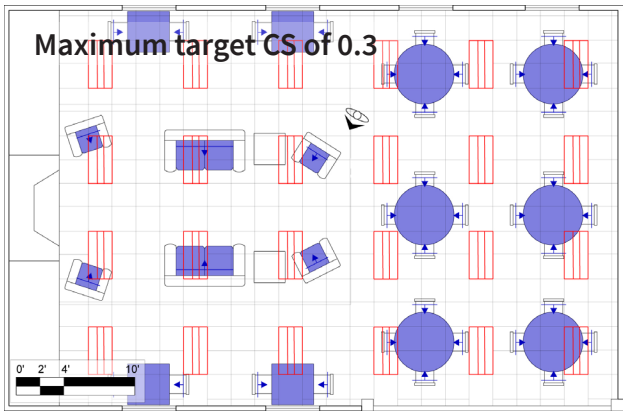
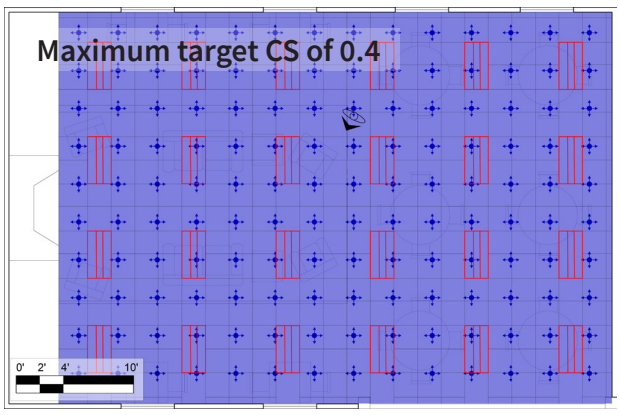
More about CS design components

Location of fixture above matters: Directly overhead vs in front of person

Occupant seating and room reflectances





Daylight contribution

Daylight is a very effective source of light for stimulating the circadian system, however buildings that we spend most of our time in may have limited windows for occupants to be exposed to proper light levels to achieve CS values above 0.3. If an occupant

For energy efficiency, zones of light can be created in a space where some occupants sit near a window. With sunlight being so dynamic, there are some components that should be considered when deciding to use daylight as a CS source.

Factors:

- Direction of eyesight
  - Facing vs facing away from window
- Seating distance from window
  - High light levels do not reach past 10-20 feet from window
- Window location on building
  - North, East, South, or West facing window
- Weather
  - Sunny, partly cloudy, or cloudy
- Season
  - Winter, Spring, Summer, or Fall
- Geographic location
- Furniture blocking daylight from getting to the eye

Overall, daylight could be considered in circadian designs, but it must be noted that reaching desired CS levels may not always be guarenteed. Using daylight sensors to determine how much light an occupant is getting at the eye and automatically adjusting the electric lighting to compensate for low daylight contribution is the best way to assure circadian stimulus is still met for all sky conditions. Note that the SPD of daylight changes throughout the day, and to combination of daylight with the electric sources in the space will need to be tested in the CS calculator.