

RIM VERSO

ACOUSTIX - CHROMAWERX DUO,
SOLA AND QUADRO

LUMENWERX

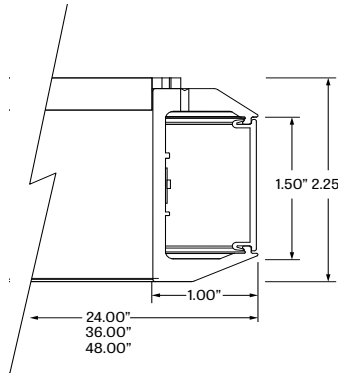


Project: _____

Type: _____



Section View



Rim Verso Acoustix 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. Three-to-four point suspension is available in an ultra-clean integrated power-over-cable option. Rim Verso Acoustix is available in three diameters: 24", 36" and 48". It is available for Chromawerx SOLA, DUO and QUADRO. Static White is also available, see separate spec sheets.

Order Guide

LUMINAIRE ID	SIZE	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES			VOLTAGE
RIMVACORP		ULO		90				
RIMVACORP - Rim Verso Acoustix Round Pendant	24 - 24" diameter 36 - 36" diameter 48 - 48" diameter	ULO - Uniform Lambertian optic	DUO - Tunable white 2-channel control 27K to 65K SOLA - Dim-to-warm single-channel control 22K to 35K QUADRO - four-channel RGB with 3500K/90CRI	90 - 90CRI	SIZE	SOLA & DUO ¹	QUADRO *	120 -120V 277 - 277V UNV - 120V-277V
					Ø 24" Ø 36" Ø 48"	Low L2000lm L3000lm L4000lm Medium M3000lm M4500lm M6000lm High H4000lm H6000lm H8000lm	27W - 27W output 40W - 40W output 54W - 54W output	
¹ Two power cords will be required for lumen packages over 4500lm.								

DRIVER	ELECTRICAL	MOUNTING												
	1													
SOLA DA ² - DALI 0-10V - Single 0-10V input DUO DA ² - DALI 0-10V - Dual 0-10V input for CCT/Intensity DMX ² - DMX with remote driver only (to specify see pages 8 to 14) QUADRO DMX ² - DMX with remote driver only (to specify see pages 8 to 14) ² On-site commissioning is required.	1 - 1 circuit	DRIVER BOX RDB - Remote driver box	CANOPY FINISH AL - Aluminum B - Matte black W - Matte white CF# - Custom finish specify RAL#	POWER BAC - Black power cord + aircraft cable WAC - White power cord + aircraft cable	MOUNTING POINTS SC - Single canopy MC ³ - Multiple canopies ³ 3 canopies for Rim 24", and 4 canopies for Rim 36" and Rim 48".	HEIGHT ##IN ⁴ - Distance from the canopy to the fixture in inches ⁴ For single canopy option, the minimum mounting heights are: <table border="1"> <tr> <th>Fixture size</th> <th>Remote driver box</th> </tr> <tr> <td>Ø 24"</td> <td>min height 18.5"</td> </tr> <tr> <td>Ø 36"</td> <td>min height 29"</td> </tr> <tr> <td>Ø 48"</td> <td>min height 39.25"</td> </tr> </table>	Fixture size	Remote driver box	Ø 24"	min height 18.5"	Ø 36"	min height 29"	Ø 48"	min height 39.25"
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FIXTURE FINISH	FELT COLOR	DMX WALL CONTROLS (OPTIONAL)																																				
AL - Aluminum B - Matte black W - Matte white CF# - Custom finish specify RAL#	<table border="1"> <thead> <tr> <th colspan="2">STANDARD COLORS</th> <th colspan="4">PREMIUM COLORS⁵</th> </tr> </thead> <tbody> <tr> <td> FWN</td> <td> LVN</td> <td> PKN</td> <td> CDN</td> <td> IVN</td> <td> BHN</td> </tr> <tr> <td> FON</td> <td> LEN</td> <td> OGN</td> <td> LCN</td> <td> SLN</td> <td> CFN</td> </tr> <tr> <td> ION</td> <td> CYN</td> <td> LNN</td> <td> SYN</td> <td> CNN</td> <td> GRN</td> </tr> <tr> <td> TBN</td> <td> PMN</td> <td> LMN</td> <td> BLN</td> <td> GHN</td> <td> MON</td> </tr> <tr> <td> MDN</td> <td> FGN</td> <td> EGN</td> <td> NVN</td> <td> CLN</td> <td> ESN</td> </tr> </tbody> </table> <p>⁵ Please consult factory for more color options. Lead time may vary.</p>	STANDARD COLORS		PREMIUM COLORS ⁵				FWN	LVN	PKN	CDN	IVN	BHN	FON	LEN	OGN	LCN	SLN	CFN	ION	CYN	LNN	SYN	CNN	GRN	TBN	PMN	LMN	BLN	GHN	MON	MDN	FGN	EGN	NVN	CLN	ESN	DUO WCW - Wall controller white WCB - Wall controller black QUADRO WC1W - Wall controller 1 white WC1B - Wall controller 1 black WC2W - Wall controller 2 white WC2B - Wall controller 2 black To specify see pages 8 to 14.
STANDARD COLORS		PREMIUM COLORS ⁵																																				
FWN	LVN	PKN	CDN	IVN	BHN																																	
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MDN	FGN	EGN	NVN	CLN	ESN																																	

RIM VERSO

ACOUSTIX - CHROMAWERX DUO,
SOLA AND QUADRO

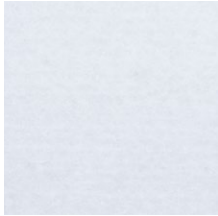
LUMENWERX



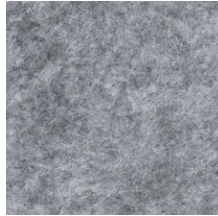
Project: _____

Type: _____

Standard Color Options



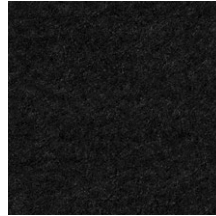
FWN - FROST WHITE



FON - FOG



ION - IRON



TBN - TRUE BLACK



MDN - MIDNIGHT BLUE



LVN - LAVENDER



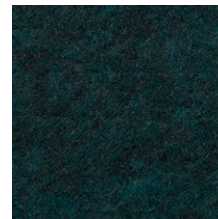
LEN - LATTE



CYN - CHERRY



PMN - PLUM



FGN - FOREST GREEN

Premium Color Options*



PKN - PAPRIKA



OGN - ORANGE



LNN - LEMON



LMN - LIME



EGN - EVERGREEN



CDN - CLOUDY



LCN - LICHEN



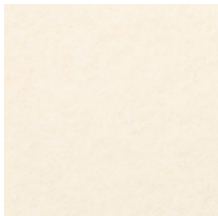
SYN - SKY



BLN - BLUEBERRY



NVN - NAVY



IVN - IVORY



SLN - STEEL



CNN - CARBON



GHN - GRAPHITE



CLN - CHARCOAL



BHN - BLUSH



CFN - CAFÉ



GRN - GREIGE



MON - MOCHA



ESN - ESPRESSO

*Please consult factory
for more color options.
*Lead time may vary.

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Project: _____

Type: _____

LUMENWERX

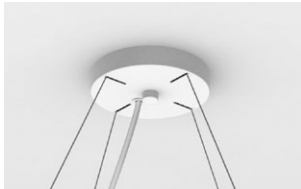
Mounting Options

RDB - REMOTE DRIVER BOX

RDB - Remote Driver Box - driver is in a 26"x4"x5.5" 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

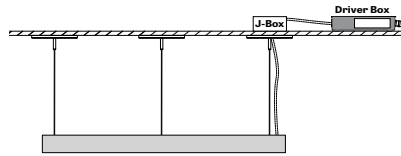
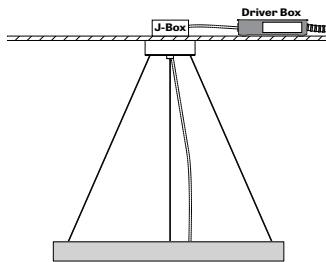


Shown with POC option.
Also available with AC.

MC - MULTIPLE CANOPIES



Shown with POC option.
Also available with AC.



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" and Rim 48".

RIM VERSO

ACOUSTIX - CHROMAWERX DUO,
SOLA AND QUADRO

LUMENWERX



Project: _____

Type: _____

ACOUSTIC CALCULATOR

Using the Lumenwerx Acoustix Value Calculator table, you can determine the number of acoustic luminaires required in a space by fixture type. We have three levels of recommended sound reduction: good, better, and best. Choosing one of these options will reduce the sound accordingly. The best option indicates the best acoustic improvement. Calculations are based on a standard ceiling height of 9 feet.



① Calculate the square feet of your room (L x W).

② Choose the level of acoustical improvement you are looking for, and find the corresponding value based on your room dimension and luminaire configuration.

% in reduction in reverberation time			Room dimensions under 300 sq ft			Room dimensions over 300 sq ft		
SIZE	GOOD	BETTER	BEST	GOOD	BETTER	BEST		
☺ GOOD	25%			☺	☺☺	☺☺☺		
☺☺ BETTER	40%			☺	☺☺	☺☺☺		
☺☺☺ BEST	50%			☺	☺☺	☺☺☺		
24"	18	9	6	28	14	9		
36"	42	20	14	65	32	22		
48"	75	38	25	120	59	41		

③ Use the Lumenwerx Acoustix Value Formula to determine the number of luminaires needed in the room.

$$\text{Square feet} \div \text{Value} = \text{Number of luminaires}$$

Example:

Luminaires: Rim Verso Acoustix, 48" diameter
Room square feet: L: 20 ft x W: 18 ft = 360 sq ft
Desired acoustical improvement: Better = 59
Number of luminaires needed in the room: 360 ÷ 59 = **7 luminaires**

NOTES:

- You can mix lit and blank fixtures.
- Lumenwerx acoustic calculators were developed to act as a guide. For precise acoustic performance in a space, please consult an acoustician.

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Project: _____

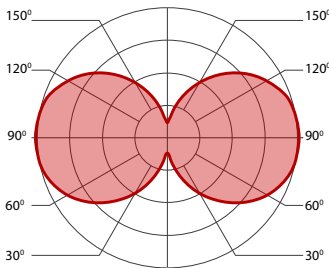
Type: _____

LUMENWERX

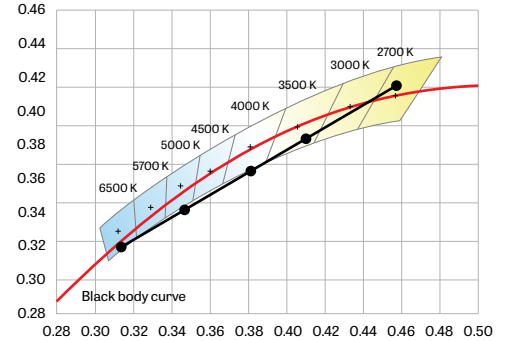
Technical Specifications

OPTICS

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.



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.



CHROMAWERX - SOLA and DUO

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 2200K - 3500K is controlled synchronously with intensity. Color consistency between fixtures is maintained within 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 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 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% of full power to 2200K at 5% of full power. CRI is maintained above 80 throughout the dimming range.

Chromawerx DUO is a two-channel control. It uses an analog (0-10V) protocol for separate control of luminaire CCT and intensity or a digital (DMX, DALI) protocol for synchronous control of both warm and cool LED arrays to enable 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. CRI is maintained above 80.



RIM VERSO

ACOUSTIX - CHROMAWERX DUO,
SOLA AND QUADRO



Project: _____

Type: _____

LUMENWERX

Technical Specifications

ELECTRICAL REMOTE

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

0-10V (SOLA and DUO):

Driver features factory-set adjustable output current with 120-277V AC line input. Dimmable from 100% to 1%. 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%.

DALI (SOLA and DUO):

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 and DUO):

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%.

WEIGHT

Rim Verso Acoustix 24 - 6.17lbs - 2.80kg
Rim Verso Acoustix 36 - 9.25lbs - 4.20kg
Rim Verso Acoustix 48 - 12.34lbs - 5.60kg

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

FINISH

Interior - 95% reflective, matte white powder coating

Exterior - matte white, matte black or aluminum powder coating.
Custom finishes are also available.

ACOUSTIC FINISH

Material is 100% polyester containing up to 50% of recycled plastic bottles (PET) with an ASTM E-84 Class A fire rating and is moisture resistant.

CARE

Remove dust and debris with a clean, dry, soft, lint-free cloth, or vacuum.

CERTIFICATIONS

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

ENVIRONMENT

Ambient temperature at fixture location shall not exceed 30°C/86°F. For indoor use only.

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 VERSO

ACOUSTIX - CHROMAWERX DUO,
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LUMENWERX



Project: _____

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WELL for Light - The WELL building standard focuses on light quality in several features. There are three categories that are fully attributed to the construction and features of a luminaire. In WELL V1, it's Feature 54 Circadian Lighting, Feature 55 Glare Control, and Feature 58 Color Quality. In WELL V2, it's Feature L03 Circadian Lighting, Feature L04 Glare Control, and Feature L07 Electric Light Quality.

This fixture meets Features:

- Feature 54 or L03 when DUO is selected
- Feature 58 or L07 when 90CRI is selected

All LED drivers used at Lumenwerx are deemed to have a low risk level of flicker, of 5 % or less below 90Hz operational as defined by IEEE standard 1789-2015 LED.



WELL for Sound - This luminaire is recommended for use as an acoustical absorption surface to limit reverberation times (RT) in a given space. This luminaire contributes to noise reduction and vibration dampening to promote focus and concentration. Reverberation needs to be calculated in each space based on the materials used.



WELL for Mind (SOLA and DUO only) - This luminaire meets WELL for mind as it is a human centric luminaire offering quality light, excellent color, smooth optics, and a sound diminishing element. If any of these features are incorporated in a luminaire, it can improve the ability to focus, concentrate, and persist longer on a given task. This fixture harmoniously operates in a space to assist the mind.

For more information please contact well@lumenwerx.com.

RIM VERSO

ACOUSTIX - CHROMAWERX DUO,
SOLA AND QUADRO

LUMENWERX



Project: _____

Type: _____

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.



Project: _____

Type: _____

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?

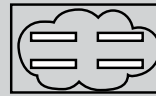
NO

DMX 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

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. ✓

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. 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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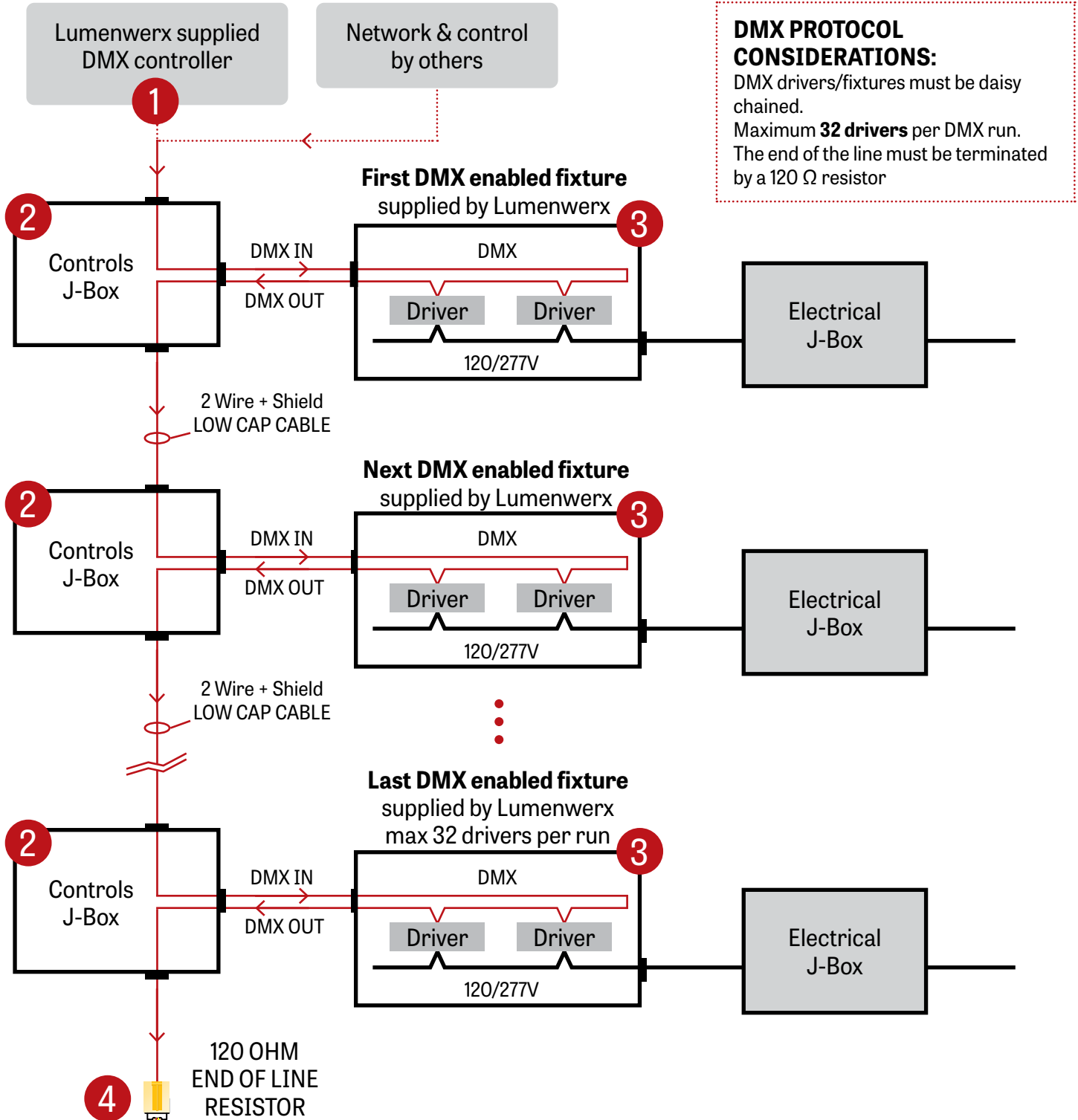


Project: _____

Type: _____

LUMENWERX

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

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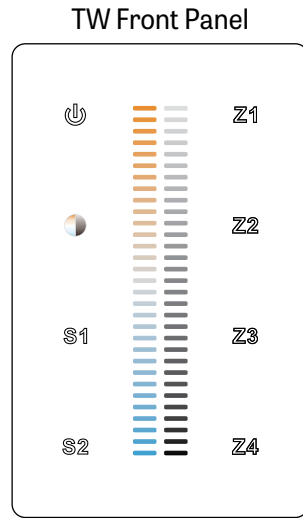
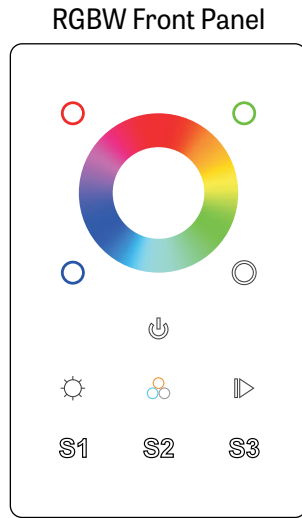
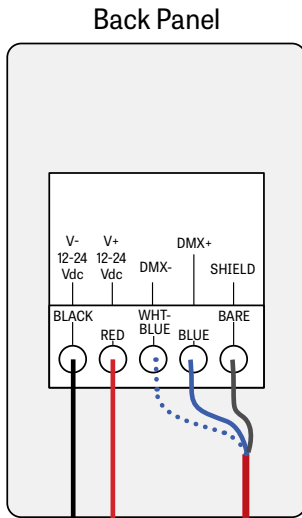
CHROMAWERX TUNABLE WHITE AND RGBW

1 LUMENWERX SUPPLIED DMX CONTROLLER

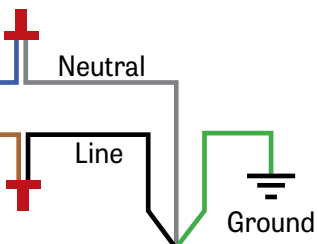
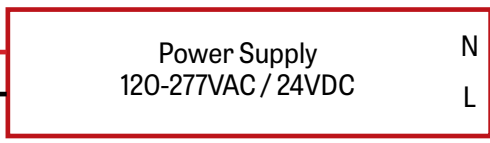
To the first fixture



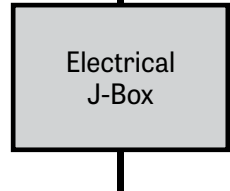
2 Wire +
Shield Low Cap Cable



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



DC out





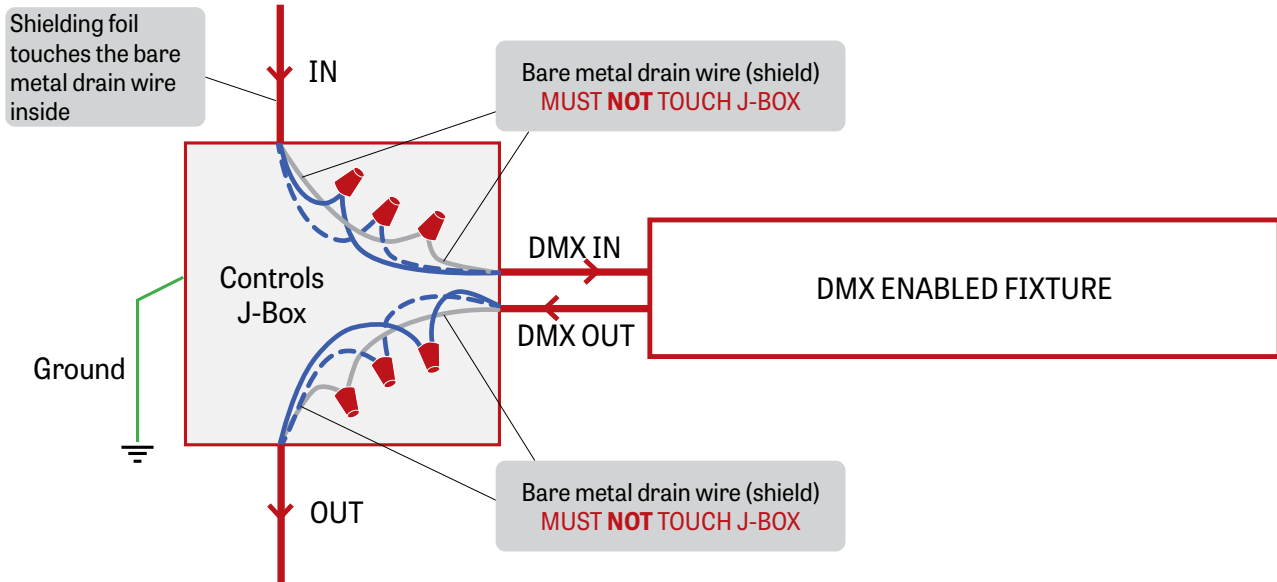
Project: _____

Type: _____

CHROMAWERX TUNABLE WHITE AND RGBW

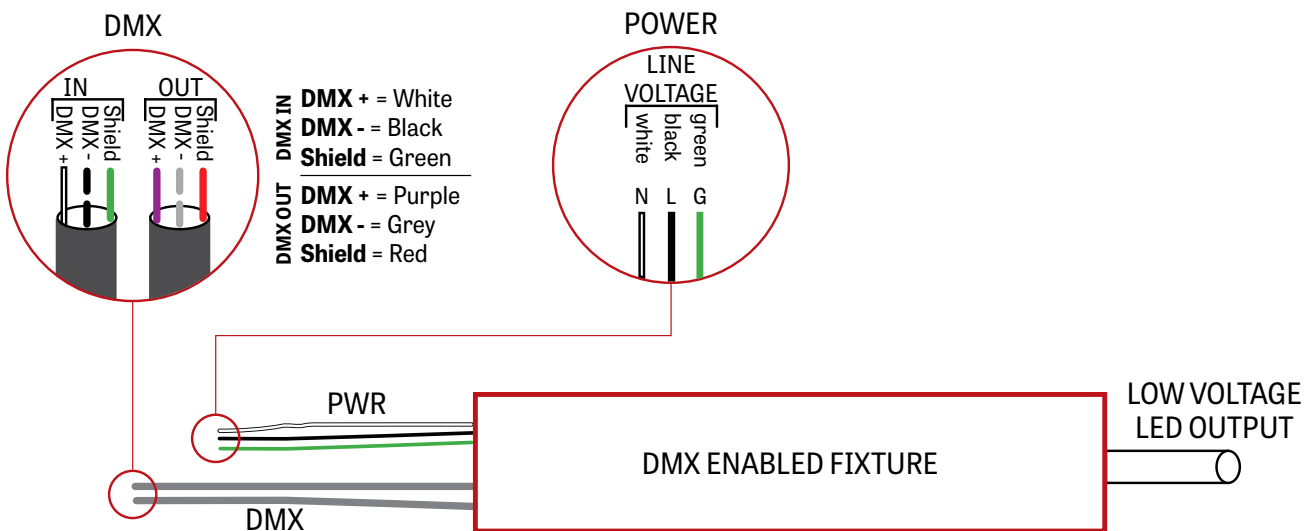
2 J-BOX DMX DAISY CHAIN DETAIL

Low capacitance DMX cable from previous fixture



Low capacitance DMX cable to next fixture

3 DMX CONNECTION PENDANT & WALL REMOTE DRIVER



RIM VERSO

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SOLA AND QUADRO

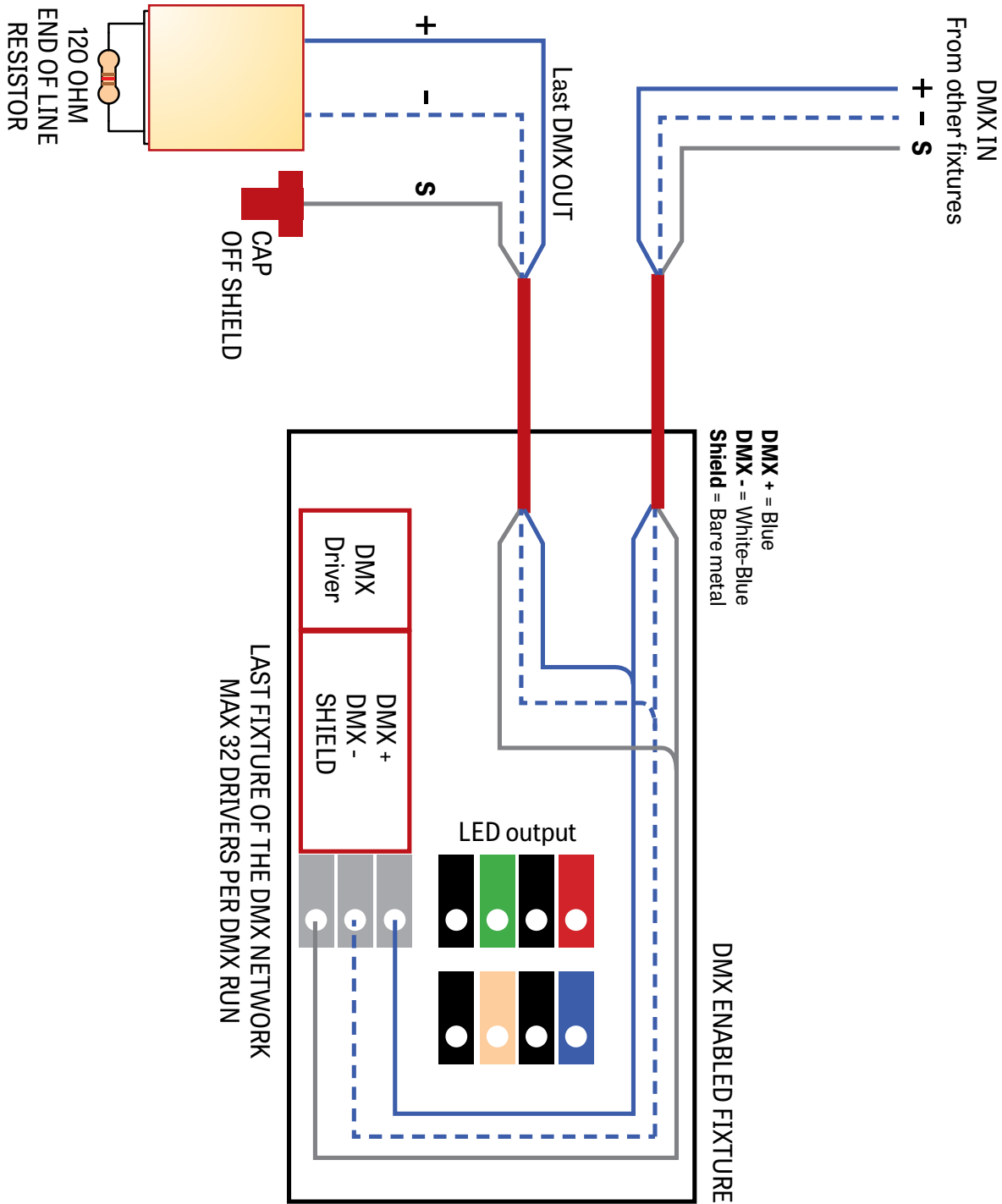


Project: _____

Type: _____

LUMENWERX

4 DMX LAST FIXTURE DETAIL



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LUMENWERX



Project: _____

Type: _____

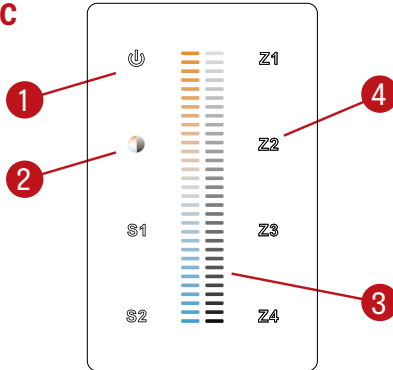
CHROMAWERX TUNABLE WHITE AND RGBW

DMX WALL CONTROLLER - TUNABLE WHITE

Default DMX Addresses:

1. WARM | 2. COOL

WC



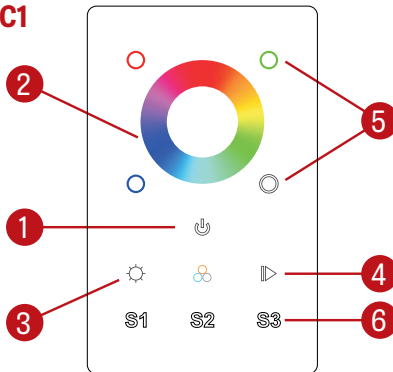
- (1) Power: Use this button to turn ON or OFF the fixture.
- (2) Brightness/CCT: Use the color/brightness toggle button to choose between color/brightness. When Blue: brightness is selected; when Yellow: color is selected.
- (3) Slider: Depending on the mode chosen in step 2, the slider will allow the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

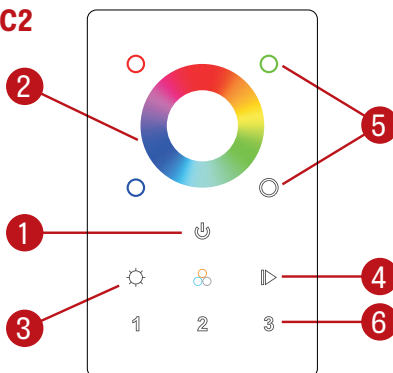
1. RED | 2. GREEN | 3. BLUE | 4. WHITE

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.