

Radiar AFD1

1 SLAVE DALI Fixture Controller



INSTALLATION AND QUICK START SHEET

WARNING AND GUIDELINES!!!

Read and follow all safety instructions!!

DO NOT INSTALL DAMAGED PRODUCT! This product has been properly packed so that no parts should have been damaged during transit. Inspect to confirm. Any part damaged or broken during or after assembly should be replaced.

WARNING : TURN THE POWER OFF AT THE CIRCUIT BREAKER BEFORE WIRING

WARNING: Risk of Product Damage

- Electrostatic Discharge (ESD): ESD can damage product(s). Personal grounding equipment should be worn during all installation or servicing of the unit
- Do not stretch or use cable sets that are too short or are of insufficient length
- Do not modify the product
- Do not mount near gas or electric heater
- Do not change or alter internal wiring or installation circuitry
- Do not use product for anything other than its intended use

WARNING - Risk of Electric Shock

- Verify that supply voltage is correct by comparing it with the product information
- Make all electrical and grounded connections in accordance with the National Electrical Code (NEC) and any applicable local code requirements
- All wiring connections should be capped with UL approved recognized wire connectors
- All unused wiring must be capped

Do's	Don'ts
Installation should be performed by a qualified electrician	Don't use outdoors
Installation shall be in accordance with all applicable local and NEC codes	Avoid input voltage exceeding maximum rating
Turn the power OFF at circuit breakers before wiring	Don't dissemble the products
Observe the correct polarity of output terminal	-

Specifications	Min	Type	Max	Unit	Remarks
Input Voltage	90	—	277	VAC	Rated Input voltage
Input Current	—	10	—	mA	@ 230 V
Power Consumption	—	2	—	W	Active Power
Surge Transient Protection	—	—	4	kV	L-N, Bi wave
Connection Distance (Device to Device by Mesh)	—	30	—	m	In an open office environment (Line of Sight)
Frequency Range	2400	—	2483	MHz	—
Tx Power	—	—	8	dBm	With 150mm external wire antenna
Rx Sensitivity	—	-92	—	dBm	—
Bus Supply Voltage	11	12	13	V	—
Bus Supply Current	—	2	—	mA	—
Dimming Range	0	—	100	%	—
Ambient Temperature	-20	—	50	°C	—
Relative Humidity	20	—	85	%	—
Dimensions	43 x 35 x 20		—	mm	L x W x H
	1.7 x 1.4 x 0.8		—	in	L x W x H

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 a part of Lumos Controls ecosystem, which includes controllers, sensors, switches, modules, drivers, gateways, and analytical dashboards.



Required tools & supplies



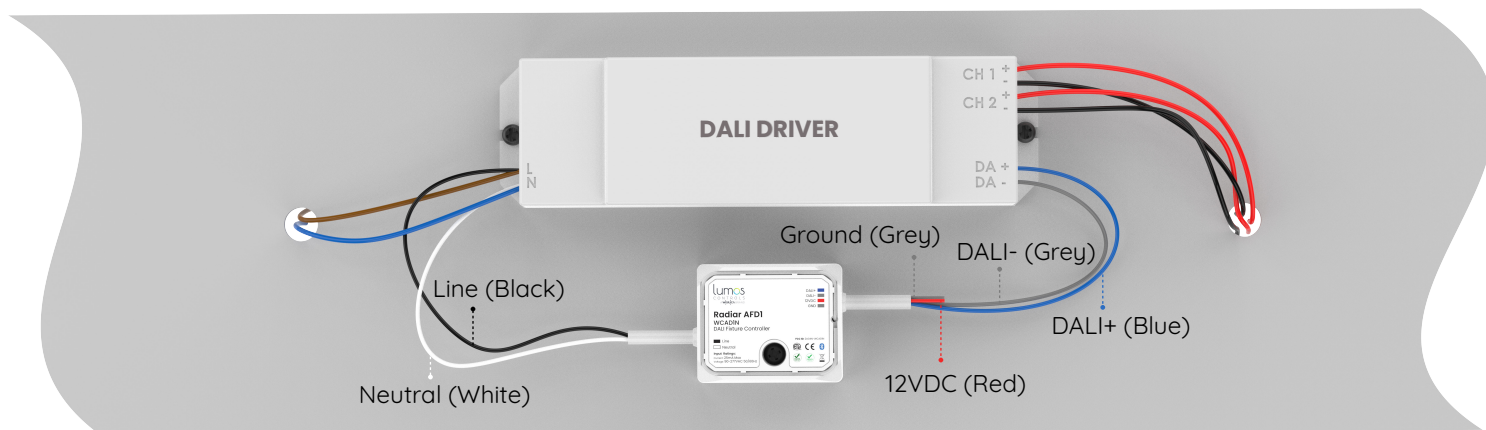
Screwdriver

INSTALLATION INSTRUCTIONS

Installation Steps

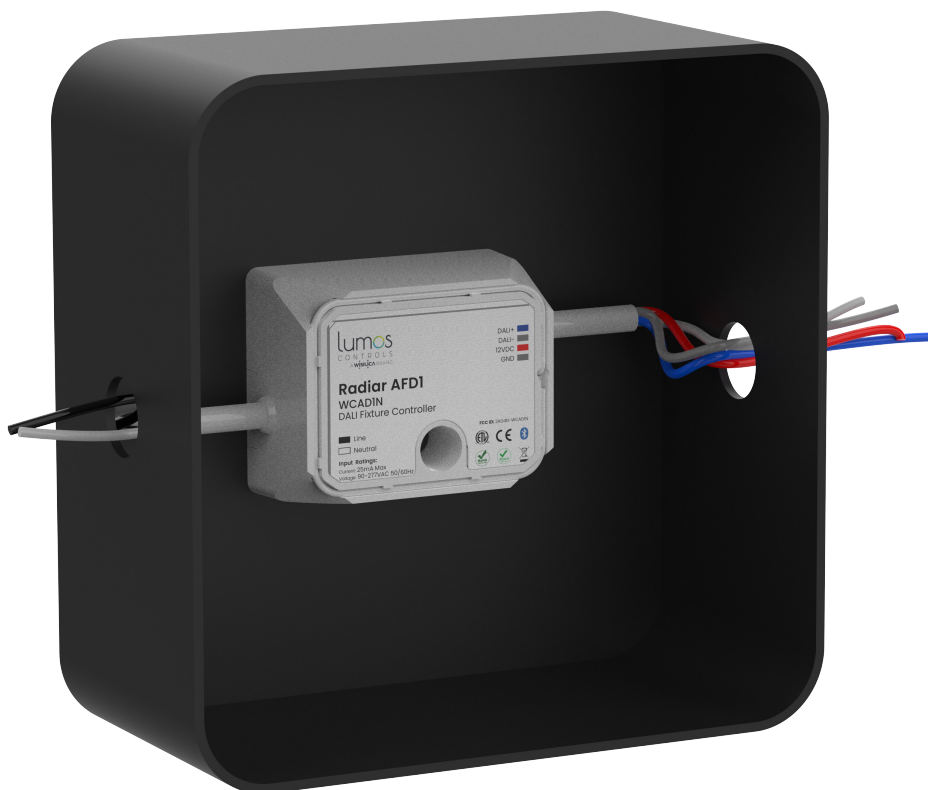
- Turn off the power before wiring and installing the device
- The controller with a compact formfactor can be installed anywhere within the light fixtures, or within junction boxes. The screw hole available on the controller can be used to fix it firmly.
- To power the controller, connect the AC Line and Neutral wires from the mains supply to the Line (Black color), and Neutral (White color) of the controller.
- To control the DALI driver, connect the DALI lines to the DALI+ (Blue color) and DALI- (Grey color) wires in the controller. *DALI is polarity insensitive

- Installing within a light fixture

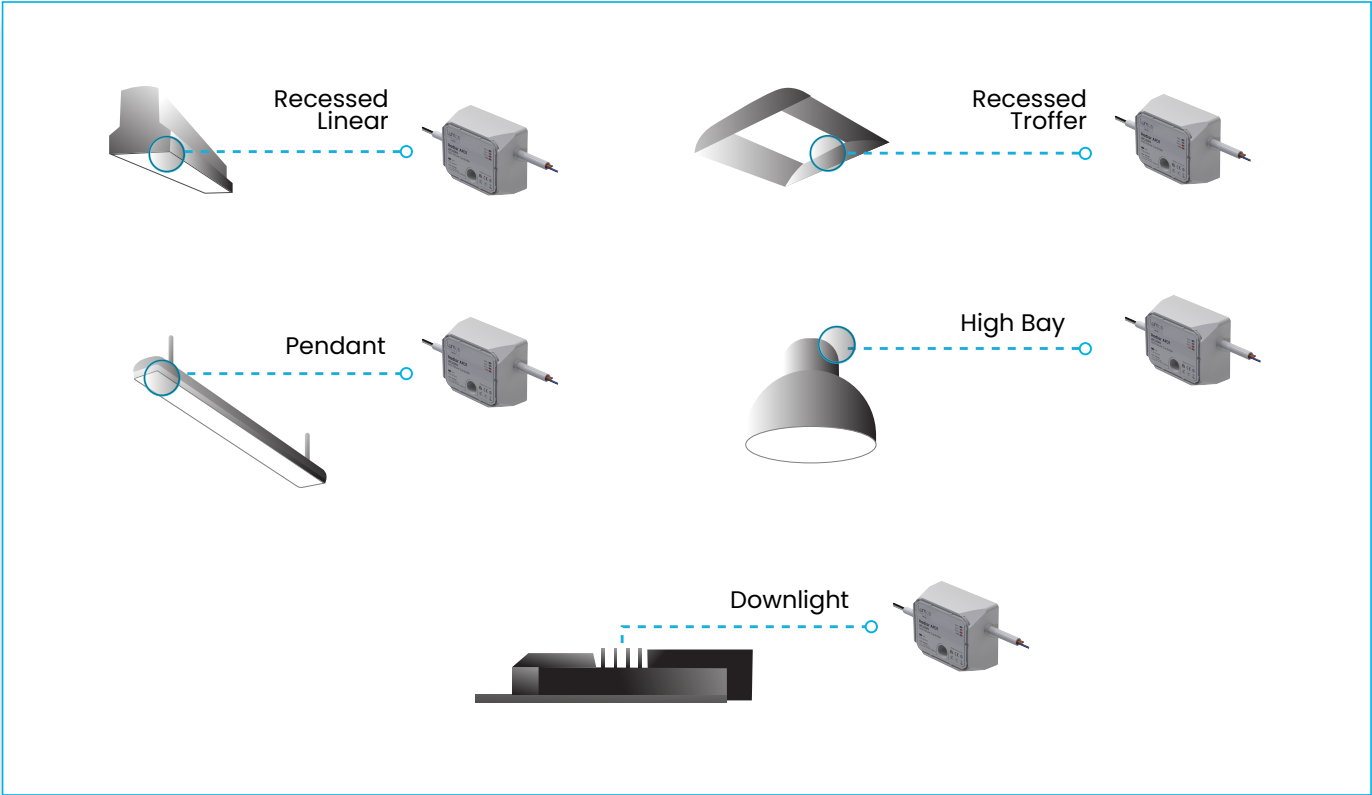


(Top view of a light fixture)

- You can also install the device within a box

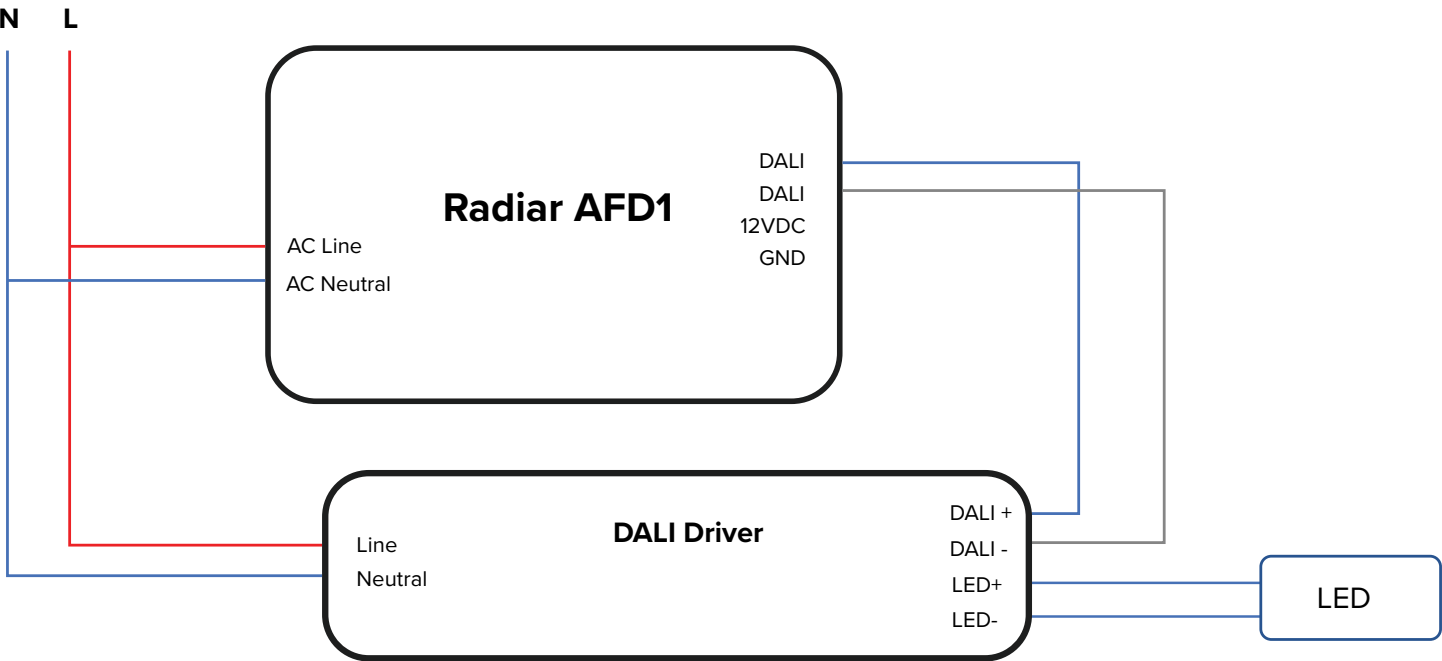


On the extrusion or on top of the fixture

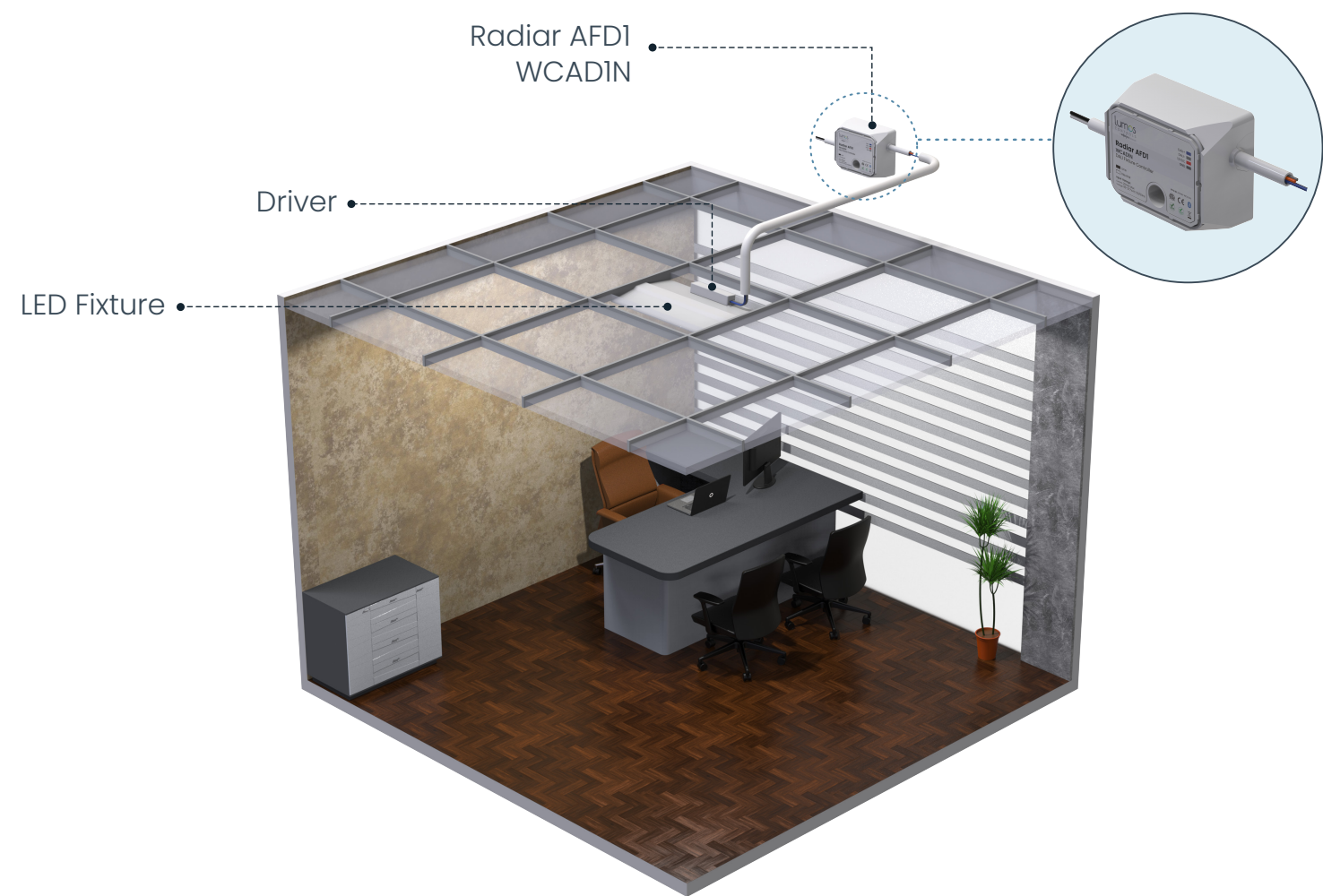


Wiring

Connecting DALI drivers to the Radiar AFD1 controller



Application



Troubleshooting

When returning from a Power Outage, lights go back to ON state.	This is normal operation. Our device has a fail-safe feature forcing the device to go to 50% or 100% and 0-10V at the full output on the loss of power. Alternatively, the device will return to its previous state after the power is restored, as configured using the Lumos Controls mobile app.
Device doesn't operate immediately after power ON	Check whether you have set up a transition time
Lights flickering	<ul style="list-style-type: none">• The connection is not appropriate• The wires are not secured firmly with connectors
Lights did not turn ON	<ul style="list-style-type: none">• Circuit breaker tripped• Fuse has blown• Inappropriate wiring

Commissioning

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.

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

Warranty

5-year limited warranty

Please find warranty [terms and conditions](#)

Note: Specifications may change without notice

Actual performance can vary due to end-user environment and application