

# LED Organic Response Lighting

Each office area has been configured with the latest LED Luminaire Organic Response Lighting.

This system provides tenants with FOUR major advantages:-

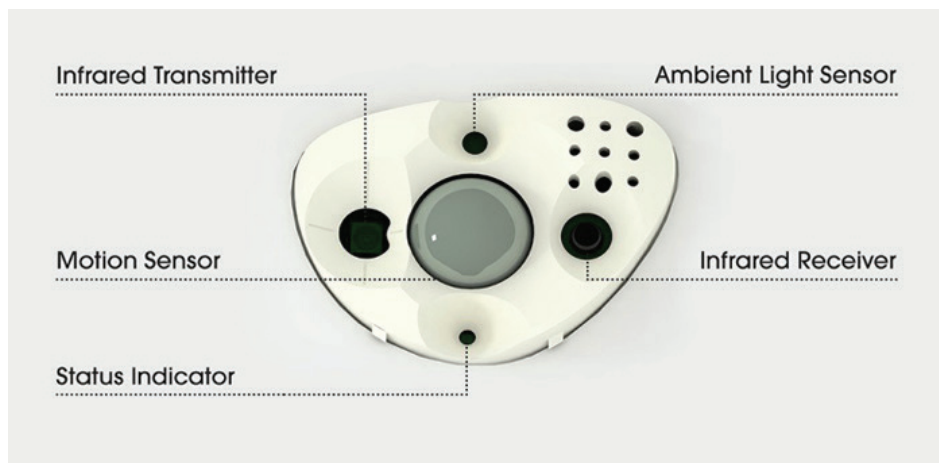
- Reduced outgoings with expected power bill cost savings (Case Study: Savings between 50-75%)
- Reduced fitout capital costs with reduced lighting switch and wiring costs due to intelligent network architecture
- A comfortable and efficient lighting environment
- Environmental contribution with associated reduced carbon output

## Organic Response Lighting

Organic Response is the world's simplest yet most advanced approach to lighting management, delivering significant energy savings, flexibility and occupancy comfort. With dimming ability and one motion sensor in each luminaire, Organic Response provides a flexible high-resolution lighting response without the need for centralised control, and complex wiring infrastructure.

With energy efficiencies from the latest LED lighting technology, as well as an intelligent lighting management system (controlled by an intelligent sensor node in each luminaire) that allows each light to be aware of its environment and automatically generate the required lighting level needed at the time.

- Each luminaire (LED Light) can be set to maintain its required LUMENS light level
- Dwell times on individual lights are configured to power down lights when no activity
- Daylight trimming allows each light to adjust and reduce energy output to take advantage of any available natural or available light
- Flexible individual and grouped programming allowing individual TASK LIGHTING and scenes for zones/work areas
- Communication between luminaires allows for appropriate group behaviour based on occupant activity



- Motion Sensor
- Ambient Light Sensor
- Infrared Transmitter/Receiver

Because each Sensor Node operates independently the system has a high level of redundancy – and that means Organic Response lights won't switch off inappropriately leaving occupants in the dark.

This distributed Intelligence in each luminaire provides dynamic lighting zones. Zones are effectively centered on each occupant in the workspace regardless of where they go, as the Sensor Nodes continuously monitor and respond to occupant behaviour.

Organic Response also automatically and intuitively responds to changes in its physical environment – without the need for redesign, additional hardware, or programming. For example, if a large room is partitioned into two separate areas, each area simply begins to operate independently as Sensor Nodes only communicate with other Sensor Nodes able to receive their infrared signals. Yet, if two rooms join to create a single larger room, all Organic Response lights immediately start communicating with each other as part of a larger network.

Organic Response Lighting reduces capital costs by removing the need for additional hardwired switching and lighting circuits

# LED Organic Response Lighting Cont'

## Operation Outline

The result is comfortable lighting conditions around all occupants, lower light levels in areas adjacent to them, but importantly no wasted lighting of unoccupied or naturally lit areas. Once an area becomes vacant, each light gently dims to a low light state until the system is sure that nobody remains in the area. After this time, the lights switch off completely.

The system is completely plug and play, and intrinsically adaptable to changes in the layout of the Sensor Nodes or office. However, Organic Response can be highly optimised via a simple smartphone app. This allows individual luminaire settings to be easily adjusted for the specific needs of a particular occupant or environment.

For example, brightness can be trimmed and dwell times increased or reduced. In addition, using the same infrared peer-to-peer communication network allows a whole floor to be configured with a new setting just by pressing a few buttons on the smartphone.

With no training, electricians, facility managers, office managers or even each tenant has the ability to configure and optimise the system's behaviour to suit their individual needs.

## Energy Savings – Case Study

Case studies available to document expected operational power savings.

