



PRODUCT SPECIFICATION

Model No : CSLR-N55FSW4-A0

Descriptions:	
■LED Type	: Lighting LED Lamp
■LED Package	: Round LED Lamp
■Emitting Color	: White
■Viewing Angle	: 110°
■No 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



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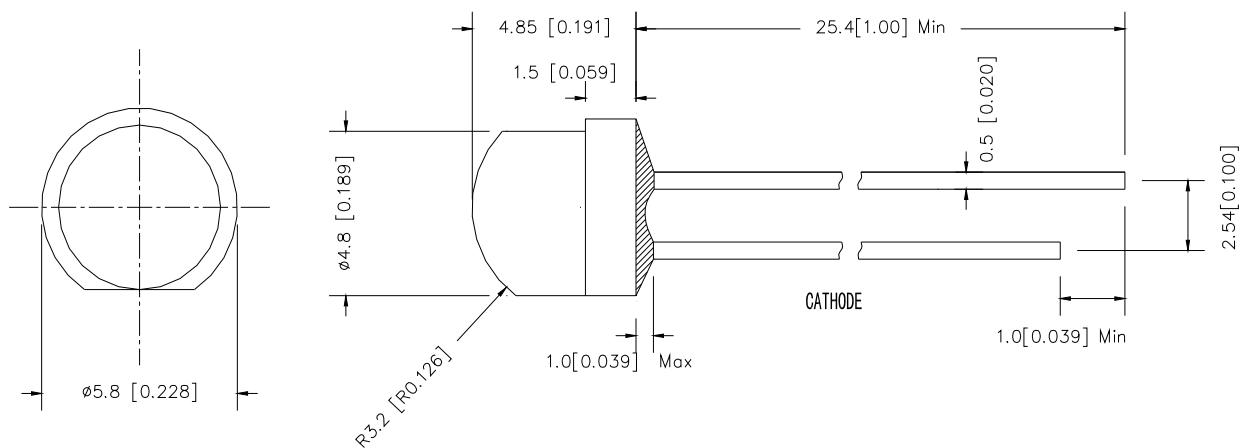
Features -

1. Low Power Consumption.
2. High Luminous Output
3. High Reliability and Solid Performance
4. Optimal Optical/Mechanical Design
5. Rohs Compliant

Device Selection Guide -

Part No.	Chip		LED Lens
	Material	Emitted Color	
CSLR-N55FSW4-A0	InGaN	White	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°C)

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	76	mW
Forward Current (DC)	IF	30	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 body)	

* 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	-----	3.2	3.8	V	IF=20mA
Luminous Intensity	Iv	830	1500	-----	mcd	
Chromaticity	X	-----	0.31	-----		
Coodination	Y	-----	0.32	-----		
Viewing Angle	2 θ 1/2	-----	110	-----	deg	
Reverse Current	IR	-----	-----	50	μ A	VR=5V



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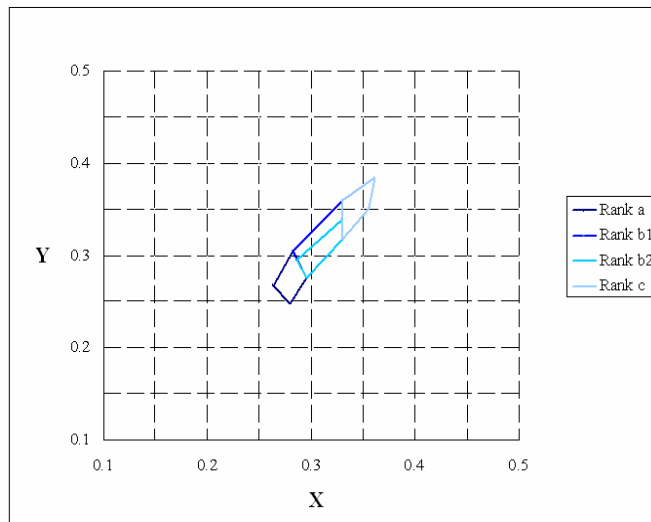
■ Luminous Intensity Rank Limits ($I_F = 20\text{mA}$)

unit : mcd

Part No. Code	CSLR-N55FSW4-A0	
	min.	max.
M	830	1080
N	1080	1400
P	1400	1800
Q	1800	2300
R	2300	3000

■ Color Rank Limits ($I_F = 20\text{mA}$)

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 ($I_F = 20\text{mA}$)

unit : v

Part No. Code	CSLR-N55FSW4-A0	
	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:

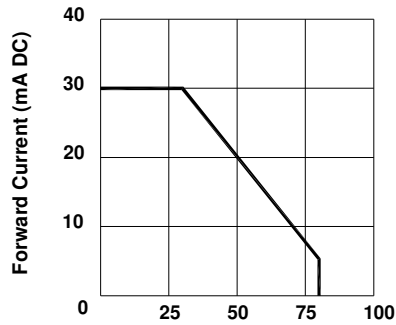
1. Tolerance of measurement of luminous intensity $\pm 15\%$
2. Tolerance of measurement of Color Coordinates ± 0.01
3. Tolerance of measurement of forward voltage $\pm 0.05\text{v}$
4. All data are measured by CSC's test equipment.
5. One delivery will include several color rank, VF rank and I_v ranks of the products.
6. The quantity-ratio of the ranks is decided by CSC.
7. Please confirm with CSC salesman, if your request different from standard specification.



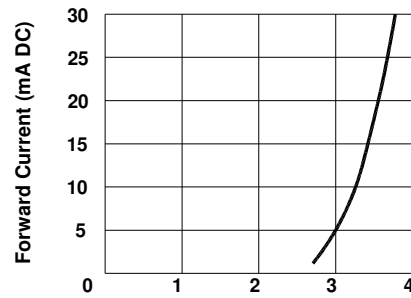
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Typical Electrical / Optical Characteristics Curves -

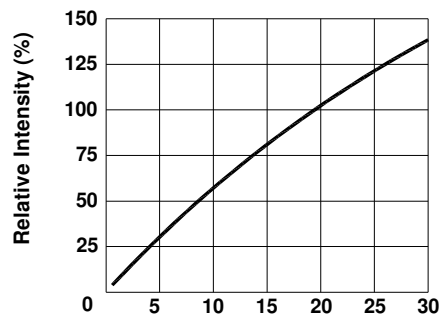
(Ta = 25°C Unless Otherwise Noted)



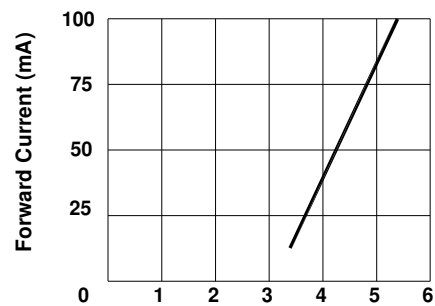
Ambient Temperature Ta (°C)
**Fig 1. Forward Current
Vs. Ambient Temperature**



Forward Voltage VF (V)
**Fig 2. Forward Current
Vs. Forward Voltage**



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



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

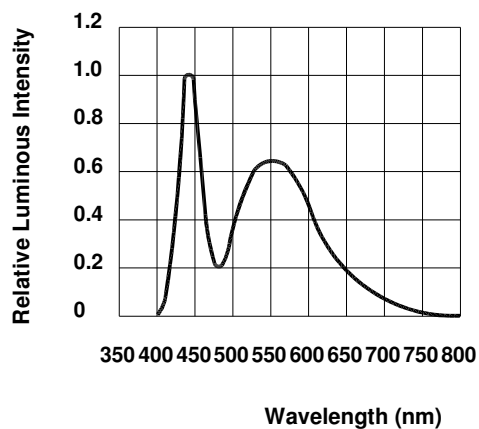


Fig 5. Relative Intensity Vs. Wavelength

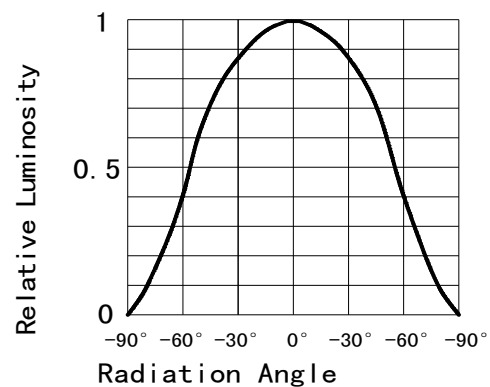


Fig 6. Relative Luminous Intensity vs. Radiation Angle

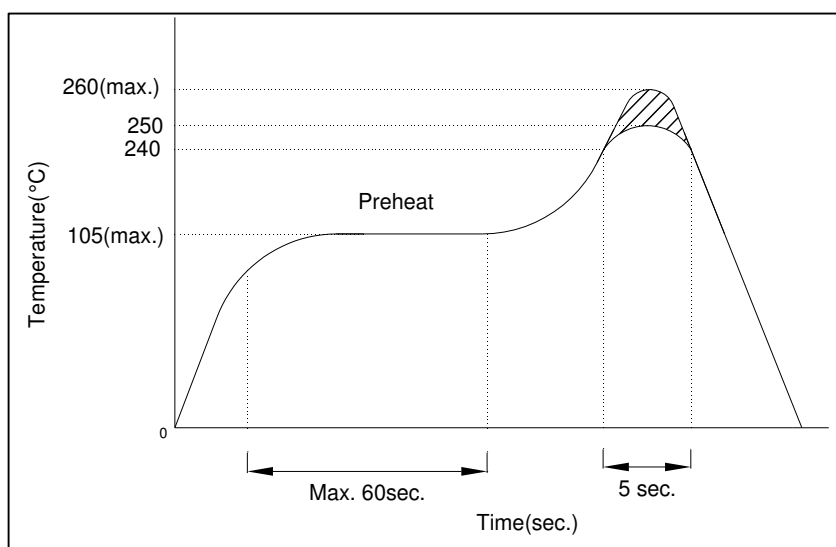


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■ **Precautions For Use -**

1. Recommended Soldering conditions

Wave Soldering



2. Soldering Iron

Basic SPEC. is $\leq 5\text{sec.}$ 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

- 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.
- 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.