



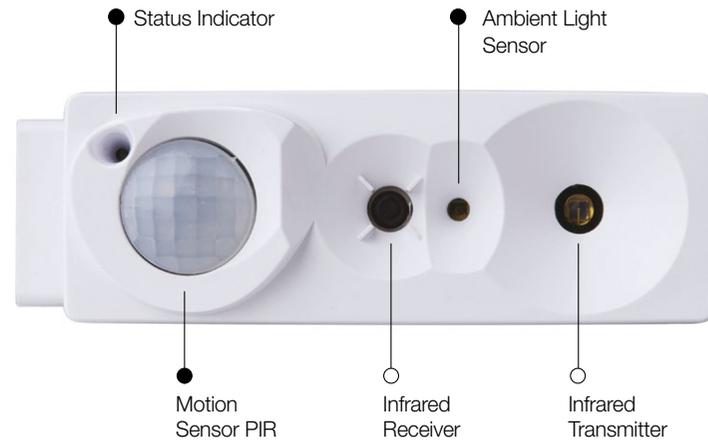
Wireless Controls

Organic Response[®]



Organic Response®

Organic Response® uses an innovative Proximity Limited Communication system that reacts to occupancy and daylight sensed by a single luminaire detector and then transmits data to nearby luminaires. Those luminaires then communicate with their nearby luminaires creating a cascade effect across a building.



- The infrared transmitter and receiver in Organic Response® detectors delivers a unique Proximity Limited Communication system
- Commonly used detectors have functionality for occupancy and daylight sensing

Simple functionality

Does not need additional controls wiring or on site commissioning.

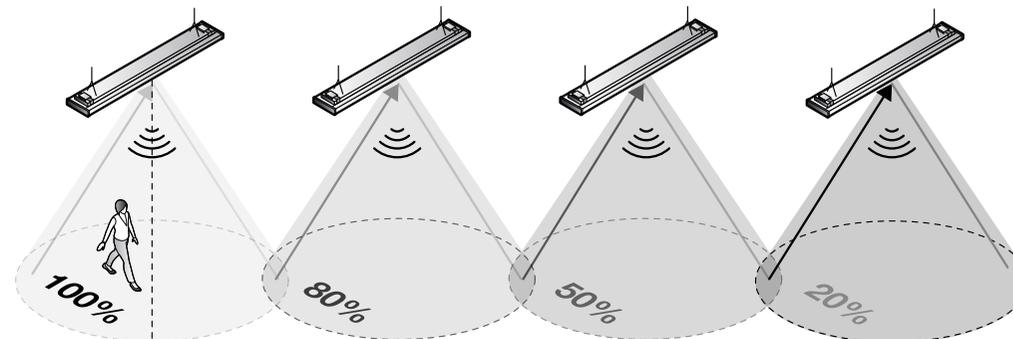
Functionality can be optimised via a phone or tablet-based app.

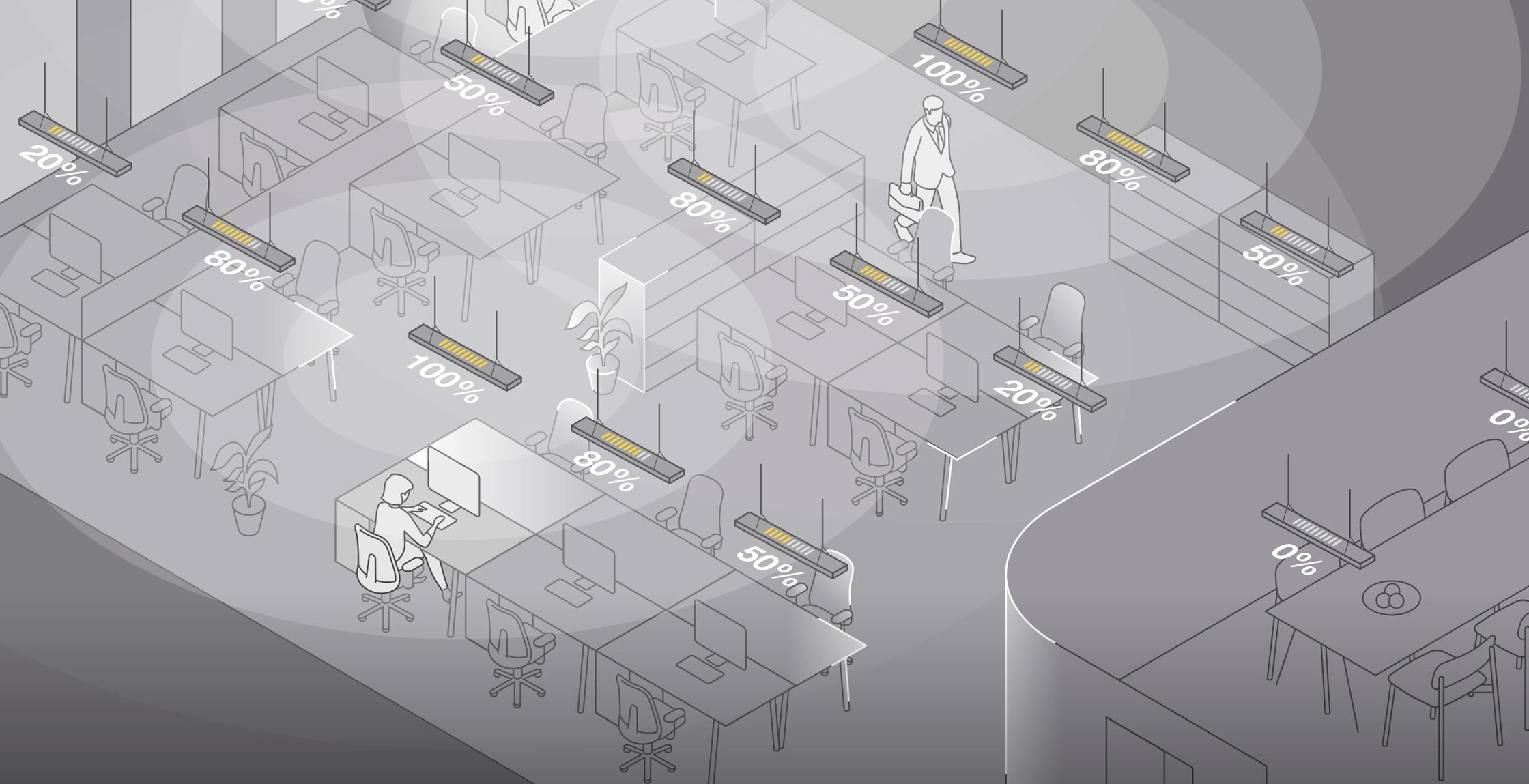
Can be linked to the cloud or Building Management System for high level functionality.

The detector is integrated into every luminaire and includes an infrared transmitter and receiver to create the send and receive signal for the building wide wireless communications. As the infrared signal can only travel 3 metres, every luminaire installed can only communicate with their neighbour, eliminating the need for onsite location commissioning.

The patented Proximity Limited Communication system will react to complex occupancy patterns and modify its behaviour as the building use changes.

Proximity Limited Wireless Communications = Every luminaire knows where it is in relation to its neighbours





When movement is detected a signal is relayed via infrared to other Organic Response[®] luminaires in the area.

One sensor node, unlimited flexibility

Immediately accessible through a simple smartphone app, Tiers 1–3 for system Optimisation and Configuration are included as standard.



Instant functionality

- Default operation delivers Proximity Limited Communication
- No need for expert commissioning services
- It just works!



Optimisation

Increase energy savings and improve occupancy comfort:

- Adjust light levels and dwell times
- Activate daylight dimming
- Select preset light “Personalities”

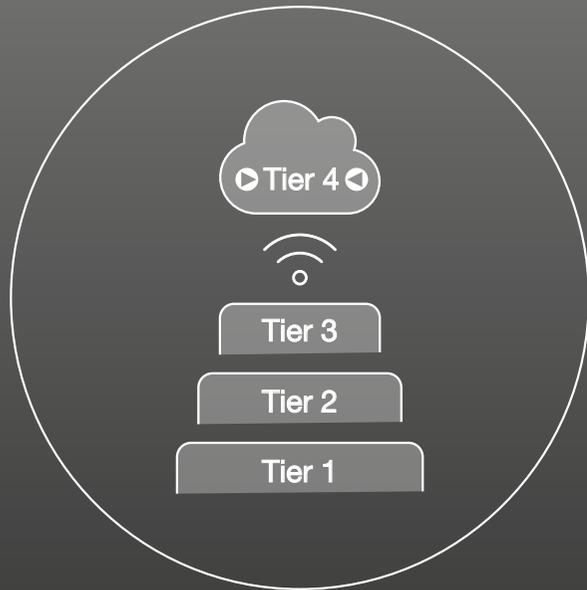


Configuration

Customise lighting behaviour for even more flexibility:

- Independent and dependent zones
- Create customised scenes for example in meeting rooms and for presentations

Connected systems



An upgrade to Tier 4 uses IoT cloud-based technology to future-proof your building, enhancing the end user's understanding of the changing environment and needs of the occupants.

Automatic emergency testing

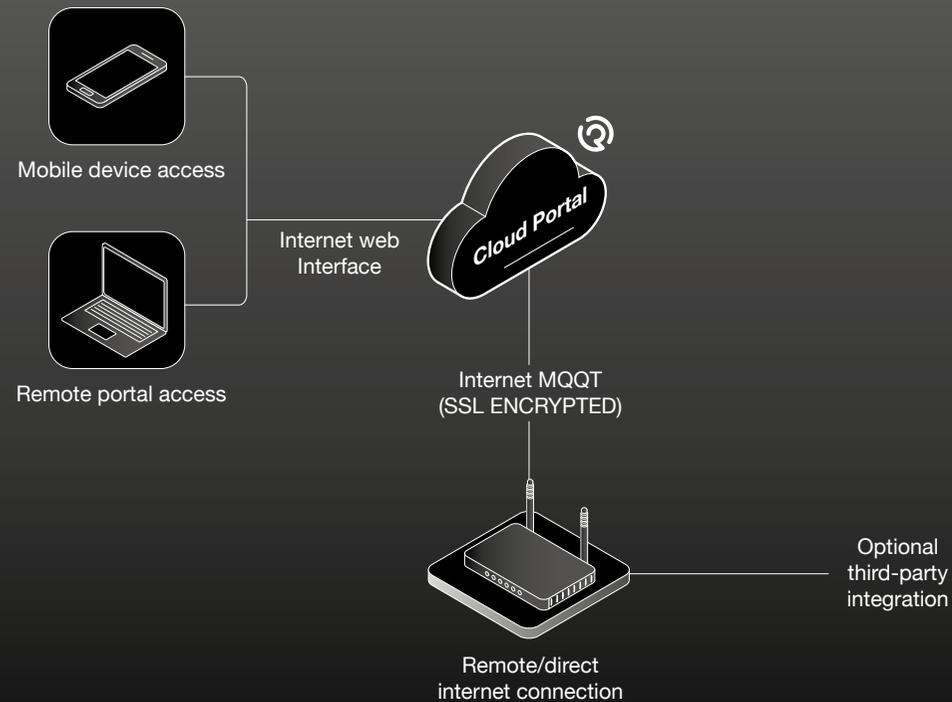
Emergency testing and reporting to deliver building compliance.

Data harvesting

Extract and analyse building data such as energy consumption and occupancy patterns and luminaire status.

Systems interoperability

Connectivity to Building Management Systems via open API and BACnet for enhanced building functionality.



Organic Response[®] features that benefit all

For further information
on Organic Response[®]
visit our website.

Whatever your role,
whatever sector you work
in, Organic Response[®]
has features that will
benefit you and your
organisation.

Installers

No more costly than a DALI integrated control system, yet much simpler and faster to install.

Because Organic Response[®] offers optimised response to the live environment, there's no conflict with the timing of your building control strategy.

Works out of the box: straightforward install with no complex wiring and little to no commissioning process.

Consultants

Easy to design and implement on drawings, technology is fitted into each luminaire in the factory eliminating the need for room based sensors and separate lighting control design.

Works instantaneously so configuration and optimisation can be done quickly and simply via the Organic Response[®] Response App.

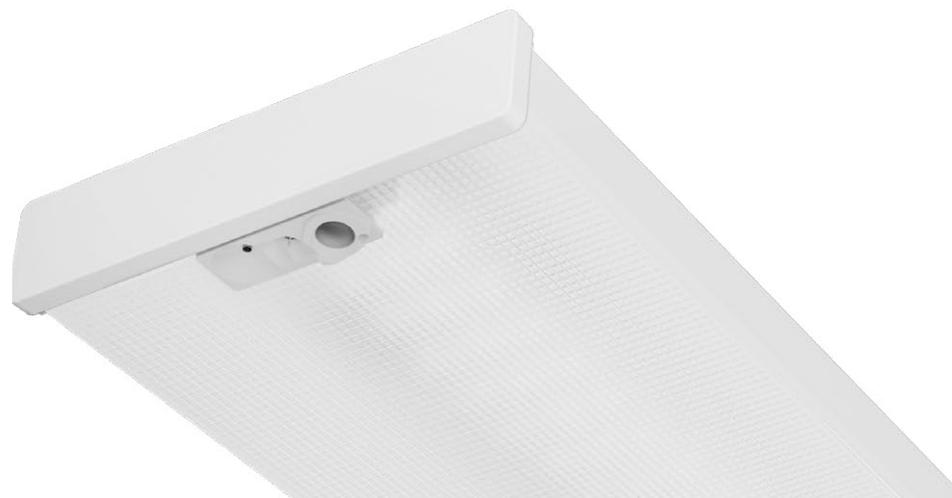
No luminaire is ever on when it doesn't need to be helping to reduce energy costs through lower power consumption.

End users

Choose from 12 pre-loaded "Personalities" for the ultimate balance between occupancy, comfort, safety and energy efficiency at no extra cost.

Integration with building management systems and a web based user interface offers further improvements to building efficiency and extended asset life.

No need for expensive and disruptive commissioning or re-commissioning during life as the system intuitively adapts to users needs.



Organic Response® in action

Education



Delivering low energy consumption, cost savings and a well-lit, productive learning environment.

Automatic adjustment for occupancy and daylight contribution to maximise energy saving.

Pre-stored lighting behaviours accommodate variable teaching conditions, for ease of use the system is operated via wireless wall plate.

Eliminate blind spots with a sensor in each luminaire delivering full detection coverage across the space.

Healthcare



Reducing energy costs in any 24/7 operation can be challenging, autonomous operation across multiple spaces offers significant opportunity for savings.

Clever features such as “Min Light” deliver low-energy minimum light levels for assured occupant safety and patient comfort.

Modify delay times according to the space so that no luminaire is on when it doesn't need to be once no occupancy is detected.

Where luminaires are specified greater than IP44 protection, integration of Response Radio can be selected to maintain IP integrity.

Workspace



Achieve lower operating costs, an improved working environment and enhanced safety and security.

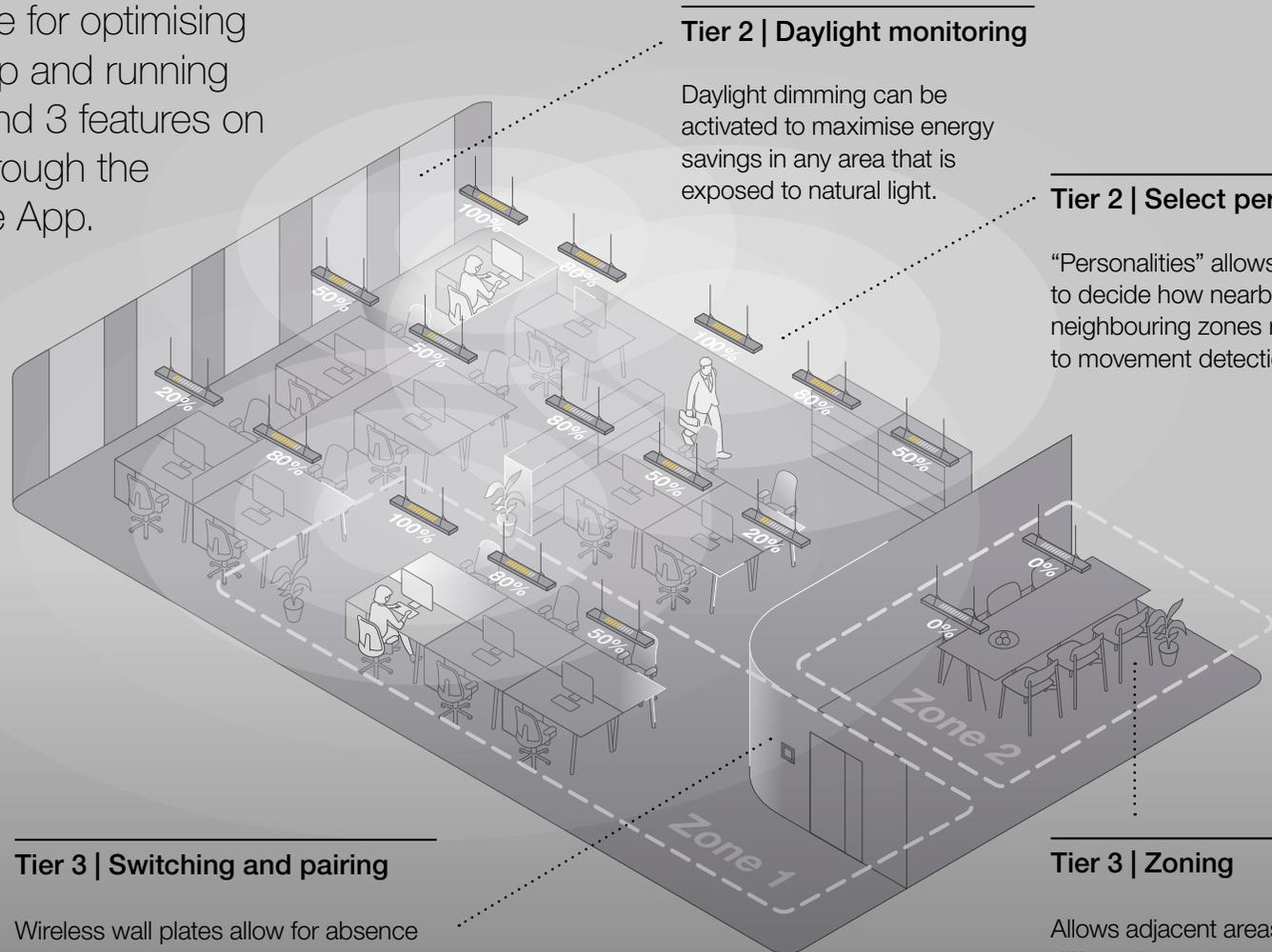
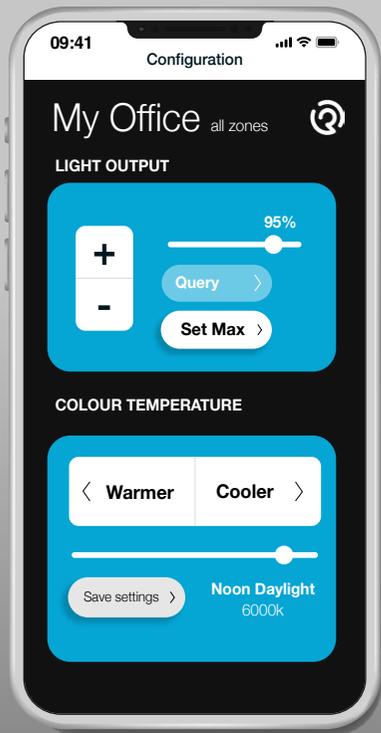
Lighting responds to occupancy using different parameters of light levels throughout the building.

Accommodate minor or major churn, the sensor node-to-node communication quickly responds to design layout and use of space changes.

Optimise the basic settings or configure for more sophisticated behaviours in house via a smartphone Response App.

Control every aspect of your lit environment through the Organic Response® Response App

A simple, intuitive user interface for optimising the lighting control system is up and running within minutes. All the Tier 2 and 3 features on this page can be managed through the Organic Response® Response App.



Tier 2 | Daylight monitoring

Daylight dimming can be activated to maximise energy savings in any area that is exposed to natural light.

Tier 2 | Select personality

“Personalities” allows the user to decide how nearby lights and neighbouring zones respond to movement detection.

Tier 3 | Switching and pairing

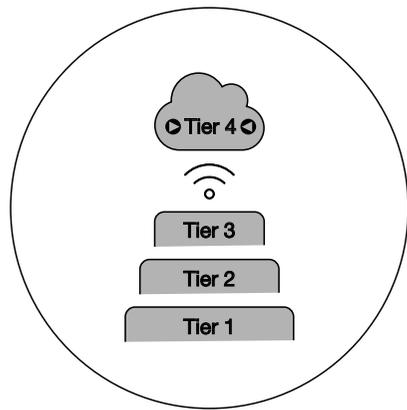
Wireless wall plates allow for absence detection, dimming and scene control.

Tier 3 | Zoning

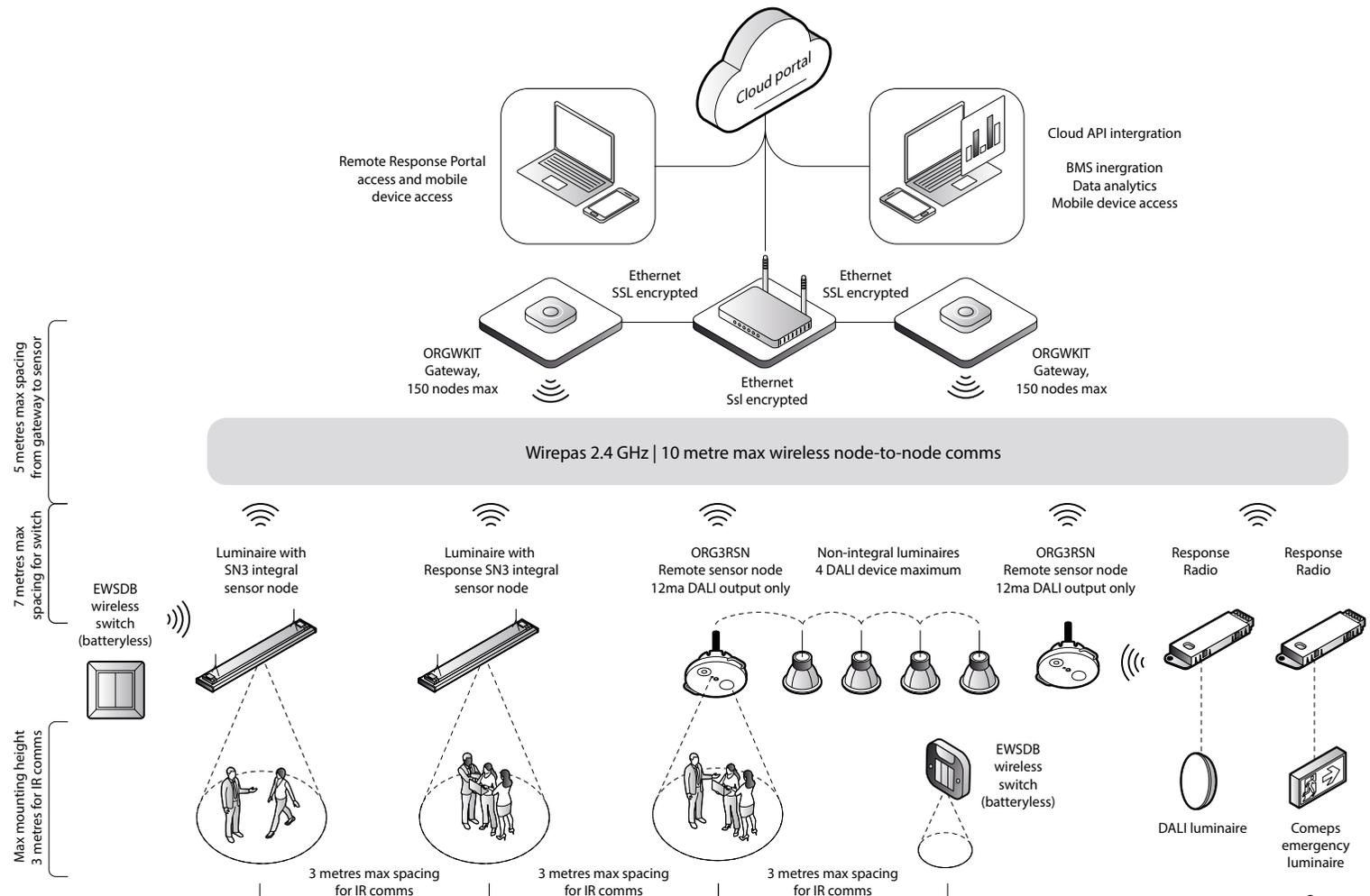
Allows adjacent areas to respond differently to occupancy. Zones can be entirely independent.



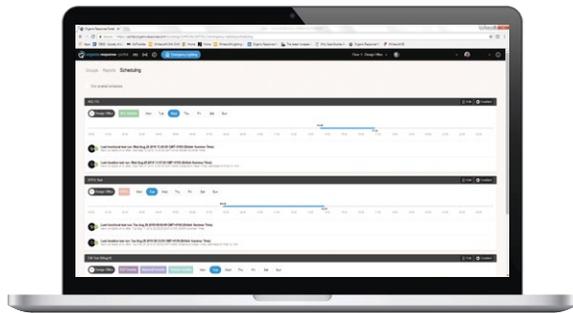
Creating connected spaces with the Organic Response® Portal platform



Organic Response®, using unique Proximity Limited Communication wireless technology can be customised as technology evolves to provide an interface with Building Management Systems and integration into Smart Building Applications to improve the functionality of the workplace.



Organic Response[®] Portal Platform



Emergency lighting testing and reporting

Schedules and emergency testing

Enabling testing to take place during periods of low occupancy.

Automatic emergency testing

To ensure testing to EN50172 is completed.

Record and report results

To ensure the integrity of every system is maintained.



Data harvesting

Energy performance

Compare energy consumption across functional areas/zones to identify opportunities to trim light levels or dwell times.

Occupancy heat mapping

Improve workspace utilisation in real time by mapping movement and occupancy within spaces.

Maintenance

Interrogate systems for luminaire data to understand performance parameters and specific fault status.



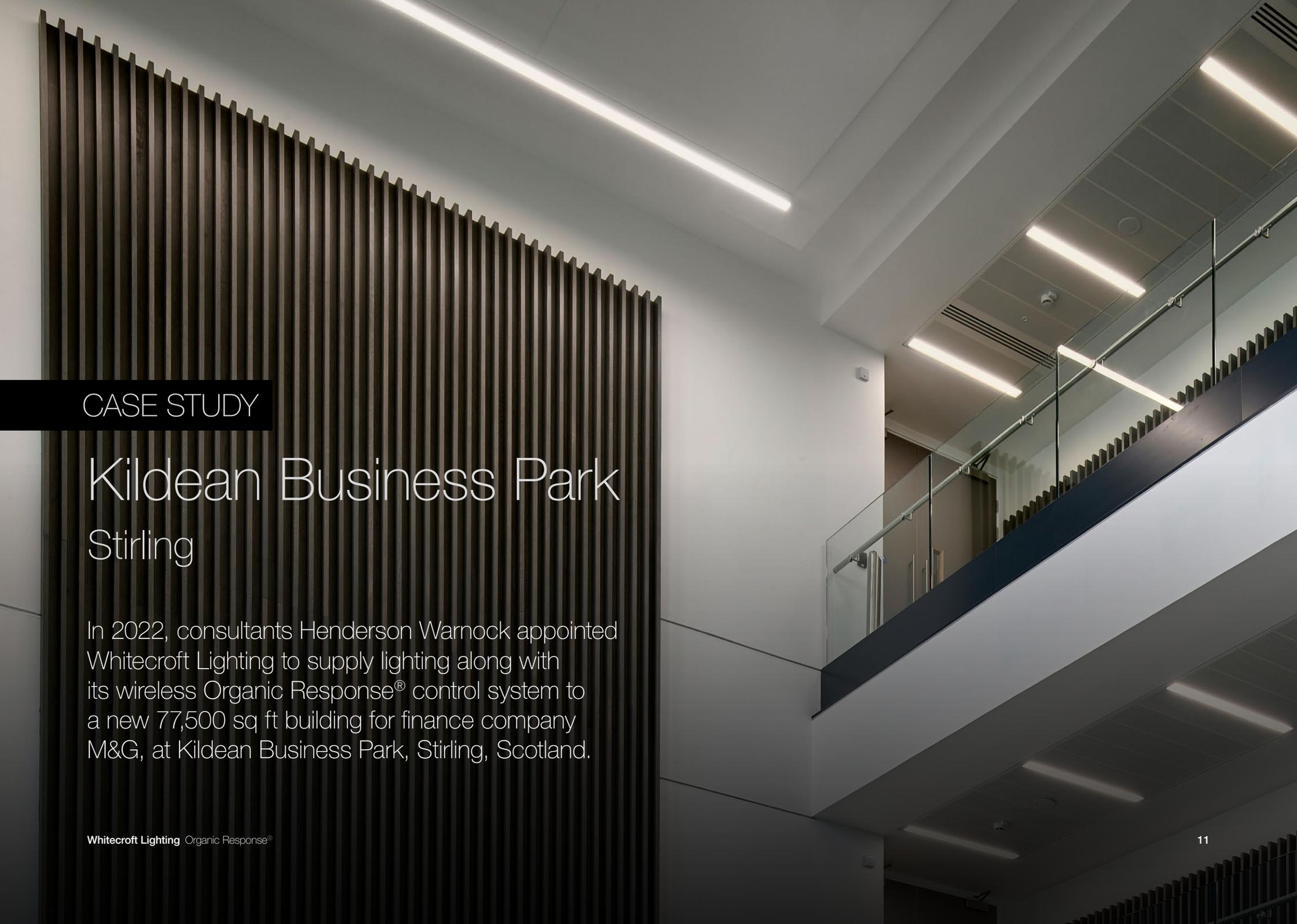
Systems interoperability

BMS integration

Data used in conjunction with BMS (Building Management Systems) will in the future contribute significantly to effective use of other services such as heating and ventilation, blinds, security, space management and overall maintenance programmes.

Open API

Simple APIs (Application Programme Interfaces) have been developed to provide seamless integration to existing building services.



CASE STUDY

Kildean Business Park Stirling

In 2022, consultants Henderson Warnock appointed Whitecroft Lighting to supply lighting along with its wireless Organic Response® control system to a new 77,500 sq ft building for finance company M&G, at Kildean Business Park, Stirling, Scotland.

CASE STUDY

Kildean Business Park | Stirling

Organic Response® offers responsive wireless system for commercial office space

1,500

Installed luminaires with Organic Response®

BREEAM
rating 'excellent'

77,500

square ft of grade A office accommodation



The brief was to ensure that the lighting complimented the building's clean modern lines whilst making valuable commercial space as flexible as possible.

A clean, wireless solution was suited to the largely glass structure, with traditional cables replaced by slicker sensor nodes, that connect with neighbouring luminaires, so all lighting can seamlessly respond to changing environmental conditions.

Each sensor node contains a motion sensor, ambient light sensor, and infrared transmitter and receiver that allows seamless communication.

The system offers a range of benefits when compared to a wired or Bluetooth system. Time and financial savings were made from not having to purchase or install a wired system. Aesthetically there were no cables to manage or hide, and the wireless light switches could be located on any surface.

Organic Response® also assists in making the space as flexible as possible, as the system doesn't require recommissioning if the layout changes.

To meet sustainability targets and help achieve a minimum BREEAM rating of 'Excellent', Whitecroft installed low-energy high-lifetime LEDs, while the light fittings contained replaceable modular units that lengthen the lifespan of the product and materials.

Organic Response[®] enabled luminaires

A wide range of recessed, suspended and surface mounted luminaires are available with integrated Organic Response[®] Response SN3 sensor nodes. These include:

Foil



Avenue Metro



Cascade Flex



Selene 2



Scribe



Organic Response[®] switch options

A selection of 2.4GHz RF low-energy switches and infrared Organic Response[®] scene plates are both available in white or SEN-compliant contrasted finish (OR switch also available in 240v wired option).

Enocean switch white/white



Enocean switch white/silver



OR switch white



OR Education switch white/silver



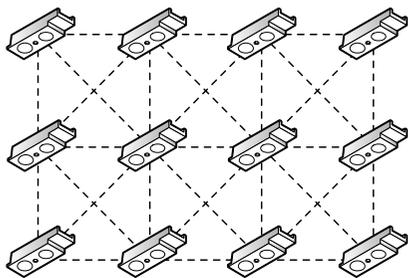
Organic Response[®] sensor nodes

Response SN3



Our luminaire integrated solution with full occupancy and daylight sensing along with infrared proximity limited communications (limited communications [3m maximum] and wireless node-to-node [10m maximum]).

Remote SN3 node mesh



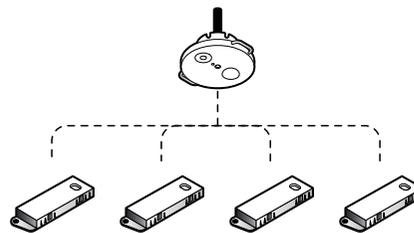
Response Radio



An integrated solution that can be fully concealed in the luminaire with full wireless node-to-node/node-to-gateway communications.

Must be paired to a remote sensor node. Maximum remote sensor node to Response Radio or Response Radio to Response Radio is 10m.

Response Radio wireless comms

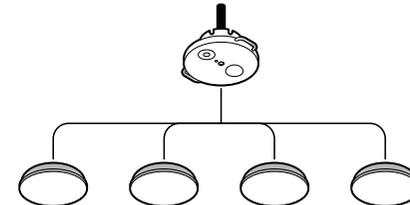


Remote sensor node



A remote sensor node is available and can be used with luminaires containing a passive node or hard wired to up to six DALI luminaires.

Remote sensor node wired DALI comms



Service and support

We provide the Bronze support package for your Organic Response® installation as standard. If you need a hand, other service levels are available where greater functionality or connectivity require direct on-site support.

On-site service

Bronze

Basic on-site awareness and demonstration training to installation contractor.

Silver

As Bronze but with direct onsite support, the space will be set up according to predefined zones and personalities.

Gold

As Silver with additional assurance of 12-month soft landing support post installation with two on-site follow-up visits to ensure optimum system settings.

In-house design services

- Lighting and controls design-in support through the provision of photometric and BIM data.
- Factory integration of Organic Response® into a wide range of luminaires to help deliver both compliance and creativity.
- PDF design documentation for controls functionality.

Support options included	Bronze	Silver	Gold
Organic Response® Express app	●	●	●
Telephone technical support	●	●	●
Full access to service	●	●	●
Basic on-site training	●	●	●
Zoned level and personality drawings		●	●
On-site set-up		●	●
On-site follow-up visits			●
Extended plan by negotiation			●



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