



The Brightest LED

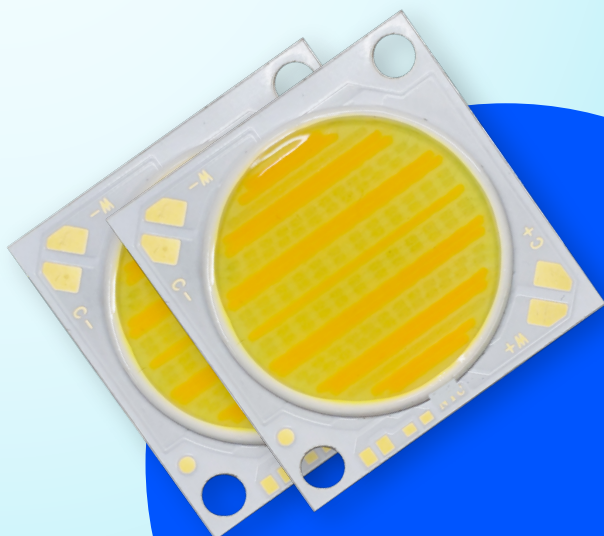
**CCT TUNABLE
DATASHEET
ES-45-EQ-200-2800-2770T80**

VERSION : V1/05.24



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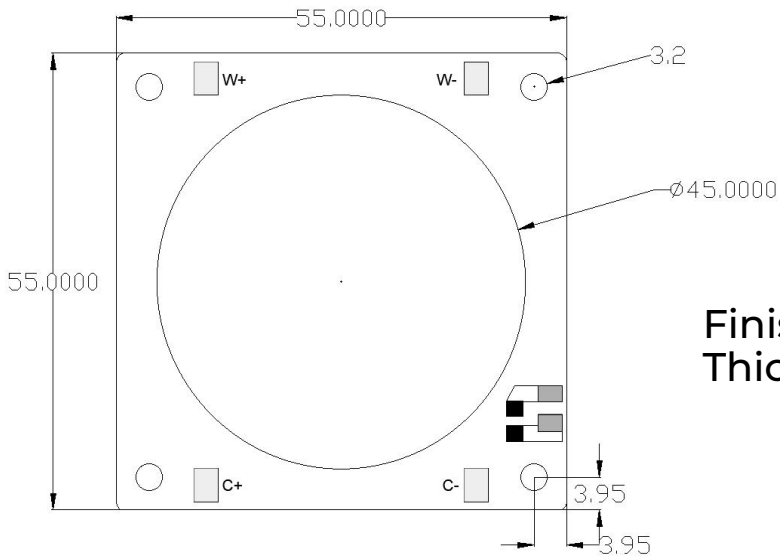
Features

- Size(mm) : 55*45*2.7mm
- Specular copper substrates and silicone package
- Viewing Angle : 120°
- High reliability
- RoHS compliant

Applications

- Spotlight
- Downlight
- Par lamp PAR
- Bulb, Restaurant lights, Outdoor landscape lights

Package Dimensions



Finished Product
Thickness - 2.7mm

Notes:

1. All dimensions are millimeter.
2. Tolerance is ± 0.2 mm unless otherwise noted.

Typical Electrical/Optical Characteristic

Product	Light Emitting Surface	Substrate Width	Voltage Options	Max Power (W)	Typical Lumens (@Binning Current,6500K CCT 80CRI)	Typical Lumens ² (@Binning Current,2700K CCT 80CRI)
ES-45-EQ-200-2800-2770T8	45mm	55*55mm	72V/2.8A	250W	31000LM	32000LM

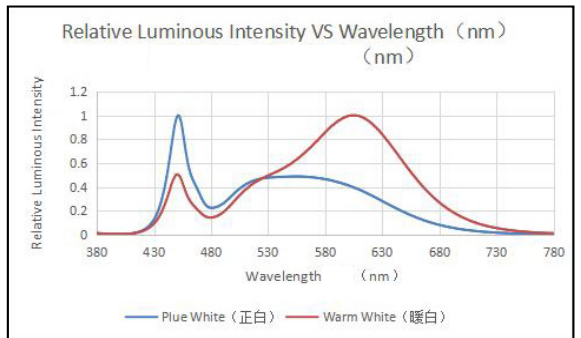
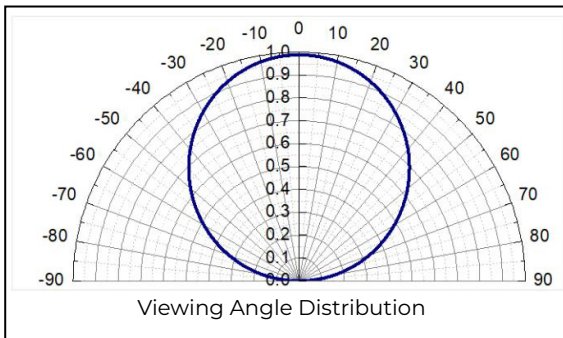
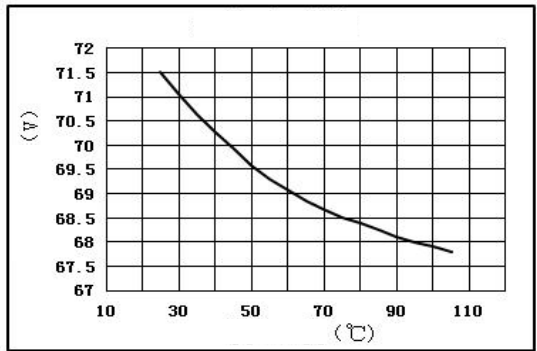
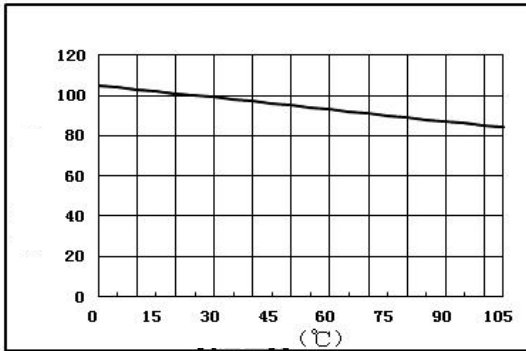
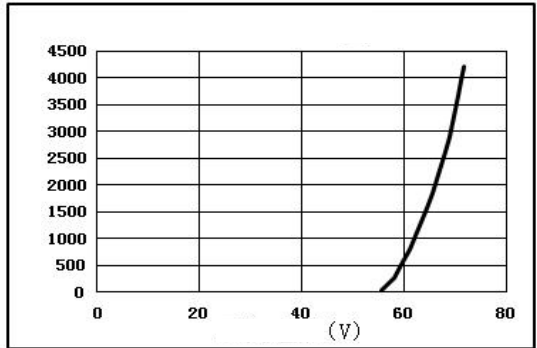
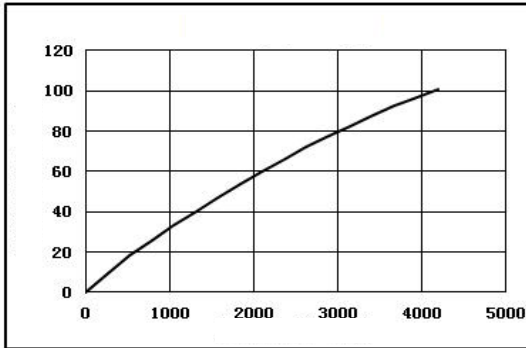
Electrical-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation	PD	250	W
Forward Current	IF	2800	mA
Max Forward Current	Max IF	3200	mA
Peak Forward Current	IFP	4000	mA
Junction temperature	Tj	125	°C
Operation Temperature Range	Topr	-30 to +85	°C
Storage Temperature Range	Tstg	-40 to +80	°C
Thermal Resistance	RJ-B	0.065	°C/W
ESD Sensitivity (HBM)	--	4000	V
Hand Soldering Temperature	350±20°C/3~5sec		

Notes:

Test Tolerance VF : ±1% XY: ±0.003 Φe:±10%

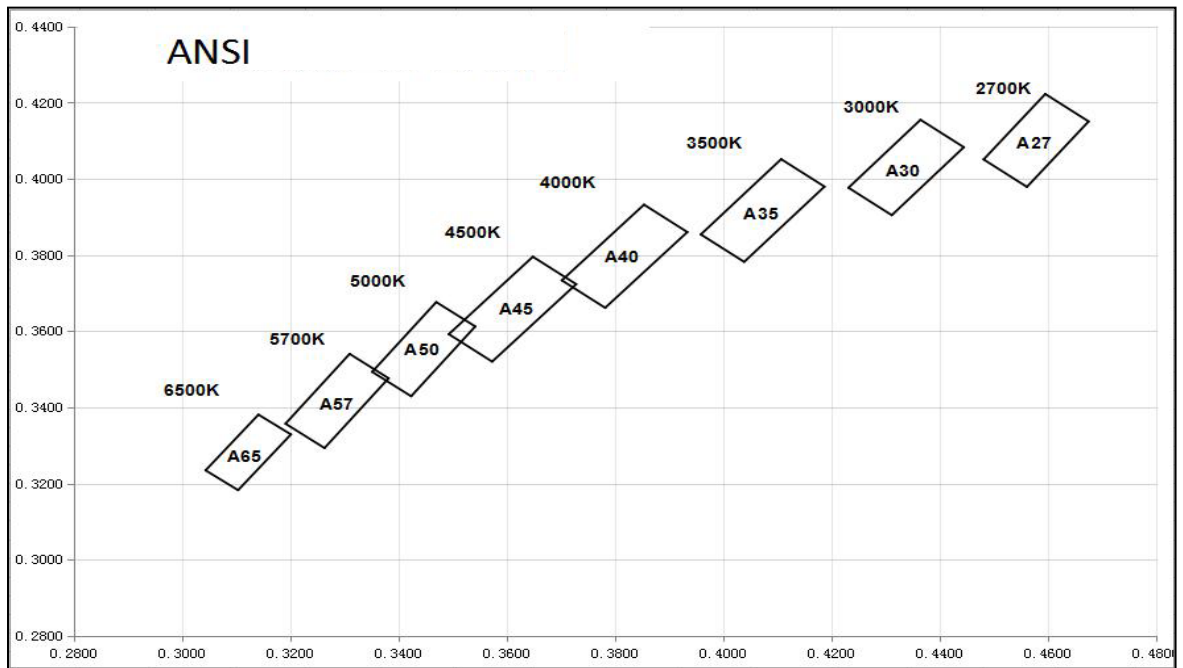
Typical Electrical/Optical Characteristic Curves



Notes:

1. Related to the temperature test based on the right current.
2. All measurements were made under the standardized environment of XUYU.

CIE Chromaticity Diagram



Color Rank :(TA=25°C)

CODE	CCT	X	Y
A27	2700K	0.4595	0.4223
		0.4481	0.4051
		0.4561	0.3979
		0.4675	0.4151

CODE	CCT	X	Y
A30	3000K	0.4365	0.4155
		0.4231	0.3977
		0.4311	0.3905
		0.4445	0.4083

CODE	CCT	X	Y
A35	3500K	0.4107	0.4052
		0.3959	0.3854
		0.4039	0.3782
		0.4187	0.3980

CODE	CCT	X	Y
A40	4000K	0.3854	0.3932
		0.3702	0.3734
		0.3782	0.3662
		0.3934	0.3860

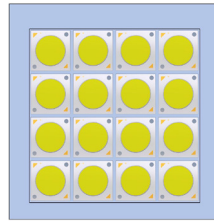
CODE	CCT	X	Y
A45	4500K	0.3649	0.3796
		0.3493	0.3592
		0.3573	0.3520
		0.3729	0.3724

CODE	CCT	X	Y
A50	5000K	0.3470	0.3677
		0.3352	0.3493
		0.3424	0.3429
		0.3542	0.3613

CODE	CCT	X	Y
A57	5700K	0.3310	0.3541
		0.3192	0.3357
		0.3264	0.3293
		0.3382	0.3477

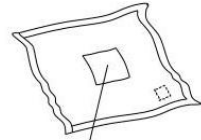
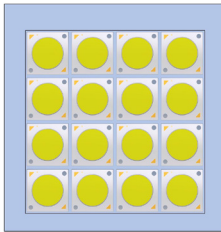
CODE	CCT	X	Y
A65	6500K	0.3142	0.3381
		0.3044	0.3235
		0.3104	0.3183
		0.3202	0.3329

Packaging Specifications



12 pcs

Packaging Specification



Aluminum moisture-proof bag

Desiccant

Label

Encoding

ES-X-EQ-XX-XXX-XXXXXXX

1 2 3 4 5 6 7

Nomenclature:

1. Everstar
2. LES - Light Emitting Surface
3. Internal Code
4. Wattage W
5. Current mA
6. CCT
7. CRI-(70/80/90)

Cautions

Storage/Use:

1. In order to avoid moisture absorption, it is suggested to store the products in a drying cabinet with desiccant. The storage temperature is 5°C~30°C, and the humidity is ≤60%HR.
2. The encapsulated material of the LEDs is silicone. Therefore the LEDs have a soft surface on the top of package. The pressure to the top surface will be influence to the reliability of the LEDs. Precautions should be taken to avoid the strong pressure on the encapsulated part. So when use the picking up nozzle, the pressure on the silicone resin should be proper.
3. Handle the component along the side surface by using forceps or appropriate tools; do not directly touch or Handle the silicone lens surface, it may damage the internal circuitry.
4. Electrostatic protection. LED is a chip sensitive electronic component. Various measures should be taken to avoid static electricity, such as wearing an electrostatic bracelet or anti-static gloves during use. All devices, equipment and instruments should be well grounded.

Label

		CCT TUNABLE	RoHS	
The Brightest LED				
Model No. _____				
Lot no. _____		Qty : _____		
VF (v)	IV (lm)	IF (mA)	CCT (K)	Ra
Part Code : _____				