



LEDTECH ELECTRONICS CORP.

(Zone 22) North Guiyuan Rd., West Jixi Rd.,  
Duanzhou District, Zhaoqing City, Guangdong  
Province, China

TEL:86-758-2877017,2875541,2870651,2877464

FAX:86-758-2878014

*Http://www.ledtech.com.tw*

# SPECIFICATION

*PART NO. : LP30NR-S455*

*12W COB 27 x 27mm TYPE*



Approved by	Checked by	Prepared by
<i>Gary</i>	<i>Chih Liang</i>	<i>Paul Ku</i>



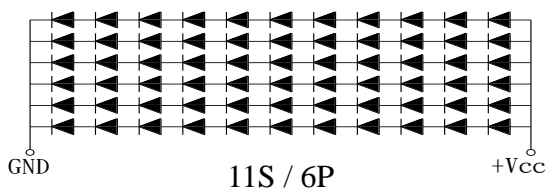
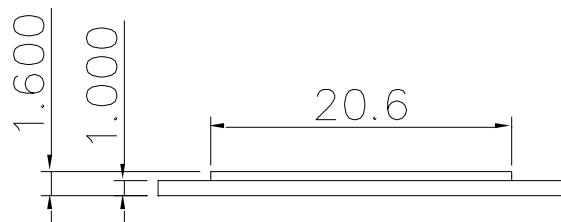
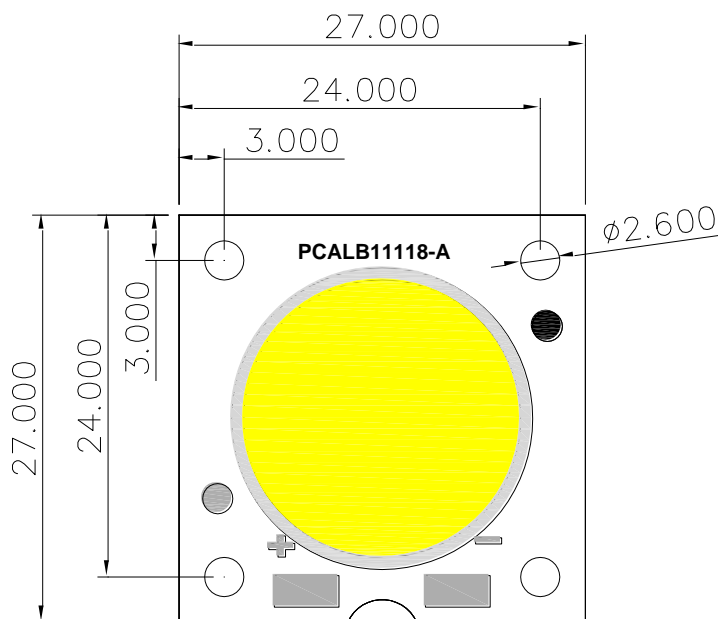
### Features

- Pb-Free soldering application
- RoHS compliance
- Multi-Chip package
- High Reliability

### Application

- Bay-light module
- Indoor decorative lighting
- Illumination
- Automotive Application
- Architectural Lighting
- Indicator / Decoration

**Package Dimensions**



**Notes:**

1. All dimensions are in mm.
2. Tolerance is  $\pm 0.5$ mm unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without notice.

**Description**

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LP30NR-S455	InGaN/ Sapphire	Warm White	Orange Diffused

**Absolute Maximum Ratings at Ta=25 °C**

Parameter	Symbol	Rating	Unit
Power Dissipation	P <sub>D</sub>	12.6	W
D.C. Forward Current	I <sub>f</sub>	350	mA
LED Junction Temperature	T <sub>j</sub>	150	°C
Operating Temperature Range	T <sub>opr.</sub>	-40 to +110	°C
Storage Temperature Range	T <sub>stg.</sub>	-40 to +120	°C
Solder Heat Resistance	SHR	Hand Soldering:260±5°C for 5 sec.	
Electric Static Discharge Threshold (HBM)	ESD	1000	V

**Electrical and Optical Characteristics:**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Flux		I <sub>f</sub> =350mA	-	1450	-	lm
	Rank L1		1300	-	1500	
	Rank L2		1500	-	1700	
Forward Voltage		I <sub>f</sub> =350mA	-	32.5	-	V
	Rank V1		30	--	33	
	Rank V2		33	--	36	
CIE Chromaticity Coordinates : X Axis	X	I <sub>f</sub> =350mA	-	0.4465	-	
CIE Chromaticity Coordinates : Y Axis	Y	I <sub>f</sub> =350mA	-	0.4071	-	
Correlated Color Temperature	CCT	I <sub>f</sub> =350mA	2700	--	3000	°K
Color Rendering Index	CRI	I <sub>f</sub> =350mA	70	-	-	R <sub>a</sub>
Viewing Angle	2θ 1/2	I <sub>f</sub> =350mA	-	120	-	deg

**Notes:**

1. The datas tested by IS tester.
2. Customer's special requirements are also welcome.

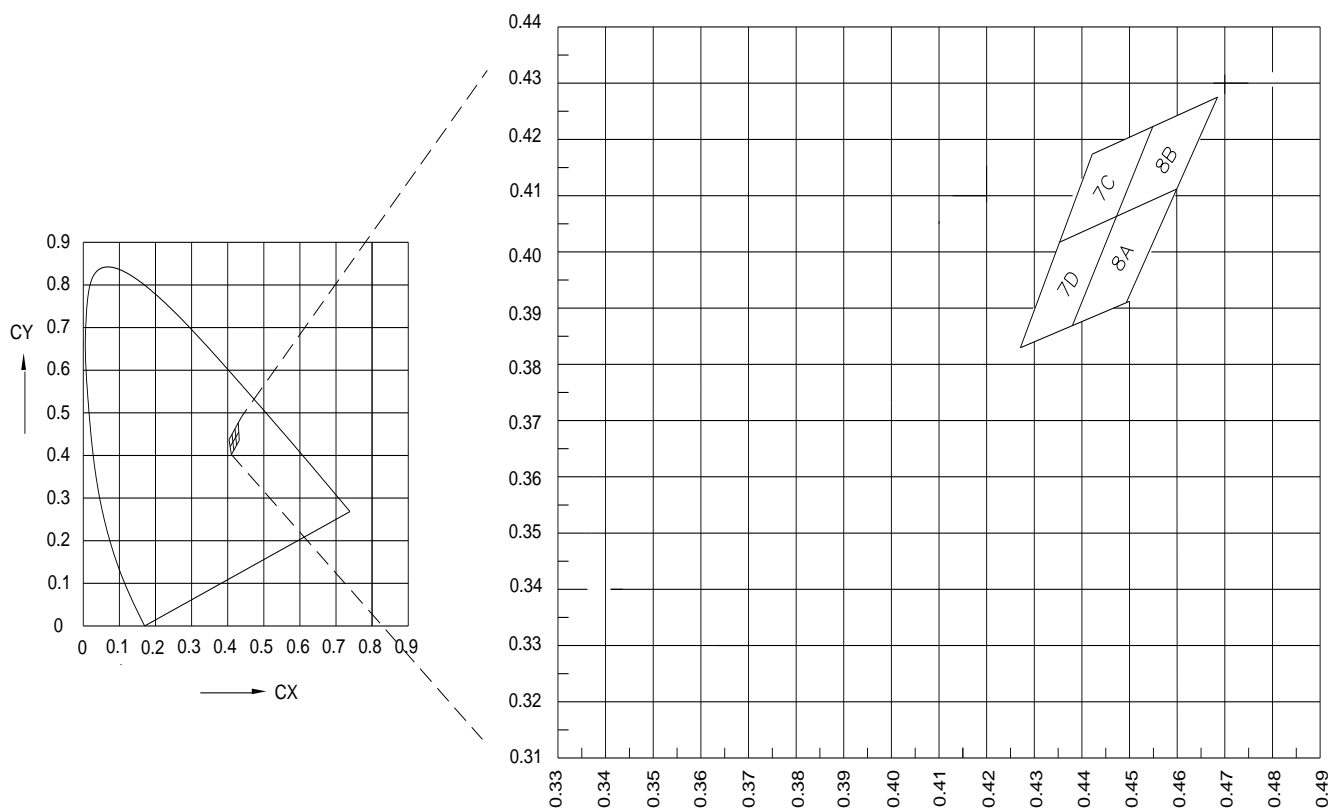
### Chromaticity Coordinates Specifications for Bin Grading:

COLOR RANKS (IF=350mA.Ta=25°C)

BIN	RANK				
7C	X	0.4342	0.4430	0.4562	0.4465
	Y	0.4028	0.4212	0.4260	0.4071
7D	X	0.4259	0.4342	0.4465	0.4373
	Y	0.3853	0.4028	0.4071	0.3893
8A	X	0.4345	0.4430	0.4582	0.4483
	Y	0.3880	0.4055	0.4099	0.3919
8B	X	0.4430	0.4530	0.4687	0.4582
	Y	0.4055	0.4248	0.4289	0.4099

Note: X.Y Tolerance each Bin limit is±0.01.

### Chromaticity Coordinates & Bin grading diagram:



**Typical Electrical/Optical Characteristic Curves**

(25°C Ambient Temperature Unless Otherwise Noted)

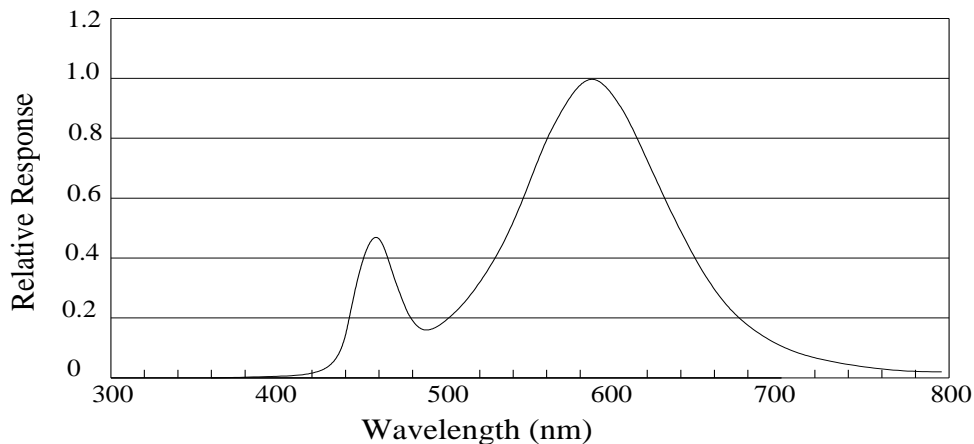
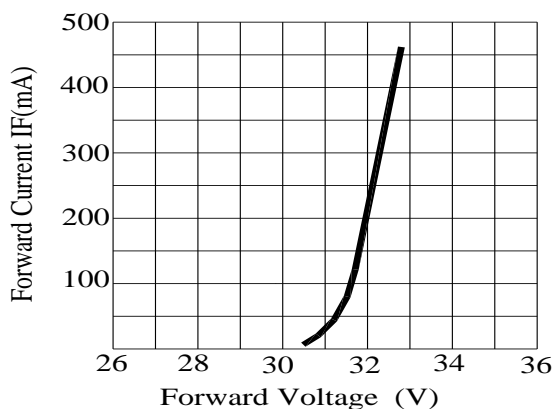
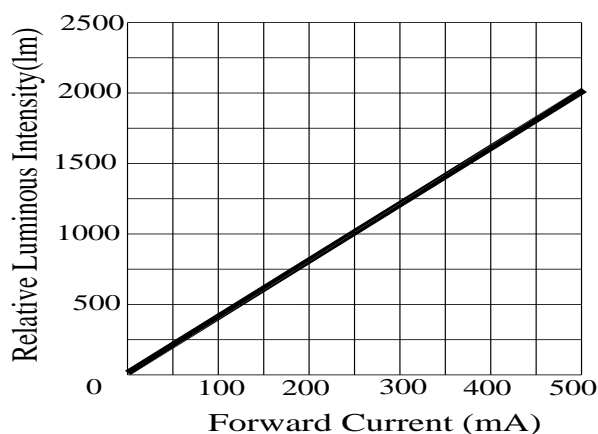


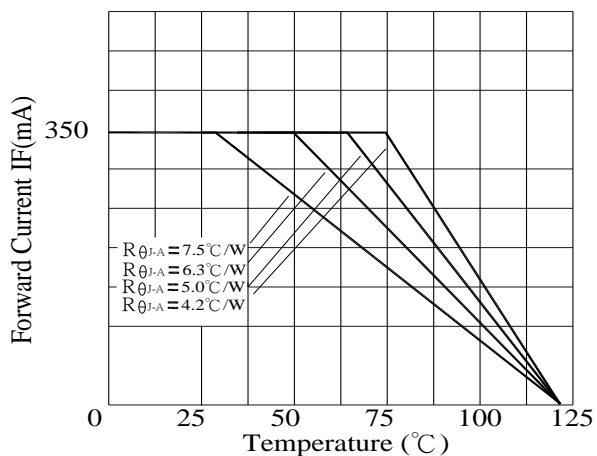
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



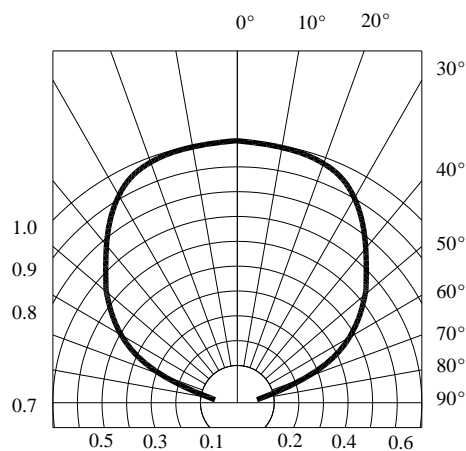
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current

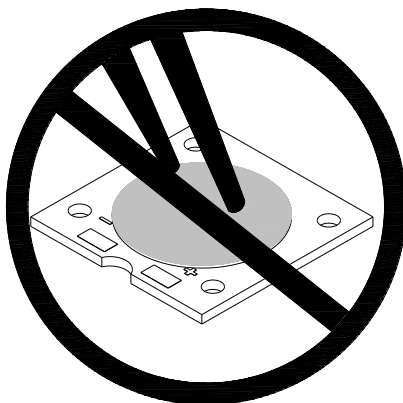


Radiation Diagram

## Handling of Silicone Resin LEDs

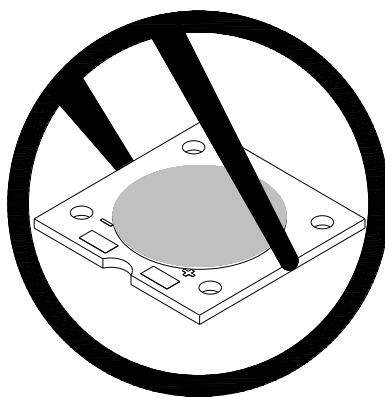
### Handling Indications

During processing, mechanical stress on the surface should be minimized as much as possible. Sharp objects of all types should not be used to pierce the sealing compound



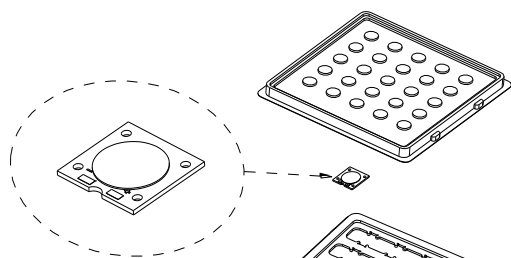
**Figure 1**

In general, LEDs should only be handled from the side. By the way, this also applies to LEDs without a silicone sealant, since the surface can also become scratched.

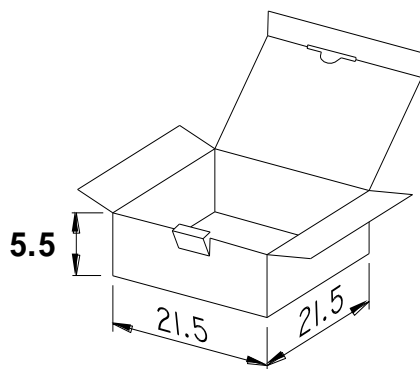
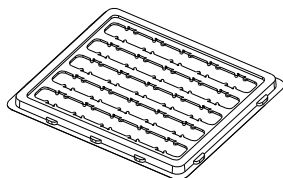


**Figure 2**

When populating boards in SMT production, there are basically no restrictions regarding the form of the pick and place nozzle, except that mechanical pressure on the surface of the resin must be prevented. This is assured by choosing a pick and place nozzle which is larger than the LED's reflector area.

**Packaging :**

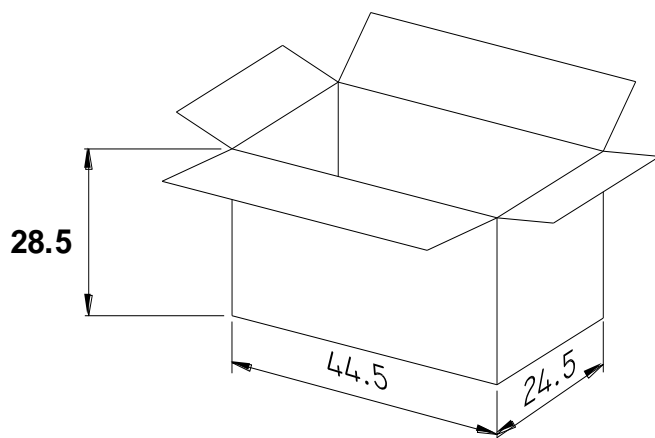
25 PCS LED / 1 TRAY



4 PCS TRAY / 1 INNER BOX



10 PCS INNER BOX / 1 OUTER BOX

UNIT : cm**Notes :**

1. There are **25** pcs in a tray.
2. There are **4** trays in an inner box.
3. There are **10** inner boxes in an outer box.