

pier 69 revisited.

by Randal Smith



Above: Pier 69, Port of Seattle's new headquarters was featured in a 1994 case study by the Lighting Design Lab has recently undergone a lighting upgrade.

1993.

Daylight and view corridors are provided to almost all areas of the building through a series of sawtooth monitors at the roof plane and extensive vertical glazing at the perimeters.

Electric lighting, in most areas that we looked at, is delivered by one of three system types. In the open plan offices with flat ceilings, indirect lighting is provided by 36 watt bi-x compact fluorescent lamps. In the sawtooth daylight areas, indirect luminaires equipped with 400 watt metal halide lamps wash the ceilings. In perimeter offices, parabolic downlight luminaires are equipped with T8 fluorescent lamps.

The electric lighting that was installed when the original building refit was done is, generally, the best that was available at the time. Since then newer lamp and controls technologies have been introduced that may serve to improve overall lighting quality and significantly reduce energy consumption and maintenance costs.

It also appears that the lighting control system that was originally installed may have developed problems and been disabled over time.

2005:

Electric lighting is changed from more expensive bi-x lamps with 12,000 hour rated life to T5HO linear fluorescent lamps with 24,000 hour life rating. Watts per lineal foot drop from 40 to 30 while light levels nearly double. Metal halide luminaires using 460W are changed to T5HO fluorescent luminaires using 120W and light levels increase from 15~20 footcandles to 35~45 footcandles.

The estimated savings for the project are 120,000 kwh/yr, and the Port received a \$17,000 incentive through Seattle City Light. 147 metal halide fixtures were replaced by 47 T5HO fixtures. 57 track lights were replaced by 18 T5HO fixtures. The original metal halide luminaires had significant maintenance problems, so the Port expects additional reductions in maintenance costs.

PGE business services energy-saving lighting seminar.

If the lighting in your business isn't energy efficient, you could be using up to 30 percent to 50 percent more electricity than necessary. What's more, outdated lighting can affect how your business looks and feels to your customers and employees. Both can affect overhead and productivity.

Join us for this free lighting seminar to:

- Learn about cost-effective lighting upgrades that can lower your energy costs and improve light quality in your business.
- Get information on Energy Trust cash incentives and Oregon energy tax credits that can make it easy to invest in efficient new lighting.
- See the latest energy-efficient lighting products in one place.
- Meet local lighting designers, contractors, manufacturers and other resources.

Cost

No charge for attendees. Registration is requested. Breakfast included.
Location
Earth Advantage National Center: 16280 SW Upper Boones Ferry Road, Portland.
(Located off I-5, 10 miles south of downtown Portland. Free parking.)

Registration

To register, call 503-464-8020.

Agenda and Instructors

Part One Breakfast Session
7:30-8 a.m. Breakfast buffet, displays and networking
8-9 a.m. Energy-saving lighting strategies
Cash incentives and tax credits overview
Exciting new lighting solutions
Outdoor Lighting

Success stories

9-9:30 a.m. Lighting and lighting product demonstrations
"Meet the Experts" tables and displays
Part Two Technology updates
(refreshments available)
9:30-10:30 a.m. What's new in high-bay and office lighting
10:30-11:30 a.m. What's new in lighting controls, LEDs, lamps and ballasts

Presenters

Mark Whitney, LC - Lighting Specialist, Portland General Electric
Michael Lane, LC - Lighting Specialist, Lighting Design Lab
Roger Spring - Energy Trust of Oregon