



Report NO. : M61-200700191ENR01  
 (Replace the original report of: M61-200700191EN )



# TEST REPORT

## SUPERLAB TESTING CENTER

### CUSTOMER

SHARLIGHT ELECTRONICS CO., LTD  
 2F., NO.26, LANE,54, ZHONGZHENG ROAD., HSIN TIEN DIST., NEW TAIPEI CITY,  
 TAIWAN, R.O.C

Sample name : UVC LED Sanitizer Box  
 Manufacturer : SHARLIGHT ELECTRONICS CO.,LTD  
 Manufacture Date : 2020.Jun  
 Lot number : BIORAYTRON UVC LED Sample  
 Condition : Room Temperature Sample delivering : By  
 applicant Contact Person : QA Dept.

Sample expiry Date : -  
 Country of origin : Taiwan  
 Test sample packaging : Loose Packaging  
 Number of Samples : 1 Piece  
 Report purpose : Function Test

----- The sample information provided above was confirmed by the customer -----

Sample Received : 2020/07/02                      Date of Testing : 2020/07/08                      Date of Report : 2020/08/11

Item (s)	Result (s)	Unit	Method	LOQ / LOD
Bactericidal Activities : <i>Escherichia coli</i>	>99.999	%	Refer to Japanese Industrial Standard (JIS) Z 2801 (2012) Antibacterial products - Test for antibacterial activity and efficacy.	—

----- Null below -----

Remark (s) :

- This report is used only for providing the testing results of commissioned items, not for determining the legality of the product.
- Bactericidal Activities: Please see the test appendix for detailed inspection results.
- Unsealed sample.
- Please note if the tests do not involve sampling, then the test report is only responsible for the test sample provided by the customer. And the report is invalid if not presented in full and for reference only; it shall not be used for advertising, sales promotions, or notarial purposes. Also, when the target is below the limit of detection (LOD) or the limit of quantification (LOQ), the test results will be expressed as "Negative" or "ND" (Not detected).

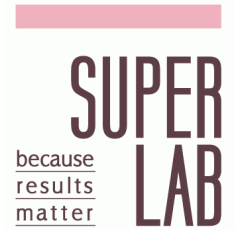


*Yueh-ting Tsai*

Yueh-ting Tsai, Ph. D.  
 Approval Signatory



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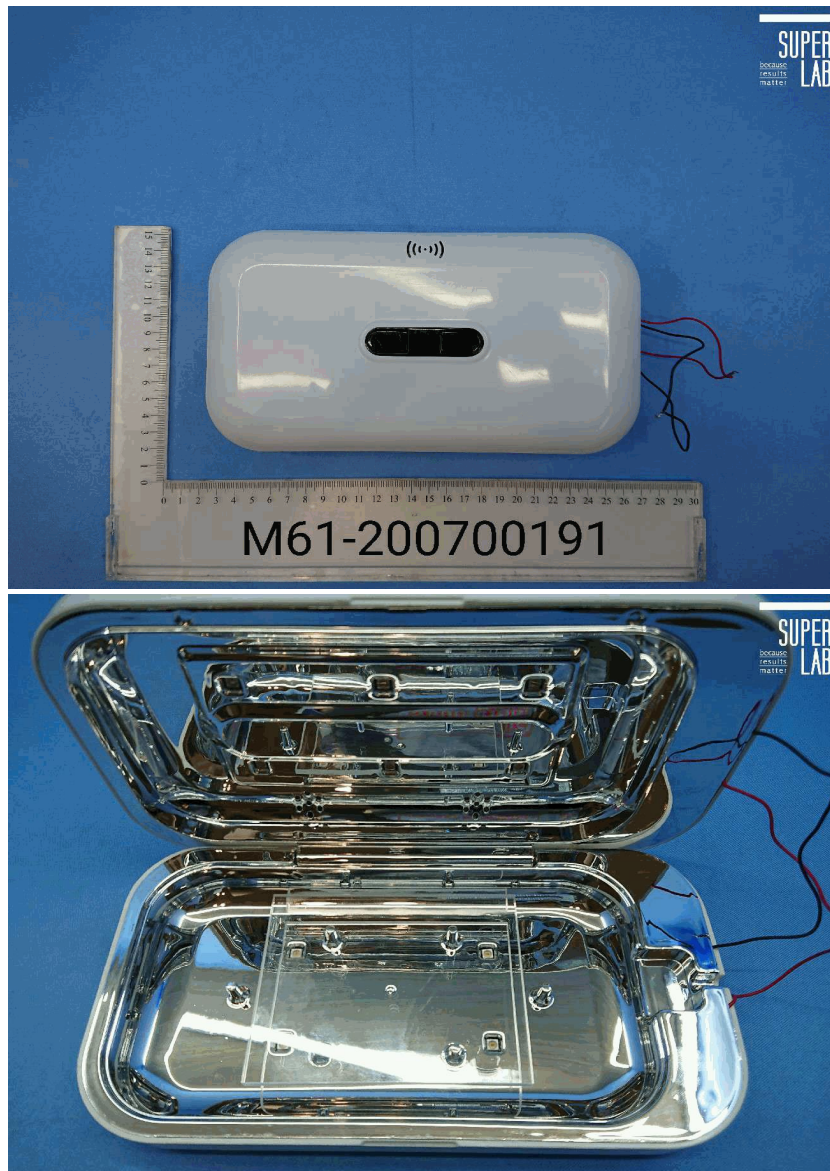
SHARLIGHT ELECTRONICS CO., LTD  
 2F., NO.26, LANE,54, ZHONGZHENG ROAD., HSIN TIEN DIST., NEW TAIPEI CITY,  
 TAIWAN, R.O.C

Page 2 of 2

Sample name : UVC LED Sanitizer Box  
 Sample Condition : Room Temperature  
 Sample Received : 2020/07/02

Date of Testing : 2020/07/08

Date of Report : 2020/08/11



*Yueh-ting Tsai*

Yueh-ting Tsai, Ph. D.  
 Approval Signatory



## Appendix

1. Specimen I.D: M61-200700191
2. Test method:
  - 2.1 Test strains: *Escherichia coli*, ATCC 8739.
  - 2.2 Test condition:  $25 \pm 2^{\circ}\text{C}$  for 90 seconds.
  - 2.3 Culture condition:  $35 \pm 2^{\circ}\text{C}$  for  $48 \pm 2$  hours.
  - 2.4 Reference: refer to JIS Z2801:2012.
  - 2.5 Grouping:
    - 2.5.1 Test group: Test substances provided by customers.
    - 2.5.2 Control group: Non-antibacterial and non-bactericidal test piece (No light treatment).
  - 2.6 Prepare the suspension of test bacteria, and the concentration is around  $10^5 \sim 10^6$  CFU/mL.
  - 2.7 Add 0.4 mL of bacteria suspension to test and control group.
  - 2.8 The test group placed in the test substance and operate 90 seconds.
  - 2.9 Incubate control group at  $25 \pm 2^{\circ}\text{C}$  for 90 seconds (The control group does not illuminate the light source).
  - 2.10 The test and control group were conducted for 10-fold serial dilution with sterile 9.6 mL saline.
  - 2.11 After serial dilution, each group was inoculated on appropriate medium. The medium was cultured under the test condition. The growth was observed and colony counts were recorded.
  - 2.12 Calculation:

$$\text{Reduction rate (\%)} = \frac{(\text{Control group} - \text{Test group})}{\text{Control group}} \times 100\%$$



## Appendix

### 3. Result:



Figure 1: Test article.

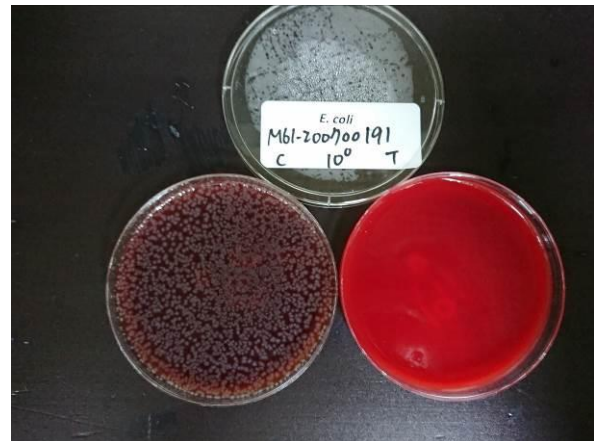


Figure 2: Result of control and test group against *E. coli* for 90 seconds

**Table 1. Result of test article (M61-200700191) against *E. coli* for 90 seconds.**

Test strain	Inoculated concentration (CFU/mL)	The residual amount of bacteria (CFU/mL)		Rate (%)
		Control group	Test group	
<i>E. coli</i>	$3.8 \times 10^5$	$2.7 \times 10^4$	<5	>99.999