

# Q-SUN

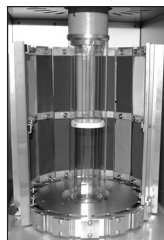
# B02 Xenon Lightfastness Tester



## 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.



The B02's rotating rack has 16 large specimen holders.

## 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)

- ① All calibrations are NIST traceable for ISO compliance.  
① CR20 and CT202 must be sent back to Q-Lab for recalibration every year.

## 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/m <sup>2</sup> at 420 nm	42 - 10 W/m <sup>2</sup> at TUV 300-400 nm
B/SL Filter	1.10 - 0.20 W/m <sup>2</sup> at 420 nm	48 - 10 W/m <sup>2</sup> at TUV 300-400 nm

### Relative Humidity

Maximum RH is possible only when BP temperature is less than 60 °C	60% - 20%
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### 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 in <sup>2</sup>	2367 cm <sup>2</sup>

### Specimen Holders

Size	1.8 x 10.4 in	46 x 264 mm
Area	18.7 in <sup>2</sup>	121 cm <sup>2</sup>
Exposure Area (Total)	290 in <sup>2</sup>	1882 cm <sup>2</sup>

### 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

LX-5031

SPECIFICATIONS



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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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