



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

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

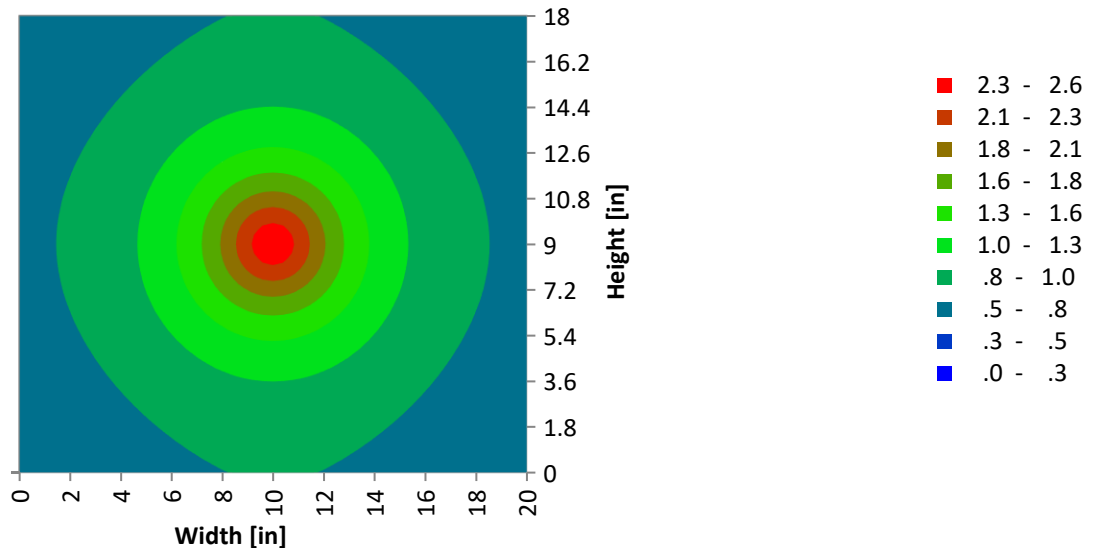
Irradiation Data

Avg germicidal UV dose delivered	943 $\mu\text{J}/\text{cm}^2$
Air temperature increase	0.1 $^{\circ}\text{C}$
Exposure time	0.08 s

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/cm^2)



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 utilizes single stage decay data and equations.

Disclaimer: The Information and the analysis of this report is proprietary and confidential. Due to the fact that the data used in this analysis is supplied by the end user who takes responsibility for its accuracy, FreshAir UV does not make and expressly disclaims any representations or warranties as to the completeness, accuracy or usefulness of the report. FreshAir UV does not warrant that the use of such information will not infringe any third-party rights, nor does FreshAir UV assume any liability for damages or costs of any kind that may result from use of such information. Data contained in this BlueCalc sizing is subject to change without notice.