PO Box 518 620 Applegate St. Philomath, OR 97370



(541) 929-5650 Fax (541) 929-5277 www.Seabird.com

Scattering Meter Calibration Sheet

11/29/2022

Wavelength: 440 S/N BB3-7941

Use the following equation to obtain "scaled" output values:

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

• Scale Factor for 440 nm = 1.232E-05 (m⁻¹sr⁻¹)/counts

Output = meter reading counts

• Dark Counts = 50 counts

Instrument Resolution = 1.0 counts 1.23E-05 (m⁻¹sr⁻¹)

Definitions:

- Scale Factor: Calibration scale factor, $\beta(\theta_c)$ /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.

BB3-7941 Revision S 10/4/07

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Scattering Meter Calibration Sheet

11/29/2022

Wavelength: 595 S/N BB3-7941

Use the following equation to obtain "scaled" output values:

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

• Scale Factor for 595 nm = 4.535E-06 (m⁻¹sr⁻¹)/counts

Output = meter reading counts

Dark counts= 47 counts

Instrument Resolution = 1.0 counts 4.54E-06 (m⁻¹sr⁻¹)

Definitions:

- Scale Factor: Calibration scale factor, $\beta(\theta_c)$ /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.

BB3-7941 595nm Revision C 10/2/07

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Scattering Meter Calibration Sheet

11/29/2022

Wavelength: 700 S/N BB3-7941

Use the following equation to obtain "scaled" output values:

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

• Scale Factor for 700 nm = $2.990E-06 \text{ (m}^{-1}\text{sr}^{-1})/\text{counts}$

Output = meter reading counts

• Dark Counts = 49 counts

Instrument Resolution = 1.3 counts 3.97E-06 (m⁻¹sr⁻¹)

Definitions:

- Scale Factor: Calibration scale factor, $\beta(\theta_c)$ /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.

BB3-7941 Revision S 10/4/07