

GLOBAL MARKET PROSPECTS, IMPACTS & OPPORTUNITIES.

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Human Centric Lighting 2019



This report will be of value to all companies engaged in managing, operating and investing in commercial lighting companies around the world; who are interested in the potential of Human-Centric Lighting.

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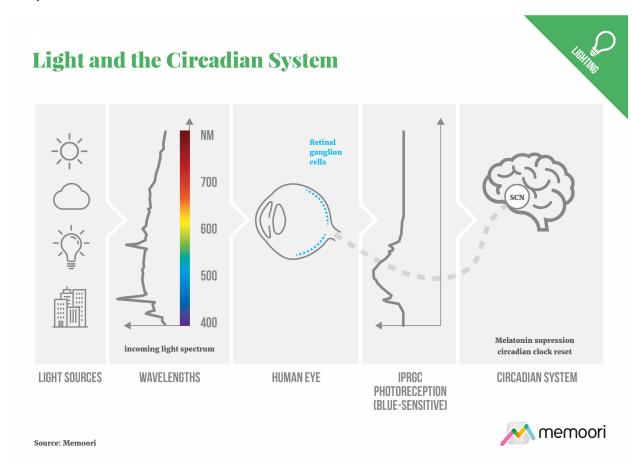
Introduction

This Report is a New 2019 Definitive Resource for Evaluating the Global Market for Human-Centric Lighting Products & Services.

Human-Centric Lighting (HCL) goes beyond simply providing illumination for human environments. It manipulates the light output, triggering biological responses in humans according to the objectives of the environment. HCL has demonstrated its ability to make workers more productive, to help patients heal faster, and enhance student learning, simply by tuning into our evolutionary link to the natural rhythms of sunlight.

Our report is a comprehensive guide to the Human-Centric Lighting industry, from the science and technology, to potential applications, drivers and barriers, as well as a detailed exploration of the global HCL market over the next 5 years. We explore the strategies of the key players and the opportunities for startups, as well as the regional differences in this rapidly emerging market.

Human-centric lighting developments are not occurring independently of shifts in lighting in general, nor of wider building trends. In fact, HCL is part of a wider <u>human-centric movement</u> sweeping across almost every building system. This movement has been facilitated by <u>technological</u> <u>advancements in sensing and connectivity</u>, as well as the rise of <u>big data processing</u> and data analytics.

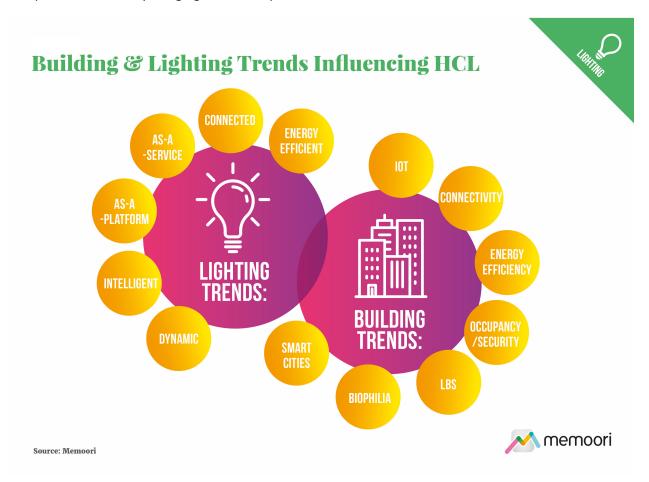


Within its **140** Pages and **23** Charts and Tables, The Report Sieves out all the Key Facts and Draws Conclusions, so you can understand how Human-Centric Lighting is Shaping the Future of the Commercial Lighting Industry.

Around the turn of the millennium, the discovery of non-visual photoreceptors in the eye established the link between light and the circadian system, our internal body clock, which controls the release of certain hormones among other things. The evidence strongly suggests that, over millions of years of evolution, human biology has developed its diurnal patterns in large part by reacting to the different wavelengths of sunlight emitted over the course of the day.

On a basic level, the blue-rich wavelengths of the morning sun stimulate us into an active state, while the red-rich afternoon-evening light puts us into a relaxed, restful state. The absence of light altogether triggers the release of melatonin, the sleep hormone. However, the introduction of artificial light in human society began to disrupt our light-driven circadian system.

HCL technology seeks to realign us with our natural rhythms by mimicking the progression of sunlight throughout the day. A global market worth \$849m USD in 2019 has developed around this technology and we expect it to reach \$3.5 billion by 2024, a 32.75% CAGR over the 5 years; with companies consistently bringing innovative products & services to the market.



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HCL is an inevitable reality for the future of lighting. Results of ongoing and future HCL pilots and installations will continue to demonstrate the benefits of the technology and highlight the negative health and productivity impacts of non-HCL solutions. It may take some time but as the cost of tunable lighting comes down, the lure of health and productivity benefits will make HCL a standard feature in lighting for all kinds of buildings. HCL is just one part of a human-centric revolution in our built environment.

The report shows Human-centric Lighting developments are not occurring independently of shifts in lighting in general, nor of wider building trends. In fact, HCL could be said to be part of a wider human-centric movement sweeping across almost every building system.

Europe leads the way in Human-Centric Lighting with a \$395m USD market that represents 46% of global revenue, followed by North America with \$238.3m or 28% of total revenues, and the Asia Pacific region with \$181.7 million or 21% share of this rapidly growing space.

Today, artificial light has escalated to the point where it is hard to avoid the bombardment of photons coming from indoor lighting, streetlights, advertising, and the many digital screens we have in our lives 24/7. We spend 87% of our lives in buildings exposed to bright white light most of our waking hours. The results of this over-abundance of light are health, wellbeing, and productivity issues. From sleep problems to mood swings to longevity, recovery rate, and proneness to the most serious diseases, it is becoming clear that our unnatural lighting is holding business and society back.

HCL seeks to realign us with our natural rhythms by mimicking the progression of sunlight throughout the day. In doing so, it can improve occupant's health and wellbeing, and therefore their ability to heal or concentrate, leading to improved recovery rates and productivity, for example. HCL applications have arisen in healthcare, offices, retail, hospitality, residential, and many more verticals, creating a confusing and fragmented market full of opportunity.

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