HUMAN CENTRIC LIGHTING DESIGN

Award Winning Waterstone Residence,
Lighting Design by Robert Singer & Associates

A sensible man will remember that the eyes may be confused in two ways - by a change from light to darkness or from darkness to light; and he will recognize that the same thing happens to the soul. ~Plato

A new way to utilize artificial light that emulates the hue of daylight changes over the course of a day has become known as Human Centric Lighting. The result is personalized lighting that benefits the health and well-being of the individual.

In 2001 it was discovered that specific photoreceptors in the eye respond to light and dark exclusively regulating our circadian rhythm which has changed the way we feel about artificial light.

Careful planning by an accredited lighting designer can not only increase visual acuity and cost saving, but now it has biological benefits.

Optimizing our circadian health with the amount of time and color of light we are exposed to has become a step to improving our daily wellbeing. By independently adjusting light levels and color temperatures, the full dynamic range of natural daylight can be recreated. Innovative LED products on the market now support circadian health using tunable white light technology.

Now that we have this control over light's intensity, spectral content, spatial and angular distribution, we can create ideal light for each individual installation. We can maximize productivity and comfort with the least impact on the environment.

Circadian light is used in residential settings to support waking-sleeping rhythm. Activating light is used in educational and office setting to increase cognitive performance for better concentration. Relaxing light is used in hospitality and medical settings for relaxing psychological effects. Emotional light is used to create mood and atmosphere according to the setting.

Manual programming light schedules in control systems allow for complete control over the light system to fit the end users' needs. Advancements in LED lighting control systems are detecting changes in daylight and adjusting the artificial light accordingly.

The emergance of Human Centric Lighting Design has used health knowledge, advancements in LED technology, and control systems to improve our use of artificial lighting.

In order for the light to shine so brightly, the darkness must be present. ~Francis Bacon

By Robert Singer, IALD, IES, President RSA