



PRODUCT SPECIFICATION

Model No : CSPR-N71GSW4-A0R

Descriptions:	
■ LED Type	: Superbright Lamp
■ LED Package	: Piranha LED Lamp
■ Emitting Color	: White
■ Viewing Angle	: 120°
■ Stopper	



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

CHINA SEMICONDUCTOR CORPORATION
Address:2FL. NO.909,Chung-Cheng Road,
Chung-Ho City Taipei Hsien,Taiwan.

Tel:886-2-2223-9696
Fax:886-2-2223-9377

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-N71GSW4-A0R

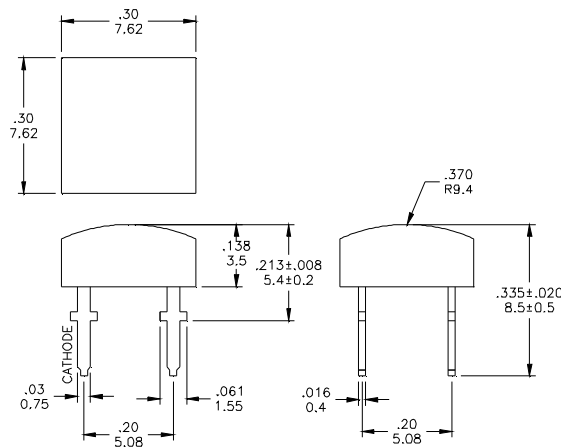
■ Features -

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-N71GSW4-A0R	InGaN	Blue	Water Transparent

■ Package Outline Dimensions -



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



Model No : CSPR-N71GSW4-A0R

■ Absolute Maximum Rating -

(Ta=25°C)

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

* Pulse width ≤ 0.1 msec. duty $\leq 1/10$

■ Electro-optical Characteristics -

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	VF	-----	3.3	3.8	V	IF=50mA
Luminous Intensity	Iv	830	1600	-----	mcd	
Luminous Flux	Φv	600	1200	-----	mlm	
Chromaticity	X	-----	0.30	-----	-----	
Coordination	Y	-----	0.31	-----	-----	
Viewing Angle	2θ 1/2	-----	120	-----	deg	
Reverse Current	IR	-----	-----	100	μA	VR=5V



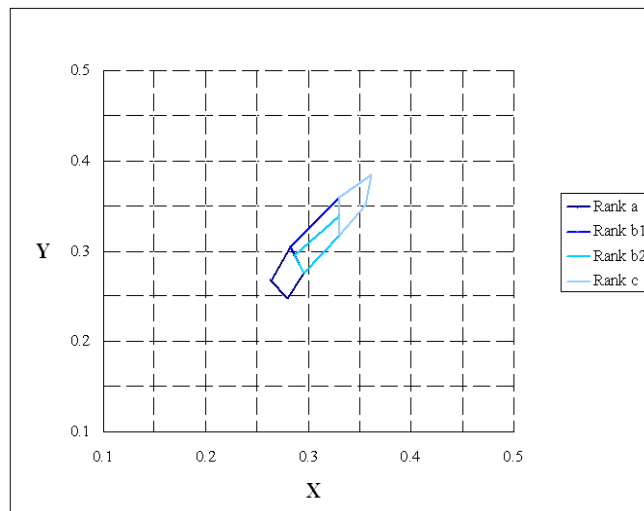
■ Luminous Flux Rank Limits (I_F = 50mA)

unit : mlm

Part No Code	CSPR-N71GSW4-A0R	
	min.	max.
A	600	1000
B	1000	1500
C	1500	2000

■ 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-N71GSW4-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:

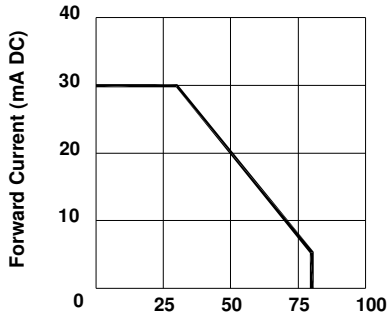
1. Tolerance of measurement of luminous Flux :±15%
2. Tolerance of measurement of dominant wavelength :±2nm
3. Tolerance of measurement of forward voltage :±0.05v
4. All data are measured by CSC's test equipment.
5. One delivery will include several color rank, VF rank and Iv ranks of the products.
6. The quantity-ratio of the ranks is decided by CSC.
7. Please confirm with CSC salesman,if your request different form standard specification.



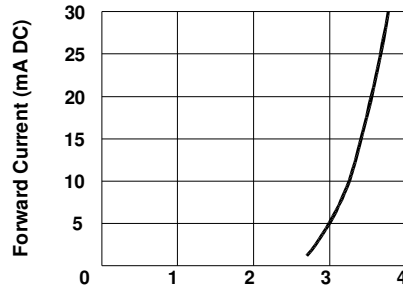
Model No : CSPR-N71GSW4-A0R

■ Typical Electrical / Optical Characteristics Curves -

($T_a = 25^\circ\text{C}$ Unless Otherwise Noted)



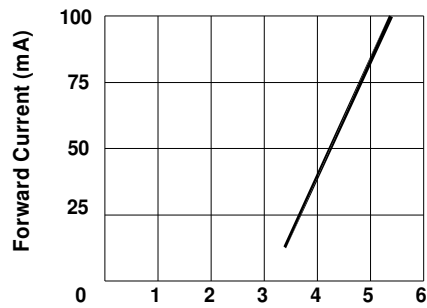
Ambient Temperature T_a ($^\circ\text{C}$)
Fig 1. Forward Current
Vs. Ambient Temperature



Forward Voltage V_F (V)
Fig 2. Forward Current
Vs. Forward Voltage



Forward Current I_F (mA DC)
Fig 3. Relative Intensity
Vs. Forward Current



Forward Voltage (V)
Fig 4. Peak Forward Voltage
Vs. Forward Current
(100 μs test pulse, 1% duty cycle)

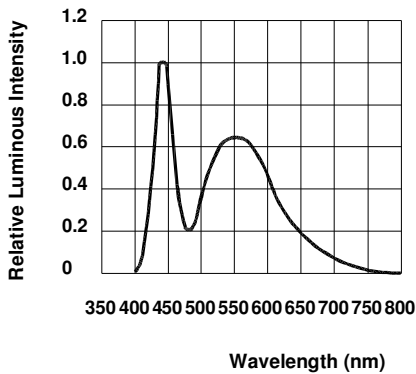


Fig 5. Relative Intensity Vs. Wavelength

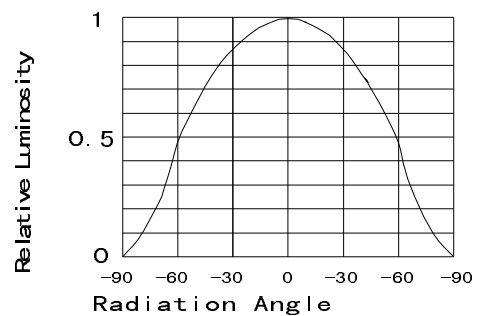


Fig 6. Relative Luminous Intensity vs. Radiation Angle

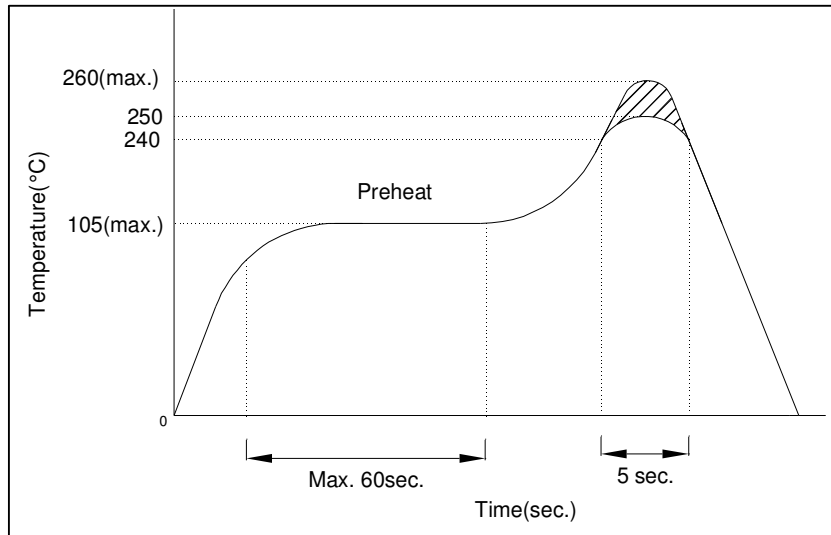


Model No : CSPR-N71GSW4-A0R

■ Precautions For Use -

1. Recommended Soldering conditions

Wave Soldering



2. Soldering Iron

Basic SPEC. is $\leq 5\text{sec.}$ When 260°C . If temperature is higher, time should be shorter ($+10^{\circ}\text{C} \rightarrow -1\text{sec.}$). Power dissipation of iron should be smaller than 15W, and temperature should be controllable. Surface temperature of the device should be under 230°C .

3. Static Electricity

- a. Static electricity or surge voltage damages LEDs..

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

- b. 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.

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