

TEST REPORT

EV Lighting Sdn Bhd

Lot3508, Jalan Cyber 14,
Kawasan Perindustrian Senai IV
81400 Senai, Johor, Malaysia

Certificate No.	:	JB/ASL/M2203/0409-0415
Date Sample Received	:	21 March 2022
Date Sample Analyzed	:	21 March 2022
Date Sample Reported	:	21 March – 26 March 2022

1.0 TEST SUBSTANCES INFORMATION

Brand : EV Sun Germicidal Lamp (Power by EDGE ENERGIA)
Sample name : Germicidal Lamp
Type of sampling : Airborne Microbiological Sampling
Condition of room tested : Temp: 24 °C, RH: 60 %
Exposed time : 30 minutes, 1 hour, 3 hours, 6 hours, 24 hours
Incubation temperature : 35°C for 48 hours; 25°C for 5 days.
Media : Tryptic Soy Agar; Malt Extract Agar

2.0 PURPOSE

To determine the antimicrobial effectiveness of one (1) EV Sun Germicidal Lamp in 30 minutes, 1 hour, 3 hours, 6 hours and 24 hours exposure time. The data was compared before the sample is switch on.

3.0 TEST METHOD

NMAM 0800 method

4.0 MICROORGANISMS

Not Applicable

5.0 METHOD SUMMARY

Microbial pre-air sampling has been carried out before the EV Sun Germicidal Lamp was installed in a unsterilized store room at Astar Laboratory Sdn Bhd to act as control. Tryptic Soy Agar and Malt Extract Agar has been used as a sampling media. Air sampling was taken at 2 minutes per sample with 100L/min air flow rate. The post-air sampling was conducted after the Germicidal Lamp was switched on for 30 minutes, 1 hour, 3 hours, 6 hours and 24 hours exposure time. The result has been recorded as Figure 1.

6.0 RESULTS

Percentage reduction of bacteria (%) = $\frac{(B-A)}{B} \times 100\%$

B = the number of bacteria before the lamp is on.

A = the number of bacteria after the germicidal lamp is on.

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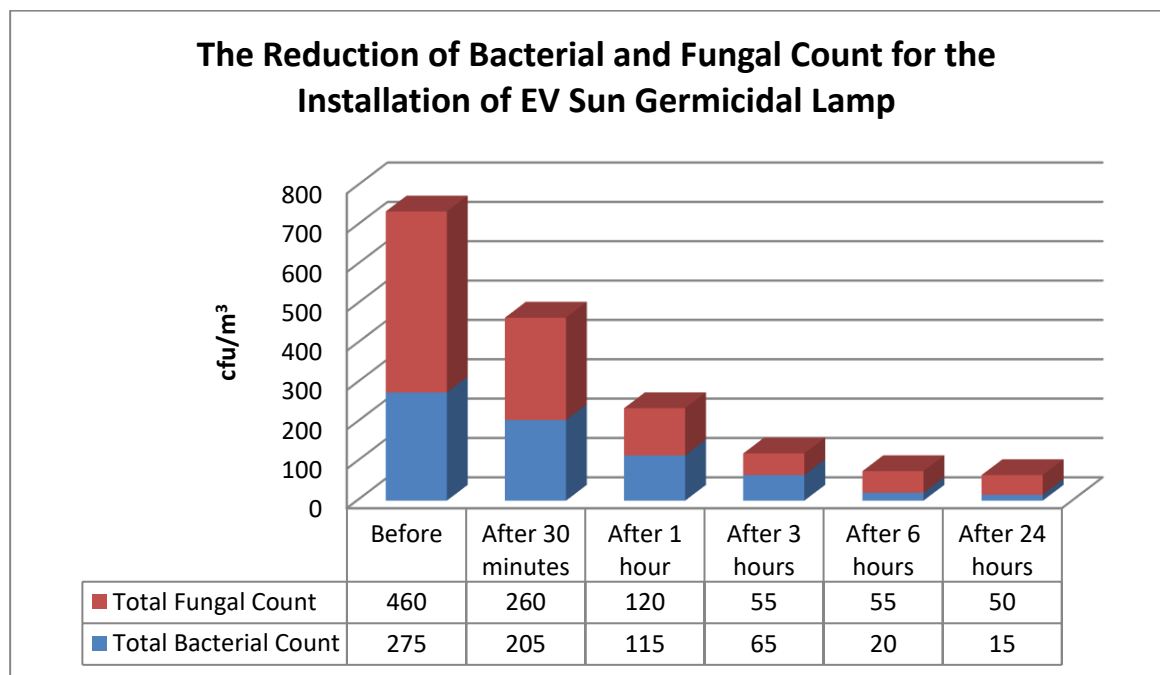
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Parameter	Control (cfu/m ³)	Exposed Time	Result (cfu/m ³)	% Reduction
Total Bacterial Count	275	at "30 minute"	205	25.45 %
		at "1 hour"	115	58.18 %
		at "3 hours"	65	76.36 %
		at "6 hours"	20	92.73 %
		at "24 hours"	15	94.55 %
Total Fungal Count	460	at "30 minute"	260	43.48 %
		at "1 hour"	120	73.91 %
		at "3 hours"	55	88.04 %
		at "6 hours"	55	88.04 %
		at "24 hours"	50	89.13 %

Figure 1 shows the reduction sample for 30 minutes, 1 hour, 3 hours, 6 hours and 24 hours exposure time.

7.0 CONCLUSION

Based on the microbial air sampling results in Figure 1 obtained, the reduction of total bacterial count and total fungal count reached at >90% and >80% after the EV Sun Germicidal Lamp was switched continuously for 24 hours. It shall be noted that the microbial results are very much subjected to environmental conditions such as housekeeping, area cleanliness, air movement, area temperature and humidity at the time of sampling.



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SAMPLE DESCRIPTION



Figure 2: Installation of EV Sun germicidal lamp at store room.

End of Report

- Disclaimers:**
- 1) Opinion and Interpretation expressed herein are outside the scope of SAMM accreditation. This report relates specifically to the sample(s) that were drawn and / or provided by Client or their nominated third party solely for testing.
 - 2) Samples information and preparation was/were submitted and confirmed by Client. Astar Laboratory Sdn Bhd assumes no responsibility to verify accuracy, adequacy and completeness of the sample information by Client.
- Remarks: TNTC (too numerous to count)
NG denote no growth
“<” denote less than

Nari



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