

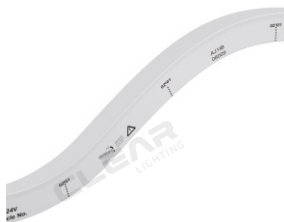
# Flexglo™ F22B Monochrome - Colorful Light (Silicone)



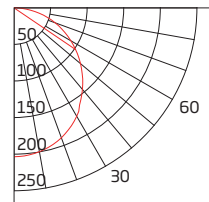
|                           |                  |                   |                |
|---------------------------|------------------|-------------------|----------------|
| Certification Mark        | UL               | CE                | 8              |
| Test Standard/Directive   | UL2108 Class 2   | CE-EMC            | IS 10322       |
| Certificate Serial Number | 20180801-E360029 | SZEM1712012372LMV | R-41128376     |
| Report Reference          | E360029-20130322 | SZEM171201237201  | NO.20190425001 |

|                                                                                                                                                                |                                                                                                                            |                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>Ambient Working Temperature</b><br>$\leq 8W/m$ $-40 \sim 60^{\circ}C$ $/ -40 \sim 140^{\circ}F$<br>$12W/m$ $-40 \sim 55^{\circ}C$ $/ -40 \sim 131^{\circ}F$ | <b>Ambient Installation Temperature</b><br>$\geq -40^{\circ}C$ $/ -40^{\circ}F$                                            | <b>Storage Temperature</b><br>$-40 \sim 60^{\circ}C$ $/ -40 \sim 140^{\circ}F$ |
|                                                                                                                                                                | <b>Max. Mounting Surface Temperature</b><br>$85^{\circ}C$ $/ 185^{\circ}F$<br>specified in the non-working state of light. | <b>Constant Current</b><br>DC24V                                               |

## C-SFR-F22B-VB



C-SFR-F22B-VB-24CC-G-WM-108-12W-55.6

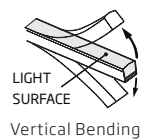
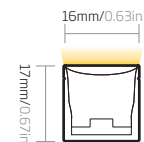


UNIT: cd  
-C90/270

AVERAGE BEAM ANGLE (50%): 113.1°

Min. Bending Diameter  
300mm/11.81in

Min. Cutting Length  
83.3mm/3.28in, 9LEDs  
55.6mm/2.19in, 6LEDs



Bending-extreme  
2044 times

Tensile-instantaneous  
>100 kg.f

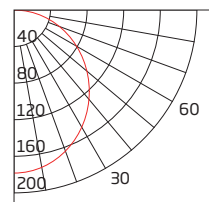
Twist-extreme  
4374 times

Warning: Extreme Destructive Tests in laboratory only, and it's forbidden to operate in practice.

## C-SFR-F22B-HB



C-SFR-F22B-HB-24CC-G-WM-108-12W-55.6

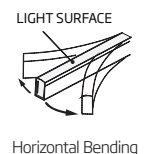
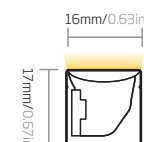


UNIT: cd  
-C90/270

AVERAGE BEAM ANGLE (50%): 112.2°

Min. Bending Diameter  
300mm/11.81in

Min. Cutting Length  
83.3mm/3.28in, 9LEDs  
55.6mm/2.19in, 6LEDs



Bending-extreme  
2044 times

Tensile-instantaneous  
>100 kg.f

Twist-extreme  
5514 times

Warning: Extreme Destructive Tests in laboratory only, and it's forbidden to operate in practice.

Note:

1. The illuminated light length shall be an integral multiple of min. cutting length.

2. The waterproof reliability of the lighting fixture depends on the IP rating of connector, and please make sure connector is properly assembled before installation. The highest IP rating we can achieve is IP68.

## Item Code

| C       | SFR                       | F22B             | VB                                             | 24CC                     | G                                         | WM                      | 108        | 12W           | 55.6                     |
|---------|---------------------------|------------------|------------------------------------------------|--------------------------|-------------------------------------------|-------------------------|------------|---------------|--------------------------|
| Company | Material                  | Product Series   | Bending Direction                              | Voltage & Circuit Type   | Color                                     | Base & Lighting Surface | LEDs Qty/m | Power/m       | Min. Cutting Length (mm) |
| Clear   | SFR= Silicone Flex Ribbon | F22B= Monochrome | VB= Vertical Bending<br>HB= Horizontal Bending | DC24V & Constant Current | R=Red<br>A=Amber<br><br>G=Green<br>B=Blue | WM= White & Milky       | 108        | 8W<br><br>12W | 83.3<br><br>55.6         |

## Feature

Flexglo™ F22B Monochrome - Colorful Light (Silicone), thanks to the excellent weatherproof and UV-resistant performance of silicone material, it features a wide ambient working temperature range of -40-55 °C , especially suitable for harsh environment application.

Multiple connector options are available for different applications. Combined with the adoption of the DryWire™ technology,

\*The IP68 Injection-moulded Connector is engineered for outdoor use, owing to its elegant appearance and strong adhesiveness acquired by the liquid silicone injection workmanship.

\*The IP67 Field Assembly Connector, which is underpinned by the Insulfit™ technology that enables quick assembly in the field along with waterproof reliability (proper assembly required).

This product features a ultra long lifespan in outdoor application by leveraging other ClearTech™ such as the PinBoost™ technology enhancing physical reliability of light engine, the TwinFlex™ technology improving the conductivity and optimizing heat dissipation performance, the C-Mask™ technology making the light body self-cleaning and anti-UV and enabling consistent illumination.

## Electrical Parameter

| Category                 | C-SFR-F22B-VB/HB | C-SFR-F22B-VB/HB |
|--------------------------|------------------|------------------|
| Voltage (V)              | 24               | 24               |
| Current (mA/m)           | 333.3            | 500.0            |
| Power (W/m)              | 8                | 12               |
| Circuit Type             | CC               | CC               |
| LED Type                 | 2835             | 2835             |
| LEDs Qty/m               | 108              | 108              |
| LEDs Qty/unit            | 9                | 6                |
| Unit/m                   | 12               | 18               |
| Min. Cutting Length (mm) | 83.3             | 55.6             |
| Min. Cutting Length (in) | 3.28             | 2.19             |

## Optical Parameter

| Item Code                            | Finished Product |            |         |          | LED             |
|--------------------------------------|------------------|------------|---------|----------|-----------------|
|                                      | Color            | Wavelength | Lumen/m | Lumen/ft | Color Tolerance |
| C-SFR-F22B-VB-24CC-R-WM-108-8W-83.3  | Red              | 618-624nm  | 185lm   | 56lm     | <3nm            |
| C-SFR-F22B-VB-24CC-G-WM-108-12W-55.6 | Green            | 522-528nm  | 550lm   | 168lm    | <3nm            |
| C-SFR-F22B-VB-24CC-B-WM-108-12W-55.6 | Blue             | 468-474nm  | 120lm   | 37lm     | <3nm            |
| C-SFR-F22B-VB-24CC-A-WM-108-8W-83.3  | Amber            | 588-594nm  | 185lm   | 56lm     | <3nm            |
| C-SFR-F22B-HB-24CC-R-WM-108-8W-83.3  | Red              | 618-624nm  | 165lm   | 50lm     | <3nm            |
| C-SFR-F22B-HB-24CC-G-WM-108-12W-55.6 | Green            | 522-528nm  | 450lm   | 137lm    | <3nm            |
| C-SFR-F22B-HB-24CC-B-WM-108-12W-55.6 | Blue             | 468-474nm  | 110lm   | 34lm     | <3nm            |
| C-SFR-F22B-HB-24CC-A-WM-108-8W-83.3  | Amber            | 588-594nm  | 165lm   | 50lm     | <3nm            |

## Max. Running Length

Input: DC24V

|                        |                                                                                     |                 |                                                                                     |                 |                                                                                      |                 |                                                                                       |                 |
|------------------------|-------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------|-----------------|
|                        |  |                 |  |                 |  |                 |  |                 |
| Type                   | Swivel Connector                                                                    |                 | Snap Connector                                                                      |                 | Socket Connector                                                                     |                 | Silicone Injection-moulded Connector                                                  |                 |
| IP Rating              | IP20                                                                                |                 | IP67                                                                                |                 | IP67                                                                                 |                 | IP68                                                                                  |                 |
| Item Code              | Single-end Feed                                                                     | Double-end Feed | Single-end Feed                                                                     | Double-end Feed | Single-end Feed                                                                      | Double-end Feed | Single-end Feed                                                                       | Double-end Feed |
| C-SFR-F22B-8W          | 7.5m/24.6ft                                                                         | 15m/49.2ft      | 20m/65.6ft                                                                          | 40m/131.2ft     | 20m/65.6ft                                                                           | 40m/131.2ft     | 20m/65.6ft                                                                            | 40m/131.2ft     |
| C-SFR-F22B-12W         | 5m/16.4ft                                                                           | 10m/32.8ft      | 15m/49.2ft                                                                          | 30m/98.4ft      | 15m/49.2ft                                                                           | 30m/98.4ft      | 15m/49.2ft                                                                            | 30m/98.4ft      |
| Dimension of Connector | Page F22 157                                                                        |                 | Page F22 161                                                                        |                 | Page F22 171                                                                         |                 | Page F22 179                                                                          |                 |
| Max.Packing Length     | Page F22 233                                                                        |                 |                                                                                     |                 |                                                                                      |                 |                                                                                       |                 |

Note:

1. Above conclusion is based on voltage drop testing result of the light with 0.3m (0.98ft) cable only.
2. The maximum running length is based on the light in static full loading status.
3. Above running length is only the light length excluding lengths of connectors. Please refer to the specific dimension of each connector.
4. The delivery length might be subject to the maximum packing length.

# F22 Silicone Injection-moulded Connector IP68



### Recommended for

- 1. Wet environments.
- 2. High-low temperature or intense humidity and UV.
- 3. Customized lengths.
- 4. Harsh working conditions or unexpected excessively external force during construction.

F22B



18AWG\*2

F22D/S(SPI)



18AWG\*3

F22A



22AWG\*3  
20AWG\*1

F22E



22AWG\*4  
20AWG\*1

F22S(DMX)



22AWG\*3  
20AWG\*2

## Feature

Precision milling and special glue Silicone liquid injection-moulded workmanship enable an almost consistent size between connectors and light body, and the transparent terminal of the connector allows the seamless effects spliced end by end.

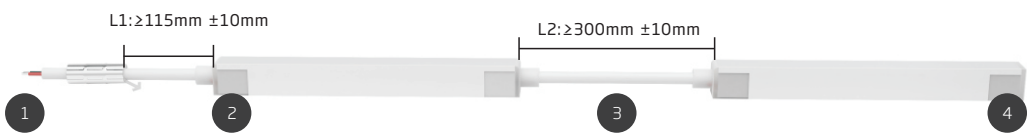
DryWire™ technology applied on the cable eliminates the capillary phenomenon through wires, which secured the long-term reliability in outdoor or any wet environments. Light lengths can be customized on the basis of projects and pre-installation before the delivery eases the assembly trouble on site.

## In-house Test

| Test Object | No. | Experiment Item               | Standard                   |
|-------------|-----|-------------------------------|----------------------------|
| Metal Parts | 1   | Weather Resistance-Salt Spray | IEC 68-2-11                |
| Waterproof  | 1   | Waterproof-IPX5 / IPX7 / IPX8 | CLEAR-defined <sup>®</sup> |
| Connector   | 2   | Swing-extreme                 | CLEAR-defined <sup>®</sup> |

<sup>®</sup>Before waterproof test, high-low temperature cycling shock test has been implemented to simulate the outdoor harsh weather, and it's a more stringent standard we're compliant with than third party's.

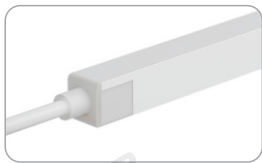
# Connector Type



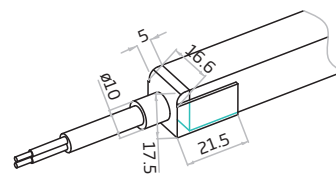
| 1                                                                                                                                                                                                                   | Male & Female Connector (Optional) | 2                                                                                                                                                                                                                                                                                                                                                                                                  | Silicone Injection-moulded Front Connector | 3                                                                                                                                                                                                                                                                                                                                                                                                     | Silicone Injection-moulded Middle Connector | 4                                                                                                  | Silicone Injection-moulded End Cap |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------|
|  <p>Male Connector</p>  <p>Female Connector</p> |                                    |  <p>End</p>  <p>Side-L</p>  <p>Side-R</p>  <p>Bottom</p> |                                            |  <p>Silicone Injection-moulded Jumper<br/>Maximum 8 jumpers in 20m light<br/>Maximum 4 jumpers in 10m light</p>  <p>Silicone Injection-moulded T-feed<br/>Maximum 8 T-feeds in 20m light<br/>Maximum 4 T-feeds in 10m light</p> |                                             |  <p>End cap</p> |                                    |

## Dimension: mm

### Silicone Injection-moulded Front Connector-End



F22B/F22D/F22A/F22E/F22S-HB-SIM/FC-01/02-E  
F22B/F22D/F22A/F22E/F22S-VB-SIM/FC-01/02-E



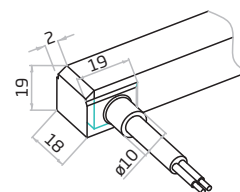
### Silicone Injection-moulded Front Connector-Side



F22B/F22D/F22A/F22E/F22S-HB-SIM/FC-02-SL  
F22B/F22D/F22A/F22E/F22S-VB-SIM/FC-01/02-SL



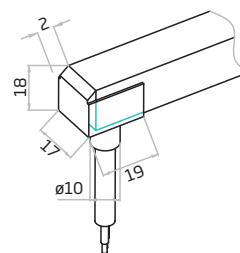
F22B/F22D/F22A/F22E/F22S-HB-SIM/FC-01-SR  
F22B/F22D/F22A/F22E/F22S-VB-SIM/FC-01/02-SR



### Silicone Injection-moulded Front Connector-Bottom



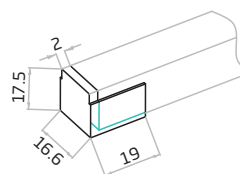
F22B/F22D/F22A/F22E/F22S-HB-SIM/FC-01/02-B  
F22B/F22D/F22A/F22E/F22S-VB-SIM/FC-01/02-B



### Silicone Injection-moulded End Cap



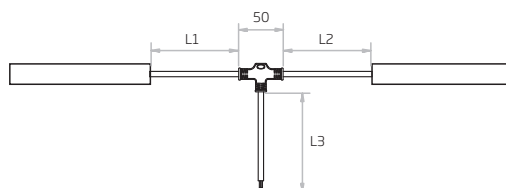
F22-SIM/EC



### Silicone Injection-moulded Middle Connector & Power T-feed



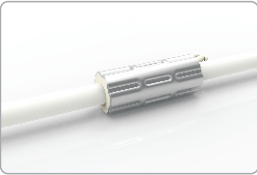
F22B/F22D/F22S-HB-SIM/MC-PTF  
F22B/F22D/F22S-VB-SIM/MC-PTF  
L1 and L2 available in 300mm.  
L3 available in 300mm/1000mm/3000mm.



#### Note:

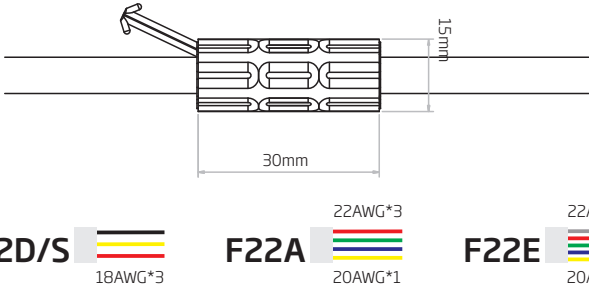
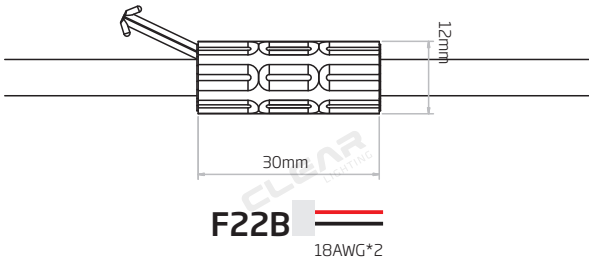
- 1.Unless otherwise stated, the tolerance of the connector is  $\pm 0.5\text{mm}$ ;
- 2.To avoid damage from the excessive force on cable joint, please keep at least 60mm of cable ahead in the natural state.

# Anti-wicking Ferrule



The anti-wicking ferrule is designed to lower the risk of water ingress from the cable in case of inadequate waterproof treatment on site.

For underwater application, do not immerse anti-wicking ferrule in the water.



**Note:**

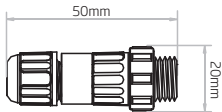
1.Unless otherwise stated,the tolerance is  $\pm 0.5\text{mm}$ .

2.The removal of anti-wicking ferrule will void the warranty if any water ingress caused by it.

# Male & Female Connector



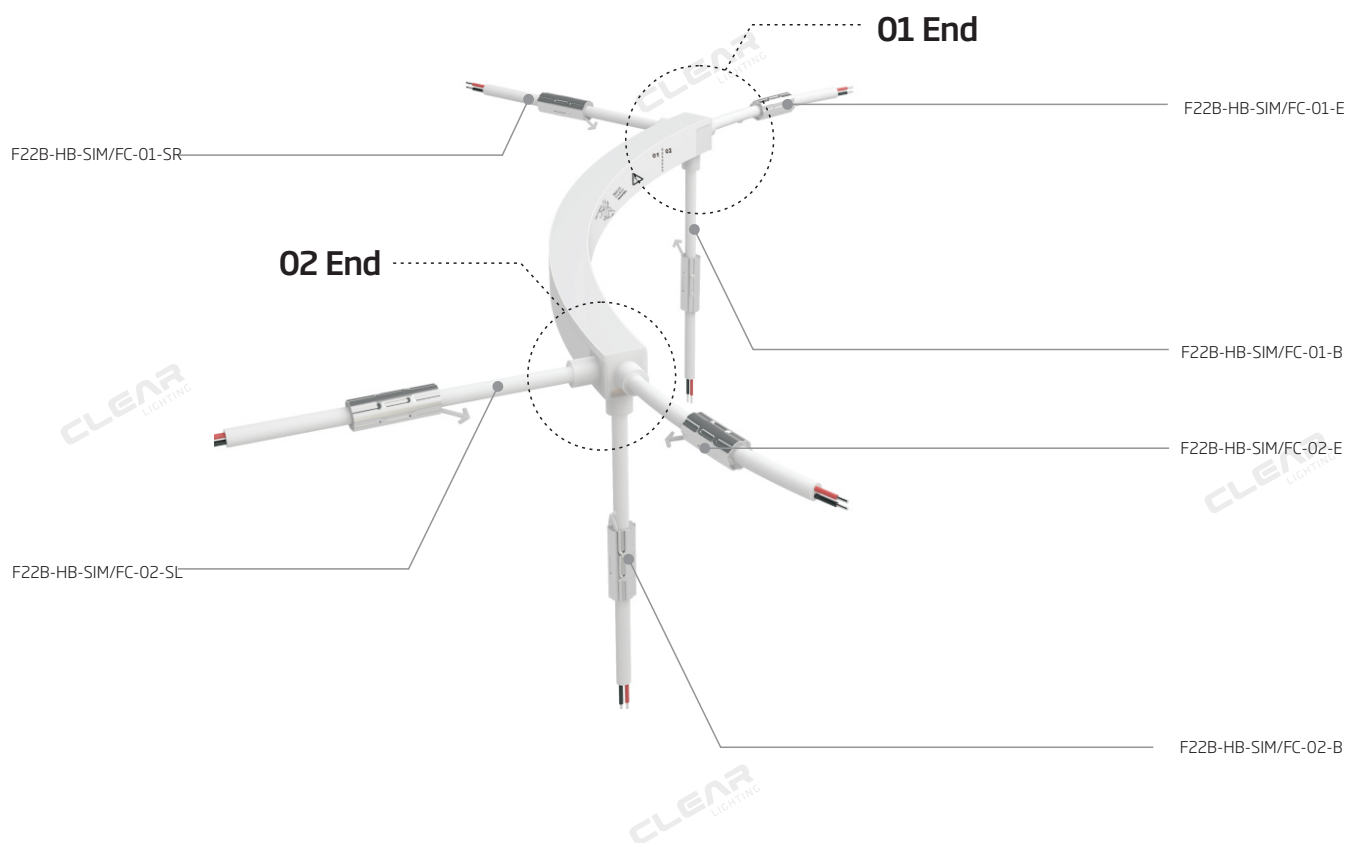
For plug and play cable junction, IP67



**Note:**

Unless otherwise stated,the tolerance is  $\pm 2\text{mm}$ .

| F22B                                     | SIM/FC                                                                                                                       | 01                     | B                                                                                               | 300mm                                                                                                          |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| F22B-HB<br>F22D-HB<br>F22A-HB<br>F22S-HB | SIM=Silicone Injection-moulded<br>FC=Front Connector<br>MC-PTF=Middle Connector<br>& Power T-feed<br>JU=Jumper<br>EC=End Cap | 01=01 End<br>02=02 End | E=End Feed<br>B=Bottom Feed<br>S=Side Feed<br>SL=Side Feed from Left<br>SR=Side Feed from Right | 300mm Cable<br>1000mm Cable<br>3000mm Cable<br>5000mm Cable<br>10000mm Cable<br>15000mm Cable<br>20000mm Cable |



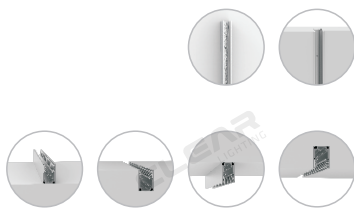
## C-SFR-F22B/D/A/S-HB

| Item Code(B)               | Item Code(D)               | Item Code(A)               | Item Code(S)               |
|----------------------------|----------------------------|----------------------------|----------------------------|
| F22B-HB-SIM/FC-01-E-300mm  | F22D-HB-SIM/FC-01-E-300mm  | F22A-HB-SIM/FC-01-E-300mm  | F22S-HB-SIM/FC-01-E-300mm  |
| F22B-HB-SIM/FC-02-E-300mm  | F22D-HB-SIM/FC-02-E-300mm  | F22A-HB-SIM/FC-02-E-300mm  | F22S-HB-SIM/FC-02-E-300mm  |
| F22B-HB-SIM/FC-01-B-300mm  | F22D-HB-SIM/FC-01-B-300mm  | F22A-HB-SIM/FC-01-B-300mm  | F22S-HB-SIM/FC-01-B-300mm  |
| F22B-HB-SIM/FC-02-B-300mm  | F22D-HB-SIM/FC-02-B-300mm  | F22A-HB-SIM/FC-02-B-300mm  | F22S-HB-SIM/FC-02-B-300mm  |
| F22B-HB-SIM/FC-01-SR-300mm | F22D-HB-SIM/FC-01-SR-300mm | F22A-HB-SIM/FC-01-SR-300mm | F22S-HB-SIM/FC-01-SR-300mm |
| F22B-HB-SIM/FC-02-SL-300mm | F22D-HB-SIM/FC-02-SL-300mm | F22A-HB-SIM/FC-02-SL-300mm | F22S-HB-SIM/FC-02-SL-300mm |
| F22B-HB-SIM/MC-PTF-300mm   | F22D-HB-SIM/MC-PTF-300mm   | F22A-HB-SIM/MC-PTF-300mm   | F22S-HB-SIM/MC-PTF-300mm   |
| F22B-HB-SIM/JU-300mm       | F22D-HB-SIM/JU-300mm       | F22A-HB-SIM/JU-300mm       | F22S-HB-SIM/JU-300mm       |
| F22-SIM/EC                 | F22-SIM/EC                 | F22-SIM/EC                 | F22-SIM/EC                 |
| Max. Cable Length          |                            |                            |                            |
| Page F22 061               | Page F22 105               | Page F22 123~124           | Page F22 151               |

### Note:

- Please ensure the cable length is not more than the "Max. Cable Length" in the page mentioned above according to light length and its wire gauge to minimize voltage drop.
- All the nominal cable lengths are measured before processing, so the delivered (visible) ones would be a little shorter. Please contact us before ordering if any strict requirement on them.
- The tolerance range of cable length enlarges as the cable becomes longer, maximum up to  $\pm 50\text{mm}$ .

# F22 Serrated Aluminum Profile

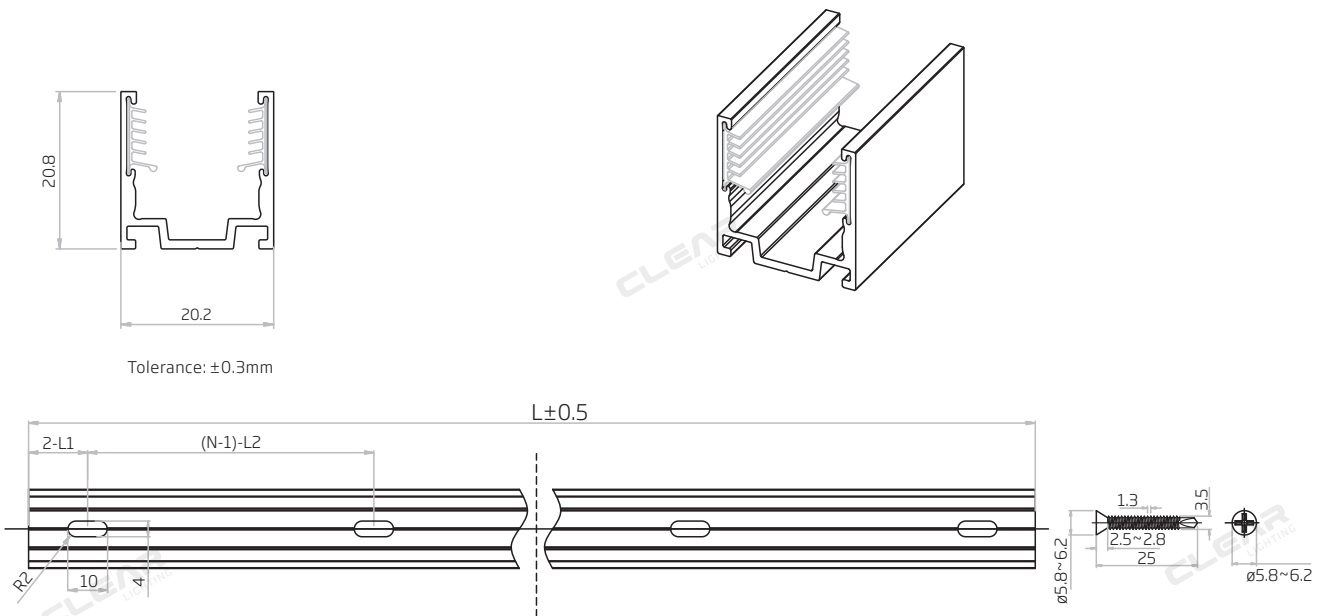


Specialized for the LED Flex Linear light, it was developed by combining the advantages of 6063 aluminum and elastic serrated tape. The inside elastic serrated tape as the grabbing force to keep continuous strong clamping force on the light body and protect the light from the damage caused by the large friction in the process of installation and dismantlement.

Please refer to the applicable installation ways.

| Test Object      | No. | Experiment Item               | Standard      |
|------------------|-----|-------------------------------|---------------|
| Metal Parts      | 1   | Weather Resistance-Salt Spray | IEC 68-2-11   |
| Mounting profile | 2   | Clamping force                | CLEAR-defined |

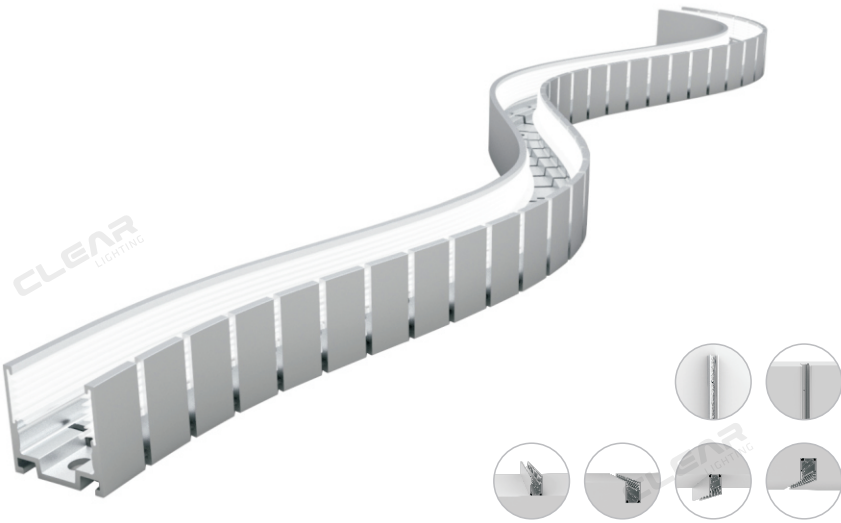
## Dimension: mm



Note:  
1. 2-L1 refers to two of symmetric L1 in each piece of profile.  
2. (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile.  
"N" hereby stands for its corresponding "Hole Number" in the below table

| Item Code           | Standard Length | L1           | L2           | Slotted Hole       | Hole Number |
|---------------------|-----------------|--------------|--------------|--------------------|-------------|
| F22-SA/PL-20MM-AL   | 20mm/0.787in    | 10mm/0.39in  | /            | 4*10mm/0.16*0.39in | 1           |
| F22-SA/PL-500MM-AL  | 500mm/19.68in   | 50mm/1.97in  | 200mm/7.87in | 4*10mm/0.16*0.39in | 3           |
| F22-SA/PL-1000MM-AL | 1000mm/39.37in  | 100mm/3.93in | 200mm/7.87in | 4*10mm/0.16*0.39in | 5           |
| F22-SA/PL-2000MM-AL | 2000mm/78.74in  | 100mm/3.93in | 200mm/7.87in | 4*10mm/0.16*0.39in | 10          |

# F22 Bendable Serrated Aluminum Profile

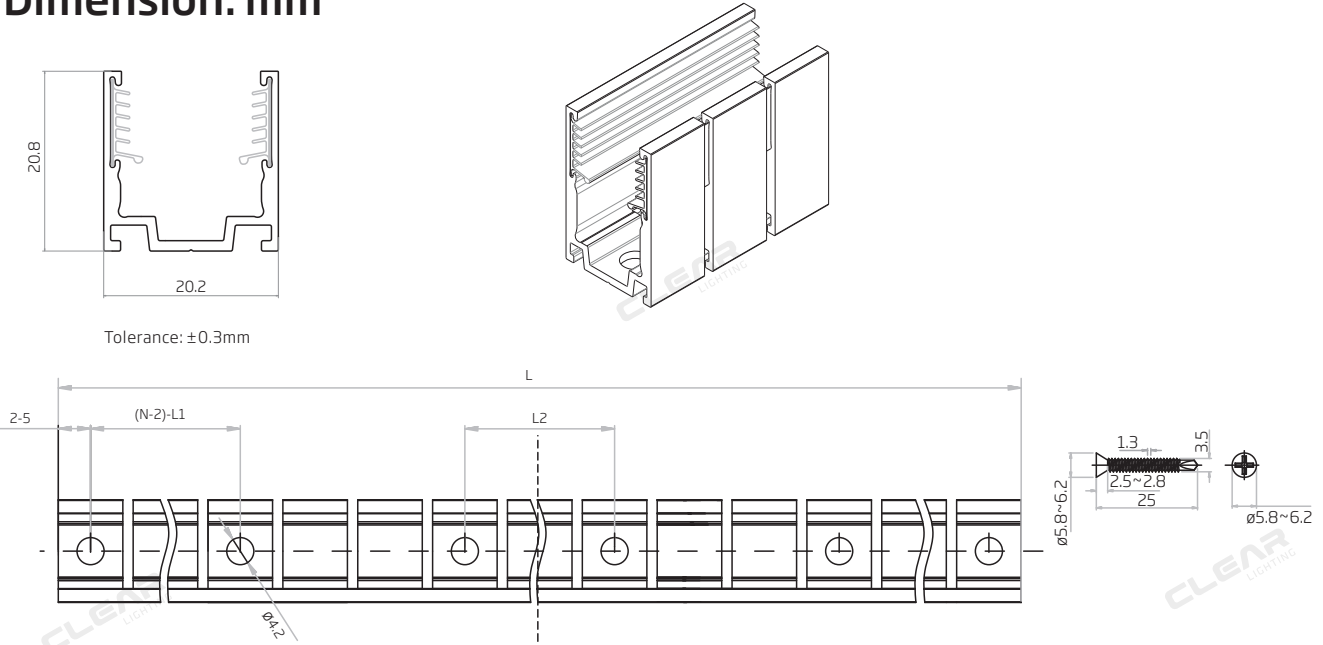


It is an expanded design of the serrated aluminum profile, and caters for the continuously streamlined aesthetics of curve shape. The secondary precision cutting process, not only maintains the advantage of clamping force, but also enables the two-way horizontal bending directions with super shape memory.

Please refer to the applicable installation ways.

| Test Object      | No. | Experiment Item               | Standard      |
|------------------|-----|-------------------------------|---------------|
| Metal Parts      | 1   | Weather Resistance-Salt Spray | IEC 68-2-11   |
| Mounting profile | 2   | Clamping force                | CLEAR-defined |

## Dimension: mm



Note:  
1. 2-5 refers to two of symmetric 5mm in each piece of profile.  
2. (N-2)-L1 refers to (N minus two) of symmetric L1 in each piece of profile.  
"N" hereby stands for its corresponding "Hole Number" in the below table

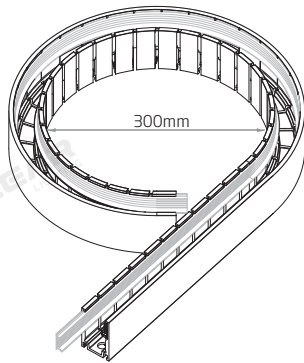
| Item Code            | Standard Length | L1             | L2            | Screw Hole    | Hole Number |
|----------------------|-----------------|----------------|---------------|---------------|-------------|
| F22-BSA/PL-500MM-AL  | 500mm/19.68in   | 110.3mm/4.34in | 48.9mm/1.92in | ø4.2mm/0.17in | 6           |
| F22-BSA/PL-1000MM-AL | 1000mm/39.37in  | 116.5mm/4.59in | 98.8mm/3.89in | ø4.2mm/0.17in | 10          |

# Installation Instructions

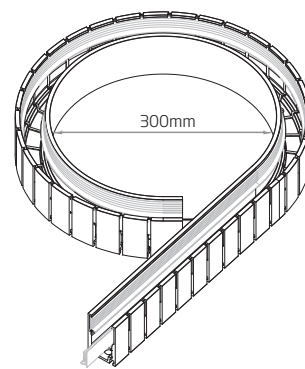
Friendly Reminder: please read instructions carefully before operation.

## Bending Diameter

Min. Bending Diameter (Toothed Side inwards)

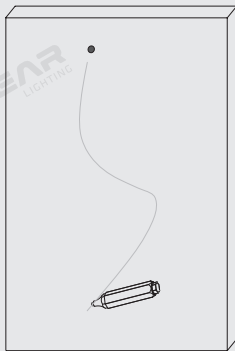


Min. Bending Diameter (Toothed Side outwards)



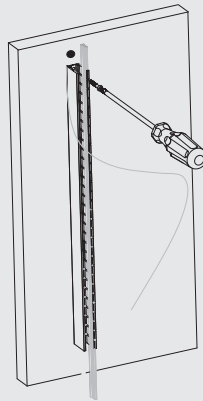
## Installation

### Step 1



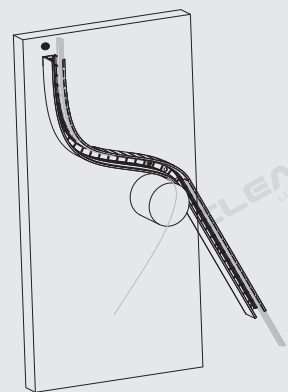
Mark the required shape on the mounting surface or print the sketch in the scale of 1:1 if complicated.

### Step 2



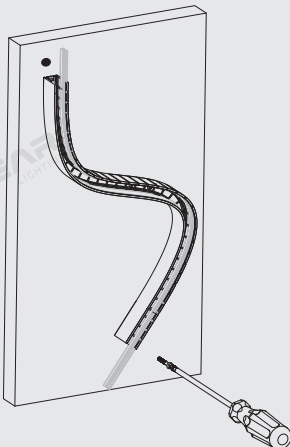
Get the front connector outside of profile and keep at least 10mm more apart. Fix the screw starting from the power input end.

### Step 3



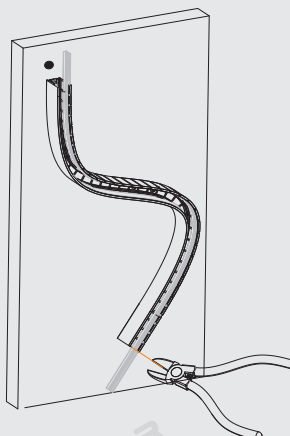
Use cylinder or disc-like object you have to assist with shaping.

### Step 4



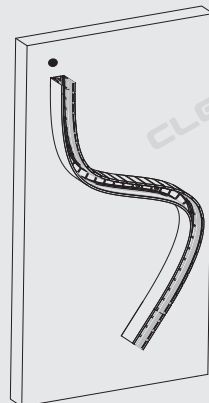
Fix the rest in sequence along with the marks.

### Step 5



Adjust the serrate silicone tape and remove the redundant lengths at both ends.

### Step 6



Finish and fix the light in.