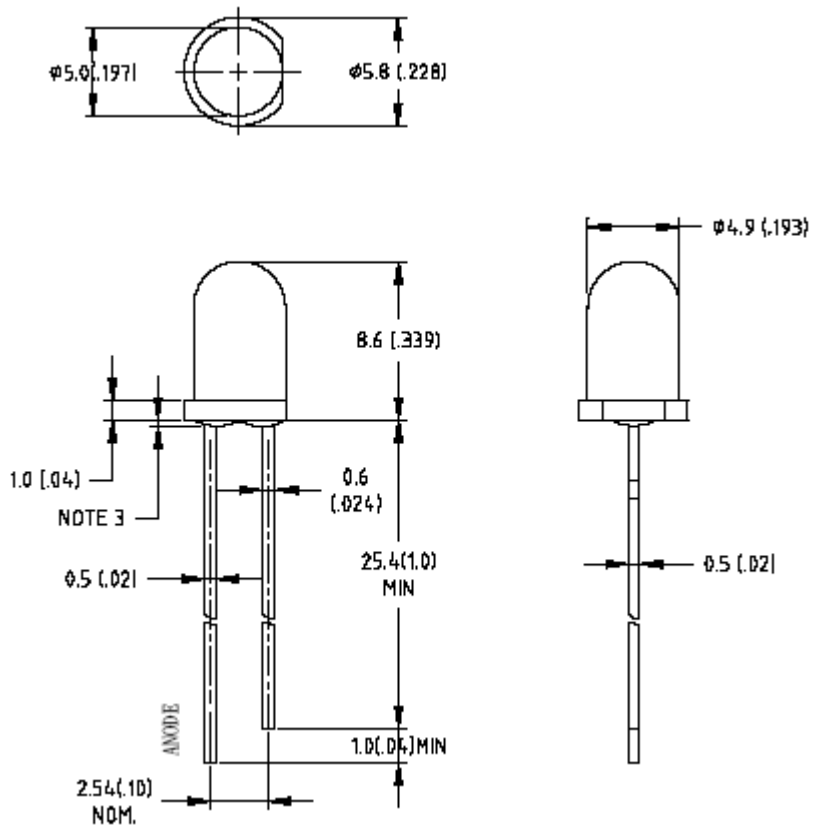
SPECIFICATIONS FOR UPEC LAMP TYPE **WHITE** LED

MODEL: **UE-LR500NW0-1XB**

FEATURES

- High Luminous Intensity
- Standard T-1 3/4 Diameter Package
- General Purpose Leads
- Reliable and Rugged

PACKAGE DIMENSIONS



Part NO.	Chip Material	Lens Color	Source Color
UE-LR500NW0-1XB	InGaN	Water Clear	White

NOTES

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010”) unless otherwise noted.
3. Protruded resin under flange is 1.5mm (.06”) max.
4. Lead spacing is measured where the leads emerge from the package.

ABSOLUTE MAXIMUM RATINGS AT Ta=25℃

Parameter	Symbol	Max	Unit
Power Dissipation	P_D	75	mW
Pulse Forward Current	I_{PF}	100	mA
Forward Current	I_F	20	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{opr}	- 40 to + 80	℃
Storage Temperature Range	T_{stg}	- 40 to + 100	℃
Lead Soldering Temperature [1.6mm (0.063inch) From Body] 260 ℃ For 5 Seconds			

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25℃

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_V	16500	25000	---	mcd	I_f=20mA (Note 1)
Viewing Angle	$2\theta_{1/2}$	---	15	---	Deg	(Note 2)
Dominant Wavelength	λd	---	---	---	nm	I_f=20mA (Note 3)
Forward Voltage	V_F	2.8	3.3	3.8	V	I_F = 20mA
Reverse Current	I_R	---	---	50	μA	V_R = 5V

BIN	LW	LX	---	---	---	---
Range	16500-25000	25000-37500		---	---	---

Measurement Uncertainty of the Luminous Intensity: ± 15%
Measurement Uncertainty of the Dominant Wavelength: ±1nm
Measurement Uncertainty of the Forward Voltage: ±0.1V

Color Ranks

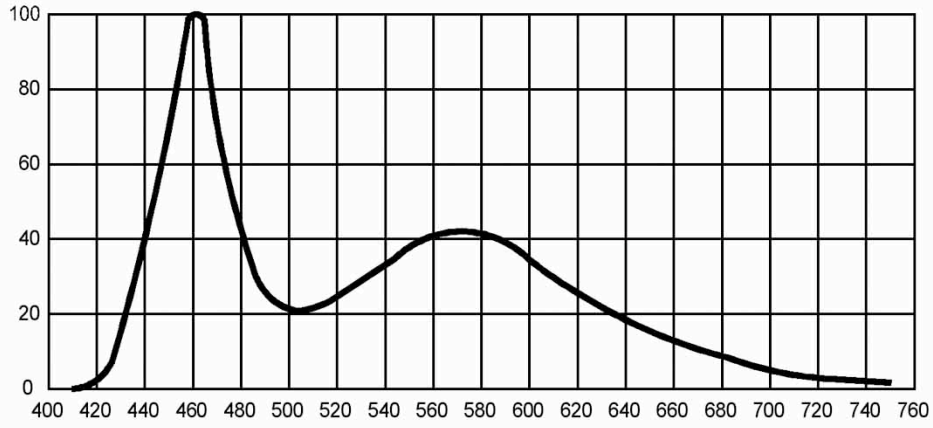
Rank	X1	Y1	X2	Y2	X3	Y3	X4	Y4
A0	0.307	0.339	0.338	0.316	0.319	0.289	0.287	0.311
A1	0.287	0.311	0.319	0.289	0.299	0.267	0.271	0.287
A2	0.271	0.287	0.299	0.267	0.284	0.245	0.253	0.266
A3	0.253	0.266	0.284	0.245	0.265	0.225	0.236	0.247
Tolerance			X=±0.02			Y=±0.02		

Notes

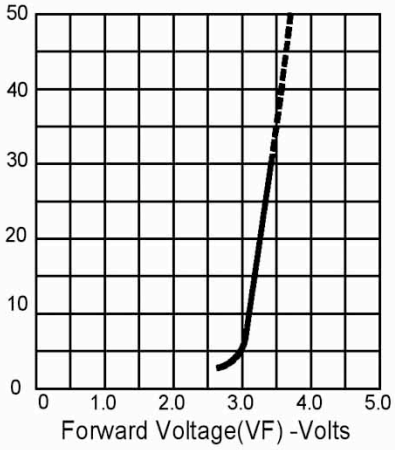
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λd) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

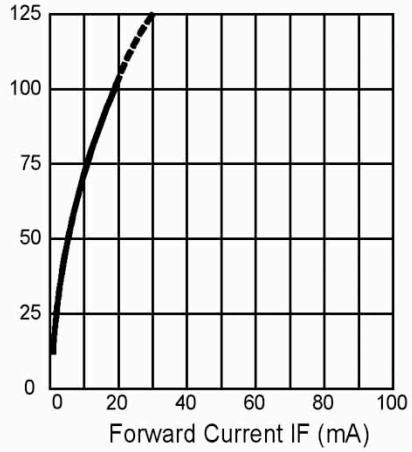
Spectrum Distribution



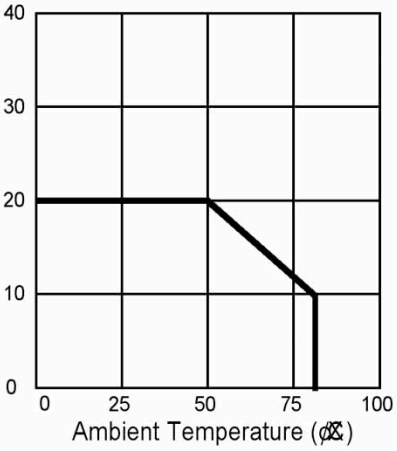
Forward Current VS. Forward Voltage



Luminous Intensity VS. Forward Current



Forward Current VS. Ambient Temperature



Radiation Diagram