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Protocol test NR 2020-09-18/1

Glasses transmittance test: owIEYE

Data pomiaru: 2020-09-18

Date of measurement: 2020-10-28

The test was performed according to the standards:

PN-EN 13032-4:2015-09 - Light and lighting. Measurement and presentation of photometric data of lamps and luminaires

PN-EN 60598-1:2015-04 – General requirements and tests

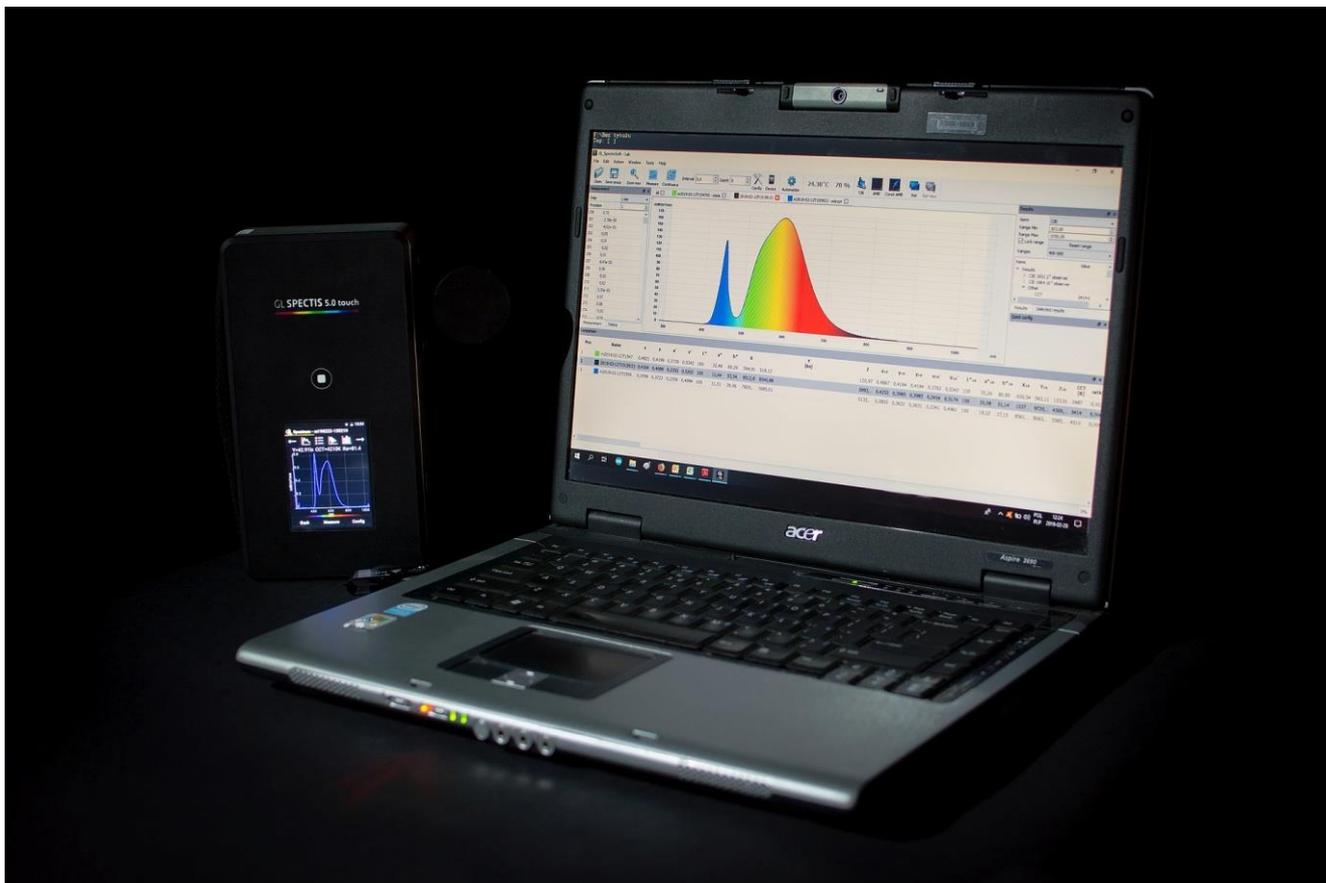
Tests are carried out in the **Niezależne Laboratorium Fotometryczne** ViTom Light & Energy using the following equipment:

- spektrometr GL Spectis 5.0 Touch made by GL Optic (200nm-1050nm),

RESEARCH RESULTS

Test conditions

The test was performed on a sunny, cloudless day under constant lighting conditions. We used the Spectis 5.0 touch spectrometer by GL Optic with the Spectrosoft laboratory software and a specially prepared adapter. The measuring range is 200nm ÷ 1050nm.



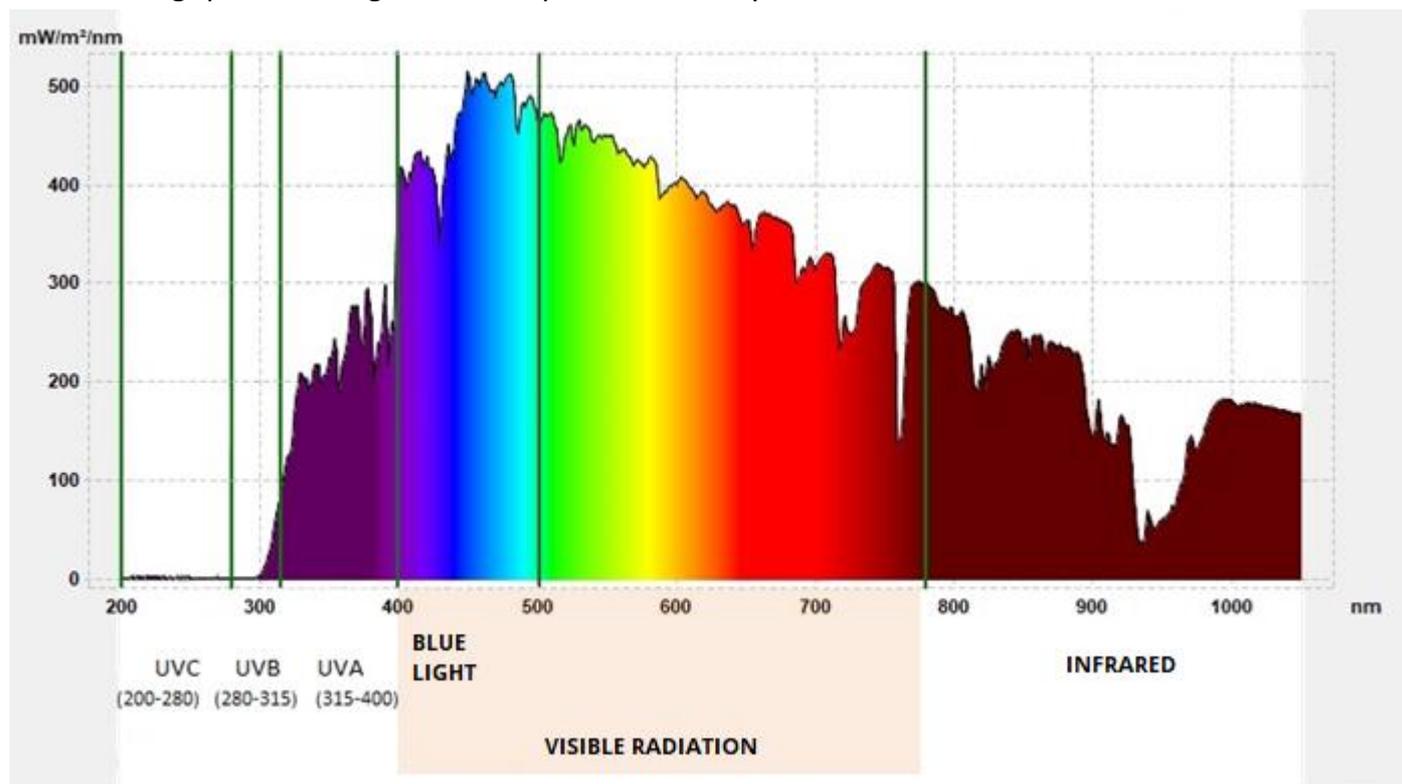
Tested glasses

The tested glasses are the owIEYE model.



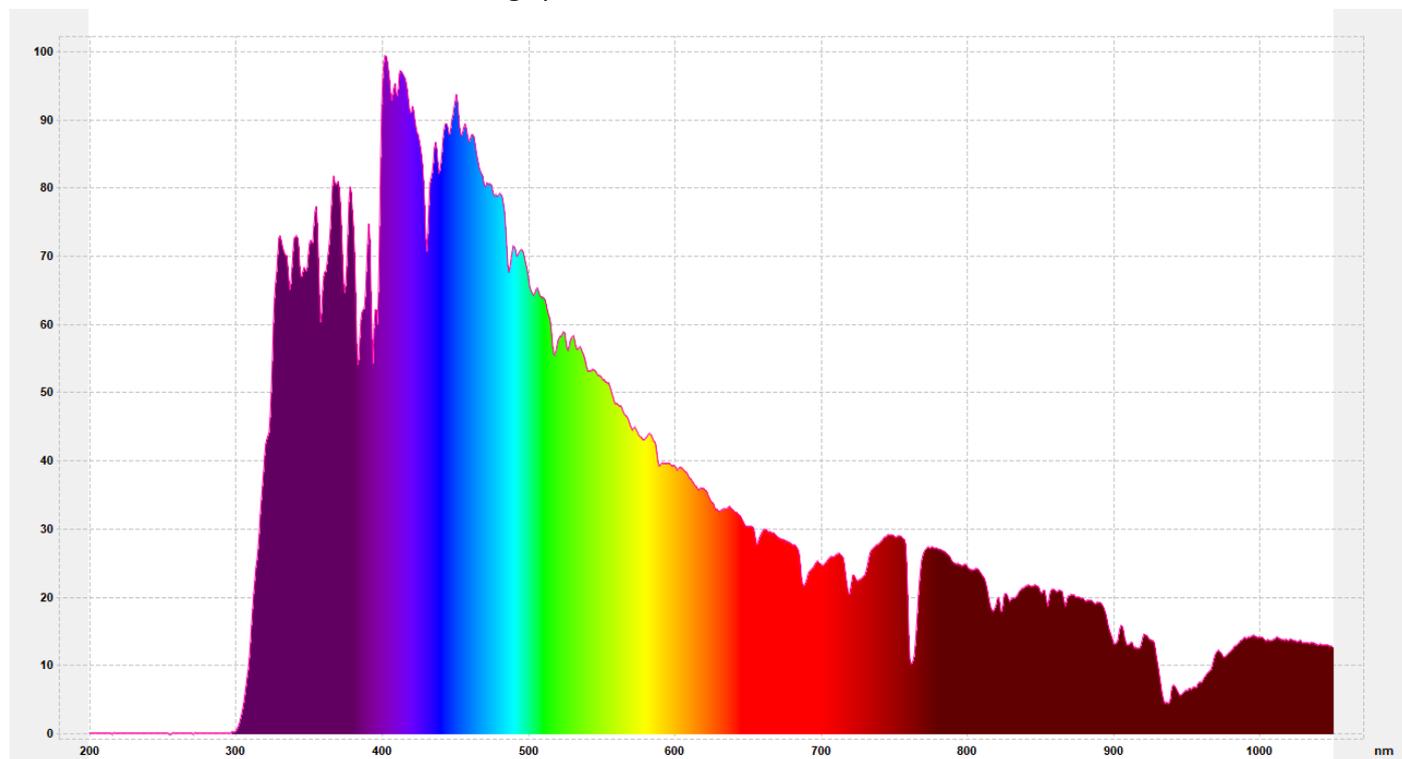
Spectrum ranges

The following spectrum ranges were adopted in the study:

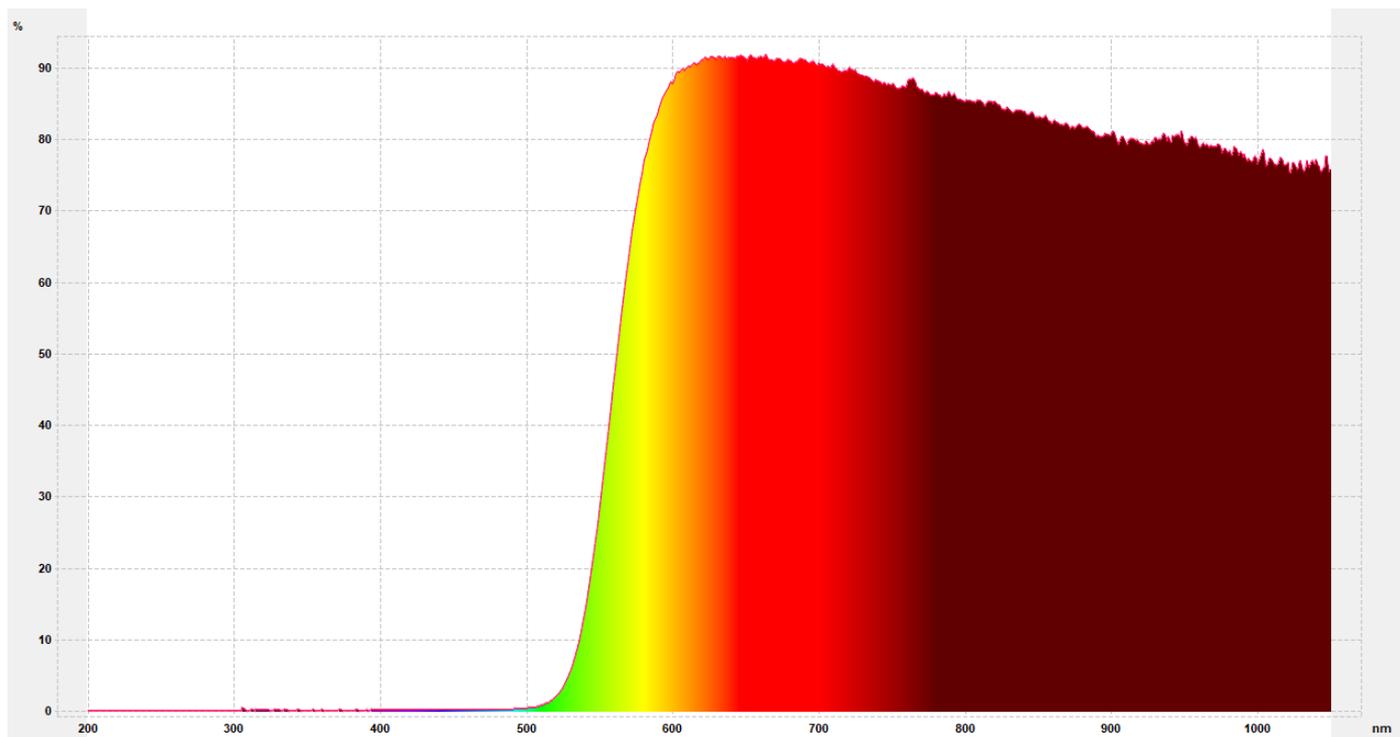


Measurements

The reference source had the following spectrum:



The transmittance was as follows:



Transmittance parameters

Average transmittance in the visible range (400nm ÷ 780nm): 52.09%

Minimum transmittance in the visible range (400nm ÷ 780nm): 0.09%

Maximum transmittance in the visible range (400nm ÷ 780nm): 91.83%

Average transmittance in the UV range (200nm ÷ 400nm): 0.00%

Minimum transmittance in the UV range (200nm ÷ 400nm): 0.00%

Maximum transmittance in the UV range (200nm ÷ 400nm): 0.00%

Average transmittance in the blue light range (400nm ÷ 500nm): 0.09%

Minimum transmittance in the blue light range (400nm ÷ 500nm): 0.17%

Maximum transmittance in the range of blue light (400nm ÷ 500nm): 0.35%

OwIEYE glasses completely block UV radiation up to 400nm and blue light in the range of 400nm ÷ 500nm.

Average transmittance in the green light range (487nm ÷ 570nm): 15.43%

Minimum transmittance in the green light range (487nm ÷ 570nm): 0.21%

Maximum transmittance in the green light range (487nm ÷ 570nm): 63.21%

Average transmittance in the yellow light range (565nm ÷ 590nm): 71.87%

Minimum transmittance in the yellow light range (565nm ÷ 590nm): 55.2%

Maximum transmittance in the yellow light range (565nm ÷ 590nm): 83.57%

Average transmittance in the orange light range (589nm ÷ 627nm): 88.94%

Minimum transmittance in the orange light range (589nm ÷ 627nm): 83.05%

Maximum transmittance in the orange light range (589nm ÷ 627nm): 91.55%

Mean transmittance in the red light range (627nm ÷ 780nm): 89.71%

The minimum transmittance in the red light range (627nm ÷ 780nm): 86.10%

Maximum transmittance in the red light range (627nm ÷ 780nm): 91.83%

Measurement made:

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