CHINA SEMICONDUCTOR CORPORATION

Spec. No.	PS-LU-N32DSW4-A0R
Rev.	A

PRODUCT SPECIFICATION

Model No：CSPR-N32DSW4-A0R

Descriptions:
■LED Type ： Superbright Lamp
■LED Package ： Piranha LED Lamp
■Emitting Color ： White
■Viewing Angle ： 90°
■Stopper

CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

CHINA SEMICONDUCTOR CORPORATION
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OPTO PLUS TECHNOLOGIES CO.,LTD
Address:696 Shun jiang Rd.,Ji Shan St.Shaoxing,
ZheJiang,China

Tel:86-0575-88623888
Fax:86-0575-88623112

Model No：CSPR-N32DSW4-A0R

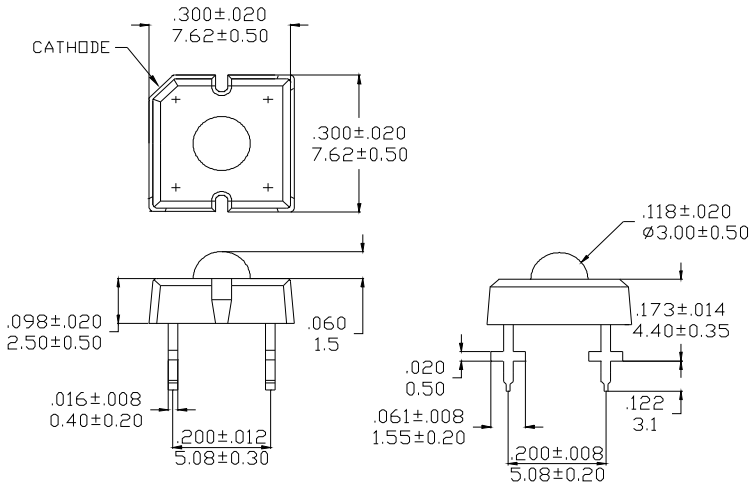
■ Features -

1. High Current Operation
2. High Luminous Output
3. High Reliability and Solid Performance
4. Optimal Optical/Mechanical Design
5. Packaged in Tubes for Use with Automatic Pick and Place Equipment
6. Rohs Compliant

■ Device Selection Guide -

Part No.	Chip		LED Lens
	Material	Emitted Color	
CSPR-N32DSW4-A0R	InGaN	Blue	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 Rating -

(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	190	mW
Forward Current (DC)	I_F	50	mA
Peak Forward Current *	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Operating Temp.	Topr	-30 ~ +80	℃
Storage Temp.	Tstg	-40 ~ +100	℃
Lead Soldering Temperature	Tsol	Max. 260℃ for 5 sec Max. (3mm from the epoxy bulb)	

* Pulse width ≦0.1 msec. duty ≦1/10

■ Electro-optical Characteristics -

(Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	V_F	-----	3.3	3.8	V	I_F=50mA
Luminous Intensity	Iv	1800	3500	-----	mcd	
Luminous Flux	Φv	600	2200	-----	mlm	
Chromaticity	X	-----	0.30	-----	-----	
Coodination	Y	-----	0.31	-----	-----	
Viewing Angle	2θ 1/2	-----	90	-----	deg	
Reverse Current	I_R	-----	-----	100	μA	V_R=5V

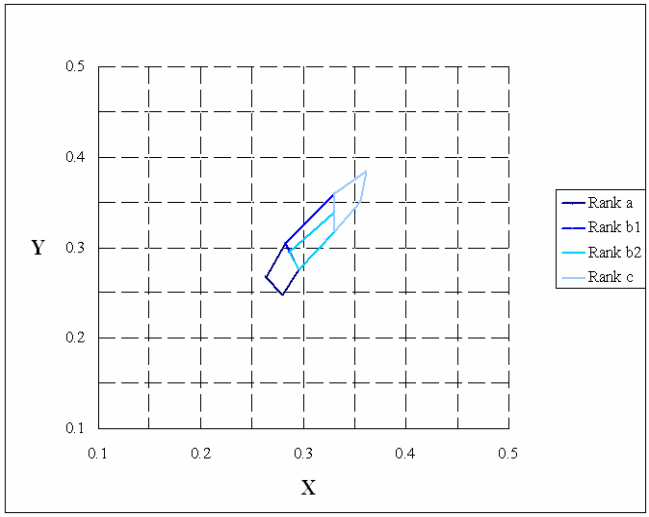
■ Luminous Flux Rank Limits (I_F = 50mA)

unit：mlm

Part No / Code	CSPR-N32DSW4-A0R	
	min.	max.
A	600	1000
B	1000	1500
C	1500	2000
D	2000	2500
E	2500	3000

■ Dominant Wavelength Rank Limits (I_F = 50mA)

Rank a				
X	0.280	0.264	0.283	0.296
Y	0.248	0.267	0.305	0.276
Color Temperature:6500~10000K				
Rank b1				
X	0.287	0.283	0.330	0.330
Y	0.295	0.305	0.360	0.339
Color Temperature:5500~6500K				
Rank b2				
X	0.296	0.287	0.330	0.330
Y	0.276	0.295	0.339	0.318
Color Temperature:5500~6500K				
Rank c				
X	0.330	0.330	0.361	0.356
Y	0.318	0.360	0.385	0.351
Color Temperature:4500~5500K				



■ Forward Voltage Rank Limits (I_F = 50mA)

Part No / Code	CSPR-N32DSW4-A0R	
	min.	max.
H	2.8	3.0
J	3.0	3.2
K	3.2	3.4
L	3.4	3.6
M	3.6	3.8

Notes:

1. Tolerance of measurement of luminous Flux :±15%
2. Tolerance of measurement of dominant wavelength :±2nm
3. Tolerance of measurement of forward voltage :±0.05v
4. All data are measured by CSC'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 CSC.
7. Please confirm with CSC salesman,if your request different form standard specification.

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■ Typical Electrical / Optical Charateristics Curves -

(Ta = 25℃ Unless Otherwise Noted)

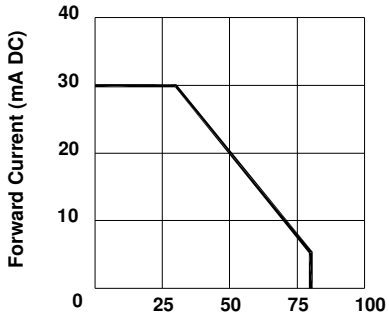

Fig 1. Forward Current Vs. Ambient Temperature

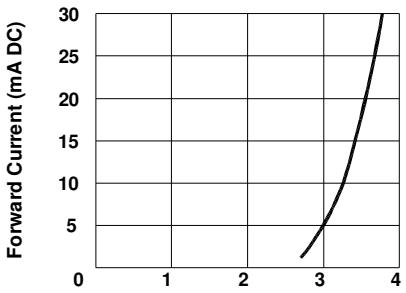

Fig 2. Forward Current Vs. Forward Voltage

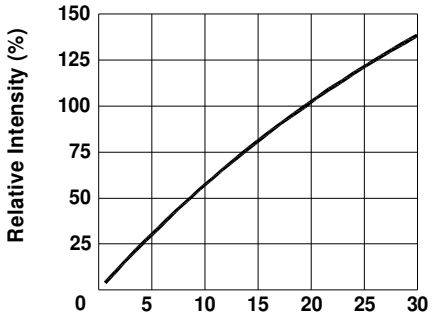

Fig 3. Relative Intensity Vs. Forward Current

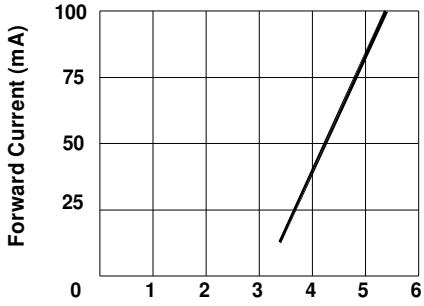

Fig 4. Peark Forward Voltage Vs.Forward Current (100us test pulse,1% duty cycle)

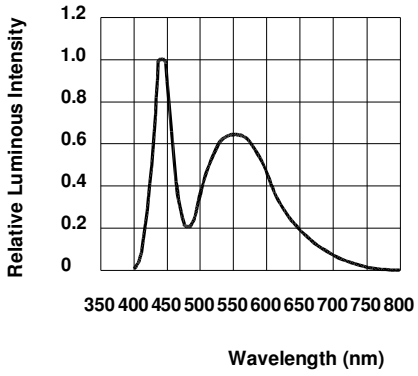

Fig 5. Relative Intensity Vs. Wavelength

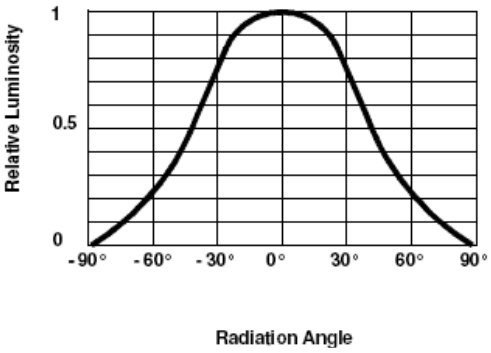

Fig 6. Relative Luminous Intensity vs.Radiation Angle

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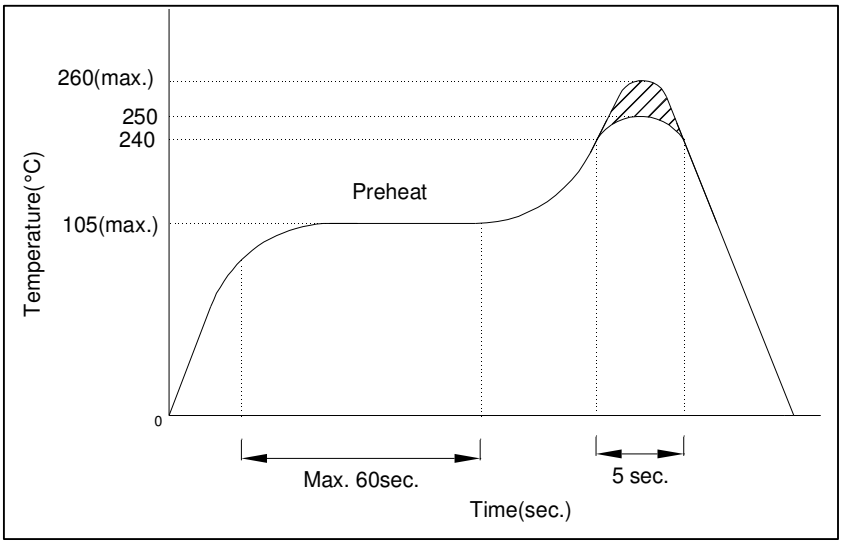
■ Precautions For Use -

1. Recommended Soldering conditions

Wave Soldering



2. Soldering Iron

Basic SPEC. is ≦5sec. When 260℃. If temperature is higher, time should be shorter (+10℃→ -1sec.). Power dissipation of iron should be smaller than 15W , and temperature should be controllable. Surface temperature of the device should be under 230℃.

3. Static Electricity

a. Static electricity or surge voltage damages LEDs..
It is recommended that a wrist band or an anit-electrostatic glove be used when handling the LEDs.

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

Note: The specifications are subject to change without notice. Please contact us for updated information.