

TRAINING DOC

This training document aims to clarify

- philosophy of Black54 brand
- features of products and use case scenarios
- product range
- installation instructions documentation
- packaging principles
- “blackroom” (democase) instructions
- how to use your portal



“A volte la migliore musica è il silenzio, diciamo”

Foreword

Over the years, much has been written about the profound relationship between light and architecture. This publication offers a unique glimpse into the journey of architect Jan Van Lierde, whose diverse experiences culminated in the founding of Black54. His career spans decades of architectural practice, product development, lighting consultancy, and a world of travels and inspiring encounters.

From his backpack full of material, a distillate has now emerged that follows a new path—not only in the vision of light as a product, but also in the way communication and distribution have been conceived. It is a walk through a life filled with passion for light and architecture.



intro

product design

architecture

sculpture

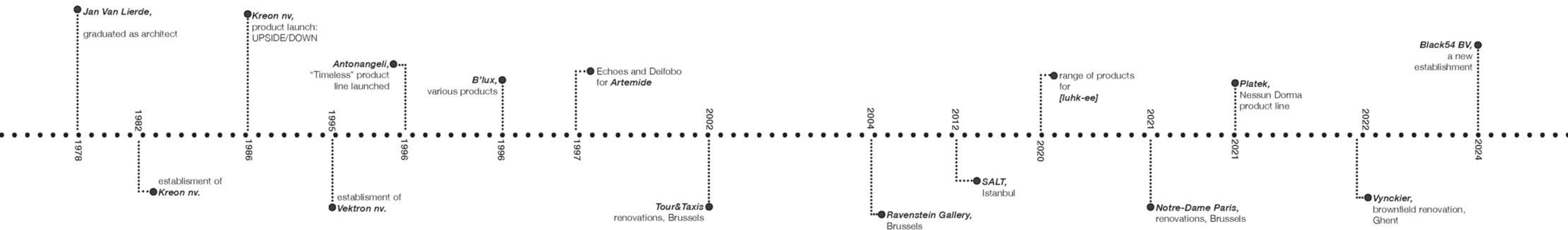
lighting design

black54

Jan Van Lierde, a Belgian designer, entrepreneur and architect, one of the most important exponents of contemporary lighting design.

After graduating from the Gand School of Architecture in 1978, he opened his own firm and founded the lighting technology company Kreon. In the 90s Van Lierde also brought design projects to life for other top brands, including Artemide. His success comes down to his ability to manage an element that is both vacuous and powerful at the same time, adapting it to the needs of clients and companies, in an age of rapid innovation.

The complete artistic vision of Jan Van Lierde, his attention to detail and his awareness of the social and technological impact of light, have taken his work to a whole new level of meaning, driving and elevating design and architecture to new heights, and laying the foundations for a humanistic understanding of lighting design in the twenty-first century.



product design

it involves exploring new ideas and developing a cohesive series of products that carve out their own niche in the market...

At the core of my work lies a unique approach: through meticulous observation and analysis of themes such as architecture, lighting, and sculpture, I develop strategic insights that transcend traditional aesthetics. Rather than merely creating “beautiful” objects, my goal is to deliver profound value to clients, with concepts that resonate deeply and meaningfully.

This method, which I term strategic creativity, sets my work apart from fleeting design trends. It involves exploring new ideas and developing a cohesive series of products that carve out their own niche in the market.

My architectural training has instilled in me a set of guiding principles for product design. These include minimizing the use of plastic, selecting materials that ensure timelessness and durability, and prioritizing the impact of light over mere aesthetics. The result is a sober, integrated design that harmonizes with its environment.



product design

kreon

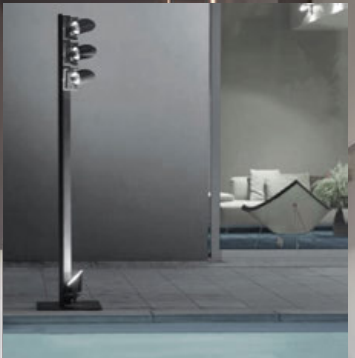
product design

Just as architecture evolves in three dimensions (and beyond!), my focus has been on creating a family of products that enhance their surroundings in these dimensions. This led to the development of UP SIDE DOWN, a design language that integrates hidden lighting in the floor, walls, and ceiling.

These principles remain close to my heart and are evident in the numerous projects we've had the privilege to complete for our esteemed clients.



product design

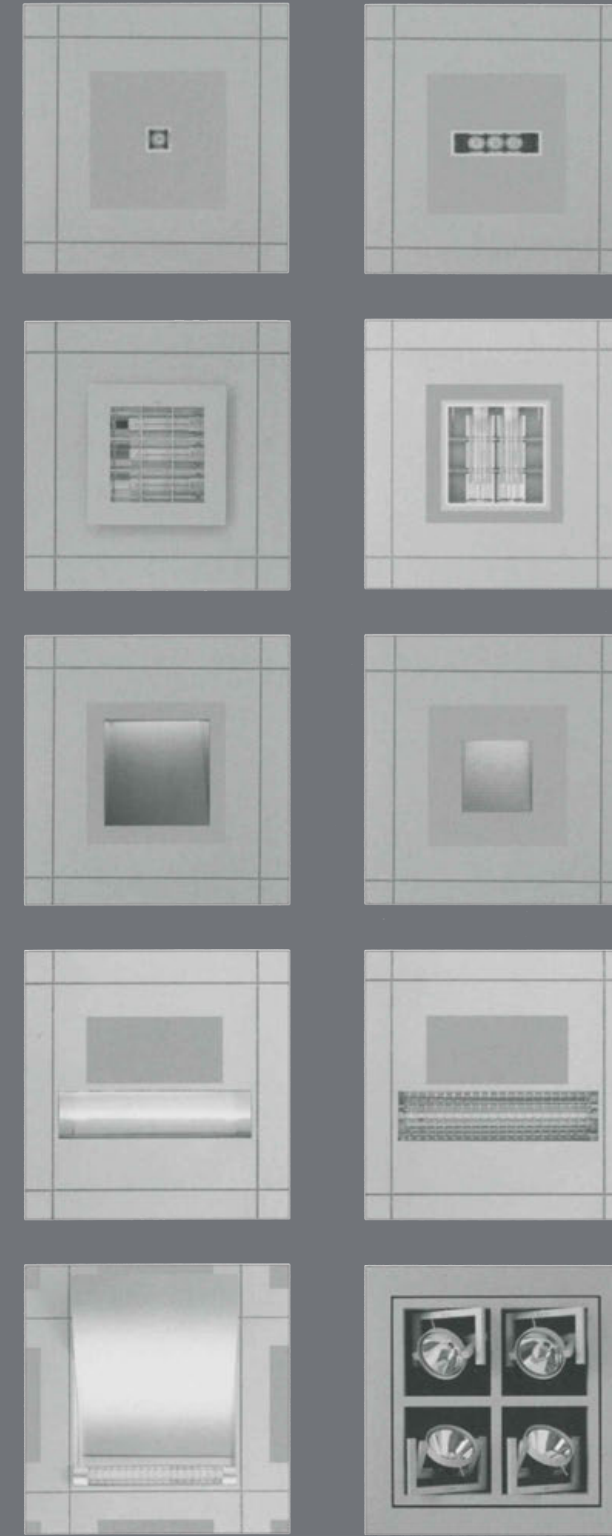


product design

The story of Vektron began with a desire for integration in my work. While many successful designers have created iconic sculptures that highlight a unique aspect of their products, Vektron aimed to showcase my distinctive approach to combining functions.

I often found myself wishing that my Palm tablet and mobile phone could be merged into a single device.

This line of thinking inspired the creation of a metal modular ceiling with acoustic qualities, designed to serve multiple purposes. Beyond providing general lighting, it also functions as a carrier of sound, music, emergency lighting, and signaling.



vektron

product design



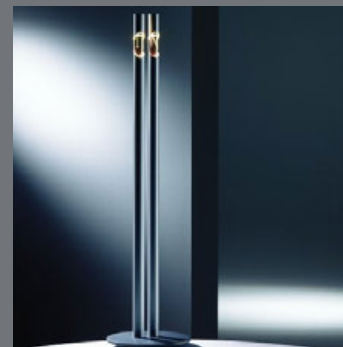
Light for Today's Nomads...

In a world of frequent moves and rental living, permanent lighting solutions can be impractical. Innovative designs now let people take their light with them, offering built-in sources that adapt to different ambiances via remote controls or intuitive interfaces. Like choosing music for the moment, these lights transform any space into a dynamic experience.

Artemide



product design



**quiet light, timeless materials,
simplicity in design**

it always feels like an honor when you are invited. so we look for the uniqueness of a company: which products have been developed over the last years, who is their target group, can I be of significance here?

add to that the basic characteristics of my work (quiet light, timeless materials, simplicity in design, etc.) to come to a combination that can contribute to the work of the inviting company.

B.lux 

product design



product design



 contardi



product design



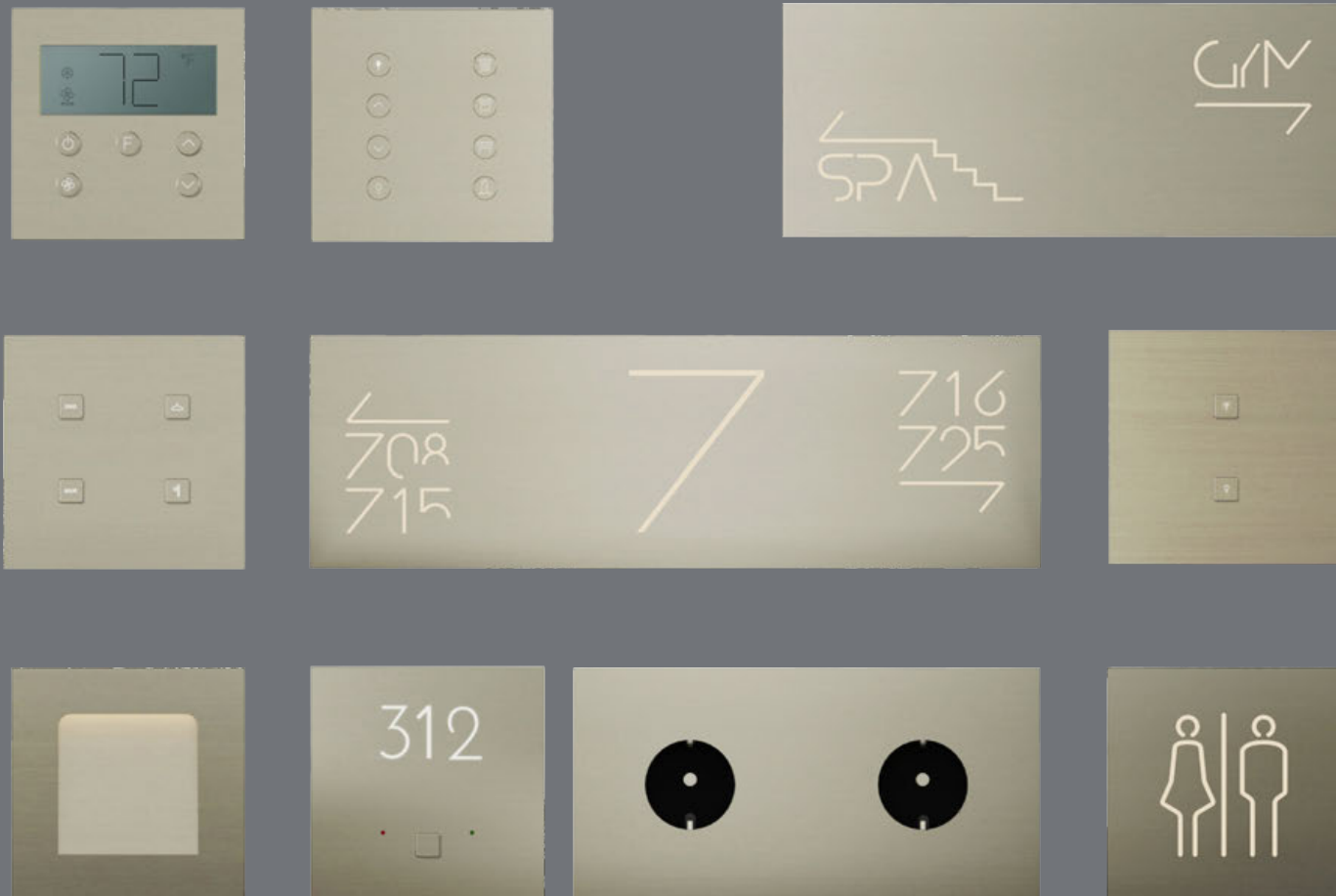
product design

I realized there was a need to unify keypads, signaling devices, nightlights, thermostats, and other wall outlets

luhkee has become an intriguing journey. As lighting controls are essential to our work, we developed strong ties with various products, their qualities, and the gaps they often left unaddressed. Just as we aim to offer a broad perspective on lighting solutions, I realized there was a need to unify keypads, signaling devices, nightlights, thermostats, and other wall outlets—such as sockets and USB connectors—into a cohesive whole.

This holistic approach led to a new series of products that seamlessly integrate these elements in a timeless way, bringing unity to the wall and offering a broader vision of control and functionality.

[**luhk-ee**]



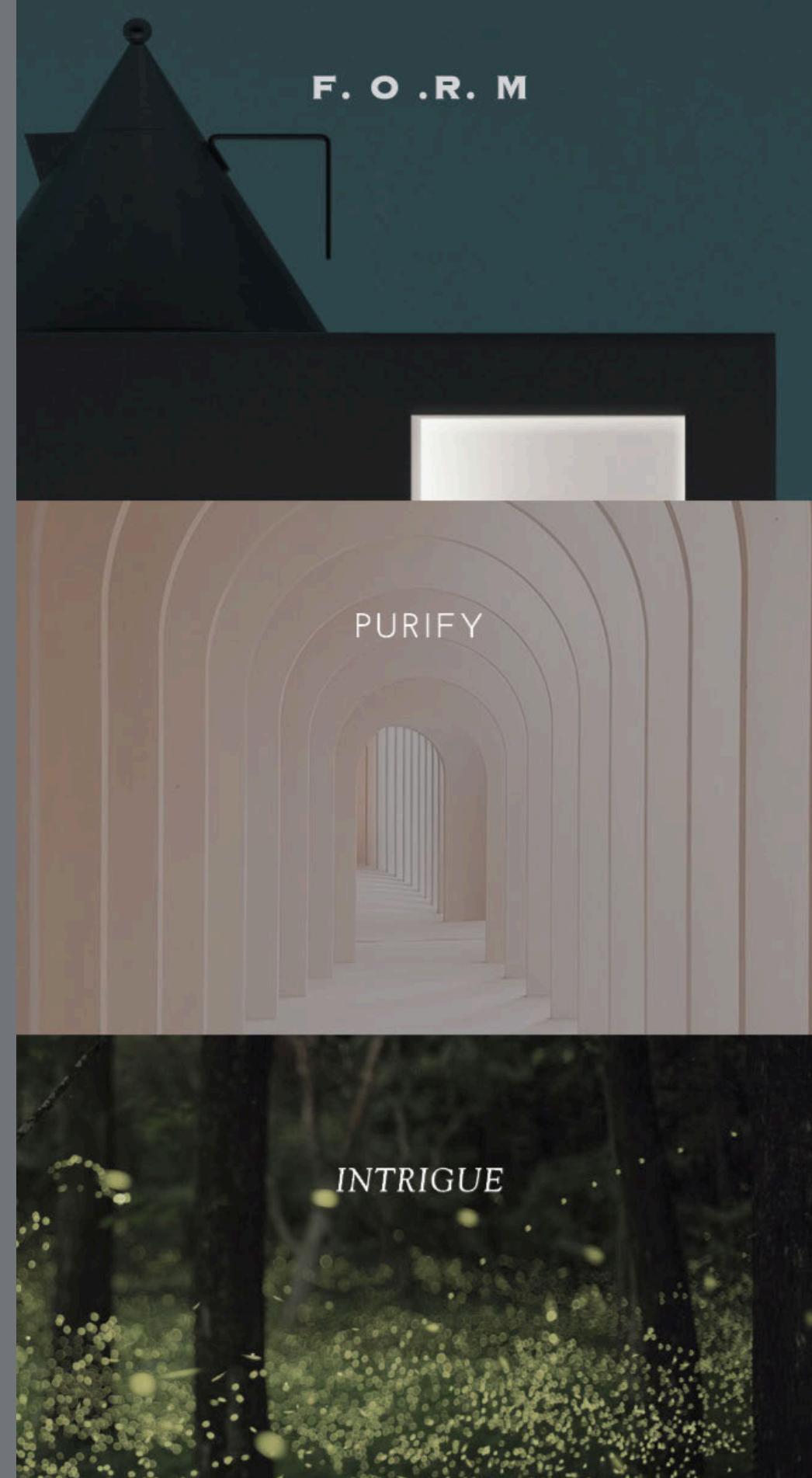
product design



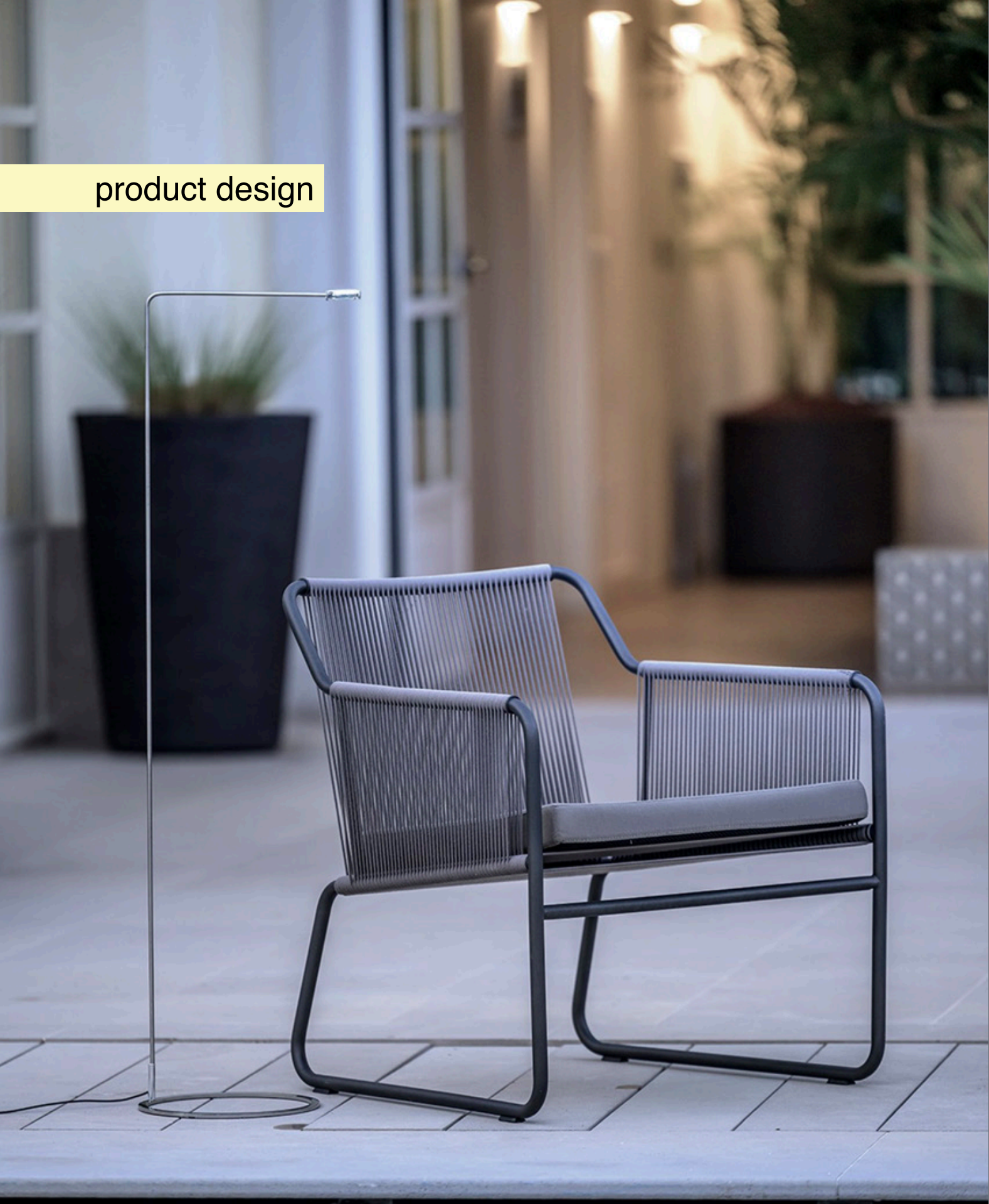
landscape lighting could have three aspects

Our vision of nature reflects a deeply human perspective, shaped by how we interact with it. We often attempt to adapt nature to our needs, escaping its rhythm and trying to modify it. But serving mankind has never been nature's function—its beauty lies in its inherent perfection.

The most profound human ability is to recognize this beauty and integrate with it, not by imposing upon it, but by adapting to it with respect. Lighting and design must delicately caress this fragile balance, enhancing nature's harmony rather than disrupting it.



more



product design



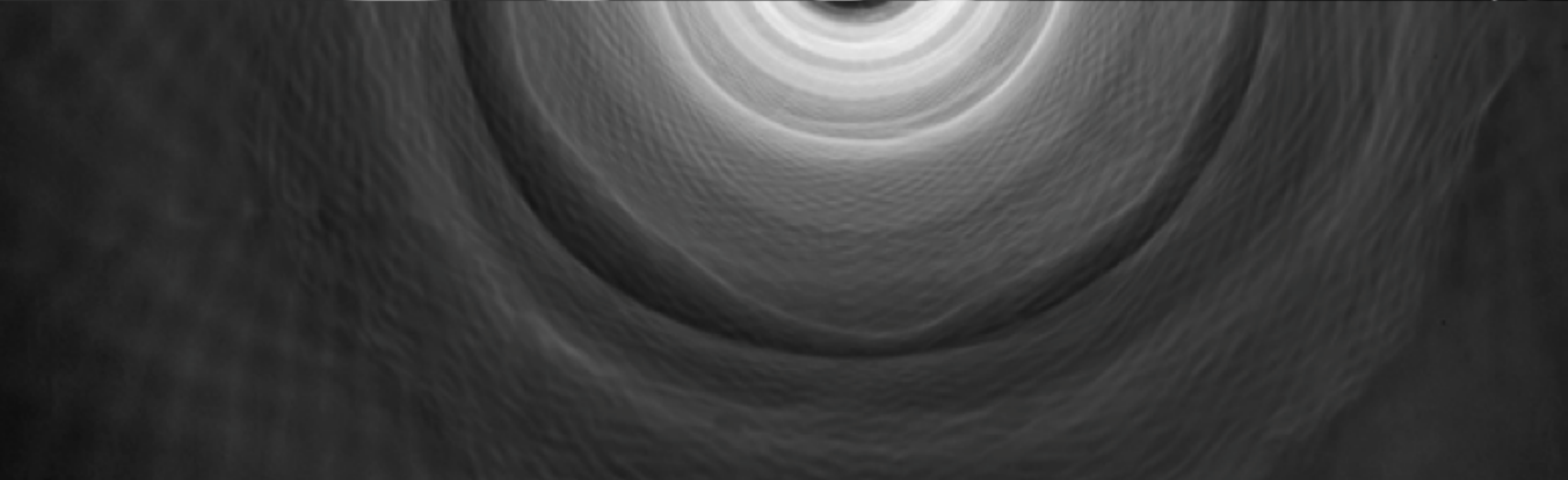
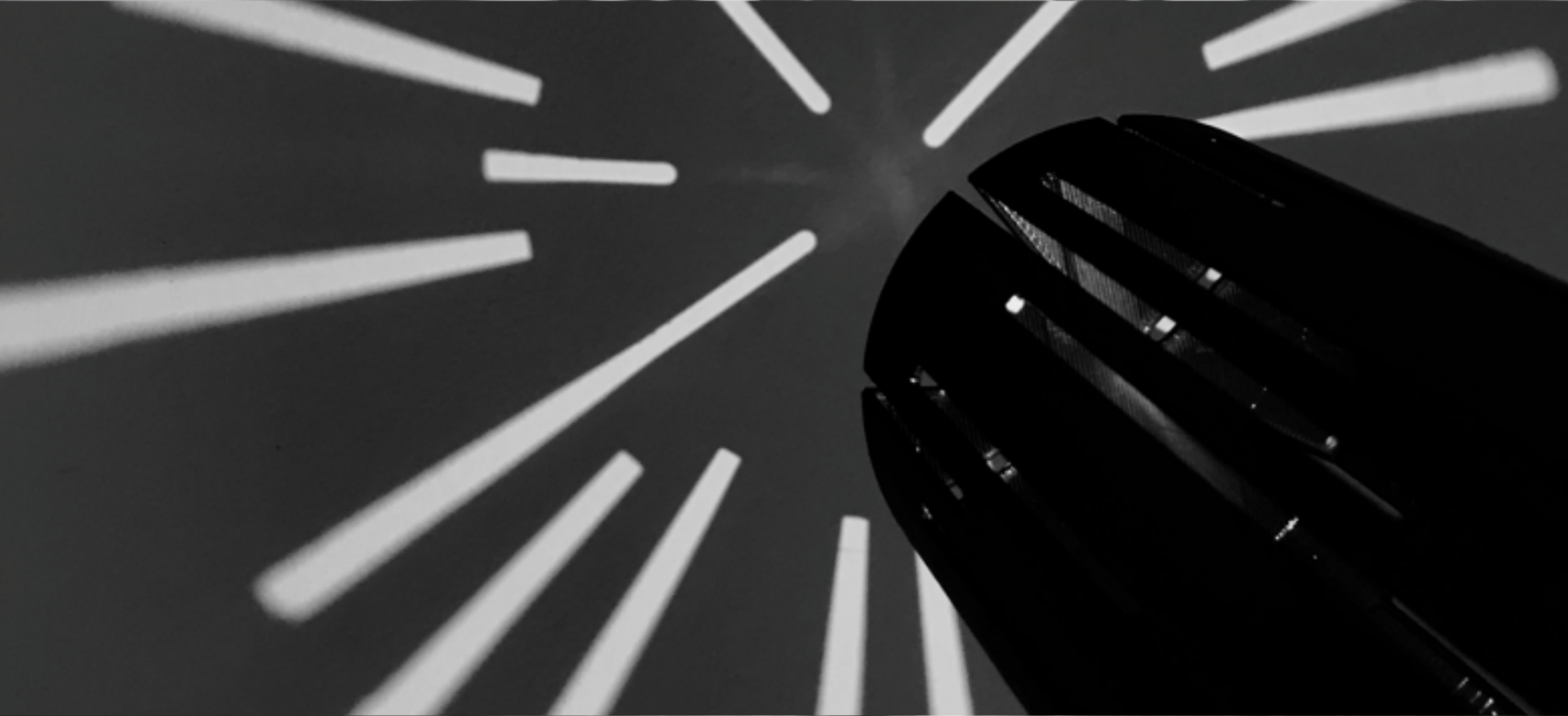
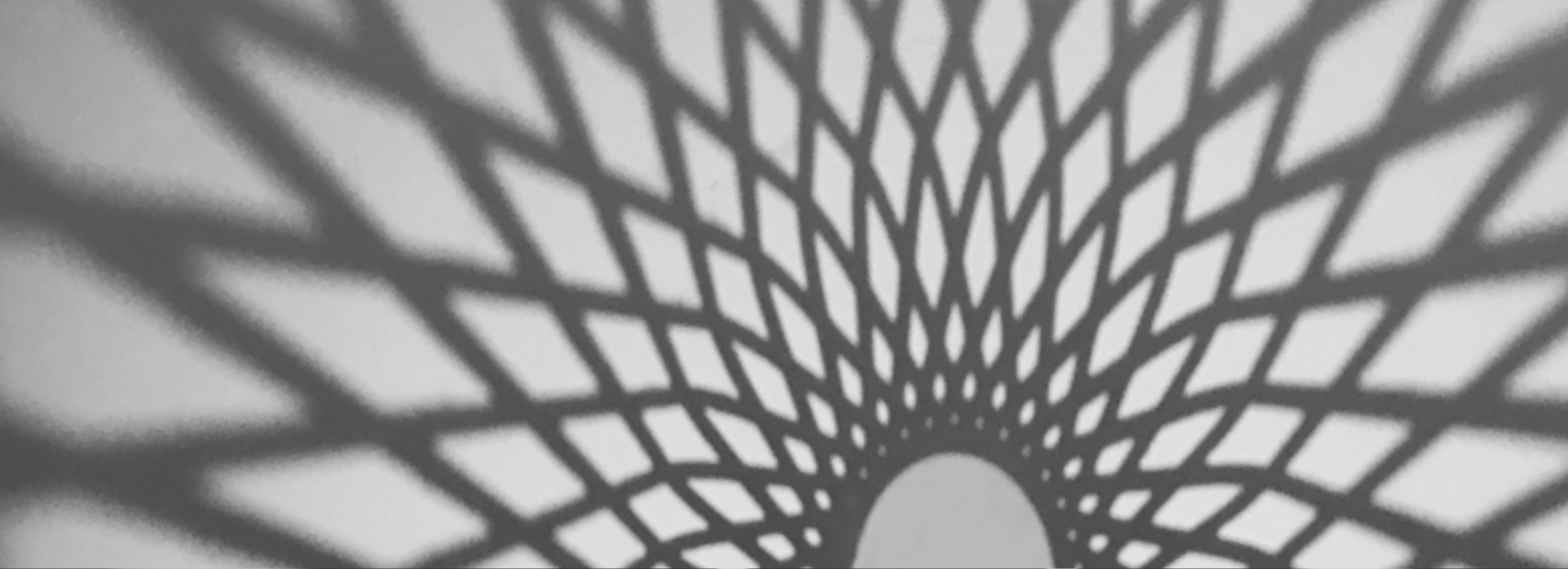
Platek®



product design



product design



***A conceptual approach
transcends scale.***

The thought process behind design can manifest in both small and large projects, whether it's a one-off artifact or mass production. Whether it's product design or

In the following pages, we showcase key architectural projects: Tour & Taxis and the Ravenstein passage in Brussels, the NDP Cathedral renovation competition, and Kreon's award-winning headquarters in Antwerp. Our brownfield study in Ghent further reflects our vision.





architecture



Tour & Taxi





architecture

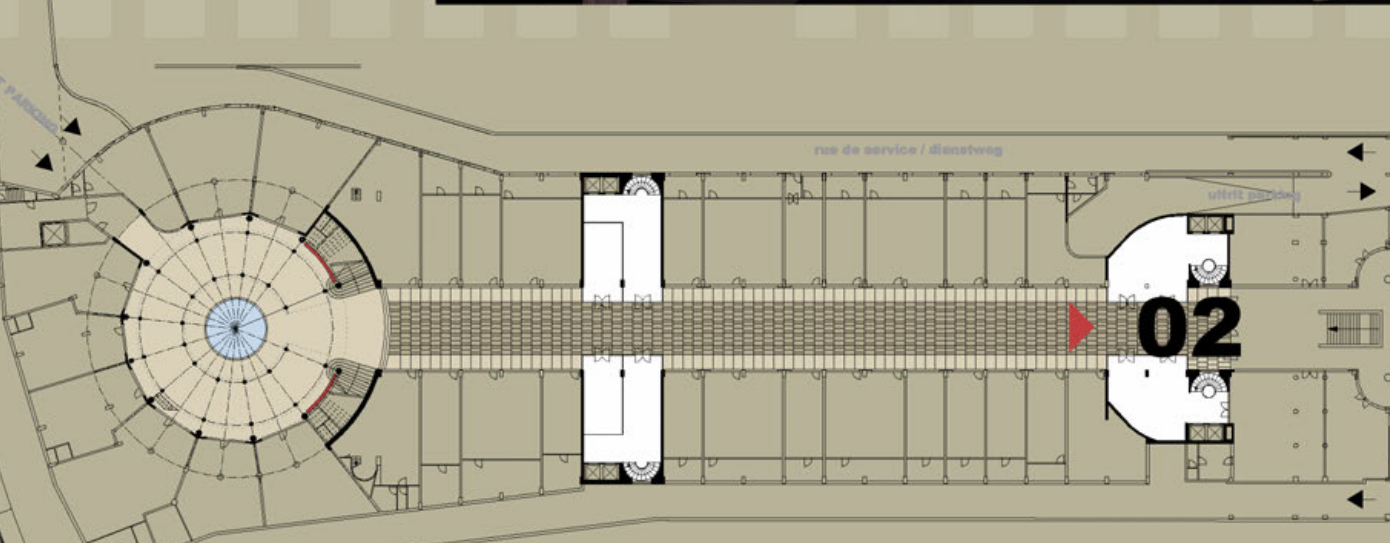
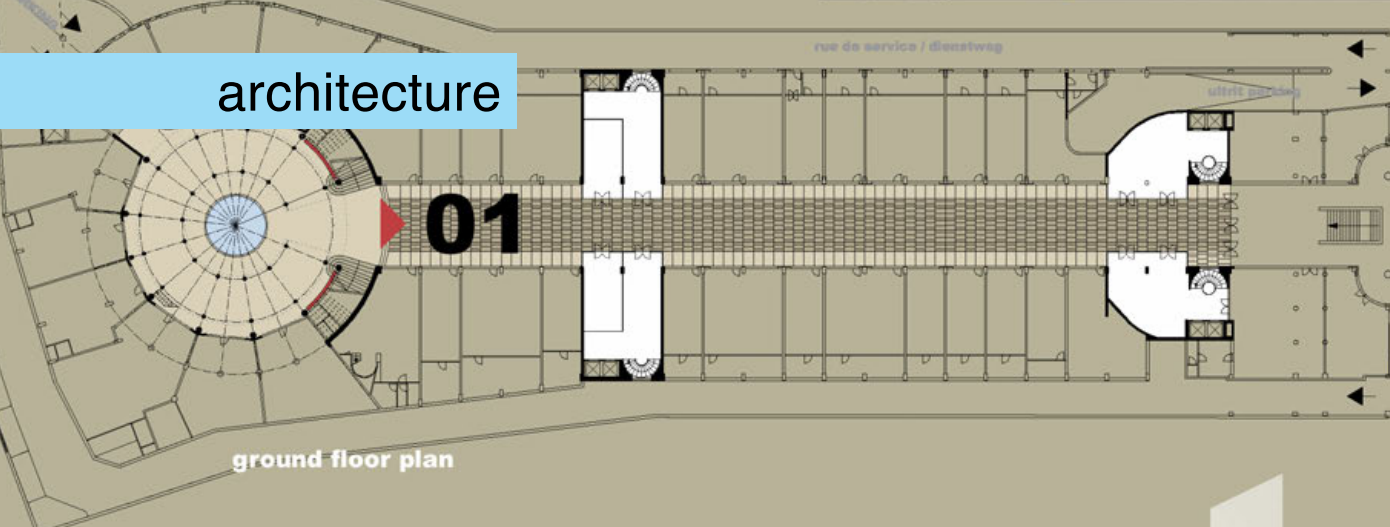
Avant-Port

Baden-Baden

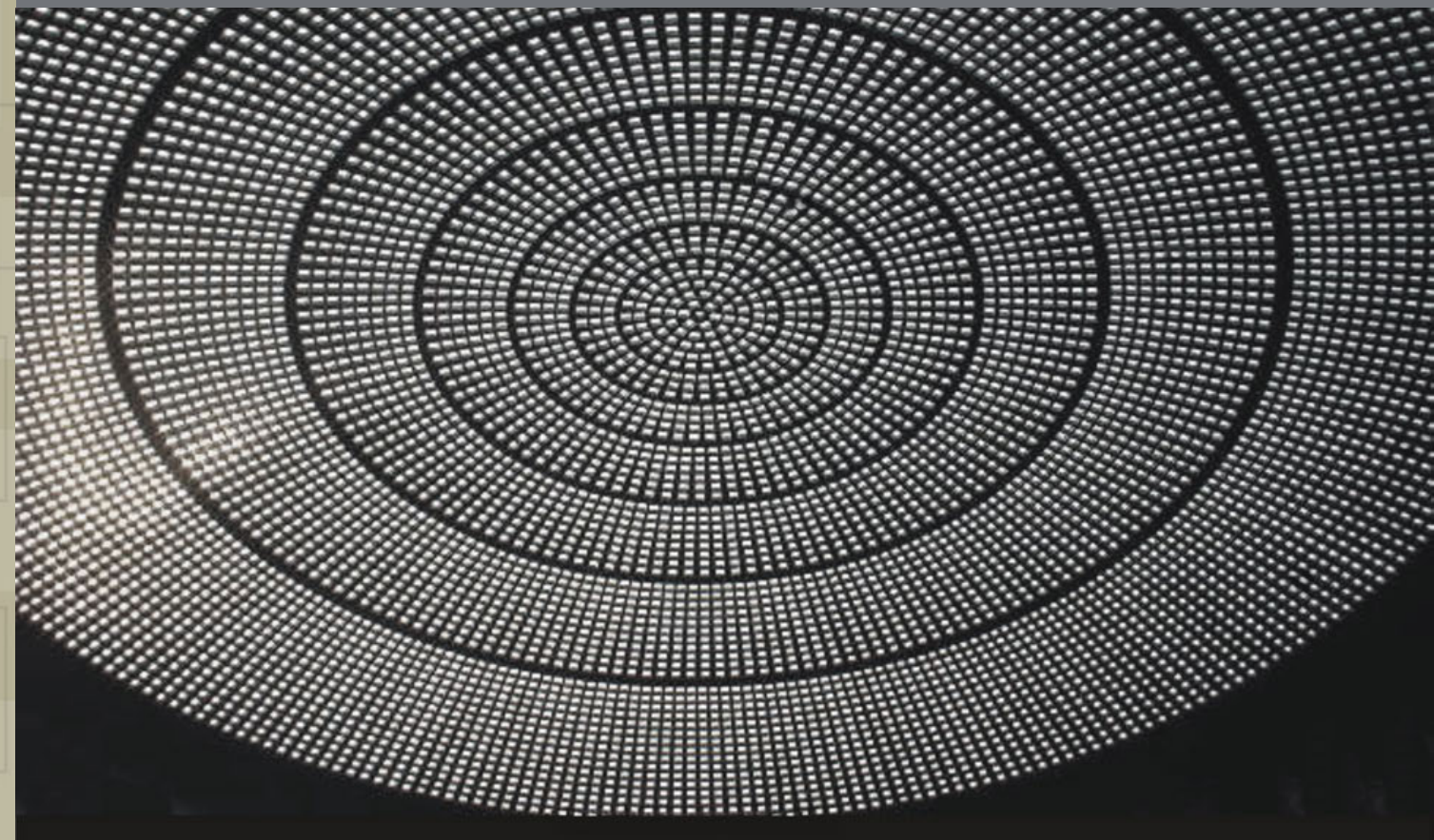
SCA Packaging

La Boutique Alimentaire





Ravenstein project



An architectural rendering of a modern interior space. The scene features a mezzanine level with a dark floor and a glass railing. The walls and ceiling are white, and the space is illuminated with a cool blue light. A small, light blue rectangular box is positioned in the upper left corner of the image.

architecture

Kreon HQ Project



architecture

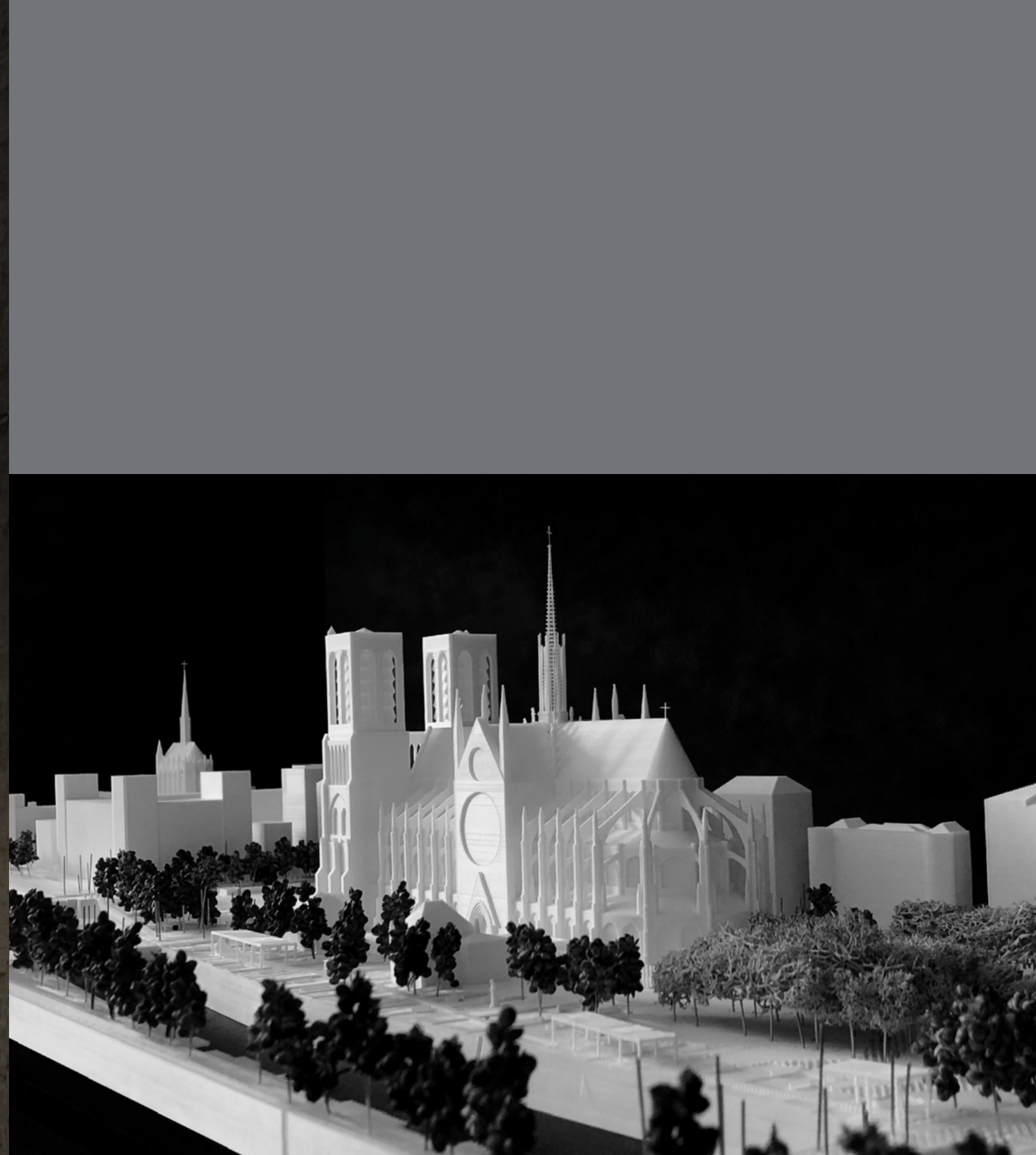
more



Cathédrale Notre-Dame de Paris



architecture

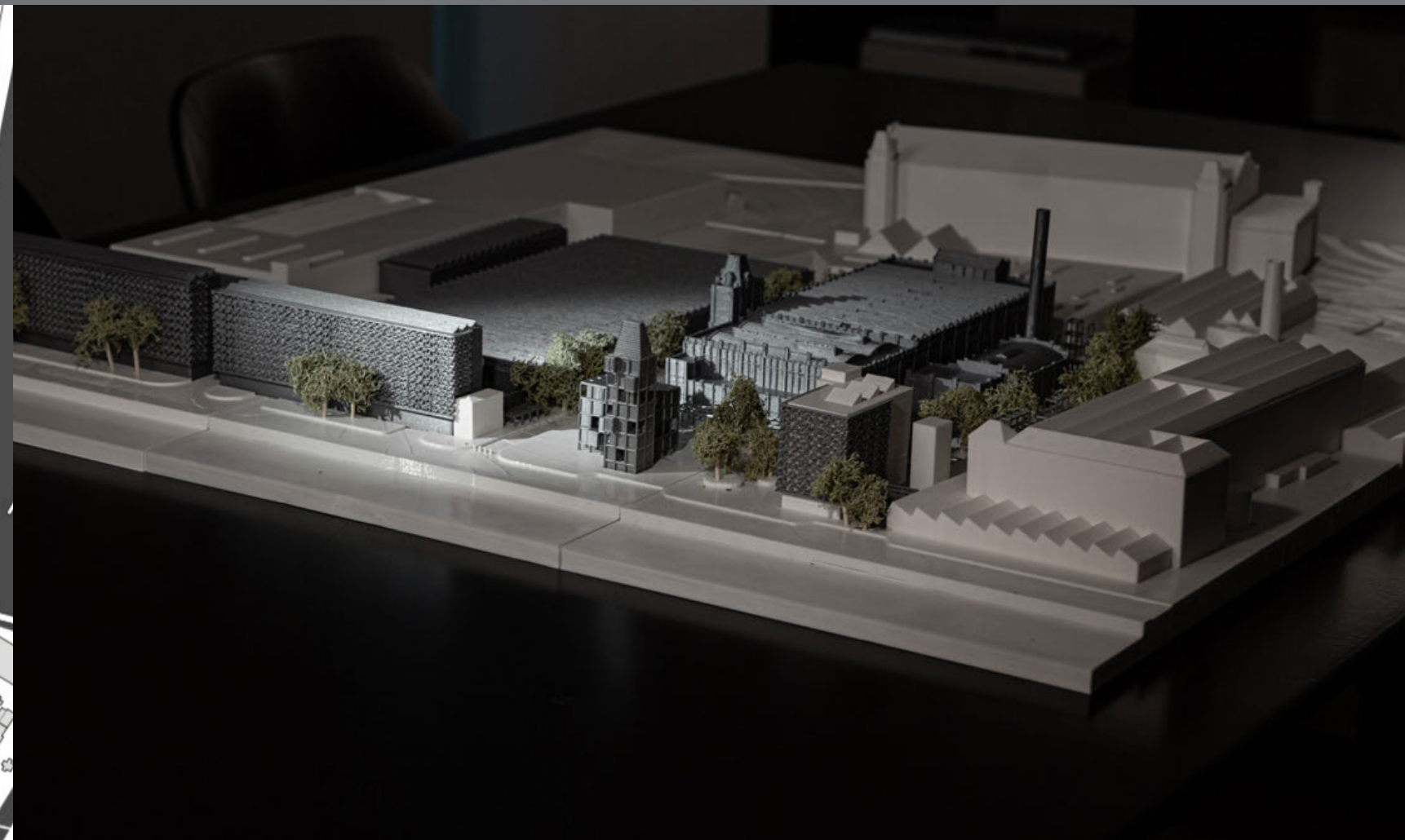
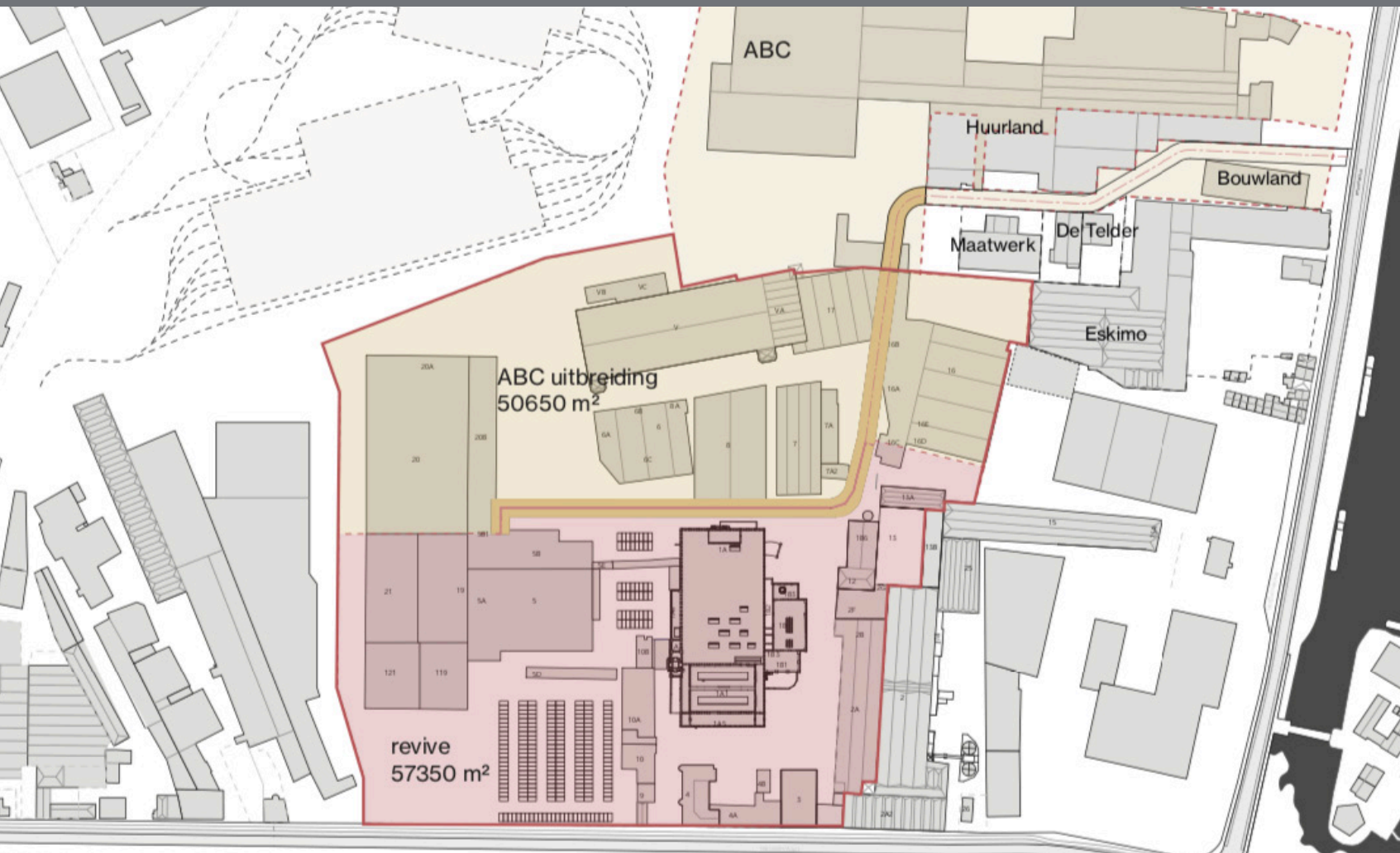


more



architecture

The Vynckier site restoration



architecture



sculpture

At one point, I made a conscious distinction in my work. On the one hand, there were projects developed in collaboration with clients, companies, and various circumstances—what I began to call my ‘public work.’ On the other hand, there was a series of personal works, more expressive of my individual thoughts and creative impulses—‘private works.’ The latter were not designed to meet client demands, but rather to evoke emotions and provoke thought.

Here is a short anthology of these works, meant to inspire the viewer, ignite imagination, or serve a concrete function within their environment.





more

sculpture

SALT Beyoğlu & Galata



sculpture



sculpture



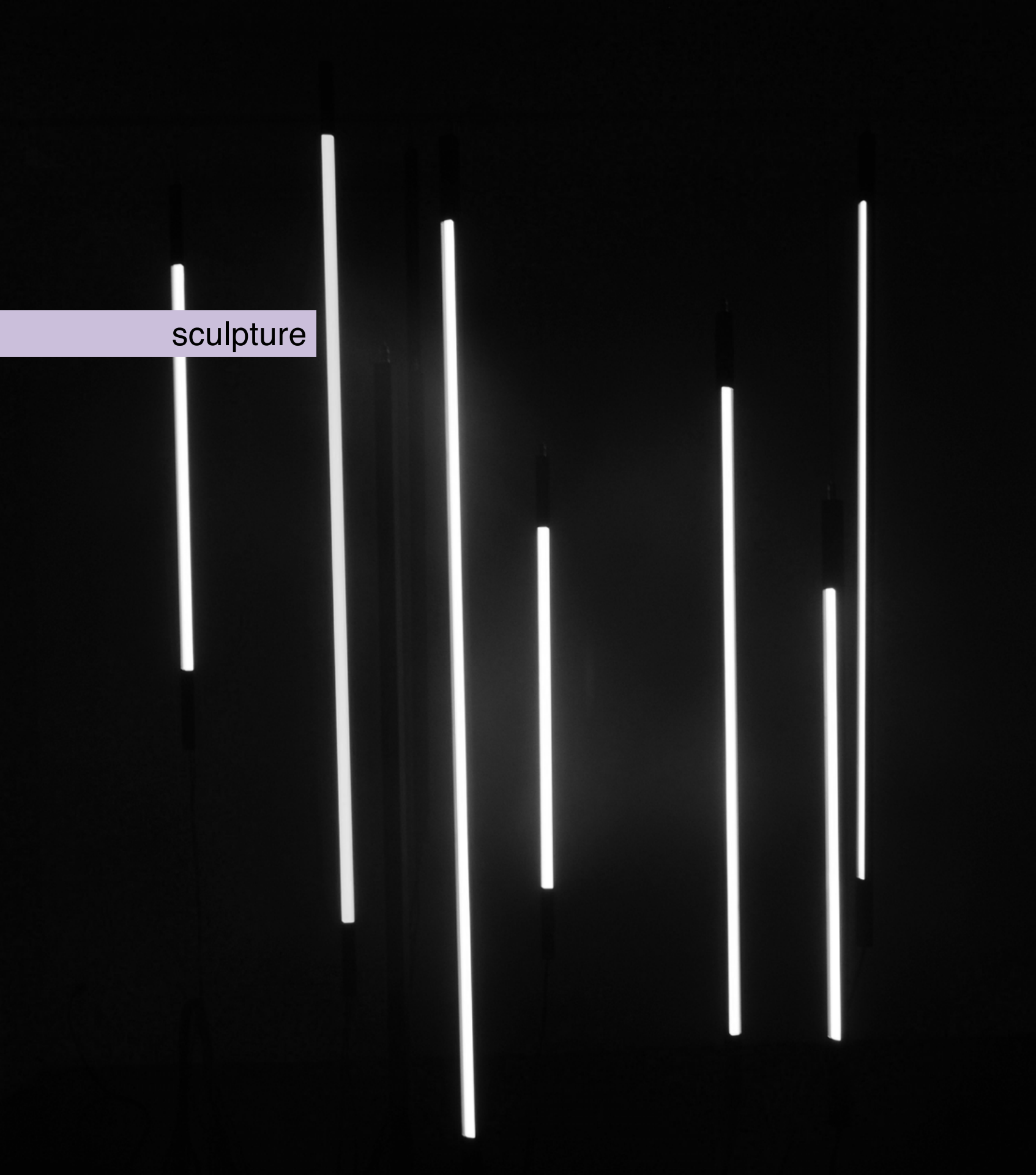


[more](#)

sculpture



sculpture



sculpture

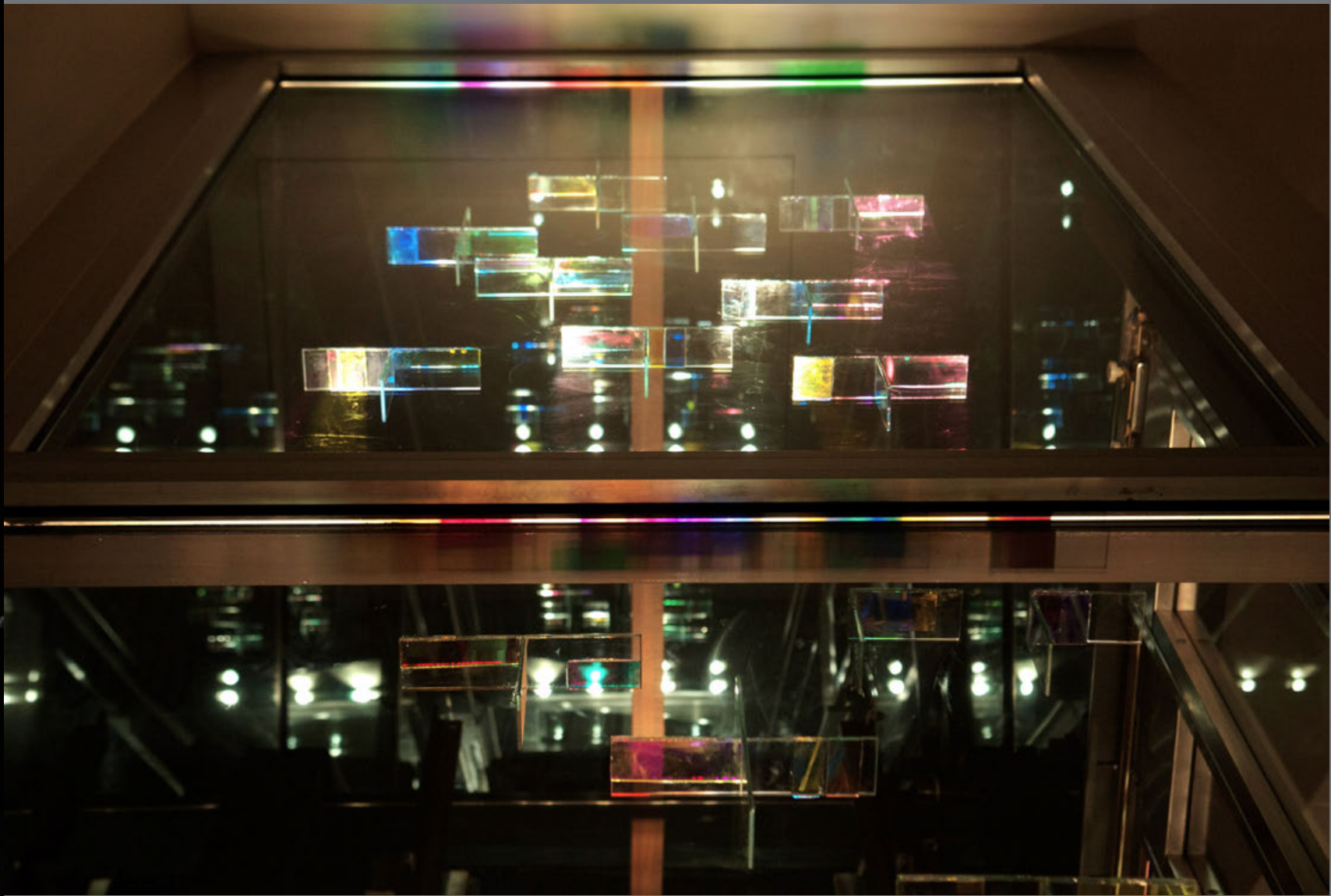


more





sculpture



sculpture



sculpture





[more](#)

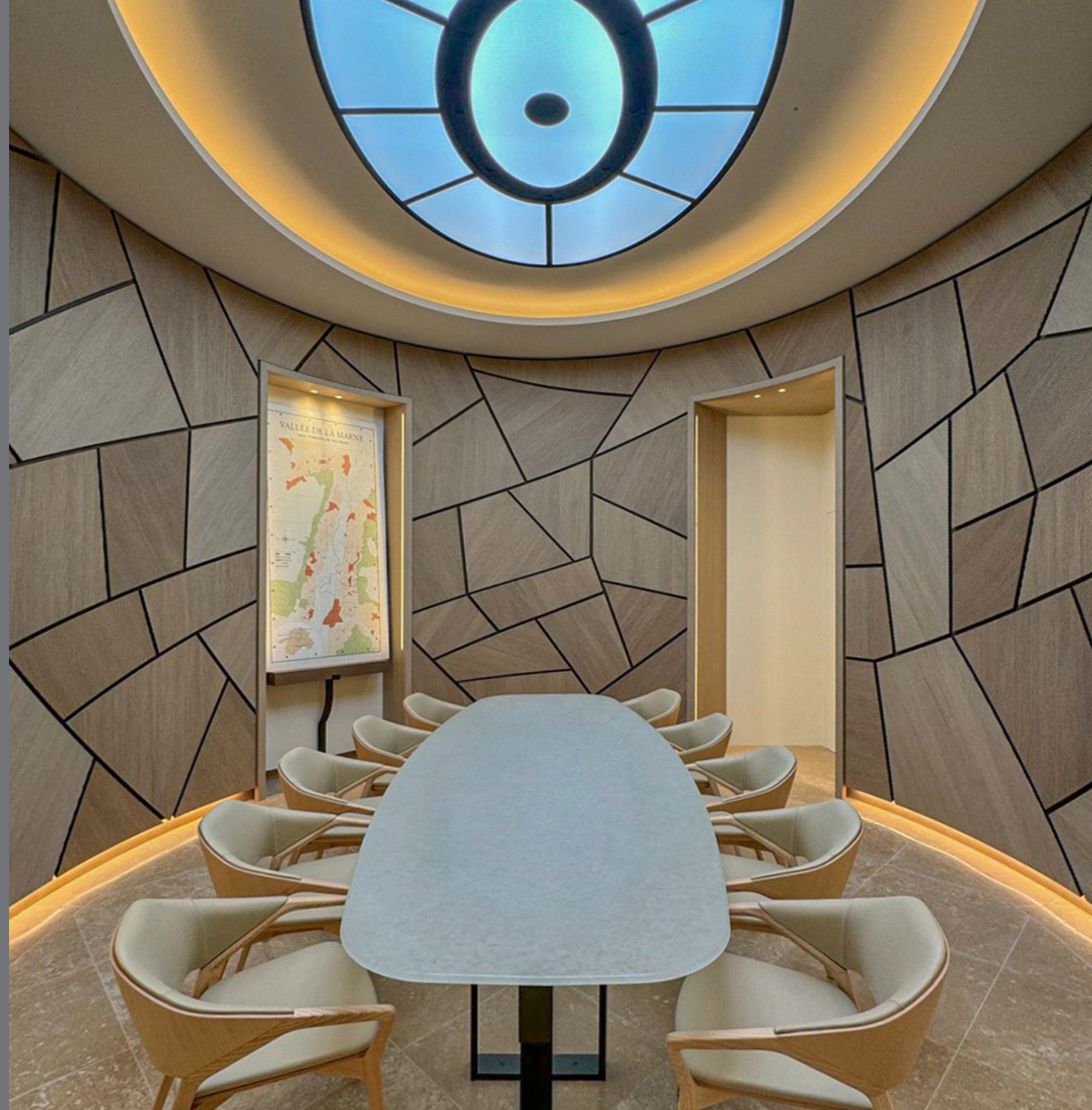
sculpture



lighting design

'The greatest compliment I've ever received is: 'I didn't notice your work.'

Before being an architect or designer, I see myself as an integrator. An integrator observes and experiences the environment, collaborates with others, and empathizes with the people who move through a space. Only by understanding these elements, you can introduce something new into the ecosystem without disrupting it—enhancing it, instead, by making it more beautiful.

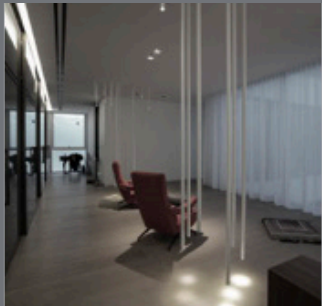




lighting design

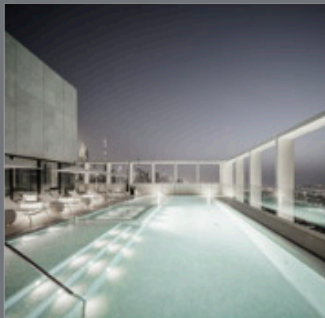
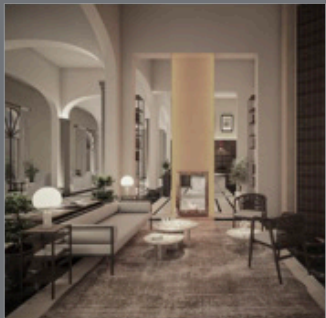
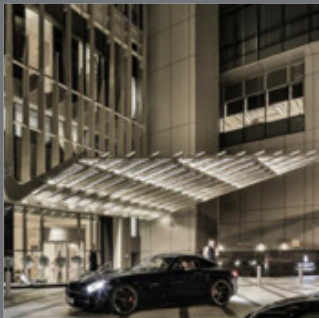
lighting design

residential



more

hospitality:
hotels



more

hospitality:
restaurants



more

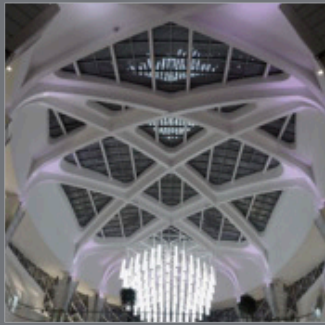
lighting design

office



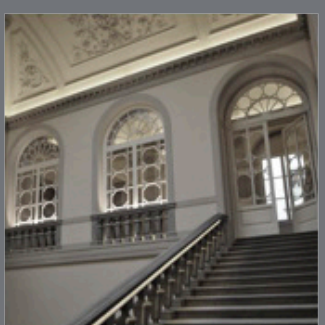
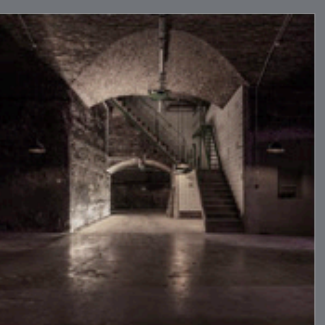
more

retail



more

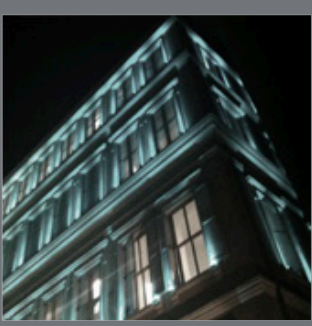
heritage



more

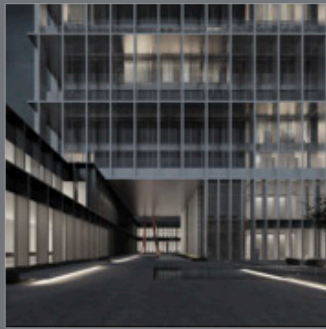
lighting design

facade lighting



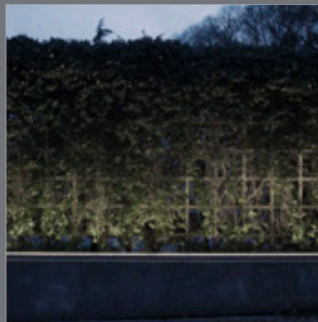
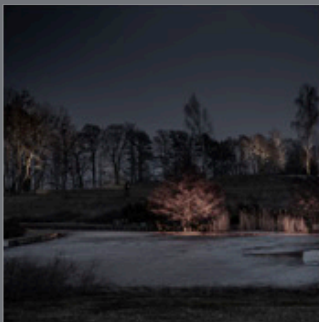
more

mixed use



more

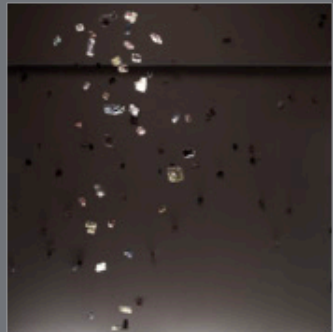
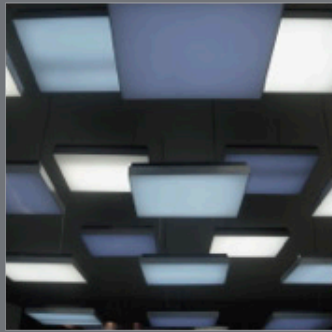
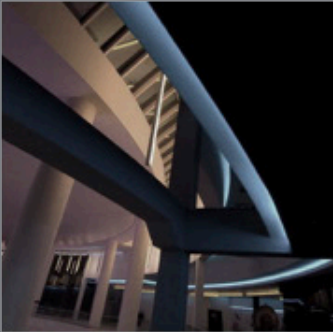
landscape



more

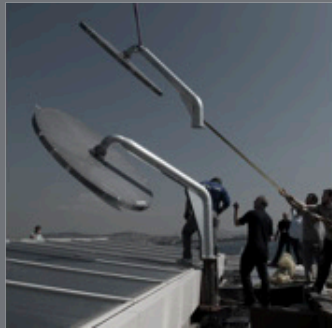
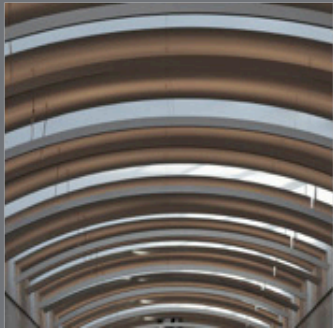
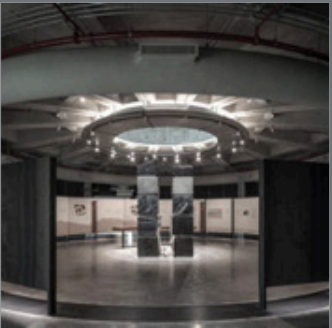
lighting design

light
sculptures



more

daylighting



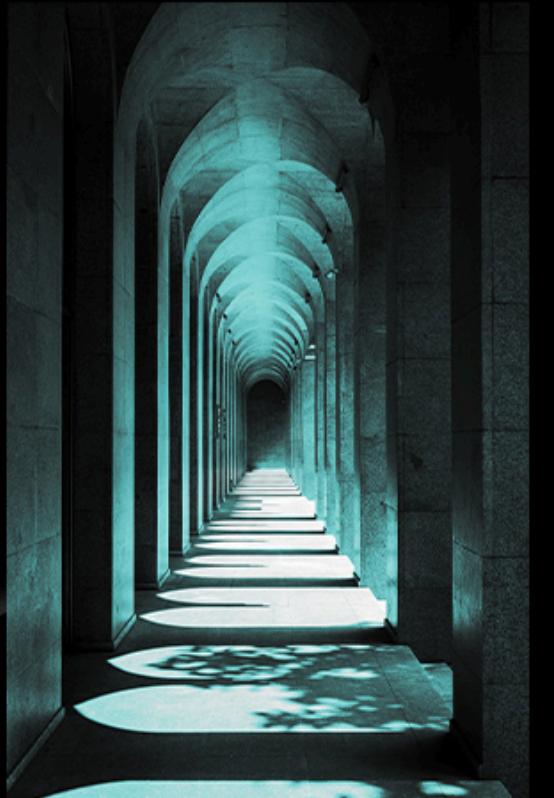
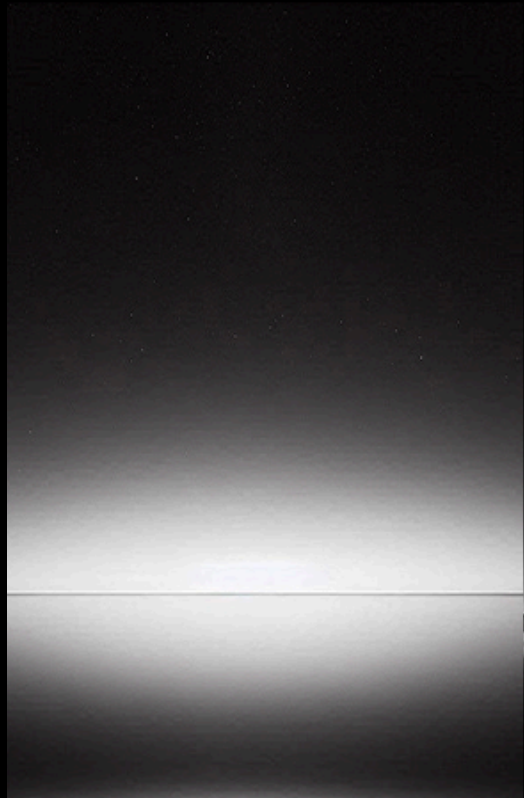
more

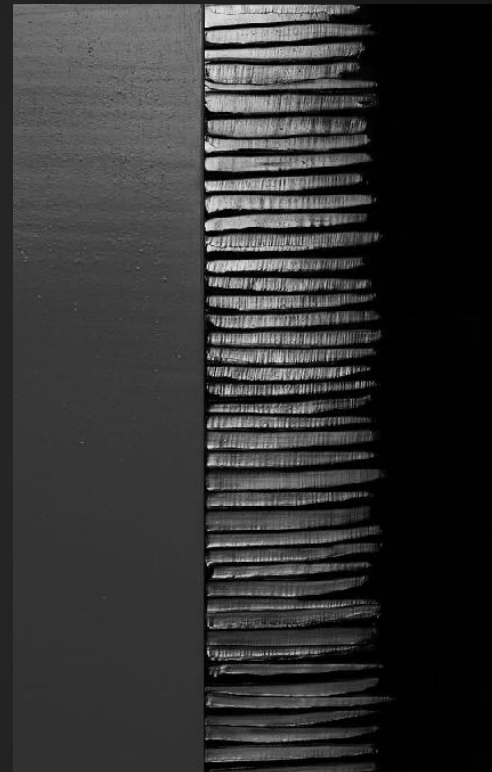
A black and white photograph of a hand holding a pencil, poised to write on a notepad. The notepad has a grid of small dots. In the bottom left corner, the word 'BLACK' is printed in a bold, sans-serif font, followed by a small logo. A teal-colored rectangular box is overlaid on the left side of the image, containing the text 'black54'.

black54

**“Black is the sum of all colors
but is also the absence of light”**

PHILOSOPHY







BLACK **4**
LO

black54

Learning to See

*“The question is not what you look at, but
what you see”*

- Henry David Thoreau



For me, photography is a means to view life with all its aspects and to understand it where possible

black54

You can also freeze light. Then this is called photography. Over the years, in addition to my work, I have also made time for photography and learned to observe. It is learning to collect and analyze. Only then comes a moment when you intervene and capture an image.

This process of observing our visual environment is the basis of a lot of thinking, which then leads to recording patterns, methods to get started. For me, photography is a means to view life with all its aspects and to understand it where possible. It has also given me the energy to direct my creativity in specific directions to what we present today.





thoughts on good lighting design
ESSENTIALS

Throughout history, the sun has symbolized life and positivity, yet direct exposure is rarely pleasant. The lighting industry has long pursued full-spectrum light, often unintentionally replicating the sun's harsh glare—something evident at lighting fairs.

My journey led me to channel these insights into a new tool, extending beyond individual projects.

Form follows function—beyond decoration, my focus is on light's effect and its creative potential in shaping spaces.

In developing **Black54**, key priorities emerged: flexibility, silent operation, light quality, environmental impact, and longevity. The first product families reflect this vision, emphasizing accent lighting as a complement to existing ambient solutions.



thoughts on good lighting design

CONTROLS



Being in Control

Nature inspires us—just as spring restores life, our bodies follow rhythms that affect our mood. Lighting plays a similar role, shaping our experiences.

Key principles from the ROLAN movement guide this approach:

- Everyone should have the right to access darkness and quality lighting.
- Light needs to be used and distributed fairly, without discrimination.
- Start your design with darkness; light should only be directed where it's needed.
- Light should never be brighter than necessary.

By following these principles, lighting can create a harmonious and dynamic atmosphere, much like music shapes emotions.

thoughts on good lighting design

UGR (Unified Glare Rating)

$$\gamma = \int_a^b \frac{1}{x} dF_y(x)$$
$$= \int_a^b \frac{1}{x} \frac{1}{2\pi xy} \sqrt{(b-x)(x-a)} dx$$

Jigsaw Design Work

With LEDs now the standard, factors like heat management, glare, and color accuracy greatly impact lighting performance. While smaller LEDs offer high intensity, they can cause discomfort—measured by UGR (Unified Glare Rating). We've reduced all our products to a UGR below 10, ensuring exceptionally “quiet” luminaires.

Balancing depth and output, our designs achieve a UGR <10 with just 40mm depth. Using lenses and reflectors, we refine light precision while tackling COA (Color Over Angle) issues. Our products maintain a CRI above 90 for superior color accuracy and adhere to strict MacAdam binning (<3).

Focusing on accent lighting, we offer various beam angles, color temperatures (2400K–3500K), tunable white options, and a unique zoomable feature—pushing the boundaries of lighting design.

thoughts on good lighting design
EASE OF INSTALL

Design and Build to Do Good

A chain is only as strong as its weakest link, so we refined every step—from product quality to delivery and installation.

Inspired by Japanese traditions, we designed packaging that protects during transport while making unpacking effortless and organized. Using only eco-friendly materials, our system prevents inventory chaos and ensures a seamless installation process.

Ease of installation is a priority. Our products use standard mounting techniques, with QR-code instructions for quick access. To prevent wiring errors, **Black54** offers both constant current and constant voltage options, distinguished by color-coded wiring.

Sustainability matters. All devices undergo rigorous testing at +40°C, ensuring a **maintenance-free 50,000-hour lifespan**, with no component exceeding +80°C. Thoughtful engineering at every level.



thoughts on good lighting design

SHAPE OF DESIGN

A Signature of Functionality

Just as a painter is recognized by their brushstrokes and a writer by their pen, my work has always prioritized functionality over formal design. Many of you will likely recognize the same guiding hand in Black54 that shaped my earlier creations, though now, the quality and impact of light have been optimized to their fullest potential.

Through the simplicity of clean lines, carefully chosen materials, and meticulous finishing, we've crafted a unique, characteristic ensemble. This design seamlessly appeals to architects and designers, catering to diverse functional needs and creative visions.

thoughts on good lighting design
EASE OF INSTALL

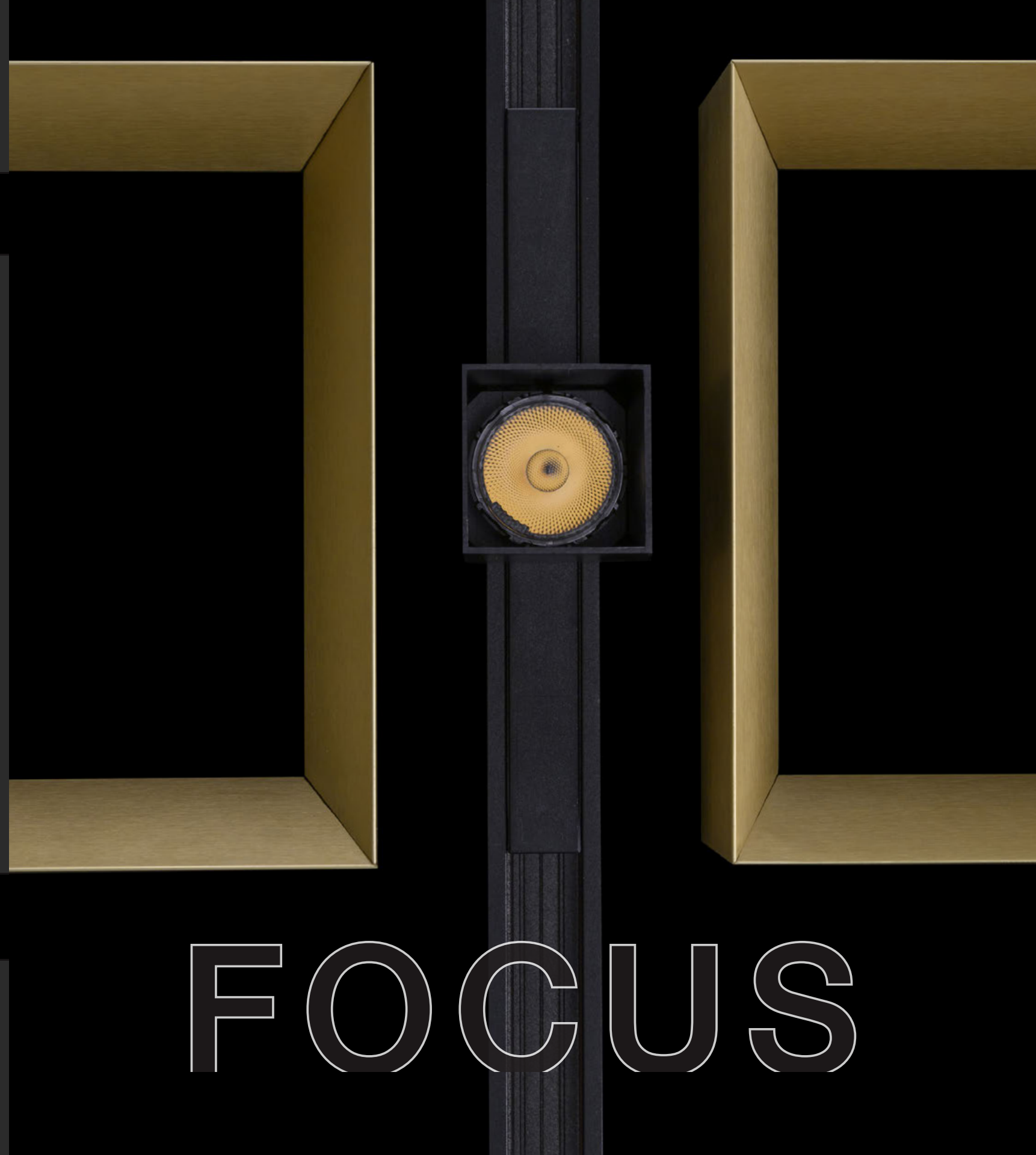
ESG: A Commitment to the Future

With our new company, we embrace both creativity and responsibility, striving for a more sustainable future. Who wouldn't want to leave a positive legacy for the next generation?

We integrate **Environmental, Social, and Governance (ESG)** principles into every step of our business. While challenges exist—such as the environmental impact of electronic components—we are committed to solutions, including recycling products at the end of their lifecycle. But ESG goes beyond recyclability. It's about measuring a company's impact, ensuring ethical governance, and continuously improving. It's both a challenge and an ongoing responsibility—one we take seriously.

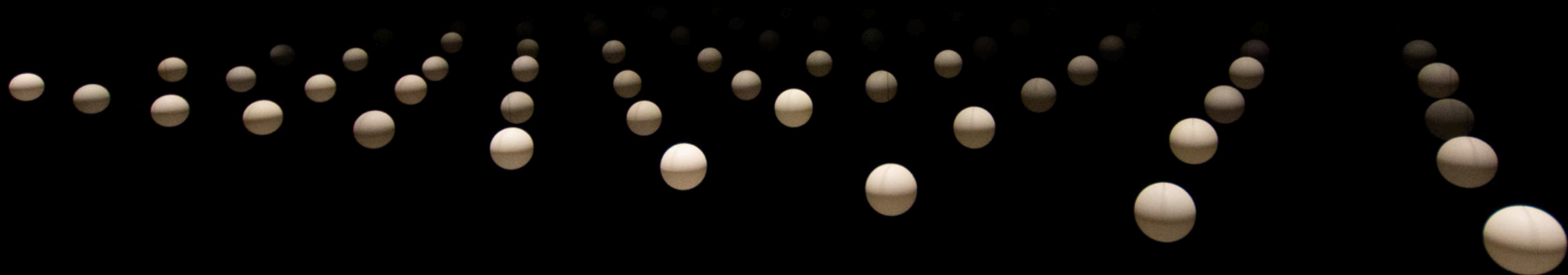


Focus provides pleasant illumination while concealing the light sources, enhancing visual comfort without distraction. By reducing background noise, Focus fosters a more concentrated and productive atmosphere, ensuring privacy during conversations and delivering maximum acoustic comfort across all spaces.



FOCUS









FOCUS LM



The lighting element, discreetly hidden between the cassettes, offers a highly flexible range of options. These include light temperatures from 2400K, 2700K, 3000K, to 3500K with a beam angle of 15 degrees.

Additionally, there's a tunable white version (1800K-3500K) and a version with tunable white and zoomable optics (15 to 50 degrees), offering versatility for various ceiling heights.

FOCUS LM (tunable white)

- Adjustable color temperature for precise ambiance control.
- Ideal for spaces requiring dynamic lighting changes.



1800 K, 10°



2700 K, 10°



3500 K, 10°

FOCUS LM (zoomable module)

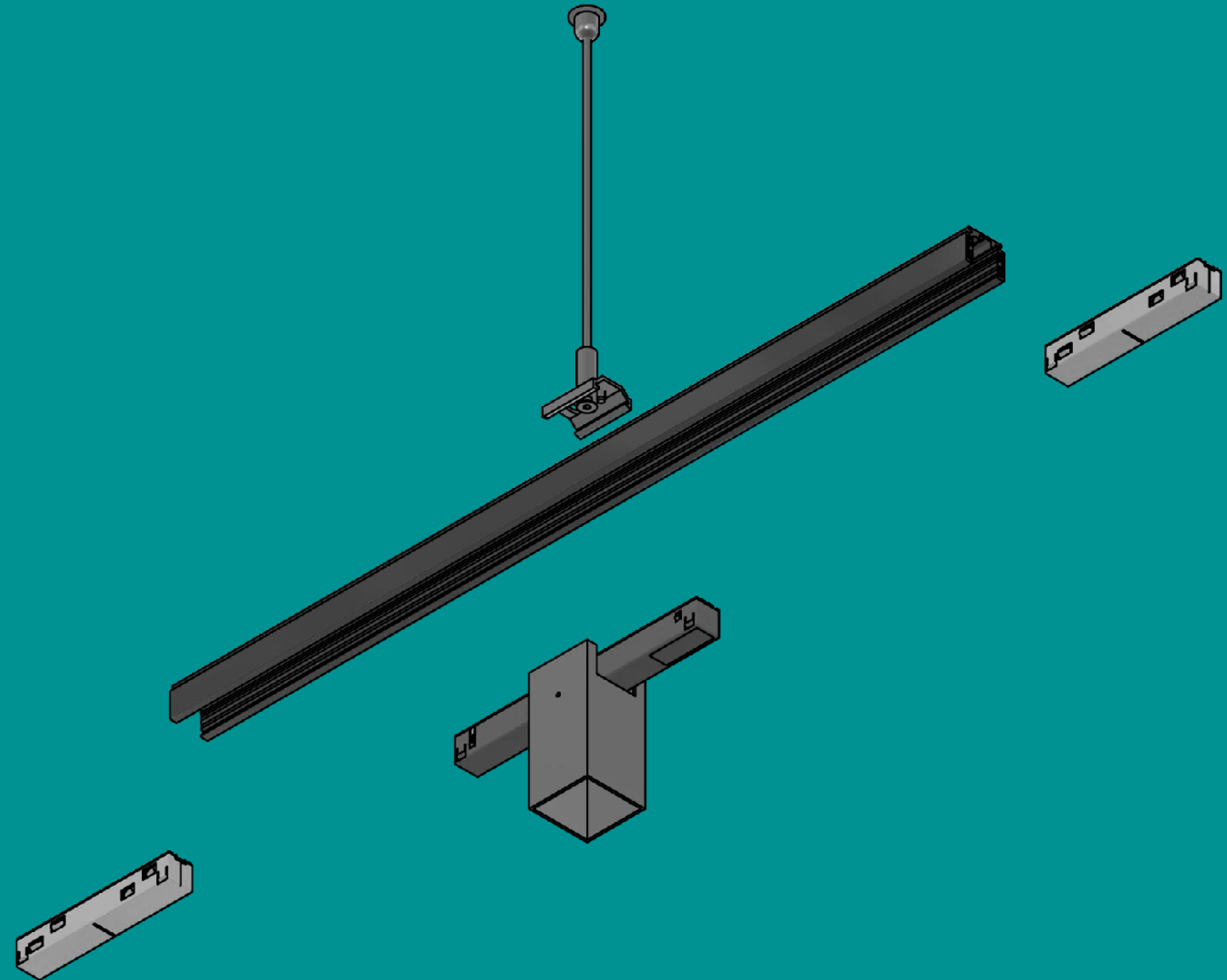
- Adjustable light cone for functionality across varying ceiling heights.
- Allows control over light fall-off to achieve desired lighting effects.

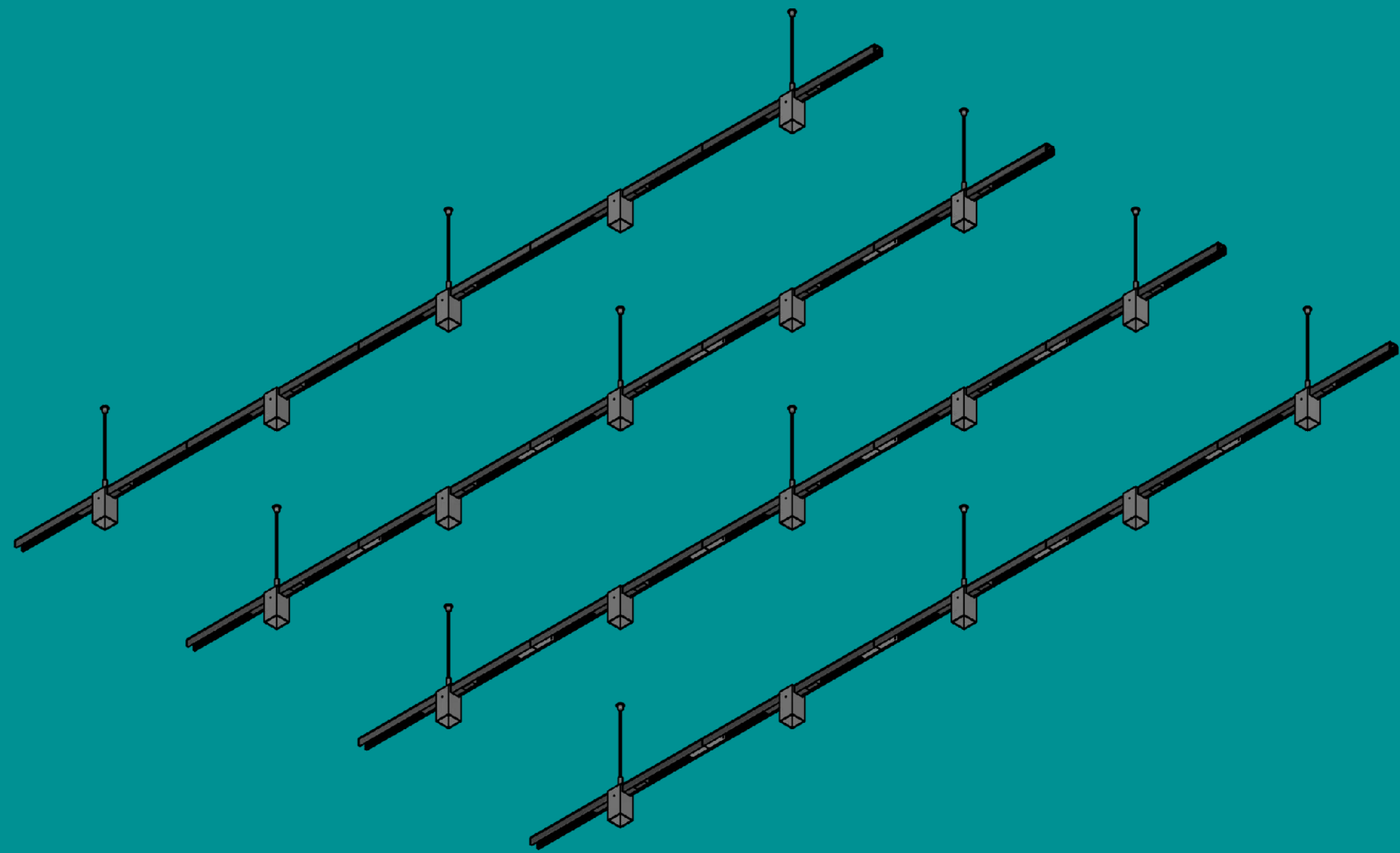


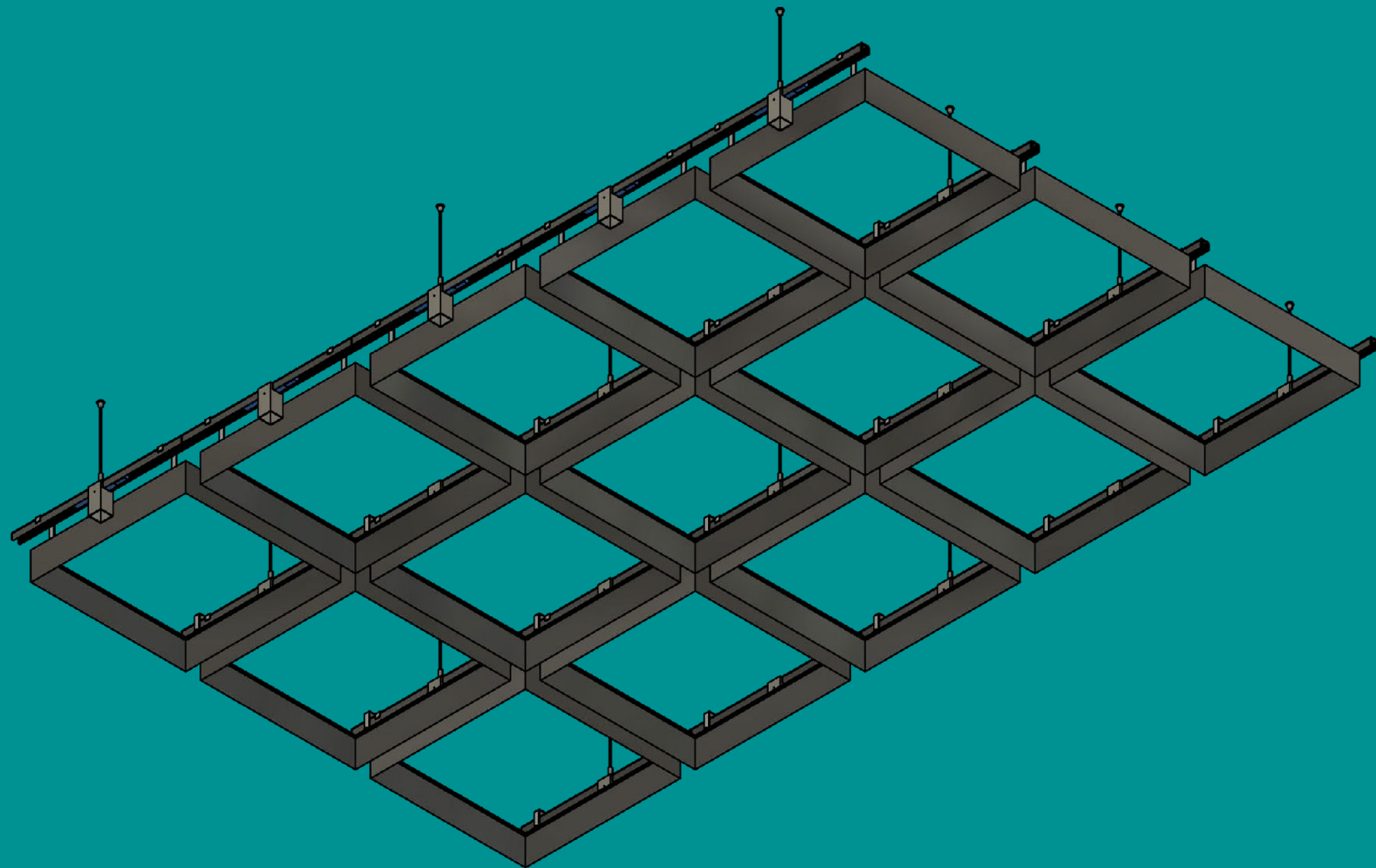
2700 K, 10°

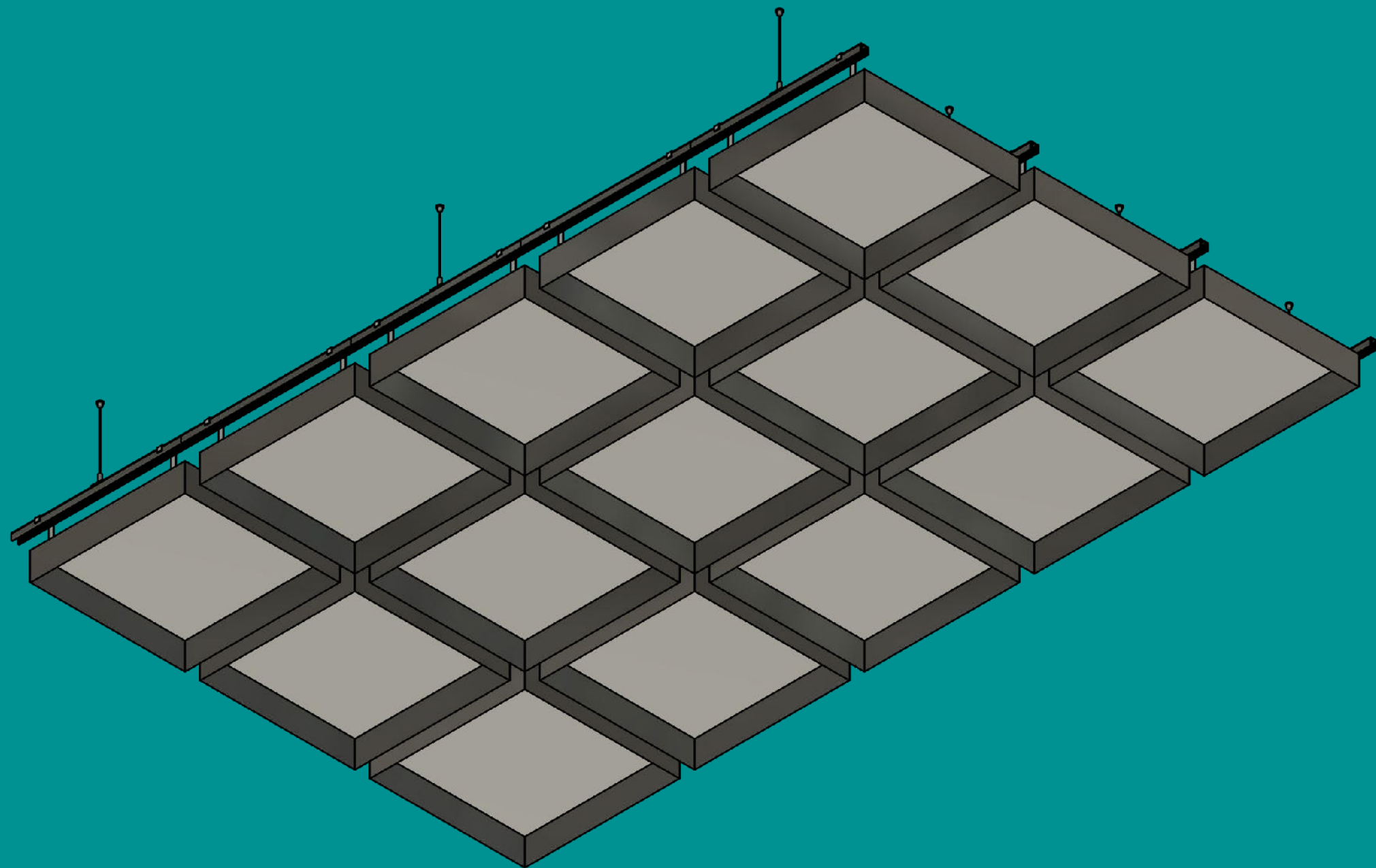


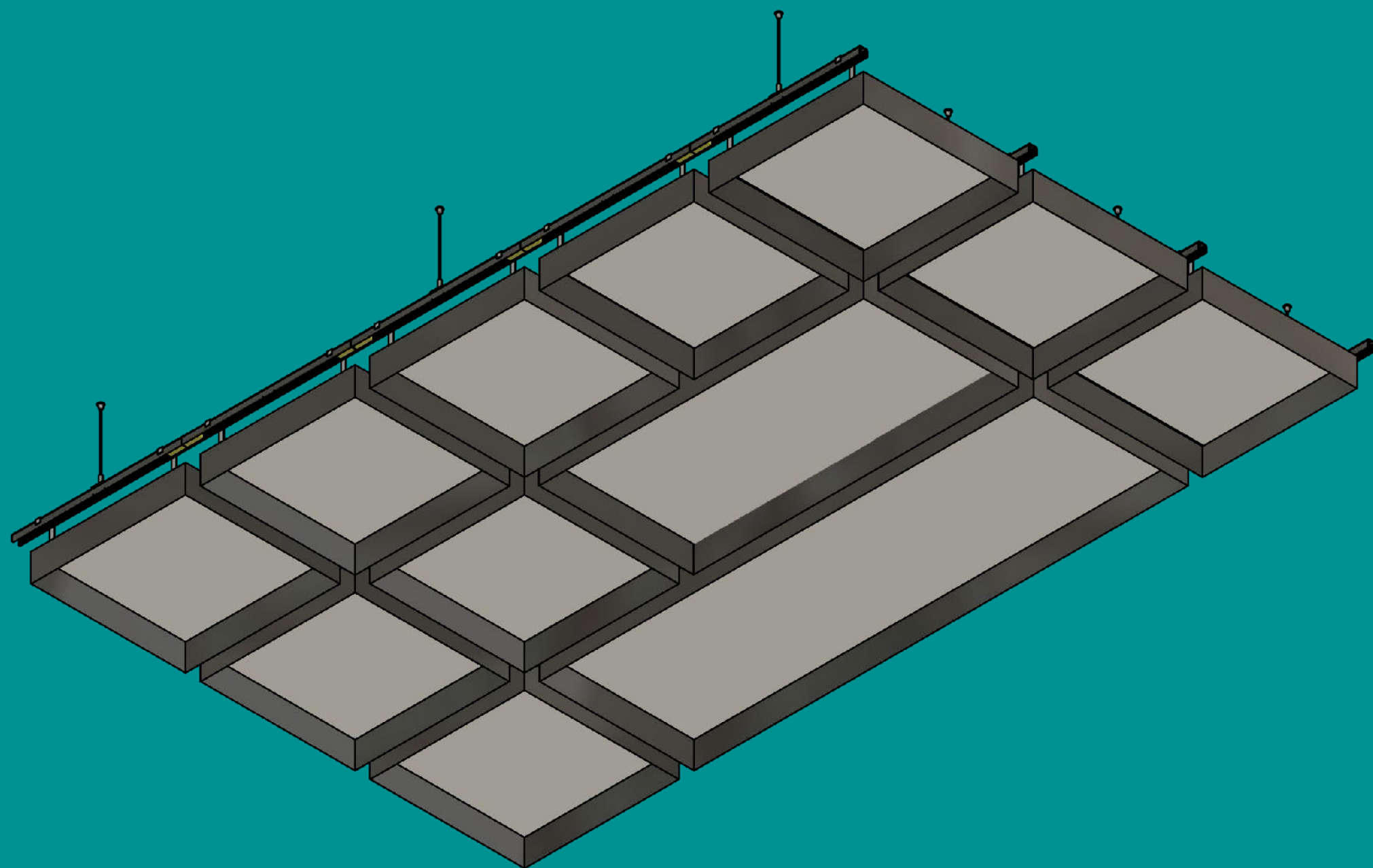
2700 K, 35°



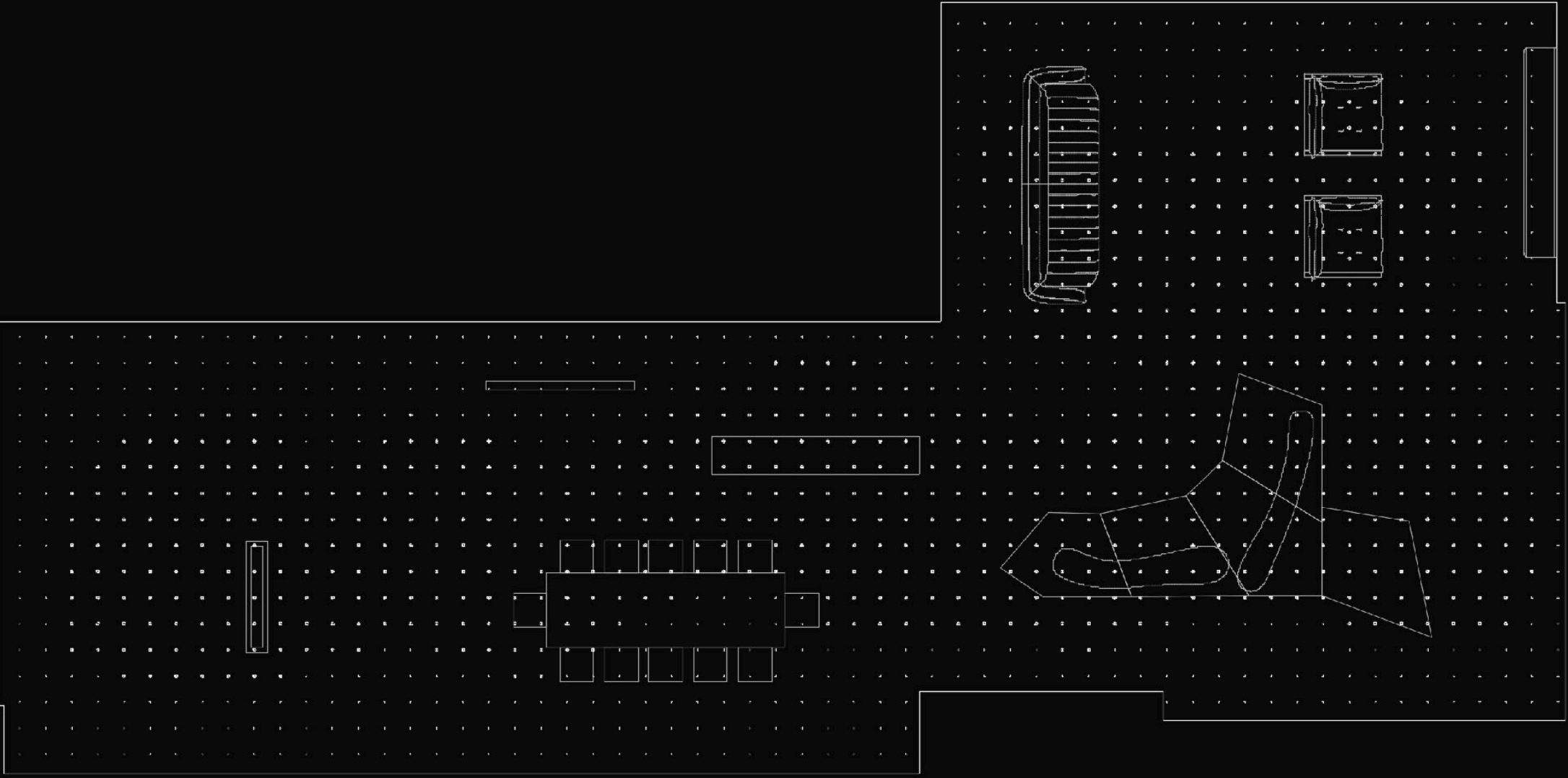


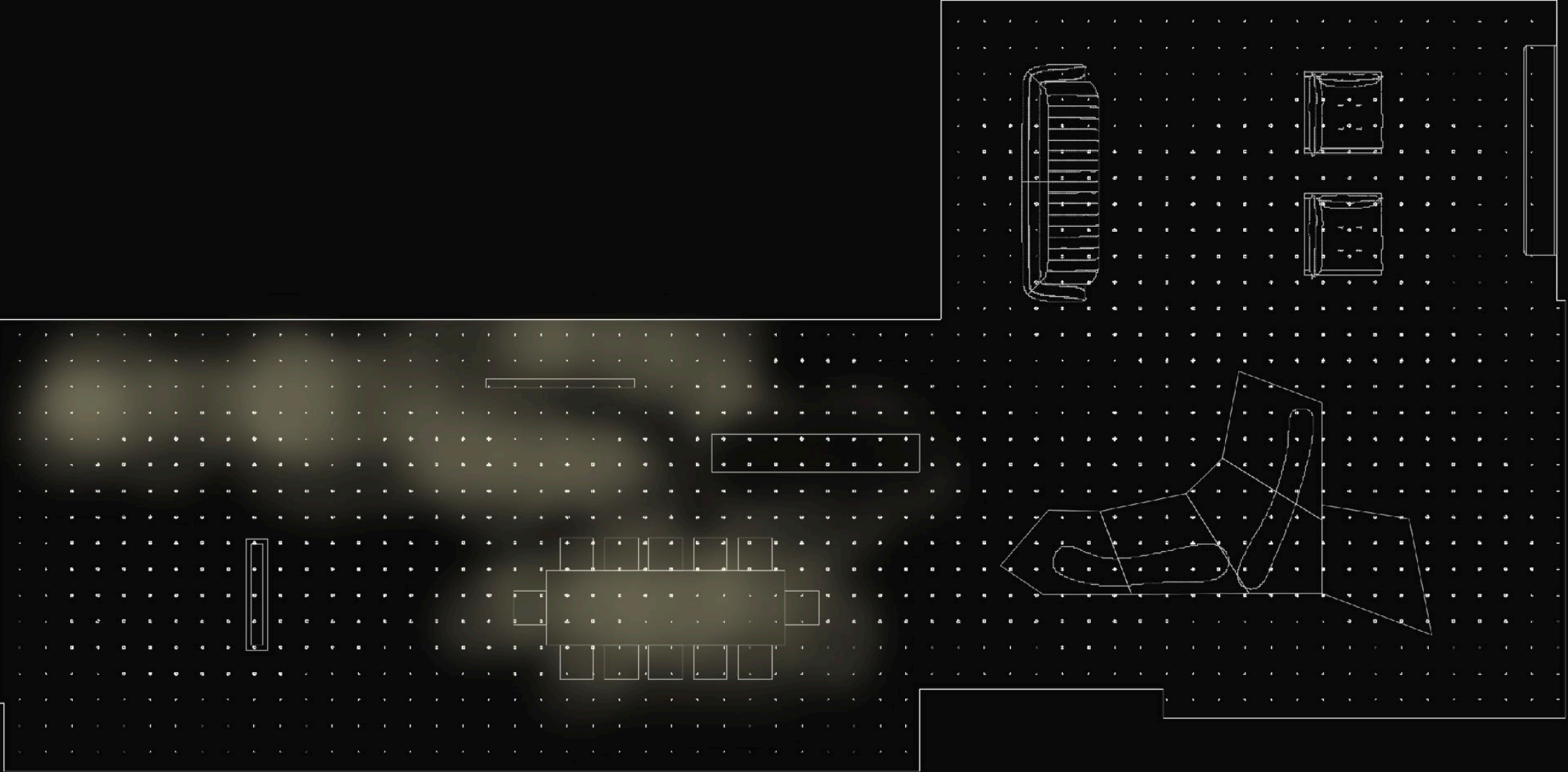


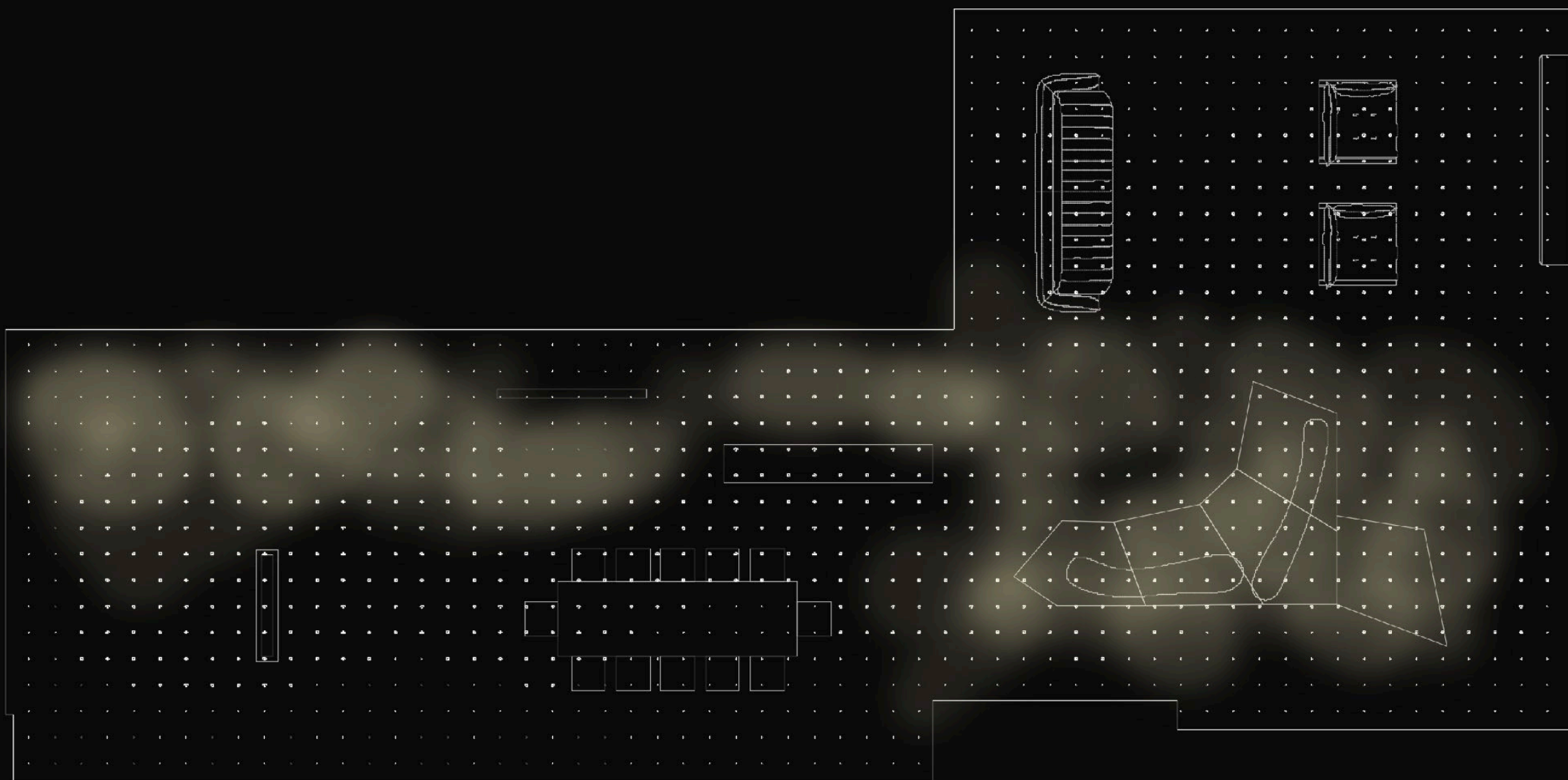


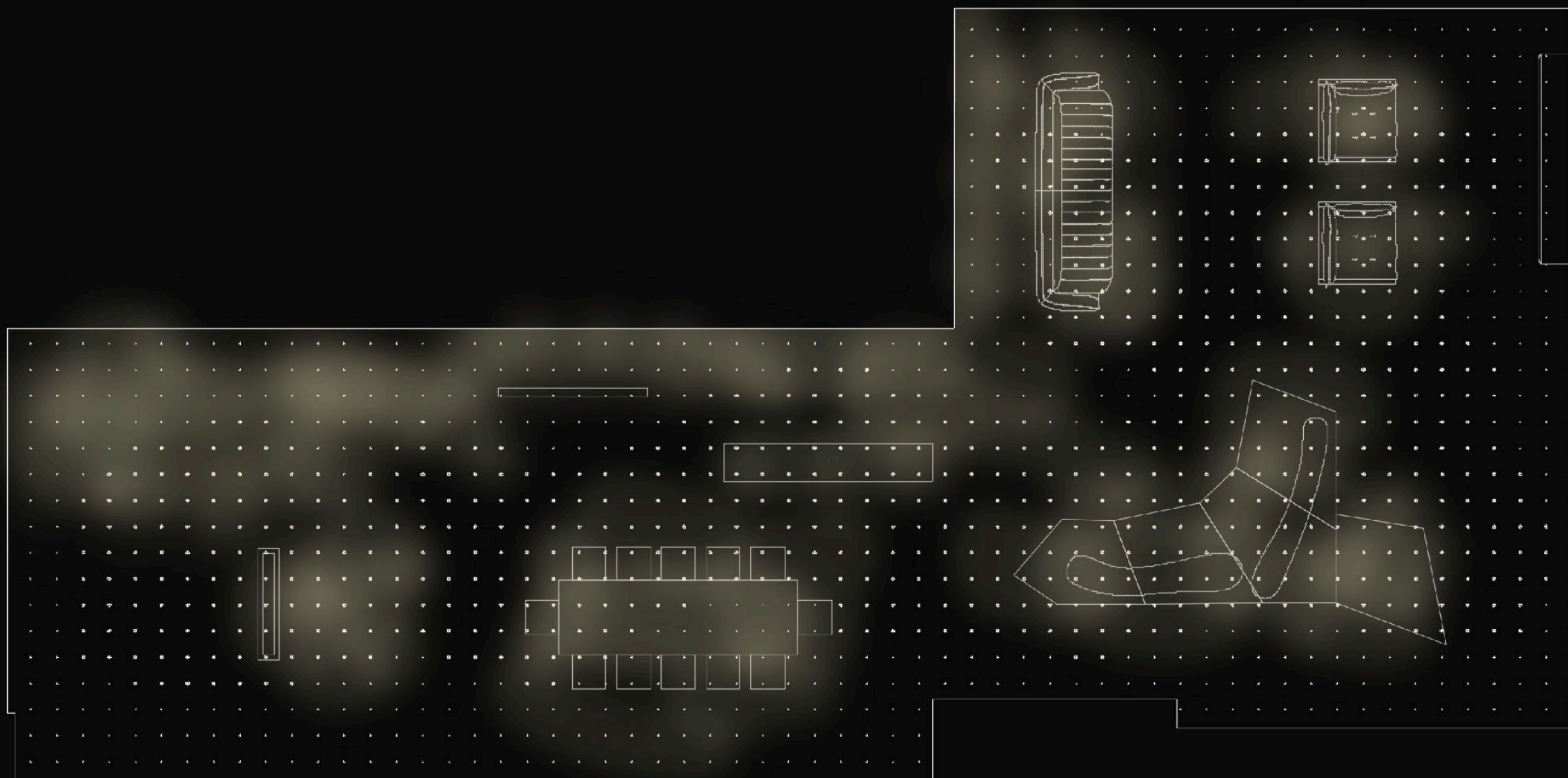












Focus Frames & Acoustic Possibilities

Black54 pushes acoustic lighting further, offering unparalleled flexibility. With a tablet, users can adjust zones, color temperature, intensity, and effects over time. A variety of acoustic materials and frame finishes allow architects to shape their vision.

As an integrator, **Focus** merges light and acoustics effortlessly. While not sound experts, we've partnered with **WHOOOZ**, a Belgian specialist, to ensure the perfect technical and aesthetic solution—seamlessly enhancing Black54's offerings.





Whooz: Acoustics as a Complement to Lighting

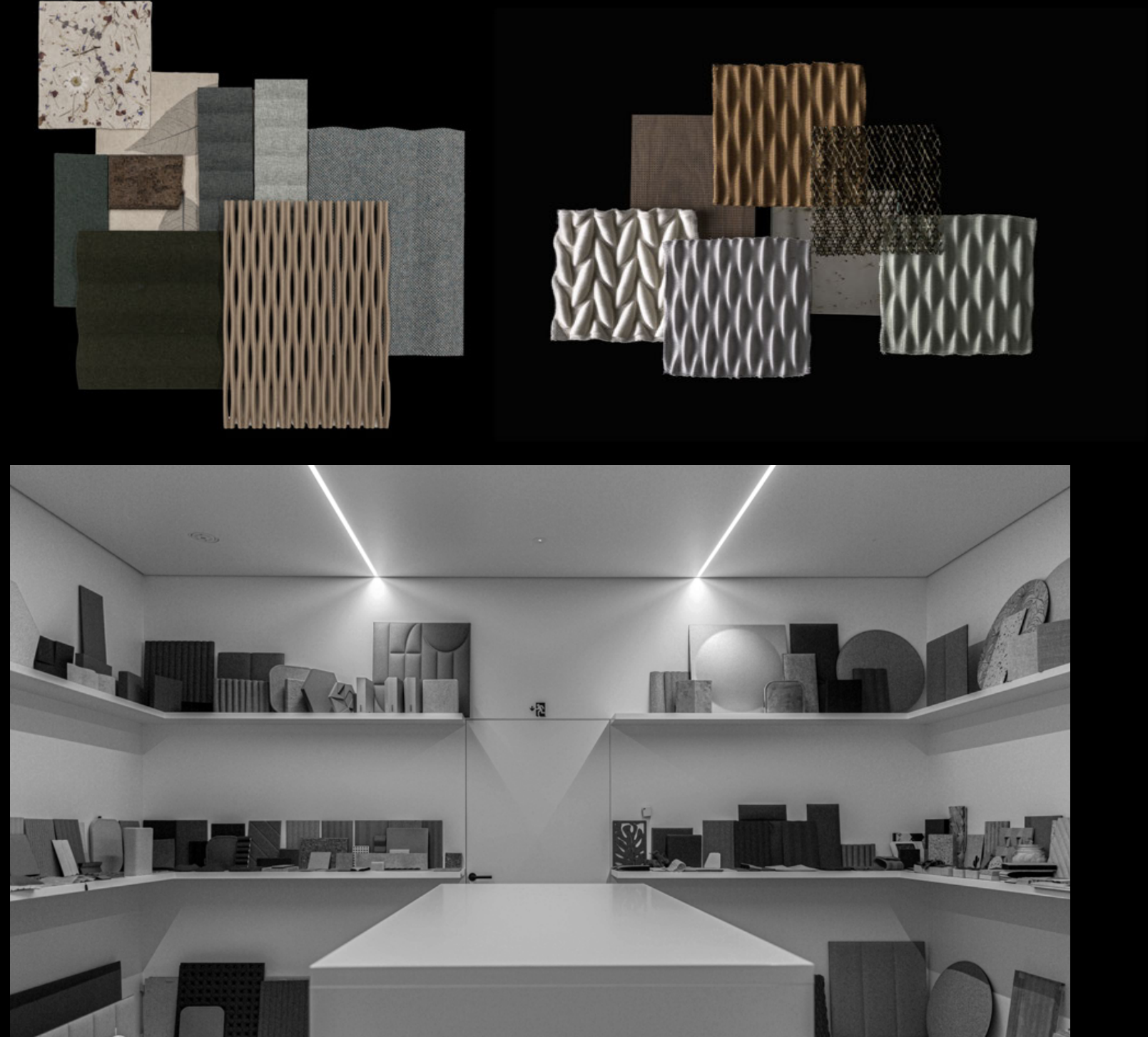
At Whooz, acoustics are seen as an essential complement to lighting, working in tandem to elevate both the functionality and ambiance of any space. Solutions from Whooz are designed to seamlessly integrate acoustic comfort with lighting systems, ensuring that these elements harmonize with the overall design.

By selecting sustainable materials, flexible and tailored solutions are provided to adapt to the unique requirements of each project, offering a perfect blend of light and sound for enhanced comfort and performance.

"As the initiator of **Whoooz**, I combine years of expertise in acoustics with a deep passion for design and architecture. Collaborating with designers and architects, I focus on creating innovative solutions that merge acoustic performance with striking aesthetics. Driven by a commitment to material innovation and sustainability, I strive to incorporate ecologically responsible choices into every project. This approach allows me to stay at the forefront of new developments, blending functionality, beauty, and environmental consciousness seamlessly.

"Proud to be part of the Black54 project, my collaboration with Jan Van Lierde, a highly respected designer, has been a journey of knowledge sharing, mutual inspiration, and a strengthening partnership, leading to impactful, sustainable design solutions that will serve the clients projects."

— Philippe Mahieu"

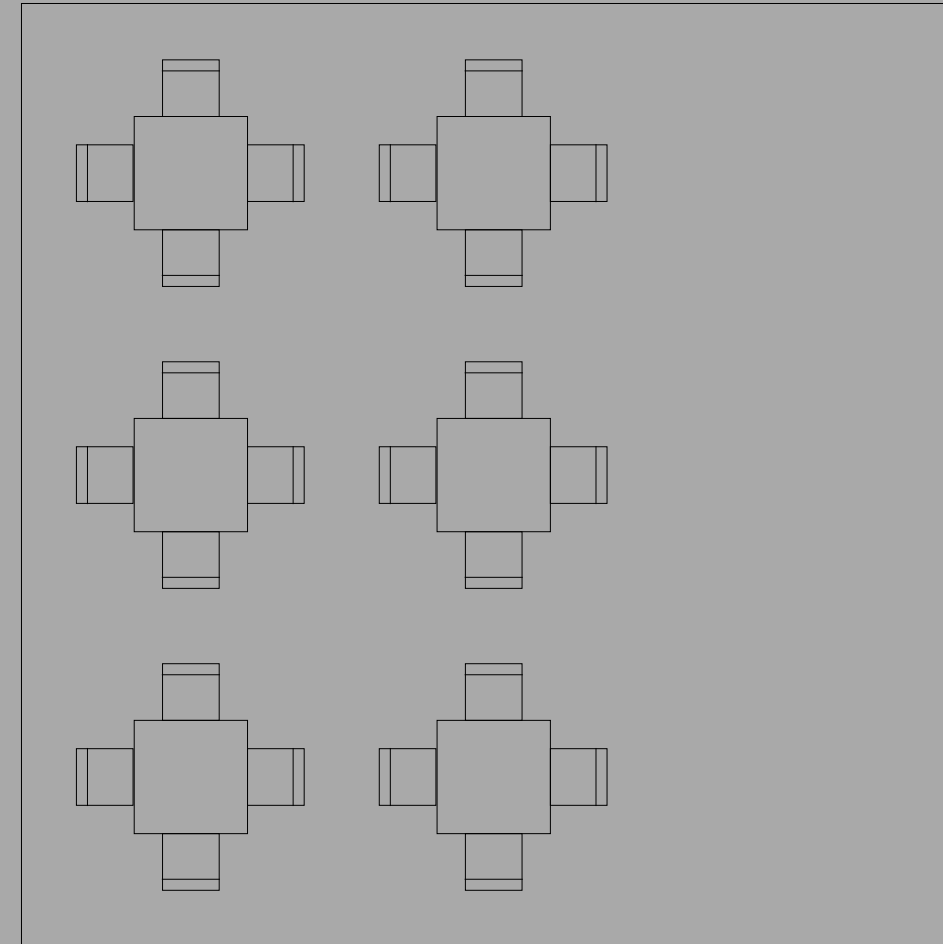


FOCUS LM (zoomable module)

- Adjustable light cone for functionality across varying ceiling heights.
- Allows control over light fall-off to achieve desired lighting effects.

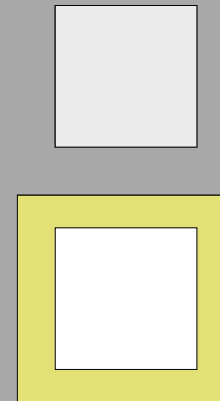


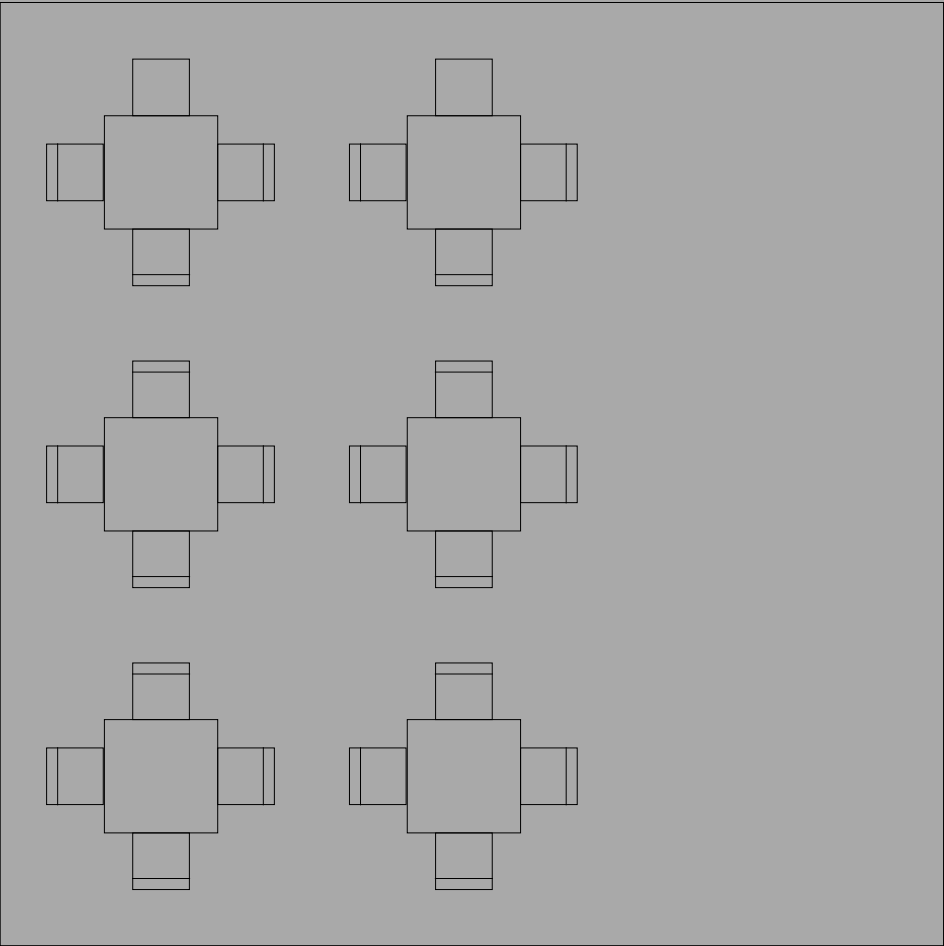
Concept



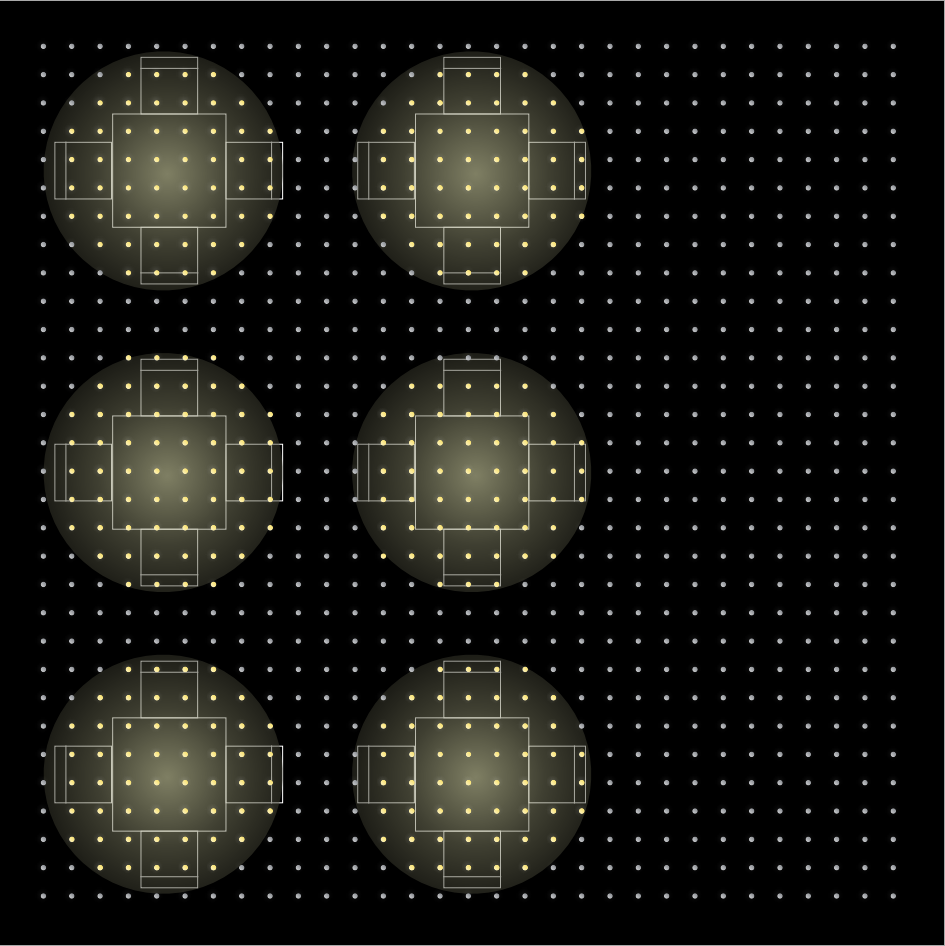
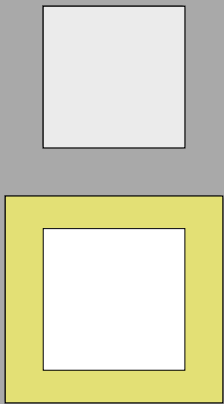
EDIT MODE 01

Layout can be changed

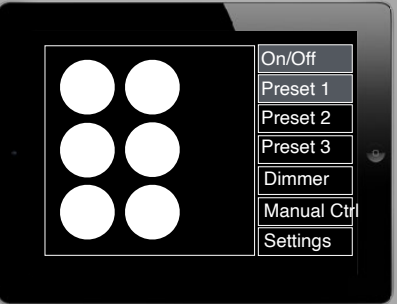


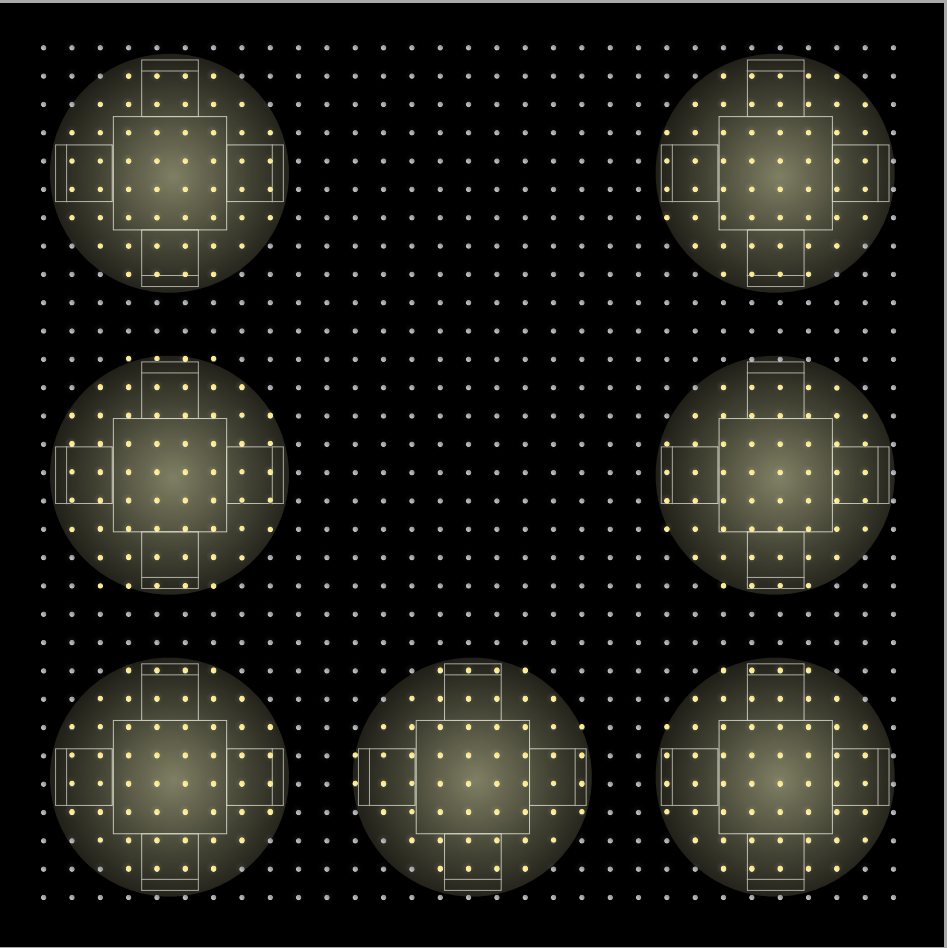
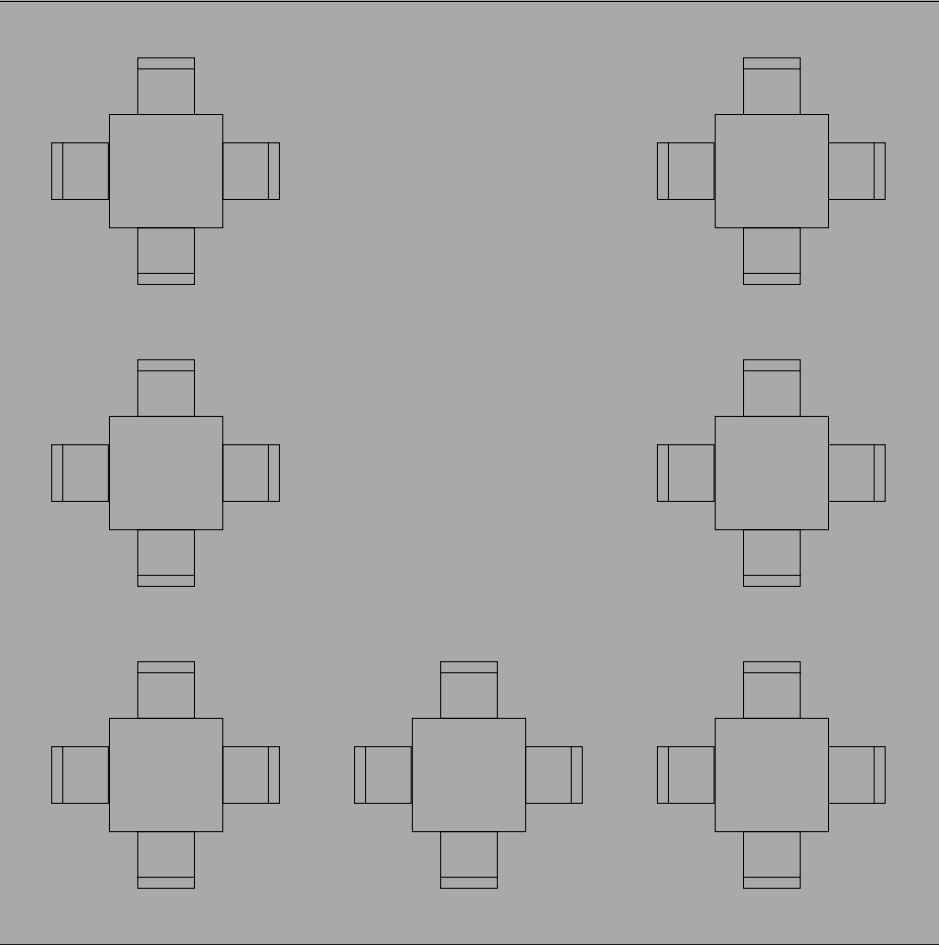


EDIT MODE 02
Layout can be changed

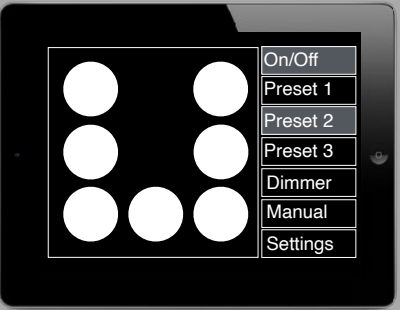
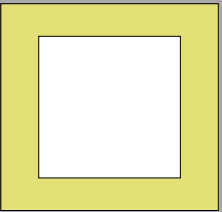


EDIT MODE 01
Lightened areas





EDIT MODE 02
Lightened areas



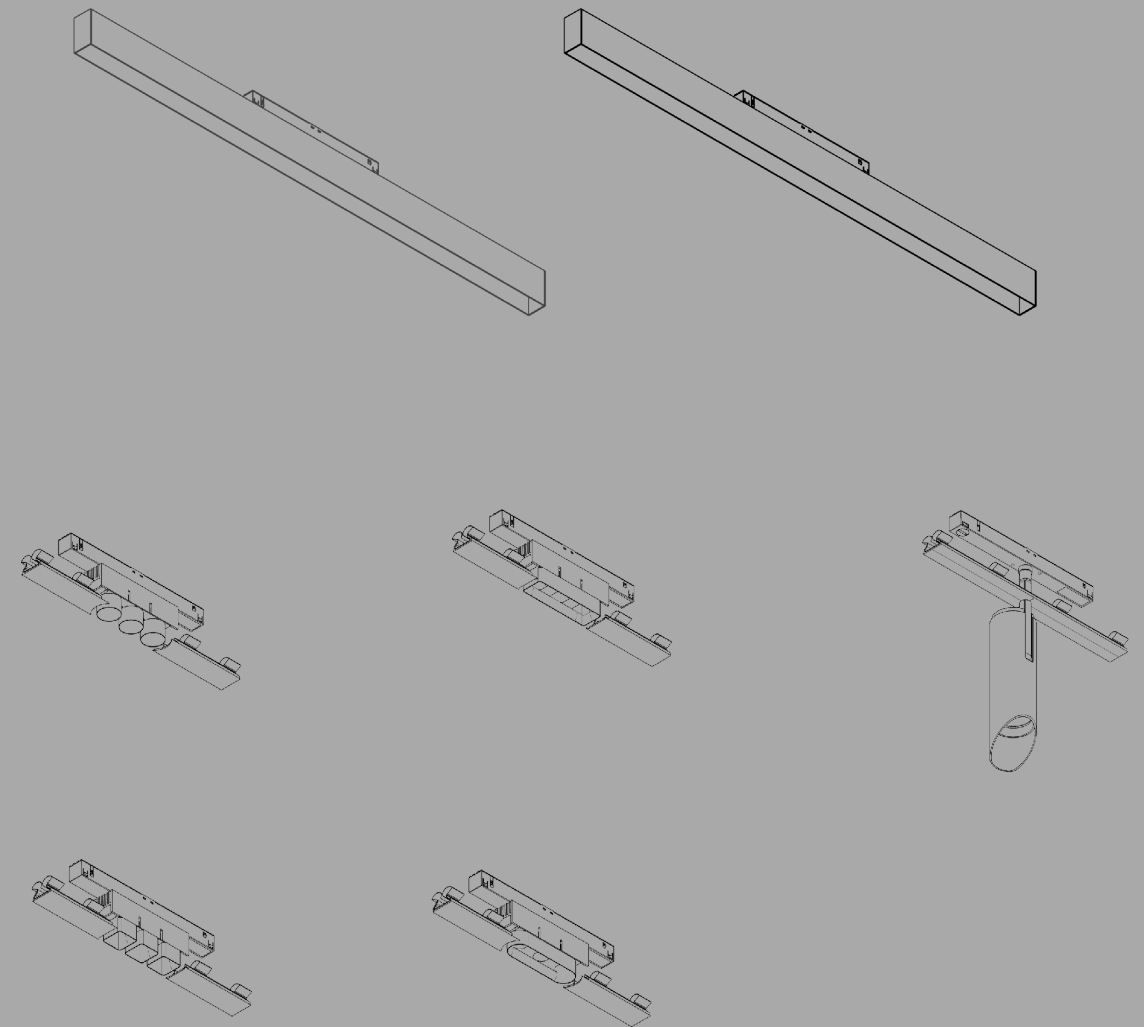
SET

Invisible Flexibility with IN-SET

as a concept, we can assure you we didn't lose any track !
but the track we use will get lost, out of view

we use a well known cabling technique (track lighting) but
the design was made in such a way that the stereotype
appearance of a track is hidden and we remain only with
some exquisite lighting details.

the idea is to apply a cumulation of small light sources,
opposite to the market direction to have more powerful units



SET

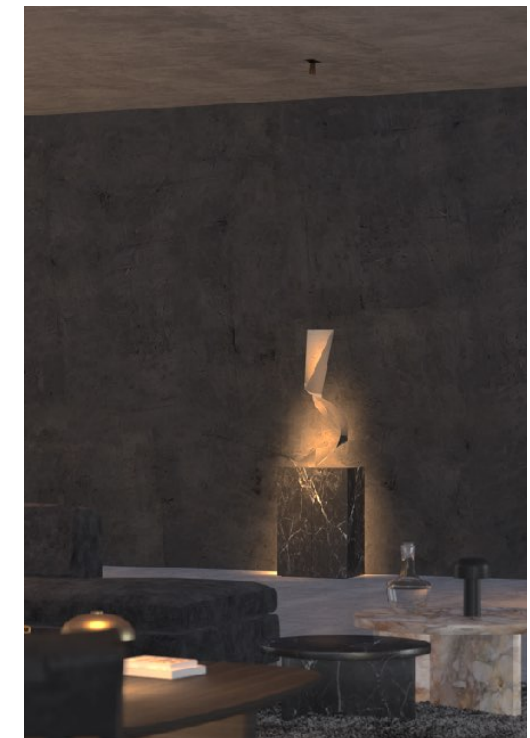
common challenges in the market

- ✗ Fixed positioning, no mobility
- ✗ No customization, all light source controlled with single switch
- ✗ Unwanted glaring, not suitable for eye comfort.
- ✗ Limited variations of lighting fixtures to choose and use together in harmony.
- ✗ Complex installation
- ✗ limited material and color options for ceiling mounted products.



solutions for these challenges

- ✓ Tracks with modular components
- ✓ All light sources individually controlled over a protocol.
- ✓ Custom designed light sources for maximum eye comfort.
- ✓ Variety of fixture choices from recessed lights to linear lights, multiple micro-spots to directional spotlights with technically and aesthetically compatible.
- ✓ Installation friendly components and design.
- ✓ Diverse choice of materials and coatings.



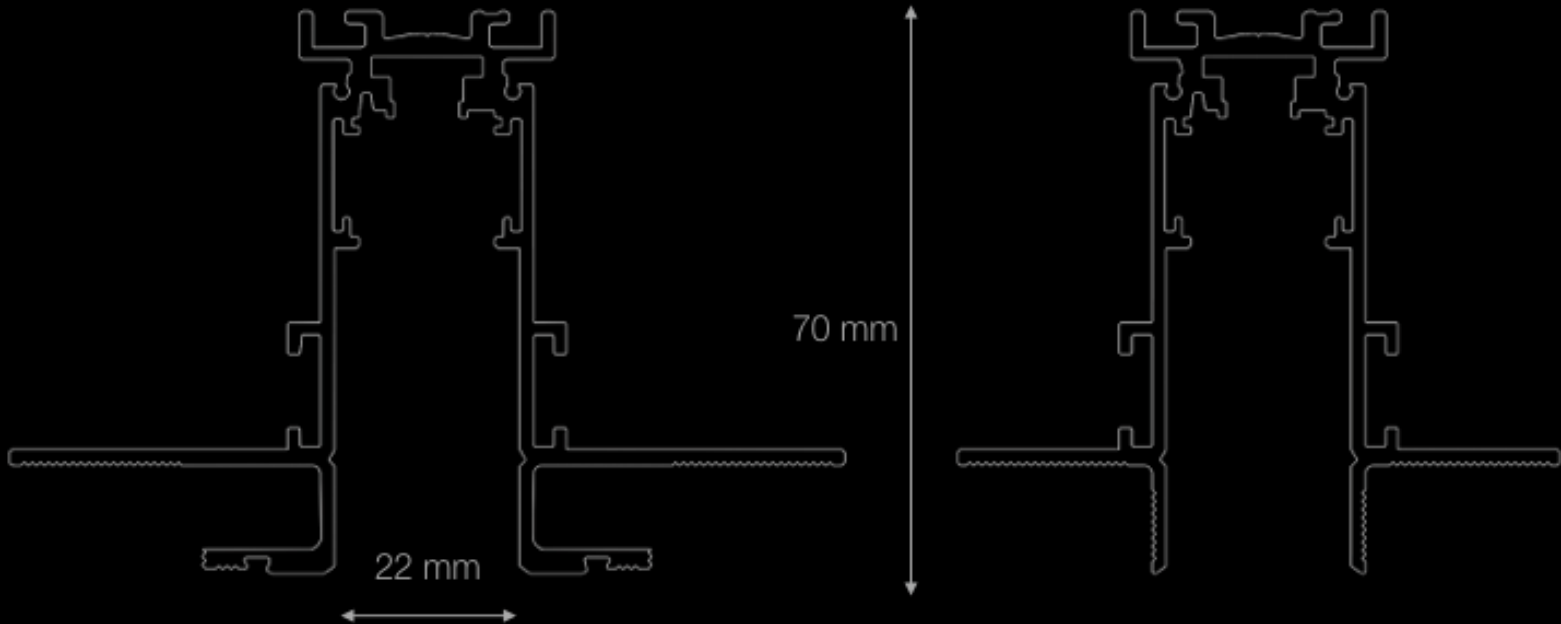
Solutions with “IN-SET”

- A modular, all included lighting track system for ease of use with full control over it in either hard ceiling and gypsum board scenarios.
- Variety of compatible fixtures from recessed to linear lights, multiple micro spots to directional spot lights for creating intriguing atmospheres in the spaces.
- Providing high quality lighting output with <10 UGR and above 90 CRI.
- All items have narrow beam angles (15- 20°) as part of Black54 lighting approach.
- Extended features such as unique adjustable angle controller for linear wall-washers.
- Not just a solution for technical challenges also overcomes the complexity of automation, controls over protocols but more importantly provides a sustainable comfort for daily human life.



Installation Made Simple

Choose from two types of built-in tracks: one for installation in “hard” ceilings, like wood, and another for 13mm plasterboard. These tracks come with perfectly matched covers that clip on, creating a seamless and elegant look. Both the track and covers are secured with stainless steel clips, ensuring their shape remains intact until ceiling panels are mounted.

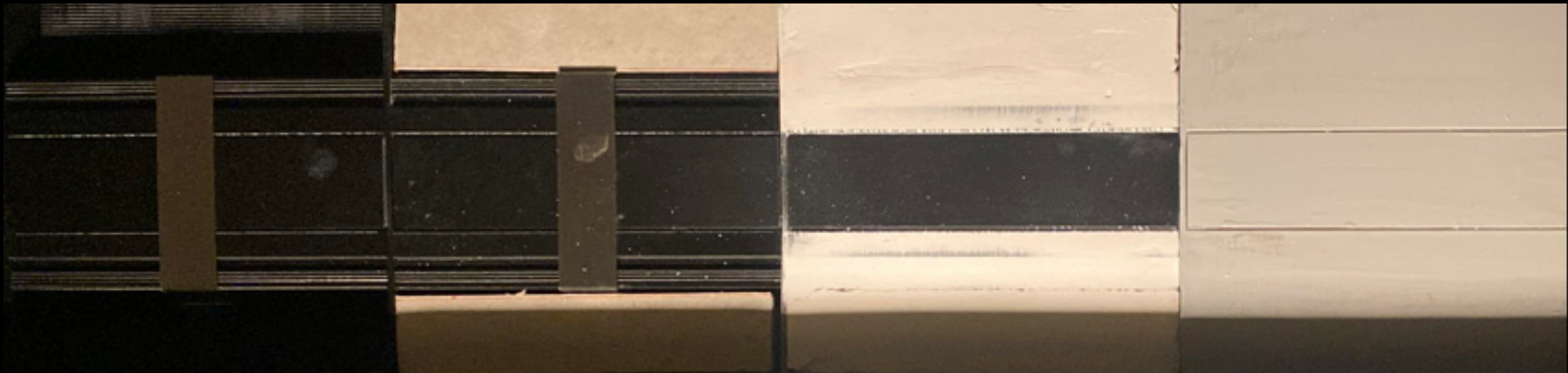


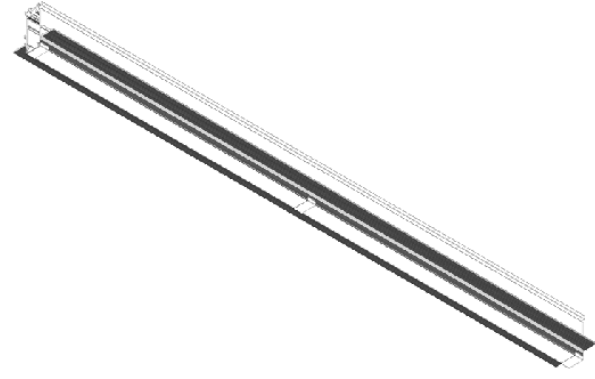
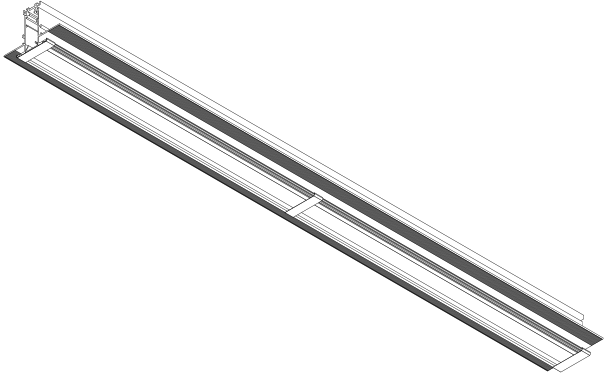
mounting track

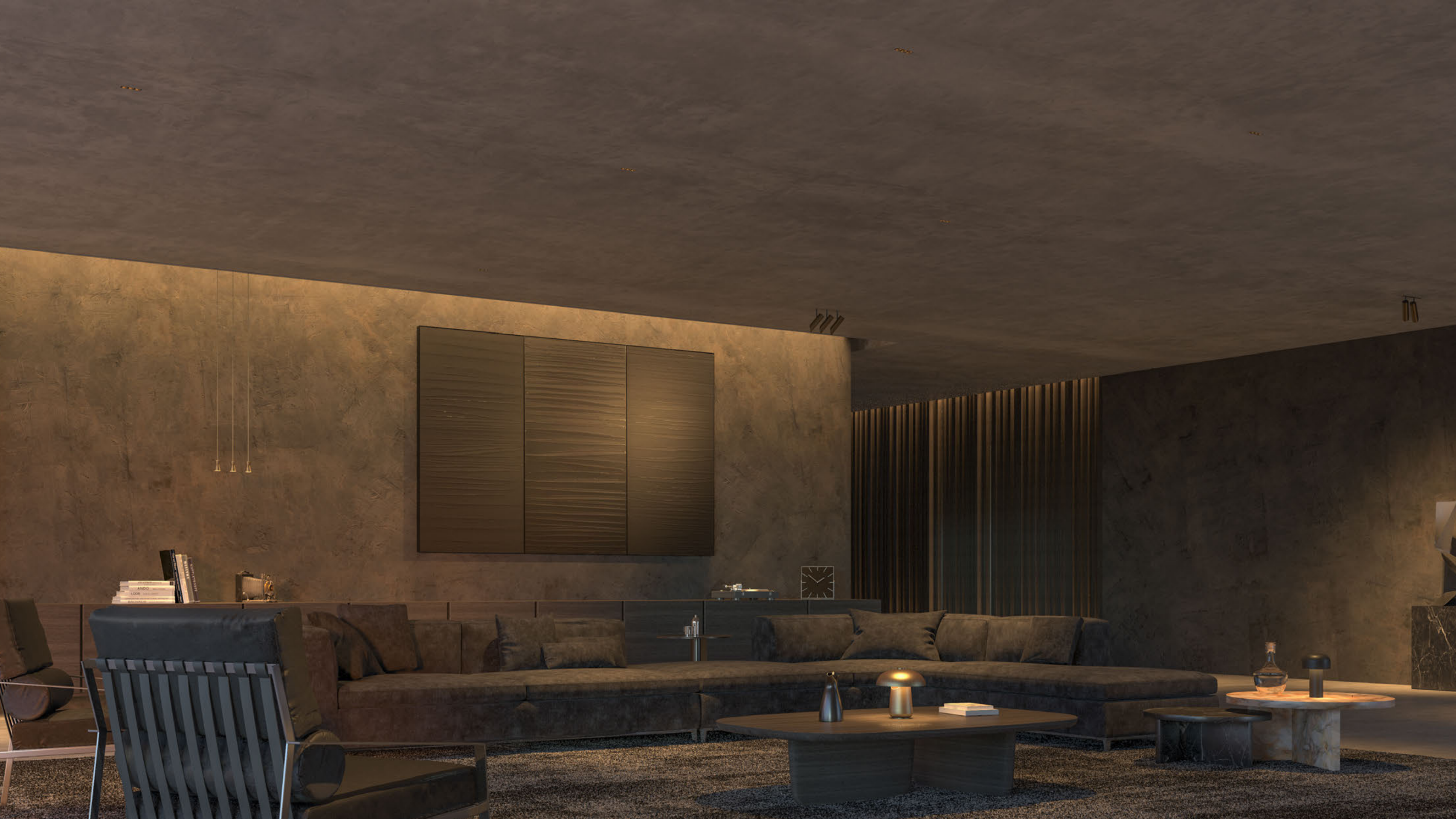
mounting the gypsum board

plastering the borders

final finish





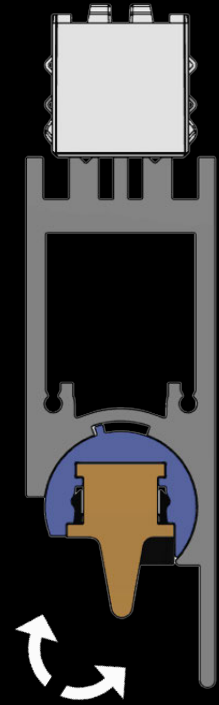
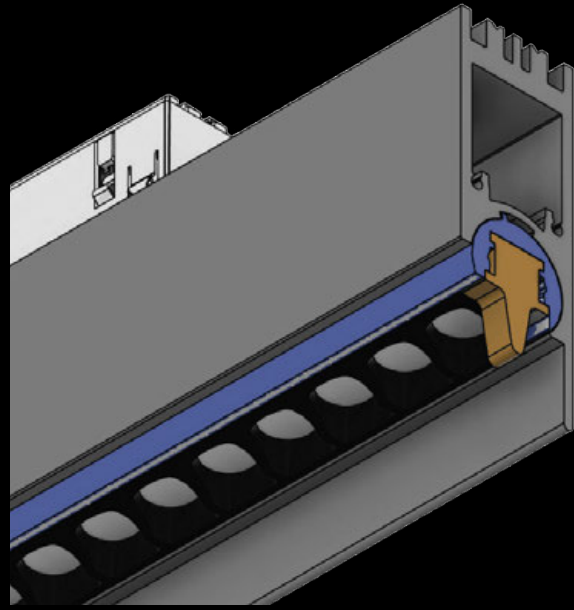
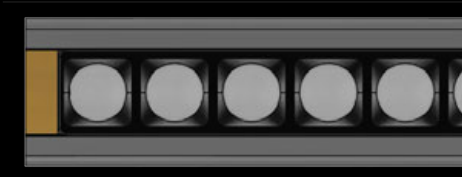
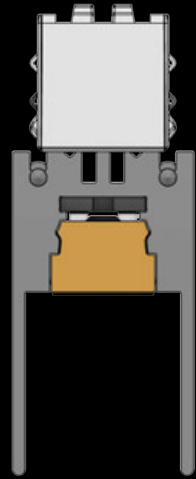
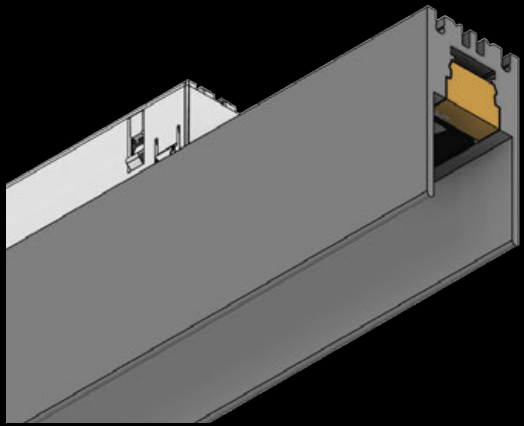


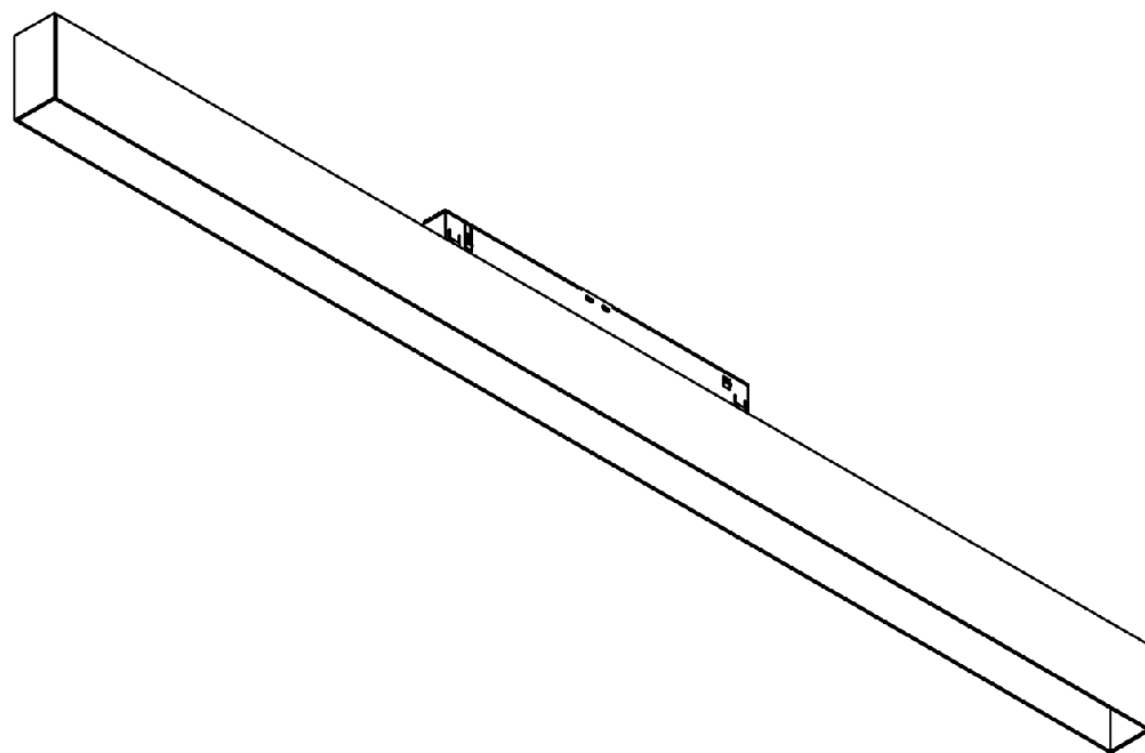
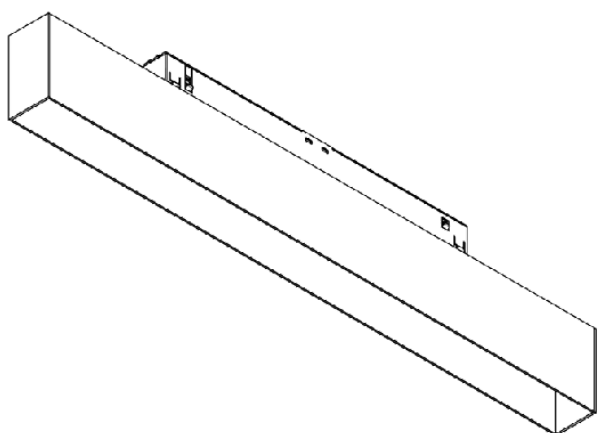
LINES:
Precision Wall Washing

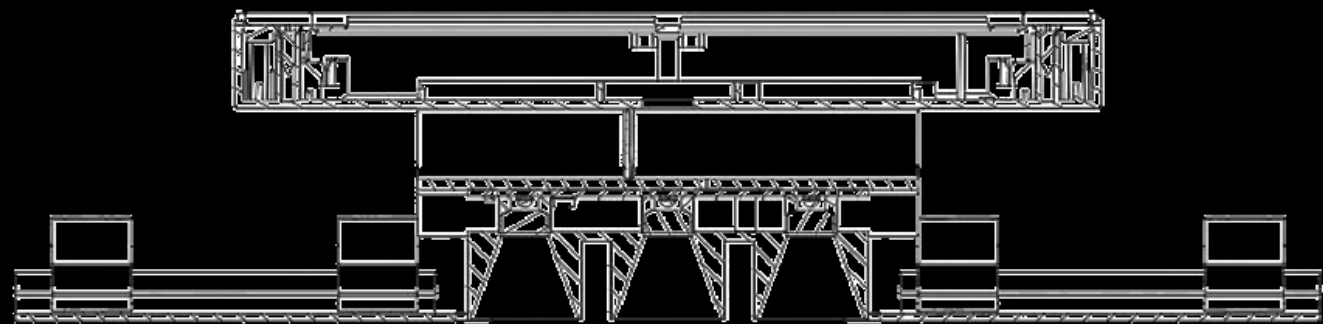
Our LINES series includes adjustable wall washers, designed with a 20° orientation to project light accurately onto walls. This family is completed with a narrow vertical beam, deeply recessed, that highlights architectural elements in a linear fashion.



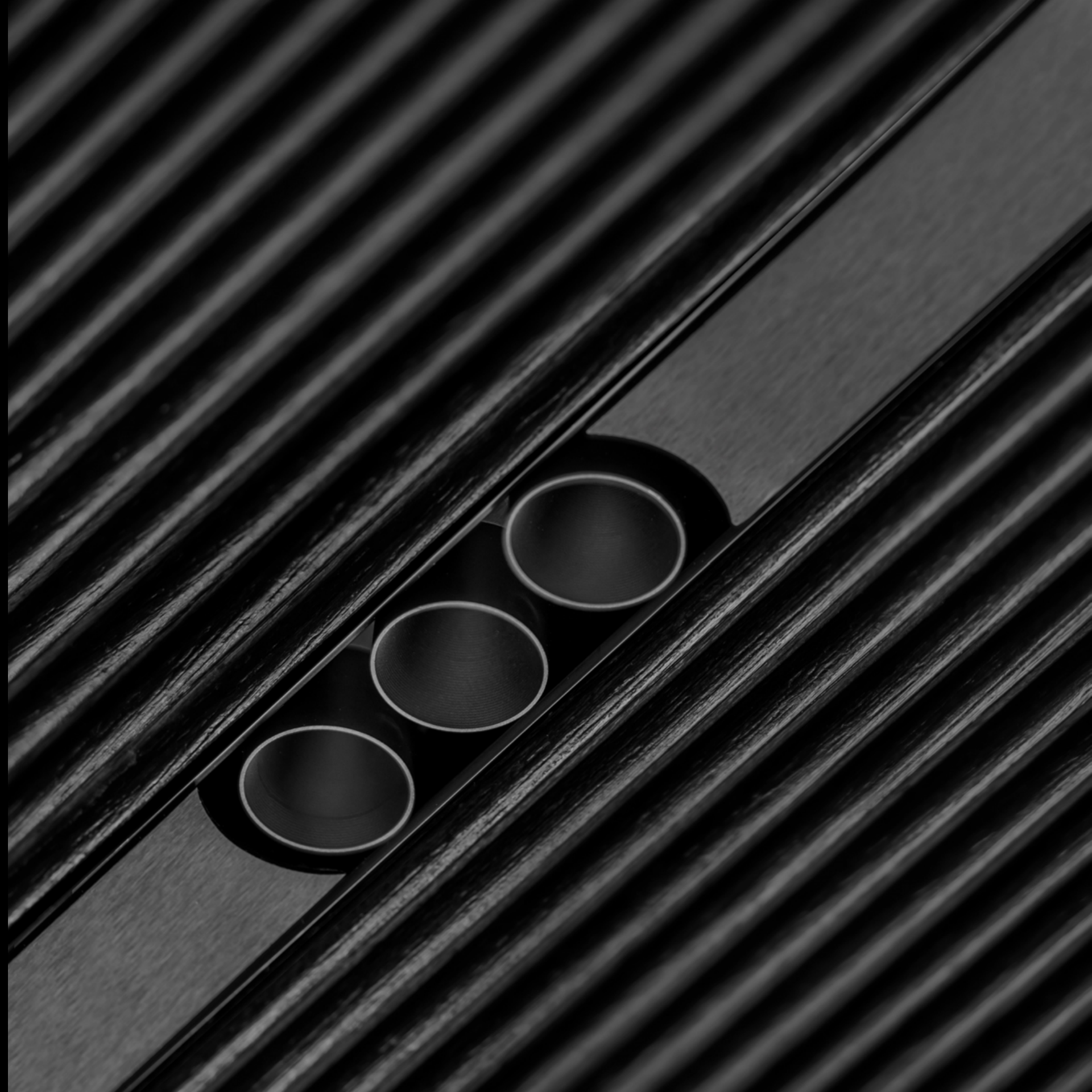
IN-SET







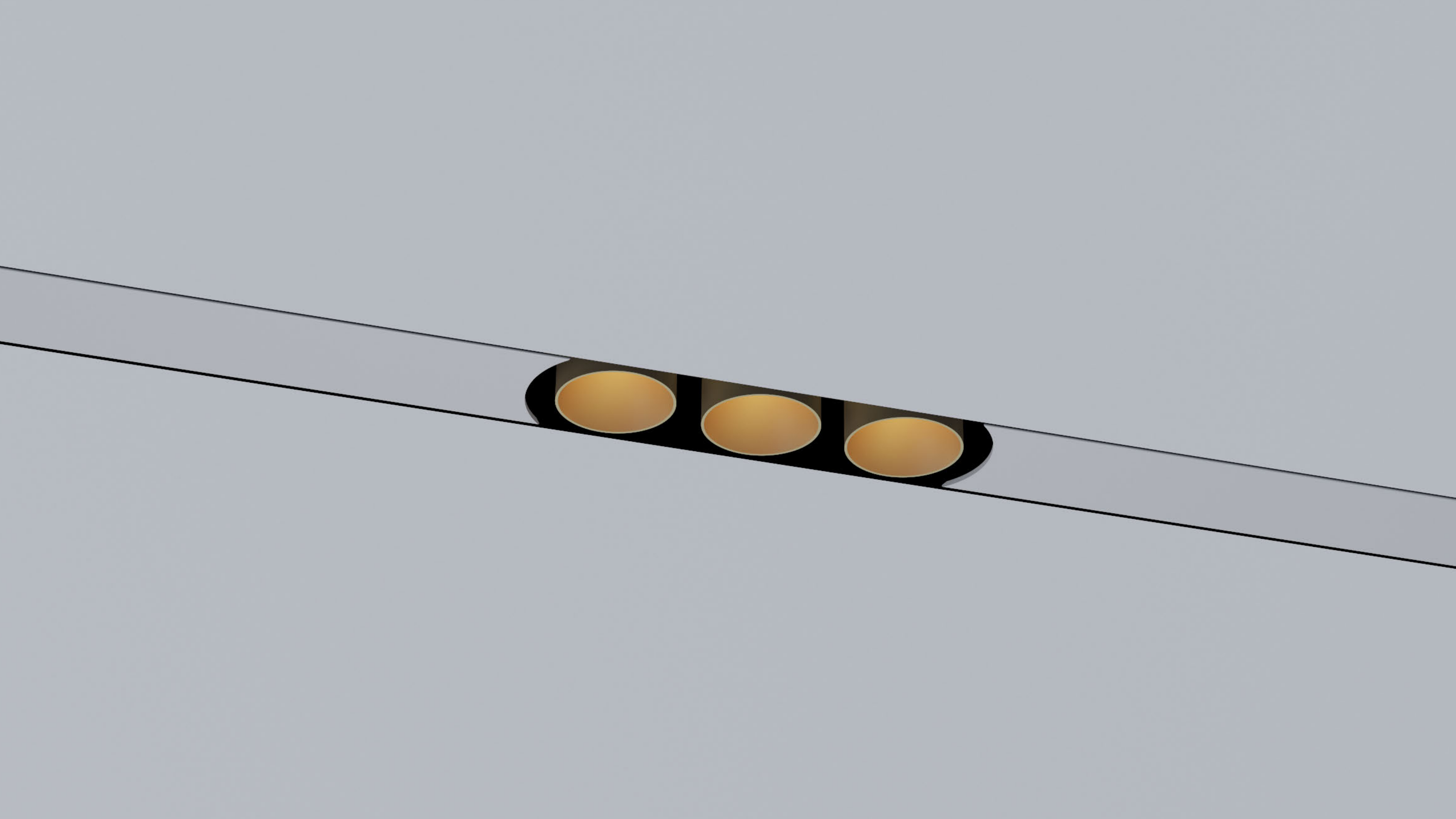
The IN-SET series also features accent light modules. Controlled via DALI signals with built-in Edoled drivers, these lights offer $UGR < 10$, a choice of four color temperatures, perfect COA (Color Over Angle) results, and a high light output of up to 750 lumens. Complementary covers (luminaire + covers = 25cm) add to the sleek design.



INSET 3x1, 2x1

- IN-SET 3x1 and 2x1 equipped with narrow beam lenses and gives variety of options for materials and number of nozzles.
- Equipped with 2 or 3 nozzles for desired lighting homogeneity and distribution

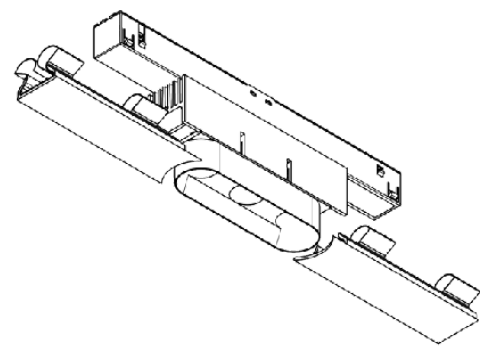
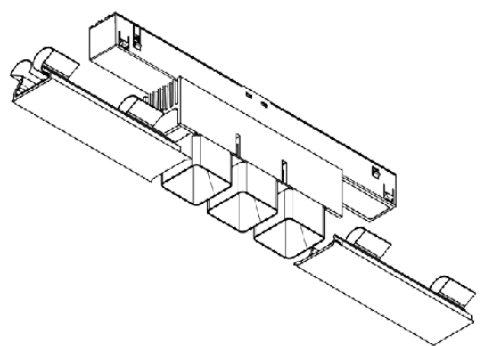
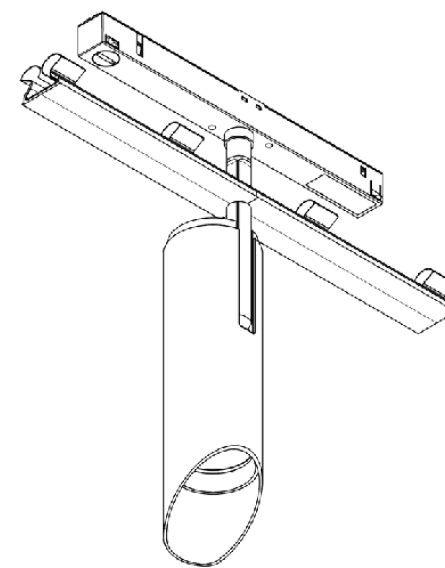
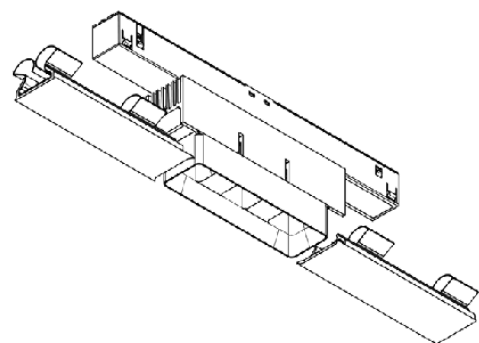
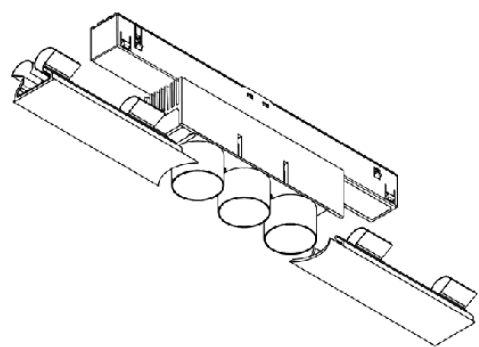


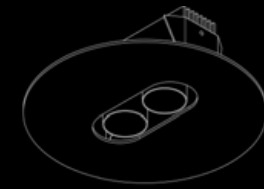
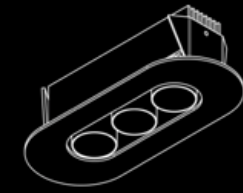
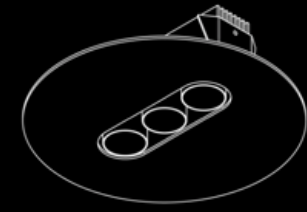


INSET ESS - a zoomable visor

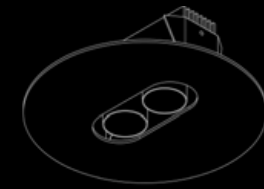
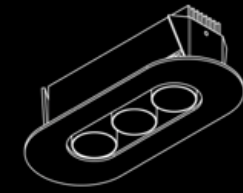
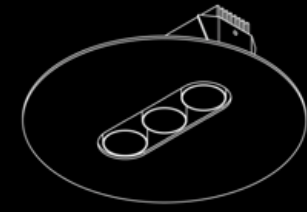
- IN-SET ESS is a multi directional spotlight with special visor for eye comfort and light distribution.
- Visor also can be used as a zoomable for desired light distribution.



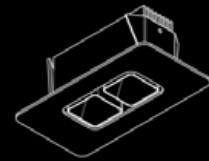
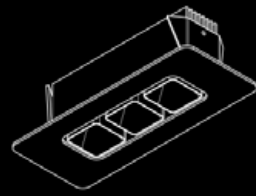




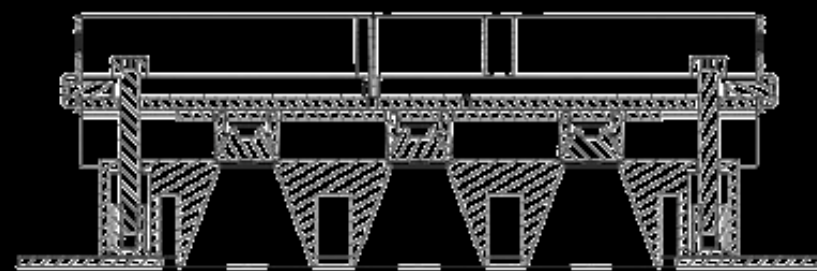
OFF-SET



OFF-SET



Track installations aren't always feasible in every setting, so we also designed "single" products. Using the same light engines, we created a simple, elegant design that's easy to integrate. With a shallow installation depth of just 40mm and a UGR <10, these devices come in 2x1 and 3x1 configurations and offer both constant current and constant voltage (24V) options, giving installers greater flexibility.



40 mm



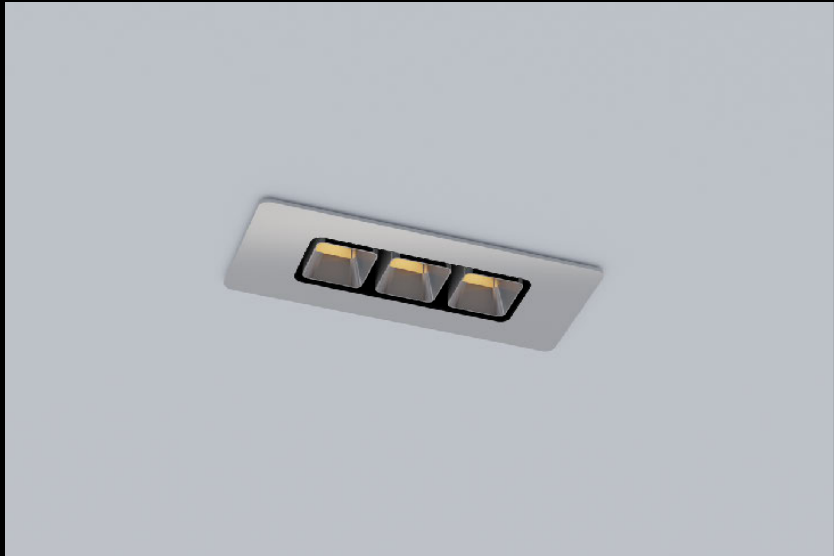
a complementary addition: “OFF-SET”

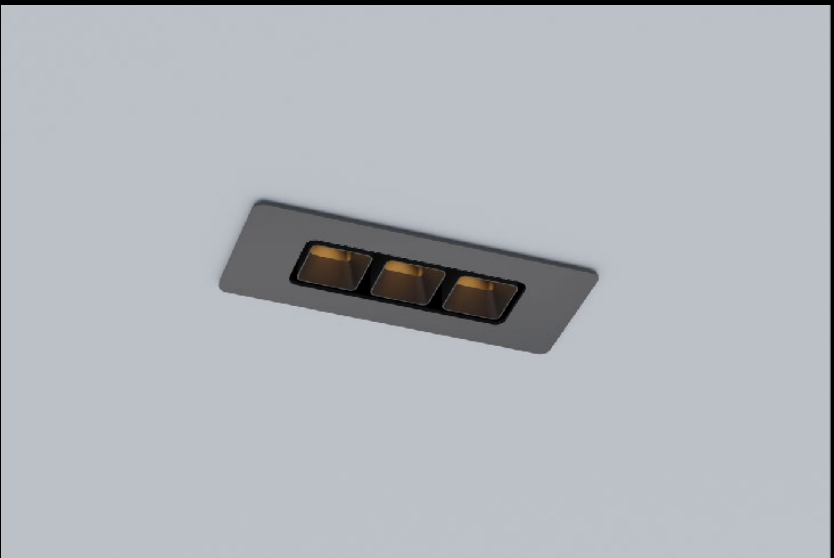
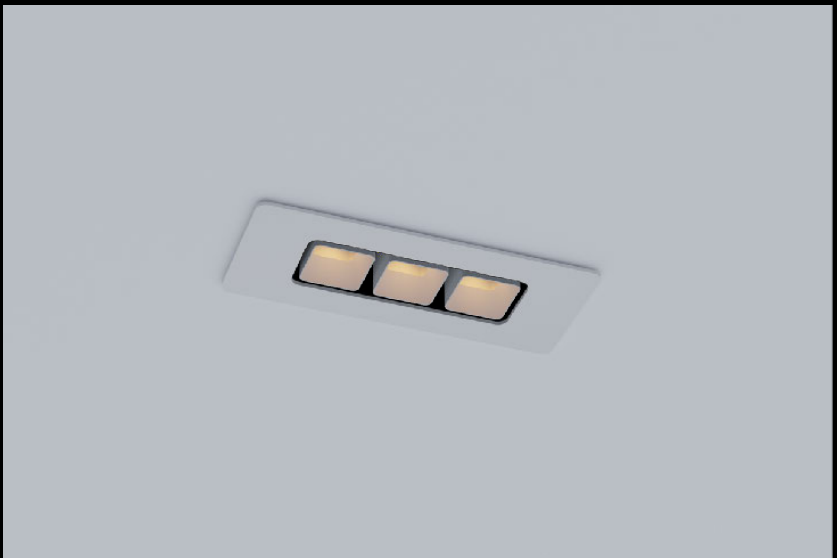
- OFF-SET 3x1 and 2x1: a unique recess depth of 40mm with various material options,

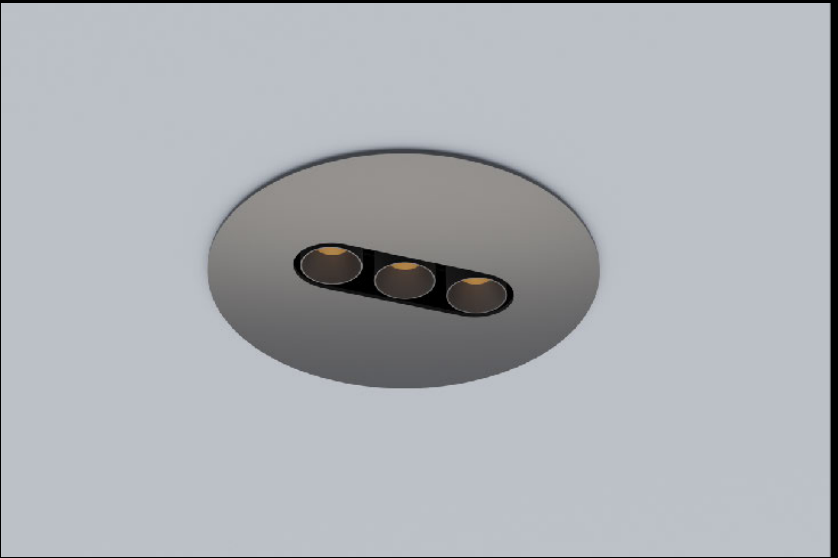
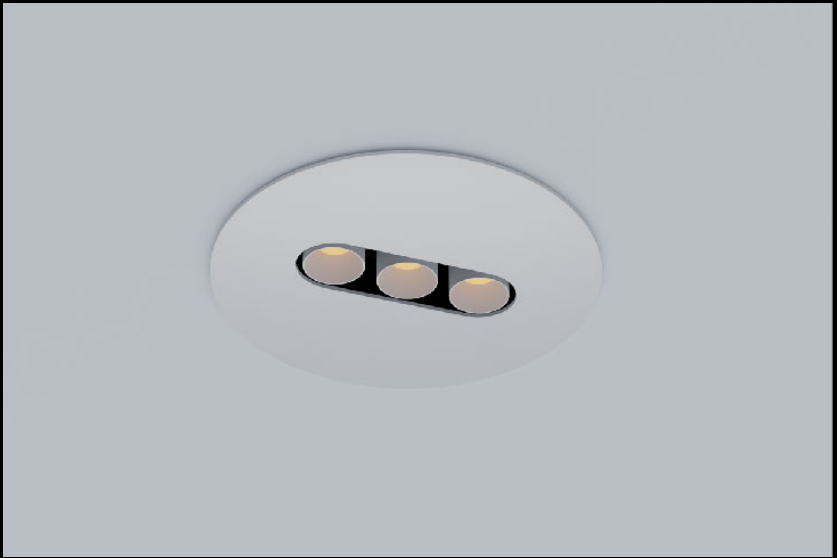
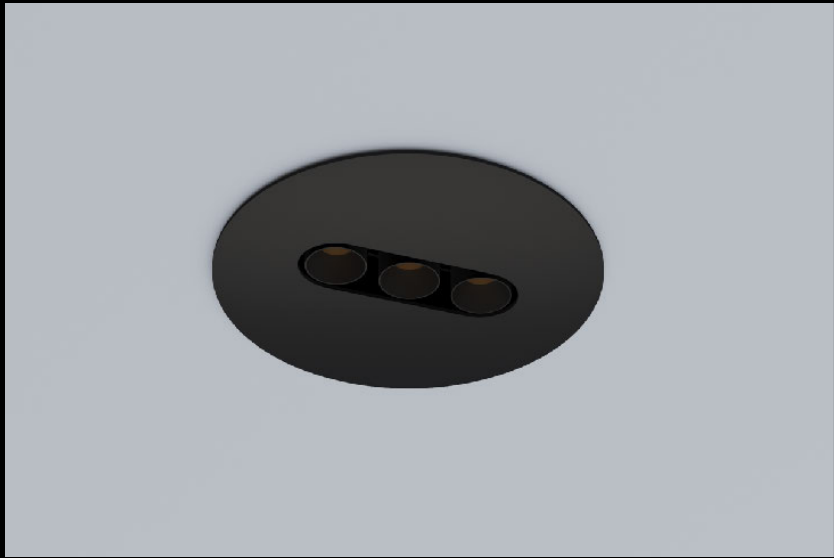
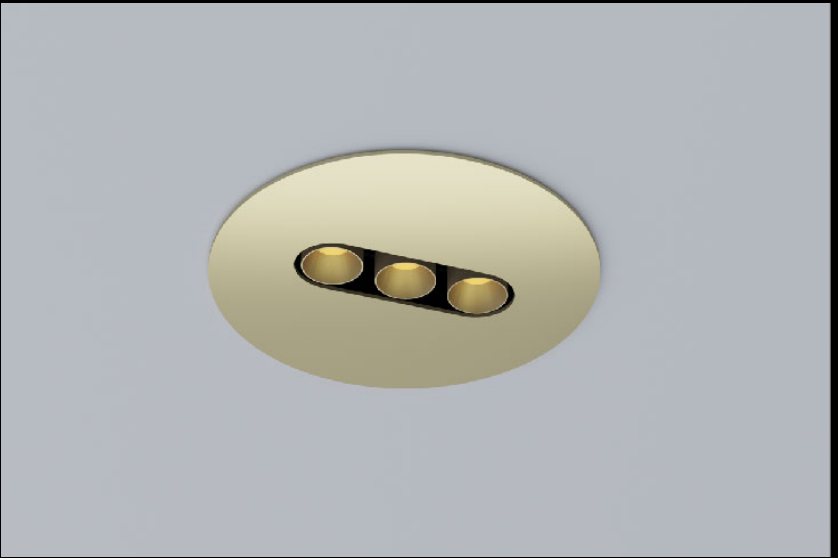
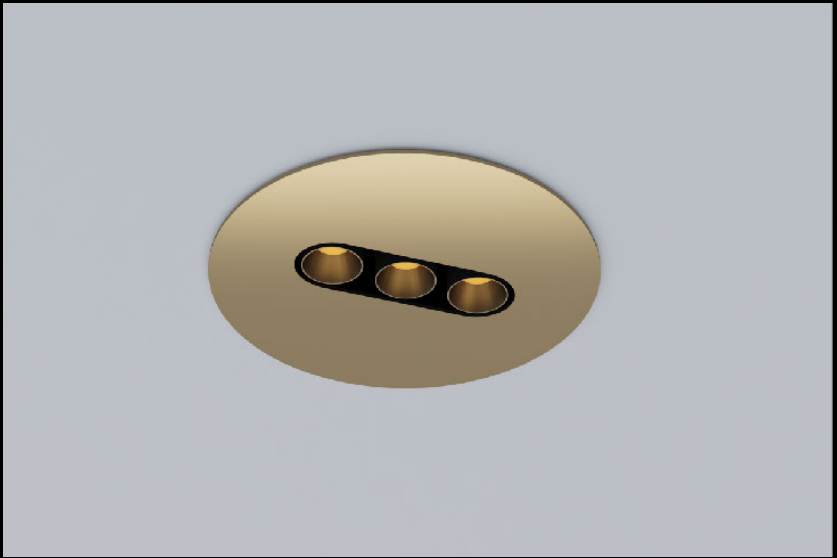
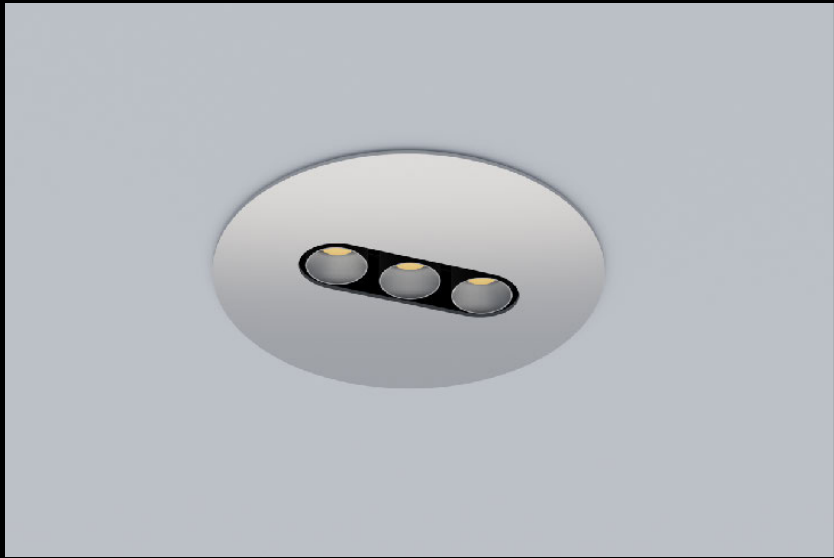


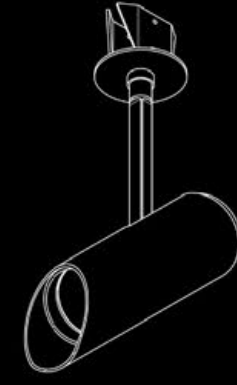


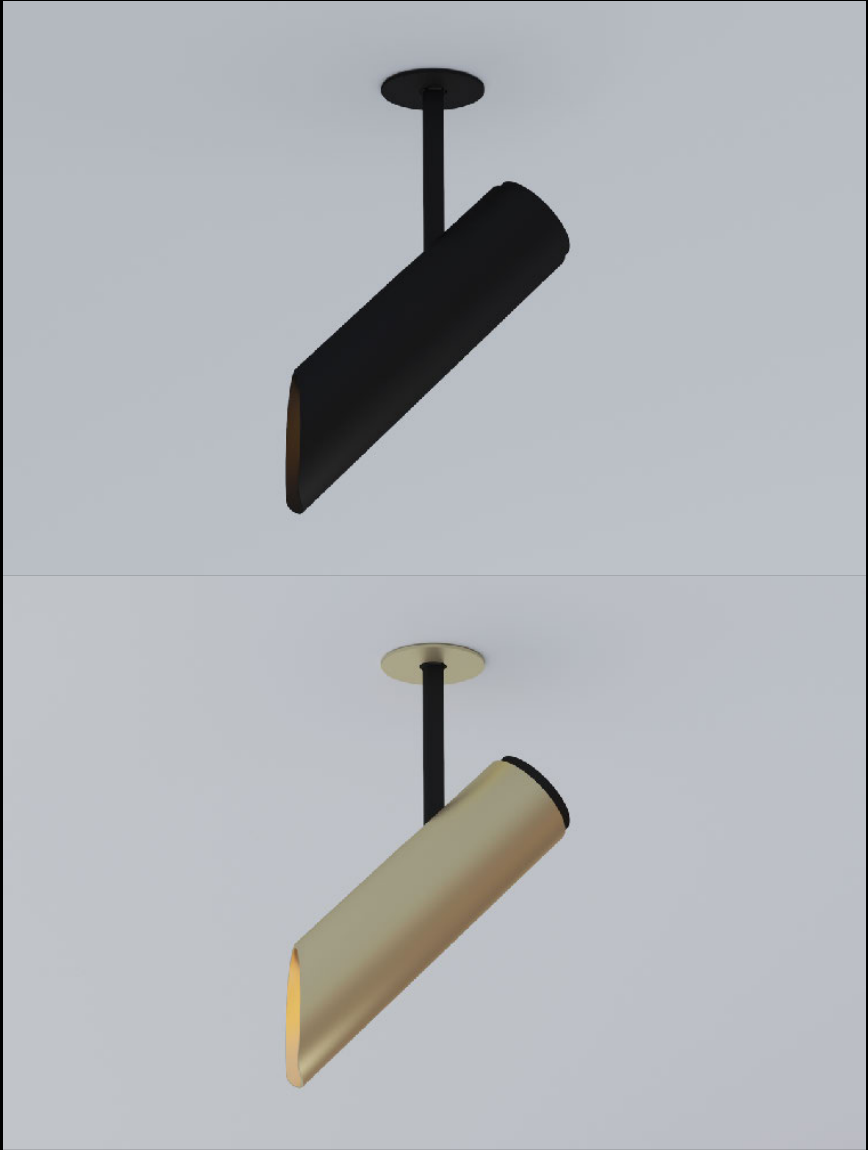


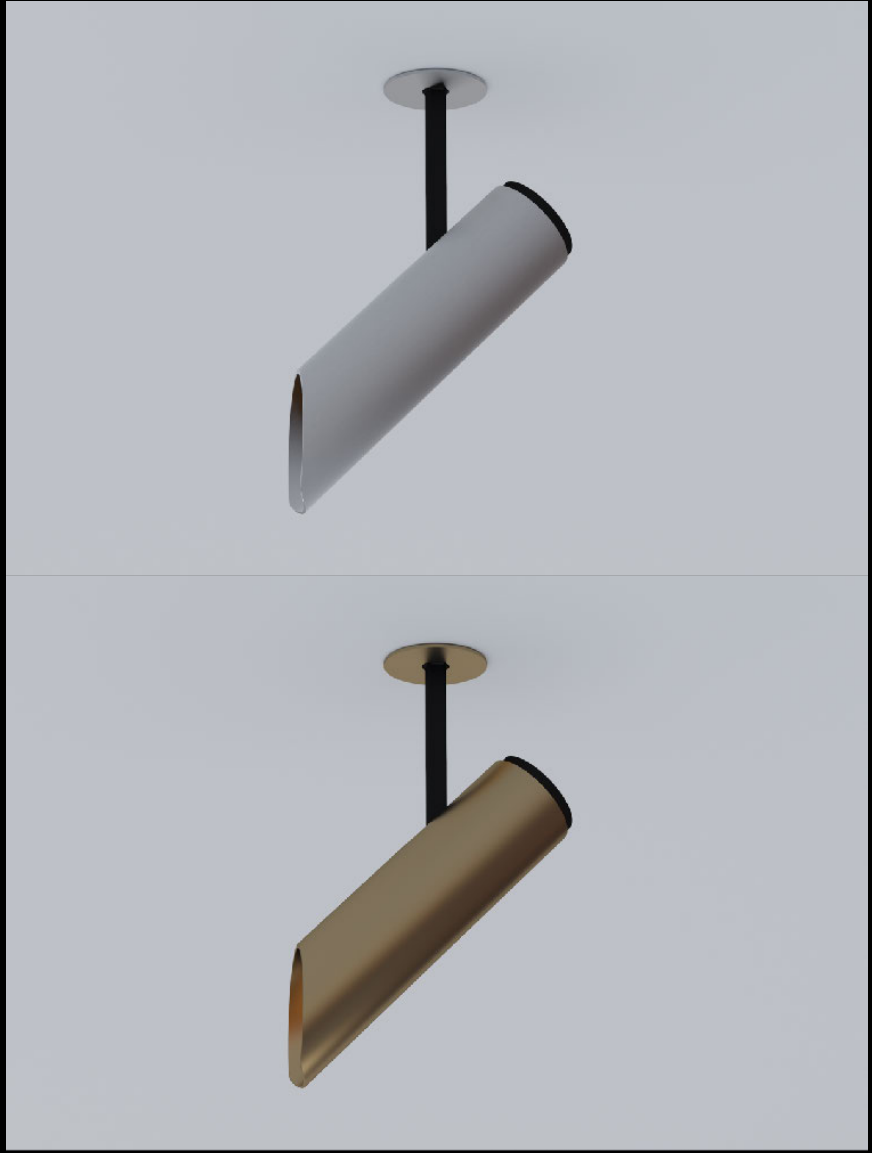
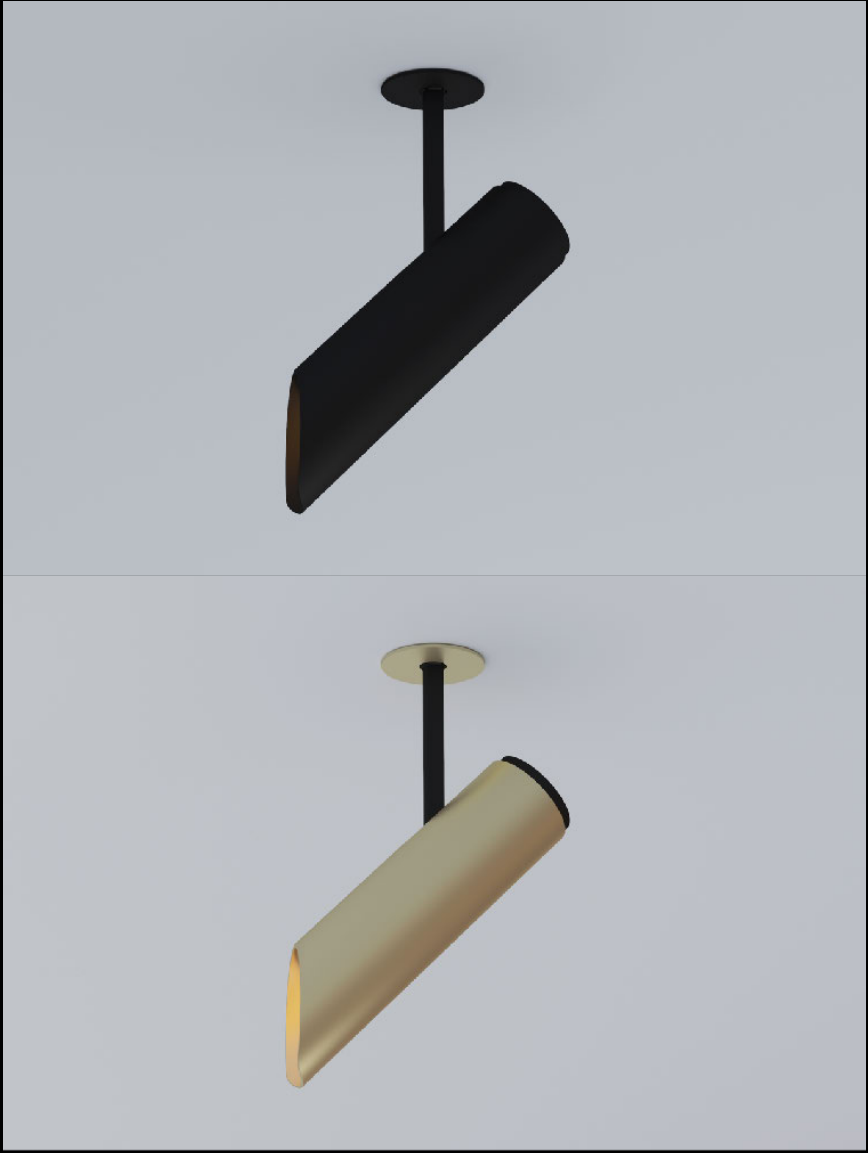


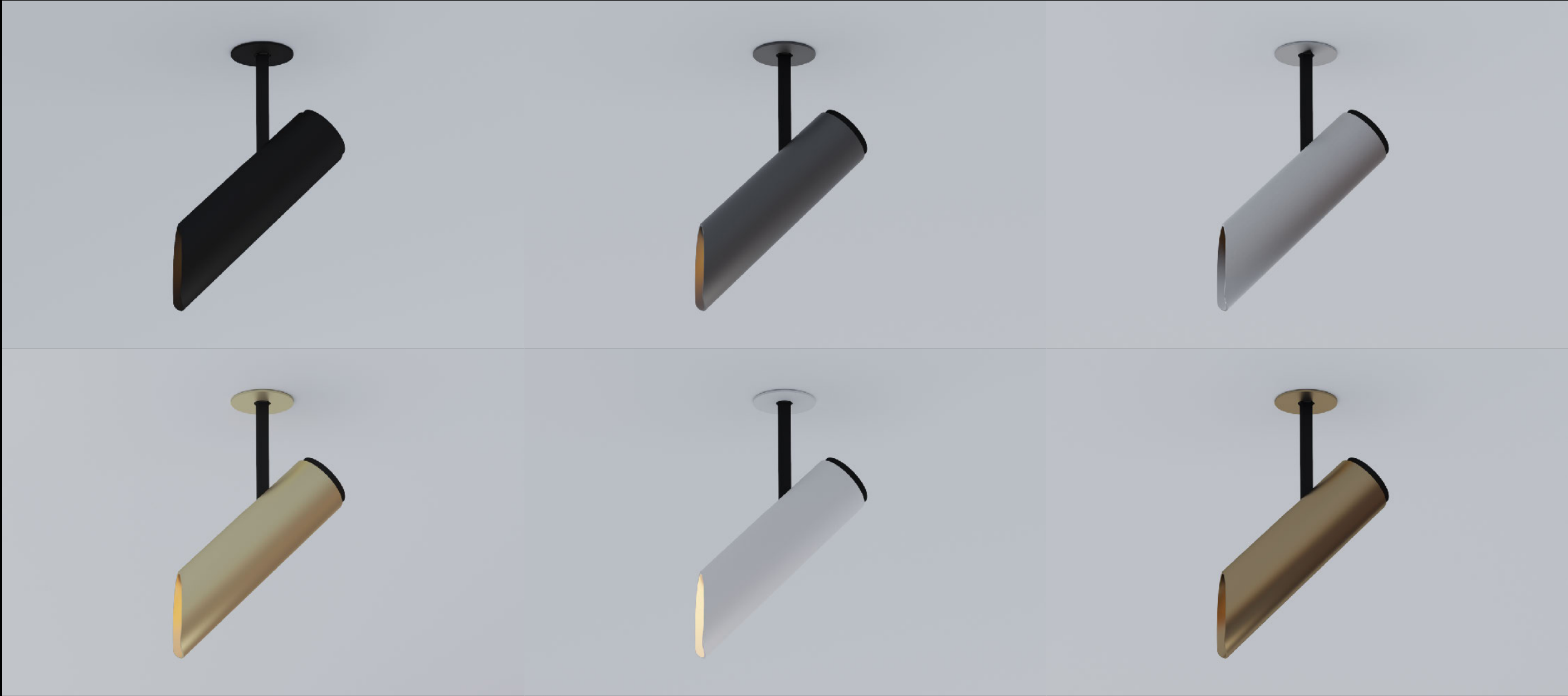


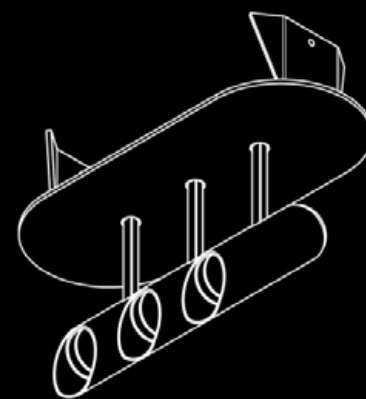
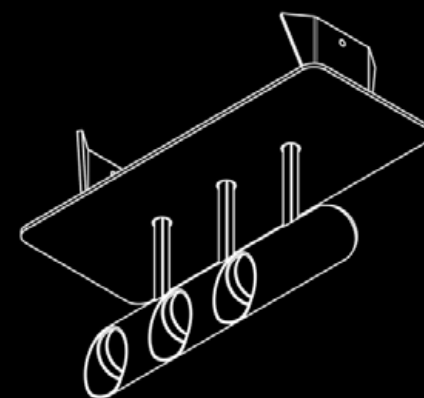
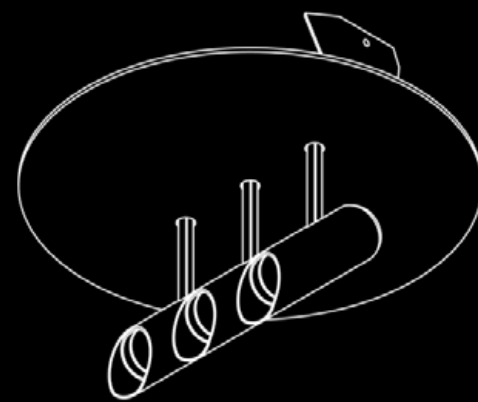
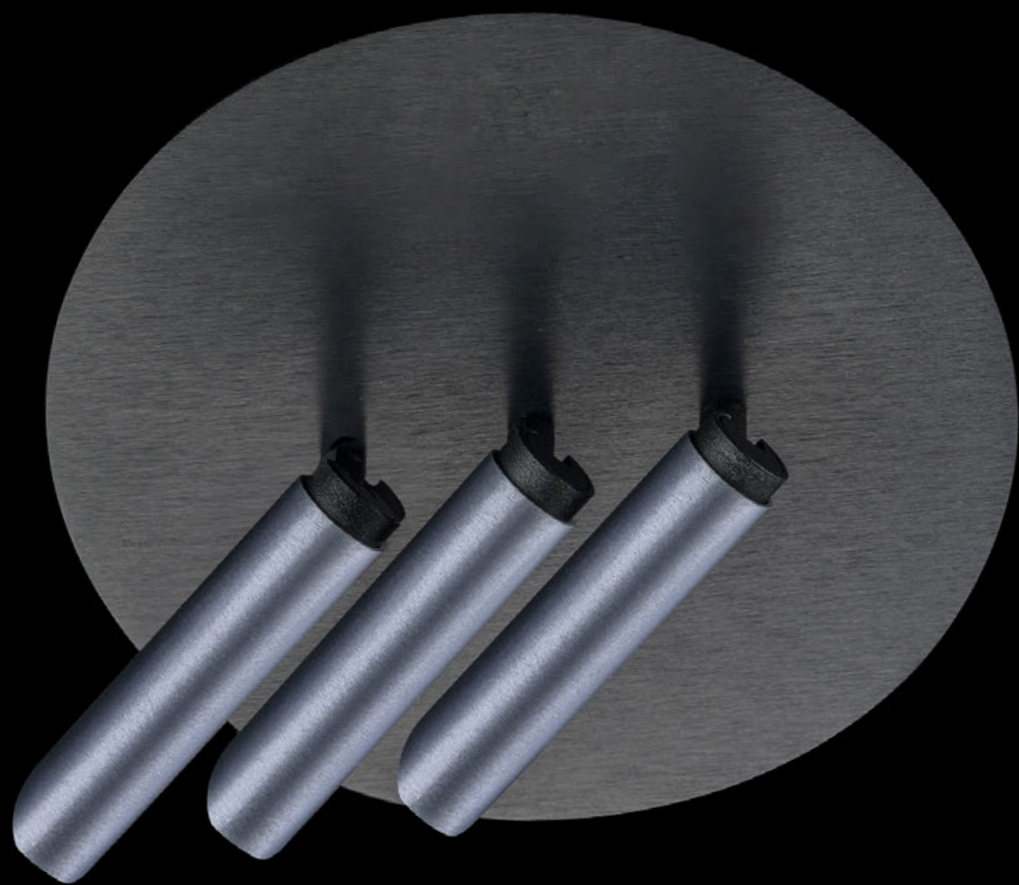








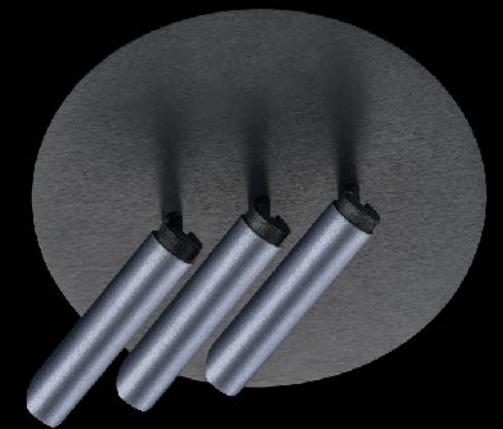


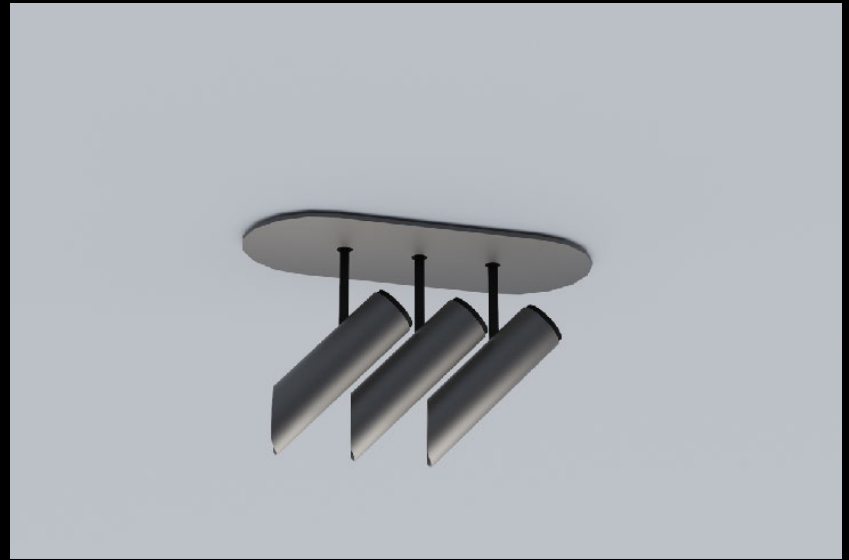
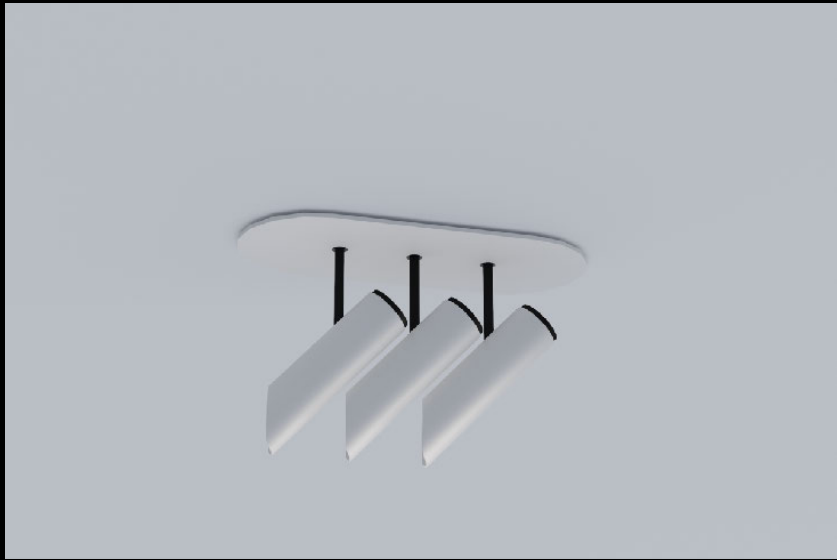
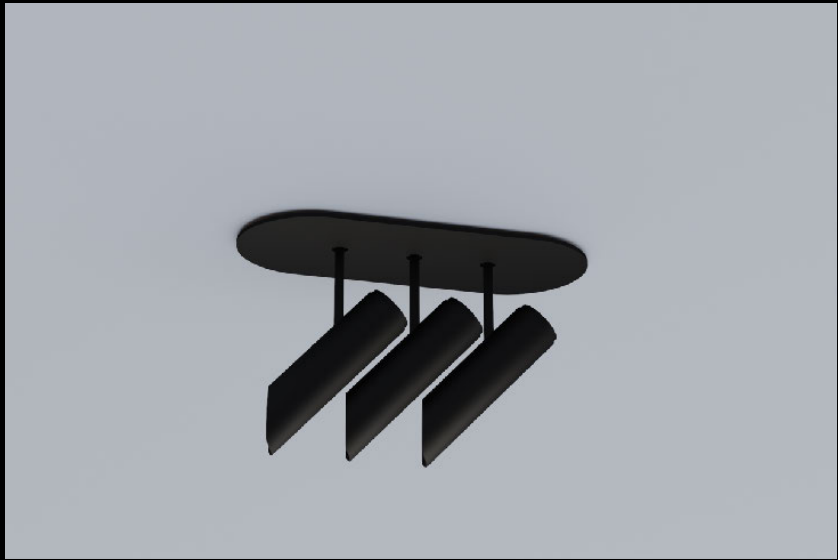


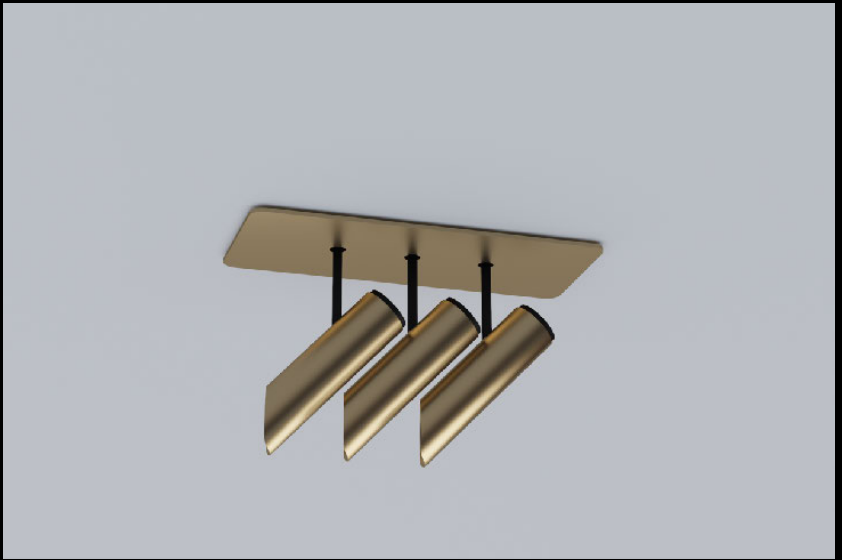
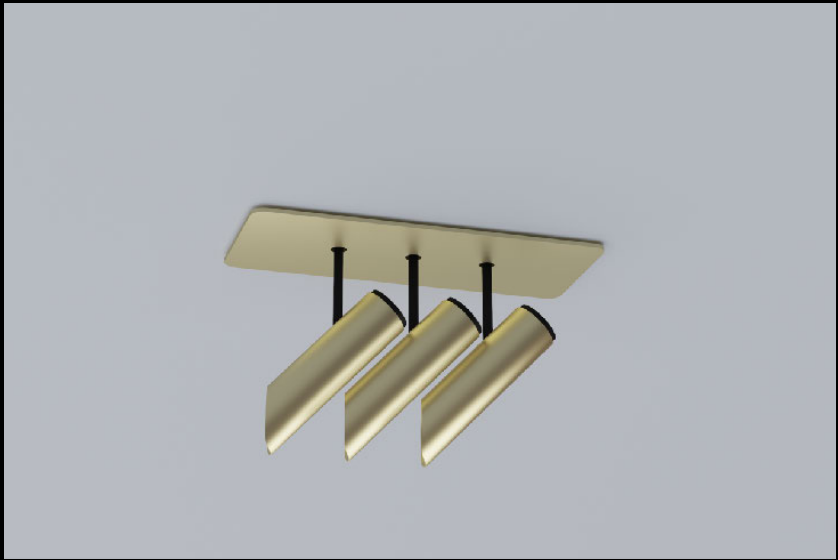


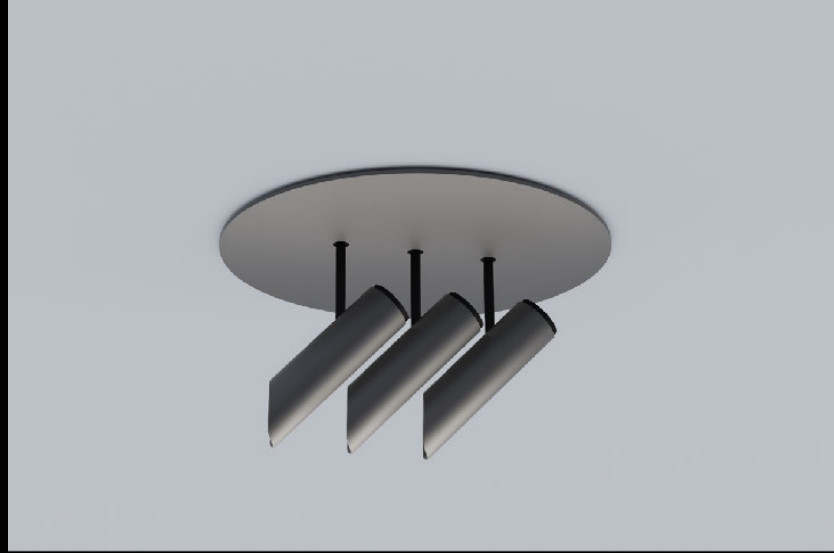
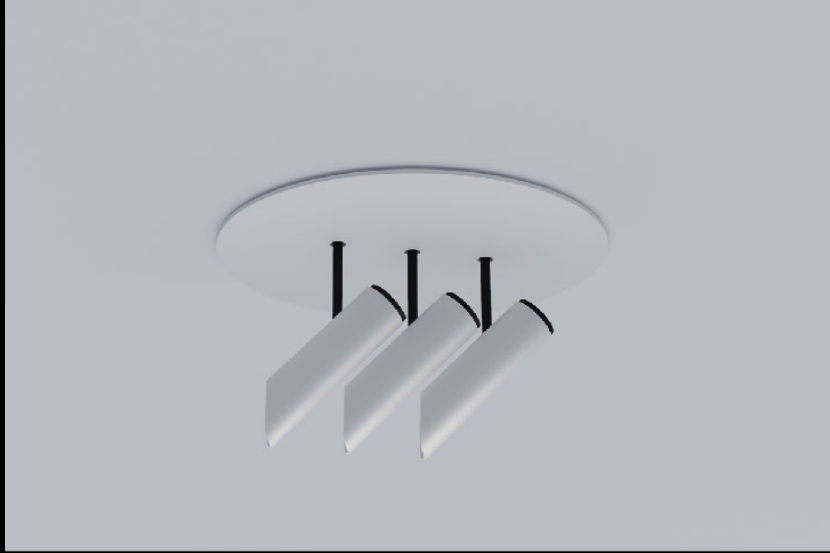
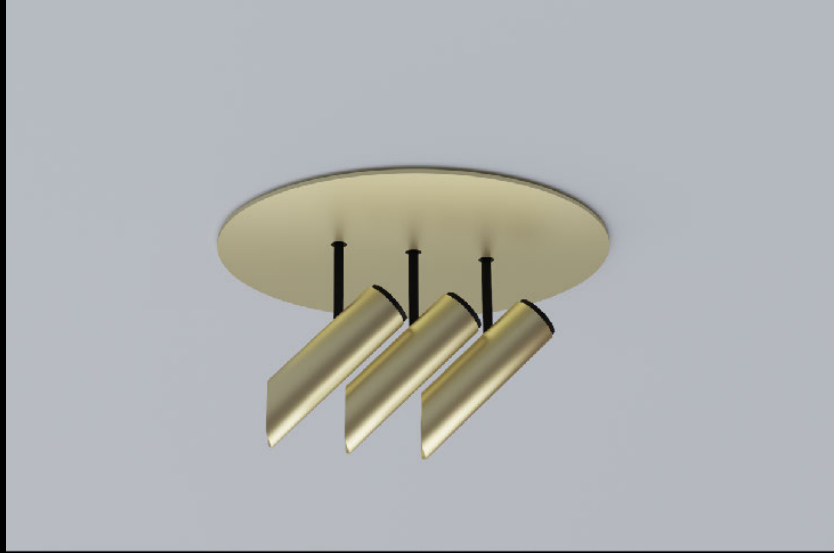
a complementary addition: “OFF-SET”

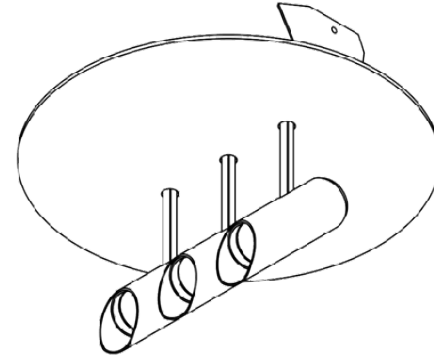
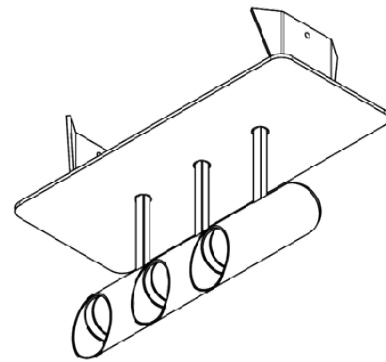
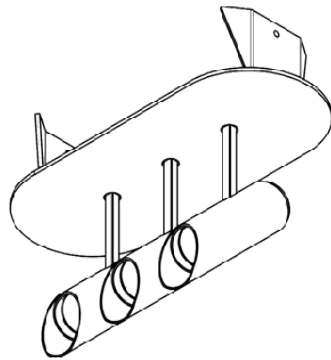
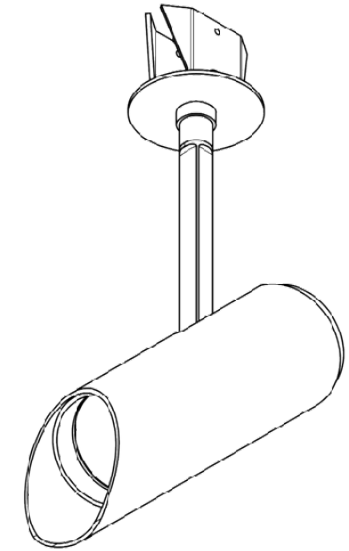
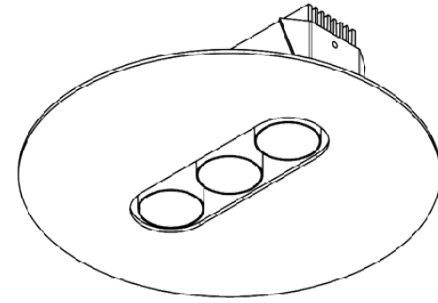
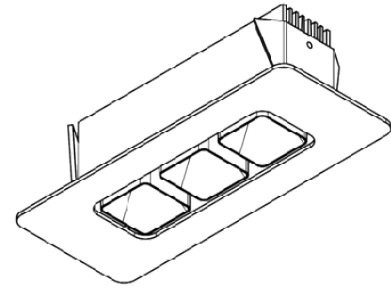
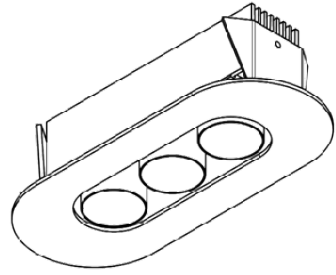
- OFF-SET ESSm Fixture: Highlights artwork using three small, fragmented light beams.











PACKAGING AND SHIPPING



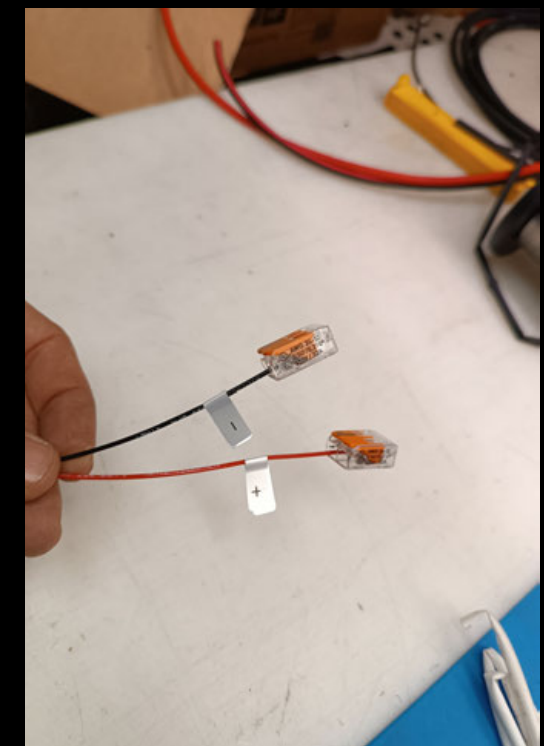
- tracks are shipped in a wooden crate (150€) to prevent transport damage
- other products come into shipping boxes (see next pages)
- we sell ex factory (Antwerp Belgium),
- preferential shipper Fedex (average 3 days delivery in Europe)
- all packaging got maximum attention on ESG, avoiding plastics for short term usage
- our packing list refers to each individual shipping box for better tracing



- product labels on various stages of packing (on the product, cabling, bag, box, shipping box)
- qr codes with link to the installation instructions on the product box



- product labels on various stages of packing (on the product, cabling, bag, box, shipping box)
- qr codes with link to the installation instructions on the product box



- product labels on various stages of packing (on the product, cabling, bag, box, shipping box)
- qr codes with link to the installation instructions on the product box





- product labels on various stages of packing (on the product, cabling, bag, box, shipping box)
- qr codes with link to the installation instructions on the product box
- tracks are not packed in tubes but in triangular dedicated covers







