

Fraunhofer

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Regiolux GmbH ADAMP 1200 11300 DALI **Report No. RE 2404-1517**

Statement of Qualification

Single product **Particle Emission**





Statement of Qualification • Single product

Regiolux GmbH Customer

Hellinger Strasse 3 97486 Königsberg

Germany

Component tested

Cleanroom Facilities Category:

Lighting Systems Subcategory

ADAMP/340-1200 LED 11300 940 DALI IP65 Product name:

(manufacturing date: 3/2024; color: traffic white; article number: 6212

4026 670; charge number: PO01)

Random sampling of particle emissions (airborne) at representative sites

Standards/Guidelines:

ISO 14644-1. -14

The norms stated generally refer to the version valid at the time of the tests.

Test devices:

Optical particle counter:

LasAir II 110 and LasAir III 110 with measuring ranges $\geq 0.1 \,\mu\text{m}$, $\geq 0.2 \,\mu\text{m}$, \geq 0.3 μ m, \geq 0.5 μ m, \geq 1.0 μ m and \geq 5.0 μ m

Test environment parameters:

 Airflow pattern:.....vertical laminar flow

• Relative humidity: 45 % ± 5 %

Test procedure parameters:

The luminaire was subjected to stress as follows:

• Oscillation velocity (Ø): v = 1.9167 mm/s

• Deflection of the system (Ø):......s = 0.0809 mm

Test result/Classification

When operated under the specified test conditions, the luminaire ADAMP/340-1200 LED 11300 940 DALI IP65 is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Class according to ISO 14644-1:

| Test parameter(s) | Air Cleanlines Class |
|---------------------------------------|----------------------|
| Structure-borne noise = approx. 50 Hz | 1 |
| Overall result | |

It should be noted that cleanrooms of class 1 to 5 according to ISO 14644-1 have a higher filter occupancy, which may restrict the use of panel lighting systems. Cleanrooms with a horizontal displacement flow form an exception

The test result may be affected by the surrounding ceiling system, in particular the material pairing between lights and ceiling frames, as well as other mounting accessories. Particle emission behavior should be reassessed in each assembly situation.

Please note: Transport damages, incorrect installation, aging behavior, corrosion etc. can influence the test result.

The measuring devices used for the qualification tests are calibrated at regular intervals; their results can be traced back to national and international standards. In cases where no national standards exist, the test procedure implemented complies with the technical regulations and norms applicable at the time of the test. The relevant documentation can be viewed on request at any time.

Detailed information and parameters of the test environment can be found in the Fraunhofer IPA test report.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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