

Solar Simulation Chamber Expands Laboratory Capabilities



TUV Rheinland PTL new state-of-the-art PV certification laboratory; Tempe, Arizona.

The certification body TÜV Rheinland Group (Head office: Germany), which leads the world in product testing, and the Arizona State University in Tempe, Arizona (USA) have jointly launched the new TÜV Rheinland PTL (Photovoltaic Testing Laboratory). The former Arizona State University PTL was established in 1992 as the first accredited photovoltaic qualification testing laboratory in the United States. TÜV Rheinland Group brings to this venture decades of experience in testing and certifying solar products in Europe. The new 40,000 square foot laboratory facility, opened in January 2009, more than doubles the interior space and significantly expands the laboratory testing capabilities. This new facility is planned to serve as the cornerstone of TÜV Rheinland Group's strategy for a global network of photovoltaic testing and certification services.

An important component of TÜV PTL's state-of-the-art testing capabilities is their new Iwasaki PV panel light soaking solar simulator system.



EYE Lighting / Iwasaki Solar Simulator can irradiate four 1.2m x 0.6m thin-film solar panels simultaneously. The average insolation can be controlled between 800 and 1000W/m².

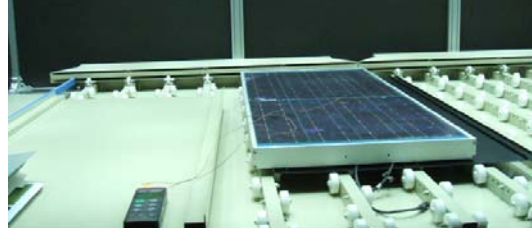
This chamber, designed to continuously irradiate PV panels under full spectrum lighting, exceeds IEC 61646 ed.2.0 section 10.19 standards for thin-film PV panel light soaking qualification testing. Simulation testing systems have become essential in order to examine PV panel electrical generating capacity and long-term durability in a stable and uniform environment. Prior to the use of simulation systems, testing was performed outside. Besides the hourly solar irradiation variability, the PV panels were subjected to random temperature and humidity changes.



Solar simulator interior: The open chamber of this multi-lamp fixed light simulator makes it easy to insert and remove PV modules.

The Iwasaki light soaking system delivers a continuous irradiation of 1 SUN in a temperature controlled chamber. The system meets class CCA performance in accordance with IEC 60904-9 standards for solar simulator performance requirements.

The Iwasaki system can irradiate four standard size (1.2m x 0.6m) thin-film solar panels simultaneously. This dramatically reduces the required testing time and ensures test repeatability.



Testing a crystalline PV module.

New "green" energy programs have been initiated worldwide as countermeasures against global warming. In the United States, industrial activities in all fields of renewable energy (sunlight, wind power, and biomass) are becoming very active. The solar energy industry is expected to show rapid growth as a superb source of electrical energy with far less impact on the environment compared to other sources of energy. New companies are entering the industry in quick succession. At present, the United States is the world's third largest solar cell producer following Europe and Japan. This rapid growth, along with the development of new technologies, will significantly increase the demand for new solar simulation systems. Iwasaki's light technology will play an active, worldwide, role in creating a safe, comfortable, and sustainable environment.

Further Information

Contact EYE Lighting International:

Tel: 888-665-2677 Email: sales@evelighting.com Web: www.evelighting.com

EYE Lighting International of North America is located near Cleveland, Ohio, a manufacturer and distributor of state-of-the-art High Intensity Discharge and Halogen lighting products to serve commercial, industrial, utility and retail markets around the globe.

EYE Lighting International of North America is a subsidiary of Iwasaki Electric Co. Ltd., a Tokyo based, technology driven lighting conglomerate, that manufactures more than 3,000 lighting products that include HID and Halogen lamps, lighting fixtures, electronics, communication equipment, ultraviolet and electron beam systems.

The shared culture of Iwasaki Electric Company and EYE Lighting of North America represents a world class manufacturing operation, global technology, and commitment to quality, new product development, and the goal of complete customer satisfaction. At Iwasaki, we are inspired by light, and the light we create tells our story.