

Version 5.6

# VIVID S 270 PIXEL PVC 24V



**For More Information**

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UNITED STATES

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CANADA

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GILLS reserves the right to make any design changes for continuous improvement which will not affect the overall appearance or performance.

[www.gills.com](http://www.gills.com)

[www.ledneonflex.com](http://www.ledneonflex.com)

Light Dimension	0.45 x 1.14in (11.5x29mm)			
<b>Output</b>	<b>RGB</b>	<b>Single Color</b>	<b>RGBW(27K/30K/40K)</b>	<b>W+WW</b>
LED Light	Epistar SMD LED Chip			
Max Run Length <sup>*1 *2</sup>				
Single Feed (Dynamic)	49.21ft (15m)	49.21ft (15m)	32.81ft (10m)	49.21ft (15m)
Single Feed (Full Load)	32.81ft (10m)	32.81ft (10m)	16.4ft (5m)	32.81ft (10m)
Double Feed (Dynamic)	98.43ft (30m)	98.43ft (30m)	65.62ft (20m)	98.43ft (30m)
Double Feed (Full Load)	65.62ft (20m)	65.62ft (20m)	32.81ft (10m)	65.62ft (20m)
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)	3.66W/ft (12W/m)	4.57W/ft (15W/m)	3.05W/ft (10W/m)
<b>Physical</b>				
LED Count	17 LED/ft (56 LEDs/m)	17 LED/ft (56 LEDs/m)	17 LED/ft (56 LEDs/m)	18 + 18 LEDs/ft (60+60LEDs/m)
LED Spacing	0.7in (17.8mm)	0.7in (17.8mm)	0.7in (17.8mm)	0.66in (16.7mm)
Cutting Unit Length	4.92in (125mm) (7 LEDs)	4.92in (125mm) (7 LEDs)	4.92in (125mm) (7 LEDs)	3.94in (100mm) (6 + 6 LEDs)
IC Type	UCS2903	UCS2903	UCS2904	UCS2903
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	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			
Thermal Fluctuactions	0.5%			
<b>Dependability</b>				
Warranty	5 Year 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			

\*1 Max Run Length:           Dynamic = when the R, G, B channels are not operating at 100%  
  Full Load = when the R, G, B channels are operating at 100%

\*2 Max Run Length: Unless otherwise stated, snap and seamless run lengths are the same.

## Single Color

### Available Colors

Color	Wavelength/CCT
Red	620-630nm
Green	520-530nm
Blue	465-475nm
Amber	585-595nm
2200K	2238 ± 102K
2700K (WW)	2725 ± 145K
3000K	3045 ± 175K
3500K (W)	3465 ± 245K
4000K	3985 ± 275K
5700K (DW)	5669 ± 355K

### Lumen Count

Color	Per Foot	Per Meter
Red	>43.00lm	>140lm
Green	>85.00lm	>280lm
Blue	>12.00lm	>40lm
Amber	>43.00lm	>140lm
2200K	>107.00lm	>350lm
2700K	>134.00lm	>440lm
3000K	>134.00lm	>440lm
3500K	>134.00lm	>440lm
4000K	>134.00lm	>440lm
5700K	>134.00lm	>440lm

## RGB & RGBW

### Available Colors

Color	Wavelength/CCT
Red	620-630nm
Green	520-530nm
Blue	465-475nm
2700K (WW)	2725 ± 145K
3000K	3045 ± 175K
4000K	3985 ± 275K

### Lumen Count

Color	Per Foot	Per Meter
Red	>12.8lm	>42lm
Green	>33.53lm	>110lm
Blue	>5.49lm	>18lm
2700K	>33.53lm	>110lm
3000K	>33.53lm	>110lm
4000K	>33.53lm	>110lm

## Dynamic White

### Available Colors

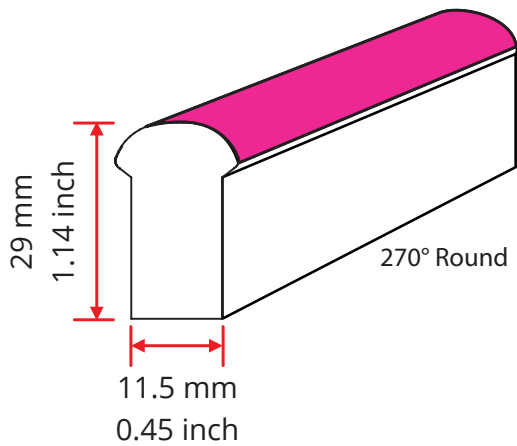
Color	Wavelength/CCT
2200K (WW)	2238 ± 102K
5700K (W)	5669 ± 355K
3500K (W)	3465 ± 245K

### Lumen Count

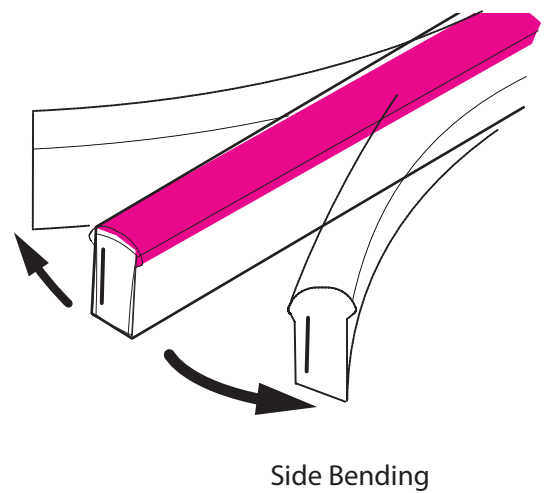
Color	Per Foot	Per Meter	Power
2200K	>39.62lm	>130lm	-
5700K	>39.62lm	>130lm	-
3500K	>79.24lm	>260lm	-



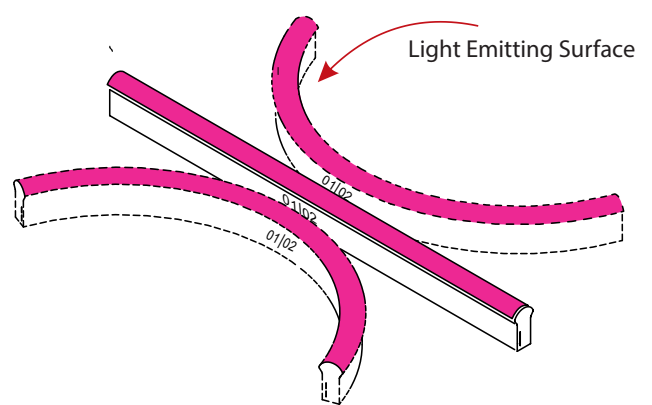
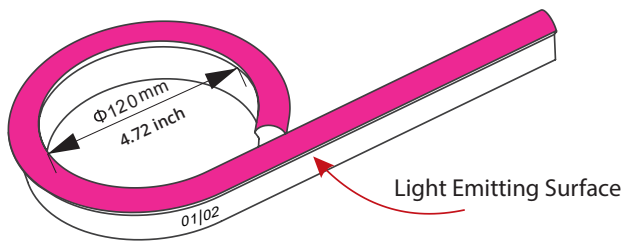
Light Profile



Light Profile



Minimum Bending Diameter



## Fixture

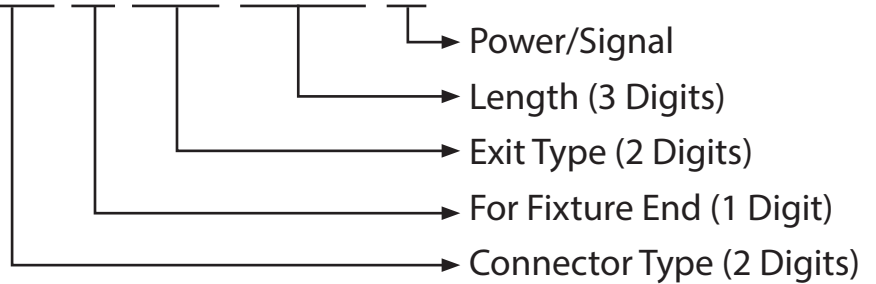
NF-11D-1-01-3W-E-**XXX**-24DC



LED Colors
RGB - Pixel RGB
R27 - Pixel RGBW (2700K)
R30 - Pixel RGBW (3000K)
R40 - Pixel RGBW (4000K)
PDW - Pixel Dynamic White

## Lead Connector

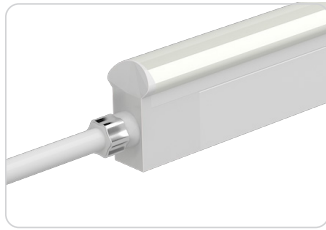
NA-11D-1-01-3W-**XX-X-XX-XXX-X**



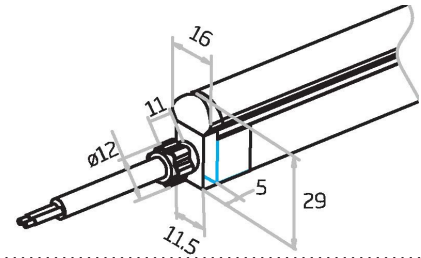
Connector Type (2 Digits)	For Fixture End (1 digit)	Exit Type (2 digits)	Length (3 digits)	Power/Signal (1 digits)
SC - Snap Conector	1 - Input side	EN - End	0M3 - 0.98ft (30cm)	P - Power or For End Cap
SE - Seamless	2 - Output side	BO - Bottom	01M - 3.28ft (1m)	S - Signal and Power
SU - Submersible	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	000 - For End Cap	
		TF - Power T feed		
		EC - End Cap		

For full part number naming rules, please refer to the document on [www.glls.com/support/documentation/](http://www.glls.com/support/documentation/)

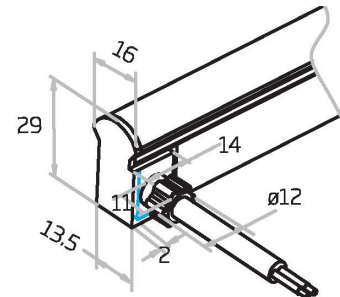
# Seamless



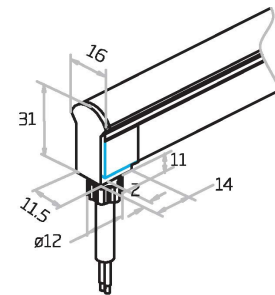
**Seamless End Exit**  
 NA-11D-1-01-3W-SE-0-EN-XXX-S  
 2 Wire  
 NA-11D-1-01-3W-SE-0-EN-XXX-P



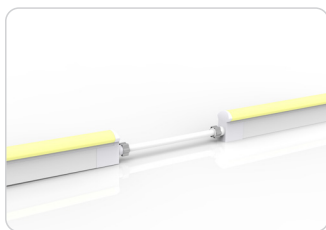
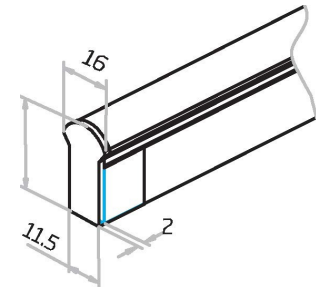
**Seamless Side Exit**  
 NA-11D-1-01-3W-SE-1-SR-XXX-S  
 NA-11D-1-01-3W-SE-2-SL-XXX-S  
 2 Wire  
 NA-11D-1-01-3W-SE-2-SL-XXX-P



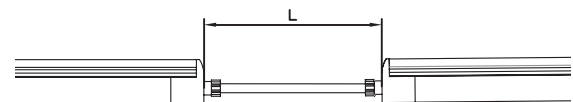
**Seamless Bottom Exit**  
 NA-11D-1-01-3W-SE-0-BO-XXX-S  
 2 Wire  
 NA-11D-1-01-3W-SE-0-BO-XXX-P



**Seamless End Cap**  
 NA-11D-1-01-0W-SE-1-EC-000-P  
 NA-11D-1-01-0W-SE-2-EC-000-P

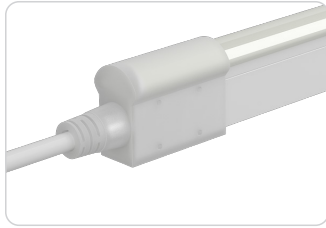


**Seamless Jumper**  
 NA-11D-1-01-3W-SE-0-EJ-XXX-S  
 NA-11D-1-01-3W-SE-0-BJ-XXX-S

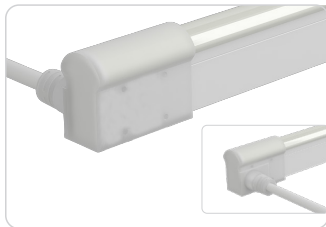
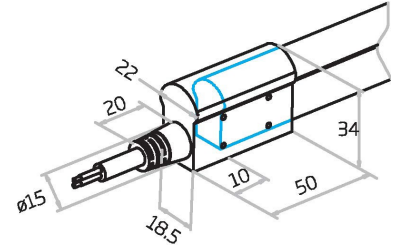




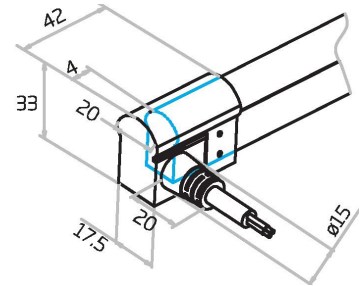
# Submersible Seamless



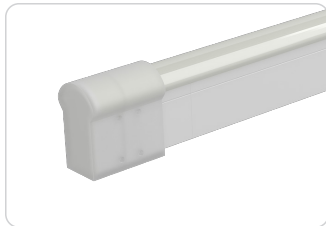
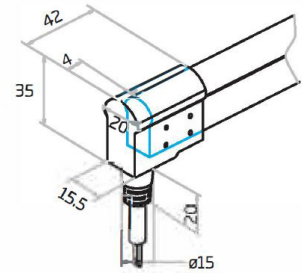
**Submersible End Exit**  
NA-11D-1-01-3W-SU-0-EN-XXX-S



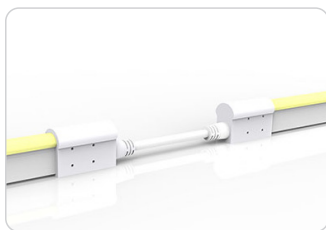
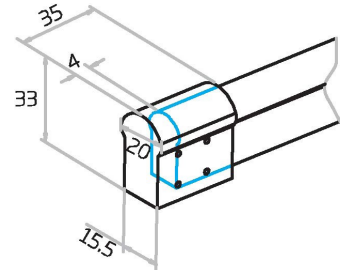
**Submersible Side Exit**  
NA-11D-1-01-3W-SU-1-SR-XXX-S  
NA-11D-1-01-3W-SU-2-SL-XXX-S



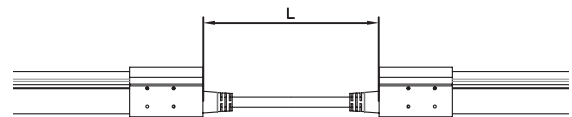
**Submersible Bottom Exit**  
NA-11D-1-01-3W-SU-0-BO-XXX-S



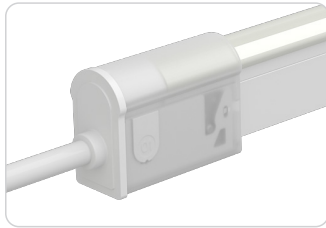
**Submersible End Cap**  
NA-11D-1-01-0W-SU-1-EC-000-P  
NA-11D-1-01-0W-SU-2-EC-000-P



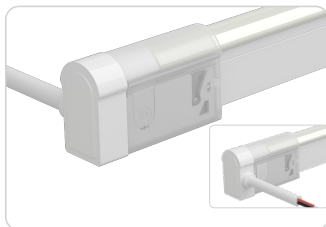
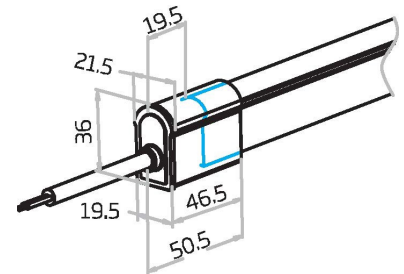
**Submersible Jumper**  
NA-11D-1-01-3W-SU-0-EJ-XXX-S



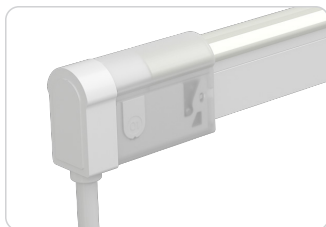
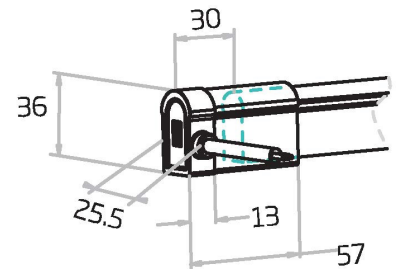
# Snap Connectors



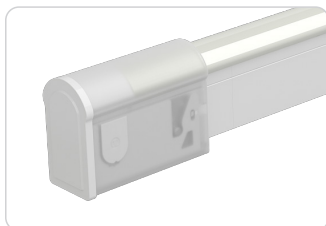
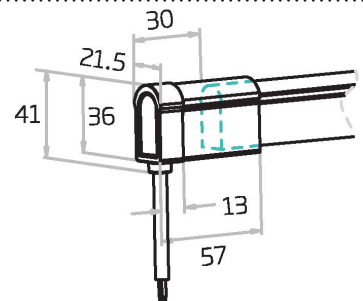
**Snap End Exit**  
 NA-11D-1-01-3W-SC-1-EN-XXX-S  
 NA-11D-1-01-3W-SC-2-EN-XXX-S  
 2 Wire  
 NA-11D-1-01-3W-SC-2-EN-XXX-P



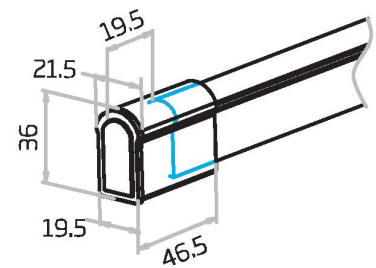
**Snap Side Exit**  
 NA-11D-1-01-3W-SC-1-SL-XXX-S  
 NA-11D-1-01-3W-SC-2-SL-XXX-S  
 NA-11D-1-01-3W-SC-1-SR-XXX-S  
 NA-11D-1-01-3W-SC-2-SR-XXX-S



**Snap Bottom Exit**  
 NA-11D-1-01-3W-SC-1-BO-XXX-S  
 NA-11D-1-01-3W-SC-2-BO-XXX-S  
 2 Wire  
 NA-11D-1-01-3W-SC-2-BO-XXX-P



**Snap End Cap**  
 NA-11D-1-01-0W-SC-1-EC-000-P  
 NA-11D-1-01-0W-SC-2-EC-000-P



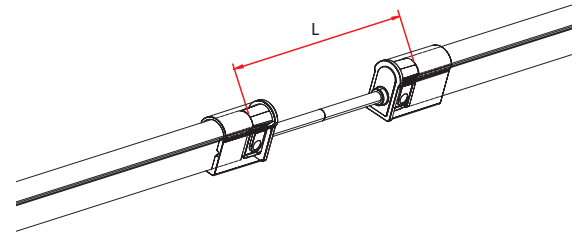




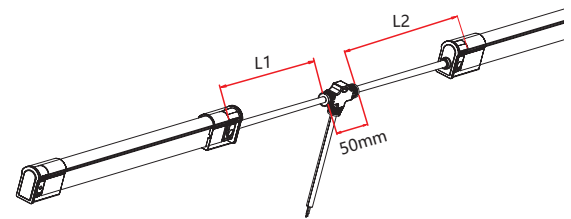
## Snap Connectors



**Snap Jumper**  
NA-11D-1-01-3W-SC-0-EJ-XXX-S



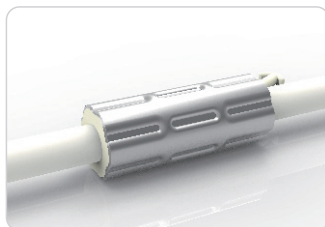
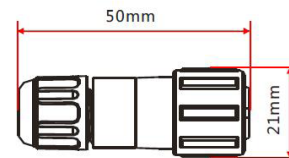
**Snap Power T Feed**  
NA-11D-1-01-3W-SC-0-TF-XXX-S



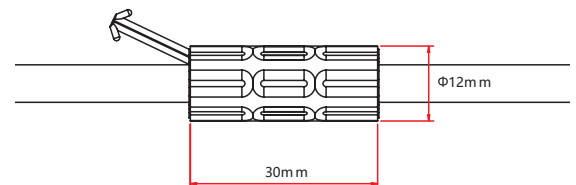
## Barrel Connectors



**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

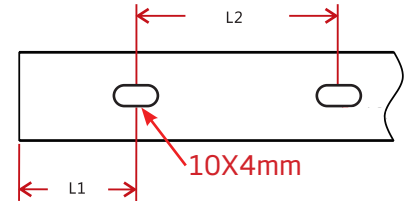
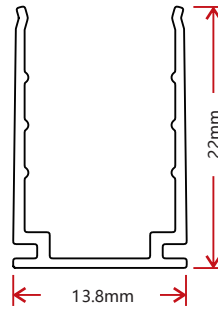
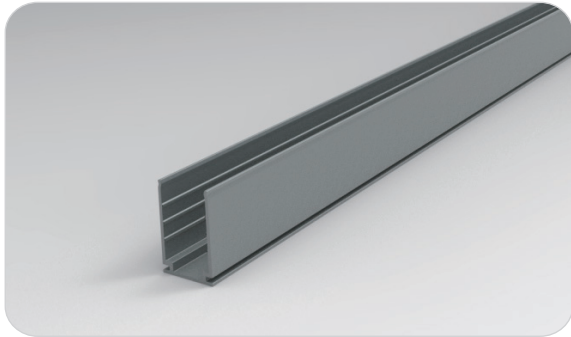


**Anti-Wicking Ferrule**



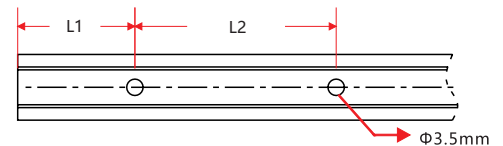
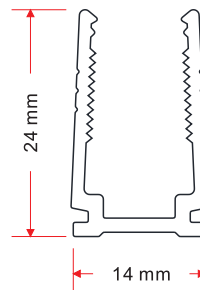
**Anvil Cutter**  
Optional accessory for on-site cutting.  
\*Factory order only\*

## Standard Anodized Aluminum Channel



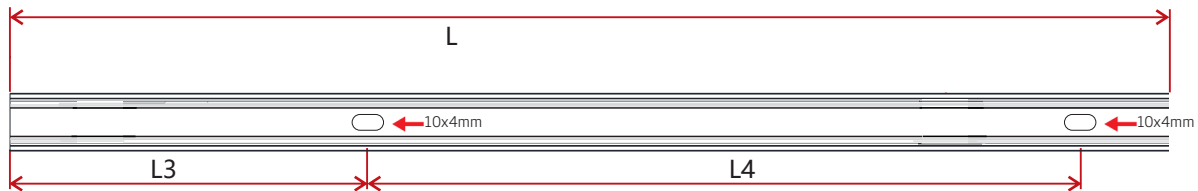
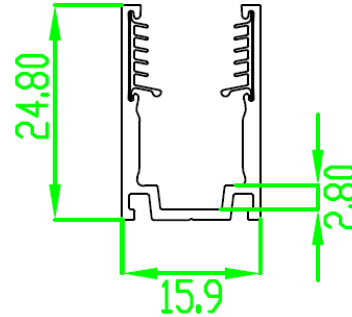
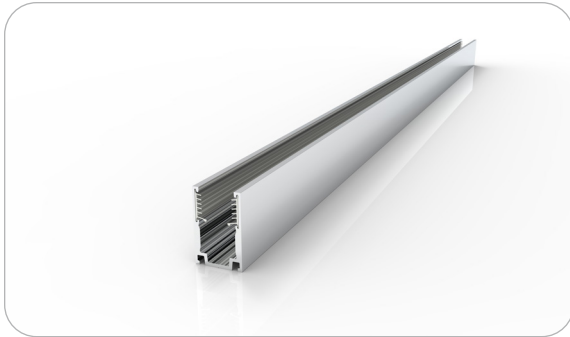
W x H	Standard Length	Part Number	L1	L2	Screw Hole $\Phi$	Hole #
0.54 x 0.87in (13.8 x 22mm)	1.38in (35mm)	CL-11-R-AL-3C5-SD	0.69in (17.5mm)	/	0.39x0.16in(10x4mm)	1
	19.69in (500mm)	CH-11-R-AL-0M5-SD	1.97in (50mm)	7.87in (200mm)	0.39x0.16in(10x4mm)	3
	39.37in (1000mm)	CH-11-R-AL-01M-SD	3.94in (100mm)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

## Plastic Channel



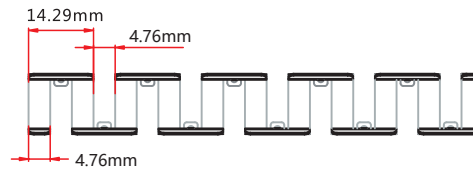
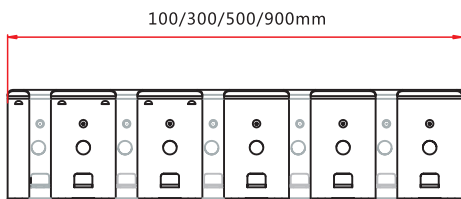
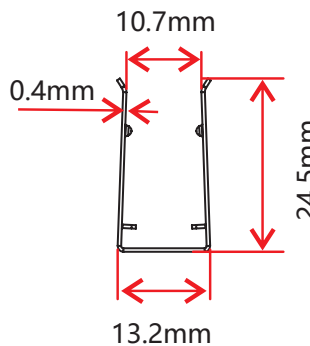
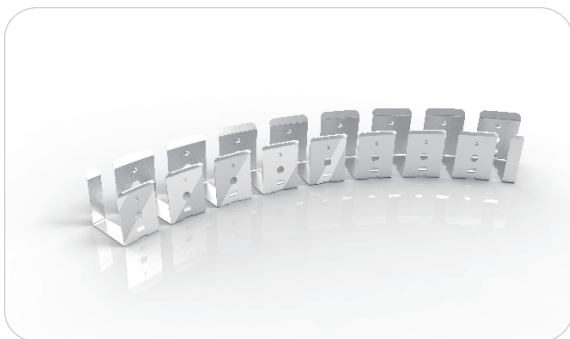
W x H	Standard Length	Part Number	L1	L2	Screw Hole $\Phi$	Hole #
0.55 x 0.94in (14 x 24mm)	19.69in (500mm)	CH-11-R-PL-0M5-SD	1.97in (50mm)	7.87in (200mm)	$\Phi$ 0.14in (3.5mm)	3
	39.37in (1000mm)	CH-11-R-PL-01M-SD	3.94in (100mm)	7.87in (200mm)	$\Phi$ 0.14in (3.5mm)	5
	78.74in (2000mm)	CH-11-R-PL-02M-SD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

## Standard Aluminum Channel with Silicone Grip



W x H	Standard Length	Part Number	L3	L4	Screw Hole $\Phi$	Hole #
0.82 x 0.88in (20.7 x 22.3mm)	0.79in (20mm)	CL-11-R-AL-02C-SE	0.2in (5mm)	0.98in (25mm)	0.39in x 0.16in (10 x 4mm)	1
	19.69in (500mm)	CH-11-R-AL-0M5-SE	1.97in (50mm)	7.87in (200mm)	0.39in x 0.16in (10 x 4mm)	3
	39.37in (1000mm)	CH-11-R-AL-01M-SE	3.94in (100mm)	7.87in (200mm)	0.39in x 0.16in (10 x 4mm)	5
	78.74in (2000mm)	CH-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)	CH-11-F-SS-0M1-SD
	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.

## 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

# Charts

## ANSI STANDARD

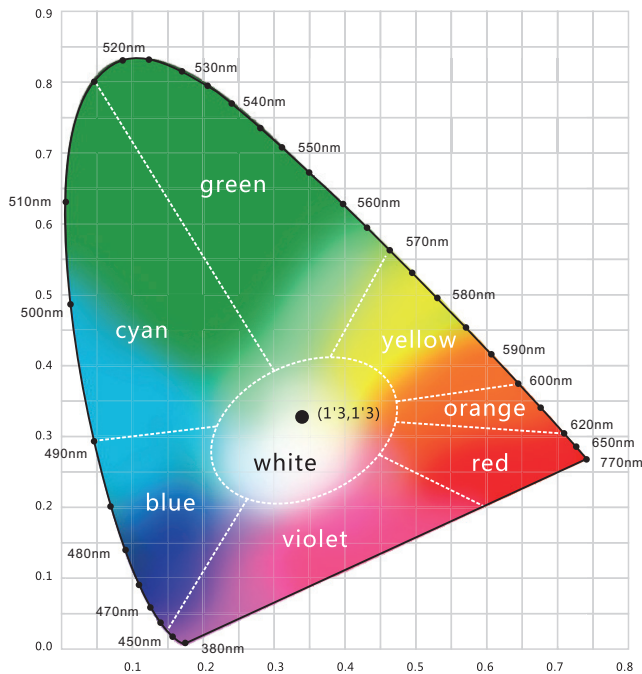
### Nominal CCT Categories

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	$D_{uv}(Tx)±0.0060$
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 x (1/Tx)
5700K	5667±355	0.0025	+0.00854
6500K	6532±510	0.0031	

**Remark:**

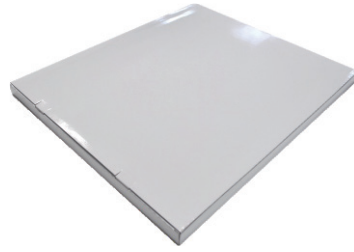
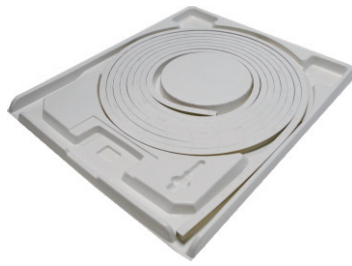
- 1)  $T_f$  is chosen to be at 100K steps (2300,2400,.....,6400K),excluding the ten nominal CCTs listed in Table 1.
- 2)  $\Delta T = 1.1900 \times 10^3 \times T^3 - 1.5434 \times 10^4 \times T^2 + 0.7168 \times T - 902.55$
- 3) Same as in the  $D_{uv}$  Tolerance Range.

Flexible CCT (2200-6500K)	$T_f^{31} \pm \Delta T^{23}$	$D_{uv} T_f^{31}$
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### Light Color

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



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)	20.47x15.64x11.02in (52x41x28cm)	5	30.86lbs (14kg)
393.7in (10m)	20.08x2.05x24.41in (51x5.2x62cm)	25.2x20.87x11.02in (64x53x28cm)	5	57.32lbs (26kg)
393.7in (10m)	20.08x2.05x24.41in (51x5.2x62cm)	25.2x20.87x6.9in (64x53x17.5cm)	3	35.27lbs (16kg)
787.4in (20m)	26.77x2.05x31.1in (68x5.2x79cm)	31.9x27.56x4.92in (81x70x12.5cm)	2	48.5lbs (22kg)