Press Release

Technological advancement for fast and precise automotive quality testing

At ISAL 2019 Instrument Systems will be presenting 2D imaging colorimeter optimized for automotive interior display testing.

Munich, September 2019 – *At ISAL in Darmstadt from 23 to 25 September 2019 Instrument Systems will be showcasing latest innovations of imaging colorimeters optimized for testing OEM quality regulations. Beside laboratory application, the camera systems are tailored toward precise and fast measurements of dashboards, panel displays, widescreen cockpits or instrument clusters in production lines. While the high resolution sensor of the LumiTop 4000 allows for a fast and accurate EOL display verification the new LumiCam B series impresses with an automatized handling and timely optimized capturing of luminance and color distributions.*

Testing OEM quality standards for automotive displays in production

Automobile manufacturers constantly consolidate new quality regulations for automotive interior displays that have to be verified by every member of the supply chain. In order to answer the high expectations toward the testing systems Instrument Systems offers the spectrally optimized 12MP imaging colorimeter LumiTop 4000. Due to its unique design, the camera delivers high-precision 2D measurements at production speed. Many different test applications can be organized in a single test station, such as the evaluation of display uniformity, pixel defects, white balance, color gamut, or contrast ratio as well as flicker measurements. Together with the accompanying LumiSuite software, it is the ideal measurement solution for fast end-of-line inspection of the latest OEM display quality standards, e.g. for color, homogeneity, gamma value and pixel defects.

2D imaging colorimeter for automotive applications

A highlight at ISAL will be the first exhibit of the new LumiCam generation. The new LumiCam 2400B impresses with motorized objective lenses and apertures for increased usability, flexibility, accuracy and measurement speed. In addition, the camera captures luminance and color distributions of automotive interior displays up to 30 % faster than its predecessor

generation and has a ca. 20 % smaller footprint. New software features such as polylines and Sticking Image are part of the LumiCam software - ideal for the analysis of whole instrument clusters or for small details to be evaluated with high resolution.

Highly accurate measurement of external automotive lighting and traffic lights

The goniometer systems of the AMS series are particularly suited for a fast measurement of large and heavy headlights and signal lamps. The new remote control GC 100 allows an easy and fast manual movement of up to 5 motorized axes. Combined with the recently launched DSP 200 photometer, the AMS goniophotometers of the Optronik line are the first choice for measuring state-of-the-art, high-resolution samples from the exterior automotive lighting field such as ADB, matrix beam and HD headlights. Optionally, it can also be used as a flash photometer for the measurement of warning lamps for emergency vehicles in accordance with ECE R65.

Visit us at ISAL booth #6 and be convinced by the new models.

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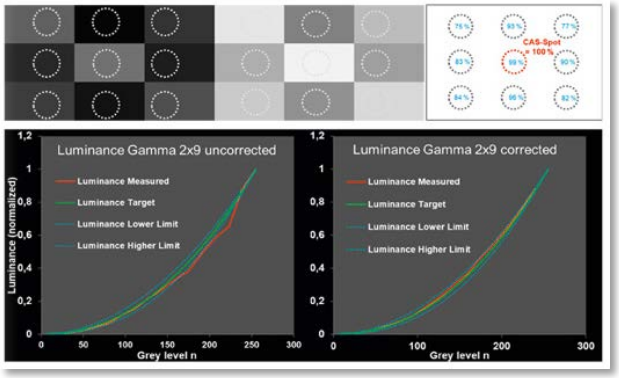
Figure:
Top row: Luminance images with 9 different levels of grey for a two-shot gamma measurement. Top row right: White luminance image used for correction of spatial luminance deviations. Bottom row: Luminance values versus grey levels measured with the two-shot approach. After correction of the grey values with the white luminance picture, the electro-optical transfer function of the measured display lays well within the tolerance band (dotted blue line) as requested by the OEMs.



Further text material and photos:
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Company portrait of Instrument Systems GmbH
Instrument Systems GmbH, founded in Munich in 1986, develops, manufactures and markets all-in-one solutions for light measurement applications. Its core products are array spectrometers and imaging colorimeters. The company's main fields of activity are LED/SSL and display metrology, spectral radiometry and photometry, where today Instrument Systems is one of the world's leading manufacturers. The Optronik line of products for the automotive industry and traffic technology is developed and marketed at its Berlin facility. Instrument Systems has been a wholly-owned subsidiary of the Konica Minolta Group since 2012.

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