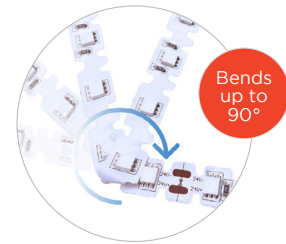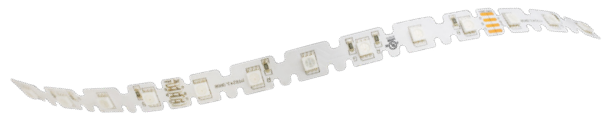## RGB MATRIX 3.0 RIBBONLYTE

Color Changing RGB Matrix 3.0 RibbonLyte bends and conforms to curves! Specially designed circuit boards allow Matrix RibbonLyte to flex and bend in any direction with 3-in-1 RGB LEDs that can be programmed to create up to 16 million colors. Unlike traditional RibbonLyte, RGB Matrix bends up to 90 degrees, making it the perfect choice for rounded coves, sharp angles and other intricate lighting applications.

- Ideal for curves, sharp angles, circular coves & complex shapes
- RGB 3-in-1 LEDs
- 3.0 W/ft (9.8 W/m)
- 4.84 in. (123 mm) cut lengths
- IP20
- Closet rated in channel applications

Applications:

Commercial
Entertainment
Healthcare

Hospitality
Museums
Public Spaces

Residential
Retail

Bends up to 90°

ORDERING GUIDE

Category	CRI	Ribbon Type & IP Rating	Wattage + Color
RB	0	RGBM20	3.0RGB
RB - RIBBONLYTE	**0** - Color Changing	**RGBM20** - RGB Matrix IP20	**3.0RGB** - 3.0 RGB

CONNECTION OPTIONS

1. End Feed Bare Wire Connection (**Default Option**)

2. IP67 Connector Input

3. Soldered Daisy Chain

4. Daisy Chain with IP67 Connectors

5. Bare Wire on Both Ends

Standard cable length if not specified:
1. 12 in. cable with bare wire (custom length up to 20 feet)
2. Standard 12 in. cable with IP67 connectors (custom length up to 10 feet)
3. Daisy chain with 3 in. cable between runs (custom length up to 36 in.)
4. 3 in. cable between IP67 connector and RibbonLyte (custom length up to 18 in.)
5. Standard 12 in. cable with bare wire (custom length up to 10 feet)
Note: IP67 connectors are used for both IP20 and IP65/IP68 RibbonLyte
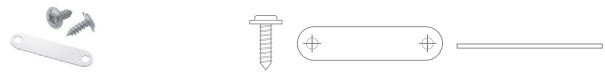
AVAILABLE COLORS

RGB

SPECIFICATIONS / DIAGRAM / USAGE GUIDELINES

RGB MATRIX 3.0			
Operating Voltage	24 V		
Colors	Red, Green, Blue 3-in-1 LED		
	Red	Green	Blue	All On
Power Consumption	1.0 W/ft (3.28 W/m)	1.0 W/ft (3.28 W/m)	1.0 W/ft (3.28 W/m)	3.0 W/ft (9.8 W/m)
Lumens	38 lm/ft (124.64 lm/m)	93.33 lm/ft (306.12 lm/m)	26.78 lm/ft (87.84 lm/m)	147.79 lm/ft (484.75 lm/m)
Efficacy	38 lm/W	93 lm/W	27 lm/W	49 lm/W
Current (mA) - 24V	125 mA/ft (410 mA/m)		
LED Pitch	15 LEDs/ft (50 LEDs/m)		
Protection Rating IP20	✓		
Dimming	DMX		
Operating Temperature	-40 F to 158 F (-40 C to 70 C)		
LED Beam Angle	120°		
Lamp Life	50,000 hrs		
Cuttable Length	4.84" (123 mm)		
Cable Length	12 in (30.5 cm)		
Certifications	UL 2108 Issued: 2016/06/17 Ed: 1 Rev: 2021/10/16 Low Voltage Lighting Systems. CSA C22.2 No. 250.0, General Requirements for Luminaires. RoHS compliant. All RibbonLyte models 3.0 W/ft (9.8 W/m) and lower when used in any Acolyte Channel profile except Piccolo are tested by UL and confirmed 'Suitable for Installation in the Storage Area of a Clothes Closet' in accordance with NFPA 70 and NEC 410.16 and 411. CE		
Warranty	3-year warranty		

24V DIMENSIONS Top View

CUTTABLE EVERY: 4.84 in (123 mm)

Side View

Dimensions

Width 0.47 in (12 mm)
Max Length* 39 ft 5 in
Height 0.09 in (2.3 mm)

FLAT SILICONE MOUNTING PAD

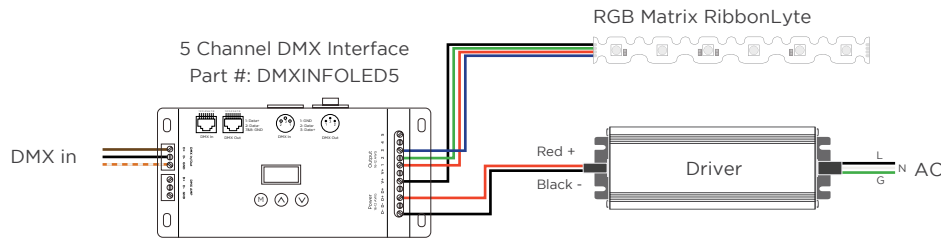| Part Number	RBMNTSIL
Screw Head Diameter	0.27 in (6.9 mm)
Screw Head Height	0.36 in (9.2 mm)
Clip Length	1.07 in (27.2 mm)
Clip Width	0.24 in (6.1 mm)
Screw Hole Diameter	0.09 in (2.5 mm)
Screw Hole Distance (center-to-center)	0.88 in (22.6 mm)

USAGE GUIDELINES

- IP65 and IP68 RibbonLyte cannot be cut in the field. All custom cuts and connections for these models must be performed at the factory to ensure waterproofing standards are met. Any modification of the waterproofing will result in a void warranty.
- When installing this product, consider the surface temperature of the material where it will be mounted. Many building surfaces which are exposed to direct sunlight exceed the 70° C / 158° F maximum for which our product is rated. High-risk locations like this should be avoided.
- IP20 RibbonLyte products are for indoor use in dry areas. IP65 RibbonLyte products can be used in indoor dry/damp locations such as bathrooms and kitchens. IP68 RibbonLyte products can be used in wet, outdoor locations around pools and spa tubs, but our products are not intended to be submerged in pools and fountains and do not carry UL676 certification to do so.
- Please refer to the RibbonLyte Proper Usage Guide in our Application Guide for more information. Available for download at AcolyteLED.com.
- This product is compatible with a wide variety of control products including the entire line of Lutron dimming systems.
- For use with Acolyte drivers, 0-10V dimming modules and interface controllers (DMXINF models).
- Use with non-Acolyte supplied drivers is not supported or warrantied.
- Due to the nature of RibbonLyte products, cuttable lengths are generally longer or shorter than the customer requested length. Unless specified, RibbonLyte is factory cut at the shorter cuttable point.
- We reserve the right to make changes to product lineup, specifications, design and finishes at any time without notice.

Acolyte does not warrant or represent that the information is free from errors or omission. The information may change without notice and Acolyte is not in any way liable for the accuracy of any information printed and stored or in any way interpreted or used.

WIRING DIAGRAMS

DMX

5 Channel DMX Interface
Part #: DMXINFOLED5

RGB Matrix RibbonLyte

DMX in

Red +
Black -

Driver

L
N AC
G

WIRE COLORS PER RIBBONLYTE COLOR

RGB
Black Wire (+) Positive
Green Wire (-) goes to Green Channel
Red Wire (-) goes to Red Channel
Blue Wire (-) goes to Blue Channel

ACTUAL POWER CONSUMPTION

Length (ft)	Length (m)	Actual Power Consumed (W)	Average Wattage (W/ft)	Average Wattage (W/m)	Actual Current Drawn (A)
5	1.52	15.56	3.11	10.21	0.648
10	3.05	28.86	2.89	9.47	1.203
15	4.57	40.13	2.68	8.78	1.672
20	6.10	48.54	2.43	7.96	2.023
25	7.62	53.45	2.14	7.01	2.227
30	9.15	55.63	1.85	6.08	2.318
35	10.67	57.17	1.63	5.36	2.382
39.4	12.01	58.39	1.48	4.86	2.433

NOTE: Quotes use nominal values. We highly recommend using nominal wattages for all customer calculations. Allow for a 15% buffer (10% driver, 5% fixture) in these calculations as performance may vary. Acolyte is not liable for product performance if these tables are used instead of nominal values when orders are placed.

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