

Press Release

Instrument Systems GmbH specialist for LED measurements

Metrology for Light in the 21st Century

Munich, 22nd January 2003 – Instrument Systems GmbH is the technology and market leader for LED and display measuring systems based on spectroradiometry. The company has developed a range of products to determine all relevant optical parameters of LEDs. Measurement geometries are in conformity with CIE recommendations (Commission International De L'Eclairage).

The proven Array and Scanning Spectrometers manufactured by the company are deployed across the world and constitutes the core hardware component for the measuring concepts developed by Instrument Systems. The majority of applications in LED metrology are realized with the Compact Array Spectrometers of the CAS140B Series. These instruments are fitted with CCD detectors and flat-field corrected holographic gratings. The CAS140B offers a spectral resolution of 2.5 nm and covers a spectral range of 190 to 1050 nm in different models. The use of scientific grade back-illuminated CCD technology enables short measuring times even at very low intensities.

Instrument Systems supplies accessories tailored to specific applications. They are used to determine radiometric, photometric and colorimetric parameters of LEDs. Luminous intensity is measured using LED intensity probes that are precisely configured to CIE condition A and B recommendations. In addition to this, integrating spheres are supplied for measuring total luminous flux. Instrument Systems has also developed a motorized LED goniophotometer with an angular resolution of 0.1°. This permits

automatic analysis of the spatial radiation pattern of LEDs and miniature lamps.

SpecWin[®] spectral software provides convenient control of the spectrometer. It records measurement results and incorporates comprehensive evaluation and analysis functions, including a report generator and an MS Excel[®]-compatible spreadsheet.

Complete systems are calibrated in the company's own laboratory, and calibration is directly traceable to international standards.

Company Profile of Instrument Systems GmbH

Instrument Systems GmbH was founded in 1986 and is based in Munich, Germany. The company develops and manufactures precision instruments and systems for optical metrology. These include high-performance array and scanning spectrometers. It also offers innovative solutions with polarization analyzers, and imaging photometry and colorimetry. Instrument Systems provides support for a global customer base with backup from a comprehensive network of representatives, and subsidiaries in Canada and France. Instrument Systems focused at an early stage on LED and display metrology and has since developed into a leading supplier in these areas.