



# DRIVING CONSUMER BEHAVIOR WITH LED LIGHTING IN A RETAIL ENVIRONMENT



## INTRODUCTION

The old adage—you only get one chance to make a first impression—is never more true than when a new customer experiences your brand or your physical space.

In that moment, the visual environment creates an impression. That impression quickly turns into an experience, which ultimately becomes a memory. If the memory is pleasing, the consumer is on the path to becoming a buyer and developing loyalty towards your brand.

Lighting is a crucial component in any physical space. Between color, hue, warmth, and brightness, every aspect of light can be utilized to create emotional connections and associations with your brand.

Let's explore how light plays a crucial role in reflecting the vision of your business and, ultimately, your brand.

***“The visual environment  
creates an impression”***



## IMPACT ON CONSUMER BEHAVIOR

Whether displays are bright and airy, modern and slick, warm and intimate, or intense and stark, lighting helps create the desired mood and sets the stage for consumer action.

To determine the right lighting for your space, understanding the appropriate triggers that spur a **favorable consumer experience** and, eventually a purchase, is critical.

- What mindset are they in when they enter the store?*
- What lighting choice will make them feel comfortable?*
- What helps encourage them to make a purchase?*

The use of lighting creates an emotional connection, which develops at both psychological and behavioral levels. As research in the [Journal of Consumer Psychology](#) explains, lighting has an impact on decision-making and our emotions. By understanding both a person's temperament and purchasing goals, you can match the tone and brightness of the lighting to create the right mood and setting.

In a recent study by the [International Journal of Engineering Sciences and Innovative Technology](#) (IJESIT), the results speak to the power of lighting to convert browsers into buyers. Specifically, IJESIT found that “85% of the respondents felt that color, lighting, ambiance and attractive visuals make them spend more time in store... Results clearly indicate that, in general, stores that are brightly lit with the lights cleverly blending with the interiors lead to **higher customer comfort** and, as such, more sales.”

In terms of visuals and their impact on the final buying decision, the IJESIT survey also illustrates that “75% percent of customers said that their final buying decision is affected by visuals and display of apparels.” Effective lighting was noted as one of the **biggest influences in the final buying decision**.

In examining lighting and its effect on people, groups like [InformeDesign](#) have discovered some basic habits that lighting can encourage. For example, brightness and contrast on an object or display helps focus people's attention. **Buyers instinctually follow paths of light**; they also turn to face walls that are illuminated. Both of these insights point to using lighting techniques where the most important products or items are lit up or show depth and contrast appropriately for maximum effect.

***“75% of customers said that their final buying decision is affected by visuals and displays.”***



## INCREASE IN BRAND AWARENESS

What feeling do you want consumers to associate with your business or brand? Whatever that emotion is, your lighting should match.

Lighting fosters brand awareness. Colors and their brightness become part of the overall brand, which builds mental associations for consumers. If lighting complements the use of the same colors and styles on websites and in advertisements, then the brand solidifies in the mind of the consumer. Proper brand alignment can also be achieved with a consistent lighting effect in a physical space.

With more competition to get customers in the door, retailers need to make the in-store experience stand out and feel tantalizing. As noted in a [McKinsey](#) article, “For many retailers, future store layouts will have to foster greater customer learning and experimentation. Technology will need to be fully integrated into how stores and employees engage customers.”

Technology includes lighting and the visual aspects that entice and delight people, bringing them back time and again for that emotional response.

## WHY IS LED LIGHTING IMPORTANT?

LED, or light emitting diodes, has become the leader in lighting. Chances are, you have heard two main arguments for investing in LED instead of conventional light sources:

1. LED is a **financial** win, thanks to decreased operational costs, lower maintenance costs, and a longer life span, all of which lead to long-term savings.
2. From an **environmental** perspective, LED reduces energy consumption and is much more efficient than conventional light sources.

While these financial and environmental reasons are important, we now know the third factor that weighs into the equation: the impact of LED lighting on **consumer behavior**.

The beauty of LED is the wide range of colors that are available, the ability to change colors, and the complete control over the brightness of the light. If a surface shines when lit properly, an item glimmers in a way that catches the eye, or a unique texture can be highlighted, simply cast the right light and then sit back to watch the boost in consumer response.

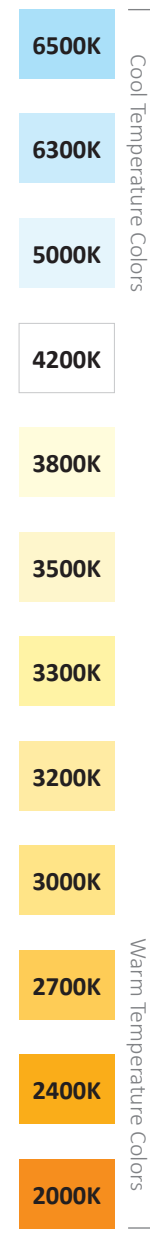
## CHOOSING THE CORRECT LED PROVIDER

Selecting an LED provider involves many factors; from a consumer behavior perspective, you want to utilize technology that produces the best colors, which means assessing color temperature and color accuracy.

Color temperature is often known as correlated color temperature, or CCT, and refers to how warm or cool the light appears and is measured on the Kelvin scale (K). All lighting options provide an output number, which determines the hue. Typically, jewelry is showcased best under cool glacier white light at the top of the Kelvin scale, 5000K and higher.

## CORRELATED COLOR TEMPERATURE (CCT)

The chart below is your quick guide to Kelvin temperatures.



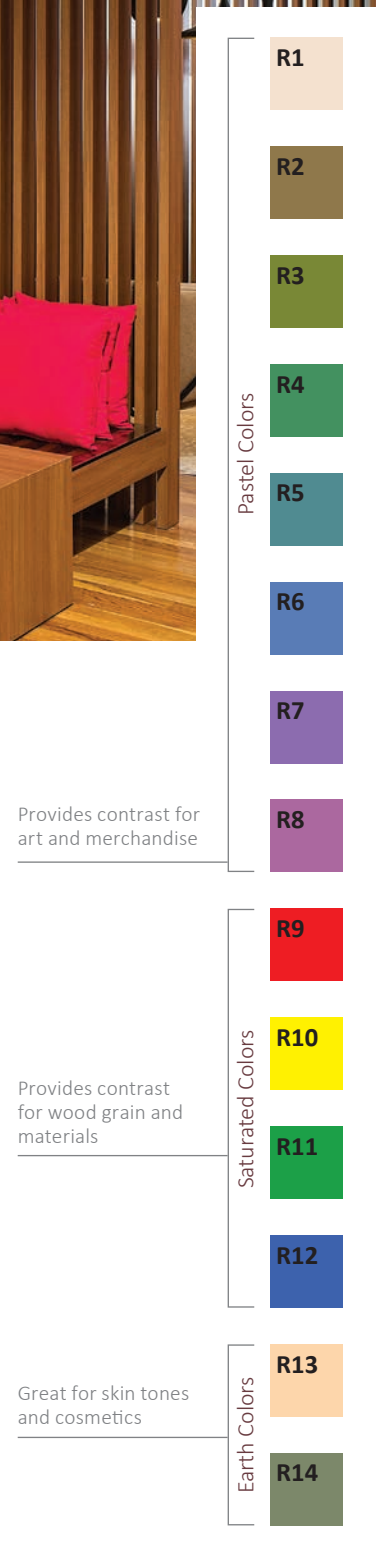


Color accuracy is a little more complicated, as not all LED lighting is created equal. One test used by color scientists to measure color rendition is called the **Color Rendering Index (CRI)**. This rating system helps determine the quality of the lighting, based on how accurate that light source reproduces the “ideal” color of the illuminated object. CRI values are shown on a scale from one to 100, with the highest number given to lighting that renders colors the best; anything over 80 CRI is considered acceptable, but does not tell the whole story.

Fourteen color samples are recognized as standard, numbered R1-R14. The CRI system only looks at the first eight (R1-R8), which are all pastel color samples. The remaining six samples are four saturated colors (R9 – Red, R10 – Yellow, R11 – Green, R12 – Blue) and two earth tones (R13, R14).

With LED lighting, many experts argue, particularly for retail environments, that the most important value to test is R9, which is a saturated red. This color is found in everything from skin tone and clothing to fruits and vegetables. The quality of LED lighting is best illustrated by testing R9 because great LED lighting shows off this saturated color in ways that other lighting cannot. The classic example is to imagine a consumer at a cosmetics display testing products illuminated by lighting with a high CRI value but a low R9 value. He or she would look pale and unhealthy. This consumer is likely less inclined to purchase these cosmetic products. Take the same consumer illuminated by lighting with high R9 value which accentuates the natural pink tone in the skin. He or she would look and feel more attractive and be motivated to buy these same cosmetics. As this example indicates, poorly engineered LED lighting focusing solely on CRI values is exposed for its weaknesses when it fails to pass the higher standards for R9.

Strong, vibrant reds are critical for showcasing items in retail and display environments as the example above indicates. As such, **R9 is the best indicator for great LED lighting** that will illuminate skin tone, clothing, cars, food and produce, artwork, and a multitude of other retail and display items.



### THE COLOR RENDERING INDEX (CRI)

The CRI chart here shows the colors that benefit most from high CRI.





Selecting an LED provider with lighting technology expertise who can illustrate superiority in both CRI and R values—especially R9—will provide you with the highest quality and most sustainable lighting solution for the long term. No matter what kind of display, product, physical space, or attribute you want to highlight, your LED lighting should work to accomplish those goals and help promote your brand.

### CONCLUSION

Lighting is core to creating effective in-person consumer experiences. Businesses thrive when potential buyers turn into paying customers. Enjoyment of the retail experience and environment help create an emotional attachment and affinity for a brand.

Numerous advantages are realized in retail and display environments when LED lighting is utilized. Quality of light is one aspect, but another key factor contributing to the superiority of LED lighting is the virtually unlimited flexibility in the form factors of LED lighting. This customization and flexibility allow retailers to deliver on the aesthetic vision unencumbered by limitations of traditional lighting. The ability to influence the customer perception and create curated experiences increases with the ability to control the exact color and brightness of the lighting. Consumers who feel an affinity for their shopping environment and view products in the best light are more likely to turn into buyers and, ideally, loyal customers.

Elemental LED is a leading U.S. based engineering and technology company that manufactures an extensive high-quality portfolio of superior linear, accent, and task LED lighting featuring unparalleled CRI and R values with flawless and vibrant high-fidelity color rendering. We are proud to be America's largest provider of linear LED lighting, inspiring lighting professionals with our innovative technology, unmatched quality, and best-in-class customer experience.



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