



Advanced Micro Lites, Inc.

205 Dempsey Street, Elburn, IL 60119

630-365-5450 tel

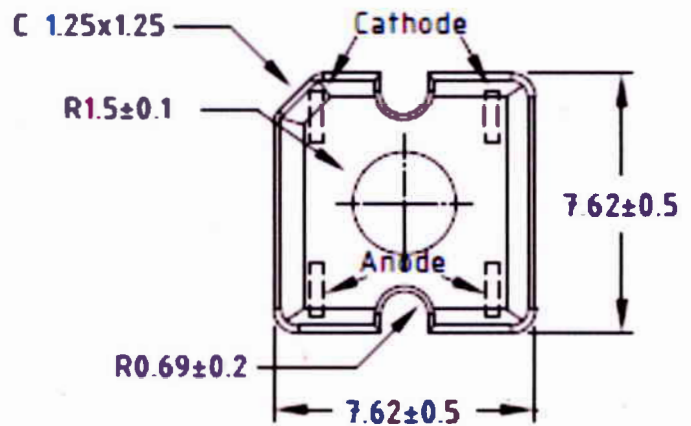
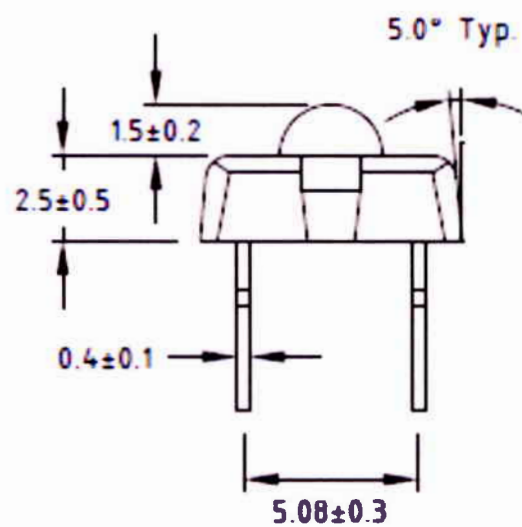
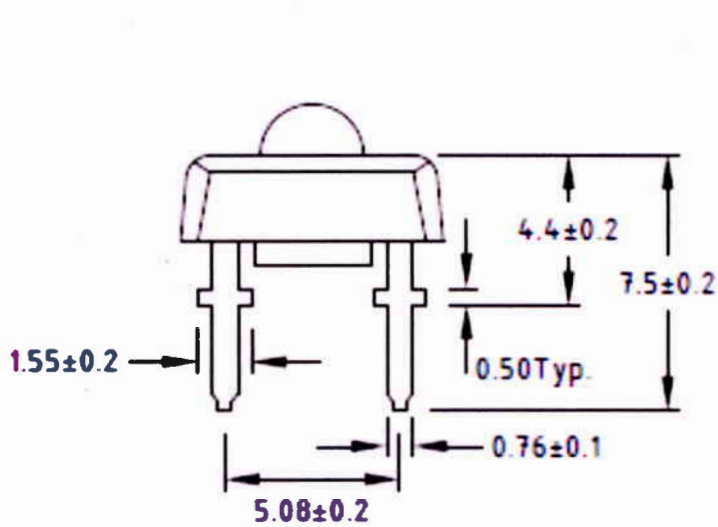
630-365-5456 fax

www.advmicrolites.com

L945B-MWC-75D

Piranha White LED Lamp

PACKAGE OUTLINES



Item	Material
Resin	Epoxy Resin
Lead Frame	Ag Plating on Copper Alloy

Note: All dimensions are in millimeters unless noted otherwise.



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ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Parameter	Symbol	Max Rating	Unit
DC Forward Current	I _F	50	mA
Pulse Forward Current*	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	14	mW
Operating Temperature	T _{OPR}	-30~+85	°C
Storage Temperature	T _{STG}	-40~+100	°C
Preheat Temperature	100 °C for 30 seconds		
Solder Temperature	260 °C for 5 seconds		

* Pulse Width ≤ 10 ms, Duty Ratio ≤ 1/10

OPTICAL-ELECTRICAL CHARACTERISTICS

(Ta=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Luminous Flux	Φ _v	I _F =50mA	10000	14000	—	lm
Luminous Intensity	I _v		6000	8500	—	mcd
Forward Voltage	V _F		—	3.1	4.0	V
Chromaticity Coordinate	X		—	0.31	—	—
Chromaticity Coordinate	Y		—	0.32	—	—
Viewing Angle	2θ _{1/2}		—	75	—	deg
Reverse Current	I _R	V _R =5V	—	—	50	μA

Measurement Uncertainty of Luminous Intensity: ±10%

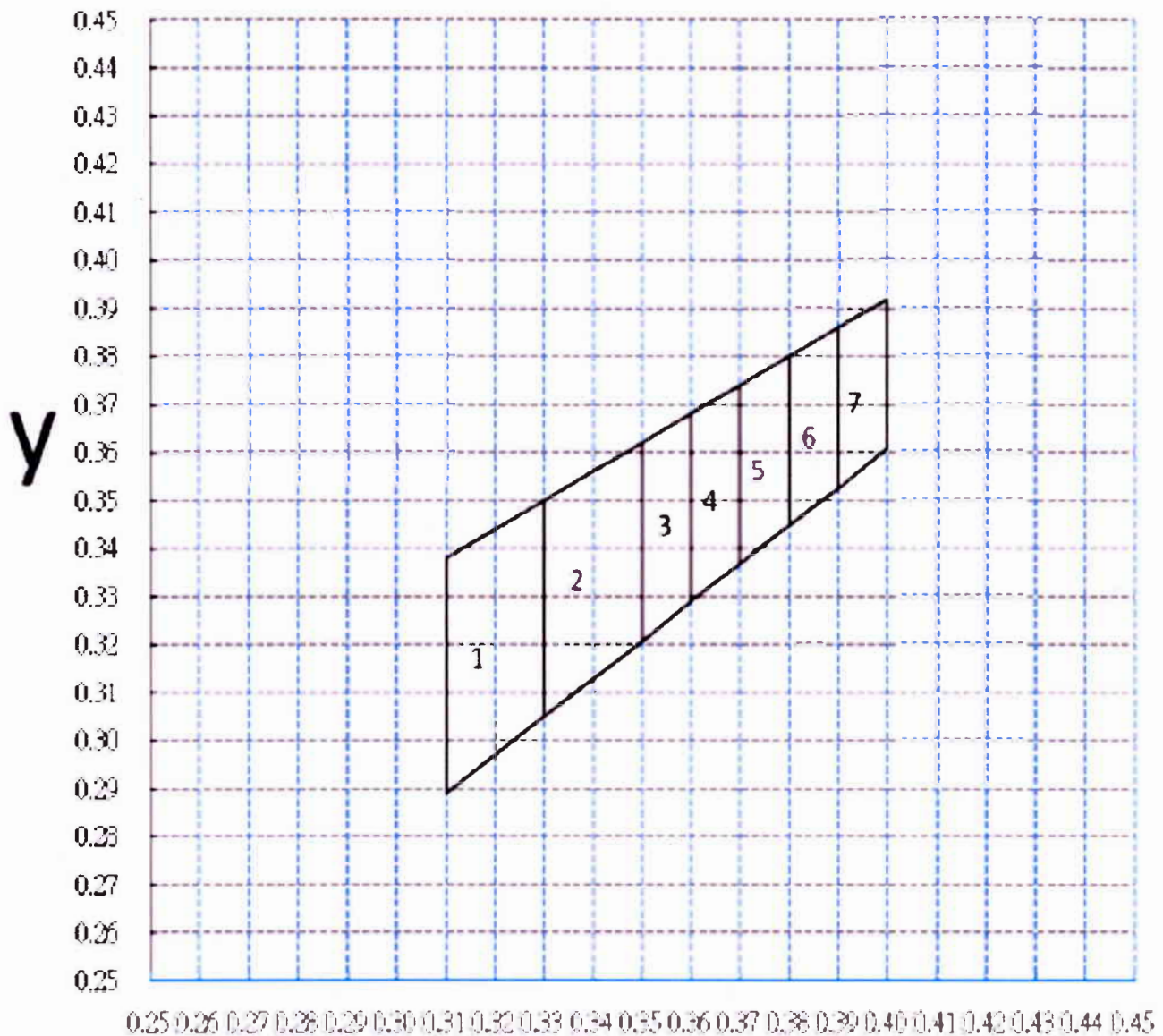


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Chromaticity Diagram



X



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LUMINOUS INTENSITY BIN TABLE

IF=50mA

Rank name	Min (mcd)	Max (mcd)
Q	6000	7800
R	7800	10000
S	10000	13000

VOLTAGE BIN TABLE

IF=50mA

Rank name	Min (V)	Max (V)
A	2.8	3.0
B	3.0	3.2
C	3.2	3.4
D	3.4	3.6
E	3.6	3.8
F	3.8	4.0

Tolerance for each bin limit is $\pm 0.5V$

Note:

1. One delivery will include several color ranks and I_v ranks of products.
The quantity-ratio of the different rank is decided by Factory.
2. Bin Name typed on the Label: IV RANK + Color Rank.
For Example, **BIN Q1B Means IV: 6000~7800mcd , Color: BIN 1 and VF: 3.0~3.2V**
3. Static Electricity or Surge Voltage damages the LEDs.
It is recommended to use a wrist band or Anti-Electrostatic glove when handling the LEDs.
4. Factory has the right to update the information without notice.
Please double confirm the Spec details before place an order.

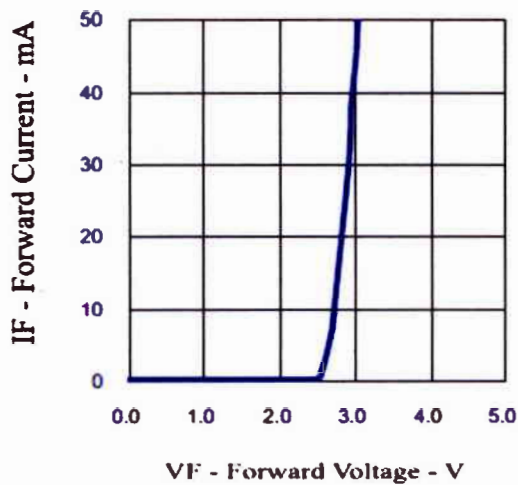


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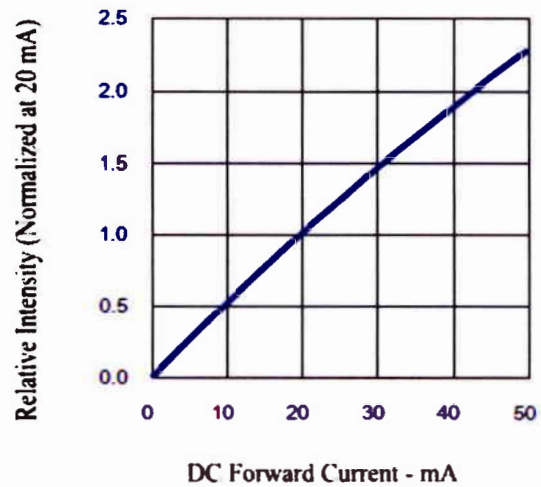
Piranha White LED Lamp

ELECTRICAL-OPTICAL CHARACTERISTICS

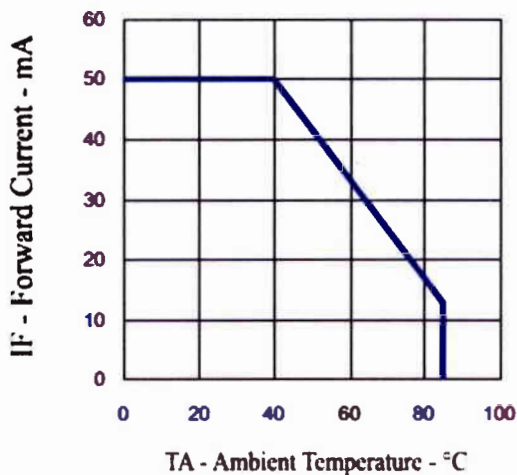
Forward Current vs. Forward Voltage



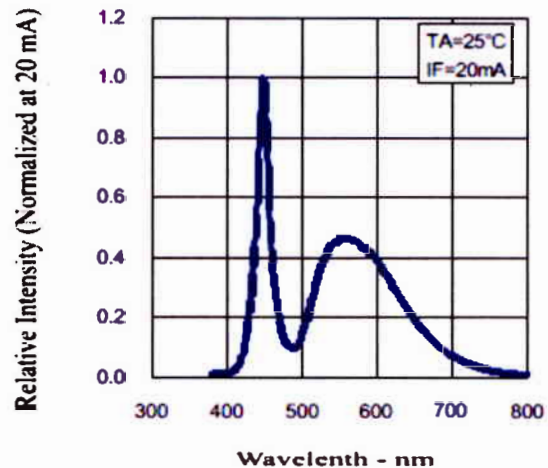
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temperature



Relative Intensity vs. Wavelength





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Piranha White LED Lamp

SOLDERING CONDITION

- Solder the LED no closer than 3mm from the base of the epoxy bulb. Soldering beyond the base of the tie bar is recommended.
- Recommended soldering conditions:

Dip Soldering	
Pre-Heat	100°C Max.
Pre-Heat Time	60 sec. Max.
Solder Bath Temperature	260°C Max.
Dipping Time	5 sec. Max.
Dipping Position	No lower than 3mm from the base of the epoxy bulb.

Hand Soldering		
	30 Series	Others (Including Lead-Free Solder)
Temperature	300°C Max.	350°C Max.
Soldering time	3 sec. Max.	3 sec. Max.
Position	No closer than 3mm from the base of the epoxy bulb.	No closer than 3mm from the base of the epoxy bulb.

- Do not apply any stress to the lead, particularly when heated.
- LEDs must not be repositioned after soldering.
- After soldering the LEDs, the epoxy bulb should be protected from mechanical shock or vibration until LEDs return to room temperature.
- Direct soldering onto a PC board should be avoided. Mechanical stress to the resin may be caused by the PC board warping or from the clinching and cutting of the leadframes. When it is absolutely necessary, the LEDs may be mounted in this fashion but the user will assume responsibility for any problems. Direct soldering should only be done after testing has confirmed that no damage, such as wire bond failure or resin deterioration will occur. LEDs should not be soldered directly to double-sided PC boards because the heat will deteriorate the epoxy resin.
- When it is necessary to clamp the LEDs to prevent soldering failure, it is important to minimize the mechanical stress on the LEDs.
- Cut the LED leadframes at room temperature. Cutting the leadframes at high temperature may cause LED failure.