

# Color-Eye® 3100 Spectrophotometer

## The Laboratory Grade Spectrophotometer That Combines Accuracy With Versatility.

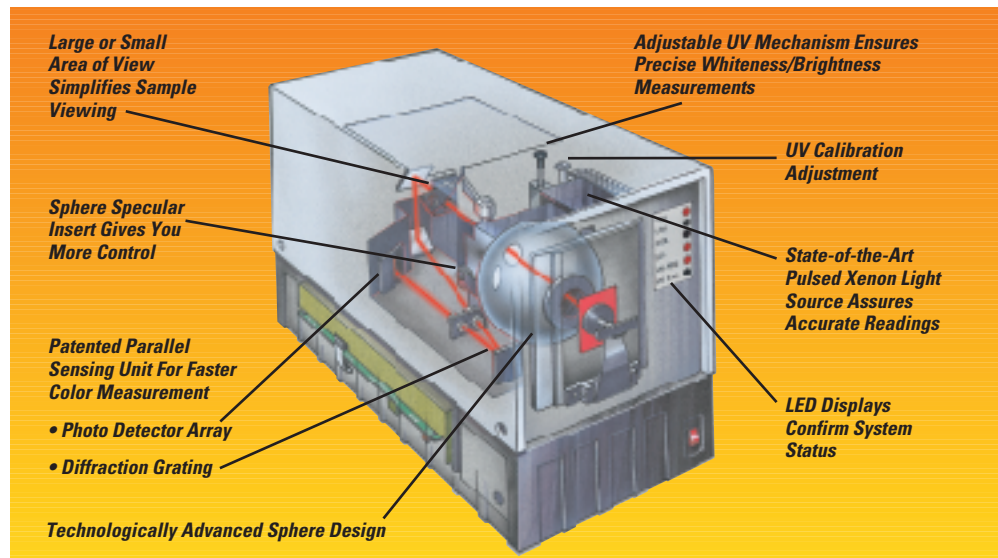
The Color-Eye 3100 is a high performance spectrophotometer designed to help you reduce costs and boost productivity. The Color-Eye 3100 incorporates the design of a laboratory reference instrument with the features needed for day-to-day operation in a production environment. Like most reference instruments, the Color-Eye 3100 features a full 6" integrating sphere and offers transmission measurement capabilities.

### **Agreement Of Readings Between Instruments Allows Accurate Data Communication**

The Color-Eye 3100 offers exceptional interinstrument agreement – meaning that data from one instrument will agree with data from another. This is essential for anyone communicating measurement data between departments, customers or suppliers. In addition, the Color-Eye 3100 provides excellent agreement with its predecessors, the Color-Eye 2020 series and Color-Eye 3000.

### **Adjustable UV Ensures Precise Control Of Whiteness And Brightness**

With the widespread use of fluorescent whitening agents and optical brighteners, the Color-Eye 3100 meets the challenges faced by manufacturers of paper, textiles,



plastics and detergents. This is particularly important when post-consumer waste materials with unknown UV content are involved. A special whiteness standard lets you calibrate the instrument to match the UV content in natural daylight (D65 illumination), ensuring the stability and repeatability of whiteness measurements.

### **Ability To Measure A Wide Range Of Samples Increases Versatility**

User-selectable viewing areas let you maximize your investment. Alone or with optional accessories, you can measure samples in a wide range of sizes, shapes and forms – including opaque samples, liquids or transparent films.

### **Pulsed Xenon Light Source, The Ultimate In Reliability**

The high-intensity pulsed xenon light source outperforms tungsten halogen for more accurate measurements, especially on dark or saturated colors. Its short flash time eliminates color shifts that can occur on some samples as a result of prolonged exposure to heat or light. In addition, pulsed xenon is long-lasting (over two million flashes) and requires little maintenance.

### **Make Color Decisions With Confidence – Day After Day, Year After Year**

From color formulation to color quality control, the superior measurement precision of the Color-Eye 3100 is your key to years of faster, more accurate decision making.

## Specifications

Repeatability (typical)	0.02 RMS $\Delta E$ CIE Lab
(maximum)	0.10 RMS $\Delta E$ CIE Lab
Interinstrument Agreement (typical)	0.12 Avg. $\Delta E$ CIE Lab*
(maximum)	0.20 Avg. $\Delta E$ CIE Lab*
Illumination	Pulsed xenon
Spectral Range	360 nm to 740 nm
Wavelength Precision	< 0.2 nm
Wavelength Interval	20 nm
Photometric Range	0% to 200%
Photometric Resolution	0.01%
Aperture	
Large Area of View (LAV)	1" (25.4 mm)
Small Area of View (SAV)	0.2" x 0.4" (5.1 mm x 10.1 mm)
Optical Configuration	Diffuse/8° (illumination/measurement) 6" (15.2 cm) diameter integrating sphere
Dimensions	13.5" high, 11" wide, 23" deep (34.3 cm high, 27.9 cm wide, 58.4 cm deep)
Weight	42 lbs. (18.9 kg)
Temperature (operating)	60°F to 90°F (15°C to 32°C)
Relative Humidity	0% to 90% (non-condensing)
Electrical Requirements	117 VAC/50-60 Hz 230 VAC/50-60 Hz

\* Average  $\Delta E$  of BCRA Series II ceramic standards relative to GretagMacbeth standardized values.  
Specifications subject to change without notice.

**To learn more about the Color-Eye 3100 spectrophotometer,  
please contact your nearest GretagMacbeth location.**



**United States:** 617 Little Britain Road, New Windsor, NY 12553-6148, Tel: 800 622 2384, 914 565 7660 (Outside USA and Canada), Fax: 914 561 0267  
**Switzerland:** Althardstrasse 70, CH-8105 Regensdorf, Tel: +41 1 842 24 00, Fax: +41 1 842 22 22  
**United Kingdom:** Macbeth House, Pacific Road, Altrincham, Cheshire WA14 5BJ, Tel: +44 161 926 9822, Fax: +44 161 926 9835  
**Germany:** Siemenstrasse 11, D-63263 Neu Isenburg, Tel: +49 61 0279 570, Fax: +49 61 0279 5757  
**China:** 12A Wardley Centre, 9-11 Prat Avenue, Tsimshatsui, Kowloon, Hong Kong, Tel: +852 2368 7738, Fax: +852 2368 6717

**Visit our World Wide Web Site at [www.gretagmacbeth.com](http://www.gretagmacbeth.com)**

™ Trademark, ® Registered Trademark of GretagMacbeth. GretagMacbeth is an ISO 9001 Certified Company.

Part No.982889 (12/97)