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LD+A

The magazine of the Illuminating Engineering Society of North America

Where Kids Come First

The Ann & Robert H. Lurie Children's Hospital

February 2014
www.ies.org

The Old Town Newhall Library's main entry and staircase utilizes natural light during the day. The wooden ceiling is illuminated by indirect fluorescent luminaires hidden above the beams.


Compact fluorescent sconces light the library's media nook.

At The Library

With a design for the books, Santa Clarita's newest institution strengthens community ties and segues into the future

BY SAMANTHA SCHWIRCK

Today, libraries are charged with the unique task of bringing content into the 21st century—preserving its value while positioning it to appeal to a modern generation. In Newhall, the southernmost and oldest district of Santa Clarita, CA, lighting designers at StudioK1, Irvine, CA, worked alongside architects LPA Inc. to create a new library that serves as a timeless institution as well as a modern community space. "Our main objective was to enrich the cultural infrastructure of the Santa Clarita community," says Jim Wirick, principal at LPA. "One can tell a lot about a city from their library, and Santa Clarita was in need of the community benefits and access to information that comes along with a new facility of this nature."

Within the 28,000-sq ft two-story structure, the Old Town Newhall Library, which won a 2013 IES Award of Merit, houses some 135,000 literary items, 68 computers for public use, and multiple private study spaces and meeting rooms. Construction of the library began in 2009 and the building officially opened for business in 2012. The design and lighting scheme consider the interests of the new millennium, as well as projected environmental impact and, of course, preservation and delivery of the content housed inside.

THROUGH AND THROUGH

The building features a diverse design that utilizes compact fluorescent, linear fluorescent and metal halide lamps, as well as LED downlights from Lightolier, LED cove lighting from Color Kinetics and RGB color-changing cove lights. The library's entryway makes use of natural daylighting, as does the main part of the building, which features a bold wooden ceiling that is uplit by indirect fluorescent luminaires that are hidden above the beams. This modified reflector system has back-to-back Elliptipar fixtures that contribute to general lighting levels by providing asymmetric distribution in two directions. There are also asymmetric fluorescent fixtures concealed within the light shelves at the windows and along the perimeter soffit edge. "At night, this helps mimic what the sunlight does during the day," Thomas explains. Also in the evening, architecture at the main entry and staircase is left largely undisturbed due to metal halide cylinders that light the space without interrupting the look, simulating the light that comes in through the skylights during the day. "LPA's goal was to have the spaces illuminated without ever seeing a light source," Wirick adds. "This allows for a softer, enveloping lighting experience." A digital dimming system with inputs from daylight sensors and occupancy sensors is also used throughout. The system, which

Photos courtesy of LPA Inc./Costea Photography

Photo: Tom Paiva, Tom Paiva Photography

Cantilevered luminaires light one side of two different stacks.

Photo courtesy of LPA Inc./Costea Photography

Luminaires were hung at various angles and planes for a playful look in the children's section.

has timelock controls, helps bring the project's power density to approximately 10 percent below California's Title 24 standards.

THE HEART OF IT

At the heart of the project are "the stacks," where rows and rows of books are illuminated using sophisticated stack-mounted luminaires. Each luminaire distributes light evenly onto two sides of an aisle and two different shelves. The lights are cantilevered off of the top of the stack. Some areas, such as the children's section, are offset by simple lensed fluorescent luminaires (Prudential Ltg.) that are hung at various angles and planes—providing a playful feeling while still generally illuminating the space. The suspended long-life T5 fluorescents at 3,500K also create a lower ceiling plane in the spaces geared toward use by children.

Aside from the main areas that house the books, the community benefits from multiple breakout spaces. "The library has these many different areas to serve different age groups and needs," says Thomas. "Each area has its own look and feel depending on the intended use." From the stacks, you can see a fireplace that is illuminated by a row of single custom decorative sconces. These sconces are also used in a double design (two placed together) within the reading room that sits between the stacks and the fireplace, where the sconces are mounted on an exposed trellis. Sconces were used in the media nook, spaced evenly on the wall to provide general illumination within the nook, as well as a contemporary vibe. The library also houses an enclosed homework room, smaller teen study rooms, a technology lab, a reading lounge and a community room used for lectures and events. Though Wirick says it was a challenge to balance the team's aesthetic desires with the city's finances, the project was a success because of its ability to meet public needs. "The city is ecstatic," Wirick says, "and the library is heavily used by satisfied community members." ■

Photo courtesy of LPA Inc./Costea Photography

An intimate reading area is lighted by sconces mounted on a fireplace, as well as on an exposed trellis.

METRICS THAT MATTER

Old Town Newhall Library
Watts per sq ft: 1.074
Illuminance Levels: vertical surface of stack = 30 fc; reading areas = 50 fc; general circulation = 10 fc
Lamp Types: 18
Fixture Types: 44 interior, 15 exterior
LEED Gold Registered

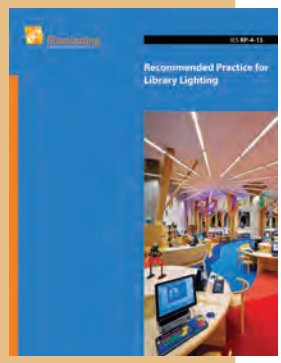
THE DESIGNERS

Lauren Dandridge Gaines, Member IES (2012), LC was a lighting designer at StudioK1, Irvine, CA, and is currently part of the specification sales team at Performance Lighting and an adjunct professor at USC School of Architecture.

Eileen Thomas, IALD, LC, LEED AP, is an associate and senior lighting designer at StudioK1, Irvine, CA.

The Test of Time

The last time the IES Board of Directors approved and published a Recommended Practice for Library Lighting was in 1974, long before computer terminals lined library tables and LEDs were used to light the space. Obviously much has changed in 40 years, explains Terry Kilbourne, LC, president of Tec Inc. Engineering & Design and chair of the IES Library Lighting Committee. New lighting techniques, equipment, and sources now provide designers with tools to meet the varied visual tasks encountered in today's modern libraries.



To address these issues, *Recommended Practice for Library Lighting (RP-4-13)*, which provides in-depth and relevant information regarding the evolving library, was accepted and approved for publication by the IES Board of Directors on March 12, 2013. The committee that authored the document is comprised of lighting design professionals, architects, engineers, librarians and manufacturers.

RP-4-13 provides useful and practical information to help produce an efficient and pleasing lighted environment. The RP specifically provides design criteria for many different types of spaces and activities experienced by patrons and staff in libraries today, with comprehensive information on lighting economics, sustainable design, energy concerns and maintenance. Design professionals are provided with keen insight into issues that affect today's library, such as:

- Where should I use solid-state lighting?
- What about daylighting?
- How much illumination do I need?
- What is the best way to control lighting?

As energy criteria have gained predominance throughout the IES, so too has a focus on lighting quality. Therefore, the relationship between energy demand and lighting quality is also evident within this document. To purchase a copy, go to *www.ies.org/store*.