

STANDARD INFORMATION

Standard Number: UL 153
Standard Name: Portable Electric Luminaires
Standard Edition and Issue Date: 13th Edition Dated March 3, 2014
Date of Revision: July 27, 2018
Date of Previous Revision of Standard: January 20, 2017

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **July 27, 2020**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: A review of all Listing Reports is necessary to determine which products comply with new/revise requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revise requirements.

Overview of Changes:

- Excluding Work Lights and Hand Lights with Batteries from UL 153
- Portable Luminaires with Separately Packaged Power Supply
- Damage to Internal Wiring
- Portable Luminaires with Integral Plant Platform ("Plant Lamp")
- Grounding and Polarization of Interconnected Unit Load Connectors
- Receptacle Covers for Wet Location Portable Luminaires

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

If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).

Client Action:

Information – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revise paragraphs noted in the attached or explain why these new/revise requirements do not apply to your product (s).

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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.



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CLAUSE	VERDICT	COMMENT
		<i>Additions to existing requirements are underlined and deletions are shown lined out below.</i>
1	Info	Scope <i>New clause added;</i>
1.5		Work lights and portable hand lights that include primary or secondary battery packs are within the scope of the Standard for Flashlights and Lanterns, UL 1576.
8	Info	Assembly and Packaging When wires pass through a joint between sections of a portable luminaire that are separable for packing purposes, the <u>wires exposed at the joint prior to assembly shall contain no splices.</u> During assembly, the joint shall either: be such that rotation of one section with respect to the other during the assembly of the sections is limited to not more than 360 degrees. Friction alone does not meet the intent of the requirement to prevent rotation. <u>a) Be limited, by threads or mechanical interference or similar, to no more than 360 degrees of rotation; or</u> <u>b) Comply with the Power Supply Cord Twist Test, Section 157.</u> Exception: When all of the following conditions exist, rotation between sections of a portable luminaire is not limited to 360 degrees: a) The internal diameter of the tubing through which the wires pass is 1/2 inch (12.7 mm) or more or the Power Supply Cord Twist Test, Section 157 is conducted with acceptable results; and b) The rotation during assembly is limited to not more than one revolution for each 3 inches (76 mm) of unobstructed tubing length through which the wires pass, when such rotation does not place any stress on the conductors; and c) The conductors do not involve splices unless the splices are: 1) Inaccessible during assembly in accordance with Accessibility of Live Parts, Section 23; and 2) Secured and provided with strain relief that has been shown to be reliable and not easily defeated by the user. <i>New section added;</i>
20A		Plant Luminaires
20A.1		General



CLAUSE	VERDICT	COMMENT
20A.1.1		A portable luminaire intended to support or contain a plant shall be additionally evaluated for compliance with this section. This intent and the applicability of this section is to be determined by the design of the product, the use instructions, or the claims of the producer.
20A.1.2		For the purpose of this Standard and in the context of clause 1.1, plant hosting is considered a “task”. However, a portable luminaire may provide ambient lighting in addition to this task lighting.
20A.1.3		Luminaires intended for horticulture and commercial-scale plant growth operations are not within the scope of this standard. Such luminaires, whether portable or fixed, are subject to evaluation for potential photobiological risks generated by the light output bandwidths and intensities associated with plant growth. Portable luminaires subject to the requirements of this section are limited to those intended for a residential setting where the plant in question is a peripheral and small scale use of the space, and where hazardous levels of UV, blue, or infrared light are not anticipated.
20A.2		Resistance to moisture
20A.2.1		If the intended use of the portable luminaire involves introducing water (or other liquids) in the vicinity of any parts operating above Class 2 voltage limits for wet locations, the portable luminaire shall be evaluated for compliance with the Resistance to Moisture Test, Section 161.
20A.3		Resistance to chemicals
20A.3.1		User instructions shall be reviewed for all chemical agents (fertilizers, soil or water supplements, or similar) that the manufacturer identifies as eligible for use with the portable luminaire. If the degradation of any portable luminaire materials could result in increased risk of fire or electric shock injury when exposed to these agents, at least one of the following mitigations are required: a) The material(s) shall be evaluated and determined to be adequately resistant to the degrading effects of the agent(s). b) The luminaire design and user instructions shall provide sufficient guidance to preclude exposure of the material(s) to the agent(s).
20A.3.2		If either mitigation (a) or (b) from 20A.3.1 is applicable, the instructions shall also provide guidance for detecting early indications of material degradation and steps to either arrest further development (i.e., stop using certain agents) or to halt all use of the portable luminaire.
20A.4		Lamp replacement



CLAUSE	VERDICT	COMMENT
20A.4.1		If the portable luminaire has a user-replaceable light source, the user instructions shall provide guidance for acquiring a suitable replacement light source. This is in addition to the lamp replacement markings of Sections 201 – 205, as applicable. The instructions shall include the statement “Replace only with a light source of similar spectral bandwidth emissions”, or similar wording. A statement referring to a specific light source (i.e., catalog number) provided by the producer and designed for the same spectral output is a permitted alternative to this statement.
29	Info	Wiring Attached to Movable or Flexible Parts
29.1		<p>Internal wiring <u>within or attached to a movable or a flexible part that is capable of being bent in a manner that could damage the insulation or break internal strands shall be stranded, and shall be secured so movement does not cause insulation damage or strain at connections or splices.</u></p> <p>a) Stranded; and b) Secured so that: 1) The wiring is not cut or abraded; and 2) There is no strain or motion at the connections.</p> <p>Examples of constructions where this requirement applies are enclosed swivel joints or where a sharp bend occurs in a wire or cord between two points of restraint less than 6 inches (152 mm) apart.</p>
33	Info	Interconnected Units
		<i>New clause added;</i>
33.5.1		Load-side receptacles and connectors that provide branch-circuit supply to interconnected units shall be wired to provide the same grounding or polarity as the attachment plug.
34	Info	Alternate Power-Supply Connections
34.1		A portable luminaire that is intended to be used in countries other than the United States, the configuration of the with a detachable cord is permitted to use an attachment plug of alternative configuration when shall conform with the standards of the country in which the product is intended to be used and shall be provided with instructions in accordance with 218.8.
	Info	WORK LIGHTS – SUPPLEMENTARY
125	Info	General
		<i>New clause added;</i>
125.9		A work light with an integral or separable battery pack is not within the scope of this Standard. See 1.5.
132	Info	Construction – Electrical
132.3	Info	Receptacles



CLAUSE	VERDICT	COMMENT
132.3.1		A portable luminaire provided with a <u>load-side connector</u> or convenience receptacle shall be provided with a <u>self-closing cover water shield that is hinged, tethered, or otherwise permanently attached to the luminaire.</u>
	Info	PORTABLE HAND LIGHTS – SUPPLEMENTARY
136	Info	General
		<i>New clause added;</i>
136.5		A portable hand light with an integral or separable battery pack is not within the scope of this Standard. See 1.5.
157	Info	Power-Supply Cord Twist Test
157.1	Info	General
157.1.1		A portable luminaire with a <u>joint capable of more than 360 degrees of rotation during assembly, per 8.4(b), power supply cord passing through a section of tubing or an interconnecting fitting with a diameter less than 1/2 inch (12.7 mm) in accordance with the Exception to 8.4 shall be tested by assembling the unit as intended and rotating the cord as described in 157.2. Where multiple separable joints are involved, each shall be individually tested.</u> Compliance criteria is described in 157.3.
157.2	Info	Method
157.2.1		<u>The maximum amount of rotation permitted is to be determined by assembling the portable luminaire per the instructions. The power supply cord external to the tubing is to be secured 1 inch (25 mm) from the point where the cord emerges from the tubing or interconnecting fitting. The tubing or fitting is then to be twisted at least two full rotations (720 degrees), or to the maximum number of rotations permitted by the assembly, which ever is greater.</u>
		<i>New clause added;</i>
157.2.2		With the joint unassembled, the power supply cord is to be firmly grasped 1 inch (25 mm) from where it emerges from the separated joint. The tubing through which the cord passes is then to be rotated in one direction the maximum amount permitted by the assembly, and held there for 10 seconds, while the emerged supply cord is held in a fixed position. After releasing, the test is then to be repeated by rotating the other half of the joint the maximum amount permitted by the assembly, again while firmly holding the emerged supply cord 1 inch (25 mm) from where it emerges.
186	Info	Rain and Sprinkler Tests
186.2	Info	Test method – general



CLAUSE	VERDICT	COMMENT
186.2.3		A portable luminaire with a <u>load-side</u> connector or <u>convenience</u> receptacle intended for interconnection of additional lighting units in accordance with 132.2 shall have <u>the water shield required by 132.3.1 in place a cord set plugged into the connector</u> for the duration of the test. <u>For an interconnected unit, the test shall be repeated with a cord set plugged into the connector if the water-excluding features of the water shield are different than those of the mating attachment plug.</u>
199	Info	Non-Integral Power Supply
199.1		<p><u>Per the exception to 8.2, a portable luminaire intended for connection to a separately packaged non-integral power supply shall be marked in Form B-5, "For use with _____ power supply." The blank is filled with either the manufacturer and model number. The separately packaged power supply shall be marked in Form A-1 with:</u></p> <p>a) <u>Portable Luminaire Power Supply;</u> b) <u>Electrical rating of secondary circuit in volts and amperes;</u> c) <u>For use with _____ portable luminaire. The blank is filled with the manufacturer and model number. If the power supply is intended to supply more than one portable luminaire, the blank shall also indicate the maximum number and wattage of each portable luminaire.</u></p> <p>a) <u>the power supply manufacturer and model number, or</u> b) <u>"Class 2, _____ V, max _____ W". Amps (A or mA) may be marked instead of Watts (W).</u></p>
	Info	INSTRUCTIONS
218	Info	General
218.8	Info	Attachment plugs complying with foreign standards
218.8.1		A product provided with an <u>detachable cord and alternative attachment plug configuration</u> in accordance with 34.1 shall be provided with instructions to <u>identify conform with the standards of the country(ies) for in which the product is intended to be used.</u>
CUSTOMERS PLEASE NOTE: This Table and column "Verdict" can be used in determining how your current or future production is or will be in compliance with new/revised requirements.		