

Fraunhofer TESTED DEVICE Zumtobel Lighting GmbH INDUSTRY RECESSED

Product series Particle Emission in Cleanroom (atmospheric)

This document only applies to the named product in its original state and is valid for a period of 5 years from the date the first document was issued. The document can be verified under www.tested-device.com.

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



Qualification Certificate

This is to certify that the product mentioned above, provided by

Report No. ZU 2503-1608

Zumtobel Lighting GmbH Dornbirn, Austria

has been awarded a Fraunhofer certificate TESTED DEVICE bearing the report number ZU 2503-1608.

The luminiare series INDUSTRY RECESSED was assessed in compliance with ISO 14644-14. When operated under the specified test conditions (room temperature: $22 \degree C \pm 0.5 \degree C$; relative humidity: $45\% \pm 5\%$), it is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Class according to ISO 14644-1:

Test parameter(s)	Air Cleanliness Class
Structure-borne noise = approx. 50Hz	4
Overall result	1

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 to this. The test result may be affected by the surrounding ceiling system.

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

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Stuttgart, May 26, 2025 Place, date of first document issued

Report No. current document

Place, current date

on behalf of *Dr.*-Ing. Frank Bürger, head of business unit Testing and Certification

