

# ***Fingerboard TW***

Tunable White LED Module  
Area-Filling Light Source



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## About LUXTECH

LUXTECH Designs & Produces Versatile, Specification-Grade LED Modules for Architectural Lighting Manufacturers.

## Product Description

LUXTECH's Tunable White Fingerboard is designed to make high quality area illumination easier than ever before. The constant current layout is cuttable between every LED so it's simple to trim and connect modules to create light of any shape and size. Stocked with 90+ CRI LEDs standard with a 27K-65K tuning range.

## Technical Specifications

### Mechanical Information:

- » Cuttable Between Every LED
- » PCB Material: 1.6mm FR4
- » Dimensions: 10.6 in x 10.6 in
- » Screw Size: #8, M4
- » Specification Grade 3M 300LSE Adhesive Backing

### Photometric Performance:

- » Max Warm Lumen Output: 6939 lm/board (2700K, 90CRI)
- » Max Cool Lumen Output: 7656 lm/board (6500K, 90CRI)
- » Nominal Warm Efficacy: 129 lm/W (2700K, 90CRI, 1500 lm/board)
- » Nominal Cool Efficacy: 143 lm/W (6500K, 90CRI, 1500 lm/board)
- » Beam Angle: 120°
- » Tuning Range: 2700K - 6500K
- » 90+ CRI Standard (80 CRI Available)
- » 3-Step MacAdam Ellipse Color Binning

### Electrical Information:

- » Poke-In Connectors
- » Forward Voltage: 33V (90 CRI, 1500 lm/board)
- » Compatible with Industry-Standard 36V Drivers (0-2.8A)
- » Wire Size: 18-24 AWG, solid or stranded

### Lifetime Information:

- » LM-80 Tested LEDs by CREE
- » L80 > 72,000 Hrs for Ts = 55°C, 42mA Per Section
- » L80 = 60,500 Hrs for Ts = 105°C, 42mA Per Section
- » 5-Year Warranty

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## REQUESTING SAMPLES & PRICING

Product Name	CCT 1	CCT 2	CRI
Fingerboard-TW	22K	40K	80
	27K*	50K	90*
	30K	65K*	

\*Normally Stocked

Example: Fingerboard-TW-27K-65K-90

## ELECTRICAL CHARACTERISTICS

### 2700K, 90 CRI, 45 °C

PER BOARD					
Current (mA)	120	240	480	720	960
Voltage (V)	31.8	32.4	33.3	34.2	35.0
Flux (lm)	518	1,026	2,013	2,956	3,854

### 6500K, 90 CRI, 45 °C

PER BOARD					
Current (mA)	120	240	480	720	960
Voltage (V)	31.8	32.4	33.3	34.2	35.0
Flux (lm)	572	1,132	2,221	3,262	4,252

## COLOR MIXING

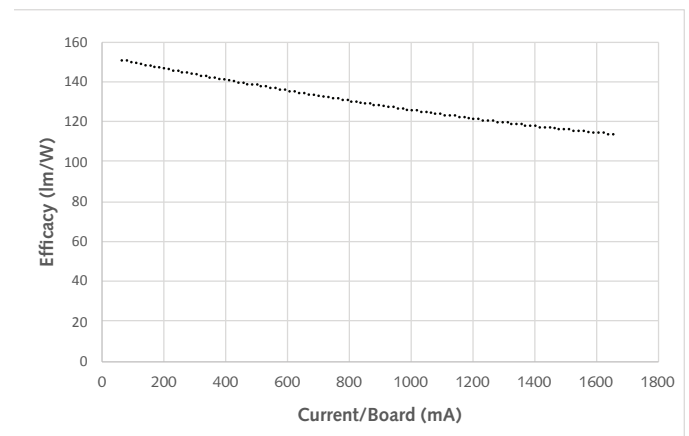
» Approximated from nominal current of 640mA per Board

» Flux derating relative to 6500K LEDs

CCT (K)	2700	3000	3500	4000	5000	6500
Current, 27K (%)	100%	83%	67%	52%	30%	0%
Current, 65K (%)	0%	17%	33%	48%	70%	100%
Flux (%)	91%	92%	94%	95%	97%	100%
SDCM	3	6.5	8.5	8.5	6.5	3

\*Performances will vary based on installation and thermal conditions.

## EFFICACY VS. CURRENT



\*LUXTECH maintains a tolerance of 7% on flux measurements

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## ABSOLUTE MAXIMUM RATINGS

Channel 65K, 90 CRI, 45 °C

PER BOARD	
Current (mA)	1,920
Voltage (V)	39
Flux (lm)	7,656
Temperature (°C)	95

COMPONENTS	
Max Connector Current (A)	9

Channel 27K, 90 CRI, 45 °C

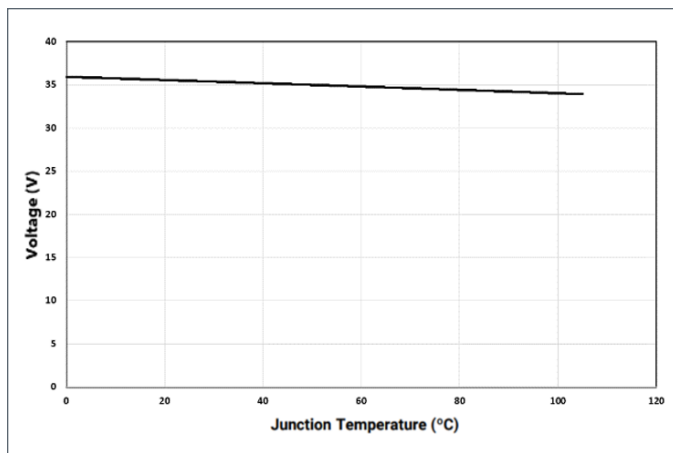
PER BOARD	
Current (mA)	1,920
Voltage (V)	39
Flux (lm)	6,939
Temperature (°C)	95

\*Max ratings determined from LED Specifications.

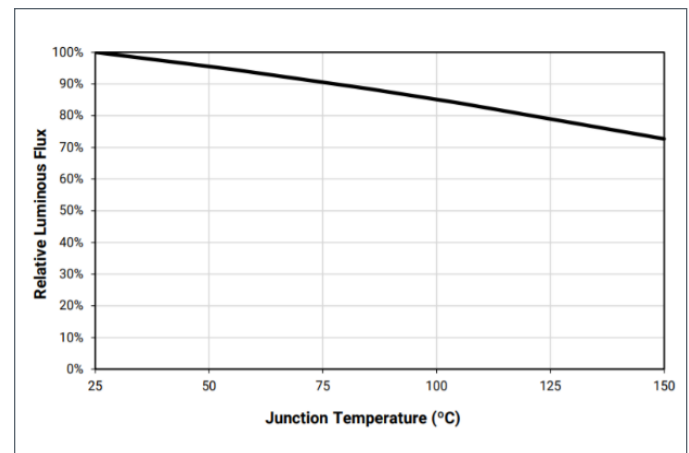
## DERATING

CRI	LIGHT OUTPUT
80 CRI	118%
90 CRI	100%

### VOLTAGE VS. TEMPERATURE



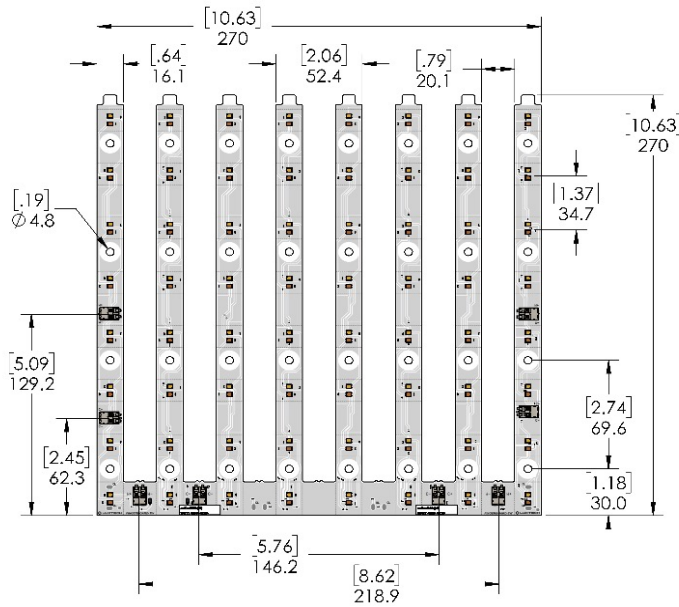
### FLUX VS. TEMPERATURE



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## MECHANICAL CHARACTERISTICS

### TECHNICAL DRAWING



### PRODUCT DIMENSIONS

PARAMETER	SPECIFICATION
Width	10.63"
Height	10.63"
PCB Thickness	0.063"
Mounting Hole Diameter	0.19"
Module Thickness, to Connector Top	0.22"

### WIRING

PARAMETER	SPECIFICATION
Wire Size	18-24 AWG

Units: [inches] mm

## DRIVER SELECTION

Recommended for use with the following two-channel drivers.

BRAND	MODEL	PROGRAMMABLE DRIVE CURRENT (mA)	OUTPUT VOLTAGE (V)	DIMMING	CONTROL
<b>EldoLED</b>	DUALDrive 1060/M	200mA - 1050mA	2V - 57V	CCR, PWM	DALI
	DUALDrive 560/L	150mA - 1400mA	2V - 55V	CCR, PWM	DALI
	DUALDrive 1060/S	200mA - 1050mA	2V - 57V	CCR, PWM	DALI
	DUALDrive 560/S	150mA - 1400mA	2V - 55V	CCR, PWM	DALI
<b>Moons</b>	MU050S150BQI501	150mA - 1500mA	8V - 55V	CCR, PWM	DALI
	MU050S150BQI201	150mA - 1500mA	8V - 55V	CCR	0-10V

## CONTROLLER SELECTION

Recommended for use with the following controllers.

BRAND	MODEL	CONTROL TYPE	NEEDED ACCESSORIES
<b>Lunatone</b>	DALI Touchpanel	DALI	Lunatone PS2 30mA DALI Bus Power supply
<b>Lutron</b>	Maestro	0-10V Dimmer	1x dimmer per channel
<b>Legrand</b>	Radiant	0-10V Dimmer	1x dimmer per channel
<b>Leviton</b>	Decora DS710-10Z	0-10V Dimmer	1x dimmer per channel

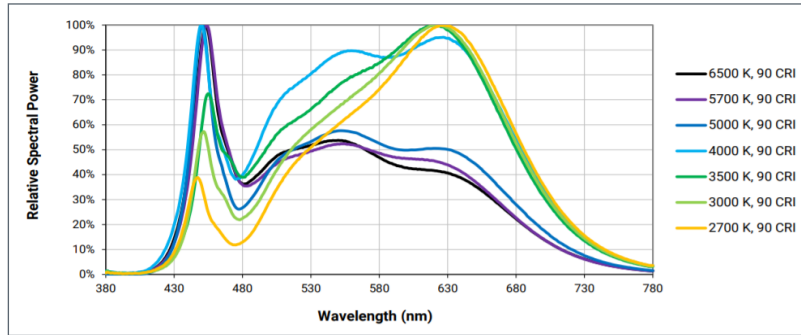
 Design resources: Performance Calculator and CAD files available at [LUXTECH.com](http://LUXTECH.com)

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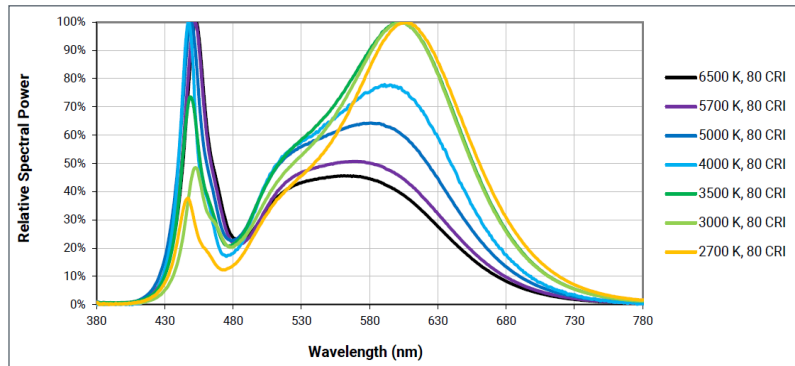
# OPTICAL SPECIFICATIONS

## SPECTRAL POWER DISTRIBUTION

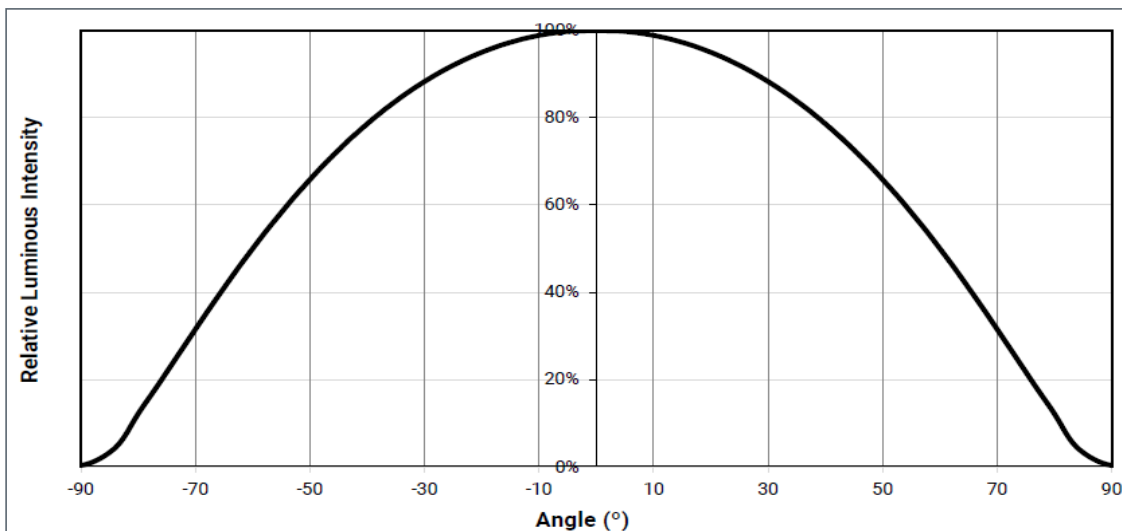
90 CRI



80 CRI



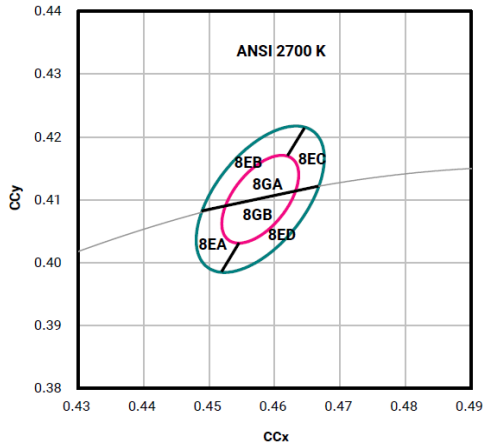
## BEAM ANGLE



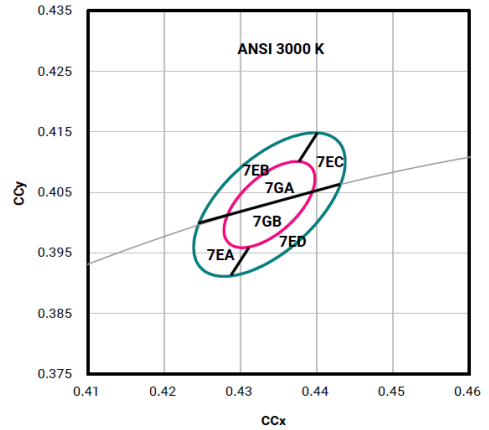
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## COLOR BINNING INFORMATION

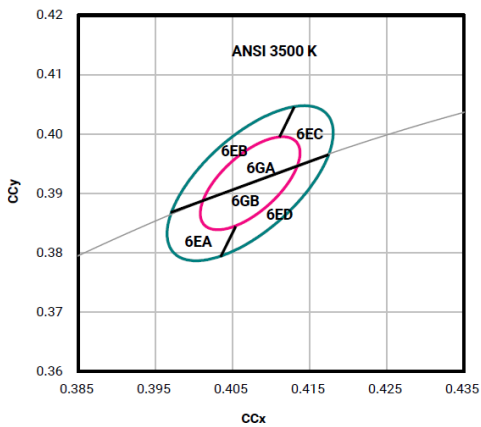
2700K 3-STEP (8GA, 8GB)



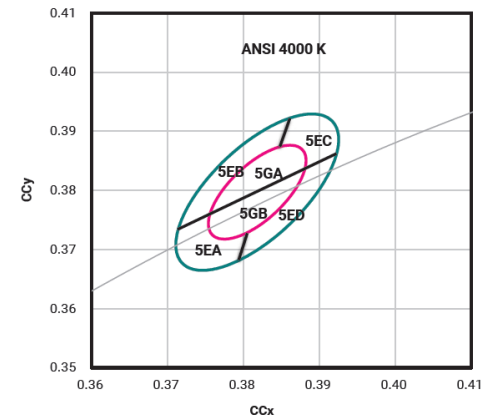
3000K 3-STEP (7GA, 7GB)



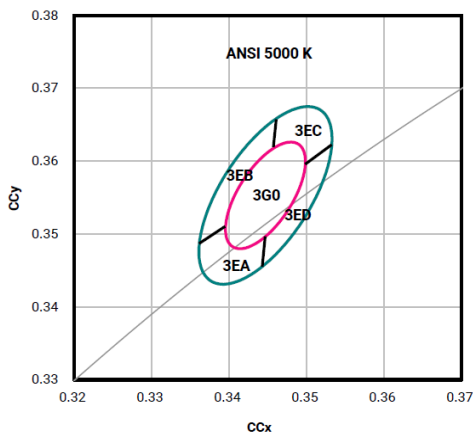
3500K 3-STEP (6GA, 6GB)



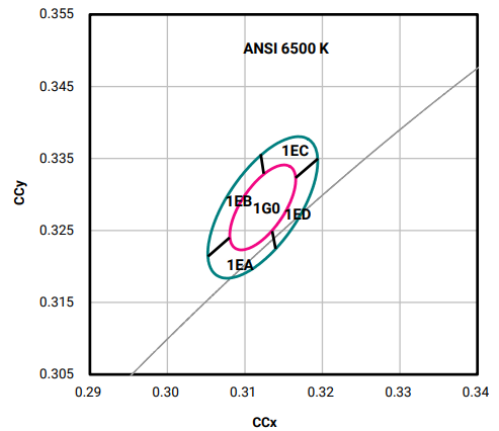
4000K 3-STEP (5GA, 5GB)



5000K 3-STEP (3G0)



6500K 3-STEP (1G0)



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## ORDERING CODES

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**IF CUSTOMIZATION IS REQUIRED: CONTACT SALES: SALES@LUXTECH.COM**

### PROTOTYPING

- » 3.5 week lead time for new design prototypes

### SINGLE ORDER

- » MOQ: 250 pieces per SKU
- » Typical lead time: 6-8 weeks

### BLANKET ORDER

- » MOQ: 1,000 pieces per SKU
- » Minimum release size: 250 pieces
- » Quantity per SKU must be specified
- » 2.5 week lead time for blanket releases
- » 6-8 week set up time for first release

- » 6 month term from first release
- » Shipment of balance at end of term

### EXPEDITE SERVICES

- » Dedicated expedite facility can turn jobs in as little as 1 week