iLight Plexineon Catenary | RGB, RGBW and RGBW Pixel

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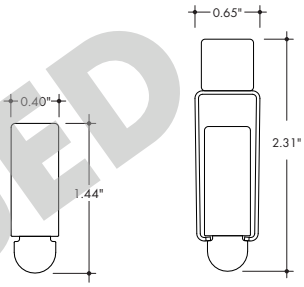
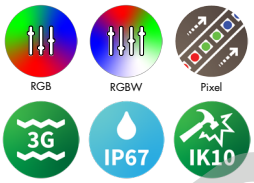
- For interior and exterior accent lighting
- Neon look providing a clear line of light visible for miles
- Includes Turnbuckles, Mounting Frame, Mounting Clips, and other hardware necessary to assemble to Catenary Cable
- Catenary Cable, Poles, Cable Eyes, and other Cable support hardware by others
- Operating Temperature: -40° F to 140° F (-40° C to 60° C)
- 24VDC Class 2
- IK10 and 3G rated
- IP67 rated
- 3 year warranty outdoor



Without Mounting | With Catenary Mounting



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Technical Information

MODEL	Plexineon RGB	Plexineon RGBW	Plexineon Pixel RGBW
OUTPUT OPTIONS		SO	
Lumens Output (all channels full on)	72 lm/ft	110 lm/ft	84 lm/ft
Average Power Consumption (for a 4' section)	4.1 W/ft	5.4 W/ft	5.7 W/ft
Efficacy	17.5 lm/W	20.3 lm/W	14.7 lm/W
Order Increment	1.97"	3.94"	3.94"
Max Run Length (in series)	32 ft	17 ft	16 ft
SPI Protocol	N/A	N/A	UCS 2904
DMX Addresses Occupied	N/A	N/A	4-channels per pixel

RGBW (3000K)

Model	TM-30 CRI	TM-30 R_f	TM-30 R_g	TM-30 R_9
RGBW	85	84	98	22
RGBW-PXSPI	85	84	98	22

Dominant Wavelength

Color	RGB
Red	622nm
Green	525nm
Blue	468nm

Ordering Code

MODEL	RUN LENGTH[2]	BEND	CCT	OUTPUT	LENS	MOUNTING	FINISH	POWERFEED POSITION/TYPE
PX-Plexineon[1]	**___**-Run length in inches, 3" (RGB) and .5" (RGBW/PIXEL) min, no max run length	**SR**-Straight Run **EB**-Factory Bend, Side/Easy Bend[3]	**RGB**-RGB **RGBW**-RGBW (3000K) **RGBW-PXSPI**-RGBW Pixel Control (3000K)	**SO**-Standard	**F**-Frosted	**CD**-Catenary Mount, Decorative Clips[4]	**GG**-Gloss Grey **BK**-Matte Black **GY**-Matte Grey **WH**-Matte White	**B-4**-Plug Quick Connect one end, Receptacle Quick Connect other end

1. Standard lead time 8 weeks.
2. RGB is available in 2" (1.97") order increments. RGBW and Pixel RGBW are available in 4" (3.94"), +/- ½" tolerance. Run Lengths over 96" (8ft) will be made of equal sections no longer than 96".
3. Factory Bends require an Image or Drawing input at time of Quote to calculate total linear/arc length.
   Factory Bends require a Custom Drawing submittal at time of Order. Allow 2 weeks (typical) for Custom Drawing generation/confirmation process.
4. Catenary Mount fixtures include a fixture mounting frame and all mounting components necessary to attach to Catenary Cable (by others). Decorative mounting clips included approximately every 18" of linear/arc length and match the fixture finish.

iLight Plexineon Catenary | RGB, RGBW and RGBW Pixel

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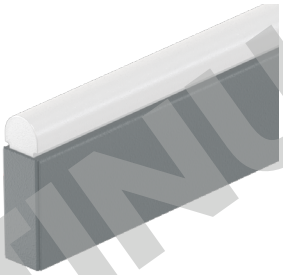
Finish Options

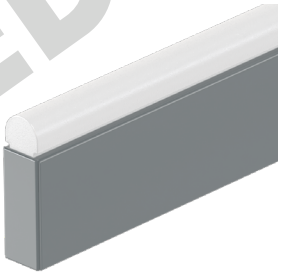
BK
Matte Black Finish

WH
Matte White Finish

GY
Matte Grey Finish



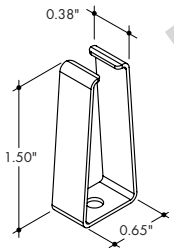
GG
Gloss Grey Finish



Mounting Components

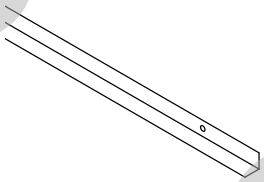
CD

Catenary Mount, Decorative Clip



Thinner clip with finish options to match fixtures

Mounting Frame

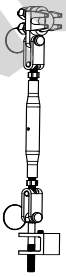


Mounting clips are riveted at the factory to the Mounting Frame. Finish matches Ordering Code Finish selected

Mounting Frame Joiner

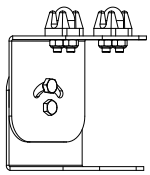
Assembles Mounting Frame together for runs over 96" (8ft)

80-HSH01-000-XX
Horizontal Catenary Strut Hanger



Able to adjust up to 2.5" vertically

35-CVC-003-XX
Vertical Catenary Collar Assembly



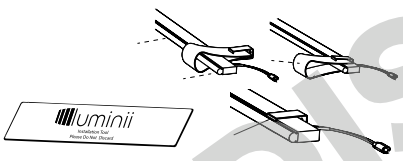
Able to adjust up to 2.5" vertically

0X	Clip Finish
01	Matte Black
02	Matte Grey
03	Matte White

Additional Material

70-TOL02-001-01

Mounting Clip Installation Tool



Use for installation of Plexineon into Mounting Clips

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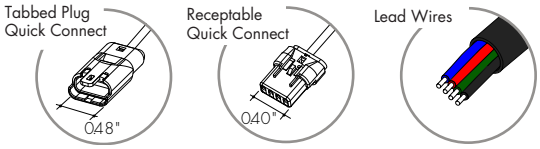
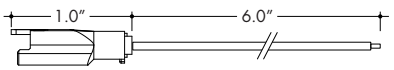
Powerfeed and Connectors

- Quick Connectors with 6" flying leads are included in the Plexineon runs per CCT option selected. Order extras as desired.
- Pixel data direction travels from Plug to Receptacle

Connectors for use with RGB - Sold Separately



60-SJ-C4-0001-01
iLight TABBED PLUG Quick Connect with 6" flying leads, 4-conductor, Black



Also available with longer Flying Leads

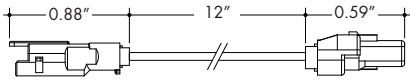
60-SJ-C4-0003-01	120" flying leads

60-SJ-C4-0002-01
iLight RECEPTABLE Quick Connect with 6" flying leads, 4-conductor, Black

Also available with longer Flying Leads

60-SJ-C4-0004-01	120" flying leads

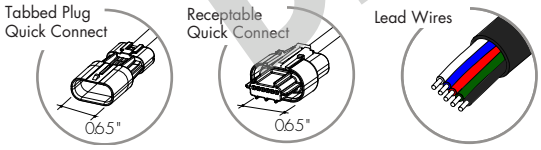
60-SJ-C4-JMP-12-01
iLight Plug-Receptacle Quick Connect 12" Jumper, 4-conductor, Black silicone jacket



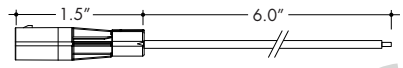
Also available with longer wires

60-SJ-C4-JMP-48-01	48" jumper
60-SJ-C4-JMP-120-01	120" jumper

Connectors for use with RGBW - Sold Separately



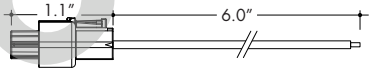
60-SJ-C5-0001-01
iLight TABBED PLUG Quick Connect with 6" flying leads, 5-conductor, Black



Also available with longer Flying Leads

60-SJ-C5-0003-01	120" flying leads

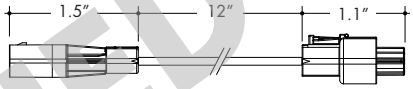
60-SJ-C5-0002-01
iLight RECEPTABLE Quick Connect with 6" flying leads, 5-conductor, Black



Also available with longer Flying Leads

60-SJ-C5-0004-01	120" flying leads

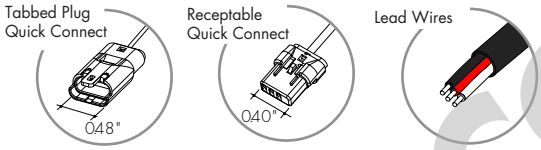
60-SJ-C5-JMP-12-01
iLight Plug-Receptacle Quick Connect 12" Jumper, 5-conductor, Black silicone jacket



Also available with longer wires

60-SJ-C5-JMP-48-01	48" jumper
60-SJ-C5-JMP-120-01	120" jumper

Connectors for use with Pixel - Sold Separately

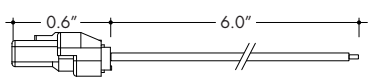


60-SJ-C3-0001-01
iLight TABBED PLUG Quick Connect with 6" flying leads, 3-conductor, Black

Also available with longer Flying Leads

60-SJ-C3-0007-01	120" flying leads

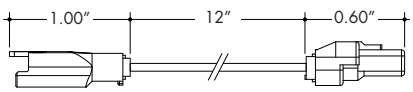
60-SJ-C3-0002-01
iLight RECEPTABLE Quick Connect with 6" flying leads, 3-conductor, Black



Also available with longer Flying Leads

60-SJ-C3-0008-01	120" flying leads

60-SJ-C3-JMP-12-01
iLight Plug-Receptacle Quick Connect 12" Jumper, 3-conductor, Black silicone jacket



Also available with longer wires

60-SJ-C3-JMP-48-01	48" jumper
60-SJ-C3-JMP-120-01	120" jumper

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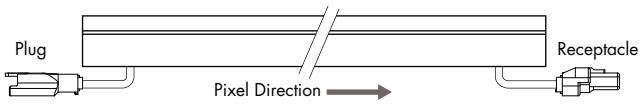
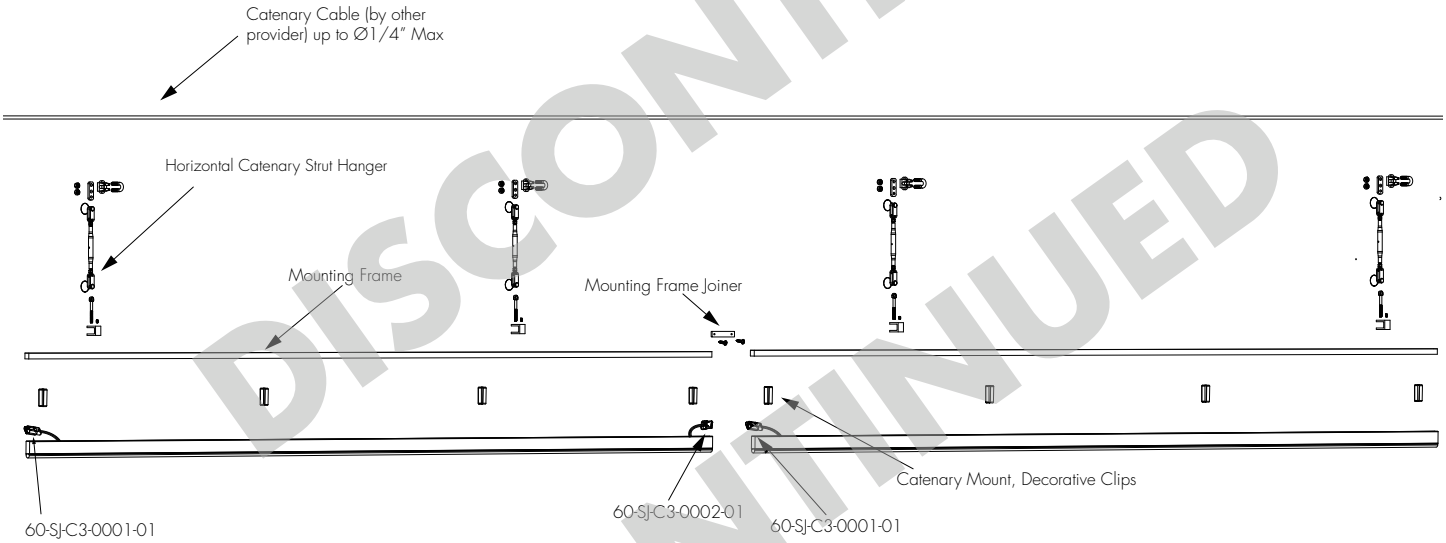
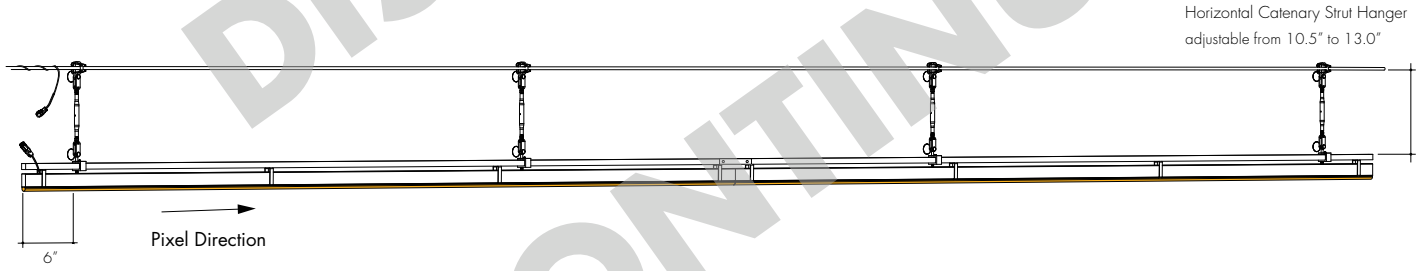
Sample Layout

- Note (Pixel Only): Pixel direction will be shown with a label on the side of the fixture. Pixel data direction travels from Plug to Receptacle



PX-144-SR-RGBW-PXSPI-SO-F-CD-GG-B-4
Plexineon Straight, Catenary Mount, Decorative Clips





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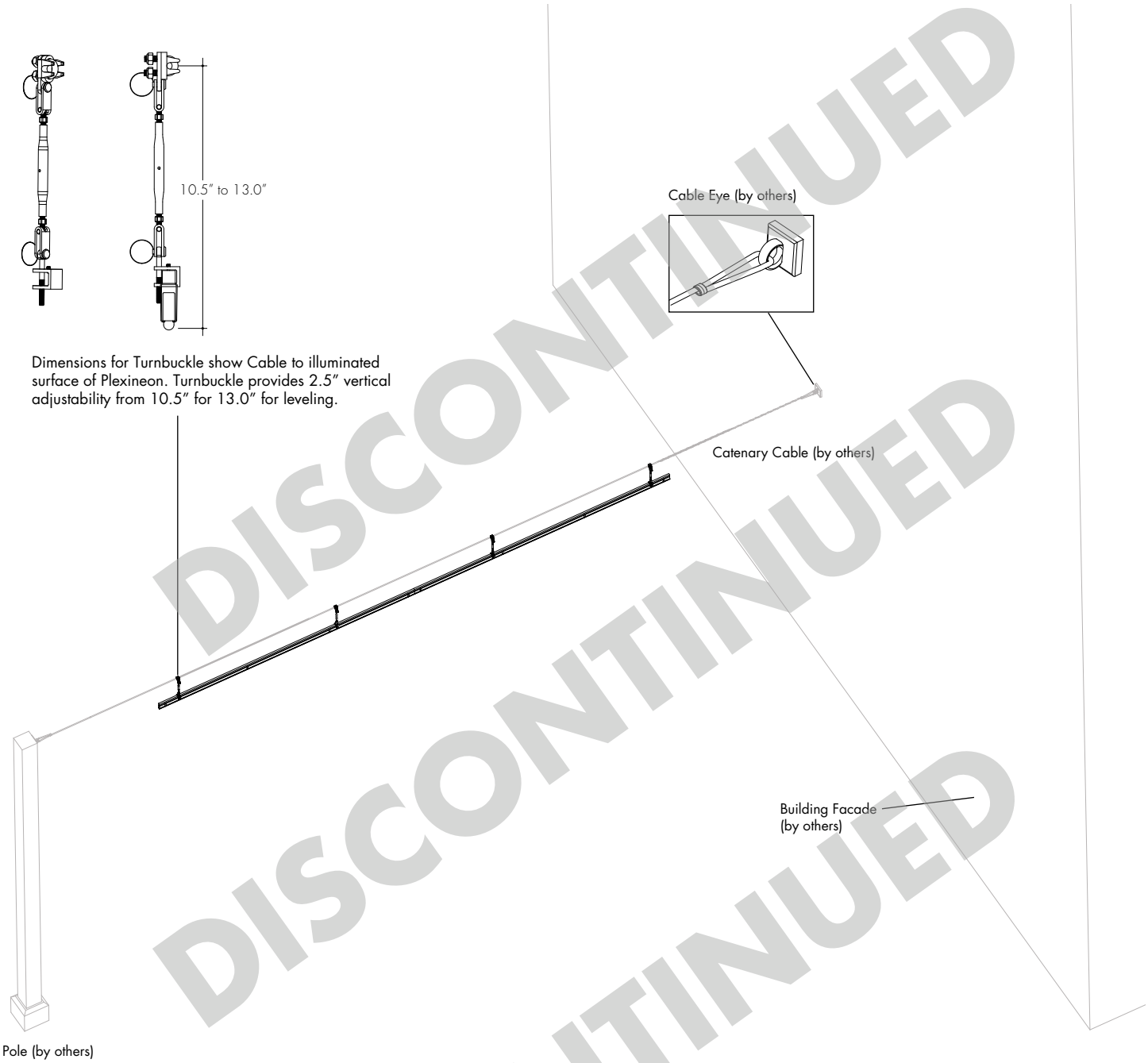
Sample Layout

Dimensions for Turnbuckle show Cable to illuminated surface of Plexineon. Turnbuckle provides 2.5" vertical adjustability from 10.5" for 13.0" for leveling.



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Power Consumption

Tested at Full Power with PS-UNI Series power supplies.
Standard Nominal Lengths offered provide minimal shadowing. For alternate lengths, please consult Inside Sales with specific request.

RGB

Nominal Length (in)	Actual Length	Watts	Nominal Length (in)	Actual Length	Watts
3	2 8/16	0.7	**52**	51 12/16	18.3
5	4 8/16	1.4	**54**	53 11/16	19
7	6 7/16	1.9	**56**	55 11/16	19.5
9	8 7/16	2.9	**58**	57 10/16	20.2
11	10 6/16	3.6	**60**	59 10/16	21.2
13	12 6/16	4.1	**62**	61 9/16	21.7
15	14 5/16	4.9	**64**	63 9/16	22.4
17	16 5/16	5.5	**66**	65 8/16	23.1
19	18 4/16	6.5	**68**	67 8/16	23.6
21	20 4/16	7.2	**70**	69 7/16	24.3
23	22 3/16	7.7	**72**	71 7/16	25.1
25	24 3/16	8.4	**74**	73 6/16	25.5
27	26 2/16	9.2	**76**	75 6/16	26.2
29	28 2/16	10.1	**78**	77 5/16	27
31	30 1/16	10.6	**80**	79 5/16	27.7
33	32 1/16	11.6	**82**	81 4/16	28.4
35	34	12.1	**84**	83 4/16	28.9
36	36	12.8	**86**	85 3/16	29.6
38	37 15/16	13.5	**88**	87 3/16	30.3
40	39 15/16	14.2	**90**	89 2/16	30.8
42	41 14/16	15.2	**92**	91 2/16	31.6
44	43 14/16	15.7	**94**	93 1/16	32.2
46	45 13/16	16.2	**96**	95 1/16	32.2
48	47 13/16	17.1			
50	49 12/16	17.8			

RGBW

Nominal Length (in)	Actual Length	Watts
5	4 8/16	1.9
9	8 7/16	3.8
13	12 6/16	5.5
17	16 5/16	7.7
21	20 4/16	9.4
25	24 3/16	11.5
29	28 2/16	13.5
33	32 1/16	15.4
36	36	17.1
40	39 15/16	18.9
44	43 14/16	20.6
48	47 13/16	22.5
52	51 12/16	24.2
56	55 11/16	25.9
60	59 10/16	27.7
64	63 9/16	29.4
68	67 8/16	31.1
72	71 7/16	32.9
76	75 6/16	34.6
80	79 5/16	35.8
84	83 4/16	37.4
88	87 3/16	38.7
92	91 2/16	40.4
96	95 1/16	42.2

PIXEL

Nominal Length (in)	Actual Length	Watts	Pixel Qty
5	4 9/16	1.8	1
9	8 8/16	3.6	2
13	12 7/16	5.6	3
17	16 6/16	7.7	4
21	20 5/16	9.6	5
25	24 4/16	11.5	6
29	28 3/16	13.7	7
33	32 2/16	15.6	8
37	36 1/16	17.5	9
40	40	19.1	10
44	43 15/16	21.3	11
48	47 14/16	22.9	12
52	51 13/16	25	13
56	55 12/16	26.9	14
60	59 11/16	28.5	15
64	63 10/16	30.4	16
68	67 9/16	32.3	17
72	71 8/16	34.3	18
76	75 7/16	36.2	19
80	79 6/16	38.1	20
84	83 5/16	40	21
88	87 4/16	41.7	22
92	91 3/16	43.6	23
96	95 2/16	45.2	24

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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

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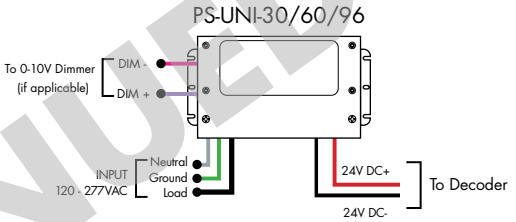
Power Supplies

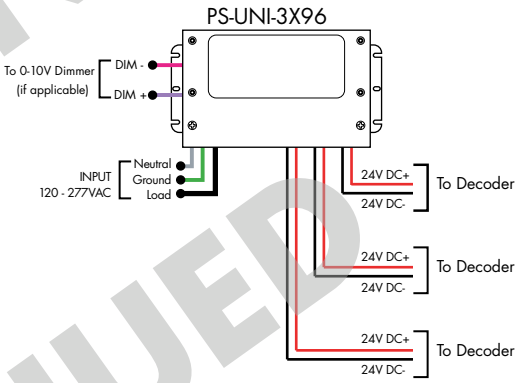
See fixture and power supply instructions & spec sheet for wiring information. Dimming possible in select models - view Luminii website for list of compatible dimmers.

For use with RGB/RGBW

Ordering Code - Universal Dimming Power Supplies 0.1% 120VAC - 277VAC

MODEL		INPUT CONTROL		WATTAGE		OUTPUT
	–		–		–	
PS - Power Supply, 120-277VAC		UNI - 0-10V Dimming (0.1%), Phase Dimming (0.1%)		30 - 30 Watts 60 - 60 Watts 96 - 96 Watts 3x96 - 3x96 Watts		24 - 24 VDC





MODELS	PS-UNI-30W	PS-UNI-60W	PS-UNI-96W	PS-UNI-3X96W
Length	6.50"	7.40"	8.66"	11.85"
Width	3.73"	3.73"	3.73"	4.32"
Depth	1.61"	1.61"	1.61"	1.81"

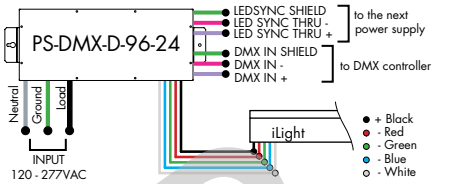
REQUIRES A CONTROLLER AND A DECODER TO WORK PROPERLY

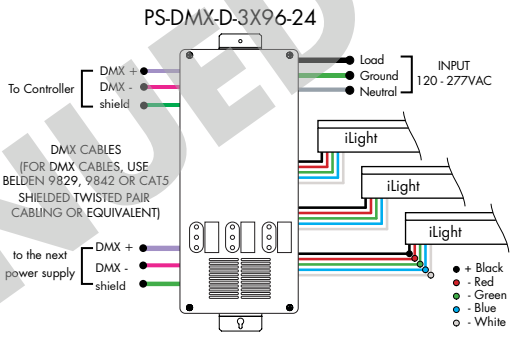
For use with RGB/RGBW

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 3X96 - 3X96 Watts		24 - 24 VDC

DMX CABLES
(FOR DMX CABLES, USE BELDEN 9829, 9842 OR CAT5 SHIELDED TWISTED PAIR CABLING OR EQUIVALENT)



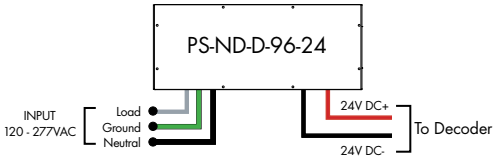


MODELS	96W	3X96
Length	14.40"	15.00"
Width	5.20"	6.62"
Depth	2.60"	4.56"

For use with RGB/RGBW/Pixel

Ordering Code - Non-Dimming Power Supply 120VAC - 277VAC

MODEL		INPUT CONTROL		ENVIRONMENT		WATTAGE		OUTPUT
	-		-		-		-	
PS - PSV Series		ND - Non Dimming		D - Dry		96 - 96 Watts		24 - 24 VDC



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

REQUIRES A CONTROLLER AND A DECODER TO WORK PROPERLY

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Controllers and Decoders

For use with RGB/RGBW Power Supplies

ORDERING CODE

MODEL

DDMX-RGBW

DDMX-RGBW - DMX decoder

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

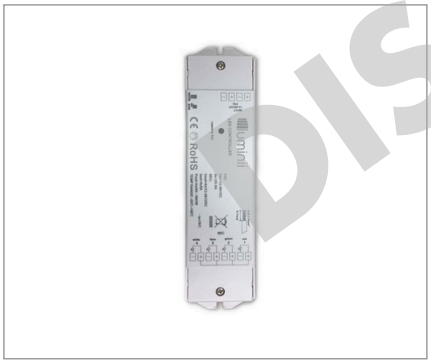
12-36 VDC

Power Capacity

up to 96W at 24V

Operating Temperature Range

from -4°F to +122°F in case



ORDERING CODE

MODEL

RGBW-RC-R

RGBW-RC-R - RGBW receiver

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-SR

RGBW-SR - RGBW signal repeater

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

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Controllers and Decoders

For use with RGB/RGBW Power Supplies

ORDERING CODE

MODEL

RGBW-MC3

RGBW-MC3 - 4-zone RGBW controller

Easy to operate wireless interface suitable for static or color changing scenes. Control 4 different color zones separately or at the same time. RGBW receiver (RGBW-RC-R) required for operation. Assign multiple receivers per zone to cover a large area.

Color wheel enables highly stable and sensitive color control functionality. Create your own color changing sequences with ease and flexibility.

Power

qty 3 AAA batteries

Scenes

up to 4 unique zones

Signal

Wireless (RF)

Energy Saving

Deactivates after 10 seconds of inactivity

Color Parameters

- Brightness
- Saturation
- Primary colors
- Speed of color changing sequence
- Fading

ORDERING CODE

MODEL	ZONES	COLOR
DMX-DMX Controller	3Z-Three Zone 1Z-One Zone	RGBW-Red,Green, Blue,& White

DMX /Wireless RGB-W wall-mount controller controls DMX lighting fixtures, wireless control of RGB-W lighting fixture or use both simultaneously. Fits in any standard US switch box. Includes all the outputs in the back of the controller.

Control brightness levels with a single touch, personalize and memorize 3 different scenes, and even create 3 variations of white.

Features

- 2 in 1 in-Wall Controller: DMX Control or Wireless RGB-W
- 65,000 Color Options, Dimming and Speed Control
- Memory Function
- 50 Foot Wireless Range
- Easily Fits Standard US Switch Boxes
- Touch Sensitive Glass Surface
- Includes 10 Built in Programs, or Create and Play Your Own

Operating Voltage

12 - 24V DC

Color Parameters

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

For use with 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

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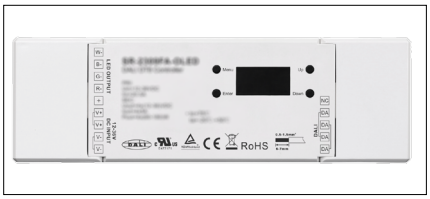
Controllers and Decoders

For use with 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.

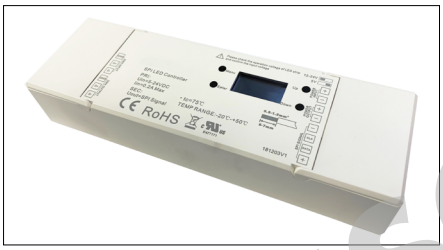
The control functions are achieved through a free application download for Android and iOS devices called REALCOLOR.

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 Pixel Power Supplies - Pair with PS-ND-96-24



ORDERING CODE

MODEL

SR-DMX-SPI

SR-DMX-SPI - Smart Pixel Decoder

The SR-DMX-SPI is a smart LED pixel decoder that controls 12-24V RGB/RGBW pixel LED strips with SPI signal.
Designed with an OLED backlit panel, the pixel controller allows for easy configuration of most settings. Four push buttons provide access to configuration settings through OLED display.

Features

- SPI signal output for RGB/RGBW pixel light control
- DMX512 controllable or RF remote controllable. 512 DMX decoding channels
- 35 built in sequences for chasing, changing, and static colors under RF mode
- Works with integrated DMX consoles and sequencing software
- Supports 44 selectable pixel IC protocols including UCS2903 and UCS2904

Operating Voltage
DC5V - DC12-24V

Power capacity
up to 96W at 24V

Operating temperature range
-4°F to +122°F

Pixel Capacity
RGB - 170 pixels individually
(3,333 pixels at the same time)
RGBW - 128 RGBW pixels individually
(2,499 pixels at the same time)

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