

# CASE STUDY

## INTRICATE LUXURY COSMETICS FLAGSHIP STORE DESIGN



**LUXLINE™**  
LED LIGHT STRIP



**LUXLINEAR™**  
LED LIGHT TUBE



**LUXFIT™**  
LED LIGHT PANEL

**COSMETICS FLAGSHIP STORE**  
WESTFIELD VALLEY FAIR MALL  
SANTA CLARA, CA



## OVERVIEW

### COSMETICS FLAGSHIP STORE

WESTFIELD VALLEY FAIR MALL | SANTA CLARA, CA

**product** LUXLINE™ LED Strip Light, LUXLINEAR™ LED Tube Light, LUXFIT™ LED Light Panel, LUXFLEX™ LED Rigid Sheet (custom)

**lighting manufacturer** LEDCONN

For the world's premier multinational beauty corporations representing some of the finest luxury goods available in the world today, maintaining an image of luxury in their subsidiary brand stores is paramount to their success. Cosmetics brands at the highest echelon of luxury are more than providers of cosmetic goods: they act as symbols and leaders of haute-couture with an image to protect.

The LEDCONN team was asked to be a part of a store design project by one of the leading store design firms for the creative design of a luxury cosmetics flagship store in Santa Clara, California. The store designer's client, a high-end global luxury brand, needed to create a store design that would strengthen its luxurious image in the beauty industry. The store designer chose to use LED lighting for the purpose of enhancing this image and reached out to LEDCONN for an expert lighting consultation. This consultation covered how to evenly illuminate the 25 planned key store fixtures with LEDs and educated the designer on their lighting and hardware options.

The global nature of this particular project added complexities that were overcome through tight collaboration around the world with everyone involved. LEDCONN worked closely with both the store fixture manufacturer and the brand's international teams and vendors during design and specification through production in China to installation in the US. Planning for a successful flagship store design required a great deal of collaboration and intercontinental communication among the brand, store designer, lighting manufacturer, store fixture manufacturer, and general contractors involved.

Fully completed after one year, this luxury cosmetics flagship store used over 262+ assorted LED lighting components spanning everything from light strips, light panels (static white & rgb), light tubes, rigid backlit panels, and 98+ dimming modules, rgb controls and transformers. The sheer volume of product used required excellent communication among all parties involved.



## LIGHTING MANAGEMENT DESIGN THROUGH PRODUCTION

Every successful store illumination project starts during the ideation phase. LEDCONN was brought on early in the project and partnered closely with store designer to develop a strong lighting strategy even before the project had been officially issued by the global luxury cosmetics brand.

Upon being awarded the project, LEDCONN spoke directly to the brand's reps in New York and Paris to better understand the brand's lighting requirements. Shortly thereafter, LEDCONN was then introduced to the China operations of the brand's US store fixture manufacturer to help oversee the production quality of the lighting used in the store fixtures. After coordinating with the store fixture manufacturer on the final LED-illuminated designs, the specified lighting fixtures were sent directly from LEDCONN's production facility in China to the store fixture manufacturer's China facility for fixture production.



Upright store fixtures were pre-assembled in China for quality review before final installation in the US. These are the "before" images of the top image featuring product with the display.

# LIGHTING

## FIXTURES

A combination of the following lighting components were used in all 25 store fixtures. Static white lights were specified at multiple color temperatures including 3000K, 4000K, and 5300K. RGB was used to add pops of color throughout the store.

- LUXLINE LED Light strips
- LUXFIT LED Light panels (static white, RGB)
- LUXLINEAR LED Light tubes
- LUXFLEX rigid backlit panel board
- Power supplies & RGB controls



### LUXLINE LED LIGHT STRIPS

- Flexible, curvable, and cuttable lighting solution that mounts easily with adhesive backing.
- Great for achieving indirect lighting in compact areas.
- Available in an array of strip thicknesses and color options.



### LUXLINEAR LED LIGHT TUBES

- Emits a single pure beam of light and comes with various diffuser lens options and profiles.
- Customizable lengths
- Available in multiple profiles and diffuser lens options
- Easy mounting with mounting clips. Magnet mount available for specific profiles.



### LUXFIT CUSTOM LED LIGHT PANELS

- Customizable product allows for lighting fixture size to match surface dimensions.
- Large panel sizes up to 5ft x 10ft
- Requires minimal airgap and is hotpot free/seamless
- Arrives pre-cut to spec dimensions. May be provided with predrilled holes for easy installation depending on application need.
- Available in static white color temperatures and RGB.

**CUSTOM  
RIGID LED  
BOARD**

### CUSTOM LED RIGID BOARD BACKLIGHT

- Custom requested rigid backlight board provides broad illumination for larger surface areas
- Special request LED luminaires: LEDCONN offers a wide variety of products that are not pictured on the website. With a minimum MOQ, we can source many LED lighting products beyond what we typically offer to meet your project needs.

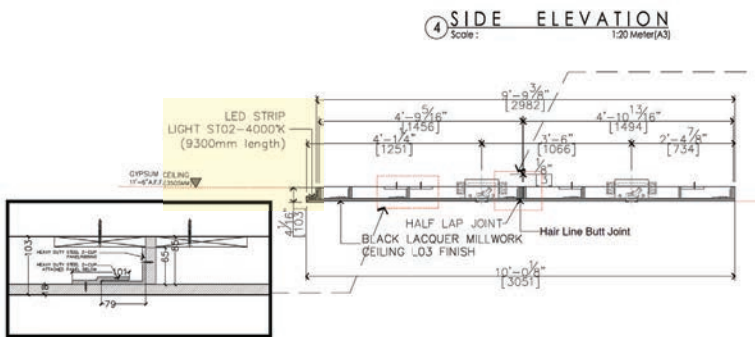
# LIGHTING MANAGEMENT

## WIRING DIAGRAM: SKINCARE PRESTIGE WALL FIXTURE

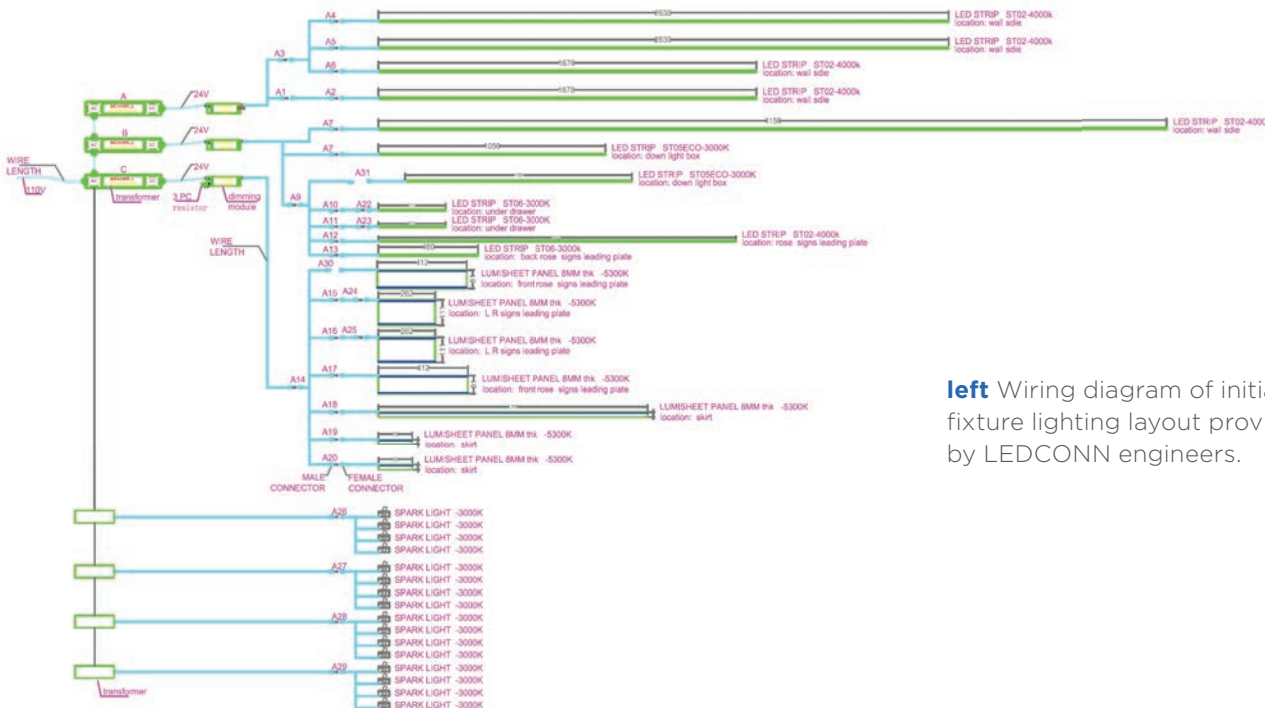
LEDCONN led the LED management by explaining the technical lighting challenges to the store fixture manufacturer and guiding any modifications to the original fixtures. Clear fixture drawings and lighting wiring diagrams exchanged between the store fixture manufacturer's China team and LEDCONN's US engineering team helped clarify communication during production. For the purpose of this case study, in the next few pages we will closely examine the process of developing and engineering the skincare prestige wall fixture, which is just one of the 25 unique store fixtures fabricated for this store design.

**right** Fabricated store fixture, pre-installation

**below** Millwork drawing (side view) showing where an LED strip will be inserted into the fixture



### #14 SKINCARE PRESTIGE WALL FIXTURE

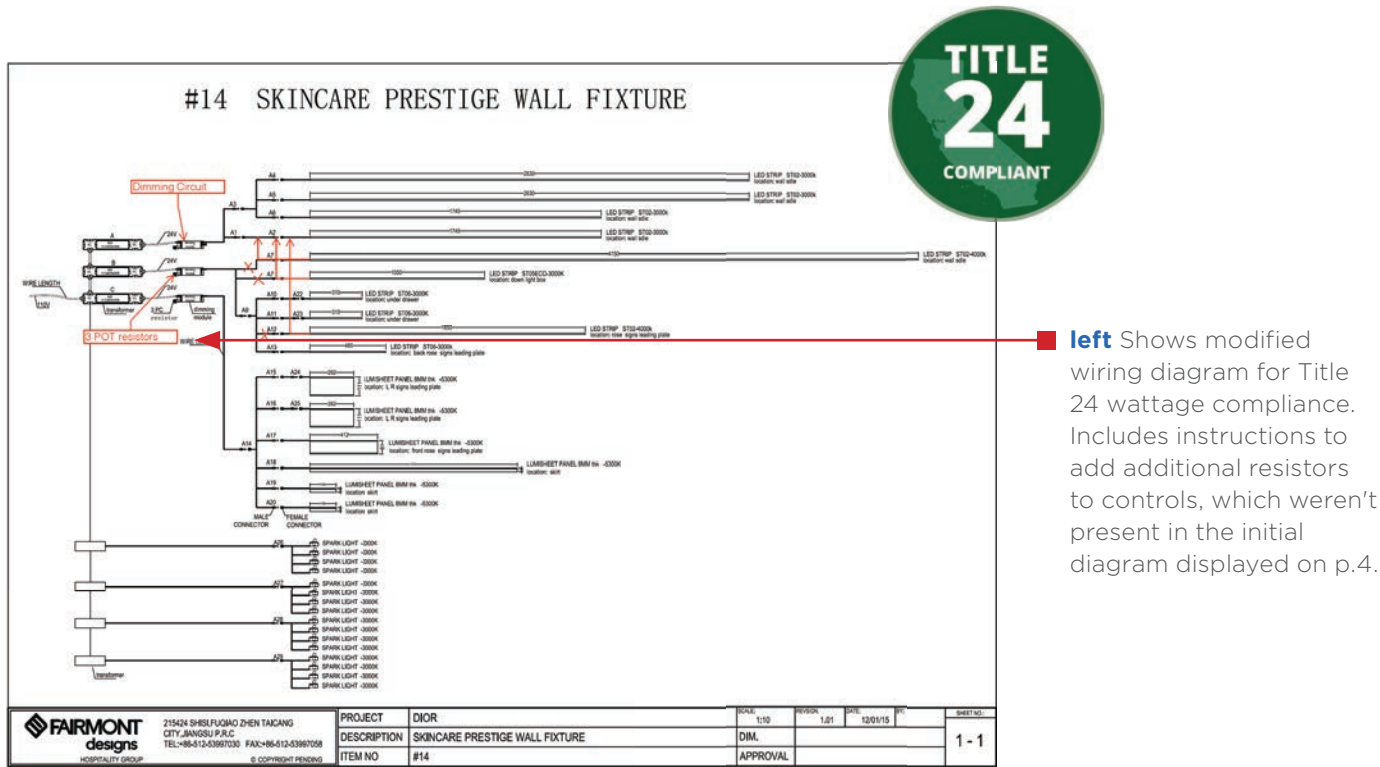


**left** Wiring diagram of initial wall fixture lighting layout provided by LEDCONN engineers.

# CHALLENGE #1

## CALIFORNIA TITLE 24 COMPLIANCE

One unexpected challenge that arose during production involved obtaining Title 24 certification for the brand. The need for compliance was discovered only after production had completed. Now too late to make any changes to the light fixture, the LEDCONN engineering team had to figure out another way to reduce wattage by 30% for the fixture manufacturer. Thinking quickly, LEDCONN proposed modifying the controls to a lower wattage and explained the effects of what lower wattage would have on compliance and overall lumen output. This solution satisfied the compliance requirements and the brand's aesthetic needs.



#14-SKINCARE PRESTIGE WALL FIXTURE									
item	location	size	light side	hole	quantity	CCT	Watt	Remark	
ST02-4000K	wall side	L=8616			1	4000K	57.64	China LEDCONN	
ST02-4000K	light box back	L=4150			1	4000K	27.84	China LEDCONN	
LED Tile 5k	light box	1116*1156*6			1	5000K	53.75	USA	
ST05ECO-3000K	down light box	L=1050			2	3000K	6.72	China LEDCONN	
ST06-3000K	under drawer	L=310			2	3000K	2.7456	China LEDCONN	
8MM LUMISHEET	L R signs leading plate	262*111*8	single wih two line		2	5300K	1.32	China LEDCONN	
ST02-4000K	rose signs leading plate	L=1650			1	4000K	11.04	China LEDCONN	
ST06-3000K	back rose signs leading plate	L=460			1	3000K	4.1184	China LEDCONN	
8MM LUMISHEET	front rose signs leading plate	412*81*8	single wih two line		2	5300K	2.112	China LEDCONN	
6MM LUMISHEET	skirt	1245*23*6	single wih one line		1	5300K	3.168	China LEDCONN	
6MM LUMISHEET	skirt	156*23*6	single wih online		2	5300K	0.396	China LEDCONN	
ACCENT01-3000K-SP					16	3000K	2	USA	
dimmer + module					3			USA	
LED transformer		HLG-80H-24BL			3			China LEDCONN	
wire		600V			m	30		China LEDCONN	
matel wire protector					m	5		China LEDCONN	
DCplug ( wire 1m )		600V			set	30		China LEDCONN	

above Wattages for all planned lighting components in a fixture are calculated by the LEDCONN engineering team in advance so that clients are fully aware of the proposed power consumption. This table shows the complete power consumption of the skincare prestige wall fixture.

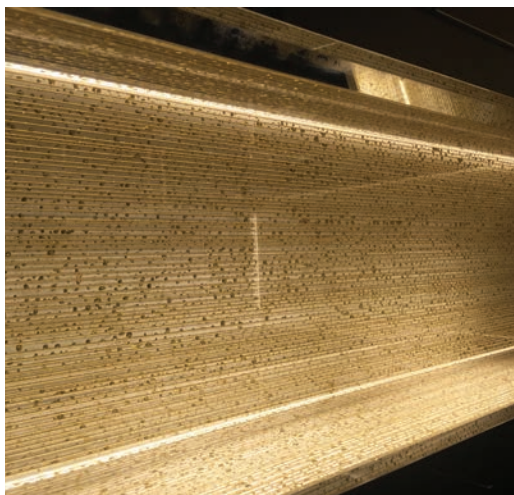
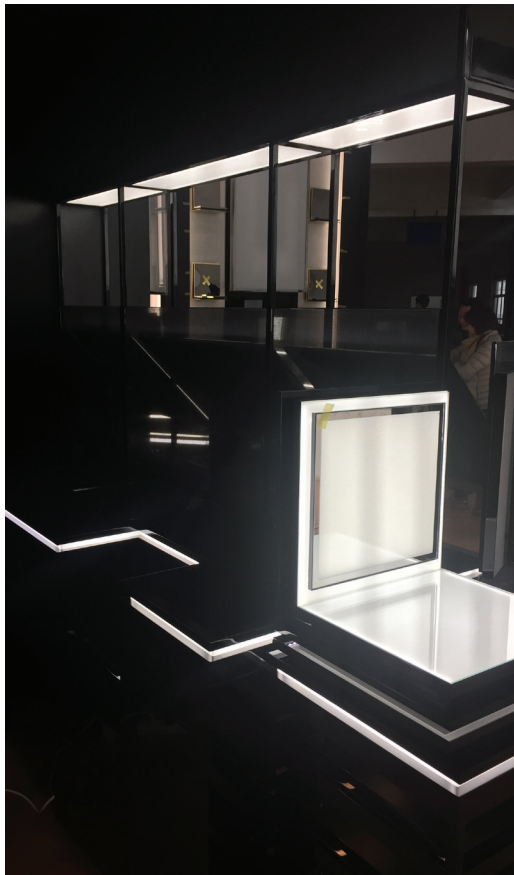
# CHALLENGE #2

## MANAGING LIGHTING QUALITY

Luxury brands expect high quality lighting and have very high standards by which they hold their vendors accountable. Color consistency is a common challenge when so many products are involved; it's all too easy for lighting components in a store design to look slightly different throughout the store. To ensure consistency across the sheer volume of LED products in the store, LEDCONN made sure products requested in specific color temperatures were all chosen from the same bin and matched the exact shade of light color expected by the cosmetics brand. The end result: seamlessly even, hotspot-free LED lighting throughout the entire store.



Consistent Color



# LIGHTING MANAGEMENT

## POST-PRODUCTION INSTALLATION

After completing production of the the fixtures and the lighting components, the brand, store fixture manufacturer, lighting manufacturer, and store designer met together in China to review the illuminated fixtures. For the review, fixtures were fully assembled in China and arranged as they would appear in store. Shortly thereafter, the entire store design was knocked down and shipped to the store fixture manufacturer's US operations for assembly and installation in the US.

The store fixture manufacturer then hired a US general contractor for the actual installation. Because the project was so comprehensive with custom lighting components, LEDCONN sent their engineering team to provide extra support on-site to guide the contrators through the technical aspects of lighting installation.



**before** All parties involved met in China to review the assembled fixtures in a mock up format before they were sent to the US for installation.

**after** Same setup as left image with cosmetics displayed in the Santa Clara, California flagship store.



# THE FINAL RESULT

With a project as complex and global as this luxury cosmetics flagship store, LEDCONN's close involvement in the project from beginning to end played a significant role in the project's success. Beyond the manufacturing of the lighting fixtures, LEDCONN went above and beyond by managing the technical planning and installation of the lighting and providing extensive support. From managing communication globally to providing clear wiring diagrams and on-site engineering support, the care provided by the LEDCONN team helped the designer, brand, fixture manufacturer and GCs be successful from start to finish.

- Successful production in China and installation in the US
- Consistent lighting across multiple lighting components and fixture
- Upscale look aligning with cosmetic brand's luxury image
- Great partnership and success from design to installation



Through the combined efforts of the Brand, Designer, Millworker, GC, and Lighting Manufacturer, this complex store design was successfully completed after a year of intelligent planning.

**Thank you to everyone who helped make this project a success!**

**Do you need a lighting solution for your project? Our team is ready to help.**

**Reach out to us for a complimentary lighting consultation today!**