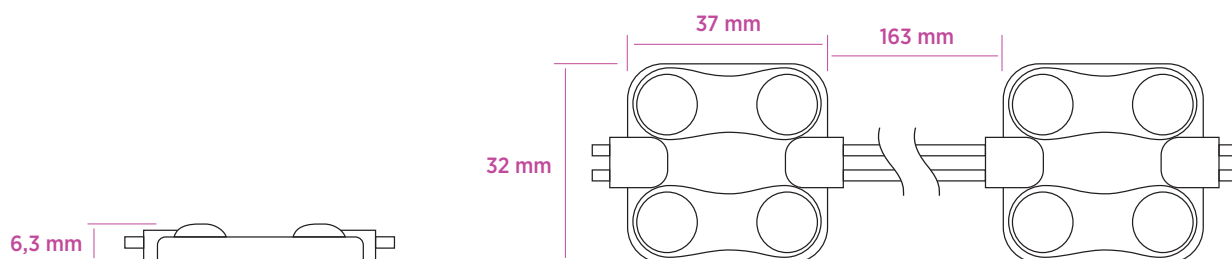




## Dimension:



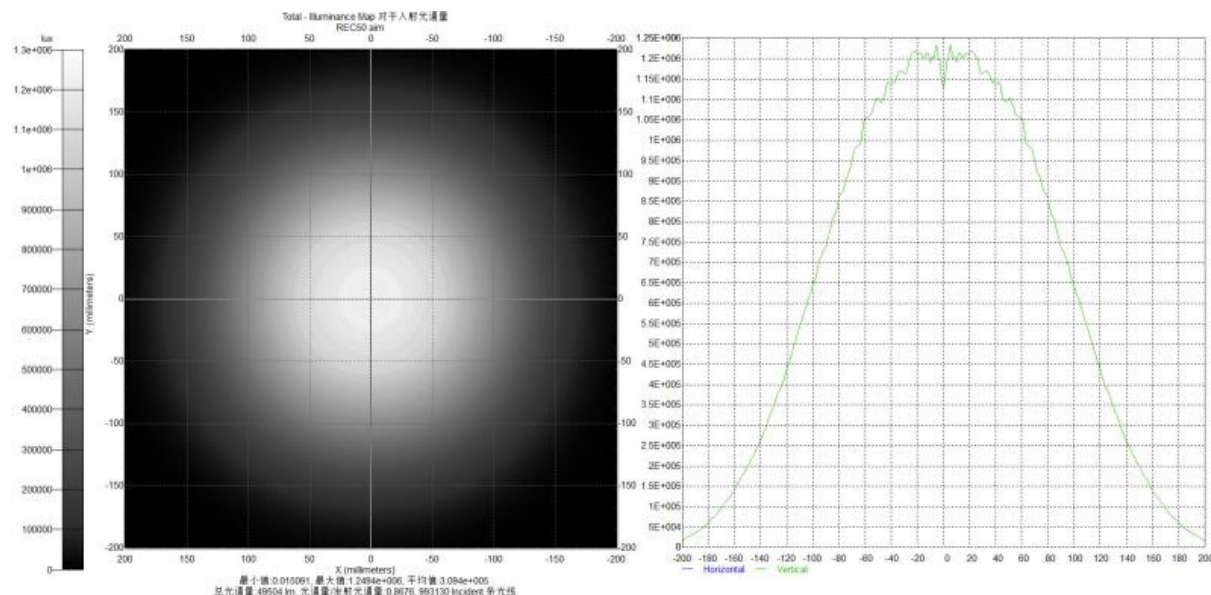
## Feature:

- Constant Voltage, 20 pcs per series
- The Aluminum plate for heat dissipation
- Injection molding process. Waterproof: IP 65
- Bigger chip, 10% brighter than before
- Energy saving. Environment friendly
- Use Alu PCB, better heat dissipate, longer life span
- Suitable for 10-20 cm height channel letters and light boxes backlighting etc.

## Parameter of Product:

| Code    | Color      | "Opration Voltage" | "Rated Current" | "Rated Power" | "Beam Angle" | Luminous Flux | CCT         | Working Temp. | IP Rank |
|---------|------------|--------------------|-----------------|---------------|--------------|---------------|-------------|---------------|---------|
| 4SL165W | White 6500 | DC12V              | 120mA           | 1,44W         | 165°         | 170Lm         | 2800-15000K | -40°C-60°C    | IP 65   |

## Distribution curve:



## Typical optical characteristics:

### Color Parameter

Chroma Coordinate:  $x=0.3069$   $y=0.3239$   $u=0.1957$   $v=0.3098$   $Duv=0.0036$

Chroma Coordinate:  $u'=0.1957$   $v'=0.4647$

CCT: CCT=6880K Dominant:  $d=487nm$  Barycenter:  $b=539nm$  Peak Wavelength:  $p=448.3nm$

FWHM: 19.75nm Purity:  $Pe=9.638\%$  Red Ratio:  $R=0.117$  Green Ratio:  $G=0.843$  Blue Ratio:  $B=0.04$

Color CRI:  $Ra=72.45$

|         |        |         |         |         |         |         |
|---------|--------|---------|---------|---------|---------|---------|
| R 1=71  | R 2=75 | R 3=76  | R 4=74  | R 5=72  | R 6=66  | R 7=81  |
| R 8=63  | R 9=24 | R 10=39 | R 11=72 | R 12=41 | R 13=71 | R 14=87 |
| R 15=67 |        |         |         |         |         |         |

### Luminosity Parameter

Luminous Flux(380-780nm): 172.577lm Optical Power(380-780nm): 0.54W Efficient(380-780nm): 109lm/W

### Electric Parameter

Voltage:  $U=12V$  Current:  $I=132mA$  Power:  $P=1.584W$  PF: PF=1

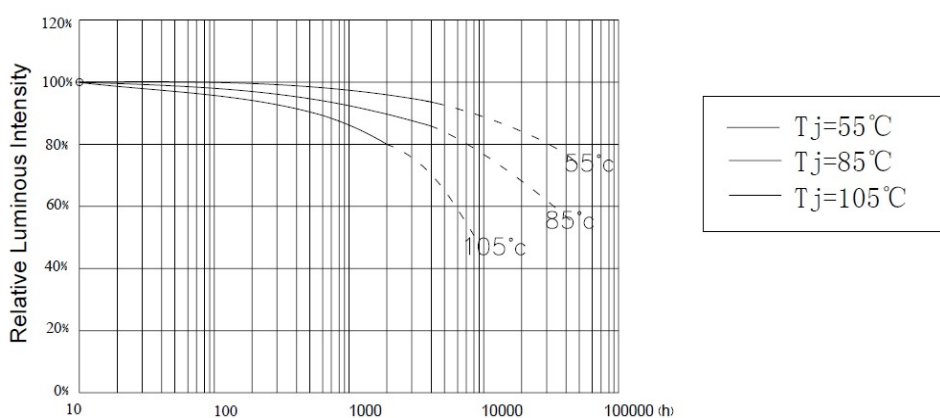
### Device State

Wavelength Range: 380nm-780nm Wavelength Interval: 1nm

## Affect of Tj on Luminous Maintenance:

life test:

Affect of Tj on Luminous Maintenance  
(If=40mA)  
(Dot line: Expected Life)



## Absolute maximum ratings:

| Parameter                   | Symbol | Value     | Unit |
|-----------------------------|--------|-----------|------|
| Forward current             | If     | 120       | mA   |
| Reverse voltage             | Vr     | 5         | V    |
| Operating temperature range | Top    | -20 ~+85  | °C   |
| Storage temperature range   | Tstg   | -35~+85   | °C   |
| Pulse forward current       | Ifp    | 150       | mA   |
| Electrostatic discharge     | ESD    | 2000(HBM) | V    |