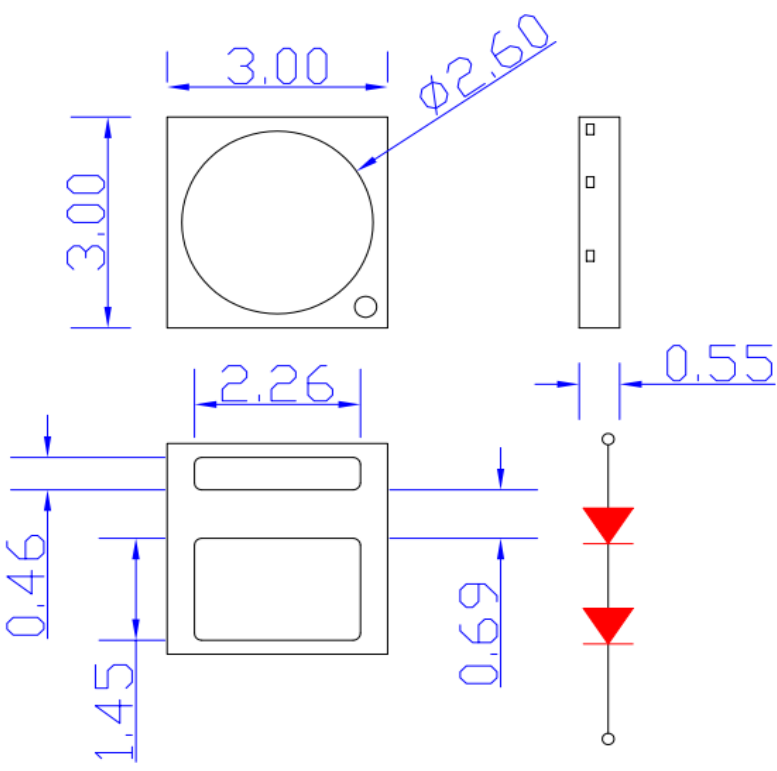
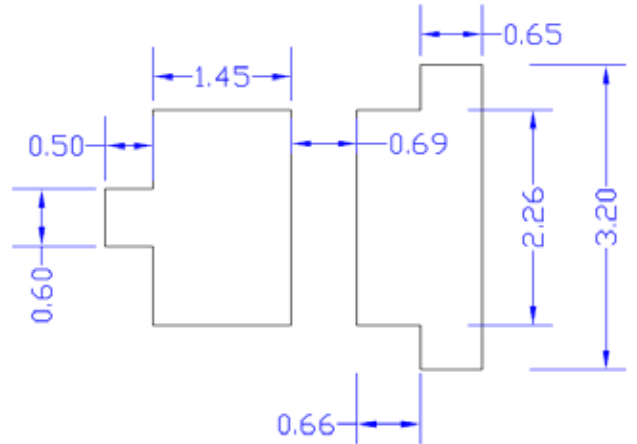
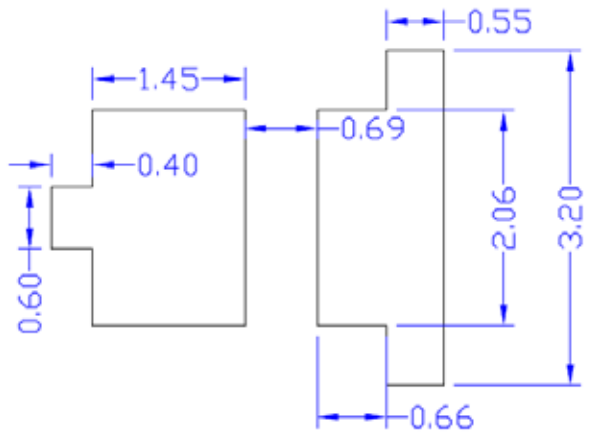


**SPECIFICATION** **CSHF1212W4C40**
**PACKAGE OUTLINES**

**Soldering Pad Pattern**

**Metal Solder Stencil Aperture**


- Notes:
1. All dimensions are in millimeters (inches).
  2. Tolerance is  $\pm 0.25\text{mm}$  (0.01") unless otherwise noted.
  3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CSHF1212W4C40	InGaN	White	Water Clear	110°



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**ABSOLUTE MAXIMUM RATINGS**
**(TA=25°C)**

Parameter	Symbol	Max Rating	Unit
Forward Current	I <sub>F</sub>	180	mA
Reverse Voltage	V <sub>R</sub>	10	V
Operating Temperature Range	T <sub>OP</sub>	-40~+85	°C
Storage Temperature Range	T <sub>STG</sub>	-40~+100	°C
Peak Pulsing Current (1/10 duty f = 10KHz)	I <sub>FP</sub>	240	mA
Soldering Temperature	T <sub>SOL</sub>	Max 260°C for 10 sec Max	

**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> = 150mA	100	110	-	lm
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 150mA	-	6.2	7.0	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 5V	-	-	10	μA
Viewing Angle at 50% I <sub>v</sub>	2θ <sub>1/2</sub>	I <sub>F</sub> = 150mA	-	110	-	Deg
Color Rendering Index	CRI	I <sub>F</sub> = 150mA	90	92	94	-
Correlated Color Temperature	CCT	I <sub>F</sub> = 150mA	3705	-	4255	K

\*Tolerance of viewing angle: -10 / +5 deg.

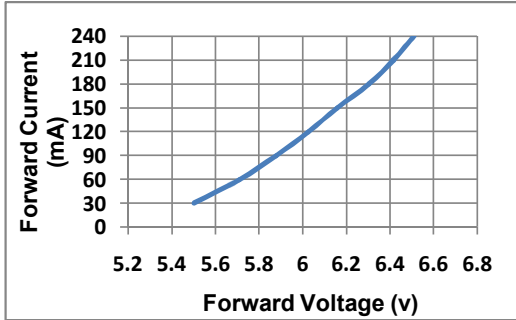


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## OPTICAL CHARACTERISTIC CURVES

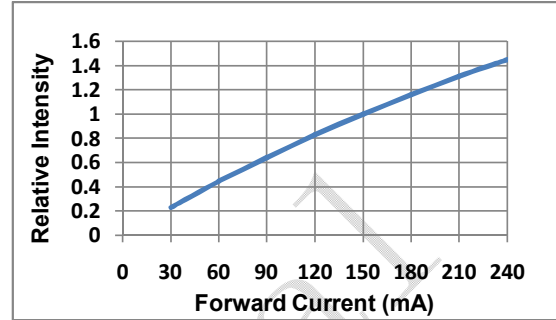
**Fig.1-Forward Voltage Vs. Forward Current Intensity**

伏安特性曲线



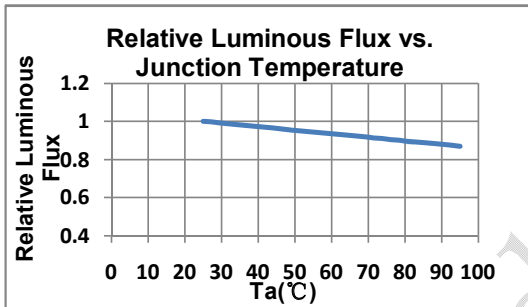
**Fig.2-Forward Current Vs. Relative**

正向电流与相对光强特性曲线



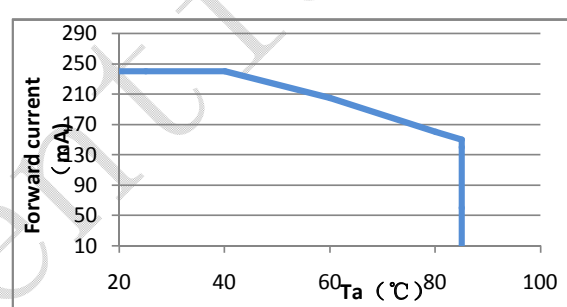
**Fig.3-Ambient Temperature Vs. Relative Intensity**

环境温度与相对光强特性曲线



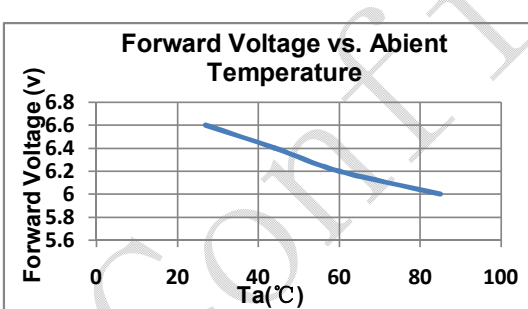
**Fig.4-LED Temperature Vs. Forward Current**

灯珠温度与正向电流特性曲



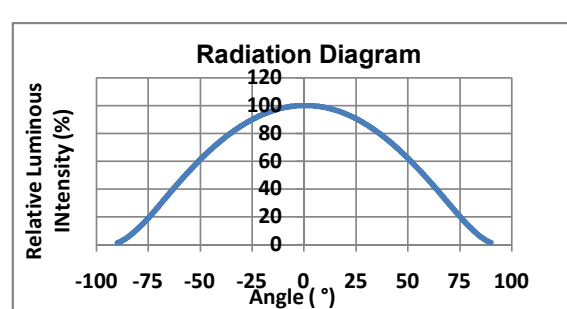
**Fig.5-Forward Voltage Vs. Ambient Temperature**

电压与环境温度特性曲线



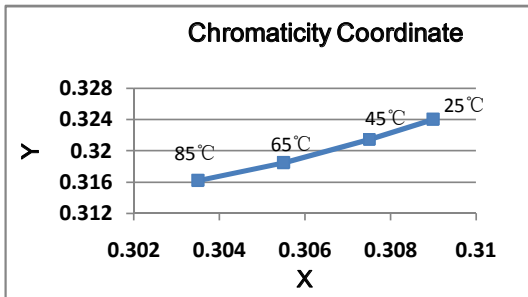
**Fig.6-Radiation diagram**

辐射特性曲线



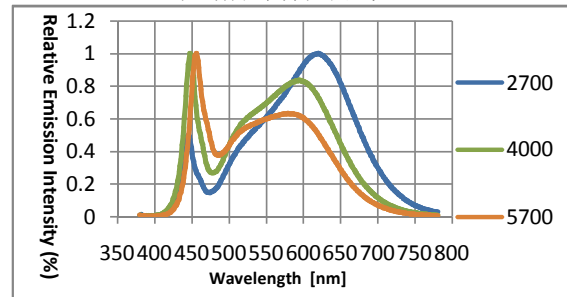
**Fig.7-Chromaticity Coordinate Vs. Ta**

色坐标与环境温度特性曲线



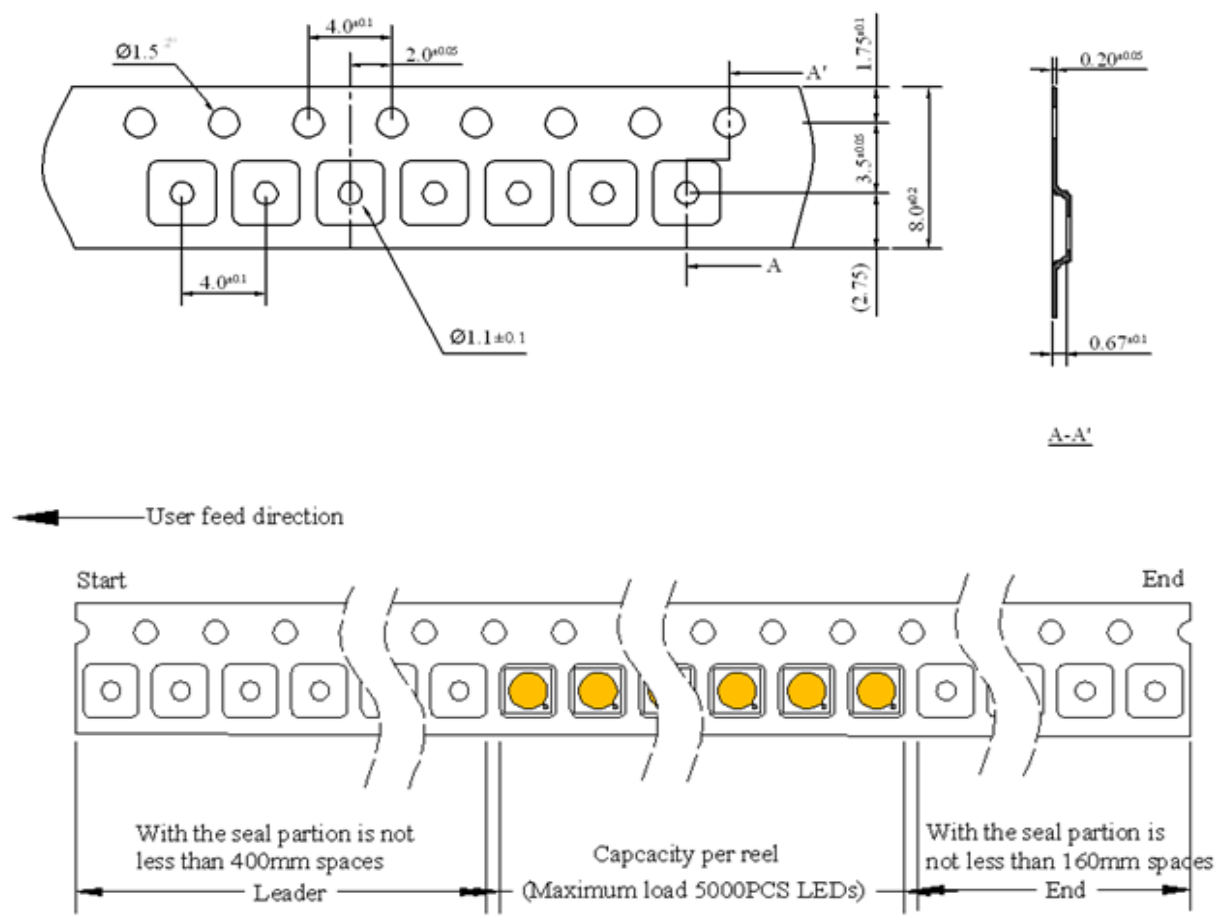
**Fig.8- Spectrum Distribution**

光谱分布特性曲线




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## PACKAGING SPECIFICATION

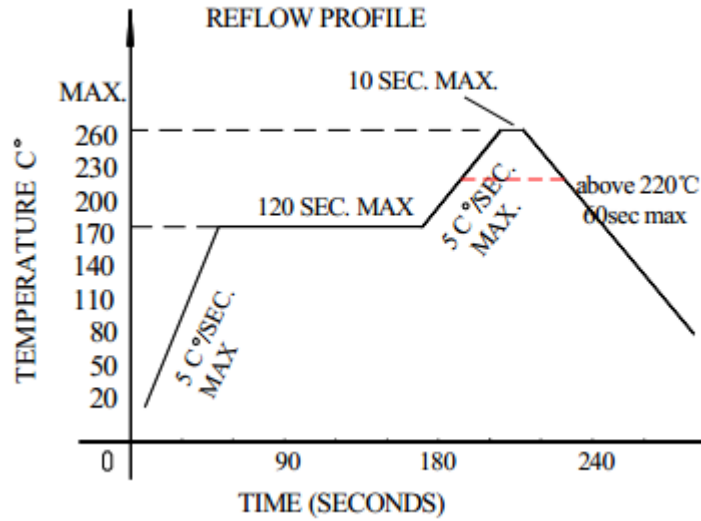


- Quantity : Max 5000pcs/Reel
- Cumulative Tolerance : Cumulative Tolerance/10 pitches to be  $\pm 0.2$ mm
- Adhesion Strength of Cover Tape Adhesion strength to be 0.1-0.7N when the cover tape is turned off from the carrier tape at the angle of  $10^\circ$  to the carrier tape.
- Package : P/N, Manufacturing data Code No. and Quantity to be indicated on a damp proof Package.



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## SOLDERING CONDITIONS



Reflow soldering		Hand Soldering	
Pre-heat	160~180°C	Temperature	300°C Max
Pre-heat time	120 Seconds Max	Soldering time	3 second Max
Peak temperature	260°C Max		
Soldering time	10 Seconds Max		
Condition	Refer to Temperature-profile		



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