

CASE STUDY

Cooper Lighting Helps USGBC Go Platinum

The U.S. Green Building Council (USGBC) has played a lead role in driving the sustainable design movement to the forefront of mainstream construction. It is only fitting that the organization's new Washington, DC headquarters serves as a model of green best practices. The 22,000-sq.ft. office space, designed by Perkins+Will, earned a LEED-Commercial Interiors Platinum rating.

Recognizing the importance of lighting in LEED, Perkins+Will collaborated with New York City-based lighting design firm Bliss Fasman Lighting Design. "This project had a very interesting life with lots of work for such a small project," says Steven Bliss, principal of Bliss Fasman. "Overall, we wanted to prove it is possible to achieve Platinum certification—which is difficult to do, only a small number of buildings have achieved this certification—while creating a functional and inviting space," adds Bliss Fasman associate Brian Mosbacher.

To accomplish this goal, the design team decided on a strategy consisting of prioritizing lighting needs: using minimum light levels but creating a perception of high brightness; harnessing daylight as both a source of illumination and energy savings; and utilizing a variety of luminaires and controls to get the best lighting possible for as few watts and kilowatt-hours as possible.

Cooper Lighting, who joined other industry leaders such as Haworth, Benjamin Moore Paints, Armstrong and Formica Corporation in providing product to the project, are featured extensively in the project. A wide variety of highly efficient luminaires from Shaper, Corelite, Neo-Ray, Halo, Portfolio, Metalux, RSA, Sure-Lites and io are used.

Employees in the open workspace areas enjoy abundant daylight from operable perimeter windows, while nine out of 10 occupants have a view of the outdoors. Individual LED task lights at workstations allow employees to adjust the amount of light in their work area. Shaper decorative pendants provide an impression of brightness with low light levels. Neo-Ray direct/indirect lighting enhances this perception while providing the base light levels and distributing light on walls.

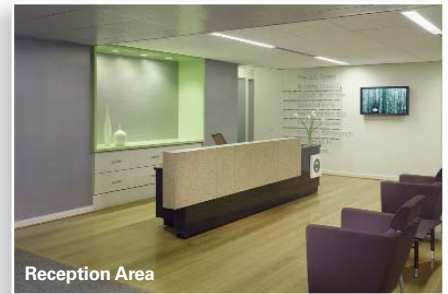
In the private offices, Neo-Ray direct/indirect recessed luminaires were chosen because they distribute light high on the wall compared to parabolic troffers.

The project's lighting succeeded in creating a pleasant visual environment while achieving a lighting power density of 0.65W/sq.ft., 35 percent lower than ASHRAE Standard 90.1-2004's maximum limit for offices, helping the project to earn LEED for Commercial Interiors Platinum certification.

"The client is happy and the space appears bright and well lighted," says Bliss. "The USGBC now uses the building as a showcase for the different technologies and a model of LEED Platinum in action."

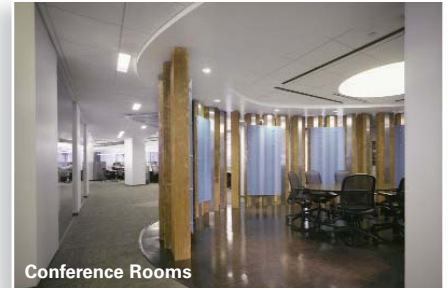
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Reception Area

In the reception area, fiber-optic fixtures are integrated within a wall slot cove. Recessed linear slots and downlights delineate the architecture.



Conference Rooms

Salvaged wood timbers create a screened forest around this elliptical conference room, adding warmth and allowing views through the slots into the open office areas. The wood is accented with downlights and wallwashers, while a 6' diameter dome luminaire mimics the effect of a diffuse skylight. The lighting is controlled by a preset control system.



Corridors

In corridors, staggered slot luminaires randomly placed in the ceiling add brightness to the ceiling plane and provide a playful rhythm and flow to the space.



Elevator Lobby

Randomly placed ceiling slot luminaires break up the simplicity of the ceiling plane and add visual interest in the elevator lobby.