

Model 930C Laboratory/Field Retroreflectometer

PRODUCT SUMMARY

The requirement for inspection of new retroreflective materials and signs as well as determination of the degradation resulting from weathering at many different observation and entrance angles normally involves time-consuming measurement in a photometric range (FTMS 370, LS-300C, ASTM E-810, RoadVista Model 940D). While the photometric range system provides the lowest uncertainty in determining the coefficient of retroreflectance, the Model 930C system allows the materials and test engineer as well as the quality control inspector to conveniently measure these materials. The accuracy of these measurements is more than adequate for over 90% of the cases with the included photometric range calibrated reference samples.

The Model 930C system consists of an optical head with three ranges of sensitivity, a control unit, an entrance angle attachment and two sets of standards of all colors in engineering and high intensity types. The 930C optical head observation angle is continuously adjustable from 0.2° to 2.0°.

The sensitive light sensor meets the requirements of a match to the CIE standard human eye response in conjunction with the lamp output match to the CIE illuminant "A", 2856° Kelvin correlated color temperature requirement. A new photometric filter fit allows accurate measurements of other colors when the 930C is standardized using the white calibration reference.

The system comes standard with a 110/220 VAC supply for convenient laboratory use and a 12 VDC battery pack with battery charger for field measurements. The Model 930C system is also provided with a foam-lined carrying case.

If field measurement is needed for high-mounted traffic signs, the Model 907-30 extension pole kit is recommended.



FEATURES

- Variable observation and entrance angle
- Meets LS-300C, ASTM, CIE & DIN specifications
- Three measurement ranges
- Photopic-corrected detector and source "A"
- Reference standards included
- Solid-state electronics
- Digital liquid-crystal display
- Long-life battery and recharger
- Foam-lined carrying case



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Website: www.RoadVista.com

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SPECIFICATIONS

Observation Angle	Continuously variable from 0.2° to 2.0°
Entrance Angle	Continuously variable from -40° to +40°
Light Source Angular Subtense	0.1°
Receptor Angular Subtense	0.1°
Measurement Area	Approximately 1 in. (2.6 cm) diameter
Dimensions	(optical head without handle) 18 x 5 inches (41 cm x 13 cm)
Weight	Instrument with handle = 4.5 lbs (2.04 kg)
Control Unit	10 x 4.5 x 2.5 in. (25 cm x 11.5 cm x 6.5 cm)
Temperature Range	0° C to 50° C
Humidity	Non-condensing = 0 to 95%
Calibration	Multi-color standards - Model 902 & 903 reference standard sets. Engineering and high-intensity grades in 6 colors, caps stored in a foam-lined carrying case
Measurement Range	0.001 to 1999 cd/lux/m ² in 3 electrical ranges
Controls	Zero (dark), calibrate, range switch and low-battery indication
Detector Light Source	Silicon photodiode with photopic filter combined with light source at CIE illuminant "A" (2856° kelvin)
Power Supply	110 or 220 VAC, and rechargeable battery 12 VDC



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