lumos
CONTROLS
A **WISILICA** BRAND

Product label:

lumos
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Radiar AF10
WCA2CSFN
Wireless 0-10V Fixture Controller

FC
FCC ID: 2AG4N-WCA2CSFN

Input Voltage: 120-277VAC
Frequency: 60Hz
Input Current: 3.1A Max
Output Voltage: 120-277VAC
Output Current: 3A Max
Output Wattage: 360W Max
Aux Voltage: 12 VDC/0.2A
Dimming Output: 0-10V
Aux & Dimming Type: Class 2
ta: 55°C   tc: 80°C

Input Type: Branch Circuit(Mains)
Output Type: Branch Circuit(Mains)
Output Load Type: Switch Mode LED Driver
Wired Control Circuits: Isolated

CE
RoHS COMPLIANT
Bluetooth
c(UL)us LISTED
LED Controllers E523966 5NJ0
SELV

- Line
- Load
- Neutral
- DIM-/GND
- 12V DC
- 0-3V Sensor input
- 0-10V DIM1+
- 0-10V DIM2+

Radiar AF10

2 channel AC powered 0-10V fixture controller with inbuilt relay

www.lumoscontrols.com

c(UL)us LISTED   CE   RoHS COMPLIANT   Bluetooth   FC   SELV

Product Overview

Radiar AF10 is an AC-powered fixture controller that enables basic dimming to human-centric lighting with the help of a mobile app. The device comes with an inbuilt relay for ON/OFF control and 0-10V dimming control. It can be combined with sensors to automate your space.

It is a part of the Lumos Controls ecosystem, including controllers, sensors, switches, modules, drivers, gateways, and analytical dashboards.

Features

- Dual channel 0-10V independent output to control intensity and color temperature (CCT)
- Auxiliary 12V/200mA output power
- 0-3 VDC input channel to integrate with third party sensors
- 3A relay for load control
- Standard ½ inch knockout allows easy mounting to a junction box or compatible fixture
- Zero downtime Over-the-Air (OTA) firmware updates
- BLE5.2 based non-flooding intelligent mesh

Specifications

Electrical

Specifications	Value	Remarks
Input Voltage	120-277 VAC	
Input Frequency	60 Hz	
Input Current	3.1 A	
Load Voltage	120-277 VAC	
Load Current	3A	
Output Power	360 W	
Aux Voltage	12 V	
Aux Current	200 mA	
Dimming Output	0-10 V	Max output tolerance ± 2% [Same for both dimming outputs]
Output Current	10 mA	Sourcing current per channel
Dimming Range	0-100%	
Dimming Curve	Linear (default) /logarithmic	Adjusted using mobile application
Sensor Input	0-3V	
Current	1 mA	

Bluetooth

Specifications	Value	Remarks
Frequency Range	2402-2480 MHz	
Tx Power	6-8 dBm	Typical 7 when tested in conductive method
Receiver Sensitivity	- 75 to -86 dBm	

Mechanical

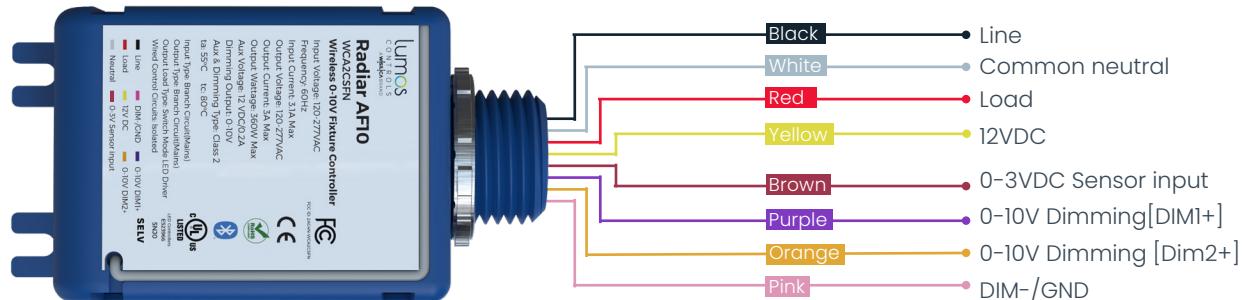| Specifications	Value	Remarks
Dimension	3.22 x 1.71 x 1.25 (inch) 81.79 x 43.43 x 31.75 (mm)	L x W x H
Weight	93 g (3.28oz)	
Operating Temperature	-30 to 50ºC	
Case Temperature	80ºC	
Relative Humidity	5 to 95%	Non -condensing

Operation

Once powered up, the device will be ready to be commissioned via the Lumos Controls mobile app, available for free download on iOS and android. To begin commissioning, click the '+' icon from the top of the 'Devices' tab. The app allows you preset certain configurations which will be loaded will be loaded after the device is added. The pre-configurations made using 'Commissioning Settings' will be sent to the devices being commissioned.

Once commissioned, the device will be displayed in the 'Devices' tab and you can perform individual operations like ON/OFF/dimming on it from this tab.

In response to input from the connected devices, the fixture controllers dim or modify lighting loads.

Note: The 'Output Channel Configuration' will be 'Single Channel' by default. To configure dual channel settings, Go to 'Additional Settings' and click 'Output Channel Settings'. Then select 'Controller based color tuning' or 'Driver based color tuning' based on the connected driver.

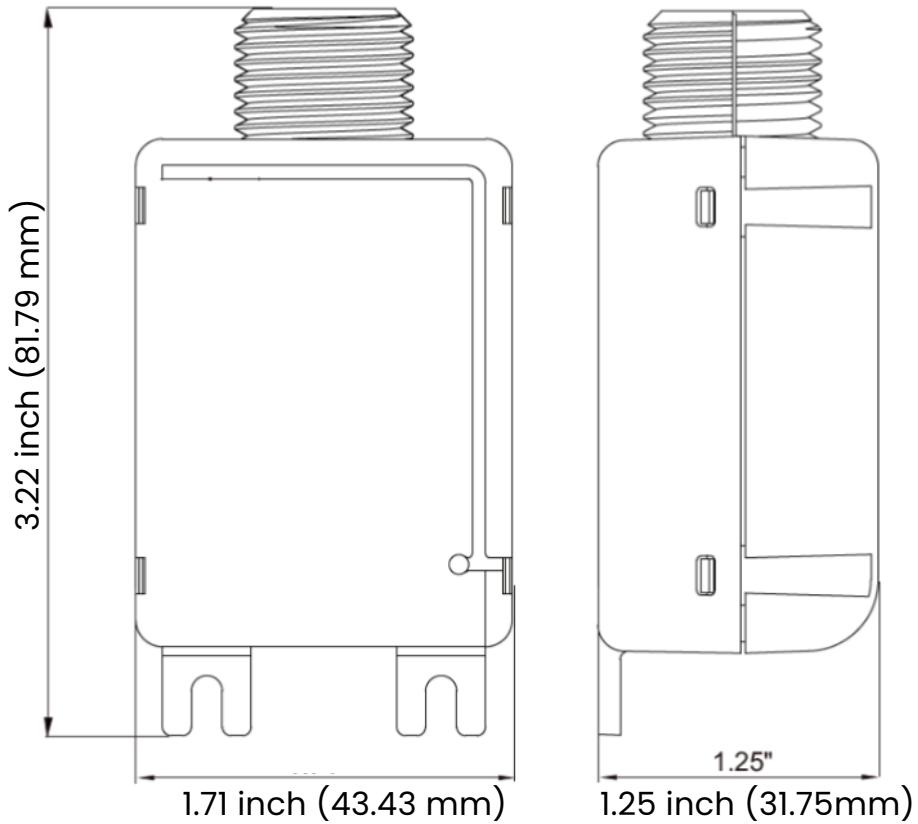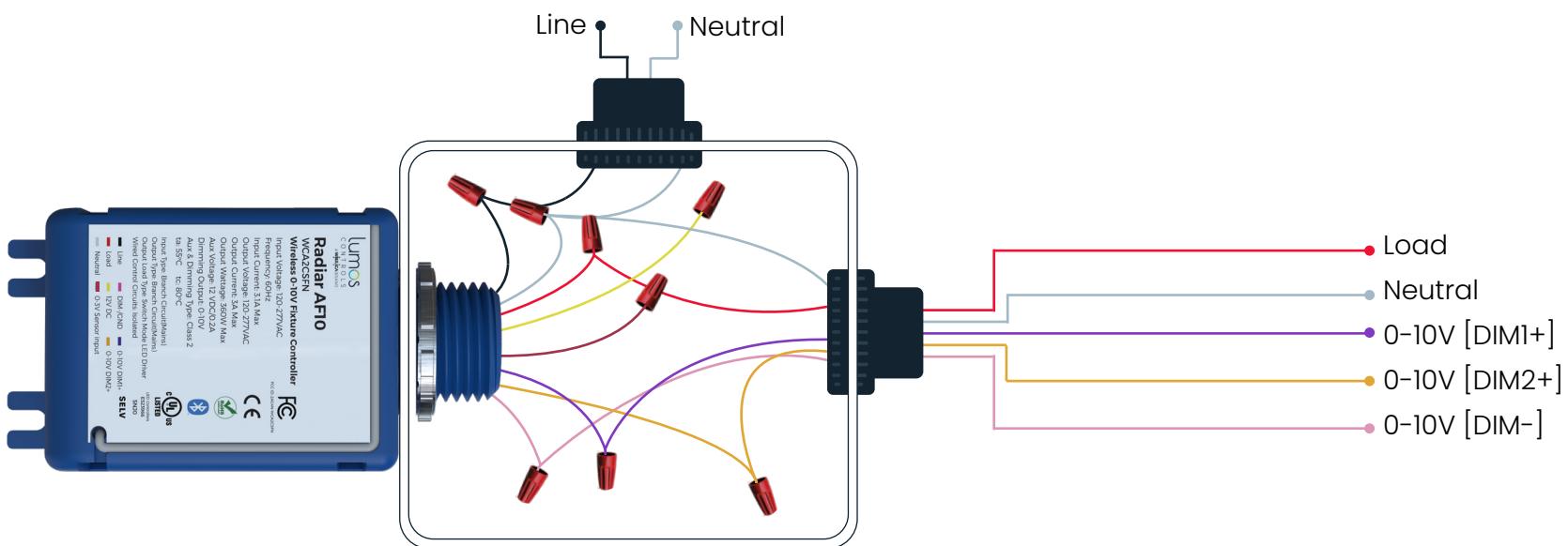**Please visit -** Help center **for more details**

Wire Description

SI NO	NAME	COLOR	GAUGE	RATING	DESCRIPTION
1	Line	Black	18AWG	600V	120-277VAC
2	Common Neutral	White	18AWG	600V	Common neutral
3	Load	Red	18AWG	600V	3A@120/277VAC
4	12VDC	Yellow	22AWG	300V	12VDC auxiliary output
5	0-3V Sensor Input	Brown	22AWG	300V	0-3V input for sensor
6	0-10V DIM1+	Purple	22AWG	300V	0-10V output for intensity
7	0-10V DIM2+	Orange	22AWG	300V	0-10V output for CCT
8	DIM-/GND	Pink	22AWG	300V	Common ground

Product Dimensions
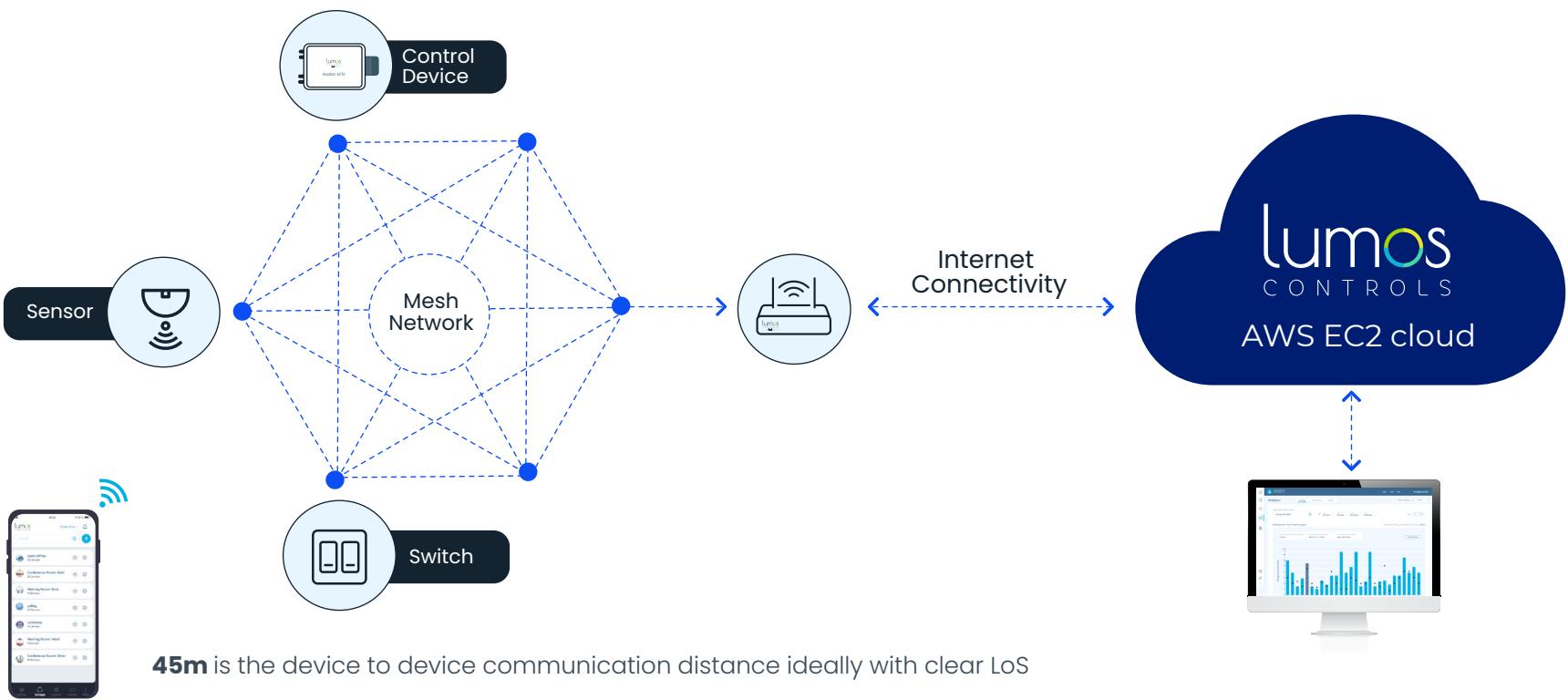

3.22 inch (81.79 mm)

1.71 inch (43.43 mm)

1.25 inch (31.75mm)

1.25"

Wiring

Radiar AF10 can be installed in a deep junction box or fixture with Standard ½ inch knockouts (see specifications)

Line

Neutral

Radiar AF10
WCA2CSFN
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Dimming Output: 0-10V
Aux & Dimming Type: Class 2
Input Type: Branch Circuit(Mains)
Output Type: Switch Module LED Driver
Output Load Type: Switch Module LED Driver
Wired Control Circuits: Isolated
ta 55°C tc 80°C

Line
Load
Neutral

DIM GND
12V DC
0-10V DIM+
0-5V Sensor Input
0-10V DIM2-
SELV

Load
Neutral
0-10V [DIM1+]
0-10V [DIM2+]
0-10V [DIM-]

Smart Ecosystem

45m is the device to device communication distance ideally with clear LoS

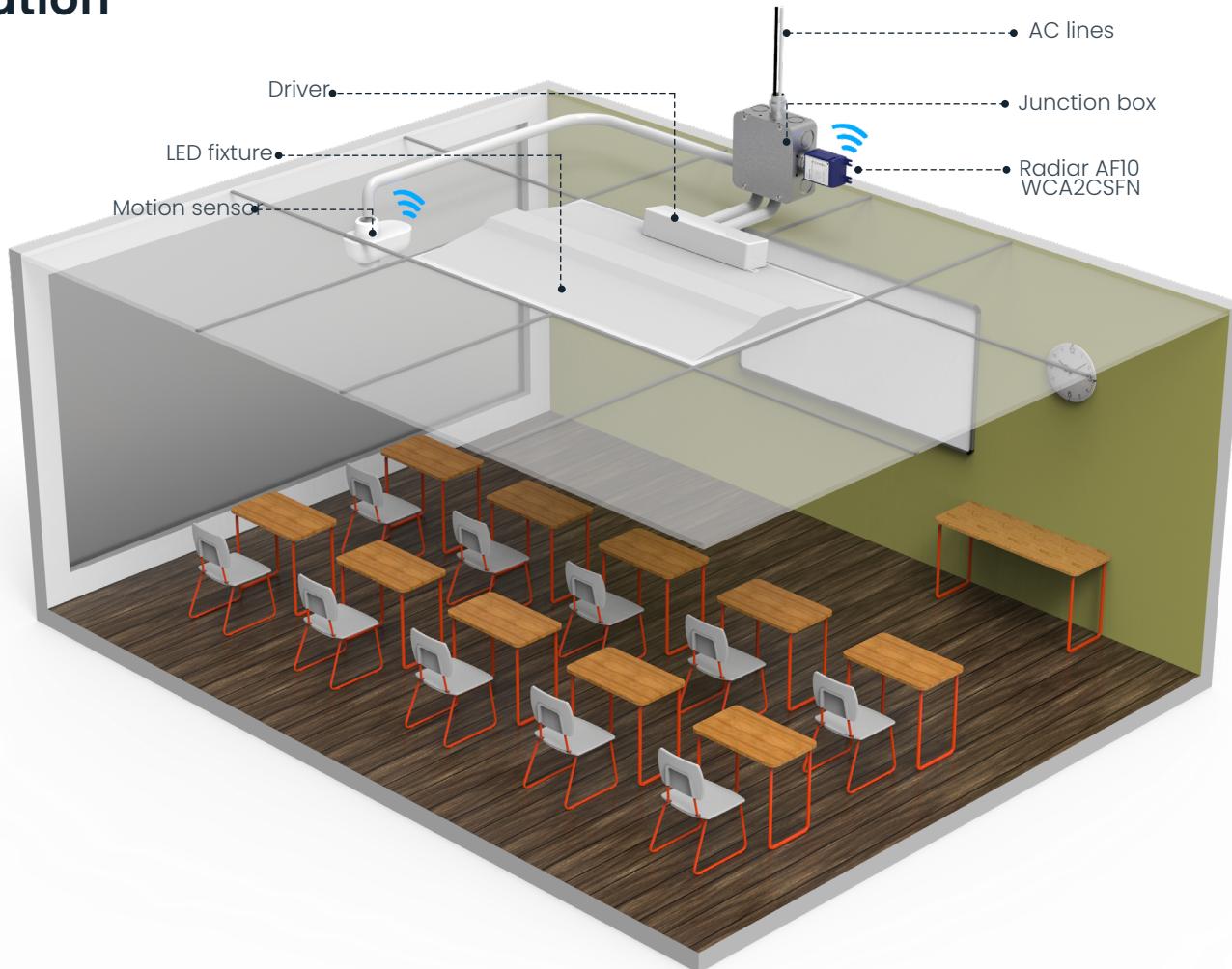| Certifications	Details
CE	Article 3, RED 2014/53/EU **EMC test standards** ETSI EN 301 489-1 V2.2.3(2019-11) ETSI EN 301 489-17 V3.2.4(2020-09) EN 55032: 2015/A11:2020 EN 55035: 2017+A11 :2020 **Radio test standard** ETSI EN 300 328 V2.2.2 (2019-07) Health test standard: EN 62479: 2010 EN 50663: 2017 **Safety test standard** EN 61347-2-11:2001+A1:2019; EN 61347-1:2015+A1:2021 EN 62493:2015;
RoHS 2.0	RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU
CULus	E523966, Light-emitting-diode controllers (FLTJ)
FCC	FCC Rule Part 15C ID:2AG4N-WCA2CSFN

Items included in the package box

Radiar AF10-Fixture controller, User manual, Metallic locknuts, Wire nuts

Application

Labels in diagram:
- AC lines
- Junction box
- Radiar AF10 WCA2CSFN
- Driver
- LED fixture
- Motion sensor

Ordering Information

Product Code	Product Name	Communication	Voltage Rating	Sensor Input	Output Channel	Aux Power	Relay Control
WCA2CSFN	Radiar AF10	BLE5.2	120-277 VAC	0-3VDC	0-10V 2 Channels	12VDC	3A

Accessories

Part Number : SPD1PR IP67	**Product Type** : LED Special Surge Protection Device

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