

Facilitator — December 2015/January 2016



Learning to See

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Discovering the nuanced role of lighting in restaurant success

On a cold winter day in 2009, I was invited to join a group of folks from the Greenbuild conference in Boston to visit the new Yum! LEED Gold store in Northampton, Mass. One of the people in this group was Derry Berrigan, the lighting designer for the new store. Little did I know that day would change my understanding of lighting. I call that day “the day I learned how to see.”

I was already naturally curious about high-efficiency lighting, so I quickly accepted Berrigan’s invitation to tour the site and learn about all the different lighting systems she had employed. The first stop was the kitchen, where Berrigan said the words that would change my whole perspective on what it means to light a space.

“Notice how evenly the work spaces are lit,” she said. “There is no glare—this will be a very comfortable and productive space for people to work.”

Having worked in many kitchens myself, the idea of creating a comfortable space for the human beings in the kitchen was at the same time both radical and completely logical. “What?” I thought. “You mean it’s not necessary to suffer in order to work in a kitchen? You mean we should actually take humans into account when designing the systems that will let us see?” After that, I looked at lighting— all types of lighting everywhere I went—with fresh eyes.

When I go into a restaurant these days, I’m looking at all the lighting and considering what works and what doesn’t, based on how it affects my experience and how it affects the operations of the restaurant. What doesn’t work is glare, clutter, obstructed views, too much, too little and plain old ugly. What works is lighting that is really transparent to my experience—something I don’t even notice— and lighting that evokes a memorable experience of the space I’m in.

Exploring the Importance of Lighting

When RFMA invited the Food Service Technology Center to write an article about lighting, I immediately thought of including Berrigan in the mix. She upped that ante with an invitation to go to a real space and use her tools and knowledge to figure out what was working and what wasn’t. And she was bringing along her \$30,000 retina tracking glasses, which track what areas of a restaurant attract the user’s eye, to aid the discussion.

We met up for lunch at a lovely Bay Area restaurant and spent the next several hours looking at all the spaces and chatting about how the lessons we learned might apply to all restaurants, especially QSRs. I wore the glasses, which record both my eye movements and my voice. Berrigan and I looked at the dining spaces, the kitchen and the bar. In the end, we decided the bar made the best conversation piece for the article. As always, I asked many questions, and I learned a lot from Berrigan, which I’d like to share with you now.

RY: Derry, you use the terms “peripheral nudge” and “focus nudge.” Could you please explain what you mean by that and how it applies to our bar example?

DB: Let’s start with understanding context: A bar is meant to be an inviting, intimate and comfortable place. And, you always want people to look their best and make it easy for them to order drinks.

The peripheral nudge is the color expression of light in a space; it is the light that envelops you and nudges you to feel something. Think of it as “attitude.” The bar in our restaurant example has an issue because the attitude is in-your-face conflict: The back wall is cool blue, and the front pendants are hot red. You don’t know what to feel but on guard. This bar is not giving you an “easy welcome,” fostering intimacy and comfort.

The focus nudge is concentrated light that directs and stimulates you to do something. It gets your attention and establishes visual priority. In the case of the bar, the focus nudge should first steer you toward the bottles on the wall, encouraging you to order. In this bar, the concentrated light is in all the wrong places: You see the red pendants first, which obscures the bottles, then you make your way to the bottles, lit overhead with a couple of spotlights that create glare, making it difficult to see them. Your attention is directed toward two small areas of bottles, and the rest is in relative darkness. Also, the brightest space at the bar is the service area, which is something you don't want to highlight.

RY: What did I see first with the retina tracking glasses I had on? And, how would you use this info to evaluate the peripheral nudge or focus nudge?

DB: You looked at the service station first, then the red pendants. Seeing the service station first makes people feel like they are in the wrong place. It's the most utilitarian part of the bar, it's meant for the staff and not the customers. Guests think "What's wrong here? Where am I supposed to be?" As we observed the other guests in the restaurant, we noticed that folks either paused at the station to figure out where they were and ponder why they were seeing service-related items or quickly glanced away. You were one of the folks who paused, and then those red pendants caught your eye. The problem with this is, well, pendants are not what the bar sells. You go to the bar and want a drink, quick! But, instead, you are distracted and a bit confused by all the competing visual elements. It's not the end of the world. You will still end up with your drink, but the lighting scheme has interrupted the experience and created cognitive dissonance. Your subconscious mind is unhappy. So, we are off to an uneasy start with this dining experience. It may seem trivial, but it only takes a few seconds for people to become visually fatigued and end up with a bad first impression. And, neurology teaches us that first impression is the most powerful decider of overall impression. The glasses showed me that your eyes went to all the wrong places, confirming that this space was not visually organized with purposeful nudges. If I asked you whether you liked the bar, you'd probably say yes, after all, it is a bar, but your gaze and pupil dilation told a different story.

RY: Ok, I think I understand: In the future, given the choice to go to this bar or another watering hole, I might choose the other location. Not because the drinks are better but because my subconscious mind knows that I will feel more comfortable. Learning to see also means taking into account what people are nudged to feel. Now that we know what's not working, what would you suggest might make this a better space?

DB: Let's start with the peripheral nudge and ask ourselves: "What do people hope to feel in a bar?" They want to feel intimate and safe while sharing their life's stories with someone. This usually requires a warmly lit space. "Warmly" means lighting that is "redder" or technically around 2,200K. This type of lighting will enhance skin tone and make everyone look better. So, in our bar, we need to warm up the blue material on the back of the bar, take the emphasis off the service area and enhance people's faces. First, though, we need to eliminate those pendants because they block the focus of the bar, which is the bottles. Then, we need to add some linear lighting along the bar rail to graze the fascia of the bar, highlighting the material and providing easy-seeing wayfinding. Lastly, we would want decorative bar-top fixtures to warmly illuminate the happy faces of the people at the bar. Absolutely no overhead lighting.

Then, let's get to work on the focus nudge. The first thing to do would be to remove the spotlights on the bottles and add some wood trim to the shelves to conceal some 2,200K and 3,000K linear lighting; 2,200K for the upper shelving and 3,000K for the shelving closest to the bartender. This would highlight each bottle, making them more interesting and appealing. It would also "warm" and reduce the intensity of the blue on the back wall and get rid of the glare. Then, we would install a hanging rack for wine glasses over the service area with integrated lighting. This would bring a bit of bling to the bar by illuminating the glasses while providing discrete task lighting for the bartender and servers.

RY: So, we're basically bringing the illumination closer to the objects that we want to illuminate. That makes sense to me, and it sounds a bit like theater lighting, where every part of a scene tells a story or creates a memory. You keep talking about the "memorable space" and the "memorable experience" in a space. Could you explain how that fits into this example?

DB: The memorable aspect of the bar is lacking because it doesn't anticipate how I want to feel or what I want to do. A memorable and meaningful experience is one that makes you feel the way you wanted to feel and allowed you to do everything you wanted to do in the way you wanted to do it. The designer must understand and anticipate both feelings and tasks.

Light is the invisible interface of the visual experience. It unifies both the emotional and functional aspects of every experience. We largely experience our world at a visual level; in fact, 70 percent of all sensory receptors are in your eye. If you think that a lighting system is just delivering “light” or you consider an efficient lighting upgrade as just a way to save energy, then you are, more than likely, negatively impacting the experience for everyone—customers and staff alike. And, you’re potentially missing out on additional energy savings because, when you design for people and not just space, you can save up to 80 percent in energy and stimulate sales and productivity too. Can we all toast to that? Cheers!

RY: We have been talking in some pretty lofty tones about nudges and experience. This could all come off as a little touchy-feely, especially since our readers are mostly in the chain restaurant business. But, that last thing you said about stimulating sales and increasing productivity may be the bridge between our bar example and the dining room of a QSR. I have been in plenty of QSRs, as well as fast-casual and casual dining restaurants, where I noticed that the lighting systems had the same challenges as our bar. Some examples that come to mind are fixtures that block the menu boards, glare, poorly maintained fixtures that look uneven or discolored, lighting that makes the space look dingy, clutter, etc. I’m sure you have many examples as well. Can you distill our discussion into a few salient points that our readers can apply to their own facilities—techniques or actions that will help them create a comfortable, memorable space for their customers and staff?

DB: No. 1 is to create a lighting strategy based on three pillars: experience (including customer and employee), operational efficiency and sustainable progress. Second, inform the lighting strategy with user experience (U/X) research. By gathering facts in the field, we gain independent, direct experience and evidence that helps us understand what people are doing and feeling. For every client my company works with, we conduct U/X research to create experience and space strategies that are based on real-world conditions and free from subjectivity and opinions. Get the facts; understand the folks who will be experiencing and interacting with what you design; and, most importantly, collaborate! Light makes many connections and creates many moments of truth: establishing brand impression, stimulating sales, facilitating order efficiency, rendering the appearance of food, using energy, making people comfortable and so many more. Get marketing, chefs, IT, designers, branding, operations, safety and security, engineers, suppliers and contractors involved. Light directly impacts them. Share insights and get feedback. After all, light impacts everyone and everything everywhere, everyday, at every moment.

Richard Young is a Senior Engineer and the Director of Education at the Food Service Technology Center (www.fishnick.com), a publicly funded research facility that studies and promotes energy and water efficiency in commercial food service. Derry Berrigan is Chief Innovation Officer at Light Think Studios and Co-Founder of Light Think University. As an internationally recognized architectural LED lighting designer, she works to transform experiences in spaces such as restaurants, retail, hospitality and education.