

Spectral Measurement of Light Sources

Partner

Lighting is an important pillar of the business of Philips. Innovation for new and improvement of existing products is essential for keeping the position as the world's number one lighting company.

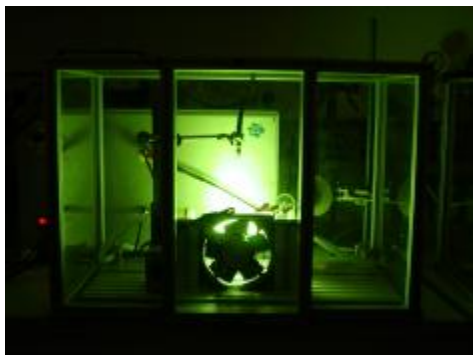


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This is where the Light Generation Group of Philips' Research Laboratory in Aachen, Germany, comes in.

Application

The picture shows the experimental test setup for an "electrodeless" lamp based on a dielectric barrier discharge (DBD):



The plasma radiation of the DBD lamp is converted into visible (green) light by an integrated phosphor coating.

The radiation intensity from the lamp is monitored side-on by the fiber input of a tec5 MultiSpec UV spectrometer system using Carl Zeiss MMS optics.

System Solution

Several spectrometer systems from tec5 are in use to measure the spectral characteristics of light sources at Philips' Research Laboratory and the lamp production plant in Aachen. The compact design together with the high flexibility and ease of use make tec5's spectrometers the internal diagnostic tool of choice for quick and precise analysis from the ultraviolet to the near infrared.

The spectrometer system is connected via RS232 or USB 2.0 interface to a PC. For remote control and read-out of the spectral data, a LabVIEW program which makes use of the standard tec5 driver modules is used.

Day by day, spectrometer systems from tec5 help Philips to judge how bright exactly their ideas work out.