SUPERMARKET LIGHTING DESIGN GUIDE

EXPERIENCE **OPTIMIZATION**

Customer experience is paramount in lighting design. This is achieved by improving light levels for visual brilliance and creating a tantalizing experience.

As Online shopping becomes the norm, the need for customer-centric design in physical stores is more pressing than ever. It's a crucial step towards ensuring the continued success of in-person consumerism.









GOALS OF

SUPERMARKET LIGHTING

- \cdot Let the lighting tell a story
- · Focus on visual comfort
- · Create a bright and spacious design
- Include "layers of light" in the design that directs shoppers toward merchandise
- · Color Rendering
- · Color Consistency
- · UV reduction on produce
- · Reduce maintenance and energy costs

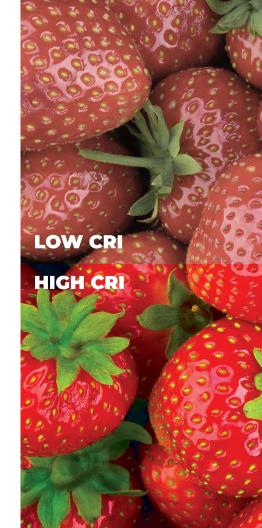
OF COLOR

Color plays a vital role in supermarket lighting, making a difference in how customers perceive your merchandise and store.

Elements of color to consider in Supermarket Design:

- · CCT Correlated Color Temperature
- · CRI Color Rendering Index

*TM-30 for a broader approach for scoring how well a light source will render the colors in a space.









CRI

COLOR RENDERING

The Color Rendering Index, or CRI, measures how a light source renders the colors of objects compared to the sun or another light source. It is an excellent tool for comparing two products with the same CCT.

The CRI of a light source is scored on a scale of 1-100, with a higher score indicating a more accurate color rendition. This score is based on the rendering of 8 colors, providing a comprehensive assessment of color accuracy.

TM-30 is another, more detailed measure of color.

Using the same scoring, TM-30 is more comprehensive as it utilizes 99 colors, as opposed to the 8 CRI measures, and consists of three additional forms of measurement: Fidelity Index, Gamut Index, and Color Vector Graphic, for saturation and hue performance.

R9 value, part of the Color Rendering Index (CRI), measures a light source's ability to accurately reproduce strong red colors. High R9 values ensure vibrant hues appear vivid and true to life, enhancing visual experiences.

REFLECTION

AND GLARE

Light reflection on merchandise is an important consideration. Various surfaces have different reflectance levels, which can be used when considering the quantity of luminaires, reducing material cost while improving energy usage.

Glare is also something to consider. You want to minimize glare to ensure overall visual comfort for the customer. Glare occurs when light is in the direct sight line from a light source or when reflected off a surface.









CONTRAST

Light layers help consumers feel comfortable while highlighting important merchandise and differentiating sections within the store.

Four Basic Layers of Supermarket Lighting

- General or Ambient
- Accent
- Task
- Decorative

Contrast is achieved by introducing accent lighting to increase light levels, emphasizing merchandise against the general lighting.

A 3:1 ratio provides a recognizable contrast and encourages visible interest.

HOW

MUCH LIGHT

- · General Lighting: 30-50 foot candles
- · Task Lighting: 50-200 foot candles
- · Accent Lighting: 150-500 foot candles
- Decorative lighting enhances merchandise and adds a splash of light where desired.









PRODUCE **DEPARTMENT**

Accent lighting helps achieve contrast ratios and helps merchandise stand out.

Other design elements to consider:

- · CCT of 3000K to 3500K for a comfortable tone.
- CRI or TM-30 Rendering of 90 or above, emphasizing R9 values to bring out the most realistic color in the produce.
- Mount lighting 10' 14' AFF for proper aiming, optimal light levels, and glare reduction.
- Track Lighting for contrast and design versatility.
- · Linear Lighting for clean lines and uniformity.
- · High Bays and Cylinders for general illumination.

FLORAL **DEPARTMENT**

Utilize high contrast ratios to bring attention to plants, floral arrangements, and other merchandise.

Other design elements to consider:

- · CCT of 2700K to 3000K for a warmer tone.
- CRI or TM-30 Rendering of 90 or above, considering the variation of colors within the department.
- A contrast ratio of 3:1 will help distinguish the merchandise from the general lighting and grab attention.
- Use track lighting to achieve a 3:1 ratio of delivered foot candles, as compared to general lighting.
- Use high bays, low bays, and cylinders for general illumination depending on the ceiling application and the store area.
- Use recessed downlights if merchandise is in an area with a low-hanging ceiling.









AISLE LIGHTING

The center of the store takes up the most extensive footprint within a Supermarket. Lighting in this area needs to account for high foot candles, but also needs to provide uniformity.

- Customer navigation, merchandise visibility, glare, and color consistency are all considerations when determining lighting for your aisles.
- If general illumination is used in addition to aisle lighting, a
 2:1 ratio improves the visual acuity of merchandise labels and price tags.
- For linear aisle lighting, installing lighting parallel to the shelving provides light-level uniformity for all shelves and best uses wattage per square foot.
- High bay is best for general illumination, signage visibility, and mounting height requirements above 16'.
- Track lighting is best for accenting merchandise throughout the center of the store. It is mostly used on end caps and featured products.

FIXTURES & TRACK

SYSTEMS FOR GROCERY APPLICATIONS







- Single circuit with 1 neutral





ECO J

- Single or dual circuit





GEO

- 2 circuit system with 2 neutrals





GEO 277V

- 2 circuits with 2 neutrals





GEO X

- 3 circuit (3L+1N) + 1 databus (0-10V)





ZONYX

- Single circuit, Flexible Ribbon Track



GX FAMILY









GX10



② 27K, 30K, 35K

▲ 25° - 50°

GX15



② 27K, 30K, 35K, 40K

▲ 20°-50°

GX25



② 27K, 30K, 35K

▲ 25°-60°

GXWW

O Up to 5180 lm

30K, 35K, 40K









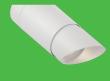








ACCESSORIES









SHROUD SNOOT

SNOOT

HONEYCOMB LOUVER

FINISH



BLACK



WHITE





standard white

- oup to 3560 lm
- 27K, 30K, 35K, 40K
- ▲ 10° 50°

warm dim

- up to 2100 lm
- 35K dim to 18K
- 15° 50°

tunable white

- up to 1600 lm
- 18K 40K, 27K 65K
- ▲ 30° 50°

RGBW

- **o** up to 960 lm
- choose your white CCT
- ▲ 30°-50°











MOUNTING



ACCESSORIES



FINISH











BETA 3

- 0 up to 1700 lm
- ② 27K, 30K, 35K, 40K
- ▲ 15°-80°



BETA 4

- O up to 3580 lm
- ② 27K, 30K, 35K, 40K
- ▲ 8°-80°



BETA4R

BETA 6

- O up to 9930 lm
- ② 27K, 30K, 35K, 40K
- ▲ 40°-80°



SERA **OUTDOOR**





SERA 6Q UP/DOWN

SERA 4

- 0 up to 1560 lm
- **30K, 40K**
- ▲ 35°-50°, 84° x 14° louver

SERA 6

- 0 up to 3400 lm
- **30K, 40K**
- ▲ 24°-55°, 70° x 10° louver









COVE SABER CCT & SABER MINI

SABER CCT

SABER MINI

SABER CCT

- 750 lm delivered per foot
- 30K to 40K CCT select
- 12" 32" lengths

SABER MINI

- 210 lm delivered per foot
- **3**0K
- 4" 48" lengths



DECORATIVE TITAN 1 CLASSIC



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