LineLED RGB 42 | Dynamic Color LED strip – 24VDC

optic arts
by luminii

Features

LLRGB42 is a small profile, bright, color-changing LED strip. Increased pitch provides more continuous light, while a High Output option offers incredible brightness. Luminii attention to color quality provides balanced output across the color gamut, allowing production of millions of beautiful colors.

Mounting
LLED strip is equipped with 3M™ adhesive transfer tape (9472LE).

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

Declare. CE Single Bin +/- 30 CCT
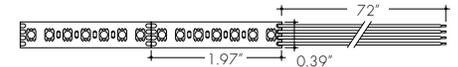LM80 RoHS
c(UL)us LISTED TITLE 24 JA8 COMPLIANT DIM

RGB

Technical information

TYPE	LLRGB42	
OUTPUT OPTIONS	**SO**	**HO**
Lumens Output (all channels full on)	210 lm/ft	309 lm/ft
Average Power Consumption (for a 4' section)	4.5 W/ft	8.3 W/ft
Cutting Increment (in)	1.97"	
Pitch Length	0.28"	
Efficacy	47 lm/W	37 lm/W
Max Run Length (in series)	28 ft	13 ft
Dimensions	0.39" W x 0.07" H	

Dominant Wavelength	
Color	**RGB/RGBW**
Red	620nm
Green	525nm
Blue	467nm

Section Start/End Options

SL
Soldered lead wires (72")

72"
1.97"   0.39"

NC
No connector

0.39"
1.97"
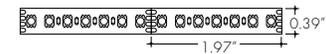
LF
Lead Female 3" cable

3.0"
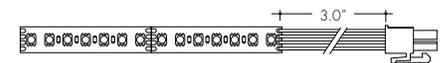
LM
Lead Male 3" cable

3.0"
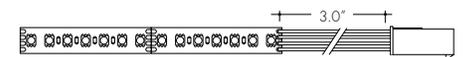
Ordering Code

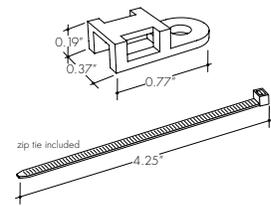| MODEL	OUTPUT	SECTION START	SECTION END	LENGTH
LLRGB42 - Line LED LLRGB42	SO - Standard HO - High	SL - Soldered lead wires (72") LF - Female Quick Connect LM - Male Quick Connect NC - No Connector	SL - Soldered lead wires (72") LF - Female Quick Connect LM - Male Quick Connect NC - No Connector	Ordered in one foot increments. See chart above for max run length.

Accessories

CL1
Mounting clip

Recommended every 12" when LineLED strip is facing down
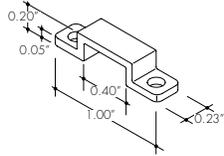
LVSP-4T-BK
Low Voltage, 4 Terminal Splice Box, Black
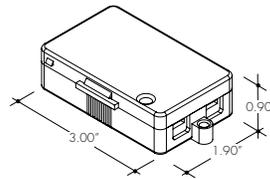
LL.ZIP
Cable/Wire Strain Relief Clip

Lens Options / Light Transmission

C	HF	GR	F	FF	R	S	Q	13°
Clear	Half (50%) Frosted	Graze	Frosted	Flat Frosted	Raised	Square Frosted	Round Square Frosted	13° Semi-Frosted

BOS Channel (BOSC-XX)

0.37" 0.60" 0.34" 0.48" 0.60"

F	SI	R	G
52%	66%	60%	76%

CLA Channel (CLAC-XX)

0.84" 0.53" 0.64" 0.77"

S	Q
62%	65%

MCAL Channel (MCALC-XX)

2.60" 1.50"

C
86%

K45V Channel (K45V-XX)

0.50" 0.75" 0.75"

C	HF	F	13°
82%	68%	45%	76%

K45R Channel (K45R-XX)

0.50" 0.75" 0.75"

RF
61%

KiloR Channel (KILORC-XX)

1.50" 1.05" 1.44" 0.78" 2.04"

C	F
85%	75%

Kilo Channel (KILOC-XX)

1.50" 0.78" 1.05" 1.50"

C	F
85%	75%

KL Channel (KLC-XX)

0.62" 0.30" 0.22" 0.65" 0.83"

C	HF	F
81%	67%	51%

KRL Channel (KRLC-XX)

0.83" 0.65" 0.36" 0.45" 0.22" 0.62" 1.21"

C	HF	F
81%	67%	51%

KM Channel (KMC-XX)

0.46" 0.49" 0.42" 0.51" 0.69"

C	HF	F	FF	R	GR
82%	68%	45%	52%	58%	56%

KRM Channel (KRMC-XX)

0.69" 0.51" 0.42" 0.63" 0.46" 1.00"

C	HF	F	FF	GR
82%	68%	45%	52%	56%

KS Channel (KSC-XX)

0.47" 0.30" 0.22" 0.51" 0.69"

C	HF	F	FF	R	M
86%	71%	56%	60%	64%	85%

KRS Channel (KRSC-XX)

0.69" 0.51" 0.22" 0.44" 0.47" 1.01"

C	HF	F	FF	M
86%	71%	56%	60%	85%

KXL Channel (KXLC-XX)

0.62" 0.50" 0.41" 0.65" 0.83"

C	HF	F
79%	66%	49%

KRXL Channel (KRXLC-XX)

0.83" 0.65" 0.55" 0.41" 0.63" 0.62" 1.21"

C	HF	F
79%	66%	49%

RO15 Channel (RO15-XX)

0.71" Ø1.50" 0.55" 1.40"

C	F
65%	41%

Led Dotting per Extrusion

using the frosted lens option

Extrusion	LLRGB42
KSC, KRSC	CD
KMC, KRMC, K45VC, K45RC	ND
KXLC, KRXLC	ND
KLC, KRLC	CD
RO	ND
BOSC	ND
CLAC	ND
KILOC, KILORC	ND

CD   SD   ND

CD - Clear Dotting
SD - Slight Dotting
ND - No Dotting

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).

Power Consumption

Tested at full power with PDC Series power supplies.

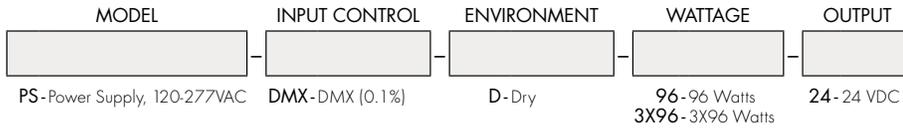|	SO		HO	
LLRGB42				
Nominal Length	W/ft	Total wattage	W/ft	Total wattage
1	4.4	4.4	8.6	8.6
2	4.5	8.9	8.3	16.6
3	4.4	13.0	8.3	24.2
4	4.5	17.5	8.3	32.7
5	4.4	21.7	8.1	39.8
6	4.4	26.9	8.1	49.0
7	4.3	30.7	7.9	56.2
8	4.3	34.7	7.8	62.2
9	4.3	38.6	7.7	69.7
10	4.3	42.6	7.5	74.9
11	4.2	46.3	7.0	77.4
12	4.1	49.3	6.8	81.7
13	4.1	53.6	6.5	84.2
14	4.1	56.6		
15	4.0	59.7		
16	4.0	63.6		
17	3.9	66.9		
18	3.8	69.5		
19	3.8	71.4		
20	3.7	73.6		
21	3.5	73.5		
22	3.4	75.9		
23	3.3	76.8		
24	3.3	77.8		
25	3.2	78.8		
26	3.1	80.6		
27	3.0	81.4		
28	3.0	84.3		

Voltage Drop Calculator

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

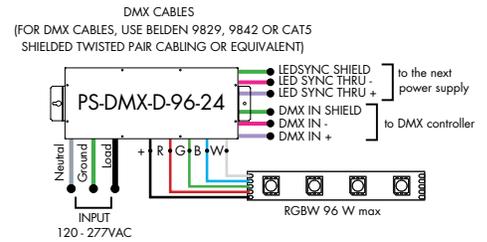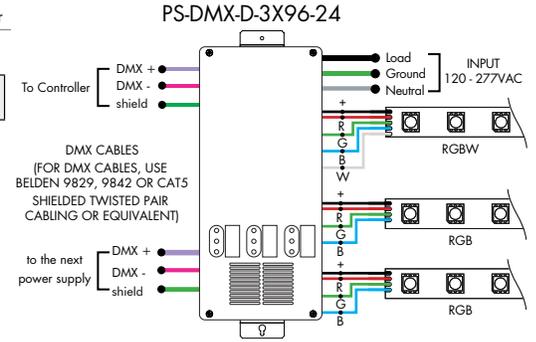| Wattage [W]	Maximum Wire Length From Power Supply to Start of Run [ft]						
	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG
5	1088.2	684.4	430.3	270.6	170.2	107.1	67.3
10	544.1	342.2	215.1	135.3	85.1	53.5	33.7
15	362.7	228.1	143.4	90.2	56.7	35.7	22.4
20	272.0	171.1	107.6	67.7	42.6	26.8	16.8
25	217.6	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.
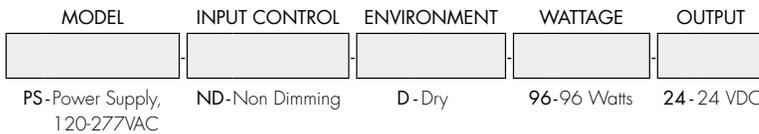
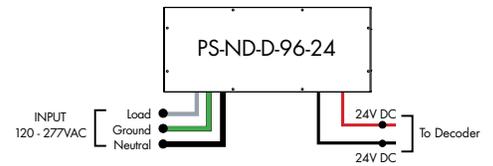### Ordering Code DMX Dimming Power Supplies 0.1% 120VAC - 277VAC   Requires Controller

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
Load, Ground, Neutral — INPUT 120 - 277VAC
+ R G B W — RGBW
+ R G B — RGB
+ R G B — RGB

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

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

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

PS-DMX-D-96-24

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 — RGBW 96 W max
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
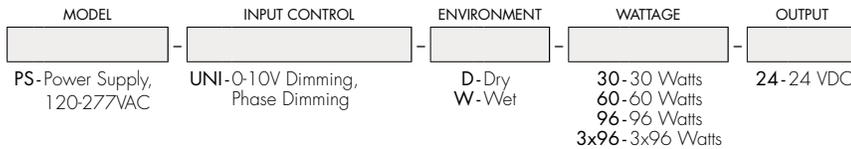
Compatibility: View a complete list of compatible dimmers on product page (Link)

0-10V - 1% dimming
MLV/ELV/TRIAC - 1% dimming, consult dimming compatibility chart
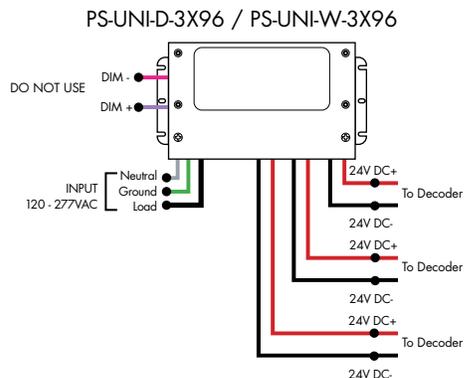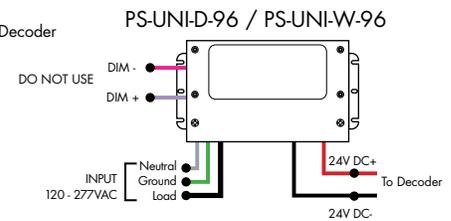
MODELS	PS-UNI-W-30W	PS-UNI-W-60W	PS-UNI-W-96W	PS-UNI-W-3X96W
Length	6.50″	7.40″	8.66"	11.85"
Width	3.73″	3.73″	3.73"	4.32"
Depth	1.61″	1.61″	1.61"	1.81"

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- — To Decoder

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

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

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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

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

PWM Output Resolution Ratio
8 or 16 bit

Inputs
RJ45, XLR-5Pin, Terminal Block

PWM Output Frequency
500Hz - 30KHz

DMX Channels
1 to 5 settable

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

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

Power Supply
PI-130-24 (included)

MODEL

RGBW-WI-R

RGBW-WI-R - WIFI generator