National Life Group, Montpelier, VT

Architect: Arocordis Design
Lighting Design:
Light/Space/Design

Multi-Phase Corporate Headquarters Renovation:
Area: 55,000 sf open-office space, 392 workstations and ceilings at 10'-0"
Luminaires: L201-84S6-L-ELO7-1-3L/R-OS-35, L201-84S6-L-ELO7-T-3L/R-OS-35,
L201-95S8-L-ELO7-1-3L/R-OS-35, L201-95S8-L-ELO7-T-3L/R-OS-35
Mounting: TPH-A3 panel brackets on 48" high Herman Miller "Action Office" workstation panels
Illuminance: 30fc-60fc on work surfaces, 20fc ambient, 10fc-35fc on ceilings
Power density: 0.66 W/sf (all spaces), 0.43 W/sf of **tambient** lighting in open office spaces
Controls: EnOcean wireless circuit relays, motion sensors, daylight sensors and dimming hubs

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tambient Style L201

National Life Group, a Fortune 1000 life insurance and financial services company, serves customers worldwide from its headquarters in Vermont. Founded as National Life Insurance Company in 1848, the firm's long-standing community involvement prompted green initiatives when updating its 1960 office building. The 543,992 sq. ft. Montpelier offices achieved LEED Silver certification under the Existing Buildings (EB) program in 2009, becoming the largest and oldest building in Vermont to receive a LEED certification.

Today, green investments in the facility include: 20 solar thermal panels to supply 50% of the domestic hot water; 418 solar panels for power; a $2 million biomass boiler heating system to provide 90% of space heating; **tambient** task/ambient lighting; and wireless lighting controls by **The Lighting Quotient**. 72% of waste is recycled; the company's shredded paper is used locally as part of the bedding for 700 dairy cows. National Life Group offers incentives to employees who commute greenly; participation is over 20%.

Collectively, these efforts represent an ambitious $2.5 million modernization project that brings the facility into alignment with the company's innovative spirit and environmental sensitivity.

Nowhere is the transformation more evident to the building occupants than in the open office areas where a drab maze of 67" high partitions and harsh overhead lighting has given way to 48" high workstations and **tambient** task/ambient lighting. The new construct gives every employee access to daylight and stunning panoramic views of the Green Mountains while the **tambient** lighting evokes a sense of daylighting throughout the space. Overall, the elevated indoor environmental quality is not lost on the employees. Vice President Beth Rusnock notes: "I've heard a number of people comment that they feel healthier in the new space. Air flow is better, the lighting is better and the views are spectacular."

Before: Lower workstation panels facilitate collaboration and views but expose occupants to impersonal and glary overhead lighting.

After: Panel mounted **Style L201** luminaires bathe the ceilings with light, reduce energy consumption, facilitate maintenance, and provide task light on a personal level.

Lighting Quotient wireless controls are easy to install in new and existing buildings and result in additional energy savings. Solar powered ceiling mounted **CLS** photocells communicate wirelessly with **CCH** dimming hubs. The hubs are mounted under work surfaces near the windows. They dim the **tambient** luminaires in response to daylighting via simple plug and play interconnect cables.

Ceiling mounted **CMS** occupancy sensors harvest ambient light and convert it to wireless signals that are received by **CLC** load controllers located at each workstation cluster. The **CLC** controllers are wired to selected workstation power circuits and turn off the **tambient** lights when areas are not occupied.