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Money

Racine's Ruud Lighting is at forefront of industry's changing technology

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MOUNT PLEASANT — Ruud Lighting has good reason to believe this country is on the brink of a revolution in lighting technology, with Ruud as the vanguard.



That premise hinges on the light-emitting diode and Ruud's place at the forefront as a designer and manufacturer of LED light fixtures.

Christopher Ruud, an executive vice president at Ruud Lighting, says LEDs will fairly quickly become the new standard in outdoor lighting.

"The lighting industry is in the largest transition since the invention of the original light bulb by Thomas Edison," said Ruud, son of company founder Alan Ruud.

"Absolutely. No ifs, ands or buts about it," said independent lighting consultant Elwyn Gee of Novato, Calif., who agrees with Ruud's "revolution" contention. "The rush to develop (the LED light) is already rolling."

Christopher Ruud said the LED will be replacing metal halide and high-pressure sodium lighting. Already, BetaLED products from Ruud Lighting have been sold and installed in various tests, to good effect.

Those tests include a parking ramp in Austin, Texas, street lighting in Oakland, Calif., and a tunnel in Arezzo, Italy.

“They halted all of their lighting projects” based on the success of that tunnel test, Ruud said about the Arezzo tunnel.

Some of those tests, or early installations, have also been close to home. They include the Better Day BP gas station in Racine, the Prairie School’s parking lot — which shows LED next to traditional lighting, the Metro Market parking garage in Milwaukee and GE Healthcare parking lot in Waukesha.

The City of Racine has also bought Ruud’s LED lights for the lower level of the Civic Center parking structure and will soon be installing them.

Ruud an LED leader



It’s no accident that Ruud Lighting supplied the LED fixtures in those pilot projects.

“So far, hands down, they are ahead of anything we have seen from General Electric and anything we have seen from Phillips,” two much larger competitors, Gee said.

“The (Ruud) products we’ve seen are knock-your-socks-off products.”

Christopher Ruud said the most promising immediate places for LED lighting are outdoor uses such as parking structures, parking lots and street lighting. The payback periods for those uses would range from about three to about seven years, he said.

Part of the savings comes from greatly reduced maintenance, because well-designed LED lights will last up to about 25 years, depending on how many hours they are lit.

In contrast, a parking garage illuminated around the clock will burn out sodium or metal halide lamps about every nine months, Ruud said. In those cases, he said, “The maintenance issue is bigger than the energy savings — and the total cost of ownership is the sum of the two.”

Maintenance and changing of lights is certainly an issue with street lighting, and Ruud Lighting has talked to major utilities about replacing traditional types of street lighting — up to 250,000 street lights — with Ruud’s LED fixtures.

Christopher Ruud also projects that LEDs will begin to nudge aside some indoor fluorescent lighting. Although compact fluorescent bulbs are replacing standard incandescent bulbs in many homes, Ruud said, “I think compact fluorescents will be replaced by LEDs pretty

quickly.”

“All those glass tubes technologies, if you think about it, they’re vacuum tubes,” Ruud said. Other devices, such as televisions, were converted from vacuum tubes to solid-state electronics years ago.

The long fluorescent tubes will be harder to replace, he said. But that still leaves plenty of room for LEDs to sweep aside existing lighting systems.

Poised for growth



“I think that Ruud is one of the most aggressive and intelligent manufacturers of LED technologies,” said Wes Morgan, senior project manager for the nonprofit California Lighting Technology Center.

Morgan called LED lighting an emerging technology. “It’s

market-ready, it’s available from multiple manufacturers. There are a limited number of manufacturers that do a high-quality product.”

His organization works with many industry partners, so Morgan was reluctant to endorse a particular manufacturer. But he said, “Ruud is at the top of the LED exterior lighting product game as it exists right now in the marketplace. I have a lot of confidence in their products.”

Ruud Lighting executives think LED lighting holds such great promise that many of the

company’s efforts are being channeled into that technology.

“We have four engineering groups,” Ruud said. “As of two weeks ago, we have no new projects for research and development for anything except LED.”

There is also more price quoting going on lately than for any other product in Ruud Lighting’s 25 years as a company. Ruud’s LED fixtures are protected by about 40 patents and ready for production.

LED’s potential for the Racine area is enormous, because Ruud Lighting has all of its engineering, marketing, customer service and final assembly here, about 540 employees in all.

“It’s the biggest swag in the history of this company,” said Ruud. It could literally be life-changing for this company, We could double in a year.”

“It’s cool,” he said. “It’s a fun time to be in the lighting industry.”

What is an LED?

LED is the common abbreviation for a light-emitting diode. Each one consists of a semiconductor system in which an electrical current excites minerals that make the diode emit light.

The electronics industry has used LED technology for several decades as indicator lights for various electronic devices. In more recent years, the technology has progressed to the point where it is viable for general lighting applications.

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