LIGHTING TODAY'S WORKSPACE

A LAYERED APPROACH

When considering the amount of lighting needed in the average office workspace, more isn't always better. Over-lighting the workspace through the exclusive use of recessed overhead troffer-style lighting not only wastes energy and money, but is also the main culprit blamed for common employee ailments such as headache and eyestrain. Learn how crafting the right office lighting plan can contribute to a company's bottom line energy costs and boost overall employee productivity.

First, it's important to recognize the paradox between the amount of light needed to work most productively and the challenges that light may present. The two main functions that occur in most individual workspaces today are viewing a computer monitor and reading paper-based documents. These two tasks require vastly different lighting levels. The human eye requires more light to read printed material (especially as it ages), but the extra light creates glare on nearby computer monitors or laptops. Conversely, if the lights are set low for efficient computing, that amount of light is inadequate for reading, as the eye does not register enough contrast between the light available and the printed document. Headaches, eyestrain, blurred vision and dry eyes are the most common result experienced by employees, which decrease comfort and productivity.

A COMBINATION OF LOW OVERHEAD AMBIENT LIGHT, LAYERED WITH SUPPLEMENTAL TASK LIGHTING PROVIDES THE IDEAL SOLUTION.

Simply increasing or decreasing the amount of light in the office will not solve either of these problems. The solution lies in creating layers of lighting. A combination of low overhead ambient light, layered with supplemental task lighting on the work surface provides the ideal solution. Personal task lights are positionable, allowing the user to illuminate for their individual needs. Task lights that articulate provide directional light that can be brought nearer or farther from the work surface, as well as gives the ability to make small adjustments to eliminate any residual glare.

And because personal task lights are so flexible and light the work surface for reading so efficiently, the overall level of ambient light in the office can be lowered, resulting in lower energy consumption, monetary savings and shrinking the company's environmental footprint. Further cost savings can be realized when comparing the maintenance costs of overhead and task lighting. It is easier, faster and more cost-effective in the long run, to maintain task level lighting, especially if using LED-based lighting. Good LEDs have a useful life of approximately 50,000 hours. This equates to 50 times the life of incandescents and nearly 10 times the life of fluorescents. For further reading on the benefits of LED lighting, please visit http://www.lightcorp.com/files/resources/White_Paper_-_LED_vs_Fluorescents.pdf

Studies of the positive impact on the health and overall well-being of employees from layered lighting schemes in office environments were conducted in 2006 by the California Lighting Technology Center (CLTC) and the California Energy Commission PIER Program*. The study concluded that by making localized LED task light the primary source of light in workspaces resulted in a 50% savings in energy consumption and overhelming employee satisfaction. For optimum employee performance and a healthier bottom line, make light work of your overhead office lighting and employ support at the task level.

* California Energy Commission: Task/Ambient Lighting: Efficient, Stylish, and Portable - PIER TECHNICAL BRIEF; CEC-500-2008-051-FS October 2008