Retail Environments

57 Big Ideas
FOR 2011 AND BEYOND

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Top Student Designs

4 TRENDS IN
visual merchandising

PREVIEW
EuroShop 2011

Association for Retail Environments
Planning for More Sustainable Lighting

WHEN IT COMES to the physical and visual perception of our environments, lighting plays a major role. We stand at an exciting crossroads in the lighting industry. Strong forces in the world have led us to a tipping point in retail illumination. The cost of energy, new regulations, momentum in the green movement, the evolution of LED technology, and the need to increase sales per customer have combined to motivate retailers to consider how new alternatives might have a positive affect on both their top and bottom lines.

In response, we are witnessing an emerging and significant trend in retail lighting. The most efficient way to articulate the trend is to consider the ratio of lighting solutions positioned above eye level and those that are at or below eye level. In the immediate future, you’re going to see more lighting installed below eye level than ever before.

Energy regulations may be the most significant driver of this trend. For example, Georgia code is changing to use the 2009 IECC and ASHRAE 90.1-2007 as well as ICC-700 as an optional green building standard. The new rules went into effect January 1, 2011. This code allows as little as 1.5 watts of lighting energy per square foot. In some cases, this simply is not enough light to get the job done. One way retailers are achieving desired light levels and still meeting code compliance is by applying lighting directly into displays.

Bernie Bauer, principal and lead designer at Integrated Lighting Concepts in West Lake Village, Calif., says, “The challenge for retail lighting, given the wave of stringent energy codes, is to maximize the design by using high-quality advanced lighting sources and to bring the source closer to the product when appropriate. LED case and shelf lighting meets these objectives when LED products are properly applied.”

In addition to code changes, the raw economics of energy costs are coming into play. According to the U.S. Energy Information Administration, the average cost per kilowatt for commercial environments in the year 2000 was 7.43 cents. By 2009, it had risen to 10.21 cents per kilowatt. This is no longer “chump change” and retailers are certainly paying attention.

Steve Barker, who has been vice president of sales for Villa Lighting in St. Louis for over a decade, says, “With energy codes and everyone trying to move toward LEED certification, people are going to have to reconsider how they do lighting. You are going to see general light levels reduced and retailers focusing more light on the merchandise.”

A recent analysis of 20 different retail environments at Perimeter Mall in Atlanta supports Barker’s perspective that retailers should reconsider lighting plans. The findings indicate that less ceiling lighting may be the proper course. What was discovered was that on average, retailers have twice as many foot-candles on the floor as they do highlighting the product on the third shelf.

**Lighting on the Floor Average... 53.0 FC**
**Lighting on the Shelf Average... 21.5 FC**

This fact flies in the face of scientific research and common sense. A few years ago, Merchant Mechanics, a consumer behavior and neurocognitive research and consulting firm, published research that analyzed the affects of white light on a display. The results proved that increasing light levels on products results in an increase of product uplift by as much as twofold.

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**In-store research that tracked shoppers from the sidewalk to the cashwrap determined that many more of them entered the store, browsed the merchandise, and bought something when the display was lighted than when it was not.**
THE EYE-TO-PRODUCT RATIO

There are two significant ways for a retailer to physically increase sales: One is to design the store to keep customers there longer (for example, IKEA). Another is to increase the number of times the customer’s eyes lock onto a product while in a particular store environment. Whenever a customer looks directly at a product, they subconsciously have a decision to make. Is this something I need, or not? The percentage of time your customers’ eyes are looking onto products, versus anything else in the store, I have termed the Eye-to-Product Ratio. Obviously, increasing this ratio will increase sales. Since customers are spending less time shopping, their ETPR is becoming a more critical metric to consider.

With this in mind, retailers are starting to convert more of their ceiling lighting budget over to display lighting. They’ve come to terms with the fact that old lighting layouts are just that—old. Much of the merchandise on the store shelf has been, and still is, inadequately illuminated. By bringing the light source closer to the merchandise, retailers can not only avoid wasting energy and costs associated with expensive lamp changes, but they can also increase sales. Applying light directly to displays positively affects both the top and bottom lines of their balance sheets, making lighting “low-hanging fruit” in critical plans to increase profit.

In the past, display procurement departments were judged on two main parameters: 1) Find it cheaper, and 2) Got it there on time. Today, leaders such as Target, Walmart, and Walgreens have started to hold performance on lifecycle costs over upfront cost. This is good news for display manufacturers, especially those making displays for perimeter walls. For instance, replacing track lighting or can lighting on perimeter walls with undershelf LEDs, offers an especially attractive ROI.

As Barker notes, “Another big thing that people don’t think about is that LEDs are taking a lot of heat out of the store.” Replacing halogen with LED can thus reduce the heat, and thus air conditioning costs, within the store as well.

Take the perimeter shelf shown at the top right, for example: This example represents real bottom line savings of $769.10 over a five-year period and that’s just for the one display in the one store. This retailer also enjoys other benefits:

- Light where it’s needed. Directional lamps from above are rarely pointed correctly. If you install such luminaries, one can assume 50 percent or more will be incorrectly pointed, equating to a wasted investment whenever the light is pointed toward the floor.
- Eradication of the dreaded shadow. When light comes from above eye level, shadows are a reality, resulting in half the shelf space being in a shadow and display being less likely to attract the eye. Light directly under the front lip equates to increased light levels per shelf and a higher Eye to Product Ratio.
- Option A requires changing the lamp a few times per year. Cost is certainly one consideration. Another important factor is that in six months, half of the lights will be out. Retail employees are not usually focused on changing light bulbs. With LEDs, this will not be a concern because they last up to 50,000 hours.

Regardless of how many case studies we consider, what is the bottom line? Mark Murray, managing director of Red Chariot, nailed the head when he said, “What may begin as a energy cost analysis in favor of display lighting quickly moves to an opportunity for increased sales. These kinds of best-of-all-worlds solutions are exactly what retailers need today.”

Simply put, if you’re in the display manufacturing business, educate your team about lighting, and take advantage of an easy way to add value and profit to many of your projects. Those that truly embrace lighting will be ultimately perceived as a more valuable partner to retailers, at a time when they need additional profit, just like the rest of us.

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