

EYPEX CORPORATION

EFFICACY TEST REPORT

SCOPE OF WORK

Non-standardized Test Method: Microbial Reduction Rate Test

PRODUCT – Transit UV Lamp

MODEL – E20031-101-AA

REPORT NUMBER

104696206COL-001

ISSUE DATE

June 15, 2021

REVISION DATE

June, 24, 2021

PAGES 5

DOCUMENT CONTROL NUMBER

GFT-OP-10h (6-July-2017)

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SECTION 1 EFFICACY STUDY SUMMARY

Client		Eypex Corporation 2631 Superior Ct Auburn Hills, MI 48326-4313
Project No.		G104696206
Sample	Product	Transit UV Lamp
	Model	E20031-101-AA
Procedural	Engineer	Leta Myers
	Reviewer	Nicholas Unger
	Dates Tested	6/9/21 – 6/10/21
	Report Date	6/15/21
Standard	Non-standardized Test Method: Microbial Reduction Rate Test	
Testing Facility	Intertek Microbiological Laboratory 1717 Arlingate Ln. Columbus, OH 43228 United States	

SECTION 2 TEST PROCEDURE

In the test chamber, four UV lamps were placed on opposite walls 7 feet high from the floor and 5 feet apart at a 45-degree angle. The test chamber measured 1000 cubic ft room and a microbial suspension was aspirated into the chamber. Air samples were taken from the test chamber once the unit was turned on and sampling was taken every 15 minutes over a period of 2 hours and then plated. All plates were incubated overnight and viral growth on the test plate was compared to that of the natural decay control. A fan was placed into the room with a approximate CFM rating of 1600.

Air sampling took place using an SKC BioStage Single-stage impactor for 30 seconds at 12L/min (.424 cubic feet/min). Results below represent the percent reduction at 120 minutes.

SECTION 3 ORGANISMS

Organism Name	Organism Type	ATCC Number	Source
Phi X174 bacteriophage	small, non-enveloped virus	13706-B1	Carolina Bioscience

SECTION 3 EQUIPMENT

Equipment Type	Equipment No.	Calibration Due Date
Micropipette	CE 2587	6/2/2022
Incubator	CE 2381	7/7/2021
Incubator	CE2427	7/7/2021
Balance	CE 1882	7/7/2021
Autoclave	CE 2376	Verify Before Use
Centrifuge	CE 2382	For Reference Only
Chamber	CE 1149	For Reference Only
Collision Nebulizer	CE 1139	For Reference Only
Refrigerator	CE 1157	For Reference Only
Pump	CE 1137	For Reference Only
Stopwatch	SW015	01/25/2022
Ambient Temperature/RH	CE 1179	For Reference Only

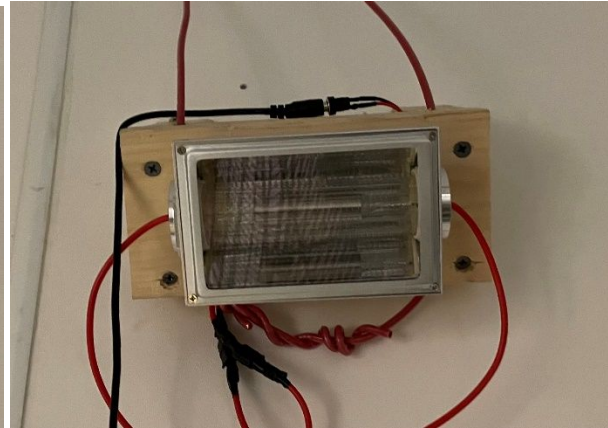
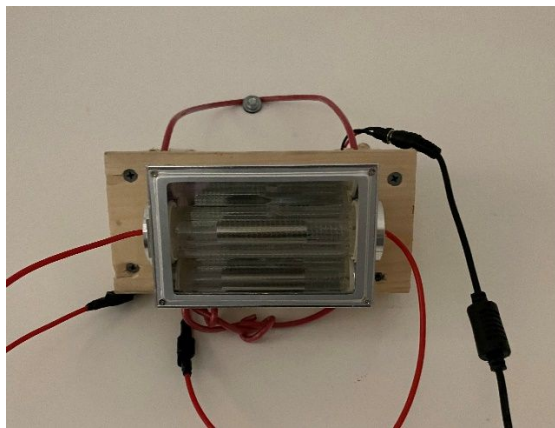
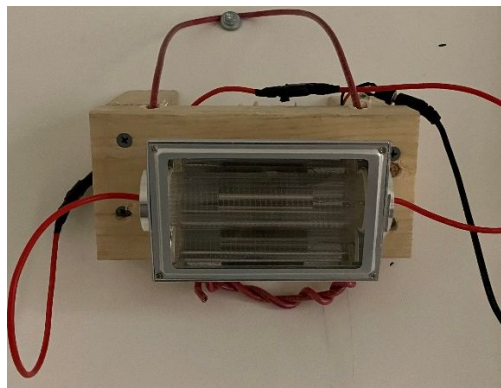
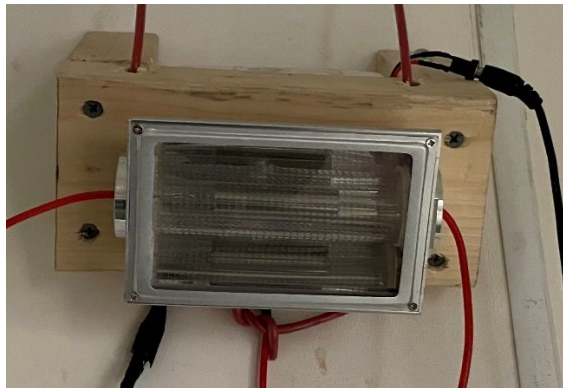
SECTION 4 MEDIA AND REAGENTS

Type	Manufacturer	Lot No	Expiration Date
Nutrient Agar	DIFCO	9346039	10/31/2024
Potato Dextrose Agar	DIFCO	9311217	10/31/2024
PBS	Fisher	192736	08/01/2022

SECTION 5 SAMPLE ACQUISITION

Acquisition method	Shipped to Intertek
Description	Transit UV Lamp
Model Number	E20031-101-AA
Arrival date	5-21-21
Condition	New
Sample Identification No.	COL2105210948-001
Development Level	Production

SECTION 6 SUMMARY OF RESULTS



Date / Project Number	Engineer / Reviewer	Pages	Description of Change
6/24/21 G104708919	L. Myers <i>Lm</i> N. Unger <i>NTU</i>	All	<ul style="list-style-type: none"> Added test results data table

Organism Type	Virus
Temperature Min/Max	21°C (69.8°F)
Humidity Min/Max	63% RH
Organism Name	<i>Phi-X174</i>
Percent Reduction	99.9%

ANTIMIROBIAL EFFICACY TEST REPORT

EYPEX CORPORATION
Report No.: 104696206COL-001

Completed by:	Leta Myers	Reviewed by:	Nicholas Unger
Title:	Microbiology Tech I	Title:	Staff Engineer
Signature:	<i>Signature on file</i>	Signature	<i>Signature on file</i>
Date	21-June-2021	Date:	21-June-2021

Annex A Test Results:

Test Parameter		Test Result	Natural Decay Result	Units
Organism	Species	<i>Coliphage φX174</i>		---
	ATCC No.	13706-B1		---
	Challenge Concentration	5.0 x 10 ⁹		PFU/mL
Samples (15min.)	0	TNTC (2628)	TNTC (2628)	PFU
	15	105	TNTC (2628)	PFU
	30	11	TNTC (2628)	PFU
	45	10	TNTC (2628)	PFU
	60	10	TNTC (2628)	PFU
	75	5	TNTC (2628)	PFU
	90	5	TNTC (2628)	PFU
	105	2	TNTC (2628)	PFU
	120	1	TNTC (2628)	PFU
Results	--	99.9%		Reduction

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