



# BLUECALC™

## AIR DISINFECTION ANALYSIS - REPORT

Customer / Project: **15 Ton 26x24 6000cfm**

### Duct Data

Duct Width	26 in
Duct Height	24 in
Airflow	6000 CFM
Air Velocity	1384.62 ft/min
Duct Wall Material	Galvanized duct - rough

### UVGI Lamp Data

Model	TUVC-ADS-232D-HO
Number of Units	1
Setup type for multiple units	n/a
Number of Lamps per Unit	2
Lamp Length	859 mm
UVGI Power per Lamp	28 W
Electrical Power per Lamp	80 W
Electrical Power per Module	160 W
Electrical Power (Total)	160 W
Teflon coating	No

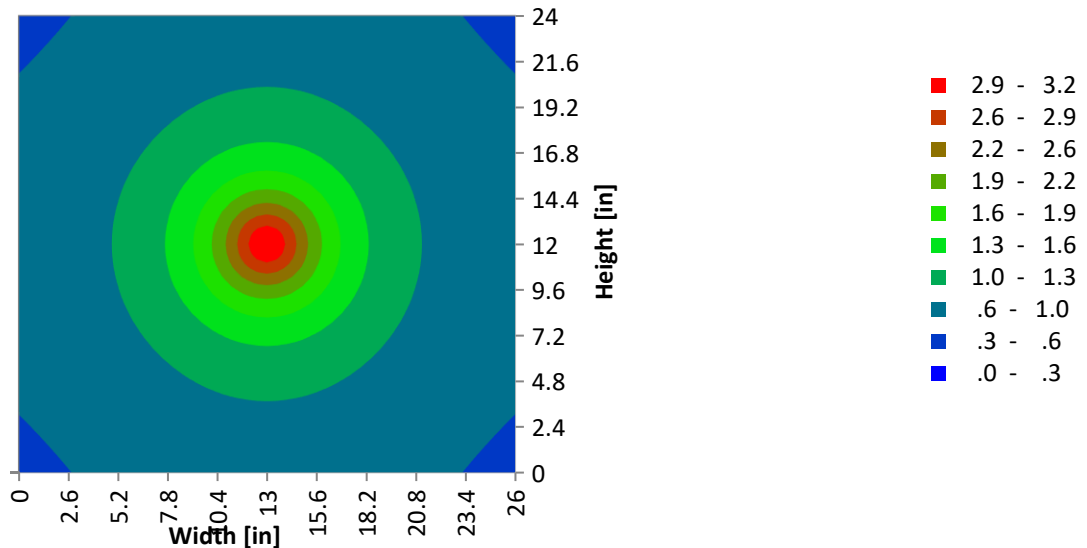
### Irradiation Data

Avg germicidal UV dose delivered	972 $\mu\text{J}/\text{cm}^2$
Air temperature increase	0.0 °C
Exposure time	0.11 s

### Inactivation (sterilization) rates after 18000 hours

Microorganism	Recirculation (6 passes)		
	Minimum	Average	LOG Average
Coronavirus	> 99.99%	> 99.99%	> 4
Tuberculosis	99.95%	> 99.99%	> 4
Influenza A virus	98.53%	99.90%	3
Adenovirus	85.87%	95.95%	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 utilizes single stage decay data and equations.

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