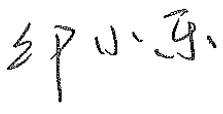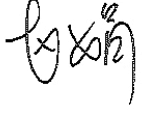# SPECIFICATION

Product Name: ON/OFF Sensor for Tri-proof Light

Model No.:   MC076S

Issue Date: September 05, 2019

CUSTOMER   APPROVED

PRODUCT DIRECTOR APPROVED	SALES CHECKED	R&D CHECKED	PREPARED

Shenzhen Merrytek Technology Co.,Ltd

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Page 1 of 7

1. Features

- Ultra-slim design for Tri-proof LED light
- Patented needle antenna makes reliable detecting, avoid missing triggered when sensor built-in backside of metal LED plate.
- Adjustable detecting sensitivity via DIP switches, suitable to variety of installation sites.
- 5 years warranty

2. Parameter

Input	Operating Voltage Rage	198-264V AC, 50Hz/60Hz
	DC Input Voltage	N/A
	Rated Voltage	220-240V AC, 50Hz/60Hz
	No-load Power	N/A
	Stand-by Power	≤0.5W
	Surge Test	L--N: 1kV
Output	Working Mode	ON/OFF function
	Type of Load	Inductive or Resistive
	Load Capacity	400W(Inductive) ; 800W(Resistive)
	Current of Load	N/A
	Max. Surge Capacity	30A (50% I_{peak}, t_{width} =500uS, 230Vac full load, cold start); 60A (50% I_{peak}, t_{width} =200uS, 230Vac, full load, cold start)
Dim Interface	1-10V Dimming	N/A
	Synchronous Control	N/A
	High Low-level	N/A
	PWM Control	N/A
Sensor Parameters	Operating Frequency	5.8 GHz ±75 MHz，ISM Band.
	Transmitting power	0.5mW Max.
	Hold time	5s//30s/90s/5min/20min/30min
	Stand-by DIM Level	N/A
	Stand-by Period	N/A
	Detection Sensitivity	100%/75%/50%/25%
	Daylight Sensor	2Lux/10Lux/30Lux/50Lux/Disable
	Daylight on/off	N/A
	Detecting Radius	4-6m (mounting height 3m) , see note 2

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Page 2 of 7

Operating Environment	Mounting Height	4m Max.
	Detecting Angle	150° (Wall mounted), 360° (Ceiling mounted)
	Operating Temperature	-25℃…+60℃
	Storage Temperature	-40℃…+80℃(Humidity: 10%-95% Non-condensing)
Certificate Standards	Safety standards	EN61058-1
	EMC standards	EN300440; EN301489-1; EN55015; EN61547; EN61000-3-2; EN61000-3-3; EN62479
	Environmental Requirement	Compliant to RoHS
	Certificate	CE, RED,SAA
Others	Wiring	Press-in Type Terminals, wire diameter：0.75-1.5mm^2
	IP Rating	IP20
	Protection Class	Class II
	Installation	Built-in
	Dimension	169*26*20mm
	Package	Bubble bag+Clapboard + Carton（K=A）
	Net Weight	58±2g
	Lifetime	5 years warranty @Ta 230V full load

Note

1. "N/A"means not available.

2. Detection area is effected on volume of motion object and motion speed. The detection area is tested by a 165cm height person and walking speed is 0.3m/s.
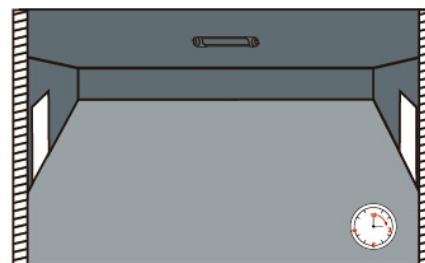
3.Function

On/OFF Function
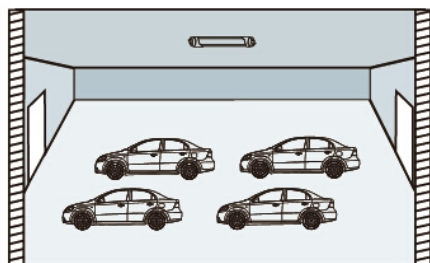
❶ With sufficient ambient light, the light will not be switched on even if with motion signal.
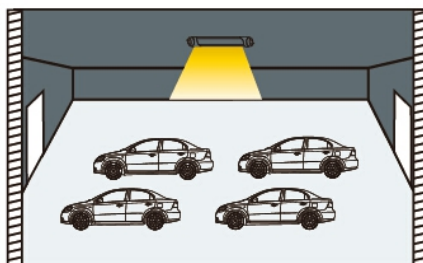
❷ With insufficient ambient light, the sensor switches on the light when motion is detected.

❸ After elapse of hold time, the sensor switches off the light when no motion is detected.

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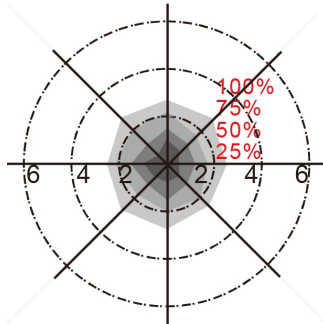Tel: +86 (0)755-2305 7253   Fax: +86 (0)755-2786 3012   Website: www.merrytek.com

Page 3 of 7
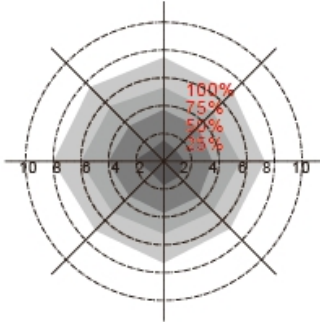
4. Dimension (mm)

5. Wiring

*The sensor is designed for connect one load only. Connect more than one loads may damage the sensor.

6. Structure

7. Radiation Pattern

1) Ceiling mounting

Ceiling mounted height: 3m
Sensitivity: 100%/75%/50%/25%

Ceiling mounted height: 4m(*)
Sensitivity:100%

Normal moving (Speed:1m/s)
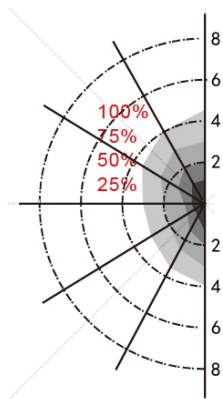
Normal moving (Speed:1m/s)
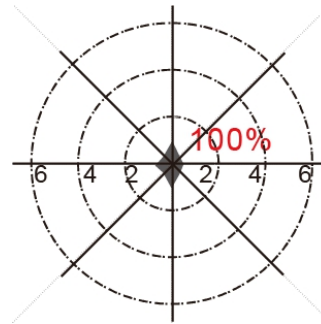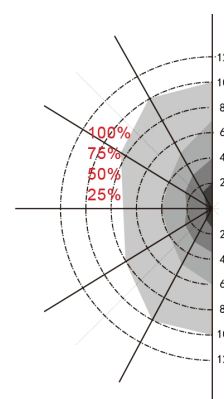
Slow moving (Speed 0.3m/s)
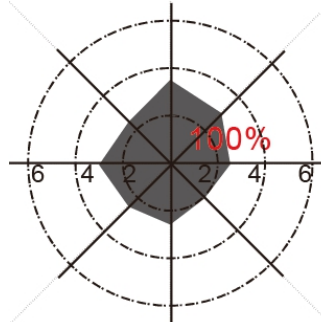
Slow moving (Speed: 0.3m/s)

*Only 100% detection sensitivity is workable when installed at 4m mounting height. 25%/50%/75% sensitivity is not able to detect motion signal.

2) Wall mounting

Horizon mounted height: 2m
Sensitivity: 100%/75%/50%/25%

Normal moving (Speed：1m/s)

Slow moving (Speed 0.3m/s)

8. DIP Switch Setting

Detection Area (Sensitivity)

	1	2
100%	ON	ON
75%	-	ON
50%	ON	-
25%	-	-

Hold Time

	3	4	5	
I	ON	ON	ON	5S
II	-	ON	ON	30S
III	ON	-	ON	90S
IV	-	-	ON	5min
V	ON	ON	-	20min
VI	-	-	-	30min

Daylight Threshold

	6	7	8	
I	ON	ON	ON	2Lux
II	ON	ON	-	10Lux
III	-	ON	-	30Lux
IV	ON	-	-	50Lux
V	-	-	-	Disable*

*Disable" means the daylight sensor not work. it will turn on light once motion is detected regardless of ambient light .

9. Override Function

Power off, quick switch ON/OFF sensor 3 times (ON-OFF-ON-OFF-ON) within 2sec to override sensor function.

Lights will blink 3 times and then switch ON all the time. Power off and on again to recover sensor function.
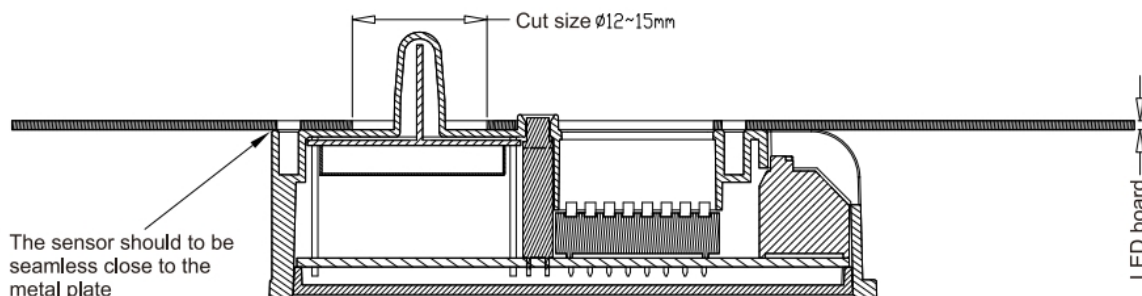
10. Initialization

After power on, the sensor automatically turns on light at 100% brightness. After 10sec, it turns off the light. During

the initialization, the sensor is not able to detect movement.

11. Factory Setting

Detection area: 100%, Hold Time: 5S, Daylight Sensor: Disable

12. Application Notice

1) The sensor should be installed by a professional electrician. Please turn off the
power before installing, wiring, changing the setting of the DIP switch.

2) The sensor which installed in the plastic and glass lampshade will reduce the sensitivity. For every 3mm
increase in thickness, the sensitivity will be reduced by 20%.

3) The light sensitivity threshold is in a sunny environment, no shadow and ambient
light diffuse reflection..Ambient lux level could be different in different environment, weather, climate, time-of-day
and season.

4) The parameters of the sensor may need to be reconfigured in different installation environments. Please refer to
the following instructions or contact the manufacturer.

5) This sensor is for indoor use only. It will affect the waterproof effect for outdoor use. Wind, rain, and moving
objects around will cause false triggering.

6) The distance between any inductive sensors should be greater than 3m.

7) Do not place the sensor close to high-density objects such as metal, glass,concrete walls, etc, false triggering
could happen. When the sensor is installed in a metal lamp, metal reflective surface, or a narrow enclosed
environment, the microwave will be reflected repeatedly and cause false triggering. Please reduce the sensitivity
or contact the manufacturer for technical support.

8) Please ensure that there are no moving signals around the sensor, such as fan,DC motor, sewer pipe, air outlet,
etc., the sensor may generate false trigger.

9) You are advised to test 5 samples before mass application of sensor in a new lighting project.

10) Due to continuous improvement, the contents of this instruction could be changed without prior notice.

11) If the sensor is built under metal board, recommend cut-hole 12-15mm, and make sure the sensor surface
should to be seamless close to the metal plate .