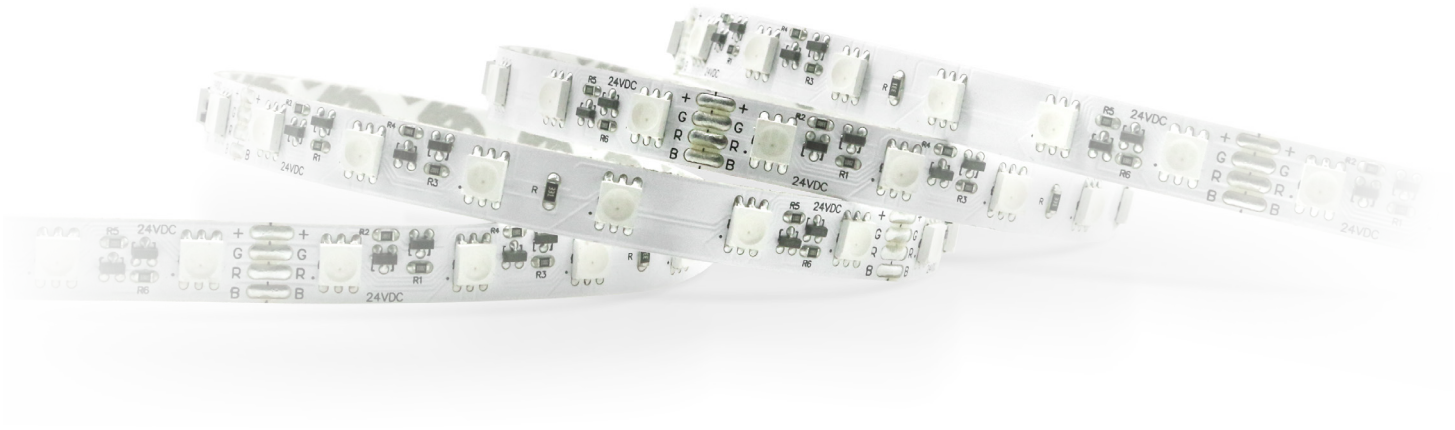
5050 | 120° | LM-80 | 24V | 2Years | IP22



CCT Available

Red Green Blue

PRODUCT DESCRIPTION

This strip adopts R/G/B 3 in 1 5050 LED SMD, constant current design, long lifespan with great lumen maintenance.
Can achieve rich color effects with controller, cuttable and customizable.

FEATURES

- **Max. Run:** 9m or 11m(single feed)
- **Min. Cut:** 100mm[3.97inch]
- **Auxiliary heat dissipation:** not required in channel(extrusion) under conventional power and TA(°C)
- **TA:** -20°C—60°C
- **Min. PCB Width:**10mm [0.39inch]
- IP22, IP64(Spray Glue Coated), IP65(Thick Glue Coated), IP67(Tube Waterproof)
- **Constant Current:** transistor design
- **Mounting:** 9080H 3M self adhesive tape
- Support 100 ~ 100kHz PWM dimming, recommended controller: LT3600;

PRODUCT DESCRIPTION

Model No.	Light Color	CCT/Wavelength(K/nm)	Beam Angle	Lumens/m	CRI	Efficacy(lm/W)	Voltage(V DC)	Power (W/m)
LN-5050B-60-24-RGB-A	R	615-620	120°	122	--	25	24	4.8
	G	515-520		173		36		4.8
	B	460-465		48		10		4.8
	RGB	- -		315		22		14.4
LN-5050B-60-24-RGB-B	R	615-620	120°	118	--	25	24	4.8
	G	515-520		170		35		4.8
	B	460-465		43		9		4.8
	RGB	- -		287		20		14.4

OTHER PARAMETERS

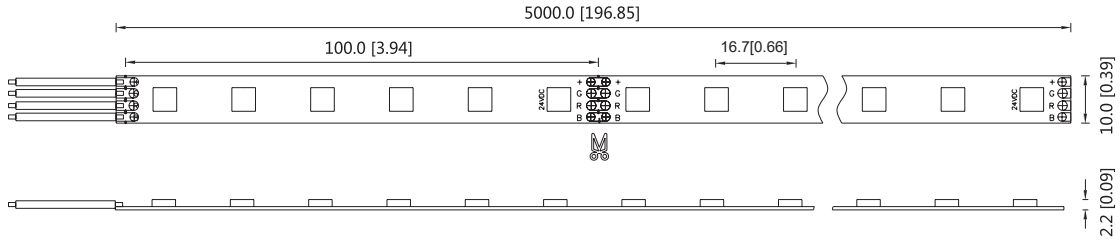
Model No.	LED QTY (pcs/m)	Product Size (L*W)	UL Max Run	Min Cuttable Length	No Brightness Difference MAX	Working Temperature	Storage Temperature
LN-5050B-60-24-RGB-A	60	5000*10mm	6.5m	100mm	9m	-20~+60℃	-20~+70℃
LN-5050B-60-24-RGB-B					11m		

NOTE:

- Figures above are typical figures. Actual figures could be different with typical figures, and the data is subject to change without notice.
- The luminous flux is tested with corresponding color light on.
- Lumen value measured in accordance to IES LM-80-08. LED chips have a luminous flux range with a tolerance of +/- 10%.
- Actual efficacy value is dependent to specified LED driver (power supply). An estimated efficacy value can be calculated as follows: Lumen value divided by average power consumption per foot.
- Do not install product in an environment outside the listed ambient temperature. Exceeding the maximum ambient temperature may damage LED chips, reduce the total lamp life, lumen output, and/or adversely impact color consistency.

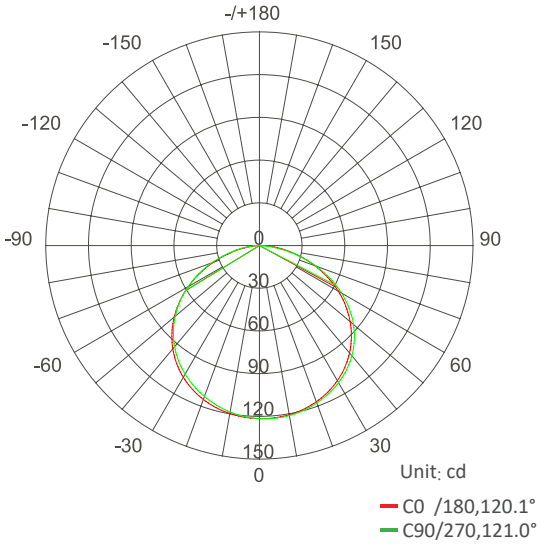
PCB DRAWING

Unit:mm[inch]



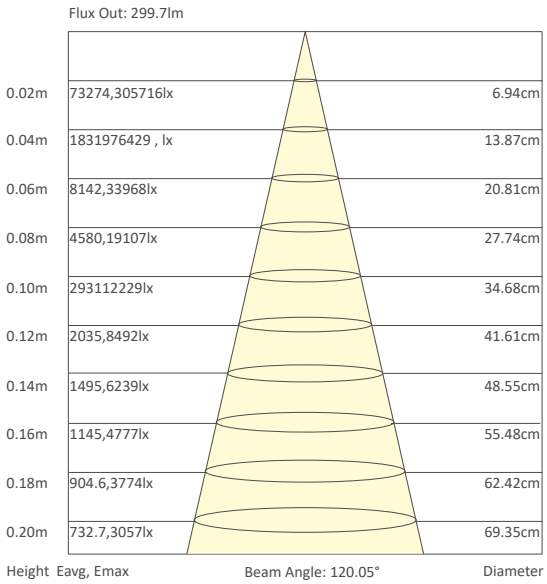
Note:
Wire length customizable, recommend to use 15cm length 20AWG parallel wire/sheathed cable,properly reduce the max run when the wire length more than 20cm

Luminous Intensity Distribution Diagram



AVERAGE BEAM ANGLE(50%): 120.5°

Average Illumination



ORDERING CODE

LN	–	5050 B	–	XXX	–	xx	–	RGB	–	x
Model		LED Package		LED quantity		Voltage		Color		A / B
Long run non-waterproof		5050 led / B level		60leds/m		DC 24V		RGB 3 in 1		Diode / Dual-triode

OPERATING LENGTH VS. ELECTRICAL PARAMETERS

LN-5050B-60-24-RGB-A	Operating Length(m)											
Parameters	1	2	3	4	5	6	7	8	9	13	14	15
Light Color	R+G+B									G	B	R
Operating Voltage (DC V)	24									24		
Total Current(A)	0.53	1.06	1.58	2.09	2.59	3.06	3.52	3.94	4.32	2.39	2.40	2.69
Total Power(W)	12.80	25.54	37.90	50.33	62.38	73.59	84.53	94.63	103.68	57.30	57.63	64.59
Head-to-tail Voltage Drop Rate(%)	0.17	0.74	1.72	3.12	4.98	7.22	9.25	11.98	14.50	24.23	22.02	27.97
Head-to-tail Current Drop Rate(%)	-5.43	0.09	0.59	2.24	4.80	3.76	7.95	13.29	18.19	22.40	21.82	22.28
Single/Double Feed	Single feed											

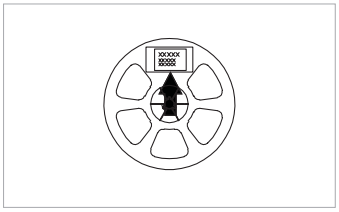
LN-5050B-60-24-RGB-B	Operating Length(m)							
Parameters	1	2	3	4	5	6	7	8
Light Color	R+G+B							
Operating Voltage (DC V)	24							
Total Current(A)	0.56	1.12	1.68	2.28	2.76	3.31	3.84	4.34
Total Power(W)	13.54	26.83	40.22	54.65	66.27	79.52	92.22	104.14
Head-to-tail Voltage Drop Rate(%)	0.24	0.81	1.77	3.05	5.27	7.44	10.14	13.29
Head-to-tail Current Drop Rate(%)	0.12	-0.89	0.23	-2.02	-1.41	-2.68	-1.78	-1.19
Single/Double Feed	Single feed							

LN-5050B-60-24-RGB-B	Operating Length(m)							
Parameters	9	10	11	12	13	15	16	17
Light Color	R+G+B					G	B	R
Operating Voltage (DC V)	24					24		
Total Current(A)	4.86	5.39	5.69	5.91	6.11	2.76	2.87	3.05
Total Power(W)	116.74	129.57	136.68	141.75	146.55	66.13	68.77	73.19
Head-to-tail Voltage Drop Rate(%)	16.85	20.70	23.50	24.96	27.23	20.73	23.01	25.60
Head-to-tail Current Drop Rate(%)	-1.94	3.34	17.86	27.51	37.49	20.86	17.34	18.48
Single/Double Feed	Single feed			Double feed		Single feed		

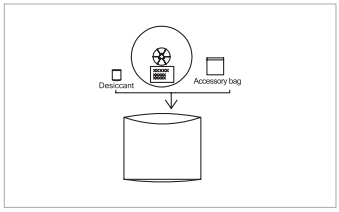
RELIABILITY TEST

Test type	Test name	Standard	Test condition	Result
Environmental test	PTC test	Blueview standard	Test temperature: -40°C— 60°C,2h one cycle(constant temperature: 15 minutes,heating and cooling: 45 minutes)	Pass
	High temperature test		TH=60°C,continuous power on	
	Aging Test		TH=25°C,continuous power on	
	Hot and Cold Shock Test		high temperature 80 °C 4H/low temperature -40°C 4H continuous cycle and power on	
	Bending test		TH=25°C, humidity 65%±5%RH, Φ50mm,continuous cycle and power on until the product damaged.	

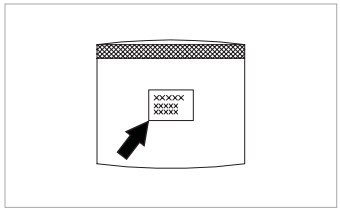
PACKING



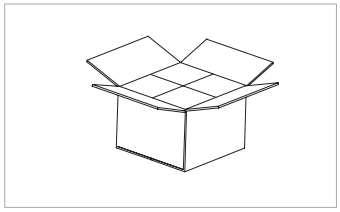
Label the reel;



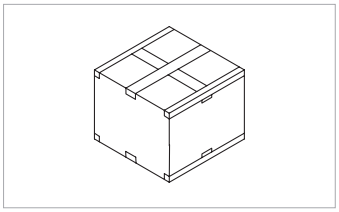
Put reel, accessory bag and desiccant together into static shielding bag;



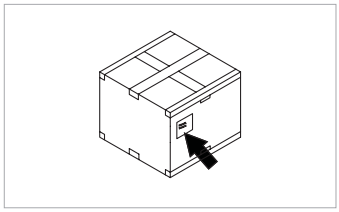
Seal and label the static shielding bag;



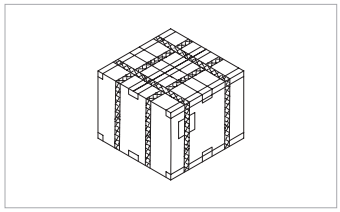
Put the packed static shielding bag into carton box;



Seal the carton box;



Label the box;



Use packing belt to pack. Add edge protectors if necessary.

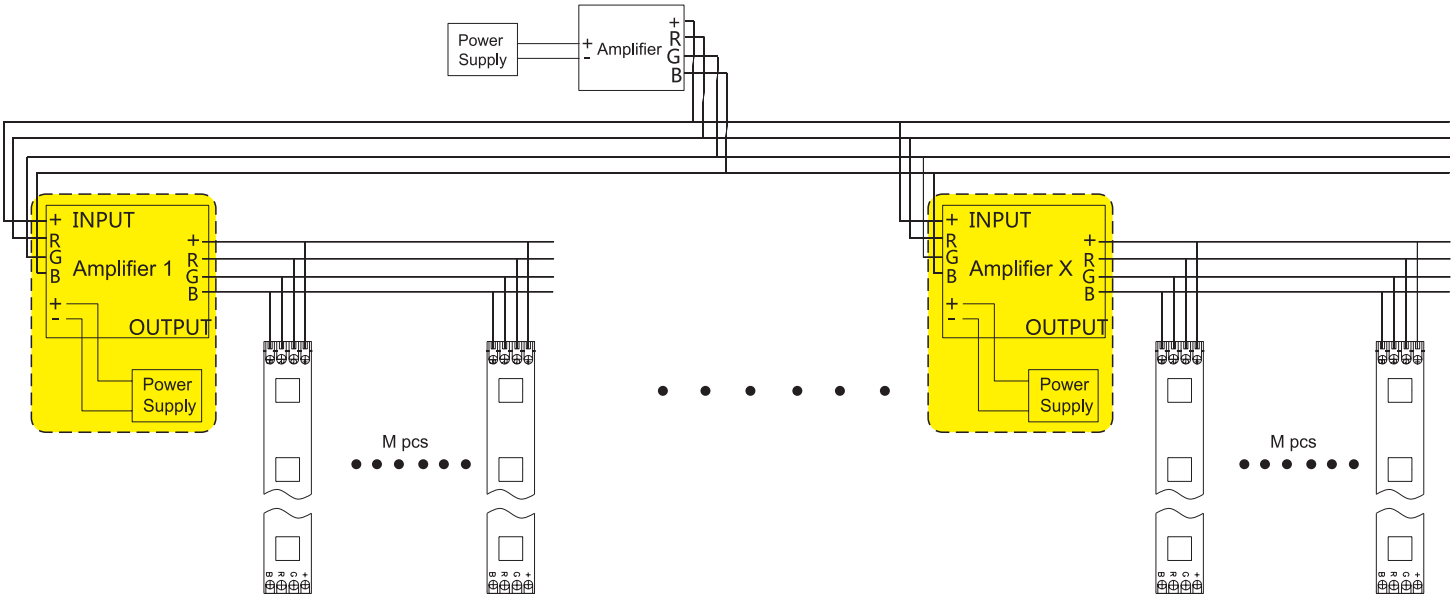
Packaging Information

Model No.	Carton Size(mm)	Meter/Reel	Reel/Carton	Net Weight(kg)	Gross Weight(kg)
LN-5050B-60-24-RGB-A/B	550*400*340	5	100	10.50(1±10%)	15.50(1±10%)

NOTE:

- Non water-proof,every 5m for a reel,one reel for a static shielding bag.
- The above quantity and weight are only for the illustrated packaging method. There will be differences in the quantity and weight with other packaging methods.

Connection Diagram & Calculation Method between Product and Controller



Amplifier power supply rated power (W): P
Product rated power (W): P(strip)
Amplifier load:M(pcs)
Product max run:MAX

$$M=\frac{P\times 0.8}{P_{(strip)}\times MAX}$$

For example: the product is LN-5050B-60-24-RGB-A, P(strip)=14.4W/m, the max run(single feed) MAX=9m, the power supply is 400W,

Amplifier load:

$$M=\frac{P\times 0.8}{P_{(strip)}\times MAX}=\frac{400\times 0.8}{14.4\times 3}\doteq 2.5(pcs)$$

Note:
1.The controller's power supply must be consistent with the controller's power requirements.
2.The amplifier must be added to drive the product if the controller is more than 20 meters away from the product, see above.