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WET Labs

C-Star Calibration

| Date | May 24, 2013 | S/N# | CST-806DR | Pathlength | 25 cm |

Analog output

V_d **0.059** V
V_{air} **4.855** V
V_{ref} **4.765** V

Temperature of calibration water   **20.8** °C
Ambient temperature during calibration   **21.2** °C

Relationship of transmittance (Tr) to beam attenuation coefficient (c), and pathlength (x, in meters): $\mathbf{Tr = e^{-cx}}$

To determine beam transmittance: $\mathbf{Tr = (V_{sig} - V_{dark}) / (V_{ref} - V_{dark})}$

To determine beam attenuation coefficient: $\mathbf{c = -1/x * ln\ (Tr)}$

V_d Meter output with the beam blocked. This is the offset.
V_{air} Meter output in air with a clear beam path.
V_{ref} Meter output with clean water in the path.
Temperature of calibration water: temperature of clean water used to obtain V_{ref}.
Ambient temperature: meter temperature in air during the calibration.
V_{sig} Measured signal output of meter.