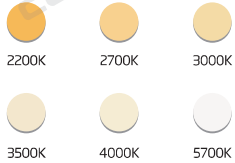


Flexglo™ F22B Monochrome - White Light (Silicone)



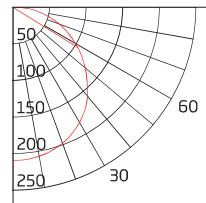
Certification Mark			
Test Standard/Directive	UL2108 Class 2	CE-EMC	IS 10322
Certificate Serial Number	20180801-E360029	SZEM1712012372LMV	R-41128376
Report Reference	E360029-20130322	SZEM171201237201	NO.20190425001

Ambient Working Temperature ≤6W/m -40~65°C /-40~149°F 9W/m -40~60°C /-40~140°F 12W/m -40~55°C /-40~131°F 15W/m -40~45°C /-40~113°F	Ambient Installation Temperature ≥-40°C /-40°F	Storage Temperature -40 ~ 60°C /-40~140°F
	Max. Mounting Surface Temperature 85°C /185°F <i>specified in the non-working state of light.</i>	Constant Current DC24V

C-SFR-F22B-VB



C-SFR-F22B-VB-24CC-30K-WM-108-80-12W-55.6



UNIT: cd
-C90/270

AVERAGE BEAM ANGLE (50%): 113.2°

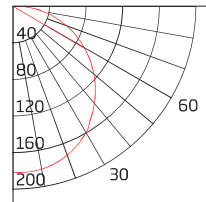
Min. Bending Diameter 300mm/11.81in	Min. Cutting Length 55.6mm/2.19in 6LEDs	16mm/0.63in 17mm/0.67in	LIGHT SURFACE Vertical Bending
Bending-extreme 2044 times	Tensile-instantaneous >100 kg.f	Twist-extreme 4374 times	

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

C-SFR-F22B-HB



C-SFR-F22B-HB-24CC-30K-WM-108-80-12W-55.6



UNIT: cd
-C90/270

AVERAGE BEAM ANGLE (50%): 112.3°

Min. Bending Diameter 300mm/11.81in	Min. Cutting Length 55.6mm/2.19in 6LEDs	16mm/0.63in 17mm/0.67in	LIGHT SURFACE Horizontal Bending
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:

- The illuminated light length shall be an integral multiple of min. cutting length.
- 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	30K	WM	108	80	12W	55.6
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	F22B= Monochrome	VB= Vertical Bending HB= Horizontal Bending	DC24V & Constant Current	22K=2200K	WM= White & Milky	108	80	15W	55.6
					27K=2700K				12W	
					30K=3000K				9W	
					35K=3500K			6W		
					40K=4000K					
					57K=5700K					
					27K=2700K			12W		
					30K=3000K			90		
					35K=3500K				12W	
					40K=4000K					
					30K=3000K			95		

Feature

Flexglo™ F22B Monochrome - White Light (Silicone) is a popular item for architectural market with rated power options of 6W/m, 9W/m, 12W/m and 15W/m. Its CRI value can reach 95Ra and maximum luminous flux is up to 850lm/m. Thanks to the excellent weatherproof and UV-resistant performance of silicone material, it features a wide ambient working temperature range of -40~55 °C excluding -40~45 °C for 15W/m, 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 Insulfitt™ 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-HB/VB			
Voltage (V)	24	24	24	24
Current (mA/m)	250,0	375,0	625,0	500,0
Power (W/m)	6	9	15	12
Circuit Type	CC	CC	CC	CC
LED Type	2835	2835	2835	2835
LEDs Qty/m	108	108	108	108
LEDs Qty/unit	6	6	6	6
Unit/m	18	18	18	18
Min. Cutting Length (mm)	55,6	55,6	55,6	55,6
Min. Cutting Length (in)	2,19	2,19	2,19	2,19

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-6W	10m/32,8ft	20m/65,6ft	30m/98,4ft	60m/196,8ft	30m/98,4ft	60m/196,8ft	30m/98,4ft	60m/196,8ft
C-SFR-F22B-9W	6m/19,7ft	12m/39,4ft	18m/59,1ft	36m/118,1ft	18m/59,1ft	36m/118,1ft	18m/59,1ft	30m/118,1ft
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
C-SFR-F22B-15W	5m/16,4ft	10m/32,8ft	10m/32,8ft	20m/65,6ft	10m/32,8ft	20m/65,6ft	10m/32,8ft	20m/65,6ft
Dimension of Connector	Page F22 157		Page F22 161		Page F22 171		Page F22 179	
Max.Packing Length					Page F22 233			

Note:

- Above conclusion is based on voltage drop testing result of the light with 0,3m (0,98ft) cable only.
- The maximum running length is based on the light in static full loading status.
- Above running length is only the light length excluding lengths of connectors. Please refer to the specific dimension of each connector.
- The delivery length might be subject to the maximum packing length.

Optical Parameter

CRI 80

Item Code	Finished Product						LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-SFR-F22B-VB-24CC-22K-WM-108-80-6W-55,6	2200K	2238±66K	<5SDCM	80	225lm	69lm	<2,3SDCM	82~87
C-SFR-F22B-VB-24CC-27K-WM-108-80-6W-55,6	2700K	2725±85K	<5SDCM	80	280lm	85lm	<2,3SDCM	82~87
C-SFR-F22B-VB-24CC-30K-WM-108-80-6W-55,6	3000K	3045±105K	<5SDCM	80	280lm	85lm	<2,3SDCM	82~87
C-SFR-F22B-VB-24CC-35K-WM-108-80-6W-55,6	3500K	3465±245K	<5SDCM	80	290lm	88lm	<2,3SDCM	82~87
C-SFR-F22B-VB-24CC-40K-WM-108-80-6W-55,6	4000K	3985±150K	<5SDCM	80	290lm	88lm	<2,3SDCM	82~87
C-SFR-F22B-VB-24CC-57K-WM-108-80-6W-55,6	5700K	5669±305K	<5SDCM	80	290lm	88lm	<2,3SDCM	82~87
C-SFR-F22B-VB-24CC-22K-WM-108-80-9W-55,6	2200K	2238±66K	<5SDCM	80	340lm	104lm	<2,3SDCM	82~87
C-SFR-F22B-VB-24CC-27K-WM-108-80-9W-55,6	2700K	2725±85K	<5SDCM	80	420lm	128lm	<2,3SDCM	82~87
C-SFR-F22B-VB-24CC-30K-WM-108-80-9W-55,6	3000K	3045±105K	<5SDCM	80	420lm	128lm	<2,3SDCM	82~87
C-SFR-F22B-VB-24CC-35K-WM-108-80-9W-55,6	3500K	3465±245K	<5SDCM	80	440lm	134lm	<2,3SDCM	82~87

Flexglo™ F22B Monochrome - White Light (Silicone)

Optical Parameter

CRI 80

Item Code	Finished Product						LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-SFR-F22B-VB-24CC-40K-WM-108-80-9W-55.6	4000K	3985±150K	<5SDCM	80	440lm	134lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-57K-WM-108-80-9W-55.6	5700K	5669±305K	<5SDCM	80	440lm	134lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-22K-WM-108-80-12W-55.6	2200K	2238±66K	<5SDCM	80	450lm	137lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-27K-WM-108-80-12W-55.6	2700K	2725±85K	<5SDCM	80	565lm	172lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-30K-WM-108-80-12W-55.6	3000K	3045±105K	<5SDCM	80	565lm	172lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-35K-WM-108-80-12W-55.6	3500K	3465±245K	<5SDCM	80	580lm	177lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-40K-WM-108-80-12W-55.6	4000K	3985±150K	<5SDCM	80	580lm	177lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-57K-WM-108-80-12W-55.6	5700K	5669±305K	<5SDCM	80	580lm	177lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-22K-WM-108-80-15W-55.6	2200K	2238±66K	<5SDCM	80	600lm	183lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-27K-WM-108-80-15W-55.6	2700K	2725±85K	<5SDCM	80	700lm	213lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-30K-WM-108-80-15W-55.6	3000K	3045±105K	<5SDCM	80	700lm	213lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-35K-WM-108-80-15W-55.6	3500K	3465±245K	<5SDCM	80	800lm	244lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-40K-WM-108-80-15W-55.6	4000K	3985±150K	<5SDCM	80	800lm	244lm	<2.3SDCM	82~87
C-SFR-F22B-VB-24CC-57K-WM-108-80-15W-55.6	5700K	5669±305K	<5SDCM	80	800lm	244lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-22K-WM-108-80-6W-55.6	2200K	2238±66K	<5SDCM	80	190lm	58lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-27K-WM-108-80-6W-55.6	2700K	2725±85K	<5SDCM	80	235lm	72lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-30K-WM-108-80-6W-55.6	3000K	3045±105K	<5SDCM	80	235lm	72lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-35K-WM-108-80-6W-55.6	3500K	3465±245K	<5SDCM	80	240lm	73lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-40K-WM-108-80-6W-55.6	4000K	3985±150K	<5SDCM	80	240lm	73lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-57K-WM-108-80-6W-55.6	5700K	5669±305K	<5SDCM	80	240lm	73lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-22K-WM-108-80-9W-55.6	2200K	2238±66K	<5SDCM	80	285lm	87lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-27K-WM-108-80-9W-55.6	2700K	2725±85K	<5SDCM	80	350lm	107lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-30K-WM-108-80-9W-55.6	3000K	3045±105K	<5SDCM	80	350lm	107lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-35K-WM-108-80-9W-55.6	3500K	3465±245K	<5SDCM	80	360lm	110lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-40K-WM-108-80-9W-55.6	4000K	3985±150K	<5SDCM	80	360lm	110lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-57K-WM-108-80-9W-55.6	5700K	5669±305K	<5SDCM	80	360lm	110lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-22K-WM-108-80-12W-55.6	2200K	2238±66K	<5SDCM	80	380lm	116lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-27K-WM-108-80-12W-55.6	2700K	2725±85K	<5SDCM	80	470lm	143lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-30K-WM-108-80-12W-55.6	3000K	3045±105K	<5SDCM	80	470lm	143lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-35K-WM-108-80-12W-55.6	3500K	3465±245K	<5SDCM	80	480lm	146lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-40K-WM-108-80-12W-55.6	4000K	3985±150K	<5SDCM	80	480lm	146lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-57K-WM-108-80-12W-55.6	5700K	5669±305K	<5SDCM	80	480lm	146lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-22K-WM-108-80-15W-55.6	2200K	2238±66K	<5SDCM	80	500lm	152lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-27K-WM-108-80-15W-55.6	2700K	2725±85K	<5SDCM	80	600lm	183lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-30K-WM-108-80-15W-55.6	3000K	3045±105K	<5SDCM	80	600lm	183lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-35K-WM-108-80-15W-55.6	3500K	3465±245K	<5SDCM	80	700lm	213lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-40K-WM-108-80-15W-55.6	4000K	3985±150K	<5SDCM	80	700lm	213lm	<2.3SDCM	82~87
C-SFR-F22B-HB-24CC-57K-WM-108-80-15W-55.6	5700K	5669±305K	<5SDCM	80	700lm	213lm	<2.3SDCM	82~87

Optical Parameter

CRI 90

Item Code	Finished Product							LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-SFR-F22B-VB-24CC-27K-WM-108-90-12W-55.6	2700K	2725±85K	<5SDCM	90	35~80	480lm	146lm	<2,3SDCM	91~97
C-SFR-F22B-VB-24CC-30K-WM-108-90-12W-55.6	3000K	3045±105K	<5SDCM	90	35~80	480lm	146lm	<2,3SDCM	91~97
C-SFR-F22B-VB-24CC-35K-WM-108-90-12W-55.6	3500K	3465±245K	<5SDCM	90	35~80	500lm	152lm	<2,3SDCM	91~97
C-SFR-F22B-VB-24CC-40K-WM-108-90-12W-55.6	4000K	3985±150K	<5SDCM	90	35~80	500lm	152lm	<2,3SDCM	91~97
C-SFR-F22B-HB-24CC-27K-WM-108-90-12W-55.6	2700K	2725±85K	<5SDCM	90	35~80	420lm	128lm	<2,3SDCM	91~97
C-SFR-F22B-HB-24CC-30K-WM-108-90-12W-55.6	3000K	3045±105K	<5SDCM	90	35~80	420lm	128lm	<2,3SDCM	91~97
C-SFR-F22B-HB-24CC-35K-WM-108-90-12W-55.6	3500K	3465±245K	<5SDCM	90	35~80	430lm	131lm	<2,3SDCM	91~97
C-SFR-F22B-HB-24CC-40K-WM-108-90-12W-55.6	4000K	3985±150K	<5SDCM	90	35~80	430lm	131lm	<2,3SDCM	91~97

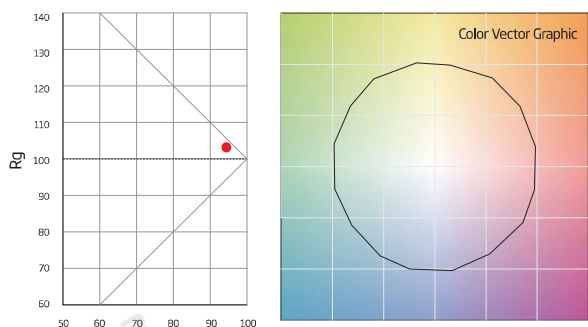
CRI 95

Item Code	Finished Product							LED	
	CCT	CCT Tolerance	Color Tolerance	CRI	R9	Lumen/m	Lumen/ft	Color Tolerance	CRI
C-SFR-F22B-VB-24CC-30K-WM-108-95-12W-55.6	3000K	3045±105K	<5SDCM	95	80~99	400lm	122lm	<2,3SDCM	96~99
C-SFR-F22B-HB-24CC-30K-WM-108-95-12W-55.6	3000K	3045±105K	<5SDCM	95	80~99	360lm	110lm	<2,3SDCM	96~99

Note:

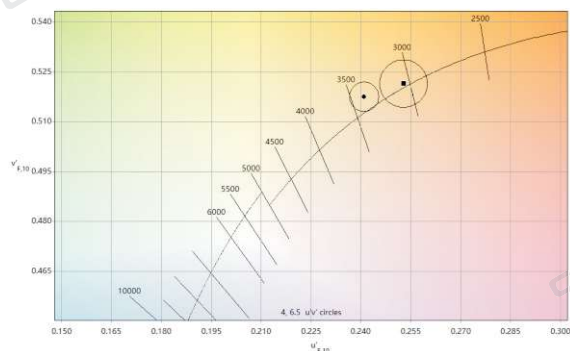
1. CCT Tolerance refers to target CCT and tolerance (ANSI C78.377).
2. Color Tolerance refers to CLEAR standard for the different batch of finished product and LED, and it's <3SDCM for same batches of finished product.

TM-30



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		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.

F22B Connector (Silicone)

Type/IP Rating	Bending Direction	Front Connector End	Front Connector Side from Left	Front Connector Side from Right	Front Connector Bottom	Seamless Middle Connector & Power Feed	Middle Connector & Power T-feed	Jumper	End Cap
Swivel Connector	HB	 F22B-HB-SW/FC-01/02-E-0,3m/1m 22AWG*2	N/A	N/A	N/A	N/A	N/A	N/A	 F22-SW/EC
	IP20	 F22B-VB-SW/FC-01/02-E-0,3m/1m 22AWG*2	N/A	N/A	N/A	N/A	N/A	N/A	 F22-SW/EC
Snap Connector	HB	 F22B-HB-SN/FC-01/02-E-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-HB-SN/FC-01/02-SL-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-HB-SN/FC-01/02-SR-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-HB-SN/FC-01/02-B-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	N/A	 F22B-HB-SN/MC-PTF-01/02-0,3m/1m/3m 18AWG*2	 F22B-HB-SN/JU-01/02-0,3m/1m 18AWG*2	 F22B-HB-SN/EC-01/02
	IP67	 F22B-VB-SN/FC-01/02-E-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-VB-SN/FC-01/02-SL-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-VB-SN/FC-01/02-SR-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-VB-SN/FC-01/02-B-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	N/A	 F22B-VB-SN/MC-PTF-01/02-0,3m/1m/3m 18AWG*2	 F22B-VB-SN/JU-01/02-0,3m/1m 18AWG*2	 F22B-VB-SN/EC
Socket Connector	HB	 F22B-HB-SO/FC-01/02-E-0,3m/1m/3m/5m 18AWG*2	N/A	N/A	N/A	N/A	N/A	N/A	 F22-SO/EC
	IP67	 F22B-VB-SO/FC-01/02-E-0,3m/1m/3m/5m 18AWG*2	N/A	N/A	N/A	N/A	N/A	N/A	 F22-SO/EC
Silicone Injection-moulded Connector	HB	 F22B-HB-SIM/FC-01/02-E-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-HB-SIM/FC-02-SL-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-HB-SIM/FC-01-SR-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-HB-SIM/FC-01/02-B-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	N/A	 F22B-HB-SIM/MC-PTF-0,3m/1m/3m 18AWG*2	 F22B-HB-SIM/JU-0,3m/1m 18AWG*2	 F22-SIM/EC
	IP68	 F22B-VB-SIM/FC-01/02-E-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-VB-SIM/FC-01/02-SL-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-VB-SIM/FC-01/02-SR-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	 F22B-VB-SIM/FC-01/02-B-0,3m/1m/3m/5m/10m/15m/20m 18AWG*2	N/A	 F22B-VB-SIM/MC-PTF-0,3m/1m/3m 18AWG*2	 F22B-VB-SIM/JU-0,3m/1m 18AWG*2	 F22-SIM/EC

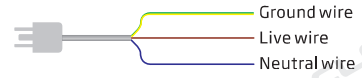
F22 Mounting Profile

Picture	Name/Item Code	Installation Way
	<p>Aluminum Profile F22-A/PL-35/500/1000/2000mm</p>	
	<p>Flange Aluminum Profile F22-FA/PL-35/500/1000/2000mm</p>	
	<p>Self-clinching Aluminum Profile F22-SCA/PL-20/500/1000/2000MM</p>	
	<p>Serrated Aluminum Profile F22-SA/PL-20/500/1000/2000mm</p>	
	<p>Flange Serrated Aluminum Profile F22-FSA/PL-20/500/1000/2000mm</p>	
	<p>Bendable Serrated Aluminum Profile F22-BSA/PL-500/1000mm Note: only horizontal bending is available</p>	

Flexglo™ F22B Wiring Diagram

1. Please use a constant voltage power supply with corresponding output voltage, and rated wattage of the power supply shall be 25% more than the actual power consumption of light to increase its life expectancy;
2. This wiring diagram is using the mains of AC230V with brown and blue wires as an example, and please connect with the corresponding live and neutral wires for other mains electricity;
3. Dimming frequency ranges from 100Hz to 2000Hz, and 500Hz is recommended.

Input AC100~240V



USA



Europe



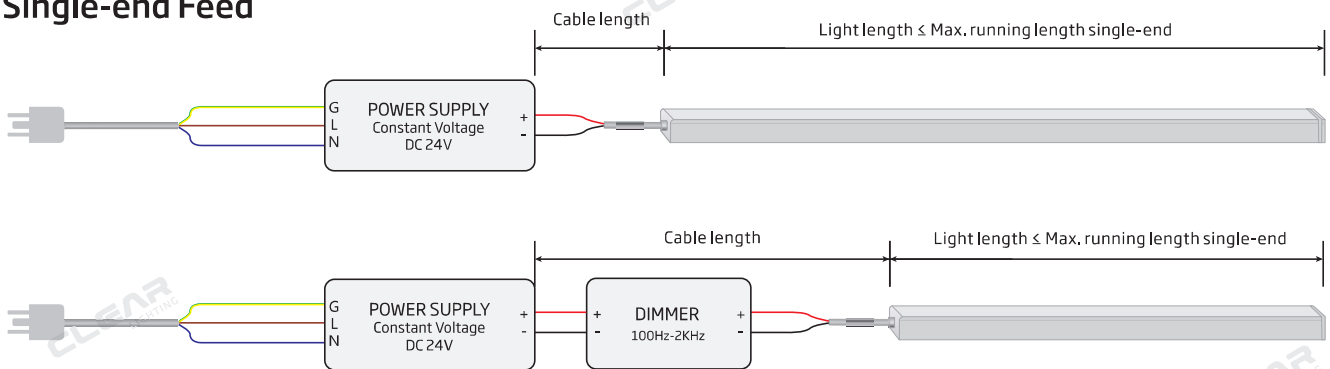
Australia



United Kingdom

4. Types of standard plugs are optional if power cord is purchased from CLEAR.

Single-end Feed



Light Length:

The length of the longest single light in parallel connection or sum of lights in series connection.

Cable Length:

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

How to Minimize Voltage Drop

1. Please ensure the cable length is not more than the table "Max. Cable Length" according to light length and its wire gauge.
2. Please ensure the light length is less than the cable "Max. Running Length Single-end Feed".

Max. Running Length Single-end Feed

Input: DC24V

Connector Type	Swivel Connector	Snap Connector	Socket Connector	Injection-moulded Connector	Dual Injection-moulded Connector
Wire Gauge	22AWG*2	18AWG*2	18AWG*2	18AWG*2	18AWG*2
C-FR-F22B-6W	10m/32.8ft	20m/65.6ft	20m/65.6ft	20m/65.6ft	20m/65.6ft
C-FR-F22B-8W	7.5m/24.6ft	15m/49.2ft	15m/49.2ft	15m/49.2ft	15m/49.2ft
C-FR-F22B-9W	6m/19.7ft	13m/42.7ft	13m/42.7ft	13m/42.7ft	13m/42.7ft
C-FR-F22B-12W	5m/16.4ft	10m/32.8ft	10m/32.8ft	10m/32.8ft	10m/32.8ft
C-FR-F22BH-12W	5m/16.4ft	10m/32.8ft	10m/32.8ft	10m/32.8ft	10m/32.8ft
C-FR-F22BH-15W	4m/13.1ft	8m/26.2ft	8m/26.2ft	8m/26.2ft	8m/26.2ft
C-FR-ProF22B-12W	5m/16.4ft	10m/32.8ft	10m/32.8ft	10m/32.8ft	10m/32.8ft
C-SFR-F22B-6W	10m/32.8ft	30m/98.4ft	30m/98.4ft	30m/98.4ft	/
C-SFR-F22B-8W	7.5m/24.6ft	20m/65.6ft	20m/65.6ft	20m/65.6ft	/
C-SFR-F22B-9W	6m/19.7ft	18m/59.1ft	18m/59.1ft	18m/59.1ft	/
C-SFR-F22B-12W	5m/16.4ft	15m/49.2ft	15m/49.2ft	15m/49.2ft	/
C-SFR-F22B-15W	5m/16.4ft	10m/32.8ft	10m/32.8ft	10m/32.8ft	/
C-SFR-ProF22B-12W	5m/16.4ft	15m/49.2ft	15m/49.2ft	15m/49.2ft	/

Note:

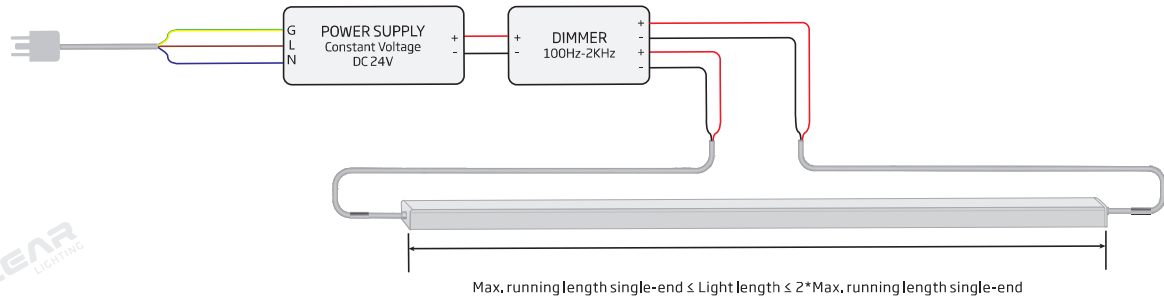
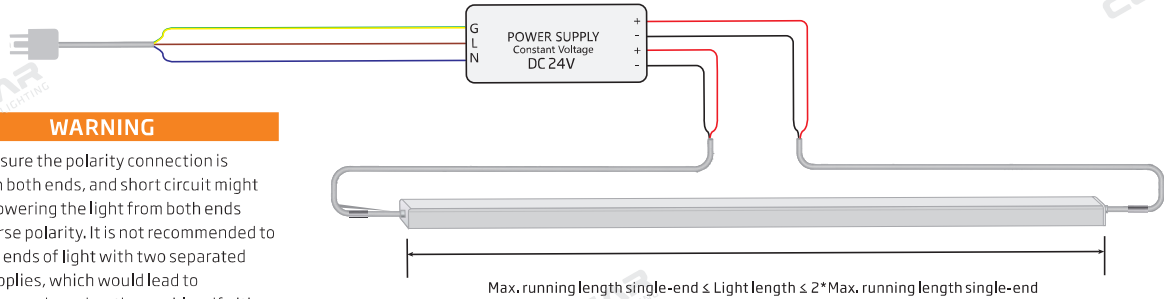
1. Above conclusion is based on voltage drop testing result of the light with 0.3m (0.98ft) cable only.
2. The maximum running length is based on the designated light in static full loading status.
3. Above running length is only the light length excluding lengths of connectors.
4. The delivered length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

Double-end Feed

The following wiring diagram with double-end feed to run length that is longer than max, running length for single-end feed but less than twice the value.

WARNING

Please ensure the polarity connection is correct on both ends, and short circuit might occur if powering the light from both ends with reverse polarity. It is not recommended to feed both ends of light with two separated power supplies, which would lead to overloading and overheating problem if either power supply is failed.



Light Length:

The length of the longest single light in parallel connection or sum of lights in series connection.

Cable Length:

The length of an electrical cable between power output end and light input end, and the cables for serial interconnection are inclusive.

How to Minimize Voltage Drop

1. It is optimal to position the power supply in the middle of a single light or multiple lines in daisy chain to keep the equivalent cable length on both ends for double-end feed.
2. Please ensure the cable length is not more than the table "Max. Cable Length" according to the half of light length and its wire gauge.
3. Please ensure the light length is less than the table "Max. Running Length Double-end Feed".

Max. Running Length Double-end Feed

Input: DC24V

Connector Type	Swivel Connector	Snap Connector	Socket Connector	Injection-moulded Connector	Dual Injection-moulded Connector
Wire Gauge	22AWG*2	18AWG*2	18AWG*2	18AWG*2	18AWG*2
C-FR-F22B-6W	20m/65,6ft	40m/131,2ft	40m/131,2ft	40m/131,2ft	40m/131,2ft
C-FR-F22B-8W	15m/49,2ft	30m/98,4ft	30m/98,4ft	30m/98,4ft	30m/98,4ft
C-FR-F22B-9W	12m/39,4ft	26m/85,3ft	26m/85,3ft	26m/85,3ft	26m/85,3ft
C-FR-F22B-12W	10m/32,8ft	20m/65,6ft	20m/65,6ft	20m/65,6ft	20m/65,6ft
C-FR-F22BH-12W	10m/32,8ft	20m/65,6ft	20m/65,6ft	20m/65,6ft	20m/65,6ft
C-FR-F22BH-15W	8m/26,2ft	16m/52,5ft	16m/52,5ft	16m/52,5ft	16m/52,5ft
C-FR-ProF22B-12W	10m/32,8ft	20m/65,6ft	20m/65,6ft	20m/65,6ft	20m/65,6ft
C-SFR-F22B-6W	20m/65,6ft	60m/196,8ft	60m/196,8ft	60m/196,8ft	/
C-SFR-F22B-8W	15m/49,2ft	40m/131,2ft	40m/131,2ft	40m/131,2ft	/
C-SFR-F22B-9W	12m/39,4ft	36m/118,1ft	36m/118,1ft	36m/118,1ft	/
C-SFR-F22B-12W	10m/32,8ft	30m/98,4ft	30m/98,4ft	30m/98,4ft	/
C-SFR-F22B-15W	10m/32,8ft	20m/65,6ft	20m/65,6ft	20m/65,6ft	/
C-SFR-ProF22B-12W	10m/32,8ft	30m/98,4ft	30m/98,4ft	30m/98,4ft	/

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 designated light in static full loading status.
3. Above running length is only the light length excluding lengths of connectors.
4. The delivered length might be subject to the maximum packing length.

F22B Max. Cable Length (Silicone)



Input: DC24V

Item Code	Light Length (m)	Max. Cable Length									
		0.32 mm ²		0.52 mm ²		0.81 mm ²		1.32 mm ²		2.07 mm ²	
		22AWG		20AWG		18AWG		16AWG		14AWG	
		m	ft	m	ft	m	ft	m	ft	m	ft
C-SFR-F22B-6W	1	76.1	249.7	123.7	405.8	192.7	632.1	314.0	1030.0	492.3	1615.3
	2	42.3	138.7	61.8	202.9	96.3	316.0	157.0	515.0	246.2	807.6
	3	27.8	91.1	40.6	133.2	63.3	207.5	103.1	338.2	161.7	530.4
	4	20.7	67.8	30.2	99.2	47.1	154.5	76.7	251.8	120.3	394.8
	5	16.6	54.5	24.3	79.7	37.8	124.2	61.7	202.3	96.7	317.3
	6	13.9	45.6	20.3	66.6	31.6	103.8	51.5	169.1	80.8	265.2
	7	11.9	39.1	17.4	57.2	27.2	89.1	44.3	145.3	69.4	227.8
	8	10.4	34.1	15.2	49.9	23.7	77.7	38.6	126.6	60.5	198.5
	9	9.3	30.4	13.5	44.4	21.1	69.2	34.4	112.7	53.9	176.8
	10	8.3	27.4	12.2	40.0	19.0	62.4	31.0	101.6	48.6	159.4
	11	7.6	24.9	11.1	36.4	17.3	56.8	28.2	92.5	44.2	145.0
	12	7.0	22.9	10.2	33.4	15.9	52.1	25.9	84.9	40.6	133.1
	13	6.4	21.1	9.4	30.9	14.7	48.1	23.9	78.4	37.5	123.0
	14	6.0	19.6	8.7	28.7	13.6	44.7	22.2	72.9	34.8	114.3
	15			8.2	26.8	12.7	41.8	20.7	68.1	32.5	106.7
	16			7.7	25.1	11.9	39.2	19.5	63.8	30.5	100.1
	17			7.2	23.7	11.2	36.9	18.3	60.1	28.7	94.3
	18			6.8	22.4	10.6	34.9	17.3	56.8	27.1	89.1
	19			6.5	21.2	10.1	33.0	16.4	53.8	25.7	84.4
	20			6.1	20.2	9.6	31.4	15.6	51.2	24.5	80.2
	21			5.9	19.2	9.1	29.9	14.9	48.7	23.3	76.4
	22			5.6	18.3	8.7	28.4	14.1	46.3	22.2	72.7
	23			5.3	17.5	8.3	27.2	13.5	44.3	21.2	69.5
	24					7.9	26.0	12.9	42.4	20.3	66.5
	25					7.7	25.3	12.6	41.3	19.7	64.7
	26					7.4	24.3	12.1	39.6	18.9	62.1
	27					7.1	23.4	11.6	38.2	18.3	59.9
	28					6.9	22.6	11.2	36.9	17.6	57.9
	29					6.7	21.9	10.9	35.6	17.0	55.9
	30					6.5	21.3	10.6	34.6	16.6	54.3
C-SFR-F22B-8W/9W	1	45.3	148.5	73.5	241.3	114.6	375.8	186.7	612.5	292.7	960.4
	2	22.6	74.2	36.8	120.6	57.3	187.9	93.3	306.2	146.4	480.2
	3	15.0	49.0	24.3	79.7	37.8	124.2	61.7	202.3	96.7	317.3
	4	11.2	36.9	18.3	59.9	28.4	93.3	46.4	152.1	72.7	238.5
	5	9.0	29.5	14.6	48.0	22.8	74.8	37.1	121.8	58.2	191.1
	6	7.5	24.7	12.3	40.2	19.1	62.6	31.1	102.1	48.8	160.1
	7	6.5	21.5	10.6	34.9	16.6	54.3	27.0	88.5	42.3	138.8
	8	5.7	18.6	9.2	30.2	14.3	47.0	23.3	76.6	36.6	120.1
	9			8.2	26.8	12.7	41.8	20.7	68.1	32.5	106.7
	10			7.4	24.2	11.5	37.7	18.7	61.4	29.4	96.3
	11			6.7	22.0	10.4	34.2	17.0	55.8	26.7	87.5
	12			6.2	20.2	9.6	31.5	15.6	51.3	24.5	80.4
	13			5.7	18.7	8.9	29.1	14.4	47.4	22.7	74.3
	14					8.2	27.0	13.4	44.0	21.0	69.0
	15					7.7	25.3	12.6	41.2	19.7	64.6
	16					7.2	23.7	11.8	38.6	18.5	60.5
	17					6.8	22.3	11.1	36.3	17.4	56.9
	18					6.4	21.1	10.5	34.3	16.4	53.8
	19					6.1	20.0	9.9	32.5	15.5	51.0
	20					5.8	18.9	9.4	30.8	14.7	48.3
C-SFR-F22B-12W C-SFR-ProfF22B-12W	1	37.2	122.1	60.5	198.4	94.2	309.0	153.5	503.6	240.7	789.7
	2	18.4	60.4	29.9	98.1	46.6	152.8	75.9	249.0	119.0	390.5
	3	12.3	40.4	20.0	65.6	31.2	102.2	50.8	166.6	79.6	261.3
	4	9.3	30.4	15.0	49.3	23.4	76.8	38.2	125.2	59.8	196.3
	5	7.4	24.3	12.0	39.5	18.8	61.5	30.6	100.3	47.9	157.2
	6	6.2	20.3	10.0	32.9	15.6	51.3	25.5	83.6	40.0	131.1
	7			8.6	28.2	13.4	43.9	21.8	71.5	34.2	112.1
	8			7.5	24.7	11.7	38.5	19.1	62.8	30.0	98.4
	9			6.7	21.9	10.4	34.2	17.0	55.7	26.6	87.3
	10			6.0	19.7	9.4	30.7	15.2	50.0	23.9	78.4
	11			5.5	17.9	8.5	27.9	13.8	45.4	21.7	71.2
	12					7.8	25.6	12.7	41.7	19.9	65.3
	13					7.2	23.6	11.7	38.4	18.4	60.2
	14					6.7	21.9	10.9	35.6	17.0	55.9
	15					6.2	20.4	10.1	33.3	15.9	52.2



Input: DC24V

Item Code	Light Length (m)	Max. Cable Length									
		0.32 mm ²		0.52 mm ²		0.81 mm ²		1.32 mm ²		2.07 mm ²	
		22AWG		20AWG		18AWG		16AWG		14AWG	
		m	ft	m	ft	m	ft	m	ft	m	ft
C-SFR-F22B-15W	1	26.8	87.9	43.5	142.8	67.8	222.5	110.5	362.6	173.3	568.6
	2	13.4	43.9	21.8	71.4	33.9	111.2	55.3	181.3	86.7	284.3
	3	8.9	29.3	14.5	47.6	22.6	74.2	36.8	120.9	57.8	189.5
	4	6.7	22.0	10.9	35.7	17.0	55.6	27.6	90.6	43.3	142.1
	5			8.7	28.6	13.6	44.5	22.1	72.5	34.7	113.7
	6			7.3	23.8	11.3	37.1	18.4	60.4	28.9	94.8
	7			6.2	20.4	9.7	31.8	15.8	51.8	24.8	81.2
	8			5.4	17.9	8.5	27.8	13.8	45.3	21.7	71.1
	9					7.5	24.7	12.3	40.3	19.3	63.2
	10					6.8	22.2	11.1	36.3	17.3	56.9

Note:

1. Please check the wire gauge of your connector in the table "Max. Running Length".

E.g.,

Single-end feed, C-SFR-F22B-12W, 5m light length when with 18AWG wire, max. cable length should refer to the corresponding value 18.8m for 5m light length;

Double-end feed, C-SFR-F22B-12W, 10m light length when with 18AWG wire, max. cable length of each end should refer to the corresponding value 18.8m for half of light length 5m;

2. The above cable lengths are calculated based on minimum working voltage of 20.5V to activate the built-in constant current IC on circuitry, which enables input voltage range of 22-26V.