

F21 Mono Color Neon Flex

Specification

Dimension



Gross weight:
0.52kg/m



Dimmable:
DALI, 0-10V, DMX, Triac



Installation Temp.:
0°C to +55°C



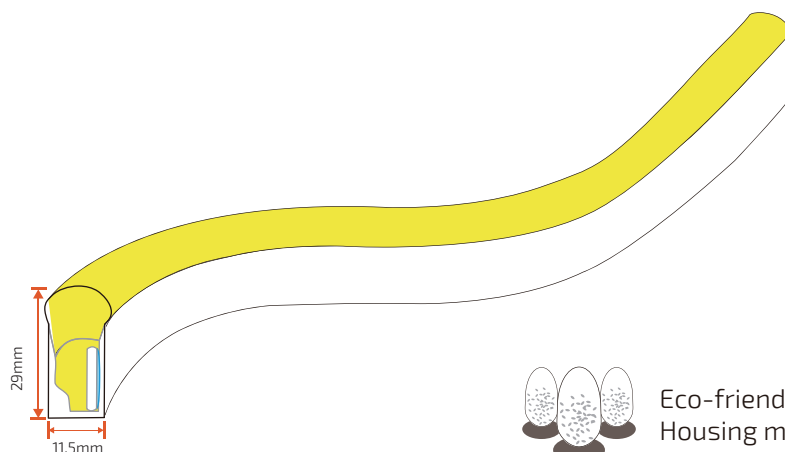
Ambient Temp.:
-25°C to +55°C



Min. Bending :
120mm



Beam Angle :
270 degree



Eco-friendly PVC
Housing material

Features

Uniform and even light output

Dome surface with 270 degree beam angle

Constant Current IC built in optional

Dimmable with Dali, 0/1-10, DMX,PWM

High Lumen output, up to 320lm/m for 12W version

Full encapsulated with IP68 Level

High Reliability

3 or 5 Years warranty

Applications

Building facade, outline

Cove lighting

Sign and advertising lighting

Linear lighting

Additional lighting

Decorative lighting



outdoor use



indoor use



UV
Protected



Class III



Dirt
Resistant



CE



Saltwater
Resistant



UL



RoHS



LM-80



IK08



Corrosion
Resistant



IP68



One Bin
Only

Model Encoding



F21-24V-5050-60-12W-3000K



MJ **A** **S01SM**
MJ-21-A-S01SM
1 **2** **3** **4** **5**

- 1** Mould injection
- 2** Mono color
- 3** Connector entry type
- 4** Connector direction
- 5** Cable connector type

01----- right
02-----left
03-----double

S----- Side entry
D-----Direct entry
B-----Bottom entry

SM----- male connetor cable
SF-----female connector cable
SMF-----male & female connector cable
Blank-----bare wire

Technical Specification

Model	F21-24V-5050-72	F21-24V-5050-60	F21-24V-5050-60-U10	F21-36V-5050-60	F21-24V-3528-72	F21-12V-3528-72	F21-24V-2835-72-CC
Operating voltage	24V	24V	24V	36V	24V	12V	24V
Power consumption	15W/M	12W/M	7.2W/M	12W/M	5W/M	5W/M	10W/M
Working Mode	CV	CV	CV	CV	CV	CV	CC
LED type	SMD5050	SMD5050	SMD5050	SMD5050	SMD3528	SMD3528	SMD2835
LED Quantity	72 pcs/m	60 pcs/m	60 pcs/m	60 pcs/m	72 pcs/m	72 pcs/m	72 pcs/m
Available CCT	2200-6500K	2200-6500K	/	2200-6500K	2200-6500K	2200-6500K	2200-6500K
Available Color	G/B/LY/P	G/B/LY/P	R/A/O	G/B/LY/P	G/B/P/R/A/O	G/B/P/R/A/O	G/B/LY/P
Min. cutting Unit	6 LEDs	6 LEDs	10 LEDs	10 LEDs	12 LEDs	6 LEDs	6 LEDs
Min. cutting length	8.33cm	10cm	16.67cm	16.67cm	16.67cm	8.33cm	8.33cm
Max. length single feed	8m	10m	15m	15m	15m	7m	15m
Max. length double feed	16m	20m	30m	30m	30m	/	30m
Lumen maintenance	70 000 Hours L70 25°C , 50 000 Hours L70 50°C						
Housing material	Eco PVC or Silicone						
Installation temperature	0°C to -55°C						
Ambient temperature	-25°C to +55°C						
Ingress protection	IP68 wet location submersible* to 2m						
Warranty	3 years as standard, 5 years garuntee maximum						

Wave length

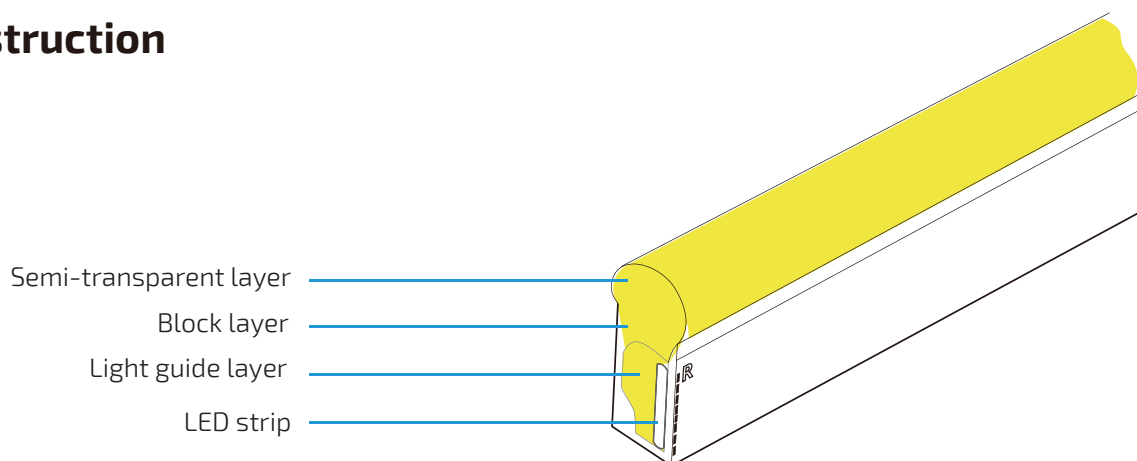
Red (R)	620-630nm
Green (G)	520-530nm
Blue (B)	465-475nm
Amber (A)	585-595nm
Orange (O)	600-610nm
Lemon Yellow (LY)	610-620nm
Pink (P)	630-645nm
2200K	2238± 102K
2500K	2460± 120K
2700K (WW)	2725± 145K
3000K	3045± 175K
3500K (W)	3465± 245K
4000K	3985± 275K
4500K(CW)	4503± 243K
5000K	5029± 283K
5700K(DW)	5669± 355K
6500K	6532± 510K

Lumen output

Model: F21-24V-5050-60

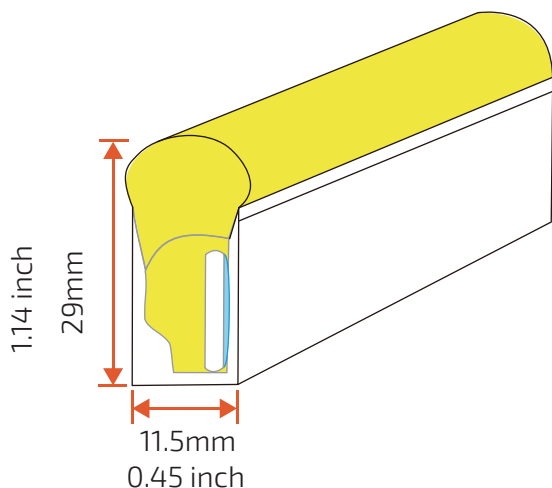
Color or CCT	Per foot	Per meter	Power consumption
Red	>30.48lm	>100lm	2.19W/ft (7.2W/M)
Green	>54.87lm	>180lm	3.66W/ft (12W/M)
Blue	>9.14m	>30lm	3.66W/ft (12W/M)
Amber	>30.48lm	>100lm	2.19W/ft (7.2W/M)
Orange	>24.39lm	>80lm	2.19W/ft (7.2W/M)
Lemon Yellow	>67.07lm	>220lm	3.66W/ft (12W/M)
Pink	>39.63lm	>130lm	3.66W/ft (12W/M)
2200K	>76.21lm	>250lm	3.66W/ft (12W/M)
2500K	>76.21lm	>250lm	3.66W/ft (12W/M)
2700K	>76.21lm	>250lm	3.66W/ft (12W/M)
3000K	>76.21lm	>250lm	3.66W/ft (12W/M)
3500K	>91.46lm	>300lm	3.66W/ft (12W/M)
4000K	>91.46lm	>300lm	3.66W/ft (12W/M)
4500K	>97.56lm	>320lm	3.66W/ft (12W/M)
5000K	>97.56lm	>320lm	3.66W/ft (12W/M)
5700K	>97.56lm	>320lm	3.66W/ft (12W/M)
6500K	>97.56lm	>320lm	3.66W/ft (12W/M)

Construction

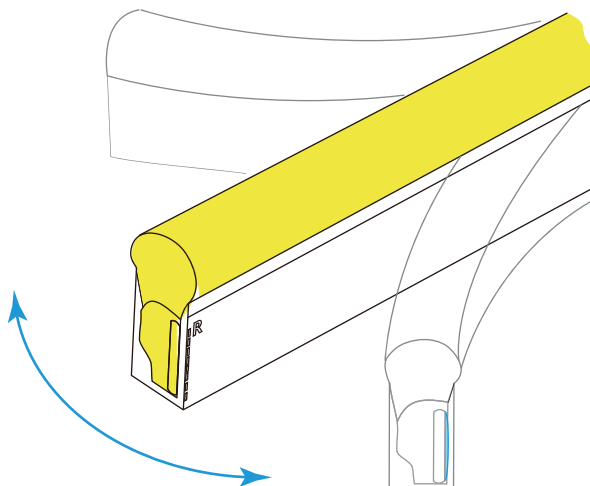


Physical Specification

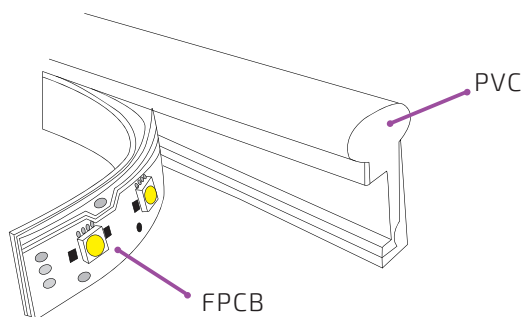
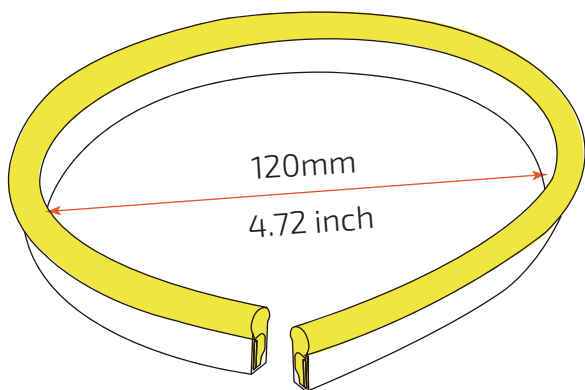
Light profile



Bending direction

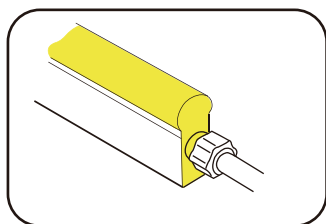


Min. bending diameter

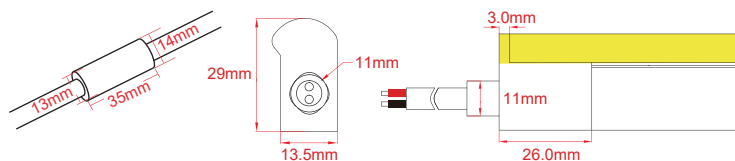


Mold injection connector

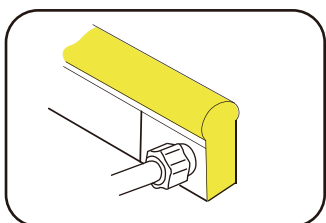
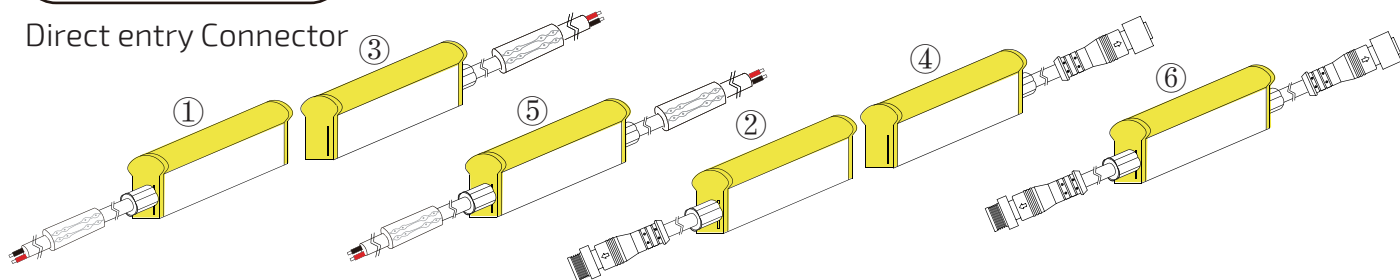
(IP68 Factory Assembly only)



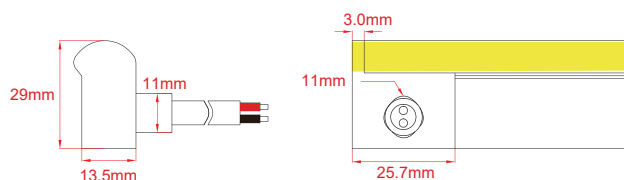
- ① MJ-21-A-D01
- ② MJ-21-A-D01SM
- ③ MJ-21-A-D02
- ④ MJ-21-A-D02SF
- ⑤ MJ-21-A-D03
- ⑥ MJ-21-A-D03SFM



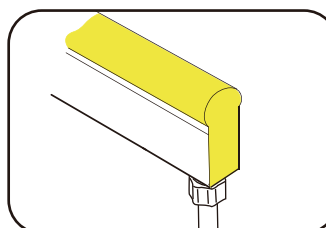
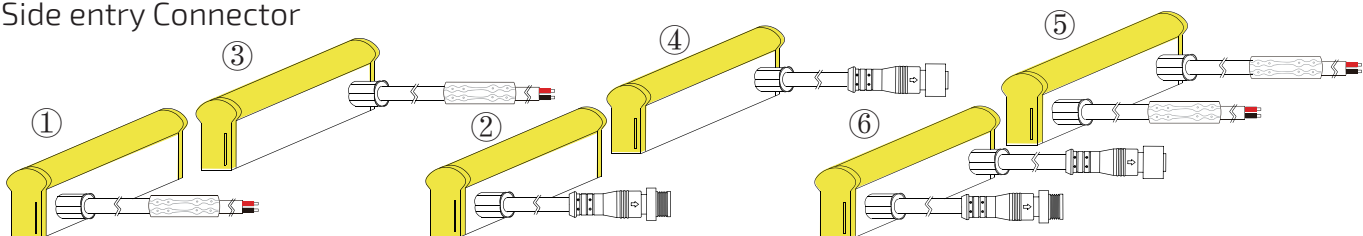
Direct entry Connector



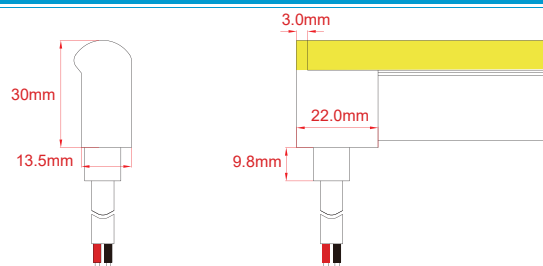
- ① MJ-21-A-S01
- ② MJ-21-A-S01SM
- ③ MJ-21-A-S02
- ④ MJ-21-A-S02SF
- ⑤ MJ-21-A-S03
- ⑥ MJ-21-A-S03SFM



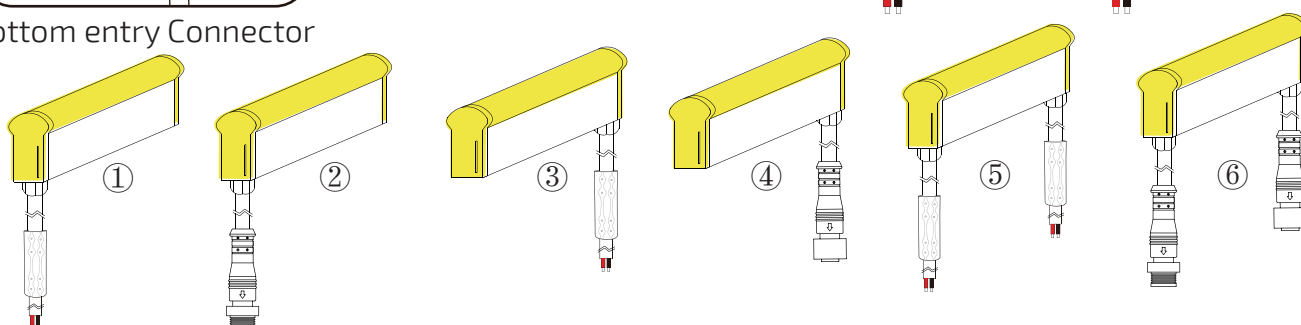
Side entry Connector



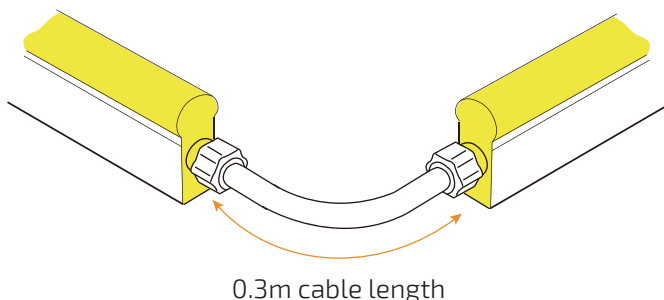
- ① MJ-21-A-B01
- ② MJ-21-A-B01SM
- ③ MJ-21-A-B02
- ④ MJ-21-A-B02SF
- ⑤ MJ-21-A-B03
- ⑥ MJ-21-A-B03SFM



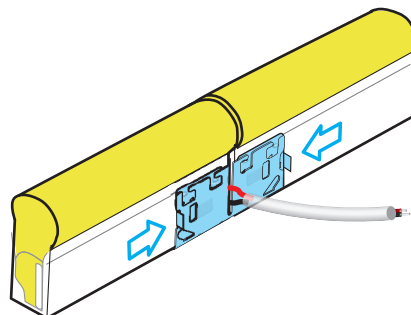
Bottom entry Connector



Mold injection Jumper
(IP68 Factory Assembly only)

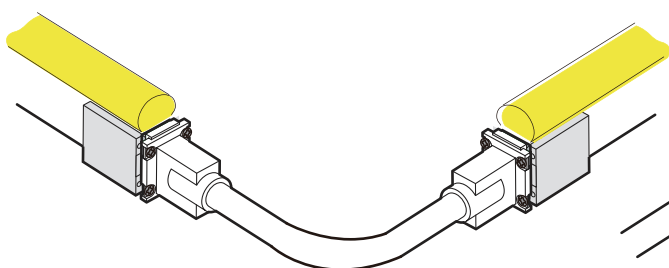


DIY snap splice connector (IP67 Only)

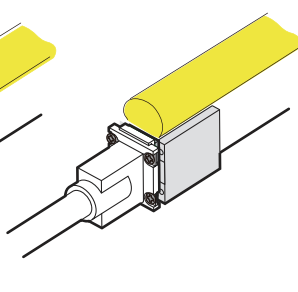


DIY Screw & Snap Connector Kit (IP67 Only)

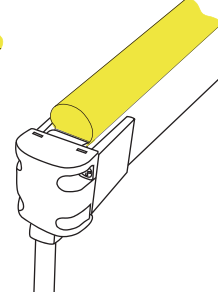
DIY screw splice connector kit



DIY screw connector kit

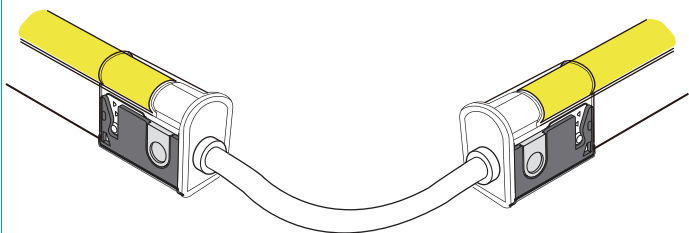


DIY screw front connector

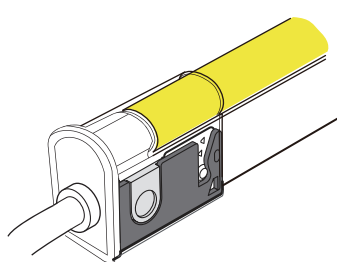


DIY screw end cap

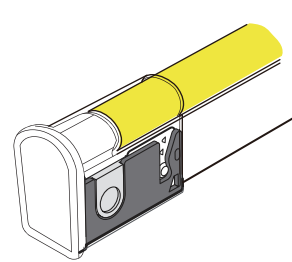
DIY snap splice connector kit



DIY snap connector kit



DIY snap front connector



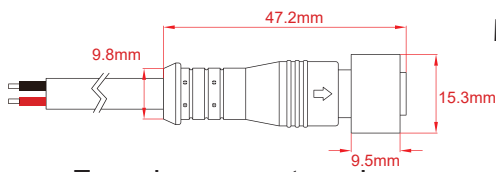
DIY snap end cap

Type	Model	
Middle injection Connector	MJ-21-A-M01-06	
DIY snap splice connector	DIY-SC-Middle-15	
DIY screw connector kit Jumper	DIY-SC-EXT-15-A	
DIY screw front connector	DIY-SC-FR-15-D-01/02-A	DIY-SC-FR-15-B-01/02-A
DIY screw end cap kit	DIY-SC-END-15	
DIY snap front connector	DIY-SN-FR-21-D-01/2-A	
DIY screw end cap kit	DIY-SN-END-01/02-21	

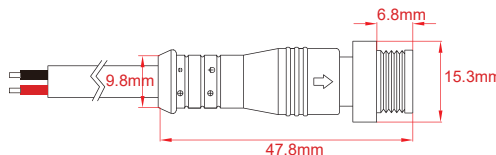
Noted:
01- Right direction
02- Left direction

Other Accessories

Female & Male Connector

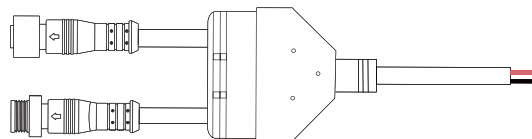


Female connector wire
SYZ-M12-F-2C-075-W

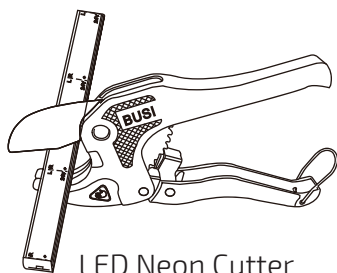
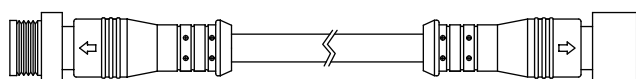


Male connector wire
SYZ-M12-M-2C-075-W

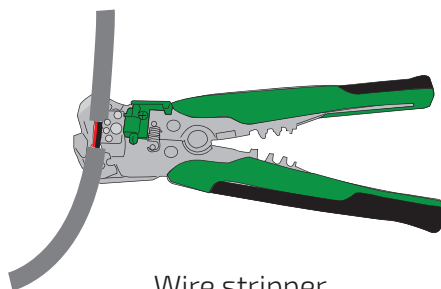
Middle power connector



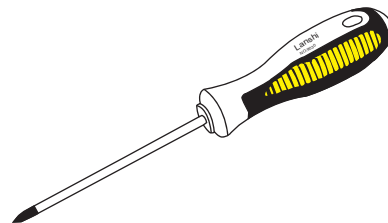
MID-CNR-A-1T2



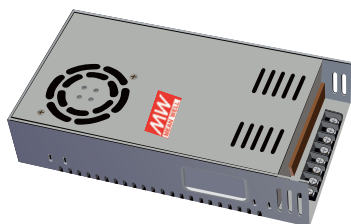
LED Neon Cutter
ACC-TOOL-C1



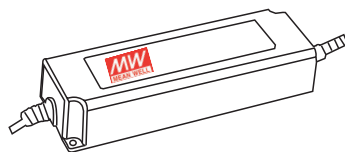
Wire stripper
ACC-TOOL-W501



Screwdriver
ACC-TOOL-C2



Mean Well Transformer
Non-waterproof Series



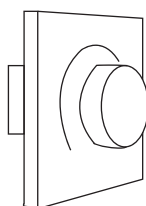
Mean Well Transformer
Waterproof Series



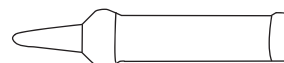
Female& male wire connector
KJ-M12-2P-F/ KJ-M12-2P-M



Silicone Glue
K-5905

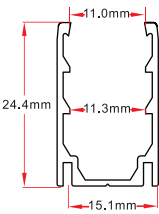
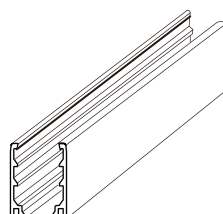
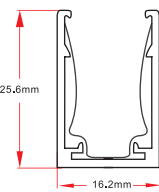
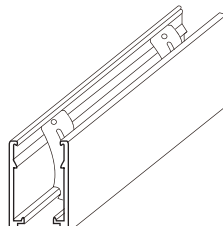
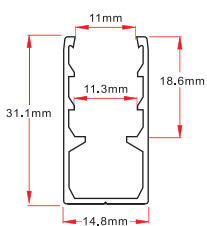
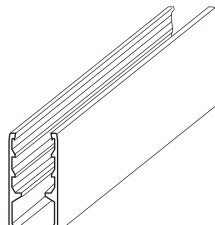
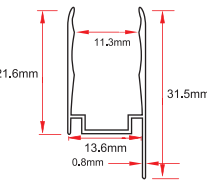
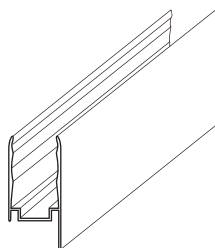
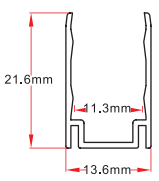
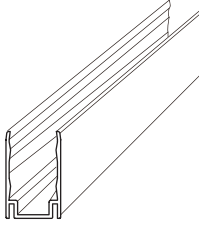
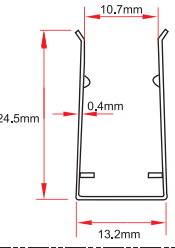
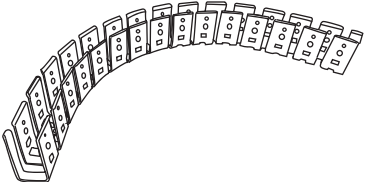
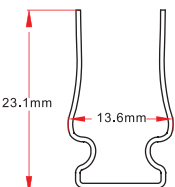
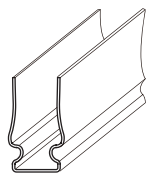


Dimmer



Assistant Tool
ACC-TOOL-C3

Mounting Channel

Model	Description	Dimension	Drawing
ALC15S01	Use for : F15 & F21 Length option:1m,2m,35mm Material:Aluminum alloy Optional color:AS/AB/PW Type: Standard		
ALC15S02	Use for : F15 & F21 Length option:1m,2m,35mm Material:Aluminum alloy Optional color:AS/AB/PW Type: Anti-drop for upside down installation		
ALC15H01	Use for : F15 & F21 Length option:1m,2m,35mm Material:Aluminum alloy Optional color:AS/AB/PW Type: Cable hiding		
ALC15V01	Use for : F15 & F21 Length option:1m,2m,35mm Material:Aluminum alloy Optional color:AS/AB/PW Type: Vertical installation		
ALC21S01	Use for : F15 & F21 Length option:1m,2m,35mm Material:Aluminum alloy Optional color:AS/AB/PW Type: Standard		
SSC15FLX	Use for : F15 & F21 Length option:10cm,30cm,50cm,100cm Material: Stainless steel Optional color: Polished Type: Flexible		
SSC15S01	Use for : F15 & F21 Length option: 5cm Material: Stainless steel Optional color: Natural color Type: 316 stainless steel		

Packing

Standard: Carton (Paper reel inside)



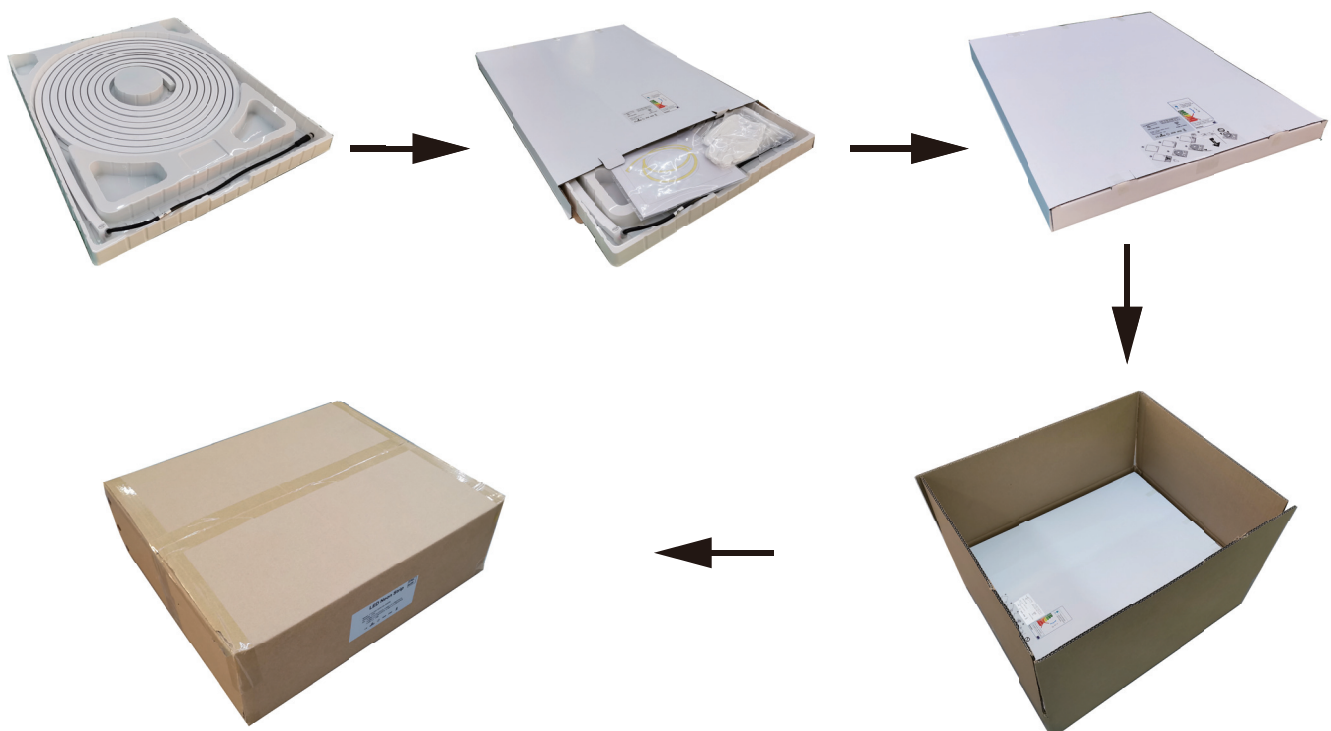
Fixture Length
787.4in(20m)

Paper Reel
D12.99*H6.18in(33*15.7cm)

Carton Dimension
33*33*18cm

Gross Weight
17.63 lbs (10.4 kg)

Custom: Carton (White box+plastic plate inside)



Fixture Length
393.7in(10m)

White box Dimension
21.6*1.38*18.9in(55*3.5*48cm)

Carton Dimension
57*49*19cm

White box Quantity
Max 5pcs

Gross Weight
57.32 lbs (26 kg)

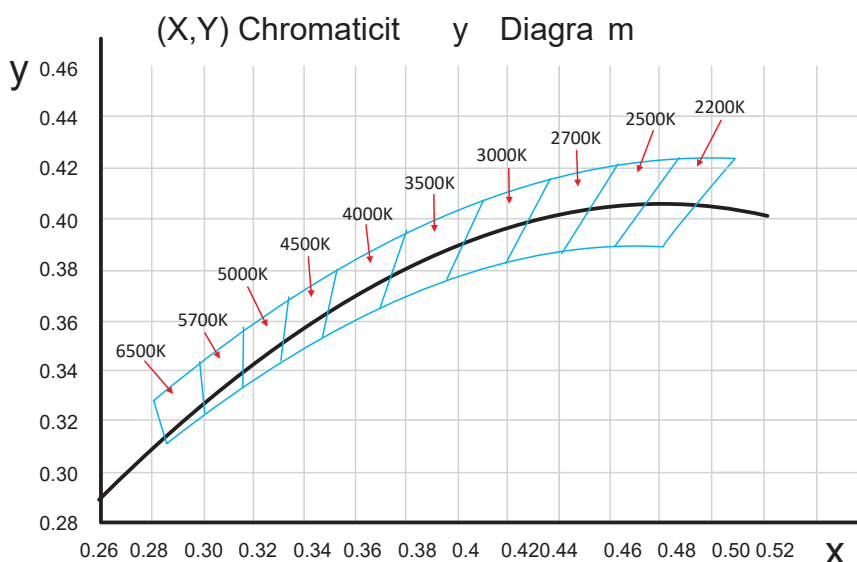
Testing

ANSI Standard

Nominal CCT Categories (2200-6500K)

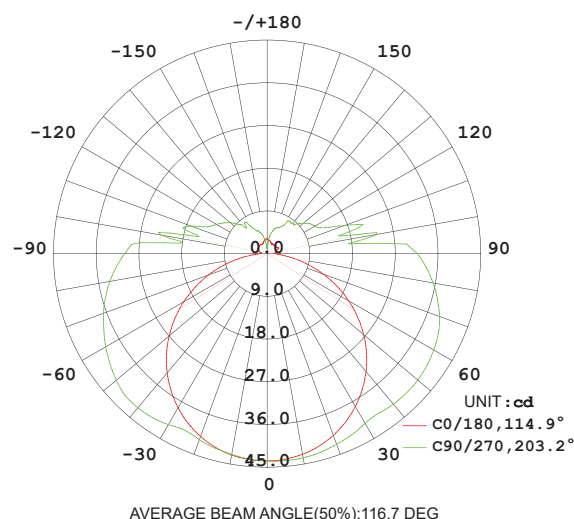
Nominal CCT	Target CCT & tolerance(K)	Target D_{uv}	D_{uv} Tolerance Range
2200K	2238±102	0.0000	Tx: CCT of the source for $T_x < 2870K$ 0.000 ± 0.0060 For $T_x \geq 2870K$ $D_{uv}(T_x) \pm 0.0060$ where $D_{uv}(T_x) = 57700x(1/T_x)^2 - 44.6x(1/T_x) + 0.00854$
2500K	2460±120	0.0000	
2700K	2725±145	0.0000	
3000K	3045±175	0.0001	
3500K	3465±245	0.0005	
4000K	3985±275	0.0010	
4500K	4503±243	0.0015	Remark: 1) T_F is chosen to be at 100K steps (2300,2400.....6400K) the ten nominal CCTs listed in table 1. 2) $\Delta T = 1.1900 \times 10^8 \times T^{-3} - 1.5434 \times 10^4 \times T^{-2} + 0.71648 \times T - 902.55$ 3) Same as in the DUV tolerance range
5000K	5029±283	0.0020	
5700K	5667±355	0.0025	
6500K	6532±510	0.0031	
Flexible CCT	$T_F^{(1)} \pm \Delta T^{(2)}$	$D_{uv} T_F^{(3)}$	

White Color Charts



Photometric

F21-24V-5050-60-12W-3000K



1. Please note it is under normal range if there is 20-30% yellowing of PVC housing material when the product will be used under direct sunlight or long-term high temperature & wet environment in 3 years.
2. The tolerance range of optical parameters (luminance, CCT, Watt, RA) for all products is within $\pm 10\%$ referring to IEC Standard.
3. Because of different production technology, environmental temperature and installation, It should be considered as normal and accepted when the total length of LED neon with tolerance range within these values: $\pm 7mm$ (for 0.1~5M), $\pm 15mm$ (for 5.1~10M), or $\pm 30mm$ (for 10.1~20M).

Loading Chart

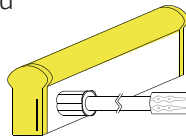
Power supply

Rated power	35W	60W	75W	80W	100W	120W	150W	185W	240W	320W
5W	5m	9m	12m	12.5m	16m	18m	24m	29.5m	30m	/
7.2W	3m	6m	7.5m	8.5m	11m	13m	16.5m	20.5m	26.5m	30m
10W	3m	4.5m	6m	7m	8m	9.5m	12m	14.5m	19m	25.6m
12W	2m	4m	5m	6m	7.5m	8m	10m	12.3m	16m	21.3m
15W	1.5m	3m	4m	4.2m	5m	6m	8m	9.8m	12.5m	17m

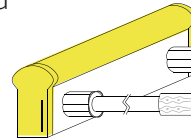
Single Feed

Double Feed

Lead Type



DC input



DC input

DC input

Note: These are the max recommended run lengths based on power supply. **The principle is: the total actual power of LED neon must be less 20% at least than max output power of the power supply.**

Recommendation of extension wire

Maximum extension wire length according to Light power

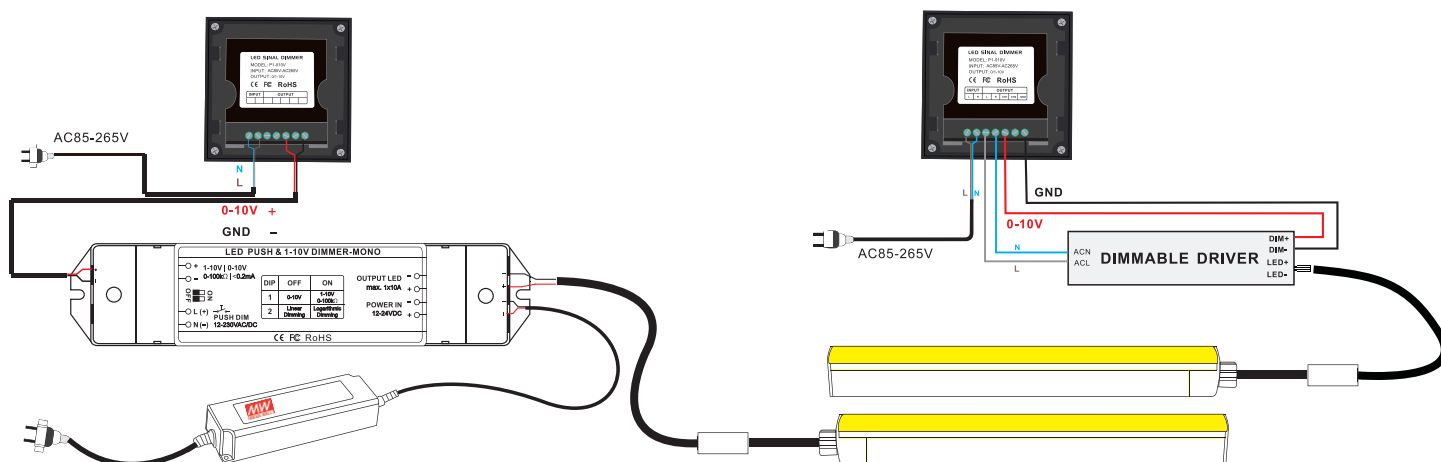
Watts of light	22AWG 0.34mm ²	20AWG 0.53mm ²	18AWG 0.82mm ²	17AWG 1.04mm ²	16AWG 1.38mm ²	14AWG 2.07mm ²	12AWG 3.29mm ²	10AWG 5.62mm ²
10W	36m	60m	100m	120m	140m	240m	400m	600m
20W	18m	30m	50m	60m	70m	120m	200m	300m
30W	12m	20m	30m	38m	45m	80m	130m	200m
40W	8m	15m	22m	28m	35m	60m	95m	140m
50W	6m	12m	18m	22m	28m	48m	75m	105m
60W	5m	10m	15m	18m	22m	36m	60m	88m
70W	/	8m	12m	14m	18m	30m	50m	72m
80W	/	6m	10m	11m	14m	24m	40m	58m
90W	/	4m	7m	8m	10m	18m	30m	45m
100W	/	/	5m	6m	7m	12m	22m	32m
110W	/	/	3m	4m	5m	8m	15m	22m
120W	/	/	2m	2.5m	3m	0m	8m	12m

Notes:

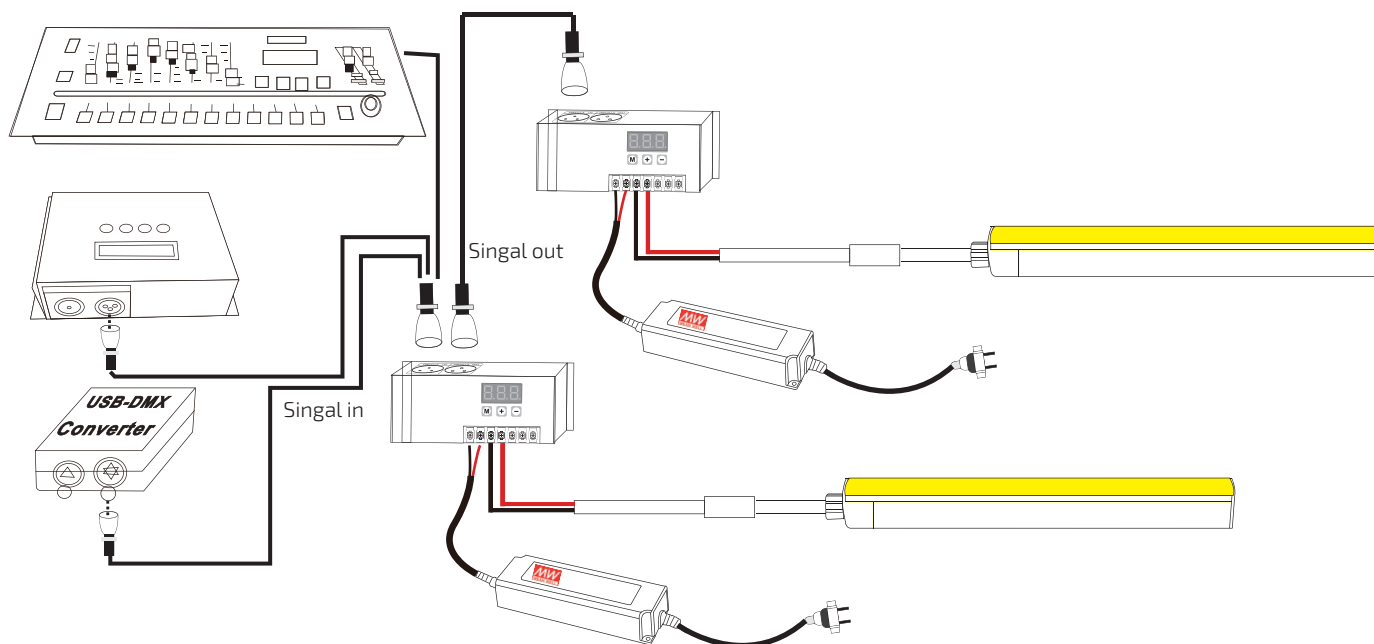
1. The values of length above doesn't include the 0.3m or 0.6m cable connected to the front connector.
2. To ensure the reliability of wire connection and avoid problem of voltage drop, the length of extension wire should be smaller than the above recommended values.

Dimming system Connection

0-10V dimming system



DMX512 dimming system



DALI dimming system

