SUNRISE(HK)INTERNATIONAL CORP LTD

SkyLight

We drive your imagination

SURISE (HK) INTERNATIONAL CORP LTD.
Tel: +86 0755 8271 3147
Email: info@linksunrise.com
Web:www.ledskylight.com
Add: Room 2705AB SEG. Plaza Hua Qiang Road,
Futian District Shenzhen

EPISTAR

LM-80

CATALOG 2018

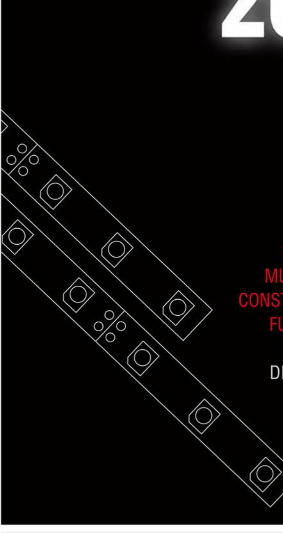
MORE THAN LIGHT

LISTED
SkyLight
5 YEARS Warranty
135 lm/W
CRI 95+

SkyLight

We drive your imagination

Start from 2008



2216 SERIES
2835 SERIES
3528 SERIES
315/335 SERIES
5050 SERIES
5730 SERIES
HIGH CRI SERIES
MULTI-COLOR SERIES
CONSTANT CURRENT SERIES
FUNCTIONAL SERIES
HIGH EFFICIENCY
DIFFERENT IP RATES
CONNECTOR
PROFILE
CONTROLLER

2216 SERIES STRIP LIGHT

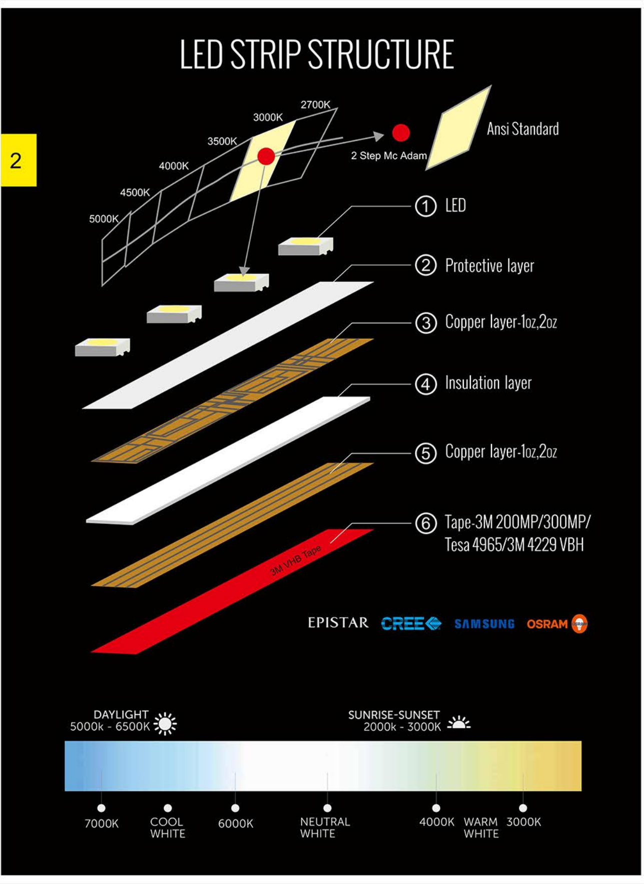
	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
D60108	10	25	24	280	20	1740	87
D60108-R	10	50	24	280	20	1740	87

2835 SERIES STRIP LIGHT

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
B30108	8	100	12	30	7	630	90
B48108	8	62.5	12	48	11	990	90
B60208	8	100	24	60	13	1170	90
B60108-G	8	50	12	60	13	/	/
B60208	8	100	24	60	13	1170	90
B78108	8	38.5	12	78	16.8	1512	90
B78208	8	77	24	78	16.8	1512	90
B84110	10	35.7	12	84	18	1620	90
B96210	10	62.5	24	96	20	1800	90
B120210	10	50	24	120	22	1980	90
B120212	12	50	24	120	22	1980	90
B224212	12	31.2	24	224	24	2070	90
B240212	12	25	24	240	26	2340	90

Color Options: 🟥Red 🟩Green 🟦Blue 🟪UV

LED STRIP STRUCTURE



3528 SINGLE COLOR SERIES

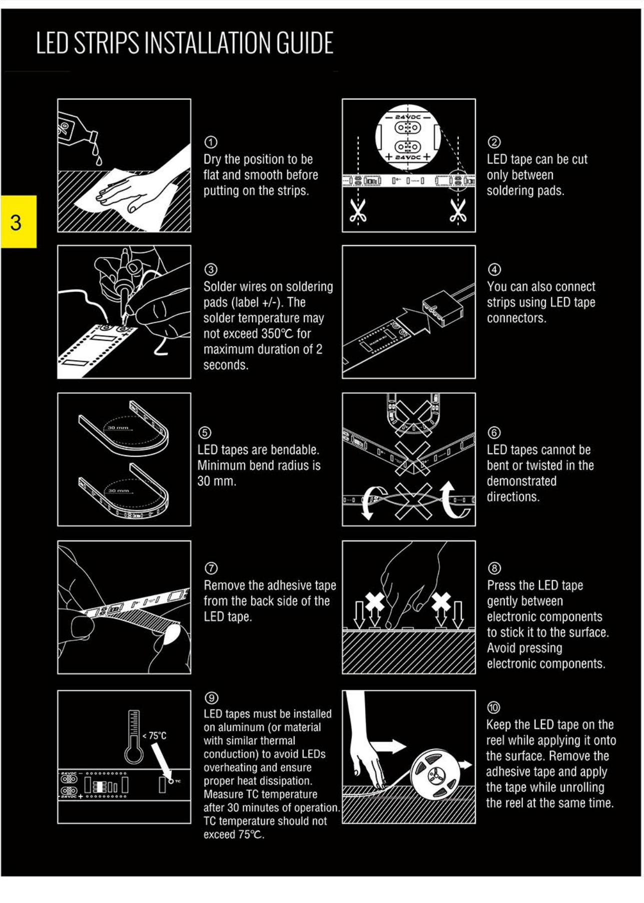
	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
D60108	8	50	12	60	4.2	294	70
D60108-R	8	50	12	60	4.2	/	/
D60108	8	50	12	60	4.2	294	70
D60208	8	100	24	60	4.2	294	70
D78108	8	38.4	12	78	6.2	434	70
D78208	8	76.9	24	78	6.2	434	70
D120108	8	25	12	120	9.6	672	70
D120208	8	50	24	120	9.6	672	70
D240210	10	25	24	240	19.2	1344	70
D240212	12	25	24	240	19.2	1344	70

315/335 SIDE VIEW SERIES

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
H140210	10	50	24	140	9.6	576	60
H140210-CC	10	100	24	140	9.6	576	60
I60108	8	50	12	60	4.8	240	50
I120108	8	25	12	120	9.6	480	50

Color Options: 🟥Red 🟩Green 🟦Blue 🟪UV

LED STRIPS INSTALLATION GUIDE



① Dry the position to be flat and smooth before putting on the strips.

② LED tape can be cut only between soldering pads.

③ Solder wires on soldering pads (label +/-). The solder temperature may not exceed 350°C for maximum duration of 2 seconds.

④ You can also connect strips using LED tape connectors.

⑤ LED tapes are bendable. Minimum bend radius is 30 mm.

⑥ LED tapes cannot be bent or twisted in the demonstrated directions.

⑦ Remove the adhesive tape from the back side of the LED tape.

⑧ Press the LED tape gently between electronic components to stick it to the surface. Avoid pressing electronic components.

⑨ LED tapes must be installed on aluminum (or material with similar thermal conduction) to avoid LEDs overheating and ensure proper heat dissipation. Measure TC temperature after 30 minutes of operation. TC temperature should not exceed 75°C.

⑩ Keep the LED tape on the reel while applying it onto the surface. Remove the adhesive tape and apply the tape while unrolling the reel at the same time.

5050 SINGLE COLOR SERIES

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
F30110	10	100	12	30	7	546	78
F48110	10	62.5	12	48	11	858	78
F60210	10	100	24	48	11	858	78
F60110	10	50	12	60	14	1092	78
F60110	10	50	12	60	14	1092	78
F60110	10	50	12	72	17	1326	78
F96213-30	13.5	62.5	24	96	23	1794	78

5730 SINGLE COLOR SERIES

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
G36110-30	10	166.6	12	30	10	930	93
G60110-30	10	50	24	60	16	1488	93
G60210	10	100	12	60	16	1488	93
G60212	12	100	24	60	20	1860	93
G72212	12	83.3	24	72	24	2232	93

Color Options: 🟥Red 🟩Green 🟦Blue 🟪UV

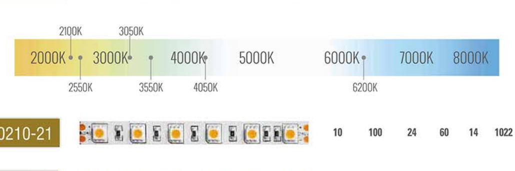
COLOR RENDERING INDEX

CRI 95+

The CRI is higher,
and the color is more natural.
Full range of COLORS LED are with CRI >95,
presenting the true color for you.

CRI95+ SERIES

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
B60210-21	10	100	24	60	12	840	70
B60210-25	10	100	24	60	12	852	71
B60210-30	10	100	24	60	12	864	72
B60210-35	10	100	24	60	12	876	73
B60210-40	10	100	24	60	12	888	74
B60210-62	10	100	24	60	12	900	75



	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
F60210-21	10	100	24	60	14	1022	73
F60210-25	10	100	24	60	14	1036	74
F60210-30	10	100	24	60	14	1050	75
F60210-35	10	100	24	60	14	1064	76
F60210-40	10	100	24	60	14	1078	77
F60210-62	10	100	24	60	14	1092	78

30LED
60LED
120LED

3535 RGB

Pure color, mini LED, High density 120LED/M.

RGB+CCT

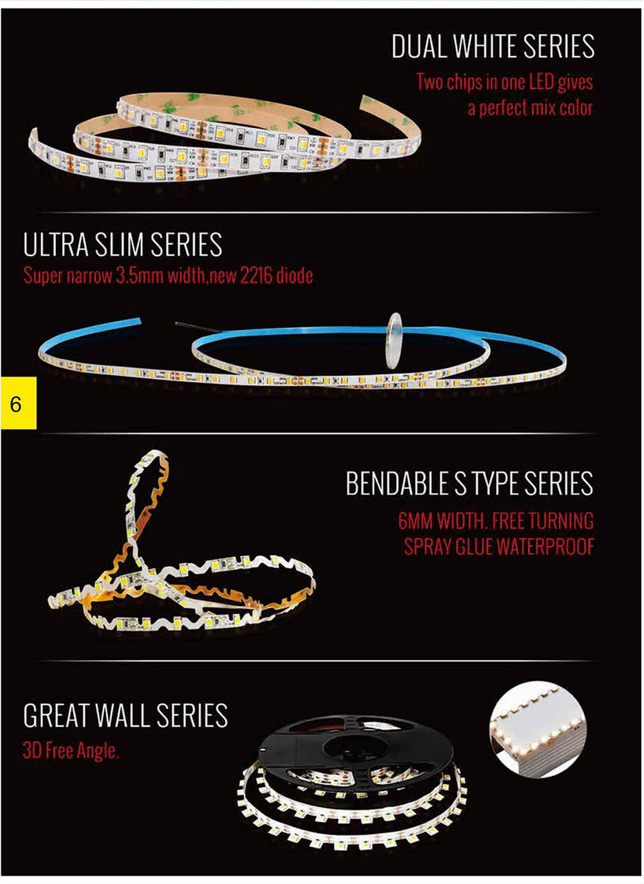
Multiple Colors

RGB FULL COLOR SERIES

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
E30110-RGB	10	100	12	30	7.2	/	/
E60110-RGB	10	50	12	60	12	/	/
E60210-RGB	10	100	24	60	12	/	/
E120210-RGB	10	50	24	120	24	/	/
F30110-RGB	10	100	12	30	7	/	/
F60110-RGB	10	50	12	60	14	/	/
F96213-RGB	13.5	62.5	24	96	23	/	/
F120220-RGB	20	50	24	120	28	/	/

RGBW ADJUSTABLE SERIES

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
F60112-RGB30-4in1	12	50	12	60	14.4	/	/
F60112-RGB40-4in1	12	50	12	60	14.4	/	/
F60112-RGB30	12	100	12	60	14.4	/	/
F60112-RGB40	12	100	12	60	14.4	/	/
F60112-RGB60	12	100	12	60	14.4	/	/
F96213-RGB30	13.5	125	24	96	23	/	/
CF180215-RGBCCT	15	100	24	180	27	/	/



DUAL WHITE SERIES

Two chips in one LED gives a perfect mix color

ULTRA SLIM SERIES

Super narrow 3.5mm width,new 2216 diode

BENDABLE S TYPE SERIES

6MM WIDTH, FREE TURNING
SPRAY GLUE WATERPROOF

GREAT WALL SERIES

3D Free Angle.

DUAL WHITE COLOR SERIES

	QTY/M	Voltage	W(mm)	Segment	W/M	Lm/M	Lm/W
F60110-CCT-2in1	60	12	10	50	14.4	1080	75
J60108-CCT-2in1	60	12	8	50	12	960	80
J120210-CCT-2in1	120	24	10	50	20	1600	80
D120110-CCT	120	12	10	50	9.6	672	70
B120110-CCT	120	12	10	50	24	2160	90
F96213-CCT	96	24	13.5	125	23	1725	75

ULTRA SLIM SERIES

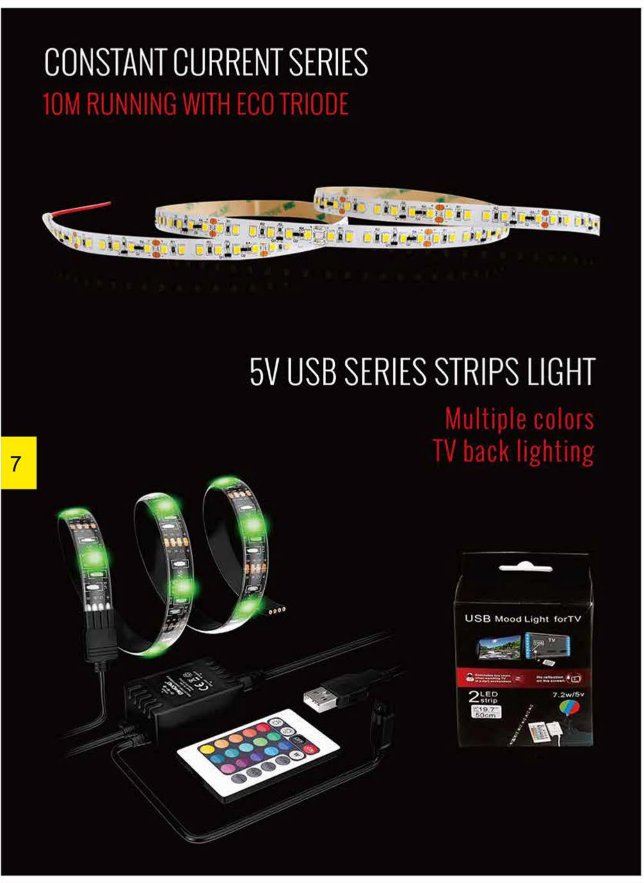
	QTY/M	Voltage	W(mm)	Segment	W/M	Lm/M	Lm/W
A140203-30	140	24	3.5	50	10	800	80
A140203-40	140	24	3.5	50	10	820	82
A140203-60	140	24	3.5	50	10	850	85
B78103	78	12	3.5	38.4	8	600	75
B60104	60	12	4.5	50	5	375	75
B120205	120	24	5	50	9.6	720	75
B168205	168	24	5	41.6	18	1350	75
G70205-CC	70	24	5	100	15	1800	120

BENDABLE S TYPE SERIES

	QTY/M	Voltage	W(mm)	Segment	W/M	Lm/M	Lm/W
B60106-S	60	12	6	50	6	360	60
B60108-S	60	12	8	50	8	520	65
B60106-S IP54	60	12	6	50	6	360	60

GREAT WALL SERIES

	QTY/M	Voltage	W(mm)	Segment	W/M	Lm/M	Lm/W
B120206-G	120	24	6	50	10	800	80



CONSTANT CURRENT SERIES

10M RUNNING WITH ECO TRIODE

5V USB SERIES STRIPS LIGHT

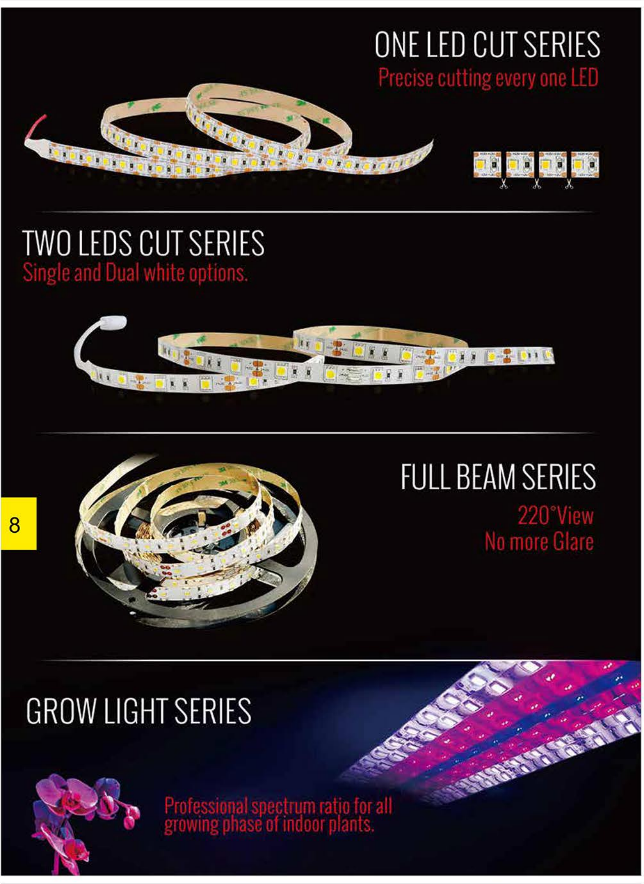
Multiple colors
TV back lighting

CONSTANT CURRENT SERIES

	QTY/M	Voltage	W(mm)	Segment	W/M	Lm/M	Lm/W
B30210-CC	30	24	10	200	6	540	90
B60210-CC	60	24	10	100	12	1080	90
B70210-CC	70	24	10	100	14	1260	90
B120210-CC	120	24	10	50	22	1980	90
B140210-CC	140	24	10	50	26	2340	90
F40210-CC	40	24	10	50	9	720	80
F60210-CC	60	24	10	100	14	1190	85
G70205-CC	70	24	5	100	15	1425	95
G126212-CC	126	24	12	55.5	26	2470	95

5V USB SERIES

	QTY/M	Voltage	W(mm)	Segment	W/M	Lm/M	Lm/W
B60508	60	5	8	10	6	420	70
B60508-R	60	5	8	10	6	/	/
F30510-RGB	30	5	10	33.3	7	/	/



ONE LED CUT SERIES

Precise cutting every one LED

TWO LEDS CUT SERIES

Single and Dual white options.

FULL BEAM SERIES

220°View
No more Glare

GROW LIGHT SERIES

Professional spectrum ratio for all growing phase of indoor plants.

ONE LED CUT SERIES

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
B100110-30	10	10	12	100	22	1936	88
B100110-40	10	10	12	100	22	1958	89
B100110-50	10	10	12	100	22	1980	90

TWO LEDS CUT SERIES

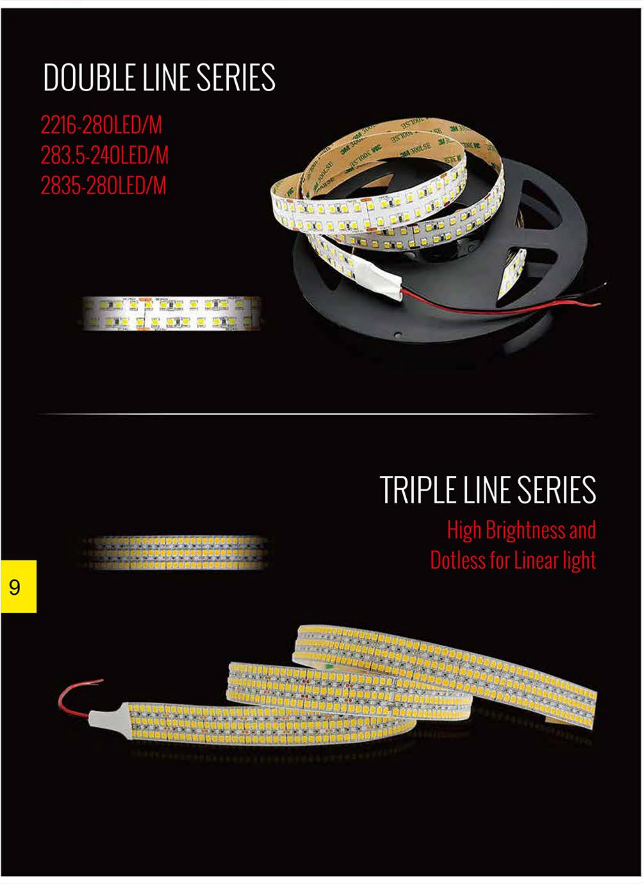
	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
F40210	10	50	24	40	8	640	80
F40110-CCT	10	50	12	40	8	640	80
F72210	10	27.7	24	72	17	1360	80

FULL BEAM SERIES

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
K120208	8	50	24	120	20	1700	85
BH180212	12	100	24	180	18	1350	75

GROW LIGHT SERIES

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
B60210-R	10	100	24	60	12	/	/
B60210-B	10	100	24	60	12	/	/
B60210-RW	10	100	24	60	12	/	/
B60210-RB	10	100	24	60	12	/	/
B60210-P	10	100	24	60	12	/	/
B60210-P	10	50	24	120	20	/	/



DOUBLE LINE SERIES

2216-280LED/M
2835-240LED/M
2835-280LED/M

TRIPLE LINE SERIES

High Brightness and
Dotless for Linear light

DOUBLE LINE SERIES

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
D240215	15	50	24	240	19.2	1440	75
B240214	15	50	24	240	24	2040	85
B280220	20	50	24	280	28	2380	85
B120220	20	50	24	120	24	1920	80

TRIPLE LINE SERIES

	W(mm)	Segment	Voltage	QTY/M	W/M	Lm/M	Lm/W
B420230	30	50	24	420	40	4800	120
B792222	22	22.7	24	792	52	5200	100

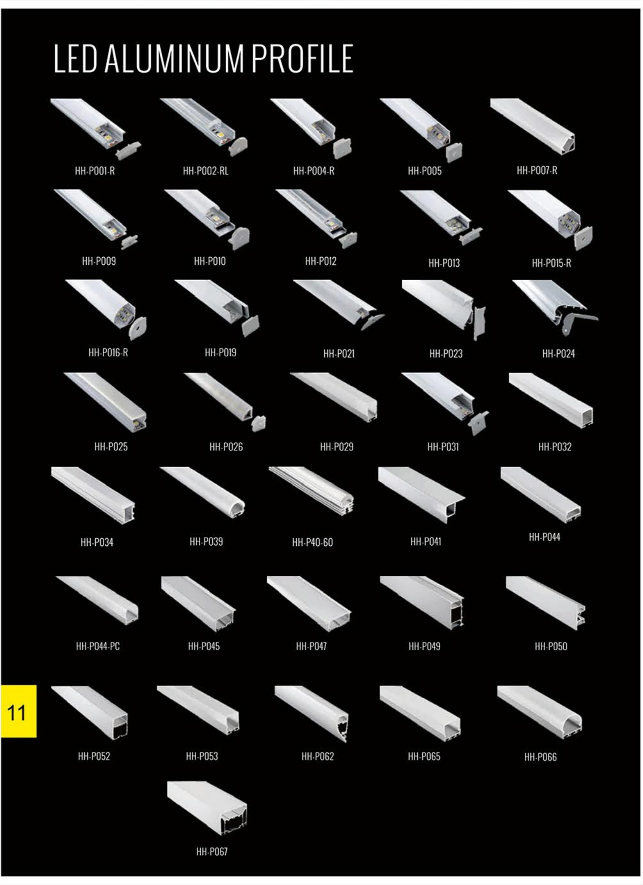
ADHESIVE TAPE

	Adhesive Thickness mils(mm)	Adhesion to Stainless Steel	
3M 200MP	5.2mils (0.13mm)	7.0N/CM	Normal Indoor use
3M 300MP	4.8mils (0.12mm)	8.6N/CM	Normal Indoor use
3M 9080 Tape	12.8mils (0.32mm)	7.5N/CM	Normal Indoor use
3M 4229 Tape	30.4mils (0.76mm)	20.0N/CM	For Waterproof Strips
Tesa 4965	8.2mils (0.205mm)	14.0N/CM	For Aluminum Profile
Blue Tape	4.0mils (0.10mm)	6.0N/CM	For High Wattage Strips

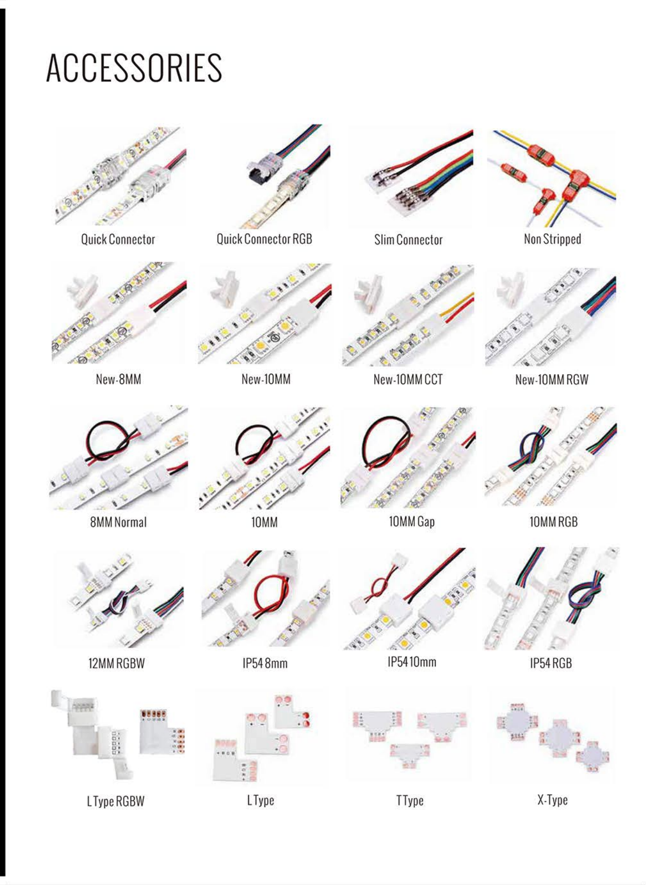
IP RATING

IP54-PU	PU Glue On The Surface
IP54-SI	Silicone Glue On The Surface
IP54-SP	Spray Silicone Glue On The Surface
IP54-ST	Silicone Tube On The Surface
IP65-ST	Silicone Tube On Both Sides
IP65-HT	HeatShrink Tube On Both Sides
IP65-Nano	Nano Coating
IP67-HI	Hollow Integrated Silicone Glue
IP68-SI	Solid Integrated Silicone Glue

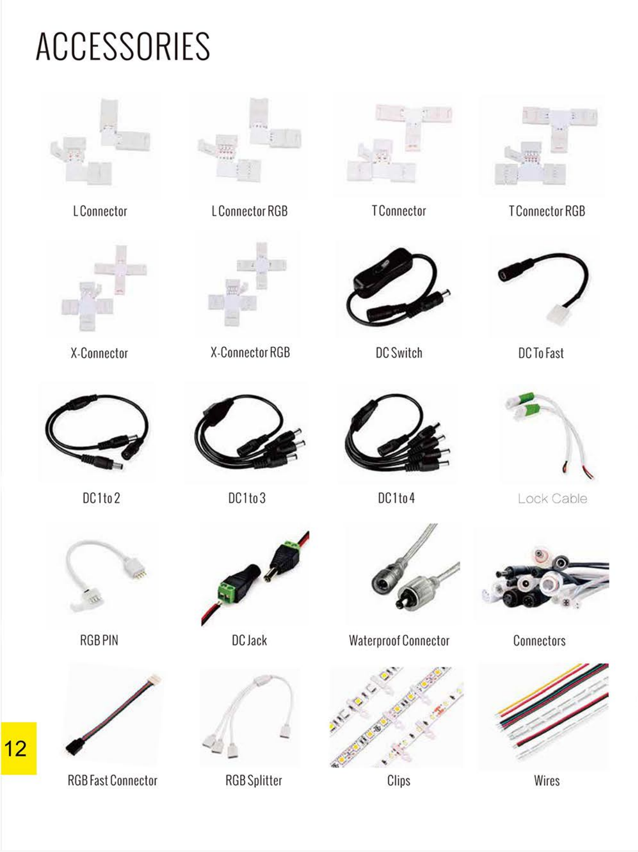
LED ALUMINUM PROFILE



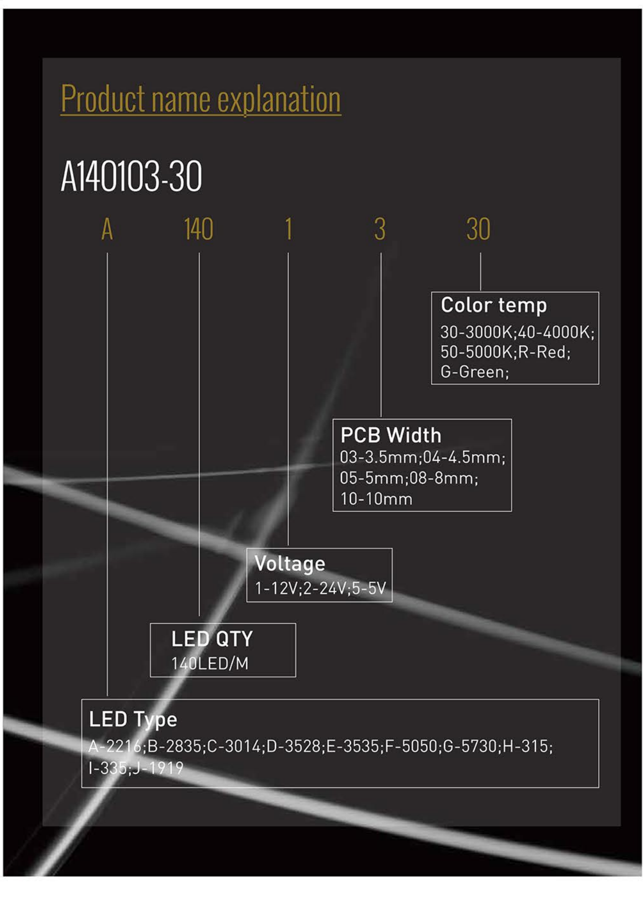
ACCESSORIES



ACCESSORIES



Product name explanation



A140103-30

A 140 1 3 30

Color temp
30-3000K;40-4000K;50-5000K;R-Red;G-Green;

PCB Width
03-3.5mm;04-4.5mm;05-5mm;08-8mm;10-10mm

Voltage
1-12V;2-24V;5-5V

LED QTY
140LED/M

LED Type
A-2216;B-2835;C-3014;D-3528;E-3535;F-5050;G-5730;H-315;I-335;J-1919

LED Strip - Frequently Asked Questions

What is LM-80?

The LM-80 is one such standard. LM-80 refers to a method for measuring the lumen depreciation of solid-state lighting sources, such as LED packages, modules and arrays. LM-80 was created by members of IES including Philips Lumileds.

What is TM21?

The TM-21 standard picks up where LM-80 left off. Since LED sources are capable of lifetimes well beyond 6,000 hours, TM-21 establishes a standard way to use LM-80 data to make consistent lifetime projections beyond the testing period. TM-21 dictates which values can be used in the calculation based on the sample size, number of hours and intervals tested, and test suite temperature.

What is L90B10@10,000hours?

L defines the percentage of lumen comparing with the initial lumens, B value means the failure data at the L data. So LB value indicate the real lifetime at a certain hours.

How small bin can we supply?

1 Bin will be the smallest we can source, but normally there will be 2-3 bins used inside the products if there is no specified.

How small mac adam ellipse can we supply?

The minimum we are doing inside the company was 2.5 steps, standard price in the pricelist was around 4-5 steps, economic type will be at 6 steps.

How small color temperature ranges can we supply?

CCT	2700K	3000K	4000K	5000K	6000K
Minimum ranges	2650-2750K	2925-3075K	4000-4200K	5000-5300K	6000-6300K
Typical ranges	2600-2800K	2800-3200K	4000-4500K	5000-5500K	6000-6500K

PCB color:

Now we mostly do the strips with white PCB. If you need other colors ,we can also make the PCB color with yellow and black.

Waterproof grade:

We can do different waterproof ways for the LED strips for variable use:

IP54-PU
IP54-SI
IP54-SP
IP54-ST
IP65-ST
IP65-HT
IP65-Nano
IP67-HI
IP68-SI

- IP20: Non-waterproof;
- IP54 PU PU glue on the surface.
- IP54 SI Silicone glue on the surface.
- IP54 SP Spray Silicone Glue on the surface.
- IP65 ST Silicone tube on both sides.
- IP65 HT Heat Shrink tube on both sides.
- IP65 Nano Nano Coating on the surface.
- IP67 HI Hollow Integrated Silicone glue.
- IP68 SI Solid Integrated Silicone glue.

What is the difference between PU and silicone glue?

A) Cold and high temperature resistance
PU(polyurethane) has a good low temperature resistance, but not resistant to high temperature; while silicone glue with good heat resistance and good low temperature resistance.
B) UV resistance
In the presence of UV light, an organic material(Polyurethane) will eventually revert to it's natural state, thus changing properties and deteriorating over time, an inorganic(silicone) will not.
C) Yellow degeneration
The PU glue has a little yellow degeneration as time goes, while silicone glue has no yellow degeneration.
D) Lifespan
Chemically, the organic material(polyurethane) will bread down when expose to high temperature or UV, so the lifetime is shorter than silicone glue.

How is heat shrink pipe works in led strips?

Working condition at -55 to 125 degree, 3 minutes shrinking at 200 degree according to UL224 standard. Color at Transparent with options at Black, Red, Blue, Yellow at customization. Heat shrink Pipe was made of PET, Anti-Electric below 600V, Anti-Fire Ratio at VW-1.

What is CCT shifting and how to control it?

All of the color temperature will be shift by any cover in front of the LEDs, different Glue will have different influence on the whole temperature of LED strips, the shifting curve can be referred by detailed.

What is the max width of the PCB for heat shrink pipe?

When using heat shrink pipe on the led strips, the max width is 13.5mm. For 15mm or above, the pipe make the led strips out of shape.

What LED chip are we use?

EPISTAR

The LEDs on our LED Strip are from by an established (1996) Manufacturer in Taiwan called Epistar, The LEDs have proved themselves to have a long lifetime and are of very high quality, a lifetime of at least 50,000 hours can be expected. Many of the cheaper LED Strips and Strips use LEDs which from the outside look identical to the Epistar LEDs but they are cheap Chinese copies with poor internal materials which give rise to a short lifespan. The LEDs on these cheap strips are usually mounted to a very thin circuit board with copper tracks which do not adequately dissipate the heat away from the LEDs further shortening the lifetime of the product. Most of these LED Strips are designed for short term use such as festival and holidays.
The cheap Chinese LED Strips can also have LEDs which are poorly graded for color consistency so the color along the length of the same strip can look very uneven, for example some LEDs may appear a different white color to others which can look blue or warm white in color. For long term use and professional installation our LED Strip is a much wiser choice.

What does CRI mean and why is CRI important in led lighting?

Can't tell the difference between the black and navy colored socks in your walk in closet? Could be that your current lighting source has a very low CRI! Not all light is made equal; some light renders color better than others. Color Rendering Index (CRI) is the measurement of how colors look under a light source when compared with sunlight. The index is measured from 0-100, with a perfect 100 indicating that colors under the light source appear the same as they would under natural sunlight.
Full range of our LED strips are with CRI >95, presenting the true color for you.

White(High CRI>95)
Our CRI 95+ Strip

What is the difference between CRI and Ra?

The calibration R1 - R15 color sample, is the R1 - R15 color rendering and when a light source compared with reference standard light source, the index value is 100%.
The general color rendering index (Ra) is just calibrated R1-R8.

What is the flip chip?

One way to encapsulate the LED Chips into the Pad of SMD, advantage will be better heat emitting and less failure ratio of LEDs.

What certificate do we have?

We have the CE RoHS certificate for the European clients and also get UL/CUL listed for the American & Canada clients.
UL file No. E476561.

Can I solder the led strips?

Yes, you can solder wire to any of the copper ports to connect strips together.

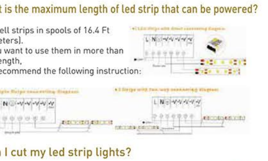
copper ports

Can I use a battery to power the light strips?

Yes, you can power our strip lights with any 5v/12v/24v power source.

What is the maximum length of led strip that can be powered?

We sell strips in spools of 16.4 Ft (5 meters).
If you want to use them in more than 5M length,
we recommend the following instruction:



Can I cut my led strip lights?

Yes. You can cut the strips with a regular, household scissor at any of the marked cut lines. These lines are designated on the strip by a solid line with the image of a scissor right next to it.

If I connect the strip backwards (+) to (-) and (-) to (+) will that ruin the strip?

No. LEDs are diodes so they only let power through in one direction. Simply reverse the wires and the strip will work fine.

Can the strips be used in high temperature areas?

No. While LEDs are quite durable and will work great in most any environment, heat is the main cause for shortened LED lifespan. Therefore, the cooler you can keep the LEDs, the longer they will last (if you can keep them below 80°C you should get the rated life out of them). With this in mind, leaving them on for extended periods of time while on the reel or bunched up in a confined space will shorten their lifespan.

Can led strip and led strips be dimmed?

Yes, but this should be done by using one of our dimmers between the LED Strip and the output of the Power Supply. It should not be dimmed from a standard wall dimmer.

How many warranty years for the led strips?

We offer 1yr warranty for our eco-type led strips, 2yr warranty for our standard LED strips and 3yr warranty for our premium led strips.

What tape do you used in the led strips?

We have yellow and white 3M tape for the strips and also the Tesa tape to get a strong viscous when paste inside the aluminum profile.

What is the series of the 3M/tesa tape used in the led strips?

Normally, we use 3M 300MP, Tesa 4965 in our led strips. However, 3M 200MP and VHB also available.

Which tape has the strongest stickiness?

Usually, the stickiness ranks as: 3M VHB>Tesa 4965> 3M 300MP.

What is the voltage dropping?

Voltage is always dropping by transmitting of current decided by the transmitting material and the size of material, Copper is the best options to transmit current up till now.

How to decrease the voltage dropping?

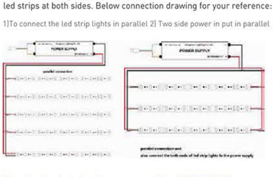
a. Increase the thickness of Copper Layer to make the current transmit quicker or bigger to improve the voltage dropping.
b. Using the electric way to boost the voltage at each section or boost the current at each section, we are using constant current Triode and constant current IC to improve the voltage dropping or make the beginning and end of strips at the same brightness output.
c. Recommend the higher voltage input version instead of lower voltage input version. 24VDC LED strips will definitely better than the 12VDC strips at 5 meters run..

	Beginning of 5 Meters	End of 5 Meters	Voltage Dropping Ratio
24VDC 2 Ounce Copper Layer	24VDC	22.3VDC	7%
12VDC 2 Ounce Copper Layer	12VDC	10.4VDC	13%

Tips on how to reduce voltage dropping in leed strip installation:

One is connecting the led strips in parallel, the other one is power the led strips at both sides. Below connection drawing for your reference:

1)To connect the led strip lights in parallel 2) Two side power in put in parallel



Can the led strips be powered by 12/24VAC?

Most of the LED Strips we are manufacturing are working at DC version, DC shorts for Direct Current, AC shorts for Alternative Current; There is will be AC to DC converter or rectifier required if the existing power source is AC output.

How strong of magnetic strips Sticker?

The stickiness about the magnetic stirp is about 3.8g/cm2.

What kits options do I have?

According to the color, there are 4 options: Single color kit, RGB kit, RGBW kit and color temperature adjustable kit.
According to the package, there are 2 options: Blister and Color-Box.

Special Improvement

If need special improvement on part of the parameters, like CRI or Lumens, we customized the products to meet your need.

Can I print my Logo on the PCB?

Yes, we can print your logo on the strips and the MOQ is 500M for one type to print the logo, if the quantities is below 500M, we will charge 50USD per item for PCB redesigning.

There will be two ways to achieve the Logo Printing:
1. Laser Machine Carving:
We have the Laser Carving machine can do with the Logo on the PCB, the Logo Color depends on the surface of raw material instead client can choose the Color.
2. Silk Printing: we give the graphic file to PCB supplier to let them print the Logo on the PCB, please confirm the Photo Clips from Supplier before you move on with the final production. Black, White, Red Color is the standard Ink in PCB supplier that can be used as the Logo Color, Duo-Color of Logo will be complicated and require more time. Below is the silk printing of UL logo FYI.

Design for anti-static bags

Usually we used the neutral silver plastic bag and put the label with specification in the middle of the bag. The design on the anti-static Bags is also customized.

SMD by economic and standard

Economic SMD cost less compared to standard SMD, but the standard SMD has a better performance.

Width of PCB

For 3528 and 2835 strip, the range is 5/8/15mm.For 5050 strip, the range is 10/20mm.For 5630 strip, the rang is 10/12/13.5mm. For 333 and 3014, the range is 8/10mm.

Why the rated watts different to actual watts?

We are always using the rated watts on the label if our customer does not specify that, which occur the confusion and misunderstanding that customer complain the rated watts is not matching with actual watts with too much difference.
The Rated watts are theoretical values calculated under ideal circumstance. During the lighting fixtures are working, every component of these fixtures have resistors, the resistors leads to voltage dropping. We know P=U*I, when the voltage go down, the power go down to Example: 2835 SMD 60 LEDs rated with 14.4 watts/M, when they are driven by power supply at one ends, it will achieve 11-12 watts only, but after 30 minutes lighted up, the current will increase after the whole strip temperature raised up, results to achieve more than 12 watts, and if the LED strips are lighted up with both ends (to make the voltage dropping less), it will reach the final watts at 13 watts/M, which is less than 10% difference to rated watts is allowed.
Also we will reduce the current on some conditions, like when the strip is glued, the heat dissipation is not good as naked, so we would reduce the power to make sure the fixture do no generate much heat during operation. Much heat will shorten the life of the LEDs.

What is the best ratio for blue and red?

Blue (wavelength: 455-465nm): is good for photosynthesis; and help to induce Chlorophyll and Carotenoid, which are necessary for healthy leaves.
Red (wavelength:660-665nm) : is the peak wavelength for photosynthesis and photoperiodism. Red light is best for blooming and fruits.

What is difference between double sided PCB and single sided PCB of led strip?

LED Strip PCB is also the key to high quality but LED. Best double sided PCB can bear large current, very good heat dissipation and has high stable quality.
Here are our experience and basic led strip knowledge sharing with you.

1. Flexible led strip PCB thickness

Double sided PCB
Single sided PCB

Double sided PCB and single sided PCB thickness mainly is cooper thickness. single sided PCB thickness is < 1 ounce thickness. Best Double sided PCB thickness is 2 ounce cooper thickness In the market, there are also 1 ounce double sided PCB thickness.

2. Hand feeling

Without 3M Tape, you need to judge the led strip PCB quality by hands. The double side PCB feel a little thick and hard and heavier than single sided led strip; it feels very good quality. The single sided PCB feel thin, no weight, very soft. it is easy to be blown by wind.

3. Circuit at backside

Double sided PCB of high quality led strip must have circuit on front sided and backside; single side PCB don't have any circuit on the backside.

Different PCB thickness

The LED Strip Printed Circuit Board (PCB) is what electronically connects electronic components. The quality and thickness of the copper is of very important.

1. The thickness of the cooper PCB

The thicker the copper, the more current can flow and the more efficient the strip is. currently in the market, it has 1 ounce, 2ounce, 4ounce thick PCB.

2. The pureness of the copper

The more pure, the copper is the better. Higher quality copper means less resistance and a stronger current.

3. Double sided and one sided copper

Copper PCB has double sided and one sided copper difference. double sided cooper PCB is best.

4. Heat dissipation systems design of PCB

Only high quality LED Strip PCB has such design. High quality Printed circuit Board will have a thin film at each side. it will improve the heat dissipation of LED Strips. in the market, many factories reduce the cost and use the one sided film.
You'll want to take each one of these factors into consideration when selecting the provider of your Flexible LED Strip lights. Choosing the wrong solution could end up costing you more than you might imagine.

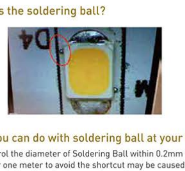
What is the max current PCB can undertake?

1oz Copper Line on PCB can take 1.6-2A at 1mm Width of Printed Circuit line on PCB.
2oz Copper Line on PCB can take 2-2.3A at 1mm Width of Printed Circuit line on PCB.
3oz Copper Line on PCB can take 3.2-4A at 1mm Width of Printed Circuit line on PCB.
Normal Drawing will use around 4 mm for Single color at Plus or Minus, Normal Drawing will use at least 2mm for Common on RGB or RGBW strip.

What is the TC point?

Temperature Check Point that was used for the engineers to monitor the temperature of PCB Easier.

What is the soldering ball?



How you can do with soldering ball at your led strips?

We control the diameter of Soldering Ball within 0.2mm with less 5 balls per one meter to avoid the shortcut may be caused when soldering ball melts after temperature raised up.

The difference between cheapest led strips and expensive led strip

Are you buying cheapest the led strip or the most expensive led strips? In the business world, there is a rule you may know. the rule is that the cheapest one is the most expensive things, the most expensive thing is the cheapest one!

Now let us show you the datas on the led strips

	Economy LED Strip	Normal LED Strip	Highest quality LED Strips
	60×5050	60×5050	60×5050
Evaluation Price	US$1.2/m	US$2.1/m	US$4.5/m
warranty	One of year	2 years warranty	5 years warranty
Brightness	600-720lm	1080-1200lm	1320-1440Lm
Light decay grade	very fast	slow	very slow
Working life	< 30000 hours	>50000 hours	>50000 hours
Price per year	US$1.2 @ 1 year	US$1.05/m@1 year	US$0.9@1 year
How many purchasing times within 5 years	5 times	2 times	1 time
Extra cost	labor cost, maintenance cost and installation cost and time cost	installation time and maintenance cost	No
Total cost	> USD6/m+ Extra cost	US$5.25/m+ extra cost	US$4.5/m
Conclusion	The most expensive strip		The cheapest strip

To be conclusion, The cheapest one is the most expensive one, The most expensive one is the cheapest one!