

## New Color Fastness to Light Chamber

**B**GD 861 New Color Fastness to Light Chamber is a powerful, highly cost-effective, easy to use and convenient to maintain color fastness to light chamber. It uses a air-cooled xenon lamp imported from America and IR window filter (both are imported from America), to simulate more real and much better the full spectrum sun light of outdoor through window, ensure the test results obtained from laboratory have a perfect correlation with indoor application. Furthermore, the samples holder is designed with a special rotating drum to ensure each sample can obtain the same and uniform irradiance during the whole test.

BGD 861 can meet with all standards requirements from different fields, it can hold 31 pieces samples, not only has spray function, but also can control the relative humidity of working room.

Operator can set all required test parameters (Irradiance, test time, BPT, BST etc) through the touch screen, and can check its running status at any time. All running parameters can be exported to computer directly through the USB interface.

### Standards

ISO 105-B02 (EN) (DIN) 《Textiles-Tests for colour fastness- Part B02: Colour fastness to artificial light: Xenon arc fading lamp test》

ISO 105-B06 (EN) (DIN) 《Textiles - Tests for Colour Fastness - Part B06: Colour Fastness and Ageing to Artificial Light at High Temperatures: Xenon Arc Fading Lamp Test》

ISO 105-B07 (EN) (DIN) 《Textiles - Tests for Colour Fastness - Part B07: Colour Fastness to Light of Textiles Wetted with Artificial Perspiration》

ISO 105-B10 (EN) (DIN) 《Textiles - Tests for Colour Fastness - Part B10: Artificial Weathering - Exposure to Filtered Xenon-Arc Radiation》

ISO 4892-1 《Plastics - Methods of Exposure to Laboratory Light Sources - Part 1: General guidance》

ISO 4892-2 《Plastics - Methods of Exposure to Laboratory Light Sources - Part 2: Xenon-arc lamps》 ASTM G151 《Standard Practice for Exposing Nonmetallic Materials in Accelerated Test Devices that Use Laboratory Light Sources》

ASTM G155 《Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials》

AATCC TM16 《Colorfastness to Light》

AATCC TM169 《Weather Resistance of Textiles: Xenon Lamp Exposure》



Operation Menu



BGD 8170 Purity Water Machine

### Characters

- ◆ Xenon lamps imported from America can ensure the test results have a good repeatability and comparability.
- ◆ Special rotating-drum design for samples holder ensure each sample can obtain the same and uniform irradiance during the whole test.
- ◆ Irradiance energy can be accurately controlled. The "Closed-Loop" control system can automatically compensate the change of light intensity caused by ageing or other factors.
- ◆ Affordable air-cooled xenon lamp, the lifetime can reach 1,500 hours.

- ◆ Can choose narrow band (at 340nm or at 420nm) or broad band (from 300nm~400nm or from 300nm~800nm) to control irradiance.
- ◆ Can choose three different filters (Daylight, Window glass, Extended UV) to meet different test requirements.
- ◆ The test procedures can be programmed freely; can set 10 programs and save 6 predetermined programs in one time. Every program includes up to 10 segments for setting parameters.
- ◆ Can set and control precisely and automatically the relative humidity of working room.
- ◆ Can set the cumulative energy (total irradiance energy) obtained by sample to finish a test procedure.
- ◆ With spray function, can set spray time and spray interval time.
- ◆ Users can easily calibrate and adjust the irradiance or the blackboard temperature by themselves.
- ◆ With High precision Pt100 Temperature sensor. BPT (black panel temperature), BST (black standard temperature) and working room temperature can be set and controlled precisely and automatically during the whole process
- ◆ Alarm and protection function: Over temperature (BPT, BST, Working room), big deviation of irradiance, shortage of spraying water, abnormal lamp power, big error of humidity.
- ◆ Touch screen and user-friendly operation interface allow operator to set the test parameters and monitor all the test process easily.
- ◆ Real-time data can be collected and recorded. The incidental USB connector allow users to download the test data (EXCEL format) directly, achieving unattended operation.

#### Main Technical Parameters:

- ★ Xenon Lamp: One 1.8KW xenon lamp (imported from America)
- ★ Filter: IR window filters (Also can choose B/SL window glass filter or daylight filter or extended UV filter)
- ★ Lamp Lifetime: Near 1,500 hours
- ★ Capacity: 15 standard specimen holders (can hold 31 samples with 132mm × 45mm size)
- ★ Adjustable Irradiance Range:  
0.3 W/m<sup>2</sup> ~ 0.75 W/m<sup>2</sup> (@ 340nm)  
or 0.5 W/m<sup>2</sup> ~ 1.35 W/m<sup>2</sup> (@ 420nm)  
or 30 W/m<sup>2</sup> ~ 90 W/m<sup>2</sup> (300nm~400nm)  
or 320 W/m<sup>2</sup> ~ 850 W/m<sup>2</sup> (300nm ~ 800nm)
- ★ Controlling irradiance point: 340nm or 420nm or 300nm ~ 400nm or 300nm ~ 800nm
- ★ Adjustable Black Panel Temperature Range: RT ~ 110°C
- ★ Adjustable Working room Temperature Range: RT+8°C ~ 62°C
- ★ Adjustable relative humidity of working room: 10% ~ 75% (Light); 10% ~ 95% (Dark);
- ★ Overall Size: 860mm × 800mm × 1770mm (L × W × H)
- ★ Net Weight: 200KG
- ★ Power Supply: AC 380V (Three-phase four-wire system) / 50HZ; Max. Current 16 A
- ★ Max. Total Machine Power: 5.5 kW
- ★ Requirements of Compressed air: Clean, oilless compressed air with 0.5MPa pressure, Max. air supply is near 60L/min. Average air consumption is 10L/min ~ 30L/min (Depends on testing standard)
- ★ Ordering Information:  
BGD 861---New Color Fastness to Light Chamber  
BGD 8150---American Xenon Lamps (1.8kW)  
BGD 8170---Pure Water Machine (50L/h)  
Xenon Calibration Radiometer

