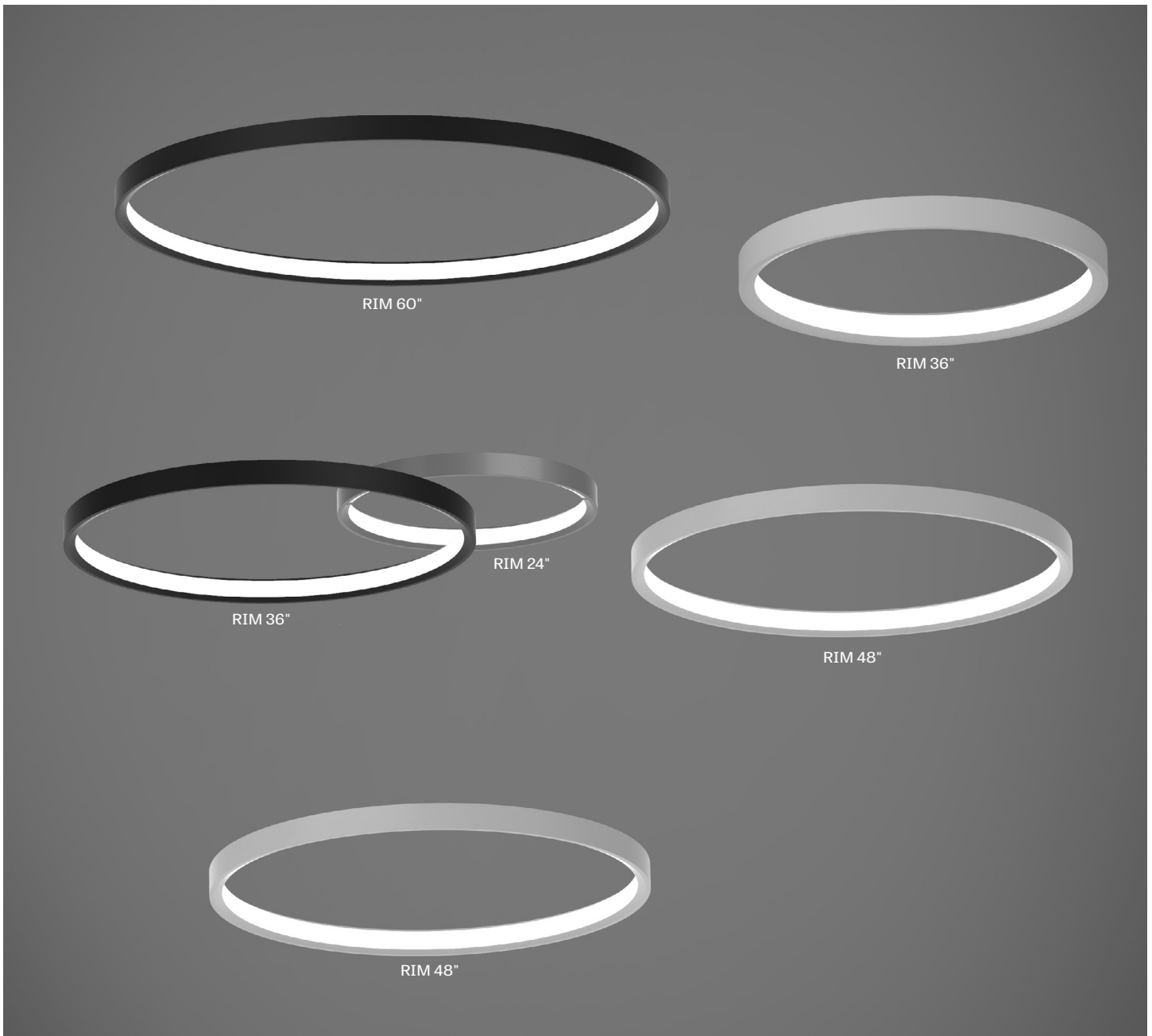# RIM ROUND PENDANT

CHROMAWERX CHROMAWERX

DESCRIPTION

Rim Round combines generous ambient illumination with elegant geometry. The 2" high extruded aluminum frame is formed and finished into a seamless ring that can be painted in a wide range of standard and custom colors. The driver installs remotely, either above or below the ceiling. Mounted with aircraft cables, it is available with single canopy or multiple canopy options.

Rim Round is available in four diameters: 24", 36" 48" and 60". Nominal light output ranges from 2000 to 10000 lumens, with efficacy up to 86 lumens per watt. Rim Round supports the full range of Chromawerx Sola, Duo, and Quadro options for tunable white and RGBW expressive color.

Rim is also available in Square and Linear forms (see separate specification sheets).

RIM 60"

RIM 36"

RIM 36"

RIM 24"

RIM 48"

RIM 48"

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RIM ROUND PENDANT

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

PROJECT:

TYPE:

NOTES:

ORDER GUIDE

RIMRP		ULO			90
LUMINAIRE ID	**SIZE**	**OPTIC**	**LIGHT SOURCE**		**CRI**
RIMRP - Rim Round Pendant	**24** - 24" diameter **36** - 36" diameter **48** - 48" diameter **60** - 60" diameter	**ULO** - Uniform Lambertian Optic	**SOLA** - Dim-to-warm single channel control 22K to 35K **DUO** - Tunable white 2-channel control 27K to 65K **QUADRO** - Four-channel RGB with 3500K white		**90** - 90CRI

				1
LUMEN PACKAGE	**VOLTAGE**	**DRIVER**		**ELECTRICAL**
####lm - L2000lm - M3000lm - H4000lm (RIM24) **####lm** - L3000lm - M4500lm - H6000lm (RIM36) **####lm** - L4000lm - M6000lm - H8000lm (RIM48) **####lm** - L5000lm - M7500lm - H10000lm (RIM60) **L**-Low, **M**-Medium **H**-High, consult factory for other (Duo and Sola only) **54W** - 54W output (RIM24 Quadro only) **81W** - 81W output (RIM36 Quadro only) **109W** [1] - 109W output (RIM48 Quadro only) **136W** [1] - 136W output (RIM60 Quadro only) [1] Two power cords will be required.	**120** - 120V **277** - 277V **UNV** - 120V-277V	<u>Sola</u> **SD1** - Single 0-10V input <u>Duo</u> **DD1** - Dual 0-10V input for CCT/intensity **DA** [2] - DALI **PSQ0** [2] - Lutron T-series 1% Tunable White **DMX** [2][3] - DMX [2] On-site commissioning is required. [3] To specify, see pages 6 to 12.	<u>Quadro</u> **DMX** [2][3] - DMX	**1** - 1 circuit

RDB				
MOUNTING				
DRIVER BOX [4]	**CANOPY FINISH**	**POWER**	**MOUNTING POINTS**	**HEIGHT**
RDB - Remote driver box [4] For more information see page 3.	**AL** - Aluminum **B** - Black **W** - Matte white **CF#** - Custom finish specify RAL#	**BAC** - Black power cord + aircraft cable **WAC** - White power cord + aircraft cable	**SC** - Single canopy **MC** - Multiple canopies	**##IN** [5] - Distance from the canopy to the fixture in inches [5] For **single canopy** option, the minimum mounting heights are:

Fixture size	Remote driver box
Ø 24"	min height 18.5"
Ø 36"	min height 29"
Ø 48"	min height 39.25"
Ø 60"	min height 49.75"

See website for the Pendant Mounting Guide

FINISH

AL - Aluminum
B - Black
W - Matte white
CF# - Custom finish specify RAL#

TOP VIEW

RIM24 - 22.17"
RIM36 - 33.53"
RIM48 - 45.92"
RIM60 - 58.33"

RIM24 - 24.25"
RIM36 - 35.61"
RIM48 - 48"
RIM60 - 60.41"

RIMRP - Rim Round Pendant

3D CROSS SECTION

2 1/8"

1"

RIMRP - Rim Round Pendant

DMX WALL CONTROLS

To specify see pages 6 to 12

RIM ROUND PENDANT

## MOUNTING OPTIONS

RDB - REMOTE DRIVER BOX

RDB -Remote Driver Box - driver is in a 20"x4"x2" enclosure with brackets for mounting to ceiling joists, runners, or other supporting members. The 5 1/2" diameter x 1 5/8" deep wiring compartment canopy conceals and supports suspension and power cables. It is available in standard finishes (see ordering code). It can be installed in drywall or grid ceilings.

Note: Support hardware is not supplied.
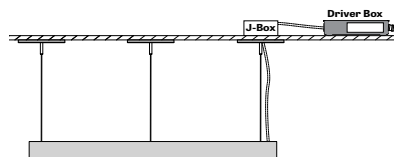
SC - SINGLE CANOPY
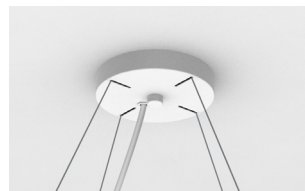
WAC - White power cord + aircraft cable
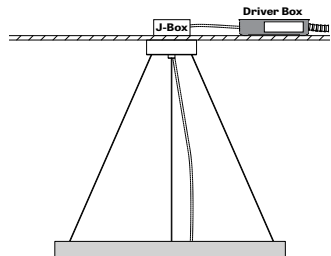
MC - MULTIPLE CANOPIES

WAC - White power cord + aircraft cable

The multiple canopy option, available with Remote Driver Box only, allows the fixture to be installed closer to the ceiling compared to the single canopy option. Three canopies are provided for Rim 24", and four canopies are provided for Rim 36", Rim 48", and Rim 60".

OPTIC

Uniform Lambertian Optic (ULO) - Thermoformed from impact-modified white PMMA, the ULO optic provides even luminosity, with up to 88% transmission.

Combined with the LED array running around the inside of the housing, the open form and ULO optic create a widespread 50% direct and 50% direct light distribution with spacing criteria of 1.6.

PERFORMANCE FOR 24" DIAMETER

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	23.5	2000	86
medium output	4000K	36	3000	83
high output	4000K	49.5	4000	81

PERFORMANCE FOR 36" DIAMETER

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	35	3000	86
medium output	4000K	54	4500	83
high output	4000K	74	6000	81

PERFORMANCE FOR 48" DIAMETER

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	46.5	4000	86
medium output	4000K	72.5	6000	83
high output	4000K	99	8000	81

RIM ROUND PENDANT

PERFORMANCE FOR 60" DIAMETER

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	58	5000	86
medium output	4000K	90.5	7500	83
high output	4000K	123.5	10000	81

Multiplier @ CRI90

CCT (K)	Watts	LPW
2700	1.09	0.92
3000	1.05	0.95
3500	1.02	0.98
4000	1.00	1.00
5000	0.94	1.07
6500	0.95	1.06

ANSI C78.377-2015
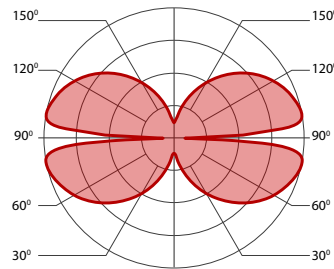

CHROMAWERX - TUNABLE WHITE

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 2200K 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.
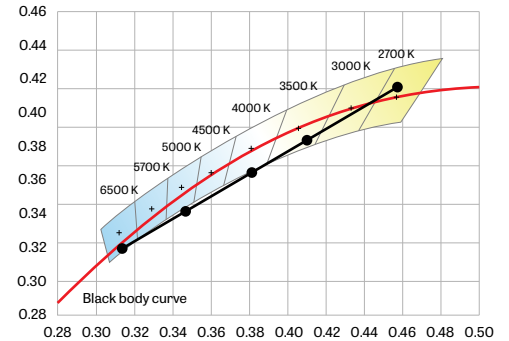
CHROMAWERX - RGBW

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
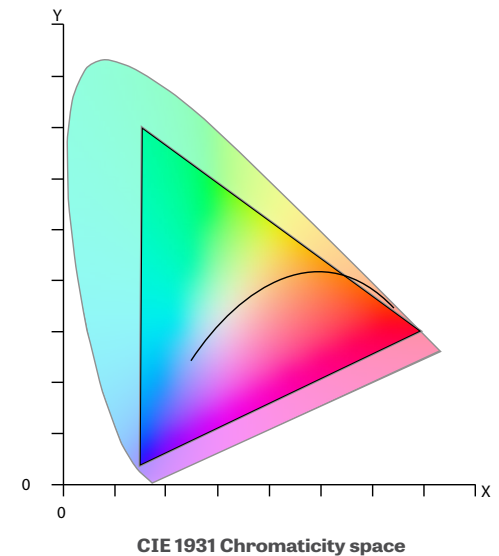
ELECTRICAL REMOTE

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

0-10V (not available for Quadro)

Driver features factory-set adjustable output current with 120-277V AC line input. Dimmable from 100% to 1% with multiple control options. Rated life (90% survivorship) is 50,000 hours at $50^{\circ}C$ max. ambient (and $70^{\circ}C$ max. case) temperature. 0-10V 1% Driver performance at maximum load, efficiency > 84%, Power Factor > 0.9, THD < 20%. See ordering code for other specifiable drivers.

DALI (not available for Quadro))

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%.

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%.

FINISH

Interior - 95% reflective, matte white powder coating
Exterior - Matte white, matte black or aluminum powder coating.
Custom finishes are also available.

CONSTRUCTION

Housing - Rolled and seamlessly welded aluminum extrusion, wide variety of colored powder coating
Diffuser - Uniform Lambertian optic, co-extruded flexible polycarbonate satine finished lens.

WEIGHT

Rim round 24 - 5lbs - 2.3kg
Rim round 36 - 7.3lbs - 3.3kg
Rim round 48 - 10lbs - 4.6kg
Rim round 60 - 12lbs - 5.5kg

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.
Wall controllers are covered by the manufacturer warranty.

RIM ROUND PENDANT

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 controller supplied by Lumenwerx

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

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

1 x 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 Additional costs and equipment will be required. ✓

Subject to factory evaluation and approval. Please contact our controls specialist at controls@lumenwerx.com Additional costs and equipment will be required. ✓

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RIM ROUND PENDANT

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 <u>contact information of your DMX integrator.</u>**

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 controller supplied by Lumenwerx

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

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

1 x 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** | **NO** **YES**

Order a standard Lumenwerx wall controller <u>type 1</u>.

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
Additional costs and equipment will be required. ✓

Order a standard Lumenwerx wall controller <u>type 2</u>.

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. ✓
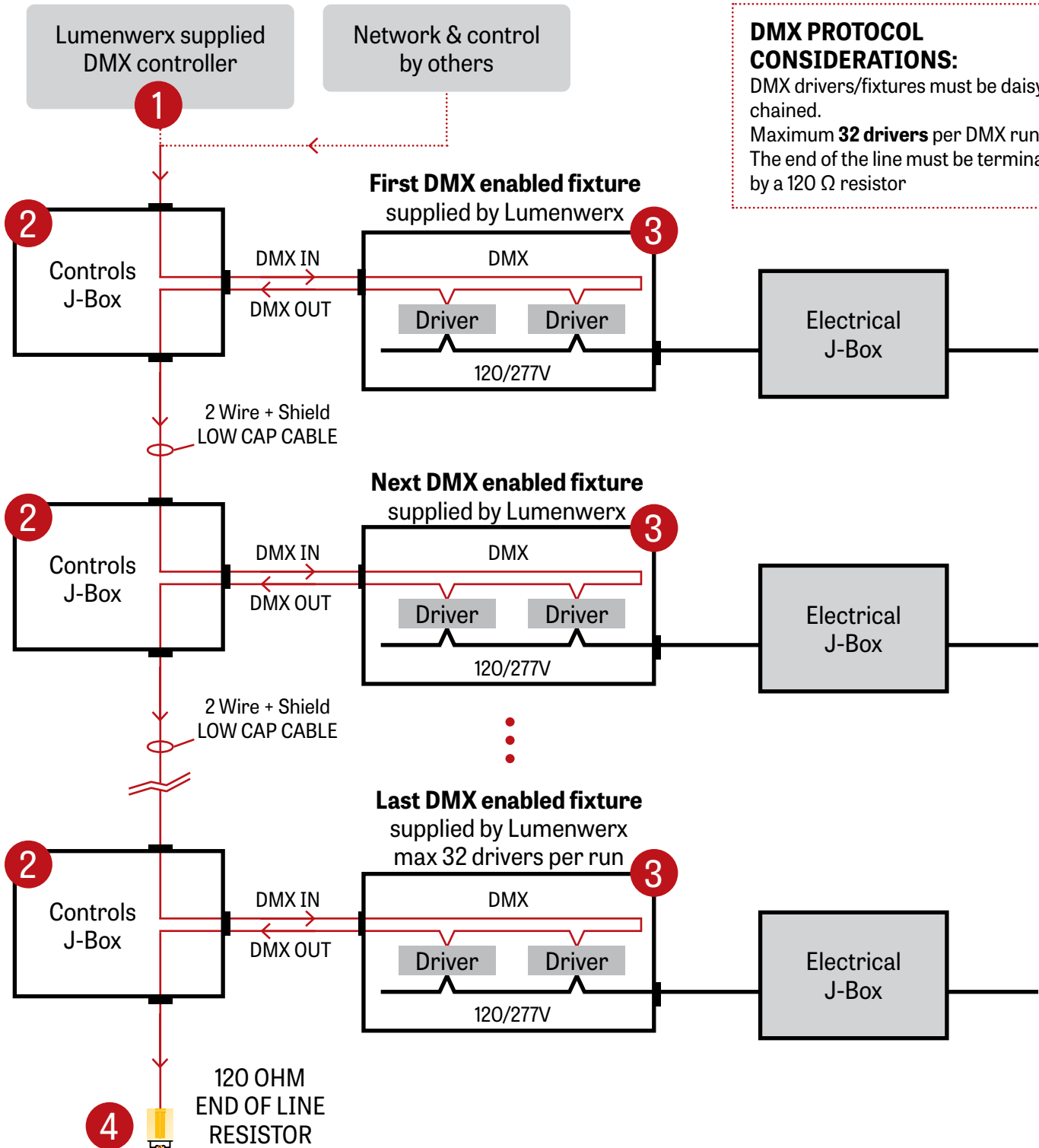
Subject to factory evaluation. Please contact our controls specialist at controls@lumenwerx.com
Additional costs and equipment will be required. ✓

Subject to factory evaluation and approval. Please contact our controls specialist at controls@lumenwerx.com
Additional costs and equipment will be required. ✓

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RIM ROUND PENDANT

CHROMAWERX TUNABLE WHITE AND RGBW

GENERIC DMX NETWORK ARCHITECTURE

Lumenwerx supplied DMX controller ①

Network & control by others

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 Ω resistor

② Controls J-Box

First DMX enabled fixture
supplied by Lumenwerx ③

DMX IN
DMX OUT

DMX
Driver   Driver
120/277V

Electrical J-Box

2 Wire + Shield
LOW CAP CABLE

② Controls J-Box

Next DMX enabled fixture
supplied by Lumenwerx ③

DMX IN
DMX OUT

DMX
Driver   Driver
120/277V

Electrical J-Box

2 Wire + Shield
LOW CAP CABLE

② Controls J-Box

Last DMX enabled fixture
supplied by Lumenwerx
max 32 drivers per run ③

DMX IN
DMX OUT

DMX
Driver   Driver
120/277V

Electrical J-Box

④ 120 OHM
END OF LINE
RESISTOR

ETL
c   us
LISTED
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LUMENWERX
W W W . L U M E N W E R X . C O M
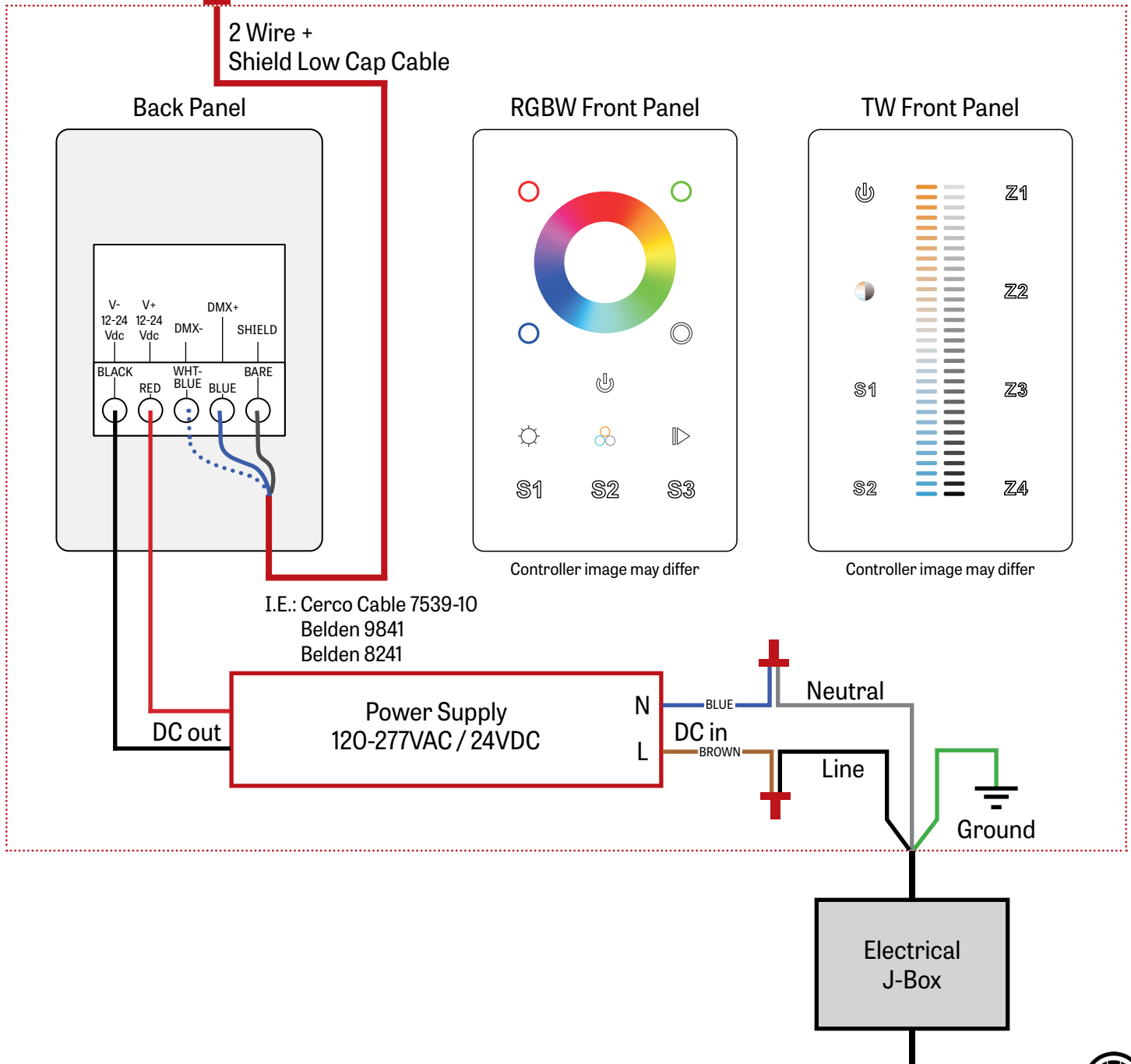
CHROMAWERX TUNABLE WHITE AND RGBW

1 LUMENWERX SUPPLIED DMX CONTROLLER

To the first fixture

WALL BOX SUPPLIED BY OTHERS

2 Wire +
Shield Low Cap Cable

Back Panel

RGBW Front Panel

TW Front Panel

V-
12-24
Vdc

V+
12-24
Vdc

DMX-

DMX+

SHIELD

BLACK

RED

WHT-
BLUE

BLUE

BARE

Controller image may differ

Controller image may differ

Z1

Z2

S1

Z3

S2

Z4

S1

S2

S3

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

DC out

Power Supply
120-277VAC / 24VDC

N

L

BLUE

Neutral

DC in

BROWN

Line

Ground

Electrical
J-Box

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RIM ROUND PENDANT

WWW.LUMENWERX.COM

CHROMAWERX TUNABLE WHITE AND RGBW

2   J-BOX DMX DAISY CHAIN DETAIL

Low capacitance DMX cable from previous fixture

Shielding foil touches the bare metal drain wire inside

IN

Bare metal drain wire (shield)
MUST **NOT** TOUCH J-BOX

Controls
J-Box

DMX IN

DMX ENABLED FIXTURE

DMX OUT

Ground

Bare metal drain wire (shield)
MUST **NOT** TOUCH J-BOX

OUT

Low capacitance DMX cable to next fixture
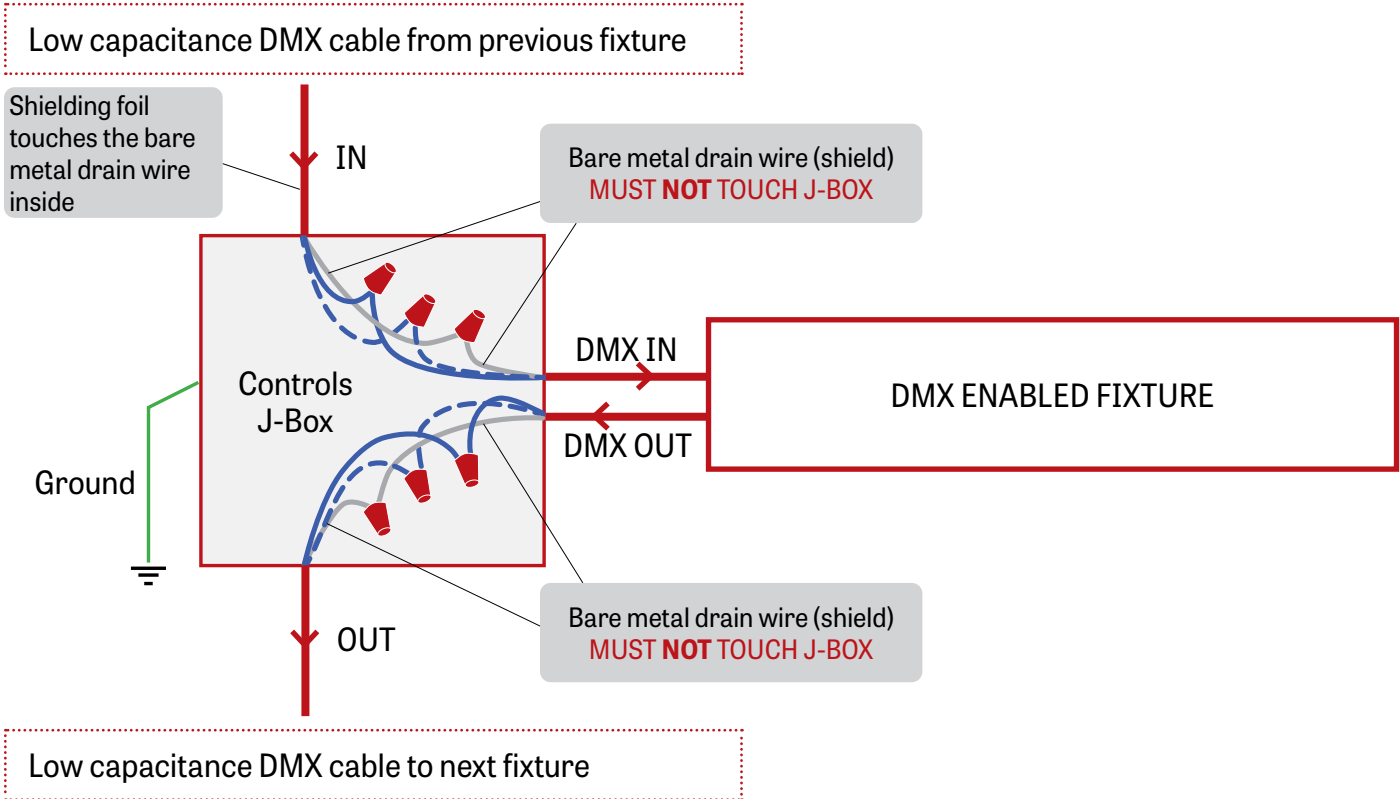
3   DMX CONNECTION PENDANT & WALL REMOTE DRIVER

DMX

IN   OUT

Shield / DMX- / DMX+   Shield / DMX- / DMX+

DMX IN
DMX + = White
DMX - = Black
Shield = Green

DMX OUT
DMX + = Purple
DMX - = Grey
Shield = Red

POWER

LINE
VOLTAGE

white / black / green

N   L   G

PWR

DMX ENABLED FIXTURE

LOW VOLTAGE
LED OUTPUT

DMX

Intertek

RIM ROUND PENDANT

CHROMAWERX TUNABLE WHITE AND RGBW

4 LAST DMX CONNECTION DETAIL

120 OHM
END OF LINE
RESISTOR

CAP
OFF SHIELD

Last DMX OUT

DMX IN
From other fixtures

DMX + = Blue
DMX - = White-Blue
Shield = Bare metal

DMX
Driver

DMX +
DMX -
SHIELD

LAST FIXTURE OF THE DMX NETWORK
MAX 32 DRIVERS PER DMX RUN

LED output

DMX ENABLED FIXTURE

RIM ROUND PENDANT

LUMENWERX
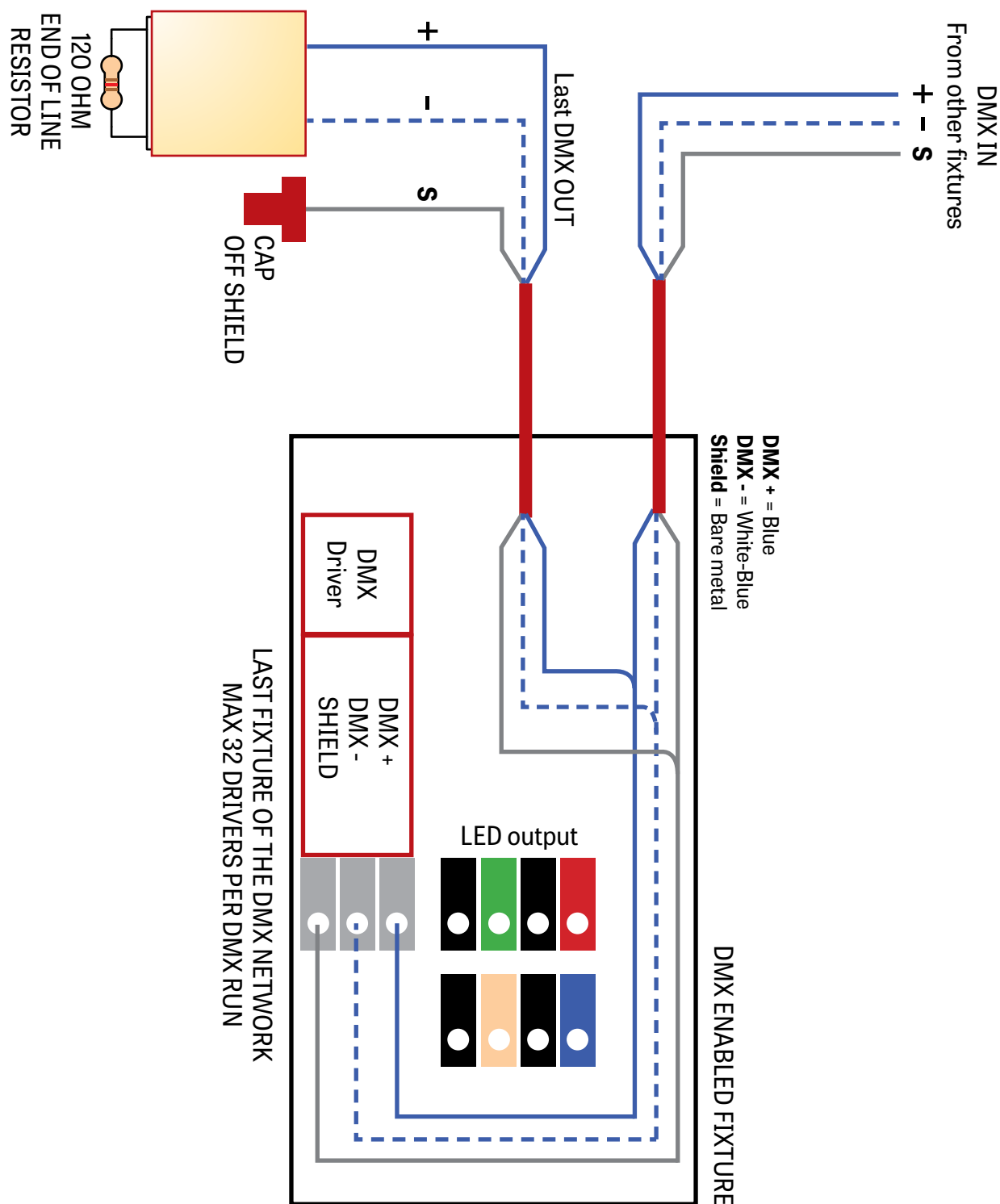
CHROMAWERX TUNABLE WHITE AND RGBW

DMX WALL CONTROLLER - TUNABLE WHITE

Default DMX Addresses:

1. WARM   2. COOL

WC
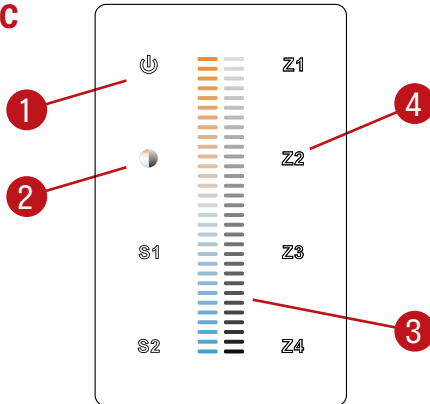
|	
(1) Power:	Use this button to turn ON or OFF the fixture.
(2) Brightness/CCT:	Use the color/brightness toggle button to choose between color/brightness. When Blue: brightness is selected; when Yellow: color is selected.
(3) Slider:	Depending on the mode chosen in step 2, the slider will allow the 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
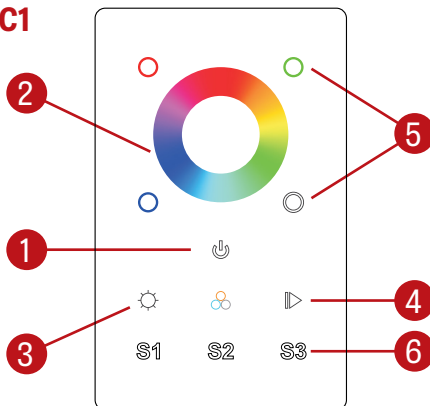
(1) Power:	Use this button to turn ON or OFF the RGBW fixture.
(2) Color Wheel:	The wheel is used to rapidly select a color (RGB colors only).
(3) Brightness (RGB):	Hold down this button to either increase or decrease the brightness of the current RGB selection. White will not be affected by the RGB 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
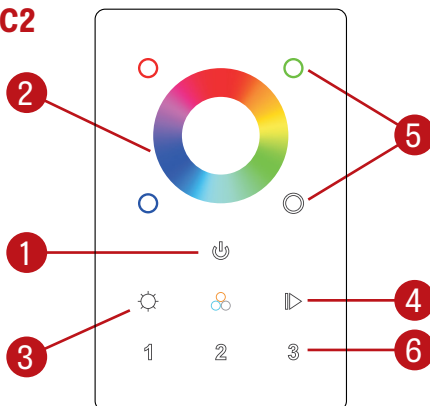
(1) Power:	Use this button to turn ON or OFF the RGBW fixture.
(2) Color Wheel:	The wheel is used to rapidly select a color (RGB colors only).
(3) Brightness:	Hold down this button to either increase or decrease the brightness of the current RGB selection. White will not be affected by the RGB brightness 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.

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