

933 Retroreflectivity Goniometer System




ROADVISTA
a  **GAMMA SCIENTIFIC** company

933 Retroreflectivity Goniometer

Retroreflectometers

With over three decades of highway safety leadership and innovation, RoadVista has set the standard in retroreflectometer accuracy, reliability and usability.

RoadVista, a Gamma Scientific company, is committed to making roads visibly safer with a complete selection of instruments and laboratory testing services for retroreflection.

Applications

- Traffic Signs
- Pavement Markings
- Sign Sheeting
- Safety Clothing
- Light Testing Services and Calibration

Additional Instruments

To view the complete line of retroreflectometers from RoadVista, visit www.RoadVista.com

RoadVista
9925 Carroll Canyon Rd.
San Diego, CA 92131
USA
1-888-637-2758
rvsales@roadvista.com
www.roadvista.com



The RoadVista 933 Retroreflective Workstation is a benchtop four-axis goniometer for testing sign sheeting and high visibility clothing.

The 933 serves as an inspection QA testing instrument for rapid tests at multiple measurement geometries.

Data Captured

- RA value
- β_1 , β_2 , ϵ , and α angles
- CIE1931 x and y coordinates
- Current Date and Time
- Temperature and Humidity
- Comments up to 18 characters

The 933 Retroreflective Workstation measures retroreflection (RA) and the retroreflective color of materials. The 933 contains a 3-axis motorized goniometer that features continuously adjustable β_1 (-60° to 60°), β_2 (-60° to 60°), and ϵ (-180° to 180°) angles, as well as a motorized, continuously adjustable α (0.2° to 2°) angle mechanism. The observation angle on the color detector is fixed at 0.33°.

The primary light sensor meets ASTM E1709 requirements with the CIE standard human eye response in conjunction with the CIE illuminant "A" lamp. The photometric filter accurately measures different colors without the need to calculate correction factors. The color detector features a 3-channel RGB sensor used to generate CIE1931 color coordinates.

The instrument can be operated as a stand-alone unit, in which case the internal memory has the capacity to store readings and accompanying data for more than 30,000 measurements in non-volatile flash memory. Additionally, the 933 can be controlled over USB via simple ASCII commands to automate multi-measurement situations.

933 Retroreflectivity Goniometer

Specifications	
Primary Observation Angle α	Automated, variable from 0.2° to 2.0°
Color Observation Angle	0.33°
β_1 Angle	Continuously variable from -60° to 60°
β_2 Angle	Continuously variable from -60° to 60°
ϵ Angle	Continuously variable from -180° to 180°
Light Source Angular Sub-tense	0.1°
Primary Receptor Angular Sub-tense	0.1°
Color Receptor Angular Sub-tense	0.4°
Measurement Area	Approximately 1 inch (2.6cm) in diameter
Measurement Range, Primary Sensor	0.1 to 10000 cd/m ² /lux in 4 electrical auto-gained ranges
Measurement Range, Color Sensor	10 to 2000 cd/lux/m ²
Data Storage	>30,000 measurements via on-board flash memory
Computer Interface	USB
Main Detector	Silicon photodiode with photopic filter combined with light source at CIE Illuminant "A" (2856°K)
Color Detector	RGB detector with photopic filter, calibrated to CIE1931 standard
Display Interface	High Resolution Color Touchscreen
Comment Field	18-character per measurement
Emergency Stop Button	Stops the goniometer instantly
Door Safety Switch	Prevents Goniometer operation unless door is closed
Power	Universal Input, 120-240V
Operating Temperature	15°C to 30°C (50°F to 104°F)
Operating Humidity	0 to 95% non-condensing
Sensors	Temperature, Humidity
Dimensions	22 in. (56 cm) wide; 32.5 in. (83 cm) high; 26 in. (66 cm) deep

Accessories	
Standard	Optional
Calibration Standard	Annual Calibration Service
Calibration Certificate	
USB Cable	
Power Cord	