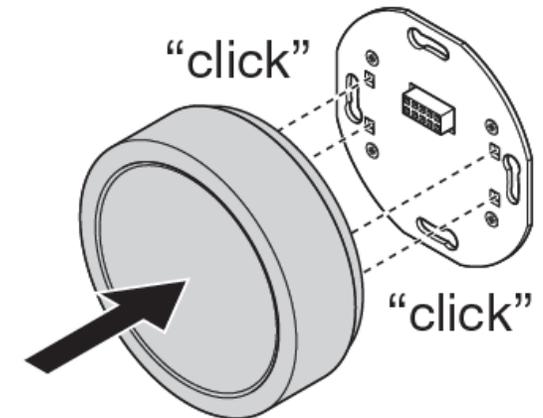


## Installation of Control Unit in a flush-mount box

1. Electrical connection of HCL Control Unit – see also wiring diagrams



2. Fix HCL power supply in flush-mount box



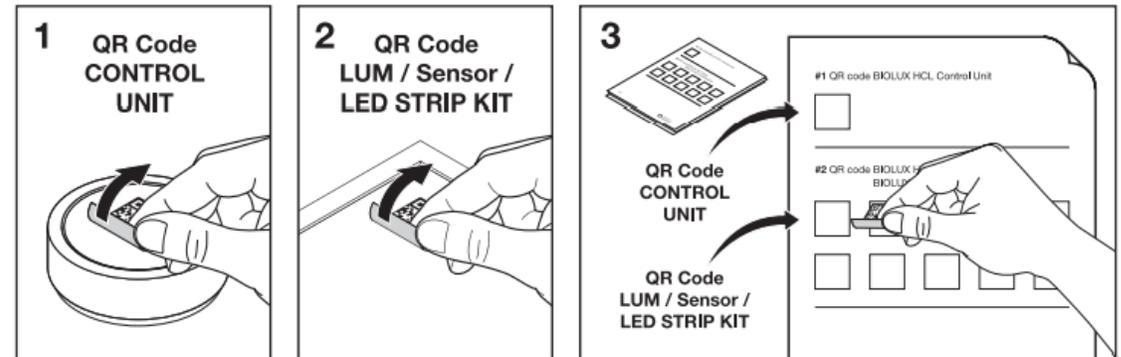
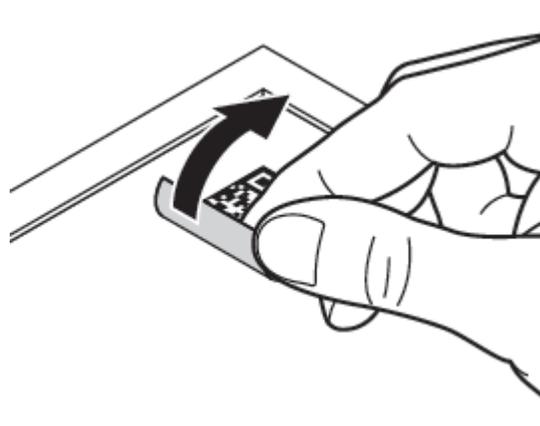
3. Click the HCL Control Unit  
into the HCL power supply

# INSTALLATION

## QR code handling

Take QR codes from the BIOLUX HCL products and stick them on the QR code leaflet.

BIOLUX HCL  
products



The QR code leaflet is for the later connection between the HCL products required.

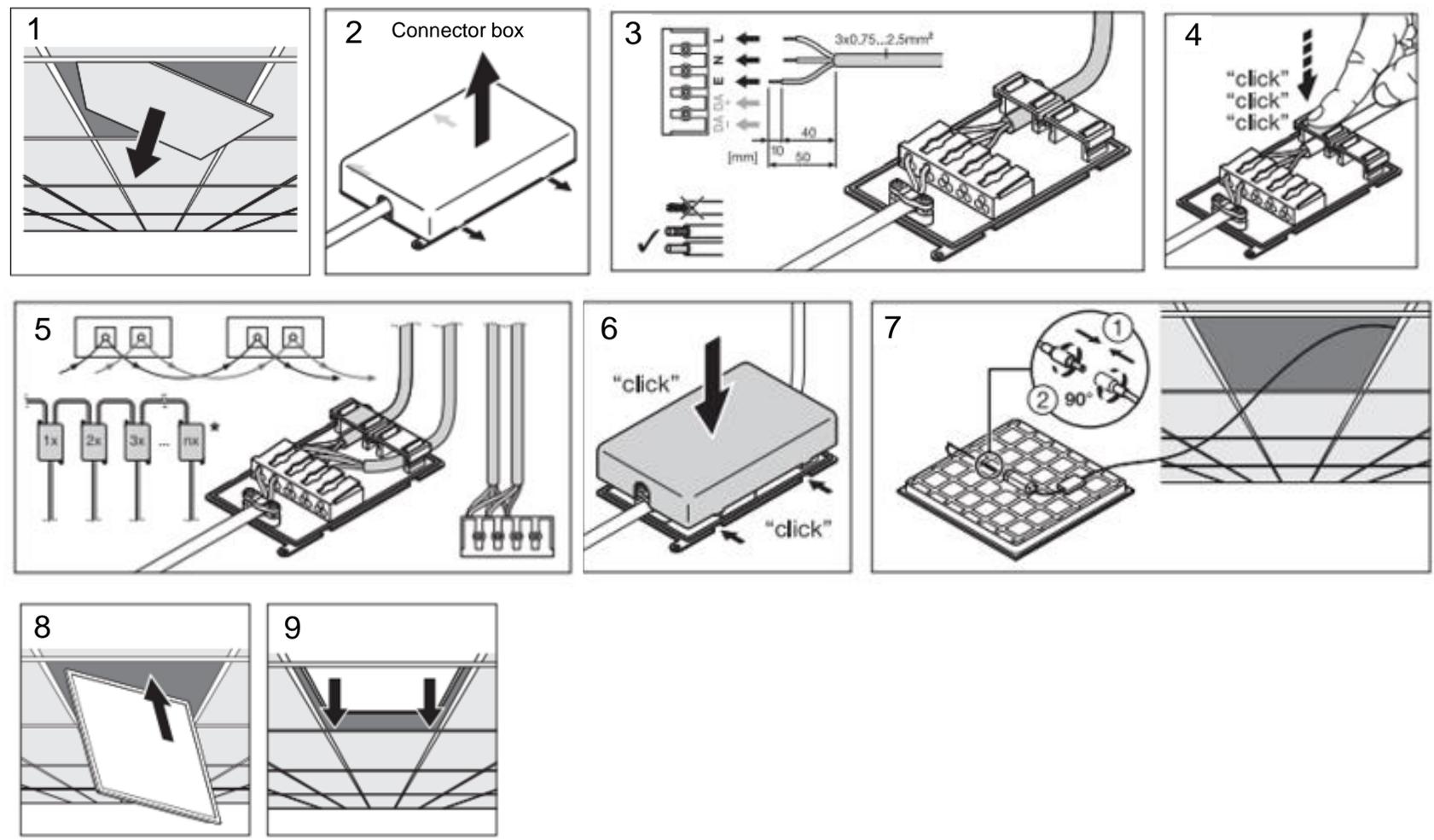
If QR codes on the leaflet are linked to the floorplan of the installation area, the position of each HCL product in the installation can be easier identified in case of modifications or maintenance.

# INSTALLATION

## BIOLUX HCL LUMINAIRES



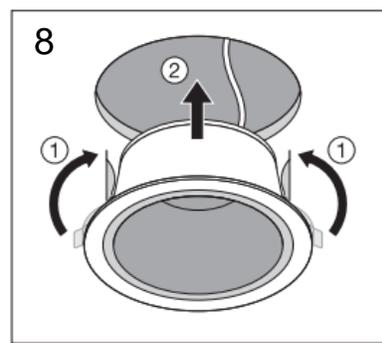
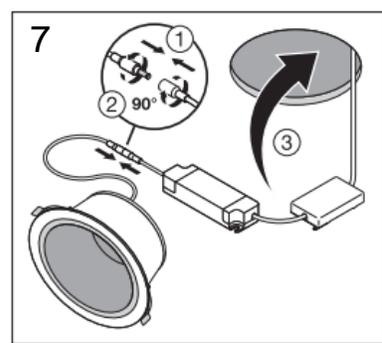
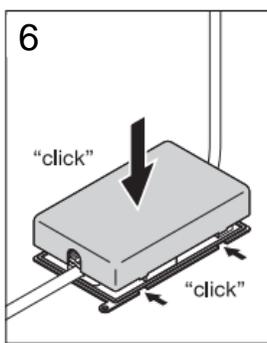
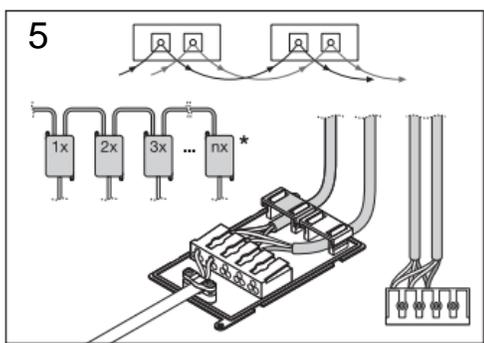
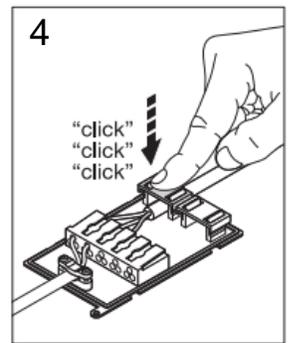
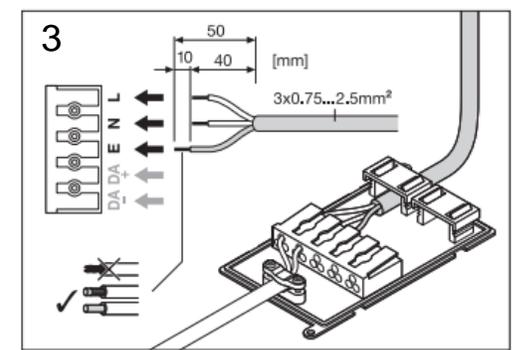
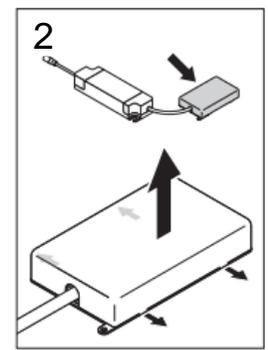
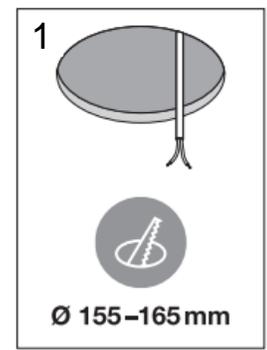
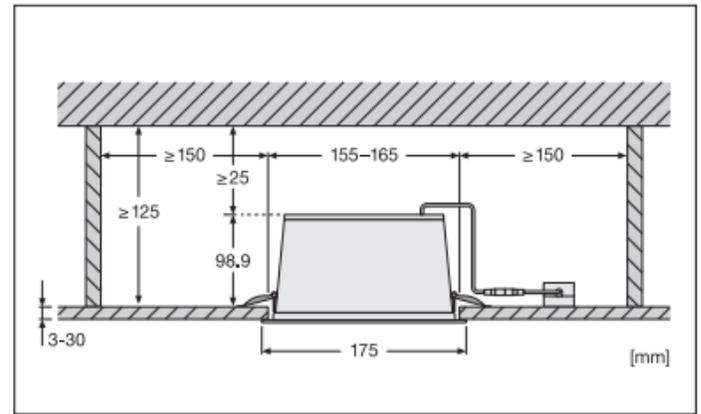
### Panel luminaire



# INSTALLATION

## Downlight

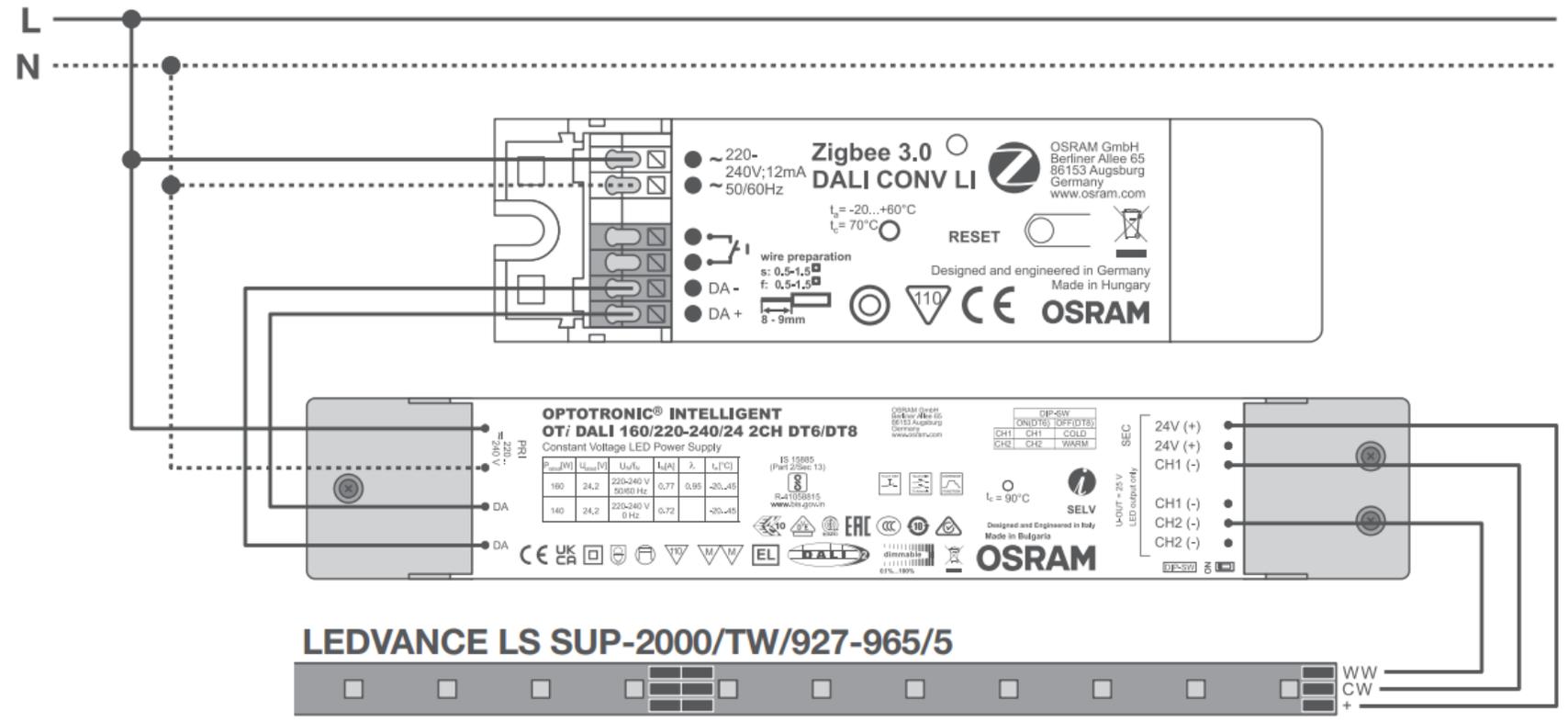
### BIOLUX HCL LUMINAIRES



# INSTALLATION

## HCL LED Strip Kit wiring diagram

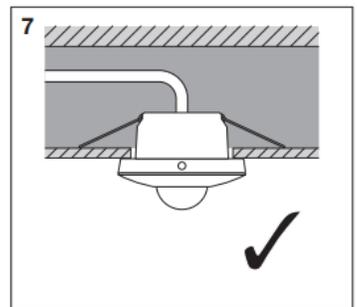
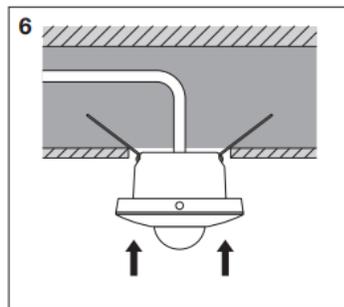
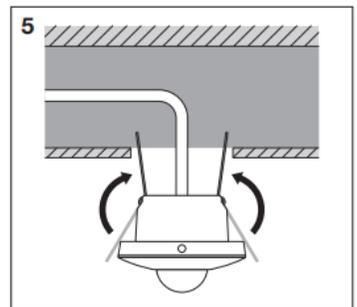
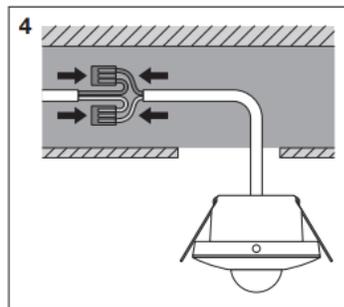
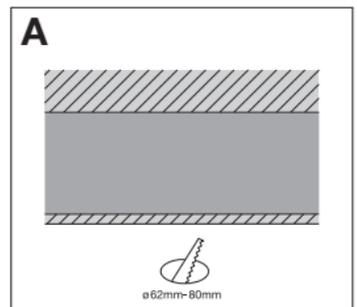
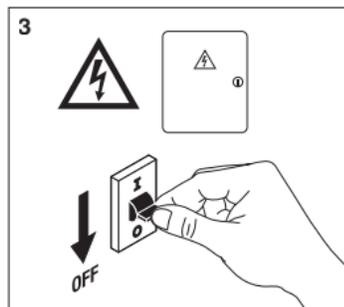
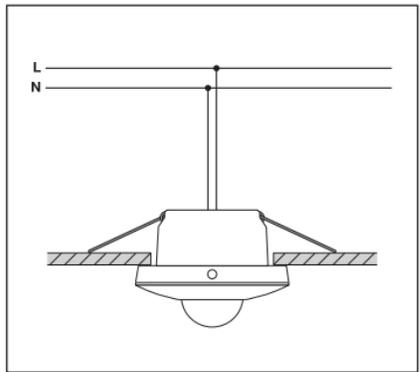
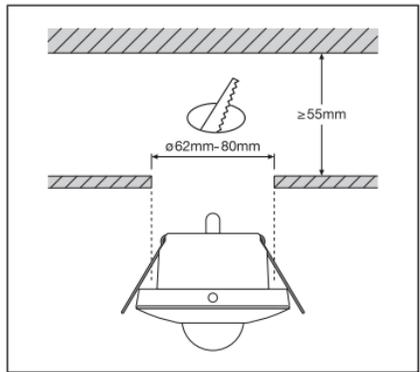
BIOLUX HCL LED Strip Kit



# INSTALLATION

## Occupancy Sensor

### VIVARES Zigbee Occupancy Sensor

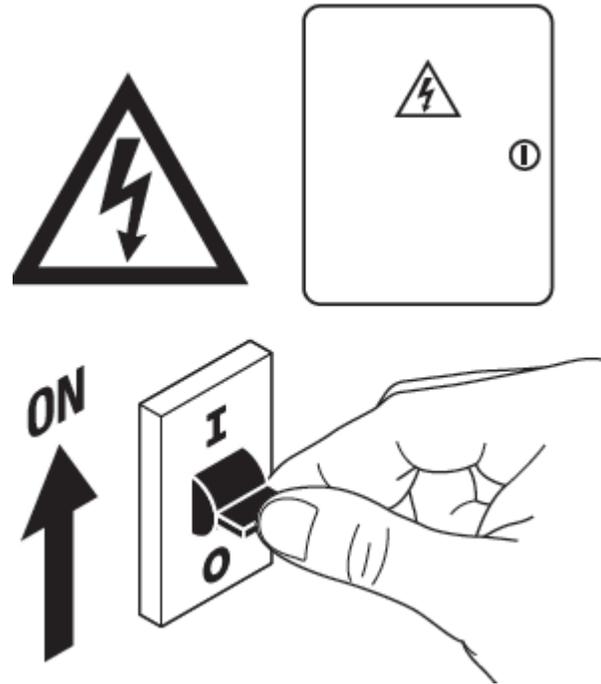


# INSTALLATION

## BIOLUX HCL System



## Installation finished



Turn power to „ON“

# Commissioning

## Wireless connection of installed HCL products via BIOLUX App

### System setup



The purpose of the App is to join (wirelessly connect) the installed HCL products (luminaires, sensors, led strips) to the HCL Control Unit

1. Download the BIOLUX APP on your mobile device (Smartphone or Tablet)
2. Start the App
3. Follow the instructions

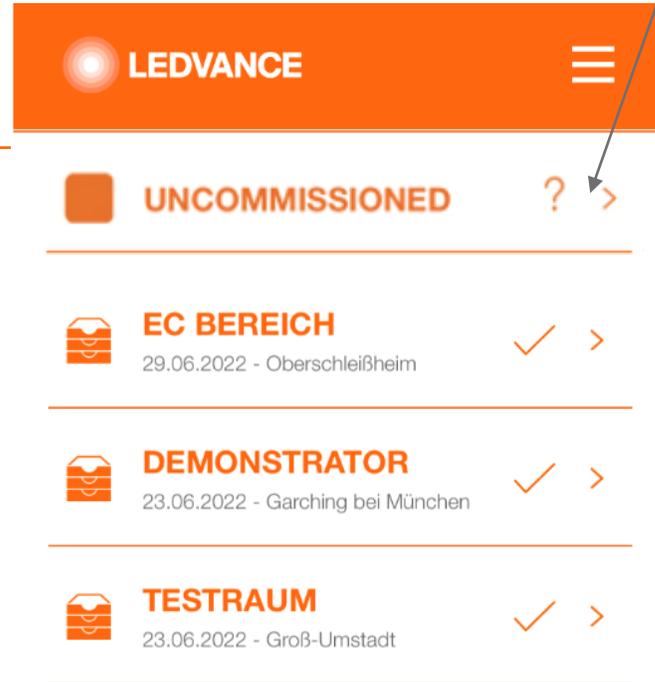


# Commissioning

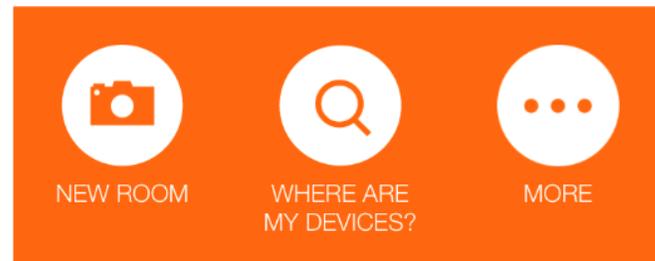
via BIOLUX app



Select the „UNCOMMISSIONED“ Control Unit,  
Create a new room and provide a room name.

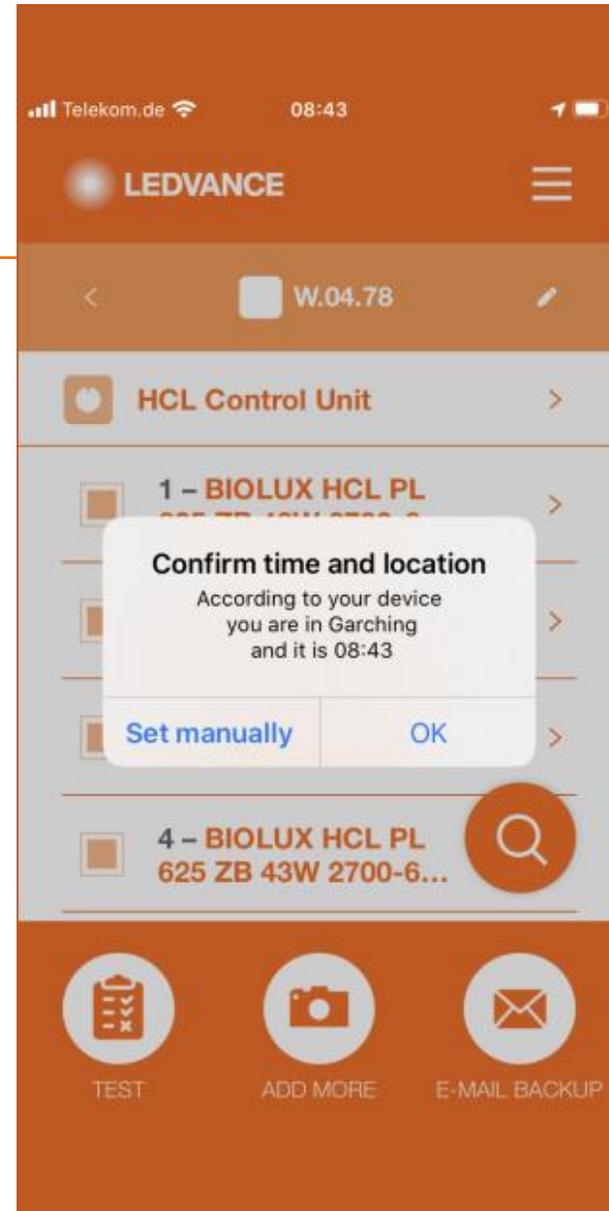


Scan the QR Codes of the  
CU and of the luminaires  
from the QR code leaflet.  
The HCL System will be  
connected all installed  
products automatically.



# Commissioning

via BIOLUX app



No manual programming is required:

**Location and time is automatically transferred from the mobile to the Control Unit via the BIOLUX HCL app.**

You need to allow using the GPS data of the mobile to the app. Or enter the location manually. Internet connection is required to get the local map.

After the commissioning,  
The artificial light will change according to natural light at the place where the BIOLUX system is installed.

# Commissioning

## Connection of installed HCL products via BIOLUX App

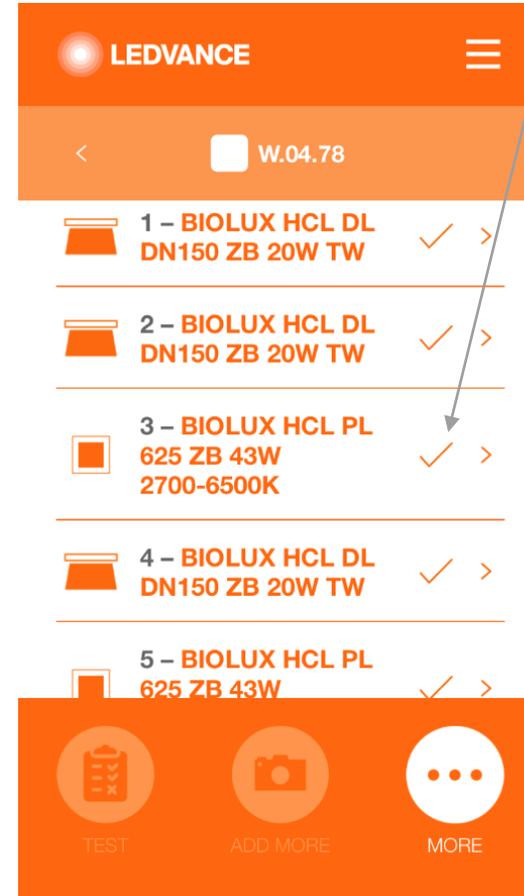
via BIOLUX app



Product is in joining process



Product is connected with the Control Unit



The system creates a ZigBee network between the installed HCL products.

Luminaires are briefly flashing four times when the connection is established.

After all luminaires have connected, the system is ready.

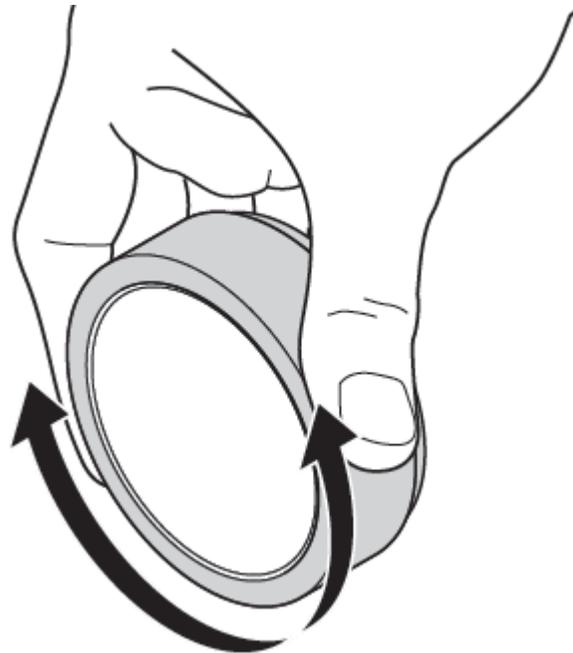
The HCL system is now completely installed and ready to use.

# Commissioning

## BIOLUX HCL Control Unit



## Information



After the first installation and when the CU was powered off it can take up-to 10min before a stable Zigbee network is available.

After the installation is done, the CU should always remain powered in order to avoid the waiting time before the network is established.

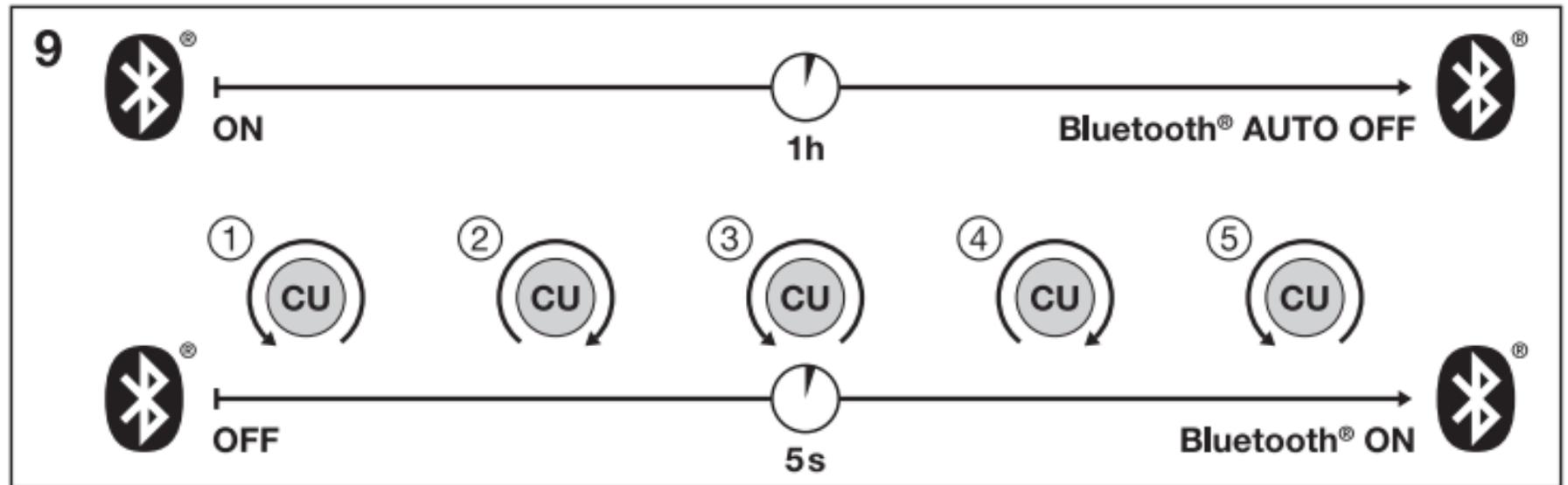
Steady state power consumption is less than 0,5W.

# Commissioning

## Bluetooth connection



## Information



The bluetooth connection is switched off, if the App on the mobile phone was not connected with the Control Unit for about 60min.

For reactivation of the bluetooth connection the Control Unit must be rotated 5 times to left and right hand side.

# Setup

## BIOLUX HCL App Further App functions



### DEMO



- Ⓧ Einführung der NATURAL HCL Lichtszene
- Ⓜ Demo of NATURAL HCL lighting scene
- Ⓨ Démonstration NATURAL HCL scène lumineuse
- Ⓩ Il riportare NATURAL HCL scena di luce
- Ⓟ Adelantar NATURAL HCL escena de luz

### TIMETABLE



- Ⓧ Zeitplaneinstellung
- Ⓜ Timetable settings
- Ⓨ Réglage du calendrier
- Ⓩ Impostazione del programma
- Ⓟ Configuración de la programación

### OFF SETUP



- Ⓧ Einstellung der Ein-/Ausfunktion
- Ⓜ On/off function settings
- Ⓨ Réglage de la marche/arrêt
- Ⓩ Impostazione della funzione on/off
- Ⓟ Configuración de la función de encendido/apagado

### SENSOR CONFIGURATION



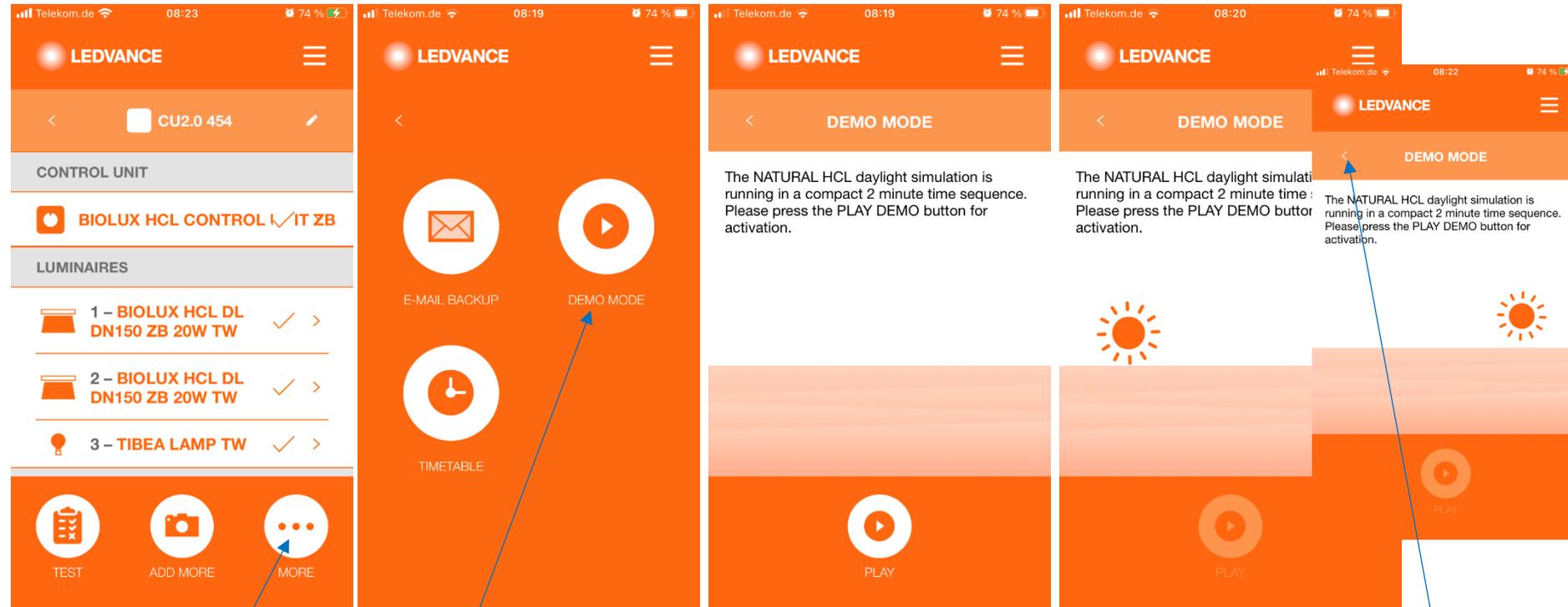
- Ⓧ Sensoreinstellung
- Ⓜ Sensor configuration settings
- Ⓨ Configuration du capteur
- Ⓩ Configurazione del sensore
- Ⓟ Configuración del sensor

# SET UP

## BIOLUX HCL App

### Demo Mode simulates a day in two minutes in NATURAL mode

#### Demo Mode



Select room and tab on MORE

Select DEMO MODE

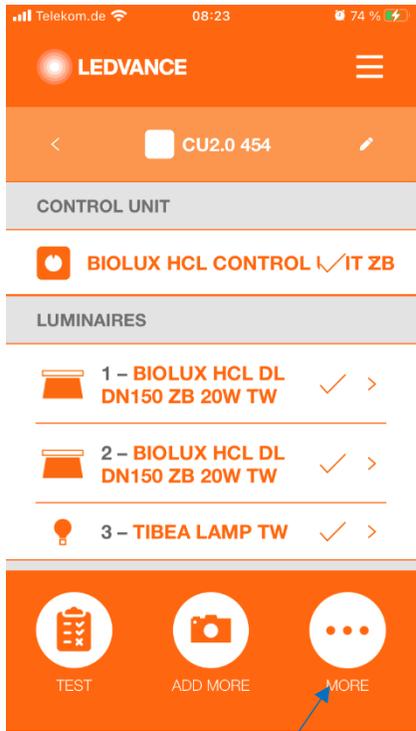
Tab on PLAY to start demo

Demo runs for 2 minutes and changes lights. A sun-icon moves and indicates the Demo. To stop earlier, tab on „<“ (back) or rotate on the CU

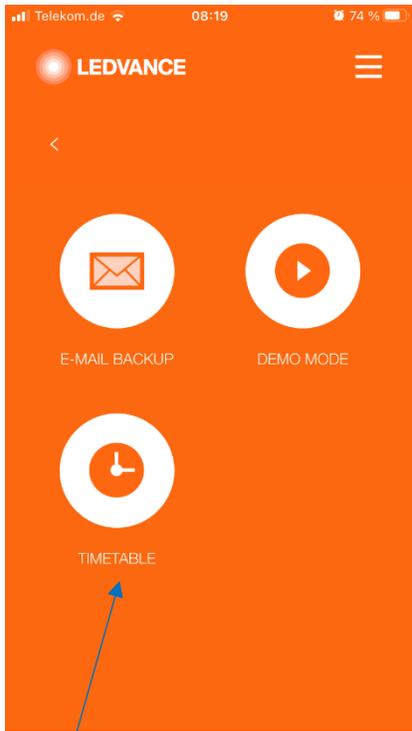
# SET UP

## BIOLUX HCL App TIMETABLE functions / selecting and creating timetables

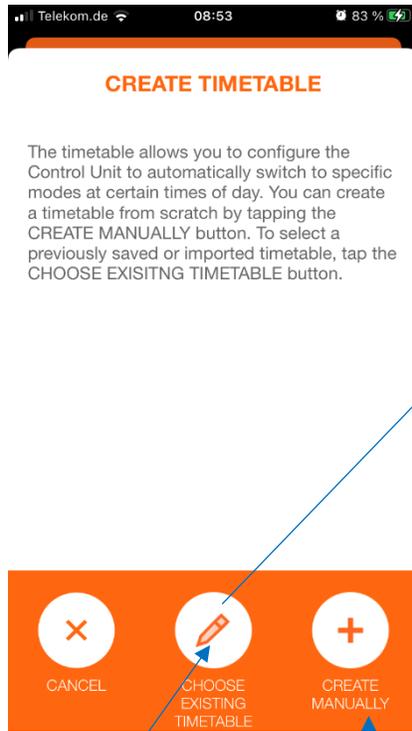
### Timetable



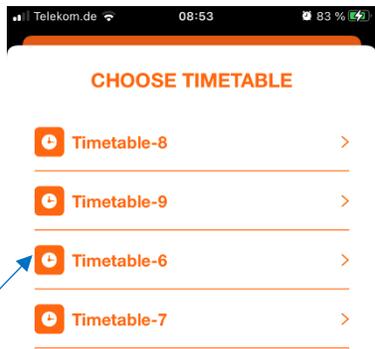
Select room and tab on MORE



Select TIMETABLE



CHOOSE EXISTING Timetable, select TT and tab on „USE TIMETABLE“



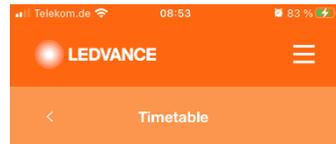
Or CREATE MANUALLY a new timetable and ADD ENTRY



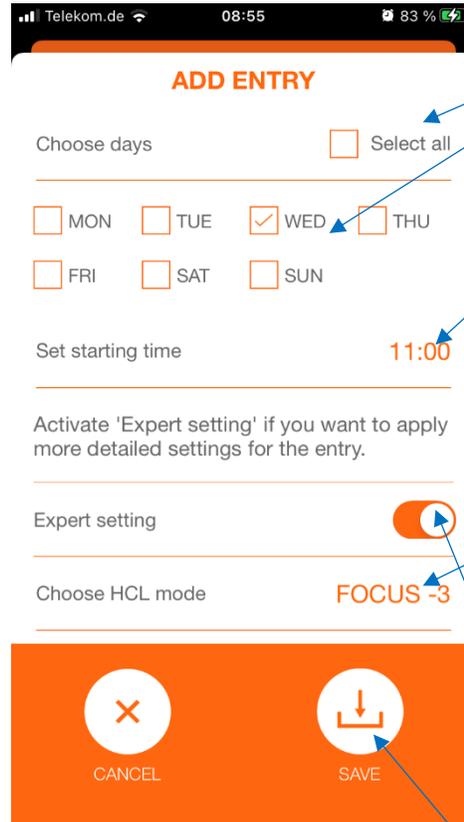
# SET UP

## BIOLUX HCL App TIMETABLE TT functions (select and create TT - continued)

### Timetable



Add new entry



Add your entries

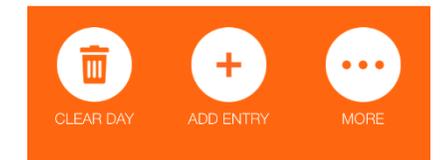
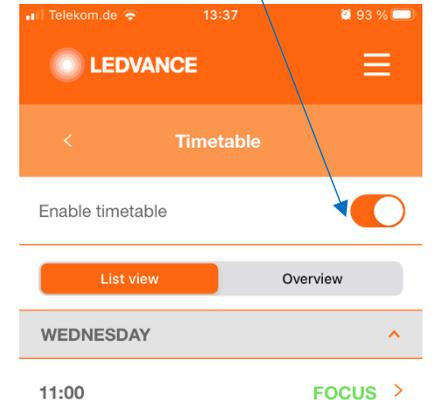
Select one, or more, or all days

Set the starting time the setting will persist until the next event is set or until the user rotates the CU

Select the mode OFF, RELAX ... BOOST If required enable Expert setting and select submode (-3...0...+3)

Tab SAVE

TT must be enabled to be active



The saved setting will be shown in the list view.

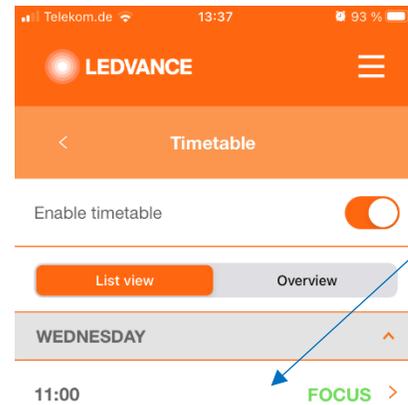
Continue with next entry

# SET UP

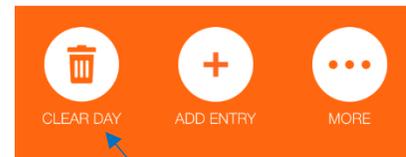
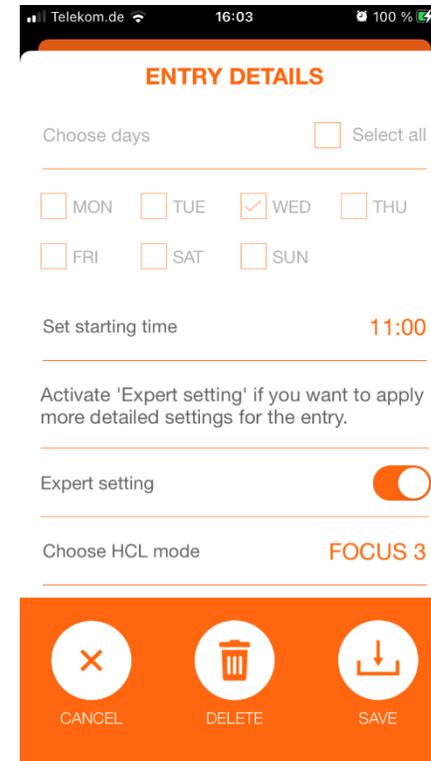
## Timetable



## BIOLUX HCL App TIMETABLE TT functions (deleting entries)



Or tab on an entry to select it.



In the list view you can clear all entries for the selected day

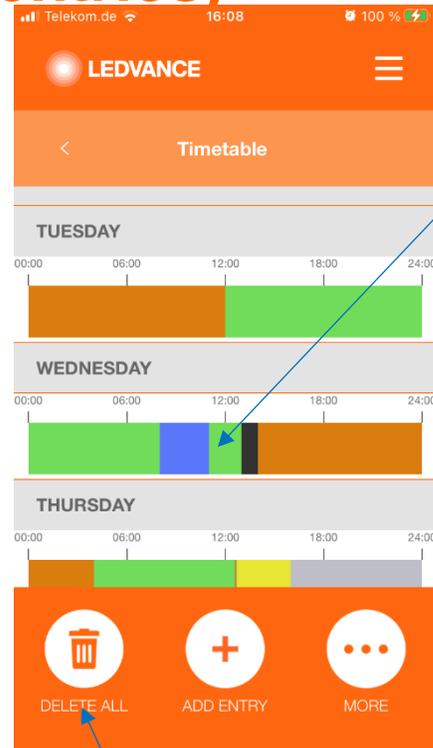
You can delete this entry or modify it and SAVE

# SET UP

## Timetable

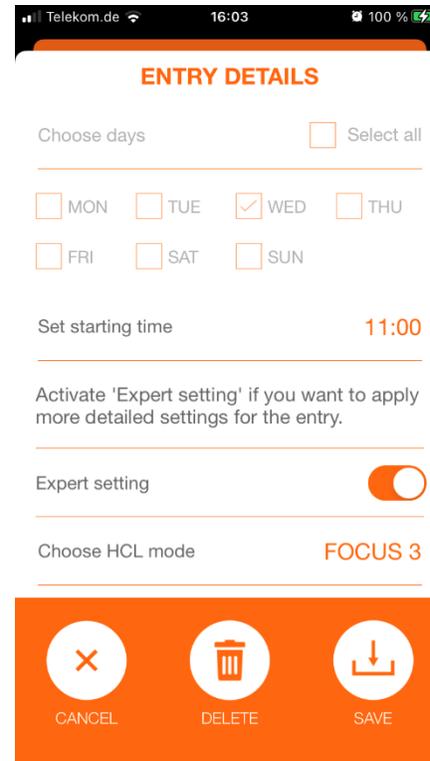


## BIOLUX HCL App TIMETABLE TT functions (deleting entries)



In the overview you can delete all entries for all days (complete TT)

Or tab on an entry to open it.



You can delete this entry or modify it and SAVE



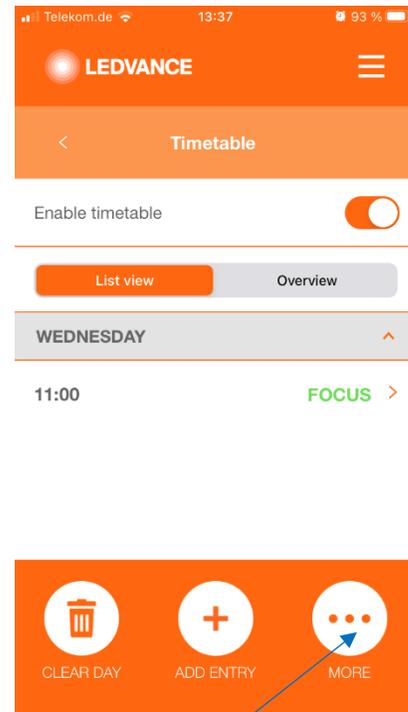
- A timetable entry defines the starting time for a new setting (mode)
- The CU changes slowly from the current setting to the new setting at the defined time.
- The new setting will be active until a future timetable event changes the light again  
Or until the user rotates on the CU to define a new setting.
- User interactions have always priority.

# SET UP

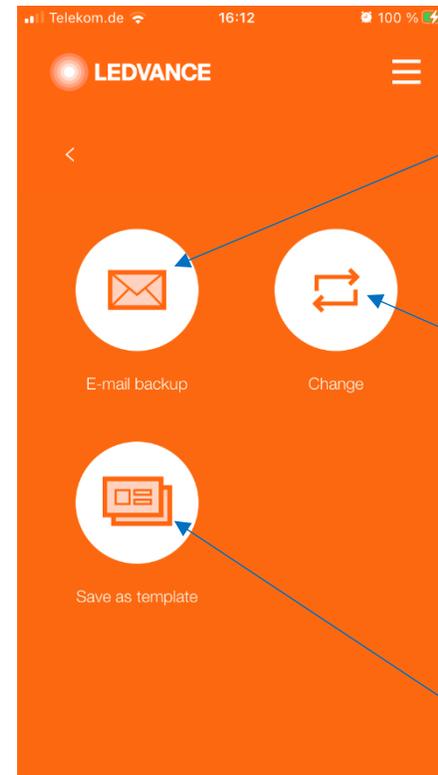
## Timetable



## BIOLUX HCL App TIMETABLE TT functions (saving/deleting timetables)



In the list view and in the overview you can click on MORE to open further options for the timetable



The current settings can be saved as csv-file and sent by email for future use (see editing csv-files)

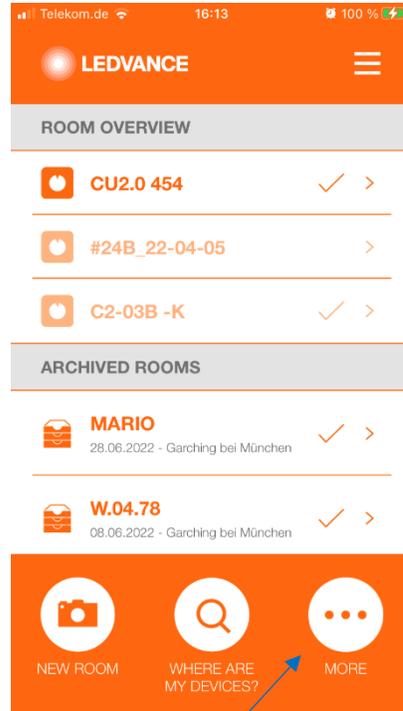
A saved timetable can be loaded in the CU for use.  
Tab Change, select TT and tab „Use timetable“.  
The active TT is lost, when not saved as template before

The current settings can be saved as template for future use

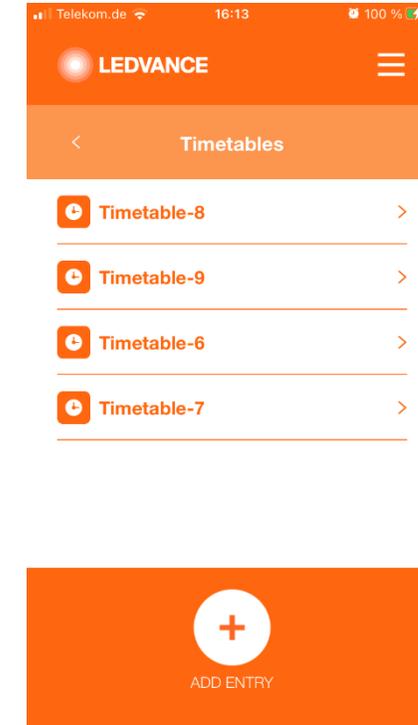
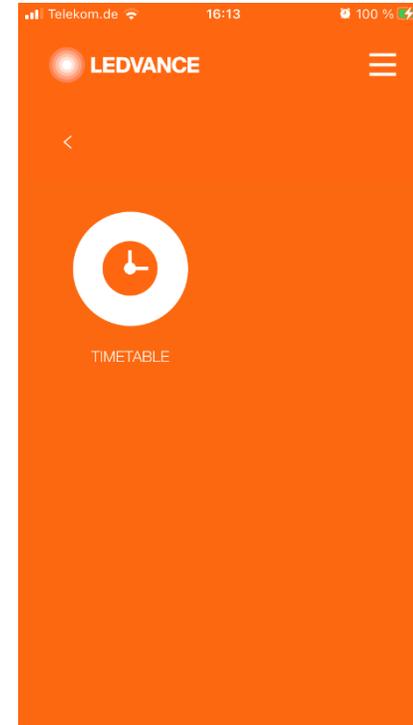
# SET UP

## BIOLUX HCL App TIMETABLE functions (saving/deleting timetable-templates)

### Timetable



In the room overview you can tab on **MORE** to open further options for the timetable



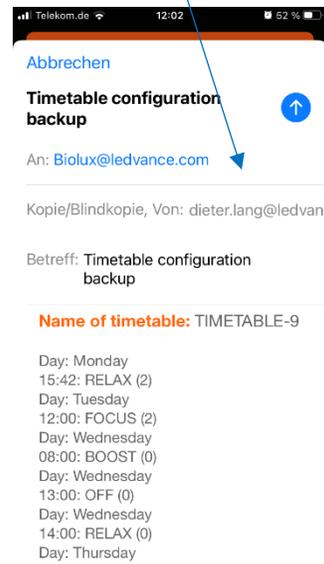
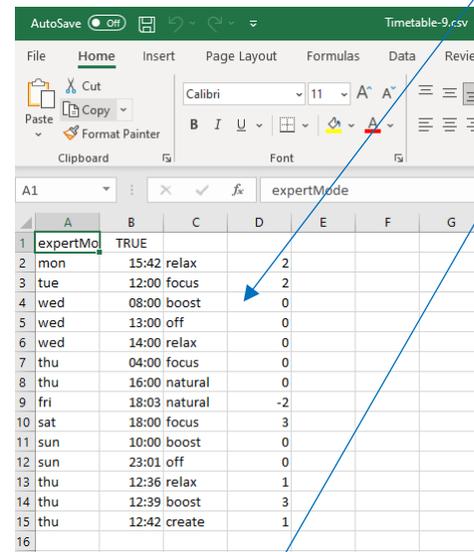
- Select a timetable to view or edit it and overwrite the template without loading it to the Control Unit. This needs to be done after selecting a room.
- Wipe a timetable to the left to delete the whole template. The active timetable in the CU remains.

# SET UP

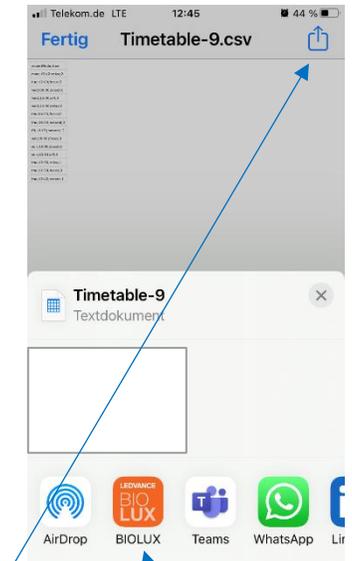
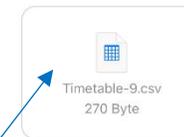
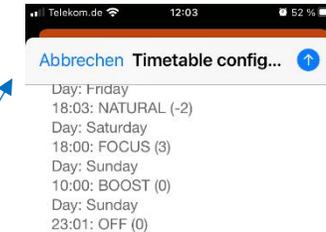
## BIOLUX HCL App TIMETABLE TT functions (editing and sharing csv-files)

In the room overview you can tab on MORE to open further options for the timetable and then tab on Email backup to send the timetable as email text and as csv-file to an email account. The email recipient can open and edit the csv-file, add new entries, modify or delete existing entries and save as csv-file.

### Timetable

	A	B	C	D	E	F	G
1	expertMo	TRUE					
2	mon	15:42 relax		2			
3	tue	12:00 focus		2			
4	wed	08:00 boost		0			
5	wed	13:00 off		0			
6	wed	14:00 relax		0			
7	thu	04:00 focus		0			
8	thu	16:00 natural		0			
9	fri	18:03 natural		-2			
10	sat	18:00 focus		3			
11	sun	10:00 boost		0			
12	sun	23:01 off		0			
13	thu	12:36 relax		1			
14	thu	12:39 boost		3			
15	thu	12:42 create		1			
16							



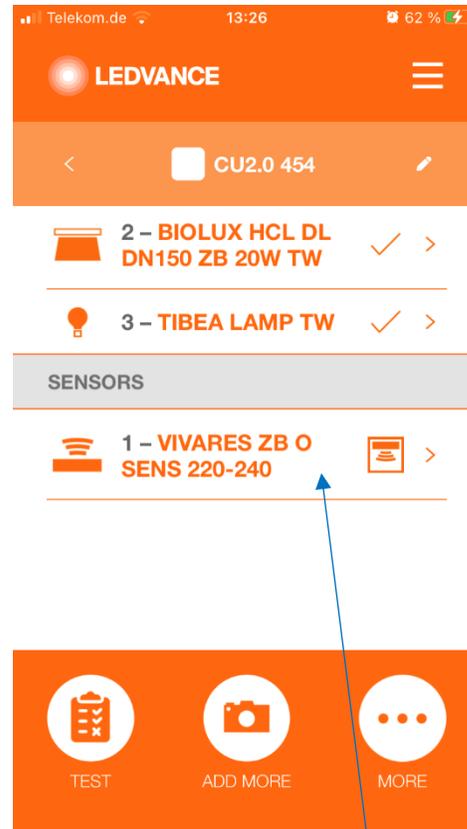
Send the csv-file to an email account which can be opened on the mobile having the BIOLUX app installed. Open the received email on your mobile, select the csv-file and share it with the BIOLUX app. Save the timetable, select the room for which it shall be used and open the saved timetable.

# SET UP

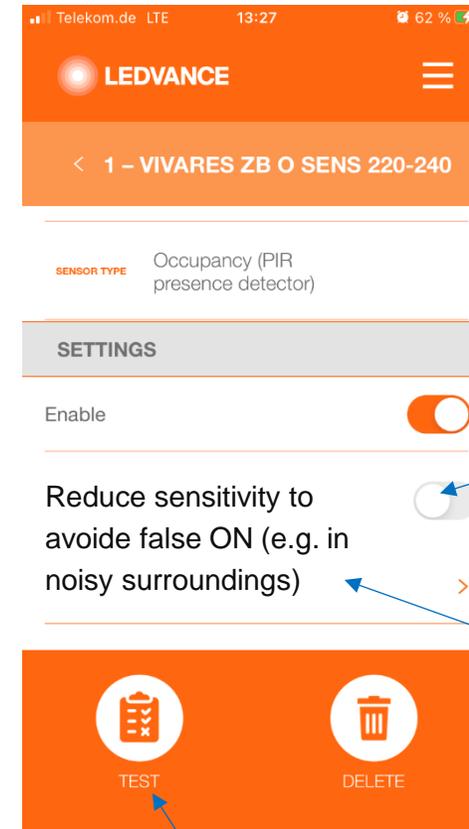
## Sensor configuration



## BIOLUX HCL App Further App functions (Zigbee Sensor Setup and configuration)



In the room overview, section SENSORS, select the sensor



Tabbing on TEST lets a red light on the sensor flash for 15 seconds to indicate that the sensor is in the Zigbee-network

Sensor must be enabled if function is demanded

If the sensor is reacting too strong in noisy environments, low sensitivity can be enabled to avoid false ON

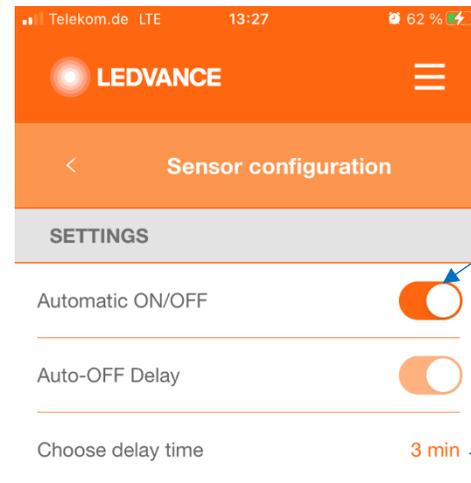
Tab on sensor configuration  
See next page

# SET UP

## Sensor configuration



## BIOLUX HCL App Further App functions (Zigbee Sensor Setup and configuration)



Enable automatic ON/OFF for standard sensor behavior, Turn ON, if presense is detected, turn OFF if no presense detected. When disabled, the sensor will only turn OFF the lights when no presense is detected. Turning on needs to be done manually, by rotation of the Control Unit

The sensor delay time defines after what time the sensor turns the lights OFF, when no presense was detected during this time.



Tab on SAVE

# SET UP

## BIOLUX HCL App Further App functions

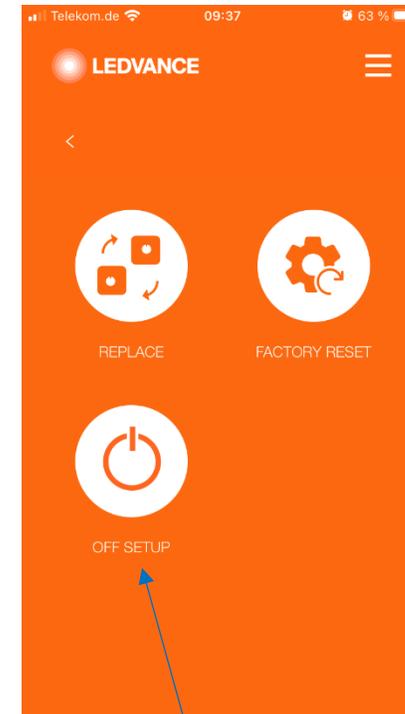
### Off setup



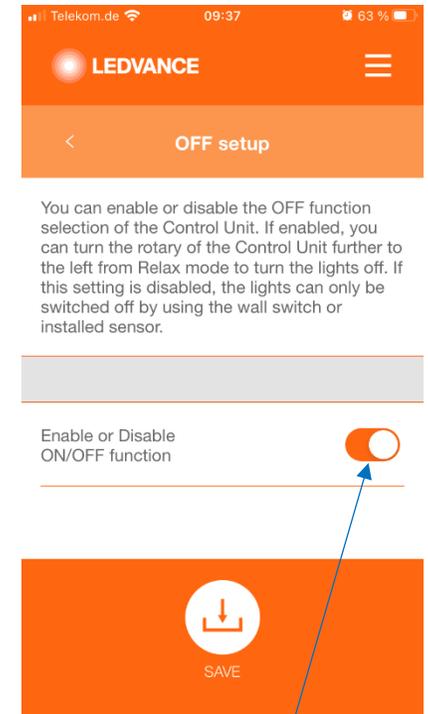
From the room view,  
select the Control Unit



Select MORE



Select OFF SETUP



Enable (slider to the right hand side) or Disable the manual OFF and tab on SAVE

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**THANK YOU**