

FLNTU Characterization Sheet

Date: April 25, 2013

S/N: FLNTUS-610

Chlorophyll Scale Factor

Chlorophyll concentration expressed in µg/l can be derived using the equation:

$$\text{CHL (}\mu\text{g/l)} = \text{Scale Factor} \times (\text{Output} - \text{Dark Counts})$$

	Analog		Digital	
Dark Counts	0.108	V	59	counts
Scale Factor (SF)	10	µg/l/V	0.0127	µg/l/count
Maximum Output	5.02	V	4121	counts
Resolution	0.7	mV	1.0	counts
Ambient temperature during calibration	22.3	°C		

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

SF (CHL): 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.