

Features

1. RGB in one 4040 LED.
2. Satisfy high density and slim application requirements.
3. Flexible PCB for proper bending and versatile use.
4. Flexible and cuttable every 80.0*52.3mm and 76.2*50.8
5. Long service life with great lumen maintenance.
6. Achieve rich lighting effects via controller.
7. Super slim 3M double-side tape with strong adhesive.

Application

Back-lit light box with depth above 4cm, curved wall and ceiling lighting etc.

Installation

Prefix by 3M self adhesive tape and fix with screws.



Specification

Model No.	Light Color	Color Temperature(K)/ Wavelength(nm)	Beam Angle	Luminous Flu (lm/pcs)	Efficacy (lm/W)	Ra	Voltage (V DC)	Power (W/pcs)
H150-RGB-TN-4040-162-24-W2	R	615-630	120°	272	28	--	24	9.72
	G	515-530		564	58			9.72
	B	460-470		117	12			9.72
	R+G+B	100000		962	33			29.16
H150-RGB-TN-4040-288-24-W2	R	615-630	120°	483	28	--	24	17.28
	G	515-530		1071	62			17.28
	B	460-470		224	13			17.28
	R+G+B	100000		1710	33			51.84

Temperature Related Parameters(Normal Working)

Model No.	Power(W)	No Brightness Difference MAX(PCS)	TA(°C)	Operating Temp Tc MAX
H150-RGB-TN-4040-162-24-W2	29.16	4	-25~+60°C	83°C
H150-RGB-TN-4040-288-24-W2	51.84	2	-25~+60°C	83°C

Other Parameters

Model No.	LED Quantity/pc	Min Cuttable Length(mm)	Storage Temperature
H150-RGB-TN-4040-162-24-W2	162	80*53.3	-20~+70°C
H150-RGB-TN-4040-288-24-W2	288	76.2*50.8	-20~+70°C

NOTE:

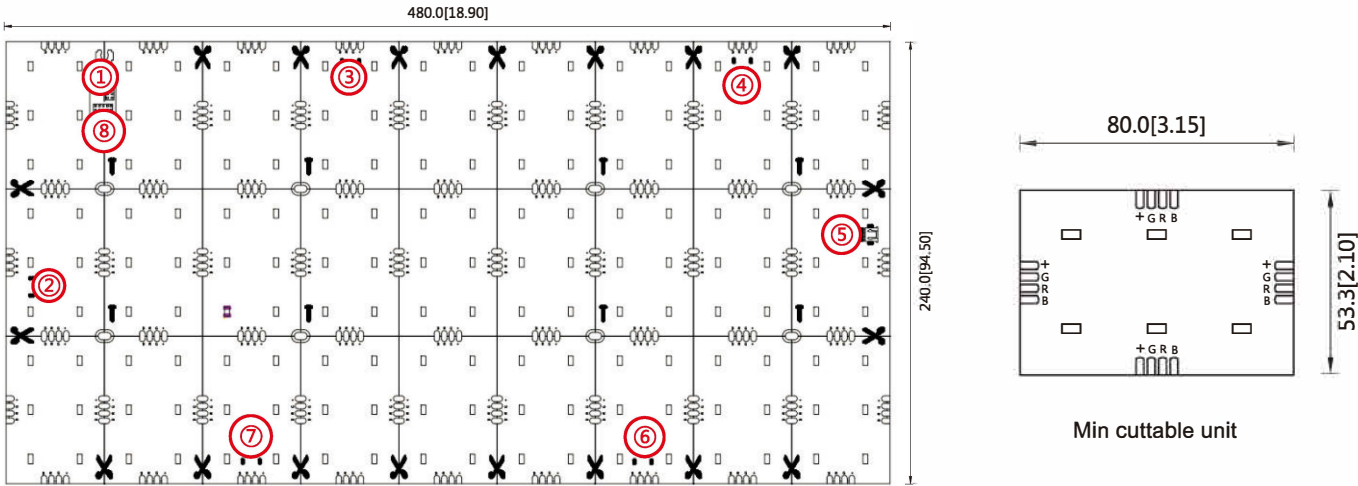
1. Test environment temperature : 25±2°C.
2. Figures above are typical figures. Actual figures could be different with typical figures, and the data is subject to change without notice.
3. Luminous flux above is tested with corresponding color light on.
4. Different color temperature will make luminous flux different.
6. Luminous flux and power tolerance within ±10%.
7. Cutting marks see profile drawing below.



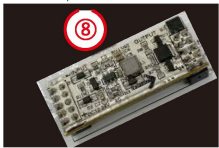
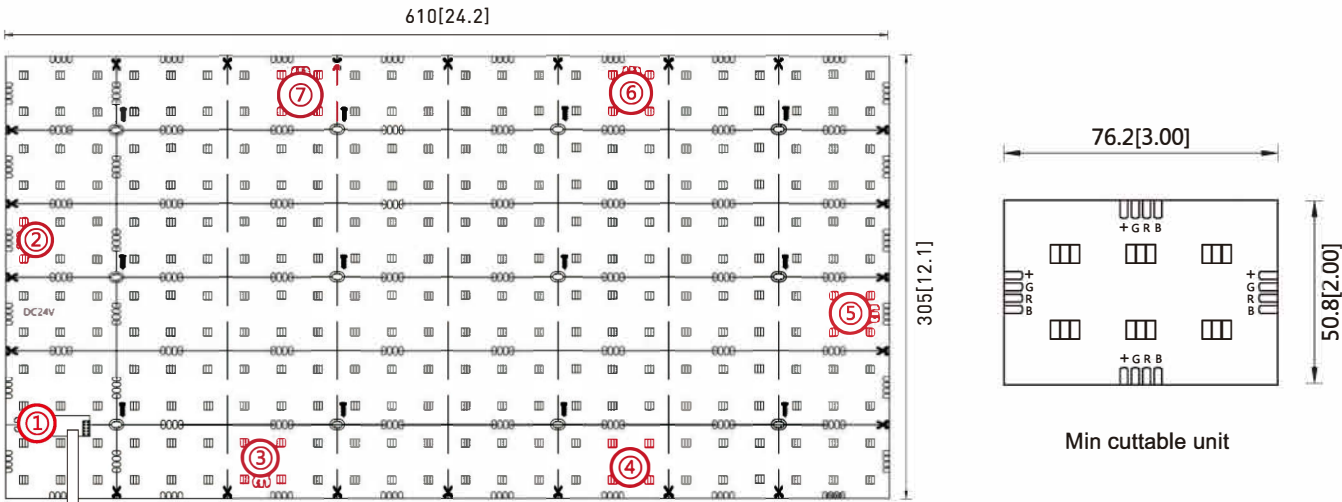
Profile Drawings

Unit:mm[inch]

H150-RGB-TN-4040-162-24-W2



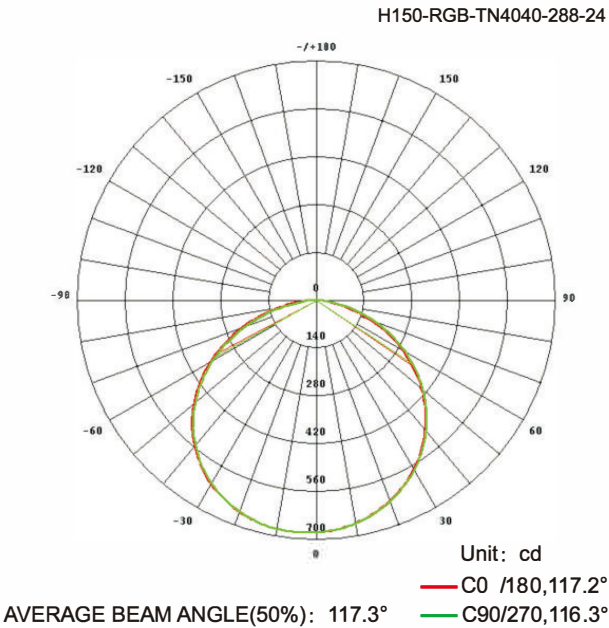
H150-RGB-TN-4040-288-24-W2



Port location	Port name	Port type	Effect	Note
①	Power input	2pin	mains input for Internal control	INPUT
②④⑥	Signal input	4pin	signal input for external controller	INPUT
⑤⑥⑦	Signal output	4pin	output connection between light panel	OUTPUT
⑧	Built-in controller	--	Internal control	Not suitable for external control



Luminous Intensity Distribution Diagram



Average Illumination

Height	Flux Out:1574lm	Beam Angle:117.25°	Diameter	RGB
0.02m	452234,1700102lx		6.56cm	H150-RGB-TN4040-288-24
0.04m	113059,425025lx		13.12cm	
0.06m	50248,188900lx		19.68cm	
0.08m	28265,106256lx		26.24cm	
0.10m	18089,68004lx		32.80cm	
0.12m	12562,47225lx		39.36cm	
0.14m	9229,34696lx		45.92cm	
0.16m	7066,26564lx		52.48cm	
0.18m	5583,20989lx		59.03cm	
0.20m	4522,17001lx		65.59cm	

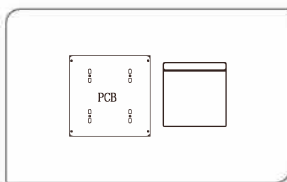
Note:
 the above two figures are tested with the sample H150-RGB-TN4040-288-24 RGB three lights on and under control, for other data please consult sales rep.



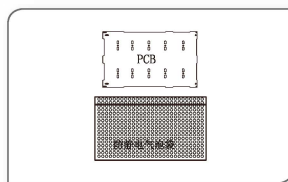
Operating Length VS. Electrical Parameters

H150-RGB-TN-4040-162-24-W2 Parameters	Product Qty in Single Feed(pcs)				
	1	2	3	4	5
Operating Voltage(DC V)	24.0				
Total Current(A)	2.16	4.24	6.19	8.02	9.63
Total Power(W)	51.84	101.76	148.56	192.48	231.12
Head voltage(V)	24	24	24	24	24
Tail voltage (V)	23.8	23.56	23.26	22.92	22.43
Head Current(mA)	45.07	45.07	45.07	45.07	45.07
Tail Current(mA)	44.92	42.95	41.91	40.02	37.46
Head-to-tail Voltage Drop Rate(%)	0.83	1.83	3.08	4.5	6.54
Head-to-tail Current Drop Rate(%)	0.33	4.7	7.01	11.2	16.88
Run a cable back to the driver needed	NO	NO	YES	YES	YES

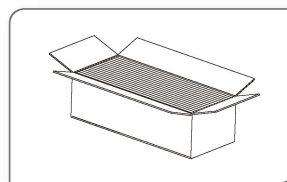
packing



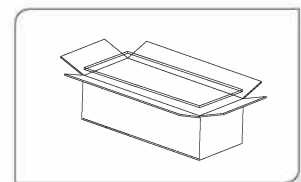
Prepare the product and desiccant



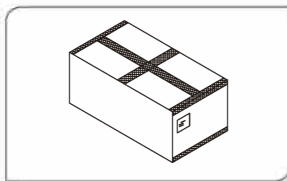
Put the PCB board into the bubble bag



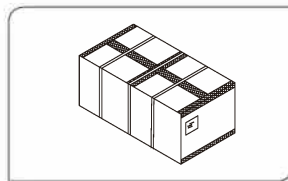
Put the product and accessory into carton box



Separate the carton with EPE foam or foam carpet.



Seal the box



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



Packaging information

Model No.	Product Size L*W(mm)	Carton Size(mm)	PCS/Bag	Bag/Carton	Net Weight(kg)	Gross Weight(kg)
H150-RGB-TN4040-162-24	480*240	555*295*275	2	20	8.64(1±10%)	10.35(1±10%)
H150-RGB-TN4040-288-24	610*305	640*350*355	2	25	16.15(1±10%)	17.48(1±10%)

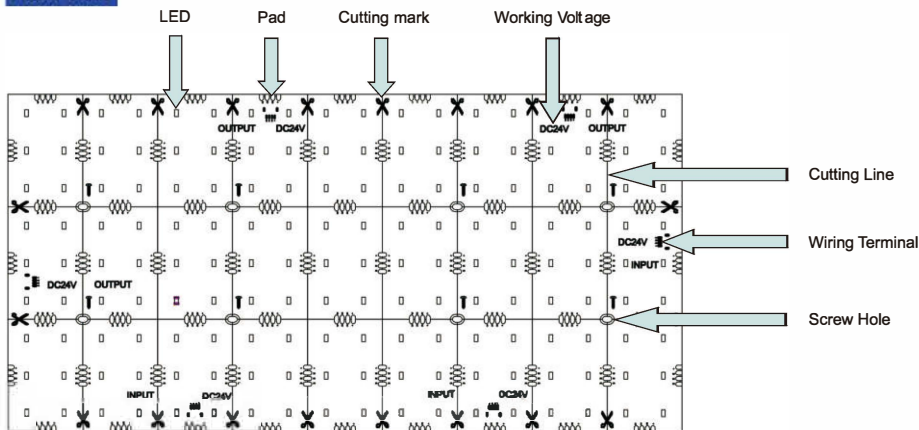
Note:

- Every 2pcs back to back packed in an anti-static bubble bag and put into carton box.
- 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.

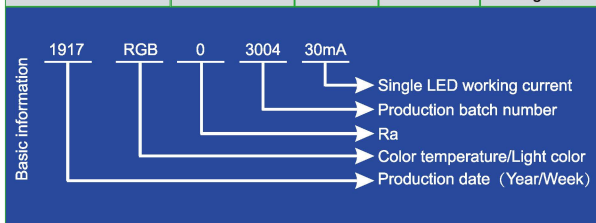
Installation

1.The Product

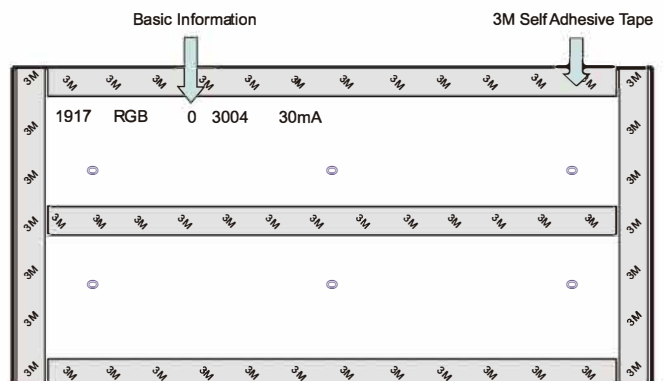
Front View



	Application	Quantity	Position	Note
Screw Hole	Fix the Product	8/12	-	Runway Hole
Cutting Line	Cutting Position	--	With Scissors Mark	--
Wiring Terminal	Connect Controller	--	--	4Pin Terminal
Pad	Bonding Wire	--	--	--
3M Self Adhesive Tape	Pre-fix	5/6	--	--
Basic Information	--	--	--	See the Figure

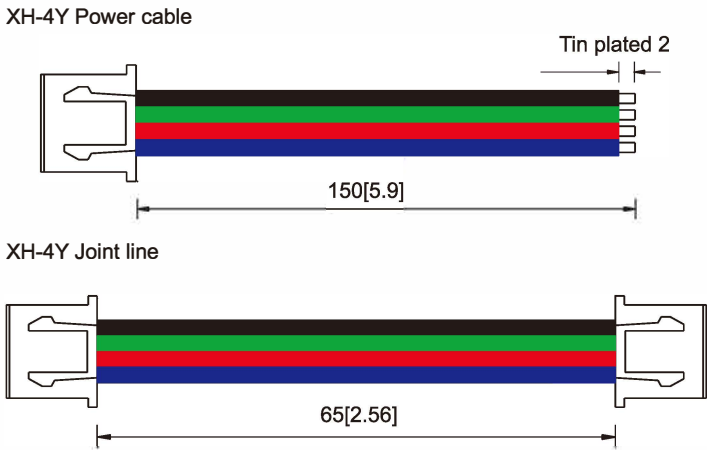


Back View

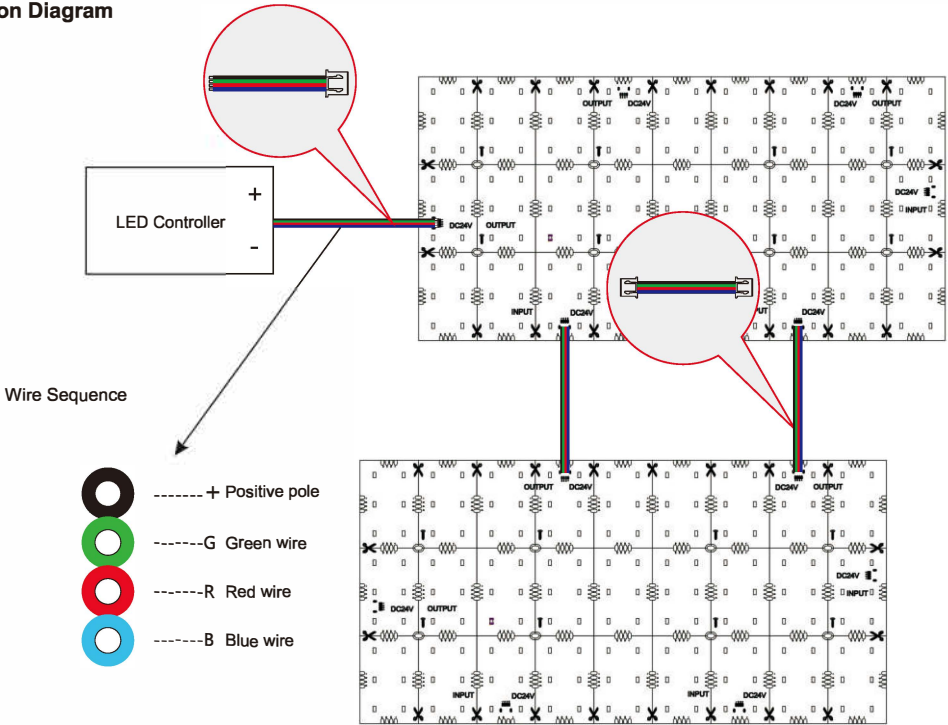




1. Accessory



3. Product Connection Diagram

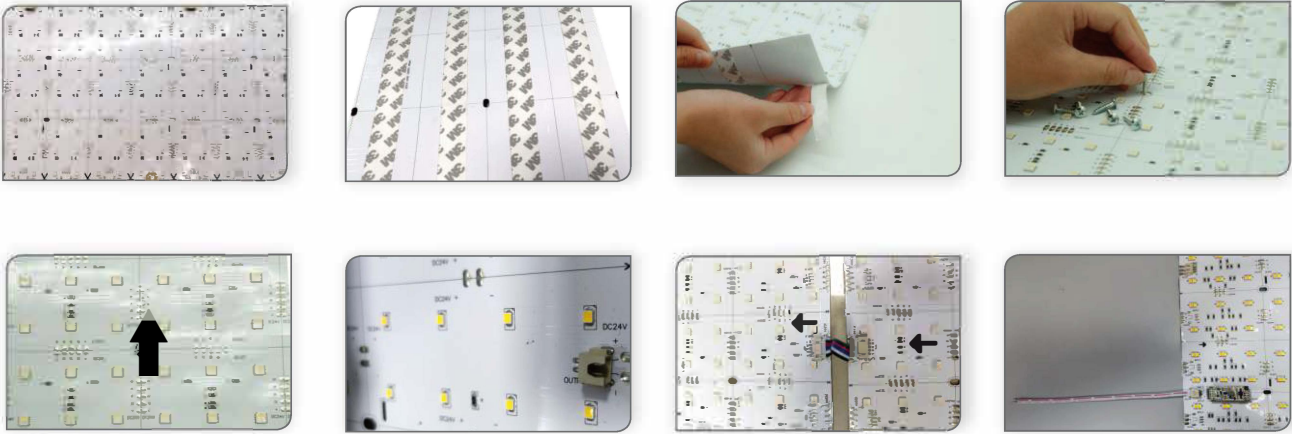




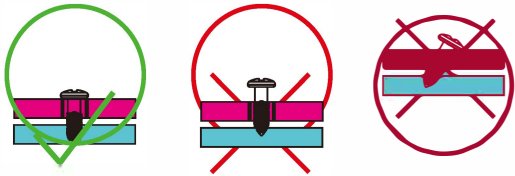
Note:

Please note the wire sequence, avoiding adverse connection.
Standard wire material with wire gauge 20AWG. Use single wire to connect panels in single feed, and the max run is 6pcs, while using double wire for connection, the max run is 9pcs.

Installation Steps



Optional



- - - - Sign surface
- - - - Light box border
- - - - Flexible panel
- - - - Light box bottom

Note:

“+” for white and red wire.
The above diagram is only for installation, not the physical drawing.



Attentions before installation

- Before installation, check that the product parameters are consistent with the requirements (Seeing product specifications or product labels)
- Load voltage, current, power and power supply should be matched with the product.
- Follow the instructions of wiring diagram (first connect the load and then the power supply) to avoid short circuit.
- Make sure the correct connection of positive and negative poles between products and power supply. Otherwise, the light will not be on.
- Make sure the power cord firmly screwed into the terminal and it should not be pulled out by hands.
- The terminal should have insulation, waterproof and anti-corrosive treatment.

Common Faults and Troubleshoot

Quick Guide		
Problems	Reasons	Solutions
All LEDs can not light on.	No electric supply.	Power on
	Automatic power protection from the open or short circuit in output of the power supply.	Fix the short circuit problem.
	Wrong connection of power supply.	
LEDs can not light on partly.	Some switching mode power supplies are not powered.	Check the power supply system to fix it.
	Power supply line error.	
	Mistaken wire connection of some of products	Correctly connection
Brightness of LED is inconsistent tor insufficient.	Power overloaded.	Replace with more powerful power
	Power supply circuit excessive consumption.	Make sure the working voltage of the product within $\pm 5\%$ of standard voltage, or keep balance by circuit power consumption.
	Excessive quantities in series connection of the product	Reduce the quantities of the product in series connection to meet requirement.
LED flicker.	Connection point fault.	Remove bad connection point.
	Switching power supply failure.	Replace a new power supply.
	Wrong Installation or use of products	Please follow the instructions

Warning

- Do not disassemble or retrofit the light. Do not touch the surface of the light with a sharp object.
- Do not do live-line working during installation, especially for high voltage product.
- Do not use any organic chemical solvents.
- Use neutral glass adhesive to fix this product and it needs to be dried 4 hours in the open environment after operation.
- Treat the ends and the circuit connection points that are not connected to the main line with insulation, waterproof, and anti-corrosion in the installation.
- Use 18AWG (0.75mm² cross-sectional area) or thicker core wire to avoid adverse consequences caused by overheating, if the power cable need to lengthen.
- Make sure the input voltage meets the requirements and lines are connected correctly before lighting on.
- This product is for signage, and do not use as general lighting.
- Series connection within the max run.
- The length of the power cable between the power supply and the led strip should not exceed 2 meters. Otherwise, large circuit loss will lead to inconsistent brightness.
- Installation, maintenance and repair should be operated by a qualified technician.

Statements and Recycling

Statements:

Repair should be operated by a qualified technician, if the external circuit or main line of this product is damaged.
The parameters given in this manual are typical values and for reference only.
All illustrations and drawings in this manual are for reference.
This product is subject to change without notice.

Recycling:

LED lighting products belongs to electronic products, please do recycling treatment according to the relevant WEEE directives.



Attachment: Instruction of single-sided lightbox

