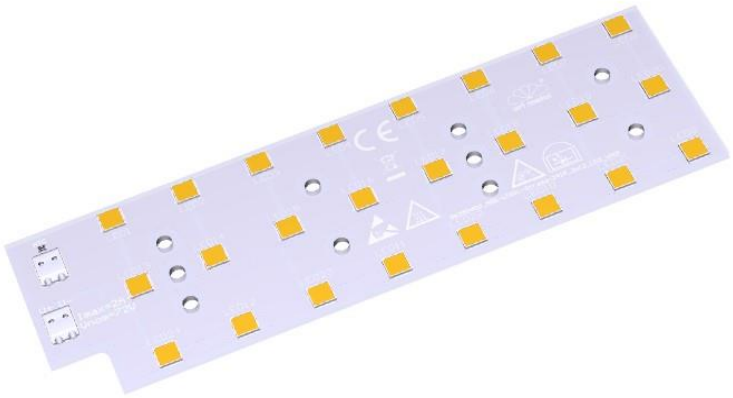
CREE LED® High Efficacy
LED Module 147x46mm LEDIL STRADA JR5050 family

DK250402

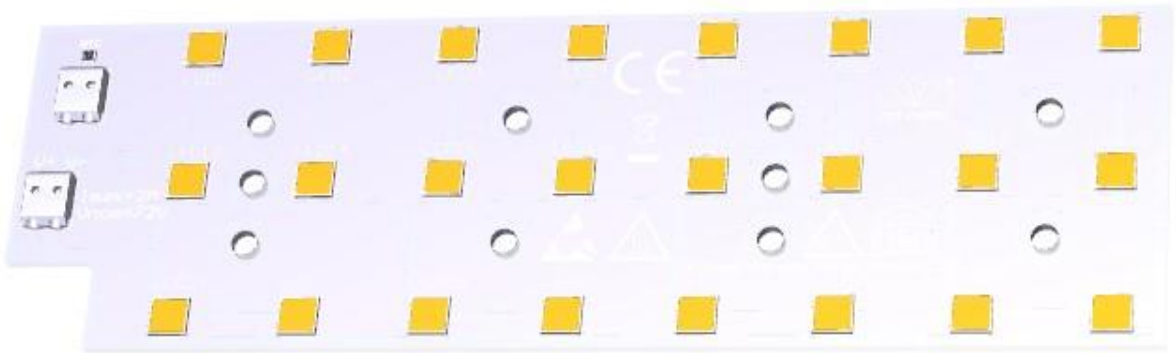
LED Modules 147x46mm LEDIL STRADA family are LED module based on the CREE LED® J Series® JR5050 K class and Q class optimized for cost effective and high efficacy applications and for LEDIL's STRADA IP 24 optics. LED Modules 147x46mm LEDIL STRADA family are providing optimized and easy integration, with excellent quality, reliability and precision.

A wide range of modules versions are available, offering the flexibility to choose the best combination of price and lumens output while maintaining consistent reliability and accuracy for a variety of applications.

For lighting applications where both high efficiency and durability are a priority, such as streets, squares, avenues, gardens and public spaces lighting.



- High efficacy **203 lm/W** and up to **21908 lm**.
- LM-80 lifetime projections (IEC 62717) **> 109,000 (L70)**[1]
- Quick and effective heat dissipation due to the using MCPCB 1.0 mm with thermal conductivity 2.2 W/mK, or standard FR4 1.6mm, Lead Free HASL.
- EPREL registered product.
- Available CCT 3000K, 4000K.
- Available CRI 80.



➢ SPECIFICATION

LED FAMILY	JR5050 SERIES	
CCT/SDCM	3000K 3-STEP	4000K 3-STEP
Viewing Angle	120°	
Nominal Module Lumen Output[2]	K class CRI 80	
	9238 lm	9719 lm
	Q class CRI 80	
	8647 lm	9096 lm
Nominal Efficacy[2]	K class CRI 80	
	172 lm/W	181 lm/W
	Q class CRI 80	
	157 lm/W	165 lm/W
Recommended current for best efficacy	200 mA	
Efficacy@recommended current	K class CRI 80	
	193 lm/W	203 lm/W
	Q class CRI 80	
	181 lm/W	191 lm/W
CRI	80	
Nominal Driving Current	800 mA	
Voltage DC (typ.)[2]	68 V	
Power Consumption[2]	119 W	
Max. LED module working current[3]	**2 A / module**	
Voltage DC (max)[3]	**77.5 V**	
Max power[3]	**146 W**	
Max. LED module lumen output[3]	K class CRI 80	
	20825	**21908**
	Q class CRI 80	
	18872	**19852**
Number of LEDs	24	
Power Supply Type	Constant Current	
Risk Group Classification[4]	RG-1 below 827 mA per LED. RG-2 Moderate Risk above 827 mA per LED	
Energy Class	K class CRI 80	
	B	**B**
	Q class CRI 80	
	C	**B**
Operating Temperature	-30°C ÷ +60°C	
Tc max.	85°C	
Lifetime[1]/Tc life	>109 000 h @ 85°C, 480/750 mA,	

[1] **Lifetime of LEDs as declared by the manufacturer CREE LED® according to IES LM-80-2015 Testing Results Revision:32 :2025.**
[2] **Source performance in real-life conditions at Tc=55°C, 800 mA without heatsink.**
[3] **External heatsink required.**
[4] **According to Eye safety Cree document**

➢ FEATURES

Application:

- Task lighting
- Accent lighting
- Decorative lighting
- General lighting
- Road and park lighting
- Parking area lighting

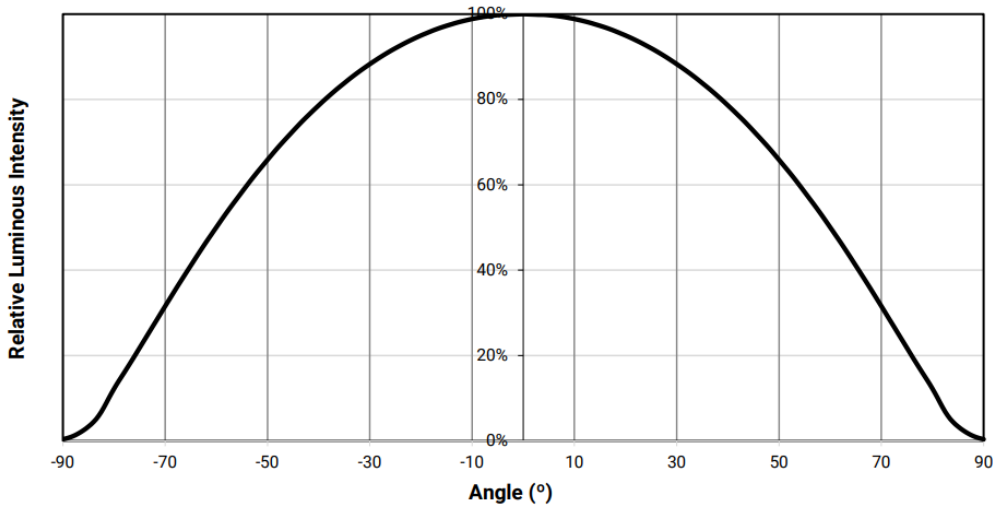
Features:

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

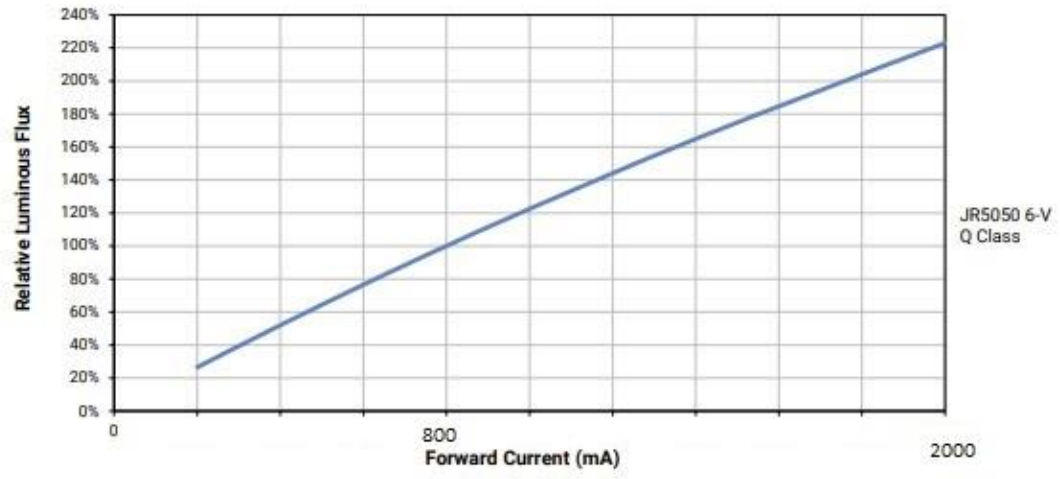
EPREL Database link

QR CODE

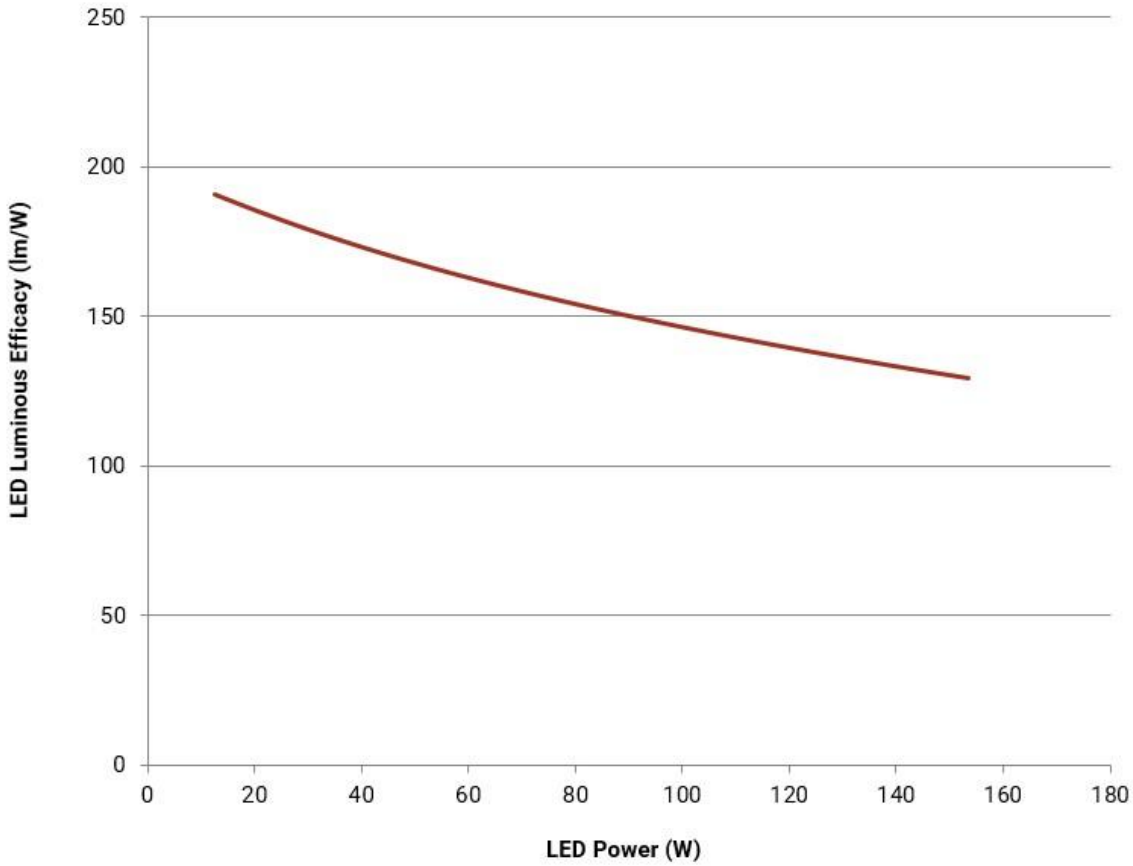
➢ TYPICAL SPATIAL DISTRIBUTION



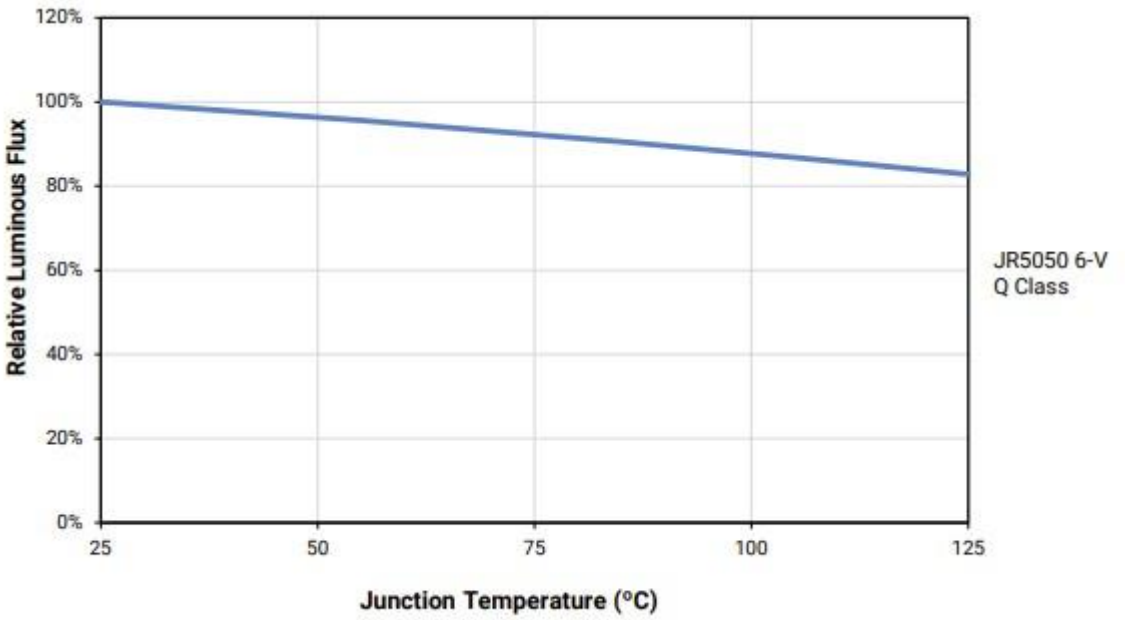
- **RELATIVE LUMINOUS FLUX VS. FORWARD CURRENT (mA) Q class**



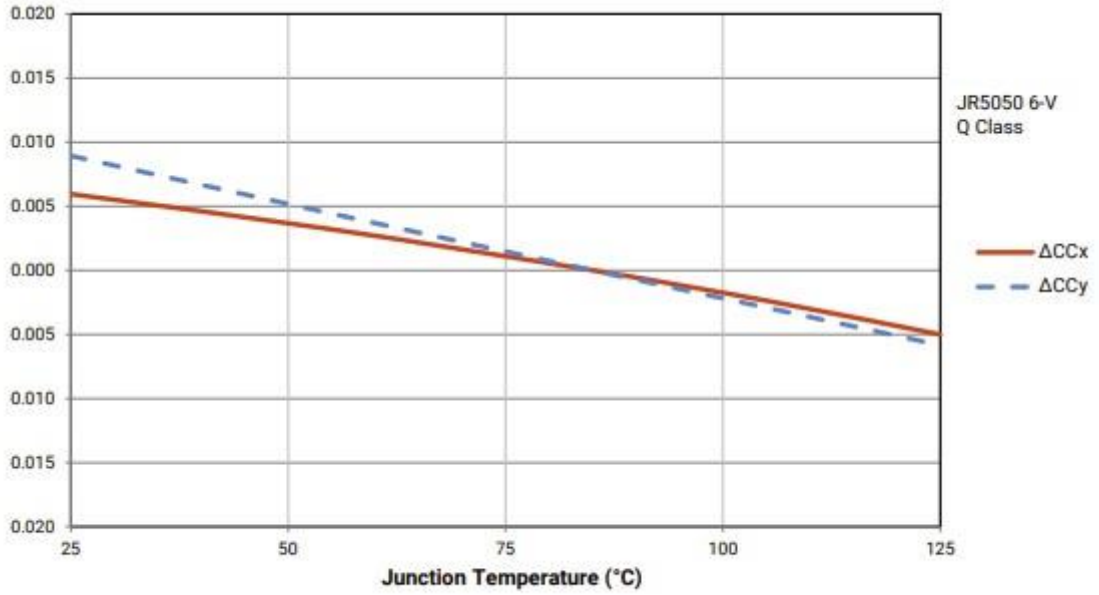
- **LUMINOUS EFFICACY (lm/W) VS. MODULE LED POWER (W) Q class**



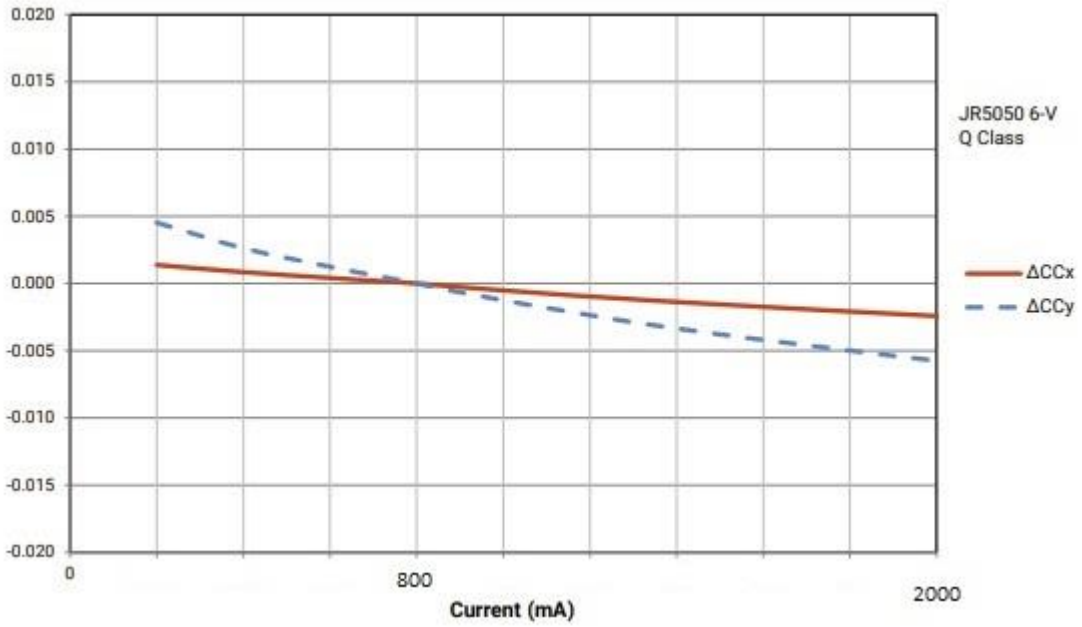
- **RELATIVE LUMINOUS FLUX VS. JUNCTION TEMPERATURE**



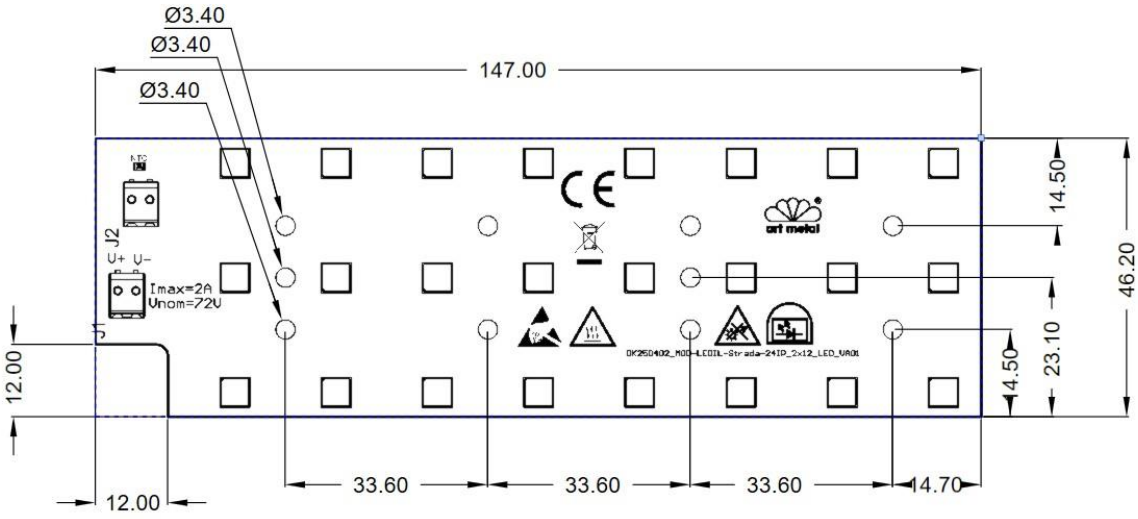
- **RELATIVE CHROMATICITY VS. TEMPERATURE**



- **RELATIVE CHROMATICITY VS. CURRENT**



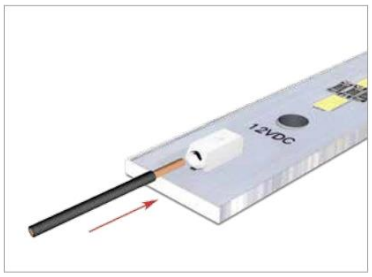
➢ DIMENSIONS



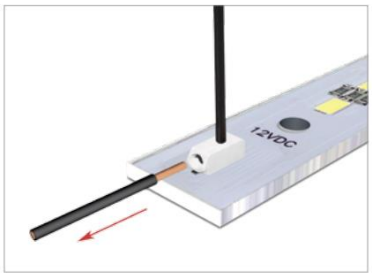
Notes:
Drawing is not to scale.
All dimensions are in millimeters.

MECHANICAL SPECIFICATION		
Dimensions	147 x 46 mm	
Board Thickness	1.0 mm	1.6 mm
Board Material	MCPCB, 5052 Alloy, 2.2W/(m*K); high reflectivity white soldermask	FR4; high reflectivity white soldermask
Shape	Rectangular	

➢ CONNECTION

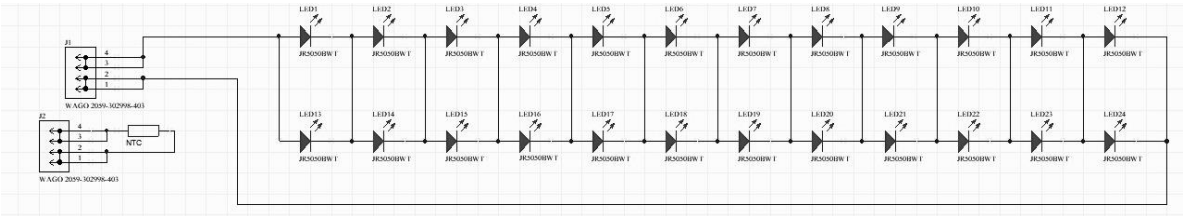


Inserting solid conductors via push-in termination.

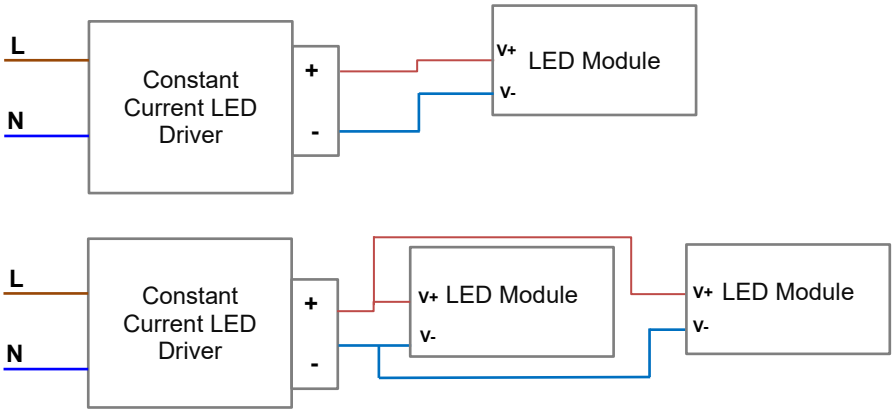


Easy conductor removal, e.g., via 206-859 operating tool.

➢ ELECTRICAL SCHEMA



➢ ELECTRICAL INSTALLATION



➢ ORDERING CODE

ORDERING CODE / ARTICLE CODE	DESCRIPTION
MOD-24R147X46-JR5050BK-3080-C-VA01	LED Module 147x46 mm, High Efficacy, High Reflectivity White Soldermask, 24 LED, JR5050B class K, 3000K, CRI 80, 1.0 mm MCPCB
MOD-24R277X46-JR5050BK-4080-C-VA01	LED Module 147x46 mm, High Efficacy, High Reflectivity White Soldermask, 24 LED, JR5050B class K, 4000K, CRI 80, 1.0 mm MCPCB
MOD-24R147X46-JR5050BQ-3080-C-VA01	LED Module 147x46 mm, High Efficacy, High Reflectivity White Soldermask, 24 LED, JR5050B class Q, 3000K, CRI 80, 1.0 mm MCPCB
MOD-24R277X46-JR5050BQ-4080-C-VA01	LED Module 147x46 mm, High Efficacy, High Reflectivity White Soldermask, 24 LED, JR5050B class Q, 4000K, CRI 80, 1.0 mm MCPCB
MOD-FR24R147X46-JR5050BK-3080-C-VA01	LED Module 147x46 mm, High Efficacy, High Reflectivity White Soldermask, 24 LED, JR5050B class K, 3000K, CRI 80, 1.6 mm FR-4
MOD-FR24R277X46-JR5050BK-4080-C-VA01	LED Module 147x46 mm, High Efficacy, High Reflectivity White Soldermask, 24 LED, JR5050B class K, 4000K, CRI 80, 1.6 mm FR-4
MOD-FR24R147X46-JR5050BQ-3080-C-VA01	LED Module 147x46 mm, High Efficacy, High Reflectivity White Soldermask, 24 LED, JR5050B class Q, 3000K, CRI 80, 1.6 mm FR-4
MOD-FR24R277X46-JR5050BQ-4080-C-VA01	LED Module 147x46 mm, High Efficacy, High Reflectivity White Soldermask, 24 LED, JR5050B class Q, 4000K, CRI 80, 1.6 mm FR-4

➢ COMMERCIAL INFORMATION

COMMERCIAL INFORMATION	
Connector	WAGO 2059
Available Lenses	LEDIL_STRADA-IP-24
Minimum Order Quantity	10 pcs.
Warranty	2 years
Power Supply	PS-ELG-200-C2100B PS-LCM-40DA Xi FP 75W 0.3-1.0A SNLDAE

➢ 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 from 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)