

# LIGHTING, HEALTH, WELL-BEING AND THE WORK ENVIRONMENT

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Recent research has consistently shown that light entering the human eyes has an important non-visual biological effect on the human body, influences human health, well-being and productivity at the work environment [1-2]. Parallel to this argument, in the works of various researchers, qualitative rather than the quantitative aspects of the luminous environment have been studied [3-13]. In these works, it is mostly aimed to solve problems related to visibility (physiological needs) and psychological comfort (health, well-being, mood, alertness et cetera).

Although CIE Standards [14-15] give some recommendations on physical and psychological comfort conditions of the luminous environment, characteristics of the light sources and lighting alternatives, the topic of lighting quality together with health and user satisfaction is still under progress.

A working environment shall satisfy users' comfort conditions as well, one of which is lighting. The objective of the present paper is, to discuss how light can be used as a design parameter to create "better" working environments. In the paper, the process of visual perception will be discussed stressing the sensory capacity of the visual system and non-visual effects of lighting, a psychophysiological loop that integrates the physical side of light, to the visual perception process. The importance of health related issues as well as the physical side of lighting will also be emphasized.

The argument will be supported by a survey. A group of office workers will be asked to evaluate their working environment by a questionnaire. They are asked to rate the working environment according to vision (lighting quantity) and health-related (lighting quality) aspects of lighting installations. It is also intended to evaluate how visual and non-visual effects of light behave in each one of us, and also to what extent people are aware of the luminous environment.

After examining the influence of the luminous environment on people, we will be able to start defining lighting solutions to ensure that healthy people remain healthy at the work environment. Also, we can define a checklist to design better working environments.

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