

# LD200-0CW-30X70

Cool White

5x4mm, Oval, 7mm Height  
30° on Y axis and 70° on X axis  
viewing angle

DWG BY:  
LL / MM  
02-21-07

CHK BY:  
PL  
02-26-07

QA:  
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\_\_-\_\_-\_\_

MFG:  
\_\_\_\_\_  
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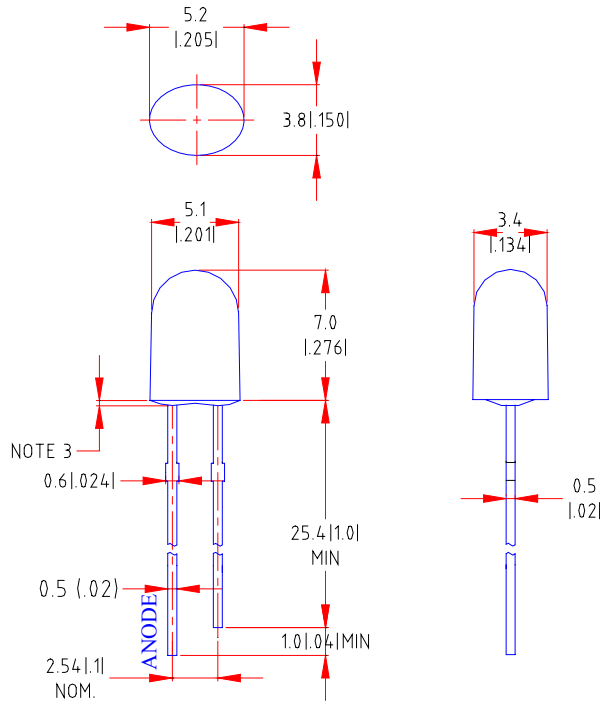
REVISION LTR: -

02-21-07

**Features:**

- ◆ High intensity
- ◆ 5×4mm diameter oval package
- ◆ Tinned leads
- ◆ Pb-free

**Package Dimensions:**



Part No.	Chip Material	Lens Color	Emission Color
LD200-0CW-30X70	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 1.0mm (.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 electricity and surge can 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.

### Absolute Maximum Ratings at Ta=25°C

Parameter	MAX.	Unit
Power Dissipation	80	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	20	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Electrostatic Discharge (ESD)	150	V
Operating Temperature Range	-20°C to +80°C	
Storage Temperature Range	-30°C to +100°C	
Lead Soldering Temperature [4mm (.157") From Body]	260°C for 5 Seconds	

### Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	$I_V$	3000	4000	---	mcd	$I_F=20\text{mA}$ (Note 1)
Viewing Angle	$2\theta_{1/2}$	X(Axis)	---	70	---	Deg (Note 2)
		Y(Axis)	---	30	---	
Forward Voltage	$V_F$	---	3.2	4.0	V	$I_F=20\text{mA}$
Reverse Current	$I_R$	---	---	50	$\mu\text{A}$	$V_R=5\text{V}$

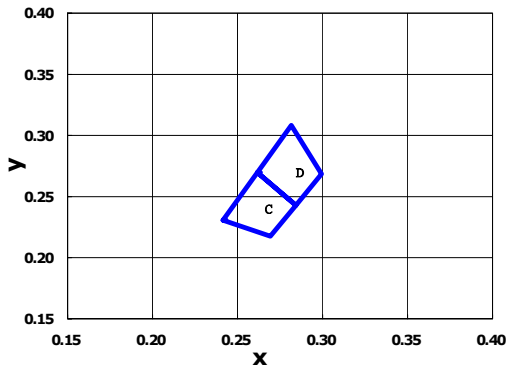
Color Rank	x	y	x	y	x	y	x	y
LTC & LTD	0.270	0.285	0.288	0.250	0.305	0.275	0.295	0.325

**Notes:**

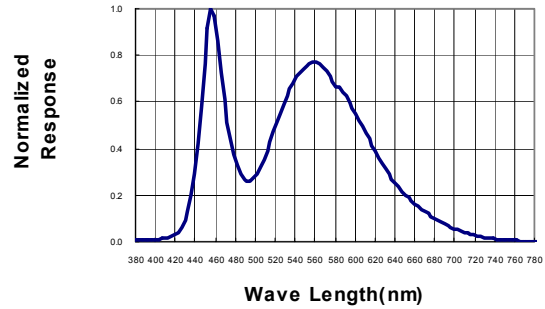
- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- Forward voltage measurement allowance is  $\pm 0.1\text{V}$
- Luminous Intensity Measurement Allowance is  $\pm 10\%$ .

**Typical Electrical / Optical Characteristics Curves**  
 (25°C Ambient Temperature Unless Otherwise Noted)

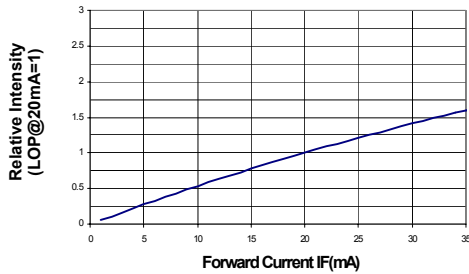
**CIE 1931 Chromaticity Diagram**



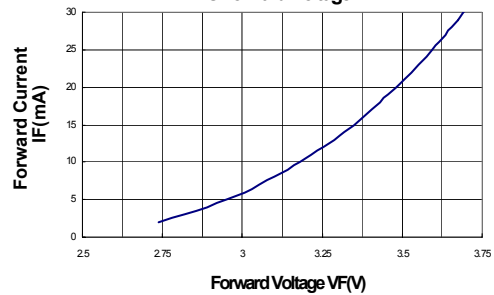
**Spectral Radiance**



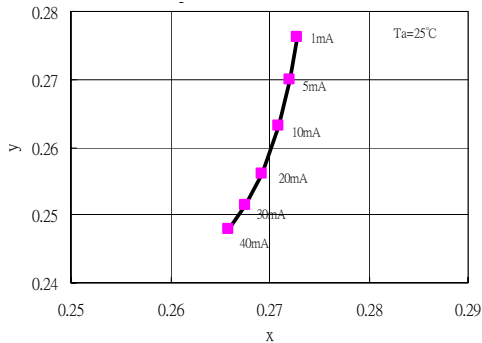
**Relative Luminous Intensity vs Forward Current**



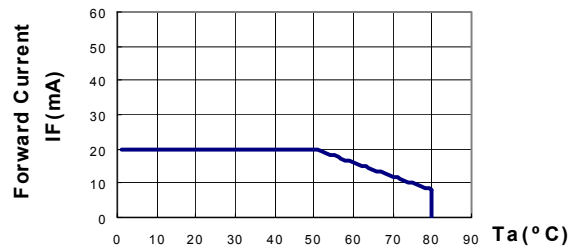
**Forward Current vs Forward Voltage**



**Forward Current VS. Chromaticity coordinate**



**Forward Current Derating Curve**



**Beam Pattern**

