

Date

Project

Notes

#### **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 •

RoHS

#### Applications:

Commercial Entertainment Healthcare

Hospitality Residential Museums Retail **Public Spaces** 

**IP20** 



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

Declare.

#### CONNECTION OPTIONS



- 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 MATRIX 3.0 RIBBONLYTE**

### 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, DALI						
Operating Temperature		-40 – 158 °F (-40 – 70 °C)						
LED Beam Angle		120°						
Lifetime (L70 reported)		50,000 hrs						
Cuttable Length		4.84 in. (123 mm)						
Cable Length		12 in. (30.5 cm)						
Certifications		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			Side View	Dimensions				
E20	EVERY: 4.84 in. (123 mm)			Dimensions Width 0.47 in. (12 mm) Max Length* 39 ft 5 in. Height 0.09 in. (2.3 mm)				
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CUTTABLE	EVERY: 4.84 in. (123 mm)			Width 0.47 in. (12 mm) Max Length* 39 ft 5 in.				
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CUTTABLE CUTTABLE FLAT SILICONE MOUNTING PA	EVERY: 4.84 in. (123 mm)		RBMNTSIL	Width 0.47 in. (12 mm) Max Length* 39 ft 5 in.				
Q CUTTABLE   FLAT SILICONE MOUNTING PA   Part Number   Screw Head Diameter   Screw Head Height	EVERY: 4.84 in. (123 mm)		RBMNTSIL 0.27 in. (6.9 mm)	Width 0.47 in. (12 mm) Max Length* 39 ft 5 in.				
Q CUTTABLE   CUTTABLE CUTTABLE   FLAT SILICONE MOUNTING PA Part Number   Screw Head Diameter Screw Head Height   Clip Length Clip Length	EVERY: 4.84 in. (123 mm)		RBMNTSIL 0.27 in. (6.9 mm) 0.36 in. (9.2 mm)	Width 0.47 in. (12 mm) Max Length* 39 ft 5 in.				
	EVERY: 4.84 in. (123 mm)		RBMNTSIL     0.27 in. (6.9 mm)     0.36 in. (9.2 mm)     1.07 in. (27.2 mm)	Width 0.47 in. (12 mm) Max Length* 39 ft 5 in.				

#### 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.

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### WIRING DIAGRAMS



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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