



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Independent Testing Laboratories, Inc.

4066 Camelot Circle

Longmont, CO 80504

Mr. Robert Berger

Phone: 303-442-1255 Fax: 970-535-3114

Email: rberger@itlboulder.com

http://www.ITLBoulder.com

**ENERGY EFFICIENT LIGHTING
PRODUCTS**

NVLAP LAB CODE 200925-0

Lamps

Color Measurements

<u>Code</u>	<u>Designation</u>	<u>Description</u>
22/C02	IES LM-58:1994	Spectroradiometric Measurements
22/C02a	IES LM-58:2013	Spectroradiometric Measurements
22/C03	CIE Pub. 13.3:1995	Method of Measuring and Specifying Color Rendering of Light Sources
22/C04	CIE Pub. 13.2:1974	Method of Measuring and Specifying Color Rendering of Light Sources
22/C05	CIE Pub. 15:2004	Colorimetry
22/C06	ANSI C78.376:2001	Electric Lamps - Specification for the Chromaticity of Fluorescent Lamps

Electrical Measurements

<u>Code</u>	<u>Designation</u>	<u>Description</u>
22/E10	IES LM-9:1988	Fluorescent Lamps - Electrical Measurements
22/E11	IES LM-9:1999	Fluorescent Lamps - Electrical Measurements
22/E11a	IES LM-9:2009	Fluorescent Lamps - Electrical Measurements

For the National Voluntary Laboratory Accreditation Program

**ENERGY EFFICIENT LIGHTING
PRODUCTS**
NVLAP LAB CODE 200925-0

22/E12	IES LM-45:1991	Incandescent Lamps - Electrical Measurements
22/E13	IES LM-45:2000	Incandescent Lamps - Electrical Measurements
22/E13a	IES LM-45:2009	Incandescent Lamps - Electrical Measurements
22/E14	IES LM-51:2000	High Intensity Discharge (HID) Lamps - Electrical Measurements
22/E14a	IES LM-51:2013	High Intensity Discharge (HID) Lamps - Electrical Measurements
22/E15	IES LM-66:1991	Single-Ended Compact Fluorescent Lamps - Electrical Measurements
22/E16	IES LM-66:2000	Single-Ended Compact Fluorescent Lamps - Electrical Measurements
22/E16a	IES LM-66:2011	Single-Ended Compact Fluorescent Lamps - Electrical Measurements
22/E17	ANSI C78.375:1991	Fluorescent Lamps - Electrical Measurements
22/E18	ANSI C78.375:1997	Fluorescent Lamps - Electrical Measurements
22/E19	ANSI C78.386:1989	Mercury Lamps - Measurement of Characteristics
22/E20	ANSI C78.387:1987	Metal-Halide Lamps - Measurement of Characteristics
22/E21	ANSI C78.388:1990	High Pressure Sodium Lamps - Measurement of Characteristics
22/E22	ANSI C78.389:2004	High Intensity Discharge Lamps - Methods of Measuring Characteristics
22/E23	ANSI C78.5:1997	Compact Fluorescent Lamps - Run-Up and Start-Up Times
22/E24	ANSI C78.5:2003	Compact Fluorescent Lamps - Run-Up and Start-Up Times
22/E25	ANSI C82.2:1984	Ballast for Fluorescent Lamps - Methods of Measurement
22/E26	ANSI C82.2:2002	Ballast for Fluorescent Lamps - Methods of Measurement
22/E27	ANSI C82.6:2005	Ballast for High Intensity Discharge Lamps - Methods of Measurement
22/E34	IEC 62301:2011	Household Electrical Appliances - Measurement of Standby Power

Life Tests

<u>Code</u>	<u>Designation</u>	<u>Description</u>
22/L05	IES LM-40:1987	Fluorescent Lamps - Life Test Performance
22/L06	IES LM-40:2001	Fluorescent Lamps - Life Test Performance
22/L06a	IES LM-40:2010	Fluorescent Lamps - Life Test Performance



ENERGY EFFICIENT LIGHTING PRODUCTS

NVLAP LAB CODE 200925-0

Table with 3 columns: Code, Designation, and Description. Rows include items like 22/L07, 22/L07a, 22/L08, etc., with descriptions such as 'High Intensity Discharge Lamps - Life Test Performance'.

Photometric Measurements

Table with 3 columns: Code, Designation, and Description. Rows include items like 22/P06a, 22/P06b, 22/P07a, etc., with descriptions such as 'Fluorescent Lamps - Total Flux Measurements'.



ENERGY EFFICIENT LIGHTING PRODUCTS

NVLAP LAB CODE 200925-0

22/P09b	IES LM-45:1991	Incandescent Lamps - Intensity Measurements
22/P10a	IES LM-45:2000	Incandescent Lamps - Total Flux Measurements
22/P10b	IES LM-45:2000	Incandescent Lamps - Intensity Measurements
22/P10c	IES LM-45:2009	Incandescent Lamps - Total Flux Measurements
22/P10d	IES LM-45:2009	Incandescent Lamps - Intensity Measurements
22/P11a	IES LM-51:2000	High-Intensity Discharge Lamps -Total Flux Measurements
22/P11b	IES LM-51:2000	High-Intensity Discharge Lamps - Intensity Measurements
22/P11c	IES LM-51:2013	High-Intensity Discharge Lamps -Total Flux Measurements
22/P11d	IES LM-51:2013	High-Intensity Discharge Lamps - Intensity Measurements
22/P12a	IES LM-66:1991	Single-Ended Compact Fluorescent Lamps - Total Flux Measurements
22/P12b	IES LM-66:1991	Single-Ended Compact Fluorescent Lamps - Intensity Measurements
22/P13a	IES LM-66:2000	Single-Ended Compact Fluorescent Lamps - Total Flux Measurements
22/P13b	IES LM-66:2000	Single-Ended Compact Fluorescent Lamps - Intensity Measurements
22/P13c	IES LM-66:2011	Single-Ended Compact Fluorescent Lamps - Total Flux Measurements
22/P13d	IES LM-66:2011	Single-Ended Compact Fluorescent Lamps - Intensity Measurements
22/P14	EN/IEC 60969, Ed. 1.2: 2001	Self-Ballasted Lamps for General Lighting Services - Performance Requirements
22/P15	EPA Lamps v. 1.0	Elevated Temperature Light Output Ratio
22/P16	EPA Lamps v. 1.0	Start Time
22/P17	EPA Lamps v. 1.0	Run-Up Time

Luminaires

<u>Code</u>	<u>Designation</u>	<u>Description</u>
22/F06	IES LM-10:1996	Photometric Testing of Outdoor Fluorescent Luminaires
22/F07	IES LM-31:1995	Photometric Testing of Roadway Luminaires
22/F08	IES LM-35:2002	Photometric Testing of Floodlights Using Incandescent Filament or Discharge Lamps



ENERGY EFFICIENT LIGHTING PRODUCTS

NVLAP LAB CODE 200925-0

22/F09	IES LM-41:1998	Photometric Testing of Indoor Fluorescent Luminaires
22/F10	IES LM-46:2004	Photometric Testing of Indoor Luminaires Using High Intensity Discharge or Incandescent Filament Lamps

Solid State Lighting

SSL Color Measurements

<u>Code</u>	<u>Designation</u>	<u>Description</u>
22/S01	IES LM-58:1994	Spectroradiometric Measurements
22/S01a	IES LM-58:2013	Spectroradiometric Measurements
22/S02	CIE Pub. 13.3:1995	Method of Measuring and Specifying Color Rendering of Light Sources
22/S03	IES LM-79:2008 (Sec. 12)	Solid State Lighting Luminaires - Color Characteristic Measurements
22/S04	IES LM-16:1993	Practical Guide to Colorimetry of Light Sources
22/S05	CIE Pub. 15:2004	Colorimetry
22/S23	ANSI C78.377:2011	Specifications for the Chromaticity of Solid State Lighting Products

SSL Electrical Measurements

<u>Code</u>	<u>Designation</u>	<u>Description</u>
22/S06	ANSI C82.2:2002	Ballast for Fluorescent Lamps - Methods of Measurement
22/S07	ANSI C82.77:2002	Harmonic Emission Limits - Related Power Quality Requirements for Lighting Equipment
22/S28	IEC 62301:2011	Household Electrical Appliances - Measurement of Standby Power

SSL Life Tests

<u>Code</u>	<u>Designation</u>	<u>Description</u>
22/S14	EPA Integral LED Lamps v. 1.4 (Appendix E)	ENERGY STAR® Elevated Temperature Testing for Integral LED Lamps
22/S18	EPA Lamps v. 1.0	Ambient Temperature Life Testing
22/S19	EPA Lamps v. 1.0	Elevated Temperature Life Testing
22/S25	IES LM-84:2014	Approved Method for Measuring Luminous Flux and Color Maintenance of LED Lamps, Light Engines, and Luminaires

SSL Photometric Measurements



ENERGY EFFICIENT LIGHTING PRODUCTS

NVLAP LAB CODE 200925-0

<u>Code</u>	<u>Designation</u>	<u>Description</u>
22/S09	IES LM-79:2008 (Sec. 9)	Solid State Lighting Luminaires - Total Flux Measurements (Luminous Efficacy)
22/S10	IES LM-79:2008 (Sec. 10)	Solid State Lighting Luminaires - Luminous Intensity Measurements
22/S13	IES LM-82-12	Characterization of LED Light Engines and LED Lamps for Electrical and Photometric Properties as a Function of Temperature
22/S20	EPA Lamps v. 1.0	Elevated Temperature Light Output Ratio
22/S21	EPA Lamps v. 1.0	Start Time

SSL Temperature Measurement

<u>Code</u>	<u>Designation</u>	<u>Description</u>
22/S15	ANSI/UL 153:2002 (Secs. 124-128A)	Standard for Portable Electric Luminaires
22/S16	ANSI/UL 1574:2004 (Sec. 54)	Standard for Track Lighting Systems
22/S17	ANSI/UL 1598:2008 (Secs. 19.7, 19.10-16)	Luminaires