



Fraunhofer

**TESTED[®]
DEVICE**

OMS s.r.o.
RELAX XTP PAR 4x54W
Report No. OM 1206-601

DUPLICATE

Statement of
Qualification

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Customer:	OMS s.r.o. Dojč 419 90602 Dojč Slovak Republic	Test results / Classification: (according to ISO 14644-1)	The lighting system RELAX XTP-IP65 PV PAR T5 4x54W,350G, EB A2;9003 is suitable for use in cleanrooms fulfilling Air Cleanliness Class 3.
Component tested:			
Category:	Cleanroom Facilities		
Subcategory:	Lighting Systems		
Type:	RELAX XTP-IP65 PV PAR T5 4x54W,350G, EB A2;9003		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 $\geq 0.1\text{ }\mu\text{m}$, $\geq 0.2\text{ }\mu\text{m}$, $\geq 0.3\text{ }\mu\text{m}$, $\geq 0.5\text{ }\mu\text{m}$, $\geq 1.0\text{ }\mu\text{m}$ and $\geq 5.0\text{ }\mu\text{m}$
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 = 7.8786 mm/s - Average oscillation acceleration:a = 3.691 m/s² - Average oscillation of the system:s = 0.00374 mm