Datasheet OrgaLED® Top Tunable White 1200





Index

AVAILABLE COLORS	1
PRODUCT CODES & CHARACTERISTICS	2
BENDING RADIUS	2
POWER & CONNECTION DIAGRAM	3
POWER SUPPLY CONSUMPTION	3
CABLE SELECTION	4
SYMBOLS & DISCLAIMER	5

Top Tunable White 1200

The OrgaLED® Top Tunable White 1200 LED strip (IP40) is a high quality, flexible LED strip with a unique co-extrusion technology and can be adjusted to a color temperature range between 2700K-6500K. The combination of high quality and exceptional f lexibility, allows for an endless range of indoor and outdoor applications. Combine with either the IP67 or IP68 solution.

For the latest version of this datasheet, visit our website: www.organiclighting.com

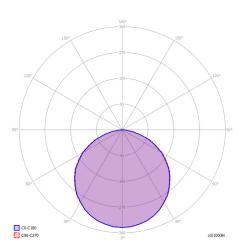
Available Colors

liniLED[®] Top 2700-6500K Tunable White 1200-4000

Features

Made in USA/EU Unique co-extrusion technology (hollow chamber) UV, frost, seawater & chlorine vapor resistant IP40 (IP68 with OrgaLED® Top Mirror Welded Connector) Very flexible (bend radius > 1.2") Dimmable Effective heat dissipation Excellent lumen/ Watt ratio Binning ± 50K Available in long lengths Available in various colors Extensive range of accessories Plug & Play

Symmetric Diagram







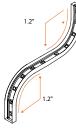
Product Codes & Characteristics

	Top Tunable White 1200		
Product code	011992		
Power (24 V DC)	3.2 W/ft		
- 2700K	1.5 W/ft		
- 6500K	1.7 W/ft		
Power (25 V DC)	3.3 W/ft		
Luminous flux *	255 lm/ft		
- 2700K	132 lm/ft		
- 6500K	134lm/ft		
Luminous efficiency *	80 lm/W		
Spool length	Max. 29.5 ft		
Max. connection length	29.5 ft		
CRI	> 80		
Section length	3 in		
LED	Duris tm E 3		
Number of LEDs	12 per section / 48.8 per ft		
Operation voltage	24 V DC		
Max. operation voltage	25 V DC		
Beam angle	110°		
Dimensions	0.47 x 0.24 in		
Dimmable	PWM dimming, 0-10V dimming		
Binning	2 MA steps		
Weight	0.8 oz/ft		
Expected lifetime	B50/L70 > 60,000 hours @ 104 °F		
Degree of protection (IP)	IP40 (IP68 with mirror welded connector)		
Storage temperature	-40 °F - 185 °F		
Operation temperature	-22 °F - 167 °F		
Minimal bending radius	1.2 in		
Max. connection length between -4 °F and	d -22°F is 23 ft		

 \sum .24 in ٦, .47 in

Bending Radius

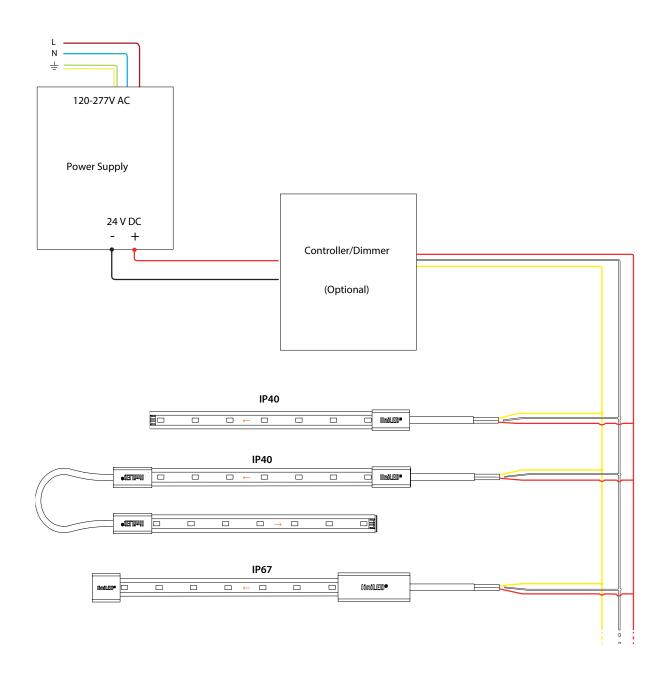
Maximum bending radius is 1.2 in. Solely bend up or downward. Do not compress, stretch or bend the LED strip.



Datasheet | OrgaLED® Top Tunable White 1200 2



Power & Connection Diagram



Power Supply - 24V DC

To calculate the power consumption of a single length of LED strip, use the equation below.

$P_{\text{STRIP}} = W_{\text{WATTS}} \times X_{\text{LENGTH}} \times 110\%$

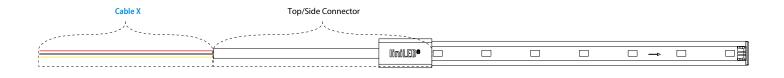
P _{STRIP}	Calculated power consumption of one LED strip in Watt
W _{watts}	Typical power consumption in Watt per foot of the selected LED strip
	This value can be found under 'Product characteristics' on page 2
X _{LENGTH}	Length of the connected LED strip in feet
110%	Safety margin to buffer differences over all production batches

Cable Selection

The OrgaLED® LED strips need a minimum voltage at the beginning of the LED strip to function according to the specifications. The table below gives an indication of the maximum cable length based on the cable thickness and power supply voltage. The connection between the cable and LED strip is with a cable length of 3.28 ft.

In case the required length is larger than the length mentioned in this table, the supply voltage is different or if a detailed wire plan with branches is planned, please contact your distributor for a detailed cable calculation.

Wire Gauge	LED strip	Max. cable x length		
		@ 24 V DC	@ 25V DC	
20 AWG x 3	3.28 ft	113.02 ft	239.79 ft	
	16.4 ft	21.19 ft	44.58 ft	
	29.5 ft	9.90 ft	22.90 ft	
18 AWG x 3	3.28 ft	184.84 ft	360.72 ft	
	16.4 ft	31.88 ft	67.09 ft	
	29.5 ft	14.89 ft	34.44 ft	
16 AWG x 3	3.28 ft	369.68 ft	721.48 ft	
	16.4 ft	242.25 ft	476.77 ft	
	29.5 ft	169.42 ft	336.94 ft	
14 AWG x 3	3.28 ft	615.28 ft	1200.79 ft	
	16.4 ft	403.18 ft	793.50 ft	
	29.5 ft	281.95 ft	560.76 ft	



Symbols



The ETL Listed mark indicates that your product has been tested by Intertek and found in compliance with accepted UL standards.

Electro Static Discharge (ESD) sensitive device, apply standard ESD precautions when handling the product.

Manufacturer's declaration that the product meets the applicable EC directives.

Suitable for mounting on all surfaces and suitable to cover with insulating material.

Restriction of Hazardous Substances (RoHS): product complies with the RoHS directive and each homogeneous material does not exceed the limits for the materials mentioned under the RoHS directive (Pb, Hg, Cd, Cr6+, PBB and PBDE).

This product can be both IP40 and IP68 depending on the configuration and application. See the documentation for the exact IP rating.

Bending of the LED strip is possible with a radius of \geq 1.2 inches in the specified direction.

Electrical appliance class III: this product is designed to be supplied from an extra-low voltage (\leq 60.0 V DC or \leq 42.4 V AC).

System guarantee of 5 years when the complete system consist of OrgaLED® products with the 5 year system warranty logo.

Product is resistant against ultraviolet (UV) light or sunlight. Non-UV resistant products can degrade or discolor fast when exposed to UV.

Product can be cleaned with normal cleaning agents as specified in the datasheet under 'chemical compliances.'

This product can be stored and used below 32 degrees Fahrenheit. Verify the minimum storage and operation temperature in the datasheet for the lowest temperature allowed.

This product can be applied in seawater and its environment. Elements in seawater will have no harmful effect on the product. For chemical specifications see datasheet. Verify the IP rating for proper use.

This product can be applied inside swimming pool environments. Elements in the air will have no harmful effect on the product. For chemical specifications of these elements see datasheet. Verify the IP rating for proper use.

This product is available on request and can be submerged n swimming pools and their environments. Disinfectants will have no harmful effect on product. For chemical specifications of these elements see datasheet. Verify the IP rating for proper use.

The CRI value of this product is 80 or higher.

The binning tolerance of this product is 2 MacAdam.

Disclaimer

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