VCC OPTOELECTRONICS
lighting:theway

SUPERBRIGHT LED LAMP

VAOL-3MWY4

Feature

- Low Power Consumption
- High Intensity
- I.C. compatible

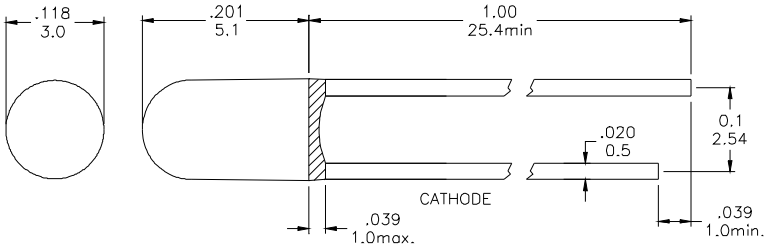
Applications

- Commercial Outdoor Sign Board
- Front Panel Indicator
- Dot-Matrix Module
- LED Bulb

Description

- These High Intensity LEDs are Based on InGaN/Sapphire Material Technology
- Emitted color:White
- Water Transparent Lens

Package Dimension



* Tolerance: 0.01 / 0.25 Unit: inch / mm

Absolute Maximum Ratings at Ta＝25℃

Symbol	Parameter	Max.	Unit
PD	Power Dissipation	120	mW
VR	Reverse Voltage	5	V
IAF	Average Forward Current	30	mA
IPF	Peak Forward Current（Duty＝0.1，1kHz）	100	mA
—	Derating Linear Form 25℃	0.4	mA／℃
Topr	Operating Temperature Range	－40 to ＋ 80	℃
Tstg	Storage Temperature Range	－40 to ＋ 100	℃
Lead Soldering Temperature [1.6mm（0.063inch）From Body] 260℃ For 5 Seconds.			

Electrical / Optical Characteristics and Curves at Ta＝25℃

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
VF	Forward Voltage	IF＝ 20 mA		3.5	4.0	V
IR	Reverse Current	VR＝ 5 V			50	μA
△θ	Half Intensity Angle	IF＝ 20 mA		60		Deg.
IV	Luminous Intensity	IF＝ 20 mA		2500		mcd.
X	Chromaticity	IF＝ 20 mA		0.31		
Y	Coordination	IF＝ 20 mA		0.31		

www.vcclite.com
190 bosstick blvd, ste 101
san marcos, ca 92069
phone 760.560.1300
fax 760.560.1301

RoHS
ISO 9001 Registered

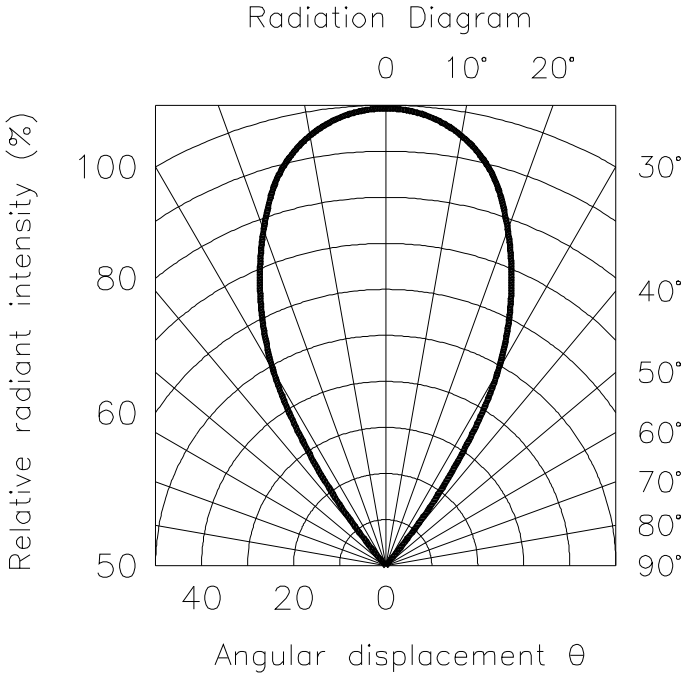
Electrical Characteristics at Ta＝25℃

Symbol	Iv		V_F		λ D	
Parameter	Luminous Intensity		Forward Voltage		Dominant Wavelength	
Condition	IF＝20mA		IF＝20mA		IF＝20mA	
Unit	mcd		V		nm	
Binning	Grade	Range	Grade	Range	Grade	Range
	BIN18	1800~2500	P1	3.0~3.2	WA	Bluish White
	BIN19	2500~3500	P2	3.2~3.4	WB	Pure White
			P3	3.4~3.6	WC	White
			P4	3.6~3.8	WD	Yellowish White
			P5	3.8~4.0		

Intensit : Tolerance of minimum and maximum = ± 15%
Vf: Tolerance of minimum and maximum = ± 0.05v
NOTE:
1. Static electricity and surge damages the LED. It is recommend to use a anti-static wrist band or anti-electrostatic glove when handing the LEDs. All devices, equipment and machinery must be properly grounded.
2.Specific binning requirements- please contact our home office

Radiation Diagram

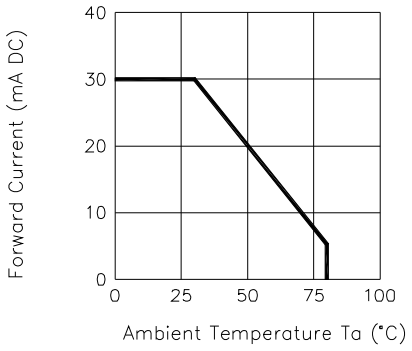
IF=20 mA 50% Power Angle Angle =60˚



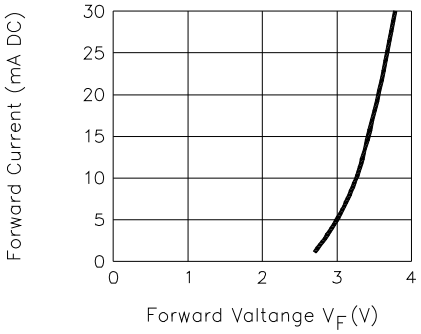
WHITE

Typical Electro-optical Characteristic Curves
(25 ℃ Free Air Temperature Unless Otherwise Specified)

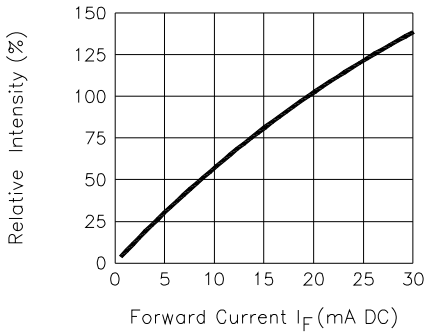
Forward Current
Vs. Ambient Temmperature



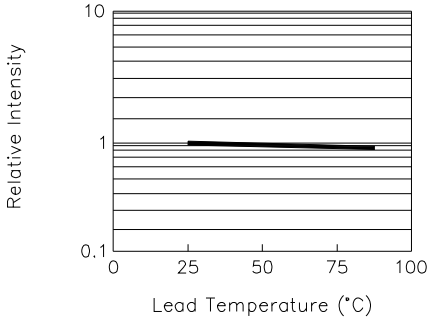
Forward Current
Vs. Forward Valtage



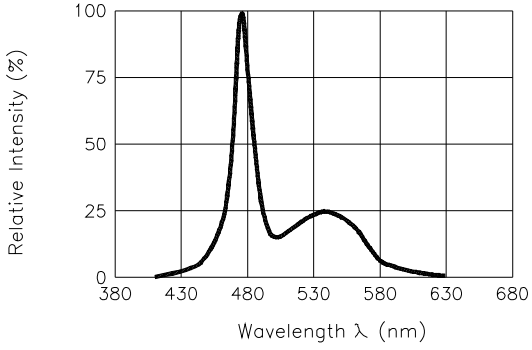
Relative Intensity
Vs. Forward Current



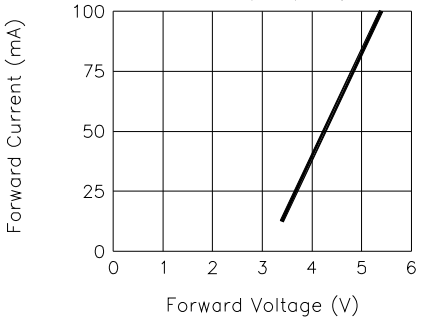
Relative Intensity
Vs. Lead Temperarture
(Pulsed 20 mA; 300us pulse,
10ms period)



Relative Intensity Vs. Wavelength



Peak Forward Voltage
Vs. Forward Current
(100us test pulse,
1% duty cycle)



www.vcclite.com
190 bosstick blvd, ste 101
san marcos, ca 92069
phone 760.560.1300
fax 760.560.1301

RoHS
ISO 9001
Registered