



2820 S. English Station Road - Louisville, KY 40299

TEST NO. 19-626-3 Rev. 1

Portable Room Air Cleaner Test Report

ANSI/AHAM AC-2019

Clean Air Delivery Rate (CADR) Test Method

page 1 of 3

Test Description

The sample was tested for Particulate(ISO Fine Dust) challenge. Two Grams of dust was injected into the room with stirring fan and circulating fan on. After a 5 minute mixing period the stirring fan and circulating fan were turned off followed by a 20 minute test period.
Unit was mounted in the duct behind a MERV 8 Filter. Duct loop was ran at 600 CFM

Test Lab Information

Testing Organization Blue Heaven Technologies, Inc. Building 1
Laboratory Facility 994.5 ft³ (28.2 m³) Clean Room
Date of Testing 12/3/2019
Test Operators Tyler Shoulders CAFS

Device Identification

Device Manufacturer IONAER
Model Number 717023
Description EXP Purification Unit
Included Technologies Ionization
Dimensions 13.75" x 7"

Test Room Conditions

Room Air Temperature Test Start 69.6 Test End 69.8 Deg F
Room Air Humidity Test Start 29.9 Test End 30 %
Test Time Start / End 1:57 P.M. - 2:22 P.M.
Chamber Mixing 5 Minutes

Test Equipment Information

Particle Measurement Door Counter: TSI Model S/N: 174301
Measured Particles Range: 0.3 -10 µm 12 Channels
TSI Electrostatic Classifier and CPC S/N:3080112/3772123
Measuring at 200 nm
Humidity Probe Extech SD700 CP123843 Calibrated 1/22/2019
Temperature Probe Extech SD700 CP123843 Calibrated 1/22/2019
Barometer Extech SD700 CP123843 Calibrated 1/22/2019
Additional Information Second Ion unit was added to the room next to the circulating fan and was on during cleaning periods.

Photos



Requestor Information

Test Requestor Todd Simpson Phone Number 480-465-1504
Company Name IONAER Email jtsimpson@ionaer.com
Company Address Date Requested 11/5/2019

Test Operator Information

Test Performed by: Tyler Shoulders CAFS Completion Date 12/6/2019



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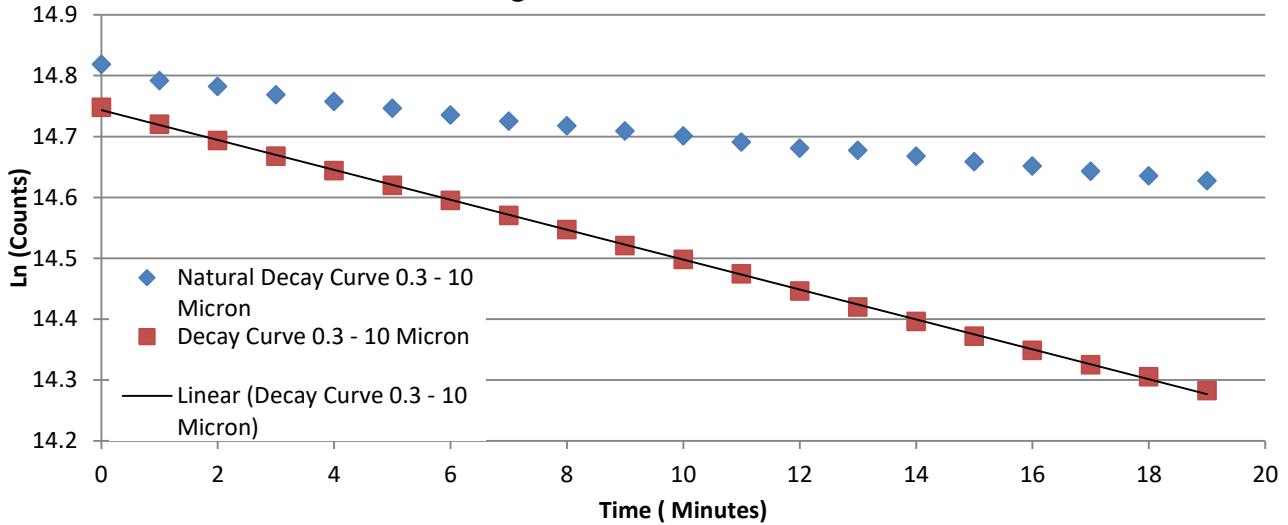
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page 2 of 3

Challenge - Particulate ISO Fine Dust



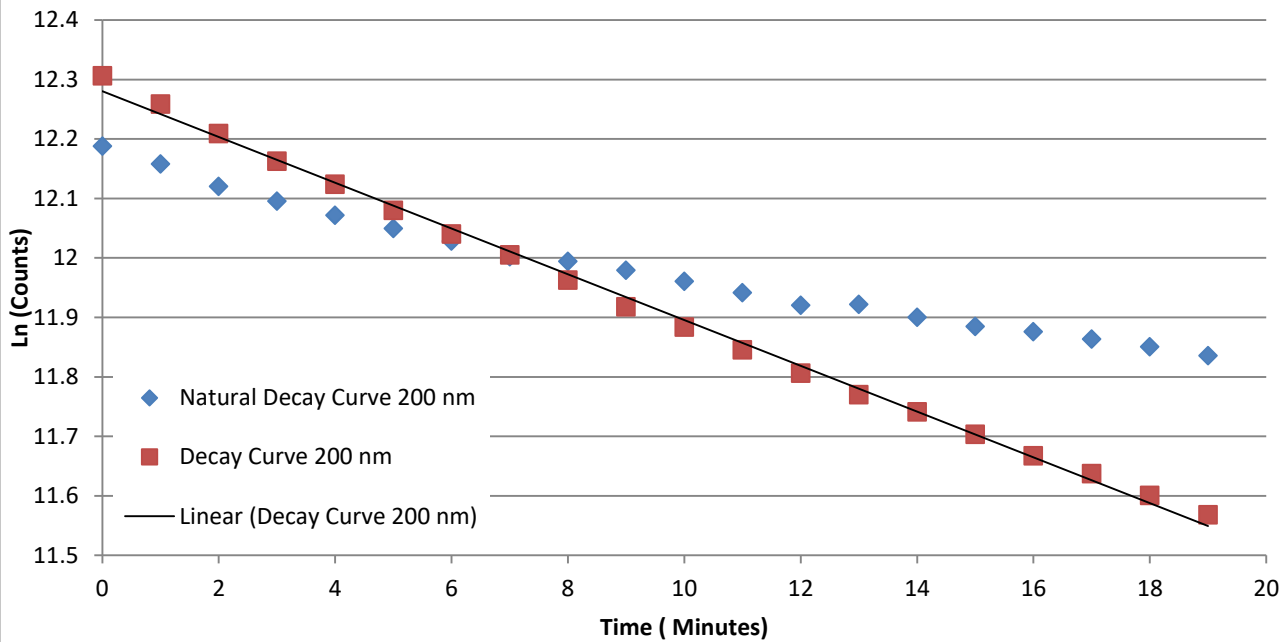
Time (min)	Natural Decay		Room Air Cleaner		Quantity	Measured
	Counts	Ln(Ct)	Counts	Ln(Ct)		
0.00	2727537	14.819	2541742	14.748	Natural Decay Constant	0.009328
1.00	2654833	14.792	2472050	14.721	Room Air Cleaner Decay Constant	0.024565
2.00	2630058	14.783	2406941	14.694	Data Points used	20
3.00	2594447	14.769	2346011	14.668	Clean Room Volume (ft ³)	994.5
4.00	2566213	14.758	2290855	14.644	Average Room Temperature (Deg F)	69.7
5.00	2537109	14.747	2236130	14.620	Average Room Humidity (%)	30.0
6.00	2509207	14.735	2181601	14.596		
7.00	2484679	14.726	2127631	14.571		
8.00	2465411	14.718	2079347	14.548		
9.00	2445126	14.710	2025568	14.521		
10.00	2424830	14.701	1979914	14.499		
11.00	2400815	14.691	1932987	14.475		
12.00	2376716	14.681	1879272	14.446		
13.00	2367862	14.677	1830768	14.420		
14.00	2345634	14.668	1788062	14.397		
15.00	2324435	14.659	1744989	14.372		
16.00	2307420	14.652	1705122	14.349		
17.00	2288738	14.644	1665138	14.325		
18.00	2271333	14.636	1632228	14.305		
19.00	2252659	14.628	1595829	14.283		
					Smoke Challenge Clean Air	
					Delivery Rate (CADR) 0.3 - 10	15.15
					Micron	

Requestor Information	Test Requestor	Todd Simpson	Phone Number	480-465-1504
	Company Name	IONAER	Email	jtsimpson@ionaer.com
	Company Address	0	Date Requested	11/5/2019
Test Operator Information	Test Performed by:	Tyler Shoulders CAFS	Completion Date	12/6/2019

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Challenge - Particulate ISO Fine Dust



Time (min)	Natural Decay		Room Air Cleaner		Quantity	Measured
	Counts	Ln(Ct)	Counts	Ln(Ct)		
0.00	196486	12.188	221120	12.306	Natural Decay Constant	0.017571
1.00	190692	12.158	210865	12.259	Room Air Cleaner Decay Constant	0.038477
2.00	183635	12.121	200647	12.209	Data Points used	20
3.00	179078	12.096	191525	12.163	Clean Room Volume (ft ³)	994.5
4.00	174927	12.072	184290	12.124	Average Room Temperature (Deg F)	69.7
5.00	171087	12.050	176360	12.080	Average Room Humidity (%)	30.0
6.00	167496	12.029	169500	12.041		
7.00	163113	12.002	163646	12.005		
8.00	161828	11.994	156877	11.963	Smoke Challenge Clean Air Delivery Rate (CADR) 200 nm	20.79
9.00	159429	11.979	149925	11.918		
10.00	156557	11.961	144889	11.884		
11.00	153535	11.942	139490	11.846		
12.00	150300	11.920	134151	11.807		
13.00	150541	11.922	129329	11.770		
14.00	147375	11.901	125650	11.741		
15.00	145043	11.885	120988	11.703		
16.00	143798	11.876	116736	11.668		
17.00	142049	11.864	113292	11.638		
18.00	140181	11.851	109197	11.601		
19.00	138108	11.836	105702	11.568		

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