Profiling and Imaging Solutions

EFI ES-2000 Spectrophotometer

Amazing, Precise, Consistent Color

Achieving predictable color is a major challenge for any business. The EFI™ ES-2000, a color measurement device for calibration and profiling, solves this dilemma by enabling fast, precise and flexible color management that produces the highest color quality.

Versatile Color Management
Color management is an essential component in handling today’s complex digital imaging workflows. The ES-2000 delivers:

Precise and Fast Color Calibration
The flexible spectrophotometer is simple to install. It connects to Fiery servers with just a USB cord, then quickly calibrates your output devices to consistently produce reliable color. The ES-2000 has improved emissive measurement for better temperature stability and higher brightness levels.

CMYK and RGB Profiles for Input and Output Devices
The ES-2000 allows you to quickly and accurately measure color patches to create device profiles with Fiery Color Profiler Suite software. It offers UV-cut and non-UV-cut measurements in a single device, allowing you to profile all your media with one instrument.

Accurate Spot Color Measurement
The spectrophotometer produces precise spot colors by capturing them from a physical swatch and including them in the server’s spot color library, so you can easily print the color you need fast.

Exact White Point Measurement
The ES-2000 helps to accurately simulate color output by incorporating the exact paper white point in the color profiles available at the Fiery server.

Speed and Precision
The ES-2000 builds on the success of ES-1000 spectrophotometer to deliver increased accuracy, ease of use and an expanded professional-level feature set, including:

- Support for UV-cut or non-UV-cut measurements in a single device: Now you can profile any paper with one instrument.
- Positioning detection sensor for error-free patch scanning.
- LEDs for better device-status feedback.
- New diagnostics and self-correction features.
- Easier self-maintenance to keep device working at top performance at all times.
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Spectral Engine
- ES-2000 technology with built-in wavelengths check
- Spectral analyzer: Holographic diffraction grating with 128-pixel diode array
- Spectral Range: 380 – 730nm
- Physical sampling interval: 3.5nm
- Optical resolution: 10nm
- Spectral reporting: 380 – 730nm in 10nm steps
- Measurement Frequency in scanning mode: 200 measurements per second

Optics
- Measurement geometry: 45°/0° ring illumination optics, ISO 13655:2009
- Measurement aperture: 0.18” (4.5mm) diameter (effective measurement aperture during scanning is depending on the patch size and measurement speed)
- Illumination Spot Size: 0.14” (3.5mm)
- Light source: Gas filled tungsten (illuminant type A) and UV LED

Reflective Measurement
- Data Format: Spectral Reflectance (dimensionless)
- Measurement Conditions:
  - UV included - ISO 13655:2009 measurement condition M0
  - D50 - ISO 13655:2009 measurement condition M1
  - UV excluded Filter - ISO 13655:2009 measurement condition M2
- Calibration: Manual on external ceramic white reference
- Measurement Background: white, ISO 13655:2009; for measurements on backup board
- Maximum Media Thickness: 0.12” (3mm) on backup board
- Minimum Patch Size in Scanning Mode: 0.28” x 0.39” (7 x 10mm) (width x height) with sensor ruler 0.39” x 0.39” (10 x 10mm) (width x height) without sensor ruler
- Inter-instrument agreement: 0.4 ∆E94* average, 1.0 ∆E94* max. (deviation from X-Rite manufacturing standard at a temperature of 73.4°F (23°C) on 12 BCRA tiles (D50, 2°))
- Short-term repeatability: 0.1 ∆E94* on white (D50, 2°, mean of 10 measurements every 3 seconds on white)

Emissive Measurement
- Data format: Spectral radiance (mW/(nm/m2/sr)); Luminance Y (cd/m2)
- Measurement range: 0.2 - 1200 cd/m2 on a typical LCD-Monitor
- Short-term repeatability: x,y: +/- 0.002 typical (5000°K, 80 cd/m2)

Operating Conditions
- Temperature: 50°F (10°C) – 95°F (35°C)
- Humidity: 0% – 80% non-condensing

Interface, Dimensions and Weight
- Interface: USB 1.1
- Power supply: Device powered by USB. No additional charger or battery required. USB 1.1 high power device.

Physical Dimensions
- ES-2000 device: Length 6.1”, width 2.6”, height 2.6” (155mm x 66mm x 67mm)
- Ruler: Length 13.3”, width 4.0” (337mm x 102mm)
- Backup Board: 14.0” x 10.4” (355mm x 265mm) folded or 14.0” x 15.7” (355mm x 400mm) unfolded
- Weight ES-2000 device: 8.6oz (245g)