

OCTO PurePlace Building Certification



Client:

Octo Telematics SpA Via Lamaro, 51 00173 Rome, Italy

Test Certificate

Date: March 22th, 2021
Project number: 2021/1
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2021

Project / Test description

Verification of the effectiveness and efficiency of the Air For Life LUNA Sanifier (AFL®) incorporating Air For Life UK LTD proprietary technology AFLPCO® for Octo Telematics in sanitation of air inside a room.

Test sample identification

Air For Life LUNA sanifier Model LNT2-6000 S/N 3251000328

Test equipment / Test procedure

Test performed on big room (120 m²), according to the test procedure attached (annex A), using Petri dishes for environment characterization and samples collection in different testing points, and subsequent bacterial growth monitoring after 72 hours incubation.

Test results

Applying the system for the specified time (after 1 or 2 hours respectively), the bacterial load is progressively reduced to a bacteria colonies average ≤1 cfu after 60 minutes of sanitation for all the sampling points. These results indicate more than the grade B level in the European Union Good manufacturing Practice scale, meaning a quasi-aseptic ambient. The grade A for the aseptic conditions requires 0 colonies.

Released by:

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Annex A





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Analysis of Octo Telematics room device sanitization LUNA sanifier device

Sanitation experiments have been carried out in a rectangular room of approximately 120 m², in particular a space characterized by a mild usage. Not wanting to alter results, room has been not tide up or cleaned before the experiments to mimic the everyday real conditions. Tests batteries have been organized according to the following protocol:

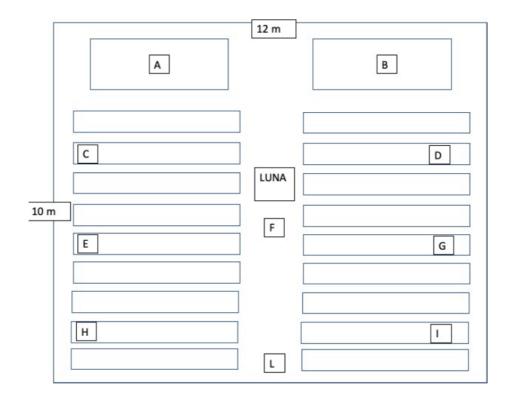
- 1. Ten sterile containers (Petri's dish), containing a solid support of non-selective feeding media in which bacteria can grow, were placed in five different points of the room, as showed in scheme 1. The points were selected in order to collect different points in the room having a full map of the device sanitizer capacity in working condition equal to the optimum range (100-150 m2). Points have been also chosen in pointing out the most critical areas of the environment. Especially, near a wide window, on the table, near the room door.
- 2. A sterile container with solid bacterial growth media was opened for 1 hour in the room to record the reference (control);
- 3. Sanitation of the environments with OCTO devices for the established time;
- 4. A second sterile container with bacterial growth media was opened in the room for 1 hour immediately after the end of the sanitization (time = 1 from sanitation)





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Scheme 1: Letters show sampling points while OCTO device position is indicated as LUNA



All data sets have been analyzed at 72 hours, after exposure of Petri's dishes in the room environment, and a 22°C incubation, in order to have a significant and reliable growth of the bacterial colonies. The sanitization was carried out for 60 minutes keeping the door closed limiting people access. Another set of experiments have been conducted after these preliminary tests, for 120 minutes of sanitation. Tests after 60 minutes of sanitation show a very good results with an efficacy up to 90% in bacteria decreased.

Furthermore, the experimental setups ended up with less than 1 Colony Forming Units in all the sampling points, and therefore confirming the effectiveness and efficacy of the system.





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It has been noted that the results measured after 1 h indicates that at this time there is a very good level of sanitation, as indicating from the less or equal to 1 CFU for all sampling point, showing a quasi-sterile ambient.

Experimental data, even after 2 hours of sanitation, do not show an increasing efficacy in device activity against bacteria. It could be due to a very great low level already reached.

Thus, this data confirm the device efficacy in a very short time of usage: the bacterial load is almost completely eliminated immediately after only one hour of treatment.

Prof. Pierluca Galloni

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