

USER MANUAL

Diffuse Top 1/2", Diffuse Top 3/4", Diffuse Side 1/2"



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PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLATION & LEAVE A COPY FOR THE END USER/ MAINTANANCE ENGINEER FOR FUTURE REFERENCE.



Warning

This product comes with a 5 year warranty.

Warranty void if:

1. The installation guide has not been consulted (installation mistake).
2. The installation is not done by a certified installer.
3. Local rules and guidelines are not respected.
4. The invoice cannot be shown and/or has been altered.
5. Damage is caused by negligence, abnormal use or improper handling, use, maintenance and/or cleaning of the product.

This product is intended for professional use only! This product must be installed by a qualified and certified installer according to local rules and guidelines. Organic Lighting Systems, Inc. cannot be held liable for (consequential) damage and/or injuries due to unintended use and/or installation errors.

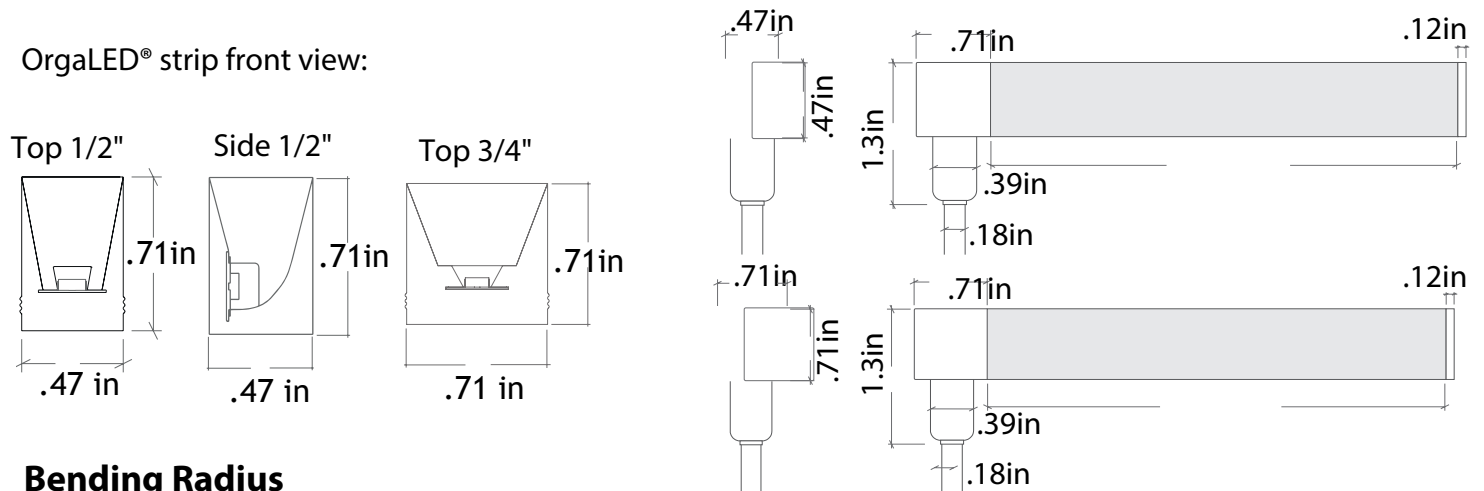
Product Information

The OrgaLED® LED strip (IP40) is a high quality, flexible LED strip with a unique co-extrusion technology. Designed for an endless range of indoor and outdoor applications.

** For use in wet environments, use mirror welded connectors or IP68 waterproof kits.*

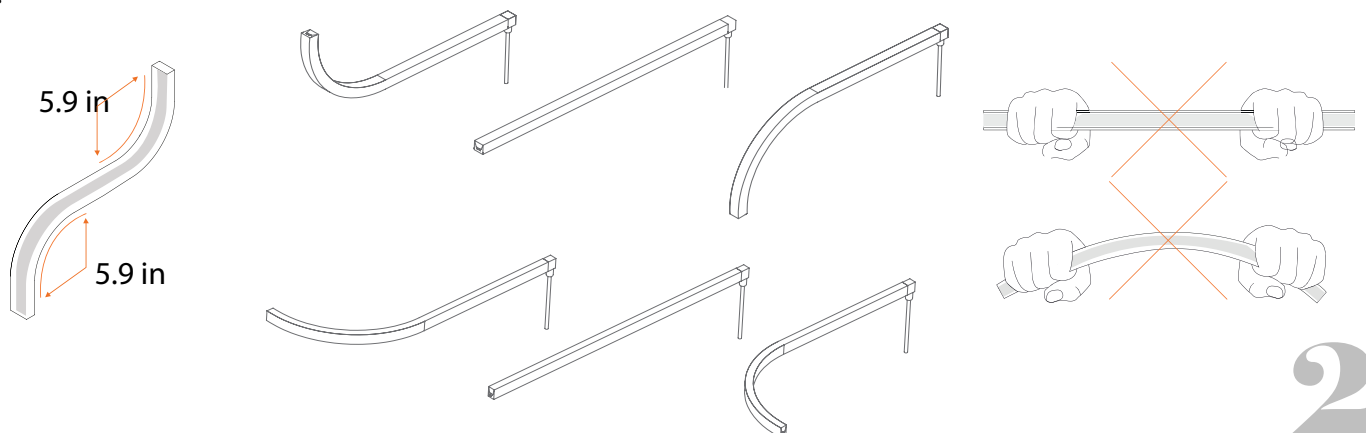
Product Dimensions

OrgaLED® strip front view:



Bending Radius

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



General

Read the instructions and safety precautions before installation, usage and storage of the products to secure safety of the user and reliability of the product. Hand over the instructions to the end-user and/or those responsible for installation, maintenance and usage.

- Organic Lighting Systems, Inc. cannot be held responsible for improper handling, product installation, usage or storage.

Handling

- Handle with care.
- The product may not be modified or converted otherwise than prescribed.
- Products are transported in proper packaging. Products should remain packed until installation.

Installation

- Attention: The power has to be switched off the main power supply or the connection before installation. Not doing so may damage the product.
- Use a suitable LED power supply/driver: 24 V DC constant voltage. Do not drive the product on other voltages than described in their datasheet/products specifications.
- Installation has to be done by a certified professional with knowledge of electrical circuits or a specialised maintenance person known with valid directives.
- General and local construction, safety- and installation regulations should be respected.
- Use only supplied parts, accessories and required tools as prescribed in the installation manual to guarantee a safe installation and use of the product.
- Products may solely be installed in the areas according to their prescribed IP-rating, IK-rating, temperature range and chemical resistances.
- Do not fasten anything on the product, same applies for hanging.
- Do not install the product in the following cases:
 - Damage is visible on the product or its cables.
 - The inside of the product is moistened or dirty.
 - The product or its cables have been modified. It could lead to an electrical shock or a short circuit may occur.
- Children may not play unsupervised with electrical products as they cannot judge the dangers in dealing with electrical circuits correctly.

Operation and Use

Solely use the product when its working correctly. If not, switch the power off immediately and advise an electrical specialist in the following case.

- Damage is visible on the product.
- The product does not function.
- Smoke or steam rises from the product.
- Crackling sounds are noticeable.
- The product is overheating.
- Repairs on the installation may only be performed by qualified electricians. Product repairs may solely be done by Organic Lighting Systems, Inc.

Cleaning and Maintenance

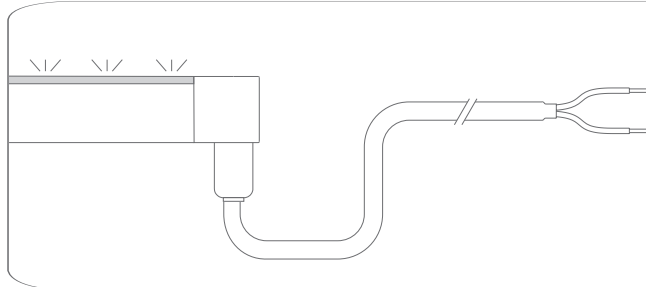
- Attention: Disconnect the power before maintenance and cleaning.
- Dust and dirt accumulated over time should be removed from the light-emitting surface to assure optimal functioning of the product.
- Paints, solvents and corrosive cleaning chemicals may not contact and thus affect the product.

Environment and Waste

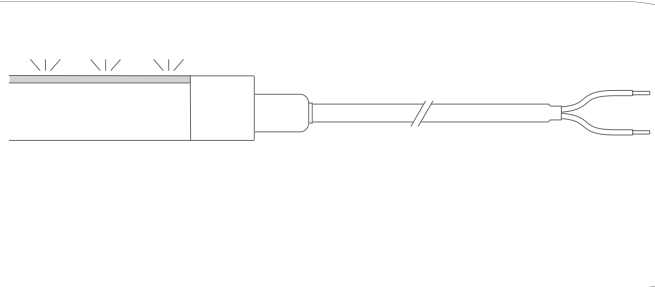
- Exterior decorative lighting should only be used after sunset.
- This product may not be treated as household waste. Dispose of the material through the waste recycling of electrical and electronic equipment.



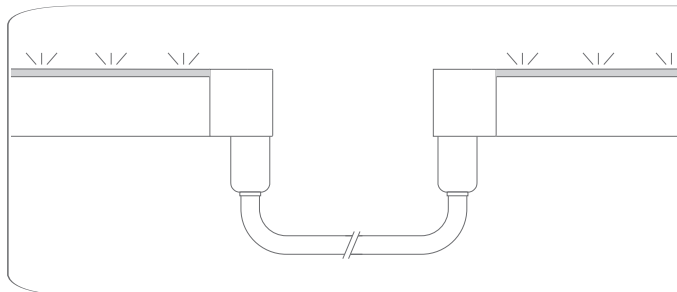
IP68 Connector Options



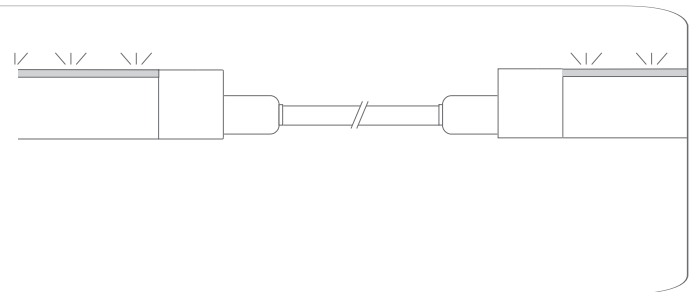
Outdoor environment | [\(IP68\)](#)
OrgaLED® Diffuse 1/2" Connector 90° Angle, 16'L
 Product code: 011261
OrgaLED® Diffuse 3/4" Connector 90° Angle, 16'L
 Product code: 011246



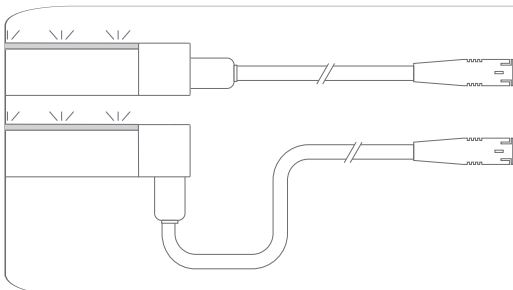
Outdoor environment | [\(IP68\)](#)
OrgaLED® Diffuse 1/2" Connector Straight 16'L
 Product code: 011271
OrgaLED® Diffuse 3/4" Connector Straight 16'L
 Product code: 011251



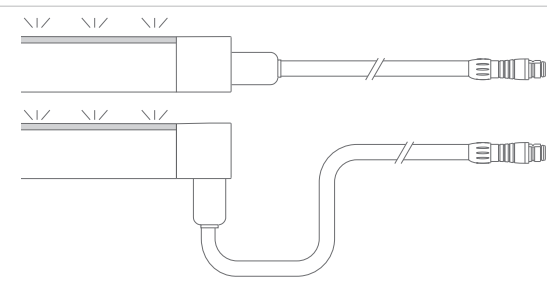
Outdoor environment | [\(IP68\)](#)
OrgaLED® Diffuse 1/2" Extension Cord 90° Angle
 Product code: 011277
OrgaLED® Diffuse 3/4" Extension Cord 90° Angle
 Product code: 011276



Outdoor environment | [\(IP68\)](#)
OrgaLED® Diffuse 1/2" Extension Cord Straight
 Product code: 011279
OrgaLED® Diffuse 3/4" Extension Cord Straight
 Product code: 011278



Outdoor environment | [\(IP68\)](#)
OrgaLED® Diffuse 1/2" Extension Straight Male
 Product code: 011286
OrgaLED® Diffuse 3/4" Extension Straight Male
 Product code: 011282



Outdoor environment | [\(IP68\)](#)
OrgaLED® Diffuse 1/2" Extension Straight Female
 Product code: 011287
OrgaLED® Diffuse 3/4" Extension Straight Female
 Product code: 011283

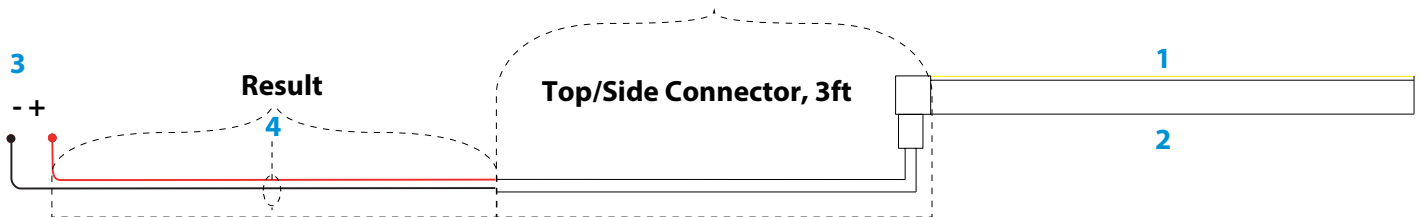
OrgaLED® Diffuse 3/4" Extension Angle Male
 Product code: 011280
OrgaLED® Diffuse 1/2" Extension Angle Male
 Product code: 011284

OrgaLED® Diffuse 1/2" Extension Angle Female
 Product code: 011285
OrgaLED® Diffuse 3/4" Extension Angle Female
 Product code: 011281

Cable Selection

The following chart gives the maximum 24V supply cable run lengths based on 22AWG, 20AWG, 18AWG, 16AWG and 14AWG wire gauge to avoid voltage drop to the strips, with a 3ft liniLED connector cable length.

A wiring plan with branches from a single power supply connection cannot exceed the maximum connector strip length shown on the charts and if complex will require special electrical calculations to ensure adequate power to maintain full LED output.



Result = Maximum cable length based on the cable thickness and power supply voltage.

1. Color Temperature

Diffuse 2400K, 2700K

2. LED Strip Length		3'		6'		16'		33'	
3. Voltage		24V DC	25V DC	24V DC	25V DC	24V DC	25VDC	24V DC	25V DC
4. Cable Size	22 AWG	110'	215'	53'	105'	18'	39'	7'	18'
	20 AWG	165'	324'	79'	158'	28'	59'	11'	27'
	18 AWG	220'	430'	106'	211'	37'	79'	14'	35'
	16 AWG	331'	647'	159'	317'	56'	119'	22'	53'
	14 AWG	551'	1077'	265'	528'	93'	198'	36'	89'

1. Color Temperature

Diffuse 3000K

2. LED Strip Length		3'		6'		16'		33'	
3. Voltage		24V DC	25V DC	24V DC	25V DC	24V DC	25VDC	24V DC	25V DC
4. Cable Size	22 AWG	118'	231'	53'	105'	20'	42'	8'	19'
	20 AWG	178'	347'	79'	158'	30'	64'	12'	29'
	18 AWG	236'	462'	106'	211'	40'	86'	16'	38'
	16 AWG	356'	695'	159'	317'	61'	129'	24'	58'
	14 AWG	592'	1156'	265'	528'	101'	214'	40'	96'

1. Color Temperature

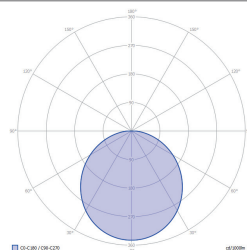
Diffuse 4000K, 6500K

2. LED Strip Length		3'		6'		16'		33'	
3. Voltage		24V DC	25V DC	24V DC	25V DC	24V DC	25VDC	24V DC	25V DC
4. Cable Size	22 AWG	114'	223'	55'	109'	19'	41'	7'	18'
	20 AWG	171'	335'	82'	164'	29'	62'	11'	27'
	18 AWG	228'	445'	109'	218'	39'	82'	15'	36'
	16 AWG	343'	670'	165'	329'	58'	124'	23'	54'
	14 AWG	571'	1115'	275'	547'	97'	206'	37'	92'

Product Specifications

Top Diffuse 1/2"	2400K	2700K	3000K	4000K	6500K
Product code [m]	011829	011830	011831	011832	011833
Luminous flux	51 lm/ft	56 lm/ft	51 lm/ft	55 lm/ft	56 lm/ft
Luminous efficiency	19 lm/W	21 lm/W	20 lm/W	21 lm/W	21 lm/W
Side Diffuse 1/2"	2400K	2700K	3000K	4000K	6500K
Product code [m]	011819	011820	011821	011822	011823
Luminous flux	31 lm/ft	34 lm/ft	31 lm/ft	35 lm/ft	34 lm/ft
Luminous efficiency	11 lm/W	13lm/W	12 lm/W	13 lm/W	13 lm/W
Power (24 V DC)	2.7 W/ft	2.7 W/ft	2.5 W/ft	2.6 W/ft	2.6 W/ft
Power (25 V DC)	2.8 W/ft	2.8 W/ft	2.6 W/ft	2.7 W/ft	2.7 W/ft
CRI	90				
Spool length	Max. 32.8 ft				
Section length	2 in				
LED	Duris tm E 3				
Number of LEDs	6 per section / 36.5 per ft				
Max. connection length	32.8 ft				
Operation voltage	24 V DC				
Max. operation voltage	25 V DC				
Beam angle	110°				
Dimensions	0.47 x 0.71 in (1/2")				
Dimmable	PWM dimming, 0-10V dimming				
Binning	± 50K				
Weight	2.6 oz/ft				
Expected lifetime	B50/L70 > 50,000 hours @ 104 °F				
Degree of protection (IP)	IP68 +/- IP69 with mirror welded connector				
Storage temperature	-4 °F - 131 °F				
Operation temperature	-22 °F - 131 °F1				
Minimal bending radius	5.9 in				
Max. connection length between -4 °F and -22 °F	is 23 ft				

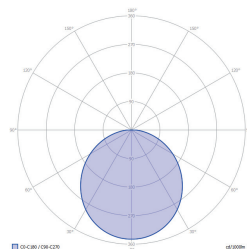
Symmetric Diagram



















Product Specifications

Top Diffuse 3/4"	2400K	2700K	3000K	4000K	6500K
Product code [m]	011799	011800	011801	011802	011803
Luminous flux	61 lm/ft	67 lm/ft	60 lm/ft	65 lm/ft	69 lm/ft
Luminous efficiency	22 lm/W	25 lm/W	24 lm/W	25 lm/W	26 lm/W
Power (24 V DC)	2.7 W/ft	2.7 W/ft	2.5 W/ft	2.6 W/ft	2.6 W/ft
Power (25 V DC)	2.8 W/ft	2.8 W/ft	2.6 W/ft	2.7 W/ft	2.7 W/ft
CRI	90				
Spool length	Max. 32.8 ft				
Section length	2 in				
LED	Duris tm E 3				
Number of LEDs	6 per section / 36.5 per ft				
Max. connection length	32.8 ft				
Operation voltage	24 V DC				
Max. operation voltage	25 V DC				
Beam angle	110°				
Dimensions	0.71" x 0.71" (for 3/4")				
Dimmable	PWM dimming, 0-10V dimming				
Binning	± 50K				
Weight	2.6 oz/ft				
Expected lifetime	B50/L70 > 50,000 hours @ 104 °F				
Degree of protection (IP)	IP68 +/- IP69 with mirror welded connector				
Storage temperature	-4 °F - 131 °F				
Operation temperature	-22 °F - 131 °F1				
Minimal bending radius	5.9 in				
Max. connection length between -4 °F and -22 °F is 23 ft					

Symmetric Diagram



Symbols

-  UL is a world leader in product safety testing and certification. UL sets standards and tests products to make sure they meet standards.
-  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 is 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 ≥ 1.2 inches in the specified direction.
-  Electrical appliance class III: this product is designed to be supplied from an extra-low voltage (≤ 60.0 V DC or ≤ 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.

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