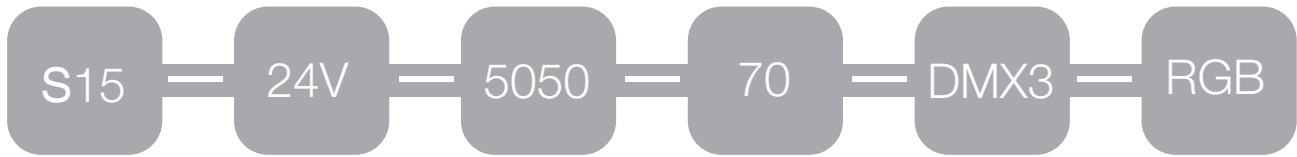


# Appendix---Model Encoding

## 1. Model Encoding

### Product Encoding



Shape Model	Working Voltage	LED Type	LED Quantity	Working Mode	Colors/ CCT
F= PVC Material	Low voltage	SMD LED	LEDs / meter	CC= Constant Current	2200K
SF= Silicone Material	12V	2835	56	PWM= Blank	2700K
SF/F15	24V	3528	60	DMX3= 3 Channels	3000K
SF/F16	48V	5050	70	DMX4= 4 Channels	3500K
SF/F17			72	SPI3= 3 Channels	4000K
SF/F18			120	SPI4= 4 Channels	5000K
SF/F21			128		5700K
SF/F10			144		6500K
SF/F09					R=Red
SF/F08					G=Green
SF/F06					B=Blue
					P= Pink
					LY=Lemon Yellow
					A=Amber
					O=Orange
					PP=Purple
					RGB
					RGBW(2200/3000K)
					DW=Tunable White
					(2200K+6500K)

### Lead Connector Encoding



Mold Injection	Shape Type	Product Type	Connector Entry	Cable Type
MJ= Mold Injection	PVC=Blank+15 Silicone=SF15	A= Mono Color DW= Tunable White D3= SPI (3 Wires) RGB RGBW D4= DMX (4 Wires) D5= DMX (5 Wires)	S=Side Direction D= Direct Direction B= Bottom Direction L= L Shape 01=Right 02=Left 03= Right+Left	Blank= Bare Wire SM= Male Connector Cable SF= Female Connector Cable SFM= Female+ Male Connector Cable

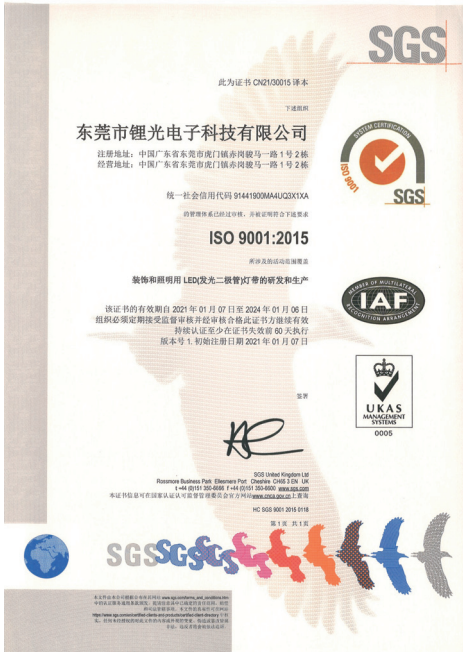
### Assembly Connector kit Encoding



Type	Installed Way	Application Part	Shape Type	Connector Entry Type	Product Type
DIY=Do It Yourself	SN=Snap SC=Screws	FR= Front Connector END= End Cap	15 16 17 21 10 09 08 06	D= Direct Direction 01=Right 02=Left SM= Male Connector Cable SF= Female Connector Cable Blank= Bare Wire	A= Mono Color (2 Wires) DW=Tunable White (3 Wires) RGB=RGB (4 Wires) D3= SPI (3 Wires) D4= DMX (4 Wires)

# Appendix---Certificate

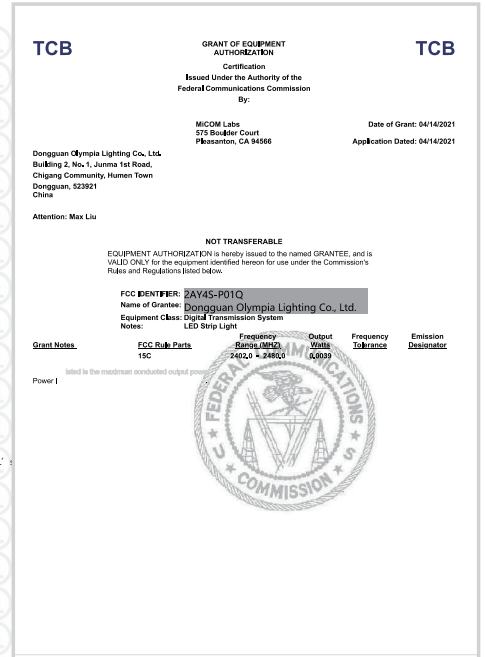
## 2.Certificate



ISO9001



UL Listed



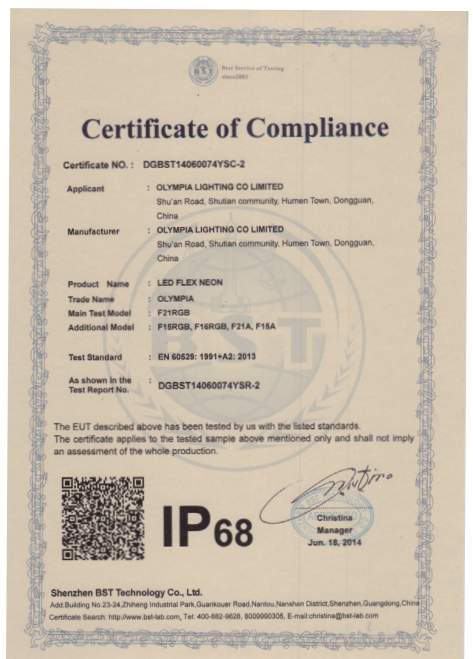
FCC



CE



RoHS



IP68

## 3. Reliability Test

### Optical Testing

Spectrum Analysis	IES LM 79 (Lumen, CCT, CRI, XY, SDCM, wavelength)
Photometric Distribution	IES LM 73 (Lumen intensity distribution & Lux diagram)
Lumen Maintenance & Lifetime	IES LM 84 & IES TM28

### Temperature Testing

T=25°C Normal Temperature Test	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21
T=70°C Abnormal Operation Test	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21

### Durability Testing

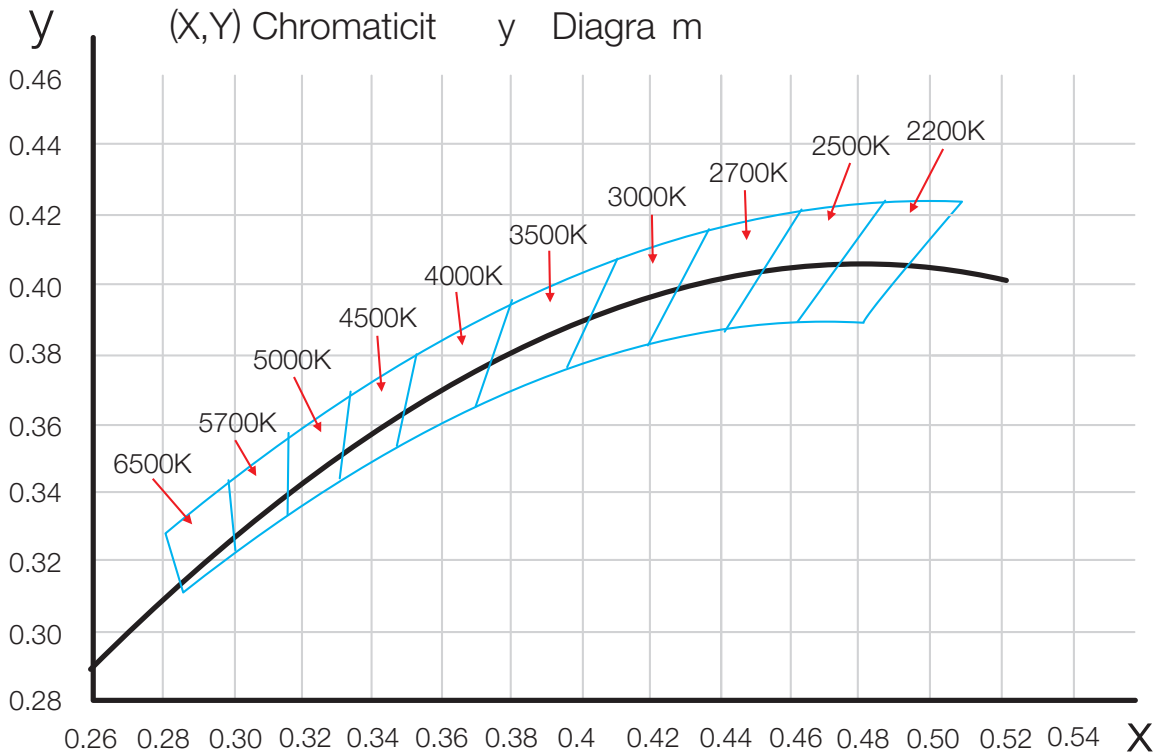
Bending Test	Manufacturer-defined, 1000 cycles
Swing Test	UL2388, >750 cycles
Tensile Test	Manufacturer-defined, > the weight of light in Max. connection length double feed
Twist Test	Max connection length double feed Manufacturer-defined, >200 cycles
Ball Impact	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21
IK07 IK08	IEC62262

### Environmental Testing

Chlorinated Water Immersion	BG9667, PH6.8-7.6, free chlorine 0.3-0.6mg/L
Salt Water Immersion	IEC60598-1, Salinity 4%
Salt Spray Test	IEC68-2-11
Outdoor Exposure	Manufacturer-defined
Flame Resistance	UL94
UV Exposure	ASTMG 154, ISO 4892-3, UVA @ 340nm
IPX5, IPX6, IPX7, IPX8	IEC60529
Temperature Shock	Manufacturer-defined, -40°C- 60°C (typical temperature range)
Constant Temperature	Manufacturer-defined, 70°C (typical temperature range)

# Appendix---( x , y ) Chromaticity Diagram & Correlated Color Temp.

## 4. ( x , y ) Chromaticity Diagram



## 5. Correlated Color Temperature (CCT)

ANSI Standard

Nominal CCT Categories (2200-6500K)

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



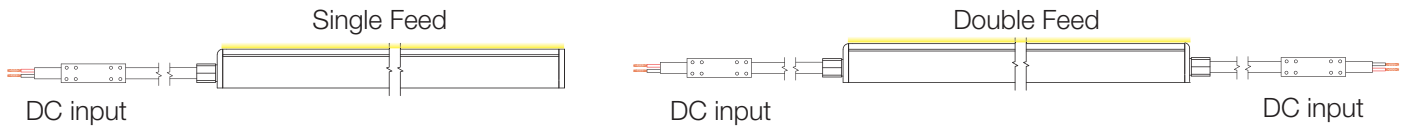
# Appendix---Loading Chart & Recommendation Of Extension Wire

## 6. Loading Chart

### Power Supply

Power	40W	60W	80W	100W	120W	150W	185W	240W	320W	480W
5W	6m	9m	12.5m	16m	18m	24m	29.5m	38m	50m	70m
7.2W	5m	6m	8.5m	11m	13m	16.5m	20.5m	26.5m	30m	53m
8W	4m	6m	8m	10m	12m	14m	18m	23m	32m	45m
9W	3.5m	5m	7m	8.5m	10.5m	12.5m	16m	21m	28m	41m
10W	3m	4.5m	7m	8m	9.5m	12m	14.5m	19m	24m	35m
12W	2.5m	4m	6m	7.5m	8m	10m	12.3m	16m	21.3m	28m
13W	2.4m	3.5m	4.8m	6m	7m	9m	11m	14.5m	19.5m	29.5m
15W	2m	3m	4.2m	5m	6m	8m	9.8m	12.5m	17m	25m
16W	2m	3m	4m	4.5m	6m	7.5m	9m	12m	16m	24m
17W	1.8m	2.8m	3.7m	4.5m	5.5m	7m	8.4m	11m	15m	22.5m
18W	1.7m	2.6m	3.5m	4.4m	5.3m	6.8m	8m	10.5m	14m	21m

### Lead Type



Note: These are the max recommended run lengths based on power supply.

And each model product should be obeyed by its maximum length.

For example: It is recommended to use one 40W power supply for a single-feed run of 6m at 5W/m.

## 7.Recommendation Of Extension Wire

Maximum extension wire length according to Light power

Watts Of Light	22AWG 0.34mm <sup>2</sup>	20AWG 0.53mm <sup>2</sup>	18AWG 0.82mm <sup>2</sup>	17AWG 1.04mm <sup>2</sup>	16AWG 1.38mm <sup>2</sup>	14AWG 2.07mm <sup>2</sup>	12AWG 3.29mm <sup>2</sup>	10AWG 5.6mm <sup>2</sup>
10W	36m	60m	100m	120m	140m	240m	400m	600m
20W	18m	30m	50m	60m	70m	120m	200m	300m
30W	12m	20m	30m	38m	45m	80m	130m	200m
40W	8m	15m	22m	28m	35m	60m	95m	140m
50W	6m	12m	18m	22m	28m	48m	75m	105m
60W	5m	10m	15m	18m	22m	36m	60m	88m
70W	/	8m	12m	14m	18m	30m	50m	72m
80W	/	6m	10m	11m	14m	24m	40m	58m
90W	/	4m	7m	8m	10m	18m	30m	45m
100W	/	/	5m	6m	7m	12m	22m	32m
110W	/	/	3m	4m	5m	8m	15m	22m
120W	/	/	2m	2.5m	3m	0m	8m	12m

Noted: 1.The values doesn't include the 0.6m cable connected to the front connector.

2.To ensure the reliability of wire connection and avoid problem of voltage drop, the extension wire length should be smaller than the above recommended values.