

Airgle Corporation

OZONE TEST REPORT

SCOPE OF WORK

Ozone Emissions Testing of Household Electrostatic Air Cleaners for Model: AG300

REPORT NUMBER

104606595CRT-003

ISSUE DATE

5/27/2021

PAGES

14

QUOTE NUMBER

Qu-01149655-3

DOCUMENT CONTROL NUMBER

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

© 2021 INTERTEK





Total Quality. Assured.

3933 US Route 11
Cortland, NY 13045

Telephone: +01 607 753 6711
Facsimile: +01 607 756 9891
www.intertek.com

TEST REPORT FOR AIRGLE CORPORATION

Report No.: 104606595CRT-003

Date: May 27, 2021

Jeff Jiang
Airgle Corporation
711-3 Koehler Ave.
Ronkonkoma, NY 11779
USA

Phone: (917) 399-7708
Email: jeff@airgle.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 7, 2018

CSA 22-2 No.187-15, Section 7, February 2015, April 2016 Revision

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 G104606595 which has been authorized by Intertek quote number: Qu-01149655-3. 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]
High	YES	-	0.000
Low	YES	-	0.000
Low	NO	-	0.001
High	NO	-	0.000
Highest 8-hour time weighted average: 0.000[ppmv]			
Completed by:	Joseph Hartley	Reviewed by:	Jacob Langenbacher
Title:	Technician I	Title:	Engineer
Signature:		Signature:	
Date:	5/20/2021	Date:	5/27/2021

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	10
7: Revisions	13

CHAMBER EQUIPMENT INFORMATION

TEST EQUIPMENT LIST

Instrument	Model	Intertek Ctrl #	Cal Due Date
Teledyne – Advanced Pollution Instrumentation Ozone Calibrator	703E	O200	07-24-2021
Teledyne – Advanced Pollution Instrumentation Ozone Monitor	400E	O202	*
Vaisala – Temperature & Humidity Transducer	HMD-70Y	T1307	06-03-2021
Fluid Components International- Flow meter	ST75V	F463	10-12-2021

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

SECTION 3

UNIT UNDER TEST INFORMATION

MODEL INFORMATION			
Manufacturer:	Shenzen Airgle Corporation	Pre-Filter:	Yes
Model Number:	AG300	HEPA Filter:	Yes
Production/Prototype/Design	Production	ESP Filter:	No
Fan Speeds:	5	Carbon Filter:	Yes
O3/Voltage Settings:	-	UV Light:	Yes
O3 Monitor:	-	Ionizer:	No
Model Notes:			

RUN-IN TEST			
FIRST SAMPLE			
Run-in Start:	5/3/2021 10:45 AM	Run-in End:	5/5/2021 1:45 PM
Run-in Temperature:	77 +/-4	Tracking Number:	CRT2103111303-001
Serial Number:	NA	Manufacture Date:	03/2021
Sample Notes:			
SECOND SAMPLE			
Run-in Start:	NA	Run-in End:	NA
Run-in Temperature:	NA	Tracking Number:	CRT2103111303-002
Serial Number:	NA	Manufacture Date:	03/2021
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:	5/5/2021
Grill Height:	12.0	Air Periphery Height:	12.0
Grill Width:	10.5	Air Periphery Width:	10.5
Estimated Grill Area:	126.0	Est. Air Periphery Area:	126.0
Notes:	Measurements are in Inches		

PEAK LOCATION			
Loc.	X	Y	
-	[inches]	[inches]	
1	-3.00	3.00	
2	-1.25	3.00	
3	1.25	3.00	
4	-3.00	3.00	
5	0.00	0.00	
6	-3.00	-3.00	
7	-1.25	-3.00	
8	1.25	-3.00	
9	3.00	-3.00	
* Location measurements are coordinates in reference to the center point.			



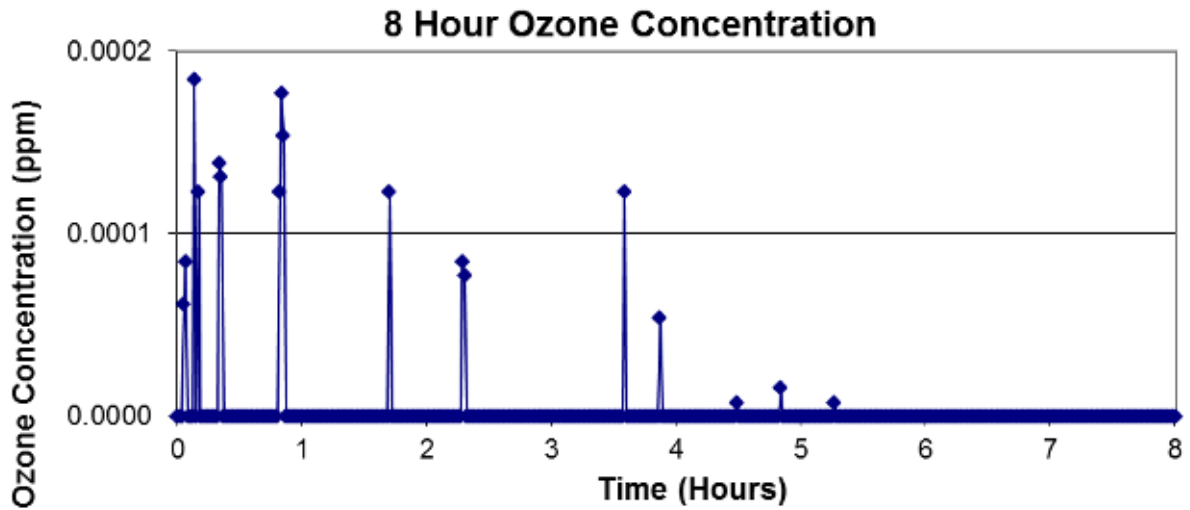
PEAK OZONE CONCENTRATIONS (ppm)				
Location	<i>With Filter(s)</i>		<i>Without Filter(s)</i>	
	<i>Highest</i>	<i>Lowest</i>	<i>Highest</i>	<i>Lowest</i>
1	0.0006	0.0002	0.0003	0.0006
2	0.0005	0.0006	0.0006	0.0003
3	0.0004	0.0003	0.0006	0.0004
4	0.0005	0.0002	0.0008	0.0004
5	0.0008	0.0006	0.0008	0.0002
6	0.0003	0.0008	0.0010	0.0003
7	0.0005	0.0004	0.0007	0.0002
8	0.0009	0.0004	0.0014	0.0005
9	0.0003	0.0004	0.0012	0.0003

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

SECTION 5

MAX OZONE TEST

START DATE OF TEST: 5/5/2021
 SAMPLE: First Sample
 FAN SPEED: Turbo (Highest)
 FILTER(S): Pre-filter, HEPA and Carbon Filters installed, UV light ON

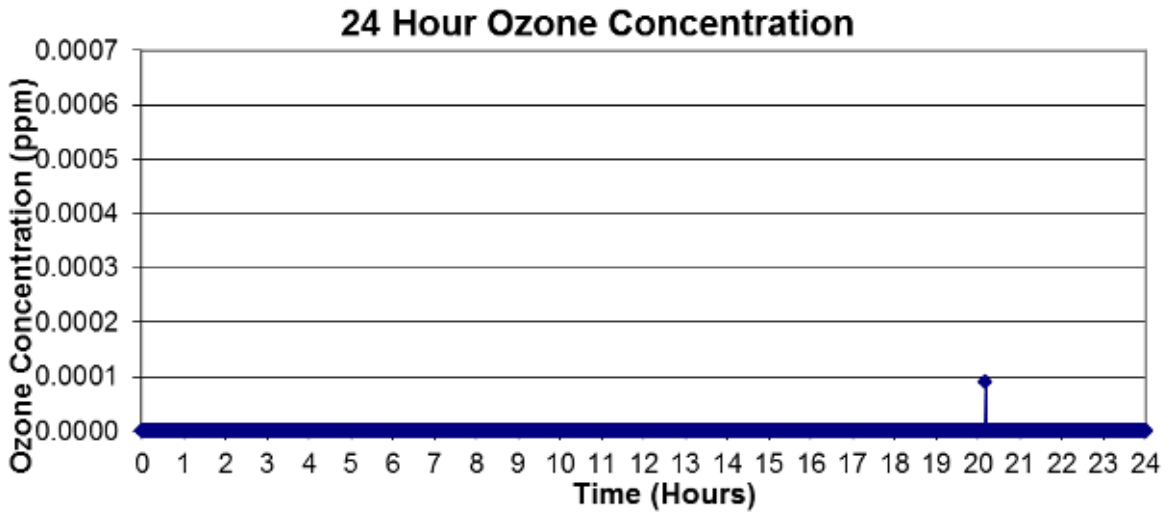


MAXIMUM OZONE TEST RESULTS							
	UL Ref.	Pass/Fail	Mean	Min	Max	Delta	Units
Background C(t) O3:	40.4.3	PASS	0.001	0.001	0.002	0.001	[ppm]
Test 1min C(t) O3:	40.1.2	PASS	0.000	0.000	0.000	0.000	[ppm]
Test 5min C(t) O3:	40.1.2	PASS	0.000	0.000	0.001	0.001	[ppm]
Chamber Temperature:	40.4.2	PASS	77	77	77	1	[degF]
Chamber Humidity:	40.4.2	PASS	50	50	50	0	[%RH]
Chamber Static Pressure:	-	PASS	0.02	0.01	0.08	0.08	["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 8

MAX OZONE TEST

START DATE OF TEST: 5/6/2021
 SAMPLE: First Sample
 FAN SPEED: 1 (Lowest)
 FILTER(S): Pre-filter, HEPA and Carbon Filters installed, UV light ON

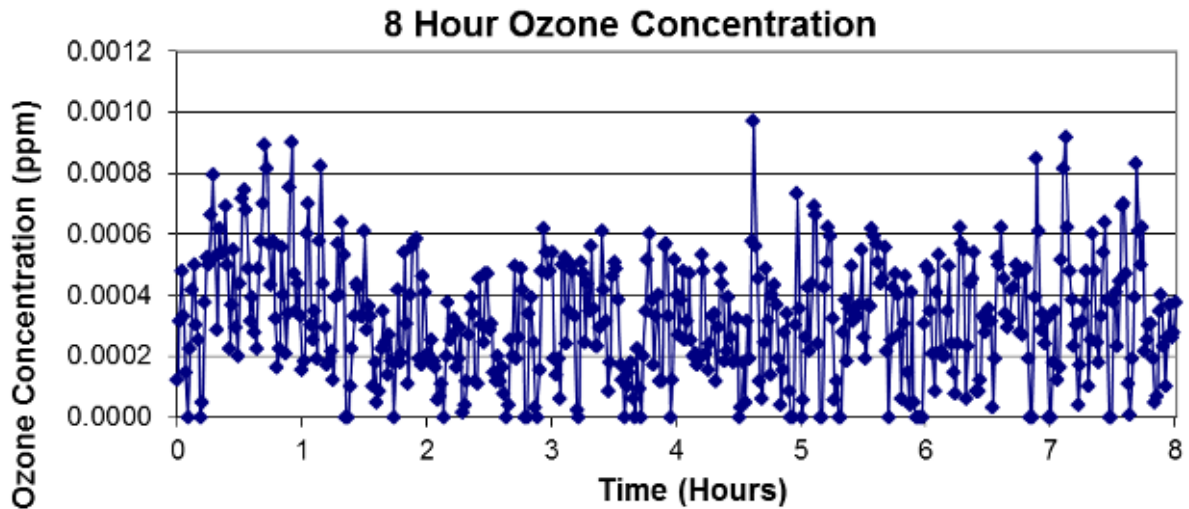


MAXIMUM OZONE TEST RESULTS							
	UL Ref.	Pass/Fail	Mean	Min	Max	Delta	Units
Background C(t) O3:	40.4.3	PASS	0.002	0.001	0.002	0.001	[ppm]
Test 1min C(t) O3:	40.1.2	PASS	0.000	0.000	0.000	0.000	[ppm]
Test 5min C(t) O3:	40.1.2	PASS	0.000	0.000	0.001	0.001	[ppm]
Chamber Temperature:	40.4.2	PASS	77	77	77	1	[degF]
Chamber Humidity:	40.4.2	PASS	50	49	53	4	[%RH]
Chamber Static Pressure:	-	PASS	0.02	0.00	0.06	0.06	["H2O]
Chamber Supply Air Flow:	-	-	20	19	20	1	[SCFM]
Required to Test 2nd Sample:	40.1.1	NO					
Test Duration:	*40.4.6	24 hours					

NOTES: Peak Test Location 6

MAX OZONE TEST

START DATE OF TEST: 5/7/2021
 SAMPLE: First Sample
 FAN SPEED: 1 (Lowest)
 FILTER(S): Pre-filter, HEPA and Carbon Filters removed, UV light ON

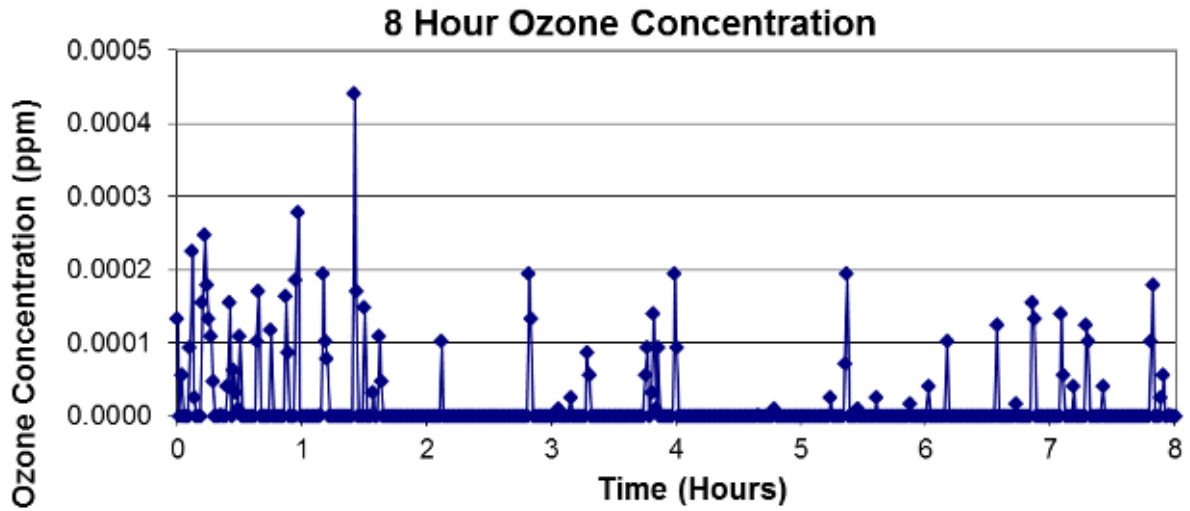


MAXIMUM OZONE TEST RESULTS							
	UL Ref.	Pass/Fail	Mean	Min	Max	Delta	Units
Background C(t) O3:	40.4.3	PASS	0.001	0.000	0.001	0.001	[ppm]
Test 1min C(t) O3:	40.1.2	PASS	0.000	0.000	0.001	0.001	[ppm]
Test 5min C(t) O3:	40.1.2	PASS	0.000	0.000	0.001	0.001	[ppm]
Chamber Temperature:	40.4.2	PASS	77	77	77	1	[degF]
Chamber Humidity:	40.4.2	PASS	50	49	50	1	[%RH]
Chamber Static Pressure:	-	PASS	0.02	0.01	0.05	0.05	["H2O]
Chamber Supply Air Flow:	-	-	20	20	20	1	[SCFM]
Required to Test 2nd Sample:	40.1.1	NO					
Test Duration:	*40.4.6	24 hours					

NOTES: Peak Test Location 1 Highest 8-hour time-weighted average: 0.000 [ppmv]
 All 8-hour time-weighted averages:
 0h-8h: 0.000 [ppmv]
 8h-16h: 0.000 [ppmv]
 16h-24h: 0.000 [ppmv]

MAX OZONE TEST

START DATE OF TEST: 5/8/2021
 SAMPLE: First Sample
 FAN SPEED: Turbo (Highest)
 FILTER(S): Pre-filter, HEPA and Carbon Filters removed, UV light ON



MAXIMUM OZONE TEST RESULTS							
	UL Ref.	Pass/Fail	Mean	Min	Max	Delta	Units
Background C(t) O3:	40.4.3	PASS	0.001	0.001	0.002	0.001	[ppm]
Test 1min C(t) O3:	40.1.2	PASS	0.000	0.000	0.000	0.000	[ppm]
Test 5min C(t) O3:	40.1.2	PASS	0.000	0.000	0.001	0.001	[ppm]
Chamber Temperature:	40.4.2	PASS	77	77	77	1	[degF]
Chamber Humidity:	40.4.2	PASS	50	49	52	3	[%RH]
Chamber Static Pressure:	-	PASS	0.02	0.00	0.07	0.08	["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 8

SECTION 6

APPENDIX

DATA FILES

TEST NAME	RAW DATA FILE
Model Half Life	4516 Halflife ozonelog.csv
Max Ozone: High Speed w/ Filter	4517 Max TURBOWIF ozonelog.csv
Max Ozone: Low Speed w/ Filter	4518 Max LOWIF ozonelog.csv
Max Ozone: Low Speed w/o Filter	4519 Max LOWOF ozonelog.csv
Max Ozone: High Speed w/o Filter	4520 Max TURBOWOF ozonlog.csv

ATTACHMENT DOCUMENTS

DOCUMENT	SOFT-COPY FILE NAME
ARB Application	NA
Chain of Custody: Sample 1	COC_CRT2103111303-001.pdf
Chain of Custody: Sample 2	COC_CRT2103111303-002.pdf

UUT PHOTOGRAPHS



UUT

No Nameplate

Nameplate

UUT PHOTOGRAPHS: PEAK TEST



Location 8

HIGH SPEED w/ FILTER



Location 6

LOW SPEED w/ FILTER



Location 1

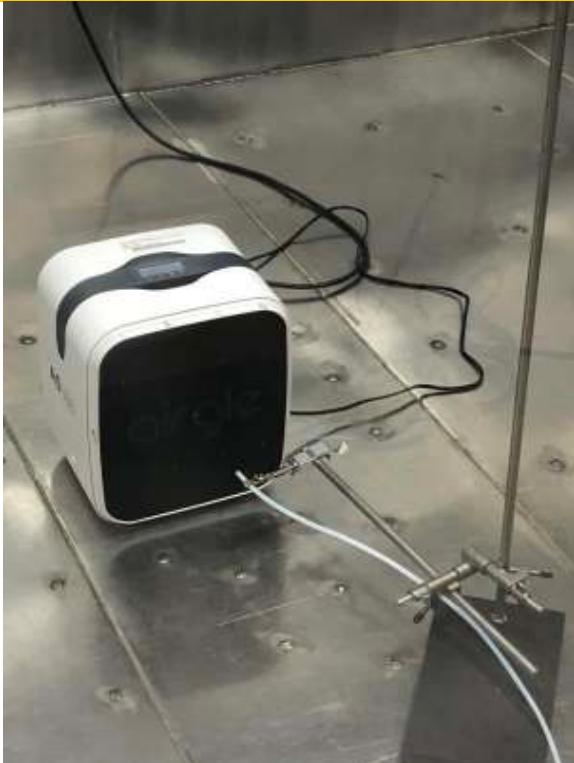
LOW SPEED w/o FILTER



Location 8

HIGH SPEED w/o FILTER

UUT PHOTOGRAPHS: MAX OZONE TESTS



Location 8
HIGH SPEED w/ FILTER



Location 6

LOW SPEED w/ FILTER



Location 1

LOW SPEED w/o FILTER



Location 8

HIGH SPEED w/o FILTER

