SPECIFICATIONS FOR HIGH POWER LED LAMPS

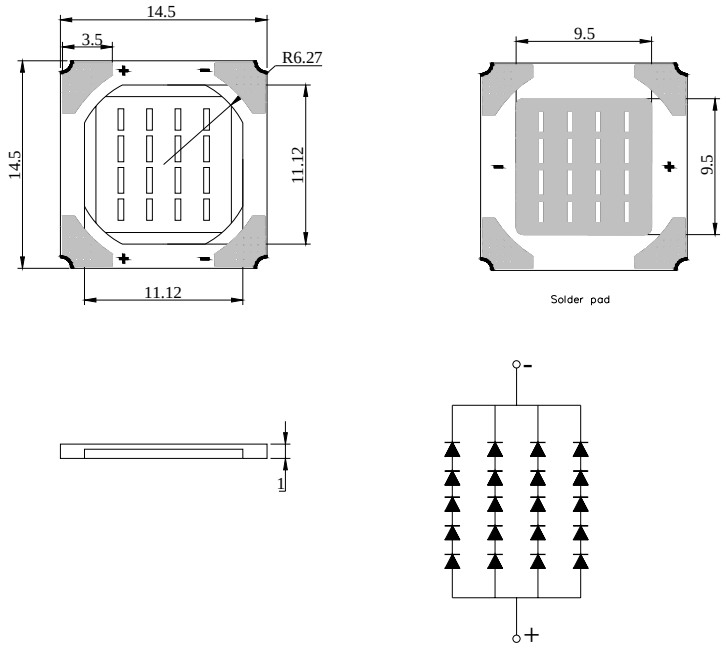
WR-EC150150UW-1400C-20P40

WENRUN OPTOELECTRONIC

◆ Features:

- High power LED light source module
- Excellent heat-sinking and ultra high intensity and high reliability
- current driver：1400mA
- Chip material：InGaN
- Emitting Color：Ultra Super White
- This product doesn't contain restriction Substance, comply ROHS standard.

◆ Package Dimensions:



NOTES：

1、All dimensions are in millimetres (mm)

2、Tolerance is ±0.25mm unless otherwise noted

◆ Absolute Maximum Rating （Ta=25℃）

Parameter	Symbol	Max.	Unit
Power Dissipation	P_M	24.5	W
Pulse Forward Current (Duty 1/10 @ 1kHz)	IF_P	2000	mA
DC Forward Current	I_F	1400	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	Topr	-25 ~ 85	℃
Storage Temperature Range	Tstg	-25 ~ 100	℃
Aluminum-core PCB temperature	/	100	℃

Notes：

1、 Proper current derating must be observed to maintain junction temperature below the maximum.

◆ Electrical Optical Characteristics（Junction Temperature, TJ=25℃）

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Flux	ϕ	--	500	--	lm	IF =1400mA
Forward Voltage	VF	--	17.5	19	V	IF =1400mA
Reverse Current	IR	--	--	50	uA	VR=5V
Chromaticity Coordinates	X	--	0.31	--	/	IF=1400mA
	Y	--	0.31	--	/	IF=1400mA
Color Temperature	Tc	--	6000	--	k	IF=1400mA
Viewing Angle	2 θ 1/2	--	120	--	Deg.	IF=1400mA
Pay attention to electrostatic（ESD）						

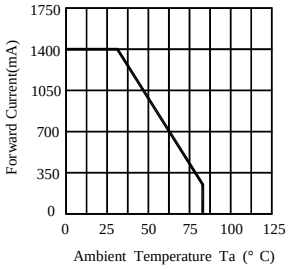
Notes:

1、The luminous intensity data is survey values with the machine zwl3900.

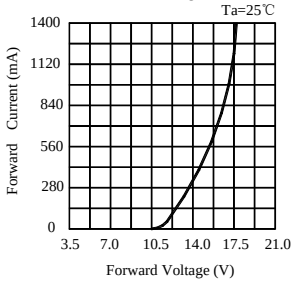
2、2 θ 1/2 is the clip angle at which the luminous intensity is half the axial luminous intensity.

◆ Typical Electro-Optical Characteristics Curves：

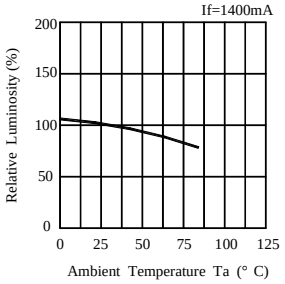
Forward Current Vs.
Ambient Temperature



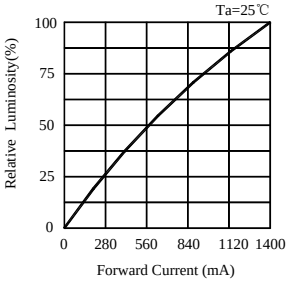
Forward Current Vs.
Forward Voltage
Ta=25℃



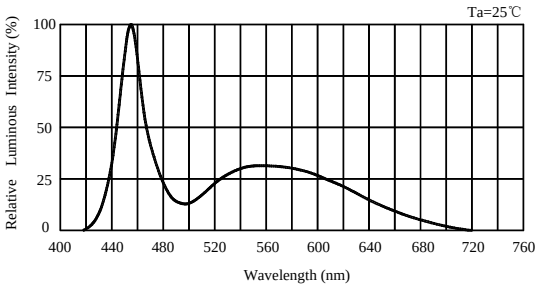
Relative Luminosity Vs.
Ambient Temperature
If=1400mA

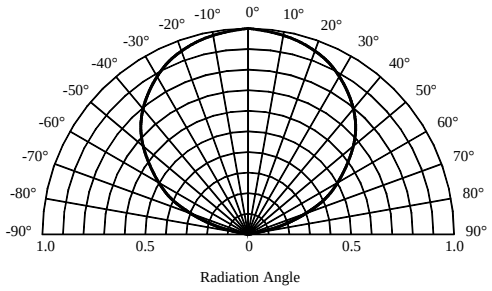


Forward Current Vs.
Relative Luminosity
Ta=25℃

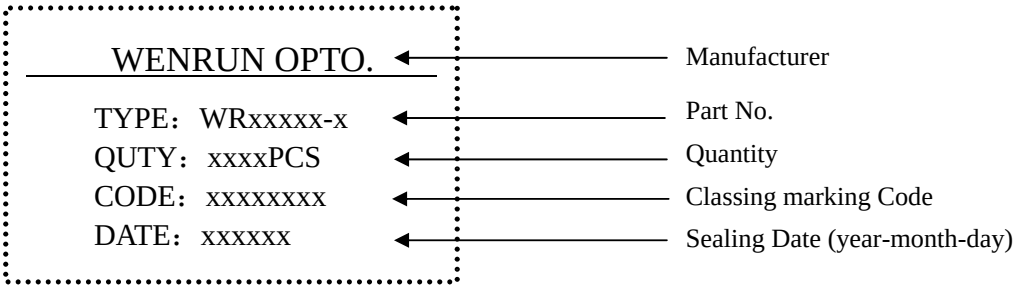


Relative Luminous Intensity Vs. Wavelength





◆ Label Form Specification



◆ Precautions In Use

A、Soldering Conditions

1、When soldering, leave the minimum clearance between the bottom of the resin and the soldering point.

2、Maximum allowable soldering conditions are.

Solder dipping: 260 ℃max., 5 seconds max., one time.

Soldering iron: 350 ℃ max., 5 seconds max., one time.

3、Contact between molten solder and the lens must be avoided.

4、In soldering, do not put any stress on the lead frame, particularly when heated.

B、Lead frame Forming and Use

1、When forming leads ,the leads should be bent at a point at least 3mm from the base of epoxy. Lead forming should be done before soldering.

2、Do not apply any bending stress to the base of the lead. The stress to the base may damage the LEDs characteristics.

3、When mounting the LEDs onto a printed circuit board ,the holes on the circuit board should be exactly aligned with the leads of the LEDs.

4、Please avoid conditions which may cause the LED to corrode, tarnish or discolor. This corrosion or discoloration may cause difficulty during soldering operations. It is recommended that the LEDs be used as soon as possible.

5、Please avoid rapid transitions in ambient temperature, especially, in high humidity environments.

C、Static Electricity

1、These products are sensitive to static electricity charge, and users are required to handle with care. Particularly, if an current and or voltage which exceeds the Absolute Maximum Rating of Products is applied, the overflow in energy may cause damage to, or possibly result in electrical destruction of, the Products. The customer is requested to take adequate countermeasures against static electricity charge and surge when handling Products.

2、Proper grounding of Products , use of conductive mat, conductive working uniform and shoes, and conductive containers are effective against static electricity and surge.

3、Ground low-resistance areas where the product contacts, such as metal surfaces of the work platform,

with a conductive mat (surface resistance 10^6-10^8 Ω).

4、A tip of soldering iron is requested to be grounded. An ionizer should also be installed where risk of static generation is high.

◆ Notes:

1、Above specification may be changed without notice. We will reserve authority on material change for above specification.

2、When using this product, please observe the absolute maximum ratings and the instructions for the specification sheets. We assume no responsibility for any damage resulting from use of the product which does not comply with the instructions included in the specification sheets.

3、Wenrun assumes no liability for applications assistance or customer product design. Customer is fully responsible for all design decisions and engineering with regard to its products, including decisions relating to application of wenrun products.