Plexineon Rings
Catenary Mount
RGB, RGBW and RGBW Pixel

Horizontal Ring RGBW-Pixel

Vertical Ring RGBW

- For interior and exterior accent lighting
- Neon look providing a clear line of light visible for miles
- Includes Turnbuckles, Collar, 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

0.40" 1.44"
Without Mounting

0.65" 2.31"
With Horizontal Catenary Mounting

1.00" 2.19"
With Vertical Catenary Mounting
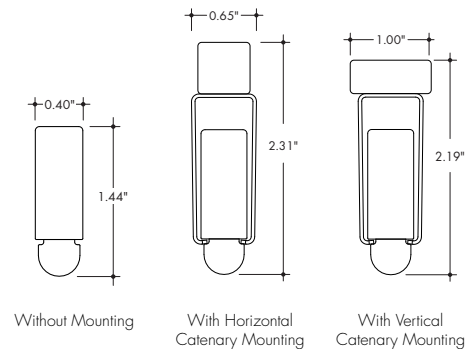
Technical Information

RING OUTER DIAMETER* (inch)		Plexineon RGB	Plexineon RGBW	Plexineon Pixel RGBW
EFFICACY		17.5 lm/W	17.1 lm/W	14.7 lm/W
Ø36 (Ø3ft)	Lumen Output	679 lm	792 lm	792 lm
	Power Consumption	38.6 W	46.2 W	53.7 W
Ø72 (Ø6ft)	Lumen Output	1357 lm	1583 lm	1583 lm
	Power Consumption	77.2 W	92.3 W	107.4 W
Ø144 (Ø12ft)	Lumen Output	2714 lm	3166 lm	3166 lm
	Power Consumption	154.6 W	184.7 W	214.9 W
Ø288 (Ø24)	Lumen Output	5429 lm	6333 lm	6333 lm
	Power Consumption	309.1 W	369.5 W	429.8 W

All channels full on.

*Rings will be made of equal sections no longer than 96" arc length. Rings exceeding 96W will have allowances for additional power feeds.

RGBW (3000K)

Model	TM-30			
	CRI	R_f	R_g	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	RING DIAMETER[2]	RING TYPE	CCT	OUTPUT	LENS	MOUNTING	FINISH	POWERFEED POSITION/TYPE
PX - Plexineon[1]	____ - Ring outer diameter in inches, 6"-144" (12ft)	HR - Horizontal Ring VR - Vertical Ring[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 - Male Quick Connect One End, Female Quick Connect Other End

1. Standard lead time 8 weeks.
2. Rings will be made of equal sections no longer than 96" arc length. Tolerance on size of diameter is +/- 1".
3. Vertical Ring max diameter is 72", min diameter is 24"

4. Catenary Mount fixtures include a fixture mounting frame and all mounting components necessary to attach to Catenary Cable (by others). 2 mounting clips included for every 12" of diameter, with a minimum of 3 clips. Mounting frames over dia48" are ship in multiple pieces and are assembled on site. Decorative Clips match the fixture finish.
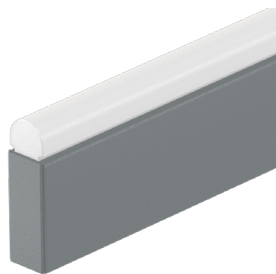
Finish Options

BK
Matte Black Finish

WH
Matte White Finish

GY
Matte Grey Finish

GG
Gloss Grey Finish
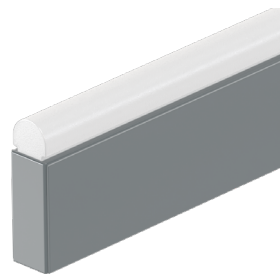
Mounting Components

CD
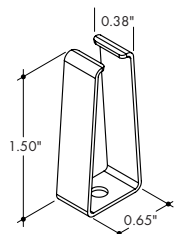
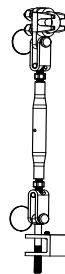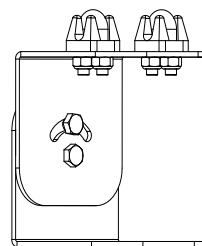| Catenary Mount, Decorative Clip	Mounting Frame	Mounting Frame Joiner	Adjustable Turnbuckle	Adjustable Collar
0.38" 1.50" 0.65"				
Thinner clip with finish options to match fixtures	Mounting clips are riveted at the factory to the Mounting Frame. Finish matches Ordering Code Finish selected	Assembles Mounting Frame together for runs over 96" (8ft)	Able to adjust up to 2.5" vertically	For vertical catenary rings
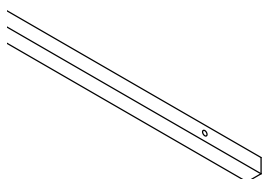
Additional Material
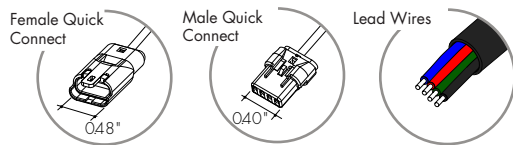
70-TOL02-001-01

Mounting Clip Installation Tool
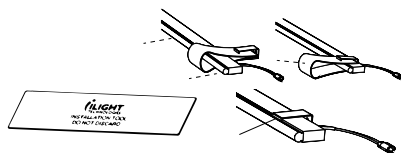
Use for installation of Plexineon into Mounting Clips

Powerfeed and Connectors

For use with RGB

Female Quick Connect

Male Quick Connect

Lead Wires

.048"

.040"

60-SJ-C4-0002-01
Female RGB Quick Connect
with 6" flying leads
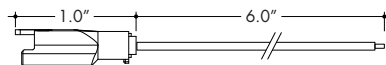
1.0"   6.0"

Female Quick Connect with flying leads can be connected to the Power Supply at the start of a run. Can also be used with the Male Quick Connect to make wire jumpers.

Also available with longer Flying Leads
60-SJ-C4-0004-01
Female RGB Quick Connect
with 120" flying leads

60-SJ-C4-0001-01
Male RGB Quick Connect
with 6" flying leads

0.6"   6.0"

Male Quick Connect with flying leads can be used to make wire jumpers.

Also available with longer Flying Leads
60-SJ-C4-0003 -01
Male RGB Quick Connect
with 120" flying leads

For use with RGBW

Female Quick Connect

Male Quick Connect

Lead Wires

.065"

.065"

60-SJ-C5-0002-01
Female RGBW Quick Connect
with 6" flying leads

1.5"   6.0"

Female Quick Connect with flying leads can be connected to the Power Supply at the start of a run. Can also be used with the Male Quick Connect to make wire jumpers.

Also available with longer Flying Leads
60-SJ-C5-0004-01
Female RGBW Quick Connect
with 120" flying leads

60-SJ-C5-0001-01
Male RGBW Quick Connect
with 6" flying leads
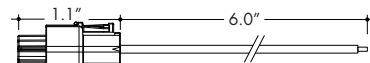
1.1"   6.0"

Male Quick Connect with flying leads can be used to make wire jumpers.

Also available with longer Flying Leads
60-SJ-C5-0003 -01
Male RGBW Quick Connect
with 120" flying leads

For use with Pixel

Female Quick Connect

Male Quick Connect

Lead Wires

.048"

.040"
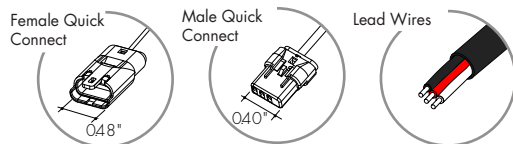
60-SJ-C3-0002-01
Female Pixel Quick Connect
with 6" flying leads
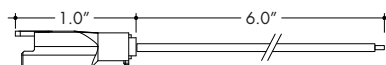
1.0"   6.0"

Female Quick Connect with flying leads can be connected to the Power Supply at the start of a run. Can also be used with the Male Quick Connect to make wire jumpers.
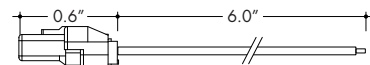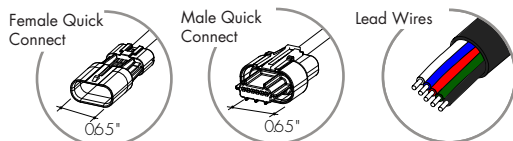
Also available with longer Flying Leads
60-SJ-C3-0006-01
Female Pixel Quick Connect
with 384" flying leads

60-SJ-C3-0008-01
Female Pixel Quick Connect
with 120" flying leads

60-SJ-C3-0001-01
Male Pixel Quick Connect
with 6" flying leads
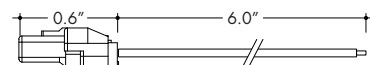
0.6"   6.0"

Male Quick Connect with flying leads can be used to make wire jumpers.
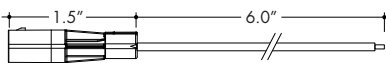
Also available with longer Flying Leads
60-SJ-C3-0005 -01
Male Pixel Quick Connect
with 384" flying leads

60-SJ-C3-0007 -01
Male Pixel Quick Connect
with 120" flying leads

Ring Types

HR
Horizontal Ring

Light Direction:
Forward

Outer Diameter
(Use this dimension for Ordering Code)

VR
Vertical Ring

Light Direction:
Outward

Outer Diameter
(Use this dimension for Ordering Code)

ilight
by luminii

Sample Layout

PX-72-HR-RGBW-PXSPI-SO-F-CD-GG-B-4
Plexineon Horizontal Ring, Catenary Mount, Decorative Clips

Catenary Cable (by other provider) up to Ø1/4" Max

Turnbuckle

Mounting Frame

Mounting Frame Joiner

60-SJ-0002-01

Catenary Mount, Decorative Clips

60-SJ-0001-01

Sample Layout

- Horizontal Ring

10.5″ to 13.0″

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

Cable Eye (by others)

Catenary Cable (by others)

Building Facade (by others)

Pole (by others)

Sample Layout

PX-36-VR-RGBW-PXSPI-SO-F-CD-GG-B-4
Plexineon Vertical Ring, Catenary Mount, Decorative Clips

Catenary Cable (by other provider) up to Ø1/4" Max

Collar

Catenary Mount, Decorative Clips

Mounting Frame

60-SJ-0002-01   60-SJ-0001-01
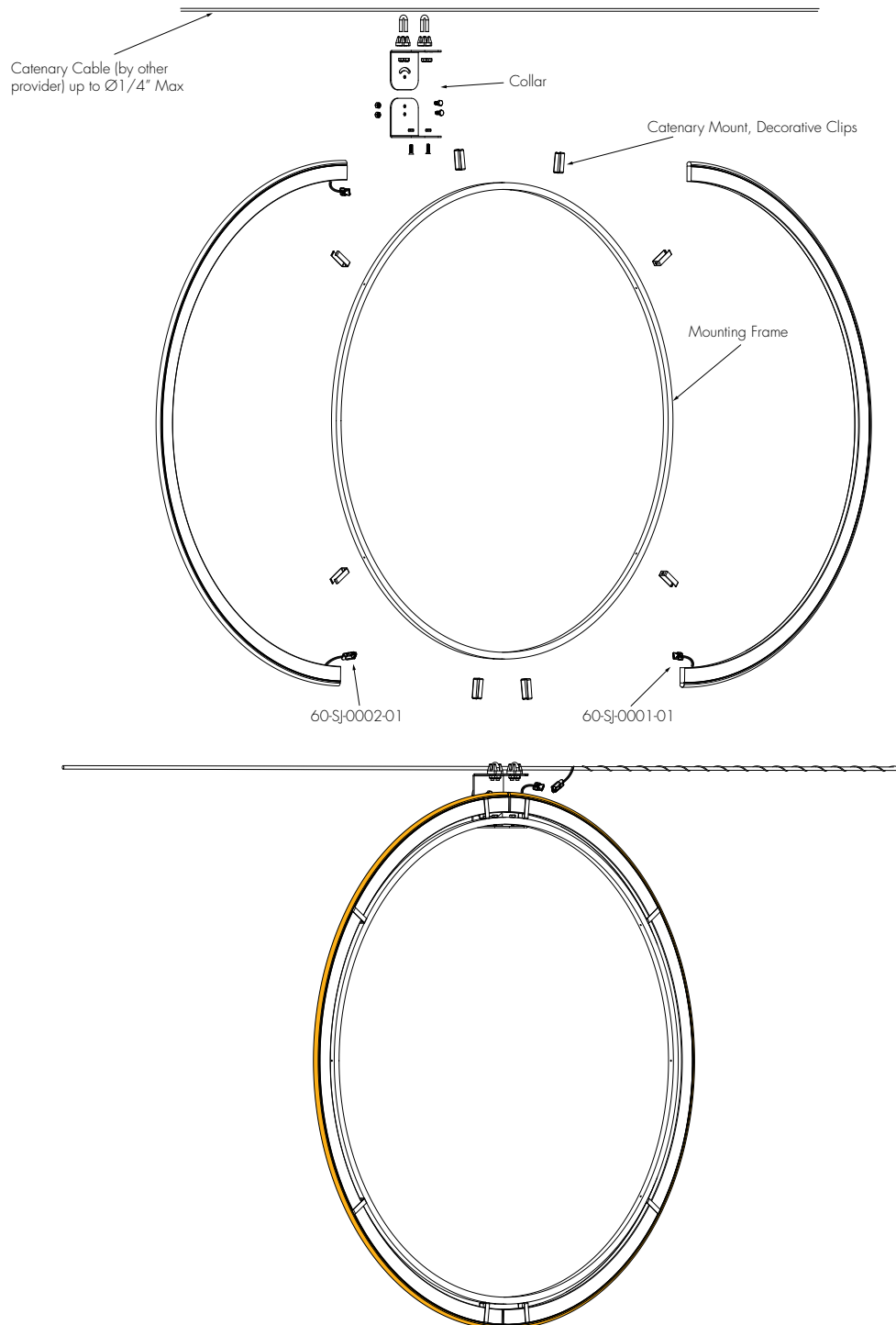
Plexineon Rings
Catenary Mount
RGB, RGBW and RGBW Pixel

Sample Layout

- Vertical Ring

Collar provides up to 45° angular adjustability.
1 Collar per each plexineon vertical ring.

5in

3in

0°   30°   45°

Cable Eye (by others)

Catenary Cable (by others)

Building Facade
(by others)

Pole (by others)

Plexineon Rings
Catenary Mount
RGB, RGBW and RGBW Pixel

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 Diameter (in)	Watts	Nominal Length (in)	Watts
12	12.8	217	236.8
24	26.2	222	242.4
36	39	227	246.4
48	52.4	232	252.8
60	64.4	237	257.6
72	78.6	242	257.6
84	90.9	244	266.4
96	104.8	250	272.7
156	170.4	256	277.2
159	173.4	261	284.4
163	177.6	267	289.8
167	181.8	273	289.8
171	184.8	272	296
174	189.6	278	303
178	193.2	284	308
182	193.2		
181	198.8		
186	202.3		
190	207.2		
195	212.1		
199	215.6		
203	221.2		
208	225.4		
212	225.4		

RGBW

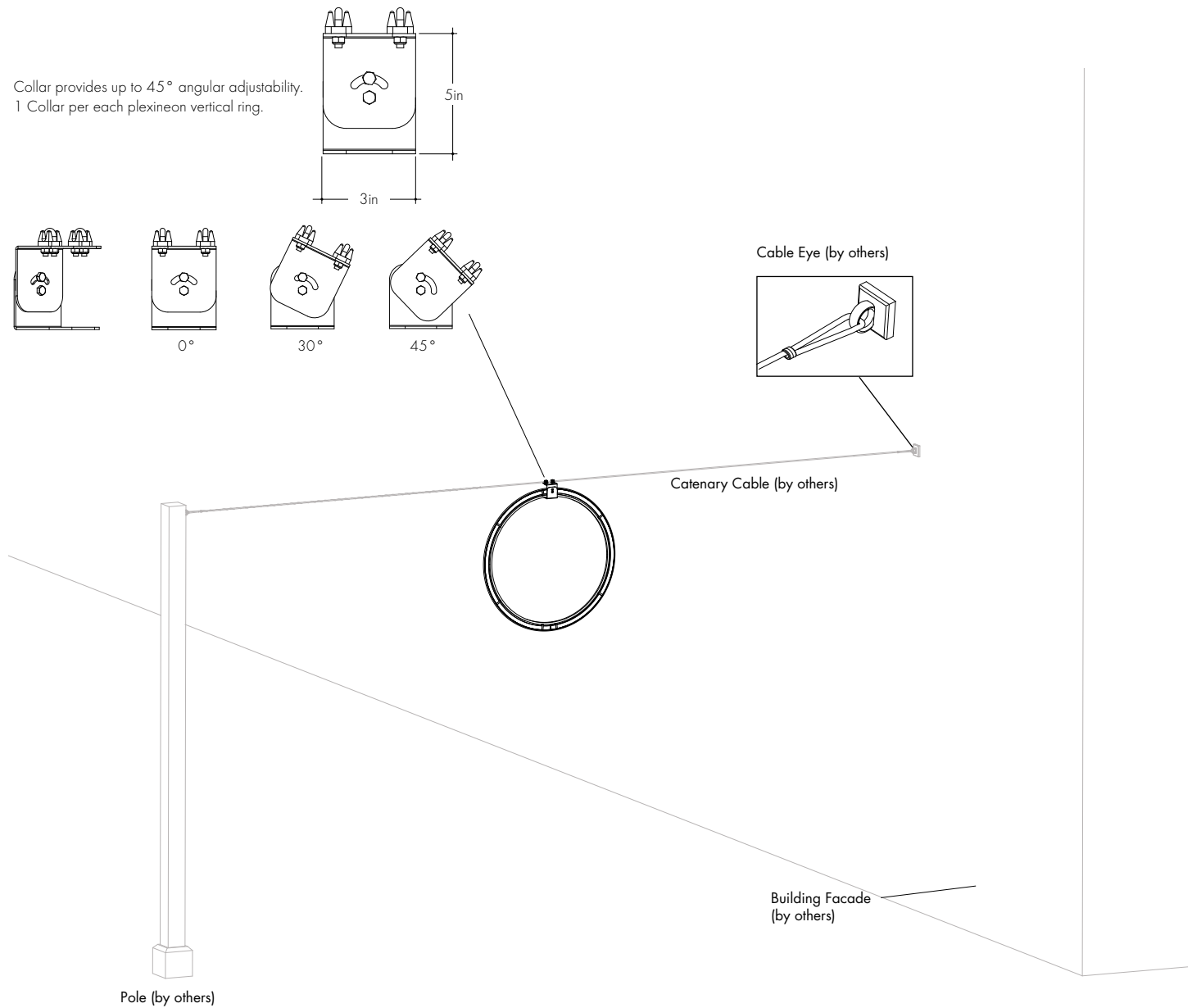| Nominal Length (in)	Watts
12	17.1
24	34.6
36	51.8
48	69.2
72	103.8
84	116.1
96	138.4
120	173
159	224.4
167	232.2
174	242.4
182	253.2
177	250.6
186	261.8
195	270.9
203	282.8
212	295.4
222	309.6
232	323.2
242	337.6
239	336.6
250	348.3
261	363.6
273	379.8
265	374
278	387

PIXEL

Nominal Length (in)	Watts	Pixel Qty
12	17.5	9
24	36.2	19
36	53.8	28
48	72.4	38
72	108.6	57
84	125.1	66
96	144.8	76
120	181	95
159	240	126
167	250.2	132
174	261.6	138
182	271.2	144
177	266.7	140
186	280	147
195	291.9	154
203	305.2	161
212	316.4	168
222	333.6	176
232	348.8	184
242	361.6	192
239	360	189
250	375.3	198
261	392.4	207
273	406.8	216
265	400	210
278	417	220

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

Common Applications

Custom Indoor Designs | Coves | Signs | Building Facades | Lobbies | Hallways | Statement Pieces | Restaurants
Corporate Offices | Schools | Residential Towers | Parking Garages | Hotels | Bridges | Benches | Airports
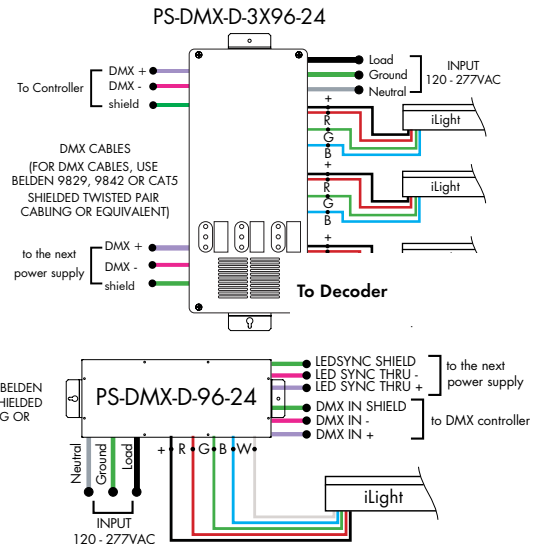
Power Supplies

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

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

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

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

PS-DMX-D-3X96-24

To Controller — DMX +, DMX -, shield

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

Load, Ground, Neutral — INPUT 120 - 277VAC

R G B + / R G B + — iLight

to the next power supply — DMX +, DMX -, shield

To Decoder

PS-DMX-D-96-24

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

LEDSYNC SHIELD, LED SYNC THRU -, LED SYNC THRU + — to the next power supply

DMX IN SHIELD, DMX IN -, DMX IN + — to DMX controller

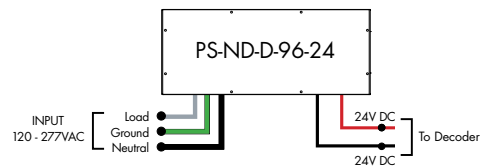Neutral, Ground, Load — + R G B W — iLight

INPUT 120 - 277VAC

Ordering Code Non-Dimming Power Supply 120VAC - 277VAC
Requires Controller and Decoder

MODEL	–	INPUT CONTROL	–	ENVIRONMENT	–	WATTAGE	–	OUTPUT
PS - Power Supply, 120-277VAC		ND - Non Dimming		D - Dry		96 - 96 Watts		24 - 24 VDC

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

PS-ND-D-96-24

INPUT 120 - 277VAC — Load, Ground, Neutral

24V DC / 24V DC — To Decoder

Ordering Code Universal Dimming Power Supplies 1% 120VAC - 277VAC
Requires Controller and Decoder

MODEL	–	INPUT CONTROL	–	ENVIRONMENT	–	WATTAGE	–	OUTPUT
PS - Power Supply, 120-277VAC		UNI - 0-10V Dimming, Phase Dimming		D - Dry W - Wet		30 - 30 Watts 60 - 60 Watts 96 - 96 Watts 3x96 - 3x96 Watts		24 - 24 VDC

Compatibility: View a complete list of compatible dimmers on product page (Link)

0-10V - 1% dimming
MLV/ELV/TRIAC - 1% dimming, consult dimming compatibility chart

MODELS	PS-UNI-W-30W	PS-UNI-W-60W	PS-UNI-W-96W	PS-UNI-W-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"

MODELS	PS-UNI-D-30W	PS-UNI-D-60W	PS-UNI-D-96W	PS-UNI-D-3X96W
Length	8.77"	8.77"	8.11"	9.94"
Width	4.27"	4.27"	5.60"	7.61"
Depth	1.83"	1.83"	1.83"	2.02"

PS-UNI-D-96 / PS-UNI-W-96

DO NOT USE — DIM -, DIM +

INPUT 120 - 277VAC — Neutral, Ground, Load

24V DC+ / 24V DC- — LineLED

PS-UNI-D-3X96 / PS-UNI-W-3X96

DO NOT USE — DIM -, DIM +

INPUT 120 - 277VAC — Neutral, Ground, Load

24V DC+ / 24V DC- — To Decoder
24V DC+ / 24V DC- — To Decoder
24V DC+ / 24V DC- — To Decoder

Controllers and Decoders

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

MODEL

RGBW-RC-R

RGBW-RC-R - RGBW receiver

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

MODEL

RGBW-SR

RGBW-SR - RGBW signal repeater

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.
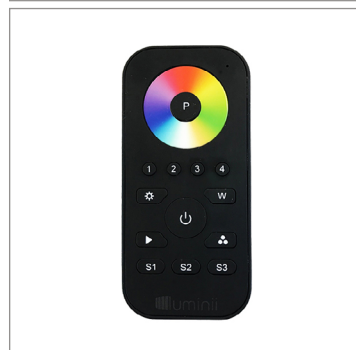
Operating Voltage
12-36 VDC

Power Capacity
up to 96W at 24V

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

MODEL

DDMX-RGBW

DDMX-RGBW - DMX decoder

ilight
by luminii

Controllers and Decoders

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
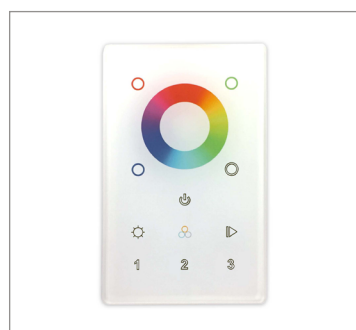qty 3 AAA batteries

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

MODEL

RGBW-MC3

RGBW-MC3 - 4-zone RGBW controller

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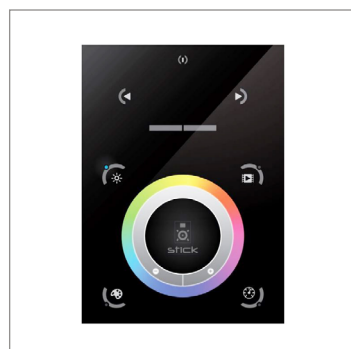
Features
- 2 in 1 in-Wall Controller: DMX Control or Wireless RGB-W
- 65,000 Color Options, Dimming and Speed Control
- Memory Function
- 50 Foot Wireless Range
- Easily Fits Standard US Switch Boxes
- Touch Sensitive Glass Surface
- Includes 10 Built in Programs, or Create and Play Your Own

Operating Voltage
12 - 24V DC

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

MODEL		ZONES		COLOR
	-		-	

DMX - DMX Controller

3Z - Three Zone
1Z - One Zone

RGBW - Red, Green, Blue,& White

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

MODEL

TSDMX-E

TSDMX-E - Touchscreen DMX controller

Controllers and Decoders

The SR-DMX-SPI is a smart LED pixel decoder that controls 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 are available for control of the LED functions.
*For pixel only.

MODEL

SR-DMX-SPI

SR-DMX-SPI - Smart Pixel Decoder

Features

- 2 in 1 in-Wall Controller: DMX Control or Wireless RGB-W
- SPI signal output for RGB/RGBW pixel light control
- DMX512 controllable and RF/WIFI remote controllable
- Capable of addressing up to 1020 RGB pixels & 765 RGBW pixels
- OLED panel allows for easy configuration

Operating Voltage

12 - 36V DC

Power capacity

up to 96W at 24V

Operating temperature range

from -4°F to +122°F in case

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

MODEL

DDMX-5CH-RDM-PRO

DDMX-5CH-RDM-PRO- DMX512 Decoder

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

MODEL

RGBW-WI-R

RGBW-WI-R - WIFI generator