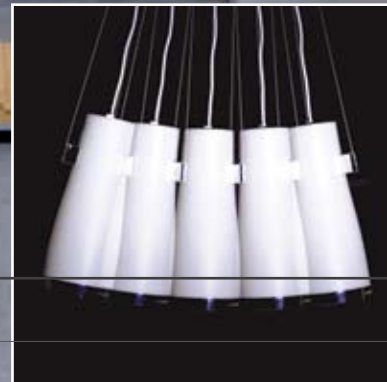


ARCHITECTURE OF LIGHT

Room configuration using lighting



Light as a building block

Natural light is an obvious component of architecture and one of the main building blocks of a room. Artificial light is a vital complement. Good lighting supports the architect's vision and enhances a room's configuration. Luminaires should function as an extension of the building. Well-planned ceiling-mounted general lighting is the basis for all lighting, but it is the combination of ambience-creating interior luminaires and point lighting that gives the room life. Variations in light intensity, contrast and form create a dynamic and comforting effect that lets people thrive.

In 'Architecture of Light', we give examples of how rooms with various functions can be configured using interior luminaires. The lighting of the various environments is all based on fundamental lighting principles. The proposals are complete and may be used in their entirety or serve as inspiration for individual solutions.

"From an architect's perspective, light is the most fundamental factor. Light and shade are the primary building blocks. Everything else – material and form – is dependent on light. Good lighting can mitigate a poor environment. Poor lighting can ruin a good environment."

Architect Mårten Claesson of Claesson Koivisto Rune





Photo: Adam Mørk



Lepo, Pleiad, LED DL, Gaudi, ZoneBeam, Zoft and Wall.

Entrance with reception and high ceiling

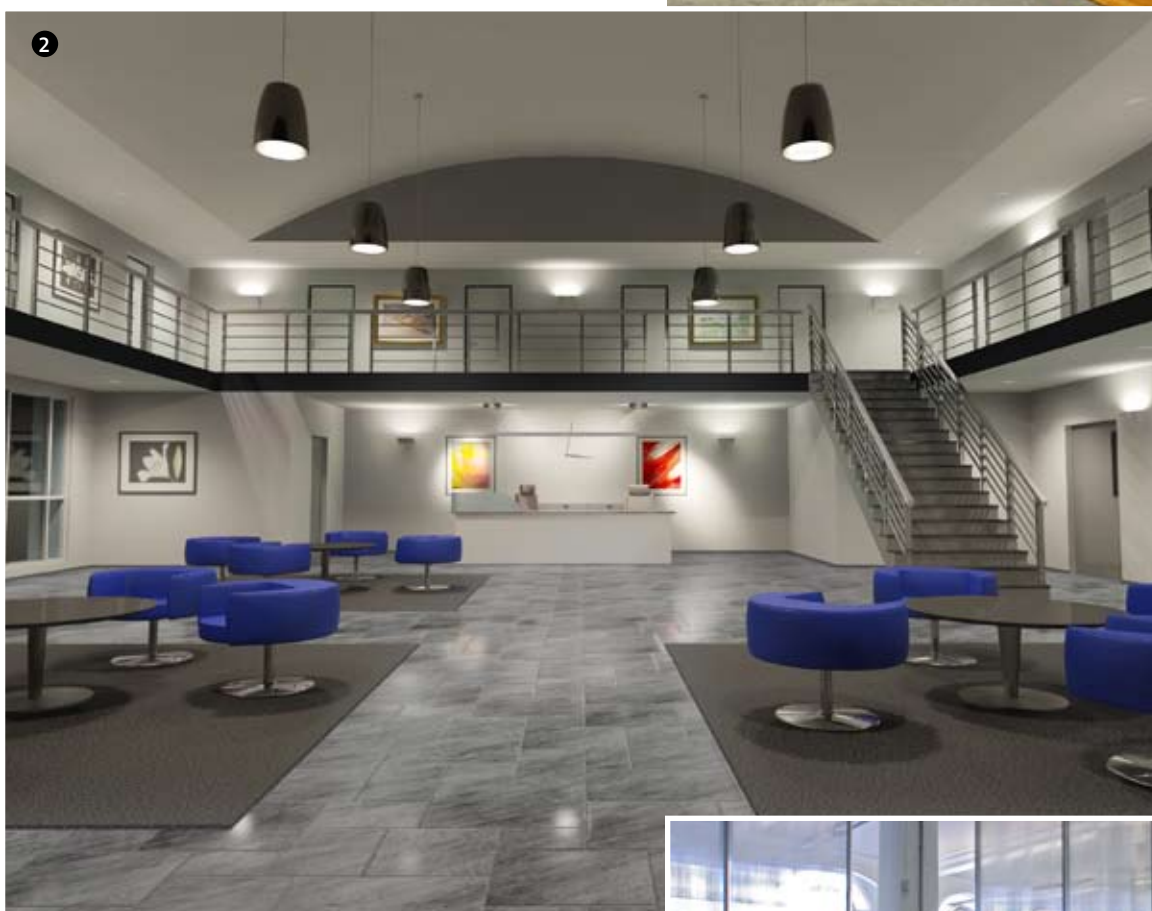
This representative entrance, with its high ceiling and generous inlet of daylight, has been designed as the outward face of the company. The ceiling height and the natural light make it possible to apply a reverse principle for the lighting solution. Instead of being based on general lighting, several interesting types of accentuated lighting can be combined.

The entrance should function as a showcase even at night, which requires luminaires of sufficient size and character. The effect from outside can also be enhanced by placing the lighting on the walls instead of on the

floor, which is not visible through the window in any case. Daylight sensor controls optimise energy consumption in relation to the inlet of daylight but also help increase light levels on overcast days. As the room is clearly perceived as large, the lighting can be used to highlight various functions and facilitate orientation.

1. This solution casts a lot of light on the walls and enhances the sense of space in the room. The Lepo pendant luminaire has a round beam with an opal shade that emits a pleasant general light. Lepo is available in three sizes and

is particularly suited to group arrangements. Wall luminaires from the Wall series cast indirect light on each side of the reception and provide indirect lighting that illuminates people's faces without dazzling. Above the counter, a Gaudi Linear pendant produces excellent reading light. The area under and along the galleries is accentuated using recessed downlights from the Pleiad series. The luminaires have been fitted with Cilinder accessories. On the lower level, Zone Beam spotlights draw attention towards the artistic pieces on the back wall while Zoft wall luminaires contribute to ambience-creating general lighting on the upper level.



Terzo, Notor G2, Wall, ZoneBeam and Pleiad.

2. This proposed luminaire is characterised by a tighter light pattern. General lighting from the Terzo pendant luminaire is directed at the floor and does not cast any light on the walls or ceiling. The Wall 2 wall luminaire is used for indirect lighting in the gallery areas. Pleiad-series downlights enhance the general lighting in the communication areas.





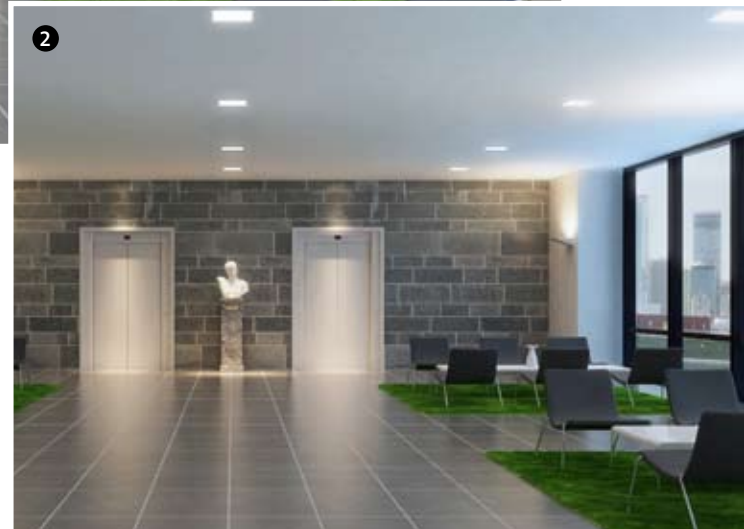
Liverti golv, Liverti plafond, LED DL and Sidelight².

Entrance with lower ceiling height

This configuration is based on an office building with an unmanned entrance. The room is relatively large with a ceiling height of around 2.70 m. There is limited ingress of daylight.

A room of this sort should feel bright and welcoming. It is a good idea to cast a certain amount of indirect light towards the ceiling to raise the perceived ceiling level. Recessed or ceiling-mounted luminaires are preferable to pendants. Orientation is vital – the light should lead the way clearly and highlight signs, doors and lifts.

Accentuated lighting makes the room more interesting. If the entrance is furnished with seating groups, these areas could benefit from slightly lower light levels to provide some seclusion.



LED DL, Wall and Pleiad.

1. This solution is based on round-beam luminaires and vertical lights. The environment is dominated by Liverti surface and floor luminaires. The surface luminaires produce general lighting that also illuminates the walls, contributing to a softer perception of the room.

A certain proportion of indirect light on the ceiling enhances the perceived ceiling height. The floor luminaire provides extra light at face level and creates a 'room in a room'. Narrow-beam LED DL create contrasts on the walls and accentuate coloured surfaces while Sidelight² highlight artwork.

2. This option uses recessed luminaires and cleaner lines. Instead of surface luminaires, indirect lighting is used to increase the visible ceiling height. Pleiad Square downlights provide direct general lighting while the Wall 1 wall luminaires cast a strong uplight towards the ceiling. The indirect lighting gives the room a sense of space and evens out the contrasts between the shafts of light and the ceiling. Downlights provide high intensity floor lighting. Decorative elements are illuminated using recessed LED DL downlights.



Stairwell

Safety is at the fore in the stairwell. Relatively high light levels ensure that people walking on the stairs can easily distinguish steps, landings and handrails. It should be easy to find the way to lifts and doors. If the stairwell is open and higher, this provides an opportunity to create eye-catching configurations using larger pendant luminaires. Light controls are an obvious choice for this type of space.

1. This open stairwell provides space for highly effective pendant luminaires. The Lepo luminaire provides great general lighting with a pleasant luminance. A fully hidden light source means that people can approach the luminaire from all directions on the stairs. Each floor level has been lit using a Pozzo ceiling luminaire, providing good general lighting.



Lepo and Pozzo ceiling.

2. This stairwell has a lower ceiling and no daylight, so it requires excellent general lighting complemented by vertical light. The solution uses ceiling-mounted surface luminaires on each floor level and wall luminaires in the stair sections. The wall luminaires should not protrude too far out and yet be powerful enough to light up the opposite wall. Teres surface and Zoft wall luminaires fulfil these criteria. The ceiling luminaires have round beams with indirect light towards the ceiling, which make the room appear airier.



Teres and Zoft.



Liverti ceiling, Liverti floor, LED DL and Liverti mini pendant.

Lounge

A lounge configuration can vary enormously depending on the context – instead it is expedient to focus on accentuated lighting and light-level variation. Accentuated lighting helps people in the waiting area to find their way while well shielded interior luminaires at various levels highlight the seating groups and provide excellent reading light.

1. This environment is lit using luminaires from the same family for a calm and uniform style: Liverti ceiling, floor

and mini-pendant. All the luminaires have opal shades that produce soft light. General lighting from the round-beam ceiling luminaires is limited. The light is also cast indirectly up towards the ceiling and out towards the walls, which brightens the room and gives it more space. The pendant luminaires highlight the table and produce pleasant lighting at face level. The floor luminaires provide reading light and create an ambience around the seating groups. The artwork on the back wall is lit with LED DL.



2. This lighting proposal uses a greater proportion of direct light. The recessed Pozzo luminaire provides higher light levels towards the floor. The seating groups are highlighted using the Terso pendant luminaire above the table, producing good reading light but with a well shielded light source. Accentuated lighting towards the rear wall makes the lighting dynamic; LED DL are one possible solution.



Terso, LED DL and Pozzo recessed.



Terso, Liverti pendant and Liverti wall.

Dining area

Larger dining and meeting areas in offices, schools and nursing homes have many functions. The room should be perceived as a pleasant place to eat and socialise but should be easy to transform into a space for meetings, concerts and other events. This generally requires good general lighting that illuminates the entire room and enhances the feeling of daylight.

The ceiling is often somewhat higher, which allows the space to be utilised to create different effects. Using a control system it is possible to adapt the function of the room quickly according to the occasion.

1. This luminaire combination is intended for a dining area with a high ceiling. The large Liverti pendant luminaire with shade reduces the visual ceiling height and produces a greater proportion of direct light. This model has also had an extra metal-halogen light source added that forces even more light towards the floor.

This solution has many benefits: alongside higher general light levels it also enables different scenarios to be created using lighting controls. The functionality in the buffet and serving area is emphasised using Terso pendant luminaires and the walls are lit by large wall luminaires from the Liverti series.



Terso, Teres and Liverti wall.

2. This option is for a dining area with a somewhat lower ceiling height. The large-surface Teres pendant luminaire produces a pleasant general light with direct-indirect light distribution that brightens up the room. Vertical lights on the walls are particularly important in this type of room but also require luminaires of a certain size.

The Liverti wall luminaire distributes light over large areas and does not feel small in relation to the room. Just as in the previous solution, the buffet is highlighted using a Terso pendant.



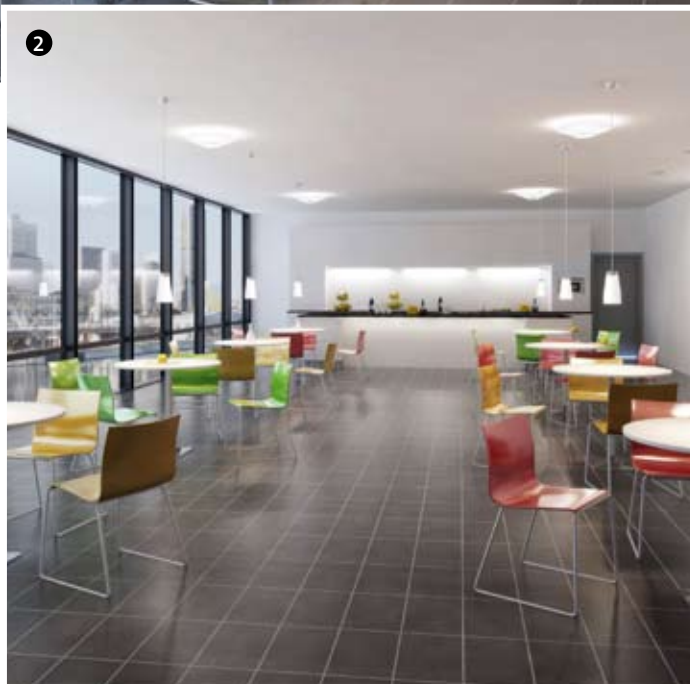
Lunch room

Smaller lunch and staff rooms in workplaces should offer an opportunity to relax. Direct light on tables for mealtimes and reading is an obvious requirement. The lighting environment should also be configured using several different types of luminaires that contribute to an enhanced 'homely feeling'. Sensor-controlled lighting is often a practical solution in rooms with a high turnover of people during the day.

1. This luminaire solution provides a clean suspended ceiling with recessed 'light wells'. Pozzo aligns with the suspended ceiling. This style is mirrored in the Pozzo pendant. Varied and functional work lighting is created over the kitchenette and workbench using the LED DL in the ceiling and the Zest luminaire. The artwork on the wall is lit with Pleiad LED Wallwasher.



Pozzo recessed, Pozzo pendant, Pleiad LED Wallwasher, LED DL and Zest.



Liverti plafond, Liverti mini pendant, Zest and LED DL.

2. This light environment is characterised by varied ambient lighting and has a very coherent style with surface and pendant luminaires from the Liverti series. Hidden light sources and opal shades create a general light that is pleasing to the eye. The surface luminaires have round beams and also cast light on to the ceiling and walls. The pendant luminaires accentuate the table surfaces and provide excellent light for reading and conversing. The kitchenette uses the LED DL to produce practical functional lighting over the workbench with a certain amount of effective variation. Zest provides light on the working area.



Liverti wall, Liverti floor and Pleiad.



Pozzo recessed, Wall 2 and Pleiad LED Wallwasher.

Corridor

The corridor is a transit area that requires good general lighting. People should be able to find their way easily. By varying the position of luminaires it is possible to fulfil the lighting requirements and yet suppress the corridor-like feeling. Combining wall lights with ceiling lights and arranging the luminaires in various groups avoids emphasising the long, drawn-out area.



1. This lighting solution provides a clean suspended ceiling using recessed downlights from the Pleiad series. The luminaires have not been placed along the centre of the corridor ceiling but closer to the wall. This avoids the luminaires producing glaring light wells when people pass under them. Liverti wall luminaires produce a pleasant vertical light. Liverti floor luminaires in the seating group produce a coherent style.

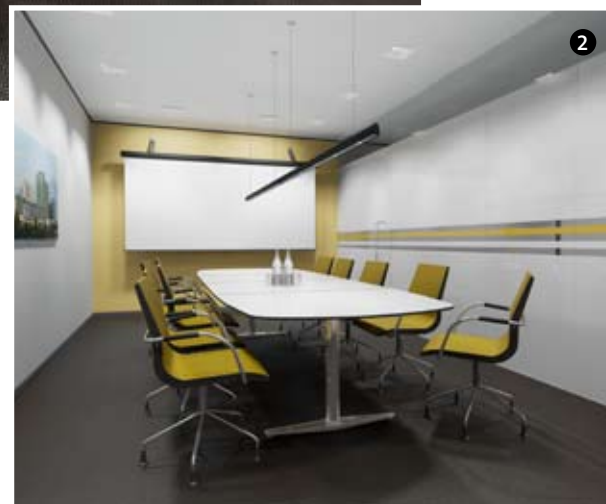
2. This environment casts a large amount of indirect light on the ceiling, which makes the corridor feel more spacious. The recessed Pozzo luminaire is fully shielded. An alternative would be the Pozzo RGB, which could be set to night mode with a pleasant blue light. The Wall 2 wall luminaire casts indirect light on the walls and up towards the ceiling. Recessed Pleiad LED Wallwasher luminaires are used to break up the corridor feeling and accentuate the artwork.



Gaudi Circular, Pleiad LED Downlight and Wallwasher.

Conference room

The varying functions of this room also make great demands on lighting. Meeting participants need to be able to follow each other without straining, which requires rather higher light levels with good visibility. A good ambient light can also contribute to increased alertness. A control system with preset scenarios makes it easy to adapt the light levels for video conferences and presentations.



Gaudi Linear, Pleiad LED Downlight and Wallwasher.



1–2. General lighting in the room is created using recessed LED downlights from the Pleiad series. Pleiad LED Downlight luminaires along the walls produce excellent ambient lighting. Their placement is designed to prevent the luminaires being obscured by people sat at the table. The indirect light emphasises meeting participants' faces without being too intensive.

Two Pleiad LED Wallwashers over the whiteboard illuminate presenters and text. It is also important to have good light levels over the conference table. This solution presents two options: Gaudi Linear in an extremely long variant suitable even for very large conference tables, and Gaudi Circular for even softer lines.

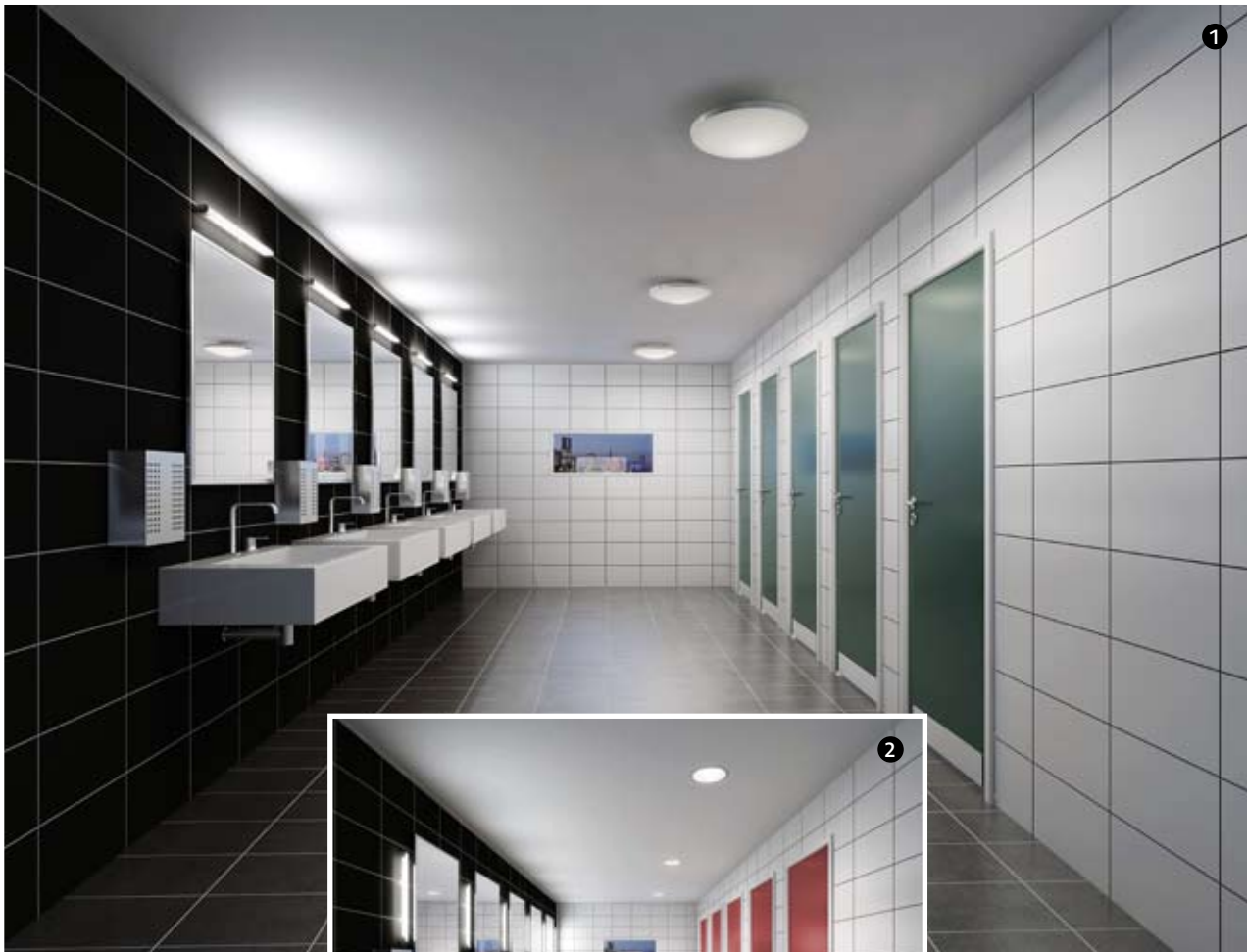
Hygiene area

As space is limited it is a good idea to try and obtain maximum effect with a small number of luminaires. Ceiling luminaires with hidden microwave sensors provide proximity controls without the need for complicated systems to be installed.

1. This solution focuses on effective general lighting and indirect lighting using the two luminaire types together. The Teres surface luminaire with its opal shade has a round beam producing excellent general light. The Fino mirror luminaire with stainless steel parts has been placed

horizontally above the mirror section, producing excellent light downwards and forwards towards the washbasin and face but also illuminating the ceiling.

2. This environment has a stricter style due to the use of recessed Pleiad downlights. The luminaires are fitted with a glass accessory with a louvre function. This solution provides a lower proportion of indirect light and focuses more on the light levels over the floor and faces. Fino has been placed to the side of the mirrors, producing direct light concentrating on the face.



Teres and Fino.



Pleiad and Fino.

Liverti



Liverti is designed around a vertical fluorescent tube and the entire series is based on a pendant. Using sculptural forms and solid materials, it affirms gravity and gives the room direction and substance.





Terso



Terso is an effective pendant luminaire that reflects the meeting between restrained forms and a glamorous surface. It uses simple means to catch the eye and hold ones attention right up to the ceiling cup.



Teres



The Teres series includes pendant, ceiling and wall luminaires and these are available in six sizes. The larger ones have round beams and have been developed for ceiling and pendant mounting, and the smaller ones produce direct light for ceiling and wall mounting.

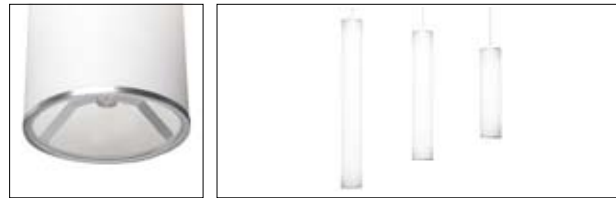




Lepo



Lepo is a pendant luminaire based on T5 light sources for unsurpassed energy efficiency and lighting effects. Three different sizes of light shaft make it possible to compose visually exciting luminaire groups.



Pozzo



Pozzo uses natural light as a model. Using large-surface opal louvres, these luminaires deliver a small piece of sky without dazzling. The light is just like being outdoors.



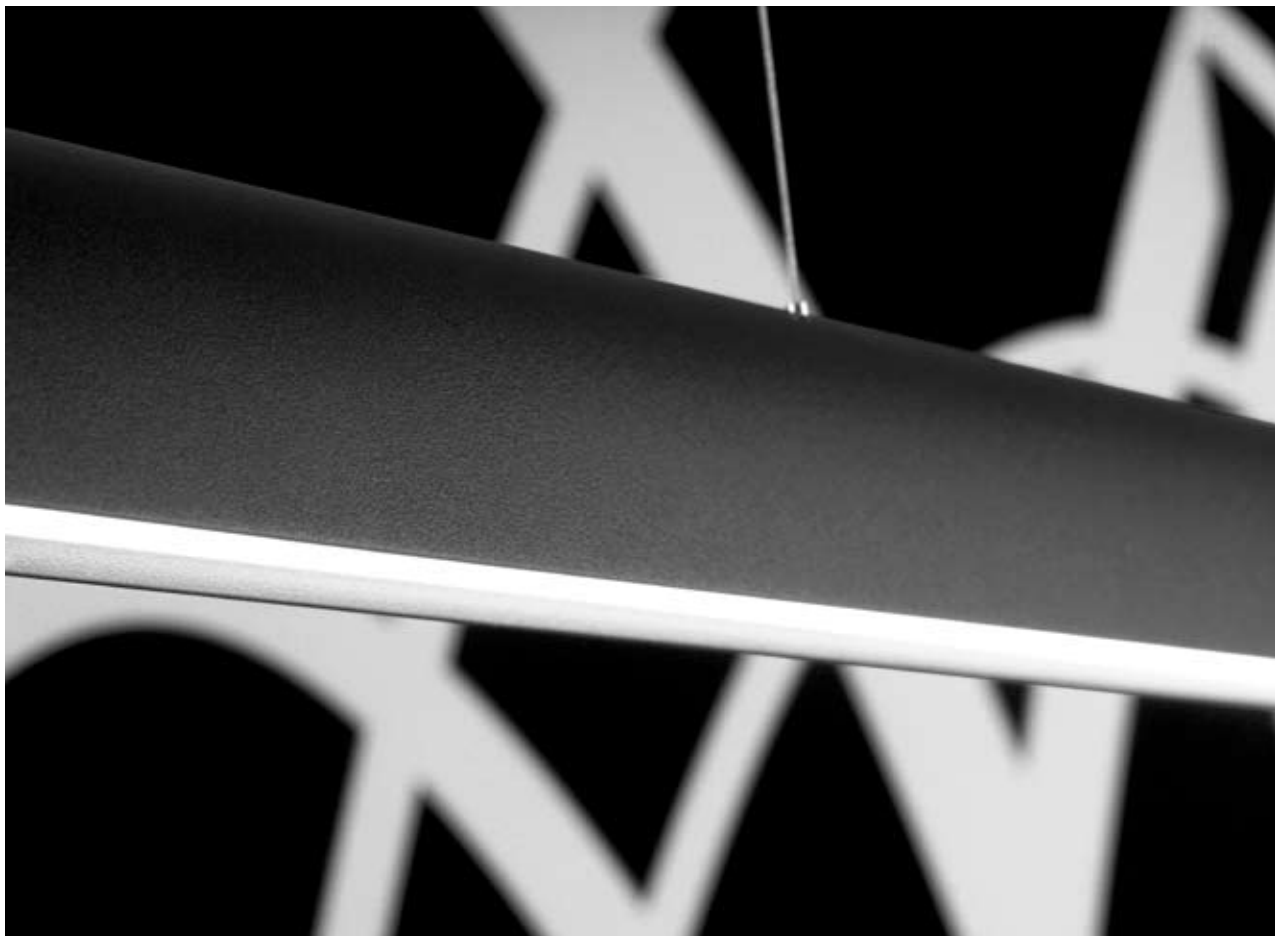




Gaudi



In Gaudi, new technology meets timeless elegance. Gaudi is a pendant luminaire based on LED technology. Inspired by classical architectural principles, it can illuminate an entire room.



Fino



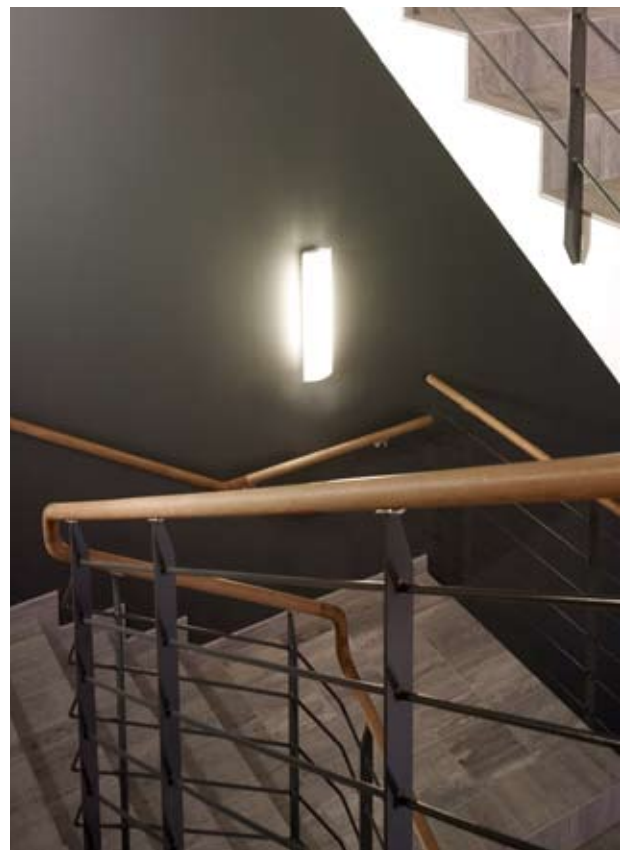
Fino is an elegant bathroom luminaire for horizontal or vertical wall mounting. With a shade in opal acrylic, luminaire housing in stainless steel and galvanised steel body, it is a distinct luminaire.



Zoft



Zoft is a simple luminaire that has a place in most rooms without attracting attention. Luminaire body in aluminium-grey sheet steel with opal matt glass shade.



LED DL



LED DL is an elegant LED downlight in matt anodised aluminium for recessed ceiling mounting. From a lighting perspective the luminaire is a good replacement for low-voltage halogen downlights.



Pleiad LED



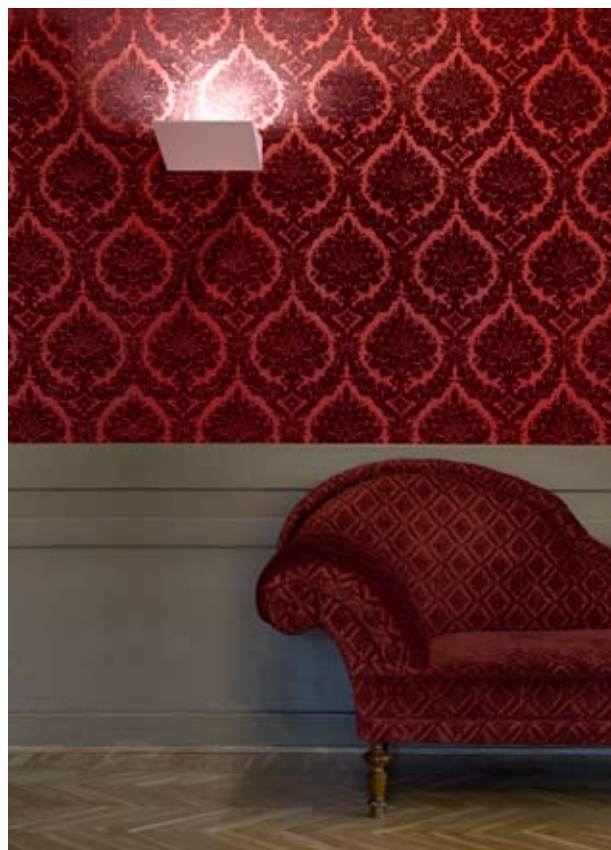
Pleiad LED has a tight form and is available in black or white. The LED light source is energy-efficient and will last for 20 years. It features optional dynamic colour-temperature changing to match variations in daylight.



Wall



Wall is a complete series of wall luminaires. A range of designs and sizes make it possible, with the help of indirect lighting, to create aesthetic and effective lighting solutions in harmony with the room and other luminaires within it.







Pleiad



Pleiad G2 is at the heart of light planning using downlights and combines flexibility with optimum lighting effects. A wide range of accessories and models complete the series, whatever the requirements of the room.



HEAD OFFICE SWEDEN
 Fagerhults Belysning AB
 SE-566 80 Habo, Sweden
 Tel +46 36 10 85 00
 Fax +46 36 10 86 99
www.fagerhult.com

Fagerhult develops, manufactures and markets professional lighting systems for public environments such as offices, schools, industries and hospitals. Our operations are run with a constant focus on design, function, flexibility and energy saving solutions.

Fagerhult is a member of the Fagerhult Group, the largest lighting group in the Nordic region and a leading company in Europe. We have sales companies in more than 15 countries and production units in Europe, China and Australia. In 2009 the group had sales of SEK 2.4 billion and is listed on the OMX Nordic Exchange in Stockholm, Mid Cap list.

UNITED KINGDOM
 Fagerhult Lighting Ltd
 50 Southwark Street
 London, SE1 1UN
 Tel +44 (0) 207 403 4123
 Fax +44 (0) 207 378 0906
light@fagerhult.co.uk
www.fagerhult.co.uk

IRELAND
 Project Lighting Ltd
 Unit F1, Calmont Park
 Ballymount
 Dublin 12
 Ireland
 Tel +353 1 426 0200
 Fax + 353 1 429 9606
info@projectlighting.com
www.projectlighting.com

UNITED ARAB EMIRATES
 Fagerhult Lighting
 P.O. Box 126287
 Dubai
 United Arab Emirates
 Tel +971 (0)4 329 7120
 Fax +971 (0)4 329 7130

Photo: Adam Mørk

FAGERHULT

