How to configure lighting control for an open-plan office setting

Before using the cheat sheet, please make sure you have the basic Casambi App knowledge for creating a network, pairing devices, creating groups and enabling control hierarchy. For more information, please refer to the tutorial videos on: *https://casambi.com/training/*

Scenario

Open plan office with multiple lux/presence sensors

- An open plan office with multiple luminaires and presence/lux sensors. Each sensor is dedicated to controlling one group/certain luminaires.
- When the sensor detects presence, lights automatically switch on and a constant light level of 500 lux should be maintained throughout the corresponding area.

Key Programming Overview

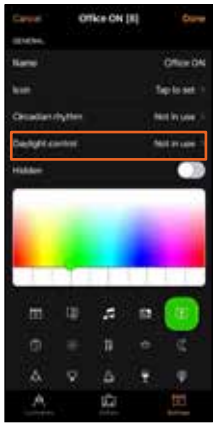
1 Scene

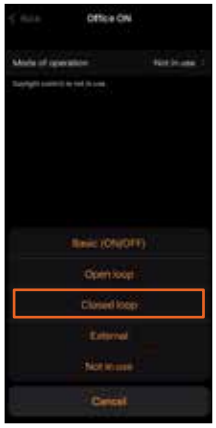
- **Office ON -** Daylight scene (Closed loop daylight with target lux level set to 500 lux).

1 Sensor

- S1 - **Presence mode**: It activates the **Office ON** scene while movement is detected.
- S1 - **Daylight**: It measures the lux level and adjusts the lights to maintain the target lux level set.

STEP 1: SCENE Casambi App → **Scene**





The number of scenes needed will depend on how many sensors are used and what luminaires they have been configured to control. Here we are configuring one scene for one sensor. This process should be replicated as many times as sensors you have.

Closed loop:

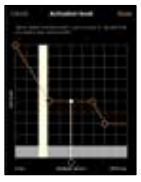
Sensors are affected by light from the luminaires in the scene.

Select the sensor **S1** that will provide the lux level for the luminaires.

The **Minimum dim level** (%) setting in the Closed loop parameters applies to the closed loop scene selected. e.g., Minimum dim level set as 10% and the closed loop scene is 50%, then the minimum dimmed level for the closed loop scene will be restricted to 5%.

Change rate is the interval for luminaires in the scene to adjust to a change in lux value.

Sensors actively adjust the luminaires in the active scene to try to reach and maintain the desired level via a feedback loop.



An **Activation level** graph can be configured to define the scenes starting dimmed level in relation to the actual lux value in the area when the scene is triggered.

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For more information *www.casambi.com/support*

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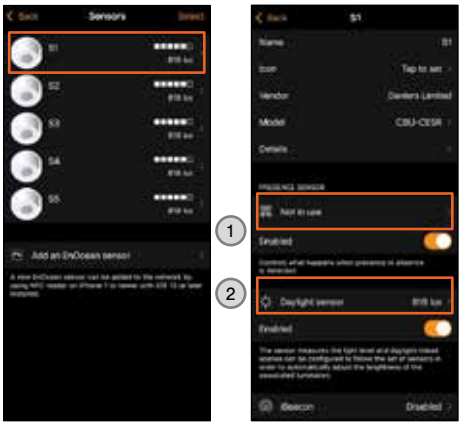
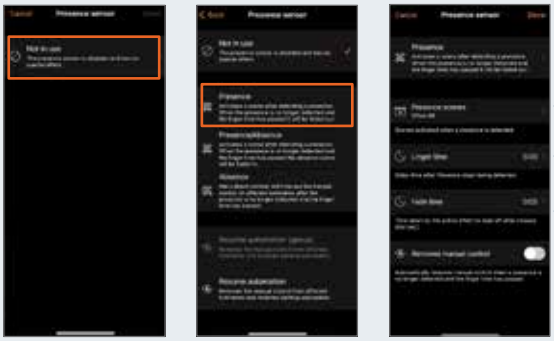
STEP 2: SENSOR

Casambi App → More → **Sensor**

The following process should be repeated for each sensor you have, as each sensor is responsable for controlling one scene:



1



Select **OfficeON** scene that will be triggered by the sensor when presence is detected.

The scene will be faded out after 5 minutes passed without detecting presence.

The fade off action will take 5 seconds.

2

Sensitivity defines how quickly the sensor will react to changes in illumination. The default setting at 80% is ideal for testing; for regular use, lower the sensitivity.

Tolerance defines how large the changes in measured lux value need to be before the sensor will react. The default tolerance is 5%. For standard use, opt for a higher tolerance to accommodate more significant lux variations.

When measuring 500lx on a surface below the sensor, the lux level recorded at the sensor (400lx) should be set as the **Desired illuminance** in Daylight control scene configuration. Consequently, the “target lux” will not be the same as the “desired lux” in this case.

STEP 3: PERFORMANCE

Casambi App → More → Network Setup → **Performance & Security**

Min sensor reporting time defines how often lux sensors report values to the network. Choosing a higher interval reduces network traffic, especially in networks with many sensors.

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