



Rejuvenation
of Boston's
History

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FEBRUARY 2002

Meeting of the

MINDS



**Architectural, Engineering and Construction Teams
Work Together to Shape the
Boston Convention & Exposition Center**

BANKER & TRADESMAN

THE REAL ESTATE, BANKING AND COMMERCIAL WEEKLY FOR MASSACHUSETTS

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Lighting a Vital Element of Business Design

How one perceives an environment is greatly influenced by the way in which the environment is presented to them. Therefore, lighting plays an important role in the psychological response of an individual to an environment.

There are two main aspects of lighting: function and impression. Function fulfills a visual performance need for tasks, and impression provides visual cues that trigger subjective impressions that may influence behavior. The three classifications of impressions are perceptual, behavioral and overall preference. Perceptual conveys impressions of the space structurally. Behavioral communicates impressions of certain responses of activity and overall preference consists of impressions of attractiveness.

We all have similar reactions to certain lighting conditions. The use of luminance ratios will help reinforce specific patterns of brightness, but they must be applied in a meaningful manner to achieve the desired goal of eliciting a specific response. This is especially significant in commercial spaces where influence of people's behavior and impression can be important to business.

Imagine entering a fast-food restaurant versus a romantic, elegant restaurant. Both have the same décor; blue walls, white tables and chairs, and black stone flooring. One, however, is lit with bright uniform lighting, while the other has soft, dim, warm glowing light. Which one would be thought of as a place to go for a quick inexpensive meal and which one for a relaxing, more expensive dinner?

The late professor John Flynn of Pennsylvania State University found five specific impression factors that are influenced by luminance patterns. These five general modes of visual impressions include visual clarity, spaciousness, pleasantness, privacy and relaxation (or energy).

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Spatial Impression

Visual clarity relates to the overall impression of a space. Is the perimeter of the space clear and distinct to us? Do we feel safe and knowledgeable about our surroundings or do we feel unsure of the space due to dark areas that prevent us from seeing details of our environment? For a clear, evident understanding of a space, uniform, fairly bright lighting is desired with the center of the space a bit brighter. Emphasis on peripheral lighting is essential with the use of white light sources. This enables a quick overall view of the room that provides a level of comfort. A hazy, unclear impression is created with no wall illumination, dim levels of light and non-uniform (various levels of light intensity) luminance. This can cause an initial uneasiness since the environment is not easily perceived and understood.

Impression of the size of a space is important for areas that require circulation or assembly. It should be made clear to us how the room accommodates our needs for the use of the space. For a spatial impression, a comfortable, uniform level of brightness with uniform wall lighting is desired. For impressions of a small, confined space, non-uniform lighting with dim light levels is used with non-uniform lighting on walls.

Overall visual interest and attraction is very important. In lighting design, an appealing space usually consists of slightly bright levels of warm, non-uniform luminance. Some wall lighting is preferred. An aesthetic rhythm of light is most appealing that plays with light and shadows. Unpleasant spaces will have extremely dim and hazy lighting or, on the other end of the spectrum, it can be very bright and uniform with a lot of overhead lighting. Bright levels of light can cause an energetic feeling, but can also create anxiety and/or fatigue, especially if we are exposed to the bright levels of light for a certain period of time. This time period varies for each individual. Too dim lighting can make the space unattractive due to details not being clear and recognizable to us. Colors may be "grayed out" to a degree of almost being monotone or colorless.

To create an impression of a private space, soft-lighting levels and warm colors of light are used. Dim levels with slight peripheral accent are desired for subtle appeal. This is a very popular design in restaurants and

lounges. Not only does this create a more intimate feeling, but it also encourages us to relax and stay longer. A more public feeling in a space is achieved with bright, overhead, uniform lighting. This encourages us to act more openly and promotes social behavior.

A quick impression of a space's energy level can be determined by the lighting design. A relaxed atmosphere will have soft levels of warm color tones of light with non-uniformity of subtle lighting intensities and color. This luminous environment encourages us to linger, unwind and even speak softer. For an energized, fast-paced feeling, cool tones of light with bright uniform luminance should be applied. Moving lights can also be used to convey energy in a space.

We are all attracted to light (the "moth factor"). Our eye will go the brightest spot in a room automatically. Retail stores highlight merchandise for our eyes to follow through the store. The back of stores can be unusually bright or use colored light to attract our attention and draw us in. Restaurants send a message about their energy, price range, spaciousness and attractiveness through their lighting design. Corporate images are created in lobbies and conference spaces with certain effects of lighting. A bold statement of power can be portrayed with a feeling of spaciousness and energy with crisp bright light created with lighting fixtures that have a strong element in their look. Logos can be highlighted with very bright light, colored light, backlit, or created with light itself. The knowledge of how and why we react certain ways to lighting is an important tool in lighting design.

The next time you enter a space, be sensitive to how you feel in that space and try to associate it with the lighting details in the space. Notice what you are attracted to and if it is associated with the lighting. You could realize how lighting affects your own mood and behavior in your home as well as in public spaces. This newly developed sensitivity will enable you to be more aware of what lighting effects you should have in spaces that are important to you, or that you spend a great deal of time in. Your environment does affect you. It is important to surround yourself with elements of style that reflect you and communicate a message you want others to feel, whether for personal or business use. ■