

QT-Brightek PLCC Series

Dome Type PLCC2 LED

Part No.: QBLP670D-IW-WW-2897

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	Version# 1.0	

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Introduction

Feature:

- Ultra bright dome type PLCC2 LED
- InGaN technology
- Clear lens
- Viewing angle: 30 deg typ.

Description:

This dome type PLCC2 LED has a narrow viewing angle. Combination of high brightness output and robust package, this LED is ideal for architecture lighting, status indication, and color mixing applications.

Application:

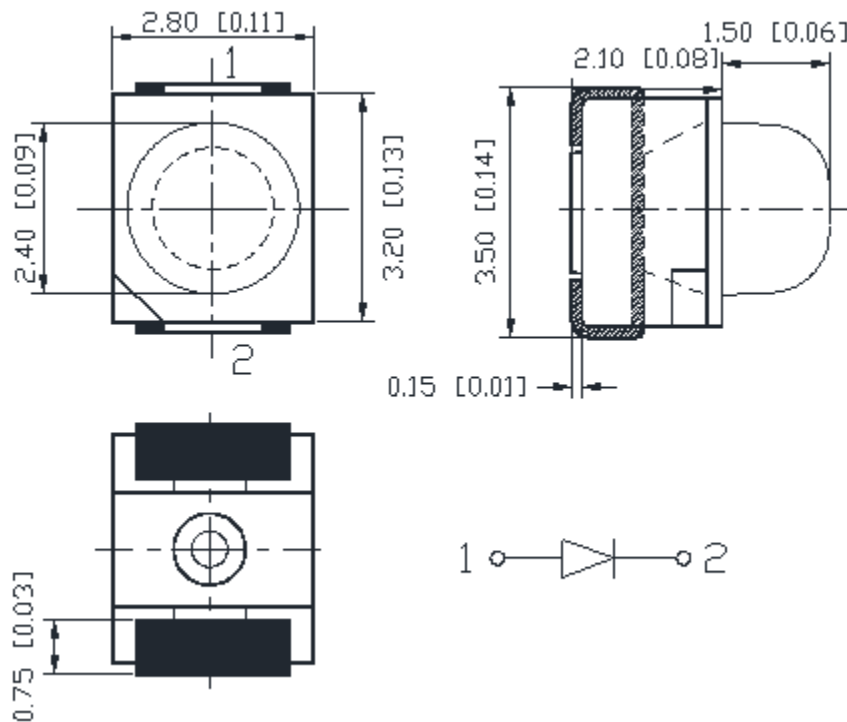
- Status indication
- Industrial equipment backlighting
- Architecture lighting

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.2mm

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I _F (mA)	V _F (V)		CIE Coordinates	I _v (mcd)	
			Typ.	Max.	Typ.	Min.	Typ.
QBLP670D-IW-WW-2897	Warm White	20	2.8	3.3	X=0.425, Y=0.4	5200	7500
					CCT: 3000K		

Absolute Maximum Rating

Material	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)
InGaN	99	30	125	5	-40 ~+80	-40 ~+85

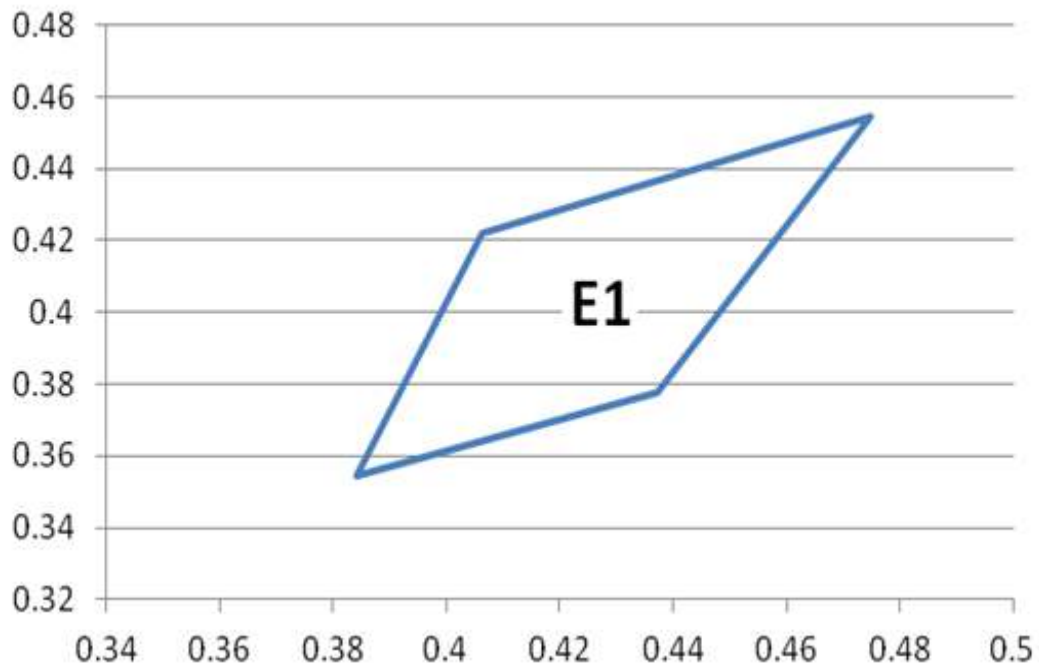
*Duty 1/8 @ 1KHz

Forward Voltage V_F @ I_F=20mA

Bin	Min.	Max.	Unit
A	2.5	2.7	V
B	2.7	2.9	
C	2.9	3.1	
D	3.1	3.3	

Luminous Intensity I_v @ I_F=20mA

Bin	Min.	Max.	Unit
a	5200	6800	mcd
b	6800	8800	
c	8800	11200	
d	11200	14200	

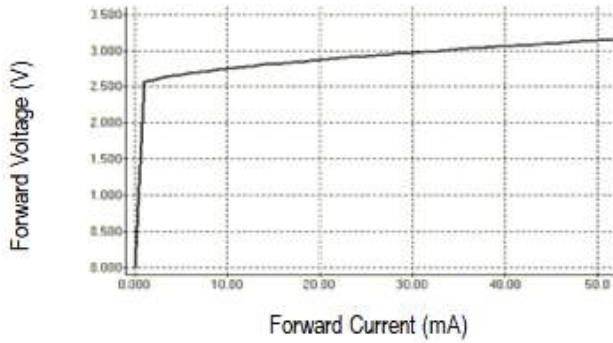
CIE Chromaticity Diagram

Rank	Chromaticity coordinates				
E1	X	0.3841	0.4063	0.475	0.4373
	Y	0.3543	0.4218	0.4547	0.3779

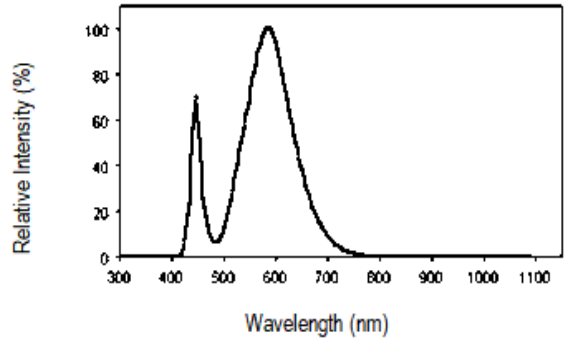
Characteristic Curves

InGaN

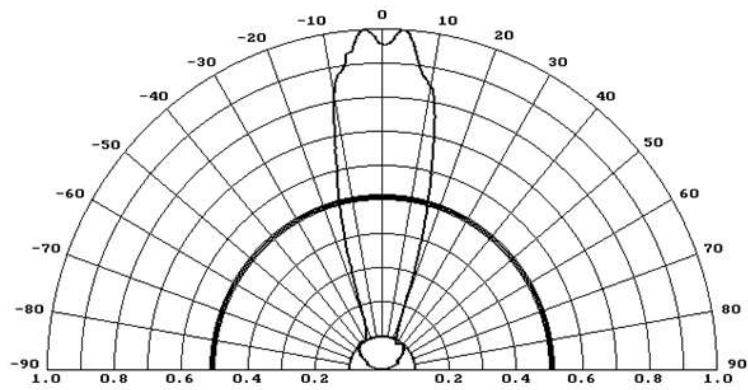
Forward Current vs. Forward Voltage



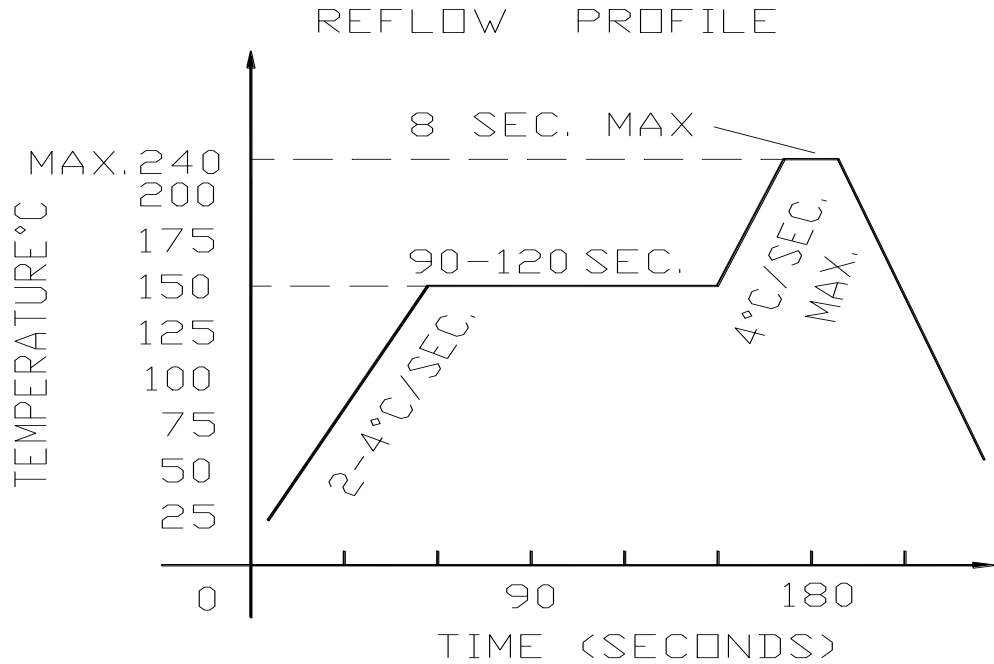
Relative Intensity vs. Wavelength



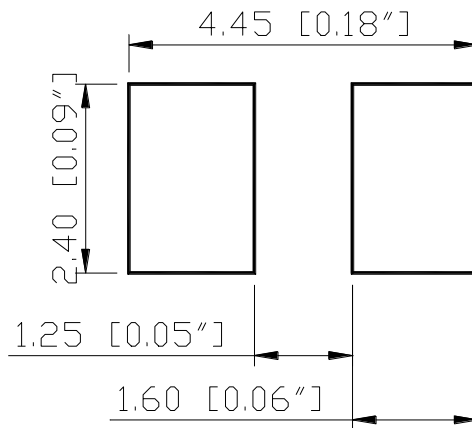
Directive Characteristics



Solder Profile & Footprint



Recommended Pad Layout



Units: mm

Tolerance: $\pm 0.2\text{mm}$

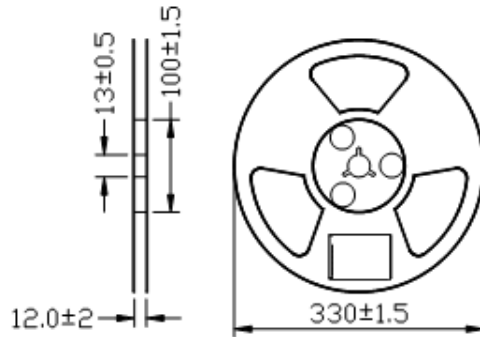
Recommended Handling Precautions

1. It is recommended to store the products in sealed and anti-static bags with desiccant inside at the following condition:
 - Humidity: <60% RH
 - Temperature: 5°C~30°C
2. Shelf life in sealed bag: 12 month at 5°C~30°C and < 60% R.H
3. After the package is opened:
 - 3.1 The products should be used within a week (168 hours)
 - 3.2 Or product should be stored at $\leq 20\%$ RH and (5°C~30°C) with zip-lock sealed bag
 - 3.3 It is recommended to bake before soldering when the package is unsealed after 72hrs;
 - 3.3.1 Baking condition (Tape and Reel Type): 60±3°C (24~36 hrs) and < 5% RH
 - 3.4 Products require baking before soldering/mounting if **3.1** or **3.2** is not met. Baking condition refers to **3.3.1**
4. If the product is not used within 3 months since manufacturing date, it is recommended to bake for 24 hrs @ 60°C before use.
5. If the product is not used after 3 months since manufacturing date, it is recommended to bake for 36~48 hrs @ 60°C before use.

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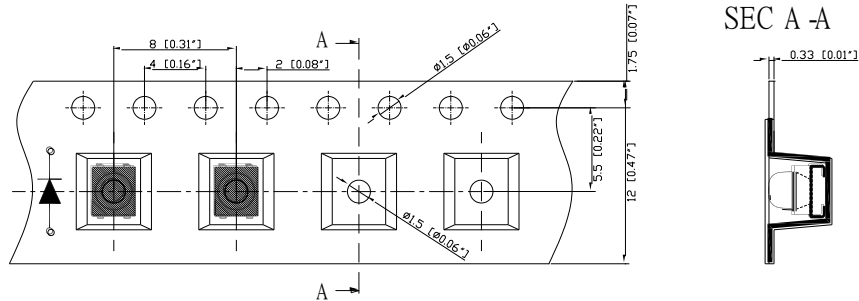
Packing

Reel Dimension:



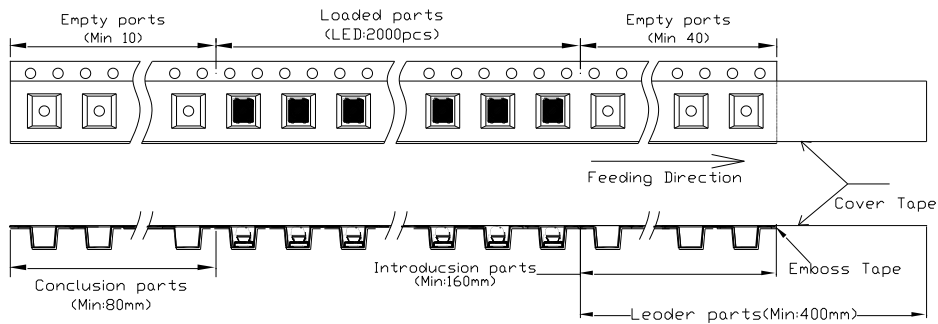
Unit: mm

Tape Dimension:

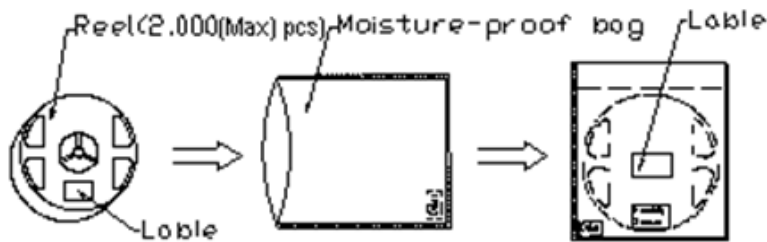


Unit: mm

Arrangement of Tape:



Packaging Specifications:





Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per Reel
QBLP670D-IW-WW-2897	QBLP670D-IW-WW-2897	Iv=7500mcd typ. @ I _F =20mA / CIE Coordinates: (X=0.425, Y=0.4) typ.	2,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP670D-IW-WW-2897	V1.0	03/18/2021

Disclaimer

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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.