RESEARCH THEME

XLII Cycle – a.y. 2026/2027

Title of the doctoral research	Designing light for the psychophysical well-being
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Abstract	One of the main aspects of lighting design involves selecting products, arranging them, and programming them through dynamic control systems. Despite the significant impact these actions have on human experience, they are often reduced to aesthetic or quantitative choices. Scientific literature highlights the influence of light on humans, an influence often overlooked in favour of energy efficiency and visual performance. Nonetheless, while energetic efficiency and standards remain essential, focusing solely on these aspects neglects broader implications for well-being. Lighting professionals all over the world recognise that photometry and calculations are insufficient; the perception of spaces, influenced by lighting distribution, is crucial. Lighting has evolved to support psychophysical well-being, incorporating technological advances and scientific research over the past twenty years. A Human-Centric approach to lighting enhances performance, attention, and sleep-wake cycles, especially in contexts where it is most needed (such as windowless spaces or night-shift work). However, in the field of lighting and luminaire design, the psychological response to light and colour remains underexplored. Understanding the emotional impact of light, influenced by various factors, is challenging but essential. The research will focus on the perception, physiology, and psychology of light, and on applying the findings to lighting and product design to improve users' well-being.
Keywords	Lighting Design, Physiology, Psychology.