SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

AMERICAN STANDARD CALIBRATION LABORATORY
5633 Creek Rd.
Blue Ash, OH 45242
Luke Hards Phone: 513 828 8857

CALIBRATION

Valid To: January 31, 2027 Certificate Number: 7027.01

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the organization's compliance with R205 – A2LA's Calibration Program Requirements), accreditation is granted to this laboratory to perform the following calibrations[1, 4]:

I. Acoustical

| Parameter/Equipment | Range | CMC[2] (±) | Comments |
|---|---|---|---|
| Sound Pressure Level Meters[3] | Reference Level<br>94 dB<br>1 kHz<br>4 kHz<br><br>114 dB<br>1 kHz<br>4 kHz<br><br>Frequency Response<br>125 Hz to 4 kHz<br>94 dB<br>114 dB | <br><br>0.48 dB<br>0.63 dB<br><br>0.40 dB<br>0.63 dB<br><br><br>0.48 dB<br>0.40 dB | Reference sound level calibrator |
| Sound Pressure Level Calibrators[3] | (94 & 114) dB<br>1 kHz | 0.43 dB | Reference sound level calibrator |

II. Optical Quantities

| Parameter/Equipment | Range | CMC[2, 4] (±) | Comments |
|---|---|---|---|
| Photometric Sources[3] – Illuminance, (400 to 700) nm | Up to 50 000 lx | 0.8 % | Reference photometer, reference DMM and shunt |
| Photometric Sources – Correlated Color Temperature[3] | | | |
| Incandescent | (2300 to 3200) K | 12 K | Reference photometer |
| Non-Incandescent | (3200 to 7500) K | 2 % of CCT + 12 K | |
| LED – L41 | 4109 K | 12 K | Reference chromameter |
| Irradiance - UV-C Detectors, (100 to 280) nm | Up to 2000 µW/cm$^2$ | 12 % | Reference radiometer |
| Irradiance - UV-B Detectors, (280 to 315) nm | Up to 2000 µW/cm$^2$ | 9.4 % | Reference radiometer |
| Irradiance - UV-A Detectors, (315 to 400) nm | Up to 2000 µW/cm$^2$ | 7.2 % | Reference radiometer |
| Irradiance - Bilirubin/Phototherapy Detectors, (400 to 500) nm | Up to 2000 µW/cm$^2$ | 7.8 % | Reference radiometer |
| Photometric Detectors – Illuminance Responsivity (Illuminant A - CIE), (400 to 700) nm, 2856 K | Up to 50 000 lx | 0.8 % | Reference chromameter ISO/CIE 19476:2014 |
| Photometric Detectors: Illuminance responsivity (Illuminant L41 - CIE), (380 to 780) nm, 4109 K | (0.1 to 50 000) lx | 3.5 % | Reference optometer, L41 reference lamp CIE 251:2023 |

[1] This laboratory offers commercial calibration service.

[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 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 due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

[3] Field calibration service is available for this calibration. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the Calibration and Measurement Capability Uncertainty (CMC) 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 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.

[4] In statement of CMC, $R$ is the resolution of the unit under test, CCT is the measured correlated color temperature, and percentages are percentage of reading, unless otherwise indicated.

[5] This scope meets A2LA's *P112 Flexible Scope Policy*.

# Accredited Laboratory

A2LA has accredited

## AMERICAN STANDARD CALIBRATION LABORATORY

*Blue Ash, OH*

for technical competence in the field of

## Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *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 2nd day of January 2025.

Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7027.01
Valid to January 31, 2027

*For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.*