

# UVTEST FLUORESCENT UV INSTRUMENT



Best-in-class for consistent distribution of irradiance and temperature



# ATLAS UVTEST - FLUORESCENT/UV INSTRUMENT



The Atlas UVTest is designed for economical weathering testing with the sophistication of Atlas' 90 years of weathering expertise. Innovative design features improve test reproducibility and lower operating costs while testing a variety of materials for their reaction to UV, temperature and moisture.

#### **A2LA Accredited**

Atlas calibration services are accredited by A2LA to meet ISO 17025 requirements. This includes xenon lamp and UVTest irradiance calibrations performed in our Chicago-based calibration laboratory using state-of-the-art irradiance measurement equipment, as well as on-site calibrations for both Atlas and competitors' weathering instruments by our experienced, factory-trained Technical Service staff. For more information please visit our website www.atlas-mts.com.

### Easy to use:

- Simple touch screen operation and control
  - Pre-programmed tests for error-free operation
  - Trendplot, alarm messages and maintenance schedule displayed
  - All critical parameters displayed on one screen
  - User interface available in several languages including English,
     Chinese, Korean, French, German, Spanish and Portuguese
- Automatic restart after a power interruption
- Easy to change lamps
- Advanced calibration technology ...

#### Cost effective:

- Unmatched lamp life to price ratio
- Plug-and-play; little maintenance required

#### **Additional features:**

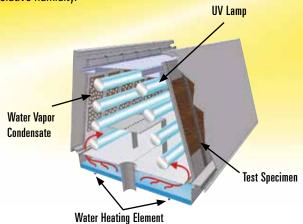
- DAQ via Ethernet connection
- Pt1000 RTD used with BPT for more accurate temperature measurement
- Best-in-class, consistent distribution of irradiance and temperature
- High maximum irradiance levels of >1.55 W/m² (UVA) and >1.23 W/m² (UVB)
- State-of-the-art optical and temperature sensor technology for improved accuracy
- Air heater protection from splash water to avoid burnout
- Frame-integrated float switch and viewing window to protect against accidental damage
- Access ports allow for irradiance calibration without bypassing the door safety interlock switch when the lights are on, reducing the user's risk of exposure to harmful UV radiation
- Adjustable height casters and integrated bubble level
- Recirculating spray water option
- Different spray nozzles available
- Stackable frames for increased capacity with a lower overall footprint
  - Specially designed drip guards provide added protection for the lower unit in accordance with international safety codes
- Spray option available





### **Chamber Diagram**

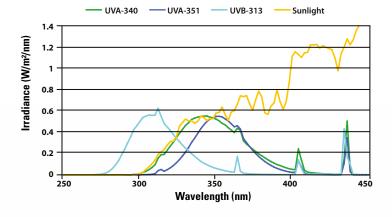
To produce condensation, a heated reservoir in the bottom of the test chamber produces water vapor that rises to the upper chamber where specimens will be exposed to UV radiation and uniform wetting at 100% relative humidity.



### **UVA/UVB Lamps**

Three types of fluorescent UV lamps are available for the UVTest – UVA 340 nm, UVA 351 nm and UVB 313 nm. Atlas can help you determine which light source is the most suitable for your material test specification.

# Atlas UV Lamps Compared to Sunlight (Control Wavelength Normalized at 0.55 W/m²)



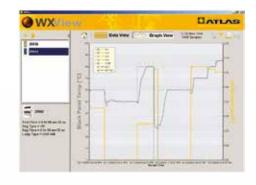
## **Deionized (DI) Water Recirculation System**

Optional system allows DI water to be recirculated for re-use during testing. This helps laboratories reduce water consumption; especially critical when adequate DI water supply is not available. The system has a 53 liter storage tank, deionized water filter and a pressure activated pump. It fits conveniently on the bottom shelf of the standard UVTest, requiring no additional floor space.



### **WXView Data Acquisition Software**

WXView is a remote monitoring and DAQ application, providing an overview of all the UVTest instruments on your network, their status, the status of any active tests and sensor readings. This data is displayed in both tabular and graphical formats and is written to a database, allowing simple retrieval in the future.



### The Atlas UVTest vs. Competition

Feature	UVTest	Competition	
Stackability with Spray Option	Yes	No	
Calibration Safety	Calibration ports	Must bypass safety switch during calibration process	
Calibration of UVA-351 Lamps	Yes, direct at 351 nm	No, uses conversion factor from 340 nm	
Spray with Lights on	Yes	Requires special user function code	
BPT Temperature Sensor	More accurate Class A Pt1000 RTD sensor	Less accurate I.C. temperature sensor	
User Interface Platform	Fully functional touch screen	Keypad with numeric displays	
Languages Available	Several languages including Chinese, English, Japanese, Spanish and many others	English only	
Trend Plot of Test Parameters	Yes	No	

### **UVTest Features**

Fluorescent UV Lamps (8)	40 W UVA 340, UVB 313, UVA 351
Black Panel Temperature (BPT) Control	•
Door Safety and Over-temperature Shutoff	•
CE Compliance and UL & CSA Certified	•
Specimen Holders	•
Touch Screen Display	•
Irradiance Calibration Safety Access Ports	•
Ergonomically Designed Specimen Retaining Rings	•
Recirculating Spray Water	
Irradiance Control (340 nm, 313 nm, 351 nm)	
Stacking Kit	
Specimen Spray Nozzles (12)	
Hand-held Irradiance Calibrator	
Data Acquisition Program via Ethernet	

Standard ■ Optional

### **UVTest Standards**

ASTM	D4329	Plastics
	D4587	Coatings
	D4799	Roofing
	D5208	Photodegradable Plastics
	G151	Nonmetallic Materials
	G154	General Testing
EN	927-6	Wood Coatings
	1297	Roofing
	1898	FIBC
	12224	Technical Textiles
	13523-10	Coil Coatings
ISO	4892-1	Plastics
	4892-3	Plastics
	11507	Coatings
	11895	FIBC
	11997-2	Cyclic UV/Corrosion Tests
SAE	J2020	Automotive Exterior
	16474-3	Coatings
prEN	1062-4	Exterior Masonry Coatings

This is a sample of global standards that can be met by this instrument. For more information on additional or specific standards, contact your local Atlas representative. Standards are subject to change without notice.



# **UVTest Specifications**

Irradiance Uniformity:	4% across sample face	
Irradiance Ratings:	Typical: 0.89 W/m² (UVA), 0.71 W/m² (UVB) Maximum: 1.80 W/m² (UVA), 1.70 W/m² (UVB)	
Black Panel Temperature Range:	UV Phase – BPT 35-80 °C (95-176 °F) Condensation Phase – BPT 35-60 °C (95-140 °F)	
Specimen Capacity:	48 specimens + BPT in 24 specimen holders	
Weight:	140 kg (310 lb) approximately, depending on options ordered	
Electrical:	120 VAC (± 10%), 1 Ph., 2 Wire (1/N/PE), 50/60 Hz, 12A 230 VAC (± 10%), 1 Ph., 2 Wire (1/N/PE or 2/PE), 50/60 Hz, 8A	
Water for Spray:	Silica: <11.1 nnm	
Water for Condensation:	Pressure: 2-60 psi (0.1-4.1 bar) Purity: Deionized water is recommended, but not required. Less pure water or tap water usage will leave undesirable mineral deposits in the water pan and will require frequent cleaning.	

NOTE: The optional spray system water flow rate is non-adjustable and is automatically controlled (limited) by an in-line restricting device at the flow rate indicated above. The maximum flow rate is maintained over an input pressure range of 193 to 345 kPa (28 to 50 psi).

Deionized water requirement only for instruments with spray option.

