

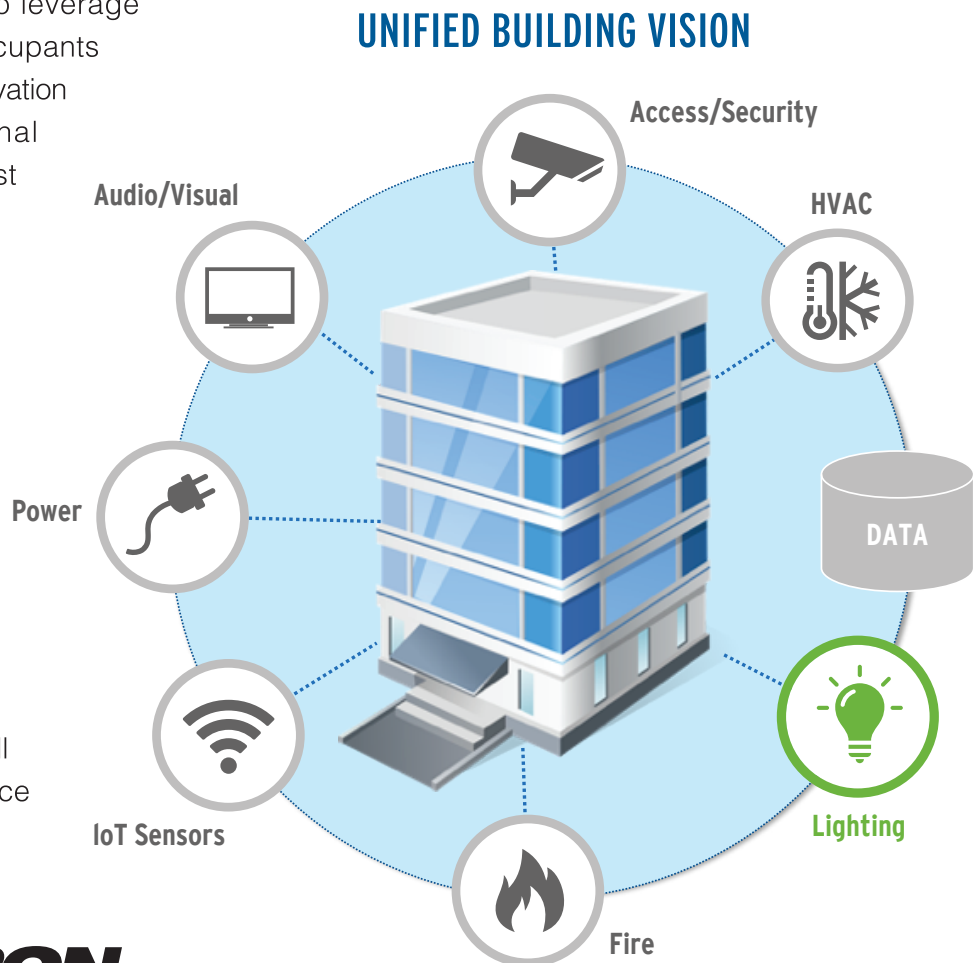
Capitalizing on the Value of Human-Centric Lighting

How to achieve people and energy efficiencies simultaneously

Light has a powerful effect on our lives. Throughout many years, researchers have shown that light creates more than just visual effects (image, shape, intensity, perception, contrast, etc.); it also has biological and psychological effects that can impact the health and well-being of humans.

As the evolution of smart technology continues, lighting controls and systems are becoming an integral part of comprehensive building automation systems (BAS). By combining extended controls with a unified management approach — utilizing WebCTRL®, Automated Logic Corporation’s powerful web-based building automation platform — businesses are able to leverage actionable intelligence to keep occupants comfortable, manage energy conservation measures, identify key operational problems and analyze results. Best of all, this can all be done anywhere at any time through a variety of internet devices, from desktop PCs to web-enabled tablets and smartphones.

More specifically, **human-centric lighting** aims to focus on both the visual and non-visual effects of lighting, and move companies beyond simply having “enough light” into an environment where employees, students, customers and other key stakeholders experience all of the benefits of an optimally lit office space or classroom.





What is human-centric lighting?

Human-centric lighting (HCL) is the new disruptive technology in the lighting industry and in buildings automation. It is centered around sensitivity to the human circadian rhythm, the internal biological clock that synchronizes our bodies with the external cycle of day and night.

How does artificial light impact us?

The average American spends 87% of their lives indoors¹ exposed to a great deal of artificial light. Through its manipulation using cost-efficient and flexible LEDs and innovative control systems, operators are able to leverage it as the primary circadian stimulus in healthier well buildings.

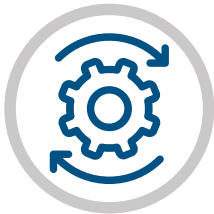
How is HCL used in practice?

In buildings, offices, classrooms and other venues, dynamic white LED lighting allows the color temperature (CCT) to be tuned using 0-10V, Dali or DMX controls. Lighting controls then allow the LED luminaire to adjust the CCT to reflect a normal outdoor circadian rhythm.

What are the benefits of HCL?

By strategically altering lighting dosages, levels and colors, HCL is being used to minimize energy usage and maximize occupant comfort. It can improve mood and mental health, stabilize circadian rhythms, and even increase cognitive performance tasks such as reaction time and activation.

Increased Productivity



Reduced Absenteeism



Enhanced Recruitment/Retention



Improved Cognition



Meaningful Energy Savings



Healthier Well Buildings



To ensure you can capitalize on the true potential of human-centric lighting, partner with a team combines local technical resources with the ability to support you long term. Contact Control Service Company today to customize solutions for your environment.

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¹ Klepeis, Neil E. et al. "The National Human Activity Pattern Survey (NHAPS): A Resource for Assessing Exposure to Environmental Pollutants," published by the Lawrence Berkeley National Laboratory in 2001.