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**LIGHT DIMENSION: 0.63 X 0.67IN (16X17MM)**

OUTPUT	RGB	RGBW
LED Light	Epistar SMD LED Chip	
Max Run Length *1 *2		
Single Feed (Dynamic)	49.21ft (15m)	32.81ft (10m)
Single Feed (Full Load)	32.81ft (10m)	16.4ft (5m)
Double Feed (Dynamic)	98.43ft (30m)	65.62ft (20m)
Double Feed (Full Load)	65.62ft (20m)	32.81ft (10m)
Light Surface	Square profile 160°	
Lumen Maintenance	70,000 Hours L70 @ 25°C : 90,000 L50 @ 25° 50,000 Hours L70 @ 50° : 70,000 Hours L50 @ 50°C	

**ELECTRICAL**

Input Voltage	24V DC	
Power Consumption	5.03W/ft. (16.5W/m)	6.71W/ft (22W/m)

**PHYSICAL**

LED Count	25 LED/ft (84LEDs/m)	25 LED/ft (84LEDs/m)
LED Spacing	0.47in (11.9mm)	0.47in (11.9mm)
Cutting Unit Length	3.28in (83.3mm) (7 LEDs)	3.28in (83.3mm) (7 LEDs)
IC Type	UCS2903	UCS2904
Thermal Management	Cool to the touch, free air convection	
Fixture Connections	Front, end & middle lead wires	
Minimum Bend Diameter	11.81in (300mm) (Side View Only)	

**TEMPERATURE RANGES**

Installation	32° to 140°F (0° to 60°C)
Operating	-13° to 140°F (-25° to 60°C)
Humidity	0-95% non condensing

**DEPENDABILITY**

Warranty	Limited 3 Year PVC, Limited 5 Year Silicone
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**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.
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**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.

# TECHNICAL SPECIFICATIONS

## COLOR INFORMATION:

COLOR	CT WAVELENGTH
Red	620-630nm
Green	520-530nm
Blue	465-475nm
2700K (WW)	2725 ± 145K
400K	3985 ± 275K

## LUMEN COUNT:

COLOR	PER FOOT	PER METER	POWER
Red	>24.38lm	>80lm	/
Green	>82.3lm	>270lm	/
Blue	>12.8lm	>42lm	/
2700K (WW)	>67.06lm	>220lm	/
400K	>67.06lm	>220lm	/

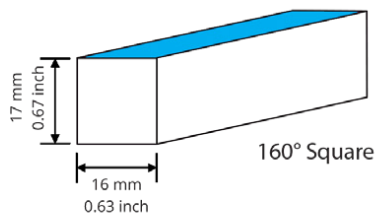
## COLOR JACKETS:

For standard or custom color jacket options please contact us. Minimum quantity order of 656ft. (200m) applies.

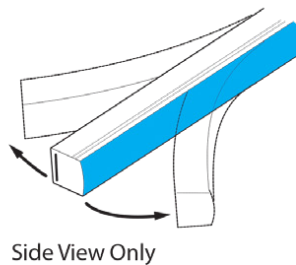
# PHYSICAL SPECIFICATIONS



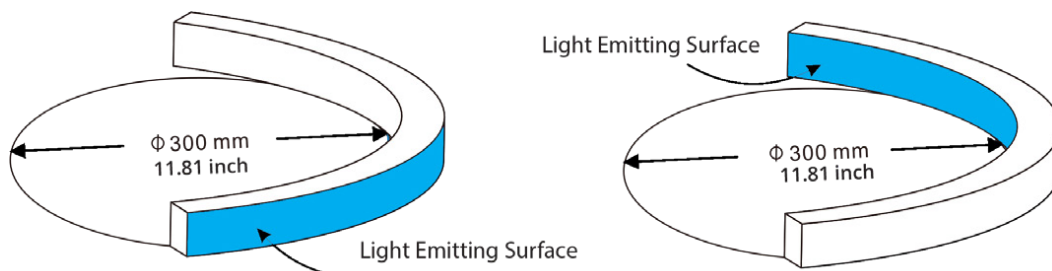
## LIGHT PROFILE



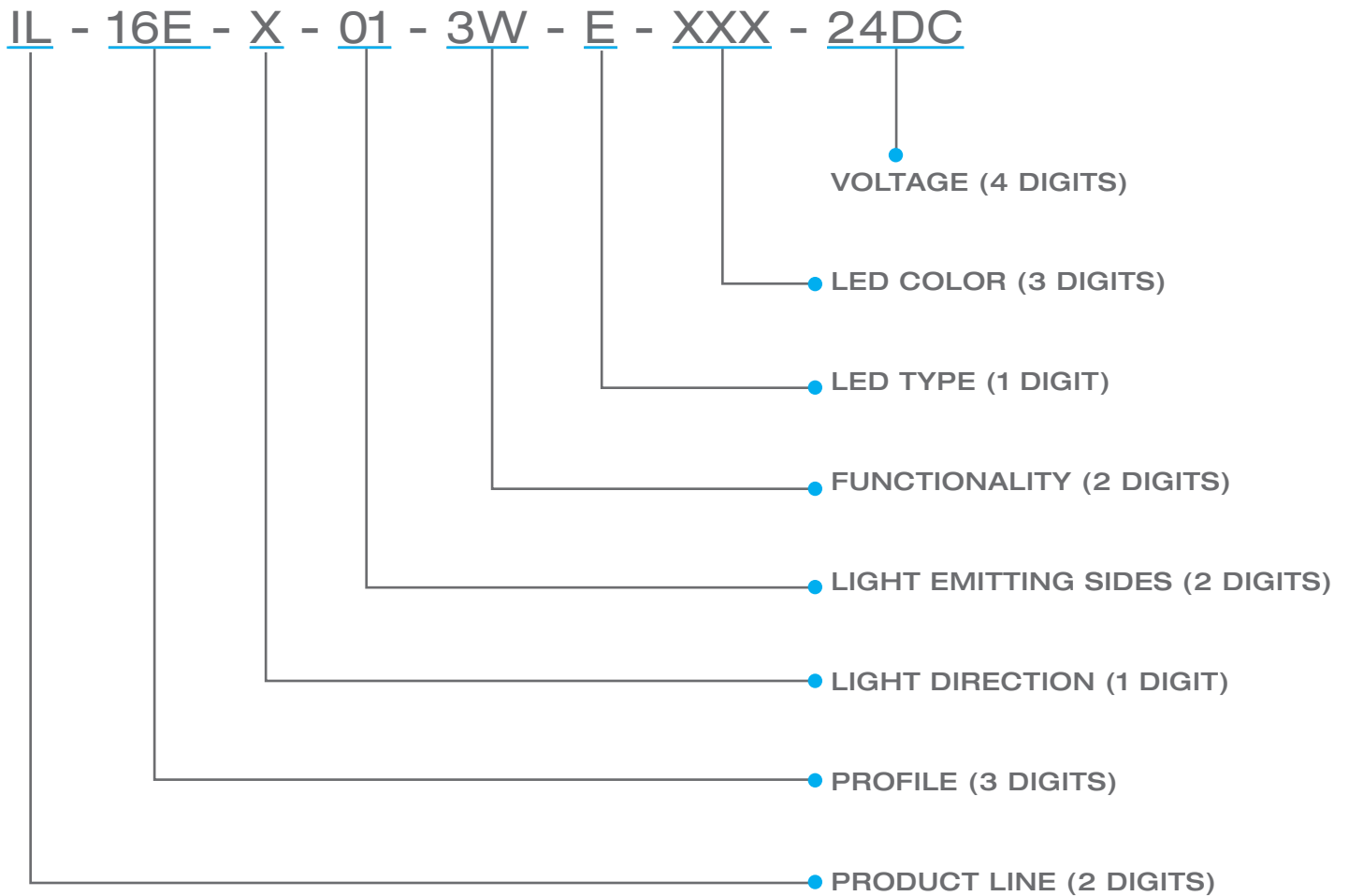
## LIGHT DIRECTION



## MINIMUM BENDING DIAMETER

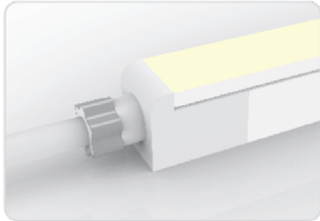


# ORDERING LOGIC



IP67: Rated for wet locations,  
not submersion.

Factory Assembly Only.

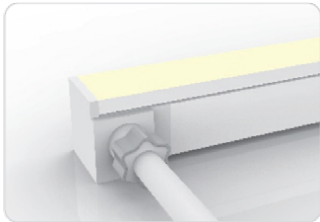
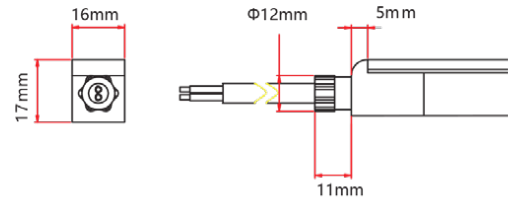


#### Seamless End Exit

IL-16E-S-00-3W-SE-0-EN-XXX-S

2 Wire

IL-16E-S-00-3W-SE-0-EN-XXX-P



#### Seamless Side Exit

IL-16E-S-00-3W-SE-1-SL-XXX-S

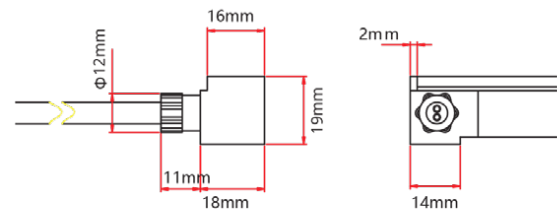
IL-16E-S-00-3W-SE-2-SL-XXX-S

IL-16E-S-00-3W-SE-1-SR-XXX-S

IL-16E-S-00-3W-SE-2-SR-XXX-S

2 Wire

IL-16E-S-00-3W-SE-2-SL-XXX-P

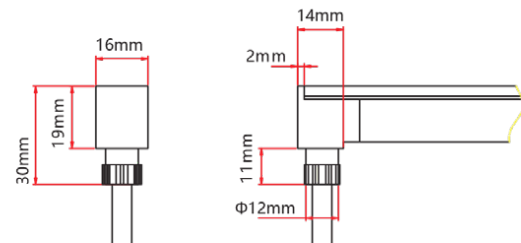


#### Seamless Bottom Exit

IL-16E-S-00-3W-SE-0-BO-XXX-S

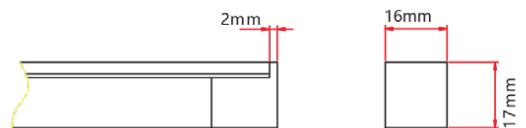
2 Wire

IL-16E-S-00-3W-SE-0-BO-XXX-P



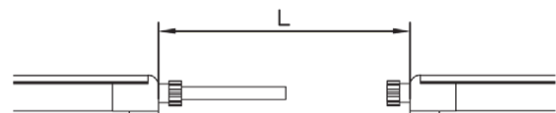
#### Seamless End Cap

IL-16E-I-00-0W-SE-0-EC



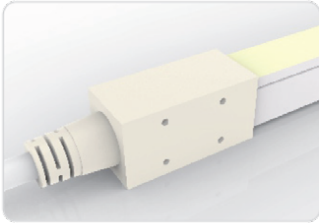
#### Seamless Jumper

IL-16E-S-00-3W-SE-0-EJ-XXX-S

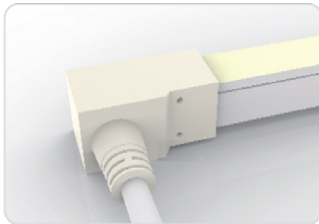
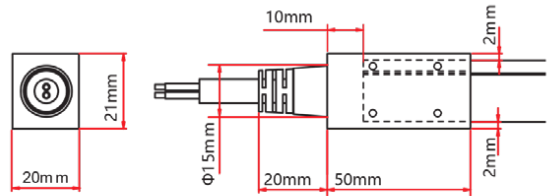


# 5 SUBMERSIBLE SEAMLESS CONNECTORS

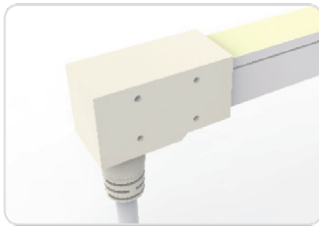
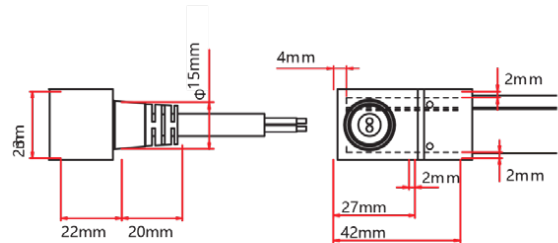
IP68: Submersible. Waiting on 3rd party certification from UL as of 18/04/12. Factory Assembly only.



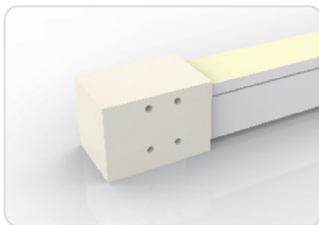
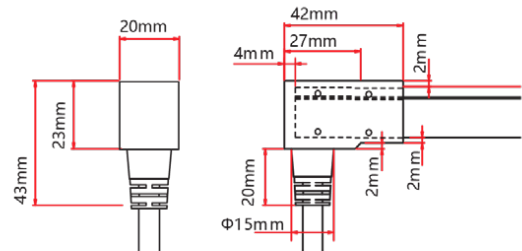
**Submersible End Exit**  
IL-16E-S-00-3W-SU-0-EN-XXX-S



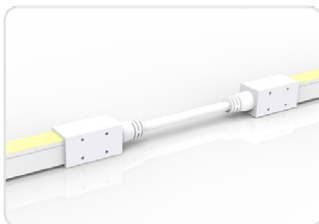
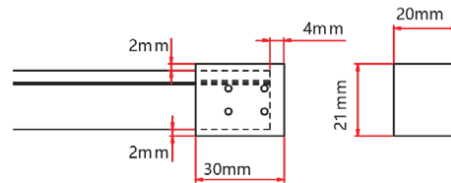
**Submersible Side Exit**  
IL-16E-S-00-3W-SU-1-SL-XXX-S  
IL-16E-S-00-3W-SU-2-SL-XXX-S  
IL-16E-S-00-3W-SU-1-SR-XXX-S  
IL-16E-S-00-3W-SU-2-SR-XXX-S



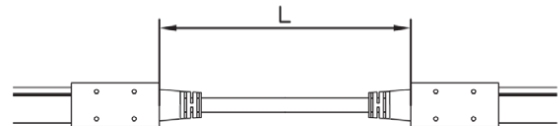
**Submersible Bottom Exit**  
IL-16E-S-00-3W-SU-0-BO-0M3-S



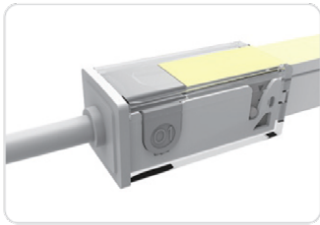
**Submersible End Cap**  
IL-16E-I-00-0W-SU-0-EC



**Submersible Jumper**  
IL-16E-S-00-3W-SU-0-EJ-XXX-S

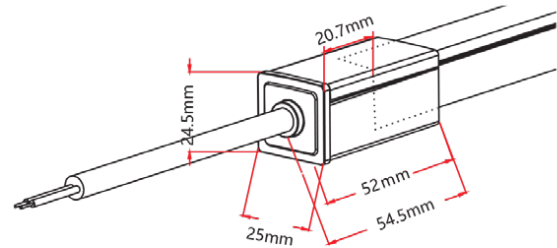


IP67: Rated for outdoor use.  
Factory Assembly or DIY.



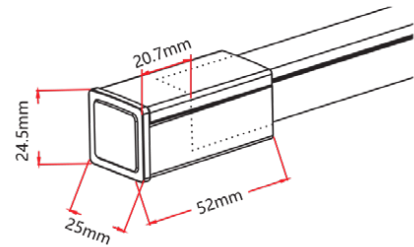
### Snap End Exit

IL-16E-S-00-3W-SC-1-EN-XXX-S  
IL-16E-S-00-3W-SC-2-EN-XXX-S  
2 Wire  
IL-16E-S-00-3W-SC-2-EN-XXX-P



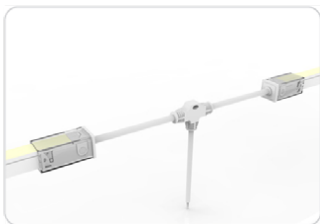
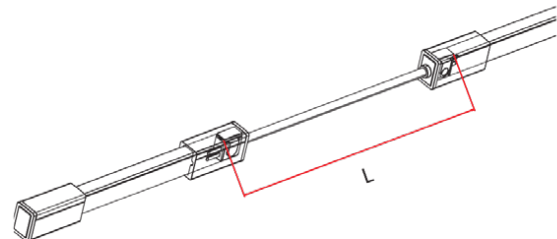
### Snap End Cap

IL-16E-S-00-0W-SC-0-EC



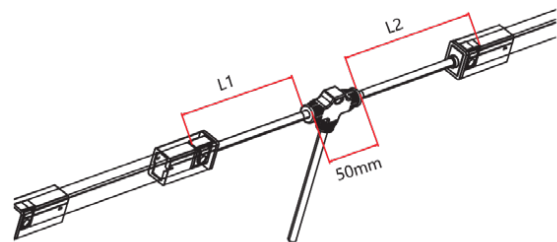
### Snap Jumper

IL-16E-S-00-3W-SC-0-EJ-XXX-S



### Snap Power T Feed

IL-16E-S-00-3W-SC-0-TF-XXX-S

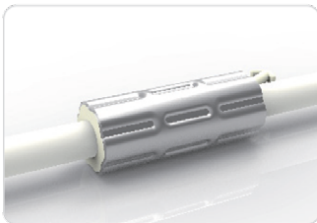
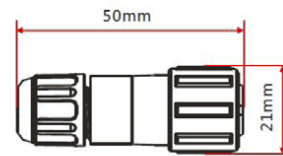


IP20: Rated for indoor use only.  
Factory Assembly only.

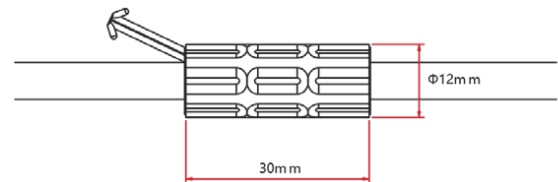


#### Barrel Connectors

IL-XX-BC-DC-CXX-F  
 IL-XX-BC-DC-CXX-M  
 IL-XX-BN-XXA-CXX-F  
 IL-XX-BN-XXA-CXX-M  
 IL-XX-PL-XXA-CXX-F  
 IL-XX-PL-XXA-CXX-M



#### Anti-Wicking Ferrule



#### Anvil Cutter

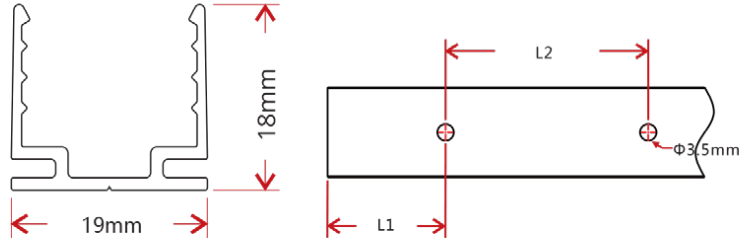
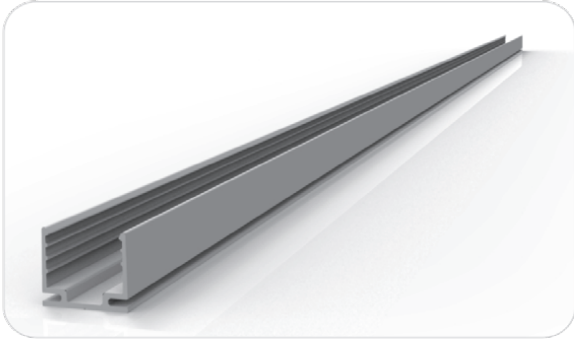
Optional accessory for on-site cutting.

\*Factory order only\*



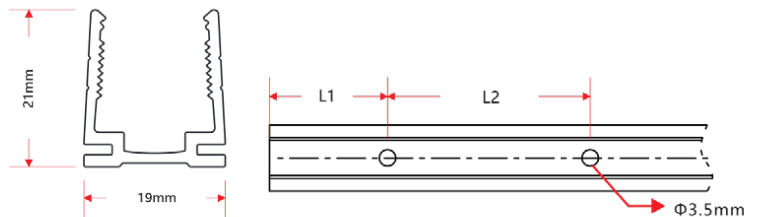
# MOUNTING HARDWARE

## LOCKING ANODIZED ALUMINUM TRACK



W x H	Standard Length	Part Number	L1	L2	Screw Hole $\Phi$	Hole #
0.75 x 0.71in (19 x 18mm)	1.38in (35mm)	TL-16-R-AL-3C5-	0.69in (17.5mm)	/	$\Phi$ 0.14in (3.5mm)	1
	19.69in (500mm)	TR-16-R-AL-0M5-SD	1.97in (50mm)	7.87in (200mm)	$\Phi$ 0.14in (3.5mm)	3
	39.37in (1000mm)	TR-16-R-AL-01M-SD	3.94in (100mm)	7.87in (200mm)	$\Phi$ 0.14in (3.5mm)	5
	78.74in (2000mm)	TR-16-R-AL-02M-SD	3.94in (100mm)	7.87in (200mm)	$\Phi$ 0.14in (3.5mm)	10

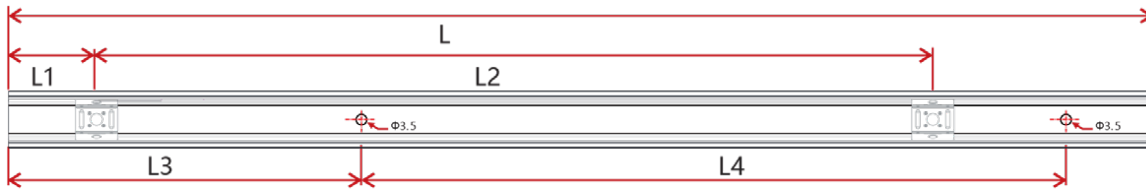
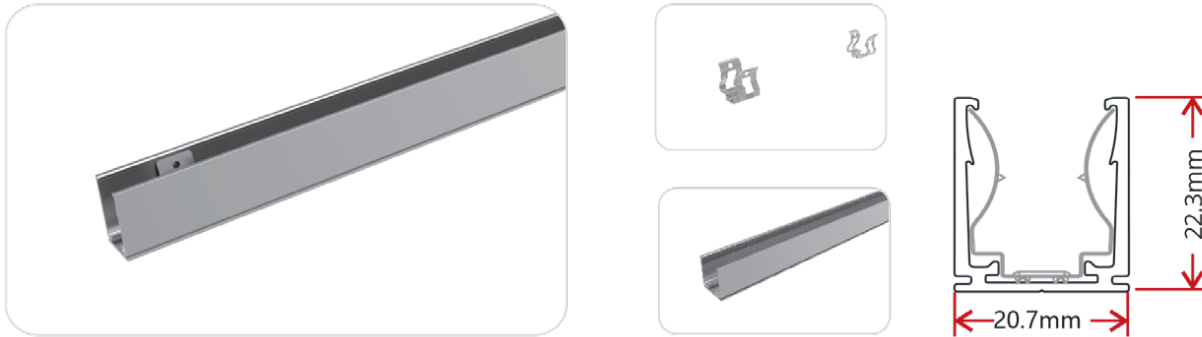
## PLASTIC TRACK



W x H	Standard Length	Part Number	L1	L2	Screw Hole $\Phi$	Hole #
0.75 x 0.83in (19x 21mm)	19.69in (500mm)	TR-16-R-PL-0M5-SD	1.97in (50mm)	7.87in (200mm)	$\Phi$ 0.14in (3.5mm)	3
	39.37in (1000mm)	TR-16-R-PL-01M-SD	3.94in (100mm)	7.87in (200mm)	$\Phi$ 0.14in (3.5mm)	5
	78.74in (2000mm)	TR-16-R-PL-02M-SD	3.94in (100mm)	7.87in (200mm)	$\Phi$ 0.14in (3.5mm)	10

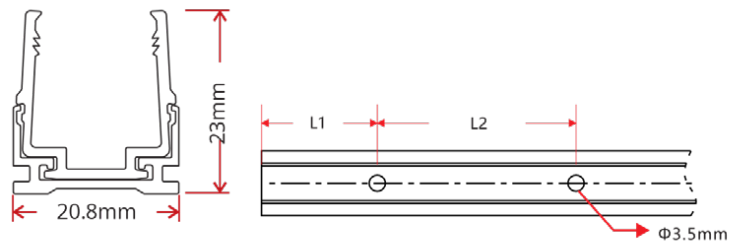
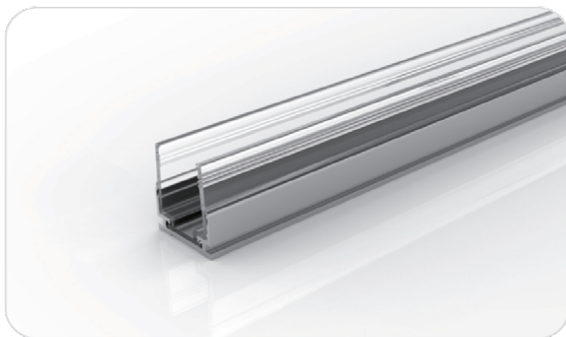
# MOUNTING HARDWARE

## SPRING CLIP ANODIZED ALUMINUM TRACK



W x H	Standard Length	Part Number	L1	L2	L3	L4	Screw Hole Φ	Hole #	Clip #
0.82 x 0.88in	1.38in (35mm)	TL-16-R-AL-3C5-SP	0.69in (17.5mm)	/	0.2in (5mm)	0.98in (25mm)	Φ0.14in (3.5mm)	2	1
(20.7 x 22.3mm)	19.69in (500mm)	TR-16-R-AL-0M5-SP	0.98in (25mm)	8.86in (225mm)	1.97in (50mm)	7.87in (200mm)	Φ0.14in (3.5mm)	3	3
	39.37in (1000mm)	TR-16-R-AL-01M-SP	0.98in (25mm)	9.35in (237.5mm)	3.94in (100mm)	7.87in (200mm)	Φ0.14in (3.5mm)	5	5
	78.74in (2000mm)	TR-16-R-AL-02M-SP	0.98in (25mm)	9.6in (243.8mm)	3.94in (100mm)	7.87in (200mm)	Φ0.14in (3.5mm)	10	9

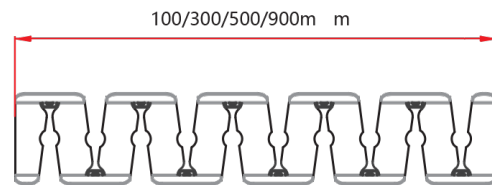
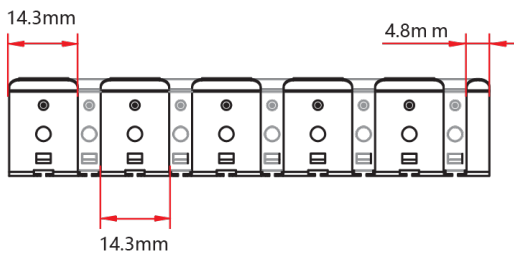
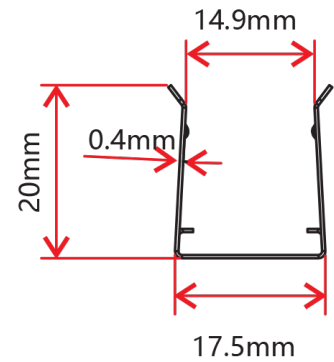
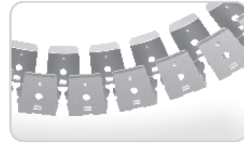
## PLASTIC & ALUMINUM TRACK



W x H	Standard Length	Part Number	L1	L2	Screw Hole Φ	Hole #
0.82 x 0.91in	1.38in (35mm)	TL-16-R-AP-3C5-SD	0.69in (17.5mm)	/	Φ0.14in (3.5mm)	1
(20.8 x 23mm)	19.69in (500mm)	TR-16-R-AP-0M5-SD	1.97in (50mm)	7.87in (200mm)	Φ0.14in (3.5mm)	3
	39.37in (1000mm)	TR-16-R-AP-01M-SD	3.94in (100mm)	7.87in (200mm)	Φ0.14in (3.5mm)	5
	78.74in (2000mm)	TR-16-R-AP-02M-SD	3.94in (100mm)	7.87in (200mm)	Φ0.14in (3.5mm)	10

# MOUNTING HARDWARE

## STAINLESS STEEL FLEXIBLE CHANNEL

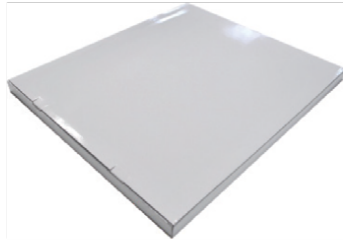
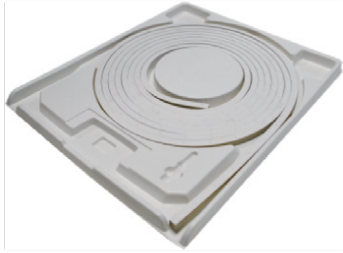


W x H	Standard Length	Part Number
0.69 x 0.79in	3.94in (100mm)	TR-16-F-SS-0M1-SD
(17.5 x 20mm)	11.81in (300mm)	TR-16-F-SS-0M3-SD
	19.69in (500mm)	TR-16-F-SS-0M5-SD
	35.43in (900mm)	TR-16-F-SS-0M9-SD

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

# PACKAGING

## SPRING CLIP ANODIZED ALUMINUM TRACK



White Box

Packing Box

Fixture Length	White Box Dimensions	Packing Box Dimensions	# Of White Boxes	Package Weight
<14.76ft (<4.5m)	15.35x2.05x19.67in (39x5.2x50cm)	20.47x16.14x11.02in (52x41x28cm)	5	<17.64lbs (<8kg)
16.4 - 26.24ft (5-8m)	20.08x2.05x24.41in (51x5.2x62cm)	25.2x20.87x6.9in (64x53x17.5cm)	3	13.23-19.84lbs (6-9kg)
16.4 - 26.24ft (5-8m)	20.08x2.05x24.41in (51x5.2x62cm)	25.2x20.87x11.02in (64x53x28cm)	5	19.84-30.86lbs (9-14kg)
32.81ft (10m)	23.62x1.46x27.95in (60x3.7x71cm)	28.74x24.41x7.87in (73x62x20cm)	5	37.48lbs (17kg)
65.62ft (20m)	26.77x2.05x31.1in (68x5.2x79cm)	31.9x27.56x4.92in (81x70x12.5cm)	2	24.25lbs (11kg)

## TESTING

### PHOTOMETRIC DATA

LED Type	SMD				
Beam Angle	160°				
Color	Wavelength	Lumen/m	Color	CCT	Lumen/m
Red	620-630nm	>80lm	2700K	2725±145K	>220lm
Green	520-530nm	>270lm	4000K	3985±275K	>220lm
Blue	465-475nm	>42lm			

## 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 LM84 & 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

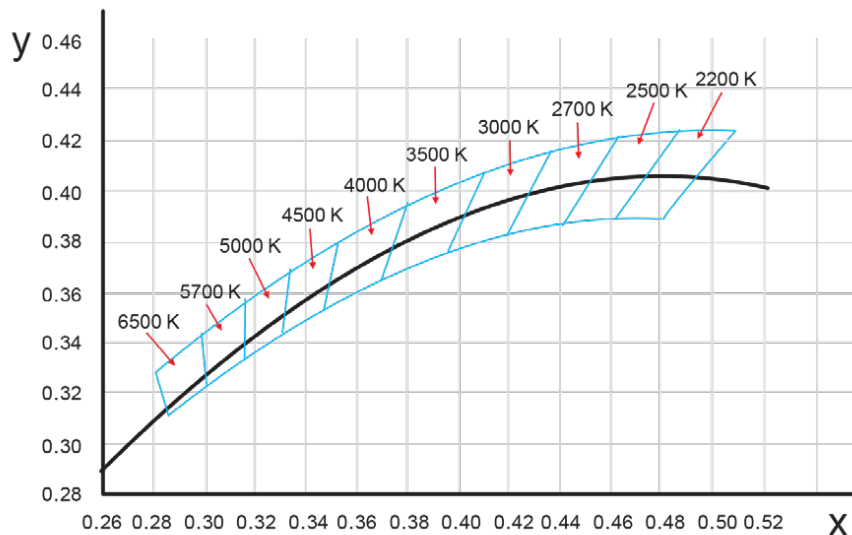
## Nominal CCT Categories

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 × (1/Tx)
5700K	5667±355	0.0025	+0.00854
6500K	6532±510	0.0031	
Flexible CCT (2200-6500K)	$T_F^{1)} ± \Delta T^{2)}$	$D_{uv} T_F^{3)}$	

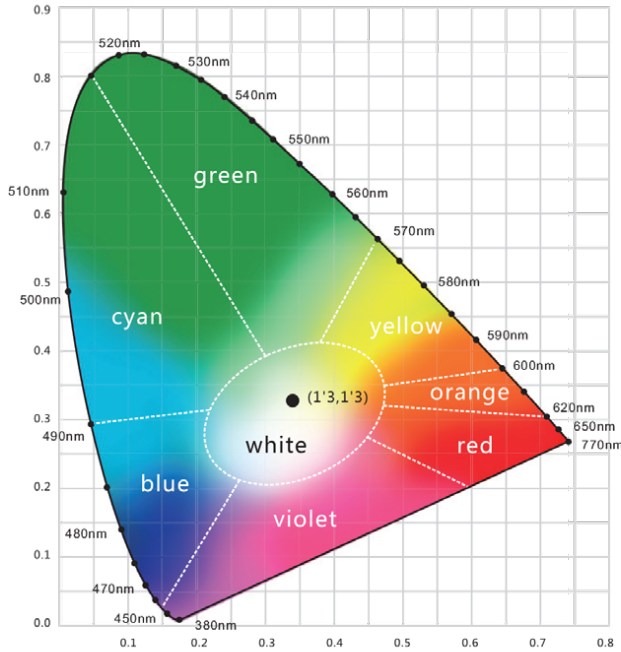
## Remark:

- 1)  $T_F$  is chosen to be at 100K steps (2300,2400,.....,6400K),excluding the ten nominal CCTs listed in Table 1.
- 2)  $\Delta T = 1.1900 \times 10^5 \times T^{-1} - 1.5434 \times 10^4 \times T^2 + 0.7168 \times T - 902.55$
- 3) Same as in the  $D_{uv}$  Tolerance Range.

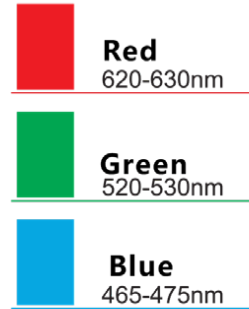
## (X,Y) Chromaticity Diagram



## CHARTS



### Light Color



## LOADING CHART

Rated Power	Power Supply										
	35W	60W	75W	80W	100W	120W	120W	150W	185W	240W	320W
5.03W/ft (16.5W/m)	4.92ft (1.5m)	9.84ft (3m)	11.48ft (3.5m)	13.12ft (4m)	14.76ft (4.5m)	/	18.04ft (5.5m)	22.97ft (7m)	29.53ft (9m)	37.73ft (11.5m)	49.21ft (15m)
6.71W/ft (22W/m)	3.28ft (1m)	6.56ft (2m)	8.20ft (2.5m)	9.84ft (3m)	11.48ft (3.5m)	13.12ft (4m)	/	18.04ft (5.5m)	21.33ft (6.5m)	27.89ft (8.5m)	37.73ft (11.5m)
Lead Type	Single Feed						Double Feed				

Note: These are the max recommended run lengths based on power supply

**For example:** It is recommended to use one 80W power supply for a single-fed run of 13.12ft(4m) at 5.03W/ft (16.5W/m), or for a single-fed run of 9.84ft (3m) at 6.71W/ft (22W/m).