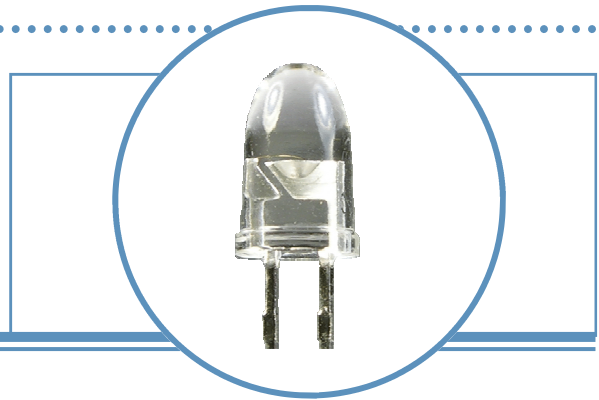


White High-Intensity LED Lamp (5 mm, 15° Viewing Angle)

OVLEW1CB9

- Narrow beam angle
- High luminous intensity
- Water clear plastic package
- InGaN White
- Pb-free

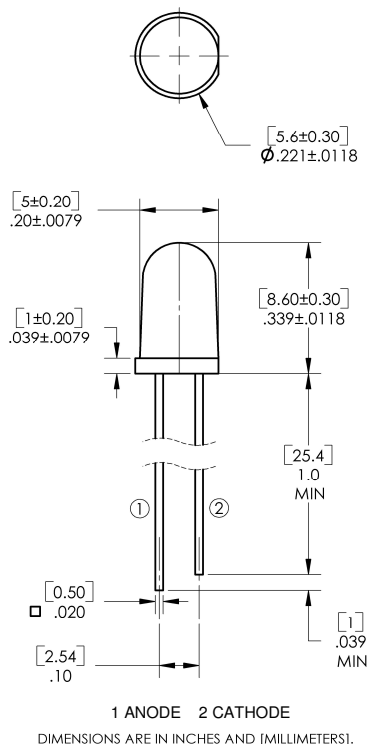


The **OVLEW1CB9** is a round 5 mm white high-intensity lamp with a 15° viewing angle. It is designed for applications that require high luminous intensity, such as indoor and outdoor displays, marker lights and optical indicators. The phosphor used in the reflector converts the blue emission of the InGaN chip to ideal white light so that the best mode of white light intensity and CIE chromaticity are achieved.

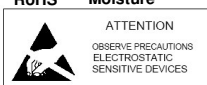
Applications

- Indoor/outdoor displays and applications
- Message boards
- Store front signage
- Indicators

Part Number	Material	Emitted Color	Intensity Typ. mcd	Lens Color
OVLEW1CB9	InGaN	White	9000	Water Clear



DO NOT LOOK DIRECTLY AT LED WITH UNSHIELDED EYES OR DAMAGE TO RETINA MAY OCCUR.



OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

Absolute Maximum Ratings

$T_A = 25^\circ\text{C}$ (on metal core PCB¹) unless otherwise noted

Storage Temperature Range	-40 ~ +100 °C
Operating Temperature Range	-40 ~ +85 °C
Reverse Voltage	5 V
Continuous Forward Current	25 mA
Peak Forward Current (10% Duty Cycle, 1KHz)	100 mA
Power Dissipation	100 mW
Lead Soldering Temperature (3mm from the base of the epoxy bulb) ¹	260 ± 5 °C
Electrostatic Discharge	150 V

Note:

- Solder time less than 5 seconds at temperature extreme.

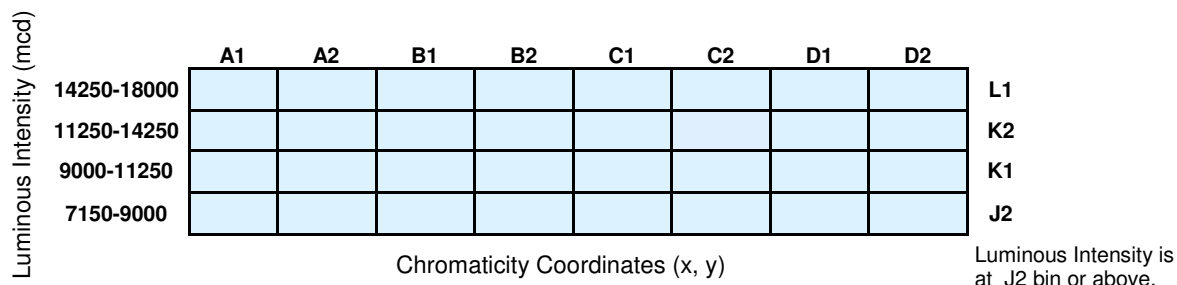
Electrical Characteristics

$T_A = 25^\circ\text{C}$ (on metal core PCB¹) unless otherwise noted

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
I_V	Luminous Intensity	7150	9000	----	mcd	$I_F = 20\text{ mA}$
V_F	Forward Voltage	----	3.5	4.0	V	$I_F = 20\text{ mA}$
I_R	Reverse Current	----	----	50	μA	$V_R = 5\text{ V}$
$2\theta_{1/2}$	50% Power Angle	----	15	----	deg	$I_F = 20\text{ mA}$
x	Chromaticity Coordinates	----	0.29	----	----	$I_F = 20\text{ mA}$
y		----	0.28	----	----	$I_F = 20\text{ mA}$

Standard Bins ($I_F = 20\text{mA}$)

Lamps are sorted to luminous flux (Φ_V) and chromaticity coordinates (x, y) bins shown. Orders for OVLEW1CB9 may be filled with any or all bins contained as below.



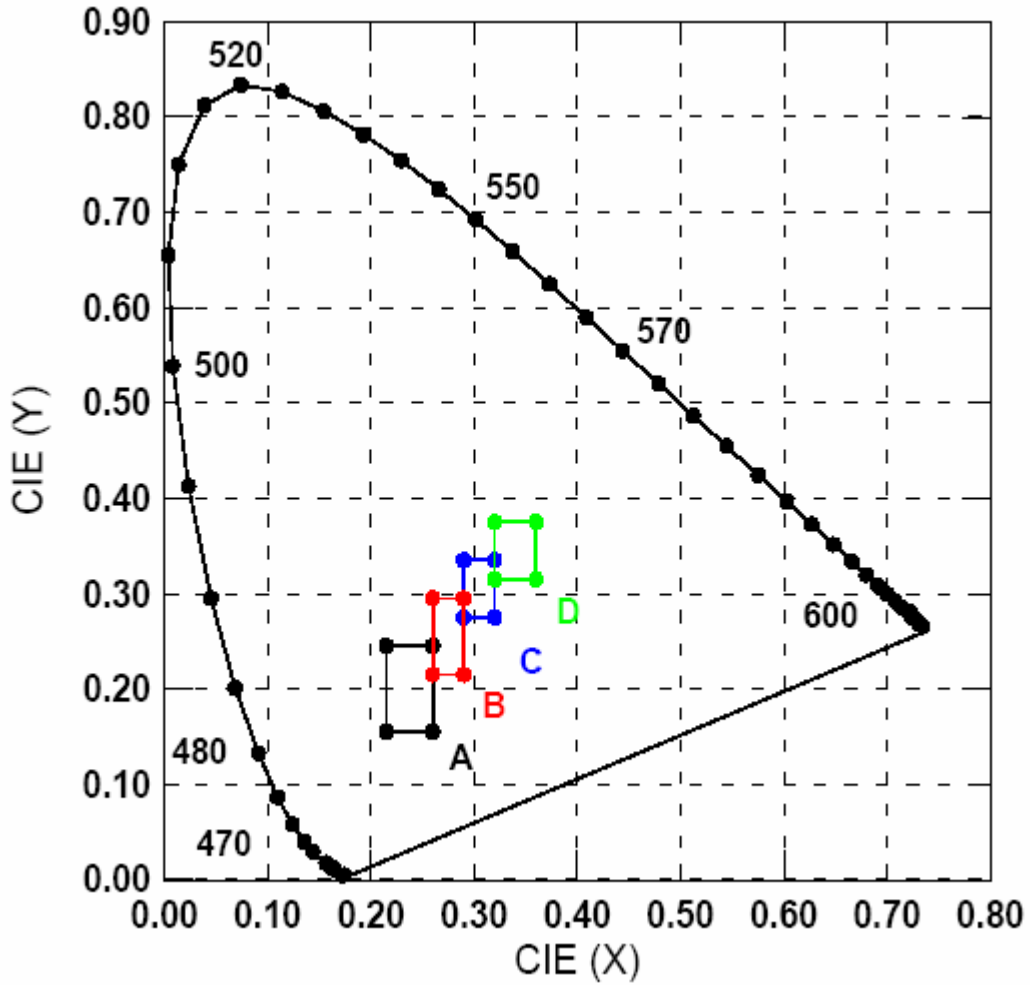
Rank	A1	A2	B1	B2	C1	C2	D1	D2	
Chromaticity Coordinates	x	0.215–0.245	0.245–0.260	0.260–0.275	0.275–0.290	0.290–0.305	0.305–0.320	0.320–0.340	0.340–0.360
	y	0.155–0.215	0.185–0.245	0.215–0.275	0.245–0.295	0.275–0.315	0.295–0.335	0.315–0.355	0.335–0.385

Notes:

- All ranks will be included per delivery, rank ratio will be based on the chip distribution.
- Pb content <1000 PPM.
- To designate luminous intensity ranks, please contact OPTEK.

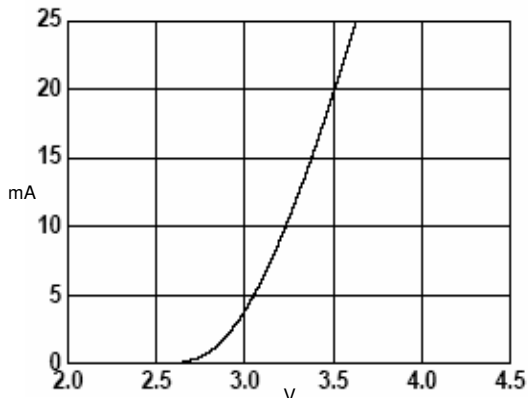
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CIE Chromaticity Diagram

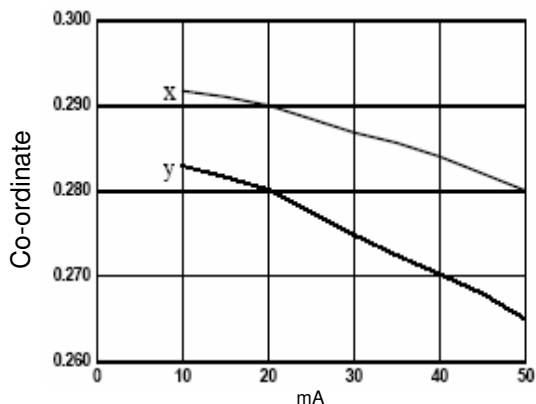


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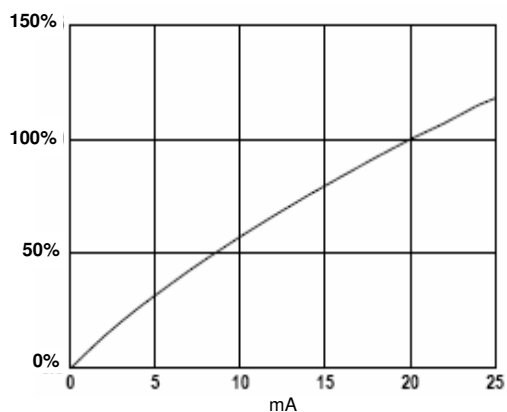
Typical Electro-Optical Characteristics Curves



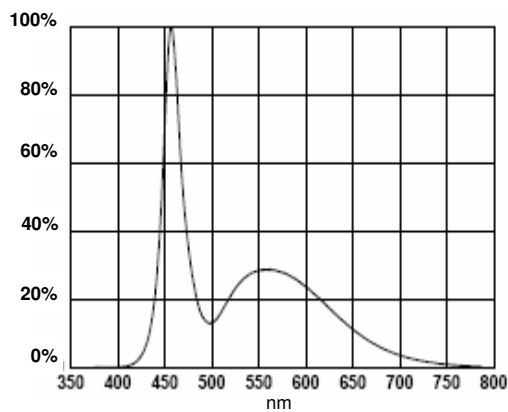
Forward Current vs Forward Voltage



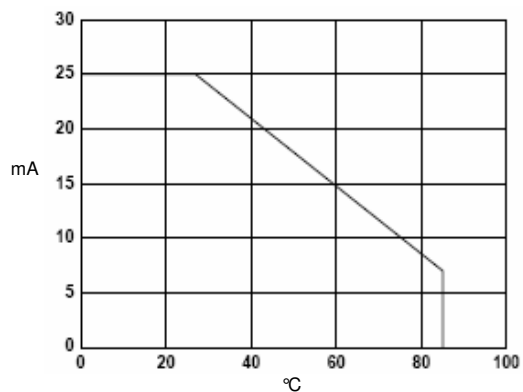
Chromaticity Coordinate vs Forward Current



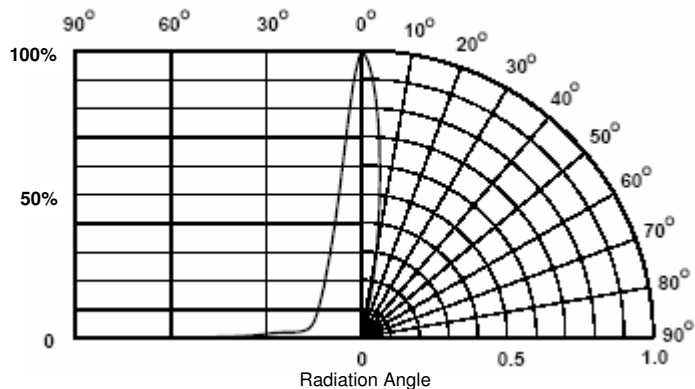
Relative Luminous Intensity vs Forward Current



Relative Luminous Intensity vs Wavelength



Forward Current vs Ambient Temperature

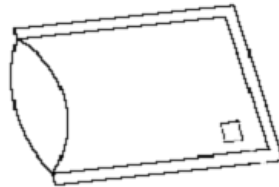


Relative Intensity vs Angle Displacement

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White High-Intensity LED Lamp OVLEW1CB9

Packing Information: 500 pieces per Bag



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