



BLUECALC™

AIR DISINFECTION ANALYSIS - REPORT

Customer / Project: **30 Ton 38x30 12000cfm SINGLE**

Duct Data

Duct Width	38 in
Duct Height	30 in
Airflow	12000 CFM
Air Velocity	1515.79 ft/min
Duct Wall Material	Galvanized duct - rough

UVGI Lamp Data

Model	TUVC-ADS-260Q-HO
Number of Units	2
Setup type for multiple units	parallel
Number of Lamps per Unit	4
Lamp Length	1554 mm
UVGI Power per Lamp	54 W
Electrical Power per Lamp	130 W
Electrical Power per Module	520 W
Electrical Power (Total)	1040 W
Teflon coating	No

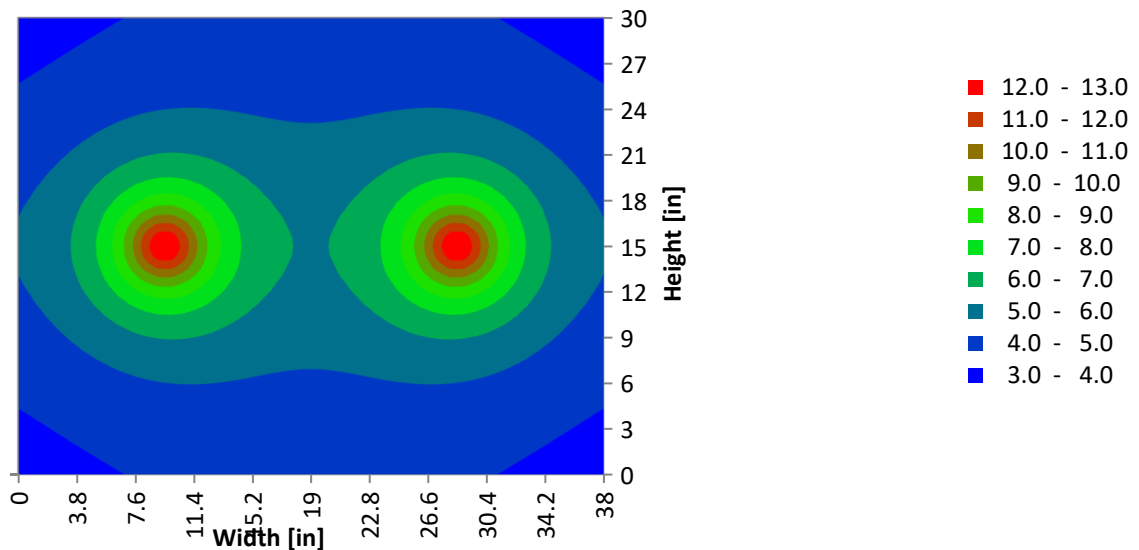
Irradiation Data

Avg germicidal UV dose delivered	5398 $\mu\text{J}/\text{cm}^2$
Air temperature increase	0.2 °C
Exposure time	0.19 s

Inactivation (sterilization) rates after 18000 hours

Microorganism	Single Pass		
	Minimum	Average	LOG Average
Coronavirus	> 99.99%	> 99.99%	> 4
Tuberculosis	99.95%	> 99.99%	4
Influenza A virus	98.62%	99.84%	2
Adenovirus	86.24%	94.86%	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 utilises single stage decay data and equations.

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