

Specification Comparison

| | Datacolor | GretagMacbeth | | X-Rite | |
|-------------------------------------|---|--|---|--|---|
| | Spectrocolorimeter DC1005 | Spectrolino | Eye-One Pro | DTP41 Series II Autoscan | Pulse |
| Price | \$499 | \$6,077.00 | \$1,395.00 | \$2,595.00 | \$1,499 |
| Measuring Geometry | 45°/0° - Dual Channel | 45°/0°, DIN 5033 | 45°/0°, DIN 5033 | Reflection 45°/0° per ANSI/ISO 5-4 (IT2.17) | 0°/45° per ANSI / ISO 5.4 |
| Light Source | LED array | Tungsten, Type A | Tungsten, Type A | Gas Pressure @ 2850°K | Gas pressure tungsten @ 2850°K |
| Measurement Aperture | 7 mm diameter illuminated; 4 mm diameter measured | 4 mm | 4.5 mm | 1.8mm (.070 in) in scan direction x 2.5mm (.097 in) wide | 3.2 mm |
| Warm-Up Time | None | Not Specified | Not Specified | None | Not Specified |
| Measurement Time | <1 second | 1 - 2.5 second | Not Specified | Approx. 0.25 sec/patch (7mm patch) | < 2 seconds per 30 patch strip with Pathfinder, Integrated velocity feedback control system |
| Short-term Repeatability | DE*94 <= 0.01 with respect to the mean CIELab value of 10 measurements every second on white. | 0.03 _E*CIELab (D50, 2°), mean value of 10 measurements every 10 s on white | DE*94 <= 0.1 (D50,2°), with respect to the mean CIELab value of 10 measurements every 3 seconds on white | 0.2 _E max.; ±0.01 Dmax on white | 0.2 DE*94 max.; ±0.01 Dmax. on white |
| Inter-Instrument Agreement | Average 0.4 DE*94, 1.0 Max DE*94 Measured on 12 BCRA tiles at 22°C. | typically 0.3 _E*CIELAB (D50, 2°), average based on 12 BCRA tiles maximally 0.8 _E*CIELAB (D50, 2°) on 12 BCRA tiles | Average 0.4 DE*94, max. 1.0 DE*94 (Deviation from GretagMacbeth manufacturing standard at 23°C for single measurement mode on 12 BCRA tiles (D50,2°). | 0.3 _E cmc avg. typical (avg. based on 12 BCRA tiles) | <0.3 DE*94 average <0.6 DE*94 maximum |
| Output Function | XYZ CIE L*a*b* | CIE-XYZ, CIE-xyY, CIE-L*a*b*, CIE-L* C*h*(a*b*), CIE-L*u*v*, CIE-L*C*h*(u*v*), LABmg, LCHmg, HunterLab, RxyRz | Luminance (cd/m2) Chromaticity coord. x,y (CIE 1931) | | |
| Illuminants/Observers | D50 CIE 2°, 1931 standard observer D65 CIE 10°, 1964 standard observer | D50, D65, A, C, D30...D300, F1...F12 2° & 10° Standard Observers | | A, C, D50, D55, D65, D75, F2, F7, F11 & F12 CIE 2° & 10° Standard Observers | |
| Communication Interface | USB 2.0 Full Speed | RS-232 | USB 1.1 | RS-232, USB | USB |
| Power Requirements | USB-powered | 90 to 270 V AC, 47 to 63 Hz | USB Powered | 12v DC, Universal 100-240 VAC; 50-60 Hz adapter; 30W | Internal NiMH battery USB charged via powered USB port (rapid charge with optional accessory AC adapter) |
| Dimensions of Measuring Head | Height: 55.4 mm Width: 97.5 mm Length: 149.6 mm Weight: Unit: 131g Calibration base: 29g | Height: 63 mm Width: 65 mm Length: 155 mm Weight: 230 g | Height: 67 mm Width: 66 mm Length: 151 mm Weight: 185 g | Height: 88 mm Width: 184 mm Length: 114 mm Weight: 890 g | Height: 61 mm Width: 61 mm Length: 132 mm Weight: 258 g |
| Environmental Requirements | Operating Temperature: +5°- +40° C Relative Humidity: max 85%, noncondensing | | | +10° (50°F) to +40°C (104°F) operating 30% to 85% RH non condensing" | +10°C (50°F) to 35°C (104°F); 30% to 85% RH (noncondensing) |