



P-tec Corporation  
 2405 Commerce Circle  
 Alamosa, Colorado 81101  
 In US: 1-866-695-4162  
 Outside US: 719-589-3122

# DATA SHEET

REV : A DATE : 2010-12-27

**Part No:**  
**PLLM762-WCY01**

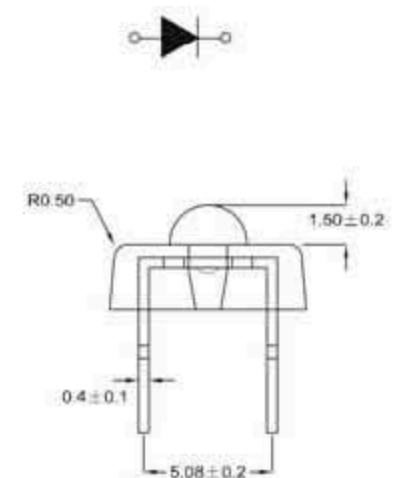
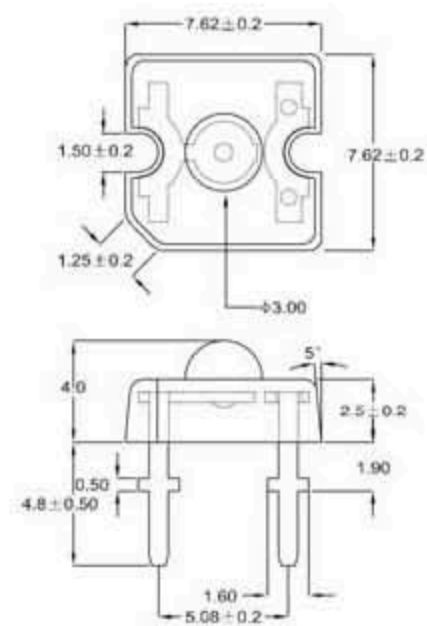
## Features

- \* High intensity Polygonal LED lamp
- \*  $\varnothing$ 3mm round shape
- \* UV resistant epoxy

## Applications

- \* LED Lighting
- \* Automotive Lighting application

## Package Dimensions



## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Max	Unit
Power Dissipation	$P_D$	100	mW
Peak Forward Current *	$I_{FP}$	100	mA
Continuous Forward Current	$I_F$	50	mA
Reverse Voltage	$V_R$	5	V
Operating Temperature Range	$T_{opr}$	-30°C to +80°C	
Storage Temperature Range	$T_{stg}$	-40°C to +100°C	
Lead Soldering Temperature $\Delta$	$T_{sol}$	260	°C

Unit : mm

Tolerance are  $\pm 0.2$ , unless note otherwise

592-594\* Duty ratio max 1/10 Pulse Width max. 0.1ms;

$\Delta$  At the position of 4mm from the bottom of the package within 5 seconds.

## Electrical Optical Characteristics

( Ta=25°C , @IF=20mA )

Part No.	Material	Lens	Emitting Color	Forward Voltage (v)		Luminous Intensity (mcd)		Dominant Wavelength (nm)		Viewing Angle ( $2\theta_{1/2}$ )
				Min	Max	Min	Max	Min	Max	
PLLM762-WCY01	AlGaInP	Water Clear	Yellow	1.8	2.6	1500	3200	588	596	100°



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## BIN Table : (Test at 20 mA)

VF (v)	
Code	Range
--	1.8-2.0
--	2.0-2.4
--	2.4-2.6

IV (mcd)	
Code	Range
20	1500-1900
21	1900-2500
22	2500-3200

Wd (nm)	
Code	Range
--	588-590
--	590-592
--	592-594
--	594-596

Luminous Intensity Measurance tolerance are  $\pm 10\%$ .

Forward Voltage Measurance tolerance are  $\pm 0.05V$ .

X、Y Measurance tolerance are  $\pm 0.005$ .

Dominant Wavelength Measurance tolerance are  $\pm 0.5nm$ .

## Caution in ESD :

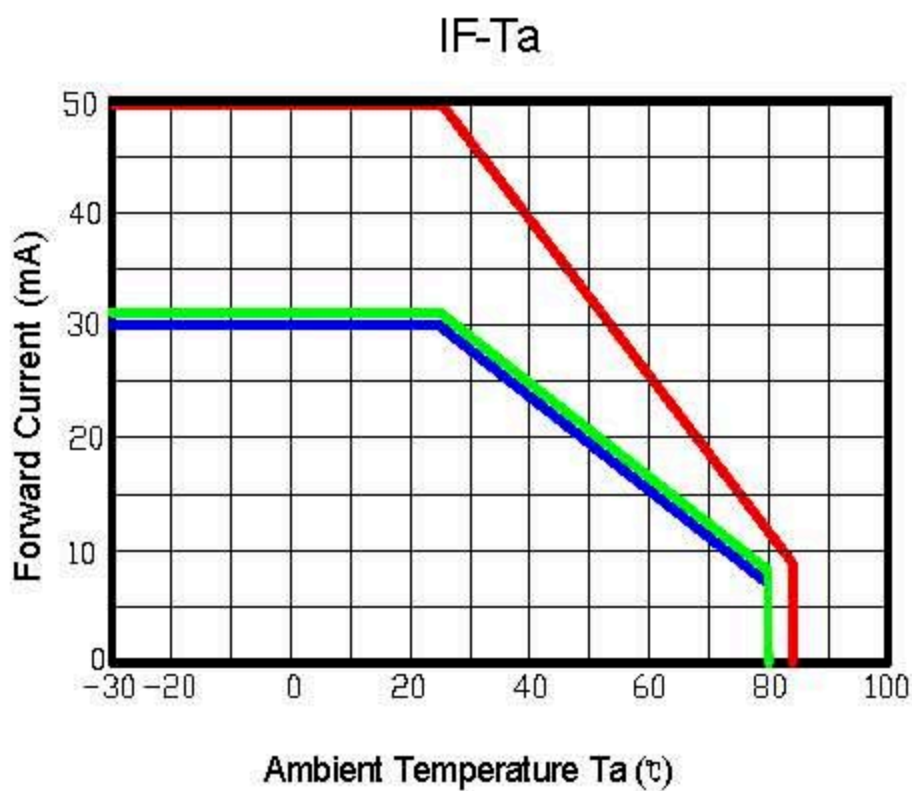
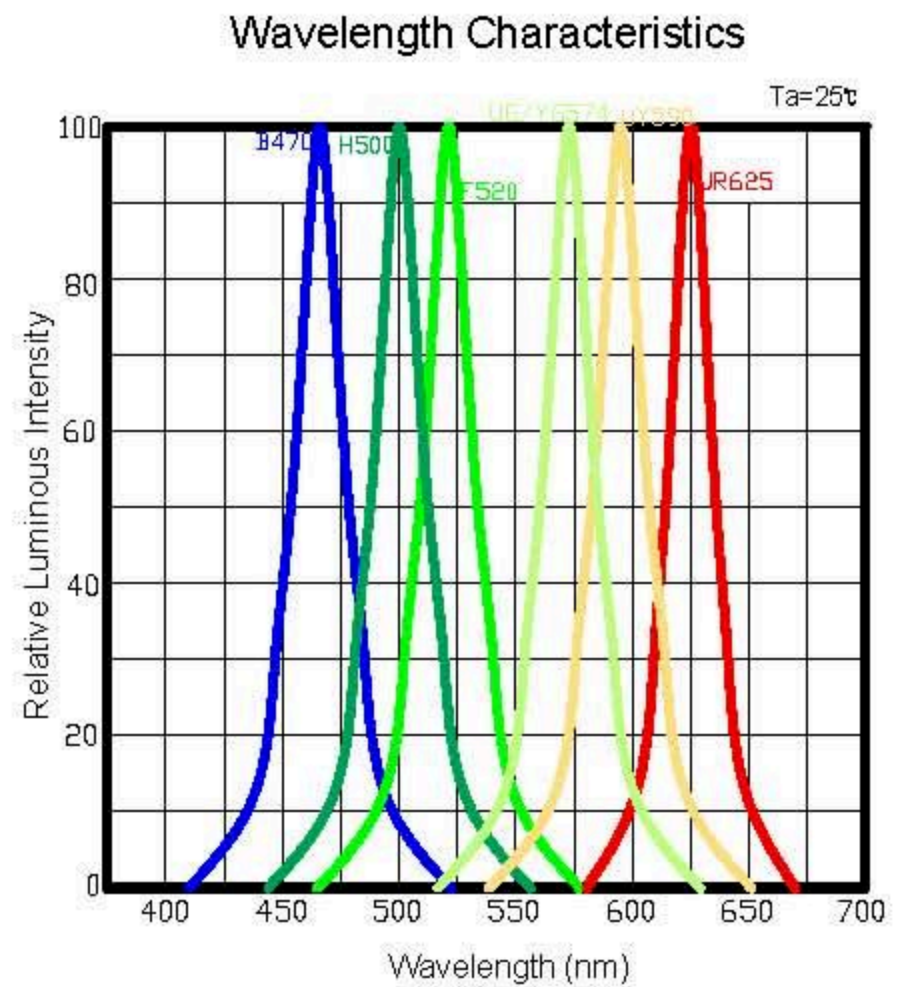
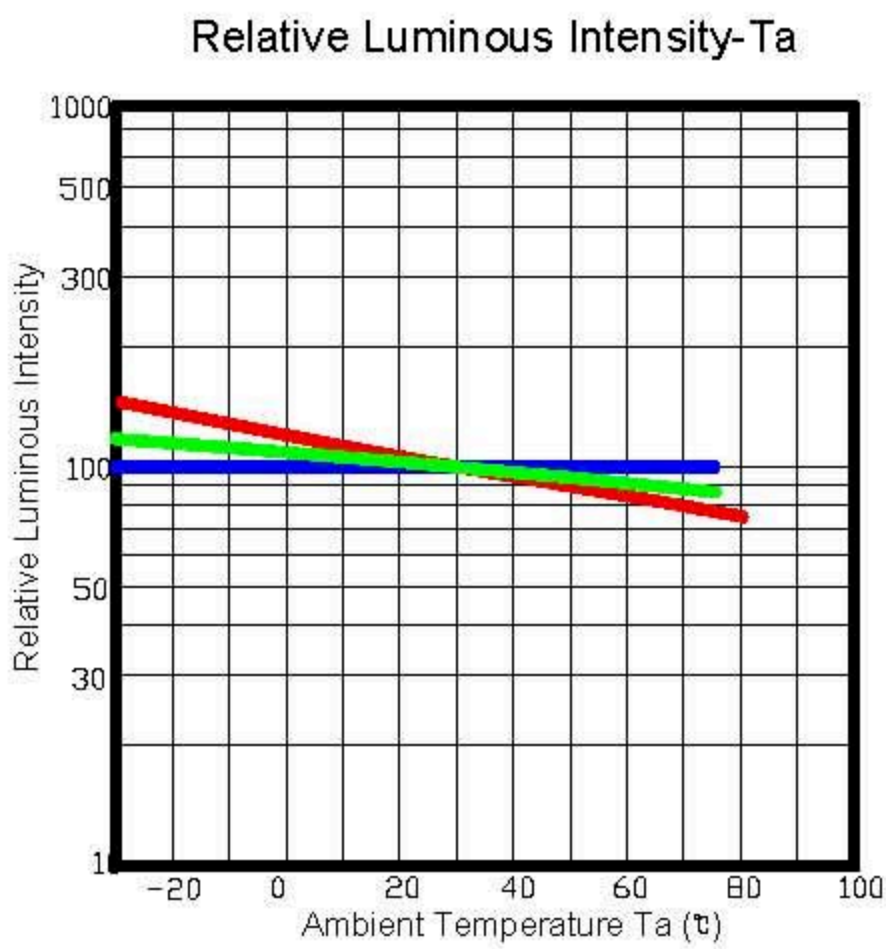
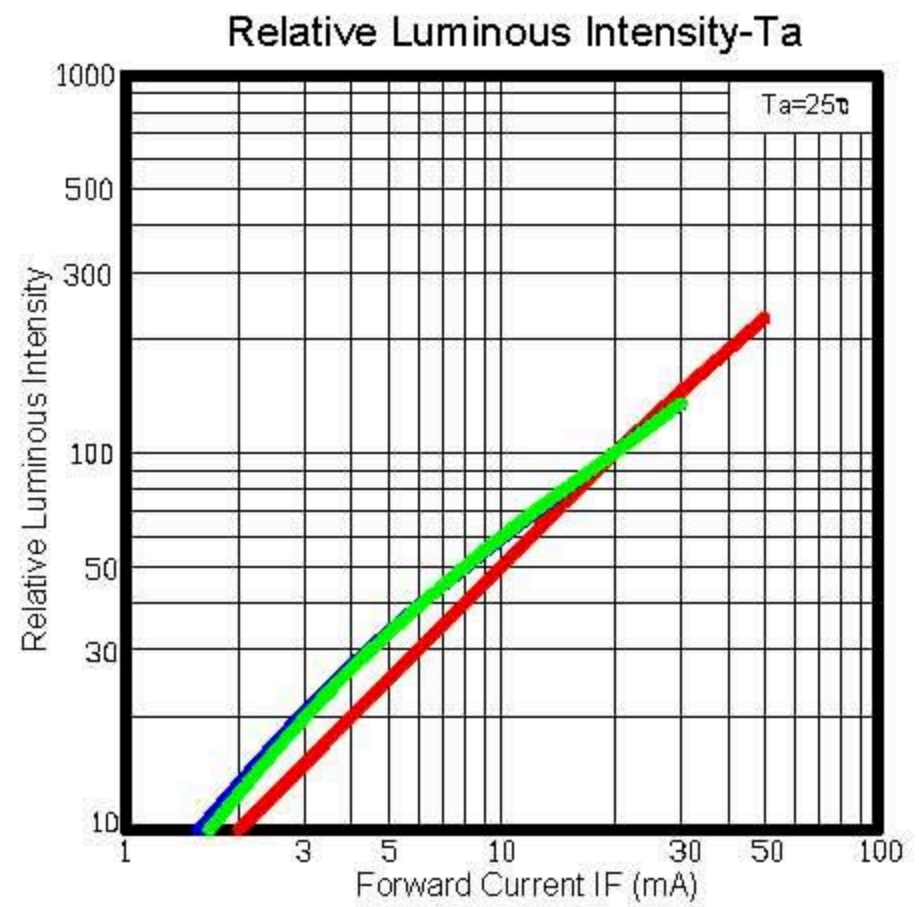
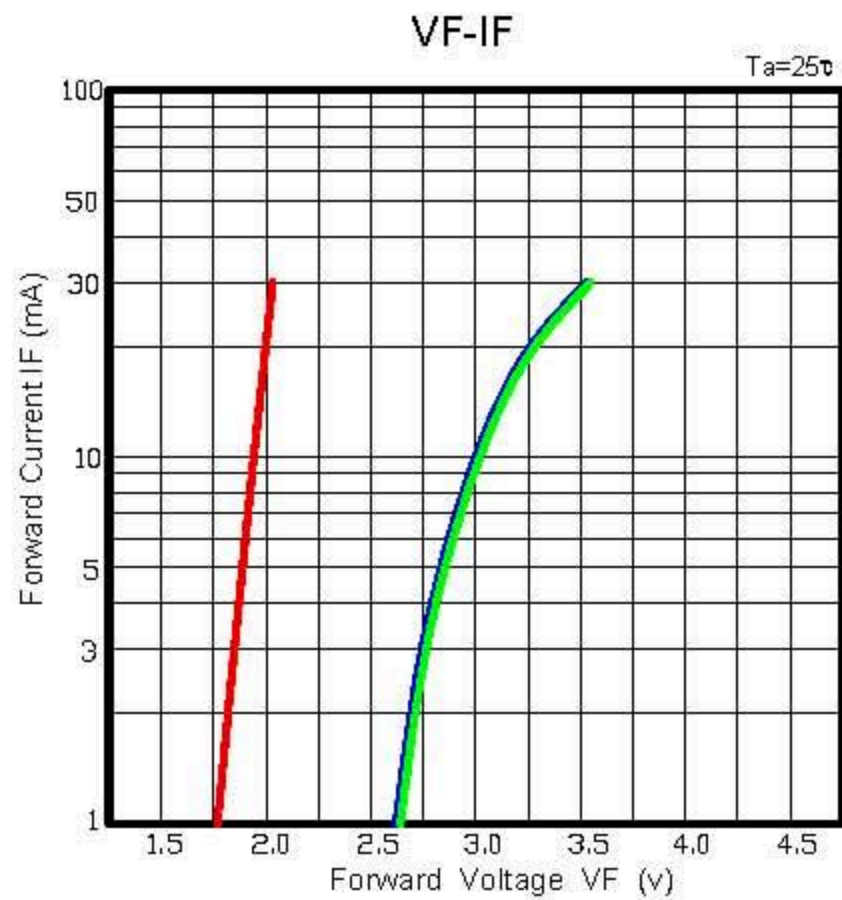
1. Static Electricity and surge damages the LEDs. It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs. All devices、Equipment and machinery must be properly grounded.
2. When inspecting own final products on which LEDs were mounted, It is easy to find static-damaged LEDs by light emission test at lower current (below 1mA is recommended) .
3. Damaged LEDs will show some unusual characteristics such as leak current remarkably increases, starting forward voltage becomes lower, or the LEDs get unlighted at the low current.



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## Reliability Test

Classification	Test Item	Test Conditions	Sample Size	Num of Damaged	Reference Standard
Endurance Test	Operating Life	$I_F=50mA$ 1000Hrs	22	0	MIL-STD-750: 1026 MIL-STD-202: 107D JIS C 7021:B-4
	High Temp. High Humidity Storage	$85\pm 5^\circ C$ 85-90% RH 1000Hrs	100	0	MIL-STD-202: 103D JIS C 7021:B-11
	Hi-Temp. Storage	$100\pm 5^\circ C$ 1000Hrs	100	0	MIL-STD-750: 2031 MIL-STD-202: 210A JIS C 7021:B-10
	Low-Temp. Storage	$-55\pm 5^\circ C$ 1000Hrs	100	0	JIS C 7021:B-12
Environmental Test	Temperature Cycling	$-40\pm 5^\circ C$ 30min Room Temp. 5min $100\pm 5^\circ C$ 30min 100 Cycles	100	0	MIL-STD-750: 1051 MIL-STD-202: 107D JIS C 7021:A-4
	Thermal Shock	$-30\pm 5^\circ C$ 5min $100\pm 5^\circ C$ 5min 100 Cycles	100	0	MIL-STD-750: 1051 MIL-STD-202: 107D JIS C 7021:A3
	Solderability	$230\pm 5^\circ C$ Dwell Time $\leq 5sec$	22	0	MIL-STD-202: 208D MIL-STD-750: 2026 MIL-STD-883: 2003 JIS C 7021:A-2
	Solder Resistance	$260\pm 5^\circ C$ $10\pm 1sec$	22	0	MIL-STD-750: 2031 MIL-STD-202: 210A JIS C 7021:A-1

## Criteria for Judging The Damage:

Item	Symbol	Test Conditions	Criteria for Judgment	
			Min	Max
Forward Voltage	$V_F$	$I_F=20mA$	—	U. S. L*1.1
Reverse Current	$I_R$	$V_R=5V$	—	U. S. L*2.0
Luminous Intensity	$I_v$	$I_F=20mA$	L. S. L*0.7	—

PS: **U. S. L.** :Upper Standard Level **L. S. L.** :Lower Standard Level