



# BLUECALC™

## AIR DISINFECTION ANALYSIS - REPORT

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

### 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-260H-HO
Number of Units	1
Setup type for multiple units	n/a
Number of Lamps per Unit	6
Lamp Length	1554 mm
UVGI Power per Lamp	54 W
Electrical Power per Lamp	130 W
Electrical Power per Module	780 W
Electrical Power (Total)	780 W
Teflon coating	No

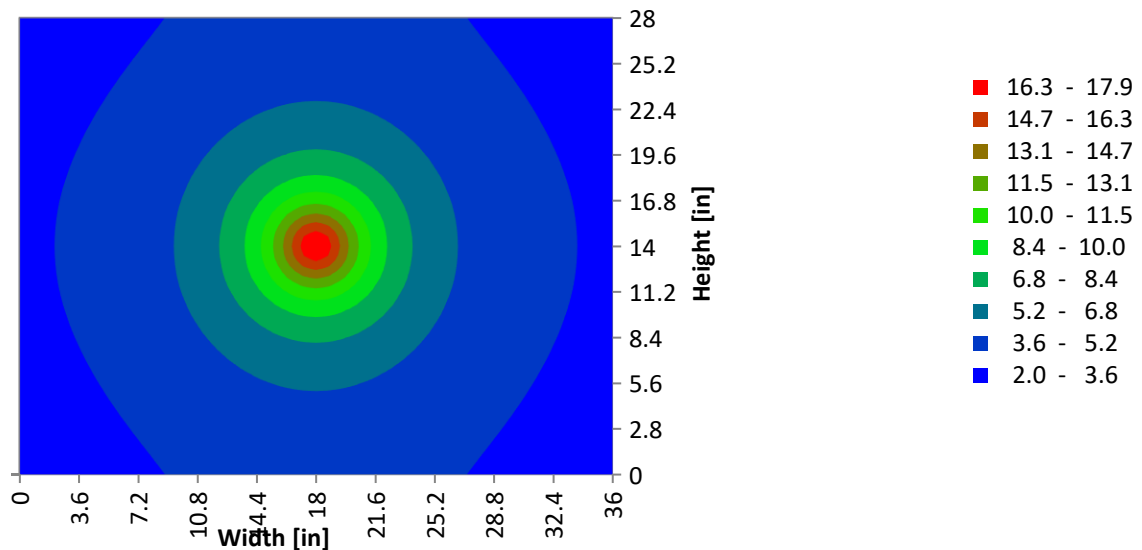
### Irradiation Data

Avg germicidal UV dose delivered	4722 $\mu\text{J}/\text{cm}^2$
Air temperature increase	0.1 $^{\circ}\text{C}$
Exposure time	0.20 s

### Inactivation (sterilization) rates after 18000 hours

Microorganism	Single Pass		
	Minimum	Average	LOG Average
Coronavirus	> 99.99%	> 99.99%	> 4
Tuberculosis	99.80%	> 99.99%	4
Influenza A virus	96.86%	99.63%	2
Adenovirus	79.88%	92.55%	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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