



K10 Intoxilyzer® 8000 Stability Study

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After attending this presentation, attendees will gain valuable information about the stability and performance of one model of breath alcohol instrumentation.

This presentation will impact the forensic community and/or humanity by adding additional analytical validity to the alcohol results reported from the Intoxilyzer® 8000 which will aid state programs and prosecutors in convicting drunk drivers.

This study was conducted to investigate the performance and stability of the Intoxilyzer® 8000 operated in either the Alternating Current (AC) or Direct Current Battery (DC_{BT}) mode over a period of one year when the light source remained illuminated.

During this testing period, the light source remained on for 341 days which amounted to greater than 8,184 hours of source/detector life. Furthermore, the instrument detector voltages for both filters were documented for over 240 days to monitor the stability of light source over the evaluation period.

Instrument checks were performed at random intervals to verify the accuracy and precision of the instrument. Each testing day 20 consecutive instrument checks were run in the AC mode followed by 20 consecutive tests using DC_{BT} mode. A total of 4,820 tests were performed on one Intoxilyzer® 8000 using an Instrument check solution lot with a target value of 0.099 g/210L. The statistical mean, median, and mode derived from the analysis of all tests were identical to the target value.

The Intoxilyzer® 8000 pulsed light source/detector is robust and over a period of one year of operation was able to produce acceptable results for the instrument check solution tested in either the AC or DC_{BT} mode with no appreciable loss of calibration or precision.

Intoxilyzer® 8000, Alcohol, Breath Testing