

RIM SQUARE PENDANT

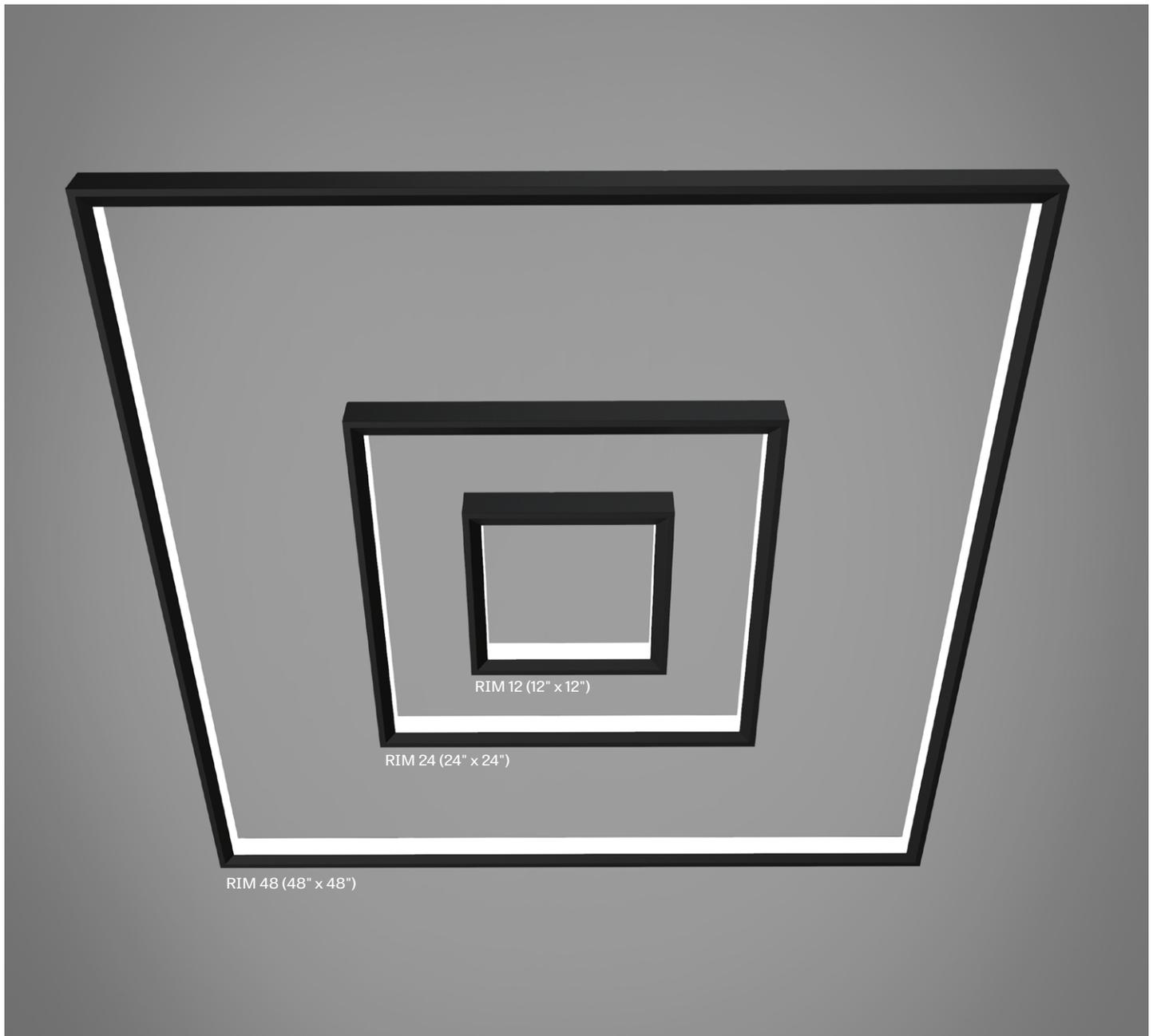


DESCRIPTION

Rim Square combines generous ambient illumination with elegant geometry. The 2" high extruded aluminum frame is constructed with welded miter joint into a seamless form 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 Square is available in three sizes: 12" x 12", 24" x 24" and 48" x 48". Nominal light output ranges from 1200 to 10000 lumens, with efficacy up to 77 lumens per watt. Rim Square supports the full range of Chromawerx Sola, Duo, and Quadro options for tunable white and RGBW expressive color.

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



RIM SQUARE PENDANT



PROJECT: _____
 TYPE: _____
 NOTES: _____

ORDER GUIDE

RIMSP		ULO		90CRI			
LUMINAIRE ID	SIZE	OPTIC	LIGHT SOURCE		CRI		
RIMSP - Rim Square Pendant	12INX12IN - 12" x 12"	ULO - Uniform Lambertian Optic	SOLA - Dim-to-warm single channel control 35K to 22K		90CRI - 90 CRI		
	24INX24IN - 24" x 24"		DUO - Tunable white 2-channel control 65K to 27K				
	48INX48IN - 48" x 48"		QUADRO - Four-channel RGB with 3500K white				
LUMEN PACKAGE				VOLTAGE	REMOTE DRIVER	1C	
						ELECTRICAL	
12" x 12"	Low 1200LM	Medium 1900LM	High 2500LM	120V - 120V 277V - 277V UNV - 120V-277V	SOLA SD1 - Single 0-10V input DUO DD1 - Dual 0-10V input for CCT/intensity DDA ² - DALI DT6 DDA8 ² - DALI DT8 LD2 ² - Lutron DALI-2 digital DMX ^{2,3} - DMX	QUADRO DMX ^{2,3} - DMX	1C - 1 circuit
24" x 24"	2500LM	3800LM	5000LM ¹				
48" x 48"	5100LM ¹	7600LM ¹	10000LM ¹				
12" x 12"	QUADRO 34W - 34 W output						
24" x 24"	68W - 68 W output						
48" x 48"	136W ¹ - 136 W output						
				¹ Two power cords will be required.			
				² On-site commissioning is required.			
				³ To specify, see pages 6 to 12.			

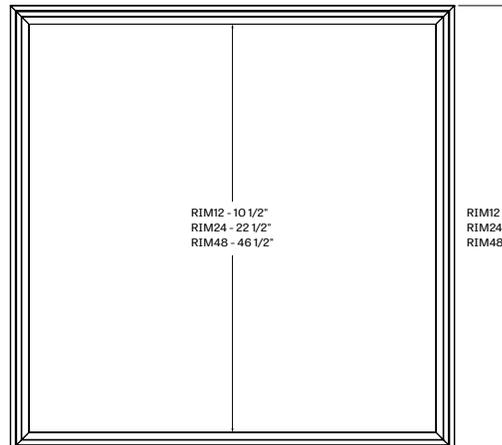
MOUNTING

DRIVER BOX ⁴	CANOPY FINISH	POWER	MOUNTING POINTS	MOUNTING CABLE LENGTH ⁹	
SCD ^{5,6} - Square canopy driver box RDB - Remote driver box	W - Matte white AL - Aluminum B - Matte black CF# - Custom finish, specify RAL#	BAC - Black power cord + aircraft cable WAC - White power cord + aircraft cable	SC - Single canopy MC ^{7,8} - Multiple canopies	18IN - 18" 24IN - 24" 36IN - 36" 48IN - 48" 60IN - 60"	72IN - 72" 96IN - 96" 120IN - 120" ##IN - Specify nominal length in inches
⁴ For more information see page 3. ⁵ SCD is not available for lumen packages over 6000 lm (3500 lm for Lutron driver options). ⁶ SCD is not available for DMX.			⁷ Not available with SCD. ⁸ 4 canopies provided.	⁹ For single canopy option the minimum required mounting height are (distance from ceiling to top of fixture in inches):	
				Fixture size	Minimum height
				12" x 12"	min height 7"
				24" x 24"	min height 15"
				48" x 48"	min height 29"

FINISH

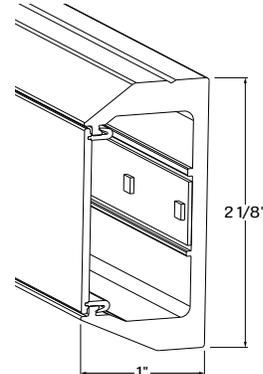
W - Matte white
 AL - Aluminum
 B - Matte black
 CF# - Custom finish, specify RAL#

TOP VIEW



RIMSP - Rim Square Pendant

3D CROSS SECTION



RIMSP - Rim Square Pendant

DMX WALL CONTROLS

To specify see pages 6 to 12

RIM SQUARE PENDANT



MOUNTING OPTIONS

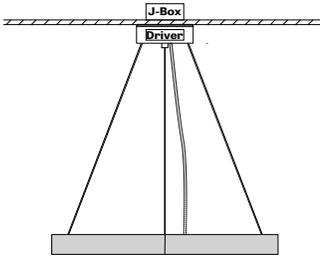
SCD - SQUARE CANOPY DRIVER BOX

SCD - Square Canopy Driver Box - driver is in a 5 1/2" x 5 1/2" x 2" or 7 1/4" x 7 1/4" x 2 5/16" enclosure that also supports suspension and power cables. Enclosure is available in standard finishes (see ordering code).

SC - SINGLE CANOPY



WAC - White power cord + aircraft cable



RDB - REMOTE DRIVER BOX IN DRYWALL

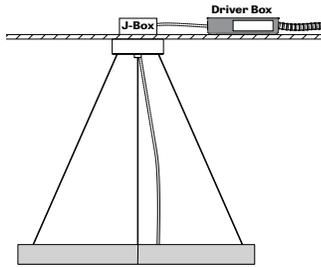
RDB - Remote Driver Box - driver is in a 20"x4"x2" enclosure with brackets for mounting to ceiling joists, runners, or other supporting members. The 4 3/4" x 4 3/4" x 1 5/8" deep wiring compartment canopy conceals and supports suspension and power cables. It is available in standard finishes (see ordering code). It can be installed in drywall or grid ceilings.

Note: Support hardware is not supplied.

SC - SINGLE CANOPY



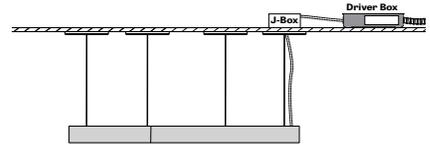
WAC - White power cord + aircraft cable



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. Four canopies are provided for multiple canopy option.

OPTIC

Uniform Lambertian Optic (ULO) - Thermoformed from impact-modified white PMMA, the ULO 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 create a widespread 50% direct and 50% indirect light distribution with spacing criteria of 1.6.

PERFORMANCE FOR 12" X 12"

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	15.5	1200	77
medium output	4000K	25.5	1900	74
high output	4000K	34.5	2500	72

PERFORMANCE FOR 24" X 24"

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	32.5	2500	77
medium output	4000K	51.5	3800	74
high output	4000K	69.5	5000	72

PERFORMANCE FOR 48" X 48"

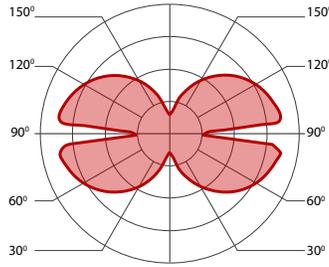
LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	66	5100	77
medium output	4000K	102.5	7600	74
high output	4000K	139	10000	72

RIM SQUARE PENDANT



Multiplier @ 90 CRI

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



CHROMAWERX - TUNABLE WHITE

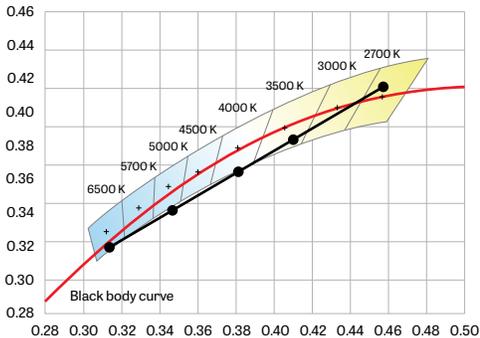
Custom linear array of alternating color temperature mid-flux LEDs are mounted directly to the housing for optimal thermal performance. For the Duo products, a color temperature range from 2700K-6500K is achievable with color points on or below the black body curve. For the Sola products, a color temperature 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.

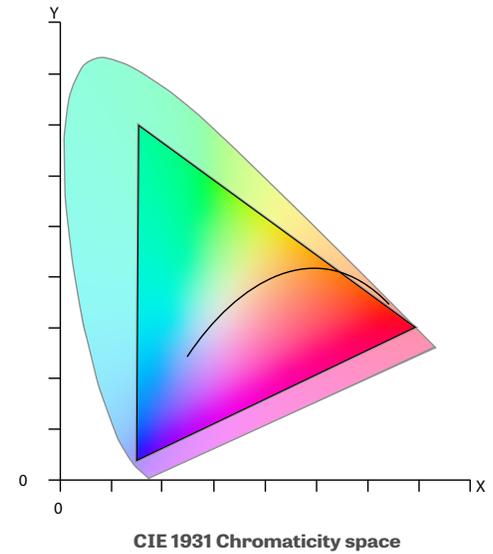
Chromawerx Duo is a two-channel control. It uses analog or digital protocols for synchronous control of both warm and cool LED arrays, enabling the user to set color temperature and light output. Commonly called "tunable white", Chromawerx two-channel control provides the range of warm (2700K) to cool (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.

ANSI C78.377-2015



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.

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°C max. ambient (and 70°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.

RIM SQUARE PENDANT



DALI (not available for Quadro)

Factory-set adjustable output current electronic driver with 120-277V AC line 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. With DALI Type 6, two DALI addresses are required to control both channels. With DALI Type 8, one DALI address is required to control both channels. Dimming down to 1% is attainable. Rated life (90% survivorship) of 50,000 hours at 50°C maximum ambient temperature. At maximum driver load, efficiency <84%, 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 - Seamlessly welded aluminum extrusion, wide variety of colored powder coating

Diffuser - Uniform Lambertian optic, co-extruded flexible polycarbonate satine finished lens

WEIGHT

12" x 12" - 3.4lbs - 1.5kg

24" x 24" - 6.6lbs - 3kg

48" x 48" - 12lbs - 5.4kg

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 SQUARE 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

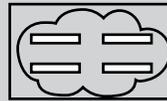
Do you require a wall controller provided by Lumenwerx?

NO

DMX 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. 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. ✓

RIM SQUARE 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 contact information of your DMX integrator.**

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

YES

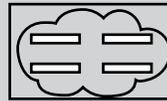
Do you require a wall controller provided by Lumenwerx?

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. Additional costs 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. Additional costs and equipment will be required. ✓

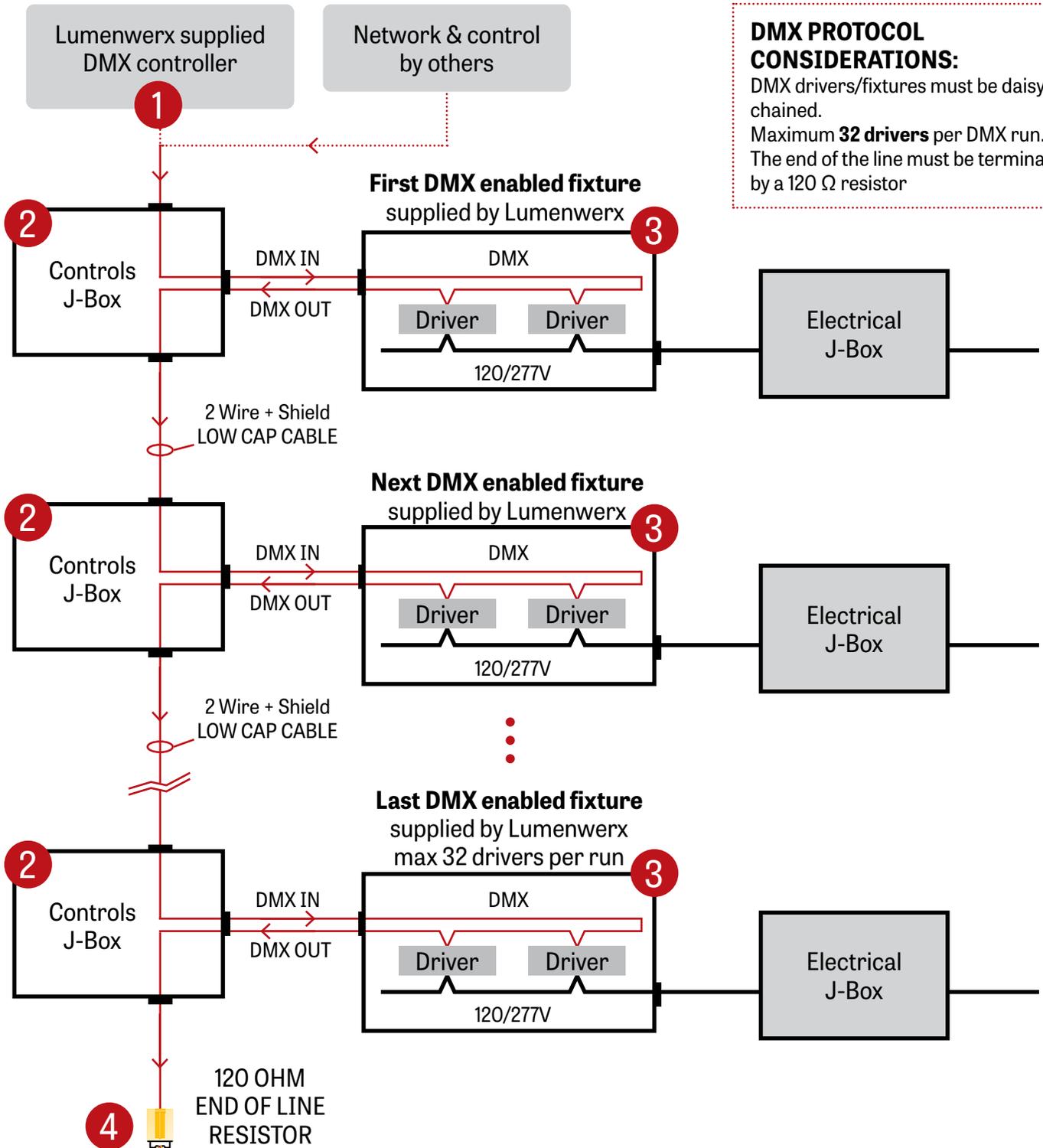
Subject to factory evaluation and approval. Please contact our controls specialist at controls@lumenwerx.com. Additional costs and equipment will be required. ✓

RIM SQUARE PENDANT



CHROMAWERX TUNABLE WHITE AND 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 Ω resistor



RIM SQUARE PENDANT

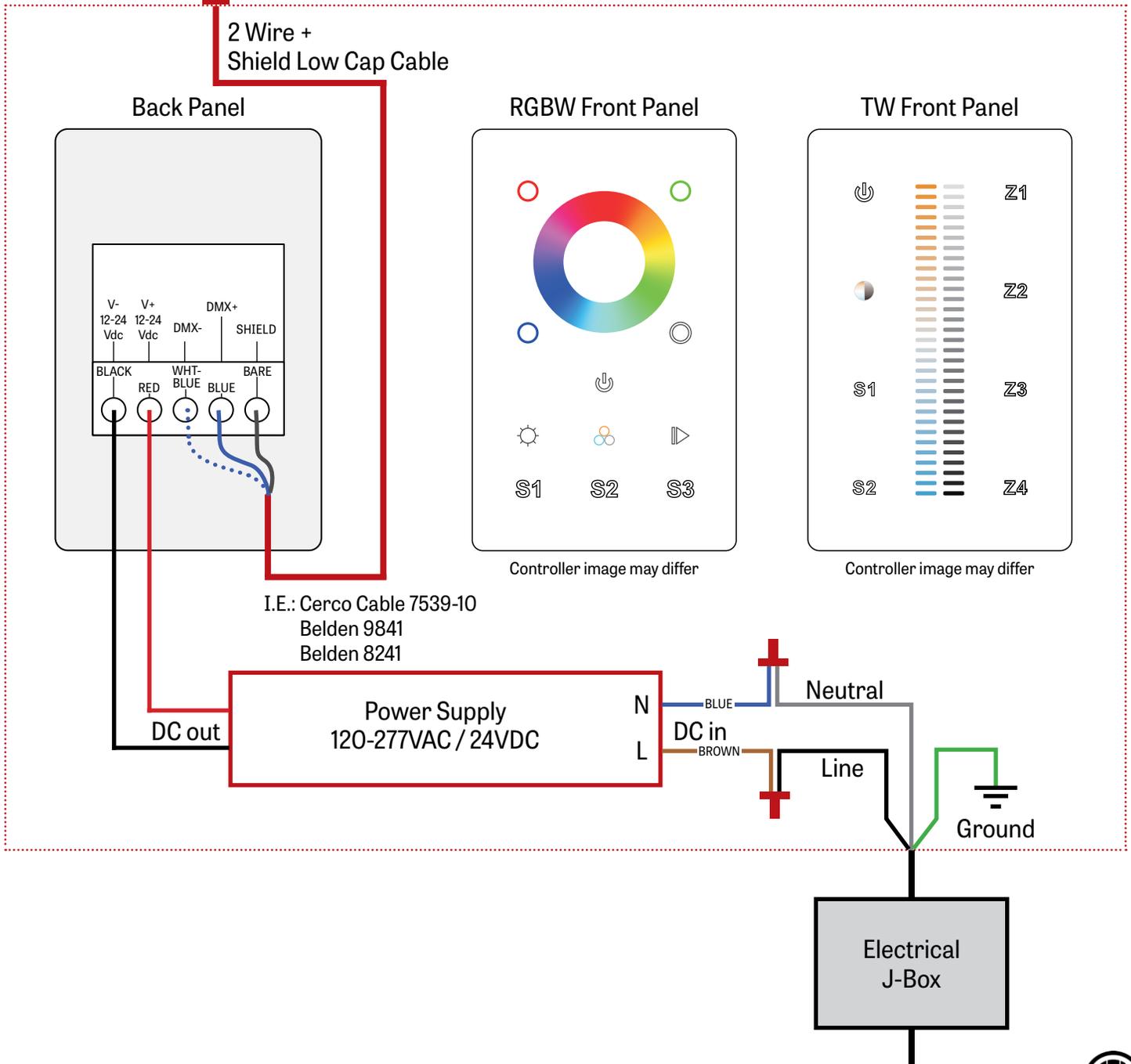


CHROMAWERX TUNABLE WHITE AND RGBW

1 LUMENWERX SUPPLIED DMX CONTROLLER

To the first fixture

WALL BOX SUPPLIED BY OTHERS



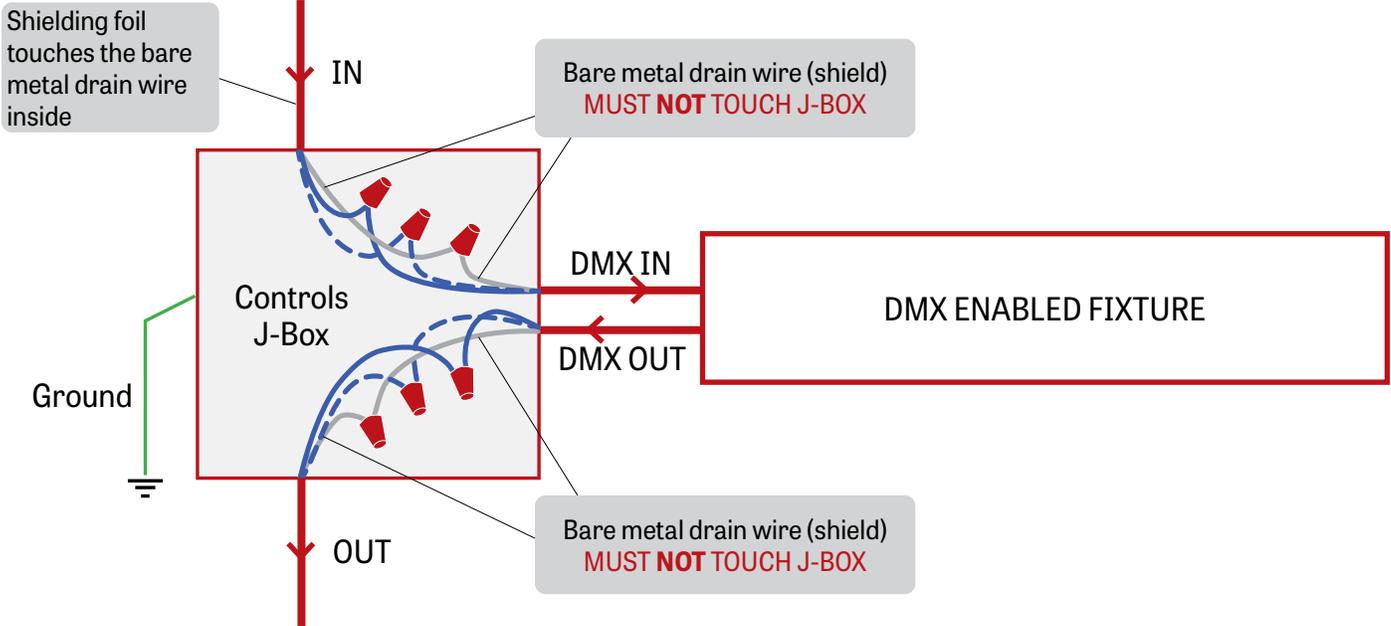
RIM SQUARE PENDANT



CHROMAWERX TUNABLE WHITE AND RGBW

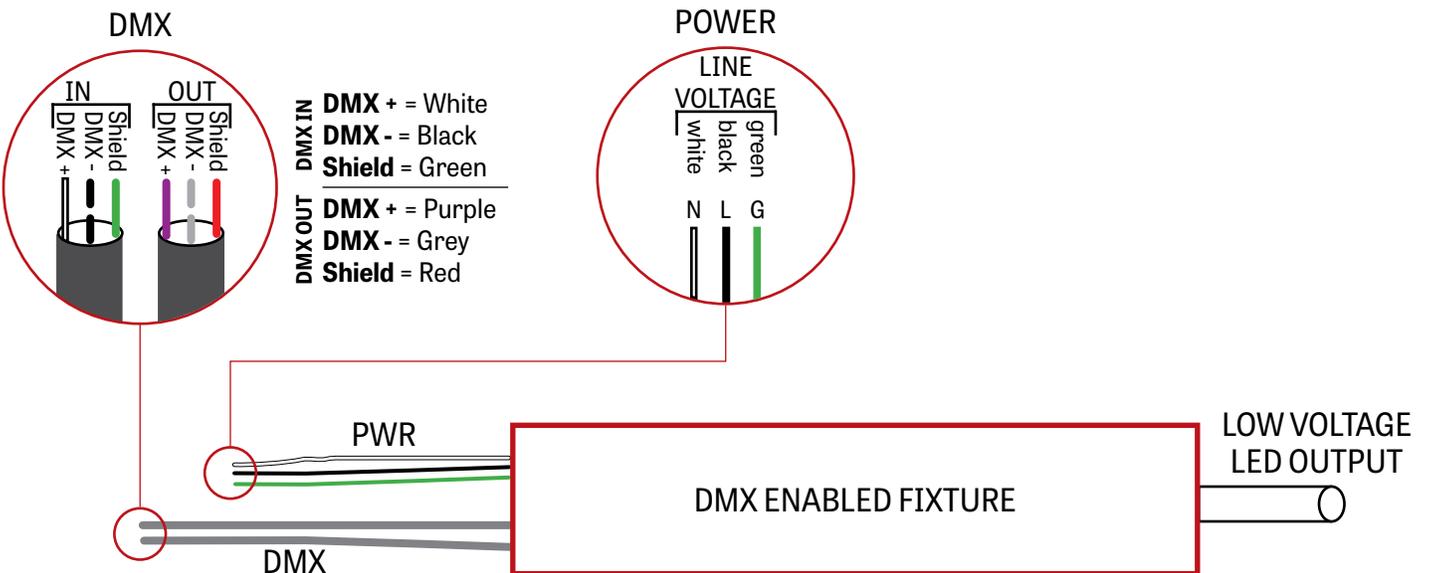
2 J-BOX DMX DAISY CHAIN DETAIL

Low capacitance DMX cable from previous fixture



Low capacitance DMX cable to next fixture

3 DMX CONNECTION PENDANT & WALL REMOTE DRIVER



RIM SQUARE PENDANT



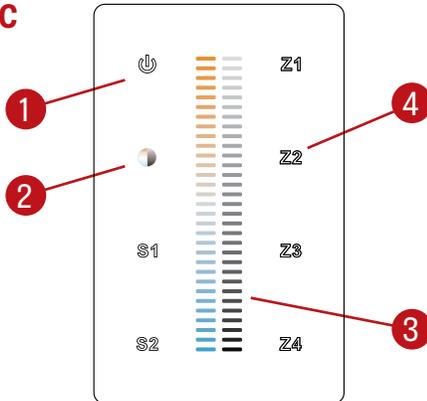
CHROMAWERX TUNABLE WHITE AND RGBW

DMX WALL CONTROLLER - TUNABLE WHITE

Default DMX Addresses:

1. WARM | 2. COOL

WC



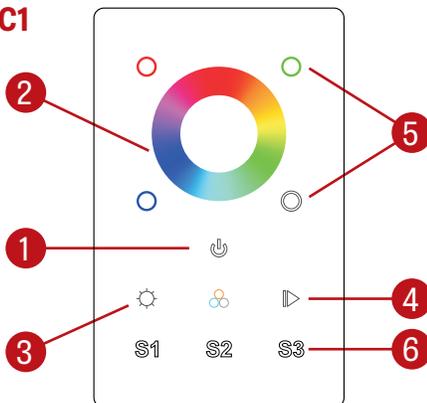
- (1) Power: Use this button to turn ON or OFF the fixture.
- (2) Brightness/CCT: Use the color/brightness toggle button to choose between color/brightness. When Blue: brightness is selected; when Yellow: color is selected.
- (3) Slider: Depending on the mode chosen in step 2, the slider will allow the 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:

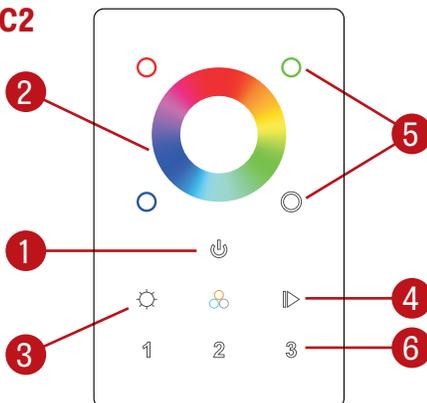
1. RED | 2. GREEN | 3. BLUE | 4. WHITE

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.