

PHILIPS

Sensors

EasyAir

SNH200



Design-in Guide

Single, cost-effective luminaire control

May 2018



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Introduction to this guide



Philips EasyAir SNH200

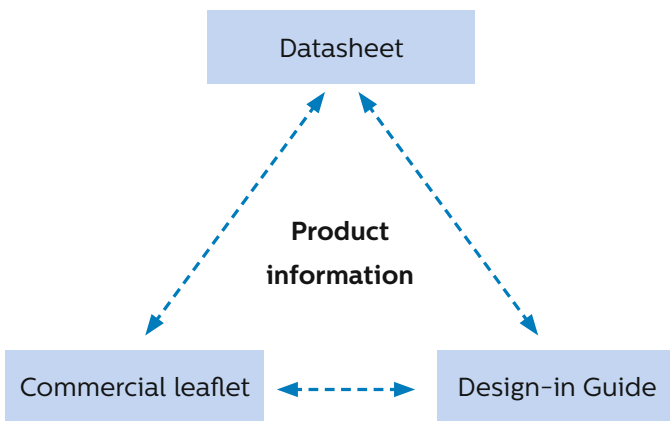
Thank you for choosing the Philips EasyAir SNH200. This document provides necessary information to design in this product into a luminaire and configure it to suit specific applications. This design-in guide covers sensor functionality, mechanical mounting, wiring details, configuration and commissioning (grouping and zoning) mechanism, application notes and frequently asked questions. For sensor specifications, please see the datasheet available at

<http://www.lighting.philips.co.uk/oem-emea/products/connected-lighting>.

More information or support

For more information or support, please consult your local Philips sales representative or visit

<http://www.lighting.philips.co.uk/oem-emea/support/technical-downloads>



Warnings and instructions

- The EasyAir SNH200 is a Sensor Ready (SR) industry sensor and therefore must be used together with a Philips Xitanium SR LED driver or Xitanium SR Bridge
- Do not apply mains power directly to the sensor.
- Do not cover the sensor during operation or mount the sensor recessed.
- External infrared sources can have a negative impact on occupancy detection.
- Ensure that the sensor area defined for occupancy detection is not blocked by any obstacles. Misalignment of sensor might influence occupancy detection and daylight regulation
- Adapting to environment changes can be done by executing a power off – on cycle of the Philips Xitanium SR driver. See the section System startup behavior and auto-calibration for details.
- Make sure that the sensor, especially the occupancy detection lens, is not damaged during shipment and handling.
- The application area of EasyAir SNH200 is an indoor industrial environment such as warehouses, assembly sites or cold storage areas. Such application areas should be normally ventilated. The EasyAir SNH200 has no protection against aggressive chemicals.
- Make sure the EasyAir SNH200 is not covered by metal to allow expected RF communication.

Introduction of EasyAir



Philips EasyAir SNH200

The Philips EasyAir is the ideal solution for per-luminaire control of new light luminaires. It combines occupancy sensing, daylight harvesting and task tuning in a single package for easy OEM luminaire assembly. EasyAir operates with the established Philips Sensor Ready (SR) standard to make a simple two-wire connection between the sensor and the Xitanium SR driver or the sensor and SR bridge (connected to DALI driver(s)), 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 called **Philips Field Apps** allows for quick and easy commissioning along with configuration during and after installation.

EasyAir SNH200 with advanced grouping and zoning functionality allows luminaires to be grouped with each other and further divided in zones for enhanced lighting experience.

All the features are described in detail in the subsequent sections.

Product characteristics

EasyAir overview

EasyAir contains multiple functions in one housing and uses two wires to connect with an SR driver. (See wiring diagram in the **Mechanical design-in** section.)

The following image shows the primary functions included in the sensor:



EasyAir is designed for an indoor industrial environment (warehouses, assembly areas, cold storage areas etc.) in normally ventilated areas, the temperature range being $-30\text{ }^{\circ}\text{C}$ to $65\text{ }^{\circ}\text{C}$. EasyAir has no protection against aggressive chemicals. The sensor is normally mounted to a luminaire and can go up to mounting height of 16 m.

NFC antenna

The EasyAir sensor can be configured through NFC (near field communication) using a smart phone with the EasyAir NFC app. NFC is a set of protocols that enables electronic devices to establish radio communication with each other by touching the devices together for few seconds. All parameter settings for lighting control can be configured via the NFC app even when the EasyAir sensor is powered off. (See the section on **Lighting control**)

RF antenna

The RF antenna allows luminaire to luminaire wireless communication via IEEE 802.15.4 wireless protocol with radio frequency: 2400-2483.5MHz. The antenna area as shown above (also in figure 12) should not be covered by metal and should be exposed to free air to ensure there is sufficient range.

Infrared (IR) receiver

The EasyAir SNH200 is enabled with grouping and zoning functionality. The infrared receiver serves as a communication portal for the commissioning and configuration of the sensor through a smartphone (Android platform) via Philips Field Apps.

In general, an IR transmitter, if present in a smartphone, is targeted at home applications e.g. TV, Media Player Remote Control and has a short transmission range with wide transmission angle. These characteristics of the built IR transmitter conflict with the requirements of long

transmission range to reach heights up to 16m and narrow transmission angle to have the ability to address only the desired luminaire for commissioning or configuration from ground level. Hence, for effective working, it is mandatory to use the IR dongle accessory with a smartphone (even if it has an inbuilt IR). This IR dongle is available via Philips Lighting. Please get in touch with your Philips sales representative for more details.

Motion detector

The occupancy sensor is a PIR (Passive Infrared) sensor that detects movement with a circular cross-area under an angle of $X = 30^\circ$ and $Y = 30^\circ$. This PIR sensor has 3 concentric rings to help detect movement – the innermost with 4 facets, the middle with 12 facets and the outermost with 16 facets.

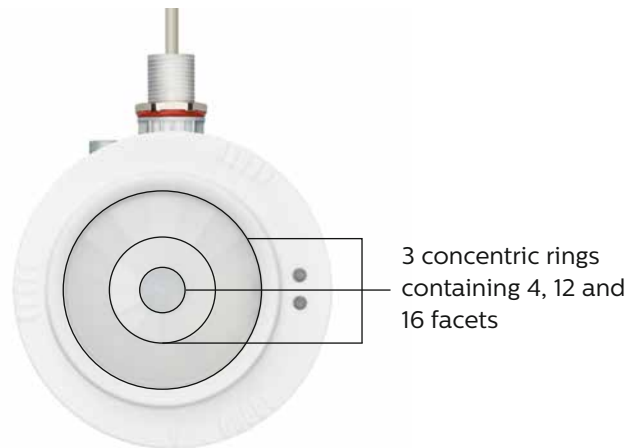


Figure 1 and Figure 2 show the top and side view of the occupancy coverage based on NEMA test, an industry standard.

In the side view, it is visible that coverage ratio of mounting height: diameter at ground level is at maximum 1:1. For example if the mounting height is 12m, the maximum diameter coverage is 12m.

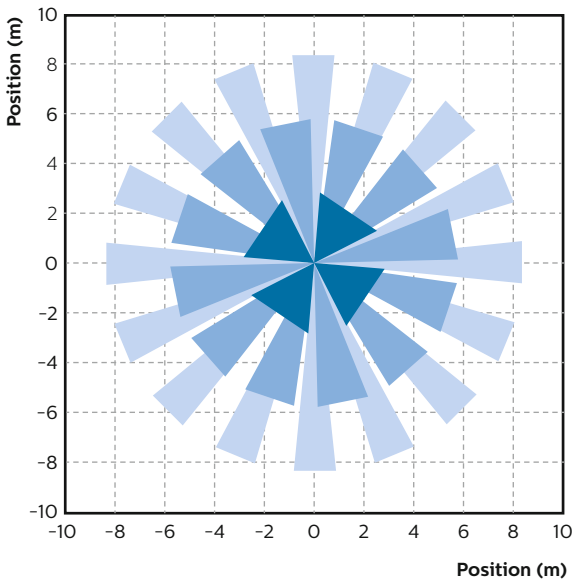


Figure 1 - Top coverage pattern of EasyAir SNH200.

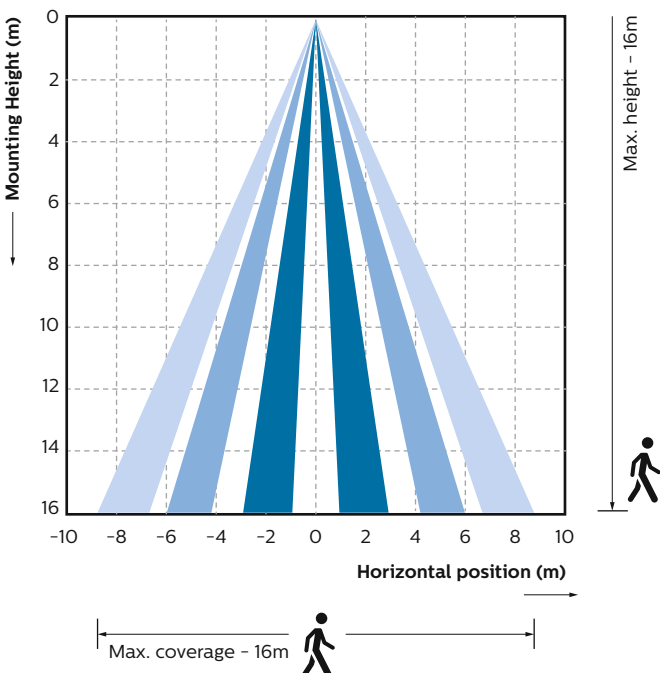


Figure 2 - Side coverage pattern of EasyAir SNH200 at height of 16m

Disclaimer:

1. In these plots, the white areas are blind spots and the detection is based on subject's motion. An idle subject may not continue to trigger occupancy detection once the hold time expires.
2. As PIR based sensing works on temperature difference between the subject and the ground level, the occupancy detection could vary due to clothing and size of subject.

**Warning:**

Place heat radiating devices outside of the monitoring cone.
Avoid drafts (e.g. from ventilators or heating systems).

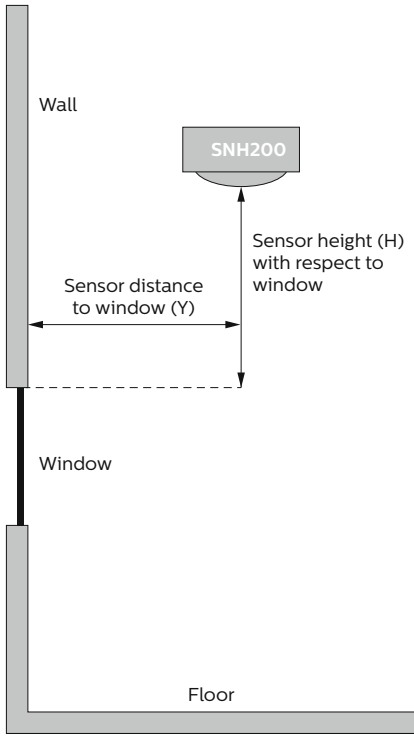


Figure 3. Sensor placement.

Light sensor

The light sensor measures the total amount of light with an opening angle of 10° whereas PIR has 30°, all calculated from normal. The following aspects should be observed during installation:

- Minimum distance from the window – refer below graph
- Prevent light reflections from outside entering the sensor (for example sunlight reflection from a car/truck bonnet) as this will lead to incorrect light regulation.

As a guideline the formula $0.174 \times H$ can be used to calculate the minimum distance between the window and sensor whereby H is the height from the top of the window to the ceiling.

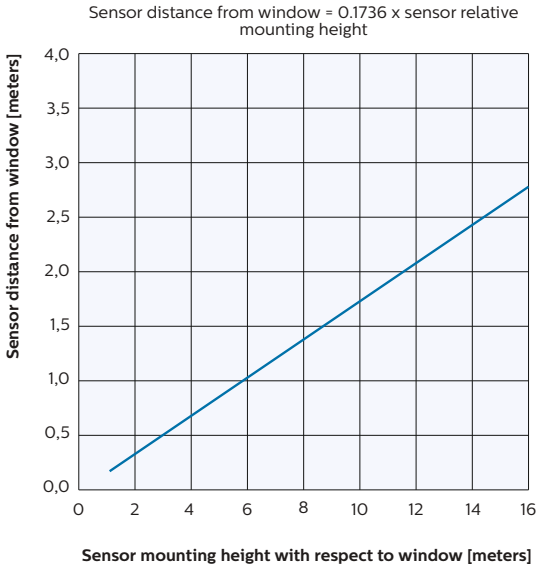


Figure 4. Sensor mounting height from window sill (Y) vs. sensor horizontal distance from window sill (H).

System startup behavior and auto-calibration

System startup behavior

In case daylight control is enabled, when the sensor is powered on (either the mains of the Xitanium SR driver is switched on or a momentary power dip is detected by the sensor), the sensor performs an auto-calibration routine.

Auto-calibration routine

The power-up auto calibration has a “dark” and “light” measurement. After the device is powered, it will go to 60% of the light level for a few seconds. After this, the calibration starts, the sequence followed is shown below:

Step	Measurement	Dim level	Time period
1	dark	5%	5 seconds
2	light	100%	5 seconds

In total the procedure will take 10 seconds. The calibration will always end at dim level of 100%. From the 100% light level the daylight regulation will start, if enabled.

Note: By default, the daylight control is disabled. It means that the auto-calibration is disabled as well.



Warning:

Make sure no objects are blocking the sensor's view and no surface reflection changes occur in the sensor's view during auto-calibration. For example, do not position a forklift truck in the sensor view area during calibration.

Lighting control

EasyAir enables stand-alone LED lighting systems with integrated occupancy sensing and daylight harvesting. The grouping and zoning control is setup together through the Philips Field Apps, a free app available on Google Play-Store. It is also possible to add wireless switches to the entire group for manual control. Furthermore, advanced grouping allows occupancy sharing (i.e. luminaires within a group can be programmed to remain at prescribed light levels as long as occupancy is detected anywhere in the group).

In this section, the basic features related to lighting control are discussed. Many parameters in this regard can be configured via the app and are also discussed.

Task tuning

Task tuning is a feature to adjust the maximum output of a luminaire to a certain percentage of the adjustable light output of the driver. After installation, it is possible that the task light level is not set according to the end user needs (light level too high). The task light level can be adjusted by the installer or building maintenance personnel to a value between 5% and 100% of the max setting through the app.

Grouping and Zoning

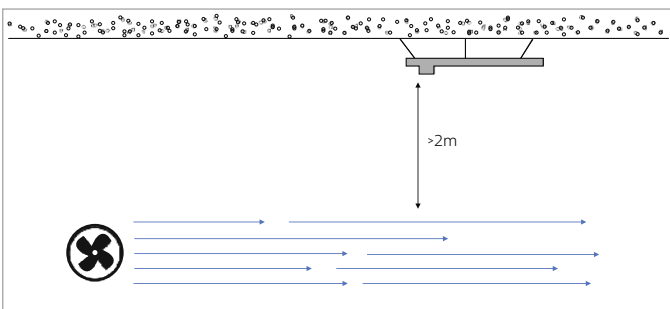
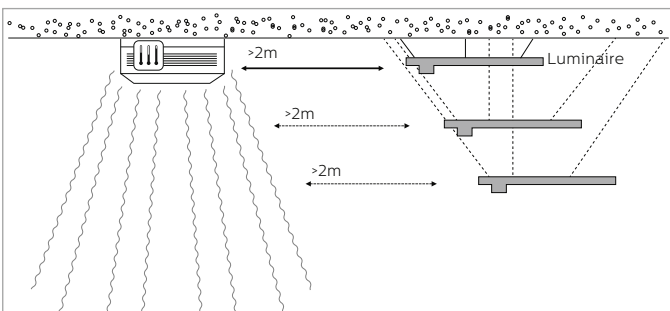
Grouping allows multiple luminaires to connect with each other using a Zigbee network and broadcast occupancy status. The grouped luminaires can be configured for desired behavior for presence detection based on installer settings, e.g. the light behavior of the rest of the luminaires can be configured for maximum brightness (called as 'field task level' in further documentation) or background light level.

Zoning allows sub-grouping of luminaires. In an industrial setup such as warehouses, it would be beneficial to have an aisle turn on to field task level while adjacent aisles switch on and go to background light level on presence detection. In another scenario, if a forklift truck enters a very long aisle, it would be beneficial to only bring the first 5 luminaires, for example, to maximum brightness/field task level and the rest of the luminaires in the aisle to background light level. This avoids the tunnel effect, driving or walking into a dark tunnel or lighting up the whole aisle unnecessarily.

Both grouping and zoning can be together set up via Philips Field Apps. Up to six zones can be assigned within a group, a group can have up to 40 luminaires. A wireless switch can be added to a group for manual control. Note that the switch can only control group behavior, and not zone behavior.

Occupancy Sensing:

To prevent false triggers, the EasyAir SNS200 must be mounted more than 2 meters away from air vents in all directions, see figures on the left.



Daylight harvesting

The daylight-based control is disabled by default in the EasyAir SNH200. When daylight control is enabled, the light sensor auto-calibrates when power to the driver is cycled. It takes at least 5 auto-calibration cycles (i.e. 5 power cycles) for the new calibration setpoint value to be effectuated. The light level of the luminaire is bound by the field task level (maximum light level) and the background level (minimum light level). If the background light level is set to be 20%, the light will only dim to 20% during daylight harvesting. When daylight-based control is disabled, the auto-calibration sequence will not occur.

Daylight-based control is not active after the hold time of the occupancy sensor expires. Figure 5 and Figure 6 show examples of lighting control using both daylight and occupancy. When the daylight level is low (refer Figure 5) and an occupant is present, the luminaire light level is inversely proportional to the daylight level. Assuming the incoming daylight level is constant, the luminaire light level remains the same until the hold time expires, after which the luminaire light level fades to the background light level, staying at that level for prolong time. When the daylight level is high, the luminaire light level is proportional to the daylight level. However, when there is an abundance of daylight, the luminaire light level does not dim lower than the background light level (refer Figure 6).

Note: The “hold time” and “prolong time” are described in later section “Parameters for lighting control”

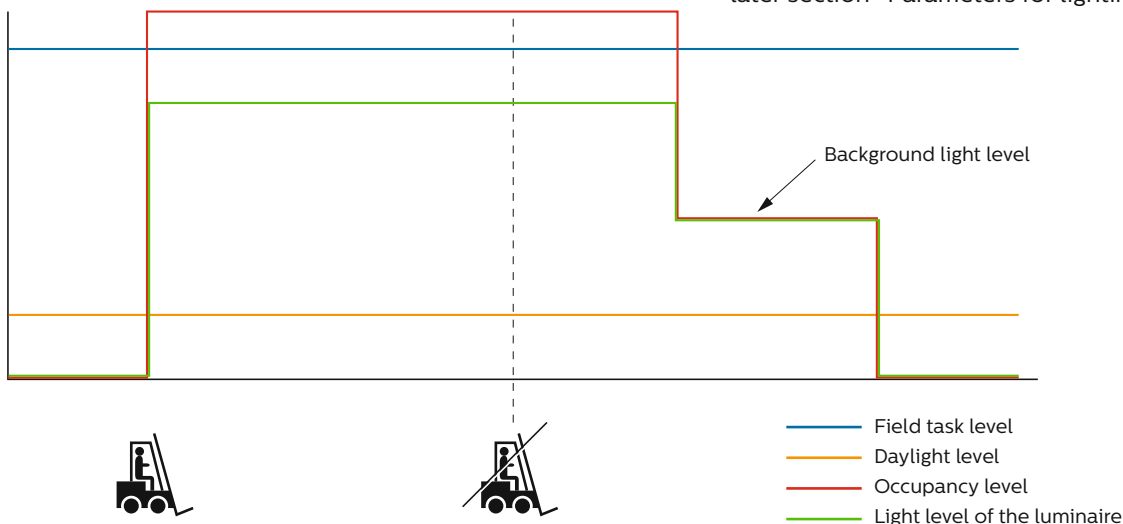


Figure 5. Lighting control behavior with low daylight level.

$$\text{Light level of the luminaire} = \text{Field task level} - \text{daylight level}$$

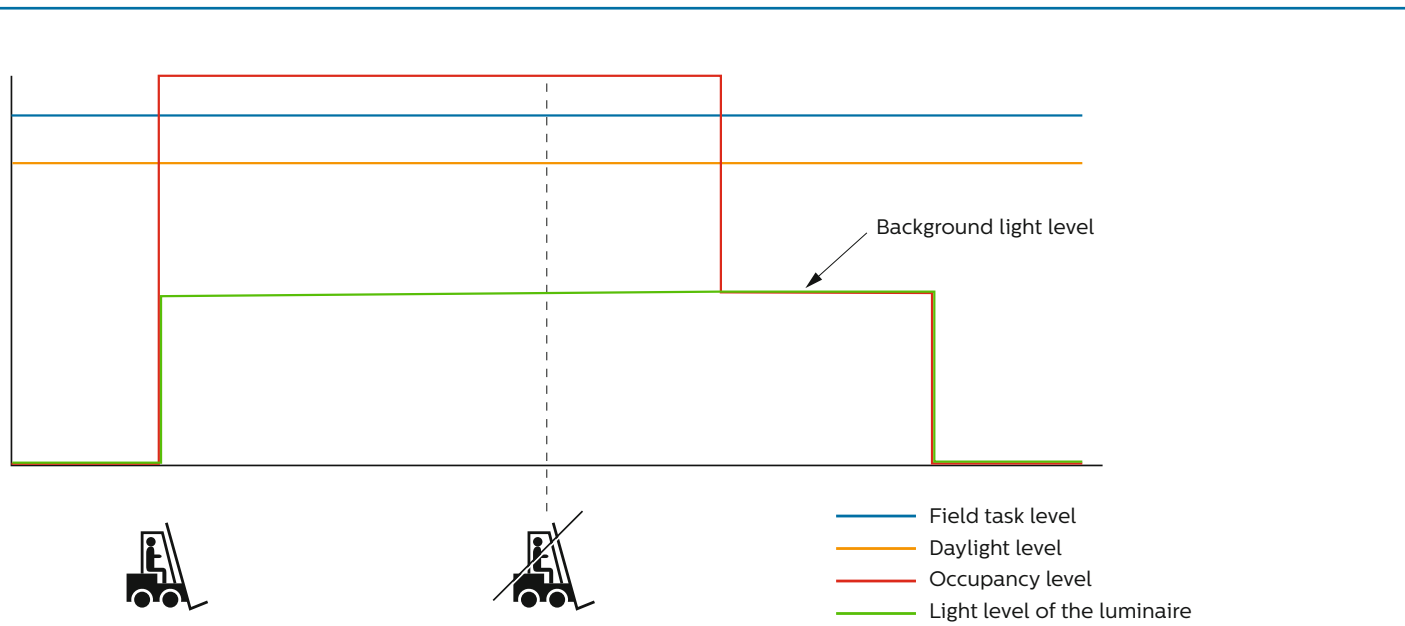


Figure 6. Lighting control behavior with high daylight level.

Occupancy sensing

Switch-on/off sequence

When occupancy is detected, lights are dimmed up to the field task level (or the level determined by daylight sensor in case daylight control is enabled) in 0.7 seconds. When occupancy is not detected anymore, the following lighting switch-off sequence is executed: the sensor will wait until the hold time expires after which the light fades to the background level in grace fading time. The light level remains at the background level for prolong time, after which the light fades from the background level to off in 0.7 seconds.

Note: When motion is detected during the hold time period, hold time restarts.

Occupancy-based lighting control is enabled by default for the EasyAir SNH200, and it can be disabled using Philips Field Apps, either through NFC or IR.

Use Case

Max rating of the luminaire: 4000 lm
Min dimming level of driver 5% = 200 lm

The user configures the sensor parameters through Philips Field Apps:

Task tuning level 80% = 3200 lm
Background light level 20% = 800 lm

Note: All percentage levels refer to the max rating of the luminaire. The full dimming range of the luminaire is bound by task tuning and min dimming level. By setting field task tuning = 80% and with driver minimum dimming level = 5%, the luminaire light output range is 3200 lm to 800 lm in automatic daylight regulation. The wireless switch can however be used to control the full dimming range of the light (4000 lm to 200 lm).

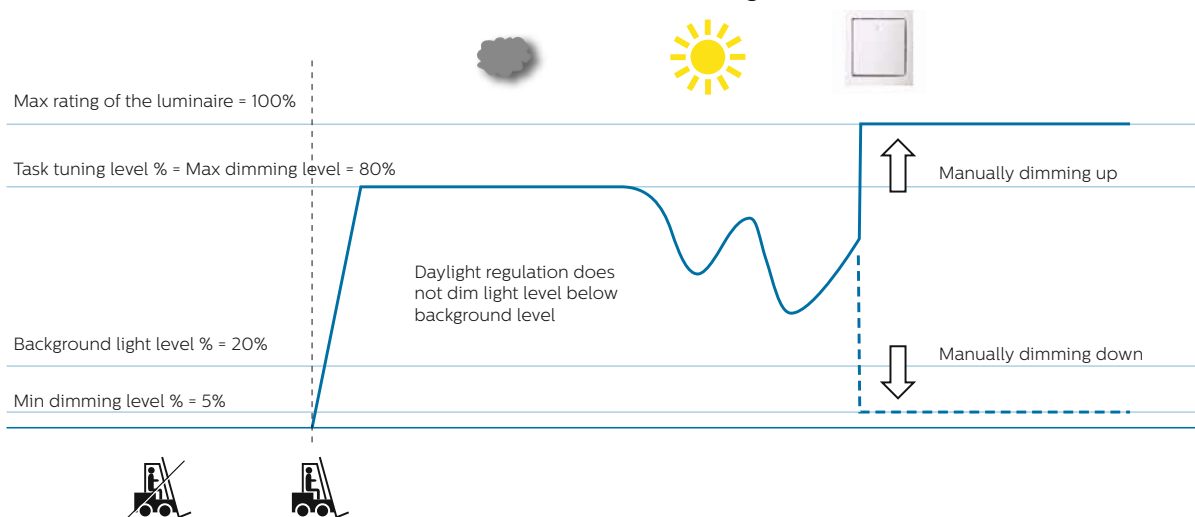


Figure 7. Automatic lighting control with manual dimming override.

Manual dimming override

Light level can be tuned to any level between max (task tuning level) and min (minimum dimming level of the LED driver) by pressing the dim-up and dim-down buttons of the switch.

- Light level can be set to an intermediate level by manual dimming override using a wireless switch. When a manual dimming override is performed, daylight-based control is disabled, and light will be on constantly at this level. When the room becomes unoccupied, the light goes to the background light level during prolong time, and if the occupant enters the room before prolong time expires the light will switch back to the level set by the manual dimming override. If the prolong time expires, the light will turn off and go to the maximum light level when occupant enters the room.
- The manual override setting of a switch can be reset by a short press of 'ON' button.

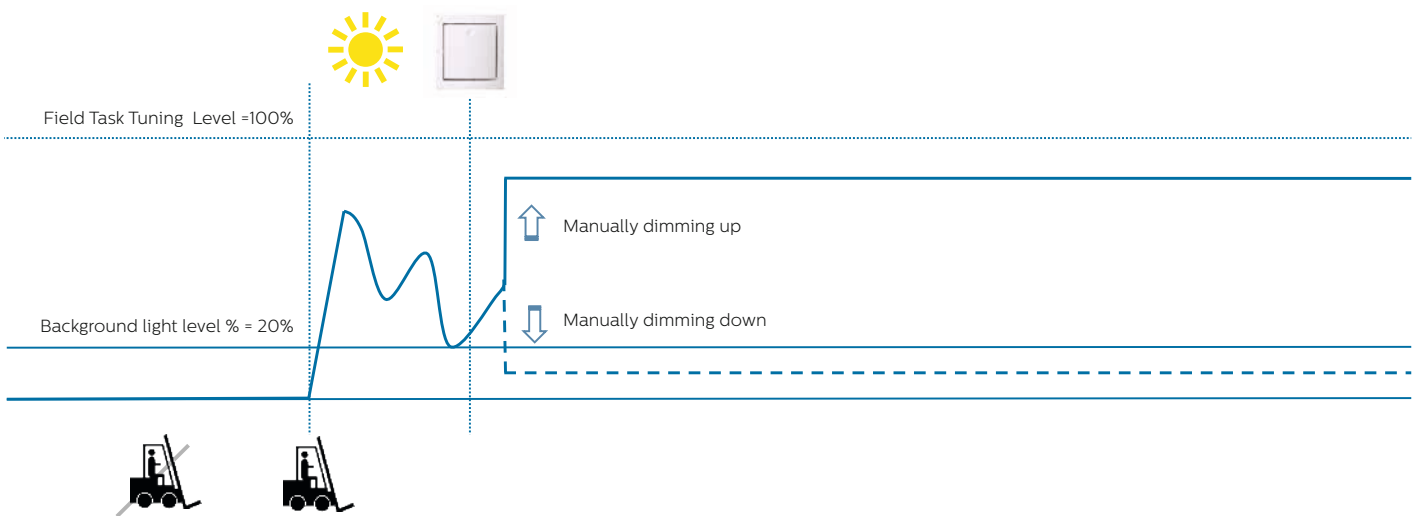


Figure 8. Auto-on/auto-off with manual dimming override.

Group occupancy sharing

The traditional approach to energy savings is wattage reduction, which often results in light levels below recommended practice. Moreover, luminaires with standalone lighting controls create so-called checker board look on the ceiling. Philips EasyAir SNH200 overcomes these problems with smart luminaires through grouping and zoning features; provide full light output at occupied aisles and lower background light levels at unoccupied aisles. The aesthetics of the space is maintained with a background light level that won't turn off luminaires until the entire group is unoccupied.

The group occupancy sharing feature can be enabled (default)/disabled through the Philips Field Apps. The group lighting behavior can also be configured to background light level or field task light level. With the group occupancy sharing disabled, the luminaire does not share its occupancy status with other luminaires or respond to the occupancy detection from the rest of the group.

After installation, a large lighting group of up to 40 luminaires can be created easily and quickly using the Philips Field Apps. With default settings, as long as occupancy is detected by any luminaire in the group, the luminaires are turned on at task light level while the rest of luminaries in non-occupied areas of the group stay on at the background light level.

Note: During the group occupancy sharing, daylight harvesting occurs automatically.

Parameters for lighting control

All the lighting control parameters are stored in the sensor, and it is possible to configure most of these parameters through NFC or IR. Figure 9 shows a pictorial representation of the occupancy based lighting control.

- Fade to switch on/off time
- Hold time
- Grace fading time
- Prolong time
- Field task tuning level
- Background level
- Group occupancy sharing
- Group light behavior
- Occupancy mode
- Daylight based control
- Daylight dependent switching
- Daylight dependent override

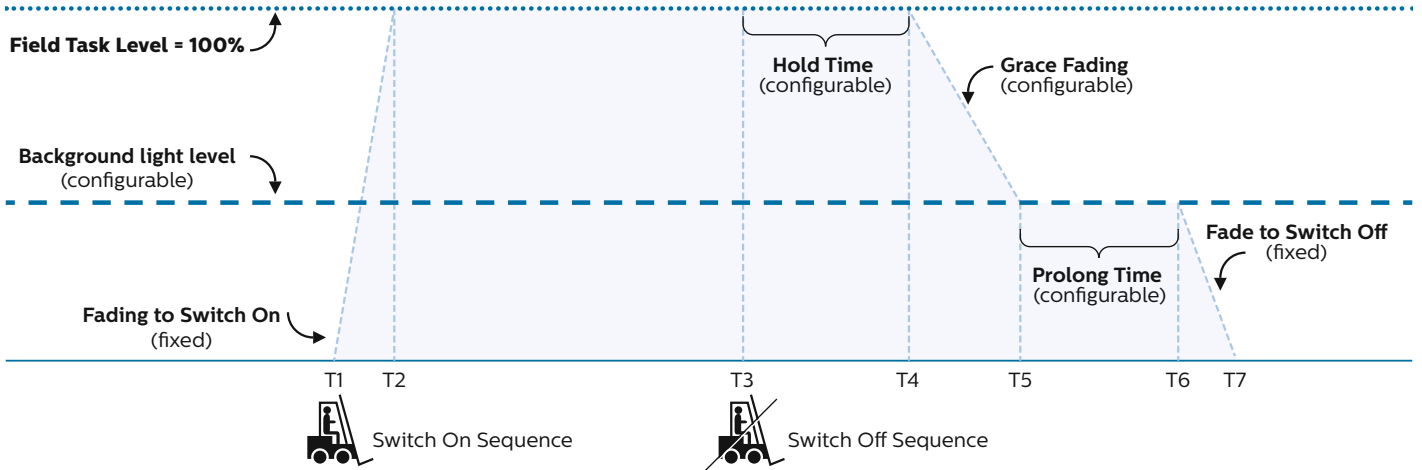


Figure 9- Occupancy based lighting control

Fade to switch-on time is the time (T1 to T2) from the point at which occupancy is detected until the lights dim up to the max light output. This timer is set to 0.7 sec and is not configurable.

Hold time is the time (T3 to T4) from the point at which the last movement has been detected (e.g. occupant left the room) until grace time starts. This timer is set to 15 minutes by default and can be configured from 1 – 120 minutes.

Grace fading is the time from T4 to T5 during which the lights are being dimmed down from the current light level to the background level. By default, grace fading time is 10 sec and can be configured to 0 – 25 seconds.

Prolong time is the time from T5 to T6 at which the background level is maintained at a fixed level. Default prolong time is 15 minutes and can be configured from 0 – infinity (This would ensure that the lights never switch off).

Fade to switch-off time is the time (T6 to T7) for the lights to fade from background level to off after prolong time is expired. This timer is set to 0.7 sec and is not configurable.

Field task tuning level is used to configure the required light level on the task plane. Setting this to 100% enables the installed maximum light level. A lower percentage level can be configured to set the new maximum light level of the luminaire through the app. See Task Tuning for more details.

Background level is a light level significantly lower than 100%, used to save energy when space is not occupied.

Occupancy mode selection can be configured to maximize

control flexibility with adding wireless switches. The mode options are auto-on/auto-off, manual-on/manual-off and manual-on/auto-off.

Group occupancy sharing is a configurable feature to allow EasyAir SNH200 to share its local occupancy detection status and control lights accordingly. As long as presence is detected within the group, the luminaires stay on at the background light level in non-occupied areas.

Group Light Behavior is a configurable feature that allows to choose how the other luminaires in the group respond to occupancy detected by a luminaire in the group. The options are background light level and field task level.

Occupancy mode is a configurable light level for the luminaires in non-occupied areas while there is occupancy detected elsewhere in the group, there are 3 options to choose from:

- Auto-on/off mode: Lights are switched on and off automatically based on occupancy detection and time delay settings.
- Manual-on/auto-off: Lights are turned on manually through a wireless switch and turned off automatically, as a vacancy sensor.
- Manual-on/off: Lights are turned on and off manually through a wireless switch. This mode simply does not make use of the occupancy sensing functionality.

Daylight dependent override

When daylight based control is enabled and if occupancy is detected, the luminaire(s) remains always switched on at the calibrated light level based on daylight harvesting as discussed above. In case enough daylight is available, this situation leads to higher energy costs.

With Daylight dependent override (DDO) functionality, in the presence of sufficient daylight along with occupancy detection, the luminaire(s) will not switch on until the daylight levels become insufficient i.e. below the daylight regulation setpoint. From that moment, the output light levels are switched on and adjusted to compensate the lack of daylight. In this way, energy costs are reduced. In other words, when DDO is enabled, the sensor keeps the lights switched off while maintaining enough light in the room for the end user when:

- the lights were initially switched off due to a vacant room and
- presence, either local or elsewhere in the group, was detected and
- an “Auto On/Off” occupancy mode has been configured and
- the measured light level is higher than 150% of the daylight regulation setpoint.

When the measured light level drops below the daylight regulation setpoint, the lights switch on again.

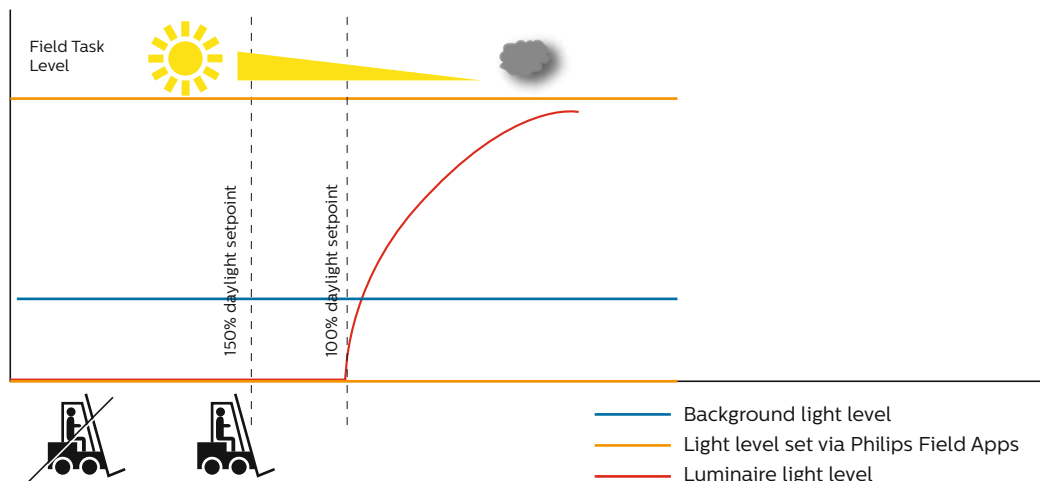
DDO is disabled when:

- either of the occupancy mode “Manual On/Auto Off” or “Manual On/Off” occupancy mode is selected or
- Daylight based control is disabled.

DDO has the following dependencies to work effectively:

- Daylight based control Enabled;
- Occupancy Mode set to Auto On/Off and;
- Prolong time not infinite;

Note: DDO is applicable for “group” occupancy only if Group light behavior is set to “Task level”



Daylight dependent switching

When daylight based control is enabled and as long as the occupancy is detected, the luminaire never switches off the light. Even at the brightest daylight levels, the luminaire dims down to background light level; this situation leads to higher energy costs.

With Daylight dependent switching (DDS) functionality, if there is enough daylight the sensor switches off the luminaire leading to lower energy costs.

The sensor switches off the light when:

- the luminaire is already switched on and
- an “Auto On/Off” occupancy mode has been configured and
- the measured light level on the local sensor is above the threshold value (150% of the daylight regulation setpoint) for more than 15 minutes.

The 15 minutes is reset as soon as one of the above conditions is not met. The fade time for turning off the light is ~30 seconds.

The sensor switches on the luminaire(s) when:

- the light level on the local sensor is below the daylight regulation setpoint and
- there is presence, either local or elsewhere, detected in the room

A “Manual On” request overrules DDS, the luminaire(s) switch on and the time period of 15 minutes is reset.

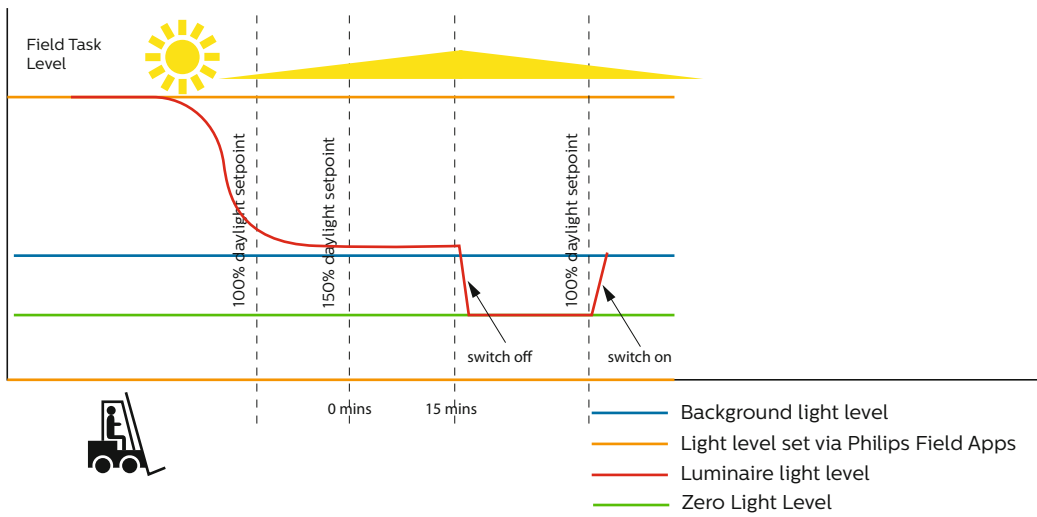
This is because the user expects light control when pressing a button manually.

DDS is disabled when:

- either of the occupancy modes “Manual On/ Auto Off” or “Manual On/Off” occupancy mode is selected or
- Daylight based control is disabled.

DDS has the following dependencies to work effectively:

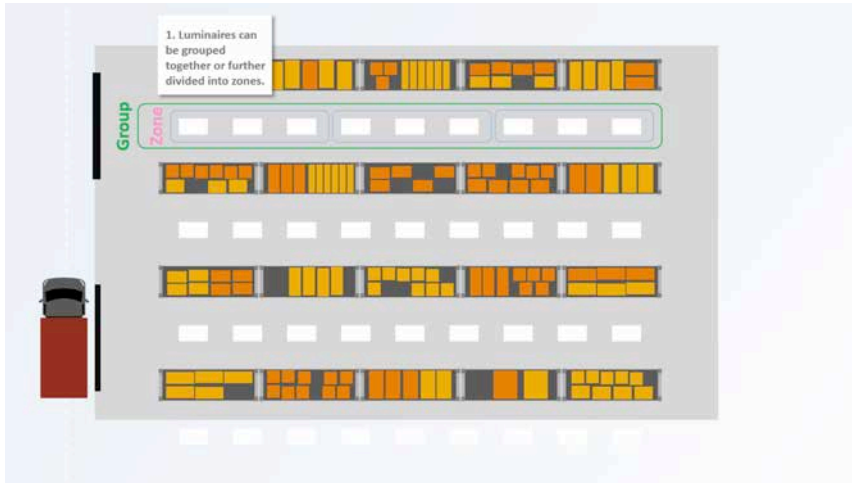
- Daylight based control Enabled;
- Occupancy Mode set to Auto On/Off and;
- Prolong time not infinite;

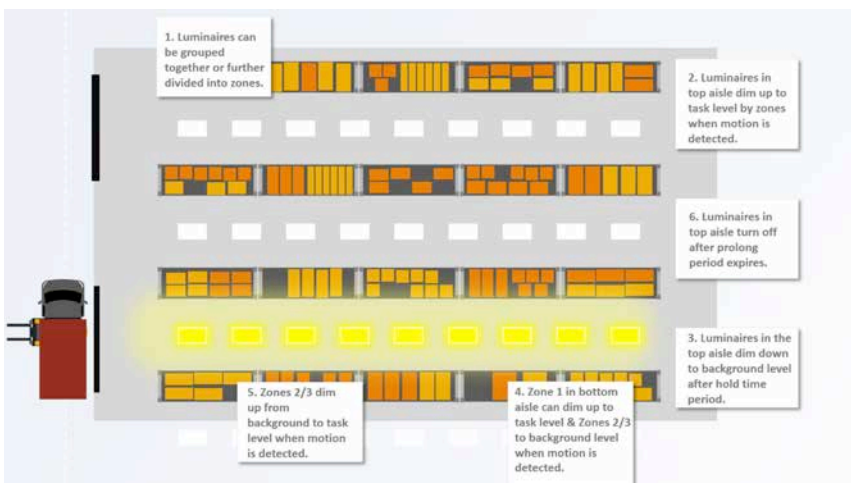
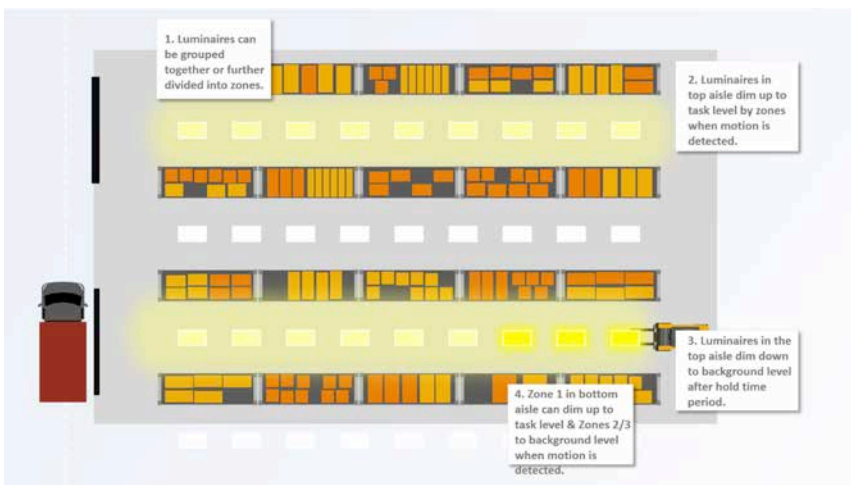
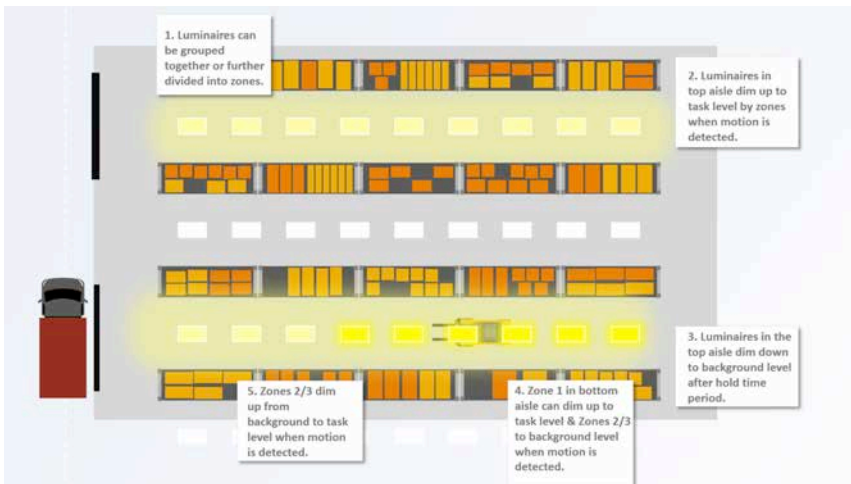


A warehouse aisle application

Here is an example of the group occupancy sharing and zoning behavior in a warehouse application.

Grouping





Phone-based app and configuration

Philips Field Apps is available for free download on Google Play Store. The app works with Android based phones.

Two sub-apps are available within Philips Field Apps:

- 1. EasyAir NFC** – This app allows configuring EasyAir parameters only when you can physically access the sensor with a smartphone. The correct functioning of this app is strongly dependent on the strength and placement of NFC antenna within the Android phone*.
- 2. EasyAir Industry IR** – This app allows configuring EasyAir parameters plus enables grouping to a wireless switch, which can be done with an Android phone and a specific IR dongle (refer below) from Philips.

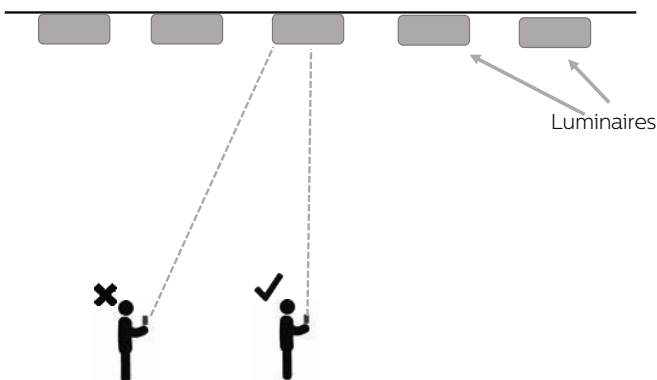
* Note: Please refer the list of recommended phones on our website for details on NFC and IR support per Android phone.

You must first register for Philips Field Apps to receive a username and password, then download Philips Field Apps from the Google Play Store. Refer to <http://www.lighting.philips.co.uk/oem-emea/products/connected-lighting> for details such as app user manual, recommended Android phones and supported switches..

IR Dongle

EasyAir SNH200 can be commissioned and configured through InfraRed (IR) technology. To achieve high heights upto 16m with minimal interference, it is mandatory to use the 'IR Dongle' accessory available via Philips, even if the phone has inbuilt IR transmitter. Ensure that you stand and point from right under the sensor to avoid interference with neighbouring sensors.

For support, consult your Philips representative.



Importance of installer's positioning for correct commissioning of SNH200 using IR Dongle

Mechanical design-in

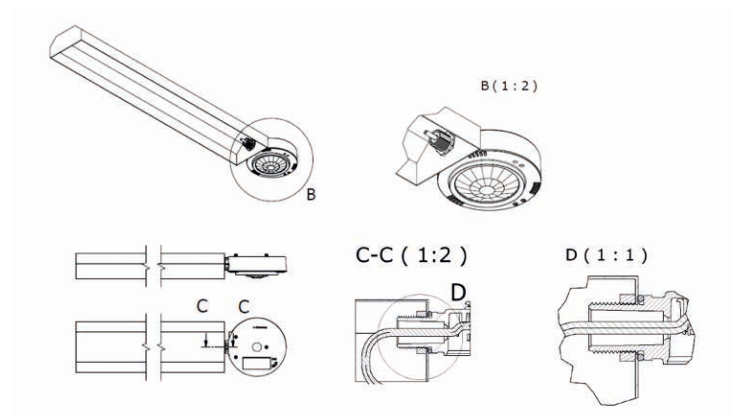
How to install the sensor on a luminaire with a bracket

EasyAir SNH200 is intended to be mounted to a standard 1/2" knockout available on the luminaire itself or a junction box. A nut is included with the sensor for this purpose. An OEM can develop customized brackets to attach to the top surface of the sensor in case the sensor needs to be mounted at a curved/non-flat surface. Mounting screws are provided with the sensor for this purpose. It is strongly recommended to use these screws for perfect mechanical design-in of the sensor as these screws are matched to the thickness of the plastic sensor housing.

Also make sure that the view of the sensor is not blocked anywhere by the luminaire or the bracket to avoid loss of functionality.

Installing the sensor on a flat surface of the luminaire

If a luminaire has a flat surface at the mounting location as shown in below, the sensor can be installed without the need for an extra bracket; a knock-out must be available in such cases.



Installing the sensor on a curved surface of the luminaire

If the luminaire has a curved or sloped surface at the mounting location as shown in Figure 10, the sensor can be installed using a bracket. This bracket should be developed by the OEMs themselves. A drawing of a potential bracket is shown in Figure 11.

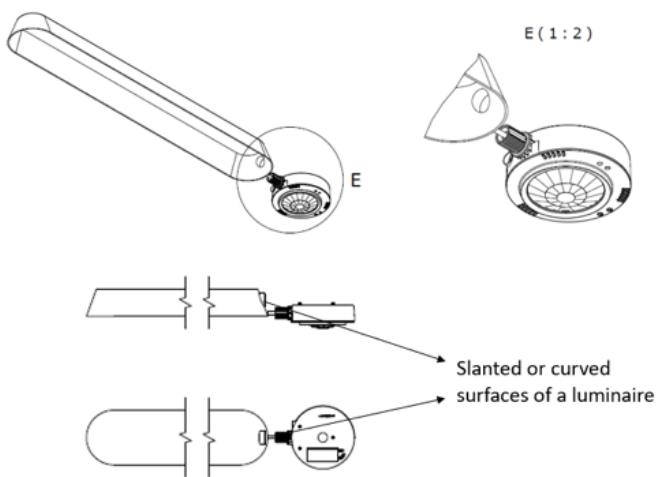


Figure 10- Installing EasyAir SNH200 on a non-flat surface. The label E point to zoomed in view.

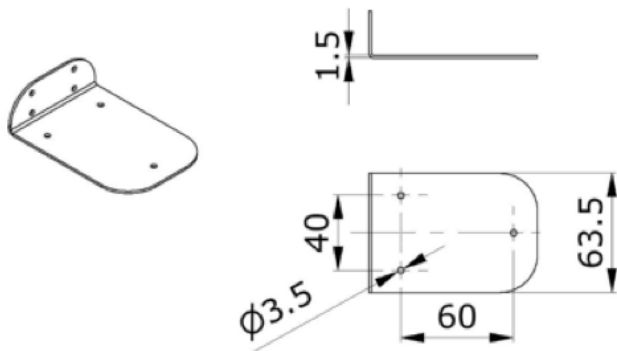


Figure 11 - Proposal for bracket design along with dimensions

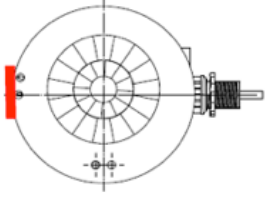
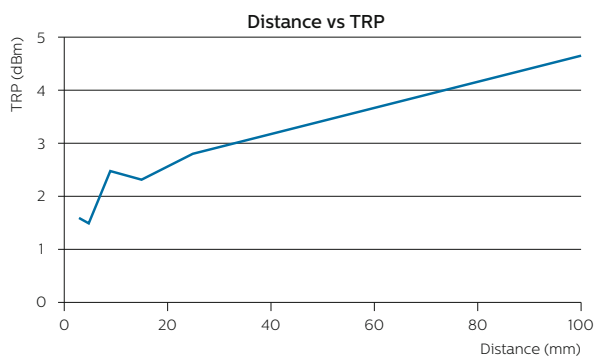


Figure 12 - Position of RF Antenna on EasyAir SNH200



Recommendations to maintain good Zigbee RF signal performance

For good RF signal communication between luminaires, it is recommended to maintain a 100mm distance between EasyAir enclosure and any metal wall. This would allow a luminaire to luminaire distance to be greater than 10 meters. Figure 12 shows the approximate location (marked in red) of RF antenna on the PCB board inside the sensor.

In general, every dB drop reduces luminaire to luminaire distance by 1 meter. The chart below gives one reference measurement for Total Radiated Power (TRP) vs. distance from one side metal wall.

Wiring

Wire to wire connection

A wire to wire connection can be made with connectors suitable for wires with thickness range including AWG20. The possible connectors types are as follows:

- Pluggable Terminal blocks
- Lever nuts

The wire strip length in case of a wire to wire connection is connector dependent.

Wire to driver connection

A connection between the sensor and the driver should be made according to regional installation guidelines. The SR input wires of the EasyAir SNH200 are unipolar, and therefore can be connected, without taking care of polarity, to the SR output of the driver - SR+ and SR- terminals. It is recommended to keep wire distance from sensor to driver less than 15 meters. Polarity must be maintained when connecting multiple drivers to one sensor.

The wire strip length in case of sensor to driver connection is approximately 8mm, this is already available in the cable attached to the sensor.

EasyAir with multiple Philips Xitanium SR LED drivers (1:N application)

When a group of luminaires is in the same daylight condition and needs to be operated at the same level or when multiple drivers are used in a single luminaire, it is possible to use one sensor to control multiple luminaires/drivers.

EasyAir sends commands to all connected drivers (using DALI broadcast command); it does not have capabilities for addressing individual drivers. The light commands are sent as a broadcast commands, so occupancy-/daylight-based lighting control and task tuning operate the same on all connected drivers. The readout of energy information from the driver will not function. The energy readout of multiple drivers is planned for future sensor generations.

The best way to work in such a scenario is to use an SR bridge. An SR bridge can connect to multiple DALI drivers on one end and to the sensor on the other end. For more details, please refer the datasheet and design-in guide of SR Bridge on our website.



Warning:

The regular DALI drivers have basic insulation on the DALI interface as safety barrier. The SR drivers / bridge have double insulation on the SR interface. As EasyAir devices do not have additional insulation barriers, it means that using DALI drivers via SR bridge maintains the double insulation level.

FAQ

Is EasyAir a DALI sensor?

EasyAir works with Philips SR drivers, which use DALI SR protocol to communicate between driver and sensor. This is the same principle as other SR-certified devices, therefore, EasyAir is an SR device and not a DALI sensor.

Can I use one sensor with multiple luminaires?

Yes, it is possible. Please refer [EasyAir with multiple SR drivers 1:N application](#) section.

Can I use multiple sensors with a single driver?

No, EasyAir SNH200 is not intended to be used in a multi-master mode. In the typical 1:1 sensor to driver connection, a (single) SNH200 is the master and an SR Driver is the slave. Adding multiple sensors on SR bus can lead to bus conflict and undesired functioning of the sensors.

Does EasyAir make sense if I only want to do occupancy sensing?

Yes. Most occupancy sensors run on high voltage or require an extra power pack, adding cost and complexity. Typical wallplate-style occupancy sensors – while mass produced and inexpensive – vary in performance by use case since the viewing angle from a wall is less than ideal. Also, the relay-free operation of EasyAir makes it inherently more reliable. If daylight harvesting is disabled, auto-calibration will not occur.

How does the daylight harvesting feature work?

EasyAir does auto-calibration when the luminaire is first powered. See the system startup behavior/ auto-calibration section for details. Electric lighting will not reduce below the programmed background light level regardless of daylight availability. Traditional sensors lacking auto-calibration are either pre-set with an assumed task light level or require manual calibration during commissioning.

Is EasyAir “failsafe”?

Unlike traditional occupancy sensors, EasyAir does not have a mechanical relay. This is a benefit of Philips SR LED drivers, as on/off is done relay-free within the driver. Devices with mechanical relays should be designed so that relay failure results in “lights on.” If an SR driver does not see a digital signal from a device for a long period of time (e.g., loose connection, sensor failure), the driver goes to full programmed output as long as the “SystemFailureLevel” has not been changed.

How can I readout information from sensor?

The sensor settings can be read out using NFC with Philips Field Apps. Scan the sensor in EasyAir NFC app to readout data. For successful NFC readout, it is necessary to use one of the recommended phones. See the list on our website.

Contact details

Philips EasyAir

Product information:

www.lighting.philips.co.uk/oem-emea/products/connected-lighting

Or contact your local Philips sales representative.

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www.lighting.philips.co.uk/oem-emea/products/connected-lighting

05/2018
Data subject to change