

See the Light—And Then Specify It

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Rick Cobello is director of the National Lighting Product Information Program at the Lighting Research Center (LRC), which is part of the School of Architecture at Rensselaer Polytechnic Institute in upstate New York. The LRC's multidisciplinary faculty and staff include 40 lighting professionals who develop and conduct numerous lighting research programs. The LRC offers the nation's only M.S. in Lighting degree, as well as other educational programs and publications describing lighting applications and technologies for use by lighting specifiers. Rick came to the center from GE, where he held a number of positions, including manager of quality information management in GE's "Six Sigma" program, a variety of international assignments, and positions in GE Research and Development.

Tell us a little about the Lighting Research Center and what it can do for the building community.

The LRC is interesting because it has such a good mix of design, technology, academics, and business. I am interested in what the LRC can do to assist people—not just the objective testing, but also in researching human factors like security, productivity, and comfort.

What are the most important issues facing the design community when it comes to energy-efficient lighting design?

Lighting specifiers look for ease of commissioning and installation in new products. The T5 fluorescent lamps, for instance, are energy-efficient and offer environmental and performance benefits because they contain low levels of mercury and can be configured in a variety of shapes.

The LRC staff recently attended a lighting specification and design conference where 30 designers had gathered. When asked what was the most important factor influencing their choice of product, the designers said it was consistency—not innovative design, as I would have expected from this group. They wanted to know what they could design to and be assured that products will be available for the long haul. They didn't necessarily like all the options available to them.

What are the benefits of incorporating energy-efficient lighting in the earliest phases of a project?

The benefits, of course, are the significant savings in energy for commercial buildings. The use of design tools is important—you can put in all the factors, including maintenance, replacement, union labor, capital costs, and energy costs, and they can calculate savings. This can really show how costs can be impacted by efficient design.

When good designers incorporate energy-efficient luminaires in an excellent lighting design, the result can be impressive. One example is the assistance we provided a Staples office supply distribution center with energy-efficient lighting design. Staples has now implemented this design in all of its distribution centers in the U.S. The company is saving money and its distribution center employees are happier and more productive, since product visibility is much improved. Through this same program, we helped the Sacramento Municipal Utility District's Customer Service Center use a combination of daylighting, energy-efficient general and task lighting technologies, and lighting controls to cut down on energy use and improve employee productivity.



You're excited about the National Lighting Product Information Program. What was the driver for the creation of NLPIP, and how can our readers use it as a resource for energy-efficient lighting specification?

NLPIP is an objective source of manufacturer-specific performance information on a whole variety of lighting equipment: lamps, ballasts, occupancy sensors, photosensors, exit signs, specular reflectors, HID and CFL luminaires, and much more.

The drive to get the program going came from our experiences in the field, where we saw designers and specifiers choosing solutions that weren't working well and no one was testing to make sure the lighting products measured up to the manufacturers' claims. NLPIP publishes product reference data and tests products, and we let people look at the results by manufacturer. All this information is provided in an easy-to-use database format on the World Wide Web. This is the only place where you can get testing data and see side-by-side comparisons. For example, we might test CFLs from multiple companies and compare what each manufacturer claimed on the box with what we found. The bottom line is that a busy lighting specifier or designer looking for products doesn't have to go look at cut sheets and catalogs—the information is all right there for quick, easy reference.

This service is open to residents of California. For more information, you can connect to www.lrc.rpi.edu. We invite you to explore our other lighting design resources and educational programs. And feel free to e-mail me at cobler@rpi.edu if you have any questions or further ideas.