

FLNTU Characterization Sheet

Date: October 10, 2011

S/N: FLNTU-873

Chlorophyll Scale Factor

Chlorophyll concentration expressed in $\mu\text{g/l}$ 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	0.094	V	58	counts
Scale Factor (SF)	6	$\mu\text{g/l/V}$	0.0071	$\mu\text{g/l/count}$
Maximum Output	5.00	V	4121	counts
Resolution	1.0	mV	1.0	counts
Ambient temperature during calibration	22.3	$^{\circ}\text{C}$		

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

SF (CHL): Determined using the following equation: $\text{SF} = x \div (\text{output} - \text{dark counts})$, 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.