

Solutions - for all your measurement needs

Multi Function
Portability



RADCAL ACCU-LIGHTMETER

In the diagnostic imaging environment, the Radcal instrument measures the luminance level (brightness) and uniformity of back-lighted display screens, plus the illuminance level of the ambient light incident upon the screen surface. The meter measures photometric parameters in both metric (SI) and English system units.



KEY FEATURES

- Multi function portability.
- Surface luminance and ambient light cosine-corrected illuminance.
- Calculates display screen ratios.
- Instrument stores up to 9 readings in specific addresses.
- Correctly evaluates the ambient light sources regardless of their angle of incidence to the display surface.

THE GOLD STANDARD IN RADIATION MEASUREMENT

ACCU-LIGHTMETER KEY FEATURES AND BENEFITS:

TYPE - Portable, hand-held lightmeter for the measurement of display surface luminance and ambient light cosine-corrected illuminance.

MEASURING CAPABILITY - Measures luminance level in candela per square meter (nits) and foot Lamberts; Ambient light level in lux and footcandles.

LIGHT SENSOR & SPECTRAL RESPONSE - The meter combines a silicon photovoltaic cell photo detector with a computer-designed glass optical filter. This detector system is designed to closely match the Accu-Lightmeter's spectral response to the CIE Standard Observer Curve $V(\lambda)$ Luminosity function (also known as CIE 1932 Photopic and human eye response curves), which define the eye's sensitivity to light levels of various colors. The spectral response of the Accu-Lightmeter matches the CIE response to within 2.5% of the reading when using CIE Standard Illuminant Source A.

ILLUMINANCE - Ambient light level measurement is fully cosine-corrected due to a specially designed white molded diffuser input optic. The diffuser provides cosine correction to a high degree of refinement, thus the Accu-Lightmeter correctly evaluates the ambient light sources regardless of their angle of incidence to the display surface.

MEMORY - Instrument stores up to 9 readings in specific addresses from S1 to S9 when S mode is selected (by pressing mode selection switch); previously stored reading can be recalled or deleted by pressing RCL switch for recall and STR and RCL switches simultaneously to delete a stored reading from a specific address.

RATIO - To calculate display screen ratio, simply press the mode switch twice, and the Ratio annunciator will appear on the left side of the meter display.

Take a reading of the brightest point on the display screen and press STR switch and the meter will display '100' plus the percent (%) annunciator. All subsequent readings taken in this mode will be displayed as a percentage of the first reading.

SPECIFICATIONS / TECHNICAL DATA:

All specifications subject to change.

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| Luminance range: | Cd/m ² (nits): 0.01 to 70,000; foot Lamberts: 0.01 to 70,000. |
| Illuminance range: | Lux: 0.01 to 70,000; footcandles: 0.01 to 70, 000. |
| Resolution: | 0.01 to 99.99 in increments of 0.01; 100 to 9,999 in increments of 1; 10,000 to 70,000 in increments of 10. |
| Photometric accuracy: | ± 3% of full-scale on any range (when measuring blackbody Lambertian sources). Calibration is traceable to the National Institute of Standard Technology (NIST). |
| Maximum uncertainty: | 3% CIE Standard Illuminant Source A. |
| Repeatability: | ± 0.2% (at constant temperature). |
| Power consumption: | Operating 5.00mA / reading; Data Retention 5uA. |
| Power source: | One 6 volt battery #A544, PX28L, PX28. |
| Power off: | Automatic power off after 60 seconds once power switch is deactivated. |
| Estimated battery life: | Approximately one year with normal use (see section on battery). |
| Weight / dimensions: | Approximately 6 ounces; 5 ½" x 2 ½" x 2". |