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## Scattering Meter Calibration Sheet

8/18/2004                      Customer: Emmanuel Boss  
Wavelength: 660                      S/N#: BBRT-142r                      Job #: 408006                      Tech: K.C.

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

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

• <b>Scale Factor for 660 nm</b>	=	3.91E-06 (counts)	3.20E-03 (volts)
• <b>Output</b>	=	meter output (counts)	meter output (volts)
• <b>Dark Counts</b>	=	70 (counts)	0.094 (volts)
Instrument Resolution	=	0.0504 (counts) 0.5039 (volts)	1.97E-06 ( $\text{m}^{-1} \text{sr}^{-1}$ )

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### 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.