

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	215,00 €	A
A2	Verification procedure for market surveillance purposes according to EU-Regulation 874/2012 Measurement on 20 lamps of the same type	1.849,00 €	A
A3	Measurement of three identical lightsources according to ANSI/Plato FL 1-2016 (e.g. torch, headlamp)	3.079,00 €	A
A4	Measurement of degradation of the luminous flux at a customer-specific temperature up to 100°C	369,00 €	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 – Photometric results available as EULUMDAT or IES files – 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	409,00 €	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	596,00 €	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	2.279,00 €	

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	1.899,00 €	
BZ3	Additional charge for MINERGIE® measurement This position requires a B1 or B2 measurement	+ 139,00 €	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	+ 369,00 €	A
BZ7	Additional charge for the measurement of the goniocolorimetric spectral distribution of a light source This position requires a B1 or B2 measurement	+ 179,00 €	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	+ 265,00 €	A

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	269,00 €	
C2	Measurement of the absolute luminance [cd/m²] on up to ten discreet spots with dimensions as specified by the customer	339,00 €	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	509,00 €	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°	579,00 €	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	295,00 €	A

E, G		Further services	
E1	Derivation from an original measurement		112,00 €
G2	Evaluation of a customer-specified street geometry according to EN 13201-3 with a light distribution measured in the DIAL photometric laboratory		1.219,00 €
GZ1	Subsequent evaluation to G2 Additional light distribution measured in the DIAL photometric laboratory with the same street geometry		569,00 €
P, H		Order processing and additional services	
P1	Order processing fee Once per order		225,00 €
H2	Photometrical, mechanical, electrical and thermal mounting of a measuring object for the positions A1 and B1		215,00 €
H3	Photometrical, mechanical, electrical and thermal mounting of a measuring object for position B2		329,00 €
H4	Photometrical, mechanical, electrical and thermal mounting of a measuring object for the positions C1, C2 or C3		329,00 €