

### PRELIMINARY SPEC

Part Number: AAD1-9090QB11ZC/3-S

Blue



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

### Features

- Super high flux output and high luminance.
- Designed for high current operation.
- Low thermal resistance.
- Low voltage DC operated.
- Superior ESD protection.
- Not reflow compatible.
- The component is internally protected with silicone gel.
- RoHS compliant.

### Application Note

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

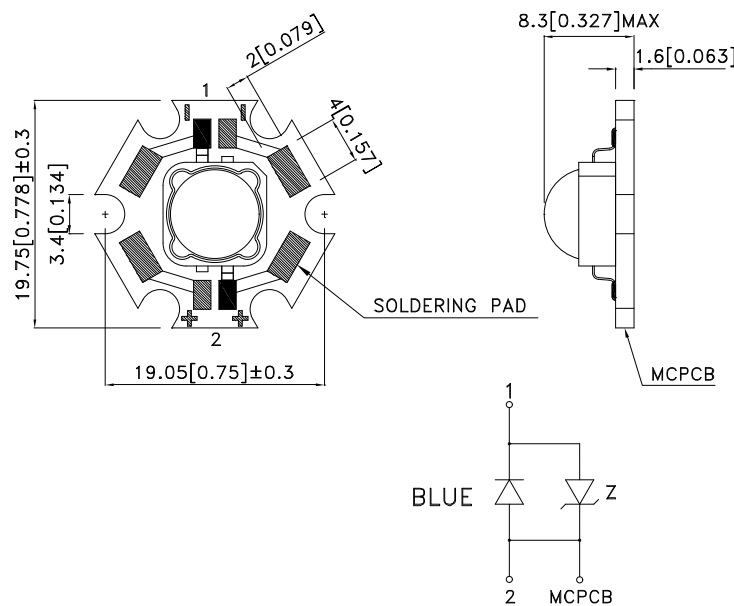
All devices, equipment and machinery must be electrically grounded.



### Applications

- traffic signaling.
- backlighting (illuminated advertising , general lighting).
- interior and exterior automotive lighting.
- substitution of micro incandescent lamps.
- portable light source (e.g. bicycle flashlight).
- signal and symbol luminaire for orientation.
- marker lights (e.g. steps, exit ways, etc).
- decorative and entertainment lighting.
- indoor and outdoor commercial and residential architectural lighting.

### Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
3. Specifications are subject to change without notice.



## Selection Guide

Part No.	Dice	Lens Type	luminous Intensity [2] Iv (cd)@ 700mA		Φv (lm) [2] @ 700mA		Viewing Angle [1]
			Min.	Typ.	Min.	Typ.	2θ1/2
AAD1-9090QB11ZC/3-S	BLUE (AlInGaN)	WATER CLEAR	6.7	10	20	35.7	100°

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity / luminous flux: +/-15%.

## Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pt	3	W
Junction temperature	TJ	110	°C
Operating Temperature	Top	-40 To +100	°C
Storage Temperature	Tstg	-40 To +100	°C
DC Forward Current [1]	IF	700	mA
Peak Forward Current [2]	IFM	1000	mA
Thermal resistance [1]	Rth j-slug	11	°C/W
Electrostatic Discharge Threshold (HBM)		8000	V

Notes:

1. Results from mounting on MCPCB.
2. 1/10 Duty Cycle, 0.1ms Pulse Width.

## Electrical / Optical Characteristics at TA=25°C

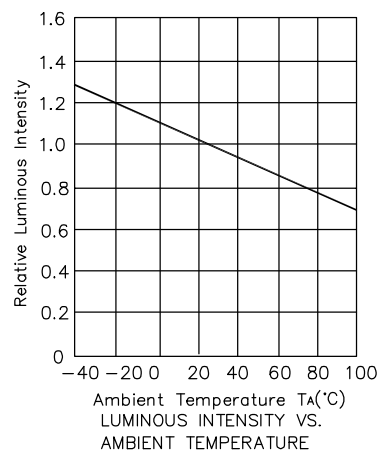
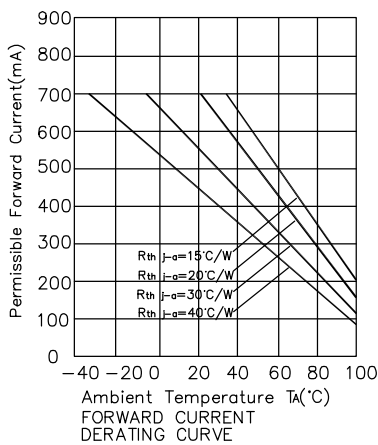
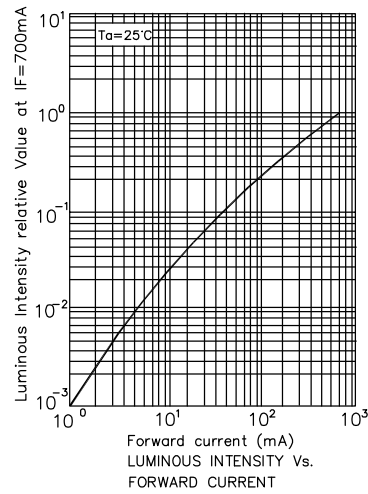
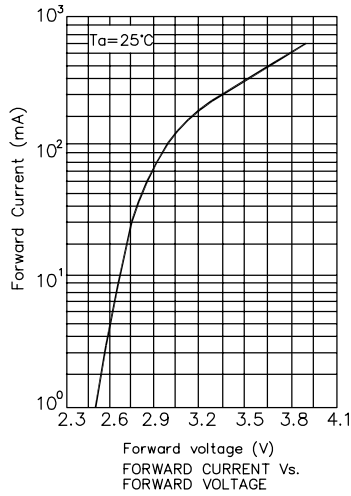
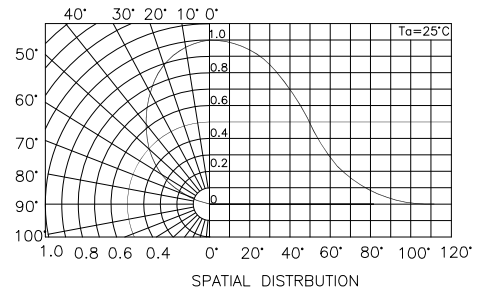
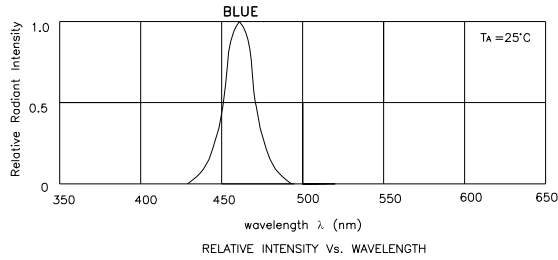
Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=700mA [Typ.]	λpeak	461	nm
Dominant Wavelength IF=700mA [Typ.]	λdom [1]	460	nm
Spectral bandwidth at 50%ΦREL MAX IF=700mA [Typ.]	Δλ	20	nm
Forward Voltage IF=700mA [Min.]	VF [2]	3.5	V
Forward Voltage IF=700mA [Typ.]		3.9	
Forward Voltage IF=700mA [Max.]		4.3	
Temperature coefficient of λpeak IF=700mA, -10°C ≤ T ≤ 100°C [Typ.]	TCλpeak	0.04	nm/°C
Temperature coefficient of λdom IF=700mA, -10°C ≤ T ≤ 100°C [Typ.]	TCλdom	0.03	nm/°C
Temperature coefficient of VF IF=700mA, -10°C ≤ T ≤ 100°C [Typ.]	TCV	-4.3	mV/°C

Notes:

1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

# Kingbright

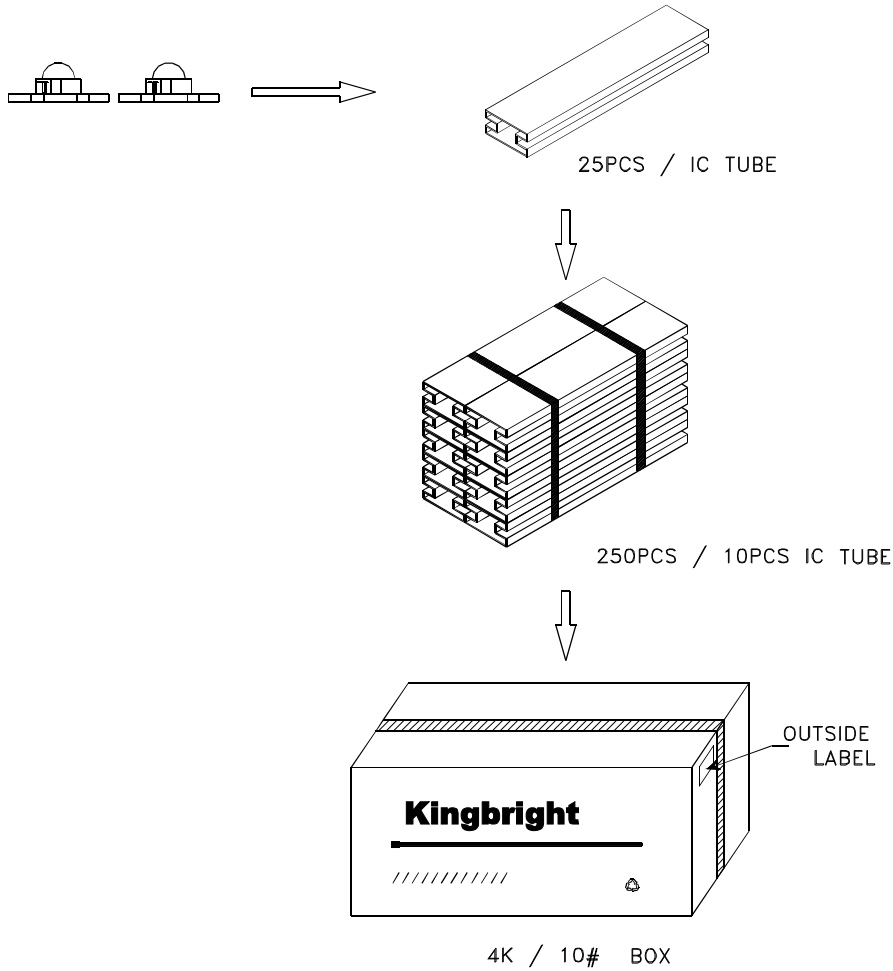
## AAD1-9090QB11ZC/3-S



# Kingbright

## PACKING & LABEL SPECIFICATIONS

AAD1-9090QB11ZC/3-S



<b>Kingbright</b>	
P/NO: AAD1-9090XXX	
QTY: 250 pcs	Q.C. <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Q C XX XX XXXX PASSED</span>
S/N: XXXX	
CODE: XX	
LOT NO: XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	