



# UL 8801, Standard for Photovoltaic (PV) Luminaire Systems

Advances in technology and the growing interest in solar solutions have brought photovoltaic (PV) lighting to the forefront of the lighting industry. Examples of practical PV lighting system applications include street lighting, lighting in public areas such as parking lots or campus walkways that do not receive utility service, and remote or rural areas that lack lighting infrastructure.

PV lighting impacts multiple segments in and related to the lighting industry, including:

- Lighting manufacturers that design, brand or bring to market PV lighting systems and components
- Commercial component controls manufacturers who sell to lighting manufacturers
- Infrastructure component controls manufacturers who sell to lighting and controls brands for roadway, pedestrian right of way and building area lighting

UL 8801 defines the safety considerations and criteria for evaluating systems that include PV modules for gathering energy, batteries for storing that energy, LED luminaires to illuminate an area, and controls to manage the interaction among the module, battery and luminaire. The UL 8801 requirements address the relevant installation and operational issues from Article 690 for PV systems, Article 710 for stand-alone systems, Article 480 for storage batteries, and Article 411 for low-voltage lighting.

Instead of relying on separate certifications for each component and evaluating their mutual compatibility, UL 8801 establishes a path to evaluate and certify the combination as a system.

UL services include safety testing to help manufacturers manage the safety risks at a level comparable to that of other lighting equipment currently subject to the National Electric Code® and code authorities oversight.

Our experienced engineers have the expertise to evaluate simple or complex systems and help the industry safely and effectively deploy these technologies.

**Contact us at [lightinginfo@UL.com](mailto:lightinginfo@UL.com) or 1-877-UL-HELPS for a quote or to discover how UL can help code authorities learn more about PV testing and certification.**



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