

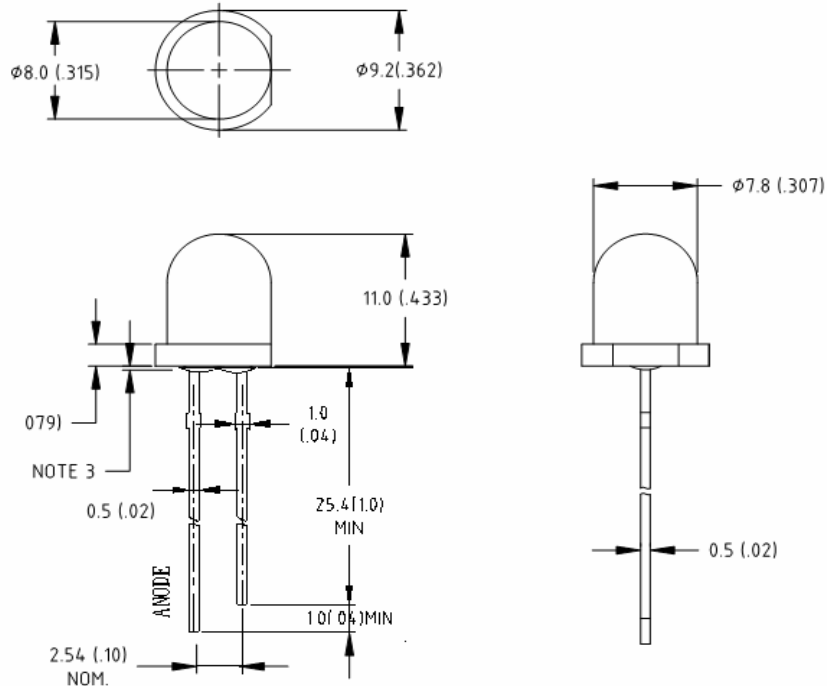
SPECIFICATIONS FOR UPEC LAMP TYPE WHITE LED

MODEL: UE-LR800NW0-1TB

Features

- High intensity
- 8mm diameter package
- General purpose leads
- Reliable and rugged

Package Dimensions



Part NO.	Chip Material	Lens Color	Source Color
UE-LR800NW0-1TB	InGaN	Water Clear	White

Notes

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ (.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm (.04") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.
6. Precautions for ESD:
STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
7. This data-sheet only valid for six months.

Mark	Date	Description Approve	Approved	Checked	Symbol	UPEC LED
-	DEC/02/04		Denny	Stone	Name	UE-LR800NW0-1TB
					Drawing No	WIENDS347

Absolute Maximum Ratings at Ta=25

Parameter	Symbol	Max	Unit
Power Dissipation	PD	120	mW
Pulse Forward Current	IPF	100	mA
Forward Current	IF	30	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	Topr	- 40 to + 80	°C
Storage Temperature Range	Tstg	- 40 to + 80	°C
Lead Soldering Temperature [1.6mm (0.063inch) From Body] 260 °C For 5 Seconds			

Electrical / Optical Characteristics at Ta=25

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	4900	7300	---	mcd	IF = 20mA
Viewing Angle	2θ _{1/2}	---	15	---	Deg	IF = 20mA
Forward Voltage	V _F	---	3.5	4.0	V	IF = 20mA
Reverse Current	I _R	---	---	100	µA	VR = 5V

BIN	LT	LU	LV	---	---	---
Range	4900-7300	7300-1100	11000-16500	---	---	---

Measurement Uncertainty of the Luminous Intensity: ± 15%

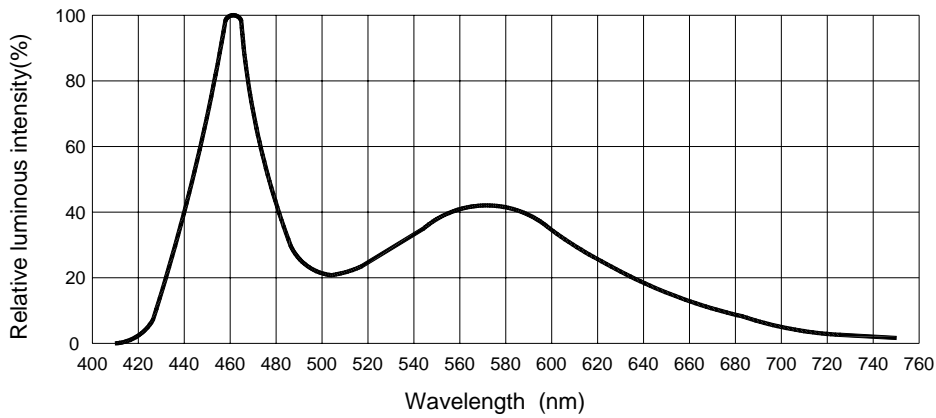
Color Ranks

Rank	X1	Y1	X2	Y2	X3	Y3	X4	Y4
A0	0.307	0.339	0.338	0.316	0.319	0.289	0.287	0.311
A1	0.287	0.311	0.319	0.289	0.299	0.267	0.271	0.287
A2	0.271	0.287	0.299	0.267	0.284	0.245	0.253	0.266
A3	0.253	0.266	0.284	0.245	0.265	0.225	0.236	0.247
Tolerance	X=±0.02				Y=±0.02			

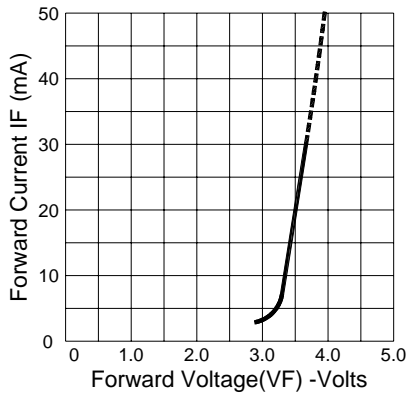
Mark	Date	Description Approve	Approved	Checked	Symbol	UPEC LED
-	DEC/02/04		Denny	Stone	Name	UE-LR800NW0-1TB
					Drawing No	WIENDS347

Typical Electrical / Optical Characteristics Curves

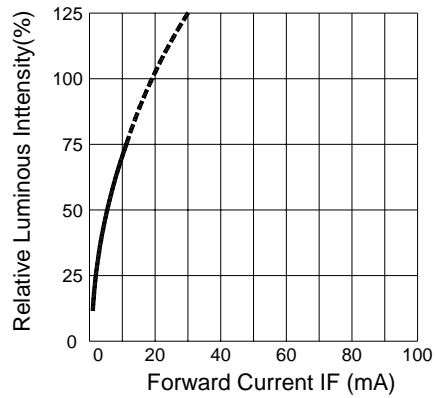
Spectrum Distribution



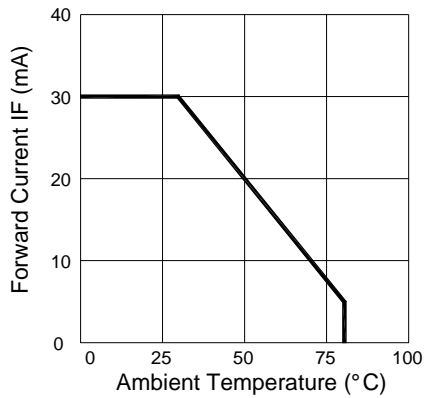
Forward Current VS. Forward Voltage



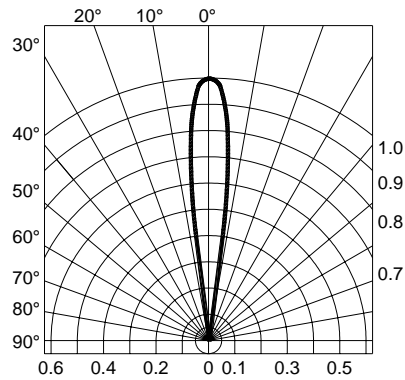
Luminous Intensity VS. Forward Current



Forward Current VS. Ambient Temperature



Radiation Diagram



			Approved	Checked	Symbol	UPEC LED
			Denny	Stone	Name	UE-LR800NW0-1TB
-	DEC/02/04				Drawing No	WIENDS347
Mark	Date	Description Approve				

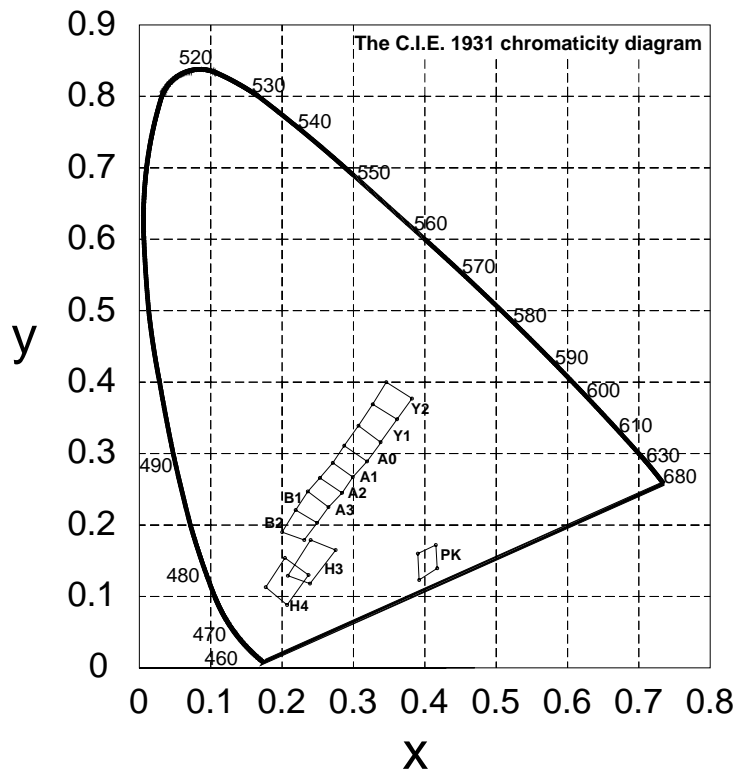
Reliability Test Items and Conditions

No.	Item	Test Conditions	Test Hours / Cycle	Sample Q'ty	Ac/Re
1	Solder Heat	TEMP : 260 ±5	5 sec	22 pcs	0/1
2	Temperature Cycle	H : +85 30min. ∫ 5min. L : -35 30min.	50 cycle	22 pcs	0/1
3	Thermal Shock	H : +85 ∫ 5min. L : -35 5min.	50 cycle	22 pcs	0/1
4	High Temperature Storage	TEMP : 85	1000 hrs	22 pcs	0/1
5	Low Temperature Storage	TEMP : -35	1000 hrs	22 pcs	0/1
6	DC Operating Life	I _F = 20mA	1000 hrs	22 pcs	0/1
7	High Temperature / High Humidity	65 / 85 ~ 90% R.H.	1000 hrs	22 pcs	0/1

Judgment Criteria

Forward Voltage Vf	V _{fmax} Increase < 1.2x
Reverse Current Ir	I _{rmax} Increase < 2x
Luminous Intensity Iv	Iv Decay < 50%

Note : Measurement shall be taken after the tested samples have been returned to normal ambient conditions (generally after two hours)



			Approved	Checked	Symbol	UPEC LED
			Denny	Stone	Name	UE-LR800NW0-1TB
-	DEC/02/04				Drawing No	WIENDS347
Mark	Date	Description Approve				