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Scattering Meter Calibration Sheet

9/23/2014

Wavelength: 700

S/N

FLBBRTD-3698

Use the following equation to obtain either digital or analog "scaled" output values:

$$\beta(\theta_c) \text{ m}^{-1} \text{ sr}^{-1} = \text{Scale Factor} \times (\text{Output} - \text{Dark Counts})$$

• Scale Factor for 700 nm	=	1.662E-06 (m ⁻¹ sr ⁻¹)/counts	1.362E-03 (m ⁻¹ sr ⁻¹)/volts
• Output	=	meter output counts	meter output volts
• Dark Counts	=	43 counts	0.0708 volts
Instrument Resolution	=	1.0 counts 1.0651 mV	1.66E-06 (m ⁻¹ sr ⁻¹)

Definitions:

- **Scale Factor:** Calibration scale factor, $\beta(\theta_c)/\text{counts}$. Refer to User's Guide for derivation.
 - **Output:** Measured signal output of the scattering meter.
 - **Dark Counts:** Signal obtained by covering detector with black tape and submersing sensor in water.
- Instrument Resolution: Standard deviation of 1 minute of collected data.