WET Labs

C-Star Calibration

Date	1/7/11	S/N#	CST-1366DR		Pathlength	25 cm

	Analog output	**Digital output**
V_d	0.005 V	0 counts
V_{air}	4.867 V	15989 counts
V_{ref}	4.748 V	15595 counts

Temperature of calibration water		18.2 °C
Ambient temperature during calibration		21.9 °C

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

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

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

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.