



Axion RGBW LED Recessed Downlights

Our RGBW LED high efficiency recessed downlights are controllable using the Axion Lighting DMX Controller, DMX Decoder or any 24V compatible product including the Shelly RGBW2.

Features Include:

- New diffuser so you get a nice clean color profile when looking directly at the light. No more LED hot spots.
- A complete 24-volt line so you don't have to worry about mixing and matching fixture types.
- The dedicated white LED is now 4000 Kelvin on all interior only recessed lights, producing a nice soft white, great for any application

Why restrict yourself to just one white hue when it comes to installing recessed ceiling lights? With our RGBW spotlights and LED strips available, you can easily enhance your downlights to offer a vibrant experience as well.



Product Specifications

	7" Indoor	5" Indoor	4" Indoor	3" Outdoor
Voltage	24 Volt	24 Volt	24 Volt	24 Volt
Nominal Wattage*	30 Watts	12 Watts	8 Watts	12 Watts
Max Total Wattage	37.2 Watts	19.0 Watts	12.2 Watts	19.0 Watts
Red LED Wattage	11.42 Watts	5.88 Watts	3.14 Watts	5.88 Watts
Green LED Wattage	9.82 Watts	5.16 Watts	3.07 Watts	5.16 Watts
Blue LED Wattage	8.23 Watts	4.20 Watts	2.90 Watts	4.20 Watts
White LED Wattage	7.75 Watts	3.72 Watts	2.90 Watts	3.72 Watts
Color Type	RGBW	RGBW	RGBW	RGBW
Lumen	1920	960	605	960
White Temp	4000K	4000K	4000K	3000K
Size	176 mm x 32 mm tall	136 mm x 32 mm tall	102 mm x 32 mm tall	85 mm x 50 mm tall
	6.93 in x 1.25 in tall	5.35 in x 1.25 in tall	4.01 in x 1.25 in tall	3.35 in x 1.97 in tall
Cut Hole	145 mm	105 mm	75 mm	75 mm
	5.70 in	4.13 in	2.95 in	2.95 in
Beam Angle	105 degrees	105 degrees	105 degrees	38 degrees
CRI Ra	80	80	80	80
Housing Material	Die cast Aluminum	Die cast Aluminum	Die cast Aluminum	Die cast Aluminum
Warranty	3 Years	3 Years	3 Years	3 Years
Weather Rating	IP20 – Resistant to dust or objects that are over 12mm in size. No protection against water jets. Indoor use only.	IP20 – Resistant to dust or objects that are over 12mm in size. No protection against water jets. Indoor use only.	IP20 – Resistant to dust or objects that are over 12mm in size. No protection against water jets. Indoor use only.	IP65 – Completely protected against contact, the ingress of dust and water jets from all directions.

* Nominal wattage is the standard draw at which the fixture has been designed to run using a combination of colors and/or white LED illumination. The expectation is that not all color LEDs and the white LED are being using concurrently, however, that is possible so care should be taken to account for the max power draw when sizing your power supply.

Installation Instructions

Installation Requirements

- Before you begin installation, please verify that 24-volt power is off. It is recommended you disconnect the power supply before starting.
- When installing in a ceiling, it is highly recommended you do not cover the top of the fixture with insulation. It is ok for it to be surrounded by insulation, but adequate airflow will ensure the heat sync can cool the fixture and provide better longevity and performance.
- To help create a better seal between the fixture and drywall, installation of a vapor barrier prior can help reduce air entering/leaving the attic.
- Although this document does not cover the power supply or system integration, it is worth noting that all dimming happens on the DC output side and these low voltage fixtures should not be hooked up to a 120V or 220V dimmer.
- Do not hold the fixture by the RGBW+ cable.
- Please check the contents of the package before installation for damage.
- We recommend bench testing before installation.
- ALL WIRING AND INSTALLATION SHOULD ADHERE TO LOCAL AND NATIONAL WIRING STANDARDS.

Safety

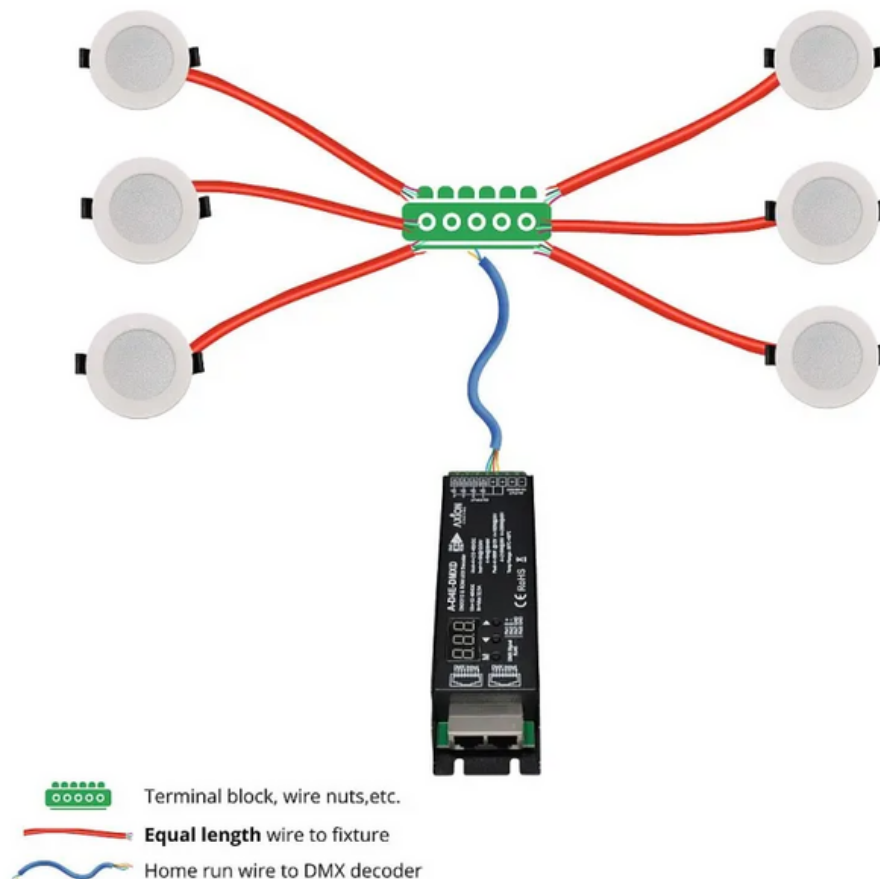
- The fixture is 24VDC; connecting it to 12VDC, 120/240/220 AC will void the warranty and cause permanent damage.
- Do not wire the fixture into a DMX decoder or power supply that is energized.
- All dimming happens on the 24V side and should be done with a compatible PWM device.
- Do not install in an environment that is fully sealed. The heat sink must have airflow to properly cool the device.
- Do not install in environments that constantly see humidity levels above 70%.
- Before servicing the fixture, disconnect power and allow time for it to cool.
- Use care when handling the fixture. Do not expose the device to chemicals or other substances which may be corrosive.
- Never soak or submerge the fixture in water.

Installation Instructions

- First, identify the location where the lighting fixture will be installed.
 - Verify there are no obstructions above the area including beams, pipes, electrical wires, studs, etc.
- Cut out the provided template from the top of the shipping box and trace the cut-out hole on the ceiling.
- Using a drywall saw or other suitable device, cut out the installation hole.
- At this point, run your wire from the DMX decoder (or other control device) to the first fixture. Multiple fixtures can be linked together using a single home-run wire.
 - The longer the run, the thicker or lower gauge wire is recommended to help prevent voltage drop.
 - You will need a cable with 5 wires if leveraging all Red, Green, Blue, and White LEDs (plus one for power).
- Wires can be joined using any suitable appropriate for the gauge wire such as: dolphin connectors, butt connectors, crimp connectors or even soldering.
- Once the wires have been properly joined, place the fixture into the ceiling.
- Push up on the spring flanges so they extend up towards the heat sink, then carefully work the light into the hole. Once inside the cut-out hole, release the spring flanges and it will fully seat.
- Apply power and test that you now have control. If certain colors do not seem to work, verify you have a solid connection.

Ideal Wiring Strategy

The best way to wire our recessed lights is to maintain as close to the same length wire run back to the DMX decoder or other control apparatus as possible. In the scenario below, the blue wire is a home run to the attic as centralized as possible to the 6 RGBW LED lights. Then, from that location an equal length wire is run to each light and joined using wire nuts, terminal block, dolphin connectors, etc. This will result in an equal amount of power going to each light so that you minimize voltage drop and potential brightness deltas between fixtures.



Wiring Color Code

Red Wire = Red LED Color

Green Wire = Green LED Color

Black Wire = Blue LED Color

Yellow Wire = 4000K White LED Color

White Wire = 24v Power Positive +

Contact

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