

Price list photometric laboratory

Measurement services at DIAL

Express Service

Receive the results within 48 hours, provided it is technically possible.
We charge an additional mark-on of 100 %.

All prices exclusive 19% VAT.

A Integrating measurements by sphere multimeter			
	<ul style="list-style-type: none"> – Measurement of photo- and colorimetric data according to EN 13032-4 or LM-79-08 – Measurement of signal shape for modulation and Flicker Index according to IEEE 1789 – Measurement of any lightsource – Uncertainty of measurement (with $k = 2$) max. $\pm 5,0 \%$ 		
A1	Measurement of the luminous flux, the spectral distribution and the signal shape	259,00 €	A
A2	Measurement of three identical lightsources according to ANSI/Plato FL 1-2016 (e.g. torch, headlamp)	3.239,00 €	A
A3	Measurement of degradation of the luminous flux at a customer-specific temperature up to 100°C	389,00 €	A
B Angle depending measurements by goniometer with rotating mirror			
	<ul style="list-style-type: none"> – Measurement of photo- and colorimetric data according to EN 13032-4 or LM-79-08 – Measurement of signal shape for modulation and Flicker Index according to IEEE 1789 – Presentation of results in a detailed measurement report and as LDT or IES file – Measurement uncertainty (with $k = 2$) max. $\pm 5,0 \%$ 		
B1	Direct OR indirect luminaire Absolute measurement of the light distribution body of one hemisphere up to $\gamma = 90^\circ$ as well as spectral distribution and signal shape below the angle of maximum luminous intensity	429,00 €	A
B2	Direct AND indirect luminaire Absolute measurement of the light distribution body of both hemispheres up to $\gamma = 180^\circ$ as well as spectral distribution and signal shape below the angle of maximum luminous intensity	639,00 €	A
B3	Measurement and evaluation of a traffic control signal (in road traffic) with a luminous field diameter of 200 mm or 300 mm in accordance with DIN EN 12368:2015-09	2.399,00 €	

B4	Color- and photometrical measurement of a signal and evaluation of the results in accordance with the ICAO Annex 14 Volume 1, Appendix 1 and 2	1.999,00 €	
BZ3	Additional charge for MINERGIE® measurement This position requires a B1 or B2 measurement	+ 145,00 €	A
BZ5	Additional charge for the measurement of the temperature with a type K element on a customer-specified discreet spot This position requires a B1 or B2 measurement	+ 389,00 €	A
BZ7	Additional charge for the measurement of the gonio-colorimetric spectral distribution of a light source This position requires a B1 or B2 measurement	+ 189,00 €	A
BZ8	Measurement of the spectral distribution of a light fixture and evaluation of the blue light hazard according to DIN IEC/TR 62778 Annex C This position requires a B1 or B2 measurement	+ 279,00 €	A
BZ9	Additional determination of the required data of a light source for the entry into the EPREL database according to the EU Regulation 2019/2020 This position requires a B1 measurement	+ 199,00 €	

C Luminance and emergency signs

- Space-resolved or point-resolved measurements of the absolute luminance
- Measurements according to DIN EN 1838, ISO 3864-1 and DIN 4844-1 by request

C1	Measurement of the absolute luminance [cd/m²] with image resolution camera Presentation of the results as false colour image with legend	289,00 €	
C2	Measurement of the absolute luminance [cd/m²] on up to ten discreet spots	359,00 €	A
C3	Measurement of the absolute luminance [cd/m²] in accordance with DIN EN 1838:2013 and the chromaticity coordinates in the CIE (1931) colour space on the surface of an emergency sign	539,00 €	A

D Reflectance (ρ) and transmittance (τ)

- Measurement according to CIE 38 and DIN 5036-3
- Measurement with normtype Light A or D65

D1	Determination of the total and scattered degree of reflectance (ρ) or transmittance (τ) for one sample (min. dimensions of sample 10x10 cm) with an angle of incidence below 8°	609,00 €	A
DF1	Determination of the reflectance or transmittance for an additional sample below 8° or additional angles using the same sample This position requires a D1 measurement	309,00 €	A

E, G, T Further services and measurements		
E1	Derivation from an original measurement	119,00 €
G2	Evaluation of a customer-specified street geometry according to EN 13201-3 with a light distribution measured in the DIAL photometric laboratory	1.289,00 €
GZ1	Subsequent evaluation to G2 Additional light distribution measured in the DIAL photometric laboratory with the same street geometry	599,00 €
T	Temperature measurement with type K elements at up to three specified discrete points Recording of the temperature curve during the stabilisation process incl. holding of the measuring object	499,00 €
P, H Order processing and additional services		
P1	Order processing fee Once per order	235,00 €
H2	Photometrically, mechanically and thermally standard-compliant mounting, as well as electrically correct connection of a measurement object for the positions A1 and B1	229,00 €
H3	Photometrically, mechanically and thermally standard-compliant mounting, as well as electrically correct connection of a measurement object for position B2	349,00 €
H4	Photometrically, mechanically and thermally standard-compliant mounting, as well as electrically correct connection of a measurement object for the positions C1, C2 or C3	349,00 €