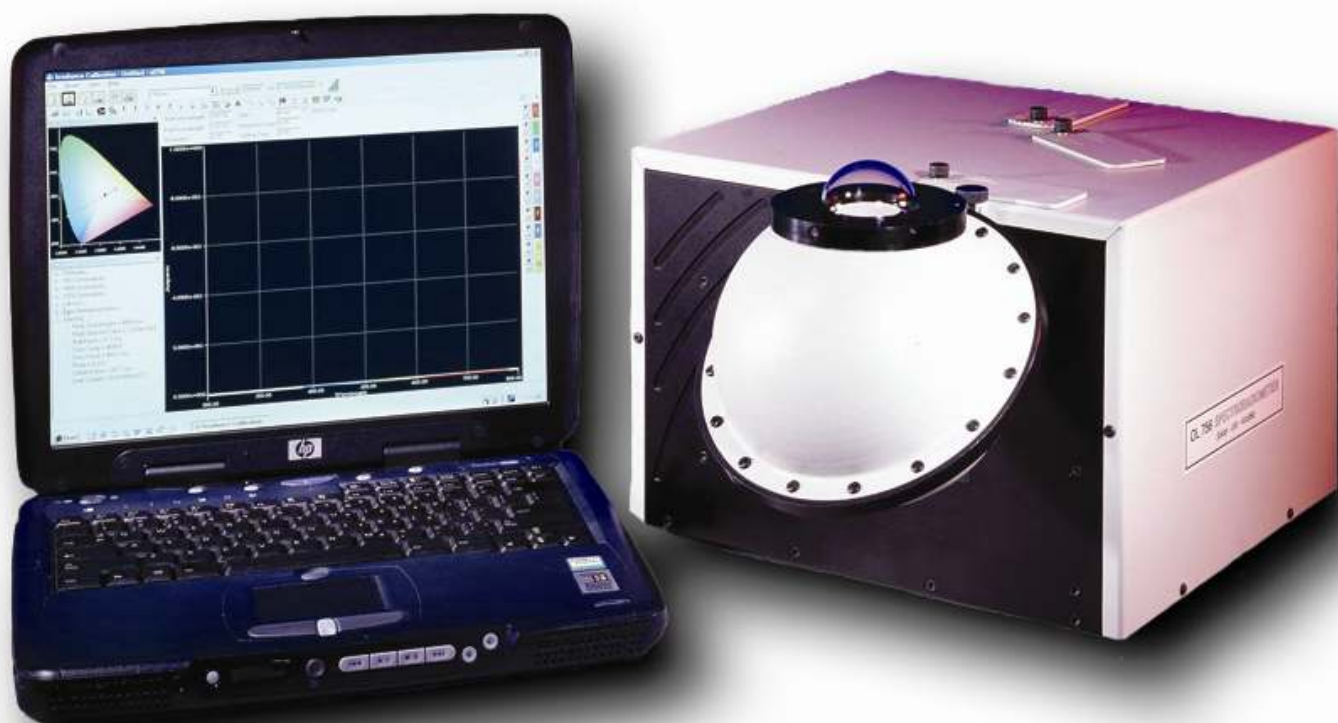




Gooch & Housego



The Best Made Better: Gooch and Housego's OL 756

The next generation, state-of-the-art, fully automated, compact and portable double monochromator.

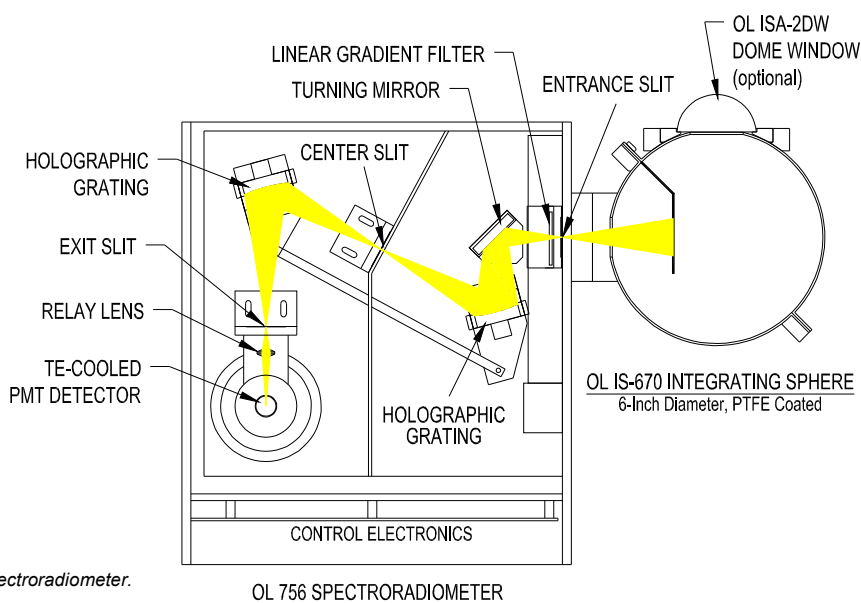
With accurate results at 200 nm per second (QuickScan Mode), the OL 756 is the fastest scanning portable spectroradiometer on the market today!

Features

The OL 756 Spectroradiometer is engineered for high performance spectral measurements over the 200 to 800 nm wavelength range. A USB interface, state-of-the-art motion control system and digital signal processing enable this scanning double monochromator to approach speeds seen only with array-based, multi-channel instruments but with 10-20 times the resolution and four orders of magnitude more stray light suppression! With a double monochromator, internal detector, and control electronics packaged in a single portable enclosure, it's quick to set up as well as simple to operate thanks to a powerful set of software tools.

- True 200 - 800 nm range
- Quick scan for fastest measurements with precision¹
- Large dynamic range
- High speed motion control system – full spectrum measurements in about 3 seconds
- Superior resolution and stray light rejection
- Software tools provide easy measurement with analysis capabilities
- USB interface for high performance operation and connection simplicity
- DSP signal processing produces faster scanning, lower noise, and superb detailed spectra structure
- 12VDC Power, compact and portable – electronics and optics combined in a single package for field and remote measurements
- High efficiency gratings coupled to a TE-cooled high sensitivity S-20 response PMT-based detector
- Automated 6-decade gain autoranging data acquisition system
- Automated linear variable second order blocking filter
- Interchangeable fixed slits allow user to set half bandwidth from 0.4 – 10 nm
- Manual setting for single point monitoring and point-to-point mode for high speed/precision measurements
- Wide range of measurement accessories available

The double monochromator's proven optical design utilizes concave, holographic gratings with peak efficiencies at 300 nm. The detector consists of a high-sensitivity, thermoelectrically cooled photomultiplier. Features include high sensitivity, extremely low stray light levels, narrow bandwidths, large dynamic range, and high wavelength accuracy and precision.



¹ Quick Scan mode not available on any other scanning spectroradiometer.

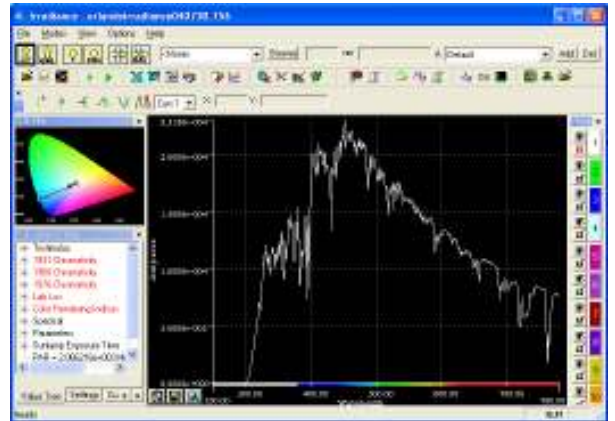
Software

Includes calibration and measurement routines for performing measurements of:

- Source Spectral Analysis
- Spectral Transmittance

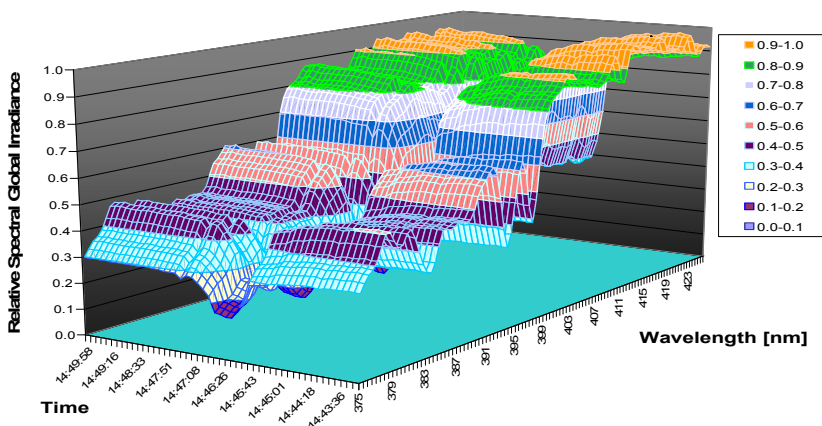
Features:

- Highly flexible plot manipulation shows up to 10 scans on a single graph - select and/or protect one or many with "hide scan" or "lock scan" features
- Capability to save and load user-defined scan settings
- Plot cursors make precise spectral analysis and comparisons a snap
- "One-click" measurement routines and automatic file saving
- Spectral plot zooming and dragging allows precise viewing of spectral data
- Favorites calibration file list saves searching and selection time by showing recently used files
- Supervisor password protects data and prevents measurement setups from being altered
- Directly supports Microsoft Word templates for professional customized report generation
- Send results directly into Microsoft Excel for the utmost in customized analysis power and data manipulation
- Built-in flash memory storage of system parameters



- Color CIE diagrams with zoom capability for precise color studies, sequential measurement result accumulation on the diagram; data reduction includes custom illuminants
- The Value Tree organizes your calculations, showing only what you need to see
- Savitzky-Golay plot smoothing reduces noise while preserving features, such as peak height and width
- Automated Web Software Update feature checks for new software versions and automatically installs updates if desired by the user
- Optional ActiveX controls available for custom programming
- Compatible with Windows 2000, XP, and Vista, Windows 7 (32 and 64 bit)

Sun Measurements on a Cloudy day



Each spectrum shown was scanned in 0.25 seconds and exported to Microsoft™ Excel in real time!

² Data acquisition only - exclusive of data reporting duty cycle.

Accessories

- **OL IS-670 Integrating Sphere** – An optional PTFE coated 6-inch diameter integrating sphere cosine receptor designed to provide optimum cosine response over a 2π steradian FOV. Optional UV-grade fused silica dome window available to protect the sphere coating from contamination. Other sphere sizes are available.
- **OL 756-150 Dual Calibration Source** – Performs precise system wavelength accuracy verifications and calibrations, as well as system optical gain in the laboratory or field. Powered directly from the OL 756. Contains a stable 5W tungsten lamp and a low pressure mercury argon fluorescent lamp. Provides spectral emission lines from 254 nm to beyond 800nm.
- **OL 756-CC Carrying Cases** – Two cases for easy transport of the OL 756 spectroradiometer and accessories. Made of rotationally molded, high-density polyethylene for exceptional strength.
- **OL 730-7Q Fiber Optic** – A quartz fiber for locating the input optic from the system for measurements in confined spaces (i.e. solar simulators, growth chambers, tanning booths, etc.)
- **OL 756-BAT Battery Pack** – For remote operation of the OL 756. Comes in a soft-case pouch with carrying strap, AC charger, and 12V cable for powering from the battery pack or any standard 12VDC auto accessory outlet. Capable of continuously powering the OL 756 for 4-6 hours.
- **NIST-Traceable Calibration Accessories:**
 - OL 752-10 Tungsten Plug-in Standard of Spectral Irradiance (250 – 800 nm)
 - OL 65A / 83A Programmable Current Source
 - OL 752-12 Deuterium Plug-in Standard of Spectral Irradiance (200 – 400 nm)
 - OL 45D Deuterium Current Source



Specifications

Wavelength Range	200 to 800 nm
Wavelength Accuracy	± 0.15 nm
Wavelength Resolution	0.025 nm
Wavelength Repeatability	± 0.05 nm
Optical Half Bandwidth (FWHM)	0.4 – 10 nm
Stray Light Level	$< 10^{-8}$ @ 285 nm (typ) ²
Spectroradiometric Accuracy (Uncertainty @ k=2).....	1% (UVA-Vis) ³ 3% (UVB-UVC) ³
Measurement Modes	Manual, Normal, Quickscan
Maximum Scan Speed (200 – 800 nm)	200 nm/sec (Quickscan Mode)
Noise Equivalent Irradiance (W/m ² nm) (typ) ¹	1.7 E-7 @ 300nm 1 E-7 @ 500 nm 5.6 E-7 @ 700 nm
Detector	TE-cooled S-20 Response Photomultiplier
PMT High Voltage Range	0 – 1100V
Communication Interface	USB / RS-232
Operating Temperature.....	10 – 40°C
Power Consumption.....	12VDC / 3A max or 115VAC / 1.2A or 230VAC / 0.6A
Dimensions.....	12.75" x 11" x 8.75"
Weight	25 lbs

¹ FWHM – 1.5 nm, IS-670 6-inch Integrating Sphere, PMT at ~650V

² Normal mode

³ Normal mode, relative to NIST Standard @ k=2