

# LED Modules - Color Tunable Linear

Power of Luminus in Standard and Custom LED Modules

# Data Sheet

Version 1.0

## Lean & Fast. Made Smarter.

**Design Faster** – use standard modules to shorten development time

**Easy Integration** – use standard 2-Channel LED drivers and dimmers

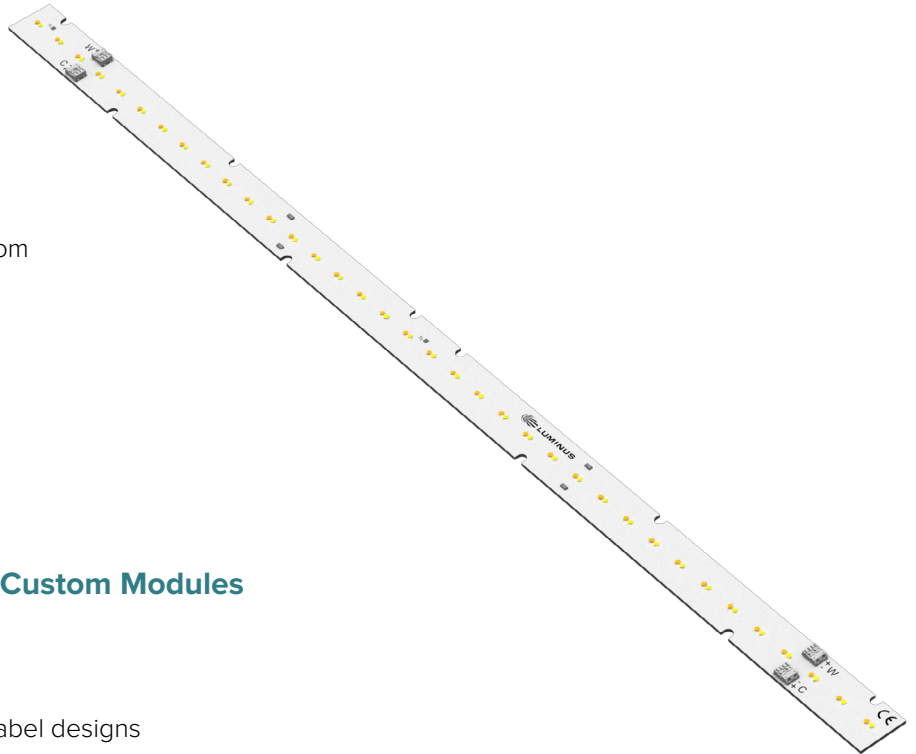
**Maximum Flexibility** – designed to Zhaga dimensions and screw hole specifications

**Innovation** – work with NewEnergy on a custom solution

## Primary Applications



Hospitality & Hotel  
Restaurant  
Architectural  
Residential  
Retail Shop  
Entertainment  
Transportation



## Superior Performance in Standard & Custom Modules

- Independent CCT and Dimming control
- CCT ranging from 2700K - 6500K
- 9000 hour LM-80 data at 250mA per LED
- Talk to NewEnergy about custom or private label designs

## Enhance Your Next Design

The Color Tunable LED Modules from NewEnergy enable lighting manufacturers the flexibility to reproduce both the warm glow traditionally associated with halogen light sources and cool white color temperatures. Compatible with most 2-channel LED drivers and standard dimmer switches, these NewEnergy modules will simplify your lamp design.

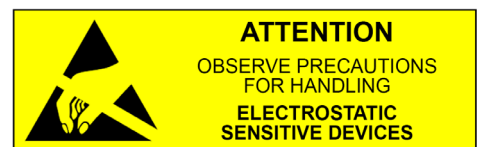
## Custom Solutions

NewEnergy operates facilities globally with ISO certifications for the LED lighting, automotive and medical industries. Our North Carolina based office provides quick engineering & sales support with an R&D lab for prototype development and custom solutions. Our in-house global manufacturing capabilities allow for both building in the United States as well as overseas at scale.

## About NewEnergy

NewEnergy accelerates the adoption of LED technology through simple, modular products and custom designs. Through 30 years of experience, state of the art manufacturing, full traceability and advanced quality controls, NewEnergy offers leading solid state lighting components, modules and custom solutions. NewEnergy customers get to market faster, with less resources, at lower costs. Visit [New-EnergyLLC.com](http://New-EnergyLLC.com) for more information.

CE  
RoHS



# LED Module Specifications - Color Tunable Linear

## Product Selection Table

Part Number	LED Channel Config	CRI (Min)	CCT	Luminous Flux (lm)		Efficacy (lm/W)		Watts (W)	
				480mA (Typical)	600mA (Max)	480mA (Typical)	600mA (Max)	480mA (Typical)	600mA (Max)
CSB1-72G02-6527-90-00	Warm - On Cool - On	90	4100K	4001	4852	117.5	111.4	34.1	43.6
	Warm - On Cool - Off	90	2700K	1833.7	2214.4	107.49	101.56	17.1	21.8
	Warm - Off Cool - On	90	6500K	2409	2931	127.6	121.2	17.0	21.8

<sup>(1)</sup> Typical Drive Current: 480mA, Max Drive Current: 600mA

<sup>(2)</sup> NewEnergy may ship modules in flux bins higher than the values specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

## Order Code Formatting

Series	-	LED Count	LED Code	-	Color Temp Range	-	Color Rendering Index	-	Internal Code
CSB1 - Color Tunable LED PCB Assembly, Linear		72 - 72 LEDs	G02 - MP-1616 XNOVA Cube		6527 - 6500K to 2700K		90 - 90 CRI		00
					4018 - 4000K to 1800K (Future Product)				

# LED Module Specifications - Color Tunable Linear

## Electrical Characteristics

Part Number	Cool Channel Forward Voltage (v)		Warm Channel Forward Voltage (v)	
	480mA (Typical)	600mA (Max)	480mA (Typical)	600mA (Max)
CSB1-72G02-x	35.4	36.3	35.5	36.3

Intended for connection to a class 2 power source with a maximum operating voltage of 50 Vdc

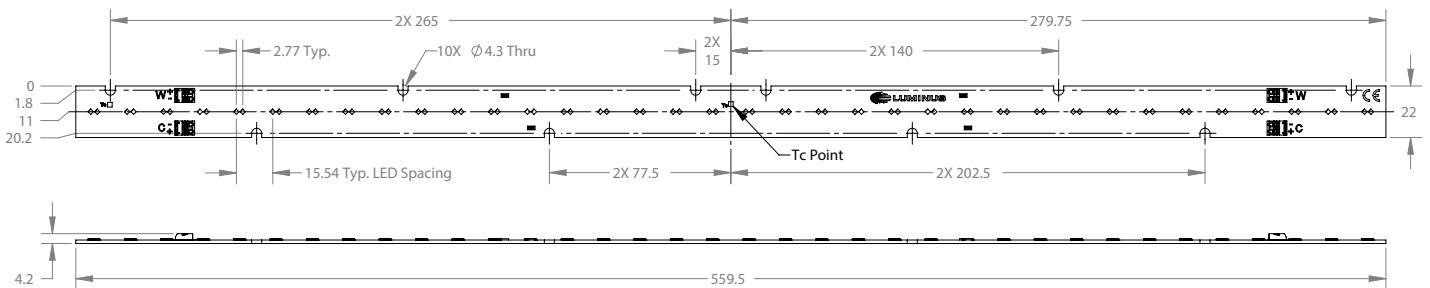
## Maximum Ratings

Part Number	DC Current Per Channel (mA)	Tc Temp (°C)	Cool Channel Power (W)	Warm Channel Power (W)
CSB1-72G02-x	600	105	21.8	21.8

## Board Material Properties

Property	Value	Unit
Solder Mask Color	White	-
Thickness	.062	in
Construction	CEM3	-
Temperature	130	°C
Flame Rating	V-0	-
Copper Thickness	1	oz

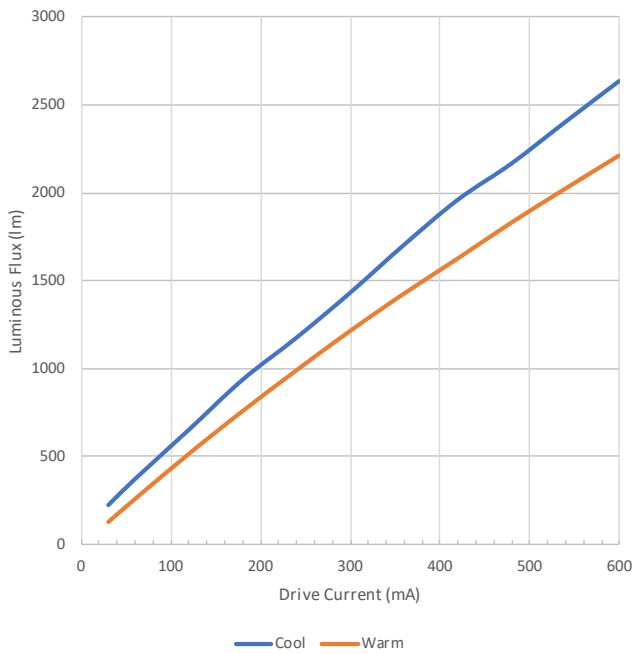
## Mechanical Dimensions



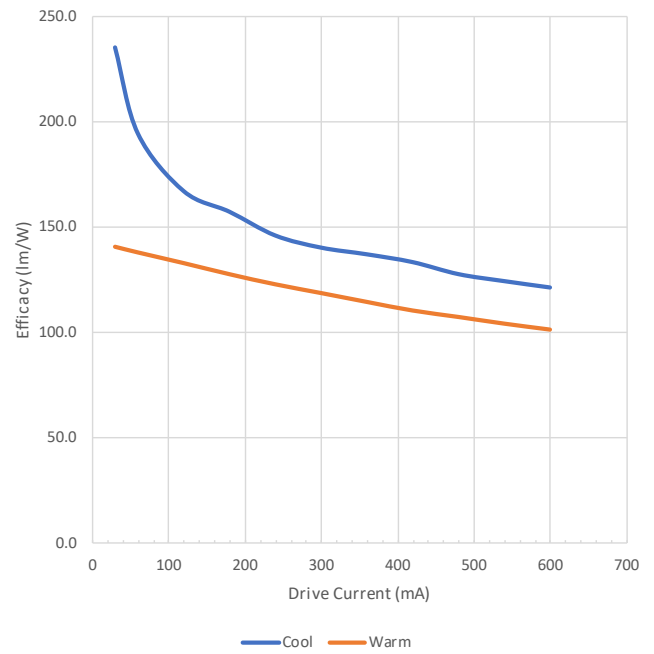
1. Four Poke-In Connectors accept 18-24 AWG solid or stranded wire
2. Recommended Mounting Hardware: 10x M3-.5 Socket Head Cap Screws

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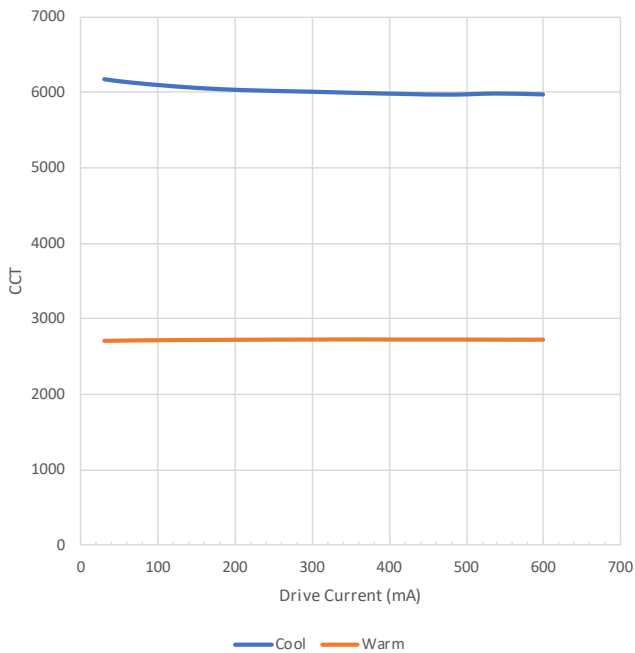
## Luminous Flux vs. Current



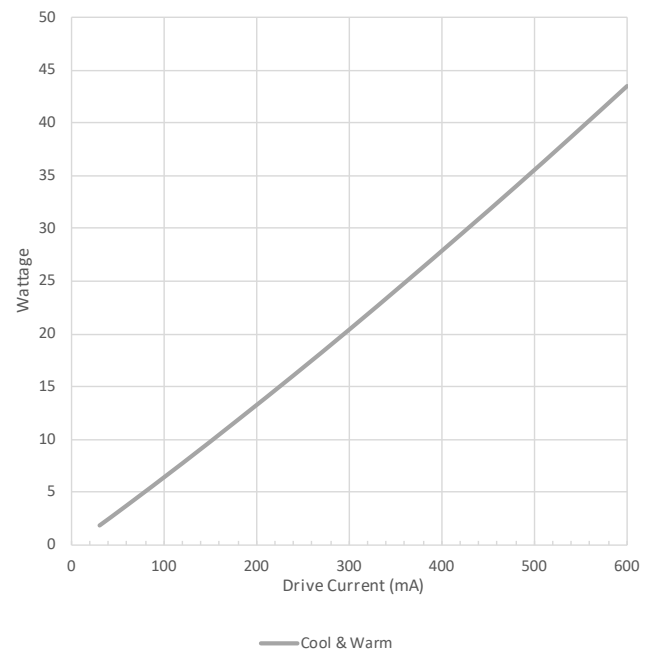
## Efficacy vs. Current



## CCT vs. Current



## Power vs. Current



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

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[10001622](#) [LFBHL-SW827-24V-8S63-20](#) [LFBHL-SW860-24V-8S63-20](#) [LFBHL-SW940-24V-8S63-20](#) [HH-SRGB60F010W24-5050M](#)  
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[\(BLACK PCB\)](#) [S010060CB1LZ \(NEUTRAL WHITE IP65\)](#) [S010060CB1LZ \(WARM WHITE IP65\)](#) [S010060CB3SB7](#) [S010060CC1LZ](#)  
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