

## Essential Lighting Design 1 LU/HSW course

Course Title: Essential Lighting Design Part 1

Course Description:

This is the second half of a two part course that introduces students to the essential concepts of lighting design. We will begin with a discussion of applications for choosing color temperature. Next important properties of lighting such as CRI, contrast, color temperature, and light sources will be demonstrated with real lights in our Experience Room. Next lighting applications will be reviewed in a series of case studies in which students will be introduced to the essential design vocabulary of lighting. Attendees qualify for AIA 1 LU/HSW.

Learning Objectives: At the end of the course participants will be able to

1. Specify appropriate luminaire color temperatures and color rendering index based on the function and design goals of a space.
2. Specify a lighting style for a specific application based on the function and design goals of the space.
3. Create an essential lighting proposal by identifying areas of emphasis, task areas, and appropriate lighting techniques based on the function and design goals of a project.
4. Write a complete luminaire schedule using the sample model template.

Credit Designation: 1 LU/HSW

Course Level: Beginner

Key Words: lighting design, lighting specification, color rendering index, CRI, color temperature, correlated color temperature

Key concepts handout

- The color temperature of a light source is the temperature of an ideal black-body radiator that radiates light of comparable hue to that of the light source.
- Color temperatures over 5,000K are called *cool colors* (bluish white), while lower color temperatures (2,700–3,000K) are called *warm colors* (yellowish white through red). Colors in between are called *neutral white*.

Source: [http://en.wikipedia.org/wiki/Color\\_temperature](http://en.wikipedia.org/wiki/Color_temperature)

- The color rendering index (CRI), sometimes called color rendition index, is a quantitative measure of the ability of a light source to reveal the colors of various objects faithfully in comparison with an ideal or natural light source.

Source: [http://en.wikipedia.org/wiki/Color\\_rendering\\_index](http://en.wikipedia.org/wiki/Color_rendering_index)

- In architecture, light reflectance value (LRV), is a measure of visible and usable light that is reflected from a surface when illuminated by a light source.

Source: [http://en.wikipedia.org/wiki/Light\\_reflectance\\_value](http://en.wikipedia.org/wiki/Light_reflectance_value)