



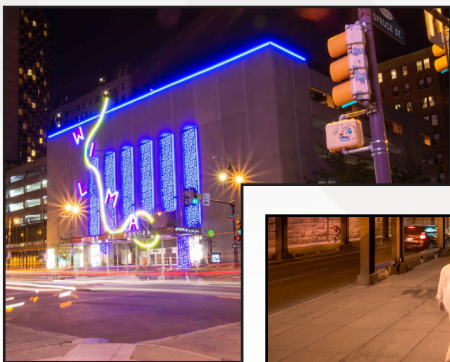
Version 6.1

# VIVID S 270 STATIC PVC 24V



**For More Information**

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



UNITED STATES

Pacific Business Center  
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CANADA

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E1C 4X7

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)

Output	Red/Amber/Orange	Green/Blue/White/White (CRI90)	Pink
LED Light	Epistar SMD LED Chip		
Max Runs Length*			
Single Feed	49.21ft (15m)	32.81ft (10m)	32.81ft (10m)
Double Feed	98.43ft (30m)	65.62ft (20m)	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	2.44W/ft (8W/m)	3.66W/ft (12W/m)	3.66W/ft (12W/m)
<b>Physical</b>			
LED Count	22 LEDs / ft (72 LEDs/m)		18 LEDs / ft (60 LEDs/m)
LED Spacing	0.55in (13.89mm)		
Cutting Unit Length	4.92in (125mm) (9 LEDs)	3.28in (83.3mm) (6 LEDs)	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)		
<b>Temperature Ranges</b>			
Installation	32°F to 113°F (0°C to 45°C)		
Operating	-4°F to 113°F (-20°C to 45°C)		
Humidity	0-95% non condensing		
<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		

\*Max Runs Length:

1. If Max Runs Length is over 65.62ft(20m), recommended maximum length for **one run** will be 65.62ft(20m) for handling capability.
2. Unless otherwise stated, snap and seamless runs lengths are the same.

Light Dimension 0.45 x 1.14in (11.5x29mm)

<b>Output</b>	<b>White</b>
LED Light	Nichia SMD LED Chip
<b>Max Run Length*</b>	
Single Feed	32.81ft (10m)
Double Feed	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)
<b>Physical</b>	
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)
<b>Temperature Ranges</b>	
Installation	32°F to 113°F (0°C to 45°C)
Operating	-4°F to 113°F (-20°C to 45°C)
Humidity	0-95% non condensing
<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

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

### Epistar

#### Available Colors

Color	Wavelength/CCT
Red	620-630nm
Green	520-530nm
Blue	465-475nm
Amber	585-595nm
Orange	600-610nm
Pink	630-645nm
2200K	2238 ± 102K
2500K	2460 ± 120K
2700K (WW)	2725 ± 145K
3000K	3045 ± 175K
3500K (W)	3465 ± 245K
4000K	3985 ± 275K
4500K (CW)	4503 ± 243K
5000K	5029 ± 283K
5700K (DW)	5669 ± 355K

#### Lumen Count

Color	Per Foot	Per Meter	Power
Red	>42.67lm	>140lm	2.44W/ft (8W/m)
Green	>85.34lm	>280lm	3.66W/ft (12W/m)
Blue	>12.19lm	>40lm	3.66W/ft (12W/m)
Amber	>42.67lm	>120lm	2.44W/ft (8W/m)
Orange	>27.43lm	>90lm	2.44W/ft (8W/m)
Pink	>39.62lm	>130lm	3.66W/ft (12W/m)
2200K	>103.63lm	>340lm	3.66W/ft (12W/m)
2500K	>103.63lm	>340lm	3.66W/ft (12W/m)
2700K (WW)	>103.63lm	>340lm	3.66W/ft (12W/m)
3000K	>103.63lm	>340lm	3.66W/ft (12W/m)
3500K (W)	>115.82lm	>380lm	3.66W/ft (12W/m)
4000K	>115.82lm	>380lm	3.66W/ft (12W/m)
4500K	>115.82lm	>380lm	3.66W/ft (12W/m)
5000K	>115.82lm	>380lm	3.66W/ft (12W/m)
5700K (DW)	>115.82lm	>380lm	3.66W/ft (12W/m)

For 2500K, 4500K, 5000K: Minimum order quantity of 200 meters.

### CRI90

#### Available Colors

Color	CCT
2200K	2238 ± 102K
2500K	2460 ± 120K
2700K (WW)	2725 ± 145K
3000K	3045 ± 175K
3500K (W)	3465 ± 245K
4000K	3985 ± 275K
4500K (CW)	4503 ± 243K
5000K	5029 ± 283K

#### Lumen Count

Color	Per Foot	Per Meter	Power
2200K	>91.44lm	>300lm	3.66W/ft (12W/m)
2500K	>91.44lm	>300lm	3.66W/ft (12W/m)
2700K (WW)	>91.44lm	>300lm	3.66W/ft (12W/m)
3000K	>91.44lm	>300lm	3.66W/ft (12W/m)
3500K (W)	>103.63lm	>340lm	3.66W/ft (12W/m)
4000K	>103.63lm	>340lm	3.66W/ft (12W/m)
4500K (CW)	>103.63lm	>340lm	3.66W/ft (12W/m)
5000K	>103.63lm	>340lm	3.66W/ft (12W/m)

For 2200K, 2500K, 4500K, 5000K: Minimum order quantity of 100 meters.

### Nichia

#### Available Colors

Color	CCT
2200K	2238 ± 102K
2500K	2460 ± 120K
2700K (WW)	2725 ± 145K
3000K	3045 ± 175K
3500K (W)	3465 ± 245K
4000K	3985 ± 275K
4500K (CW)	4503 ± 243K
5000K	5029 ± 283K

#### Lumen Count

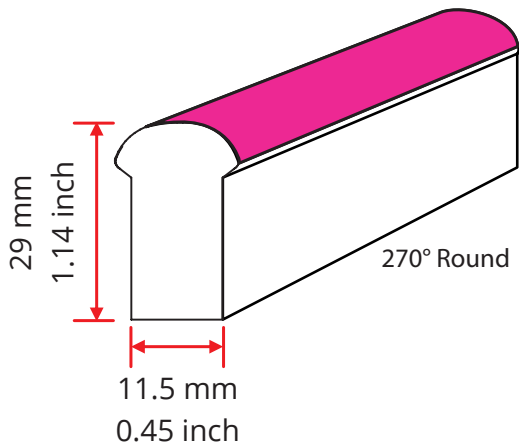
Color	Per Foot	Per Meter	Power
2200K	>103.63lm	>340lm	3.66W/ft (12W/m)
2500K	>103.63lm	>340lm	3.66W/ft (12W/m)
2700K (WW)	>103.63lm	>340lm	3.66W/ft (12W/m)
3000K	>103.63lm	>340lm	3.66W/ft (12W/m)
3500K (W)	>115.82lm	>380lm	3.66W/ft (12W/m)
4000K	>115.82lm	>380lm	3.66W/ft (12W/m)
4500K (CW)	>115.82lm	>380lm	3.66W/ft (12W/m)
5000K	>115.82lm	>380lm	3.66W/ft (12W/m)

#### \*Color Jackets:

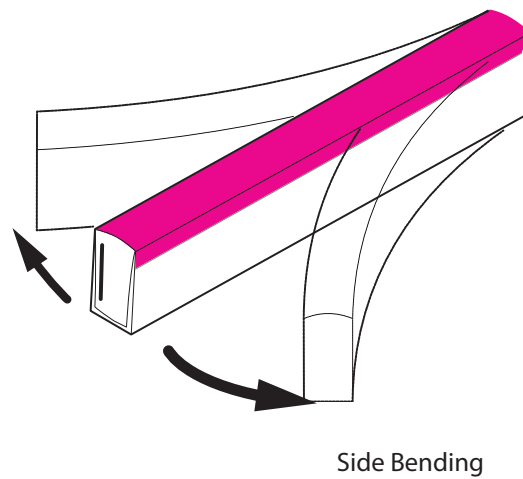
For standard or custom color jacket options, contact your Account Manager. Min. order quantity of 656ft (200m).



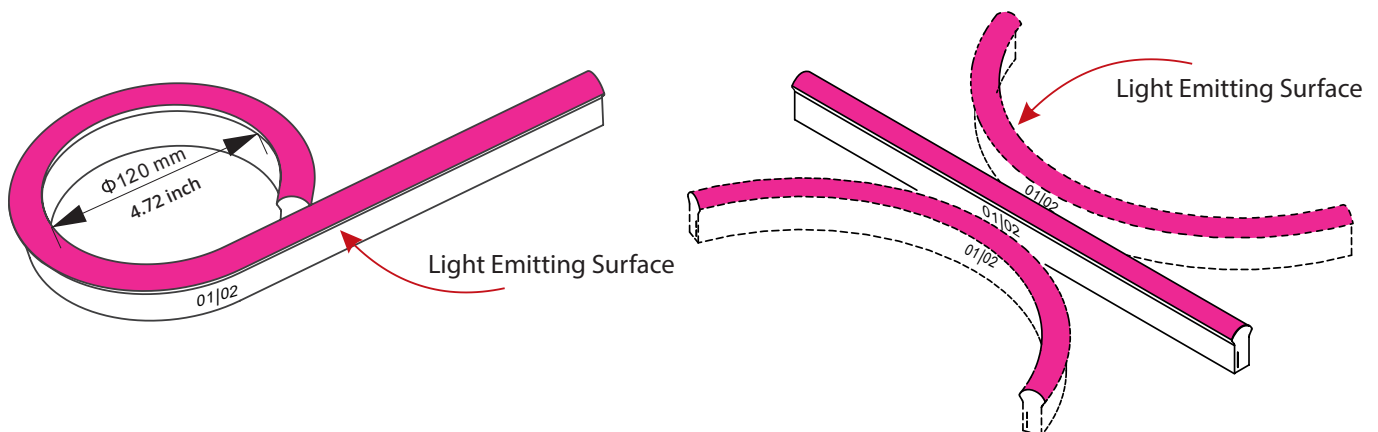
Light Profile



Bending Direction

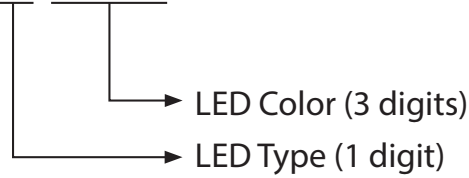


Minimum Bending Diameter



Fixtures

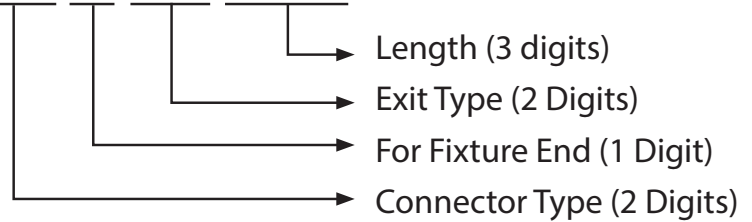
NF-11D-1-01-2W-X-XXX-24DC



LED Type (1 digit)	LED Color (3 digits)	
E - Epistar	RED	AMB - Amber
N - Nichia	GRE - Green	ORA - Orange
	BLU - Blue	PIN - Pink
	22K...57K - Color Temperature	27R...50R - CRI 90 Color Temperature

Lead Connector

NA-11D-1-01-2W-XX-X-XX-XXX-P

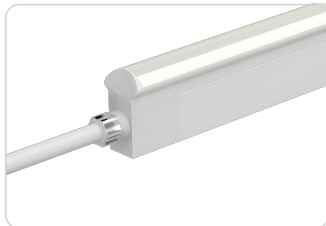


Connector Type (2 Digits)	For Fixture End (1 digit)	Exit Type (2 digits)	Length (3 digits)
SC - Snap Conenctor	1 - Input side	EN - End	0M3 - 0.98ft (30cm)
SE - Seamless	2 - Output side	BO - Bottom	01M - 3.28ft (1m)
SV - Swivel	0 - Jumpers/T-Feeds/ Seamless (or Submersible) Bottom/ Seamless (or Submersible) End	SL - Side left	03M - 9.84ft (3m)
SU - Submersible		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	

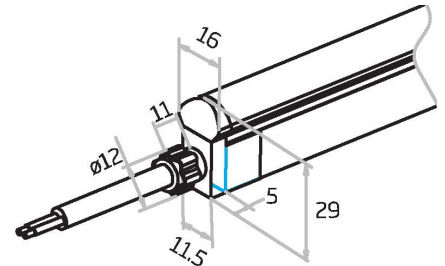
For full part number naming rules, please refer to the document on <https://glls.com/documentation/>

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

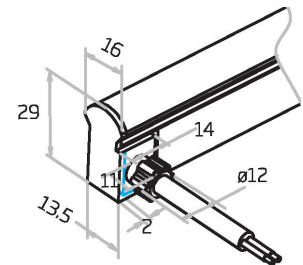
# Seamless Connectors



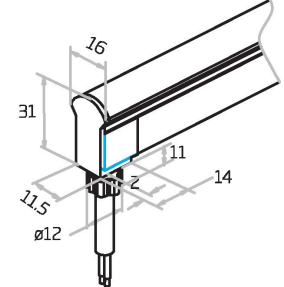
**Seamless End Exit**  
NA-11D-1-01-2W-SE-0-EN-XXX-P



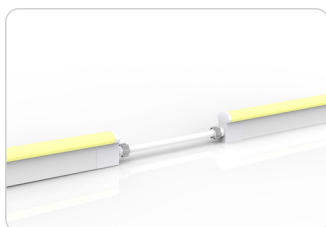
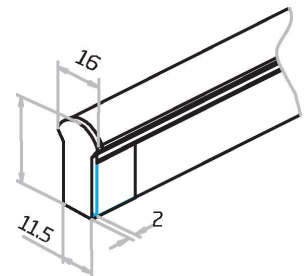
**Seamless Side Exit**  
NA-11D-1-01-2W-SE-1-SR-XXX-P  
NA-11D-1-01-2W-SE-2-SL-XXX-P



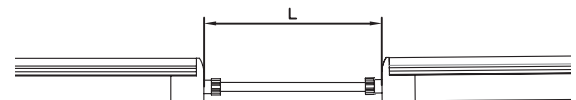
**Seamless Bottom Exit**  
NA-11D-1-01-2W-SE-0-BO-XXX-P



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

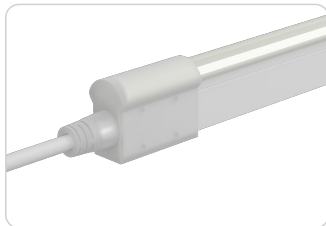


**Seamless Jumper**  
NA-11D-1-01-2W-SE-0-EJ-XXX-P

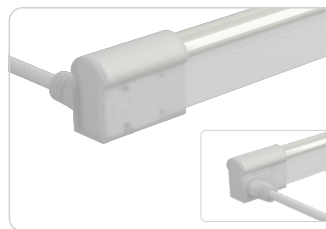
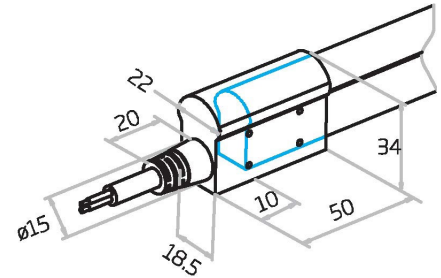


IP68: Submersible. Factory Assembly only.

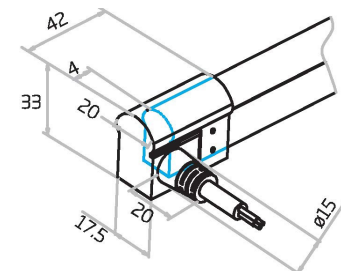
# Submersible



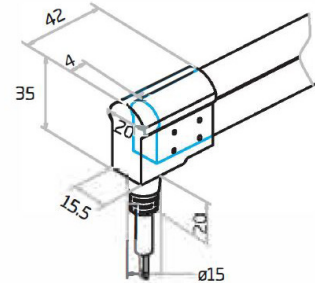
**Submersible End Exit**  
NA-11D-1-01-2W-SU-0-EN-XXX-P



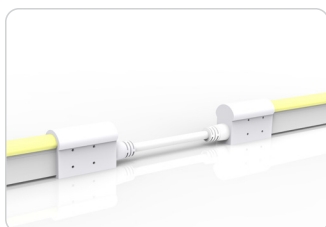
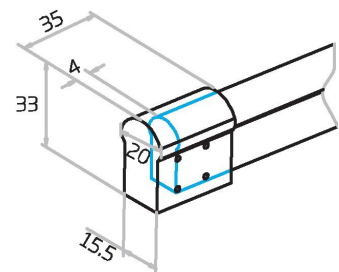
**Submersible Side Exit**  
NA-11D-1-01-2W-SU-1-SR-XXX-P  
NA-11D-1-01-2W-SU-2-SL-XXX-P



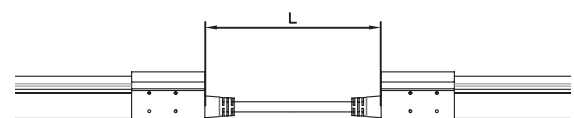
**Submersible Bottom Exit**  
NA-11D-1-01-2W-SU-0-BO-XXX-P



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



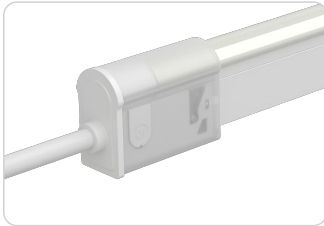
**Submersible Jumper**  
NA-11D-1-01-2W-SU-0-EJ-XXX-P





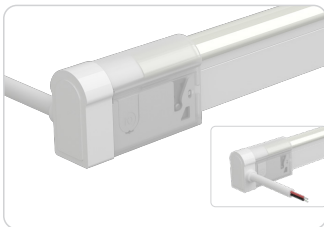
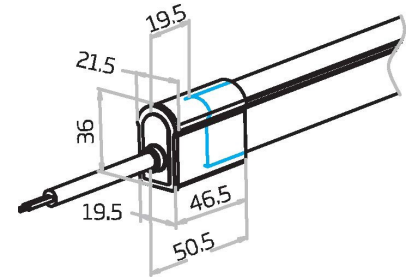
IP67: Rated for outdoor use. Factory Assembly or DIY.

# Snap



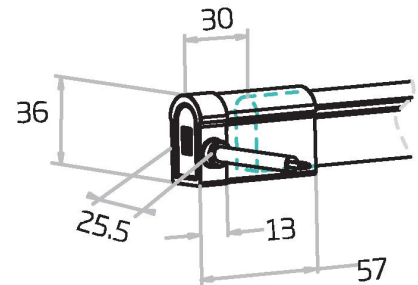
## Snap End Exit

- NA-11D-1-01-2W-SC-1-EN-XXX-P
- NA-11D-1-01-2W-SC-2-EN-XXX-P



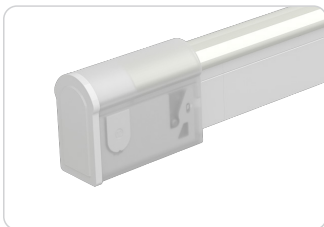
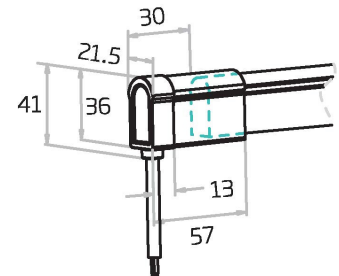
## Snap Side Exit

- NA-11D-1-01-2W-SC-1-SL-XXX-P
- NA-11D-1-01-2W-SC-2-SL-XXX-P
- NA-11D-1-01-2W-SC-1-SR-XXX-P
- NA-11D-1-01-2W-SC-2-SR-XXX-P



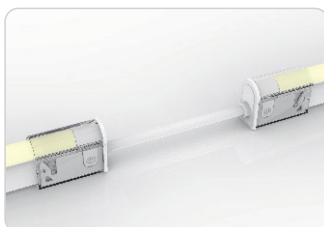
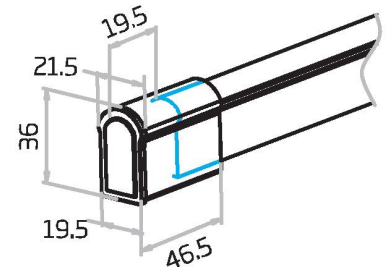
## Snap Bottom Exit

- NA-11D-1-01-2W-SC-1-BO-XXX-P
- NA-11D-1-01-2W-SC-2-BO-XXX-P



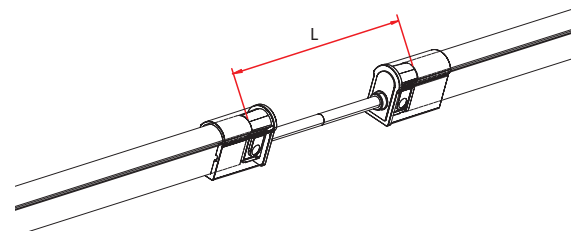
## Snap End Cap

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



## Snap Jumper

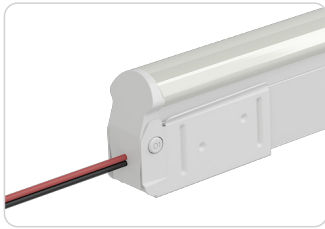
- NA-11D-1-01-2W-SC-0-EJ-XXX-P



Swivel

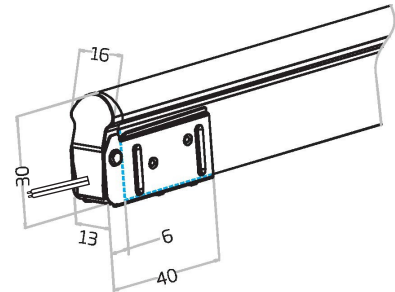
IP20: Rated for indoor use only. Factory Assembly or DIY.

 22AWG  
 22AWG



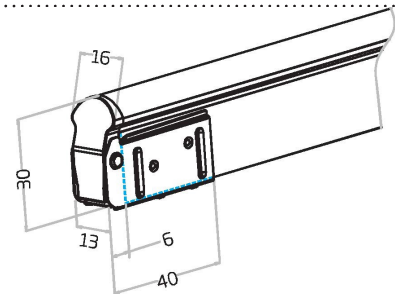
**Swivel End Exit**

NA-11D-1-01-2W-SV-1-EN-XXX-P  
 NA-11D-1-01-2W-SV-2-EN-XXX-P



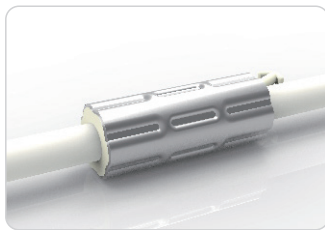
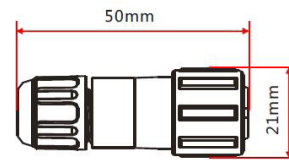
**Swivel End Cap**

NA-11D-1-01-0W-SV-1-EC-000-P  
 NA-11D-1-01-0W-SV-2-EC-000-P



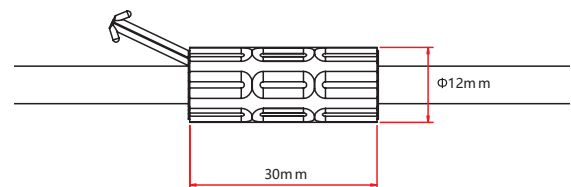
**Male & Female Connectors**

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

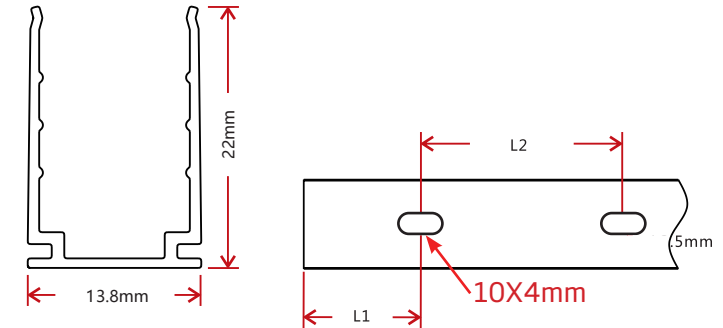
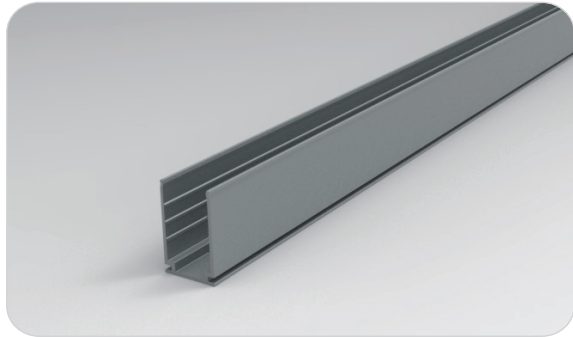


**Anti-Wicking Ferrule**

The Ferrule needs to be above water for any underwater applications.

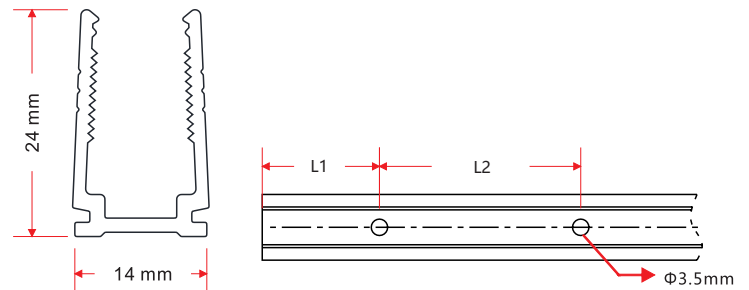


## Standard Anodized Aluminum Channel



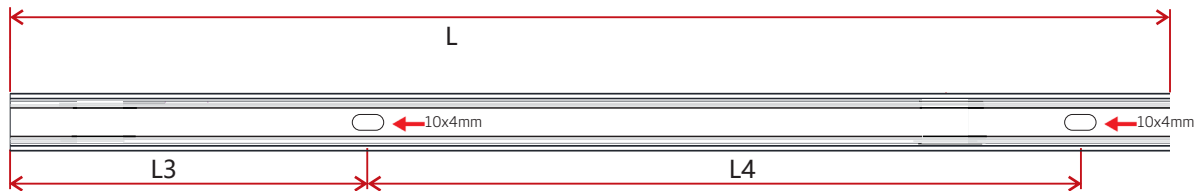
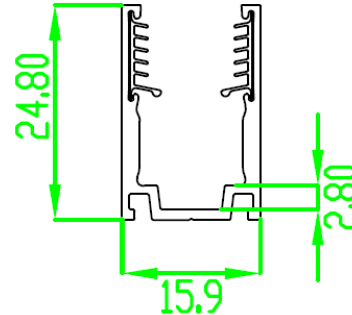
W x H	Standard Length	Part Number	L1	L2	Screw Hole $\Phi$	Hole #
0.54 x 0.87in (13.8 x 22mm)	1.38in (35mm)	CL-11-R-AL-3C5-SD	0.69in (17.5mm)	/	0.39x0.16in(10x4mm)	1
	19.69in (500mm)	CH-11-R-AL-0M5-SD	1.97in (50mm)	7.87in (200mm)	0.39x0.16in(10x4mm)	3
	39.37in (1000mm)	CH-11-R-AL-01M-SD	3.94in (100mm)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



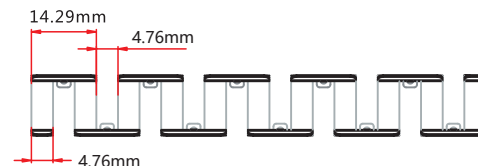
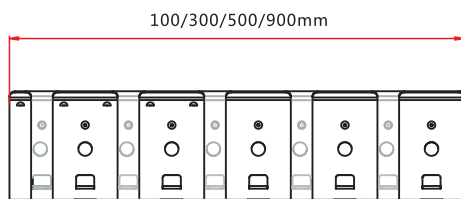
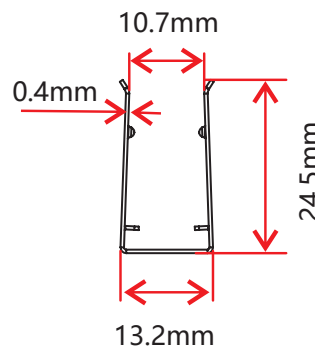
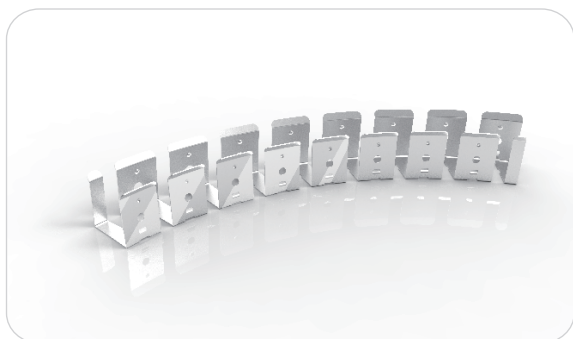
W x H	Standard Length	Part Number	L1	L2	Screw Hole $\Phi$	Hole #
0.55 x 0.94in (14 x 24mm)	19.69in (500mm)	CH-11-R-PL-0M5-SD	1.97in (50mm)	7.87in (200mm)	$\Phi$ 0.14in (3.5mm)	3
	39.37in (1000mm)	CH-11-R-PL-01M-SD	3.94in (100mm)	7.87in (200mm)	$\Phi$ 0.14in (3.5mm)	5
	78.74in (2000mm)	CH-11-R-PL-02M-SD	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	0.39in (10mm)	/	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
	35.23in (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

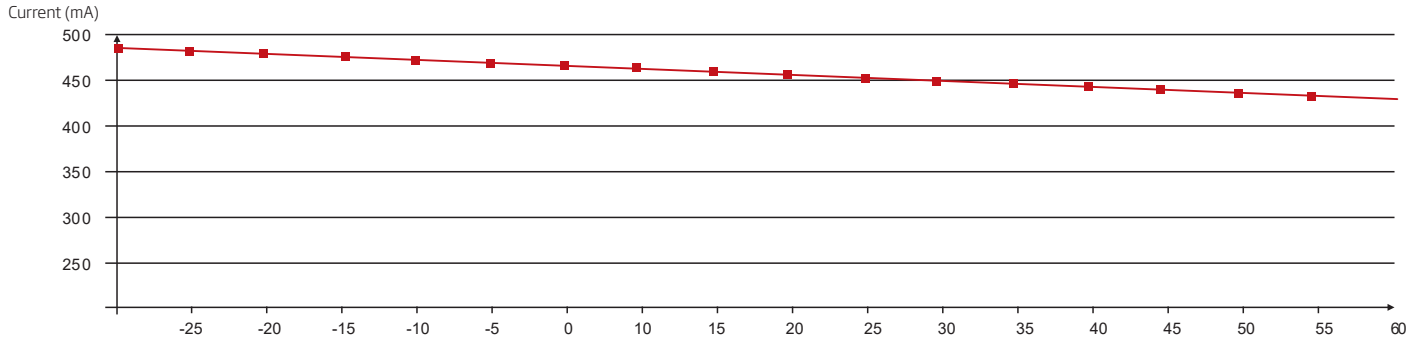
### Durability Testing

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

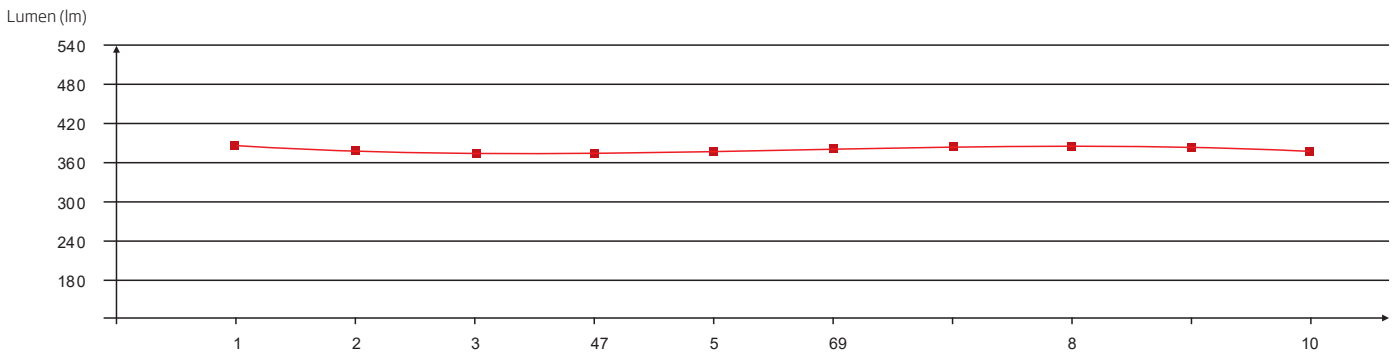
### Environmental Testing

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, 70°C (typical temperature range)

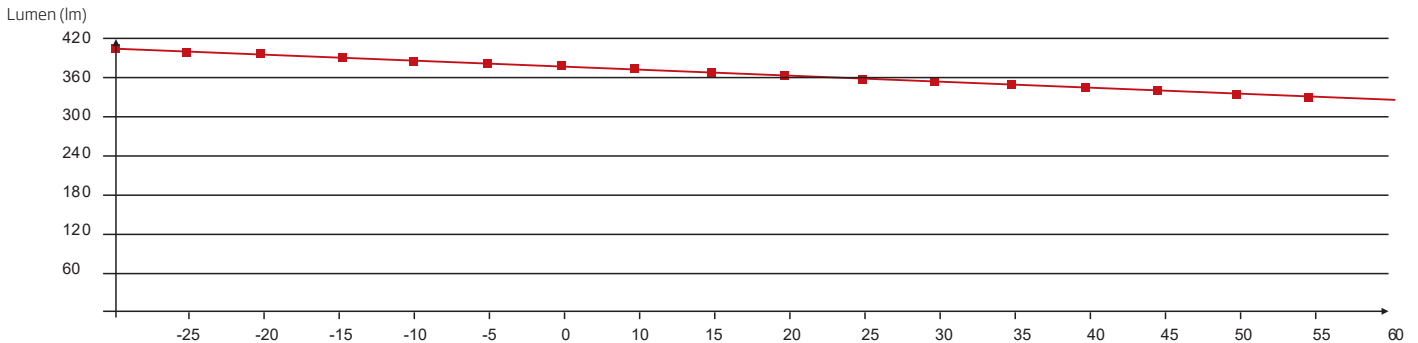
# Charts



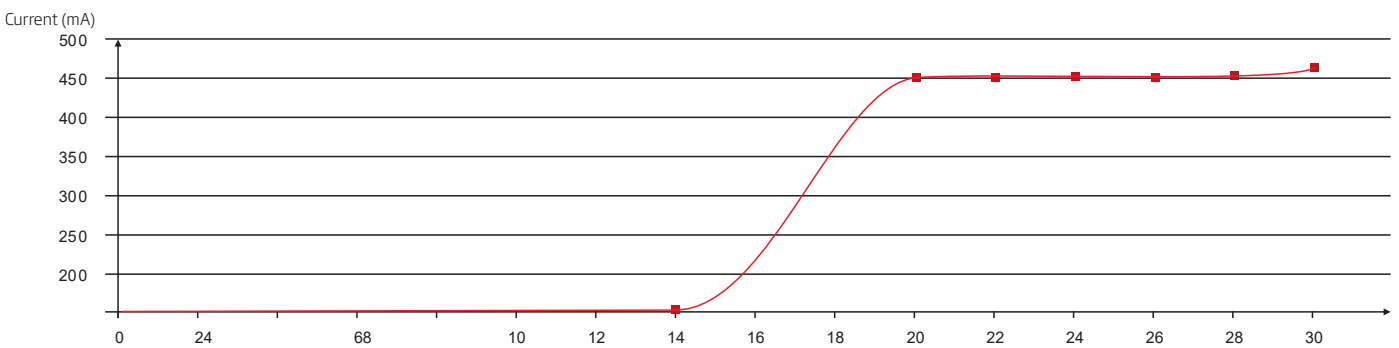
Working Temperature vs. Current



Luminous Flux vs. Length of Light



Luminous Flux vs. Working Temperature



Voltage vs. Current

# 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	$0.000 \pm 0.0060$
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	

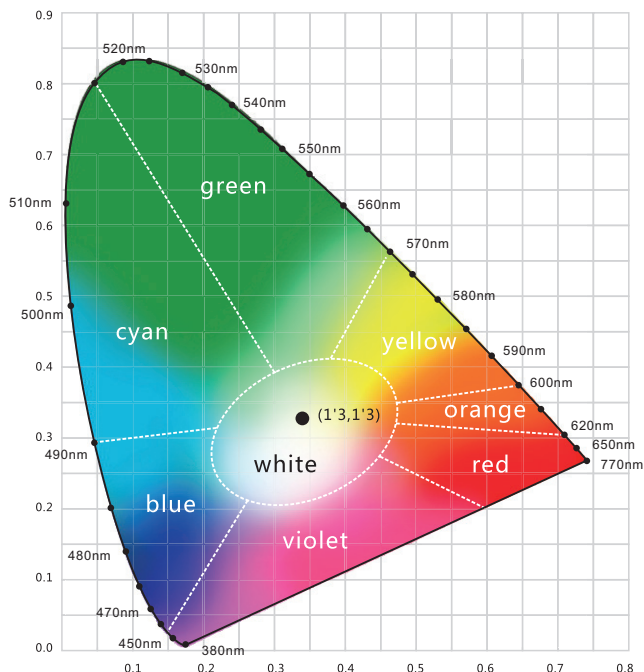
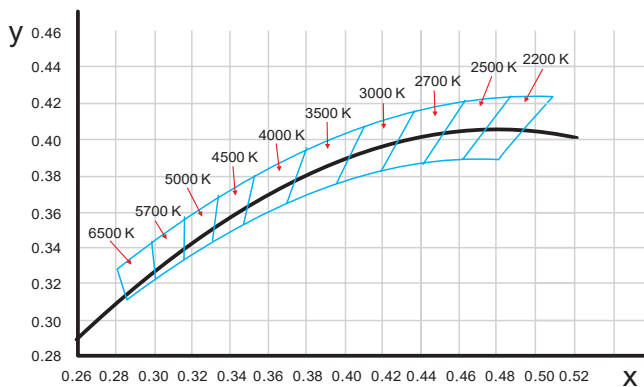
  

Flexible CCT (2200-6500K)	$T_f^{1)} \pm \Delta T^{2)}$	$D_{uv} T_f^{3)}$
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**Remark:**

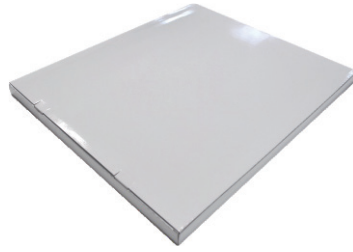
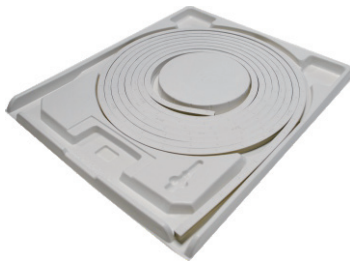
- 1)  $T_f$  is chosen to be at 100K steps (2300,2400,.....,6400K), excluding the ten nominal CCTs listed in Table 1.
- 2)  $\Delta T = 1.1900 \times 10^9 \times T^{-3} - 1.5434 \times 10^4 \times T^2 + 0.7168 \times T - 902.55$
- 3) Same as in the  $D_{uv}$  Tolerance Range.

### (X,Y) Chromaticity Diagram



### 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)	20.47x16.14x11.02in (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)