



LOCATION

1820 OLD HWY 8 NW
NEW BRIGHTON, MN

DATE

FEBRUARY 10, 2021

PARTICIPANTS

PAUL RUIZ
PH CONSULTING LLC

MICHAEL SPURLING
SMS TECHNOLOGIES

PREPARED BY

PAUL RUIZ
PH CONSULTING LLC

SMS Technologies Aurora36

Portable UVC disinfection device



Summary

PH Consulting, LLC, was hired by SMS Technologies to provide UVC emittance results for their Aurora36 disinfection device. The results on the following page outline the procedure used to verify the performance of the SMS device.

The following criteria have been specified by Steril-Aire:

- Each emitter shall be tested by an independent test laboratory and shall be verified to provide output per one inch arclength of not less than 7.5 $\mu\text{W}/\text{cm}^2$ at 1 meter .

This unit, and the UVC emitters, have been used for testing sparingly for the last three months. The age of the emitters should not significantly change the final results as the expected intensity is within the 9000 hour usage timeframe.

The equipment used to conduct measurements was a Gigahertz-Optik X911 photometer that is designed and calibrated to measure straight-line readings of the effective UVC wave length of 254 nm. It is important to note that while this does accurately measure intensity at one specific point, it does not measure overall, surround intensity. This is better exemplified on the intensity chart provided by Steril-Aire which is available upon request.

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Results

The Aurora36 was tested in a closed room and safety protocols were followed to insure safety to the participants.

Measurements were taken at 2", 4", 8", and 12" intervals. The photometer was left secured at specified distances for each measurement. 2-3 samples were taken per distance and the peak measurement was recorded and is shown in the table below.

UVC Measurements ($\mu\text{W}/\text{cm}^2$)

Distance from emitter	Peak	Low
2"	15,797*	15,787*
4"	12,895*	12,796*
8"	7,402*	7,398*
12"	5,061*	4,749*

*As aforementioned, the measurements above are limited to straight-line measuring. In fact, they exceed all minimums set forth by both Steril-Aire and ASHRAE. The 360 degree effectiveness of these bulbs exceeds all tested numbers.

Conclusion

The Aurora36 generates very sufficient UVC doses that are more than enough to sterilize various environments. Through proper use and regular emitter replacement, it will accomplish exactly what it was designed to do both safely and efficiently.

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