

uvilite

ultraviolet lamps

A very wide range of ultraviolet lamps from low power hand held models to high intensity units is available. There are filtered lamps in three wavelengths for use in fluorescent techniques and unfiltered lamps in both long and short (germicidal) wavelengths. All incorporate an extruded, anodised aluminium housing and a specially designed unique profile has been developed for the hand held lamps. The operator friendly shape permits lamps to be held easily with gloved hands.

Filtered lamps

These highly efficient, well designed lamps are produced in three wavelengths: 254, 312 and 365nm and dual wavelength combinations. Power ranges from a single 4W tube up to two 15W tubes.

Applications include:

Short wavelength (254nm)

Fluorescence techniques, fluorochemistry, mineralogy, photopolymerisation, mutation studies, toxicology.

Mid wavelength (312nm)

Electrophoresis gel viewing.

Long wavelength (365nm)

TLC plate viewing, fluorochemistry, food inspection, quality control, titration, pesticide analysis, mineralogy.

Ordering UVilite filtered UV lamps

Model No.	Filter (mm)	Tube (mm)	Wavelength (nm)	Intensity at 15cm $\mu\text{W}/\text{cm}^2$
LF 104L	50 x 75	1 x 4W	365	400
LF 104S	50 x 75	1 x 4W	254	340
LF 204LS	50 x 75	1 x 4W	365	350
		1 x 4W	254	265
LF 106L	50 x 150	1 x 6W	365	700
LF 106S	50 x 150	1 x 6W	254	710
		1 x 6W	312	680
LF 206LM	50 x 150	1 x 6W	312	580
		1 x 6W	365	610



LF 206MS	50 x 150	1 x 6W	312	580
		1 x 6W	254	400
LF 206LS	50 x 150	1 x 6W	365	610
		1 x 6W	254	400
LF 215L	80 x 300	2 x 15W	365	2300
LF 215S	80 x 300	2 x 15W	254	1780
LF 215M	80 x 300	2 x 15W	312	2200
LF 215LM	80 x 300	1 x 15W	365	1350
		1 x 15W	312	1330
LF 215MS	80 x 300	1 x 15W	312	1330
		1 x 15W	254	930
LF 215LS	80 x 300	1 x 15W	365	1350
		1 x 15W	254	930

High intensity lamps

Incorporating cold cathode quartz grid lamps, housed in anodised aluminium extrusion and with the same highly efficient ondulex reflector as filtered lamps. The power supply unit is remote from the lamp head in a separate metal package. Grid lamps produce high intensity, very consistent, short-wavelength (254nm) ultraviolet illumination. The 100W units are available fitted with longlife filters or to special order without filter for germicidal applications.

Applications include:

Biotechnology – mutagenesis, photopolymerisation, toxicology, mycology, sterilisation.

Ordering high intensity lamps

Model No.	Filter (mm)	Wavelength (nm)	Intensity $\mu\text{W}/\text{cm}^2$
LF 180S	70 x 300	254	3400

unfiltered ultraviolet lamps

Germicidal lamps

Widely used in medical and scientific research laboratories as well as in electronics and the food and beverage industries. Areas that must be kept free from bacterial contamination may be irradiated with UVitec germicidal lamps, provided safeguards are in place to protect operators.

The same range of lamps is available with either BL or BLB long-wavelength tubes:

BL (Blacklight) tubes are actinic ultraviolet type and include a white light component in the output.



Germicidal radiation required for bacterial destruction

Bacteria	Energy in mW-sec/cm ² Sterilisation up to		Bacteria	Energy in mW-sec/cm ² Sterilisation up to	
	90%	99%		90%	99%
Bacillus anthracis	4.52	9.04	Pseudomonas fluorescens	3.50	7.00
S. enteritidis	4.00	8.00	S. typhimurium	8.00	16.00
B. megatherium sp.(veg.)	1.30	2.60	Sarcina lutea	19.70	39.40
B. paratyphosus	3.20	6.40	Serratia marcescens	2.42	4.84
B. subtilis	7.10	14.20	Dysentery bacilli	2.20	4.40
B. subtilis spores	12.00	24.00	Shigella paradysenteriae	1.68	3.36
Corynebacterium diphtheriae	3.37	6.74	Spirillum rubrum	4.40	8.80
Eberthella typhosa	2.14	4.28	Staphylococcus albus	1.84	3.68
Escherichia coli	3.00	6.00	Staphylococcus aureus	2.60	5.20
Micrococcus candidus	6.05	12.10	Streptococcus hemolyticus	2.16	4.32
Micrococcus sphaeroides	10.00	20.00	Streptococcus lactis	6.15	12.30
Neisseria catarrhalis	4.40	8.80	Streptococcus viridans	2.00	4.00
Phytomonas tumefaciens	4.40	8.80			
Proteus vulgaris	2.64	5.28			

Note: The above table is only intended as a guide to bacterial destruction

Applications for BL lamps include:

Polymer curing, adhesive curing, dermatology, pharmacology, photoresist exposure.

BLB (Blacklight Blue) tubes are self-filtered cobalt glass – to reduce the visible light component and increase fluorescent contrast.

Applications for BLB lamps include:

Non-destructive testing, quality control, invisible coding/markings, counterfeit note detection, rodent contamination detection, readmission control, aflatoxin detection, signature verification.

Ordering

UVilite Unfiltered UV germicidal lamps 254nm			UVilite Unfiltered UV longwave lamps 365nm		
Model	No. Tubes	Intensity $\mu\text{W}/\text{cm}^2$	Model	No. Tubes	Intensity $\mu\text{W}/\text{cm}^2$
LI 206G	2 x 6W	1400*	LI 206BL	2 x 6W BL	1215*
LI 208G	2 x 8W	1800*	LI 208BL	2 x 8W BL	1400*
LI 215G	2 x 15W	76	LI 215BL	2 x 15W BL	108
LI 315G	3 x 15W	95	LI 315BL	3 x 15W BL	147
LI 220G	2 x 20W	95	LI 220BL	2 x 20W BL	129
LI 320G	3 x 20W	119	LI 320BL	3 x 20W BL	177
LI 230G	2 x 30W	152	LI 230BL	2 x 30W BL	228
LI 330G	3 x 30W	191	LI 330BL	3 x 30W BL	312
LI 240G	2 x 40W	157	LI 240BL	2 x 40W BL	302
LI 340G	3 x 40W	219	LI 340BL	3 x 40W BL	413
			LI 206BLB	2 x 6W BLB	1120*
			LI 208BLB	2 x 8W BLB	1300*
			LI 215BLB	2 x 15W BLB	100
			LI 315BLB	3 x 15W BLB	136
			LI 220BLB	2 x 20W BLB	119
			LI 320BLB	3 x 20W BLB	163
			LI 230BLB	2 x 30W BLB	210
			LI 330BLB	3 x 30W BLB	288
			LI 240BLB	2 x 40W BLB	279
			LI 340BLB	3 x 40W BLB	381

Intensities all at 1m except * at 15cm