

RESIDENTIAL LIGHTING

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Sibling Rivalry

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light. A cohesive lighting design will incorporate both.

LEDs have a great variety of uses in commercial design. They backlight signage, and they are in exit signs, traffic lights and behind the buttons of elevators. The more intense colors—red, blue, green and yellow—have a ready use in commercial settings. It wasn't until a more incandescent color of LED was developed that an opportunity was created for residential spaces. These newer color versions have less brightness than their deeply colored predecessors, so they work better in homes where the ceilings are lower than in commercial spaces.

Some forward-thinking companies like [Permlight](#) offer an LED retrim kit that goes into existing 4-inch and 6-inch housings. They come in a screw-in variety and a hard-wire variety. The screw-in takes three minutes to install, and anyone can do it. The hard-wire version would be necessary for Title 24 compliance and should be installed by an electrician. The 6-inch has a high enough lumen output to satisfy [California's Title 24 efficacy requirements](#). They are incandescent in color and dim with a standard incandescent dimmer. The 6-inch versions provide 75W worth of

Q: "Randall, will the future embrace LEDs or fluorescents? According to some experts, LEDs don't save much more energy than fluorescents. Also, they're not cheap—but admittedly do defray maintenance costs in commercial projects because of their extremely long life. In residential lighting this explanation doesn't really hold, so why is there so much buzz about LEDs?"

A: Whoa, take a breath. It's not a competition. I think that LEDs and fluorescents will both play a big role in the future and eventually nudge incandescent lighting out altogether. Both sources are energy-efficient, but they provide two different types of light. Fluorescent is an omnidirectional source, so it is better at providing ambient (indirect or general) illumination. LEDs are a unidirectional source, so they emit better directed (accent or task)

illumination for a fraction of the energy consumption; they last 50,000 hours (as compared to 750 hours for a standard household bulb, 2,000 hours for a reflector bulb and 10,000 hours for a compact fluorescent), and they are totally green. What could be better than that?



The artist used red LEDs to create a glow of crimson light behind this bronze, x-shaped sculpture.