



# BLUECALC™

## AIR DISINFECTION ANALYSIS - REPORT

Customer / Project: **25 Ton 36x28 10000cfm**

### Duct Data

Duct Width	36 in
Duct Height	28 in
Airflow	10000 CFM
Air Velocity	1428.57 ft/min
Duct Wall Material	Galvanized duct - rough

### UVGI Lamp Data

Model	TUVC-ADS-246D-HO
Number of Units	1
Setup type for multiple units	n/a
Number of Lamps per Unit	2
Lamp Length	1148 mm
UVGI Power per Lamp	34 W
Electrical Power per Lamp	100 W
Electrical Power per Module	200 W
Electrical Power (Total)	200 W
Teflon coating	No

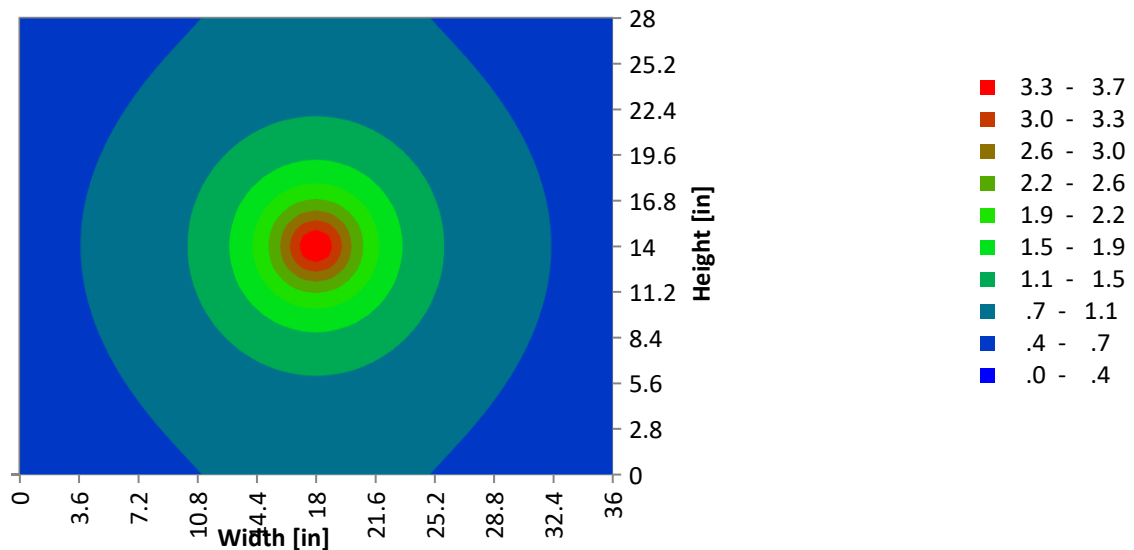
### Irradiation Data

Avg germicidal UV dose delivered	936 $\mu\text{J}/\text{cm}^2$
Air temperature increase	0.0 °C
Exposure time	0.14 s

### Inactivation (sterilization) rates after 18000 hours

Microorganism	Recirculation (6 passes)		
	Minimum	Average	LOG Average
Coronavirus	> 99.99%	> 99.99%	> 4
Tuberculosis	99.92%	> 99.99%	> 4
Influenza A virus	98.14%	99.87%	2
Adenovirus	84.23%	95.45%	1

### UVC dose inside the duct after 18000 hours ( $\text{mJ}/\text{cm}^2$ )



**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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