CREATE HIGH-PERFORMANCE UV LED CURING DEVICES

Get more power, greater design flexibility, and better quality cures while using fewer LEDs.

UV LEDs offer many benefits for the industrial curing market, such as greater efficiency and reliability, no infrared heat, compact and flexible designs, and they often can produce a better cure. As a result, new opportunities for UV curing are emerging, with new products and materials that can now be cured with UV light.

To maximize the potential of LEDs, the entire lighting system must be evaluated, including the optics, which can optimize the light emitted from the LEDs. Whether you have an existing UV LED curing device or an idea for an entirely new UV LED fixture, we can design a custom optic that will optimize your UV LED system.

Custom UV Glass Optics Optimize UV LED Curing Devices

Optical components are just one part of the LED lighting system, but they can have a powerful influence on the other components in the system, including the array design, the spacing of the LEDs, the number of LEDs needed, and their direction. Optics should be considered early in the design, as they can improve the overall performance of the LED lighting system.

Optics derive their influence from their ability to capture stray light that otherwise would not be directed to the cure surface. This additional light can be used to increase UV LED irradiance and improve light distribution uniformity, as well as to reduce the number of UV LEDs in the unit or to reduce the drive current while still achieving the desired light output. As a result, cure quality can be improved, and the overall cost of the UV LED light fixture is reduced.

Design Service	Description
Optical Design and Simulation	Whether you have an existing array design or just an idea, we can develop an optical system that maximizes your device output. Our optical engineers: » Design custom optics for existing arrays » Design new LED arrays and optics
Array Simulation and Measurement	Our optical engineers can simulate optical systems for performacnce output and irradiance results
Custom Glass Development	We can develop custom UV glass compositions to optimize transmission in the UV region and when necessary, limit transmission in the visible or IR

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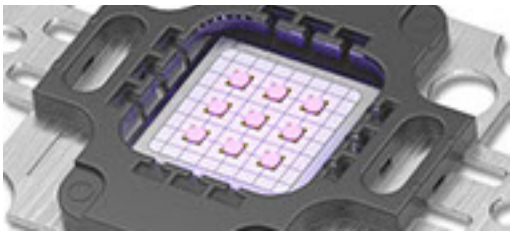
COLLABORATIVE INNOVATION

Results in High-performance UV LED Curing Devices



Our goal is to create fully optimized UV LED systems by designing optics that maximize the amount of energy refracted from the UV LED array to the target surface. To help you create an efficient UV LED system, we need to know your device parameters and your desired performance result. With this information, we can collaborate to refine your UV LED array, design a custom optic and maximize your performance.

Design Parameters	Information Required for a Successful Collaboration
UV LED Information	» Peak wavelength » Drive current » Spectral distribution pattern (SPD) » LED ray file » LED make, model, and manufacturer » Radiant flux » LED chip dimensions
Array Design	2D drawing or 3D model of array pattern, spacing and direction
Desired Performance	What performance specifications do you want? » Irradiance pattern and power » Working distance parameters

CONTACT US AT SOLUTIONS@KOPPGLASS.COM

to learn how to develop fully optimized, high-performance UV LED devices

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