WEILINSEN TECHNOLOGY CO.,LTD

WLS-PST120W51010J-2728S

Features

- Super small surface emitting area
- Vertical chip LED technology for high power density and uniform emission
- High thermal conductivity copper core board package

Application

- Entertainment lighting
- Architectural lighting
- Decorative lighting
- Medical lighting
- Stage light, projection lamp, follow Spots

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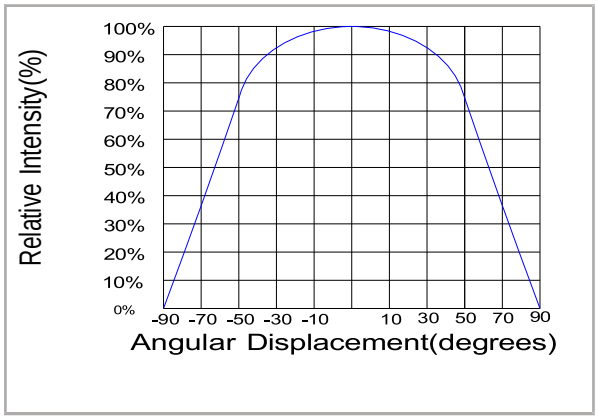
Specification

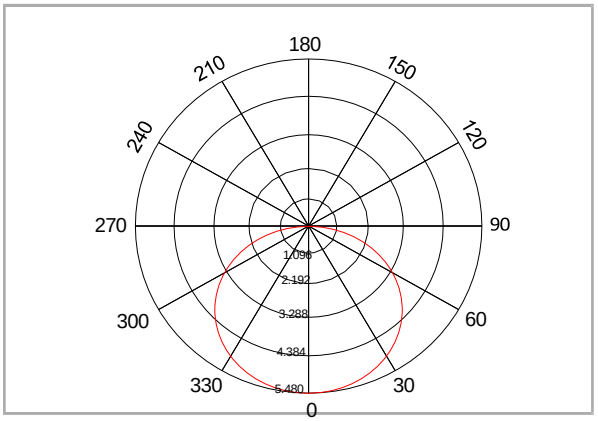
Features	Unit	Min	Typ	Max	Unit
Dimension	L*W	—	26.8*28	—	mm
Diameter of Luminous Area	Φ	—	—	—	Mm
Beam Angle	θ	—	120	—	deg.
Color temperature	CCT	5500	—	6500	K
Luminous Flux	ϕv	4500	—	5500	Lm
Maximum Forward Voltage	VF	12	—	14	V
Color rendering index	Ra	90	92	—	—
Output Power Typical	PD	—	120	—	W
Forward Current	If	—	9000	—	mA
Junction Temperature	Tj	—	150	—	℃
Operating Temperature	Torp	—	-30~+100	—	℃
Storage Temperature	Tstg	—	-20~+70	—	℃

Optical and Electrical Characteristics

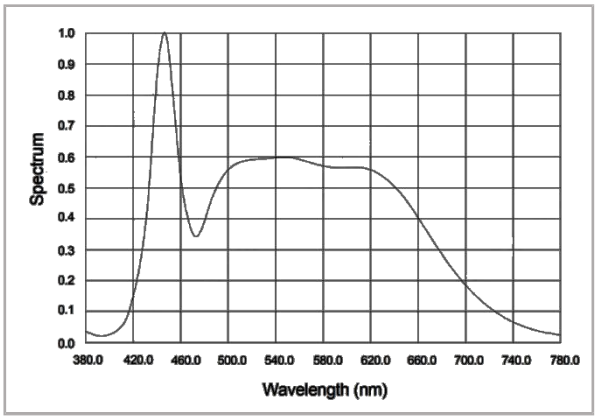
Typical Light Distribution Curve



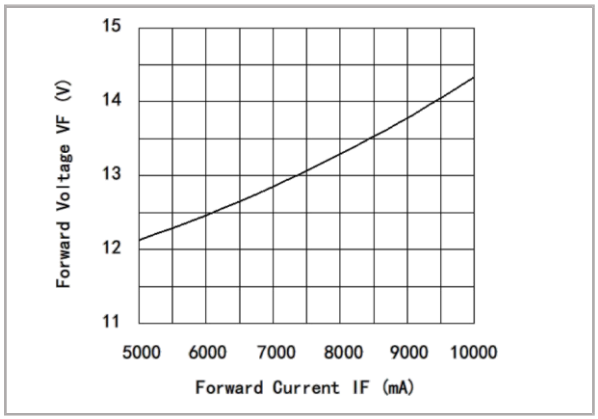
Typical Light-Emitting Angle Radiation Pattern



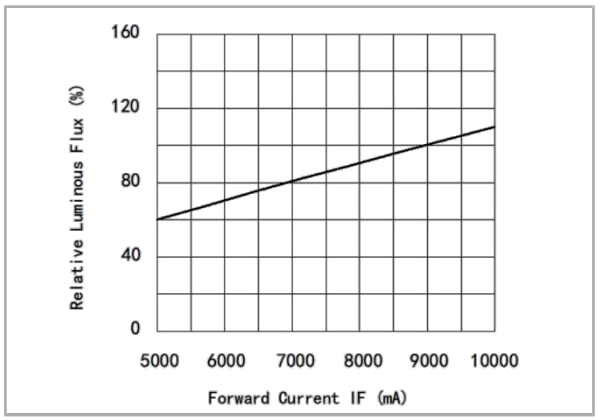
Typical white spectral distribution



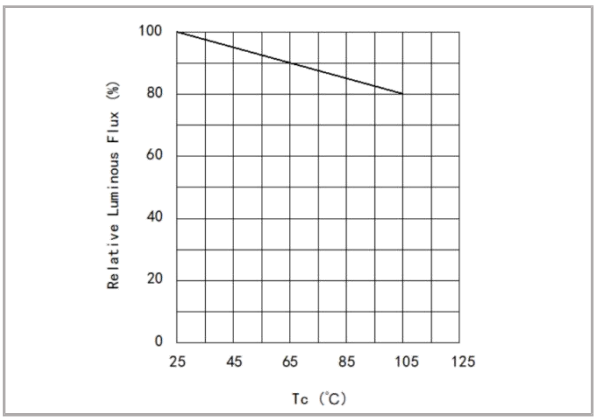
Forward Current vs. Forward Voltage



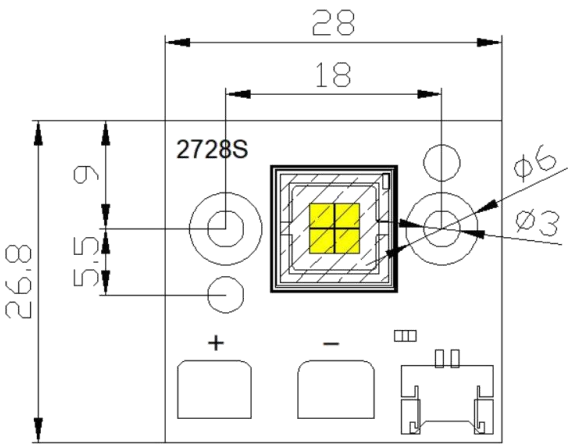
Forward Current VS. Relative Luminous Flux

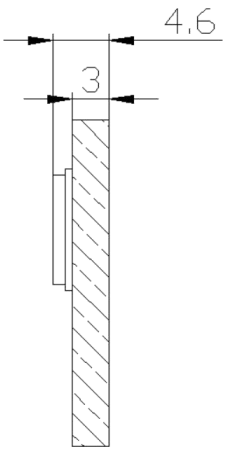


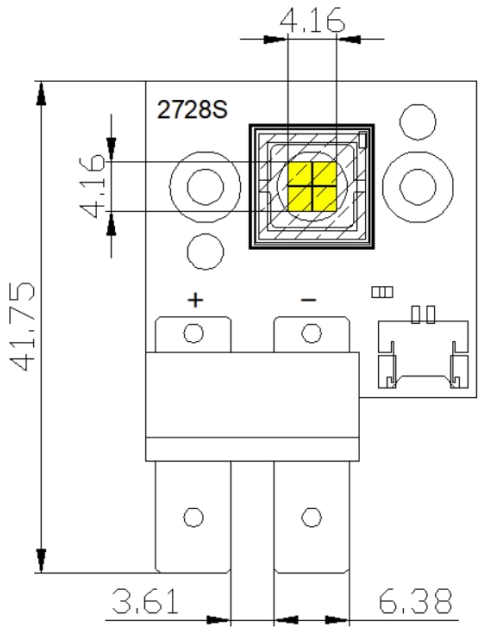
Relative Luminous Flux vs. Junction Temperature

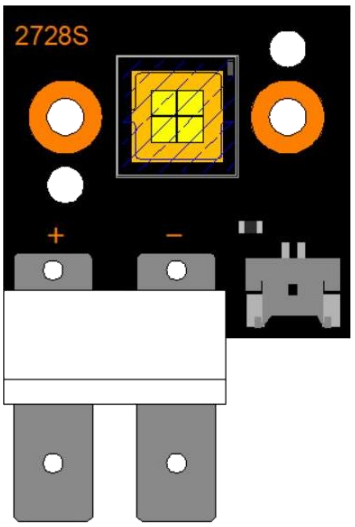


Dimensions (Unit: mm)









Notes:

1. All dimensions are in millimeters .
2. Tolerances unless otherwise mentioned are ±0.1mm .

Notes

Product Specifications

This is a product family data sheet without extra emphasis on a specific model. The specifications in the document refers to its general value under certain test conditions. Please consult sales representative or technical people if encounters specs that are not listed. (Tolerance should be considered).

Operation Tips

1. Please do not press emitting surface;
2. Please do not pour out products from trays or overlay them;
3. Keep the power supply lines 2-3mm striped and tin immersed;
4. Do not touch the emitting surface or the white dam by the soldering iron during soldering process;
5. Soldering time should be less than 5 seconds.;
6. Keep the soldering point clean and neat with no bulge, bend or cold-joint.
7. Instant test time less than 3 seconds.
8. Recommend to use thermal grease with conductivity >2.5.
9. Please keep the thermal grease inclusion-free;
10. Thermal grease spreading area should be a bit larger than the led substrate;
11. Thermal grease evenly spread with thickness about 0.1mm;
12. Place led flatly and do no push from side in case grease scraped;

Service Conditions

The products must be operated within the rated range of parameters. Constant current drivers are recommended.

ESD Protection

Statics or surge volt would cause LED failure. When using the products, we suggest wearing anti-static wrist strap or gloves. All devices, equipment and machinery must be grounded. Precautions should be taken to protect the products from the surge voltage generated by the devices. It is recommended to inspect each LED whether it is electrostatic damaged. Inspection can be done by a indicating lamp or low forward current test. The destroyed products show different features, for example, the forward voltage becoming lower, or no light emission under low current.

Heat Dissipation

The thermal design of the end product is particularly important, please consider it seriously. Do avoid high temperature condensation on the product.