



**Fraunhofer**

**TESTED<sup>®</sup>  
DEVICE**

OMS s.r.o.  
RELAX XTP PAR 4x28W  
**Report No. OM 1206-601**

DUPLICATE

Statement of  
Qualification

# Statement of Qualification

**Customer:** OMS s.r.o.  
Dojč 419  
90602 Dojč  
Slovak Republic

## Component tested:

Category: Cleanroom Facilities  
Subcategory: Lighting system  
Type: RELAX XTP-IP65 PV PAR T5 4x28W,350G, EB A2;9003

**Test results / Classification:**  
(according to ISO 14644-1)

The lighting system RELAX XTP-IP65 PV PAR T5 4x28W,350G, EB A2;9003 is suitable for use in cleanrooms fulfilling Air Cleanliness Class 2.

It must be pointed out, that according to ISO 14644-1 cleanrooms classes 1 to 5 have a high number of filters, which makes the use of lighting systems partly impossible. Cleanrooms with horizontal laminar flow are an exception.

## Random check measurements of particle emission (airborne) at representative points

Test procedure: According to VDI 2083 Part 9.1

Measuring instruments being used: Optical Particle Counter:  
Model LasAir II 110 manufactured by PMS with measuring channels of  $\geq 0.1 \mu\text{m}$ ,  $\geq 0.2 \mu\text{m}$ ,  $\geq 0.3 \mu\text{m}$ ,  $\geq 0.5 \mu\text{m}$ ,  $\geq 1.0 \mu\text{m}$  and  $\geq 5.0 \mu\text{m}$

Test parameters of the test environment:

- Cleanroom Air Cleanliness Class (according to ISO 14644-1):..... ISO 1
- Air flow velocity:.....0.45 m/s
- Air flow guidance: .....vertical unidirectional air flow
- Temperature: .....22 °C  $\pm$  0.5 °C (71.6 °F  $\pm$  0.9 °F)
- Relative humidity: ..... 45 %  $\pm$  5 %

Test parameters of the test execution: The lighting system was stressed as follows:

- Impact sound: .....between approx. 5 Hz and 50 Hz
- Average oscillation velocity: .....  $v = 1.7729 \text{ mm/s}$
- Average oscillation acceleration: .....  $a = 0.431 \text{ m/s}^2$
- Average oscillation of the system: .....  $s = 0.00143 \text{ mm}$

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The measuring equipment used for the qualification is regularly calibrated and is based on national and international standards. In the case where no national standards exist, the measuring procedure used corresponds with technical regulations and norms valid at the time of the measurement. The documents drawn up for this procedure are available for viewing.


The validity of this certificate applies only to the mentioned product in this particular condition for a duration of 5 years.  
Further information: [www.tested-device.com](http://www.tested-device.com).

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Stuttgart, July 27, 2012  
Place, Date

  
i. A. Project manager