What’s your quality of light?

The lighting industry’s call for a practical lighting energy policy.
Lighting consumes 20% of all electric energy in the United States. Saving energy is vital, but the positive effects of good lighting on quality of life are equally important. While light is a commodity we take for granted to be able to see, lighting is a tool used to create needed visual environments for people to live, work, play, learn, shop, communicate and do business. Light is an especially essential element in that most personal of spaces—our own homes.

To help optimize American productivity and comfort in the twenty-first century, the Illuminating Engineering Society (IES), the International Association of Lighting Designers (IALD) and the American Lighting Association (ALA) urge governments to adopt energy policies that recognize the importance of the proper application of lighting and its impact on human well being and commerce. Energy efficiency and lighting quality should go hand in hand in shaping effective energy policy.
Light is how we see. Lighting is how we see the world.

The proper application of lighting improves satisfaction and performance, draws attention, influences social interaction, fosters mood and atmosphere, beautifies space and architecture, facilitates communication, promotes safety and security, and increases visual comfort.

Poor lighting can have opposite effects—among them headaches, gloom, glare, distraction and lower productivity.

We acknowledge the importance and value of energy-efficient lighting, and believe it should be achieved in a manner that does not compromise the lighting’s primary intent—to serve human needs in a world in which most information is gathered through the eye.

**Light + Vision**

Lighting exists to enable us to see; higher or lower light levels affect the visibility of what we see. The more visible tasks are, the more efficiently, accurately and safely we perform them. For this reason, selection of light levels is critical to health, safety and welfare. Energy policies should ensure that light levels meet accepted IES standards.

**Light + Comfort**

Good lighting provides sufficient light levels without glare, which can be irritating or even impair vision. Just as older people need more light to see clearly, they are also more sensitive to glare, making vision and glare critical issues for America’s aging population. Energy policies should incorporate visual comfort as a requirement to promote lighting choices that do not trade off efficiency for glare.

**Light + Modeling**

Light and shadow are tools that lighting designers use to make faces, objects and spaces more visible or more attractive. Energy policies should ensure choice of lighting that promotes effective communication, commerce and safety using modeling.

**Light + Composition**

Within spaces, patterns of light and the appearance of lighting equipment itself convey vital information to people such as scale, function and wayfinding while emphasizing points of interest such as artwork. Light patterning can articulate architecture and reinforce mood and atmosphere.
Energy policies should ensure choice of lighting that enable users and owners to effectively interact with other people, building spaces and the neighborhood.

Light + Color
Visible white light is comprised of colors; the spectral composition of a light source, whether it is “cool” or “neutral” or “warm” in color appearance, can affect how we perceive the colors of faces, objects and surfaces. Energy policies should promote light sources with good color rendering ability and choice of color appearance.

Light + Health
Poor lighting may negatively impact health and well being by producing glare, eyestrain, flicker, tension and interference with the body’s circadian rhythms. It can also produce unsafe conditions by failing to properly illuminate hazards such as curbs, stair edges—even labels on cleaning products. Energy policies should promote lighting that in turn promotes safety, security and well being.

The standard for lighting quality
IES, IALD and ALA represent the people who light America’s homes, businesses and institutions. We support energy policies that ensure Americans’ access to lighting that is both:

• **comfortable**, with Americans having the ability to live and work in spaces that provide required levels of visual comfort, lighting intensity and color quality; and

• **energy-efficient**, reducing operating costs while reducing consumption of natural resources and output of carbon emissions.

IES DG18-08, *Light + Design: A Guide to Designing Quality Lighting for People and Buildings* provides a standard for defining lighting quality. This document introduces the principles of quality lighting design related to visual performance, energy and economics, while providing guidance on how these principles can be applied to optimize the lighted environment. Codes and standards related to lighting should take into account:

• how much light will be provided for different types of tasks and spaces and considering the age of the occupants;

• how the light is delivered so that visibility is enhanced and discomfort is minimized;

• what color or colors are provided, and whether they are appropriate for the proposed use; and

• how glare, flicker, disturbing shadows and other impacts of light are addressed in the space.
Daylighting.
Comfort.

Safety.
Productivity.

Color.
Vision.
This is the goal: Lighting Quality, achieving the optimum balance of the practical and aesthetic issues of the built environment.

Lighting for America
IES, IALD and the ALA represent the people who light America’s homes, businesses and institutions. We believe that energy policies should ensure the proper application of lighting that:

- ensures that light levels meet accepted IES standards;
- is energy-efficient, reducing operating costs while reducing consumption of natural resources and output of carbon emissions;
- incorporates visual comfort as a requirement to promote lighting choices;
- provides a choice of lighting that promotes effective communication, commerce and safety using modeling;
- offers good color rendering ability and choice of color appearance; and
- promotes safety, security and well being.