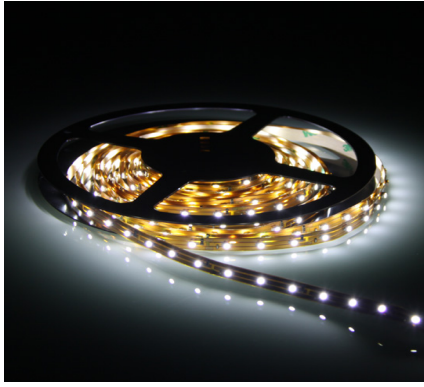# User Manual

Impact Lighting Inc. Data Sheet for ThinGlow™

3528 Single Color Series
24V (600 pcs) Indoor

Address : **2101 West Central Blvd. Orlando Florida 32805**
Tel : **1-800-507-5714**
Fax : **1-800-507-5714**
Web Site : www.impactlightinginc.com

The Strip was made by Flexible Printed Circuit Board and 3528 Top LED. The LED is even, large and high brightness lighting effect. Also it is soft and easy bended for installation. The cutting unit is 50mm and 6 pieces LED per group, so you could cut a different length for your project and request. The strip could have six single colors (included: White, Warm White, Blue, Green, Red & Yellow). The Strip is working on 24V DC and passed CE EMC testing. Suitable for both indoor & outdoor decorative application

3528 Flexible Strip (24V)

Product Features:

- ◆ **5M per reel**
- ◆ **Width of Strip: 8mm**
- ◆ **600pcs 3528LED per Reel**
- ◆ **6 LED per small Unit**
- ◆ **Unit length: 50mm**
- ◆ **Weight：145g**
- ◆ **LED Life time: Mean time between failure (MTBF): 50K – 100K hours**
- ◆ **Storage temperature: 0 ℃ ~ +60 ℃**
- ◆ **Humidity: 40% ~ 70% R**
- ◆ **Operating temperature: -20 ℃ ~ +45 ℃**
- ◆ **Two Year Warranty**

Product Information:

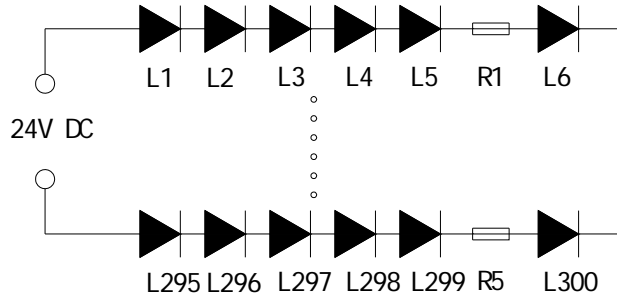| THINGLOW ULTRA BRIGHT NON WATERPROOF LEDS - 3528 (600LEDS) : 24V						
Part No.	Color	Luminous Flux(lm)	color temperature(K)	LED Qty	Dominant Wavelength λd	Operating Voltage
IL-TG-UB-3528-600-24V	warm white pure white Red Green Blue Yellow	1296 1620 675 1938 691 675	2700~3300 5700~6300	600	Red: 620~630 Green: 520~530 Blue: 460~470 Yellow: 580~590	DC 24V
Operating Current		Operating Power	LED size	Cut length	Width of PCB board	View Angle
2A		48W	35*28mm	5-led 5cm	12mm	120°

1. Tolerance of measurement of luminous intensity is ±10%
2. The dominant wavelength λd is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
3. Specifications are subject to change without notice.
4. θ1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
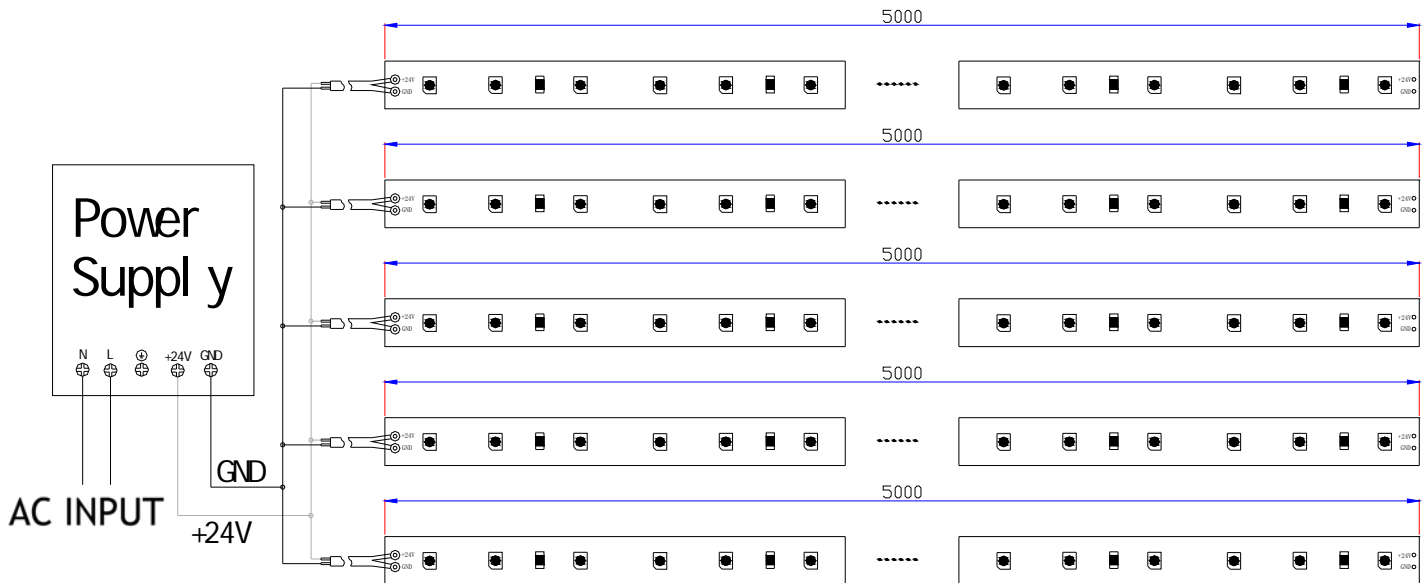
Red
Black

200

5000±50

8

2.03

0.25

L1 L2 L3 L4 L5 L6 L7   L594 L595 L596 L597 L598 L599 L600
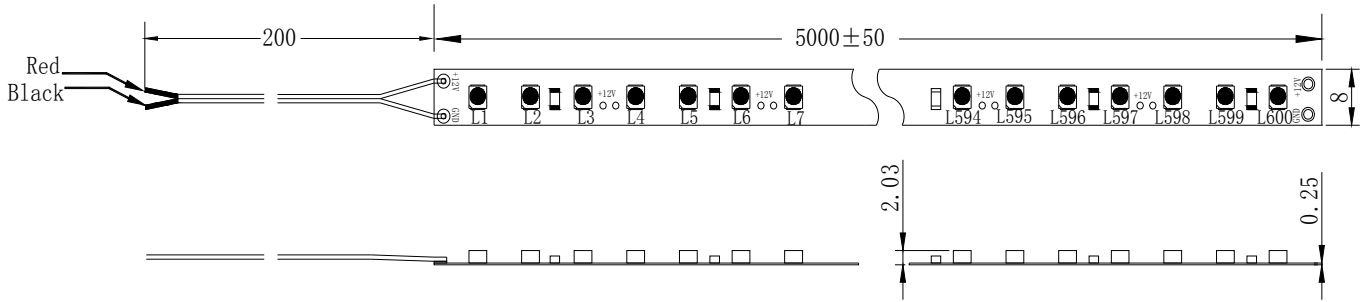
Dimension Drawing

Remark:
1. All dimensions are in millimeter.
2. Tolerance of measurement is ±0.05mm (.02") unless others otherwise noted.

24V DC

L1   L2   L3   L4   L5   R1   L6

L295 L296 L297 L298 L299 R5   L300

Circuit Diagram

Power Supply

N L ⏚ +24V GND

AC INPUT

GND

+24V

5000

5000

5000

5000

5000

Installation drawing

CAUTIONS

Exploitation conditions
1. In order to guarantee that the LED life and the use environment, cannot make any force when the product lighting use to pull the power cables, forbids to collide, in order to avoid damages LED.
2. For can better lighting effect of the product, each 5 meter long strip must connect the main power source.
3. Must guarantee that each power source (GND) must connect.
4. Should not be curving in the diameter 60mm following radian, please do not rebate, in order to avoid damage lamp bead or break.

Storage
1. The Flexible SMD Strip should be stored at stored at 0 ℃ ~ +60 ℃ or less and 40% ~ 70% RH or less after being shipped and the storage life limits are 3 months.
2. If the Flexible SMD Strip is stored more then 3 months, they can be stored for a year in a sealed container with a nitrogen atmosphere and moisture absorbent material.
3. Please avoid rapid transitions in ambient temperature, especially, in high humidity environments where condensation can occur.

Static Electricity
1. Static electricity or surge voltage damages the Flexible SMD Strip.
2. It is recommended that a wristband or an anti-electrostatic glove be used when handling the Flexible SMD Strip.
3. All devices, equipment and machinery must be properly grounded.
4. It is recommended that measures be taken against surge voltage to the equipment that mounts the Flexible SMD Strip.

Heat Generation
1. Thermal design of the end product was most importance. Please consider the heat generation of the Flexible SMD Strip when making the system design.
2. The thermal resistance of the circuit board and density of Flexible SMD Strip placement on the board, as well as other components was the important factor affecting the coefficient of temperature increase per input electric power.
3. It must be avoid intense heat generation and operate within the maximum ratings given in the specification.
4. The operating current should be decided after considering the ambient maximum temperature of Flexible SMD Strip.

Others
1. Care must be taken to ensure that the reverse voltage will not exceed the absolute maximum rating when using the Flexible SMD Strip with matrix drive.
2. The Flexible SMD Strip described in this brochure is intended to be used for ordinary electronic equipment (such as office equipment, communications equipment, measurement instruments and household appliances). Consult Dilux Lighting's sales staff in advance for information on the applications in which exceptional quality and reliability are required, particularly when the failure or malfunction of the Flexible SMD Strip may directly jeopardize life or health (such as for airplanes, aerospace, submersible repeaters, nuclear reactor control systems, automobiles, traffic control equipment, life support systems and safety devices).
3. User shall not reverse engineer by disassembling or analysis of the Flexible SMD Strip without having prior written consent from Dilux Lighting. When defective Flexible SMD Strip is found, the User shall inform Dilux Lighting directly before disassembling or analysis.

Warning

● Please note the careful operation, in the power source connection's situation, will touch the alternating current supply end possibly to cause your safety.
● In the actual application, the power source should retain 20% remainders, guaranteed that the sufficiency the voltage lightens LED.
● Installs as far as possible the product in the appropriate environment.
● Pays attention to the power cable in the installment process positive and negative extremely, please do not wrong, power source and product voltage to be whether correct, in order to avoid creates the product the damage.