

LightMAX

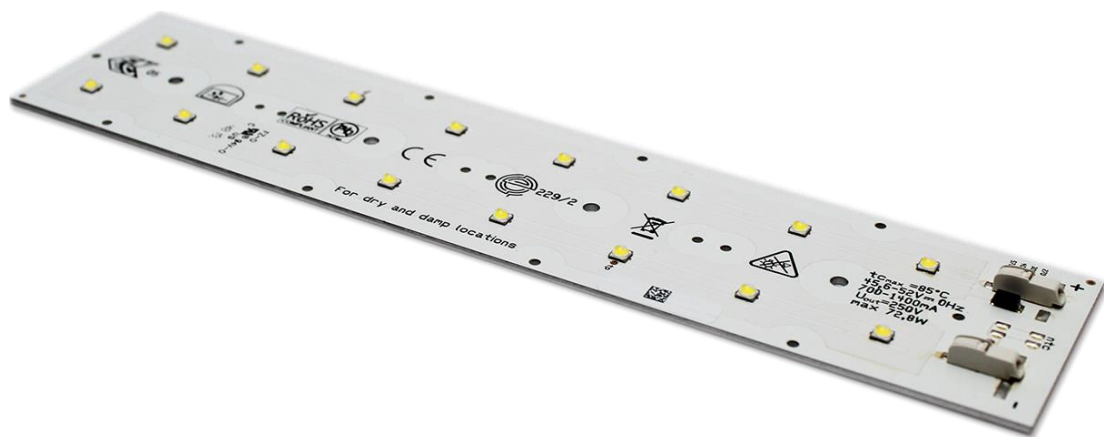
R0229

2x8 power LED module



7 YEARS
WARRANTY

CC CONSTANT
CURRENT



FEATURES

- PCB dimension: 220x50mm
- Up to 6827 lm
- Up to 150 lm/W
- CRI 70
- Max Electrical Insulation 250V
- Max 5 LED boards in series
- Connection type: 2060 series 1 pole
- Lifetime > 72000h @ 1050mA 55°C
- NIC available on request
- [Available with Osram Oslon Square LEDs \(code: R0444\)](#)

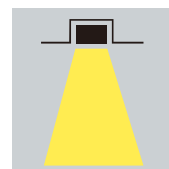
APPLICATIONS



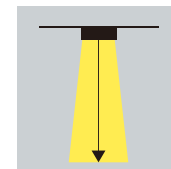
Street



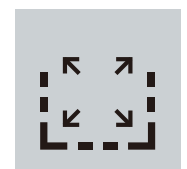
Industrial



Downlight



High Bay



Area

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Code	CCT	CRI	Current [mA]	Voltage [V]	Power [W]	Total Lumen [lm]	Lm/W	Energy Efficiency
R0229012770	2700K	70	70C	46.1	32.2	4758	147	D
			1050	47.3	49.6	6706	135	D
R0229013070	3000K		70C	46.1	32.2	4843	150	D
			1050	47.3	49.6	6826	138	D
R0229014070	4000K		70C	46.8	32.7	4848	148	D
			1050	47.8	50.2	6827	136	D
R0229015070	5000K		70C	46.8	32.7	4848	148	D
			1050	47.8	50.2	6827	136	D

 *Lux tolerance +/- 10%
 **Voltage tolerance +/- 5%

Ask for more information about available LED and other options.

LED and board features	
LED number	16
LED type	3535
Circuit	SI6
Material	Aluminium
Solder	White
Connections	
Cable	N/A
Connector	Wago 206C
Power	
Ass. Max. input current CC	2000mA
Mechanical Data	
H x L	220x50 mm
Thickness	5.9 mm
Conditions	
Max. temp. (T _o)	90°C
Max. temp. (T _c)	85°C
Operating temp. Range	35°C - 180°C

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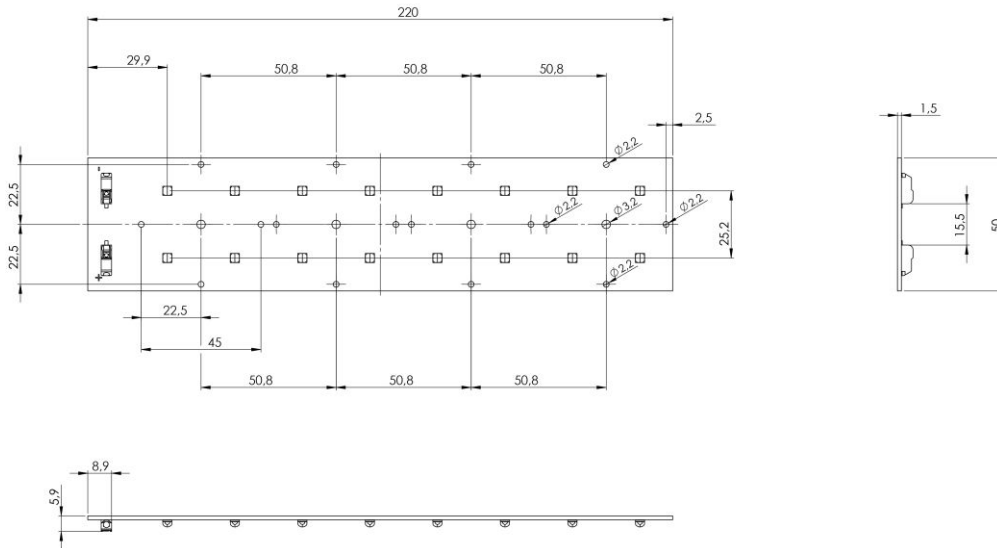
2x8 power LED module



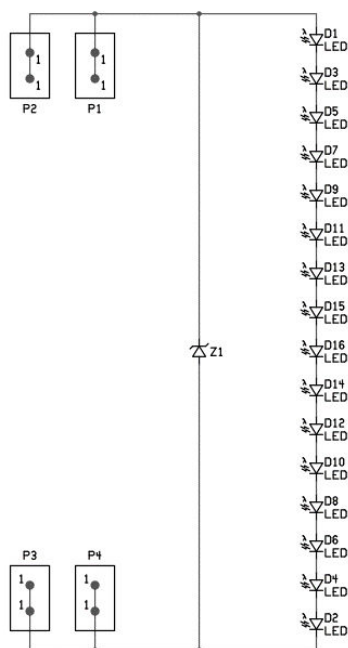
7 YEARS WARRANTY

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MECHANICAL DRAWING



ELECTRICAL CIRCUIT



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Accessories: *LedLink Optics lens*

7 YEARS WARRANTY



CC CONSTANT CURRENT



Specifications: BXJ series	
View Angle (Fwhm)	60°/90°/45°x155°/95°x165°/65°x165°/80°x150°
Material	L02: PC LEV 700 L19: PC 1250Z L52: PC 2180T
Type	4 in 1
Efficiency	88% ~ 93%
Operating Temperature	-40°C ~ 110°C



Specifications: CEC series	
View Angle (Fwhm)	9°/25°/50°
Material	L06: PMMA 8N
Type	4 in 1
Efficiency	88% ~ 90%
Operating Temperature	-40°C ~ 170°C



Specifications: CFN series	
View Angle (Fwhm)	35°x155°/60°x155°/70°x150°/90°x150°/10°x150°
Material	L06: PMMA 8N / LC2: PC LEV170CK
Type	4 in 1
Efficiency	88% ~ 91%
Operating Temperature	PMMA: -40°C~+70°C / PC: -40°C~+110°C



Specifications: CGM series	
View Angle (Fwhm)	85°x35°
Material	L02: PC LEV700K
Type	4 in 1
Efficiency	91%
Operating Temperature	-40°C~+110°C



Specifications: CXE series	
View Angle (Fwhm)	165°
Material	L19: PC L-25CZ100
Type	4 in 1
Efficiency	> 90%
Operating Temperature	-40°C~+110°C

ASSEMBLY AND SAFETY INFORMATION

Installation must be carried out under observation of the relevant regulations and standards. The LED modules are designed for operation within a casing or luminaire. Installation must be carried out in a voltage-free state (i.e. disconnected from the mains).

The following advice must be observed; non-observance can result in the destruction of the LED assembly modules, fire and/or other hazards.

- o Consider safety regulations acc. EN 60598 in the luminaire design, especially when the operating LED driver is not galvanically isolated.
 - In mode of operation regard to sufficient isolation.
 - Live parts must not be touched in operation mode. Danger of life!
- o ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
- o Adequate anti-static electricity measures, including the use of conductive shoes, ionizers, work bench grounding, wrist straps, flooring and stools should be used.
- o LED assembly modules must not be subjected to any undue mechanical stress, e.g.:
 - do not treat as bulk cargo
 - avoid shear and compressive forces during handling and installation
 - do not damage circuit paths
 - avoid any pressure on the light emitting surface
- o Safe operation only possible by the use of external constant current sources (max. see table 'Electrical Characteristics').
- o Operation only with power supply units that feature the following protection:
 - Short circuit protection
 - Overload protection
 - Overheating protection
- o The module can be fixed with M3 screws. Fixation only with flat or cylinder head screws (M3) (no countersunk screws) Max. torque: 1.2 Nm (M3)
- o Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- o For interconnection the LED modules is equipped with push-in terminals (WAGO 2050).
- o Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceed the permitted touchable value.
- o The following points must be observed when connecting LED modules in parallel:
 - All LED strings that are wired in parallel must contain the same number of LEDs (symmetrical loading).
 - Owing to differing forward biases, there can be a difference of up to 10% in brightness between modules connected in parallel.
- o To ensure problem-free operation, the specified maximum temperature at the tip point (see 'Operating Life') must be observed (and measured in accordance with EN 60598-1). To satisfy this point, it may be necessary to put measures in place to ensure any heat is dissipated from the PCB to the environment.
- o In the event of outdoor applications or applications in damp locations, care must be taken to protect LED assembly modules against humidity, splashes and jets of water. Any corrosion/damage resulting from humidity or contact with condensation will not be recognized as a defect or manufacturing fault. LED assembly modules are not specially protected against foreign bodies or dust. Depending on the type of application, further protection must be ensured to prevent dust and foreign bodies from entering.
- o Due to the manufacturing process, the PCBs of the LED assembly modules can have sharp edges and corners. Care must therefore be taken during handling and installation to avoid injury.
- o For optimal load of used constant current driver the modules can only be connected in series. The quantity of LED modules is limited by the sum of forward voltage and the capacity of used constant current driver. Safety regulations acc. to EN 60598 has to be observed if the sum of forward voltage exceed the permitted touchable value.
- o Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure.
- o The photobiological safety of the LED modules must be classified into risk groups in accordance with IEC / TR 62778; risk group 1 (except FB, 6500 K, > 500 mA; risk group 2)

APPLIED STANDARDS

IEC / EN 62031
LED modules for general lighting – Safety specifications

IEC / TR 62778
Application of IEC 62777 for the assessment of blue light hazard to light sources and luminaires