ResInnova LABORATORIES

CONFIDENTIAL TEST REPORT No. VL-4a
September 8, 2020

Violux Ultraviolet

Antimicrobial Evaluation of Violux UV Treated Articles

Test Method Details

Test Method	Modified ASTM E2197
Test Organism	*Klebsiella pneumoniae* (ATCC #BAA-1705) (KPC)
Test Solution	Phosphate Buffered Saline (1x) with Serum (5%)
Test Discs	20mm diameter magnetic stainless steel discs with 0.10 mL Tryptic Soy Agar overlay
Inoculum Applied to Test Disc	0.010 mL applied to each disc and spread to within 1 mm of edges, then dried
Recovery Solution	5 mL Phosphate Buffered Saline (1x) with Triton X-100 surfactant (0.1%)
Measuring Method of Number of Viable Bacteria	Dilution Plate Method onto nutritive Tryptic Soy Agar (1x)

Results – KPC disc testing

Modified ASTM E2197: Standard Quantitative Disk Carrier Test Method	
Number of Replicate Experiments	2
Number of Replicate Discs per Experiment	3

Exposure Device and Time	Average Bacterial Burden (CFU/disc)	Average Log Bacterial Burden (CFU/disc)	Log Reduction (vs Control)	Percent Reduction (vs Control)
Control	2.92E+07	7.47	--	--
Luma (16W)- 2 minutes	5.00E+01	1.70	5.77	>99.99%
Luma (16W)- 3 minutes	1.04E+02	2.02	5.45	>99.99%
Luma Pro (32W)- 1 minute	1.38E+03	3.14	4.33	>99.99%
Luma Pro (32W)- 2 minutes	3.50E+02	2.54	4.92	>99.99%