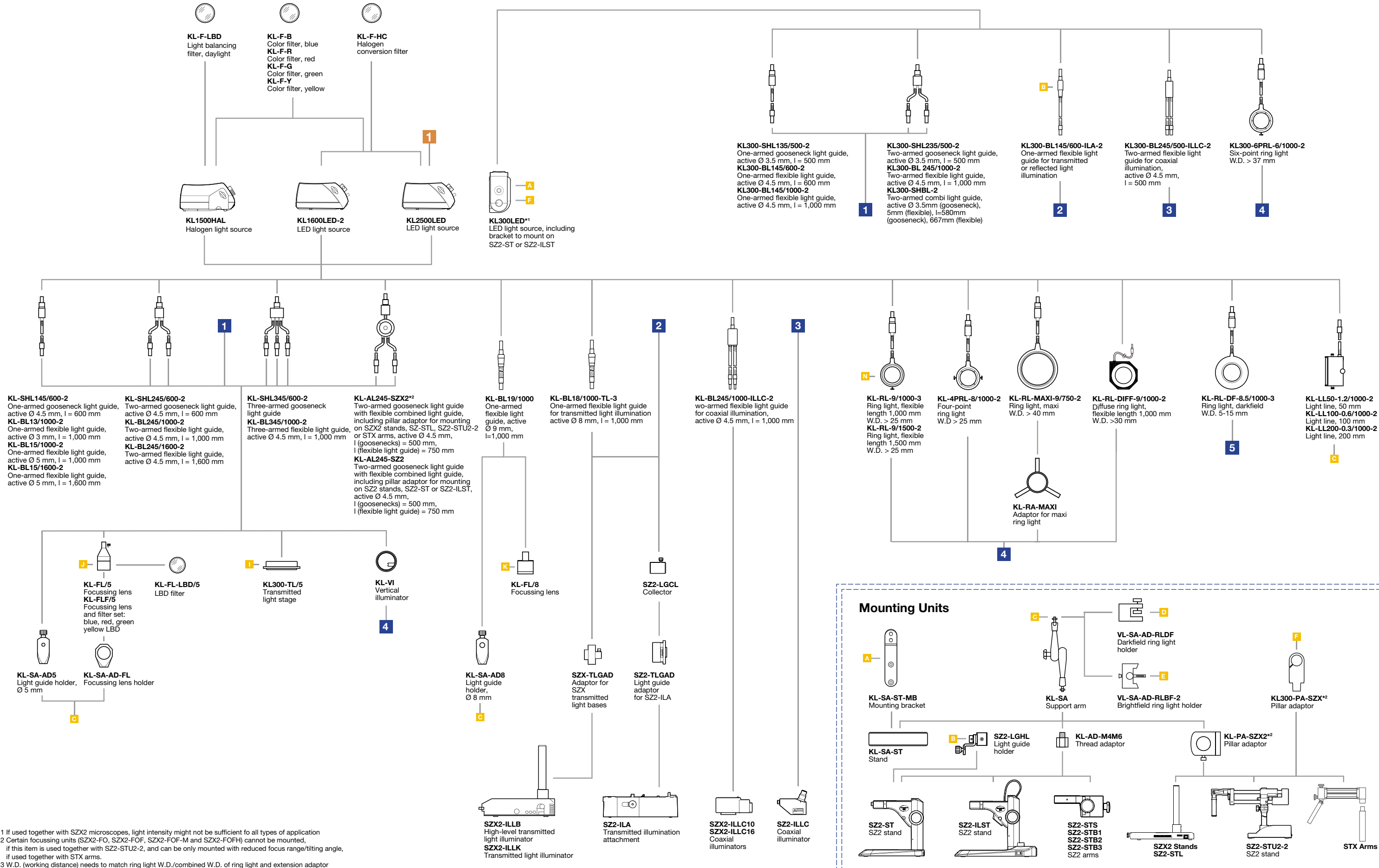


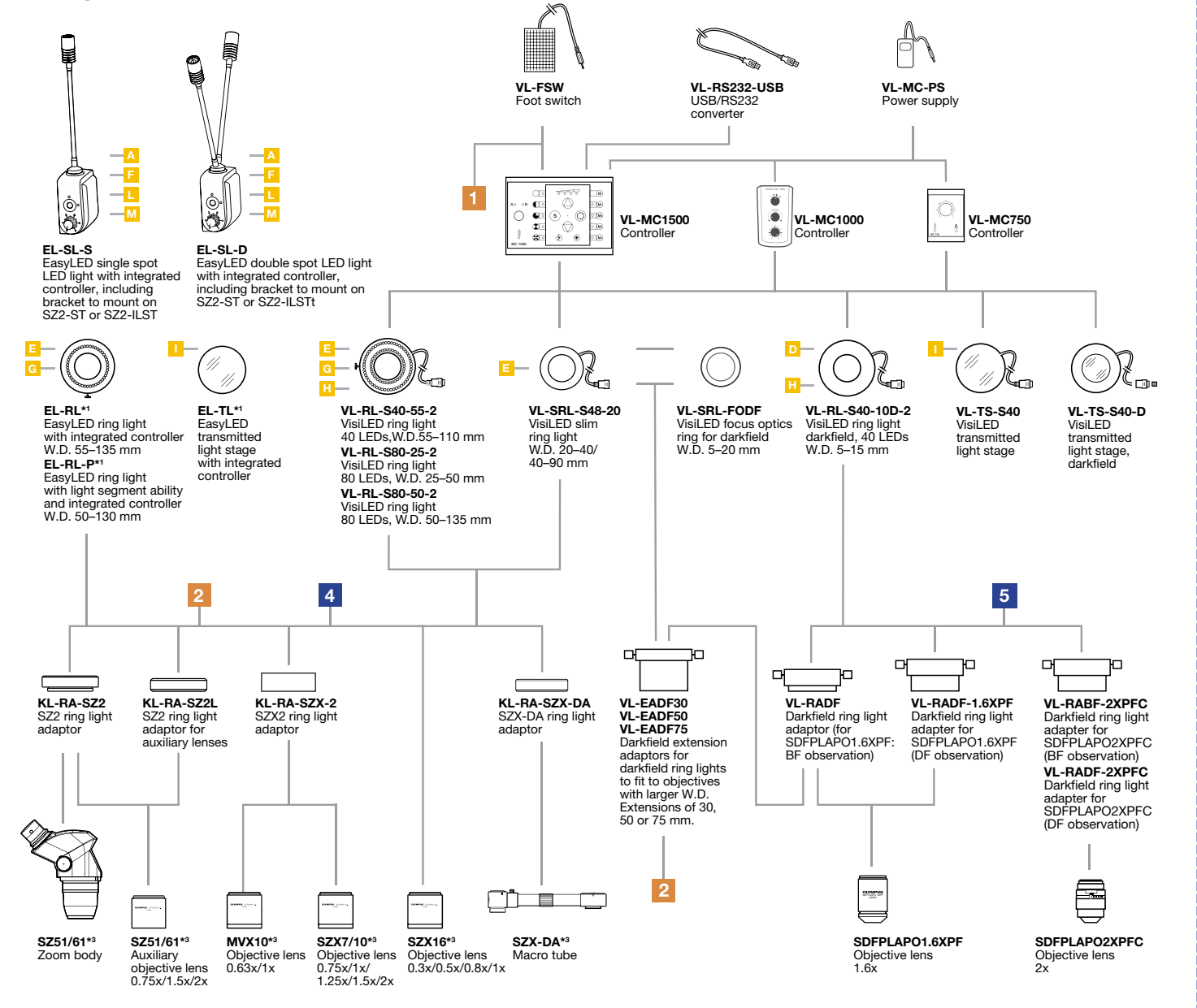
Stereo Microscope Lighting System Diagram

KL Series

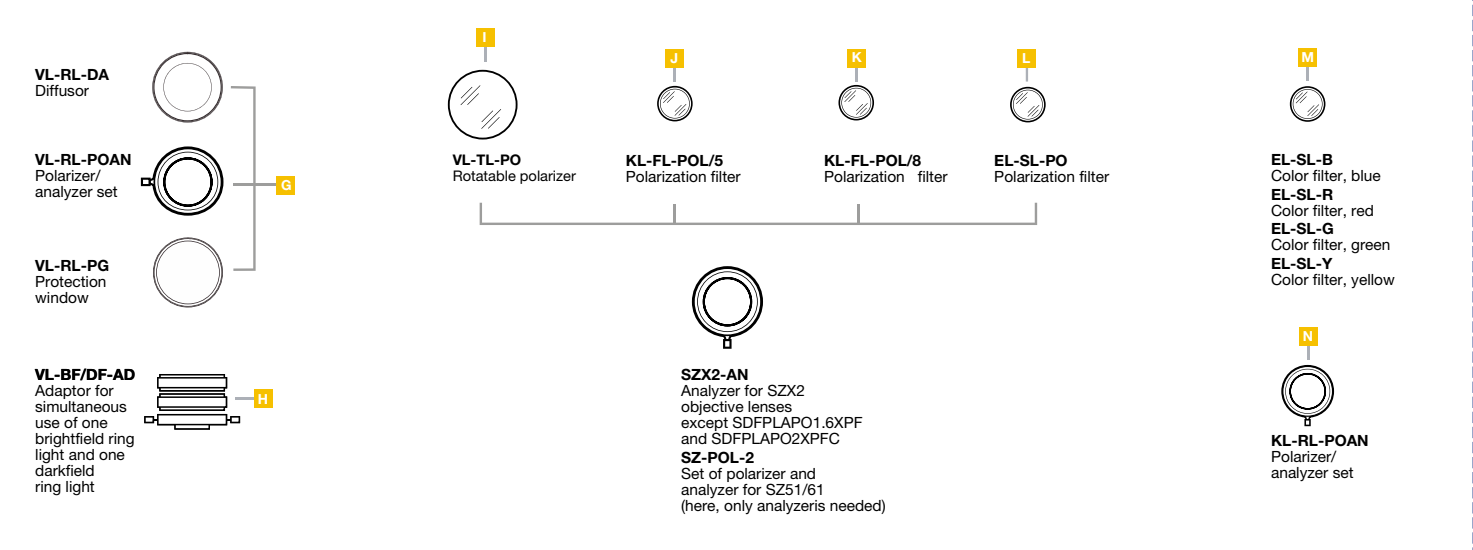


* 1 If used together with SZX2 microscopes, light intensity might not be sufficient to all types of application
 * 2 Certain focussing units (SZX2-FO, SZX2-FOF, SZX2-FOF-M and SZX2-FOFH) cannot be mounted, if this item is used together with SZ2-STU2-2, and can be only mounted with reduced focus range/tilting angle, if used together with STX arms.
 * 3 W.D. (working distance) needs to match ring light W.D./combined W.D. of ring light and extension adaptor

EasyLED/VisiLED



Filters and Ring Light Accessories



Revealing the most subtle and unique features of a sample is the key to insightful analysis. Channeling the power of light, Olympus presents a wide range of illumination solutions to enhance the contrast of any sample, with any illumination technique – to produce sharp and clear images. Each illumination module is carefully integrated into the complete stereomicroscope system, guaranteeing expert results every time in every application.

Utilizing the latest high-intensity, low energy LED technology, the optimum illumination presents samples in their best light, with maximum convenience. Visible color temperature is retained during stepless dimming, to deliver balanced images at the ideal illumination intensity, without the need for extra filter adjustments. For situations where familiar daylight illumination is desired, Olympus also offers halogen illumination.

For every application, choosing the best illumination setup is essential for image quality – and Olympus provides a solution for every need.



A Compact Solution with EasyLED

Ergonomics meets easy operation with the EasyLED series. Merging illumination and control functionalities into a single compact unit saves valuable workbench space, and with the lighting now controlled directly on the microscope, setting the perfect light level has never been so simple.



Taking control with VisiLED

Answering the needs of the most specialized of tasks, the modular VisiLED series is built on flexibility and quality. Molding the lighting setup to each application, a number of high-performance ring lights and light stages enable high-intensity illumination or even a combination of techniques. This range includes an extra-slim ring light, for example, that not only allows the use of two objectives simultaneously, but can also be used for both brightfield and darkfield illumination. Moving beyond the possibilities of conventional illumination, the perfect contrast method is realized through excellent electronic control of light segmentation.



Maximized flexibility with the KL Series

Delivering intense yet uniform illumination, with the diverse KL Series there is a perfect combination to suit every application – from compact to high-end solutions, and halogen as well as LED light sources. The modular setup provides ultimate flexibility, and the wide variety of available light guides include different spot illumination, ring lights, light stages and light lines. Light can also be coupled into the stereomicroscope setup for tasks requiring transmitted or coaxial illumination.



Accessorizing for a perfect fit

With a variety of mounting units and adapters, the perfect combination of lighting equipment can be achieved on any Olympus stereomicroscope configuration. For unique, individual applications, Olympus also supplies an assortment of different color, conversion and polarization filters.

	KL Series				EasyLED				VisiLED									
	Light Source				Light Spot	Ring Light		Light Stage	Ring Light				Light Stage					
	KL-1500HAL	KL-2500LED	KL-1600LED-2	KL-300LED	EL-SL-S	EL-SL-D	EL-RL	EL-RL-P	EL-TL	VL-RL-S40-55-2	VL-RL-S80-25-2	VL-RL-S80-50-2	VL-SRL-S48-20	VL-RL-S40-10D-2	VL-TS-S40	VL-TS-S40-D		
Observation Methods	Brightfield (BF)	•	•	•	•				•	•	•	•			•			
	Directional BF, segmented LEDs								•	•	•	•			•			
	Darkfield (DF)	•	•	•										•		•		
	Directional DF, segmented LEDs													•		•		
	Polarisation	•	•	•	•	•	•	•	•	•	•	•			•			
	Oblique line illumination	•	•	•														
Flexible spot illumination	•	•	•	•	•													
Lamp Data	Type	HAL								LED								
	Color temperature, approx. (K)	2000–3400								5600								
	Average life time, approx. (h)*1	1500*2								50000								
	Max. Power consumption (W)	180	80	37	5	2.75	5.5	5.5	6	4.8	3.1	6.2	6.2	5.6	3.1	3.1	3.1	
Operating voltage, AC (V)	120-230																	
Light intensity adjustment	continuous																	
Light Intensity ³	Light flux (lm) ⁴	600	1100	680	80	130	260											
	Ringlight illuminance ⁵ (KLux) (at defined W.D.)	109 (50)	202 (50)	144 (50)	49 (50)				90 (75)	140 (65)		80 (75)	320 (30)	200 (75)	65 (50)	130 (10)		
	Light Stage luminance (Cd/m ²) ⁶										12000					20000	70	
General Specifications	Dimensions	W (mm)	200	200	114	107	107	107	Ø 114	Ø 114	Ø 84	Ø 114	Ø 114	Ø 114	Ø 82	Ø 84	Ø 100	Ø 140
		D (mm)	286	265	231	114	114	114										
		H (mm)	147	170	137	61	61	61	28.5	28.5	16.5	27	27	27	30	16.5	22.5	22.5
	Weight, approx. (kg)	4.2	6	2.45	0.35	0.67	0.795	0.58	0.58	0.59	0.38	0.38	0.38	0	0.2	0.31	0.83	
	Cooling	fan								convection								
Ambient temperature (°C)	+5 – +40																	

*1 Max. decline of light output to 70% of origin level

*2 Using the ECO level

*3 Different illumination methods require different methods in order to measure the perceived light intensity. Values can only be compared, if the same measurement method and the same observation method have been used.

*4 Values refer to spot illumination. For KL series this is measured at the output of a one-armed flexible light guide with maximum active diameter and a length of 600 mm (for KL300LED) or 1000 mm (for other KL light sources).

*5 Values refer to brightfield illumination except for VL-RL-S40-10D-2, which is especially designed for darkfield illumination.

*6 Values refer to brightfield illumination except for VL-TS-S40-D, which is especially designed for darkfield illumination.

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Illuminating Insights





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