EcoGlass, a.s.

Technology and process information

More than Glass !

www.ecoglass.cz

Arbesova 66a, 46604 Jablonec nad Nisou, Czech Republic, Phone +420-483-316820, Fax +420-483-306513, E-mail info@ecoglass.cz

Data compatibility

- 3D CAD-CAM
  - Solid Edge 2020
  - EdgeCAM 9.75
  - AutoCAD LT2007
  - SolidWorks Premium
- Optical Design
  - TracePro 2021
  - OpticsLab 5.96
  - ProSource 10

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EcoGlass Tooling Technology

- VM-2HE HAAS CNC Milling Centre

- ST-20Y HAAS CNC Turning Machine

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Moulding Process

- Manual glass moulding process
- Material – glass rods
- Gas heated furnaces
- Pneumatic and hydraulic presses
- Temperature data monitoring and analysis

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Annealing of Blanks

- Flexible annealing system with box furnaces
- Programmable temperature controllers
- Specific annealing program for different glass types
- Inspection of the residual stress

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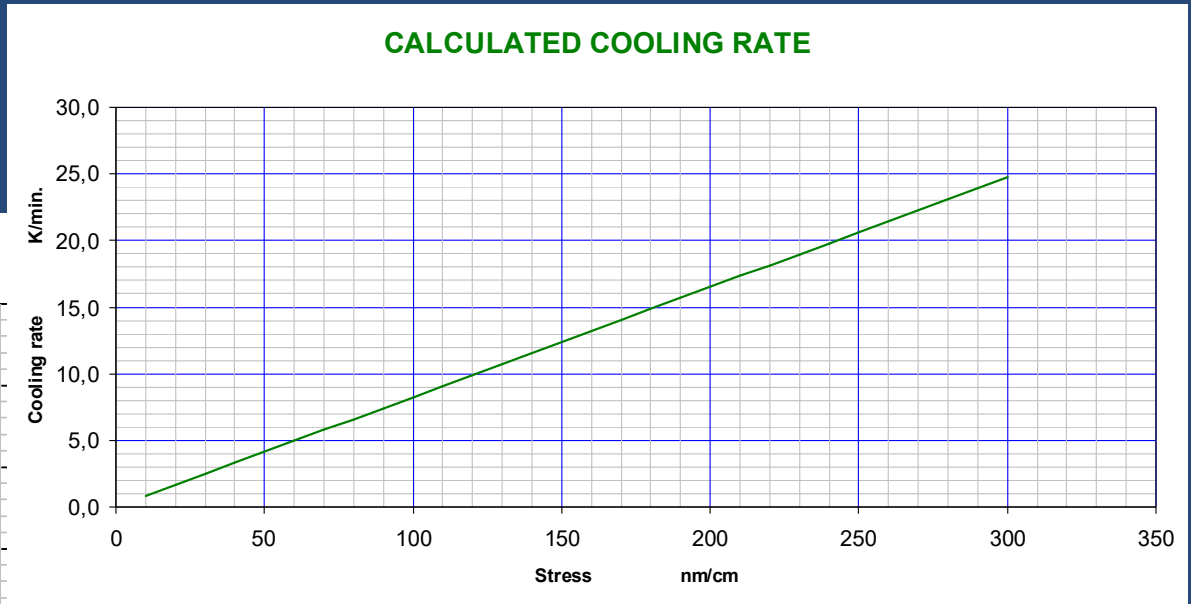
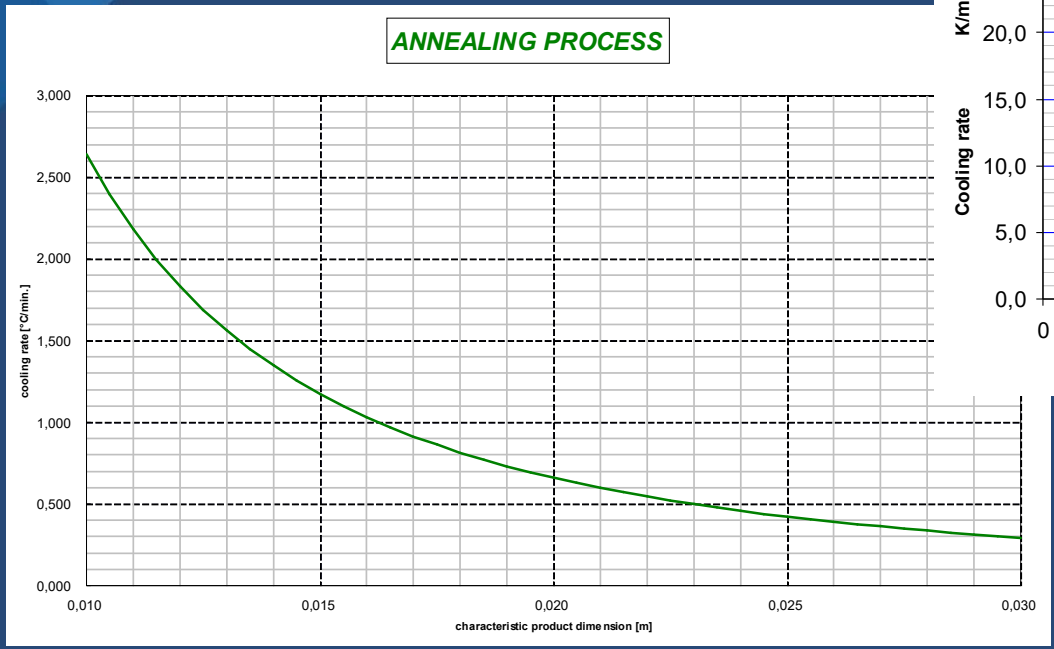
Calculation of Annealing





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Inspection

- 3D and 2D inspection of tools and lenses
- Surface Mitutoyo roughness measurement
- Two light labs with goniometers
- Spectrometer Unicam 8735 (190-900 nm)
- CCD camera photometric measurement

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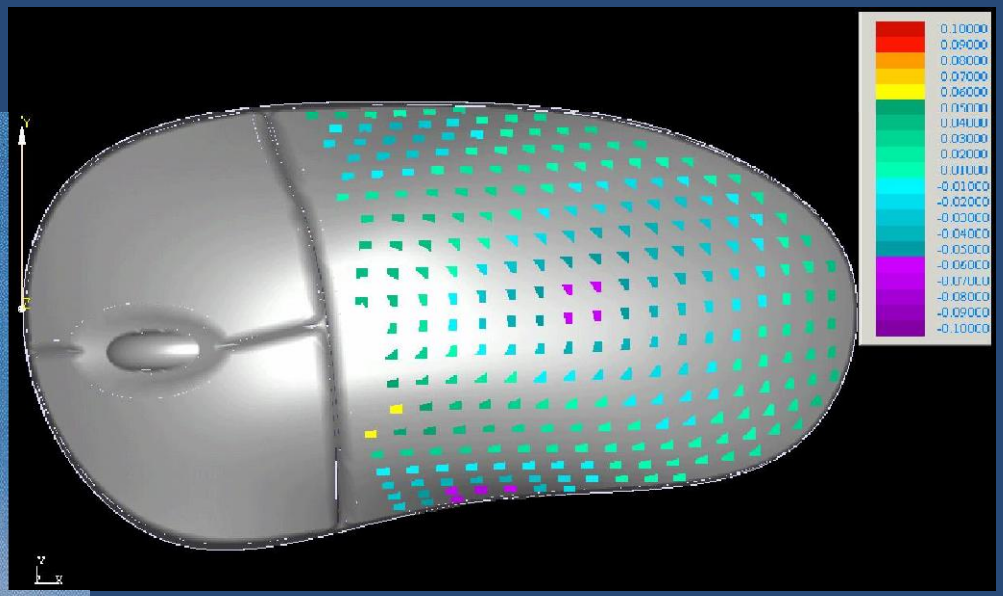
Werth Video Check 250-LP



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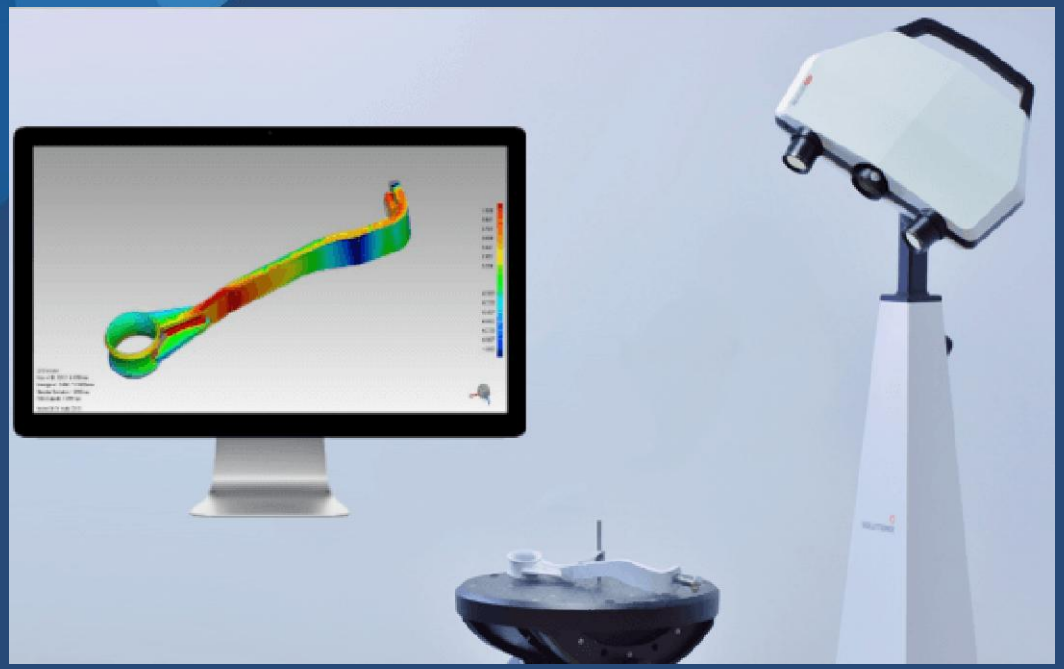
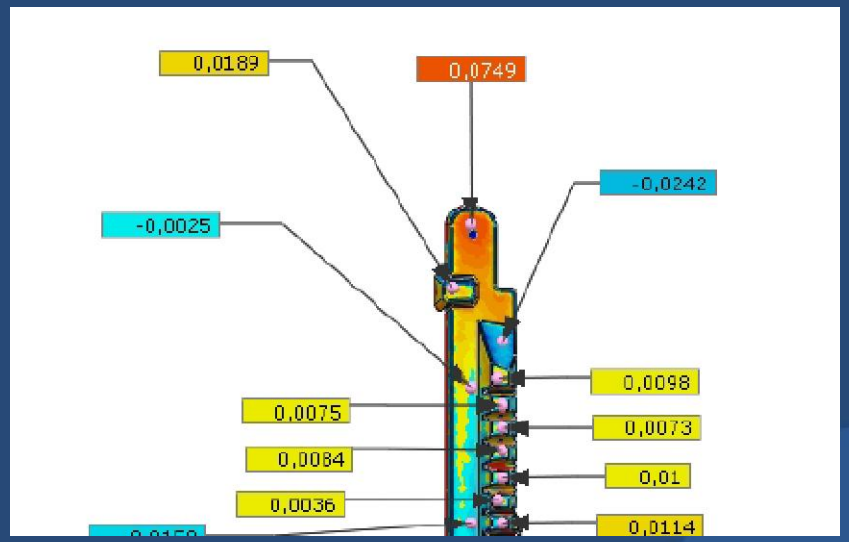
3D measurements - optical



- Solutionix CS2+
- Fast, complex measurement
- Precision ± 0,02 mm



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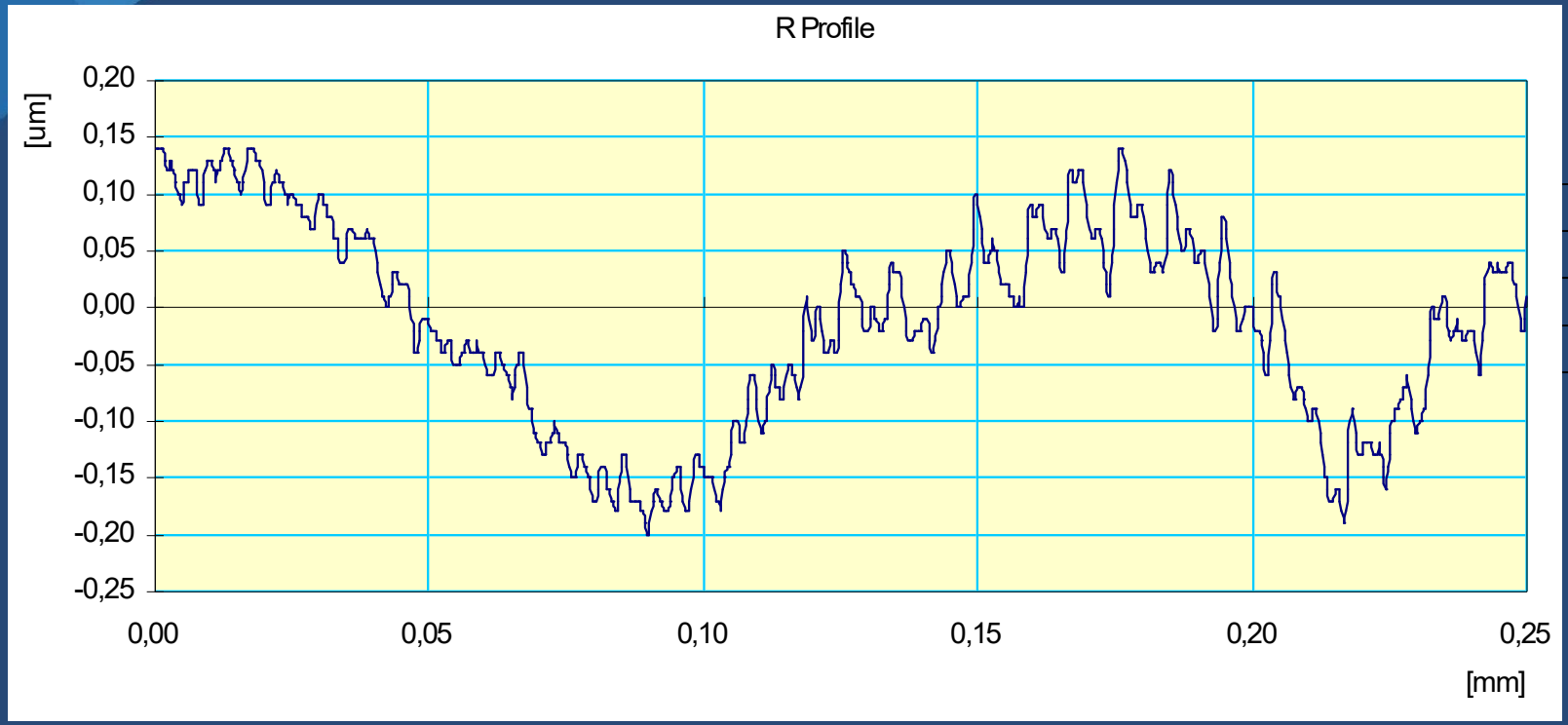
Mitutoyo roughness measurement



Ra	0.08 um
Ry	0.34 um
Rz	0.34 um
Rq	0.09 um

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Photometric Measurements

- Products are tested to
  - Gradient (measurement)
  - Special measurements for new headlight systems (LED matrix, …)
- Development period
  - Close cooperation with client‘s opticians
  - Study of the methods and result deviations
  - Several sets of samples before PSW

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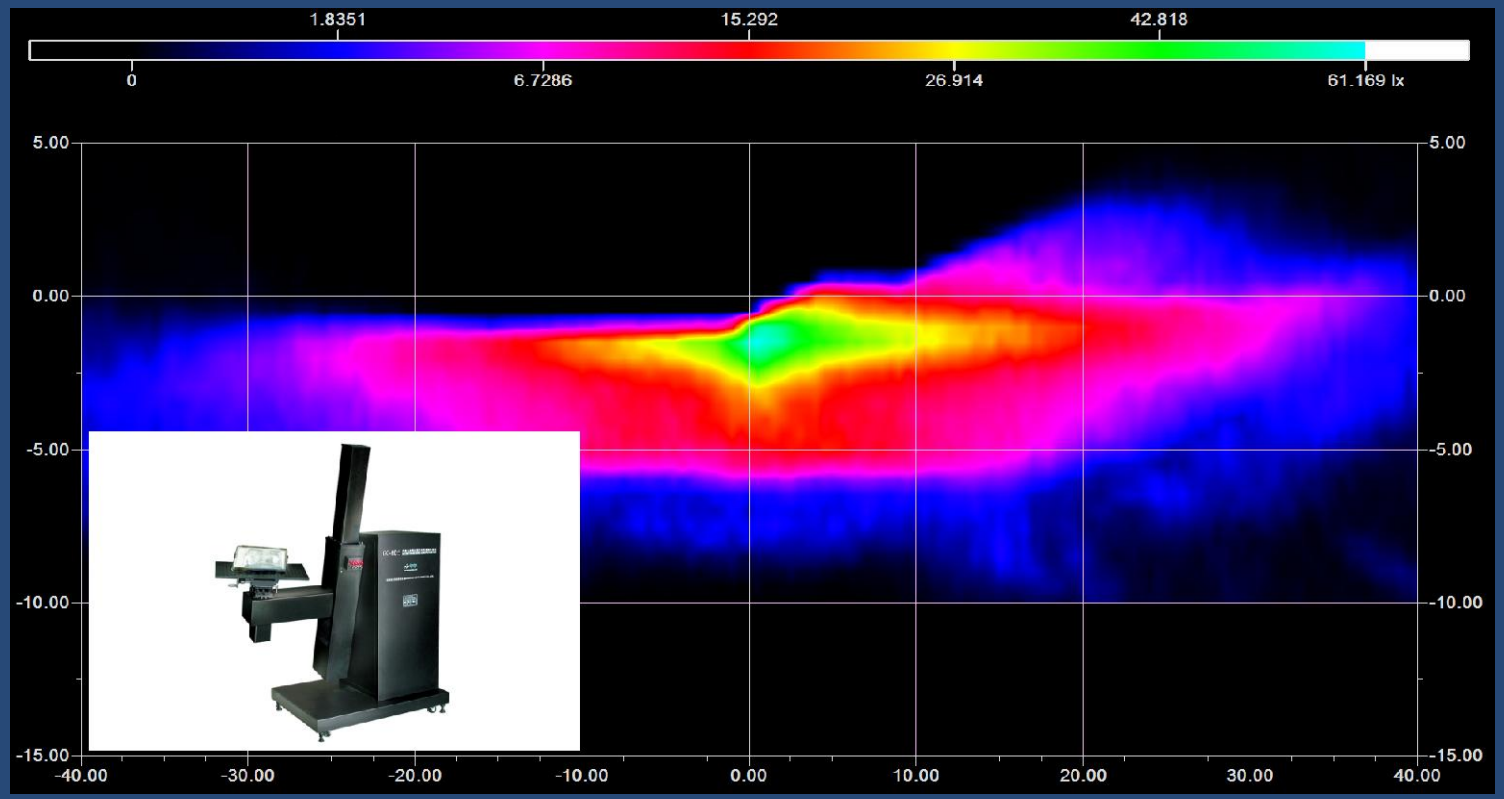
Isolux map measurement



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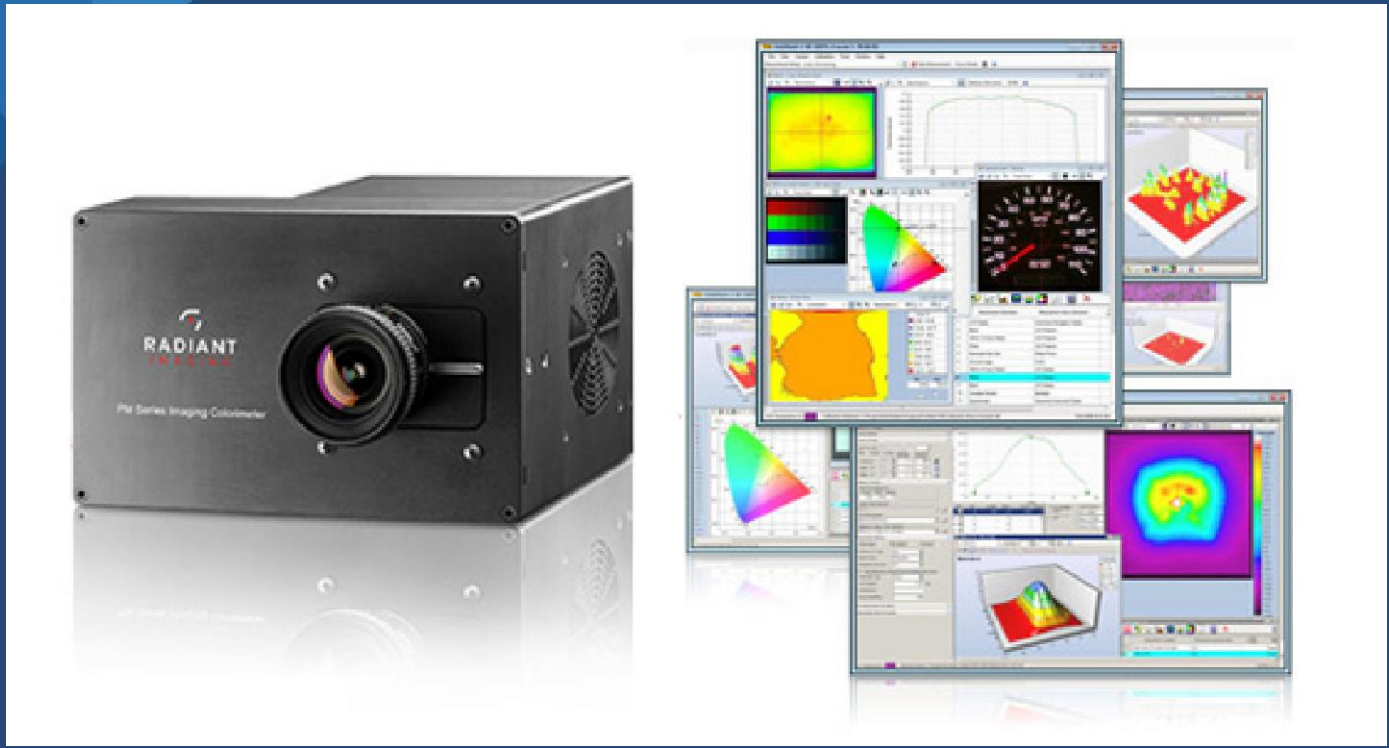
CCD Photometric Measurement



- PM-1400F™ Series
- ProMetric version 10.7.15

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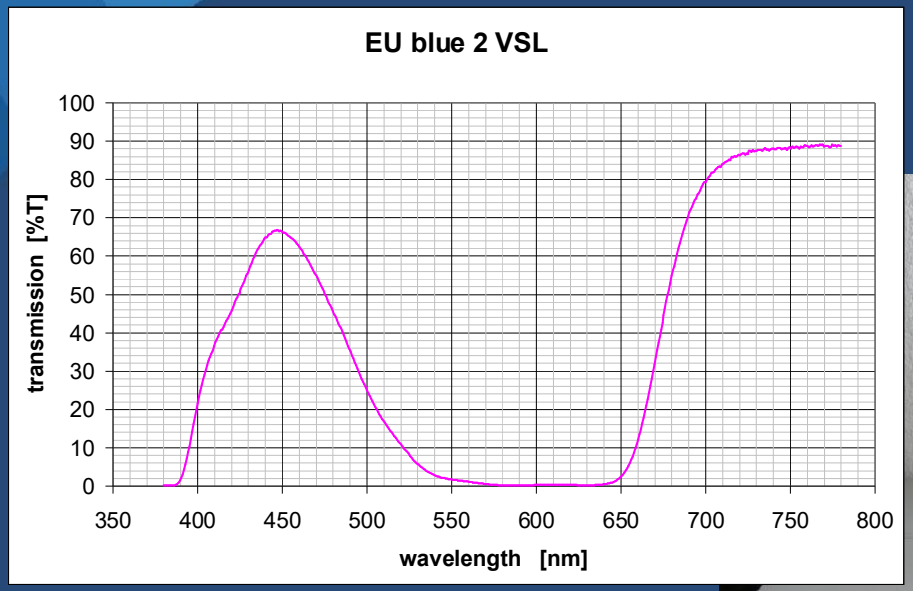
Unicam PU8735

- spectrophotometer
- 190 – 900 nm



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