

Lighting the Way to the Future

by Adam Balkin
Published Mar 27, 2006

How much has Thomas Edison's most famous invention changed over the past 150 years? What will it look like tomorrow?

Those are the issues that some of lighting's top luminaries discuss each year at the annual Lighting Congress Symposium.

Light bulbs are getting more energy efficient and they are getting smaller. Some of the biggest news is the compact fluorescent which saves 75 percent of the energy and lasts 13 times longer. The other big technology move is LED or Light Emitting Diodes.



Though we tend to think of lighting as either common convenience or just a pretty accent, there was also lots of discussion on how to use light to improve both our mood and even our health.

"We have seen the positive effects of light on populations like Alzheimer's patients. We've seen that a couple hours of light in the evening helped Alzheimer's patients increase their sleep efficiency," said Mariana Figueiro of Rensselaer Polytechnic Institute. "Or take teenagers for example. They can't get up to catch the school bus at 7 in the morning. If you apply light at a certain time, you can actually have them go to bed earlier and wake up earlier and be perkier to get the school bus."

Researchers say natural sunlight is the optimal type of light our bodies crave. While artificial lights continue their effort to mimic nature, one company has figured out a way to pipe actual sunlight into a building similar to the way you'd pipe in water.

"We conduct daylight through multiple stories of a building now. We can have modulation using low voltage control systems so we can actually control daylight going from 100 percent daylight down to 1 percent or anywhere in between using a simple wall switch," explained Neal Digert of Solitube International.

Another development is something you may have already seen in some billboards or even cell phones: bendable lighting. Could flexible, paper thin lighting be the future of lighting in your home?

"It's LEC technology, which stands for Light Emitting Capacitor and it's basically the first flexible light bulb," said Gabrielle Santulli of Ceelite. "We can see lighting in flooring, in ceilings and around columns."

The potential is there to even light your clothing someday.

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