

Efficiency table for the open UVC function SPECTRA Silent PRO Lite 72W									
The table shows the time required to kill different types of bacteria and viruses from different distances									
	Type	Distance in meters						Time	REFERENCE
		1	2	3	4	5	6		
Aeromonas hydrophila ATCC7966	Bacteria	22,32	80,65	185,19	277,78	454,55	833,33	N e e d e d t i m e i n s e c o n d s	Wilson et al. 1992
Aeromonas salmonicida	Bacteria	26,34	95,16	218,52	327,78	536,36	983,33		Liltved and Landfald 1996
Bacillus anthracis – Anthrax	Bacteria	80,71	291,61	669,63	1 004,44	1 643,64	3 013,33		UV-Light.co.UK
Bacillus magaterium sp. (veg.)	Bacteria	23,21	83,87	192,59	288,89	472,73	866,67		UV-Light.co.UK
Bacillus paratyphus	Bacteria	57,14	206,45	474,07	711,11	1 163,64	2 133,33		UV-Light.co.UK
Bacillus subtilis	Bacteria	103,57	374,19	859,26	1 288,89	2 109,09	3 866,67		UV-Light.co.UK
Campylobacter jejuni	Bacteria	17,86	64,52	148,15	222,22	363,64	666,67		Measurement by Grizzly
Campylobacter jejuni ATCC 43429	Bacteria	20,54	74,19	170,37	255,56	418,18	766,67		Wilson et al. 1992
Citrobacter diversus	Bacteria	51,34	185,48	425,93	638,89	1 045,45	1 916,67		Giese and Darby 2000
Citrobacter freundii	Bacteria	58,04	209,68	481,48	722,22	1 181,82	2 166,67		Giese and Darby 2000
Clostridium tetani	Bacteria	98,21	354,84	814,81	1 222,22	2 000,00	3 666,67		Light Sources Inc. 2014
Corynebacterium diphtheriae	Bacteria	60,18	217,42	499,26	748,89	1 225,45	2 246,67		UV-Light.co.UK
Ebertelia typhosa	Bacteria	38,21	138,06	317,04	475,56	778,18	1 426,67		UV-Light.co.UK
Escherichia coli	Bacteria	17,86	64,52	148,15	222,22	363,64	666,67		Measurement by Grizzly
Escherichia coli O157:H7	Bacteria	17,86	64,52	148,15	222,22	363,64	666,67		Yaun et al. 2003
Escherichia coli O157:H7 CCUG 29193	Bacteria	31,25	112,90	259,26	388,89	636,36	1 166,67		Sommer et al. 2000
Halobacterium elongate ATCC33173	Bacteria	4,46	16,13	37,04	55,56	90,91	166,67		Martin et al. 2000
Halobacterium salinarum ATCC43214	Bacteria	89,29	322,58	740,74	1 111,11	1 818,18	3 333,33		Martin et al. 2000
Klebsiella pneumoniae	Bacteria	89,29	322,58	740,74	1 111,11	1 818,18	3 333,33		Giese and Darby 2000
Klebsiella terrigena ATCC33257	Bacteria	49,11	177,42	407,41	611,11	1 000,00	1 833,33		Wilson et al. 1992
Legionella pneumophila	Bacteria	31,25	112,90	259,26	388,89	636,36	1 166,67		Measurement by Grizzly
Legionella pneumophila ATCC33152	Bacteria	34,38	124,19	285,19	427,78	700,00	1 283,33		Oguma et al.2004
Leptospiranicola – infectious Jaundice	Bacteria	56,25	203,23	466,67	700,00	1 145,45	2 100,00		UV-Light.co.UK
Micrococcus candidus	Bacteria	108,04	390,32	896,30	1 344,44	2 200,00	4 033,33		UV-Light.co.UK
Micrococcus sphaeroides	Bacteria	17,86	64,52	148,15	222,22	363,64	666,67		UV-Light.co.UK
MRSA	Bacteria	57,14	206,45	474,07	711,11	1 163,64	2 133,33		UV-Light.co.UK
Mycobacterium tuberculosis	Bacteria	110,71	400,00	918,52	1 377,78	2 254,55	4 133,33		UV-Light.co.UK
Neisseria catarrhalis	Bacteria	78,57	283,87	651,85	977,78	1 600,00	2 933,33		UV-Light.co.UK
Phytomonas tumefaciens	Bacteria	78,57	283,87	651,85	977,78	1 600,00	2 933,33		UV-Light.co.UK
Proteus vulgaris	Bacteria	53,57	193,55	444,44	666,67	1 090,91	2 000,00		UV-Light.co.UK
Pseudomonas aeruginosa	Bacteria	98,21	354,84	814,81	1 222,22	2 000,00	3 666,67		UV-Light.co.UK
Pseudomonas fluorescens	Bacteria	62,50	225,81	518,52	777,78	1 272,73	2 333,33		UV-Light.co.UK
Pseudomonas stutzeri	Bacteria	1 026,79	3 709,68	8 518,52	12 777,78	20 909,09	38 333,33		Joux et al. 1999
Salmonella typhi	Bacteria	28,57	103,23	237,04	355,56	581,82	1 066,67		Measurement by Grizzly
Salmonella paratyphi – Enteric fever	Bacteria	57,14	206,45	474,07	711,11	1 163,64	2 133,33		UV-Light.co.UK
Salmonella anatum	Bacteria	66,96	241,94	555,56	833,33	1 363,64	2 500,00		Measurement by Grizzly
Salmonella anatum (from human feces)	Bacteria	66,96	241,94	555,56	833,33	1 363,64	2 500,00	Tosa and Hirata 1998	
Salmonella derby (from human feces)	Bacteria	33,48	120,97	277,78	416,67	681,82	1 250,00	Tosa and Hirata 1998	
Salmonella ententidis	Bacteria	40,18	145,16	333,33	500,00	818,18	1 500,00	Measurement by Grizzly	
Salmonella enteritidis	Bacteria	71,43	258,06	592,59	888,89	1 454,55	2 666,67	UV-Light.co.UK	
Salmonella infantis (from human feces)	Bacteria	26,79	96,77	222,22	333,33	545,45	1 000,00	Tosa and Hirata 1998	
Salmonella typhimurium	Bacteria	22,32	80,65	185,19	277,78	454,55	833,33	Measurement by Grizzly	
Salmonella typhimurium	Bacteria	142,86	516,13	1 185,19	1 777,78	2 909,09	5 333,33	UV-Light.co.UK	
Salmonella typhosa – Typhoid fever	Bacteria	38,39	138,71	318,52	477,78	781,82	1 433,33	UV-Light.co.UK	
Sarcina lutea	Bacteria	351,79	1 270,97	2 918,52	4 377,78	7 163,64	13 133,33	UV-Light.co.UK	
Serratia marcescens	Bacteria	43,21	156,13	358,52	537,78	880,00	1 613,33	UV-Light.co.UK	
Shigella dysenteriae	Bacteria	8,93	32,26	74,07	111,11	181,82	333,33	Measurement by Grizzly	



Coxsackievirus B5	Virus	93,75	338,71	777,78	1 166,67	1 909,09	3 500,00	N e e d e d  t i m e  i n  s e c o n d s	Measurement by Grizzly	
Hepatitis A	Virus	66,96	241,94	555,56	833,33	1 363,64	2 500,00		Measurement by Grizzly	
Hepatitis A, HM175	Virus	98,21	354,84	814,81	1 222,22	2 000,00	3 666,67		Measurement by Grizzly	
Influeza	Virus	30,36	109,68	251,85	377,78	618,18	1 133,33		Measurement by Grizzly	
Poliovirus Type 1	Virus	102,68	370,97	851,85	1 277,78	2 090,91	3 833,33		Measurement by Grizzly	
Rotavirus SA11	Virus	102,68	370,97	851,85	1 277,78	2 090,91	3 833,33		Measurement by Grizzly	
Adenovirus type 15 / A549 cell line (ATCC CCL	Virus/Host	736,61	2 661,29	6 111,11	9 166,67	15 000,00	27 500,00		Thompson et al. 2003	
Adenovirus type 2 / PLC / PRF / 5	Virus/Host	714,29	2 580,65	5 925,93	8 888,89	14 545,45	26 666,67		Gerba et al. 2002	
Bacteriophage – E. Coli / -----	Virus/Host	464,29	1 677,42	3 851,85	5 777,78	9 454,55	17 333,33		UV-Light.co.UK	
Calicivirus canine / MDCK cell line	Virus/Host	133,93	483,87	1 111,11	1 666,67	2 727,27	5 000,00		Husman et al. 2004	
Calicivirus feline / CRFK cell line	Virus/Host	133,93	483,87	1 111,11	1 666,67	2 727,27	5 000,00		Thurston-Enriquez et al. 2003	
Coxsackievirus B3 / BGM cell line	Virus/Host	145,09	524,19	1 203,70	1 805,56	2 954,55	5 416,67		Gerba et al. 2002	
Coxsackievirus B5 / BGM cell line	Virus/Host	160,71	580,65	1 333,33	2 000,00	3 272,73	6 000,00		Gerba et al. 2002	
Echovirus I / BGM cell line	Virus/Host	147,32	532,26	1 222,22	1 833,33	3 000,00	5 500,00		Gerba et al. 2002	
Echovirus II / BGM cell line	Virus/Host	125,00	451,61	1 037,04	1 555,56	2 545,45	4 666,67		Gerba et al. 2002	
Hepatitis A HM175 / FRhK-4 cell	Virus/Host	132,14	477,42	1 096,30	1 644,44	2 690,91	4 933,33		Wilson et al. 1992	
Infectious Hepatitis / -----	Virus/Host	1 035,71	3 741,94	8 592,59	12 888,89	21 090,91	38 666,67		UV-Light.co.UK	
Influenza / -----	Virus/Host	607,14	2 193,55	5 037,04	7 555,56	12 363,64	22 666,67		UV-Light.co.UK	
MS2 (Phage) / E. coli	Virus/Host	446,43	1 612,90	3 703,70	5 555,56	9 090,91	16 666,67		Thompson et al. 2003	
Norovirus / -----	Virus/Host	116,07	419,35	962,96	1 444,44	2 363,64	4 333,33		Lee et al. 2008	
Parvovirus / -----	Virus/Host	20,54	74,19	170,37	255,56	418,18	766,67		Cornelis et al. 1982	
PHI X 174 (Phage) / E. coli WG 5	Virus/Host	44,64	161,29	370,37	555,56	909,09	1 666,67		Sommer et al. 2001	
Poliovirus – Poliomyelitis / -----	Virus/Host	562,50	2 032,26	4 666,67	7 000,00	11 454,55	21 000,00		UV-Light.co.UK	
Poliovirus 1 / CaCo2 cell-line (ATCC HTB37)	Virus/Host	165,18	596,77	1 370,37	2 055,56	3 363,64	6 166,67		Thompson et al. 2003	
PRD-1 (Phage) / S. typhimurium	Virus/Host	134,38	485,48	1 114,81	1 672,22	2 736,36	5 016,67		Meng and Gerba 1996	
Reovirus Type 1 Lang strain / N/A	Virus/Host	160,71	580,65	1 333,33	2 000,00	3 272,73	6 000,00		Harris et al. 1987	
Reovirus-3 / Mouse L-60	Virus/Host	100,00	361,29	829,63	1 244,44	2 036,36	3 733,33		Rauth 1965	
Rotavirus / MA104 cells	Virus/Host	892,86	3 225,81	7 407,41	11 111,11	18 181,82	33 333,33	Caballero et al. 2004		
Rotavirus SA-11 / MA-104 cell	Virus/Host	160,71	580,65	1 333,33	2 000,00	3 272,73	6 000,00	Wilson et al. 1992		
SARS-CoV-2 / N/A 99%	Virus/Host	17,86	64,52	148,15	222,22	363,64	666,67	Measurement by Grizzly		
SARS-CoV-2 / N/A 99,9999%	Virus/Host	98,21	354,84	814,81	1 222,22	2 000,00	3 666,67	Boston University. 2020		
Staphylococcus aureus phage A / Staphylococ	Virus/Host	160,71	580,65	1 333,33	2 000,00	3 272,73	6 000,00	Sommer et al. 1989		
Tobacco mosaic / N/A	Virus/Host	1 964,29	7 096,77	16 296,30	24 444,44	40 000,00	73 333,33	Light Sources Inc. 2014		
Brewers yeast	Yeasts	58,93	212,90	488,89	733,33	1 200,00	2 200,00	UV-Light.co.UK		
Candida auris	Yeasts	857,14	3 096,77	7 111,11	10 666,67	17 454,55	32 000,00	Martin, W. G. Lindsley, and B. J. Green. 2020		
Common yeast cake	Yeasts	107,14	387,10	888,89	1 333,33	2 181,82	4 000,00	UV-Light.co.UK		
Saccharomyces carevisiae	Yeasts	107,14	387,10	888,89	1 333,33	2 181,82	4 000,00	UV-Light.co.UK		
Saccharomyces ellipsoideus	Yeasts	107,14	387,10	888,89	1 333,33	2 181,82	4 000,00	UV-Light.co.UK		
Saccharomyces spores	Yeasts	142,86	516,13	1 185,19	1 777,78	2 909,09	5 333,33	UV-Light.co.UK		

5 minutes
10 minutes
15 minutes
20 minutes
25 minutes
25+ minutes