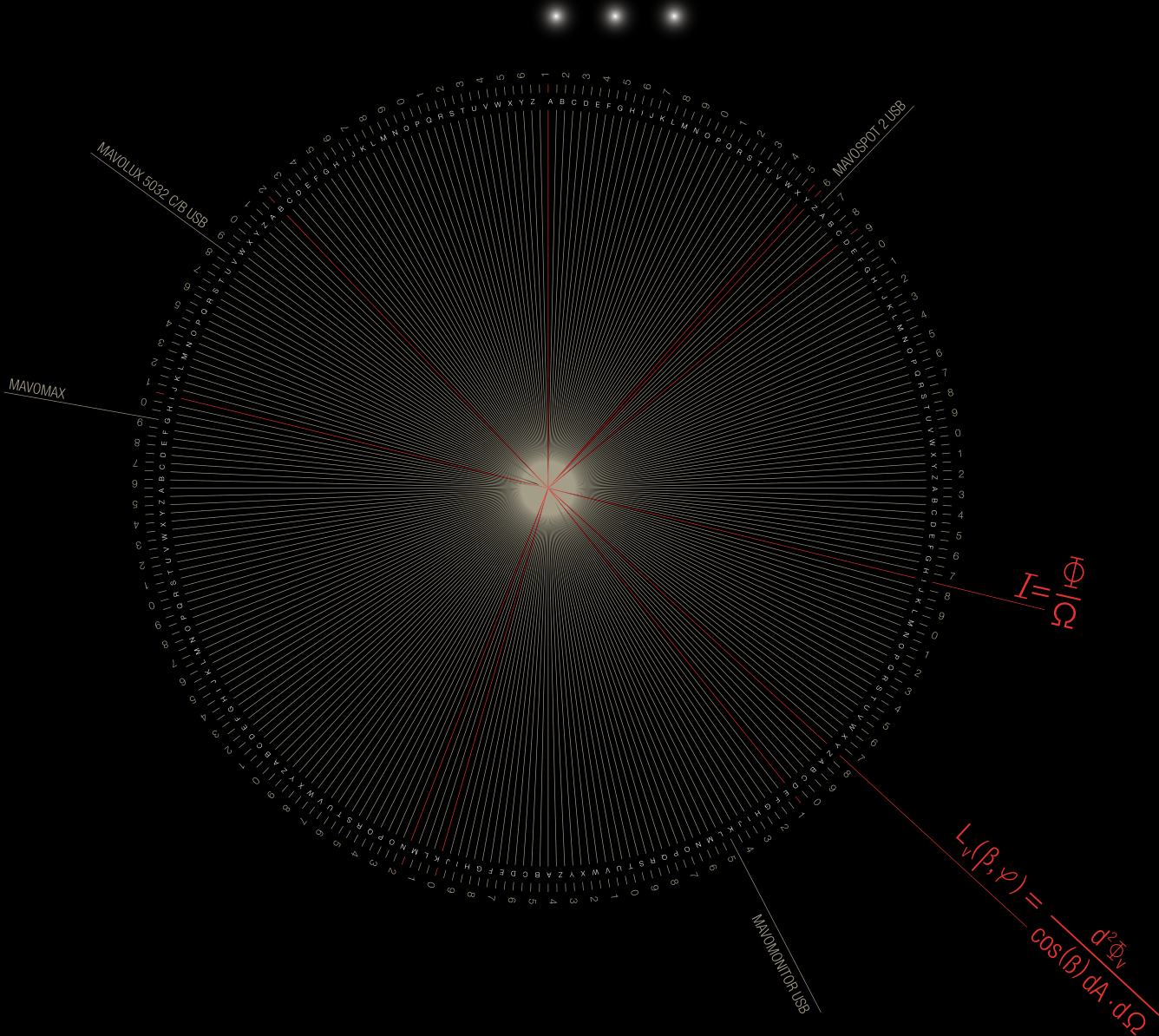


Light Measuring



PRECISION

GOSSEN Foto- und Lichtmesstechnik – Your Guarantee for Precision and Quality MADE IN GERMANY

GOSSEN Foto- und Lichtmesstechnik is specialized in the measurement of light, and has decades of experience in its chosen field. Continuous innovation is the answer to rapidly changing technologies, norms and markets. The outstanding quality of our products is assured by means of production in Germany and a certified quality management system in accordance with ISO 9001.

Reliable measurement results with defined error limits are guaranteed by luminance meters and luxmeters classified in accordance with DIN 5032-7 and DIN EN 13032-1. This ensures that quality inspections, reference measurements and assessments conducted with these meters deliver accurate statements.

Calibration certificates and recalibration at regular intervals are required for use in quality-relevant applications and for assessments. The GOSSEN Light Lab offers these services, even for products from other manufacturers, and issues factory calibration certificates. The optical bench used for this purpose is subject to strict test equipment monitoring, and is traceable to the PTB in Germany (Highest technical authority under the auspices of the Federal

Ministry of Economics and Technology). Aside from the PTB, our lab is the first in Germany to be accredited for illuminance by DAkkS (German accreditation authority), and is thus authorized to issue internationally recognized DAkkS calibration certificates. This assures that acquired measured values comply with official regulations and norms, which also stand up to legal argumentation.

Longstanding customers from industry, the public authorities and the field of medical engineering hold the products and services offered by GOSSEN Foto- und Lichtmesstechnik in high esteem, are pleased to receive our expert advice, and ask us to implement their special requirements.

Illuminance (abbreviation: E, unit of measure: lux)



indicates with how much intensity an area is illuminated. It amounts to one lux when a luminous flux of one lumen illuminates a surface of one square meter. This corresponds roughly to a normal candle flame at a distance of one meter.

Luxmeters are used to measure illuminance at horizontal and vertical surfaces. However, illuminance does not indicate the brightness impression of a room, because this depends to a great extent on the room's reflective characteristics. A white room gives a much brighter impression than a dark room. With normal lighting, uniform light distribution is not achieved as a rule, for which reason specifications in the standards usually make reference to average illuminance. This value is calculated as the weighted arithmetic mean of all illuminance values in the room.

Applications

GOSSEN's precision luxmeters are used for planning, installation, testing and monitoring of lighting systems, as well as for adhering to lighting conditions for hygienic, physiological, psychological and/or safety reasons. Scope of validity, terminology, responsibilities, requirements and practical guidelines are set forth to a great extent in the standards.

- Monitoring of workstations and public buildings, as well as compliance with regulations for working places, trade association directives and official norms
- Measurement of emergency lighting
- Repair and maintenance in production facilities, offices and hospitals
- Inspection of light sources for street lighting
- Monitoring of sports facilities and parks
- Quality assurance for manufacturers of illuminants and lamps
- Planning of lighting effects by light designers and architects
- Adherence to illuminance requirements in the fields of farming and forestry.
- Research and development at light engineering facilities

QUALITY



Luminance (abbreviation: *L*, unit of measure: *cd per m²*)

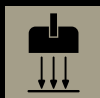


indicates the brightness impression perceived by the eye when positioned in front of a back-lighted or illuminated surface. It describes the physiological effect of light on the eye, and is used as a planning factor for outdoor lighting.

Applications

GOSSEN's precision luminance meters are used for distance and contact measurements for all types of light sources. For the purpose of adhering to applicable norms, this allows for testing of minimum and maximum luminosity, assurance of quality requirements specified for products with displays or lamps, ascertainment of maintenance requirements due to aging, and optimization of illumination uniformity. Scope of validity, terminology, responsibilities, requirements and practical guidelines are set forth to a great extent in the standards.

- Acceptance and constancy testing for image display devices in the field of medical engineering.
- Contrast measurements at workstations (work safety directives)
- Measurement of lighting for streets, tunnels, railways and airports, as well as signal systems
- Luminance measurements for CRTs, LCDs, LEDs and plasma displays.
- Lighting in museums and public buildings
- Lighting for sports facilities
- Testing for consistent lighting of projection screens
- Measurement of lighting installations, lightboxes and outdoor advertising



MAVOLUX COMPACT



Specifications

Maximum reliability – Classified measurement of illuminance in lx or fc in accordance with class C per DIN 5032-7, appendix B of IEC 13032-1 and CIE 69.

Broad measuring range – High initial sensitivity and a resolution of 0.1 lx or 0.01 fc, right on up to large illuminance values of 199,900 lx or 19,990 fc.

Precise Measured Values – Accuracy amounts to $\pm 3\% \pm 1$ digit of the display value.

Calibration Capability – As an option, the accredited GOSSEN Light Lab can issue a factory or a DAkkS calibration certificate for measuring equipment monitoring in accordance with DIN EN ISO 9001.

V(λ) matching – The spectral sensitivity of the silicon photodiode is color corrected and corresponds to the spectral brightness sensitivity of the human eye V(λ).

Cosine correction – The luminosity of a flat measuring surface is proportional to the cosine of the incident angle of light. This relationship is taken into consideration by the receiver during evaluation.

Non-volatile memory – 100 measured values can be saved and retrieved.

Convenient everyday use – Simple one-hand operation, easy to read display with backlight in HOLD mode, swivel-head, compact design.



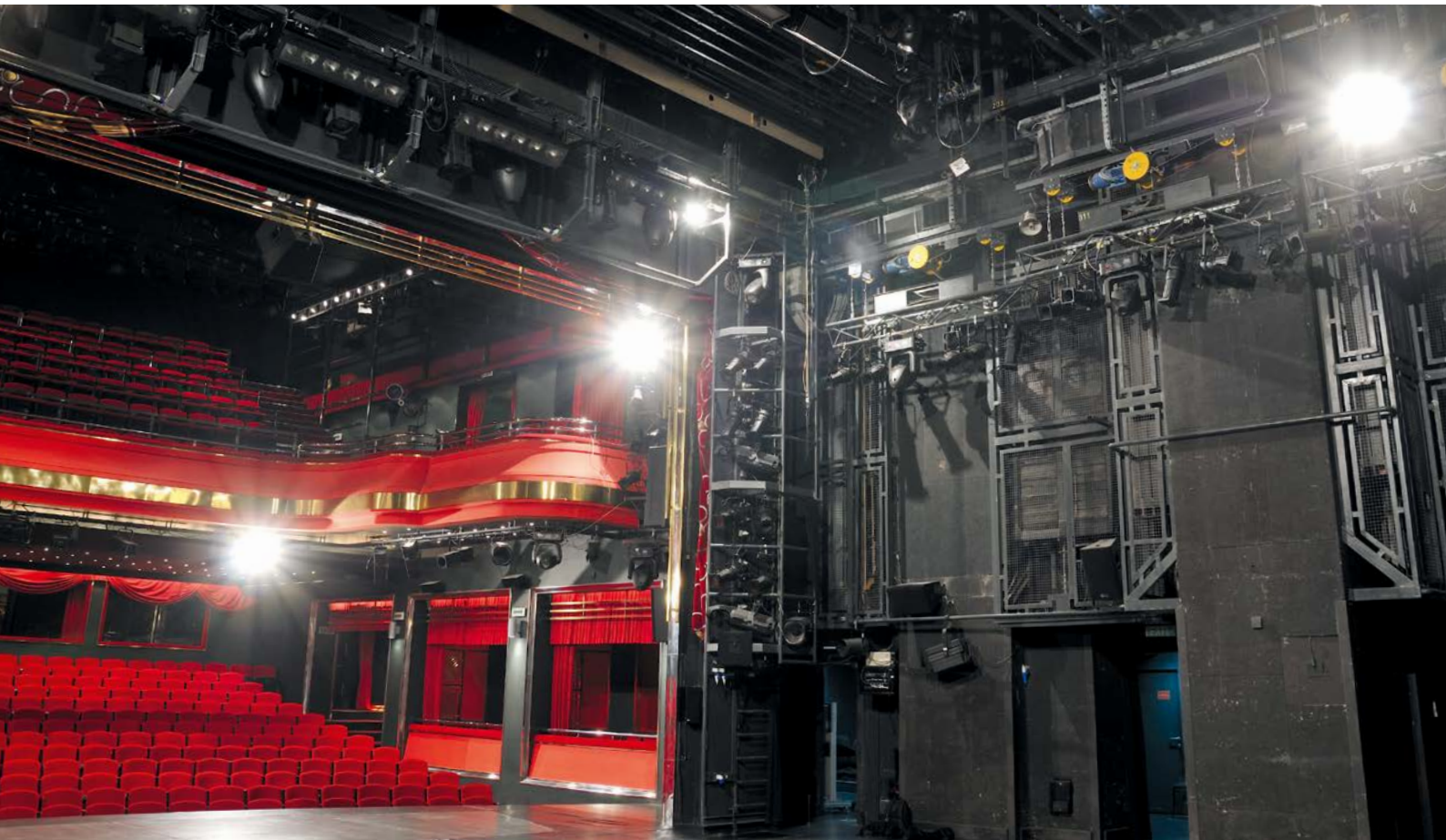
The compact luxmeter

is classified according class C in accordance with DIN 5032-7, appendix B of IEC 13032-1 and CIE 69. The high-end $V(\lambda)$ matching and cosine correction guarantees the reliably measure for illuminance of daylight and artificial sources of light. In collaboration with leading camera specialists and lighting technicians of German TV stations the measuring instrument has been designed.

MAVOLUX COMPACT

Is optimally adapted to the requirements of film and television technology. One-hand operation provides leeway for simultaneous operation of communication devices and remote controls. The swiveling sensor permits adjustment to individual working conditions and the display can be read in the dark thanks to illumination in the HOLD function. With its carrying strap, the meter hangs securely around the operator's neck and the included neoprene case offers protection during transport.

The MAVOLUX COMPACT can of course also be used in industrial settings for planning, installing, inspecting and monitoring lighting systems, as well as for the assurance of compliance with specified lighting conditions.





MAVOLUX 5032 C BASE

This precision luxmeter

is classified according class C in accordance with DIN 5032-7, appendix B of IEC 13032-1 and CIE 69. The high-end $V(\lambda)$ matching and cosine correction guarantees the reliably measure for illuminance of daylight and artificial sources of light. Even in the case of very bright sunlight or illumination from headlights, no accessories are required.

MAVOLUX 5032 C BASE

Due to its class C accuracy, this meter is used primarily as an industrial measuring instrument for planning, installing, inspecting and monitoring lighting systems, as well as for the assurance of compliance with specified lighting conditions.

Its four measuring ranges with automatic or manual range selection cover a broad span from 0.1 to 199,900 lx with an accuracy level of $\pm 3\% \pm 1$ digit. $V(\lambda)$ matching deviation, which amounts to $f1' < 7.5\%$, is considerably better than the permissible error limit for class C specified in the standards.

At GOSSEN, great emphasis is placed upon reliability by means of calibration. For purposes of substantiation, a factory calibration certificate or a DAkkS calibration certificate can be ordered along with either variant. Depending on how the meter is used, we recommend a calibration interval of 12 to 24 months.





Specifications

Maximum reliability – Classified measurement of illuminance in lx or fc in accordance with class C per DIN 5032-7, appendix B of IEC 13032-1 and CIE 69.

Precise Measured Values – Accuracy amounts to $\pm 3\% \pm 1$ digit of the display value.

Broad measuring range – High initial sensitivity and a resolution of 0.1 lx or 0.01 fc, right on up to large illuminance values of 199,900 lx or 19,990 fc.

Calibration Capability – As an option, the accredited GOSSEN Light Lab can issue a factory or a DAKKS calibration certificate for measuring equipment monitoring in accordance with DIN EN ISO 9001:2008.

V(λ) matching – The spectral sensitivity of the silicon photodiode is color corrected and corresponds to the spectral brightness sensitivity of the human eye V(λ).

Cosine correction – The luminosity of a flat measuring surface is proportional to the cosine of the incident angle of light. This relationship is taken into consideration by the receiver during evaluation.

Non-volatile memory – 100 measured values can be saved and retrieved.

Convenient everyday use – Simple operation, easy to read display, compact design. Optionally there is a valuable plastic carrying case available.



MAVOLUX 5032 B/C USB

This high precision luxmeter

is available in class B and class C versions in accordance with DIN 5032-7, appendix B of IEC 13032-1 and CIE 69. Both variants are equipped with $V(\lambda)$ adaptation as well as cosine correction, and reliably measure the illuminance of daylight and artificial sources of light. Even in the case of very bright sunlight or light from headlights, no accessories are required.

MAVOLUX 5032 B USB

Due to its outstanding accuracy in accordance with class B, the MAVOLUX 5032 B USB is used primarily for certification and inspection applications. An additional measuring range with high initial sensitivity of 0.01 lx makes it possible to measure extremely small light intensities. This even permits reliable measurement of emergency lighting. After pressing the HOLD key, the measured value is saved to memory and display illumination included with this version is activated, making it possible to read the display in dark environments. Adaptation to the spectral brightness sensitivity of the human eye $V(\lambda)$ is highly precise with minimal deviation of just $f1' < 3\%$.

With accuracy according to class C, the industrial luxmeter Mavolux 5032 C USB is primarily used for general applications. The smallest of four measuring ranges begins with an initial sensitivity of 0.1 lx. $V(\lambda)$ adaptation deviation,

which amounts to $f1' < 7.5\%$, is considerably better than the admissible error limit for class C.

Both variants can be used as unclassified luminance meters with the help of an optional luminance attachment with an acceptance angle of 15° . Luminance is measured in candelas per square meter (cd/m^2) or foot-lamberts (fL), and defines the perceived brightness of a back-lighted or reflecting surface.

At GOSSEN, great emphasis is placed upon reliability by means of calibration. For purposes of documented evidence, a factory calibration certificate or a DAkkS calibration certificate can be ordered along with either variant. Depending on how the meter is used, we recommend a calibration interval of 12 to 24 months..





Specifications

Maximum precision – Classified measurement of illuminance in lx or fc in accordance with class B or class C per DIN 5032-7, appendix B of IEC 13032-1 and CIE 69.

Broad measuring range – High initial sensitivity and a resolution of 0.01 lx or 0.001 fc for the MAVOLUX 5032 B USB, right on up to large illuminance values of 199,900 lx or 19,990 fc.

V(λ) adaptation – The spectral sensitivity of the silicon photodiode is color corrected and corresponds to the spectral brightness sensitivity of the human eye V(λ). The quality of this adaptation represents a significant difference between the class B and class C variants.

Cosine correction – The luminosity of a flat measuring surface is proportional to the cosine of the incident angle of light. This relationship is taken into consideration by the sensor during evaluation.

Simple expansion of functions – Unclassified measurement of luminance in cd/m^2 or fL is made possible by the optional luminance attachment. An additional adapter disc prevents erroneous measurements due to incidence of light from the side.

Convenient everyday use – Simple operation, easy to read display, compact design, protection during transport in a high quality aluminum case.

Non-volatile memory – 100 measured values can be saved, retrieved or transmitted to a PC via the integrated USB port. Average illuminance values can also be calculated as a result.

Computer-aided measurement – The meter's continuous operating mode is assured thanks to power supply via the USB port. Meter control, as well as acquisition, display and storage of measured values, is managed with the free GLUX 2 software.



MAVO-MONITOR USB

This high precision luminance meter

for contact measurement is assigned to class B in accordance with DIN 5032-7, appendix B of IEC 13032-1 and CIE 69, and measures the perceived light of back-lighted surfaces in candelas per square meter (cd/m^2) or foot-lambert (fL). It is the excellent adaptation to the spectral brightness sensitivity of the human eye with a minimum deviation of only $f1' < 3\%$ that is significantly better than the specifications demanded in the standard.

After pressing the HOLD key, the measured value is saved to memory and display illumination is activated, making it possible to read the display in dark environments. The included adapter disc protects the meter from incidence of light from the side during measurement, and the velvety coating prevents scratching of self-luminous and back-lighted surfaces. In industrial, commercial and service applications, luminance can be measured at monitors of any type, TV screens, lightboxes, illuminated advertising surfaces, traffic signs and focusing screens.

Special tests for proving and observing norms and standards for quality, general safety, work protection, as well as safety on monitors in the field of medical diagnostics and office technology may get its documented evidence by means of our factory Calibration Certificate. Depending on how the meter is used, we recommend a calibration interval of 12 to 24 months.





Specifications

Maximum precision – Classified measurement of luminance in cd/m^2 or fL in accordance with class B per DIN 5032-7, appendix B of IEC 13032-1 and CIE 69.

Broad measuring range – High initial sensitivity and a resolution of $0.01 \text{ cd}/\text{m}^2$ or 0.001 fL , right on up to $19,990 \text{ cd}/\text{m}^2$ or $1,999 \text{ fL}$.

$V(\lambda)$ adaptation – The spectral sensitivity of the silicon photodiode is color corrected and corresponds to the spectral brightness sensitivity of the human eye $V(\lambda)$.

Convenient everyday use – Simple operation, easy to read display, compact design, protection during transport in high quality aluminum case.

Non-volatile memory – 100 measured values can be saved, retrieved or transmitted to a PC via the integrated USB port. Average luminance values can also be calculated as a result.

Computer-aided measurement – The meter's continuous operating mode is assured thanks to power supply via the USB port. Meter control, as well as acquisition, display and storage of measured values, is managed with the free GLUX 2 software.



MAVO-SPOT 2 USB



Specifications

Maximum precision – Classified spot metering of luminance with an acceptance angle of 1° in cd/m^2 or fL in accordance with class B per DIN 5032-7, appendix B of IEC 13032-1 and CIE 69.

Precision focusing – The mirror reflex with a 1° measuring circle and a 15° field of view is laid out for distance measurements from 1 meter to infinity, with optional close-up lenses for focusing as of 34 cm.

Contact measurement – Contact measurement can be performed with an optional probe and adapter disc.

Broad measuring range – High initial sensitivity and a resolution of 0.01 to 99,900 cd/m^2 or 0.01 to 30,000 fL .

Comparative and ratio measurement – Contrast A/B, consistent lighting %A and deviation A-B are calculated and directly displayed.

$V(\lambda)$ adaptation – The spectral sensitivity of the silicon photodiode is color corrected and corresponds to the spectral brightness sensitivity of the human eye $V(\lambda)$.

Simple functions expansion – Unclassified measurement of illuminance in lx or fc is possible with the optional reflectance standard.

Convenient everyday use – Simple operation with one hand, easy to read viewfinder display, compact design, $\frac{1}{4}$ " tripod thread, protection during transport in high quality aluminum case.

Non-volatile memory – 1000 measured values or 10 groups of 100 measured values can be saved, retrieved or transmitted to a PC via the integrated USB port.

Computer-aided measurement – The meter's continuous operating mode is assured thanks to power supply via the USB port. Meter control, as well as acquisition, display and storage of measured values, is managed with the free GLUX 2 software.

EIZO RadiCS – The meter is integrated into the software and can be used for comprehensive testing and automatic adjustment of RadiForce monitors, in order to assure constant and consistent image reproduction.

This high precision luminance meter

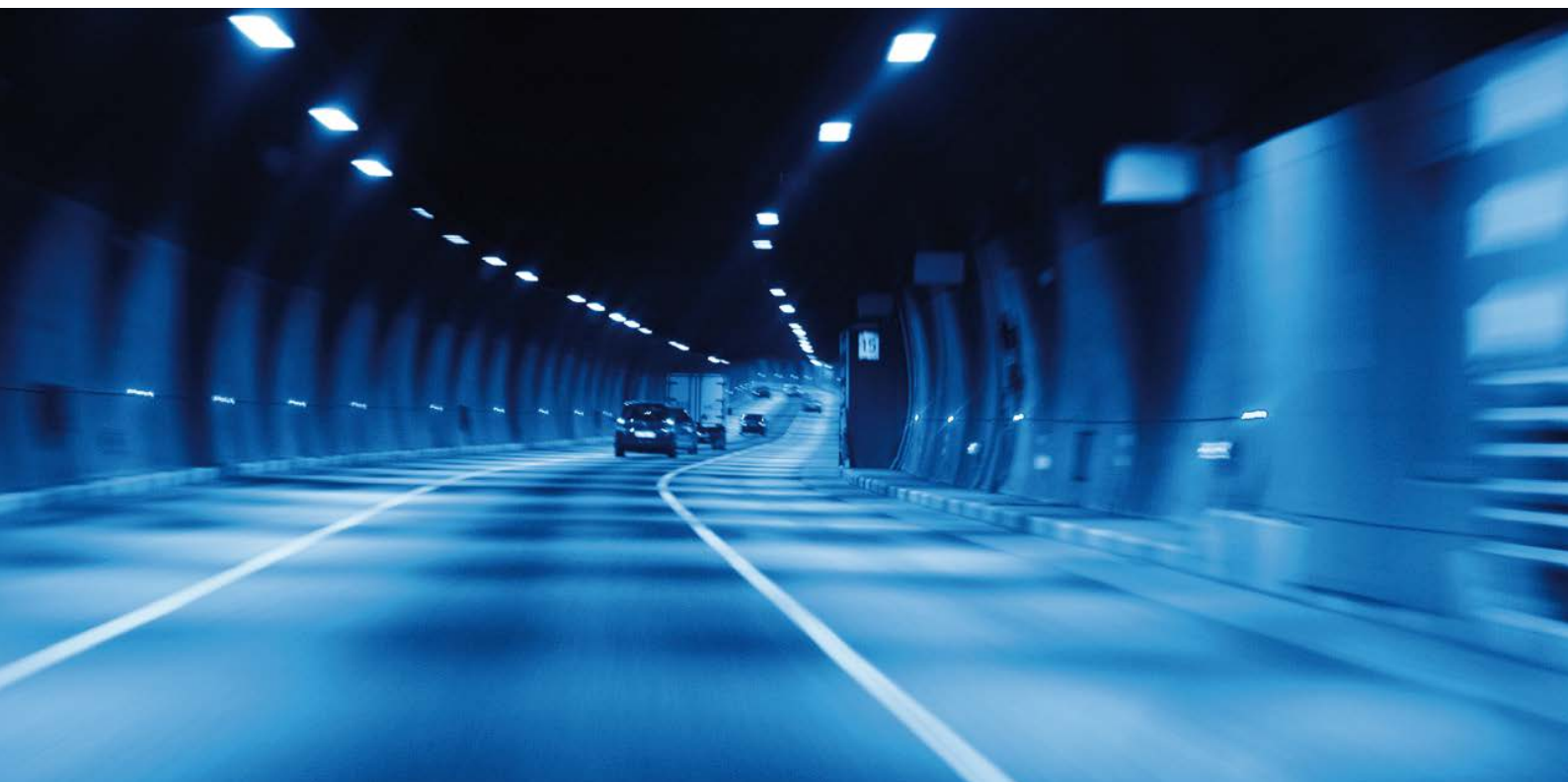
for distance measurement with an acceptance angle of 1° is assigned to class B in accordance with DIN 5032-7, appendix B of DIN EN 13032-1 and CIE 69. It measures the perceived brightness of back-lighted surfaces in candelas per square meter (cd/m^2) or foot-lambert (fL) in consideration of ambient light.

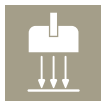
MAVO-SPOT 2 USB

Is equipped with an excellent adaptation to the spectral brightness sensitivity of the human eye $V(\lambda)$ and is highly precise with a minimal deviation of just $f1' < 3\%$, which is significantly better than specified in the standard. By means of the mirror reflex optics, the measuring subject may be targeted precisely in a 15° field of view and a sharply marked 1° measuring circle in the center of the viewfinder. Focus can be set for distances ranging from 1 meter to infinity. Shorter distances as of 34 cm are made possible by means of optional close-up lenses. Alternatively, contact measurement can also be performed with an optional, top quality probe. The velvety coating on the adapter disc prevents scratching of self-luminous and back-lighted surfaces. Measurement functions are selected and measurements are started with convenient on-hand operation. The display on the viewfinder is activated

along with back-light by simply pressing a key. The comparative and ratio measurements are especially advantageous, by means of which deviation of measured value B from reference value A is evaluated and displayed. The relationship A/B is used for contrast measurement at workstations. Percentage deviation $\%A$ allows for an assessment of the consistency of monitor screens and projection screen lighting, and difference $A-B$ is used to detect deviation during the production process.

Special tests for proving and observing norms and standards for quality, general safety, work protection, as well as safety on monitors in the field of medical diagnostics and office technology may get its documented evidence by means of our factory Calibration Certificate. Depending on how the meter is used, we recommend a calibration interval of 12 to 24 months.





MAVOMAX 60, RK1, RK2/5

The room light monitor

The MAVOMAX room light monitor is used wherever a constant illuminance has to be ensured. This applies, in particular, to compliance with the room classes according to DIN 6868-157 of diagnostic rooms, examination rooms with immediate diagnostics, dental diagnostic workstations and in teleradiology, where diagnostic monitors and light boxes for medical applications are used. For universally usable rooms with dimmable lighting, it supports the setting of the permissible illuminance for diagnostic.

During the transitional period for the quality assurance of image reproduction devices according to DIN V 6868-57, the MAVOMAX can be used in order to extend the interval of constancy testing of image display devices for veiling luminance and maximum contrast to 6 months. In the case of repeat measurements within the framework of acceptance or constancy testing, veiling luminance need not be measured again and the 60-minute waiting time until the image display device has reached a stable state is eliminated.



Specifications

Constant lighting conditions – A green LED indicates adherence to the admissible indoor light range for diagnostics, and a red LED indicates violation of this range.

Selectable indoor light range – Three variants are available: one for general applications MAVOMAX 60 (20 to 60 lx), one for diagnostic rooms MAVOMAX RK1 (10 to 50 lx) and one for diagnostic medical and dental workstations MAVOMAX RK2 RK5 (50 to 100 lx) (corresponds to RK per standard DIN 6868-157).

Reduced testing effort – Monitoring ambient light extends the stipulated interval for constancy testing of image display devices for veiling luminance and maximum contrast to 6 months. In the case of periodic measurements, there's no need to repeat the veiling luminance measurement.

Flexible power supply – Electrical power for the continuous operating mode is supplied to the meter by connecting it to a free USB port or the included mains power pack.





LIGHT LAB

Professional calibration services on the highest level

The GOSSEN Light Lab is equipped with a monitored optical bench, whose traceability to the national standard maintained by the PTB (German Federal Institute of Physics and Metrology) is assured by means of a WI41/G standard lamp. The lab is subject to test equipment monitoring in accordance with DIN EN ISO 9001:2015, and is additionally accredited for illuminance by DAkkS in accordance with DIN EN ISO/IEC 17025:2005 under registration number D-K-20315-01-00. And thus you can count on product quality, the competence of our employees, continuous external monitoring and international recognition of our calibration services.

Reliable Measured Values through Calibration at Regular Intervals

The DIN EN ISO 9001:2015 demands test equipment monitoring, if this equipment is relevant for product quality or is used for the preparation of assessments. This test equipment must be calibrated at regular intervals and retraceable back to a National Standard.

Calibration means to state and document in a specific procedure the deviation of the meter display to an illuminant which is normed by and retraceable to a National Standard. The measuring instrument will not be changed.

Adjustment involves the correction or balancing of a measuring instrument in order to eliminate systematic measurement deviation. The measured value

obtained from a measuring instrument is thus adjusted to match the known value of the test standard under specified reference conditions. The measuring instrument will be changed permanently.

A combination including receiving report, adjustment and final report is also possible for GOSSEN meters. This combination is required whenever a device is out of tolerance and it has to be judged whether previous measurements need to be repeated.

Benefits of calibration

Risk minimization – Avoidance of risks, dangers and costs due to incorrect measuring results

Legal certainty – General recognition and legal certainty of the measuring results

Standard conformity – Fulfillment of customer requirements, standards and regulations

Traceability – Reliable, reproducible and traceable measuring results

Competitive Advantages – Proven high quality level

Neutrality – Manufacturer-independent determination of the accuracy of measuring instruments

Prevention – Early detection of changes or failures of measuring equipment



DAkKS Calibration



- Smallest measuring uncertainty
- Traceability to national standards
- Worldwide acceptance without additional evidence
- Measuring instrument at least class C according to DIN 5032-7
- Illuminance
Calibration range from 1.75 lx to 2000 lx with a relative extended measuring uncertainty of up to 1,5 %. ¹⁾

1) The relative extended measuring uncertainty depends on the measured value and the measuring instrument and is determined individually for each calibration value according to CIE 198.

Factory Calibration



- Small measuring uncertainty
- Traceability to national standards
- Acceptance depends on the auditor
- All measuring instruments
- Illuminance
Calibration range from 1 lx to 50 000 lx with a relative extended measuring uncertainty of up to 3 %. ¹⁾
- Luminance
Calibration range from 0.5 cd/m² to 10 000 cd/m² with a relative extended measuring uncertainty of up to 4 %. ¹⁾

Calibration of Devices from other Manufacturers

After determining that devices from other manufacturers are capable of being calibrated, we are pleased to issue either a DAkKS or a factory calibration certificate. If the device does not comply with at least class C, only factory calibration can be offered. Devices from other manufacturers cannot be adjusted.

Calibration Intervals

The calibration interval depends on measured quantity and permissible tolerance, the extent to which the measuring and test equipment is subject to stressing, frequency of use, ambient conditions, stability of previous calibrations, required measuring accuracy, company-specific requirements specified by the quality assurance system and must be specified by the user under their consideration.

We recommend a calibration interval of 1 to 2 years for use under normal conditions. We recommend a calibration interval of 1 year for measuring instruments which are used on a regular basis for audits, evaluating work safety and assuring the quality of products and services, as well as under severe ambient conditions.

Measuring Services

As an independent company, we measure the characteristics of products manufactured or operated by you and submit a corresponding test report. Our offerings include the measurement of spectra, color rendering index, chromaticity, correlated color temperature, flicker, transmission and reflection within the visual range.

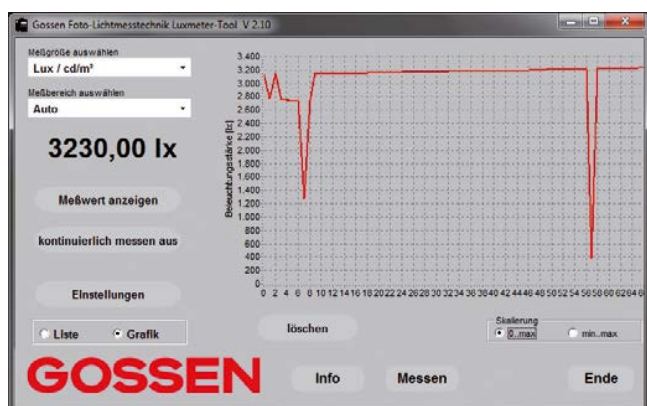
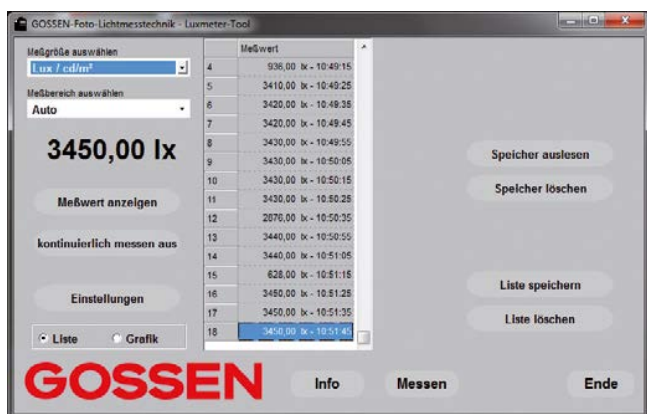


GLUX 2 SOFTWARE

GLUX 2 Software

Intuitive GLUX software is the link between the meter and customer-specific further processing at the PC. Momentary or stored measured values can be transmitted, saved as TXT files and read in by word processing, spreadsheet and database applications.

This allows for inclusion in the user's own reports, additional calculations and extensive archiving. GLUX is also capable of recording measured values at an adjustable interval for the creation of light profiles and for long-term monitoring. After connection to a USB port, the meter is supplied with electrical power from the PC. The complete interface description simplifies integration into the user's own software applications. The bonus material included in the download of the GLUX 2 software is also spreadsheets for Excel for taking over measured values, for reading out and for measuring at workplaces.



Specifications

Free software – GLUX supports the MAVOLUX 5032 B/C USB, the MAVO-MONITOR USB and the MAVO-SPOT 2 USB, and can be downloaded for free from the website.

International use – German, English, French or Spanish can be selected.

Clear-cut display – Measured value display as list or graphic.

Expressive profile – Recording of selected measured quantities at an adjustable interval.

Simple data export – Storage as universal *.txt file for data transmission

Comfortable continuous operation – Power supply via USB.

Open device interface – Detailed interface description included in the download of the GLUX 2 software.

Helpful bonus material – Various Excel spreadsheets for data transfer with sample applications are included in the download of the GLUX 2 software. These serve as a basis for the user's own applications.

COMPONENT PART

MAVOLUX 5032 B USB



Luminance attachment – M516G



Adapter disc – M499G

Measurement cables with special lengths:

3 m - 15146

5 m - 15147

10 m - 15148

MAVOLUX 5032 C USB



Luminance attachment – M516G



Adapter disc – M499G

Measurement cables with special lengths:

3 m - 15143

5 m - 15144

10 m - 15145

MAVO-SPOT 2 USB



Probe for contact measurement – M511G



Reflectance standard for lux measurement – M512G



Close-up lens 1 (51 to 100 cm) – M496G

Close-up lens 2 (34 to 50 cm) – M497G



Stray-light baffle – M513G



Carrying strap – M514G

MAVOLUX 5032 C BASE



Plastic carrying case - M520G
Delivered without measuring device



TECHNICAL DATA



Measuring functions

Operation

Power supply

Miscellaneous

Model
Type
Classification
Item number

MAVOLUX COMPACT
Precision Luxmeter
Class C DIN 5032-7 / EN 13032-1 appendix B
M502C

MAVOLUX 5032 C BASE
Precision Luxmeter
Class C DIN 5032-7 / EN 13032-1, appendix B
M502B

Illuminance
Luminance
Measuring ranges
Measuring range selection
Measuring rate
Measuring method
Measuring sensor
Probe with tripod thread
Measurement cable
Measured value memory
Error limit - V(λ) adapted (f1'), typical
Error limit - overall error, typical
Accuracy

0.1 lx ... 199,900 lx / 0.01 fc ... 19,990 fc
4
Automatic / Manual
2/s
Silicon photodiode with V (λ) filter
Swivel type
100 measured values
< 7.5 %
≤ 15 %
± 3 % of reading ± 1 Digit

0.1 lx ... 199,900 lx / 0.01 fc ... 19,990 fc
4
Automatic / Manual
2/s
Silicon photodiode with V (λ) filter
Yes
1.5 m, firmly connected
100 measured values
< 7.5 %
≤ 15 %
± 3 % of reading ± 1 Digit

Display
Back-Light
Operating elements
Interface
Software

3 1/2 digit LCD
Yes
6 keys

3 1/2 digit LCD
6 keys

Battery
Automatic battery control
Automatic shutdown
Battery service life
Power supply

1.5 V mignon, type AA
Yes
4 min. / continuous operation
Approx. 45 h with alkaline manganese battery

1.5 V mignon, type AA
Yes
4 min. / continuous operation
Approx. 45 hours with alkaline manganese battery

Operating temperature
Dimensions
Weight
Certificates
Delivery contents

0 °C to 50 °C
65 mm x 140 mm x 25 mm
105 g without battery
Factory certificate - H997B DAkkS certificate - H997D
Case, carrying strap, battery, operating instructions, calibration protocol

0 °C to 50 °C
65 mm x 120 mm x 19 mm (meter) 31 mm x 105 mm x 30 mm (probe)
200 g without battery
Factory certificate - H997B DAkkS certificate - H997D
Battery, operating instructions, calibration protocol



MAVOLUX 5032 C USB	
Precision Luxmeter	
Class C DIN 5032-7 / EN 13032-1, appendix B	
M502N	

MAVOLUX 5032 B USB	
Precision Luxmeter	
Class B DIN 5032-7 / EN 13032-1, appendix B	
M503N	

0.1 lx ... 199,900 lx / 0.01 fc ... 19,990 fc
1 cd/m ² ... 1,999,000 cd/m ² / 0.1 fL ... 199,900 fL with optional luminance attachment, not classified
4
Automatic / Manual
2/s
Distance measurement, contact measurement with optional luminance attachment
Silicon photodiode with V (λ) filter
Yes
1.5 m, firmly connected
100 measured values
< 7.5 %
≤ 15 %
± 3 % of reading ± 1 Digit

0.01 lx ... 199,900 lx / 0.001 fc ... 19,990 fc
0.1 cd/m ² ... 1,999,000 cd/m ² / 0.01 fL ... 199,900 fL with optional luminance attachment, not classified
5
Automatic / Manual
2/s
Distance measurement, Contact measurement with optional luminance attachment
Silicon photodiode with V (λ) filter
Yes
1.5 m, plug-in
100 measured values
< 3 %
≤ 8 %
± 3 % of reading ± 1 Digit

3 1/2 digit LCD
Yes
6 keys
USB 1.1
GLUX 2

3 1/2 digit LCD
Yes
6 keys
USB 1.1
GLUX 2

1.5 V mignon, type AA
Yes
4 min. / continuous operation
Approx. 45 hours with alkaline manganese battery
USB

1.5 V mignon, type AA
Yes
4 min. / continuous operation
Approx. 45 hours with alkaline manganese battery
USB

0 °C to 50 °C
65 mm x 120 mm x 19 mm (meter) 31 mm x 105 mm x 30 mm (probe)
200 g without battery
Factory certificate - H997B DAkkS certificate - H997D
Aluminum case, GLUX 2 software, USB cable, battery, operating instructions, calibration protocol

0 °C to 50 °C
65 mm x 120 mm x 19 mm (meter) 31 mm x 105 mm x 30 mm (probe)
200 g without battery
Factory certificate - H997B DAkkS certificate - H997D
Aluminum case, GLUX 2 software, USB cable, battery, operating instructions, calibration protocol



Model
Type
Classification
Item number

Illuminance
Luminance
Measuring ranges
Measuring range selection
Measuring rate
Measuring method
Measuring sensor
Probe with tripod thread
Measurement cable
Measured value memory
Error limit - V(λ) adapted (f1'), typical
Error limit - overall error, typical
Accuracy

Display
Back-Light
Operating elements
Interface
Software

Battery
Automatic battery control
Automatic shutdown
Battery service life
Power supply

Operating temperature
Dimensions
Weight
Certificates
Delivery contents

Measuring functions

Operation

Power supply

Miscellaneous




TECHNICAL DATA



	MAVO-MONITOR USB 	MAVO-SPOT 2 USB 
Model	MAVO-MONITOR USB	MAVO-SPOT 2 USB
Type	Precision Luminance Meter	Precision Luminance Meter
Classification	Class B DIN 5032-7 / EN 13032-1, appendix B	Class B DIN 5032-7 / EN 13032-1, appendix B
Item number	M504G	M508G
Measuring functions		
Illuminance		0.1 ... 99,900 lx (optional reflectance standard, unclassified)
Luminance	0.01 cd/m ² ... 19,990 cd/m ² / 0.001 fL ... 1,999 fL	0.01 cd/m ² ... 99,990 cd/m ² / 0.01 fL ... 30,000 fL
Measuring ranges	4	4
Measuring range selection	Automatic / Manual	Automatic / Manual
Measuring rate	2/s	
Measuring method	Contact measurement	Distance measur. with mirror reflex optics, acceptance angle of 1°, from 1 meter to infinity, contact measurement (with probe)
Measuring sensor	Silicon photodiode with V (λ) filter	Silicon photodiode with V (λ) filter
Probe with tripod thread	Yes	Yes
Measurement cable	1.5 m, plug-in	
Measured value memory	100 measured values	1000 measured values or 10 groups of 100 measured values
Error limit - V(λ) adapted (f1'), typical	< 3 %	< 3 %
Error limit - overall error, typical	≤ 8 %	≤ 8 %
Accuracy	± 2.5 % of reading ± 2 Digit	± 2.5 % of reading ± 2 Digit
Operation		
Display	3 1/2 digit LCD	Multifunctional LCD
Back-Light	Yes	Yes
Operating elements	6 keys	4 keys, 1 slider switch, 1 DIP switch
Interface	USB 1.1	USB 2.0
Software	GLUX 2	GLUX 2
Power supply		
Battery	1.5 V mignon, type AA	2 ea. 1.5 V mignon, type AA
Automatic battery control	Yes	Yes
Automatic shutdown	4 min. / continuous operation	30 sec.
Battery service life	Approx. 45 hours with alkaline manganese battery	Approx. 5000 measurements
Power supply	USB	USB
Miscellaneous		
Operating temperature	0 °C to 50 °C	0 °C to 50 °C
Dimensions	65 mm x 120 mm x 19 mm (meter) 31 mm x 105 mm x 30 mm (probe)	190 mm x 90 mm x 57 mm
Weight	265 g without battery	400 g without battery
Certificates	Factory certificate – H997B	Factory certificate – H997B
Delivery contents	Aluminum case, adapter disc, GLUX 2 software, USB cable, battery, operating instructions, calibration protocol	Aluminum case, GLUX 2 software, eyecup, lens cover, USB cable, battery, operating instructions, calibration protocol
		



MAVOMAX 60, RK1, RK2/RK5 	Model
Indoor Light Surveillance Meter	Type
M518G / M517G / M522G	Classification Item number
20 lx ... 60 lx / 10 lx ... 50 lx / 50 lx ... 100 lx	Illuminance
	Luminance
1	Measuring ranges
	Measuring range selection
	Measuring rate
	Measuring method
Silicon photodiode with V (λ) filter	Measuring sensor
	Probe with tripod thread
	Measurement cable
	Measured value memory
	Error limit - V(λ) adapted (f1'), typical
	Error limit - overall error, typical
	Accuracy
2 LEDs	Display
	Back-Light
	Operating elements
	Interface
	Software
	Battery
	Automatic battery control
	Automatic shutdown
	Battery service life
By permanently connected USB cable	Power supply
0 °C to 50 °C	Operating temperature
40 mm x 33 mm x 23 mm	Dimensions
150 g	Weight
	Certificates
Power pack with USB socket	Delivery contents
90 to 240 V (50 to 60 Hz), operating instructions	

Measuring functions

Operation

Power supply

Miscellaneous



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