CW178 Series

Ceiling Mounted & Wall Mounted

Microwave Adjustable Sensor Options

Introduction

This CW178 Series smooth edge IP65 waterproof ceiling lamp has a complete size for option, can conform to various installation requirement. For CCT selectable, it offers wide lighting surface for the illumination effect. In order to control the light efficiently and offer comfortable environment, adjustment of triac dimming and DALI dimming is optional. It comes with rotatable installation on a 360 degree swivel for the lamp cover, and cable entry can be entered on the surface or through the back, which makes the installation simple and quick to save labour cost.

Features

- Rotatable install for lamp cover, both edge cable entry and back cable entry available.
- Complete size options: 250mm/300mm/400mm.
- IP65 waterproof design.
- Interchangeable CCT (3000K+4000K+5700K) with slide switch.
- Installation way: Wall mounted, surface mounted.
- Flicker free driver, support triac dim and DALI dim with push dim.
- Driver replaceable for easy maintenance
- Adjustable microwave sensor available.

Application Areas

It is designed for general lighting applications in office, supermarket, shop, school, hotel, etc. It is also widely used for public areas, such as stairway, lobby, reception, corridors etc.

CW178-10"   CW178-12"   CW178-16"

Technical Data Sheet

Code No.	CW178-10-12W	CW178-12-18	CW178-12-25	CW178-16-25	CW178-16-30W
Dimension(mm)	Ø250*70	Ø300*70		Ø400*79	
Cutout (mm)	-				
Watt(W)	12W	18W	25W	25W	30W
Rated Input Voltage(V)	AC220-240V				
Input Voltage(V)	AC230V				
LED Module Input	-				
Light Source	SMD2835				
SDCM	≤6				
CCT(K)	1-CCT:3000K/4000K/5000K/5700K 3-CCT:3000K/4000K/5700K				
CCT Selection DIP Switch	YES				
Luminous Flux (lm) ±5% — 1-CCT Non-DIM	1210-1320	1830-2020	2470-2650	2480-2650	2900-3160
Luminous Flux (lm) ±5% — 1-CCT DIM	1190-1300	1820-1980	-	2380-2620	2830-3140
Luminous Flux (lm) ±5% — 3-CCT Non-DIM	1220-1350	1850-2030	2450-2670	2400-2750	2950-3350
Luminous Flux (lm) ±5% — 3-CCT DIM	1190-1330	1840-2020	-	2380-2700	2850-3300
CRI	80, 90				
Beam Angle (°)	120°				
UGR	-				
LED Driver	Built-in				
Dimming Option	Triac	Triac / DALI	DALI	Triac / DALI	
Sensor	YES(Daylight & Microwave Sensor)				
Emergency Kits	NO				
Electrical Class	Class II				
Ingress Protection (IP Rating)	IP65				
Impact Resistance (IK Rating)	IK06				
Product Finishing(Base)	White RAL 9016				
Materials of Optics	PC				
Materials of Housing	PC				
Lifetime (hr)	50,000hr				
Glow wire test (°C)	750°C				
Operating Temp. (°C)	-20°C~45°C				
Storage Temp. (°C)	-20°C ~60°C				
Installation	Surface mount / Wall Mount				

Measurement

Code	Dimension(mm) A	Dimension(mm) B	Dimension(mm) C	Size(mm)
CW178-10-12W	Ø250	70	Ø213	Ø250*70
CW178-12-25W	Ø300	70	Ø267.7	Ø300*70
CW178-16-30W	Ø400	79	Ø362.2	Ø400*79
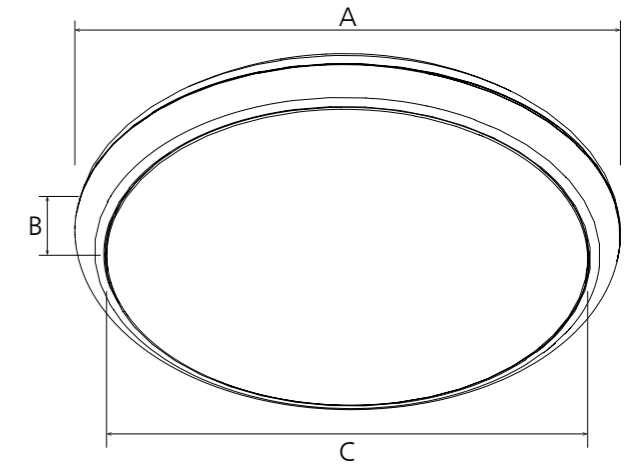
Driver Datasheet(Non-dimmable)

Total load wattage		12W	18W	25W	30W
Output	Output Voltage range	DC60-75V			
	Rated output current	160mA	240mA	320mA	390mA
	Line Regulation	±5%			
	Setup, Rise Time	<0.5S@230V			
	Flickering Index	<3% (NO RISK)			
Input	Input Voltage	AC200-240V			
	Rated Input Voltage(V)	AC230V			
	Frequency	50/60HZ			
	Input Current	0.07A	0.1A	0.14A	0.17A
	Rated Input Current	0.06A	0.09A	0.13A	0.15A
	Power Factor	0.9			
	THD	-		<20% @230V	
	Efficiency	≥85%			
	No load wattage	<0.5W			
Protection	Short circuit protection	PASS			
	Over voltage protection	PASS			
	Over temperature protection	PASS			
Safety &EMC	Withstand voltage	-			
	Isolation Resistance	-			
	Surge	IEC/EN61000-4-5(P<25W; L-N:500V)		IEC/EN61000-4-5(P<25W; L-N:1000V)	
	EMC Emission	EN55015, EN61000-3-2			
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11; EN61547			

Driver Datasheet(Triac Dimmable)

Total load wattage		12W	18W	25W	30W
Output	Output Voltage range	65-75V			
	Rated output current	140mA	230mA	320mA	370mA
	Line Regulation	±5%			
	Setup, Rise Time	<0.5S@230V			
	Flickering Index	<5% (LOW RISK)			
Input	Input Voltage	AC200-240V			
	Rated Input Voltage(V)	AC230V			
	Frequency	50HZ			
	Input Current	≤0.07A	≤0.1A	≤0.14A	≤0.17A
	Rated Input Current	≤0.06A	≤0.09A	≤0.13A	≤0.15A
	Power Factor	0.9			
	THD	-		<20% @230V	
	Efficiency	≥81%	≥84%		
	No load wattage	≤1W			
Protection	Short circuit protection	PASS			
	Over voltage protection	PASS			
	Over temperature protection	PASS			
Safety &EMC	Withstand voltage	-			
	Isolation Resistance	-			
	Surge	L-N:0.5KV		L-N:1KV	
	EMC Emission	EN55015, EN61000-3-2			
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11; EN61547			

Driver Datasheet(DALI Dimmable)

Total load wattage		18W	25W	30W
Output	Output Voltage range	30-40V		
	Rated output current	450mA	650mA	750mA
	Line Regulation	±5%		
	Setup, Rise Time	<1S@230V		
	Flickering Index	<1% (NO RISK)		
Input	Input Voltage	180-264V		
	Rated Input Voltage(V)	200-240V		
	Frequency	50/60HZ		
	Input Current	≤0.12A	≤0.16A	≤0.19A
	Rated Input Current	≤0.11A	≤0.14A	≤0.17A
	Power Factor	0.9		
	THD	<20% @230V		
	Efficiency	85%		
	No load wattage	<0.5W		
Protection	Short circuit protection	PASS		
	Over voltage protection	PASS		
	Over temperature protection	PASS		
Safety &EMC	Withstand voltage	I/P-O/P:3.75KVac,<5mA 60S		
	Isolation Resistance	I/P-O/P: 500VDC, ≥4M Ω		
	Surge	IEC/EN61000-4-5(P<25W; L-N: 500V)	IEC/EN61000-4-5 (P≥25w L-N:1KV)	
	EMC Emission	EN55015, EN61000-3-2		
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11; EN61547		

Driver Datasheet (Sensor)

Sensor datasheet	
Operating Voltage	220-240VAC 50/60Hz
Power consumption	1.5W±0.5W
Microwave frequency	5.8GHz±75MHz, ISM wave band
Transmission power	<0.5mW
Detection angle	140°
Detection Area	4-6M 100%/75%/50%/25%
Hold time	5S/30S/90S/5Min/20Min/30Min
Daylight sensor	2lux/10lux/30lux/50lux/Disable
Stand-by DIM Level	-
Stand-by Period	-
Dimming Range	-
Microwave ON/OFF function	-
Installation Height	Recommended Installation Height: Wall mounted height 1.8m. Ceiling mounted height 3m.
Operating temperature(℃)	recommended mounting distance should be more than 3m
	-20℃~60℃

Daylight & Microwave Sensor
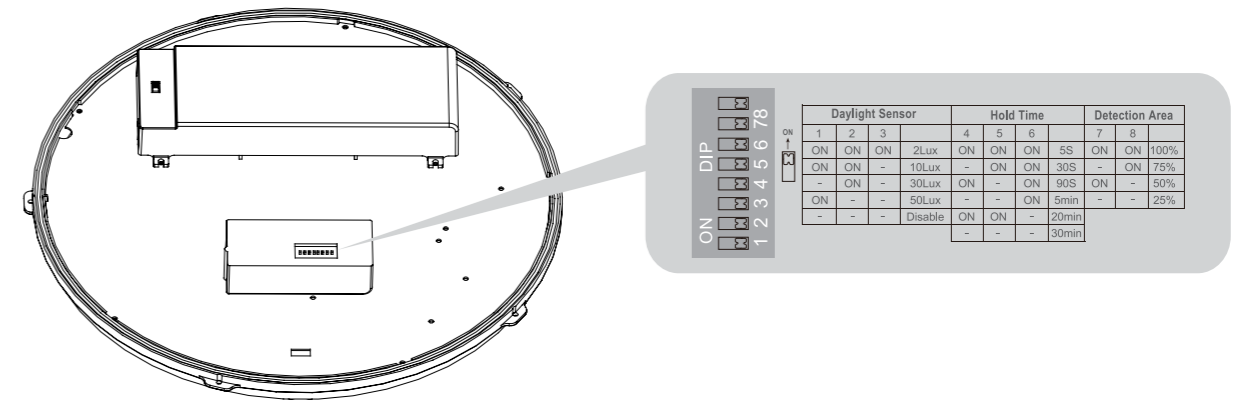
Factory setting
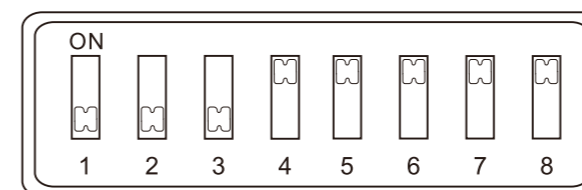
Factory settings		
Daylight Sensor	Hold Time	Detection Area
Disable	5S	100%

Sensor Setting

Daylight Sensor

	1	2	3	
I	ON	ON	ON	2Lux
II	ON	ON	-	10Lux
III	-	ON	-	30Lux
IV	ON	-	-	50Lux
V	-	-	-	Disable*

Daylight sensor:
Notice 1: The light threshold can be selected through the slide switch, it may cause a large deviation in different lamps.

Hold Time

	4	5	6	
I	ON	ON	ON	5S
II	-	ON	ON	30S
III	ON	-	ON	90S
IV	-	-	ON	5min
V	ON	ON	-	20min
VI	-	-	-	30min

Hold time:
Notice 1: The hold time can be selected by the slide switch.
The hold time counting should be started after the sensor is powered on and initialized.

Detection Area

	7	8	
I	ON	ON	100%
II	-	ON	75%
III	ON	-	50%
IV	-	-	25%

Detection area:
Sensor test condition: The test is based on 3m height, the detect distance radius is based on ground, the detect distance can be adjusted through the slide switch.

Sensor test environment and reference: The detective range is measured by human body whose stature is around 1.6-1.7M with medium size and traveling speed is around 1.0-1.5M per second. If the stature, bodily form and traveling speed are changed,then the detective range will be changed accordingly.
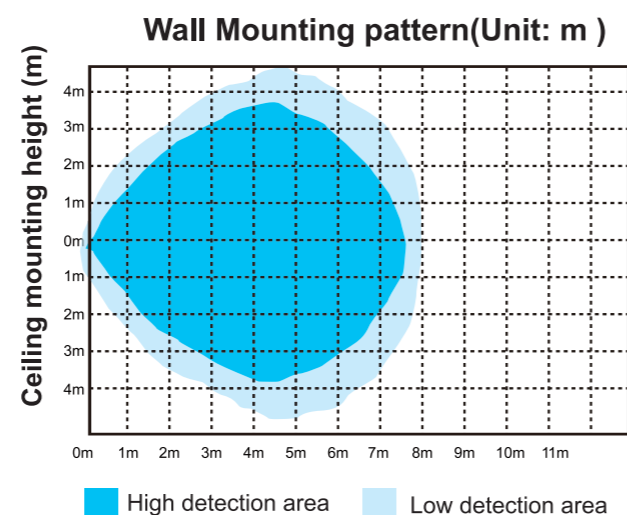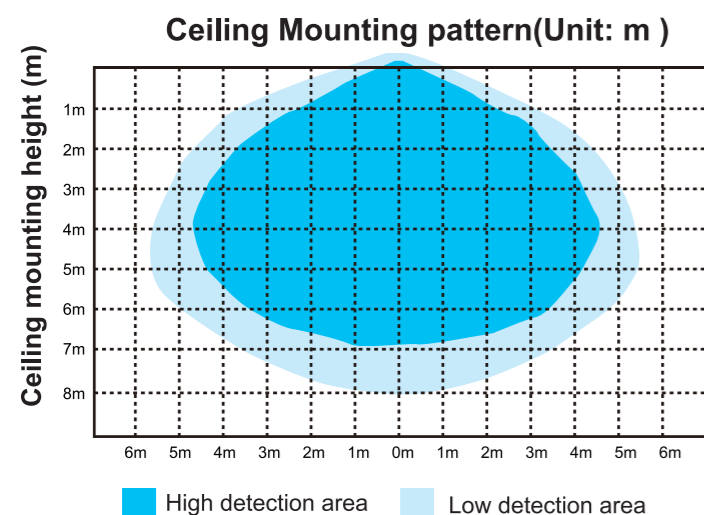
Sensor lamp's reaction under open/narrow environment: Test result will be highly influenced by test environment, the more open environment, the closer detect distance; the narrower environment, the longer detect distance. The detector may do self-excitation in a narrow environment.

Sensor Setting based on environmental disturbance: Some environmental disturbances will cause abnormal induction, such as the lamp can not automatically turn off for a long time or the sensor function is invalid, then users can adjust sensor distance to reach the ideal effect. It is recommended to adjust the sensing distance to 50% for the environment where near the heavy equipment, metal sheets and metal pipes, concretewall(<30cm thickness)etc.Recommend to keep 100%sensordistance in open environment. For environment where near the routers, telecommunications base stations, electrical machinery etc, it is recommended to keep the installation distance of more than 5 meters and adjust to 50% sensor distance.

Function Table

Function Table	CW178-10-12	CW178-12-18	CW178-12-25	CW178-16-25	CW178-16-30W
Non-dim	√	√	√	√	√
Non-dim +CCT Switchable	√	√	√	√	√
Triac Dim	√	√	—	√	√
Triac Dim + CCT Switchable	√	√	—	√	√
Sensor	√	√	√	√	√
Sensor + CCT Switchable	√	√	√	√	√
DALI Dim	-	√	√	√	√
DALI + CCT Switchable	-	√	√	√	√

Induction Range

Ceiling Mounting pattern(Unit: m)

Wall Mounting pattern(Unit: m)

High detection area   Low detection area

greenlux
engineered to perform