VIA 2 PERIMETER
RECESSED
CHROMAWERX - SOLA, DUO

Lumenwerx

Project: _____

Type: _____

DESCRIPTION

Via 2 Perimeter creates a continuously illuminated "slot" at the wall/ceiling intersection. Lighted corners with adjustable end sleeves are available. Via Perimeter installs in grid or drywall ceilings in a choice of three arrangements: level, shallow 1", and deep 3 ¼".

Via 2 Perimeter Deep

5 YEAR WARRANTY

IC RATED

Order Guide

LUMINAIRE ID	OPTIC	LIGHT SOURCE [1]	CRI	LUMEN PACKAGE	LUMINAIRE LENGTH
	HLO				
V2PERL - Via 2 Perimeter Level **V2PERS** - Via 2 Perimeter Shallow **V2PERD** - Via 2 Perimeter Deep	**HLO** - High-Efficiency Lambertian Optic	**SOLA** - Dim-to -warm single channel control 35K to 22K **DUO** - Tunable white 2-channel control 65K to 27K [1] Static white and Chromawerx QUADRO also available. Consult other spec sheets.	**80CRI** - 80 CRI **90CRI** - 90 CRI	**350LMF** - Low output 350 lm/ft **500LMF** - Medium output 500 lm/ft **750LMF** - High output 750 lm/ft	**#FT#IN** - Specify nominal length (#) in 1' and/or 1" increments **Standard nominal lengths:** Single units: 3' to 12' Continuous runs: lengths over 12'

VOLTAGE	DRIVER [2]		ELECTRICAL	MOUNTING	FINISH	OPTIONS [5]	ADJUSTABLE SLEEVE (optional) [7]
			1C				
120V - 120V **277V** - 277V **UNV** - 120V-277V	SOLA **SD1** - Single 0-10V input [2] PoE (Power-over-Ethernet) compatible. Consult factory for details. [3] For more information, see pages 6 to 11. [4] On-site commissioning is required.	DUO **DMX** [3,4] - DMX **DDA** [4] - DALI DT6 **DDA8** [4] - DALI DT8 **DD1** - Dual 0-10V input for CCT/intensity **PSQ0** [4] - Lutron T-Series 1% Tunable White	**1C** - 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#	**NEF** [6] - No end flanges **FU120** - Fuse 120V **FU277** - Fuse 277V **FWC** - Flexible whip cable (6' std) **CP** - Chicago Plenum **NA** - None [5] Separate codes with a "+" if more than one is specified. [6] For wall-to-wall installations.	**TES** [8] - Adjustable end sleeve **NA** - None [7] See page 3 for details. [8] Minimum 3' length with SD1 (SOLA). Minimum 4' length with all other drivers.

Accessories
Optional, order separately

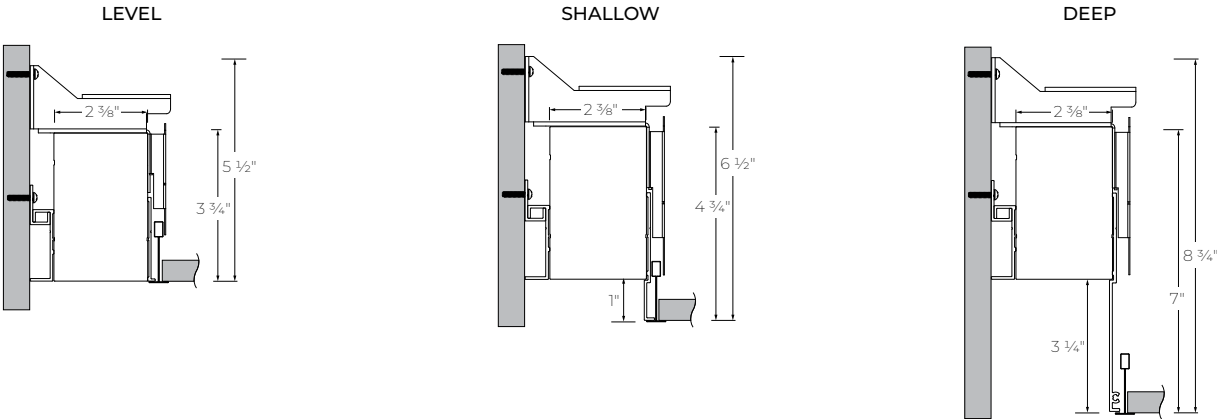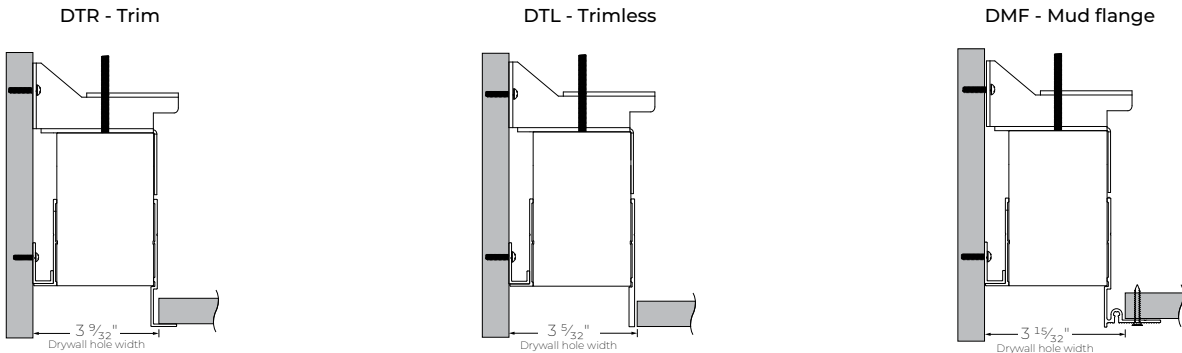| WALL CONTROLLER	
DMX	**DD1**
WCW [9] - DMX wall controller white **WCB** [9] - DMX wall controller black	**TWCW** [10] - Dual 0-10V wall controller white **TWCB** [10] - Dual 0-10V wall controller black
[9] Available with DMX only. For more information, see pages 6 to 11, or consult factory.	[10] Available with DD1 only. For more information, see page 12, or consult factory.

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PoE

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Dimensions

LEVEL

2 ⅜"

5 ½"

3 ¾"

SHALLOW

2 ⅜"

6 ½"

4 ¾"

1"

DEEP

2 ⅜"

8 ¾"

7"

3 ¼"

DRYWALL

DTR - Trim

3 9/32"
Drywall hole width

DTL - Trimless

3 5/32"
Drywall hole width

DMF - Mud flange

3 15/32"
Drywall hole width

GRID

2 29/32"
wall to inside flange

A

B
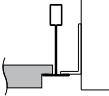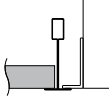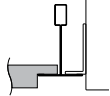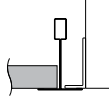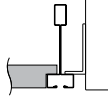
	TG9	TB9	TG15	TB15	ST
	Tegular 9/16"	T-bar 9/16"	Tegular 15/16"	T-bar 15/16"	Screw slot T-bar
A wall to flange	3 5/32"		3 9/32"		3 5/32"
B wall to T-bar	3 7/32"		3 11/32"		3 7/32"

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PoE Power over Ethernet

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Photometrics

Values calculated based on a 4' fixture at 3500K and 80 CRI.

HLO

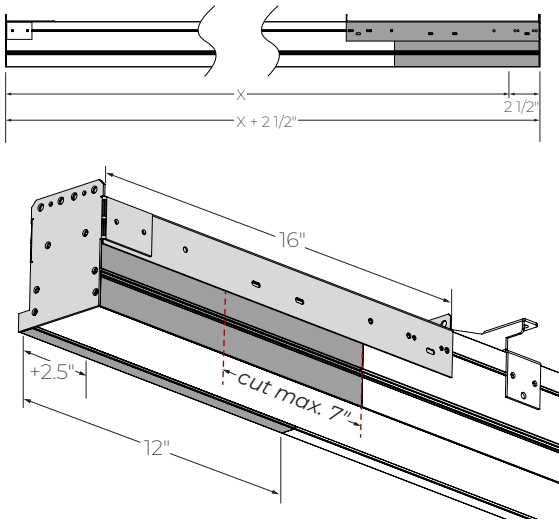| LM/FT	W/FT	LM/W
350	3.3	103
500	5	101
750	7.4	102
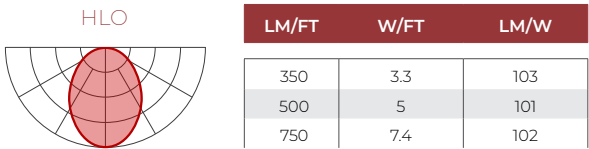
Adjustable end sleeve - TES

Adjustable end sleeve (TES) is designed to provide on-site luminaire adjustability of +2.5" to -4.5". A sleeve accommodates an easy installation and maintenance. Please refer to the End Sleeve Adjustment Installation Instructions for more details.
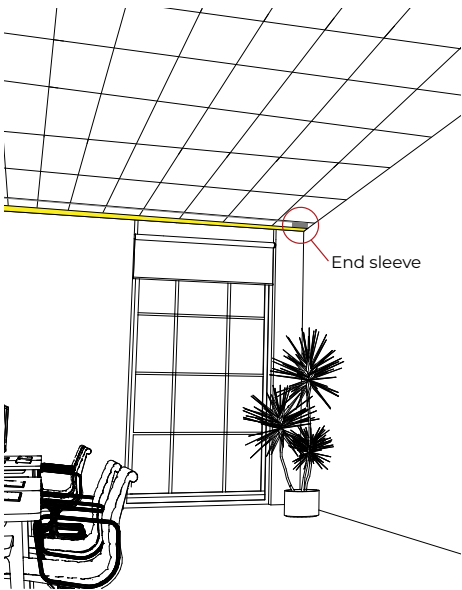
X = Fixture measure provided by client.
X + 2.5" = Measurement built and supplied.

End sleeve

X
2 1/2"
X + 2 1/2"

16"
+2.5"
cut max. 7"
12"

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PoE

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Technical Specifications

OPTIC

High-Efficiency Lambertian Optic (HLO)
The High-Efficiency Lambertian Optic (HLO) uses matte white reflectors to distribute LED output across 0.075" acrylic shielding, providing up to 88% transmission and good obscuration. Luminaire brightness is controlled by the flux-to-shielding area ratio.

LIGHT SOURCE

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 6500K-2700K is achievable with color points on or below the black body curve. For the SOLA products, a color temperature range from 3500K-2200K is controlled synchronously with intensity. Color consistency between fixtures is maintained to within 3 SDCM. LEDs operate at 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 greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

Chromawerx SOLA
It 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
It 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 and PSQ0) 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 cool (6500K) to warm (2700K) 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. When paired with DALI drivers (DDA/DDA8), color tuning follows a linear dimming curve.

ANSI C78.377-2015
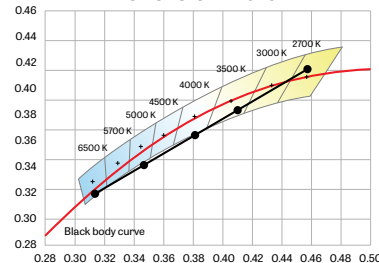
LUMINAIRE LENGTH

Via 2 Perimeter is made up of standard 3' to 12' sections that may be joined together to create longer continuous run lengths. Exact run lengths must be noted in the product code. The minimum individual section available is 3'.

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.

ELECTRICAL
SOLA
SD1
Factory-set, adjustable output current LED driver with universal (120-277 VAC) 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%.

DUO
DMX
Factory-set adjustable output current electronic driver with 120-277 VAC 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%.

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DALI
Factory-set adjustable output current electronic driver with 120-277 VAC 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%.

DD1
Factory-set adjustable output current LED driver with universal (120-277 VAC) 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 6500K-2700K). 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
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 Quantum System.

PoE
Depending on the PoE manufacturer selected, Lumenwerx will install the node in factory as either integral to the luminaire or as a remote module. Factory programming of the PoE node may or may not enable the following functionalities: lumen package, DUO (tunable white), QUADRO (RGBW), emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis.

MOUNTING
Recessed fixtures can be mounted into exposed or concealed T-bar or tegular ceiling, as well as in drywall ceilings with trim, trimless, or mud flange options.

FINISH
Interior: 95%, reflective matte powder coated white paint
Exterior: Matte white powder coating.
Custom finishes are also available.

CONSTRUCTION
Housing: Extruded aluminum, up to 90% recycled content
Interior brackets: Die-formed cold rolled sheet steel
Joining system: Die-cast zinc
Reflectors: Flat rolled aluminum sheet or die-formed cold rolled steel, 95% reflective matte white painted
Lens: Acrylic
Recessed flanges: Extruded aluminum, up to 90% recycled content
End plate: Die-formed cold rolled sheet steel

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

WEIGHT
4': 11.12 lbs - 5.05 kg
8': 22.25 lbs - 10.1 kg
12': 33.48 lbs - 15.2 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.
Chicago Plenum: City of Chicago Approved (CCEA) when specified with CP option.
IC rated: Suitable for direct contact with insulation

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 controlers are covered by the manufacturer warranty.

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CHROMAWERX - SOLA, DUO

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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. ✓
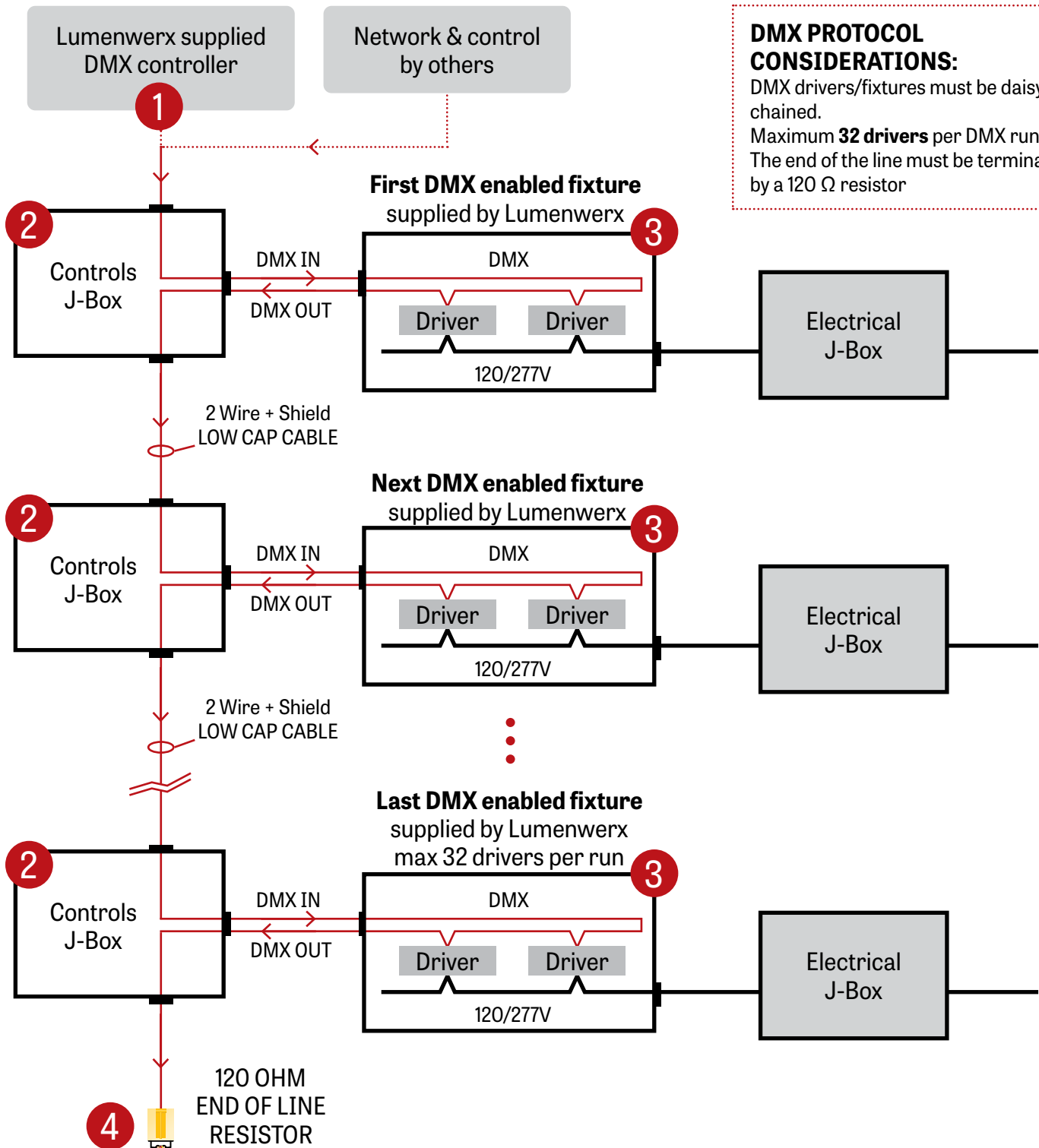
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GENERIC DMX NETWORK ARCHITECTURE

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

DMX IN
DMX OUT

3

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

DMX IN
DMX OUT

3

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

DMX IN
DMX OUT

3

DMX

Driver   Driver

120/277V

Electrical
J-Box

4 120 OHM
END OF LINE
RESISTOR

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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
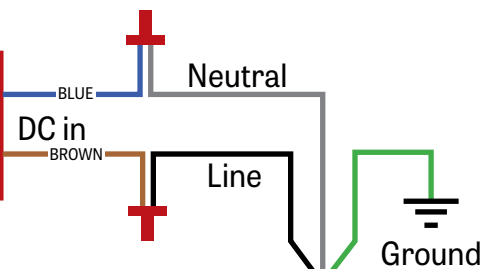Vdc

DMX-

DMX+

SHIELD

BLACK

RED

WHT-
BLUE

BLUE

BARE

Z1

Z2

S1

Z3

S2

Z4
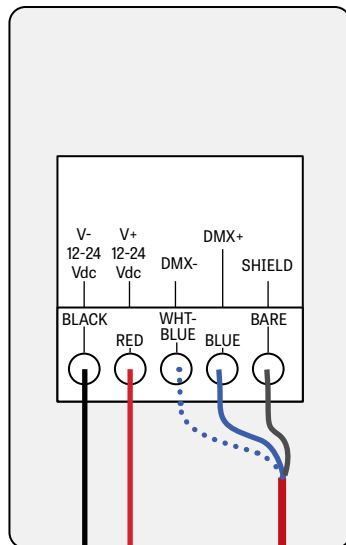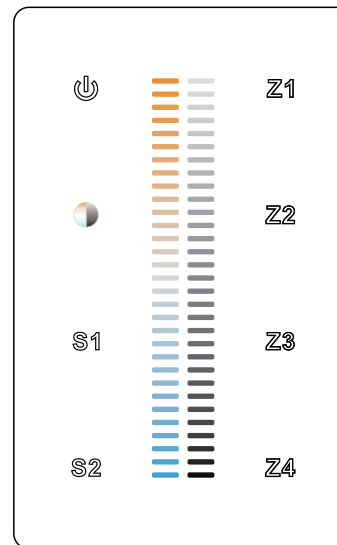
Controller image may differ

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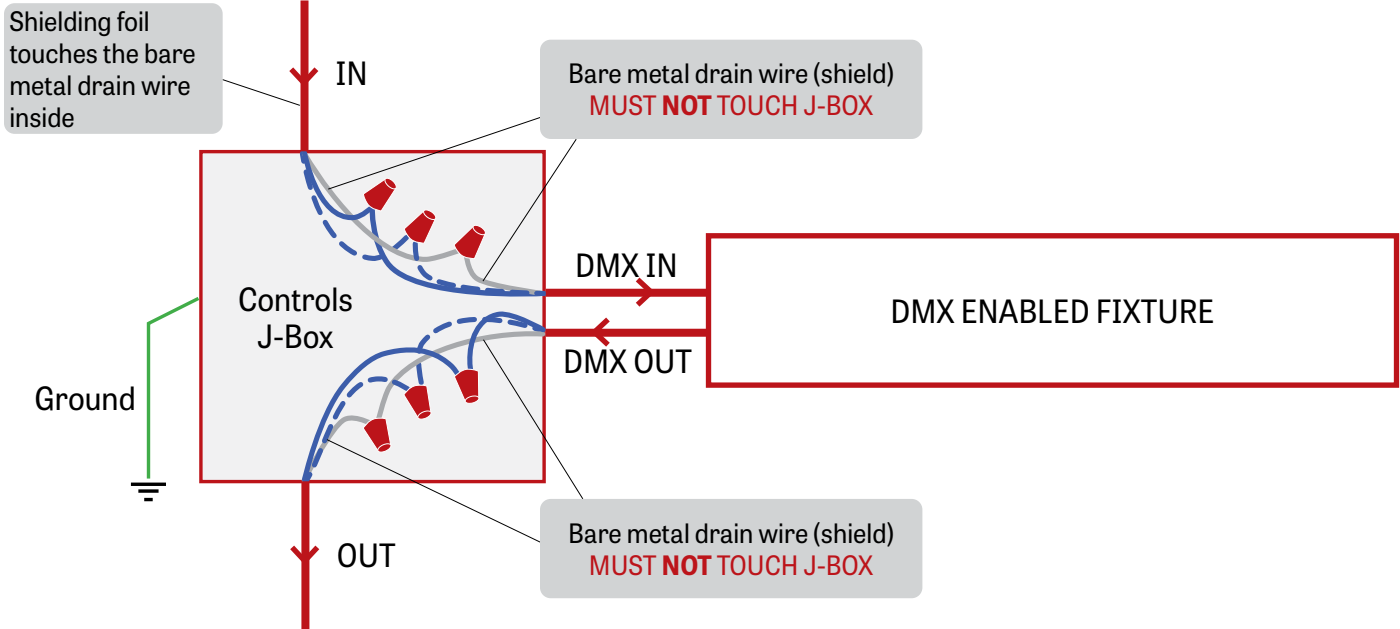Belden 8241

Power Supply
120-277VAC / 24VDC

N — BLUE — Neutral

DC out

DC in

L — BROWN — Line

Ground

Electrical
J-Box

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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
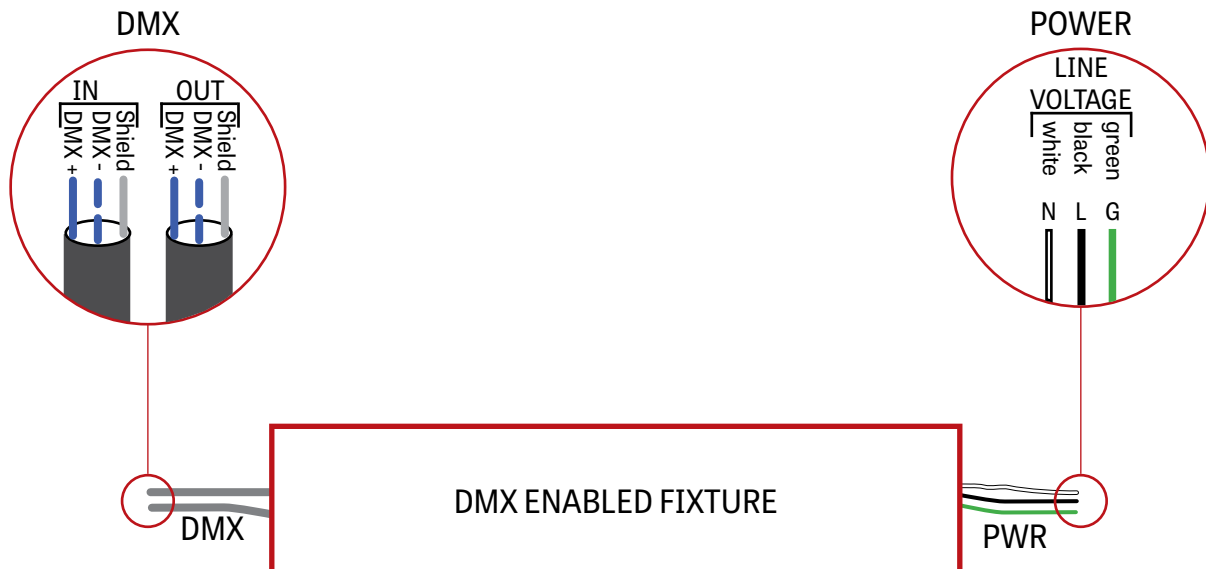
DMX

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

POWER

LINE VOLTAGE

white black green

N   L   G

DMX ENABLED FIXTURE

DMX

PWR

cETLus LISTED
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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

ETL
LISTED
c   us
Intertek

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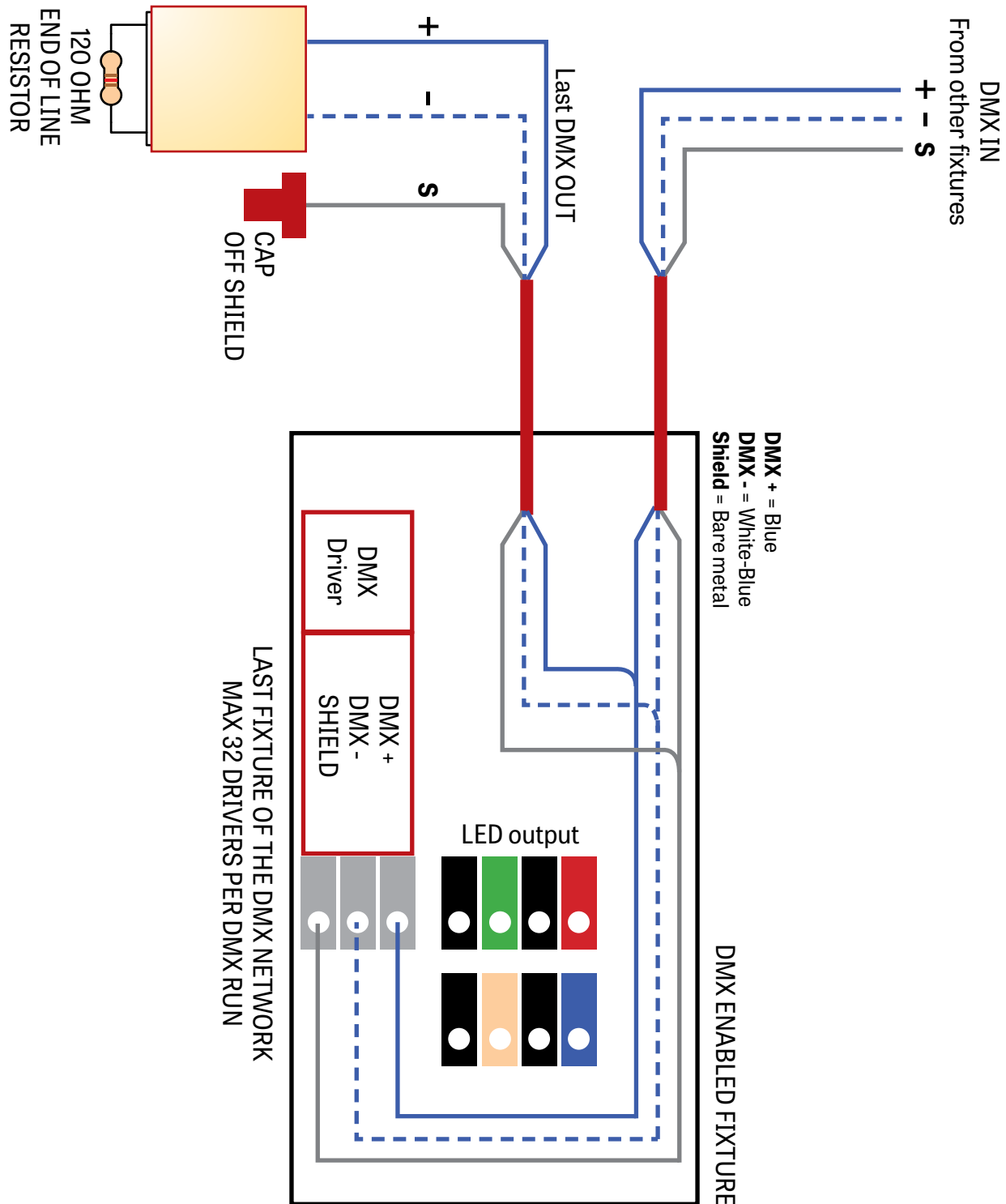
DMX WALL CONTROLLER

DUO 1-4 ZONE

Default DMX Addresses:
1 Warm
2 Cool
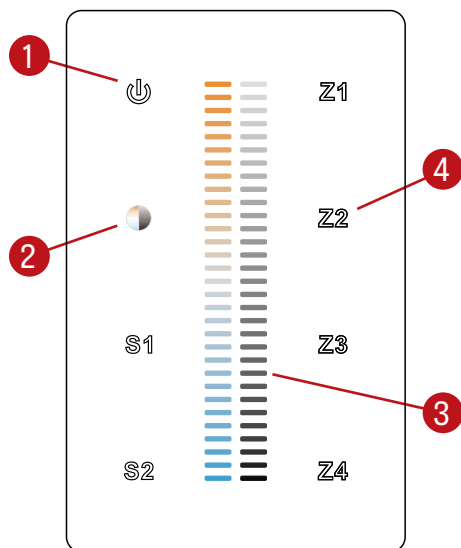
(1) Power: Use this button to turn ON or OFF the fixture.

(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.

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DUAL 0-10V WALL CONTROLLER

Front Panel
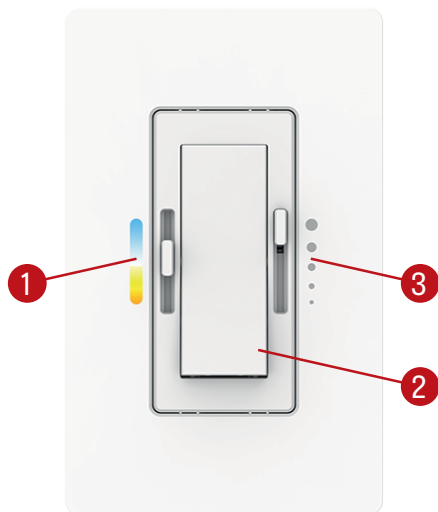
Controller image may differ

Dimensions

2.9"
4.7"
1.3"
2.9"
0.3"
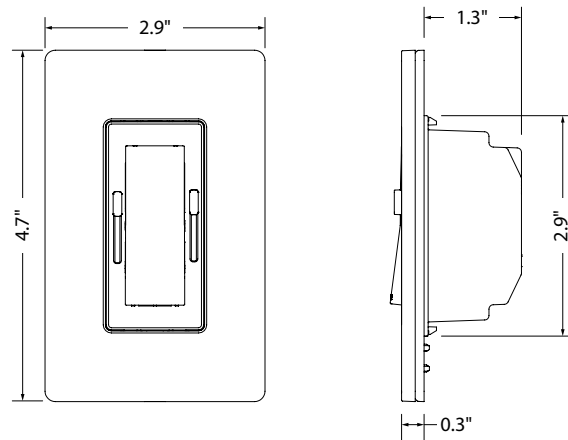
(1) CCT control: Use this button to adjust the color temperature.

(2) On/Off switch: Use this button to turn ON or OFF the fixture.

(3) Dimming control: Use this button to adjust the brightness.

Wiring Diagram

Ground

Green

0-10V Ch 1 (TW Control)

0-10V Ch 2 (Intensity)

Yellow
Brown
Purple
Gray

Line / Hot   Black

Wall Switch
(In-Wall Dimmer)

Red

120 V~
50/60 Hz

White

* 2 Channel LED
Driver / Controller

Tunable
White
LED's

Neutral

ETL
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Power over Ethernet