

# NOVA 2x4 LED

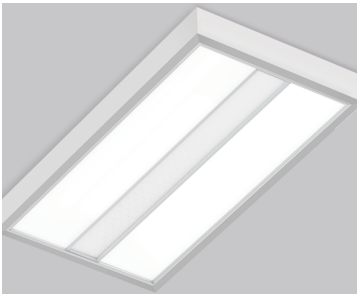
SURFACE



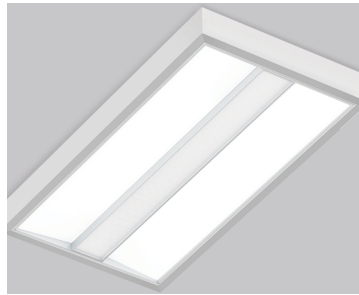
**LUMENWERX**  
WWW.LUMENWERX.COM

## CHROMAWERX QUADRO - RGBW

**IMPORTANT: a qualified DMX integration consultant is required to ensure proper installation and function of any DMX network**



Shown with a Nova flat lens



Shown with a Nova Slope lens

PROJECT: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
APPROVED BY: \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_

### DESCRIPTION

**Nova** is an efficient architectural LED troffer with a distinctive luminous shielding that distributes gentle brightness from the sides of its central optical element. Using advanced LED engines, Nova provides highly efficient illumination and offers comprehensive ceiling, electrical, and controls options in 2x2, 1x4, and 2x4 sizes. Nova is available with both Flat and Slope side diffusers. Nova is an ideal vehicle for Chromawerx color tuning in education, office, and healthcare applications where modular luminaires are used. See separate spec sheets for other available mountings.



### ORDER GUIDE

	24	PMO	HLO	LED		
LUMINAIRE ID	SIZE	CENTER OPTICS	SIDE OPTICS	LIGHT SOURCE	CHROMAWERX	OUTPUT WATTAGE
<b>NOVSF</b> - nova surface flat	<b>24</b> - 2'x4'	<b>PMO</b> - Precision Micro-Prism Optic	<b>HLO</b> - High-Efficiency Lambertian Optic	<b>LED</b> - high performance LED	<b>QUADRO</b> - four-channel RGB with 3500K white	<b>30W</b> - 30 watts output (for solid colors only)
<b>NOVSS</b> - nova surface slope					<b>RS</b> - red solid	<b>30W</b> - 30 watts output (quadro only)
					<b>GS</b> - green solid	<b>40W</b> - 40 watts output (quadro only)
					<b>BS</b> - blue solid	<b>50W</b> - 50 watts output (quadro only)

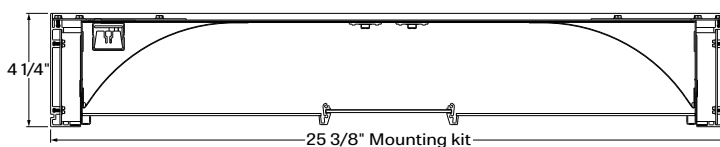
		1	SUR		
VOLTAGE	DRIVER	ELECTRICAL	MOUNTING	FINISH	OPTIONS
<b>120</b> - 120V <b>277</b> - 277V	<b>DMX</b> - to specify see pages 4 to 9 <b>DA</b> - DALI (solid colors only) local on-site commissioning is required <b>0-10</b> - 0-10 (solid colors only)	<b>1</b> - 1 circuit	<b>SUR</b> - surface mount kit	<b>W</b> - matte white <b>CF#</b> - custom finish specify RAL#	<b>FU</b> - fuse <b>CU</b> - custom

### DMX WALL CONTROLS

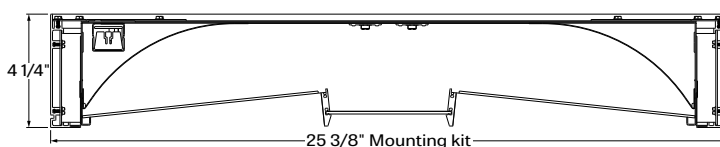
To specify see pages 4 to 9

See page 2 for ordering code detailed information

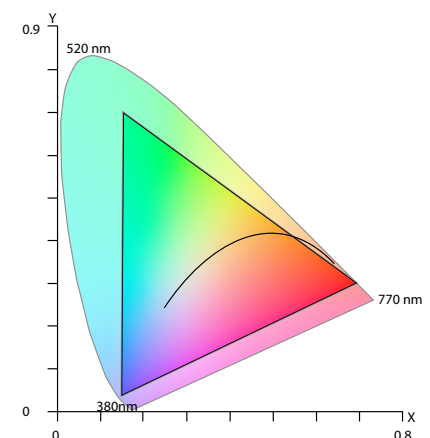
### CROSS SECTION



NOVSF - nova flat surface mount kit



NOVSS - nova slope surface mount kit



File Name: NOVA-24-RGBW-SURFACE-SPEC-REV1

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March 26, 2021

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## CHROMAWERX QUADRO - RGBW

**OPTICS**

**CENTER LENS - PRECISION MICRO-PRISM-OPTIC (PMO)** - utilizes a specially designed catadioptric lens that combines refraction and internal reflection. The square-base prism is 24% the size of those used in a high-performance fluorescent lens. The exclusive two-dimensional array of prisms is designed to eliminate the glare found at higher viewing angles and as such, enables a glare cut-off at a 45° viewing angle.

The acrylic material itself is untinted, relying entirely on catadioptric control for effective source obscuration. A highly efficient TIR process at the acrylic-air interface on the prism surfaces redirects incident light with less than a 0.1% loss per reflection. As a result, these Lumenwerx optics attain a high optical efficiency greater than 90%, while maintaining visual comfort at normal viewing angles and presenting a pleasing luminous appearance.

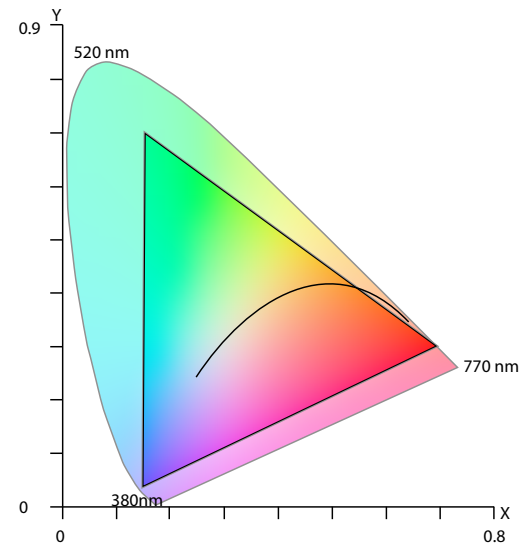
**SIDE LENS - HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO)** - shielding of diffusing 0.075" thick acrylic with up to 88% transmission and good source obscuration.

**LIGHT SOURCE - LED**

Custom array of mid-flux LEDs, comprised of an alternation of an RGB and a dedicated white LED. The white LED is used for when a static white CCT is required in the space. RGB LEDs are tightly binned for excellent color control between fixtures. The white LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

**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.



CIE 1931 Chromaticity space

The above diagram overlays the full gamut of colors attainable with the RGBW on top of the CIE 1931 color space. Any color point inside of the triangle can be obtained by setting the correct output levels for each of the individual red, green, blue, and white channels.

**ELECTRICAL****DMX**

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, four channels of LEDs (Red/Green/Blue/White) 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%.

# NOVA 2x4 LED

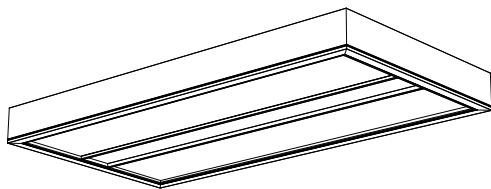
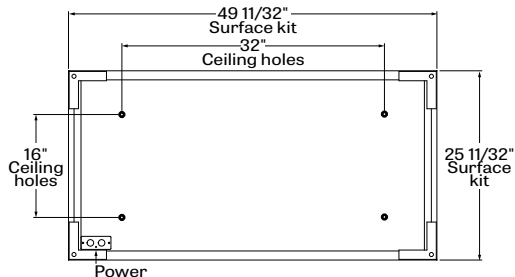
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## CHROMAWERX QUADRO - RGBW

### MOUNTING OPTIONS

A separate kit for mounting fixtures directly to the ceiling surface. Kit is compatible with T-Bar, hard surface and drywall ceilings.



**SUR** - surface mount kit

### FINISH

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

**Exterior** - matte white powder coating.

Custom finish is also available.

### CONSTRUCTION

**Housing** - Die formed cold rolled sheet steel 20 gauge thick, matte white powder coating.

**Reflectors** - Cold rolled steel 0.030" thick precisely die formed, 95% reflective matte white painted.

**Interior brackets** - Die formed cold rolled sheet steel 20 gauge thick.

**Center basket** - Extruded aluminum 0.07" nominal, matte white and lens made in clear PMMA precisely formed into optical micro-structures forms.

**Side lenses** - Frost impact acrylic lens 88% transmissive.

**Surface kit** - Extruded aluminum 0.07" nominal, matte white or aluminum powder coating. Custom finishes are also available.

### WEIGHT

**Nova 2x4:** 36.23lbs.+8.26lbs. - 16.45kg+3.75 kg

### 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

For all Chromawerx products, 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. Wall controllers are covered by the manufacturer warranty.

# NOVA 2x4 LED

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## 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 4' fixture  
**Driver**  
1x driver  
Less than 12.5W/ft, direct only

per 4' fixture  
**Driver Driver**  
2x driver  
Above 12.5W/ft or for all direct/indirect fixture

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 cost and equipment will be required. ✓

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 cost 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 cost and equipment will be required. ✓

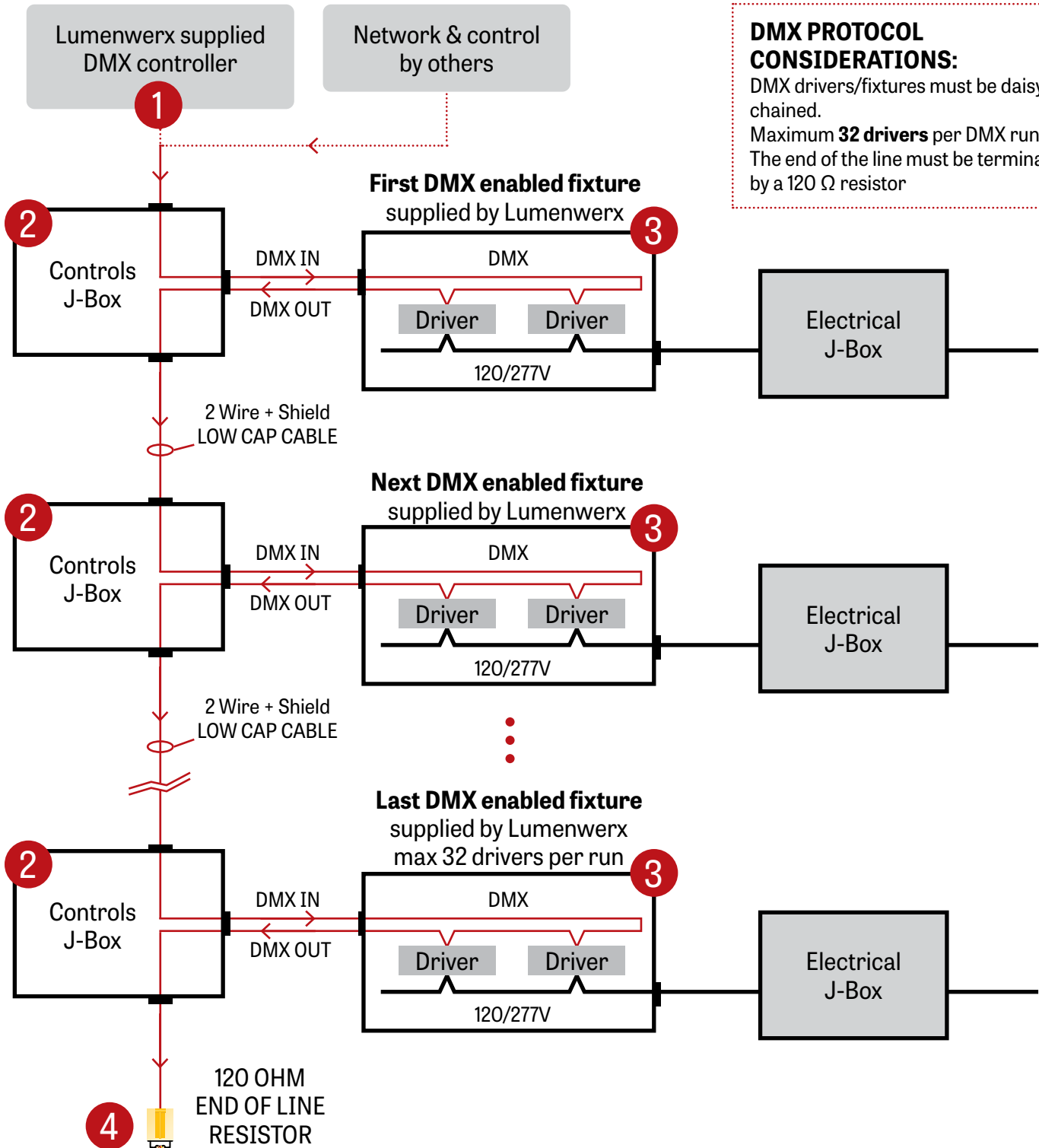
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## CHROMAWERX QUADRO - RGBW

### GENERIC DMX NETWORK ARCHITECTURE



#### DMX PROTOCOL CONSIDERATIONS:

DMX drivers/fixtures must be daisy chained.

Maximum **32 drivers** per DMX run.

The end of the line must be terminated by a 120  $\Omega$  resistor

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## CHROMAWERX QUADRO - RGBW

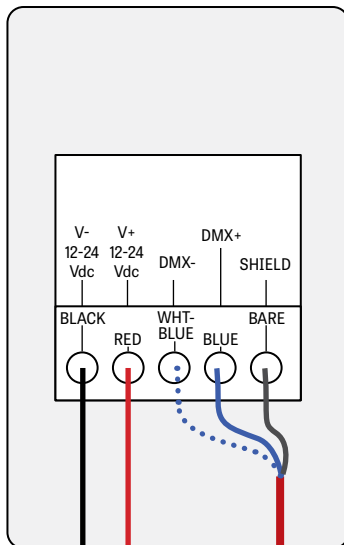
### 1 LUMENWERX SUPPLIED DMX CONTROLLER

To the first fixture

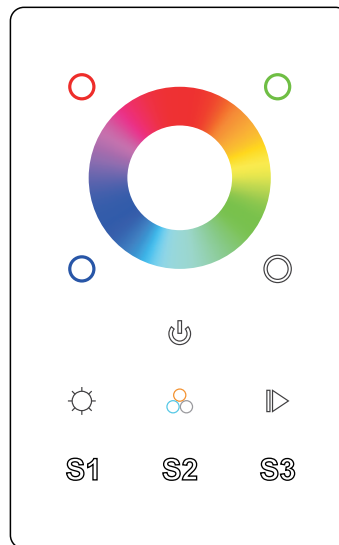
2 Wire +  
Shield Low Cap Cable

WALL BOX SUPPLIED BY OTHERS

Back Panel



Front Panel



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

Power Supply  
120-277VAC / 24VDC

DC out

N

L

Neutral

Line

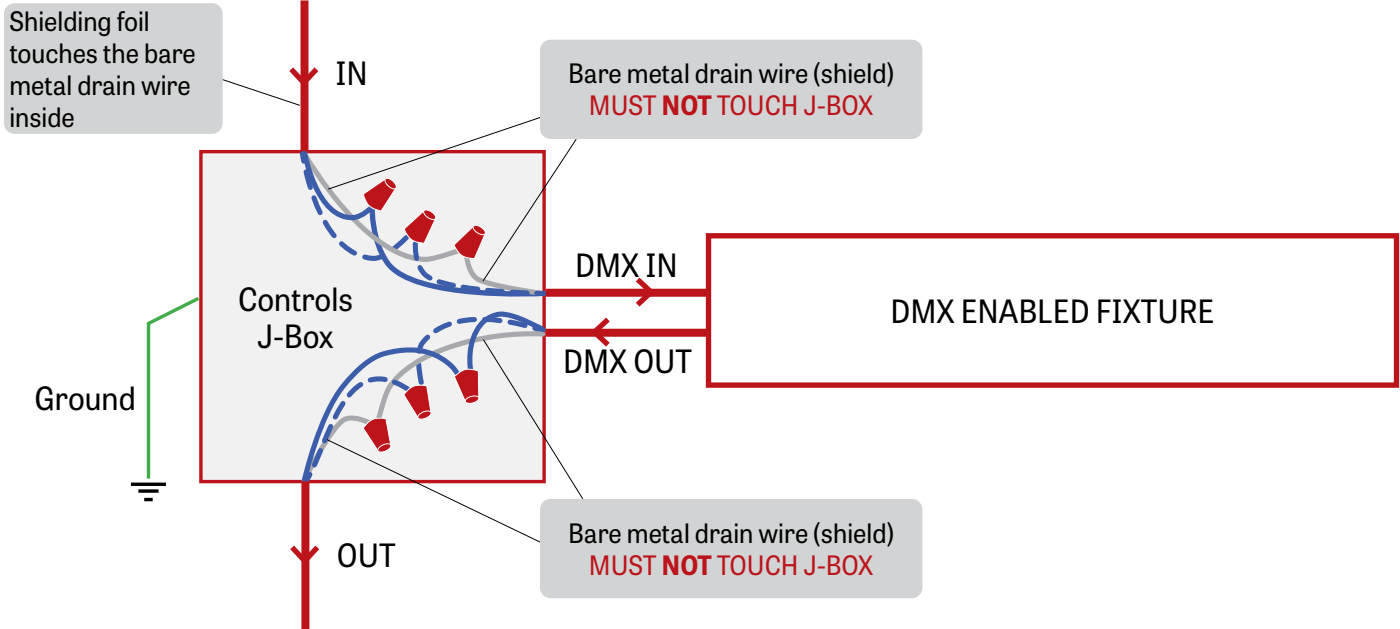
Ground

Electrical  
J-Box

## CHROMAWERX QUADRO - RGBW

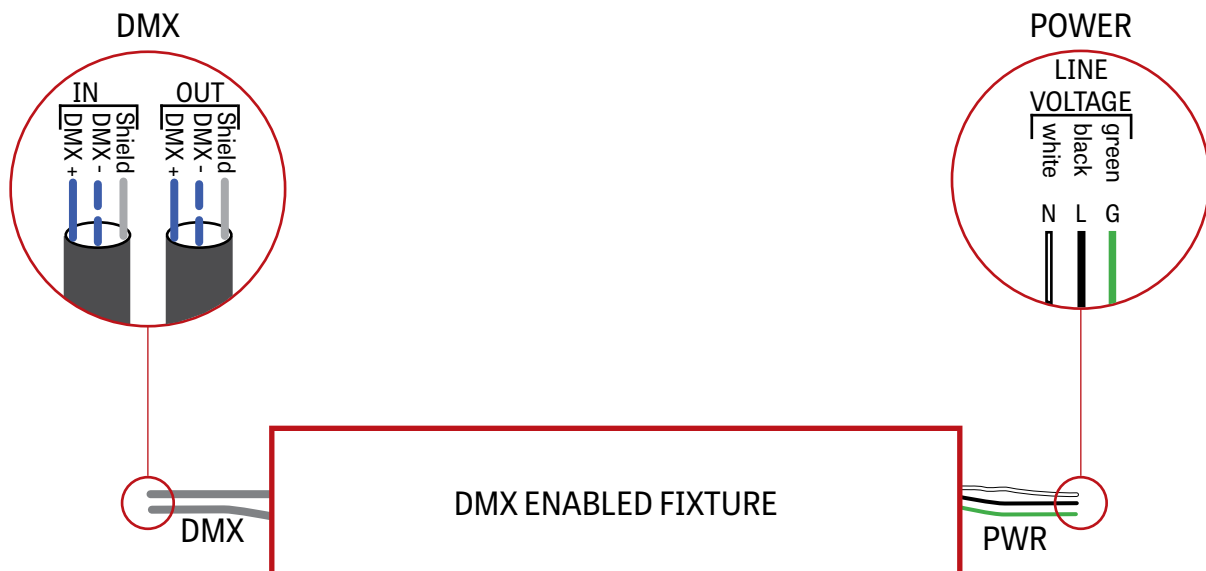
## 2 J-BOX DMX DAISY CHAIN DETAIL

## Low capacitance DMX Cable from Previous Fixture



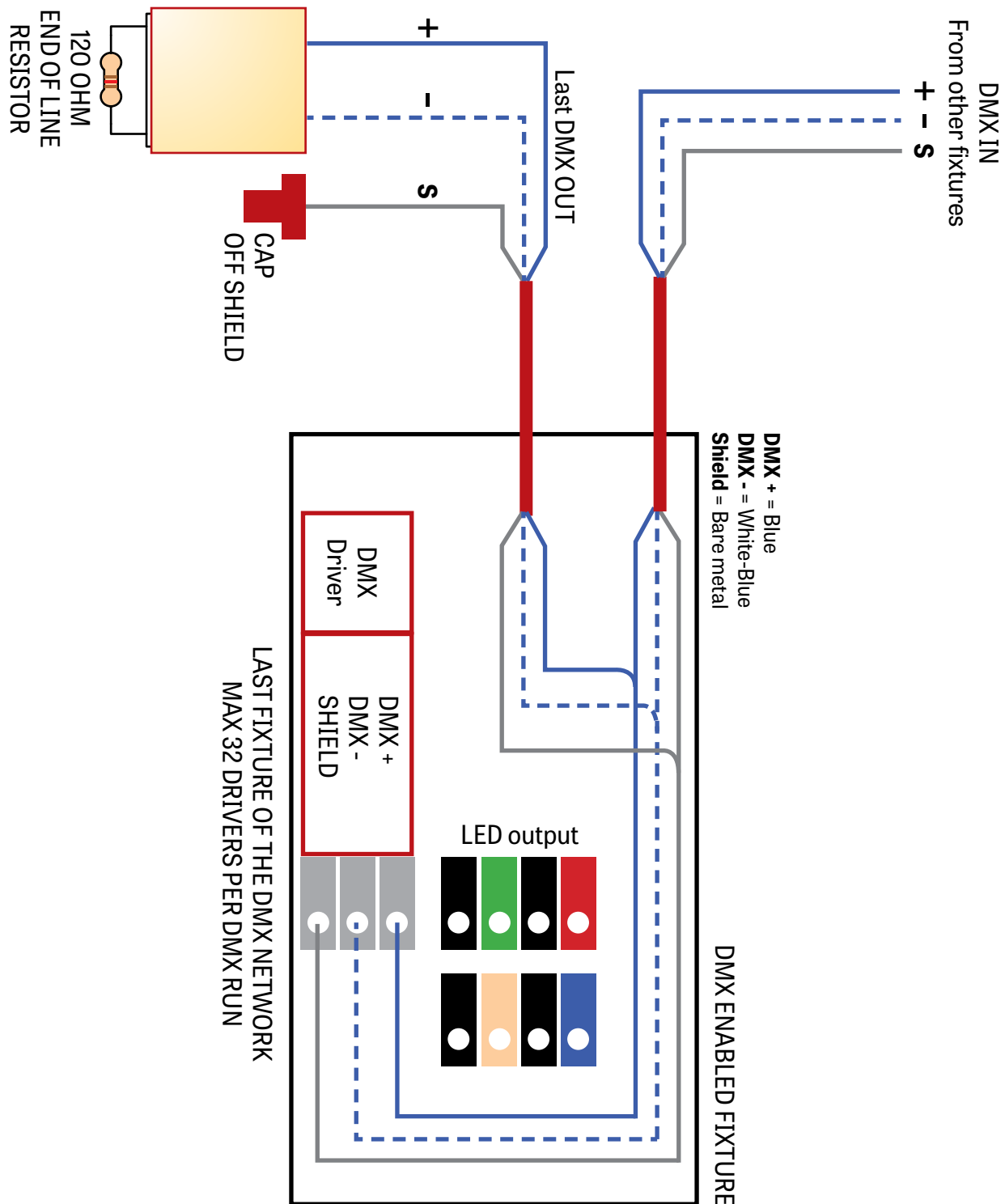
## Low capacitance DMX cable to next fixture

## 3 DMX CONNECTION RECESSED &amp; SURFACE



## CHROMAWERX QUADRO - RGBW

## 4 DMX LAST FIXTURE DETAIL

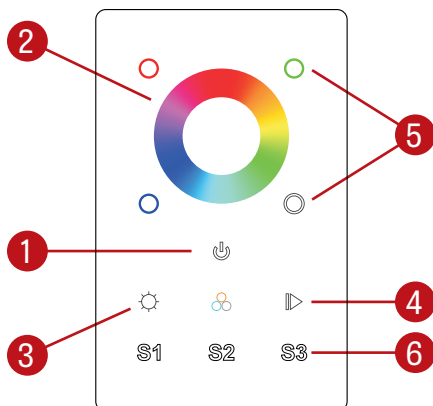




## CHROMAWERX QUADRO - RGBW

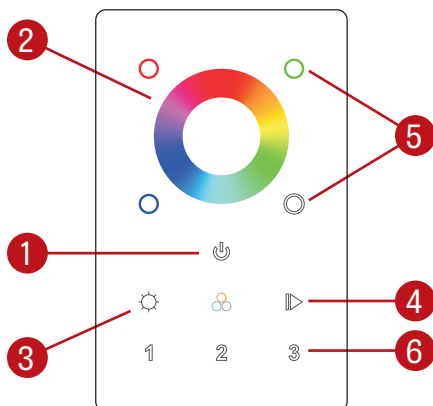
## DMX WALL CONTROLLER

## 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 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.

## Default DMX Addresses:

1 Red  
2 Green  
3 Blue  
4 White