



Description

The series is a low-voltage sensor engineered for seamless luminaire integration, enabling Luminaire Level Lighting Control (LLLC) functionality for panel, troffer, strip, wrap, and select architectural lighting fixtures. This compact unit combines daylight harvesting and passive infrared (PIR) occupancy sensing to transform luminaires into intelligent lighting solutions.

Features

- Bluetooth and regular version available;
- 0-10V dimming available
- Daylight Harvesting + PIR analog sensing technology
- Low-profile linear design with minimal height above luminaire
- 4-pin design enables color-tuning
- Applications: Panel, Troffer, Strip, Wrap



Specifications

Input Voltage	DC 10-15V
Input Current	<15mA
Stand-by Power	DC 10V@<0.5W
Control Method	DIM 0-10V
Detection Angle	Fresnel Lens (Ceiling Mounted 360 ° Wall Mounted ≤120 °)
Mounting Height	<4M/13ft
Detection Range	Radius: 2-4m 6.56-13.12ft
Working Temp	-30°C~+60°C
IP Rating	IP20
Warranty	5 Years

Regular-version Parameter



Control Device	Remote Control #HD06R(purchase separately) & Manual Switches
Warm-up Period	10S
Detection Area	RemoteControl Only: 100% valid only
Hold Time	Remote Control: 5s / 30s / 1min / 3min / 5min / 10min / 20min / 30min Manual Switches: 5s / 30s / 5min / 20min
Daylight Threshold	Remote Control: Disable / 400Lux / 350Lux / 300Lux / 250Lux / 200Lux / 120Lux / 80Lux / 50Lux / 30Lux / 10Lux / 2Lux Manual Switches: Disable/50Lux
Standby Period	Remote Control: 0s/10s/30s/1min/5min/10min/30min/60min/+∞ Manual Switches: 5min/+∞
Standby Dimming Level	Remote Control: 10%/20%/30%/50% Manual Switches: 0%/20%
Sensor Mode	Manual Switches: Sensor ON / Sensor OFF
CCT Function	When paired with the HSE-BC2 controller, settings can be made via the CCT button on the remote control: 2700K - 6500K.

Bluetooth-version Parameter

Control Device	HSE WISE APP
Bluetooth Transmit	30m / 98 ft
Radio Frequency	2.4GHz (2402~2480MHz)
Bluetooth Version	5.4
Dim level	Mini Brightness 0– 100% (The mini value can be set in the zone settings panel)
Detection Area	High / Medium / Low
Max Dim	1%-100% Continuously Adjustable
Hold Time	5S/30S/1min-120min (Mini Hold Time, Adjustment Range 1min)
Standby Dim Level	1% - 100% (Adjustment Range 1%)
Standby Period	0S/5S/30S/1min - 120min (Adjustment Range 1min) / ∞
Daylight Threshold	Disable/50Lux - 2000Lux (Adjustment Range 50Lux)
CCT Function	When paired with the HSE-C2 controller, Adjustment can be made via the HSE WISE APP.

Get It Activated

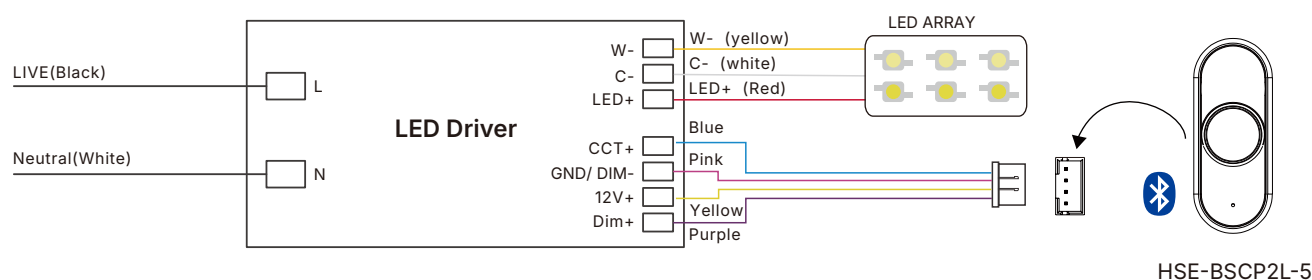
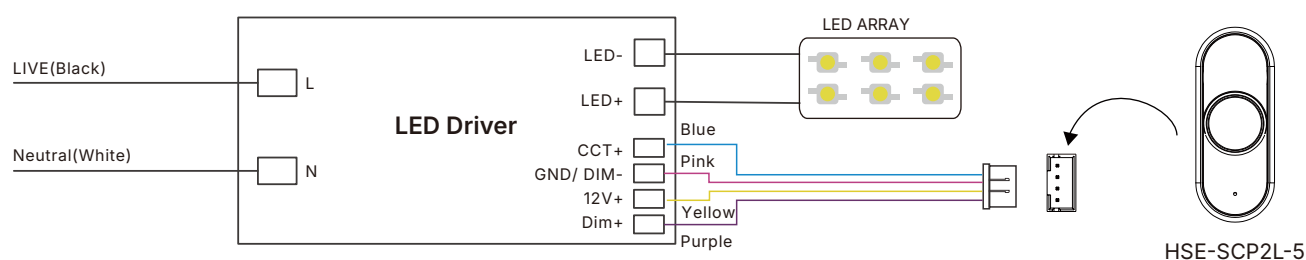
Daylight Harvesting	Function supported, please follow steps in "Performance" part to activate it.
Dusk/Dawn function (Photocell)	Function supported, please follow steps in "Performance" part to activate it.

Ordering Information

Example: HSE-BSCP2L-5

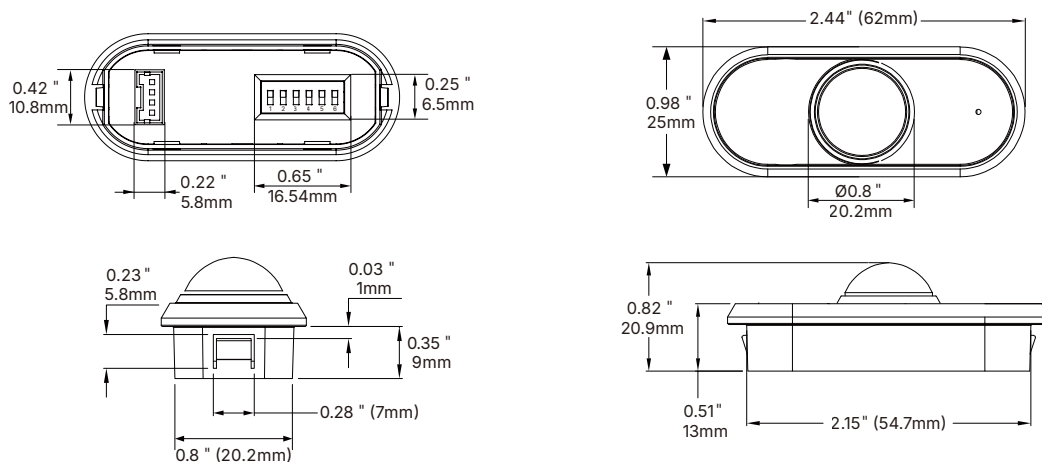
Brand	Bluetooth	Product type	Sensor type	Series of products	Installation type	Wiring method
HSE	Blank Regular B Bluetooth	S Sensor C CCT adjustable	P PIR sensor	2 Series Code	L low - level	Terminal connection

Wiring

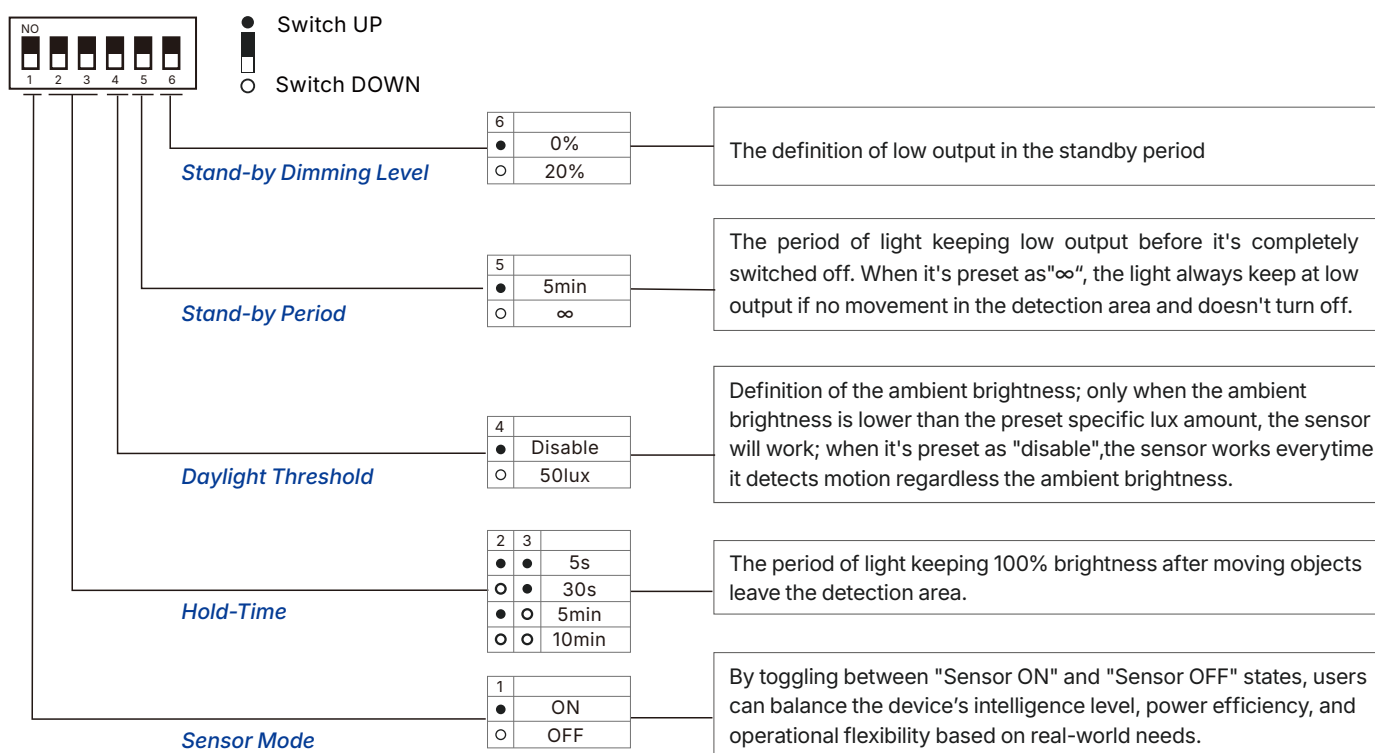


Dimensions

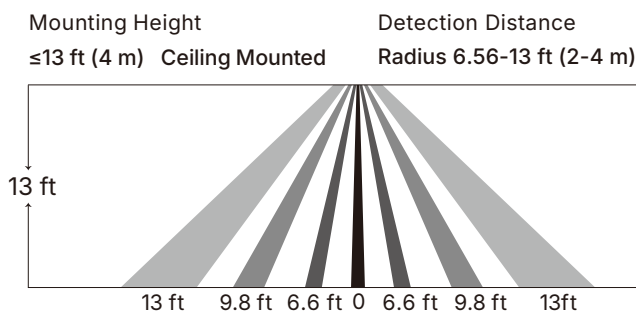
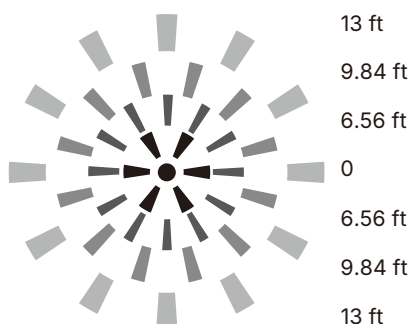
Note: HSE-SCP2L-5 with a dip switch, HSE-BSCP2L-5 without a dip switch.



Dial Code Setting



Detection Coverage



Performance

1. Dusk/Dawn function

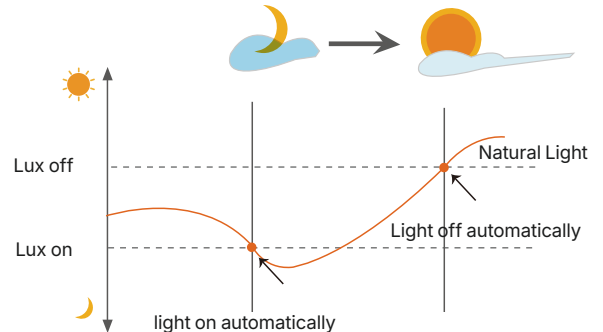
The sensor is able to differentiate artificial light brightness from natural light after installed inside the fixture, and automatically turn off light when ambient brightness exceeds preset lux level.

Standard Version Operating Steps

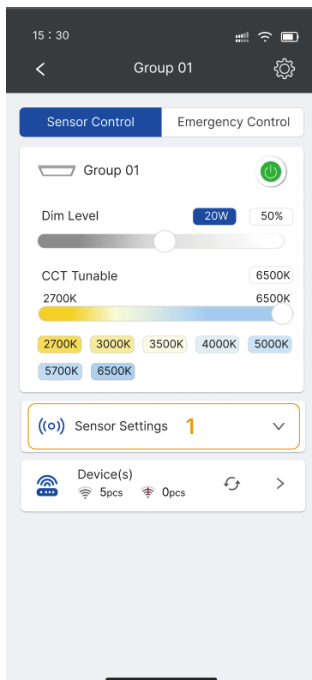
1. STANDBY DIM LEVEL as any of 10% 20% 30%
2. STANDBY PERIOD as infinite
3. DAYLIGHT as any of 30LUX, 50LUX, 80LUX, 120LUX, 200LUX, 250LUX, 300LUX, 350LUX, 400LUX.



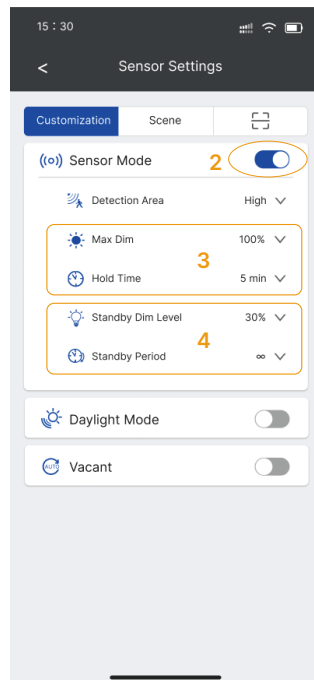
Remote Control



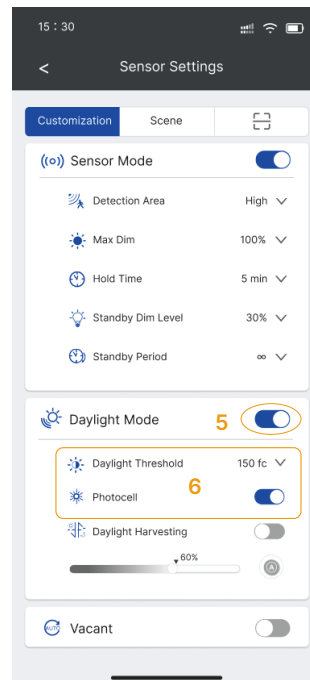
Bluetooth Version Operating Steps



1. Tap "Sensor Settings" to open the control interface.



2. Enable the Sensor Mode.
3. Set the Max Dim and Hold Time parameters.
4. Set the Standby Dim Level and Standby Period MUST be set as INFINITE.

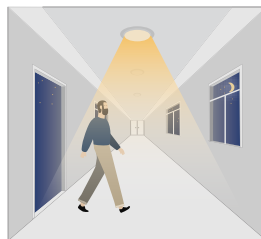


5. Enable Daylight Mode,
6. Set the Daylight Threshold, and then enable Photocell.

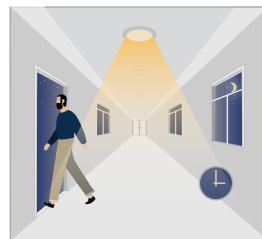
Picture Diagram



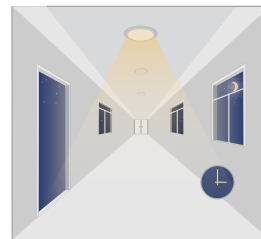
With insufficient ambient brightness, sensor turns on light and keeps it at standby dimming level even if there is no motion or presence.



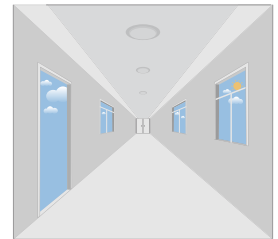
When sensor detects motion or presence it will bring the light level up to 100%.



After motion is no longer detected, fixture remains at 100% for hold time.



After pre-set hold time period it will dim light to standby dimming level again and always keep it.



With sufficient ambient brightness, sensor will turn OFF light automatically.

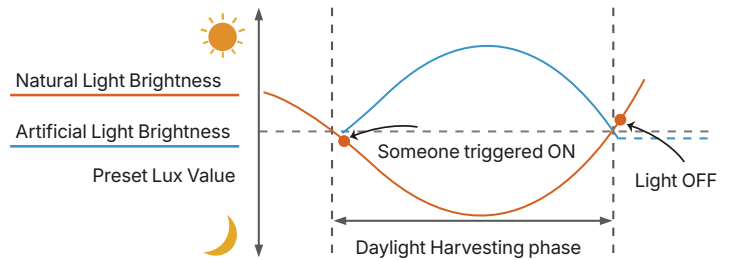
2. Daylight Harvesting

Standard Version Operating Steps

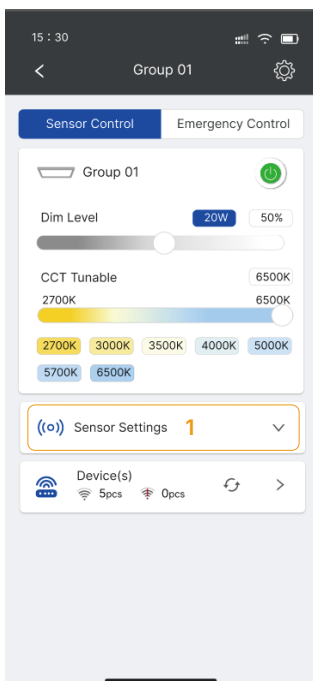
1. Stay in SENSOR MODE
2. STANDBY PERIOD as 0S
3. DAYLIGHT as any of 50LUX, 80LUX, 200LUX, 250LUX, 300LUX, 350LUX, 400LUX
4. Press DAYLIGHT HARVESTING button to ON



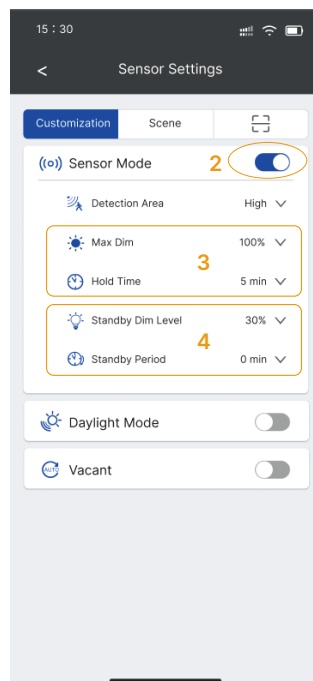
Remote Control



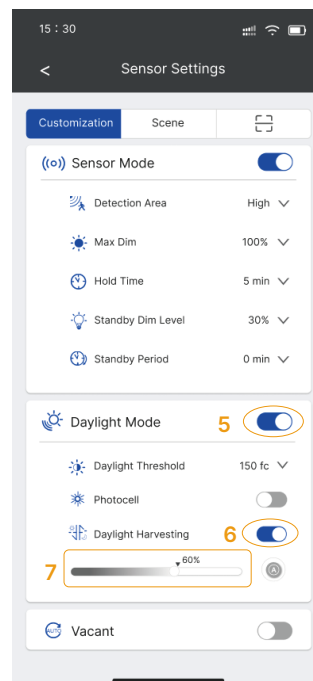
Bluetooth Version Operating Steps



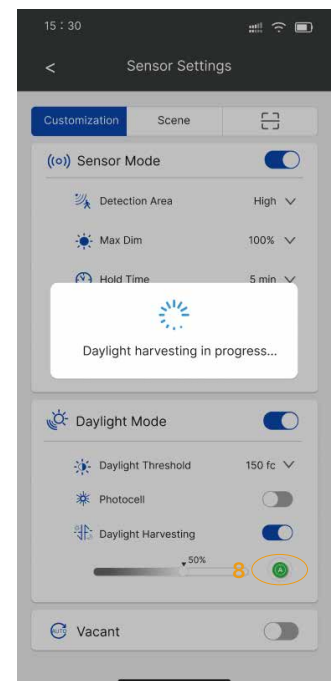
1. Tap "Sensor Settings" to open the control interface.



2. Enable the Sensor Mode.
3. Set the Max Dim and Hold Time parameters.
4. Set the Standby Dim Level and Standby Period.

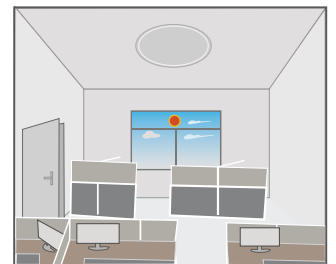
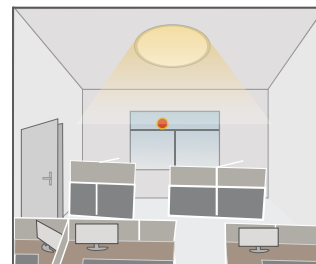
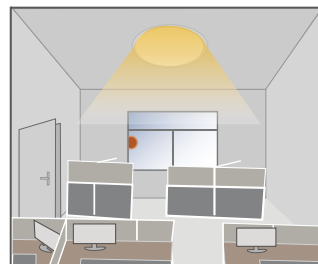


5. Enable the Daylight Mode.
6. Enable the Daylight Harvesting.
7. Adjust the luminaire output to the desired comfort level.



8. Press the (A) Learn button to save the current ambient light level as the reference value.

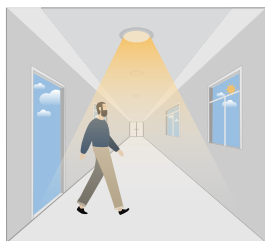
Picture Diagram



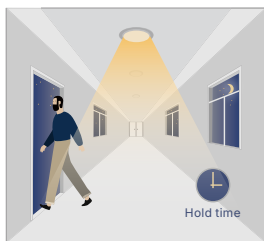
When ambient brightness is lower than preset lux level, Someone triggered ON light and keep dimming according to the change of the ambient brightness; when outside is getting darker, the inside will be brighter, and brighter darker.

Light OFF when ambient brightness becomes higher than the preset lux level.

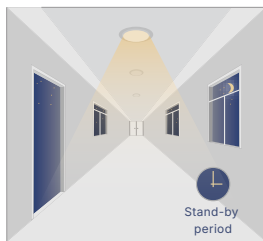
3. With Daylight Disable



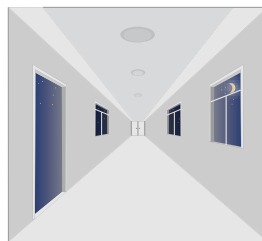
Sensor turns ON light when motion is detected.



Sensor keeps for a hold time period after motion leaves

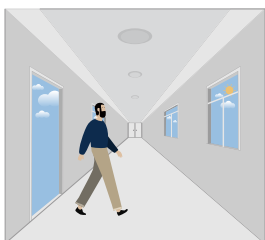


Sensor dims light to standby dimming level after hold time if there is still no motion

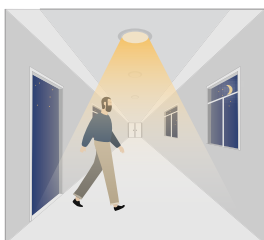


Sensor turns OFF light after standby period

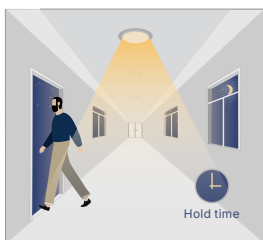
4. With Daylight Threshold



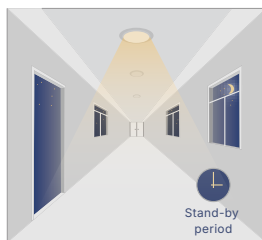
With sufficient daylight, the sensor keeps light OFF even motion gets detected



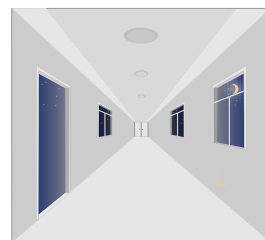
With insufficient daylight, the sensor turns light ON when motion gets detected



After there's no motion detected, the sensor keeps light ON 100% for holdtime.



After holdtime, sensor dims light to standby dimming level for standby period. if the standby period has been set as 0s, sensor turns light OFF automatically after holdtime.



The sensor turns OFF light automatically after the standby period when there's no motion detected.

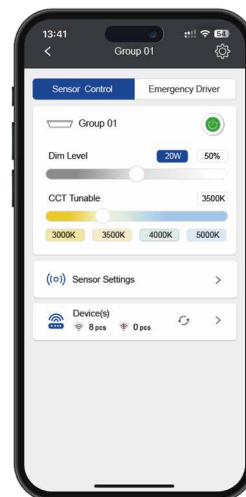
Factory Setting

Regular-version	Bluetooth-version	
1. Detection Area: 100%	1. Sensor Mode: ON	5. Standby Dimming Level: 20%
2. Hold Time: 5S	2. Detection Area: High	6. Standby Period: 10min
3. Daylight Threshold: Disable	3. Max Dim: 100%	7. Daylight Mode: OFF
4. Standby Period: 0S	4. Hold Time: 10min	
5. Standby Dimming Level: 10%		

Invention Patent

Equipped with U.S. authorized invention patent Dimming and color temperature adjusting control module (Patent No.: US12382556B2), supporting 0-100% stepless dimming & precise multi-color temperature switching.

US012382556B2	
(12) United States Patent Tan et al.	(10) Patent No.: US 12,382,556 B2 (45) Date of Patent: Aug. 5, 2025
(54) DIMMING AND COLOR TEMPERATURE ADJUSTING CONTROL MODULE	(52) U.S. Cl. CPC H05B 45/10 (2020.01); H05B 45/20 (2020.01); H05B 45/325 (2020.01)
(71) Applicant: Dongguan Haiyue Intelligent Technology Co., Ltd. , Guangdong (CN)	(58) Field of Classification Search CPC H05B 45/10; H05B 45/20; H05B 45/325; H05B 47/19; H05B 47/165; H05B 47/195 See application file for complete search history.
(72) Inventors: Huishi Tan , Guangdong (CN); Xinmin	





Attention

1. The sensor should be installed by qualified electrician and ensure power is OFF before installation.
2. Please read the instruction carefully before using the product and keep it well for other users to read any time.
3. We reserve the right to modify any incorrect text, image and technical parameters.
4. Any unauthorized modification is forbidden. Otherwise all guarantees will be immediately invalid.
5. Product could be optimized without prior notice.

* When ambient temperature approaches the human body classic temperature range (36°C~37°C/96.8~98.6°F), PIR sensor's detecting performance will significantly weaken or non-responsive.

* When ambient temperature stays higher than 40°C/104°F, PIR sensor's detecting performance will significantly weaken.

Application Notes

1. Suitable for indoor application, half/completely outdoor environment conditions might trigger the sensor.
2. Suitable for ceiling mount installation, adjust sensitivity properly if it's installed on side-wall because it gets more sensitive.
3. PIR sensor can't be placed inside any material, fresnel lens must completely exposed in air.
4. Fresnel lens of the PIR sensor must be lower than light fixture.
5. Not suitable environment if there's sudden changed temperature of airflow for PIR sensor.
6. Not suitable environment if there's shelves blocking between the sensor and presence area.
7. Detection area options may NOT working obviously because it works depends on fresnel lens, it's physically defined.
8. Detection distance performance works better when moving parallelly than moving towards to the sensor.
9. Daylight testing delivered in bright day without shadow or specially designed lampshade or lens.
10. Dimming performance differs when connected to different drivers; If the driver can't completely turn OFF, sensor can't either.
11. Input power voltage must be stable with float less than 10%.
12. When the sensor is first powered on, the light activates at 100% brightness. Conventional units feature a 10s warm-up, while Bluetooth models require no warm-up. The light then automatically dims to standby level or powers off.
13. Distance detection is delivered by testing person about 165cm in open area as reference, the result differs by size and speed of moving objects, mounting height and real-life situation.

App Download

