

PHILIPS

Sensors

EasySense

SNS211 MC



The Philips EasySense SNS211 MC from Signify is an economical and touch-less lighting control solution that provides per-luminaire control of new LED luminaires. It combines occupancy and daylight sensing in a single, compact package for easy OEM luminaire assembly. EasySense SNS211 MC operates with the Advance Xitanium SR driver to make a simple two-wire connection between sensor and driver, thus eliminating the need for multiple components and auxiliary devices. It provides advanced lighting controls functionalities without the need for a central gateway.

To improve the user experience during commissioning, Signify has also updated the commissioning app. This improved version is called MasterConnect. It's available for either the iOS or Android smartphones. There are numerous enhancements and new functionalities to improve the user experience in commissioning the Philips EasySense SNS211 MC.

EasySense SNS211 MC also supports simple control of tunable white fixtures with award-winning Advance FlexTune System. It also supports room level energy reporting without the need for a separate gateway. These advance features and updated field app make EasySense SNS211 MC a very cost effective DLC-qualified networked lighting control solution.

For more information about the Advance FlexTune System, please visit:
<https://www.signify.com/en-us/brands/advance/systems/flextone-system>

EasySense fixture-mount sensor

Commercial Product Name	Order Code
EasySense SNS211 MC	SNS211 MC

Features

- Out-of-the-box light regulation with preset sensor parameters
- Groups/networks up to 120 lights
- Occupancy sensing, daylight harvesting and task tuning in one device
- Compact size, 2-wire connection
- Operates with Philips Xitanium SR drivers and qualified wireless switches
- Tunable White with Philips FlexTune driver
- Simple grouping of luminaires to a wireless switch with Philips MasterConnect App. Selection of luminaires using a list based on BLE or pointing with standard flashlight.
- Configuration of sensor parameters – at group, zone or single light level
- Simple room level energy reporting with CSV file saved on the phone

Benefits

- Combines functionality to reduce need for multiple components
- Fits into existing and new-design luminaires
- Quick task tuning in the field to optimize light levels, color temperature and power
- Enables multiple modes such as manual-on/auto-off or manual on/off
- Cost-effective solution for energy savings
- 5-year limited system warranty with Philips Xitanium LED drivers
- Configuration and commissioning from the floor
- Compatibility with qualified gateways

Applications

- Conference rooms
- Individual offices
- Open offices
- Classrooms
- Storage and break areas
- Restrooms
- Lobbies
- Stairways

EasySense fixture-mount sensor

Specifications

All specifications are typical and at 25°C Tcase unless otherwise specified.

Ordering Information	
Order Code	SNS211 MC
Full Product Name	EasySense SNS211 MC
12NC	929003417313
Carton Quantity	50 pcs/carton
Physical Information	
Overall Dimensions	50 mm x 19.0 mm x 31.5 mm
Housing (Luminaire Hole)	44 mm x 17 mm (L x w)
Net Weight per Piece	0.6oz / 17gr
Volume Required Inside Luminaire (LxWxH)	50 mm x 19 mm x 24 mm
Color	White
Connectors	WAGO 2060 2-pole terminal block. Rated for AWG24 to AWG18 solid or AWG22 to AWG20 stranded wire
Electrical Information	
Input Voltage	Powered by SR driver low-voltage interface
Current Consumption	13mA
Nominal Power Consumption	200mW
Activation	Sensors regulate light output out-of-the-box with default settings
Standby Power	< 1 W on luminaire level, including driver standby power
Occupancy Sensing	
Type	Passive infrared (PIR)
Occupancy Based Control	Enable/Disable. Default enabled.
Occupancy Mode	Auto-on/off, Manual-on/off, Manual-on/auto-off; Red LED indicates occupancy detected
Group/Zone Occupancy Sharing	Enabled/disabled
Group/Zone Lighting Behavior	Background light level, Eco on level
Eco-On Level	1-100%
Hold Time	2 - 100 minutes, or infinite
Viewing Angle	X = 62°, Y = 84° (See detection pattern)
Background Light Level	1-100%
Prolong Time	2 - 100 minutes, or infinite
Grace Fading	1-25 seconds
Fading to Switch On/Off	1 second

Continued on next page.

1. View limited warranty at <http://www.usa.lighting.philips.com/support/support/warranty>.

EasySense fixture-mount sensor

Specifications (continued)

All specifications are typical and at 25°C Tcase unless otherwise specified.

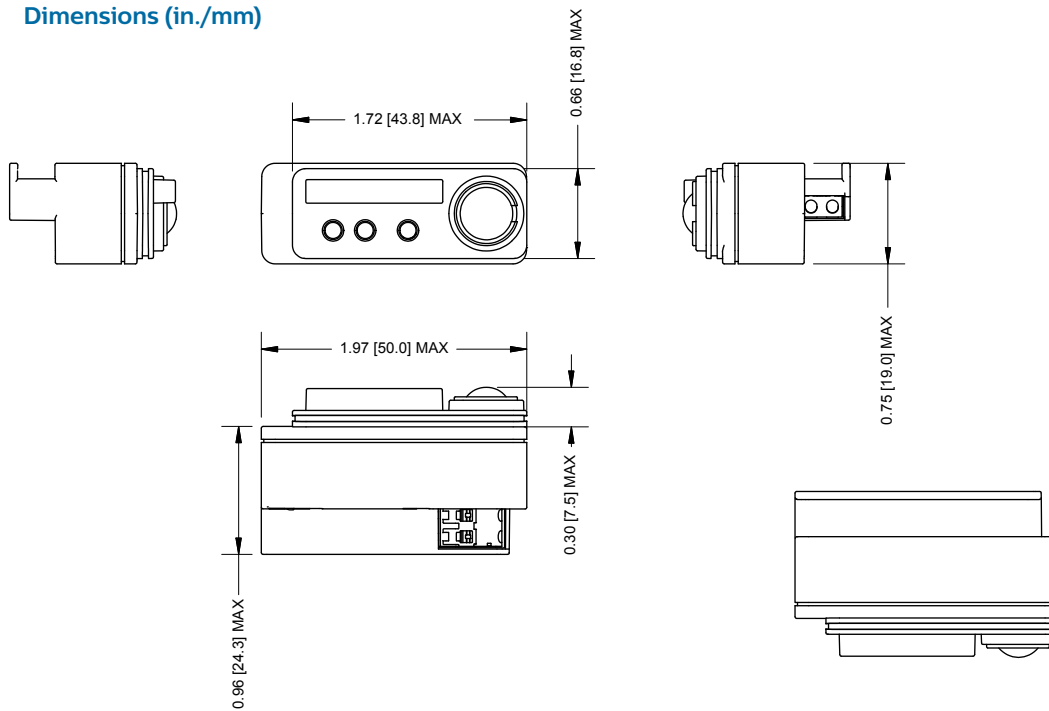
Daylight Sensing	
Daylight based control	Enable/Disable. Default Enabled with target light level of "500lux X Eco-ON%". Actual Lux value will be fixture and application dependent. Daylight sensor calibration is selectable at the time of commissioning and configuration. Light Level calibrated to "Max light output from fixture X Eco-ON%"
Viewing Angle	40° (half value sensitivity); 2% cut-off point at 75°
Task Tuning	
Field Task Level	0-100%
Tunable White	With FlexTune SR driver, default factory setting: 4000K
Environment & Approbation	
Operating Ambient Temperature Range	0°C to 55°C
Operating Humidity	0 – 85% non condensing
Storage Temperature	-25°C to 85°C
Storage Humidity	0-95% non condensing
Max Case Temperature (Tcase)	55°C
Agency Approbations	UL916; cUL; Tested and approved for use in plenums; FCC ID: 2AF2N-SSMC; IC: 20659-SSMC
Warranty	5 years
Digital Interface	Sensor Ready (SR), a standard-compliant (ANSI C137.4 and DiiA) digital interface
Other	
Wireless Protocol	2.4 Ghz, IEEE 802.15.4
Cybersecurity certification	IEC 62443 compliant, IEC 62443-4-1
Encryption	AES-128
Energy Reporting	Group/Room level using Philips MasterConnect App, Report saved as CSV file on the phone.
LED Status Indicators	After commissioning: Red LED on: Motion is detected; Yellow LED on: Vacancy detected & Sensor is functional
No. Drivers per Sensor	4 max (Limited to 1 driver per sensor for support of Tunable White and Energy Reporting features)
Max Distance Switch-to-First-Fixture	33ft line-of-sight
Max Distance Fixture-to-Fixture	40ft line-of-sight
Max No. of Devices in a Group	120
No. Switches per Group	15 max, 5 max per zone
Field Configuration	via BLE, parameters set via Philips MasterConnect App

Driver Compatibility

EasySense SNS211 MC is compatible with Xitanium SR drivers. To find the SR driver that fits your application needs and for product specifications, please visit www.signify.com/xitaniumsr.

EasySense fixture-mount sensor

Dimensions (in./mm)



Mounting Dimensions (in./mm)

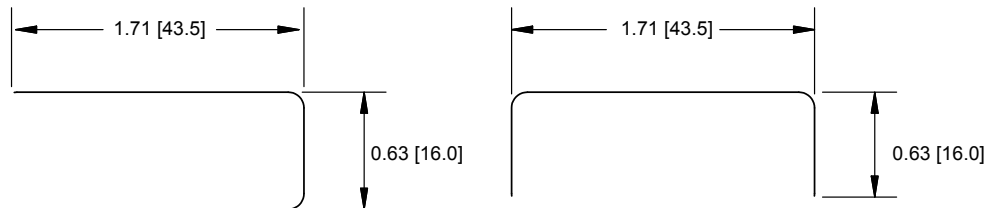
Accessory Mounting Ring

Part Number SMR-50 / Set of 50

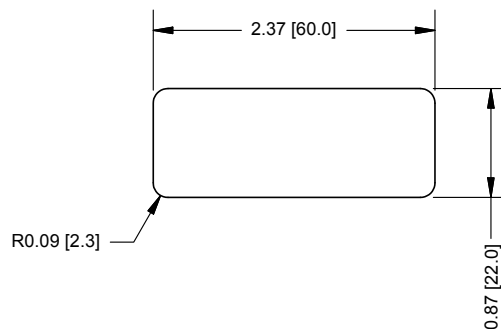
- (1) SMR-50 includes a set of (50) mounting rings
- Ordered separately, not included with EasySense
- Dimensions: 53mm x 26mm x 1.5mm



Mounting in U-shaped slot in sheet metal (max thickness 1 mm), tolerance +0.2mm/-0.0mm



Mounting in cut-out in sheet metal (thickness 0.7 mm to 1.0 mm), tolerance +/-0.2mm



Accessory Mounting Bracket

Part Number SMB-50 / Set of 50

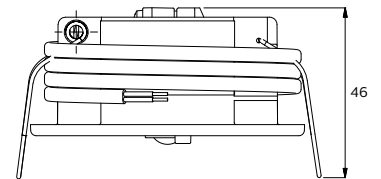
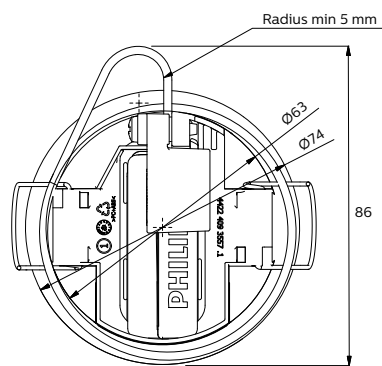
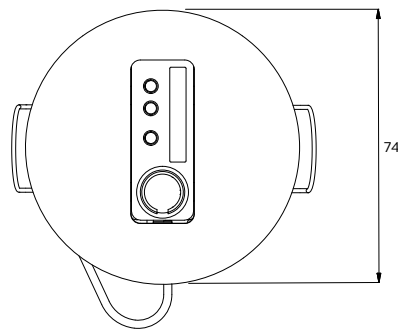
- (1) SMB-50 includes (50) mounting brackets
- Ordered separately, not included with EasySense
- Dimensions: 64.1mm x 25.3mm x 10.3mm



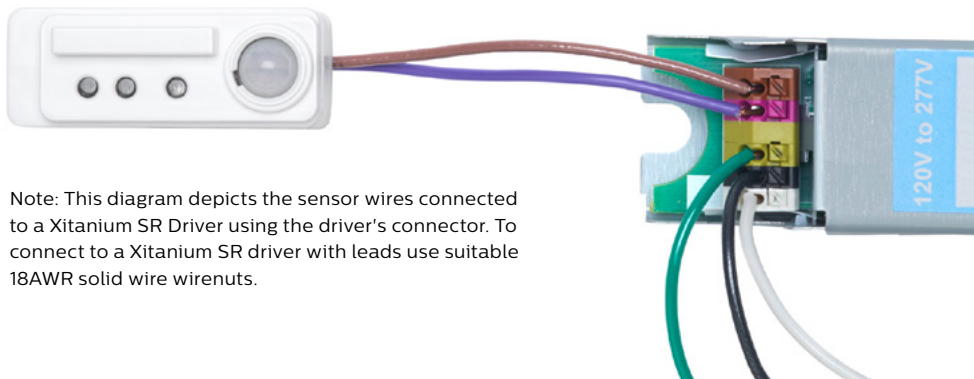
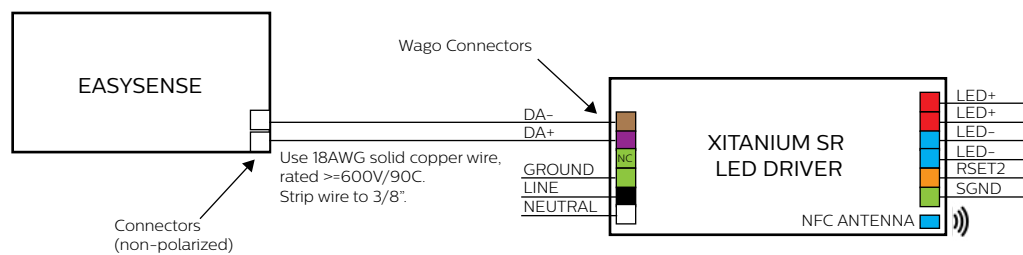
EasySense fixture-mount sensor

Accessory Ceiling Mounting Bracket

- CMP bracket is available as a bracket without any pre-mounted sensor or cable.
- The sensor needs to be inserted the CMP bracket and the cable needs to be attached to it.
- The cable and screws are available with the accessory.



Wiring Diagram



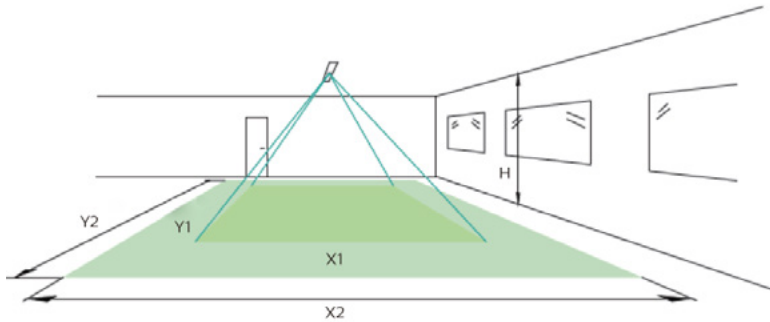
Note: This diagram depicts the sensor wires connected to a Xitanium SR Driver using the driver's connector. To connect to a Xitanium SR driver with leads use suitable 18AWR solid wire wirenuts.

EasySense fixture-mount sensor

Occupancy Sensing

The detection area for the movement sensor can be roughly divided into two parts:

- Minor movement (person moving $\leq 3.0'$ or 0.9m/s)
- Major movement (person moving $\geq 3.0'$ or 0.9m/s)



Height	Minor Movement		Major Movement	
	Y1	X1	Y2	X2
8'/2.4m	10'/2.9m	6'/1.9m	14'/4.3m	9'/2.9m
10'/3m	12'/3.6m	8'/2.4m	18'/5.4m	12'/3.6m

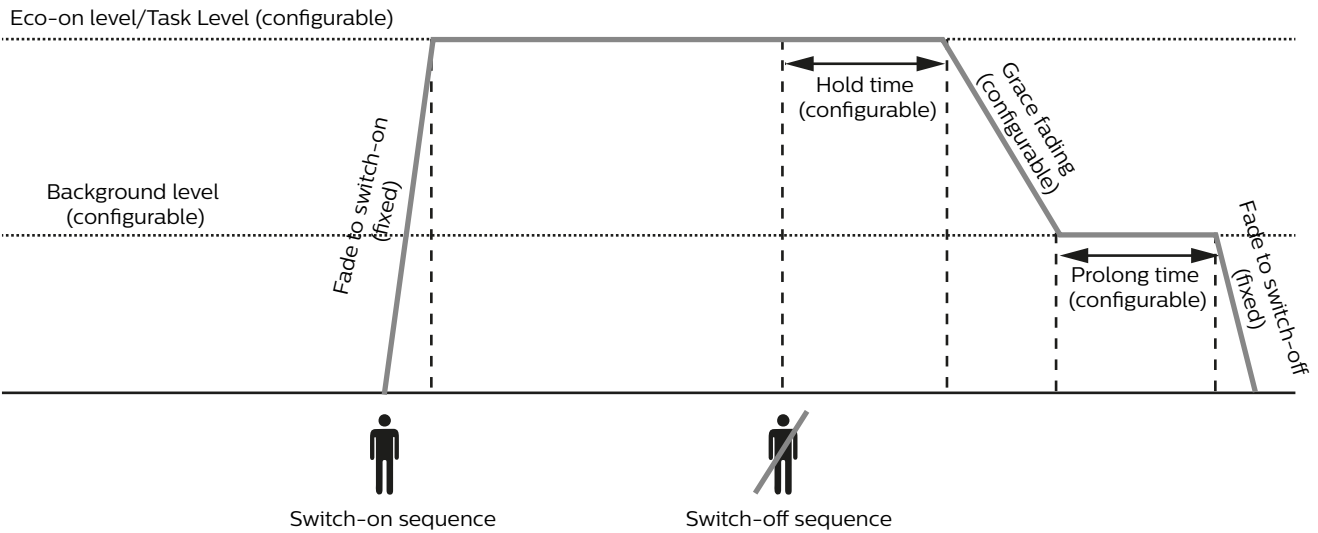
Note: Longer dimension of detection area (Y1, Y2) is parallel to longer dimension of EasySense.

EasySense fixture-mount sensor

Occupancy Sensing (continued)

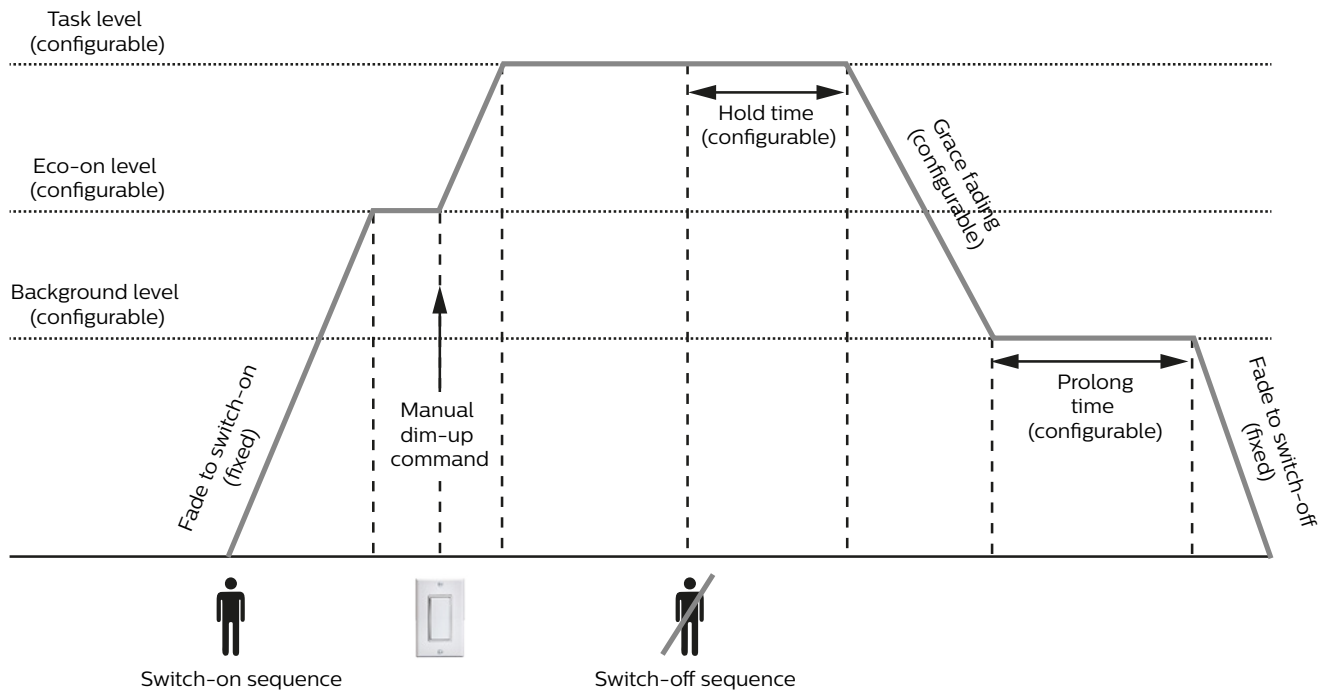
Full-On Sequence (Default)

Eco-On Level = Task Level



Partial-On Sequence (Configurable)

Eco-On Level < Task Level



EasySense fixture-mount sensor

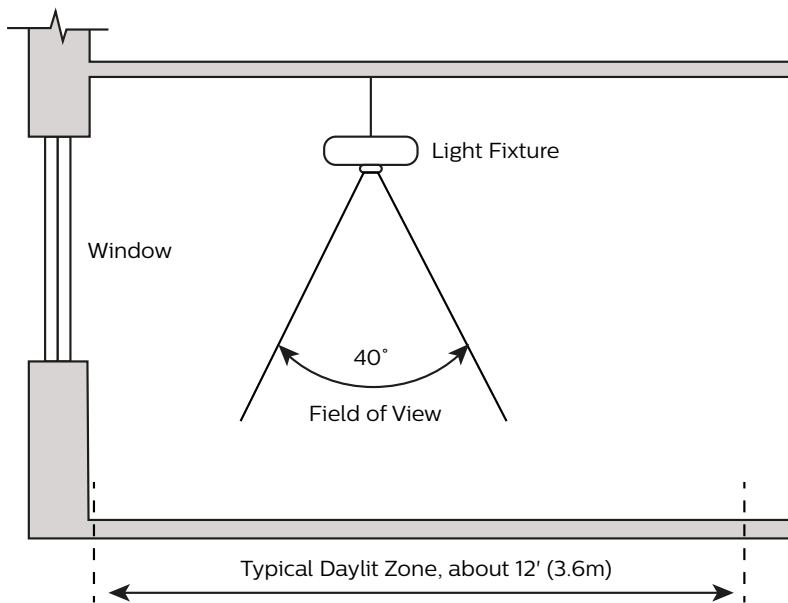
Daylight Sensor

The light sensor measures the total amount of light in a circular field of $\approx 80\%$ of the PIR detection area. The following aspects should be observed during installation:

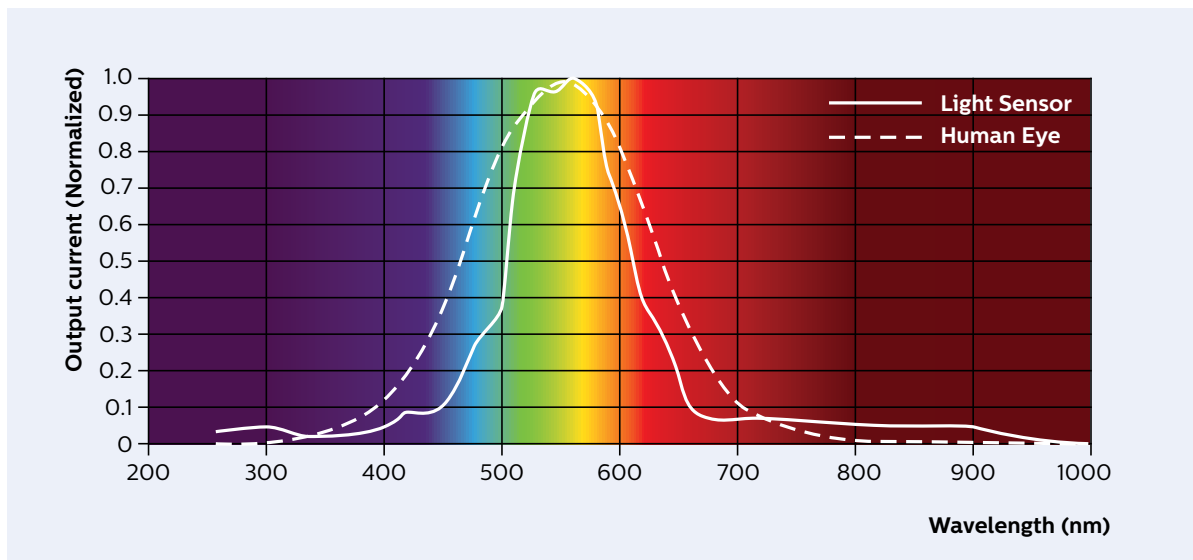
- Minimum distance from the window $\geq 2.0/0.6\text{m}$.
- Prevent light reflections from outside entering the sensor (for example sunlight reflection on a car bonnet) as this will lead to incorrect light regulation.

As a guideline the formula $0.72 \times H$ can be used to calculate the minimum distance between the window and sensor whereby H is the height from the bottom of the window to the ceiling.

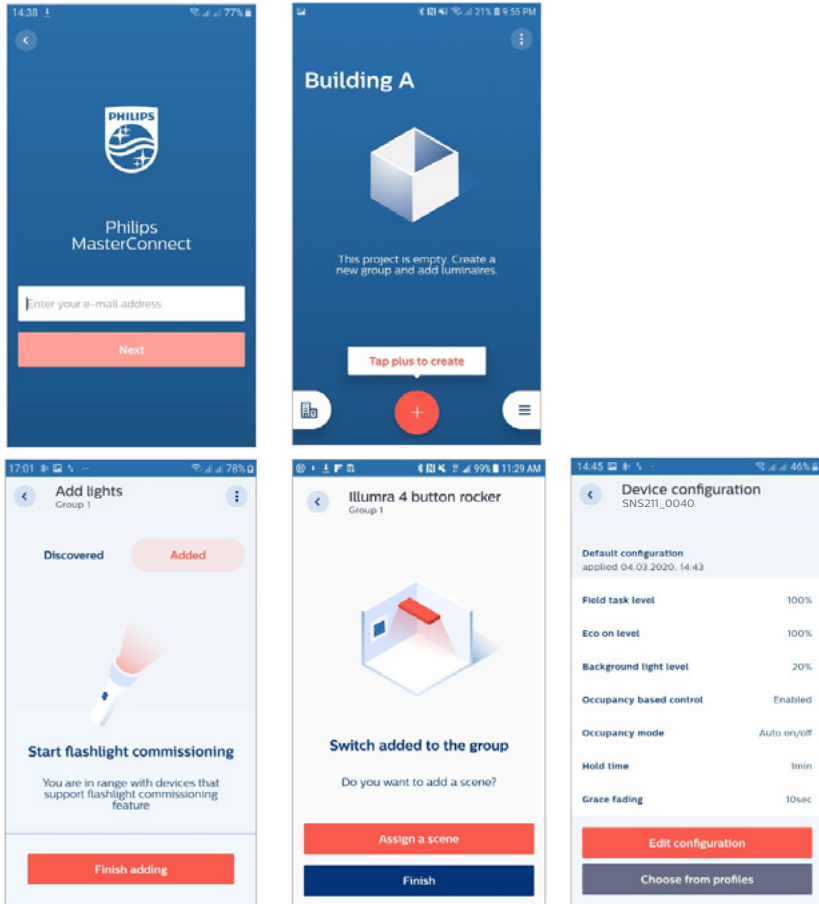
Photosensor Spatial Response



Photosensor Spectral Response



EasySense Configuration App (Philips field app MC)



EasySense SNS211 MC parameters can be configured via MasterConnect App.

This App allows grouping of luminaires and adding switches along with easy configuration EasySense SNS211 MC parameters.

Download MasterConnect App from either the Apple Store or Google Play. For more information, please visit our website:

<https://www.usa.lighting.philips.com/products/lighting-components/easysense/easysense-SNS211mc>

for details including recommended phones and user manuals.

Default Factory Settings

Occupancy Based Control	Enabled
Daylight-Based Control	Enabled
Occupancy Mode	Auto-on/off
Group/Zone Occupancy Sharing	Enabled
Group/Zone Lighting Behavior	Background level
Zone Occupancy Sharing	Disabled
Field Task Tuning	100%
Eco-On Level	100%
Background Light Level	20%
Hold Time	10 minutes
Prolong Time	10 minutes
Grace Fading	10 seconds
Fade to Switch-On	1 second (fixed value)
Fade to Switch-Off	1 second (fixed value)
Color Temperature (only with FlexTune SR driver)	4000K

EasySense fixture-mount sensor

Compatible Wireless Switches

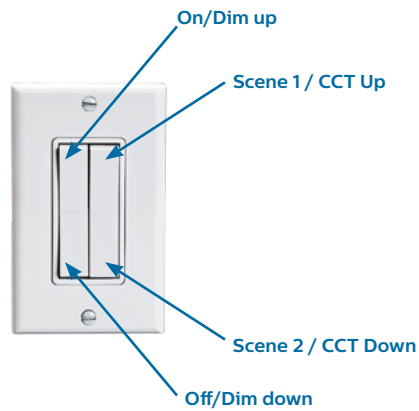
Manufacturer	Model	Style
Illumra	ZBT-S1AWH	Single Rocker Self Powered
	ZBT-S2AWH	Dual Rocker Self Powered

- Manufacturer's Product Information Links:
 - Illumra (www.illumra.com/easysense)

Single-Rocker Functions (typical switch shown)



Dual-Rocker Functions (typical switch shown)



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