



LANDSCAPE FLEX

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Technical Specifications

Light Dimension 0.45 x 1.02in (11.5x26mm)

Output

LED Light	Epistar SMD LED Chip
Max Run Length	
Single Feed	24.6ft (7.5m)
Double Feed (DC only)	49.21ft (15m)
Light Surface	Round profile 270°
Lumen Maintenance	70,000 Hours L70 @ 25°C : 90,000 L50 @ 25°C 50,000 Hours L70 @ 50°C : 70,000 Hours L50 @ 50°C

Electrical

Input Voltage	12V AC
Power Consumption	1.37W/ft (4.5W/m)

Physical

LED Count	22 LEDs / ft (72 LEDs/m)
LED Spacing	0.55in (13.89mm)
Cutting Unit Length	1.64in (41.67mm)
Thermal Management	Free air convection
Fixture Connections	End, side & bottom lead wires
Minimum Bend Diameter	4.72in (120mm) (Side Bending)

Temperature Ranges

Installation	32°F to 140°F (0°C to 60°C)
Operating	-13°F to 140°F (-25°C to 60°C)
Humidity	0-95% non condensing

Dependability

Warranty	Limited 5 Year
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Safety

Certification	Tested to UL & CSA by Underwriters Laboratory for use in USA and Canada, complies with California Title 24 Requirements, Lighting Facts. Exceeds ANSI C78.377A, CE & RoHS Compliant.
IP Rating	IP67 with appropriately rated accessories

Technical Specifications

Available Colors

Color	CCT Wavelength
Red	620-630nm
Green	520-530nm
Blue	465-475nm
Amber	585-595nm
2700K (WW)	2725 ± 145K
3000K	3045 ± 175K
3500K (W)	3465 ± 245K
4000K	3985 ± 275K
4500K (CW)	4503 ± 243K
5000K	5029 ± 283K
5700K (DW)	5669 ± 355K
6500K	6532 ± 510K

Lumen Count

Color	Per Foot	Per Meter	Power
Red	>18.29lm	>60lm	1.37W/ft (4.5W/m)
Green	>30.48lm	>100lm	1.37W/ft (4.5W/m)
Blue	>6.1lm	>20lm	1.37W/ft (4.5W/m)
Amber	>19.81lm	>65lm	1.37W/ft (4.5W/m)
2700K (WW)	>42.67lm	>140lm	1.37W/ft (4.5W/m)
3000K	>48.77lm	>160lm	1.37W/ft (4.5W/m)
3500K (W)	>48.77lm	>160lm	1.37W/ft (4.5W/m)
4000K	>48.77lm	>160lm	1.37W/ft (4.5W/m)
4500K (CW)	>48.77lm	>160lm	1.37W/ft (4.5W/m)
5000K	>48.77lm	>160lm	1.37W/ft (4.5W/m)
5700K (DW)	>42.67lm	>140lm	1.37W/ft (4.5W/m)
6500K	>42.67lm	>140lm	1.37W/ft (4.5W/m)

*Color Jackets:

For standard or custom color jacket options, contact your Account Manager. Min. order quantity of 656ft (200m).

Testing

Photometric Data

	Red/Amber		Green/Blue/White		
LED Type	SMD		SMD		
Beam Angle	270°		270°		
Color	Wavelength	Lumen/m	Color	CCT	Lumen/m
Red	620-630nm	>600lm	2700K	2725±145K	>340lm
Green	520-530nm	>100lm	3000K	3045±175K	>340lm
Blue	465-475nm	>20lm	3500K	3465±245K	>380lm
Amber	585-595nm	>65lm	4000K	3985±275K	>380lm
			4500K	4503±243K	>380lm
			5000K	5029±283K	>380lm
			5700K	5669±355K	>380lm
			6500K	6532±510K	>380lm

Testing

Certifications

	Testing Organization	Certificate Serial N°	Report Reference
UL 2108	UL	20160726-E360029	E360029-2013
CE-EMC	SGS	SZEM1702001259LMV	SZEM160600421302

Fixture Testing

Optical Testing

Spectrum Analysis	IES LM 79 (Lumen, CCT, CRI, XY, SDCM, wavelength)
Photometric Distribution	IES LM 73 (Lumen intensity distribution & Lux diagram)
Lumen Maintenance & Lifetime	IES LM 84 & IES TM28

Temperature Testing

Normal Temperature Test	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21
Abnormal Operation Test	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21

Durability Testing

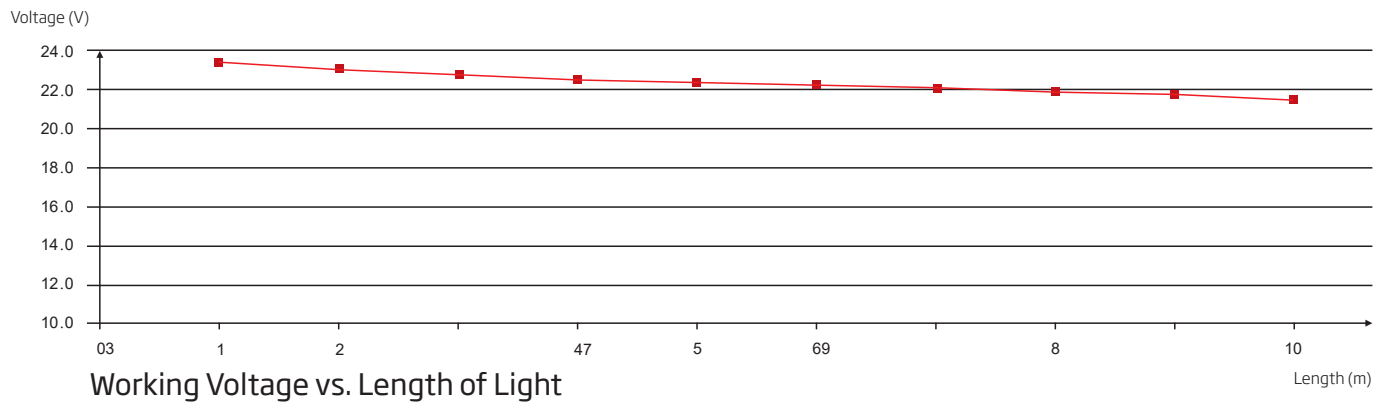
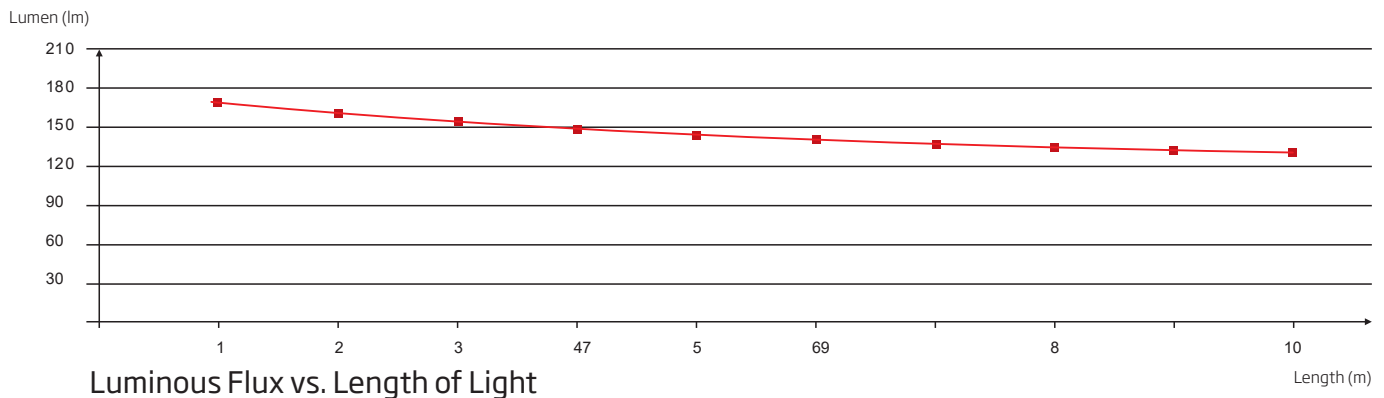
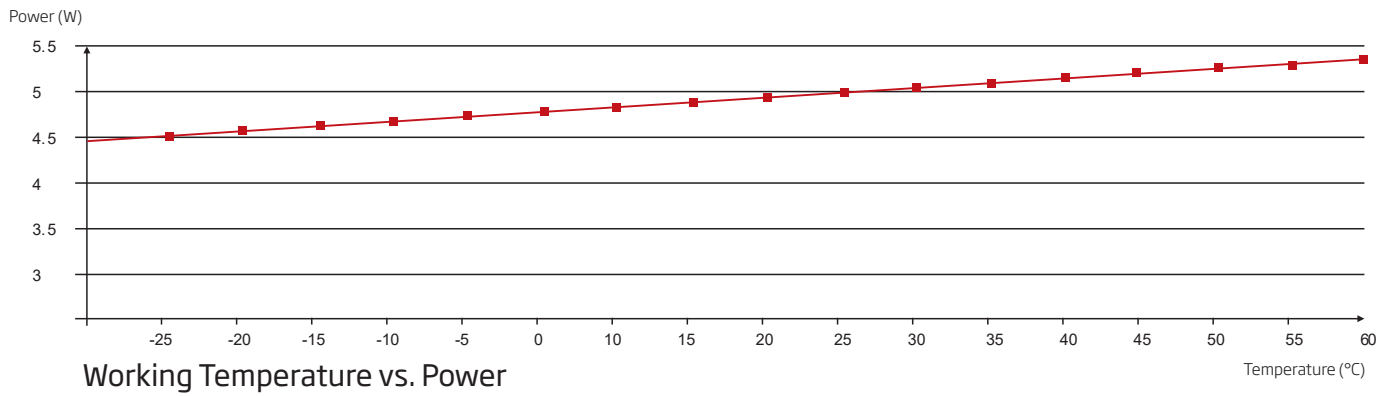
Bending Test	Manufacturer-defined, 500 cycles
Swing Test	UL2388, >750 cycles
Tensile Test	Manufacturer-defined, > the weight of light in max. connection length double feed
Twist Test	Max connection length double feed Manufacturer-defined, >200 cycles
Ball Impact	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21
IK07 IK08	IEC62262

Environmental Testing

Chlorinated Water Immersion	BG9667, PH6.8-7.6, free chlorine 0.3-0.6mg/L
Salt Water Immersion	IEC60598-1, Salinity 4%
Salt Spray Test	IEC68-2-11
Outdoor Exposure	Manufacturer-defined
Flame Resistance	UL94
UV Exposure	ASTMG 154, ISO 4892-3, UVA @ 340nm
IPX5, IPX6, IPX7, IPX8	IEC60529
Temperature Shock	Manufacturer-defined, -40°C - 60°C (typical temperature range)
Constant Temperature	Manufacturer-defined

Testing

Charts



Testing

Charts

ANSI STANDARD

Nominal CCT Categories

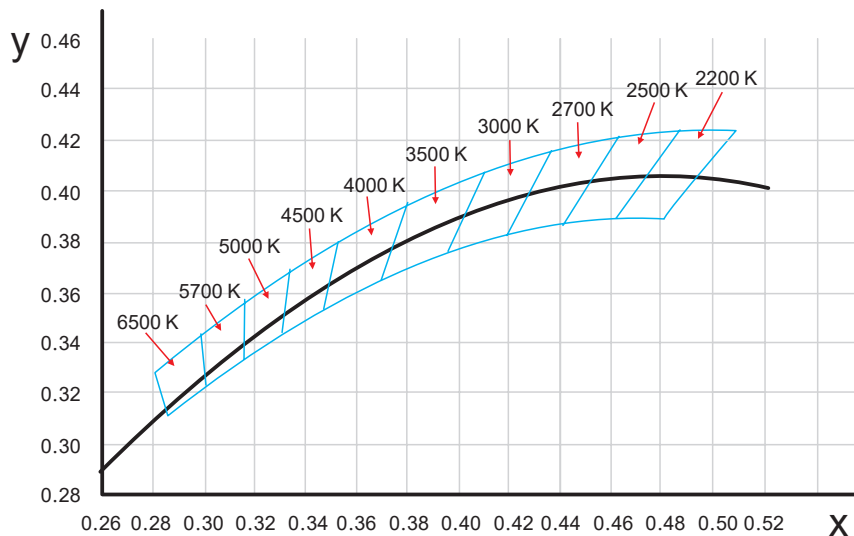
Nominal CCT	Target CCT and tolerance(K)	Target D_{uv}	D_{uv} Tolerance Range
2200K	2238 ±102	0.0000	Tx:CCT of the source
2500K	2460±120	0.0000	For Tx < 2870K
2700K	2725 ±145	0.0000	0.000±0.0060
3000K	3045±175	0.0001	For Tx ≥ 2870K
3500K	3465±245	0.0005	$D_{uv}(Tx) \pm 0.0060$
4000K	3985±275	0.0010	where
4500K	4503±243	0.0015	$D_{uv}(Tx) = 57700 \times (1/Tx)^2$
5000K	5029±283	0.0020	-44.6 × (1/Tx)
5700K	5667±355	0.0025	+0.00854
6500K	6532±510	0.0031	

Flexible CCT (2200-6500K)	$T_F^{3)} \pm \Delta T^{2)}$	$D_{uv} T_F^{3)}$
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Remark:

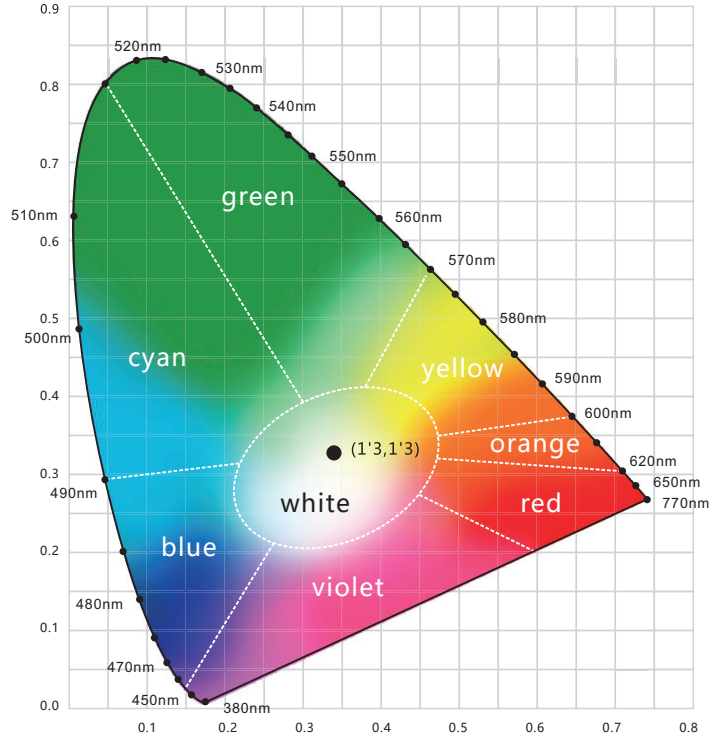
- 1) T_F is chosen to be at 100K steps (2300,2400,.....,6400K), excluding the ten nominal CCTs listed in Table 1.
- 2) $\Delta T = 1.1900 \times 10^8 \times T^{-3} - 1.5434 \times 10^4 \times T^2 + 0.7168 \times T - 902.55$
- 3) Same as in the D_{uv} Tolerance Range.

(X,Y) Chromaticity Diagram



Testing

Charts



Light Color



Red

620-630nm



Green

520-530nm



Blue

465-475nm

Loading Chart

Power Supply

Rated Power	35W	60W
1.67W/ft (4.5W/m)	26.25ft (8m)	45.93ft (14m)

Lead Type Single Feed



01/02

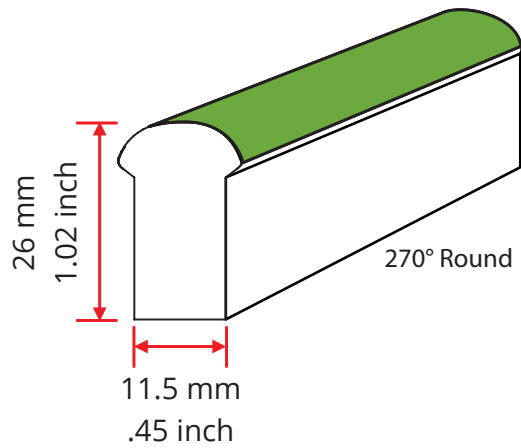
Note: These are the max recommended run lengths based on power supply

For example: It is recommended to use one 80W power supply for a single-fed run of 59.06ft (18m) at 1.67W/ft (4.5W/m).

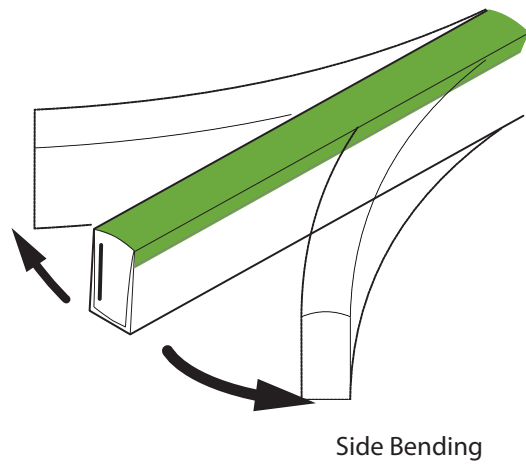
Physical Specifications



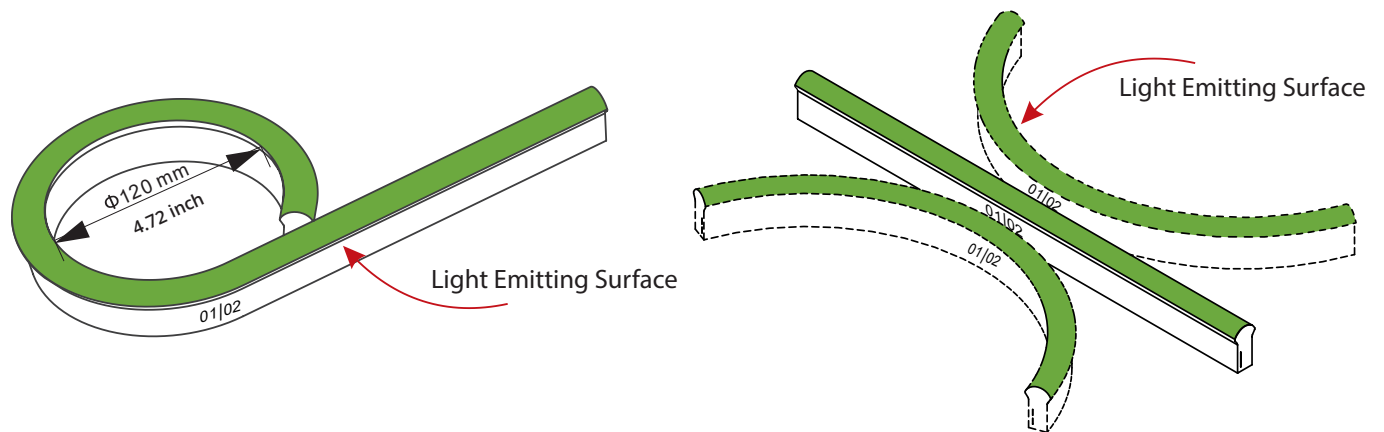
Light Profile



Bending Direction

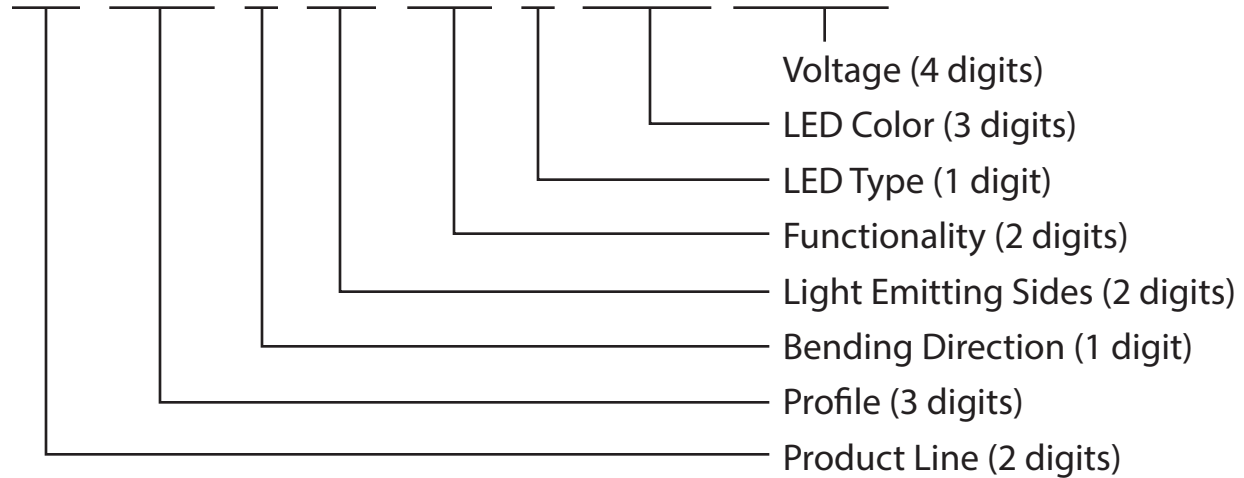


Minimum Bending Diameter



Part Number Naming Convention

LF-11C-1-01-XW-X-XXX-XXXX

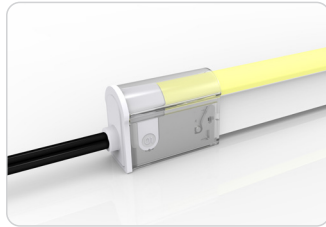


For full part number naming rules, please refer to the document on www.glls.com/support/documentation/

Connectors

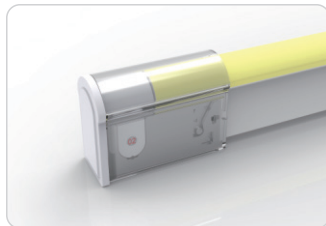
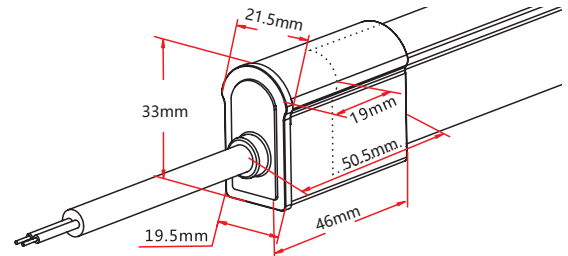
IP67: Rated for outdoor use.
Factory Assembly or DIY.

Snap Connectors



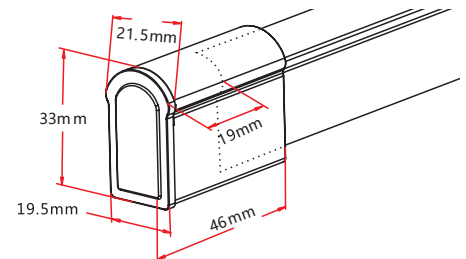
Snap End Exit

LA-11C-1-01-XW-SC-1-EN-XXX-P
LA-11C-1-01-XW-SC-2-EN-XXX-P



Snap End Cap

NA-11C-1-01-XW-SC-1-EC
NA-11C-1-01-XW-SC-2-EC



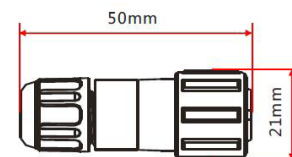
Barrel Connectors

IP20: Rated for indoor use only.
Factory Assembly only.



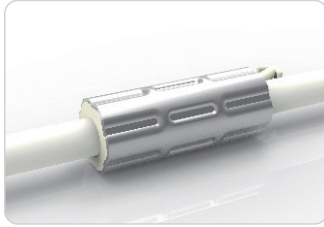
Barrel Connectors

NA-XX-BC-DC-CXX-F
NA-XX-BC-DC-CXX-M
NA-XX-BN-XXA-CXX-F
NA-XX-BN-XXA-CXX-M
NA-XX-PL-XXA-CXX-F
NA-XX-PL-XXA-CXX-M

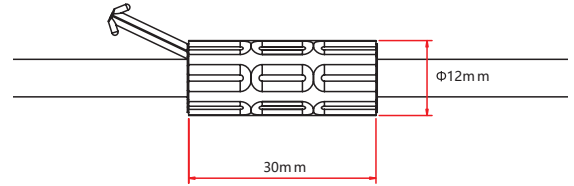


Connectors

Accessories



Anti-Wicking Ferrule



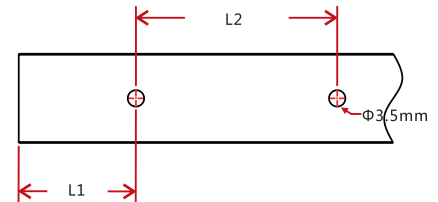
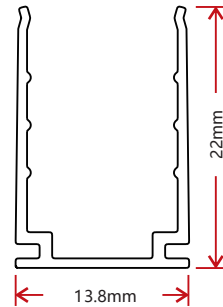
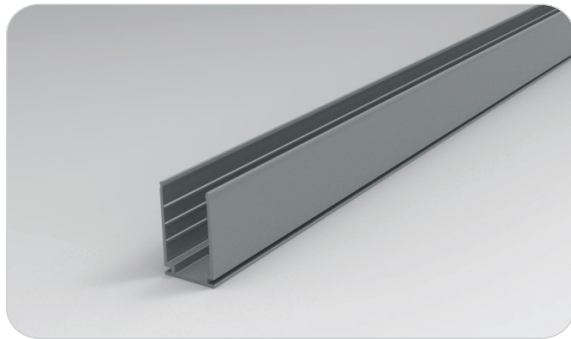
Anvil Cutter

Optional accessory for on-site cutting.

Factory order only

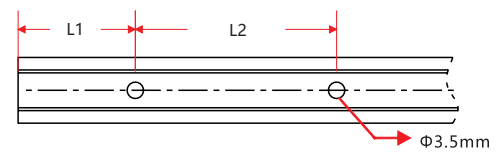
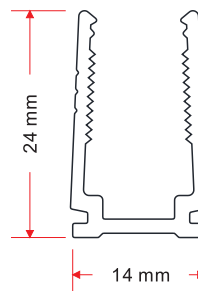
Mounting Hardware

Standard Anodized Aluminum Channel



W x H	Standard Length	Part Number	L1	L2	Screw Hole Φ	Hole #
0.54 x 0.87in (13.8 x 22mm)	1.38in (35mm)	CL-11-R-AL-3C5-SD	0.69in (17.5mm)	/	Φ 0.14in (3.5mm)	1
	19.69in (500mm)	CH-11-R-AL-0M5-SD	1.97in (50mm)	7.87in (200mm)	Φ 0.14in (3.5mm)	3
	39.37in (1000mm)	CH-11-R-AL-01M-SD	3.94in (100mm)	7.87in (200mm)	Φ 0.14in (3.5mm)	5
	78.74in (2000mm)	CH-11-R-AL-02M-SD	3.94in (100mm)	7.87in (200mm)	Φ 0.14in (3.5mm)	10

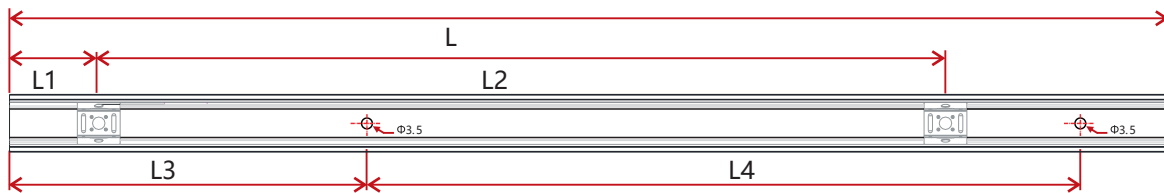
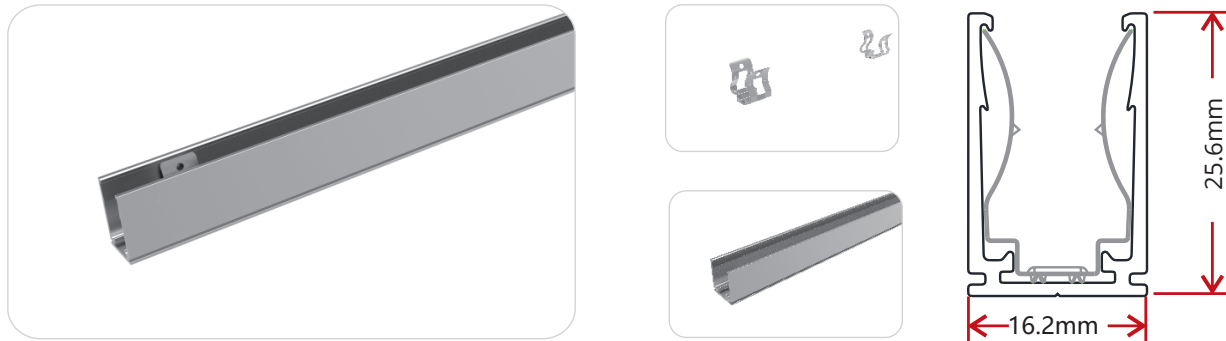
Plastic Channel



W x H	Standard Length	Part Number	L1	L2	Screw Hole Φ	Hole #
0.55 x 0.94in (14 x 24mm)	19.69in (500mm)	CH-11-R-PL-0M5-SD	1.97in (50mm)	7.87in (200mm)	Φ 0.14in (3.5mm)	3
	39.37in (1000mm)	CH-11-R-PL-01M-SD	3.94in (100mm)	7.87in (200mm)	Φ 0.14in (3.5mm)	5
	78.74in (2000mm)	CH-11-R-PL-02M-SD	3.94in (100mm)	7.87in (200mm)	Φ 0.14in (3.5mm)	10

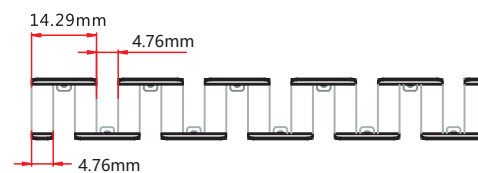
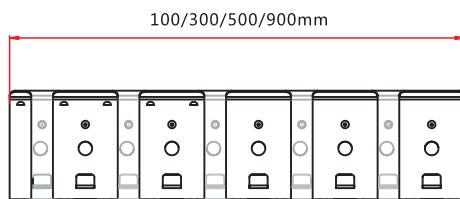
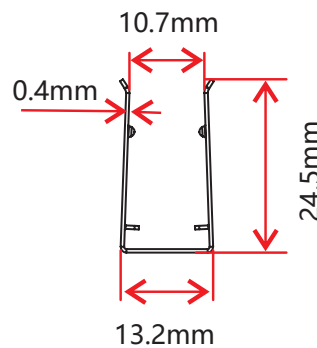
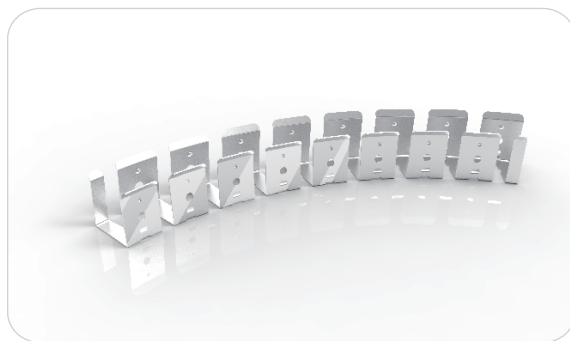
Mounting Hardware

Spring Clip Anodized Aluminum Channel



W x H	Standard Length	Part Number	L1	L2	L3	L4	Screw Hole Φ	Hole #	Clip #
0.64 x 1.01in	1.38in (35mm)	CL-11-R-AL-3C5-SP	0.69in (17.5mm)	/	0.2in (5mm)	0.98in (25mm)	Φ 0.14in (3.5mm)	2	1
(16.2 x 25.6mm)	19.69in (500mm)	CH-11-R-AL-0M5-SP	0.98in (25mm)	8.86in (225mm)	1.97in (50mm)	7.87in (200mm)	Φ 0.14in (3.5mm)	3	3
	39.37in (1000mm)	CH-11-R-AL-01M-SP	0.98in (25mm)	9.35in (237.5mm)	3.94in (100mm)	7.87in (200mm)	Φ 0.14in (3.5mm)	5	5
	78.74in (2000mm)	CH-11-R-AL-02M-SP	0.98in (25mm)	9.6in (243.8mm)	3.94in (100mm)	7.87in (200mm)	Φ 0.14in (3.5mm)	10	9

Stainless Steel Flexible Channel



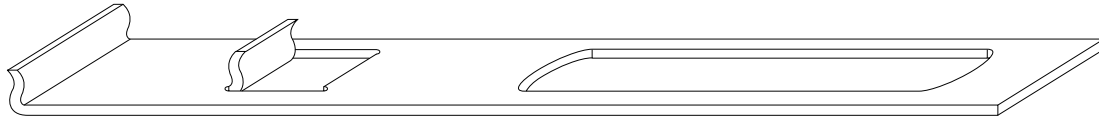
W x H	Standard Length	Part Number
0.52 x 0.97in	3.94in (100mm)	CH-11-F-SS-0M1-SD
(13.2 x 24.5mm)	11.81in (300mm)	CH-11-F-SS-0M3-SD
	19.69in (500mm)	CH-11-F-SS-0M5-SD
	35.43in (900mm)	CH-11-F-SS-0M9-SD

This profile can be mounted using screws in any gaps where the channel bends.

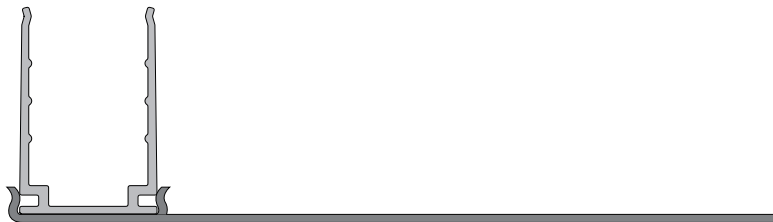
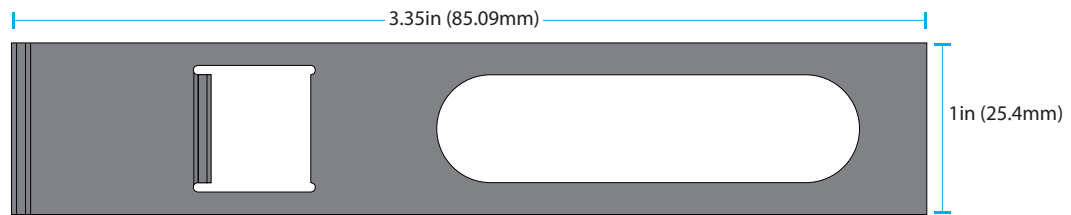
Mounting Hardware

Hardscape Mounting Clip

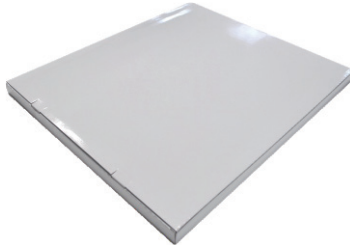
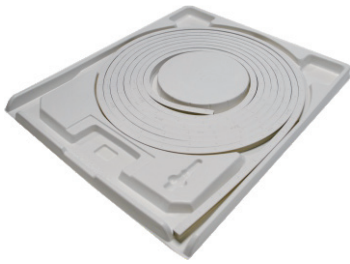
The Hardscape Mounting Clip is used in conjunction with the Standard Mounting Channel.



LN-11-AL-BR



Packaging



White Box

Packing Box

Fixture Length	White Box Dimensions	Packing Box Dimensions	# Of White Boxes	Package Weight
196.85in (5m)	15.35x2.05x19.67in (39x5.2x50cm)	20.47x16.14x11.02in (52x41x28cm)	5	23.15lbs (10.5kg)
393.7in (10m)	20.08x2.05x24.41in (51x5.2x62cm)	25.2x20.87x11.02in (64x53x28cm)	5	46.3lbs (21kg)
393.7in (10m)	20.08x2.05x24.41in (51x5.2x62cm)	25.2x20.87x6.9in (64x53x17.5cm)	3	28.66lbs (13kg)
787.4in (20m)	26.77x2.05x31.1in (68x5.2x79cm)	31.9x27.56x4.92in (81x70x12.5cm)	2	37.48lbs (17kg)