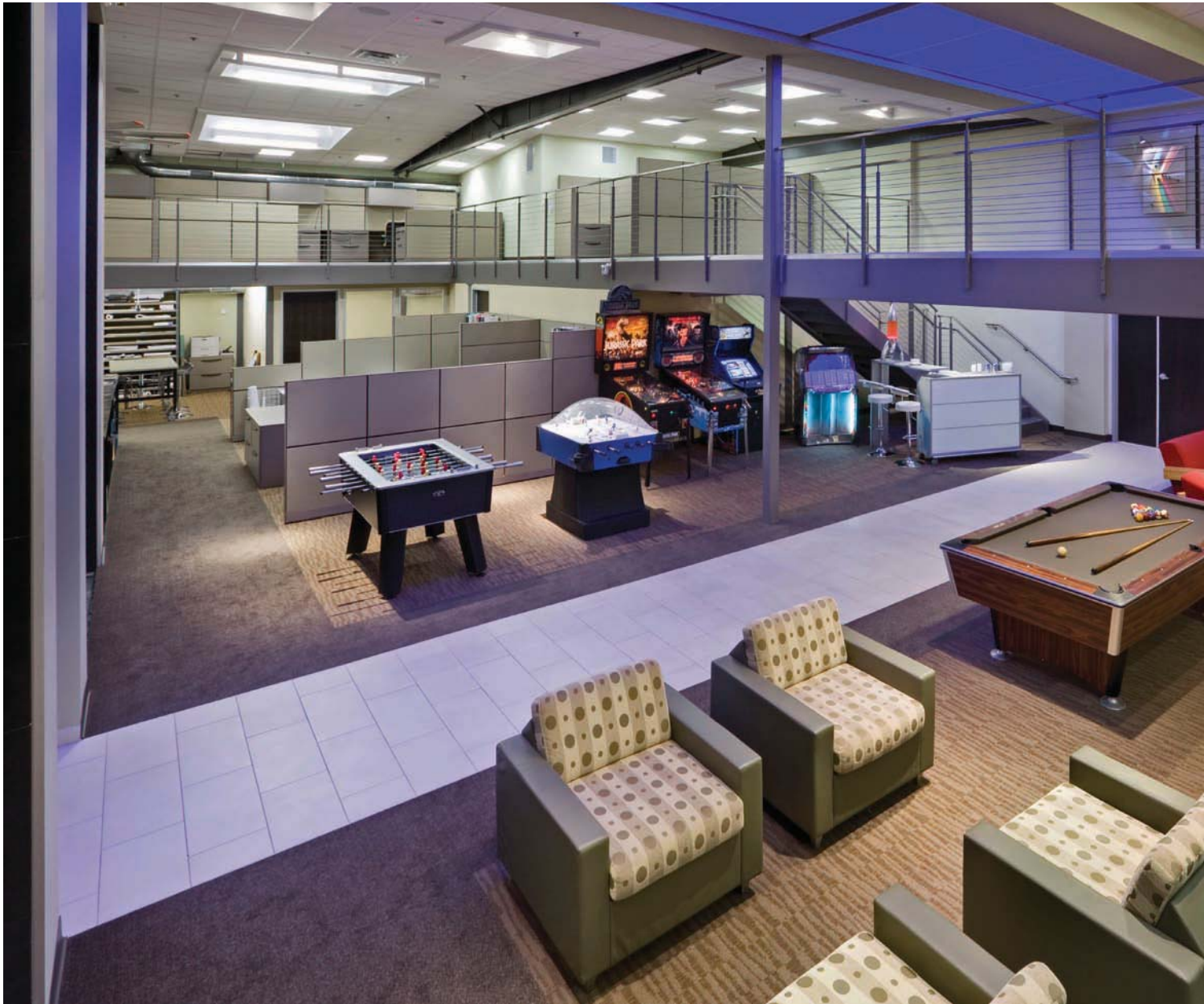


Lighting Design Alliance Office





Lighting Design Alliance moved into their new design studio in Los Angeles. As a lighting design firm actively involved with environmental conscious design and sustainability we had to construct an office that shows we practice what we preach. To achieve an innovative design the studio had to not only house employees, but it had to educate and display lighting designs to clients, architects and students alike.



Lighting Design



Each aspect of the studio is a showcase for new lighting technologies and techniques. Nearly every type of lighting technology available on the market today is demonstrated in the new building: from the color changing LED skylight to the solar fed fiber optic accent lights, it's clear that light is the most important element in the design of the building.

The entire renovation for this design studio started with a dark, windowless warehouse that manufactured automobile wheel rims, and transformed it into an educational center that demonstrates the newest lighting technologies with full integration of passive and active daylighting. Every lighting teaching tool and technique was integrated

into the project as permanent art installations. Custom patented Hybrid electrical/ daylight systems introduce sunlight into the interior of all spaces during daylight hours while the integrated electric lights slowly energize as light is needed in the evenings. By combining daylighting and electric lighting into one unit visual clutter within the ceiling was eliminated. Designed to meet LEED Platinum, fully connected lighting loads are 0.8 watts/ft², but with daylight harvesting and dynamic dimming, the actual documented lighting load is 0.07 watts/ft². To further reduce the amount of energy consumed, 10kW of photovoltaic panels are mounted to the west façade and the roof. To demonstrate our endeavor for energy efficiency,

Alliance Office



a laptop in the reception runs a program that allows clients and users to see real-time energy usage for the entire building. The panels can easily offset the remaining lighting demands.

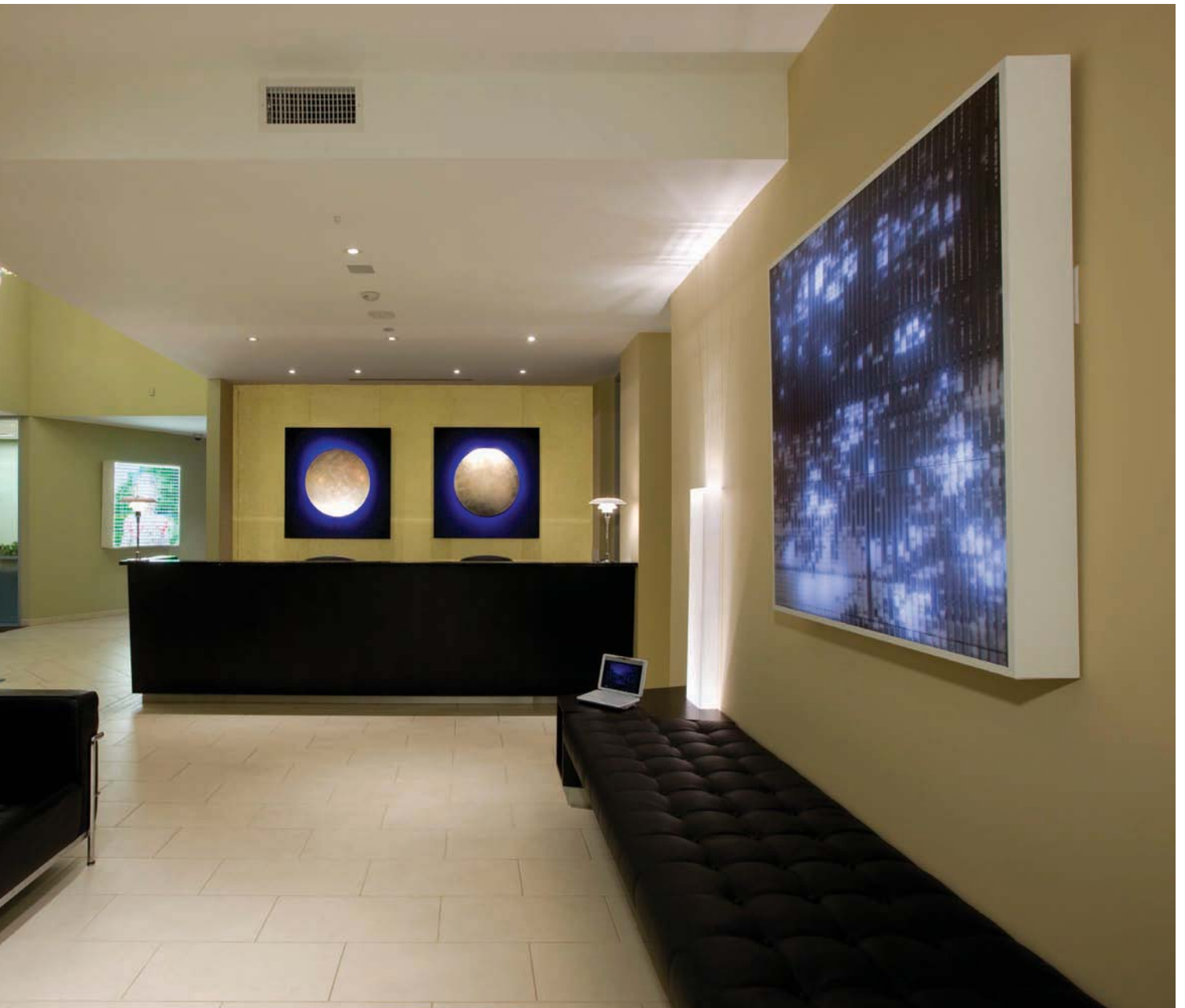
An inviting entry with soaring ceilings was added to the front of the building to increase the scale and make it a more inviting space. Translucent glass at the reception area reduces glare and heat gain at the reception area, while transom windows and light shelves bounce light deep into the interior. Custom luminous louvers block the Western sun on the front façade where the front offices are located. The chandelier in the lobby is illuminated

by a fiber optic daylight system with 72 sun tracking mirrors.

A total of 52 skylights are incorporated into the buildings lighting design, using triple layer heat stopping acrylic, or double pane low-e glass to maximize the amount of daylight used while minimizing the amount of heat gain. 8'x8' clerestory monitors wrapped with special UV/heat rejection film refract low angle daylight while rejecting heat. North facing, clear windows electrically open for ventilation and allow occupants direct view of sky. High daylight levels coincide with circadian rhythm requirements making the open offices places where people want to work.



Lighting Design



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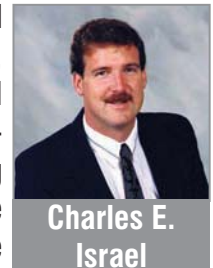
A frosted acrylic ceiling system illuminated by a clear continuous skylight above spans the entire length of the building from the lobby to the rear exit forming a bright central corridor. The lounge at end of the corridor has 4'x4' clear skylights that house sun-tracking mirrors, which focus high light levels down to social area below. During the evening remote controlled ceramic metal halide downlights illuminate the same areas.

All lamps sources throughout the building were selected for long lamp life and high efficiency for reduced maintenance and wattage. Photocells, occupancy sensors, an astronomical timeclock and local controls at each work station provide

full building control to suit the needs of each employee. Every light source applicable was dimmed to allow for minimal energy use while still achieving each visual task necessary.

Lighting Design Alliance moved to a custom designed low carbon footprint office. With 100% daylight in working areas, photovoltaic panels and solar hot water panels, active sun tracking skylights and active daylight monitoring systems, daylight fiber-optic systems, electric lighting with full dimming and daylight harvesting capabilities and exterior solar shutters, the building is a testing laboratory to evaluate all of the latest lighting technology in a real world condition creating one of the most efficient buildings in California. ■

Charles E. Israel, Bachelor of Architectural Engineering, Environmental Systems, Pennsylvania State University; Fellow International Association of Lighting Designers, LEED-AP, LC President, Chip Israel, is internationally recognized lighting designer with ample of experience. In 1992, he founded Lighting Design Alliance, a full-service architectural lighting design firm, where he built a highly-select team of lighting design professionals who now serve a variety of clients worldwide. He works closely with the owner, the design team, and manufacturers to ensure lighting systems are fully integrated with the architectural design enhancing the designer's concepts.



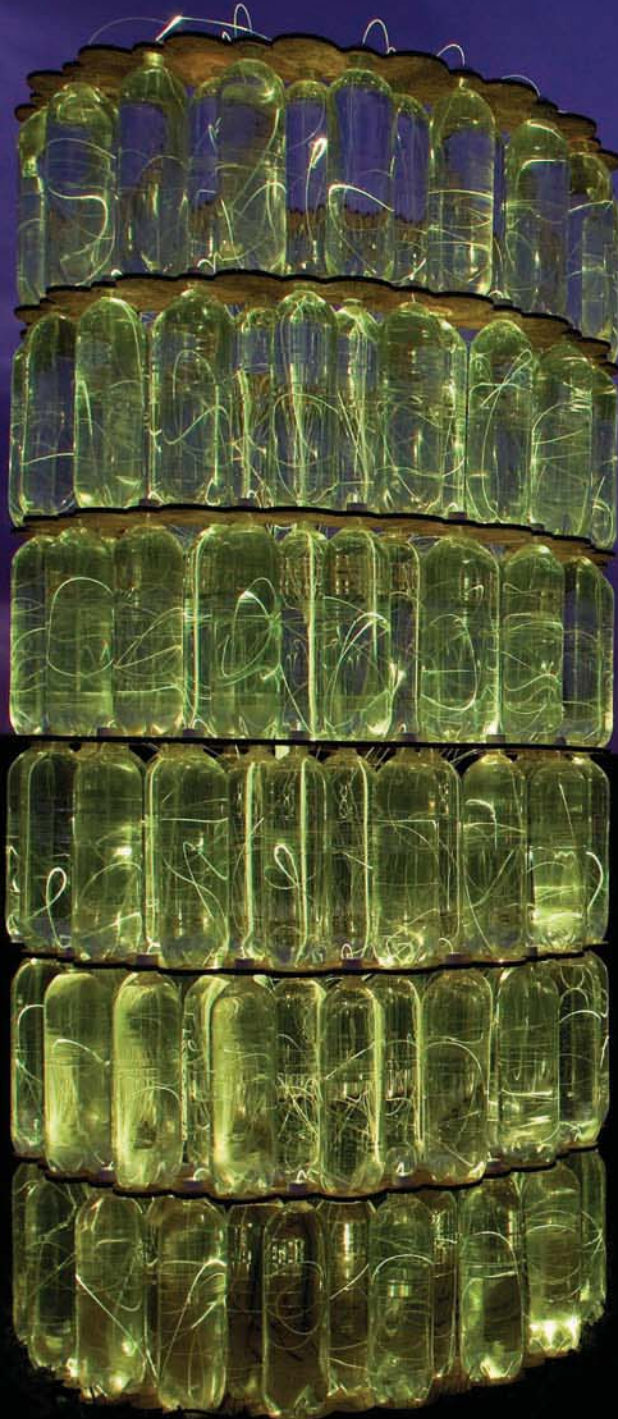
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- Charles E. Israel

INTERVIEW

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- Vivek Yadav