TECH NOTE

LRS-9424 Heat Sink Temperature Stability When Chamber Door is Opened and Closed

OVERVIEW

This technical note presents the results of tests where the LRS-9424 chamber door is opened and closed while fixtures are operating at different temperature set points.

BACKGROUND

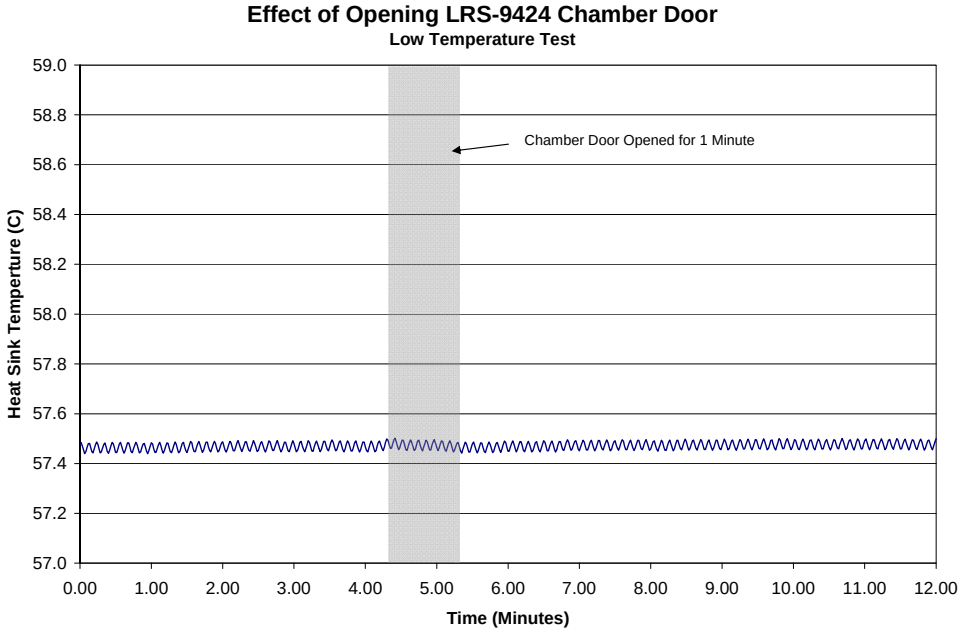
The LRS-9424 Laser Reliability Test System utilizes independent temperature control on each fixture to allow fixtures to be run at different temperatures, and to ensure higher control accuracy. The temperature control system is carefully designed to ensure the lasers maintain a stable temperature throughout the duration of the test cycle, even when the chamber door is momentarily opened to swap fixtures running in other test scenarios.

MEASUREMENT SETUP

In each of the three tests the laser fixtures were allowed to reach their nominal set point temperatures, then the chamber door was opened for a period of 1 minute. This test was repeated for three nominal operating temperatures: 60°C, 80°C, and 100°C. Fixture temperatures were recorded at one second intervals during the test.

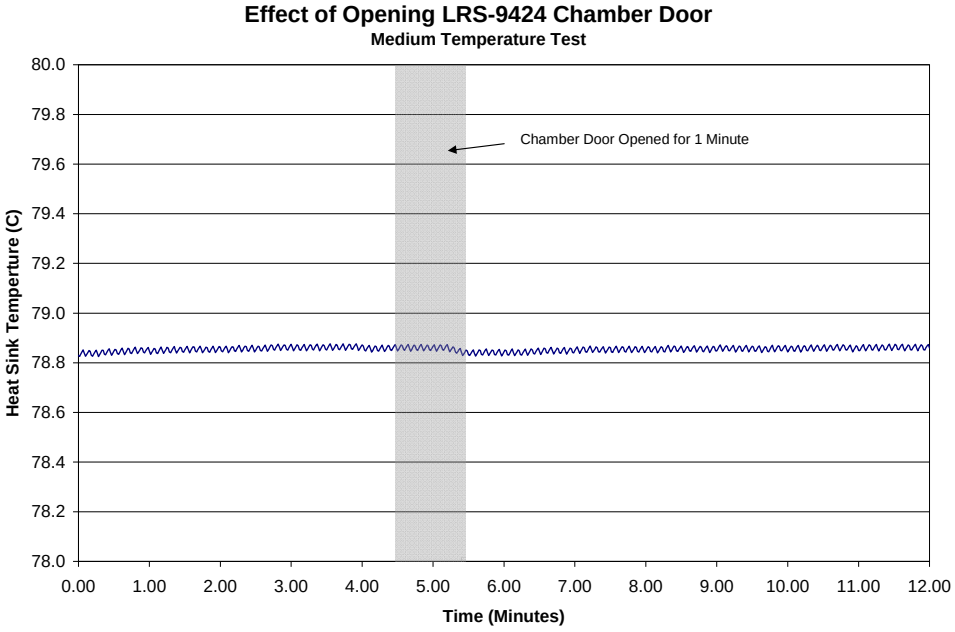
RESULTS

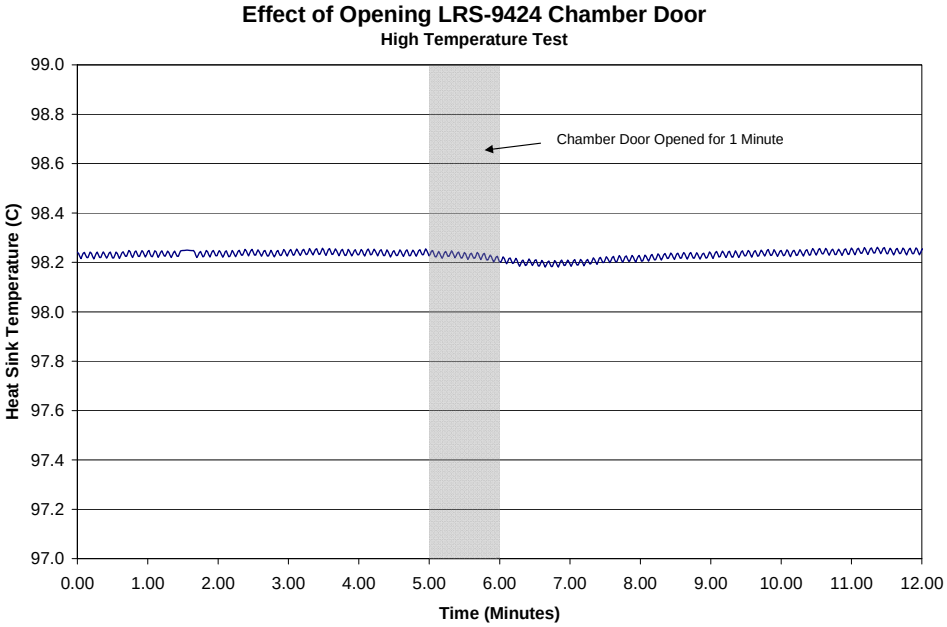
The graphs below show that the maximum temperature deviation on each fixture due to the chamber door opening and closing is less than 0.05°C.



ILX Lightwave
Photonic Test and Measurement

TECH NOTE





ILX Lightwave
Photonic Test and Measurement