

SYLVANIA

SylSmart Standalone

User Guide

Light your world

SYLVANIA

System Overview

Lighting Controls today are...



Limited for low cost
Dimming only
Low flexibility



Expensive for colour
changing / Flexibility –
extra hardware



Lacking accuracy using
mechanical pots to
change colour



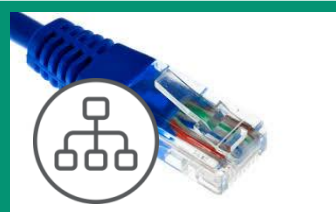
Installed on pre-existing
lighting infrastructure



Complex to specify
Lots of components
Often overkill to needs



Complex to program
Often with PC



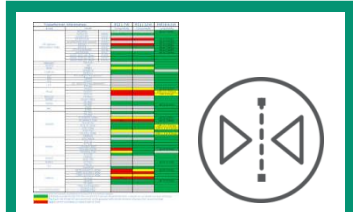
Requiring IT integration for
older wireless solutions



Intensively using control
cables




Expensive – Needing
additional hardware
Dimmers, hubs, control
cabinets, controllers




Prone to incompatibility
Digital vs Analogue


What SylSmart Standalone today can offer is...



Dynamic scenes
And groups – Flexibility




...without the high
expense




Accuracy in colour
changing and dim level



No change to their existing
lighting infrastructure



A simple system



Easy programming
No PC



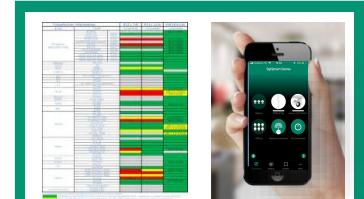
No IT integration
Security, ease, expense



No additional wires
No space, expensive...

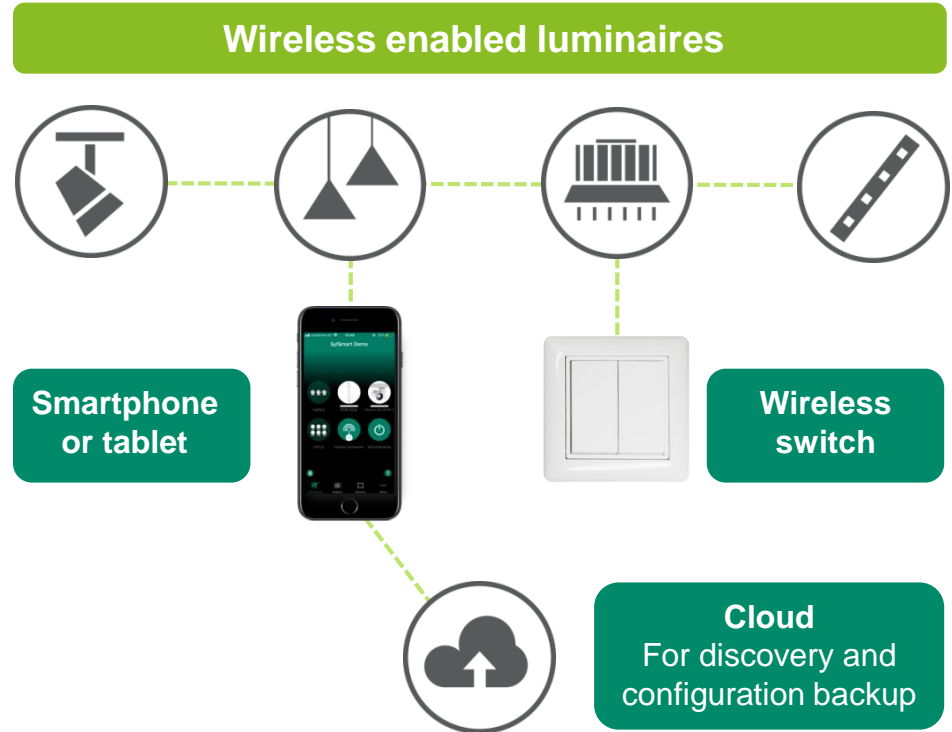


Low system cost

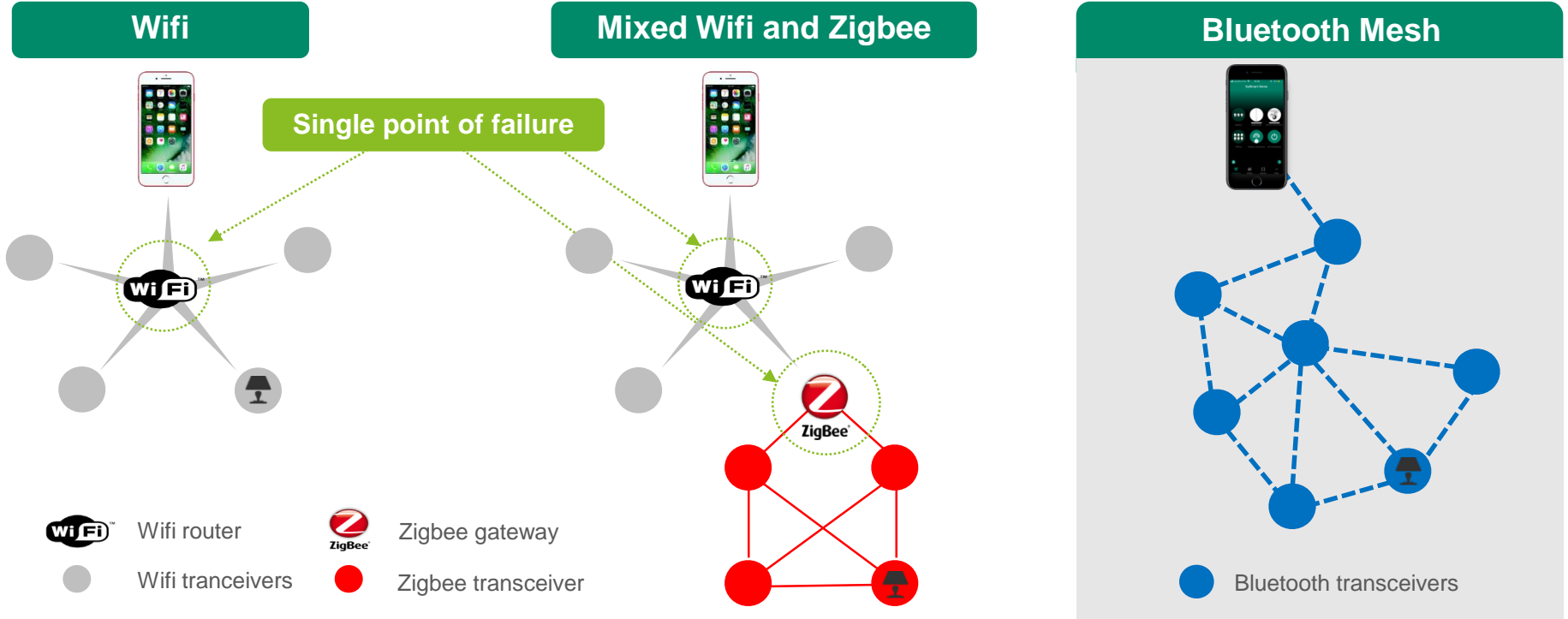


No incompatibility
Does more – Ibeacons

Wireless Control Solution Architecture



Architecture comparison



Key Benefits



Plug-and-play control

- No rewiring or new switches needed
- No elaborate central control systems



Dimming, Colour, colour temperature control



Modern smartphone control

- Highly visual, intelligent control from smart devices
- Easy graphic setup and easy to make changes



No IT integration / Highly secure

- No routers, gateways or repeaters needed, just the luminaire unit
- Multiple levels of access and control security



Easy Setup / Control

Luminaires organise automatically as a network for set-up, updating, communication, load balancing, re-start, timer, scenarios



Future proof

With software updates over the air

Pre-requisite requirements for the system



Phone/Tablet needs

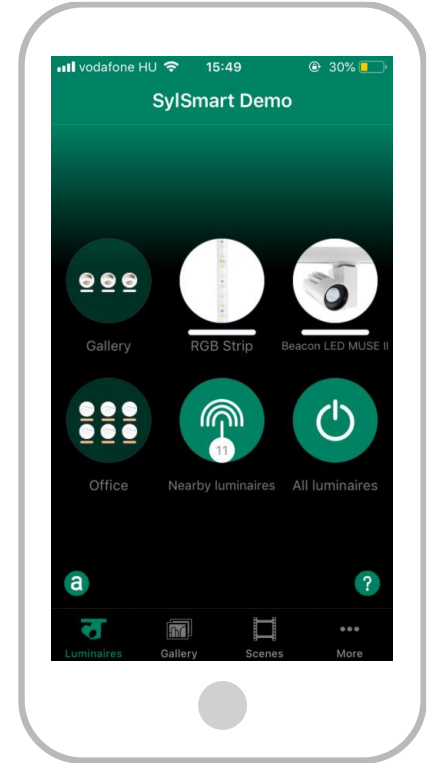
- Android or iOS Phone/Smart tablet
- Android or iPhone7 or later with iOS 13 with NFC for EnOcean switch
- iOS for expert/factory configuration



Luminaires

- SylSmart SSC enabled luminaires for variants

Please ensure a DALI enabled luminaire is referenced as donor



System capabilities

- Provisioning without hub
- Naming
- Grouping
- Scenes
- Animated Scenes
- Gallery control
- Timers
- Gateway
- Ibeacon (On special request)
- Cloud backup
- Switches and sensor setup
- Smart Switching
- OTA Updates
- Multiple site management
- DALI Command read back/status
- Security level management

System Limitations to consider

System Size

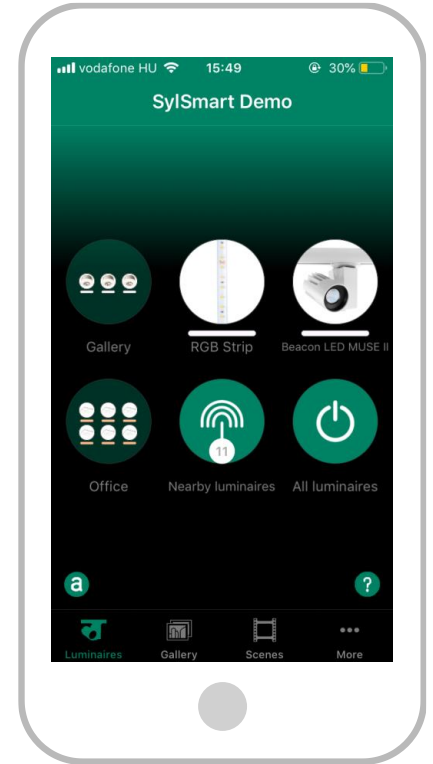
- Maximum 127 luminaires/devices in one network
- Multiple “Site” networks can be used to extend networks

Clock

The networks run its own internal clock which is synchronised when a smartphone, tablet or a gateway is connected. It does not automatically change.

Wall Switch

Android or iPhone7 or later with iOS 13 with NFC for EnOcean switch needed today.



SYLVANIA

Using the app

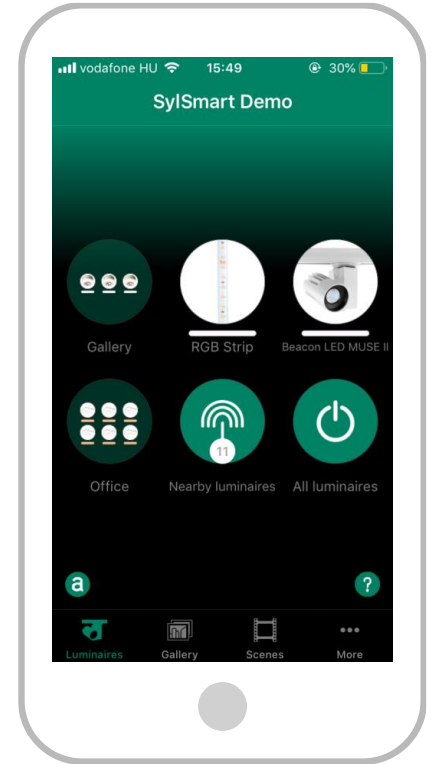
Using the app



The SylSmart app
is easy to use.

Follow these steps:

1. Download the app from the Apple app store or Google Play
2. Ensure Bluetooth is ON, on your smart device
3. Open the app
4. Power your wireless enabled luminaires



Using the / The opening screen

My networks:

- Setup new networks
- Login to existing networks

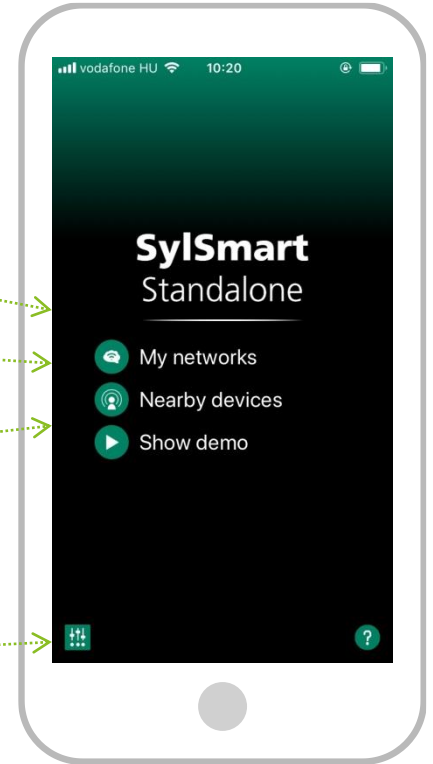
Nearby devices

Shows which devices are nearby and active

Demo

Enables user to experience SylSmart Standalone app without luminaires

App settings



Using the / The main user screen

The main user screen is the control centre of your system.

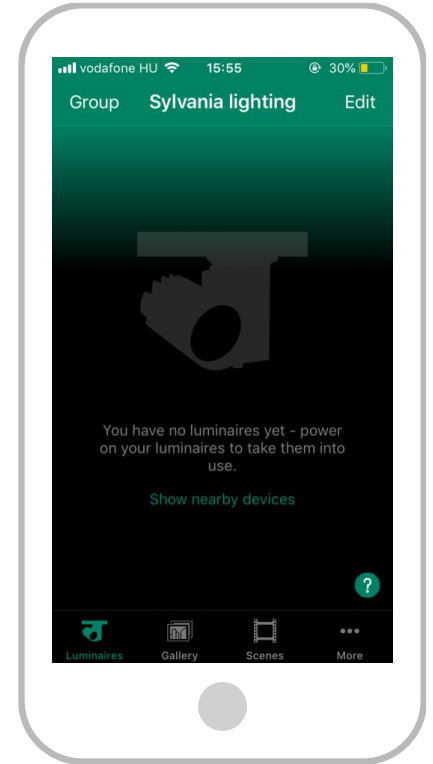
Luminaires Enables you to see, control and group your devices

Gallery Enables system control through a picture of your space

Scenes Enables scenes and animations to be setup

...More Enables access to:

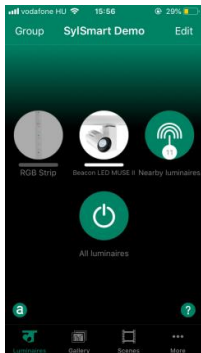
- Timers
- Switches
- Sensors
- Network setup
- Add/remove devices
- Change/delete networks
- App settings
- Enable app features (sites, beacons)



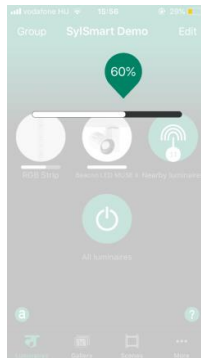
Using the app / Basic Gesture controls

In this app, controlling luminaires is easy:

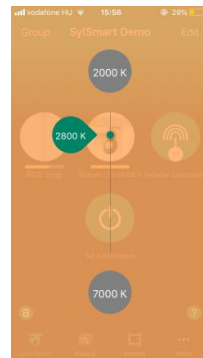
- Turn a luminaire/group on/off by tapping an icon
- Dim a luminaire/group by sliding your finger across the icon
- Colour tuneable luminaires can be colour controlled by swiping your finger up and down on an icon
- RGBW luminaires can be colour controlled by pressing and holding on an icon to reveal the colour wheel



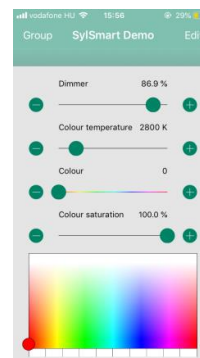
Tap on/off



Swipe left/right



Swipe up/down



Press and hold

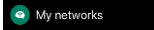
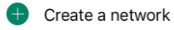
Please note tuneable white and RGBW will only be available on luminaires with those capabilities.
Also note multiple luminaires can be altered simultaneously using multiple fingers at the same time

1. Create a network

Using the app / First we must create a network

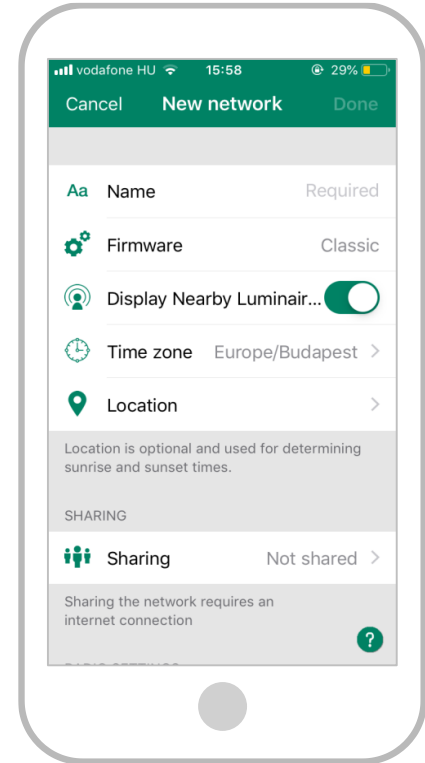
A network must first be setup.

This network will contain all the devices and settings of your system

1. Select My Networks 
2. Select Create new network (Choose Classic)  >
3. Input network name and then choose your network security level
4. If you have already created a network, simply select the network

Select “Sharing” and choose from one of four security levels:

- **Not shared** – all settings stored on the phone/tablet
- **Administrator only** – Password protected, settings backed to the cloud but network is not visible
- **Password protected** – Separate Admin/user passwords. Settings backed up. Network visible
- **Open** – This is a fully open network controllable to anyone with the app. Modifications need



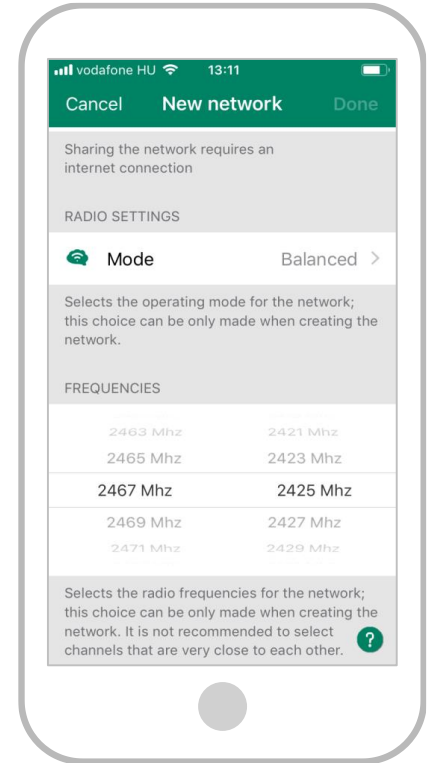
Using the app / Create a network

Depending on the amount of used devices in an application you can choose the radio setting mode:

1. **Better performance:** You can use in applications with dense device density it gives you more communication bandwidth however in this mode you cannot use EnOcean wall switch.
2. **Balanced:** This mode is recommended for the most network setups, you can use a wireless wall switch in this mode.

You can choose the radio frequencies for the network if you need to avoid any interference with the existing Wi-Fi frequencies in the installation area.

Please note that one switch can be used in two networks as long as the network frequencies are matched.



2. Select security levels

Using the app / Setup user credentials

**Use the menus to setup the credentials of the system.
This is only applicable if “Not shared” has not been selected.**

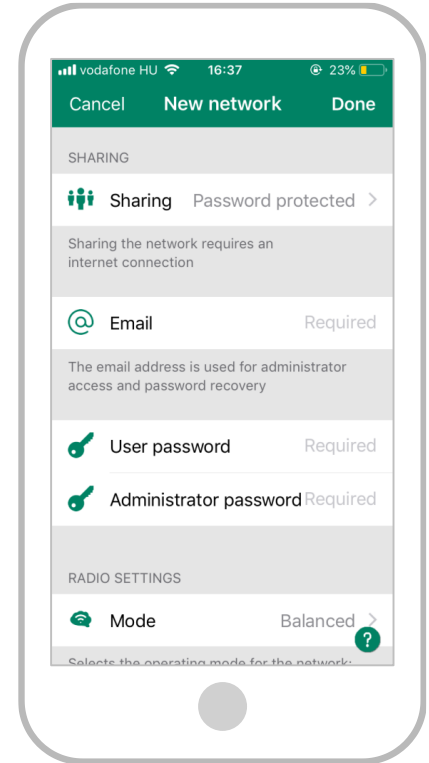
1. Input e-mail address for network – This will be used as your cloud account
2. Input user password for user level only access if selected
3. Input administrator password for users able to make network changes and sync to cloud
4. Press Save

Please note that admin e-mail and passwords can be used to recover lost passwords.
If using “Not Shared”, password recovery is not possible.

Deleting a network

1. Go to “...More on main screen”
2. Select “Change network”
3. Press an hold on network and then press delete – Enter confirmation code

Please note deleting a network will also delete the cloud account. Ensure devices are unpaired BEFORE deleting the network



3. Adding luminaires

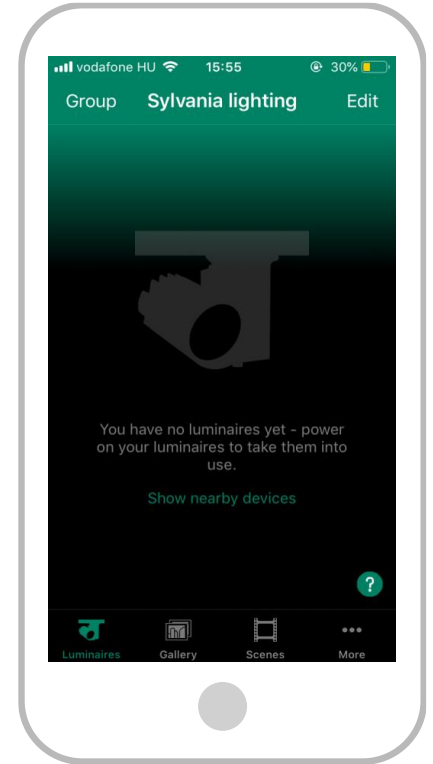
Using the app / Adding luminaires to your network

**A lighting system is nothing without its luminaires.
So let's add them to our network.**

Select **"Show nearby devices"** from the main screen

or

go to ... **"...More"** and select **"Nearby devices"**



Using the app / Adding luminaires to your network

Make sure the luminaires are powered.

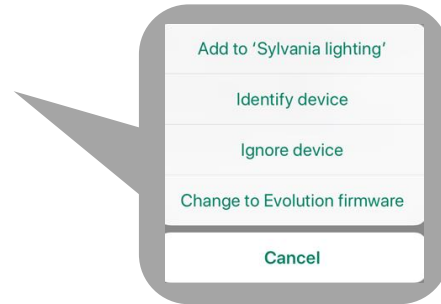
Luminaires will be listed which are visible and usually in order of distance (signal strength)
Luminaires not currently already paired to a network will show as “unpaired”

Tap on the luminaire to either:

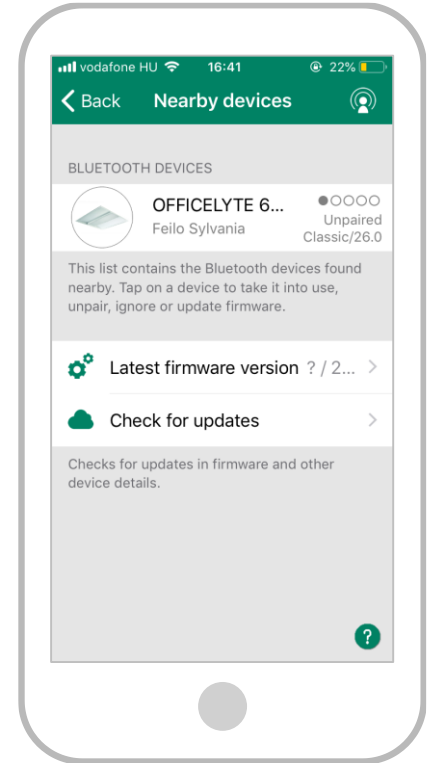
1. Update Firmware if new firmware is available
2. Add to your network by pressing **“Add to...”**
3. Ignore a luminaire which may not belong to you – disappears from view
4. Select a different device profile (if available)**

Repeat for each luminaire you wish to add

Return to main screen by pressing “Back”



** Please note “change profile” and “Change to Evolution firmware” should only be done by a trained person



4. Changing luminaire settings

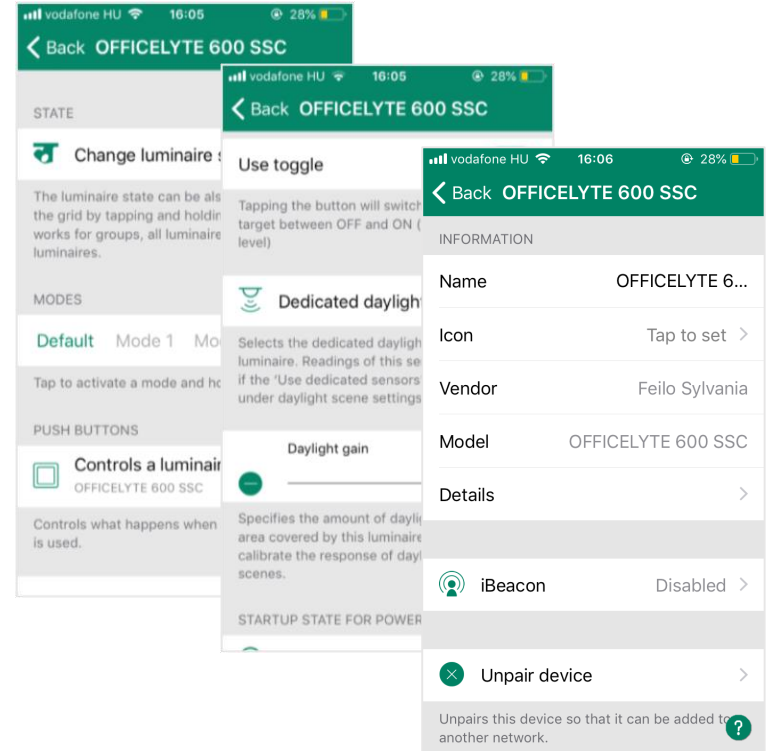
Using the app / Changing a luminaire setting

In the app, you are able to make settings changes to individual luminaires by **double tapping** a luminaire icon:

- Change luminaire name
- Change luminaire icon
- Select “luminaire settings”

Luminaire Settings:

- Enable Smart switching – Rapid power interruption from a standard switch
 - Using a basic switch, a number of control options are available
 - Dim and Save
 - Cycle through modes
 - Control scenes
 - Cycle Scenes
 - Active/Standby
- Select “**Last State**” – Choose how a luminaire comes on
 - Default = Default light level upon power
 - Last state = Returns to last known light level
- Replace luminaire
 - Swap a luminaire to a new one while keeping all settings



Using the app / Smart Switch

Smart switch enables a user to use a standard momentary switch to control the lighting system.

The momentary switch must be connected to at least one luminaire.
If multiple luminaires are connected to the switch, only enable “Smart Switch” on one luminaire for scene control and on all luminaires for “Dim and Save”

Dim and Save – Short press of switch will start the luminaires dimming.
Once level attained a second short press will stop the dimming at that level.

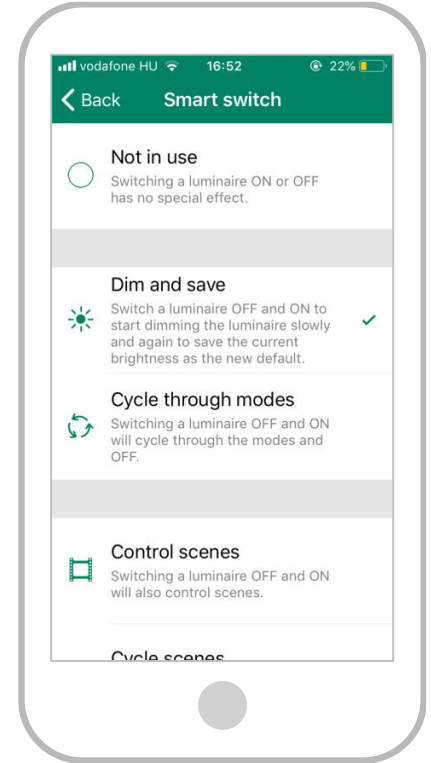
Cycle through modes – Each momentary press will recall a different mode

Control scenes – Momentary press recalls a selected scene

Cycle scenes – Each momentary press will recall a different scene from the scene list

Active/Standby – If the switch is powered off, the “**Standby**” scene is activated
If the power is turned on, the “**Active**” scene is recalled.

Please note any switch automation will override the Active scene



5. Creating and managing groups

Creating and managing Groups

 Creating and managing groups is easy in the app.

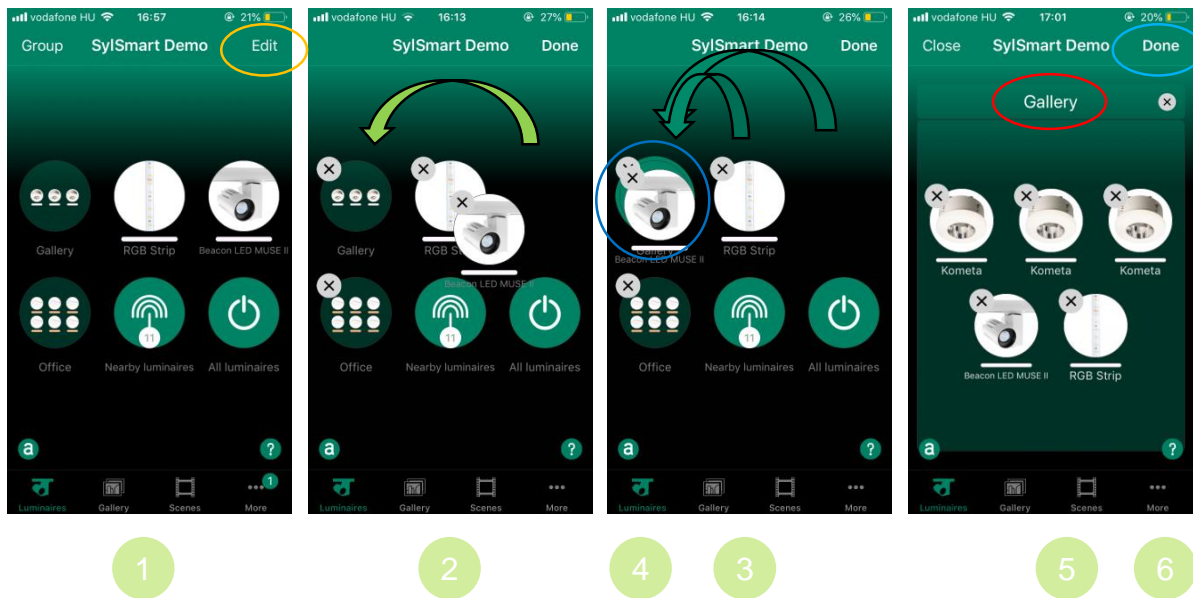
There are two ways to do this:

- Drag and drop
- Select luminaires to be grouped and group them (Group Folder)

METHOD 1 / DRAG AND DROP

From the main screen:

1. Press **“Edit”**
2. Press and hold a luminaire icon, drag and drop onto another luminaire
3. Repeat for all luminaires to go in group
4. Double Tap on group
5. Name Group
6. Press **“Done”**

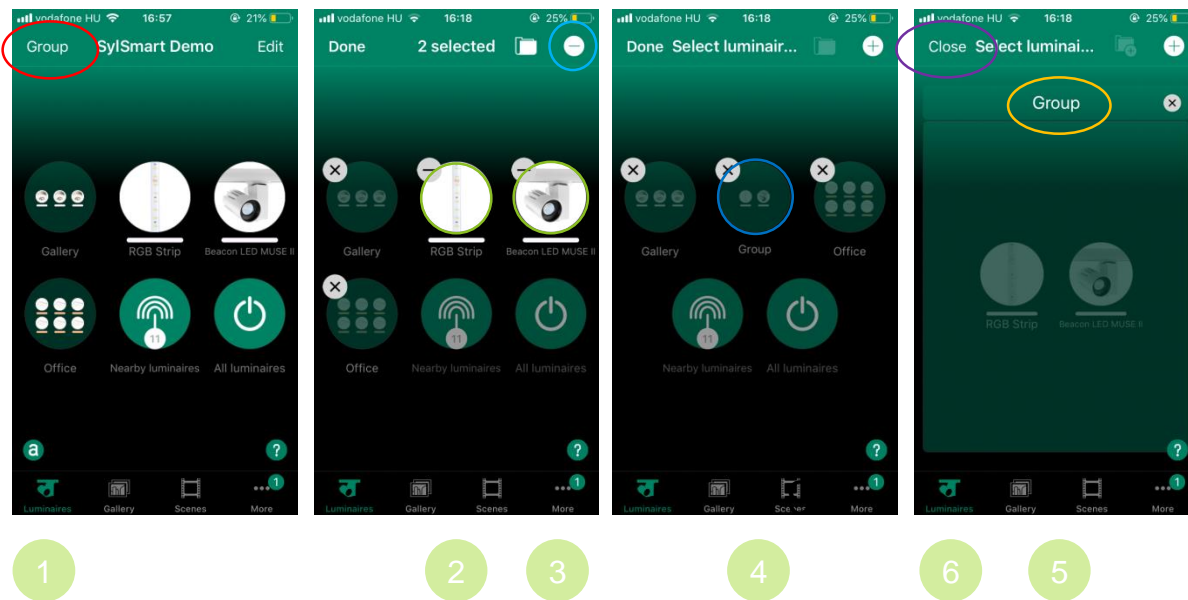


Creating and managing Groups

METHOD 2 / GROUP FOLDER

From the main screen:

1. Press **“Group”**
2. Tap on luminaires to be grouped
3. Tap folder icon
4. Double Tap on group
5. Name Group
6. Press **“Close”**

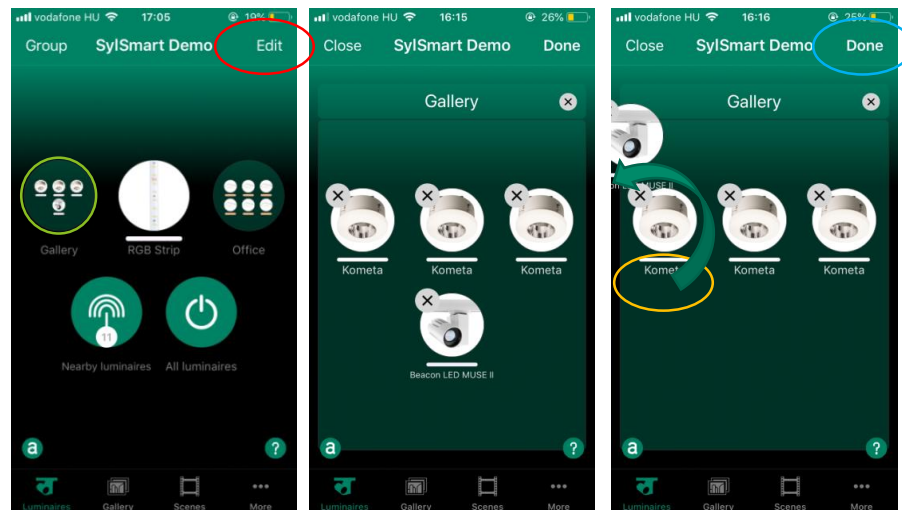


Creating and managing Groups

REMOVING LUMINAIRES FROM A GROUP

From the main screen:

1. Double tap on group
2. Press **“Edit”**
3. Drag and drop luminaire out of group
4. Press **“Done”**



1

2

3

4

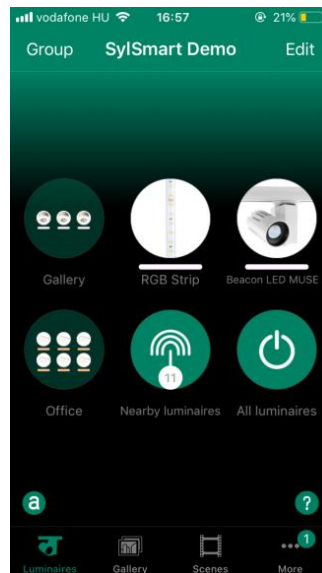
6. Gallery control

Gallery Control

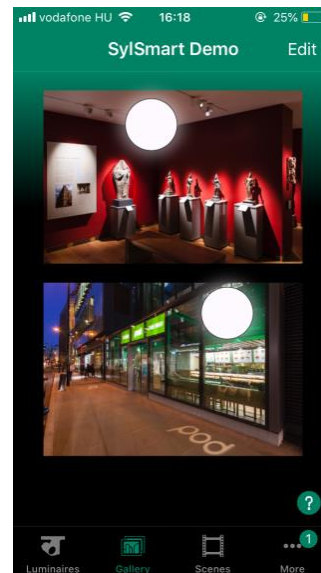
Although the app makes luminaire control easy, a list of luminaires often lacks context of where it is in a space.

The gallery function enables users to use a photograph to control their lighting, assign luminaires to a part of the picture and enable control, adding context to the controls.

Tap on “**Gallery**” to enter this menu.



List View



Gallery View

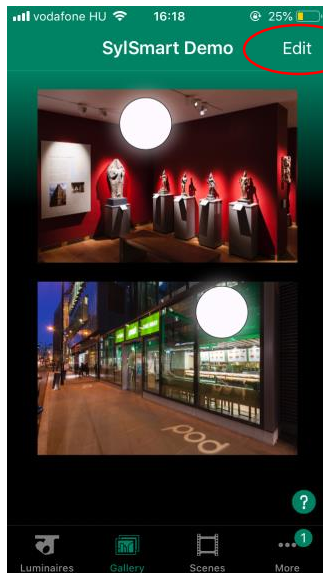


Gallery Control / Setting up the view

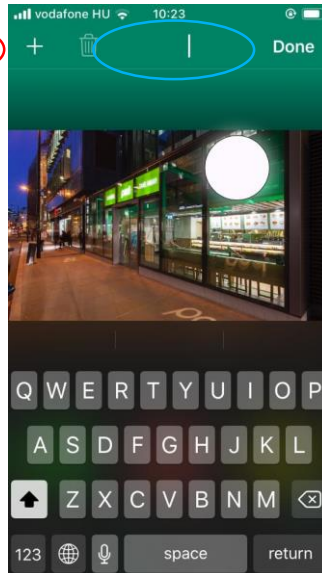
To enable controls through a picture we must take a picture of the space

In the Gallery view:

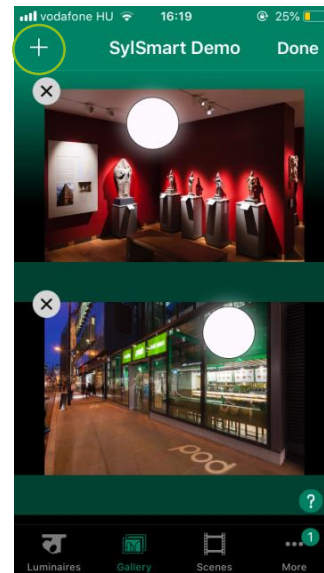
1. Press **“Edit”**
2. Name your Gallery photo
3. Press the **“+”** in the top left corner



1



2



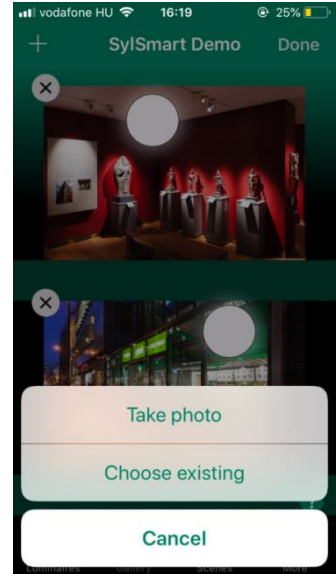
Gallery Control / Setting up the view

Choose your picture

4. Press **“Take Photo”** or choose existing
5. Take a Picture
6. Press Retry to retake picture or OK

Now we will add control to the picture.

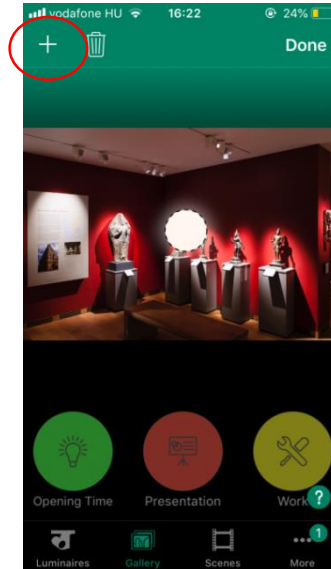
4



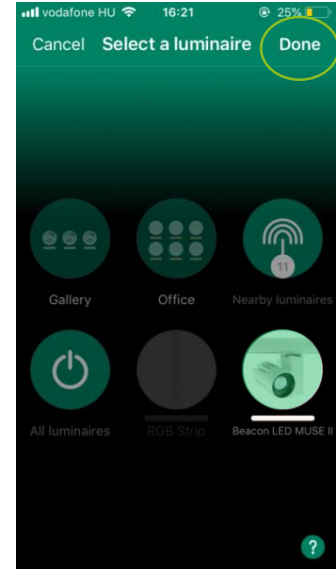
Gallery Control / Setting up the view

Configuring controls on the picture

6. Press the “+” in the top left corner
7. Select luminaire/group in picture to be controlled by tapping on luminaire icon and press “Done”



6



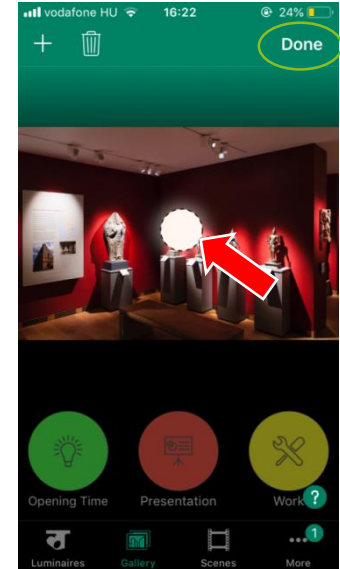
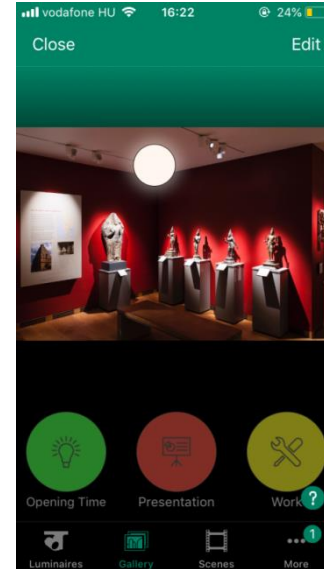
7

Gallery Control / Setting up the view

Configuring controls on the picture

8. Move the circle on the picture to the luminaire location
9. Scale the size of the circle using two finger pinch
10. Press “Done”

To add a second luminaire/group repeat the process.



7. Creating scenes

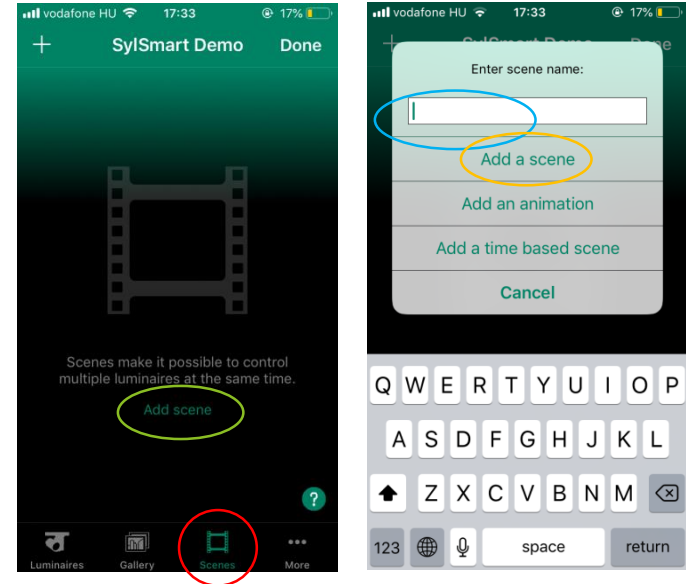
Creating Scenes

In the app, you are able to setup scenes which can be recalled either from the app or through a wall switch or on a time basis. These can be individually customised by individual luminaire.

Creating Scenes – Please ensure all luminaires are added and grouped as needed before creating scenes

To Create a Scene:

1. Tap on **“Scenes”** button
2. Tap **“Add scene”** or **“Edit”**
3. Enter scene name
4. Press **“Add Scene”**



Creating Scenes

In the app, you are able to setup scenes which can be recalled either from the app or through a wall switch:

Creating Scenes – Please ensure all luminaires are added and grouped as needed before creating scenes

To Create a Scene:

5. Select luminaires to be in this scene,
6. Ensure to set light level using gestures
7. Scene editing also allows selection of devices from gallery.
8. Press **“Done”**

If luminaires you wish to have in the scene are in a group,

- Double tap the Group
- Select individual luminaires
- Set light level
- Press **“Close”**
- Press **“Done”**

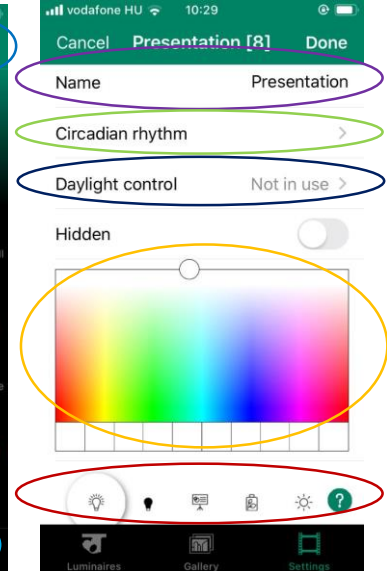
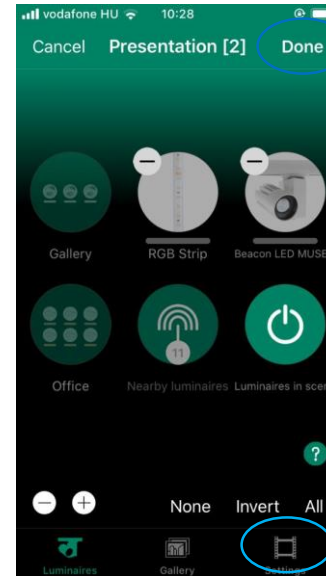
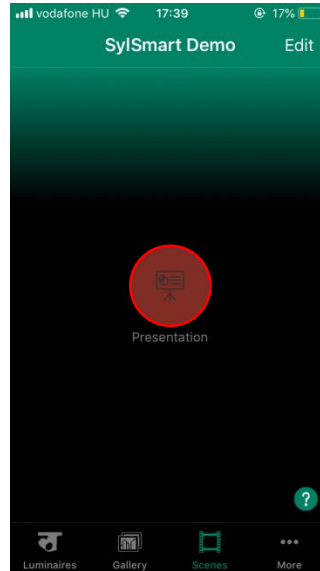


Creating Scenes

Scenes can be configured and renamed in the app. They can have different colours or logos in the app.

Configure scenes: 

1. Double tap scene to configure
2. Press the wheels button
3. Set name
4. Set up Circadian profiles – page 85
5. Set up daylight scene – page 67
6. Set icon colour
7. Select icon look
8. Press “Done”

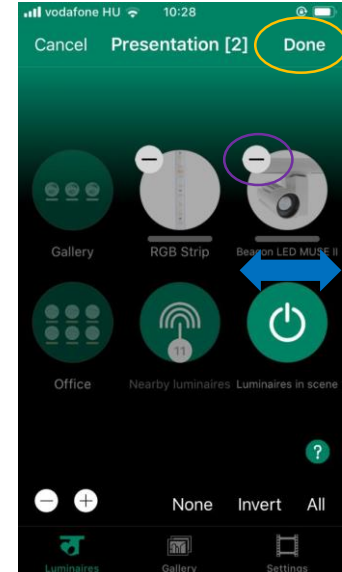
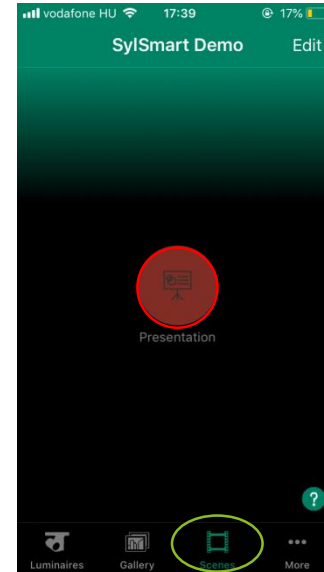


Modifying Scenes

To modify Scenes:



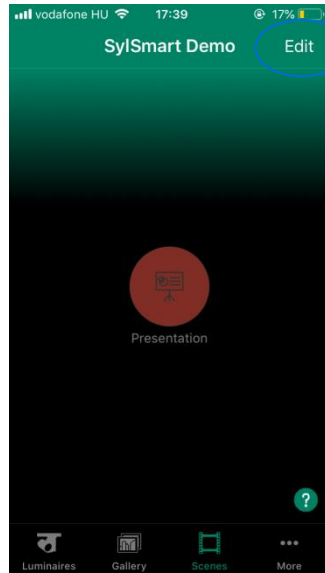
1. Select “Scenes”
2. Double tap on scene to be modified
3. Remove luminaires by pressing “-” on luminaire to be removed
4. OR Change light level
5. Press “Done”



Copying Scenes

To copy Scenes:

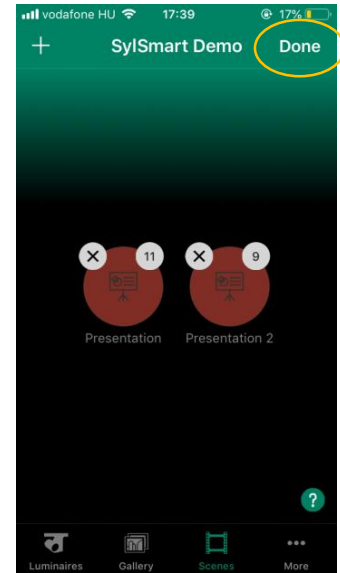
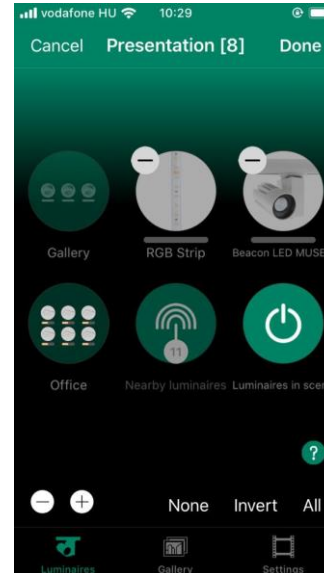
1. Tap **“Edit”**
2. Long press a scene
3. Modify the copied scene
4. Press **“Done”**



1



2



4

8. Animations

Animations

In the app, you are able to setup animated scenes. This will play one scene and then another.

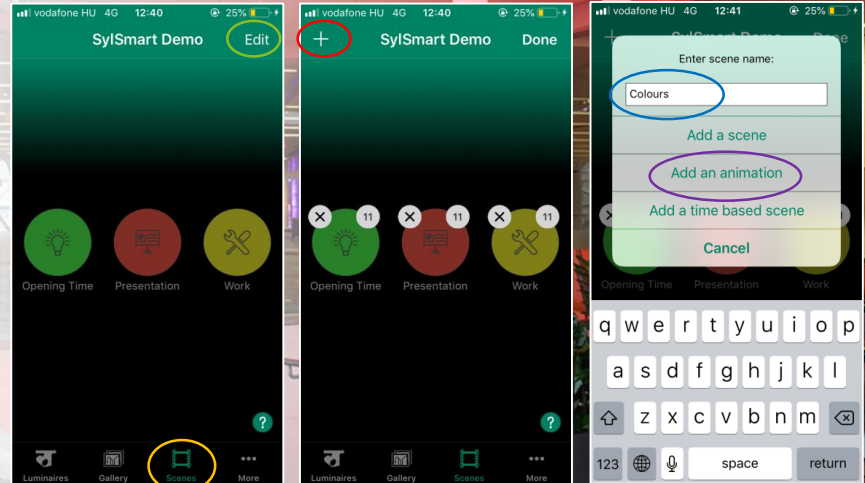
You are able to create simple effects or enable sequential scene setting. These can be recalled either from the app or through a wall switch or on a timer basis.

Creating Scenes – Please ensure all luminaires are added and grouped as needed before creating scenes

To Create an animation:



1. Select “**Scenes**”
2. Press “**Edit**”
3. Press “**+**”
4. Enter Animation name
5. Press “**Add an animation**”



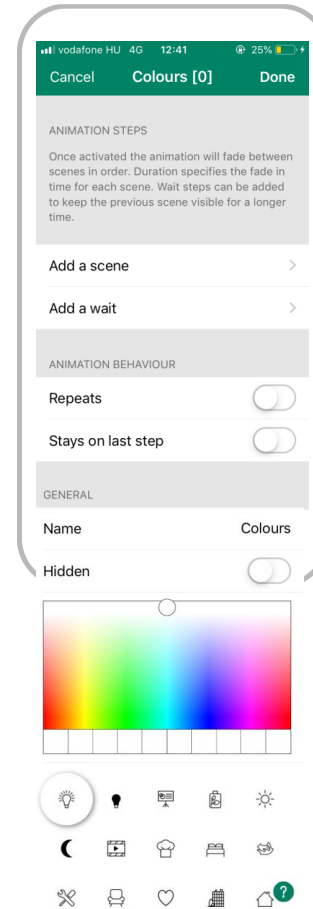
Animations

Now we setup the sequence and timing of the animation. The app will build a sequence list of the actions that will be performed.

In this menu you have four options:

- **Add scene** – Which scene to be controlled next
- **Add a wait** – How long to hold the scene before next action
- **Repeats** – Does your animation repeat or stop
- **Stays on last step** – Lights stays on after last action or turns off

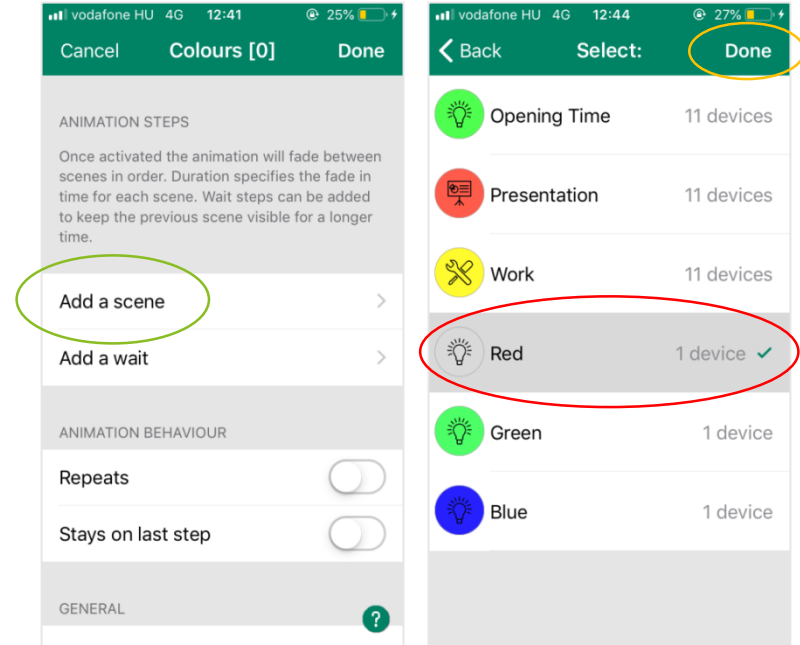
Here you may also rename the animation as well as choose the icon colour and icon.



Animations

Building the Sequence


1. To add a scene – Tap **“Add a scene”**
2. Choose the first scene to play
3. Press **“Done”**

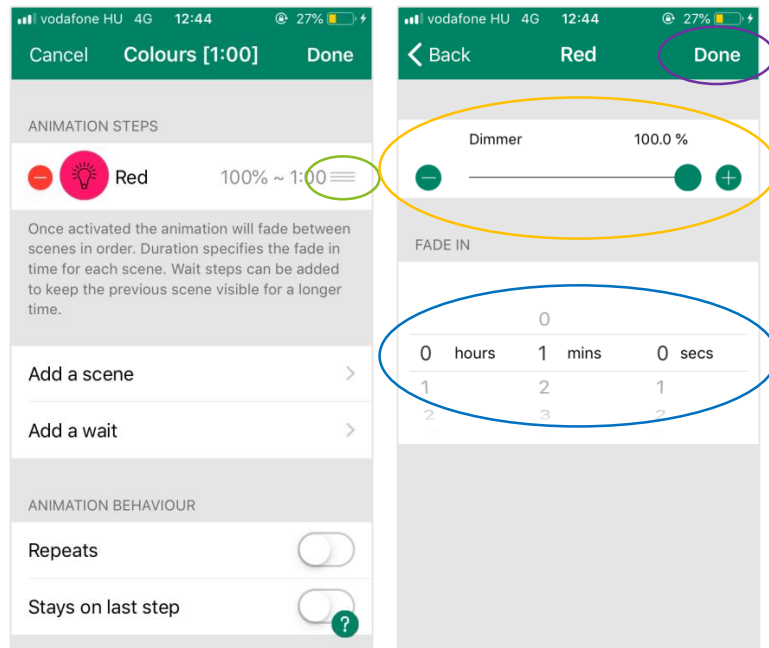


Animations

Building the Sequence

You will now see the first part of the sequence building as well as a total animation duration

1. Choose your fade in time by pressing the  on your animation step
2. Choose the dim level
3. Change the fade in time
4. Press “Done”



Animations

Building the Sequence

Now we will add a wait to maintain the colour for 30 seconds

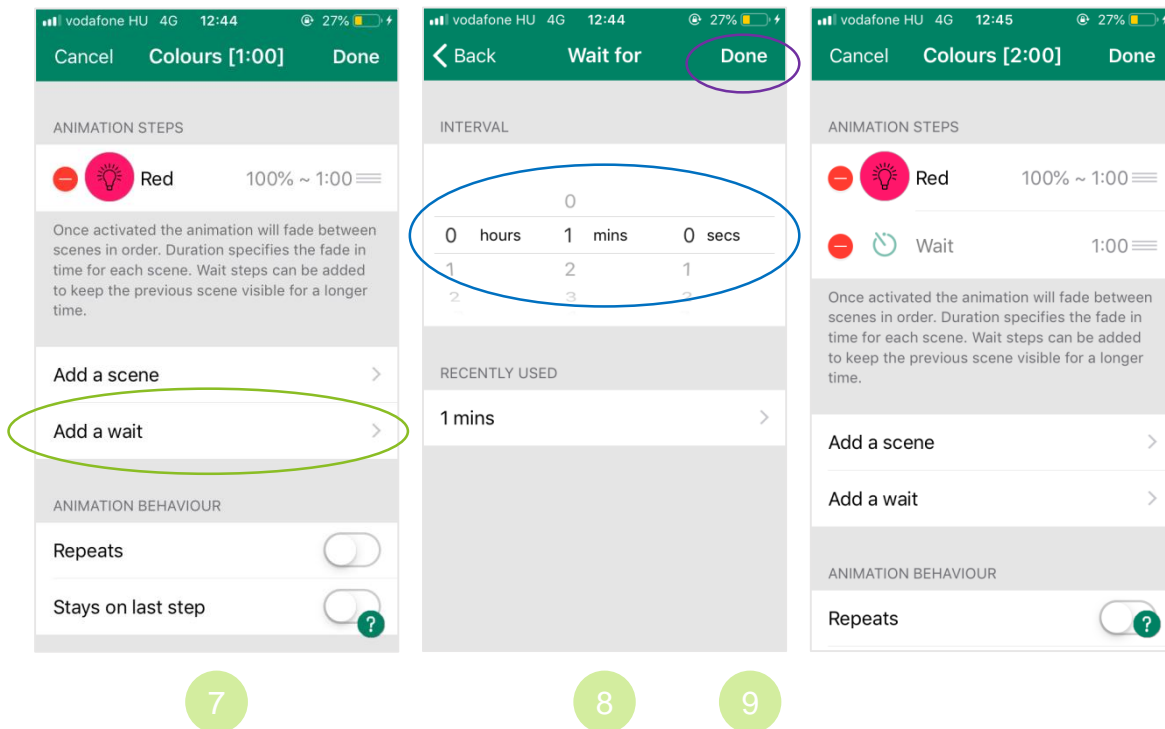
7. Select **“Add a wait”**

8. Select wait time

Note recently used times to quickly recall previously used settings

9. Press **“Done”**

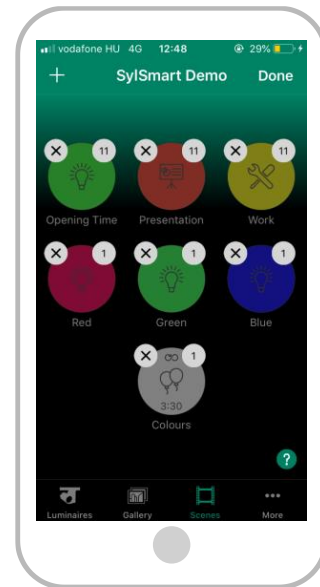
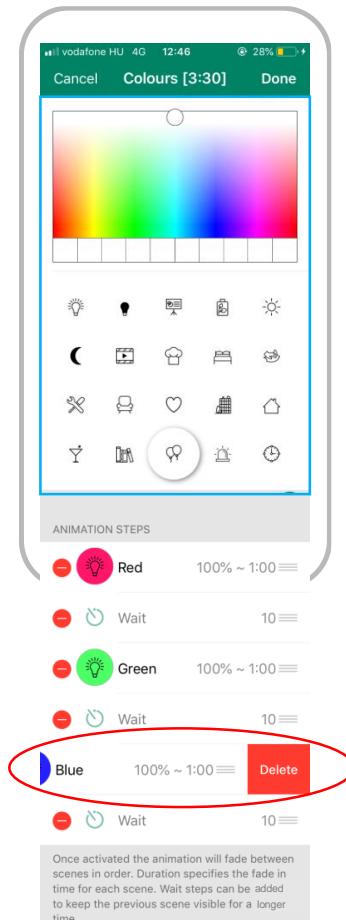
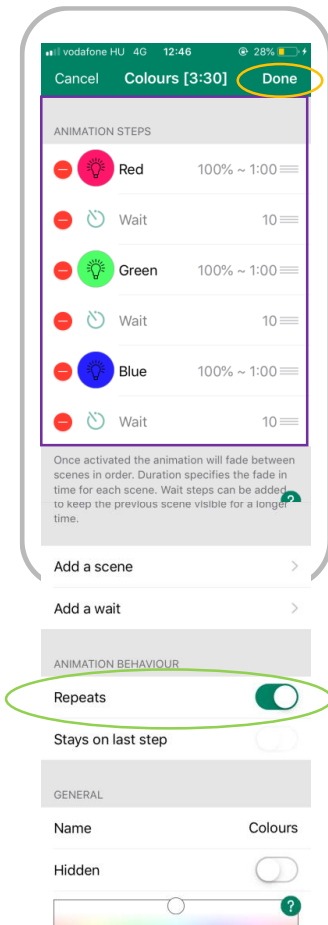
The sequence now builds in sequential order showing Scene and time.



Animations

Building the Sequence

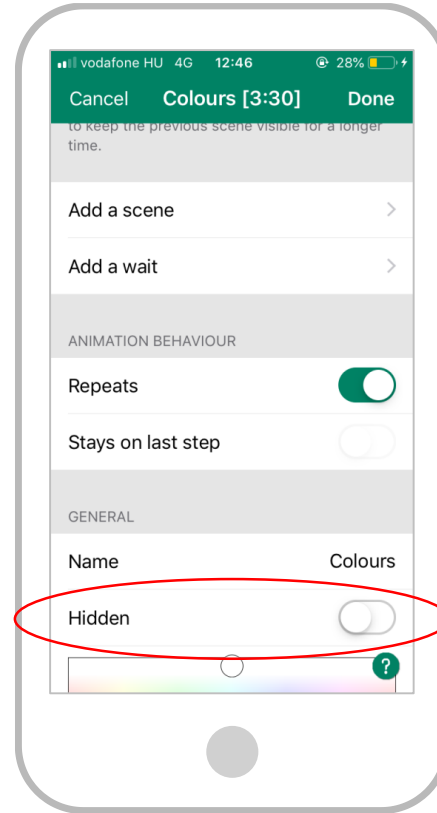
1. We will now repeat this for other colours
2. Select if the animation should repeat or stay on last step
3. Choose icon and colour
4. Press **“Done”** – Your animation is complete
5. Press **“Done”** again to complete
6. To edit an animation step simply press and swipe left a step and press delete
7. To edit any timings, simply press 



Animations

Hiding a scene

You can hide a scene from the main scene view



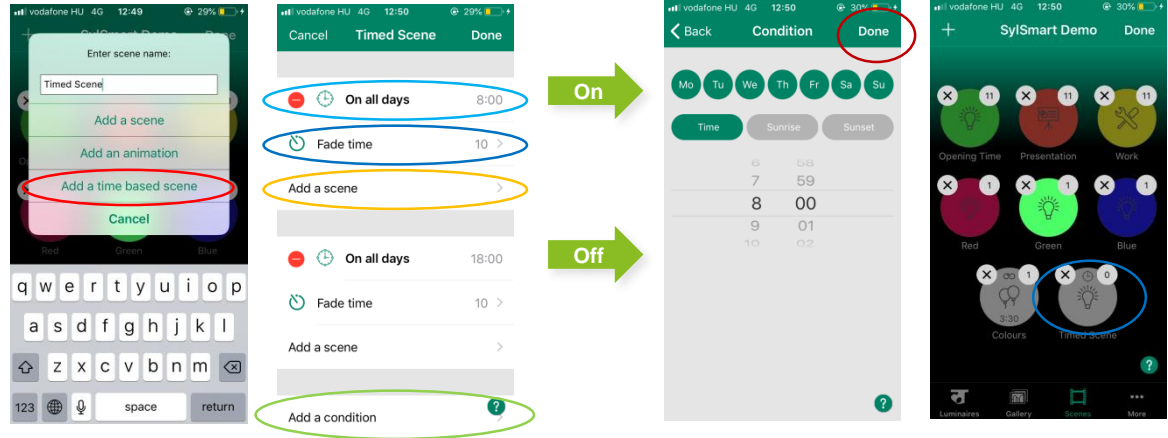
9. Time based scene

Timed based scene

By choosing “Add a time based scene” you can create dynamic scene.

Configure a timed based scene:

1. Enter the scene name...
2. Tap **“Add a time based scene”**
3. Set the days and time for turning a scene on and off
4. Set the fade time
5. Choose a scene by tapping **“Add a scene”**
6. Add more scenes by **“Add a condition”**
7. Press **“Done”**
8. You can see the timed scene with a little
9. clock icon on the main scene card



10. Timers

Timers – Opening Statement

The SylSmart Standalone Scenes system is able to operate timers to recall scenes, power on or off the system.

Please note the clock in the system is not astronomical and is linked to the clock on your smart device upon last connection. Therefore it is important to note daylight savings time changes and reconnect your smart device when the clocks change to ensure the correct time is maintained.

Alternatively, to ensure a network maintains the correct time all year round, leave a smart device on site with the following:

1. Permanent power
2. Turn off updates
3. Turn off any power over-ride
4. Ensure SylSmart App is open and running (at least in background)
5. Ensure 3/4G or Wifi connection

This will provide a permanent clock update the the system. The smart device does not have to be an expensive device. A simple low cost Android device operating Android 4.4+ would suffice.

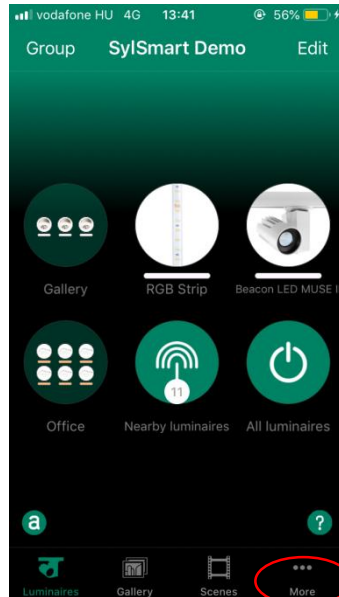
CONTROLS HIERARCHY MUST BE TURNED ON!

Timers

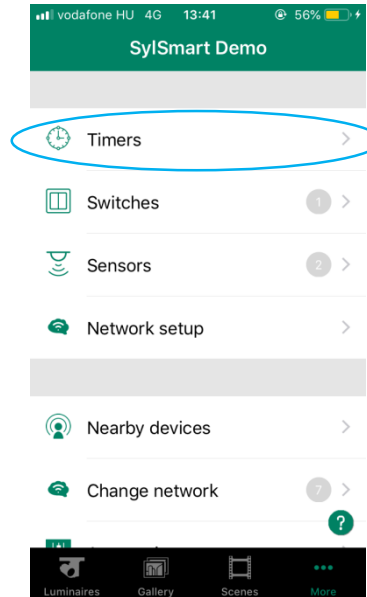
The SylSmart Standalone Scenes system is able to operate timers to recall scenes, power on or off the system.

To access timers:

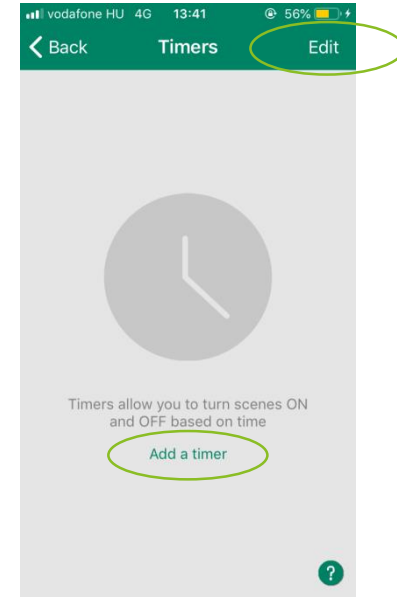
1. Select **“More”**
2. Select **“Timers”**
3. Select **“Add a Timer”** or press **“Edit”**



1



2



3

Timers

In the timers menu you have options to:

1. Choose when it is enabled
 2. Choose when it is disabled
 3. Select which scene is triggered
- Please note you can have NO on or off time by pressing and holding on “**Switches ON/Switches OFF**”
4. Choose fade time
 5. Activate scenes at higher priority than presence sensors
 6. Enable/Disable
 7. Press “Done”



11. Setting up wall switches

Switches

The SylSmart Standalone Scenes system is able to offer a wall switch control to power on/off lights as well as dim lights or recall a scene/animation.

Please note an Android device or iPhone7 or later with iOS 13 with NFC is required to program the wall switch.

In order to control scenes and animations, the scenes and animations should be created before programming the wall switch.

The wall switch is energy harvesting which means it is both wireless and battery free.

No need for mains wiring meaning it can be placed anywhere.

No batteries means no maintenance. The energy needed is created upon pressing the button.

Basic controls:

Press = on/off

Press and hold will dim up/down

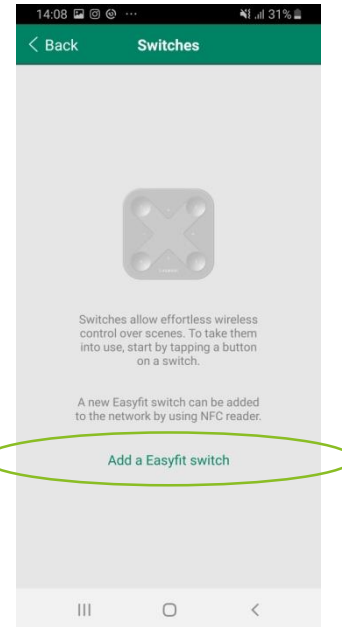
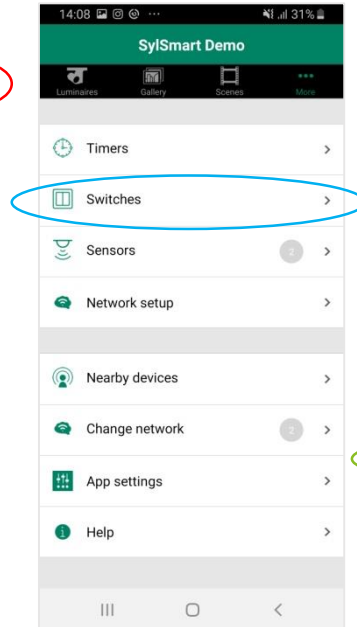


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Switches

To program the switch, following the next steps:

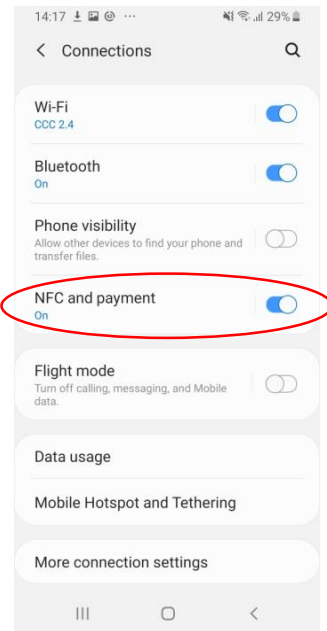
1. Go to **“More”**
2. Select **“Switches”**
3. Select **“Add a Easyfit switch”**



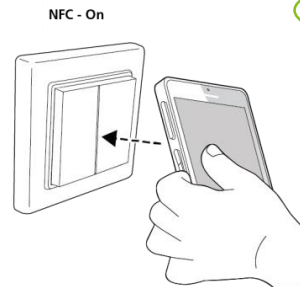
Switches

To program the switch, following the next steps: 

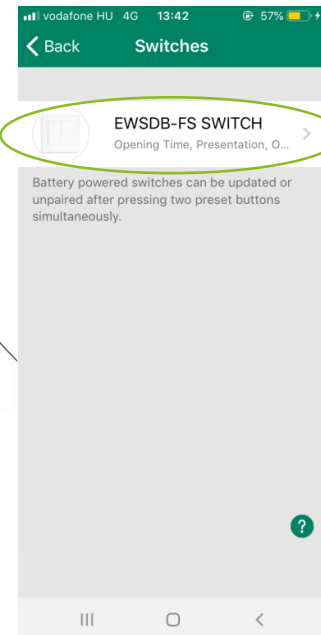
4. Turn on “**NFC**” and press back arrow
5. Touch Wall switch to back of phone
6. Select the wall switch



4



5

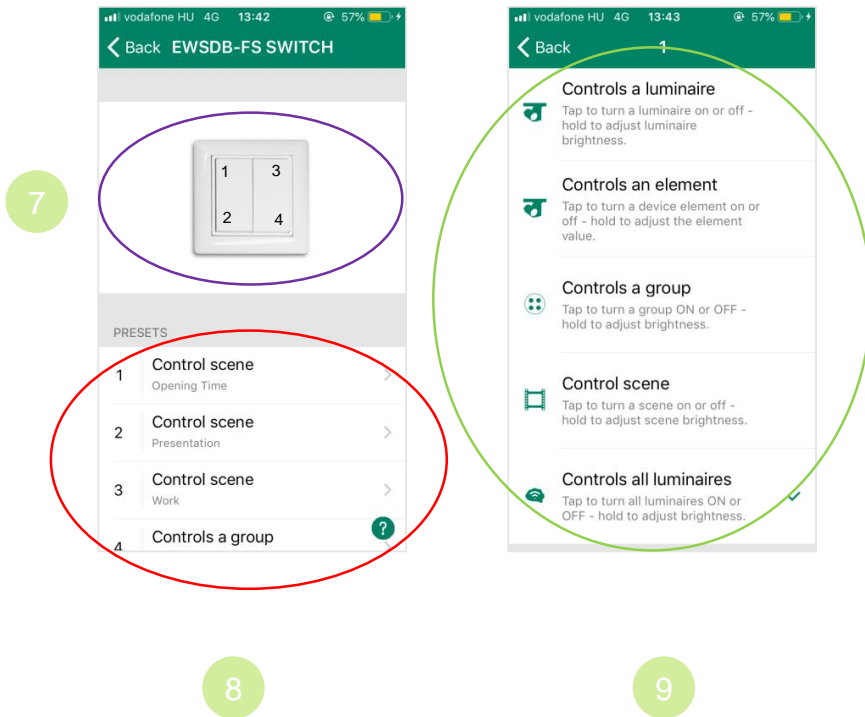


6

Switches

To program the switch, following the next steps:

7. Select Faceplate to use by tapping switch icon
Please note Sylvania only offers 4 button option
8. Select Presets 1 to 4 to assign function to button
9. Select whether to control a scene, luminaire, element, group or all luminaires
10. Select what to control
 - a) Scene > Select scene to recall
 - b) Luminaire > select luminaire
 - c) Element > select element
 - d) Group > select group
 - e) Control all luminaires
11. Rename device as needed



12. Configuring controls hierarchy

Setup Control Hierarchy

Manual Control

Date Timer
Sensor O/R

Weekday Timer
Sensor O/R

Presence Sensor

Date Timer

Weekday Timer

Different control types have different priority levels in the system

1. Manual control (app, switches, push buttons)
2. Date timers (with sensor over-ride)
3. Week day timers (with sensor over-ride)
4. Presence sensors
5. Date timers
6. Weekday timers

In order to ensure the right controls are given the right priority we must setup Control Hierarchy
Controls Hierarchy must be enabled to use sensors or for timers to work with other controls such as switches or sensors

1. Controls Hierarchy must be enabled and setup (More > Network setup > Control Options > Use Control Hierarchy)
2. Ensure “Manual Control behaviour” is set to “Time out if automation waiting” – This will disable switch commands to allow the sensor to resume control
3. Set “Manual Control fade out to 1 second”
4. Set “Manual Control timeouts”
 - a) Monday – Set daytime start and end to match the needs of your business
 - b) Set daytime and night time time out to a suited to your needs
 - c) (This is the amount of time the system will allow before any switch command is relinquished to automation)
 - d) Press “Use these settings for the whole week” or set each day as needed



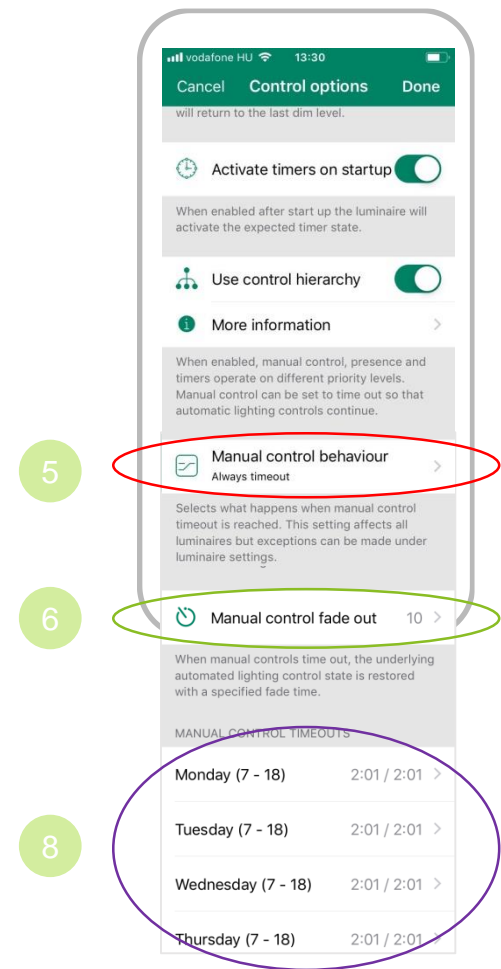
Controls Hierarchy – More information

To set controls hierarchy please access via:

5. **“Manual control behaviour”** – what happens to manual controls
 - a) Always time out – will time out after time out period
 - b) Timeout if automation waiting – manual control overridden by automated controls (timers and sensors)
 - c) Don't time out – Manual controls over-ride everything
6. **“Manual control fade out”** – after how long should manual control time out
7. **“Remember last state”** – enable to recall last known state on power on
8. **“Manual control time out”** – Applies only if “Always time out” is applied
Each day can have different time out periods. Select these to assign different periods for each day.

As standard set the time out to 1min for day and night and assign to all days.

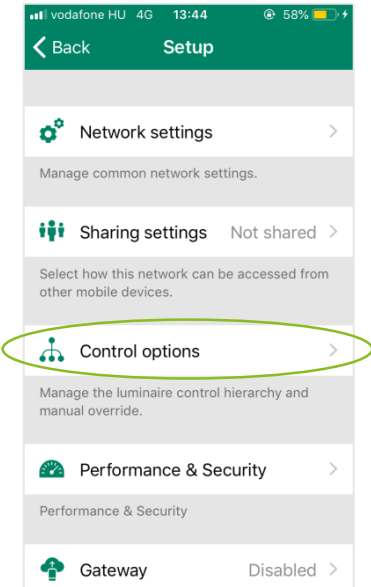
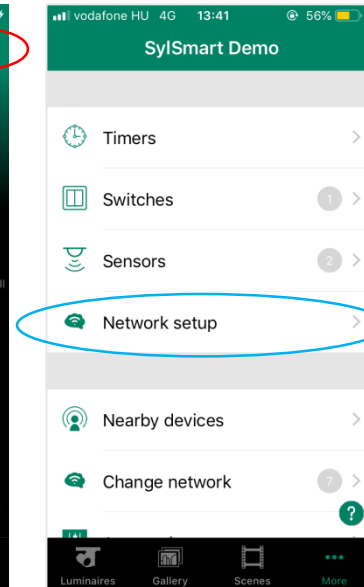
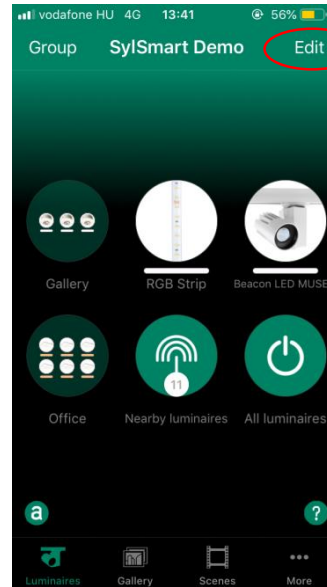
This will disengage a wall switch after 1 minute to enable sensors to automate lights off



Controls Hierarchy – More information

To set controls hierarchy please access via:

1. Select **“Edit”**
2. Select **“Network setup”**
3. Select **“Control Options”**



Controls Hierarchy – More information

To set controls hierarchy please access via:

1. To use Control Hierarchy – Enable
2. Set fade times for each transition
3. Remember last state – enable to recall last known state on power on
4. Activate timer – upon power on from mains – should luminaire look for currently actionable timers

When a luminaire is under automated control, the app will show An **a** symbol. Pressing this symbol removes automated control from all Luminaires or opened group.



13. Setup daylight linked scene

Setup Daylight linked dimming settings

Daylight linked dimming is handled through the use of scenes and enabling that scene as a Daylight scene which can be used as the sensor ON scene.

Daylight scenes can be handled in different ways in the system:

Basic (ON/OFF)

Simplest control: luminaires will switch ON or OFF based on two configurable threshold levels. Sensors may or may not be affected by the luminaires and the mode only operates when it's highest priority item on control hierarchy.

Closed loop

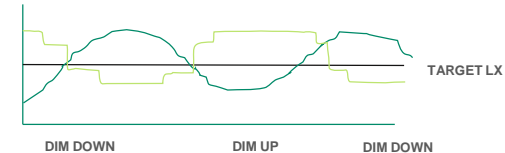
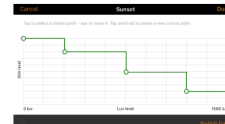
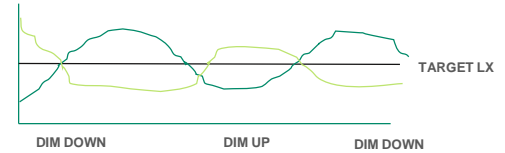
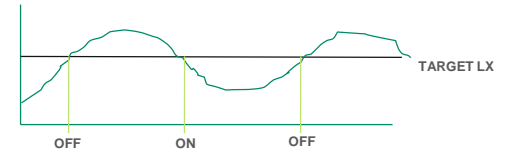
Luminaires will gradually fade up and down based on sensor feedback, trying to reach the desired illuminance level. Sensors must be affected by luminaires and this mode can only operate when it's highest priority item on control hierarchy.

Open loop

Luminaires will gradually fade up and down based on sensor feedback and response graph. Sensors must not be affected by the luminaires in the network and this mode can operate on control hierarchy even if it's not the highest priority item.

External

For use with external sensors such as DALI Slave sensors. Do not use a Master DALI Sensor. DALI slave sensors can be connected to the Control unit to provide daylight data.



Setup Daylight linked dimming settings

Daylight linked dimming is handled through the use of scenes and enabling that scene as a Daylight scene which can be used as the sensor ON scene.

Dimming response

When creating a daylight controlled scene there are a number of options for dimming response:

Use Dedicated sensors – A scene can be forced to look at selected sensors only. This is more typically used for luminaires with integrated sensors

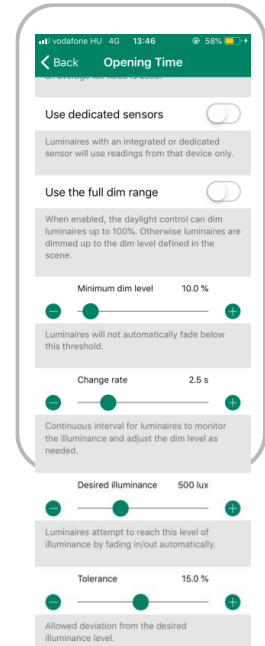
Use full dim range – This enables the scene to dim above the max light level of the scene. For example, if a scene is set at 80% light output to meet 500lx but for some reason in order to meet 500lx the light output needs to exceed the 80% of the scene, then by enabling this function, the luminaires will be able to go to 100%

Minimum Dim level – Set the lowest dim level allowed by the luminaires. This will help prevent the lights turning off entirely if there is sufficient natural light. This is requested by some clients.

Change Rate – This is the interval of change in light levels. Some clients may want to maximise energy efficiency and have a rapid response, or many will want a smooth transition and thus a slower rate

Desired illuminance – This is the target light level to reach. Please ensure the sensor is calibrated before creating the scene and that the luminaires are set at correct level to meet desired lux level.

Tolerance – The allowed deviation from the desired lux level.



Setup Daylight linked dimming settings

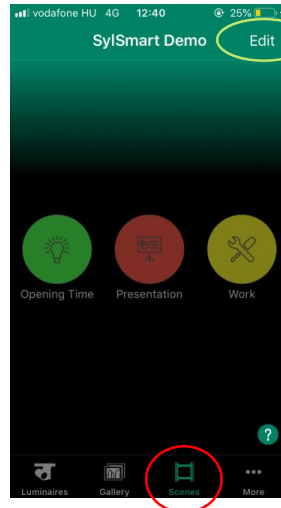
Creating your daylight linked scene

Please ensure all luminaires are added and grouped as needed before creating scenes.
ALSO Ensure scene is set such that the desired room light level is correct before creating scenes.

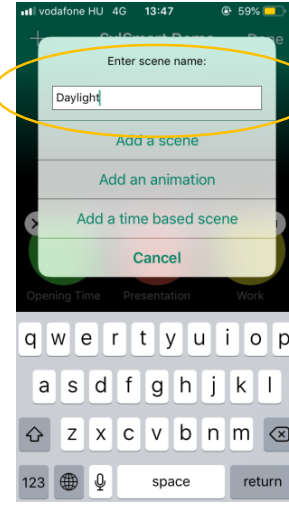
To Create a daylight Scene:



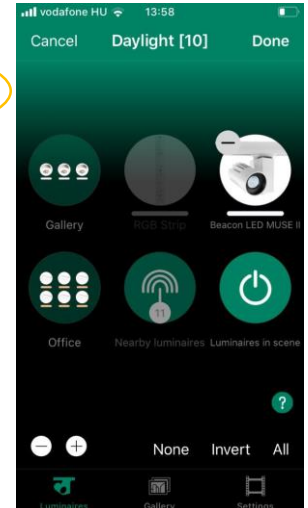
1. Tap on **“Scenes”** button
2. Tap **“Edit”** and press **“+”**
3. Enter scene name
4. Press **“Add Scene”**



1 2



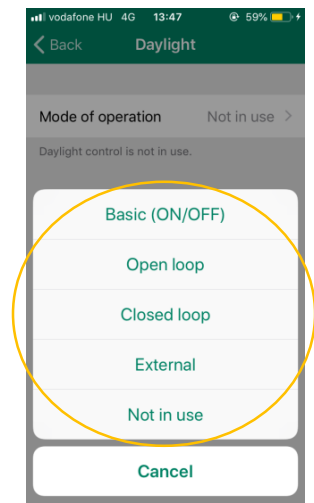
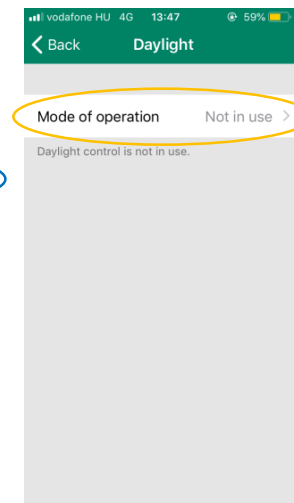
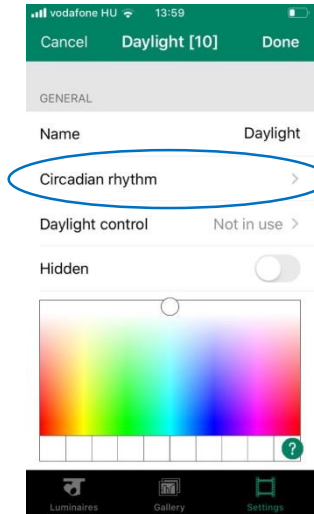
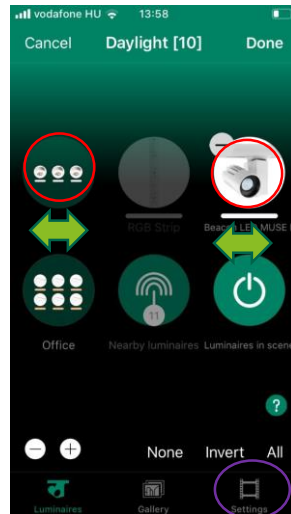
3 4



Setup Daylight linked dimming settings

To Create a daylight Scene:

1. Select luminaires to be controlled by scene
2. Dim as needed to hit target lux level
3. Go to “Setting”
4. Press “Daylight”
5. Select “mode of operation” and choose options



To Create a daylight Scene – Mode of operation

ON/OFF

Mode of operation: Basic (ON/OFF)

Switches the scene ON or OFF based on the sensor reading.

Select which sensor controls scene

Controlling sensors

Luminaires follow the lux values provided by these sensors and adjust the brightness if necessary. When multiple sensors are selected, an average lux value is used.

Use dedicated sensor

Use dedicated sensors

Luminaires with an integrated or dedicated sensor will use readings from that device only.

Use full dimming range? 0-100%

Use the full dim range

Minimum dimming level

Minimum dim level: 10.0 %

Luminaires will not automatically fade below this threshold.

Select light level thresholds

Switch ON at: 500 lux

Switch OFF at: 500 lux

If the lux value drops below the switch ON threshold the luminaires will turn ON, and remain so until illuminance reaches the switch OFF threshold.

Fade to off time

Fade time: 10

Duration of the fade effect when a scene dims between ON and OFF.

Open Loop

Mode of operation: Open loop

Sensors are not affected by the luminaires in the network.

Select which sensor controls scene

Controlling sensors

Luminaires follow the lux values provided by these sensors and adjust the brightness if necessary. When multiple sensors are selected, an average lux value is used.

Use dedicated sensor

Use dedicated sensors

Luminaires with an integrated or dedicated sensor will use readings from that device only.

Use full dimming range? 0-100%

Use the full dim range

When enabled, the daylight control can dim luminaires up to 100%. Otherwise luminaires are dimmed up to the dim level defined in the scene.

Change rate governs rate of change of light level

Change rate: 2.5 s

Continuous interval for luminaires to monitor the illuminance and adjust the dim level as needed.

Response graph

Tap on graph to design your own Response curve

RESPONSE GRAPH

Tap to edit the Lux/Dim level response. The affected luminaires will gradually change the dim level towards the desired target.

Closed loop – Best option

Mode of operation: Closed loop

Sensors are affected by the luminaires in the network.

Select which sensor controls scene

Controlling sensors

Luminaires follow the lux values provided by these sensors and adjust the brightness if necessary. When multiple sensors are selected, an average lux value is used.

Use dedicated sensor

Use dedicated sensors

Luminaires with an integrated or dedicated sensor will use readings from that device only.

Use full dimming range? 0-100%

Use the full dim range

When enabled, the daylight control can dim luminaires up to 100%. Otherwise luminaires are dimmed up to the dim level defined in the scene.

Minimum dimming level

Minimum dim level: 10.0 %

Luminaires will not automatically fade below this threshold.

Change rate governs rate of change of light level

Change rate: 2.5 s

Continuous interval for luminaires to monitor the illuminance and adjust the dim level as needed.

Desired lux level target

Desired illuminance: 500 lux

Luminaires attempt to reach this level of illuminance by fading in/out automatically.

Tolerance from target lux level allowed to smooth out response

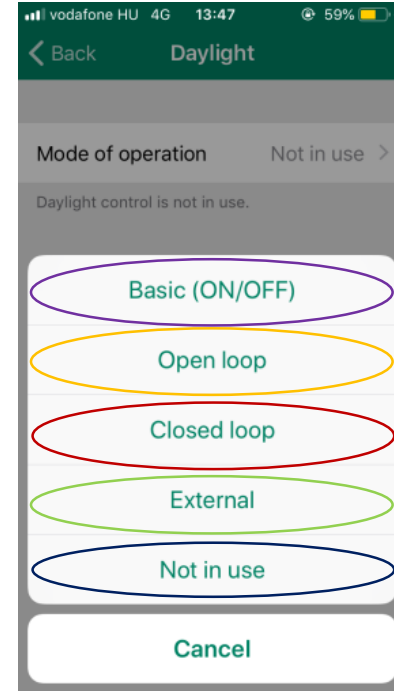
Tolerance: 15.0 %

Allowed deviation from the desired illuminance level.

Modifying mode of operation

Each scene can have it's own mode of operation regarding to daylight:

1. **Basic (ON/OFF):** Switch ON/OFF the luminaries based on threshold levels.
2. **Open loop:** Based on sensors daylight detection detect the Luminaries will adjust the light level. Sensors are not affected by Luminaries in the network.
3. **Closed loop:** Based on sensors daylight detection detect the Luminaries will adjust the light level. Sensors are affected by the Luminaries in the network .
4. **External:** For use with external sensors such as DALI Slave sensors
Connect a DALI slave sensor to the DALI bus to read back sensor data to control system. **DO NOT USE A DALI MASTER**
5. **Not in use:** No daylight harvesting mode is needed.



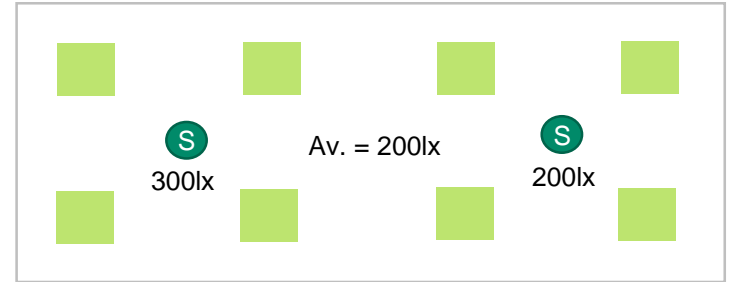
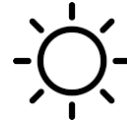
Daylight Scenes for Two sensors

When using two sensors, you have to be mindful of where the source of daylight is vs the sensor location. If one sensor is further away from the sunlight, you may wish to consider using two separate scenes.

When using two sensors, you can choose:

1. The whole network reacts to an average of the light level reading from both sensors

For this, apply same “Daylight” scenes to both sensors

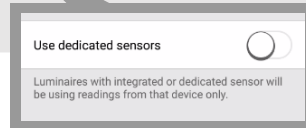
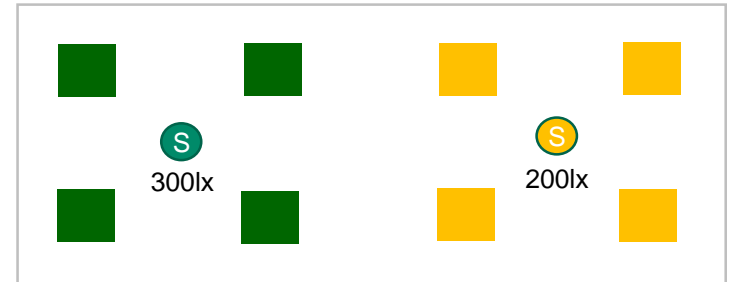
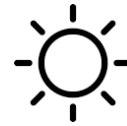


2. Tell each luminaire to follow a dedicated sensor – (Zone the room)

Ensure – “Use Dedicated Sensor” is enabled under daylight Scene for this, double tap on luminaire

Press “Dedicated daylight sensor”

Select Sensor to be used



Daylight Scenes for Two sensors

3. Use reading from both sensors and adjust daylight gain on luminaires further inside space

For this, apply the “**Daylight**” scene ensuring “**Use Dedicated sensors**” is enabled

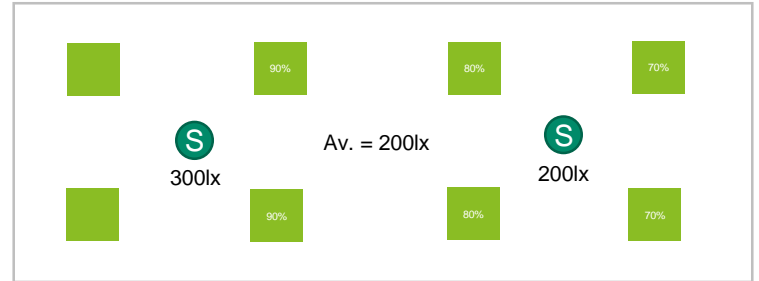
Double tap each individual luminaire

Locate “**Daylight gain**”

Measure lux different between different areas in space

Change “**Daylight Gain**” to compensate

This will cause those luminaires to dim less than those near windows.

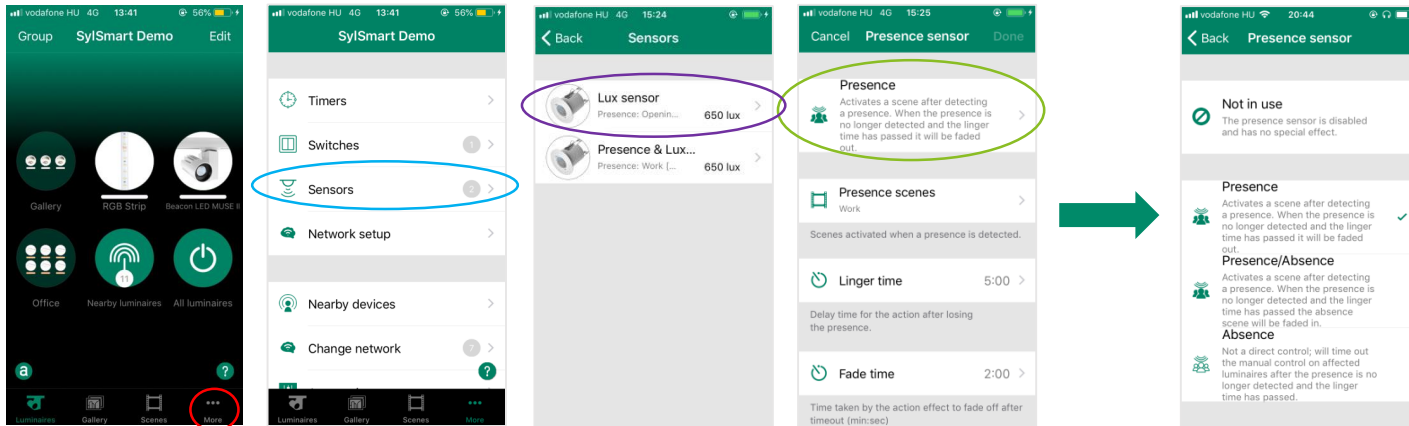


14. Configuring sensor

Setup Sensor

N.B To setup sensors, a sensor device must be added to the network and Controls Hierarchy must be enabled and setup. Ensure sensor is powered and add sensor to network.

1. Select **"More"**
2. Select **"Sensors"**
3. Select sensor in network – Sensor will show current Lux level reading
4. Change **"Presence Sensor"** and choose from following options
Presence – select scene to be recalled when presence detected
Presence / Absence – Select scenes to be recalled when presence and absence detected
Absence – Select scene to be recalled only when absence is detected – Ideal for Absence detection settings – will require wall switch for lights on

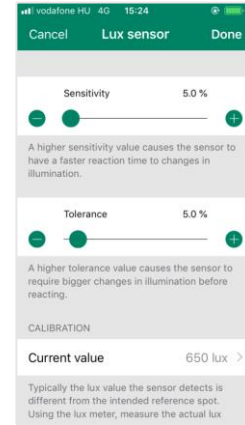
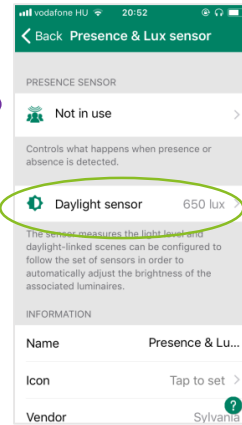
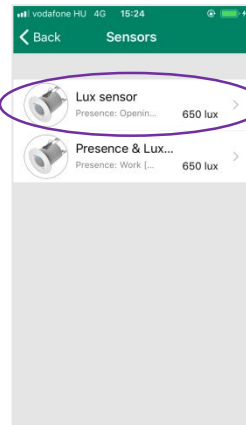
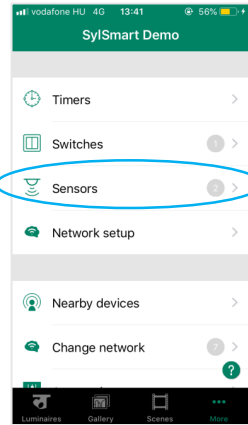
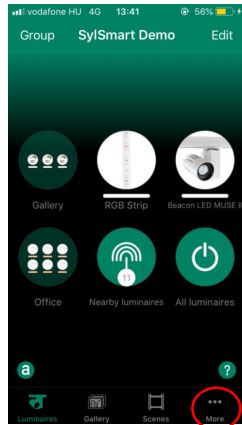


Setup Sensor

Daylight sensitivity settings.

The sensitivity of the sensor can also be adjusted.

1. Select **"More"**
2. Select **"Sensors"**
3. Select sensor in network – Sensor will show current lux level reading
4. Select Daylight Sensor – This will give you a current lux level and can be calibrated
 - a) Sensitivity alters the reaction time to changes in illuminance levels
 - b) Tolerance allows for some inaccuracy in the target lux level to prevent lights bouncing up and down when smaller light level changes occur (i.e clouds pass by)
 - c) Calibration – can be used to calibrate actual lux level using a lux meter



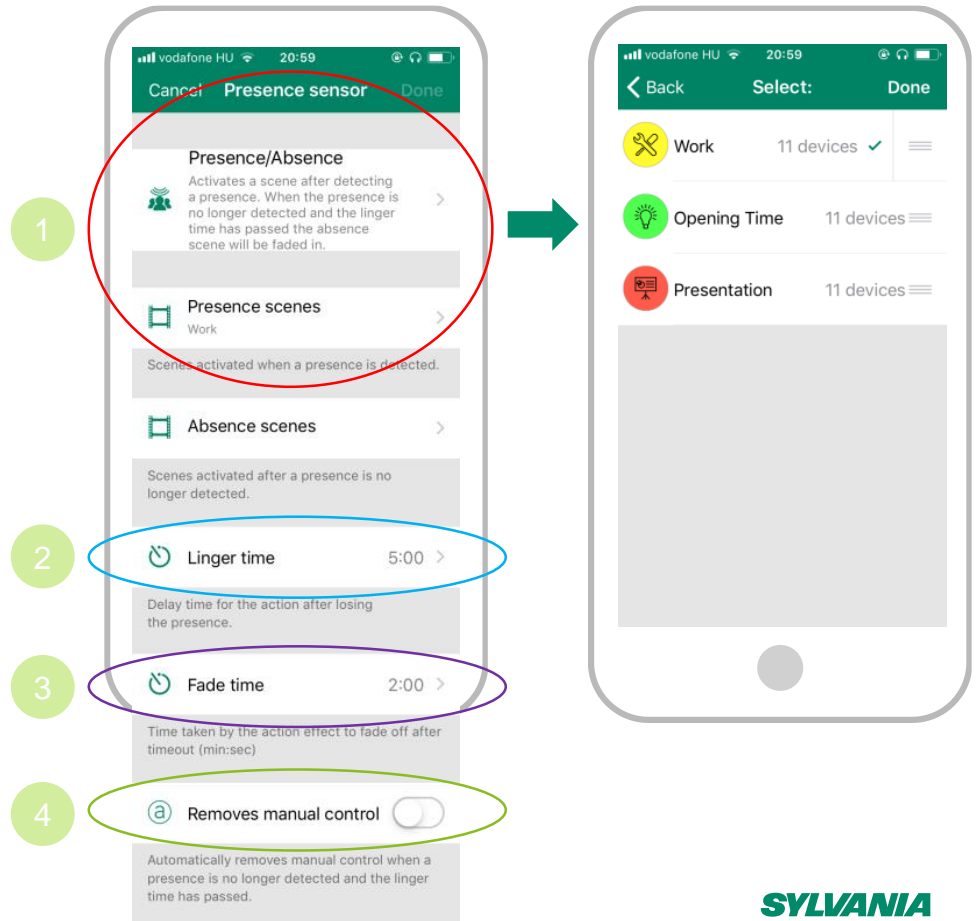
Setup Sensor

Set up dwell / linger time

How long should the lights stay on?

1. Once one of the presence detection options have been selected – Choose your control scenes
2. Then set the dwell time “**Linger time**” – This is the amount of time the lights will stay on before powering off
3. “**Fade time**” – How fast do you want the lights to turn off
4. “**Removes manual control**” – When a sensor action is taken, choose whether to override manual control such as a switch. Recommended to turn this ON.

Press “**Back**” to return to main screen.



Setup Sensor

Using multiple sensors in one room

Multiple sensors can be used in one room to undertake different functions.

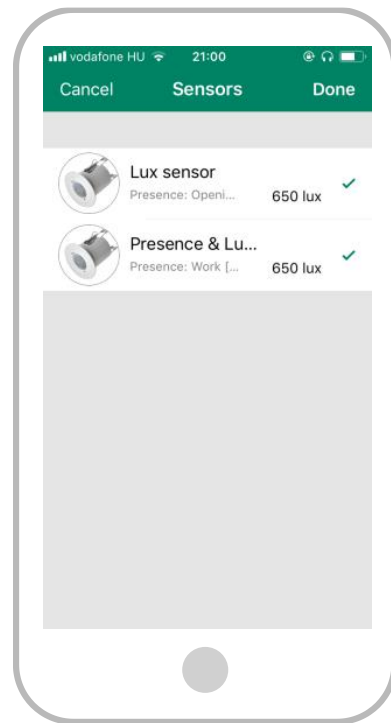
When creating Daylight scenes, choose the sensors which will be controlling the scene.

Presence detection

Any sensor attributed to a scene will act in the room. Ensure all sensors have same dwell time for best results. Longest dwell time will take priority.

Lux

An average lux reading will be taken across sensors to control the light level unless a luminaire is assigned to a “Dedicated sensor”

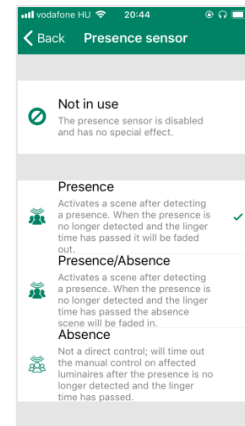
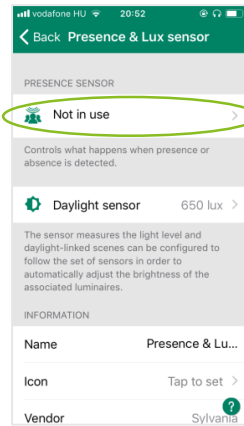
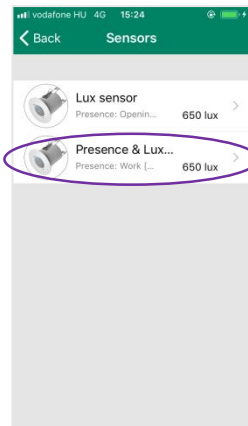
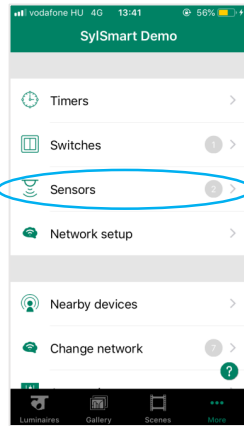
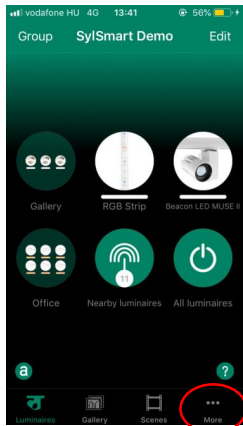
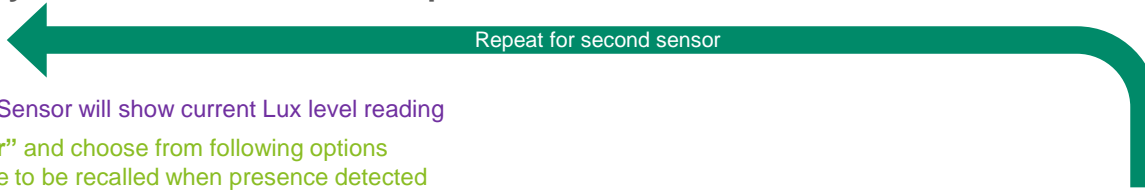


Setup Two Sensors

N.B To setup two sensors, two sensor device must be added to the network and Controls Hierarchy must be enabled and setup. Ensure sensor is powered and add sensor to network.



1. Select **"More"**
2. Select **"Sensors"**
3. Select sensor in network – Sensor will show current Lux level reading
4. Change **"Presence Sensor"** and choose from following options
 - a) Presence – select scene to be recalled when presence detected
 - b) Presence / Absence – Select scenes to be recalled when presence and absence detected
 - c) Absence – Select scene to be recalled only when absence is detected – Ideal for Absence detection settings – will require wall switch for lights on

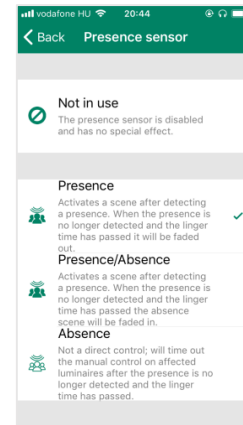
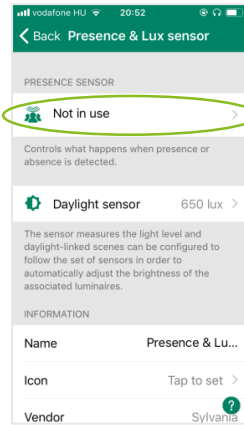
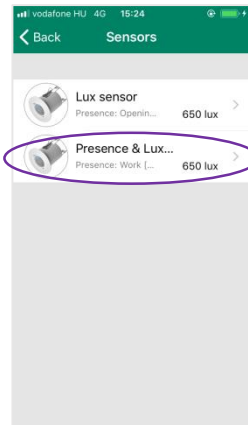
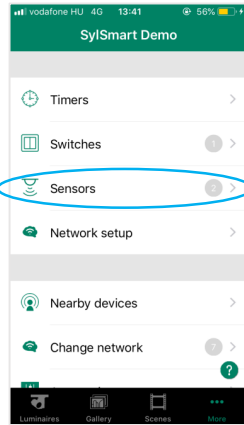
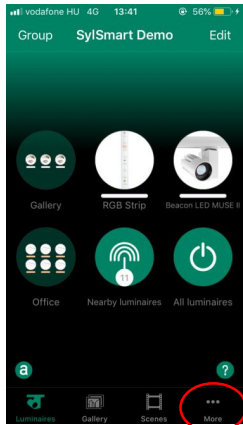
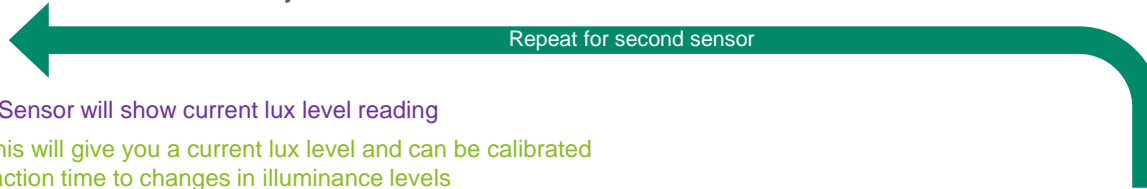


Setup Two Sensors

Daylight sensitivity settings.

The sensitivity of the sensor can also be adjusted.

1. Select **"More"**
2. Select **"Sensors"**
3. Select sensor in network – Sensor will show current lux level reading
4. Select Daylight Sensor – This will give you a current lux level and can be calibrated
 - a) Sensitivity alters the reaction time to changes in illuminance levels
 - b) Tolerance allows for some inaccuracy in the target lux level to prevent lights bouncing up and down when smaller light level changes occur (i.e clouds pass by)
 - c) Calibration – can be used to calibrate actual lux level using a lux meter



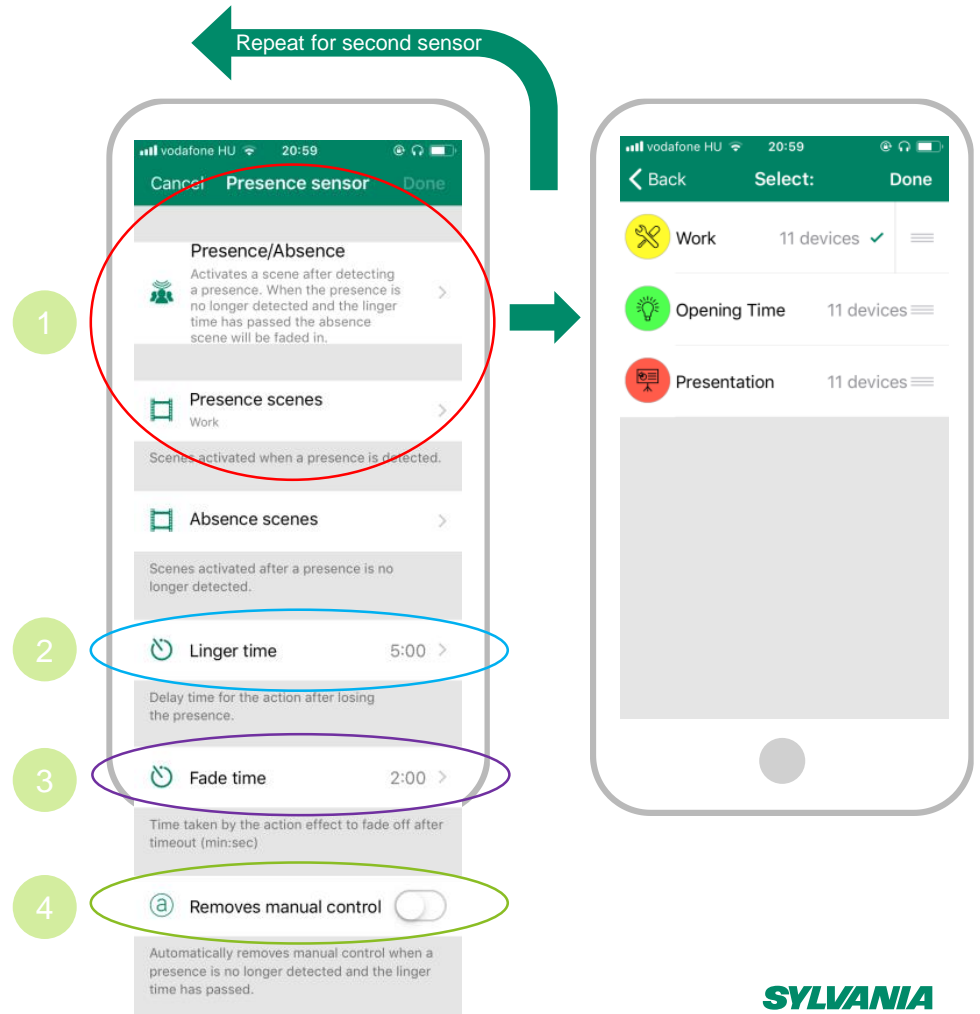
Setup Two Sensors

Set up dwell / linger time

How long should the lights stay on?

1. Once one of the presence detection options have been selected – Choose your control scenes
2. Then set the dwell time “Linger time” – This is the amount of time the lights will stay on before powering off
3. Set fade time – How fast do you want the lights to turn off
4. “Removes manual control” – When a sensor action is taken, choose whether to override manual control such as a switch. Recommended to turn this ON.

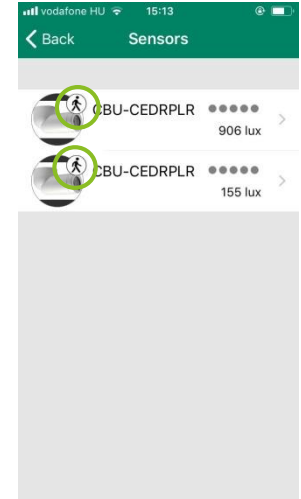
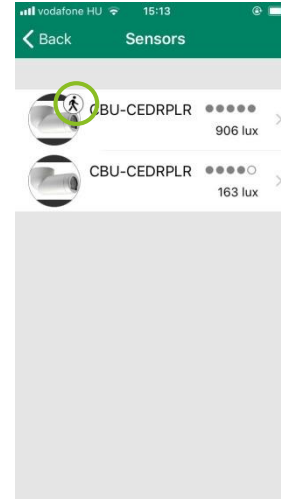
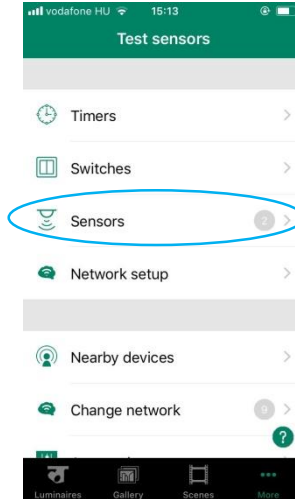
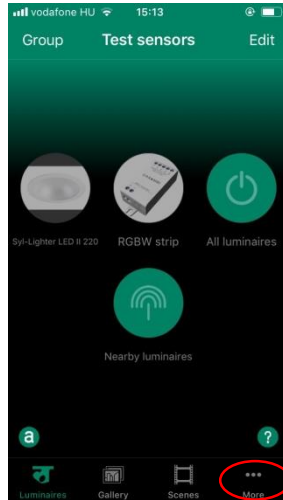
Press “Back” to return to main screen.



Identifying the right sensor

You can identify each of the sensors by triggering them, i.e. major movement in front of the lens

1. Select **“More”**
2. Select **“Sensors”**
3. When you trigger each of the sensors, a small figure appears beside the sensor.

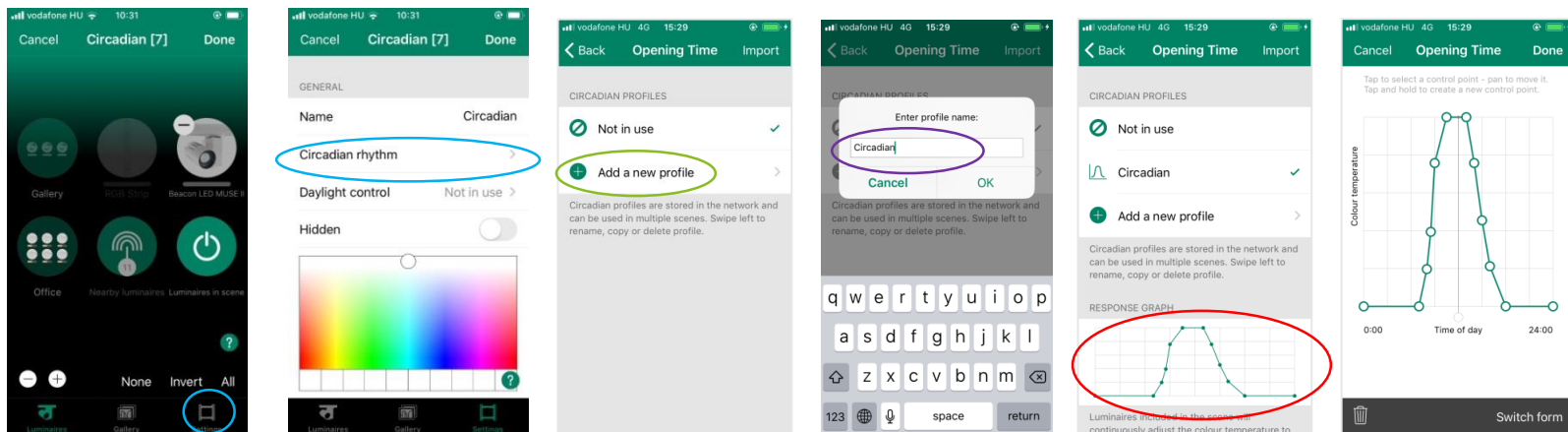


15. Circadian Profiles

Circadian profiles*

Circadian profile is designed to adjust color temperature during the day. A Tuneable White luminaire is needed to maximise impact of this feature

1. Select setting in the created scene and select “Circadian rhythm”
2. Add a new profile
3. Name the circadian profile
4. Tap on the graph and change the control points regarding your need

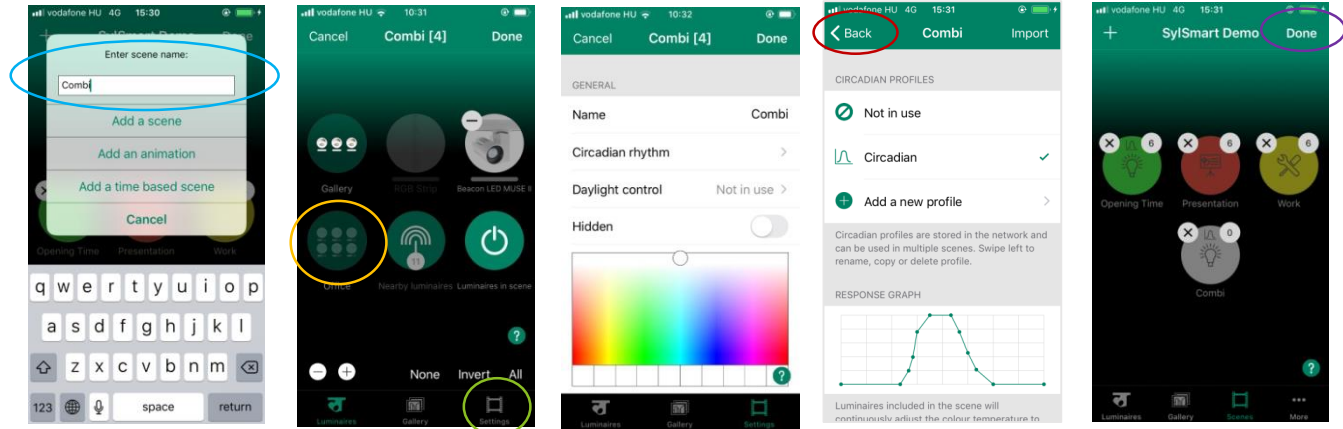


*Circadian profile can be added on its own or can be a Daylight scene as well.

Circadian profiles

To combine a Circadian scene and a Daylight scene you must:

1. Create a new scene and name it
2. Select tuneable white luminaires in scene
3. Select "Setting" and go to Daylight setting and setup the daylight
4. Then Press **"Circadian icon"** and add profile
5. Press **"Back"**
6. Press **"Done"**



16. Time based scene + circadian profiles

Time based scene + circadian profiles

In order to sync lights with natural daylight you can combine “Timed based scene” and “Circadian profile”.

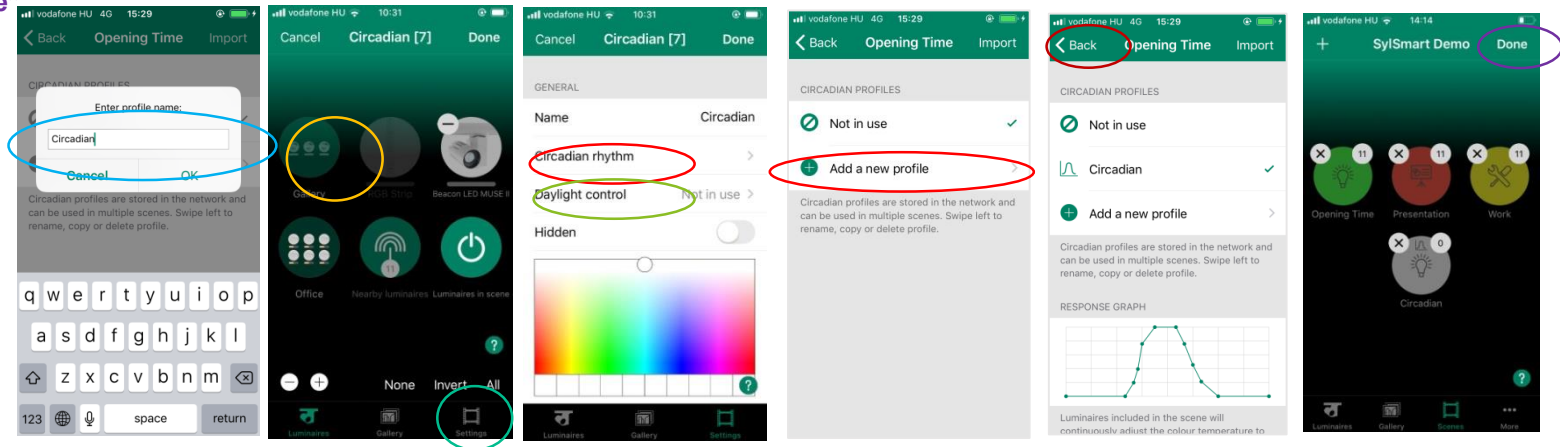
A Tuneable White luminaire is needed to maximize impact of this feature.



Time based scene + circadian profiles

First create a circadian scene

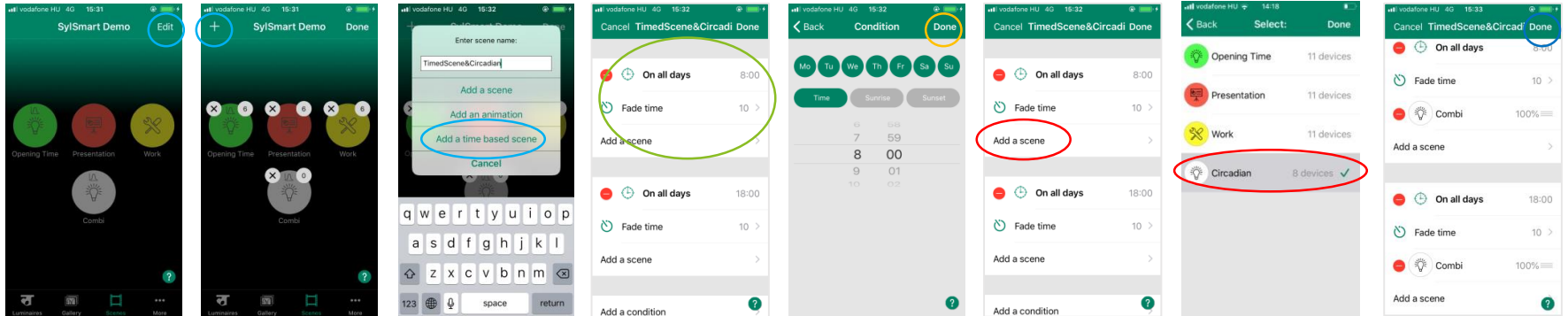
1. Create a new scene and name it
2. Select TW luminaires in scene
3. Select “Setting”
4. Select “Circadian rhythm” and add profile
5. Press “Back”
6. Select “Daylight control” and setup Daylight
7. Press “Done”



Time based scene + circadian profiles

Next create a time based scene including the created circadian profile

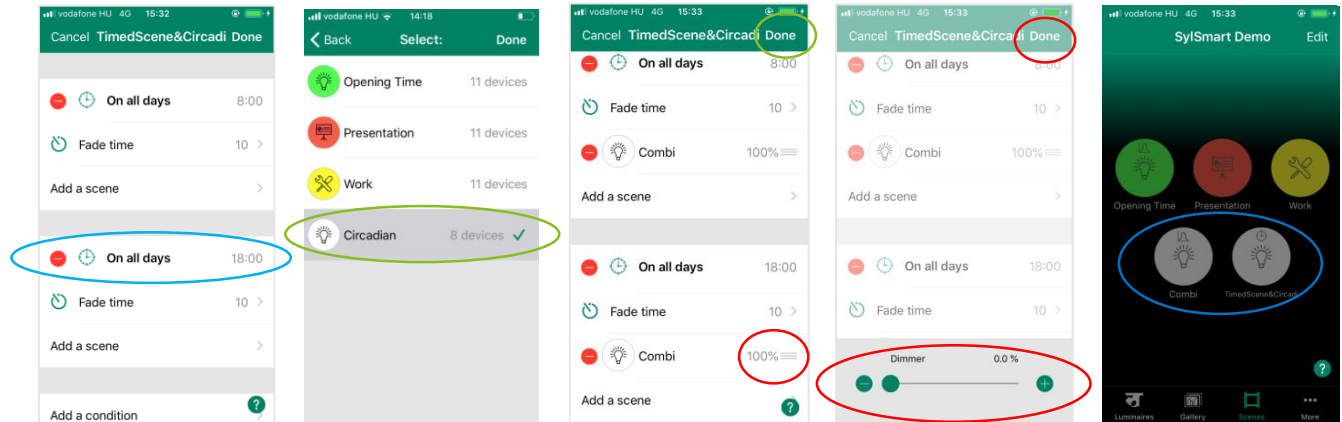
1. Add a time based scene
2. Set up the “Circadian” scene’s active time and fade time
3. Press “Done”
4. Add the “Circadian” scene
5. Press “Done”



Time based scene + circadian profiles

In the next scene section you can deactivate or turn off the “Circadian ” scene

1. Set up the schedule & the fade time
2. Add the “Circadian” scene and press “Done”
3. Tap on the dim level “100%” and dim down the “Circadian” scene to zero. Press “Done”
4. Activate the “Circadian & timed based” Scene



17. Changing device profiles

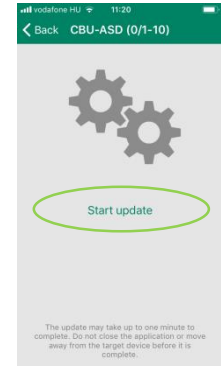
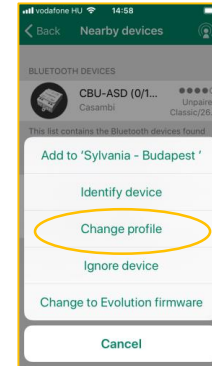
Changing device profiles

Many of the devices have a multi-mode capability to switch between different operating profiles. This profile can be changed if the original device profile was never changed. Below is the process for changing the profile on a PWM4 used for LED strips.

1. Open the app and go to Nearby Devices screen
2. Make sure that the unit is in unpaired state. The configuration cannot be changed if the unit is part of a network
3. Tap on the unit that you want to reconfigure and select **“Change Profile”**.
4. In the Select Profile screen you can select the new profile. Please see the list of available profiles below.
5. Once you have selected the profile, the Update screen will open.
6. Tap on the **“Start Update”** and make sure you don't close the app during the configuration.
7. When the update is done then you will see **“Update Succeeded text”**.
8. Tap on **“back”** to get back to Nearby Devices screen.
9. Add device to your network



3



6

SYLVANIA

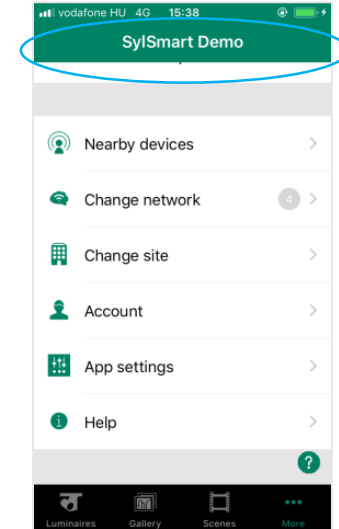
Other

Nearby Devices (Pairing/Unpairing/Firmware update)

Looking at nearby powered devices enables users to undertake many administrative tasks and can be accessed by selecting:

1. **“More”**
2. Nearby devices
3. Tap on device to administer

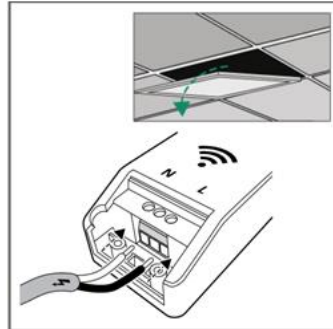
Pair	Unpaired devices can be added to network
Unpair	Paired devices can be removed from the network
Identify	Helps identify luminaire – Pressing this will cause luminaire to flash
Update Firmware	This will update the firmware of the luminaire



Replacing a broken device

If a SylSmart module is broken, we can replace the module*

The luminaire profile must be preconfigured for that specific luminaire type in the factory. Then all the settings can be applied to the new device.



Remove the broken SylSmart unit and install new unit. Connect Live, Earth, Neutral. Connect sensor and set parameters.



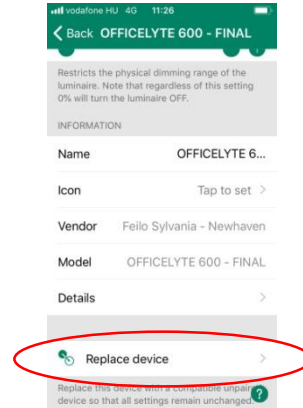
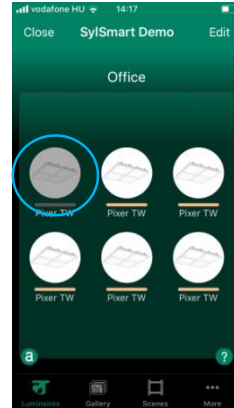
* It can be replaced only during the Warranty Period

Replacing a broken device

You only need to replace the device on the app.

1. Tap on broken luminaire

2. Scroll down to bottom and select “Replace device” and find the new device for replacement



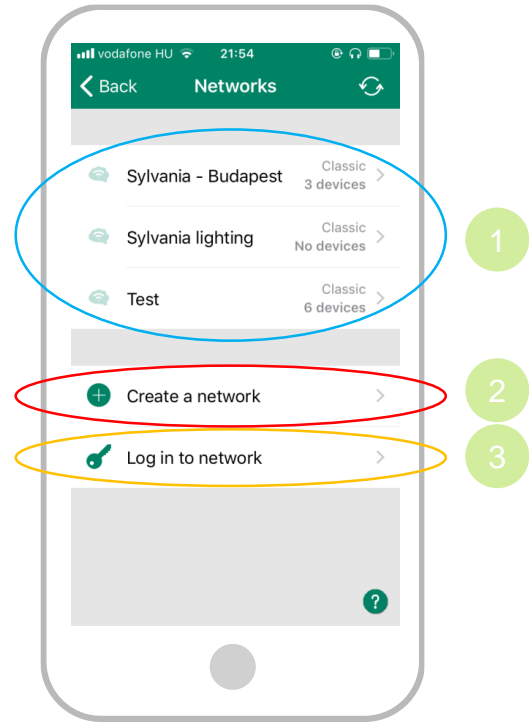
Changing Networks

If you need to switch between networks, this can be achieved through the “Change Network” option.

To access this, click on “...More” and select “Change network”

In this menu you can:

1. Select another existing network
2. Create a new network
3. Login to another network



App Settings

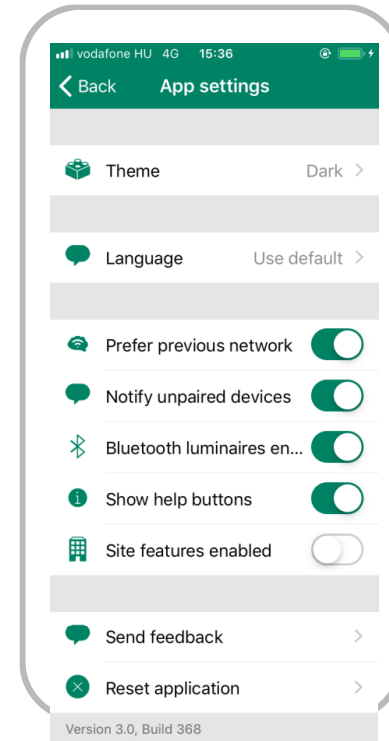
The settings of the app can be configured.
These are accessed by pressing

“...More” > App Settings

In App settings you can:

1. Turn on/off the ability to start with the previous network
2. Turn on/off the ability to notify unpaired devices
3. Turn on/off the ability to find Enabled luminaires
4. Show/Hide help buttons
5. Enables control of several networks from the SylSmart app.
6. Send feedback to the app developers if you encounter technical support (ensure you complete your e-mail address)
7. Reset application

The “Send Feedback” section is important when entering special codes.
Simply enter the code in feedback and press send – ensuring no e-mail address is entered.



Removing Luminaires from a network

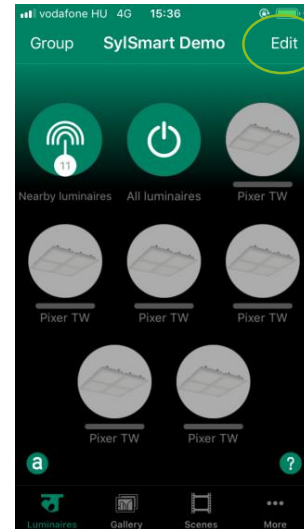
In the app you can remove luminaires from a network.

This is especially important if a luminaire is to be used on a different network.

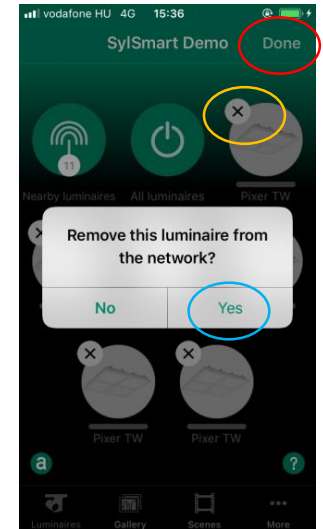
If a luminaire is not unpaired before being taken to another network, the luminaire will only be able to be unpaired via a physical unpairing sequence.

To unpair/remove a luminaire:

1. On the Luminaires screen – Press “Edit”
2. Tap the X next to the luminaire to be removed
3. Press “Yes”
4. Press “Done”



1



4

2

3

Utility App – Forcing a device to unpair

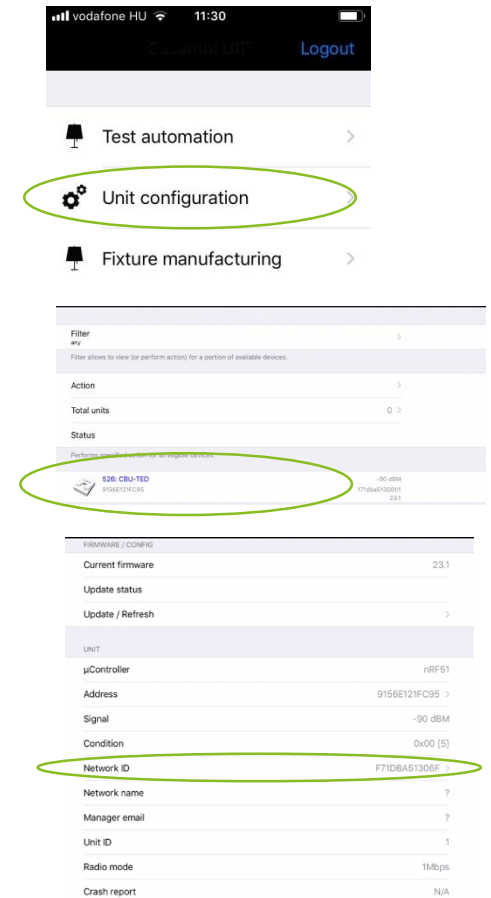
There may come a time where a device was paired to a network and you no longer have access to that network and you are unable to unpair using the ON/OFF sequence.

The last resort is to undertake an “Administrative Unpairing”.

In this process, you will use the Utility App or admin access within the Standalone app to locate the device, secure encryption keys and force the device to unpair. To do this:

Using the Utility app:

1. Power the device
2. Open the admin app and login in
3. Select **“Unit Configuration”**
4. At the bottom of the page – Select the device
5. On the next screen, scroll down to **“Network ID”**
6. Tap on Network and Confirm **“Administrative Unpairing”**
7. The device will be unpaired

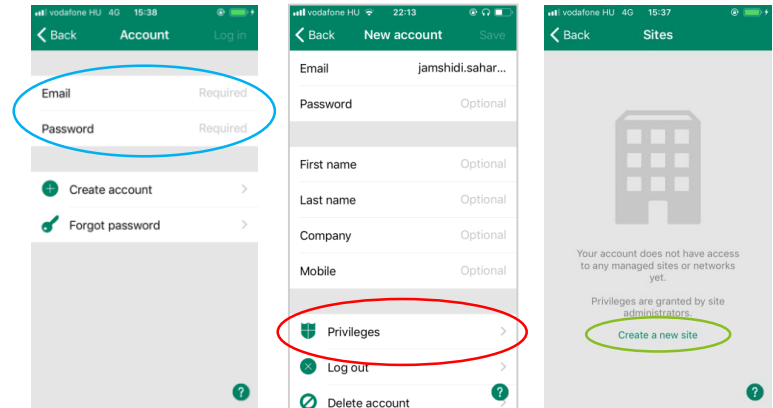


Create a site

It is possible to create a Site with multiple networks in it. This enables scenes and timers across several networks.

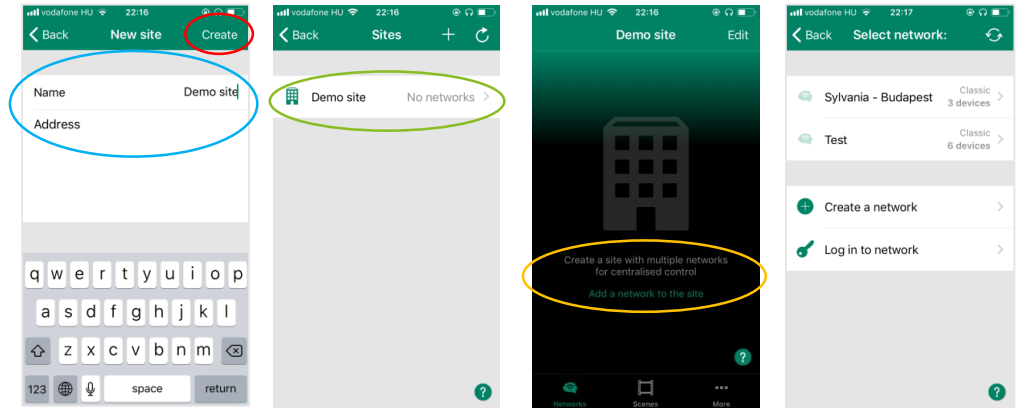
If Site features are not enabled in the app, this can be done under More > App Settings > Enable Site features.

1. Before creating a Site it is necessary to either login or create a new account for Sites. This account is used only for Sites.
2. To add more users go to More > Privileges and tap on the “+” sign. Enter the user's email address. Note that new users need to have a Site Account.
3. Create a new site



Create a site

4. Add a name for your Site. It is also possible to add an address for the site.
5. To create the site tap on **“Create”**.
6. After creating the site it is possible to add networks to it.
7. To add networks tap on the created site in Sites list and the Networks screen is opened. Tap on the **“Add a network to site”** and the list of available networks will open.
8. A network can be added to the site if it has a gateway enabled and if you have the modification rights to that network.



Sites / Extending beyond 127 luminaires

Remote Gateway functionality

Sites – Extending beyond 127 luminaires – Only available by special app code #sites

The use of sites enables multiple networks of up to 127 each to be linked thereby extending network capacity

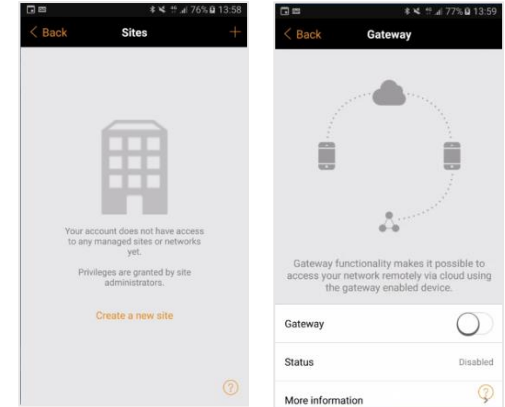
The SylSmart Standalone solution is designed for smaller applications under 127 luminaires but optimised for under 50 luminaires.

If a project requires more than 127 luminaires, please contact Technical Support to discuss the possibility of setting the system up with “Sites” or possibility of using “Evolution” to extend the system.

Remote Gateway Functionality

The SylSmart Standalone solution is designed to operate as a standalone system with no remote functions. However, if remote control is required on your project please contact Technical Support to discuss the possibility of setting the system up with “Gateways” to extend the system.

The Gateway functionality enables a smart device to act as a permanent connection to the cloud where all actions are stored. A remote device can make changes on the cloud to then be replicated on premise remotely.

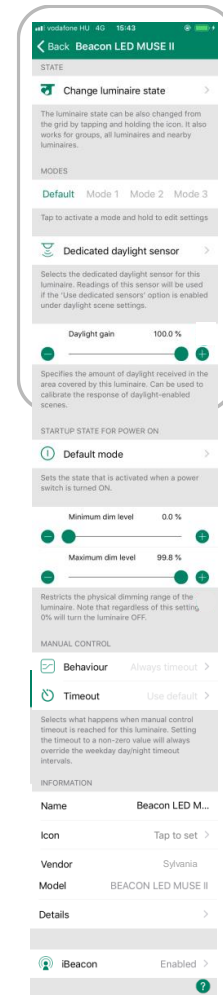


Changing luminaire parameters

In the app you can tailor individual luminaire parameters.

The parameters that can be changed are:

- **Change luminaire state** – Same a control – set the light output
- **Modes** – Set the preset Mode parameters – used for Smart Switching
- **Smart Switch** – When used with a normal switch – A rapid toggle of power can recall different actions
- **Push Buttons** – Select how luminaire reacts to push button actions (Not used)
- **Rotary Switch** – Select how luminaire reacts to rotary switches (Not used)
- **Presence sensors** – Select how individual luminaire reacts to a sensor
- **Dedicated Daylight sensor** – Select which daylight sensor the luminaire will follow
- **Daylight Gain** – Calibrate amount of daylight this luminaire areas sees compared to at sensor location
- **Start Up State** – if using a manual switch – In which state shall the luminaire resume
- **Max/Min Dim Level** – Select Max and Min light level allowed
- **Manual Control** – Select how luminaire reacts when manual control timeout has elapsed
- **Information** – Luminaire/Device information – Change device name/icon

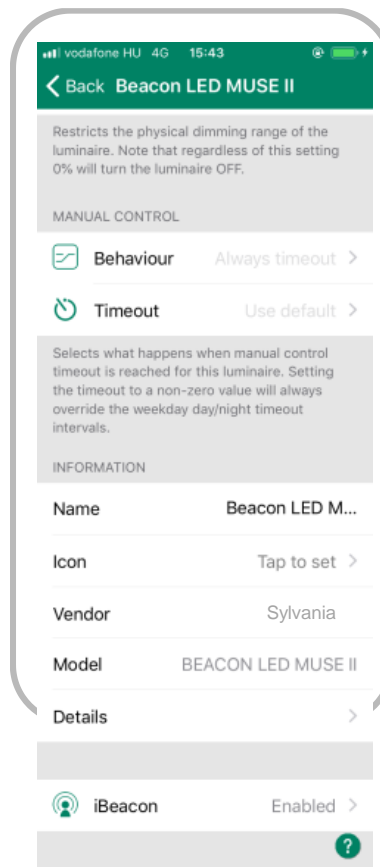


Changing luminaire parameters (cont.)

In the app you can tailor individual luminaire parameters.

The parameters that can be changed are:

- **Start Up State** – if using a manual switch – In which state shall the luminaire resume
- **Max/Min Dim Level** – Select Max and Min light level allowed
- **Manual Control** – Select how luminaire reacts when manual control timeout has elapsed
- **Information** – Luminaire/Device information – Change device name/Icon



Benefits of BLE vs VLC

No line of sight
needed



Bluetooth available in
all smart devices



Works with dimmed
luminaires
and when light off



Lower up front cost



We don't recommend to use the following devices:

xiaomi mi4

Samsung Galaxy Core Prime

Samsung Galaxy Tab A 2016 10,1

Huawei P8 Lite

Sony E5603 Xperia M5

WIKO ROBBY (fw18.0)

Galaxy S2

Samsung Galaxy S6

Huawei honor 5C

EVOLVEO_EVOLVEO_StrongPhone_G4

We do recommend to use the following devices:

Devices with iOS 9.0 or later:

iPhone 4S

iPhone 5

iPhone 5C or newer models

iPad 3rd generation (2012, A14xx) or newer

iPad mini all models

iPod touch 6th generation or newer

Devices with Android 5.0 Lollipop or later and BLE 4.0

Devices with Android 4.4 KitKat and BLE 4.0

Technical Support

For technical support please contact
your local Sylvania technical support
representative

Or contact:

Alexander Demeulaneare

alexander.demeulaneare@sylvania-lighting.com

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