

# ARIA™



PROFILE  
RGBW



Blizzard Lighting, LLC  
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Waukesha, WI USA  
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# TABLE OF CONTENTS

Aria™ Profile RGBW	1
<b>1. Getting Started</b>	<b>3</b>
What's In The Box?	3
Getting It Out Of The Box	3
Powering Up!	3
Getting A Hold Of Us	3
Safety Instructions (Don't Stick Your Hand In The Toaster!)	4
<b>2. Meet The Aria™ Profile RGBW</b>	<b>5</b>
Features	5
DMX Values In-Depth	5
The Aria™ Profile Pin-up Picture	6
<b>3. Setup</b>	<b>7</b>
Fuse Replacement	7
Connecting A Bunch Of Aria™ Profile Fixtures	7
Data/DMX Cables	7
Cable Connectors	8
3-Pin??? 5-Pin??? Huh?	8
Take It To The Next Level: Setting up DMX Control	8
Connection With Mains	9
Mounting/Rigging	9
Gobo Holder	9
Gel Frame Holder	9
<b>4. Operating Adjustments</b>	<b>10</b>
The Control Panel	10
Control Panel Menu Structure	11
Setting the DMX Address	11
Select the DMX Channel Mode	11
Master/Slave Setting	11
RGBW Dimming/Color Mixing	11
Strobe and Fade Modes	11
Auto Mode	11
Dimming Curves	11
<b>5. Appendix</b>	<b>12</b>
A Quick Lesson On DMX	12
Troubleshooting	12
Keeping Your Aria™ Profile As Good As New	13
Returns (Gasp!)	13
Shipping Issues	13
Tech Specs	14
Dimensional Drawings	14
Photometric Data	15

# 1. GETTING STARTED

## What's In The Box?

- 1 x Aria™ Profile RGBW
- 1 x Gel Frame Holder
- 1 x Gobo Holder
- 1 x Ever-So-Handy Power Cord
- This Lovely User Manual

## Getting It Out Of The Box

Congratulations on your purchase of the fresh and fly Aria™ Profile RGBW! Now that you've got your Aria™ Profile (or hopefully, *Profiles!*), you should carefully unpack the box and check the contents to ensure that all parts are present and in good condition. If anything looks as if it has been damaged in transit, notify the shipper immediately and keep the packing material for inspection. Again, please save the carton and all packing materials. If a fixture must be returned to the factory, it's important that it be returned in the original factory box and packing.

## Powering Up!

All fixtures must be powered directly off a switched circuit and **cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch.**

*AC Voltage Switch* - Not all fixtures have a voltage select switch, so please verify that the fixture you receive is suitable for your local power supply. See the label on the fixture or refer to the fixture's specifications chart for more information. A fixture's listed current rating is its average current draw under normal conditions. Check the fixture or device carefully to make sure that if a voltage selection switch exists that it is set to the correct line voltage you will use.

**Warning! Verify that the voltage select switch on your unit matches the line voltage applied. Damage to your fixture may result if the line voltage applied does not match the voltage indicated on the voltage selector switch. All fixtures must be connected to circuits with a suitable Ground (Earthing).**

## Getting A Hold Of Us

**If something is wrong, please open a support ticket on our website at [www.blizzardlighting.com/support](http://www.blizzardlighting.com/support). We'll be happy to help, honest.**

**Disclaimer:** The information and specifications contained in this document are subject to change without notice. Blizzard Lighting™ assumes no responsibility or liability for any errors or omissions that may appear in this user manual. Blizzard Lighting™ reserves the right to update the existing document or to create a new document to correct any errors or omissions at any time. You can download the latest version of this document from [www.blizzardlighting.com](http://www.blizzardlighting.com).

Author:	Date:	Last Edited:	Date:
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# SAFETY INSTRUCTIONS



Please read these instructions carefully. They include important information about the installation, usage and maintenance of this product.

- Please keep this User Guide for future use. If you sell the unit to someone else, be sure that they also receive this User Guide.
- ALWAYS make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the fixture.
- This product is intended for indoor use only.
- To prevent risk of fire or shock, do not expose fixture to rain or moisture.
- Make sure there are no flammable materials close to the unit while operating.
- The unit must be installed in a location with adequate ventilation, at least 20in (50cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.
- ALWAYS disconnect from the power source before servicing or replacing fuse and be sure to replace with same fuse size and type.
- ALWAYS secure fixture using a safety chain. NEVER carry the fixture by its head. Use its carrying handles.
- DO NOT operate at ambient temperatures higher than 104°F (40°C).
- In the event of a serious operating problem, stop using the unit immediately. NEVER try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- NEVER connect the device to a dimmer pack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source while it is on.

**Caution!** There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please open a support ticket at [www.blizzardlighting.com/support](http://www.blizzardlighting.com/support).

## 2. MEET THE ARIA™ PROFILE RGBW

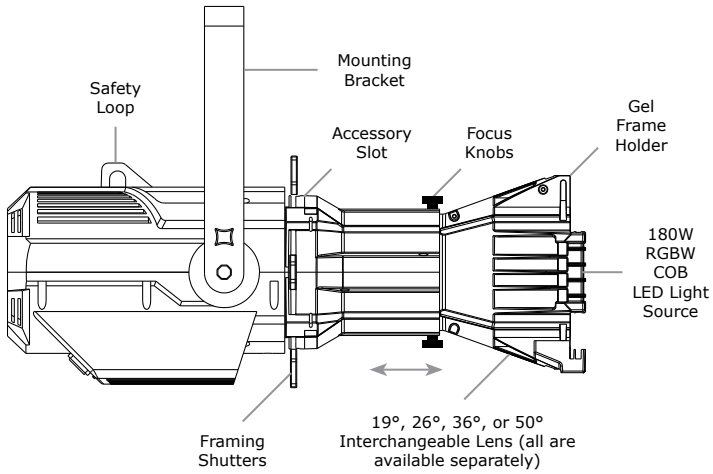
### MAIN FEATURES

- 180W RGBW 4-in-1 COB LED
- 19°, 26°, 36°, and 50° lens tubes are available
- High resolution dimming (4,096 steps)
- 4\* user selectable dimming curves
- Virtual color wheel
- Auto mode, color snap, and fade
- Manual focus
- (4) blade manual framing shutters
- Gel frame & gobo holder (supports B size gobos)
- Rotating barrel ± 25°
- 1-20 fps strobe effects
- Flicker-free operation
- Low power consumption
- 4-button LCD control panel menu
- PowerCon™ compatible in/out power connectors
- 3-pin DMX input/output
- Durable plastic composite housing
- Standalone, master/slave, auto mode
- USITT DMX-512 (6/9-channels)

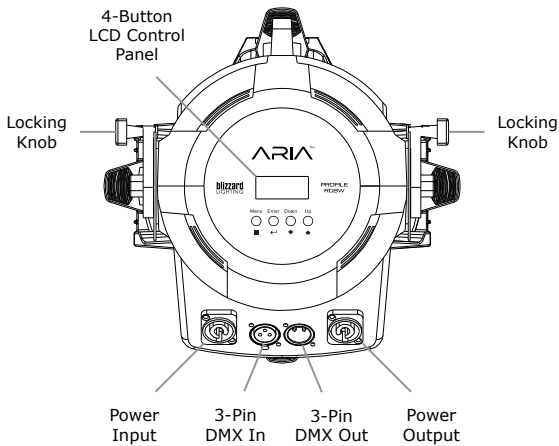
### DMX Values In-Depth (6/9CH Mode)

6CH	9CH	Value	What It Does
1	1	000 <--> 255	Master Dimmer
2	2	000 <--> 255	Red Intensity (0% <--> 100%)
3	3	000 <--> 255	Green Intensity (0% <--> 100%)
4	4	000 <--> 255	Blue Intensity (0% <--> 100%)
5	5	000 <--> 255	White Intensity (0% <--> 100%)
6	6	000 <--> 009 010 <--> 255	<b>Strobe</b> No Function Strobe (slow <--> fast)
--	7	000 <--> 255	Virtual Color Wheel
--	8	000 <--> 009 010 <--> 134 135 <--> 255	<b>Built-In Programs</b> No Function Color Fade (slow <--> fast) Color Snap (slow <--> fast)
--	9	000 <--> 009 010 <--> 063 064 <--> 127 128 <--> 191 192 <--> 255	<b>Dimming Curves</b> As set in the LCD menu Curve 1 Curve 2 Curve 3 Curve 4

**Figure 1: The Aria™ Profile RGBW Pin-Up Picture**



**Figure 2: The Rear Connections**



### 3. SETUP



Before replacing a fuse, disconnect the power cord.  
ALWAYS replace with the same type and rating of fuse.

#### Fuse Replacement

Aria™ Profile RGBW utilizes a high-output switch-mode power supply with an internal fuse. Under normal conditions, it should not require replacement. Should the fuse require replacement, please contact Blizzard Lighting for instructions, or to return your unit for service.

#### Connecting A Bunch of Aria™ RGBW Fixtures

You will need a serial data link to run light shows using a DMX-512 controller or to run shows on two or more fixtures set to sync in master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

Fixtures on a serial data link must be daisy chained in one single line. Also, connecting more than 32 fixtures on one serial data link without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal. The maximum recommended cable-run distance is 500 meters (1640 ft). The maximum recommended number of fixtures on a serial data link is 32 fixtures.

#### Data/DMX Cabling

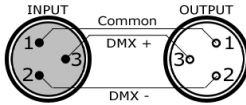
To link fixtures together you'll need data cables. You should use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

For instance, Belden© 9841 meets the specifications for EIA RS-485 applications. Standard microphone cables will "probably" be OK, but note that they cannot transmit DMX data as reliably over long distances. In any event, the cable should have the following characteristics:

*2-conductor twisted pair plus a shield  
Maximum capacitance between conductors – 30 pF/ft.  
Maximum capacitance between conductor & shield – 55 pF/ft.  
Maximum resistance of 20 ohms / 1000 ft.  
Nominal impedance 100 – 140 ohms*

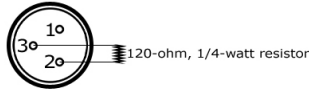
## Cable Connectors

Cables must have a male XLR connector on one end and a female XLR connector on the other end. (Duh!)



**A Word on Termination:** DMX is a resilient communication protocol, however errors still occasionally occur. Termination reduces signal errors, and therefore best practices include use of a terminator in all circumstances. If you are experiencing problems with erratic fixture behavior, especially over long signal cable runs, a terminator may help improve performance.

**To build your own DMX Terminator:**  
Obtain a 120-ohm, 1/4-watt resistor, and wire it between pins 2 & 3 of the last fixture. They are also readily available from specialty retailers.



**CAUTION:** Do not allow contact between the common and the fixture's chassis ground. Grounding the common can cause a ground loop, and your fixture may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.

## 3-Pin??? 5-Pin??? Huh?!

If you use a controller with a 5-pin DMX output connector, you will need to use a 5-pin to 3-pin adapter. They are widely available over the internet and from specialty retailers. If you'd like to build your own, the chart below details a proper cable conversion:

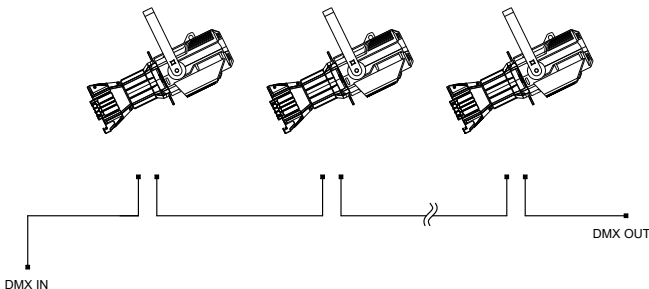
Conductor	3-Pin Female (Output)	5-Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
Data 1- (Primary Data Link)	Pin 2	Pin 2
Data 1+ (Primary Data Link)	Pin 3	Pin 3
Data 2- (Optional Secondary Data Link)	Pin 4	Pin 4
Data 2+ (Optional Secondary Data Link)	Pin 5	Pin 5

## Take It To The Next Level: Setting Up DMX Control

**Step 1:** Connect the male connector of the DMX cable to the female connector (output) on the controller.

**Step 2:** Connect the female connector of the DMX cable to the first fixture's male connector (input).

**Step 3:** Connect fixtures a chain from input to output as shown below. Place a DMX terminator on the output of the final fixture for best communication.

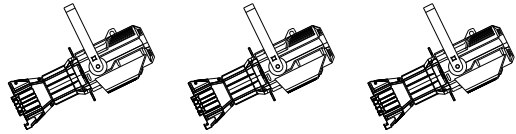




## Connection With Mains

**Step 1:** Connect the fixture(s) to the mains with the supplied power cord. The connection must be connected to ground (earth).

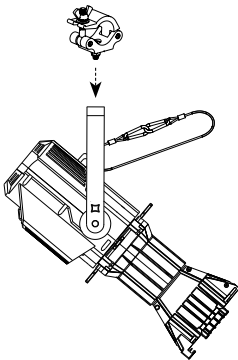
**Step 2:** This product comes with a power input cord and supports power linking. Power linking interconnect cords are available from Blizzard Lighting.



AC100-240V, 50/60HZ

## Mounting & Rigging

This fixture may be mounted in any SAFE position provided there is enough room for ventilation.



Mount the fixture using a suitable "C" or "O" type clamp. The clamp should be rated to hold at least 10x the fixture's weight to ensure structural stability. Do not mount to surfaces with unknown strength, and ensure properly "rated" rigging is used when mounting fixtures overhead.

Adjust the angle of the fixture by loosening both knobs and tilting the fixture. After finding the desired position, retighten both knobs.

A safety cable **MUST ALWAYS** be used.

## Rotating the Barrel

Loosen the knobs located behind the shutters on the housing, and rotate the barrel. Once positioned, tighten the knobs to lock it in place.

## Gobo Holder

Take out the gobo frame, loosen the screws, insert the gobo and re-tighten the screws. When complete, insert the gobo frame into the slot.

## Gel Frame Holder

Loosen the screws, insert a color gel sheet, and re-tighten the screws. When complete, insert the gel frame into the slot.

# 4. OPERATING ADJUSTMENTS

## The Control Panel

All the goodies and different modes possible with the Aria™ Profile are accessed by using the control panel on the rear of the fixture. There are 4 control buttons below the LCD display which allow you to navigate through the various control panel menus.

### <MENU>

Is used to navigate to the previous higher-level menu item.

### <ENTER>

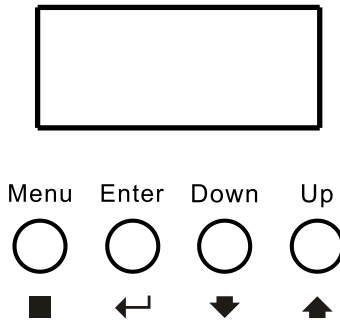
Is used to select and confirm/store the current selection.

### <DOWN>

Scrolls through menu items and numbers in descending order.

### <UP>

Scrolls through menu items and numbers in ascending order.



The control panel LCD display shows the menu items you select from the menu map on page #11. When a menu function is selected, the display will show immediately the first available option for the selected menu function. To select a menu item, press **<ENTER>**.

Use the **<UP>** and **<DOWN>** buttons to navigate the menu options. Press the **<ENTER>** button to select the menu function currently displayed, or to enable a menu option. To return to the previous option or menu without changing the value, press the **<MENU>** button.

## Control Panel Menu Structure

<b>DMX512</b>	001-512	Choose a DMX address from 001-512
<b>Channel Mode</b>	6CH/9CH	Choose the DMX channel mode
<b>Dimmer</b>	R-[MODE] G-[MODE] B-[MODE] W-[MODE]	Red intensity (0000-4096) Green intensity (0000-4096) Blue intensity (0000-4096) White intensity (0000-4096)
<b>Strobe</b>	00-12	Strobe (slow <-> fast)
<b>Fade</b>	00-12	Fade (slow <-> fast)
<b>Auto</b>	00-12	Color macros (slow <-> fast)
<b>Curve</b>	01-04	Dimmer curve 1-4
<b>Version</b>	vX.XX	Shows the installed firmware version

### Setting the DMX Address

1.) Navigate the main menu to reach **DMX512** and press **<ENTER>**. Then use the **<UP/DOWN>** buttons to highlight an address ranging from 001-512, and press the **<ENTER>** button to confirm your choice.

### Select the DMX Channel Mode

1.) Navigate the main menu to reach **Channel Mode** and press **<ENTER>**. Then use the **<UP/DOWN>** buttons to highlight either **6ch** or **9ch**, and press the **<ENTER>** button to confirm your choice.

### Master/Slave Setting

1.) Connect fixtures together via DMX. Then, for slave fixtures to follow the master fixture (first in the chain), set all slave fixture's DMX address to **001**.

### RGBW Dimming/Color Mixing

1.) Navigate the main menu to reach **Dimmer** setting for **R/G/B** or **W** and press **<ENTER>**. Then use the **<UP/DOWN>** buttons to highlight a value from **0000-4096**, and press the **<ENTER>** button to confirm your choice.

### Strobe and Fade Modes

1.) Navigate the main menu to reach **Strobe** or **Fade** and press **<ENTER>**. Then use the **<UP/DOWN>** buttons to highlight a value from **01-12**, and press the **<ENTER>** button to confirm your choice.

### Auto Mode

1.) Navigate the main menu to reach **Auto** and press **<ENTER>**. Then use the **<UP/DOWN>** buttons to highlight a value from **01-12**, and press the **<ENTER>** button to confirm your choice.

### Dimming Curves

1.) Navigate the main menu to reach **Curve** and press **<ENTER>**. Then use the **<UP/DOWN>** buttons to highlight a value from **Curve 01-04**, and press the **<ENTER>** button to confirm your choice.

# 5. APPENDIX

## A Quick Lesson On DMX

DMX (aka DMX-512) was created in 1986 by the United States Institute for Theatre Technology (USITT) as a standardized method for connecting lighting consoles to lighting dimmer modules. It was revised in 1990 and again in 2000 to allow more flexibility. The Entertainment Services and Technology Association (ESTA) has since assumed control over the DMX512 standard. It has also been approved and recognized for ANSI standard classification.

DMX covers (and is an abbreviation for) Digital MultipleXed signals. It is the most common communications standard used by lighting and related stage equipment.

DMX provides up to 512 control "channels" per data link. Each of these channels was originally intended to control lamp dimmer levels. You can think of it as 512 faders on a lighting console, connected to 512 light bulbs. Each slider's position is sent over the data link as an 8-bit number having a value between 0 and 255. The value 0 corresponds to the light bulb being completely off while 255 corresponds to the light bulb being fully on.

DMX data is transmitted at 250,000 bits per second using the RS-485 transmission standard over two wires. As with microphone cables, a grounded cable shield is used to prevent interference with other signals.

There are five pins on a DMX connector: a wire for ground (cable shield), two wires for "Primary" communication which goes from a DMX source to a DMX receiver, and two wires for a "Secondary" communication which goes from a DMX receiver back to a DMX source. Generally, the "Secondary" channel is not used so data flows only from sources to receivers. Hence, most of us are most familiar with DMX-512 as being employer over typical 3-pin "mic cables," although this does not conform to the defined standard.

DMX is connected using a daisy-chain configuration where the source connects to the input of the first device, the output of the first device connects to the input of the next device, and so on. The standard allows for up to 32 devices on a single DMX link.

## Troubleshooting

Symptom	Solution
Fixture Auto-Shut Off	Check the fan in the fixture. If it is stopped or moving slower than normal, the unit may have shut itself off due to high heat. This is to protect the fixture from overheating. Clear the fan of obstructions, or return the unit for service.
No Light Output	Check to ensure fixture is operating under correct mode.
No Power	Check fuse, AC cord and circuit for malfunction.
Blown Fuse	Check AC cord and circuit for damage, verify that moving parts are not restricted and that unit's ventilation is not obstructed
Fixture Not Responding / Responding Erratically	Make sure all connectors are seated properly and securely. Use Only DMX Cables and/or check cables for defects Install a Terminator. Reset fixture(s).

## Keeping Your Aria™ Profile As Good As New

The fixture you've received is a rugged, tough piece of pro lighting equipment, and as long as you take care of it, it will take care of you. That said, like anything, you'll need to take care of it if you want it to operate as designed. You should absolutely keep the fixture clean, especially if you are using it in an environment with a lot of dust, fog, haze, wild animals, wild teenagers or spilled drinks.

Cleaning the optics routinely with a suitable glass cleaner will greatly improve the quality of light output. Keeping the fans free of dust and debris will keep the fixture running cool and prevent damage from overheating.

In transit, keep the fixtures in cases. You wouldn't throw a prized guitar, drumset, or other piece of expensive gear into a gear trailer without a case, and similarly, you shouldn't even think about doing it with your shiny new light fixtures.

Common sense and taking care of your fixtures will be the single biggest thing you can do to keep them running at peak performance and let you worry about designing a great light show, putting on a great concert, or maximizing your client's satisfaction and "wow factor." That's what it's all about, after all!

## Returns (Gasp!)

We've taken a lot of precautions to make sure you never even have to worry about sending a defective unit back, or sending a unit in for service. But, like any complex piece of equipment designed and built by humans, once in a while, something doesn't go as planned. If you find yourself with a fixture that isn't behaving like a good little fixture should, you'll need to obtain a Return Authorization (RA).

Don't worry, this is easy. Just go to our website and open a support ticket at [www.blizzardlighting.com/support](http://www.blizzardlighting.com/support), and we'll issue you an RA. Then, you'll need to send the unit to us using a trackable, pre-paid freight method. We suggest using USPS Priority or UPS. Make sure you carefully pack the fixture for transit, and whenever possible, use the original box & packing for shipping.

When returning your fixture for service, be sure to include the following:

- 1.) Your contact information (Name, Address, Phone Number, Email address).
- 2.) The RA# issued to you
- 3.) A brief description of the problem/symptoms.

We will, at our discretion, repair or replace the fixture. Please remember that any shipping damage which occurs in transit to us is the customer's responsibility, so pack it well!

## Shipping Issues

**Damage incurred in shipping is the responsibility of the shipper, and must be reported to the carrier immediately upon receipt of the items. Claims must be made within seven (7) days of receipt.**

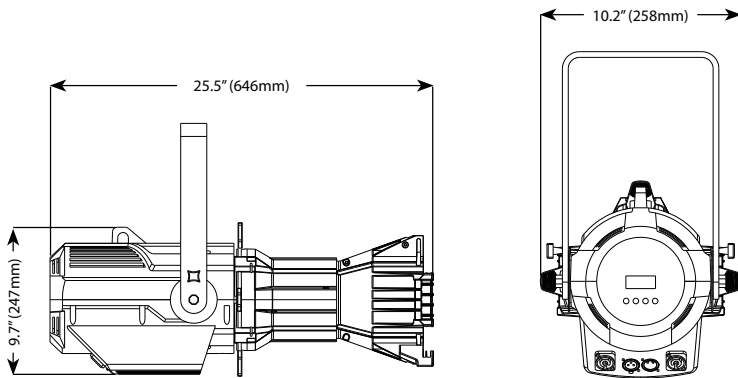
### DISCLAIMER:

The power connector fitted to the fixture and fixture cord are designed for compatibility with products manufactured by Neutrik AG, Neutrik USA and their related entities, however they are not manufactured by, affiliated with or endorsed by Neutrik AG, Neutrik USA, or any related entity. Neutrik® and powerCON® are registered trademarks of Neutrik AG.

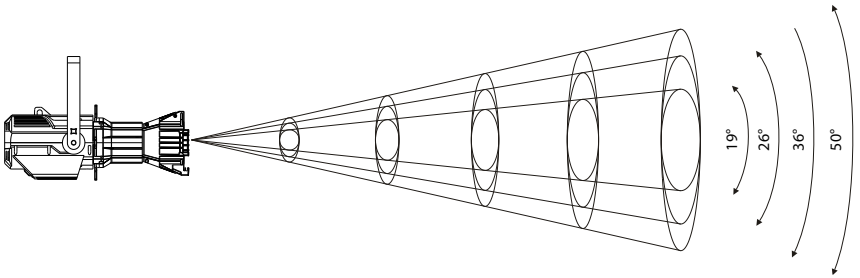
## Tech Specs!

<b>Weight &amp; Dimensions</b>	
Width	10.2 inches (258mm)
Depth	25.5 inches (646mm)
Height	9.7 inches (247mm)
Weight	16.5 lbs. (7.5 kg)
<b>Power</b>	
Operating Voltage	90V-260VAC, 50-60Hz
Power Consumption	160W, 1.35A PF: .99
<b>Light Source</b>	
LED	180W RGBW 4-in-1 COB LED
<b>Optical</b>	
Beam Angle	Beam angle: 19°, 26°, 36°, and 50° lenses are available
Gobo Size	Standard B: 86mm OD, 64.5mm IA
<b>Thermal</b>	
Max. Operating Temp.	104 degrees F (40 degrees C) ambient
<b>Control</b>	
Protocol	USITT DMX-512
DMX Channels	6/9-channel DMX modes
Input/Output	3-pin XLR Male/Female
Operating Modes	Standalone, Master/Slave, Auto Mode
<b>Warranty</b>	2-year limited warranty, does not cover malfunction caused by damage to LEDs.

## Dimensional Drawings



## Photometric Data



Beam Diameter:

	2.5 meters		5 meters		7.5 meters		10 meters	
19°	33.7 in	85.6 cm	67.3 in	171 cm	101.9 in	257 cm	134.7 in	342 cm
26°	46.1 in	117 cm	92.1 in	234 cm	138.2 in	351 cm	184.3 in	468 cm
36°	63.8 in	162 cm	127.6 in	324 cm	191.3 in	486 cm	255.1 in	648 cm
50°	88.6 in	225 cm	177.2 in	450 cm	265.5 in	675 cm	354.3 in	900 cm

Luminous Intensity: 19° Lens

	2.5 meters		5 meters		7.5 meters		10 meters	
LEDs	Lux	Fc	Lux	Fc	Lux	Fc	Lux	Fc
Red	962	88.8	244	23.2	113	10.5	64	5.9
Green	1599	148.6	422	39.2	190	17.7	105	9.8
Blue	1020	93.0	252	23.2	113	10.5	64	5.9
White	1667	154.9	433	40.2	195	18.1	109	10.1
All	3877	360.2	1058	98.3	480	44.6	275	25.6

Luminous Intensity: 26° Lens

	2.5 meters		5 meters		7.5 meters		10 meters	
LEDs	Lux	Fc	Lux	Fc	Lux	Fc	Lux	Fc
Red	660	65.6	180	16.7	78	7.3	47	4.4
Green	1132	105.1	304	28.2	136	12.7	79	7.3
Blue	711	66.1	185	17.2	85	8.0	48	4.4
White	1206	112.1	324	30.1	147	13.6	84	7.8
All	2654	246.6	794	73.8	376	34.1	209	19.4

Luminous Intensity: 36° Lens

	2.5 meters		5 meters		7.5 meters		10 meters	
LEDs	Lux	Fc	Lux	Fc	Lux	Fc	Lux	Fc
Red	443	41.3	123	11.3	56	5.2	33	3.0
Green	763	70.9	206	19.1	93	8.7	53	5.0
Blue	478	44.6	126	11.7	58	5.3	33	3.0
White	827	76.8	224	20.8	103	9.5	59	5.5
All	1926	178.9	543	50.5	251	23.3	145	13.4

Luminous Intensity: 50° Lens

	2.5 meters		5 meters		7.5 meters		10 meters	
LEDs	Lux	Fc	Lux	Fc	Lux	Fc	Lux	Fc
Red	282	25.9	74	7.0	35	3.3	21	1.9
Green	478	44.4	127	11.8	59	5.5	25	2.3
Blue	297	27.3	80	7.4	37	3.4	21	1.9
White	527	49.0	140	13.0	65	6.1	27	2.5
All	1219	113.2	336	31.2	160	14.9	90	8.3



**Enjoy your product!  
Our sincerest thanks for your purchase!  
--The team @ Blizzard Lighting**