

ECO CDOM Fluorometer Characterization Sheet

Date: 1/13/2018

S/N: FLCDRTD-1991

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	0.081	0.048	0.030 V	55 counts
Scale Factor (SF)	17	34	67 ppb/V	0.0203 ppb/count
Maximum Output	4.99	4.99	4.99 V	16390 counts
Resolution	1.8	1.8	1.8 mV	2.2 counts
Ambient temperature during characterization				21.0 °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.