

# TOGO 24 WALL

LUMENWERX  
WWW.LUMENWERX.COM



## DESCRIPTION

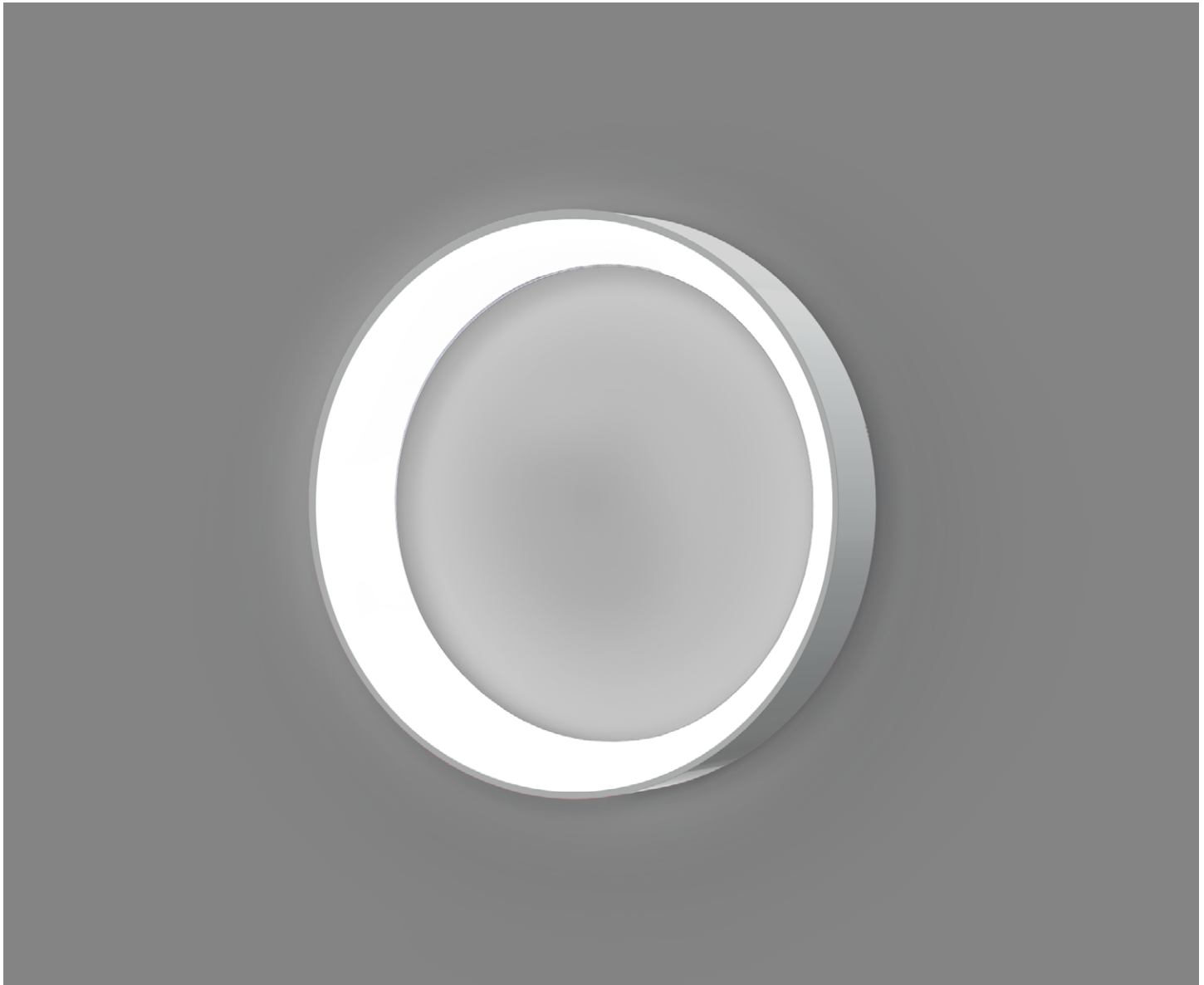
Togo provides generous ambient illumination from a minimal and elegant ring form. Nestled in a crisp 4" high opaque band, the distinctive, annular diffuser glows inwardly. The diffuser's softly rounded compound curve lends Togo a slender appearance.

Available in 18" and 24" diameters. Togo delivers efficient illumination and a range of light outputs.

Togo's outer housing of extruded aluminum is welded and buffed to a seamless band that can be painted in our nine standard finishes, or an RAL custom color, to coordinate with virtually any interior finish.

The Togo driver mounts remotely, either above or below the ceiling. Controls include dimming to 1% in 0-10V, line voltage, and digital protocols. Night light and emergency circuiting are available.

Togo supports the full range of Chromawerx Sola, Duo, and Quadro options for tunable white and RGBW expressive color.



Please see code on page 2 for all nine standard finishes.

# TOGO 24 WALL

PROJECT: \_\_\_\_\_  
TYPE: \_\_\_\_\_  
NOTES: \_\_\_\_\_

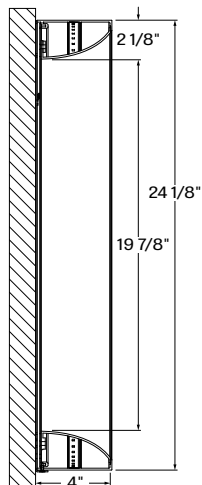
TOGW	24IN	ULO		90		
LUMINAIRE ID	SIZE	OPTIC	LIGHT SOURCE	CRI	LUMEN PACKAGES/ WATTAGE	COLOR TEMP. <sup>1</sup>
TOGW - Togo Wall	24IN - Ø 24"	ULO - Uniform Lambertian Optic	<b>SW</b> - Static white <b>SOLA</b> - Dim-to-warm single channel control 22K to 35K <b>DUO</b> - Tunable white 2-channel control 27K to 65K <b>QUADRO</b> - Four-channel RGB with 3500K white	90 - 90CRI	<b>####lm</b> - L2500lm - M3500lm - H4500lm <b>L</b> -Low, <b>M</b> -Medium, <b>H</b> -High, consult factory for other (static white, Duo and Sola only) <b>54W</b> - 54W output (Quadro only)	<b>27</b> - 2700K <b>30</b> - 3000K <b>35</b> - 3500K <b>40</b> - 4000K <sup>1</sup> Not applicable for Duo, Sola and Quadro.
VOLTAGE	REMOTE DRIVER			1	MBP	
				ELECTRICAL	MOUNTING	FINISH
<b>120</b> - 120V <b>277</b> - 277V <b>UNV</b> - 120V-277V <b>347V</b> <sup>2</sup> - 347V  <sup>2</sup> Available with D1 only.	<u>Static white</u> <b>D1</b> - 1% 0-10V <b>DA</b> <sup>3</sup> - DALI <b>LDE1</b> <sup>3</sup> - Lutron Hi-lume 1% Eco	<u>Sola</u> <b>SD1</b> - Single 0-10V input  <u>Duo</u> <b>DD1</b> - Dual 0-10V input for CCT/intensity <b>DA</b> <sup>3</sup> - DALI <b>PSQO</b> <sup>3</sup> - Lutron T-series 1% Tunable White <b>DMX</b> <sup>3,4</sup> - DMX  <u>Quadro</u> <b>DMX</b> <sup>3,4</sup> - DMX		1 - 1 circuit	MBP - Mounting back plate	<b>W</b> - Matte white <b>AL</b> - Aluminum <b>BK</b> - Black <b>RAL 1028</b> - Yellow <b>RAL 2004</b> - Orange <b>RAL 3020</b> - Red <b>RAL 4010</b> - Magenta <b>RAL 5002</b> - Blue <b>RAL 6018</b> - Green <b>CF#</b> - Custom finish, specify RAL#
	<sup>3</sup> On-site commissioning is required.					
	<sup>4</sup> To specify, see pages 7 to 13.					

See page 3 for ordering code detailed information

## DMX WALL CONTROLS

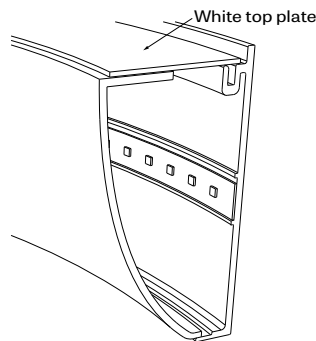
To specify see pages 7 to 13

### CROSS SECTION



TOGW - Togo Wall

### 3D CROSS SECTION



TOGW - Togo Wall

# TOGO 24 WALL

## OPTIC

**Uniform Lambertian Optic (ULO)** - Thermoformed from seamless impact-modified white PMMA, the ULO optic provides even luminosity, with up to 88% transmission. The tapered, compound curve minimizes the luminaire form.

Combined with the LED array running around the inside of the supporting band, the annular form and ULO optic creates a widespread 67% direct and 33% direct light distribution with spacing criteria of 1.6.

## LIGHT SOURCE - LED - STATIC WHITE

Custom array of mid-flux LEDs are mounted directly to the housing for optimal thermal performance. Available in 2700K, 3000K, 3500K, and 4000K with 90 CRI with elevated R9 value. Color consistency is maintained to 3 SDCM. LEDs are operated at a reduced drive current to optimize efficacy and lumen maintenance. All LEDs have been tested in accordance with IESNA LM-80-08 and results have shown L80 lumen maintenance are greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

## PERFORMANCE AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	26	2500	97
medium output	4000K	37	3500	94
high output	4000K	49.5	4500	91

## CHROMAWERX - TUNABLE WHITE

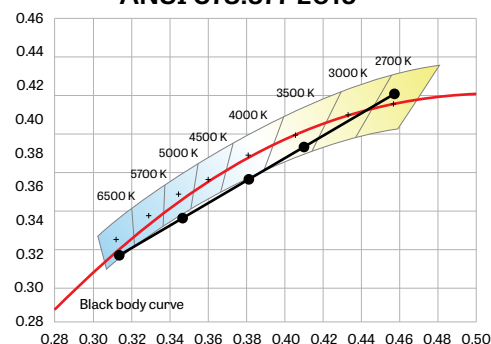
Custom linear array of alternating color temperature mid-flux LEDs are mounted directly to the housing for optimal thermal performance. For the Duo products, a color temperature range from 2700K-6500K is achievable with color points on or below the black body curve. For the Sola products, a color temperature range from 2700K-3500K is controlled synchronously with intensity. Color consistency between fixtures is maintained within 3SDCM. LEDs are operated at a reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance are greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

**Chromawerx Sola** is a single-channel control that dims output while warming the color temperature in a pre-determined relationship. A simple digital or analog control sends a common signal to dual output digital drivers, which are programmed to adjust a specially populated LED array to emulate the effect of dimming a filament source. Dimming range is programmable, but the default option runs from 3500K at 100% full power to 2700K at 5% full power.

**Chromawerx Duo** is a two-channel control. It uses analog or digital protocols for synchronous control of both warm and cool LED arrays, enabling the user to set color temperature and light output. Commonly called "tunable white", Chromawerx two-channel control provides the range of warm (2700K) to cool (6500K) color that can be useful for helping to entrain circadian rhythms, stimulate alertness for improved educational and work productivity, and compensate for jet lag, among other applications. The Chromawerx drivers are programmed to limit maximum light output and power usage across all color temperatures.

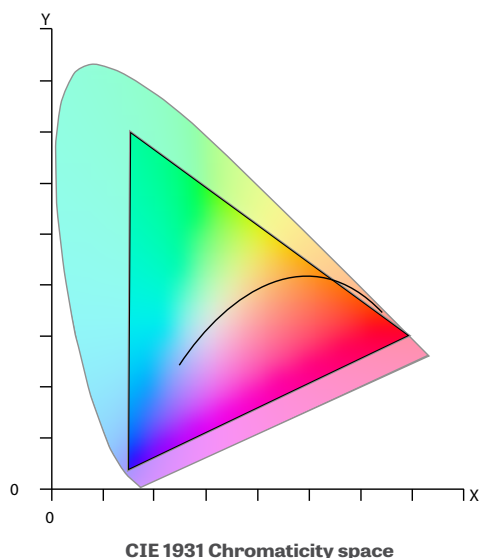
## ANSI C78.377-2015



# TOGO 24 WALL

## CHROMAWERX - RGBW

**Chromawerx Quadro** is a four-channel control that operates an RGBW LED array and addresses the need for more expressive color in architectural applications. The DMX driver supports familiar programming tools for both dynamic multi-hued color and precise white color point control. While a typical user interface will be a DMX controller by others, Lumenwerx also offers a simple control station for stand-alone color changing applications.



## ELECTRICAL REMOTE

All remote drivers are furnished with factory enclosure for recessed installation in drywall and grid ceilings.

## DALI (Duo Only)

Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Using an existing DALI control system (supplied by others), one control channel adjusts the fixture color temperature, and the other control channel adjusts fixture brightness. Dimming range from 100%-0%. At maximum driver load, efficiency<86%, PF>0.9, THD<20%.

## 0-10V (Sola)

Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Using a single 0-10V control signal, the fixture warms in color temperature as it dims down to 1% and 2200K. At maximum driver load, efficiency<86%, PF>0.9, THD<20%.

## 0-10V (Duo)

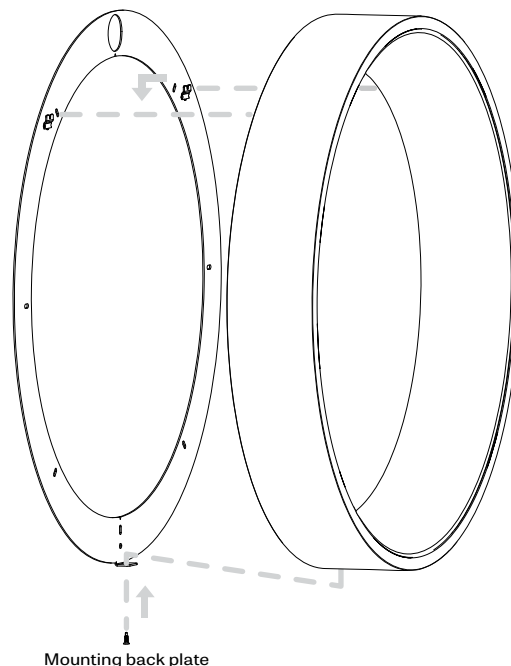
Factory-set adjustable output current LED driver with universal (120-277VAC) input. Controlled via two individual 0-10V signals, one for setting the intensity of the fixture down to a minimum of 1% and the other for adjusting the CCT of the fixture (default range of 2700K-6500K). Rated life of 50,000 hours at 70°C maximum driver case temperature and 100% load conditions. Typical efficiency of 86%, PF>0.9, THD<20% at 100% load conditions.

## DMX (Quadro & Duo only)

Factory-set, adjustable output current, multi-channel LED driver with universal (120-277VAC) input. Using DMX wall controls (optionally supplied by Lumenwerx) or an existing DMX control system, either two channels of LEDs (warm-white & cool-white) for Duo or four channels of LEDs (Red/Green/Blue/White) for Quadro are independently adjustable. Each DMX driver has multiple output channels that can be independently addressed at the factory or on-site using built-in RDM (Remote Device Management) functionality. Dimming range from 100%-0%. At maximum driver load, efficiency<89%, PF>0.9, THD<20%.

## MOUNTING

Togo wall creates an arresting impression with a glowing ring of light. Available in 18" and 24" diameters, the 4" depth meets ADA requirements. The driver is housed in a remote-mounted enclosure suitable for accessible installation above the ceiling, behind the wall, or in a closet. Class II wiring from driver to the luminaire can run up to 50 feet. Visit our web site at [www.lumwnwerx.com](http://www.lumwnwerx.com) to download the wiring distance instruction guide.



# TOGO 24 WALL

## FINISH

**Interior** - 95% reflective, matte white powder coating

**Exterior** - Side trim is offered in a range of vibrant color powder coatings.

## CONSTRUCTION

**Housing** - Rolled and seamlessly welded aluminum extrusion 0.125 in thick, wide variety of colored powder coating

**Diffuser** - Uniform Lambertian Optic, thermoformed impact modified acrylic, completely enclosed

**Mounting back plate** - 16 GA cold rolled steel, powder coated color to match housing

## WEIGHT

**Togo 24** - 9.3lbs - 4.2kg

## CERTIFICATIONS

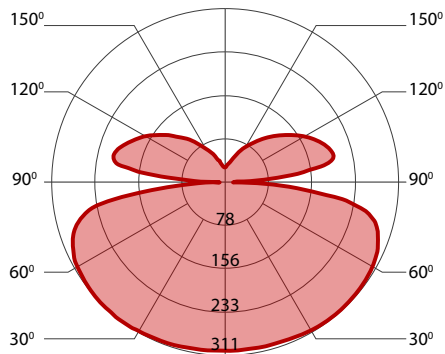
**ETL** - Rated for Indoor Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

## WARRANTY

Lumenwerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

# TOGO 24 WALL

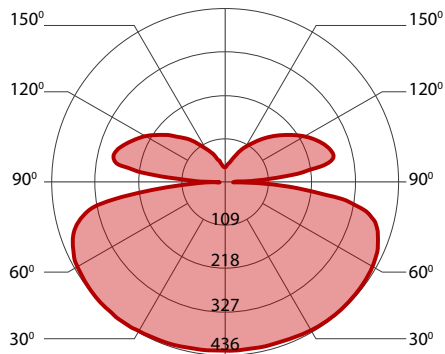
## 2500 LUMEN AT 90CRI - LOW OUTPUT



### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	2700K	28.5	2500	88
low output	3000K	27	2500	92
low output	3500K	26.5	2500	95
low output	4000K	26	2500	97
low output	5000K	24.5	2500	103
low output	6500K	24.5	2500	102

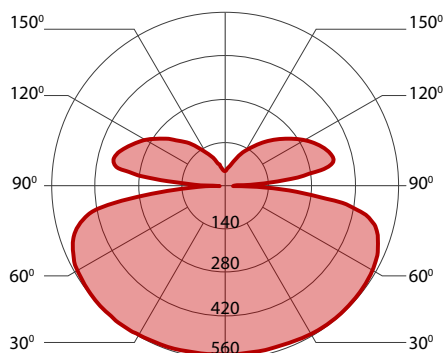
## 3500 LUMEN AT 90CRI - MEDIUM OUTPUT



### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	2700K	40.5	3500	86
medium output	3000K	39.5	3500	89
medium output	3500K	38	3500	92
medium output	4000K	37	3500	94
medium output	5000K	35	3500	100
medium output	6500K	35.5	3500	99

## 4500 LUMEN AT 90CRI - HIGH OUTPUT



### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	2700K	54	4500	83
high output	3000K	51	4500	87
high output	3500K	50.5	4500	89
high output	4000K	49.5	4500	91
high output	5000K	46.5	4500	97
high output	6500K	47	4500	96

# TOGO 24 WALL

## CHROMAWERX TUNABLE WHITE AND DIM TO WARM

### DUO DMX SPECIFICATION

A qualified DMX integrator is required to assure proper installation and commissioning of the DMX network. **When placing the PO, please provide the contact information of your DMX integrator.**

Please answer the following questions to help us identify your DMX network requirements.

YES

Do you require a wall controller provided by Lumenwerx?

NO

DMX control system supplied by others. Lumenwerx will supply DMX-enabled fixtures with default DMX addressing. See following pages for technical DMX informations. ✓

DMX controller supplied by Lumenwerx

**How many zones do you have?**  
A zone consists of one or more luminaires behaving identically.



1 Zone



2 Zones

#### How to calculate the required number of drivers:

Per fixture

1x  
Driver / 50W  
per side

To Calculate  
# of drivers

1 - 4 Zones

5 or more Zones

Do you have more than  
32 drivers in total?

NO

YES

Order a standard Lumenwerx wall controller.

#### WALL CONTROLLER

**WCW** - wall controller white  
**WCB** - wall controller black

Add the control code at the end of your order code.

Please provide a fixture layout or RCP (Reflected Ceiling Plan) showing the locations of the DMX fixtures, zones and the DMX wall controller.

Refer to your DMX integrator for the installation. ✓

Subject to factory evaluation. Please contact our controls specialist at [controls@lumenwerx.com](mailto:controls@lumenwerx.com). Additional costs and equipment will be required. ✓

Subject to factory evaluation and approval. Please contact our controls specialist at [controls@lumenwerx.com](mailto:controls@lumenwerx.com). Additional costs and equipment will be required. ✓

# TOGO 24 WALL

## CHROMAWERX QUADRO - RGBW

### QUADRO DMX SPECIFICATION

A qualified DMX integrator is required to assure proper installation and commissioning of the DMX network. **When placing the PO, please provide the contact information of your DMX integrator.**

Please answer the following questions to help us identify your DMX network requirements.

YES

Do you require a wall controller provided by Lumenwerx?

NO

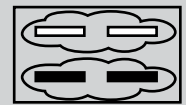
DMX control system supplied by others. Lumenwerx will supply DMX-enabled fixtures with default DMX addressing. See following pages for technical DMX informations. ✓

DMX controller supplied by Lumenwerx

**How many zones do you have?**  
A zone consists of one or more luminaires behaving identically.



1 Zone



2 Zones

#### How to calculate the required number of drivers:

Per fixture

1x  
Driver / 5000lm  
per side

To Calculate  
# of drivers

1 Zone

2 to 3 Zones

4 or more Zones

Do you have more than  
32 drivers in total?

NO

YES

Order a standard Lumenwerx wall controller type 1.

#### WALL CONTROLLER

**WC1W** - Single zone wall controller white  
**WC1B** - Single zone wall controller black

Add the control code at the end of your order code.  
Please provide a fixture layout or RCP (Reflected Ceiling Plan) showing the locations of the DMX fixtures, zones and the DMX wall controller.  
Refer to your DMX integrator for the installation. ✓

Subject to factory evaluation. Please contact our controls specialist at [controls@lumenwerx.com](mailto:controls@lumenwerx.com). Additional costs and equipment will be required. ✓

NO

YES

Order a standard Lumenwerx wall controller type 2.

#### WALL CONTROLLER

**WC2W** - 3 zone wall controller white  
**WC2B** - 3 zone wall controller black

Add the control code at the end of your order code.  
Please provide a fixture layout or RCP (Reflected Ceiling Plan) showing the locations of the DMX fixtures, zones and the DMX wall controller.  
Refer to your DMX integrator for the installation. ✓

Subject to factory evaluation. Please contact our controls specialist at [controls@lumenwerx.com](mailto:controls@lumenwerx.com). Additional costs and equipment will be required. ✓

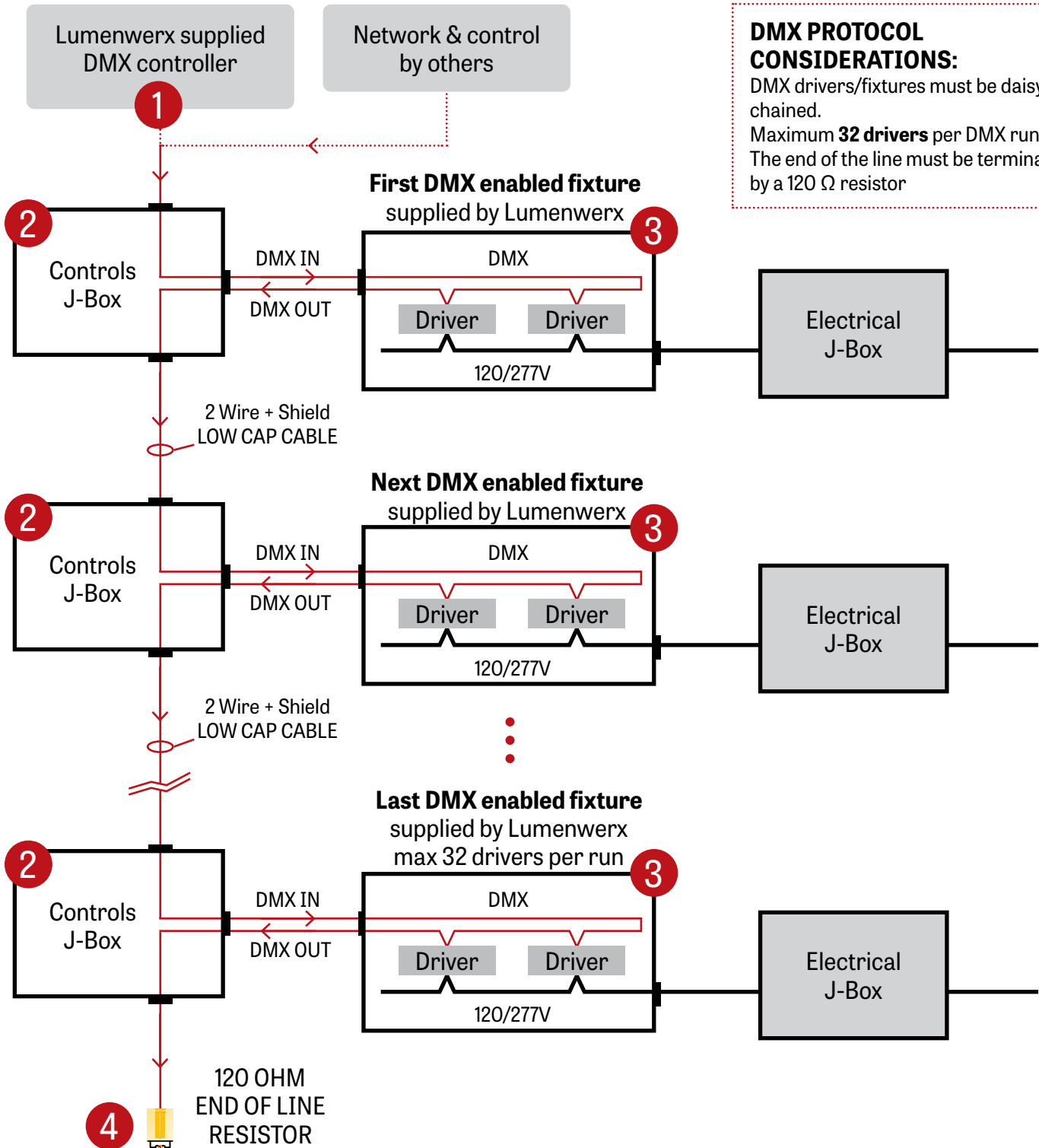
Subject to factory evaluation and approval. Please contact our controls specialist at [controls@lumenwerx.com](mailto:controls@lumenwerx.com). Additional costs and equipment will be required. ✓



# TOGO 24 WALL

## CHROMAWERX TUNABLE WHITE AND RGBW

### GENERIC DMX NETWORK ARCHITECTURE



# TOGO 24 WALL

## CHROMAWERX TUNABLE WHITE AND RGBW

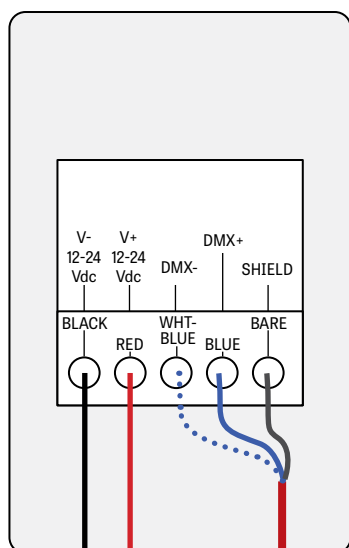
### 1 LUMENWERX SUPPLIED DMX CONTROLLER

To the first fixture

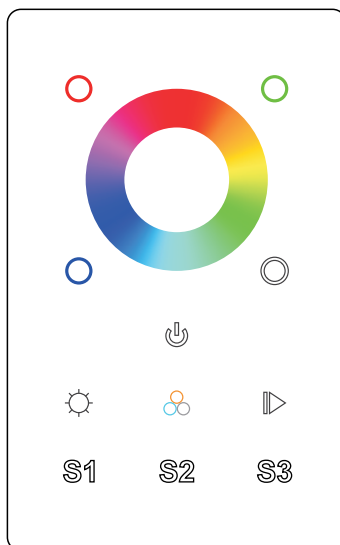
2 Wire +  
Shield Low Cap Cable

WALL BOX SUPPLIED BY OTHERS

Back Panel

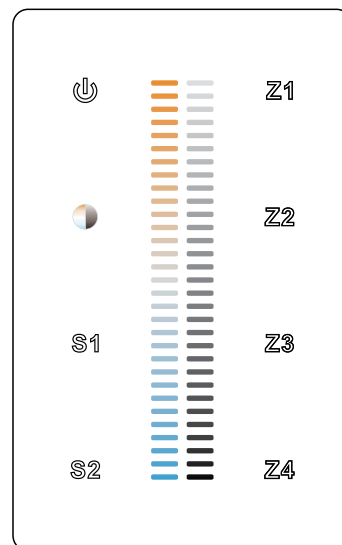


RGBW Front Panel



Controller image may differ

TW Front Panel



Controller image may differ

I.E.: Cerco Cable 7539-10  
Belden 9841  
Belden 8241

Power Supply  
120-277VAC / 24VDC

DC out

N

L

Neutral

DC in

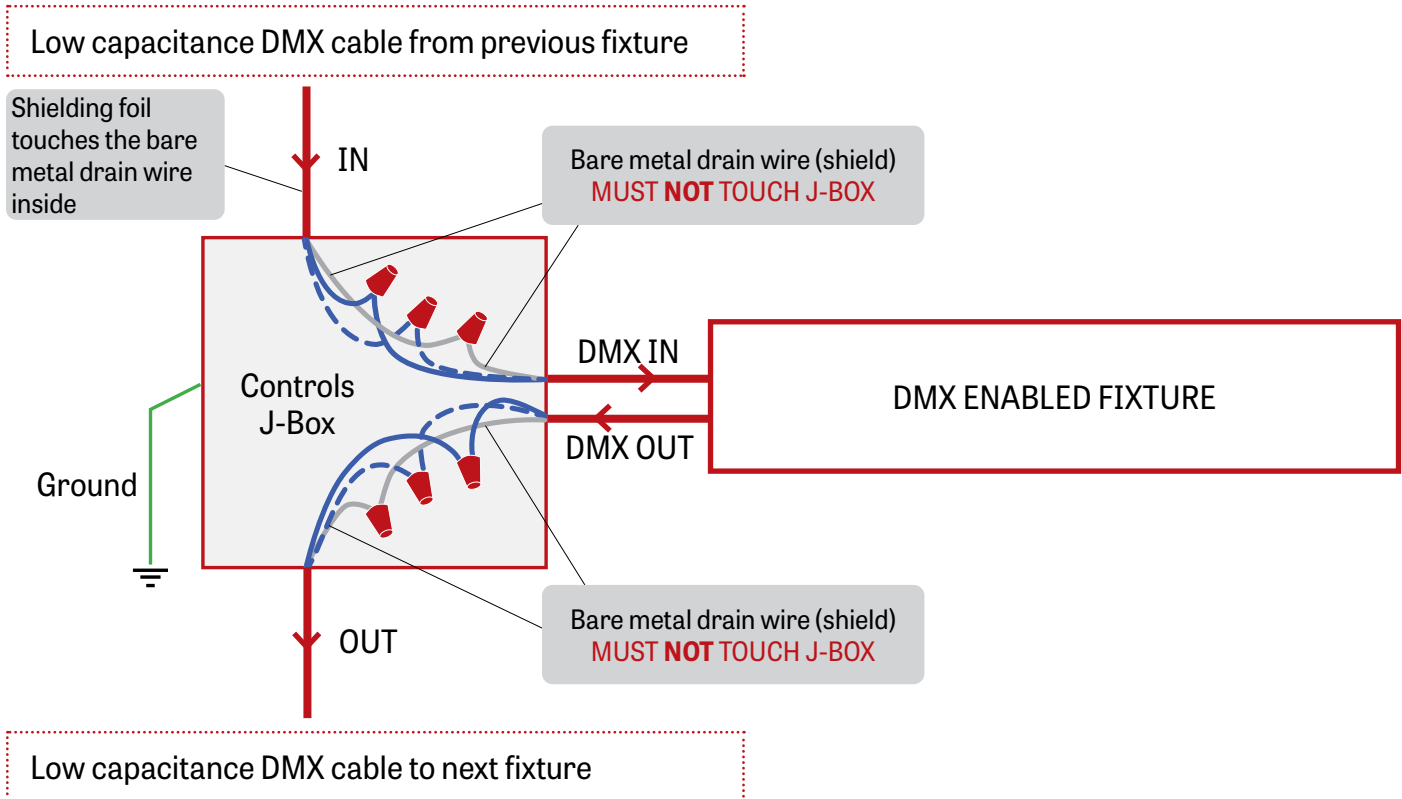
Line

Ground

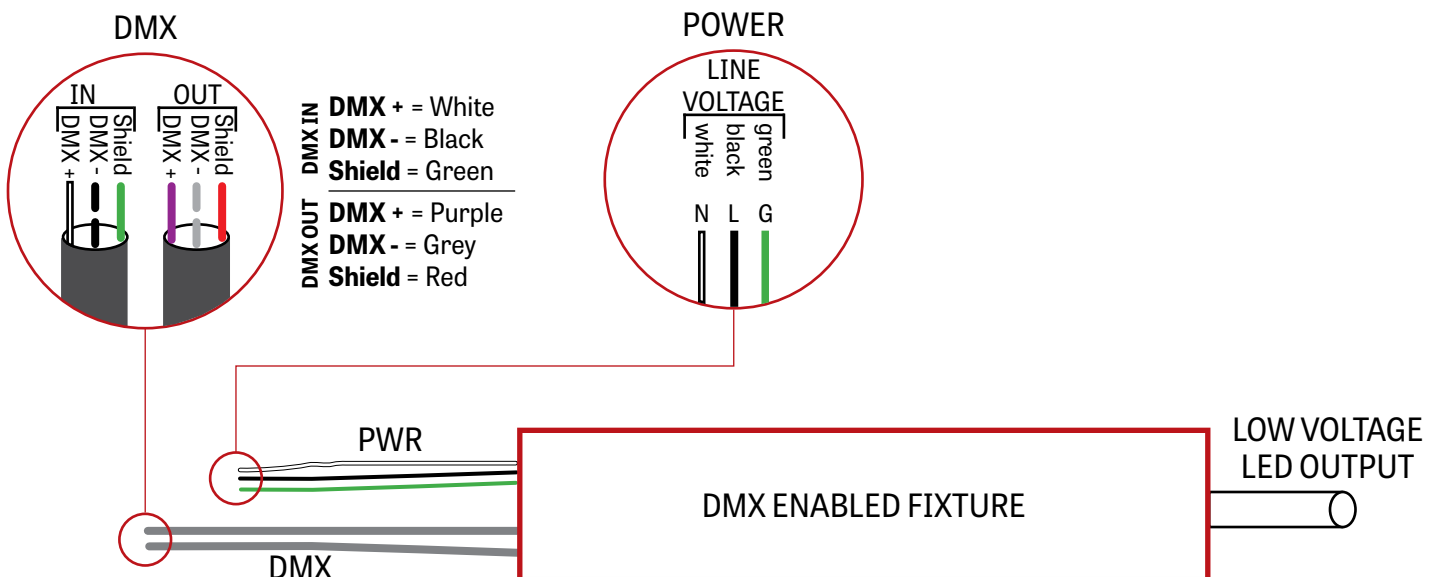
Electrical  
J-Box

## CHROMAWERX TUNABLE WHITE AND RGBW

### 2 J-BOX DMX DAISY CHAIN DETAIL

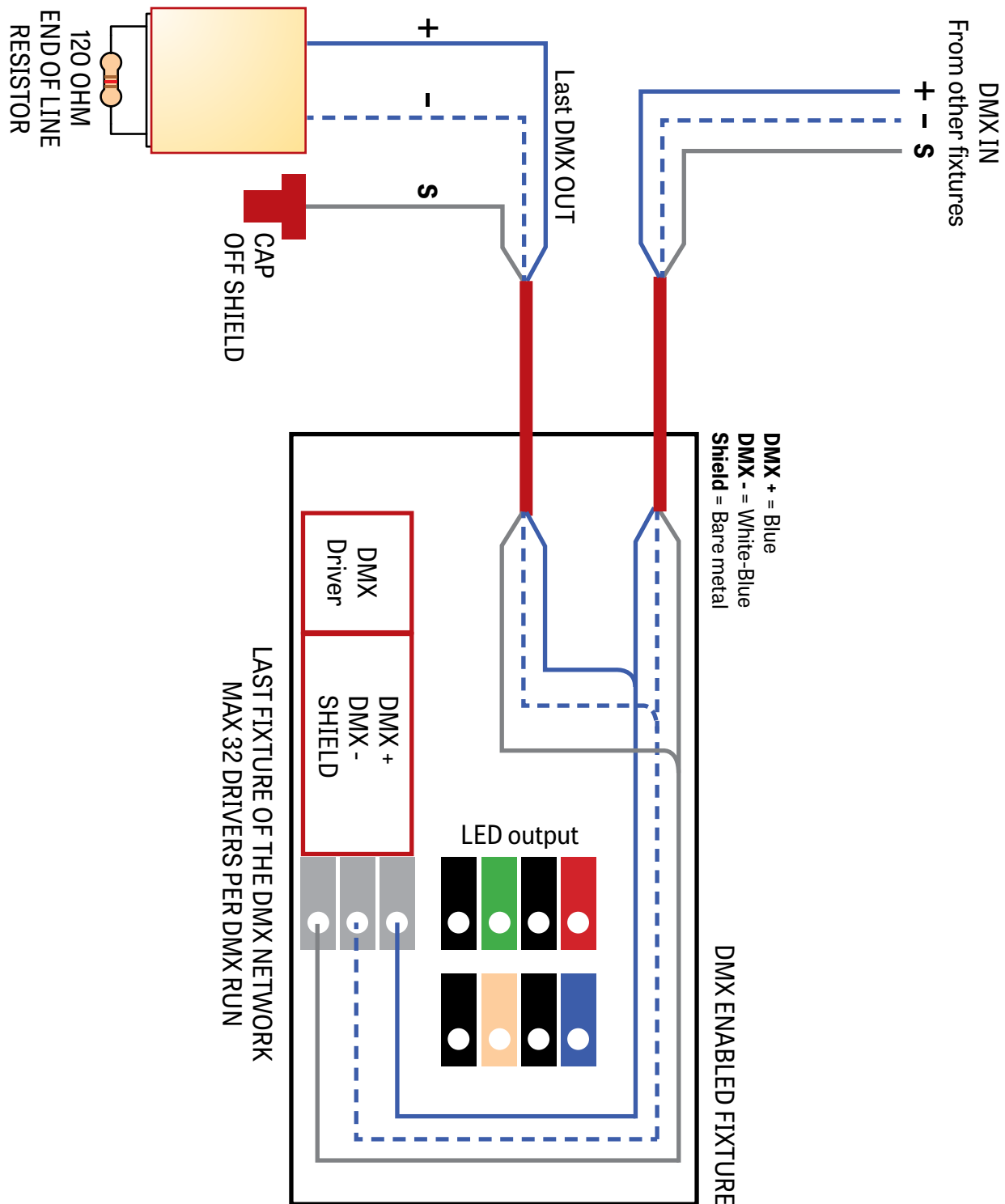


### 3 DMX CONNECTION PENDANT & WALL REMOTE DRIVER



## CHROMAWERX TUNABLE WHITE AND RGBW

### 4 LAST DMX CONNECTION DETAIL



# TOGO 24 WALL

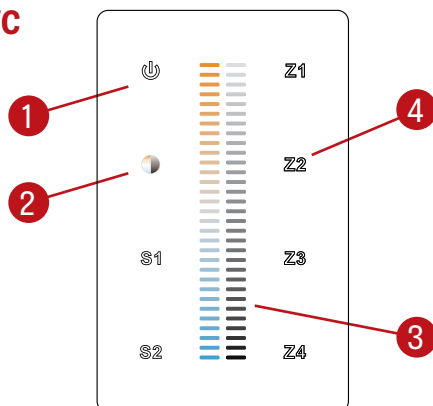
## CHROMAWERX TUNABLE WHITE AND RGBW

### DMX WALL CONTROLLER - TUNABLE WHITE

#### Default DMX Addresses:

1. WARM | 2. COOL

#### WC



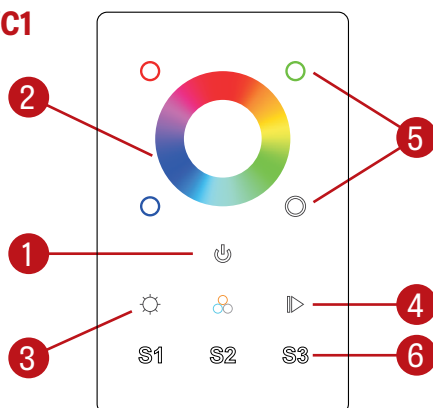
- (1) Power: Use this button to turn ON or OFF the fixture.
- (2) Brightness/CCT: Use the color/brightness toggle button to choose between color/brightness. When Blue: brightness is selected; when Yellow: color is selected.
- (3) Slider: Depending on the mode chosen in step 2, the slider will allow the user to set desired color or brightness.
- (4) Zone select: Up to 4 zones can be selected, either independently or together. Once selected, the commands will be sent to the zone identified by a Blue LED.

### DMX WALL CONTROLLER - RGBW

#### Default DMX Addresses:

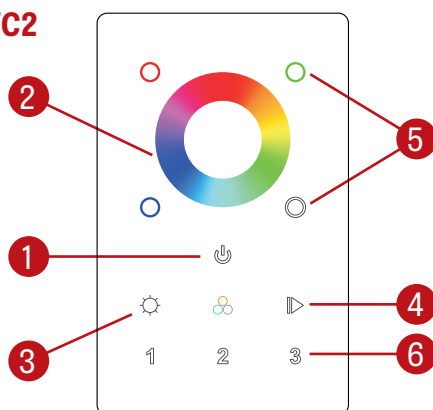
1. RED | 2. GREEN | 3. BLUE | 4. WHITE

#### WC1



- (1) Power: Use this button to turn ON or OFF the RGBW fixture.
- (2) Color Wheel: The wheel is used to rapidly select a color (RGB colors only).
- (3) Brightness (RGB): Hold down this button to either increase or decrease the brightness of the current RGB selection. White will not be affected by the RGB brightness button.
- (4) Color Cycle: This button will start an animation, rotating between reds, greens, and blues, the arrows allow the user to speed up or slow down the animation.
- (5) Individual Colors: By pressing and holding a color, it will be possible to brighten or dim it. Quickly pressing a color will either turn it OFF or turn it ON to its previous dim level. White: In order to activate or deactivate and dim the White channel, the White button needs to be used.
- (6) Scenes: By holding down one of the scenes button, the current color selection is saved. It can be later accessed by quickly pressing on one of the Scene buttons.

#### WC2



- (1) Power: Use this button to turn ON or OFF the RGBW fixture.
- (2) Color Wheel: The wheel is used to rapidly select a color (RGB colors only).
- (3) Brightness: Hold down this button to either increase or decrease the brightness of the current RGB selection. White will not be affected by the RGB brightness button.
- (4) Color Cycle: This button will start an animation, rotating between reds, greens, and blues, the arrows allow the user to speed up or slow down the animation.
- (5) Individual Colors: By pressing a color, it will be possible to brighten or dim that specific color. White: In order to activate or deactivate and dim the White channel, the White button needs to be used.
- (6) Zone: By holding down one of the zone buttons, a zone can be selected and controlled.