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LIGHTS AND SHADOWS OF STREET LED LIGHTNING – BAŁUCKIEGO STREET (CRACOW) MODERNIZATION EXAMPLE

Summary

LED lightning is used increasingly not only at houses but also at public domain. In the years 2014–2015 a program of modernization of street lighting – called SOWA is being implemented in Kraków. A comparative analysis of the existing lighting and the newly installed LED lamps was performed. For the purpose of analysis Bałuckiego street was selected, where half the work has already been completed and direct comparison of the two lighting types on a small stretch of road was possible. Histograms of light reflected from the surface of the asphalt in the range of the visible light spectrum were analyzed.

Installed new LED lighting has characteristics more similar to sunlight than the old lamps, which is dominated by the red component. This has been achieved while maintaining a similar luminous flux. Long-term effects of human exposure to LED lighting should be the subject of further research.