PHILIPS

Sensors

EasyAir

office sensor advanced grouping SNS200

Datasheet

EasyAir
Office sensor advanced grouping SNS200

The Philips EasyAir office sensor is the ideal solution for per-luminaire control of new light luminaires. It combines occupancy sensing, daylight harvesting and task tuning in a single, compact package for easy OEM luminaire assembly. EasyAir operates with the established Xitanium SR driver standard to make a simple two-wire connection between sensor and driver, thus eliminating the need for multiple components and auxiliary devices. The result is a cost effective and easy-to-design-in solution ideal for energy-savings. An intuitive app makes configuration and commissioning during and after installation fast and easy using Philips field apps.

Features
- 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
- Preset with most common sensor parameters
- Configuration of sensor parameters– if desired – using NFC or IR via intuitive Android-based Philips field apps
- Simple grouping of luminaires to a wireless switch with Philips field apps

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 and power levels
- Enables auto-off/manual-on application
- Cost-effective solution for energy-savings
- 5-year limited system warranty with Philips Xitanium LED drivers
- Configuration and commissioning from the floor

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

July 2017

Ordering Information

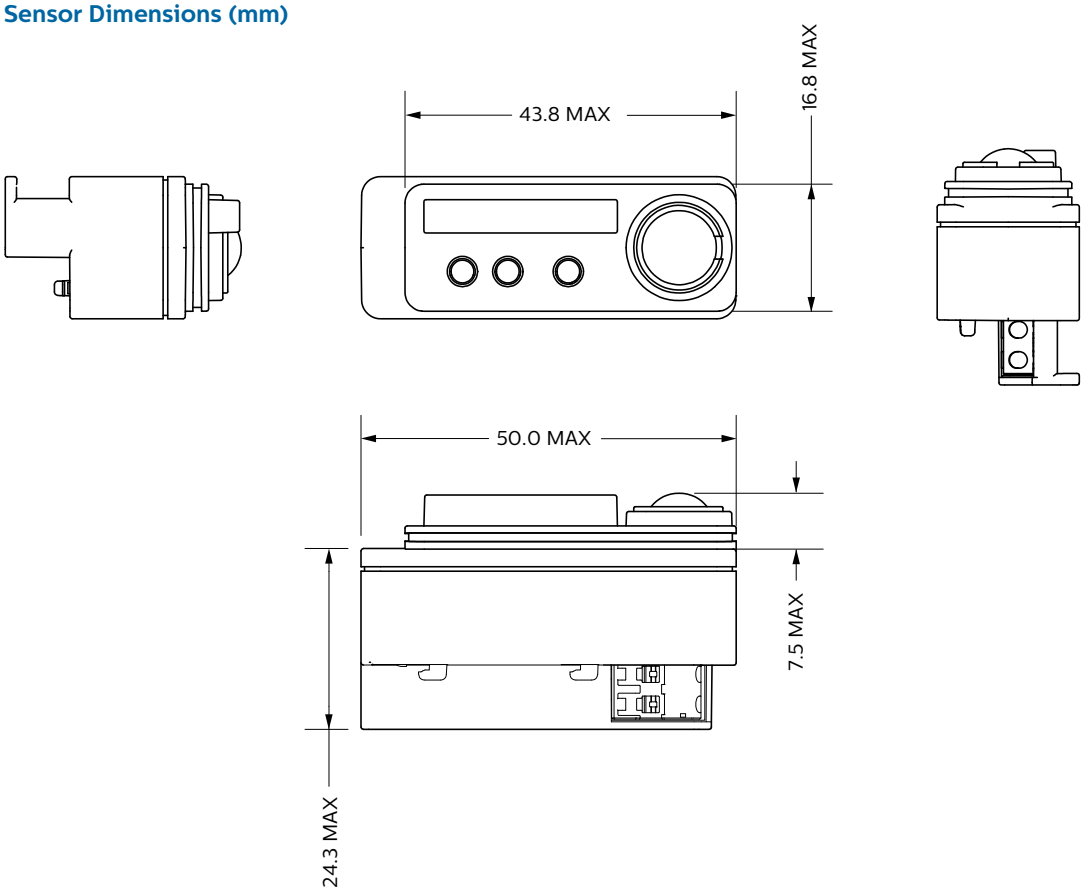
Commercial product name	EOC	12NC	Carton Quantity
EasyAir office sensor advanced grouping SNS200	8718696 698945 00	929 000 766 803	50 pcs

Product Data

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

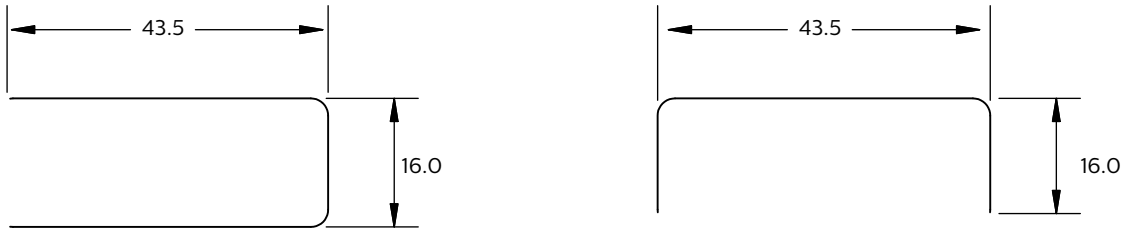
Physical Information	
Overall Dimensions	50 mm x 19.0 mm x 31.5 mm
Housing (Luminaire Hole)	44 mm x 17 mm (l x w)
Net Weight per Piece	17 gr
Volume required Inside Luminaire (LxWxH)	50 mm x 19 mm x 24 mm
Color	White and Grey
Connectors	(2) Lite-Trap connectors
Input wire cross-section (solid conductor wire)	0.25 - 0.75 mm^2
	18 - 24 AWG
Input wire cross-section (stranded wire)	0.3 - 0.5 mm^2
	20 - 22 AWG
Electrical Information	
Input Voltage	Powered by SR driver low-voltage interface
Current Consumption	13 mA
Nominal Power Consumption	200 mW
Standby Power	< 1 W on luminaire level, including driver standby power
Occupancy Sensing	
Type	Passive infrared (PIR)
Occupancy Based Control	Default enabled
Occupancy Mode	Auto-on/off, Manual-on/off, Manual-on/auto-off; Red LED indicates “on”
Group Occupancy Sharing	Enabled/disabled
Group light behaviour	Background light level, Field task level
Hold Time	0.5 - 60 minutes
Viewing Angle	X = 72°, Y = 86° (See detection pattern)
Background Light Level	0-100%
Prolong Time	0 minutes - infinity
Grace Fading	0-25 sec
Response Time/Fading to Switch On/Off	0.7 sec
Daylight Sensing	
Daylight based control	Default enabled
Auto-calibration	Upon power-up
Daylight dependent switching	Default disabled
Daylight dependent override	Default disabled
Viewing Angle	40° (half value sensitivity); 2% cut-off point at 75°
Task Tuning	
Field Task Level	0-100%
Environment & Approbation	
Operating Ambient Temperature Range	0 °C to 55 °C
Operating Humidity	0 – 95% non condensing
Storage Temperature	-25 °C to 85 °C
Storage Humidity	0-95% non condensing
Max Case Temperature (Tcase)	55 °C
Agency Approbations	CE, ENEC, RTTE, EMC
Warranty	5 years warranty for released Philips system combination (sensor and compatible driver). 3 years warranty for sensor only.
Digital Interface	Xitanium SR
Other	
Status Indicators	Red, Yellow. Yellow LED on: Vacancy & Sensor is functional; Red LED on: Motion is detected
Energy reporting	Calculated from last “power on”: % On, Energy Consumed (Whr), System on time (hrs), Avg power consumed (w-hr), Lamp on time (hrs)
No. Drivers per Sensor	4 max
Max Distance Switch-to-First-Luminaire	10 m line-of-sight
Max Distance Luminaire-to-Luminaire	12 m line-of-sight
No. Switches per Group	10 max
Field Configuration	via NFC or IR, parameters set via Philips field apps

Sensor Dimensions (mm)

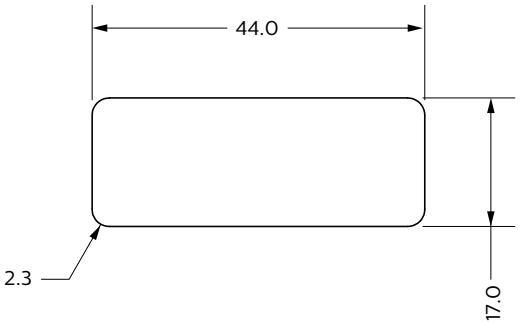


Mounting Dimensions (mm)

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



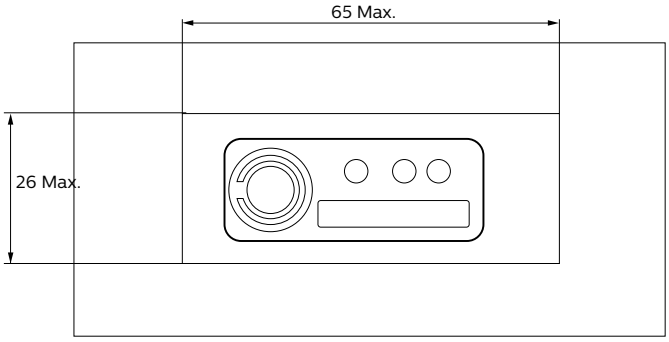
Mounting in cut-out in sheet matal (thickness 0.7 mm to 1.2 mm), tolerance +/-0.2 mm

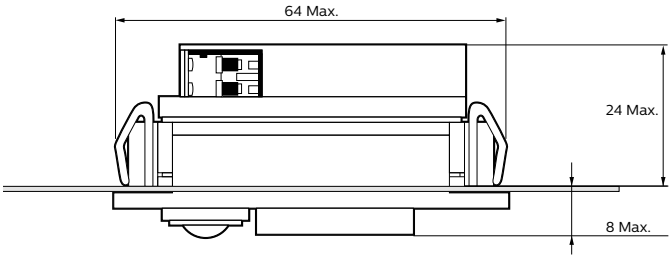


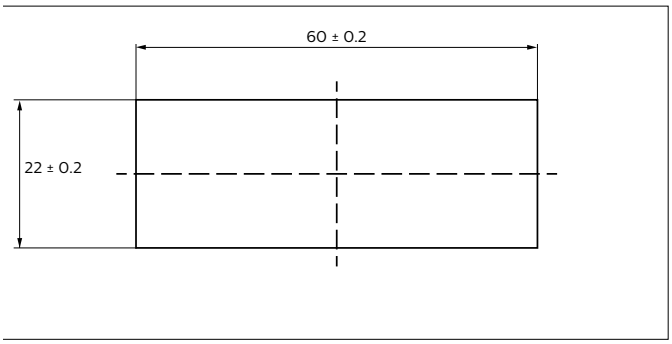
Mounting in a bracket (SMB-50)

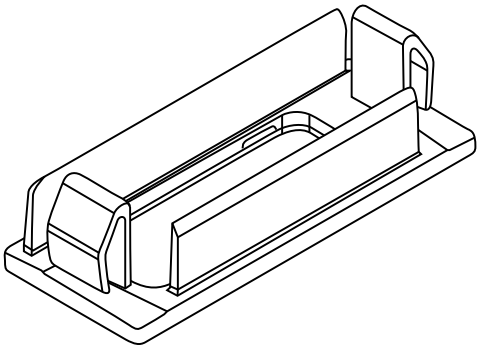
Accessories	12NC
EasyAir Bracket SMB-50 white	929001540206
EasyAir Bracket SMB-50 grey	929001540306

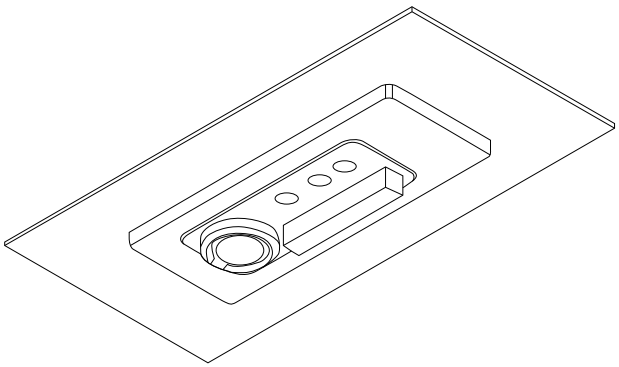
The EasyAir office sensor SNS200 can be mounted in a bracket (SMB 50). Refer the figures for details on mounting and design-in into luminaire. All dimensions are in mm.

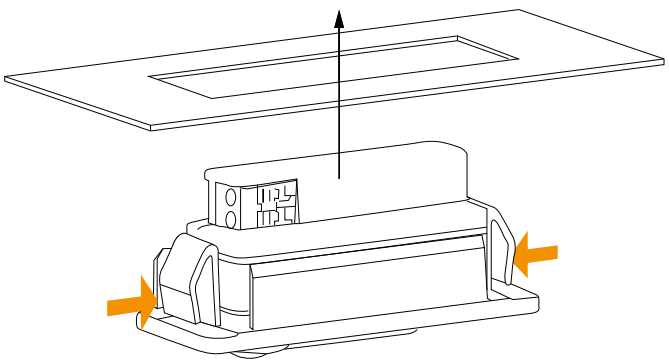










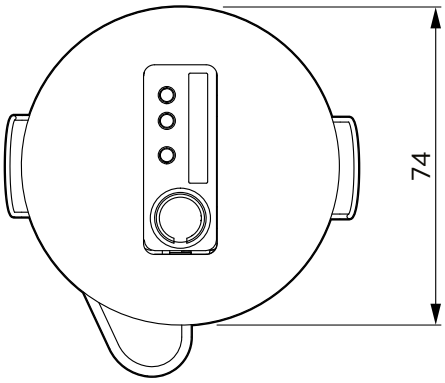


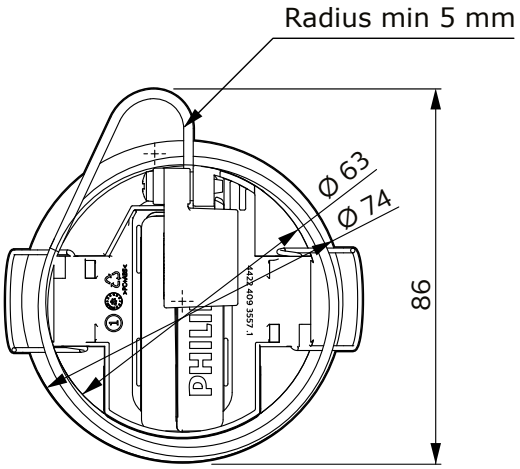
Press springs inwards on both sides before the bracket can slide-in the luminaire hole.

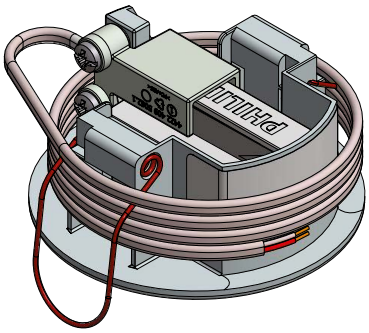
Installing EasyAir office sensor with ceiling mount bracket (SNS200CMP)

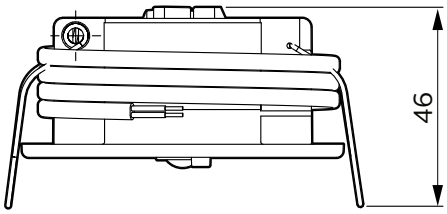
The ceiling mount SNS200CMP bracket is premounted with an EasyAir office sensor SNS200 along with the cable. For cut-out in the ceiling and mounting, refer the figures below. All dimensions are in mm.

Product	12NC
EasyAir SNS200CMP	9290 007 90206



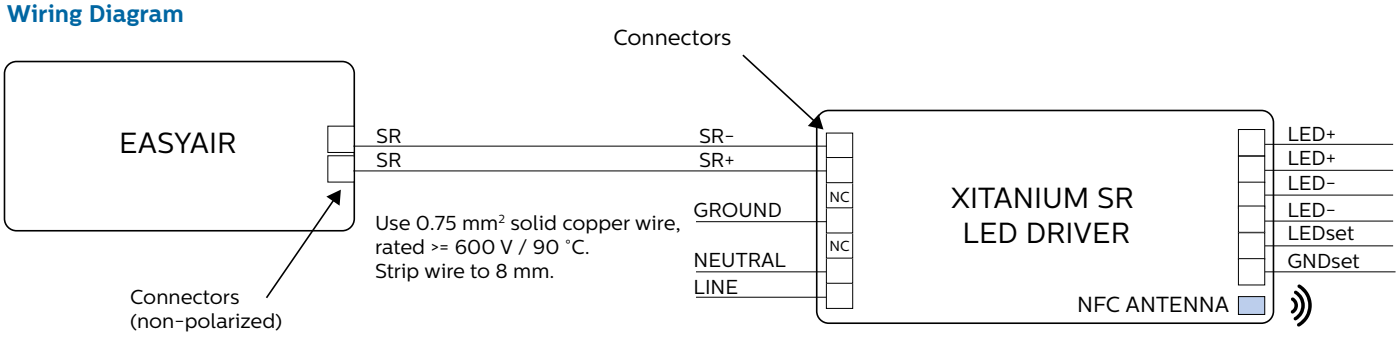


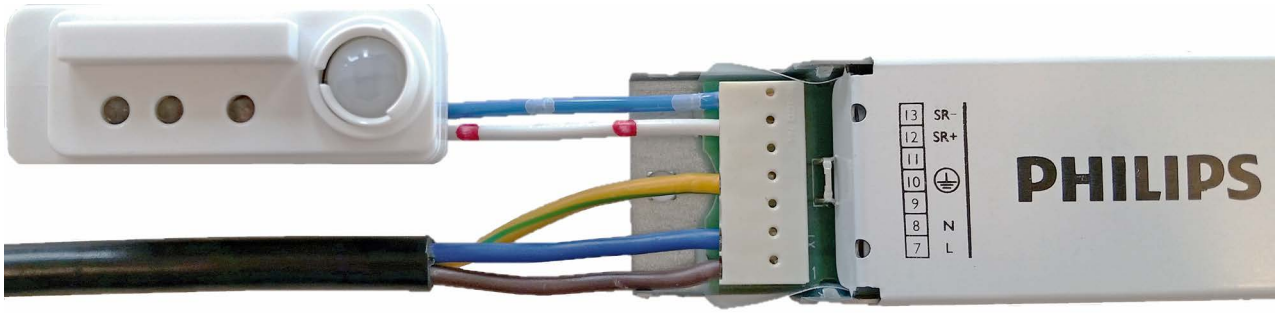




EasyAir office sensor

Wiring Diagram





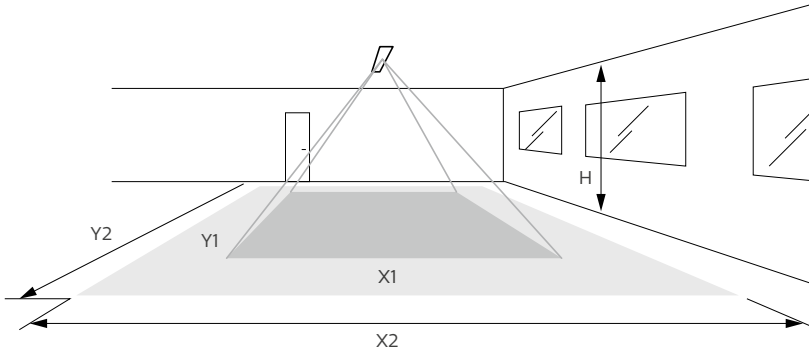
EasyAir office sensor

Occupancy Sensing

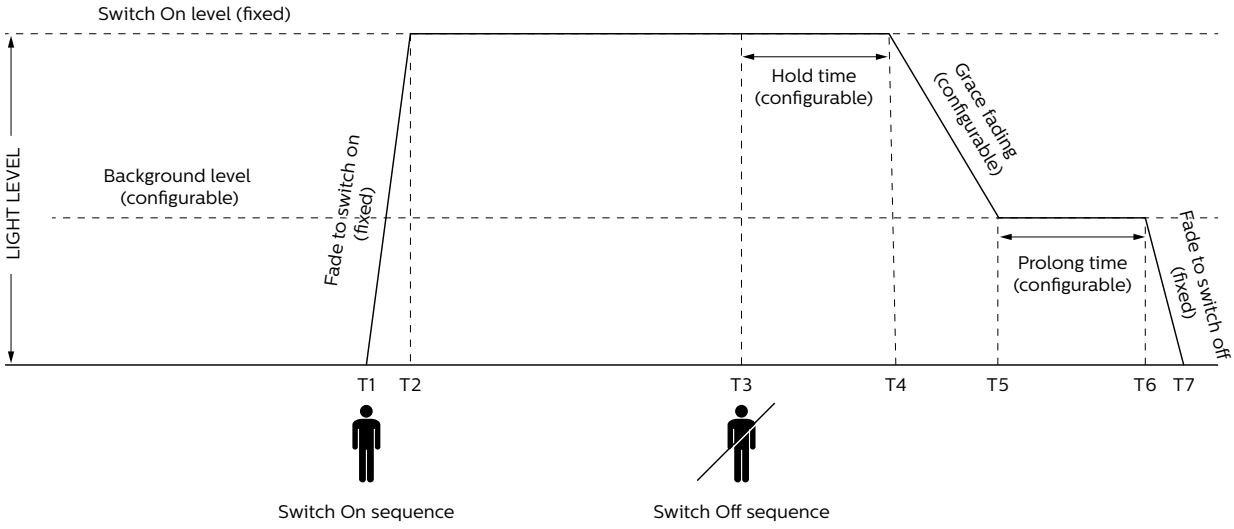
The detection area for the movement sensor can be roughly divided into two parts:

- Minor movement (person moving ≤ 0.9 m/s).
- Major movement (person moving ≥ 0.9 m/s)..

Height	Minor Movement		Major Movement	
h	Y1	X1	Y2	X2
2.4 m	2.9 m	2.7 m	4.5 m	2.9 m
3 m	3.6 m	3.4 m	5.4 m	3.6 m



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



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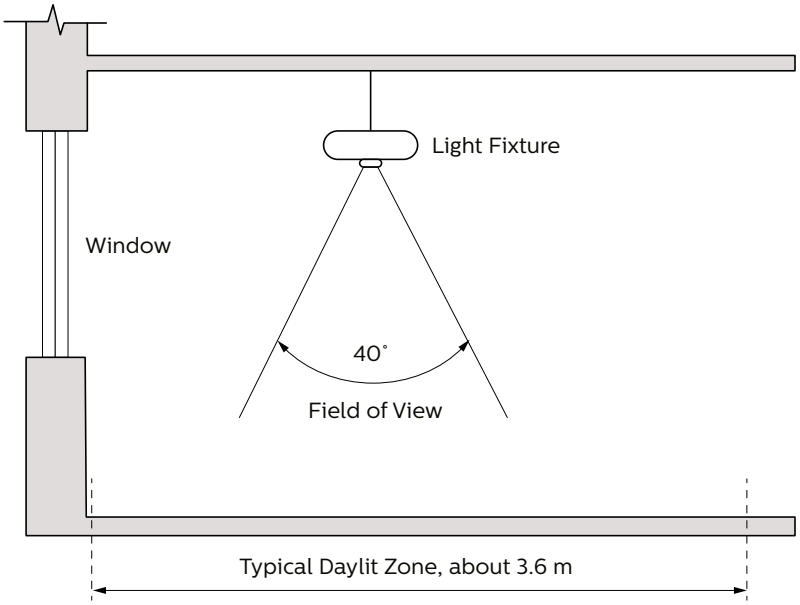
Daylight Sensor

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

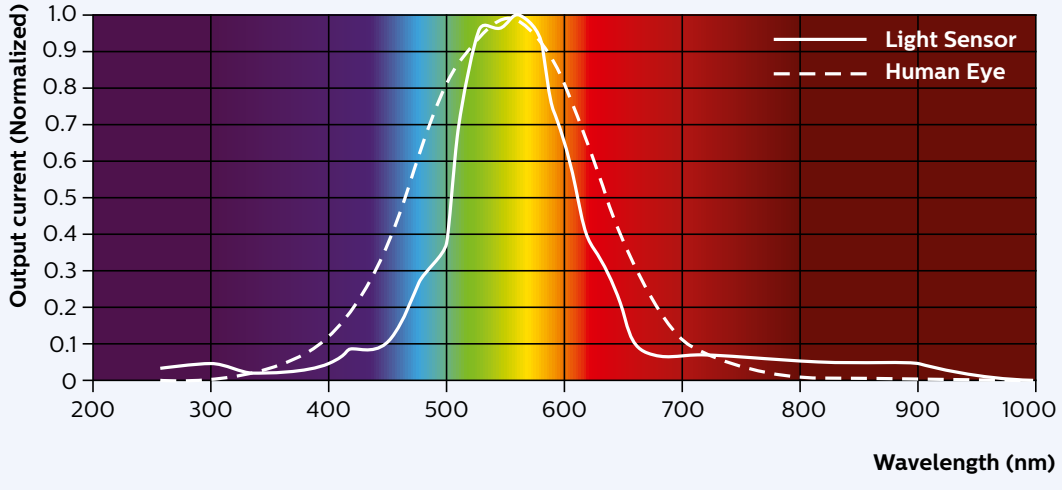
- Minimum distance from the window ≥ 0.6 m.
- Prevent light reflections from outside entering the sensor (for example sunlight reflection on a car bonnet) as this will lead to incorrect light regulation.

As a guideline the formula 0.72 x 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



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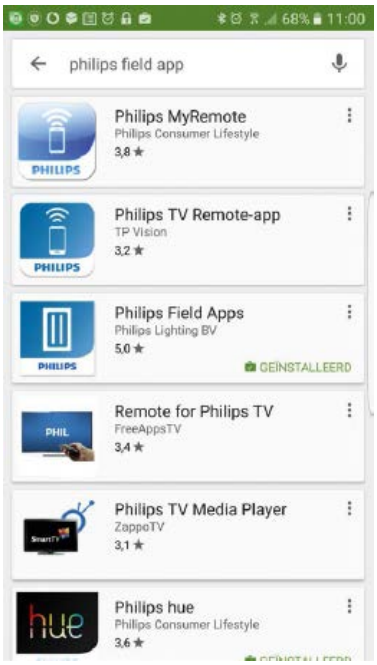
EasyAir Configuration App



EasyAir parameters can be configured via Philips field apps. Two versions are available:

1. EasyAir NFC – This app allows configuring EasyAir parameters only, when you can physically access the sensor with a smartphone.
2. EasyAir IR – This app allows grouping of luminaires and adding switches along with easy configuration of EasyAir parameters. This can be done via the IR feature of the app using applicable phones from floor level.

You must first register for the app to receive a username and password, then download Philips field apps from the Google Play Store. For more information, please visit our website: http://www.lighting.philips.co.uk/oem-emea/products/easy-to-integrate-wireless-sensors.html for details including recommended Android phones and user manuals.

Default Factory Settings

Occupancy based control	Auto-on, Enabled
Daylight Based Control	Auto-on, Enabled
Daylight dependent switching	Default disabled
Daylight dependent override	Default disabled
LED Indicator	Enabled
Occupancy Mode	Auto-on/off
Group Occupancy Sharing	Enabled
Group Light Behaviour	Background level
Field Task Tuning	100%
Background Light Level	20%
Hold Time	15 minutes
Prolong Time	15 minutes
Grace Fading	10 seconds
Fade to Switch On	0.7 seconds
Fade to Switch Off	0.7 seconds

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Data subject to change