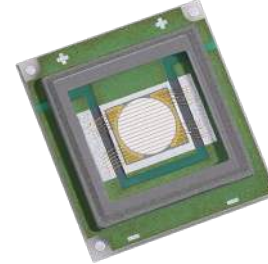


# SBT-70-G/B LEDs



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## Applications

- Architectural and Entertainment Lighting
- Fiber-coupled Illumination
- Medical Lighting
- Machine Vision
- Microscopy
- Spot Lighting



Luminus Technology

## Understanding Big Chip LED Test Specifications

Every Luminus LED is fully tested to ensure that it meets the high quality standards expected from Luminus' products.

## Ordering Information

**SBT — 70**

Note 1: Flux Bin listed is minimum bin shipped, higher bins may be included at Luminus' discretion.

## SBT-70 G/B Binning Structure

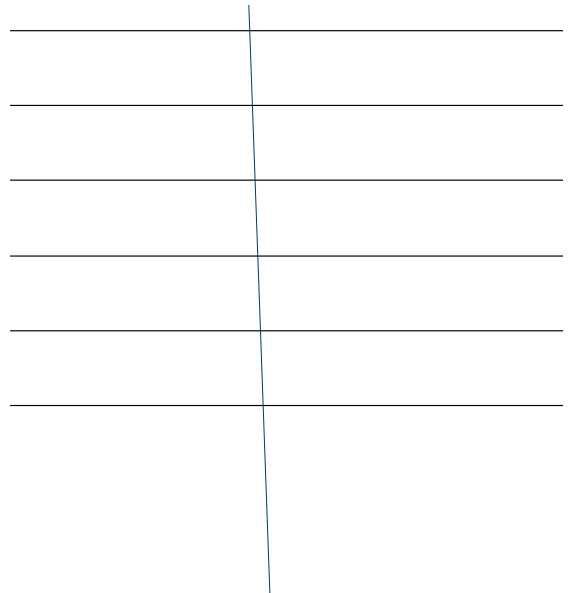
SBT-70 monochromatic LEDs are tested for luminous flux and dominant wavelength at a 10.5 A (1.5 A/mm<sup>2</sup>) drive current and placed into one of the following flux and wavelength bins.<sup>2</sup>





Relative Luminous Flux vs. Forward Current - Blue

Forward Current vs. Forward Voltage - Blue



Note 1: Median lifetime estimate as a function of junction temperature at 1.5 A/mm<sup>2</sup> in continuous operation. Lifetime defined as time to 70% of initial intensity. Based on preliminary lifetime test data.



## Typical Spectrum

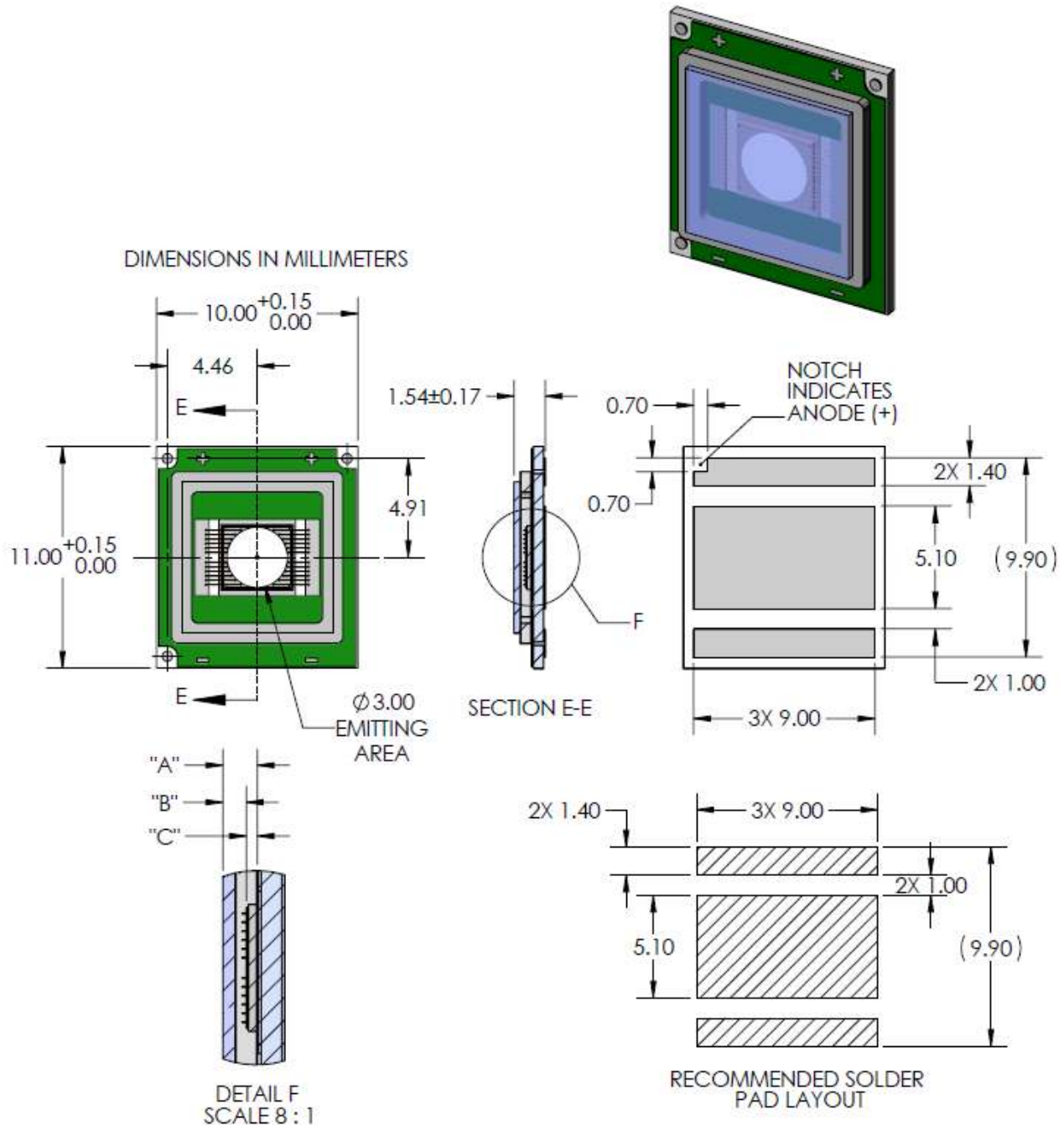
$$I_{\text{ref}} = f(\Phi)$$

## Angular Intensity Distribution (Typical)



Soldering Profile

## Mechanical Dimensions – SBT-70 Emitter



DIMENSION NAME	DESCRIPTION	NOMINAL DIMENSION	TOLERANCE
"A"	TOP OF CERAMIC SUBSTRATE TO TOP OF GLASS	.86	$\pm 0.10$
"B"	TOP OF EMITTING AREA TO TOP OF GLASS	.58	$\pm 0.14$
"C"	TOP OF CERAMIC SUBSTRATE TO TOP OF EMITTING AREA	.28	$\pm 0.03$

DWG-002087

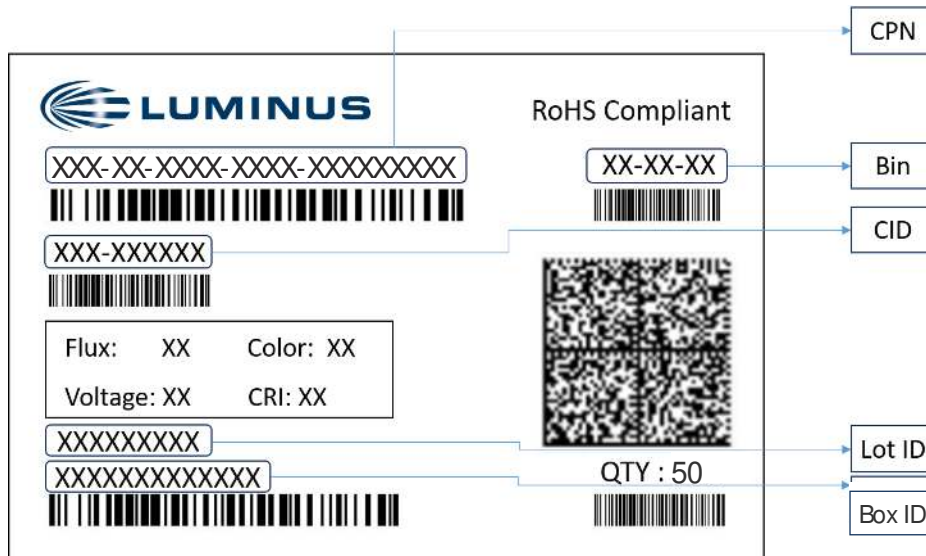


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## Mechanical Dimensions – SBT-70 Star Board

## Shipping Tray Outline

### Shipping Label



#### Label Fields:

- CPN: Luminus ordering part number
- CID: Customer's part number
- QTY: Quantity of devices in pack
- Flux: Bin as defined on page 4
- Voltage: NA
- Color: Bin as defined on page 4
- CRI: NA

#### Packing Configuration:

- Maximum stack of 2 trays per pack with 25 devices per tray
- Partial pack or tray may be shipped
- Each pack is enclosed in anti-static bag
- Shipping label is placed on top of each pack

## Revision History

Rev	Date	Description of Change
08	07/20/2015	Added Angular Distribution Pattern on Page 9
09	04/10/2016	Updated $V_f$ min for SBT-70-G from 4.5V to 3.9V and typical $V_f$ from 4.9V to 4.5V Corrected maximum current value to 14 A (2 A/mm <sup>2</sup> ) on page 8
10	11/29/2022	Updated template, added DJ & DK flux bin, updated Typical Device Performance, added Soldering Profile, Shipping Tray Outline, Shipping Label Outline sections

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