LIGHT FOR
INDUSTRY & ENGINEERING

ZUMTOBEL

Overview

Industrial applications have a significant need for a quality lighting solution. Tasks in factories and warehouses range from intricate, detailed work, to large logistical processes. Regardless of the use of the space, lighting must play a supportive role, whilst remaining energy-efficient and adaptable.

The common theme of industrial applications is the amount of physical movement that occurs. Machinery, forklifts, trucks and of course people are constantly in motion. How can lighting support this? What influence can lighting controls play? What attributes do luminaires need to have to withstand industrial applications?

LG: Industry & Engineering categorises the role of lighting into three broad, but interelated areas:

- Productivity & Accuracy
- Orientation & Safety
- Energy-efficiency & Sustainability

LightGeist is designed to give the participant a better understanding of light and lighting. The term “LightGeist” is a play on the German expression “Zeitgeist” (a link to Zumtobel’s Germanic origins!) which literally translates as “spirit of the time”. LightGeist explores the current spirit of the lighting world.

Agenda

Session 1 Productivity & Accuracy

Of all the machines and systems used in industry, most dependence is placed on the human eye. Even automated processes require human observation. High levels of ambient noise reduce the sensitivity of hearing, placing more importance on the sense of sight. Manufacturing tasks are constantly measured and scrutinised for time, accuracy and quality. Lighting must foster excellent vision and in some cases colour rendition, whilst causing no obstruction to the operator.

Session 2 Orientation & Safety

With so much movement and logistics, lighting must substantiate orientation and safety for the operator. The requirement for high visibility and acuity is paramount. Concurrently, lighting must not cause visual distraction such as glare. For example forklift drivers, constantly looking skyward, have historically been confronted with high-power point source highbays hanging overhead. Pathways and escape routes must also be clearly illuminated.

Session 3 Energy-efficiency & Sustainability

Industrial applications are relatively large and spacious, compared with other commercial applications. Broad open areas, very high ceilings and aisleways spell a high density of lighting. This results in an equally high potential to reduce energy usage. Lighting controls can play a huge role in reducing energy, especially with the amount of daylight and movement occurring in industrial applications. The simple addition of daylight sensors, motion detectors and timing mechanisms can easily reduce the energy required to power artificial lighting, sometimes by more than half. Various codes and guidance have specific recommendations and limits for lighting industrial applications.

LightGeist is a free workshop open to all lighting practitioners. For more information please email zla.lightgeist@zumtobel.com. Zumtobel presents LightGeist as an education provider, recognised by the following industry bodies:

Refuel
CPD provider network

CPD 8
POINTS FOR RECOGNISED
ACCREDITED DESIGNERS™