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1. General Description

The hand held Model 150 Digital Intensity Meter is designed to precisely measure UV and Deep UV (DUV) radiation. The unit includes a dual-sensor probe containing industry accepted spectral regions (UV365 and UV400) which simulate the spectral responses of negative and positive resist. DUV sensors are also available.

2. Applications

Model 150 is used primarily for the measurement of intensity mW/cm and beam uniformity of UV/DUV output. Such light sources are principally used in the manufacturing process of integrated circuits, thin film hybrids, and printed circuit boards.

3. Features

- a. LCD Display
- b. Interchangeable, calibrated spectral probes
- c. Operates on 9-volt transistor battery with typical life greater than 150 hours
- d. Intensity scales: 2W/cm² (2,000 mW/cm²) or 200mW/cm².

4. Specifications

NIST Traceability	Better than $\pm 3\%$
Repeatability	Better than $\pm 1\%$
Accuracy	Electrical $\pm 1\%$; Linearity $\pm 0.1\%$; Optical Calibration $\pm 5\%$ absolute; $\pm 1\%$ relative
Intensity Scales	Channel A: 20mW/cm ² and 200mW/cm ² Channel B: 20mW/cm ² and 200mW/cm ²
Circuitry	Solid State CMOS integrated circuitry
Display	Liquid Crystal 3.5 digit for intensity values, Low battery
Controls	ON/OFF, CHANNEL SELECT, INTENSITY SCALE, HOLD DISPLAYED INTENSITY
Spectral Responses	Standard Probe (dual channel) Channel A=365nm, Channel B=400nm
Optional Probes	Available in Deep UV (220,248,254,260nm), Mid UV (280 and 310nm), UV (365, 400 & 436nm)
Power Requirements	One standard 9V transistor battery
Dimensions	6.0" L, 2.75" W, 1.1" D
Weight	11.5 ounces

5. Maintenance

The Model 150 requires no user maintenance other than battery changes. “Low Bat” will be displayed whenever a battery change is required.

ABM recommends yearly calibration checks to maintain NIST tractability.