



# HUMAN CENTRIC LIGHTING

## Bluetooth Mesh System

A Bluetooth mesh system with a PIR sensor uses Bluetooth connectivity to create a responsive lighting environment.

The PIR sensor detects motion and communicates seamlessly with other devices in the Bluetooth mesh network. This interconnected system enables swift responses, such as turning on lights, creating an intelligent and scalable ecosystem.

## DALI Tunable White Luminaires

DALI-controlled tunable white luminaires offer precise lighting control through the DALI protocol, allowing dynamic adjustments to colour temperature and illuminance for enhanced well-being and energy efficiency in various applications.

The Knightsbridge system is designed to the WELL Standard and achieves a full 3 points.

## Daylight Harvesting

A lighting control strategy designed to optimise energy efficiency by leveraging natural daylight. It involves sensors and controls that adjust artificial light based on the amount of available natural light in a space.

This ensures the correct lighting levels are maintained throughout the day whilst reducing costs.

# HOW THE SYSTEM WORKS



### Melatonin Promotion

Melatonin signals to the body that it's time to sleep.

When exposed to natural light and correct lighting levels throughout the day, the body's melatonin timing is regulated, and peak levels are maximized supporting a regular sleep wake cycle helping the body to regulate other hormonal responses.

### Physical & Mental Health Support

Exposure to natural light and correct lighting levels helps to regulate sleep-wake cycles.

Studies have demonstrated that enhancing sleep quality and promoting consistent sleep-wake cycles could result in a reduced risk of several health conditions

### Illuminating Wellness

By helping to regulate melatonin and serotonin levels, human-centric lighting can support the reduction of symptoms experienced in light affective disorders such as SAD.

The Knightsbridge system can support this by aligning the body's internal clock with external light cues.

A background image showing a bright sun with rays on the left and white clouds against a blue sky on the right.

# HEALTH BENEFITS

# Knightsbridge

## Supporting Change

With the focus being on 'Absolute Carbon emissions' the Knightsbridge system offers the benefit of reducing energy consumption via three metrics:

- Daylight Harvesting
- Presence Detection
- Sunlight Patterning

This is all displayed in the online portal in exportable office formats.



# NET ZERO