

# PHILIPS

## Sensors

### EasySense

#### Fixture-Mount



The Philips EasySense fixture-mount sensor is the ideal solution for per-fixture, stand-alone control of new light fixtures. It combines occupancy sensing, daylight harvesting and task tuning in a single, compact package for easy OEM fixture assembly. EasySense 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 and code-compliance strategies. An intuitive app makes configuration during installation fast and easy using SimpleSet.

Commercial Product Name	Order Code
EasySense Fixture-Mount Sensor	SNS100

# EasySense Fixture-Mount Sensor

## Features

- Occupancy sensing, daylight harvesting and task tuning in one device
- Compact size
- Operates in conjunction with Philips Xitanium SR drivers
- Preset with most common parameters to work right out-of-the-box with no commissioning
- Configuration – if desired – using SimpleSet (NFC) via intuitive smartphone-based app

## Benefits

- Combines functionality to reduce need for multiple components
- Fits into existing and new-design fixtures
- Easy field configuration of control parameter
- Quick institutional tuning in the field to optimize light and power levels
- Compatible with Philips Xitanium SR drivers
- Cost-effective solution for energy-savings and code-compliance strategies
- 5-year limited system warranty with Philips Advance Xitanium LED drivers<sup>1</sup>

## Applications

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

## Product Data

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

### Ordering Information

Order Code	SNS100
Full Product Name	EasySense Fixture-Mount Sensor
Carton Quantity	50 pcs/carton

### Physical Information

Overall Dimensions	1.97in x 0.75in x 1.24in / 50mm x 19.0mm x 31.5mm
Housing (Luminaire Hole)	1.73in x 0.67in / 44mm x 17mm (L x w)
Net Weight per Piece	0.6oz / 17gr
Volume required Inside Luminaire (LxWxH)	1.87in x 0.75in x 0.95in / 50mm x 19mm x 24mm
Color	White
Connectors	(2) Lite-Trap connectors rated for AWG24 to AWG18 solid conductor wire (AWG22-AWG20 for stranded wire)

### Electrical Information

Input Voltage	Powered by SR driver low-voltage interface
Current Consumption	13mA
Nominal Power Consumption	200mW
Standby Power	< 1 W on luminaire level, including driver standby power

### Occupancy Sensing

Type	Passive infrared (PIR)
Enable/Disable	Default enabled
Detection	Off/Auto-on; Red LED indicates "on"
Hold Time	1 - 120 minutes
Viewing Angle	X=72°, Y = 86° ( See detection pattern)
Background Light Level	Off or 5-100%
Prolong Time	0 minutes - infinity
Grace Fading	0-25 sec
Response Time/Fading to Switch On/Off	0.7Sec

Continued on next page.

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

# EasySense Fixture-Mount Sensor

## Product Data (continued)

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

<b>Daylight Sensing</b>	
Enable/Disable	Default enabled
Auto-calibration	Upon power-up
Viewing Angle	40° (half value sensitivity); 2% cut-off point at 75°
<b>Task Tuning</b>	
Full Light Setting	5-100%
<b>Environment &amp; Approbation</b>	
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	UL, CSA; Tested and approved for use in plenums; FCC ID: 2AF2N-SNS100; IC: 20659-SNS100
Certification	California Title 20
Warranty	5 years
Digital Interface	Xitanium SR
<b>Other</b>	
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	One driver only per sensor
Field Configuration	via SimpleSet (NFC), parameters set via EasySense App

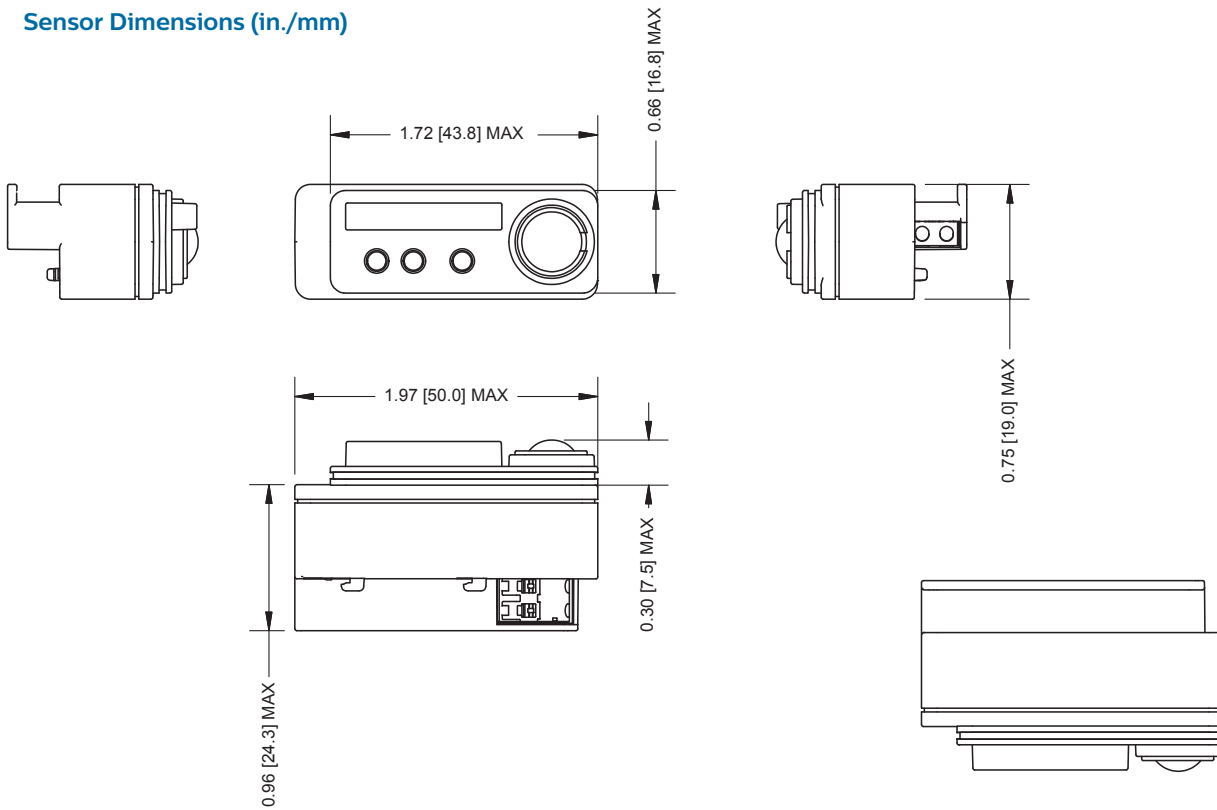
## Compatible LED Drivers

Driver Model Number	Description
XI040C110V054VPT1	Xitanium 40W 0.1-1.1A 27-54V 120-277V SR
XI075C200V054VPT1	Xitanium 75W 0.1-2.0A 27-54V 120-277V SR

Specifications available at [www.philips.com/XitaniumSR](http://www.philips.com/XitaniumSR).

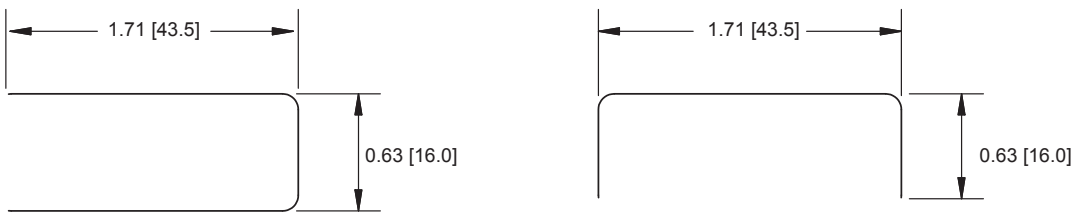
# EasySense Fixture-Mount Sensor

## Sensor Dimensions (in./mm)

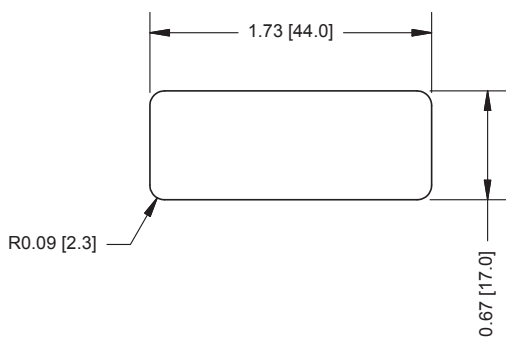


## Mounting Dimensions (in./mm)

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



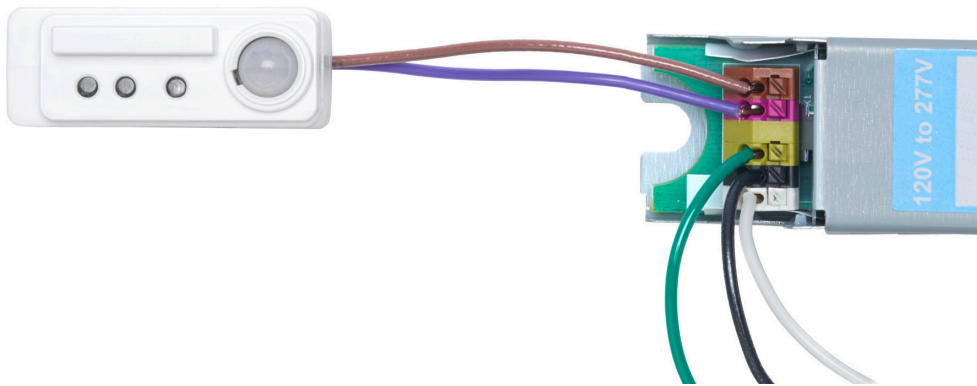
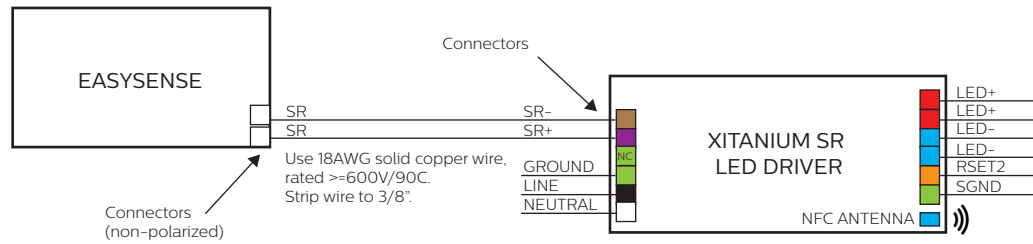
Mounting in cut-out in sheet metal (thickness 0.7 mm to 1.2 mm), tolerance +/-0.2mm



Note: Consult factory for accessory mounting ring to secure sensor to cut-out.

# EasySense Fixture-Mount Sensor

## Wiring Diagram

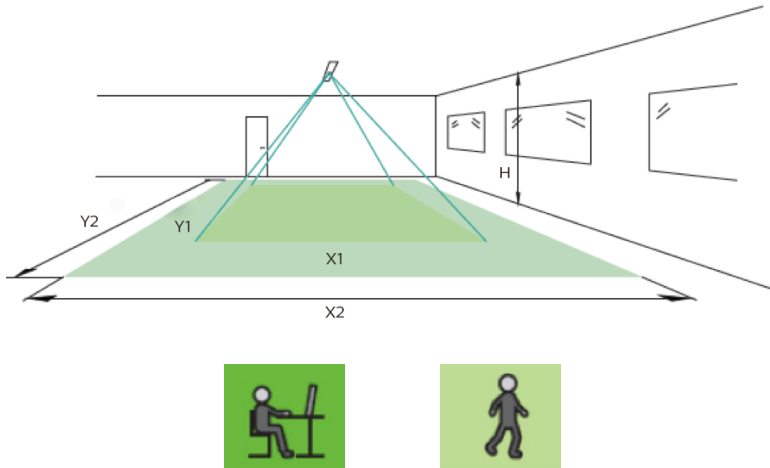


# EasySense Fixture-Mount Sensor

## Occupancy Sensing

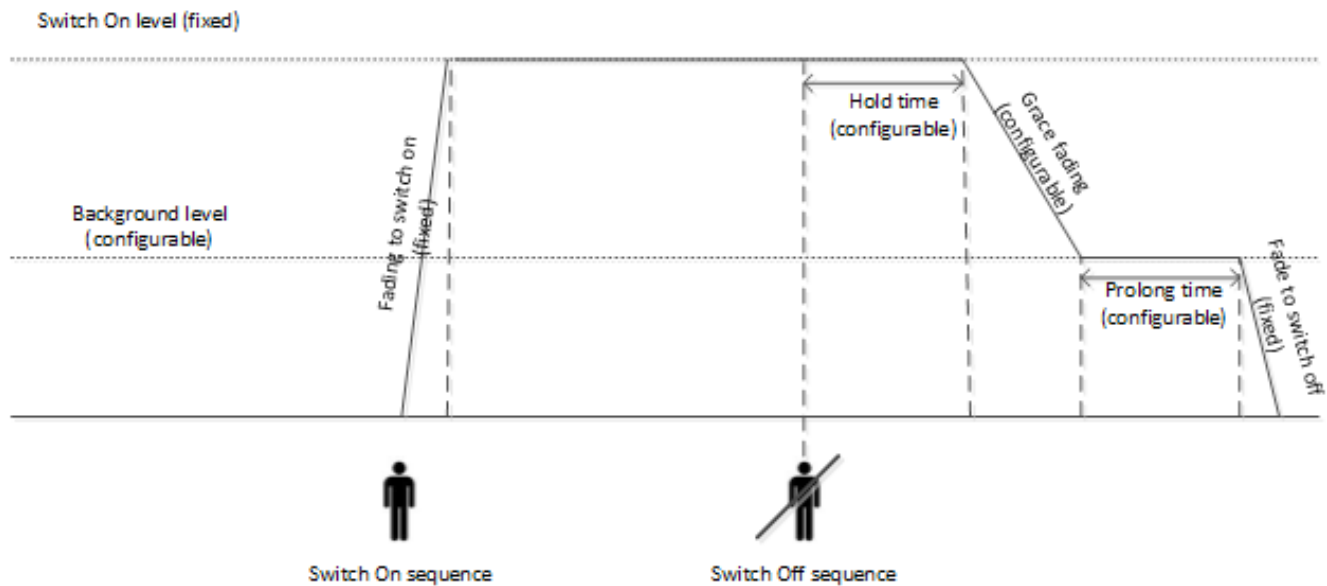
The detection area for the movement sensor can be roughly divided into two parts:

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



Height h	Minor Movement		Major Movement	
	Y1	X1	Y2	X2
8/2.4m	10/2.9m	9/2.7m	15/4.5m	9/2.9m
10/3m	12/3.6m	11/3.4m	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

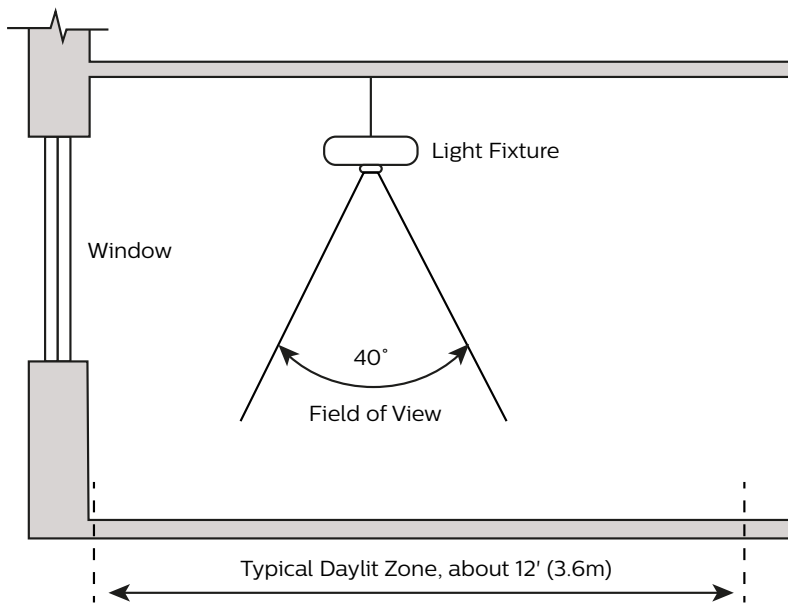
## Daylight Sensor

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:

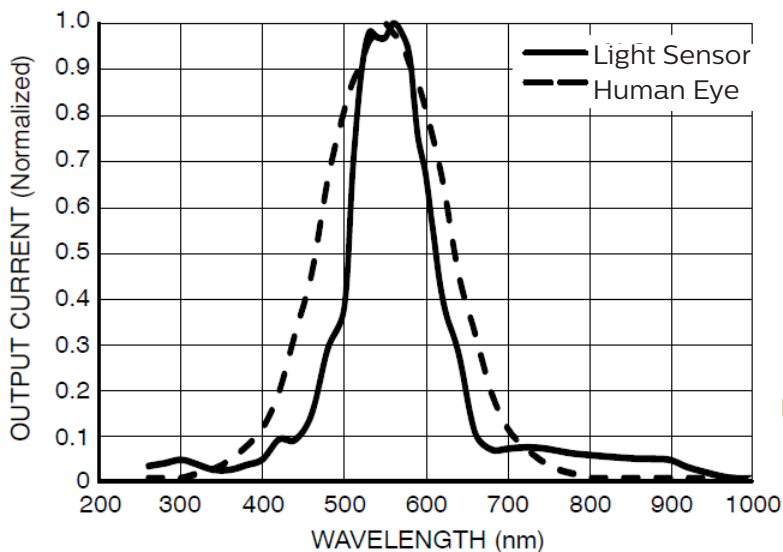
- Minimum distance from the window  $\geq 2.0/0.6\text{m}$ .
- Prevent light reflections from outside entering the sensor (for example sunlight reflection on a car bonnet) as this will lead to incorrect light regulation.

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

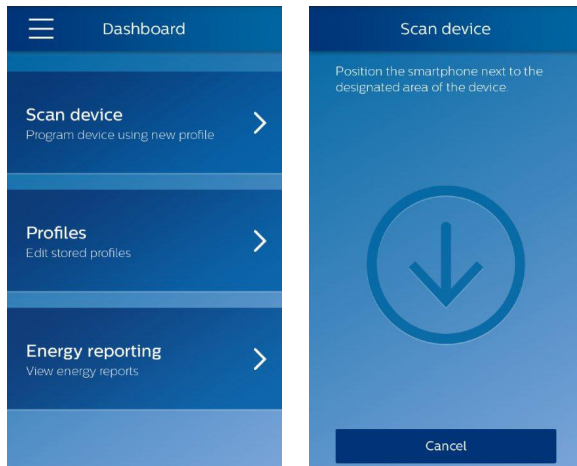


## Photosensor Spectral Response



# EasySense Fixture-Mount Sensor

## EasySense Configuration App



## Default Factory Settings

Occupancy Detection	Auto-on, Enabled
Response time/ Fade to Switch On	0.7 Sec
Occupancy Time Out/Hold Time	15 minutes
Occupancy Grace Fading	10 seconds
Occupancy Prolong Time	15 minutes
Occupancy Background Light Level	20%
Respond time/ Fade to Switch Off	0.7 Sec
Daylight Based Control	Auto-on, Enabled
Full Light Setting	100%
LED Indicators	Enabled

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