

Calibration Check Outliers

The pathlength accuracy of the Thermo Scientific NanoDrop Lite Spectrophotometer can be assessed using a vial of CF-1. The NanoDrop™ Lite utilizes 260 nm, 280 nm, and 350 nm LED light sources with a photodiode detector. Because CF-1 (aqueous potassium dichromate, $K_2Cr_2O_7$) has strong absorbance at 365 nm, baseline normalization on the NanoDrop Lite is not possible. As a result, there is a potential that outliers may be observed through the course of the calibration check procedure. Outliers are typically caused by particulates or residues on the pedestal, or broken liquid columns, and do not normally indicate a problem with the instrument itself.

Baseline normalization at 365 nm is possible when quantifying nucleic acid and protein samples on the NanoDrop Lite. The normalization in these applications should eliminate outliers caused by particulates or residues on the sample pedestal.

For best results when performing the calibration check procedure, make sure to adhere to proper sample loading and handling techniques:

- Ensure that the pedestals are properly conditioned prior to the calibration check.
- Gloves should be worn during the calibration check.
- Use only lint-free laboratory wipes to avoid the presence of particulates during sample measurement.

In the event that the calibration check procedure results indicate a failure based on standard deviation, it is recommended that the calibration check procedure be repeated. If this failure persists, contact NanoDrop technical support for further assistance.

When sending calibration check related technical questions via email, please include the calibration check results file which is automatically stored in the NanoDrop Lite memory. To access the most recently performed calibration check data, select "Calibration Check" from the "Tools and Settings" option on the home screen. Selecting "View Previous Cal. Check" will display the most recent calibration check data. This file will also be transferred to a USB flash drive when "Save Cal. Check" is selected from the "Save" menu.

For Technical Support, contact us at 877-724-7690, US & Canada, or worldwide at 302-479-7707, or send an email to nanodrop.techsupport@thermofisher.com.