

Dear Customer,

Thank you for choosing a Calibration in our company. We may offer you several forms of calibration, described below.

Thus, and in order to execute your order as fast and smoothly as possible, i.e. without further questions to you, we ask you to fill in this form and to add it to the meter being sent in to us.

You can find further information on our Homepage, www.gossen-photo.de or in our Info on the Light Lab.

Please let us know the **technical** contact person in your company

Name

Telephone No.

E-Mail

Calibration Object

	Manufacturer	Type	Serial Number
Device			
Accessories			

Accredited Calibration (DAkkS-Calibration)

Calibration for NDT (Illuminance and Irradiance at 365nm)

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ISO/IEC 17025 compliant calibration protocol. Only for meters that can measure illuminance and UV-A 365nm. We will calibrate the following values: 20 lx, 100 lx, 1.000 lx and 100 $\mu\text{W}/\text{cm}^2$, 1.000 $\mu\text{W}/\text{cm}^2$, 5.000 $\mu\text{W}/\text{cm}^2$. Three values will be calibrated each for Illuminance and Irradiance

Calibration of Illuminance

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ISO/IEC 17025 compliant calibration protocol. Measured values chosen by Gossen fitting for the meter or customer values. Three values in the range of 1,75 lx to 2000 lx.

Calibration of Irradiance at 365nm

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ISO/IEC 17025 compliant calibration protocol. Measured values chosen by Gossen fitting for the meter or customer values. Three values in the range of 100 $\mu\text{W}/\text{cm}^2$ to 6000 $\mu\text{W}/\text{cm}^2$.

Additional Measuring Values for the Calibration (not for NDT)

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Up to five additional values (up to a maximum of eight in total). Please state them below.

More than half of the measured values must be within the accredited range (< 2000 lx or < 6000 $\mu\text{W}/\text{cm}^2$). The additional values can be in the range of 1,75 lx to 20000 lx or 100 $\mu\text{W}/\text{cm}^2$ to 10000 $\mu\text{W}/\text{cm}^2$.

Additional Factory Calibration

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If required, you can combine the accredited calibration (DAkkS-Calibration) with a factory calibration.

This can be the case if you need many of values of if you need very high values that can't be added to the "DAkkS-Calibration-Certificate".

Please choose a calibration on the next page, that fits your needs.

Statement of Conformity for Accredited Calibration



Please note the information on page 3

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No statement of Conformity

Default, no Statement of Conformity is issued in the calibration certificate

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Statement of Conformity with Rule 1 - "Shared Risk"

Binary Statement of conformity **without** consideration of Measurement Uncertainty - **please state needed tolerance below**

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Statement of Conformity with Rule 2 - With Guard Band = Measurement Uncertainty

Recommended only for very high-quality illuminance meters (see page 3).

Irradiance has a measurement uncertainty of at least 10.0% and often higher instrument deviations.

Therefore a **tolerance below 13.0% for irradiance is usually unfeasible!**

We reserve the right to change Rule 2 to Rule 1 without prior notice if the desired evaluation is not reasonably possible. e.g., if 3.0% is desired for irradiance.

Binary Statement of conformity **with** consideration of Measurement Uncertainty - **please state needed tolerance below**

Needed Tolerance for Rule 1 and 2

Common values are 3,0%, 5,0% or the device Tolerance (if stated by the manufacturer)


Tolerance:

Factory Calibration / Proprietary Calibration

<input type="checkbox"/>	Calibration of Illuminance With ISO 9001 compliant calibration protocol. Measured values are fitted to the measuring ranges of the meter. Depending on the accuracy of the meter, we will calibrate values in the range of 5 lx to 50.000 lx.
<input type="checkbox"/>	Calibration of Luminance With ISO 9001 compliant calibration protocol. Measured values are fitted to the measuring ranges of the meter. Depending on the accuracy of the meter, we will calibrate values in the range of 5 cd/m ² to 10.000 cd/m ² .
<input type="checkbox"/>	Calibration of Irradiance at 365nm With ISO 9001 compliant calibration protocol. Measured values are fitted to the measuring ranges of the meter. Depending on the accuracy of the meter, we will calibrate values in the range of 100 µW/cm ² to 10.000 µW/cm ² .

<input type="checkbox"/>	Additional Measuring Values for the Calibration Up to five additional values additionally to our fitted values. Please state your desired values below. Additional values from the range 1 lx to 200 klx, 0,1 cd/m ² to 50 kcd/m ² or 100 µW/cm ² to 10.000 µW/cm ² . Attention: Values above 50klx or 10kcd/m ² are only possible for devices of class C or better according to DIN 5032-7.
<input type="checkbox"/>	Special Measuring Values for the Calibration We can also calibrate values of your choice instead of values defined by us. Please state your desired values below. You can choose up to a maximum of 25 values total. The ranges and limitations of the additional values apply.

Adjustment

	Devices from other manufacturers than GOSSEN cannot be adjusted. An adjustment of GOSSEN devices is included in the price for calibration. Since we do not adjust devices without customer approval for reasons of quality assurance, we do not adjust devices even if the measuring deviation is greater than 3%. If you agree to an adjustment if needed, please mark that below.
<input type="checkbox"/>	Adjustment with Calibration The device will only be adjusted if the measuring deviation is greater than 3%. Without protocol before adjustment.
<input type="checkbox"/>	Calibration, Adjustment, second Calibration Additional protocol for values before adjustment. Two protocols in total (double the cost). The device will only be adjusted if the measuring deviation is greater than 3%.

Additional Values, Customer-specific Values, Special Requests, Comments

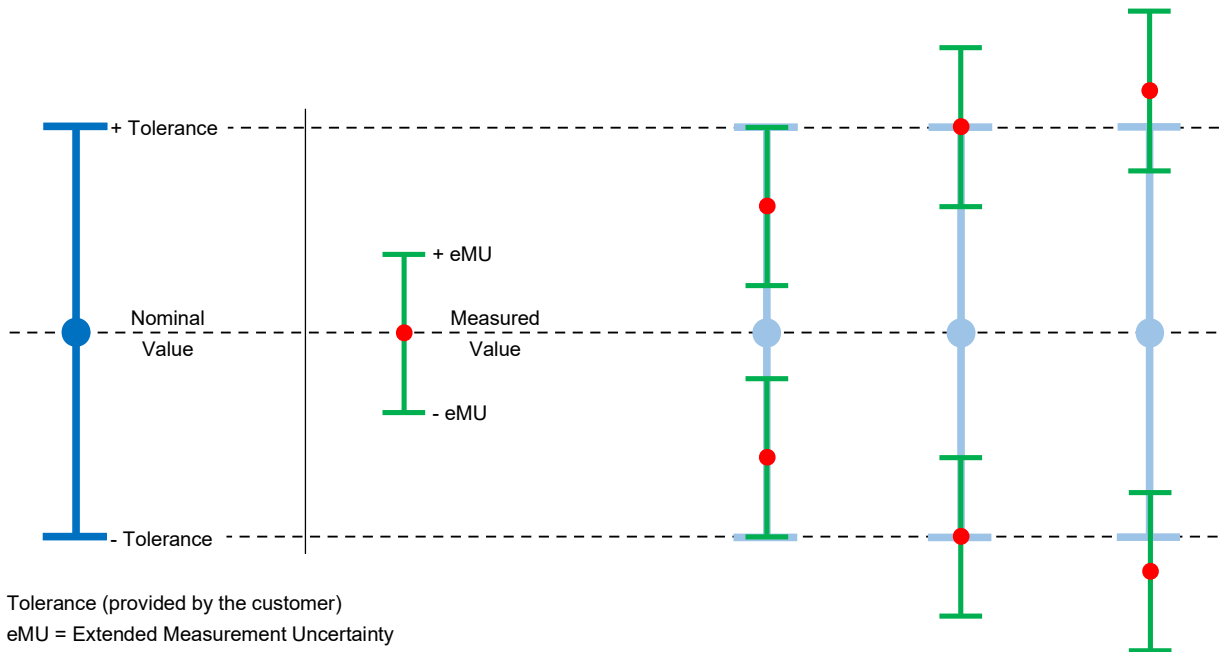
Empty space for additional values, customer-specific values, special requests, and comments

Statement of Conformity for accredited Calibration



The DIN EN ISO/IEC 17025:2018 demands that the customer makes a statement if he wants a Statement of Conformity for every accredited calibration. If needed the customer has to state what decision rule to use.
Without this statement we must not start the calibration.

Explanation for the Decision Rules



Chosen Decision Rule	Case Example		
Rule 1, level of reliability medium	pass	pass	fail
Rule 2, level of reliability high	pass	fail	fail

Level of reliability high: The probability that the measurement is within the tolerance is $\geq 95\%$

Level of reliability medium: The probability that the measurement is within the tolerance is $\geq 50\%$

The percentages, e.g. $\geq 50\%$, are statistical values and cannot be interpreted to mean that the results are wrong 50% of the time!

Typical Measurement Uncertainty Illuminance

For small measured values, the measurement uncertainty is mostly dependent on the resolution of the device. For large measured values, mechanical factors of the measuring head are more decisive.

It is easily apparent in the graph below, that for some measuring instruments, the measurement uncertainty for small measured values quickly exceeds the stated instrument's tolerance.

