EVERSTAR

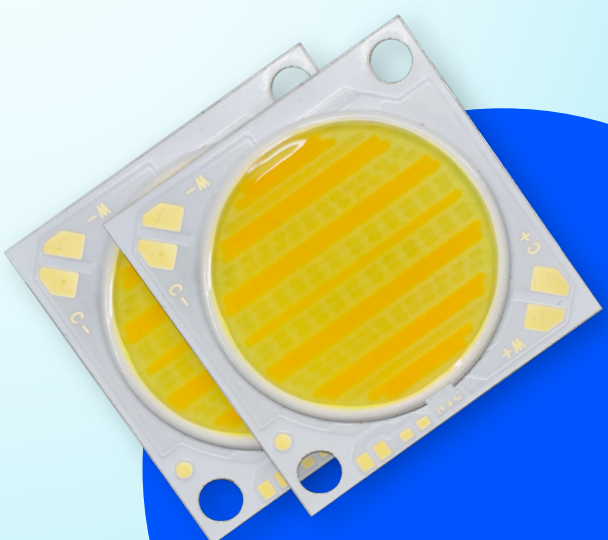
The Brightest LED

CCT TUNABLE DATASHEET ES-7-EQ-08-200-2770T80

VERSION : V1/05.24

CONTENT

1. Features
2. Applications
3. Package Dimensions
4. Product Coding Rules
5. Typical Electrical/Optical Characteristic
6. Electrical-Optical Characteristics (Ta=25ºC)
7. Typical Electrical/Optical Characteristic Curves
8. CIE Chromaticity Diagram
9. Color Rank :(TA=25ºC)
10. Packaging Specifications
11. Cautions
12. Label



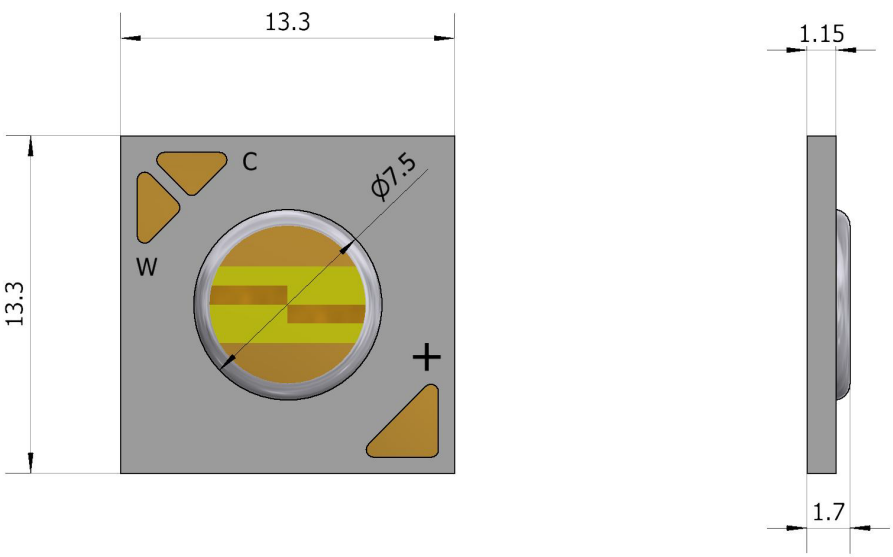
Features

- Size(mm)：13. 3*13. 3*1.7mm
- Specular aluminium substrates and sillicone package
- Viewing Angle：120°
- High reliability
- RoHS compliant

Applications

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

Package Dimensions



Notes:

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

Typical Electrical/Optical Characteristic

Product	Light Emitting Surface	Substrate Width	Voltage Options	Max Power (W)	Binning I/V	Typical Lumens (@Binning Current,6500K CCT 80CRI)	Typical Lumens[2] (@Binning Current,2700K CCT 80CRI)
ES-7-EQ-08-200-2770T80	7.5mm	13.3mm	36V	C:8w/W:8w	200mA/36 V	1000	950

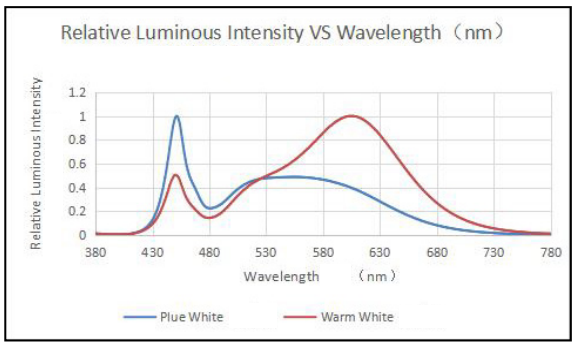
Electrical-Optical Characteristics (Ta=25°C)

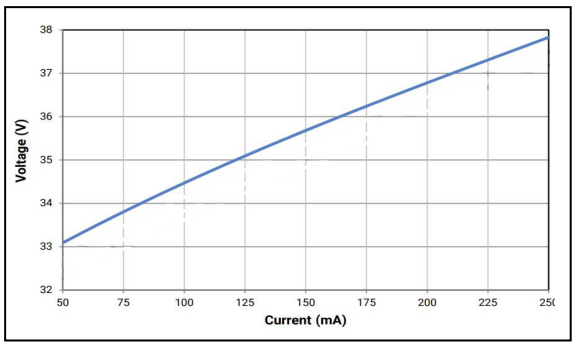
Parameter	Symbol	Rating	Unit
Power Dissipation	PD	8	W
Forward Current	IF	200	mA
Max Forward Current	Max IF	200	mA
Peak Forward Current	IFP	250	mA
Junction temperature	Tj	125	°C
Operation Temperature Range	Topr	-30 to +85	°C
Storage Temperature Range	Tstg	-40 to +80	°C
Thermal Resistance	RJ-B	1.6	°C/W
ESD Sensitivity (HBM)	--	4000	V
Hand Soldering Temperature	350±20°C/3～5sec		

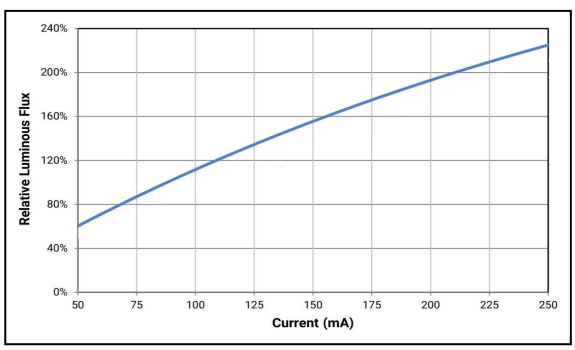
Notes:

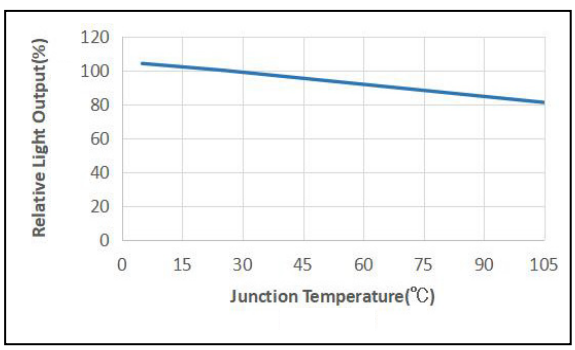
Test Tolerance VF : ±1% XY: ±0.003 Φe:±10%

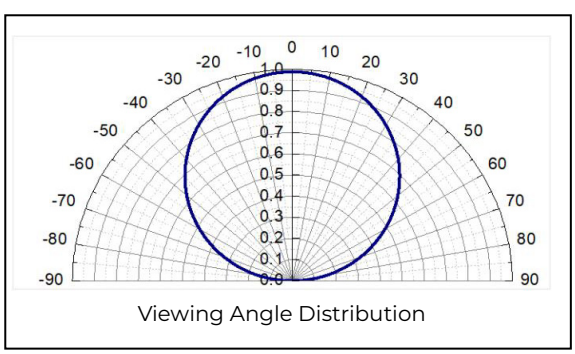
Typical Electrical/Optical Characteristic Curves







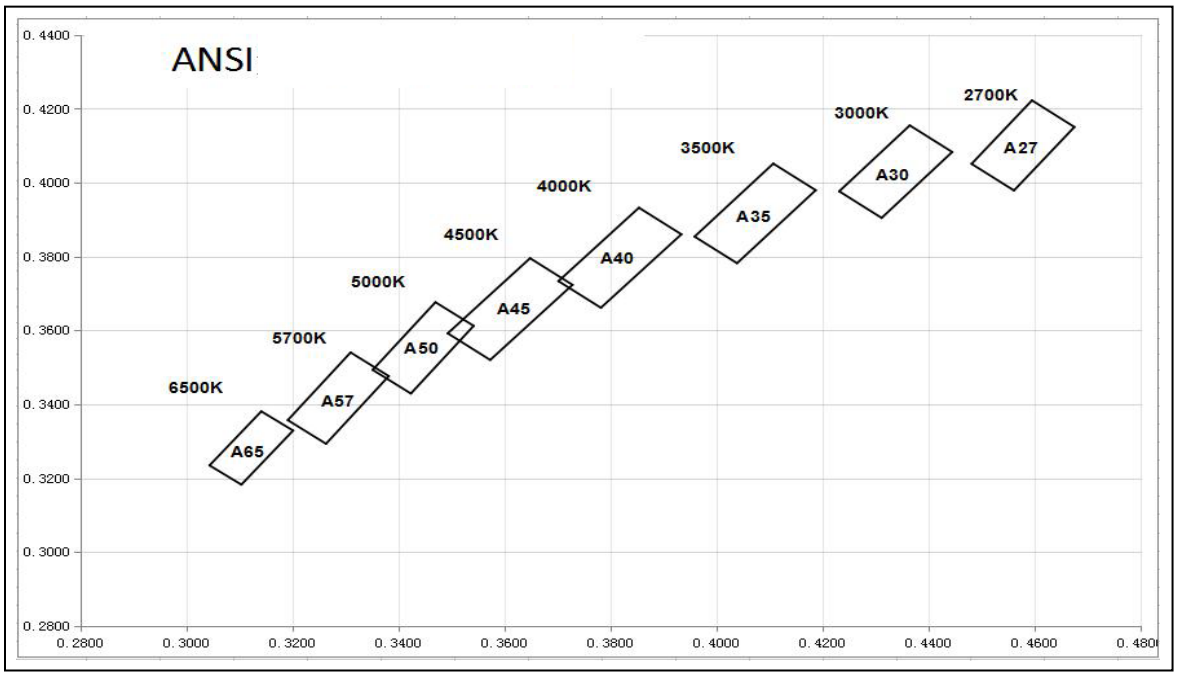




Notes:

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

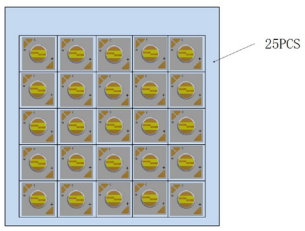
CODE	CCT	X	Y
A45	4500K	0.3649	0.3796
		0.3493	0.3592
		0.3573	0.3520
		0.3729	0.3724

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

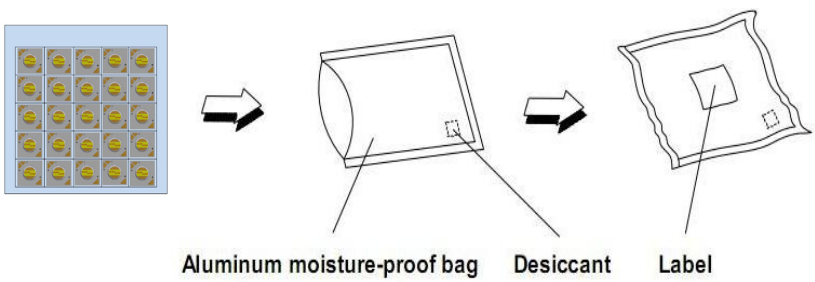
CODE	CCT	X	Y
A57	5700K	0.3310	0.3541
		0.3192	0.3357
		0.3264	0.3293
		0.3382	0.3477

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

Packaging Specifications



Packaging Specification



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