BLUECALC™

AIR DISINFECTION ANALYSIS - REPORT

Customer / Project: **7.5 Ton 20x18 3000cfm**

Duct Data

Duct Width	20	in
Duct Height	18	in
Airflow	3000	CFM
Air Velocity	1200	ft/min
Duct Wall Material	Galvanized duct - rough	

Irradiation Data

Avg germicidal UV dose delivered	943	µJ/cm2
Air temperature increase	0.1	°C
Exposure time	0.08	s

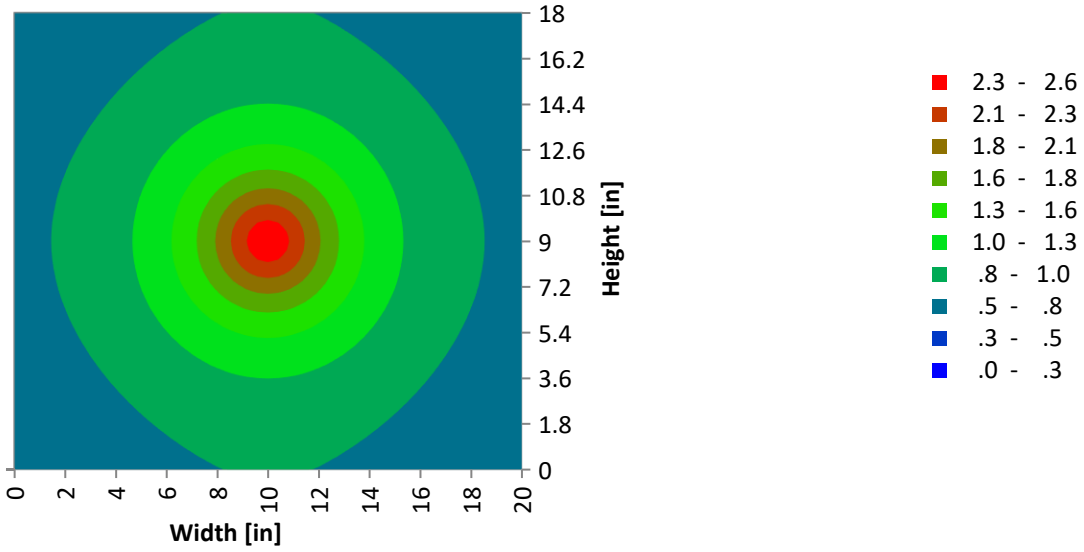
UVGI Lamp Data

Model	TUVC-ADS-224D-HO	
Number of Units	1	
Setup type for multiple units	n/a	
Number of Lamps per Unit	2	
Lamp Length	609	mm
UVGI Power per Lamp	19	W
Electrical Power per Lamp	57	W
Electrical Power per Module	114	W
Electrical Power (Total)	114	W
Teflon coating	No	

Inactivation (sterilization) rates after 18000 hours

Microorganism	Recirculation (6 passes)		
	Minimum	Average	LOG Average
Coronavirus	> 99.99%	> 99.99%	> 4
Tuberculosis	99.94%	> 99.99%	> 4
Influenza A virus	98.43%	99.88%	2
Adenovirus	85.43%	95.55%	1

UVC dose inside the duct after 18000 hours (mJ/cm²)



Note: 4-log inactivation equals 99.99%. Higher than 4-log inactivation are achieved in real-life scenarios but the exact predictions/model would be inaccurate because the UV disinfection analysis utilises single stage decay data and equations.