



Radiar AFD1

1 Slave DALI Fixture Controller

www.lumoscontrols.com



Product Overview

Radiar AFD1 is designed to control AC-powered lighting fixtures supporting Digitally Addressable Lighting Interface. It provides ON/OFF or Dim/ bright control for 1 LED driver. It is part of Lumos Controls ecosystem which includes controllers, sensors, switches, modules, drivers, gateways, and analytical dashboards.

Features

- DALI supporting up to 1 slave device
- BLE 5.2 based non-flooding intelligent communication
- 12VDC auxiliary output
- Zero downtime Over-the-Air (OTA) firmware updates
- Compact form factor for easy integration into luminaires

Specifications

Electrical

Specifications	Value	Remarks
Input Voltage	90-277VAC	Rated input voltage
Input Current	10mA	@230V
Power Consumption	2W	Active power
Supply Frequency	50-60Hz	
Inrush Current	4A	
Surge Transient Protection	4kV	L-N, Bi wave
Standby Consumption	7.71mA	@Rated input voltage
Connection Distance (Device to Device by Mesh)	30m	In an open office environment(Line of sight)

Mechanical

Specifications	Value	Remarks
Dimensions	43 X 35 X 20 mm	L x W x H
Dimensions	1.7 x 1.4 x 0.8 in	L x W x H
Net Weight	30.00g	In gram
Net Weight	1.06oz	In ounce

DALI

Specifications	Value	Remarks
Number of Slaves	1 PC	
Bus Supply Voltage	11-13V	
Bus Supply Current	2mA	
Dimming Range	0-100%	
Protocol	101 /103/ 207/209	DALI2.0
Protocol	101 /103/ 207/209	DALI2.0
Dimming Curve	Linear/ Logarithmic	Logarithmic by default

Bluetooth

Specifications	Value	Remarks
Frequency Range	2400-2483MHz	
Tx Power	8dBm	With 150mm external wire antenna
Rx Sensitivity	-92dBm	

Environmental

Specifications	Value
Ambient Temperature	2400-2483MHz
Relative Humidity	20-85%

Operation

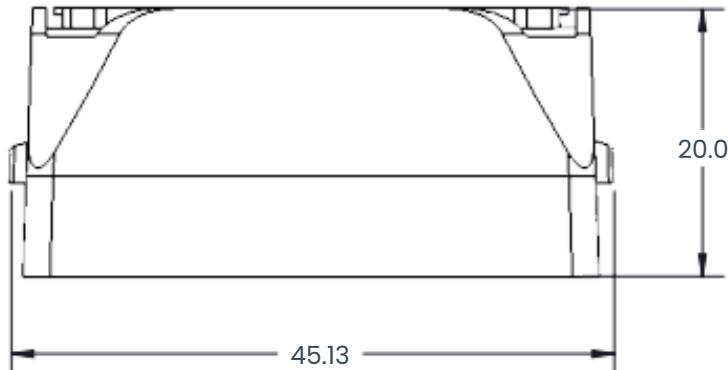
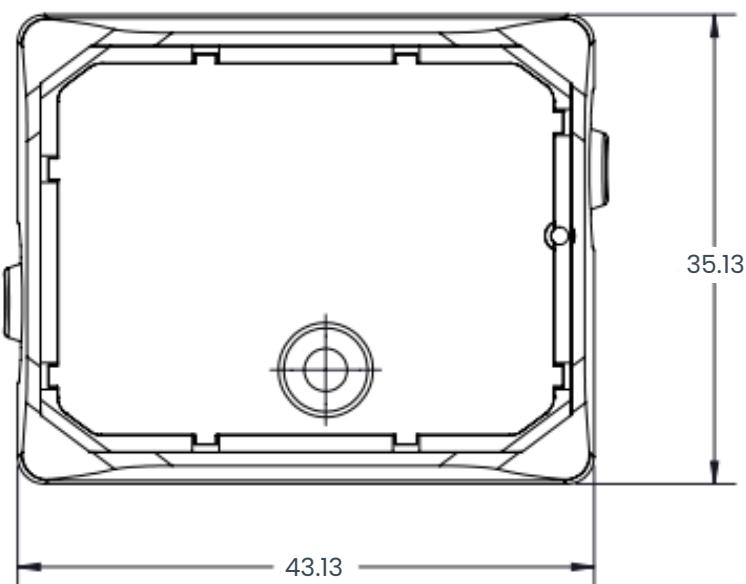
Once powered up, the device will be ready to be commissioned via the Lumos Controls mobile app, available for free download on iOS and Android. To begin commissioning, click the '+' icon from the top of the 'Devices' tab. The app allows you to preset certain configurations which will be loaded after 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 from this tab. In response to input from the connected devices, the DALI fixture controller dim or modify lighting loads.

Please visit - [Help center](#) for more details

Product Dimensions

Radiar AFD1 Top View: 43mm x 35mm x 20mm (L x W x H)

Case material: White coloured V0 PC



Wire Description



SI No	Name	Color	Gauge	Rating	Description
1	Line	Black	20AWG	600V	100-277VAC
2	Neutral	White	20AWG	600V	Common neutral
3	DALI	Blue	28AWG	300V	DALI+
4	DALI	Gray	28AWG	300V	DALI-
5	12VDC	Red	20AWG	300V	12VDC
6	Ground	Grey	20AWG	300V	Common ground

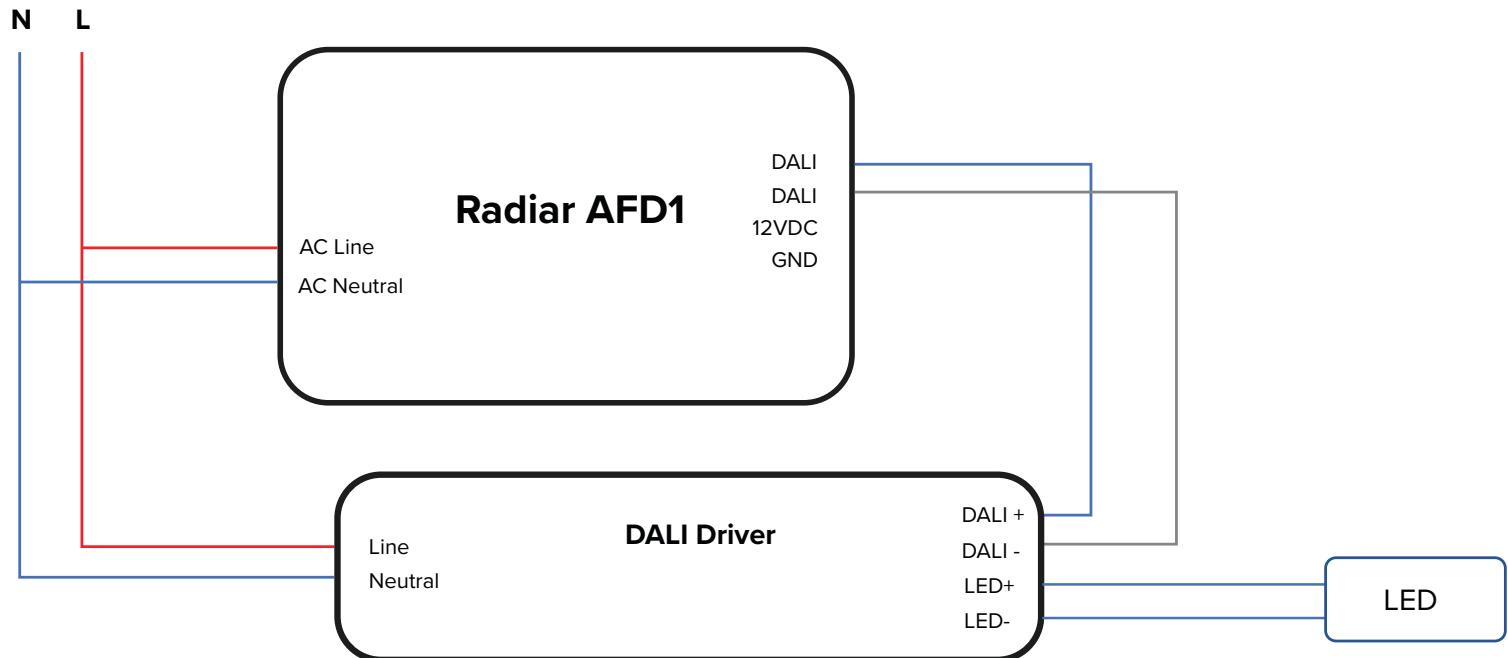
Antenna Information

150mm wire antenna

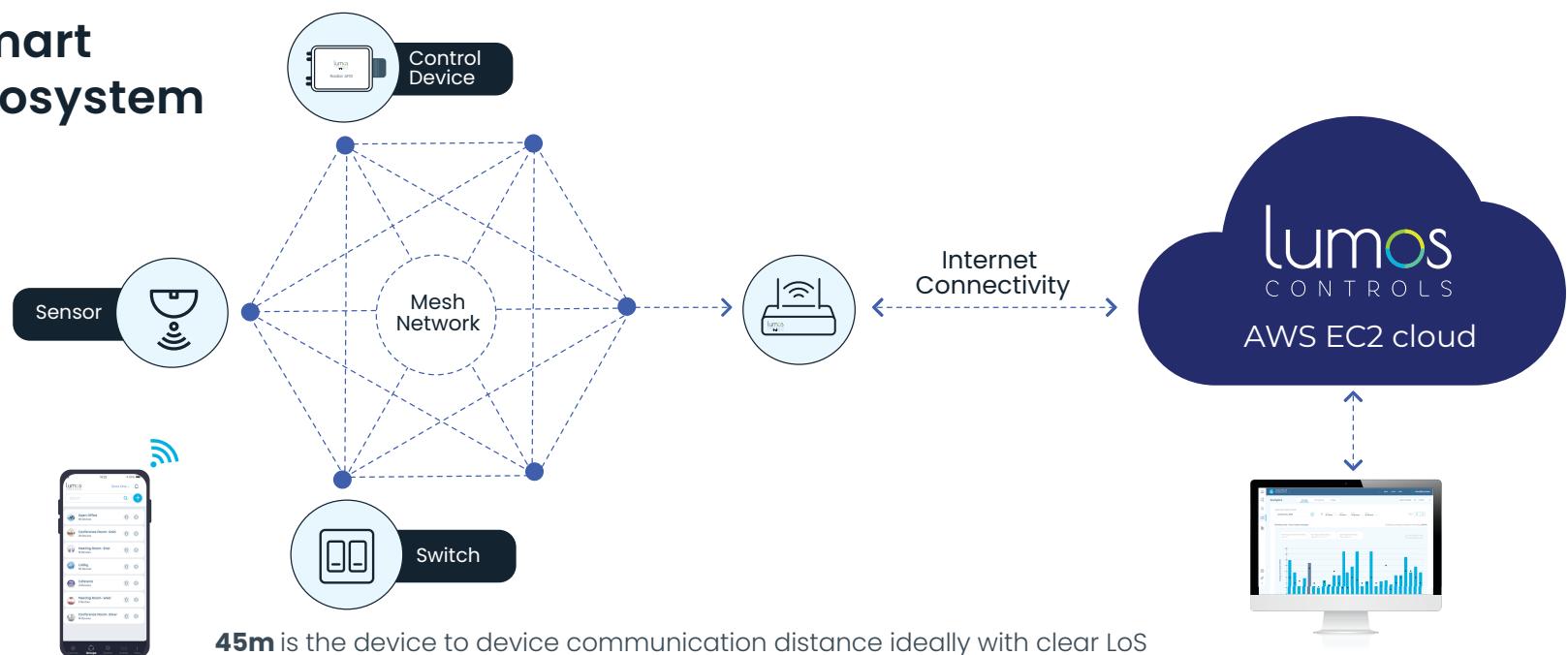


Antenna Properties	
Frequency Range	2.4GHz-2.5GHz
Impedance	50Ω Nominal
VSWR	1.92:1 Max
Return Loss	-10dB Max
Gain(peak)	2dBi
Cable Loss	0.3dBi Max
Polarization	Linear

Wiring



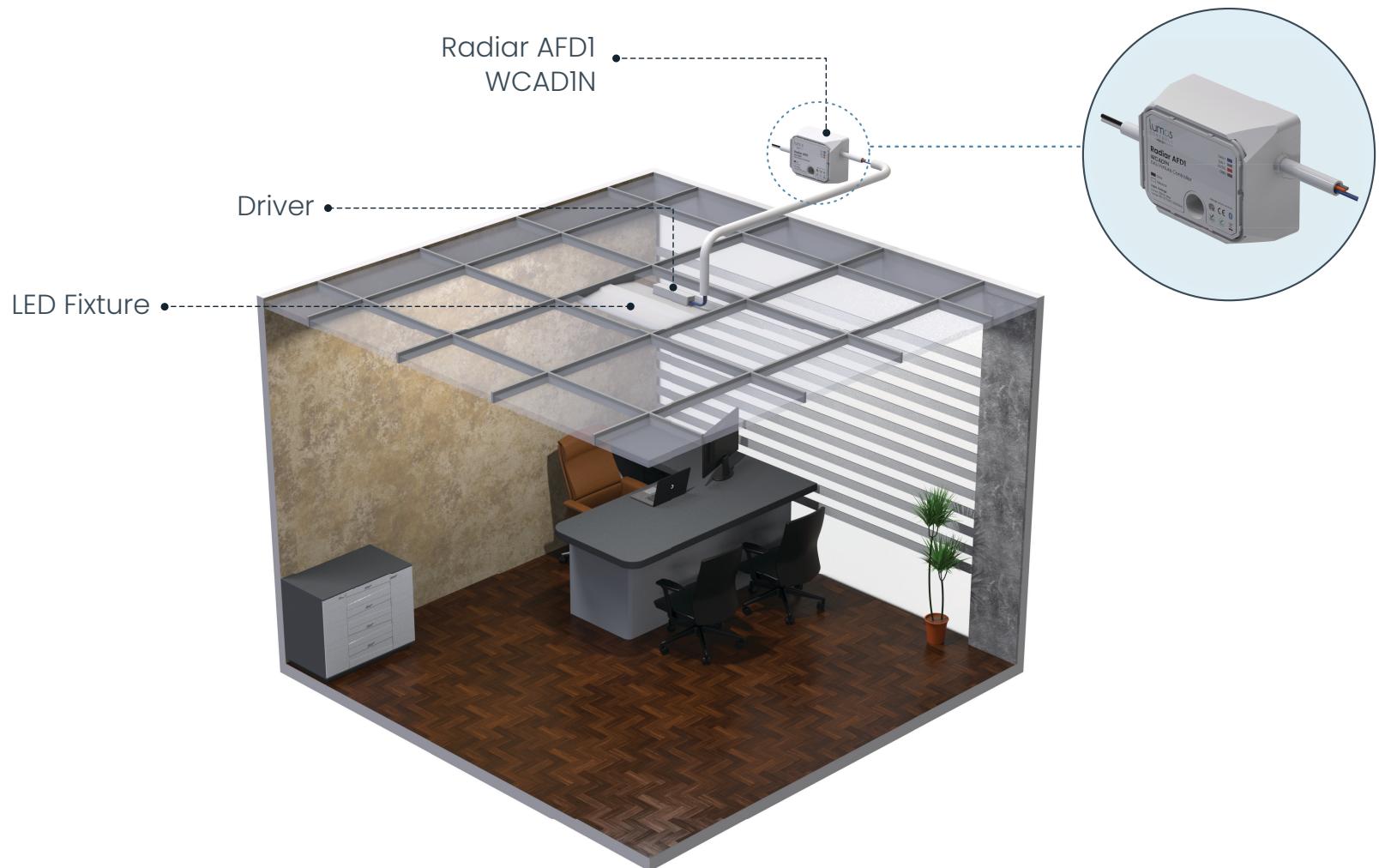
Smart Ecosystem



Items included in the package box

Radiar AFD1, User manual, Screw, Wall plug

Application



Ordering Information

Product Code	Product Name	Communication	Voltage Rating
WCAD1N	Radiar AFD1	BLE5.2	90-277VAC

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