

100W high power led



Ark 100 W high power led have been applied the latest technology of thermal management, that allows us to make Hi-LED with high luminance from 4800lm to 7200lm high efficacy and high reliability. on the other hand, All the parts of led are passed ROHS certification and optimized to achieve the best effects with, long operating life up to 50,000hs ,high CRI<90 and so forth. As we are professional manufacturer in the led line, we can ensure the superior quality and rather competitive price. And supply you one-stop service to meet our customers's needs.

Feature:

1. High light brightness arrives 60,000-90,000lm
2. Low light attenuation
3. Long operating life up to 50,000hs
4. High color rendering
5. Flare with well-balanced
6. Superior ESD defernse
7. High transition efficiency to 90%
8. High CRI +90 (true color)
9. Cool light - no UV or IR
10. ROHS compliant
11. Payment by T/T in advace
12. Min-quantity order about 100 pcs
13. Transportation by Express and shipping

| Item No | Lens Color | Emitting color | Current(m A) | Forward Voltage(V) | Viewing Angle(deg.) | Dominant Wavelength(nm) |
|---------|------------|----------------|--------------|--------------------|---------------------|-------------------------|
|---------|------------|----------------|--------------|--------------------|---------------------|-------------------------|

| | | | | | | |
|-------------------|-------------|------------|------|-------|-----|-----------|
| FZ-P100SWEX-XXXTC | Water clear | Pure white | 3200 | 32-36 | 140 | 5500-8000 |
| FZ-P100WWEX-XXXTC | Water clear | Warm white | 3200 | 32-36 | 140 | 2300-5500 |
| FZ-P100BHEX-XXXTC | Water clear | Blue | 3200 | 32-36 | 140 | 450-475 |
| FZ-P100GHEX-XXXTC | Water clear | Green | 3200 | 32-36 | 140 | 490-530 |
| FZ-P100AYEX-XXXTC | Water clear | Yellow | 3200 | 22-26 | 140 | 585-595 |
| FZ-P100OREX-XXXTC | Water clear | Red | 3200 | 22-26 | 140 | 620-630 |
| FZ-P100IREX-XXXTC | Water clear | Infrared | 3200 | 14-18 | 140 | 835-945 |

1. Absolute Maximum Ratings

(Ta=25°C)

| Item | Symbol | Absolute Maximum Rating | Unit |
|---------------------------|--------|-------------------------|------|
| Forward Current | IF | 3200 | mA |
| Pulse Forward Current | IFP | 4000 | mA |
| Allowable Reverse Current | IR | 10 | uA |
| Power Dissipation | PD | 1 | W |
| Operating Temperature | Topr | -30~+85 | °C |
| Dice Temperature | Tstg | -40~+100 | °C |
| Soldering Temperature | Tsod | 260 | °C |

✧ IFP Conditions : Pulse Width ≤10msec. and Duty ≤1/10

✧ Soldering Time : ≤5 sec.

2. Electrical/Optical Characteristics

(Ta=25°C)

| Item | Symbol | Condition | Min | Typ | Max | Unit |
|---------------------------|--------|--------------|------|------|-------|------|
| Forward Voltage | VF | IF=3200[mA] | 32.0 | | 36.00 | V |
| Allowable Reverse Current | IR | VR=5[V] | 0 | | 10 | uA |
| Luminous Flux | Φv | IF=3200 [mA] | | 6000 | 9000 | lm |
| Temperature Color | TC | IF=3200 [mA] | 6500 | | 7500 | K |
| Chromaticity Coordinate | x | IF=3200 [mA] | | 0.45 | | |
| | y | IF=3200 [mA] | | 0.40 | | |
| Viewing Angle | 2θ1/2 | IF=3200mA] | | 140 | | |

✧ Please refer to CIE 1931 chromaticity diagram

✧ Viewing Angle Measurement allowance is ±5%

3. Ranking

(Ta=25°C)

| Item | Symbol | Condition | BIN CODE | Min | Max | Unit |
|------|--------|-----------|----------|-----|-----|------|
|------|--------|-----------|----------|-----|-----|------|

| | | | | | | |
|-----------------|----|-------------|---|------|------|----|
| Forward Voltage | VF | IF=3200[mA] | E | 28 | 32 | V |
| | | | F | 32 | 36 | |
| | | | G | 36 | 40 | |
| Luminous Flux | Φv | IF=3200[mA] | P | 6000 | 7000 | lm |
| | | | Q | 7000 | 8000 | |
| | | | R | 8000 | 9000 | |

- ◇ Forward Voltage Measurement allowance is $\pm 3\%$
- ◇ Luminous Intensity Measurement allowance is $\pm 10\%$

4. Typical Electrical Optical Characteristics Curves((Ta=25°C Unless Otherwise Notes)

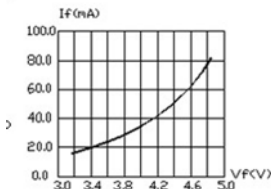


FIG1 FORWARD CURRENT VS. FORWARD VOLTAGE

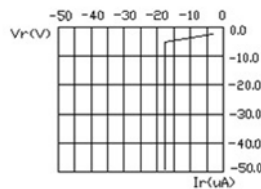


FIG2 REVERSE CURRENT VS. REVERSE VOLTAGE

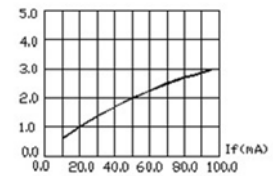


FIG3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

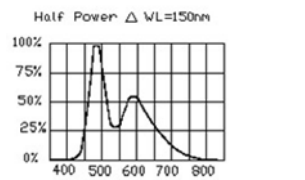


FIG4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.

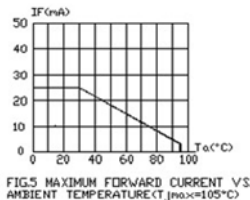
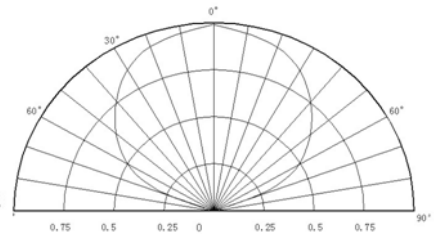
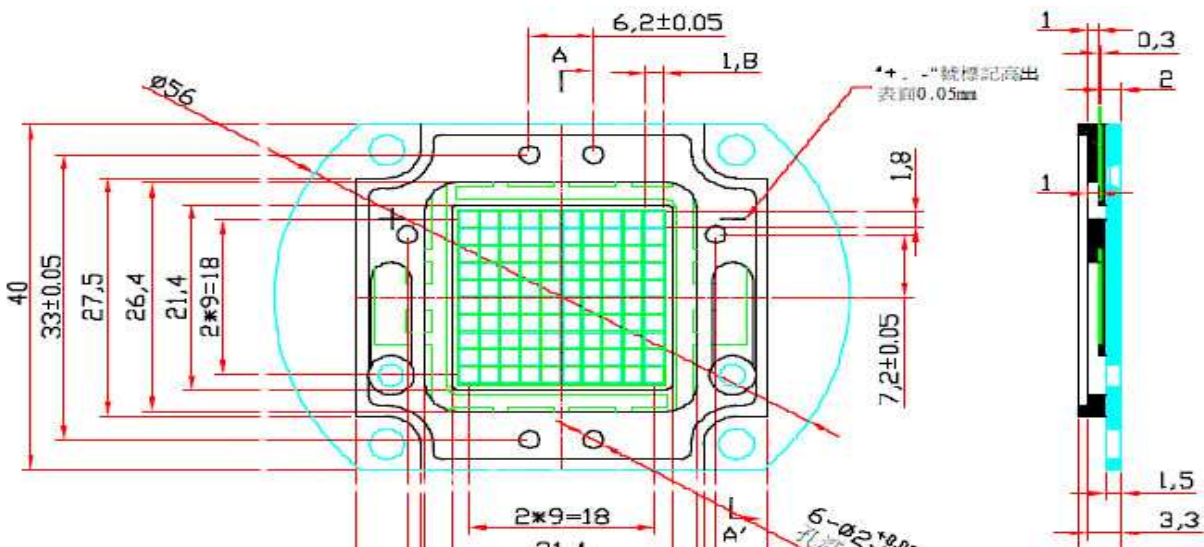


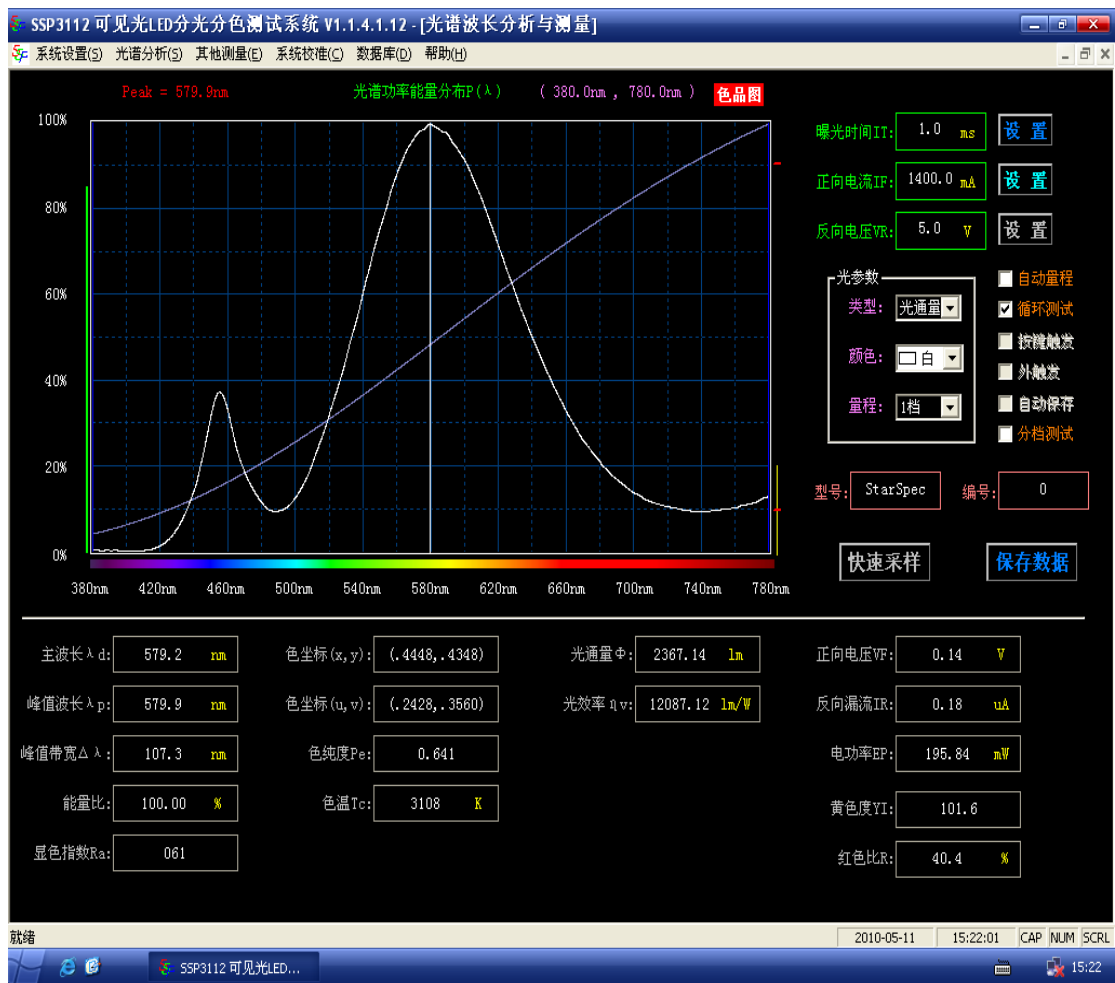
FIG5 MAXIMUM FORWARD CURRENT VS. AMBIENT TEMPERATURE(Tjmax=105°C)



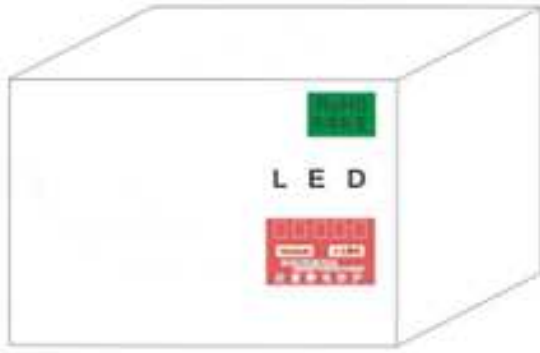
6. Lens Dimensions(mm)



5. Tested Lumens Data



7..Packing Measurement



Carton Packing

NOTES:

1. Dimensions are in mm.
2. There are 50pcs emitters in a inner cardboard
3. There are three kind of cartons: 0.5k,1k,2k
4. A pc emitter to a shockproof particular plastics bag

8.Application:

Street lamps, spotlights, architectural lighting landscapes, lighting exterior illumination, and so on

