

Version 1.3

# VIVID S 160 DYNAMIC WHITE SILICONE 24V



**For More Information**

**Toll Free: 1 (888) 580-6366**



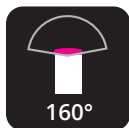





Light Dimension	0.45 x 0.83in (11.5x21mm)		
Output	W/WW		
LED Light	SMD LED Chip		
Max Run Length			
Single Feed	Full Load: 49.21ft (15m)	Dynamic Load: 98.43ft (30m)	
Double Feed	Full Load: 98.43ft (30m)	Dynamic Load: 196.85ft (60m)	
Light Surface	Square profile 160°		
Lumen Maintenance	70,000 Hours 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	44 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)		
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	10 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		

## Available Colors

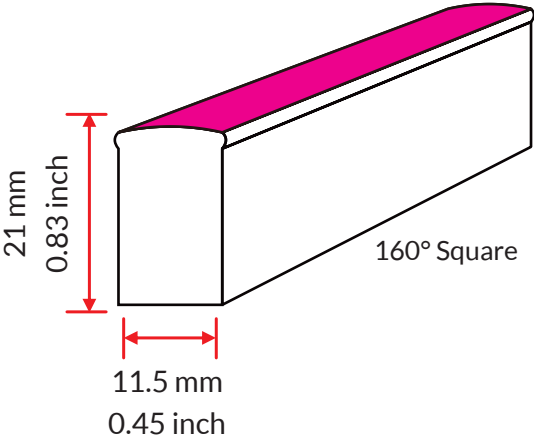
Color	CCT Wavelength
2200K (WW)	2238 ± 102K
5700K (W)	5669 ± 355K
W+WW	3465 ± 245K

## Lumen Count

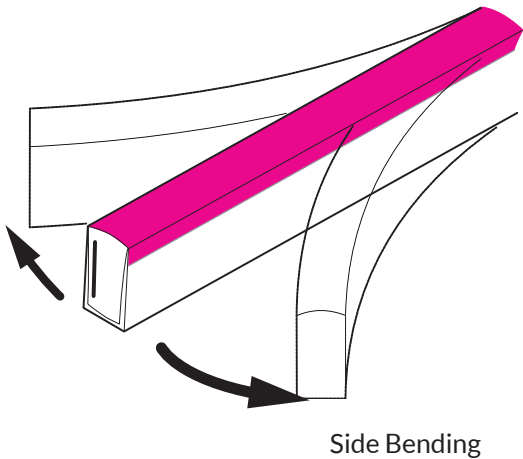
Color	Per Foot	Per Meter	Power/m
2200K (WW)	>42.68lm	>140lm	3.66W/ft (12W/m)
5700K (W)	>51.83lm	>170lm	3.66W/ft (12W/m)
W+WW	>94.51lm	>310lm	3.66W/ft (12W/m)

								
Beam Angle 160°	Bending Diameter D:120mm	Flame Resistant	UV Resistant	Solvents Resistant	Saltwater Resistant	IP68 Protection	IK08 Protection	10 Year Warranty

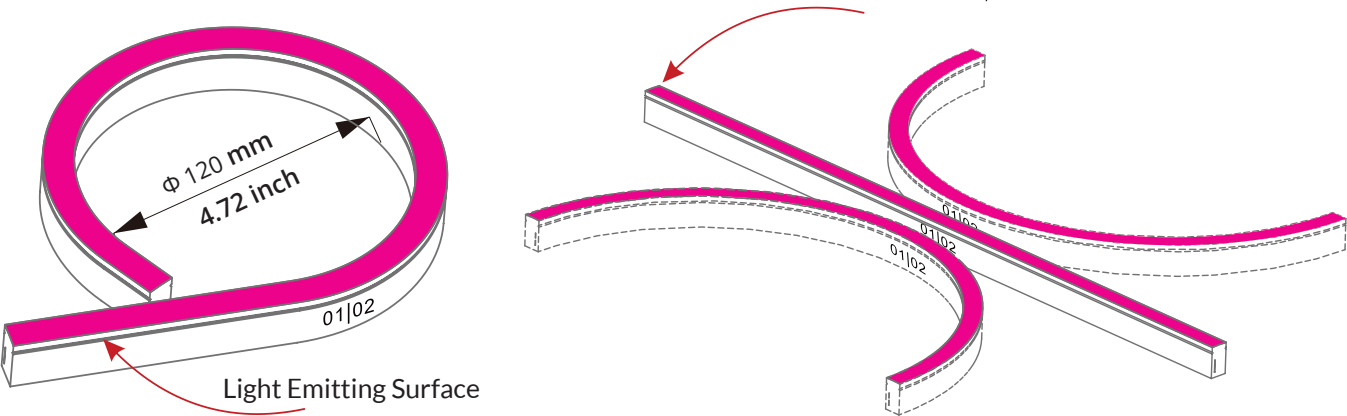
Light Profile



Bending Direction



Minimum Bending Diameter



## Fixtures

SF-11B-1- 01-3W-E-DWH-24DV

## Lead Connector

FA-11B-1-01-3W-XX-X-XX-XXX-S

Length (3 digits)

Exit Type (2 Digits)

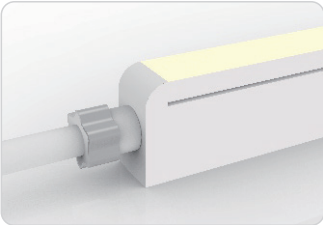
For Fixture End (1 Digit)

Connector Type (2 Digits)

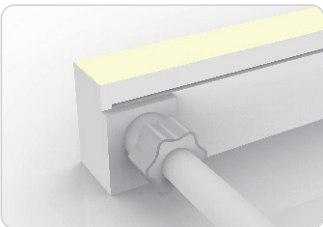
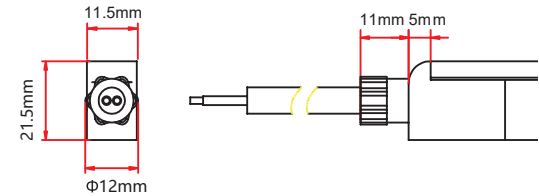
Connector Type (2 Digits)	For Fixture End (1 digit)	Exit Type (2 digits)	Length (3 digits)
SC - Snap Conenctor	1 - Input side	EN - End	0M3 - 0.98ft (30cm)
SE - Seamless	2 - Output side	BO - Bottom	01M - 3.28ft (1m)
	0 - Jumpers/T-Feeds/ Seamless (or Submersible) Bottom/ Seamless (or Sub- mersible) End	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	

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

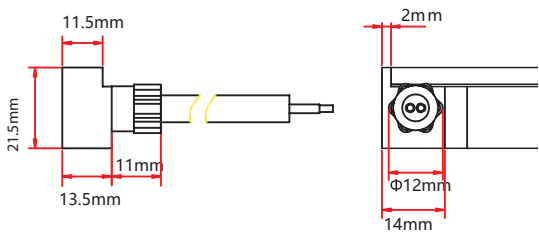
Seamless



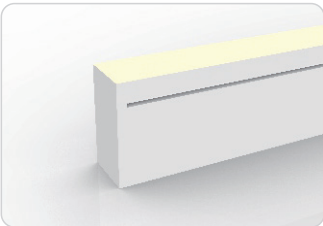
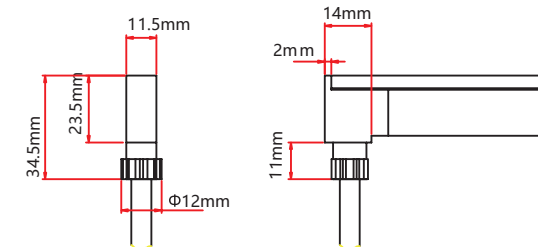
Seamless End Exit  
FA-11B-1-01-3W-SE-0-EN-XXX-S



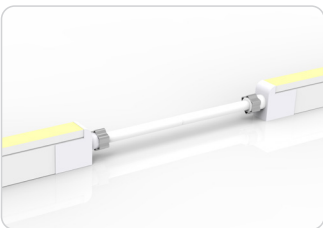
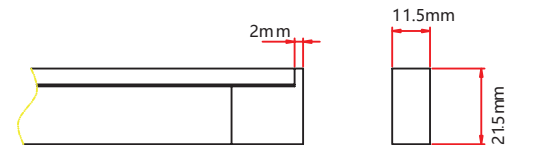
Seamless Side Exit  
FA-11B-1-01-3W-SE-1-SR-XXX-S  
FA-11B-1-01-3W-SE-2-SL-XXX-S



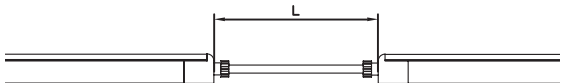
Seamless Bottom Exit  
FA-11B-1-01-3W-SE-0-BO-XXX-S



Seamless End Cap  
FA-11B-1-01-0W-SE-1-EC-000-P  
FA-11B-1-01-0W-SE-2-EC-000-P

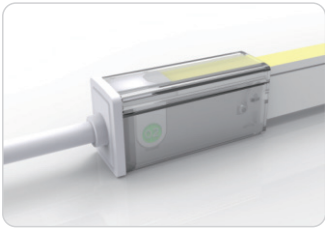


Seamless Jumper  
FA-11B-1-01-3W-SE-0-EJ-XXX-S



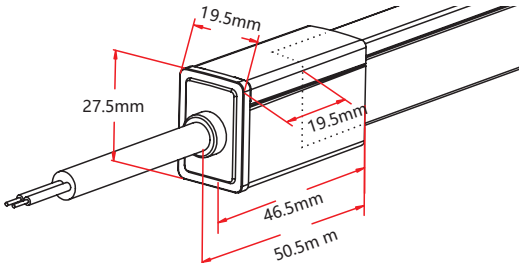
IP67: Rated for outdoor use.  
Factory Assembly or DIY.

Snap



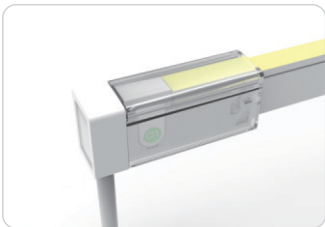
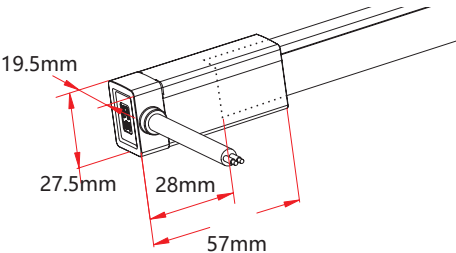
Snap End Exit

NA-11B-1-01-3W-SC-1-EN-XXX-S  
NA-11B-1-01-3W-SC-2-EN-XXX-S



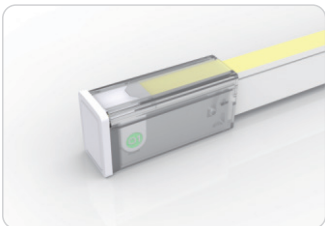
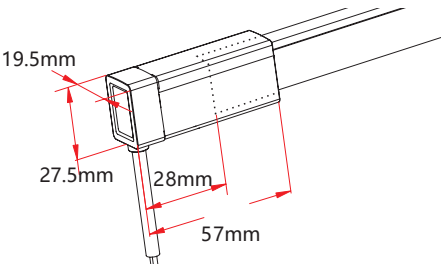
Snap Side Exit

NA-11B-1-01-3W-SC-1-SL-XXX-S  
NA-11B-1-01-3W-SC-2-SL-XXX-S  
NA-11B-1-01-3W-SC-1-SR-XXX-S  
NA-11B-1-01-3W-SC-2-SR-XXX-S



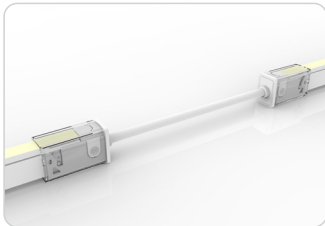
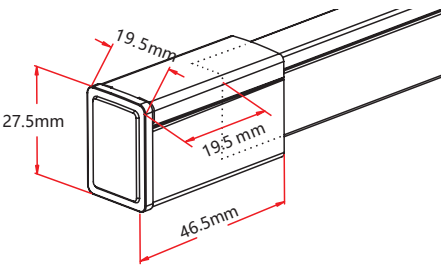
Snap Bottom Exit

NA-11B-1-01-3W-SC-1-BO-XXX-S  
NA-11B-1-01-3W-SC-2-BO-XXX-S



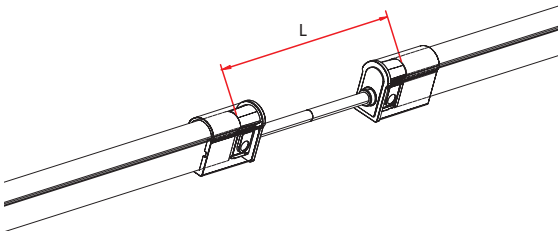
Snap End Cap

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



Snap Jumper

NA-11B-1-01-3W-SC-0-EJ-XXX-S



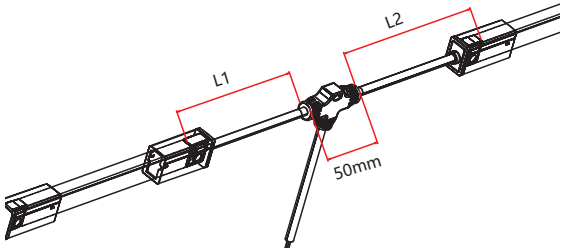


IP67: Rated for outdoor use.  
Factory Assembly or DIY.

Snap



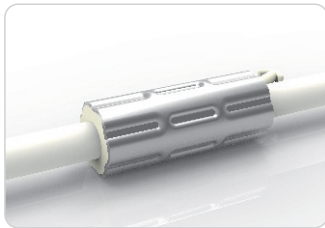
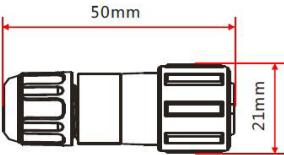
Snap Power T Feed  
NA-11B-1-01-3W-SC-0-TF-XXX-S



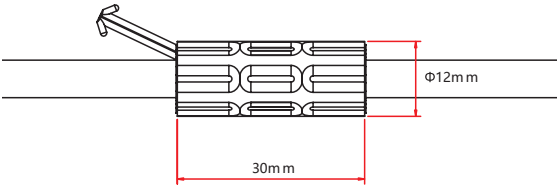
Barrel Connectors



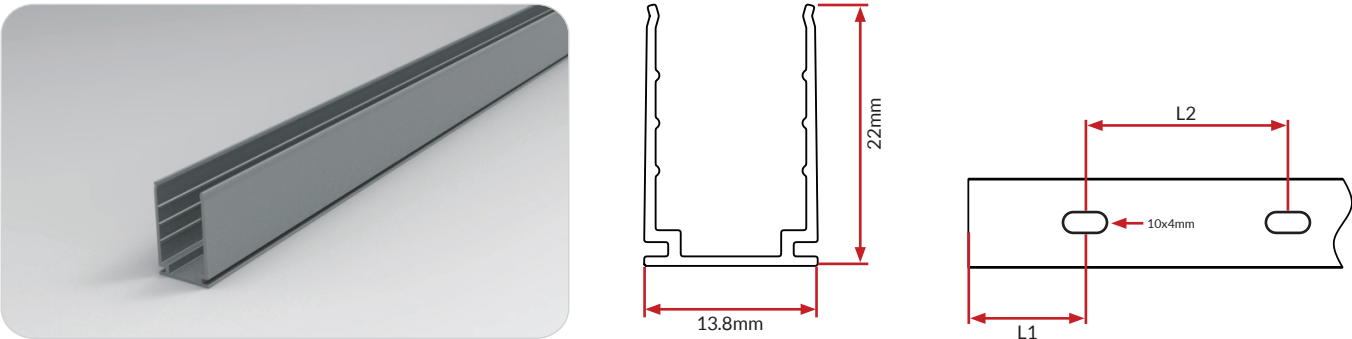
Barrel Connectors  
NA-XX-BC-DC-CXX-F  
NA-XX-BC-DC-CXX-M  
NA-XX-BN-XXA-CXX-F  
NA-XX-BN-XXA-CXX-M  
NA-XX-PL-XXA-CXX-F  
NA-XX-PL-XXA-CXX-M



Anti-Wicking Ferrule

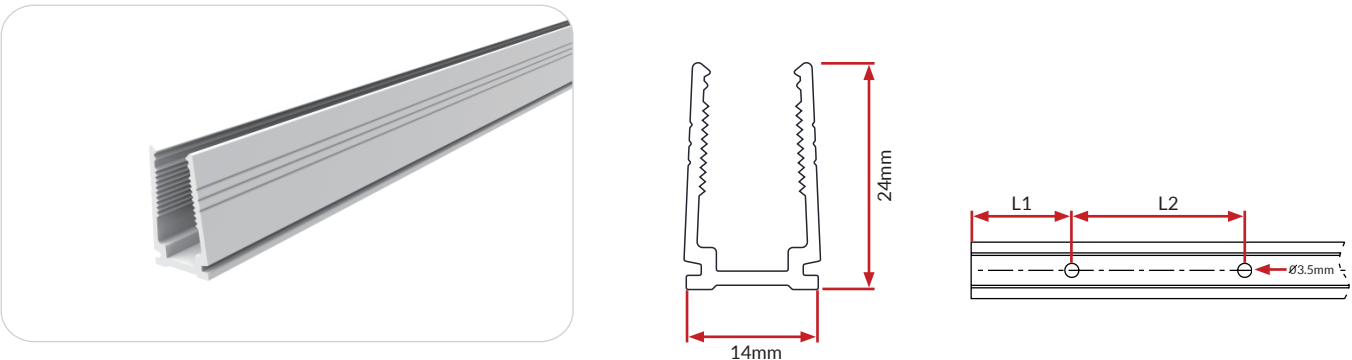


Standard Anodized Aluminum Channel



W x H	Standard Length	Part Number	L1		L2	Screw Hole	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

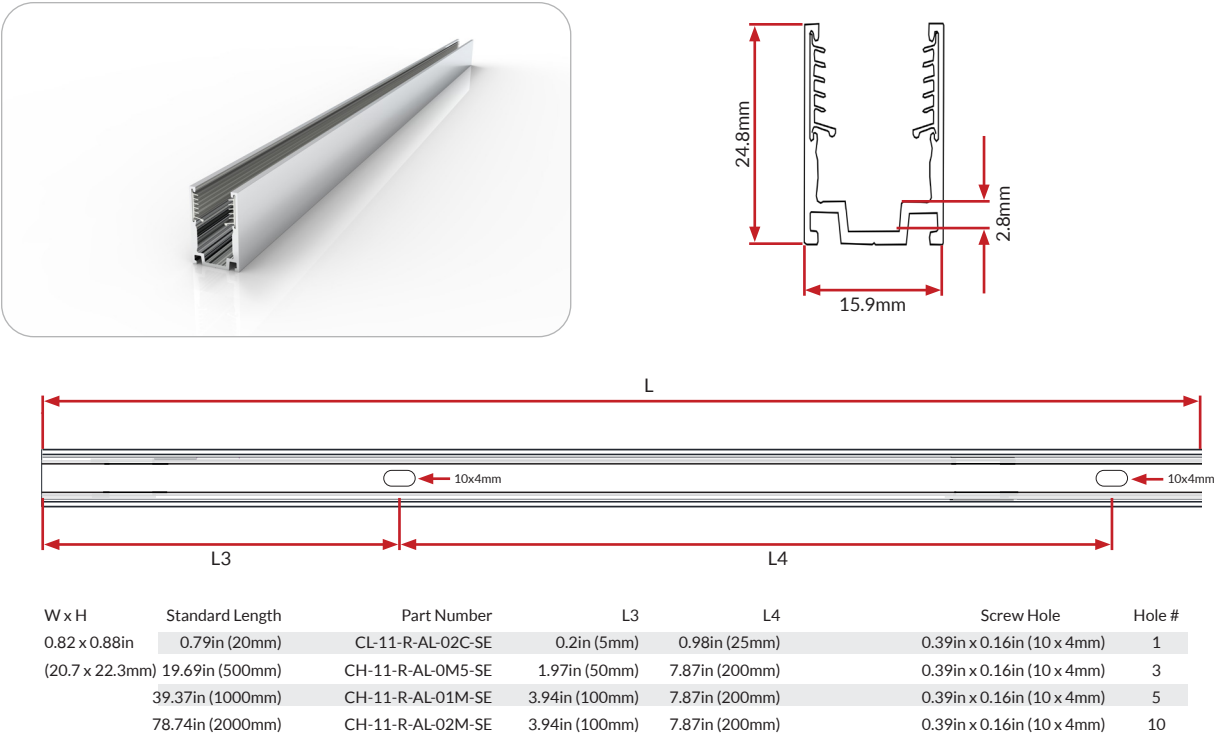
Plastic Channel



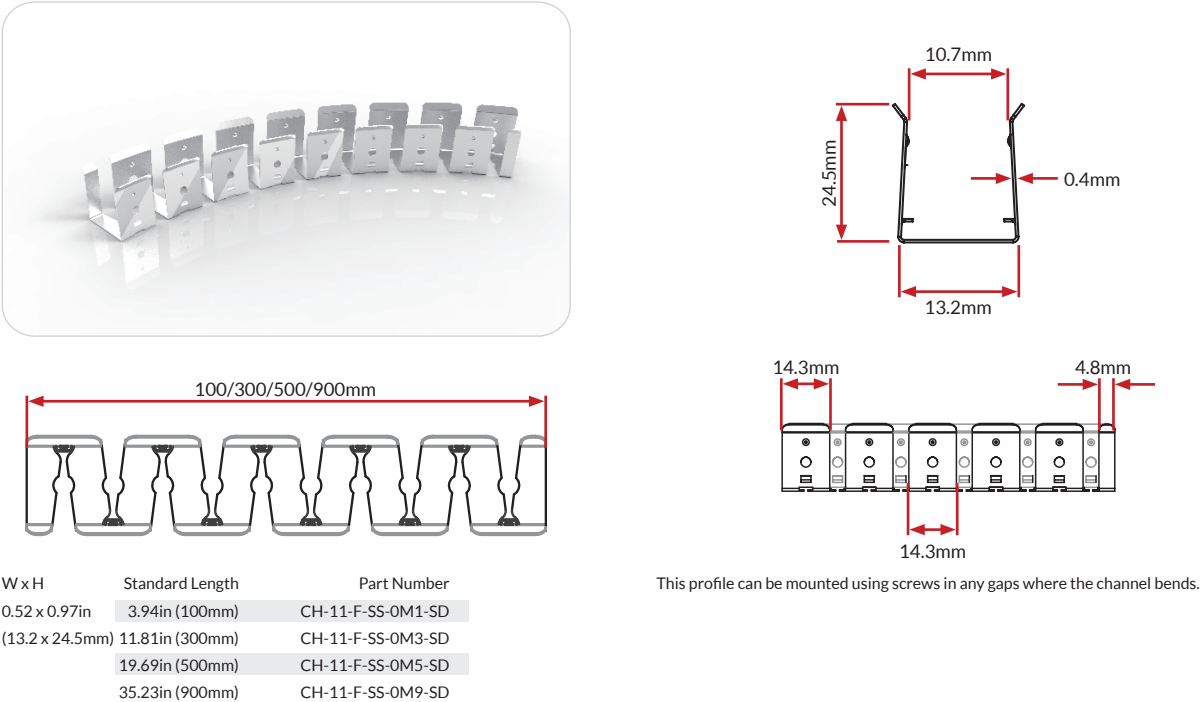
W x H	Standard Length	Part Number	L1		L2	Screw Hole	Hole #
0.55 x 0.94in (14 x 24mm)	19.69in (500mm)	CH-11-R-PL-0M5-SD	1.97in (50mm)	7.87in (200mm)		Ø 0.14in (3.5mm)	3
	39.37in (1000mm)	CH-11-R-PL-01M-SD	3.94in (100mm)	7.87in (200mm)		Ø 0.14in (3.5mm)	5
	78.74in (2000mm)	CH-11-R-PL-02M-SD	3.94in (100mm)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



Standard Aluminum Channel with Silicone Grip



Stainless Steel Flexible Channel



## 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

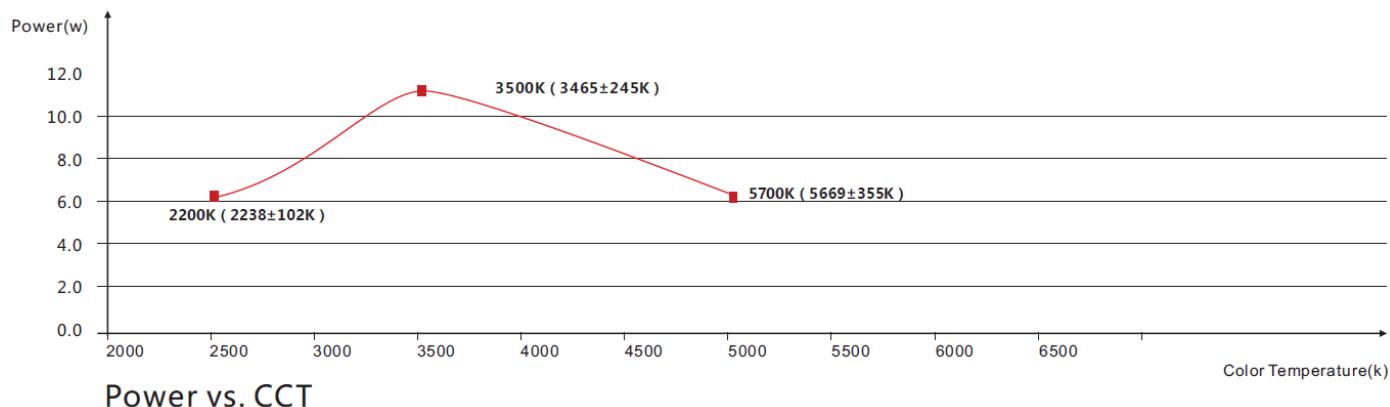
### Durability Testing

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	$T_x$ : 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	$-44.6 \times (1/T_x)$
5700K	5667 ±355	0.0025	$+0.00854$
6500K	6532 ±510	0.0031	

### Remark:

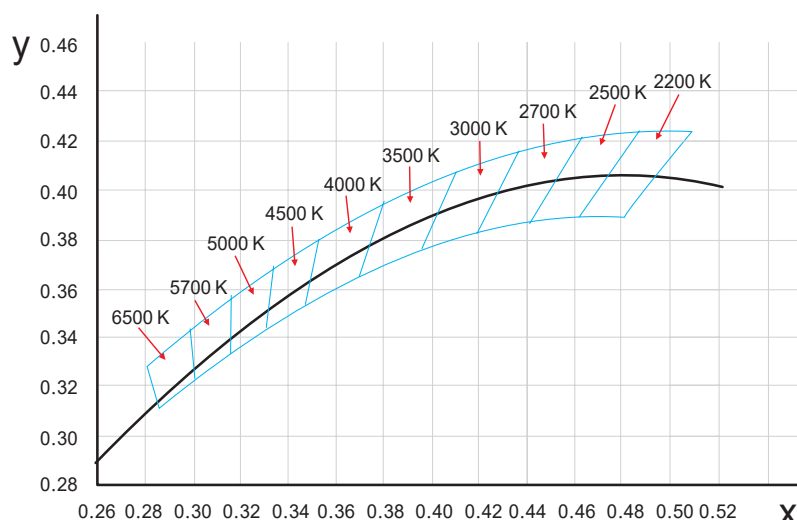
- 1)  $T_f$  is chosen to be at 100K steps (2300, 2400, ..., 6400K), excluding the ten nominal CCTs listed in Table 1.
- 2)  $\Delta T = 1.1900 \times 10^{-8} \times T^3 - 1.5434 \times 10^{-4} \times T^2 + 0.7168 \times T - 902.55$
- 3) Same as in the  $D_{uv}$  Tolerance Range.

Flexible CCT  
(2200-6500K)

$T_f^{(1)} \pm \Delta T^{(2)}$

$D_{uv} T_f^{(3)}$

## (X,Y) Chromaticity Diagram





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)	20.47x15.34x11.02in (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)