

Made in Poland

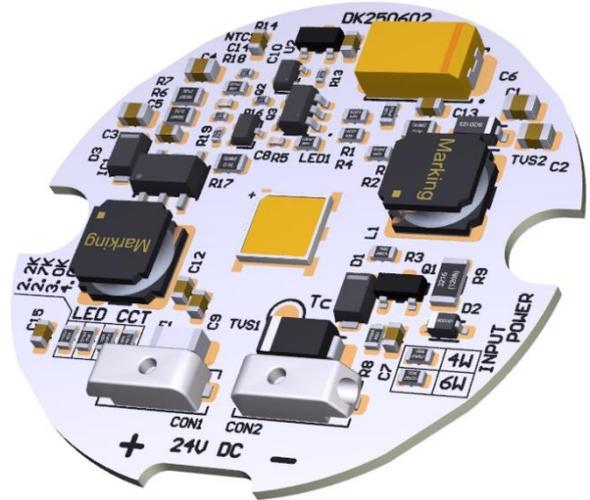
LED modules based on the CREE LED J Series® JR5050C optimized for cost effective and high efficacy applications. Modules are providing optimized and easy integration, with excellent quality, reliability and precision.

High efficacy **221 lm/W** and up to **1000 lm**.

LM-80 lifetime projections (IEC 62717)
> 135 000 (L70B10)¹

MPCB thermal conductivity **1.5 W/mK** based in UHT (Ultra High Thermal), Lead Free HASL

EPREL registered product



➤ **SPECIFICATION**

LED FAMILY	J Series® JR5050C THIRD-GENERATION			
CCT/SDCM	2200K 5-step	2700K 3-step	3000K 3-step	4000K 3-step
Viewing Angle	120°			
CRI	80			
Max. LED module working current ²	1000 mA			
Max. LED module lumen output ²	1000 lm @ 25°C			
Max. Voltage DC ²	20 – 30 V DC			
Nominal Voltage DC	24 V DC			
Max. Power Consumption ²	~ 6,8 W			
Variants of power ²	4,5 W @ I _{IN} = 0.22 A / 6,8 W @ I _{IN} = 0.33 A			
Max. Input Current ²	0.22 A @ 4,5 W / 0.33 A @ 6,8 W			
Nominal Input Current	0.19 A @ 4,5 W / 0.28 A @ 6,8 W			
Number of LEDs	1			
Power Supply Type	Constant Voltage			
Risk Group Classification ³	3000K RG-1 Low Risk I _{LED} < 589mA 4000K RG1 Low Risk I _{LED} > 589mA 4000K RG2 Moderate Risk			
Energy Class	C, D			
Operating Temperature	-40°C + +80°C			
Tc max.	105°C			
Lifetime of LEDs ¹ /Tc life	L90B10 > 135 000h 55°C, 700 [mA] L80B10 > 135 000h 55°C, 700 [mA] L70B10 > 135 000h 55°C, 700 [mA] L90B10 > 135 000h 55°C, 1000 [mA] L80B10 > 135 000h 55°C, 1000 [mA] L70B10 > 135 000h 55°C, 1000 [mA]			

¹ Lifetime of LEDs as declared by the manufacturer [CREE LED®](#) according to [IEC 62717:2014](#)
² External heatsink required.
³ According to [Eye safety Cree document](#)

➤ **OPTICAL CHARACTERISTICS**

	2200K 5-STEP	2700K 3-STEP	3000K 3-STEP	4000K 3-STEP
Nominal Module Lumen Output ¹ @ 4,5W / I _{LED} = 700mA	548 lm	639 lm	664 lm	701 lm
Nominal Efficacy ¹ @ 4,5W / I _{LED} = 700mA	136 lm/W	158 lm/W	165 lm/W	174 lm/W
Nominal Module Lumen Output ¹ @ 6,8W / I _{LED} = 1000mA	754 lm	880 lm	915 lm	965 lm
Nominal Efficacy ¹ @ 6,8W / I _{LED} = 1000mA	126 lm/W	147 lm/W	153 lm/W	162 lm/W

¹Source performance in real-life conditions at T=85°C without heatsink.

➤ **FEATURES**

Application:

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

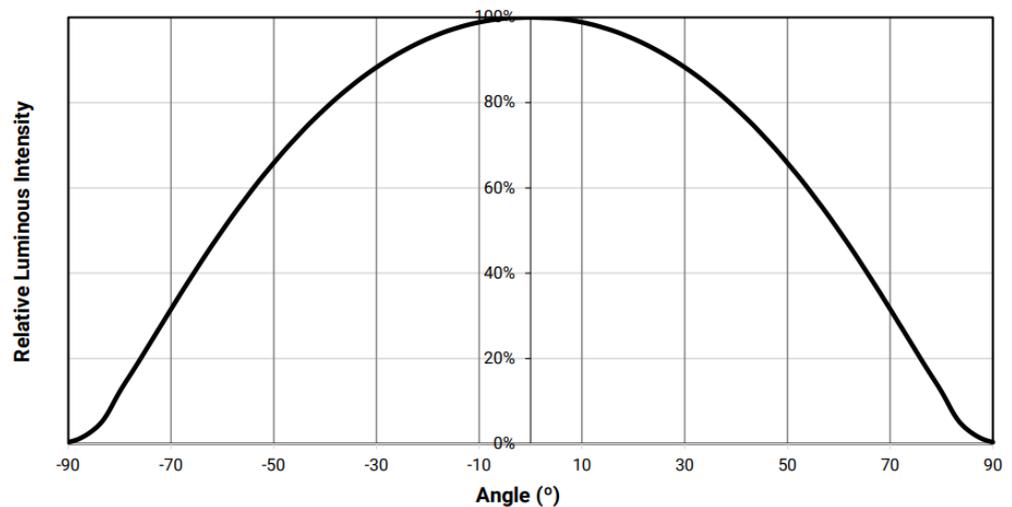
Features:

- ❖ The module is dimmable by DALI system
- ❖ Long Lifetime
- ❖ Energy Saving

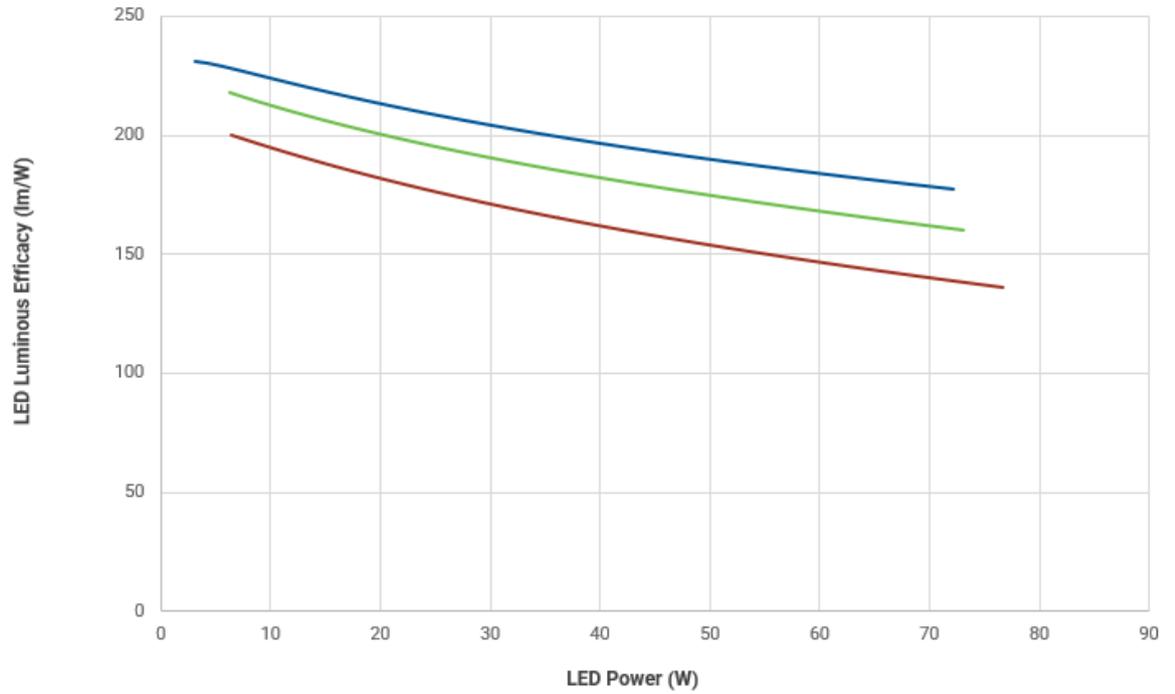
	2200K		2700K		3000K		4000K	
EPREL Database link								
QR CODE								
	2641061	2641065	2641068	2560699	2414395	2417449	2641075	2641076
	4W	6W	4W	6W	4W	6W	4W	6W



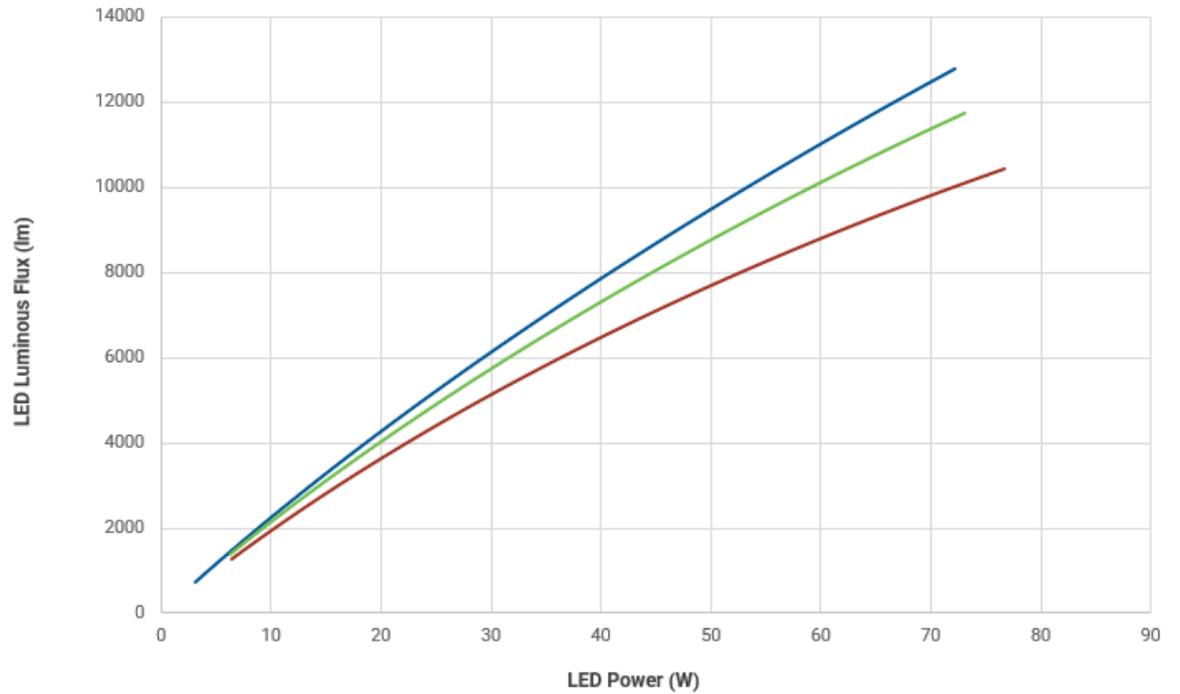
➤ **TYPICAL SPATIAL DISTRIBUTION**



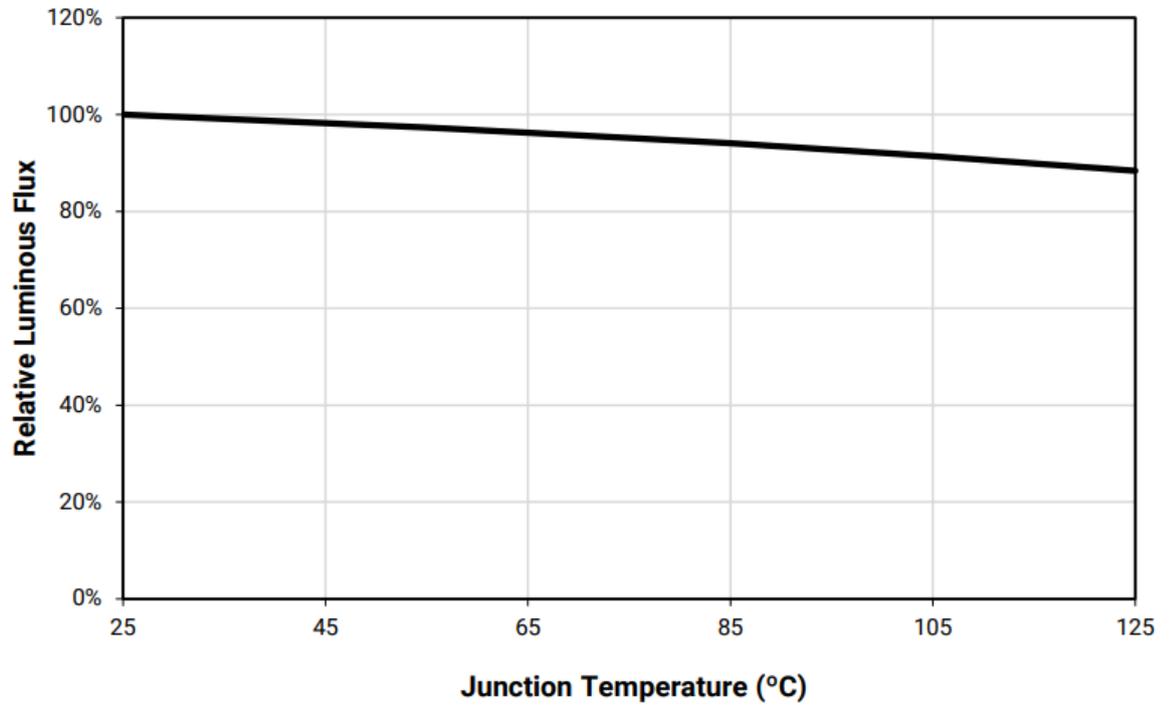
➤ **LUMINOUS EFFICACY VS. CURRENT**



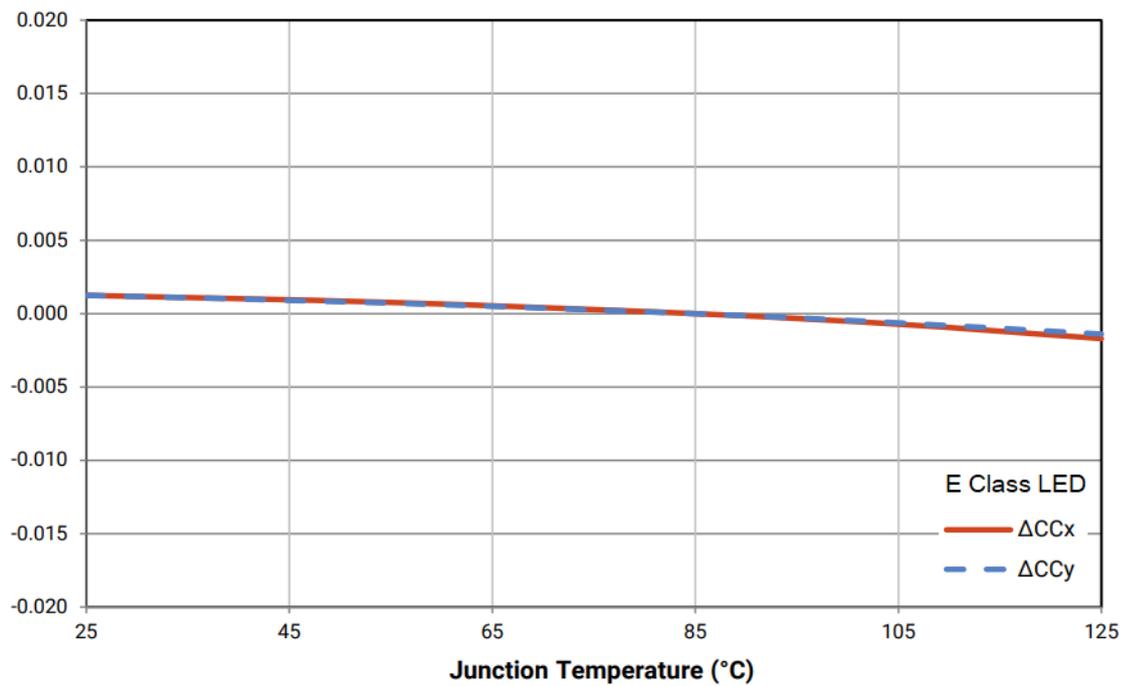
➤ **LUMINOUS FLUX VS. CURRENT**



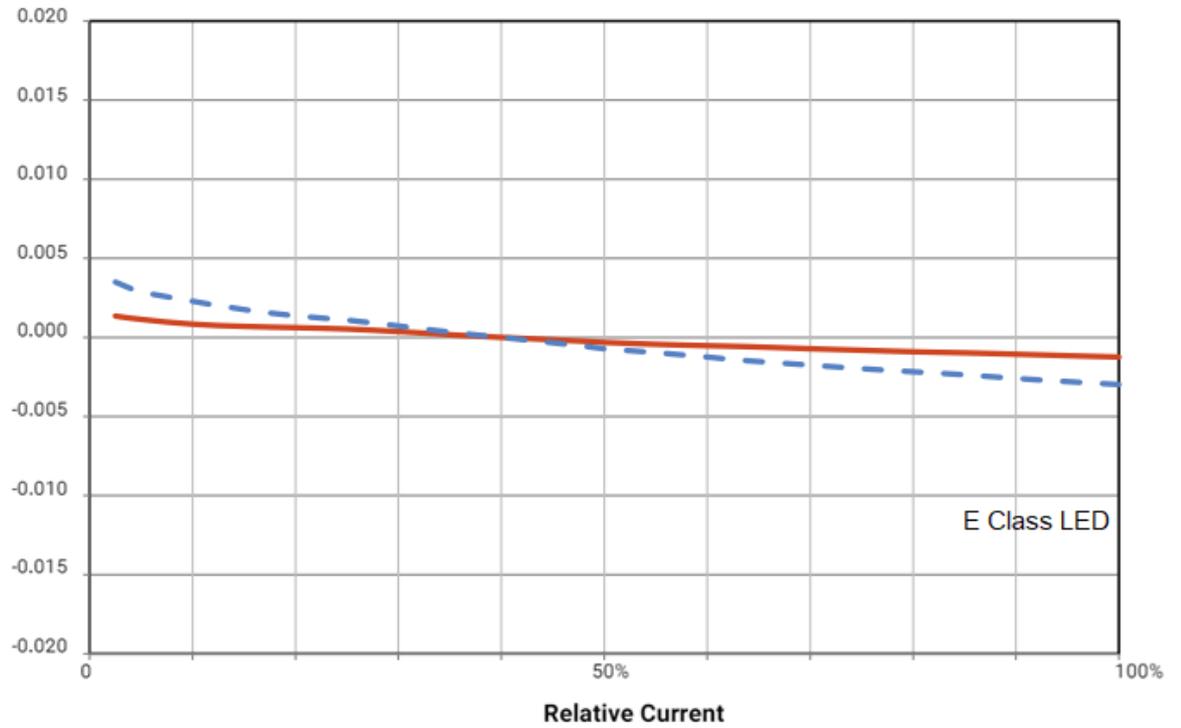
➤ LUMINOUS FLUX
VS.
JUNCTION
TEMPERATURE



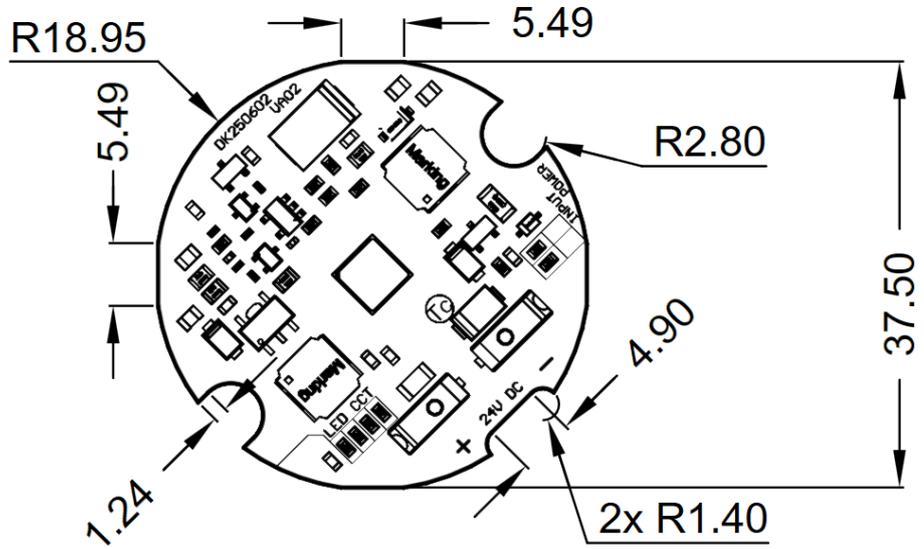
➤ RELATIVE
CHROMATICITY VS.
TEMPERATURE



➤ **RELATIVE CHROMATICITY VS. CURRENT**



➤ DIMENSIONS



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

MECHANICAL SPECIFICATION	
Dimensions	37.5 X 37.5 mm
Board Thickness	1.0 mm
Board Material	MCPCB, 1060 Alloy, 1.5 W/(m*K), white soldermask
Shape	Circular

➤ 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).



➤ **ORDERING CODE**

ORDERING CODE / ARTICLE CODE	DESCRIPTION
MOD-NRL-1CW-DK250602-2200K-4W	Module MCPCB Niviss, CREE JR5050C 6V, 2200K, CRI 80, 5-STEP, 24 V DC, ~ 4,5 W, WAGO 2059-301, dimmable version via PWM and DALI signals, low in-rush current
MOD-NRL-1CW-DK250602-2200K-6W	Module MCPCB Niviss, CREE JR5050C 6V, 2200K, CRI 80, 5-STEP, 24 V DC, ~ 6,8 W, WAGO 2059-301, dimmable version via PWM and DALI signals, low in-rush current
MOD-NRL-1CW-DK250602-2700K-4W	Module MCPCB Niviss, CREE JR5050C 6V, 2700K, CRI 80, 5-STEP, 24 V DC, ~ 4,5 W, WAGO 2059-301, dimmable version via PWM and DALI signals, low in-rush current
MOD-NRL-1CW-DK250602-2700K-6W	Module MCPCB Niviss, CREE JR5050C 6V, 2700K, CRI 80, 5-STEP, 24 V DC, ~ 6,8 W, WAGO 2059-301, dimmable version via PWM and DALI signals, low in-rush current
MOD-NRL-1CW-DK250602-3000K-4W	Module MCPCB Niviss, CREE JR5050C 6V, 3000K, CRI 80, 5-STEP, 24 V DC, ~ 4,5 W, WAGO 2059-301, dimmable version via PWM and DALI signals, low in-rush current
MOD-NRL-1CW-DK250602-3000K-6W	Module MCPCB Niviss, CREE JR5050C 6V, 3000K, CRI 80, 5-STEP, 24 V DC, ~ 6,8 W, WAGO 2059-301, dimmable version via PWM and DALI signals, low in-rush current
MOD-NRL-1CW-DK250602-4000K-4W	Module MCPCB Niviss, CREE JR5050C 6V, 4000K, CRI 80, 5-STEP, 24 V DC, ~ 4,5 W, WAGO 2059-301, dimmable version via PWM and DALI signals, low in-rush current
MOD-NRL-1CW-DK250602-4000K-6W	Module MCPCB Niviss, CREE JR5050C 6V, 4000K, CRI 80, 5-STEP, 24 V DC, ~ 6,8 W, WAGO 2059-301, dimmable version via PWM and DALI signals, low in-rush current
Customer Modules on request	

➤ **COMMERCIAL INFORMATION**

COMMERCIAL INFORMATION	
Connector	2059-301/998-403
Minimum Order Quantity	100 pcs.
Warranty	2 years
Power Supply (DALI)	PWM-60-24DA2 PWM-120-24DA2 PWM-200-24DA2

➤ **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 \(CE\)](#)