

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

ATLAS MATERIAL TESTING TECHNOLOGY, LLC 1500 Bishop Court

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CALIBRATION

Valid To: March 31, 2020 Certificate Number: 2101.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Optical Radiation

Parameter/Equipment	Range	CMC ^{2, 7} (±)	Comments ⁶
Control Parameters in Weathering Instruments ^{3, 4} –			
Temperature	(0 to 85) °C	0.7 °C	Fluke 51 digital thermometer
Relative Humidity	(5 to 90) % RH	3.9 % RH	Vaisala HMI 51 humidity calibrator
AC Power ⁵	Up to 6 kW (6 to 12) kW	0.4 % 3.0 %	Hioki PW3335 power meter

Parameter/Equipment	Range	CMC ^{2, 7} (±)	Comments ⁶
Illuminance ^{3, 4} (with Xenocal) –			
SUNTEST Instruments (380 to 780) nm	Up to 240 klx	5.0 %	Daylight, SolarStandard, WG, StoreLight, ID65
Xenotest Instruments (380 to 780) nm	Up to 240 klx	7.6 %	XC270, XC300, B04
(360 to 760) iiii		10 %	XC320, XC320HLF, 7IR, 16H, 4IR3WG, 6IR1UV, GMW3414
		4.6 %	10WG, TM16, DL Ext. IR
Irradiance ^{3, 4} (with Xenocal) –			
SUNTEST Instruments			
340 nm	Up to $1.4 \text{ W} \cdot \text{m}^{-2} \cdot \text{nm}^{-1}$	8.1 %	Daylight, SolarStandard,
420 nm (300 to 400) nm	Up to 3.5 W·m ⁻² ·nm ⁻¹ Up to 150 W·m ⁻²	7.5 %	WG, StoreLight
(300 to 400) nm	Up to 1300 W·m ⁻²	8.0 %	
(300 to 400) nm (300 to 800) nm	Up to 150 W·m ⁻² Up to 1300 W·m ⁻²	14 % 8.0 %	ID65
Xenotest Instruments –			
340 nm 420 nm	Up to 1.4 W·m ⁻² ·nm ⁻¹ Up to 3.5 W·m ⁻² ·nm ⁻¹	8.1 % 7.5 %	XC270, XC300, XC320, XC320HLF, 7IR, 16H 4IR3WG, 6IR1UV, GMW3414, 10WG, TM16, DL Ex. IR, B04
(300 to 400) nm (300 to 800) nm	Up to 150 W·m ⁻² Up to 1300 W·m ⁻²	14 % 12 %	XC320, XC320HLF, 7IR, 16H, 4IR3WG, 6IRiUV, GMW3414
(300 to 400) nm (300 to 800) nm	Up to 150 W·m ⁻² Up to 1300 W·m ⁻²	9.9 % 9.8 %	XC270, XC300, B04
(300 to 400) nm	Up to 150 W·m ⁻²	11 %	10WG, TM16
(300 to 800) nm	Up to 1300 W⋅m ⁻²	7.8 %	
(300 to 400) nm (300 to 800) nm	Up to 150 W·m ⁻² Up to 1300 W·m ⁻²	9.3 % 7.8 %	DL Ext. IR



Parameter/Equipment	Range	CMC ^{2, 7} (±)	Comments ⁶
Irradiance ^{3, 4} (with Xenocal) – (cont)			
Ci Instruments 340 nm 420 nm (300-400) nm	Up to 1.4 W·m ⁻² ·nm ⁻¹ Up to 3.5 W·m ⁻² ·nm ⁻¹ Up to 150 W·m ⁻²	8.9 % 8.0 % 11 %	Boro S/Boro-S
Irradiance (with Reference Lamp) –			
Ci Instruments 340 nm 420 nm (300-400) nm	Up to 3.3 W·m ⁻² ·nm ⁻¹ Up to 7.8 W·m ⁻² ·nm ⁻¹ Up to 400 W·m ⁻²	5.8 % 5.5 % 5.6 %	Hioki PW3335 wattmeter w/Hioki 9660 current probe Boro S/Boro-S
Irradiance (with Reference Radiometer) –			
Fluorescent Instruments (310, 340, 351) nm	Up to 3.0 W·m ⁻² ·nm ⁻¹	7.6 %	UV Test
	Up to 3.0 W·m ⁻² ·nm ⁻¹	13 %	UV2000



Parameter/Equipment	Range	CMC ^{2, 7} (±)	Comments ⁶
Irradiance (Calibration Standards) – Customer Xenon Ref. Lamps for			
Ci Instruments Operating at –			
Lamp AC Power up to 6 kW 340 nm 420 nm (300 to 400) nm Lamp AC Power up to 12 kW 340 nm 420 nm (300 to 400) nm Customer Ref. UV	Up to 3.3 W·m ⁻² ·nm ⁻¹ Up to 7.8 W·m ⁻² ·nm ⁻¹ Up to 400 W·m ⁻² Up to 3.3 W·m ⁻² ·nm ⁻¹ Up to 7.8 W·m ⁻² ·nm ⁻¹ Up to 400 W·m ⁻²	5.5 % 4.4 % 4.9 % 5.8 % 5.5 % 5.6 %	SP320 Instrument Systems Spectroradiometer, Hioki PW3335 wattmeter w/Hioki 9660 current probe & 2 working standards Boro S/Boro-S
Radiometers for Fluorescent Instruments –			
UV Test Fluorescent Instrument 310/340/351 nm	Up to 3.0 W·m ⁻² ·nm ⁻¹	7.6 %	SP320 Instrument systems,
UV2000 Fluorescent Instrument 310/340/351 nm	Up to 3.0 W·m ⁻² ·nm ⁻¹	13 %	spectroradiometer and 3 working standards

¹ This laboratory offers commercial calibration service and field calibration service.

³ Field calibration service is available for this calibration and this laboratory meets A2LA *R104 – General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these calibrations. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC Uncertainty found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC Uncertainty.



² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of k = 2. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC Uncertainty due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

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⁴ This includes but is not limited to all Atlas Weather-Ometer® and Fade-Ometer® instruments, UVTest, UV2000, Xenotest, and SUNTEST instruments.

⁵ AC Power are calibrated in the artificial weathering equipment to control temperature, humidity and irradiance.

⁶ Methods of calibration include the use of equipment listed in the column or equivalent.

⁷ In the statement of CMC Uncertainty, all percentages are defined as "percent of reading".



Accredited Laboratory

A2LA has accredited

ATLAS MATERIAL TESTING TECHNOLOGY LLC

Mount Prospect, IL

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005

General requirements for the competence of testing and calibration laboratories. This laboratory also meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system

(refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

Presented this 9th day of May 2018.

President and CEO For the Accreditation Council Certificate Number 2101.01 Valid to March 31, 2020