



LMS TECHNOLOGIES, INC.
6423 Cecilia Circle
Bloomington, MN 55439
(952) 918-9060, Fax: (952) 918-9061

Test Report-ASHRAE Test Standard 52.2-2017 (New Classification)

Report #: 4080
Test Date: 03/14/2019

Test Requested By: CaptiveAire
 Manufacturer: CaptiveAire
 Product Name: CAS-ESP
 Part #: N/A
 Dimensions: Size 1-PCU
 Number of Pleats: None
 Filter Description: Electronic precipitator
 How Filter Obtained: Provided by CaptiveAire



Test Results

Test Air Flow Rate(CFM)/Velocity (FPM)	<u>762 cfm / 295 fpm</u>
Initial Resistance (in. WG)	<u>0.170"</u>
Final Resistance (in. WG)	<u>0.182"</u>
Minimum Efficiency Rating Value (MERV)	<u>MERV 15 @ 762 cfm</u>
Minimum Average Efficiency 0.3 to 1.0 Microns (E1)	<u>85.6</u>
Minimum Average Efficiency 1.0 to 3.0 Microns (E2)	<u>90.1</u>
Minimum Average Efficiency 3.0 to 10 Microns (E3)	<u>93.7</u>
Dust Fed to Final Resistance (grams)	<u>25 grams</u>
Dust Holding Capacity (grams)	<u>25 grams</u>

Test Description

Temp & Humidity: 71° F @ 40%
 Particle Analysis: Met One 3400
 Test Dust: ASHRAE 52.1 Dust
 Test Aerosol: KCl, Neutralized
 LMS#: 5543

Test Engineer : Emile Tadros/Kevin Kwong/Pat Best/Jose Tizcareno/Kia Kiantaj

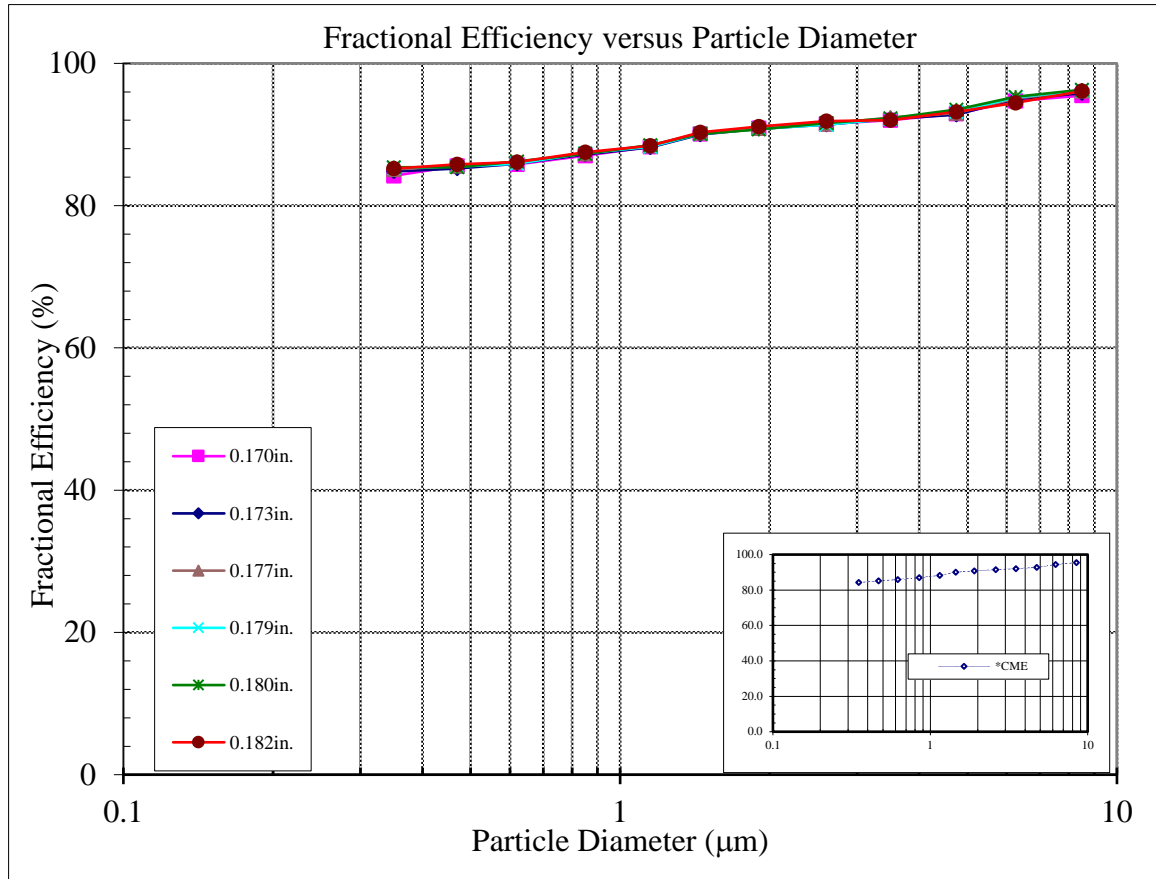
Approved By: K. C. Kwok, Ph.D.

Data verified by LMS Calibration filter* Patent Pending

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Date : March 14, 2019 Filter ID : CAS-ESP Test Type : 52.2-2017 REP# 4080 Test Aerosol : KCl, Neutralized	Requested by : CaptiveAire Manufacturer : CaptiveAire
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ΔP (" H ₂ O)	0.170in.	0.173in.	0.177in.	0.179in.	0.180in.	0.182in.	*CME
Size Range (μm)	Fractional Efficiency (%)						
0.3-0.4	84.2	84.8	85.1	85.3	85.4	85.2	84.2
0.4-0.55	85.6	85.2	85.6	85.5	85.4	85.8	85.2
0.55-0.7	85.8	85.9	86.1	85.9	86.2	86.1	85.8
0.7-1.0	87.0	87.2	87.3	87.4	87.3	87.5	87.0
1.0-1.3	88.3	88.2	88.4	88.3	88.5	88.4	88.2
1.3-1.6	90.1	90.0	90.2	90.1	90.1	90.3	90.0
1.6-2.2	90.9	90.8	90.9	90.8	90.7	91.1	90.7
2.2-3.0	91.5	91.4	91.5	91.4	91.6	91.9	91.4
3.0-4.0	92.0	92.2	92.4	92.2	92.3	92.0	92.0
4.0-5.5	92.9	92.8	93.0	93.2	93.5	93.2	92.8
5.5-7.0	94.7	95.0	95.1	95.2	95.3	94.4	94.4
7.0-10.0	95.5	95.8	96.1	96.2	96.3	96.1	95.5



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Date: March 14, 2019 Filter ID : CAS-ESP Test Type : Pressure Drop of Clean Filter For ASHRAE 52.2-2017 REP# 4080	Test Requested by : CaptiveAire Filter Manufacturer : CaptiveAire
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Flow Rate CFM	Velocity FPM	dP (mm H ₂ O)	Pressure drop ("H ₂ O)	% of Rated Airflow	Dust fed	Pressure drop
0	0	0.00	0.000	0%	0.00	0.170
191	74	0.90	0.035	25%	5.00	0.173
381	148	2.10	0.083	50%	10.00	0.177
572	221	3.27	0.129	75%	15.00	0.179
762	295	4.32	0.170	100%	20.00	0.180
953	369	5.50	0.217	125%	25.00	0.182

