ATLAS
MATERIAL TESTING SOLUTIONS

AMETEK®
MEASUREMENT, COMMUNICATIONS & TESTING

ATLAS CUSTOM SYSTEMS LIGHTING EQUIPMENT FOR SOLAR SIMULATION PURPOSES IN THE SOLAR ENERGY INDUSTRY

Questionnaire

General

Customer:_____

Full Company Name:_____

Full name:_____

Department:_____

Job title:_____

Address:_____

Phone：_____

Email:_____

Project:_____

Application

Kind of application?

Crystalline PV ❍ Thin film PV ❍ Organic PV ❍

Building integrated PV ❍ Solar Thermal ❍ Others ❍

If others please describe:

_____

_____

Kind of testing?

Light Soaking ❍ UV Pre-conditioning ❍ I/V-Measurement ❍ Others ❍

If others please describe:

_____

_____

Purpose of testing?

Durability Tests ❍ IEC / UL Qualification Test ❍ Others ❍

If others please describe:

_____

_____

Type of specimen?

Materials ❍ Components ❍ Cells ❍ Modules ❍ Others ❍

If others please describe:

_____

_____

Specimen geometry and size?

Are the specimens planar ❍ 2-dimensional curved ❍ 3-dimensional ❍

What are the physical dimensions of the specimen?

Length: _____

Height: _____

Width: _____

Specifications

Has the test to be performed in accordance with any standard?

If so, please give us the name, version, and clause:

IEC 61215 ❍ IEC 61646 ❍ EN 12975 ❍ IEC 904-9 ❍

ISO 9806-1, -2, -3 ❍ IUL 1703❍ Others ❍

Specify part / clause of standard:

_____

If others please describe:

_____

_____

Please give the main requirements:

_____

_____

_____

Solar Simulation System

What size is the area and/or the volume that has to be irradiated?

Length:_____

Height:_____

Width:_____

What is the required irradiance
for the full spectrum (280 nm - 3.000 nm) in W/m²: _____

(typical max. 1000 W/m²)

What are the requirements on spectral power distribution:

_____

_____

Requirements on the spatial homogeneity on irradiuated area:_____

(typical +/-10% (1Sigma))

Are there any requirements on the class of the light source / irradiated area?

Spectrum: Class B ❍ Class C ❍

Homogeinity: Class B ❍ Class C ❍

Temporal Stability: Class A ❍ Class B ❍ Class C ❍

Do you want the solar simulation system: Fixed ❍ Moveable ❍

If moveable please explain your needs:

_____

_____

_____

What type of control system do you prefer?

Manual ❍ Automatic ❍ External ❍ TCP/IP ❍

If an automatic and/or external control is requested, please describe your needs:

_____

_____

What is the average distance for cable routing between the electrical supply rooms (installation of our electrical cabinets) to the solar simulation system?

_____

What kind of electrical supply is available in your facility?

(Voltage/Frequency/Power): _____

Do you have any other special requirements ? Yes ❍ No ❍

If yes, what are they:

_____

_____

Other Test Parameters

Do you have requirements on climatic conditions for the specimens tested?

Please specify: _____

_____

Do you have requirements on wind speed at the specimens surface?

Please specify: _____

_____

If possible please attach a rough sketch of your test facility and your test arrangement.

Ambient operation and installation conditions

What are the inner dimensions of your test chamber:

Length: _____

Height: _____

Width: _____

What are the ambient conditions for the solar system inside the chamber?

	Not in operation	/	In operation
Temperature (°C)	_____	/	_____
Rel. Humidity (r.H.)	_____	/	_____

What are the ambient conditions for the electrical cabinets?

Temperature (°C) _____ Relative Humidity (%) _____

Thank you for your assistance!