

Carina-12W Series LED Ceiling light Rev A

Product Instruction_IP54 12W LED Ceiling Lights

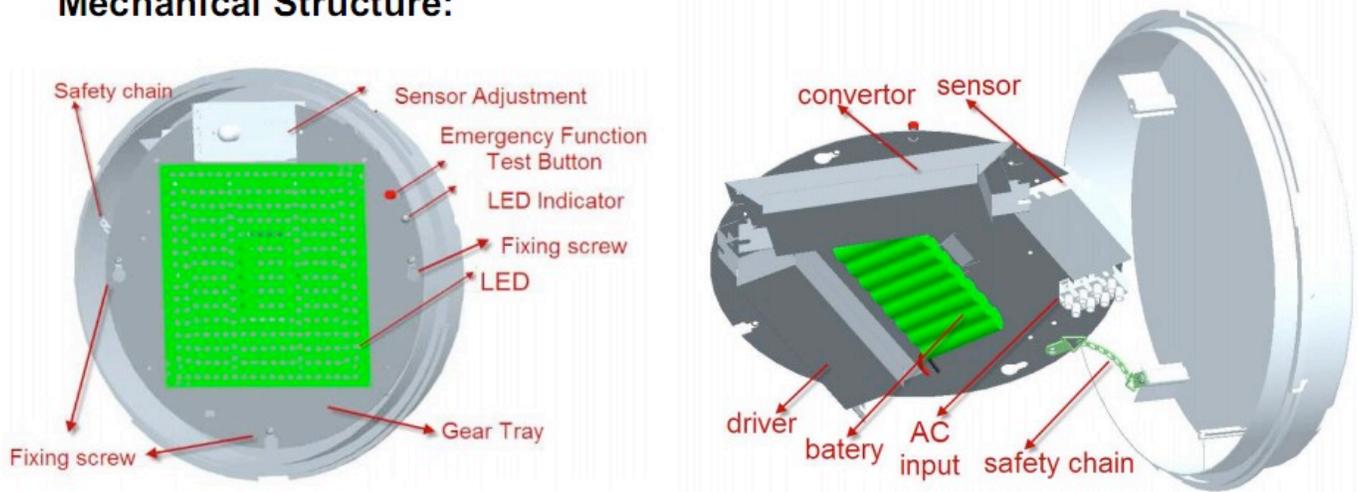


Series No.	Description	Finish
LL-04-12W-C	12W Standard LED Bulkhead	White
LL-04-12W-S	12W LED Bulkhead c/w Microwave Sensor	White
LL-04-12W-E	12W LED Bulkhead c/w 3 hours emergency	White
LL-04-12W-ES	12W LED Bulkhead c/w Microwave Sensor & 3 hours emergency	White

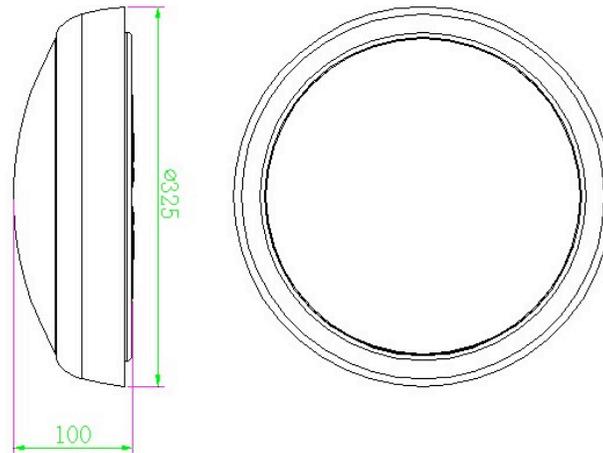
Product Features:

LED lighting source, green and energy saving;
IP54 bulkhead, available to replace 28W 2D CFL fitting;
PC housing and PC diffuser;
3 Hours emergency(option available);
Microwave/ Motion sensor:
--Automatic dims when detected area is unattended
--Adjustable range (1-8m), 180 degree
Anti-glare design: against dizzy light;
No UV, no infrared, no other hazardous substances;
No noise, no flicker, resistance from vibration;
CE&ROHS compliant;

Mechanical Structure:



Product Dimensions (mm) :



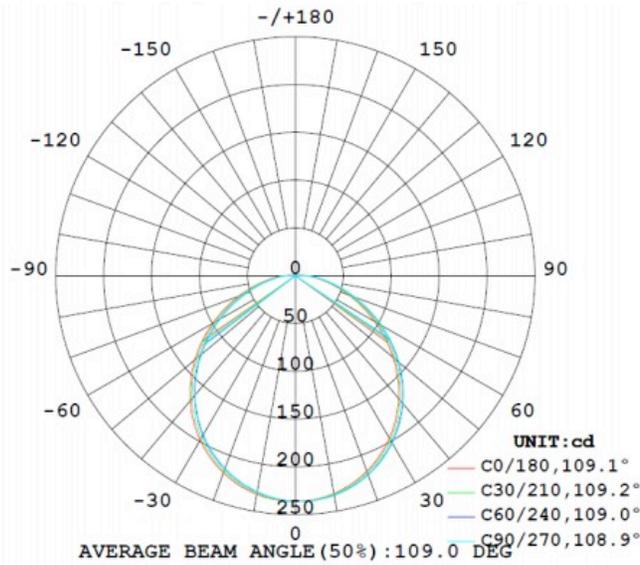
Electrical parameters:

Input voltage (50/60Hz)	AC 100-240V
Power consumption	12W (14W for emergency version)
PF	>0.9
LED Driver output voltage	DC 36V
LED Driver output current	300mA ±15mA
Light source	SMD LED
Color Temperature (CCT)	3000K /4000K/ 6000K (optional)
CRI	Ra> 80
Luminous Flux	1000-1200Lm

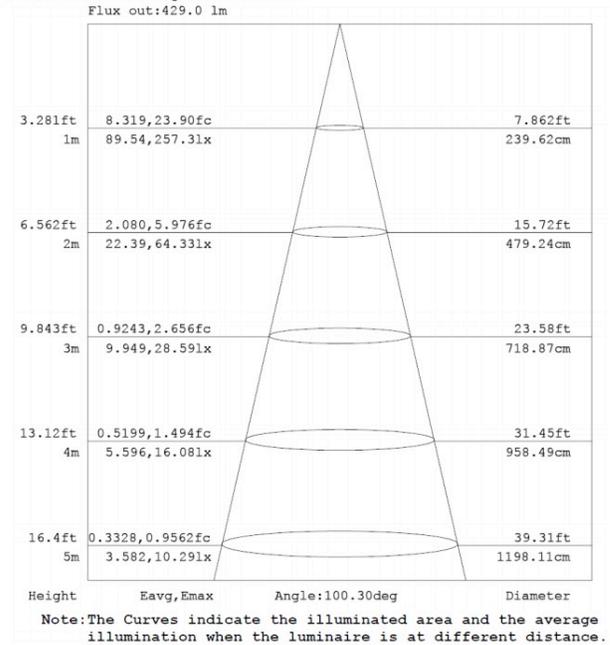
Luminous efficacy	110Lm /W for LL-04-12W-C 110Lm /W for LL-04-12W-S 100Lm /W for LL-04-12W-E 100Lm /W for LL-04-12W-ES
View angle	110°
Housing material	PC housing , PC diffuser
IP Rating	IP 65
Life Span	Up to 50,000 hours
Operation temperature	-20degC to 40degC
Dimension	∅ 325*100mm
Package	330*330*110mm
Net Weight	1.8KG(approx)
Emergency:	
Type	Maintained
Battery(High-Temperature)	9.6V 1.6AH Ni-MH rechargeable
Emergency output	30% nominal power
Emergency duration	>3 Hours
Charge time	< 12Hours
LED indication	Red: charging; Green: fully charged; Yellow: battery fault or disconnected
Test button	AC power on: Push and hold the button to enter emergency mode; release button to come back AC power mode
Microwave Sensor:	
Sensor range	180 degree; 0.5 - 8M(adjustable)
Sensing interval	10s to 5min max (adjustable)
Sensing interval output	25% of nominal power

Optical:

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Illuminated area and average illumination curve



Installation Instruction:

These instructions should be read in full and retained after Installation for future reference.

SAFETY

- It is recommended that this luminaire is installed by a qualified electrician and installed to the current edition of the IEE wiring regulations.
- Before installation or maintenance is carried out, ensure that the main supply is turned off, and adequately isolated.
- Check the total load of this and any other luminaires on the same circuit does not exceed that of the fuse or main circuit breaker.

FIXING INSTRUCTIONS

- Twist and remove the diffuser from the base and lift away.

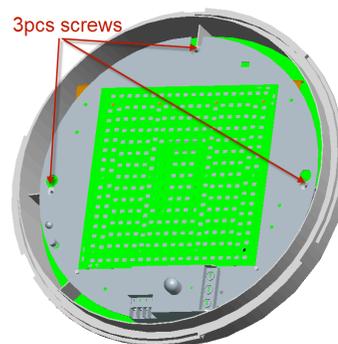


Fig 1

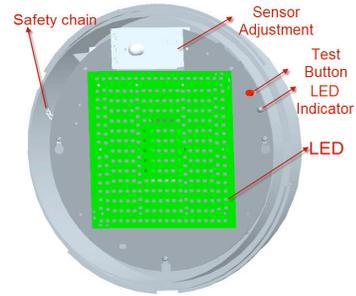


Fig2

- Unscrew the 3 fixing screws (see Fig 2) to remove the LED gear tray and gain access to the terminal block.

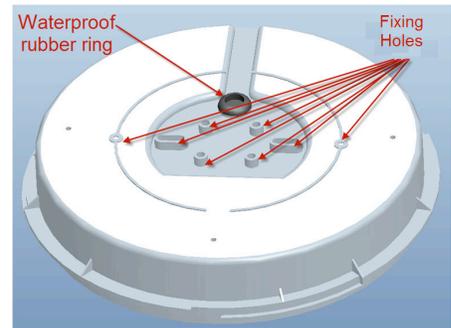


Fig3

A safety chain is provided to prevent the gear tray from falling during installation.

- Drill 4 of eight fixing holes on the back of the base (see Fig 3).

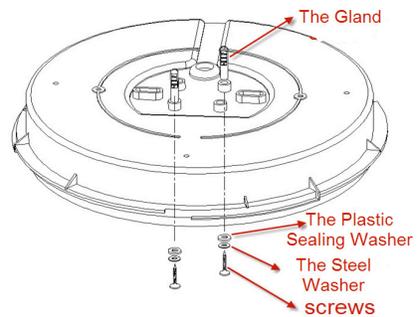


Fig 4

Then measure the position of the luminaire and ensure the fitting surface can bear the weight of the luminaire. Drill the marked holes and fit a suitable wall/surface plug (supplied).

- Then mark the position of the luminaire to the fitting surface.
- Feed the power supply cable through the cable entry and gland, then fix the luminaire to the wall through the 4 screws. (see Fig 4)

• **Connect the cable to the terminal block as follow:**

- For the GL1201CA and GL1201SA versions (see Fig.5):

LIVE wire (Red or Brown) to the terminal marked **L**
NEUTRAL wire (Black or Blue) to the terminal marked **N**
EARTH wire (Green/Yellow) to the terminal marked **E** or \perp

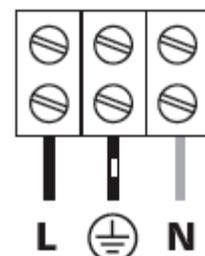


Fig 5

- For the GL1201EA and GL1201ESA emergency versions:

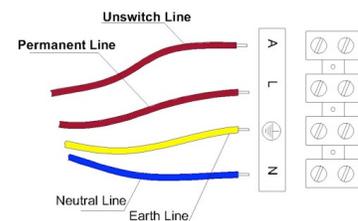


Fig 6

- 1) If there are **4 wires** from the main supply, including one Emergency Wire, connect the wires in order (see Fig 6):
Live wire (Permanent Line) (Red or Brown) to the terminal marked **L**;

Neutral wire(Black or Blue) to the terminal marked **N**;
Earth Wire (Green/Yellow) to the terminal marked **E** or 

Emergency Wire(unswitch wire) (Red or Brown) to the terminal marked **A**.

(**A wire**: **Live wire for emergency use only. If the supply has no A wire, please adopt L wire instead, but no switch. Check the following Case 2).**

2) If there are just **3 wires** from the main supply, without Emergency Wire, connect the wires in order (see Fig 7):

L: (Red or Brown) **Live wire and Unswitch wire, must be parallel, and the unswitch wire for emergency cannot**

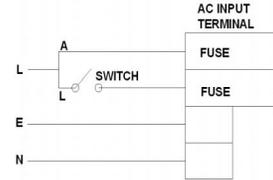


Fig 7

be switched off;

N: (Black or Blue) **Neutral wire**;

E: (Green/Yellow) **Earth Wire**.

- Ensure that there are no exposed conductors, loose or trapped cable strands, and re-fit the gear tray.
- Refit the diffuser by twisting.
- The luminaire is now ready for use.

EMERGENCY VERSION ONLY

• **Emergency function test button**, (see Fig 1) after installation with the mains supply powered on, push the test button to test emergency function, if the LED brightness is reduced to emergency brightness (30% of full brightness), the function is working.

• LED Indication:

Red indicates the battery is charging

Green indicates the battery is fully charged

Yellow indicates the battery is disconnected or damaged

Microwave sensor instructions

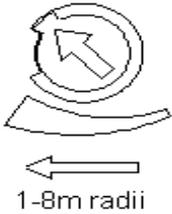
The sensor is an active motion detector, it emits high-frequency electro-magnetic waves (5.8GHz) and receives their echo. The sensor detects the change in echo from the slightest movement in its detection zone. A microprocessor then triggers the “switch light ON” command. Detection is possible through doors, panes of glass or thin walls.

Important: persons or objects moving towards the sensor are detected best!

Reach setting (sensitivity)

SENSOR TECHNICAL SPECIFICATIONS

Input Voltage:	12V DC
Output power:	5V DC
Sensor principle:	Microwave motion detector
Installation:	Indoors, ceiling mounting
HF system:	5.8GHz +/-75MHz CW radar, ISM band
Transmission power:	<10mW
Detection angle:	360°
Detection range:	up to 8m (on 100% sensitivity, frontal to the sensor, plain sensor without glass)
Motion detection:	0.3 3 m/s (1 ... 10km/h)
Time setting:	10 seconds to 5 minutes
Light control:	2-2000 LUX
Power consumption:	Approximately 0.9W
Operating conditions:	Operating temperature, -10° to 70°C
IP rating:	IP20 (mounting inside a fitting)

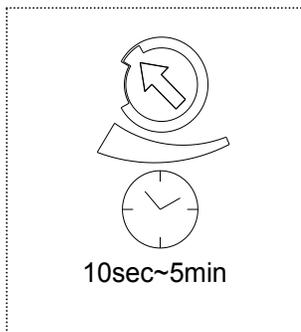


Reach is the term used to describe the radius of the circular detection zone produced on the

After mounting the sensor light at a height of 2.5m, turn the reach control completely in anti direction to select minimum reach(approx.1 m radius), and turn the reach control completely in a clockwise direction to select the maximum reach (approx.8m radius). The LED indicator will flash when the reach control is rotated. It flashes 1 to 10 times, representing 1m to 8m for the radius of the detection zone.

NOTE: The above detection distance is measured using a person who is between 1.6m~1.7m tall with an average build, moving at a speed of 1.0~1.5m/sec. if any of these variables are changed, the detection distance will also resultantly change.

Time setting

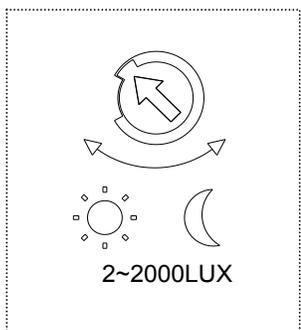


The light can be set to stay ON for any period of time between approx. 10sec (dial turned fully anti-clockwise) and a maximum of 5min(dial turned fully clockwise). Any movement detected during the “on” time will reset the timer. The LED indicator will flash when adjusting the time setting dial. The number of flashes means the following:

- 1 flash = 10sec, 2 flashes= 20sec, 3 flashes= 30sec,
- 4 flashes= 45sec, 5 flashes=60sec, 6 flashes=90sec,
- 7 flashes=2min, 8 flashes=3min, 9 flashes=4min,
- 10 flashes=5min .

NOTE: After the light switches off, it takes approx. 1sec before it is able to start detecting movement again. The light will only switch on in response to movement once this period has elapsed.

Light-control setting



The chosen light response threshold can be infinitely from approx. 2-2000lux. Turn it fully anti-clockwise to select dusk- to-dawn operation at about 2 Lux. Turn it fully clockwise to select daylight operation at about 2000lux. The knob must be turned fully clockwise when adjusting the detection zone and performing the walk test in daylight.

NOTE: This setting (Light-control setting) has not been used for 100-25% sensor fitting !!!

Troubleshooting:

Malfunction	Possible Cause	Remedy
The luminaire will not work	Wrong light-control setting selected	Adjust setting
	Luminaire faulty	Change luminaire
	Mains switch OFF	Switch ON
The luminaire is always ON	Continuous movement in the detection zone	Check zone setting
The luminaire works without any identifiable movement	The sensor not properly mounted for detecting movement reliably	Securely mount sensor enclosure and luminaire
	Movement occurred, but not identified by the sensor (movement over boundary wall, movement	Check zone setting

	of a small object in immediate luminaire vicinity etc.)	
The luminaire will not work despite movement	Rapid movements are suppressed to minimize false triggering or the detection zone you have set is too small	Check zone setting

APPLICATIONS:

