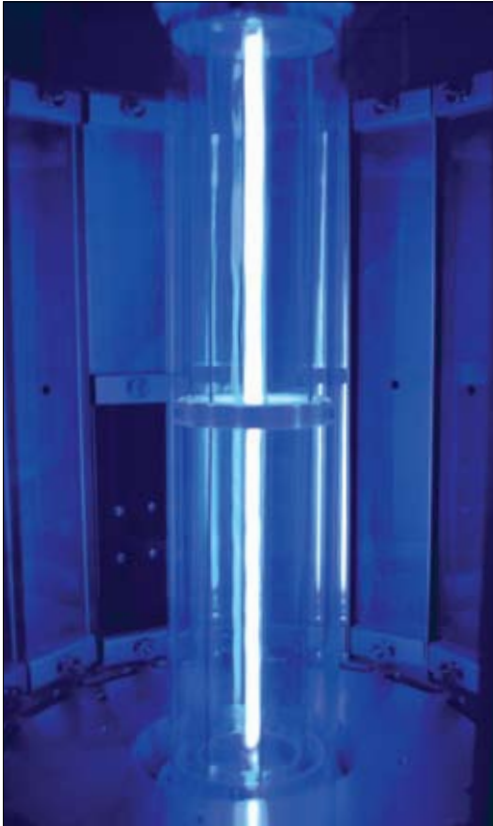


# The New Standard in Lightfastness Testing

**Q-SUN**

Xenon Lightfastness Tester  
Model B02





# Q-SUN

## The New Standard in Lightfastness Testing

Designed specifically to meet ISO 105 B02, the new rotating rack Q-Sun Model B02 Tester uses the latest technology to provide precise control of the critical test parameters, including Spectrum, Irradiance, Relative Humidity, Chamber Temperature and Black Standard Temperature.

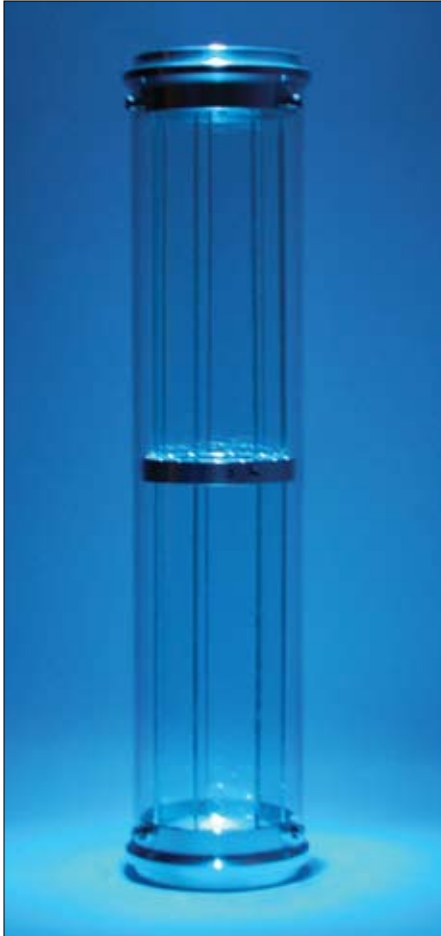
The Q-Sun B02 meets many test specifications, including:

ISO 105 B02

ISO 105 B06

AATCC TM 16

AATCC TM 169, Option 2 & 3



## Now Even the Smallest Lab Can Afford Xenon Testing

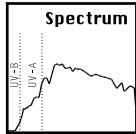
The revolutionary Q-Sun B02 Tester was specifically designed to be an affordable lightfastness tester that meets the requirements of ISO and AATCC. The new Q-Sun's surprising low purchase price and operating costs set a new standard for lightfastness testing.

The new Q-Sun is easy to install, easy to use and practically maintenance-free. The Model B02 is completely automated and can operate continuously, 24 hours a day, 7 days a week.

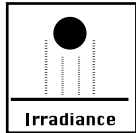


# Q-Sun B02 Lightfastness Tester Overview

**Rotating Rack.** The new Q-Sun B02 tester was designed with a rotating rack to meet the requirements of ISO 105 B02.



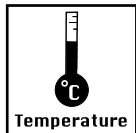
**Spectrum.** Together, the long life xenon lamps and special filter lantern produce the spectrum required for textile testing.



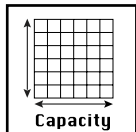
**Solar Eye™ Irradiance Control.** Precise monitoring and control of irradiance ensures maximum repeatability, reproducibility and ease of use. Calibration is quick and easy with the patented AutoCal system.



**Humidity Control.** The electronic humidity sensor provides precise control of relative humidity.



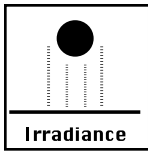
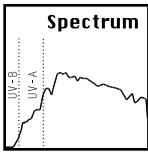
**Temperature Control.** Both Chamber Air Temperature and Black Standard Temperature are simultaneously controlled to close tolerances.



**Capacity.** Specimen capacity is significantly larger than comparable testers.

**Exterior Dimensions.** The Q-Sun B02 is the perfect size for textile labs. Height 166cm (65.5"); Width 91 cm (36"); Depth 62cm (24.5").





## Spectra: Lamps, Filter Lantern, & Irradiance



The Q-Sun's xenon arc lamp produces the most realistic reproduction of full spectrum sunlight, including UV, visible and infrared radiation. Exposure to the full spectrum is critical for lightfastness testing of most textiles.

The Q-Sun's Optical Filter Lantern is designed to produce the spectra specified in ISO and AATCC test methods and is equivalent to sunlight coming through window glass. The Q-Sun B02 lantern consists of an outer borosilicate cylinder and two sets of 7 inner filters, arranged in a two-tier heptagon. For ISO 105 B02, the inner filters are Window IR (heat reducing). For AATCC TM16, the inner filters are Window B/SL.



### Lamp & Lantern Advantages

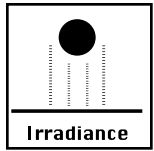
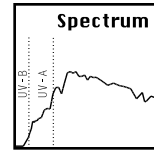
- Low Cost Lamps
- Easy Lamp Replacement
- Long Lamp Life
- Indefinite Filter Life
- Easy-Change Filters

The Q-Sun sets a new standard with filters that are exceptionally durable and maintain the required spectrum indefinitely. After many years of use, Q-Sun filters have yet to show any signs of aging.

### Lamp & Lantern Specifications

Item	Quantity	Description
Lamp	1	1800W Xenon, Air-Cooled
Inner Filters	14	Window IR (ISO) or Window B/SL (AATCC)
Outer Filter Cylinder	1	Borosilicate

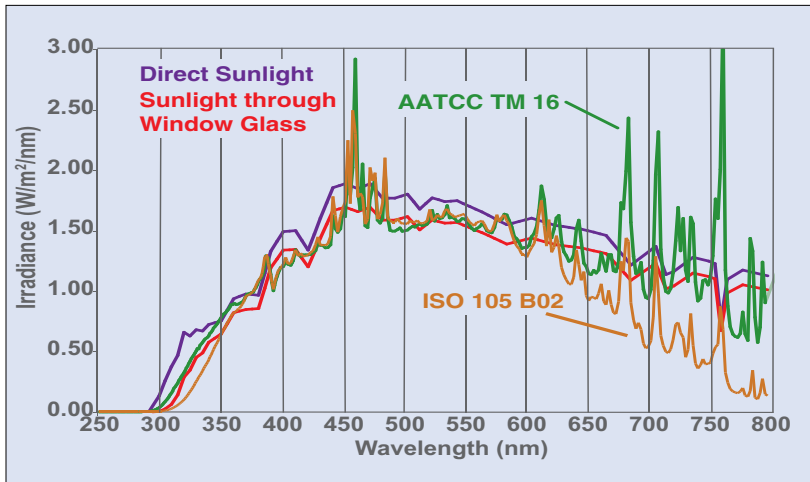
# Spectra: Lamps, Filter Lantern & Irradiance



## Irradiance Control Specifications

Item	Description	Description
Control Point	420 nm	TUV (300-400 nm)
Irradiance	1.10 W/m <sup>2</sup> /nm	42 W/m <sup>2</sup> /300-400nm
Calibration Radiometer		CR20

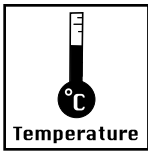
The Q-Sun's Solar Eye Irradiance Control system allows maximum repeatability and reproducibility of test results. The Solar Eye is a patented, precision light control system that automatically monitors and maintains the programmed light intensity. Irradiance is controlled at either TUV (300-400 nm) or 420 nm.



The patented AutoCal system uses a special calibration radiometer that measures the light intensity of the lamp and electronically transfers the data to the controller. The Solar Eye sets a new standard in calibration. It takes only seconds and there is little chance for operator error.

## Solar Eye Advantages

- Precision Irradiance Control
- Quick & Easy Calibration
- ISO Compliance



## Temperature and Humidity

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Temperature is critical because it influences the rate of degradation. In the Q-Sun, temperature is precisely maintained by a system that simultaneously controls both Black Standard Temperature and Chamber Air Temperature.

The relative humidity in the chamber governs the moisture content of the surface of the test specimen during exposure. The Q-Sun's electronic humidity sensor provides precise control of relative humidity.

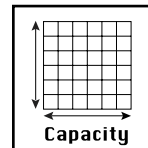


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### Advantages

- Precise Control of Specimen Temperature
- Choice of Black Standard or Black Panel Temperature Sensors
- Simultaneous Control of Black Panel & Chamber Air Temperature
- Precise Control of Relative Humidity





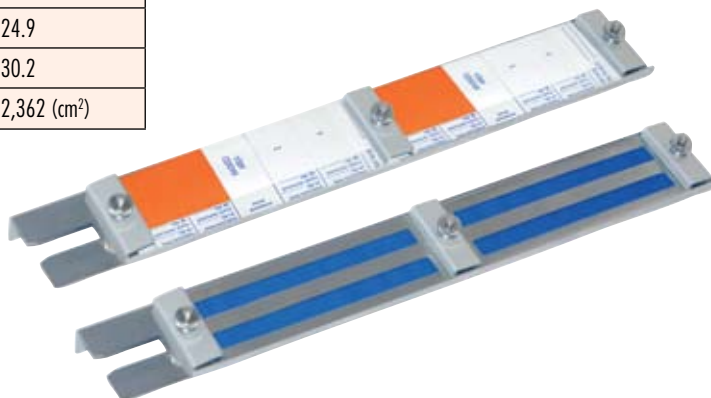
# Specimen Capacity & Mounting

## Specimen & Chamber Capacity

Item	Quantity
Holders	16
Specimens	31 (excluding Black Standard Sensor)

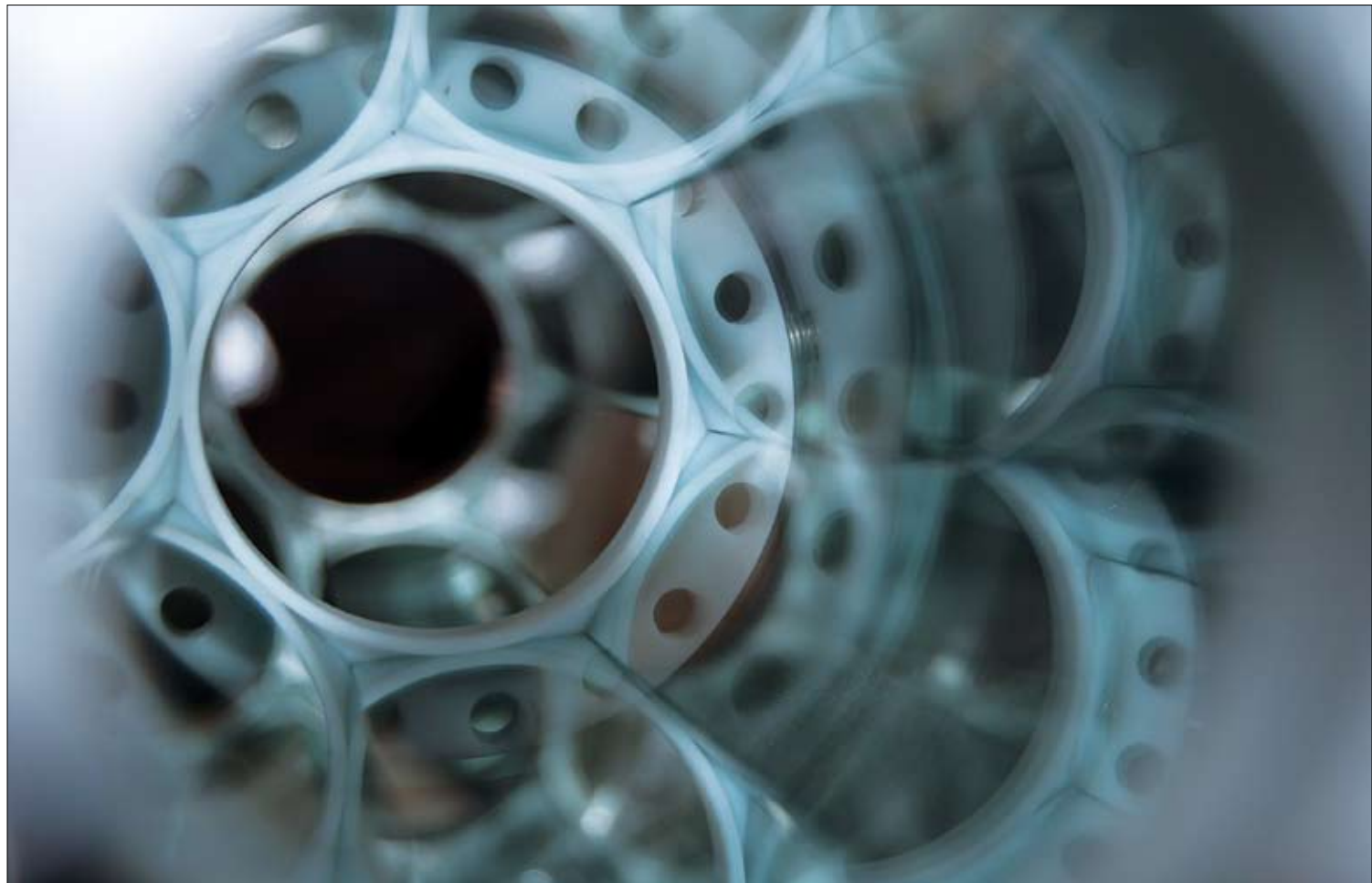
Item	Inches	Centimeters
Exposure Size/Specimen (unmasked)	1.8 x 4.9	4.6 x 12.4
Exposure Area/Specimen (unmasked)	8.8 in <sup>2</sup>	57 cm <sup>2</sup>
Total Specimen Exposure Area (unmasked)	273 in <sup>2</sup>	1,768 cm <sup>2</sup>
Rack Circumference	30.8	78.2
Rack Diameter	9.8	24.9
Rack Height	11.9	30.2
Total Possible Capacity	367 (in <sup>2</sup> )	2,362 (cm <sup>2</sup> )

The Q-Sun Model B02 sets the standard with significantly higher specimen capacity than competitive testers. Q-Sun specimen holders are very easy to install and remove. ISO and AATCC textile masks are available.



## Advantages

- Easy To Mount Specimen Holders
- Large Specimen Capacity
- ISO & AATCC Textile Masks



## Simplicity is the Ultimate Sophistication

Q-Lab's design philosophy is simple. We believe that, just because a product is technically sophisticated, it doesn't have to be hard to understand or difficult to use. We put our engineering effort into keeping things simple. Our goal is to provide affordable test equipment that is technically accurate, yet easy to understand, easy to operate and easy to maintain. It is that simple.





## Q-Lab Corporation

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