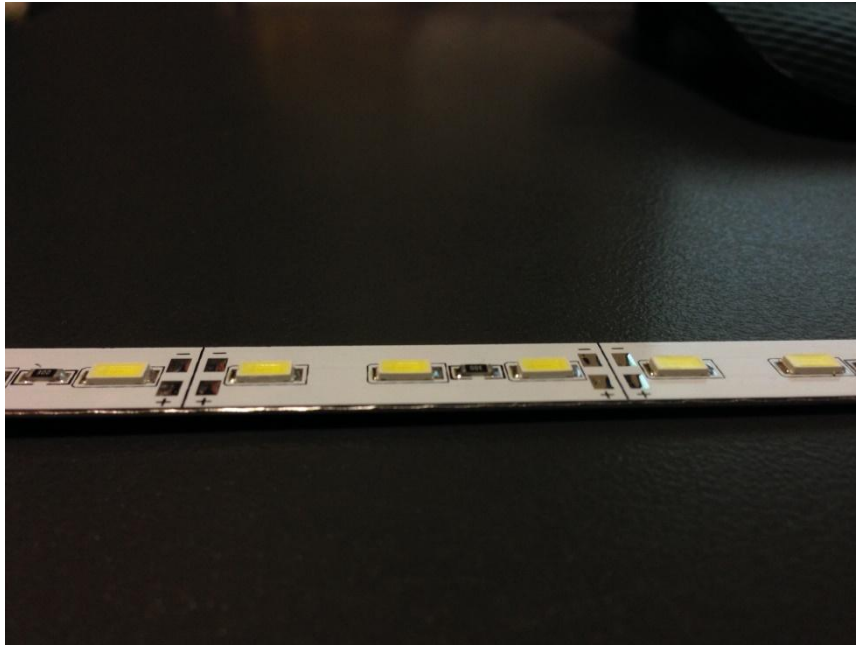


# Data Sheet

## 5630 SMD 72 LED/m

### LED Bar



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## General Informations:

### Features:

- Ultra -brightness,
- Aluminium PCB
- Every 3leds can be cuttable
- 3M adhesive tape on backside, easy to install,Can be fixed at any place
- Can be used indoor/outdoor
- Low power consumption
- IP20

### Benefits:

- Wide application
- Low cost
- Easy to install
- 12V Low voltage, Security products
- no color difference ,good weld technology

### Application :

- Use life is 50000 to 100000 hours, 10 times than ordinary energy-saving lamps long service life, even the incandescent light bulb life 50 times.
- Power consumption than traditional Lantern Festival 50 ~ 90% can,
- High luminous efficiency
- No ultraviolet ray and radiation, the light is no heat, no radiation
- The light penetrating extremely, stereo sense is strong, to improve the grade of jewelry, great show jewelry value.
- Safety: work current. In human safety voltage range.
- The green environmental protection: waste recycling, no pollution,
- Extremely light color rendering: lamps colour temperature value from 2600 K to 10000 K (warm white, natural white, is white, cold white optional) according to different types of jewelry in a specific configuration, the maximum highlights the value of jewelry.

## Electrical and Flux Characteristics

Table 1: Flux Characteristics

| Code | Number of LEDs (M) | Case     | Color      | Wavelength | Lm (M)   | Angle |
|------|--------------------|----------|------------|------------|----------|-------|
| 7204 | 72                 | SMD 5630 | Cold White | 6000-6500K | 2520lm/m | 120°  |
| 7205 | 72                 | SMD 5630 | Warm White | 3000-3500K | 2435m/m  | 120°  |

Notes for Table 1:

1. Parts are tested in pulsed conditions,  $T_j = 25^\circ\text{C}$ . Pulse width is 10 ms at rated test current.
2. İlker Elektronik maintains a  $\pm 10\%$  tolerance on flux measurements.
3. Typical R9 value for 80CRI can be change with 90CRI.
4. Center beam candle power is a calculated value based on Lambertian radiation pattern at nominal test current.

Table 2: Electrical Characteristics

| Code | Color      | Forward Current (A/M) | Input Voltage (CV) | Power (W/m) | Lm (M)   |
|------|------------|-----------------------|--------------------|-------------|----------|
| 7204 | Cold White | 1.8A                  | 12 VDC             | 21.6W       | 2520lm/m |
| 7205 | Warm White | 1.8A                  | 12 VDC             | 21.6W       | 2435m/m  |

Notes for Table 2:

1. Parts are tested in pulsed conditions,  $T_j = 25^\circ\text{C}$ . Pulse width is 10 ms at rated test current.
2. İlker Elektronik maintains a  $\pm 10\%$  tolerance on Current values.
3. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

### Absolute Maximum Ratings ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Table 3: Maximum Ratings

| Parameter                                                   | Maximum Performance |
|-------------------------------------------------------------|---------------------|
| Storage Temperature Range                                   | -35 ~ +50° C        |
| Operating Temperature Range                                 | -20 ~ +40° C        |
| Mounting Surface Temperature                                | 60° C               |
| Input Voltage (DC)                                          | 12 V                |
| LED Junction Temperature <sup>1</sup>                       | 125° C              |
| Electrostatic Discharge Classification (JEDEC-JESD22-A114F) | Class 1C            |
| Reverse Voltage <sup>[2,3]</sup>                            | -5V                 |
| UL Recognition                                              | UL recognized       |

Notes for Table 3:

1. Proper current de-rating must be observed to maintain junction temperature below the maximum.

2. SMD LEDs are not designed to be driven in reverse bias.
3. At maximum reverse current of 10μA/LED.

**Application Notes:**

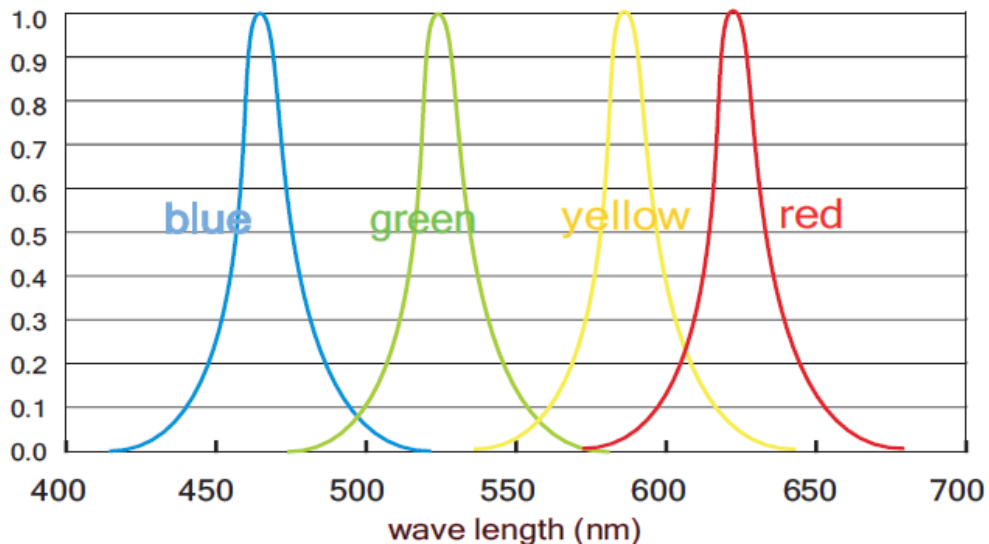
- Please ensure that when connecting to supply, the correct polarity printed on strip is observed.
- Use of a regulated 12V DC supply is recommended.
- To prevent voltage drop, a power feed at each end is recommended for chains longer than 1 bar in length. For very long lengths it is recommended to connect a power feed after every 1 bar.
- Cut only at designated cut-points, which are positioned every 3 smd.

**Precautions:**

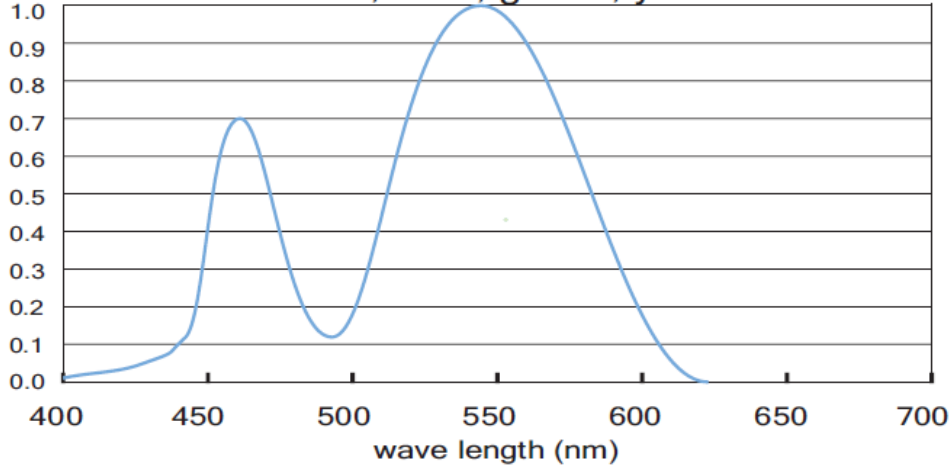
- Current should be derated in order to keep junction temperature below maximum by reducing power dissipation.
- Current spikes should be avoided especially during power up. It is good practice to initially connect PCB to inactivated supply, then gradually ramp up voltage to desired value.
- Proper management of the thermal path should be observed. Adequate heatsinking of strip should be provided in order to maintain junction temperature below maximum. Proper thermal conduction layers should be introduced at all interfaces to prevent insulating air gaps in the thermal path.
- As with all semiconductor devices, it is good practice to avoid electrostatic discharge (ESD).

**Color Wavelength Diagram:**

LED Color Spectrum for Red, Green, Blue, Yellow:



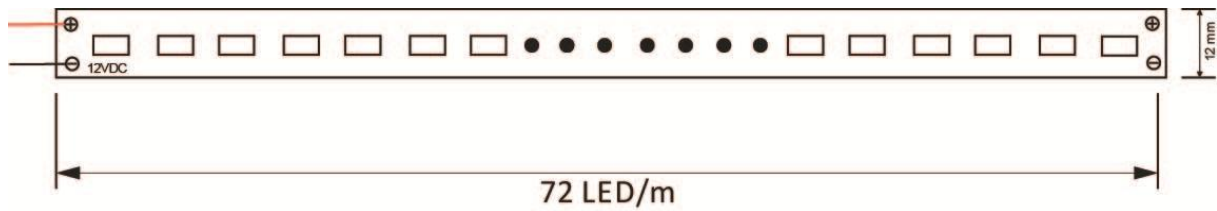
LED Color Spectrum for White (80 CRI) :



**DO NOT LOOK DIRECTLY AT LED WITH UNSHIELDED EYES OR DAMAGE TO RETINA MAY OCCUR.**

Mechanical Dimensions:

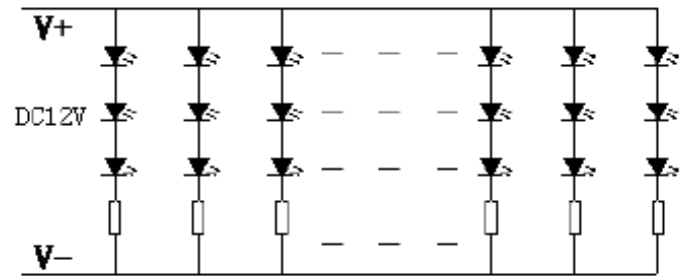
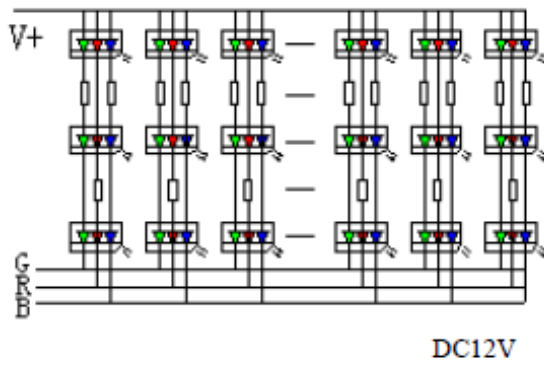
Technical Drawing:



**Electrical Connection:**

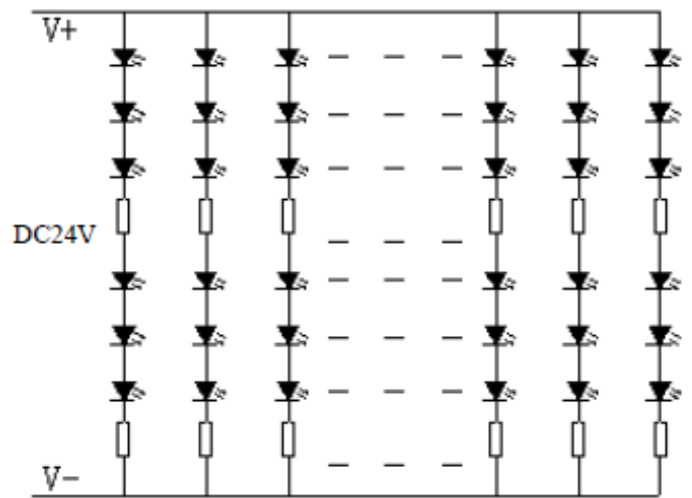
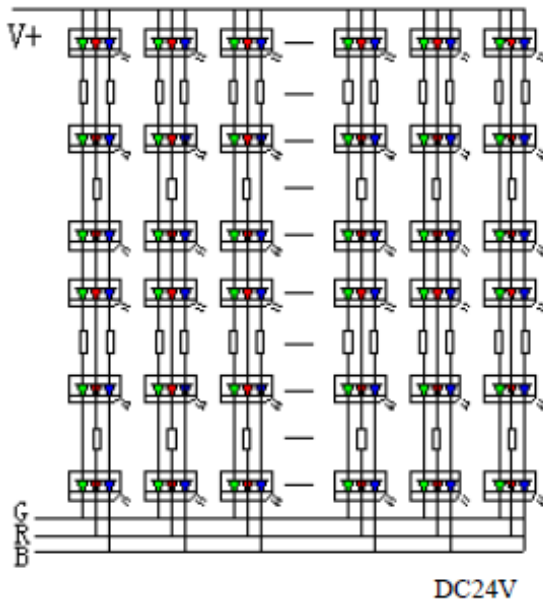
**Circuit Diagram:**

**DC 12V :**



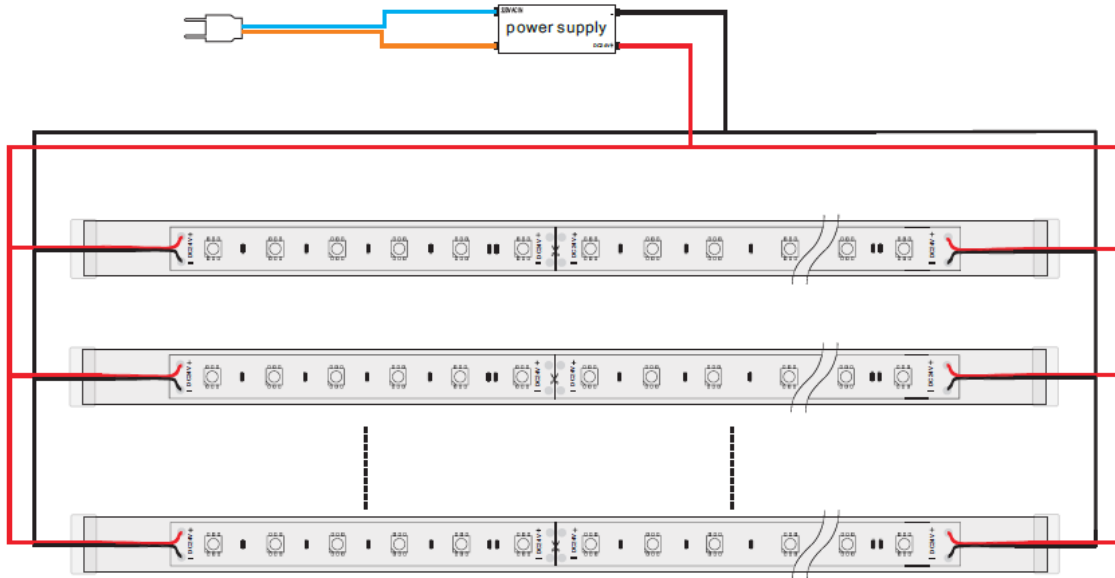
DC12V

**DC 24V :**

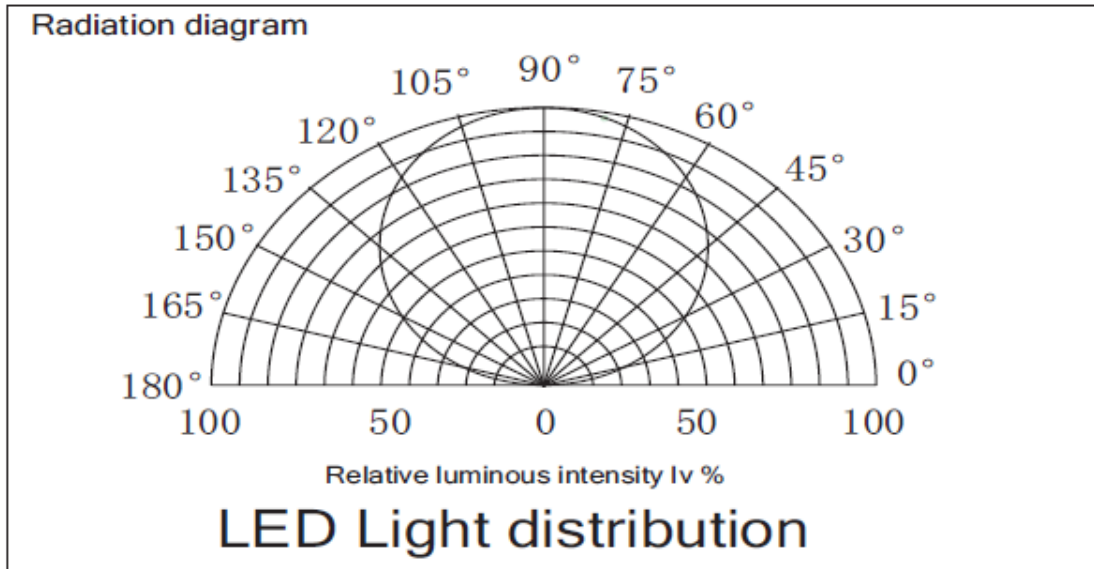


DC24V

Connection Diagram for Single Color Bar LEDs:



Optical Characteristics:





**Packing:**

- Packed are 100 cm long
- 20 bar led in 1 packed
- Do not put into direct sunlight
- Do not put 5 boxes in a row.