



Fraunhofer

**TESTED[®]
DEVICE**

Thorn luminaire
DUOPROOF
Report No. TH 0711-419

DUPLIKAT

Statement of
Qualification

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Manufacturer of object to be tested:

Thorn Lighting Limited
Lighting Technology Centre
Merrington Lane Industrial Estate
Spennymoor
Co.Durham
DL16 7UR
United Kingdom

Component tested:

luminaire

Type:

DUOPROOF - DUOPRF 4X18W T26 HF IP65

Test parameters of object to be assessed:

Operation of the luminaire at a representative vibration of structure-borne noise

Performed tests:

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

Creation of an expertise to the GMP / FDA and EHEDG conformity.

Test results / classification:

The test piece DUOPROOF - DUOPRF 4X18W T26 HF IP65 is suitable for use in cleanrooms fulfilling the specifications of Air Cleanliness Class ISO Class 5 (according to ISO 14644-1).

The test pieces of the DUOPROOF-series are suitable for use in cleanrooms fulfilling the specifications of the room classes E - F (according to EU GMP-Guideline vol.4, annex).

Standards used for the qualification:

VDI 2083 Part 1, 4 and 8, ISO 14644-1,
EU GMP-Guideline vol.4, annex

Test environment:

Cleanroom of Air Cleanliness Class ISO Class 1
(according to ISO 14644-1)

Air flow velocity: 0.45 m/s

Air flow guidance: vertical unidirectional air flow from ceiling to floor (raised floor)

Temperature: 71.6°F ± 0.9°F (22°C ± 0.5°C)

Relative humidity: 45% ± 5%

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.