

# 广州市微生物研究所有限公司GUANG ZHOU INSTITUTE OF MICROBIOLOGY CO., LTD.

## 检测报告 TEST REPORT

Report Number

QX20210518

Name of Sample

UVC Air Disinfection Unit

Applicant

Signify Luminaires (Shanghai) Co.,

**加州区内**2/11年







## TEST REPORT

Date Received: Jul. 26, 2021 Date Analyzed: Aug. 03, 2021

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Name of Sample	UVC Air Disinfection Unit	Source of Sample	Delivery	
Applicant	Signify Luminaires (Shanghai) Co., Ltd.	Client	Kang Yangying	
Manufacturer	Zhejiang Howell Illuminating Technology Co., Ltd.	Brand	(	
Type and Specification	UVCA110	Quantity of Sample	1PC	
Date of Production	2021.05.28	State of Sample	Machine	
Batch Number		Packing of Sample	In box	
Standard and Methods	<ol> <li>GB 28235-2020 Hygienic requirements</li> <li><technical disinfection="" for="" standard="">test</technical></li> </ol>		and the	
Items of Analysis	<ol> <li>Ultraviolet Leakage</li> <li>Ozone Leakage</li> <li>Field Test (Natural bacteria in air)</li> </ol>	30		
-0	Applicant Address: 2F,Building 1, No.2	2555, Hechuan Road	, Minhang District,	
Remarks	Shanghai; Manufacturer Address: No.1228 Tanjialing West Road, Lanjiang Street			
	Yuyao, Ningbo, Zhejiang, China.	5	21X-1	

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









## **TEST REPORT**

Date Received: Jul. 26, 2021 Date Analyzed: Aug. 03, 2021

## Method for Testing Ultraviolet Leakage:

Test Equipment

Model ST-512 ultraviolet radiometer, sensibility: 1µW/cm<sup>2</sup>

2. Operation Conditions of the Machine

Set the switch to position "The highest wind speed".

- 3. Test Procedures
  - 1) Test the background concentration.
  - 2) Open the sample, and after stabilization, measure its irradiance with UV illuminometer at 30cm from the periphery of the sterilizer.

### Test Results

Number of Sample	Items	Units	Results	Standard Request (GB 28235-2020)	
QX20210518-1	Ultraviolet Leakage	μW/cm <sup>2</sup>	<1	≤50 11	

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







## TEST REPORT

Date Received: Jul. 26, 2021 Date Analyzed: Aug. 03, 2021

## Method for Testing Ozone Leakage:

1. Test Equipment

Confined space (20 m<sup>3</sup>), Ozone Analyzer

2. Operation Conditions of the Machine

Set the switch to position "The highest wind speed".

- 3. Test Procedures
  - 1) Put the test sample into a 20 m<sup>3</sup> confined space.
  - 2) Test the background concentration.
  - 3) After turning on the machine, test the ozone concentration 1.5 m above the ground as required by the standard. The measurement time is 1 h, and the results are averaged.

#### **Test Results**

Number of Sample	Items	Units	Results	Standard Request (GB 28235-2020)
QX20210518-1	Ozone Leakage	mg/m³	<0.003	≤0.1

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







## **TEST REPORT**

Date Received: Jul. 26, 2021 Date Analyzed: Aug. 03, 2021

#### Method for Testing Air Disinfection:

- 1. Test Equipment:
  - 1) Culture media: NA
  - 2) Sampling equipment: six-stage sieve sampler
  - 3) Test space: 20 m<sup>3</sup>
- 2. Operation Conditions of the Machine

Set the switch to position "The highest wind speed".

- 3. Test Procedure
  - 1) The equipment is placed in the test space, close the door, and collect natural bacteria by six-stage sieve sampler, as the bacterial count before disinfection.
  - 2) Start the air disinfection and shut it down after running for 120 min. The natural bacteria are collected by six-stage sieve sampler, as the bacterial count after disinfection.
  - 3) In sampling, place the sampling equipment in the center of test chamber at the height 1.0 meter. The sampling flow was 28.3L/min.
  - 4) Choose 2 NA plates (the same batch) as the negative control, and culture them on the same condition as the samples.
  - 5) The tests repeat three times, and calculate the death rate respectively.
- 4. Death Rate  $K_i(\%) = \frac{V_0 V_i}{V_0} \times 100$

where:  $V_0$  = The Average Bacterial Count in Air before Disinfection;

 $V_t$  = The Average Bacterial Count in Air after Disinfection.

#### Test results

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Number of Sample	Test Time (min)	Test Number	The Average Bacterial Count in Air before Disinfection $V_0$ (cfu/m $^3$ )	The Average Bacterial Count in Air after Disinfection $V_t$ (cfu/m <sup>3</sup> )	Death Rate $K_t$ (%)
N	3	1	2.86×10³	1.63×10 <sup>2</sup>	94.30
QX20210518-1	120	2	2.51×10 <sup>3</sup>	1.27×10 <sup>2</sup>	94.94
	-	3	2.93×10 <sup>3</sup>	1.55×10 <sup>2</sup>	94.71

Note: No microorganisms grew in the negative control group.

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

Editor

郑苘

Issuer



Date Reported









## 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 responsible 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 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.
- 5. The test data and results of items which are not accredited by CMA, only can be used as scientific research, teaching or internal quality control.

6. Any ambiguity by the language which used in the report, the Chinese shall prevail.

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