Concord

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SCHOOL OF FISH

Fish, swimming in formation, continuously make small decisions in response to the actions of their immediate neighbours, ensuring smooth movement as a group.

This distributed intelligence is at the heart of the design concept behind Organic Response.

We believe lighting should work with the user and their needs, not against them. That is why Organic Response, is so aptly named. Instead of rigid, pre-set lighting patterns, this lighting control solution relates to the users of a space and adapts the lighting intuitively.

With Organic Response users get light where they need it, when they need it. Whilst facilities managers get a highly flexible, energy efficient lighting solution that is incredibly simple and cost-effective to install and manage.

Thanks to distributed intelligence, each luminaire that is fitted with an Organic Response Sensor Node, has two-way communication with its neighbouring luminaires.

Information on the presence of occupants and ambient light levels is shared between the luminaires, and behaviour decisions are made, ensuring all the lights in a defined space act as a coordinated community.

Integrated into each luminaire during assembly, the Organic Response Sensor Node contains a motion sensor, infrared transmitter, infrared receiver and ambient light sensor (with spectral response perfectly matched to the human eye).

Winner of the Lighting Controls category
## Features & Benefits

### Features and benefits of Organic Response®

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plug and play</strong></td>
<td>Simple ‘plug and play’ installation. Motion sensors and overlapping sensor fields ensure complete control from day one.</td>
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<tr>
<td></td>
<td>No site wiring or additional electrical infrastructure cost incurred in retrofit scenarios. Organic Response is infinitely scalable, and can be used identically in small or large environments.</td>
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<tr>
<td><strong>Adaptability</strong></td>
<td>Interior walls can be moved and Organic Response automatically adapts to the new layout.</td>
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<td>Changes to office layout can be made with no additional lighting control costs.</td>
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<tr>
<td><strong>Daylight Harvesting/Dimming</strong></td>
<td>Each luminaire automatically adjusts to the daylight levels around it, ensuring maximum energy efficiency at all times. Organic Response incorporates an automatic lumen maintenance function.</td>
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<td></td>
<td>Energy savings maximised. Maintained illumiance. New schemes are not over-lit.</td>
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<tr>
<td><strong>Personality Setting</strong></td>
<td>Preset lighting personalities can be set for different areas (e.g. corridors, office, garages etc.)</td>
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<tr>
<td></td>
<td>Energy savings maximised. Built-in flexibility allows for effective lighting without additional complexity. Preset personalities mean no separate commissioning required after installation.</td>
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<tr>
<td><strong>Task Lighting</strong></td>
<td>Each light can be individually ‘trimmed’, ensuring illumination is suited to specific spaces.</td>
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<td></td>
<td>Energy savings maximised. Lower lighting maintenance costs. Optimal lighting levels can be achieved for each specific location. Provides scope for creative lighting design effects, whilst enhancing energy efficiency.</td>
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<tr>
<td><strong>App Control</strong></td>
<td>Enables users to trim light levels, set moods and dwell times by pointing the smartphone remote at a luminaire’s Sensor Node. The target luminaire can reprogramme all the other luminaires using the ‘relay configuration option’.</td>
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<td></td>
<td>Tenants can manage aspects of lighting control quickly and easily, without needing to bring in external expertise. occupants are never left in the dark, or over illuminated. Occupants don’t have to worry about timers turning off lights inappropriately, or being in a motion sensor “blind spots”.</td>
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**BUILDING OWNERS/TENANTS**
# Features & Benefits

## BENEFITS

<table>
<thead>
<tr>
<th>FACILITIES MANAGERS</th>
<th>LIGHTING ENGINEERS/ DESIGNERS</th>
<th>ELECTRICAL CONTRACTORS</th>
<th>OCCUPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>No complex, centralised control system to manage.</td>
<td>No further electronics control or communications infrastructure required on site.</td>
<td>“Plug &amp; Play” installation makes this as simple to install as a standard luminaire.</td>
<td>Occupants are never left in the dark, or over illuminated.</td>
</tr>
<tr>
<td>No expensive reprogramming costs.</td>
<td>No additional design or commissioning required once luminaires installed.</td>
<td>No specific training required for installation.</td>
<td>Occupants don’t have to worry about timers turning off lights inappropriately, or being in a motion sensor “blind spots”.</td>
</tr>
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<td>No need for new hardware, programming or commissioning if the office layout changes.</td>
<td>No sensor “blind spots” which need to be overcome.</td>
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<td>Lower costs, reduced complexity.</td>
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<tr>
<td>Lighting zones can be quickly and easily optimised without external expertise.</td>
<td>Built-in flexibility allows for effective lighting without additional complexity.</td>
<td>Preset personalities mean no separate commissioning required after installation.</td>
<td>Appropriate timing of transition from off-on/ dim-bright.</td>
</tr>
<tr>
<td>Energy savings maximised</td>
<td>Optimal lighting levels can be achieved for each specific location.</td>
<td>Easy optimisation for your clients.</td>
<td>Optimal dwell times before dimming/turning off.</td>
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<td>Lower lighting maintenance costs.</td>
<td>Provides scope for creative lighting design effects, whilst enhancing energy efficiency.</td>
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<td>Allows appropriate levels of authorisation for changes to mood settings.</td>
<td>Allows for easy configuration of lighting behaviour in different zones (e.g. open plan office, corridors, etc).</td>
<td>Simple and easy to use, allows you to “set &amp; forget” any optimised settings.</td>
<td>Occupants can temporarily dim or brighten their own lights – which then revert back to default mood settings when session is complete.</td>
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<td>Tenants can effect appropriate changes themselves, without needing assistance.</td>
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Lighting management at its best

1. The moment a Sensor Node detects occupancy, the luminaire responds by outputting a predetermined light level. It simultaneously communicates with its neighbouring luminaires using a Level 1 proximity limited wireless infrared, telling them it can see someone.

2. On receipt of this Level 1 signal the neighbouring Sensor Nodes know that there is someone within one light fitting of them, and respond by outputting a predetermined light level appropriate to that occupancy profile (e.g. 80% brightness). They simultaneously relay a Level 2 signal to their own neighbours, notifying them of the occupant’s relative proximity.
On receipt of this Level 2 signal the neighbouring Sensor Nodes know that there is someone within two light fittings of them, and respond by outputting a predetermined light level appropriate to that occupancy profile (e.g. 80% brightness). They simultaneously relay a Level 3 signal to their own neighbours, notifying them of the occupant’s relative proximity.
Intuitive light management

Organic Response’s intuitive light management ensures occupants always work in comfortable lighting levels: whilst neighbouring, unoccupied spaces have lower light levels and none is wasted on unoccupied, or naturally lit areas. Thanks to Organic Response’s gradual light level adjustment, occupants of a space are unaware of the intuitive luminance control going on all around them.

Organic Response saves electricity and money as light is only used when and where needed. As well as turning lights off in unoccupied areas, or dimming down in low activity zones, the Organic Response Sensor Node in each luminaire ensures automatic adjustment to surrounding daylight levels, guaranteeing maximum energy efficiency at all times.

Whether during the commissioning process, or as required, individual luminaire brightness can be trimmed to optimal user levels via an easy-to-use smartphone app. Alternatively the lighting on a whole floor can be configured or re-configured in a matter of minutes, using the ‘relay configuration’ setting on the smartphone app.
Office Space, London

A charity organisation based in Southwark, London has benefited from the energy saving potential of Organic Response.

This five story, 2,000m² office space was refurbished using 240 Organic Response enabled Concord OfficLyte recessed luminaires.

As well as lighting the main open plan areas, Organic Response enabled luminaires were also fitted throughout the small and larger meeting rooms.

Benefits included:

- Reduced overall lighting installation times and handover deadlines comfortably met, thanks to the easy to install and commission luminaires
- Quick zone commissioning thanks to Organic Response’s ability to be configured as soon as each part of the building was completed
- Lighting energy savings as soon as each zone was commissioned, thanks to the independent, yet connected, nature of each Organic Response enabled luminaire
Applications & Specifications

Product Environment for use: Indoor areas, with maximum recommend ceiling height of 3.7m

Sensor Node Dimensions: H24mm x L42mm x W28mm

Power Supply: 100-240V AC, 50/60Hz

Ambient Temperature: 10˚C - 30˚C

Degree of Protection: IP20 (when installed in a luminaire)

Protection against contact with live parts: Provided by the luminaire

Protection class: I

Internal Fuse: 1A slow blow (no connected to ballast load)

EMC compliance: AS/NZS CISPR15 (Australia) EN55015 Emissions, EN 61547 Immunity (Europe)

Electrical Safety Compliance: AS/NZS 61347.2.11-2013 (Australia) EN 61347.2.11 (Europe)

Field serviceable parts: None

Recommended Height & Distances between Sensor Nodes

Motion Sensor Parameters

Concord
Officelyte Concord
Officelyte is a high efficiency or high output modular luminaire available in LED or T5 format, provides class leading energy efficient lighting schemes depending on required ceiling heights and luminaire spacings. Exceeding EN 12464-1:2011 Officelyte with integrated LED and Organic Response technology delivers the ultimate in cost savings and longevity.

Unity Concord
Unity the next generation suspended LED lighting system is ideal for offices (including open plan), classrooms, lecture theatres, corridors, circulation spaces and libraries. Based around intelligent use of highly efficient 1.2m, 2.4m and 3.6m LED extrusions to create lines or pools of light, Unity is the ideal solution for your lighting needs.

Rana Sylvania
The RANA family range with superior optics is designed to provide wide spread light distributions economically, within a variety of applications.

Rubico Sylvania
Rubico is a range of LED and T5 fluorescent recessed luminaires. The Rubico range of recessed luminaires pushes the boundaries of performance and efficiency and exceeds European building code EN 12464-1:2011