

Detached Motion Sensor with  Bluetooth® Mesh

HCD038/CA

Casambi Enabled

HYTRONIK®



Product Description

HCD038/CA is a Bluetooth DALI control base with 30mA DALI power supply built in, it can work with a wide range of microwave and PIR sensor heads. It is ideal for plastic luminaires as compared to metal luminaires because Bluetooth signal can transmit through plastic. It is suitable for any typical indoor applications such as office, classroom, car park, warehouse and other commercial/industrial areas. HCD038/CA works with CBU-ASD module for either 1-10V or DALI output. Meanwhile, all commissioning and settings can be done via **CASAMBI** app.



Hardware Features

-  30mA DALI broadcast output for up to 15 LED drivers
-  2 push input for flexible manual control
-  Detached linear design to suit luminaires with limited space inside
-  Use Casambi app for commissioning
-  Device firmware update over-the-air
-  5-year warranty

Free smartphone App for
set-up and commissioning



Technical Specifications

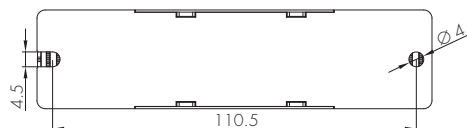
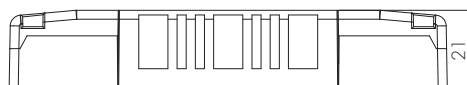
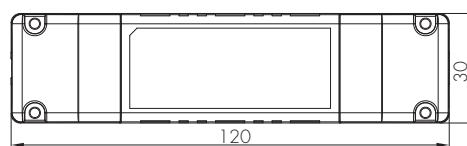
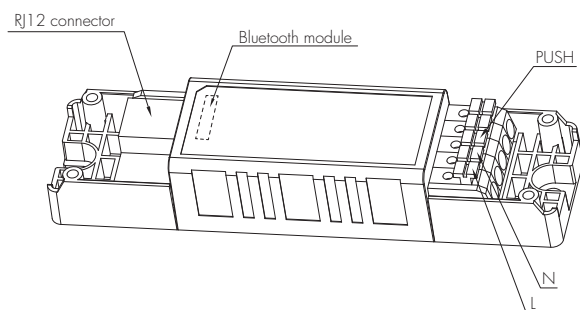
Bluetooth Transceiver	
Operation frequency	2.4 GHz - 2.483 GHz
Transmission power	Max 4dBm
Range (Typical)	10~30m

Environment	
Operation temperature	Ta: -20°C ~ +55°C
Case temperature (Max.)	Tc: +75°C
IP rating	IP20

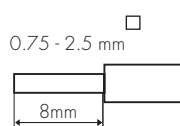
Input & Output Characteristics	
Mains voltage	220~240VAC 50/60Hz
Stand-by power	<0.5W
Warming-up	20s
Load ratings	30mA (max. 15 devices)

Mechanical Structure & Dimensions

HCD038/CA

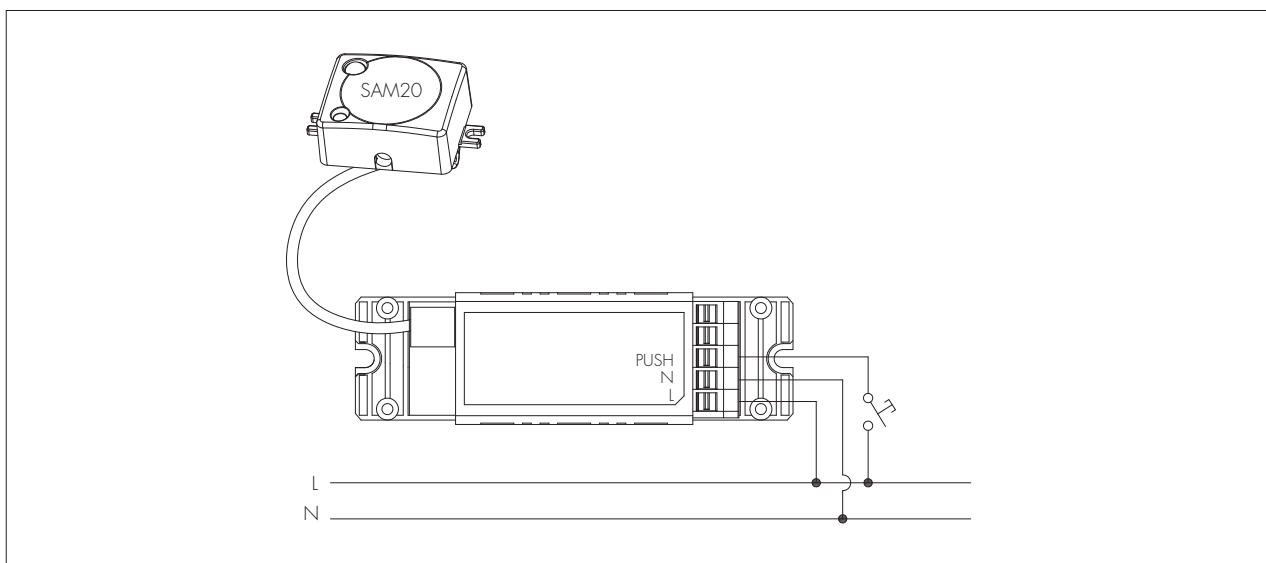


Wire Preparation



To make or release the wire from the terminal, use a screwdriver to push down the button.

Wiring Diagram



Technical Specifications for Sensor Heads

PIR Sensor Properties		
Sensor principle	PIR detection	
Operating voltage	5VDC	
Detection range *	HIRO5 & HIRO5/FM HIRO5/AA & HIRO7	Max installation height: 3m; Max detection range: 6m (diameter)
	HIR11	Max installation height: 15m (forklift); 12m (single person); Max detection range: 24m (diameter)
	HIR12	Max installation height: 15m (forklift); 12m (single person); Max detection range: 18m*6m (L*W)
	HIR63	Max installation height: 3m; Max detection range: 12m (diameter)
	HIR63/R	Max installation height: 12m (forklift); 8m (single person); Max detection range: 14m (diameter)

HF Sensor Properties		
Sensor principle	High Frequency (microwave)	
Operating voltage	5VDC	
Operation frequency	5.8GHz +/- 75MHz	
Transmission power	<0.2mW	
Detection range *	SAM20 & SAM21 SAM22 & SAM22/AA	Max installation height: 3m; Max detection range: 12m (diameter)
	SAM23	Max installation height: 15m (forklift); 12m (single person); Max detection range: 20m (diameter)

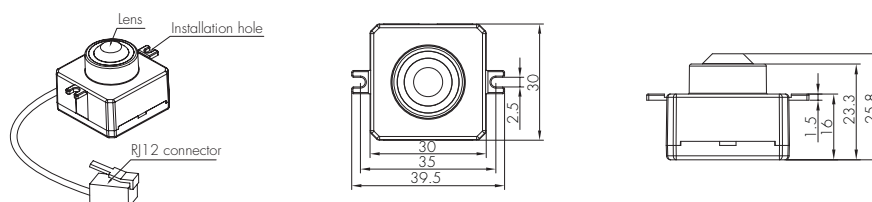
* The detection range is heavily influenced by sensor placement (angle) and different walking paces.
It may be reduced under certain conditions.

PIR & microwave sensor heads

The range of PIR and microwave sensor heads below offers powerful number of Plug'n'Play feature options to expand the flexibility of luminaire design. This approach to luminaire design reduces space requirements and component costs whilst simplifying production.

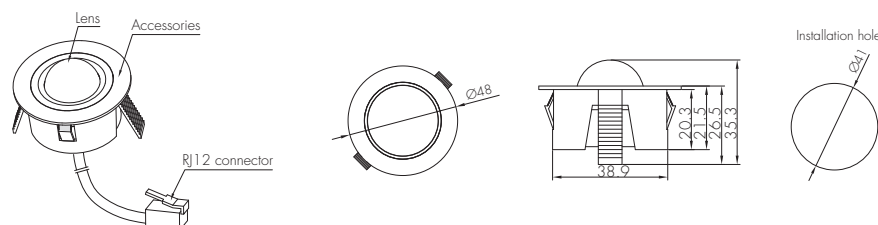
A. HIR05

PIR sensor head
The cable length is around 30cm.



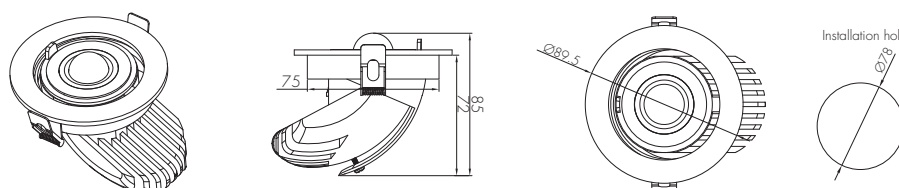
B. HIR05/FM

PIR sensor head
The cable length is around 30cm.



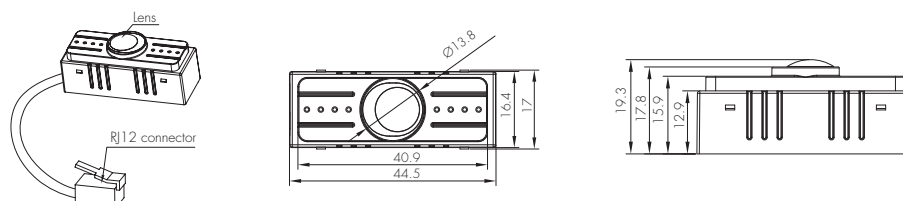
C. HIR05/AA

PIR sensor head
Adjustable angle
The cable length is around 30cm.



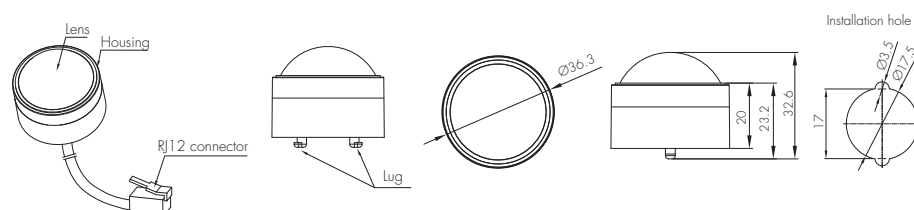
D. HIR07

PIR sensor head
Photocell Advance™
The cable length is around 30cm.



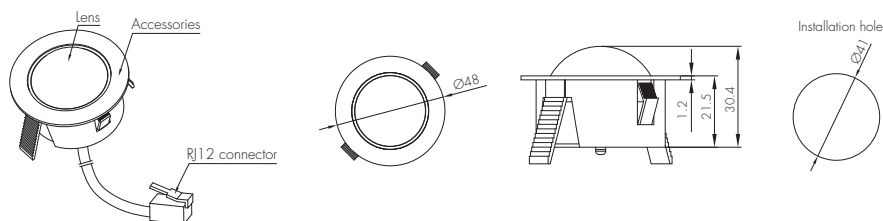
E. HIR11/S

PIR sensor head
Surface mounting
For highbay application
IP65 (facia / lens part)
The cable length is around 30cm.



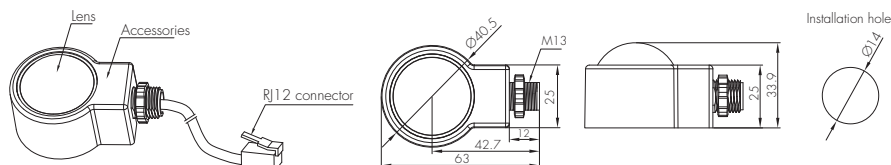
F. HIR11/F

PIR sensor head
Flush mounting
For highbay application
IP65 (facia / lens part)
The cable length is around 30cm.



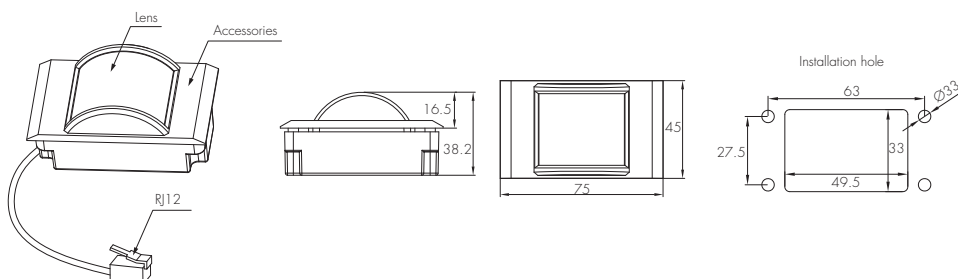
G. HIR11/C

PIR sensor head
Screw to the luminaire by conduit
For highbay application
IP65 (facia / lens part)
The cable length is around 30cm.



H. HIR12

PIR sensor head
For highbay application
IP65 (facia / lens part)
The cable length is around 30cm.



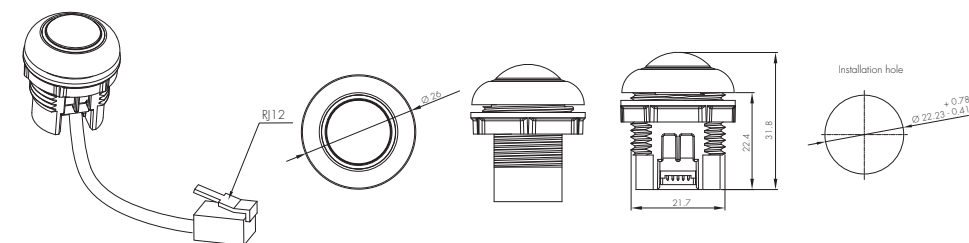
Installation for HIR12



We suggest that the metal plate thickness to be 0.8mm – 1.6mm to ensure perfect focal length for the PIR lens.

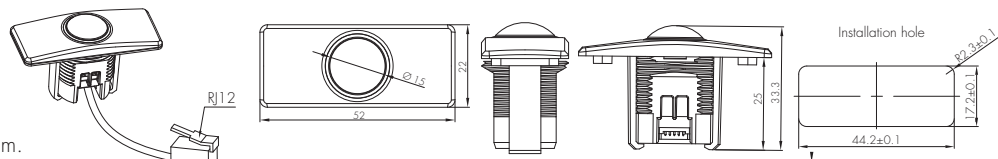
I. HIR63

PIR sensor head
The cable length is around 30cm.



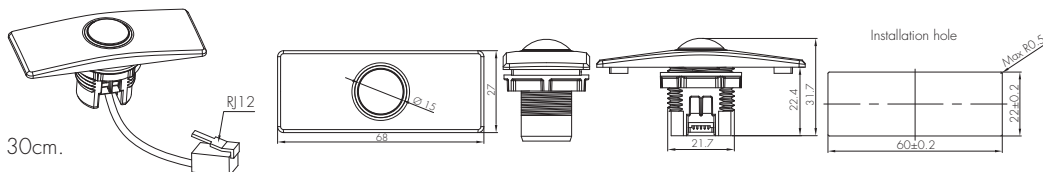
J. HIR63 with HA04

PIR sensor head
Optional accessory
The cable length is around 30cm.

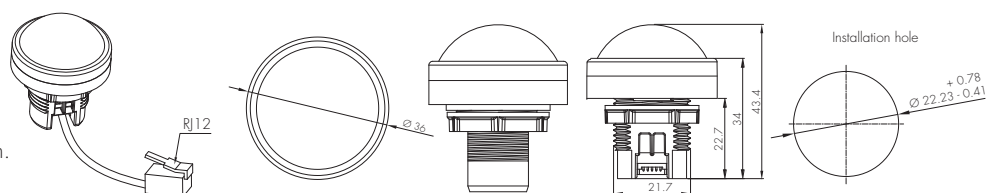


K. HIR63 with HA05

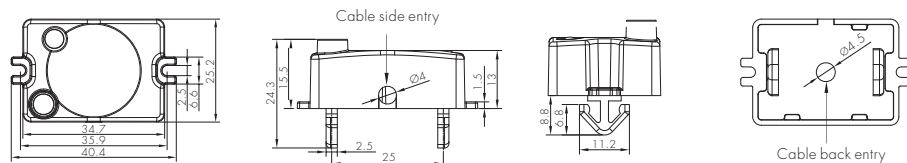
PIR sensor head
Optional accessory
The cable length is around 30cm.



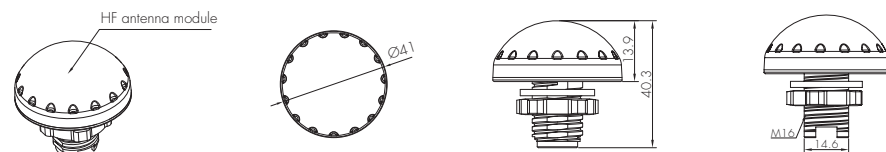
L. HIR63/R
PIR sensor head
IP65 (facia / lens part)
The cable length is around 30cm.



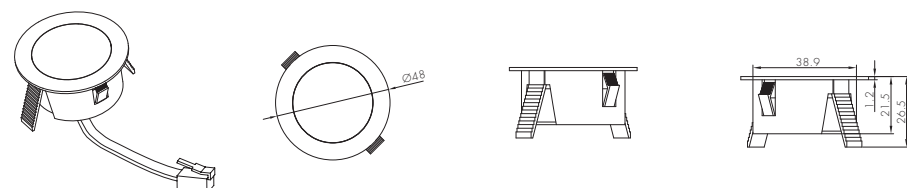
M. SAM20
HF sensor head
Photocell Advance™
The cable length is around 30cm.



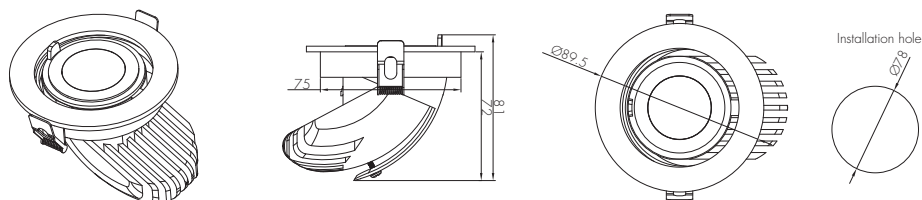
N. SAM21
HF sensor head
IP65
The cable length is around 30cm.



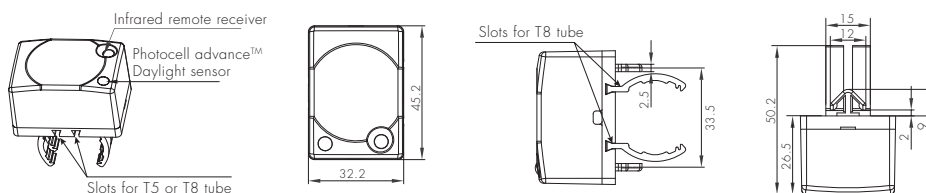
O. SAM22
HF sensor head
Flush mount
The cable length is around 30cm.



P. SAM22/AA
HF sensor head
Adjustable angle
The cable length is around 30cm.

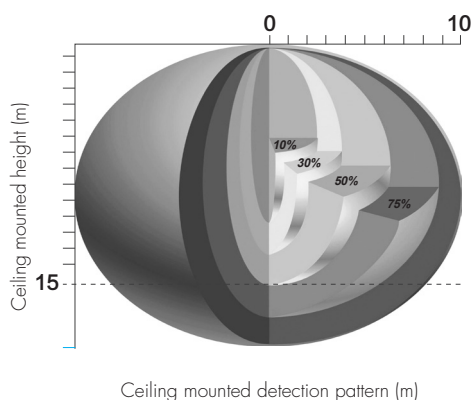


Q. SAM23
HF sensor head
Photocell advance™
Daylight sensor
For highbay application
The cable length is around 30cm.

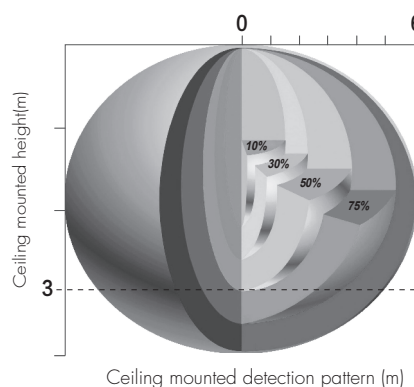


Detection Pattern

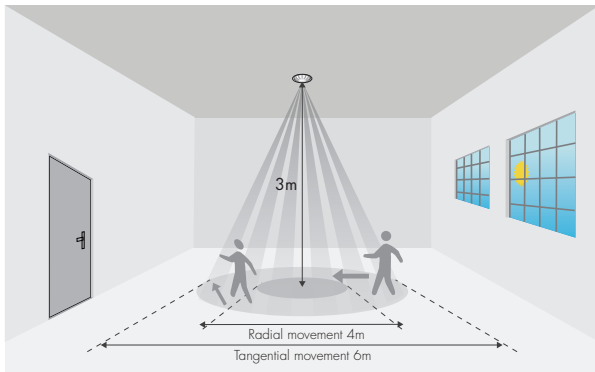
SAM23



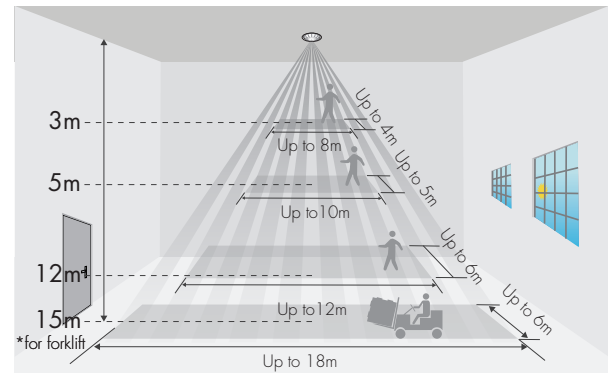
SAM20 & SAM21 & SAM22 & SAM22/AA



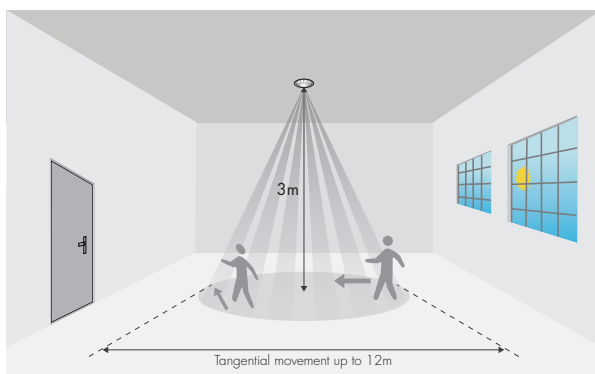
HIRO5 & HIRO5/FM & HIRO5/AA & HIRO7



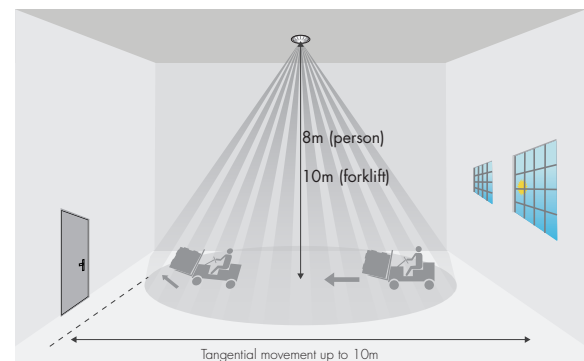
HIR12



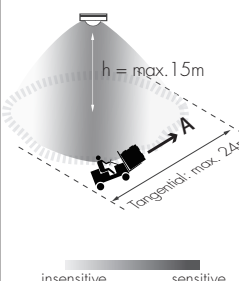
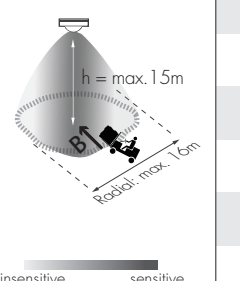
HIR63



HIR63/R



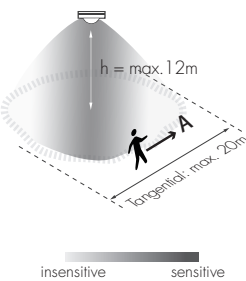
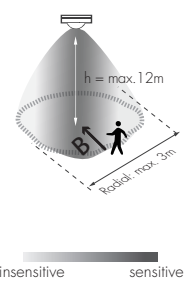
*The detection patterns are based upon 5km/h movement speed.

HIR11 Series (High-bay)				
				
HIR11 series: High-bay lens detection pattern for <u>forklift</u> @ Ta = 20°C (Recommended installation height <u>10m-15m</u>)				
A: Tangential movement	B: Radial movement	Mount height	Tangential (A)	Radial (B)
		10m	max 380m ² (Ø = 22m)	max 201m ² (Ø = 16m)
		11m	max 452m ² (Ø = 24m)	max 201m ² (Ø = 16m)
		12m	max 452m ² (Ø = 24m)	max 201m ² (Ø = 16m)
		13m	max 452m ² (Ø = 24m)	max 177m ² (Ø = 15m)
		14m	max 452m ² (Ø = 24m)	max 133m ² (Ø = 13m)
		15m	max 452m ² (Ø = 24m)	max 113m ² (Ø = 12m)





HIR11 series: High-bay lens detection pattern for single person @ Ta = 20°C
(Recommended installation height 2.5m-12m)

A: Tangential movement	B: Radial movement	Mount height	Tangential (A)	Radial (B)
		2.5m	max 50m² (Ø = 8m)	max 7m² (Ø = 3m)
		6m	max 104m² (Ø = 11.5m)	max 7m² (Ø = 3m)
		8m	max 154m² (Ø = 14m)	max 7m² (Ø = 3m)
		10m	max 227m² (Ø = 17m)	max 7m² (Ø = 3m)
		11m	max 269m² (Ø = 18.5m)	max 7m² (Ø = 3m)
		12m	max 314m² (Ø = 20m)	max 7m² (Ø = 3m)

Additional Information / Documents

1. Regarding precautions for Bluetooth product installation and operation, please kindly refer to www.hytronik.com/download/knowledge ->Bluetooth Products - Precautions for Product Installation and Operation
2. Data sheet is subject to change without notice. Please always refer to the most recent release on [www.hytronik.com/products/Bluetooth 5.0 SIG mesh system](http://www.hytronik.com/products/Bluetooth%205.0%20SIG%20mesh%20system) ->Partnership
3. Regarding Hytronik standard guarantee policy, please refer to www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy

