



# CERTIFICATE OF ACCREDITATION

## The ANSI National Accreditation Board

Hereby attests that

**Applied Image Inc.**  
**1653 East Main Street**  
**Rochester, NY 14609**

Fulfills the requirements of

**ISO/IEC 17025:2017**

In the field of

**CALIBRATION**

This certificate is valid only when accompanied by a current scope of accreditation document.  
The current scope of accreditation can be verified at [www.anab.org](http://www.anab.org).

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 30 October 2023

Certificate Number: AC-2818



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.  
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).

## SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

### Applied Image Inc.

1653 East Main Street  
Rochester, NY 14609  
Gary Reif  
585-482-0300 ext. 230

### CALIBRATION

Valid to: **October 30, 2023**

Certificate Number: **AC-2818**

#### Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Single Axis Length Non-Contact <sup>1</sup>	Up to 200 $\mu\text{m}$	0.43 $\mu\text{m}$	Filar Microscope
	(200 to 400) $\mu\text{m}$	0.73 $\mu\text{m}$	
	(400 to 800) $\mu\text{m}$	1.3 $\mu\text{m}$	
	(800 to 1 600) $\mu\text{m}$	1.5 $\mu\text{m}$	
	Up to 25.4 mm	0.49 $\mu\text{m}$	Laser-based Measuring Machine
	(0.8 to 400) mm	(2.3 + 0.008L) $\mu\text{m}$	CMM
Single Axis Length Non-Contact <sup>1</sup>	(401 to 1 200) mm	(15 + 0.051L) $\mu\text{m}$	Coordinatograph
	Up to 25.4 mm (25.4 to 75) mm	2.4 $\mu\text{m}$ 4.5 $\mu\text{m}$	Micrometers
Single Axis Length Non-Contact <sup>1</sup>	Up to 150 mm	32 $\mu\text{m}$	Caliper
	Length Aspect of Bar Code Measurement <sup>1</sup>	(3 to 200) mils	(0.051 + 0.000 25L) mils
(0.2 to 5) mm		(1.3 + 0.25L) $\mu\text{m}$	
Angular Measurement <sup>4</sup>	(5 to 85) $^{\circ}$	(0.036 – 0.0011 5L) $^{\circ}$	Coordinate Measuring Machine
	(5 to 25) mm	(0.008 7 – 0.000 06L) $^{\circ}$	
	(25 to 75) mm > 75 mm	(0.004 4 – 0.000 003L) $^{\circ}$	

## Photometry and Radiometry

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Spectral Reflection Aspect of Bar Code Measurement <sup>2,3</sup>	(0.25 to 100) % R 660 nm	(0.35 + 0.014R) % R	Automated Bar Code Verification System (Judge)
45°:0° or 0°:45° Spectral Reflection Photometry <sup>3</sup> (Status A Density)	(V Filter) Up to 1.25 D (1.25 to 2.1) D (C Filter) Up to 1.25 D (1.25 to 2.1) D (M Filter) Up to 1.25 D (1.25 to 2.1) D (Y Filter) Up to 1.25 D (1.25 to 2.1) D	0.011 D 0.033 D 0.012 D 0.034 D 0.009 5 D 0.026 D 0.009 4 D 0.031 D	Color Reflection Densitometer
45°:0° or 0°:45° Spectral Reflection Photometry <sup>2,3</sup>	(0.25 to 100) % R 660 nm	(0.066 + 0.007R) % R	Spectral Reflectometer
Spectral Transmission Photometry <sup>2,3</sup>	Up to 100 % T (250 to 400) nm (401 to 700) nm (701 to 900) nm (901 to 1 000) nm	(0.15 + 0.004 1T) % T (0.22 + 0.000 66T) % T (0.4 – 0.000 72T) % T (0.67 + 0.002 7T) % T	Transmission Spectro-photometer
Transmission Density <sup>3</sup> (Orthochromatic Filter)	Up to 3.7 D (3.701 to 4.5) D	0.025 D 0.059 D	Transmission Densitometer

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ( $k=2$ ), corresponding to a confidence level of approximately 95%.

Notes:

1.  $L$  = length in mils or mm.
2.  $R$  = value in % R;  $T$  = value in % T.
3. The following are non-SI terms: %T is percent transmission; %R is the percent reflectance; and D is the optical density.
4. The angle is determined by the measurement of two points on a line in the x-y plane. The x-y values are used to calculate the angle using the arctan(x-y). The distance between the two points affect the uncertainty as indicated.  $L$  is the length of the measured line in mm.
5. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2818.



R. Douglas Leonard Jr., VP, PILR SBU