

Autodesk, Inc. wanted the lighting in its new San Francisco offices to be visually comfortable, foster creativity, communicate the company brand and support LEED certification, all on a strict budget.



autodesk, inc.

SAN FRANCISCO

In a creative, high-tech workspace, the lighting has to be equally innovative.

Since its launch of AutoCAD in 1982, Autodesk, Inc. has positioned itself as a global leader in 2D and 3D design software for the building and construction, manufacturing, and media and entertainment sectors.

In 2012, the company announced new office spaces in San Francisco, Milan, Beijing, and Farnborough, UK. At its San Francisco headquarters, Autodesk acquired 71,000 square feet of space adjacent to its existing

offices in the Steuart Tower at One Market Street, spanning three floors surrounding an open atrium.

Autodesk engaged Gensler to develop the new space with several key goals — notably, to showcase its technology leadership: the project would, in fact, be designed utilizing the company's Revit Suite. It also wanted an environment that achieved LEED Platinum certification, fostered interaction and creativity, used local materials,

and reflected the Autodesk brand and a San Francisco feel.

Gensler designed personal workspaces for 170 employees plus a series of stations for visiting employees interspersed with collaborative group spaces, large meeting space at the main entry and a game room. Throughout the space are displays of images of models using Autodesk software. Gensler also gained permits to build a bridge linking the new space with the



This room is beautified by a wood table and custom luminaire designed by industrial designer David Trubridge.

adjacent existing offices via the fourth floor.

The project's illumination goals emphasized daylight, energy efficiency, visual comfort, and a budget of \$5 per square foot. Gensler collaborated with Birkenstock Lighting Design, San Geronimo, Calif. "We measured the existing light levels — 15 footcandles — and suggested that since these levels were so low, yet comfortable for the user group, we should target that as the overall light level," said Inga Birkenstock, principal of the lighting design firm. "Tall, flexible task lighting would illuminate up to 50 footcandles at any

point on the work surface for user comfort and control."

Exceeding the stringent California Title 24 energy code to support LEED Platinum certification required the lighting be highly efficient. In addition to daylight, a mix of LED and fluorescent sources illuminate the space, taking advantage of the high reflectance of the predominantly white walls to support light levels. "LEDs were used as the accent fixtures, and linear fluorescents were used for ambient lighting," Birkenstock noted. "The LEDs added the sparkle."

Often, the two sources were deployed together in luminaires that combined linear fluorescent T5 and T5HO lamps with warm-white (3000K) LED MR16s, which

LED lighting was used extensively throughout the project for cove, wall wash, and accent lighting, and to support fluorescent ambient lighting.



Owner | Autodesk, Inc.

Location | San Francisco

Architects | Gensler

Lighting designer | Birkenstock Lighting Design

Photography | Jasper Sanidad

LED products | Fluorescent luminaires with LED MR16 accents in meeting spaces (Architectural Lighting Works), cove lights (eW Cove, QLX Powercore by Philips Color Kinetics), MR16 lamps for accent and elevator lighting (EnduraLED by Philips Lighting), linear LED lighting in architectural slots (Line 0.75 Asymmetric by io Lighting), LED downlights and wall wash luminaires (USA Illumination)

were installed in meeting spaces. Warm-white LED cove lights were placed in coves. Dimmable warm-white MR16 accents were also placed in the wood ceiling paneling (the wood reclaimed from shipping pallets) in major entry and some circulation spaces. LED and fluorescent luminaires brightened the walls. All light sources had to satisfy a design requirement of a rate life of at least 25,000 hours. All dimmable lighting was controlled by a local wall-box dimmer (though for the fluorescent/LED luminaires, which combined a 120V dimming driver with a 277V fluorescent dimming ballast, the LED lamps could not be dimmed).

"When specifying LED products, everything needs to be mocked up together next to the materials you are using," Birkenstock advises. "Currently, there is no standardization of phosphor cocktails, and simply specifying a particular Kelvin will not guarantee that your lighting will match from one luminaire to the next. This is particularly important when two or more sources are hitting a white surface."

The result is an attractive, visually comfortable office space that fosters collaboration and creativity while communicating the company's brand and local roots.