CREE LED® High Efficacy
LED Modules NF9010X500SP-12V-7W family

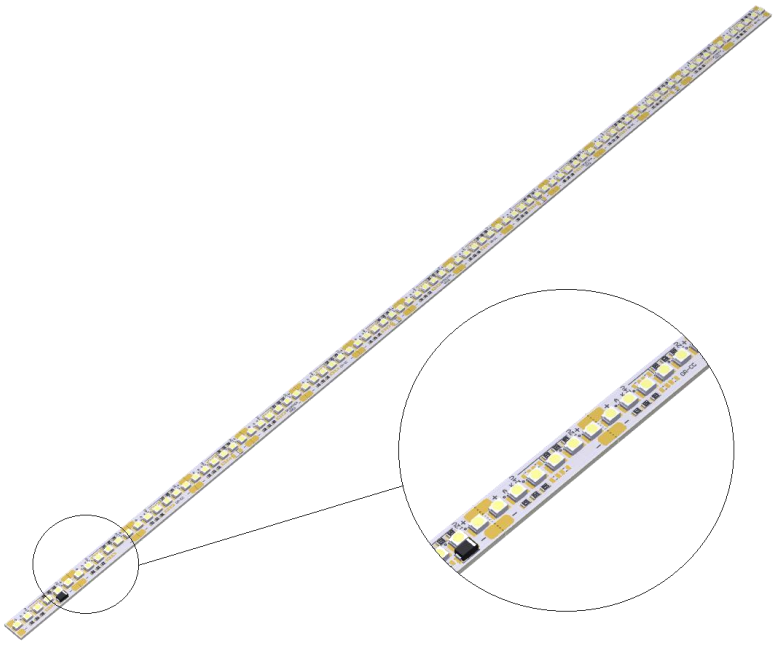
DK200404

NF9010X500SP-12V-7W family are LED modules based on the CREE LED® J_Series® 2835 optimized for cost effective and high efficacy applications. NF9010X500SP-12V-7W modules are providing optimized and easy integration, with excellent quality, reliability and precision.

LM-80 lifetime projections
(IEC 62717) **> 102,000 (L70B10)***

Possibility to separate sections in the module

EPREL registered product



➢ SPECIFICATION

LED FAMILY	SERIES 2835				
LED COLOR	WHITE			BLUE	ORANGE
CCT/SDCM	3000K 3-STEP	4000K 3-STEP	6500K 3-STEP	464-474 nm	586-596 nm
Viewing Angle	120°				
Nominal Module Lumen Output**	1080 lm	1240 lm	1270 lm	410 lm	705 lm
Nominal Efficacy	129 lm/W	177 lm/W	181 lm/W	59 lm/W	101 lm/W
CRI	80			-	
Voltage Range	10,7 - 15 VDC				
Input Current	~ 600 mA				
Voltage DC (typ.)	12 VDC				
Power Consumption	7 W @ 12V				
LED Current	~ 20 mA				
Number of LEDs	90				
Power Supply Type	Constant Voltage				
Risk Group Classification	RG-1 Low Risk			RG-2 Moderate Risk	
Energy Class	D	C		-	-
Operating Temperature	-30°C ÷ +60°C				
Tc max.	85°C				
Lifetime*/Tc life	>102000 h 55˚C				

* Lifetime of LEDs as declared by the manufacturer CREE LED® according to IES LM-80-2015 Testing Results.
** Source performance in real-life conditions at T=55˚C; the tolerance of source lumen output is 10% - tested without heatsink.
*** External heatsink required.

➢ FEATURES

Application:

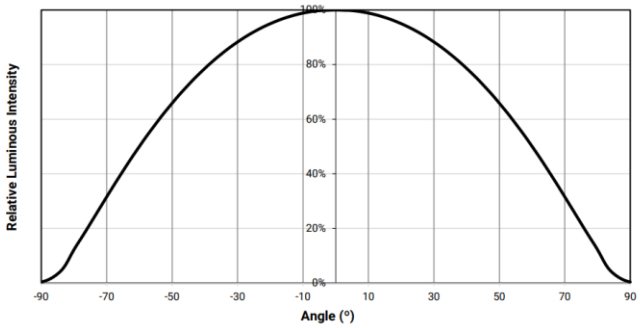
- ❖ Decorative lighting
- ❖ Accent lighting
- ❖ Task lighting
- ❖ General lighting
- ❖ Recessed furniture LED spotlight

Feature:

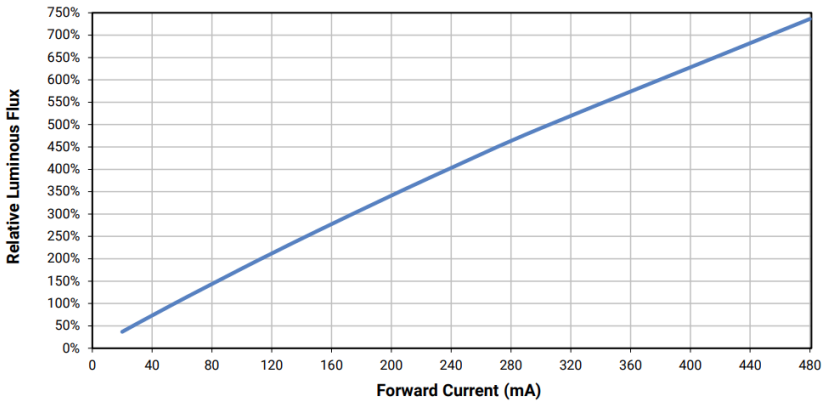
- ❖ The module is dimmable by current set (0-100%)
- ❖ Long Lifetime
- ❖ Energy Saving

	3000K	4000K	6500K
EPREL Database link QR CODE	**2619885**	**2619894**	**2619900**

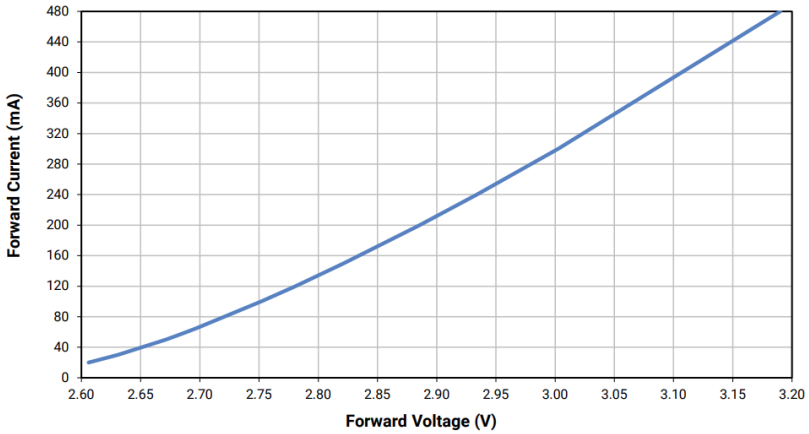
➢ TYPICAL SPATIAL DISTRIBUTION



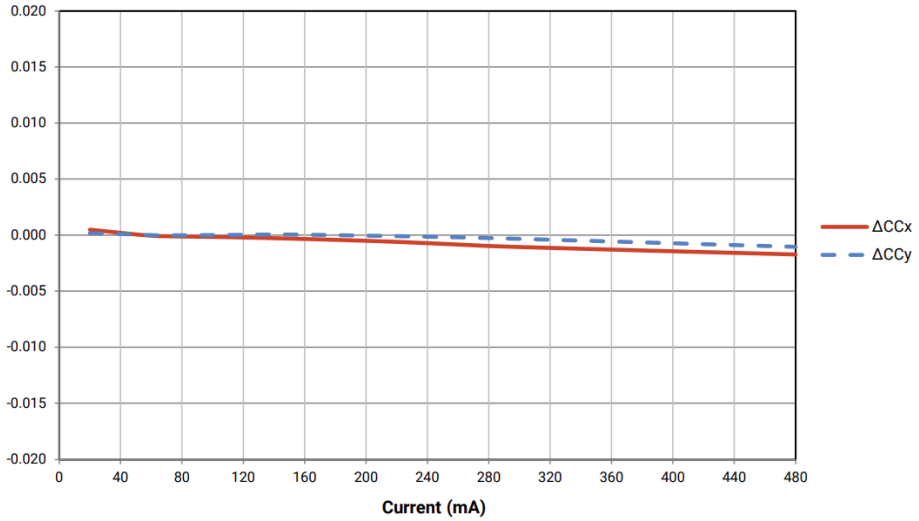
➢ RELATIVE LUMINOUS FLUX VS. FORWARD CURRENT



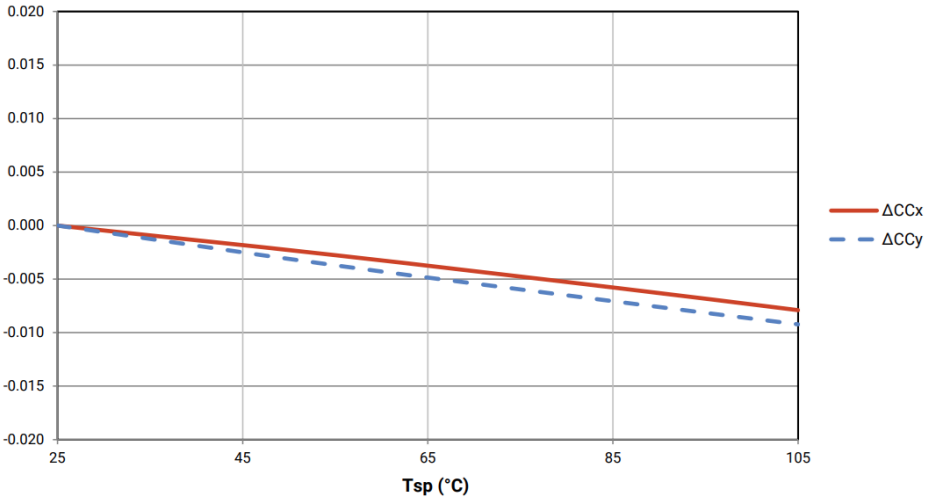
- **FORWARD CURRENT VS. FORWARD VOLTAGE**



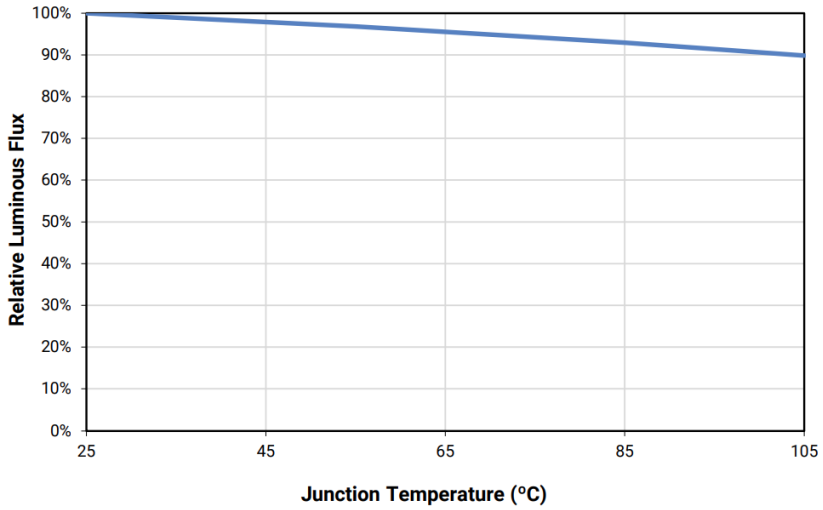
- **RELATIVE CHROMATICITY VS. CURRENT**



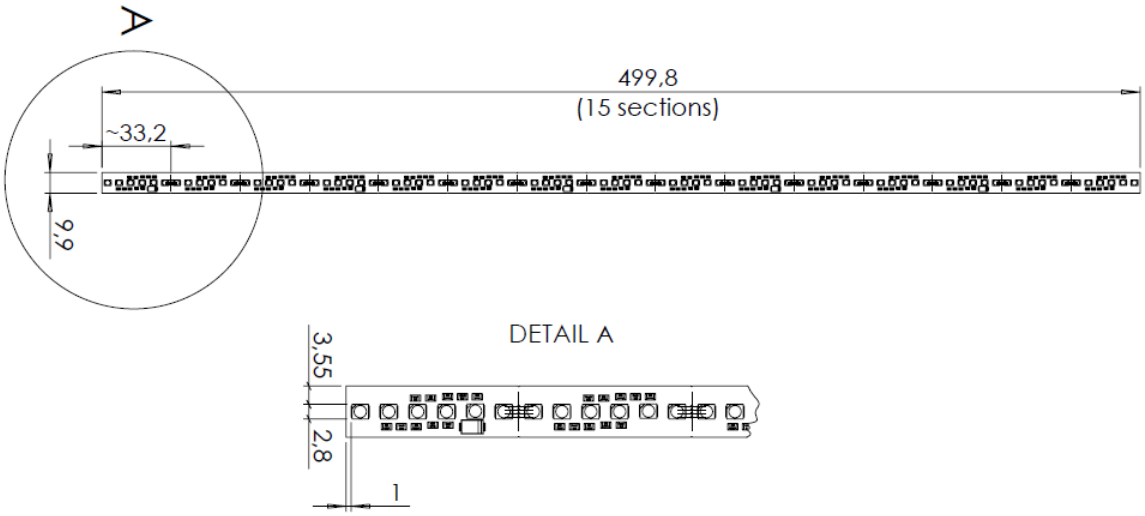
- **RELATIVE CHROMATICITY VS. TEMPERATURE**



➢ RELATIVE LUMINOUS FLUX VS. JUNCTION TEMPERATURE



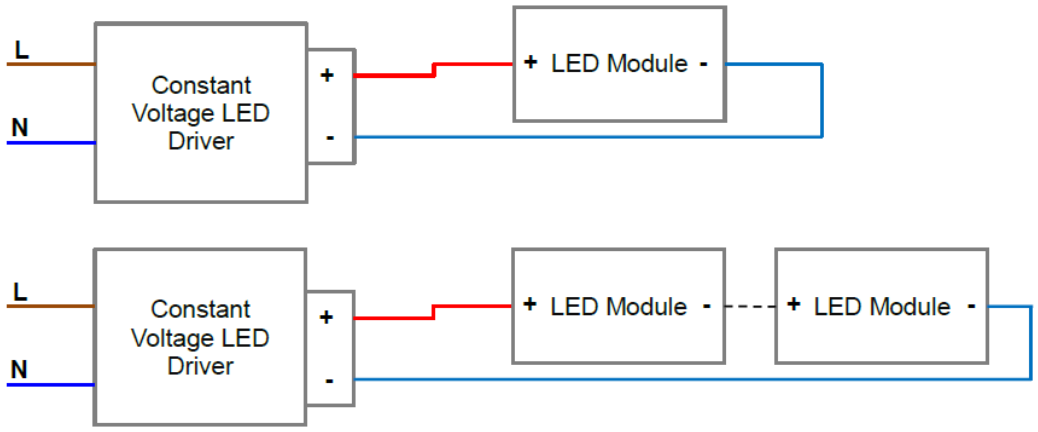
➢ DIMENSIONS



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

	MECHANICAL SPECIFICATION
Dimensions	499,8X9,9 mm
Board Thickness	1 mm
Board Material	FR4, copper thickness 1Oz 35um, white soldermask
Shape	Rectangular

➢ ELECTRICAL INSTALLATION



➢ ORDERING CODE

ORDERING CODE / ARTICLE CODE	DESCRIPTION
MOD-NF9010X500SP-12V-7W-3000K	LED Module, High Efficacy, white soldermask, 90 LED, 499,8x9,9 mm, 2835, 3000K, CRI 80, 12V
MOD-NF9010X500SP-12V-7W-4000K	LED Module, High Efficacy, white soldermask, 90 LED, 499,8x9,9 mm, 2835, 4000K, CRI 80, 12V
MOD-NF9010X500SP-12V-7W-6500K	LED Module, High Efficacy, white soldermask, 90 LED, 499,8x9,9 mm, 2835, 6500K, CRI 80, 12V
MOD-NF9010X500SP-12V-7W-BLU	LED Module, High Efficacy, white soldermask, 90 LED, 499,8x9,9 mm, 2835, Blue, CRI 80, 12V
MOD-NF9010X500SP-12V-7W-ORANGE	LED Module, High Efficacy, white soldermask, 90 LED, 499,8x9,9 mm, 2835, Orange, CRI 80, 12V

➢ COMMERCIAL INFORMATION

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Minimum Order Quantity	10 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® 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)