SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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ENERGY EFFICIENT LIGHTING PRODUCTS NVLAP LAB CODE 500084-0

Lamps

Color Measurements

Code	*Designation*	*Description*
22/C02a	IES LM-58:2013	Spectroradiometric Measurements
22/C02b	IES LM-58:2020	Spectroradiometric Measurement Methods for Light Sources
22/C03	CIE Pub. 13.3:1995	Method of Measuring and Specifying Color Rendering of Light Sources
22/C05	CIE Pub. 15:2004	Colorimetry
22/C05a	CIE Pub. 15:2018	Colorimetry, 4th Edition
22/C06	ANSI C78.376:2001	Electric Lamps - Specification for the Chromaticity of Fluorescent Lamps
22/C06a	ANSI C78.376:2014	Electric Lamps - Specification for the Chromaticity of Fluorescent Lamps

Electrical Measurements

Code	*Designation*	*Description*
22/E11a	IES LM-9:2009	Fluorescent Lamps - Electrical Measurements

Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.

For the National Voluntary Laboratory Accreditation Program

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22/E18	ANSI C78.375:1997	Fluorescent Lamps - Electrical Measurements *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/E18a	ANSI C78.375:2014	Fluorescent Lamps - Electrical Measurements *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/E26	ANSI C82.2:2002	Ballast for Fluorescent Lamps - Methods of Measurement *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/E34	IEC 62301:2011	Household Electrical Appliances - Measurement of Standby Power *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*

Life Tests

Code	***Designation***	***Description***
22/L10a	IES LM-65:2010	Single-Ended Compact Fluorescent Lamps - LifeTest Performance
22/L10b	IES LM-65:2014	Single-Ended Compact Fluorescent Lamps - LifeTest Performance

Photometric Measurements

Code	***Designation***	***Description***
22/P07c	IES LM-9:2009	Fluorescent Lamps - Total Flux Measurements *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/P07d	IES LM-9:2009	Fluorescent Lamps - Intensity Measurements *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*

Luminaires

Code	***Designation***	***Description***
22/F06	IES LM-10:1996	Photometric Testing of Outdoor Fluorescent Luminaires *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/F07	IES LM-31:1995	Photometric Testing of Roadway Luminaires *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*

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22/F08	IES LM-35:2002	Photometric Testing of Floodlights Using Incandescent Filament or Discharge Lamps *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/F09	IES LM-41:1998	Photometric Testing of Indoor Fluorescent Luminaires *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/F09a	IES LM-41:2014	Photometric Testing of Indoor Fluorescent Luminaires
22/F09b	IES LM-41:2020	Photometric Testing of Indoor Fluorescent Luminaires *Testing conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/F10	IES LM-46:2004	Photometric Testing of Indoor Luminaires Using High Intensity Discharge or Incandescent Filament Lamps *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*

Solid State Lighting

SSL Color Measurements

Code	***Designation***	***Description***
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/S05a	CIE Pub. 15:2018	Colorimetry, 4th Edition
22/S23	ANSI C78.377:2011	Specifications for the Chromaticity of Solid State Lighting Products
22/S23a	ANSI C78.377:2015	Specifications for the Chromaticity of Solid State Lighting Products
22/S23b	ANSI C78.377:2017	Specifications for the Chromaticity of Solid State Lighting Products

SSL Electrical Measurements

Code	***Designation***	***Description***

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22/S06	ANSI C82.2:2002	Ballast for Fluorescent Lamps - Methods of Measurement *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/S07	ANSI C82.77:2002	Harmonic Emission Limits - Related Power Quality Requirements for Lighting Equipment *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/S07a	ANSI C82.77-10:2014	Harmonic Emission Limits - Related Power Quality Requirements for Lighting Equipment - Solid State *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/S28	IEC 62301:2011	Household Electrical Appliances - Measurement of Standby Power *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/S38	IES LM-79:2019 (Sec. 5)	Optical and Electrical Measurements of Solid-State Lighting Products - Electrical Test Conditions

SSL Life Tests

Code	***Designation***	***Description***
22/S18	EPA Lamps v. 1.0	Ambient Temperature Life Testing
22/S18a	ENERGY STAR® Ambient Temperature Life: September 2015	Ambient Temperature Life Test Method
22/S19	EPA Lamps v. 1.0	Elevated Temperature Life Testing
22/S19a	ENERGY STAR® Elevated Temperature Life: September 2015	Elevated Temperature Life Test Method

SSL Photometric Measurements

Code	***Designation***	***Description***
22/S09	IES LM-79:2008 (Sec. 9)	Solid State Lighting Luminaires - Total Flux Measurements (Luminous Efficacy)
22/S09a	IES LM-79:2019 (Sec. 7)	Optical and Electrical Measurements of Solid-State Lighting Products - Total Luminous Flux and Integrated Optical Measurements
22/S10	IES LM-79:2008 (Sec. 10)	Solid State Lighting Luminaires - Luminous Intensity Measurements

Testing conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.

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22/S10a	IES LM-79:2019 (Sec. 8)	Optical and Electrical Measurements of Solid-State Lighting Products - Luminous Intensity or Optical Angular Distribution Measurement *Testing conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
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/S20a	ENERGY STAR® Elevated Temperature Light Output Ratio: September 2015	Elevated Temperature Light Output Ratio Test Method
22/S21	EPA Lamps v. 1.0	Start Time
22/S21a	ENERGY STAR® Start Time: September 2015	Start Time Test Method
22/S21b	ENERGY STAR® Start Time: October 2017	Start Time Test Method
22/S35	NEMA 77:2017	Temporal Light Artifacts: Test Methods and Guidance for Accepted Criteria
22/S39	IES LM-90:2020	Measuring Luminous Flux Waveforms for Use in Temporal Light Artifact (TLA) Calculations

SSL Temperature Measurement

Code	***Designation***	***Description***
22/S15	ANSI/UL 153:2002 (Secs. 124-128A)	Standard for Portable Electric Luminaires *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/S16	ANSI/UL 1574:2004 (Sec. 54)	Standard for Track Lighting Systems *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/S17	ANSI/UL 1598:2008 (Secs. 19.7, 19.10-16)	Luminaires *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*
22/S17a	ANSI/UL 1598C	Light-Emitting Diode (LED) Retrofit Luminaire Conversion Kits *Testing also conducted at 160 Frobisher Dr. Unit 5, Waterloo, ON N2V 2B1.*