Z10 MICROWAVE SENSOR FOR HIGH BAY LIGHT

The Z10-MCR mounts in indoor or outdoor lighting fixtures with a Z-10 socket and provides multi-level lighting control based on motion and available daylight. It works with 0–10 VDC LED drivers or dimming ballasts and is rated for wet and cold environments.

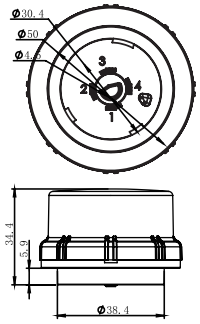
Settings can be easily adjusted using a wireless configuration tool, allowing you to customize performance and store the changes directly in the sensor.

The built-in microwave motion sensor detects movement within its range and automatically turns the light ON/OFF or dims it as needed. This helps improve energy savings while maintaining proper lighting levels.

SPECIFICATIONS	
Power supply	12V-24V DC, >50mA
Dim control output	0-10V, max. 25mA sinking current
HF System	5.8GHz±75MHz
Transmission power	<0.2mW
Detection radius	20%/50%/75%/100%(1-8m)
Mounting height	Max 40ft. (12meters)
Time setting	10s/1 min/5min/10min/15min/20min/30min/60min
Light-control	24H/10LUX/30LUX/50LUX
Temperature	-40°F~ +158°F (-40°C~ +70°C)
IP rating	IP65

Z10-MCR

RC-100



WARNING

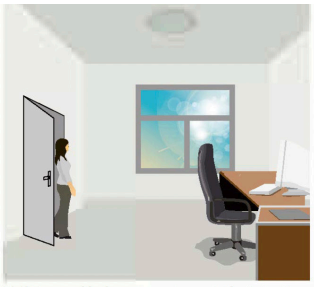
NOTE: Warm up time is 15 seconds. After the sensor connects input power first time, the light will keep on 15 seconds, then go to dimming to work normally.

NOTE: Factory Default Setting: 100% sensitivity, Hold on time: 5min, Daylight sensor is ☼, Dimming level: 30%, Dimming time: 60minitues.

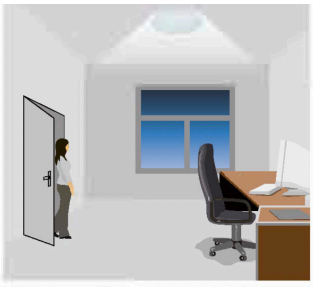
NOTE: Any setting changed by remote control, the led light that sensor connect will on/off as confirm.

CORRIDOR FUNCTION

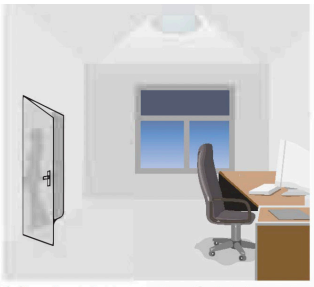
This function inside the motion sensor to achieve tri-level control, for some areas which require a light change notice before switch-off. The sensor offers 3 levels of light: 100%-->dimmed light (natural light is insufficient) -->off; and 2 periods of selectable waiting time: motion hold-lime and stand-by period; Selectable daylight threshold and freedom of detection area.



With suffcient natural light, the light does not switch on when presence is detected.



With insufficient natural light, the sensor switches on the light automatically when presence is detected.

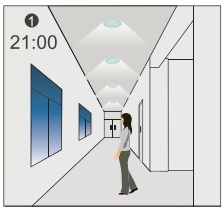


After hold-time, the light dims to stand-by level if the surrounding natural light is below the daylight threshold.

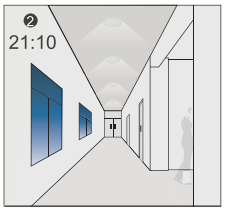
Light switches off automatically after the stand-by period elapses.

DAYLIGHT SENSOR FUNCTION

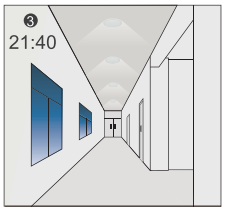
Open the daylight sensor by push ⏻ when remote control is in setting condition.



The light switches on at 100% when there is movement detected.



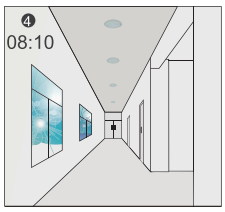
The light dims to stand-by level after the hold-time.



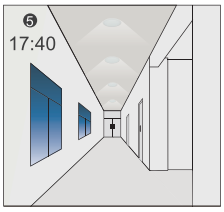
The light remains in dimming level at night.

Settings on this demonstration
Hold-time: 30min
Setpoint on: 50lux
Setpoint off: 300lux
Stand-by Dim: 10%
Stand-by period: +
(when the smart photocell sensor open, the stand-by time is only +) This setting in areas that requires a night light.

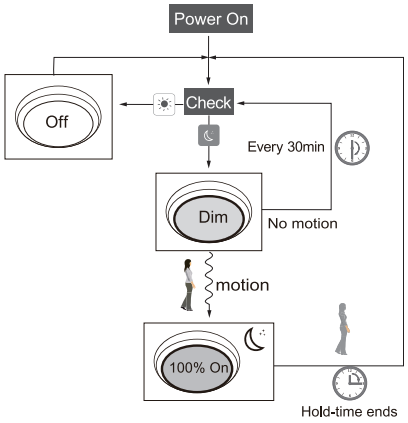
❶⇆❸ goes in cycle at night ···
100% on when movement detected, and dims to 10% in long absence.



When the natural light level exceeds setpoint off to light,the light will turn off even if when the space is occupied.



The light automatically turns on at 10% when natural light is insuffcient (no motion).



SETTINGS

Detection Area (Sensitivity)
Factory Default:100%
The detection area (sensitivity) determines how easily motion is detected. It is affected by the size, speed, and direction of movement in relation to the sensor's mounting height and angle. Reflective surfaces may cause false triggers.

For best results, it is recommended to install a few test units first (around 5 units in the space) and adjust sensitivity as needed to avoid false detection.

Hold Time
Factory Default: 5 Minutes
Hold time is how long the fixture stays at 100% brightness after motion is no longer detected. Setting this to +∞ will keep the fixture at full brightness continuously.

Stand-by Period
Factory Default: 60 M
The stand-by period is the time the fixture remains at a reduced light level after the hold time ends and no motion is detected. Setting this to 0s disables this feature. Setting it to +∞ keeps the fixture at the stand-by dimming level until motion is detected again or power is turned off.

Daylight Sensor
Factory Default: Disabled
The daylight sensor allows the fixture to detect ambient light levels and turn off when there is enough natural light (daylight harvesting). It can be set from 2-100 lux depending on the desired light level. Selecting "Disable" turns off this feature completely.

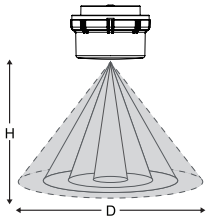
Stand-by dimming level
Factory Default: 30%
This is the light level the fixture maintains during the stand-by period after the hold time ends. It is expressed as a percentage of full brightness. This feature is disabled by default unless activated through settings.

TAMLITE LIGHTING

MODEL#: Z10-MCR
INSTALLATION INSTRUCTION MANUAL

SENSOR COVERAGE

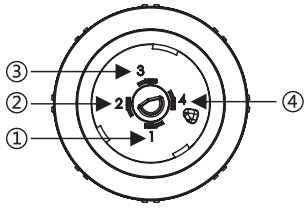
Maximum mounting height is 40 ft, with a recommended installation height of 30–35 ft for best performance. The stated detection range is based on a person approximately 1.6–1.7 m (5.2–5.6 ft) tall, with an average build, walking at a speed of 1.0–1.5 m/s. Actual detection distance may vary depending on the person's height, body type, and movement speed.



Height	Rang Diameter(D)			
H(ft)	Sensitivity 100%(ft)	Sensitivity 75%(ft)	Sensitivity 50%(ft)	Sensitivity 25%(ft)
40	50	30	5	0
30	60	50	20	0
20	40	40	30	10
10	40	40	40	20

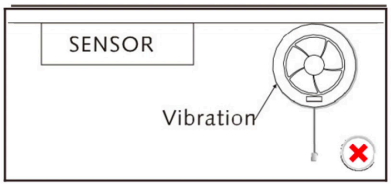
PORT DESCRIPTION

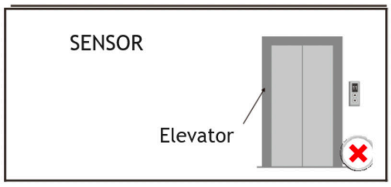
Port 1 : 12-24Vdc
Port 2: GND/DIM -
Port 3: DIM+
Port 4: NC



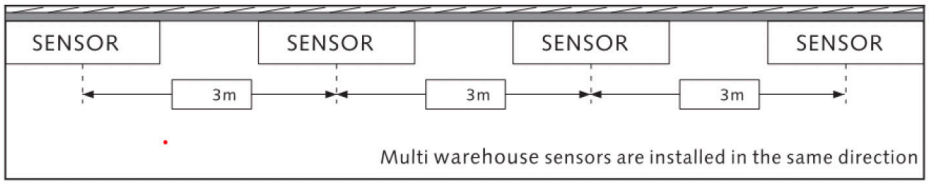
THE FOLLOWING SUGGESTS ABOUT INSTALLATION:

Any vibration or movement signal may trigger the sensor. Ensure the sensor is far from such a signal





When multiple sensors are installed side-by-side in the same direction, the distance between them should be kept at least 3 meters to avoid mutual interference.

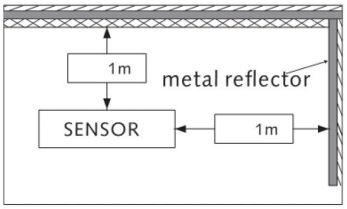


Installation Guidelines

Microwave signals can pass through non-metallic materials (wood, glass, plaster). This may cause the sensor to detect motion outside the intended area.
If this occurs, reduce sensitivity to 75%, 50%, or 25% based on the room size.
Detection range may decrease when signals pass through walls or other materials.

Placement Tips

Avoid installing the sensor in small or enclosed spaces.
Keep the sensor at least 1 m (3 ft) away from large metal surfaces or glass.
Do not mount the fixture directly to metal decking—install it below metal rafters instead.



Important Notes

Reflective surfaces (such as polished concrete) can cause the fixture to stay at 100% brightness.
Proper placement and sensitivity adjustment will help prevent false triggering and ensure optimal performance.