

QLUXUVCL1524W6LED275

Copper Core 6LED Linear UVC Board



| | |
|---------------------------|--|
| Package | Copper Core PCB |
| Chip Technology | AlGaIn based flip chip |
| Typ. Radiation | 120° |
| Peak Wavelength | λ_{peak} 275 nm (ultraviolet UV-C) |
| ESD | 5 kV |
| Radiant Flux | 31.2mW (typ.) @ 60mA |
| Radiant Efficiency | typ. 2.9% |

The compact UV-C LED is part of the OSRON UV Series. It offers high efficiency in high power class.

FEATURES

- Copper core PCB with low thermal resistance
- Chip technology: AlGaIn based flip chip
- Typ. Radiation: 120°
- Color: peak = λ_{peak} 275nm (ultraviolet (UV-C))
- ESD: 2kV acc. to ANSI/ESDA/JEDEC JS-001 (HBM)
- Radiant Flux (typ.) 31.2mW
- Radiant Efficiency typ. 2.9%
- OSRAM UVC LED

APPLICATIONS

- Agriculture
- Horticulture
- UV-C Treatment
- Disinfection
- Water Treatment
- Industrial Applications

MODEL SPECIFICATIONS

| Model | Total radiant flux |
|----------------------|-----------------------|
| QLUXUVCL1524W6LED275 | 31.2 mW (typ.) @ 60mA |

RECOMMENDED DRIVER

| Model | Input Voltage | Output Voltage | Output Current |
|------------------|----------------------|----------------|----------------|
| DS2W060C0522B5ND | 120-277V 50/60 Hz | 05-22V | 60mA |

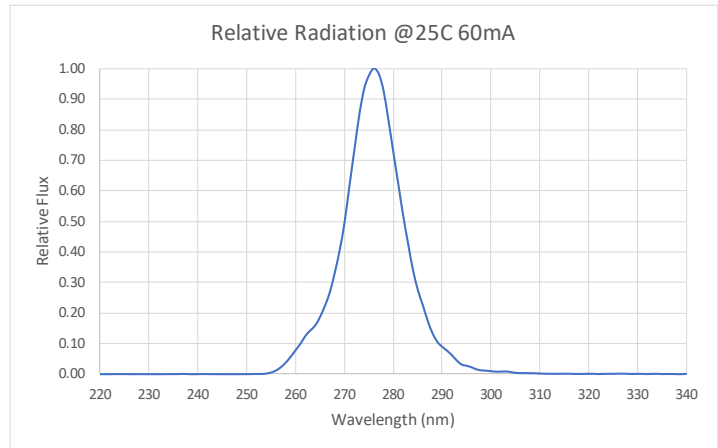
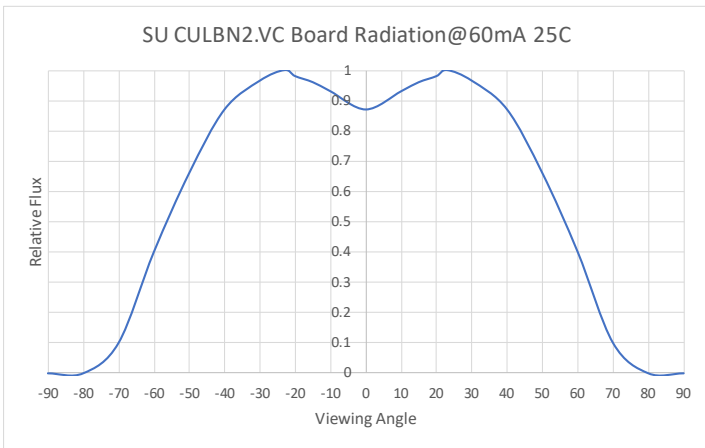
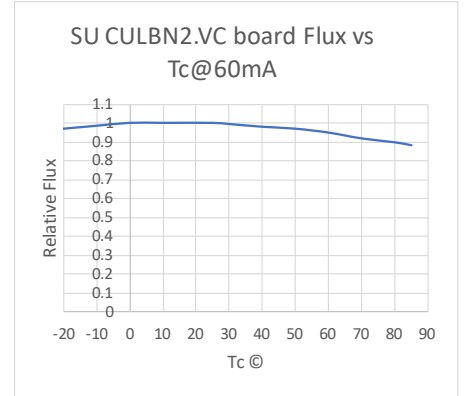
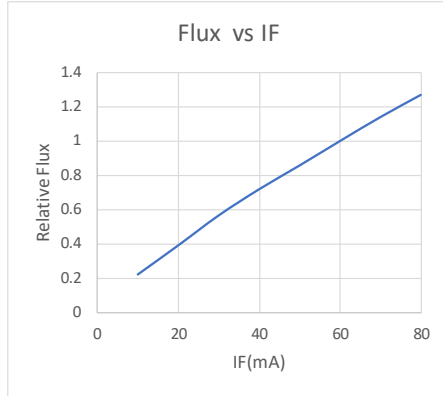
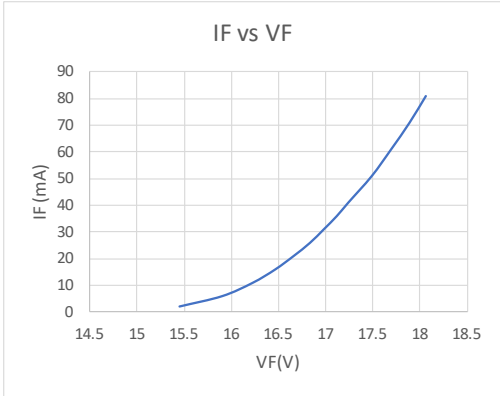
UV-C MAXIMUM RATINGS

| Parameter | Symbol | | Values |
|---|-----------|------|---------|
| Operating Temperature | T_{op} | min. | -40°C |
| | | max. | 60° C |
| Storage Temperature | T_{stg} | min. | -40°C |
| | | max. | 100°C |
| Junction Temperature | T_j | max. | 85°C |
| Forward current $T_s=25^\circ\text{C}$ | I_F | min. | 1.00 mA |
| | | max. | 80.0 mA |
| Surge Current $T_s=25^\circ\text{C}$ | I_{FS} | max. | 100 mA |
| ESD withstand voltage acc. to ANSI/ESDA/JEDEC JS-001 (HBM) | V_{ESD} | | 5 kV |
| | | | |

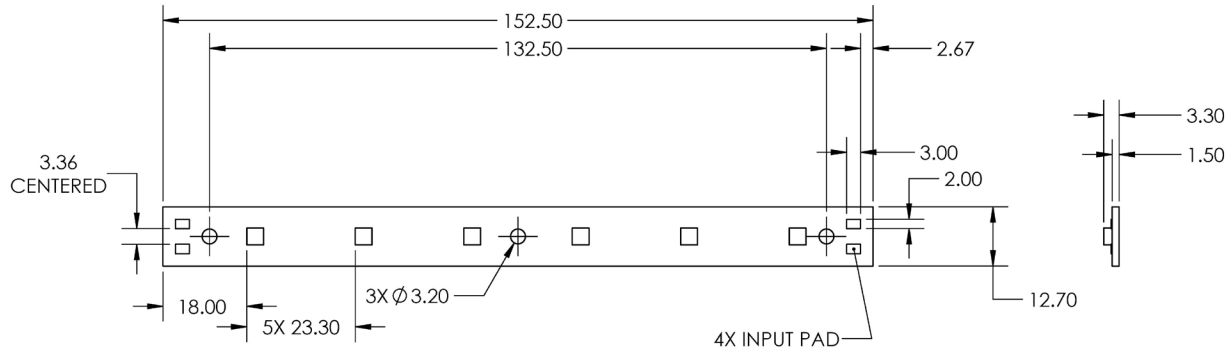
CHARACTERISTICS

$I_F=60\text{ mA}; T_s=25^\circ\text{C}$

| Parameter | Symbol | | Values |
|---|------------------|------|----------|
| Peak Wavelength | λ_{peak} | min. | 270 nm |
| | | typ. | 275 nm |
| | | max. | 280 nm |
| Viewing angle at 50% Iy | 2ϕ | typ. | 120° |
| Forward Voltage ³⁾ | V_F | min. | 15.50 V |
| | | typ. | 17.50 V |
| | | max. | 19.50 V |
| Real thermal resistance junction/solderpoint ₄₎ | $R_{thJS\ real}$ | typ. | 40 K / W |
| Electrical thermal resistance junction/solderpoint with efficiency $\eta_e=2.72\%$ | $R_{thJS\ real}$ | typ. | 38 K / W |
| | | | |



MECHANICAL SPECS



Notes

The evaluation of eye safety occurs according to the standard IEC 62471:2006 (photo biological safety of lamps and lamp systems). Within the risk grouping system of this IEC standard, the device specified in this data sheet falls into high risk group – RG 3. **WARNING - UV emitted from this product. Avoid eye and skin contact to unshielded product.** Subcomponents of this device contain, in addition to other substances, metal filled materials including silver.

Metal filled materials can be affected by environments that contain traces of aggressive substances. Therefore, we recommend that customers minimize device exposure to aggressive substances during storage, production, and use. Devices that showed visible discoloration when tested using the described tests above did show no performance deviations within failure limits during the stated test duration. Respective failure limits are described in the IEC60810.

| | |
|-------------------|--|
| UV-C RISK GROUP 3 | |
| | <p>WARNING UV-C emitted from this product. Avoid eye and skin exposure to unshielded product. Follow installation instructions and user manual.</p> |