

3W White High Power LED
Technical Data Sheet

Part No.: LL-HP70MWG

Features:

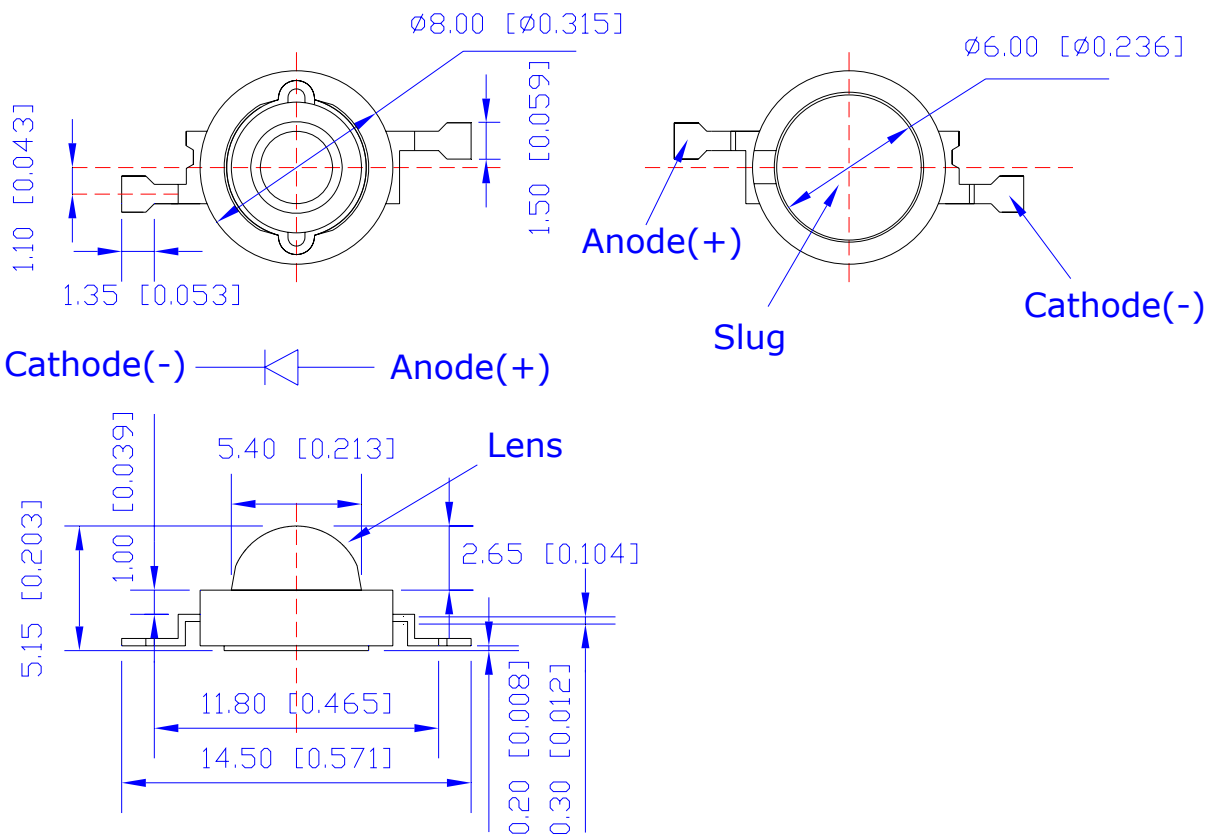
- ◇ Small package with high efficiency
- ◇ Long operating life.
- ◇ Available in white, warm white, green, blue, red, yellow.
- ◇ Typical color temperature: 6500 K.
- ◇ View angle: 135°.
- ◇ Low voltage DC operated.
- ◇ The product itself will remain within RoHS compliant Version.



Applications:

- ◇ Reading lights (car, bus, aircraft).
- ◇ Portable (flashlight, bicycle).
- ◇ Mini_accent/Uplighters/Downlighters/Orientation.
- ◇ Bollards/Security/Garden.
- ◇ Cove/Undershelf/Task.
- ◇ Automotive rear combination lamps.
- ◇ Traffic signaling/Beacons/ Rail crossing and Wayside.
- ◇ Indoor/Outdoor Commercial and Residential Architectural.
- ◇ Edge_lit signs (Exit, point of sale).
- ◇ LCD Backlights/Light Guides.

Mechanical Dimensions:



Part No.	Chip Material	Source Color
LL-HP70MWG	InGaN	White

Notes:

1. All dimensions are in millimeters.
2. Tolerance is ± 0.25 mm (.010") unless otherwise noted.

Absolute Maximum Ratings at Ta=25°C

Parameters	Symbol	Rating	Units
Forward Current	<i>IF</i>	700	mA
PeakPulseCurrent (tp≤100μs, Duty cycle=0.25)	<i>I pulse</i>	1000	mA
Reverse Voltage	<i>VR</i>	5	V
LED Junction Temperature	<i>Tj</i>	125	°C
Operating Temperature Range	<i>Topr</i>	-40 to +80	°C
Storage Temperature Range	<i>Tstg</i>	-40 to +100	°C
Soldering Time at 260 °C (Max.)	<i>Tsol</i>	5	Seconds

Notes:

1. Proper current derating must be observed to maintain junction temperature below the maximum.
2. LEDs are not designed to be driven in reserve bias.

Electrical Optical Characteristics at Ta=25°C

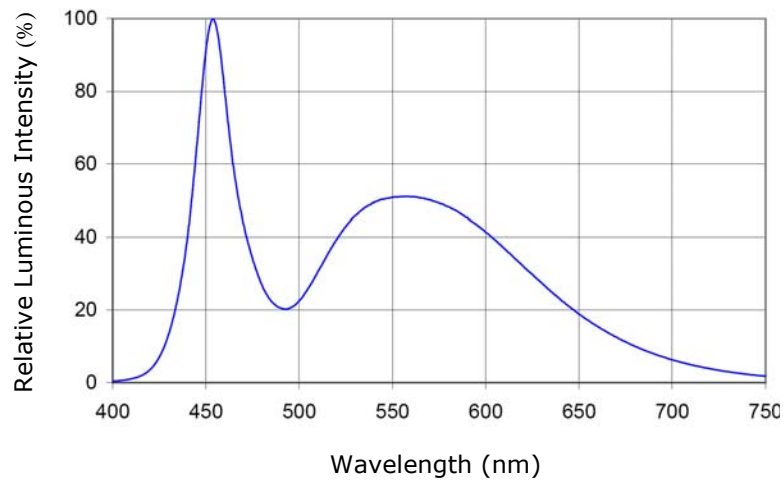
Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Viewing Angle [1]	<i>2θ_{1/2}</i>	---	135	---	Deg	IF=700mA
Forward Voltage [2]	<i>V_F</i>	2.8	3.5	4.0	V	IF=700mA
Reverse Current	<i>I_R</i>	---	---	10	μA	V _R =5V
Color Temperature [3]	<i>CCT</i>	5000	6500	10000	k	IF=700mA
Luminous Flux	<i>Φ_v</i>	130	150	---	lm	IF=700mA

Notes:

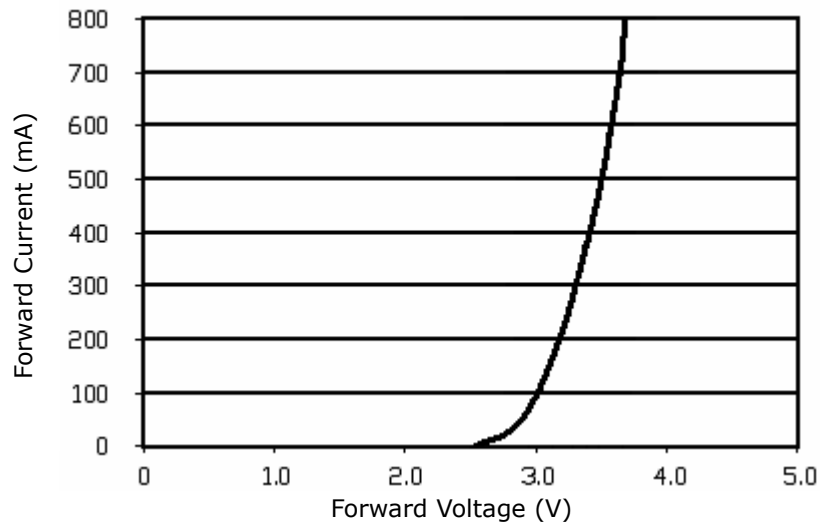
1. $2\theta_{1/2}$ is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
2. Forward Voltage measurement tolerance : ±0.1V
3. X, Ycoordination for white light bin areas refer to EHP-A08 series White and Warm White Binning (DSE-A08-001).

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

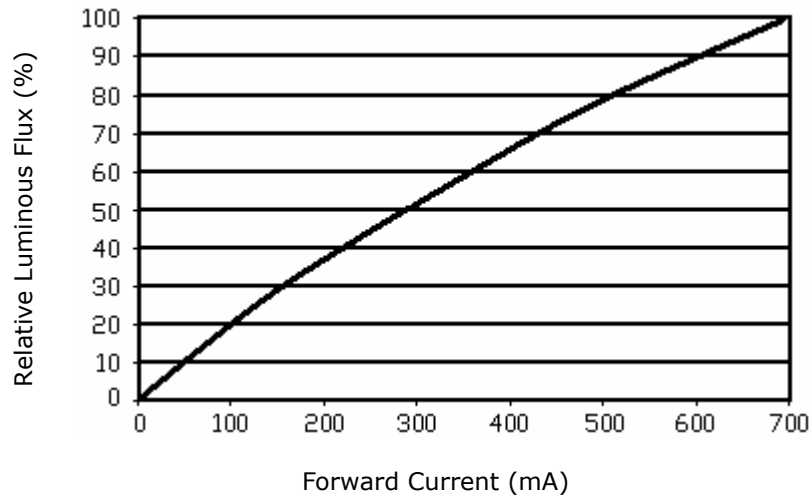
Relative Spectral Distribution



Forward Current VS Forward Voltage

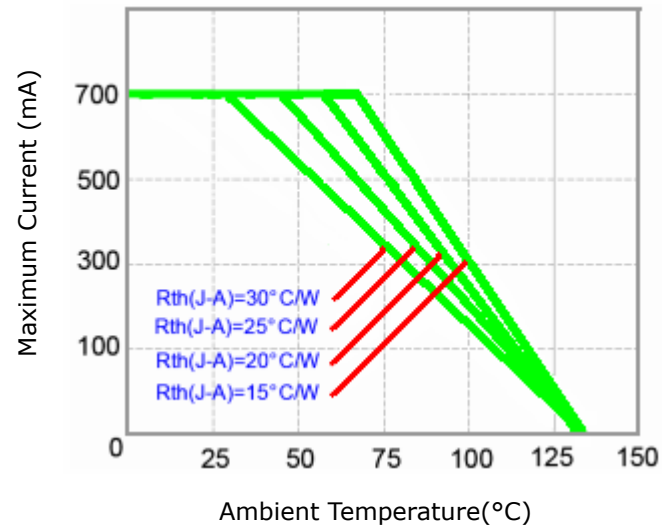


Luminous Flux VS Forward



Typical Electrical-Optical Characteristics Curves

Maximum Current (mA) VS Ambient



Typical Spatial Radiation Pattern

