



Daylighting Pattern Guide helps building projects utilize natural light

What is the Daylighting Pattern Guide?

The Daylighting Pattern Guide (DPG) is a free, interactive tool that helps design teams—from architects to facilities managers—incorporate proven daylighting strategies into building projects for substantial reductions in lighting power consumption and overall building energy use. The guide also can be used to demonstrate to building owners and others the value and benefits of daylighting and why it's worth pursuing. Access the DPG at: patternguide.advancedbuildings.net

How was the Daylighting Pattern Guide developed?

This design tool uses a combination of 19 real-world built examples and advanced simulation to set the stage for analysis and comparison of design alternatives. Each “pattern” explores the inter-relationships and role of sky condition, site, building aperture, interior volume and space planning in delivering daylighting and visual comfort to building occupants while supporting energy efficiency goals.

Sensitivity analysis of key design variables in each example was conducted to see whether the outcome was optimized and to demonstrate the impact of alternate—good and not so good—design decisions on the daylighting performance. Design variables that work together to contribute to the success of each space were also identified.

Detailed examples present a wide range of spatial scales and uses. Applicable project types include offices, schools, libraries, laboratories, museums, industrial facilities and recreational facilities.

Is the Daylighting Pattern Guide Right for Me?

The Daylighting Pattern Guide is easy-to-understand and apply. It presents information in a visual and interactive manner that is useful to architects, engineers, lighting and interior designers as well as those with limited background in daylighting and lighting design practices.

About the Development Team

New Buildings Institute

New Buildings Institute (NBI) is a nonprofit organization working to improve energy performance of commercial buildings.

NBI provides design teams with tools and guidance to help them create high performance buildings. newbuildings.org

Boise Integrated Design Lab

The University of Idaho Integrated Design Lab (IDL) in Boise is dedicated to the development of high performance energy-efficient buildings in the Intermountain West through research, education and outreach. idlboise.com

Seattle Integrated Design Lab

The University of Washington Integrated Design Lab (IDL) provides regional design teams with access to the best building-performance knowledge available through direct project support, research, education and training. idlseattle.com

Why is daylighting important?

Daylighting commonly refers to the use of sunlight, skylight, and diffuse overcast sky to illuminate interior spaces. Integration of daylighting strategies along with energy-efficient lighting and controls has been shown to reduce energy consumed by electric lighting by up to 70 percent.

Studies show that daylighting connects occupants to outdoor environments offering non-energy benefits such as increased occupant productivity and comfort.

Who is behind the guide?

The Daylighting Pattern Guide is the result of a collaboration between New Buildings Institute (NBI) and the Integrated Design Labs in Seattle and Boise. NBI is a nonprofit organization working to improve the energy performance in commercial buildings. The guide is offered and maintained by NBI.

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