

230R450x200-JR5050 is LED module based on the CREE LED® J_Series® 5050 optimized for cost effective and high efficacy applications. 230R450x200-JR5050 module is providing optimized and easy integration, with excellent quality, reliability and precision. Module is recommended for lighting applications where high efficacy and long lifetime are critical, such as street lights, outdoors area and indoor directional lights.

High efficacy **186 lm/W** and up to **157431 lm**

LM-80 lifetime projections (IEC 62717)
> 100,000 (L70B10)¹

EPREL registered product



➤ **SPECIFICATION**

LED FAMILY	JR5050 6-V E CLASS
CCT/SDCM	5700K 3-STEP
Viewing Angle	120°
Nominal Module Lumen Output ²	59 500 lm
Nominal Efficacy ²	167 lm/W
CRI	90
Nominal Driving Current ³	2.8 A
Voltage DC ² (typ.)	125 V
Power Consumption ²	350 W
Max. LED module working current^{2, 3}	8 A / module
Max voltage DC^{2,3}	135 V
Max power^{2,3}	1080 W
Max. LED module lumen output^{2, 3}	158350 lm
Number of LEDs	230
Power Supply Type	Constant Current
Risk Group Classification ⁴	RG-2 Moderate risk
Energy Class	B
Operating Temperature	-35°C ÷ +65°C
Tc max.	85°C
Lifetime ¹ /Tc life	>109000 h 55°C, 2.8 A

¹ Lifetime of LEDs as declared by the manufacturer [CREE LED®](#) according to IES LM-80-2015 Testing Results.
² Source performance in real-life conditions at T=50°C
³ External heatsink required.
⁴ According to [Eye safety Cree document](#)

➤ FEATURES

Application:

- ❖ Decorative lighting
- ❖ Accent lighting
- ❖ Task lighting
- ❖ General lighting
- ❖ Recessed furniture LED spotlight

Feature:

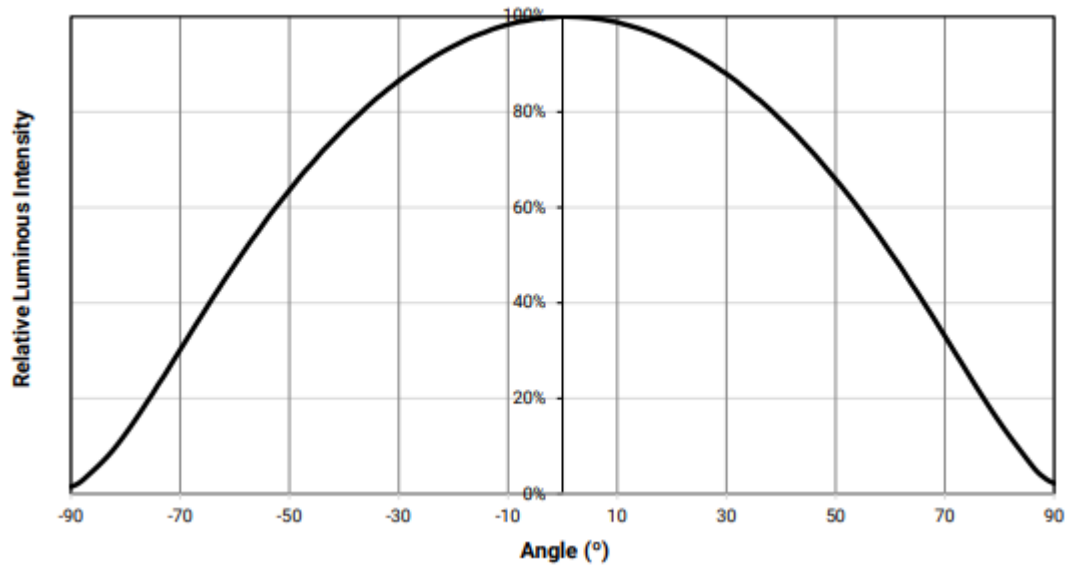
- ❖ The module is dimmable by current set (0-100%)
- ❖ Long Lifetime
- ❖ Energy Saving

EPREL Database link

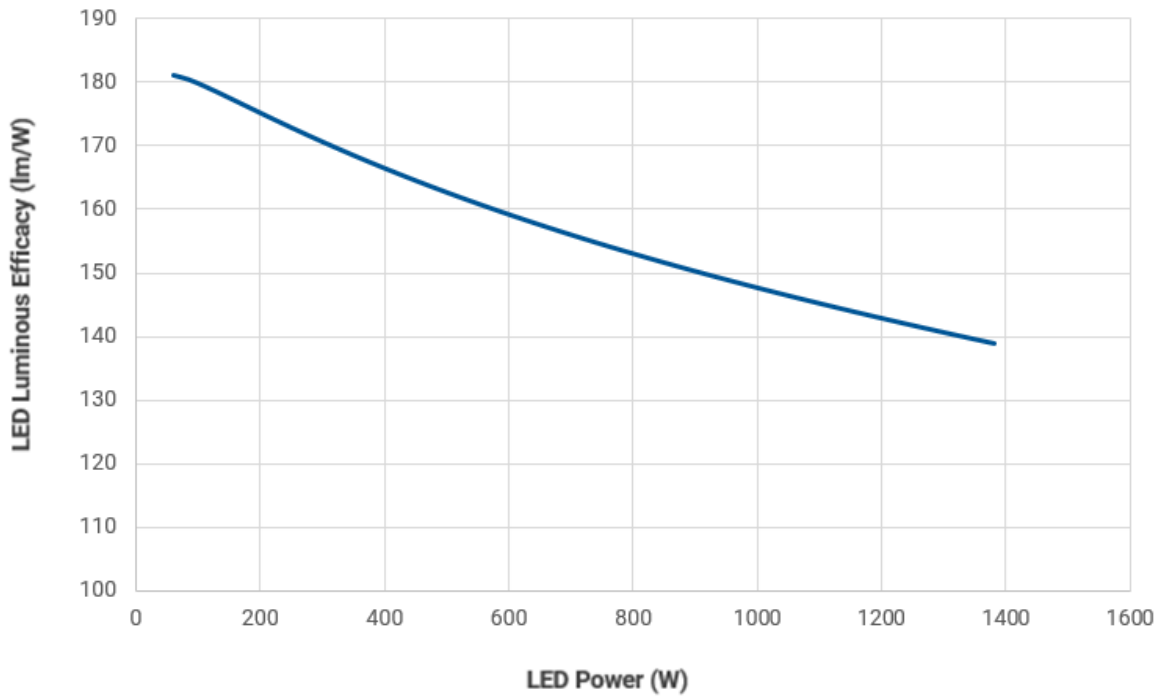
QR CODE



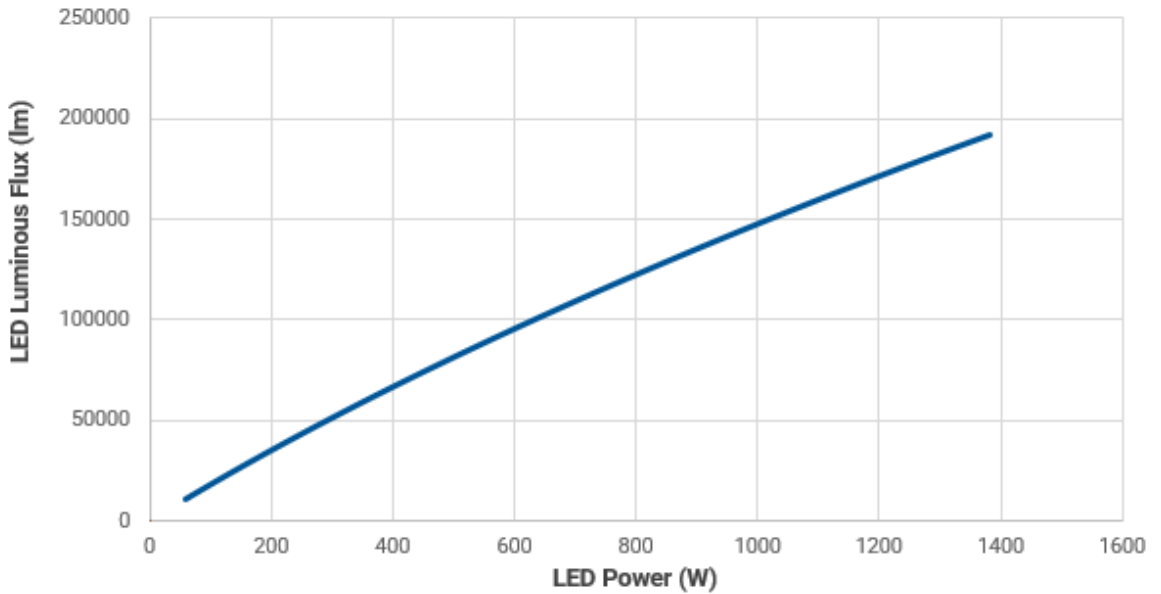
➤ TYPICAL SPATIAL DISTRIBUTION



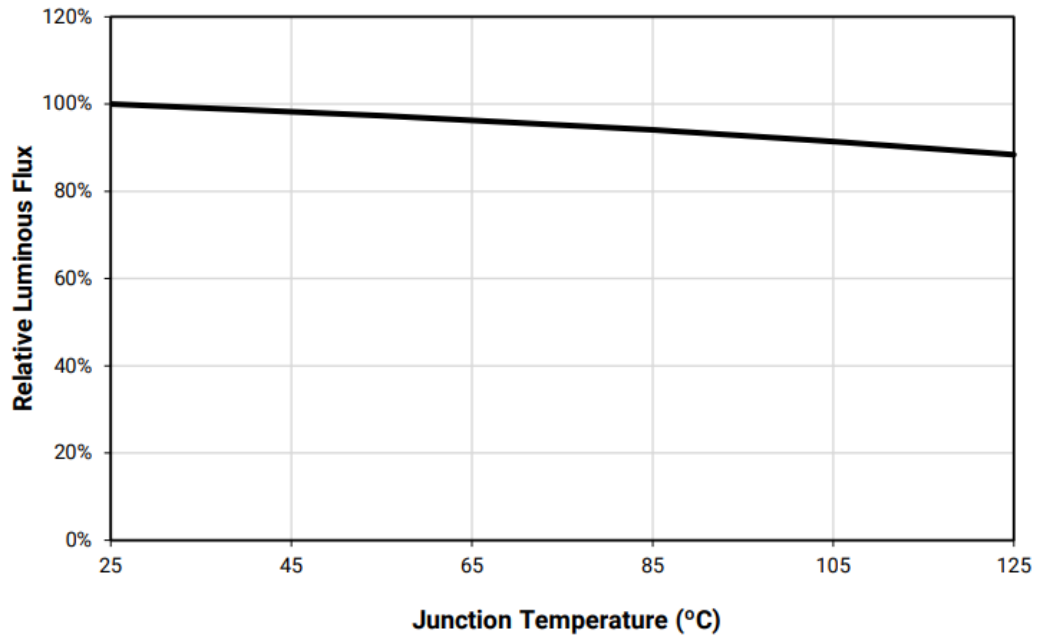
➤ LUMINOUS EFFICACY VS. POWER



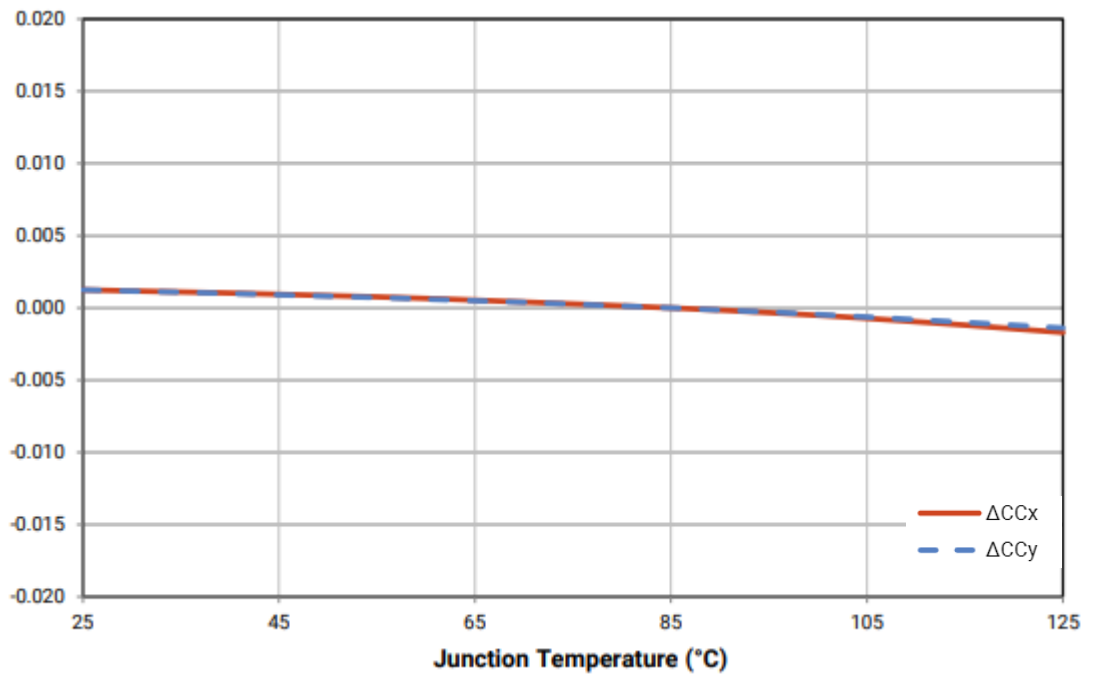
➤ LUMINOUS FLUX VS. POWER



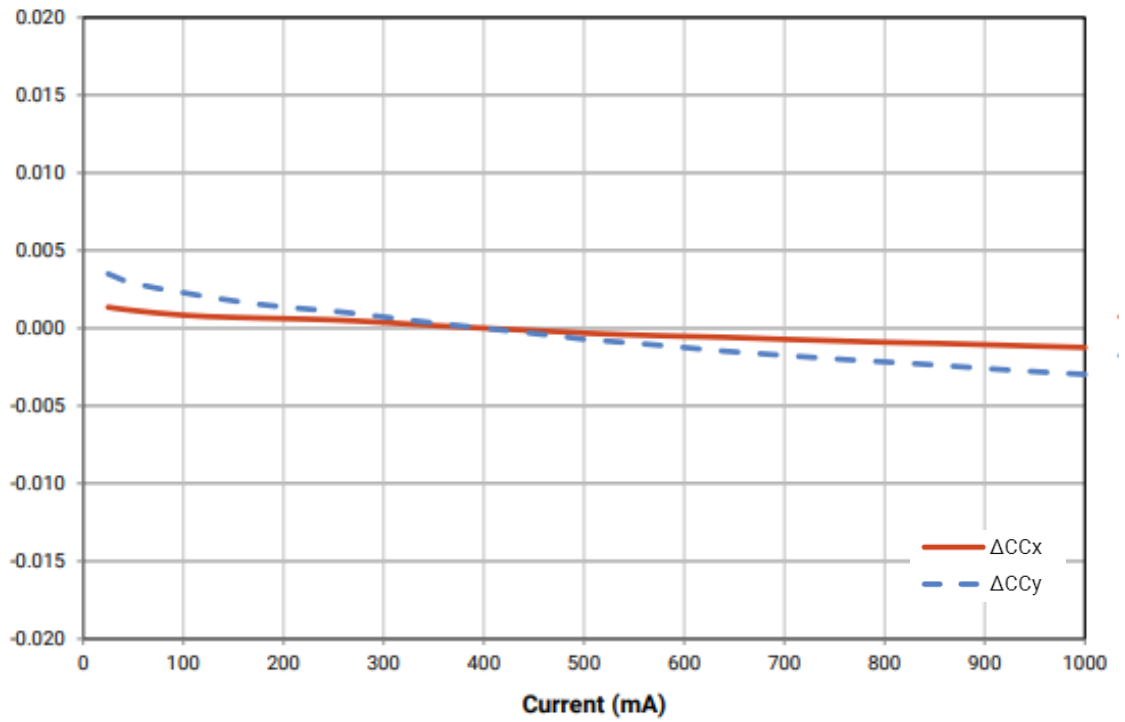
➤ LUMINOUS FLUX
VS.
JUNCTION
TEMPERATURE



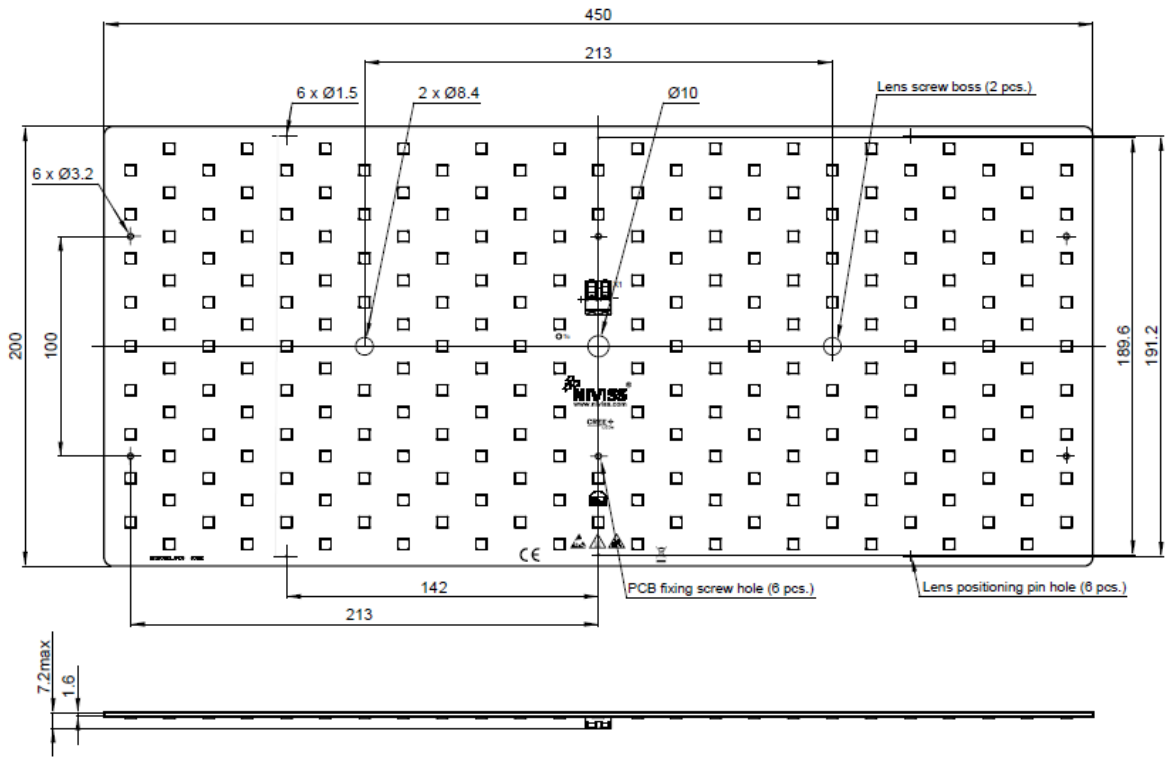
➤ RELATIVE
CHROMATICITY
VS.
TEMPERATURE



➤ RELATIVE CHROMATICITY VS. CURRENT



➤ DIMENSIONS



Notes:
Drawing is not to scale.
All dimensions are in millimeters.

MECHANICAL SPECIFICATION

Dimensions	450 x 200 mm
Board Thickness	1.6 mm
Board Material	MCPCB, 5052 Alloy, 2.2W/(m*K); white soldermask
Shape	Rectangular

➤ CONNECTION



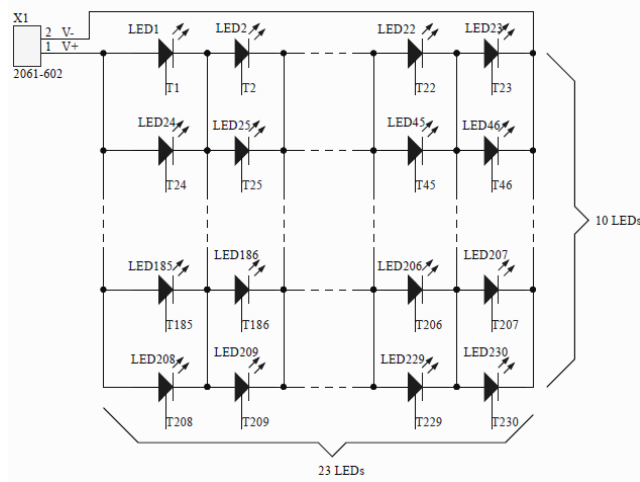
Inserting solid conductors via push-in termination.



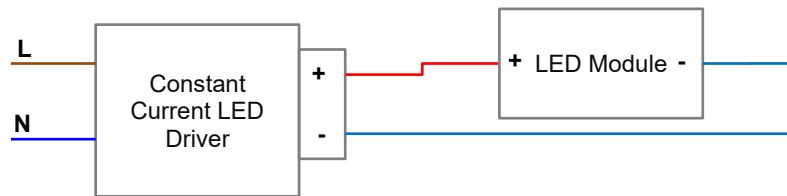
Inserting/removing fine-stranded conductors by lightly pressing on push-button (e.g., using a 206-860 operating tool).



➤ **ELECTRICAL SCHEMA**



➤ **ELECTRICAL INSTALLATION**



➤ **ORDERING CODE**

ORDERING CODE / ARTICLE CODE	DESCRIPTION
MOD-230R450x200-JR5050C-5790-VA03	LED Module, High Efficacy, white soldermask, 230 LED, 450x200mm, JR5050C, 5700K, CRI 90

➤ **COMMERCIAL INFORMATION**

COMMERCIAL INFORMATION	
Connector	WAGO 2061
Power Supply	EUD-600S280DV
Available Lenses	LENS-SU-ARIS-481X231-230-30
Minimum Order Quantity	1 pcs.
Warranty	2 years

➤ **GENERAL TERMS OF USE**

1. The range of acceptable input voltages must include the expected voltage dropout across the LED string check on CREE LED [Website J Series® 5050](#)
2. Connecting to the power supply should be done when the power supply is off.
3. Modules should be connected to heatsink to dissipate heat form LED module. Temperature on the module shouldn't be higher than recommended by Cree®. Due to power of the module, appropriate heatsink should be used with thermal conductive tape or paste. The lower temperature on LED module causes longer lifetime.
4. During installation of the LED module it is absolutely necessary to use ESD protection. Luminaire design should protect the module from ESD. Installation of the LED module should be done by qualified person.
5. Lenses, diodes and other components on the module must be protected against mechanical damage and exposure to liquids and dirt.
6. The modules shouldn't have contact with hazardous and corrosive substances or aromatic organic compounds such as toluene, acetone, xylene, benzene.
7. For installation of modules use substances recommended and tested by the CREE LED®. List of substances available on the manufacturer's website: cree-led.com

**Niviss is not responsible for any damage or failure due to not comply with above rules.
Otherwise, the complaint will not be taken into account.**

➤ **ENVIRONMENTAL CAUTION**



Caution!

It is prohibited to dispose of obsolete and waste electrical and electronic equipment together with regular household wastes. They should be properly sorted and recycled. Old electrical and electronic equipment should be returned to a waste collection point established by a waste-management service. Waste electrical and electronic equipment can be broken down to base materials and then recycled. For more information regarding waste management please contact your local authorities, waste-management service or the seller of electrical and electronic devices.

➤ **DATA DOWNLOAD**



- [3D PDF FILE](#)
- [STEP FILE](#)
- [EU DECLARATION OF CONFORMITY \(CE\)](#)