

UV LED Panel

Compact LED panel for wide area UV illumination

The correct illumination of an experiment is of crucial importance for optical measurement methods such as digital image correlation (DIC). A continuous (CW) or pulsed white light is often used for this purpose. However, if the specimen has a reflective surface, complex geometry, or undergoes large deformation during the experiment, shadows or reflections may occur on the specimen surface. This can make image evaluation difficult.



An alternative approach to white light illumination is Ultra-Violet (UV) light. When UV light is combined with a matching filter for the camera it is possible to avoid the potential issues described above. In order to use UV light the specimen surface must be prepared with a suitable speckle pattern: this can be achieved with fluorescent paint matched to the light characteristics. UV speckle is robust and stable over time irrespective of the specimen's movement, and through the use of a matched filter, changes in ambient lighting do not affect the image quality.

LaVision's **UV LED Panel** offers a compact light capable of illuminating small or large areas together with matched camera filters and speckle application kit.

Specifications

Length356 mmWidth248 mmHeight2.2 kg

Input voltage 100 to 240 VAC, 50/60 Hz

Power 48 W
Watt per LED 0.25 W
LED quantity 192
Wavelength 405 nm

Wavelength 405 nm constant (CW)

Working distance to sample 30 cm - 400 cm up to 5 m²

Speckled bike helmet



Part number	Description
1103447	UV LED illumination device
1108560	Light filter 532 nm,10 nm
1011149	Green fluorescent paint to apply artificial speckle pattern

Data provided by LaVision is believed to be true. However, no responsibility is assumed for possible inaccuracies or omissions. All data are subject to change without notice.

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