### Overview

The Q-Sun B02 is a xenon arc lightfastness tester designed to meet the requirements of ISO 105 B02 and AATCC Test Method 16. With the water spray option, it can meet additional textile test methods.

It has a rotating specimen rack and provides precise control of critical test parameters including spectrum, irradiance, relative humidity, chamber temperature and black standard temperature. Its capacity is 48% to 92% larger than comparable xenon testers.

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### Xenon Arc Lamp

The B02 uses one air-cooled, full-spectrum, 1800W xenon arc lamp. Q-Lab recommends replacing lamps every 1500 hours.

### Optical Filter Lantern

The Optical Filter Lantern consists of an outer borosilicate cylinder and 14 inner filters, arranged in a two-tier heptagon. The exposure application or test protocol dictates which filter type, Window-IR or Window-B/SL, should be used.

### Irradiance Control

The B02 is equipped with the Solar Eye Irradiance Control System™. Irradiance ranges are filter dependant.

### Temperature & Relative Humidity Control

The B02 simultaneously controls chamber air and black panel (uninsulated) or black standard (insulated) temperature. An electronic humidity sensor provides precise control of relative humidity.

### Water Spray Option

The Q-Sun B02-S is equipped with a water spray system. Spray can be programmed during either the light or dark cycle. The spray nozzle is located at the top of the exposure chamber. The B02-S can perform ISO 105 B04 textile test method.

### Calibration

- **Irradiance (patented Auto Cal):** Use CR20 Radiometer
- **Temperature:** Use CT202 Thermometer and disposable chamber air temperature sensor (replace annually)
- **Relative Humidity:** Use disposable relative humidity sensor (replace annually)

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### Specifications

| Black Panel (Uninsulated) Temperatures | Light Cycle - B/SL Filter | 50 °C - 115 °C |
| Light Cycle - IR Filter | 35 °C - 100 °C |
| Dark Cycle | 25 °C - 45 °C |

| Black Standard (Insulated) Temperatures | Light Cycle - B/SL Filter | 55 °C - 125 °C |
| Light Cycle - IR Filter | 40 °C - 110 °C |
| Dark Cycle | 25 °C - 45 °C |

| Irradiance | IR Filter | 1.10 - 0.20 W/m² at 420 nm |
| | | 42 - 10 W/m² at TUV 300-400 nm |
| | B/SL Filter | 1.10 - 0.20 W/m² at 420 nm |
| | | 48 - 10 W/m² at TUV 300-400 nm |

| Relative Humidity | Maximum RH is possible | 60% - 20% |
| only when BP temperature is less than 60 °C |

### External Dimensions

- **Height:** 65.5 in (166 cm)
- **Width:** 36.0 in (91 cm)
- **Depth:** 27.0 in (69 cm)

### Weight

- **Actual:** 328 lb (149 kg)
- **Crated:** 520 lb (236 kg)

### Chamber Dimensions

- **Height:** 15.8 in (40 cm)
- **Width:** 12.5 in (32 cm)
- **Depth:** 16.8 in (43 cm)

### Specimen Area

- **Height:** 11.9 in (30 cm)
- **Diameter:** 9.8 in (25 cm)
- **Circumference:** 30.8 in (78 cm)
- **Area:** 367 in² (2367 cm²)

### Specimen Holders

- **Size:** 1.8 x 10.4 in (46 x 264 mm)
- **Area:** 18.7 in² (121 cm²)
- **Exposure Area:** 290 in² (1882 cm²)

### Electrical & Water Requirements

- **208 or 230 V single phase, 50 - 60 Hz, 25 A**
- **Deionized water:** RH System 1 liter/hour;
  Water Spray Option 0.5 liter/minute

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The specifications in this sheet are accurate as of January 2010 and replace any previously published data. All information is subject to change.

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