



Lighting the Way TO INCREASED SALES

BY SUZANNE VAN GILDER

Solid-state lighting technology continues to grow exponentially, and it brings new methods for integrating light along with it. With the ability to specify light more precisely than ever before, the effects of lighting on people's behavior is becoming better understood; and the methods for calculating energy efficiency have become both more complicated and more accurate.

Like most segments, retail stands to gain a lot from these advances in terms of energy efficiency and buying behavior. With his keen eye trained to the market and a natural proclivity to adapt technologies, Art Kubach, owner of T.C. Millwork (see page 48) developed a plug and play lighting fixture for retail called SMARTWALL®. "SMARTWALL® is the biggest growth item we've got going on here right now," says Kubach. "It is a product that literally brings the light directly to the merchandise."

INTEGRATED LIGHT

The idea came to Kubach about eight years ago, while he was assembling straight stretches of track for his son's toy train set. "I thought, 'Why couldn't that be a couple of wall standards in retail?'" So I figured out how to power the wall standards with a low voltage power," says Kubach. "Then it all started to come together and I was able to make a hybrid composite shelf that could house LED light engines and power them virtually wirelessly to the end user." One of T.C. Millwork's specialties is miter-folding MDF boards that are laminated with a hybrid

surface comprised of a decorative film (PVC, PET, OPP) that is overlaid atop a thick PVC or ABS substrate. The process results in seamless corners and edges. "This thing has evolved like you can't believe," says Kubach. "We actually have the finest lighting engine in the market, bar none. The photometrics are amazing. Our color rendition is 93.5 right on the black body curve. We're using three watts of power to get around 1000 lux at 16-20 inches. It's remarkable." The proprietary driver technology and wiring integrator used in SMARTWALL® can power 48-lineal feet of wall with one duplex outlet. And because the entire product is UL listed, the installer simply takes the pre-fabricated





THE NEXT BIG THING

SMARTWALL® has been in development for the better part of a decade, and while the LED product is an effective and easy to use lighting solution, Kubach is already working on an OLED version. LED solid-state lighting uses the energy differential within a diode of semi-conductor materials to release electromagnetic radiation as a discreet point of light. Organic LEDs typically employ either small molecule or polymer organic compounds to make self-emissive electroluminescent film. “OLED is going to be the absolute next revolution in lighting,” says Kubach, who follows the technology closely. “Our current LED strip lights or pucks have those annoying points of light. Despite the amazing light engine and color rendition, they are still single points of light, which is driving me crazy. I want a self-emissive light that just washes down.” By replacing LEDs with OLEDs, the entire surface of the panel will be the lamp. Kubach is currently working with manufacturers in the lighting field, and expects to integrate OLEDs made on glass substrates into the SMARTWALL® systems by the third quarter of 2013. Researchers worldwide are making progress toward applying OLED technology to flexible films, as well. Imagine the possibilities. **s&p**

and pre-wired shelves, attaches them to the SMARTWALL® brackets, and plugs the power supply into a standard outlet. The lamps, which can be either strip lights or pucks, are built into the shelf. “The lamps were developed so that if there is ever a problem, or a desire to change the color temperature, the puck or the strip just pops out and we send a new one,” says Kubach. “And if a store wants to do a re-set on their wall, they simply remove the shelf, the lights go out, they move the brackets wherever they want, put the shelf back in the brackets, and the lights go on. It’s that simple.”

THE PSYCHOLOGY OF LIGHT

A study done by Merchant Mechanics entitled, “Effects of White Light POP Display Illumination On Consumer Behavior” looked at the way adult mall shoppers interacted with endcaps that were lit versus endcaps that were unlit. The research found significant increases in glancing behavior, entering behavior, eye contact, browsing, product handling and purchasing behavior when the fixture was lit. Retailers using SMARTWALL® report similar phenomenon. “We just finished a second full year with one company using SMARTWALL® in their stores, and their same store sales have taken a dramatic turn for the good,” says Kubach. “Everybody that uses the product has an increase in same store sales. It’s just amazing.” Another anecdote about the effectiveness of lighting to drive sales is a women’s clothing retailer. The company was reluctant to try the new technology at first, so T.C. Millwork did one section of women’s shoes with SMARTWALL®. “They weren’t selling many shoes. Then after installing SMARTWALL® they couldn’t keep them on the shelves,” says Kubach. “Sometimes retailers are reluctant to change, but evidence shows that if you lower the overall ambient lighting and light the product where it is displayed, you create a dramatic effect because there isn’t harsh light coming at the customer from all directions. Plus, it lowers the over all energy costs, both for lighting and cooling.”

