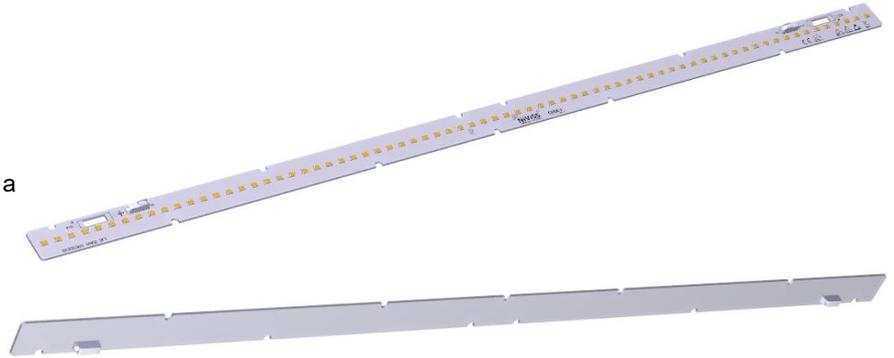72R559X20-FR4/MCPCB-JB2835B family are LED modules based on the CREE LED® J_Series® 2835 optimized for cost effective and high efficacy applications. 72R559X20-FR4/MCPCB-JB2835B modules are providing optimized and easy integration, with excellent quality, reliability and precision. Two variants of connectors allow to cover a wide range of needs.

High efficacy **212 lm/W** and up to **16430 lm**.

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

Possibility to connect 5 modules in series per chain for FR4.

EPREL registered product

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NIVISS 1 / 10

➢ **SPECIFICATION**

LED FAMILY	SERIES 2835							
CCT/SDCM	2200K 3-STEP	2700K 3-STEP	3000K 3-STEP	3500K 3-STEP	4000K 3-STEP	5000K 3-STEP	5700K 3-STEP	6500K 3-STEP
Viewing Angle	120°							
Nominal Module Lumen Output[2]	G class CRI 80							
	1750 lm	2013 lm	2089 lm	2158 lm	2220 lm	2220 lm	2220 lm	2213 lm
	G class CRI 90							
	1487 lm	1708 lm	1785 lm	1847 lm	1909 lm	1909 lm	1909 lm	1902 lm
Nominal Efficacy[2]	G class CRI 80							
	167 lm/W	192 lm/W	200 lm/W	206 lm/W	212 lm/W			
	G class CRI 90							
	142 lm/W	163 lm/W	171 lm/W	177 lm/W	182 lm/W			
CRI	80; 90							
Nominal Driving Current	220 mA							
Voltage DC (typ.) [2]	47.6 V							
Power Consumption[2]	10.5 W							
Max. LED module working current [3]	**1920 mA / module**							
Voltage DC (max)[3]	**56.5 V**							
Max power[3]	**108 W**							
Max. LED module lumen output[3]	G class CRI 80							
	12950	**14895**	**15458**	**15969**	**16430**	**16430**	**16430**	**16379**
	G class CRI 90							
	11005	**12642**	**13205**	**13666**	**14127**	**14127**	**14127**	**14076**
Number of LEDs	72							
Power Supply Type	Constant Current							
Risk Group Classification[4]	RG-1 Low Risk for 2700K, 3000K, 3500K, 4000K; RG-2 Moderate Risk for 5000K, 5700K, 6500K when above 262 mA per LED							
Energy Class	G class CRI 80							
	C	B	B	B	A	A	A	A
	G class CRI 90							
	D	C	C	C	C	C	C	C
Operating Temperature	-30°C ÷ +60°C							
Tc max.	85°C							
Lifetime[1]/Tc life	>102 000 h @ 85°C/105 °C, 1.47 A							

[1] **Lifetime of LEDs as declared by the manufacturer CREE LED® according to IES LM-80-2015 Testing Results Revision:35 :2025.**

[2] **Source performance in real-life conditions at Tc=55°C, 220 mA without heatsink.**

[3] **External heatsink required.**

[4] **According to Eye safety Cree document**

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NIVISS   2 / 10

➢ FEATURES

Application:

❖ Decorative lighting
❖ Accent lighting
❖ Task lighting

❖ General lighting
❖ Recessed furniture LED spotlight

**Feature:**

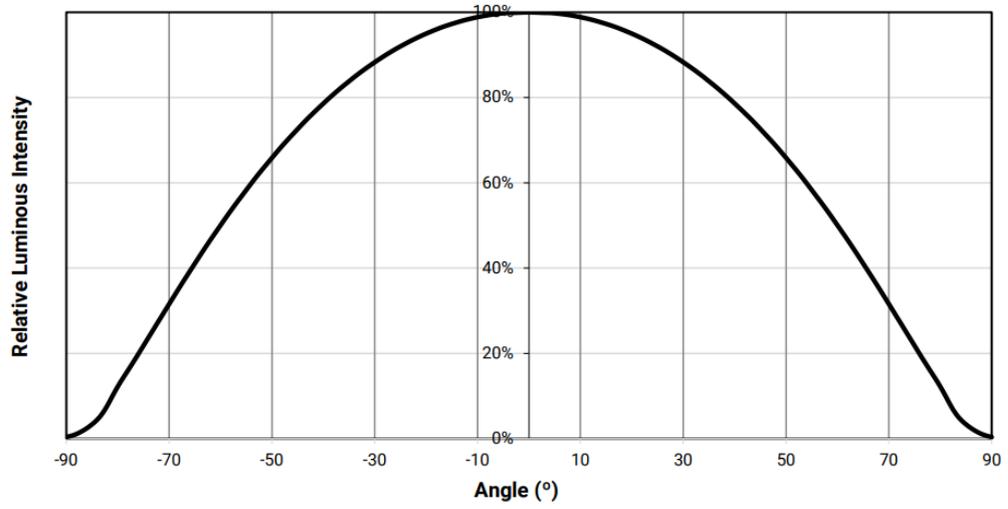❖ The module is dimmable by current set (0-100%)
❖ Long Lifetime
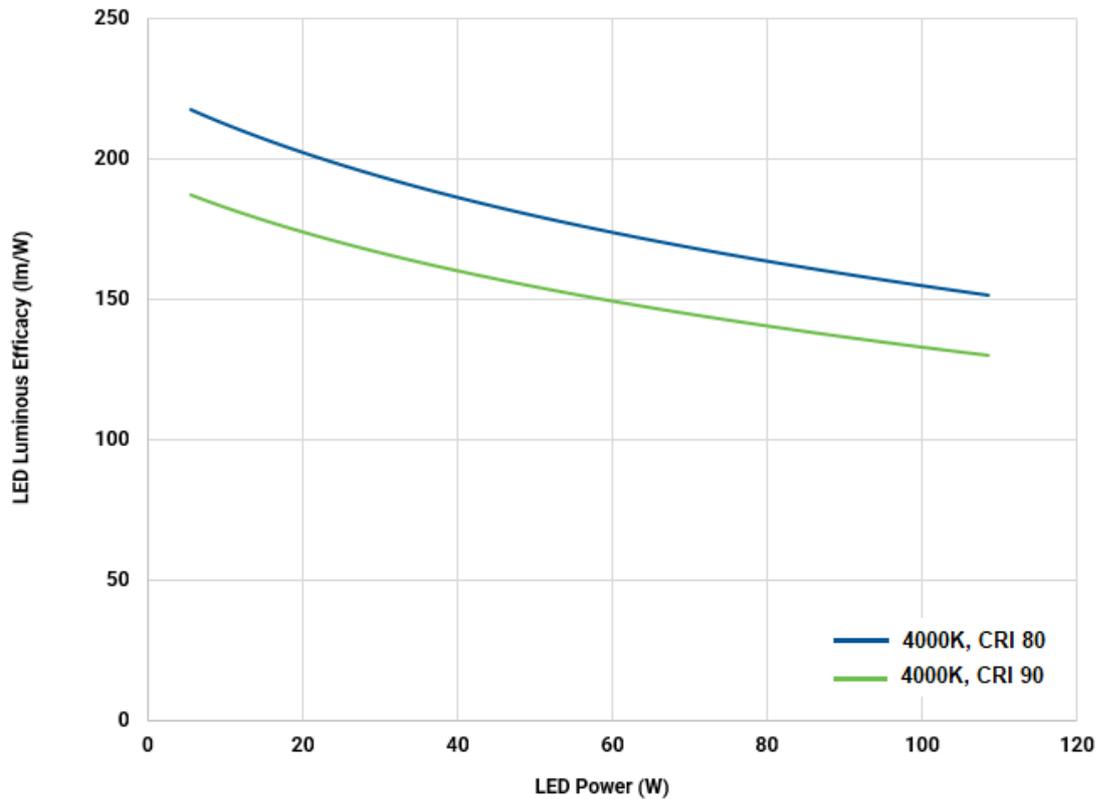❖ Energy Saving

EPREL Database link

QR CODE

FR4

2200K 80CRI	2700K 80 CRI	3000K 80CRI	3500K 80CRI	4000K 80CRI	5000K 80CRI	5700K 80CRI	6500K 80CRI

2200K 90CRI	2700K 90CRI	3000K 90CRI	3500K 90CRI	4000K 90CRI	5000K 90CRI	5700K 90CRI	6500K 90CRI

MCPCB

2200K 80 CRI	2700 80 CRI	3000K 80CRI	3500K 80CRI	4000K 80CRI	5000K 80CRI	5700K 80CRI	6500K 80CRI

2200K 90CRI	2700K 90CRI	3000K 90CRI	3500K 90CRI	4000K 90CRI	5000K 90CRI	5700K 90CRI	6500K 90CRI
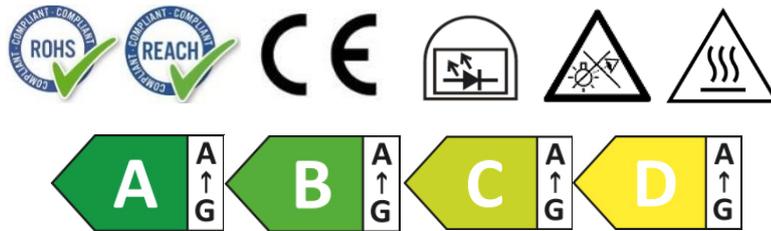
➢ **TYPICAL SPATIAL DISTRIBUTION**

➢ **LUMINOUS EFFICACY VS. POWER**

Charts for other options are available upon request.

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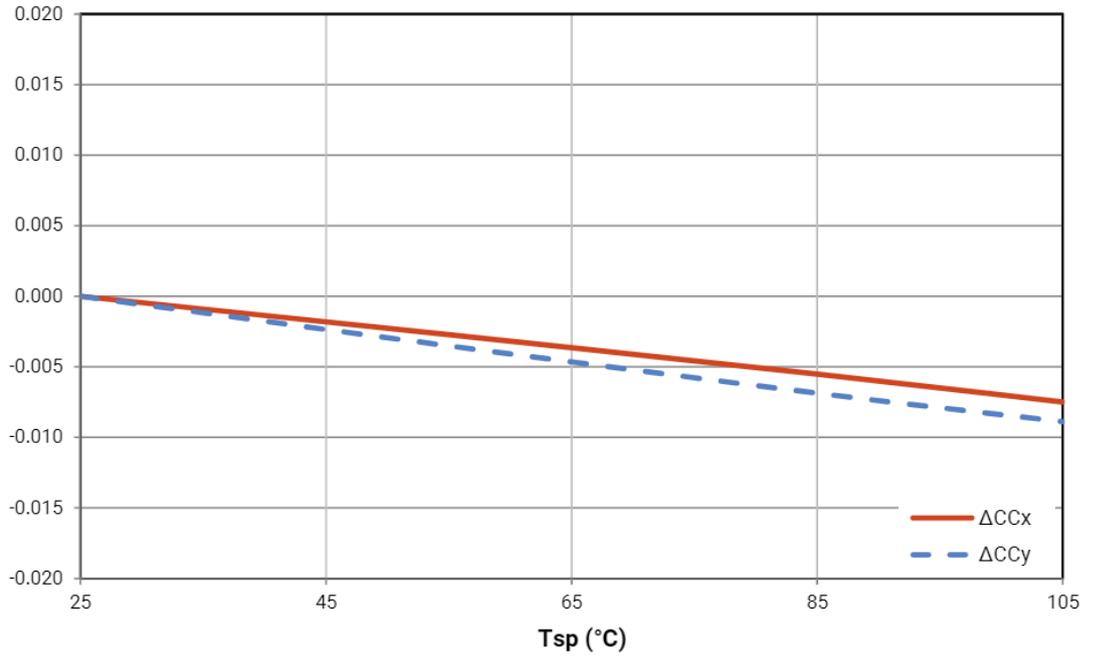NIVISS reserves the right to make technical changes without prior notice.

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4 / 10

➢ **LUMINOUS FLUX VS. POWER**

Charts for other options are available upon request.
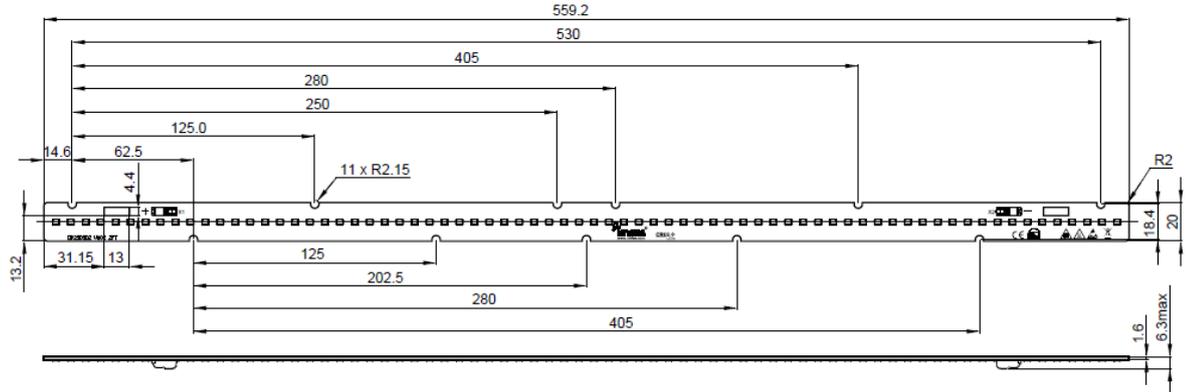
➢ **LUMINOUS FLUX VS. JUNCTION TEMPERATURE**

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5 / 10
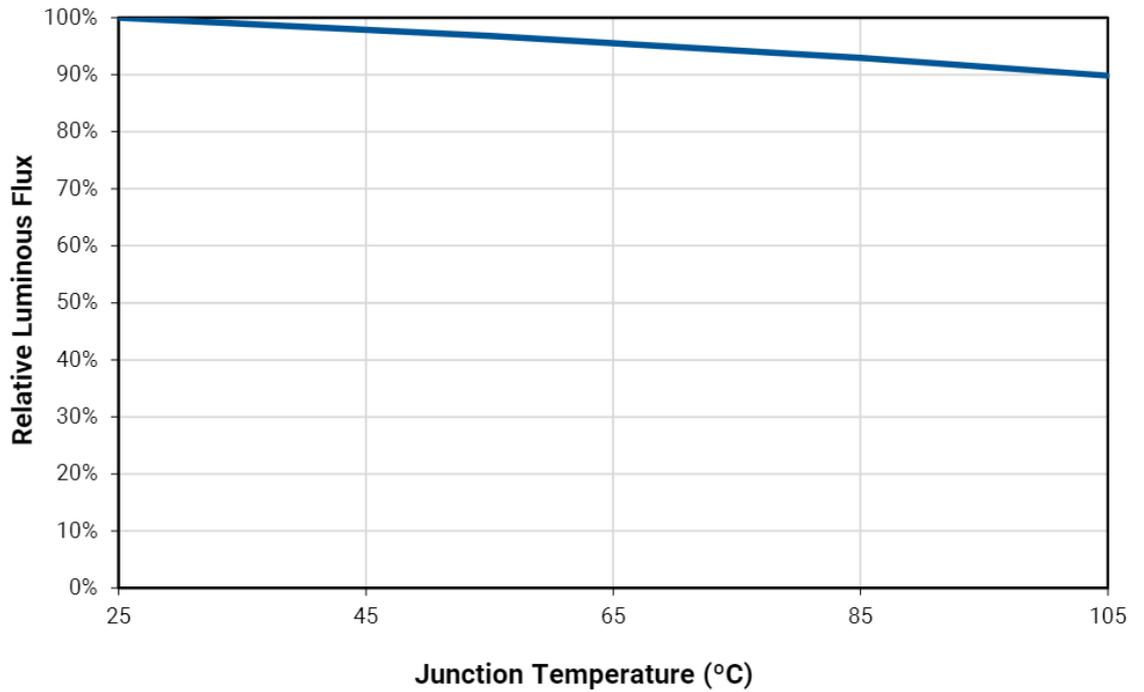
➤ **RELATIVE CHROMATICITY VS. TEMPERATURE**

➤ **RELATIVE CHROMATICITY VS. CURRENT**

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6 / 10
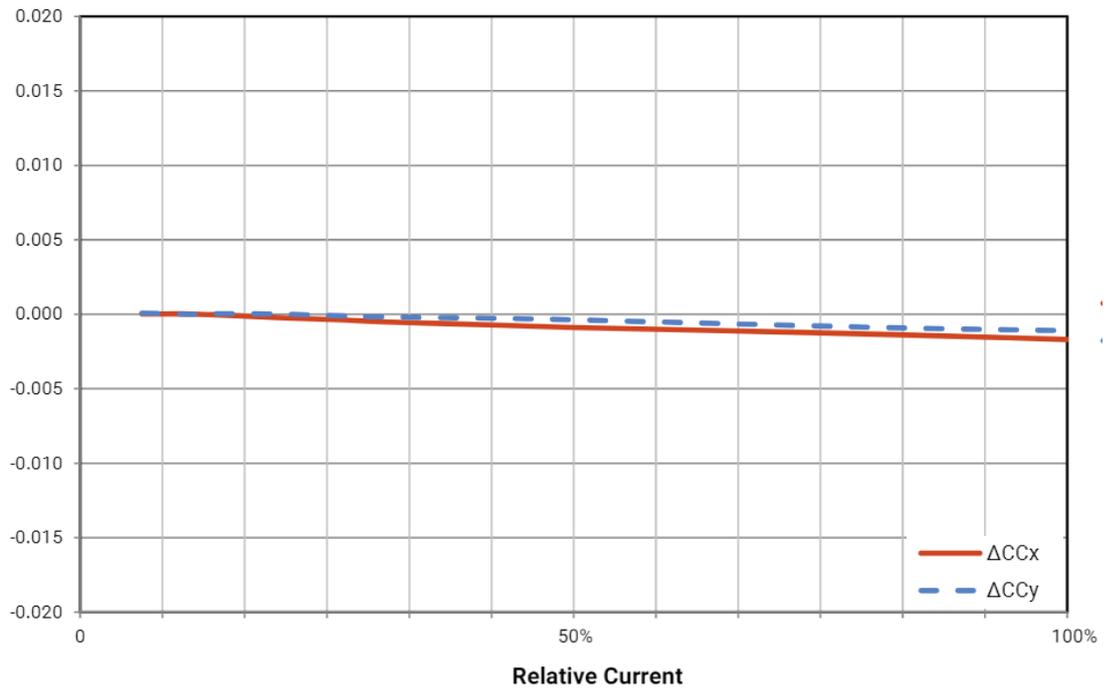
➢ **DIMENSIONS**

Variant with through-board connectors:
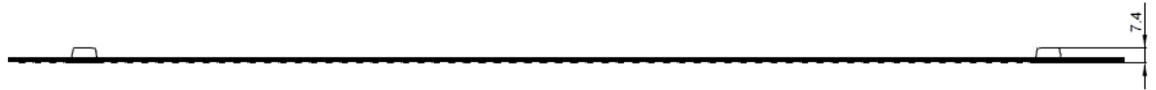
Notes:
Drawing is not to scale.
All dimensions are in millimeters.

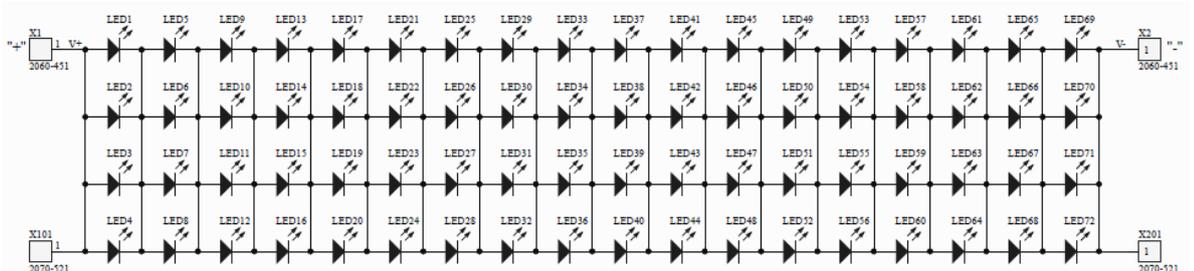| MECHANICAL SPECIFICATION	
Dimensions	559.2 x 20 mm
Board Thickness	1.6 mm
Board Material	FR4 or MCPCB; white soldermask
Shape	Rectangular

➢ **CONNECTION**

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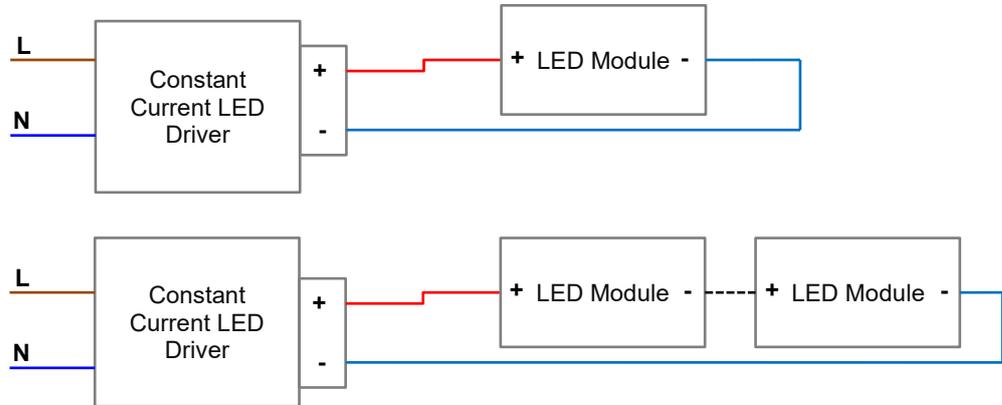
Inserting/removing fine-stranded conductors by lightly pressing on push-button
(e.g., using a 206-860 operating tool).

➢ **ELECTRICAL SCHEMA**

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➢ **ELECTRICAL INSTALLATION**

Note:
1. Max number of modules in series per chain for FR4 – 5;
2. Max Number of modules in series per chain for MCPCB – 3.

ORDERING CODE

ORDERING CODE / ARTICLE CODE	DESCRIPTION
MOD-72R559.5X20-FR4-JB2835B-2280-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 80, FR4
MOD-72R559.5X20-FR4-JB2835B-2780-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2700K, CRI 80, FR4
MOD-72R559.5X20-FR4-JB2835B-3080-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 3000K, CRI 80, FR4
MOD-72R559.5X20-FR4-JB2835B-3580-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 3500K, CRI 80, FR4
MOD-72R559.5X20-FR4-JB2835B-4080-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 4000K, CRI 80, FR4
MOD-72R559.5X20-FR4-JB2835B-5080-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 5000K, CRI 80, FR4
MOD-72R559.5X20-FR4-JB2835B-5780-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 5700K, CRI 80, FR4
MOD-72R559.5X20-FR4-JB2835B-6580-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 6500K, CRI 80, FR4
MOD-72R559.5X20-FR4-JB2835B-2290-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 90, FR4
MOD-72R559.5X20-FR4-JB2835B-2790-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2700K, CRI 90, FR4
MOD-72R559.5X20-FR4-JB2835B-3090-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 3000K, CRI 90, FR4
MOD-72R559.5X20-FR4-JB2835B-3590-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 3500K, CRI 90, FR4
MOD-72R559.5X20-FR4-JB2835B-4090-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 4000K, CRI 90, FR4
MOD-72R559.5X20-FR4-JB2835B-5090-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 5000K, CRI 90, FR4
MOD-72R559.5X20-FR4-JB2835B-5790-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 5700K, CRI 90, FR4
MOD-72R559.5X20-FR4-JB2835B-6590-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 6500K, CRI 90, FR4
MOD-72R559.5X20-MCPCB-JB2835B-2280-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 80, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-2780-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 80, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-3080-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 80, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-3580-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 80, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-4080-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 80, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-5080-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 80, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-5780-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 80, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-6580-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 80, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-2290-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 90, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-2790-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 90, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-3090-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 90, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-3590-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 90, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-4090-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 90, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-5090-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 90, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-5790-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 90, MCPCB
MOD-72R559.5X20-MCPCB-JB2835B-6590-VA01	LED Module High Efficacy 559,2x20mm 72 LED 2835, 2200K, CRI 90, MCPCB
Customer Modules on request	

COMMERCIAL INFORMATION

COMMERCIAL INFORMATION	
Connector	WAGO 2060
Available Lenses	No
Minimum Order Quantity	20 pcs.
Warranty	3 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® 2835

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)**

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10 / 10