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Lighthouse Worldwide Solutions EMEA
ISO 21501-4:2018 Calibration Certificate

REPORT OF CALIBRATION

Manufacturer : Lighthouse Worldwide Solutions
Model : Handheld 3016IAQ
Serial Number : 240144672
Certificate No : 250303APC01

Calibration of the above stated instrument has been accomplished by and is fully compliant to the methods defined by ISO 21501-4. The accuracy of the standards and equipment used in the calibration are traceable to the National Institute of Standards and Technology or have been derived from acceptable values of natural physical constants. All records of work performed are maintained by Lighthouse Worldwide Solutions EMEA Operations.

Test Equipment

Manufacturer	Instrument & Model	Serial Number	Calibration Date	Calibration Due
AMPTEK	MCA8000D	01129	September 06, 2024	September 06, 2026
FLUKE	DMM179	20280165	September 06, 2024	September 06, 2026
Lighthouse	Solair Transfer Standard	190599001	January 08, 2025	January 08, 2026
TSI	4043E	40430951003	June 03, 2024	June 03, 2026

Calibration was performed under the following controlled conditions:
Temperature : 22.2 °C Relative Humidity : 41.3 %

This certifies the above named instrument conforms to the original specifications in effect at date of manufacture and test.

Threshold Voltage Settings

Channel	Size (µm)	Threshold (mV), As Found	Threshold (mV), As Left	Particle Size (nm)	Lot No.	Manufacturer	Exp. Date
1	0.30	105	105	303±6	257546	Thermo Scientific	August 31, 2025
2	0.50	784	749	510±7	255494	Thermo Scientific	June 30, 2025
3	1.00	1838	1800	1025±18	257321	Thermo Scientific	August 31, 2025
4	2.50	2975	3128	2514±27	258621	Thermo Scientific	September 30, 2025
5	5.00	5628	5301	4900±80	263147	Thermo Scientific	January 31, 2026
6	10.00	6891	7058	10000±200	265823	Thermo Scientific	April 30, 2026

Flow Rate:	Measured Flow:	**2.83 LPM**	(limit ±5% of nominal)	**PASS**
False Count:	Observed Cts:	**0 p/m^3**		
50% Counting Efficiency:	Size 0.303 µm:	**48.6 %**	(limit 30% - 70%)	**PASS**
100% Counting Efficiency:	Size 0.51 µm:	**102.13 %**	(limit 90% - 110%)	**PASS**
Size Resolution:	Size 0.401 µm:	**11.46 %**	(limit 15%)	**PASS**

A statement of conformity is given for Counting Efficiency (7.2), Size Resolution (7.3), False Count (7.4), Flow Rate Error (7.6.) Tests defined in the ISO 21501-4: 2018 calibration standard. The decision rule has been determined according to the ranges specified in the relevant clauses of the ISO 21501-4 standard.

Final Test Date : March 03, 2025

Signature: _____ Certification Date: March 03, 2025
Quality Assurance

Next calibration on this instrument is due: March 03, 2026

LIGHTHOUSE WORLDWIDE SOLUTIONS EMEA OPERATIONS
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