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A Bright Idea

Written by Al Near
Monday, 08 March 2010 16:26



Walk into any space – your corporate office, a retail store, a doctor’s office – and you are immediately met with an array of visual elements that not only impart a lasting impression, but also act as a driving force behind the efficiency of the designed area. Playing an active role in showcasing – or subtracting from – a particular space, lighting has the power to change the look and feel of a room with a flick of a switch. From accent and decorative lighting sources to general illumination, lighting is a critical tool to effectively maximize the value of a space.

By understanding the function of a space and its various architectural elements, specifiers can move from simply providing sufficient illumination toward implementing multifaceted and textured lighting solutions that enhance the lighted environment. To determine the most appropriate lighting sources for a space, it is necessary to consider not only the task being performed in the space and its aesthetics, but also energy and cost savings, installation needs and ongoing maintenance. For example:

» **Extend beyond simply providing sufficient lighting.** It’s important to consider the focal points within a room, whether artwork, architecture or furniture, to ensure the lighting enhances the beauty of these showpieces. Increasingly, specifiers are avoiding big, bulky lighting fixtures that detract – and distract – from the aesthetic appeal of a space, and instead are embracing miniaturization – smaller-sized light sources that don’t sacrifice performance. “Barely there” lighting solutions are compact, smart and provide a seamless experience while ensuring maximum impact.

» **Diversity is key.** Selecting varied lighting sources, or mixed-source lighting, helps to create depth and dimension within an area, increasing its visual appeal. Mixing general illumination with more focused-lighting sources, such as wall washes, task lights and accent lighting, can help to achieve a greater optical impact as well as better spotlight the area’s specific requirements and functions. By mixing light sources – and even mixing different color temperatures – specifiers have access to a variety of options and are able to not only achieve the required functional light levels, but also enhance the ambiance of the space.

» **Color is important.** Lighting applications that deliver the appropriate color rendering index (CRI) within a room should also be utilized in lighting specification. When color is central to a spacial design, specifiers should look to lighting solutions that possess the appropriate spectral distribution curve to effectively maximize the hues and therefore overall appearance of a space. As a general rule, select lighting sources with a CRI of 85 or higher as they are the closest to actual daylight. If a lower-CRI product is specified, it is possible that the space will appear completely different at night than it does during the day.

» **Be mindful of daylight contribution to the space.** Another crucial component in determining proper illumination levels is the assessment of ambient light within a space. By understanding how the presence of natural light interacts with the various surfaces throughout the area, specifiers can effectively harvest daylight and properly integrate it with lighting control systems to not only improve upon the visual appeal of a space but also increase energy savings.

Surpassing Energy Standards

No longer is “going green” a nicety – it is a requirement. Realizing this, specifiers continue to seek solutions that provide ROI for both the building and the environment. They must be knowledgeable regarding the semantics of sustainability and possess a thorough understanding of the corresponding energy codes and standards of the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

With an increasing demand for these energy-efficient technologies that reduce energy consumption, more and more designers are turning to LED or solid state lighting – one of the most energy-efficient options on the market today, using from 2 to 20 watts of electricity.

LEDs can help to cut energy consumption by more than 30 to 50 percent. However, other lighting options that provide comparable energy savings should not be overlooked, including ceramic metal halide and compact fluorescent. Even low voltage incandescent halogen offers considerable opportunity for dramatic lighting design and energy savings potential when incorporated with a lighting control system.

Further, it’s important to consider utilizing the existing elements of a space to achieve optimal lighting results and further cost and energy savings. If a room has a substantial amount of glass, leverage the available natural light and consider coupling this element with low-voltage or cove lighting – indirect lighting sources built into walls, ledges or valances within a room – as these sources require much less energy.

Cost Effective Strategies

In today’s economy and with increased focus on preserving environmental resources, cost savings is a key consideration. It’s not uncommon during the course of a project’s lifespan for the original intent of the space to change. Unfortunately, if lighting sources have already been installed, redesigning or dismantling fixtures can be costly.

When sourcing for a commercial building that is likely to experience various and diverse corporate tenants throughout the years, plug-and-play lighting options are best. This enables one source to be effortlessly converted to another and is also simple to install – providing designers with total functionality and flexibility while also offering the ability to mix lamp sources and functions.

Ease of maintenance is another consideration. Are the selected lighting applications maintained easily? By thinking about maintenance, as well as lamp-life and serviceability, specifiers as well as building or facility managers can better define the most appropriate lighting source.

Relamping or the process of replacing or switching out installed light sources is an example of why maintenance is important. Determining how often a facility wants to or is able to relamp during a given period of time is a crucial consideration when selecting an appropriate lighting source with a corresponding lamp-life.

Since relamping can require extensive equipment and services, it can be a costly process and facilities should consider changing out all sources within the lighted area simultaneously.

Every space has the ability to shine and there is no better way to enhance its features than through intentional and creative lighting design. By recognizing that what goes in above the ceiling impacts what is beneath, specifiers can better select the appropriate illumination source to complement a space’s physical attributes while fostering energy and cost savings – casting the right light on their space and its inhabitants.

Al Near is senior vice president of sales and marketing for USAI, an industry leader in source lighting. To learn more about USAI and its innovative offerings, visit the company’s Web site at usaillumination.com or call 845-565-8500.

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Last Updated on Monday, 08 March 2010 16:49



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