node

PARC
A Price Company

Why Node?

When designing and fitting out a building, architects and designers aim for a synthesis of all elements, making considered decisions regarding function and aesthetics.

For too long however, a building's services – security, fire prevention and ventilation among others – have been excluded from this process. Frequently seen as obligatory systems rather than design elements in their own right (and often the product of regulation rather than design) they can often frustrate the design process rather than facilitate it.

It's a situation not helped by the sheer variety of systems and devices available. Each has its own design, size and configuration, and each will have its own specifications and method of installation.

Node was born out of the need to address this issue. A collaboration between world leading industrial design, building services, lighting and acoustical ceiling organisations, Node is the answer to the question: why shouldn't a building's services merit the same quality, standards and attention to detail as everything else?

Node is a fully co-ordinated building system that allows for more visually appealing and functional spaces. Its conception elevates a long-overlooked, yet vitally important aspect of building design to the level it deserves.

The Team

Price Industries
Price Industries was founded in 1946. A global market leader in mechanical services, it is dedicated to providing quality, reliability, and industry-leading service to its customers.

From in-house tooling and equipment design to aluminium extrusion, metal fabrication, finishing and electronics development and production, Price's teams of design and manufacturing engineers tirelessly develop new commodities and specialised products. The result is a company dedicated to continuously improving existing products while introducing entirely new product lines and highly-differentiated, advanced technologies.

The Price Research Center North (PRCN) in Winnipeg, Canada is a state-of-the-art laboratory and testing facility that provides the industry's most accurate and reliable test data. Price's ongoing commitment to its customers and relentless innovation has driven the facility to become what it is today: the most advanced, extensive and comprehensive HVAC research centre in North America.

In 2020, Price launched PARC - Price's architectural ceilings division, specialising in integrated building services and radiant ceilings. PARC's mission is to enable forward-thinking building designers to achieve their vision by delivering innovative, beautiful ceiling systems that are easy to specify, order, install and maintain.

Foster + Partners
Foster + Partners was founded in 1967 by Norman Foster. One of the most innovative architecture and integrated design practices in the world, it's established a worldwide reputation for thoughtful and pioneering design, integrating the skills of architecture with several other disciplines.

Foster + Partners has forged a sustainable approach to architecture through a wide range of work, from urban masterplans, public infrastructure, airports, civic and cultural buildings, offices and workplaces, to private houses and product design. Its diverse capabilities make it particularly suitable for tackling a wide range of projects, especially those of complexity and scale. Importantly, it's never drawn a distinction between architecture and industrial design. For Foster + Partners, the point of contact, the things that we touch and use, are as important as the broader vision.

The practice's industrial design team was established in 1980. Since then it's designed and developed an extensive range of products, from door handles to wind turbines. The studio designs products in response to individual projects, or directly with clients on product commissions for commercial manufacture.

Artemide
One of the most well known illumination brands in the world, Artemide was founded in 1960. A principal factor in its worldwide success has been innovation, as exemplified by its research and innovation team working in conjunction with groundbreaking prototyping and testing labs, as well as its technological research and partnerships with renowned architects.

Central to the company's philosophy is its socio-cultural approach. Artemide calls it 'Human Light' – the idea that lighting is about much more than beautifully-designed objects and technical performance. Rather, it believes products should be based on the way we use and interact with light, and that first and foremost, light should respond to human needs. It's an approach that's changed the way Artemide lighting is conceived and developed: illuminate the space, but also people's activities and requirements within that space. Light that improves quality of life.

Minimal consumption of environmental resources is also a prerequisite. The company continues to pioneer advances in efficiency, consumption, emissions and operation times, as well as develop next-generation LEDs, heat dissipation systems and advanced electronic componentry.

Kvadrat
Established in Denmark in 1968, Kvadrat holds a leading position in Europe's high-quality contemporary textiles market. It produces textiles for both private consumers and the industrial sector, with architects and designers specifying its products for public spaces and domestic and commercial interiors across the globe. Projects range from new buildings to renovations, and include offices, auditoriums, concert halls, cinemas, libraries, hotels and residential buildings. Constantly pushing the aesthetic, technological and functional properties of textiles, Kvadrat regularly collaborates with the world's leading creative thinkers and talents.

Soft Cells is Kvadrat's acoustic division. It creates fully customisable, high-performance acoustic panels characterised by aesthetic excellence, exceptional versatility and optimum sustainability. The product of extensive research and experience, Soft Cells delivers against the demands of many different architectural requirements and acoustic environments, providing up to Class A sound absorption. With the ability to provide individually-tailored solutions to the many different challenges of modern architecture, Soft Cells products are used in numerous architectural developments worldwide, including the Royal Danish Library, Oxford University, PricewaterhouseCoopers, Rolls-Royce and Microsoft.

Logical, Simple, Beautiful

Holistic
Node allows a building's services – lights, sensors, cameras, air distribution, speakers and sprinklers – to be designed holistically. Integrating and standardising major building systems in this way provides a number of advantages.

First, it pulls everything together from an aesthetic perspective. With each element sharing the same visual characteristics, and with size, shape and materials unified, Node ensures system components remain complementary. Ad-hoc, visibly jarring elements become a thing of the past.

Second, Node reduces scheduling conflicts between contractors. With all devices co-ordinating technically and connections and materials standardised, there is less technical conflict.

With a visual language that is quiet, unobtrusive and unified, Node is designed to relate to any building it's applied to. It means architects, designers, project managers and contractors need no longer be compromised with respect to their overall vision.

Flexible
Node can be incorporated into any ceiling type. As well as reducing infrastructure and cabling, designers and contractors have the reassurance that the interface to a ceiling's typical structure has been pre-engineered.

The flexibility of Node means it finds a natural home in new builds, such as offices and public buildings, where ceilings often have a large surface area. Interfaces are specifically designed to adapt to different ceiling types: from plaster to metal, from timber to fabric. This allows the same devices and network to be used across different ceiling types within the same space.

Node's adaptability is also a major asset with older buildings and conversions. If a ceiling is open, and lighting, cameras and other services need to be suspended, this can be done without the loss of either functionality or aesthetics.

Integrated
Node can be specified as one system, rather than individual services. All devices coordinate with each other, making installation and maintenance straightforward, further lowering costs.

While an integrated system means less material used, Node also improves environmental performance by reducing wiring and a building's environmental footprint.

PARC's approach to delivering Node projects builds bridges across traditionally segregated building trades to deliver a holistic architectural vision that meets all technical requirements.

Engineered
Node is not just design, it's engineering of the highest order.

Electronic components are developed in-house by Price Electronics and in partnership with industry leaders in security, audio and fire safety systems.

PARC's mechanical design team is responsible for the hardware, creating components using advanced materials that optimise performance and reliability. At the same time the team devised a method by which all components fit together efficiently and securely, simplifying installation and maintenance.

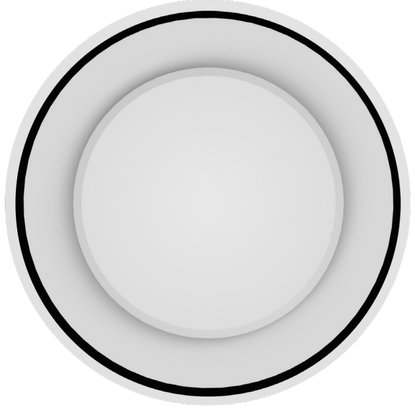
Built from the ground up and thoroughly tested at the design stage, Node's logical, modular configuration provides a fully customised system, engineered for maximum efficiency.

Overleaf, pages 10 – 13:
Recessed channel mounted devices. Black devices and channel with fabric ceiling. Ceiling provided by Soft Cells.

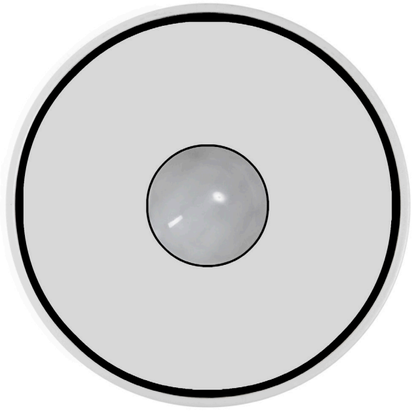
Devices

At the front-end of the Node system, devices are its most visible expression: restrained, coherent and precise. Built to a uniform look and size, they bring a purposeful consistency to the spaces in which they are installed. Custom colours and finishes are available.

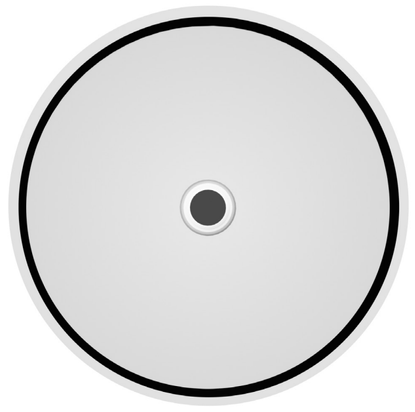
Top: Downlight/Spotlight
Bottom: Security Camera



Top: Flush Pendent Sprinkler
Bottom: Concealed Pendent Sprinkler



Top: DALI or Lutron Sensor
Bottom: BACnet Multisensor



Top: Emergency Light
Bottom: Ceiling Rose

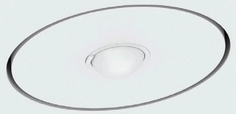
Interfaces

Node interfaces combine with Node devices. Many device/interface combinations are possible, allowing designers to achieve the look they desire, overcoming the practical considerations of different ceiling constructions, and allowing harmonisation with surrounding surface materials.

Surface Mounted

Trimless

Recessed Channel Mounted



Flush Channel Mounted

Surface mounted devices in
free-form configuration.
Black devices on plaster ceiling.

Left to right: Emergency Light,
BACnet Multisensor, Spotlight

Trimless devices in
linear configuration.
White devices in plaster ceiling.

Left to right: Emergency Light,
Concealed Pendent Sprinkler,
DALI Sensor, Security Camera

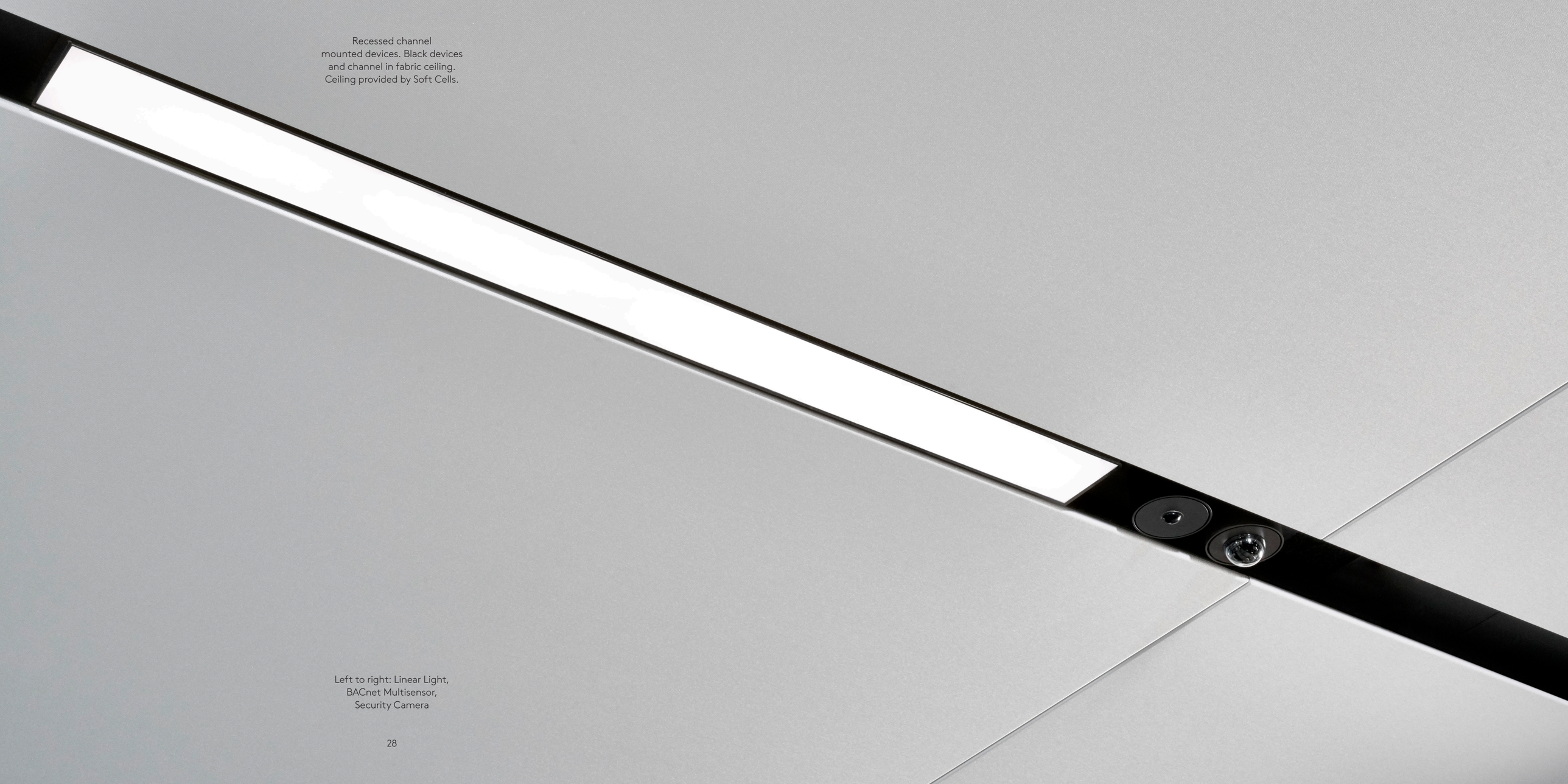
Channel

Channels allow Node devices to be configured in a recess. Integrating different services into a single spine that can bridge a wide span, it is ideal for communal buildings with broad ceilings, such as open-plan offices, airports and municipal spaces. Channel can be interfaced with a range of ceiling types thanks to a variety of edge profiles, while discreetly integrating HVAC diffusers.

Recessed channel
mounted devices. Black devices
and channel in fabric ceiling.
Ceiling provided by Soft Cells.

Left to right: Spotlights,
Concealed Pendent Sprinkler

Recessed channel
mounted devices. Black devices
and channel in fabric ceiling.
Ceiling provided by Soft Cells.

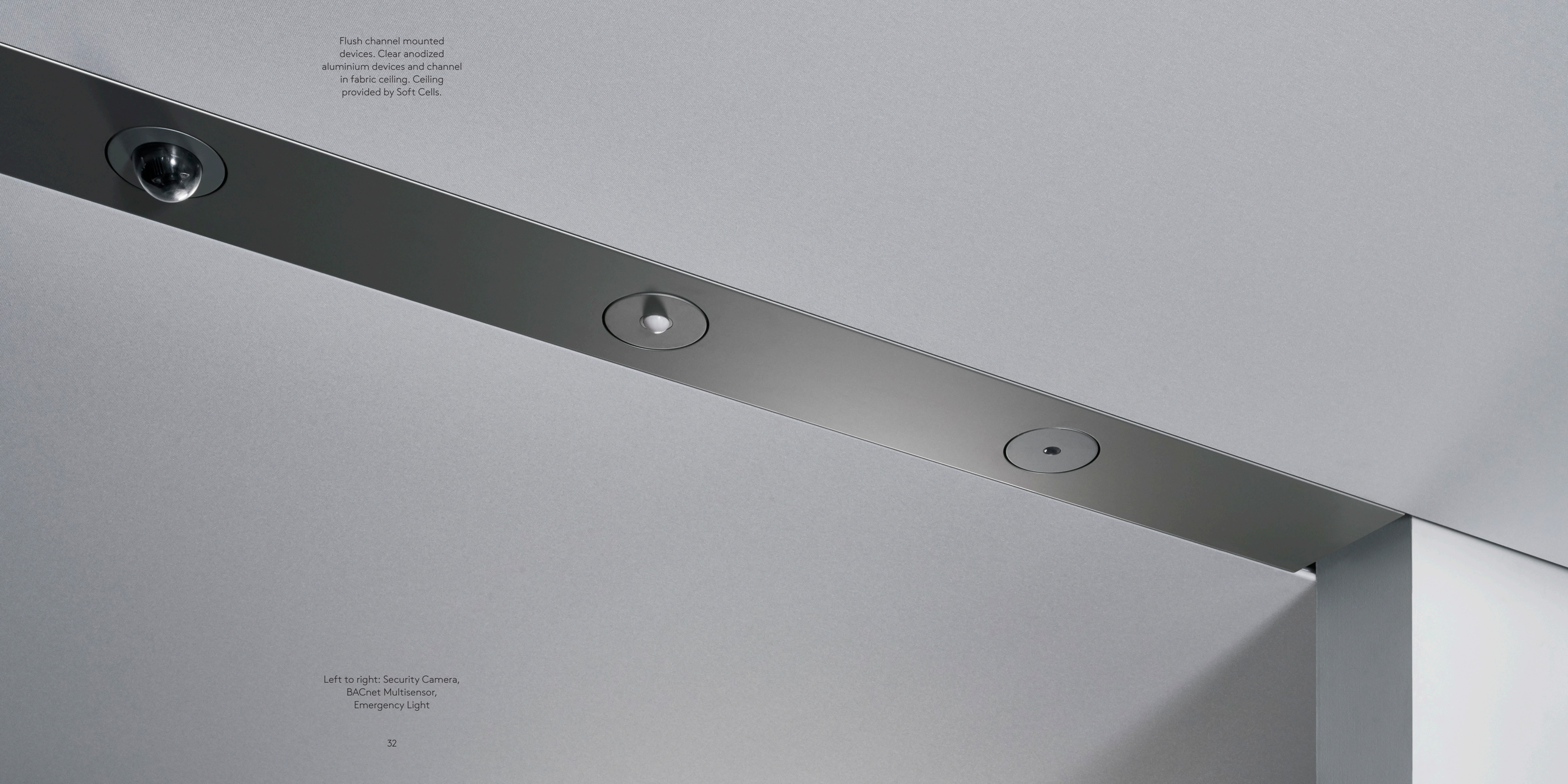


Left to right: Linear Light,
BACnet Multisensor,
Security Camera

Recessed channel mounted devices. Dark bronze anodized aluminium devices and channel in timber ceiling. Ceiling provided by Lignotrend.

Left to right; BACnet Multisensor, Emergency Light, Security Camera, Downlight

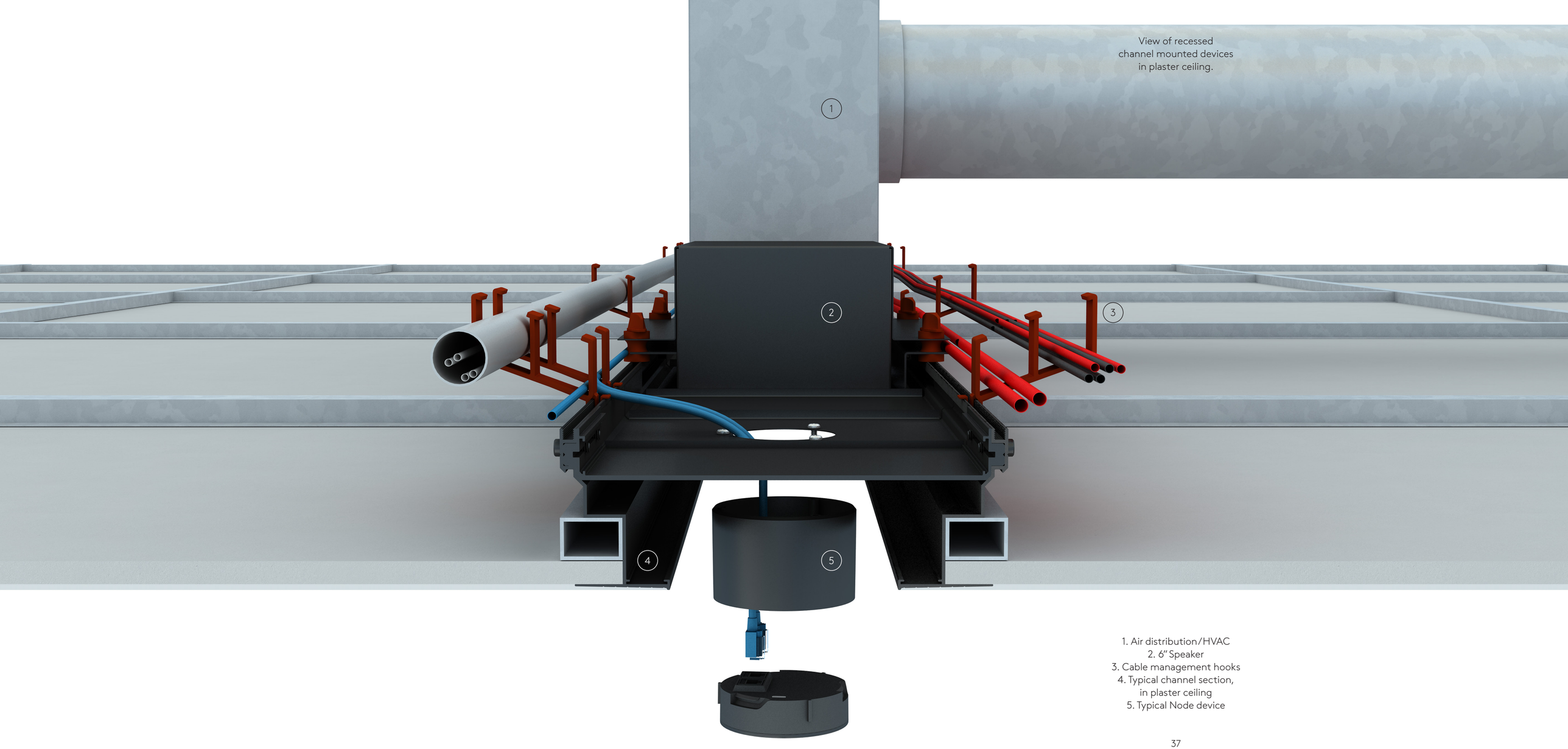
Flush channel mounted devices. Clear anodized aluminium devices and channel in fabric ceiling. Ceiling provided by Soft Cells.



Left to right: Security Camera, BACnet Multisensor, Emergency Light

Recessed channel
mounted devices. White devices
and channel in fabric ceiling.
Ceiling provided by Soft Cells.

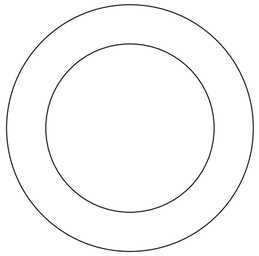
Left to right: Downlight,
Security Camera,
BACnet Multisensor



View of recessed
channel mounted devices
in plaster ceiling.

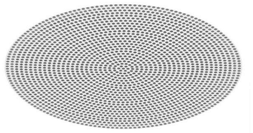
1. Air distribution/HVAC
2. 6" Speaker
3. Cable management hooks
4. Typical channel section,
in plaster ceiling
5. Typical Node device

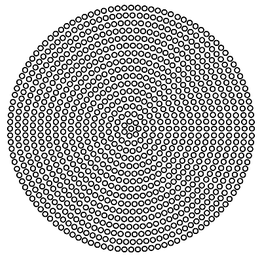
Node Device Specifications



Security Camera
Professional grade surveillance cameras provide high quality 1080p/2MP images to meet security and surveillance network requirements.

Available with UL or CE mark and in other selected geographies.

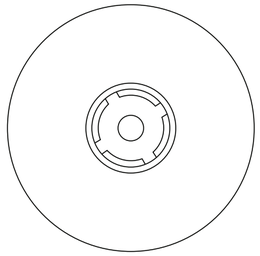




Speaker
Full-range, 3" speakers can be used to provide background music or public addresses.

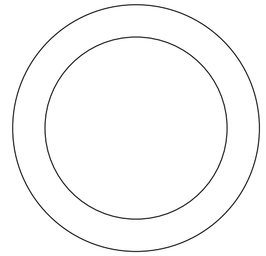
Only compatible with channel mounting.

Available with UL or CE mark.



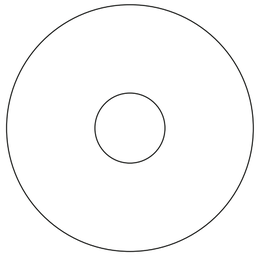
Flush Pendent Sprinkler
Automatic, compressed fusible solder sprinklers are decorative and low profile.

Available with UL or CE mark (Rapidrop RD102 shown).



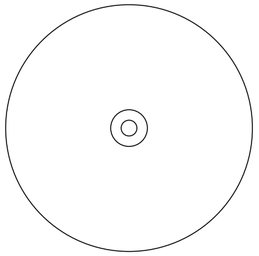
Concealed Pendent Sprinkler
Automatic, compressed fusible solder sprinklers are concealed above the ceiling, and are ideal for use in light hazard occupancies.

Available with UL or CE mark (Rapidrop RD105 shown).



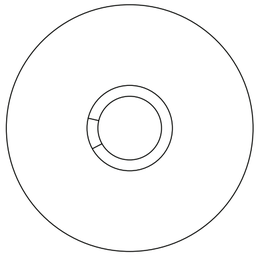
DALI or Lutron Sensor
Detects occupants and ambient light levels.

Available with UL or CE mark.



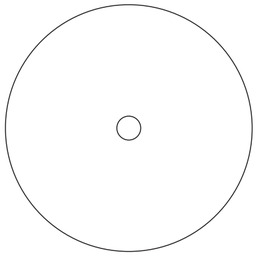
Emergency Light
LED non-maintained downlight with battery pack provides lighting in the event of a power failure.

Available with CE mark.



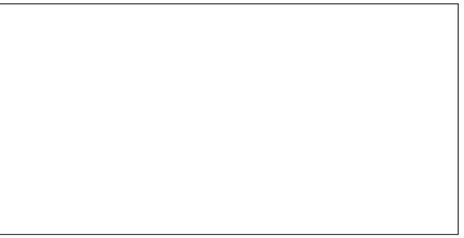
BACnet Multisensor
Detects occupants and ambient light levels.

Available with UL or CE mark.



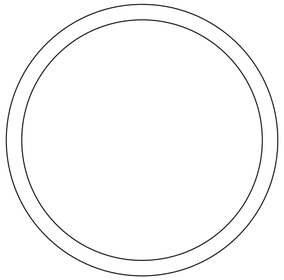
Ceiling Rose
Flexible receiver for pendant lighting fixtures allows for added customisation.

Available worldwide.



Linear Light
LED linear light.

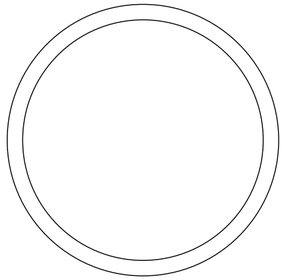
Available with UL or CE mark.



Spotlight
LED adjustable spot light.

Works with: occupancy sensor.

Available with UL or CE mark.



Downlight
LED fixed down light.

Available with UL or CE mark.

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