VIA 3 LED
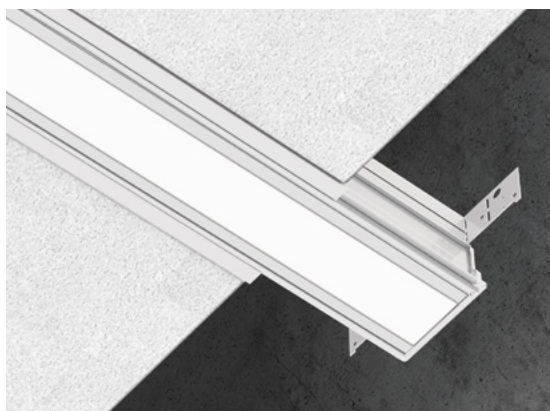
RECESSED WALL WASH V. 2

LUMENWERX
WWW.LUMENWERX.COM

CHROMAWERX TUNABLE WHITE AND DIM TO WARM

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

Grid - shown with WRO2 optics

DESCRIPTION

Elegant and flexible, the Via 3 Recessed Wall Wash features our Asymmetrical Lens Optic for smooth, comfortable and efficient illumination of vertical surfaces. Via 3 Recessed Wall Wash offers a wide range of lumen packages, color choices, mounting and electrical and controls options. It is part of the larger Via family, which includes visually coordinated recessed and mounted luminaires, as well as other light distributions, including wall washing and asymmetric optics. Via 3 is an ideal vehicle for ChromaWerx white tuning in education, office, and healthcare applications where modular luminaires are used.

PROJECT: _____

TYPE: _____

NOTES: _____

_____

_____

CHROMAWERX

up to 105 lm/w performance

ORDER GUIDE

IC RATED

VIA3R	WRO2	LED			
LUMINAIRE ID	**OPTICS**	**LIGHT SOURCE**	**CRI**	**LUMEN PACKAGES**	**CHROMAWERX**
VIA3R - via 3" recessed	**WRO2** - wallwash refractive optic version 2	**LED** - high performance LED	**80** - 80CRI **90** - 90CRI	**375** - min. low output 375lm/ft **500** - medium output 500lm/ft **750** - max. high output 750lm/ft **####** - other required lm/ft	**DUO** - tunable white 2 channel control 27k to 65k **SOLA** - dim to warm single channel control 22k to 35k

			1		
LUMINAIRE LENGTH	**VOLTAGE**	**DRIVER**	**ELECTRICAL**	**MOUNTING**	**FINISH**
Available sections - 4', 6', 8', 10' & 12' **#FT** - nominal length in feet **(2' increments only)** Continuous Run - for luminaires over 12' Minimum Individual section 4'	**120** - 120V **277** - 277V	**DMX** - to specify see pages 6 to 11 **DA** - Dali (duo only) local on-site commissioning is required **0-10** - Single 0-10V input (Sola) or dual 0-10V input for CCT/Intensity (Duo) **PSQ0** - Lutron T-Series 1% Tunable White (Duo only)	**1** - 1 circuit	**TG9** - tegular 9/16" **TG15** - tegular 15/16" **TB9** - t-bar 9/16" **TB15** - t-bar 15/16" **ST** - screw slot t-bar **DTR** - drywall trim **DTL** - drywall trimless **DMF** - drywall mud flange	**W** - matte white **CF#** - custom finish specify RAL#

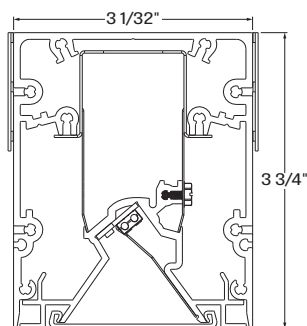See page 2 for ordering code detailed information

OPTIONS

FU - fuse
FWC - flexible whip cable (6' std)
CP - Chicago Plenum
CU - custom

DMX WALL CONTROLS

To specify see pages 6 to 11

CROSS SECTION

3 1/32"

3 3/4"

VIA3R - wall wash

TECHZONE™ & **USG** Compatible with 4" ceiling

ETL LISTED
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VIA 3 LED

RECESSED WALL WASH V. 2

CHROMAWERX TUNABLE WHITE AND DIM TO WARM

PHOTOMETRICS

Please follow the multiplier tables to ensure correct lumen value. Lensing, CCT and CRI, will change the lumen output.
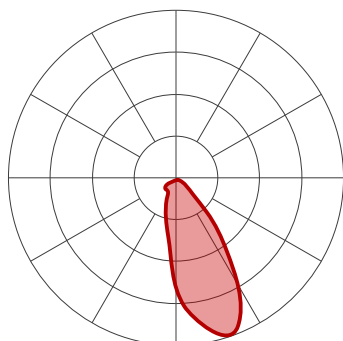
WRO2

WRO2 Delivered Lumens for Flush at 35K 80CRI

Lumens per Foot	Total Lumens Per 4FT	Input Watts	LPW
375	1500	14.5	104
500	2000	19.5	103
750	3000	28.5	105

Multiplier - CCT/CRI

CCT (K)	Watts Multiplier		LPW Multiplier	
	CRI80	CRI90	CRI80	CRI90
2700	1.05	1.26	0.95	0.79
3000	1.01	1.23	0.99	0.81
3500	1.00	1.20	1.00	0.84
4000	1.00	1.17	1.00	0.85
5000	0.90	1.09	1.11	0.92
6500	0.94	1.11	1.06	0.90

OPTICS

WALLWASH REFRACTIVE OPTIC V. 2 (WRO2) - The LumenWerx Wallwash Refractive Optic V. 2 (WRO2) delivers smooth vertical illumination with a gentle gradient and soft visual cut off. With peak intensity at 21° above nadir, the precise WRO2 configuration creates a strong downward component without shadows or hot spots. No external shielding is required. Microstructure material applied to the snap-in lens provides the precise refractive power and visual comfort, while achieving high luminous efficacy of 105 lumens per watt.

Avg.	Max	Min	Avg/Min	Max/Min
33.39	65.3	13.9	2.40	4.70
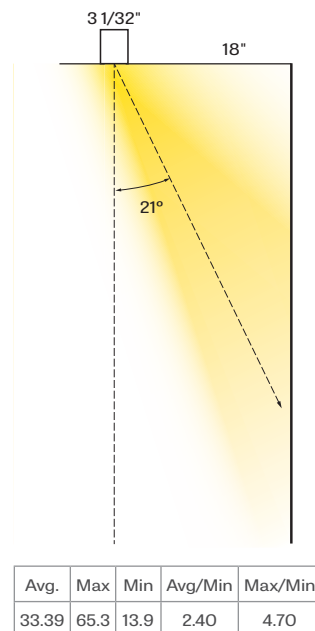
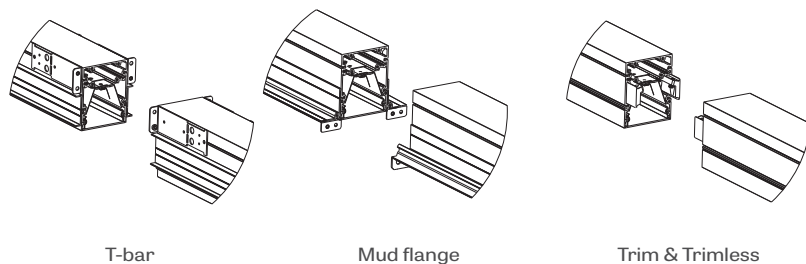## CHROMAWERX TUNABLE WHITE AND DIM TO WARM

LIGHT SOURCE - LED

Custom linear array of alternating color temperature mid-flux LED's 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 to within 3SDCM. LEDs are operated at reduced drive current to optimize efficacy and lumen maintenance.

All LED's 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.

LUMINAIRE LENGTH

Via 3 is made up of standard 4, 6, 8, 10 and 12 foot sections that may be joined together to create longer continuous run lengths. Exact run length must be noted in the product code. The minimum individual section available is 4 foot, and continuous run lengths can be ordered in 2 foot increments.
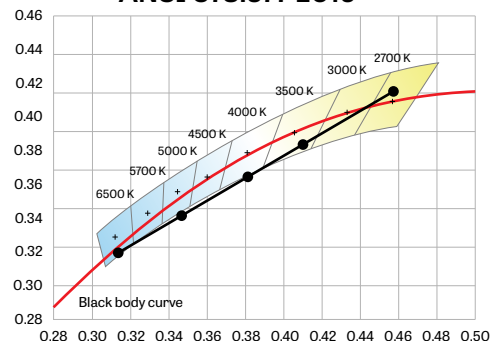
All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

| T-bar | Mud flange | Trim & Trimless |

CHROMAWERX - TUNABLE WHITE

ANSI C78.377-2015

ChromaWerx Sola is 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% of full power to 2200K at 5% of full power. CRI is maintained above 80 throughout the dimming range.

ChromaWerx Duo is 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.

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CHROMAWERX TUNABLE WHITE AND DIM TO WARM

ELECTRICAL

DMX (Duo only)

Factory-Set adjustable output current electronic driver with 120-277V AC line input. Using DMX wall controls (optionally supplied by Lumenwerx) or an existing DMX control system, both channels of LEDs are independently adjustable. Each DMX driver can be independently addressed using the built-in RDM (Remote Device Management) in the field. 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%.

Dali (Duo Only)

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. 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%.

0-10V (Sola)

Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Using a single 0-10V control signal, the light output warms in color temperature as it dims down to 1% and 2200K. At maximum driver load, efficiency<86%, PF>0.9, THD<20%.

0-10V (Duo)

Factory-set adjustable output current LED driver with universal (120-277VAC) input. Controlled via two individual 0-10V signals, one for setting light output down to a minimum of 1% and the other for adjusting the CCT (default range of 2700K-6500K). Rated life of 50,000 hours at 70°C maximum driver case temperature and 100% load conditions. Typical efficiency of 86%, PF>0.9, THD<20% at 100% load conditions.

PSQ0 (Duo only)

Lutron T-Series 2-Channel tunable white drivers enable high-performance human centric lighting (HCL) applications. Digital control of color temperature (CCT) and intensity are achieved when used with the ESN T-Series tunable white controller as a part of a Lutron Quatum System.
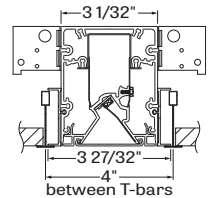
MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling Via 3 is fully compatible with Armstrong Techzone™ & USG ceilings
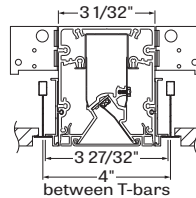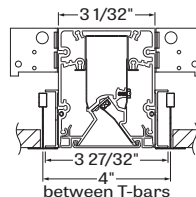

TG9 - tegular 9/16"
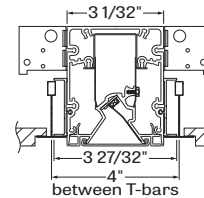
TG15 - tegular 15/16"

TB9 - t-bar 9/16"

TB15 - t-bar 15/16"
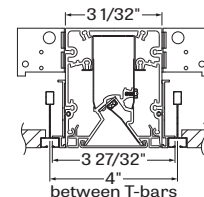
ST - screw slot t-bar

Mounting for drywall ceilings are available with visible trim, mud flange trim or trimless

DTR - drywall trim

DTL - drywall trimless

DMF - drywall mud flange

FINISH

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white or aluminum powder coating.

Custom finishes are also available.

CHROMAWERX TUNABLE WHITE AND DIM TO WARM

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

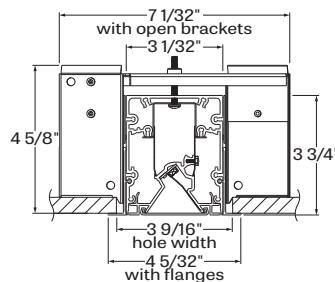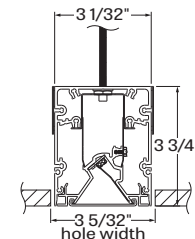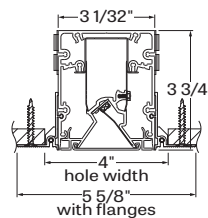**Interior brackets** - Die formed cold rolled sheet steel 20 gauge thick

Joining system - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

Reflectors - Extruded Aluminum (0.080" nominal) thickness/Painted White.

Specular reflectors - Semi-specular anodized aluminum sheet 0.020" thickness

Lens - Extruded Clear Acrylic 0,050" nominal thickness.

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

Mud flange - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

Slip-through bracket - Die Formed galvanized sheet 18 gauge

End plate - Die formed cold rolled sheet steel 18 gauge thick

WEIGHT

Via 3 4ft - 11.12lbs - 5.05kg

Via 3 8ft - 22.25lbs - 10.1kg

Via 3 12ft - 33.48lbs - 15.2kg

CERTIFICATIONS

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

Chicago plenum - City of Chicago Approved (CCEA)

IC rated - suitable for direct contact with insulation.

WARRANTY

For all ChromaWerx products, LumenWerx provides a three-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.

Intertek

VIA 3 LED

RECESSED WALL WASH V. 2

CHROMAWERX TUNABLE WHITE

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 <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 4' fixture	per 4' fixture
Driver	Driver Driver
1x driver	2x driver
Direct only	Direct high output

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.
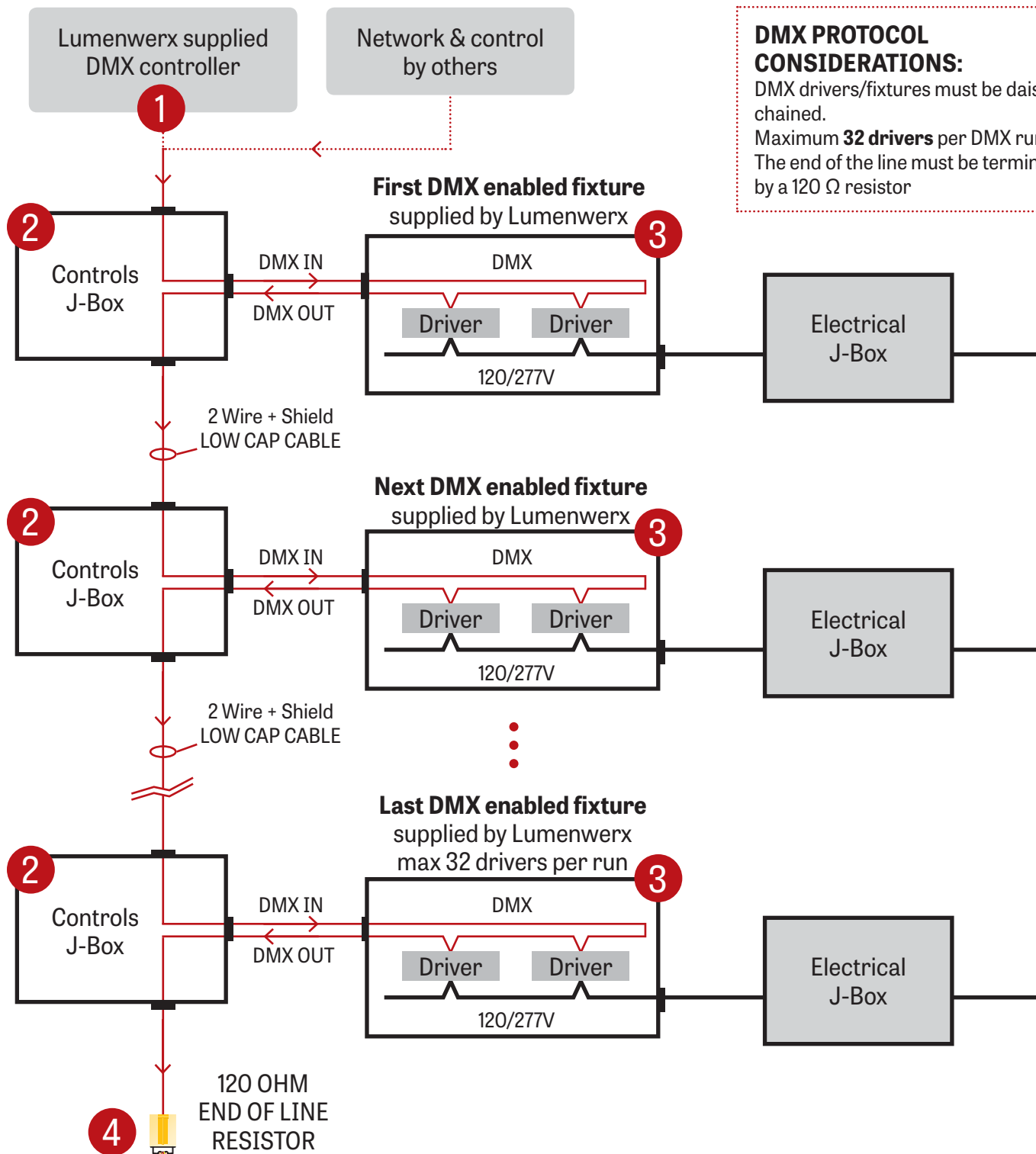Refer to your DMX integrator for the installation. ✓

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

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

Intertek

VIA 3 LED

RECESSED WALL WASH V. 2

CHROMAWERX TUNABLE WHITE

GENERIC DMX NETWORK ARCHITECTURE

Lumenwerx supplied DMX controller

Network & control by others

1

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

Intertek

VIA 3 LED

RECESSED WALL WASH V. 2

CHROMAWERX TUNABLE WHITE

1 LUMENWERX SUPPLIED DMX CONTROLLER

To the first fixture

WALL BOX SUPPLIED BY OTHERS

2 Wire +
Shield Low Cap Cable

Back Panel

GND | V+ 12-24 Vdc | DMX- | DMX+ | SHIELD

BLACK | RED | WHT-BLUE | BLUE | BARE

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

Front Panel

⏻		Z1
◑		Z2
S1		Z3
S2		Z4

Controller image may differ

DC out

Power Supply
120-277VAC / 24VDC

N — BLUE — Neutral

L — BROWN — DC in — Line — Ground

Electrical
J-Box

ETL LISTED
Intertek
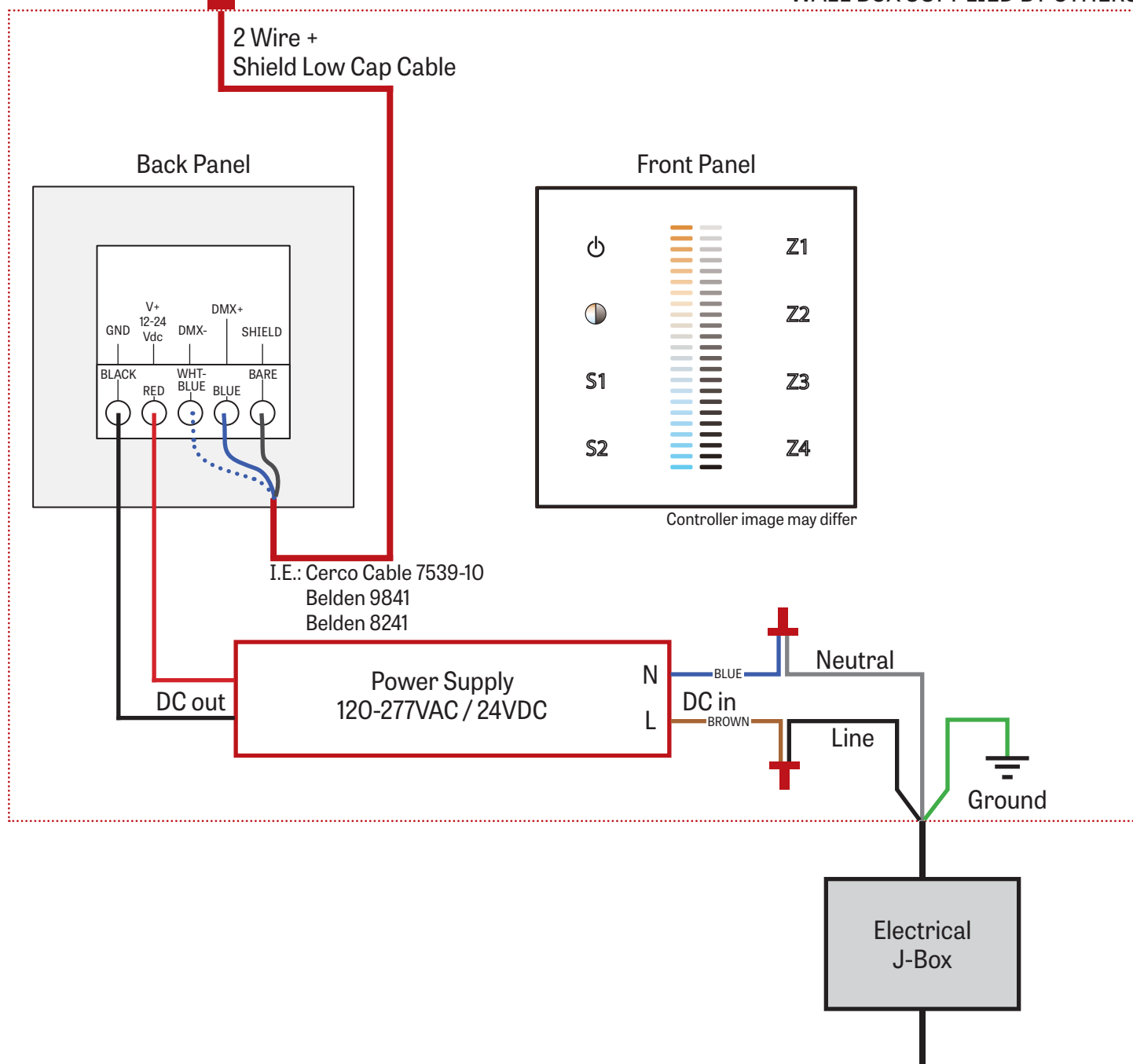
CHROMAWERX TUNABLE WHITE

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

OUT

Bare metal drain wire (shield)
MUST **NOT** TOUCH J-BOX
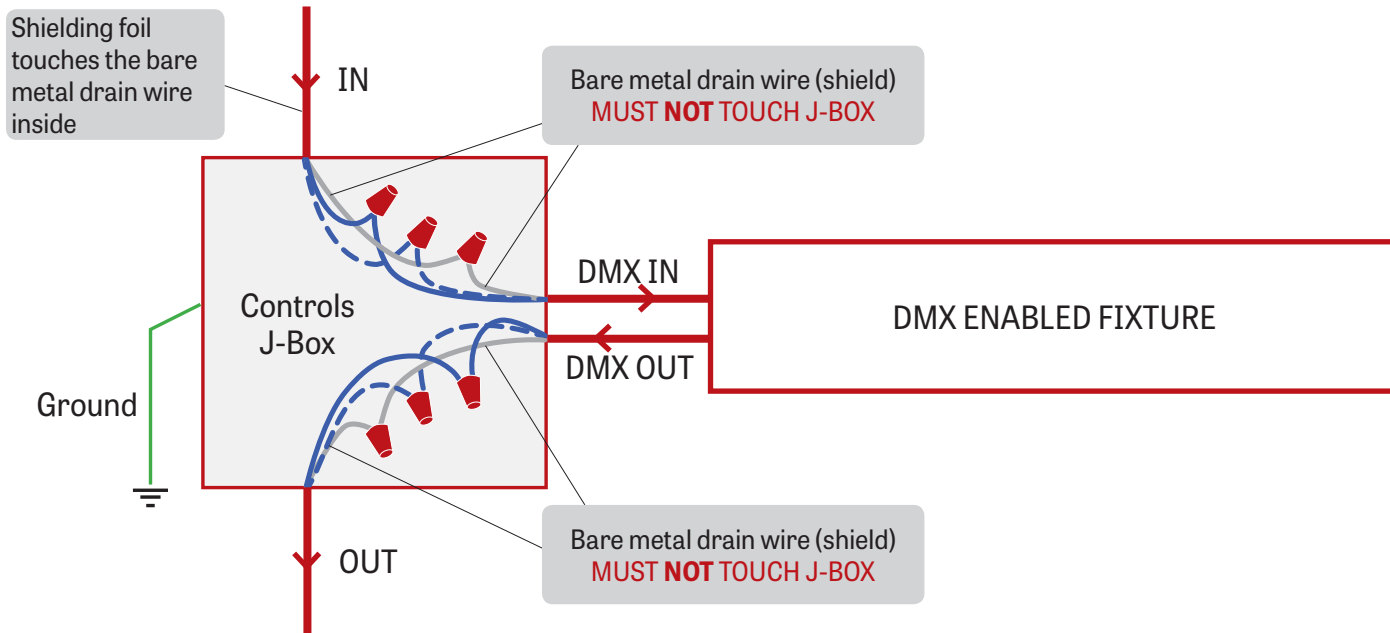
Low capacitance DMX cable to next fixture

3 DMX CONNECTION RECESSED & SURFACE

DMX

POWER

IN
Shield
DMX -
DMX +

OUT
DMX +
DMX -
Shield

LINE VOLTAGE
white
black
green

N   L   G

DMX ENABLED FIXTURE

DMX

PWR

ETL
Intertek
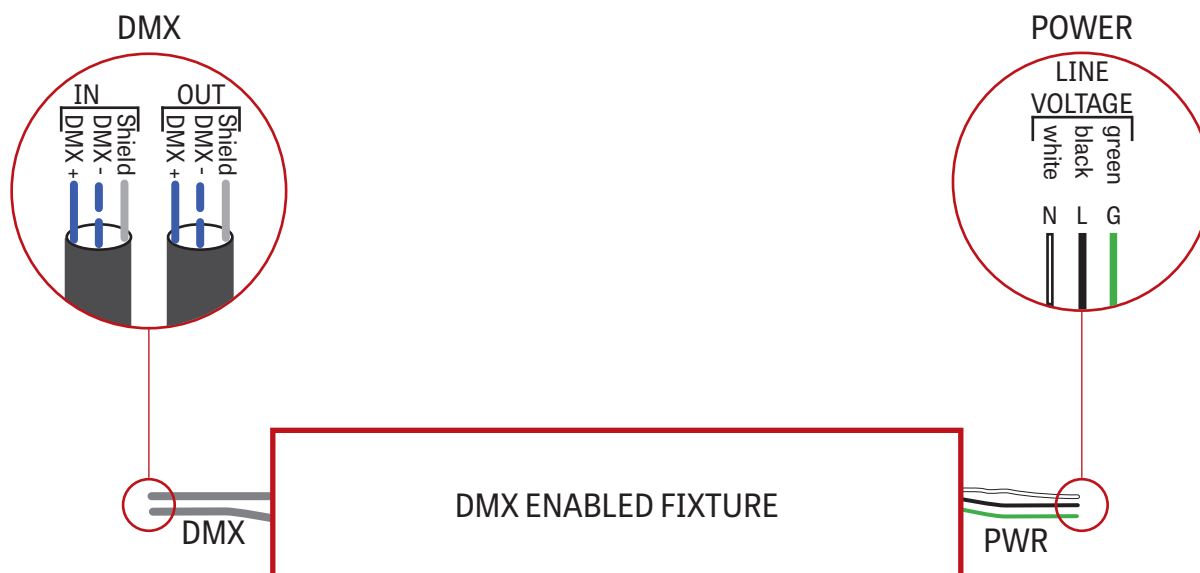
CHROMAWERX TUNABLE WHITE

4 DMX LAST FIXTURE DETAIL

120 OHM
END OF LINE
RESISTOR

CAP
OFF SHIELD

+

–

S

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

Intertek

VIA 3 LED

RECESSED WALL WASH V. 2
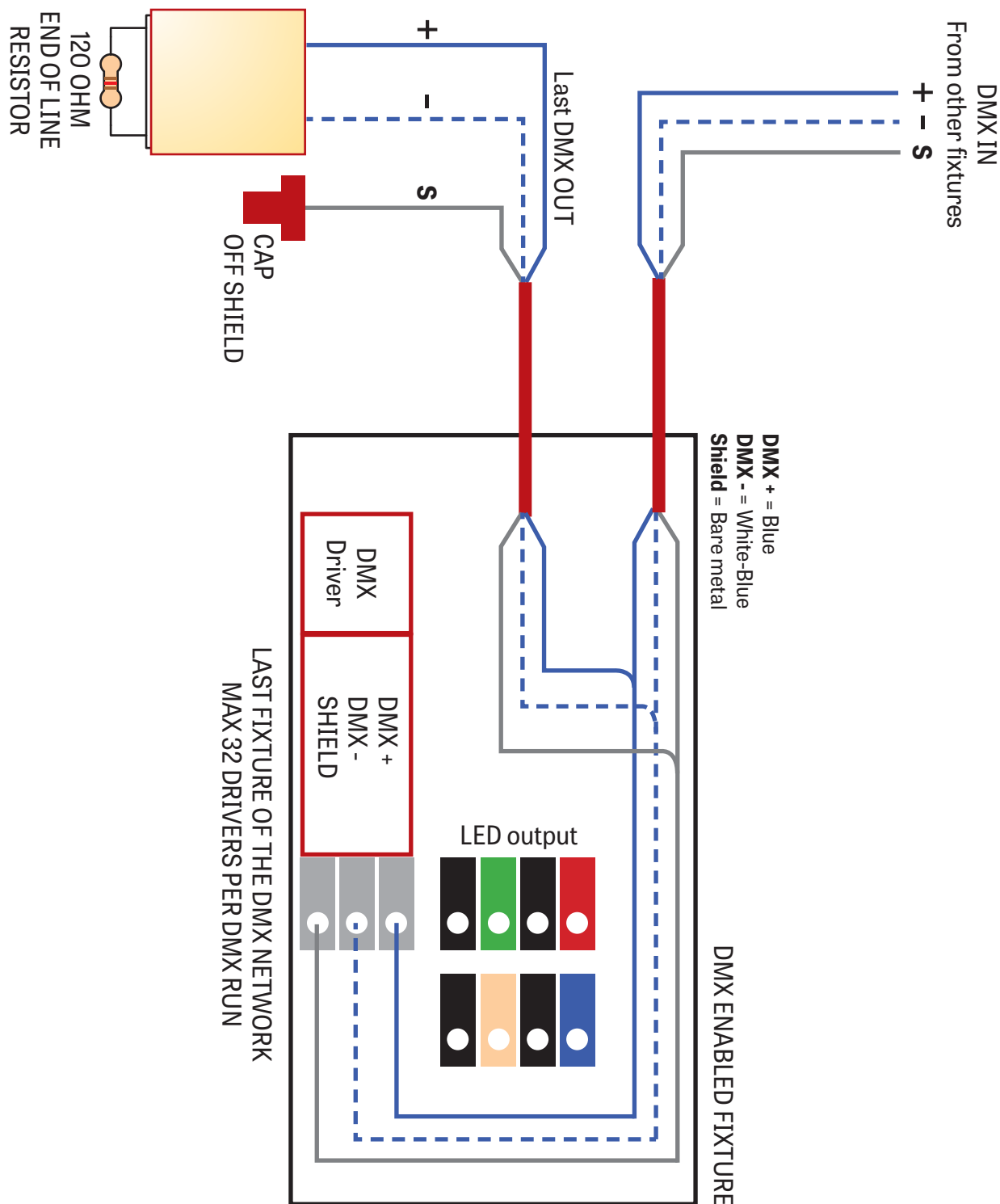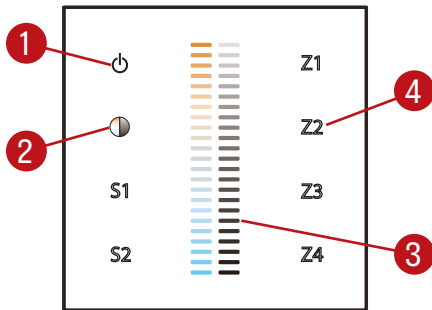
CHROMAWERX TUNABLE WHITE

DMX WALL CONTROLLER

DUO 1-4 ZONE

(1) Power: Use this button to turn ON or OFF the fixture

(2) Brightness/CCT: Use the color/brightness toggle button to chose between color/brightness. when Blue: brightness is selected, when Yellow: color is selected.

(3) Slider: Depending on the mode chosen in 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.

Default DMX Addresses:
1 Warm
2 Cool