

PHILIPS

Introducing Philips Lighting Controls

Hans Baaijens

Lighting Controls

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Lighting Controls

- Product range functional lighting:
 - From small scale (e.g. cell offices with single or groups of luminaires, e.g. ActiLume)
 - To large scale (e.g. complete office buildings), with Lighting Management system (Light Master Modular)
- Functionality
 - On/off, dimming, colour temperature variation
 - User interfaces for scene setting (wall mounted)
 - Remote controls (IR)
 - Sensors:
 - infra red movement detection
 - Light sensors
 - Daylight regulated control algorithms
 - Control via DALI, link to LON, flexible scene setting
- Architectural & Decorative Lighting
 - RGB mixing
 - DALI, DMX, RDM protocols
 - User Interfaces, system architecture
 - Driven by LED innovations

Benefits of Lighting Controls for sustainability

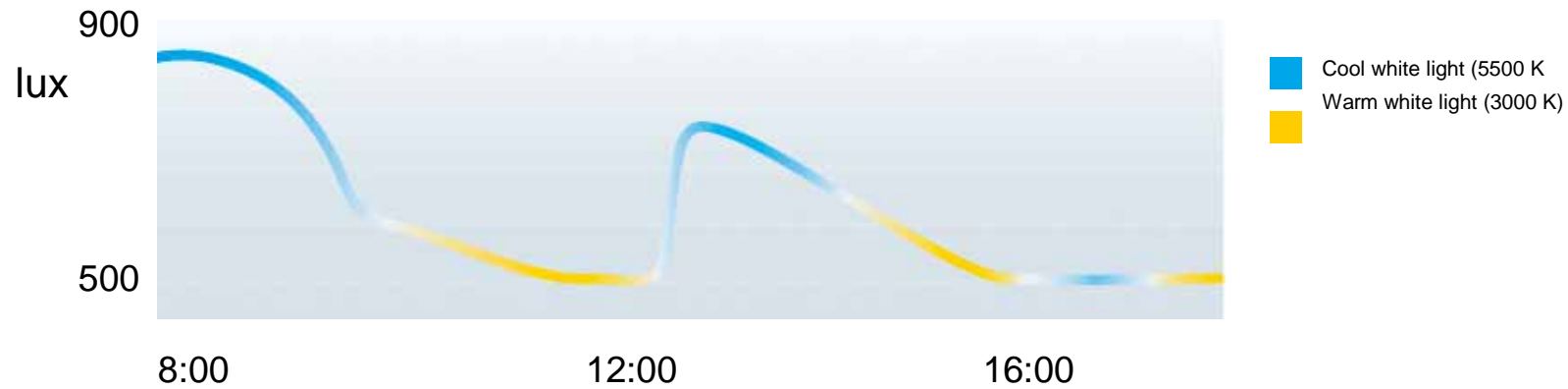
(from Philips' Website)

- If a large part of the EU's office lighting were replaced by the latest lighting technology
 - realistic electricity savings of 1 bn euro's per year could be achieved
 - and this could be doubled by the widespread use of Lighting Control systems.
- The payback on these new office lighting systems is:
 - as little as three years
 - which compares favorable to an average renovation cycle of 15 years.
- In addition Europe would reduce its CO₂ emissions:
 - by 8 million tons per year
 - making a big step forward towards reaching its Kyoto targets.

Trends in Lighting Controls development

- **Office Lighting: to increase Health and Well Being (and productivity)**
 - **Dynamic Lighting**
 - Smooth perceptual changes in color temperature and intensity during the day
 - **Personal Lighting**
 - Adjust the light color temperature and intensity to your personal needs
 - Navigate through color space with constant perceived changes
- **Wireless RF network: Zigbee**
 - **Enabler** of the more widespread use of Lighting Controls by:
 - allowing more flexibility and lowering installation costs of controls system compared with wired solution
 - increasing system integration by interoperable system for lighting, HVAC, sunblinds, security by sharing sensor data and optimized control
 - Wireless (and battery-less) sensors
 - Sensing and fast actuation
 - FFD's can be mains powered in a lighting system
- **Architectural & decorative lighting**
 - Create atmosphere in commercial buildings with RGB mixing luminaires
 - Static and dynamic colored scenes, color navigation
 - User Interfaces, system architecture, connectivity, protocols

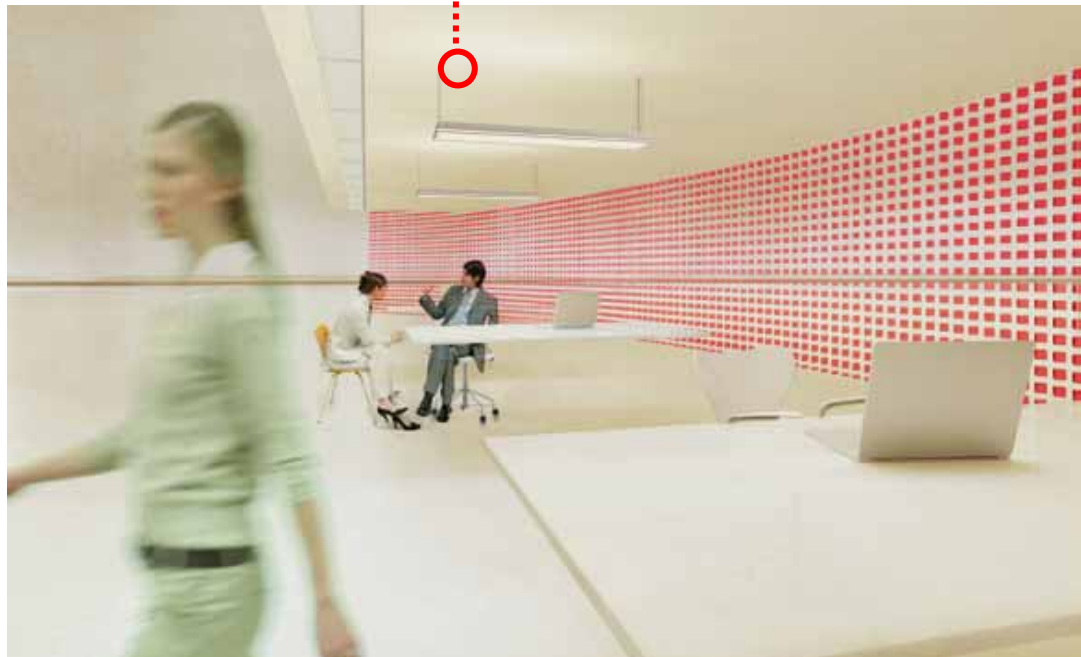
Dynamic lighting: human rhythm



Lunch time





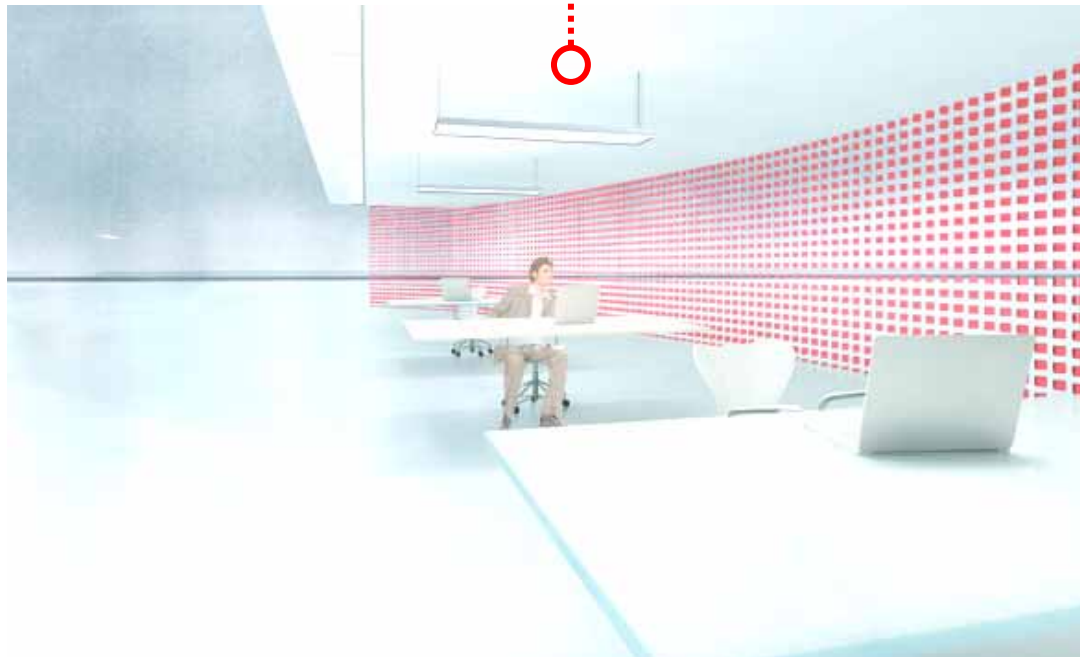
- Cool white light (5500 K)
- Warm white light (3000 K)



Post-lunch dip

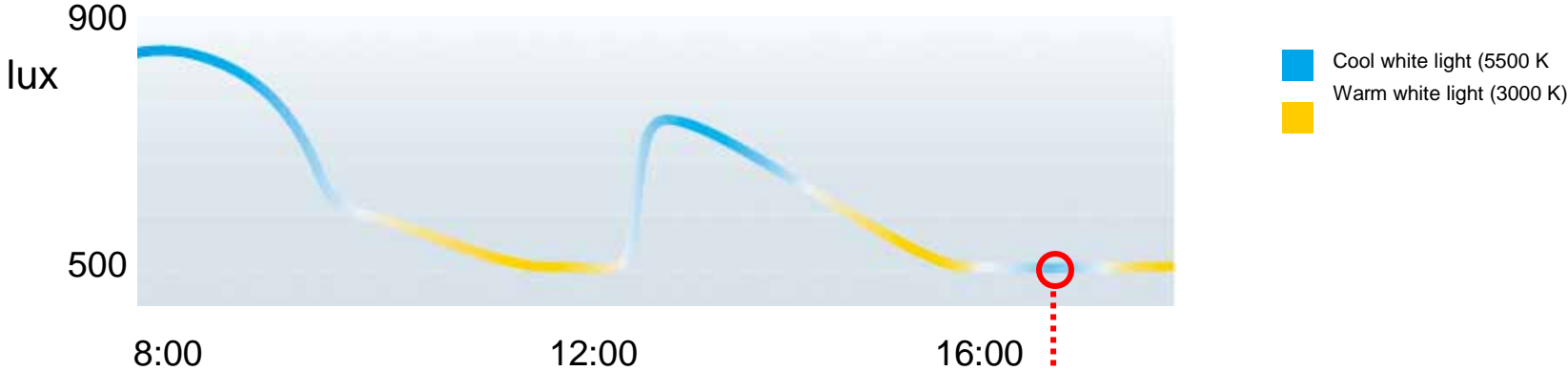


-  Cool white light (5500 K)
-  Warm white light (3000 K)



Ready to go home

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Where will Dynamic Lighting be used?

- The working environment

Factories

Police

Offices

Shops

Call Centers

Hospitals, Nursery Homes for elderly people

- Applied in Philips luminaires (Carpe Diem, Savio, TBS)

- See:

- www.lighting.philips.com/gb_en and select “Dynamic Lighting”

- www.philips.com/lightingcontrols

Example project: Westraven building, the Netherlands

