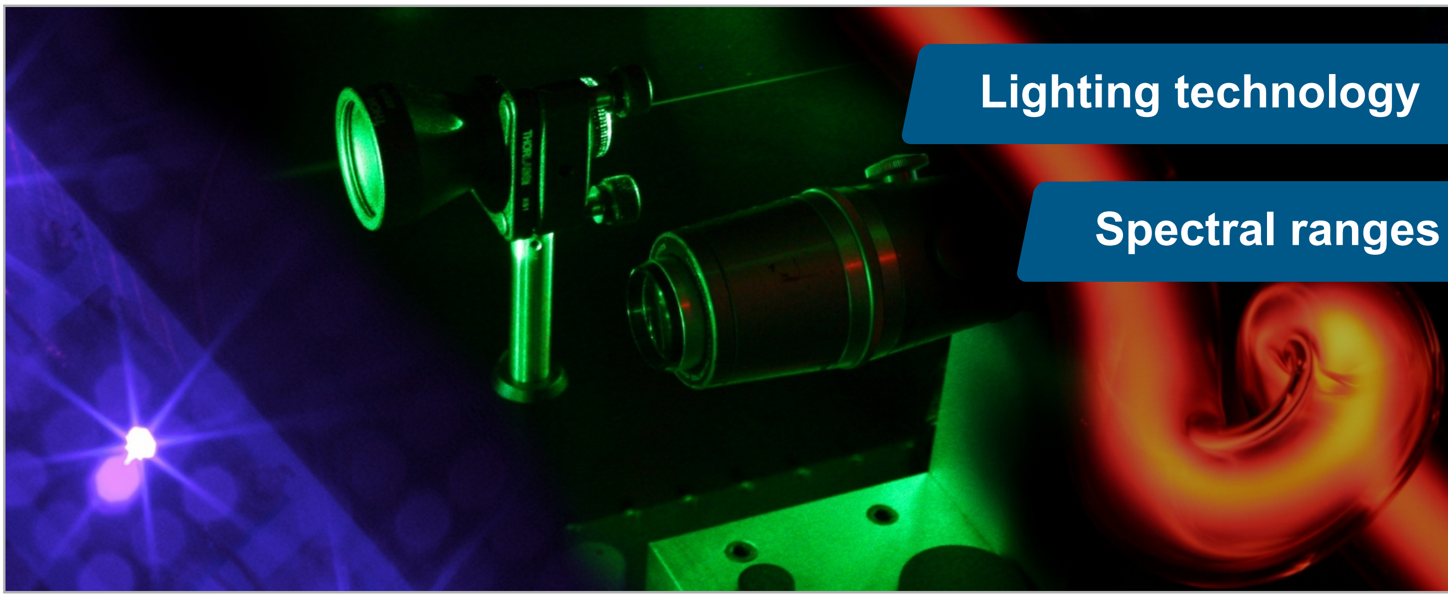
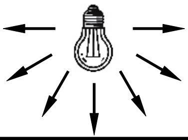
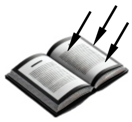
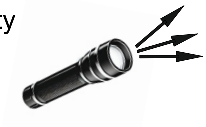
Opsytec Dr. Gröbel

Opsytec Dr. Gröbel



Lighting technology

Spectral ranges

Quantity	Definition	Explanation
Light flux Φ 	$\Phi = K_m \int \varphi_{e\lambda} V(\lambda)\ d\lambda$ unit: lumen, lm K = 683 lm/W	The luminous flux is the V(lamda) weighted radiant flux.
Illuminance E 	$E = \frac{\Phi}{A}$ unit: lux, lx, lm/m²	Illuminance is the quotient of the luminous flux incident on a surface element to the surface area. It does not matter from which direction the irradiation occurs.
Luminance L 	$L = \frac{\Phi}{A_p \omega}$ unit: lm/(sr m²), cd/m²	The luminance of a surface element A_p is the quotient of the emitted luminous flux to the product of the surface element and the solid angle.
Luminous intensity I 	$I = \frac{\Phi}{\omega}$ unit: lm/sr, cd	The luminous intensity of a point light source in a defined direction is the quotient of the emitted luminous flux to the corresponding solid angle element.

Designation of the radiation		Abbreviation			Wavelength λ[nm]	Photonen energy [eV]	Detector (examples)
ultra-violet radiation	Vacuum-UV	UV	UV-C	VUV	100 to 200	12,4 to 6,2	Cs-I,Cs-Te
	Far UV			FUV	200 to 280	6,2 to 4,4	
	Mid UV		UV-B		280 to 315	4,4 to 3,9	SiC
	Near UV		UV-A		315 to 400	3,9 to 3,1	
Visible radiation,light		VIS			380 to 780	3,3 to 1,6	Alkali PMT Si
Infrared radiation	Near IR	IR	NIR	IR-A	780 to 1400	1,6 to 0,9	Si, Ge, InGaAs
				IR-B	1400 to 3000	0,9 to 0,4	InAs
	Mid IR		IR-C	MIR	3000 to $5 \cdot 10^4$	0,4 to 0,025	PbSnTe, PbSnSe
	Near IR			FIR	$5 \cdot 10^4$ to 10^6	0,025 to 0,001	

Opsytec Dr. Groebel GmbH
Am Hardtwald 6-8
76297 Ettlingen
Germany
Phone:
+49 (0)7243 / 94 783 54-0
www.opsytec.com
info@opsytec.com

certified according to
DIN EN ISO 9001:2015
DIN EN ISO 17025:2018