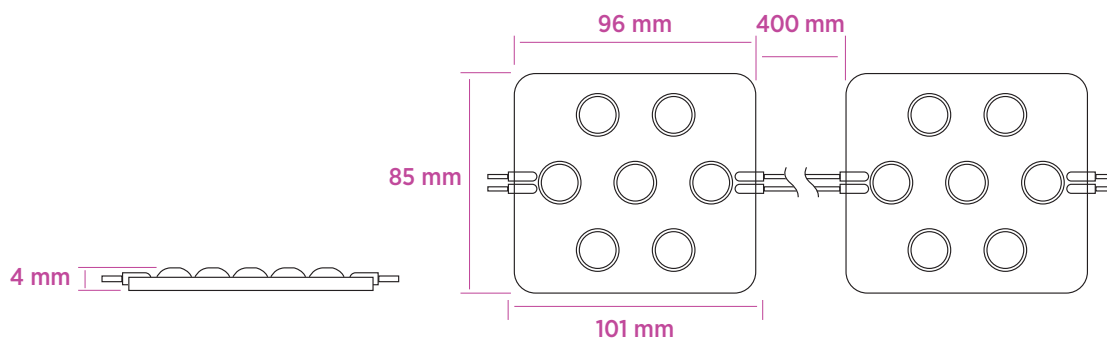




Dimensions:



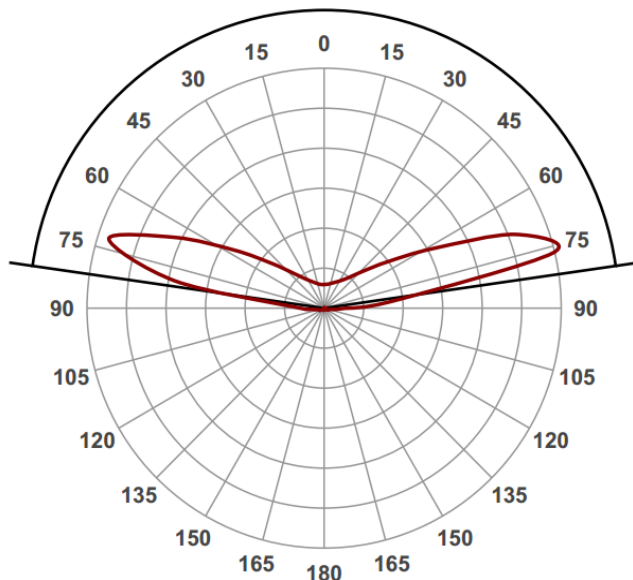
Feature:

- 95% transmittance lens, Wide view angle 170°
- Bright illumination with fewer modules
- Constant voltage Technology, 10 pcs per series
- The exposed Aluminum plate for heat dissipation
- Injection molding process, Waterproof: IP 65
- Energy saving. Environment friendly
- Long life span
- Suitable for 12-30 cm height channel letters and light boxes backlighting etc.

Rules of Naming Products:

| Code | Color | Operation Voltage | Rated Current | Rated Power | Beam Angle | Luminous Flux | CCT | Working Temp. | IP Rank |
|-----------|-------|-------------------|---------------|-------------|------------|---------------|-------------|---------------|---------|
| 7SMD170EW | White | DC 24 V | 291 mA | 7W | 170° | 700-710lm | 2800-11000K | -40°C-80°C | IP 65 |

Distribution curve:



Typical optical characteristics curves:

Color Parameter

Chroma Coordinate: $x=0.321$ $y=0.3354$ $u=0.2012$ $v=0.3153$ $Duv=0.0025$

Chroma Coordinate: $u'=0.2012$ $v'=0.4729$

CCT.: CCT=6042K Dominant: $d=493.8\text{nm}$ Barycenter: $b=543\text{nm}$ Peak Wavelength: $p=452.3\text{nm}$

FWHM: 21.13nm Purity: $Pe=4.023\%$ Red Ratio: $R=0.138$ Green Ratio: $G=0.809$ Blue Ratio: $B=0.053$

Color CRI.: $Ra=82.45$

| | | | | | | |
|--------|--------|--------|--------|--------|--------|--------|
| R 1=81 | R 2=88 | R 3=92 | R 4=81 | R 5=81 | R 6=82 | R 7=87 |
| R 8=67 | R 9=0 | R10=71 | R11=80 | R12=57 | R13=83 | R14=96 |
| R15=76 | | | | | | |

Luminosity Parameter

Luminous Flux(380-780nm): 706.935lm Optical Power(380-780nm): 2.233W Efficient(380-780nm): 99.51lm/W

Electric Parameter

Voltage: $U=24\text{V}$ Current: $I=296\text{mA}$ Power: $P=7.104\text{W}$ PF: PF=1

Device State

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

Absolute maximum ratings:

| Parameter | Symbol | Value | Unit |
|-----------------------------|--------|-----------|------|
| Power dissipation | Pd | 7000 | mW |
| Forward current | If | 291 | mA |
| Reverse voltage | Vr | 5 | V |
| Operating temperature range | Top | -40 ~+100 | °C |
| Storage temperature range | Tstg | -40~+100 | °C |
| Pulse forward current | Ifp | 800 | mA |
| Electrostatic discharge | ESD | 2000(HBM) | V |
| Junction temperature | Tj | 85 | °C |

Reliability:

| | Test item | Ref. standard | Test condition | Note | Damaged |
|----------------------|--|---------------|---------------------------------|------------|---------|
| environment sequence | Resistance to soldering heat(Reflow Soldering) | JESD22-B106 | Tsld=260°C,10sec | 2 times | 0/22 |
| | Thermal shock | JESD22-A106 | "-40 15min ↑↓ 100°C15min" | 200 cycle | 0/100 |
| | High temperature | JESD22-A103 | Ta=100°C | 168 hours | 0/100 |
| | Life test | JESD22-A108 | Ta=25°C If=350mA | 6000 hours | 0/100 |
| | High humidity heat life test | JESD22-A101 | 60°C RH=90% If=333mA | 168 hours | 0/100 |

Affect of Tj on Luminous Maintenance:

life test:

