

Stater Bros. Markets

Grand Terrace, CA

The Situation:

Keeping up with lighting technology is one way Stater Bros. Markets creates an experience that keeps shoppers coming back. Aiming to achieve consistent light levels and glare-free illumination, the Southern California grocer found an ally in FSC and an answer in LED. FSC's new L-BAR was the top contender and best solution for its state-of-the-art 44,000 square foot, environmentally friendly, Grand Terrace, California, location.

The Solution:

FSC Lighting's L-BAR replaced the linear fluorescent fixtures on the 29,000 square foot sales floor, slashing the operating cost of its entire retail space while enhancing the visual appeal of their product on shelves. By replacing two fluorescent lamps consuming 55 watts with FSC's 25 watt L-BAR Strip, Stater Bros. will use 136,028 fewer kilowatt hours (kWh) per year, an annual savings of approximately \$14,159. The long life of the L-Bar system will also contribute to significant reduction in maintenance costs by greatly reducing expense of re-lamping.

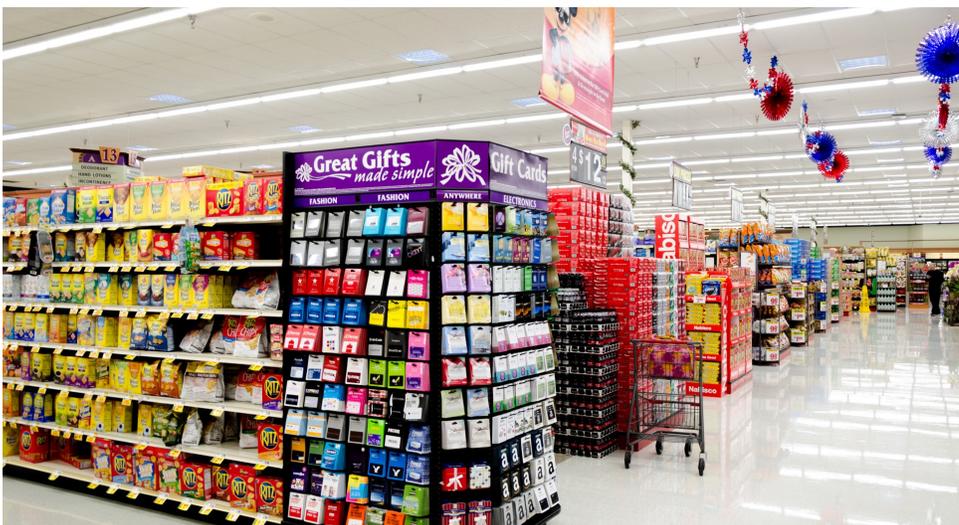
"Major Grocery Retailer will save 74% in lighting costs by retrofitting it's existing fluorescent strips."



L8500 Series LED Strip Features:

- Projected L70: 203,000 hours
- Daylight harvesting, bi-level/step dimming, occupancy sensors, & emergency battery back-up options
- Energy efficient – up to 90% savings over current lighting costs
- Available in standard & high lumen output
- Narrow & medium reflectors optimized for high-bay aisle application

	EXISTING	REPLACEMENT
TECHNOLOGY	Fluorescent	LED
SYSTEM	2 Lamp T8 Strips	LED Bar Strip
TOTAL SYSTEM ENERGY USAGE	55	28
CONTROLS	None	Auto Demand Response Dimming Daylight Harvesting
TOTAL ANNUAL kwh	136,028	34,891



FSC Lighting delivers RESULTS:

ANNUAL ENERGY COST SAVINGS:

\$14,159

ANNUAL ENERGY SAVINGS:

101,137 kWh

484 – 25WT LED Strips

For more information about the L8500 Series and more FSC LED products call 909-948-8878



Stater Bros. Market- Grand Terrace, CA

California Title 24 2013 Compliant

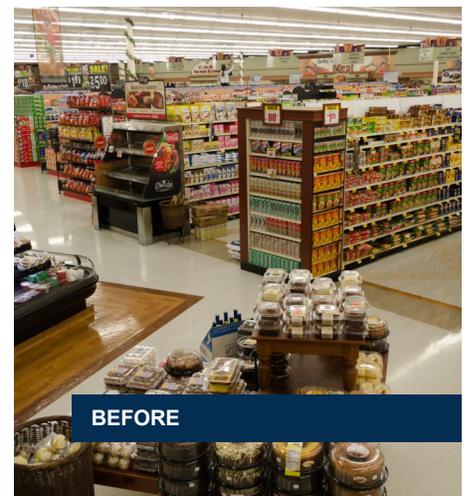
- Programmable photocells allow the fixture to either continuously dim based on ambient light contribution or just turn off when the desired light level has been exceeded.
- The lighting fixture can also be programmed to operate between a maximum light level and minimum light level based on the customer's desired amount of light using both the occupancy and photocell to do so.
- Programmable photocell sensors allow Stater Bros to choose whether to turn the lights off when the space is empty or dim the fixture to almost any light level of their choice.

* WT/Sq.Ft. Based on sales floor only minus produce and liquor department.

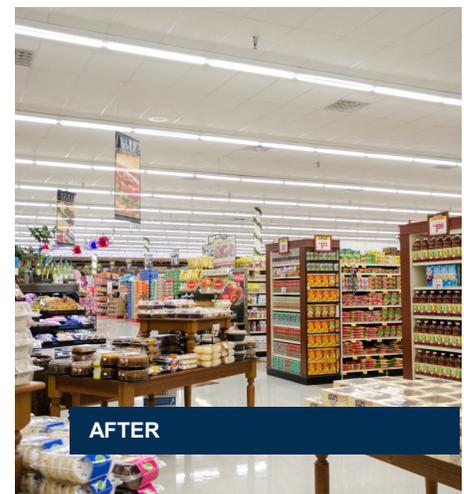
Watts Per Square Foot Calculations

Power Density – Sales Floor - CA Title 24 2013 Retail is 1.20 Watts Per Square Foot

	Fluorescent 100%	Fluorescent 50%	L-BAR 100% Light Output	L-BAR Task Tuning	L-BAR Daylight Harvesting
Input Watts/ 4' Section	55	27.5	28	17.37	5.79
Watts Per Square Foot	0.912	0.459	0.468	0.29	0.097



Before: "LFL dimming system was not producing energy savings when lamps were dimmed below 50% of full light output."

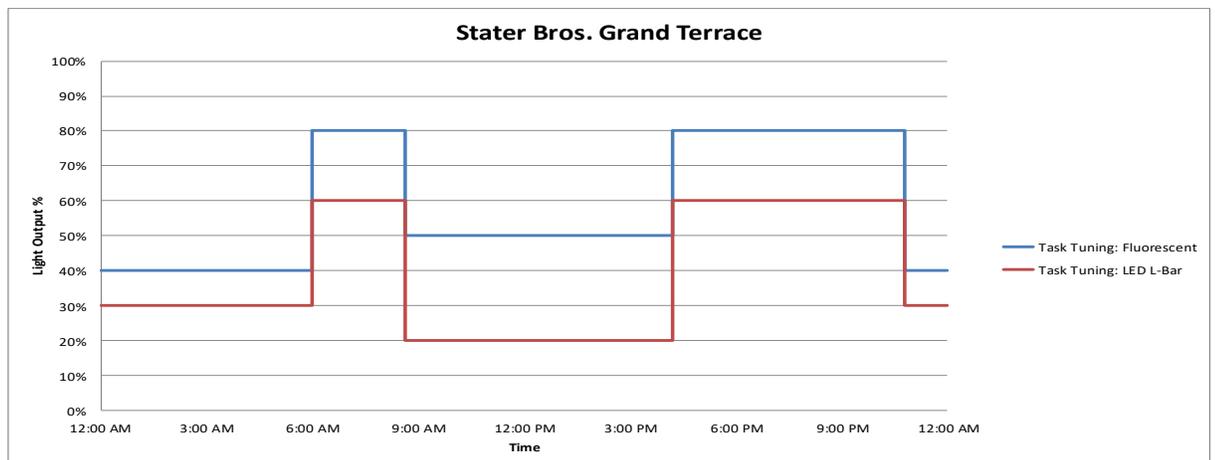


After: "New LED Light Bar system allows energy savings down to 10% of full light output."



Task Tuning

Since Stater Bros has implemented a dimmable lighting system at their Grand Terrace, CA store, they now have the ability to task tune their lighting for the next several years. This means that during the early morning store hours as well as the evening store hours they will be able to set their lighting system at approximately 60%-75% of full light output and save an additional 25%-40% in energy. When lumen depreciation begins to take place Stater Bros can slowly increase their energy consumption, but they will maintain their light levels throughout for the life of the store. This is a paradigm shift from typical lighting maintenance programs.



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BASIC/ STANDALONE PROGRAMMABLE/ WIRELESS CONTROLS

FSC offers three different control styles tailored to meet each projects specific needs.

BASIC SENSORS: This series utilizes an on/off design for applications where installed cost is the primary driving factor. Occupancy sensors and occupancy sensors with photocell will allow a fixture to simply turn off when there is no occupancy or enough ambient light present. Timing and sensitivity can typically be adjusted as well but the fixture cannot be programmed by the sensor.

STANDALONE PROGRAMMABLE: In addition to selecting occupancy and photocell sensitivity, this option allows the owner many more options. The owner can set the peak light output (and wattage) and adjust light level sensitivity using the 0-10v wiring onboard the fixture. These sensors are typically programmed using a remote control commissioning tool that remembers instructions and can recommission the fixture within a few seconds.

WIRELESS CONTROLS (with or without GUI): FSC can integrate advanced lighting control technology into its lighting fixtures, this technology can tie into a Graphical User Interface if desired. Each fixture is individually addressable and can be integrated into the Building Automation System. These systems can be tuned to be the most energy efficient available and can provide significant data back to the building owner depending on the type of system they decide to use. FSC can pre-wire necessary I/O devices required and is willing to use customer supplied equipment to be wired and tested for a minimal fee.

Contact Us

Give us a call for more information about our services and products

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FSC... Go Beyond Efficiency