

VIA 3 PERIMETER LED

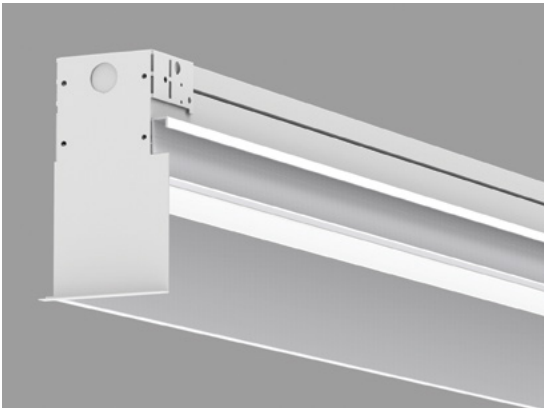
RECESSED



LUMENWERX
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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



DESCRIPTION

Via Perimeter 3 creates a continuously illuminated "slot" at the wall/ceiling intersection. Lighted corners are available. Via Perimeter installs in grid or drywall ceilings in a choice of three arrangements: level, shallow 1", and deep 3 1/4".

Via Perimeter 3 is an ideal vehicle for ChromaWerx white tuning in education, office, and healthcare applications where modular luminaires are used.

PROJECT: _____

TYPE: _____

NOTES: _____

up to 100 lm/w performance

ORDER GUIDE

IC RATED

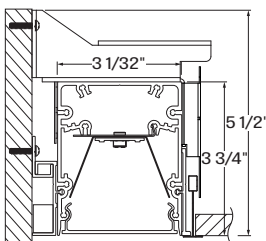
| LUMINAIRE ID | HLO | LED | CRI | LUMEN PACKAGES | CHROMAWERX | |
|---|---|---|--|---|--|---|
| V3PERL - via 3 perimeter levelled V3PERS - via 3 perimeter shallow V3PERD - via 3 perimeter deep | HLO - High-Efficiency Lambertian Optic | LED - high performance LED | 80 - 80CRI 90 - 90CRI | 500 - min. low output 500lm/ft 750 - medium output 750lm/ft 1000 - max. high output 1000lm/ft #### - other required lm/ft | DUO - tunable white 2 channel control 27k to 65k SOLA - dim to warm single channel control 22k to 35k | |
| LUMINAIRE LENGTH | VOLTAGE | DRIVER | ELECTRICAL | MOUNTING | FINISH | OPTIONS |
| Available sections - 4', 8' & 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 5 to 10 DA - Dali (duo only) local on-site commissioning is required O-10 - Single 0-10V input (Sola) or dual 0-10V input for CCT/Intensity (Duo) PSQO - Lutron T-Series 1% Tunable White | 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# | FU - fuse FWC - flexible whip cable (6' std) CP - Chicago Plenum CU - custom |

See page 2 for ordering code detailed information

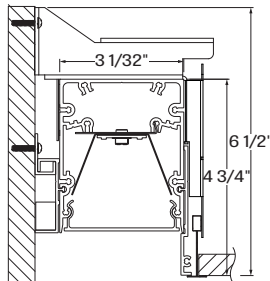
DMX WALL CONTROLS

To specify see pages 5 to 10

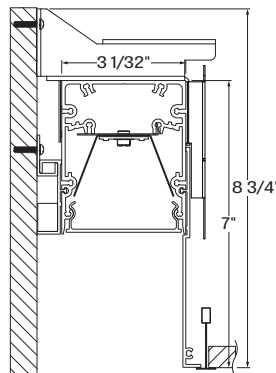
CROSS SECTION



V3PERL - via 3 perimeter levelled



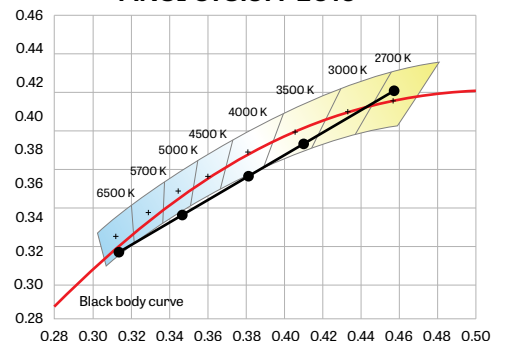
V3PERS - via 3 perimeter shallow



V3PERD - via 3 perimeter deep



ANSI C78.377-2015



TECHZONE™ & USG Compatible with 4" ceiling

File Name: VIA3PER-TW-RECESSED-SPEC

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July 7, 2019



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CHROMAWERX TUNABLE WHITE AND DIM TO WARM

OPTICS

HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO) - matte white side reflectors combined with High-Efficiency Lambertian Optic (HLO) shielding of diffusing 0.075" thick acrylic with up to 88% transmission and good source obscuration. Luminaire brightness is controlled by the flux-to-shielding area ratio.

LIGHT SOURCE - LED

PERFORMANCE PER 4' AT 4000K

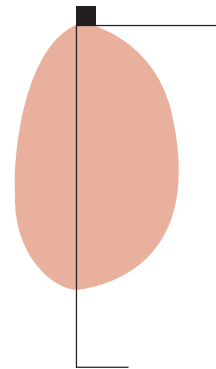
| LED output | Color Temp | Watts | Nominal Delivered Lumens | Efficacy LPW |
|---------------|------------|-------|--------------------------|--------------|
| low output | 4000K | 20 | 2000 | 100 |
| medium output | 4000K | 31 | 3000 | 96 |
| high output | 4000K | 42.5 | 4000 | 94 |

Lumen Adjustment Factors

| | |
|-------|-------|
| 2700K | 0.917 |
| 3000K | 0.959 |
| 3500K | 0.988 |
| 4000K | 1.000 |
| 6500K | 1.053 |

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.

LIGHT DISTRIBUTION



V3PERD-HLO-
LED-80-750-40-20
Wall Luminaires: 20' run
Lumen Output: 750 lm/ft
Watts: 8.3 watts/ft
Ceiling Height: 10'
Efficacy: 90 lpw

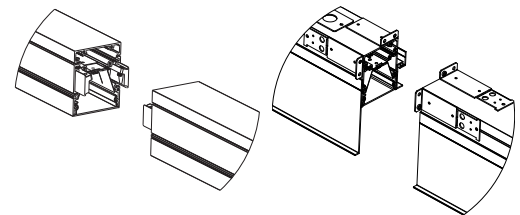
Foot Candles on 20' wide wall, 10' ceiling

| | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 156.9 | 154.3 | 162.4 | 152.9 | 153.0 | 152.9 | 152.9 | 163.0 | 154.4 | 157.5 |
| 14.8 | 14.1 | 13.1 | 12.7 | 12.6 | 12.6 | 12.7 | 13.1 | 14.2 | 15.8 |
| 8.6 | 8.0 | 7.2 | 6.9 | 6.8 | 6.8 | 6.8 | 7.2 | 8.1 | 8.7 |
| 7.0 | 6.5 | 6.0 | 5.8 | 5.8 | 5.8 | 5.9 | 6.1 | 6.5 | 7.0 |
| 6.2 | 5.9 | 5.5 | 5.6 | 5.9 | 5.9 | 5.7 | 5.5 | 5.9 | 6.4 |

LUMINAIRE LENGTH

Via Perimeter 3 is made up of standard 4, 8 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

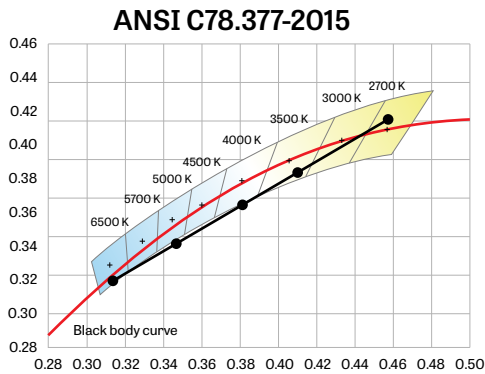


Drywall joining

Grid joining

CHROMAWERX TUNABLE WHITE AND DIM TO WARM

CHROMAWERX - TUNABLE WHITE



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.

ELECTRICAL

DMX (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, two channels of LEDs (warm-white & cool-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%.

Dali (Duo Only)

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%.

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.

VIA 3 PERIMETER LED

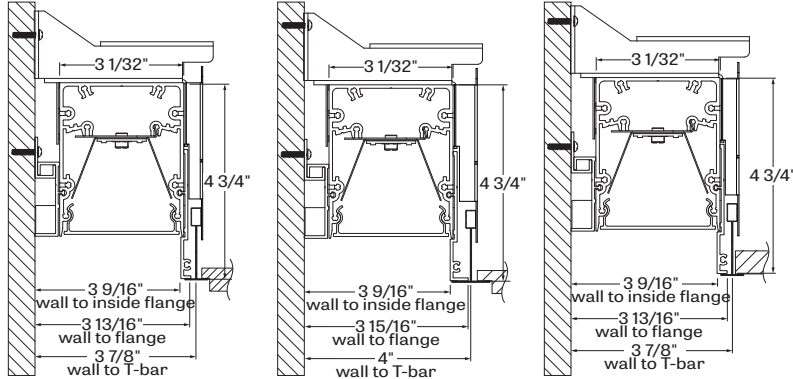
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CHROMAWERX TUNABLE WHITE AND DIM TO WARM

MOUNTING OPTIONS

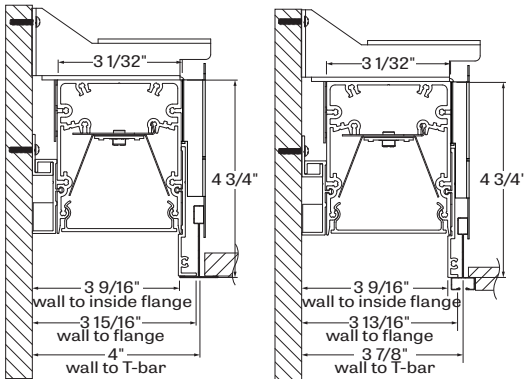
Recess mount into exposed or concealed T-Bar or Tegular grid ceiling,



TG9 - tegular 9/16"

TG15 - tegular 15/16"

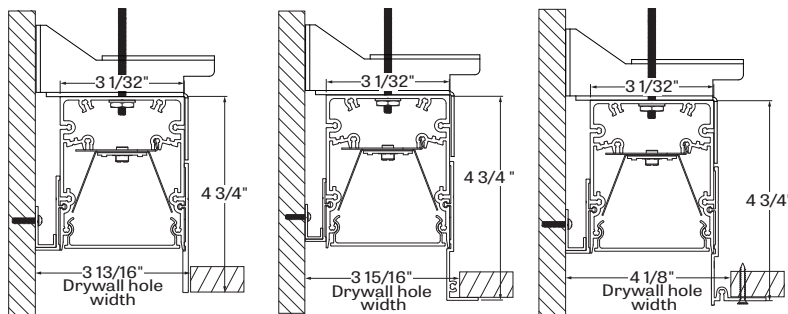
TB9 - t-bar 9/16"



TB15 - t-bar 15/16"

ST - screw slot t-bar

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



DTL - drywall trimless

DTR - drywall trim

DMF - drywall mud flange

FINISH

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white powder coating.

Custom finishes are also available.

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

CONSTRUCTION

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

Interior brackets - Die formed cold rolled sheet steel 18 gauge thick

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

Reflectors - Flat rolled Aluminum sheet 0.040" thick precisely die formed, 95% reflective matte white painted

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

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

MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT

Via 3 perimeter 4ft - 11.12lbs - 5.05kg

Via 3 perimeter 8ft - 22.25lbs - 10.1kg

Via 3 perimeter 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.

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.

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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 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.

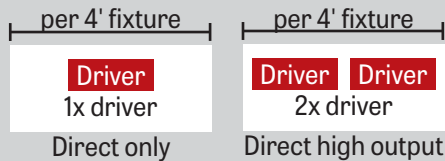


1 Zone



2 Zones

How to calculate the required number of drivers:



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

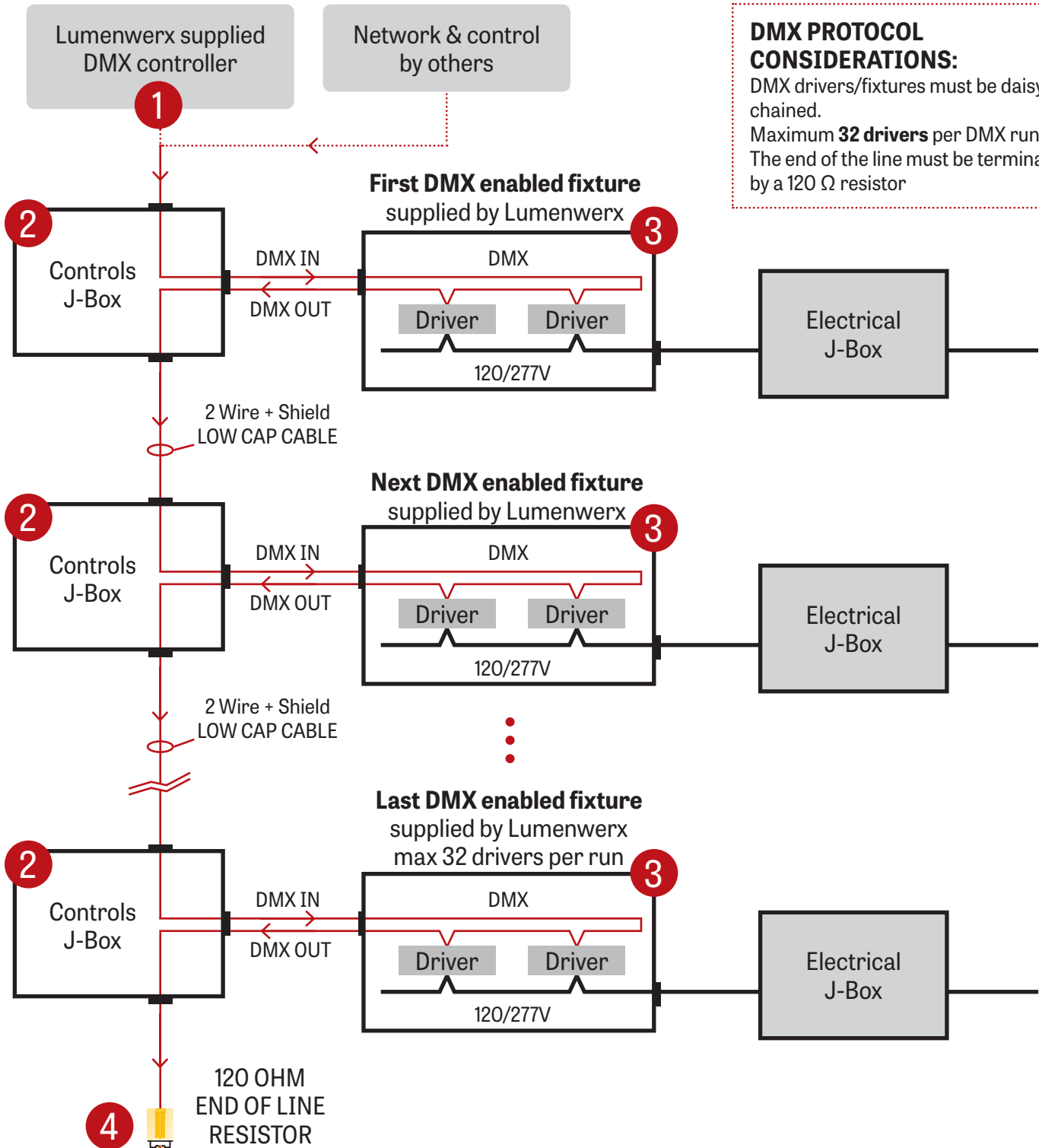
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GENERIC DMX NETWORK ARCHITECTURE



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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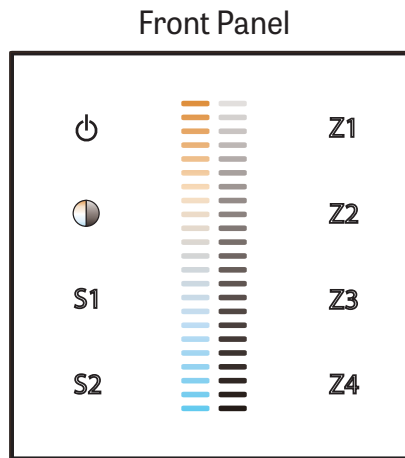
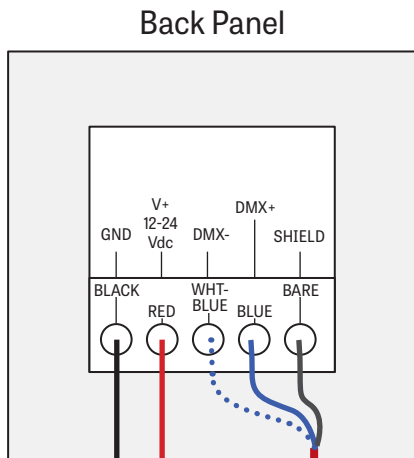
CHROMAWERX TUNABLE WHITE

1 LUMENWERX SUPPLIED DMX CONTROLLER

To the first fixture

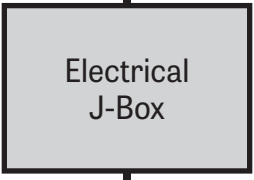
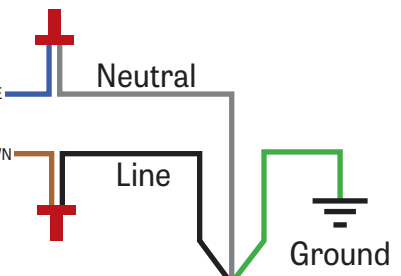
2 Wire +
Shield Low Cap Cable

WALL BOX SUPPLIED BY OTHERS



Controller image may differ

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



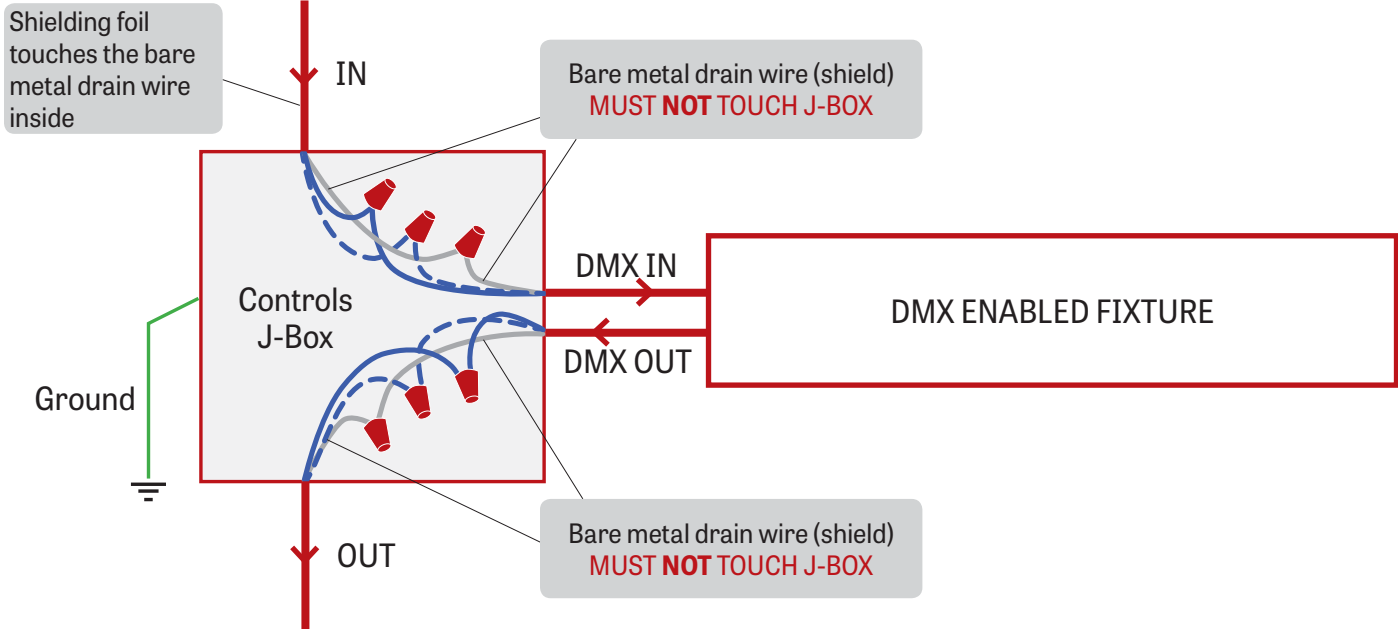
VIA 3 PERIMETER LED

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CHROMAWERX TUNABLE WHITE

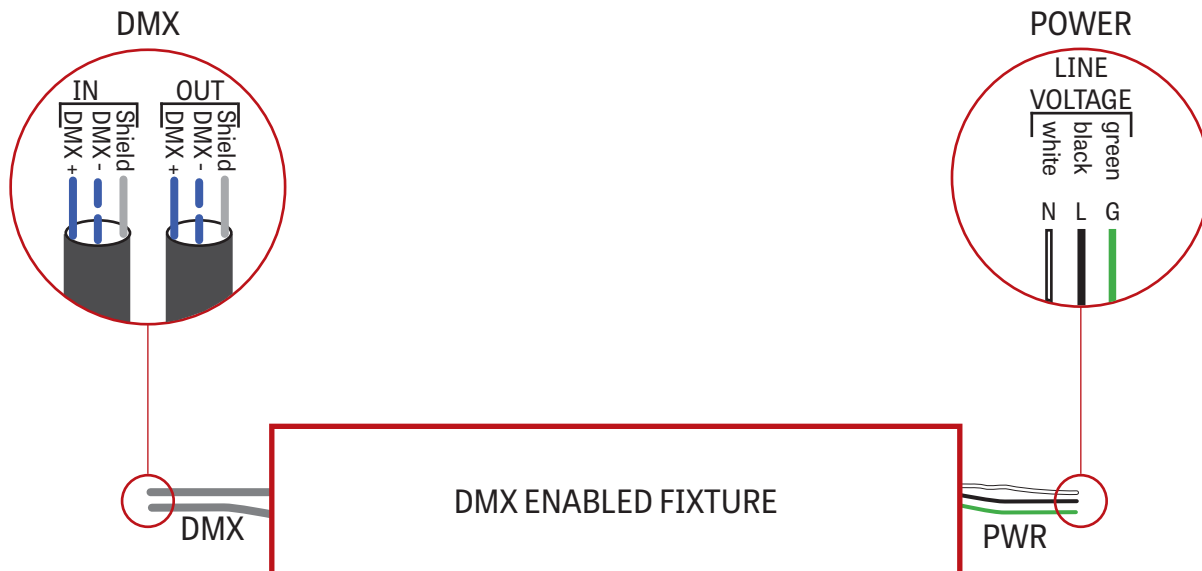
2 J-BOX DMX DAISY CHAIN DETAIL

Low capacitance DMX Cable from Previous Fixture



Low capacitance DMX cable to next fixture

3 DMX CONNECTION RECESSED & SURFACE

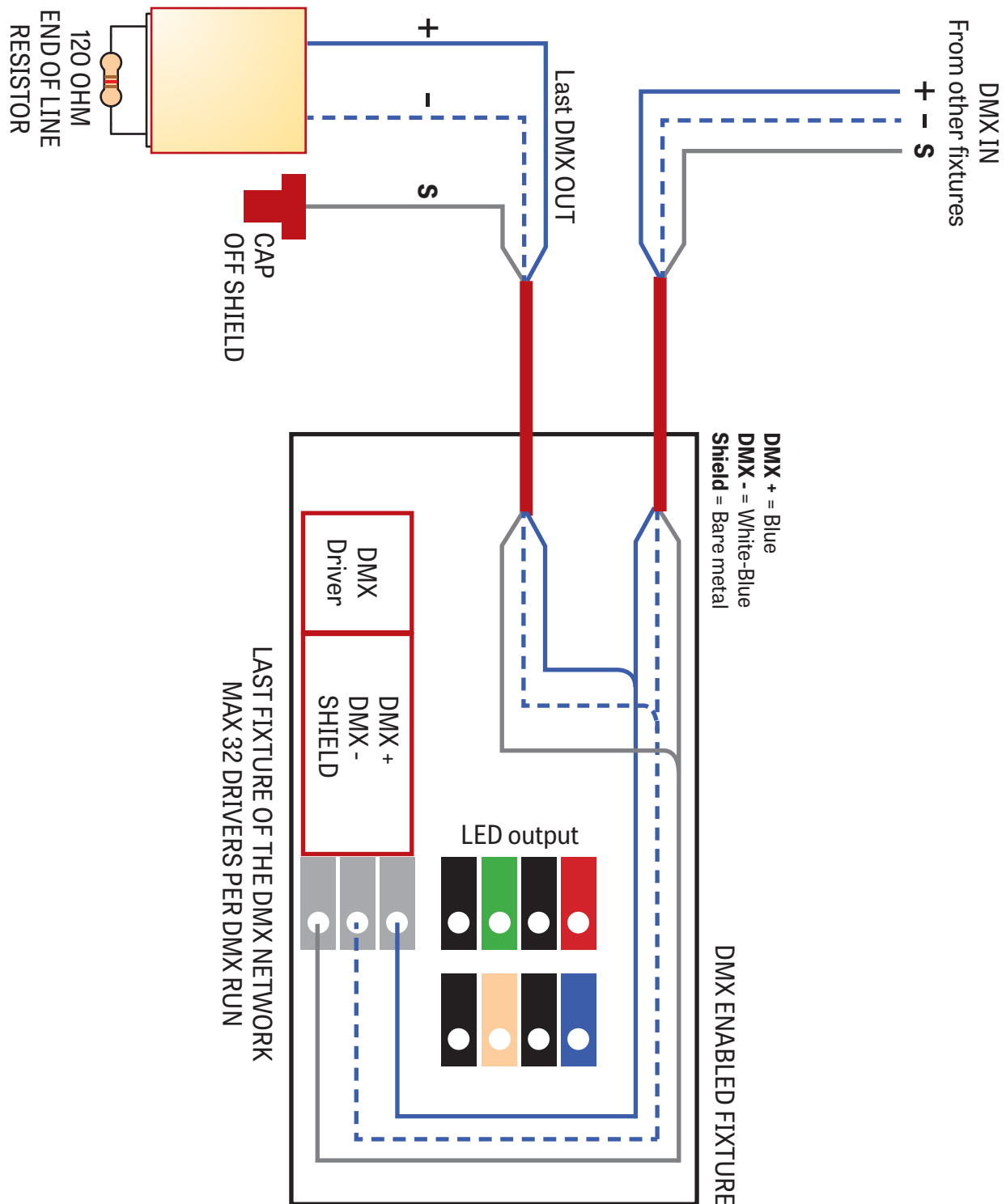


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4 DMX LAST FIXTURE DETAIL



VIA 3 PERIMETER LED

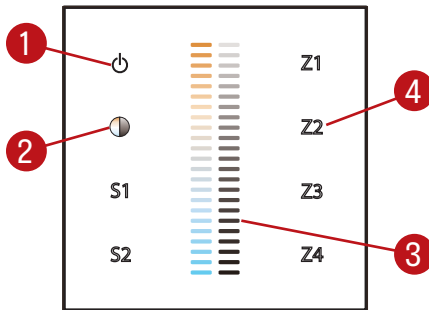
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DMX WALL CONTROLLER

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

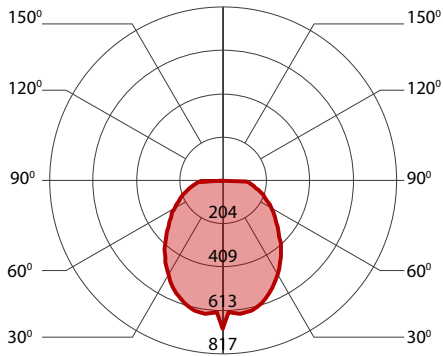
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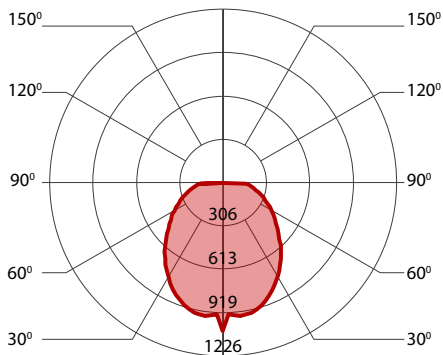
500 LUMEN AT 80CRI - LOW OUTPUT



PERFORMANCE PER 4'

| LED output | Color Temp | Watts | Nominal Delivered Lumens | Efficacy LPW |
|------------|------------|-------|--------------------------|--------------|
| low output | 2700K | 21.5 | 2000 | 92 |
| low output | 3000K | 21 | 2000 | 95 |
| low output | 3500K | 20.5 | 2000 | 97 |
| low output | 4000K | 20 | 2000 | 100 |
| low output | 6500K | 19 | 2000 | 104 |

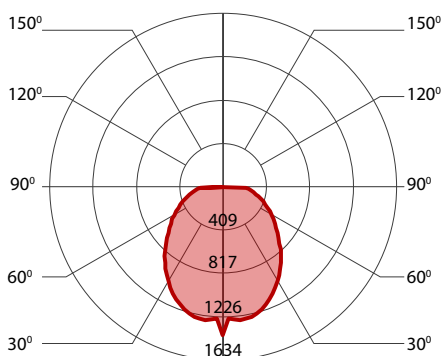
750 LUMEN AT 80CRI - MEDIUM OUTPUT



PERFORMANCE PER 4'

| LED output | Color Temp | Watts | Nominal Delivered Lumens | Efficacy LPW |
|---------------|------------|-------|--------------------------|--------------|
| medium output | 2700K | 33.5 | 3000 | 89 |
| medium output | 3000K | 33 | 3000 | 91 |
| medium output | 3500K | 32.5 | 3000 | 93 |
| medium output | 4000K | 31 | 3000 | 96 |
| medium output | 6500K | 30 | 3000 | 100 |

1000 LUMEN AT 80CRI - HIGH OUTPUT



PERFORMANCE PER 4'

| LED output | Color Temp | Watts | Nominal Delivered Lumens | Efficacy LPW |
|-------------|------------|-------|--------------------------|--------------|
| high output | 2700K | 46 | 4000 | 87 |
| high output | 3000K | 45 | 4000 | 89 |
| high output | 3500K | 44 | 4000 | 91 |
| high output | 4000K | 42.5 | 4000 | 94 |
| high output | 6500K | 41 | 4000 | 98 |