LLTW51X2

Tunable White

## Features

LineLED Tunable White series is a small profile high performance LED strip.This Tunable White LED series offers a wide CCT range to create the perfect ambiance in real time. From bright white encouraging wakefulness, to warm amber sunsetting into relaxation, LineLED TW51X2 can transform any environment to match the natural human circadian rhythm. Industry-best color consistency with single-binned LEDs. This High Color Quality LED strip boasts CRIs and R9 values up to 98. It is easily installed within discrete aluminum extrusions with multiple mounting options.

**Mounting**
LLED strip is equipped with 3M™ adhesive tape.

**Applications**
Indoor only - millwork, cove, architectural reveals, undercabinet, display case, handrail, accent lighting.

**Approvals**
Class 2 damp listed

**Operating voltage**
24 VDC

**Average Life (L70)**
50,000 hours

**Warranty**
7 years

## Technical information

| TYPE | LLTW51X2 | |
|---|---|---|
| **OUTPUT OPTIONS** | **VHO (18K-30K)** | **VHO (27K-65K)** |
| **Lumens Output (all channels full on)** | 716 lm/ft | 922 lm/ft |
| **Average Power Consumption** (for a 4' section) | 9.5 W/ft | |
| **Efficacy** | 75 lm/W | 97 lm/W |
| **Cutting Increment (in)** | 1.64" | |
| **Pitch Length** | 0.23" | |
| **Max Run Length (in series)** | 12.0 ft | |
| **Dimensions** | 0.63" W x 0.09" H | |
| **Ambient Operating Temperature Range*** | -15°F – 77°F (-25°C – 25°C) | |

*VHO output must be paired with an aluminum channel
*Ambient Operating Temperature Range to maintain L70 of 50K+ hours in normal conditions. Exceeding Ambient Operating Temperature Range may result in decreased life/output. Consult Technical Support for specific inquires.

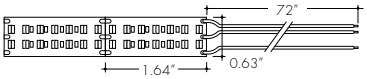
| CCT | TM-30 | | | |
|---|---|---|---|---|
| | CRI | $R_f$ | $R_g$ | $R_9$ |
| **1800K** | 92 | 85 | 91 | 86 |
| **2400K** | 95 | 93 | 106 | 98 |
| **3000K** | 97 | 94 | 104 | 95 |
| **2700K** | 97 | 95 | 103 | 93 |
| **4200K** | 96 | 93 | 105 | 95 |
| **6500K** | 91 | 90 | 101 | 63 |

*2400K condition from both 1800K and 3000K channels on at full brightness. 4200K condition from both 2700K and 6500K channels on at full brightness.

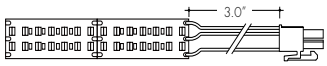
| CCT | Multiplier (reference - 27K-65K) |
|---|---|
| **18K-30K** | 0.78 |
| **27K-65K** | 1.00 |

### Section Start/End Options

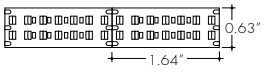
**SL**
Soldered lead wires (72")



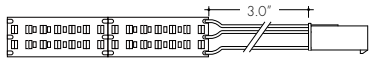

**LF**
Lead Female 3" cable




**NC**
No connector




**LM**
Lead Male 3" cable



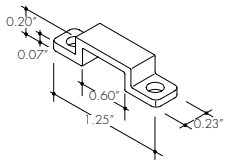

## Ordering code

| MODEL | OUTPUT | CCT | SECTION START[1] | SECTION END[1] | LENGTH |
|---|---|---|---|---|---|
| LLTW51X2-LineLED TW51 | VHO-Very High | 18K-30K-1800K - 3000K<br>27K-65K-2700K - 6500K | SL-Soldered lead wires (72")<br>NC-No connector<br>LM-Lead Male<br>LF-Lead Female | SL-Soldered lead wires (72")<br>NC-No connector<br>LM-Lead Male<br>LF-Lead Female | Ordered in one foot increments. See chart above for max run length. |

1 - Additional Connectors and Leads available, see below.

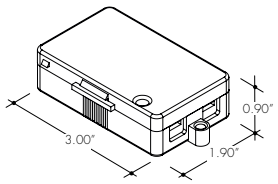
## Accessories

**CL2**
Mounting clip

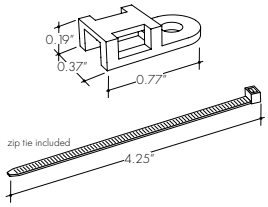



Recommended every 12" when LineLED strip is facing down

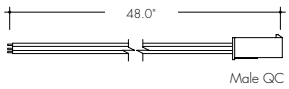
**LVSP-4T-BK**
Low Voltage, 4 Terminal Splice Box, Black, IP20




**LL.ZIP**
Cable/Wire Strain Relief Clip

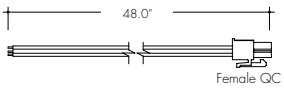



**MOLEX-CON-LEAD-M-3-48**
Molex Male Connector Cable, 3 pin, 48"



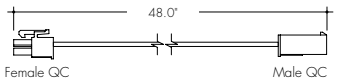

For power supply connection, not intended to be soldered to LED strip

**MOLEX-CON-LEAD-F-3-48**
Molex Female Connector Cable, 3 pin, 48"




For power supply connection, not intended to be soldered to LED strip

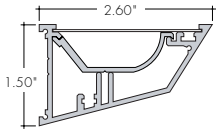
**MOLEX-JC-F-M-3-48**
Female/Male Jumper Cable, 3 pin, 48"




For connecting LED strips in series

## Lens Options / Light Transmission

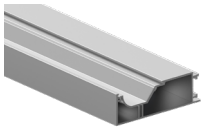
**MCAL CHANNEL**
**-MCALC**
(Link to Web)

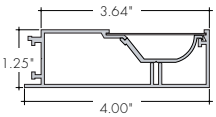



| Lens | Long Throw | Tall Throw |
|---|---|---|
| Transmission % | 91% | 91% |
| Dotting* | CD | CD |

*At 100% brightness

**MREC CHANNEL**
**-MRECC**
(Link to Web)

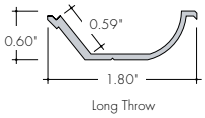





| Lens | Long Throw | Tall Throw |
|---|---|---|
| Transmission % | 91% | 91% |
| Dotting* | CD | CD |

*At 100% brightness

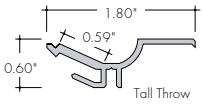
**CLT CHANNEL**
**-CLTC**
(Link to Web)




| Lens | No Lens |
|---|---|
| Transmission % | 100% |
| Dotting* | CD |

*At 100% brightness

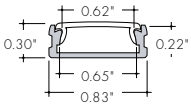
**CTT CHANNEL**
**-CTTC**
(Link to Web)




| Lens | No Lens |
|---|---|
| Transmission % | 100% |
| Dotting* | CD |

*At 100% brightness

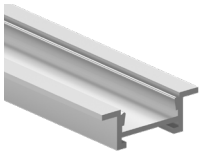
**KL CHANNEL**
**-KLC**
(Link to Web)

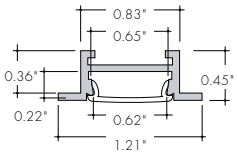



| Lens | Clear | Half Frosted | Frosted |
|---|---|---|---|
| Transmission % | 90% | 75% | 60% |
| Dotting* | CD | CD | SD |

*At 100% brightness

**KRL CHANNEL**
**-KRLC**
(Link to Web)

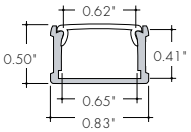





| Lens | Clear | Half Frosted | Frosted |
|---|---|---|---|
| Transmission % | 90% | 75% | 60% |
| Dotting* | CD | CD | SD |

*At 100% brightness

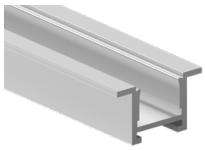
**KXL CHANNEL**
**-KXLC**
(Link to Web)

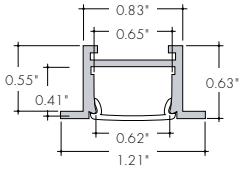



| Lens | Clear | Half Frosted | Frosted |
|---|---|---|---|
| Transmission % | 86% | 69% | 54% |
| Dotting* | CD | CD | ND |

*At 100% brightness

**KRXL CHANNEL**
**-KRXLC**
(Link to Web)

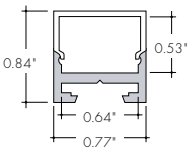





| Lens | Clear | Half Frosted | Frosted |
|---|---|---|---|
| Transmission % | 86% | 69% | 54% |
| Dotting* | CD | CD | ND |

*At 100% brightness

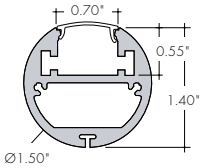
**CLA CHANNEL**
**-CLAC**
(Link to Web)




| Lens | Rounded Square Frosted | Square Frosted |
|---|---|---|
| Transmission % | 62% | 65% |
| Dotting* | ND | ND |

*At 100% brightness

**RO15 CHANNEL**
**-RO15C**
(Link to Web)



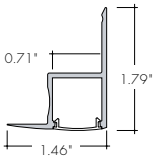

| Lens | Clear | Frosted |
|---|---|---|
| Transmission % | 76% | 50% |
| Dotting* | CD | ND |

*At 100% brightness

## Lens Options / Light Transmission

**ALE CHANNEL -ALEC**

(Link to Web)

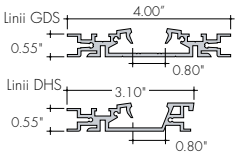



| Lens | Clear | Frosted |
|---|---|---|
| **Transmission %** | 58% | 37% |
| **Dotting*** | CD | ND |

*At 100% brightness

**LIN CHANNEL -LINC**

(Link to Web)




| Lens | Frosted | Frosted Silicone | No Lens |
|---|---|---|---|
| **Transmission %** | 48% | 56% | 82% |
| **Dotting*** | ND | ND | CD |

*At 100% brightness

### Installation

All mounting channels are field cuttable using miter saw with circular blade suitable for cutting aluminum.

### Ordering

Extrusions are sold separately. View respective specsheets for details on ordering extrusions and their accessories (endcaps, mounting brackets, etc).

## Led Dotting Reference

Use complete Dotting Chart Tool online for more dotting information

**Dotting Chart Tool**

I'm also click-able

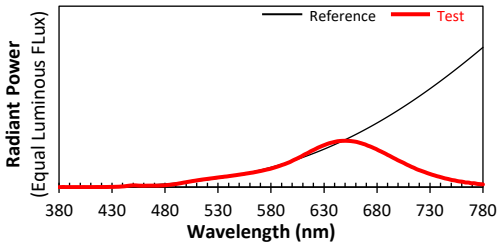
 **CD** - Clear Dotting

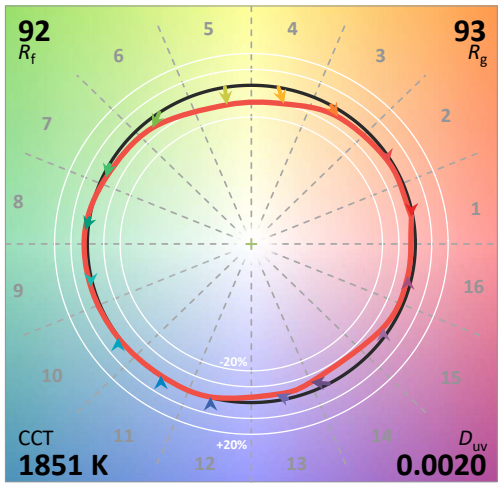
 **SD** - Slight Dotting

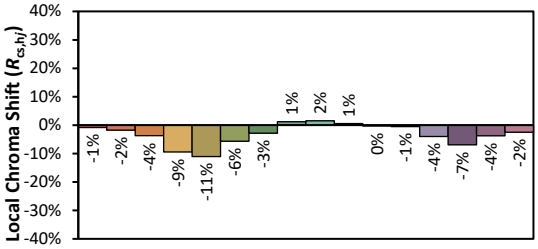
 **ND** - No Dotting

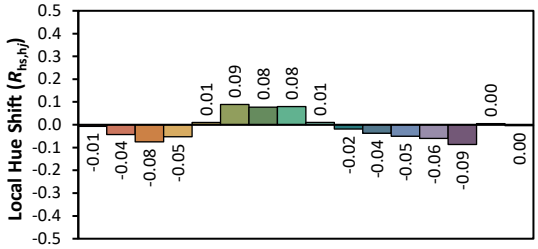
## TM-30-18: Data

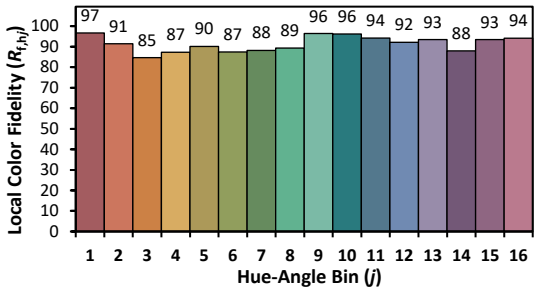
### 1800K (1 channel on)



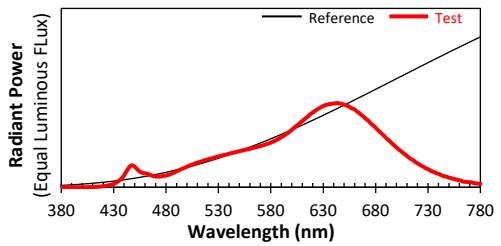



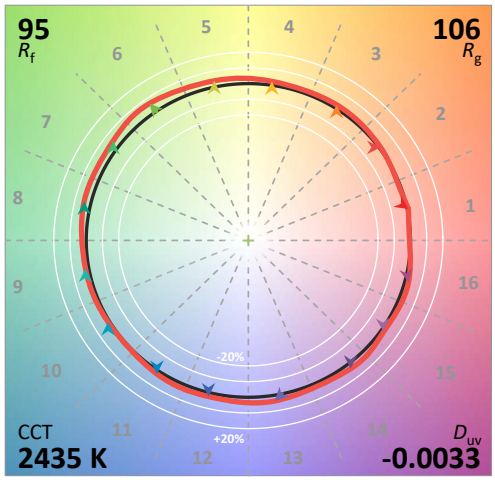



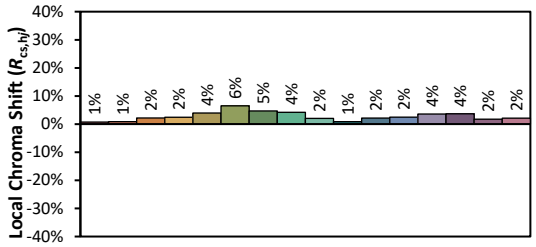



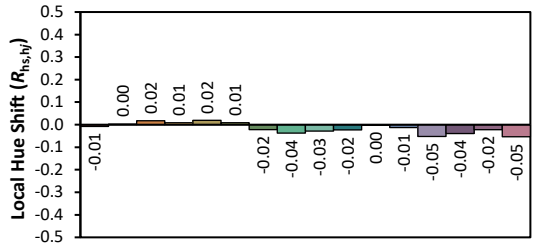



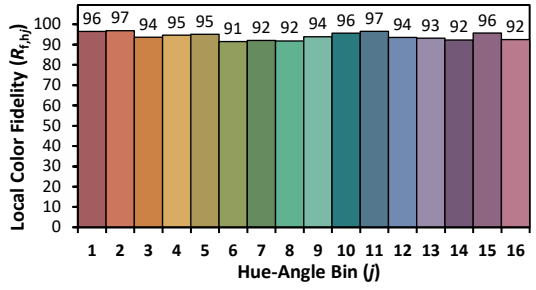

### 2400K (18K - 30K All on)



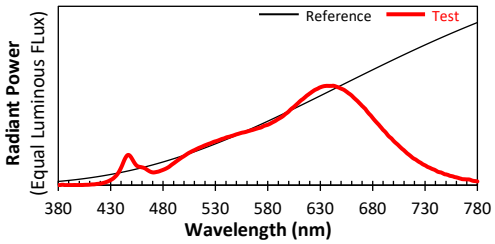



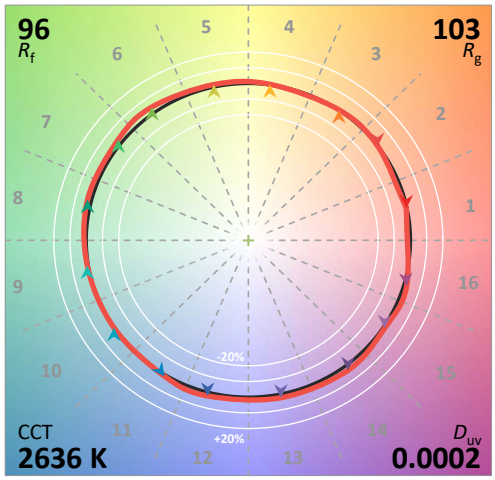



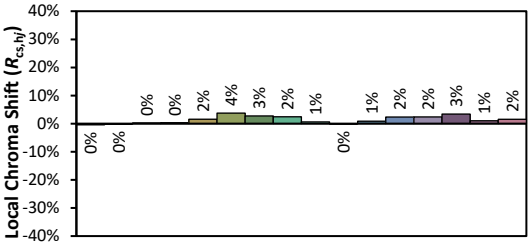



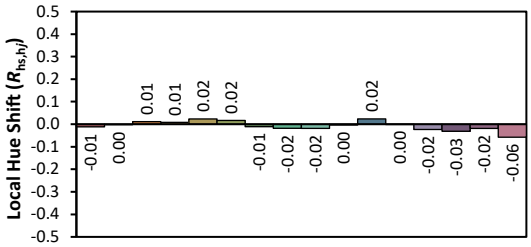
**TM-30-18: Data**

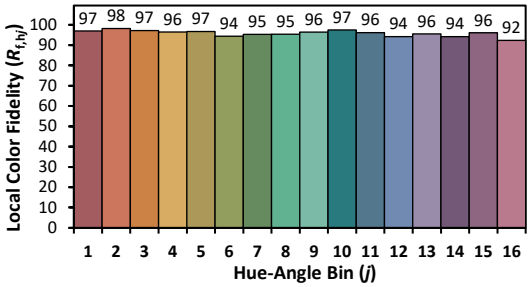
## 2700K (1 channel on)



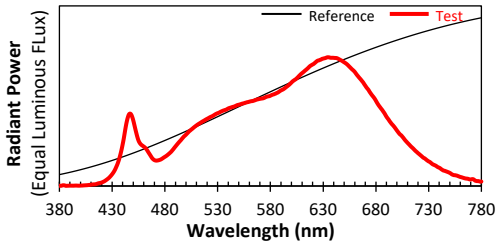



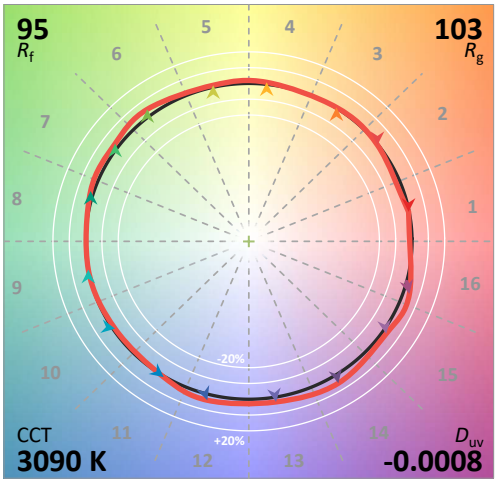



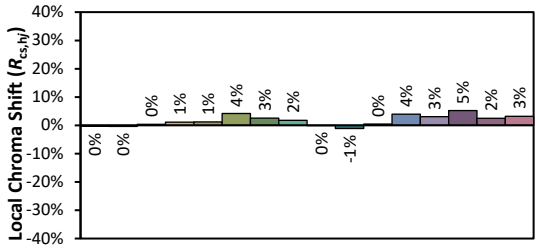



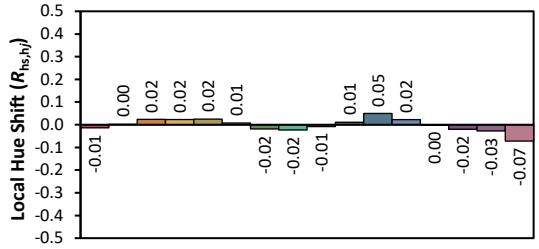



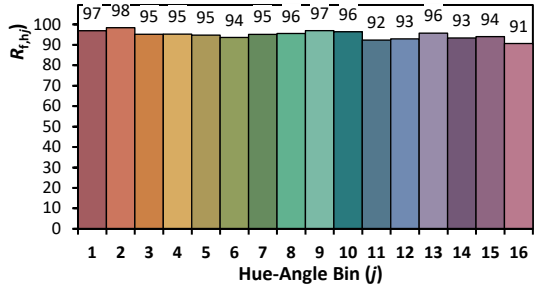

## 3000K (1 channel on)



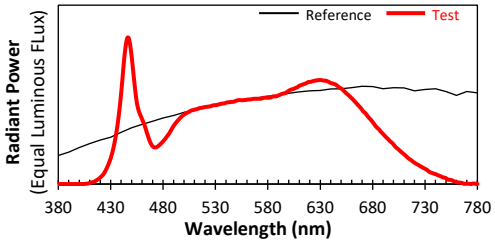



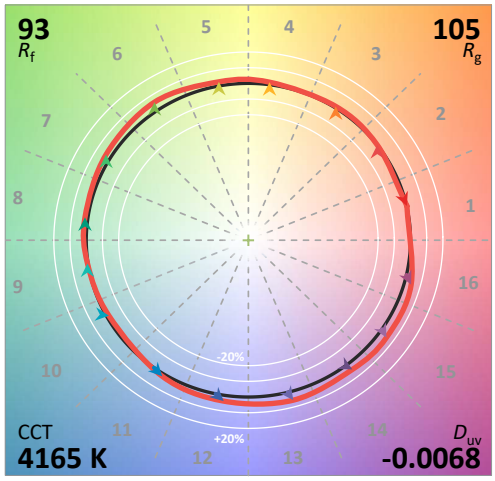



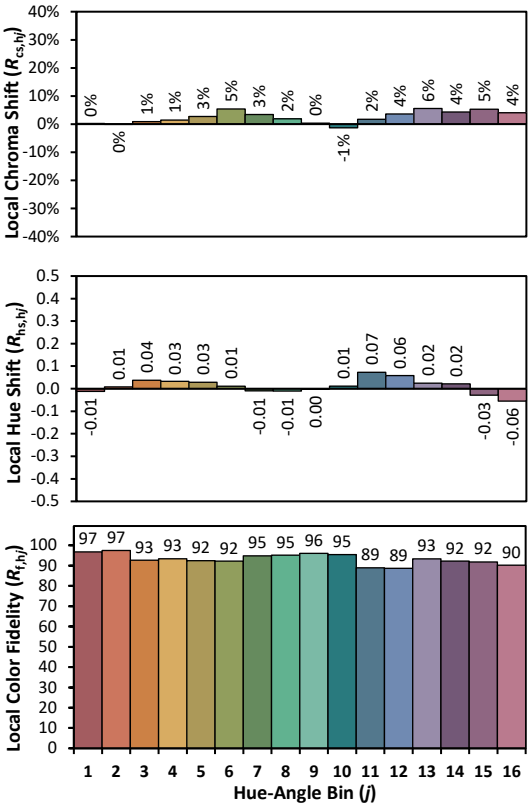



## TM-30-18: Data

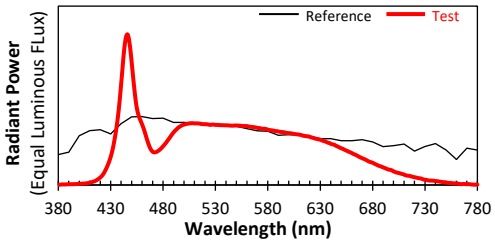
### 4200K (27K - 65K All on)

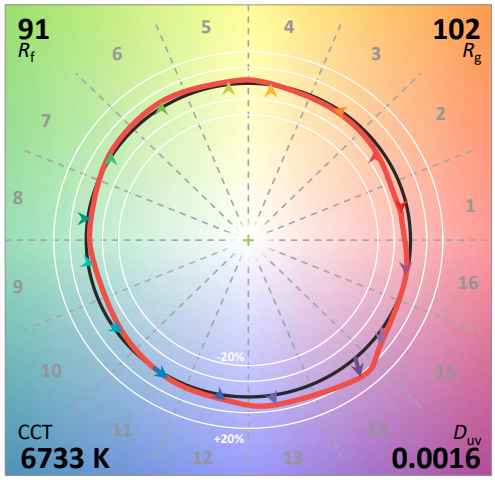


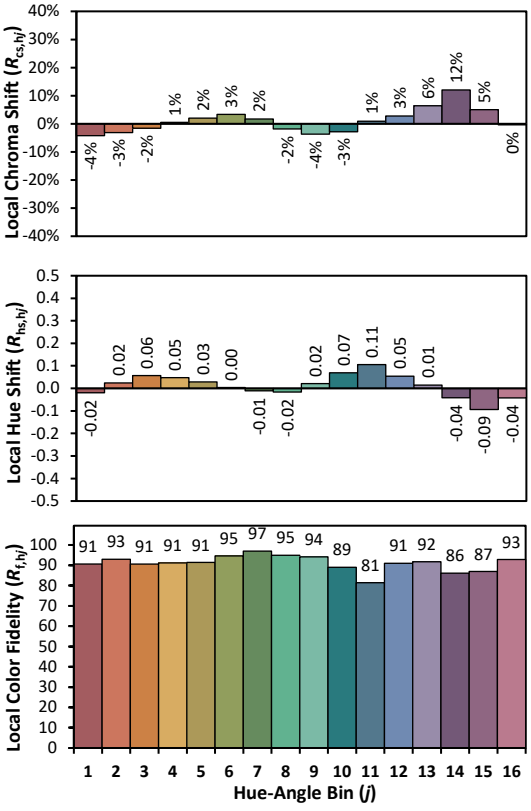




### 6500K (1 channel on)



## Power Consumption

Tested at full power with PS-UNI Series power supplies.

| Nominal Length (ft) | LLTW51X2 VHO | |
|---|---|---|
| | W/ft | Total Wattage |
| **1** | 10.1 | 10.1 |
| **2** | 9.9 | 19.8 |
| **3** | 9.7 | 29.1 |
| **4** | 9.5 | 38.1 |
| **5** | 9.3 | 46.6 |
| **6** | 9.1 | 54.8 |
| **7** | 9.0 | 62.7 |
| **8** | 8.8 | 70.1 |
| **9** | 8.6 | 77.2 |
| **10** | 8.4 | 83.9 |
| **11** | 8.2 | 90.3 |
| **12** | 8.0 | 96.2 |

## Voltage Drop Calculator

The below chart assumes nominal voltage of 24 Volts and a Voltage Drop Allowance of 3% through the wire

| Wattage [W] | Maximum Wire Length From Power Supply to Start of Run [ft] | | | | | | |
|---|---|---|---|---|---|---|---|
| | 12 AWG | 14 AWG | 16 AWG | 18 AWG | 20 AWG | 22 AWG | 24 AWG |
| **5** | 1088.2 | 684.4 | 430.3 | 270.6 | 170.2 | 107.1 | 67.3 |
| **10** | 544.1 | 342.2 | 215.1 | 135.3 | 85.1 | 53.5 | 33.7 |
| **15** | 362.7 | 228.1 | 143.4 | 90.2 | 56.7 | 35.7 | 22.4 |
| **20** | 272.0 | 171.1 | 107.6 | 67.7 | 42.6 | 26.8 | 16.8 |
| **25** | 217.6 | 136.9 | 86.1 | 54.1 | 34.0 | 21.4 | 13.5 |
| **30** | 181.4 | 114.1 | 71.7 | 45.1 | 28.4 | 17.8 | 11.2 |
| **35** | 155.5 | 97.8 | 61.5 | 38.7 | 24.3 | 15.3 | 9.6 |
| **40** | 136.0 | 85.5 | 53.8 | 33.8 | 21.3 | 13.4 | 8.4 |
| **45** | 120.9 | 76.0 | 47.8 | 30.1 | 18.9 | 11.9 | 7.5 |
| **50** | 108.8 | 68.4 | 43.0 | 27.1 | 17.0 | 10.7 | 6.7 |
| **55** | 98.9 | 62.2 | 39.1 | 24.6 | 15.5 | 9.7 | 6.1 |
| **60** | 90.7 | 57.0 | 35.9 | 22.6 | 14.2 | 8.9 | 5.6 |
| **65** | 83.7 | 52.6 | 33.1 | 20.8 | 13.1 | 8.2 | 5.2 |
| **70** | 77.7 | 48.9 | 30.7 | 19.3 | 12.2 | 7.6 | 4.8 |
| **75** | 72.5 | 45.6 | 28.7 | 18.0 | 11.3 | 7.1 | 4.5 |
| **80** | 68.0 | 42.8 | 26.9 | 16.9 | 10.6 | 6.7 | 4.2 |
| **85** | 64.0 | 40.3 | 25.3 | 15.9 | 10.0 | 6.3 | 4.0 |
| **90** | 60.5 | 38.0 | 23.9 | 15.0 | 9.5 | 5.9 | 3.7 |
| **96** | 56.7 | 35.6 | 22.4 | 14.1 | 8.9 | 5.6 | 3.5 |

## Power Supplies

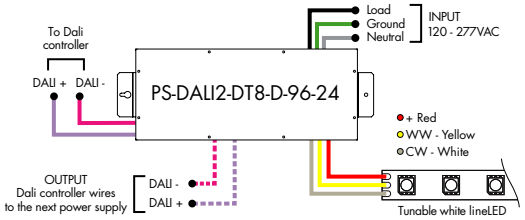
See fixture and power supply instructions & spec sheet for wiring information. Dimming possible in select models - view Luminii website for list of compatible dimmers.

### For use with Tunable White

#### Ordering Code - DALI2 Dimming Power Supplies 0.1% 120VAC - 277VAC

| MODEL | INPUT CONTROL | ENVIRONMENT | WATTAGE | OUTPUT |
|---|---|---|---|---|
| PS - Power Supply, 120-277VAC | DALI2-DT8 - DALI DT8 Tunable White (0.1%) | D - Dry | 96 - 96 Watts | 24 - 24 VDC |

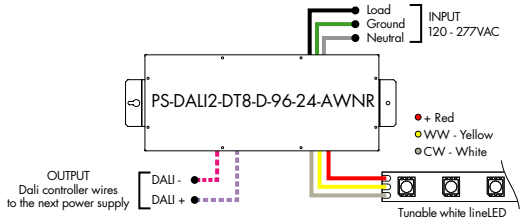
| MODELS | 96W |
|---|---|
| Length | 14.40" |
| Width | 5.20" |
| Depth | 2.60" |




#### Ordering Code - Athena DALI2 Dimming Power Supplies 0.1% 120VAC - 277VAC

| MODEL | INPUT CONTROL | ENVIRONMENT | WATTAGE | OUTPUT | FEATURE |
|---|---|---|---|---|---|
| PS - Power Supply, 120-277VAC | DALI2-DT8 - DALI DT8 Tunable White (0.1%) | D - Dry | 96 - 96 Watts | 24 - 24 VDC | AWNR - Athena |

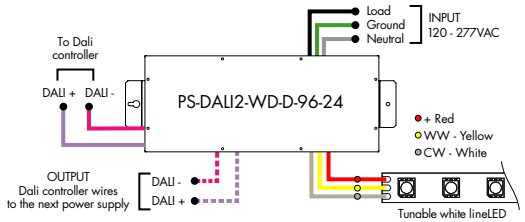
| MODELS | 96W |
|---|---|
| Length | 14.40" |
| Width | 5.20" |
| Depth | 2.60" |




#### Ordering Code - DALI2 Dimming Power Supplies 0.1% 120VAC - 277VAC - for Dim-to-Warm functionality with Tunable White Output

| MODEL | INPUT CONTROL | ENVIRONMENT | WATTAGE | OUTPUT |
|---|---|---|---|---|
| PS - Power Supply, 120-277VAC | DALI2-WD - DALI2 DT6 Warm Dim (0.1%) | D - Dry | 96 - 96 Watts | 24 - 24 VDC |

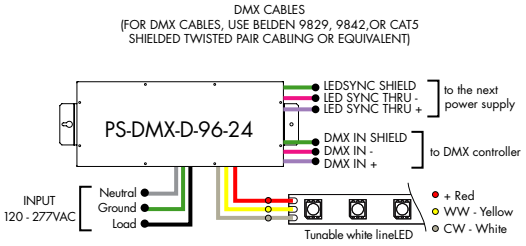
| MODELS | 96W |
|---|---|
| Length | 14.40" |
| Width | 5.20" |
| Depth | 2.60" |

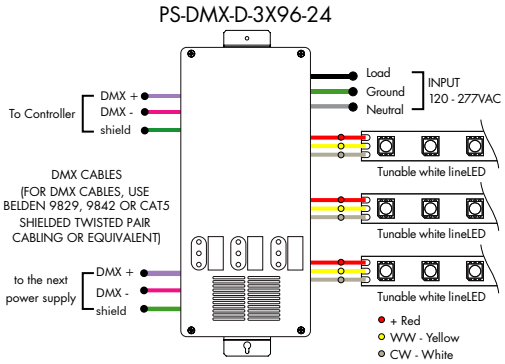



#### Ordering Code - DMX Dimming Power Supplies 0.1% 120VAC - 277VAC

| MODEL | INPUT CONTROL | ENVIRONMENT | WATTAGE | OUTPUT |
|---|---|---|---|---|
| PS - Power Supply, 120-277VAC | DMX - DMX (0.1%) | D - Dry | 96 - 96 Watts<br>3X96 - 3X96 Watts | 24 - 24 VDC |

| MODELS | 96W | 3X96 |
|---|---|---|
| Length | 14.40" | 15.00" |
| Width | 5.20" | 6.62" |
| Depth | 2.60" | 4.56" |



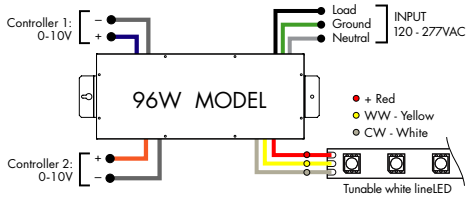
## Power Supplies

See fixture and power supply instructions & spec sheet for wiring information. Dimming possible in select models - view Luminii website for list of compatible dimmers.

### For use with Tunable White

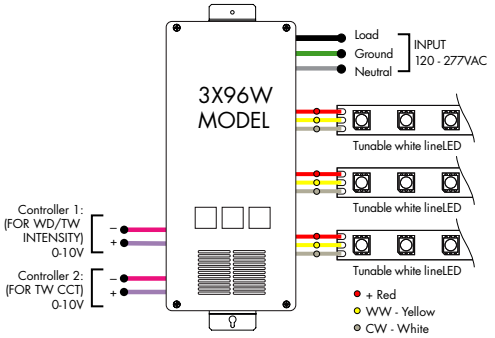
#### Ordering Code - VintageDim® 0-10V Dimming Power Supplies 0.1% 120VAC - 277VAC

| MODEL | INPUT CONTROL | ENVIRONMENT | WATTAGE | OUTPUT |
|---|---|---|---|---|
| PS - Power Supply, 120-277VAC | 010V-WD - 0 -10V Dimming (0.1%), Standard Warm Dim Curve (with Tunable White LED)<br>010V-TW - 0 -10V Dimming (0.1%), Two Channel Control, Brightness and CCT1-CCT2 Ratio<br>010V-2CH - 0 -10V Dimming (0.1%), Two Channel Control, LED1 Brightness and LED2 Brightness<br>010V-WDX - 0 -10V Dimming (0.1%), Customizable Warm Dim Curve (with Tunable White LED)<br>010V-2CHX - 0 -10V Dimming (0.1%), Two Channel Control, Customizable Brightness and CCT1-CCT2 Ratio | D - Dry | 96 - 96 Watts<br>3X96 - 3x96 Watts[1] | 24 - 24 VDC |



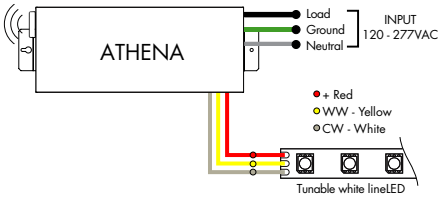

1 - 3x96 is only available with input control options 010V-WD and 010V-TW

| MODELS | 96W | 3X96 |
|---|---|---|
| Length | 14.40" | 15.00" |
| Width | 5.20" | 6.62" |
| Depth | 2.60" | 4.56" |




#### Ordering Code - Athena VintageDim® 0-10V Power Supply 0.1% 120VAC - 277VAC - for Dim-to-Warm functionality with Tunable White Output

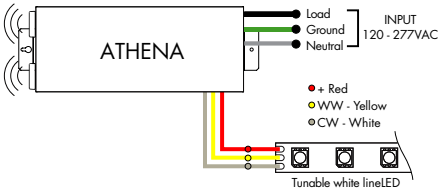
| MODEL | INPUT CONTROL | ENVIRONMENT | WATTAGE | OUTPUT | FEATURE |
|---|---|---|---|---|---|
| PS - Power Supply, 120-277VAC | 010V-WD - 0-10V Dimming, Standard Warm Dim Curve (with Tunable White LED) | D - Dry | 96 - 96 W | 24 - 24 VDC | AWNR - Athena |




| MODELS | 96W |
|---|---|
| Length | 14.40" |
| Width | 5.20" |
| Depth | 2.60" |

#### Ordering Code - Athena VintageDim® 0-10V Two Channel LED Driver, 0.1% 120VAC - 277VAC

| MODEL | INPUT CONTROL | ENVIRONMENT | WATTAGE | OUTPUT | FEATURE |
|---|---|---|---|---|---|
| PS - Power Supply, 120-277VAC | 010V-2CH - 0-10V Dimming Two Channel Control, LED1 Brightness and LED2 Brightness | D - Dry | 96 - 96 W | 24 - 24 VDC | AWNR - Athena |




| MODELS | 96W |
|---|---|
| Length | 14.40" |
| Width | 5.20" |
| Depth | 2.60" |

## Controllers and Decoders

### For use with Tunable White Power Supplies

ORDERING CODE

MODEL

**DTW-MC**

DTW-MC - Tunable White controller

Tunable White wall-mount controller controls lighting fixtures, wireless control of TW lighting fixture. Fits in any standard US switch box. Includes all the outputs in the back of the controller.

**Features**

- Switch & dimming control function, control range > 20M.
- Smooth transition between light levels.
- Separately operate dimming and color temperature functions.
- Able to control 1 zone with endless receivers. Each receiver can maximally be controlled by 8 remotes.
- Power, temperature color and dimming functions operated by push button after receivers are connected.

**Operating Voltage**

3V DC battery

**Color Parameters**

- Brightness
- Saturation
- Fading

ORDERING CODE

MODEL

**TW-DMX**

TW-DMX - DMX controller

Tunable White DMX wall-mount controller is a fully touch sensitive controller designed in accordance with standard protocol DMX512. Offers fast and accurate color temperature adjustment and brightness dimming of natural white, warm white and cold white. Designed with a touch color wheel, the DMX512 controller can adjust color temperature and brightness for all white LEDs smoothly and accurately. The DMX controller can control 1 zone with endless decoders.

**Features**

- 1 zone
- 6 color scenes
- DMX Control
- Touch Sensitive Glass Surface
- Dimming and Speed Control
- Memory Function
- Easily Fits Standard US Switch Boxes

**Operating Voltage**

12 - 24V DC

**Color Parameters**

- Brightness
- Saturation
- Primary colors
- Fading
- Color changing speed


ORDERING CODE

MODEL

**SLD-DIMTW**

SLD-DIMTW - Tunable white LED dimming module

The SLD DimTW is a constant voltage warm dimming LED dimming module. The unique dimming module accepts 0-10V control and mimics a smooth, incandescent dimming curve.

**Features**

- Flicker free 0-100% dimming
- High efficiency up to 97%
- High precision dimming ratio:>1:1000
- Fully isolated plastic housing
- Comply with EN55015 and FCC part 15 without additional input filter and capacitors
- compact size, high reliability
- 3 years warranty

**Operating Voltage**

8-48 VDC

## Controllers and Decoders

### For use with Tunable White, RGB/RGBW Power Supplies


Translates controller DMX512 programs for RGB and white LED strips.

Unique DMX address for the decoder can be set easily and displayed by the numeric display on the case. Changing and resetting the DMX address requires manual input.

Use power repeater to expand output.

**Operating Voltage**

12-36 VDC

**Power Capacity**

up to 96W at 24V

**Operating Temperature Range**

from -4°F to +122°F in case

ORDERING CODE

MODEL

| **DDMX-RGBW** |
|---|

**DDMX-RGBW** - DMX decoder

---


The RGBW receiver is easily paired with controller by the click of a button. Receiver can be reset to factory settings at any time.

Each receiver can store one static RGB color, one color sequence, and one brightness setting for the white LED strip. Receivers assigned to the same scene within the same zone will have the same LED static color and color sequence.

**Operating Voltage**

12-36 VDC

**Power Capacity**

up to 96W at 24V

**Operating Temperature Range**

from -4°F to +122°F in case

ORDERING CODE

MODEL

| **RGBW-RC-R** |
|---|

**RGBW-RC-R** - RGBW receiver

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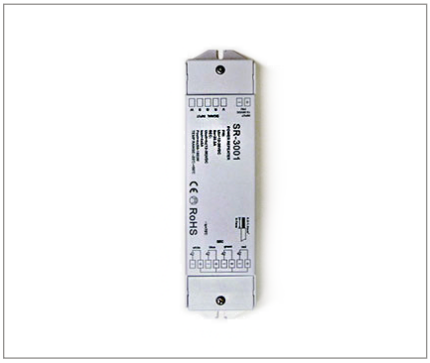



Extends identical signal when connected in series to an RGBW LED control system. The RGBW signal repeater works with Luminii RGB and RGBW controllers, receivers, and decoders.

RGBW signal can be extended indefinitely when adequate power supply (not included) is connected to the system.

**Operating Voltage**

12-36 VDC

**Power Capacity**

up to 96W at 24V

**Operating Temperature Range**

from -4°F to +122°F in case

ORDERING CODE

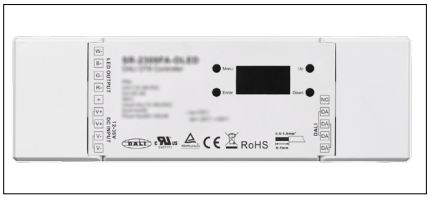
MODEL

| **RGBW-SR** |
|---|

**RGBW-SR** - RGBW signal repeater

## Controllers and Decoders

### For use with Tunable White, RGB/RGBW Power Supplies



ORDERING CODE

MODEL

**DALI2-DT8-RGBW**

DALI2-DT8-RGBW - DALI-2 RGBW Decoder

A 4-channel DALI2 DT8 decoder designed to control RGB, RGBW, and TW LED fixtures, featuring adjustable color temperature and customizable lumen output.

Voltage/Frequency
12-36VDC

Max Output Power
4 output channels, 60-180W each

Max Output Current
4 output channels, max of 5A each

Ambient Operating Temperature Range
-20 to 50°C

Environment
Dry (IP20)

ORDERING CODE

MODEL

**DDMX-5CH-RDM-PRO**

DDMX-5CH-RDM-PRO - DMX512 Decoder

DMX512 decoder with RDM functionality features 5 PWM output channels with common anode. High PWM output frequency range allows the product to be used in HD video conferencing spaces. All DMX products to be installed per DMX512 Standard.

**Power**
96 Watt

**Inputs**
RJ45, XLR-5Pin, Terminal Block

**DMX Channels**
1 to 5 settable

**PWM Output Resolution Ratio**
8 or 16 bit

**PWM Output Frequency**
500Hz - 30KHz

**Output Dimming Curve Gamma Value**
0.1 ~ 9.9


ORDERING CODE

MODEL

**RGBW-WI-R**

RGBW-WI-R - WIFI generator

RGBW-WI-R creates a local network that enables any electronic device (phone, tablet, etc.) to control the RGB/W strip connected to a RGBW-RC-R receiver.

The control functions are achieved through a free application download for Android and iOS devices called REALCOLOR.

**Operating Voltage**
12-36 VDC

**Power Supply**
PI-130-24 (included)

**Operating Temperature Range**
from -4°F to +122°F in case

### For use with Tunable White, RGB/RGBW, Pixel Power Supplies

ORDERING CODE

MODEL

**TSDMX-E**

TSDMX-E - Touchscreen DMX controller

Programmable advanced DMX512 lighting controller featuring a touch-screen interface. Operates as stand alone controller or integrated with most architectural lighting control systems. Can controller endless DMX512 enabled devices.

Mounts to standard single or dual gang wall box with the included power supply inside the junction box. Terminal block design for power and data connections.

**Features**

- Sleek glass design which sits 0.43" from the wall
- Graphical color display to show selected environment
- Color/dimmer/speed palette
- Color temperature mixing
- Touch sensitive buttons. No mechanical parts
- Touch sensitive wheel allows for accurate color selection
- Multi-zone microSD memory
- Multi-room control with 500 scenes, 10 zones
- 1024 DMX channels. Control 340 RGB fixtures
- USB & Ethernet connectivity for programming and control

**Power Supply**
7 VDC (included)

**Programmability**
PC, Mac, Tablet, Smartphone

**Output Signal**
DMX512 (1024 channels)

**Color Parameters**

- Brightness
- Saturation
- Speed of color changing sequence
- Fading / dimming / brightness