


Protocol 309-K				
INCANDESCENT_LIGHTING_FIXTURE_OUTDOOR_UL_1598				
Test Property	Test Method	Samples	Test Principle/Requirements	Rating (Section or Executive Summary which failed items can be referenced)
<b>LABELING</b>				
Labeling / Packaging Review	FPLA 16 CFR 500 & 19 CFR 134	All Samples	Should be legibly marked with the following information:  - Distributor's name, trademark or other means of identification of the manufacturer or packer & address (City, State & Zip) - Product identification - Net quantity of the contents in terms of weight, measure or numerical count (Metric & US Standard) or a combination so as to give accurate information and facilitate value comparison by the consumer - Country of origin (if imported)	
Verify Label Claims	Visual Check	All Samples	The labeling must comply and valid with all claims.	
FCC Labeling & Instructions	FCC Rules	All Samples	Shall comply with the applicable requirements of FCC rules if regulated.	
Marking - Product	UL 1598 1st Sect. 20	All Samples	According to table 20.1.1	
Instructions	UL 1598 Sect. 20.4, 20.5	1 Sample	Shall include Assembly / Mounting Instructions. Shall provide proper wiring instructions.	
Regulatory Listing Mark	Visual Check	1 Sample	Should have valid NRTL Listing mark , e.g. UL , ETL or equivalent	
<b>PHYSICAL CHARACTERISTICS</b>				
Weight Of Components (lbs.)	FPLA/ UPLR	1 Sample	As claimed (+3%/ - 0%); Swag lamps and 4 ft. of chain shall not exceed 30 lbs.	
Dimensions (in.)	FPLA/ UPLR	1 Sample	As Claimed/ measured (+3%/ - 0%)	
Glass Thickness (in.)	UL 1598 Sect.5.16	1 Sample	According to the exposed area of the glass , thickness should be as indicated in table 5.16.2.1 (Except Halogen Lamps.)	
Metal Sheet Thickness For Enclosures (in)	UL 1598 Sect. 5.5	1 Sample	Sheet thickness should be as indicated in table 5.5.1 and 5.5.2.	
<b>CONSTRUCTION QUALITIES</b>				
Kohl's Workmanship Review	Visual Check /Actual Use	1 Sample	- All components shall be provided as claimed and shall not be deformed or fractured. - All hardware shall be provided - All welds shall be smoothly finished and free from pits and splatter - All components shall not contain any burrs or sharp edges (test by touch or sight) - Product shall not contain any loose components or unsecured fastening where rigidity is required	
Base	Visual Check	All Samples	Should provide a smooth base to reduce the likelihood of scratching surfaces.	
Wall Mounting	UL 1598 Sect. 17.15	1 Sample	Mounting hardware should be capable of supporting 4X weight for one hour	
Grounding Conductor	UL 1598 Sect. 6.14	1 Sample	18 AWG Min.	
<b>PERFORMANCE</b>				
Switch Durability	Actual Use	1 Sample	Shall be no loosening or failure of the switch after the below number of times of operation.  <b>Tier 1      Tier 2</b> 100 Times   200 Times	
Glass Stress	UL 1598 Sect. 17.24	1 Sample	For glass held by friction, shall withstand force equal to 4X glass Wt.	
Polarized Plug	UL 1598 Sect. 6.10	1 Sample	A fixture having a screw shell type lamp holder shall be wired such that a wire connected to the screwshell or to the grounded (Neutral) terminal of the receptacle is identified at the point of connection to the supply	
Leakage Current	Std. Measure	1 Sample	Shall be less than 0.5mA between surface to ground	
Dielectric Breakdown	UL 1598 Sect 18.1	1 Sample	No breakdown after 1 min. at 1000 V	
Grounding Continuity	UL 1598 Sect 18.2	1 Sample	Grounding continuity between luminary grounding terminal and accessible metal part shall not exceed 0.10 Ohm.	

Temperature Test	UL 1598 Sect 15	1 Sample	Must not exceed max. temp. rise of 482°F (250 °C) – Nickel alloy or 392°F (200 °C) – Copper or Aluminum for lampholder screw shell and max. rise of 194°F	
8 Hour Test	Actual Use	1 Sample	There shall not be any deterioration after below hours of consecutive use.  <b>Tier 1</b> <b>Tier 2</b> 8 Hours      24 Hours	
*Resistance To Corrosion (Metal Components)	ASTM B117 G8	1 Sample	Shall withstand below defined hours in 1 % salt spray (fog) with no major visual change, pitting, or corrosion.  <b>Tier 1</b> <b>Tier 2</b> 24 Hours      48 Hours	
Humidity Test	Kohl's TM 31	1 Sample	No failure @ 95% RH @ 100° F (38° C) for below defined hours.  <b>Tier 1</b> <b>Tier 2</b> 24 Hours      48 Hours	
Effects Of Extreme Temperature (Environmental)	Kohl's TM 30	1 Sample	<b>Tier 1:</b> 24 Hours @ 30° F (1.1°C) and 24 Hours @ 100° F (37.7°C) - no failure.  <b>Tier 2:</b> 48 Hours @ 0° F (-18°C) and 48 Hours @ 120° F (49°C) - no failure.	
Rain Test	UL 1598 Sect. 17.5.2	1 Sample	After 4 hours of rain test, the tested sample shall:  withstand the dielectric voltage-withstand test of Clause 18.1;  not have permitted water to enter and accumulate in quantities sufficient to interfere with operation of the luminaire or to create a hazard; and  not have permitted water to contact electrical parts, except lamps or components suitable for the condition	
<b>ANALYTICAL</b>				
*Lead In Scrapable Surface Coating	ASTM E1613/E1645	1 Sample	≤90ppm (0.009% by weight).	
Lead in PVC Power Cord (Test only if No Prop 65 Warning On Package)	EPA SW846 Method #3050	1 Sample	 <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>  If ≥ 0.030%Pb by weight (300ppm), then the Cal Prop 65 warning should be present	
* CA Prop 65	Refer to Protocol 1300	All Samples	All shall be reviewed against the requirements of California Proposition 65 to determine if additional testing or labeling is required.	
*General purpose lights	IEC 62321:2008 & IEC62321-7-1:2015	All Samples	California Assembly Bill 1109  General purpose lights shall not contain levels of hazardous substances prohibited by the European Union pursuant to the RoHS Directive.  Maximum concentration values per homogenous material: ≤ 0.1% (lead) ≤ 0.01% (cadmium) ≤ 0.1% (mercury) ≤ 0.1% (chromium (VI)) ≤ 0.1% (PBBs) ≤ 0.1% (PBDEs)  In lieu of testing, test report can be submitted if dated within two years.	
Refer to protocol Hardlines Regulatory Supplement for additional State & Federal Regulations	Refer to Protocol 1800	All Samples	All samples shall be reviewed against the requirements of the Hardlines Regulatory Supplemental Protocol (State Regulation Only) to determine if additional testing or labeling is required	
<b>PRICING AND ADDITIONAL NOTE:</b>				
*Please refer to Kohl's preferred third party labs for individual pricing and sample size				
In addition to this protocol, any products designed for, intended for or appealing primarily to children, requires additional testing per Kohl's Testing Protocol # 601.				
Protocol Version	Description of Change	Revised by/Date		Approved by/Date

309 – 0	Initial Release	CY Chan 10 Feb, 2004	Roger Mayerson 08 Mar, 2004
309 – 1	Revised rain test method reference to UL 1598	Simon Leung 20 Dec, 2004	Roger Mayerson 20 Dec, 2004
309 – 2	Amend labeling section, to include acceptance of ETL certification	Simon Leung 14 Feb, 2005	Roger Mayerson 21 Feb, 2005
309 – 3	Updated the Prop 65 Warning Label. Price Adjustment	Simon Leung Oct. 31, 2008	Ro Jain Oct. 31, 2008
309-4	Added Lead in Solder Test	Elizabeth Armstrong June 8, 2009	Ro Jain June 8, 2009
309-A	Changed protocol number from 309-4 to 309-A, price adjustment	Elizabeth Armstrong April 1, 2010	Ro Jain April 1, 2010
309-B	Separate the test line of Prop 65 to supplementary protocol	Winnie Yu Mar 18, 2013	Ro Jain April 15, 2013
309-C	Differentiate the performance rating of below test items to Tier 1/Tier 2/Tier 3. Added Switch Durability 8 Hour Test, Resistance to Corrosion, Humidity, Effect of Extreme Temperature, Added tolerance requirements of dimensions and weight Adjusted package price	Jeetendra Shelatkar Oct 4, 2013	Ro Jain Dec 16, 2013
309-D	Updated lead content pricing	Candy Chan Jul 30, 2014	Jeetendra Shelatkar Aug 4, 2014
309-E	Renamed all in-house methods	Birkoff Chen Sep. 4, 2014	Elaine Smaczniak October 30, 2014
309-F	Added the requirement of FCC, Added the requirement CEC and DOE for bulb, Revised Item “*Lead In Scrapable Surface Coating” from “600ppm” to “90ppm”, Added the California requirement of General purpose lights	Jerry Chen Mar. 23, 2016	Jeetendra Shelatkar March 23, 2016
309-G	Updated the test standard for Item “General Purpose Lights”	Nathan Yang July 1, 2016	Elizabeth Armstrong July 5, 2016
309-H	Added new Prop 65 Warning label	Teana Robinette June, 26, 2018	Teana Robinette June, 26, 2018
309-I	Updated marking – product under labeling, instructions test method, glass thickness test method and requirements, metal sheet thickness for enclosures, wall mounting and grounding conductor, glass stress, polarized plug, dielectric breakdown, grounding continuity, temperature test, rain test, halogen lamps will be provided with a lamp containment barrier, glass lens thickness, and updated the format.	Charlene Swanson August 2020	Charlene Swanson August 2020
309-J	Updated format and updated performance rating to just Tier 1 and Tier 2	Violet Nelson / January 2023	Violet Nelson / January 2023
309-K	Added 1800 Hardlines Regulatory Supplement for additional State & Federal Regulations	ossman February 2025	February 2025