

PHOENIXAIRE LLC DBA AIRPHX OZONE TEST REPORT

SCOPE OF WORK

Ozone Emissions Testing of Household Electrostatic Air Cleaners for Model: CID 75K

REPORT NUMBER

104823917CRT-001

ISSUE DATE

31 January 2022

PAGES

11

QUOTE NUMBER

QU-01195761-0

DOCUMENT CONTROL NUMBER

GFT-OP-10o (16-Oct-2017)

© 2022 INTERTEK



TEST REPORT FOR AIRPHOENIX LLC DBA AIRPHX

Report No.: 104823917CRT-001

Date: 31 January 2022

Jeff Kilduff
PhoenixAIRE LLC dba airPhx
1311-A Dolley Madison Blvd
Suite 2A
McLean, VA 22102
USA

Phone: +1 (703) 346-8002
Email: jeff@airphx.com

SECTION 1

SUMMARY

The representative sample(s) have been tested, investigated, and found to comply with the requirements of the following Standard(s):

Electrostatic Air Cleaners, UL 867, Section 40, Fifth Edition, August 4, 2011 revision: August 16, 2021

The equipment identified in this report has been found to meet the criteria for emittance of ozone not exceeding a concentration of 0.050 ppm. Furthermore, a second sample was not required to be tested, according to UL 867, as the first sample's maximum emissions were less than 0.030 ppm, which satisfies the exception in the Section 40.1.1.

This report completes our evaluation covered by Intertek Project Number G104823917 which has been authorized by Intertek quote number: Qu-01195761-0. If there are any questions regarding the results contained in this report, or any of the other services offered by Intertek, please do not hesitate to contact the undersigned.

OZONE EMISSIONS SUMMARY			
FAN SPEED	FILTER(S)	O3/VOLTAGE SETTING	C(t) _{max} [ppm]
ON	YES	-	0.006
ON	NO	-	0.008

Completed by: Paul J. Comfort Jr.
Title: Senior Associate Engineer

Reviewed by: Ateet Shah/Michael Hudon
Title: Project Engineer / Staff Engineer

Signature: 

Signature: 


Date: 27 January 2022

Date: 01/28/2022

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

SECTION 2

INDEX

Section Names	PAGE
1: Summary/Signatures	2
2: Index/ Chamber Equipment Information	3
3: Unit under test information	4
4: Peak test	5
5: Max Test(s) Information	7
6: Appendices	9
7: Revisions	11

CHAMBER EQUIPMENT INFORMATION

TEST EQUIPMENT LIST

Instrument	Model	Intertek Ctrl #	Cal Due Date
Teledyne – Advanced Pollution Instrumentation Ozone Calibrator	703E	O200	08-24-2022
Teledyne – Advanced Pollution Instrumentation Ozone Monitor	T400	D804	*
Vaisala – Temperature & Humidity Transducer	HMD-70Y	T1307	05-24-2022
Fluid Components International- Flow meter	ST75V	D713	10-13-2022

* The 400E Ozone Monitor is calibrated using the 703E calibrator.

SECTION 3

UNIT UNDER TEST INFORMATION

MODEL INFORMATION			
Manufacturer:	AirPhoenix LLC	Pre-Filter:	Yes
Model Number:	CID 75K	HEPA Filter:	No
Production/Prototype/ Design	Production	ESP Filter:	No
Fan Speeds:	1	Carbon Filter:	No
O3/Voltage Settings:	-	UV Light:	No
O3 Monitor:	-	Ionizer:	Yes
Model Notes:			

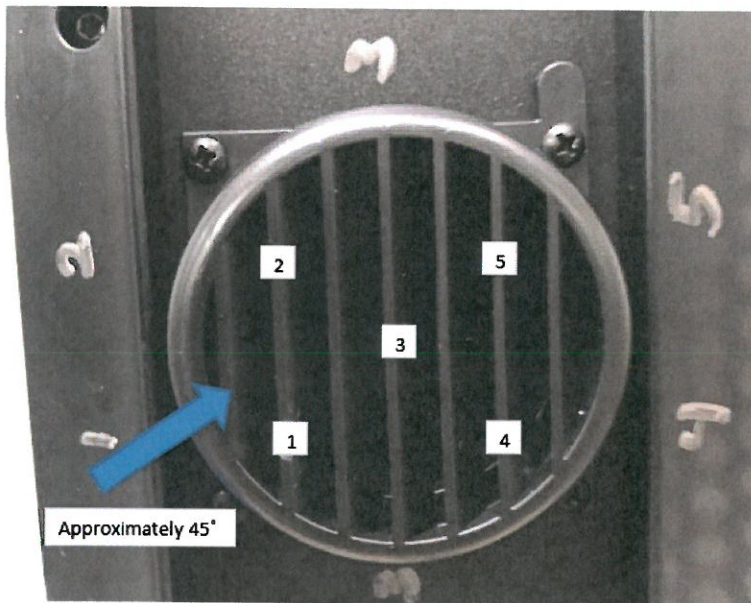
RUN-IN TEST			
FIRST SAMPLE			
Run-in Start:	12/30/2021 1:30PM	Run-in End:	1/3/2022 12:15PM
Run-in Temperature:	77±4°F	Tracking Number:	CRT2112151016CRT-001
Serial Number:	75-0000520	Manufacture Date:	12/1/2021
Sample Notes:			
SECOND SAMPLE			
Run-in Start:	NA	Run-in End:	NA
Run-in Temperature:	NA	Tracking Number:	CRT2112151016CRT-002
Serial Number:	NA	Manufacture Date:	12/1/2021
Sample Notes:	Per the exception listed under clause 40.1.1 of UL 867. the second sample was not required to be tested.		

SECTION 4

PEAK OZONE TEST

GRILL AND AIR PERIPHERY DIMENSIONS			
		Date of Test:	1/20/2022
Grill Height:	NA	Air Periphery Height:	NA
Grill Width:	NA	Air Periphery Width:	NA
Estimated Grill Area:	3.970*	Est. Air Periphery Area:	3.970*
Notes:	Measurements are in Inches *Grill Diameter = 2.25 inches.		

PEAK LOCATION			
Loc.	X	Y	
-	[inches]	[inches]	
1	-0.50	-0.60	
2	-0.50	0.60	
3	0.00	0.00	
4	0.50	-0.60	
5	0.50	0.60	
* Location measurements are coordinates in reference to the center point.			



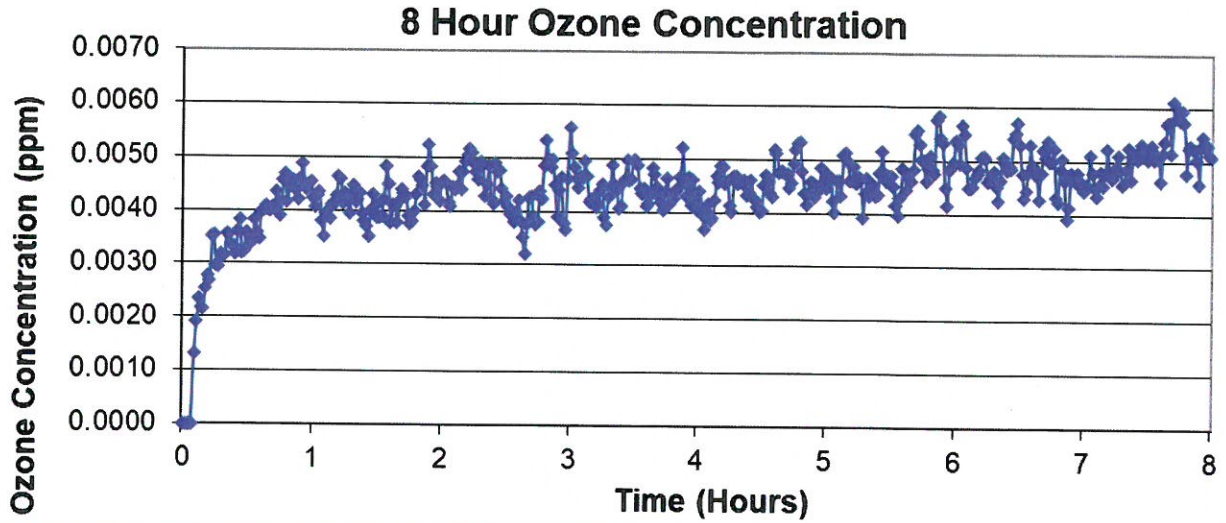
PEAK OZONE CONCENTRATIONS (ppm)				
Location	With Filter(s)		Without Filter(s)	
	On		On	
1	0.0004		0.0011	
2	0.0006		0.0007	
3	0.0001		0.0006	
4	0.0002		0.0000	
5	0.0003		0.0000	

Note: Peak Ozone Test concentrations are shown with background subtracted.

SECTION 5

MAX OZONE TEST

START DATE OF TEST: 21 January 2022
 SAMPLE: First
 FAN SPEED: On
 FILTER(S): Pre-filter installed. Ionizer on.

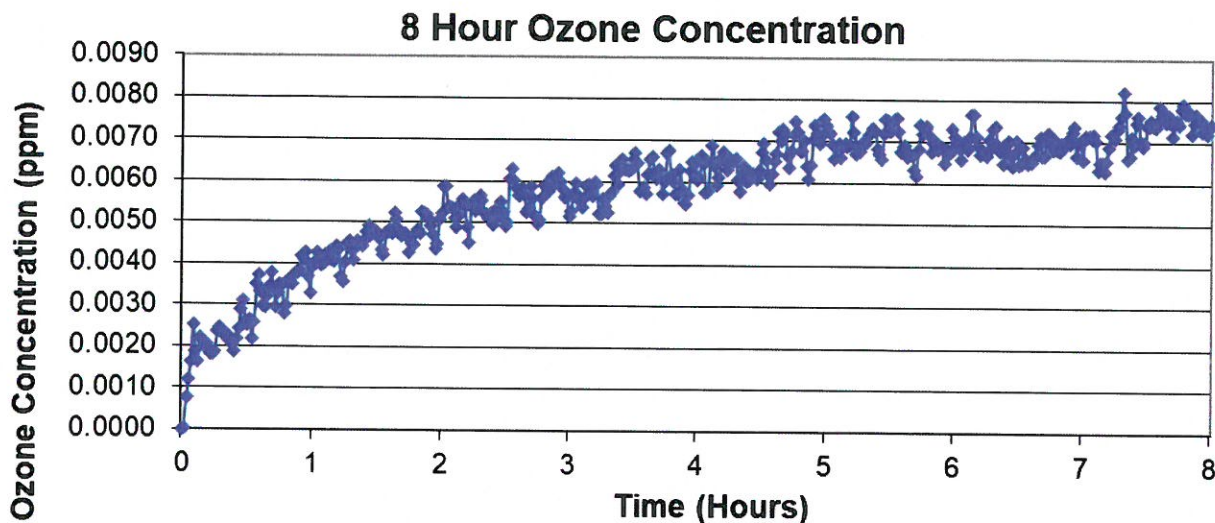


MAXIMUM OZONE TEST RESULTS							
	UL Ref.	Pass/Fail	Mean	Min	Max	Delta	Units
Background C(t) O3:	40.4.3	PASS	0.000	0.000	0.000	0.000	[ppm]
Test 1min C(t) O3:	40.1.2	PASS	0.004	0.000	0.006	0.006	[ppm]
Test 5min C(t) O3:	40.1.2	PASS	0.004	0.000	0.006	0.006	[ppm]
Chamber Temperature:	40.4.2	PASS	77	77	77	1	[degF]
Chamber Humidity:	40.4.2	PASS	53	51	53	2	[%RH]
Chamber Static Pressure:	-	PASS	0.02	-0.01	0.08	0.10	["H2O]
Chamber Supply Air Flow:	-	-	20	19	20	1	[SCFM]
Required to Test 2nd Sample:	40.1.1	NO					
Test Duration:	*40.4.6	8 hours					

NOTES: Peak Test Location 2

MAX OZONE TEST

START DATE OF TEST: 20 January 2022
 SAMPLE: First
 FAN SPEED: On
 FILTER(S): Pre-filter removed. Ionizer on.



MAXIMUM OZONE TEST RESULTS							
	UL Ref.	Pass/Fail	Mean	Min	Max	Delta	Units
Background C(t) O3:	40.4.3	PASS	0.001	0.000	0.001	0.001	[ppm]
Test 1min C(t) O3:	40.1.2	PASS	0.006	0.000	0.008	0.008	[ppm]
Test 5min C(t) O3:	40.1.2	PASS	0.006	0.000	0.008	0.007	[ppm]
Chamber Temperature:	40.4.2	PASS	77	77	78	1	[degF]
Chamber Humidity:	40.4.2	PASS	52	51	53	2	[%RH]
Chamber Static Pressure:	-	PASS	0.02	0.01	0.03	0.02	["H2O]
Chamber Supply Air Flow:	-	-	20	19	20	0	[SCFM]
Required to Test 2nd Sample:	40.1.1	NO					
Test Duration:	*40.4.6	8 hours					

NOTES: Peak Test Location 1

SECTION 6
APPENDIX

DATA FILES

TEST NAME	RAW DATA FILE
Model Half Life	4835 Halflife ozonelog.csv
Max Ozone: On w/ Filter	4837 Max ONWIF ozonelog.csv
Max Ozone: On w/o Filter	4836 Max ONWOF ozonelog.csv

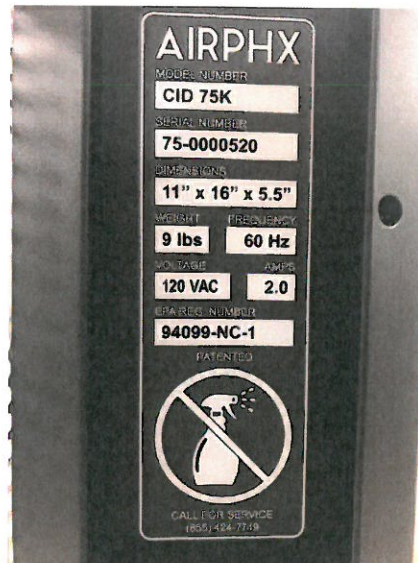
ATTACHMENT DOCUMENTS

DOCUMENT	SOFT-COPY FILE NAME
ARB Application	NA
Chain of Custody: Sample 1	COC_CRT2112151016CRT-001.pdf
Chain of Custody: Sample 2	COC_CRT2112151016CRT-002.pdf

UUT PHOTOGRAPHS



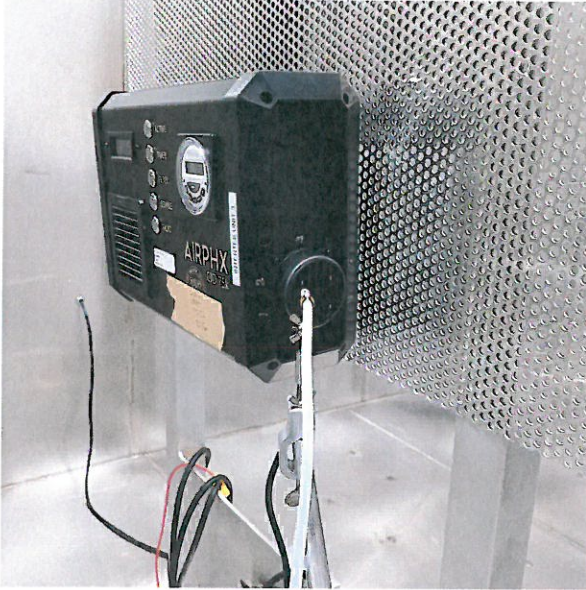
UUT



Nameplate

UUT PHOTOGRAPHS: PEAK TEST

Location 2



ON w/ FILTER

Location 1



ON w/o FILTER

UUT PHOTOGRAPHS: MAX OZONE TESTS

Location 2



ON w/ FILTER

Location 1



ON w/o FILTER

7.0 REVISION SUMMARY

Date/Proj # Site ID	Project Handler/ Reviewer	Section	Description of Change
			None