

STANDARD INFORMATION

Standard: UL 8801

Standard ID:

Photovoltaic (PV) Luminaire Systems [ANSI/CAN/UL 8801:2022 Ed.1]

Previous Standard ID:

Outline of Investigation for Photovoltaic (PV) Luminaire Systems [UL SUBJECT 8801:2021 Ed.3]

Outline of Investigation for Photovoltaic (PV) Luminaire Systems [UL SUBJECT 8801:2021 Ed.2]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **June 15, 2024**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

All products are required to be certified to the 1st edition of UL 8801 prior to the effective date.

Overview of Changes:

3rd edition of Outline of Investigation

- Revisions to the temperature test methodology
- New requirements for reliance on battery management systems for the thermal safety of lithium ion batteries.

1st edition of UL 8801

- Revisions to level of protection against rain entry

Specific details of new/revise requirements are found in table below.

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown lined-out below.</i>
		The following changes reflect the 3rd edition of the Outline of Investigation
7	Info	Construction
7.4	Info	Batteries
		<i>New clause added;</i>
7.4.5		For a system with a replaceable lithium ion battery, the battery replacement marking (see clause 9.6) shall specify only a comparable battery with an integral battery management system (BMS). If the lithium ion battery is not replaceable, the BMS circuitry is permitted to be integral with the battery or another portion of the system.
8	Info	Performance
		<i>New section added;</i>
		Temperature Test
8.1		Where individual system subassemblies, when installed, are physically separated from one another so as to have no significant thermal interaction, it is permitted to conduct the Temperature Test on those subassemblies without the system being assembled as in service. See standard for details.
		<i>New section added;</i>
		Battery Management System Temperature Protection Performance
8.4		This test validates whether the battery management systems (BMS) de-activates charging or discharging when the battery temperature falls outside the manufacturer's specified thermal range for charge and discharge, per 7.4.7. See 8.4.7 for systems that use supplemental heating or cooling for battery temperature management. See standard for details.



CLAUSE	VERDICT	COMMENT
The following changes reflect the 1st edition of UL 8801		
Annex A	Info	Systems with Supplemental Power Connections
A.2	Info	Supplemental Battery Charging
A.2.2		The supply connection to the class 2 power source shall be made in accordance with NFPA 70, Chapter 3 or CSA C22.1, Section 12. If the class 2 power supply is of the plug-in type, the system shall include a 15 A, 120 V receptacle that is in turn connected in accordance with NFPA 70, Chapter 3 or CSA C22.1, Section 12. The class 2 power source and any associated receptacle shall be fully housed within a suitably rated weather resistant (Type 4 or IP65 <u>Type 3R or IP54</u> , or equivalent) enclosure. All exposed conductive surfaces of power sources not identified as having double insulation shall be grounded in accordance with the applicable requirements of NFPA 70 or CSA C22.1.
A.3	Info	Supplemental Luminaire Power
A.3.2		The supply connection to the power source shall be made in accordance with NFPA 70, Chapter 3 or CSA C22.1, Section 12, as applicable. If the power supply is of the plug-in type, the system shall include a 15 A, 120 V receptacle that is in turn connected in accordance with NFPA 70, Chapter 3 or CSA C22.1, Section 12. The power source and any associated receptacle shall be fully housed within a suitably rated weather resistant (Type 4 or IP65 <u>Type 3R or IP54</u> , or equivalent) enclosure. All exposed conductive surfaces of power sources not identified as having double insulation shall be grounded in accordance with the applicable requirements of NFPA 70 and CSA C22.1.