

Proficiency Test Preliminary Report

NCSLI Learning Lab
EXAMPLE CALIPER

National Association for Proficiency Testing

A Non-Profit Organization Providing Proficiency Testing Tools to the Metrology Community

This report documents your organizations preliminary results for the Interlaboratory Comparison/Proficiency Test (ILC/PT) listed above. The main purpose of this report is to provide a means by which to validate your organizations data submittal to NAPT. This Preliminary Report is not meant to be shared outside participants organization as all information contained in this report is subject to change. Participants are given 5 days to inform NAPT of any errors in their data submittal or any additional error seen in this report. In the event no errors or concerns are submitted to NAPT, participants original data submittal will be considered accurate and a Final Report will be issued to participant. After a Final Report is issued, no changes can be made to participants submittal.

The ILC/PT consisted of 2 set points. Your organization submitted results where 2 of 2 had Error Normalized (En) values greater than -1 and less than 1. Most accreditation bodies require the En value to be between -1 and 1 to be considered a satisfactory performance in an ILC/PT.

This is only a Preliminary Report, established reference values and their associated uncertainties are subject to change between issuance of a Preliminary Report and a Final Report. The possible changes made will be done per accepted and approved international statistical standard, ISO 13528, a standard used by proficiency testing providers for determination of reference data when conducting ILC/PT's. The process and requirements for established of assigned reference values are further defined in NAPT's Quality Procedure "Data and Statistical Analysis Procedure".

In this preliminary evaluation, your data submittal is compared against initial established reference values only. After additional evaluation of all submittals, established reference values may be modified to account for any change in initial assigned values. Please refer to NAPT's supplemental guide to interpretation of reports for in-depth guidance on reports issued by NAPT, available for download at NAPT's website, www.proficiency.org.

If any modification needs to be made to the participants original submittal, NAPT will need to verify all re-submitted data and require detailed objective evidence to support any change. Supporting documentation must be submitted to NAPT for technical review before any modifications can be made to the participants original data. Objective evidence should include original observations, data collection sheets, uncertainty budgets, procedures used, and all other pertinent documentation required to support error and/or change original submittal.

Please contact NAPT with any questions regarding this Preliminary Report.

This report may not be reproduced, except in full, without the written permission of the National Association for Proficiency Testing.



Organization Participating:	ABC Calibrations
Results Reported To:	John Doe
ILC/PT Performed By:	Participant One
Date of Participation:	22 Jul 2024
Date of Issue	23 Dec 2025



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Your organization has been identified as **Lab: B37424** throughout the report.

All artifacts used in this ILC/PT were acquired thru the metrology community, chosen based on their ability to provide the wide characterization and spectrum needed for this ILC/PT. Specific nominal set points for measurements were determined prior to distribution of the kit. A description of the artifacts in the kit are listed below.

Model	Serial Number	Attribute	Manufacturer
CD-6" CS	0004736	dimensional	Mitutoyo

Participants were instructed to acquire measurements at predefined set points using their standard calibration procedures, while taking into account any additional instructions from NAPT.

During the course of each ILC/PT, NAPT's Technical Director, with the guidance of Technical Advisors assigned to the ILC/PT, conducts comprehensive technical reviews. Data analyses are conducted before, during, and after a kit is put into distribution. This is done to assure not only the kit's integrity, but to look for trends or anomalies in the data submittals.

After a thorough review of all data submittals will NAPT assign established reference values. To prematurely assign reference values before a detailed analysis is conducted would be inaccurate and quite possibly result in a value that would not pass a robust analysis. Doing so would not ensure confidence in the reference values assigned. Making an assumption on limited data is not a technically sound process for ensuring the validity of the data in any ILC/PT. Only after an intensive technical review of all data submitted to NAPT, will reference values be assigned to an ILC/PT. If any errors are seen in this report, you are asked to share your concern immediately with NAPT.

In addition to an organization results, the Final Report issued will include a comparisons to the results reported by additional participants in the ILC/PT and when appropriate a graphical presentation of results submitted.

Notes / Table Descriptors: The following bullets are meant to assist reader in reviewing tables.

- Values are rounded to the resolution of the data. Rounding does not effect the data analysis & is for reporting purposes only
- All uncertainties are at (or normalized to) K=2 (coverage factor associated with a 2-sigma, 95%, normal distribution)
- **En** = (Participant's Reported Value – Reference Value) / SQRT (Participant's Reported Uncertainty² + Reference Uncertainty²)
- **S** (Satisfactory): Participant's Computed En is within range of +1 to -1
- **U** (Unsatisfactory): Participant's Computed En is outside range of +1 to -1
- One star "*" present indicates that the test value is an outlier and falls outside +/- 2 Standard Deviations from the Mean. Two stars "**" present indicates that the test/lab was manually excluded from the calculations and is considered an extreme outlier. These indicators do not indicate pass or fail performance.
- Z-Score = (Participant's Reported Value – Mean Reference Value) / Standard Deviation
- Blue Text Indicates Revised Data / Red Values Indicate En is greater than one



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Analysis of the data submitted is shown below. In the table below, your reported values are compared against the preliminary established reference values only.

Individual performance indicators include:

- Participants submitted results at each set point.
- Preliminary Participant's En values and S/U (satisfactory/unsatisfactory).
- Values in En column and S/U column are preliminary and subject to change.

Measurement Description	Reported Value	Reported Uncertainty	En	S/U
MV 1) 30.00 mm	30.24 mm	0.020 mm	< 1	S
MV 2) 4.000 in	4.0010 in	0.00020 in	< 1	S