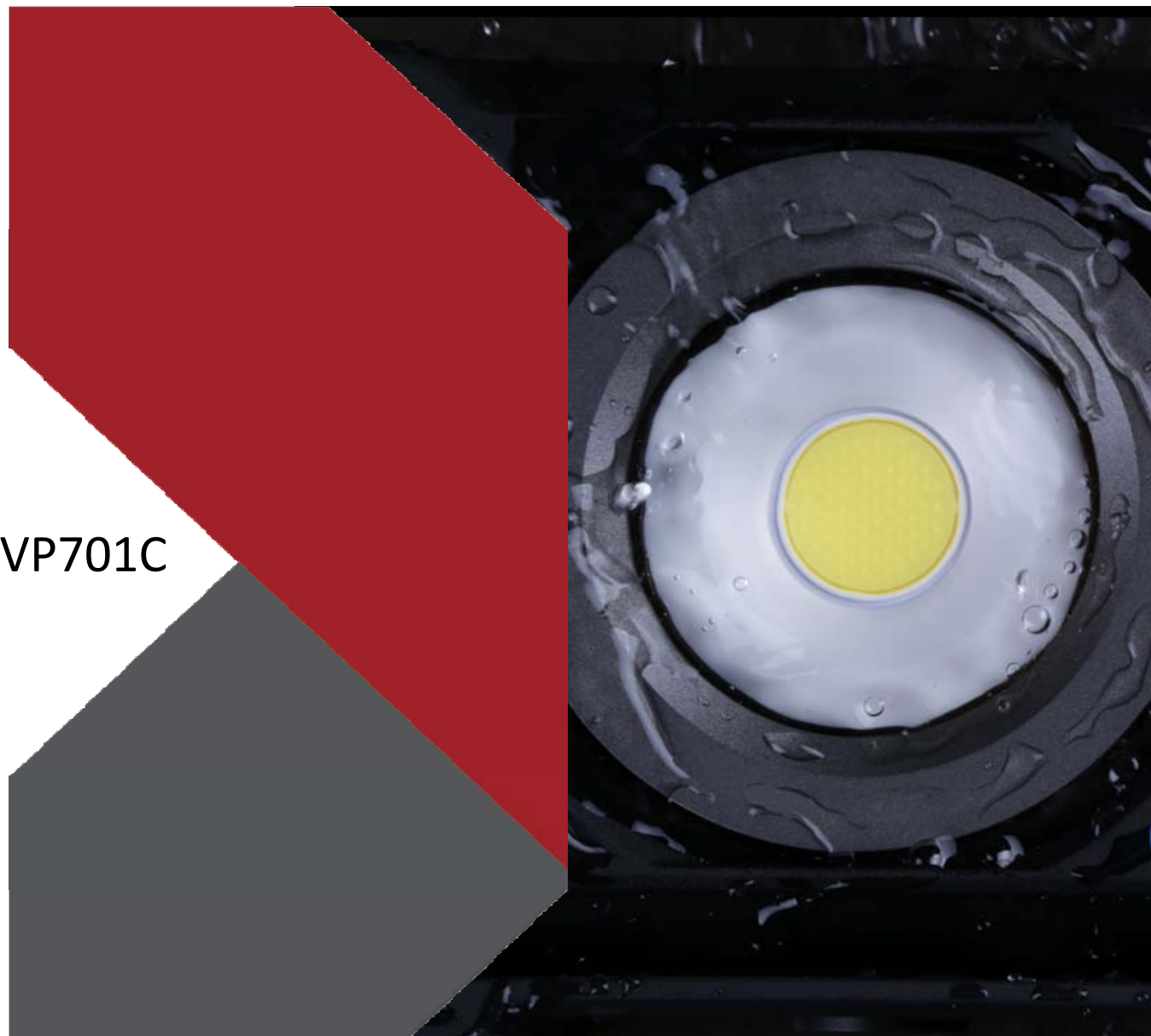




Microbiology Analysis Report for UVP701C

2020-06-02
AEC Microbiology Lab



Report No.: 2020sp0028R02E

Test Completion Date: 2020-5-28~2020-6-1

Tester: Li Mingming

Test standard and Method: Technical Standard for
Disinfection(Ministry of Health, Edition2002),section202.2.1.4, etc.

Name of Sample: Professional Intelligent UV & Ozone Generator

Model of Sample: UVP701C

Test Equipment : Bacterial turbidimeter、 Culture Dish、 Glass Slide、
Alcohol Burner、 Burette、 Inoculating Loop、 Thermostatic Incubator



Sample :

Name of Sample: Professional Intelligent UV & Ozone Generator

Model of Sample: UVP701C

Specification of Sample: AC220V 50Hz, Ozone Power: 350w
UV Power: 120W

The environment at testing:

Environment Temperature: 25°C

Environment relatively humidity:66%

Room Size: 10m³

Ozone Concentration :60mg/m³(28ppm)

UVC Radiated Power : 2.34mW/cm² (1m)

Test Item :

Inactivation rate of Bacillus subtilis.

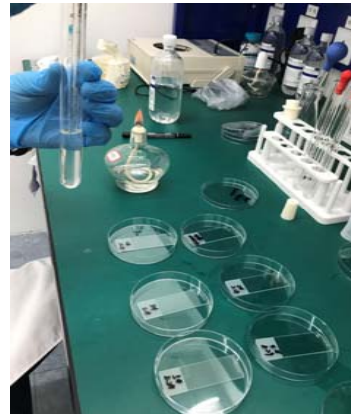
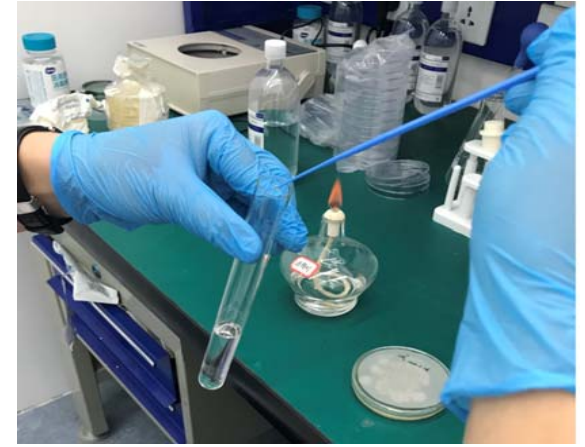
Neutralizer identification test:

- 1、 First, the 10m³ test room was sterilized comprehensively ;
- 2、 The prepared bacillus slides are arranged in four corners of the test room ;
- 3、 The ozone mode of UVP701C was used for the sterilization test in the test room with good layout. The test time was 90min, Statistical bactericidal ratio
- 4、 Repeat steps 1 to 2, Sterilize the test room for 10 minutes using UVP701C uv mode, Statistical bactericidal ratio



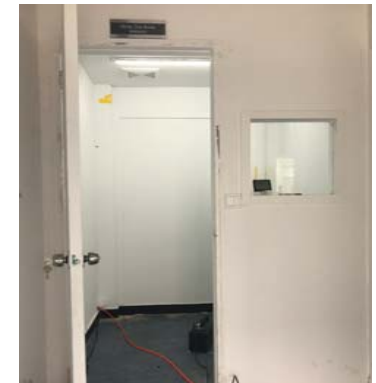
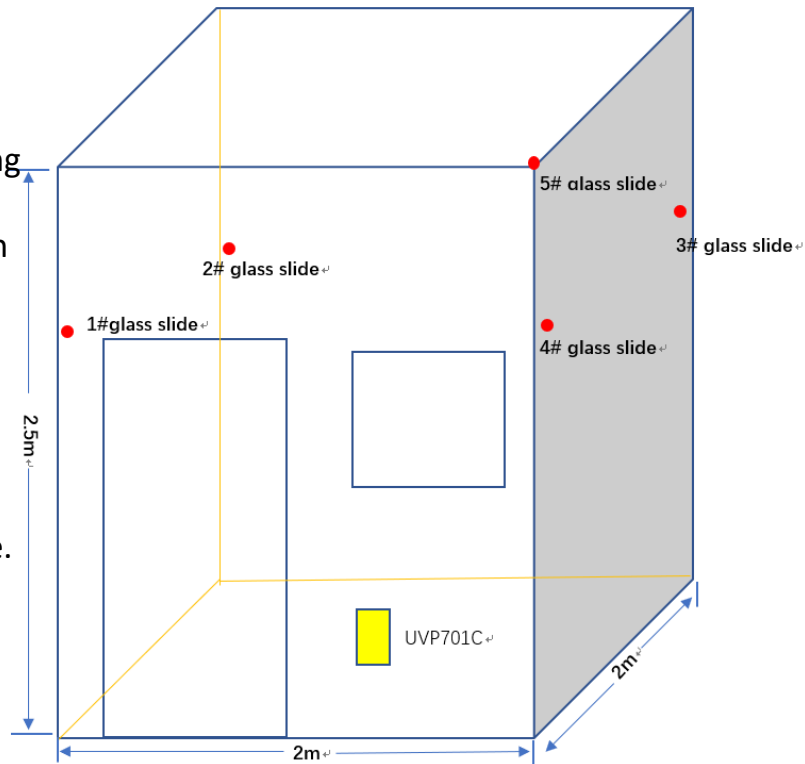
Test preparation: Bacterial culture and calculation

1. Test all tools that need to be used before testing sterilize ;
2. An appropriate amount of *Bacillus subtilis* was taken, diluted in 5ml normal saline, and recorded with bacterial turbidity meter;
3. The diluted *Bacillus subtilis* was removed with a dropper and dropped into the center of 6 sterilized slides. The slides were dried in a sterile environment;
4. Among them, 1 tablet was placed in an incubator for further culture, and 5 tablets were subjected to sterilization test in a 10m³ reagent room.



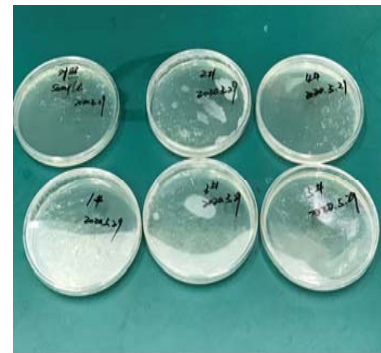
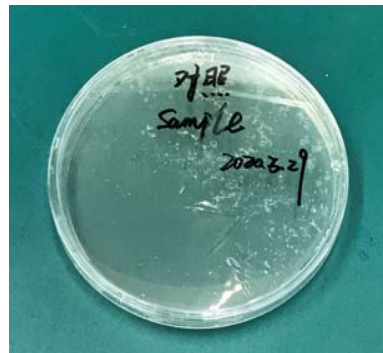
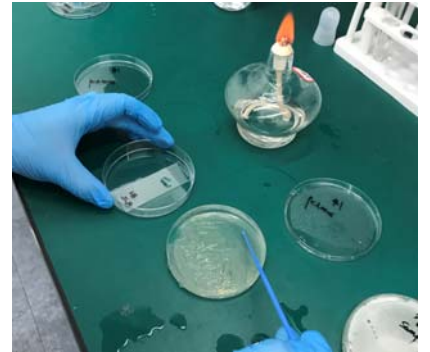
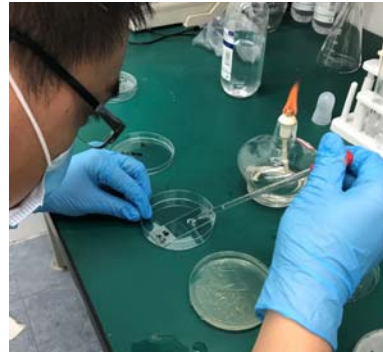
Description of bactericidal tests:

1. The test room shall be arranged with glass slides containing bacteria, as shown in the right picture;
2. Place the test sample (UVP701C) as shown in the figure on the right
3. Turn on the instrument ozone mode and set the working time of 90min;
4. After the equipment is finished, stand still for 30 minutes and take out 5 slides
5. Repeat steps 1, 2, and 4 to test the UVC sterilization mode.



Test process: sterilization effect test

1. The bacteria on the 5 sterilized slides and the 5 unsterilized slides were diluted with normal saline;
2. The inoculation rings of saline on 6 slides were used one by one and transferred into sterile petri dishes with corresponding Numbers
3. Record the date and corresponding number
4. Culture in a sterile environment at 36°C for 72h



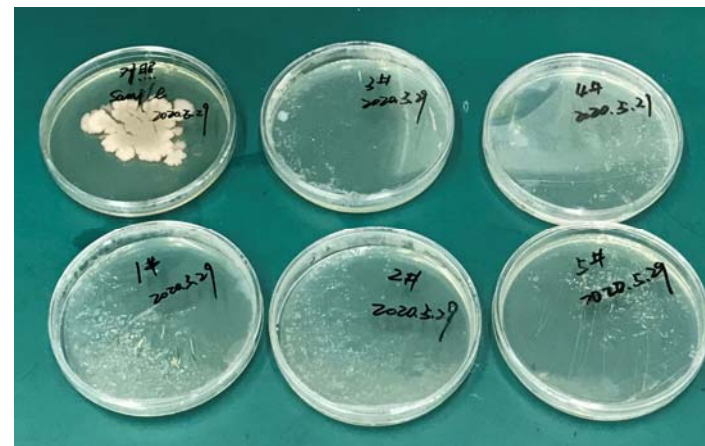
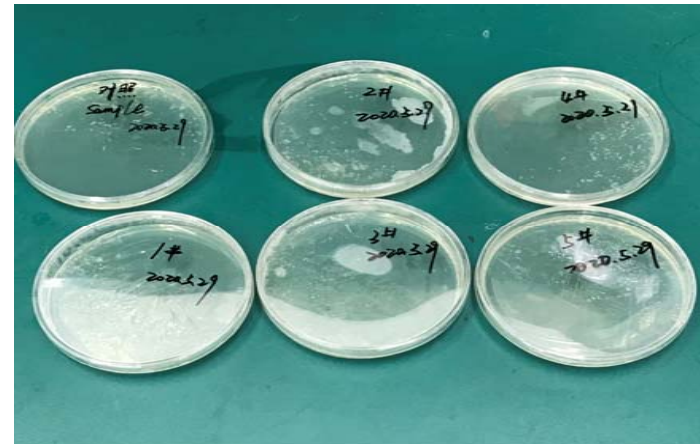
Test process: Test results

1. After 72 hours, compare the petri dishes of samples (not sterilized) and 5 petri dishes after sterilization (as shown in the figure below); The bacteria in the sample petri dish grew normally, but no bacteria production was observed in the sterilized petri dish.

2. After the step dilution culture, the bacteria turbidity meter was used for statistics, and the bactericidal rate was over 99%

Test conclusion:

The ozone of the intelligent ULTRAVIOLET ozone generator can kill 99% bacillus subtilis in every corner after working for 90 minutes in a 10m confined space and testing time of ultraviolet lamp for 10 minutes.



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