




PRODUCT SPECIFICATION

Model No: CSPR-N329GC4-A0R

Descriptions:	
■ Product Type	: Superbright Lamp
■ LED Package	: Piranha LED Lamp
■ Emitting Color	: Green
■ Viewing Angle	: 50°
■ Stopper	



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY
			

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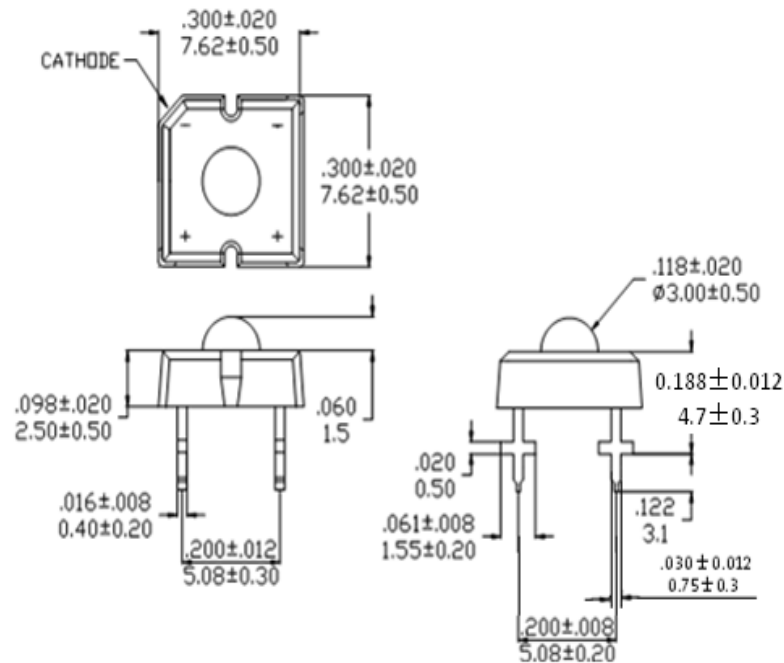
■ **Feature**

1. High Current Operation
2. High Luminous Output.
3. High Reliability and Solid.
4. Optimal Optical/Mechanical Design.
5. Packaged in Tubes for Use with Automatic
6. RoHS compliant.

■ **Device Selection Guide**

Part No.	Chip Material	Color	
		Emitted	Lens Resin
CSPR-N329GC4-A0R	InGaN	Green	Water Transparent

■ **Package Outline Dimensions -**



*Tolerance: $\pm \frac{0.01}{0.25}$ Unit: $\pm \frac{\text{inch}}{\text{mm}}$

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■ Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	120	mW
Continuous Forward Current	I _f	40	mA
Peak Forward Current (Duty Cycle 1/10, 1KHz) ^{*1}	I _{fP}	100	mA
Reverse Voltage ^{*2}	V _r	5	V
ESD Sensitivity	ESD	1000	V
LED Junction Temperature ^{*3}	T _j	110	°C
Operating Temperature	Topr	-40~ +85°C	
Storage Temperature	Tstg	-40 ~ +100°C	
Lead Soldering Temperature	Tsol	Max. 260 for 5 sec Max. (1.6mm from the epoxy body)	

Note:

1. Pulse width \leq 0.1 msec, duty \leq 1/10.
2. The device can not operated under continuous reverse voltage
3. Proper current rating must be observed to maintain junction temperature below the maximum at all the time.

■ Electrical / Optical Characteristic

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Luminous Intensity*	I _v	2400	4300	-----	mcd	I _f = 30mA
Forward Voltage	V _f	-----	3.5	4.0	V	
Dominant Wavelength	λ_d	-----	505	-----	nm	
Viewing Angle	2 θ 1/2	-----	50	-----	Deg	
Reverse Current	I _r	-----	-----	50	μ A	V _r = 5V
ESD Sensitivity	HBM	-----	-----	1000	V	MIL-STD-833G

* Luminous intensity value is traceable to CIE127-2007 standards

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■ **Luminous Intensity Rank Limits (If = 30mA)**

Luminous Intensity			
Bin Code	Min	Max	Unit
31	2400	3000	mcd
32	3000	3900	
33	3900	5100	
34	5100	6600	
35	6600	8750	

■ **Dominant Wavelength Rank Limits(If = 30mA)**

Bin Code	Min	Max	Unit
CG2	495	500	nm
CG3	500	505	
CG4	505	510	

■ **Forward Voltage Rank Limits(If = 30mA)**

Bin Code	Min	Max	Unit
J	3.0	3.2	V
K	3.2	3.4	
L	3.4	3.6	
M	3.6	3.8	
N	3.8	4.0	

Notes:

1. Tolerance of measurement of luminous intensity :±15%;
2. Tolerance of measurement of dominant wavelength:±2nm;
3. Tolerance of measurement of forward voltage:±0.1v;
4. All data are measured by OPT's test equipment.
5. One delivery will include several color rank, VF rank and Iv ranks of the products.
6. The quantity-ratio of the ranks is decided by OPT.

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■ **Electrical / Optical Characteristics Curves (Ta = 25°C Unless Otherwise Noted)**

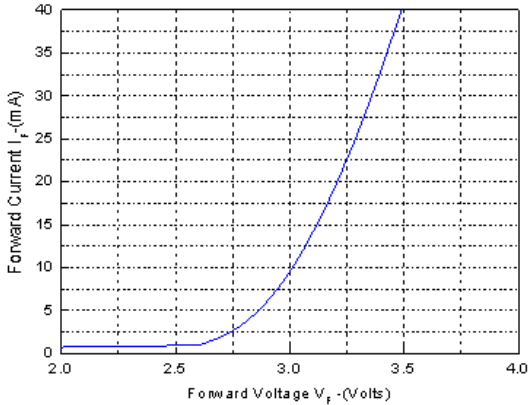


Figure1. Forward Current VS. Forward Voltage

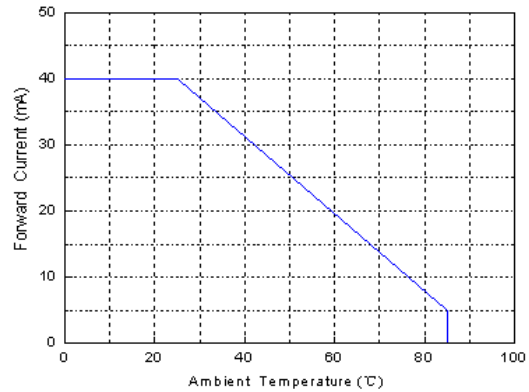


Figure2. Forward Current VS. Ambient Temperature;

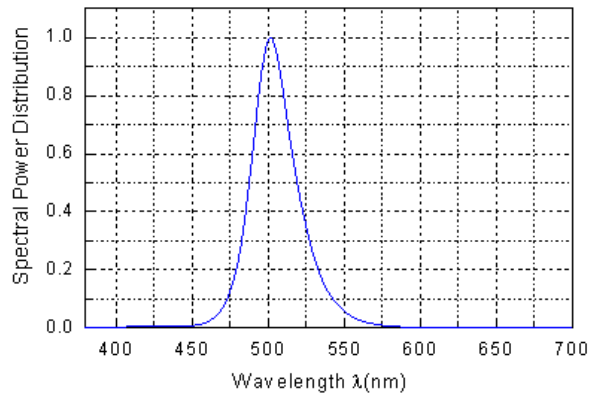


Figure3. Spectral Power Distribution VS. Wavelength

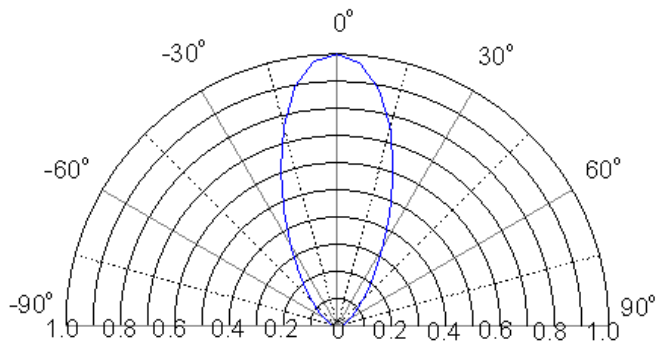


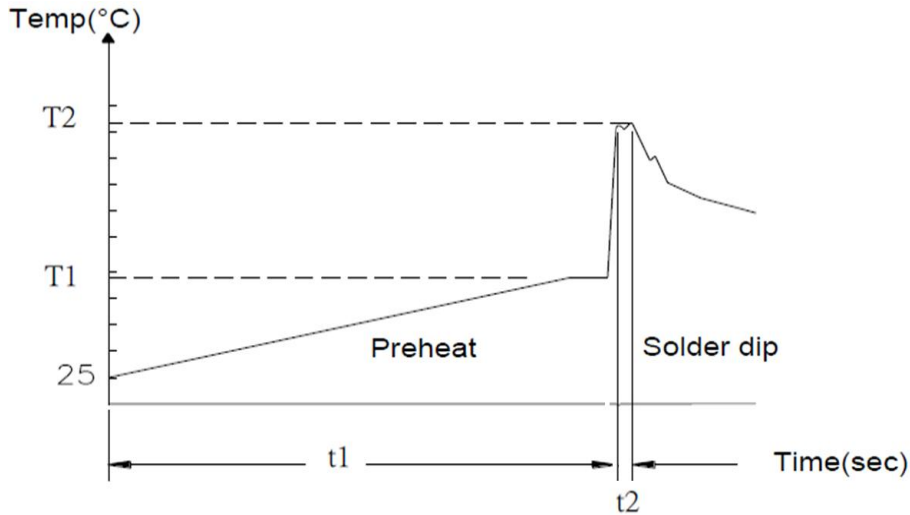
Figure4. Relative Luminosity VS. Radiation Angle

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■ Precautions For Use

1. Wave Soldering Profile

.Distance : 1.6 mm min (From seating plane)



Item	Condition		Notes
Preheat	Temp. T1	120-180 °C	PWB temperature
	time t1	60-180 sec	(soldering side surface)
Solder Dip	Temp. T2	230-260 °C	Bath temperature
	time t2	2-4 sec	Solder tank passage time

2. Hand Soldering (Iron Condition)

- 2.1 Soldering Iron: 30W Max
- 2.2 Temperature 350°C Max (iron tip 260°C Max)
- 2.3 Soldering Time: 3 Seconds Max (Once)
- 2.4 Distance: 1.6mm min (From seating plane)

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3. Static Electricity

3.1 Static electricity or surge voltage damages LEDs.

It is recommended that a wrist band or an anti-electrostatic glove should be used when handling the LEDs.

3.2 All devices, equipment and machinery must be properly grounded. It is recommended that measures be taken against surge voltage to the equipment that mounts the LEDs.

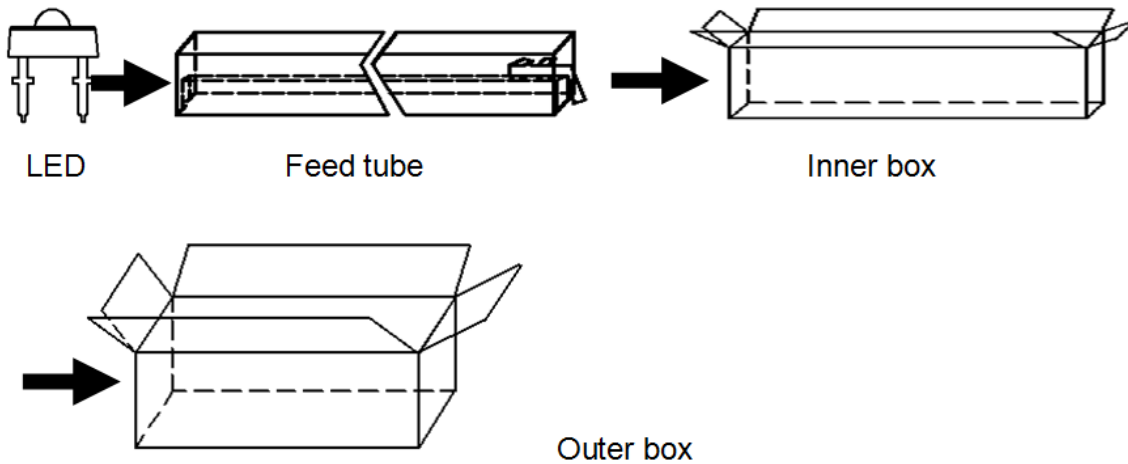
4. Storage

4.1 Shelf life: Within 18 months under following conditions.

Un-opened, at normal temperature / Normal relative humidity (+5~+30°C / 70%Rh.max.).

■ Package

Package Name	Package Dimension		Distribution of the layer or box		Total Mount	
	Size	Unit	Amount	Unit	Amount	Unit
Feed tube	485*8.5*13	mm	1	STR	60	PCS
Inner Box	495*100*50	mm	1	Box	1440	PCS
Outer Box	530*265*115	mm	1	Box	7200	PCS



Spec. No.	PS-PR-N329GC4-A0R
Rev.	E

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■ Change story-

Rev.	Date	Change Description
A	2012/7/1	Original Version
B	2012/9/13	Change the test luminous flux to axial luminous intensity
C	2017/12/20	Format to update, Add different test standard Rank Limits
D	2019/12/12	Add remarks on rated specifications, Delete IV2.
E	2023/03/15	Delete CS bright corporation's address;

Please confirm with OPT salesman, if your request different form standard specification.