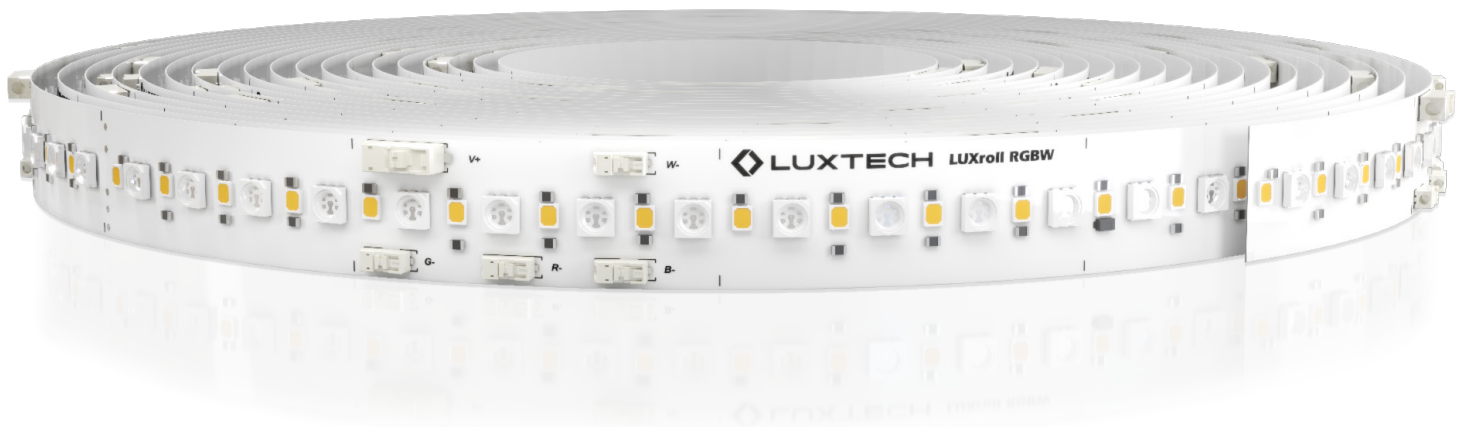


# **LUXroll RGBW**

## Flexible, Cuttable Every 2"

Flexible RGBW LED Module



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[Request Samples & Pricing Here](#)

## About LUXTECH

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



## Product Description

LUXroll RGBW combines architectural grade white LEDs with RGB LEDs, poke in connectors, and a cut length of 2 inches for easy installation in any application. Color uniformity is matched across each order and for any run length up to 4 feet.

## Technical Specifications

### Mechanical Information:

- » Flexible reeled form factor
- » Cuttable Every 2 in
- » Specification-Grade 3M 300LSE Adhesive Backing
- » LED Pitch: 0.5 in
- » Width: 0.787 in (20mm)
- » Reel Length 44'

### Photometric Performance:

- » Nominal White Output: 588 lum/ft (3500K, 90CRI, 240 mA/ft, 4' Run Length)
- » Reel to Reel Color Uniformity
- » Beam Angle: 120°
- » CCT Range: 2700K - 6500K
- » 90+ CRI Standard
- » 3-Step MacAdam Ellipse Color Binning

### Electrical Information:

- » Poke-In Connectors
- » 24V Constant Voltage Input, Common Anode
- » DMX Controllable in 4 channels
- » On Board ESD Protection
- » Power Draw: 14.3 W/ft
- » Max Recommended Run Length: 4'
- » Wire Size: 18-24 AWG, solid or stranded

### Lifetime Information:

- » LM-80 Tested LEDs by CREE
- » L80 > 72,000 Hrs for  $T_s = 55^\circ\text{C}$ , 42mA Per Section
- » L80 = 60,500 Hrs for  $T_s = 105^\circ\text{C}$ , 42mA Per Section
- » 5-Year Warranty

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## REQUESTING SAMPLES & PRICING

| Product Name | Color Temperature | CRI |
|--------------|-------------------|-----|
| LUXROLL-RGBW | 27K               | 80  |
|              | 30K*              | 90* |
|              | 35K*              |     |
|              | 40K               |     |
|              | 50K               |     |
|              | 65K               |     |

\*Normally Stocked

Example: LUXROLL-RGBW-30K-90

## ELECTRICAL CHARACTERISTICS

Assuming 35K, 90 CRI, 45 °C

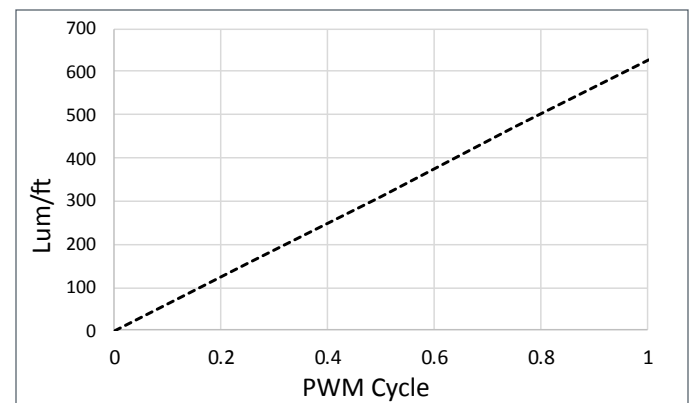
| WHITE           |      |
|-----------------|------|
| Current (mA/ft) | 240  |
| Voltage (V)     | 24.0 |
| Flux (lm/ft)    | 588  |

| RED             |       |
|-----------------|-------|
| Current (mA/ft) | 117   |
| Voltage (V)     | 24.0  |
| Flux (mcd/ft)   | 9,600 |

| GREEN           |        |
|-----------------|--------|
| Current (mA/ft) | 109    |
| Voltage (V)     | 24.0   |
| Flux (mcd/ft)   | 19,200 |

| BLUE            |       |
|-----------------|-------|
| Current (mA/ft) | 109   |
| Voltage (V)     | 24.0  |
| Flux (mcd/ft)   | 4,800 |

### WHITE OUTPUT VS. PWM CYCLE



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

[Request Samples & Pricing Here](#)

## ABSOLUTE MAXIMUM RATINGS

Assuming 35K, 90 CRI, 45 °C

| WHITE            |     |
|------------------|-----|
| Current (mA/ft)  | 314 |
| Voltage (V)      | 26  |
| Flux (lm/ft)     | 804 |
| Temperature (°C) | 95  |

| RED              |     |
|------------------|-----|
| Current (mA/ft)  | 129 |
| Voltage (V)      | 26  |
| Temperature (°C) | 85  |

| GREEN            |     |
|------------------|-----|
| Current (mA/ft)  | 120 |
| Voltage (V)      | 26  |
| Temperature (°C) | 85  |

| BLUE             |     |
|------------------|-----|
| Current (mA/ft)  | 120 |
| Voltage (V)      | 26  |
| Temperature (°C) | 85  |

| COMPONENTS                           |   |
|--------------------------------------|---|
| Max Connector Current (Common Anode) | 9 |
| Max Connector Current (4x Cathode)   | 3 |
| Max Recommended Run Length (ft)      | 4 |

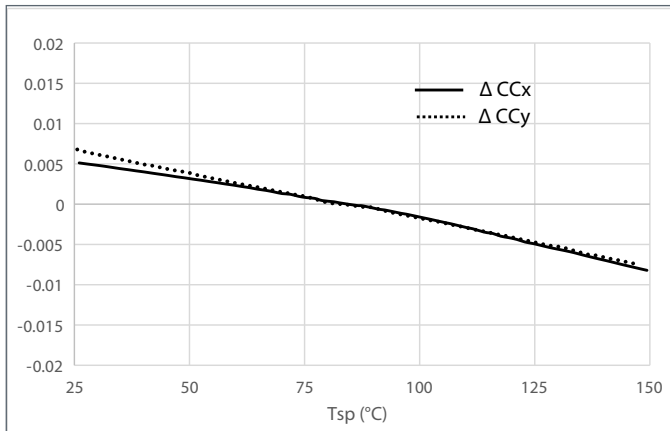
## DERATING

| COLOR TEMPERATURE (90CRI) | LIGHT OUTPUT |
|---------------------------|--------------|
| 2700K                     | 93%          |
| 3000K                     | 98%          |
| 3500K                     | 100%         |
| 4000K                     | 103%         |
| 5000K                     | 103%         |
| 6500K                     | 103%         |

| CRI    | LIGHT OUTPUT |
|--------|--------------|
| 80 CRI | 118%         |
| 90 CRI | 100%         |

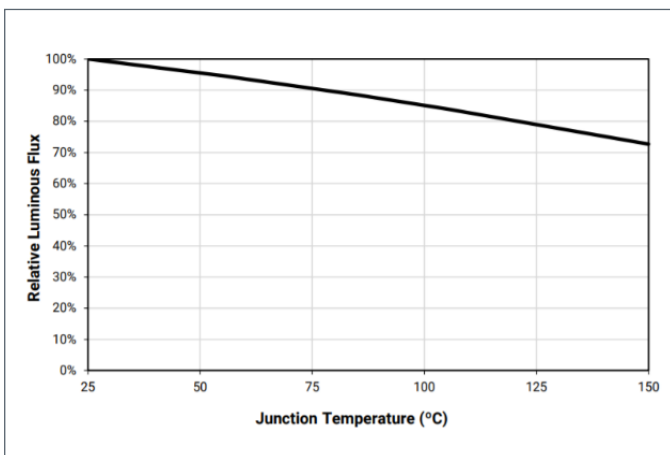
[Request Samples & Pricing Here](#)

## CHROMATICITY VS. TEMPERATURE

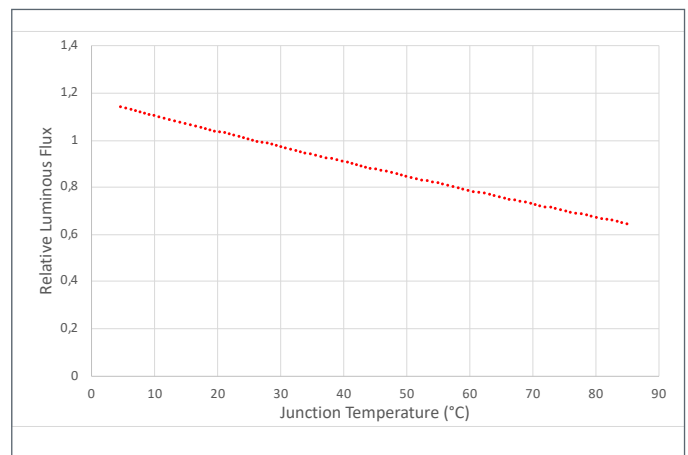


## FLUX VS. TEMPERATURE

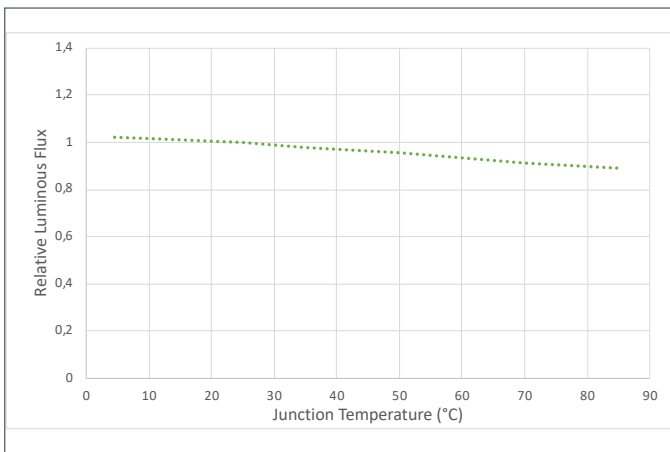
### WHITE



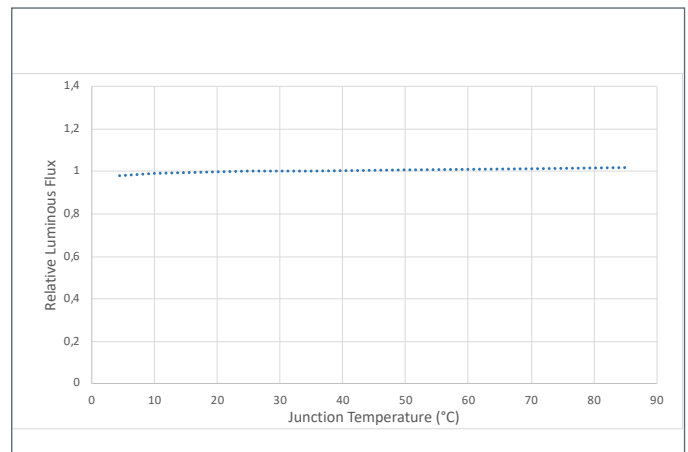
### RED



### GREEN



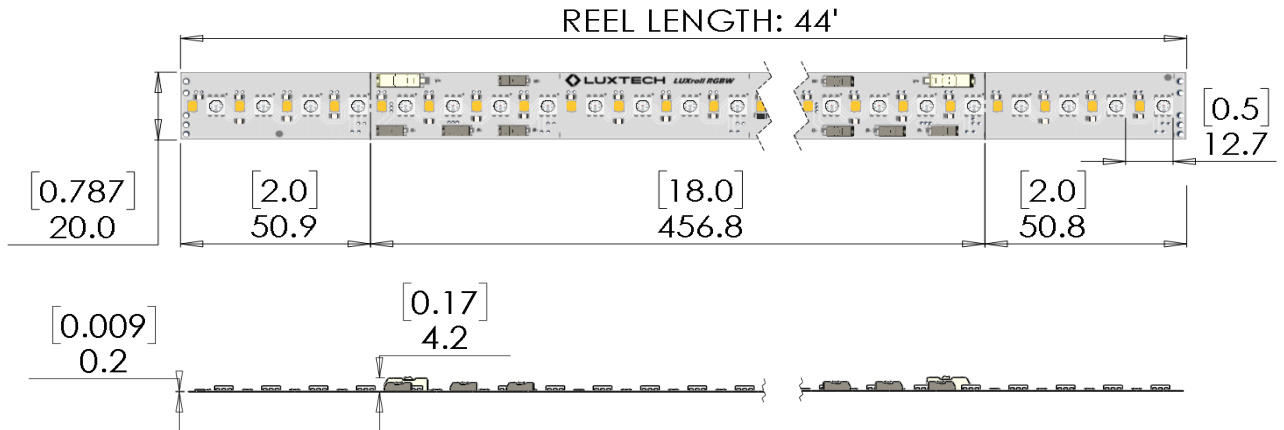
### BLUE



[Request Samples & Pricing Here](#)

## MECHANICAL CHARACTERISTICS

### TECHNICAL DRAWING

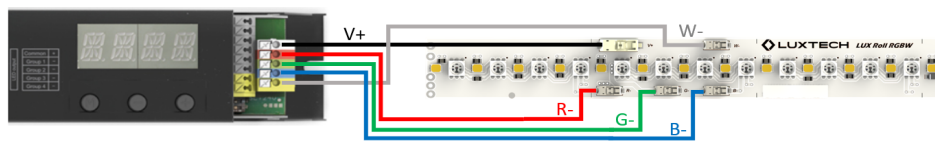


### PRODUCT DIMENSIONS

| PARAMETER                          | SPECIFICATION (IN)  |
|------------------------------------|---------------------|
| Width                              | 0.787               |
| Length                             | 44 ft (528 in) Reel |
| Cut Length                         | 2.0                 |
| PCB Thickness                      | 0.009               |
| Module Thickness, to Connector Top | 0.20                |

### WIRING

| PARAMETER | SPECIFICATION |
|-----------|---------------|
| Wire Size | 18-24 AWG     |



## RECOMMENDED COMPATIBLE DRIVERS

| BRAND   | MODEL       | PROGRAMMABLE DRIVE CURRENT (MA) | OUTPUT VOLTAGE (V) | DIMMING    |
|---------|-------------|---------------------------------|--------------------|------------|
| EldoLED | LINEARdrive | 1000 per output                 | 12-24              | DMX / DALI |

## CONTROLLER SELECTION

| RECOMMENDED BRANDS | MODEL           | CONTROL TYPE | NEEDED ACCESSORIES                      |
|--------------------|-----------------|--------------|-----------------------------------------|
| Lunatone           | DALI Touchpanel | DALI         | Lunatone PS2 30mA DALI Bus Power supply |
| Sunricher          | SR-2812B(US)    | DMX          | 12-24VDC Power Supply                   |

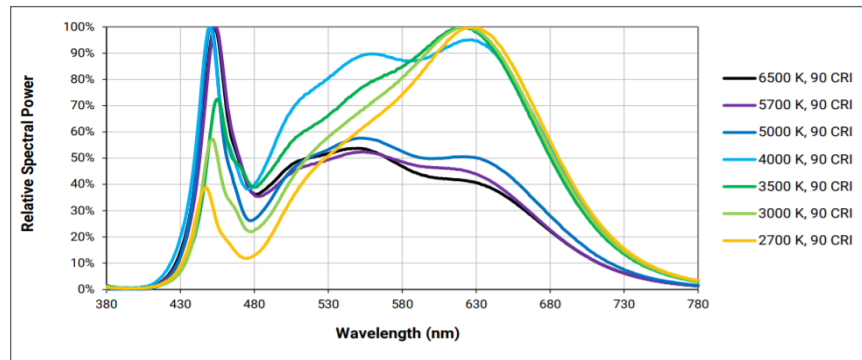
Design resources: Performance Calculator and CAD files available at [LUXTECH.com](http://LUXTECH.com)

[Request Samples & Pricing Here](#)

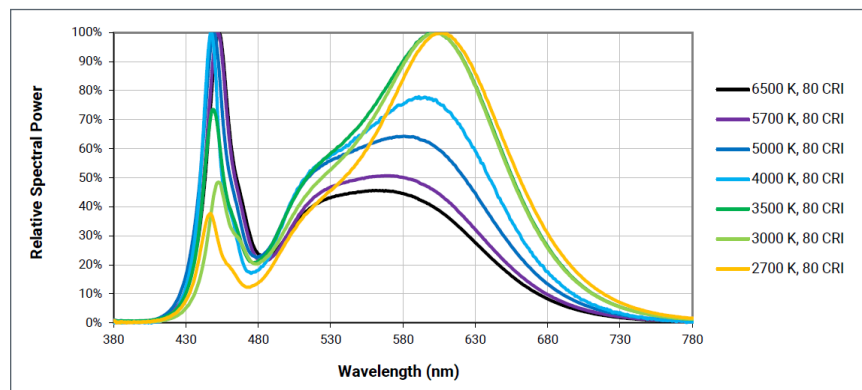
## OPTICAL SPECIFICATIONS

### SPECTRAL POWER DISTRIBUTION

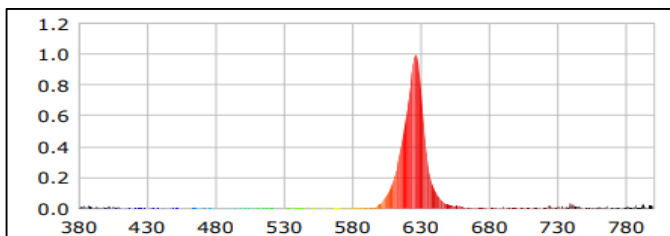
White 90 CRI



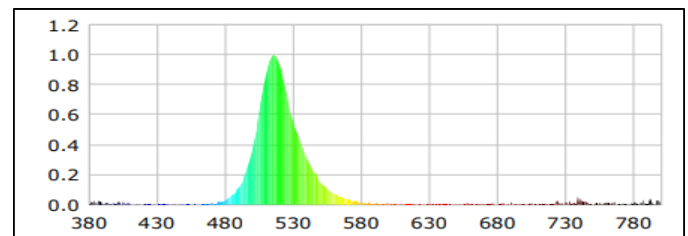
White 80 CRI



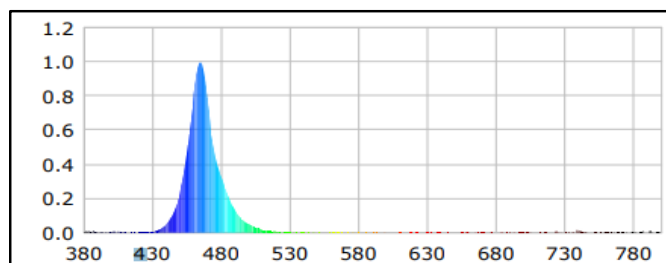
Red



Green

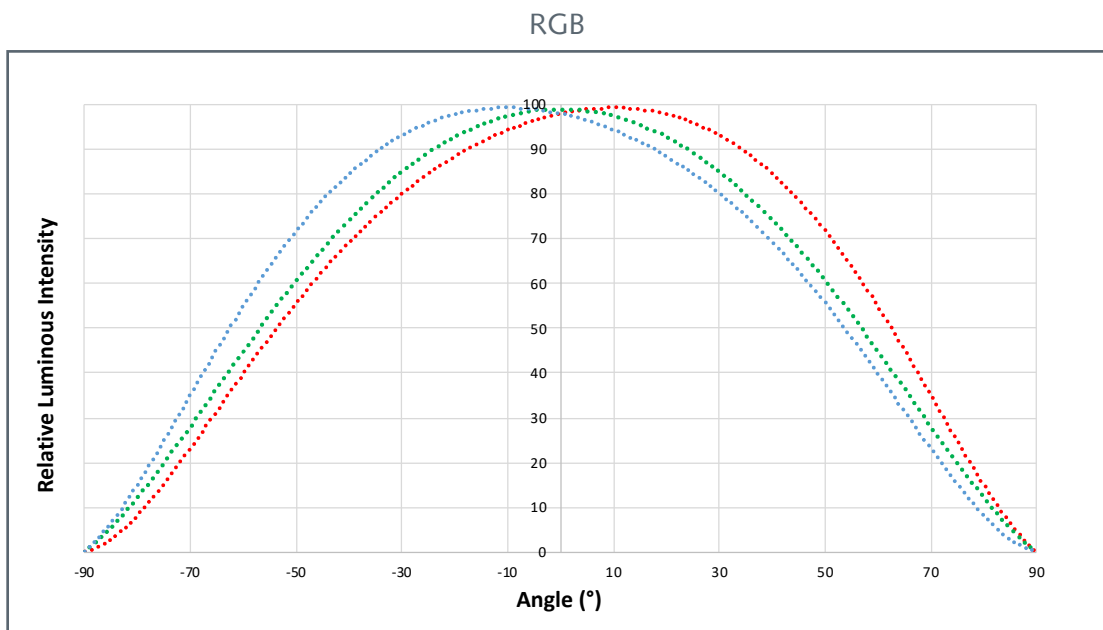
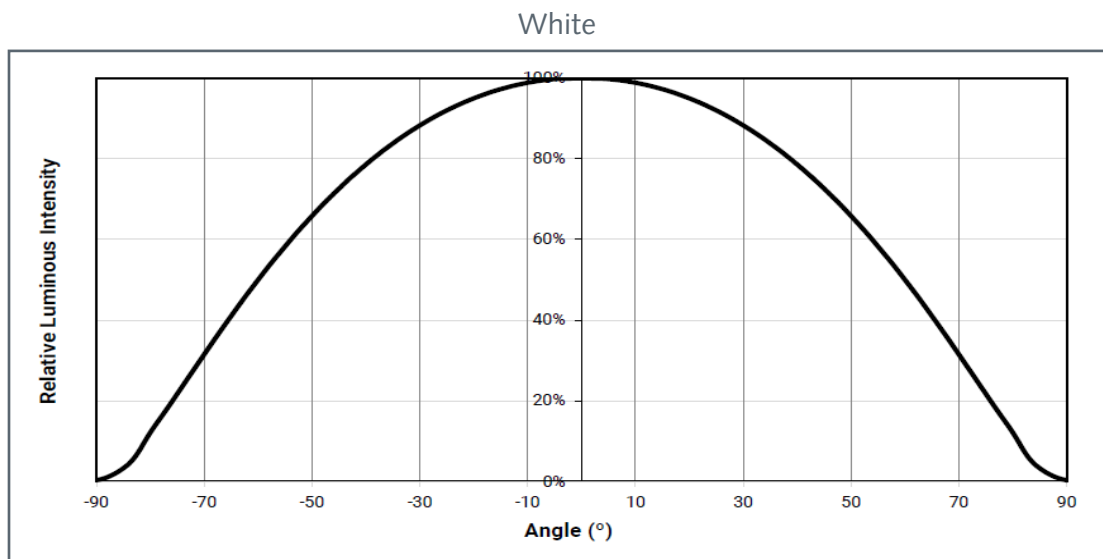


Blue



## OPTICAL SPECIFICATIONS

### BEAM ANGLE

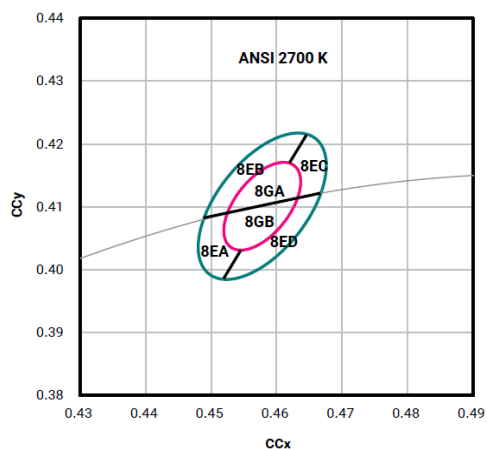




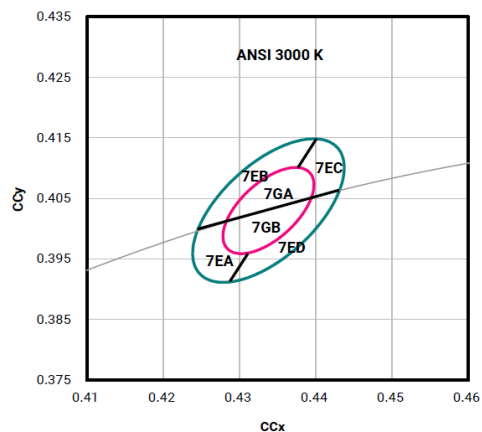
[Request Samples & Pricing Here](#)

## COLOR BINNING INFORMATION

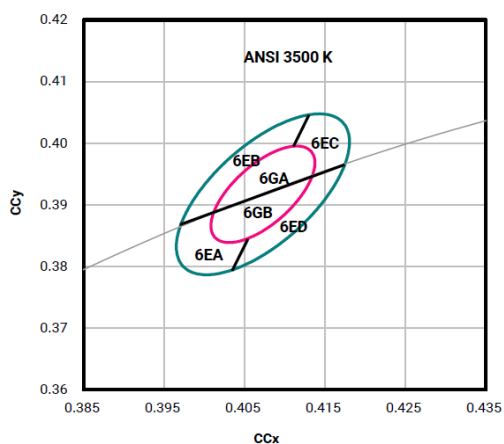
2700K 3-STEP (8GA, 8GB)



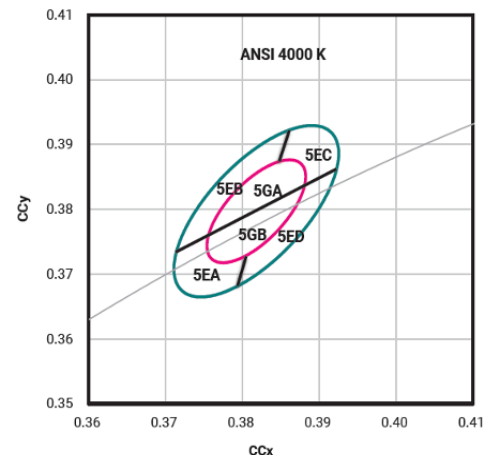
3000K 3-STEP (7GA, 7GB)



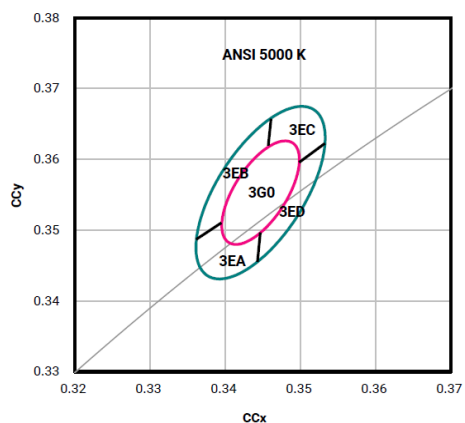
3500K 3-STEP (6GA, 6GB)



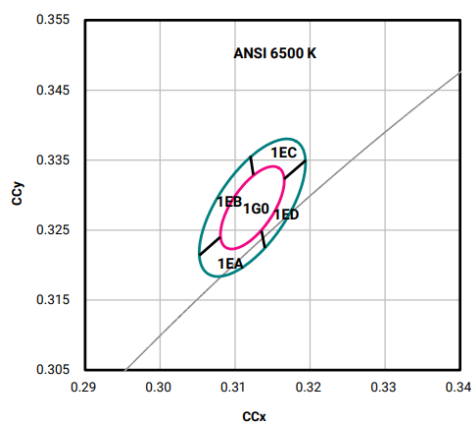
4000K 3-STEP (5GA, 5GB)



5000K 3-STEP (3G0)



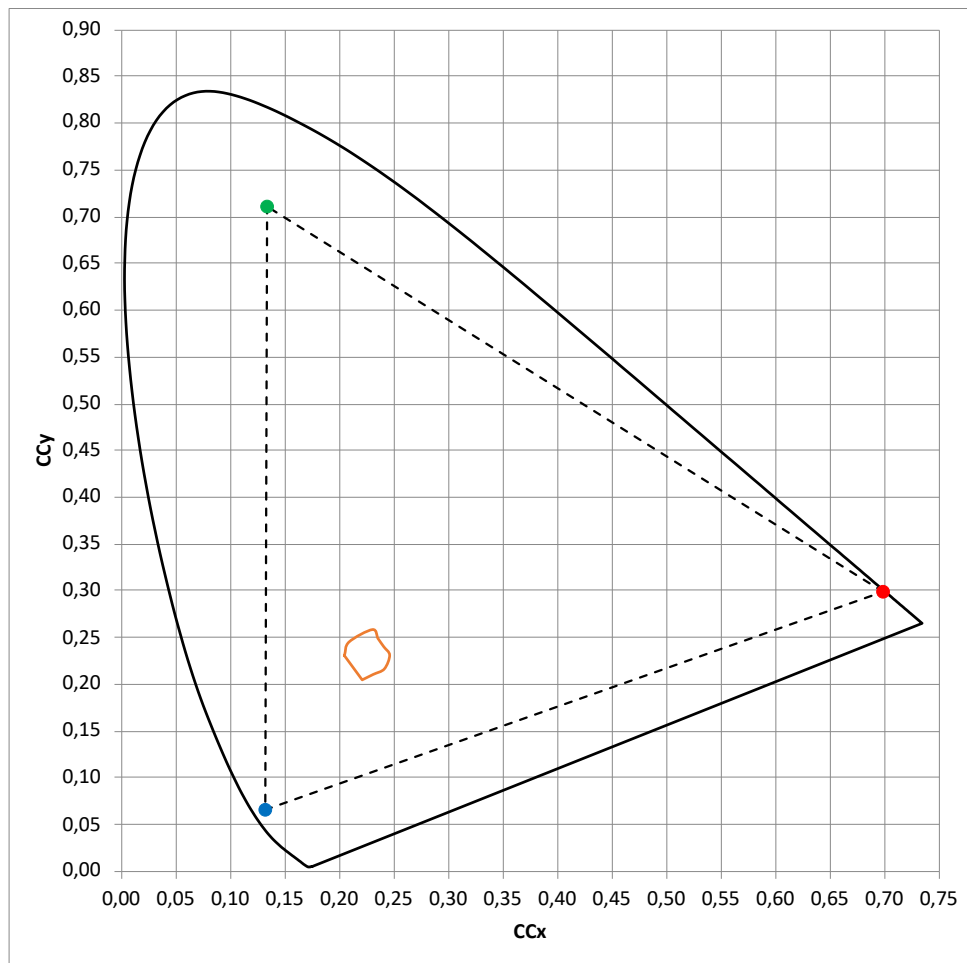
6500K 3-STEP (1G0)



[Request Samples & Pricing Here](#)

## COLOR BINNING INFORMATION

### RGB SINGLE BIN (WHITE-BINNED)



[Request Samples & Pricing Here](#)

## ORDERING CODES

| Product Name | Color Temperature | CRI |
|--------------|-------------------|-----|
| LUXROLL-RGBW | 27K               | 80  |
|              | 30K*              | 90* |
|              | 35K*              |     |
|              | 40K               |     |
|              | 50K               |     |
|              | 65K               |     |

\*Normally Stocked

Example: LUXROLL-RGBW-30K-90

IF CUSTOMIZATION IS REQUIRED: CONTACT SALES: [SALES@LUXTECH.COM](mailto: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