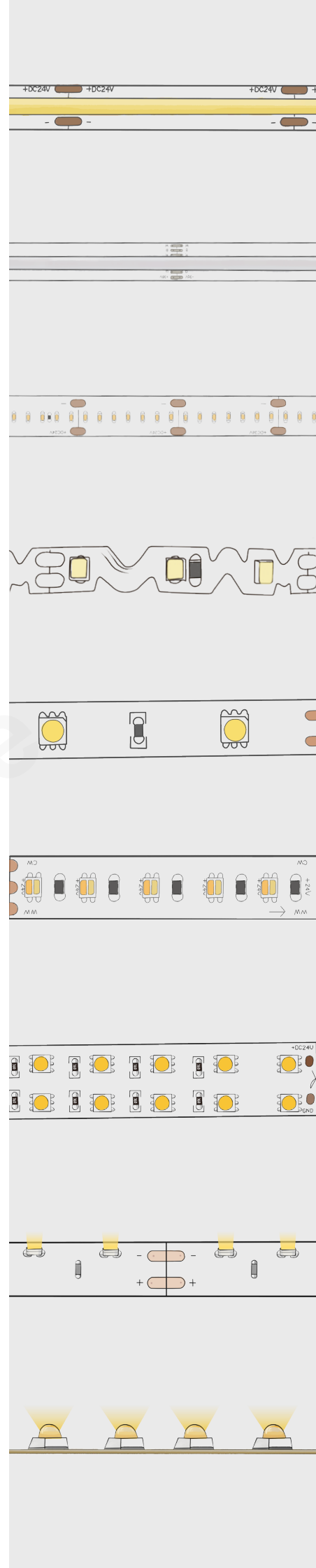




Product Specification

Mini Wallwasher LED Strip



www.mingxueled.com

E-mail: info@mingxue.cn

Tel: +86-755-27637866

Address: 14 Floor, T3 Building, HIPAR technology building, Shiyan Town, Bao'an District, Shenzhen, China.

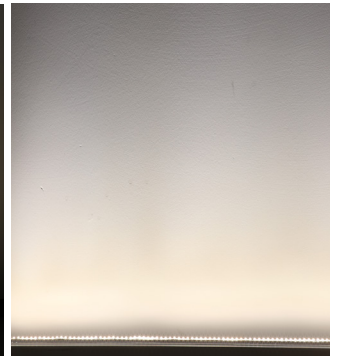
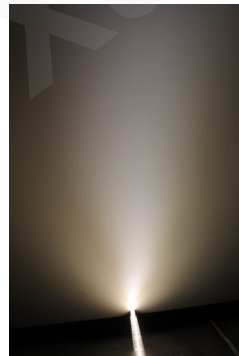
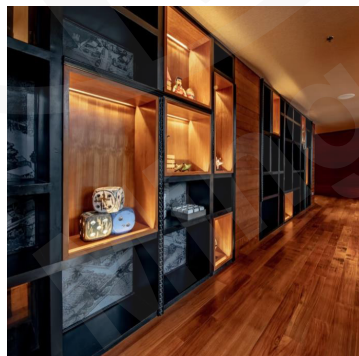
Factory: Building 9 & 10, WanYang park, baoyong industry road No 8, west area baoyong industry zone, longjiang town, Shunde District, Foshan city.

Mini Wallwasher LED Strip

- Adopt 36° beam angle LED polarized lens. Effectively improve the illuminance value;
- Compared with the 120° beam angle of the conventional light bar, it has more concentrated illumination, longer illumination distance, and the output light utilization efficiency of the product is higher under the same luminous flux;
- Optimized structural design to improve optical efficiency
Two-color (light-emitting area is transparent, non-light-emitting area is milky white) light-emitting area silicone extrusion anti-flame retardant, UV resistance;
- With constant current IC design, can support up to 10M without voltage drop;
- Can do white light, CCT, DMX white light different versions;
- Easy to install, you can use aluminum grooves or snaps.

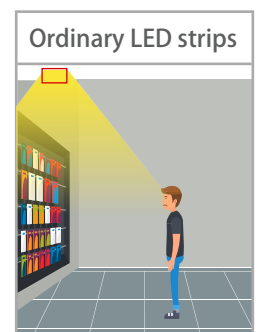
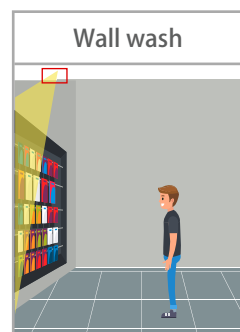
Application

We have also have CCT DMX version for your reference, they especially suit for showcase, shelf cabinet, hotel, garden, bridge, corridor, ceiling, floor stairs ect.



Accent Lighting: Wall Washing VS. Ordinary LED strips

Wall washing is a kind of lighting optical technology, the lamp is placed in a certain position from the wall, from top to bottom evenly illuminate the wall. Secondary optical angles are used to produce a smooth "wash" effect that emphasizes vertical surfaces and makes smaller Spaces feel larger. Ordinary conventional light strips are range lit without an Angle design.



Structure

Series	Item Code	CCT/K	Watt/m	Lm/m	Lm/ft	LM/w	LED Type	Min cut	Max.run length (SEP)	IP Rate	Energy Grade
CV Series	MF328W084A80-D040A1A10A	4000K	8	1025	320	128	84/M	83.3mm	5m	20	E
	MF328W112A80-D040A1A10B	4000K	9.6	1275	398	133	112/M	71.4mm	5m	20	E
	MF328W126A80-D040A1A105	4000K	15	1600	500	128	126/M	55.5mm	5m	20	E
Standard Series 10mm PCB	MF328W126Q80-D027T0A10	2700K	12.5	1520	475	122	126/M	55.5mm	10m	20/67	F
	MF328V126Q80-D030T0A10	3000K	12.5	1580	494	126	126/M	55.5mm	10m	20/67	F
	MF328W126Q80-D040T0A10	4000K	12.5	1600	500	128	126/M	55.5mm	10m	20/67	E
	MF328V126Q80-D065T0A10	6500K	12.5	1630	509	130	126/M	55.5mm	10m	20/67	E
	MF328U168Q80-D030T0A10	CCT	12	1495	467	125	168/M	83.3mm	10m	20/67	E
Pro series 12mm PCB	MF328V126Q80-D027T0A12	2700K	15	1825	570	122	126/M	55.5mm	10m	20/67	E
	MF328V126Q80-D030T0A12	3000K	15	1930	603	129	126/M	55.5mm	10m	20/67	E
	MF328W126Q80-D040T0A12	4000K	15	2000	625	133	126/M	55.5mm	10m	20/67	E
	MF328W126Q80-D065T0A12	6500K	15	2140	638	136	126/M	55.5mm	10m	20/67	E
	MF328U168Q80-D030T0A12	CCT	15	1690	528	113	168/M	83.3mm	10m	20/67	E
	MF328A112Q80-D040T0A12	DMX 4000K	15	1700	531	113	112/M	250mm	10m	20/67	F
	MF328U140Q80-D030T0A12	DMX CCT	15	1680	525	112	140/M	100mm	10m	20/67	F

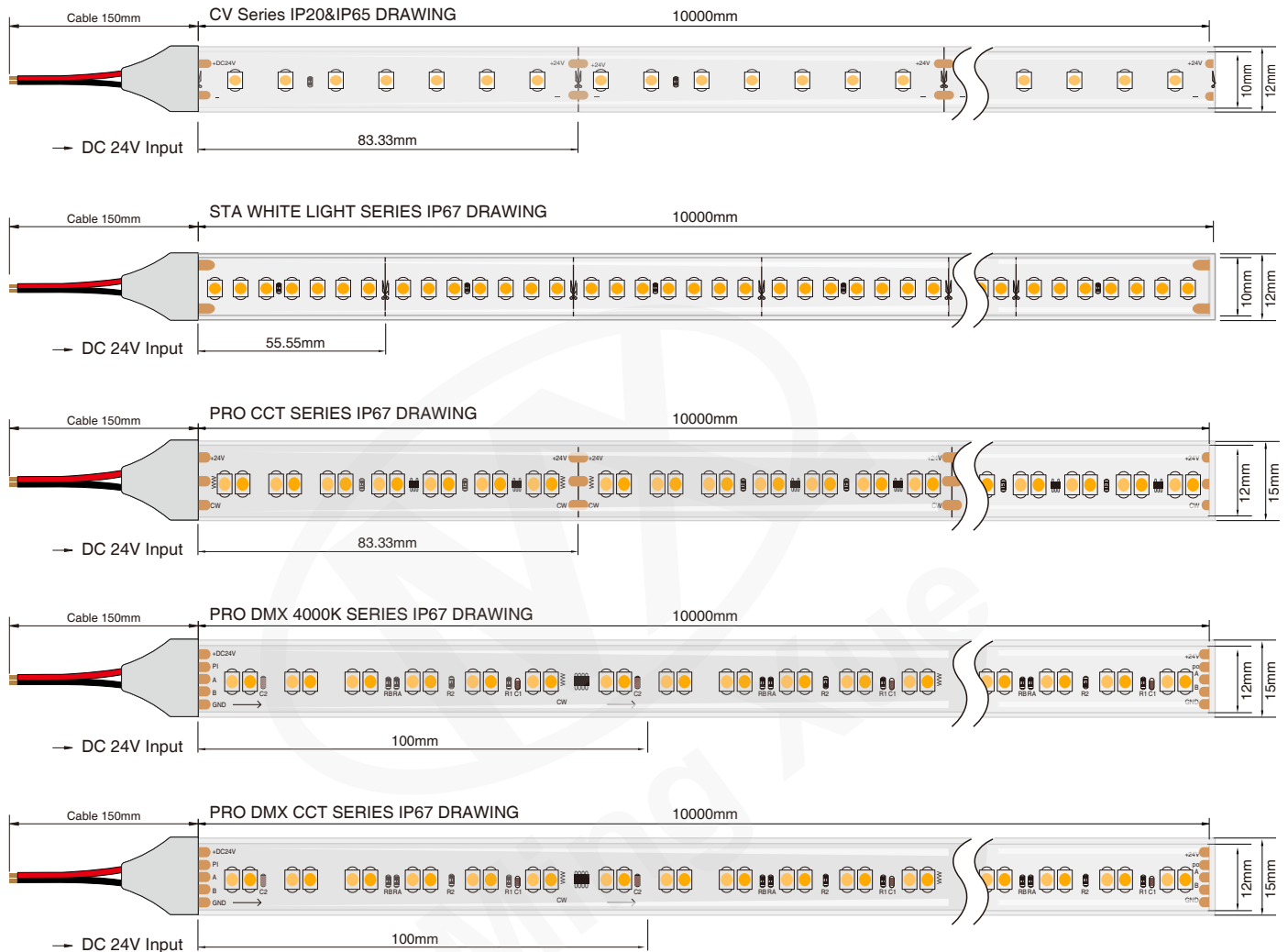
Note: Item code MF328xxxxQ80 A means IP20
 Q means IP67
 SEP:Single End Power Supply

LED Type :	2835 Lens LED	Input Current/m:	0.33~0.63A/M
Color Rendering Index:	Ra>80	Static Electricity:	1000V (ESD)
Beam Angle:	36°	Warranty:	5years
Operating Ambient temperature Ta:	-20~45° C [-4~113° F]	Lifespan :	50,000H
Pixel Segment& Address QTY:	4Pixel/M(DMX 4000K) 10Pixel/M(DMX CCT)	Style:	Transparency silicone extrusion(STA) Two-color silicone extrusion(PRO)

Notice:

- Luminous flux or CCT 2700K is 10% lower, or CCT 3000/3500K is 5% lower, for CCT 5000K/ 6500K is the same, compared with 4000K.
- Energy efficiency class of regulation (EU)201 9/2020 is E(CRI80) for 4000K and F(CRI80) for CCT, it varies depending on CRI and CCT.
- Applying with extra heat sink is not necessary with self-cooling capacity.
- The transmission direction of data must be from PI to Po following the arrow printing on FPC for DMX version, and can't be made by reverse connection, otherwise the strip will be out of control or even damaged.

Drawing

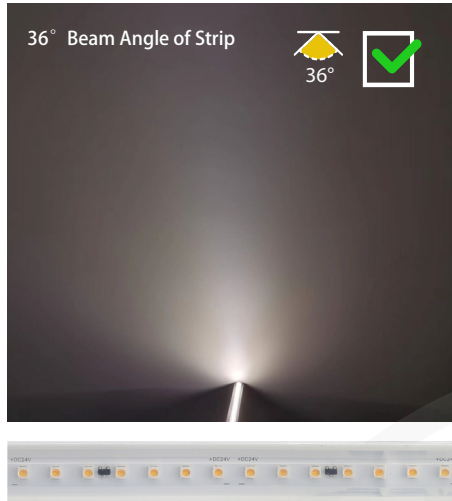


Notice:

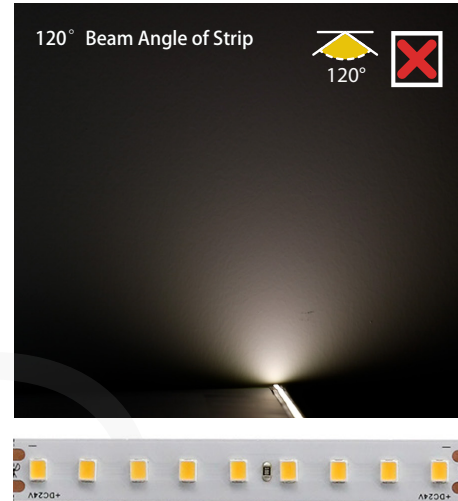
Safety Input Voltage:DC 24V

LED Strip length' s length tolerance is $\pm 0.2\%$ mm,width tolerance is ± 0.2 mm.

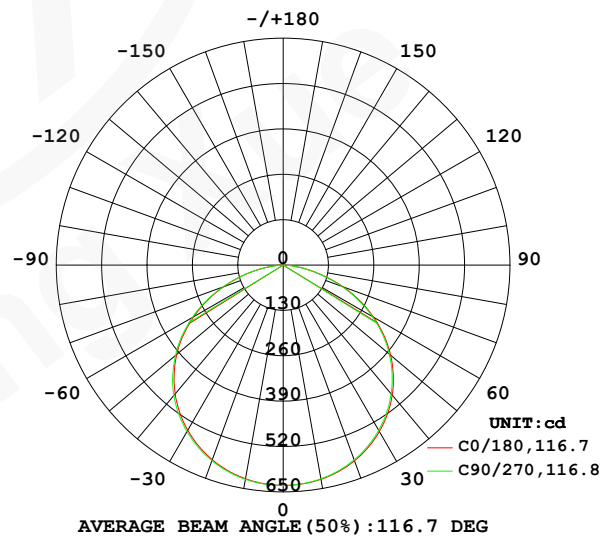
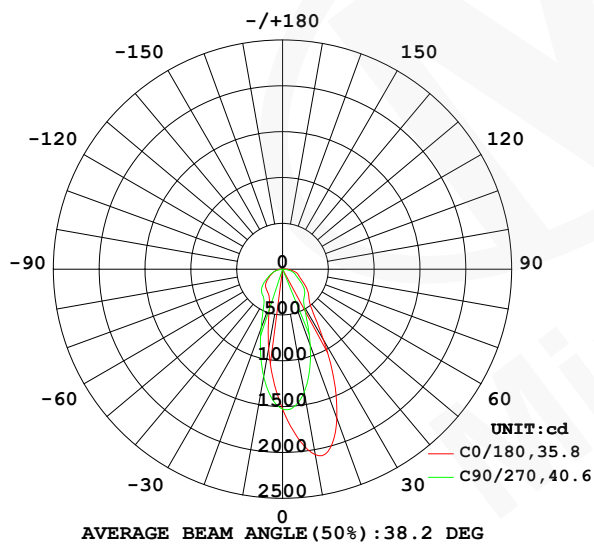
Comparison



(For accent and wall grazing lighting)



(For general and ambient lighting)



Flux out: 391.5 lm

Height	Eavg, Emax	Angle: 35.77deg	Diameter
1m	1180, 1970lx		64.53cm
2m	295.1, 492.5lx		129.06cm
3m	131.2, 218.9lx		193.59cm
4m	73.77, 123.1lx		258.12cm
5m	47.22, 78.80lx		322.66cm
6m	32.79, 54.72lx		387.19cm
7m	24.09, 40.20lx		451.72cm
8m	18.44, 30.78lx		516.25cm
9m	14.57, 24.32lx		580.78cm
10m	11.80, 19.70lx		645.31cm

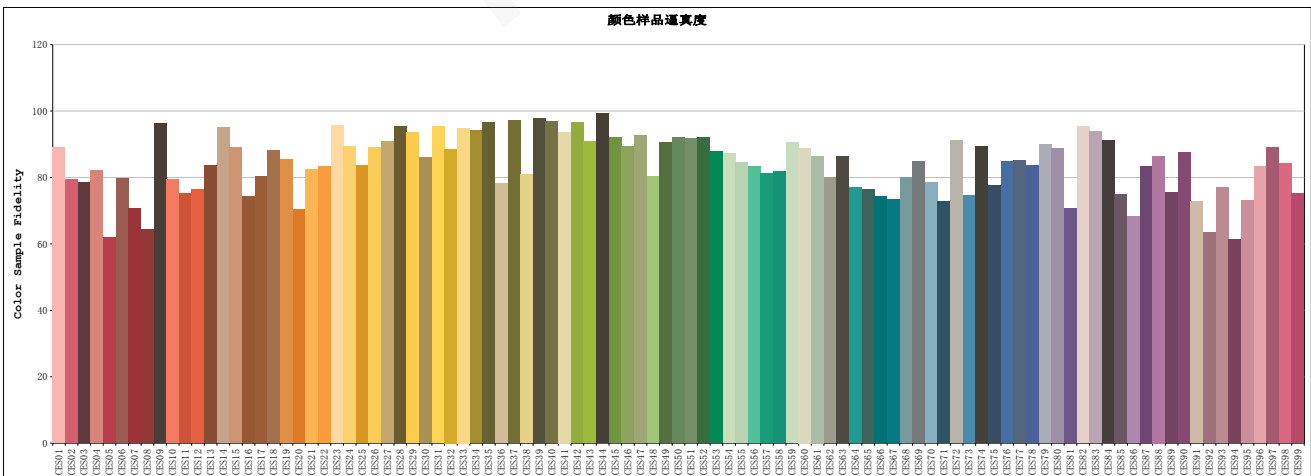
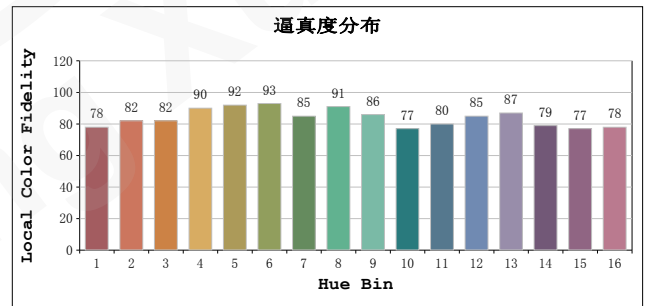
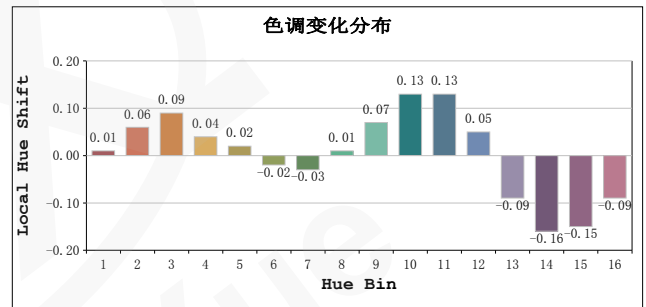
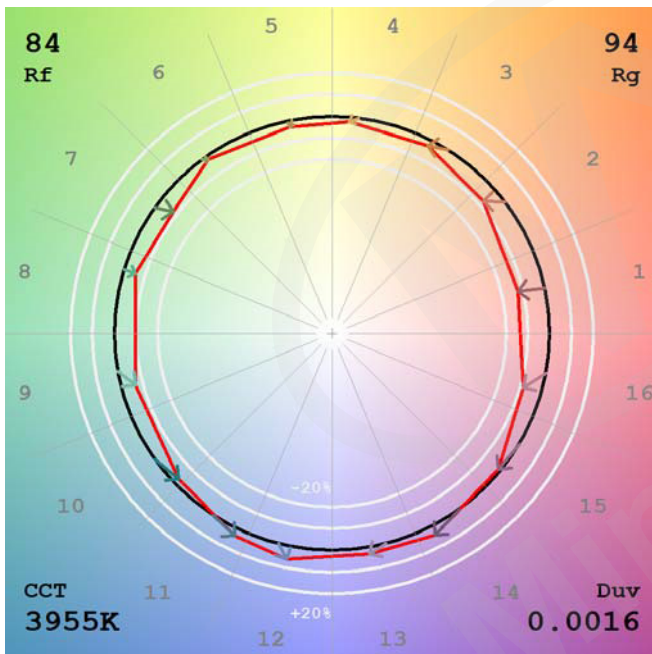
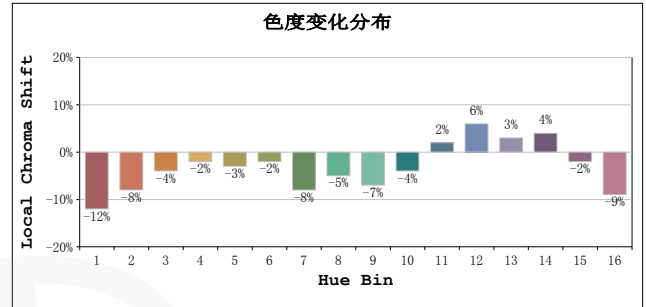
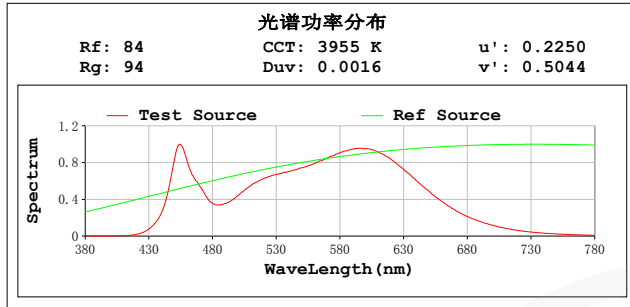
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

Flux out: 1444 lm

Height	Eavg, Emax	Angle: 116.52deg	Diameter
1m	166.0, 633.8lx		323.35cm
2m	41.50, 158.5lx		646.71cm
3m	18.44, 70.43lx		970.06cm
4m	10.37, 39.61lx		1293.41cm
5m	6.639, 25.35lx		1616.76cm
6m	4.611, 17.61lx		1940.12cm
7m	3.387, 12.94lx		2263.47cm
8m	2.593, 9.904lx		2586.82cm
9m	2.049, 7.825lx		2910.18cm
10m	1.660, 6.338lx		3233.53cm

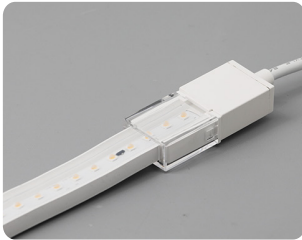
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

TM30 test report



Connector

Pro series 12mm PCB single color connectors

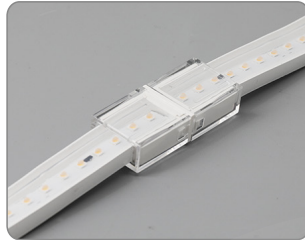
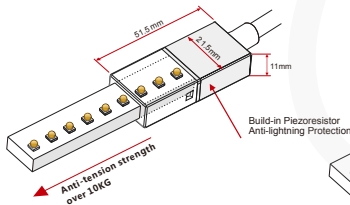


Power Cord

Connects light to power supply
IP65 DIY connector(indoor use)
Cable Length available in
0.3m min~20m Max.

Screwless Terminal DIY assembly

DC Plug(2 Pin) *1
Anti-tension Shell *1
PC Fixing Clip *1

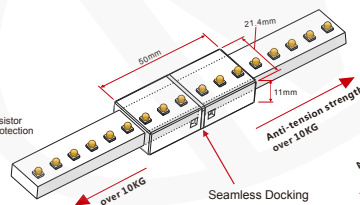


Docking Connector

Combine two pieces of the lights
together IP65 DIY connector
(indoor use)

Seamless Docking, Screwless Terminal

Anti-tension Shell *1
Feed Connector (2 Pin) *1
PC Fixing Clip *2

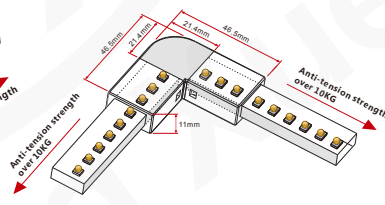


L-Type Connector

Combine two pieces of the lights
together IP65 DIY connector
(indoor use)

Seamless Docking, Screwless Terminal

L-Type Anti-tension Shell *1
L-Type Feed Connector(2 Pin) *1
PC Fixing Clip *2

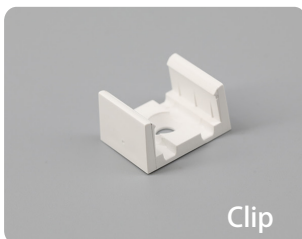
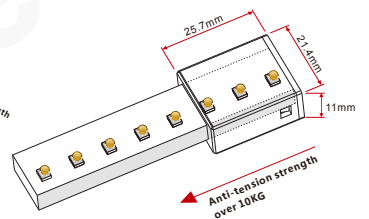


End Cap

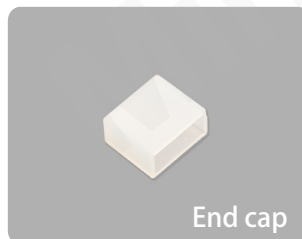
Termination Protection of the light,
IP65 DIY connector(indoor use)

Seamless Terminal DIY assembly

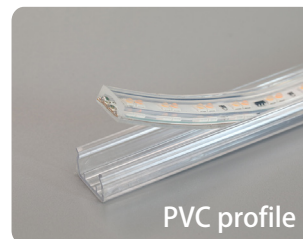
Anti-tension Shell *1
PC Fixing Clip *1



Clip



End cap



PVC profile

CV series 10mm PCB connectors



IP20 Quick connector
10mm PCB

Waterproof rate



A:Naked PCB



T:Nano Coating



C:PU glue coating
D:Silicone glue coating



E:PVC extrusion



G:Silicone tube



G:Silicone tube



H:PU tube & PU glue coating



Q:Hollow Silicone Extrusion



F:Silicone tube



S:Solid Silicone Extrusion

IP Rate Description :

IP20 : A:Naked PCB

IP54 : T:Nano Coating

IP65 : C:PU glue coating D:Silicone glue coating

IP65 : E:PVC extrusion

IP65 : G:Silicone tube

IP67 : H:PU tube& PU glue coating

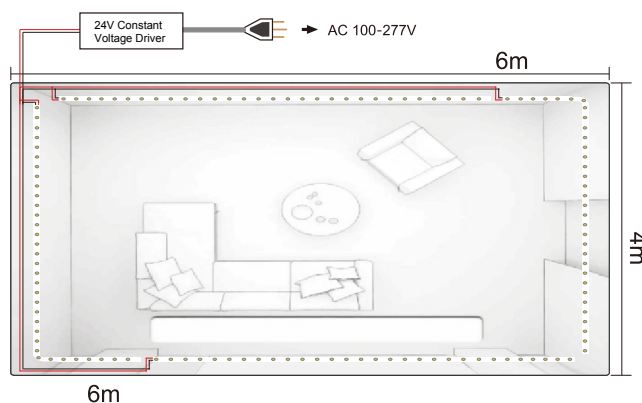
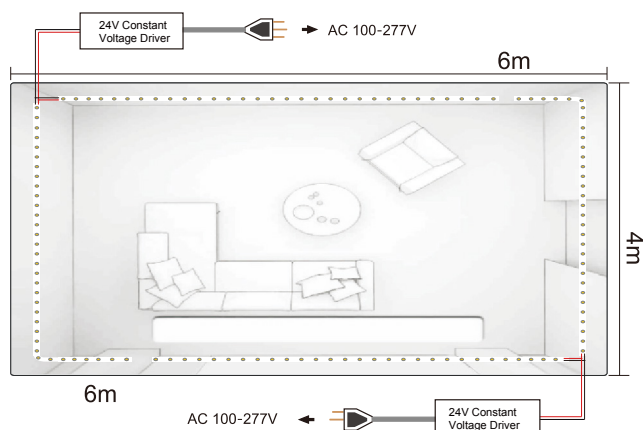
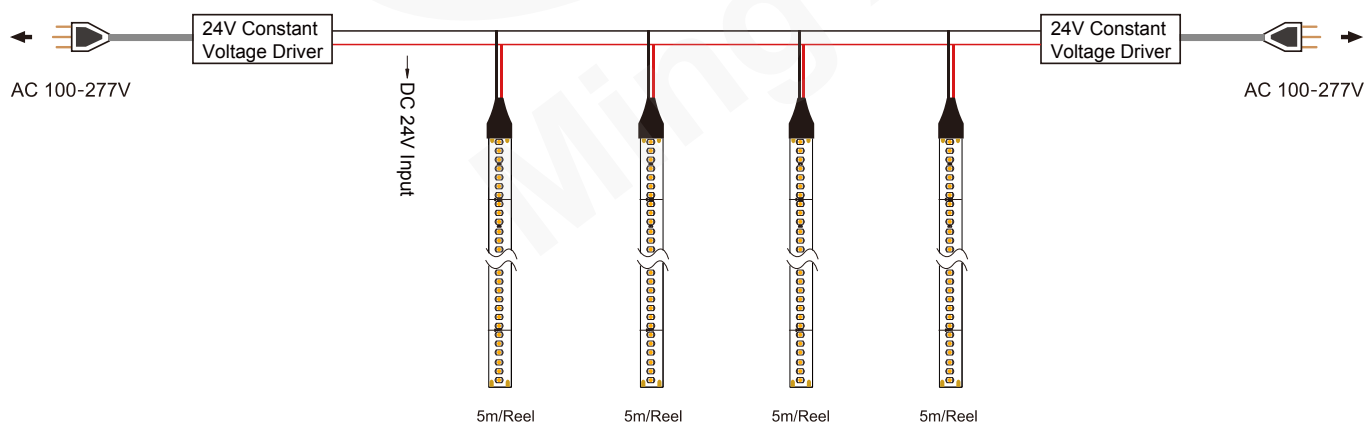
IP67 : Q:Hollow Silicone Extrusion

IP67 : Q:Hollow Silicone Extrusion

IP68 : S:Solid Silicone Extrusion

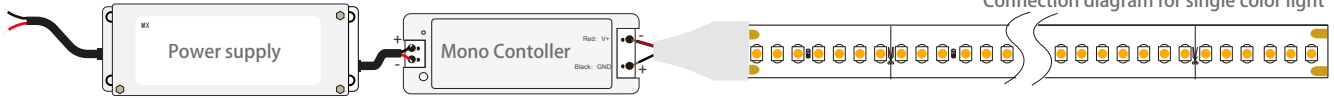
Wiring diagram application

◆ Single end power input for 5 meters

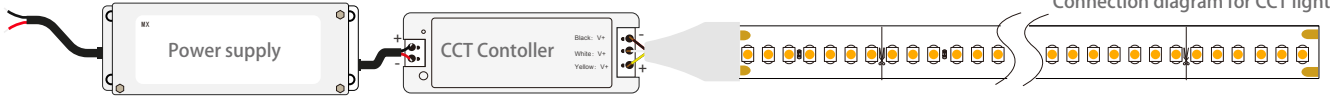


Connection diagram

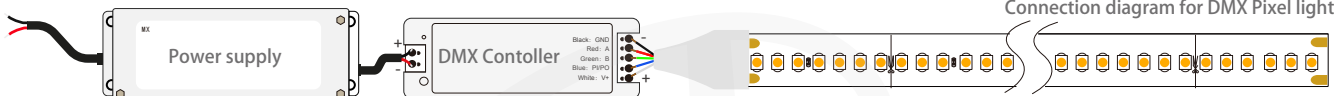
Connection diagram for single color light



Connection diagram for CCT light








Connection diagram for DMX Pixel light



ELECTRICAL WIRING COLOR CODES

● MONOCOLOR	Red: V+ Black: GND	Red Black	● CCT	Red: V+ White: C Yellow: W	Yellow Red White
○ SPI	Red: V+ Yellow: DAT White: GND	Yellow Red White	○ RGB	Black: V+ Red: R Green: G Blue: B	Black Red Blue Green
○ RGBW	Black: V+ Red: R Green: G Blue: B White: W	Black Red Blue White Green	○ RGBCCT	Black: V+ Red: R Green: G Blue: B White: C Yellow: W	Black Red Blue White Green Yellow
● DMX	Black: GND White: B Blue: A Green: PI/PO Red: V+	Black Red Blue White Green			

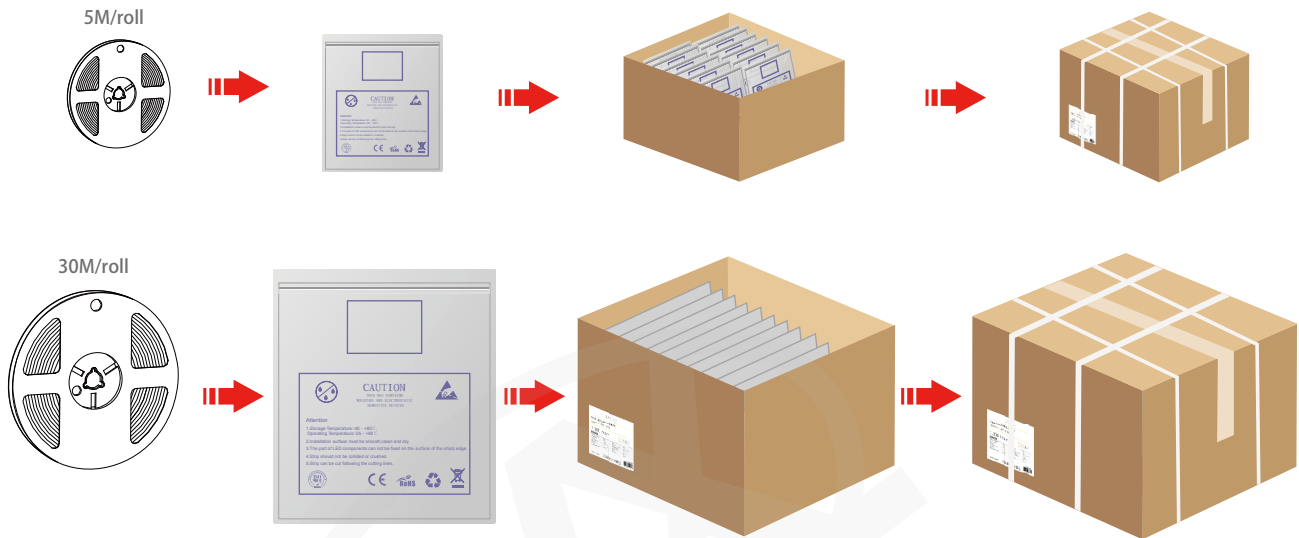
Controller

Picture	Item	Model	Spec	Match
	Monochrome remote	MX-03-030322	Output signal:RF(2.4GHz) Working voltage:3VDC(CR2032) Remote control distance:30m Working temperature:Ta:0-30°C~0+55°C	Use with Monochrome light strip
	Monotone light controller	MX-03-030472	Input voltage:12-48VDC Output current:15A@12V/24V-10A@36/48V Output Power:180W@12V-360W@24V 360W@36V-480W@48V Working temperature:Ta:0-30°C~0+55°C	Use with Monochrome light strip
	CCT remote	MX-03-030466	Output signal:RF(2.4GHz) Working voltage:3VDC(CR2032) Remote control distance:30m Working temperature:Ta:0-30°C~0+55°C	Use with CCT light
	Color temperature controller	MX-03-030437	Input voltage :12-24VDC Output current :2CH,5A/CH Output Power :2x(120-240)W Working temperature:Ta:0-30°C~0+55°C	Use with CCT light
	LTSA512 DMX Master Controller	DMX	Input Voltage:5V DC Power Consumption:<2W Connection way:Mini USB Internal Memory:6000 steps@512Chs Output Connector:XLR-3 Transmission Signal:DXM512 PC Software:LTECH LED player	Use with DMX light

Reliability test of light

TEST TYPE	TESTING ITEM	TEST STANDARD	DESCRIPTION
PHOTOMETRIC TEST	Spectrum Analysis	LM 79	LM 79(lumen,CCT,CRI,XY,SDCM,wave length)
	Photometric Distribution	LM 79	LM 79(lumen intensity distribution&Lux diagram)
	Lumen Maintenance&Life Time	IES LM 80&IES TM28 GB/T24824-2009	LM 80&IES TM28
ELECTRICAL TEST	EMC Test	EMI & EMS	IEC 61547/GBT 18595 IEC 61000-3-2/GB 17625.1
	Bending Test Vertical	Mingxue	Manufacturer-defined,100 cycles 3 times bending with 0.5m/s pulling speed
	Bending Test Horizontal	R2	Manufacturer-defined,100 cycles 3 times bending with 0.5m/s pulling speed
MECHANICS & PHYSICS TESTING	Wrestling test	Mingxue	COB/CSP 500 / SMD 1000. cycles
	Swing Test	UL2388	UL2388,>750 cycles
	Tensile Test	IEC 60598-1; GB7000.1	Manufacture-defined,>the weight of light in maximum connection length with both ends feed. With 30Nm if total cross section <0.75 or 60Nm force, pull wire 25 times during 1 sec. Mark displacement ≤ 2mm.
	Twist Test	Mingxue	Manufacturer-defined,>200 cycles in 720°
	Curl test	Mingxue	Back and forth 80-100 times
	IK06-08-10	IEC62262	IEC62262 The hammer spring Impact energy 0.7J
	Adhesion test	JB1256-77	3M VHB5952 hung on 2kg loads >7 hrs
	Drop test	IEC68-2-6	IEC68-2-6,GB/T2423/10/95
	Vibration test	ISTA-1A	bear up to 25,4mm amplitude in 14200 cycles
	Winding Test	IEC 60598-1; IEC 60598-2-21; GB-7000.1	φ150mm cylinder, 60N pull, winding 10 times at (-25°C ±2°C), and 10 times after (-15°C ±2°C, 16h).
	Electrical strength	IEC 60598-1; IEC 60598-2-21 GB-7000.1	500V
	Product accessories disassembly test	Mingxue	Product accessories are installed and adapted 5-10 times
	Heating test	IEC 60598-1: 12.4	Sample to be tested under normal installation Under 1.06 times Rating Voltage After 30 minutes.
	Salt Spray Test	IEC 60068-2-11	5% salt solution concentration,5% salt water,35+/-2C for 72hrs
	High temperature and Humidity impact	IEC 60068-2-78 GB/T 2423.3	60+/-2° C for 168 hrs 60°C, 85%RH, Test light decay data<3%
	Temperature Shock Test	IEC60068	Manufacturer-defined,-40°C-60°C(typical temperature range) 168H
	switch test	GB/T24824-2009	30s On, 30s Off, 15000 times;on/off every 30s, > 15000 cycles
ENVIRONMENT TESTING	Lifetime aging test	Mingxue	Normal temperature 25°C
	Constant Temperature Test	Mingxue	Manufacturer-defined,60°C to -40° (typical temperature)
	Cold Bend Test	IEC 60598-1; IEC 60598-2-21 GB-7000.1	wound on mandrel,low-temperature (-15°C ±2°C, 16h), around the mandrel for two turns
	Cold Impact test	IEC 60598-1; IEC 60598-2-21 GB-7000.1	Low-temperature (-15°C ±5°C, 16h), hammer falls from a height of 100mm.
	UV Exposure Test	ASTMG154-06	ASTMG 154,ISO 4892-3, UVA@340nm ASTMG154-06, UVA-340 0.68W/m2 for 500 hrs
	IPX5 IPX6 IPX7 IPX8	IEC 60598-1; IEC 60598-2-21 GB-7000.1	IEC60529 IPX5/X6/ IPX7/X8

Packing



Model	Standard Packing	N.W	G.W	PCS/CTN	CARTON SIZE	IP Rating
2835SMD/168LED	5m	5.4kg	6.9kg	40	510*240*230mm	IP20

Remark: data with 10% tolerance

Safety Information

Application notes for led flexiable strip

In order to drive LED flexible strip lights safely, it is absolutely necessary to operate them with an electronically stabilised power supply protecting against short circuits, overload and overheating.

To also ease the luminaire/installation approval, electronic control gear, power supply and all electronic accessories for LED or LED modules should carry "CE, or UL" mark and meet the latest safety standard.

- Please use 24VDC isolated power supply to drive the led strip, and the constant voltage source ripple less than 5%. Can't step-down the power by resistance-capacitance and non-isolated power supply driver led strip, etc.
- To ensure the longevity and reliability of the strips, please do not bend the arc diameter 60mm or less, do not fold to avoid damaging the lamp beads or broken.
- To ensure the life and environment of lights, in the use of force can not pull the power cord to avoid damage to prohibit collision LED lights.
- During the installation of positive and negative attention to the power cord, do not pick the wrong voltage power supply and the product are the same, so as to avoid damage to the product.
- LED lights should be stored in dry sealed environment, the proposed storage period should not be too long before using unpacking, the working temperature: -20 ~ +45, Storage temperature: -0 ~ +60, not waterproof lights band indoor use, relative humidity not higher than 70%.
- In practical applications, the power supply should leave 20% margin (recommend using only 80% of the power) in order to ensure a sufficient amount of voltage drive products
- Do not use any acidic, alkaline adhesive securement products (including not limited to glass, plastic, etc.)