

LMS TECHNOLOGIES FORCED AIR RECIRCULATING TEST OF PREMIERONE UV UNITS.

98.6% OF VIRUS IN TEST ROOM WAS KILLED IN 15 MIN RUN.

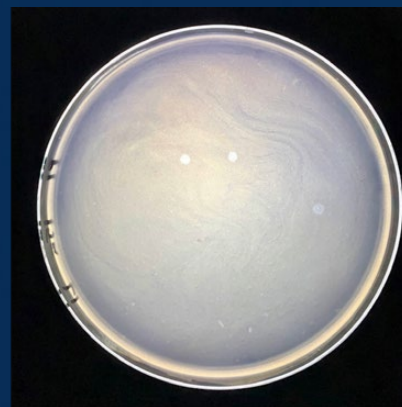
The Captura units were installed in a 16 X 20 air duct. The test room was 4000 cubic feet equivalent to approximately a 500 square foot room. Air was circulated through a test room. Within just 2 1/2 air exchanges 98.6% of the air born viruses in the room were inactivated in 15 minutes with our CP-RM360 dual lamp unit. At 20 minutes the unit was 99.1% effective at inactivating the virus in the room.

Our units purify the air in the ductwork of the forced air system, not in the living space of a building.

The MS-2 virus that was used for this test is a protein RNA virus with the same makeup as SARS, COVID-19, and many other infectious viruses. We are not testing the COVID-19 virus. That would not be allowed because of the danger to the technicians, so instead we test a virus in the same family.



MS-2 Pfu at 0 time



MS-2 Pfu at 15 min

LMS TECHNOLOGIES UVC TEST RESULTS SUMMARY

Date	Device Tested	% of Virus Inactivated	Air exchanges	% of Virus Inactivated	Air exchanges	Chamber Size
6/21/2021	CP-RM180-16	91 %	3.3	96.9%	6.6	1000 cubic feet
6/21/2021	CP-RM360-16	95.8%	3.3	99.99%	6.6	1000 cubic feet
8/ 2 /2021	CP-RM360-16	98.6%	2.5	99.1%	3.25	4000 cubic feet

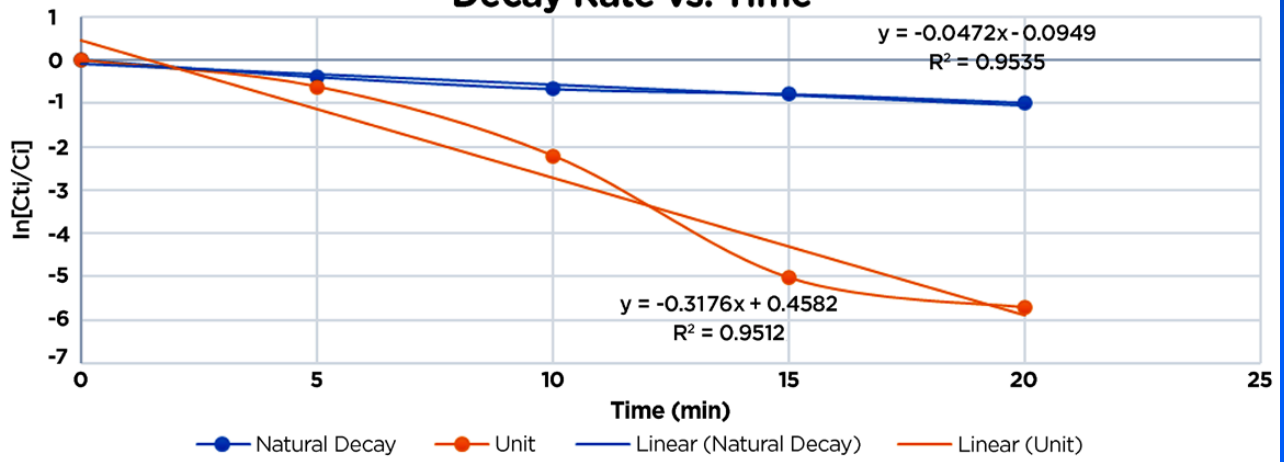


Equipment

4000 ft3 Stainless-Steel Test Chamber
 SKC BioStage Single-Stage Impactors
 TSI Scanning Mobility Particle Sizer (SMPS) 3938

% of Virus Inactivated	Air exchanges	% of Virus Inactivated	Air exchanges	Chamber Size
98.6%	2.5	99.1%	3.25	4000 cubic feet

Decay Rate vs. Time



Biological CADR of MS-2



CP-RM180-16



CP-RM360-16

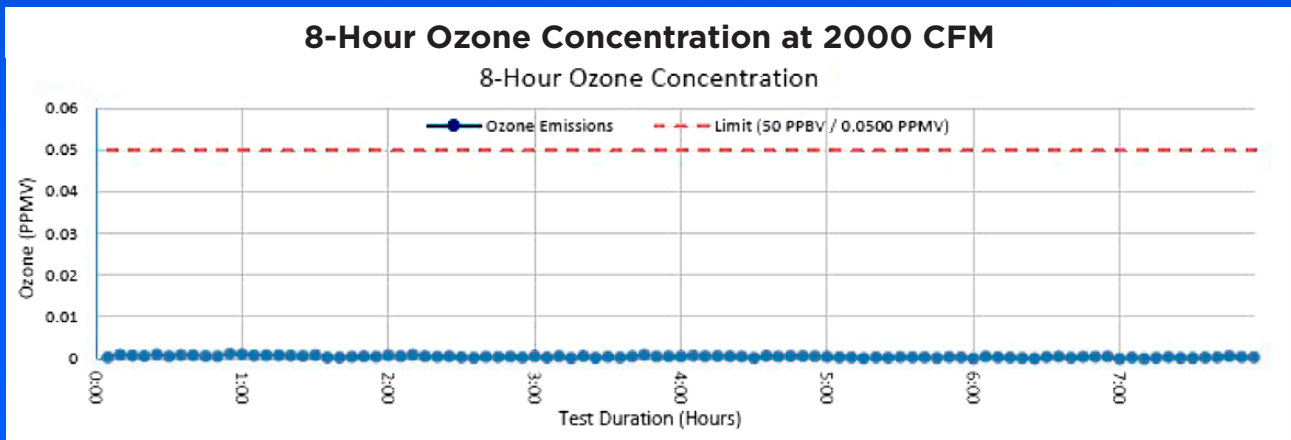
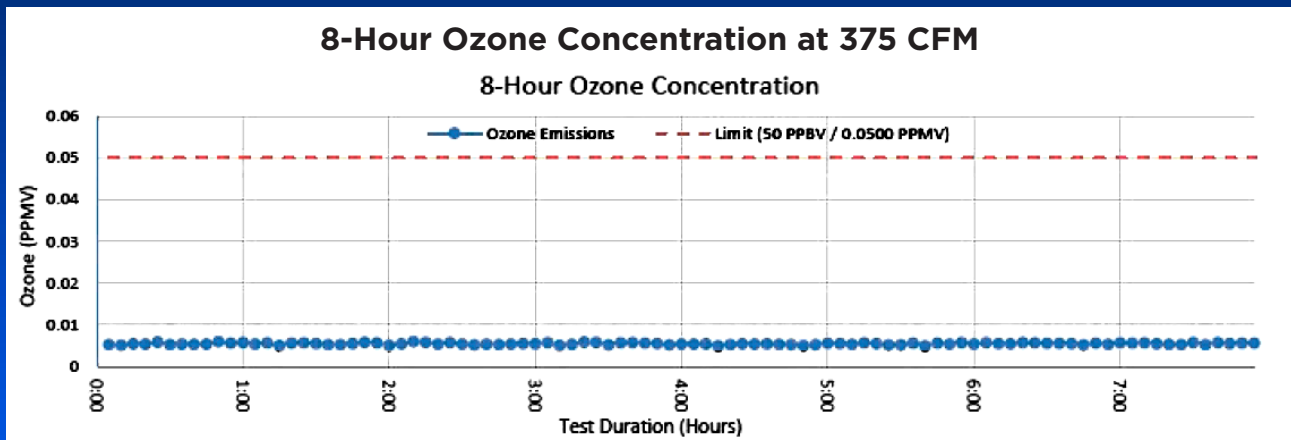
BLUE HEAVEN TECHNOLOGIES CALIFORNIA CARB TEST FOR OZONE EMISSIONS OF PREMIERONE UV UNITS.

OUR UNITS WITH ADJUSTABLE ODOR CONTROL PASSED THE TEST WITH EASE

In-Duct Ozone Testing of the In-duct Air Cleaner Model CP-RM18003-12"

The above referenced product(s.) were evaluated to requirements contained in the following standards: CSA C22.2 No. 187:20, Electrostatic air cleaners, Section 7.6

CP-RM18003 tested at 0.005492 PPM in an average 8 hour run time with a maximum ozone reading over 8 hours of 0.00620 PPM. This is far below the maximum allowed of 0.0500 PPM.



CARB TEST OF THE IN-DUCT AIR CLEANER MODEL CP-RM18003-12"

July 22, 2021 8-Hour Ozone Emissions Test Test performed by Blue Heaven Technologies LLC.

Average 8-Hour Background Concentration	0.00193 PPM	Maximum Allowed	Pass/Fail
Average 8-Hour Downstream Concentration	0.00743 PPM		
Average 8-Hour Time Weighted Average (TWA) Ozone Concentration	0.005492	0.0500 PPM	PASS
Maximum Ozone Reading over 8-Hour Testing	0.00620	0.0500 PPM	PASS

UVC OZONE EMISSIONS TEST TO UL 2998 STANDARD

OUR GERMICIDAL 254NM UNITS ARE OZONE-FREE

In-Duct Ozone Testing of the In-duct Air Cleaner Model CP-RM720-16"

The above referenced product(s.) were evaluated to requirements contained in the following standards: UL 867 Electrostatic Air Cleaners section 40: Ozone test and UL 2998 ozone emission standard.

CP-RM720-16" tested less than 0.003 PPM in an average 8 hour run time. This means our germicidal-only units are virtually ozone-free.

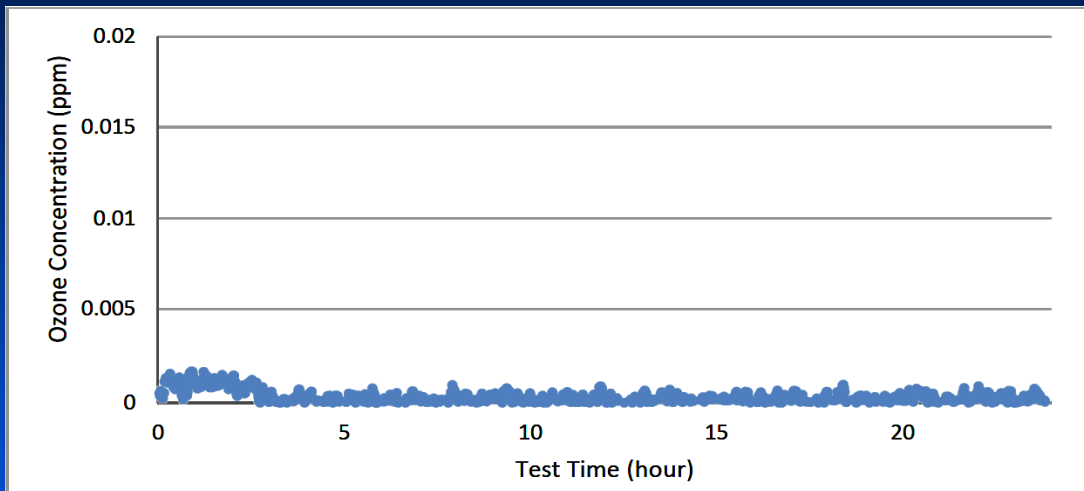


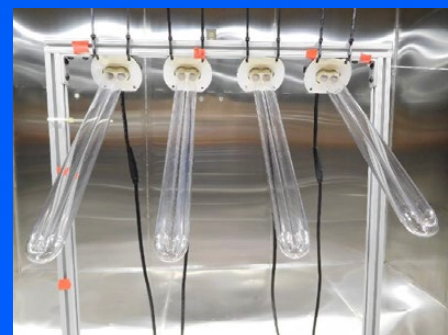
Figure 2: Ozone concentration throughout testing (rolling 5 minute average per UL 2998)

Table 4: Max Ozone Test

	UL Ref.	Pass/Fail	Mean	Min	Max	Delta	Units
Background C(t):	40.4.3	Pass	< 0.003	< 0.003	< 0.003	0.002	ppm
Test 1 min C(t):	40.1.2	Pass	< 0.003	< 0.003	< 0.003	< 0.001	ppm
Test 5 min C(t):	40.1.2	Pass	< 0.003	< 0.003	< 0.003	< 0.001	ppm
Chamber Supply Air Flow:	-	-	583	-	-	-	lpm
Required to test 2 nd sample:	40.1.2	No	-	-	-	-	-
Test Duration:	*40.4.6	24	-	-	-	-	h



CP-RM720-16"



Photograph of sample under testing.