



Scattering Meter Calibration Sheet

1/17/2020

Wavelength: 470

S/N BBRTD-501B

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 470 nm	=	1.316E-05 (m ⁻¹ sr ⁻¹)/counts	1.085E-02 (m ⁻¹ sr ⁻¹)/volts
• Output	=	meter output counts	meter output volts
• Dark Counts	=	51 counts	0.0510 volts
Instrument Resolution	=	1.0 counts 0.0005 mV	1.32E-05 (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.