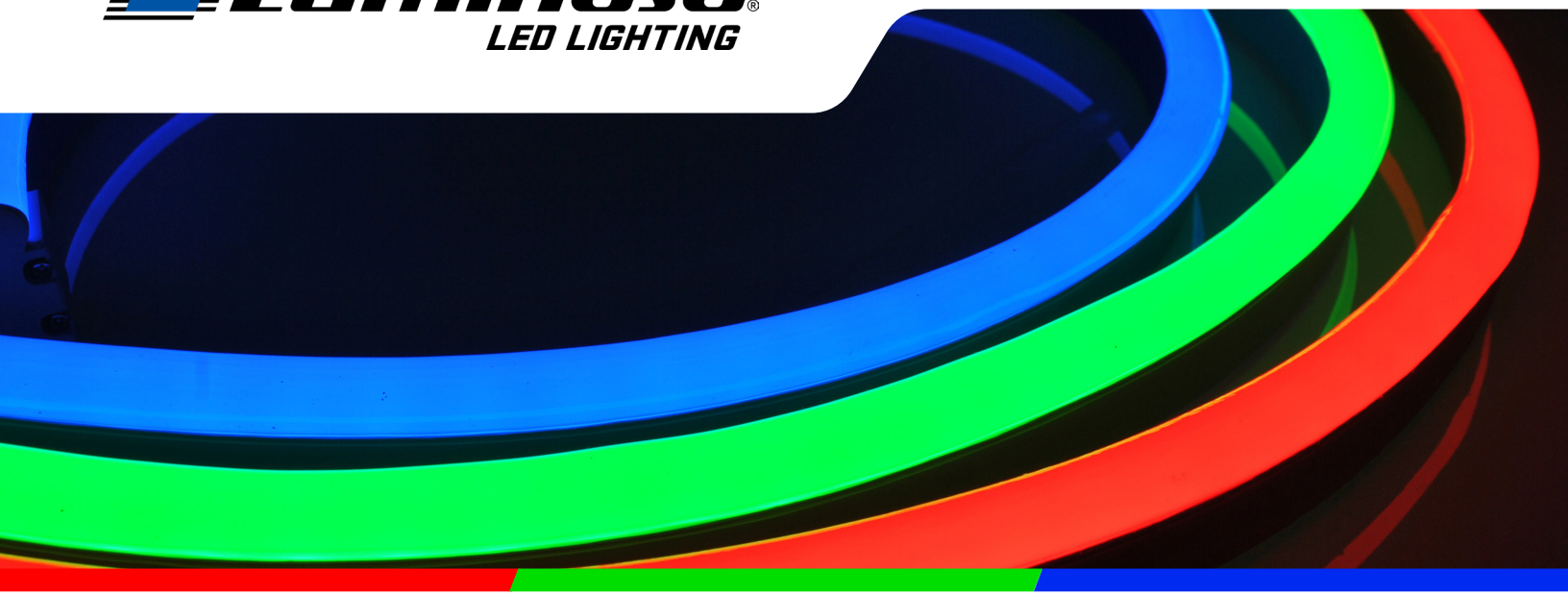
Luminoso LED LIGHTING

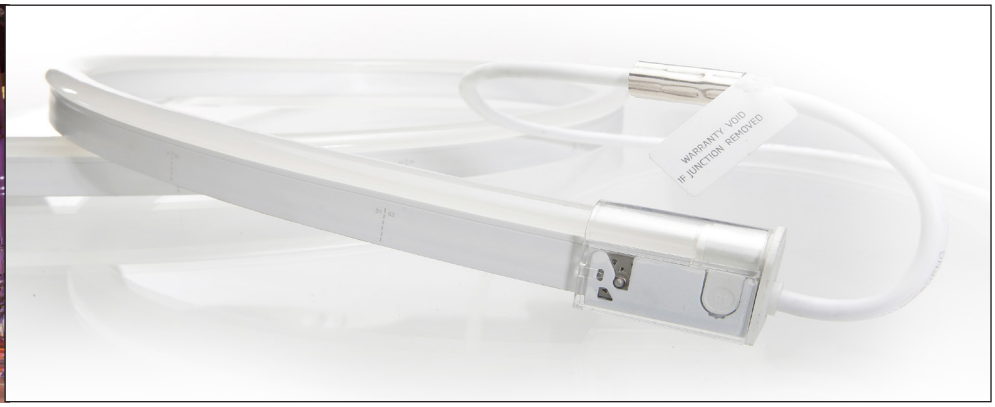


LLN-L21S RGB / LED NEON SILICONE / 24V / Horizontal Bending

Description:

LED neon provides the look of traditional neon with all the advantages of LED lighting. Conventional glass neon is expensive, extremely fragile and dangerous if broken. Instead of glass, the rugged housing is made of silicone. It is durable, flexible, customizable and easy to install.

The use of modern LED technology allows LED neon to achieve effects that were never before possible with traditional glass neon, such as dimming and color-changing options. The captivating appearance of LED neon makes it the perfect choice for architectural, entertainment and hospitality installations..



DMX RDM · RoHS COMPLIANT · DIMMABLE · IP68 · UL

Light Dimension 0.45 x 1.14in (11.5x29mm)

Specifications are subject to change without notice.

Output	**RGB**
LED Light	SMD LED chips
Continuous Length	
Single Feed	Full Load: 26.22ft (8m)
Double Feed	Full Load: 52.44ft (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	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	-40°F to 122°F (-40°C to 50°C)
Operating	-40°F to 131°F (-40°C to 55°C)
Humidity	0-95% non condensing
Dependability	
Warranty	5 Year Limited 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

Project:

Type:

Model:

Description:

LLN-L21S is the most reliable dot-free linear light on the market, offers seamless fittings built to preserve light uniformity. Engineered for on-site configuration and assembly makes our product the definite solution for architectural accents and signage. LLN-L21S flexibility is just one of the many outstanding features which allow designers to explore organic shapes and advanced patterns, previously not possible. This NEON system is RGB colors.

Example: LLN-L21S-X-RGB-26-CC-1-BM-05M-S

Series	Voltage	NEON Type	MAX Length (Nominal)	Connector Type	Fixture End	Exit Type	Length	Power / Signal
LLN-L21S Silicone NEON	**X** X = 24 Volts	**RGB** Red Blue Green	**26** 26.22 feet	**CC** Clamp Connector IP67 **SM** Seamless Connector IP68	**1** Input side **2** Output side **0** Jumpers T-feeds/ Seamless (or submersible) Bottom/ Seamless (or submersible) End	**ED** End **BM** Bottom **SL** Side Left **SR** Side Right **EJ** End jumper **BJ** Bottom jumper **TF** Power T-Feed	**0M3** 0.98ft (30cm) **01M** 3.28ft (1m) **03M** 9.84ft (3m) **05M** 16ft (5m) **10M** 32.81ft (10m) **EC** End Cap	**P** Power or for End Cap **S** Signal and Power

Enter configuration:

** Special Order

Dimensions and values shown are nominal. LuminosoLED continually works to improve products and reserves the right to make changes which may alter the performance or appearance of products.

Specifications are subject to change without notice.

Available Colors

Color	CCT Wavelength
Red	618-624nm
Green	522-528nm
Blue	468-474nm
R+G+B (White)	N/A

Lumen Count

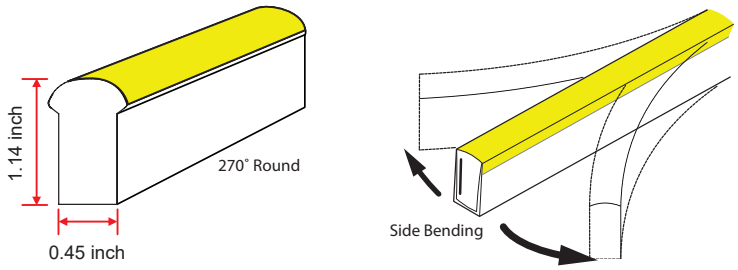
Color	Per Foot	Per Meter
Red	>18.29lm	>60lm
Green	>42.68lm	>140lm
Blue	>9.14lm	>30lm
R+G+B (White)	>70.12lm	>230lm

***Color Jackets:**

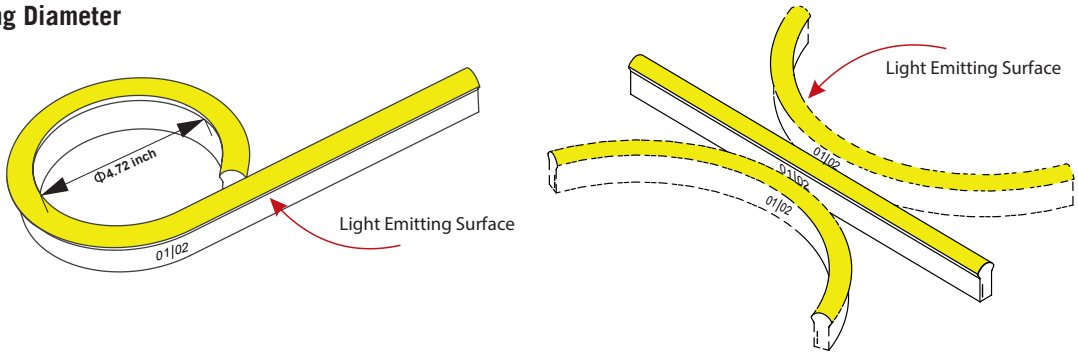
For standard or custom color jacket options, contact your Account Manager. Min. order quantity of 656ft (200m).

270° Beam Angle | **D:120mm Bending Diameter** | **Flame Resistant** | **UV Resistant** | **Solvents Resistant** | **Saltwater Resistant** | **IP68 Protection** | **IK08 Protection** | **5 Year Warranty**

Dimensions



Minimum Bending Diameter

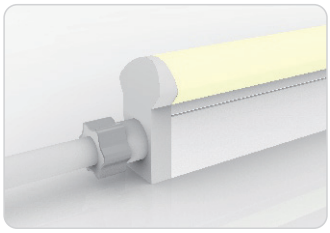


01 and 02 Explanation

There are 01 and 02 marks on light body and connector. Since the PCB is not centralized and pins are separated for positive and negative, the 01-pin connector can only fit into 01 end marked on light body and likewise for 02-pin connector, please see below drawings for more details.

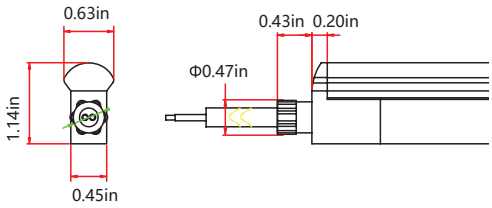
Specifications are subject to change without notice.

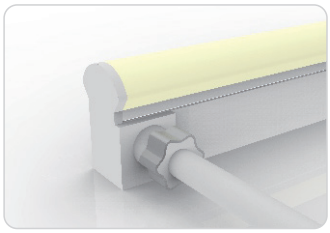
(Connectors)
IP68: Rated for outdoor use.
Factory Assembly or DIY.



Seamless End Exit

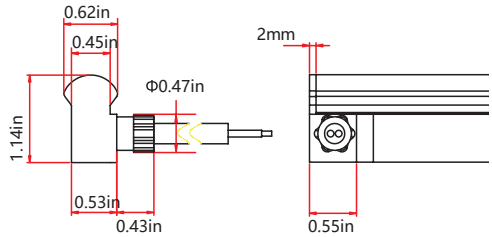
LLN-L21S-X-RGB-HB-SM-0-ED-**XXX**-S





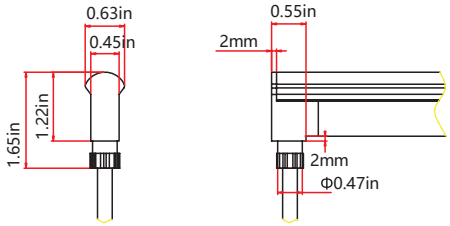
Seamless Side Exit

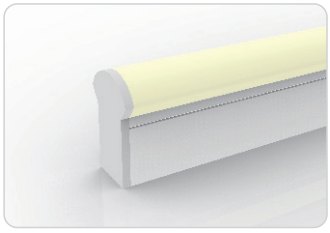
LLN-L21S-X-RGB-HB-SM-1-SR-**XXX**-S
LLN-L21S-X-RGB-HB-SM-2-SL-**XXX**-S



Seamless Bottom Exit

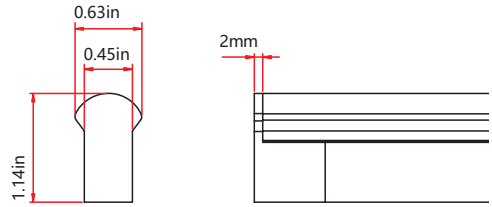
LLN-L21S-X-RGB-HB-SM-0-BM-**XXX**-S

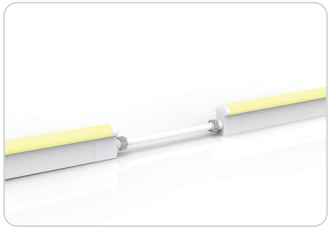




Seamless End Cap

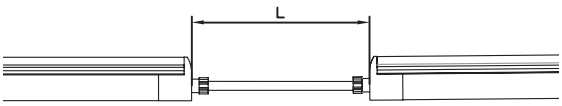
LLN-L21S-X-RGB-HB-SM-1-EC-P
LLN-L21S-X-RGB-HB-SM-2-EC-P





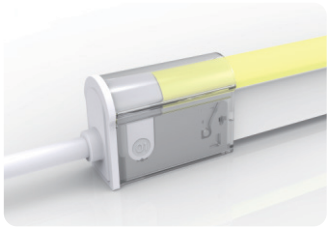
Seamless Jumper

LLN-L21S-X-RGB-HB-SM-0-EJ-**XXX**-S



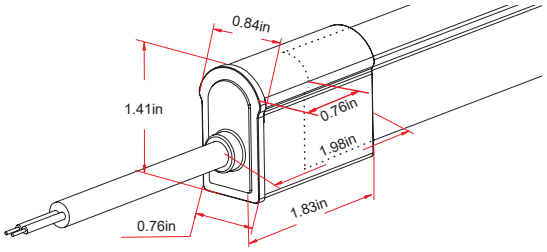
Specifications are subject to change without notice.

(Connectors)
IP67: Rated for outdoor use.
Factory Assembly or DIY.



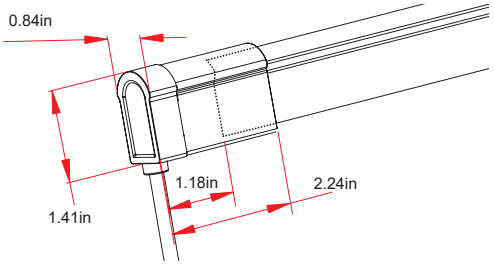
Clamp End Exit

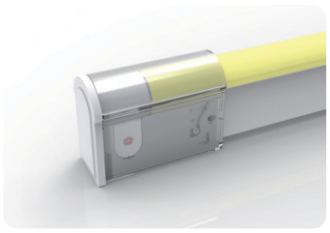
LLN-L21S-X-RGB-HB-CC-1-ED-**XXX**-S
LLN-L21S-X-RGB-HB-CC-2-ED-**XXX**-S



Clamp Bottom Exit

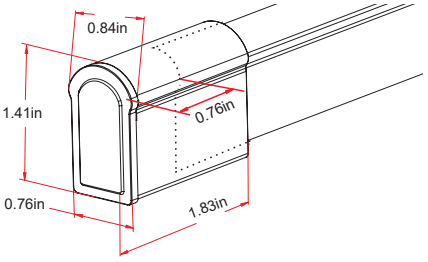
LLN-L21S-X-RGB-HB-CC-1-BM-**XXX**-S
LLN-L21S-X-RGB-HB-CC-2-BM-**XXX**-S

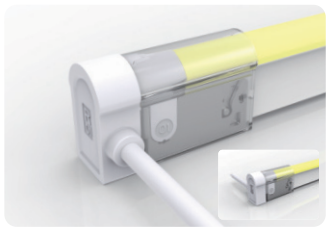




Clamp End Cap

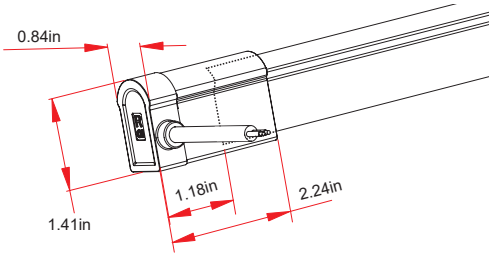
LLN-L21S-X-RGB-HB-CC-1-EC-P
LLN-L21S-X-RGB-HB-CC-2-EC-P

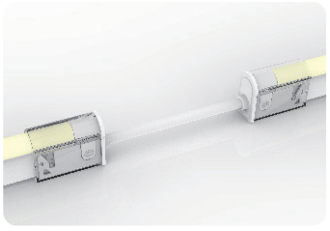




Clamp Side Exit

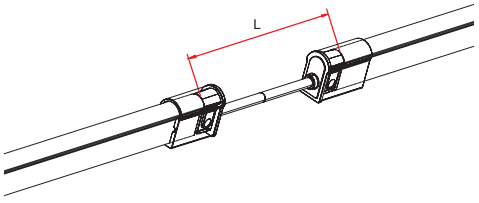
LLN-L21S-X-RGB-HB-CC-1-SL-**XXX**-S
LLN-L21S-X-RGB-HB-CC-2-SL-**XXX**-S
LLN-L21S-X-RGB-HB-CC-1-SR-**XXX**-S
LLN-L21S-X-RGB-HB-CC-2-SR-**XXX**-S





Clamp Jumper

LLN-L21S-X-RGB-HB-CC-0-EJ-**XXX**-S

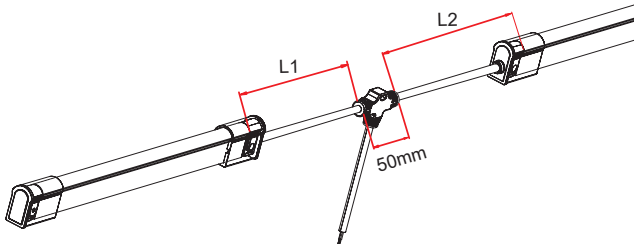


Specifications are subject to change without notice.

(Connectors)
IP67: Rated for outdoor use.
Factory Assembly or DIY.

Snap Power T Feed

LLN-L21S-X-RGB-HB-CC-0-TF-**XXX**-S



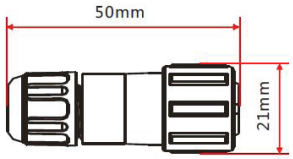
(Barrel Connectors)

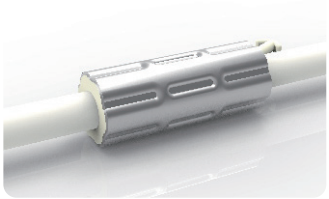
Barrel Connectors

BA-XX-BC-DC-CXX-F
BA-XX-BC-DC-CXX-M

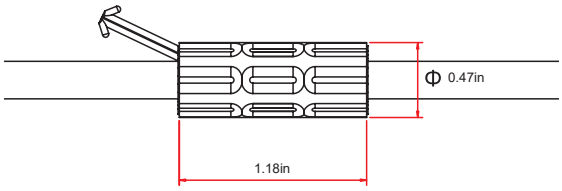
BA-XX-BN-XXA-CXX-F
BA-XX-BN-XXA-CXX-M

BA-XX-PL-XXA-CXX-F
BA-XX-PL-XXA-CXX-M



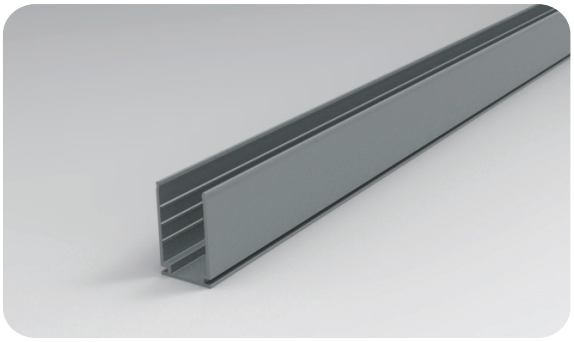


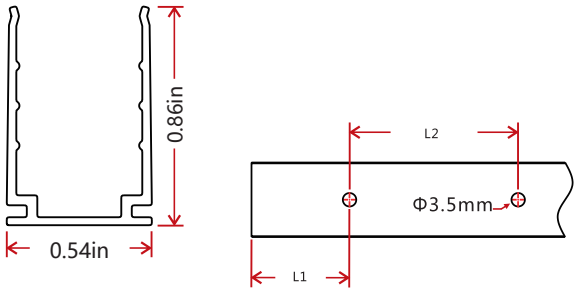
Anti-Wicking Ferrule



Specifications are subject to change without notice.

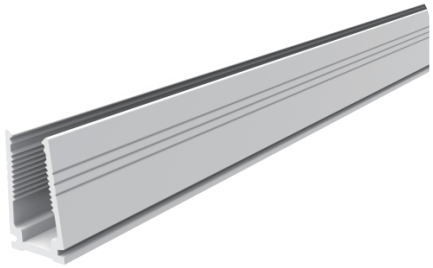
Standard Anodized Aluminum Channel

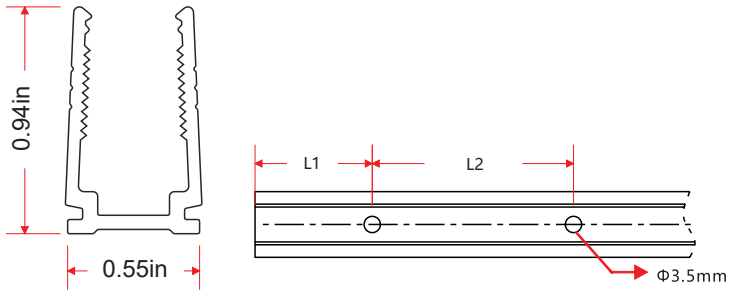




W x H	Standard Length	Part Number	L1	L2	Screw Hole Φ	Hole #
0.54 x 0.87in	1.38in (35mm)	AL-11-R-AL-3C5-SD	0.69in (17.5mm)	/	0.39x0.16in(10x4mm)	1
(13.8 x 22mm)	19.69in (500mm)	AH-11-R-AL-0M5-SD	1.97in (50mm)	7.87in (200mm)	0.39x0.16in(10x4mm)	3
	39.37in (1000mm)	AH-11-R-AL-01M-SD	3.94in (100mm)	7.87in (200mm)	0.39x0.16in(10x4mm)	5
	78.74in (2000mm)	AH-11-R-AL-02M-SD	3.94in (100mm)	7.87in (200mm)	0.39x0.16in(10x4mm)	10

Plastic Channel

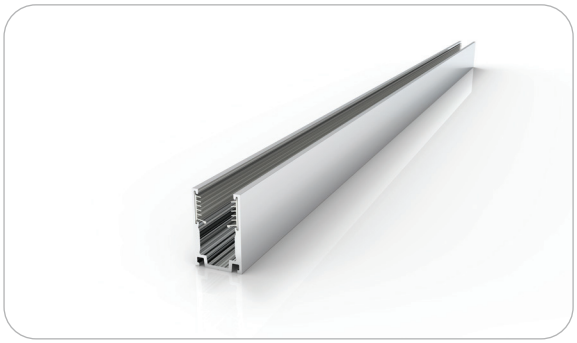


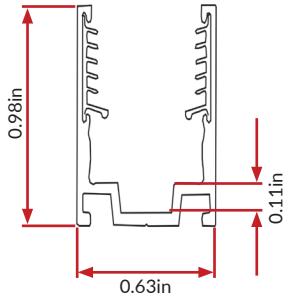


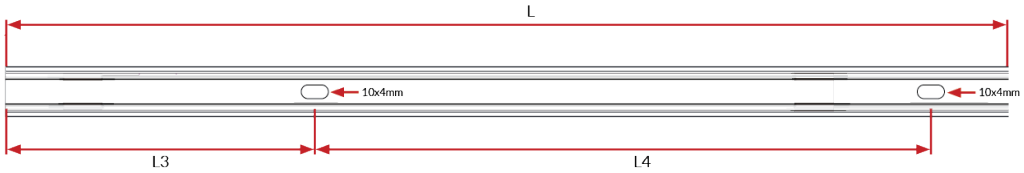
W x H	Standard Length	Part Number	L1	L2	Screw Hole Φ	Hole #
0.55 x 0.94in	19.69in (500mm)	AH-11-R-PL-0M5-SD	1.97n (50mm)	7.87in (200mm)	0.14in (3.5mm)	3
(14 x 24mm)	39.37in (1000mm)	AH-11-R-PL-01M-SD	3.94in (100mm)	7.87in (200mm)	0.14in (3.5mm)	5
	78.74in (2000mm)	AH-11-R-PL-02M-SD	3.94in (100mm)	7.87in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

Specifications are subject to change without notice.

Standard Aluminum Channel with Silicone Grip

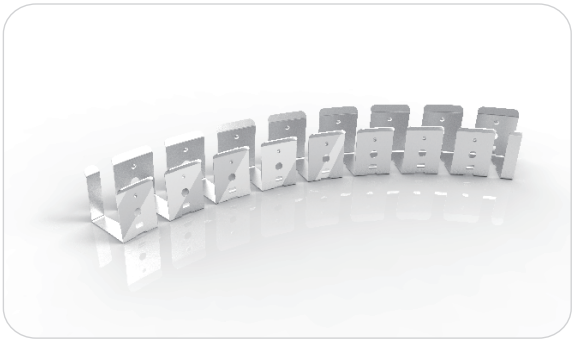


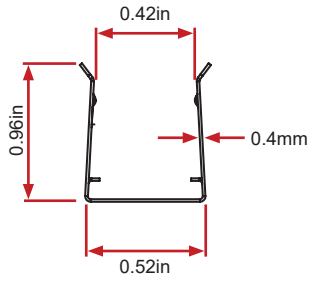


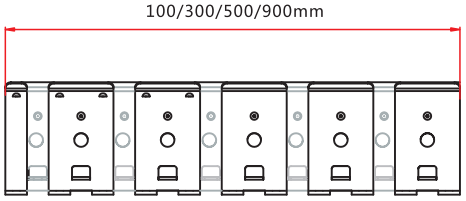


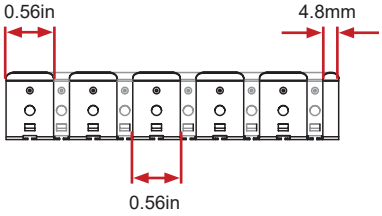
W x H	Standard Length	Part Number	L3	L4	Screw Hole	Hole#
0.82 x 0.88in	0.79in (20mm)	AL-11-R-AL-02C-SE	0.2in (5mm)	0.98in (25mm)	0.39in x 0.16in (10 x 4mm)	1
(20.7 x 22.3mm)	19.69in (500mm)	AH-11-R-AL-0M5-SE	1.97in (50mm)	7.87in (200mm)	0.39in x 0.16in (10 x 4mm)	3
	39.37in (1000mm)	AH-11-R-AL-01M-SE	3.94in (100mm)	7.87in (200mm)	0.39in x 0.16in (10 x 4mm)	5
	78.74in (2000mm)	AH-11-R-AL-02M-SE	3.94in (100mm)	7.87in (200mm)	0.39in x 0.16in (10 x 4mm)	10

Stainless Steel Flexible Channel



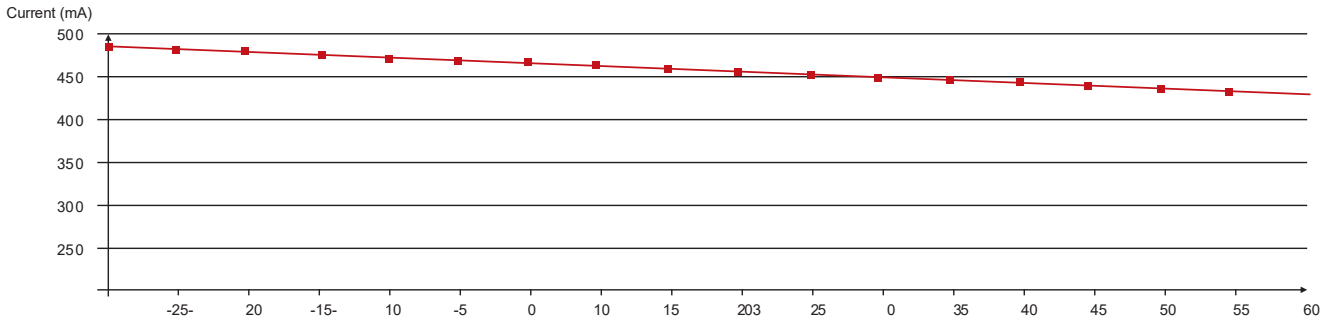




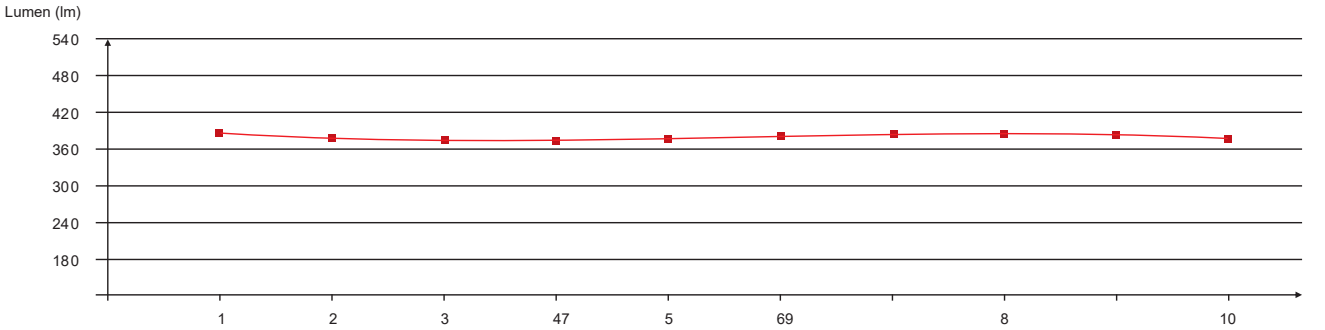


W x H	Standard Length	Part Number
0.52 x 0.97in	3.94in (100mm)	FC-11-F-SS-0M1-SD
(13.2 x 24.5mm)	11.81in (300mm)	FC-11-F-SS-0M3-SD
	19.69in (500mm)	FC-11-F-SS-0M5-SD
	35.43in (900mm)	FC-11-F-SS-0M9-SD

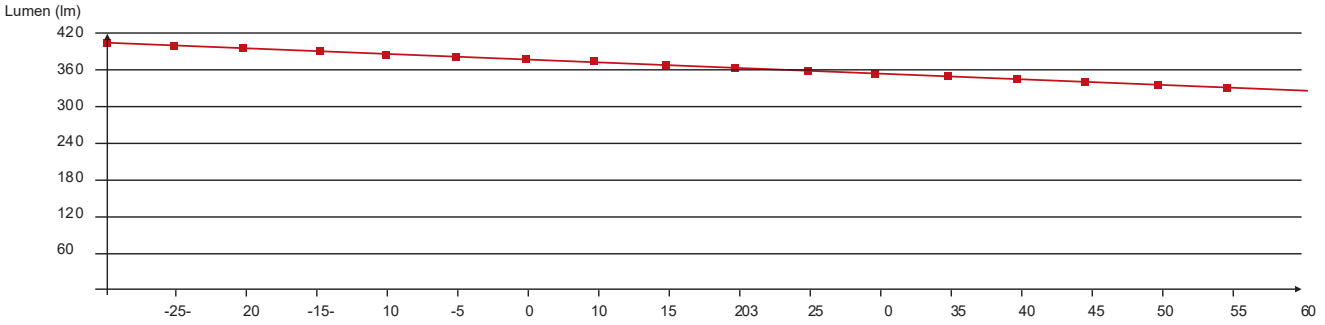
This profile can be mounted using screws in any gaps where the channel bends.



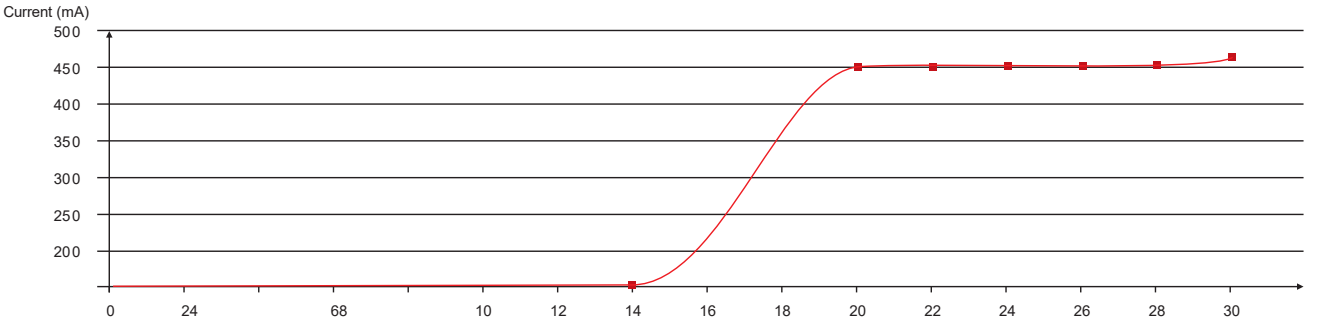
Working Temperature vs. Curren t



Luminous Flux vs. Length of Ligh t



Luminous Flux vs. Working Temperature



Voltage vs. Current

ANSI STANDARD

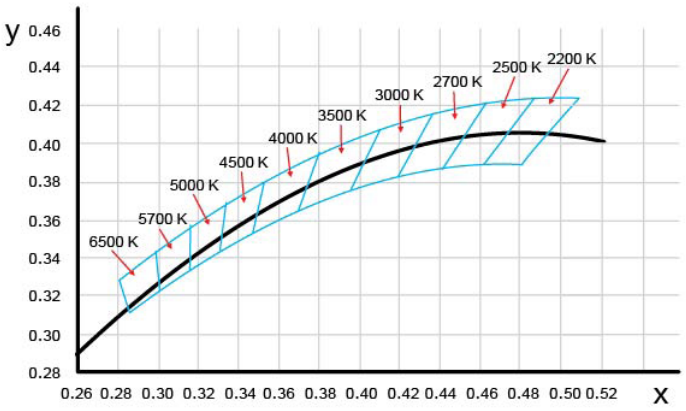
Nominal CCT Categories

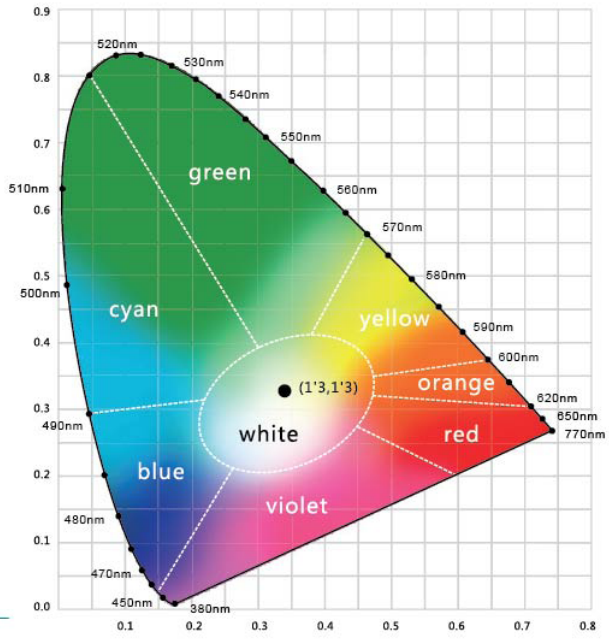
Nominal CCT	Target CCT and tolerance(K)	Target D_{uv}	D_{uv} Tolerance Range
2200K	2238 ±102	0.0000	Tx:CCT of the source
2500K	2460±120	0.0000	For Tx<2870K
2700K	2725 ±145	0.0000	0.000±0.0060
3000K	3045±175	0.0001	For Tx≥2870K
3500K	3465±245	0.0005	Duv(Tx)±0.0060
4000K	3985±275	0.0010	where
4500K	4503±243	0.0015	Duv(Tx)=57700 x (1/Tx)2
5000K	5029±283	0.0020	-44.6 x (1/Tx)
5700K	5667±355	0.0025	+0.00854
6500K	6532±510	0.0031	
Flexible CCT (2200-6500K)	T_F [1] ±ΔT [2]	$D_{uv}T_F$ [3]	

Remark:

1) T_F is chosen to be at 100K steps (2300,2400,.....,6400K),excluding the ten nominal CCTs listed in Table 1.
2) $\Delta T=1.1900x10^{8}xT^{3}-1.5434x10^{4}xT^{2}+0.7168xT-902.55$
3) Same as in the D_{uv} Tolerance Range.

(X,Y) Chromaticity Diagram





Light Color