



## ECO CDOM Fluorometer Characterization Sheet

Date: 1/15/2020

S/N: FLCDRTD-1539

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>	0.084	0.042	0.021 V	69 counts
<b>Scale Factor (SF)</b>	30	60	120 ppb/V	0.0362 ppb/count
<b>Maximum Output</b>	4.99	4.99	4.99 V	16320 counts
<b>Resolution</b>	2.3	2.3	2.3 mV	2.7 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.