

These days it feels as if we are all chasing sleep. We live in a world of 24-hour access—the boss can reach us on our smartphones, laptops, tablets, any number of technological devices that keep us awake until the wee hours. We are international travelers—jetting from time zone to time zone, where our internal clocks break down. We are always a step ahead, we are ambitious, we want to do it all, but sometimes we forget that we also need our rest. Sometimes, we need some help.

This was the case for one homeowner in Milwaukee. As a businessman who traveled all over the globe and suffered from mild sleep disorders, he wanted a home where he could both entertain with his family and get his circadian rhythm back in sync. He sought help from Richard Sherer and his team at Deep River Partners, Ltd., who designed a sprawling 5,000-sq ft residence built on top of an existing eight-story building, with a separate 2,800-sq ft space for entertaining. For the lighting, he enlisted Steven Klein of Klein Lighting in Fox Point, WI, who drew on his experience in healthcare to create an environment that would sync the client's internal clock back to his own time zone, allowing him to get some zzzs.

"It's so important, especially for a guy who's working all the time," Klein says. "It creates a feeling of harmony and happiness to have a lit environment that changes along with the day, that you can operate

Castle in the Sky

In Milwaukee, a rooftop residence resets internal rhythm

BY LEONORA DESAR

Photos: Mark Heffron, courtesy of Deep River Partners, Ltd.



Fiber optics illuminate the terrace with a constellation of golden stars.

without touching anything. It creates serenity, an environment apart from daily life.”

SLEEP

To help adjust the client’s circadian rhythm, Klein installed component RGB fixtures (Philips) around the perimeter of the bedrooms, living room and kitchen, with a control system that changes the lights according to the time of day. At 5 a.m., the fixtures emit cool, blue light, which suppresses melatonin, a hormone secreted by the pineal gland that helps trigger sleep. As the hours pass, the lights transition to white, and then back to blue in the early afternoon, mimicking the sky. At night, the interior is lit with amber, allowing melatonin to flow, and for the client to unwind and sleep. “It’s delightful to be able to create a place where you can rest,” Klein says, “to separate it so clearly from other environments that it becomes an oasis.”

Aside from their circadian attributes, Klein chose the RGB fixtures for their ability to plug together and form continuous runs, and because they are low voltage rather than line voltage. They are also controlled by software, enabling fixtures in different areas of the home to operate in tandem. “It’s customizable without being a custom product,” Klein says.

At night, linear LEDs (LUMINII) help with way-finding, but without putting the client’s circadian rhythm out of whack. They are dadoed into fire-place ledges and toe kicks below eye level, at the client’s feet, so as not to strain the eyes. Their warm color temperature of 2700K allows the client to navigate, but without interfering with melatonin production.

WORK

The residence is also optimized for working. The client’s study has a tailored appearance, with wood-beamed ceilings and expansive views. Light bounces off the ceiling from a cove along



1. Blue light illuminates the bedroom at 5 a.m., suppressing melatonin and signaling that it is time to wake.

2. Light along the kitchen perimeter parallels the circadian illumination in the bedroom.

3. In the study, linear LEDs bounce light off the ceiling, eliminating shadows.

the perimeter and is redirected back into the space, creating an environment without shadows. “That kind of illumination is generally best for being able to read,” Klein says. “When the light arrives in the space, it already has reflected off a surface, so the quality of light is diffuse and shadowless. It increases visual contrast by not introducing any reflected brightness.” The line of light at the perimeter separates the ceiling plane from the wall. At a glance, the ceiling appears to be floating on a silhouette of light.

Linear LEDs were chosen for their slender profile, their concealability, and to make the line of the cove as small as it could possibly be. The light is not to try to attract attention, Klein says, but to make the space a place where the client can function, and to accentuate the environment. “The architecture is pristine,” he says. “The cleaner the lines, the more refined any exposed light fixtures need to be, unless they’re making a statement.”

The client’s artwork is left to make the statement. To illuminate the lithography in the study, Klein used cantilever plug jacks outfitted with LEDs. The fixtures, by cantilevering the lamps away from the wall, bathe the artwork in even, luminous light. Their color temperature of 3500K brings out the color of the canvases, and creates a contrast with the 2700K of the cove lights. “If I used the same color temperature the artwork would look flat,” Klein says. “In order to get artwork to pop, you need to create a color differential.”

PLAY

But what would be the fun if the lighting were only good for sleep and work? On the terrace, one enters a space ideal for entertaining. Fiber optics (UFO Lighting) create a constellation in the stone pavers, a dance of golden stars that invert the earth and sky. “It feels like you’re walking on air,” Klein says. “It gives you an odd sensation in the pit of your stomach, it looks like the sky is upside down. When you’re up there walking around

Simple fixtures do not detract from architectural details.



FAST FACTS

- The lighting concept encompasses sleep, work and recreation.
- Component RGB fixtures adjust the client's circadian rhythm, operating on a control system.
- In the evening, amber light facilitates sleep and relaxation.

it actually feels like you're walking on a cloud."

Klein liked how the optics share a single LED source, providing a big effect with little hassle. "They're stainless steel and waterproof. They're not susceptible to UV from the sun. They're maintenance free. It's a great effect."

Wall sconces mark the entrances into the house and provide up and downlight on the columns, bringing their red and black granite into relief. The sconces are intentionally nondescript, blending with the architecture. "The best part of this whole job is that you can't really see where the lights are coming from," Klein says. "It's about revealing architectural details that you wouldn't normally pay attention to."

The details add up to what Klein calls "a perch, a birds-eye view" of everything that's happening below. "You can see traffic," he says. "You can hear people coming and going. It's a way of enjoying every view in Milwaukee, towards downtown, towards the lake. It's basically like owning a castle in the sky." □

THE DESIGNER



Steven Klein, IALD, is the managing member and principal lighting designer of Klein Lighting, LLC in Fox Point, WI.