

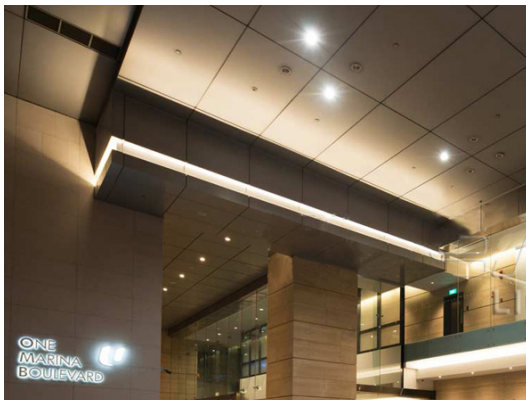


LLN-L21S DYNAMIC WHITE / LED NEON SILICONE / 24V / Horizontal Bending

**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..



Light Dimension 0.45 x 1.14in (11.5x29mm)

*Specifications are subject to change without notice.*

<b>Output</b>		<b>W / WW (25K-50K)</b>	
LED Light	SMD LED chips		
<b>Continuous Length</b>			
Single Feed (Power supplies Class 2 Compliance)	Full Load: 26.22ft (8m)		
Double Feed (Power supplies Class 2 Compliance)	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		
<b>Electrical</b>			
Input Voltage	24V DC		
Power Consumption	3.66W/ft (12W/m)		
<b>Physical</b>			
LED Count	43 LEDs / ft (144 LEDs/m)		
LED Spacing	0.55in (13.89mm)		
Cutting Unit Length *	3.28in (83.3mm) (12 LEDs)		
Thermal Management	Free air convection		
Fixture Connections	End, side & bottom lead wires		
Minimum Bend Diameter	4.72in (120mm) (Side Bending)		
<b>Temperature Ranges</b>			
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		
<b>Dependability</b>			
Warranty	5 Year Limited Warranty		
<b>Safety</b>			
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		

**Available Colors**

Color	CCT Wavelength
2500K	2460 ± 120K
5000K	5029 ± 283K
WW + W	3465 ± 245K

**Lumen Count**

Color	Per Foot	Per Meter	Power/m
2500K	>40lm	>130lm	/
5000K	>40lm	>130lm	/
WW + W	>80lm	>260lm	12W

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, tunnable CCT 2500K to 5000K.



Example: LLN-L21S-X-DWT-26-CC-1-ED-10M



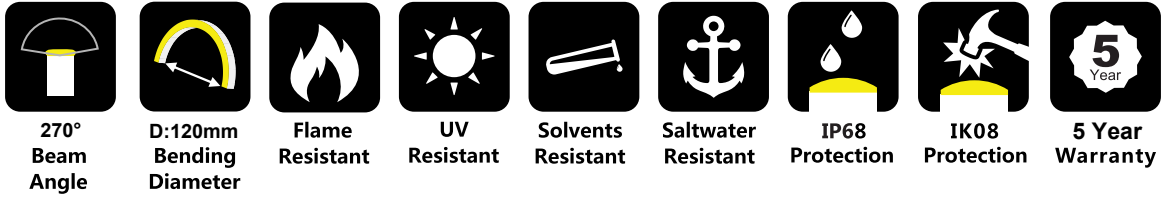
Series	Voltage	NEON Type	MAX Length (Nominal)	Connector Type	Fixture End	Exit Type	Length	Power / Signal
LLN-L21S Silicone NEON	X X = 24 Volts	DWT Dynamic White (2500K-5000K)	26 26.22 feet	CC Clamp Connector IP67	1 Input side	ED End	0M3 0.98ft (30cm)	P Power or for End Cap
					2 Output side	BM Bottom	01M 3.28ft (1m)	S Signal and Power
			See Cutting Unit Length for exact increments. *	SM Seamless Connector IP68	0 Jumpers T-feeds/ Seamless (or submersible) Bottom/ Seamless (or submersible) End	SL Side Left	03M 9.84ft (3m)	
						SR Side Right	05M 16ft (5m)	
						EJ End jumper	10M 32.81ft (10m)	
						BJ Bottom jumper	EC End Cap	
						TF Power T-Feed		

Enter configuration: \_\_\_\_\_

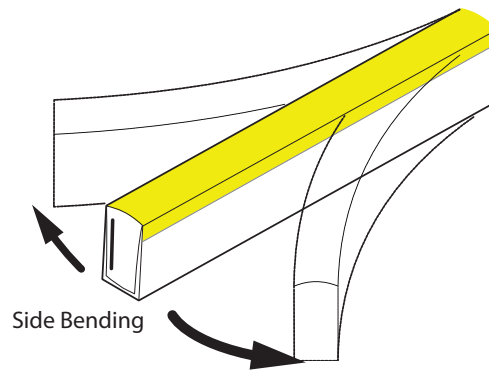
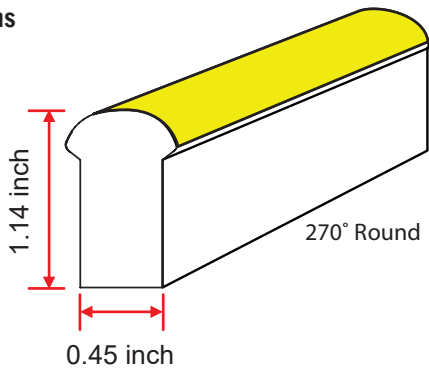
\*\* Special Order

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.

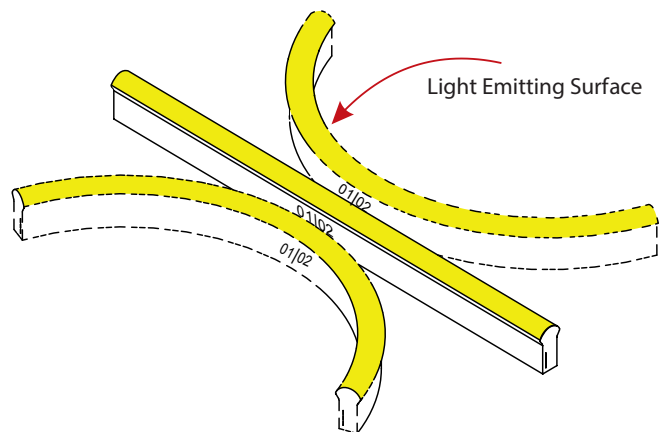
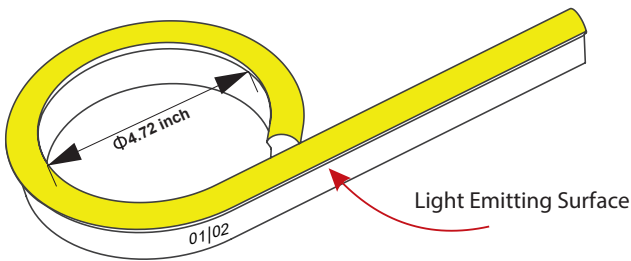
Specifications are subject to change without notice.



**Dimensions**

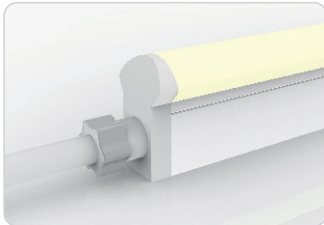


**Minimum Bending Diameter**

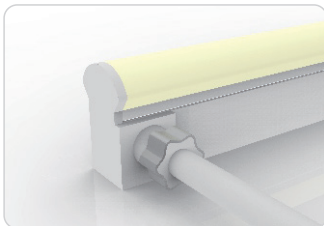
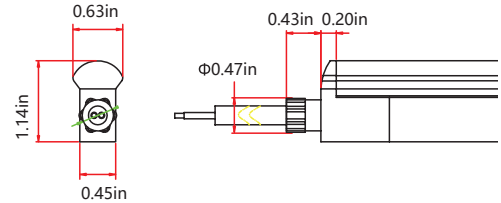


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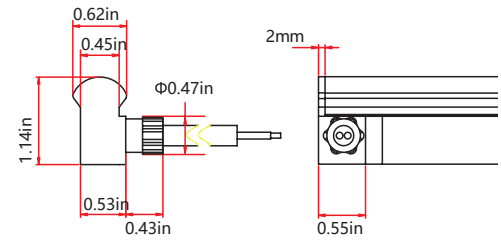
(Connectors)  
IP68: Rated for outdoor use.  
Factory Assembly or DIY.



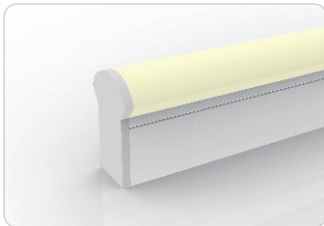
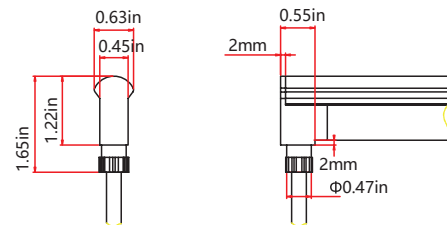
**Seamless End Exit**  
LLN-L21S-X-DWT-HB-SM-0-ED-XXX-S



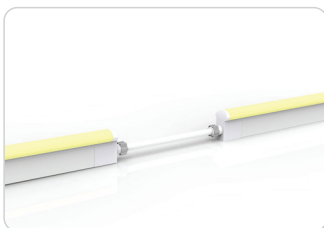
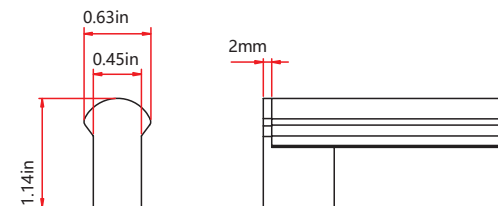
**Seamless Side Exit**  
LLN-L21S-X-DWT-HB-SM-1-SR-XXX-S  
LLN-L21S-X-DWT-HB-SM-2-SL-XXX-S



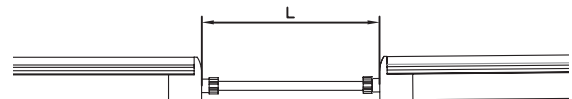
**Seamless Bottom Exit**  
LLN-L21S-X-DWT-HB-SM-0-BM-XXX-S



**Seamless End Cap**  
LLN-L21S-X-DWT-HB-SM-1-EC-P  
LLN-L21S-X-DWT-HB-SM-2-EC-P

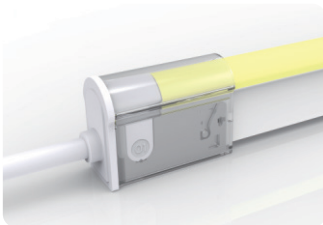


**Seamless Jumper**  
LLN-L21S-X-DWT-HB-SM-0-EJ-XXX-S



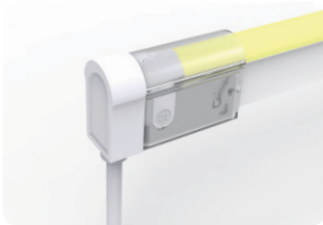
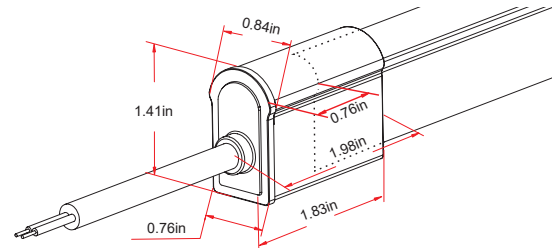
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(Connectors)  
IP67: Rated for outdoor use.  
Factory Assembly or DIY.



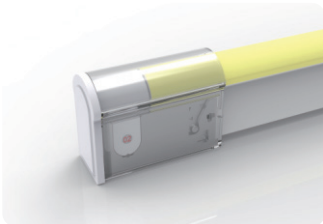
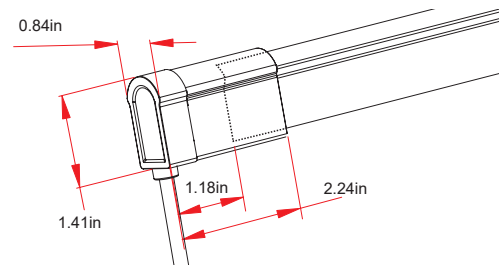
**Clamp End Exit**

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LLN-L21S-X-DWT-HB-CC-2-ED-XXX-S



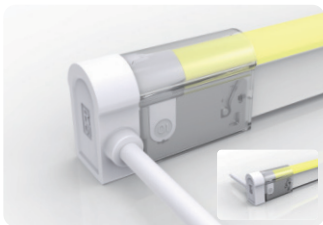
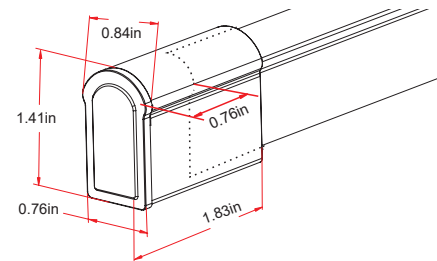
**Clamp Bottom Exit**

LLN-L21S-X-DWT-HB-CC-1-BM-XXX-S  
LLN-L21S-X-DWT-HB-CC-2-BM-XXX-S



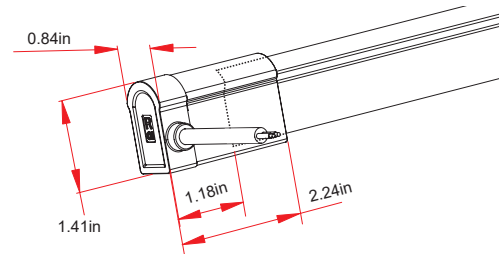
**Clamp End Cap**

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



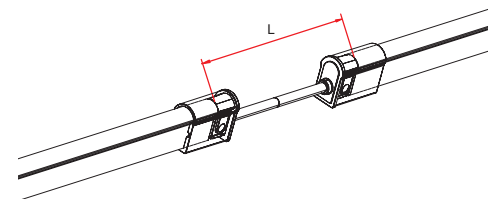
**Clamp Side Exit**

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



**Clamp Jumper**

LLN-L21S-X-DWT-HB-CC-0-EJ-XXX-S



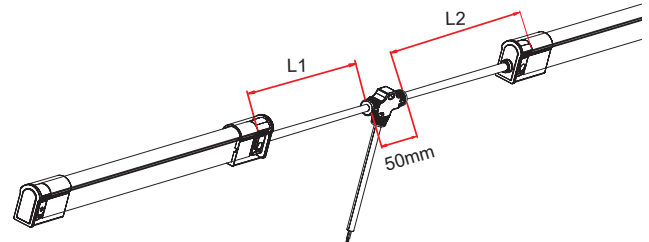


Specifications are subject to change without notice.

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

**Clamp Power T Feed**

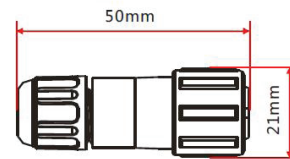
LLN-L21S-X-DWT-HB-CC-0-TF-XXX-S



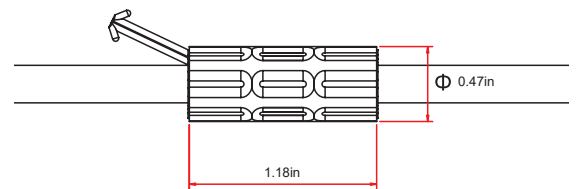
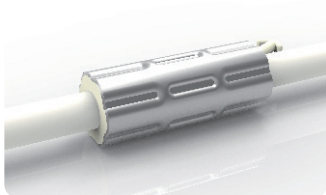
(Barrel Connectors)

**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

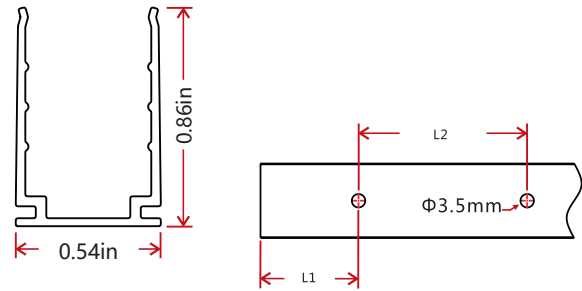
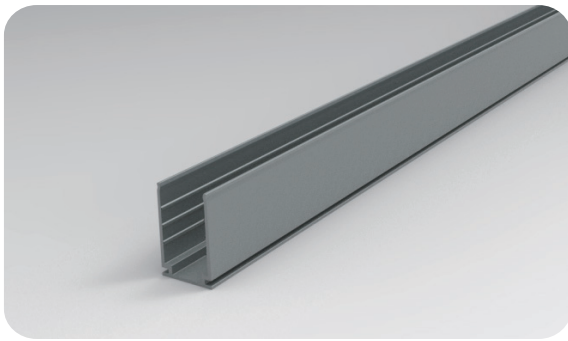


**Anti-Wicking Ferrule**



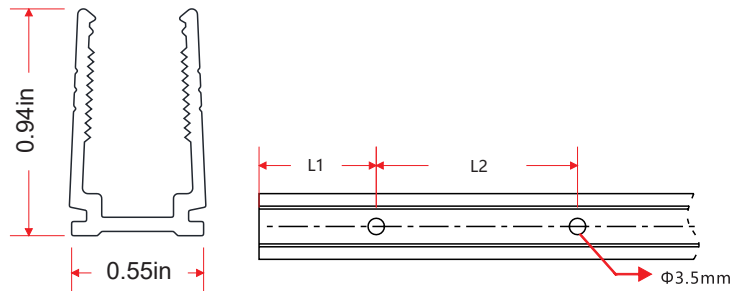
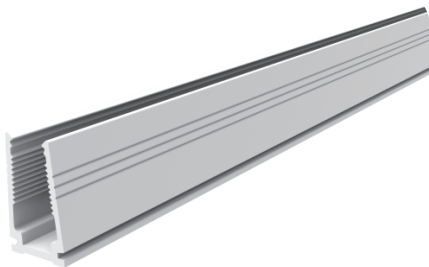
Specifications are subject to change without notice.

### Standard Anodized Aluminum Channel



W x H	Standard Length	Part Number	L1	L2	Screw Hole $\Phi$	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

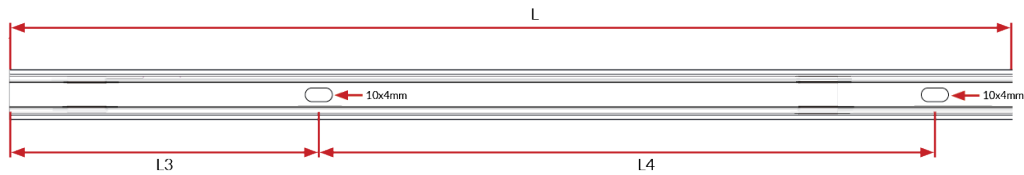
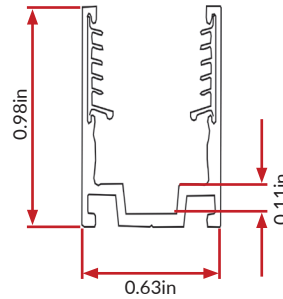


W x H	Standard Length	Part Number	L1	L2	Screw Hole $\Phi$	Hole #
0.55 x 0.94in	19.69in (500mm)	AH-11-R-PL-0M5-SD	1.97in (50mm)	7.87in (200mm)	0.14in (3.5mm)	3
(14 x 24mm)	39.37in (1000mm)	AH-11-R-PL-01M-SD	3.94in (100mm)	7.87in (200mm)	0.14in (3.5mm)	5
	78.74in (2000mm)	AH-11-R-PL-02M-SD	3.94in (100mm)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



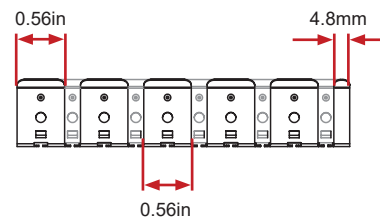
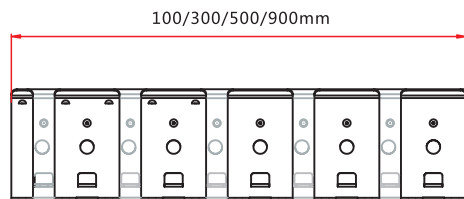
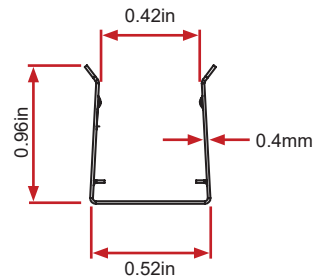
Specifications are subject to change without notice.

### Standard Aluminum Channel with Silicone Grip



W x H	Standard Length	Part Number	L3	L4	Screw Hole	Hole#
0.82 x 0.88in (20.7 x 22.3mm)	0.79in (20mm)	AL-11-R-AL-02C-SE	0.2in (5mm)	0.98in (25mm)	0.39in x 0.16in (10 x 4mm)	1
	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 (13.2 x 24.5mm)	3.94in (100mm)	FC-11-F-SS-0M1-SD
	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.

## 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	$D_{uv}(Tx)±0.0060$
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)  $T_f^{1)} \pm \Delta T^{2)}$   $D_{uv} T_f^{3)}$

### Remark:

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

