



LASER, LED & LAMP SAFETY

SOLAR SIMULATORS

Solar simulators are technical devices that simulate natural sun light.

They are used

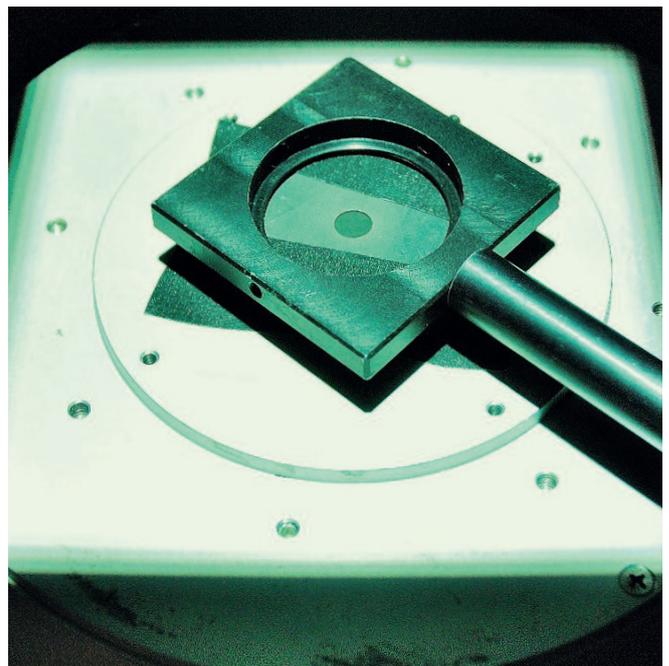
- for different tests in the cosmetics industry (e.g. SPF – test),
- for investigations on solar cells,
- for material testing,
- for photostability testing of new drug substances (ICH Q1B)
- for light therapy in medicine and
- in greenhouses.

The quality of the emitted ultraviolet (UV) radiation is especially important for different test methods (e.g. "In vivo SPF" according to ISO 24444). To ensure reproducibility and comparability of tests where solar simulators are used, the spectral output of solar simulators is defined in international standards and guidelines.

The spectroradiometric measurements that are necessary to measure the spectral irradiance accurately require considerable metrological know-how.

Detailed requirements to ensure accurate measurements of the lamp output are given in the Guidelines for Monitoring UV Radiation Sources of Cosmetics Europe.

The guidelines address the measurement of the spectral irradiance produced by the UV-sources and demand that solar simulators are regularly tested by external accredited testing laboratories.



SAFETY MATTERS

Especially for testing of cosmetics (e.g. sunscreens) it is essential to ensure reproducible, comparable and accurate UV-exposure levels as part of the necessary QM measures and in order to be in compliance with given guidelines/standards.

We inform our customers on-site about the test results. In case a solar simulator is not in compliance with a standard, relevant measures can be taken immediately.

LASER, LED & LAMP SAFETY SOLAR SIMULATORS

OUR QUALITY STANDARD

Our test house for Laser, LED and Lamp safety

- has implemented ISO 9001
- is an accredited test house according to EN ISO/IEC 17025
- is listed by Cosmetics Europe as one out of only six qualified testing laboratories
- is an accepted test house according to the IECCE/CB - scheme



SERVICES

We utilise specialised measurement equipment that meets the strict measurement requirements specified by Cosmetics Europe.

We are capable to test the output of solar simulators for compliance with international standards and guidelines as

- ISO 24442, in-vivo determination of UVA protection
- ISO 24443, in-vitro determination of UVA photoprotection
- ISO 24444, in-vivo determination of SPF
- SPF test procedure (FDA)
- ASTM G155
- ICH Q1B
- Broad spectrum test procedure (FDA)

and issue test reports.

We cross-calibrate our customers' radiometer heads.

CONTACT

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