



Lumistrips

DATASHEET

VIOLET1200 UVC LED LIGHT 280NM 4100MW 48 LEDS 7DEG 48V 116W 118.6CM 3M
CABLE

SKU: 44451.20

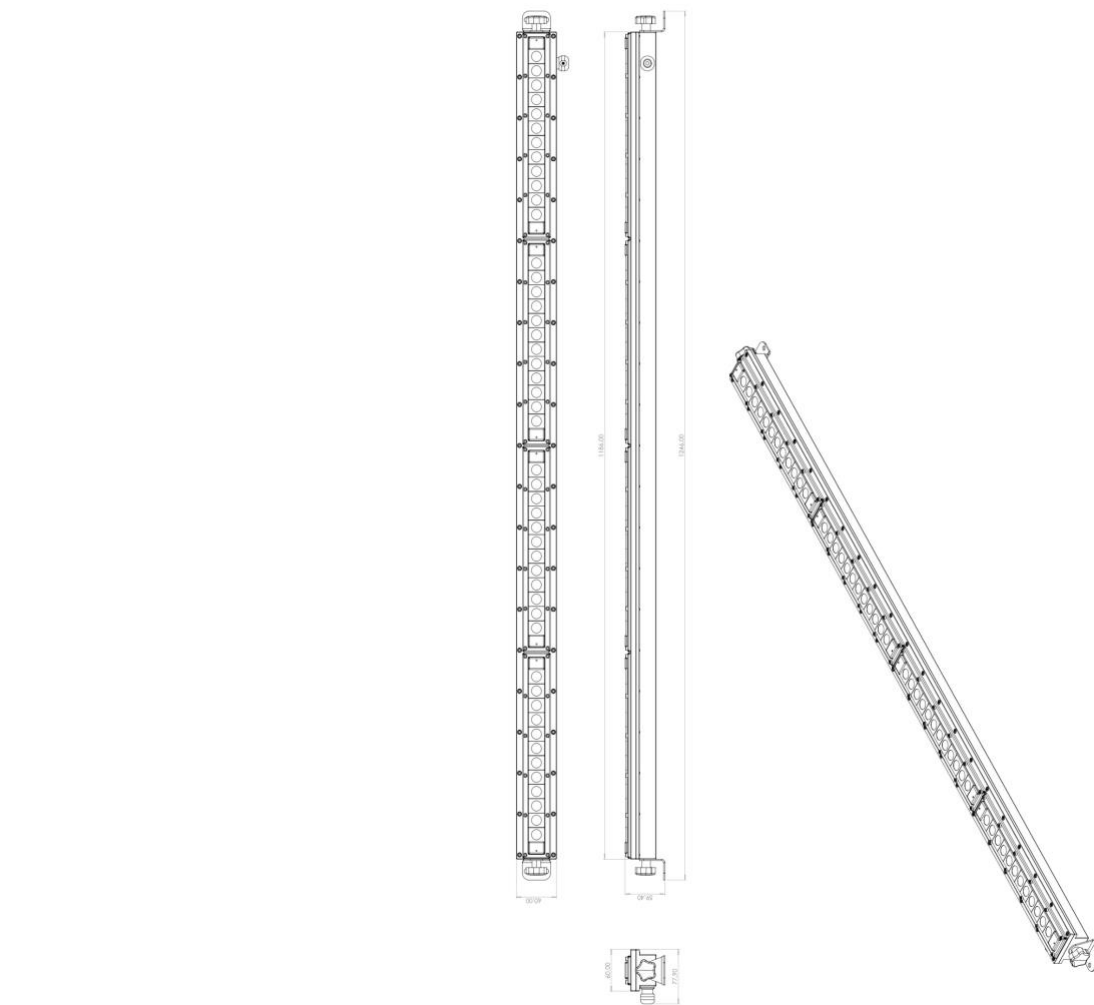


Article number (SKU)	44451.20	
Product name	Violet1200 UVC LED Light, 280nm, 4100mW, 7°, 48 LEDs, 3m cable	
Classification	Professional UV-C fixture	
Model identifier	Violet1200 / approx. 1186 mm optical body	
Optical data (reference conditions)		
Light colour	UVC	
Dominant wavelength	280 nm	
Radiant power	4100 mW @ Tc = 60 °C	
Beam angle FWHM	7°	
Typical LED lifetime / >70% flux	On request	
Electrical data		
Operating mode	Constant voltage	
Input voltage	30-50 V DC (48 V nominal)	
Input current	<2400 mA @ 48 V	
Power	<116 W @ 48 V	
Standby consumption	0.1 W	
Dimming / control	PWM + remote ON/OFF	
Electrical connection	3 m cable, open ends, 3 x 1.5 mm²	
Dimensions / mechanical data		
Overall length	1246 ± 2 mm	49.055 in
Width	77.9 ± 1 mm	3.067 in
Height	59.4 ± 1 mm	2.339 in
Weight	Not specified in supplied Violet1200 material	
Number of LEDs	48	
Heat dissipation	Free convection through housing	
Housing	Hard-anodized aluminium, 30 µm	
Optic	Stainless-steel frame / silicone optic	
Temperatures / humidity		
Operating temperature at Tc	-40 °C to +60 °C	
Ambient temperature	-40 °C to +35 °C	
Storage temperature	-40 °C to +80 °C	
Humidity	Max. 90%, non-condensing	
Approvals / protection		
CE / RoHS / REACH	Yes	
EN 62471 risk group	RG3	
IP rating	IP65	
Electrical protection class	III (SELV)	
Version		
Date	11 September 2026	

Notes: radiant power, beam angle and irradiance are simulation-derived values in the family datasheet and are specified with ±20% tolerance where applicable.



MECHANICAL DRAWING



Dimensions are in millimetres. The drawing applies to the Violet200 housing and standard mounting hardware.

MANUFACTURING INFO



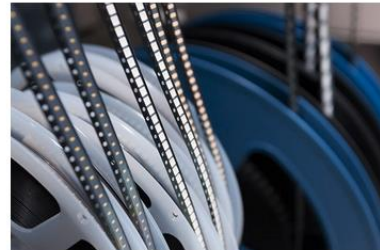
We develop and manufacture LED modules, strips and integrated lighting assemblies in Hechingen, Germany, drawing on more than 20 years of experience in LED technology.



Our capabilities cover UV LED modules, optics, thermal design, control electronics and complete protected assemblies, with support from development and prototyping through to series production.

CUSTOM DEVELOPMENT AND SUPPORT

- Custom Violet200 options can include wavelength, optical distribution, supply/control interface and mechanical integration, subject to technical feasibility.
- Development support covers UV LED selection, optical simulation, thermal design, electronics and system integration.



Our manufacturing capabilities include surface-mount assembly, mechanical integration and final product assembly for protected LED fixtures. The production process is selected to suit the product design and volume.

PRODUCTION QUALITY

- Laser marking for product identification and traceability
- Solder paste inspection before component placement
- Automated component placement
- Controlled reflow soldering
- Three-dimensional automated optical inspection

Manufacturing management systems: ISO 9001 for quality, ISO 14001 for environmental management and ISO 45001 for occupational health and safety. These certifications apply to the manufacturing centre; product approvals are listed separately in the technical data.

UV LED SELECTION AND PERFORMANCE

Violet200 fixtures are configured by wavelength and optical system. This datasheet covers SKU 44451.20 with 280 nm UVC LEDs and the 7° optical distribution.

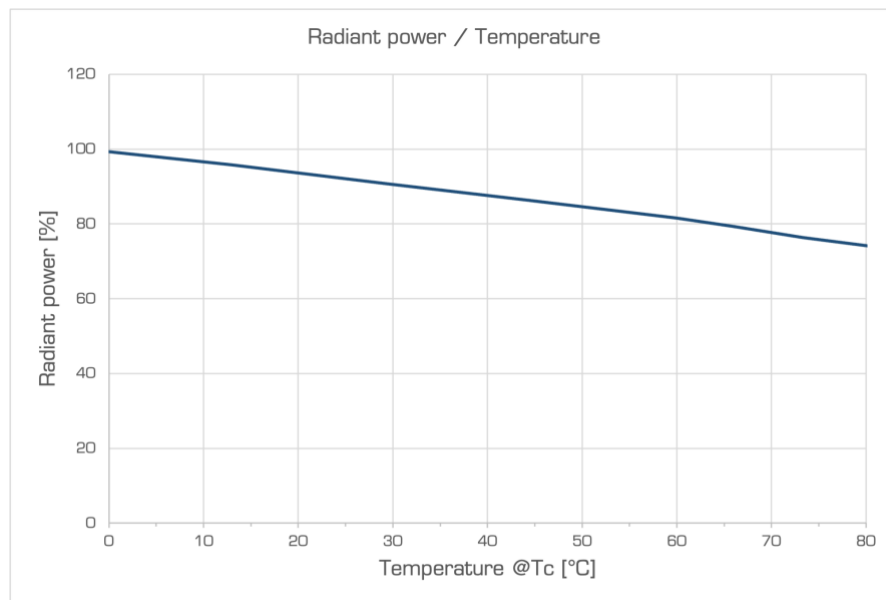
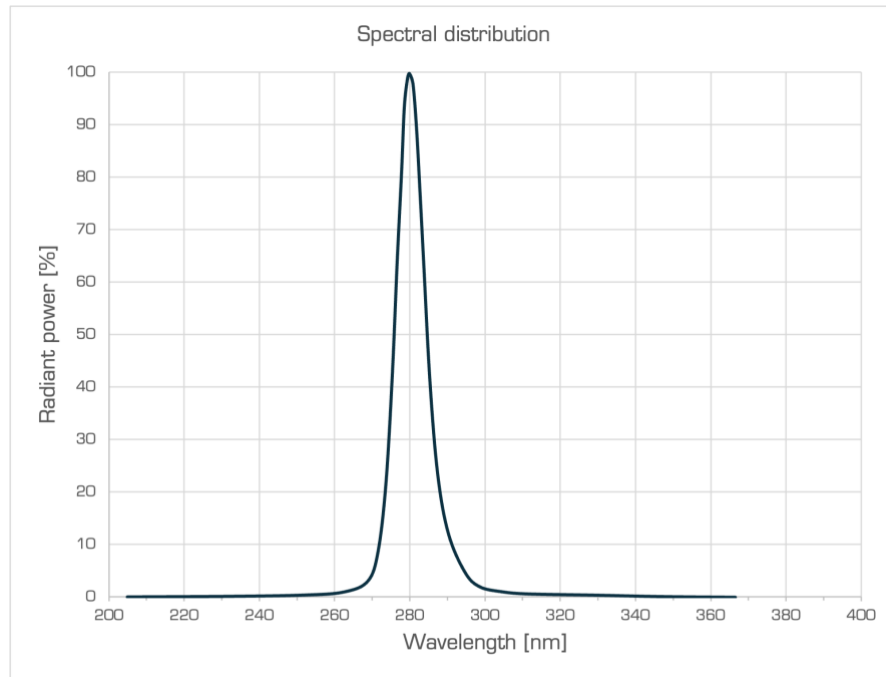
- Radiant power: 4100 mW at $T_c = 60^\circ\text{C}$.

VIOLET1200 UVC LED LIGHT 280NM 4100MW 48 LEDS 7DEG 48V 116W 118.6CM 3M CABLE

- Beam angle: 7° FWHM.
- Typical L70 lifetime: on request.
- Installed irradiance depends on distance, temperature, alignment and the final application geometry.

OPTICAL PERFORMANCE - 280 NM

The wavelength-dependent graphs on this page apply to the 280 nm Violet200 variants. The irradiance values shown below are the values for SKU 44451.20.



Maximum irradiance, simulated at Tc = 60°C

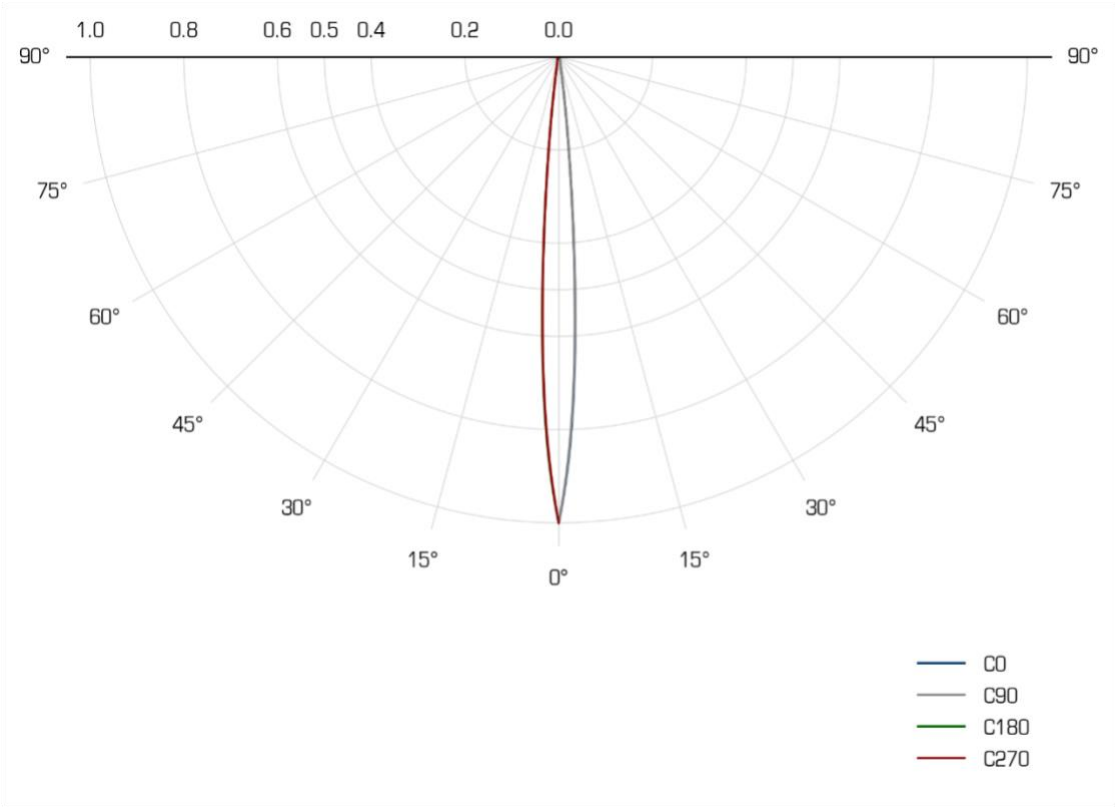
Distance	250 mm	500 mm	1000 mm	1500 mm
Max. irradiance	29.80 mW/cm ²	7.45 mW/cm ²	1.86 mW/cm ²	0.83 mW/cm ²

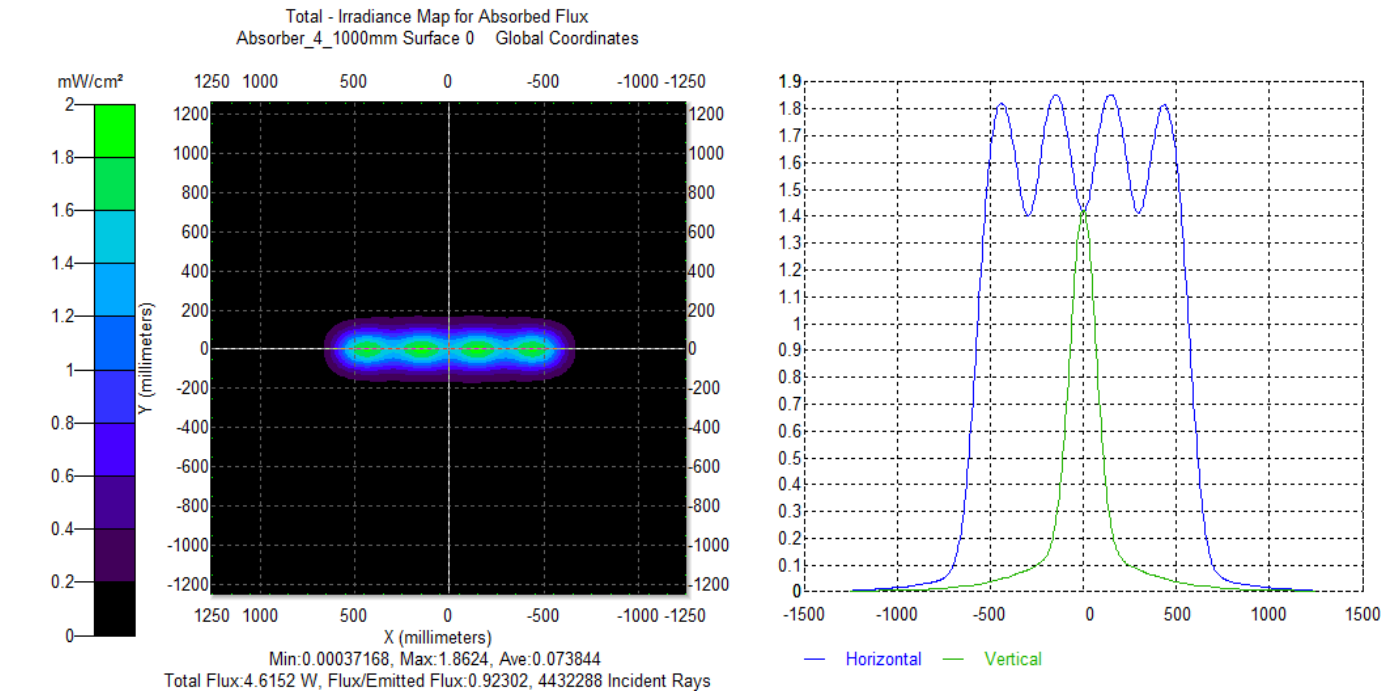
1000 mm value from the supplied SKU-specific irradiance map; other distances use inverse-square scaling.

Source note: wavelength and lifetime data are based on LED manufacturer data; simulation-derived optical values are specified with ±20% tolerance in the family datasheet.

OPTICAL DISTRIBUTION - SKU 44451.20

Only the 7° polar distribution and irradiance simulation relevant to SKU 44451.20 are included here. Optical figures for the other Violet1200 variants are intentionally omitted.





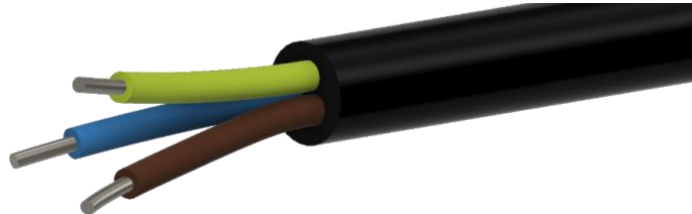
ELECTRICAL CONNECTION, PWM AND T_c

PWM DIMMING & ON/OFF CONTROL:

REMOTE ON/OFF [DIM]	If not used: Insulate; do not connect.
	Power ON with dimming: > 2.5 – 5 V DC or open.
	Power OFF: Vin < 0.8 V DC or GND
PWM frequency [DIM]	100 Hz – 1 KHz
Quiescent current [DIM]	2 mA with PWM OFF @ 48 V

Cable assignment 3x 1,5 mm², 3 m

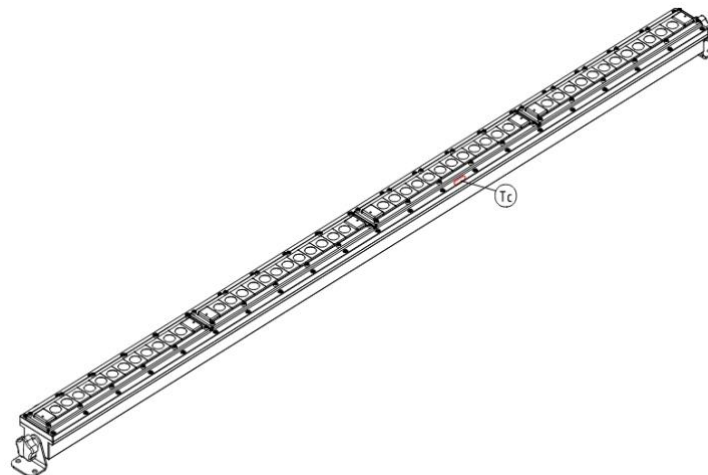
- Brown: +Vin
- Blue: GND (-)
- Green/Yellow: DIM



If the DIM conductor is not used, isolate it and leave it unconnected. Power ON with dimming when the DIM input is >2.5-5 V DC or open; power OFF when the DIM input is <0.8 V DC or connected to GND.

Supported PWM frequency: 100 Hz to 1 kHz. Quiescent current at DIM when PWM is OFF: approximately 2 mA @ 48 V.

T_c is measured at the centre of the housing front, next to the optic, as indicated in the source drawing above.



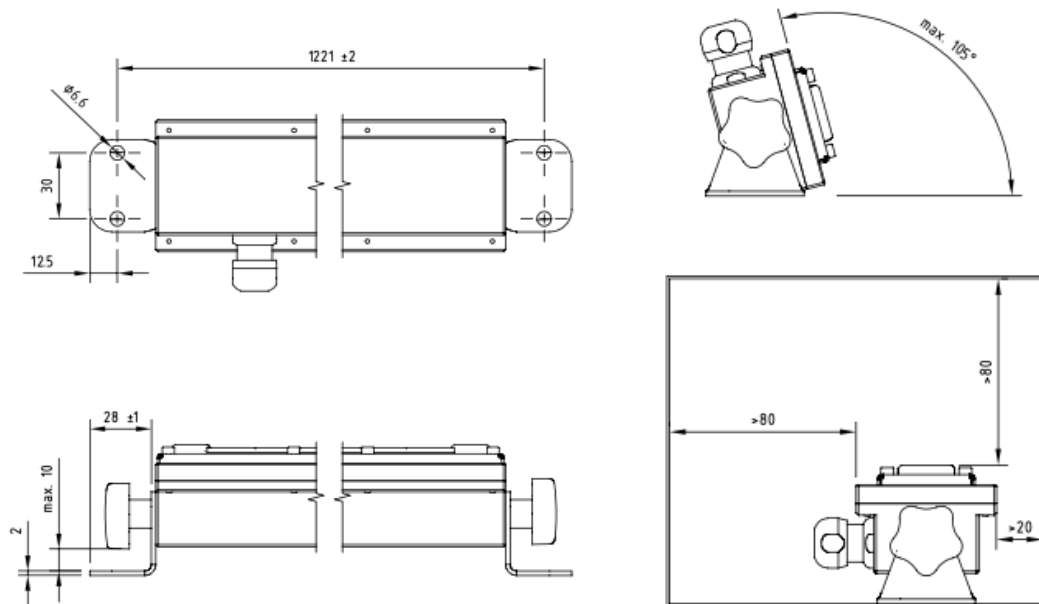
POWER SUPPLY SELECTION

Use an electronically regulated DC supply within the 30-50 V input range. At the nominal 48 V reference, input current is <2400 mA and total input power is <116 W. The supply must provide short-circuit, overload and overtemperature protection.

MOUNTING AND MECHANICAL INTEGRATION

The adjustable mounting brackets allow the fixture to be aimed through approximately 105° . Maintain sufficient clearance around the housing for free convection and do not obstruct the optical window or the Tc measurement area.

Overall length with standard mounting hardware is approximately 1246 mm. The commercial Violet1200 designation refers to the approximately 1186 mm light-body length.



Housing: hard-anodized aluminium. Screws, star knobs and mounting brackets: stainless steel. Cable jacket: silicone. Optical frame: stainless steel; optic: silicone.

HANDLING, INSTALLATION AND UV SAFETY



Hazardous ultraviolet radiation - Risk Group 3.

- Operate the fixture only with the shielding, access control, interlocks and personal protective measures required for the application.
- Avoid direct, unprotected viewing of the optics or LEDs and prevent skin exposure.
- Disconnect the supply before installation, wiring, adjustment or service. Installation must be performed by a qualified electrician in accordance with applicable standards.
- Do not mechanically stress the fixture, optical window, cable or internal components. Do not overtighten fixings or bend the housing.
- Avoid aggressive chemicals during storage and operation. Maximum specified humidity is 90% non-condensing.
- The fixture is rated IP65; the complete installation must still be assessed for the intended environment and cleaning process.
- Before operation, check polarity, DIM wiring, cable termination, mounting, aiming, shielding and safety interlocks.

DOCUMENT INFORMATION

This individual datasheet is based on the supplied Violet200 mechanical drawings, wavelength-specific optical-performance graphics, shared viewing-angle data for the 7° optic, and the SKU-specific 1000 mm irradiance simulation for SKU 44451.20. Only values directly supplied or explicitly derived from those materials are included.

We reserve the right to make technical changes.

ORDERING AND PRODUCT INFORMATION

www.ledrise.eu / www.lumistrips.com