



VIVID S 160 RGB

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For More Information

Toll Free: 1 (888) 580-6366

Or Visit www.GLLS.com/contact-us/

Technical Specifications

Light Dimension	0.45 x 0.83in (11.5x21mm)	
Output	RGB	
LED Light	Epistar or Nichia SMD LED Chip	
Max Run Length		
Single Feed	Full Load: 22.97ft (7m)	Dynamic Load: 32.81ft (10m)
Double Feed	Full Load: 45.93ft (14m)	Dynamic Load: 65.62ft (20m)
Light Surface	Square profile 160°	
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	24V DC	
Power Consumption	3.66W/ft (12W/m)	
Physical		
LED Count	18 LEDs/ft (60 LEDs/m)	
LED Spacing	0.66in (16.67mm)	
Cutting Unit Length	3.94in (100mm) (6 LEDs)	
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	5 Year Warranty	
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	IP68 with appropriately rated accessories	

Technical Specifications

Vivid RGB 160°

Color Information

Color	CCT Wavelength
Red	620-630nm
Green	520-530nm
Blue	465-475nm
R+G+B (W)	N/A

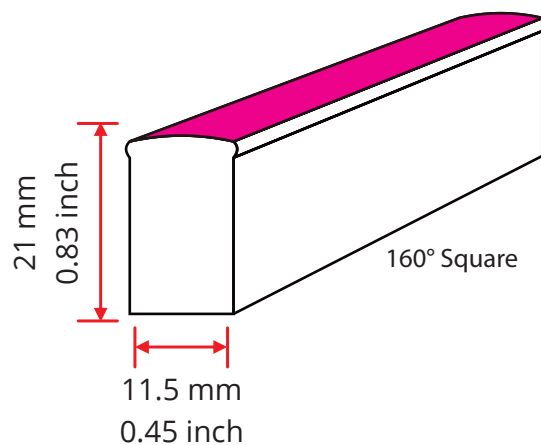
Lumen Count

Color	Per Foot	Per Meter	Power
Red	>6.1lm	>20lm	/
Green	>22.86lm	>75lm	/
Blue	>4.57lm	>15lm	/
R+G+B (W)	>33.53lm	>110lm	3.66W/ft (12W/m)

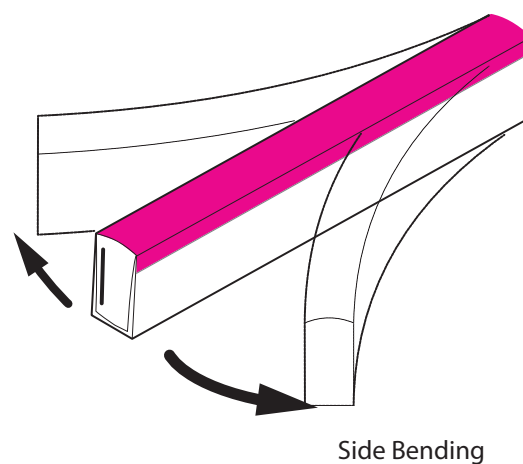
Physical Specifications



Light Profile

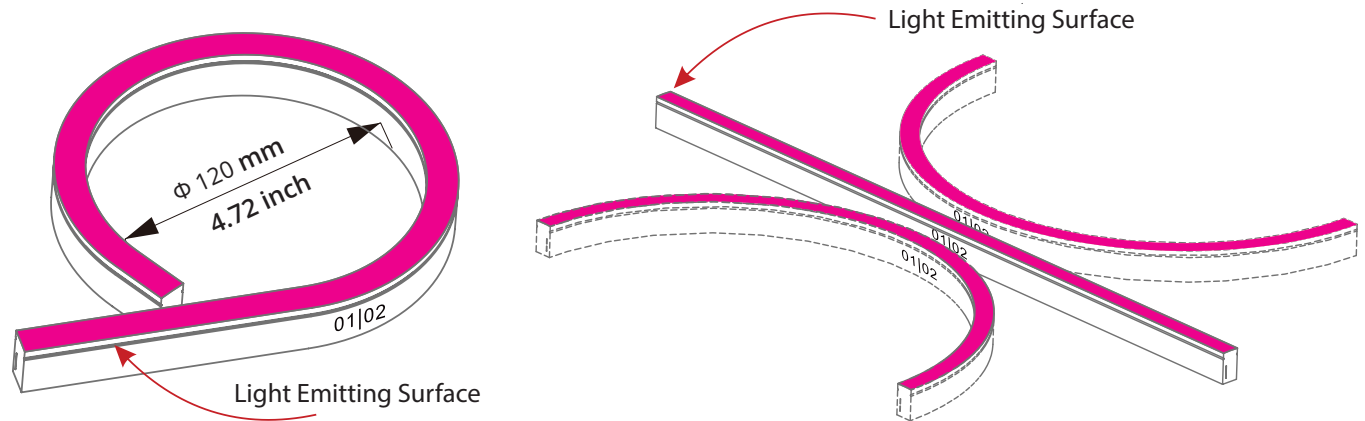


Bending Direction



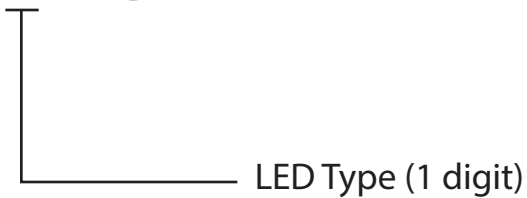
Physical Specifications

Minimum Bending Diameter



Part Number Naming Convention

NF-11B-1-01-4W-X-RGB-24DV

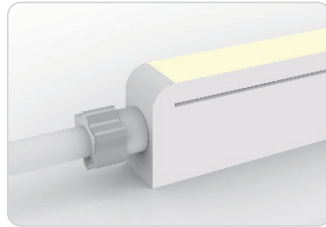


For full part number naming rules, please refer to the document on www.glls.com/support/documentation/

Connectors

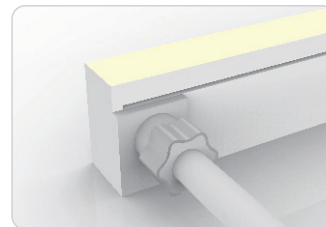
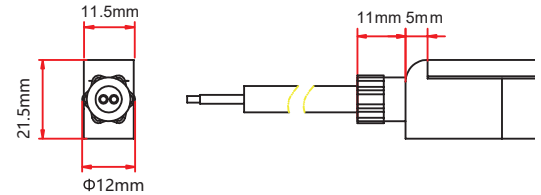
Seamless Connectors

IP67: Rated for wet locations, not submersion.
Factory Assembly only.



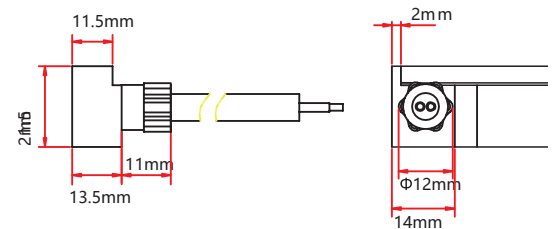
Seamless End Exit

NA-11B-1-01-4W-SE-0-EN-XXX-S



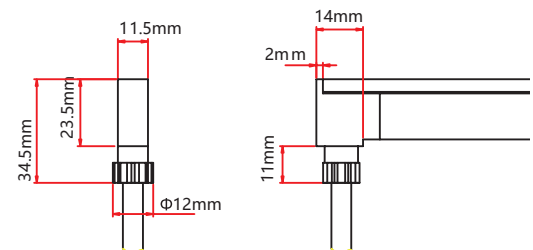
Seamless Side Exit

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NA-11B-1-01-4W-SE-2-SL-XXX-S



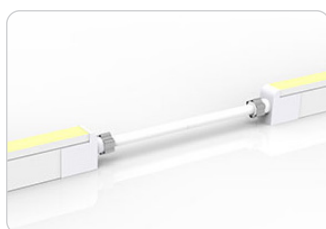
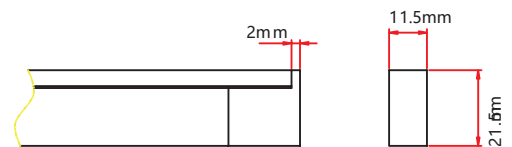
Seamless Bottom Exit

NA-11B-1-01-4W-SE-0-BO-XXX-S



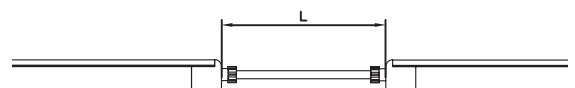
Seamless End Cap

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NA-11B-1-01-0W-SE-2-EC-000-P



Seamless Jumper

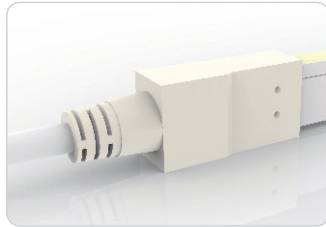
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Connectors

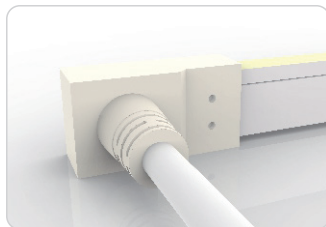
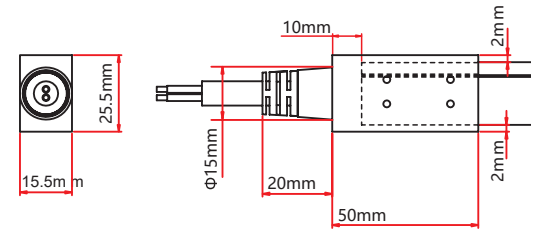
IP68: Submersible. Waiting on 3rd party certification from UL as of 18/04/12. Factory Assembly only.

Submersible Seamless Connectors



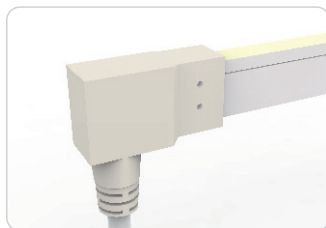
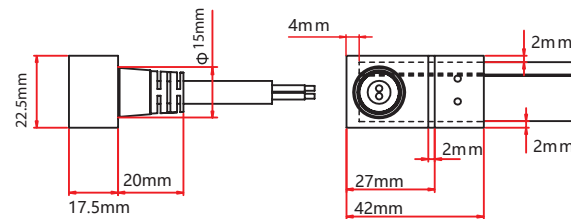
Submersible End Exit

NA-11B-1-01-4W-SU-0-EN-XXX-S



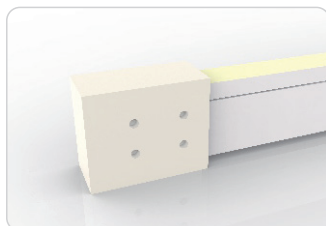
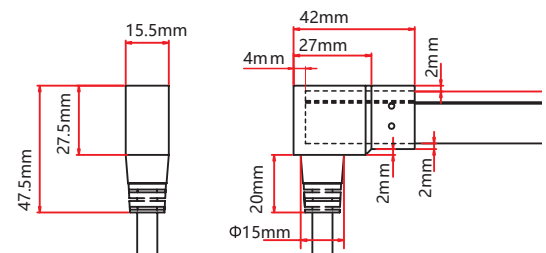
Submersible Side Exit

NA-11B-1-01-4W-SU-1-SR-XXX-S
NA-11B-1-01-4W-SU-2-SL-XXX-S



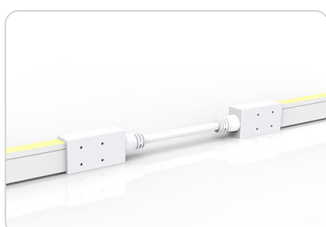
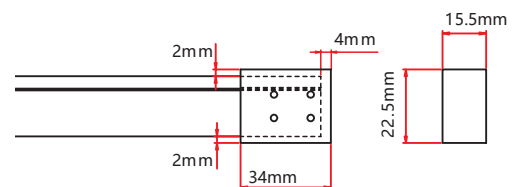
Submersible Bottom Exit

NA-11B-1-01-4W-SU-0-BO-XXX-S



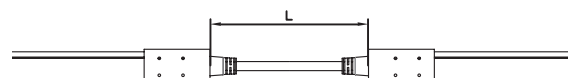
Submersible End Cap

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NA-11B-1-01-0W-SU-2-EC-000-P



Submersible Jumper

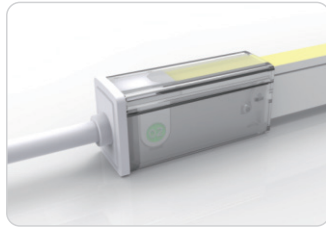
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Connectors

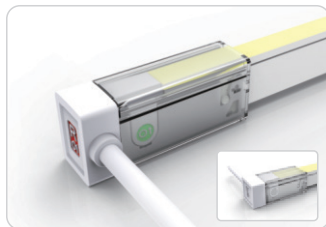
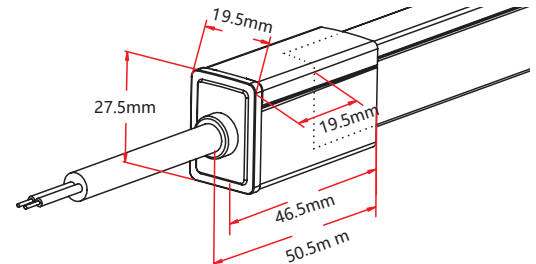
Snap Connectors

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



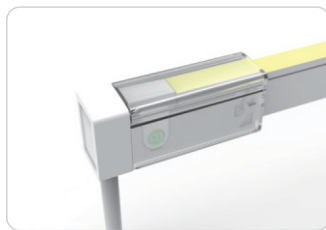
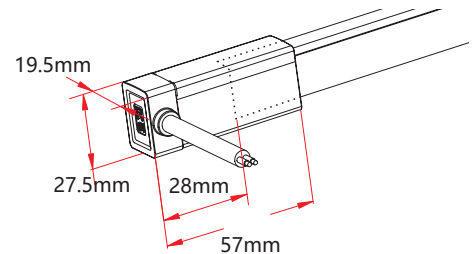
Snap End Exit

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NA-11B-1-01-4W-SC-2-EN-XXX-S



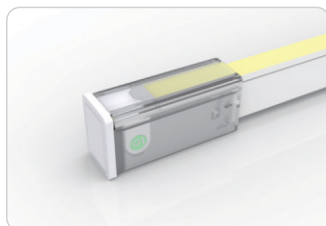
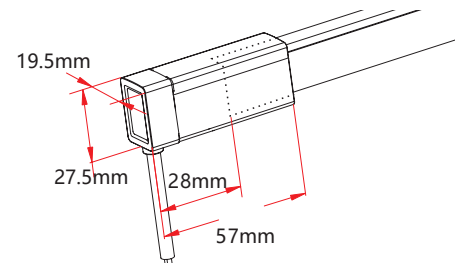
Snap Side Exit

NA-11B-1-01-4W-SC-1-SL-XXX-S
NA-11B-1-01-4W-SC-2-SL-XXX-S
NA-11B-1-01-4W-SC-1-SR-XXX-S
NA-11B-1-01-4W-SC-2-SR-XXX-S



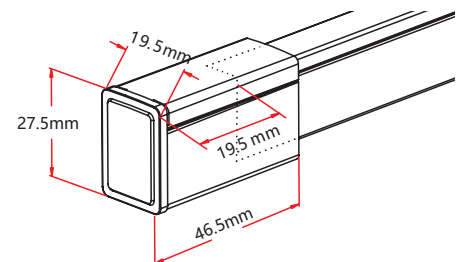
Snap Bottom Exit

NA-11B-1-01-4W-SC-1-BO-XXX-S
NA-11B-1-01-4W-SC-2-BO-XXX-S



Snap End Cap

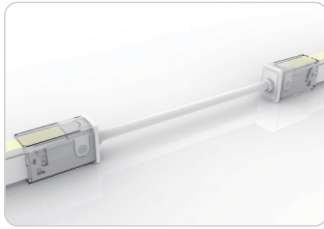
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NA-11B-1-01-0W-SC-2-EC



Connectors

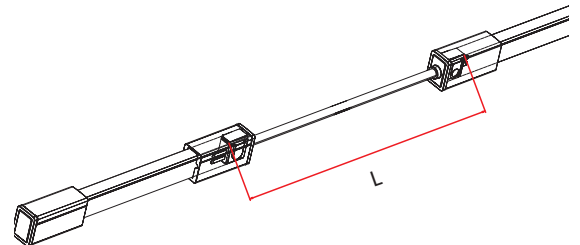
IP67: Rated for outdoor use.
Factory Assembly or DIY.

Snap Connectors



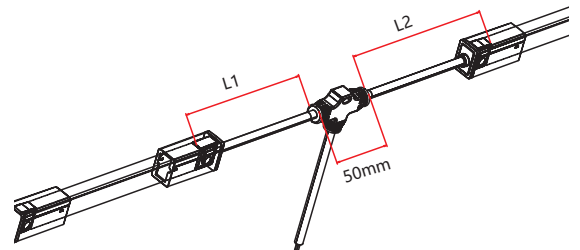
Snap Jumper

NA-11B-1-01-4W-SC-0-EJ-XXX-S



Snap Power T Feed

NA-11B-1-01-4W-SC-0-TF-XXX-P



Connectors

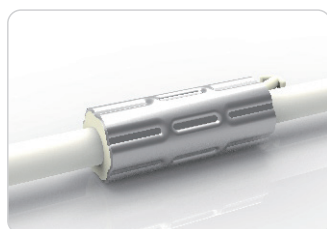
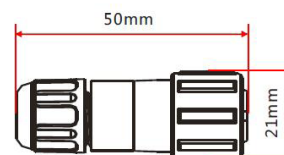
IP20: Rated for indoor use only.
Factory Assembly only.

Barrel Connectors

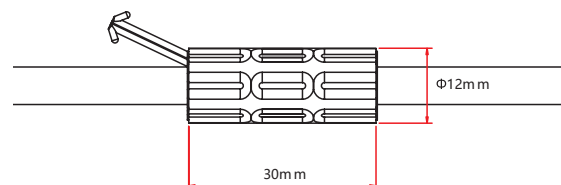


Barrel Connectors

- 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



Anti-Wicking Ferrule



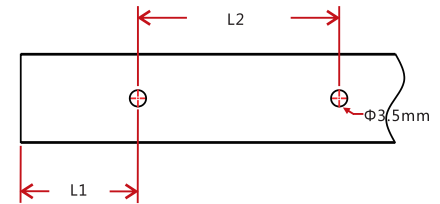
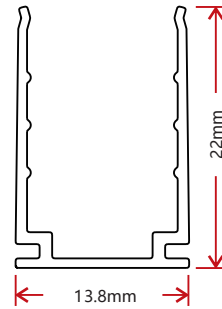
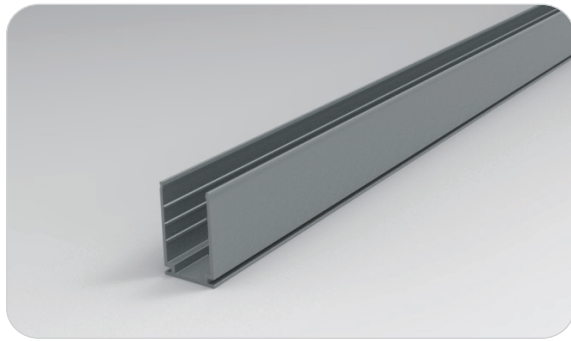
Anvil Cutter

Optional accessory for on-site cutting.

Factory order only

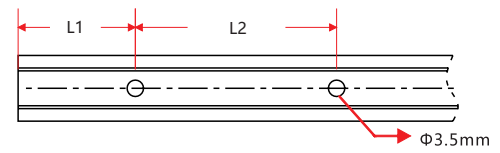
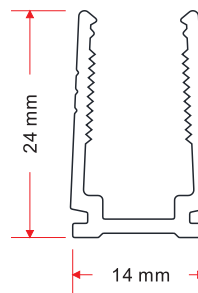
Mounting Hardware

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

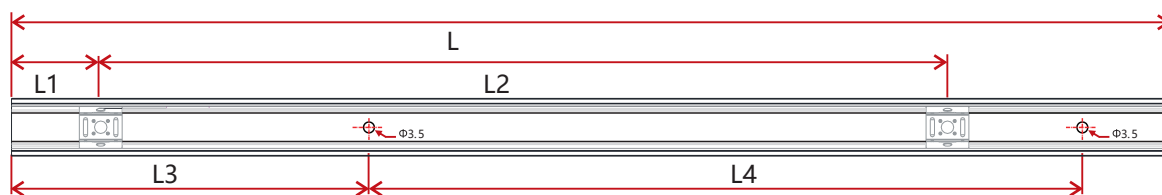
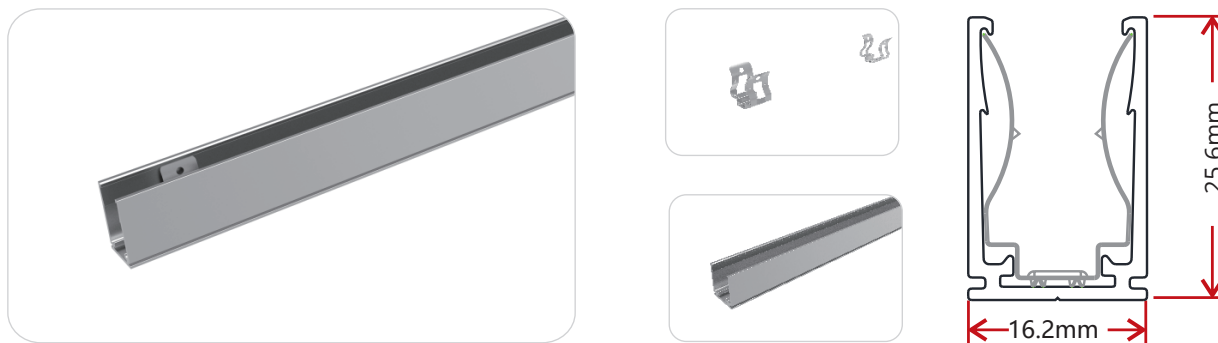
Plastic Channel



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

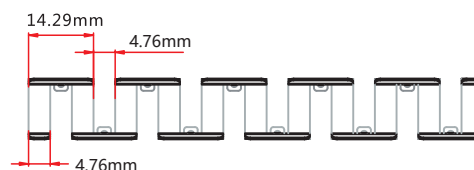
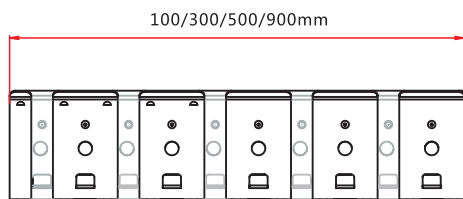
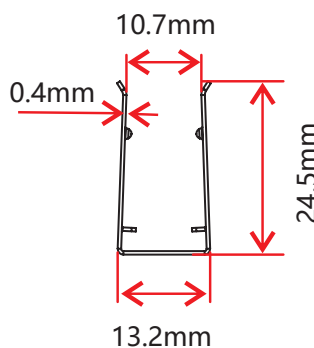
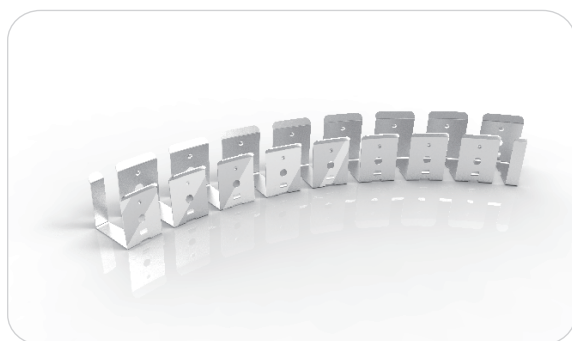
Mounting Hardware

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

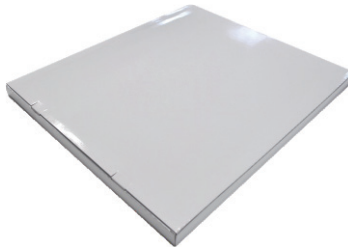
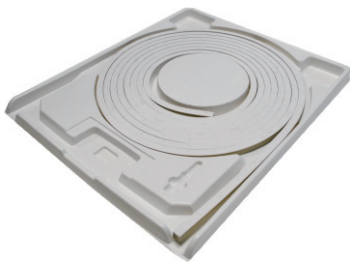
Stainless Steel Flexible Channel



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.

Packaging



White Box

Packing Box

Fixture Length	White Box Dimensions	Packing Box Dimensions	# Of White Boxes	Package Weight
196.85in (5m)	13.78x1.65x18.11in (35x4.2x46cm)	18.9x14.57x9.45in (48x37x24cm)	5	30.86lbs (10kg)
393.7in (10m)	17.72x1.65x22.05in (45x4.2x56cm)	22.83x18.5x9.45in (58x47x24cm)	5	57.32lbs (18kg)
787.4in (20m)	24.02x1.65x28.35in (61x4.2x72cm)	29.13x25x4.13in (74x63.5x10.5cm)	2	48.5lbs (15kg)

Testing

Photometric Data

RGB		
LED Type	SMD	
Beam Angle	160°	
Color	Wavelength	Lumen/m
Red	620-630nm	>20lm
Green	520-530nm	>75lm
Blue	465-475nm	>15lm
R+G+B (white)	N/A	>110lm

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

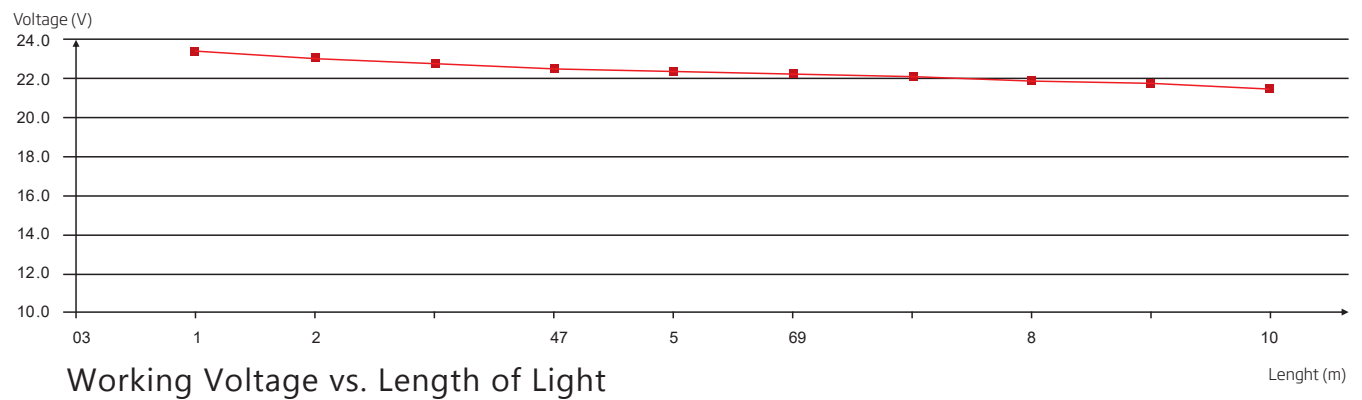
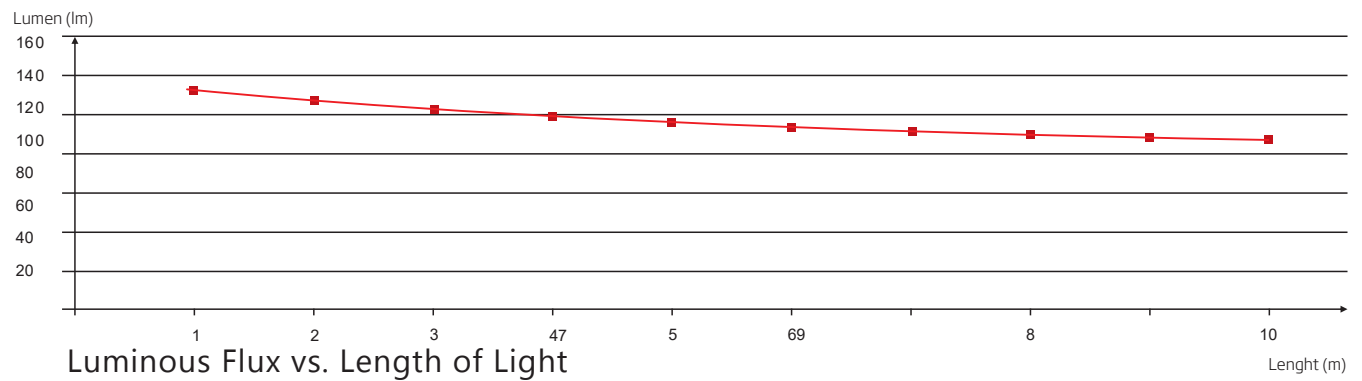
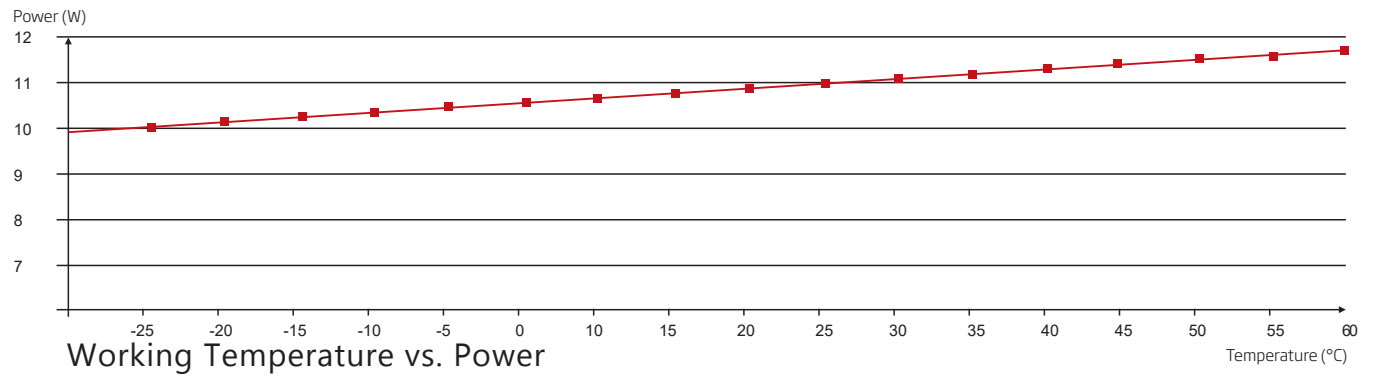
Bending Test	Manufacturer-defined, 500 cycles
Swing Test	UL2388, >750 cycles
Tensile Test	Manufacturer-defined, > the weight of light in max. connection length double feed
Twist Test	Max connection length double feed Manufacturer-defined, >200 cycles
Ball Impact	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21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

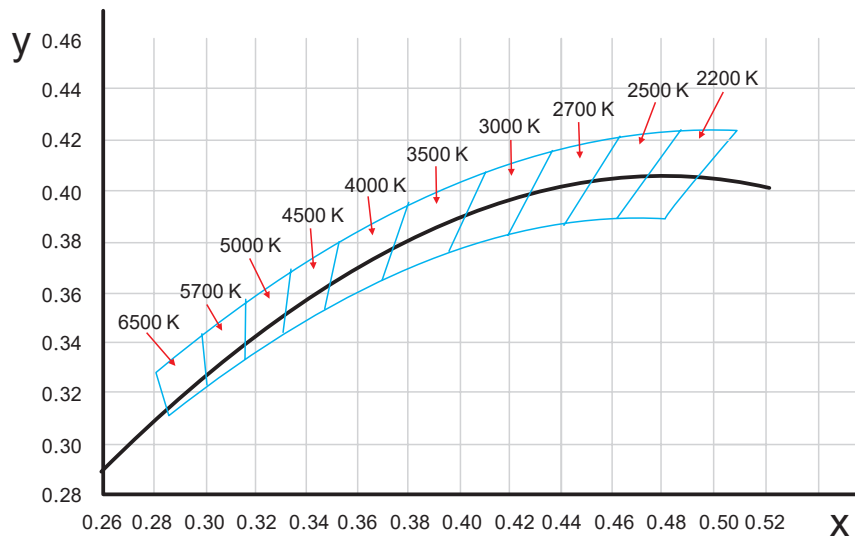
Nominal CCT	Target CCT and tolerance(K)	Target D_{uv}	D_{uv} Tolerance Range
2200K	2238 ±102	0.0000	Tx:CCT of the source
2500K	2460±120	0.0000	For $T_x < 2870K$
2700K	2725 ±145	0.0000	0.000±0.0060
3000K	3045±175	0.0001	For $T_x \geq 2870K$
3500K	3465±245	0.0005	$D_{uv}(T_x) \pm 0.0060$
4000K	3985±275	0.0010	where
4500K	4503±243	0.0015	$D_{uv}(T_x) = 57700 \times (1/T_x)^2$
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:

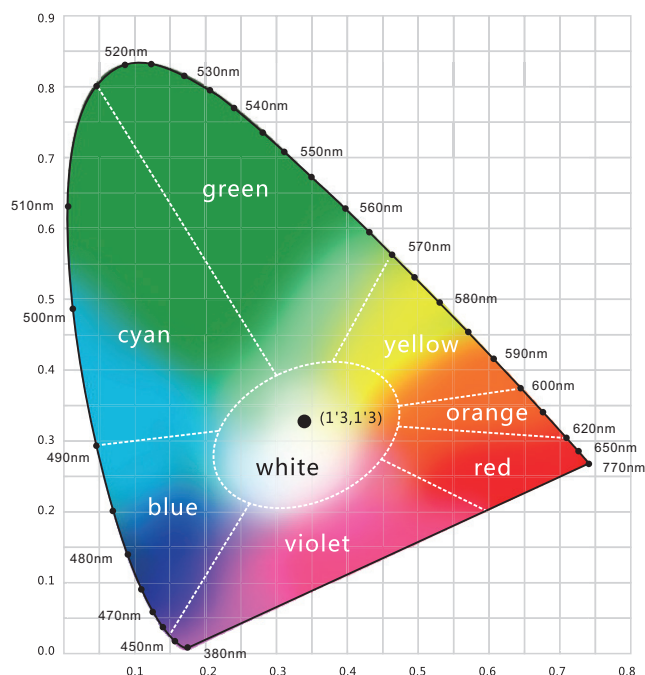
- 1) T_F is chosen to be at 100K steps (2300,2400,.....,6400K),excluding the ten nominal CCTs listed in Table 1.
- 2) $\Delta T = 1.1900 \times 10^8 \times T^{-3} - 1.5434 \times 10^4 \times T^2 + 0.7168 \times T - 902.55$
- 3) Same as in the D_{uv} Tolerance Range.

(X,Y) Chromaticity Diagram






Testing

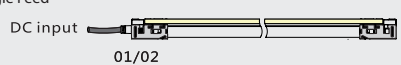
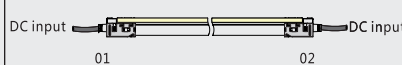
Charts



Light Color

-  **Red**
620-630nm
-  **Green**
520-530nm
-  **Blue**
465-475nm

Loading Chart

Rated Power	Power Supply									
	35W	60W	75W	80W	100W	120W	150W	185W	240W	320W
2.19W/ft (7.2W/m)	9.84ft (3m)	19.69ft (6m)	24.61ft (7.5m)	26.25ft (8m)	32.81ft (10m)	39.37ft (12m)	49.21ft (15m)	59.06ft (18m)	78.74ft (24m)	98.43ft (30m)
3.66W/ft (12W/m)	6.56ft (2m)	11.48ft (3.5m)	14.76ft (4.5m)	16.4ft (5m)	19.69ft (6m)	22.97ft (7m)	32.81ft (10m)	39.37ft (12m)	45.93ft (14m)	65.62ft (20m)
Lead Type	Single Feed					Double Feed				
										
	01/02					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 26.25ft (8m) at 2.19W/ft (7.2W/m), or for a single-fed run of 16.4ft (5m) at 3.66W/ft (12W/m).