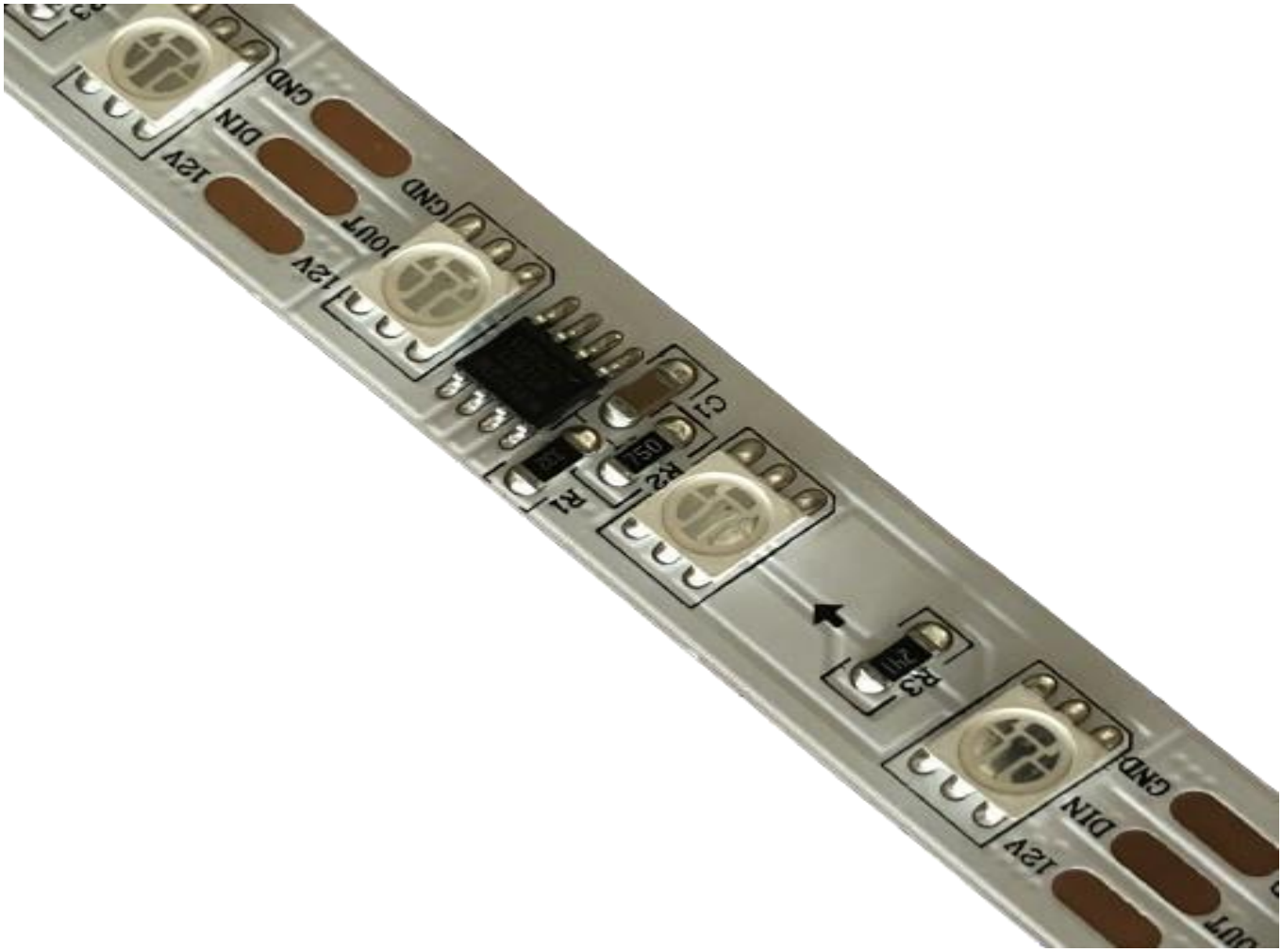
Model No. - 11016010
PIXEL STRIP RGB



Feature

Brightness > 2100mcd, 5050 RGB led lamp with copper bracket and gold wire
2oz pure copper PCB board with10mm width
Double membrane covering the FPCB board for better protection
Standard SPI protocol - WS2811 IC chipset
Cutting unit - 50mm / every 3 led
DC12V, 12W per meter
LED Quantity: 60 pcs per meter
Controller system: Art-Net or off-line or on-line led controller

Parameter

Part No	RL-STR-WS2811-5050RGB-60-12V
LED Chip	Sanan 5050 RGB
Voltage	DC12V
Power	12W/M
PCB quality	2OZ, Double layer, 25um50um copper
LEDs Qty	60 LEDs per meter
Luminance (mcd)	2100MCD per led
IC chip	WS2811
Plug	3 pin female and male connectors
Waterproof Grade	IP20
PCB width	10MM

LED Electro-optical Characteristic

参数 Parameter	符号 Symbol	测试条件 Test Condition	发光颜色 Emitted Color	数值 Value Min	Typ	Max	单位 Unit
主波长 Dominant Wavelength	λd	I_F =20mA	R	620	----	630	nm
			G	515	----	530	
			B	455	----	470	
正向电压 Forward Voltage	Vf	I_F =20mA	R	1.8	----	2.4	V
			G	2.8	----	3.4	
			B	2.8	----	3.4	
发光强度 Luminous Intensity	IV	I_F =20mA	R	500	----	650	mcd
			G	1000	----	1500	
			B	400	----	500	
角度 Viewing Angle	----	----	2θ1/2	----	120	----	deg
反向电流 Reverse Current	V_R =5V		IR	----	----	10	μA

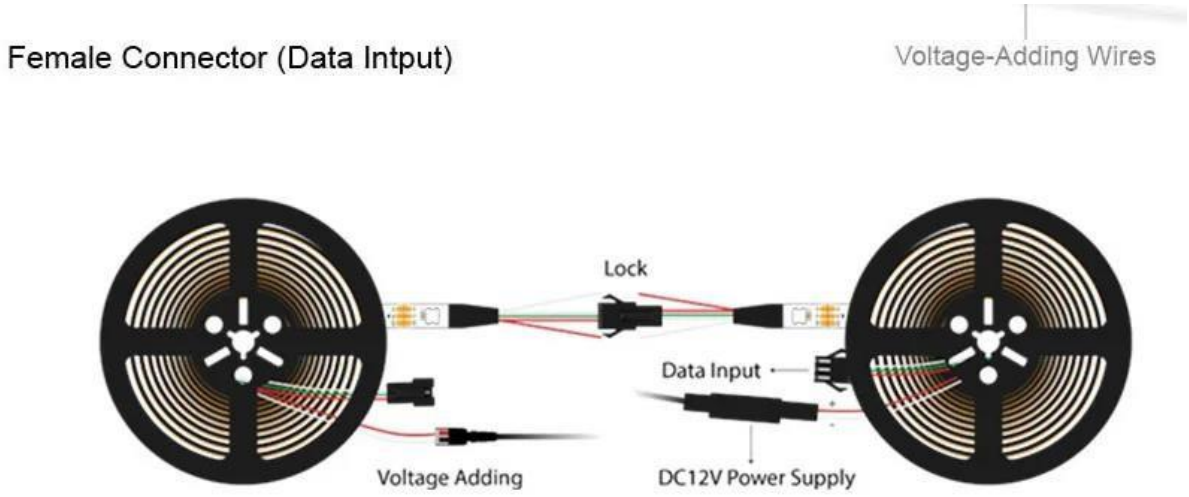
Wavelength Group(IP=20mA, Ta=25C)

红光 Red	Rank	E	F	G
	WLD	615-620	620-625	625-630
绿光 Green	Rank	E	F	G
	WLD	515-520	520-525	525-530
蓝光 Blue	Rank	H	I	J
	WLD	455-460	460-465	465-470

备注：单位 nm，波段测试误差±1　Notes：Unit nm,Wavelength Tolerance is:±1.

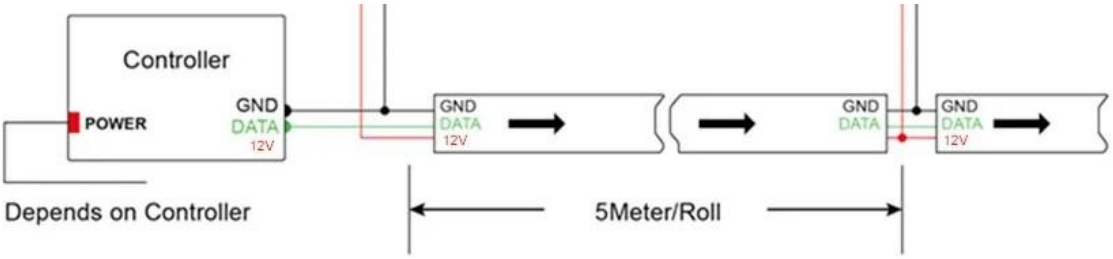
Terminal

There is 3 Pin JST SM female/male connector on both end for signal input/outputand power inputs at ends.
Color definition:
12V -- RED, DI -- GREEN, GND -- WHITE
Input: Female Connector output: male Connector



END TO END CONNECT

- End to End connect
- DC12V Voltage-Adding . It is Better to Add DC 12V Voltage Every 16.4ft or 300EDs, Because the LEDs at the Far End of the Strip Might Be Dimmer.



Test Report

RED

Product Infomation

Product Type: 12V 10mm 1934-60灯RGB-R Product Number: 4

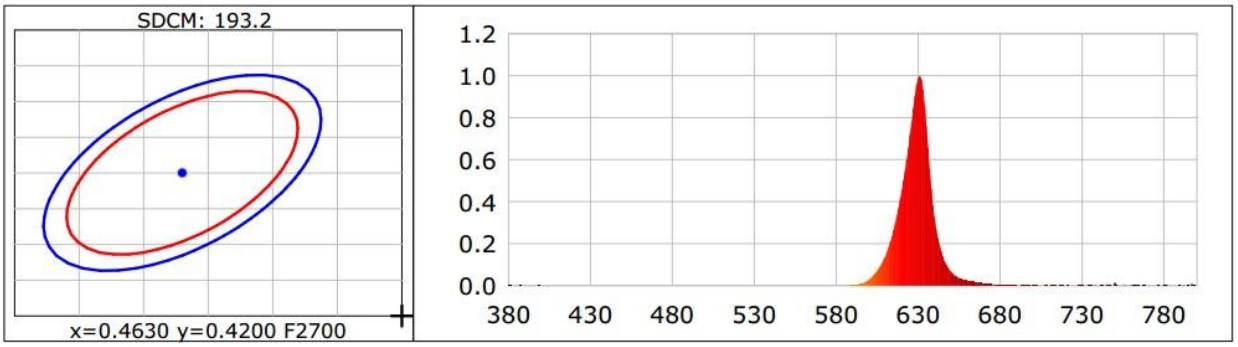
CIE Colorimetric Parameters

Chromaticity coordinates: x=0.6941 y=0.3026 u(u')=0.5296 v=0.3463 v'=0.5194
CCT: Tc=1000K (duv=-0.08185) Color Ratio: R=0.979 G=0.020 B=0.001
Peak Wavelength: 630.9nm Half Bandwidth: 16.7nm
Dominant Wavelength: 623.2nm Color Purity: 0.991
Central Wave: 629.3nm Gravity Wave: 629.9nm
CRI: Ra= 13.6, avgR(1~14)= 7.5, avgR(1~15)= 4.3 TM30: Rf= 7, Rg= -1
GAI: GAI_BB_8=25.1, GAI_BB_15=26.3, GAI_EES=0.2

R1 =6	R2 =79	R3 =31	R4 =-22	R5 =7	R6 =94	R7 =-5	R8 =-80
R9 =-239	R10=73	R11=-4	R12=75	R13=31	R14=60	R15=-40	

Color Quality Scale: Qa= -1.$, Qf= -1.$, Qp= -1.$, Qg= -1.$

Q1 =6	Q2 =13	Q3 =18	Q4 =14	Q5 =12	Q6 =11	Q7 =6	Q8 =1
Q9 =9	Q10=0	Q11=0	Q12=0	Q13=0	Q14=0	Q15=7	



Photometric Parameters

Luminous Flux: 68.381 lm Efficiency: 13.99 lm/W Radiant Power: 0.349 W
Total mains efficacy: 13.99 lm/W Energy Efficiency Class: G (EU 2019/2015)
Auxiliary lamp correction factor: 1.00

Electric Parameters

Voltage: 12.000V Current: 0.4073A Power: 4.89W
Power Factor: 1.0000 Frequency: 0.00Hz

Test Infomation
Scan Range: 380~800:1nm Photometric Method: sphere-spectroradiometer
Stabilization Time: 1 Min ALC.: 1.0000 Photometric Condition: Sphere diameter: 1.50m, 4∏
Max of Signal: 45803 (3394) CCD Integration Time: 640.89 ms

GREEN

Product Infomation

Product Type: 12V 10mm 1934-60灯RGB-G　　Product Number: 4

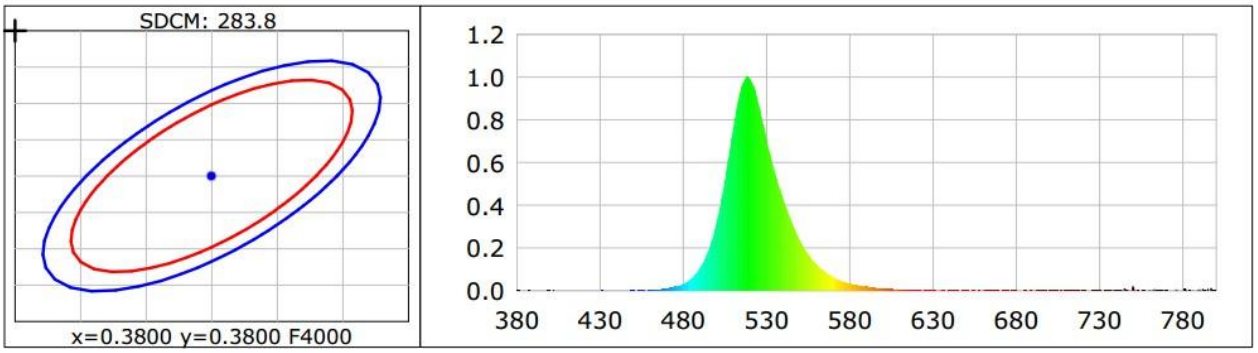
CIE Colorimetric Parameters

Chromaticity coordinates: x=0.1644 y=0.7223　u(u')=0.0580 v=0.3822 v'=0.5733
CCT: Tc=7930K (duv=0.15870)　　Color Ratio: R=0.003 G=0.974 B=0.023
Peak Wavelength: 518.4nm　　Half Bandwidth: 32.5nm
Dominant Wavelength: 525.8nm　　Color Purity: 0.794
Central Wave: 520.8nm　　Gravity Wave: 519.9nm
CRI: Ra=-23.8, avgR(1~14)=-55.4, avgR(1~15)=-53.8　　TM30: Rf= 2, Rg= 9
GAI: GAI_BB_8=0.7, GAI_BB_15=1.1, GAI_EES=0.7

R1 =-34	R2 =-8	R3 =-23	R4 =-65	R5 =-9	R6 =-14	R7 =-5	R8 =-31
R9 =-354	R10=-105	R11=-94	R12=-30	R13=-40	R14=38	R15=-32	

Color Quality Scale: Qa= 0.3, Qf= 0.7, Qp= 0.0, Qg= 5.2

Q1 =2	Q2 =3	Q3 =18	Q4 =37	Q5 =22	Q6 =1	Q7 =0	Q8 =0
Q9 =0	Q10=0	Q11=0	Q12=0	Q13=0	Q14=0	Q15=0	



Photometric Parameters

Luminous Flux: 202.15 lm　　Efficiency: 41.01 lm/W　　Radiant Power: 0.427 W
Total mains efficacy: 41.01 lm/W　　Energy Efficiency Class: G (EU 2019/2015)
Auxiliary lamp correction factor: 1.00

Electric Parameters

Voltage: 12.000V　　Current: 0.4108A　　Power: 4.93W
Power Factor: 1.0000　　Frequency: 0.00Hz

Test Infomation
Scan Range: 380~800:1nm　　Photometric Method: sphere-spectroradiometer
Stabilization Time: 1 Min　ALC.: 1.0000　　Photometric Condition: Sphere diameter: 1.50m, 4π
Max of Signal: 46234 (3400)　　CCD Integration Time: 648.46 ms

Product Infomation

Product Type: 12V 10mm 1934-60灯RGB-B Product Number: 4

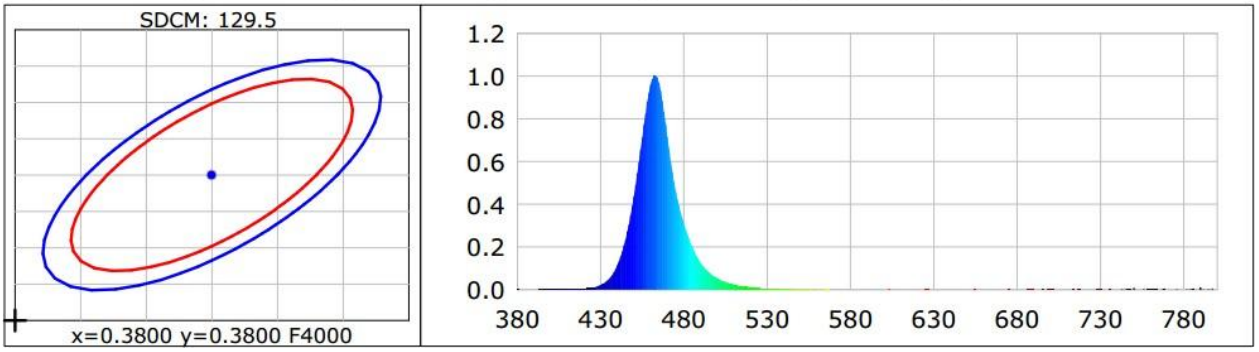
CIE Colorimetric Parameters

Chromaticity coordinates: x=0.1377 y=0.0551 u(u')=0.1627 v=0.0977 v'=0.1465
CCT: Tc=100000K (duv=-0.16922) Color Ratio: R=0.008 G=0.163 B=0.830
Peak Wavelength: 462.7nm Half Bandwidth: 22.9nm
Dominant Wavelength: 474.7nm Color Purity: 0.968
Central Wave: 462.7nm Gravity Wave: 462.8nm
CRI: Ra=-48.5, avgR(1~14)=-80.8, avgR(1~15)=-75.0 TM30: Rf= 1, Rg= 36
GAI: GAI_BB_8=3.2, GAI_BB_15=4.2, GAI_EES=3.5

R1 =-10	R2 =-38	R3 =-131	R4 =-82	R5 =3	R6 =-51	R7 =-44	R8 =-33
R9 =-261	R10=-214	R11=-113	R12=-100	R13=-28	R14=-27	R15=7	

Color Quality Scale: Qa= 8.2, Qf= 11.1, Qp= 2.3, Qg= 27.2

Q1 =62	Q2 =35	Q3 =8	Q4 =13	Q5 =33	Q6 =63	Q7 =86	Q8 =32
Q9 =1	Q10=0	Q11=0	Q12=0	Q13=2	Q14=8	Q15=50	



Photometric Parameters

Luminous Flux: 47.656 lm Efficiency: 9.63 lm/W Radiant Power: 0.745 W
Total mains efficacy: 9.63 lm/W Energy Efficiency Class: G (EU 2019/2015)
Auxiliary lamp correction factor: 1.00

Electric Parameters

Voltage: 12.000V Current: 0.4126A Power: 4.95W
Power Factor: 1.0000 Frequency: 0.00Hz

Test Infomation
Scan Range: 380~800:1nm
Stabilization Time: 1 Min ALC.: 1.0000
Max of Signal: 45781 (3168)
Photometric Method: sphere-spectroradiometer
Photometric Condition: Sphere diameter: 1.50m, 4∏
CCD Integration Time: 259.77 ms

WHITE

Product Infomation

Product Type: 12V 10mm 1934-60灯RGB-全亮　　Product Number: 4

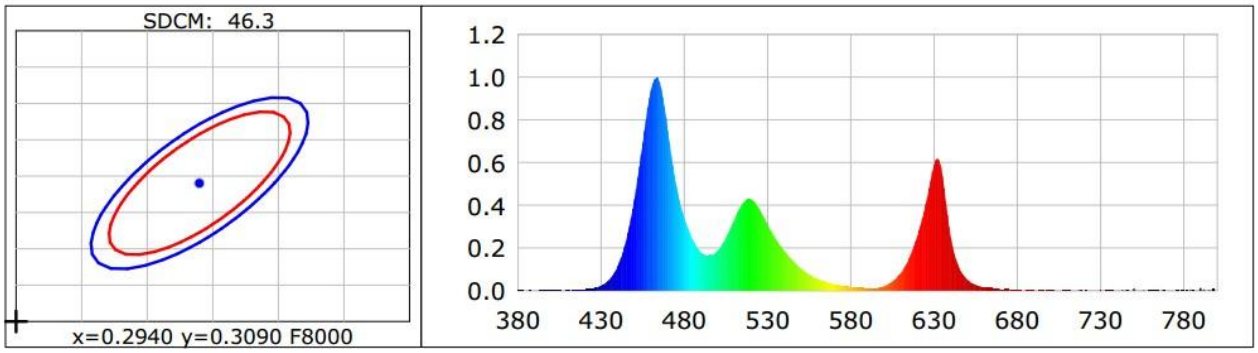
CIE Colorimetric Parameters

Chromaticity coordinates: x=0.2308 y=0.2337　u(u')=0.1728 v=0.2625 v'=0.3937
CCT: Tc=100000K (duv=-0.00860)　　Color Ratio: R=0.201 G=0.657 B=0.142
Peak Wavelength: 463.6nm　　Half Bandwidth: 23.5nm
Dominant Wavelength: 477.5nm　　Color Purity: 0.441
Central Wave: 463.2nm　　Gravity Wave: 463.4nm
CRI: Ra= 53.0, avgR(1~14)= 32.7, avgR(1~15)= 31.6　　TM30: Rf= 56, Rg= 102
GAI: GAI_BB_8=130.9, GAI_BB_15=129.4, GAI_EES=142.5

R1 =39	R2 =59	R3 =75	R4 =62	R5 =61	R6 =61	R7 =60	R8 =7
R9 =-210	R10=5	R11=54	R12=63	R13=39	R14=82	R15=16	

Color Quality Scale: Qa= 58.3, Qf= 48.8, Qp= 76.9, Qg=123.7

Q1 =61	Q2 =70	Q3 =79	Q4 =69	Q5 =86	Q6 =90	Q7 =81	Q8 =74
Q9 =73	Q10=49	Q11=28	Q12=22	Q13=40	Q14=73	Q15=57	



Photometric Parameters

Luminous Flux: 302.16 lm　　Efficiency: 26.97 lm/W　　Radiant Power: 1.437 W
Total mains efficacy: 26.97 lm/W　　Energy Efficiency Class: G (EU 2019/2015)
Auxiliary lamp correction factor: 1.00

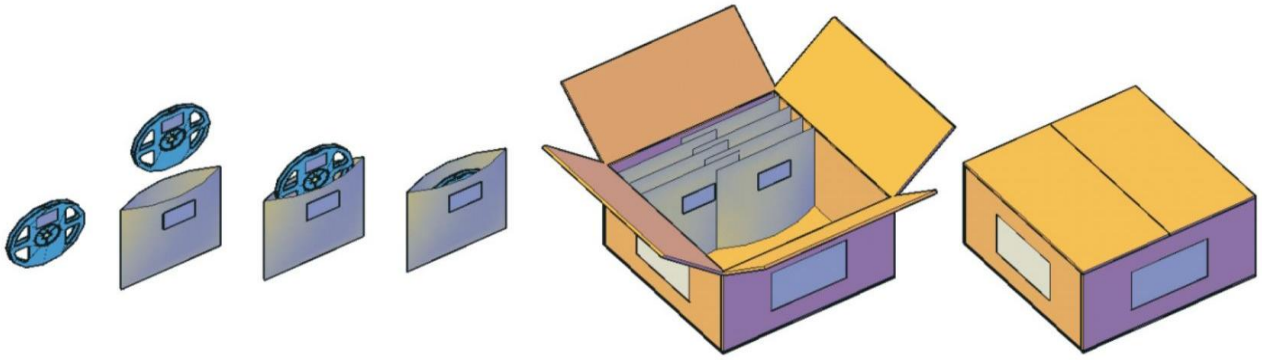
Electric Parameters

Voltage: 11.999V　　Current: 0.9336A　　Power: 11.20W
Power Factor: 1.0000　　Frequency: 0.00Hz

Test Infomation
Scan Range: 380~800:1nm
Stabilization Time: 1 Min　ALC.: 1.0000
Max of Signal: 43119 (3171)

Photometric Method: sphere-spectroradiometer
Photometric Condition: Sphere diameter: 1.50m, 4π
CCD Integration Time: 260.11 ms

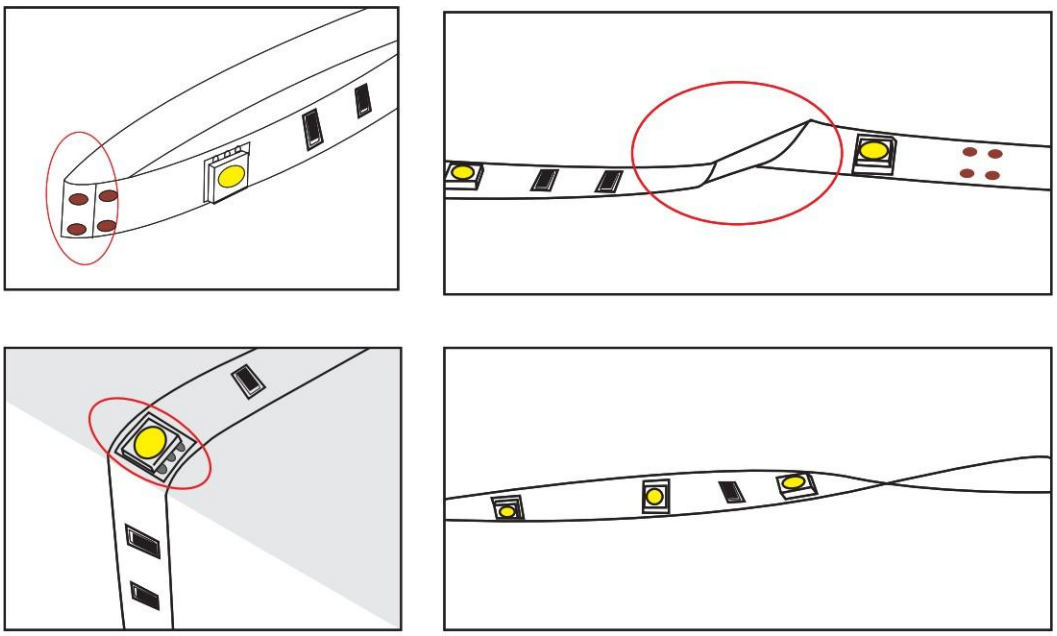
Packaging Images:



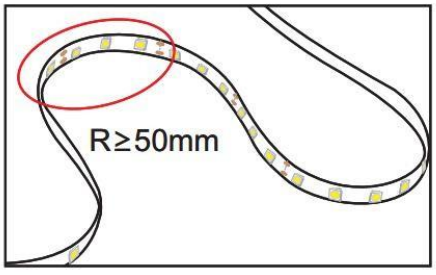
Note:
1.One aluminium Foil Bag for one roll of LED strip, 5M/roll.2.All the packaging materials are RoHS standard.
3.Heavy stuff are not allowed to be loaded above the packaging box.

Cautions:

- When install the led strip , please note the installation technique. The led strip can be bent, but not distorted, as shown below:



Distortion(Wrong)



Bend(Right)

- LED strips are low voltage products, you must use the power supply(transformer). Please don't connect the led strip directly to the AC110 or AC220V, otherwise it will burn out the LED strips.
- Clean up the installation surface, it will ensure the reliability of the adhesive.
- The electrical connection process must be operated by a professional person.