



和辉光电  
Hehui

Qingdao Hehui Optoelectronic Co., Ltd.

DATA SHEET

REV:1.0

DATA:2009.09.01

# DATA SHEET

Model No. : 3MM Piranha LED

Description:

- UFO Shape
- Super High Brightness
- High Reliability
- Fade Resistant



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**Part No: 3MM Piranha LED**

**Features:**

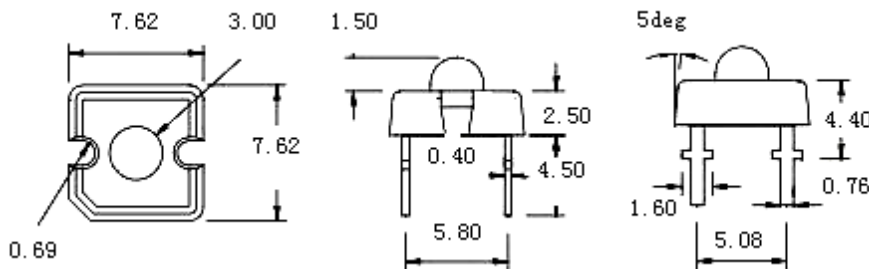
- ※Super High Brightness
- ※High Reliability
- ※Fade Resistant



**Applications**

1	Backlight Module
2	Point Light
3	Automotive Lighting Application
4	Automotive Decorate Application

**Dimensions**



Unit: mm  
Tolerance are  $\pm 0.25$ ,  
unless note otherwise

**Maximum Ratings** (T Ambient=25°C)

Parameter	Symbol	Rating	Unit
Operating Temperature	T <sub>opr</sub>	-30 ~ +100	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +120	°C
DC Forward Current	I <sub>F</sub>	20	mA
Peak pulse current;(tp≤100μs,Duty cycle=0.25)	I <sub>pulse</sub>	100	mA
Reverse Voltage	V <sub>R</sub>	5	V
Manual Soldering Time at 260°C	T <sub>sol</sub>	5	second

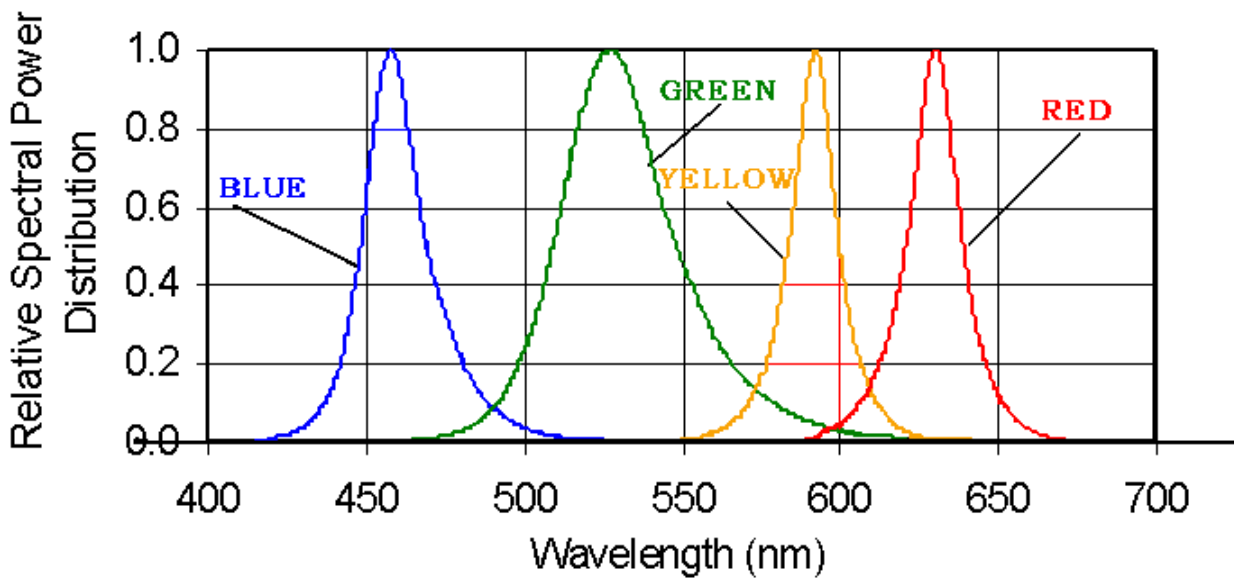


**Electrical Optical Characteristics** ( $T_{Ambient}=25^{\circ}C, I_F=20mA$ )

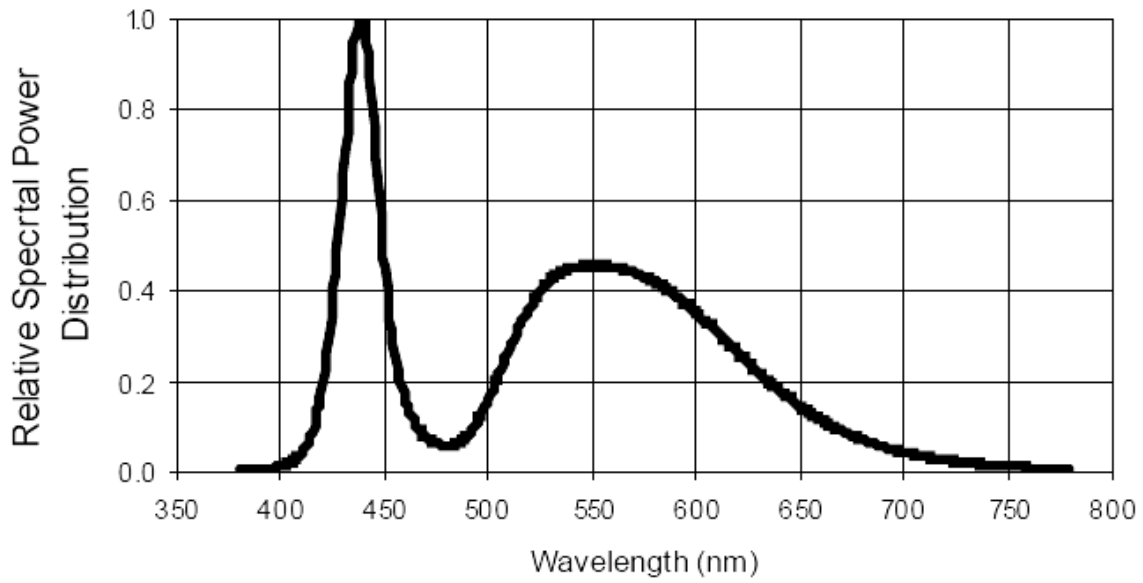
Part No.	Material	Emitting Color	Forward Voltage (V)		Luminous Intensity (mcd)		Dominant Wavelength (nm)		Viewing Angle ( $2\theta_{1/2}$ )
			Min.	Max.	Min.	Max.	Min.	Max.	
HH-PRR31100F	AlGaInP	Red	1.8	2.4	400	-	620	635	100°
HH-PGR31100F	InGaN	Green	3.0	3.5	2000	-	515	530	100°
HH-PBR31100F	InGaN	Blue	3.0	3.5	350	-	460	470	100°
HH-PYR31100F	AlGaInP	Yellow	1.8	2.4	400	-	585	595	100°
HH-PWR31100F	InGaN	White	3.0	3.5	1600	-	3200K	-	100°

Note: measurement tolerance :  $\pm 10\%$

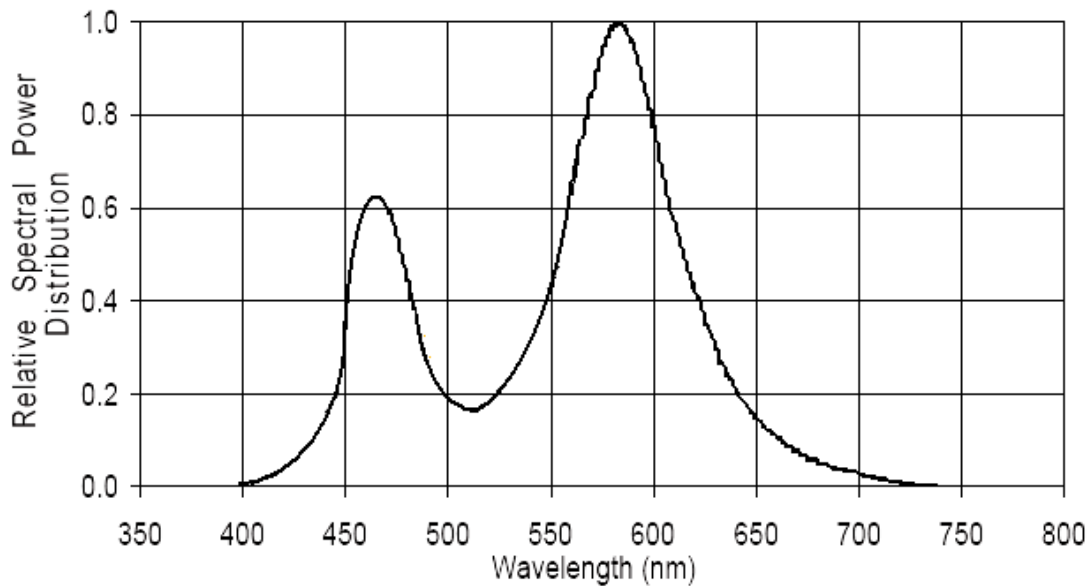
**Typical Electro-Optical Characteristics Curves**



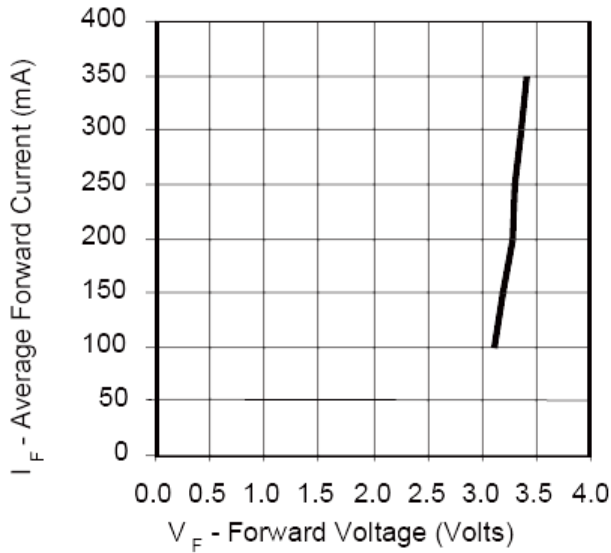
Relative Intensity vs. Wavelength



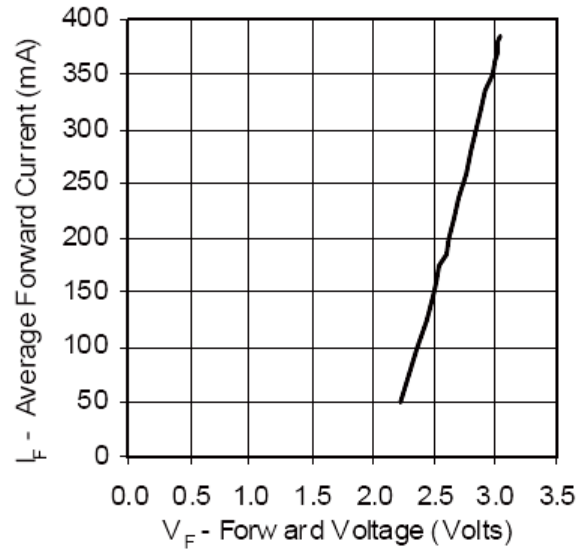
White Color Spectrum



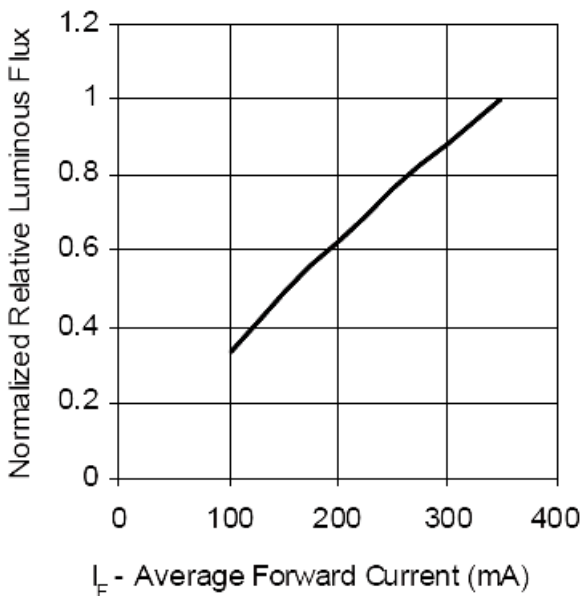
Warm White Color Spectrum



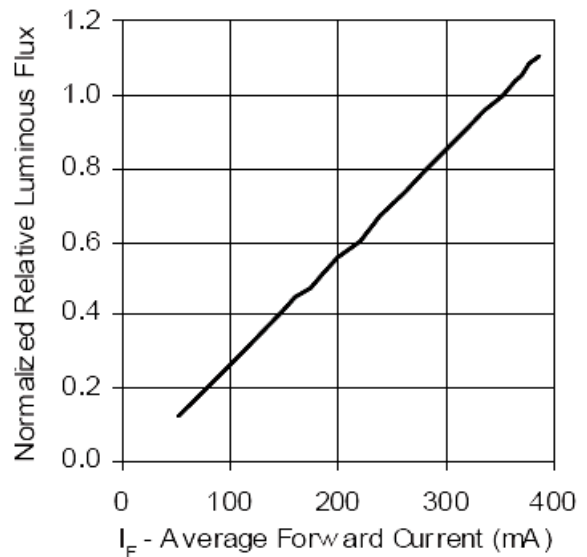
Forward Current vs. Forward Voltage for White, Warm White, Green, and Blue



Forward Current vs. Forward Voltage for Red, Yellow



Relative Luminous Flux vs Forward Current for White, Warm White, Green, and Blue at  $T_J=25^\circ\text{C}$  maintained



Relative Luminous Flux vs. Forward Current for Red, and Yellow at  $T_J=25^\circ\text{C}$  maintained