MAREK CYUNEL¹, ANNA CZAPLICKA², JADWIGA STOCHEL-CYUNEL³

¹ Faculty of Architecture ²Faculty of Environmental Engineering Cracow University of Technology Warszawska 24, 31-155 Kraków ³JSC DESIGN Malawskiego 26, 31-471 Kraków

URBAN LIGHTING IN THE CONTEXT OF LIGHT POLLUTION

Summary

The methods of illumination of urban areas have a significant influence on the level of light pollution. Function, form and prestige of the urban structure elements determine the direction and intensity of their lighting. Unsuitable lighting, inadequate to the way of the objects usage, causes considerable losses in economic, social and environmental aspects.

Due to the phenomena of light scattering and reflection light pollution is spreading far beyond urban areas leading to disruption of circadian cycles of light and darkness. Plant and animal organisms are highly sensitive to these stimuli. Ambient lighting level regulates their metabolism, growth and behavior. As a result, it comes to disturbances in ecosystems.

The purpose of this paper is to stress the impact of light pollution on living organisms and to show how to illuminate city facilities to minimize its negative environmental effects.