



## Your Experts for Light Measurement Solutions



## **The Company**

- Founded 1986 / 260 employees (11/2019)
- Member of Konica Minolta Group
- ▲ Light measurement solutions for
  - Display Industry
  - LED/SSL Industry
  - Automotive & Aviation Industry
- Munich site (Headquarter)
  - High-end spectrometers
  - Turnkey display measuring equipment
  - Center of excellence R&D and metrology
- ▲ Berlin site
  - Center of excellence Goniophotometers
  - Turnkey automotive (exterior) lighting measuring systems (Optronik Line)





#### **Our Success Factors**



Ongoing innovations in R&D



Focus on premium products



Top expertise in optical measurement



Lean organization



Maximum customer orientation



Excellent metrology know-how



## Your application - our know-how!

**Display Measurement** 



AR/VR



**Automotive Interior Lighting** 



**Display Characterization** 



Flat Panel Display Production



**System Audit** 

Light
Emitter
Measurement



**LED Production** 



**LED / Modules** 



**UV-LEDs** 



**VCSEL / Laser** 

Lighting
Products
Measurement



**Automotive Exterior Lighting** 



Blue Light Hazard



Solid State Lighting

Company Profile #4



## Your Applications: AR / VR Near-Eye-Displays



- Solution provider for quality assurance of AR/VR devices
  - Full characterization of Near-Eye-Displays in head mounted devices
  - Defect detection
  - Time resolved measurements and synchronization for modulated light sources

 DMS series and LumiTop systems with specific accessories for innovative AR/VR display testing



# Your Applications: Automotive Interior Lighting

- High-precision light measurement in the vehicle interior
  - 2D color measuring systems with specroradiometric precision
  - Automatic all-in-one systems for the measurement of radiation density and luminance

- Measuring equipment for the inclusion of ambient temerature and angle dependence
- Meeting the latest requirements of German OEM compliance guidelines



## **Your Applications: Displays / Smart Devices**

- Proven testing solutions for display production and development of new display technologies
- DMS series for complete goniometric analysis of displays (former Autronic-Melchers)

- Market leader for automotive interior and night vision applications
- MIL-STD-3009 and MIL-L-85762Acompliant NVIS radiometers
- Gold Sustaining Member of SID (Society for Information Display)



## Your Applications: LEDs / Modules

- Market and technology leader in all segments
- ✓ Turnkey solutions for R&D, quality control, and 24/7 production testing, also in the UV-A/-B/-C range

- Member of various international technical committees of the CIE
- ✓ Involved in the preparation of CIE127:2007 document (Measurement of LEDs)



# Your Applications: Exterior Automotive Lighting

- Market leader for automotive exterior lighting, aerospace and traffic lighting
- Turnkey solutions to equip entire photometric labs for type approval, homologation and R&D
- Extensive range of accessories

- AMS series of high-speed scanning goniometers
- Sustaining member of GTB (Groupe de Travail de Bruxelles 1952) and National Working Group on Vehicle Lighting

Optronik Line



## Your Applications: VCSEL & Laser Diodes

- Partner for technology drivers in boosting laser diodes and VCSEL applications:
  - Facial and gesture recognition in consumer electronics
  - LiDAR in the car

- All-in-one solutions that are optimally customized to VCSEL testing challenges in lab and production
- ✓ VCSEL testing cameras and highresolution spectroradiometers



## Your Applications: **Solid State Lighting**

- Complete lab solutions for SSL luminaires and LED modules
- Integrating spheres from 75 mm to 2000 mm diameter

- Type C goniometers for angle resolved analysis of photometric and colorimetric quantities
- CIE S 025 compliant measurement solution



## Your Applications: Spectroradiometry & Photometry



- High-end light measurement systems for R&D
- Complete equipment for universities, research institutes and high-level labs of the lighting industry
- Strong cooperation with national labs & standards developing organizations

- Joint development of stray light algorithm with NIST
- Flash lamp measurement for solar simulation





Type C goniophotometers and goniospectrometers for LEDs and SSL products





High-end array spectrometers



Goniometric display measurement systems (DMS series)

## **Our Product Range**



Integrating spheres



Pulsed VCSEL Tester (PVT series)



Type A goniometers and photometers for automotive applications (AMS series)



### **Our References**

















































































































































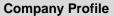














## **THANK YOU**

### for your attention!

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