

广州市微生物研究所  
GUANG ZHOU INSTITUTE OF MICROBIOLOGY

检测报告  
TEST REPORT


Report Number KJ20191664

Name of Sample Air Purifier

Applicant Sino Vantage Industrial Ltd.

**GUANG ZHOU INSTITUTE OF MICROBIOLOGY**  
**TEST REPORT**

Date Received: Jul. 31, 2019  
Date Analyzed: Aug. 05, 2019

Name of Sample	Air Purifier	Source of Sample	Delivery
Applicant	Sino Vantage Industrial Ltd.	Client	Wilson Lam
Manufacturer	Sino Vantage Industrial Ltd.	Brand	LightAir
Type and Specification	CFPro900	Quantity of Sample	1PC
Date of Production	---	State of Sample	Machine
Batch Number	---	Packing of Sample	In box
Sample Picture			
Standard and Methods	Refer to APIAC/LM 01-2015 Indoor purifier's purification performance evaluation requirements		
Items of Analysis	CADR (PM <sub>0.1</sub> )		
Remarks	---		

\*\*\*To be continued\*\*\*

**GUANG ZHOU INSTITUTE OF MICROBIOLOGY**  
**TEST REPORT**

Date Received: Jul. 31, 2019  
Date Analyzed: Aug. 05, 2019

**Method for Measuring Clean Air Delivery Rate of Particulate (PM<sub>0.1</sub>):**

1. Test Object  
Particulate (<0.1 μm)
2. Test Conditions
  - 1) Environment temperature: (25±2) °C
  - 2) Environment humidity: (50±10)% RH
3. Test Equipments  
The volume of the test chamber: 30 m<sup>3</sup>, Aerosol Spectrometer (TSI 3340), Aerosol Diluter (TSI 3302 A)
4. Operation Conditions of the Machine  
Set the switch to position "the 3rd gear".
5. Test Procedures
  - 1) Place the air cleaner to be tested in the test chamber in accordance with standard request and set the air cleaner controls to the conditions for test. Test for proper operation, then turn off the air cleaner.
  - 2) Using the test chamber HEPA filter, allow the test chamber air to clean until the background concentration in the size below 0.1 μm reaches a concentration of less than 2×10<sup>4</sup> particles/L. Simultaneously operate the environmental control devices until the test chamber conditions.
  - 3) When an acceptable test chamber background concentration is achieved record the background concentration, turn off the test chamber environmental control system.
  - 4) Connect the cigarette burner to light the cigarette and cover the burner, blow the cigarette smoke into the test compartment with low pressure air. After the smoke has occurred, the fan continues to stir for 2 min, so that the bulk particles are mixed evenly after closing the mixing fan
  - 5) Turn off ceiling mixing fan, begin to acquire the cigarette smoke particulate concentration. This test point is the initial concentration (T<sub>0</sub>).
  - 6) Open the air cleaner and start the test as soon as the initial concentration of particulate and denoted as T1 after 2min. The particulate matter concentration should reach (2.4 ~ 3.5) × 10<sup>7</sup>/L, The concentration of the particles in the cabin was measured at intervals of 1 min at the time of T1, and 60 consecutive times were measured. Ten consecutive test values were recorded and recorded as T2 ~ T11.
  - 7) Test the natural decay according to the steps 1) ~ 6) , except that the air cleaner is unoperated. The concentration of particulate matter in the nacelle was measured at intervals of 1 min from t0, and 60 consecutive times were measured. Ten consecutive test values were recorded and recorded as t<sub>1</sub> ~ t<sub>10</sub>.

## 6. Computational Formula

$$\text{CADR } Q \text{ (m}^3 \text{/h)} = 60 \times (k_e - k_n) \times V$$

Where:  $k_e$  = total decay constant;  $k_n$  = Natural decay constant;  $V$  = volume of the test chamber, m<sup>3</sup>

**Test Results**

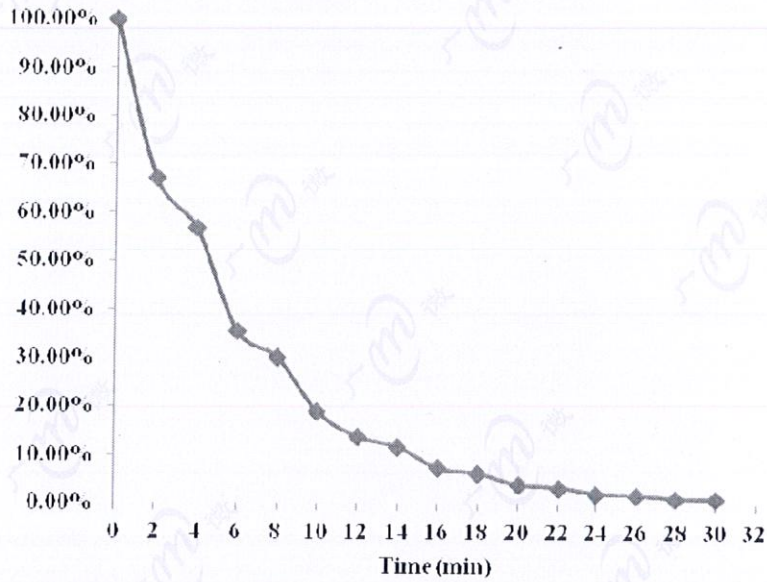
Number of Sample	Pollutant	Natural Decay	Total Decay	CADR	30min	60min
		Constant $k_n \text{ (min}^{-1}\text{)}$	Constant $k_e \text{ (min}^{-1}\text{)}$	$Q$ $\text{(m}^3\text{/h)}$	Removal Rate $\text{(}\%\text{)}$	Removal Rate $\text{(}\%\text{)}$
KJ20191664-1	PM <sub>0.1</sub>	0.0024	0.1611	286	99.06	99.99

\*\*\*To be continued\*\*\*

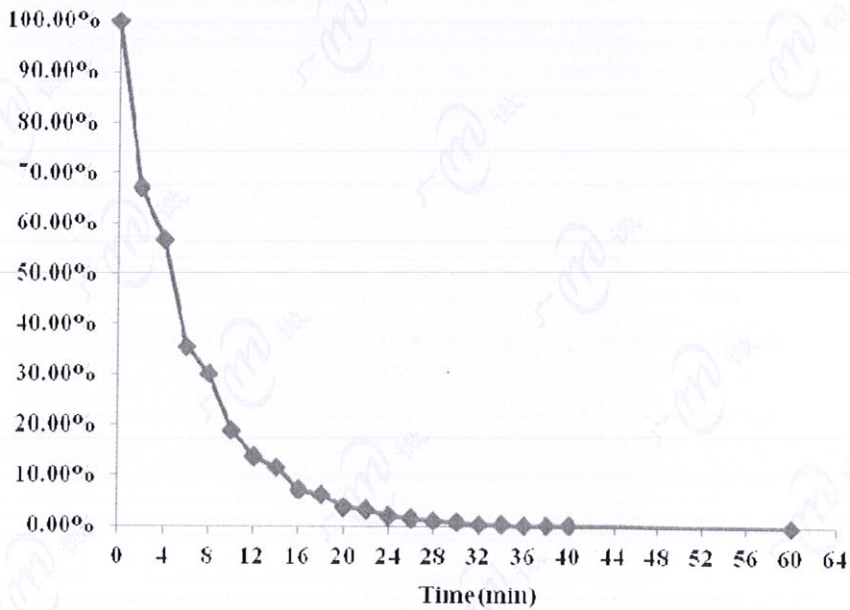
GUANG ZHOU INSTITUTE OF MICROBIOLOGY  
TEST REPORT

Date Received: Jul. 31, 2019  
Date Analyzed: Aug. 05, 2019

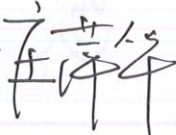

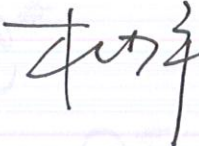
PM<sub>0.1</sub> Removal Rate Change Curve within 30 min



PM<sub>0.1</sub> Removal Rate Change Curve within 60 min



\*\*\* End of report\*\*\*

Editor  Checker  Issuer  Date Reported 2019.8



## Statements

1. The report would be invalid under the following conditions: altered, added, deleted, copied, without the special seal for inspection or signatures by approver.
2. For the received sample, the sample information in the report is claimed by the applicant, the inspection unit is not responsible for its authenticity. The report is responsibility for the received sample only.
3. If there is any objection to the inspection report, it should be presented to the inspection unit within 15 working days from the issuance date, otherwise the report shall be deemed as having been accepted. Microbiological item is not subjected to retest.
4. The report and the name of the inspection unit shall not be used for product labels, advertisements, awards and merchandise publicity. .
5. The items marked with “\*” in the report are not accredited by CNAS or CMA, The items marked with “#” are accredited by CNAS, The items marked with “+” are accredited by CMA.
6. The test data and results of items which are not accredited by CMA, only used as scientific research, teaching or internal quality control.
7. Any ambiguity by the language which used in the report, the Chinese shall prevail.



*Contact Address, NO.1Jiantashan Road, Huangpu District, Guangzhou City, Guangdong Province*

*Test Address, (only fill in when it's different from the contact address)*

*Postal Code, 510663*

*Tel., (8620)61302671*

*URL, <http://www.ggtest.com.cn>*