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## ECO Phycoerythrin Fluorometer Characterization Sheet

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S/N: BBFL2W-1481

Phycoerythrin concentration expressed in ppb can be derived using the equation:

$$\text{Phycoerythrin (ppb)} = \text{Scale Factor} * (\text{Output} - \text{Dark Counts})$$

|   |                             |
|---|-----------------------------|
| <b>Dark Counts</b>                          | <b>Digital</b><br>60 counts |
| <b>Scale Factor (SF)</b>                    | 0.0426 ppb/count            |
| <b>Maximum Output</b>                       | 4130 counts                 |
| <b>Resolution</b>                           | 1.3 counts                  |
| Ambient temperature during characterization | 21.3 °C                     |

**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 fluo

**Maximum Output:** Maximum signal output the fluorometer is capable of.

**Resolution:** Standard deviation of 1 minute of collected data.