

A wide-angle photograph of Earth from space, showing the curvature of the planet and city lights at night. The sky is dark, and the lights are concentrated in the lower half of the frame.

LED and Sustainability in Lighting

AIA Presentation Summary

Program # IG-1001

Provider iGuzzini North America

Provider # 10025611

Credits 1 LU

Approval expiration date: June 26, 2026

Program Level Introductory

Prerequisites None

Instructional Delivery Method

A PowerPoint or slide presentation

Cost

There is no cost for this program

More Info / Registration

Contact your local iGuzzini representative

Website www.iguzzini.com/us/

Course Description

This presentation explores the dynamic world of LED lighting, emphasizing its energy-saving capabilities and its potential to enhance spaces and architecture. It covers the concept of flickering and its impact on visual perception, while stressing the importance of sustainability in the light industry.

Learning Objectives

1. Understand the historical development and milestones in LED technology, including the invention of the first visible LED light and the advancements leading to the creation of white light using RGB LEDs.
2. Comprehend the concept of efficacy in relation to LEDs, which measures the relationship between light emitted (lumen) and energy consumed (wattage), and understand that LEDs have higher luminous efficacy compared to other light sources.
3. Gain knowledge about the lifespan, failure definition, and the significance of heat dissipation in LED performance.
4. Learn about the environmental impact of the lighting industry and the actions that lighting manufacturing companies can take to improve sustainability, such as using renewable energy, implementing treatment systems for water and air, and adhering to environmental standards and certifications.
5. Explore the impact of lighting on human well-being, including factors such as circadian rhythm, color rendering, and visual comfort. Understand the importance of considering factors like color fidelity, color gamut, and accurate color rendering indexes to create lighting environments that support human health, productivity, and comfort.