



RB SERIES

DOWN LIGHT WITH SENSOR

INTRODUCTION

The FGE-RB Series Down Light with Sensor is an intelligent lighting solution designed for corridors, offices, restrooms, and public areas where automatic lighting control enhances both convenience and energy efficiency. Integrated with a microwave or PIR motion sensor, it automatically switches on when motion is detected and dims or turns off when the area is vacant.

Equipped with high-efficiency LED chips and optical diffusers, the RB Series provides soft, uniform, and glare-free illumination with an efficacy of up to 100 lm/W. Its compact die-cast aluminum housing ensures excellent heat dissipation and durability for long-term use.

Supporting on/off or dimmable sensor modes, adjustable detection range, and time-delay settings, it is easy to install and configure. With a 100,000-hour lifetime and 5-year warranty, it delivers a reliable, energy-saving, and low-maintenance lighting solution for intelligent indoor environments.



FEATURES



5 CCTS Tunable: Adjustable color temperature to suit diverse environments.



High Efficacy & Energy Saving: Up to 100 lm/W, reducing energy consumption by over 60% compared with HID fixtures.



Triac Dimming: Its key advantages are cost-effectiveness and excellent compatibility with standard phase-cut dimmers.



Infrared Sensor Options: Automatically turns on when motion is detected, providing energy savings, convenience, and enhanced safety.



Easy Installation and Maintenance: Reduce installation time and maintenance labor, effectively lowering overall operational costs.



Reliable Warranty: 5 Years Warranty.

- Advanced Optical Design:

High-transmittance PC lens with 90° beam options, ensuring uniform illumination and glare reduction.

- Robust Protection:

IP20 dustproof, for commercial lighting places.

- Wide Input Voltage:

AC120V, suitable for global power grids.

APPLICATIONS



Hallways & Corridors: Compact size and low-profile design fit tight ceilings, projects a professional, tidy vibe without overwhelming the space.



Commercial & Office Areas: Easy to install and reposition, making it suitable for temporary setups or spaces with non-modifiable ceilings.



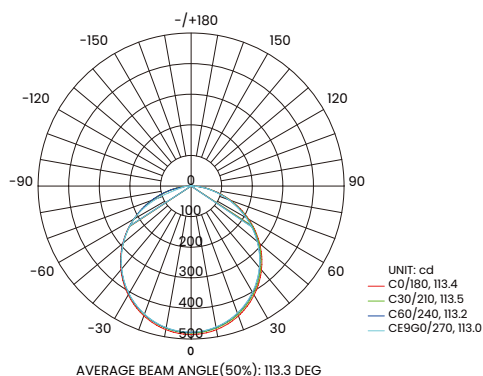
Hospitality Spaces: Maintains a sleek, uncluttered look that aligns with upscale interior themes.

TECHNICAL PARAMETERS

Product Model	RB-5-10W	RB-7-12W	RB-9-18W	RB-12-24W
Size	5"	7"	9"	12"
Electrical Performance				
Wattage	10W	12W	18W	24W
Input Voltage	AC120V	AC120V	AC120V	AC120V
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Power Factor (PF)	>0.9	>0.9	>0.9	>0.9
Surge Protection	2.5KV	2.5KV	2.5KV	2.5KV
THD	<20%	<20%	<20%	<20%
Optical Performance				
Luminous Efficacy	100lm/W	100lm/W	100lm/W	100lm/W
Luminous Flux	1000lm	1200lm	1800lm	2400lm
CCT Selectable	2700K/3000K/3500K/4000K/5000K	2700K/3000K/3500K/4000K/5000K	2700K/3000K/3500K/4000K/5000K	2700K/3000K/3500K/4000K/5000K
CRI	Ra>80	Ra>80	Ra>80	Ra>80
Beam Angle	110°	110°	110°	110°
Unified Glare Rating (UGR)	-	-	-	-
Reliability				
Lifetime	>100,000h	>100,000h	>100,000h	>100,000h
Operating Temperature	-20 ~ +40°C	-20 ~ +40°C	-20 ~ +40°C	-20 ~ +40°C
Storage Temperature	-40 ~ +70°C	-40 ~ +70°C	-40 ~ +70°C	-40 ~ +70°C
Ingress Protection	IP20	IP20	IP20	IP20
Impact Resistance	-	-	-	-
Control				
Dimming	Triac Dimming	0-10V Triac Dimming/DALI	Triac Dimming	Triac Dimming
Sensor	Infrared Sensor	Infrared Sensor	Infrared Sensor	Infrared Sensor
Communication Protocol	-	-	-	-
Emergency Kit	-	-	-	-
Mechanical				
Housing Material	Aluminum	Aluminum	Aluminum	Aluminum
Lens Material	PC	PC	PC	PC
Coating	White	White	White	White
Net Weight	0.84kg	1.15kg	1.48kg	1.65kg
Dimensions	Φ135x18.6mm	Φ180x18.6mm	Φ225x18.6mm	Φ300x18.6mm
Warranty	5 Years	5 Years	5 Years	5 Years

PHOTOMETRICS

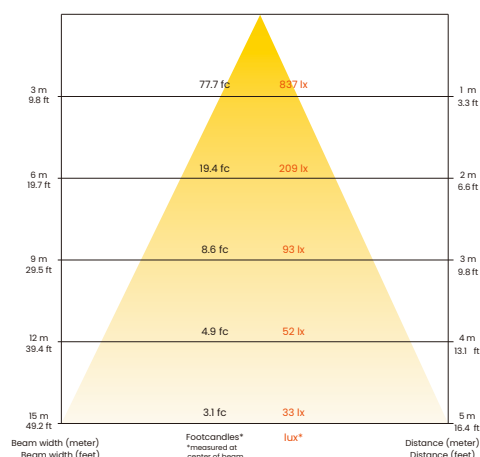
Luminous Intensity Distribution Diagram



110°

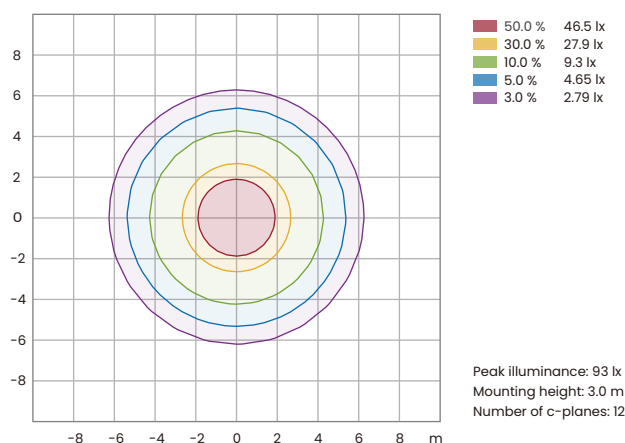
ILLUMINANCE DISTRIBUTION

Illuminance at A Distance



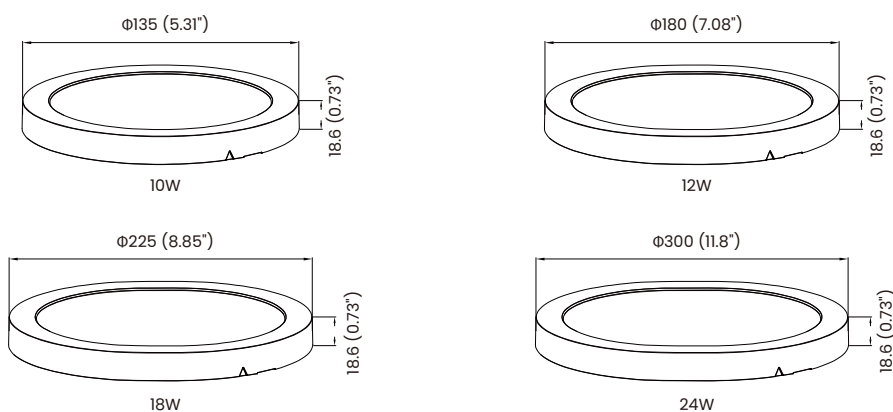
110°

Iso-illuminance Diagram (Iso-lux)



110°

MECHANICAL DIMENSIONS

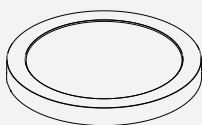


Product Model	RB-5-10W	RB-7-12W	RB-9-18W	RB-12-24W
Wattage	10W	12W	18W	24W
Outer box (L*W*H)	356x296x253mm (14.02"x11.65"x9.96")	446x386x253mm (17.55"x15.19"x9.96")	476x276x482mm (18.74"x10.87"x18.98")	480x350x325mm (18.90"x13.78"x12.80")
Qty/Ctn	20pcs	20pcs	20pcs	10pcs
N.W./Ctn	5kg/11lbs	9kg/19.8lbs	14kg/30.8lbs	16.5kg/36.3lbs
G.W./Ctn	8.5kg/22lbs	11.2kg/24.7lbs	16.3kg/35.9lbs	17.5kg/38.5lbs
Remarks	-	-	-	-

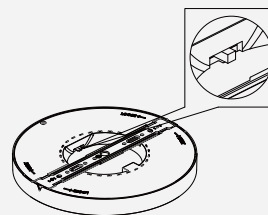
INSTALLATION

Installation Manual

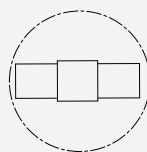
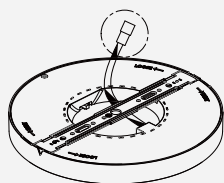
1. Take out the downlight.



2. Switch to the desired CCT.



3. Connect the input wires; connect the male and female connectors (the connecting wire can be replaced according to actual needs. Warnings: Do not expose the wire to the edge of sharp objects, otherwise it will be damaged.)



L — Black
N — White
— Green

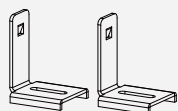
4. Choose an appropriate installation way to fix downlight according to the use environment. (The wires connection in step3 can be adjusted according to the actual use).



Parts List



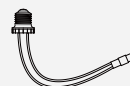
Spring*2



Spring Bracket*2



Connection Plug



E26 Connector



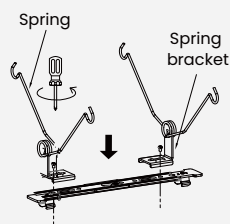
Spring Terminal*3



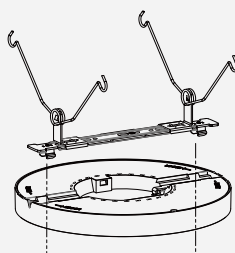
Screw*2

Recessed mounting

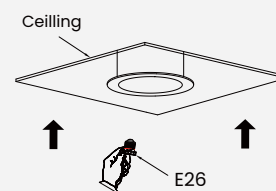
1. Fix the spring bracket on the fixture mounting bar with a screwdriver. (the bracket distance can be adjusted according to the size of the opening hole.)



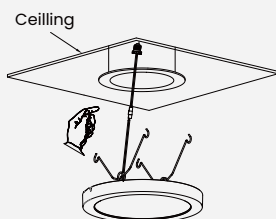
2. Clamp the mounting bar at the designated position of the downlight base shell.



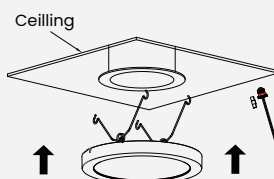
3. Install the E26 lamp holder.



4. Take out the lamp body and connect the terminal.



5. Lay the down light flat and put it vertically into the installing hole, bend springs to fix them on the buckle of the hole. The installation is completed.



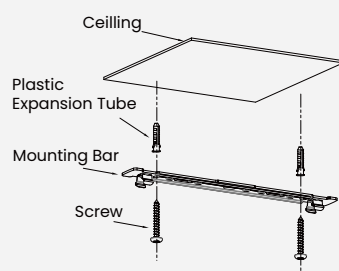
6. Verify the down light is fixed firmly; adjust it to be flush with the ceiling.



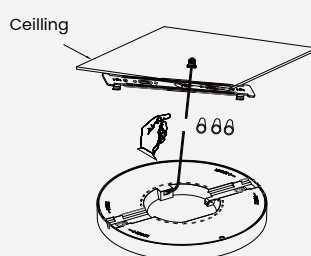
INSTALLATION

Surface-mounting

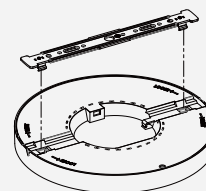
1. Drill holes in the wall and fix the mounting bar on the wall with screws and plastic expansion tubes.



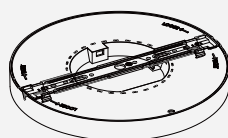
2. The mounting bar is fixed on the ceiling and connected to the terminal.



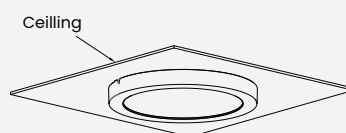
3. Push downlight onto the mounting bar for clamping.



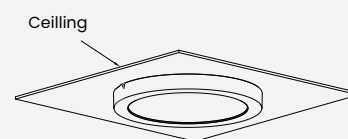
4. The back diagram shows that the mounting bar must be securely assembled.



5. The installed view is shown as below figure.

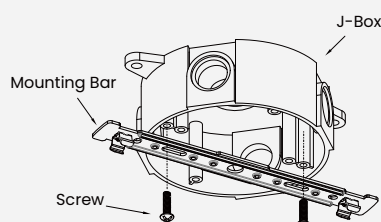


6. The installation is completed with connecting to line voltage (Pay attention to the input voltage is 120V)

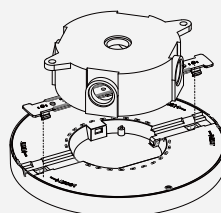


Installation with Junction box

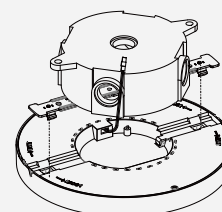
1. Fix the mounting bar to the junction box with screws.



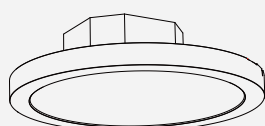
2. Put the fixture under the junction box vertically and horizontally, with the small triangle on both sides of the fixture to align the middle position of the mounting bar, then push it up to hold the fixture.



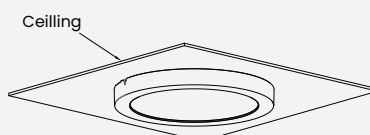
3. Take out the lamp body and connect the terminal



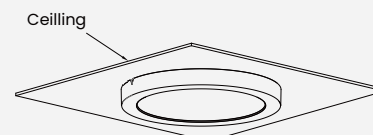
4. The installed view is shown as below figure.



5. The installed view is shown as below figure.



6. The installation is completed with connecting to line voltage (Pay attention to the input voltage is 120V)



ACCESSORIES



Infrared Sensor

ORDER INFORMATION

RB-YY-YY-YY-Y

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① RB Series Down Light with Sensor

② Size

5	5"
7	7"
9	9"
12	12"

③ Wattage

10W	10W
12W	12W
18W	18W
24W	24W

④ Color Temperature

27K	2700K/3000K/3500K/ 4000K/5000K Selectable
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⑤ Voltage

(Blank)	120V
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⑥ EM Back-up

(Blank)	Without EM Back-up
EM	With EM Back-up

⑦ Optics

(Blank)	110°
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⑧ Control

(Blank)	Infrared Sensor
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WARRANTY PERIOD
**5 YEARS
WARRANTY**



WARRANTY COVERAGE
**LED LIGHT SOURCE,
DRIVER**



AFTER-SALES
SERVICE COMMITMENT
24H RESPONSE



AFTER-SALES
SERVICE COMMITMENT
72H RESOLUTION/REPLACEMENT