

## A Model City

Known for its street grids, copious parks and legendary architecture, Chicago is often touted as one of the best planned urban areas in the U.S. From now until November 20, visitors to the Chicago Architecture Foundation will be able to see how the city has grown since the early 20<sup>th</sup> century at the *Chicago Model City* exhibit.

The exhibit consists of a detailed 900-sq ft replica of Chicago's downtown, designed to demonstrate how various facets of the city—including



Photo copyright 2009 Avraham Mor

its transportation networks and public parks—were created and what impact they've had on residents. Lightswitch Architectural provided the exhibit lighting, which simulates the light patterns of June 21, 2009—the longest day of the year—every 15 minutes.

The team used color-changing LEDs to reproduce the full spectrum of daylight from direct sunlight to the sky's bluish-colored "fill" light.

Using only 2,600 watts per day, the exhibit lighting saves 80 percent in energy costs compared to a traditional theatrical lighting system, echoing another tenant of Chicago's modern-day urban planners: sustainable design. Visit [www.architecture.org/exhibitions](http://www.architecture.org/exhibitions) for more details.



## Joining Forces

**Traxon Technologies**, an **OSRAM** company, has announced a cross license agreement between OSRAM and **Philips**, which involves the mutual licensing of patents for all inorganic and organic LEDs and system components.

**Lighting Science Group** has secured a distribution agreement with **Martin Professional A/S** that gives Martin the rights to sell Lighting Science's X16 DOTZ LED strings. When sold by Martin, the product line will be renamed FlexDOTZ.

**Leviton** and **Ad Hoc Electronics** have entered into a strategic alliance. Under the new agreement, Ad Hoc's ILLUMRA's wireless, self-powered products will be available exclusively through Leviton.

Architectural, engineering, interiors and planning firm **SmithGroup** has merged with **F&S Partners**, an architecture firm based in Dallas, TX.

## DOE Updates L Prize Competition

The U.S. Department of Energy (DOE) has revised the requirements for the L Prize competition. The program is the first government-sponsored technology competition for solid-state lighting. The revisions include:

- **Revised eligibility.** This change allows for greater participation in the L Prize competition.
- **Revision to correlated color temperature (CCT).** The CCT specification is now complemented with a specification for chromaticity.
- **Revision to the PAR 38 minimum center beam candle power (CBCP).** The minimum CBCP specification for PAR 38s has been revised to more accurately reflect products the L Prize is intended to replace.

The revised competition requirements can be viewed at [www.lightingprize.org](http://www.lightingprize.org).

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# LD+A

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## Growing Green

**August 2009**  
Lighting Design and  
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## A lucid argument anchored by data is always

more persuasive than an appeal to emotion—at least in my book.

The great CFL debate stirs up a lot of emotions, particularly regarding mercury content. At its most hyperbolic, that argument goes something like this: “Mercury is bad. CFLs have mercury. Ergo, CFLs are bad.” Or this: “CFLs have mercury. If my CFL breaks, I’ll be in danger and clean-up will be costly. Ergo, why bother with CFLs?” Pretty emotional stuff.

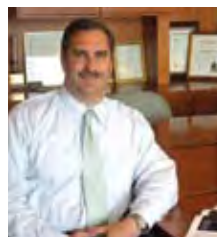
There’s not a lot of emotion, however, in the essay entitled, “Dangerous Mercury in CFLs? One Big Fish Story” (p. 52). Authored by Robert Clear and Francis Rubinstein, the article relies on reasoned arguments and data analysis to methodically dismantle the mercury-based case against CFLs. (What else would you expect from scientists at the Lawrence Berkeley National Laboratory?)

The crucial piece of evidence in their case can be found right on your grocer’s shelf—a six-ounce can of Albacore tuna. The authors found that the mercury dosage from the *most extreme* CFL breakage scenario measured by the Maine Department of Environmental Protection is only equivalent to the approximate exposure from a six-ounce meal of tuna. In fact, if good old-fashioned horse sense is used when cleaning up a broken CFL (helpful hint: don’t force the mercury into the air and then seal the windows and doors), the mercury exposure is reduced to that of a single bite of tuna.

So what to make of this? First, as the authors point out, if you break a CFL, there’s no need to call the guys in the hazmat suits. In a broader sense, if one wants to make a qualitative argument against CFLs based on a personal response to the lighted space, then fine. Quality is in the eye of the beholder, so if CFLs in your family room, hotel room or favorite restaurant just don’t work for you, who’s to say you’re wrong? But one of the most-cited *quantitative* arguments—the one measured in micrograms of mercury—now appears a lot tougher to make, as Clear and Rubinstein demonstrate.

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