

lightnet

Sustainability report
2023





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Light, a source of life – and an energy resource that inspires us anew every day. To new technologies, to unprecedented aesthetics and to a unique way of working together, but above all, to the realisation that we too are part of nature. And as such, we face up to our responsibility towards our environment. With every idea, with every day, with every single luminaire.



Our vision

Lightnet specialises in the aesthetic staging of architecture with light. Our success is based on our unique LED technology, which we developed ourselves, and our consistent sustainability philosophy, according to which we produce almost every component of our luminaires ourselves, no matter how small.

We are represented at seven locations worldwide and employ almost 600 dedicated employees. With their expertise and ideas, they all contribute to reinventing Lightnet every day.

Since it was founded in 2001, the family-owned company Lightnet has focused on humanity, community responsibility and environmental awareness. As a company and as individuals, we are part of a large cycle in which the behaviour of each individual has an impact on all others. We therefore act consciously and sustainably in our dealings with people and nature.

Together, we are working on the vision of making the world more sustainable and fit for the future. Our daily work is geared towards making a positive impact on the lives of our employees, business partners and the environment. We are convinced that every company has a responsibility to play an active role in solving global challenges such as climate change and resource scarcity.

Our goal is nothing less than an emission-free circular economy. To achieve this, we want to produce in a climate-neutral way and return 100% of our products to the economic cycle. The road to achieving this goal is long and challenging. Only together with our employees and partners can we succeed in turning this vision into reality.

We invite you to join us on this journey and shape a sustainable future together.



Lightnet in figures



2001

Founding year

591

Employees

15

Nationalities

7

Locations

20.000

Square meters production area

Main sales market

Germany

Sold in

> 50 countries

13

Product families

100%

Inhouse production

Certified quality



Who we are



Photo: Mark Scowen

↑ KIA Showroom, Botany,
New Zealand | Liquid Line FX

Lightnet combines architecture and light in an aesthetic way to improve people's everyday lives, inspire them and increase their wellbeing. In doing so, we emphasise sustainability and resource conservation and use our own LED technology. We produce almost all products in our factory – from raw circuit boards and optical components to the final surface finish and final assembly. We also operate two production sites in Europe and manage other areas such as sales from seven offices worldwide. The company is headquartered in Cologne. In 2023, we employed a total of 591 people.

With a focus on continuous growth we have clear goals and the expertise to reach them. Our products are constantly being optimised by our engineers and all development and testing facilities are DIN EN ISO 9001 certified. Our ever-growing portfolio of luminaires has test marks for the European (ENEC), American (ETL), Mexican (NOM) and Australian (RCA) markets. As we are convinced of the longevity of our products, we offer a five-year guarantee. And once an LED luminaire from Lightnet has exceeded its life cycle, we ensure through contractual partners that it can be recycled in accordance with the latest environmental standards and that its valuable raw materials can be returned to the production cycle.

↓ Formo, Frankfurt
Germany | Liquid Line A3



Photo: Marvin Schwientheer

Lightnet headquarters in Cologne



Photos: Felix von der Osten

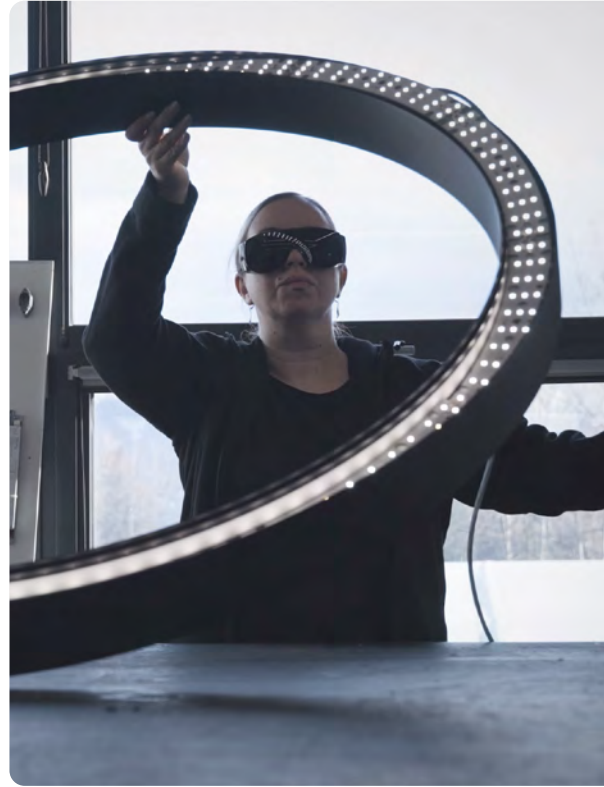
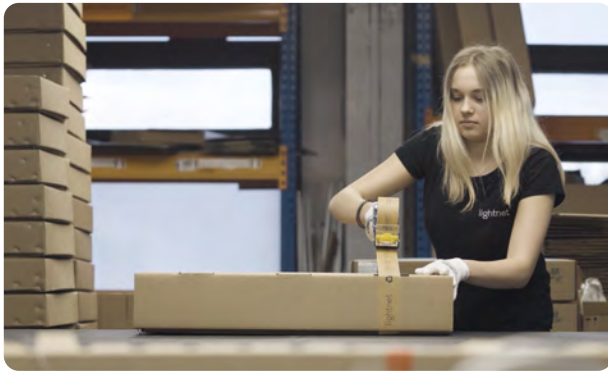






Photos: Felix von der Osten





↑ Lightnet production





Photo: Tomas Rodriguez

↑ Cotta Showroom, Herford,
Germany | Ringo Star Cluster Acoustic

Our commitment is to develop products that contribute to sustainable development and reduce the environmental impact of our production processes.

"The extensive in-house production depth enables us to independently review central procedures of a production process in order to continuously and bindingly harmonise them with our high standards of sustainable production."

Axel Tiebel,
Managing Director Lightnet GmbH

We are aware that a long-term process of continuous improvement is required to promote environmental protection. That is why we are constantly working to optimise our production processes and technologies in order to increase energy efficiency, reduce waste and promote the use of environmentally friendly materials. With this clear focus on sustainability, we want to make a contribution to environmental protection and ensure that our products and processes meet the highest standards.

Individuality

Good architecture is demanding. This also applies to the part that sets the scene for the architecture: the lighting. On one hand, the luminaire should be unobtrusive, on the other hand it plays a decisive role in the design of the building scene. We have developed a programme that is so flexible that it can be adapted to all individual requirements. The freedom in the choice of design forms is just as unlimited as the variety of individual technical design options.

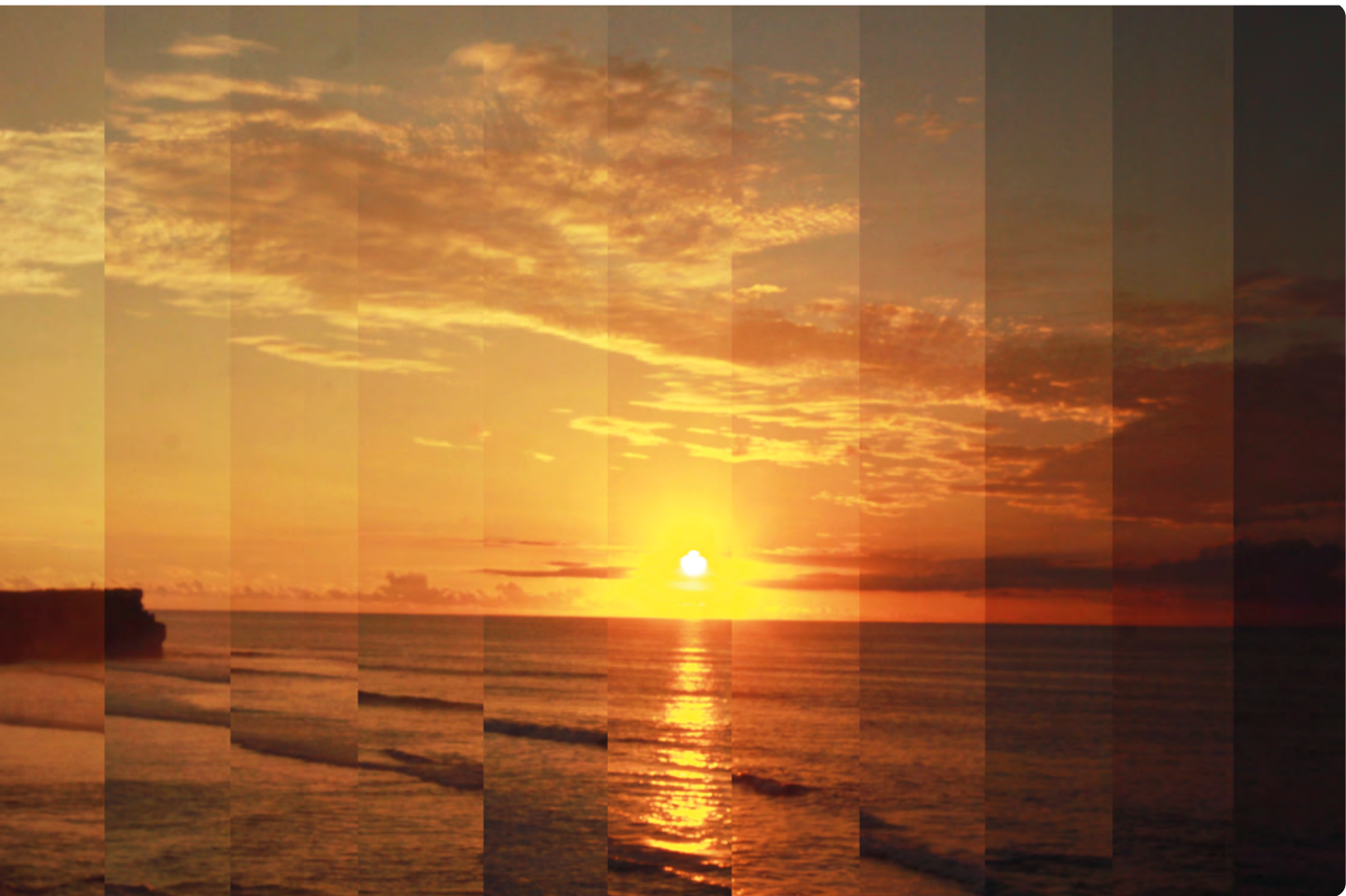
High vertical range of manufacture

We manufacture almost all the components of our luminaires ourselves. In this way, we can guarantee that not only every component, but also the entire process fulfils our demand for the most sustainable production possible. With this in mind, we constantly put our production to the test and optimise it.

High-tech production

Traditional stockpiling of supplies and raw materials not only ties up capital and thus entrepreneurial flexibility – above all, it is also unsustainable. This is because stockpiling always means using energy. That is why we have maximised the degree of order-related flexibility to such an extent that we only produce when the order is placed. Every Lightnet luminaire is therefore unique – just like the building it illuminates.





The right light at the right time

Human Centric Lighting (HCL) is a lighting technology that aims to improve people's well-being and performance by adapting the light spectrum to the natural circadian rhythm. By taking into account light intensity, colour temperature and mood throughout the day, HCL can increase concentration, regulate the sleep-wake rhythm and promote general well-being. This innovative technology ensures an optimal lighting environment in offices, educational and health centres.

Lightnet relies on this pioneering technology not only to create efficient and aesthetically pleasing luminaires, but also to make a positive contribution to the daily lives of our customers. We can optionally equip our entire collection with full-spectrum LEDs, tunable white control and intelligent sensor technology. Because only the right light at the right time in the required quantity is sustainable for us.



Our products

In the development of our luminaires, we are guided and inspired by the forms of architecture and nature. Geometric shapes such as lines, dots, rectangles and circles, which are found in architecture and nature, can be found in our collection, as can the organic shapes of nature.



Basic



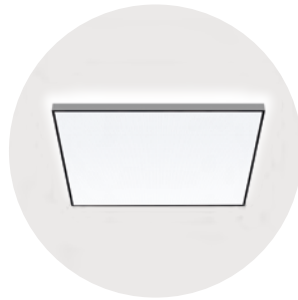
Beam me up



Caleo



Code Zero



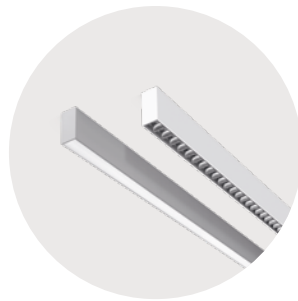
Cubic



Liquid Line



Lucille



Matric



Midpin



Midpoint



Ringo Star



Vision

Basic

... but not ordinary



The Basic family in the shape of a circle guarantees maximum freedom in planning thanks to its particularly wide range of products. "Basic" because the luminaire represents a basic shape, the eternal circle. It has proven itself on the market for more than 15 years and we are constantly developing it further.





Photo: Ronald Tilleman

↑ Biesbosch Museum Island, Werkendam,
Netherlands | Basic M4

Basic



Photo: Holger Meckbach

→ Ziegler, Plößberg,
Germany | Basic A1

↓ University Library, Aalborg,
Denmark | Basic Superflat X7





Beam Me Up

The archetype



The focus of the Beam Me Up design is on the conical luminaire body, which creates a cosy ambience as the traditional archetype of a luminaire. The guiding idea behind the development of this product family was to combine the historically anchored archetype with state-of-the-art lighting technology in order to meet the demands of contemporary architecture.



↑ GSP Architekten, Bremen,
Germany | Beam Me Up P

Photo: Marvin Schwienheer



↑ Formo, Frankfurt
Germany | Beam Me Up P3

Beam Me Up

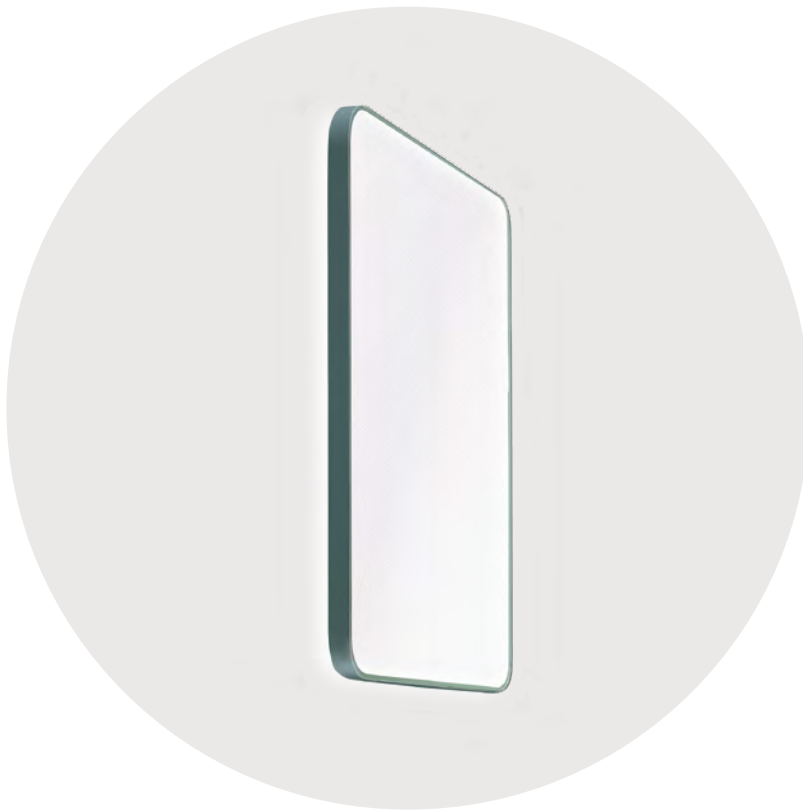
Photo: LPA



← LPA Office, Melbourne,
Australia | Beam Me Up Jr. Suspended

Caleo Evolution

Gentle curves



Caleo Evolution combines straight lines with soft contours. The soft design combined with the minimised height of just 25 mm gives the luminaire a floating effect. The finely stepped edge can be painted in a different colour on request, creating unobtrusive, decorative accents. The light and elegant form conceals highly efficient lighting technology with up to 135lm/W. Caleo can be equipped with both opal and microprismatic optics with UGR<19 glare control. With a comprehensive programme of free-standing, pendant, surface-mounted and recessed luminaires, Caleo Evolution is a consistent lighting tool for modern office landscapes.

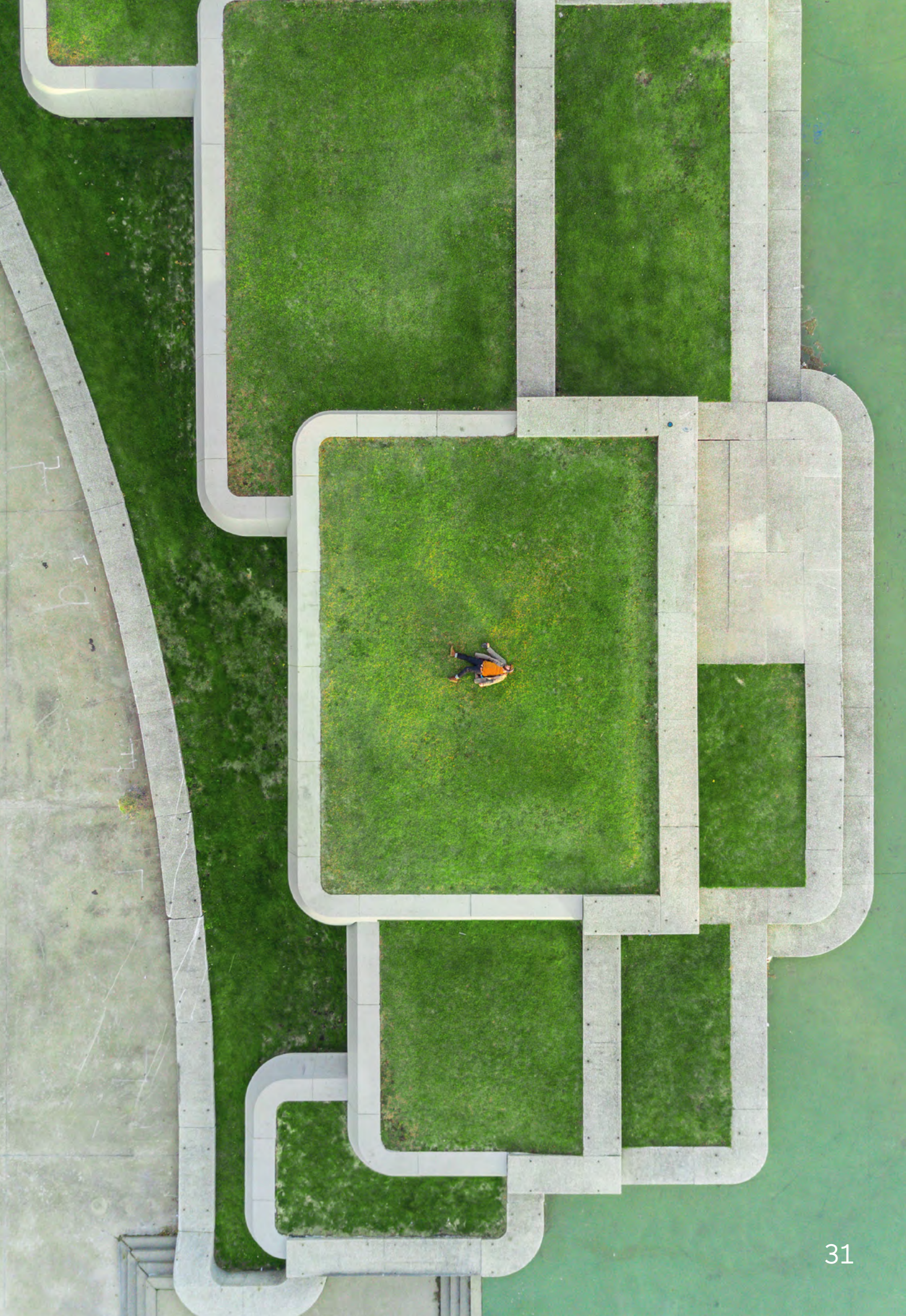
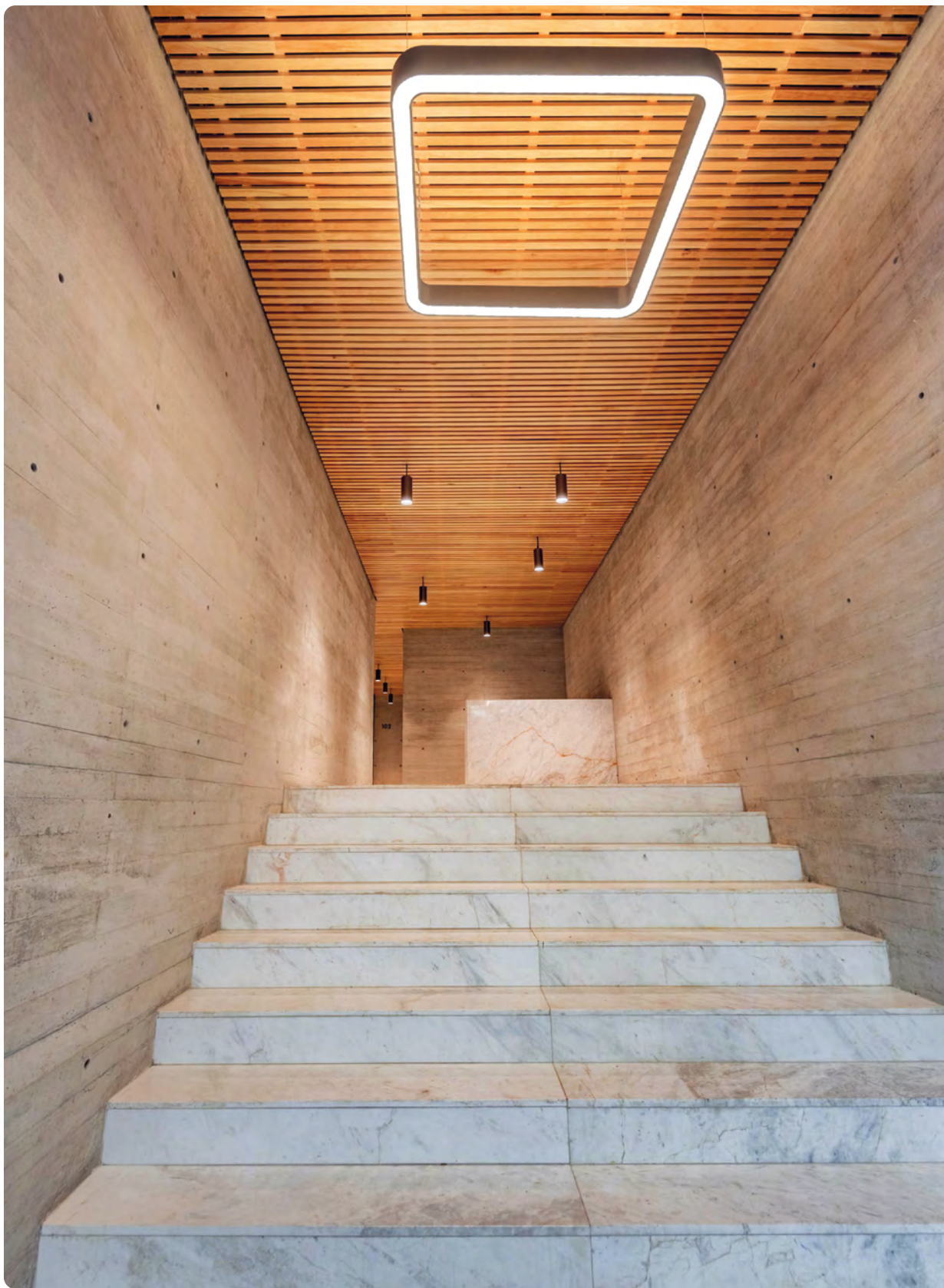




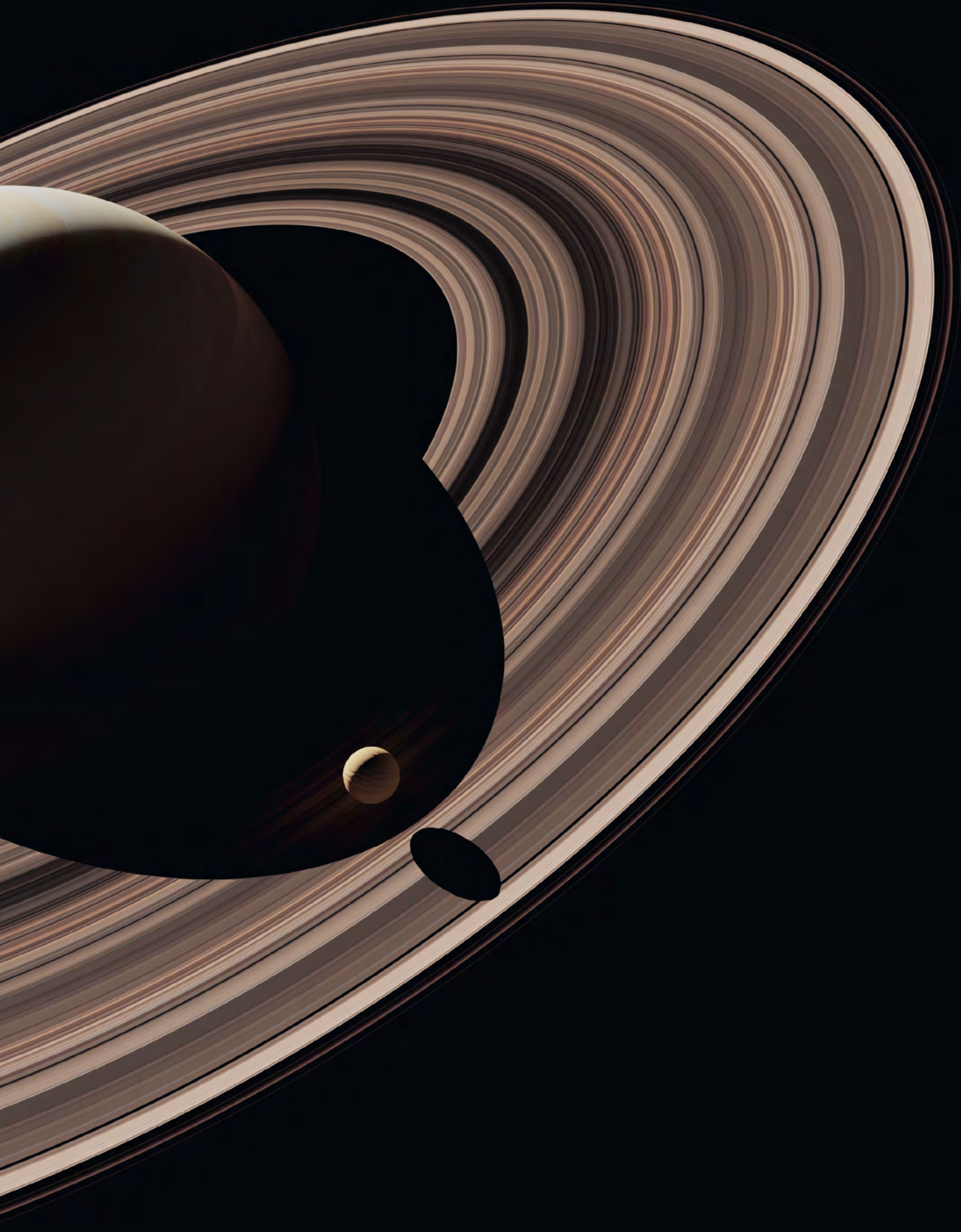
Photo: www.kudvaniphotography.com

↑ Skypark, Bratislava,
Slovakia | Caleo W3

Caleo Evolution



↑ Cossio 829, Mexico City,
Mexico | Caleo Inverse G3



Code Zero

One shape, zero compromises



The ellipse has an outstanding significance both in mythology and in the history of architecture. Code Zero takes this original shape and creates a professional, modern lighting tool from it. Behind the simplicity of the shape lies a sophisticated high-tech bending process that enables different sizes.



→ BAMF_Nürnberg,
Germany | Code Zero G3



Photo: Holger Meckbach

↑ Ziegler_Plößberg
Germany | Code Zero P3

Code Zero

↓ UGC Plaisir, Paris,
France | Code Zero G3



Photo: Alexander Schwarz

Photo: Daniel Moulinet

Cubic

The art of minimalism



Cubic is one of the oldest Lightnet product families. It stands for the timeless cubic structures of architecture that outlast all trends for aesthetic and functional reasons. When designing this classic product, we were guided by the core idea of a cubic form that is as minimalist and uncompromising as possible.





Photo: Edzard Probst

↑ European Patent Office, Munich
Germany | Cubic P5

Cubic

↓ Skypark, Bratislava,
Slovakia | Cubic F5

→ Vitra Typecasting, Milan Design Week,
Italy | Cubic Evolution Suspended Square



Photo: www.kudvaniphotography.com





Liquid Line

Unlimited freedom



Inspired by the organic, flowing forms of nature, our Liquid Line adapts perfectly to the shapes of the architecture and forms a coherent unit with the building. Thanks to its in-house production, its flexibility is unique on the market, enabling smooth transitions and blending with the rooms – for a unique architectural experience.

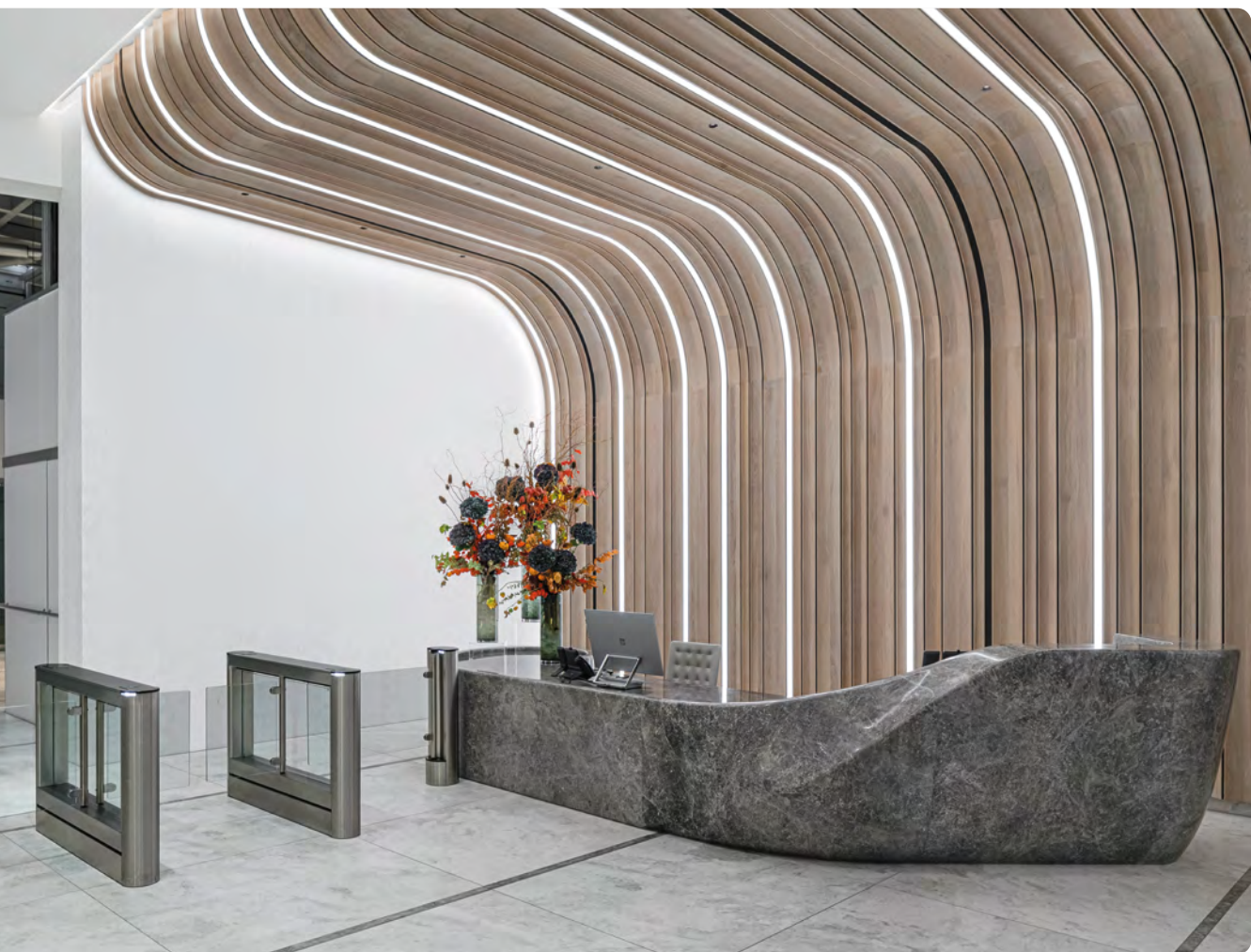


Photo: Sam Phillips

↑ Lion Plaza, London
UK | Liquid Line A3

Liquid Line

→ ADP Group Showroom, Paris
France | Liquid Line GX



Photo: Mark Hazeldine



↑ Dechert, London
UK | Liquid Line G3

Photo: Tomas Rodriguez



↑ Frankfurt Airport Visitor Centre,
Germany | Liquid Line P3

Lucille

Soft in shape, powerful in expression



Lucille directs the light exactly where it is needed. The luminaire head can be positioned flexibly and precisely and offers a wide operating radius of up to one metre. The high-quality, delicate form with precision joints made of aluminium has no visible cables, wires or cords. The timeless and clear design conceals efficient lighting technology with a luminous flux of 1000lm. Lucille can be dimmed via a touch field on the luminaire head. A large number of adaptations are available for various mounting options on tables and walls.





InnoDom photos: Tomas Rodriguez

↑ InnoDom Cologne,
Germany | Lucille T1

↓ Academy at the Humboldt Forum, Berlin,
Germany | Grand Lucille





← InnoDom Cologne,
Germany | Lucille T1

Lucille

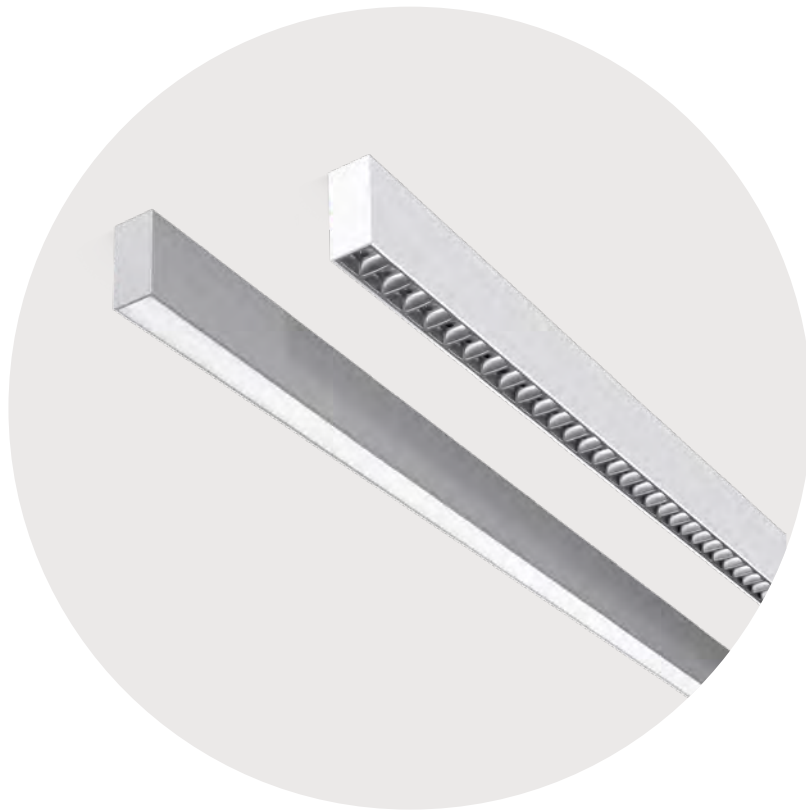
↓ InnoDom Cologne,
Germany | Lucille T1





Matric

Perfect to the millimetre



Matric is the most variable light line system which, in addition to a comprehensive standard range, can always be manufactured to the millimetre according to specifications. Based on four light channel widths (system 25mm, 40mm, 55mm and 81mm), it offers a variety of different profile cross-sections for installation on walls and on and in concrete, plasterboard and modular ceilings.

Matric



Photos: Donal Murphy

↑ Dropbox Studios, Dublin, Ireland | Matric G5

↓ Abda, Berlin, Germany | Matric R3

→ Halo Innovation Hub, Kilmarnock, UK | Matric R4

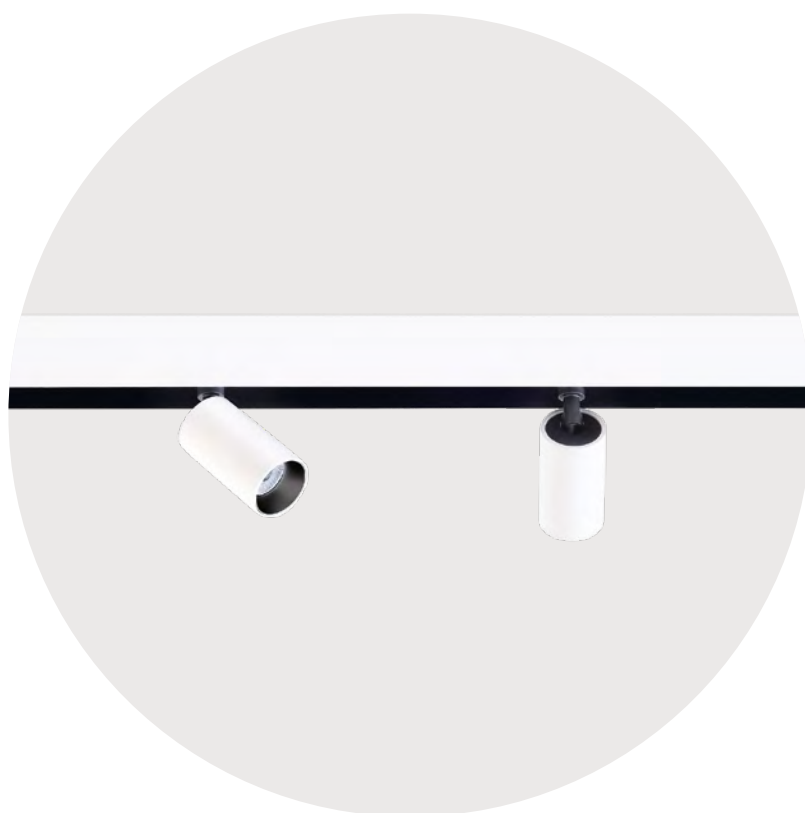


Photo: David Cadzow



Midpin

Small, strong, flexible



Midpin is a miniaturised spotlight system for 48V tracks. The spotlights can be rotated and swivelled, are available in different light colours and as a Dim To Warm version.





Photo: Albert Palen



↑ Lightnet Showroom, London,
UK | Midpin Chandelier

↓ Private Residence, Bielsko-Biała,
Poland | Midpin C2

Midpin

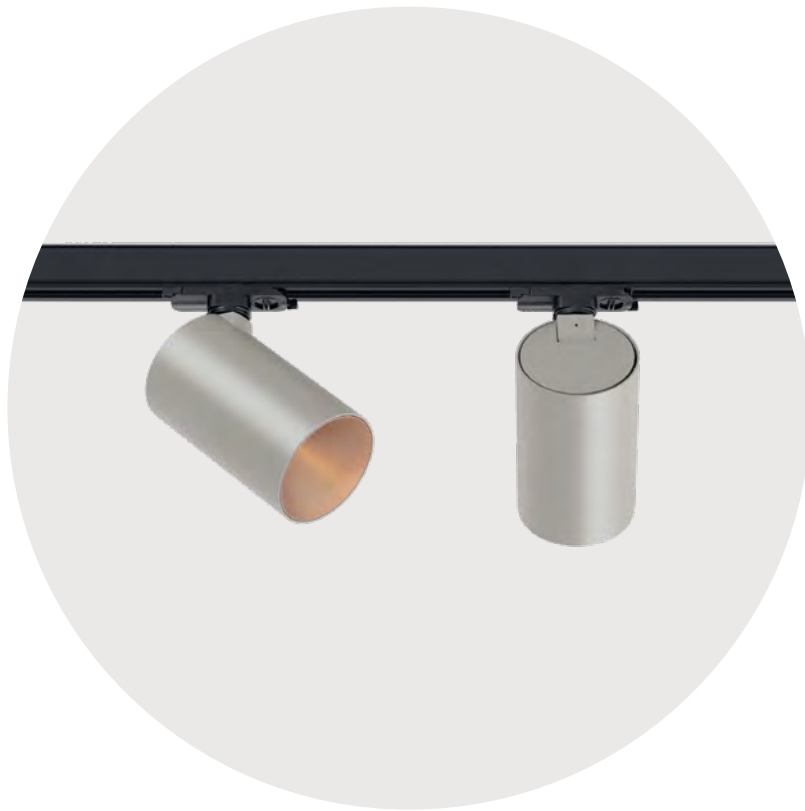


← Private Residence, Bielsko-Biała,
Poland | Midpin C2



Midpoint

Selective lighting accents



Midpoint is an architectural LED spotlight system that impresses with its purist, geometric design and high-quality workmanship. Whether for track or as a recessed, surface-mounted or pendant spotlight or as a wallwasher – Midpoint is a flexible lighting tool and opens up a wide range of planning options.



Photo: Donal Murphy

↑ Horizon Therapeutics, Dublin,
Ireland | Midpoint C7

↓ One Wilton Park, LinkedIn, Dublin,
Ireland | Midpoint P7



Photo: Donal Murphy

Photo: Donal Murphy



↑ One Wilton Park, LinkedIn, Dublin,
Ireland | Midpoint P7

Midpoint



Ringo Star

Brilliant all round



We have been producing our Ringo Star product series since 2010, making it a classic. Over the years, the series has been constantly expanded and optimised and now offers a comprehensive product system for the entire property. Three ring widths (40mm, 60mm and 100mm system) and diameters from 600mm to 8m allow maximum planning freedom. Compact, high-intensity versions are also available in diameters of 200mm, 270mm and 370mm.



Photo: Bart Gosselin

↑ Oud Gerechtshof, Antwerp
Belgium | Ringo Star P1

Photo: Robert Deitchler for Gensler



↑ Organon, Jersey City,
USA | Ringo Star Cluster

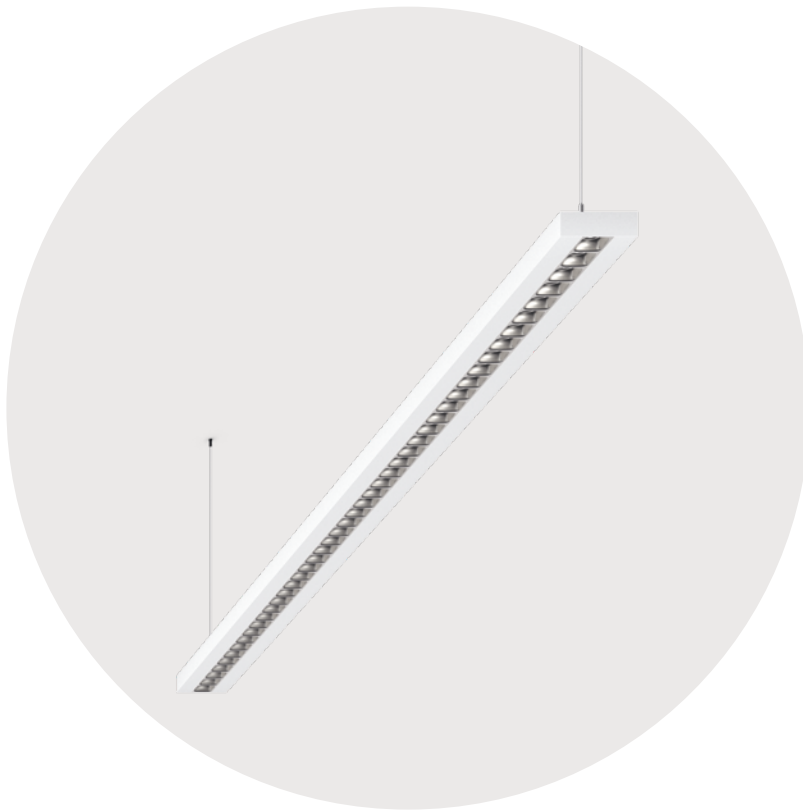
Ringo Star

↓ Ulu Moschee, Hamm,
Germany | Ringo Star



Vision

The new generation



The completely revised fourth generation of the Vision system luminaire impresses with its innovative lens-reflector optics, minimised housing dimensions and comprehensive planning options. The directional light of the lens reflector optics combines high visual comfort thanks to the best possible glare control without annoying multiple shadows, wide illumination and maximum efficiency of up to 145lm/W. Microprismatic and opal optics as well as wall washers are also available.



Our showrooms



Photo: Felix von der Osten

In our showroom at the Lightnet headquarters in Cologne Zollstock, you will find unique structures such as the Liquid Line tree, our Ringo Star Compacts, the impressive Ringo Star Chandelier as well as classic luminaires such as our Basic, Beam me up, Midpoint and acoustic luminaires. Contact us at koeln@lightnet.de, further information at bit.ly/showroomkoeln.

Our London showroom, in partnership with ACTIU, is located in the heart of Clerkenwell, the UK's design centre. Please email london@lightnet-group.co.uk to make an appointment or visit our website at bit.ly/showroomlondon for more information.

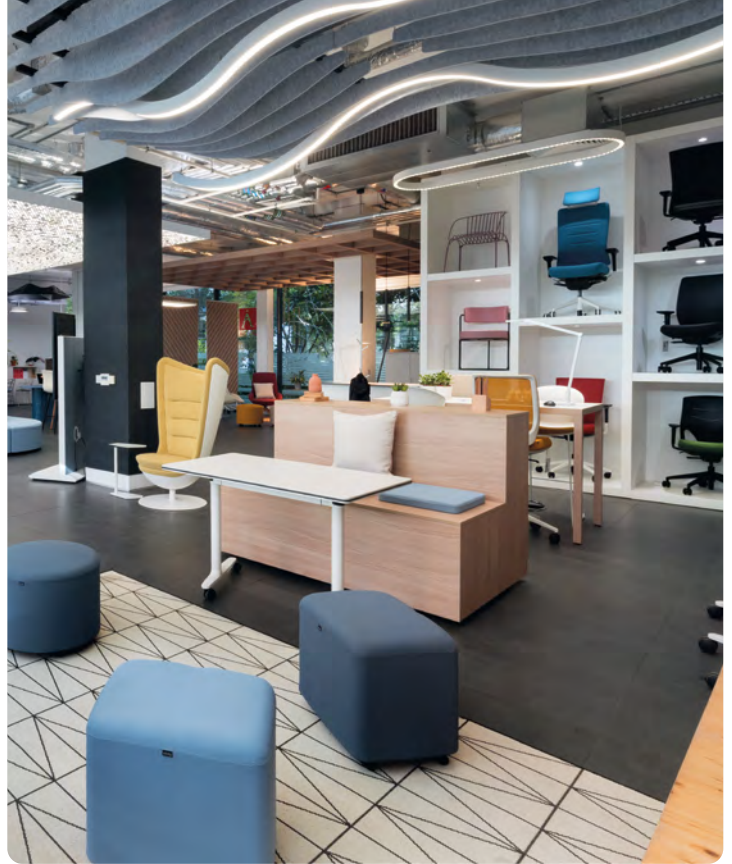


Photo: Albert Palen

Professionals and design enthusiasts will find our product innovations at the Budapest Salon in Berlin Mitte. Please send appointment enquiries to berlin@lightnet.de, further information on bit.ly/showroomberlin.



Photo: Ken Schluchtmann

Our goals for sustainable development

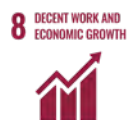
The Sustainable Development Goals (SDGs), also known as the global goals, were adopted by the United Nations in 2015 as a universal call to action to protect the planet and ensure that all people live in peace and prosperity by 2030.

Since 2015, the SDGs have served as guidelines for how states, companies and people can contribute to reducing negative developments such as climate change, excessive consumption, environmental pollution, poverty and inequality in the world.

We have identified the following SDGs as those to which we can make the most significant contribution.



- We support **SDG 7** "Affordable and clean energy" by developing affordable and energy-efficient LED lighting solutions that reduce energy consumption.
- **7.2** Significantly increase the share of renewable energies in the global energy mix by 2030.



- **8.5** By 2030, full and productive employment and decent work for all, including young people and people with disabilities, and equal pay for work of equal value.



- **12.2** Achieve sustainable management and efficient use of natural resources by 2030.
- **12.5** By 2030, significantly reduce waste generation through prevention, reduction, recycling and reuse.



- We support **SDG 13** through the development of low-carbon LED lighting solutions and the ongoing commitment to reduce greenhouse gas (GHG) emissions in our operations.
- **13.2** Integration of climate change measures into national policies, strategies and planning.



We stand for a sustainable philosophy that is in line with the principles of Industry 4.0. Our intelligently networked technology enables our customers to configure every detail of their products themselves. In our production, we optimise the ratio of materials and resources as well as energy consumption with the help of intelligent software in our machinery.

We rely on environmentally friendly technologies such as the latest generation of ovens for powder coating, which require up to 30 per cent less primary energy, and use electricity that is generated 100% from renewable sources such as photovoltaics and wind power. We also operate our own water treatment plant, which reuses resources in a closed-loop system and meets the highest European environmental standards.

Our products are designed for longevity with a timeless and aesthetic design and high-quality, replaceable components – even at the end of their service life. We emphasise a sustainable product philosophy that includes the ability to dismantle our products into their individual components and the use of recyclable materials.

As we cannot do without aluminium, we choose suppliers that work with a high degree of efficiency and obtain energy from hydropower. This enables us to reduce our CO₂ footprint in relation to the aluminium used to a quarter of the global average.

Our acoustic absorbers are made from natural wool, which, unlike plastic, is 100% biodegradable. For our opal diffusers, we use polycarbonate, which is made from 59% pine oil, a waste product from the wood industry, and is ISCC-certified according to the mass balancing principle.

We are actively committed to obtaining ISO 14001 and ISO 50001 certification in order to minimise our environmental impact and optimise our energy consumption.

Our approach

Lightnet's sustainability strategy is based on a thorough materiality assessment in which we have defined the sustainability topics relevant to our company, which we present in this report (p. 78). By identifying future trends and understanding the perspectives of our stakeholders, we are able to recognise potential risks and opportunities that could impact our business. At the same time, we can assess the impact that our company could have on the environment and society.

This assessment serves as a guide for our activities and helps us to prioritise and identify where we can have the greatest impact. We take into account the interests and concerns of our most important stakeholders, including customers, employees, suppliers, governments and supervisory authorities.

By involving these stakeholders, we can ensure that we understand their needs and expectations and integrate them into our sustainability strategy. This creates a sustainable business model that takes economic, social and environmental concerns into account.



Photo by Jean Philippe Delberghe on unsplash.com

Our sustainability strategy

In 2022, we successfully completed our first materiality analysis. This analysis identified the topics that remain a central focus of our sustainability strategy.



Employee health and safety: We attach great importance to the well-being of our employees and are committed to ensuring safe and healthy working conditions.



Business ethics: Ethics and integrity are fundamental values for us. We strive to act responsibly and transparently and to ensure that our business practices meet the highest ethical standards.



Transparent communication: In order to achieve our goals and further expand our business, close collaboration with our stakeholders is of crucial importance. We are committed to acting with integrity in all our actions. Transparency and honesty towards our stakeholders are at the centre of this.



Climate policy: We recognise the importance of climate change and are actively committed to protecting the environment. Our climate policy aims to reduce greenhouse gas emissions and minimise our ecological footprint.



Circular economy: We are committed to a sustainable and resource-conserving economy. By promoting the circular economy, we reduce waste, utilise resources efficiently and recycle raw materials.



Energy efficiency of products: We emphasise the development and manufacture of energy-efficient products. Our aim is to minimise energy consumption and offer environmentally friendly solutions.

These identified topics form the guideline for our sustainability strategy as we continue to work on harmonising our corporate goals with a sustainable future.

Our 10 cornerstones for sustainability

1.

100% in-house production

We manufacture all components – from LED boards and optics to housings – in-house at one location in order to minimise transport routes and live true, self-determined sustainability.

2.

100% natural power

We obtain 100% of the electrical energy we need for our luminaire production from renewable sources.

3.

0% plastic in the packaging

Our packaging has been plastic-free since 2020. We produce 100% of our cardboard packaging ourselves and recycle cardboard waste into paper pulp, which we then use to produce packaging inserts. This creates the ideal local production cycle.

4.

Green steel

The steel sheets used in our luminaires (up to 3 mm thick) are made exclusively from green steel, which is produced using electricity from renewable energy sources.

5.

Low CO₂ aluminium

We use aluminium with an average CO₂ footprint of < 4 kg per kg of aluminium, with the aim of reducing this further. This means we are already well below the global average of 16,7 kg.

6.

100% Human Centric Lighting

We can optionally equip our entire collection with full-spectrum LEDs, Tunable White controls and intelligent sensor technology. Because only the right light at the right time in the required quantity is sustainable for us.

7.

100% intelligent on-demand production

Thanks to a complex, software-based system, we only ever produce as much as is actually needed. This allows us to minimise the consumption of material and warehouse resources while remaining individual, fast and highly flexible.

8.

Natural materials

For our sound absorbers, we use natural wool from sustainable farming, which, unlike plastic foam, is 100% biodegradable.

9.

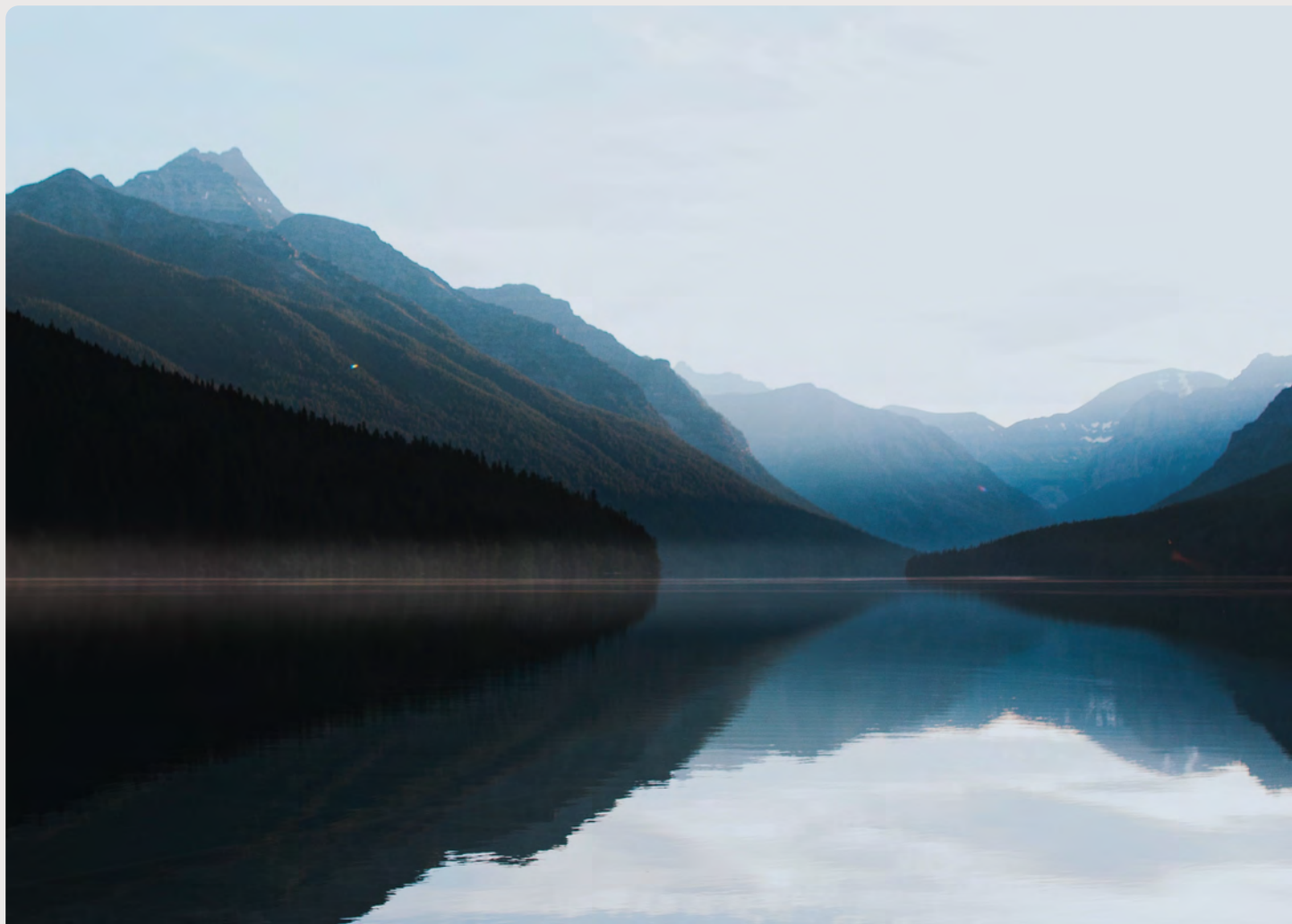
100% water-purified LED board production

The entire LED board production process is carried out in accordance with strict European environmental standards. With our specially developed water treatment plant, we recover the valuable resources from raw board production in a closed circulation system.

10.

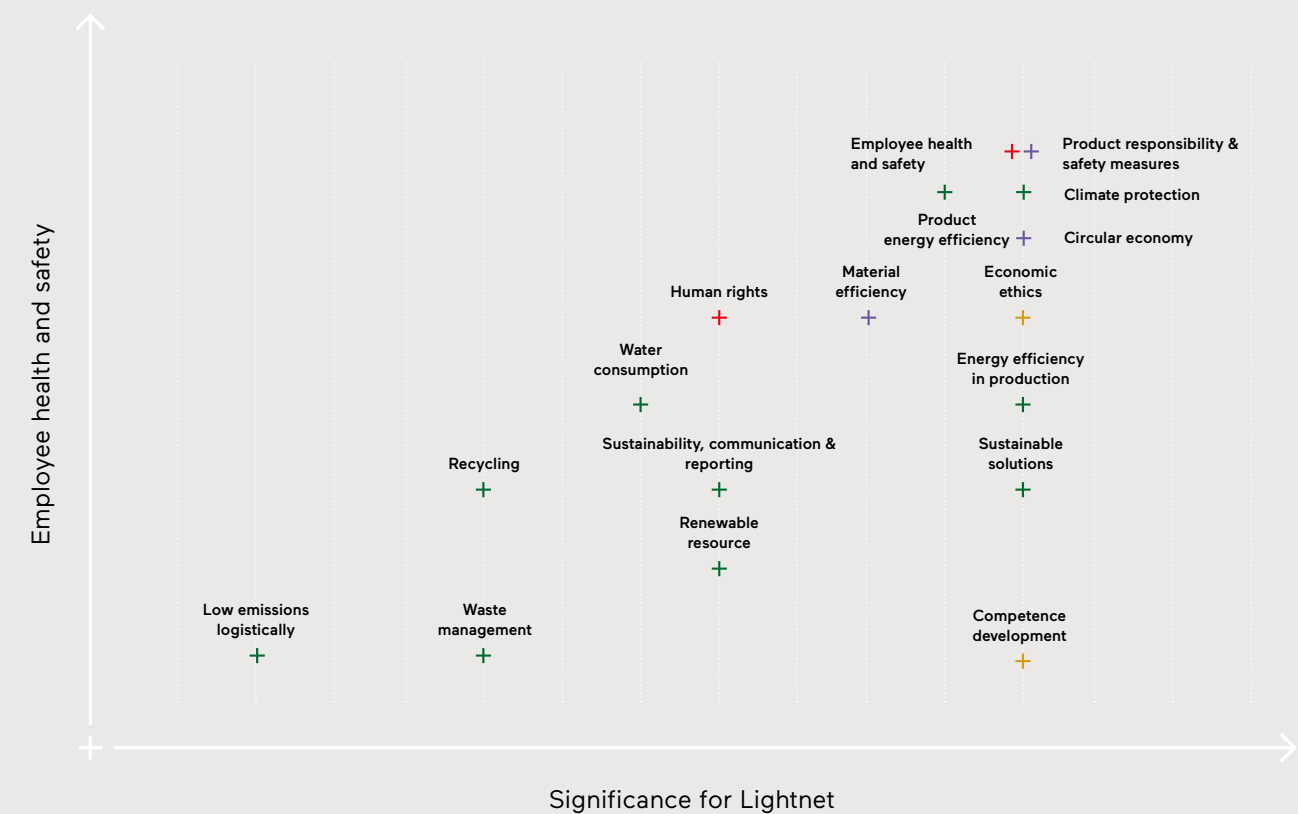
Sustainable design

We focus on timeless shapes that outlast fashion trends and emphasise quality, durability and maximum energy efficiency. Our luminaires are designed so that their components are replaceable and the products can be dismantled into their individual parts and recycled at the end of their service life.



Our path to net zero emissions

Materiality analysis: The topics relevant to us in terms of sustainability



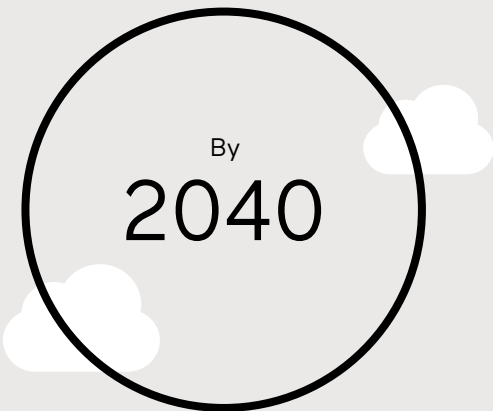
- + Identity, ethics and value creation
- + Products and services
- + Social responsibility
- + Responsibility for the environment

* Scope 1 includes all direct greenhouse gas emissions, such as primary energy sources consumed directly on company premises such as natural gas, heating oil, petrol or diesel.
** Scope 2 includes indirect greenhouse gas emissions resulting from the generation of procured energy such as electricity or district heating.



Reduction of the
Scope 1* and **2****
Greenhouse gas emissions

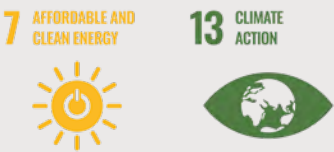
30% reduction in the
Scope 3*** emissions



Net zero emissions
across our entire
value chain

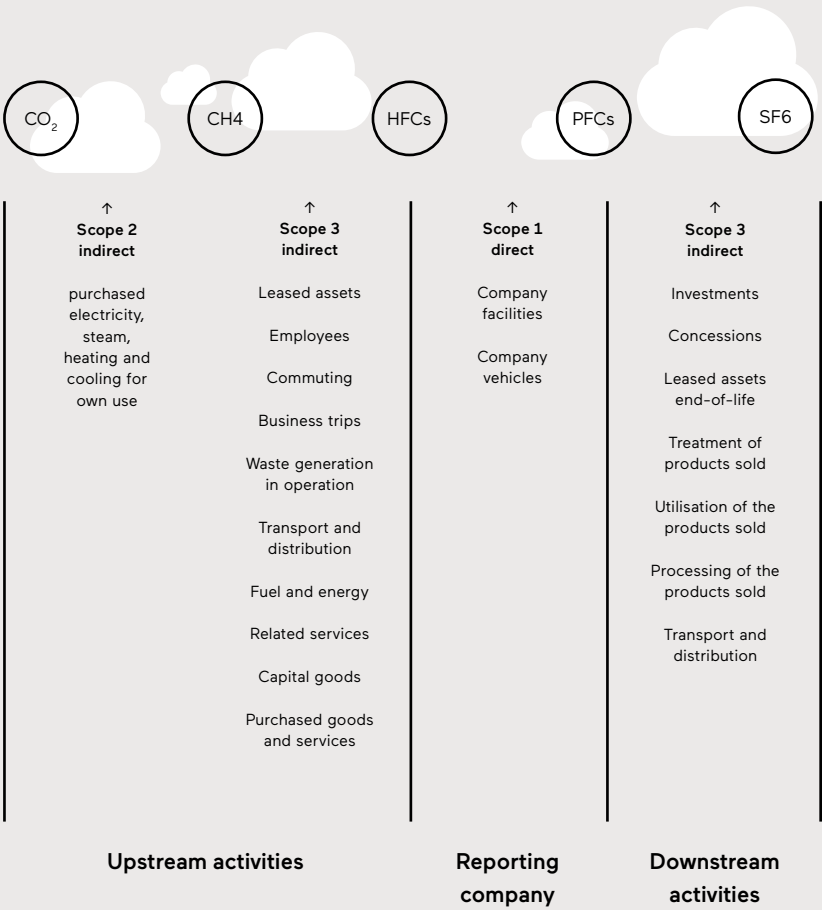
*** Scope 3 includes other indirect greenhouse gas emissions that are primarily associated with the company's activities. CO₂ emissions in Scope 3 include, for example, the consumption of energy in leased assets (e.g. properties, vehicles), the purchase of goods and services, waste disposal, water and wastewater, business travel and employee commuting.

Reduce emissions



Our business model is based on environmental sustainability. All of our activities and all of our revenue are closely linked to measures that generate sustainable benefits for the environment.

We are focussing on various areas in order to achieve our goal of net zero emissions by 2040. This includes in particular the reduction of Scope 1* and Scope 2** emissions.



80

* Scope 1 includes all direct greenhouse gas emissions, such as primary energy sources consumed directly on company premises such as natural gas, heating oil, petrol or diesel.

** Scope 2 includes indirect greenhouse gas emissions resulting from the generation of procured energy such as electricity or district heating.

The focus of the reduction is on energy consumption and greenhouse gas emissions resulting from our own processes. Greenhouse gas emissions are accounted for in accordance with the requirements of the globally recognised Greenhouse Gas (GHG) Protocol.

The scope of greenhouse gas emissions relates to the processes within our company boundaries (Scope 1* and 2**). The emission factors are provided by the energy providers as far as possible. If emission factors were not directly available, we used standardised emission factors.

The energy consumption activity data is recorded and converted into kilograms of CO₂ equivalents (CO₂ e).

Reduction of Scope 1*, 2**, 3*** emissions

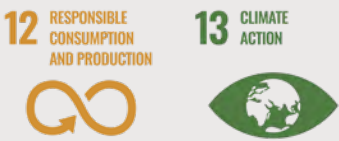
GHC Emission	2022	2023
Greenhouse gas emissions – Scope 1 (direct) tonnes of CO₂ equivalent	78,25	98,02
- Stationary combustion	58,25	67,91
- Mobile combustion	20,00	30,10
Greenhouse gas emissions – Scope 2 tonnes of CO₂ equivalent	2.081,92	307,29
- Location based heat and steam	224,50	0
- Market based heat and steam	1857,42	307,29
Greenhouse gas emissions – Scope 3 tonnes of CO₂ equivalent		6.089,55
- Transport of purchased goods		5.639,46
- Transport of products sold		386,28
- Business travel and accommodation		20,64
- Waste disposal		41,02
- Water supply		2,15

Lightnet carefully monitors both direct and indirect greenhouse gas emissions along the entire value chain. This monitoring forms the basis for assessing the business impact and prioritising actions to reduce the company's carbon footprint.

Total GHG emissions in tonnes of CO₂ equivalent	6.494,86
Reduction in GHG emissions according to Scope 1* and Scope 2** compared to 2022	-81,25%

*** Scope 3 includes other indirect greenhouse gas emissions that are primarily associated with the company's activities. CO₂ emissions in Scope 3 include, for example, the consumption of energy in leased assets (e.g. properties, vehicles), the purchase of goods and services, waste disposal, water and wastewater, business travel and employee commuting.

Our energy-saving measures in 2023



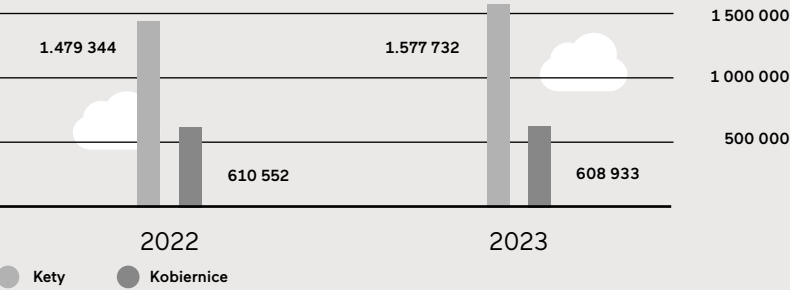
In addition to material consumption, Lightnet also monitors its energy consumption and the associated greenhouse gas emissions, which are mainly caused by heating and cooling. To manufacture our products, our production facilities in Kety and Kobiernice (Poland) are supplied with 100% renewable energy from photovoltaic systems and wind power.

Since the beginning of 2023,

100%

of our energy consumption has come from renewable sources

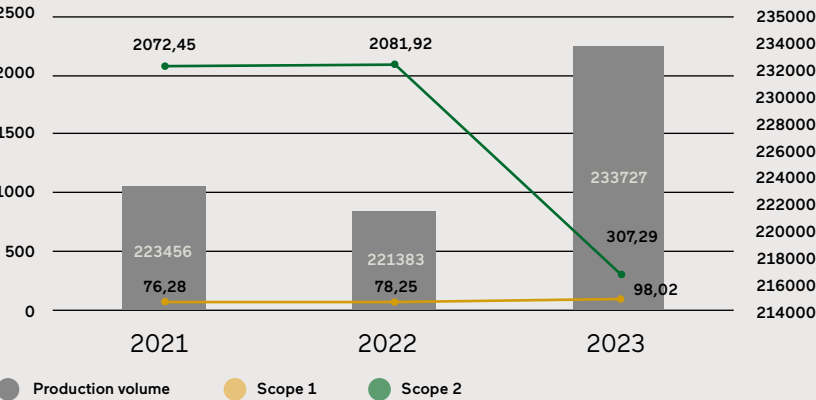
Energy consumption [kWh] at our production sites



7.873,2 GJ - the total energy consumption of our production sites in 2023

For us as a lighting manufacturer, the efficient use of energy and the resulting energy savings are of central importance. We are constantly reviewing where we can source energy and were able to significantly reduce our Scope 2 emissions in 2023 despite an increase in production by sourcing renewable energy emissions.

Development of production volume and CO₂ emissions [tonnes CO₂e]



CO₂ savings of

5.042,52 t

in 2023

Scope 1 *

Scope 2 **

Scope 3 ***

98,02 t

307,29 t

6.089,55 t

-81,25%

By using electricity from renewable energy sources, we were able to reduce greenhouse gas emissions from Scope 1* and Scope 2* by 81.25% in 2023 compared to 2022 despite an increase in production.

CO₂ emissions avoided in 2023:

Kobiernce

43.810 kg

Kety

22.598 kg

Low carbon aluminium

< 4,0 kg CO₂

per kg aluminium

CO₂-reduced aluminium

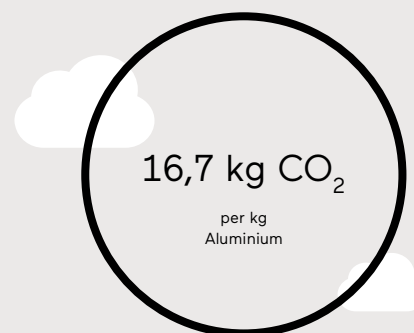
When sourcing aluminium, we rely on manufacturers who not only guarantee short transport routes to our plant, but also ensure sustainable production.

Aluminium is 100% recyclable, but is very energy-intensive to produce. It is therefore important that it is produced using renewable energy sources and recycled after use. When selecting our suppliers, we pay attention to the use of climate-friendly raw materials and renewable energies. As a result of this and the continuous improvement of internal processes and procedures, the manufacturers we select can offer aluminium that is produced with the lowest possible emissions and therefore demonstrably leaves a much smaller ecological footprint than the market average.

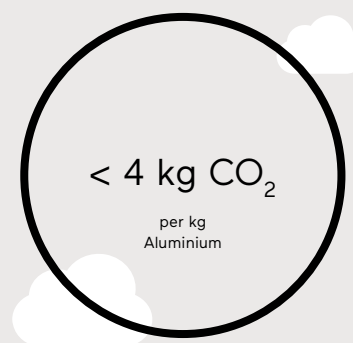
On average, 16.7 kg of CO₂ are emitted per kg of aluminium worldwide. The production of the aluminium purchased from Lightnet produces an average of less than 4 kg of CO₂ per kg of aluminium. Our aluminium suppliers focus on reducing the consumption of materials, water and energy as well as minimising waste and hazardous substances. They take a holistic approach to the product life cycle in order to reduce the environmental impact through an efficient aluminium waste recycling process. Our aluminium suppliers not only use their own waste, but also process more than 50% of existing aluminium, including completely used products, to produce new aluminium. The resulting waste is in turn used to produce new aluminium profiles – a flexible cycle. In addition, the transport routes to our plant are short.

The regular modernisation of the machinery and the implementation of measures in accordance with the principle of continuous improvement of the environmental management system in accordance with ISO 9001:2015 enable our suppliers to ensure full compliance with current legislation and to adapt quickly to new requirements.

Global average:



Lightnet:





Good to know:

Aluminium is infinitely recyclable

Few materials are as easy to recycle as aluminium. It requires only 5% of the energy needed to produce the original primary metal to recycle it. In fact, 75% of the aluminium ever produced is still in use.

Recycled aluminium is no different from new aluminium

Aluminium is a durable material. This means that it can be recycled several times without decomposing and its basic properties remain unchanged.

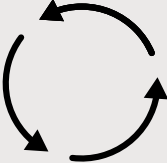
Environmentally friendly packaging



The packaging protects our products from external influences and helps to ensure that they reach our customers undamaged. We are working on reducing the amount of material used and at the same time using more environmentally friendly materials.

Corporate goals:

Already since 2021:



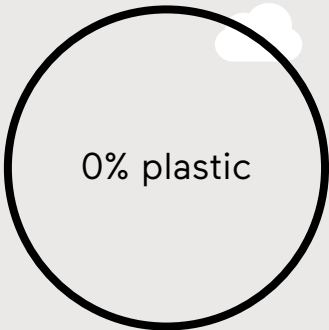
Complete
circular economy



Net zero CO₂



0% waste
with 100% local recycling



0% plastic



100%
recyclable packaging
materials

The European Directive 94/62/EC of 20 December 1994 on packaging and packaging waste promotes the reuse of packaging and the recycling of packaging waste as the best ways to reduce packaging waste. Lightnet has been trading in cardboard pallets and packaging cartons for years in line with the philosophy of the Packaging Waste Directive.

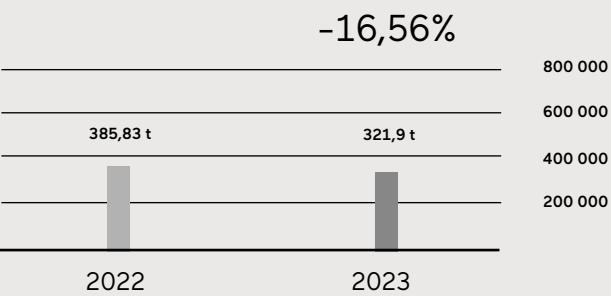
We produce our packaging ourselves and as required – every piece of waste is processed directly into pulp. And from this, new packaging parts are created. 0% waste with 100% local recycling.

Our packaging consists entirely of cardboard with no polystyrene inserts and no plastic film.

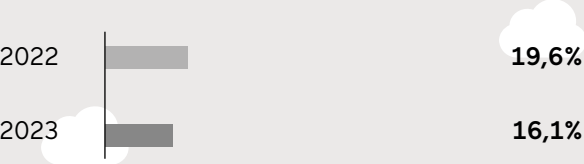
In 2023, we produced 100% of recyclable packaging materials ourselves at our production facilities.

lightnet

Total waste volume (tonnes)



Total amount of waste sent for recycling



As we use cardboard waste to produce pallets, the percentage of recycled waste has decreased - we sort the cardboard waste and use it directly ourselves instead of recycling it externally.

Effective waste management



We contribute to promoting the circular economy by recycling and reusing materials, increasing energy efficiency and reducing the amount of waste in our value chain.

We are constantly striving to find new approaches to reduce our consumption of materials and packaging and to optimise the recycling of waste. During the assembly process in our production facility, we collect waste, separate it according to its composition and prepare it for recycling. The disposal and recycling of this waste is handled by an external company.

Lightnet also implements targeted measures to prevent the generation of waste and reduce the amount of waste. This is achieved by training our employees in waste management, rationalising the management of materials and raw materials and monitoring the quantity and type of waste produced. Specific projects focus on separating different types of waste, optimising waste streams and training our employees to avoid mixing recyclable and non-recyclable materials and thus minimise valuable waste.

To further minimise our environmental impact in connection with packaging, we have been using 100% plastic-free cardboard packaging since 2021. In making this switch, we also take into account the aspect of resource scarcity and favour recycled paper produced in our production facility wherever possible. The significant reduction in the amount of waste to be recycled is due to the use of waste paper.

Water purification

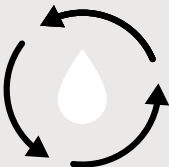
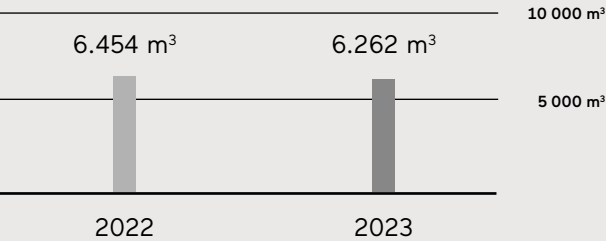


Lightnet operates a water treatment system that enables the recovery and reuse of resources during production in a closed cycle.

Lightnet's production facility in Kety is equipped with wastewater recovery and reuse systems that recycle the wastewater from production and then feed it back into the manufacturing process. The installation of water meters at all Lightnet sites enables us to continuously monitor water consumption and take appropriate corrective action in the event of deviations. Despite an increase in our production, we were able to reduce our water consumption from 2022 to 2023.



Lightnet water consumption at the production sites





Freeing the oceans from plastic

Sustainability is in our DNA – every step of our work is geared towards minimising our impact on the environment. In addition, every year we take part in a project that protects nature – insights into two projects that are particularly close to our hearts in 2024.



↑ Lightnet supports the "SeeKuh" project of One Earth One Ocean, which fishes ghost nets from the Baltic Sea.

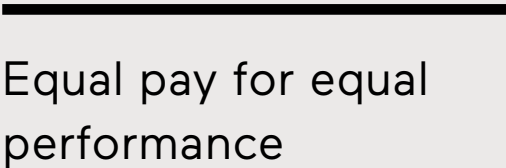
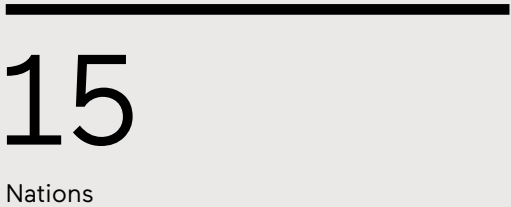
We are particularly pleased that the project with One Earth One Ocean was submitted and selected by the majority of employees at Lightnet's headquarters in Germany, as we have already been using plastic-free packaging for many years as part of our sustainability strategy and can now help to protect the Baltic Sea from plastic waste and ghost nets through this cooperation.

Ghost nets are lost or abandoned fishing nets often made of nylon, polyester or polyethylene. It is estimated that ghost nets are responsible for around 10 per cent of the world's plastic waste in the oceans. Not only are they a death trap for marine mammals, fish, seabirds and molluscs, they also break down into microplastics and plasticisers over time. In addition, toxins are deposited on the plastic particles, which have a significant impact on marine ecosystems and can ultimately enter the human food chain.

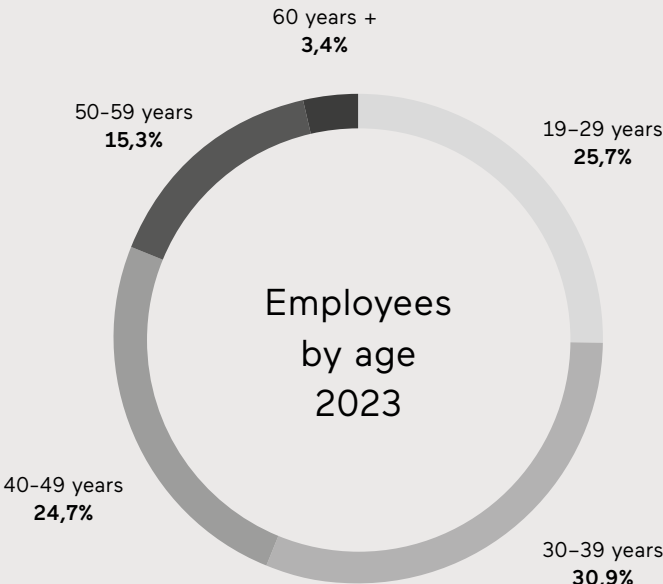


To protect the oceans, we also support BRACENET, which upcycles ghost nets salvaged from the oceans by Healthy Seas and Ghost Diving to create new products such as bracelets and key rings. With their products, BRACENET raises funds for the protection of the oceans and the environment. So far, they have donated €250,000 to organizations such as Healthy Seas, Sea Shepherd, Everwave, the Ocean Voyages Institute and many more.

Diversity inclusion & equality



Different perspectives are the basis for success. We rely on multiculturalism and a team from over 15 nations. Because we know: Creativity needs diversity. That's why we promote inclusion, respect every individual regardless of origin or gender and pay equal pay for equal performance.



+11%

Increase in the number of employees in 2023

+14%

Increase in the number of women employed



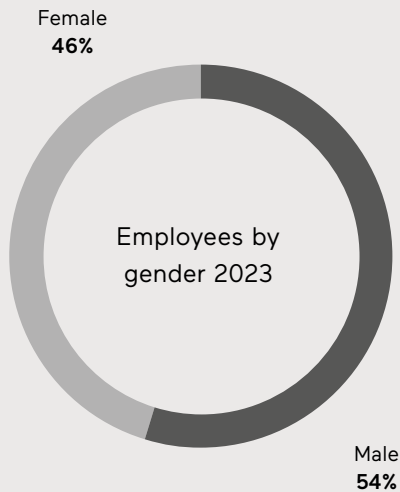
Equal opportunities for all

Equal treatment of all employees, regardless of their age, gender, origin or other personal characteristics, forms the basis for equal opportunities.

In 2023, Lightnet had a total of 591 employees, an increase compared to the previous year (531). The continuous growth in recent years, the high number of permanent contracts and the comparatively low fluctuation rate are evidence of Lightnet's ongoing commitment to the well-being of its employees.

Number of permanent employees	2022	2023
Lightnet GmbH Germany – Köln	40	43
Lightnet Poland – Kety	124	155
Lightnet Poland – Kobiernice	359	382
Lightnet UK	4	4
Lightnet France	1	1
Lightnet USA	2	5
Lightnet Mexico	1	1
Total	531	591





Number of permanent employees Location	2022		2023	
	Male	Female	Male	Female
Lightnet GmbH Germany – Köln	22	19	27	16
Lightnet Poland – Kety	56	68	71	84
Lightnet Poland – Kobiernice	203	156	210	172
Lightnet UK	3	1	4	–
Lightnet France	1	–	1	–
Lightnet USA	1	1	3	2
Lightnet Mexico	1	–	1	–
Total	286	245	317	274

Training for personal and professional development

In 2023, Lightnet conducted a total of 1934 hours of training for its employees, which corresponds to an average of 20.8 hours per employee. This represents an increase compared to the previous year.

As in the previous year, Lightnet has committed to providing appropriate training for all employees in the coming years, regardless of their employee category or contract type. Employee training is an integral part of any successful company. Further training has a positive effect on employee satisfaction, performance and loyalty to the company. By providing our employees with comprehensive training, we enable them to realise their full potential, which makes our organisation more competitive.

+125,25 h

Training hours in 2023

+111,3%

Increase in training expenditure compared to 2022

Training hours	2022	2023
Total number	1.767	1.934,25
perceived by women	553,5	487,75
perceived by men	1.213,5	1.446,5
Hours per male employee	4,7	21,3
Hours per female employee	2,5	20,3
Hours per employee	3,7	20,8

Corporate governance & outlook

Lightnet is committed to upholding ethical and moral principles. Our core values, which include personal and human rights, integrity, respect, tolerance, discretion, reliability and trust, form the foundation of our corporate culture.

At Lightnet, compliance with all national and international laws and regulations is a top priority. The strategic direction of our sustainability efforts is set by the Executive Board, and the Group's management bears the highest responsibility for sustainability issues. Our corporate governance is based on strict compliance with all laws and regulations in the countries in which we operate, including competition rules, environmental regulations, labour laws and collective agreements that affect our business activities.

We practise zero tolerance towards any kind of bribery and corruption in all contexts. Our corporate principles, such as occupational safety and environmental protection, are maintained through the responsible use of resources and continuous improvements in product performance.

The coming years will be crucial for minimising our environmental impact and optimising our business activities at the same time. We are convinced that we can shape a sustainable future together with our employees, partners, customers and the community.

We invite you to be part of our journey to climate neutrality. Let's tackle the challenges of climate change together and create a sustainable future for all.



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