

# UBIK SEAL TROFFER

LUMENWERX

RECESSED  
CHROMAWERX - SOLA AND DUO



Project: \_\_\_\_\_  
Type: \_\_\_\_\_



## DESCRIPTION

Sleek square form meets superb function in Ubik, a lighting family designed to provide a multitude of creative options. Ubik Seal Troffer creates visual comfort with its low-glare dual optical chamber performance. The center channel features parabolic louvers, available in matte white or matte silver, that deliver a soft conical distribution. Side lenses provide indirect, reflected, soft diffused distribution using Tri-Flect technology. The fixture offers 60/40 and 40/60 light distribution options and meets the WELL Building Standard™ guidelines for UGR values. Ubik Seal Troffer comes in Chromawerx Sola and Duo. For static white and full spectrum solutions, consult other spec sheet.

IC RATED

IP54



## Order Guide

LUMINAIRE ID	SIZE	CENTER OPTIC	SIDE OPTIC	LIGHT SOURCE <sup>2</sup>	CRI	LUMEN PACKAGE (lm)			
<b>UBISEALT</b>	<b>22</b>		<b>TFO</b>						
<b>UBISEALT</b> <sup>1</sup> - Ubik Seal Troffer  <sup>1</sup> IP44 rated gasketed frame construction with an additional clear polycarbonate lens for the center optic.	<b>22</b> - 2' X 2'	<b>MWPL</b> - Matte White Parabolic Louver  <b>MSPL</b> - Matte Silver Parabolic Louver	<b>TFO</b> - Tri-Flect Optic	<b>SOLA</b> - Dim-to-warm single channel control 35K to 22K  <b>DUO</b> - Tunable white 2-channel control 65K to 27K  <sup>2</sup> Static white and full spectrum also available. Consult other spec sheet.	<b>80</b> - 80 CRI  <b>90</b> - 90 CRI		Low	Med	High
						2' X 2'	<b>2000</b>	<b>3000</b>	<b>4000</b> <sup>3,4</sup>

<sup>3</sup> Not available with 90 CRI.

<sup>4</sup> Not available with 40/60.

LIGHT DISTRIBUTION	VOLTAGE	DRIVER <sup>5</sup>	ELECTRICAL	MOUNTING	FINISH	OPTIONS
			<b>1C</b>			
<b>40/60</b> - 40%PL - 60% TFO <b>60/40</b> - 60% PL - 40% TFO	<b>120</b> - 120V <b>277</b> - 277V <b>UNV</b> - 120V-277V	<b>SOLA</b> <b>SDI</b> - Single 0-10V input  <b>DUO</b> <b>DMX</b> <sup>6,7</sup> - DMX <b>DDA</b> <sup>7</sup> - DALI DT6 <b>DDA8</b> <sup>7</sup> - DALI DT8 <b>DDI</b> - Dual 0-10V input for CCT/intensity <b>PSQ0</b> <sup>7</sup> - Lutron T-Series 1% Tunable White  <sup>5</sup> PoE (Power-over-Ethernet) compatible. Consult factory for details. <sup>6</sup> For more information, see pages 7 to 12. <sup>7</sup> On-site commissioning is required.	<b>1C</b> - 1 circuit	<b>GRD</b> - Grid ceiling <b>DF</b> - Drywall trim kit	<b>W</b> - Matte white <b>WA</b> - White antimicrobial Silverwerx <b>CF#</b> - Custom finish, specify RAL#	<b>FU120</b> - Fuse 120V <b>FU277</b> - Fuse 277V <b>CP</b> - Chicago Plenum <b>GCK</b> - Grid gasket <b>GSO</b> <sup>8</sup> - Gasketed side optic <b>NATA</b> - Natatorium finish <b>CRF</b> - Corrosion resistant finish <b>NA</b> - None  <sup>8</sup> IP54 rated gasketed frame construction with additional gaskets for the side optic, and a clear polycarbonate lens for the center optic.

## Accessories

Optional, order separately

### DMX WALL CONTROLLER <sup>9</sup>

**WCW** - Wall controller white  
**WBW** - Wall controller black

<sup>9</sup> Available with DMX only. For more information, see pages 7 to 12, or consult factory.

# UBIK SEAL TROFFER

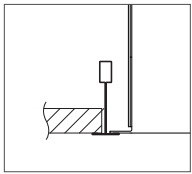
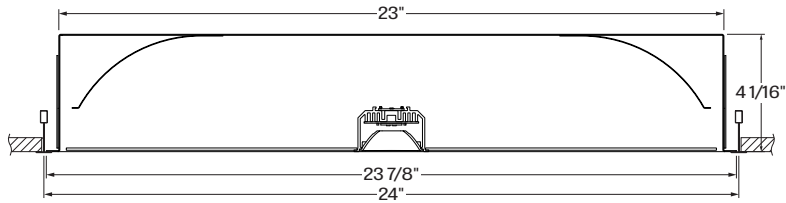
LUMENWERX

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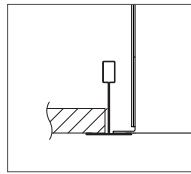
CHROMAWERX - SOLA AND DUO

## Dimensions

### GRID

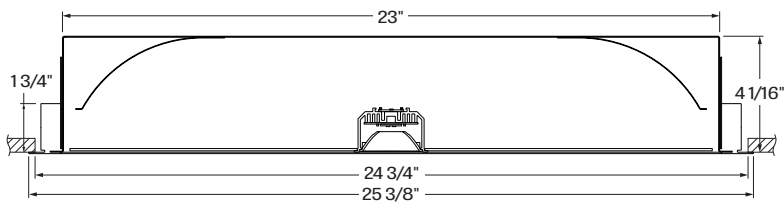


TB9  
T-bar 9/16"



TB15  
T-bar 15/16"

### DRYWALL



# UBIK SEAL TROFFER

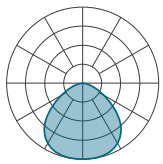
# LUMENWERX

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## Photometrics

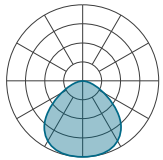
### 2' X 2' - SOLA

Delivered lumens at 80 CRI.



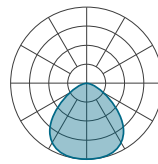
**40/60** - 40% MWPL - 60% TFO

LUMEN OUTPUT	CCT	LUMENS MWPL	LUMENS TFO	INPUT WATTS	LPW
2000	3500	800	1200	19.6	102
3000	3500	1200	1800	31.6	95



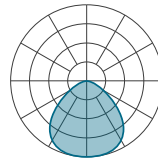
**40/60** - 40% MSPL - 60% TFO

LUMEN OUTPUT	CCT	LUMENS MSPL	LUMENS TFO	INPUT WATTS	LPW
2000	3500	800	1200	21.2	95
3000	3500	1200	1800	32.9	91



**60/40** - 60% MWPL - 40% TFO

LUMEN OUTPUT	CCT	LUMENS MWPL	LUMENS TFO	INPUT WATTS	LPW
2000	3500	1200	800	18.9	106
3000	3500	1800	1200	30.4	99
4000	3500	2400	1600	43.3	92

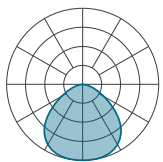


**60/40** - 60% MSPL - 40% TFO

LUMEN OUTPUT	CCT	LUMENS MSPL	LUMENS TFO	INPUT WATTS	LPW
2000	3500	1200	800	20.1	99
3000	3500	1800	1200	32.4	92
4000	3500	2400	1600	46.3	86

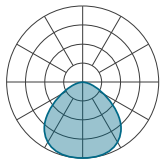
### 2' X 2' - DUO

Delivered lumens at 80 CRI.



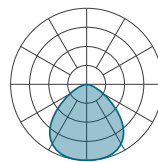
**40/60** - 40% MWPL - 60% TFO

LUMEN OUTPUT	CCT	LUMENS MWPL	LUMENS TFO	INPUT WATTS	LPW
2000	2700	800	1200	20.5	98
	6500	800	1200	19.5	103
3000	2700	1200	1800	33.0	91
	6500	1200	1800	31.6	95



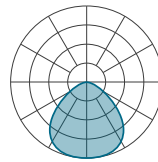
**40/60** - 40% MSPL - 60% TFO

LUMEN OUTPUT	CCT	LUMENS MSPL	LUMENS TFO	INPUT WATTS	LPW
2000	2700	800	1200	22.3	90
	6500	800	1200	20.9	96
3000	2700	1200	1800	34.3	87
	6500	1200	1800	32.9	91



**60/40** - 60% MWPL - 40% TFO

LUMEN OUTPUT	CCT	LUMENS MWPL	LUMENS TFO	INPUT WATTS	LPW
2000	2700	1200	800	19.7	102
	6500	1200	800	18.6	108
3000	2700	1800	1200	31.8	94
	6500	1800	1200	30.1	100
4000	2700	2400	1600	45.3	88
	6500	2400	1600	42.9	93



**60/40** - 60% MSPL - 40% TFO

LUMEN OUTPUT	CCT	LUMENS MSPL	LUMENS TFO	INPUT WATTS	LPW
2000	2700	1200	800	21.0	95
	6500	1200	800	19.8	101
3000	2700	1800	1200	33.9	89
	6500	1800	1200	32.0	94
4000	2700	2400	1600	48.5	82
	6500	2400	1600	45.8	87

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## Technical Specifications

### OPTICS

#### Tri-Flect Optic (TFO)

Tri-Flect Optic (TFO) is the technology used in the Ubik Troffer where indirect light is sent off internal reflectors and then diffused through the dual side lenses to create visual comfort with low-glare.

#### Parabolic Louvers

Parabolic louvers emit soft brightness at the critical viewing angle delivering low-glare environments. They are the ideal solution for task lighting. UGR can change slightly based on the color of the louvers. Two matte finishes are available in white and silver. Parabolic louvers feature a low-glare conical distribution, thereby limiting ceiling brightness.



### LIGHT SOURCE

Custom 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.

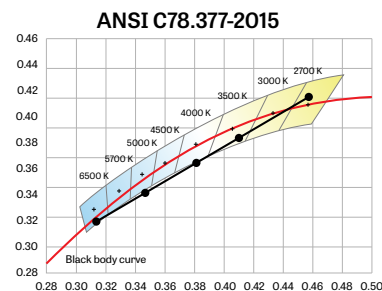
### CHROMAWERX - TUNABLE WHITE

#### 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.



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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 55 or L04 meets WELL glare category (b-c-d)
- 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 Mind** - This luminaire meets WELL for mind as it is a human centric luminaire offering quality light, excellent color, and smooth optics. 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](mailto:well@lumenwerx.com)

## ELECTRICAL

### SOLA

#### **SDI**

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%.

### DUO

#### **DMX**

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**

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. 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 (120-277VAC) 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 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), emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis.

## MOUNTING OPTIONS

Recessed fixtures can be mounted into exposed T-bar ceiling, as well as in drywall ceilings with trim kit.

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## 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.

**Drywall kit** - Extruded aluminum 0.07" nominal, matte white powder coating.

**Gasket** - Closed-cell silicone foam gasket

**Grid gasket (GGK option)** - 1/16" closed-cell silicone foam, assures a better seal between the fixture and the grid.

## FINISH

**Interior** - 95%, reflective matte powder coated white paint

**Exterior** - Powder-coat paint in standard white. Optional antimicrobial finish, as well as custom finishes, also available.

## WEIGHT

**Ubik Seal Troffer 2' X 2'** - 23.1 lbs - 10.5 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.

**IC rated** - Suitable for direct contact with insulation

**Chicago Plenum** - City of Chicago approved (CCEA)

## 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.

# UBIK SEAL TROFFER

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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 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.

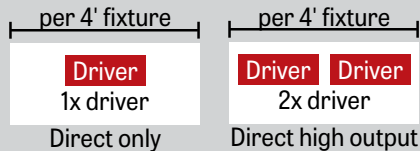


1 Zone



2 Zones

### How to calculate the required number of drivers:



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](mailto: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](mailto:controls@lumenwerx.com). Additional cost and equipment will be required. ✓

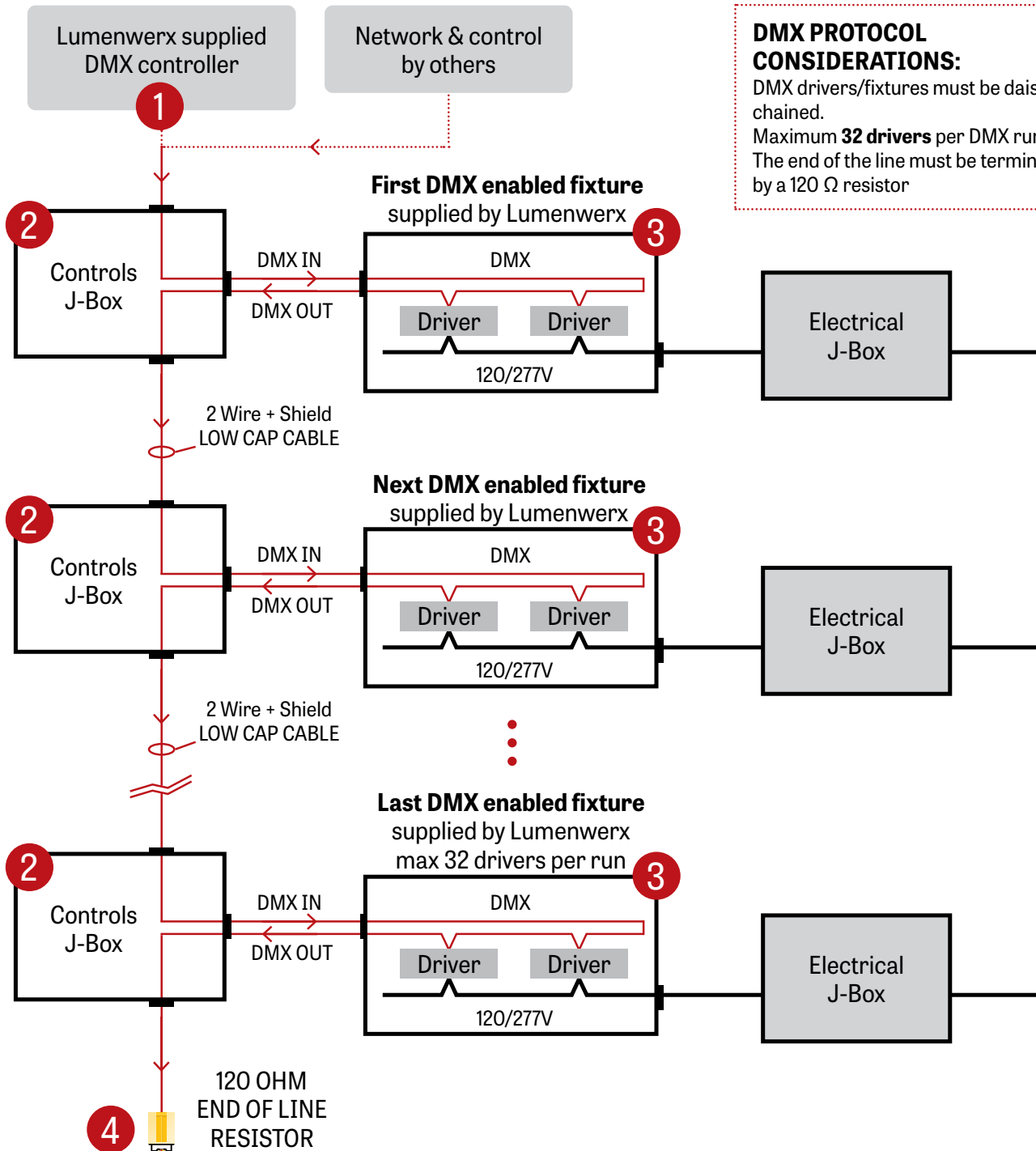
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# LUMENWERX

## 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  $\Omega$  resistor



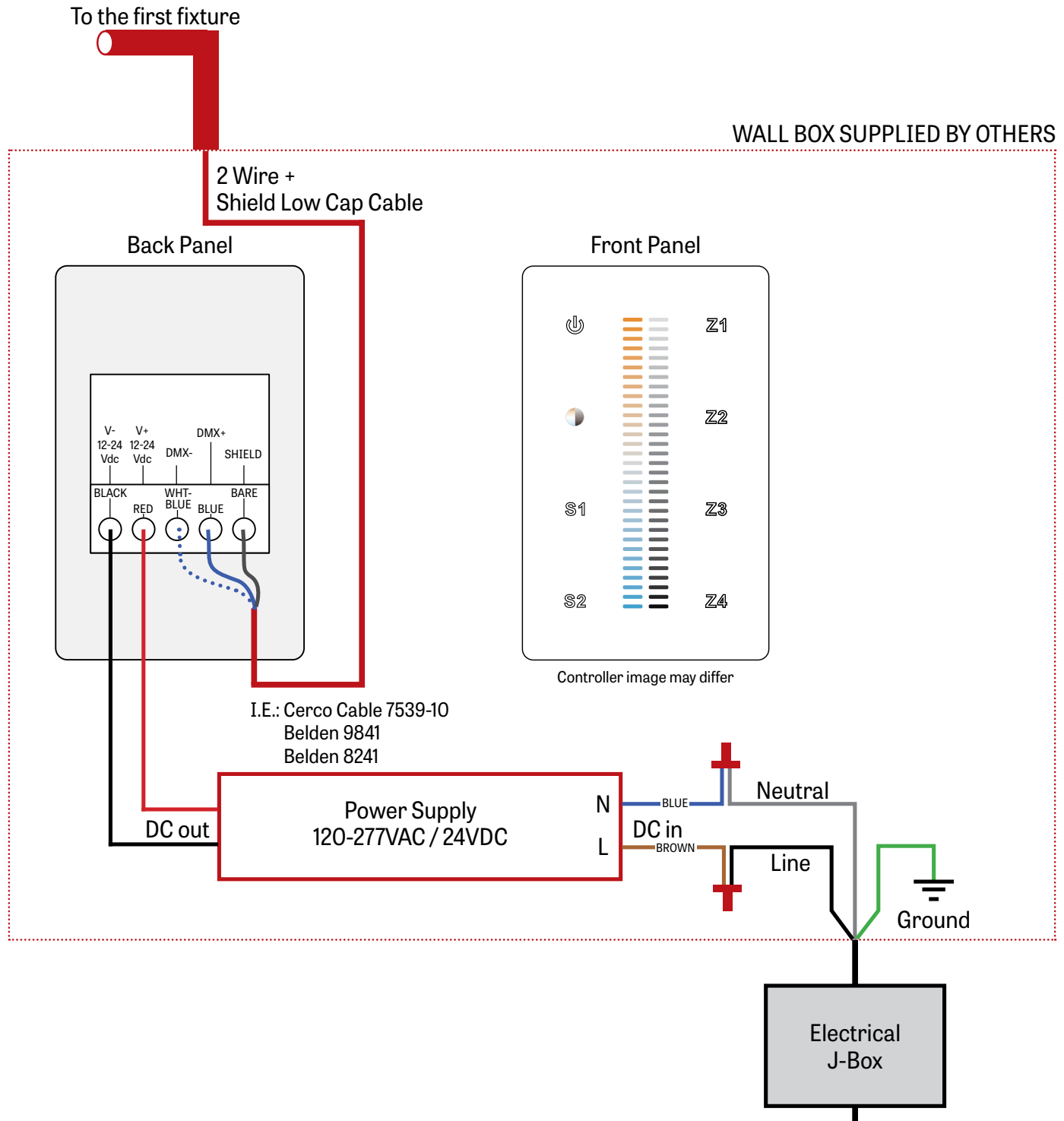
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## 1 LUMENWERX SUPPLIED DMX CONTROLLER



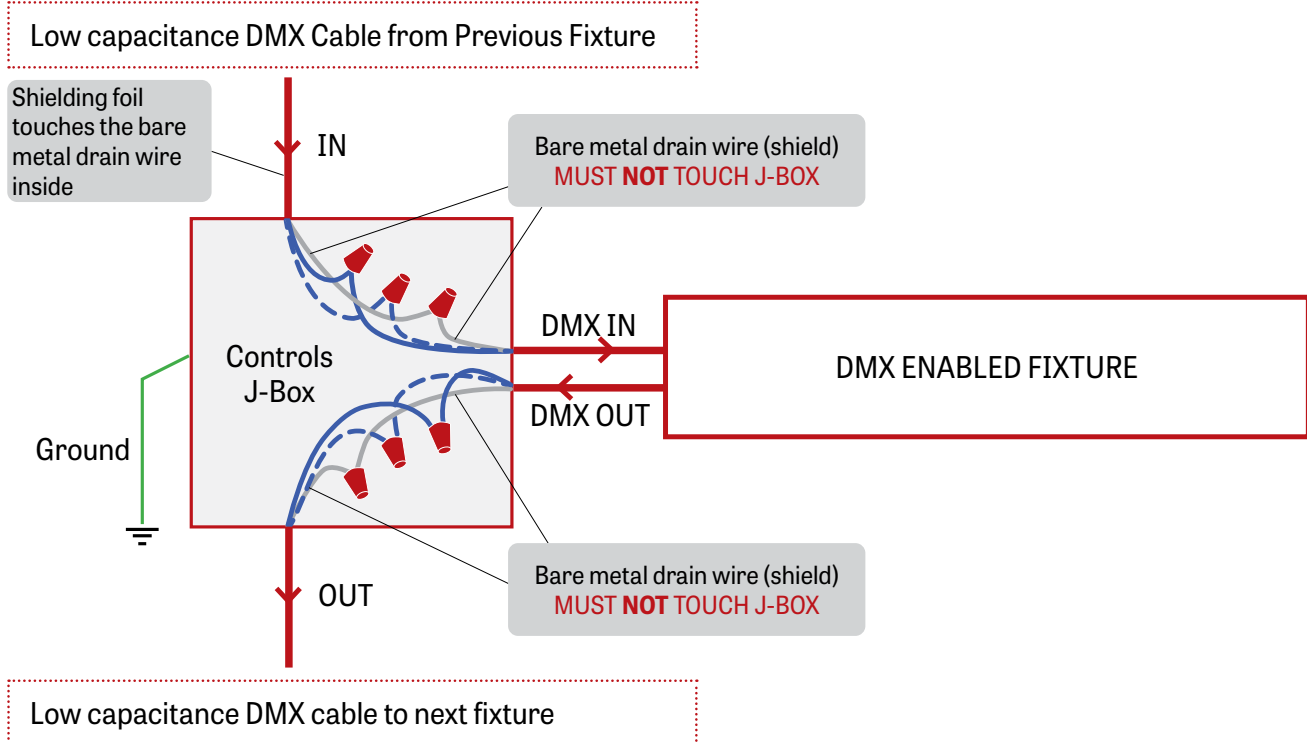
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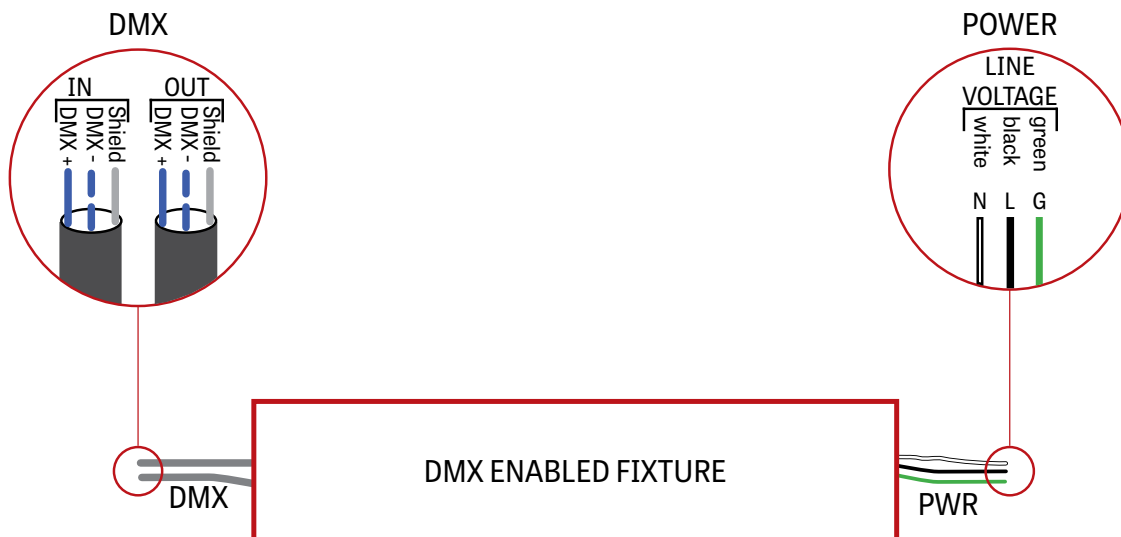
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## 2 J-BOX DMX DAISY CHAIN DETAIL



## 3 DMX CONNECTION RECESSED & SURFACE



# UBIK SEAL TROFFER

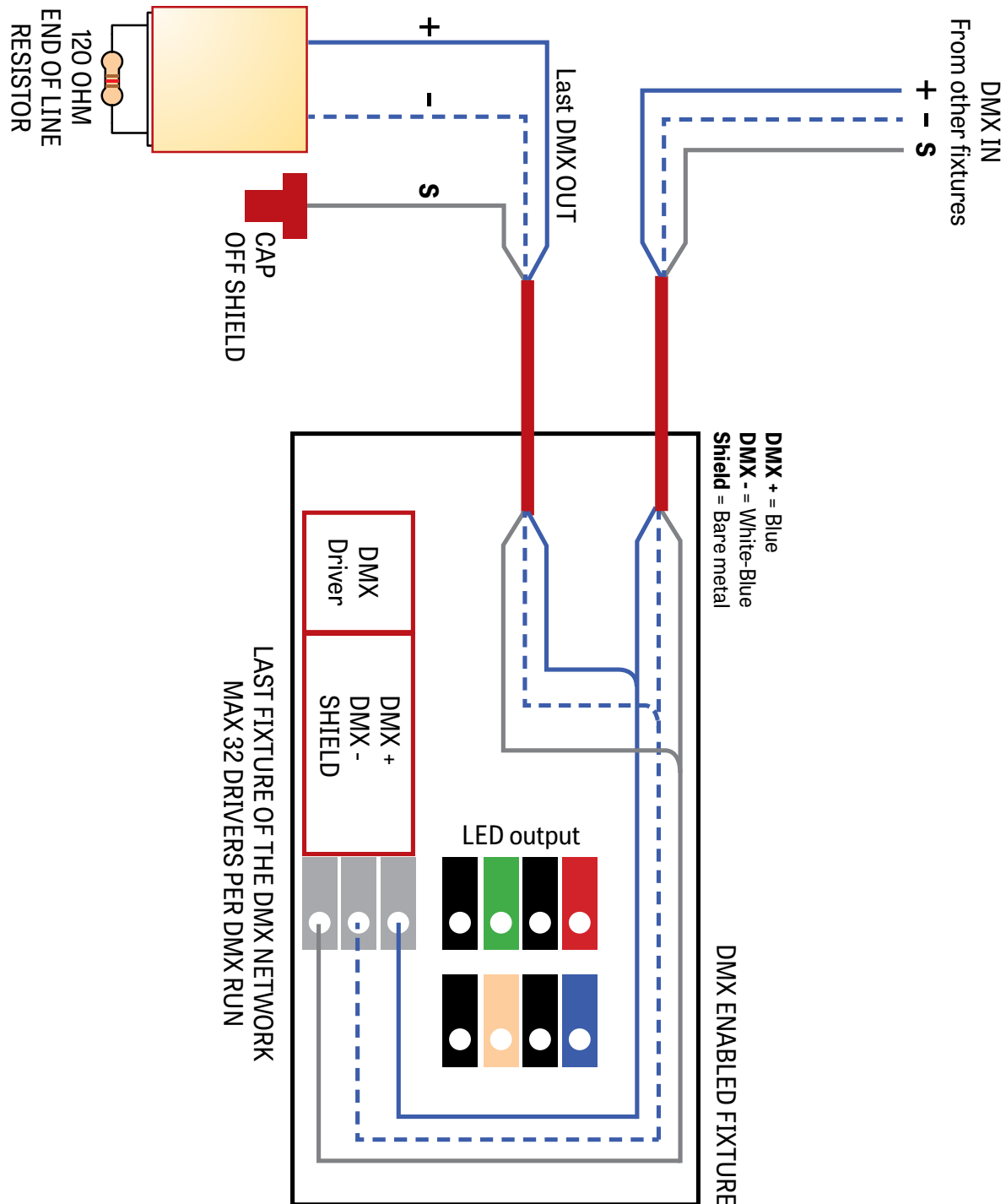
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4

## DMX LAST FIXTURE DETAIL



# UBIK SEAL TROFFER

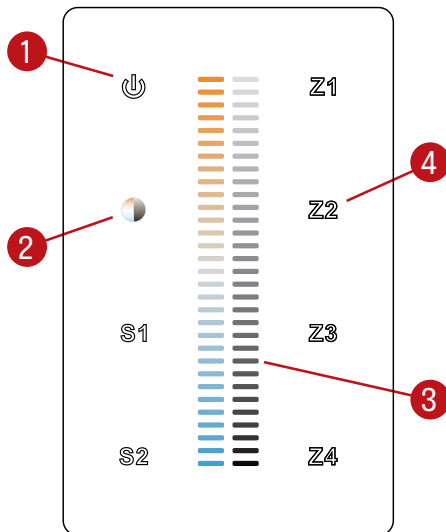
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## DMX WALL CONTROLLER

### 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 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.

### Default DMX Addresses:

1 Warm

2 Cool