4.4 RGBW SERIES 2 RIBBONLYTE

4.4 RGBW Series 2 RibbonLyte is a color changing ribbon controlled with DMX. Each diode uses four separate chips (red, green, blue and white) to provide flawless color blending. Three CCT choices (2700K, 3000K, 4000K) deliver varied levels of brightness. Our RGBW Series 2 RibbonLyte offers better pixel density and shorter cut lengths for more custom fixture options than ever before.

- Color changing with DMX controls
- Improved pitch of 36 LEDs per foot
- Increased efficacy and lumen output
- Tighter cut lengths of 2 in. (50 mm)
- 4.4 W/ft (14.4 W/m)
- All on: Up to 72 lm/W
- All on: Up to 318.78 l m/ft (1045.6 lm/m)

UL LISTED c us   CE   RoHS   IP20   Declare.   TM66 ASSESSED

ORDERING GUIDE

Category	CRI	Ribbon Type & IP Rating	Wattage + Color	
RB	**0**	**RGBWS220**		
RB - Ribbonlyte	**0** - Color Changing	**RGBWS220** - RGBW Series 2 IP20	**4.4RGB27** - 4.4 W/ft (14.4 W/m) RGB+2700K	**4.4RGB40** - 4.4 W/ft (14.4 W/m) RGB+4000K
			4.4RGB30 - 4.4 W/ft (14.4 W/m) RGB+3000K	

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
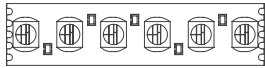
RGBW

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.

SPECIFICATIONS / DIAGRAM / USAGE GUIDELINES

4.4 RGBW Series 2 RibbonLyte	
Operating Voltage	24 V
Colors	RGBW (2700K, 3000K, 4000K)
Current (mA) - 24V	183 mA/ft (602 mA/m)
LED Pitch	36 LEDs/ft (120 LED/m)
Protection Rating	IP20
Dimming/Control	DMX
Operating Temperature	-40° F to 140° F (-40° C to 60° C)
LED Beam Angle	120°
Lamp Life	50,000 Hours
Cuttable Length	1.97 in (50 mm)
Lumens/Watt	Lumens/Watt - RGBW 45 lm/W (All LEDs at 100%)
Constant Voltage	✓
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

RGBW (2700K)					
	Red	Green	Blue	White (2700K)	All On
Power Consumption	1.1 W/ft (3.6 W/m)	1.1 W/ft (3.6 W/m)	1.1 W/ft (3.6 W/m)	1.1 W/ft (3.6 W/m)	4.4 W/ft (14.4 W/m)
Lumen	40.24 lm/ft (131.99 lm/m)	127.62 lm/ft (418.59 lm/m)	28.64 lm/ft (93.94 lm/m)	90.85 lm/ft (297.99 lm/m)	292.13 lm/ft (958.19 lm/m)
Efficacy	37 lm/W	116 lm/W	26 lm/W	83 lm/W	66 lm/W

RGBW (3000K)					
	Red	Green	Blue	White (3000K)	All On
Power Consumption	1.1 W/ft (3.6 W/m)	1.1 W/ft (3.6 W/m)	1.1 W/ft (3.6 W/m)	1.1 W/ft (3.6 W/m)	4.4 W/ft (14.4 W/m)
Lumen	28.66 lm/ft (94 lm/m)	76.4 lm/ft (250.59 lm/m)	21.77 lm/ft (93.94 lm/m)	73.66 lm/ft (241.6 lm/m)	194.5 lm/ft (637.96 lm/m)
Efficacy	26 lm/W	69 lm/W	20 lm/W	67 lm/W	44 lm/W

RGBW (4000K)					
	Red	Green	Blue	White (4000K)	All On
Power Consumption	1.1 W/ft (3.6 W/m)	1.1 W/ft (3.6 W/m)	1.1 W/ft (3.6 W/m)	1.1 W/ft (3.6 W/m)	4.4 W/ft (14.4 W/m)
Lumen	42.01 lm/ft (137.8 lm/m)	139.45 lm/ft (457.4 lm/m)	32.98 lm/ft (108.17 lm/m)	94.82 lm/ft (311 lm/m)	318.78 lm/ft (1045.6 lm/m)
Efficacy	38 lm/W	127 lm/W	30 lm/W	86 lm/W	72 lm/W

DIMENSIONS

Top View

IP20

CUTTABLE EVERY: 1.97 in (50 mm)

Side View

Dimensions

Width 0.47 in (12 mm)
Max Length 19 ft 8 in (6 m)
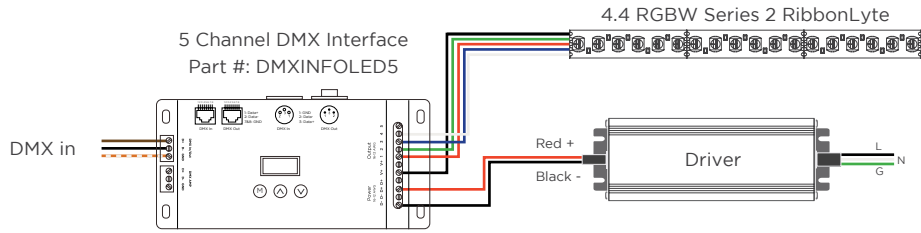**Height** 0.09 in (2.3 mm)

OPTIONAL ACCESSORY

0.5 in. VHB Tape	Flat Mounting Clip
Provides superior holding power in surface mounted applications Part Number: VHBTAPE0.5BK	For mounting IP20 RibbonLyte Part Number: RBMNTSIL

Note: RibbonLyte comes with an adhesive backing, but Acolyte recommends using VHB Tape for extra support in surface mounted applications.

CHANNEL COMPATIBILITY / CHANNEL OPTIONS

CHANNEL	IP20
AC1	✓
AC2	✓
AC3	✓
AC4	✓
AC5	✓
AR1	✓
AR3	✓
AR10	
AR16	✓
AR20	✓
AR25	✓
AR30	✓
AR33	
AS1	✓
AS2	✓
AS3	✓
AS6	✓
AS10	
AS13	✓
AS16	✓
AS20G	
AS23	✓
AS30	✓
AS53	
AT4	✓
AT5	✓
AW12	✓
AW14	✓
AW38	✓
B1	✓
SC3	✓
SC4	✓
SC5	✓
WH35	✓

SURFACE CHANNELS

AS1
W: 0.68 in. / 17.2 mm
H: 0.34 in. / 8.7 mm
Inside: 0.57 in. / 14.6 mm

AS2
W: 0.7 in. / 17.8 mm
H: 0.6 in. / 15.2 mm
Inside: 0.49 in. / 12.5 mm

AS3
W: 0.93 in. / 23.6 mm
H: 0.42 in. / 10.7 mm
Inside: 0.81 in. / 20.6 mm

AS6
W: 0.89 in. / 22.5 mm
H: 0.62 in. / 15.7 mm
Inside: 0.71 in. / 18 mm

AS16
W: 0.74 in. / 18.8 mm
H: 0.73 in. / 18.6 mm
Inside W: 0.65 in. / 16.4 mm
Inside H: 0.63 in. / 16 mm

AS13 / round milky
W: 1.31 in. / 33.4 mm
H: 1.29 in. / 32.7 mm
Inside W: 1.22 in. / 31 mm
Inside H: 1 in. / 25.3 mm

AS13 / square milky
W: 1.31 in. / 33.4 mm
H: 1.37 in. / 34.8 mm
Inside W: 1.22 in. / 31 mm
Inside H: 1.07 in. / 27.3 mm

AS23
W: 0.91 in. / 23 mm
H: 0.99 in. / 25.1 mm
Inside W: 0.83 in. / 21 mm
Inside H: 0.72 in. / 18.2 mm

AS23 / square milky
W: 0.91 in. / 23 mm
H: 1.59 in. / 40.5 mm
Inside W: 0.83 in. / 21 mm
Inside H: 1.32 in. / 33.4 mm

AS30
W/H: 1.31 in. / 33.4 mm
H: 1.17 in. / 29.6 mm
Inside W: 1.17 in. / 29.8 mm
Inside H: 0.93 in. / 23.6 mm

WH35
W: 1.37 in. / 35 mm
H: 1.47 in. / 37.5 mm
Inside: 1.23 in. / 31.2 mm

AT4
W: 0.77 in. / 19.6 mm
H: 0.74 in. / 18.8 mm
Inside W: 0.66 in. / 16.8 mm

AT5
W: 0.77 in. / 19.6 mm
H: 0.74 in. / 18.8 mm
Inside W: 0.66 in. / 16.8 mm

AW12
W: 0.91 in. / 23 mm
H: 2.17 in. / 55 mm
Inside W: 0.56 in. / 14.2 mm
Inside H: 0.22 in. / 5.5 mm

AW38
W: 1.5 in. / 38 mm
H: 1.31 in. / 33.4 mm
Inside W: 1.22 in. / 31 mm
Inside H: 1.17 in. / 29.8 mm

B1
W: 0.77 in / 19.6 mm
H: 0.26 in. / 6.5 mm
Inside W: 0.69 in / 17.6 mm

CORNER CHANNELS

AC1
W: 0.63 in. / 16 mm
H: 0.63 in. / 16 mm
Inside W: 0.48 in. / 12.2 mm

AC2
W: 0.63 in. / 16 mm
H: 0.63 in. / 16 mm
Inside W: 0.48 in. / 12.2 mm

AC3
W: 0.74 in. / 18.8 mm
H: 0.74 in. / 18.8 mm
Inside W: 0.48 in. / 12.2 mm

AC4
W: 1.17 in. / 29.72 mm
H: 1.17 in. / 29.72 mm
Inside W: 0.8 in. / 20.32 mm

AC5
W: 1.11 in. / 28.19 mm
H: 1.11 in. / 28.19 mm
Inside W: 0.8 in. / 20.32 mm

RECESSED CHANNELS

AR1
W: 0.9 in. / 22.9 mm
H: 0.31 in. / 7.87 mm
Inside W: 0.49 in. / 12.5 mm

AR3
W: 1.2 in. / 30.5 mm
H: 0.39 in. / 9.9 mm
Inside W: 0.81 in. / 20.6 mm

AR16
W: 1.1 in. / 28 mm
H: 0.73 in. / 18.6 mm
Inside W: 0.65 in. / 16.4 mm
Inside H: 0.64 in. / 16.2 mm

AR20
W: 1.18 in. / 30 mm
H: 0.8 in. / 20.4 mm
Inside W/H: 0.83 in. / 21 mm
Inside H: 0.73 in. / 18.5 mm

AR25
W: 1.75 in. / 44.4 mm
H: 0.94 in. / 24 mm
Inside W: 1.22 in. / 31 mm
Inside H: 0.91 in. / 23 mm

AR30
W: 1.75 in. / 44.4 mm
H: 0.55 in. / 14 mm
Inside W: 1.22 in. / 31 mm
Inside H: 0.51 in. / 13 mm

AW14
W: 0.98 in. / 24.9 mm
H: 1.31 in. / 33.4 mm
Inside W: 0.58 in. / 14.8 mm
Inside H: 0.63 in. / 16 mm

MUD-IN CHANNELS

SC3
Overall W: 2.62 in. / 66.6 mm
Visible W: 0.88 in. / 22.35 mm
H: 0.55 in. / 14 mm
Inside W: 0.69 in. / 17.5 mm

SC4
Overall W: 2.5 in. / 63.4 mm
Visible W: 1.31 in. / 33.4 mm
H: 0.63 in. / 15.9 mm
Inside W: 1.22 in. / 31 mm
Inside H: 0.5 in. / 12.9 mm

SC5
Overall W: 2.5 in. / 63.4 mm
Visible W: 1.31 in. / 33.4 mm
H: 0.94 in. / 24 mm
Inside W: 1.22 in. / 31 mm
Inside H: 0.83 in. / 21 mm

DISCLAIMER

When installing this product take into account the surface temperature of the material this product is mounted to. Many building surfaces which are exposed to direct sunlight exceed the 70°C/158°F maximum that our product is rated for. High risk locations like this should be avoided.

Our IP68 product is not intended to be submerged in pools and fountains and does not carry UL676 certification to do so.

WIRING DIAGRAMS

DMX

5 Channel DMX Interface
Part #: DMXINFOLED5

4.4 RGBW Series 2 RibbonLyte

DMX in

Red +
Black -

Driver

L
N
G

**WIRE COLORS PER
RIBBONLYTE COLOR**

RGBW
Black (+) Positive
Green Wire (-) goes to Green Channel
Red Wire (-) goes to Red Channel
Blue Wire (-) goes to Blue Channel
White Wire (-) goes to White 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	21.56	4.31	14.14	0.898
10	3.05	42.43	4.24	13.92	1.768
15	4.57	61.84	4.12	13.52	2.577
19.7	6.01	79.15	4.02	13.18	3.298

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.