



Japan
Food
Research
Laboratories

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Study Report

Requestor RAYCOP JAPAN INC.

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Japan Food Research Laboratories
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Test object RAYCOP RE-100

Title Bactericidal Effect Test

This is a report on test results obtained from the above test object submitted to Japan Food Research Laboratories (JFRL) on January 28, 2015.

Please follow the JFLR post terms when using this report.

Abstract of Test

RAYCOP has requested Japan Food Research Laboratory to conduct a test on its Lite Purifier to demonstrate the effectiveness of the device on various forms of bacteria, including *Escherichia Coli* (commonly referred to as E-Coli) as well as *Staphylococcus aureus*. These are some of the most commonly found bacteria in households, and is typically brought back home from public places including schools, gyms, public transportation, etc. The test was conducted on a typical fabric surface and showed that with approximately 2 seconds of exposure, Raycop Lite was able to eliminate over 98% of E-Coli bacteria, and over 96% of *Staphylococcus aureus*.

Table 1-1 Viable cell count of the sample (Raycop Lite with UV Lamp on)

Test strain	Category	Exposed time	Viable cell count (/sample)
<i>Escherichia coli</i>	Before exposure	-	4.2×10^5
	After exposure to the test object*	Approximately 2 seconds	6.9×10^3
		Approximately 5 seconds	1.2×10^4
		Approximately 10 seconds	30
<i>Staphylococcus aureus</i>	Before exposure	-	8.9×10^5
	After exposure to the test object*	Approximately 2 seconds	2.9×10^4
		Approximately 5 seconds	2.8×10^2
		Approximately 10 seconds	<10

<10: Not detected

* The sample was exposed to the test object with UV lamp turned on. The test object was firmly pressed right above the sample.



Photo 1 *Escherichia coli*

Before exposure
(washing fluid 1 mL)



Photo 2 *Escherichia coli*

After exposure to the test object approximately 2 seconds
(washing fluid 1 mL)



Photo 3 *Escherichia coli*

After exposure to the test object approximately 5 seconds
(washing fluid 1 mL)



Photo 4 *Escherichia coli*

After exposure to the test object approximately 10 seconds
(washing fluid 1 mL)

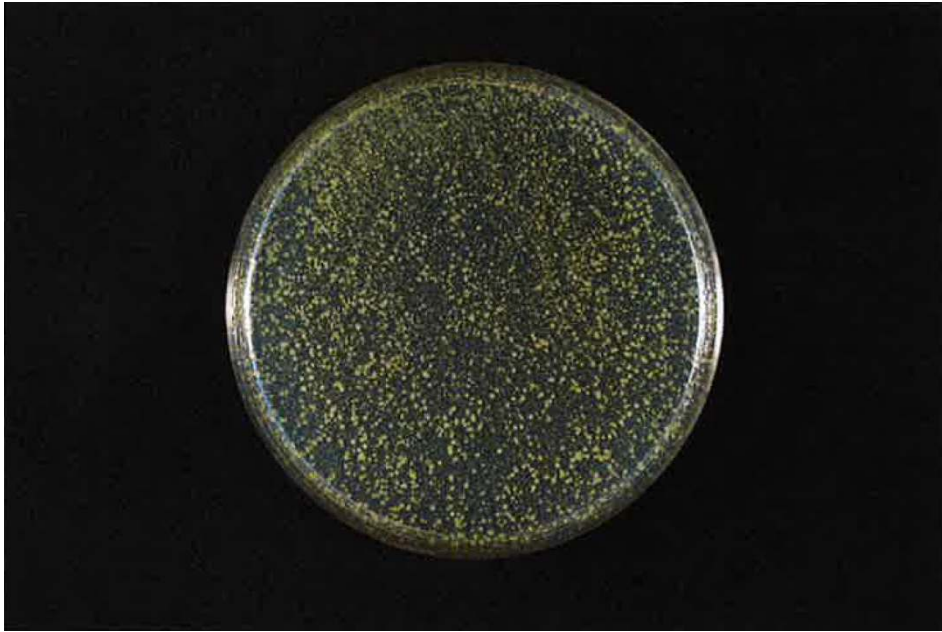


Photo 5 *Staphylococcus aureus*
Before exposure
(washing fluid 1 mL)



Photo 6 *Staphylococcus aureus*
After exposure to the test object approximately 2 seconds
(washing fluid 1 mL)



Photo 7 *Staphylococcus aureus*
After exposure to the test object approximately 5 seconds
(washing fluid 1 mL)



Photo 8 *Staphylococcus aureus*
After exposure to the test object approximately 10 seconds
(washing fluid 1 mL)