

# **LUXroll RGBW**

Flexible, Cuttable Every 2"

Flexible RGBW LED Module



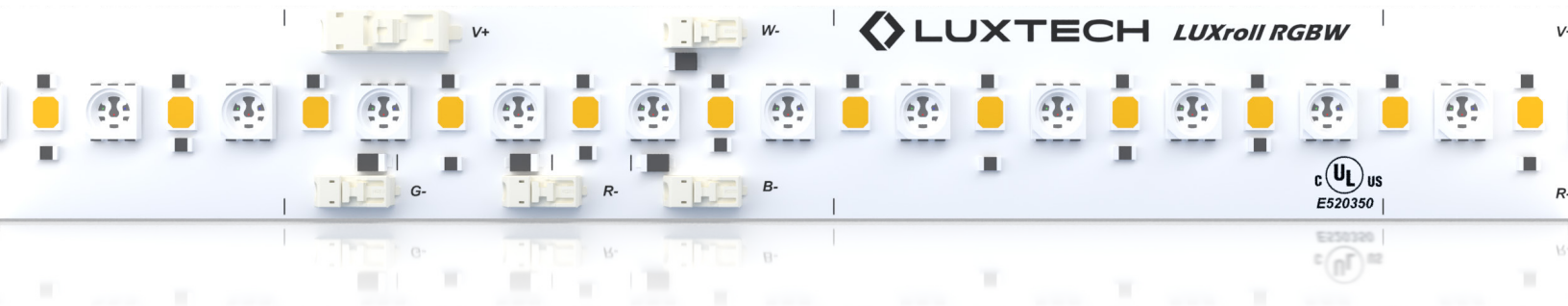
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[Request Samples & Pricing Here](#)

## 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:

- » UL 2108 Listed: E520350
- » 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 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	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

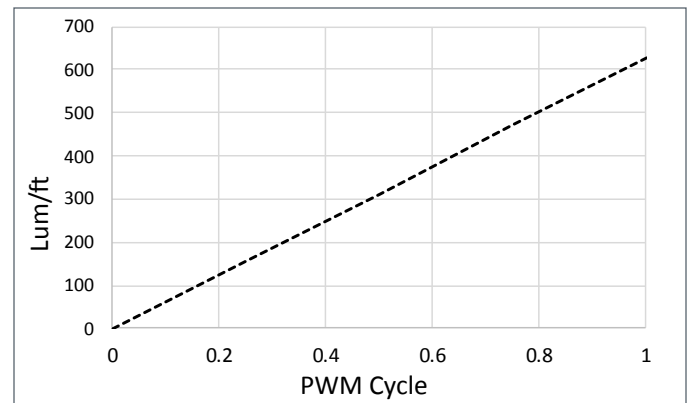
WHITE	
Current (mA/ft)	240
Voltage (V)	24.0
Flux (lm/ft)	588

RED	
Current (mA/ft)	94
Voltage (V)	24.0
Flux (mcd/ft)	10,750

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.

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## 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)	106
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

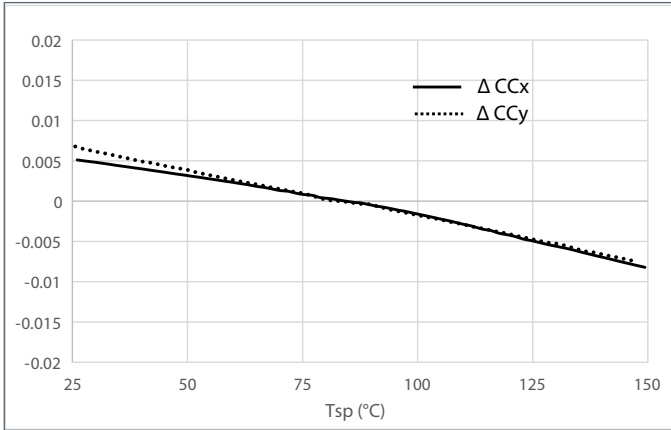
## DERATING

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%

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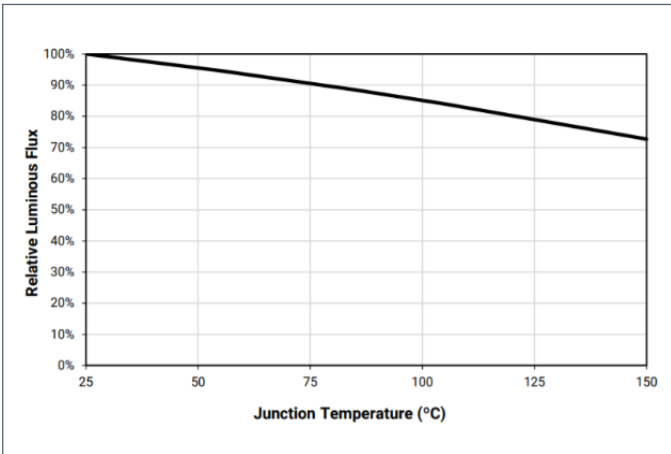
**CHROMATICITY VS. TEMPERATURE**



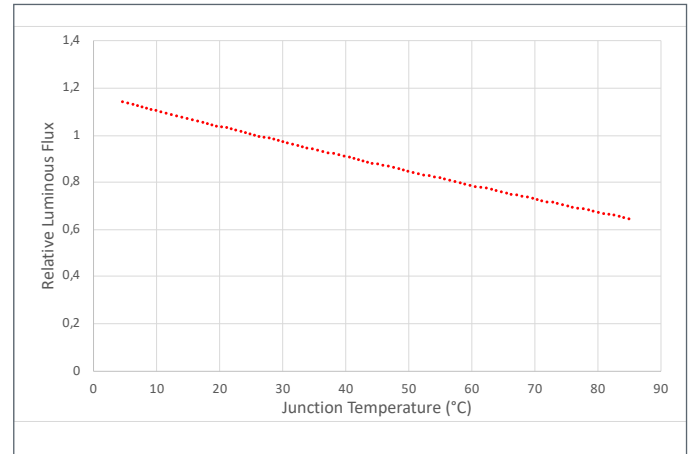
Chromaticity binned @ 85°C

**FLUX VS. TEMPERATURE**

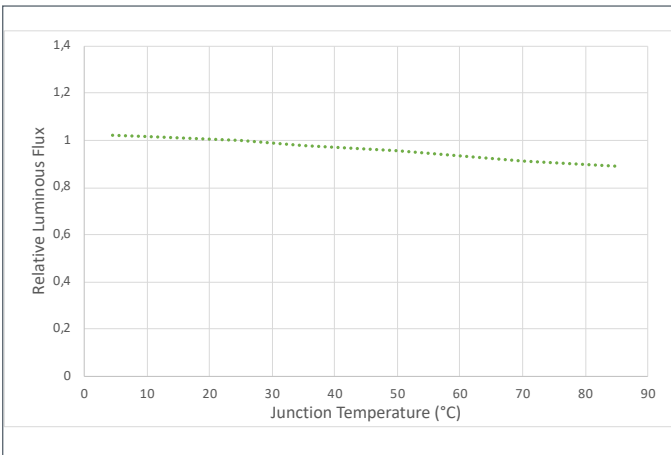
WHITE



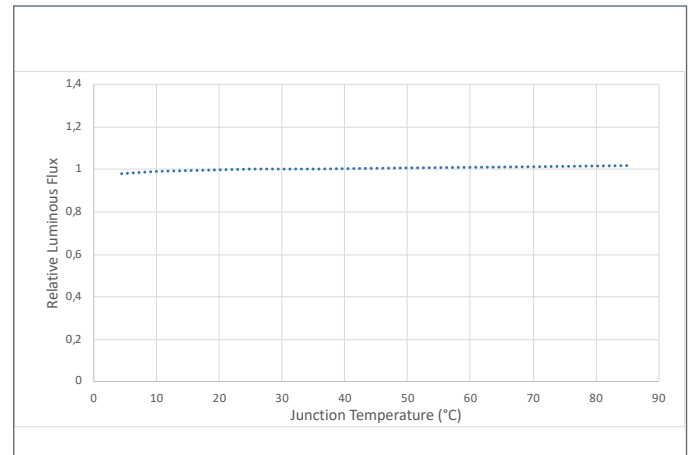
RED



GREEN



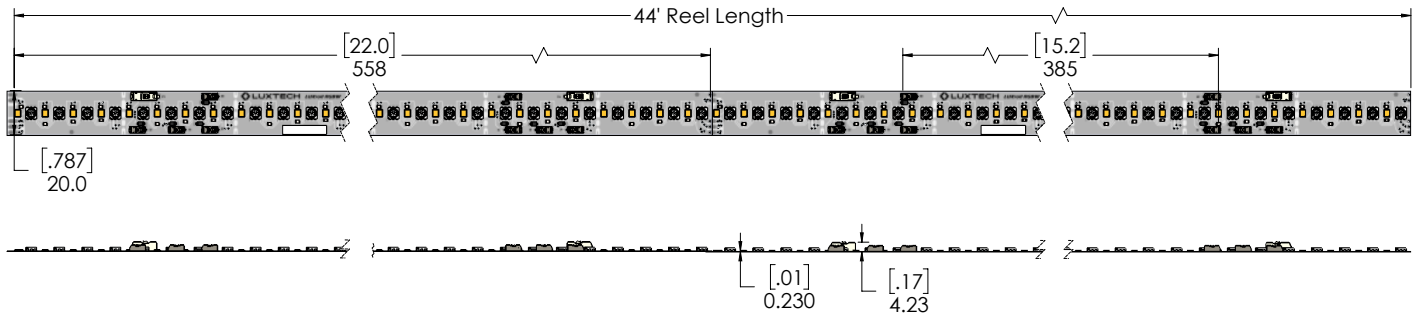
BLUE



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## MECHANICAL CHARACTERISTICS

### TECHNICAL DRAWING



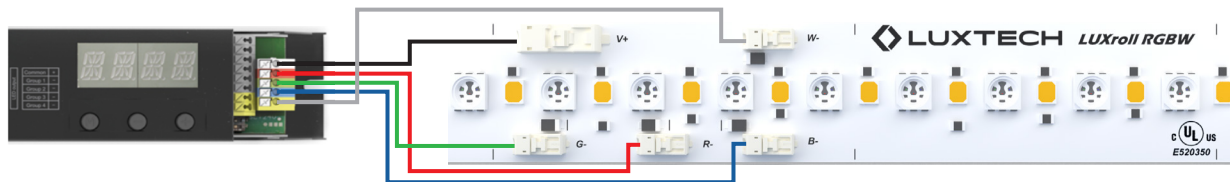
Units: [inches] mm

### 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
Solder Pad Spacing	4.0"

### 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

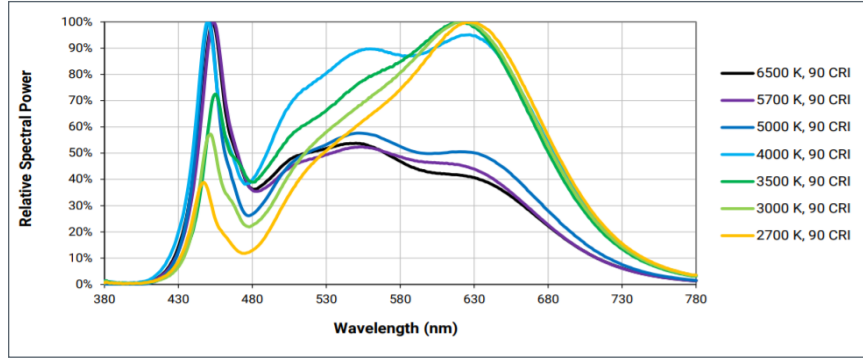
 Design resources: Performance Calculator and CAD files available at [LUXTECH.com](http://LUXTECH.com)

[Request Samples & Pricing Here](#)

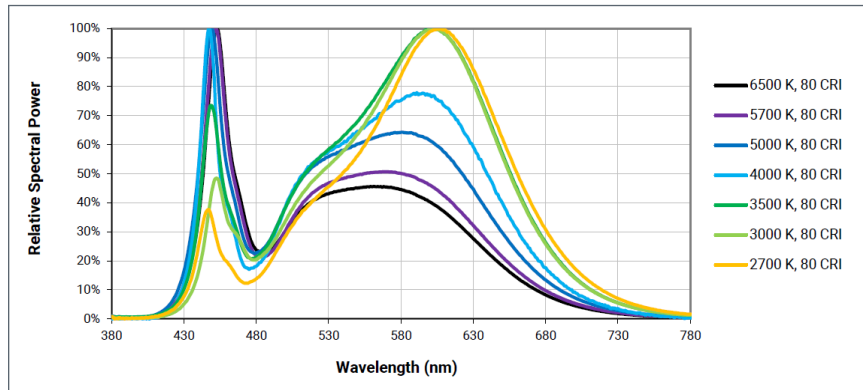
# OPTICAL SPECIFICATIONS

## SPECTRAL POWER DISTRIBUTION

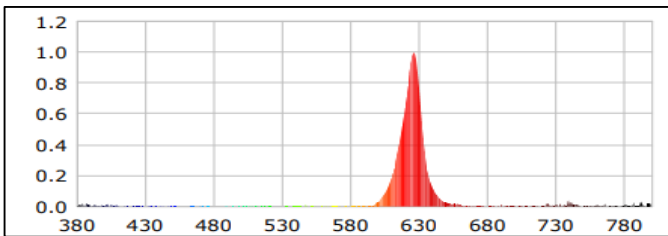
White 90 CRI



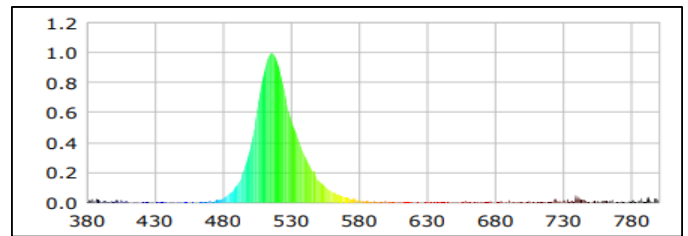
White 80 CRI



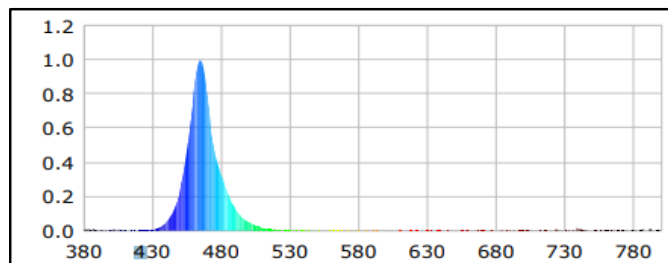
Red



Green



Blue

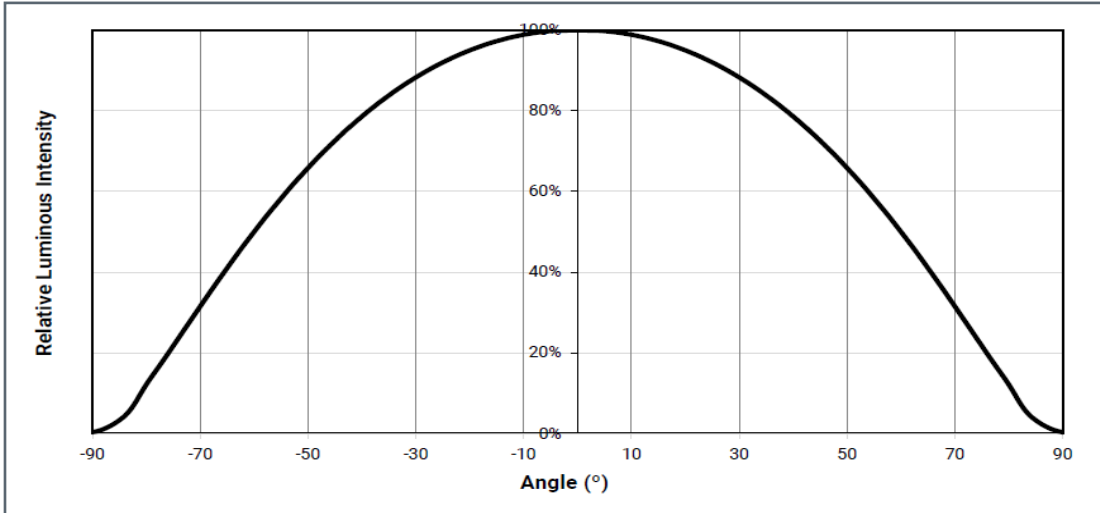


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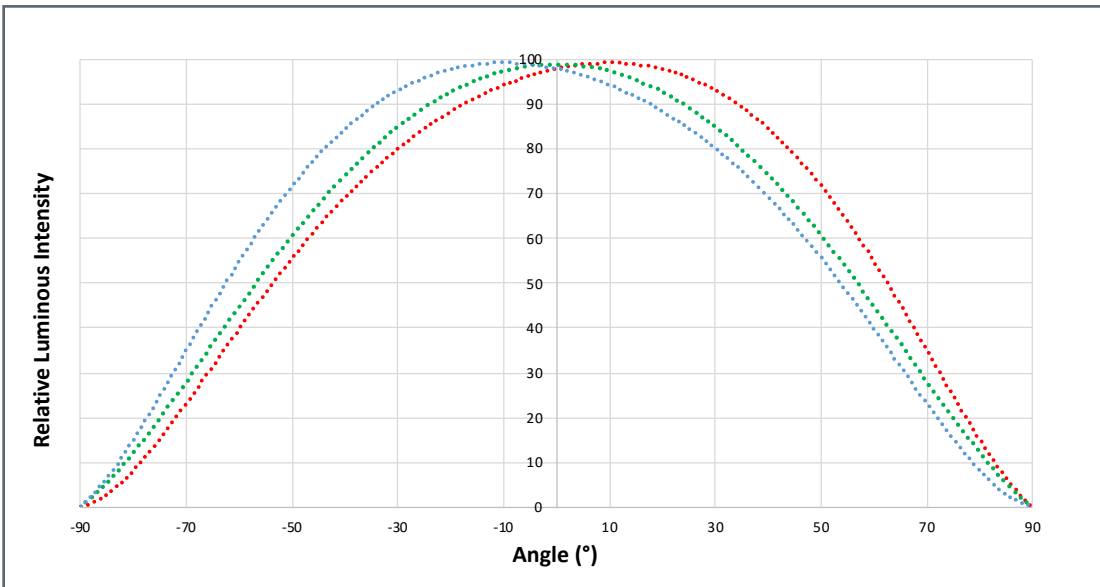
# OPTICAL SPECIFICATIONS

## BEAM ANGLE

White



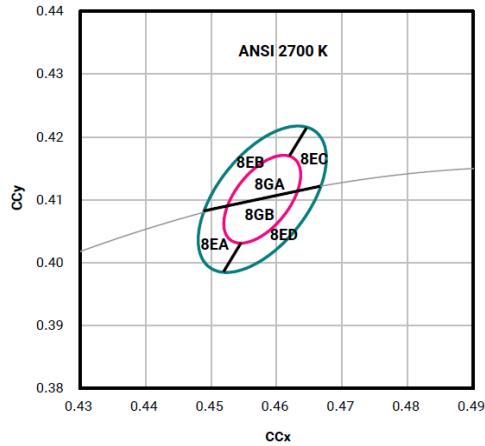
RGB



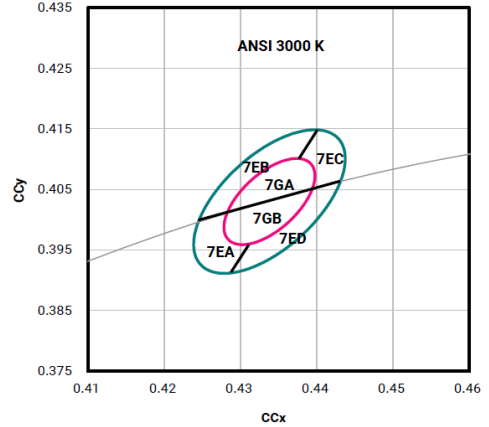
Request Samples & Pricing [Here](#)

## COLOR BINNING INFORMATION

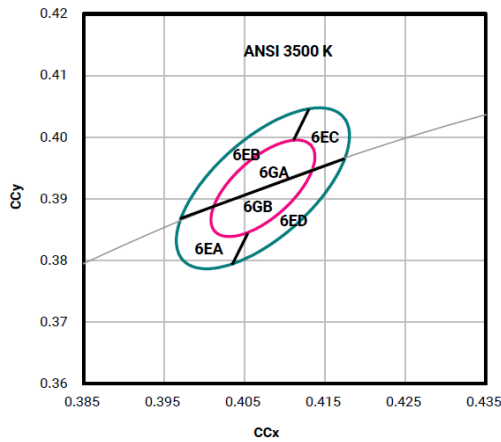
2700K 3-STEP (8GA, 8GB)



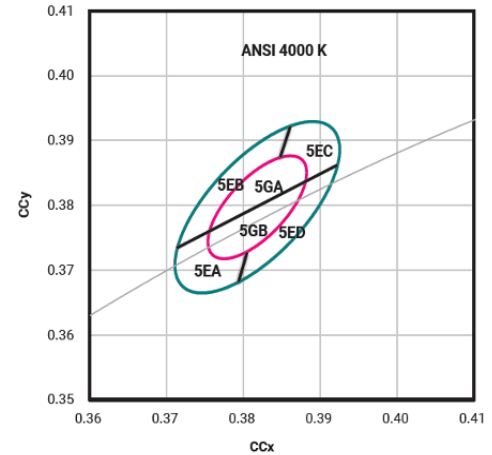
3000K 3-STEP (7GA, 7GB)



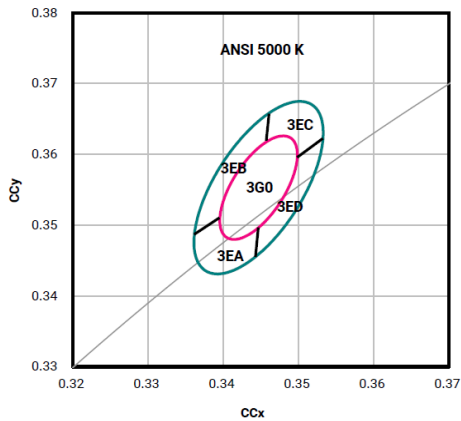
3500K 3-STEP (6GA, 6GB)



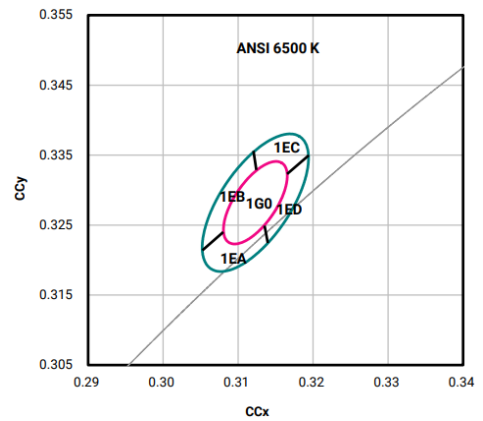
4000K 3-STEP (5GA, 5GB)



5000K 3-STEP (3G0)



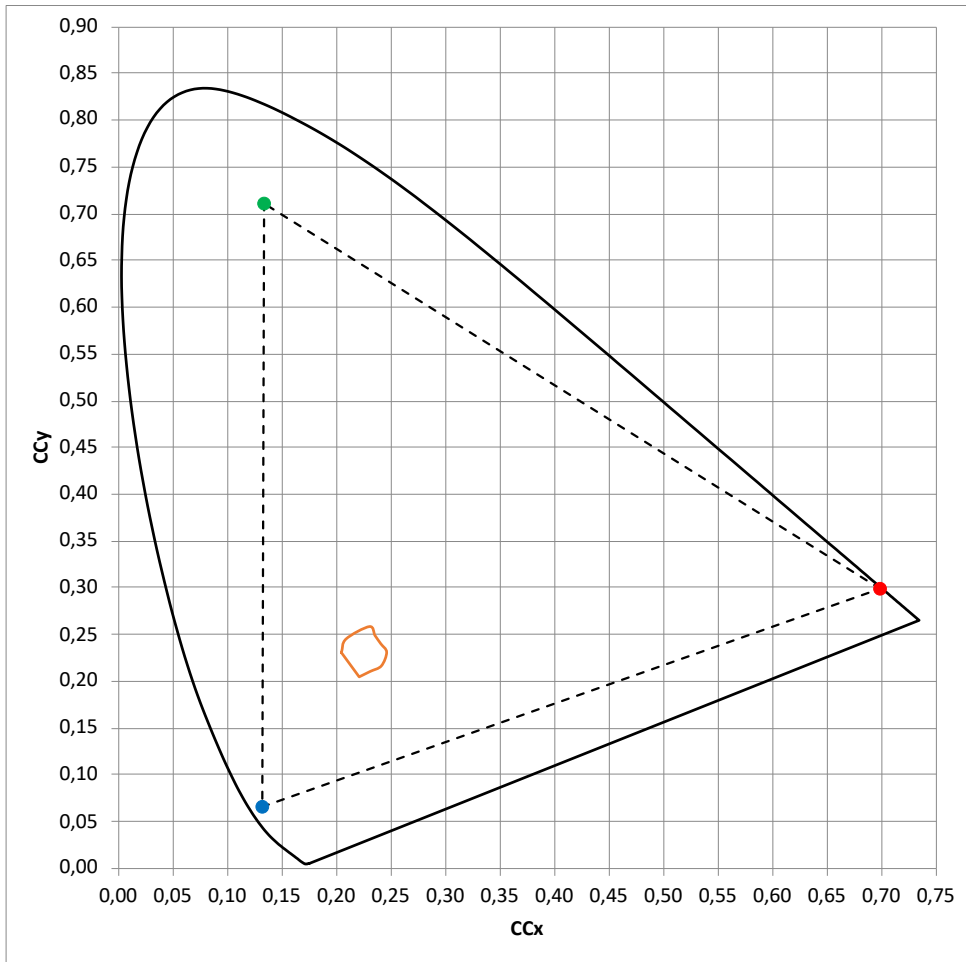
6500K 3-STEP (1G0)



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# COLOR BINNING INFORMATION

## RGB SINGLE BIN (WHITE-BINNED)



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## 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

### 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