### **Technical Sheet**

### GL OPTICAM 3.0 4K TEC

Imaging Luminance Meter (ILM) dedicated for road lighting measurement. System is based on 4K resolution monochromatic CMOS sensor with  $V(\lambda)$  filter. Standard option is equipped with 50 mm focal length lens while others are available on request. The system is equipped with a set of auxiliary accessories for road lighting measurement. Dedicated software contains specialized module for road lighting analysis according to EN 13201 as well as multiple universal analysis tools as: marking of spots of interest, representation of levels in false-color scale, statistical parameters, histograms, linear cross-sections, 3D luminance imaging.

#### Features:

- Spectral response of class A
- Wide dynamic range
- Controlled via USB connection
- Temperature stabilized sensor
- Automatic detection of lens and filters
- IP54 enclosure for outdoor use
- Battery powered (over 3 hours of working without external power source)
- Road lighting measurement auxiliary accessories
- User friendly analysis software



#### **APPLICATION**

Road lighting and other light sources, displays, luminous and illuminated surfaces

| Resolution 0.01 cd/m²  Dynamic range 1:15000000  Focus distance 200 mm to infinity (depends on lens type)  Minimum working area 56 mm x 30 mm (at 200 mm distance) (will vary depending on lens type)  Uncertainty of spectral response Class A (f1') < 3 %   | Roda lighting and other light soores | es, displays, formitions and morninated sorraces   |  |  |
|---|--------------------------------------|--|--|--|
| A/D conversion  12 bit  Measurement range  0.01 cd/m² 150000 cd/m² (range depends on lens aperture) (ND filter for higher range available on request)  Resolution  0.01 cd/m²  Dynamic range  1:15000000  Focus distance  200 mm to infinity (depends on lens type)  Minimum working area  56 mm x 30 mm (at 200 mm distance) (will vary depending on lens type)  Uncertainty of spectral response  Class A (f1') < 3 % | MEASUREMENTS                         |  |  |  |
| Measurement range 0.01 cd/m² 150000 cd/m² (range depends on lens aperture) (ND filter for higher range available on request)  Resolution 0.01 cd/m²  Dynamic range 1:15000000  Focus distance 200 mm to infinity (depends on lens type)  Minimum working area 56 mm x 30 mm (at 200 mm distance) (will vary depending on lens type)  Uncertainty of spectral response Class A (f1') < 3 %                               | Imaging resolution                   | 4096 x 2168 (4K, 9 MPix)   |  |  |
| Resolution 0.01 cd/m²  Dynamic range 1:15000000  Focus distance 200 mm to infinity (depends on lens type)  Minimum working area 56 mm x 30 mm (at 200 mm distance) (will vary depending on lens type)  Uncertainty of spectral response Class A (f1') < 3 %   | A/D conversion                       | 12 bit   |  |  |
| Dynamic range 1:15000000  Focus distance 200 mm to infinity (depends on lens type)  Minimum working area 56 mm x 30 mm (at 200 mm distance) (will vary depending on lens type)  Uncertainty of spectral response Class A (f1') < 3 %  | Measurement range                    | 0.01 cd/m² 150000 cd/m² (range depends on lens aperture) (ND filter for higher range available on request) |  |  |
| Focus distance 200 mm to infinity (depends on lens type)  Minimum working area 56 mm x 30 mm (at 200 mm distance) (will vary depending on lens type)  Uncertainty of spectral response Class A (F1') < 3 %  | Resolution                           | 0.01 cd/m <sup>2</sup>   |  |  |
| Minimum working area 56 mm x 30 mm (at 200 mm distance) (will vary depending on lens type) Uncertainty of spectral response Class A (f1') < 3 %   | Dynamic range                        | 1:15000000   |  |  |
| Uncertainty of spectral response Class A (f1') < 3 %  | Focus distance                       | 200 mm to infinity (depends on lens type)  |  |  |
| ,   | Minimum working area                 | 56 mm x 30 mm (at 200 mm distance) (will vary depending on lens type)                                      |  |  |
| Integration time 50 us 10 s   | Uncertainty of spectral response     | Class A (f1') < 3 %  |  |  |
| micegration time  | Integration time                     | 50 μs 10 s   |  |  |

| PROPERTIES             |  |  |
|------------------------|--|--|
| Measuring sensor type  | CMOS monochromatic matrix with a spectral response $V(\lambda)$ filter |  |
| Optical system         | 50 mm f/1.8 lens (different available on request)                      |  |
| Dimensions [H x W x D] | 149 mm x 306 mm x 265 mm   |  |
| Weight                 | 5.7 kg   |  |
| IP Rating              | 54   |  |
| PC Connectivity        | USB 3.0  |  |
| Power source           | Battery pack<br>+ 15V DC power adapter<br>+ power inverter (on demand) |  |
| Tripod adapter         | BSW 1/4"   |  |

| ORDERING INFORMA | TION   |  |
|------------------|--------|--|
| Case             | ✓      |  |
| USB cable        | ✓      |  |
| Part number      | 202599 |  |

**Note:** Instrument, firmware and software specification are subject to change without prior notice. All information included in GL OPTIC datasheets and product information available in any form are carefully prepared and included information believed to be true. Please note that discrepancies may occur due to text and/or other errors or changes in the available technology. We advise to contact GL Optic before the use of the product to obtain the latest product specification.



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