

**Title:** HOUSEHOLD LIGHTINGS (UL 962)  
(Paper Lamp, Liquid Bubble Lamp)

**Protocol No.:** KOHL'S-316-J Tier 1/Tier 2/Tier 3

Test Property	Test Method	Samples	Test Principle / Requirements	Rating (Section or exec. Summary which failed items can be referenced)
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LABELING				
Labeling / Packaging Review	FPLA 16 CFR 500 & 19 CFR 134	All	Should be legibly marked with the following information: <ul style="list-style-type: none"> <li>- Distributor's name, trademark or other means of identification of the manufacturer or packer &amp; address (City, State &amp; Zip)</li> <li>- Product identification</li> <li>- Net quantity of the contents in terms of weight, measure or numerical count (Metric &amp; US Standard) or a combination so as to give accurate information and facilitate value comparison by the consumer</li> <li>- Country of origin (if imported)</li> </ul>	
Verify Label Claims	Visual Check	All	The labeling must comply and valid with all claims.	
FCC Labeling	FCC	All	Must be listed if product is a digital device with power consumption > 6nW; and with clock frequency greater than 9 kHz for AC operated item (or greater than 1.705MHz for battery operated item).	
Regulatory Listing Mark	Visual Check	1	Should have valid NRTL Listing mark , e.g. UL , ETL or equivalent	
Import Permit (For Natural Materials Only) If Applicable	US Department of Agriculture Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ)	All	Product shall not have prohibited materials present per US Department of Agriculture, Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ)  Documentation and/ or proper permit(s) for specific product shall be supplied along with Testing Request form and samples.  Permit information may be found at: <a href="https://www.aphis.usda.gov/wps/portal/aphis/home/">https://www.aphis.usda.gov/wps/portal/aphis/home/</a>  It is the vendor's responsibility for the compliance to relevant requirements.	
Adult Tracking Label: **If space limitations exist, contact Kohl's Quality Assurance & Product Integrity teams to discuss minimum required information <a href="mailto:MR.QA.PI@kohls.com">MR.QA.PI@kohls.com</a>	Kohl's Requirement	All	Can be included on packaging when necessary: Kohl's Assigned Factory Number Manufacture Date (Month/Year) UPC #	

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<b>MARKING AND INSTRUCTIONS</b>				
Instructions	UL 962 Section 72	1	Shall provide written instructions regarding use, safety and maintenance	
NRTL Listing Symbol	Visual Check	All	Yes/No?	
Mfr.'s Name, Trademark	UL 962 Section 67	All	Required	
A Distinctive Catalog Number or the Equivalent	UL 962 Section 67	All	Required	
The Electrical Rating	UL 962 Section 67	All	Required	
Date Code	UL 962 Section 67	All	Required	
The Index of Smoke Developed	UL 962 Section 67	All	Required	
The Marking for General-Use Receptacle	UL 962 Section 67	All	Required	
The Marking for Cord-Routing Channel	UL 962 Section 67	All	Required	
Symbol or Words of Class II Appliance	UL 962 Section 67	All	Required if complied with the requirements of double-insulated furnishings (sub-clause 17.1.1 Exception)	
Marking for Interconnected Units	UL 962 Section 69	All	Required	
Marking for Permanently Connected Furnishings	UL 962 Section 70	All	Required	
<b>CONSTRUCTION</b>				
Frame and Enclosure	UL 962 Section 10.1	1	Shall be formed and assembled so that it has the strength, stability, and rigidity required to resist the abuses to which it is subjected without introducing a risk of fire, electric shock, or injury to persons	
Enclosures and Guards	UL 962 Section 10.2	1	Shall provide protection to reduce the risk of injury	
Doors or Covers	UL 962 Section 10.6	1	Shall be hinged or otherwise attached in an equivalent manner	
Protection Against Corrosion	UL 962 Section 11	1	Iron and steel parts shall be protected against corrosion by enameling, galvanizing, plating, or other equivalent means	
Accessibility of uninsulated Live Parts and Film-Coated Wire	UL 962 Section 12	1	Shall be enclosed per accessibility probe	
Permanently Connected Furnishing	UL 962 Section 9.1	1	Shall be provided with means for permanent connection to the supply	

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Dimension of the Lead	UL 962 Section 9.1	1	Shall not be smaller than No. 18 AWG (0.82 mm <sup>2</sup> ) and sized based on the rated current of the furnishing	
Dimensions of the Wire-Binding Screw at a Wiring Terminal	UL 962 Section 9.1	1	Shall not be smaller than No. 10 (4.8 mm diameter)	
Color of the Grounded Conductor	UL 962 Section 9.1	1	Shall be in white or natural gray color, and shall be readily distinguishable from other leads	
Length of a Lead	UL 962 Section 9.1	1	The free length of a lead located inside an outlet box or field-wiring compartment and intended for field connection to a branch circuit shall not be less than 6 inches (152 mm)	
Cord-connected Furnishing	UL 962 Section 9.2	1	A furnishing intended to be connected to the power-supply circuit by means of a flexible cord shall be provided with a flexible cord and an attachment plug for connection to the supply circuit	
The Rating of the Receptacle Provided by a Furnishing	UL 962 Section 9.2	1	Shall be provided with 12 AWG (3.3mm <sup>2</sup> ) cord when the product is rated 20 amp or 14 AWG (2.1 mm <sup>2</sup> ) cord when the product is rated 15 amp or less	
Type of the Power Supply Cord	UL 962 Section 9.2	1	For used in commercial: shall be at least of the type intended for hard usage: SJ or SJT; For household use, shall be at least type SPT-2, SPE-2 or the equivalent	
Length of the Cord	UL 962 Section 9.2	1	Where the cord exits the furnishing at a height >3 feet, the cord length: 9 -15 feet. Where the cord exits the furnishing is < 3 feet, the cord length : 5-10 feet	
Strain Relief	UL 962 Section 9.5	1	A strain-relief means shall be provided so that mechanical stress placed on a flexible cord or flexible conduit is not transmitted to terminals, splices, or internal wiring. It shall be subject to the applicable tests described in Section 29, Strain-relief tests	
Bushing	UL 962 Section 9.6	1	Shall be smooth, rounded surface against, and shall be secured in place	

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Grounding and Bonding	UL 962 Section 14.1	1	A furnishing of one or more of the following types shall have provision for grounding: a) A furnishing for use in commercial establishments b) A furnishing intended to be used on a circuit operating at more than 150 volts to ground; c) A furnishing intended for permanent connections to the electrical supply; d) A cord-connected motor-operated furnishing; e) A furnishing having a metal part not intended to be electrically live that is accessible using the probe in Figure 12.1 and that is able be inadvertently energized	
Grounding Identification	UL 962 Section 14.2	1	Shall be marked "G", "GR", "Ground", or "Grounding", or by a marking on wiring diagram provided on the furnishing	
Internal Wiring	UL 962 Section 17	1	The wiring and connection between parts within a furnishing shall be enclosed, and routed away from sharp edges, screw thread, burrs, fins, moving parts, drawers	
Switches and Controls	UL 962 Section 25	1	Shall have a current and voltage rating not less than that of the load that it controls	
Manually-operated Motor-Control Switch	UL 962 Section 25	1	Shall be provided in a cord-connected motor- operated furnishing that employs a motor rated more than 1/3 horsepower (250W output)	
Receptacles	UL 962 Section 24	1	A 15- or 20 –ampere, nominal 120 volt, general-use attachment-plug receptacle in a furnishing shall be the grounding type; a general purpose receptacle rated for use on a nominal 120 volt circuit shall be of a polarized type	
Motors	UL 962 Section 22	1	Shall be capable of handling the maximum normal load of the furnishing without a risk of fire, electric shock, or injury to persons and shall comply with UL 1004, Standard for Electric Motors. A motor winding shall resist the absorption of moisture	
Overload Protection	UL 962 Section 22	1	A motor-operated furnishing shall incorporate thermal or overload protection in accordance with 23.2.2	
Capacitors	UL 962 Section 20	1	Shall be located within an enclosure or container that protects the plated against mechanical damage and reduces the risk of the emission of flame or molten material resulting from malfunction or breakdown of the capacitor	
Lampholders	UL 962 Section 21	1	Shall have all wiring terminations and connections enclosed within the insulating body of the lampholder	
Ballasts	UL 962 Section 19	1	A fluorescent luminaire shall use a Class P ballast.	
Spacings	UL 962 Section 18	1	Electrical spacing to dead metal shall be 3/64 inch (1.2 mm)	

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Flammability of Material (for commercial furnishings)	UL 962 Section 31.3	1	A commercial furnishing that has an individual or mechanically contiguous surface area of 10 square feet (0.93 m2) or more shall have a flame-spread index of 200 or less when tested in accordance with UL 723	
<b>PERFORMANCE</b>				
Snap-fit Cover	UL 962 Section 46	1	25 pounds for 1 min.	
Tightening Torque Test	UL 962 Section 47	1	The tapped thread in a plate not less than 0.30 inch thick are able to be used when the threads do not strip after being subjected to the tightening torque test	
Stability Tests (for commercial furnishings)	UL 962 Section 38	1	Sample is to be loaded with the maximum weight specified in the manufacturer's instruction manual	
Impact (for commercial furnishings)	UL 962 Section 38	1	The point of impact is to be at any location centered along a horizontal line 52 inches above the floor or 4 inches below the top of the furnishing, whichever is lower	
Leakage Current Test	UL 962 Section 49	1	Shall be less than a) 0.5 mA for a 2-wire cord-and-plug connected furnishing; b) 0.5 mA for a 3-wire (including grounding conductor) cord-and-plug connected portable furnishing; c) 0.75 mA for 1 3-wire (including grounding conductor) cord-and-plug connected stationary furnishing	
Starting Current Test	UL 962 Section 50	1	The motor-operated furnishing is to be started three times at room temperature at the beginning of the test	
Input Test	UL 962 Section 51	1	Input shall not be more than 110 percent of the rated value	
Temperature Test	UL 962 Section 52	1	Temperature shall not exceed the applicable values specified in Table 36.1	
Strain Relief Test	UL 962 Section 53	1	35 pounds for 1 min. shall not cause strain on internal conductors	
Grounding-Impedance Test	UL 962 Section 54	1	The impedance shall not be more than 0.1 ohm	
Dielectric Voltage-Withstand Test	UL 962 Section 55	1	Shall not breakdown	
Effects of Humidity	Kohl's TM 30	1	No failure @ 95% RH @ 100° F (38° C) for below defined hours.  Tier 1 Tier 2 / Tier 3 24 hour 48 hours	


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Effects of Extreme Temperature	Kohl's TM 31	1	<p>Tier 1 : 24 Hours @ 30° F (1.1°C) and 24 Hours @ 100° F (37.7°C) - no failure.</p> <p>Tier 2 : 24 Hours @ 0° F (-18°C) and 24 Hours @ 120° F (49°C) - no failure.</p> <p>Tier 3 : 48 Hours @ 0° F (-18°C) and 48 Hours @ 120° F (49°C) - no failure.</p>	
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**ANALYTICAL**

*Lead In Scrapable Surface Coating	ASTM E1613/E1645	1	≤90 ppm (0.009% by weight).	
* CA Prop 65	Refer to Protocol 1300	All	All shall be reviewed against the requirements of California Proposition 65 to determine if additional testing or labeling is required.	
Lead in PVC Power Cord (Test only if No Prop 65 Warning On Package)	EPA SW846 Method #3050	1 Sample	<p>If ≥ 0.020%Pb by weight (200ppm), then the Cal Prop 65 warning should be present</p> <p> <b>WARNING:</b> This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a></p>	

**\*Liquid Toxicity: (Applicable only to Liquid Styles)**

-Propylene Glycol Content	GC/FID	1	Minimum 12.0% Note: Propylene Glycol should be used as antifreeze desired but not required	
-Presence Of Ethylene Glycol (Children's Products)	GC/GCMS	1	16 CFR 1500.231 Must not be present	
-Presence Of Diethylene Glycol (Children's Products)	GC	1	16 CFR 1500.231 Must not be present	
-Methanol (Children's Products)	GC	1	16 CFR 1500.231 Must not be present	
-Mercury (Children's Products)	AAS	1	16 CFR 1500.231 Must not be present	
-Methylene Chloride (Children's Products)	GC/MS	1	16 CFR 1500.231 Must not be present	
-Petroleum Distillates (Children's Products)	GC/MS	1	16 CFR 1500.231 Must not be present	
-Toluene (Children's Products)	GC/MS	1	16 CFR 1500.231 Must not be present	
-Xylene (Children's Products)	GC/MS	1	16 CFR 1500.231 Must not be present	

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-Formaldehyde Content (%)	With Reference to ISO 14184-1 (UV-VIS Spectrophotometer)	1	16 CFR 1500.13 (>1% is considered hazardous / warning required)	
<b>*Microbial Test: (Applicable only to Liquid Styles)</b>				
*Standard Bacteria Count (HPC)	APHA 9215B	300 ml	500 HPC Maximum	
*Coliform Count	APHA 9222B		Must not be present	
*Mould & Yeast	FDA 8th, Rev. A, 1998, Chapter 18		< 1 cfu/mL	

**PRICING AND ADDITIONAL NOTE:**

\*: Additional Charge for This Test

\*\* : It is suggested number of samples required for basic package testing only. It may vary depending on the actual samples and no. of tests that are required for testing. Please consult your nearest laboratory for details.

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Protocol Version	Description of Change	Revised by / Date	Approved by / Date
316-0	Initial Release	CY Chan Feb 20, 2004	Roger Mayerson Mar 08, 2004
316-1	Revise Microbial test – deleted USP 61 changed to Bacteria, Coliform, Mould & Yeast.	Simon Leung May 06, 2004	Bill Stark May 10, 2004
316-2	Update UL 962 to Second Ed..	Simon Leung Dec 20, 2004	Roger Mayerson Dec 20, 2004
316-3	Amend labeling section, to include acceptance of ETL certification	Simon Leung Feb 14, 2005	Roger Mayerson Feb 21, 2005
316-4	Updated the FCC and Prop 65 Warning Labels. Price Adjustment.	Simon Leung Oct. 31, 2008	Ro Jain Oct. 31, 2008
316-5	Added Lead in Solder Test	Elizabeth Armstrong June 8, 2009	Ro Jain June 8, 2009
316-A	Protocol review, update in UL standard revision and clause reference.	Louis Tam Mar 02, 2012	Ro Jain June 27, 2012
316-B	Separate the test line of Prop 65 to supplementary protocol	Winnie Yu Mar 18, 2013	Ro Jain April 15, 2013
316-C	Added tolerance requirements of dimensions and weight Differentiate the performance rating of below test items to Tier 1/Tier 2/Tier 3. Effects of humidity, effects of extreme temperature. Adjusted and aligned package price and individual pricing.	Jeetendra Shelatkar Oct 4, 2013	Ro Jain Dec 16, 2013
316-D	Updated lead content pricing	Candy Chan Jul 30, 2014	Jeetendra Shelatkar Aug 4, 2014
316-E	Renamed all in-house methods	Candy Chan Sep. 4, 2014	Elaine Smaczniak October 30, 2014
316-F	Revised Item “*Lead In Scrapable Surface Coating” from “600ppm” to “90ppm”	Jerry Chen Mar 21, 2016	Jeetendra Shelatkar March 23, 2016
316-G	Updated Prop 65 Labeling – Verbiage	Elizabeth Armstrong June 26, 2018	Elizabeth Armstrong June 26, 2018
316-H	Added import permit and adult tracking label requirements	Elizabeth Armstrong April 22, 2019	Elizabeth Armstrong April 22, 2019
316-I	Updated adult tracking label requirements and contact information	Charlene Swanson July 7, 2020	Charlene Swanson July 7, 2020
316-J	All UL test requirements have been updated. Removed metallic electrical enclosures, electrical enclosures of polymeric material, alternate power supply connections, fuse holder, mechanical strength, impact test, compression test, deflection test, mold stress test, and force (for commercial furnishings).	Charlene Swanson November 4, 2020	Charlene Swanson November 4, 2020

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