

MechSE WELLness

L02 Visual Lighting Design

Intent: Provide visual comfort and enhance acuity for all users via electric lighting.

Many of us perceive the world through what we see. Light levels in a space, if designed well, can compliment varying daylight levels to improve an occupant's ability to perform a task while helping the space feel open. As we age, the transmission of light to the eye reduces. Thus, electric lighting may be necessary inside to maintain productivity. Lighting recommendations from the Illuminating Engineering Society (IES) can assist designers with electric lighting design strategies to help us accomplish our work and study.

Impact: Using electric light as compliment to daylight will help improve ability to perform tasks.

What are the requirements to earn this credit?

1. All spaces must meet IES Lighting Handbook 10th edition, which details various levels of light recommended for different spaces and tasks based on research and empirical evidence.
2. Provide a lighting plan that details activities in each space, height of work plane, and age ranges of the majority of users.

How is MechSE accomplishing these requirements?

The electrical engineer who designed LUMEB followed the IES Standard in determining the minimum thresholds of lighting for each space per the intended task and expected users. This requires making all necessary calculations of room area, ceiling height, light fixture height, working surface height, quality of light from the light maker, and many other details. The modeling program provides a map of the floor plan showing light levels at the work plane. Thus, every space was calculated and provided the necessary general lighting to help us as we work and study into the deep night.

