

Colorimetry of cultural heritage and their lighting

The use of different lights can modify the appearance of a work of art; a clever analysis can allow to obtain the best results of perception. The Laboratory is able of evaluating the risk caused by the lighting, with the aim of preserving the object and providing the optimal exposition.

Correct colour rendition

Minimal risk to the artwork

Minimum use of energy

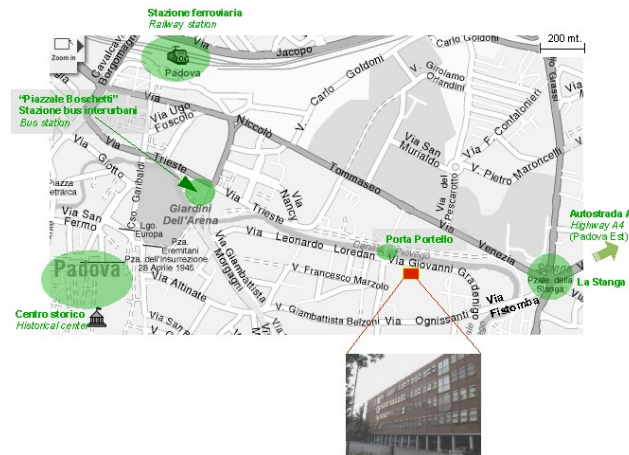


Analysis and definition of the lighting system of the frescos of Giotto in the Cappella degli Scrovegni in Padova

Location

The laboratory is located within the Department of Electrical Engineering, University of Padova.

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Contacts

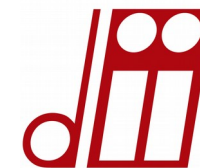
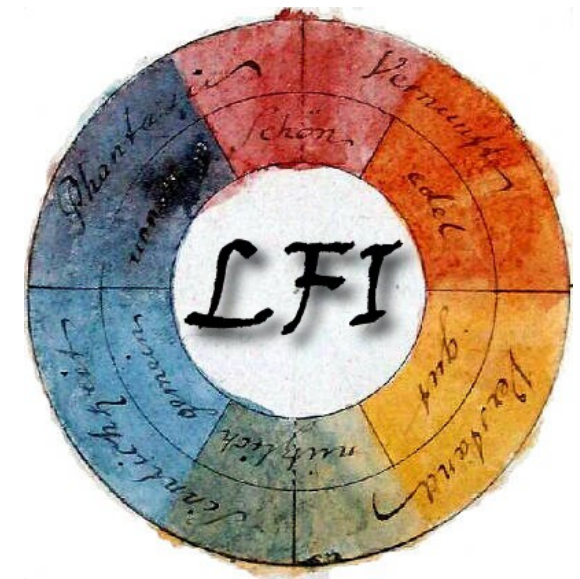
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Photometry and Lighting Engineering Laboratory



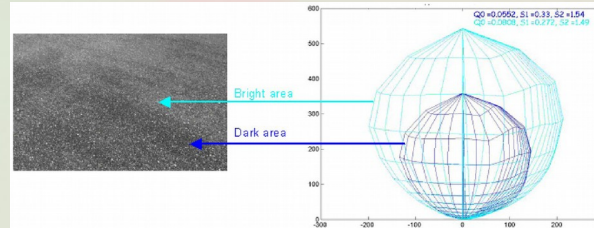
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Light Sources

Photometric, spectrometric and colorimetric characterization of light sources:

- Energy efficiency;
- Photometric curves;
- Spectral radiant power;
- Colorimetry applied to light sources;
- Colour Rendering Index.



Reflection properties

The Laboratory uses a goniometric system for the analysis of samples of surfaces:

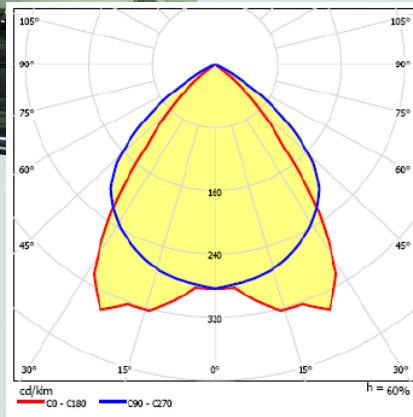
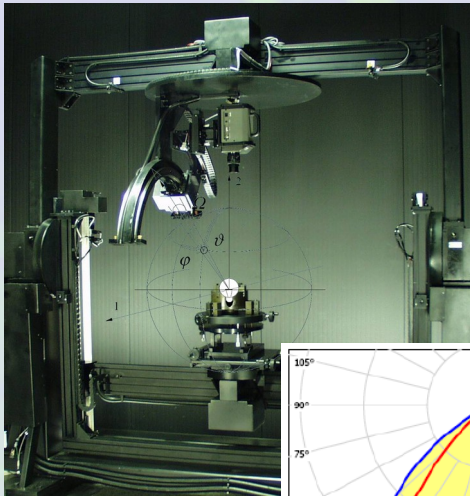
- Retroreflectors;
- Paints;
- Road pavings.

The design of a street lighting is based on the knowledge of the reflection properties of the road pavings. Their direct measurement allows the realization of better designs and a significant energy saving in road lighting.

Courses

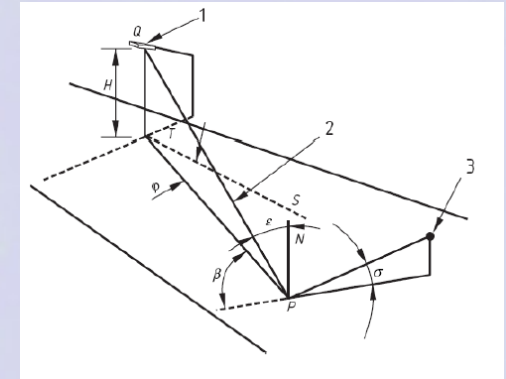
Specific lessons in academic master courses and tutorial for professionals of the light are also made.

The lessons can be performed at the department of electrical engineering or in a structure indicated by the customer.



Road lighting

The Laboratory makes external measurements for the assessment of the performances of a road lighting system.



Novel methods of road lighting and signalling are under study, they will allow an important energy saving.

