Flexglo™ F16B Monochrome - White Light (Silicone)

5 year Warranty

Solvents Resistant

UV Resistant

Flame Resistant

Salt Water Resistant

IK07 Protection

Certification Mark	UL	CE
Test Standard/Directive	UL2108 Class 2	CE-EMC
Certificate Serial Number	20180801-E360029	SZEM1712012372LMV
Report Reference	E360029-20130322	SZEM171201237201

2200K 2700K 3000K

3500K 4000K 5700K 6500K
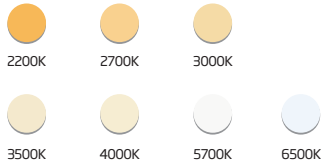
Ambient Working Temperature
≤6W/m -40 ~ 65℃ /-40~149℉
12W/m -40 ~ 55℃ /-40~131℉

Ambient Installation Temperature
≥ −40℃ /-40℉

Storage Temperature
-40 ~ 60℃ /-40~140℉

Max. Mounting Surface Temperature
85℃ /185℉
specified in the non-working state of light.

Constant Current
CC DC24V

C-SFR-F16B-VB

C-SFR-F16B-VB-24CC-30K-TT-72-80-12W-83.3

UNIT: cd
−C90/270

AVERAGE BEAM ANGLE (50%) : 154.9°
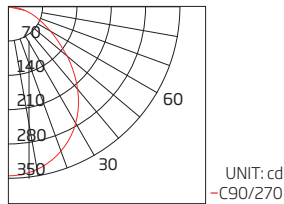
Min. Bending Diameter
50mm/1.97in

Min. Cutting Length
83.3mm/3.28in, 6LEDs
166.7mm/6.56in, 6LEDs

15.5mm/0.61in
6mm/0.24in

LIGHT SURFACE

Vertical Bending

Bending-extreme
1248 times

**Tensile-instantaneous**
>60 kg.f

Twist-extreme
3469 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 IP67.

TM-30

Color Vector Graphic
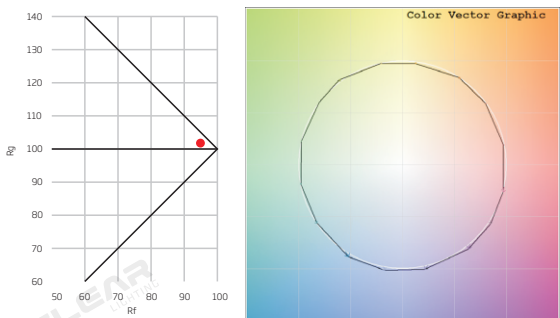
IES TM-30-15 is a new system of several related measures and graphics that can be used together to effectively evaluate and communicate a light source's color rendering properties. The development of the method involved synthesizing multiple related research efforts and combining ideas into a single, cohesive system of objective information that can be used to aid decision-making processes, such as finding the preferred light source for a given application or evaluating the tradeoffs between efficacy and color rendering.

Measure	Abbreviation	Description
Fidelity Index	Rf	Analogous to CIE Ra (CRI). Characterizes the average color shift of the 99 CES to characterize the overall level of similarity between the test source and reference illuminant. Values range from 0 to 100.
Gamut Index	Rg	Compares the area enclosed by the average chromaticity coordinates in each of 16 hue bins to characterize the average saturation level of the test source compared to the reference illuminant. A neutral score is 100, with values greater than 100 indicating an increase in saturation and values less than 100 indicating a decrease in saturation. The range in values grows as fidelity decreases.

Color Matching

Color temperature value stated on all CLEAR's documents refers to finished products. LED's color temperature would be shifted by the light diffuser made of PVC or silicone material. CLEAR calibrates color temperature and color coordinate of tailor-made LEDs with proprietary color-matching algorithms to produce a precise color temperature and color coordinate close to black body locus for finished products. All LEDs would be strictly tested and tightly controlled to ensure finished products can meet ANSI standard.
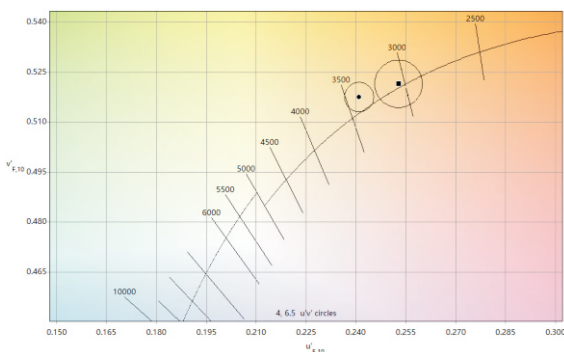
Feature

Flexglo™ F16B Monochrome - White Light (Silicone) is a popular item for architectural market with rated power options of 6W/m and 12W/m. Its CRI value can reach 95Ra and maximum luminous flux is up to 900lm/m. Thanks to the excellent weatherproof and UV-resistant performance of silicone material, it features a wide ambient working temperature range of -40-55 ℃, especially suitable for harsh environment application.
Multiple connector options are available for different applications. Combined with the adoption of the DryWire™ technology,

*The IP67 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.

Item Code

C	SFR	F16B	VB	24CC	30K	TT	72	80	12W	83.3
Company	Material	Product Series	Bending Direction	Voltage & Circuit Type	CCT	Base & Lighting Surface	LEDs Qty/m	CRI	Power/m	Min. Cutting Length (mm)
Clear	SFR= Silicone Flex Ribbon	F16 B= Monochrome	VB= Vertical Bending	DC24V & Constant Current	22K=2200K 27K=2700K 30K=3000K 35K=3500K 40K=4000K 57K=5700K 65K=6500K	TT= Transparence & Transparence	72	80	12W	83.3
					27K=2700K 30K=3000K 35K=3500K 40K=4000K			90		
					30K=3000K			95		
					22K=2200K 27K=2700K 30K=3000K 35K=3500K 40K=4000K 57K=5700K 65K=6500K		36	80	6W	166.7
					27K=2700K 30K=3000K 35K=3500K 40K=4000K			90		
					30K=3000K			95		

Electrical Parameter

Category	C-SFR-F16B-VB	C-SFR-F16B-VB
Voltage (V)	24	24
Current (mA/m)	500.0	250.0
Power (W/m)	12	6
Circuit Type	CC	CC
LED Type	2835	2835
LEDs Qty/m	72	36
LEDs Qty/unit	6	6
Unit/m	12	6
Min. Cutting Length (mm)	83.3	166.7
Min. Cutting Length (in)	3.28	6.56

Optical Parameter

CRI 80

Item Code	Finished Product							LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-SFR-F16B-VB-24CC-22K-TT-36-80-6W-166.7	2200K	2238±66K	<5SDCM	80		350lm	107lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-27K-TT-36-80-6W-166.7	2700K	2725±85K	<5SDCM	80		400lm	122lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-30K-TT-36-80-6W-166.7	3000K	3045±105K	<5SDCM	80		450lm	137lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-35K-TT-36-80-6W-166.7	3500K	3465±245K	<5SDCM	80		450lm	137lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-40K-TT-36-80-6W-166.7	4000K	3985±150K	<5SDCM	80		450lm	137lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-57K-TT-36-80-6W-166.7	5700K	5669±305K	<5SDCM	80		450lm	137lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-65K-TT-36-80-6W-166.7	6500K	6532±340K	<5SDCM	80		450lm	137lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-22K-TT-72-80-12W-83.3	2200K	2238±66K	<5SDCM	80		700lm	213lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-27K-TT-72-80-12W-83.3	2700K	2725±85K	<5SDCM	80		800lm	244lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-30K-TT-72-80-12W-83.3	3000K	3045±105K	<5SDCM	80		900lm	274lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-35K-TT-72-80-12W-83.3	3500K	3465±245K	<5SDCM	80		900lm	274lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-40K-TT-72-80-12W-83.3	4000K	3985±150K	<5SDCM	80		900lm	274lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-57K-TT-72-80-12W-83.3	5700K	5669±305K	<5SDCM	80		900lm	274lm	<2.3SDCM	82~87
C-SFR-F16B-VB-24CC-65K-TT-72-80-12W-83.3	6500K	6532±340K	<5SDCM	80		900lm	274lm	<2.3SDCM	82~87

CRI 90

Item Code	Finished Product							LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-SFR-F16B-VB-24CC-27K-TT-36-90-6W-166.7	2700K	2725±85K	<5SDCM	90	35~80	320lm	98lm	<2.3SDCM	91~97
C-SFR-F16B-VB-24CC-30K-TT-36-90-6W-166.7	3000K	3045±105K	<5SDCM	90	35~80	360lm	110lm	<2.3SDCM	91~97
C-SFR-F16B-VB-24CC-35K-TT-36-90-6W-166.7	3500K	3465±245K	<5SDCM	90	35~80	360lm	110lm	<2.3SDCM	91~97
C-SFR-F16B-VB-24CC-40K-TT-36-90-6W-166.7	4000K	3985±150K	<5SDCM	90	35~80	360lm	110lm	<2.3SDCM	91~97
C-SFR-F16B-VB-24CC-27K-TT-72-90-12W-83.3	2700K	2725±85K	<5SDCM	90	35~80	640lm	195lm	<2.3SDCM	91~97
C-SFR-F16B-VB-24CC-30K-TT-72-90-12W-83.3	3000K	3045±105K	<5SDCM	90	35~80	720lm	220lm	<2.3SDCM	91~97
C-SFR-F16B-VB-24CC-35K-TT-72-90-12W-83.3	3500K	3465±245K	<5SDCM	90	35~80	720lm	220lm	<2.3SDCM	91~97
C-SFR-F16B-VB-24CC-40K-TT-72-90-12W-83.3	4000K	3985±150K	<5SDCM	90	35~80	720lm	220lm	<2.3SDCM	91~97

CRI 95

Item Code	Finished Product							LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-SFR-F16B-VB-24CC-30K-TT-36-95-6W-166.7	3000K	3045±175K	<5SDCM	95	80~99	310lm	95lm	<2.3SDCM	96~99
C-SFR-F16B-VB-24CC-30K-TT-72-95-12W-83.3	3000K	3045±175K	<5SDCM	95	80~99	620lm	189lm	<2.3SDCM	96~99

Note:
1. CCT Tolerance refers to target CCT and tolerance (ANSI C78.377).
2. Color Tolerance refers to CLEAR standard for the different batch of finished product and LED, and it's <3SDCM for same batches of finished product.
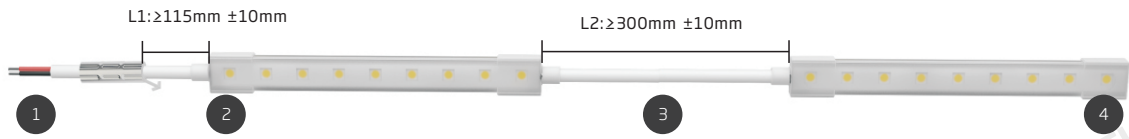
Max. Running Length   Input: DC24V

Type	Silicone Injection-moulded Connector		
IP Rating	IP67		
Item Code	Single-end Feed	Double-end Feed	
C-SFR-F16B-6W	30m	60m	
C-SFR-F16B-12W	15m	30m	

Note:
1. Above conclusion is based on voltage drop testing result of the light with 0.3m 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.

Connector Type

L1:≥115mm ±10mm

L2:≥300mm ±10mm

1	Male & Female Connector (Optional)

Male Connector

Female Connector

2	Silicone Injection-moulded Front Connector

End

Side-L

Side-R

Bottom

3	Silicone Injection-moulded Middle Connector

Silicone Injection-moulded Jumper

Maximum 8 Jumpers in 20m
Maximum 4 Jumpers in 10m

Silicone Injection-moulded T-feed

Maximum 8 T-feeds in 20m
Maximum 4 T-feeds in 10m

4	Silicone Injection-moulded End Cap

End cap

Anti-wicking Ferrule

The anti-wicking ferrule is located at 115mm (±10mm tolerance) from the connector on the cable.

For protection against water ingress from inside of cable wire and hence damage the light.

12mm

30mm

F16B
18AWG*2

15mm

30mm

F16D/S
18AWG*3

22AWG*3
F16A
20AWG*1

22AWG*4
F16E
20AWG*1

Note:
1. Unless otherwise stated, the tolerance is ±0.5mm.
2. The removal of anti-wicking ferrule will void the warranty if any water ingression caused by it.
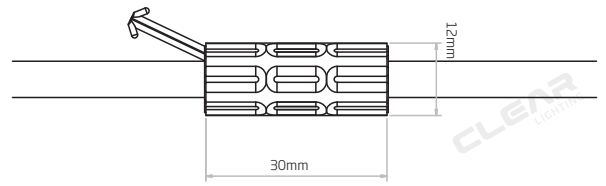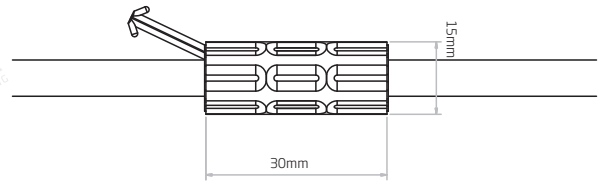
Male & Female Connector

For plug and play cable junction, IP67

50mm

20mm
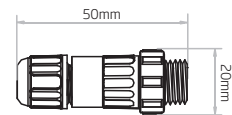
Note:
Unless otherwise stated, the tolerance is ±2mm.

Aluminum Profile

It uses high-quality 6063 aluminum with thin-wall, light- weight design to fit tightly the light body. It is deformation and rust resistant, and cost-effective.
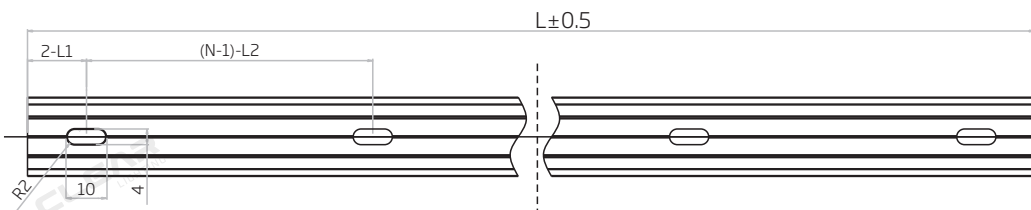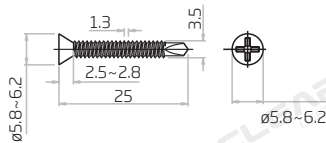
Please refer to the applicable installation ways.

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

9.5

17.5

Tolerance(AL): ±0.3mm

1.3   3.5

ø5.8~6.2

2.5~2.8

25

ø5.8~6.2

L±0.5

2-L1   (N-1)-L2

R2   10   4
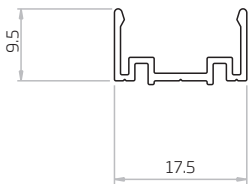
Note:
1. 2-L1 refers to two of symmetric L1 in each piece of profile.
2. (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile.
"N" hereby stands for its corresponding "Hole Number" in the below table

Item Code	Standard Length	L1	L2	Slotted Hole	Hole Number
F16-A/PL-35MM-AL	35mm/1.38in	17.5mm/0.69in	/	4*10mm/0.16*0.39in	1
F16-A/PL-500MM-AL	500mm/19.68in	50mm/1.97in	200mm/7.87in	4*10mm/0.16*0.39in	3
F16-A/PL-1000MM-AL	1000mm/39.37in	100mm/3.93in	200mm/7.87in	4*10mm/0.16*0.39in	5
F16-A/PL-2000MM-AL	2000mm/78.74in	100mm/3.93in	200mm/7.87in	4*10mm/0.16*0.39in	10