

ECO CDOM Fluorometer Characterization Sheet

Date: 3/19/2014

S/N: FLCDRT-1915

CDOM (Quinine Dihydrate Equivalent) concentration expressed in ppb can be derived using the equation:

$$\text{CDOM (QSDE)} = \text{Scale Factor} * (\text{Output} - \text{Dark Counts})$$

	Analog Range 1	Analog Range 2	Analog Range 4 (default)	Digital
Dark Counts	0.082	0.048	0.030 V	57 counts
Scale Factor (SF)	21	42	85 ppb/V	0.0258 ppb/count
Maximum Output	5.00	5.00	5.00 V	16380 counts
Resolution	2.1	2.1	2.1 mV	2.2 counts
Ambient temperature during characterization				22.3 °C

Analog Range: 1 (most sensitive, 0–4,000 counts), 2 (midrange, 0–8,000 counts), 4 (entire range, 0–16,000 counts).

Dark Counts: Signal output of the meter in clean water with black tape over detector.

SF: Determined using the following equation: $SF = x \div (\text{output} - \text{dark counts})$, where x is the concentration of the solution used during instrument characterization. SF is used to derive instrument output concentration from the raw signal output of the fluorometer.

Maximum Output: Maximum signal output the fluorometer is capable of.

Resolution: Standard deviation of 1 minute of collected data.