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Color Fastness To Sunlight Test Chamber

BGD 861 is a powerful, highly cost-effective, easy to use and convenient to maintain xenon test chamber. It uses an imported air-cooled xenon lamp and relevant daylight filter, to simulate more real and much better the full spectrum sun light of outdoor, ensure the test results obtained from laboratory have a perfect correlation with outdoor 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 Color Fastness To Sunlight Test Chamber can meet with all standards requirements from different fields, it can hold 33 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-B04 (EN) (DIN) 《Textiles - Tests for Colour Fastness - Part B04. Colour Fastness to Artificial Weathering: 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》

AATCC TM16 《Colorfastness to Light》

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

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》



Operation Menu



BGD 8170 Purity Water Machine

Characters

- ◆ Special rotating-drum design for samples holder ensure each sample can obtain the same and uniform irradiance during the whole test.
- ◆ Xenon lamps imported from America can ensure the test results have a good repeatability and comparability.
- ◆ 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 300 nm~800nm) to control irradiance.
- ◆ Can accurately control irradiance, temperature, and studio humidity. The temperature control target can be set as blackboard temperature or black label temperature; The irradiance control target can be selected as 340nm or 420nm, or 300nm~400nm or 300nm~800nm; The humidity control range of the studio is wide, ranging from 20% to 95%.
- ◆ 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.
- ◆ 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.
- ◆ Touch screen and user-friendly operation interface allow operator to set the test parameters and monitor all the test process easily.
- ◆ With High precision Pt100 Temperature sensor. BPT (black panel temperature) , BST (black standard temperature) and working room temperature (RT+30°C~100°C) 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.
- ◆ Quick results: When the product is exposed outdoors, the maximum intensity of direct sunlight is only a few hours per day. The B-SUN test chamber can expose test samples to sunlight equivalent to summer noon, 24 hours a day. Therefore, the sample can age rapidly.
- ◆ Affordable: The B-SUN test box has created a breakthrough high cost-effectiveness with low purchase prices, low lamp prices, and low operating costs. Nowadays, even the smallest laboratory can afford to conduct xenon arc testing.

Main Technical Parameters:

- ★ Xenon Lamp: One 1.8KW xenon lamp (imported from America)
- ★ Filter: IR Window glass filter (Also can choose daylight filter or extended UV filter)
- ★ Lamp Lifetime: Near 1,500 hours
- ★ Exposure Area: 2,200 cm² (12 pcs standard sample holders, can put 23 pcs samples of 137mm × 45mm size)
- ★ Adjustable Irradiance Range:
0.3 W/m² ~ 0.75 W/m² (@ 340nm)
or 0.5 W/m² ~ 1.35 W/m² (@ 420nm)
or 30 W/m² ~ 90 W/m² (300nm~400nm)
or 320 W/m² ~ 850 W/m² (300nm ~ 800nm)
- ★ Controlling irradiance point: 340nm or 420nm or 300nm ~ 400nm or 300nm ~ 800nm
- ★ Adjustable Black Panel Temperature Range: RT ~ 100°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---Color Fastness To Sunlight Test Chamber
X-1850---American Xenon Lamps (1.8kW)
BGD 8170---Pure Water Machine (50L/h)
Xenon Calibration Radiometer

