



## ECO CDOM Fluorometer Characterization Sheet

Date: 12/17/2021

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
<b>Dark Counts</b>	0.075	0.047	0.029 V	52 counts
<b>Scale Factor (SF)</b>	26	52	104 ppb/V	0.0320 ppb/count
<b>Maximum Output</b>	5.00	5.00	5.00 V	16390 counts
<b>Resolution</b>	1.6	1.6	1.6 mV	1.9 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.