# kreon

Ceiling solutions

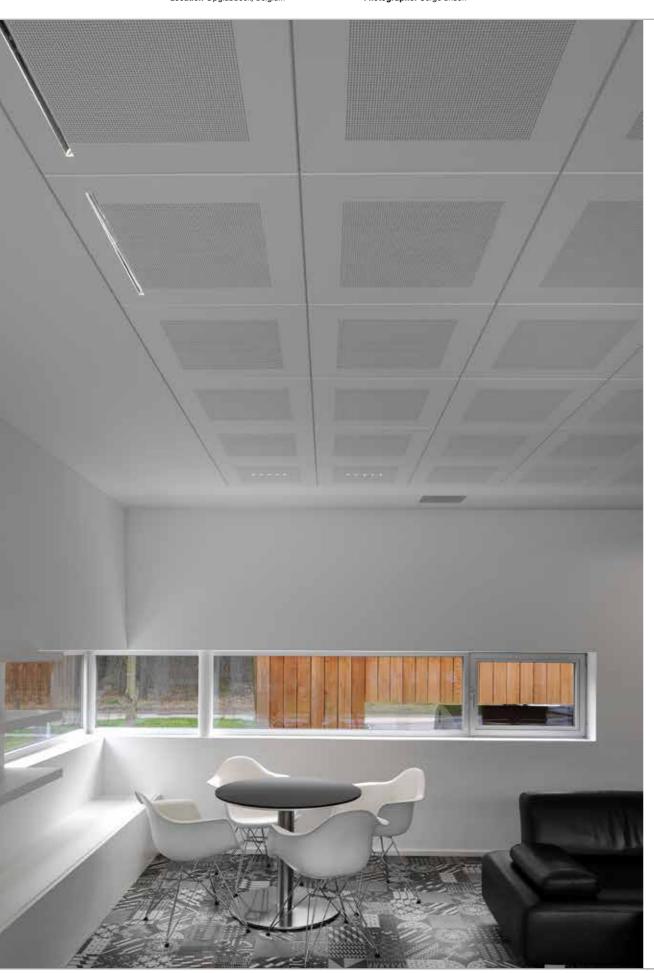
# kreon

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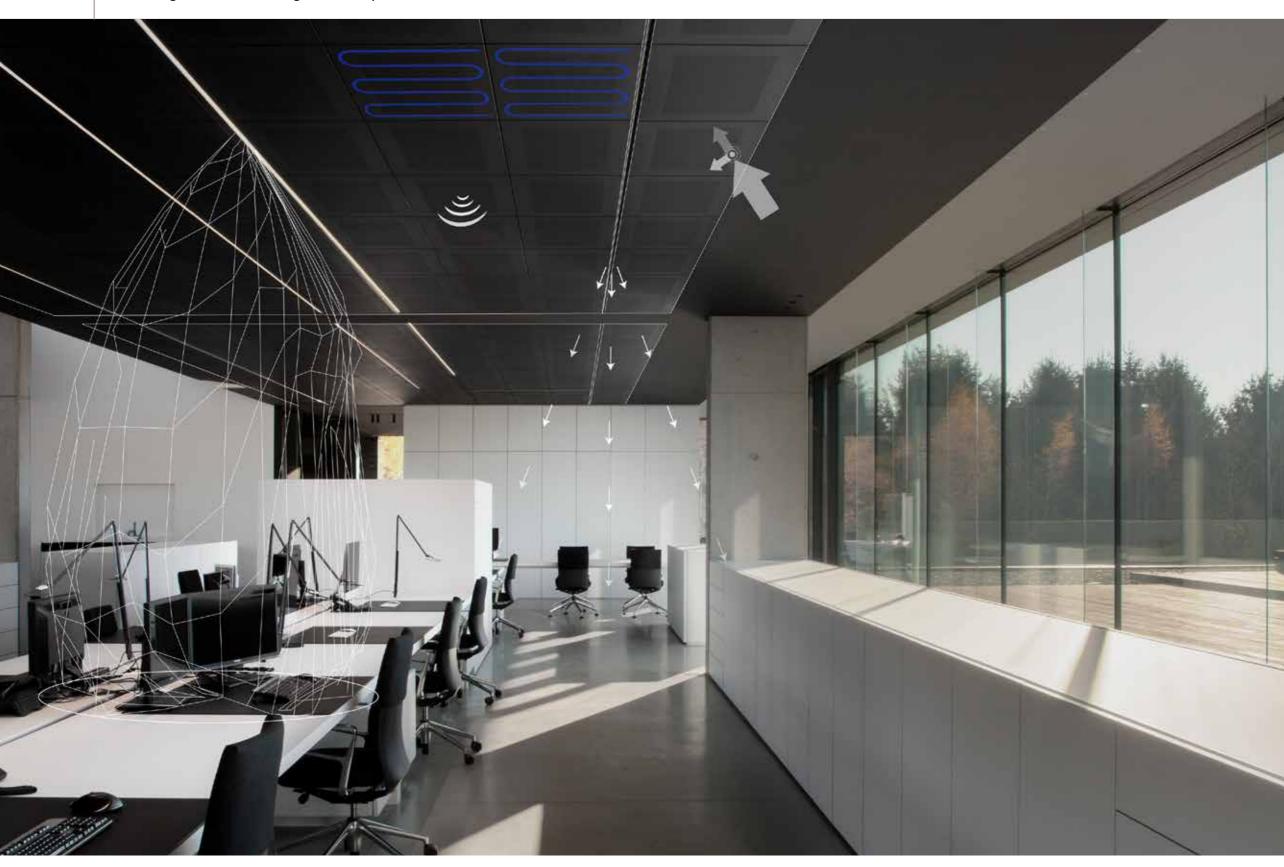
### Kreon modular ceilings aim to materialise simplicity, unity and functionality within its design.

Simplicity must not be the result of an uncritical reduction. Instead, it should be convergence and synthesis of the complex requirement imposed on ceiling solutions by contemporary architecture. Taking its cue from this concept, Kreon ceiling solutions do more than just span a room. It offers a unique solution for the integration of building service systems that need to be accommodated in the ceiling: lighting, ventilation, cooling, heating, audio, fire protection and much more. Kreon's most pursued objective is to offer unity in design translated through technical solutions.

Design that gives prominence to simplicity, permanence and calmness requires precision so as not to become trivial. The more one condenses, omits and simplifies, the more the significance of the detail is increased. Unity and simplicity of details are the very ones to concur to great architecture.

Kreon is glad to invite you to discuss your architectural requirements with our planning department.

kreon





Light



Audio



Climate



/entilation



Acoustics

## Ceiling systems

Ceilings usually have an indistinctive character in the space surrounding us. In daily life, as well as in architecture, they are seldom noticed. Kreon ceiling solutions will make these anonymous surfaces come alive: structure, relief and symmetric shadow gaps support the architectural rhythm of space whilst creating effects like rest, order... and even chaos.



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#### **DESIGN**

Kreon creates and designs ceiling systems that give every space its own unique personality.

### **INTEGRATION**

Kreon systems offer full integration of all building service systems:

- Acoustic solutions (sound absorption & sound attenuation)
- **Lighting** (ambient lighting, downlights, projectors, optics, ..)
- Ventilation & Climate control (cooling & heating)
- Audio (highly efficient integrated speakers)

Kreon products are 100% compatible with each other and not only meet the relevant building standards but also exceed them in many cases.

### **PROJECT MANAGEMENT**

At every stage of your project, we can be the single point of contact for all parties involved. You can count on our full support during:

- Initial design and specifications
- Planning and coordination
- **■** Execution

Our consultants work on applications of every kind: from stadiums, airports, offices, to healthcare projects and beyond.

### **ENVIRONMENT**

Kreon ceiling solutions deliver the environmental results you need for your projects, from achieving energy savings with highly efficient LED luminaires, simplifying waste management by recycling, and enhancing indoor environmental quality with acoustics.

Kreon Ceiling solutions are BREEAM and LEED compliant.



### Clip-in

- Concealed grid
- Grid sizes W 100-800mm, L 500-1800mm or custom sizes up to 2400mm
- Modular design
- Easy installation and maintenance
- Seamless integration of all building services
- Sound absorption class A
- Durable build



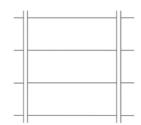


### **Applications**

Office, Retail, Health care, Schools, Residential, ...

### Lay-on

- Visible, fixed grid
- Grid sizes 1200mm, 1800mm or custom sizes up to 2400mm
- Easy installation and maintenance
- Seamless integration of all building services
- Sound absorption class A
- Durable build

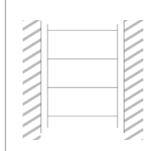


### Applications

Office (rental) Modular spaces

### Hook-on

- Invisible, fixed grid
- Grid sizes 1200mm, 1800mm or custom sizes up to 2400mm
- Easy installation and maintenance
- Seamless integration of all building services
- Sound absorption class A
- Durable build

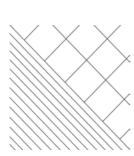


### Applications

Corridors

### Rytmi (available on request)

- Modular ceiling that refers to the basic elements of architectural design
- Custom sizes up to 2400mm
- Seamless integration of all building services
- Sound absorption class A
- High visual impact
- Durable build





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### Applications

High end projects, Showrooms, Lobby's, Offices, ....

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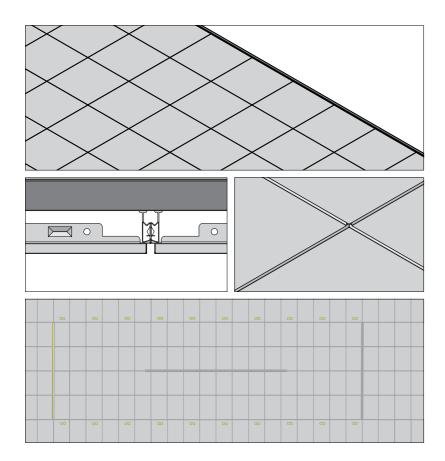
### Clip-in

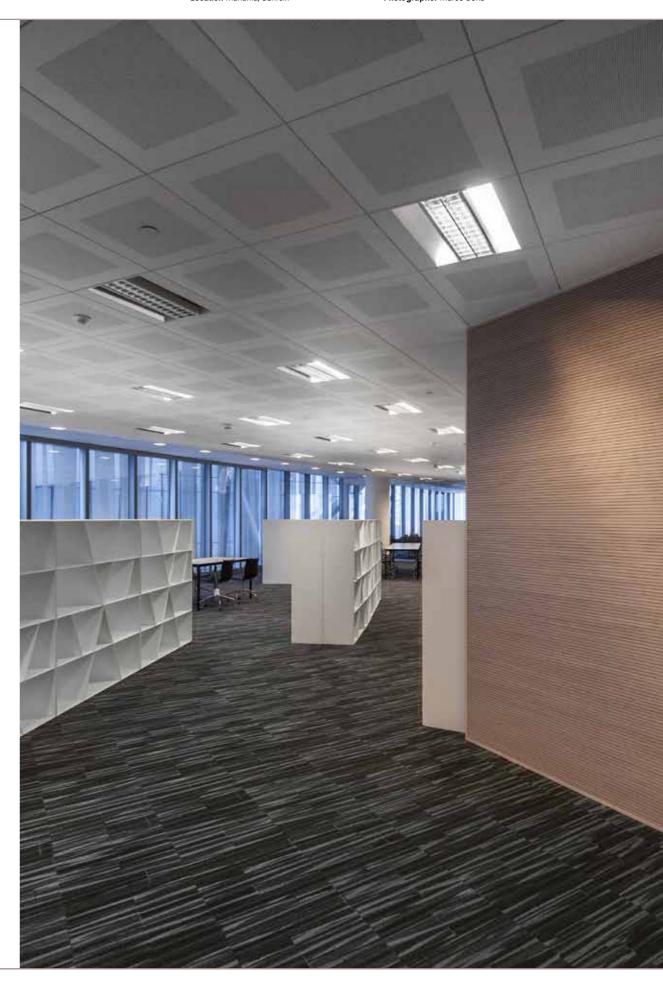
Kreon Clip-in ceiling is a metal suspended ceiling with a concealed grid. Tiles are clipped into this grid forming a uniform surface.

Various colours, dimensions and perforations are available to personalize the ceiling according to the customer's demands. Clip-in ceiling has been designed to seamlessly integrate building services such as lighting, ventilation, heating/cooling and audio.

One of the key features of the Clip-in system is the 'shadow gap', a visible spacing of 6mm between tiles. This accentuates the joints between tiles giving a unique character and a stylish look to the ceiling. The Clip-in system allows easy re-arrangements of the ceiling layout in case of modular spaces. The Clip-in tiles can easily be dismounted to allow access to the ceiling void.

- Concealed grid
- Grid sizes W 100-800mm, L 500-1800mm or custom sizes up to 2400mm
- Modular design
- Easy installation and maintenance
- Seamless integration of all building services
- Sound absorption class A
- Durable build





### Wall-to-Wall

Wall-to-wall Clip-in ceiling stretches over the entire surface of the room.

Having the highest flexibility, this is the most commonly used type of Clip-in ceiling.

Different edge finishing options or wall connections are available: L-, C-, W-profile

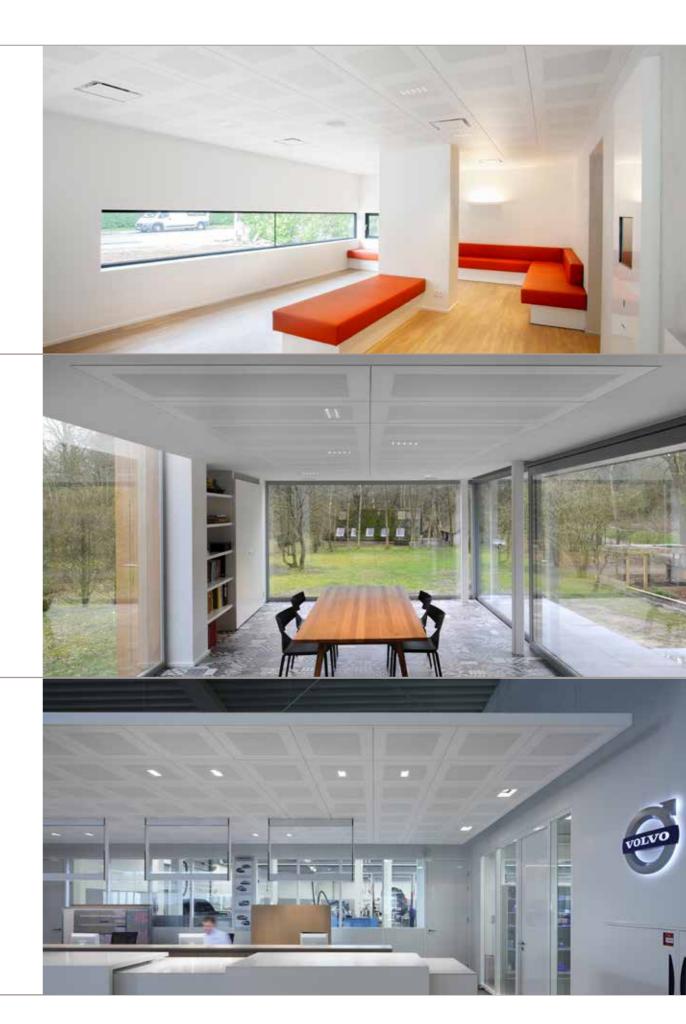
### Ceiling-in-Ceiling

Clip-in Ceiling-in-Ceiling combines traditional ceilings (e.g. plasterboard ceiling) with Clip-in ceiling. An area within the traditional ceiling can be equipped with the Clip-in ceiling. This method has many advantages such as easy access to the ceiling void. Different building services can be integrated inside the Clip-in ceiling area.

### Ceiling raft

Clip-in Ceiling rafts are suspended ceilings. This design is most commonly used in combination with visible or industrial concrete ceilings.

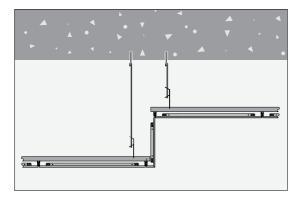
Using Ceiling rafts drastically improves sound absorption in such rooms and allows integration of lighting and other building services in workplace areas.



### **Bulkhead tiles**

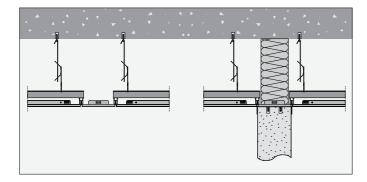
Bulkhead tiles create an elegant transition between two ceiling levels.

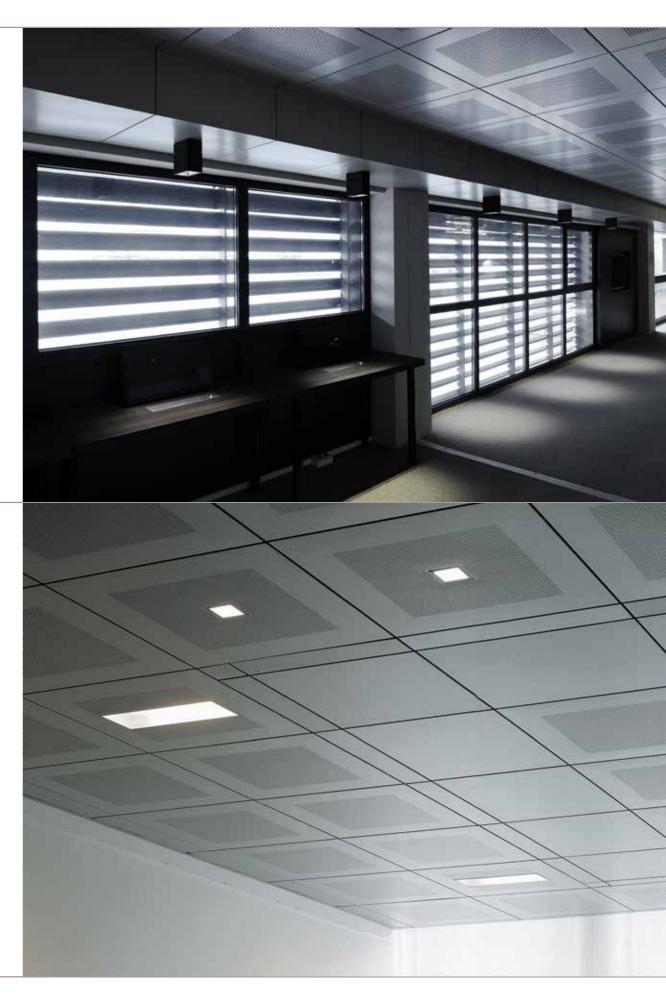
Tiles are clipped into the same carriers ensuring a rigid construction to the ceiling transition and can be tailored to specified depths.



### Tech tiles

Tech tiles are 100mm wide strip tiles designed to provide a zone for partition placement without compromising the tile arrangement.





### Hinge tiles

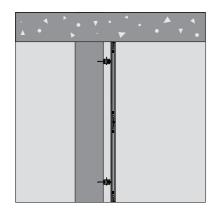
Hinge tiles give easy access to the ceiling void and are clipped into the same carriers. Maintenance on all kinds of techniques behind the ceiling can be performed while the hinge tile hangs vertically.



### Wall cladding

Our Clip-in tiles are not limited to ceiling applications, but can be used just as easily to cover up walls.

As with our ceiling solutions, Clip-in Wall can be equipped with several integrated techniques without compromising the aesthetic aspect of the space.

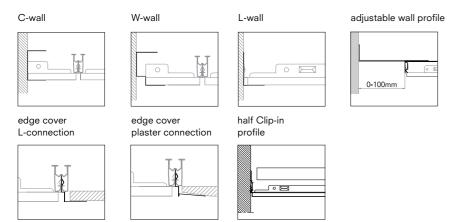




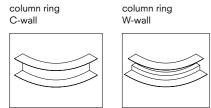


### Clip-in: Edge finishing

Kreon ceiling solutions offers several perimeter solutions to finish edges and hide underlying structures. C-Wall, W-Wall and L-Wall are surface mounted to the wall. Edge covers are used to cover the edges of ceiling rafts. Edge Cover Plaster provides the opportunity to connect your ceiling with a gypsum ceiling.

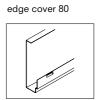


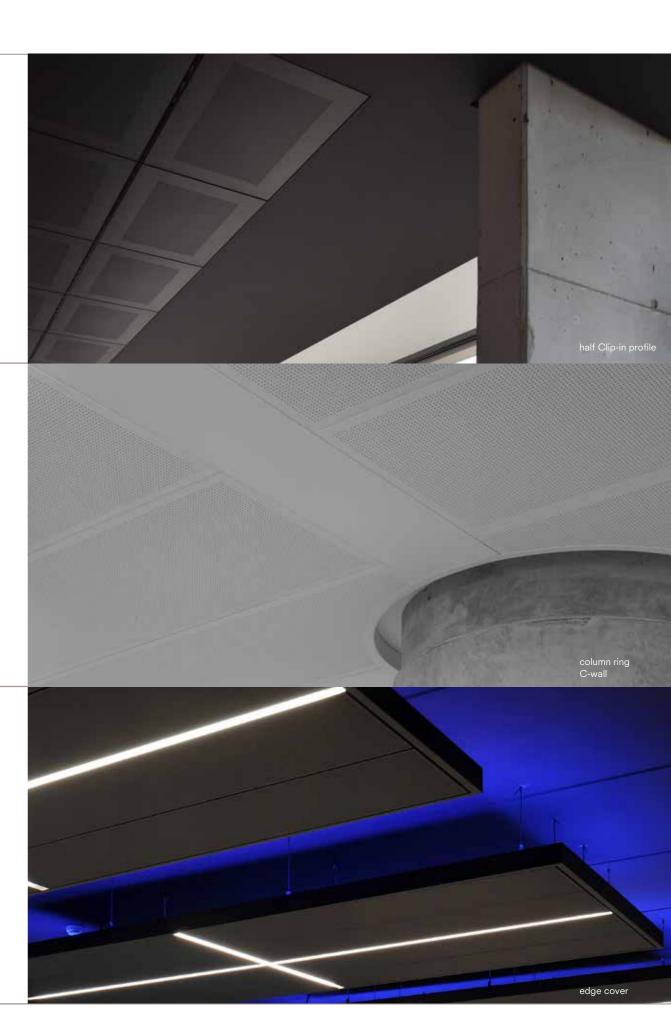
Column ring C-wall and W-wall provide standard finishings for round columns.



Edge Cover provides a standard finishing to ceiling rafts.



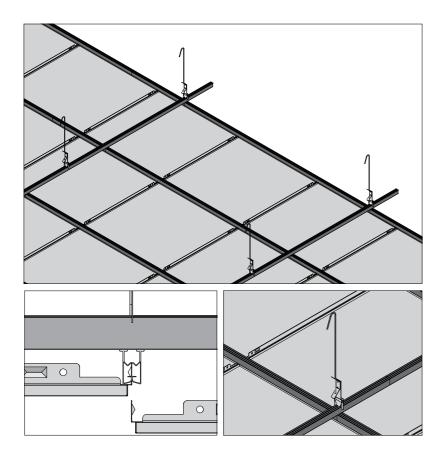




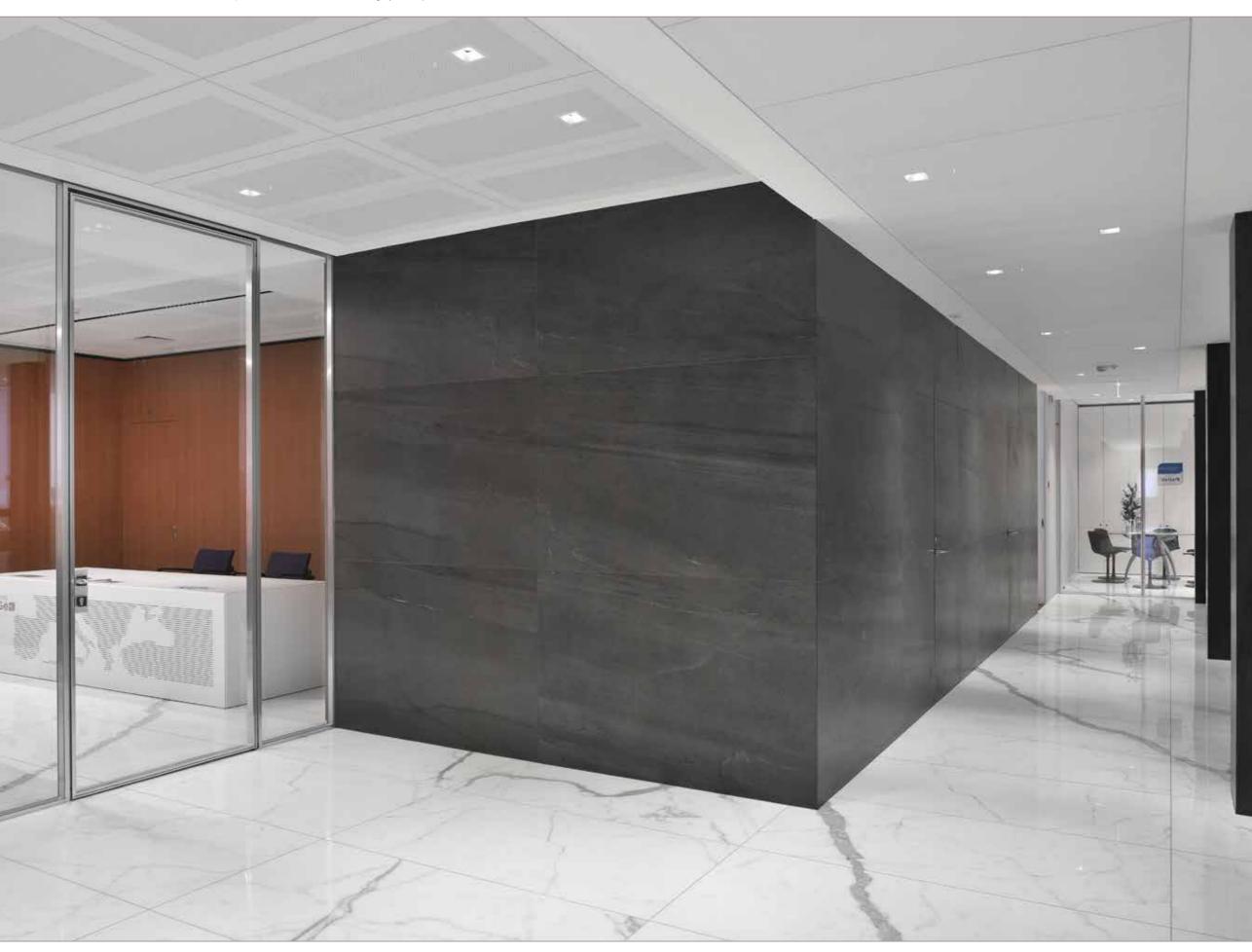
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The subconstruction comprises a supporting grid with two identical profiles, joined by cross connectors. The entire sub construction is made of thermo-galvanized steel and requires only a limited installation height.

- Double structure for a perfect rigid alignment
- Identical profiles for primary and secondary structure
- Click connection for rapid installation, no tools needed
- Reduced total height of only 60mm







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### Lay-on

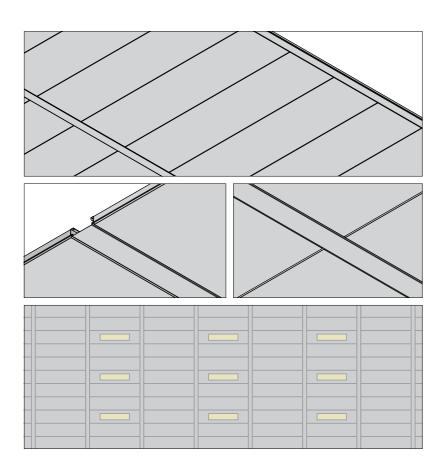
Kreon Lay-on is a metal suspended ceiling with visible grid. Tiles lay onto the ceiling grid in a fixed pattern.

Lay-on ceiling has been designed to seamlessly integrate building services such as lighting, ventilation, heating/cooling, audio.

Various colours, dimensions and perforations are available to personalize the ceiling according to the customer's demands.

Lay-on ceiling allows easy access to the ceiling void.

- Visible, fixed grid
- Grid sizes 1200mm, 1800mm or custom sizes up to 2400mm
- Easy installation and maintenance
- Seamless integration of all building services
- Sound absorption class A
- Durable build
- Provide maximum accessibility above ceiling





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### Wall-to-Wall

Wall-to-wall Lay-on ceiling stretches over the entire surface of the room.

Different edge finishing options or wall connections are available: L-, C-, W-profile.



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Kreon ceiling solutions offers several perimeter solutions to finish edges. C-Wall, W-Wall and L-Wall are surface mounted to the wall.





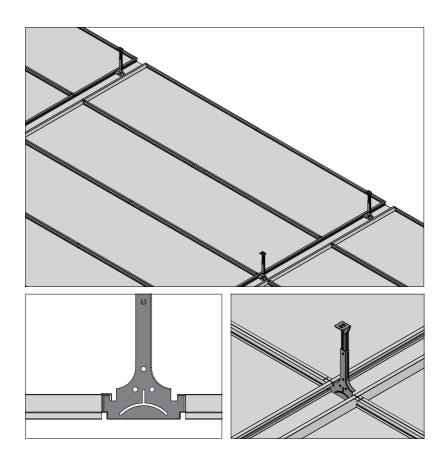




L-wall



The subconstruction comprises a visible supporting grid, finished in the same colour as the Lay-on ceiling tiles.





### Hook-on

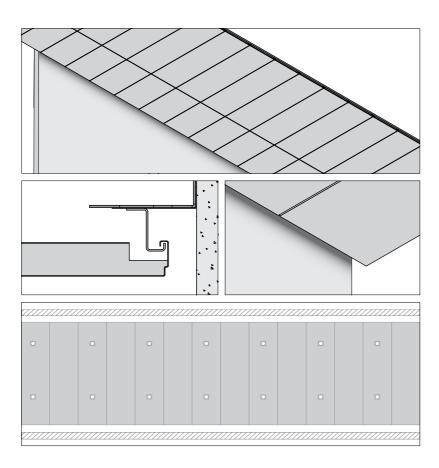
Kreon Hook-on is a metal suspended ceiling with invisible grid. Tiles hook onto the invisible grid in a fixed pattern.

Hook-on ceiling has been designed to seamlessly integrate building services such as lighting, ventilation, heating/cooling, audio.

Various colours, dimensions and perforations are available to personalize the ceiling according to the customer's demands.

Hook-on ceiling allows easy access to the ceiling void.

- Invisible, fixed grid
- Grid sizes 1200mm, 1800mm or custom sizes up to 2400mm
- Easy installation and maintenance
- Seamless integration of all building services
- Sound absorption class A
- Durable build





### Wall-to-Wall

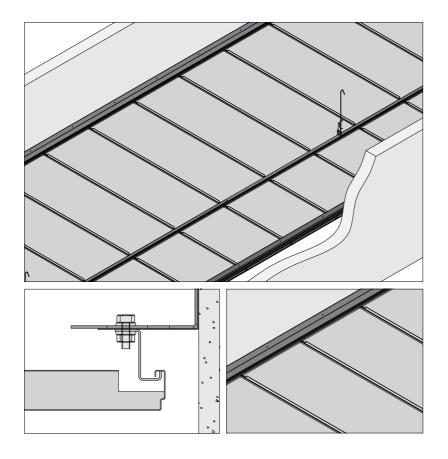
Wall-to-wall Hook-on ceiling stretches over the entire surface of the room.

The edges are finished with a recessed perimeter grid with a spacing of 20-40mm between ceiling and wall.



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The Hook-on ceiling tiles hook onto an invisible supporting grid.



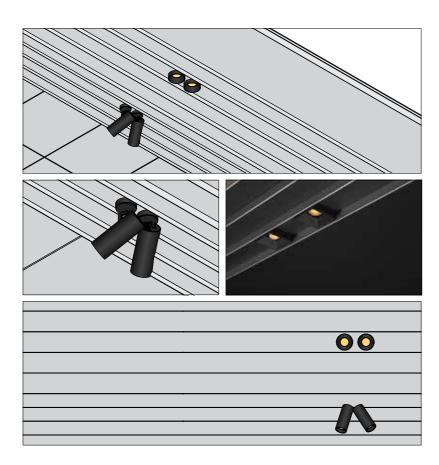


### Rytmi

Kreon Rytmi is a distinctive linear and modular ceiling which refers to the basic elements of architectural design. Rytmi expresses its linearity with deep finishing of the extruded blades in powdercoated white or black aluminium. The blade pattern can be chosen according to the specific design or requirements of the customer.

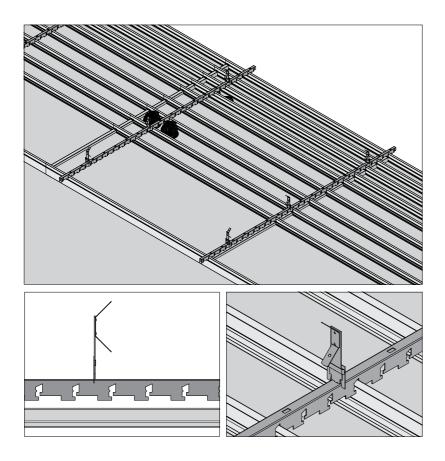
Rytmi can be used to highlight specific areas of the ceiling, or can be used to span the entire room.

- Modular ceiling that refers to the basic elements of architectural design
- Custom sizes up to 2400mm
- Seamless integration of all building services
- Sound absorption class A
- High visual impact
- Durable build





Rytmi ceiling consist of blades. The distance between these blades can be chosen to accomodate the specific requirements of the project. The blades are clicked onto a supporting grid.







### Technical & Design features

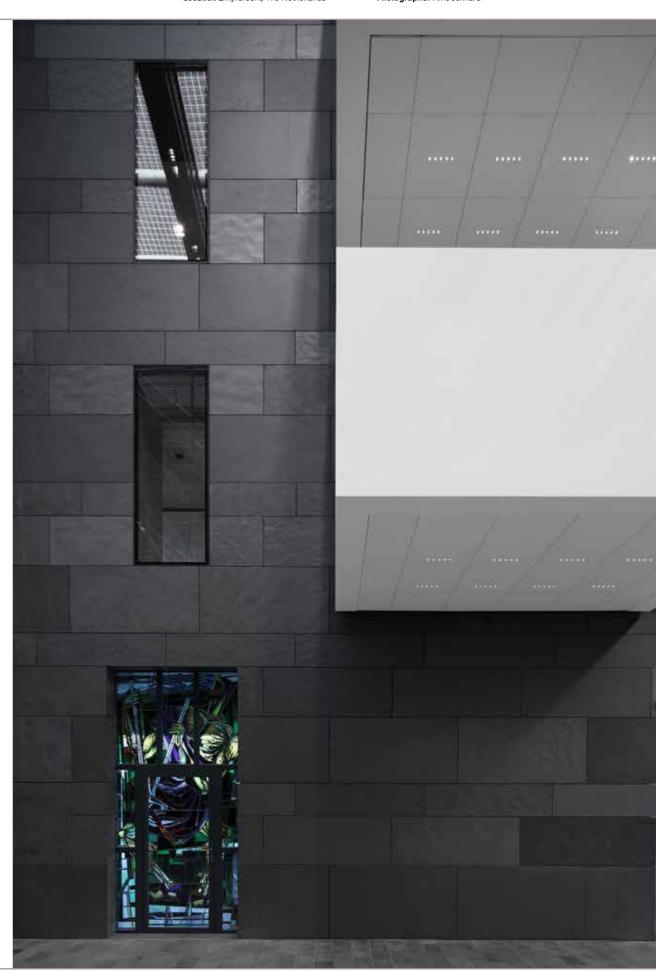
All Kreon ceiling systems can be fitted with the same technical functionalities.

Kreon metal ceiling tiles are available in a comprehensive range of colours and perforations.

Kreon metal ceilings can be arranged and customised to perfectly match your vision. Kreon can even develop new solutions for particular challenging areas. Because we have tiles with various acoustical properties, we can respond to any acoustic demand.

In the following chapter we delve deeper into the following key points:

- Acoustic solutions
- Colours
- Perforations
- Made to measure

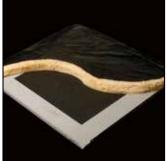


### Acoustic solutions

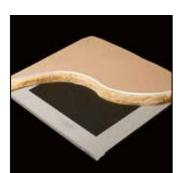
Suspended ceilings have a considerable influence on the acoustic performance of a space and should be designed in such a way as to address the aural demands of the occupants within.

Perceived sound level and acoustic comfort are determined by the source of the sound and the level of reflection on room surfaces. These sound reflections can be uncomfortable for occupants as they distort sound. Kreon ceiling solutions offer a range of materials within their tiles, which in combination with a specified perforation, can be used to control reflections and assist in containing sound within designated zones.

Sound reflection control is a factor of material sound absorption, and sound containment is controlled by attenuation or sound blocking.







Tile with mineral wool inlay + gypsum board

	mineral wool inlay	mineral wool inlay + gypsum board	mineral wool inlay + gypsum board	
		<i>*************************************</i>	(ammanama)	
wool thickness	35	35	35	
density	35 kg/m³	35 kg/m³	35 kg/m³	
gypsum thickness		9,5	12,5	



#### Sound absorption

Sound absorption is the ability of a surface to absorb sound, minimizing sound reflection in the room

Reflected sounds create undesired and uncomfortable reverberations throughout the area and will ultimately increase the perceived sound level.

Kreon suspended ceilings are an important factor in reducing these undesired reflections through the use of sound absorbing materials, combined with the perforations in the ceiling allowing the sound to pass through.

The sound absorption coefficient  $\alpha_W$  is the fraction of the total sound that is absorbed by the suspended ceiling. The remaining unabsorbed fraction is reflected back into the room. The sound absorption coefficient has a value between 0,0 (no absorption - all the sound is

The absorption factor is measured according EN20354:2003 and EN11654:1997

reflected) and 1,0 (complete absorption - equivalent to an open window).

Kreon ceilings are available in different perforations equipped with an acoustic fleece. Shrink-wrapped wool inlays are available as an option to further improve the acoustic performance. The absorption factor for different combinations of perforations and acoustic options ranges from 0,45 (standard perforation, 100mm non-perfo border, acoustic fleece) to 1,00 (standard perforation, full-perfo field, sealed mineral wool inlay)

- Absorption factor 0,45 1,00
- Different perforation types and perforation fields
- Standard acoustic fleece
- Optional sealed mineral wool inlay

#### Sound attenuation

Suspended ceilings are often chosen due to their high flexibility.

Working with modular separation walls that only reach to the suspended ceiling, sound isolation between adjacent rooms can be inadequate.

Without extra measures, traditional suspended ceilings offer insufficient sound attenuation from room to room.

The sound attenuation between adjacent rooms is measured according EN20140-9 and EN150717/1 and is expressed as  $D_{now}$  in dB.

- Sound attenuation up to 47 dB
- Standard acoustic fleece
- Optional sealed mineral wool inlay
- Optional gypsum inlay 9.5/12.5mm



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### Colours & Materials

Colour, material and contrast raise anonymous surfaces into determining elements within architecture. In order to offer as many choices possible to enhance your architecture, Kreon presents a wide pallet of ceiling colours.

All products can be delivered in galvanised steel, aluminium and stainless steel and are available in any RAL colour. Kreon tiles are powder coated with a minimal thickness of 50 micron and a gloss level between 3% and 20% according to Gardner 60°. This low gloss level generates depth effect and bears a smooth ambiance. Products are colour matched for the purpose of optimal integration between lighting and services.

### Standard colours

(\*other RAL colours are available on request)

 Vektron grey, gloss ≤ 10%
 Vektron white, gloss ≤ 6%

 RAL7044, gloss ≤ 3%
 RAL9004, gloss ≤ 3%

 RAL9006, gloss ≥ 20%
 RAL9010, gloss ≥ 20%

 RAL7035, gloss ≤ 5%
 RAL9016, gloss ≤ 5%

RAL?\*

Remarks

The colours shown may differ from actual colours.

Colour samples available: vk760003

Polyester powder coating on sheetmetal tile.



# Perforations Perforations do not only determine the appearance of your ceiling, but also contribute to the comfort attributes of the space. They also assist in acoustic control and can influence air circulation. Kreon offers a choice of perforations that differ in shape, pattern and size. Perforation R1 hole diameter 1,8mm, square pitch, 10,59 % open area Standard perforation hole diameter 2,5mm, square pitch, 16,5% open area Perforation R2 hole diameter 3mm, diagonal pitch, 30,1% open area Perforation R0 hole diameter 0,8mm, square pitch, 1,5% open area Perforation R2 hole diameter 3mm, square pitch, 15,05 % open area Perforation R1 hole diameter 1,8mm, diagonal pitch, 21% open area Perforation R3 hole diameter 3,2mm, square pitch, 38,3% open area

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Perforation R5 hole diameter 5mm, square pitch, 48,2% open area Perforation S5 square perforation 5mm, square pitch, 25,6% open area Perforation S8 square perforation 8mm, square pitch, 42% open area

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### Made to measure

Kreon metal ceilings can be arranged and customised to match your vision perfectly. We offer a wide choice of tile dimensions, materials, colours, finishings, perforations, accessories and options.

### **Dimensions and materials**

Tiles are available in variable sizes but can also be made to measure. Possible materials are galvanised steel, aluminium and stainless steel.

### Colours and finish

Kreon offers a wide pallet of ceiling colours of its own, but our products can also be delivered in customer specified finishes.

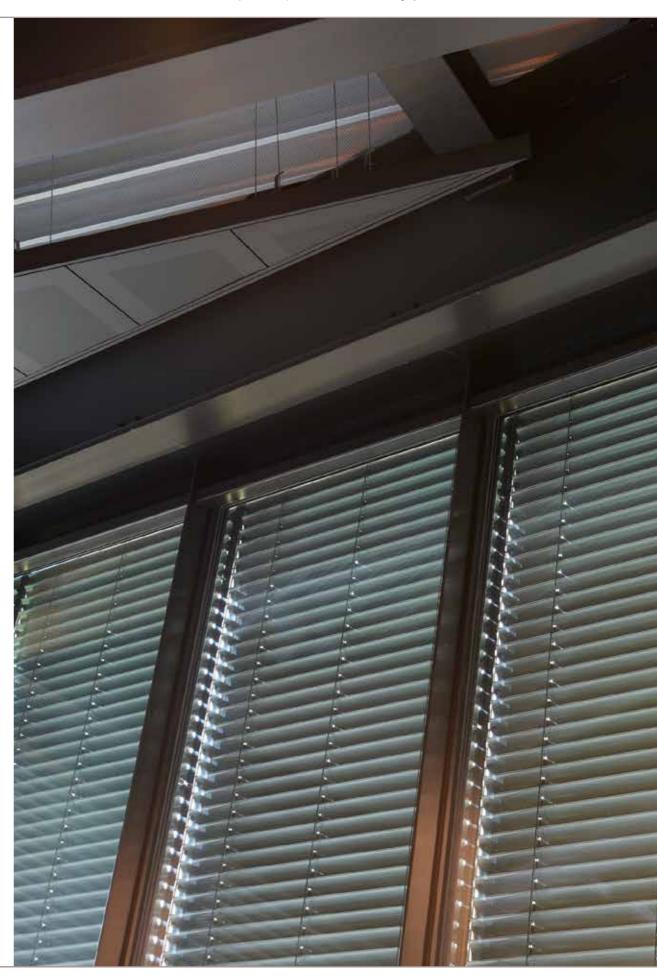
#### **Perforations**

Perforations determine the appearance of a ceiling and contribute to acoustic and air comfort. To support your creativity and to meet your functional requirements, we can offer perforations in almost any desired pattern.

### Integration

Kreon can integrate lighting and all common utilities into its ceilings. Working with one supplier for your ceiling, lighting and techincal services has many advantages:

- Alignment of aesthetic properties and delivery times are optimal
- All tiles arrive on site pre-equipped
- Installation is made simple because the construction parts match perfectly



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### Mumbai Airport, Mumbai - India

Architect: SOM

Total surface area: 139 m<sup>2</sup>

**Specifications**: **Description**: perfo Hook-on

**Perforation**: custom made floral perforation **Measurements**: several custom made panels **Colour tiles**: colour to match alubond alk-502.ccl

### Delorge, Hasselt - Belgium

Architect: Mamu Architecten

**Total surface area**: 1675 m<sup>2</sup>

Specifications: Description: full perfo Clip-in

Perforation: custom made perforation for Audi

Measurements tiles: 625x1250 Colour tiles: RAL 9016, 20% gloss Ventilation: Vento 18, perfo Fuo C2

**Lighting**: Aplis 80/165, Signs, Super Down, Rei, Cadre, Aplis 80/165, Prologe 80 in-Line, Nuit, Regard

### Avrora, Moscow - Russia

Architect: UNK project

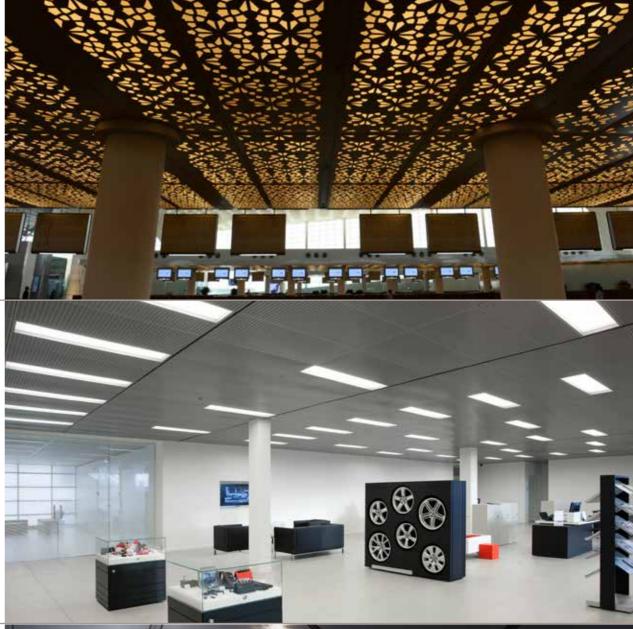
Total surface area: 324,6 m<sup>2</sup>

**Specifications**: Description: perfo Lay-on

**Perforation**: standard perforation Ø2,5 **Measurements**: different custom made panels

**Colour tiles**: RAL7021 5% gloss **Ventilation**: Vento, Fuo Square

 $\textbf{Lighting} \colon \mathsf{Nuit}$ 





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### Lunor, Unterhaugstett - Germany

Architect: Schmelzle + Partner Architekten BDA

Total surface area: 648m²

Specifications: Description: perfo Clip-in

**Perforation**: standard perforation Ø2,5 **Measurements**: several custom made panels

**Colour tiles**: RAL9004, 20% gloss **Ventilation**: Vento, CU Clima ceiling

Lighting: Lini medium

### Allen & Overy, Bangkok - Thailand

Architect: Orbit design

Total surface area: 167m<sup>2</sup>

**Specifications**: Description: full perfo Clip-in

**Perforation**: standard perforation Ø2,5 **Measurements**: several custom made panels

**Colour tiles**: Vektron white **Ventilation**: Vento, Perfo Fuo C2

**Lighting**: Custom made Prologe 80 - Prologe Ligna T16

### **Qatar Airways lounges**

Architect: TP Bennet LLP

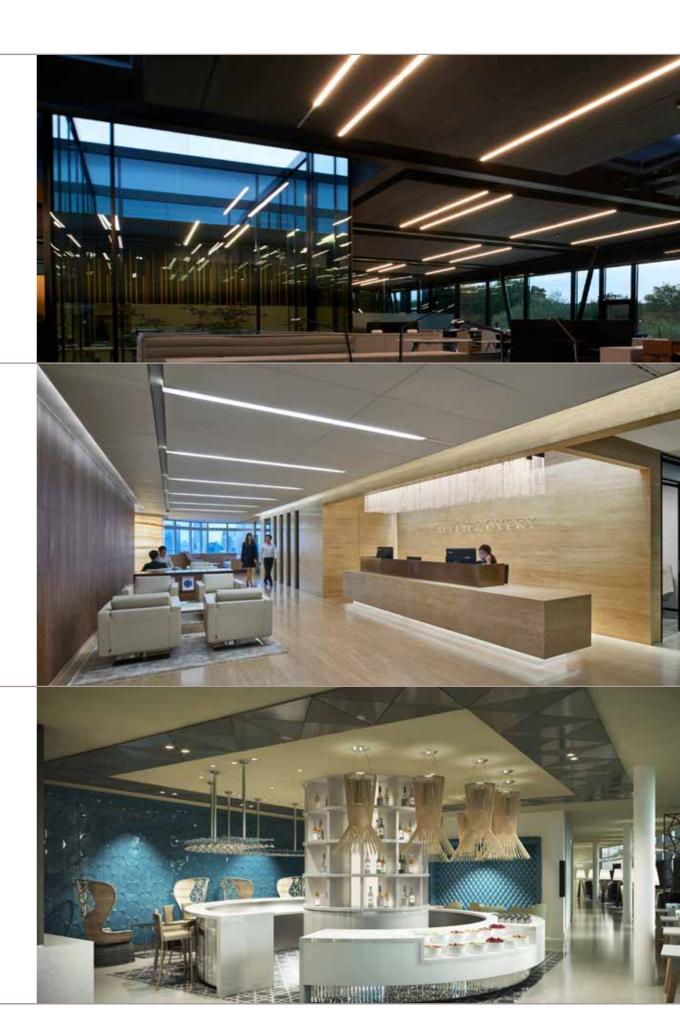
**Total surface area**: 59,24m<sup>2</sup>

**Specifications**: Description: triangular Clip-in

**Perforation**: non perfo / perforation R1 **Measurements**: several custom made panels **Colour tiles**: type A: Champagne bronze,

type B: RAL0602005 40% gloss, type C: RAL9010 20% gloss

Lighting: Down 76 LED, Down 80 LED



### Ventilation

Ventilation has become an essential part of any building design. Often this is translated into a purely technical solution, overlooking the importance of design. The provision of air diffusers within the Kreon Ceiling Solutions family provides an elegant answer to a service integration which is often problematic in appearance and difficult to harmonise.

Kreon offers a selection of air diffusers that range from invisible on-tile combinations to discreet linear grills that can be installed between tiles or at the margins of ceiling rafts.



### Ventilation

Kreon provides comfortable, silent, efficient and aesthetically pleasing ventilation solutions. All diffusers can be used for the supply or return of cooled or warm air.

Our experts guide you to the best solution for your needs and help you make the right choice.

### In-tile

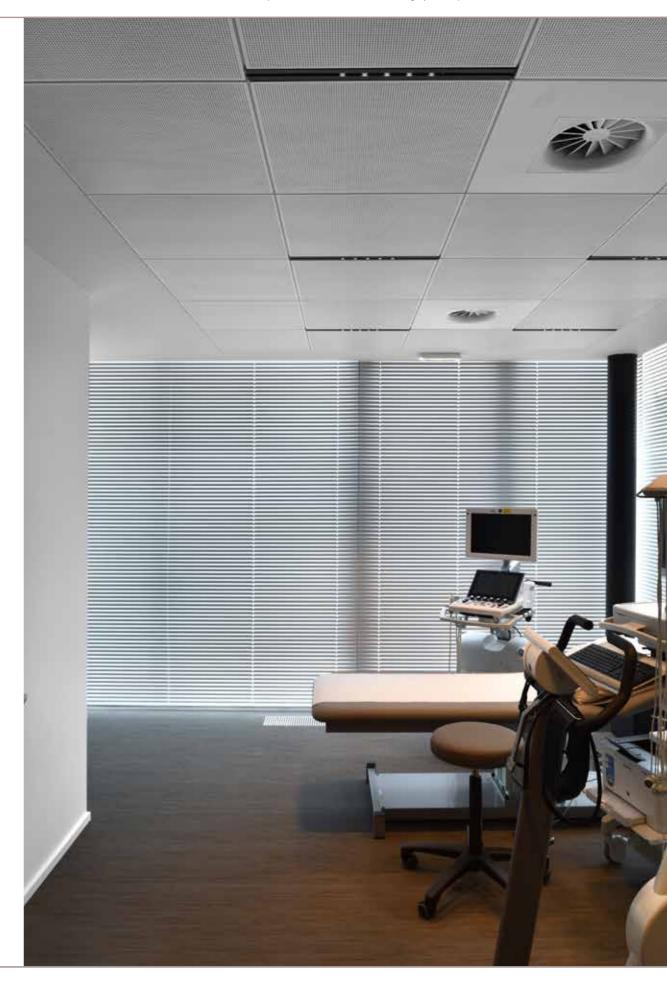
Fuo Square and Fuo Round are seamlessly integrated into a Kreon ceiling tile, assuring a uniform ceiling surface.

#### Between-tile

Vento and Fuo Lineair are discrete inductive units for installation between Kreon ceiling tiles.

### On-tile

Fuo C2 and Fuo C5 are completely invisible diffusers. They are integrated onto the Kreon ceiling tiles using the standard perforations to introduce the air into the room.



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### **Fuo Square**

Architectural aluminium ceiling diffuser with 4-way air pattern and adjustable core for the supply and exhaust of hot/cold or isotherm air.

The diffuser has an adjustable output pattern (horizontal - vertical).

Fuo Square is seamlessly integrated into a Kreon ceiling tile and finished in the same colour as the ceiling.

- 4-way air pattern with adjustable core
- Suitable for supply and exhaust air
- Adapted for hot, cold or isotherm air

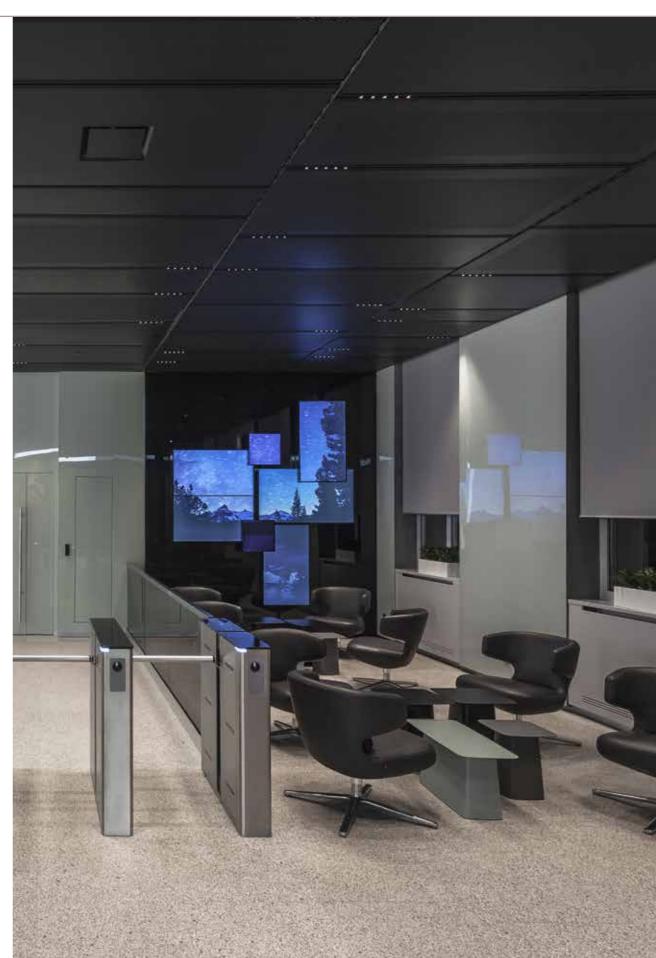


Fuo Square

### Output

Fuo Square quic				
	airflow range	sound level	conn. size	Max. ΔT
Fuo Square D100	120 m³/h	< NR35	D100	-10 K
Fuo Square D125	190 m³/h	< NR35	D125	-10 K
Fuo Square D160	380 m³/h	< NR35	D160	-10 K
Fuo Square D200	510 m <sup>3</sup> /h	< NR35	D200	-10 K
Fuo Square D250	695 m³/h	< NR35	D200	-10 K
Fuo Square D315	890 m³/h	< NR35	D315	-10 K

<sup>\*</sup> For detailed selection, please consult spec sheet or contact Kreon



kreon | 70 | kreon | 71

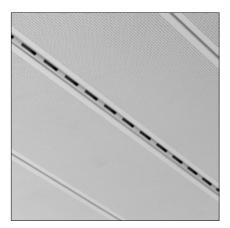
### Vento

Vento linear diffusers allow for very slim slots from only 15mm in width, which can be integrated smoothly in all ceiling joints.

Whether unobtrusive or deliberately accentuated, the elegant outlet profiles offer architects freedom when designing elegant, creative and sophisticated ceilings.

Only the Vento fine-jet characteristic enables a uniformly diffuse ambient air flow and allows temperature differences of up to -14K whilst meeting even the highest demands in terms of comfort.

- Slim, architectural linear diffuser
- Highest comfort
- Temperature differences up to -14K
- High diffusion

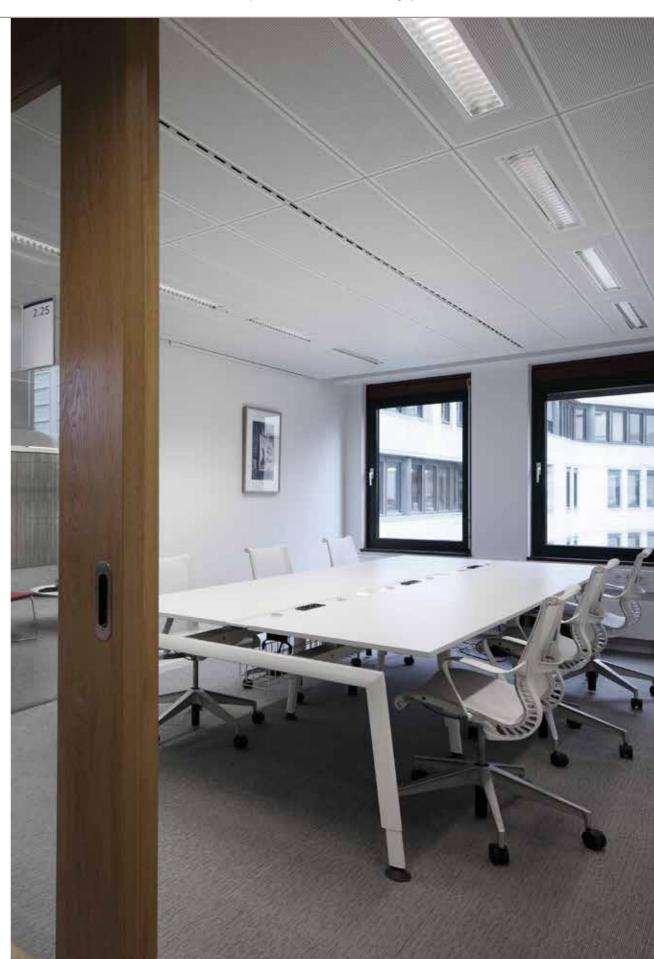


Vento

### Output

Vento quick se	lection*			
	airflow range	sound level	conn. size	Max. ΔT
Vento P15	45-100 m³/h·m	< NR35	D80/D125	-14K
Vento P18	60-140 m³/h·m	< NR35	D80/D125	-14K
Vento V24	80-150 m³/h·m	< NR35	D125	-10K
Vento V45	190-330 m³/h·m	< NR35	D160	-10K

<sup>\*</sup> For detailed selection, please consult spec sheet or contact Kreon



Between-tile: linear ventilation

Project Channel 4
Location London, UK

# **Architect** Rogers Stirk Harbour & Partners **Photographer** Arne Jennard

### **Fuo Linear**

This aluminium ceiling slot diffuser has a linear air pattern with adjustable drums to supply air into the room with an adjustable output pattern. The drum slot diffuser is designed for high performance with a unique capacity up to 4 slots. Fuo Linear is finished with the same polyester powder coating as the Kreon ceiling.

- Linear air pattern with adjustable drums
- High performance up to 4 slots
- Adapted for hot, cold or isotherm air



Fuo Linear

### Output

Fuo Linear quick	selection*			
	airflow range	sound level	conn. size	Max. ΔT
Fuo Linear 1 slot	155 m³/h·m	< NR35	D125**	-8 K
Fuo Linear 2 slots	265 m³/h·m	< NR35	D160**	-8 K
Fuo Linear 3 slots	350 m³/h·m	< NR35	D160**	-8 K
Fuo Linear 4 slots	410 m³/h·m	< NR35	D200**	-8 K

 $<sup>^{\</sup>star}$  For detailed selection, please consult spec sheet or contact Kreon



kreon | 74 | kreon | 7.

<sup>\*\*</sup> optional plenum connection

### Fuo C2

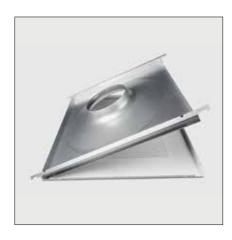
Fuo C2 is a circular steel diffuser with an inducing effect over 360°, invisibly integrated into the Kreon ceiling and uses the same ceiling perforations to introduce air into the room. Because of the specific air pattern, pollution of the ceiling is reduced to a minimum. The air connection can be made directly with a top-connection or with an insulated or non-insulated plenum with side connection.

- Invisible diffusor
- 360° inducing effect
- Top or side connection plenum

### Fuo C5

The adjustable circular diffuser Fuo C5 is used for the supply of cooled or heated air with a high temperature difference in respect to the room temperature. This high inducing diffuser can be mounted in the ceiling and is used in facilities such as offices and shopping centers where simple adjustment of the air pattern is required. Because of the separate deflector plates it is possible to have an adjustable air pattern in 1, 2, 3 or 4 direction(s). The diffuser is invisibly integrated into the Kreon ceiling and uses bigger perforations (R5) to introduce air into the room. The air connection can be made directly with a top-connection or with an insulated or non-insulated plenum with side connection.

- Invisible diffusor
- Adjustable air pattern in 1, 2, 3 or 4 directions
- Adapted for temperature differences of up to -10K





Fuo C2

Output

Fuo C5

# Fuo C2 quick selection\*

	airflow range	sound level	conn. size	Max. ΔT
Fuo C2 D125	155 m³/h	< NR35	D125	-10 K
Fuo C2 D160	275 m³/h	< NR35	D160	-10 K
Fuo C2 D200	355 m³/h	< NR35	D200	-10 K

Fuo C5 quick selection\* sound level airflow range conn. size 210 m<sup>3</sup>/h Fuo C5 D125 < NR35 D125 -10 K Fuo C5 D160 225 m<sup>3</sup>/h < NR35 D160 -10 K Fuo C5 D200 -10 K 375 m<sup>3</sup>/h < NR35 D200 Fuo C5 D250 525 m<sup>3</sup>/h < NR35 -10 K D250



<sup>\*</sup> For detailed selection, please consult spec sheet or contact Kreon

# Climate control

In line with the company philosophy – full integration of lighting and building service systems – Kreon also offers climate ceilings.

Allowing heating at low temperatures and cooling at high temperatures, our climate ceiling has a positive effect on the energy performance of buildings.

Radiant transfer of heating and cooling offers the highest indoor comfort and 'sick building syndrome' is eliminated entirely due to the closed water circuit.



Invisibly and unobtrusively integrated in Kreon Ceiling Solutions, the climate ceiling generates a comfortable, healthy and clean indoor climate.

Cooling and heating is distributed uniformly throughout the entire surface of the room, without any draughts and in complete silence.

Having no moving parts or dust collecting filters, maintenance is reduced to an absolute minimum whilst assuring a healthy indoor climate.

- Unobtrusive climate system
- Reduced maintenance
- Comfortable and healthy
- Energy saving and sustainable
- Economical
- Flexible



Clima tile with copper tubes



kreon | 80 kreon |

## Climate ceiling

### Indoor comfort

Kreon climate ceiling guarantees the most comfortable indoor climate by making use of radiant heating and cooling.

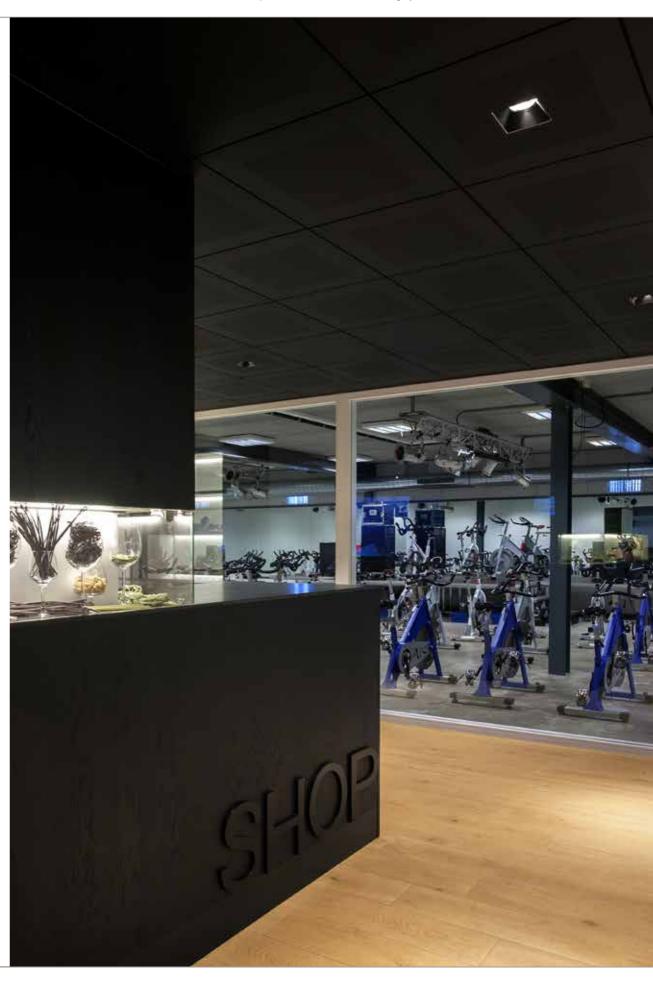
In summer, the chilled ceiling absorbs excess heat while cooling down the room through convection. During winter, the radiant ceiling transfers heating directly to people and surfaces. Both heating and cooling is evenly spread throughout the entire surface of the room without any draughts or noises, offering the best possible indoor comfort.

### **Economical choice**

One system has it all: Kreon climate ceiling conceals technical installations such as ductwork, piping and cabling and integrates heating/cooling as well as ventilation, lighting, audio and different sensors.

Installation costs are minimized by combining all techniques into one single solution. No maintenance is required as there are no moving parts or filters that need replacing, reducing running costs to an absolute minimum.

Energy consumption is reduced drastically compared to traditional HVAC installations due to the high efficiency and low inertia of the system. No auxiliary power to drive fans is required, minimizing the electrical consumption of the entire climate installation.



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### Architect Kreon Photographer Kreon

### **Gentle coolness**

The cooling effect of the climate ceiling is achieved in two different ways. Heat from people, objects and surfaces is radiated to the cooler surface of the climate ceiling. By absorbing this excess heat, a radiant cooling effect is created. Secondly, the ambient air is cooled by the climate ceiling through convection. As the delivered cooling effect is spread over the entire surface of the ceiling, the highest possible comfort level is attained.

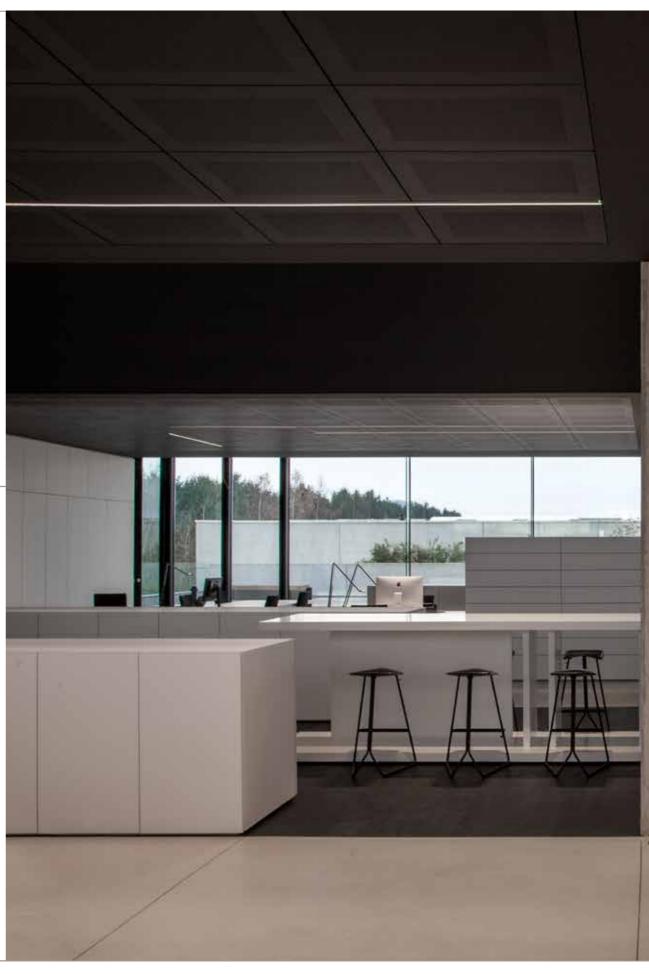


### Radiant heating

The surface of the climate ceiling is heated by hot water flowing through the copper tubes, radiating heat into the room. Surfaces and objects, including people, floors, walls, furniture, etc, are heated up directly through radiation.

Radiant heating increases the perceived comfort of occupants, by heating surfaces and objects directly rather than the entire volume of air in the room.





reon | 84 kreon |

Climate ceiling Location Aacht

# Project RWTH technische Hochschule Location Aachen, Germany Photographer Arne Jennard

### Kreon climate ceiling stands for:

- Comfort: draught-free and noiseless
- Design: invisible integration in ceiling
- Health: no breeding ground for germs, bacteria, ...
- Easy maintenance: no motors, filters, ...
- Economy: low running and maintenance cost
- Energy saving: compatible with heatpump- and geothermical installations
- Flexible: cooling and heat



### **Environmental friendly**

Kreon climate ceiling is compatible with renewable energy sources such as air-to-water or ground source heat pumps due to the low temperature differential needed for the functioning of the system.

Cooling is provided using a forward line temperature of only 17-19°C, while heating requires no higher temperatures than 30-40°C.

Needing no fans to operate, no auxiliary electrical power is required.

The high efficient surface-heat-exchanger is made entirely of recyclable copper and aluminium. A specifically developed and patented 'WLT'-design of the heat-exchanger minimizes the use of raw materials and maximizes energy transfer.

### 'WLT'-technology





The driving force behind the climate ceiling is a high efficient and optimized copper/aluminium heat-exchanger using the proven and patented 'WLT'-technology. The copper tube is formed into a patented D-shape to increase the contact surface of the tube onto the ceiling panel. The aluminium thermal conductor seamlessly wraps around the copper tube to maximize heat transfer from the copper tube onto the ceiling panel.

With its super conductive and ultra-fast heat exchanger, 'WLT' stands for low energy consumption and maximum output.

### Renewable energy source

The 'WLT'-technology offers the ability to maximize the output of the climate ceiling at low temperature differences between supplied water and room temperature.

Optimal cooling performance is achieved with a forward line temperature between 17-19°C. Heating capacity is optimized with water temperatures between 30-40°C.

Due to the low temperature differential needed for the functioning of the system, Kreon climate ceiling is compatible with renewable energy sources such as air-to-water or ground source heat pumps.

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### Aquifer seasonal thermal energy storage

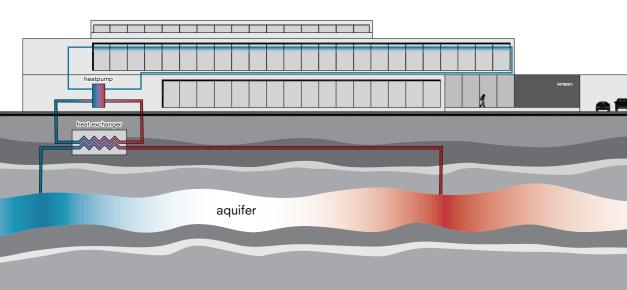
Aquifer seasonal thermal energy storage is an innovative way to store thermal energy using an open-loop in an available underground aquifer. It relies on seasonal storage of cold and warm energy in the water of the aquifer.

Two thermal wells are installed, one is used for cold storage while the other is used for hot storage. The wells are linked to a ground-source heat pump through a heat-exchanger.

A heat-exchanger separates ground water from the water in the installation, protecting the installation against dirt and oxygen penetration while protecting the wells from being polluted by the installation.

During summer, cold water is pumped up to cool down the building. The excess heat is extracted from the building and pumped into the hot storage well. In winter, hot water is pumped up to heat up the building. The cold water, returning from the heat pump, is pumped into the cold storage well. This cycle is repeated seasonally.

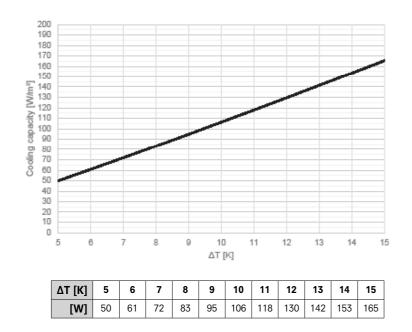
In order to improve the overall energy efficiency of the building, Kreon uses this technology in the new HQ to reduce the energy expense more than 60 times over a traditional HVAC system.





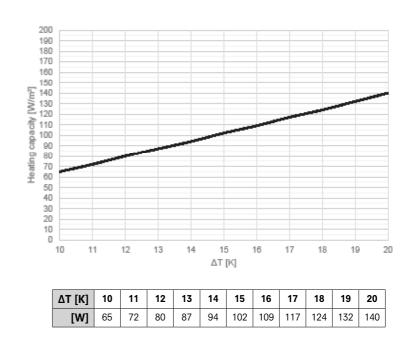
### **Cooling capacity**

Nominal cooling capacity closed ceiling according to EN14240  $\,$  [ $\Delta$ T10]  $\,$  106,3 W/m<sup>2</sup>



### **Heating capacity**

Nominal heating capacity closed ceiling according to EN14037  $\,$  [ $\Delta$ T15]  $\,$  101,5  $\,$  W/m $^2$ 





kreon

92

k

# Light

### Light within Kreon Ceiling Solutions is seamless and harmonious

The perfect integration of luminaires within Kreon ceilings brings a meaningful dimension of functionality and discretion to the spaces that surround them.

Care has been taken in the development of this range of products to ensure that the Kreon values of timeless design, perfect illumination and controlled luminance are maintained to provide solutions to a broad range of techniques and applications.

Kreon strive to use the most up-to-date technologies within their appliances to fulfil modern requirements in efficiency without comprising product form, and can offer a range of light sources to meet the most exacting demands.

Most Kreon ceiling luminaires are delivered colour matched and ready to install with plug and play adapters to facilitate a super fast install and limit expensive service overheads that can be occurred by adapting ceilings to suit third party products.



### In-tile

### Workspace lighting



Long Mini Down p. 100



Super Down p. 102



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# Between-tile

### **Profiles**



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### Oblique downlights



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Holon 40 directional p. 124



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### Straight downlights



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### **Projectors**



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Erubo on-Track p. 191

### Optics



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### Signs

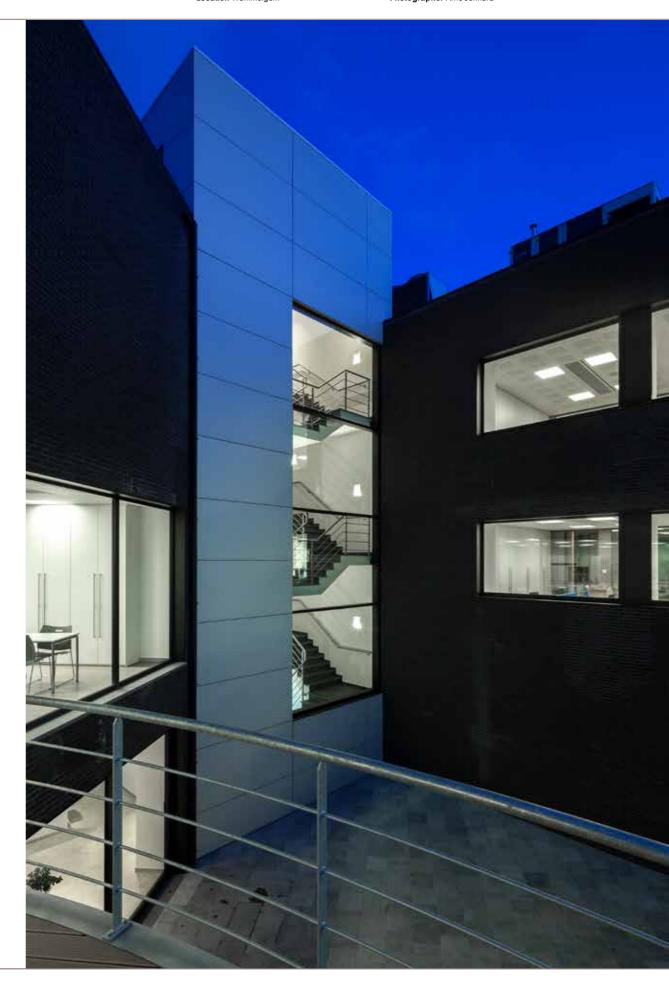


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# In-tile: workspace lighting

Kreon's workspace lighting solutions are designed to provide efficient and controlled sources of illuminance that remain discreet, but intentional within their surroundings.

Key to good workplace lighting design is luminance control. Kreon fulfils this obligation by offering a choice of optics and dimming options that can surpass requirements and provide minimum user distraction.



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## Long Mini Down

long mini down

name

Long Mini Down is a range of luminaires that have been designed with a linear-within-tile format to provide a perfect level of illuminance in office spaces with optimised spacing and are available with single, twin or triple light lines.

They utilise super efficient LEDs behind a choice of micro prismatic optic, for increased glare control, or standard true white opalised diffusing optic, for high uniformity. The diffuser medium is deep set on Kreon's signature brightness control louvre which provides an impression of 'light-from-within'. It can be colour matched to the tile or in a contrasting finish.

lamp type	LED 3290lm 3000K	LED 3390lm 4000K	LED 2x3290lm 3000K	LED 2x3390lm 4000K	
visible LxW luminaire	572x76	572x76	2x(572x76)	2x(572x76)	
min. depth	90	90	90	90	
efficiency	103lm/W	106lm/W	103lm/W	106lm/W	
wattage	32W	32W	2x32W	2x32W	
dimming	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	
diffuser UGR	opal optic <22	opal optic <22	opal optic <22	opal optic <22	
diffuser UGR	CDP <19	CDP <19	CDP <19	CDP <19	
IP**	20	20	20	20	
class	1	1	1	1	
oblique louvre	incl.	incl.	incl.	incl.	
EM battery pack	on request	on request	on request	on request	
orientation	<b>V</b>	4	4	Ψ	

long long mini down double\*mini down double\*

long mini down\*



Long Mini Down



		lawa.
name	long	long
	mini down triple*	mini down triple*
lamp type	LED 3x3290lm	LED 3x3390lm
	3000K	4000K





	- /==o =o\	
visible LxW	3x(572x76)	3x(572x76)
luminaire		
min. depth	90	90
efficiency	103lm/W	106lm/W
wattage	3x32W	3x32W
dimming	ON/OFF	ON/OFF
	DALI	DALI
	1-10V	1-10V
diffuser UGR	opal optic <22	opal optic <22
diffuser UGR	CDP <19	CDP <19
IP**	20	20
class	1	1
oblique louvre	incl.	incl.
EM battery pack	on request	on request
orientation	<b>V</b>	<b>V</b>

 $<sup>^{\</sup>star}$  Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)  $^{\star\star}$  IP44 on request

## Super Down

Super Down provides maximum wide space lighting solutions for offices, schools and retail applications. It utilises super efficient LEDs behind a choice of micro prismatic optic, for increased glare control, or standard true white opalised diffusing optic, for high uniformity. The diffuser medium is deep set on Kreon's signature brightness control louvre which provides an impression of 'light-from-within'. It can be colour matched to the tile or in a contrasting finish.

Super Down is available with 3000K or 4000K options of colour temperature, and a choice of dimming control gear.





Superdown

## Super Down

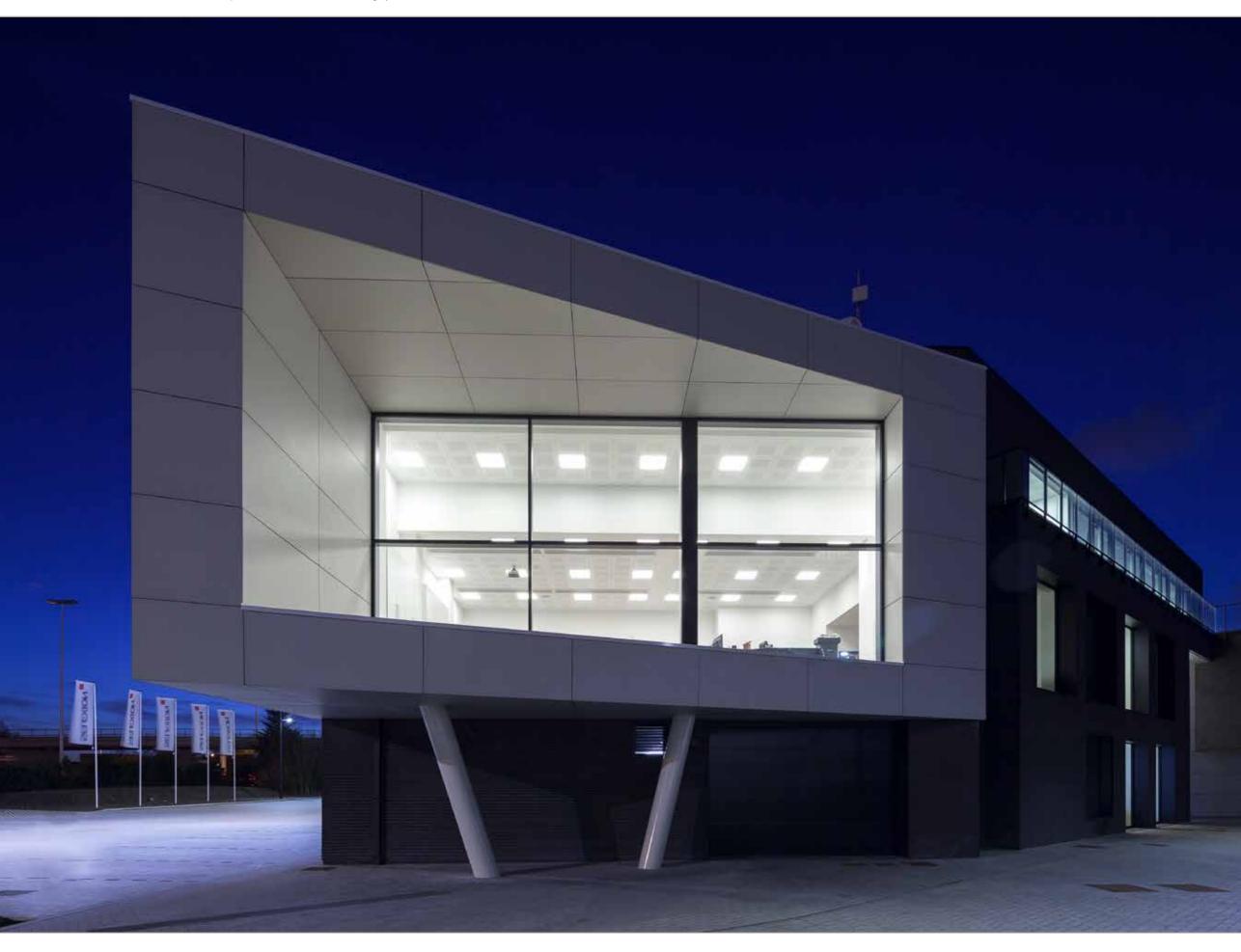
name	super down*	super down*
lamp type	LED 6920lm	LED 7120lm
	3000K	4000K





visible LxW	530x530	530x530
luminaire		
min. depth	98	98
efficiency	153lm/W	158lm/W
wattage	45,2W	45,2W
dimming	ON/OFF	ON/OFF
_	DALI	DALI
	1-10V	1-10V
diffuser UGR	opal optic <22	opal optic <22
diffuser UGR	CDP <19	CDP <19
IP**	20	20
class	1	1
oblique louvre	incl.	incl.
EM battery pack	on request	on request
orientation	<b>V</b>	<b>V</b>

 $<sup>^{\</sup>star}$  Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)  $^{\star\star}$  IP44 on request



### Maxi Down

Maxi Down is a range of mid size downlights that offers an effective solution for general lighting in corridors, transitory areas and retail applications. It utilises super efficient LEDs behind a choice of micro prismatic optic, for increased glare control, or standard true white opalised diffusing optic, for high uniformity.

The diffuser medium is deep set on Kreon's signature brightness control louvre which provides an impression of 'light-from-within'. It can be colour matched to the tile or in a contrasting finish.

Maxi Down is available with 3000K or 4000K options of colour temperature, and a choice of dimming control gear.



Maxi Down



### Maxi Down





visible LxW luminaire	148x148	148x148	
min. depth	98	98	
efficiency	134lm/W	146lm/W	
wattage	28W	28W	
dimming	ON/OFF	ON/OFF	
	DALI	DALI	
	1-10V	1-10V	
diffuser UGR	opal optic <22	opal optic <22	
diffuser UGR	CDP <19	CDP <19	
IP*	20	20	
class	1	1	
oblique louvre	incl.	incl.	
EM battery pack	on request	on request	
orientation	Ψ	<b>→</b>	

 $<sup>^{\</sup>star}$  Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)  $^{\star\star}$  IP44 on request

E-Down

E-Down offers an office lighting solution in a restrained format of just 358mm square. This reduction in dimensions allows the tile to present itself in its natural format without compromising the functionality of the luminaire. It utilises super efficient LEDs behind a choice of micro prismatic optic, for increased glare control, or standard true white opalised diffusing optic, for high uniformity.

On E-Down the diffuser medium is deep set on Kreon's signature brightness control louvre which provides an impression of 'light-from-within'. It can be colour matched to the tile or in a contrasting finish. E-down is available with 3000K or 4000K options of colour temperature, and a choice of dimming control gear.



name e-down\* e-down\* lamp type LED 3200lm LED 3440lm



3000K



4000K

visible LxW Iuminaire	358x358	358x358	
min. depth	104	104	
efficiency	114lm/W	123lm/W	
wattage	28W	28W	
dimming	ON/OFF	ON/OFF	
	DALI	DALI	
	1-10V	1-10V	
diffuser UGR	opal optic <22	opal optic <22	
diffuser UGR	CDP <19	CDP <19	
IP**	20	20	
class	1	1	
oblique louvre	incl.	incl.	
EM battery pack	on request	on request	
orientation	Ψ	<b>V</b>	

 $<sup>^{\</sup>star}$  Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)  $^{\star\star}$  IP44 on request

superside

double\*

name

By the use of concealed LEDs and dual position gullwing reflector optics, Superside delivers an efficient and uniform light that benefits from a subtlety of luminance that can only be achieved by internal reflection. This optic design provides the perfect solution for offices or retail applications where the feeling of light rather than the sight of light is desirable. Superside is available with 3000K or 4000K options of colour temperature, and a choice of dimming control gear.

lamp type	LED 2100lm 3000K	LED 2100lm 4000K
visible LxW	600x600	600x600
luminaire min. depth	150	150
efficiency	44,68lm/W	44,68lm/W
wattage	47W	47W
dimming	ON/OFF	ON/OFF
	DALI	DALI 1.10V
diffuser UGR	1-10V opal optic <22	1-10V opal optic <22
diffuser UGR	CDP <19	CDP <19
IP**	20	20
class	1	1
oblique louvre	incl.	incl.
EM battery pack	on request	on request
orientation	J.	

superside

double\*





 $<sup>^{\</sup>star}$  Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)  $^{\star\star}$  IP44 on request

Skytile

A uniform luminous and illuminating layer in a convenient modular arrangement. Skytile utilises high efficiency LEDs in a spacial light chamber closed within an optimised diffusing surface. This technology mixes and obscures direct LED output resulting in a glare free homogenous layer on the ceiling surface.

Skytile is available in 2 models:

- The **SL model** (satin look) has a satin frost look with a choice of colour temperatures of 3000 or 4000 kelvin.
- The **C model** (colour-model) has a satin frost look with tunable white LEDs that can be tuned to create the desired colour effect or activated with a colour change over a specified time line.

Skytile uses the standard Kreon ceiling sub construction as a simple and effective suspension system which can be adapted to small or large ceiling zones. With a depth of just 100mm it is suitable for most applications.

As well as being ceiling recessed, Skytile can installed as a floating raft of light.

When installed on walls Skytile can provide a luminous vertical feature to an interior. Due to the easy install and modularity of the system, it can be used in many applications including offices, shops, galleries, schools and hospitals.

### Skytile

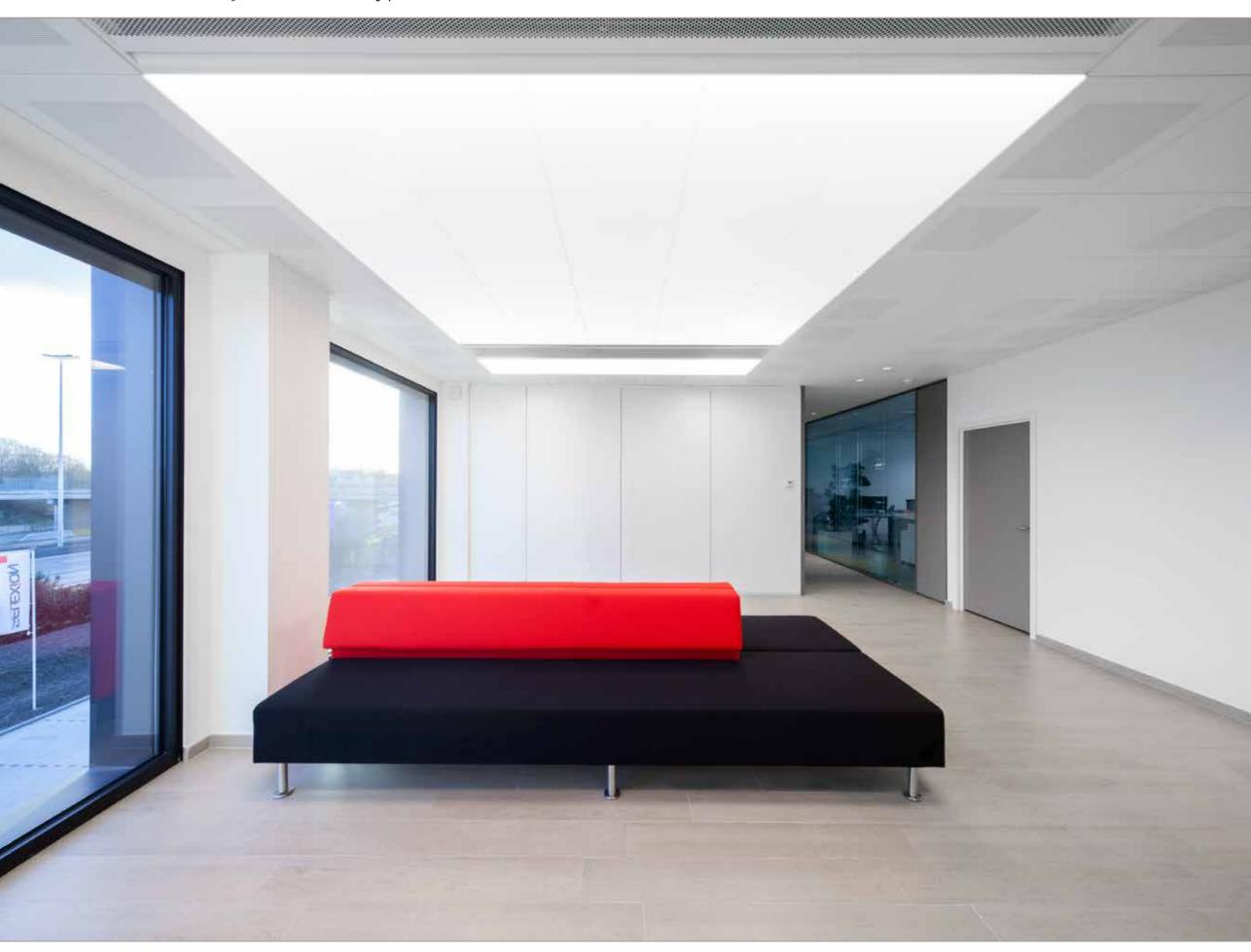
name	skytile SL	skytile SL	skytile C
lamp type	LED 3290lm	LED 7120lm	LED 5210lm
	3000K	4000K	tuneable







visible LxW	600x600	600x600	600x600
luminaire			
min. depth	125	125	125
wattage	45,2W	45,2W	38,7W
dimming	DALI	DALI	DALI DT8
	(DSI	(DSI	
	SwitchDIM	SwitchDIM	
	ON/OFF)	ON/OFF)	
diffuser UGR	opal optic <22	opal optic <22	opal optic <22
diffuser UGR	CDP <19	CDP <19	CDP <19
IP	44	44	44
class	1	1	1
oblique louvre	incl.	incl.	incl.
EM battery pack	on request	on request	on request
orientation	<b>↓</b> →	<b>↓</b> →	Ψ →



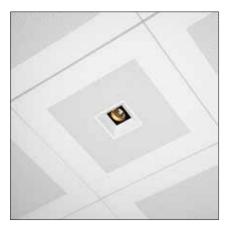
# In-tile: downlights

# **Oblique downlights**

### Spotting with light

Kreon Oblique downlights (Down & Aplis) provide depth to architecture through a unique system of build-in louvres. Down (square louvre) & Aplis (circular louvre) consist of two elements: the luminaire housing mounted on the tile and the louvre for the seamless finish. The seamless design is obtained through a special screwless installation frame. This metal frame employs a simple clip system to hold the louvre.

**Down** square downlights



**Aplis** circular downlights





kreon | 116 | kreon | 1

Aplis 40



Down 40 downlight





name	down & aplis 40 directional*	down & aplis 40 wallwasher*	down & aplis 40 downlight*	
lamptype	LED 200lm 2700K, CRI≥80	LED 200lm 2700K, CRI≥80	LED 200lm 2700K, CRI≥80	
Down 40	$\bigcirc$	$\bigcirc$	$\bigcirc$	

	<·>	$\langle \cdot \rangle$	$\langle \cdot \rangle$	
rotation/ inclin.	360°/30°	360°		
visible LxW	40	40	40	
luminaire				
min. depth	80	80	80	
wattage	2W	2W	2W	
dimming	ON/OFF	ON/OFF	ON/OFF	
	DALI	DALI	DALI	
	1-10V	1-10V	1-10V	
IP	40	40	40	
class	3	3	3	
orientation	Ψ	₩	<b>V</b>	
inclusive				
lens optic	10°/24°/46°		10°/24°/46°/oval	
required				
accessory	louvre	louvre	louvre	

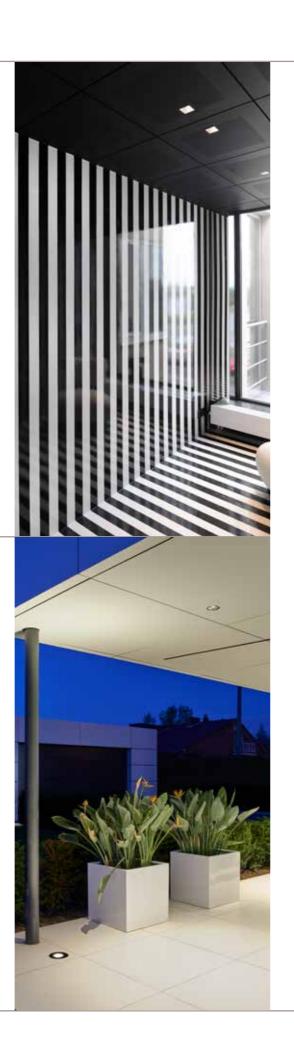
 $<sup>^{\</sup>star}$  Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)



Down 80 directional



Aplis 80 directional



name	down & aplis 80 directional*	down 80 double directional*	down & aplis 80 directional*	down 80 double directional*	down & aplis 80 wallwasher*
lamptype	LED	LED	LED MR16	LED MR16	LED
Down 80	<b>(</b>	*	• 🔷	*	*
Aplis 80	•	No circular version available	•	No circular version available	•
rotation/inclin.	360°/30°	2x180°/30°	360°/30°	360°/30°	360°
visible LxW Iuminaire	80x80	160x80	80x80	160x80	80×80
min.depth	140	140	110	110	105
wattage	15,6W	2x15,6W	15W	2x15W	15,6W
dimming	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V
IP**	40	40	40	40	40
class	3	3	3	3	3
1 filter holder	incl.	incl.	incl.	incl.	
orientation	<b>\</b>	<b>\</b>	<b>\</b>	<b>V</b>	<b>V</b>
required					
accessory	louvre	louvre	louvre	louvre	louvre

name	down & aplis 80 downlight*	down 80 double downlight*	down & aplis 80 downlight*	down 80 double downlight*
lamptype	LED	LED	LED MR16	LED MR16
Down 80				
	•	*	•	<b>*</b>
Aplis 80	•	No circular version available	•	No circular version available
rotation/ inclination	· · · · · · · · · · · · · · · · · · ·		160x80	160x80
visible LxW luminaire	80x80	160x80	110	125
min.depth	105	105	9-26	9-26
wattage	15,6W	2x15,6W	15W	15W
dimming	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V
IP**	40	40	40	40
class	3	3	3	2
filter holder			incl.	incl.
orientation	<b>V</b>	₩	₩	<b>V</b>
required				
accessory	louvre	louvre	louvre	louvre

 $<sup>^{\</sup>star}$  Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)  $^{\star\star}$  IP44 on request

Different types of L	ED modules available
Lumen output	1300lm, 965lm
Colour temperature	2700K, 3000K, 3500K, 4000K
CRI	CRI≥83, CRI98

Down 120 downlight



name	down & aplis 120 directional*	down & aplis 120 wallwasher*	down & Aplis 120 downlight*	
lamptype	LED	LED	LED	
Down 120	<b>*</b>	<b>*</b>	$\Diamond$	
Aplis 120	(e)	<u> </u>	(e)	
rotation/inclin.	360°/30°	360°		
visible LxW luminaire	120x120	120x120	120x120	
min. depth	185	150	150	
wattage	19,5W	19,5W	19,5W	
dimming	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	
IP**	40	40	40	
class	3	3	3	
1 filter holder	incl.			
orientation	<b>V</b>	<b>V</b>	<b>↓</b>	
required				
accessory	louvre	louvre	louvre	
	reflector		reflector	

 $^{\star}$  Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)  $^{\star\star}$  IP44 on request

Different types of L	ED modules available
Lumen output	spot reflector CRI≥83: 1300lm, 15,6W spot reflector CRI 98: 930lm, 15,6W flood/wide flood reflector CRI≥83: 2000lm, 19,6W flood/wide flood reflector CRI 98: 1400lm, 17W
Colour temperature	2700K, 3000K, 3500K, 4000K
CRI	CRI≥83, CRI98





Holon 40 directional



name	holon 40 directional recessed*	holon 80 directional recessed*	holon 80 directional recessed*	
lamptype	LED	LED	LED	







rotation/inclin.	355°/90°	360°/90°	360°/90°	
visible ØxH	45x155	Ø85x205	Ø85x205	
luminaire				
wattage	8,4W	29,3W	30,2W	
dimming	ON/OFF	ON/OFF	ON/OFF	
	DALI	DALI	DALI	
	1-10V	1-10V	1-10V	
IP	40	40	40	
class	3	3	3	
orientation	<b>V</b>	<b>V</b>	<b>V</b>	

### required

accessory	reflector	reflector	reflector
optional			
louvres & lenses	hexagonal louvre	hexagonal louvre	hexagonal louvre
	sculpture lens	sculpture lens	sculpture lens
	diffusing lens	diffusing lens	diffusing lens

Remark
\* Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)

Different types of LED modules available			
Lumen output	CRI 80: 850lm, 8,4W CRI 83: 3000lm, 29W CRI 98: 2000lm, 26,4W CRI 98: 1560lm, 30W		
<b>Colour temperature</b> 2700K, 3000K, 3500K, 4000K			
CRI	CRI 80, CRI 93, CRI 98		

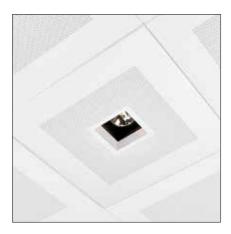
# In-tile: downlights

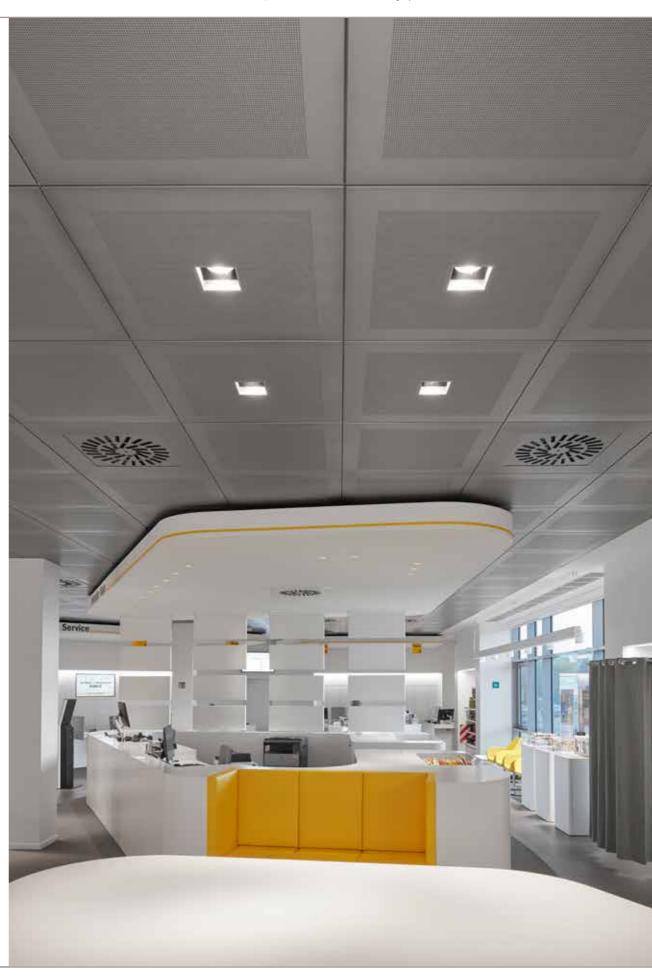
# Straight downlights

### Light is quintessential

Down is designed for recessed use and is characterised by the deeper position of the light source in relation to the ceiling level. Thanks to a multifunctional housing this luminaire is offered with LED and retrofit LED. The housing is made of silvergrey or white powder coated galvanised steel and features ventilation slots at the backside for optimal air circulation. Visible louvre can be specified in white, black, grey, alu matt and gold.

**Down**Square downlights





kreon | 126 | kreon | 1.

Down 76

# Down 76







name	down 76 single*	down 76 single*	down 76 double*	down 76 directional*	down 76 double*
lamptype	LED 440lm/720lm 2700K, CRI≥80	LED MR16	LED 2x440lm/720lm 2700K, CRI≥80	LED MR16	LED MR1
	*>	$\langle  \rangle$			
visible LxW	76x76	76x76	153x76	153x76	153x76
luminaire	110	405	110	150	405
min. depth	140	125	140	150	125
wattage	8,4W	50W	2x8,4W	50W	2x50W
dimming	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
	DALI	DALI	DALI	DALI	DALI
	1-10V	1-10V	1-10V	1-10V	1-10V
IP	20	20	20	20	20
class	3	3	3	3	3
orientation	<b>V</b>	₩	<b>V</b>	Ψ	<b>\</b>
required					
accessory	louvre	louvre	louvre	louvre	louvre

Remark
\* Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)

Down 153

# Down 153





Down 153



name	down 153 directional*	down 153 single*	down 153 triple directional*
lamp type	LED AR111	LED PAR30	LED AR111



rotation/inclin.	360°/2x25°		360°/2×25°	
visible LxW luminaire	153x153	153x153	396x153	
min. depth	170	190	165	
wattage	75W	75W	3x75W	
dimming	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	
IP	20	20	20	
class	1	1	1	
orientation	Ψ	Ψ	<b>V</b>	

required				
 accessory	louvre	louvre	louvre	

Remark
\* Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)

# In-tile: optic

### Rei

- Highly advanced LED technology
- Visual reduction, optimised output and glare control
- High visual silence
- Smooth, homogenous silent glow of light

### Tenno

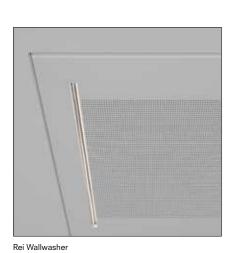
- Highly advanced LED system
- Patented lens optic
- Double focus light beam
- High efficiency and perfect glare control
- Choice between tiles with 5, 10 or 25 LEDs in a tile height of 70mm



Tenno Double focus LED Concept by Bartenbach



Rei



name	rei wallwasher*	rei downlight*
lamptype	LED	LED

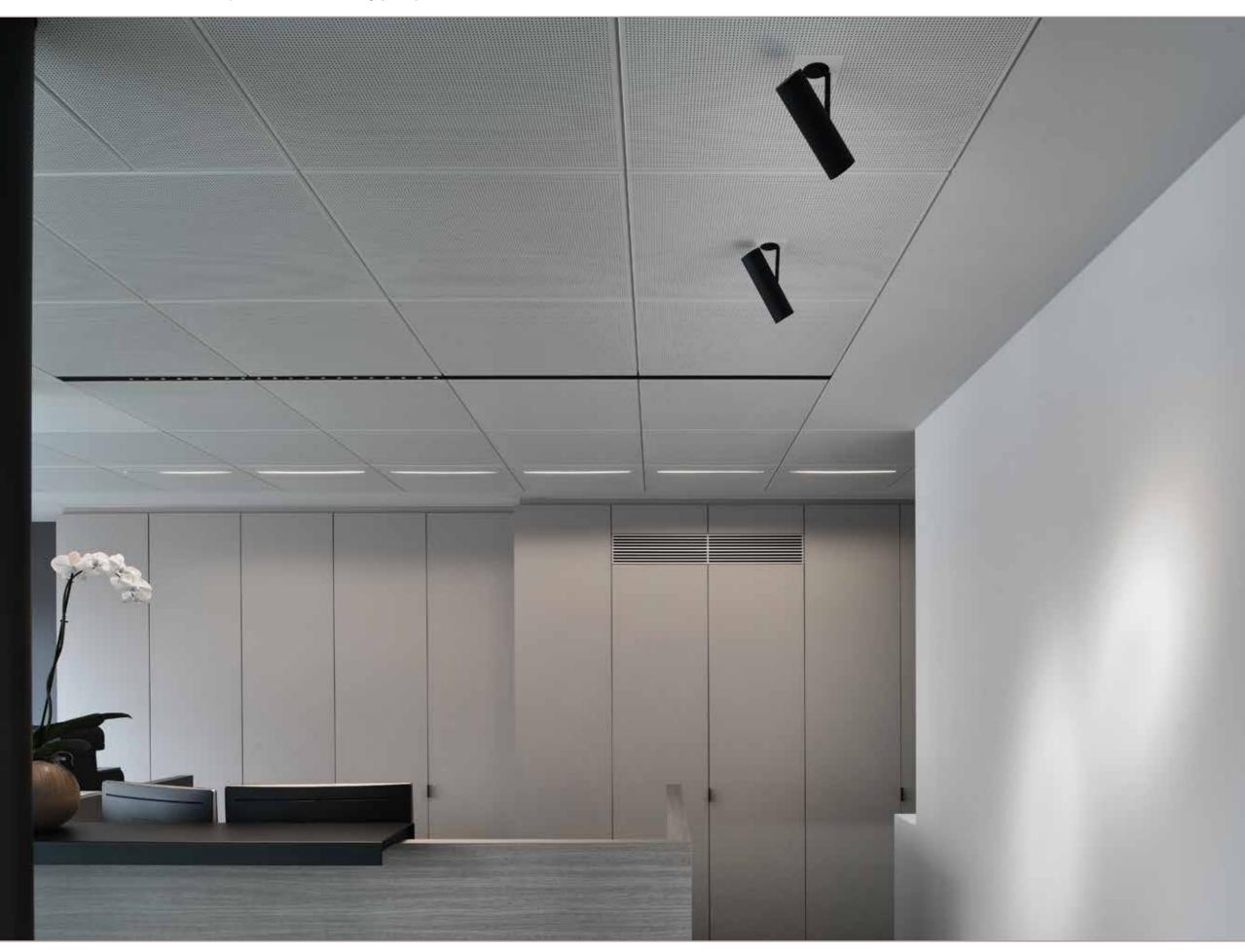


visible LxW luminaire	Lx17	Lx15	
wattage	25,7W/m	25,7W/m	
dimming	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	
IP	40	40	
class	1	1	
orientation	<b>V</b>	<b>→</b>	

Rei

Remark
\* Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)

Different types of LED modules available				
Lumen output 2588lm/W				
Colour temperature	2700K, 3000K			
CRI	CRI≥80			



Tenno

Project Orrick, Herrington & Sutcliffe LLP Location London, United Kingdom

Architect T P Bennet Architects Photographer Arne Jennard



Tenno 5x5



Tenno 2x5



### Tenno master

name	Tenno 5x5 master*	Tenno 3x5 master*	Tenno 2x5 master*	Tenno 1x5 master*	
lamp type	LED	LED	LED	LED	
2700K**	2100lm	1260lm	840lm	420lm	
3000K**	2245lm	1348lm	899lm	449lm	
4000K**	2245lm	1348lm	899lm	449lm	



visible LxW luminaire	235x235	240×142	240x92	240x41	
min. depth	80	80	80	80	
wattage	45W	27W	18W	9W	
dimming	ON/OFF	ON/OFF	ON/OFF	ON/OFF	
	DALI 1-10V	DALI 1-10V	DALI 1-10V	DALI 1-10V	
IP	20	20	20	20	
class	1	1	1	1	
orientation	₩	<b>V</b>	₩	<b>V</b>	

### Remark

### Tenno slave

name*	Tenno 2x5 slave**	Tenno 1x5 slave**	
lamp type	LED	LED	
2700K***	840lm	420lm	
3000K***	899lm	449lm	
4000K***	899lm	449lm	

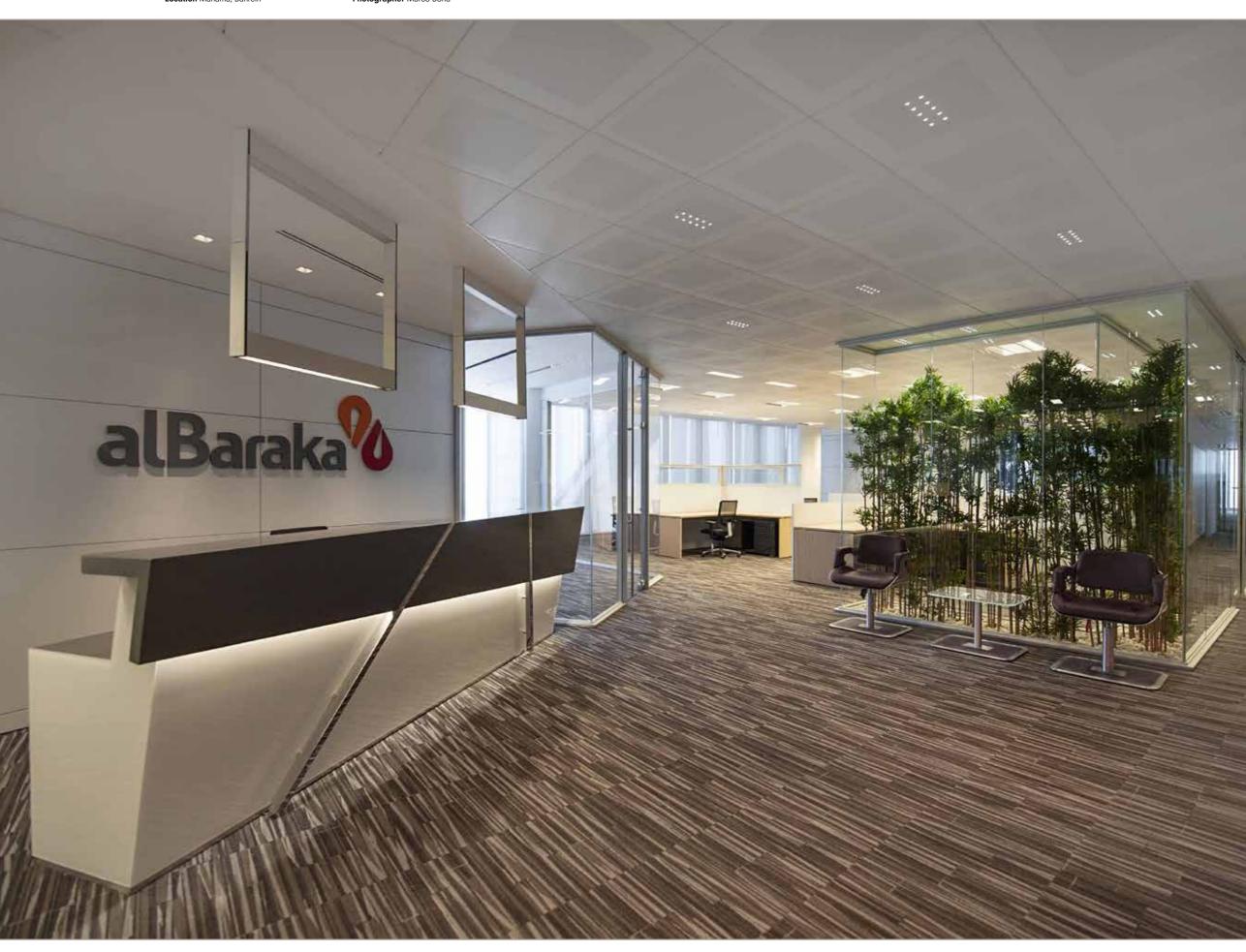


visible LxW Iuminaire	240x92	240x41	
min. depth	80	80	
wattage	18W	9W	
dimming	ON/OFF DALI 1-10V	ON/OFF DALI 1-10V	
IP	20	20	
class	1	1	
orientation	<b>V</b>	<b>V</b>	

### Remark

- \* Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)
- \*\*\* Always use in combination with Tenno master and connect with a patch cable.
  \*\*\* 5000K available on request

<sup>\*</sup> Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)
\*\* 5000K available on request



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# Between-tile: profiles

#### Integrated lighting in Kreon ceiling tiles

All of our tools of light profile systems can easily be integrated in our ceiling tiles. We offer 6 different profile systems:

### Cana

- Surface or recessed mounted profiles
- Made-to-measure
- Versatile system with the best LED techniques
- Integration of projectors

#### Johto + Lini

- Surface or recessed mounted profiles
- Homogeneous and dot free illumination
- Low installation depth

#### Nuit

- Surface or recessed mounted profiles
- Made-to-measure
- Advanced double focus LED with efficient lens optics
- Basic form

#### Prologe in-Line & Prologe in-Dolma

- Recessed mounted anodised aluminium profiles
- Made-to-measure
- Versatile system
- Fittings made of steel white or black powdercoated finishing

#### Rei

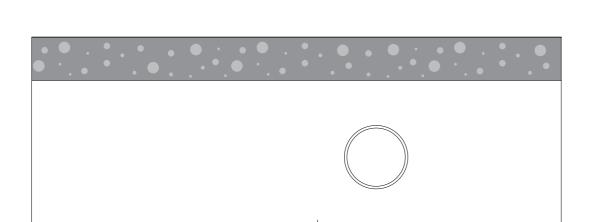
- Surface or recessed mounted profiles
- Made-to-measure
- Wallwasher or downlight
- Provides a smooth homogeneous glow of light

#### Track

- Surface or recessed mounted profiles
- Answers to areas that demand flexibility
- The light position can be changed easily



## Cana 40 profile



name	cana 40 profile*	
colours	white/black	



visible LxWxH	Lx54x80	
max.length	6000mm	
dimming	ON/OFF	
	1-10V	
	DALI	
nr. of circuits	1	
IP	40	
orientation	<b>↓</b> →	
	<u> </u>	

Remark
\* Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)



Holon 40 in-Cana single in black profile



Holon 40 directional in-Cana in black profile



name	holon 40 single in-cana mid	holon 40 twin in-cana mid	
lamptype	LED	LED	
colour	white/black	white/black	



tion/inclin.	360°/30°	360°/30°	
le Ø lumin.	45	2x45	

rotation/monn.	000 700	000 700	
visible Ø lumin.	45	2x45	
spacing	-	55	
min.mod.spacing	100	200	
wattage	2W	2×2W	
dimming	ON/OFF	ON/OFF	
	1-10V	1-10V	
	DALI	DALI	
IP	40	40	
class	3	3	
orientation	<b>↓</b> →	<b>↓</b> →	

required			
accessory	reflector	reflector	

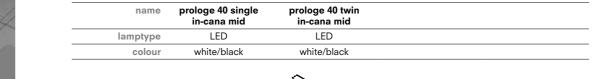
Different types of LED modules available		
Lumen output 200lm, 160lm		
Colour temperature	2700K	
CRI	CRI 80+, CRI90+	



rotation/incl.	355°/90°
visible Ø lumin.	Ø 45x205
min.mod.spacing	100
wattage	8,4W
dimming	ON/OFF
	1-10V
	DALI
IP	40
class	3
orientation	↓ →
required	
accessory	reflector
optional	
louvres and	hexagonal louvre
lenses	diffusing lens
	sculpture lens

Different types of LED modules available		
Lumen output 850lm, 650lm		
Colour temperature	2700K, 3000K	
CRI	CRI 80+, CRI90+	

# Prologe 40 in-Cana





	<b>⋄</b>	$\rightarrow$	
visible LxW lumin.	45×45	2x(45x45)	
rotation/inclin.	360°/30°	360°/30°	
spacing	-	55	
min.mod. spacing	100	200	
wattage	2W	2x2W	
dimming	ON/OFF	ON/OFF	
	1-10V	1-10V	
	DALI	DALI	
IP	40	40	
class	3	3	
orientation	<b>↓</b> →	$\downarrow \rightarrow$	
required			
accessory	reflector	reflector	

Different types of LED modules available		
Lumen output 200lm, 160lm		
Colour temperature	2700K	
CRI	CRI 80+, CRI90+	

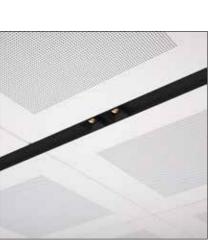


visible LxW lumin.	45x90	
rotation/inclin.	360°/30°	
min.mod. spacing	150	
wattage	2×2W	
dimming	ON/OFF	
	1-10V	
	DALI	
IP	40	
class	3	
orientation	$\downarrow \rightarrow$	
required		
accessory	reflector	

Different types of LED modules available			
Lumen output 2x200lm, 2x160lm			
Colour temperature	2700K		
CRI	CRI 80+, CRI90+		



Prologe 40 in-Cana single in black profile



Prologe 40 double in-Cana in black profile



# Ligna 40 in-Cana







name	ligna 40 in-cana custom*
lamptype	LED 1300lm
	2700K CRI85
colour	white/black

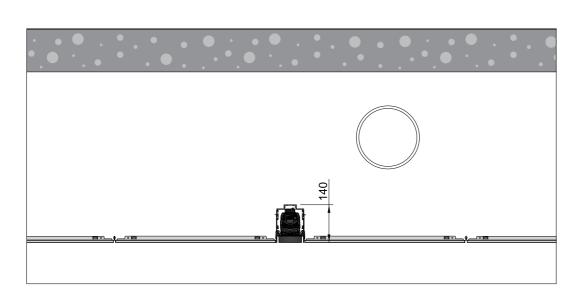


visible LxW	Lx50	
luminaire		
min. length	600mm	
steps	50mm	
wattage	13,6W/m	
dimming	ON/OFF	
	1-10V	
	DALI	
IP	40	
class	3	
orientation	<b>↓</b> →	

#### Remar

<sup>\*</sup> Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)

# Cana 80 profile



name	cana 80 profile*	
colour	white/black	



visible LxWxH	Lx102x140
max. length	6000mm
dimming	ON/OFF
	1-10V
	DALI
nr. of circuits	3
IP	40
class	1
orientation	<b>↓</b> →

Remark
\* Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)



Holon 80 in-Cana single in black profile





Holon 80 directional in-Cana in black profile

name	holon 80 single in-cana mid	holon 80 single in-cana end	holon 80 twin in-cana mid	holon 80 twin in-cana end
lamptype	LED	LED	LED	LED
colour	white/black	white/black	white/black	white/black
rotation/inclin.	360°/30°	360°/30°	360°/30°	360°/30°
visible Ø lumin.	85	85	2x85	2x85
wattage	10,9W	10,9W	2x 10,9W	2x 10,9W
dimming	ON/OFF	ON/OFF	ON/OFF	ON/OFF
	1-10V	1-10V	1-10V	1-10V
	DALI	DALI	DALI	DALI
IP	40	40	40	40
class	1	1	1	1
orientation	$\downarrow \rightarrow$	↓ →	↓ →	$\downarrow \rightarrow$
required				
accessory	reflector	reflector	reflector	reflector
optional				
louvres and	hexagonal louvre	hexagonal louvre	hexagonal louvre	hexagonal louvre
lenses	diffusing lens	diffusing lens	diffusing lens	diffusing lens

sculpture lens

holon 80 directional

in-cana mid SP

sculpture lens

holon 80 directional

in-cana end FL/WFL

hexagonal louvre

diffusing lens

sculpture lens

holon 80 directional

in-cana end SP

hexagonal louvre

diffusing lens

sculpture lens

Different types of LED modules available				
Lumen output 965lm, 700lm				
Colour temperature	2700K, 3000K, 4000K			
CRI	CRI 83, CRI98			

sculpture lens

holon 80 directional in-cana mid FL/WFL

lamptype	LED	LED	LED	LED
colour	white/black	white/black	white/black	white/black
rotation/inclin.	360°/90°	360°/90°	360°/90°	360°/90°
risible Ø lumin.	Ø85x205	Ø85x205	Ø85x205	Ø85x205
wattage	29,3W/26,4W	30,2W	29,3W/26,4W	30,2W
dimming	ON/OFF	ON/OFF	ON/OFF	ON/OFF
	1-10V	1-10V	1-10V	1-10V
	DALI	DALI	DALI	DALI
IP	40	40	40	40
class	1	1	1	1
orientation	$\downarrow \rightarrow$	<b>↓</b> →	<b>↓</b> →	$\downarrow \rightarrow$
required				
accessory	reflector	reflector	reflector	reflector
optional				

hexagonal louvre

diffusing lens

sculpture lens

Different types of LED modules available				
Lumen output	3000lm, 2000lm			
Colour temperature	2700K, 3000K, 4000K			
CRI	CRI 83, CRI98			

hexagonal louvre

diffusing lens

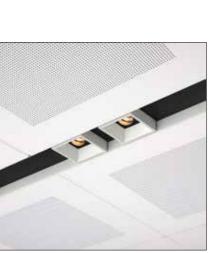
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louvres and

lenses



Prologe 80 in-Cana single in black profile



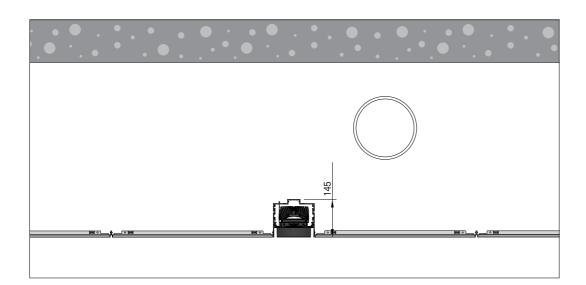
Prologe 80 twin in-Cana in black profile



name	prologe 80 single in-cana mid	prologe 80 single in-cana end	prologe 80 twin in-cana mid	prologe 80 twin in-cana end
lamptype	LED	LED	LED	LED
colour	white/black	white/black	white/black	white/black

		<b></b>		
	Ť	•	<b>→</b>	$\searrow$
rotation/inclin.	360°/30°	360°/30°	360°/30°	360°/30°
rotation/inclin.	300 /30		360 /30	360 / 30
visible LxW lum.	85x85	85x85	2x(85x85)	2x(85x85)
wattage	10,9W	10,9W	2x10,9W	2x10,9W
dimming	ON/OFF	ON/OFF	ON/OFF	ON/OFF
	1-10V	1-10V	1-10V	1-10V
	DALI	DALI	DALI	DALI
IP	40	40	40	40
class	1	1	1	1
orientation	<b>↓</b> →	<b>↓</b> →	<b>↓</b> →	↓ →
required				
accessory	reflector	reflector	reflector	reflector
optional				
louvres and	anti-glare louvre	anti-glare louvre	anti-glare louvre	anti-glare louvre
lenses	diffusing lens	diffusing lens	diffusing lens	diffusing lens
	sculpture lens	sculpture lens	sculpture lens	sculpture lens

Different types of LED modules available				
Lumen output 965lm, 700lm				
Colour temperature	2700K, 3000K, 4000K			
CRI CRI 83, CRI98				







risible LxWxH	Lx152x140
max. length	6000mm
dimming	ON/OFF
	1-10V
	DALI
nr. of circuits	3
IP	40
class	1
orientation	$\downarrow \rightarrow$

#### Remark

<sup>\*</sup> Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)



Holon 120 in-Cana single in black profile





name	holon 120 single in-cana mid FL/WFL	holon 120 single in-cana mid SP	holon 120 single in-cana end FL/WFL	holon 120 single in-cana end SP
lamptype	LED	LED	LED	LED
colour	white/black	white/black	white/black	white/black









lenses	diffusing lens softening lens	diffusing lens softening lens	diffusing lens softening lens	diffusing lens softening lens
louvres and	sculpture lens	sculpture lens	sculpture lens	sculpture lens
optional				
accessory	reflector	reflector	reflector	reflector
required				
orientation	$\downarrow \rightarrow$	↓ →	↓ →	$\downarrow \rightarrow$
class	1	1	1	1
IP	40	40	40	40
	DALI	DALI	DALI	DALI
	1-10V	1-10V	1-10V	1-10V
dimming	ON/OFF	ON/OFF	ON/OFF	ON/OFF
wattage	19,5W/17W	15,6W	19,5W/17W	15,6W
visible Ø lum.	125	125	125	125
rotation/incl.	360°/30°	360°/30°	360°/30°	360°/30°

name	holon 120 twin in-cana mid FL/WFL	holon 120 twin in-cana mid SP	holon 120 twin in-cana end FL/WFL	holon 120 twin in-cana end SP
lamptype	LED	LED	LED	LED
colour	white/black	white/black	white/black	white/black









rotation/inclin.	360°/30°	360°/30°	360°/30°	360°/30°
visible LxW lum.	2x125	2x125	2x125	2x125
wattage	2x 19,5W/17W	2x 15,6W	2x 19,5W/17W	2x 15,6W
dimming	ON/OFF	ON/OFF	ON/OFF	ON/OFF
	1-10V	1-10V	1-10V	1-10V
	DALI	DALI	DALI	DALI
IP	40	40	40	40
class	1	1	1	1
orientation	$\downarrow \rightarrow$	<b>↓</b> →	<b>↓</b> →	↓ →
required				
accessory	reflector	reflector	reflector	reflector
optional				
louvres and	sculpture lens	sculpture lens	sculpture lens	sculpture lens
lenses	diffusing lens softening lens	diffusing lens softening lens	diffusing lens softening lens	diffusing lens softening lens

Different types of LED modules available				
<b>Lumen output</b> 2000lm, 1400lm				
Colour temperature	2700K, 3000K, 4000K			
CRI	CRI 83, CRI98			



Prologe 120 in-Cana single in black profile



Prologe 120 in-Cana twin in black profile



name	prologe 120 single in-cana mid FL/WFL	prologe 120 single in-cana mid SP	prologe 120 single in-cana end FL/WFL	prologe 120 single in-cana end SP
lamptype	LED	LED	LED	LED
colour	white/black	white/black	white/black	white/black

			<b>\$</b> \		
	~	***		$\smile$	
rotation/inclin.	360°/30°	360°/30°	360°/30°	360°/30°	
visible LxW lum.	125x125	125×125	125×125	125x125	
wattage	19,5W/17W	15,6W	19,5W/17W	15,6W	
dimming	ON/OFF	ON/OFF	ON/OFF	ON/OFF	
	1-10V	1-10V	1-10V	1-10V	
	DALI	DALI	DALI	DALI	
IP	40	40	40	40	
class	1	1	1	1	
orientation	$\downarrow \rightarrow$	<b>↓</b> →	<b>↓</b> →	↓ →	
required					
accessory	reflector	reflector	reflector	reflector	
optional					
louvres and	sculpture lens	sculpture lens	sculpture lens	sculpture lens	
lenses	diffusing lens softening lens	diffusing lens softening lens	diffusing lens softening lens	diffusing lens softening lens	

name	prologe 120 twin in-cana mid FL/WFL	prologe 120 twin in-cana mid SP	prologe 120 twin in-cana end FL/WFL	prologe 120 twin in-cana end SP
lamptype	LED	LED	LED	LED
colour	white/black	white/black	white/black	white/black





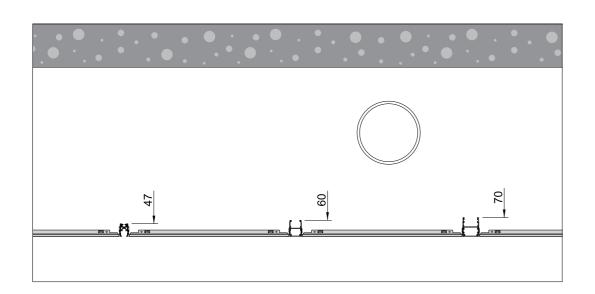




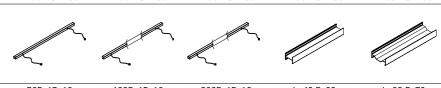
rotation/inclin.	360°/30°	360°/30°	360°/30°	360°/30°
visible LxW lum.	2x(125x125)	2x(125x125)	2x(125x125)	2x(125x125)
wattage	2x 19,5W/2x17W	2x 15,6W	2x 19,5W/2x17W	2x 15,6W
dimming	ON/OFF	ON/OFF	ON/OFF	ON/OFF
	1-10V	1-10V	1-10V	1-10V
	DALI	DALI	DALI	DALI
IP	40	40	40	40
class	1	1	1	1
orientation	$\downarrow \rightarrow$	<b>↓</b> →	↓ →	<b>↓</b> →
required				
accessory	reflector	reflector	reflector	reflector
optional				
louvres and	sculpture lens	sculpture lens	sculpture lens	sculpture lens
lenses	diffusing lens softening lens	diffusing lens softening lens	diffusing lens softening lens	diffusing lens softening lens

Different types of LED modules available			
Lumen output	2000lm, 1400lm		
Colour temperature	2700K, 3000K, 4000K		
CRI	CRI 83, CRI98		

Johto & Lini Johto & Lini



name	johto linear	johto linear	johto linear	lini	lini
	m+f connect*	m+f connect*	m+f connect*	medium*	large*
lamptype	LED 500lm/m	LED 500lm/m	LED 500lm/m	LED 2200lm/m	LED 3500lm/m
	2700K CRI 85				

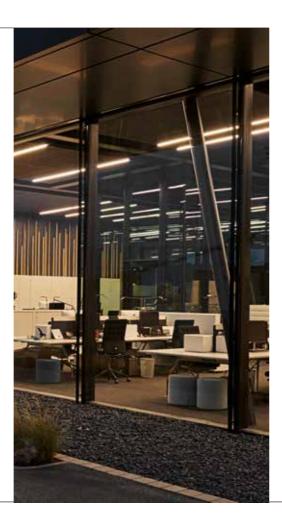


visible	505x15x16	1005x15x16	2005x15x16	Lx42,5x60	Lx82,5x70
dimensions					
wattage	10W/m	10W/m	10W/m	27W/m	43,2W/m
dimming	DALI	DALI	DALI	DALI	DALI
	DMX	DMX	DMX	DMX	DMX
	0-10V	0-10V	0-10V	0-10V	0-10V
IP	67	67	67	44	44
class	3	3	3	1	1
orientation	<b>↓</b> →				

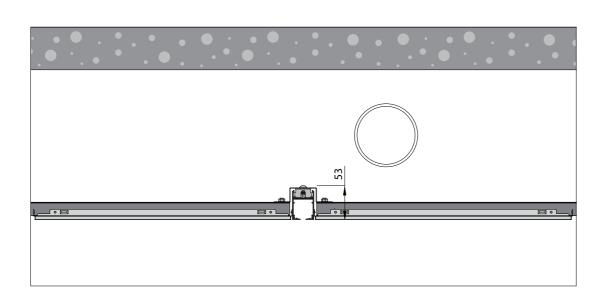
#### Remark







<sup>\*</sup> Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)



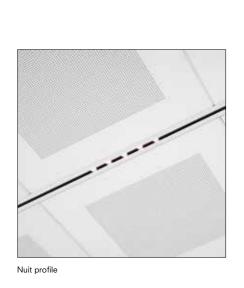
nam	e nuit profile*	nuit profile corner cut 90°*	
colou	r white/black	white/black	





visible LxWxH	Lx40x53		
max. length	6000mm		
IP	20	20	
class	1	1	
orientation	$\downarrow \rightarrow$	$\downarrow \rightarrow$	

Remark
\* Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)

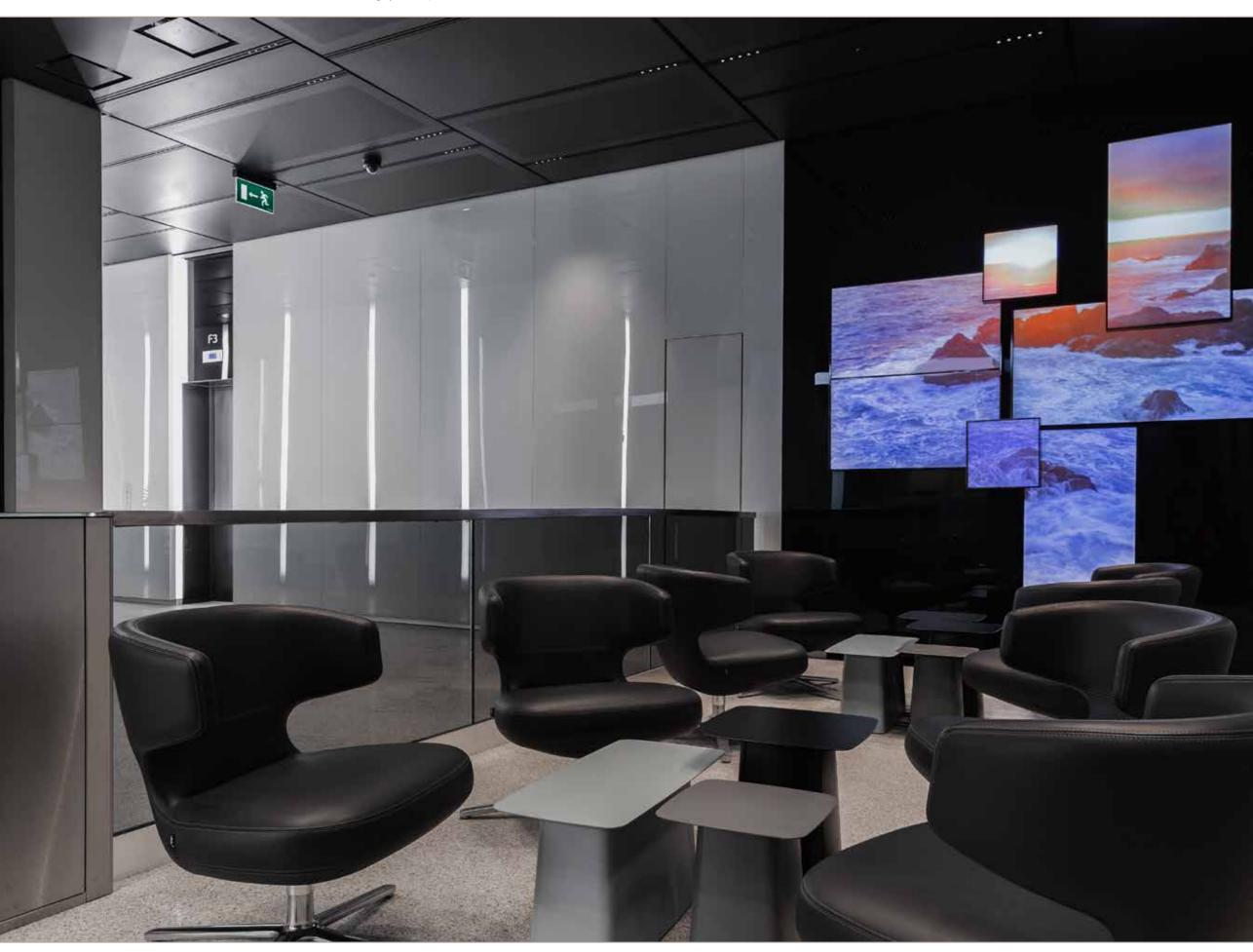




name	nuit profile 1x5 LED module*	nuit profile 1x10 LED module*	nuit profile emergency*	
lamptype	LED	LED	LED	

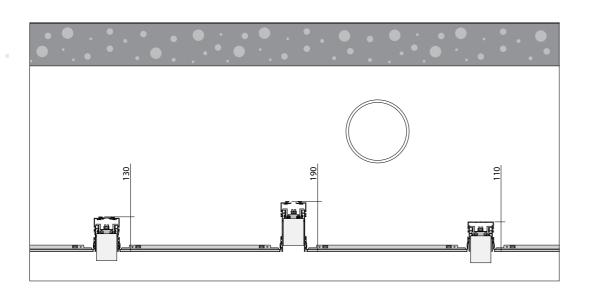
length module	440	690	760
wattage	7W	14W	7W
dimming	ON/OFF	ON/OFF	ON/OFF
	1-10V	1-10V	1-10V
	DALI	DALI	DALI
IP	20	20	20
class	1	1	1
orientation	$\downarrow \rightarrow$	$\downarrow \rightarrow$	$\downarrow \rightarrow$

Different types of L	ED modules available
Lumen output	7W 2700K: 590lm / 70lm (EM) 3000K: 630lm / 75lm (EM) 4000K: 855lm / 102lm (EM)
	14W 2700K: 1180lm 3000K: 1260lm 4000K: 1710lm
Colour temperature	2700K, 3000K, 4000K
CRI	CRI 90



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# Prologe 80 in-Line & in-Dolma



name	prologe 80*	prologe 80*	prologe 80*	prologe 80*	prologe 80*
	in-line	in-dolma	ligna profile	in-line	in-dolma
	profile aluminium	profile aluminium	aluminium	corner cut 90°	corner cut 90°
colour	white/black	white/black	white/black	white/black	white/black











visible LxWxH	Lx80x190	Lx80x130	Lx80x110		
max. length	6000mm	6000mm	6000mm		
IP	40	40	40	40	40
class	1	1	1	1	1
orientation	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>

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Remark
\* Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)

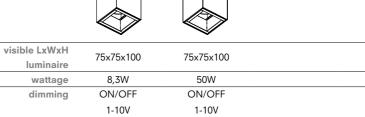
# Prologe 80 in-Line & in-Dolma



Prologe 80 in-Dolma single



name	prologe 80 in-line/in-dolma single	prologe 80 in-line/in-dolma single
lamptype	LED 720lm 2700K	LED PAR16
colour	white/black	white/black



DALI

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	in-line/in-dolma double	in-line/in-dolma double	in-line/in-dolma dimmable	in-line/in-dolma dimmable
lamptype	LED PAR16	LED 2x720lm 2700K	LED	LED
colour	white/black	white/black	white/black	white/black



DALI

20

class orientation







visible LxWxH luminaire	150x75x100	150×75×100	900x75x100	1200x75x100	
wattage	2x50W	2x8,3W	21W/39W	28W/54W	
dimming	ON/OFF	ON/OFF	ON/OFF	ON/OFF	
	1-10V	1-10V	1-10V	1-10V	
	DALI	DALI	DALI	DALI	
IP	20	20	20	20	
class	1	1	1	1	
orientation	₩	↓	<b>V</b>	<b>V</b>	



Prologe 80 in-Dolma double

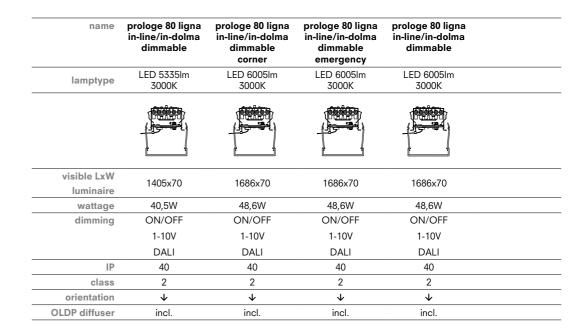
## Prologe 80 Ligna in-Line & in-Dolma



Prologe Ligna in-Dolma natural anodised



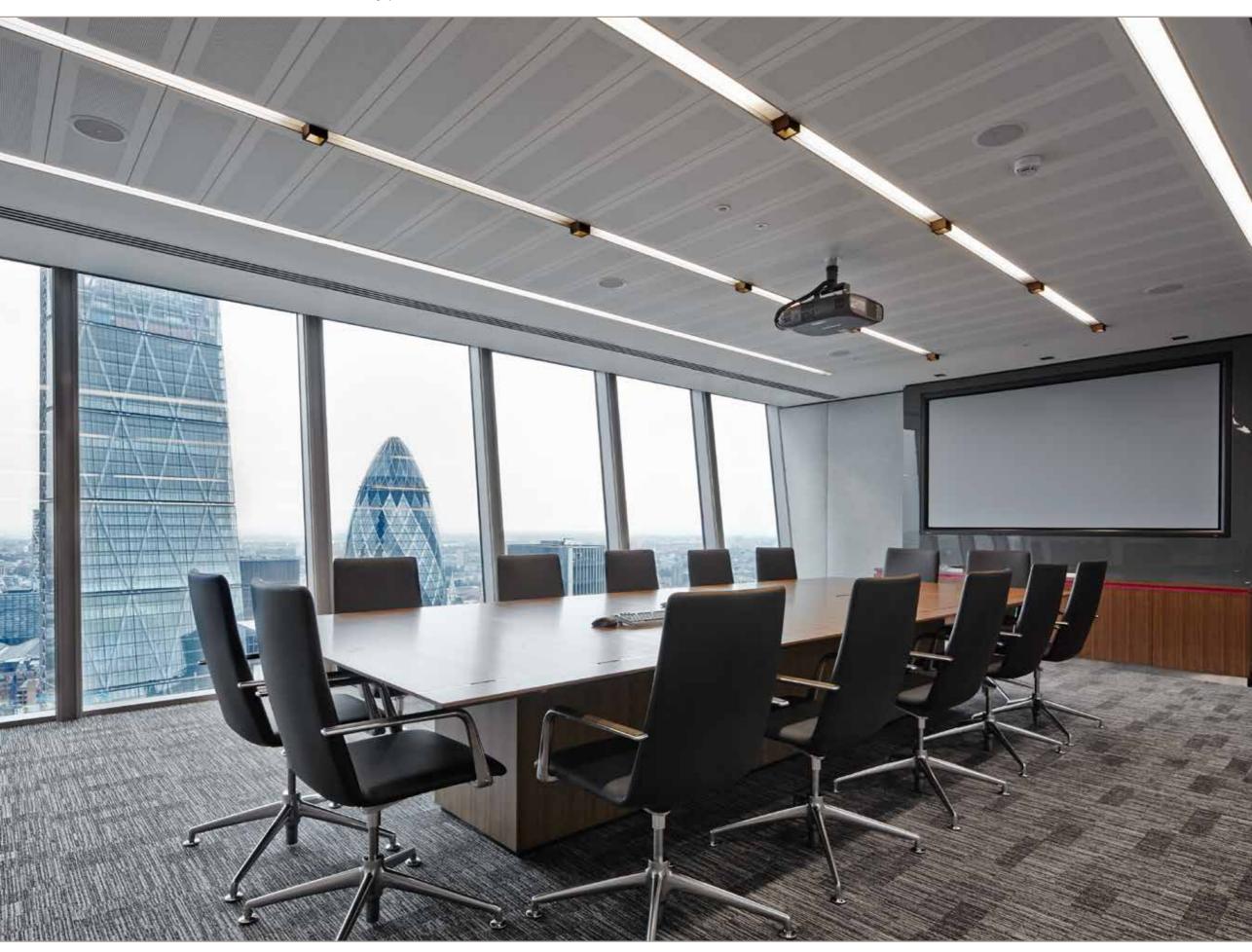
name	prologe 80 ligna in-line/in-dolma dimmable*	prologe 80 ligna in-line/in-dolma dimmable*	prologe 80 ligna in-line/in-dolma dimmable corner*	prologe 80 ligna in-line/in-dolma dimmable*	
lamptype	LED 2135lm 3000K	LED 3200lm 3000K	LED 4270lm 3000K	LED 4270lm 3000K	
visible LxW luminaire	562×70	843x70	1124x70	1124x70	
wattage	16,2W	24,3W	32,4W	32,4W	
dimming	ON/OFF	ON/OFF	ON/OFF	ON/OFF	
	1-10V	1-10V	1-10V	1-10V	
	DALI	DALI	DALI	DALI	
IP	40	40	40	40	
class	2	2	2	2	
orientation	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	
LDP diffuser	incl.	incl.	incl.	incl.	





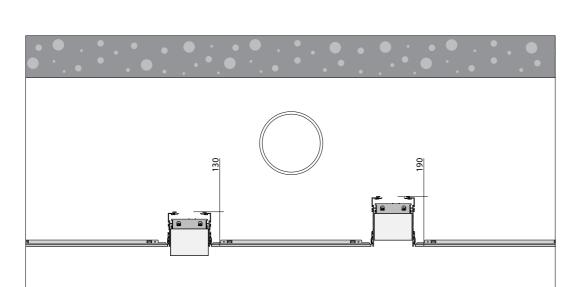
Prologe Ligna in-Line black anodised

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# Prologe 145 in-Line & in-Dolma







visible LxWxH	Lx145x190	Lx145x130	
max. length	6000	6000	
IP	40	40	
class	1	1	
orientation	<b>V</b>	<b>V</b>	

Remark
\* Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)



Prologe 145 in-Dolma single

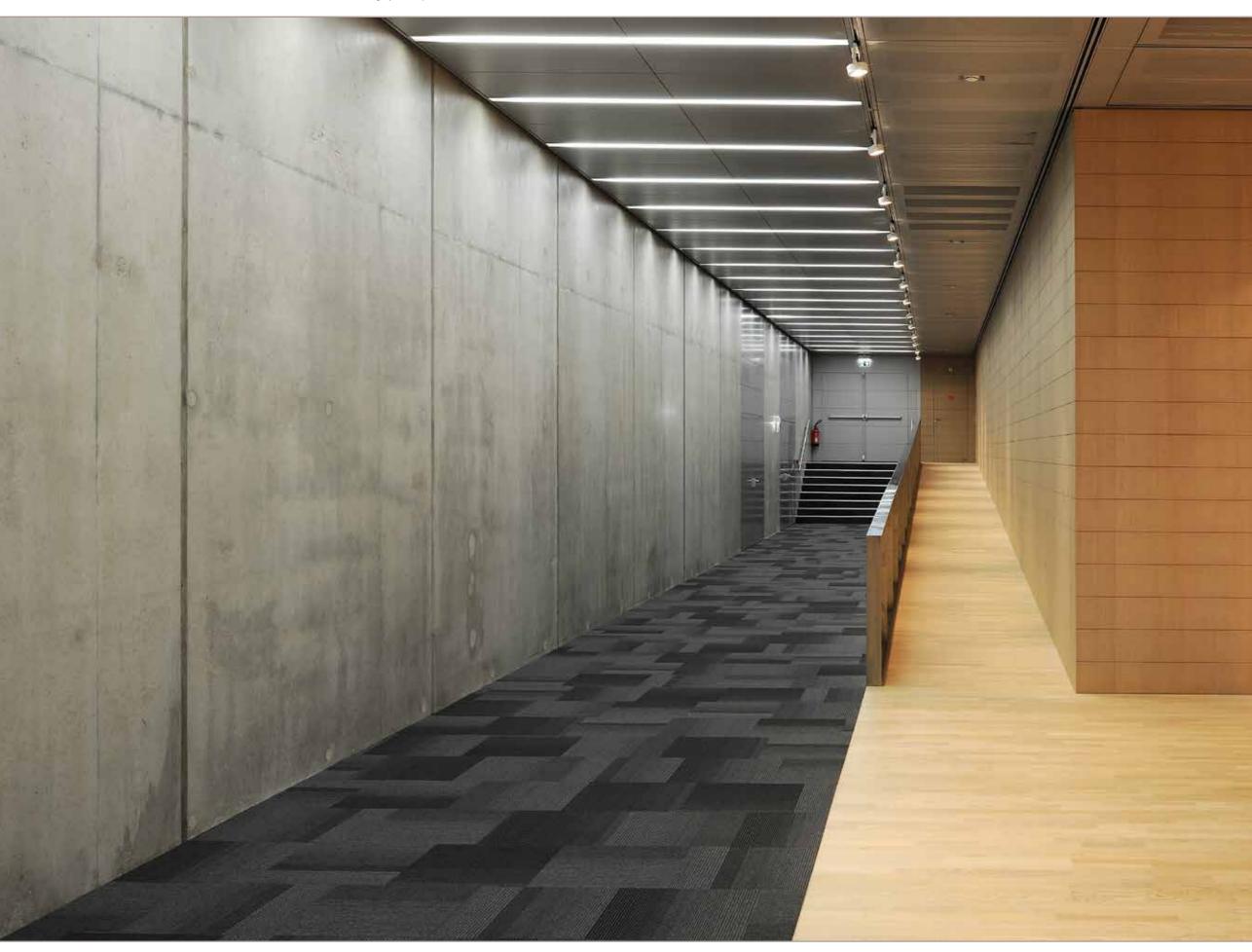


name	prologe 145 in-line/in-dolma single directional	prologe 145 in-line/in-dolma double directional
lamp type	LED AR111	LED AR111
colour	white/black	white/black





rotation/ inclination	360°/2×25°	360°/2×25°
visible LxWxH luminaire	140x140x100	280x140x100
wattage	75W	2×75W
IP	20	20
class	1	1
orientation	Ψ.	Ψ.





Rei wallwasher profile







isible LxWxH	Lx58x70	Lx58x70	
luminaire			
min. length	1036	1036	
max. length	3824	3824	
wattage	25,7W/m	25,7W/m	
dimming	ON/OFF	ON/OFF	
	1-10V	1-10V	
	DALI	DALI	
IP	40	40	
class	1	1	
orientation	<b>V</b>	₩	

Remark
\* Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)

Different types of L	ED modules available
Lumen output	2588lm
Colour temperature	2700K, 3000K
CRI	CRI≥80

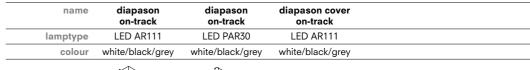
Project Beal Location Namur, Belgium Architect Buro 5 Photographer Serge Brison

## 3-circuit track

name	3-circuit track	3-circuit track	end cap	
	2000mm	3000mm		
colour	white/black/alu	white/black/alu	white/black/alu	
visible LxWxH	2000x36x32	3000x36x32	18x36x32	
wattage	3x3600W	3x3600W		
IP	40	40		
class	1	1		

	end feed earth left	end feed earth right	mid feed	straight connector no feed
colour	white/black/alu	white/black/alu	white/black/alu	white/black/alu
	68×36×32	68×36×32	130×36×8	58v15v0

# Diapason on-Track



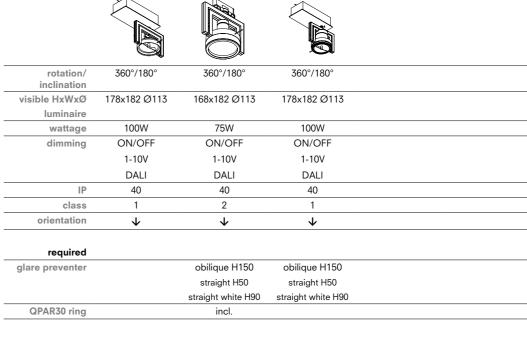






rotation/ inclination	360°/180°	360°/180°	360°/180°
visible HxWxØ	178x182 Ø113	168x182 Ø113	178x182 Ø113
luminaire			
wattage	100W	75W	100W
dimming	ON/OFF	ON/OFF	ON/OFF
	1-10V	1-10V	1-10V
	DALI	DALI	DALI
IP	40	40	40
class	1	2	1
orientation	<b>V</b>	<b>V</b>	<b>+</b>

required		
glare preventer	obilique H150	obilique H150
	straight H50	straight H50
	straight white H90	straight white H90
QPAR30 ring	incl.	



name	small diapason	small diapason	small diapason
	on-track	on-track	on-track
lamptype	LED 720lm	LED MR16	LED PAR16
	2700K, CRI≥80	QR-CBC51	QPAR16
colour	white/black/grey	white/black/grey	white/black/grey







rotation/ inclination	360°/180°	360°/180°	360°/180°	
visible HxWxØ	193x182 Ø72	158x140 Ø72	224x140 Ø72	
wattage	8,4W	50W	50W	
dimming	ON/OFF	ON/OFF	ON/OFF	
	1-10V	1-10V	1-10V	
	DALI	DALI	DALI	
IP	40	40	40	
class	1	1	1	
orientation	<b>\</b>	<b>↓</b>	4	

required				
glare preventer		oblique H100		
		straight H60		
oblique H35	incl.			
obliq. H100			incl.	

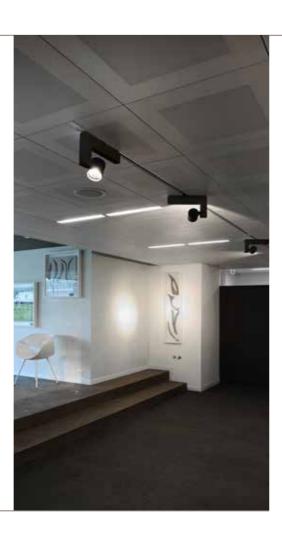


Diapason Cover on-Track white on 3-circuit track with oblique glare preventer

## Erubo on-Track



Erubo on-Track black



name	erubo on-track
lamptype	LED
rotation/	2x180°/90°
inclination	
visible HxW Ø	150x300 Ø80
luminaire	
wattage	7W-23,8W
dimming	ON/OFF
	1-10V
	DALI
IP	40
class	1
orientation	<b>V</b>
required	
accessory	reflector
optional	
louvres & lenses	anti glare louvre
	sculpture lens
	diffusing lens

Different types of LED modules available				
CRI 83: 7W: 1300lm 19,5W - 23,8W: 2000lm				
	CRI98: 15,6W - 19,6W: 1300lm			
Colour temperature	2700K, 3000K, 3500K, 4000K			
CRI	CRI 90			

# Signs

### Informing with light

Kreon offers pre-assembled tiles with integrated signage. All units have a standard autonomy of 1 or 3 hours.



Signs is in accordance with NEN 6088, NEN-EN 1838, NEN-EN-IEC 60598-2-22 and NEN-EN 50171



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Signs

name signs\* lamptype LED



LxWxH	231x133x7,5	
min. depth	60	
max. wattage	2,5W	
autonomy	1/3/8h	
IP	42	
class	2	
orientation	<b>V</b>	
viewing	20m	
distance		
autonomy	1/3/8h	

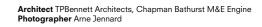
<sup>\*</sup> Plug and play incl.: driver, LED, connector GST 18i3 & BST 14i2 (DIM)













# Audio

With Kreon audio systems you can create an optimal audio experience without compromising the visual aesthetics of a room. Kreon high tech speakers fit invisibly and easily in most of the Kreon lighting solutions and on all our ceiling systems.



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# On-tile Audio

Kreon high tech speakers can invisibly be integrated on all Kreon ceiling tiles.

Our sales team and consultancy department will provide you with more information about Kreon audio systems. They have the perfect expertise to guide you in the drawing up of your sound plan. **(consultancy@kreon.com)** 

The configuration is easy and always the same.

#### 1: Choose your speakers



Equip your Kreon wall or ceiling tile with an invisible speaker. The Kreon speakers are miniaturized high quality audio components based on proprietary digital amplification and sound treatment technology by Vismes. This allows to propose very shallow designs, able to fit in only 80mm plenums, while offering a perfect high-fidelity quality. Hung from threaded shafts on top of your ceiling, they are easy to install, while offering a mechanically independent solution from ceiling structure.

#### 2: Add the amplifier



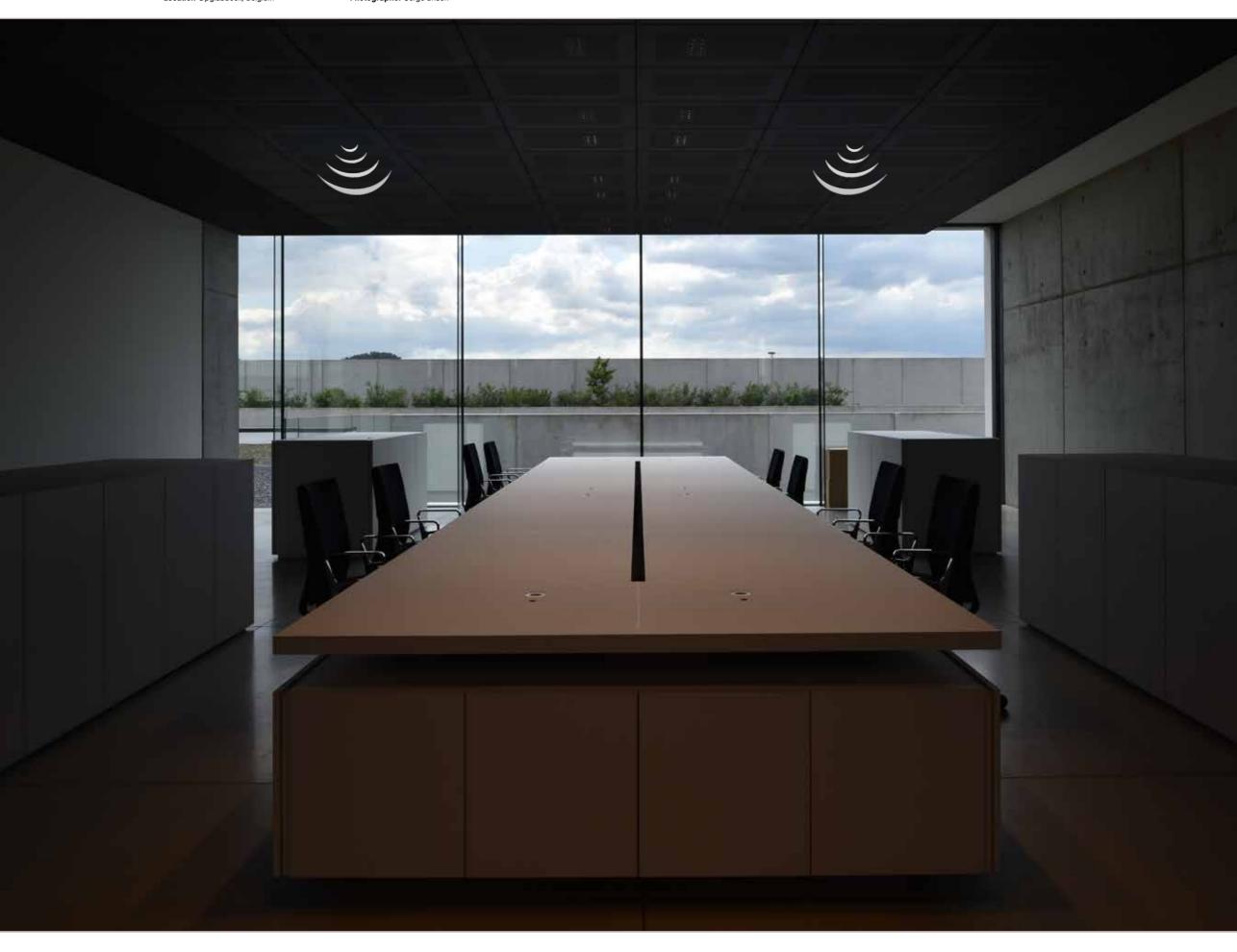
Whatever perforated tile you choose, the amplifier's built-in digital signal processor (dsp) is able to perfectly compensate the frequency response of the speaker. Each type of perforation has been carefully measured in laboratory and stored into friendly-to-use 'presets' interface. Amplifiers are fitted with all kinds of digital and analog inputs, so that any audio source is compatible, from a simple smartphone or a tv set to a sophisticated automation system. Our sales team can provide almost exhaustive case studies to guide you throughout system build-up.

#### 3: Install a subwoofer, when more clarity and power is needed



When more power is needed or for big areas, a subwoofer may be required. The flat Kreon subwoofers are made of 3mm steel sheets, to achieve an overall depth of only 120mm. Suspended from threaded shafts on top of your ceiling, they insure safe and vibration-free installation





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# Project Management

### Peace of mind, from inception through installation

Our project management process is designed to move you swiftly and faultlessly through concept, planning and execution. At every stage of your project, we can be the single point of contact for all parties involved. You can count on our full support during planning, drawing, installation, and integration of techniques.

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At every stage of your project, Kreon can be the single point of contact for all parties involved.

		Planning & Execution
		Architect
		Fitant Cantus day
kreon	1	Fitout Contractor
		Electrical, MEP Contractor
		HVAC Contractor
		- kreon

## Your Kreon ceiling will be:

- Arranged to perfectly fit the individual character and function of your rooms
- Constructed to provide and conceal light, audio, HVAC, and all other services
- Easily accessible for maintenance
- Flexible and future-proof



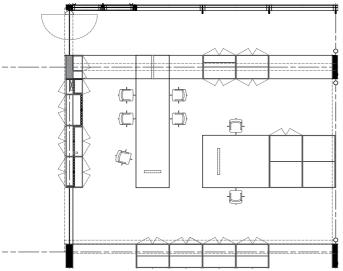
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### Carefully planned and monitored

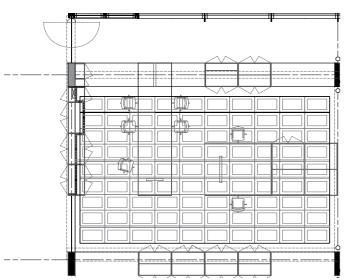
Kreon has the experience and the tools to plan your ceiling project in the most meticulous way. Since every detail of your project is in our scope, we can and will continuously monitor your wishes and your budget.

#### Grid plans:

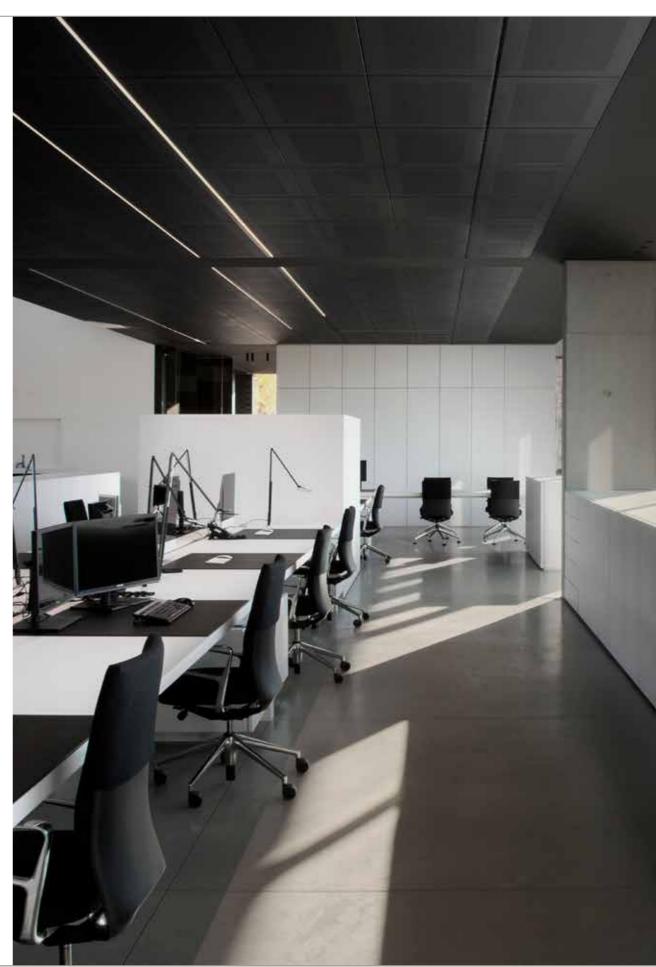
Kreon creates grid plans for every room that you need to equip with a ceiling and techniques. All technical services are included in the plan.



floor plan

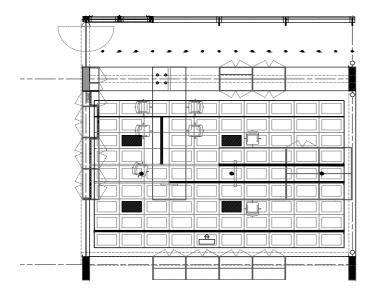


grid plan



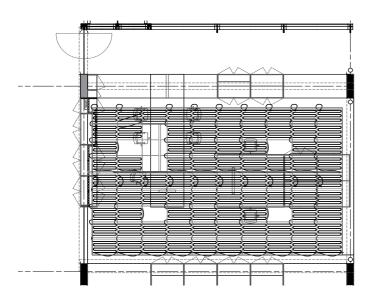
#### Lighting plans

Kreon can calculate your lighting requirements and visualize your lighting plan according to EN 12464/LG7 standards and optimized energy consumption.



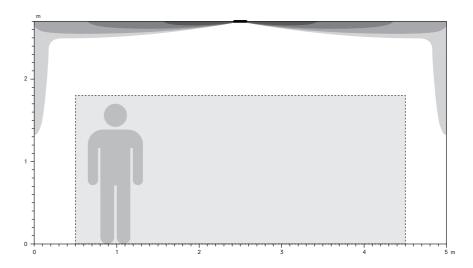
#### Climate ceiling plans

We create an optimal air comfort shown by means of a detailed plan.



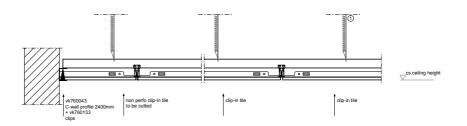
#### Ventilation plans and air patterns

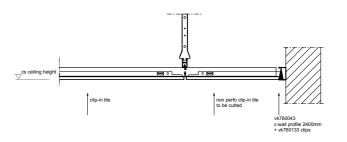
We visualize the air velocities and patterns.

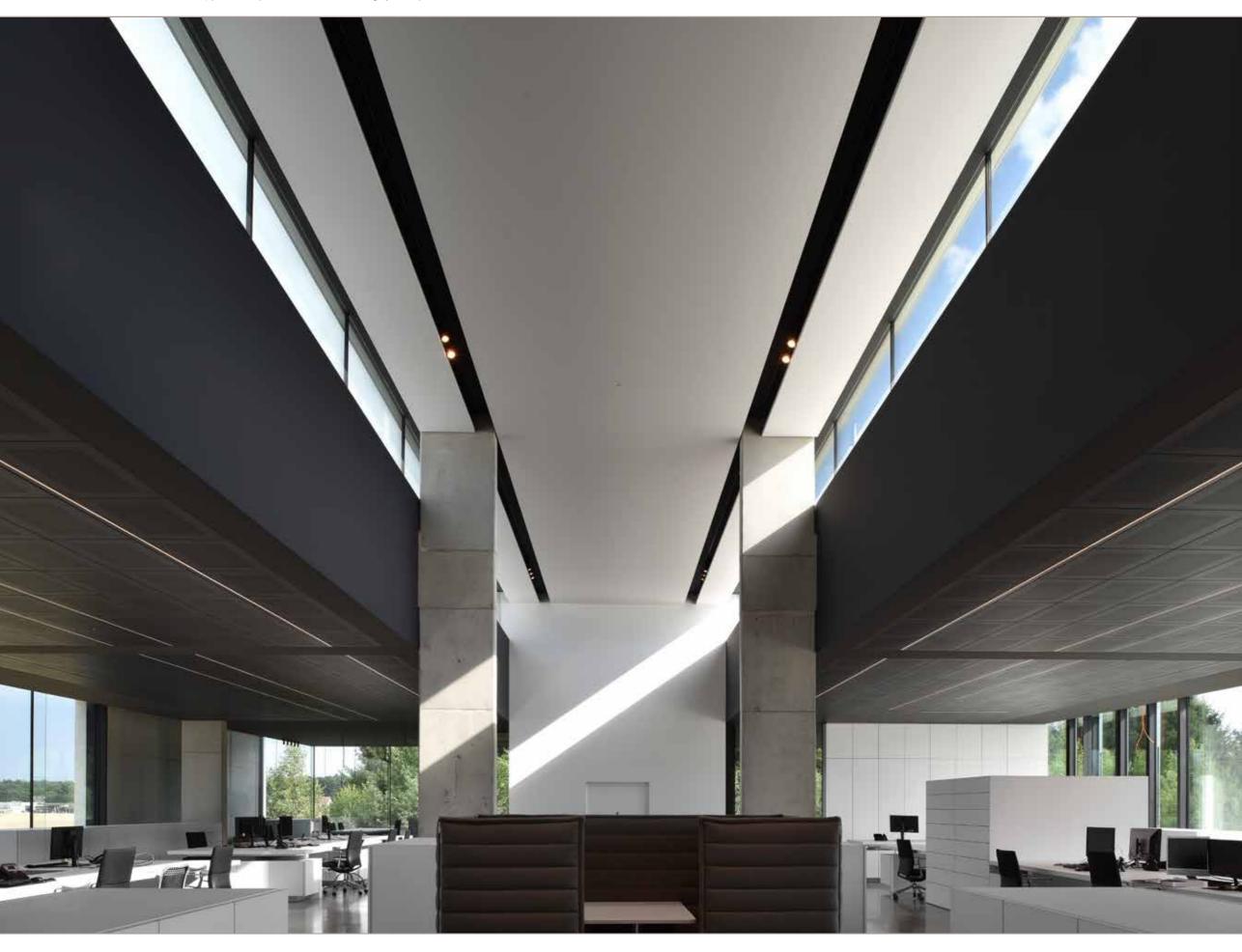


#### Shop drawings

Kreon uses construction documents to create shop drawings. A shop drawing is a visual explanation showing every specific aspect of an integrated ceiling that members of the installation crew need.





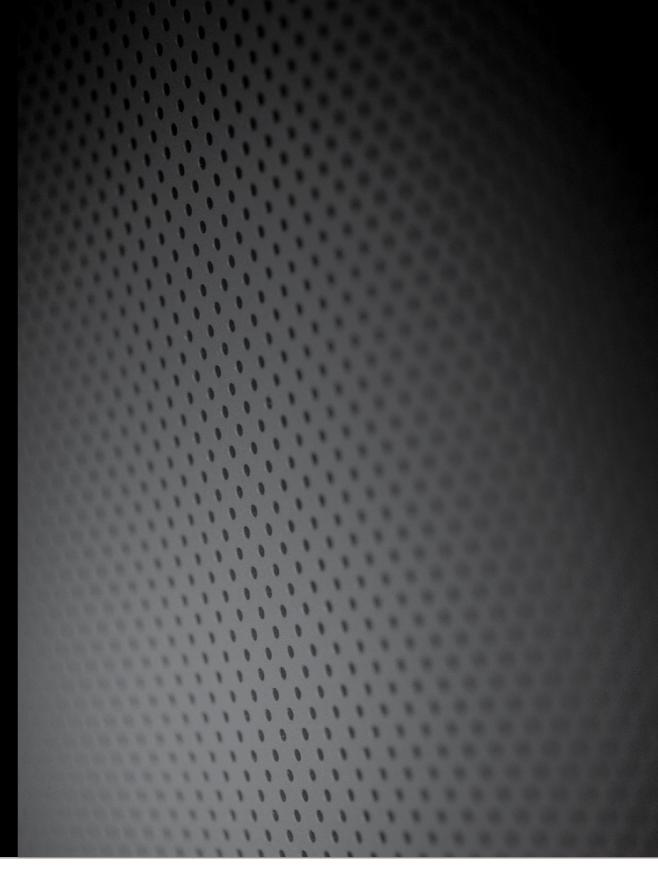


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# Green Building solutions

A timeless design goes hand in hand with a long term approach on our product developments. The choice for durable and recyclable materials, radiant ceiling and LED technology in lighting gives Kreon a step ahead in green building projects.





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**BREEAM** (British Research Establishment Environmental Assessment Method) is a certification system for comparing sustainable buildings that exceed national standards. As a quality label, BREEAM sets the standard for best practice in sustainable building design, construction and operation and encourages the market to focus on the environmental impact of products in buildings. Since it was first launched in 1990, BREEAM has become one of the most comprehensive and widely recognised measures of a building's environmental performance

A BREEAM assessment uses recognised measures of performance, which are set against established benchmarks, to evaluate a building's specification, design, construction and use. The measures used represent a broad range of categories and issues related to energy and water use, the internal environment (health and well-being), pollution, transport, materials, waste, land use and ecology, management and innovation, on which the building is evaluated.

Credits are awarded across the ten categories based on the outcomes of the building assessed. The credits are then combined to provide a single score, achieving either a Pass ( $\geq$  30), Good ( $\geq$ 45), Very Good ( $\geq$ 55), Excellent ( $\geq$ 70) or Outstanding ( $\geq$  85) overall BREEAM rating.

Ventilation Clima Energy max. ENE1 Energy efficiency 15 1 1 1 ENE3 External lighting 1 n/a n/a n/a Health and well-being max. HEA1 Visual comfort 4 n/a n/a n/a HEA2 Indoor air quality 2 3 2 HEA3 Thermal comfort 2 2 2 2 HEA5 2 2 2 2 Acoustic performance Materials max. MAT1 Life cycle impacts 6 1 1 1 MAT3 Responsible sourcing of 3 1 materials Pollution max. POL<sub>4</sub> Reduction of night time light 1 n/a n/a n/a pollution POL<sub>5</sub> Noise attenuation 1 1 1 1 Waste max. WST4 Speculative floor and ceiling 1 1 1 finishes

The **LEED** (Leadership in Energy and Environmental Design) Green Building Rating System is a voluntary, evolving, consensus-based international standard for developing high-performance, sustainable buildings, using a comprehensive, point-based system.

This LEED certification is initiated by USGBC (US Green Building Council) and is internationally recognized. The certification confirms that a building is designed and built to achieve a performance that surpasses national standards for energy savings, water efficiency,  ${\rm CO_2}$  emissions reduction, indoor environmental quality, stewardship of resources and sensitivity to their impacts.

These topics are specified in seven main categories, with multiple points, on which the building is evaluated. LEED points are awarded per credit on a 100-point scale (+10 bonus points), resulting in four levels of performance: Certified (40-49), Silver (50-59), Gold (60-79) and Platinum (80+).

			Ceilings	Ventilation	Clima
Energy and	atmosphere	max.			
EAprereq2	Minimum energy performance	required			
EAc1	Optimize energy performance	19	2	2	2
Sustainable	sites				
SSc8	Light pollution reduction	1	n/a	n/a	n/a
Indoor envir	onmental quality				
IEQprereq1	Minimum indoor air quality	required			
IEQc2	Increased ventilation	1	0	1	0
IEQc6.1	Controllability of systems	1	n/a	n/a	n/a
IEQc7.1	Thermal comfort (design)	1	1	1	1
IEQc7.2	Thermal comfort (verification)	1	1	1	1
Materials ar	nd resources				
MRc4	Recycled content	2	2	2	2
MRc5	Regional materials	2	2	2	2
Regional pri	ority				
RPc1	Regional priority	4	1	1	0

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The maximum power specified must under no circumstances be exceeded.

#### Dimensions

Unless otherwise indicated, all dimensions are specified in millimetres.

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Each product is labelled, specifying the equipment number of the article, its serial number, the type of lamp needed and its maximum power.

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visit kreon.com

#### Liability

Kreon products are manufactured in compliance with CE regulations and current standards in force and are delivered with assembly instructions. Each and every modification applied to the product after purchase and/or failure to comply with the assembly instructions may result in the loss of characteristics and in a dangerous situation for its user. Kreon disclaims all liability for products subjected to any modification whatever or for which the assembly instructions are not complied with. Kreon cannot be held liable for any technical errors in this catalogue.

#### IP classification

	Degree of Protection against penetration of solids
IP 0X	No-Protection
IP 1X	Protection against solid objects greater than 50mm Ø
IP 2X	Protection against solid objects greater than 12mm Ø
IP 3X	Protection against solid objects greater than 2.5mm $\varnothing$
IP 4X	Protection against solid objects greater than 1mm Ø
IP 5X	Protection against limited ingress of dust without interference in operation
IP 6X	Protection against any ingress of dust
	Degree of Protection against penetration of liquids
IP X0	No-Protection
IP X1	Protection against vertically dripping water

IP X4	Protection against spraying water from any direction
IP X5	Protection against jets of water from any direction
IP X6	Protection from powerful jets of water with limited ingress with no harmful effect
IP X7	Protection against total immersion in water for limited periods

IP X2 Protection against vertically dripping water up to 15° from vertical IP X3 Protection against spraying water up to 30° from vertical axis

P X8 Protection against total immersion in water under pressure for an indefinite period Max. depth shown in metres IPX8 ...m

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# Belux

Belux is committed to providing optimal solutions for complex lighting requirements both in the contract sector and in private residential environments. For this purpose, Belux develops, produces and markets innovative lighting instruments that are distinguished by modern, energy-efficient lighting technology, functional design, high-quality materials and meticulous fabrica-tion. Belux regards lighting as a key element of interior design, which must therefore fulfil the highest functional and aesthetic demands.

#### PRODUCT CULTURE

Lighting instruments by Belux stand for long-lasting quality, guaranteed by a superior product culture on every level. Belux lighting fixtures are manufactured with a passionate attention to detail. This is evident in the selection of premium materials as well as the extraordinary care that goes into the actual production process, which involves a comparatively high degree of precise hand craftsmanship. The Belux product range consists primarily of standard pro-duction models. Customised products can be made to order if required, especially for projects in the contract sector.

#### COOPERATION

Belux maintains lasting business relationships with upmarket retailers and suppliers. As one of its many services, the company provides professional planning advice for specific lighting needs to both lighting experts and quality-conscious end customers.

#### **DESIGN**

Lighting products by Belux are developed in close collaboration with external designers, whose conceptual and creative ideas are merged with the company's expertise in lighting technology and manufacturing know-how. The starting point for research and development is usually a functional need or technical innovation. The aim is to achieve surprising lighting solutions that are convincing not only with regard to their functional qualities and technical sophistication, but also due to their attractive appearance.

The Belux product range contains a series of office luminaires. For more information, go to **belux.com** 



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# Kreon HQ

In 2016 Kreon opened its new global headquarters in Opglabbeek, Belgium.

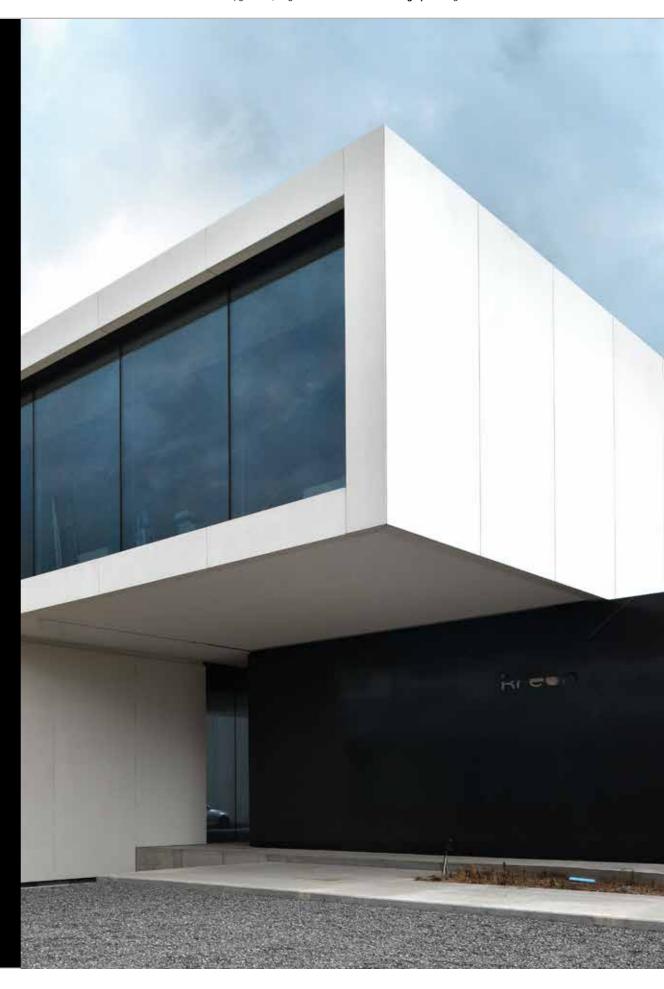
The design of the 3000m<sup>2</sup> building is the brainchild of Kreon's art director, who has been responsible for capturing and conveying the philosophy in anything at Kreon for the last 15 years.

Creativity and technical resolve are at the heart of Kreon culture and this has been reflected in the planning of the new building where particular attention is focused on zones for research and development, and state-of-the-art photometry.

The scale of the new building provides an opportunity to showcase the entire Kreon range in the functional and architectural way that it is intended. This allows full expression of the "Tools of Light" and "Ceiling Solutions" product families.

The increased space has allowed the integration of all internal operations under one roof which will facilitate increased interaction and communication between departments and customers.

Kreon sees this as a milestone in the history of the organisation and holds it as a fantastic opportunity to communicate and inspire employees and customers alike. A space where ideas can blossom and flourish.



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