Effectiveness of UV Disinfection

Bacteria and viruses have varying cell wall thickness and this determines the amount of UV light exposure required to prevent their reproduction. The intensity of UV light is measured in Micro Watt seconds per centimetre squared (uWsec/cm^2). The most common undesirable bacteria and viruses require an average exposure of between 4,000 and uWsec/cm^2. The Culligan range of UV's are designed to give an output of 30,000 or 40,000 uWsec/cm^2.

Bacteria	UW sec/cm^2.	Bacteria	UW sec/cm^2.
Bacillus anthracis	8,700	Shigella cysentarie (dysentery)	4,200
Corynebacterium diptheriae	6,500	Shigella flexneri (dysentery)	3,400
Dysentry bacilli (diarrhoea)	4,200	Staphylococcus epidermidis	5,800
Escherichia coli (diarrhoea)	7,000	Staphylococcus faecalis	10,000
Legionella bozemanii	3,500	Viridans stretococci	3,800
Legionella dumoffii	5,500	Vibro comma (cholera)	6,500
Legionella gormanii	4,900	**Viruses**	
Legionella micdadei	3,100	Bacteriophage (E.coli)	6,600
Legionella longbeachae	2,900	Hepatitis	8,000
Legionella pneumophila (Legionnaires Disease)	12,300	Influenza	6,600
Mycocobacterium tuberculosis	10,000	Poliomyelitis (polio virus)	7,000
Pseudomonas aeruginosa (laboratory strain)	3,900	**Algea**	
Pseudomonas aeruginosa (environmental strain)	10,500	Chlorella vugaris	22,000
Salmonella (camphilobactor)	10,000		
Salmonella typhosa (typhoid fever)	7,000		

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