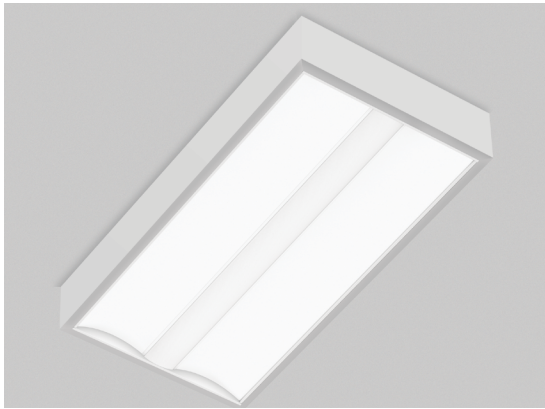# VEGA 2x4 LED

SURFACE

LUMENWERX
W W W . L U M E N W E R X . C O M

CHROMAWERX QUADRO - RGBW

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

Shown with MTO and HLO optics

DESCRIPTION

Vega is an efficient architectural LED troffer with a distinctive luminous shielding that features a median textured optic. Using advanced LED engines, Vega provides highly efficient illumination and offers comprehensive ceiling, electrical, and controls options in 2x2, 1x4, and 2x4 sizes. Vega 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.

PROJECT: _____

_____

APPROVED BY: _____
SIGNATURE: _____

5 YEAR WARRANTY
5

ORDER GUIDE

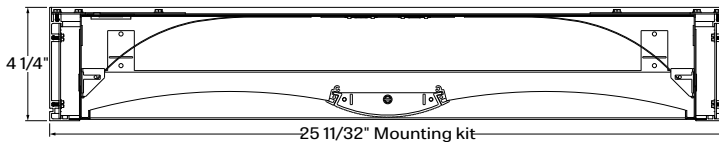| VEGS	24	MTO	HLO	LED		
LUMINAIRE ID	**SIZE**	**CENTER OPTICS**	**SIDE OPTICS**	**LIGHT SOURCE**	**CHROMAWERX**	**OUTPUT WATTAGE**
VEGS - vega surface	24 - 2'x4'	**MTO** - Median Textured Optic	**HLO** - High-Efficiency Lambertian Optic	**LED** - high performance LED	**QUADRO** - four-channel RGB with 3500K white **RS** - red solid **GS** - green solid **BS** - blue solid	**30W** - 30 watts output (for solid colors only) **30W** - 30 watts output (quadro only) **40W** - 40 watts output (quadro only) **50W** - 50 watts output (quadro only)

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

DMX WALL CONTROLS

To specify see pages 4 to 9

See page 2 for ordering code detailed information

CHROMAWERX

CROSS SECTION

4 1/4"

25 11/32" Mounting kit

SUR - surface mount kit

0.9 Y
520 nm
770 nm
380nm
0
0 0.8 X

c ETL us
LISTED
Intertek
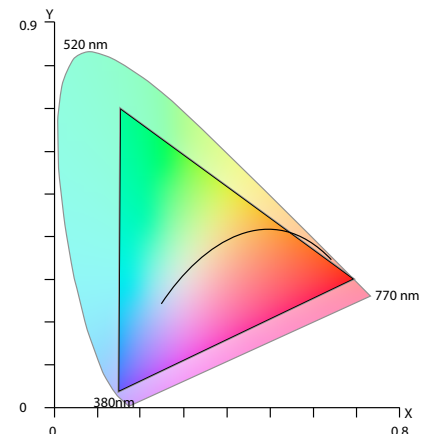
CHROMAWERX QUADRO - RGBW

OPTICS

CENTER LENS - MEDIAN TEXTURED OPTIC (MTO) - Median Textured Optic (MTO) shielding consisting of ribbed diffusing center element.

SIDE LENS - HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO) - Curved sides of diffusing 0.075" thick acrylic with 90% transmission and good source obscuration. Luminaire brightness is controlled by the flux-to-shielding area ratio in addition to offering a gentle gradient from center to edge.

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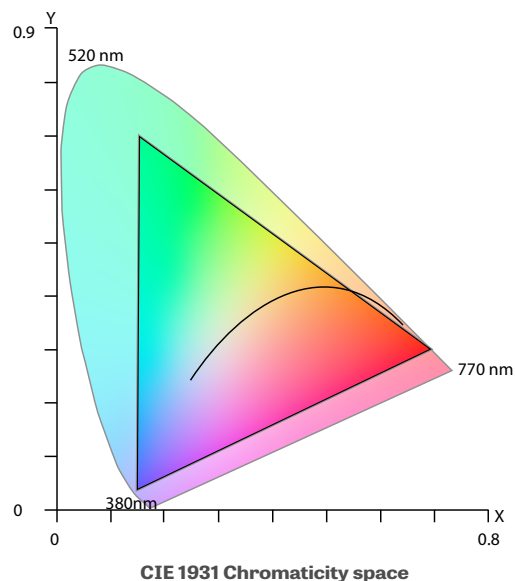
The above diagram overlays the full gamut of colors attainable with the RGBW on top of the CIE 1931 color space. Any color point inside of the triangle can be obtained by setting the correct output levels for each of the individual red, green, blue, and white channels.

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%.

MOUNTING OPTIONS

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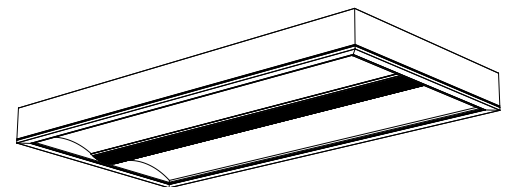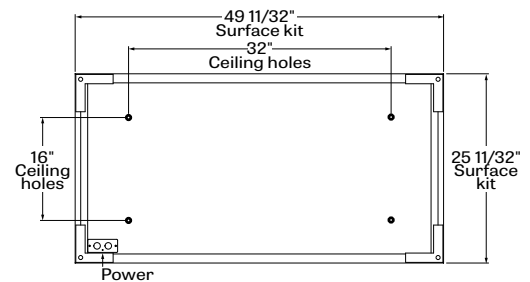
SUR - surface mount kit

FINISH

Interior reflectors - 95% reflective, matte white powder coating

Exterior - matte white powder coating. Custom finish is also available.

CHROMAWERX QUADRO - RGBW

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

Vega 2x4 - 27.53 lbs.+8.26lbs. - 12.5kg+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.

ETL LISTED
c   us
Intertek

VEGA 2x4 LED

SURFACE

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**
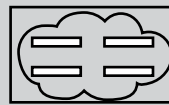
1 Zone   **2 to 3 Zones**   **4 or more Zones**

How to calculate the required number of drivers:

per 4' fixture	per 4' fixture
Driver	Driver Driver
1x driver	2x driver
Less than 12.5W/ft, direct only	Above 12.5W/ft or for all direct/indirect fixture

To Calculate # of drivers

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. ✓

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 ans approval. Please contact our controls specialist at controls@lumenwerx.com
Additional cost and equipment will be required. ✓

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

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

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VEGA 2x4 LED

SURFACE

CHROMAWERX QUADRO - 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

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CHROMAWERX QUADRO - RGBW

1 LUMENWERX SUPPLIED DMX CONTROLLER

To the first fixture

WALL BOX SUPPLIED BY OTHERS

2 Wire +
Shield Low Cap Cable

Back Panel

Front Panel

V-
12-24
Vdc

V+
12-24
Vdc

DMX-

DMX+

SHIELD

BLACK

RED

WHT-
BLUE

BLUE

BARE

S1 S2 S3

Controller image may differ

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

DC out

Power Supply
120-277VAC / 24VDC

N — BLUE — Neutral

DC in

L — BROWN — Line

Ground

Electrical
J-Box

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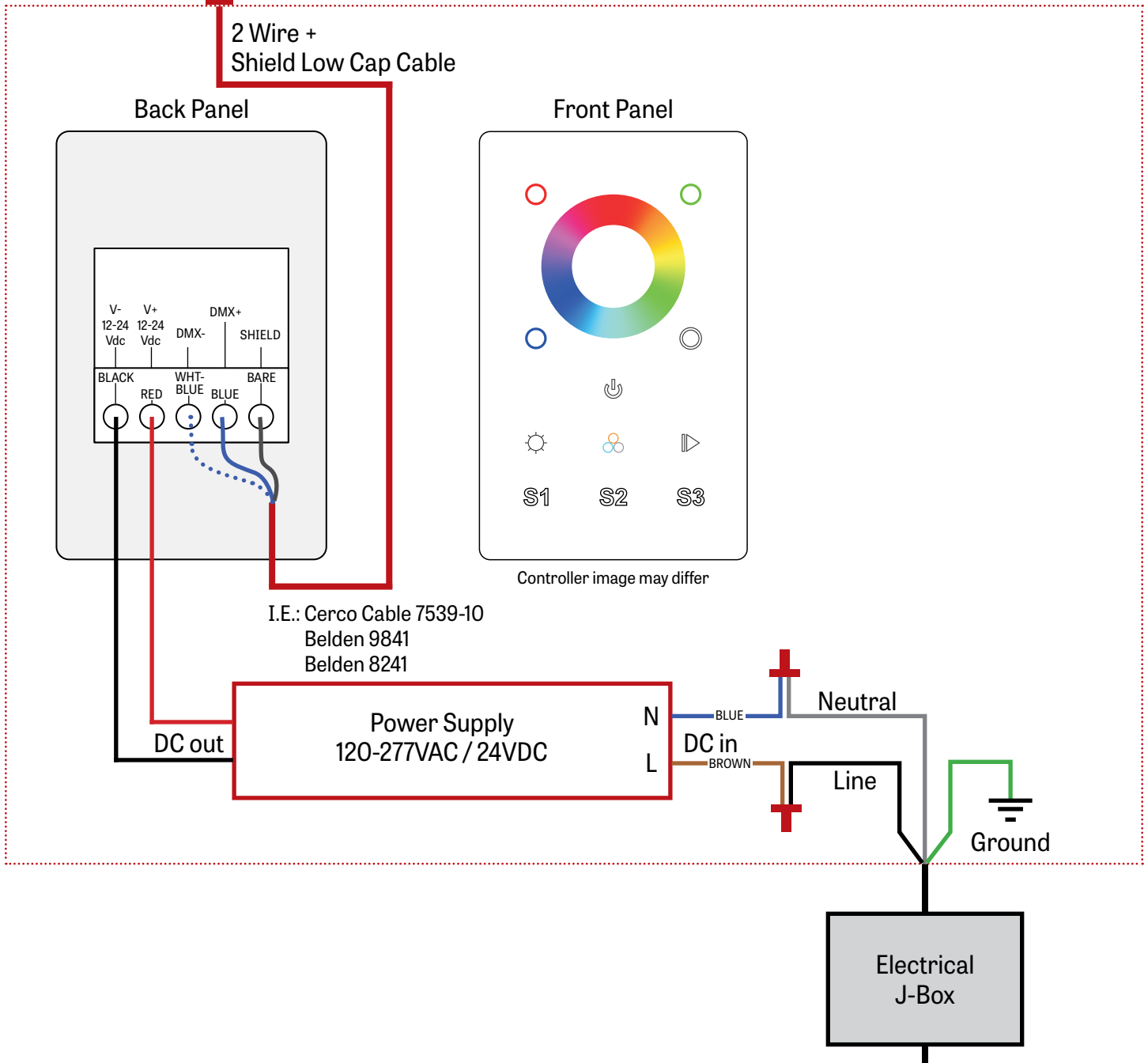
CHROMAWERX QUADRO - RGBW

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 OUT

DMX ENABLED FIXTURE

Ground

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

OUT
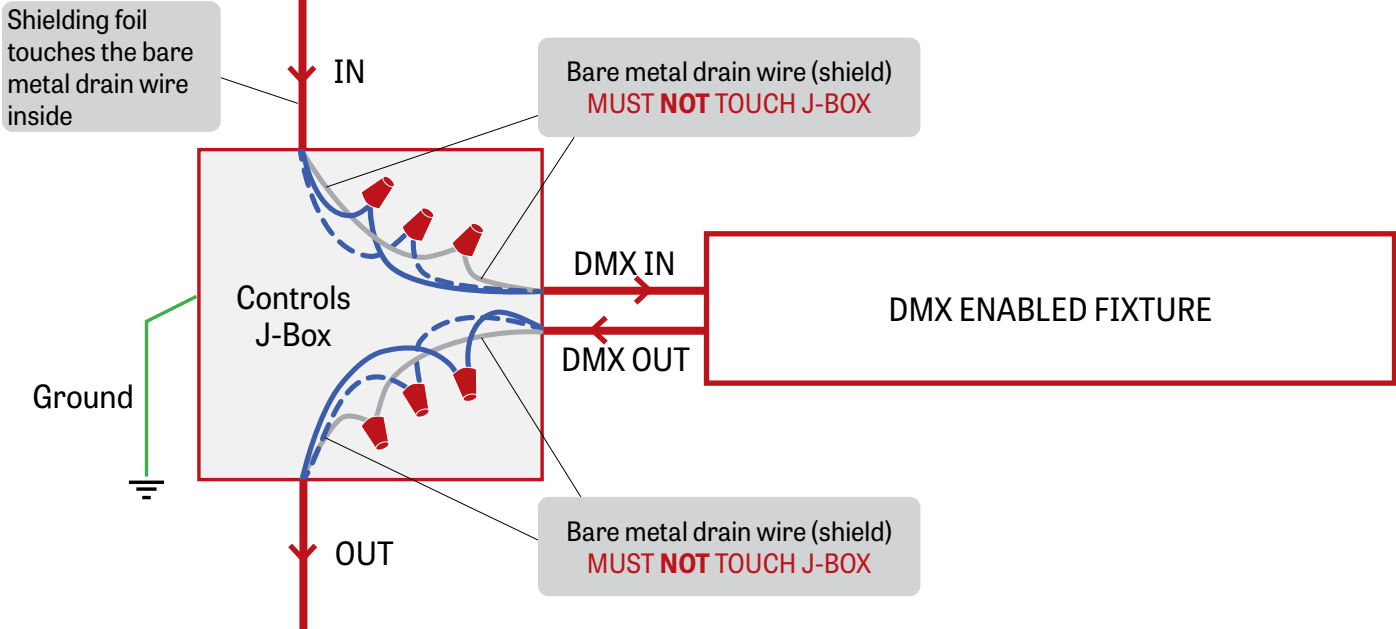
Low capacitance DMX cable to next fixture

3 | DMX CONNECTION RECESSED & SURFACE

DMX

IN | OUT
Shield DMX- DMX+ | Shield DMX- DMX+

POWER

LINE VOLTAGE
white | black | green
N | L | G

DMX ENABLED FIXTURE

DMX

PWR

ETL LISTED
c US
Intertek

CHROMAWERX QUADRO - RGBW
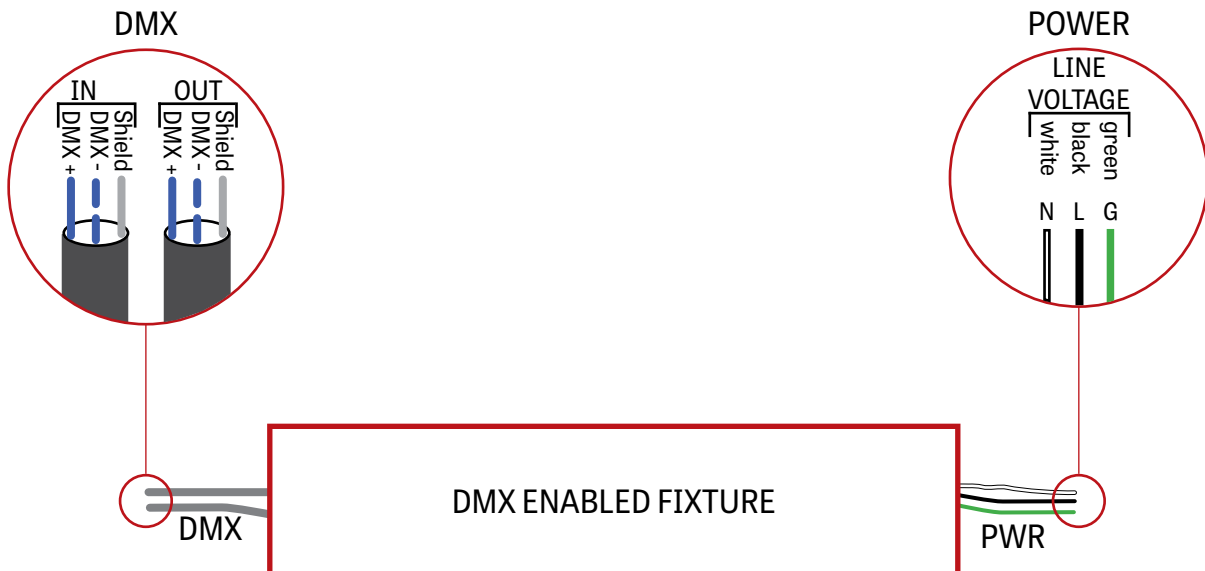
4 DMX LAST FIXTURE DETAIL

120 OHM
END OF LINE
RESISTOR

+

−

S

CAP
OFF SHIELD

Last DMX OUT

DMX IN
From other fixtures

+

−

S

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

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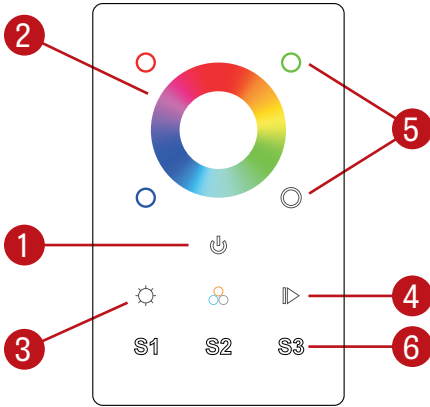# VEGA 2x4 LED

SURFACE

LUMENWERX
W W W . L U M E N W E R X . C O M
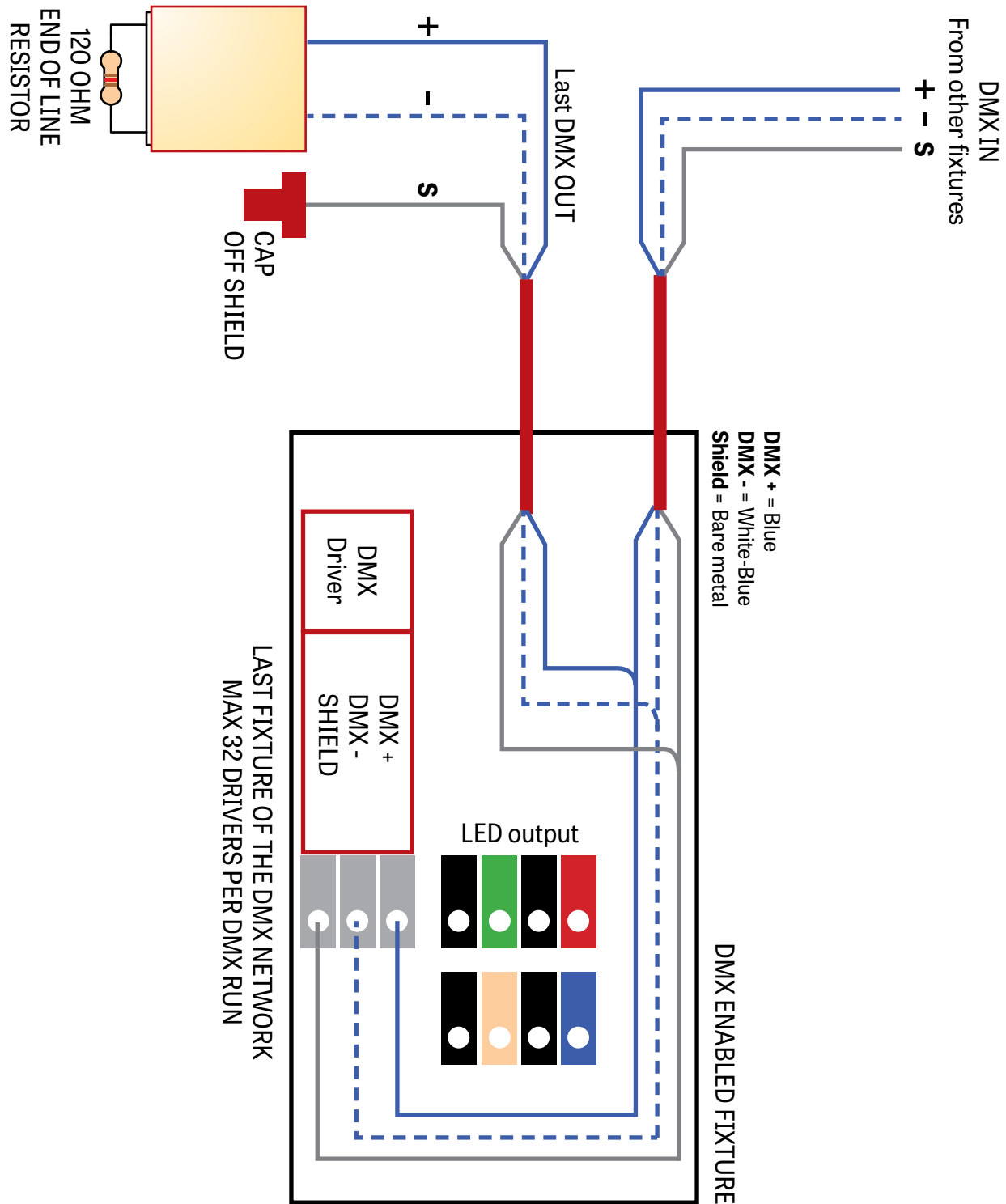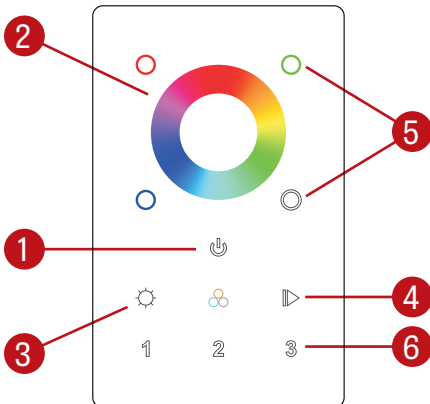
CHROMAWERX QUADRO - RGBW

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

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