



April 15, 2015

House Committee on Education
State of Vermont House of Representatives
115 State Street
Montpelier, VT 05633

Re: H. 280 - An act relating to amending the State Board of Education rules on school lighting requirements

To whom it may concern:

The Vermont Agency of Education currently has a regulation related to K-12 classroom light levels stating that:

In all classrooms or other areas where instruction routinely takes place, the artificial illumination installed as part of a school construction project **shall be capable of providing work surfaces with at least 50 foot candles of light**, without significant glare, except where the intended use of the area requires a higher level of illumination. Illumination guidelines for special applications or other areas shall be as described by Ninth Edition Illuminating Engineering Society of North America Lighting Handbook.

Since this Agency of Education regulation was originally written, much has changed in terms of lighting technology and the lighting industry's knowledge regarding lighting science. Within the *Lighting Handbook, 10th Edition*, published in 2011, the IESNA recommends lower light levels for K-12 classrooms where a majority of the occupants are less than the age of 25. Advancing age reduces our eye's ability to perceive light, and when considering this fact for K-12 schools the IESNA light level recommendations are notably lower than if the space was primarily occupied by adults.

The Lighting Handbook: 10th Edition is recognized as the authoritative reference on the science and application of lighting. The content and recommendations were developed by the IESNA based on over a century of experience by lighting practitioners throughout North America. The Agency of Education explicit 50 foot-candle requirement is contradictory to the most current IESNA recommendations, may be inappropriate in many situations, and can lead to wasted energy through over lighting.

Efficiency Vermont supports a revision to the regulation that would:

- a) maximize energy efficiency according to current IESNA recommendations through professional lighting design;
- b) deploy control technologies that adjust light levels based on the type of instruction, the presence of occupants, and the amount of daylight;
- c) follow best practices to improve the quality of lighting for the benefit of students and teachers in the classroom

Through our RELIGHT program and project incentives, Efficiency Vermont seeks to provide all Vermont public schools with the opportunity to achieve all three objectives.

Sincerely,

Dan Mellinger, PE LC
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Efficiency Vermont

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