SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

KONICA MINOLTA SENSING AMERICAS, INC.
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CALIBRATION

Valid To: January 31, 2020 Certificate Number: 4673.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations[1]:

I. Optical Quantities

Parameter/Equipment	Range	CMC[2, 3] (±)	Comments
Illuminance – Illuminance Meters	(8 to 800) lux	1.9 %	Illuminance meter master body (calibrated reference instrument)
Luminance – Luminance Meters	150 cd/m^2	2.0 %	Luminance meter master body (calibrated reference instrument)
Correlated Color Temperature (CCT) – Lamp	2856 K	22 K	Colorimeter master body (calibrated reference instrument)
Correlated Color Temperature (CCT) – Illuminance Meters	2856 K	22 K	CCT standard (lamp)
Chromaticity (x, y) – Illuminance Meters	$0.4457 \leq x \leq 0.4488$ $0.4069 \leq y \leq 0.4078$	$\Delta x \leq 0.0024$ $\Delta y \leq 0.0023$	CCT standard (lamp)

Parameter/Equipment	Range	CMC[2, 3] (±)	Comments
Chromaticity (x, y) – Luminance Meters	0.4457 ≤ x ≤ 0.4488 0.4069 ≤ y ≤ 0.4078	Δx ≤ 0.0024 Δy ≤ 0.0023	CCT standard (lamp) and radiance coefficient standard (diffuser)
8°/h (SCI) Spectral Reflectance Factor	(80 to 100) % 360 to 390 nm 400 to 700 nm 710 to 740 nm	 1.3 % 0.72 % 0.69 %	Reflectance standard tile
8°/d (SCE) Spectral Reflectance Factor	(80 to 100) % 360 to 390 nm 400 to 700 nm 710 to 740 nm	 1.3 % 0.74 % 0.71 %	Reflectance standard tile
45°/0° Spectral Reflectance Factor	(80 to 100) % 360 nm (370 to 390) nm 400 nm (410 to 740) nm	 1.8 % 1.7 % 1.4 % 1.0 %	Reflectance standard tile
Illuminance – Spectroradiometer	(130 to 1200) lux (350 to 1100) nm	2.1 %	Incandescent standard lamp, end rod
Luminance – Spectroradiometer	(450 to 550) cd/m^2 (360 to 1100) nm	2.2 %	Integrating sphere light source
Luminous Flux – Spectroradiometer	0.05 mlm to 250 klm (360 to 1100) nm	2.1 %	Standard lamp, integrating sphere
Luminous Flux for LEDs in Conformity with CIE 127:2007	(0.5 to 3.5) lm (360 to 1100) nm	2.5 %	LED luminous flux standard, integrating sphere
Averaged LED Intensity: ILED-B in Conformity with CIE 127:2007	(0.25 to 1.0) cd (360 to 1100) nm	2.5 %	LED luminous intensity standard

[1] This laboratory offers commercial calibration service for Konica Minolta and Instrument Systems equipment only.

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

[3] In the statement of CMC, percentages are percentage of reading, unless otherwise indicated.

Accredited Laboratory

A2LA has accredited

KONICA MINOLTA SENSING AMERICAS INC.

Ramsey, NJ

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 30th day of May 2018.

President and CEO
For the Accreditation Council
Certificate Number 4673.01
Valid to January 31, 2020

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