EVERLIGHT ELECTRONICS CO., LTD.

PART NO: 573UWC Device Number:DLE-057-025 REV:1.0

■Features

- Fluorescence Type
- High Luminous Intensity
- High Efficiency
- Emission Color:x=0.29,y=0.30

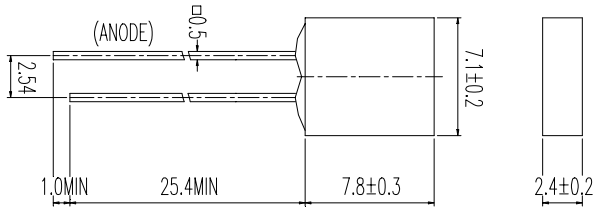
■Descriptions

The white LED which was fabricated using a blue LED and a phosphor, and the phosphor is excited by blue light and emits yellow fluorescence. The mixture of blue light and yellow light results in a white emission.

■Applications

- OA Equipment
- Backlighting of LCD
- Automotive Equipment
- Replacement of Conventional Light Bulbs and Fluorescent Lamps

■ Package Dimensions



■**Notes:**All dimensions are in millimeters.

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■Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Units
Forward Current	I_F	30	mA
Pulse Forward Current*1	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	120	mW
Operating Temperature	T_{opr}	-30 ~ +80	℃
Storage Temperature	T_{stg}	-40 ~ +100	℃
Soldering Temperature*2	T_{sol}	260	℃

*1:I_{FP} Conditions--Pulse Width≦10msec and Duty≦1/10.

*2:Soldering time≦5 seconds.

■Electro-Optical Characteristics (Ta=25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Forward Voltage	V_F	I_F=20mA	--	3.6	4.0	V
Reverse Current	I_R	V_R=5V	--	--	10	μA
Luminous Intensity	I_V	I_F=20mA	100	160	--	mcd
Viewing Angle	2θ1/2	I_F=20mA	--	110	--	deg
Chromaticity*1	x	I_F=10mA	--	0.29	--	
Coordinates	y		--	0.30	--	

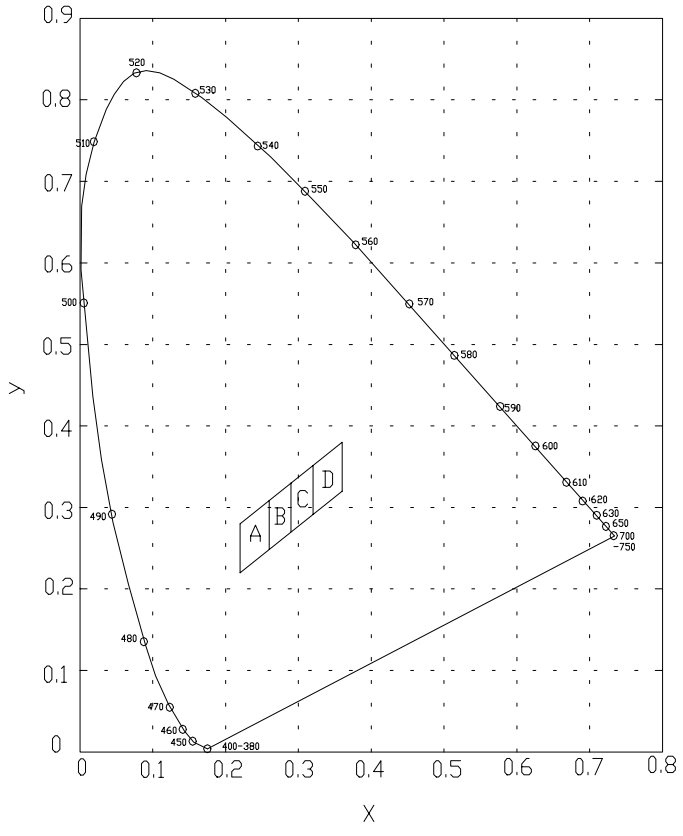
*The C.I.E. 1931 chromaticity diagram.

*The products are sensitive to static electricity and care must be fully taken when handling products.

■Chromaticity Coordinates Specifications for Bin Grading

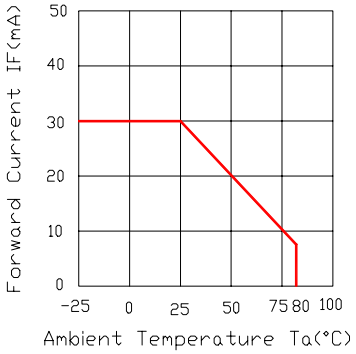
Rank	Chromaticity Coordinates				
A	x	0.220	0.220	0.260	0.260
	y	0.220	0.280	0.310	0.250
B	x	0.260	0.260	0.290	0.290
	y	0.250	0.310	0.330	0.270
C	x	0.290	0.290	0.320	0.320
	y	0.270	0.330	0.350	0.290
D	x	0.320	0.320	0.360	0.360
	y	0.290	0.350	0.380	0.320
＊Tolerance	x± 0.02			y± 0.02	

■CIE Chromaticity Diagram

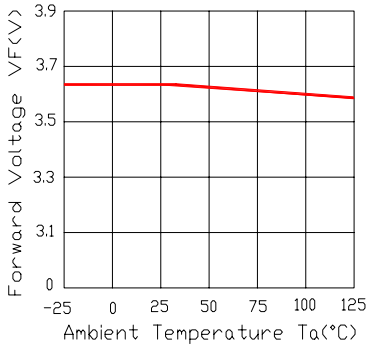


■Typical Electro-Optical Characteristics Curves

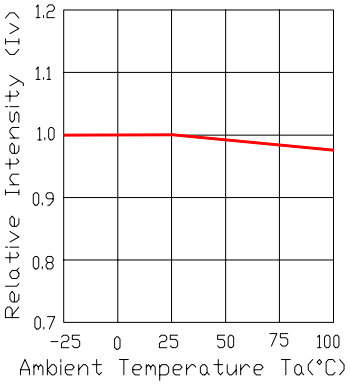
●Forward Current vs. Ambient Temperature



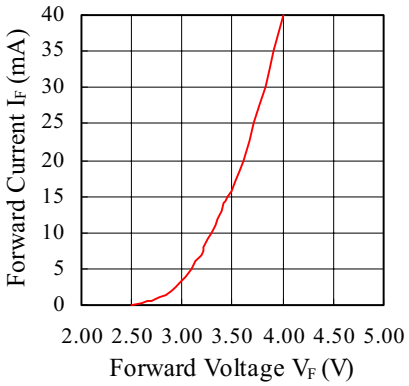
●Forward Voltage vs. Ambient Temperature



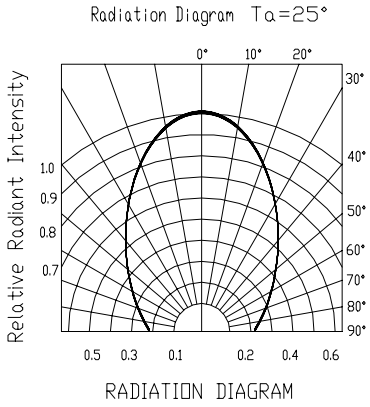
●Relative Intensity vs. Ambient Temperature



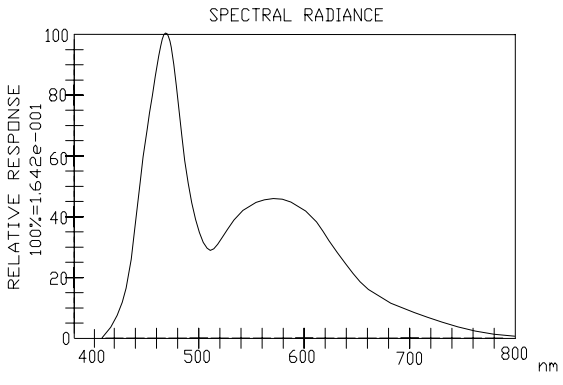
●Forward Current vs. Forward Voltage



●Directivity Radiation Angle:60 degree (Typ.)



●Luminous Spectrum(Ta=25℃)



■Reliability Test Item

NO.	Item	Test Conditions	Test Hours/ Cycle	Sample Size	Ac/ Re
1	Room Temperature DC Operating Life	Ta=25℃,I_F=20mA	1000hrs	76	0/1
2	Thermal Shock	-10℃(5min)→ (10sec) →+100℃(5min)	100cycles	76	0/1
3	Temperature Cycle	-40℃(30min)→ (5min) →+85℃(30min)	100cycles	76	0/1
4	High Temp./ High Humi. Test	85℃/85%RH	1000hrs	76	0/1
5	High Temperature Storage	Ta=100℃	1000hrs	76	0/1
6	Low Temperature Storage	Ta=-40℃	1000hrs	76	0/1
7	Solder Heat	260℃± 5℃	5seconds	76	0/1