



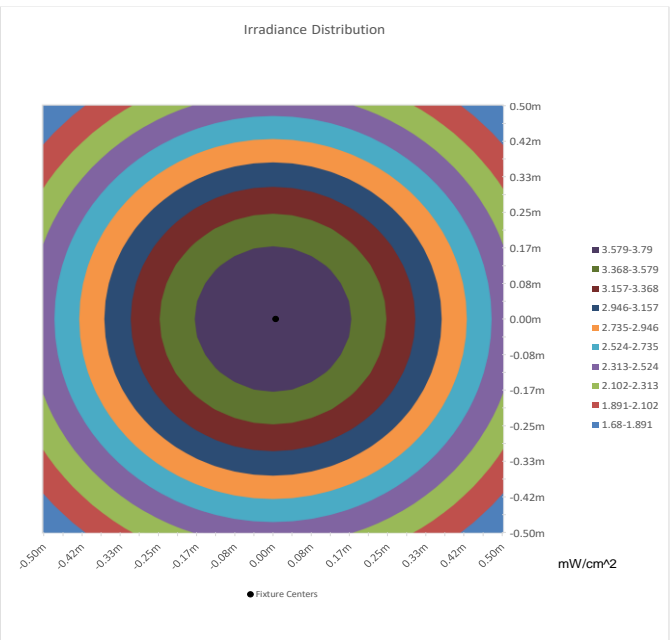
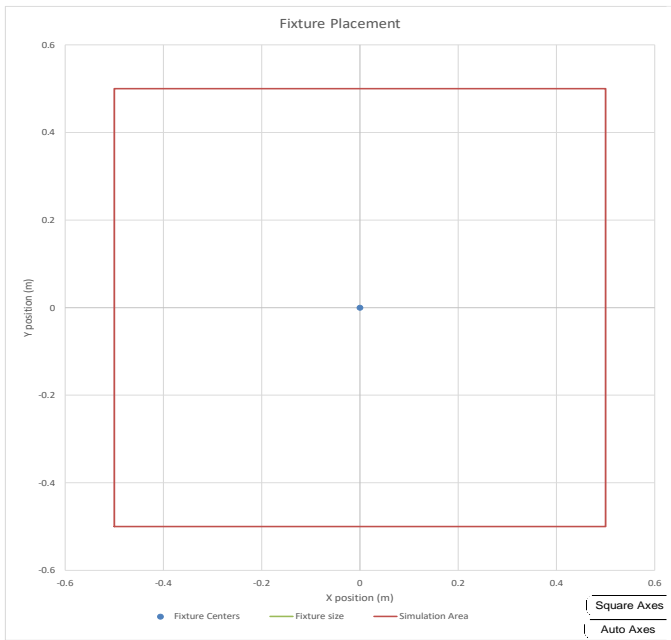
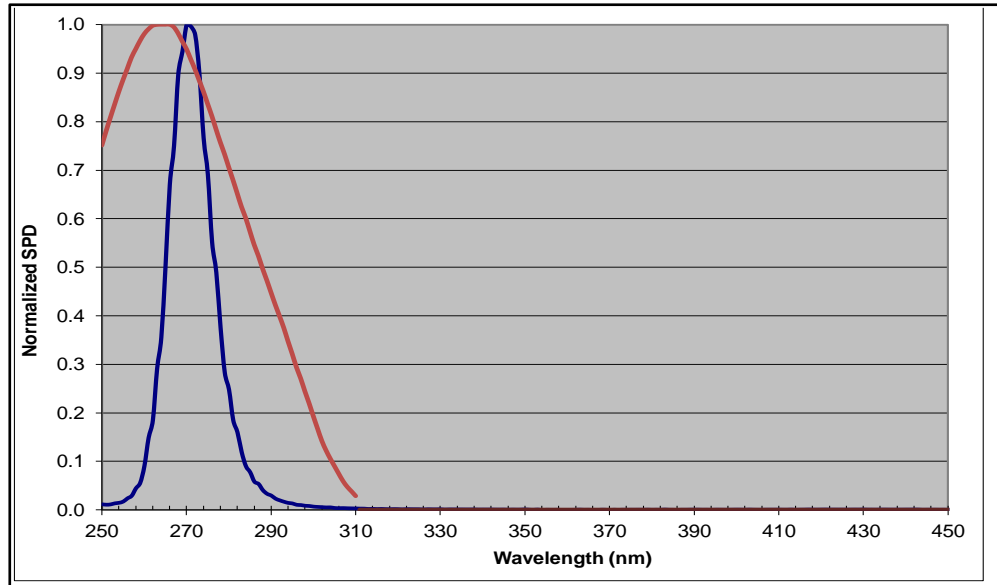
FLS UV Tool System Report

System Parameters

	Product Family	LED Part Number	Flux	Flux Units
LED 1	Seoul Viosys UV	275nm Family	10000.000	mW
LED 2	Seoul Viosys UV	275nm Family	10000.000	mW
LED 3	Seoul Viosys UV	275nm Family	10000.000	mW
LED 4	Seoul Viosys UV	275nm Family	10000.000	mW
LED 5	Seoul Viosys UV	275nm Family	10000.000	mW
LED 6	Seoul Viosys UV	275nm Family	10000.000	mW
LED 7	Seoul Viosys UV	275nm Family	10000.000	mW
LED 8	Seoul Viosys UV	275nm Family	10000.000	mW
LED 9	Seoul Viosys UV	275nm Family	19520.000	mW
LED 10	Seoul Viosys UV	275nm Family	19520.000	mW

Total Flux	119040.000	mW
FWHM viewing angle	120.00	deg
Distance	1.0000	m
On time	1.00	s
Optical Efficiency	100.00	%
Light source type	Point Source	
Simulation Surface Length	1.0000	m
Simulation Surface Width	1.0000	m
Number of fixtures	Go To Fixture Placement Tab	
Flux Unit	mW	
Energy Unit	mJ	
Area Unit	cm ²	
Average irradiance of Array	2.7931	mW/cm ²
Average dosage of Array	2.7931	mJ/cm ²
Peak irradiance of Array	3.7892	mW/cm ²
Peak dosage of Array	3.7892	mJ/cm ²

System Spectrum and Irradiance Result



Uniformity Metrics	
Max / Min	2.250
Max / Average	1.3566
Min / Average (U_0)	0.6029
Variance (σ^2)	0.2703
Coefficient of Variation	31.106%
Simulation Area Coverage	23% ± 5%

Rectangular	Number of Fixtures on Length	1	
	Fixture Spacing on Length	1	m
	Number of Fixtures on Width	1	
	Fixture Spacing on Width	1	m

Surface Purification Results

Irradiance	Min: 1.684, Max: 3.789		mW/cm ²	
	2.7931			
Adjusted Irradiance	2.446		mW/cm ²	
Time	1.000		s	
Adjusted Dosage	2.446		mJ/cm ²	
% Reduction at system dosage	Time required for % reduction of original population			Target
	2 log (99%)	4 log (99.99%)	6 log (99.9999%)	

Bacteria					
Acinetobacter baumannii ⁶	86.4540%	2s	5s	7s	1s
Bacillus anthracis - Anthrax ¹	78.0530%	3s	6s	9s	1s
Bacillus anthracis spores - Anthrax spores ¹	24.8424%	16s	32s	48s	6s
Bacillus magaterium sp. (spores) ¹	92.0919%	2s	4s	5s	1s
Bacillus magaterium sp. (veg.) ¹	99.4895%	1s	2s	3s	0s
Bacillus paratyphus ¹	88.5013%	2s	4s	6s	1s
Bacillus subtilis spores ¹	45.1036%	8s	15s	23s	3s
Bacillus subtilis ¹	69.8639%	4s	8s	12s	1s
Clostridium difficile ⁵	45.1036%	8s	15s	23s	3s
Corynebacterium diphtheriae ¹	86.8232%	2s	5s	7s	1s
Ebertelia typhosa ¹	95.9966%	1s	3s	4s	1s
Escherichia coli ^{1,2}	86.4540%	2s	5s	7s	1s
Leptospira canicola - infectious Jaundice ¹	88.9084%	2s	4s	6s	1s
Micrococcus candidus ¹	65.7908%	4s	9s	13s	2s
Micrococcus sphaeroides ¹	57.5459%	5s	11s	16s	2s
Mycobacterium tuberculosis ¹	73.2702%	3s	7s	10s	1s
Neisseria catarrhalis ¹	78.8223%	3s	6s	9s	1s
Phytomonas tumefaciens ¹	80.7804%	3s	6s	8s	1s
Proteus vulgaris ^{1,2}	86.4540%	2s	5s	7s	1s
Pseudomonas aeruginosa ^{1,2}	71.5369%	4s	7s	11s	1s
Pseudomonas fluorescens ¹	86.4540%	2s	5s	7s	1s
Salmonella enteritidis ¹	82.3783%	3s	5s	8s	1s
Salmonella paratyphi - Enteric fever ¹	88.5013%	2s	4s	6s	1s
Salmonella typhosa - Typhoid fever ¹	95.9966%	1s	3s	4s	1s
Salmonella typhimurium ¹	58.0218%	5s	11s	16s	2s
Sarcina lutea ¹	39.3329%	9s	18s	28s	3s
Serratia marcescens ¹	88.2565%	2s	4s	6s	1s
Shigella dysenteriae - Dysentery ¹	95.6778%	1s	3s	4s	1s
Shigella flexneri - Dysentery ¹	97.9361%	1s	2s	4s	0s
Shigella paradysenteriae ¹	97.9361%	1s	2s	4s	0s
Spirillum rubrum ¹	88.2565%	2s	4s	6s	1s
Staphylococcus albus ¹	90.0403%	2s	4s	6s	1s
Staphylococcus aureus ^{1,2}	86.4540%	2s	5s	7s	1s
Staphylococcus hemolyticus ¹	90.9181%	2s	4s	6s	1s
Staphylococcus lactis ¹	77.6715%	3s	6s	9s	1s
Stenotrophomonas maltophilia ¹	75.5650%	3s	7s	10s	1s
Streptococcus viridans ¹	96.8948%	1s	3s	4s	0s
Vibrio comma - Cholera ¹	86.8642%	2s	5s	7s	1s
Molds					
Aspergillus flavus ¹	12.4773%	35s	1m 9s	1m 43s	12s
Aspergillus glaucus ¹	13.9232%	31s	1m 1s	1m 32s	11s
Aspergillus niger ¹	3.9193%	1m 55s	3m 50s	5m 45s	40s
Mucor racemosus A ¹	31.2592%	12s	25s	37s	4s
Mucor racemosus B ¹	31.2592%	12s	25s	37s	4s
Oospora lactis ¹	69.8639%	4s	8s	12s	1s
Penicillium expansum ¹	45.1036%	8s	15s	23s	3s
Penicillium roqueforti ¹	39.3329%	9s	18s	28s	3s
Penicillium digitatum ¹	13.9232%	31s	1m 1s	1m 32s	11s
Rhizopus nigricans ¹	5.8209%	1m 16s	2m 33s	3m 50s	27s
Protozoa					
Chlorella Vulgaris ¹	45.1036%	8s	15s	23s	3s
Nematode Eggs ¹	13.3603%	32s	1m 4s	1m 36s	11s
Paramecium ¹	48.2991%	7s	14s	21s	2s
Virus					
Bacteriophage - E. Coli (MS2) ¹	86.4540%	2s	5s	7s	1s
Coronavirus (SARS-CoV-2) ⁴	92.8552%	2s	3s	5s	1s
Infectious Hepatitis ¹	80.7804%	3s	6s	8s	1s
Influenza ¹	86.4540%	2s	5s	7s	1s
Poliovirus - Poliomyelitis ¹	86.4540%	2s	5s	7s	1s
Tobacco mosaic ¹	2.9541%	2m 33s	5m 7s	7m 40s	54s
Yeast					
Brewers yeast ¹	86.4540%	2s	5s	7s	1s
Candida albicans ³	64.5719%	4s	9s	13s	2s
Common yeast cake ¹	63.1951%	5s	9s	14s	2s
Saccharomyces cerevisiae ¹	63.1951%	5s	9s	14s	2s
Saccharomyces ellipsoideus ¹	63.1951%	5s	9s	14s	2s
Saccharomyces spores ^{1,2}	52.7470%	6s	12s	18s	2s

Notes:

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