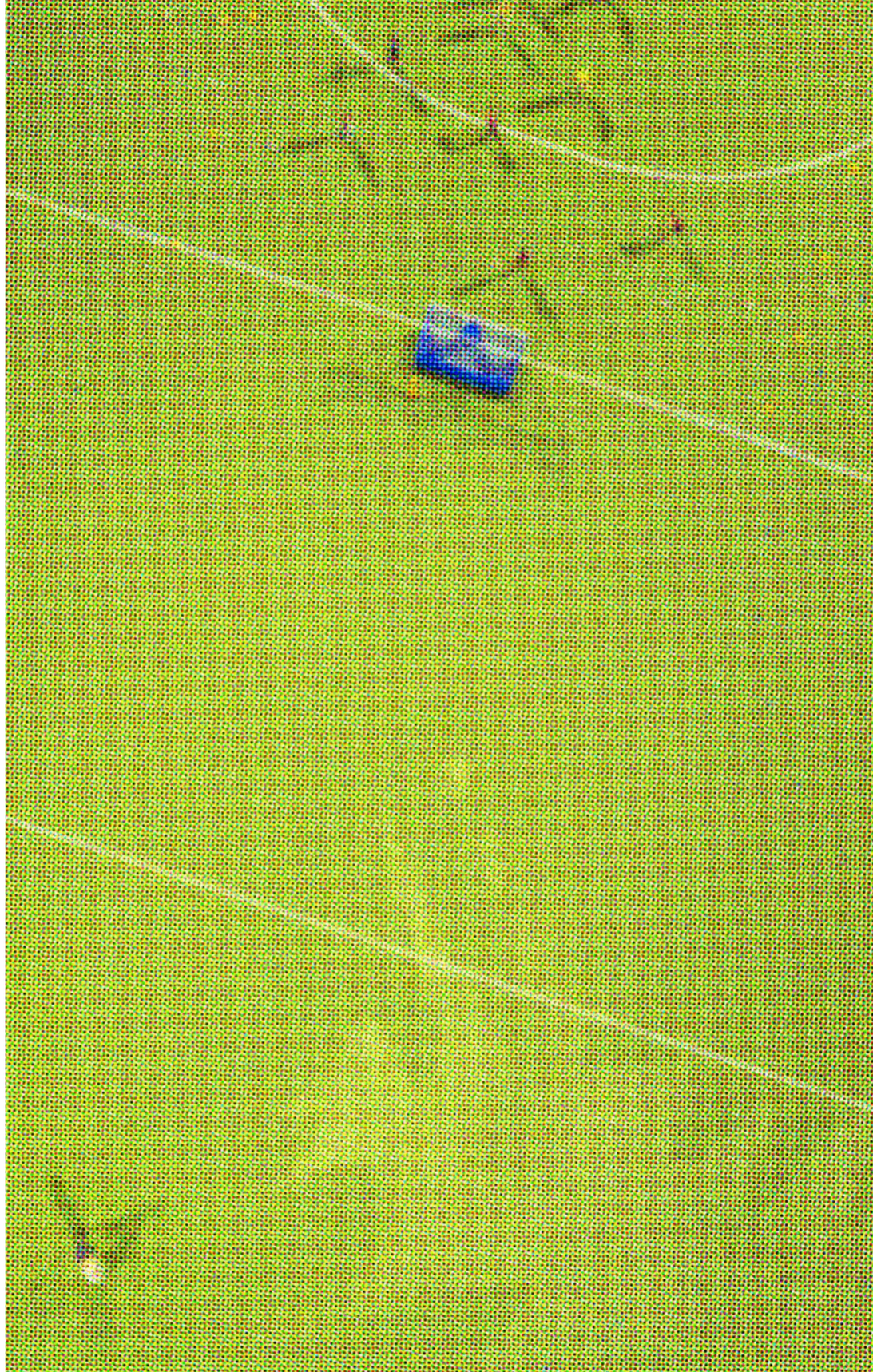
large area lighting

empowering wellbeing outdoors

“We use light to activate public space and transform it into a place where people feel good and safe,” says ewo CEO Hannes Wohlgemuth, summarizing the “empowering wellbeing outdoors” philosophy.

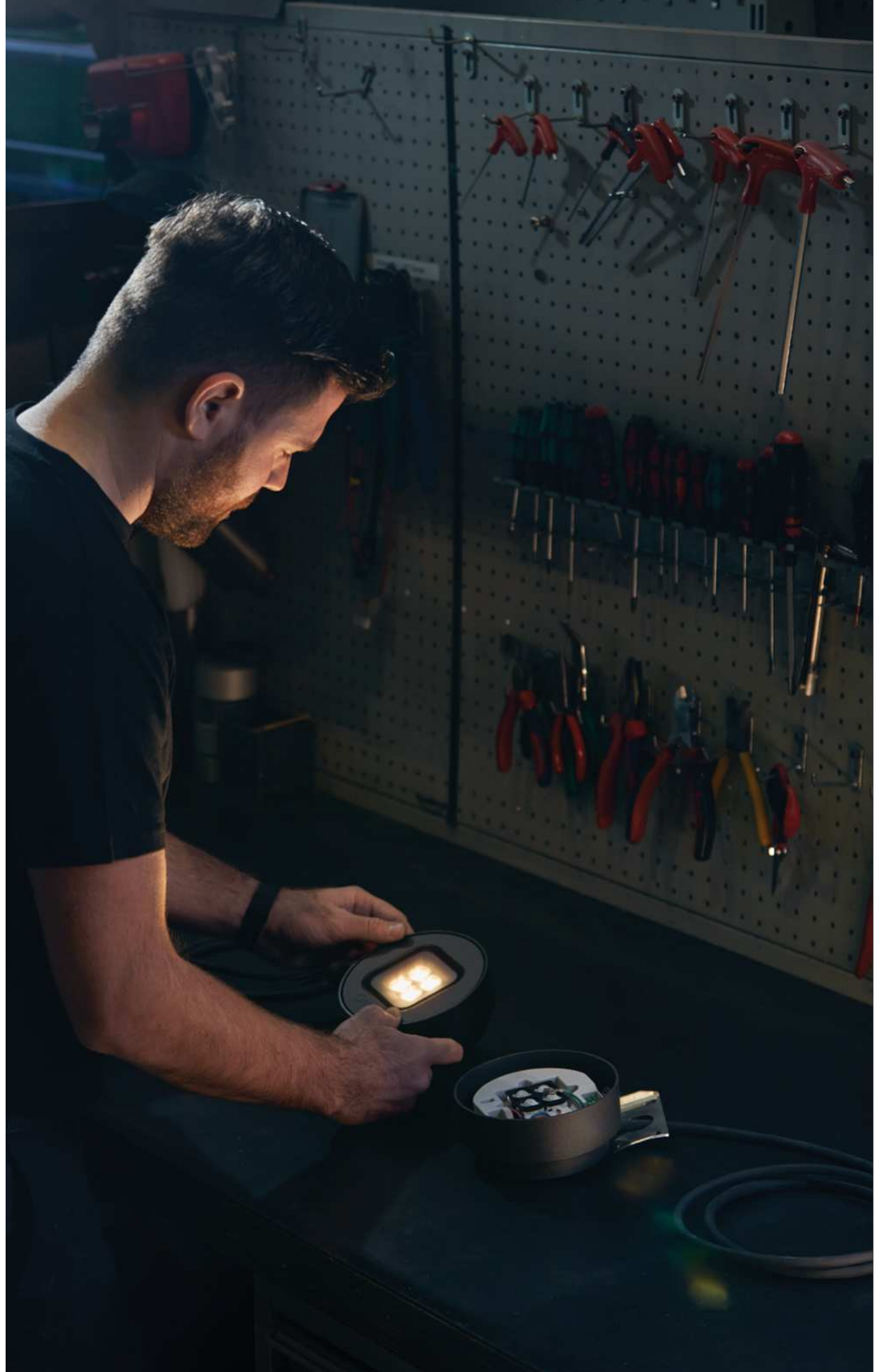
ewo’s light generates meaning by contrasting the harsh reality of the night with a luminous essence that creates community. Light dissolves the darkness of the night.

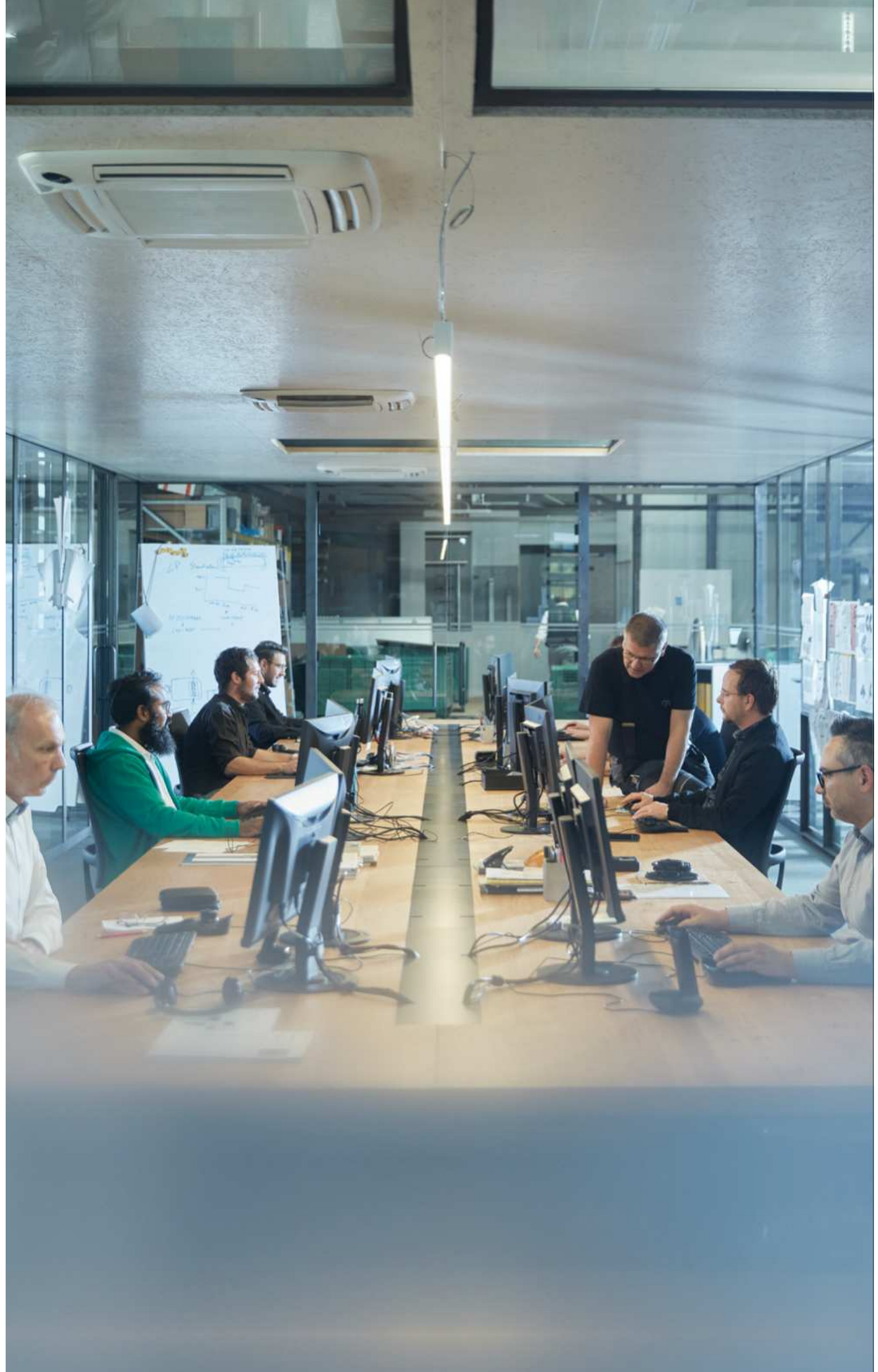


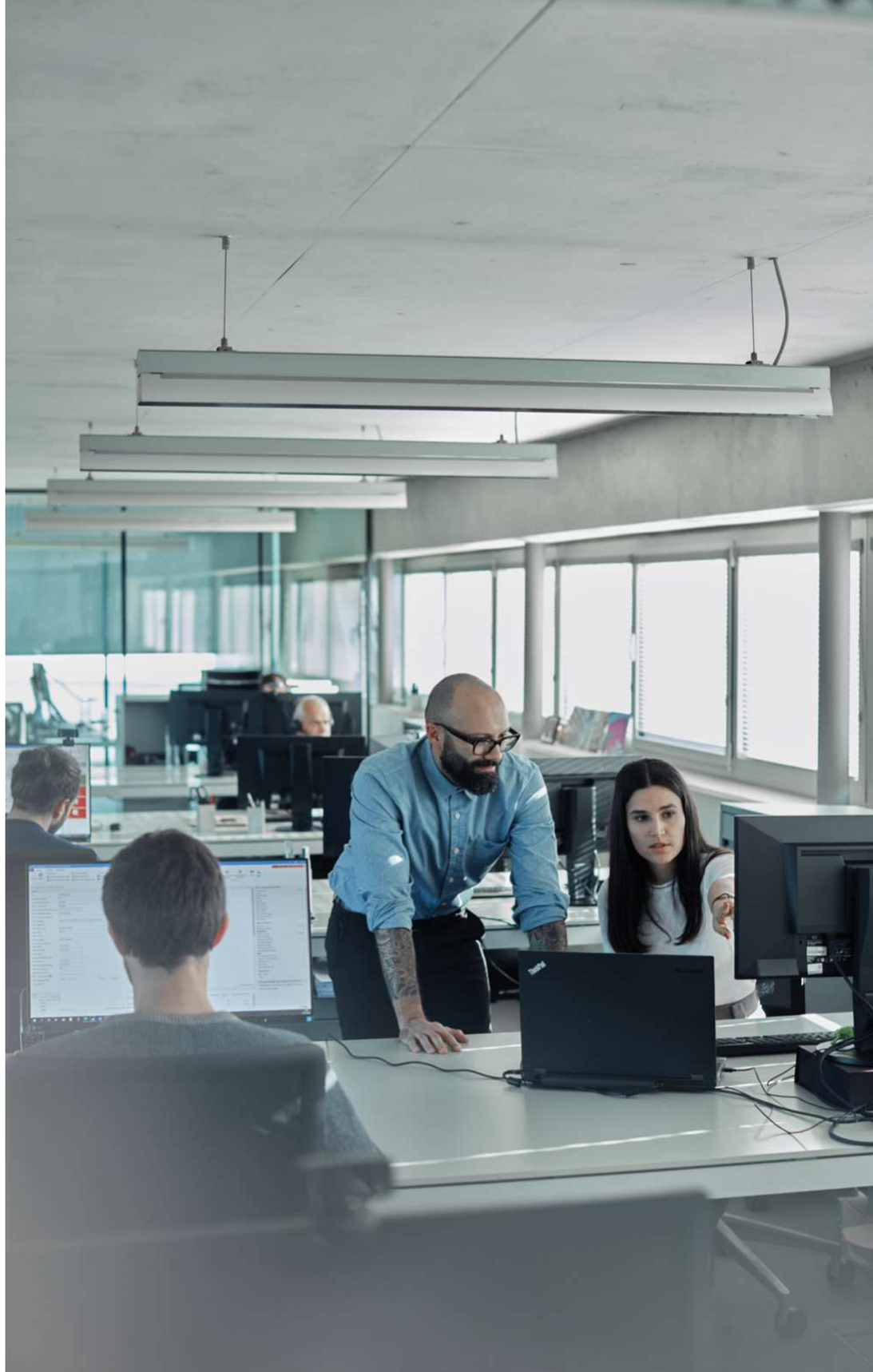

MAERSK
Hapag-Lloyd
SK
SK
SK

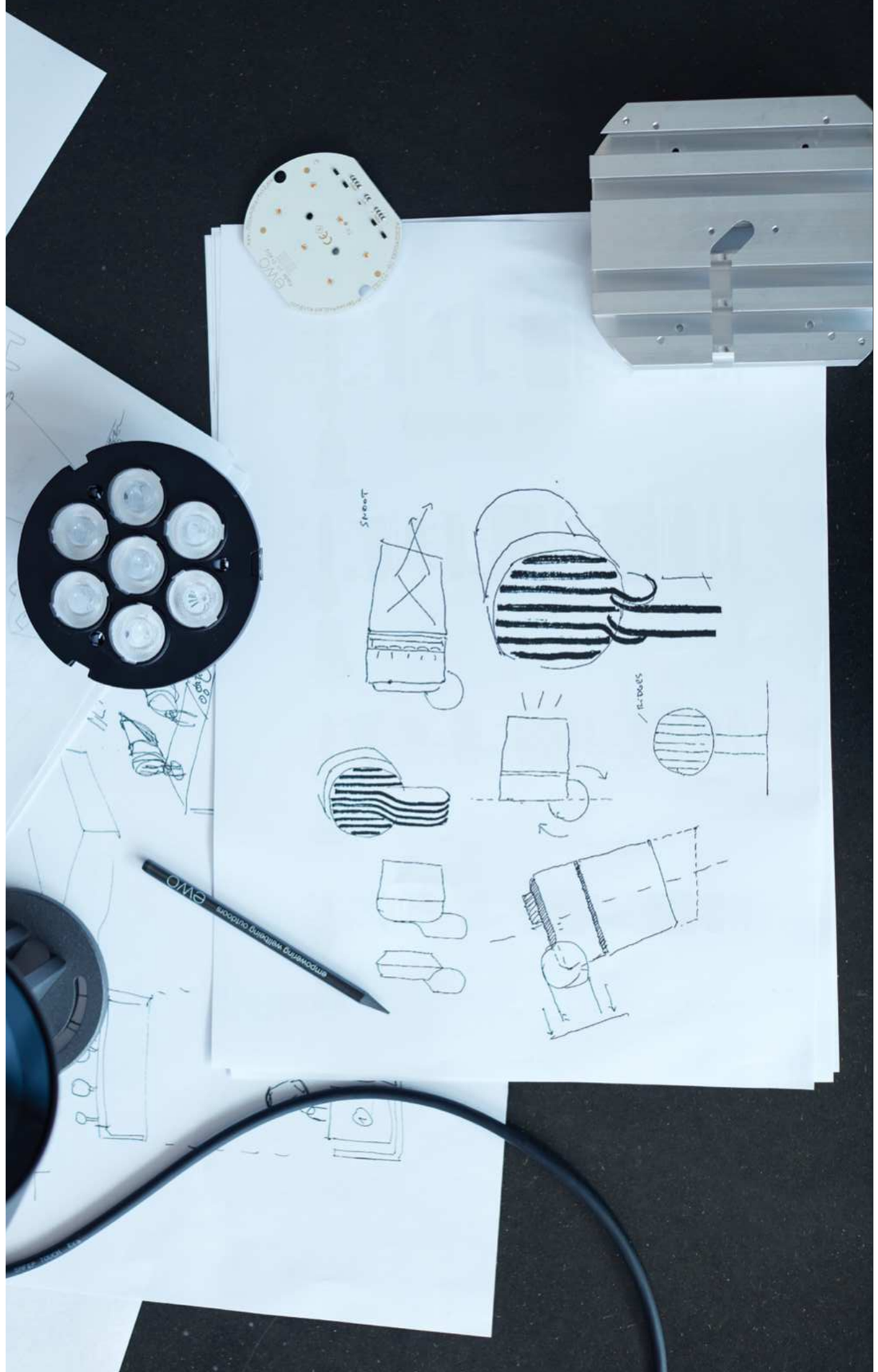
this
is ewo

In the beginning there wasn't light, in the beginning there was metal. And a one-man business in South Tyrol's Sarentino. ewo's strongest driving force is the courage to change. A company that stands for uncompromising technology, innovative thinking and a special sense of design and aesthetics – characteristics that are rarely so linked together in any other company. With Hannes joining the company twelve years ago, ewo has become more actively involved in the worlds of art, design, and architecture. He is never losing sight of the fact that people are at the center of all the company's efforts: as social beings that gather around the technological campfire, as employees who are an invaluable part of the company's journey into the future, and as customers, who are significantly involved in shaping the future of public space. For this, it is important – like the light – to always keep moving.









technology and design

Shape of Light, Body of Light, Intelligence of Light: these three principles characterize the second-generation company philosophy under Hannes Wohlgemuth. This means that the shape of the light, the light body, and its smart application guide every ewo project. These principles are not so far removed from his father's initial motto, created more than 25 years ago: first and foremost, a light has to work in order to be able to create an atmosphere. That is the technical part. The design comes from the arts and crafts roots of the entrepreneurial family. Technology has its roots in physics, and alongside the artisans, it was the physicists who initially brought about change. From the beginning of the company's history, a German physicist and lighting designer was commissioned to work on the first reflectors for ewo, and this led the company to shift its focus to innovative lighting technology. Physicists were employed in-house from 2015 onwards. When it comes to creating a feel-good environment for people in public spaces, many disciplines are needed, from art, to physics, to architecture. Today, they are expressed in a "light culture" that optimally combines design and lighting technology, extended by smart upgrades. Ultimately this resulted in a large number of modular lighting systems whose possible combinations give lighting planners the freedom, they need to design "free spaces".

ewo.digital

Merging is in ewo's nature. ewo's future direction is moving towards further networking in the digital space. With a partner from the technology sector, the brand connexx was founded in 2017, to bring hardware and software together under one roof. Our goal: providing a system in which the luminaires can immediately respond to changing (urban or social) conditions. The connection to the Internet of Things not only offers the possibility of sustainable control, but also offers dynamic and flexible tools to improve the quality of life outdoors. In this way, not only do manufacturers and lighting planners become part of the communication with the luminaires, but also the environment, to which the lighting systems learn to adaptively react. The activities of the luminaires can be controlled and monitored by the Leitfeld software developed in-house. As early as 2012, ewo tackled its first major digital project with a product configurator and brought it into the real world with the associated machine, called ewoPhotometricEngine. The product configurator guides planners towards their individual solutions every day. ewo's software programs rely on the ewoDataHub, a uniform data collection tool for all ewo products. Monitoring in the Leitfeld software goes one step further: here, the ewoLightLogger enables the analysis of the actual light distribution across a specific surface. In the final analysis, ewo.digital will offer a complete ecosystem that unites all aspects of innovative outdoor design, from product planning and configuration, to the finished product and its operation, to sustainable control.

large area lighting

“Appropriate lighting is a crucial asset for a safe environment in large areas. Airports, logistic areas, sports fields — thanks to our decade long experience and expert team, our high-performance floodlights are able to provide long-lasting, safe and environmentally friendly lighting for every individual project.”

Manuel Toni Streiter, Sales Manager Large Area Lighting

luminous projects around the globe

AAL Aalborg Airport
AAR Aarhus Airport
ABJ Abidjan Airport
ABZ Aberdeen Airport
ADL Adelaide Airport
ARN Stockholm Arlanda Airport
AUS Austin-Bergstrom International Airport
BOS Logan International Airport (Boston)
BQN Rafael Hernández Airport (Puerto Rico)
BRN Bern Airport
BSL Basel Mulhouse Airport
BTH Hang Nadim Airport
CDG Paris Charles de Gaulle Airport
CPH Copenhagen Airport
DEN Denver International Airport
DOH Hamad International Airport (Doha)
DPS Ngurah Rai International Airport (Denpasar)
DUD Dunedin Airport
DUS Düsseldorf Airport
DXB Dubai International Airport
EBJ Esbjerg Airport
EIN Eindhoven Airport
ELS East London Airport
ETZ Metz-Nancy-Lothringen Airport
EUX F.D. Roosevelt Airport (St. Eustatius)
FAT International Airport Fresno Yosemite
FDF Martinique Airport
FNI Aéroport Nîmes-Alès-Camargue-Cévennes
FRA Frankfurt Airport
GRJ George Airport
HAJ Hannover-Langenhagen Airport
HAM Hamburg Airport
HEL Helsinki-Vantaa Airport
HLZ Hamilton Airport
HRE Harare International Airport
HSH Henderson Executive Airport (Las Vegas)
INN Innsbruck Airport
JED King Abdulaziz International Airport (Jeddah)
JRO Kilimanjaro International Airport
KMS Kumasi International Airport
KUL Kuala Lumpur International Airport
LNZ Linz Airport
MEL Melbourne Airport
MKY Mackay Airport
MUC Munich Airport
MST Maastricht Aachen Airport
NRT Narita International Airport (Tokio)
NSN Nelson Airport
OAK Oakland International Airport
OOL Gold Coast Airport
OSD Åre Östersund Airport
OSL Oslo Airport
PUF Pau Pyrénées Airport
RDZ Rodez Marcillac Airport
RIL Rifle Garfield County Airport
RIX Riga International Airport
RTM Rotterdam The Hague Airport
RTW Saratov Airport
RUN Roland Garros Airport (Réunion)
SCL Aero Puerto de Santiago de Chile
SIN Singapore Changi Airport
SJC San José Airport
SLC Salt Lake City International Airport
STR Stuttgart Airport
SXF Berlin-Schönefeld Airport
SYD Sydney Airport
THU Thule Air Base (Grönland)
TPA Tampa International Airport
TRN Turin Airport
TSV Townsville International Airport
TXL Berlin Tegel Airport
VCE Venice Marco Polo Airport
VFA Victoria Falls Airport
VIE Vienna International Airport
WRO Wrocław–Copernicus Airport
YKS Yakutsk Airport
YPL Pickle Lake Airport
YQR Regina International Airport
YVR Vancouver International Airport
ZCO Aeropuerto Maquehue Araucania
ZRH Zürich Airport

pioneers in a broad field

When illuminating large areas, key factors are performance, durability and efficiency. The objective in illumination is to ensure precision, homogeneity and 0% light pollution.

ewo already exploited the potential offered by LED technologies for large areas as far back as 2010 at Venice cargo terminal and since its project at Innsbruck Airport, has been conquering airports of various sizes one by one throughout the world.

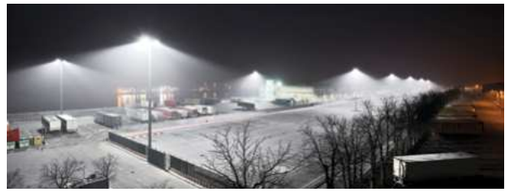
At present, around 200 airports worldwide – from desert regions to Greenland – rely on ewo. A development that never stops.

access all areas

Optimized, more powerful and ready to tackle any type of large area lighting. ewo's portfolio of high-power floodlights with modular features meets all requirements and demands at airports, ports, traffic routes, logistics areas, sports facilities and even sports stadiums.

airports

ports



logistics

traffic

sports

airports


Lufthansa
lufthansa.com
D-AIBF

MUC
munich airport

energy savings thanks to versatility

ewo's floodlights have contributed to 52% energy savings for another major airport, with the completion of a flawless illumination project at Munich MUC. This recent floodlight project utilizes ewo's F–System Large for a homogenous illumination of Ramp 2, with high poles utilizing ewo's L–Series lenses in various combinations of directional distributions for the perfect lighting. In addition to 511,920 kWh/year savings, annual CO_2 reduction for the project amounts to 255,960 kg, creating cost savings of around 148,456 €/year. The benefits of ewo floodlights on environmental and light pollution impact, have also been fantastically demonstrated with a reduction to 0% upward flux ratio, following the installation of the ewo F–System Large units at MUC.

This precision illumination, evident in these most recent project images, reduces glare for workers at the airport, returning numerous practical benefits for airport-goers and workers alike. ewo, known as a trailblazer in airport LED illuminations, has completed illuminations such as the MUC Footbridge project and an illumination of MAC Forum, the aesthetically driven and remarkably technical custom lighting design challenge. Hannes Wohlgemuth, ewo CEO, said: "ewo has a long, fruitful history with Munich Airport, marked by a constant pursuit of precision and innovation – and this fits in perfectly with our values."

Georg Felderer, ewo Lighting Engineer, said: "Our contribution at this airport is an immense source of pride for us and the completion of this apron illumination is a testament to the precision and power of our lighting systems, in addition to previous projects requiring a wider variety of luminaire applications. Our versatility is a true virtue."

Client	Flughafen München GmbH
Product	F–System Large
Year	2018

DXB dubai international airport

a global hub, made ship-shape for the future

With 90 million passengers per year, Dubai International Airport is one of the most important hubs in the world.

Here all the halogen lights have been completely replaced by 1,000 LED floodlights from ewo. What is remarkable about this is a reduction in total number of floodlights at the same time as a boost in the lux value to 30 lx.

The result: greater precision and considerable energy efficiency. 63% less energy consumption from 2,200 kW to 810 kW, with annual energy savings of 7,000 MWh.

“Safety is the crucial issue in air traffic, and lighting is of paramount importance. Lighting on the apron enhances safety when important standards are met, when it is durable and reliable. Our R–System will do this – no compromises.”

Hannes Wohlgemuth, CEO

Client	Dubai International Airport (DXB)
Product	R–System gen1
Engineering/Poles	FUCHS EUROPOLES
Year	2020

Light Distributions

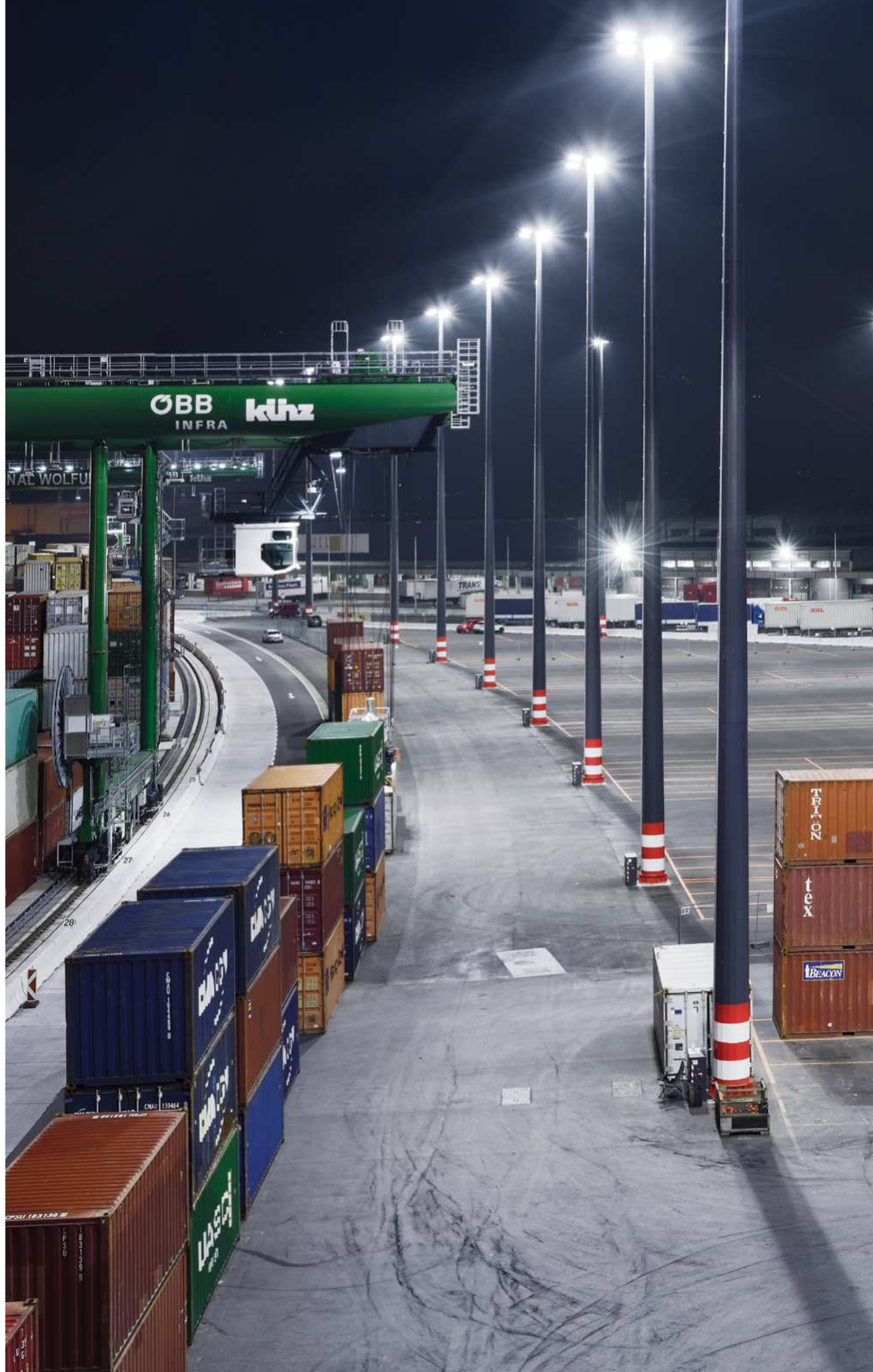
AS07
Asymmetric Side Throw

AP04-L (Tilt 20°)
Asymmetric Extra Forward – Left

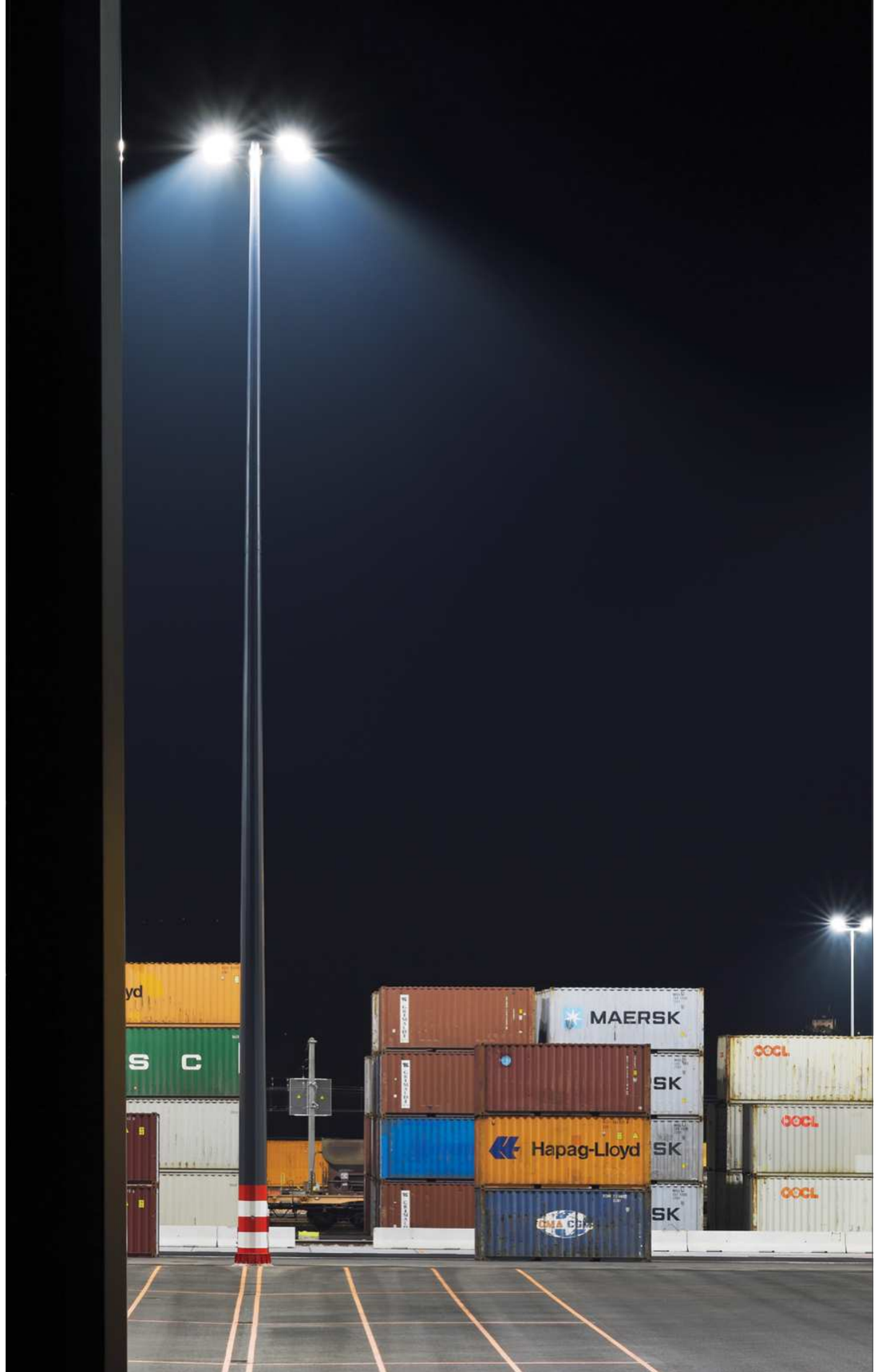
AP04-R (Tilt 20°)
Asymmetric Extra Forward – Right

AP04-L/R (Tilt 20°)
Asymmetric Extra Forward – Left/Right

logistics




ÖBB
INFRA
TERMINAL W
MAERSK
SEALAND
AERSK
CMA CGM
Hapag-Lloyd
OOCL
22
23
24
25



wolfurt ÖBB container terminal

the logistics of logistics

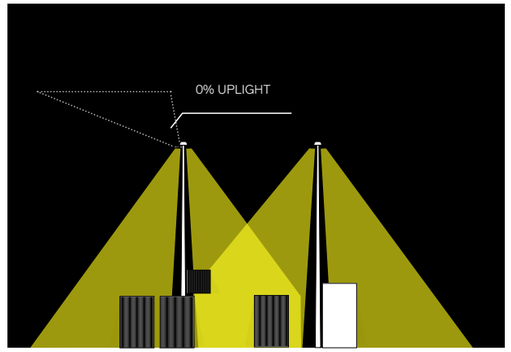
The ÖBB terminal in Wolfurt comprises 54,000 square metres of space. Every square metre must be perfectly accessible and visible day and night in order to guarantee the smooth flow of goods.

It was for this reason that exceptionally high masts were used to ensure an optimal, capable lighting system.

ewo specially developed a differentiated “left-right” optical systyem for optimal illumination of horizontal and vertical work areas.

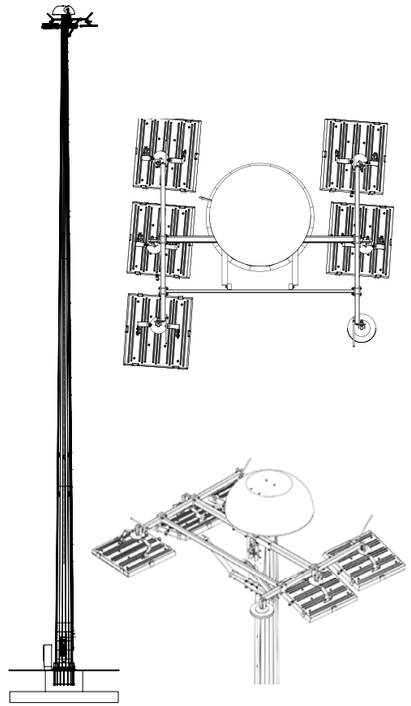
“The key factor is precision. Our left-right system illuminates containers and aisles without casting shadows, of course with 0% light pollution.”

Ernst Wohlgemuth, Founder and CTO



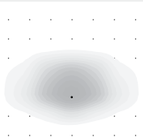
Shadow-free multi-layer lighting

Poles with lowering System

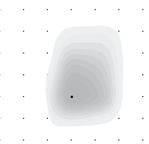


Client	ÖBB
Product	F–System Large
Design	A3 JENEWEIN
Engineering/Poles	FUCHS EUROPOLES
Year	2018

Light distributions



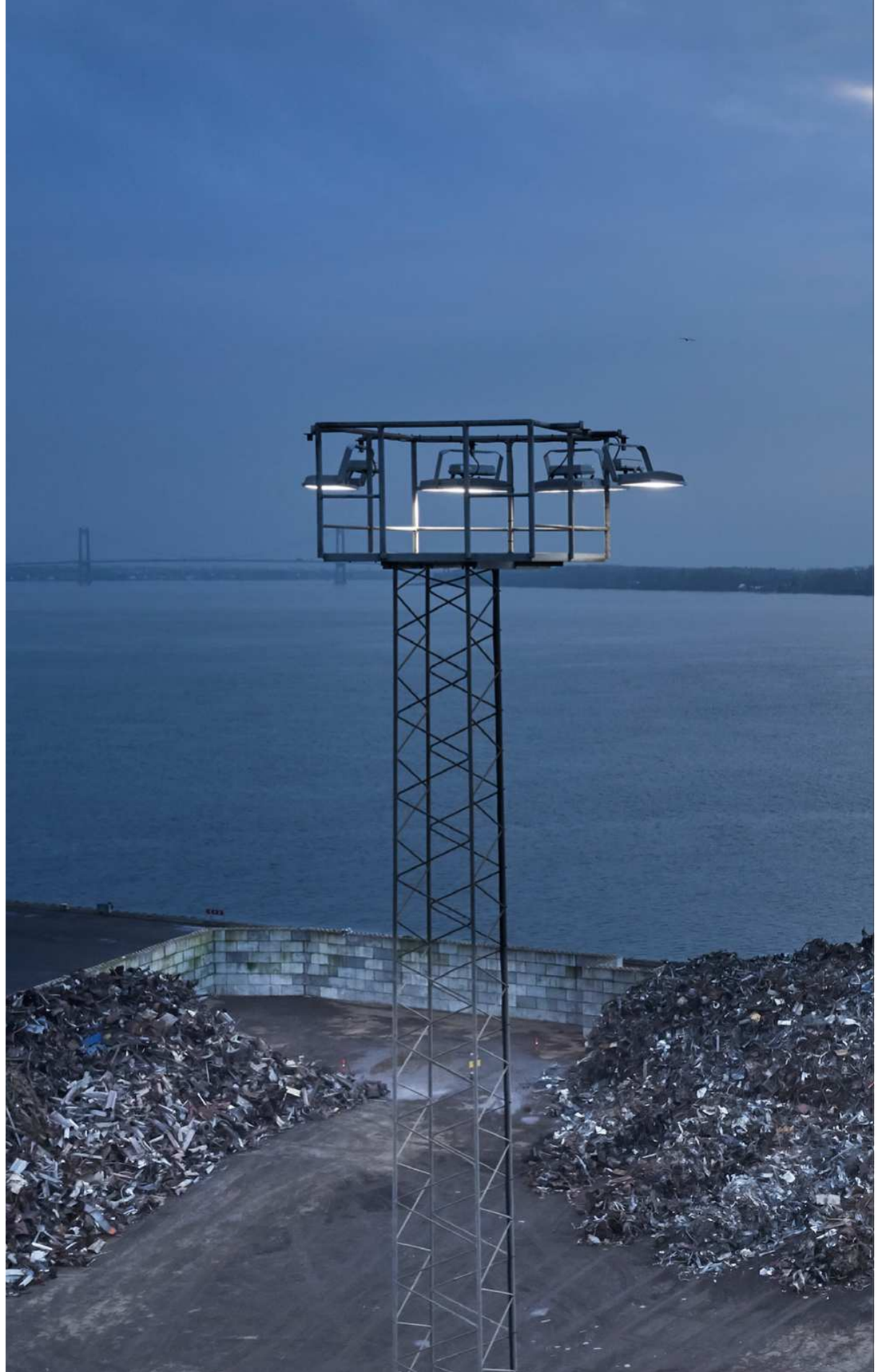
LS34
Asymmetric Side Throw



LP32-R
Asymmetric Extra Forward – Right

LP32-L
Asymmetric Extra Forward – Left

ports



fredericia harbor

a safe haven for workers and wildlife

The first test pole with the R–System gen3, was installed with the optical system EP09 Asymmetric Extra Forward – Left/Right, in an area requiring 30 lx. The client opted for ewo's products also for its Dock22 area, requesting four R–System gen3 R2 luminaries mounted on cranes with a street lighting distribution AS07 Asymmetric Side Throw, in order to illuminate the ships and the stripe area of the dock, with no light wastage onto the water.

Full-cut-off effect of the R–System floodlights (Tilt +2°) transformed the harbour into a brighter and safer working environment with green credentials, avoiding light pollution and disturbance of animals living in the surrounding area.

A total of 107 R2 or R4 R–System floodlights – four of them with A–Series lenses, the rest with E–Series lenses – were set up with Zhaga book 18-sockets. The new floodlights and associated innovations will allow consistently reduced installation and maintenance costs, to achieve a total energy saving of 74%, to become fully compliant with applicable standards.

Client	Associated Danish Ports
Installation	ADP
Products	R–System gen3 (EP09 Asymmetric Extra Forward – Left/Right), F–System M (AS07 Asymmetric Side Throw)
Start date	2020

sports

example calculations

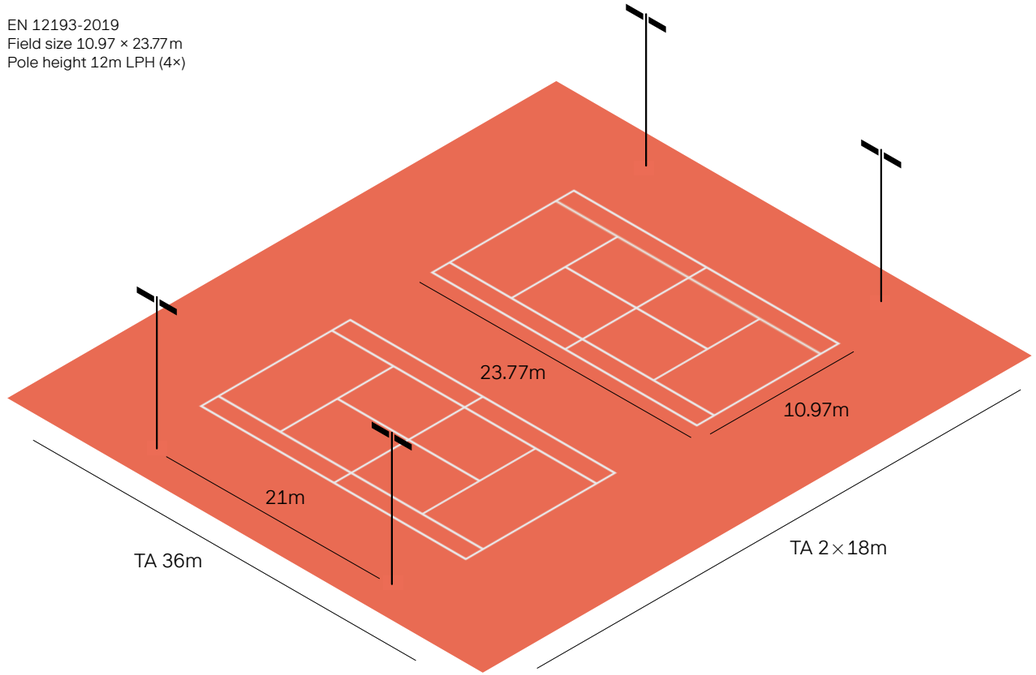
When it comes to lighting sports facilities, maximum performance and output are the top priority—without disturbing the surroundings or the night sky.

Thanks to their individual configuration options, our high-performance floodlights R–System and RIVAL are the perfect solution: they meet all the requirements for lighting soccer fields, tennis courts, swimming pools, stadiums and much more.

We have calculated three common example projects.

Tennis court 4 poles

EN 12193-2019
Field size 10.97 × 23.77 m
Pole height 12m LPH (4×)



Standard value	200 lx / 0,6 Class III	300 lx / 0,7 Class II	500 lx / 0,7 Class I
Products	R2 gen4 AP10 – L/R 336 LED	R2 gen4 AP10 – L/R 240 LED	R2 gen4 AP10 – L/R 336 LED
			

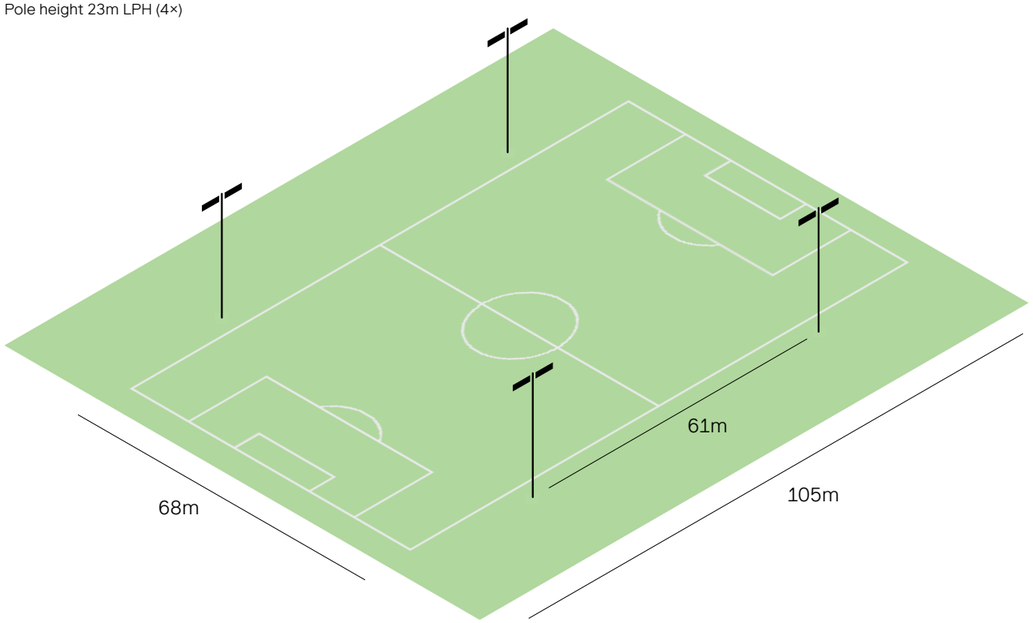
Tilt 0°
Maintenance factor 0,9
CRI ≥ 70
Color temperature 5.700 K

Calculated lux level PA (E_m)	207 lx	309 lx	501 lx
Calculated lux level TA (E_m)	198 lx	295 lx	478 lx
Number of products	4	8	8
Total power	3,8 kW	5,92 kW	9,72 kW
Glare	< 39 GR	< 39 GR	< 38 GR
Uniformity PA	g_1 0,81 / g_2 0,69	g_1 0,81 / g_2 0,70	g_1 0,82 / g_2 0,71
Uniformity TA	g_1 0,75 / g_2 0,62	g_1 0,74 / g_2 0,61	g_1 0,73 / g_2 0,60

$g_1 = E_{min} / E_m$ $g_2 = E_{min} / E_{max}$

Soccer field 4 poles

EN 12193-2019
Field size 105 × 68 m
Pole height 23m LPH (4×)



Standard value	75 lx / 0,5 Class III	200 lx / 0,6 Class II	500 lx / 0,7 Class I
Products	RIVAL AP10–L/R FCO 320 LED	RIVAL AP10–L/R FCO 320 LED	8 RIVAL AFC01 FCO 320 LED 36 RIVAL AP10–L/R FCO 320 LED

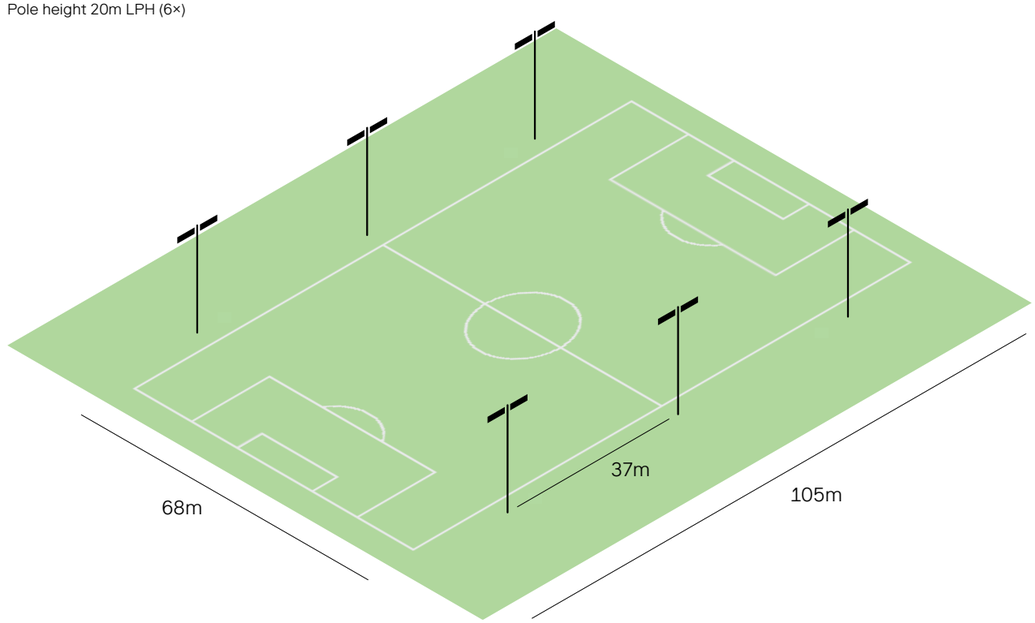
Tilt 0°
Maintenance factor 0,9
CRI ≥ 70
Color temperature 5.700 K

Calculated lx level (E_m)	76 lx	201 lx	500 lx
Number of products	8	20	44
Total power	7,85 kW	20,7 kW	50,13 kW
Glare	< 39 GR	< 40 GR	< 40 GR
Uniformity	g_1 0,75 / g_2 0,62	g_1 0,75 / g_2 0,62	g_1 0,78 / g_2 0,64

$g_1 = E_{min} / E_m$ $g_2 = E_{min} / E_{max}$

Soccer field 6 poles

EN 12193-2019
Field size 105 × 68 m
Pole height 20m LPH (6×)

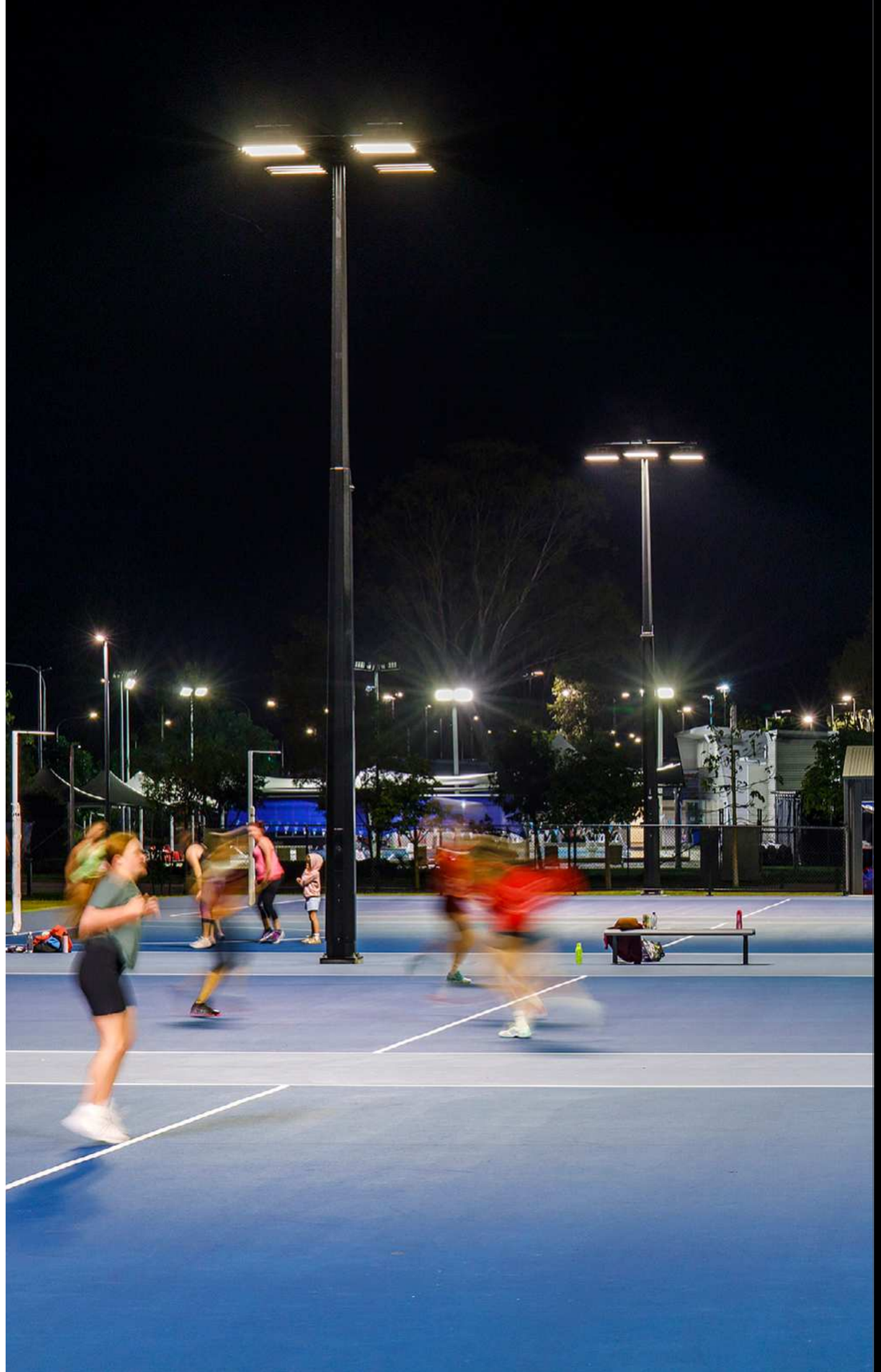


Standard value	75 lx / 0,5 Class III	200 lx / 0,6 Class II	500 lx / 0,7 Class I
Products	2 RIVAL AFC01 FCO 320 LED 8 RIVAL AP10–L/R FCO 320 LED	12 RIVAL AFC01 FCO 320 LED 6 RIVAL AP10–L/R FCO 320 LED	28 RIVAL AFC01 FCO 320 LED 12 RIVAL AP10–L/R FCO 320 LED

Tilt 0°
Maintenance factor 0,9
CRI ≥ 70
Color temperature 5.700 K

Calculated lux level (E_m)	79 lx	214 lx	501 lx
Number of products	10	18	40
Total power	7,10 kW	18,83 kW	43,3 kW
Glare	< 43 GR	< 43 GR	< 40 GR
Uniformity	g_1 0,73 / g_2 0,60	g_1 0,81 / g_2 0,70	g_1 0,80 / g_2 0,70

$g_1 = E_{min} / E_m$ $g_2 = E_{min} / E_{max}$

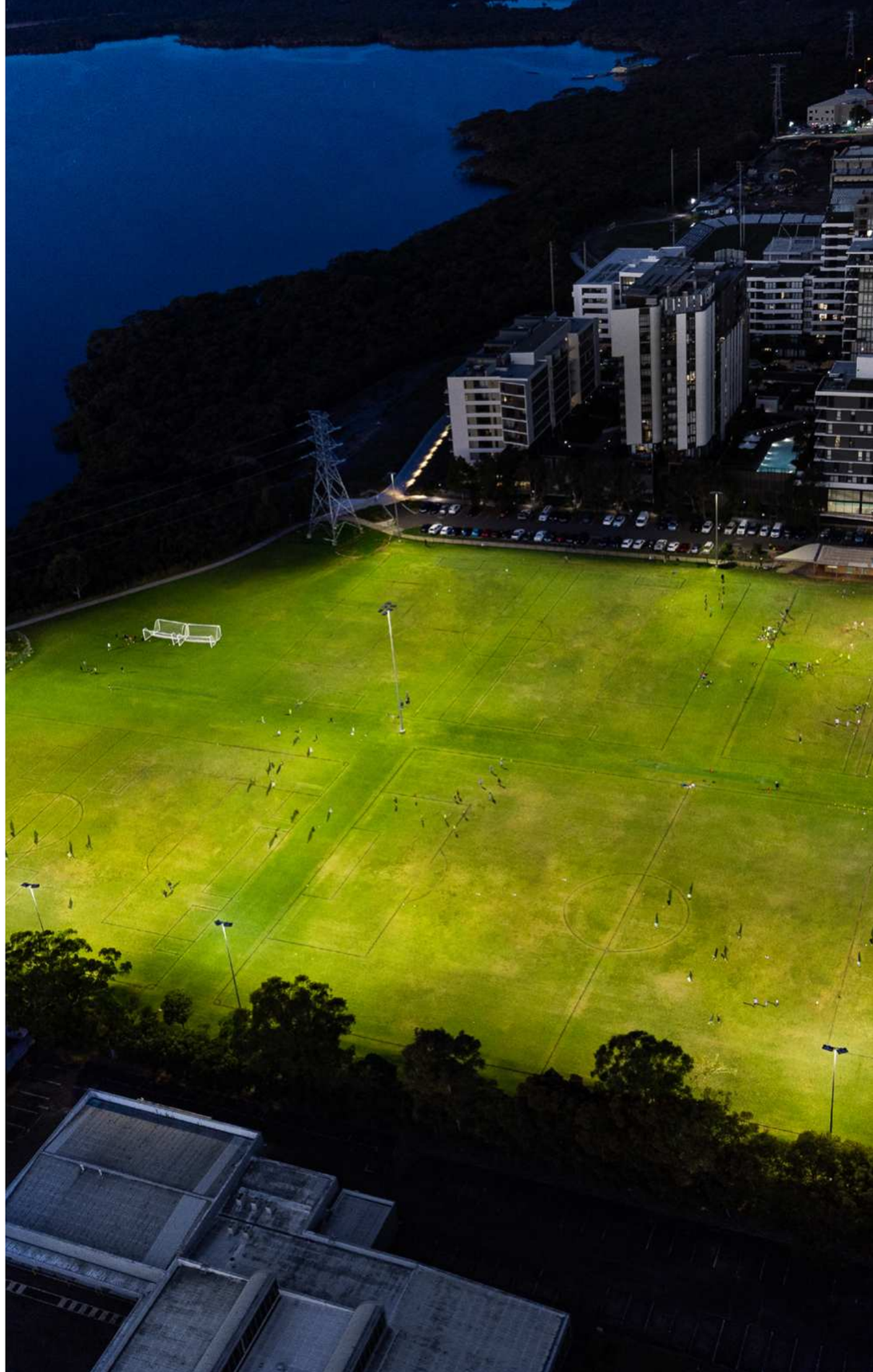


“The biggest challenge here was to illuminate several netball fields with limited space, in accordance with standards. With ewo’s solution, we achieved excellent results through uniform light distribution in combination with an FCO-compliant effect – it’s a comfortable, natural environment deep into the night.”

Principle Lighting Engineer, Bill Brown Reserve

“As specialist lighting designers, lighting outcomes and the quality of the products we use are of utmost importance. Too often, LED sources have traded efficiency for lesser quality lighting outcomes. Finally, we have a sports lighting product that can deliver glare and obtrusive light control while still providing the benefits of an LED source.”

Rubidium Light, Lighting Designer



olympic way

quality lighting on the way to wembley stadium

The Wembley Stadium project had to meet two scenarios: On the one hand – dramatic, safety-compliant lighting at night, suitable for when 90,000 people leave the stadium; on the other hand, the pavement needed to be safely lit for a resident walking his/her dog, for example.

ewo offered a combination of optics normally exclusive to street lighting, built into architectural projectors. This underlies the company's great pride: its flexibility – the result of the modularity inherent in all of ewo's products.

"Our tried-and-tested A–Series lenses have had a huge impact on our ability to deliver required street and effect lighting within architectural projectors, which we hope have done justice to the designers' ambitious concept."

Hannes Wohlgemuth, CEO

End-client	Quintain Lighting
Design	Speirs Major
Principle Contractor	Volker Fitzpatrick

solander oval

multipurpose fields in sydney

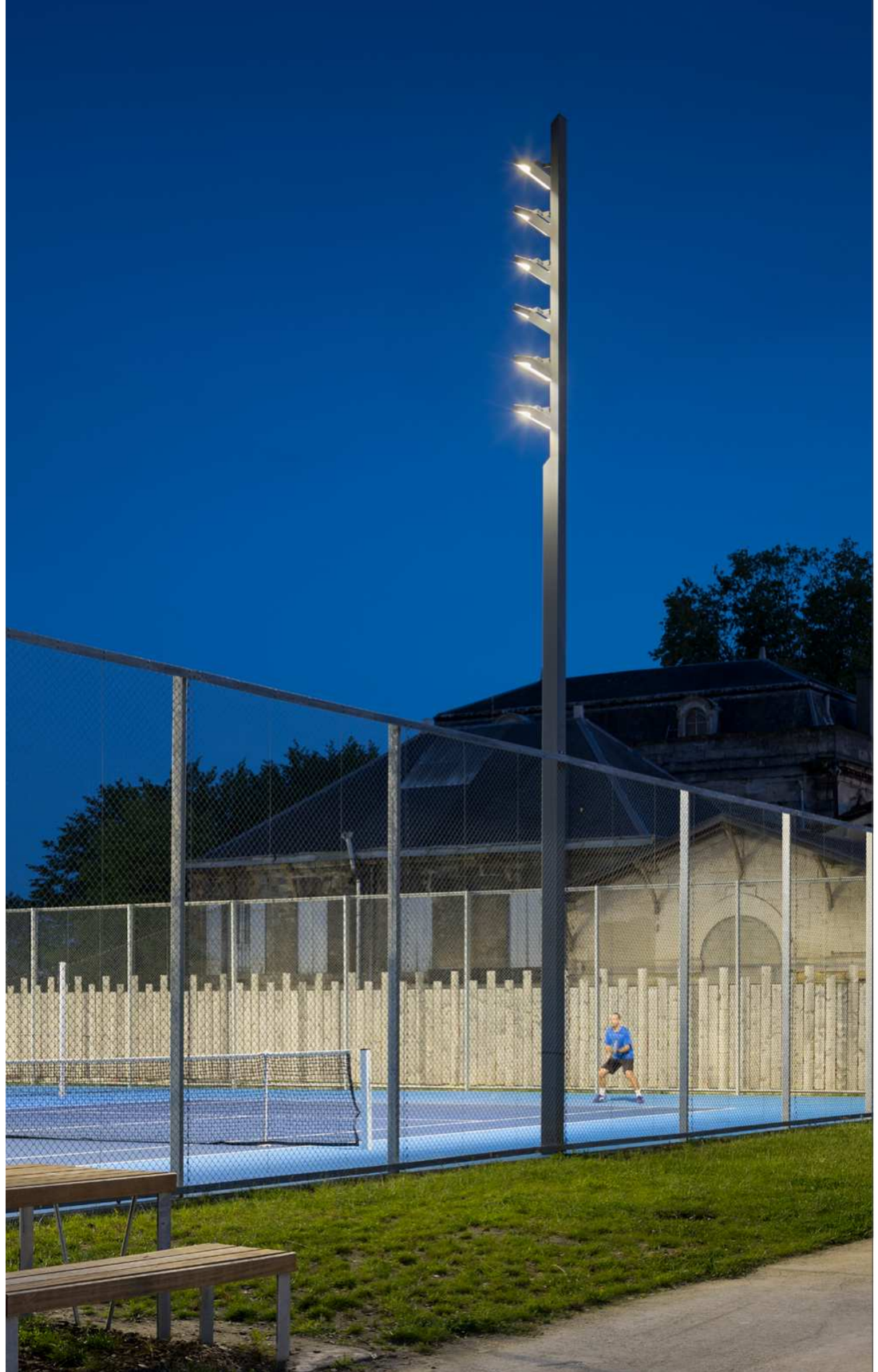
This project is one of a growing number in Australia, as ewo's R–System increases its presence in well-used sports venues. Featuring lighting design from Rubidium Light, 36 floodlights are now used to illuminate Solander Oval's multipurpose sports field, utilizing full horizontal cut off luminaires installed at 0° uplift, so reducing spill light and glare.

The directionality of the illumination was achieved using ewo's A–Series Asymmetric High Forward throw lenses, utilizing both left and right-shining directional lens varieties, to make best use of the positioning of each pole on the field.

Full control over the illumination was given to the client with DALI drivers. This is one of a number of sites delivered for Sutherland Shire Council in NSW, including a total of four separate locations, each involving a separate test for the versatility of the ewo R–System, as it continues to excel in the field of sports.

The following is the comment of Rubidium Light lighting designers: "As specialist lighting designers, lighting outcomes and the quality of the products we use are of upmost importance to us. Too often LED sources have traded efficiency for lesser quality lighting outcomes. Finally we have a sports lighting product that can deliver glare and obtrusive light control while still providing the benefits of an LED source."

Client	Sutherland Shire Council
Lighting Designer	Rubidium Light



jardin sportif suzanne-lenglen

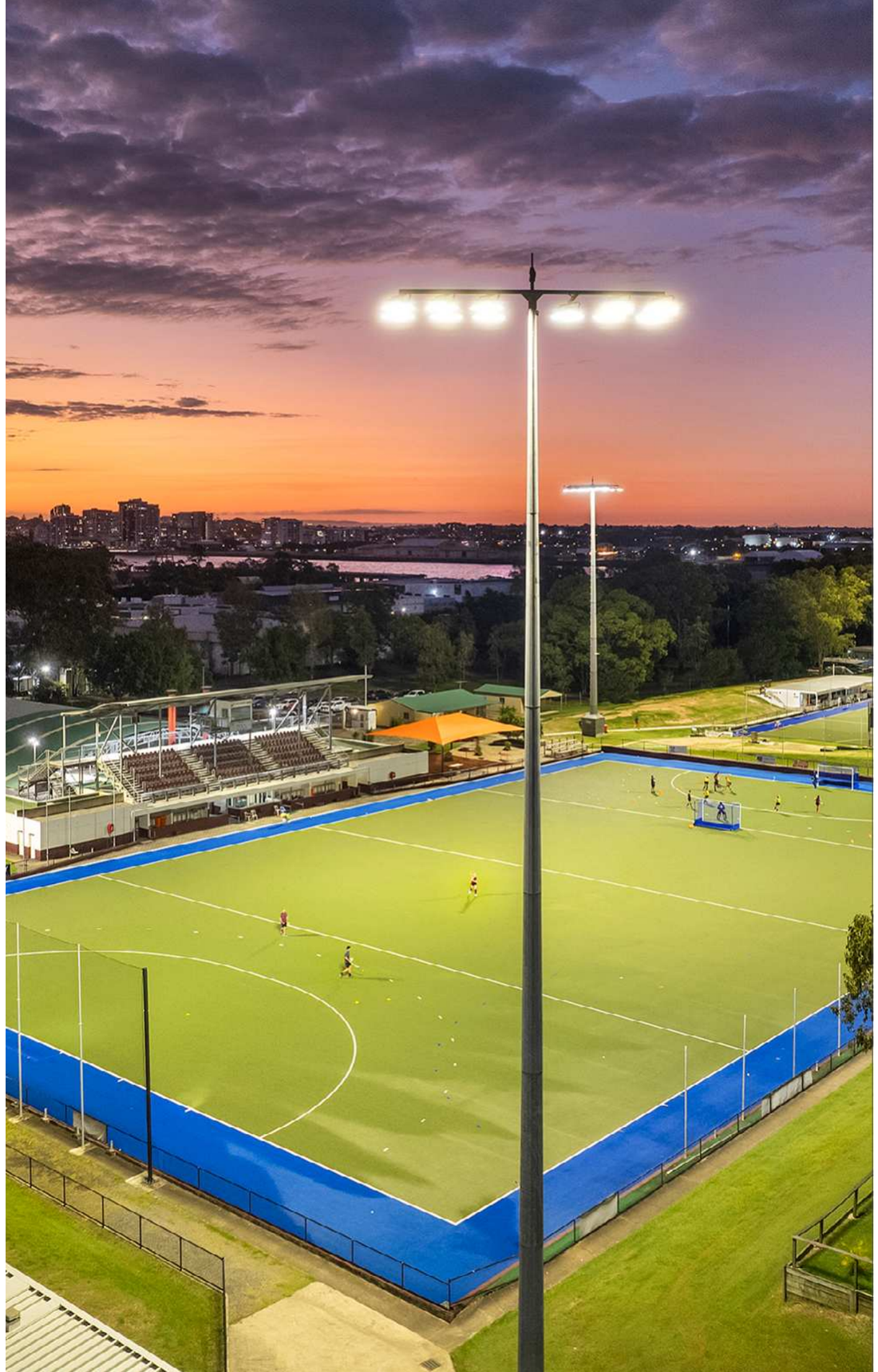
custom luminaires for the world of sport

Jardin Sportif Suzanne-Lenglen is a project of the public body EPA Bordeaux-Euratlantique, for the city's district of Zac Garonne, and is an essential part of Bordeaux's network of public spaces. The project stems from the ambition to preserve large-scale sports activities in the heart of the city, as close as possible to users, by incorporating sports fields into a rich botanical environment and harmonizing a multitude of terrain and habitats. To accentuate the special character of the area, lighting designer Rachid Adda Brahim, of Agence On, wanted to create custom high-performance fixtures for the sports fields, taking full advantage of the modularity offered by the R–System. ewo, in collaboration with pole manufacturer TMC, produced three types of fixtures designed to light the various sports facilities:

- The soccer field, equipped with six poles, each 19 meters high and with six R–System R1 floodlights.
- The two tennis courts are equipped with two poles, eleven meters high, each with four R–System R1 floodlights.
- The field hockey court, equipped with four poles eleven meters high, each with three R–System R1 R1 floodlights.

Different mixes of optics were used to ensure lighting in accordance with the technical regulations of each discipline: Asymmetric Extra Forward – Right AP1604, Asymmetric Extra Forward – Left AP1604, Asymmetric Extra Forward – Left/Right AP1604, Asymmetric Extra Side Throw AS06, Asymmetric Side Throw AP07. By using asymmetric optics, ewo can offer sports solutions with reduced light pollution.

Lighting designer	Rachid Adda Brahim, Agence On
Product	ewolndividual R–System R1
Completed	2021



queensland state hockey centre

challenging sports illumination in brisbane

For the Queensland State Hockey Centre in Brisbane, the lighting design had to overcome some specific challenges such as illuminating the sports fields to a televised standard, avoidance of lighting glare and obtrusive shadowing effects interfering with game play, overspill lighting control to surrounding ecological areas and adjacent Brisbane River, dark skies compliance and utilizing the existing sports pole locations.

The existing luminaires failed a compliance test as they were near the end of their useful life and as the QLD Hockey Club Sports Field site hosts televised games. It was deemed a high priority to upgrade the sports luminaires during the clubs off-season. A total of 88 R–System gen3 MAX with E–Series lenses EP09 (44 left and 44 right), with 4.000 K have been used for theproject.

The upward light standard requested was no greater than 1%. ewo could exceed expectations providing excellent cut-off with zero uplighting which effortlessly meets DarkSky compliance in an urban surrounding. The construction works were scheduled with a constrained programmed and called for the immediate manufacturing and delivery of the sports luminaires in order to be fully commissioned prior to the start of the next sporting season. The final lux level report at practical completion demonstrated an impressive lighting compliance that replicated the theoretical calculated design.

Lighting Partner	Barry Hanrahan LAD Group Queensland Australia
Project engineer	Ian La Roche Brisbane City Council
Completion	2022
Product	R–System gen3 MAX

eishalle wolkenstein

energy savings as the main focus

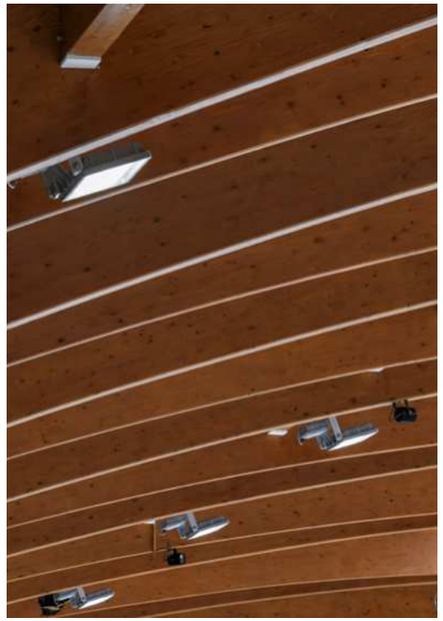
The Wolkenstein Ice Rink in South Tyrol is used for training sessions, Alps Hockey League matches and figure skating competitions. The municipality of Wolkenstein commissioned ewo to replace the rink's lighting system, without changing the pre-existing luminaire positions: Previously, the hall had 1000 W standard luminaires, but they became old and outdated, requiring repair three to four times a year.

An additional requirement was to reduce energy consumption. The new luminaires were to have an average illuminance of 850 lux, with uniformity of U1 0.7 and U2 of 0.6, irrespective of installation height, operating at 5700 K and CRI ≥ 90.

To meet these requirements, 40 R–System gen3 R2 floodlights were used, all the same size and equipped with the same lenses. The driver was mounted to the luminaire body and the luminaires demonstrated excellent thermal regulation performance.

The AH02 symmetric lenses are ideal for lighting interiors, making them perfect for this project. As always with ewo products, other lenses can be used in the luminaires, in combination if necessary, such as those with asymmetric distribution for multidirectional illumination.

The lighting system was also equipped with Smart Lighting, allowing it to illuminate the ice rink with a variety of different dimming levels, switching scenes depending on use. Replacing the existing luminaires not only improved the uniformity of the light, but also reduced energy consumption by 20%.



Client	Municipality of Wolkenstein, Gröden, Südtirol
Partner	Leitner Electro GmbH from Bruneck (BZ) / Studio AT&E GmbH – Ing. Otto Vinatzer from Wolkenstein
Product	R–System R2 gen3
Completion	2023

BILL BROWN RESERVE SPORTS PARK
Queensland, Australia, 2020

R–System R3 (sports fields),
F–System XS (parking lot)

WIMBACHEXPRESS
Wimbach, Austria, 2018

Die Lichtplaner – Klaus Hochschwarzer
R–System

the ewo principle

Where there is light, there is ewo. For more than 25 years, Flora Emma Kröss and Ernst Wohlgemuth, together with their children, have led what was once a small metal manufacturing business out of the shadows to the international spotlight. Hannes has been actively involved with ewo for more than a decade and personifies the bridge between light and space that characterizes ewo today. He reflects sharp conceptual thinking, passion for the design of public spaces, the vision of not only thinking of the future in terms of smart residential buildings, but also the digitally networked meeting places of tomorrow. This is where the demand for the highest quality of light and the mission of striving to improve people's wellbeing in public spaces meet. Mastering the light, bringing it into the right shape (Shape of Light) and the right housing (Body of Light) and finally controlling it intelligently (Intelligence of Light) are the key principles of the ewo lighting cosmos. At ewo, all of these competencies are built up in-house. Like light itself, this cosmos is always in motion.

mastering light

Three basic principles, one goal: ewo relies on modularity in terms of the light fixture's body, the shape of the light, its smart capabilities, and ultimately finds the most suitable solution for every customer and every outdoor space while adhering to the highest quality standards.

↘ GO, AP07, 3,000 K | CN600, AH02 (front light unit), AS09 (left, right, and rear light units), 3,000 K | FN1000–B, AS07 (rear light unit), AP07 (front light unit), 3,000 K | EL1250, ewoLightTile, TP08, 3,000 K

mastering the body of light

In contrast to light, which is intangible in nature, the body housing the light is very much a tangible object. Very different aspects of materiality, texture, and color are expressed in terms of the design and nature of the materials. Thanks to a company history that began with metal processing and the resulting high level of technical expertise, ewo is able to realize even the most unique design wishes.

↘ FA770, COR-TEN, TS11, 4,000 K | Left: Chameleon C210 and C260, Pole Top, Shadow Sail, RAL 9016, RAL 5005

Floodlights	RIVAL	R–System gen4 R1	R–System gen4 R2	R–System gen4 R4
				

Projectors	C125 Slice	C125 Integral	C165 Slice	C165 Integral
				

	C210 Slice	C210 Integral	C260 Slice	C260 Integral
				

Wall | ceiling luminaires	EL–W	IN–W	IN–CL
			

Pole-top | wall-mounted | ceiling-mounted systems	F–System XS	F–System S	F–System M	F–System M–W
				

F–System XS–W	F–System S–W	FO420	FO420–W
			

FO600	FA770	FA100–WD	FA100–WU
			

GO	GO–W	CN500	CN600
			

IR	IR–W	CO500	CO600
			

CO–W	DA400	DA520	DA–W
			

FN1000 | FN1300 | *if*–W | *if* round–WD




if round–WU | *if* round–WB | FA100–C | *if* round–C




Light columns | EL710 | EL1250 | ZA190



Bollards | FA170 | *if* | *if* round | EL380




In-ground luminaires | R50 | R90 | R130 | R160




R200 | IN–ground


Urban furniture | LB21 | LB22 | LB23 | BD21




BD22 | BD23 | BR21 | WR21

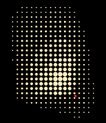
WR22 | SB21


Linear systems | ID*standard* | IN

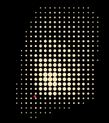

R–System gen4

E–Series

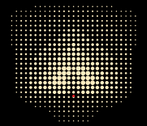
Precision lens optics



EP09-L
Asymmetric Extra
Forward Left



EP09-R
Asymmetric Extra
Forward Right



EP09-L/R
Asymmetric Extra
Forward Left/Right

Control protocols

ON/OFF

1–10 V

DALI 2

Zhaga Book 18

Line Switch

Programming options

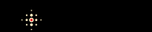
Stand-alone

CLO (Constant Lumen Output)

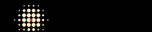
A–Series

Precision lens optics

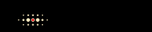
AG01
Symmetric Narrow
12°



AG02
Symmetric Medium
27°

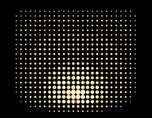


AG03
Symmetric Flood
48°

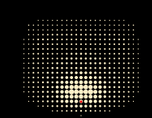


AG04
Symmetric Eliptical
10°–40°

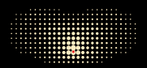
AH02
Symmetric Wide Flood
60°



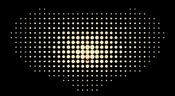
AP05
Asymmetric Extra
Forward



AP07
Asymmetric Extra
Forward



AS07
Asymmetric Side
Throw



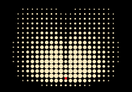
AS08
Asymmetric Side and
Forward Throw

AP04-L
Asymmetric Extra
Forward – Left

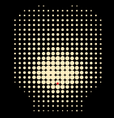
AP04-R
Asymmetric Extra
Forward – Right

AP10-L
Asymmetric Extra
Forward – Left

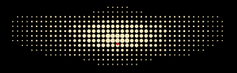
AP10-R
Asymmetric Extra
Forward – Right



AP04-LR
Asymmetric Extra
Forward – Right



AP10-L/R
Asymmetric Extra
Forward – Right



AS06
Asymmetric Extra
Side Throw

Control protocols

ON/OFF

1–10 V

DALI 2

Zhaga Book 18

Line Switch

DMX–RDM

Programming options

Stand-alone

CLO (Constant Lumen Output)

R–System gen4

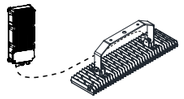
R1 128 LEDs (A–Series)

Without powder coating

RAL 9006/DB 701 white aluminium

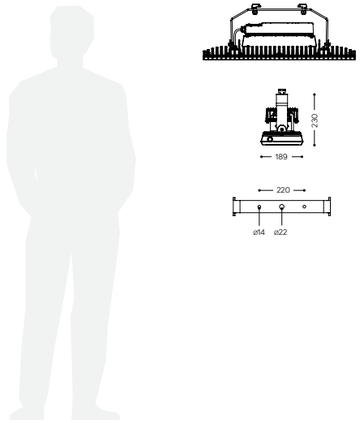
R1 with driver installed

220 V-480 V (IP67)



R1 with driver remote

220 V-480 V (IP67)



Configurator

DIN 18032-3

IP66 RoHS IK08

Housing

Housing material	aluminum die-cast
Housing finish	without polyester powder coating (ewoECP only with powder coating upon request*)
Standard finishing color	RAL 9006 white aluminium (other colors on request)
Glass	EGS safety glass
Mounting options	wall-over and under cross arms
Fixing	mounting bracket made of hot-dip galvanized steel, polyester powder coated (RAL 9006)

* ewo three steps process (high quality alloy, pre-treatment, primer) to ensure extreme corrosion resistance

Electrical A–Series

Protection class	I
Voltage [V], [Hz]	220–480, 50/60
Current max. [mA]	PMMA: 1,000 mA, PC: 1,200 mA
Power max. [W]	480

Measurements

Model	Tilt	↓ ①	→ ②	Weight [kg] ③
R1	0°	0.11	0.03	11.0
R1 + FCO	20°	0.19	0.04	12.4

① Projected windage area [m²]
② Lateral windage area [m²]
③ Weight with bracket and driver (driver 3.4 kg)

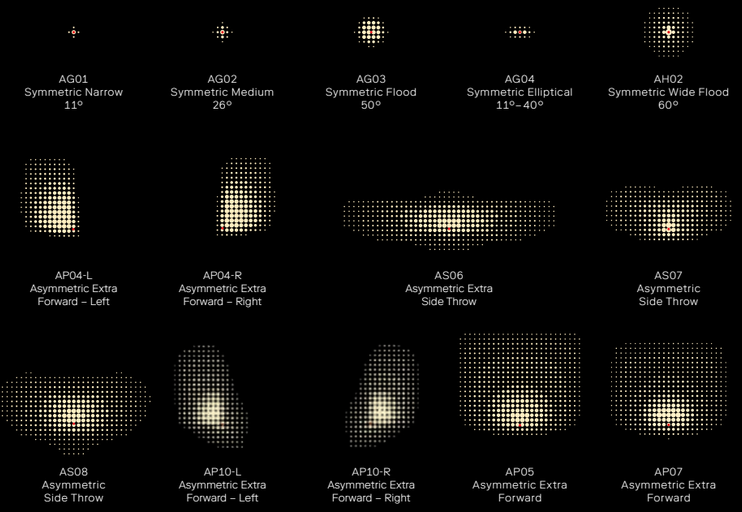
Operating conditions

Lifetime	visit the configurator for specific lifetime options

Driver

Control Options	ON/OFF, DALI, DMX
Programming	stand-alone Constant Lumen Output (CLO)
Control accessories	further accessories on request

Precision lens optics



3,000 K*
CRI ≥ 70

4,000 K*
CRI ≥ 70

5,700 K*
CRI ≥ 70

* additional light colors and CRI on request

Performance

Distribution	AG01	AG02	AG03	AG04	AH02	AP04-L	AP04-R	AP04-L/R	AP10-L	AP10-R	AP10-L/R
Beam angle	11°	26°	50°	11°–40°	60°	–	–	–	–	–	–
Full-Cut-Off (Tilt)	–	–	–	–	–	20°	20°	20°	7°	7°	7°

Distribution	AP05	AP07	AS06	AS07	AS08
Beam angle	–	–	–	–	–
Full-Cut-Off (Tilt)	7°	–	–	–	–

MacAdam ellipses (SDCM)	≤ 5
Nr. of LEDs	128
Lum. flux max. [lm] (5,700 K)	68,800

Accessories

Bird Spike

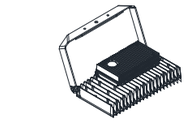
Full-Cut-Off visor

R–System gen4

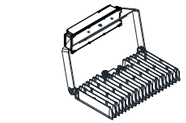
R2 144 LEDs (E–Series)

Without powder coating

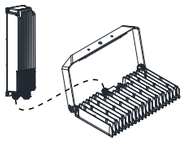
RAL 9006/DB 701 white aluminium



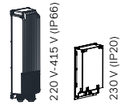
R2 with driver installed

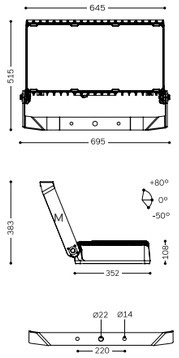


R2 with driver mounted on bracket via accessory



R2 with driver remote





Configurator

CE DIN 18032-3
IP66 RoHS IK08

Housing

Housing material	aluminum die-cast
Housing finish	without polyester powder coating (ewoECP only with powder coating upon request*)
Standard finishing color	RAL 9006 white aluminium (other colors on request)
Glass	EGS safety glass
Mounting options	wall-over and under cross arms
Fixing	mounting bracket made of hot-dip galvanized steel, polyester powder coated (RAL 9006)

* ewo three steps process (high quality alloy, pre-treatment, primer) to ensure extreme corrosion resistance

Electrical

	E–Series
Protection class	I
Voltage [V], [Hz]	220–415, 50/60
Current max. [mA]	1,850
Power max. [W]	790

Measurements

Model	Tilt	↓ ①	→ ②	Weight [kg] ③
R2	0°	0.27	0.07	22.0
R2 + Driver installed	0°	0.27	0.10	28.5
R2 + Driver on bracket	0°	0.27	0.10	30.0
R2 + Driver on bracket + FCO	5°	0.34	0.12	31.5

① Projected windage area [m²]
② Lateral windage area [m²]
③ Weight with bracket M

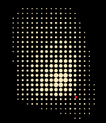
Operating conditions

Lifetime	visit the configurator for specific lifetime options

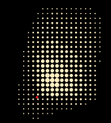
Driver

Control Options	ON/OFF, DALI, 1–10V, DMX
Programming	stand-alone Constant Lumen Output (CLO)
Control accessories	further accessories on request
On request	Z

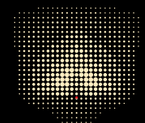
Precision lens optics



EP09-L
Asymmetric Extra Forward – Left



EP09-R
Asymmetric Extra Forward – Right



EP09-L/R
Asymmetric Extra Forward – Left/Right

3,000 K*
CRI ≥ 70

4,000 K*
CRI ≥ 70

5,700 K*
CRI ≥ 70

* additional light colors and CRI on request

Performance

Distribution	EP09-L	EP09-R	EP09-L/R
Beam angle	–	–	–
Full-Cut-Off (Tilt)	5°	5°	5°

MacAdam ellipses (SDCM)	≤ 5
Nr. of LEDs	144
Lum. flux max. [lm] (5,700 K)	99,500

Accessories

Bird Spike

Full-Cut-Off visor

Backlight shield

Laser Pointer

RedDot

Slide

R–System gen4

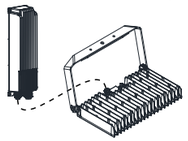
R2 240 LEDs (A–Series)

Without powder coating

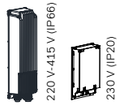
RAL 9006/DB 701 white aluminium

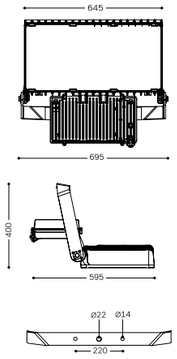
R2 with driver installed

R2 with driver mounted on bracket via accessory



R2 with driver remote





Configurator

CE DIN 18032-3

IP66 RoHS IK08

Housing

Housing material	aluminum die-cast
Housing finish	without polyester powder coating (ewoECP only with powder coating upon request*)
Standard finishing color	RAL 9006 white aluminium (other colors on request)
Glass	EGS safety glass
Mounting options	wall-over and under cross arms
Fixing	mounting bracket made of hot-dip galvanized steel, polyester powder coated (RAL 9006)

* ewo three steps process (high quality alloy, pre-treatment, primer) to ensure extreme corrosion resistance

Electrical

	A–Series
Protection class	I
Voltage [V], [Hz]	220–415, 50/60
Current max. [mA]	1,200
Power max. [W]	870

Measurements

Model	Tilt	①	②	Weight [kg] ③
R2	0°	0.27	0.07	22.0
R2 + Driver installed	0°	0.27	0.10	28.5
R2 + Driver on bracket	0°	0.27	0.10	30.0
R2 + Driver on bracket + FCO	10°	0.34	0.12	31.5

① Projected windage area [m²]
② Lateral windage area [m²]
③ Weight with bracket M

Operating conditions

Lifetime	visit the configurator for specific lifetime options

Driver

Control Options	ON/OFF, DALI, 1–10V, DMX
Programming	stand-alone Constant Lumen Output (CLO)
Control accessories	further accessories on request
On request	Z

Precision lens optics

* also available in satiné version

AG01.2
Symmetric Narrow
11°

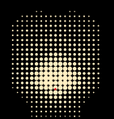
AG02.2
Symmetric Medium
27°

AG03.2
Symmetric Flood
48°

AG04.2
Symmetric Eliptical
10°–40°

AP10-L
Asymmetric Extra Forward – Left

AP10-R
Asymmetric Extra Forward – Right



AP10-L/R
Asymmetric Extra Forward – Right

* additional light colors and CRI on request

Performance

Distribution	AG01.2	AG02.2	AG03.2	AG04.2	AP10-L	AP10-R	AP10-L/R
Beam angle	11°	26°	50°	10°-40°	–	–	–
Full-Cut-Off (Tilt)	–	–	–	–	10°	10°	10°

MacAdam ellipses (SDCM)	≤ 5
Nr. of LEDs	240
Lum. flux max. [lm] (5,700 K)	125,100

Accessories

Bird Spike

Full-Cut-Off visor

Laser Pointer

RedDot

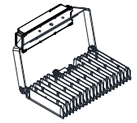
Slide

R–System gen4

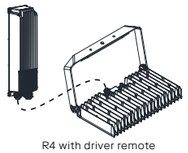
R2 336 LEDs (A–Series)

Without powder coating

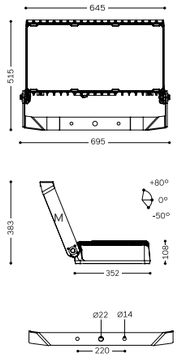
RAL 9006/DB 701 white aluminium



R2 with driver mounted on bracket via accessory



R4 with driver remote



Configurator

CE IP66 RoHS IK08 DIN 18032-3

Housing

Housing material	aluminum die-cast
Housing finish	without polyester powder coating (ewoECP only with powder coating upon request*)
Standard finishing color	RAL 9006 white aluminium (other colors on request)
Glass	EGS safety glass
Mounting options	wall-over and under cross arms
Fixing	mounting bracket made of hot-dip galvanized steel, polyester powder coated (RAL 9006)

* ewo three steps process (high quality alloy, pre-treatment, primer) to ensure extreme corrosion resistance

Electrical

	A–Series
Protection class	I
Voltage [V], [Hz]	220–415, 50/60
Current max. [mA]	1,200
Power max. [W]	1,200

Measurements

Model	Tilt	↓ ①	→ ②	Weight [kg] ③
R2	0°	0.27	0.07	22.0
R2 + Driver on bracket	0°	0.27	0.10	30.0
R2 + Driver on bracket + FCO	10°	0.34	0.12	31.5

① Projected windage area [m²]
② Lateral windage area [m²]
③ Weight with bracket M

Operating conditions

Lifetime	visit the configurator for specific lifetime options

Driver

Control Options	ON/OFF, DALI, 1–10V, DMX
Programming	stand-alone Constant Lumen Output (CLO)
Control accessories	further accessories on request
On request	Z

Precision lens optics

* also available in satiné version

AG01.2
Symmetric Narrow
11°

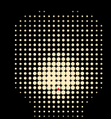
AG02.2
Symmetric Medium
27°

AG03.2
Symmetric Flood
48°

AG04.2
Symmetric Eliptical
10°–40°

AP10-L
Asymmetric Extra Forward – Left

AP10-R
Asymmetric Extra Forward – Right



AP10-L/R
Asymmetric Extra Forward – Right

3,000 K*
CRI ≥ 70

4,000 K*
CRI ≥ 70

5,700 K*
CRI ≥ 70/80/90

* additional light colors and CRI on request

Performance

Distribution	AG01	AG02	AG03	AG04	AP10-L	AP10-R	AP10-L/R
Beam angle	11°	26°	50°	10°-40°	–	–	–
Full-Cut-Off (Tilt)	–	–	–	–	10°	10°	10°

MacAdam ellipses (SDCM)	≤ 5
Nr. of LEDs	336
Lum. flux max. [lm] (5,700 K)	175,100

Accessories

Bird Spike

Full-Cut-Off visor

Laser Pointer

RedDot

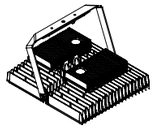
Slide

R–System gen4

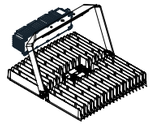
R4 288 LEDs (E–Series)

Without powder coating

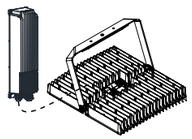
RAL 9006/DB 701 white aluminium



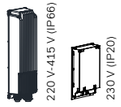
R4 with driver installed

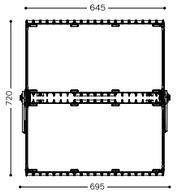


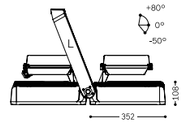
R4 with driver mounted on bracket via accessory

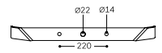


R4 with driver remote









Configurator

CE DIN 18032-3
IP66 RoHS IK08

Housing

Housing material	aluminum die-cast
Housing finish	without polyester powder coating (ewoECP only with powder coating upon request*)
Standard finishing color	RAL 9006 white aluminium (other colors on request)
Glass	EGS safety glass
Mounting options	wall-over and under cross arms
Fixing	mounting bracket made of hot-dip galvanized steel, polyester powder coated (RAL 9006)

* ewo three steps process (high quality alloy, pre-treatment, primer) to ensure extreme corrosion resistance

Electrical

E–Series	
Protection class	I
Voltage [V], [Hz]	220–415, 50/60
Current max. [mA]	1,850
Power max. [W]	1,580

Measurements

Model	Tilt	①	②	Weight [kg] ③
R4	0°	0.54	0.14	36.5
R4 + Driver installed	0°	0.54	0.24	50.0
R4 + Driver on bracket	0°	0.54	0.17	44.5
R4 + Driver on bracket + FCO	5°	0.56	0.26	47.5

① Projected windage area [m²]
② Lateral windage area [m²]
③ Weight with bracket L

Operating conditions

Lifetime	visit the configurator for specific lifetime options

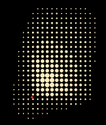
Driver

Control Options	ON/OFF, DALI, 1–10V, DMX
Programming	stand-alone Constant Lumen Output (CLO)
Control accessories	further accessories on request
On request	Z

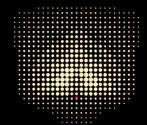
Precision lens optics

* also available in satiné version

EP09-L
Asymmetric Extra Forward – Left



EP09-R
Asymmetric Extra Forward – Right



EP09-L/R
Asymmetric Extra Forward – Left/Right

3,000 K*
CRI ≥ 70

4,000 K*
CRI ≥ 70

5,700 K*
CRI ≥ 70

* additional light colors and CRI on request

Performance

Distribution	EP09-L	EP09-R	EP09-L/R
Beam angle	–	–	–
Full-Cut-Off (Tilt)	5°	5°	5°

MacAdam ellipses (SDCM)	≤ 5
Nr. of LEDs	288
Lum. flux max. [lm] (5,700 K)	199,000

Accessories

Bird Spike

Full-Cut-Off visor

Backlight shield

Laser Pointer

RedDot

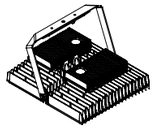
Slide

R–System gen4

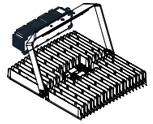
R4 480 LEDs (A–Series)

Without powder coating

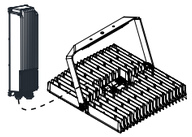
RAL 9006/DB 701 white aluminium



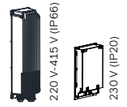
R4 with driver installed

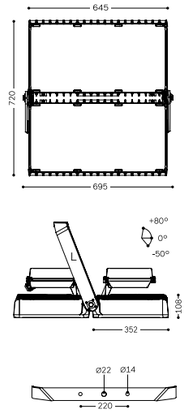


R4 with driver mounted on bracket via accessory



R4 with driver remote





Configurator

CE DIN 18032-3
IP66 RoHS IK08

Housing

Housing material	aluminum die-cast
Housing finish	without polyester powder coating (ewoECP only with powder coating upon request*)
Standard finishing color	RAL 9006 white aluminium (other colors on request)
Glass	EGS safety glass
Mounting options	wall-over and under cross arms
Fixing	mounting bracket made of hot-dip galvanized steel, polyester powder coated (RAL 9006)

* ewo three steps process (high quality alloy, pre-treatment, primer) to ensure extreme corrosion resistance

Electrical

	A–Series
Protection class	I
Voltage [V], [Hz]	220–415, 50/60
Current max. [mA]	1,200
Power max. [W]	1,740

Measurements

Model	Tilt	↓ ①	→ ②	Weight [kg] ③
R4	0°	0.54	0.14	36.5
R4 + Driver installed	0°	0.54	0.24	50.0
R4 + Driver on bracket	0°	0.54	0.17	44.5
R4 + Driver on bracket + FCO	10°	0.56	0.26	47.5

① Projected windage area [m²]
② Lateral windage area [m²]
③ Weight with bracket L

Operating conditions

Lifetime	visit the configurator for specific lifetime options

Driver

Control Options	ON/OFF, DALI, 1–10V, DMX
Programming	stand-alone Constant Lumen Output (CLO)
Control accessories	further accessories on request
On request	Z

Precision lens optics

AG01
Symmetric Narrow
11°

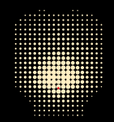
AG02
Symmetric Medium
27°

AG03
Symmetric Flood
48°

AG04
Symmetric Eliptical
10°–40°

AP10-L
Asymmetric Extra Forward – Left

AP10-R
Asymmetric Extra Forward – Right



AP10-L/R
Asymmetric Extra Forward – Right

3,000 K*
CRI ≥ 70

4,000 K*
CRI ≥ 70

5,700 K*
CRI ≥ 70/80/90

* additional light colors and CRI on request

Performance

Distribution	AG01	AG02	AG03	AG04	AP10-L	AP10-R	AP10-L/R
Beam angle	11°	26°	50°	10°-40°	–	–	–
Full-Cut-Off (Tilt)	–	–	–	–	10°	10°	10°

MacAdam ellipses (SDCM)	≤ 5
Nr. of LEDs	480
Lum. flux max. [lm] (5,700 K)	250,200

Accessories

Bird Spike

Full-Cut-Off visor

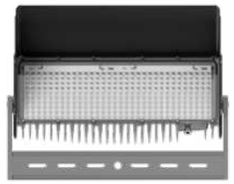
Laser Pointer

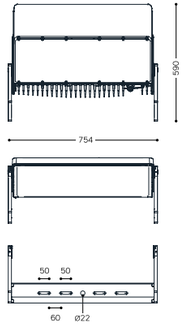
RedDot

Slide

RIVAL

without polyester powder coating





Configurator

CE pending pending pending DIN 18032-3
IP66 RoHS IK08

Housing

Housing material	aluminum die-cast
Housing finish	without Polyester powder coating (ewoECP only with powder coating upon request*)
Standard finishing color	colors on request
Glass	EGS safety glass
Mounting options	wall-over and under cross arms
Fixing	with bracket

* ewo three steps process (high quality alloy, pre-treatment, primer) to ensure extreme corrosion resistance

Electrical

	A–Series
Protection class	I
Voltage [V], [Hz]	220–415, 50/60
Current max. [mA]	1,200
Current min. DALI [mA]	20
LED power [W]	1,157

Measurements

Model	①	②	Weight [kg] ③
RIVAL (FCO 10°)	0.38	0.2	29.0
RIVAL (FCO 30°)	0.39	0.22	30.0

① Projected windage area [m²] (Tilt 0°)
② Lateral windage area [m²] (Tilt 0°)
③ Weight with bracket, Full-Cut-Off and driver (driver 7.0 kg)

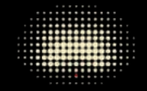
Operating conditions

	at 25°C
Lifetime	
L70B10 projected	100,000 h (1,200 mA)
L80B10 projected	100,000 h (1,100 mA)
L90B10 projected	28,000 h (1,100 mA)

Driver (external)	upon request
Control Options	ON OFF · DALI · 1–10V · DMX-RDM
Programming	stand-alone Constant Lumen Output (CLO)
Control accessories	further accessories on request
On request	Z N

Precision lens optics

AFC01
Asymmetric
extra forward



AF02
Asymmetric
forward throw

AP10-L
Asymmetric
Extra Forward – Left

AP10-R
Asymmetric
Extra Forward – Right

AP10-L/R
Asymmetric
Extra Forward – L/R

3,000 K*
CRI ≥ 70

4,000 K*
CRI ≥ 70

5,700 K*
CRI ≥ 70

* additional light colors and CRI on request

Performance

Distribution	AFC01	AF02	AP10-L	AP10-R	AP10-L/R
Beam angle	55°	44°	65°	65°	65°
Full-Cut-Off (Tilt)	30°	30°	10°	10°	10°

MacAdam ellipses (SDCM)	≤ 5
Nr. of LEDs	320
Lum. flux max. [lm] (4,000 K)	146,600
Lum. efficiency up to (lm/W)	161

Accessories

Bird Spike

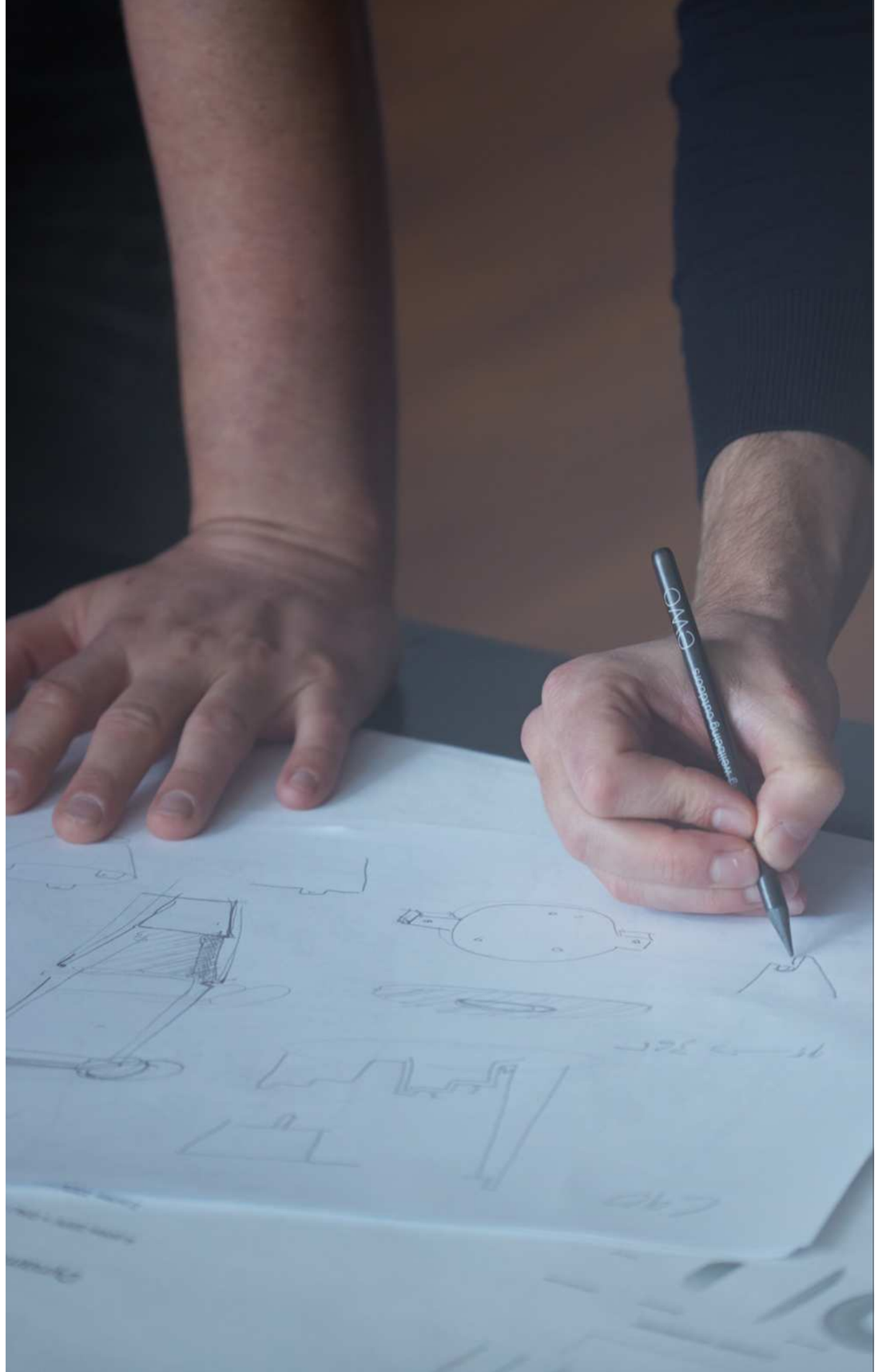
Laser Pointer

RedDot

Slide

ewoECP

ewoExtremeCorrosionProtection is an internally developed corrosion protection process that is suitable for projects in extreme weather conditions or for example in coastal regions. The procedure consists of four steps: ① creating a corrosion-resistant alloy of materials with lower copper content; ② applying a coating for pre-treatment to achieve perfect adhesion; ③ applying the ewoProtectiveLayer: a proprietary coating for high-quality corrosion resistance; and ④ finishing with a powder coating of your choice.



ewoIndividual

A request concert – with ewoIndividual, we design systems that take on technically and creatively unique forms. ① Shape: development of completely new lens shapes or optics for complex projects; ② Body: distinctive know-how in craftsmanship and metal processing as a basis for the design of any product shape and surface design; and ③ Intelligence: sensors and software-based control as mediators to the environment

HELSINKI AIRPORT TERMINAL 2
Helsinki, Finland 2022

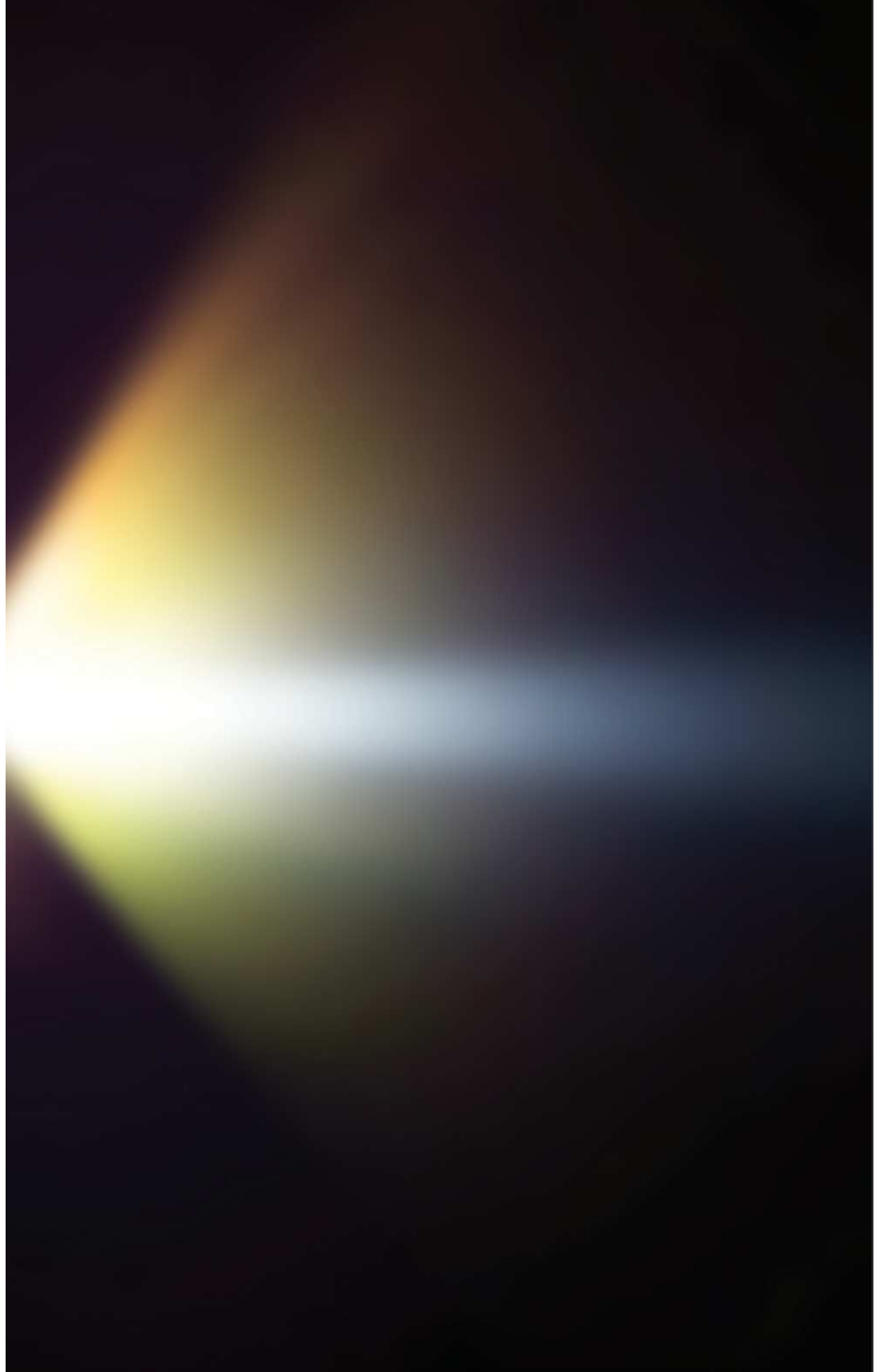
Ramboll Finland, ALA architects
FA ewoIndividual, ewoLightTile

MAC FORUM, MUNICH AIRPORT
Munich, Germany, 2017

Helmut Jahn
ewoIndividual

FOOTBRIDGE, MUNICH AIRPORT
Munich, Germany, 2017

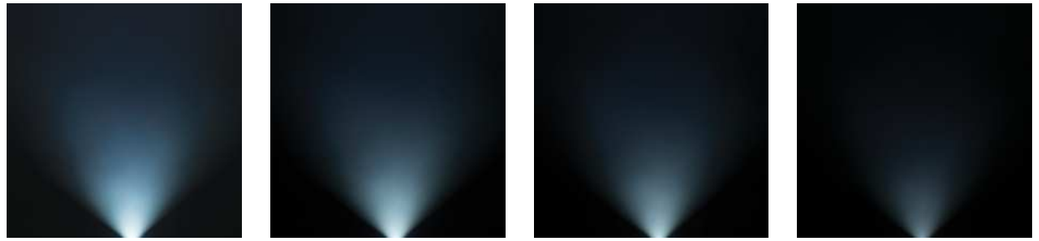
Sher Noori
ewoIndividual



mastering the shape of light

Multiple effects in a single luminaire head: ① pre-programmed, easily adjustable dimming to reduce energy consumption; ② dynamic change of light distribution to set different accents; ③ changing between warm and cool white during different seasons to better respond to the needs of residents and passers-by; and ④ dynamic color change using pre-programmed scenarios to create different moods.

1.



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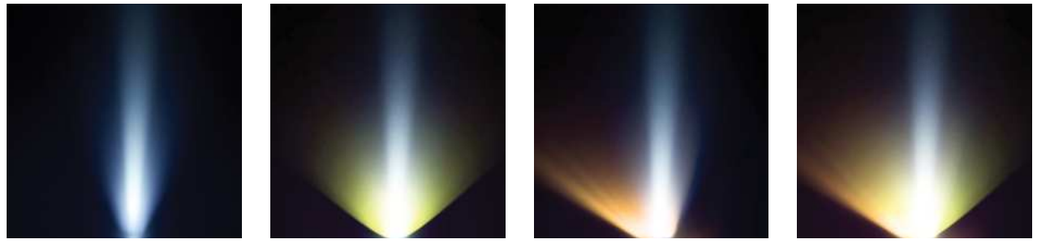

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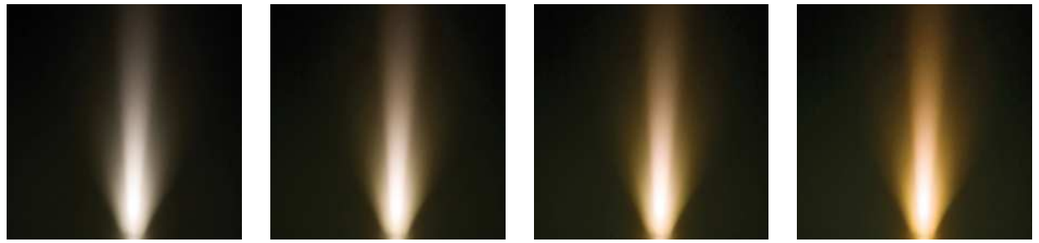
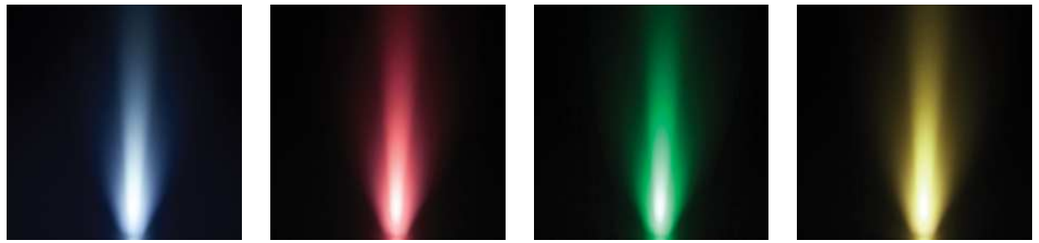
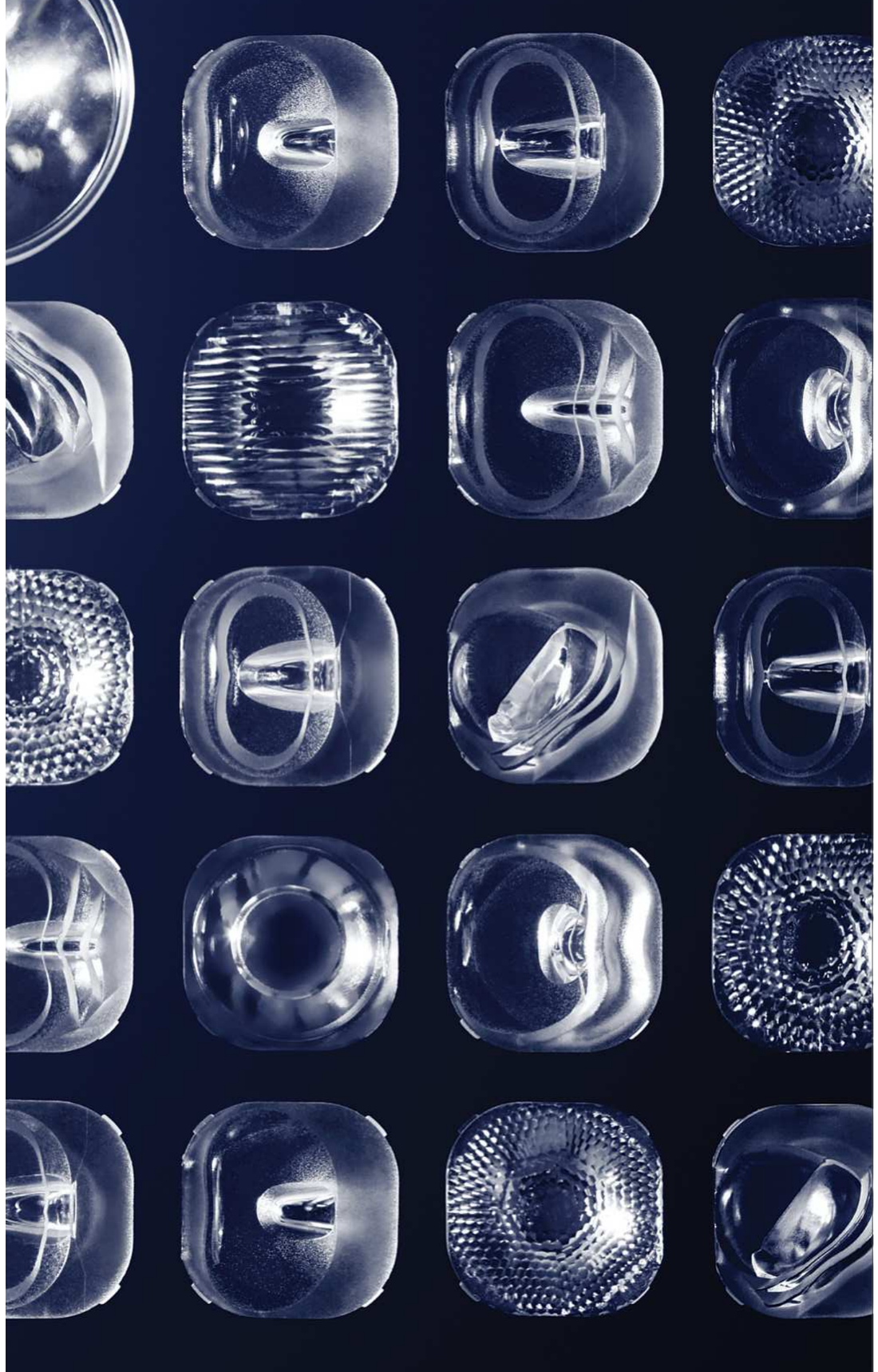


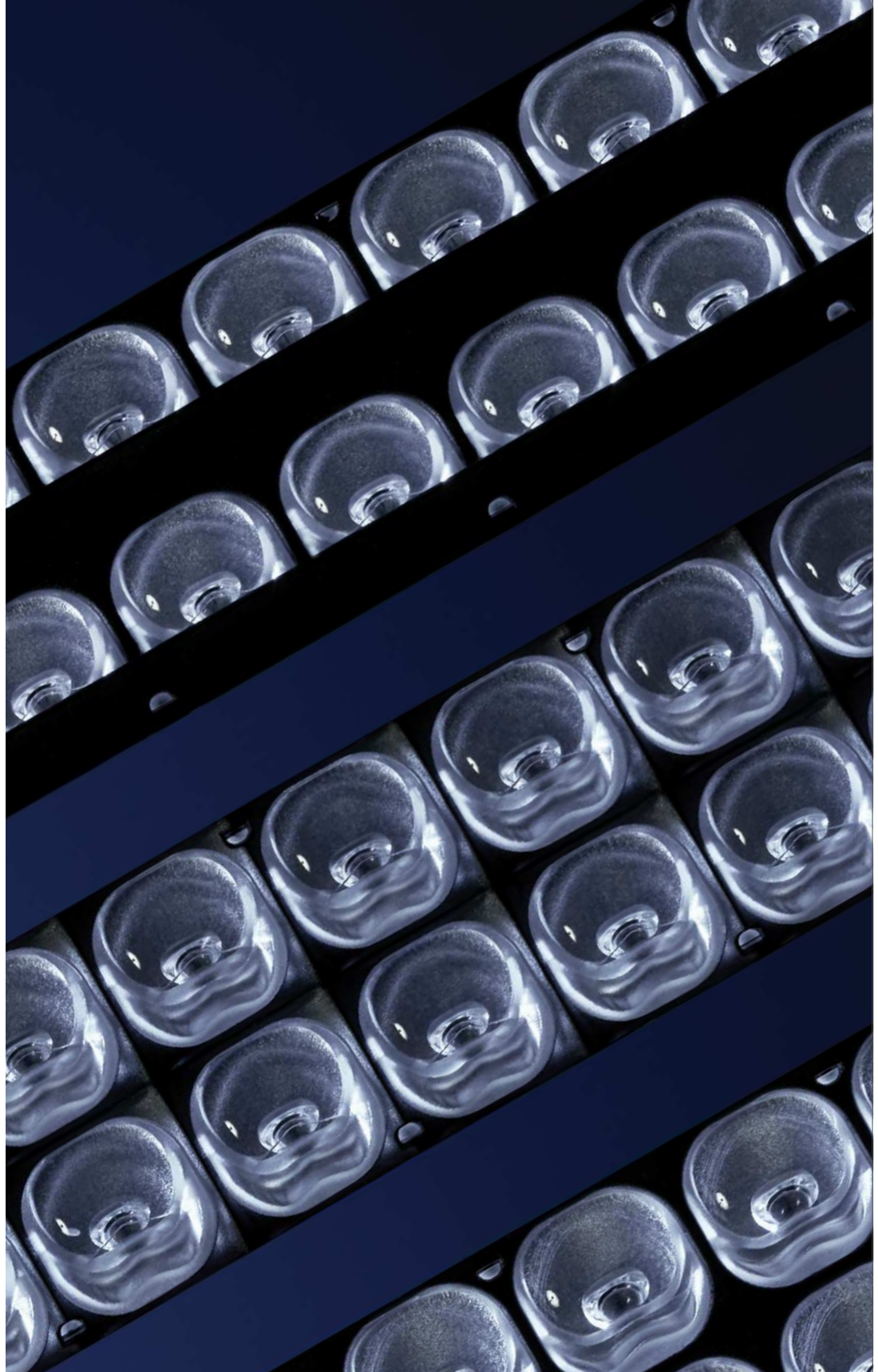
4.





A–Series

More than 20 square, street, and spot optics enable exceptional modularity, culminating in the combination of several lenses in one light fixture. The goal is always to achieve the highest light quality with precise lighting and homogeneous illumination.



ewoLightLayers

Broad compatibility and simple clip-on principle: the ewoLightLayers mark a new standard in lighting accuracy, aesthetics, and reduction of light pollution. The Reduced Backlight Shield (RBL) reduces black light by up to 65% and reduces the illuminance level at the back of installations by up to ten times. The anti-glare control (AGR) reduces light emission at high beam angles underneath the light source and increases visual comfort due to glare reduction.

↘ Standard cover

↘ AGR60

↘ RBL

↘ AGR70

lens accessories

the best tools for
precise guiding of light

To guide light in an even more targeted manner, we have two main tools:

- Full-cut-off visor
- Backlight shield (RBL)

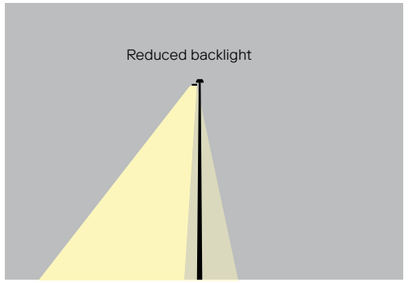
The goal: light exactly where it is needed.
Nowhere else.

backlight shield (RBL)

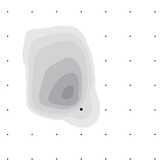
substantially reduced rear illuminance

This accessory reduces the rear illuminance of individual lenses by a factor of two to three and directs the light exactly where it is needed – without affecting the front lighting in any way.

Compatible with
R–System gen3 / R–System gen3 MAX / E–Series

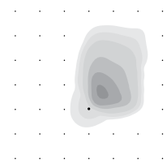


Light distributions with the backlight shield

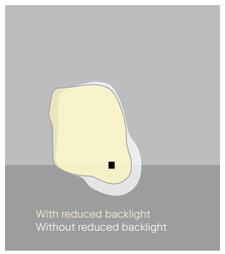


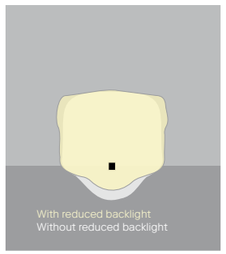
EP09-L
Asymmetric Extra Forward –
Left Reduced Backlight

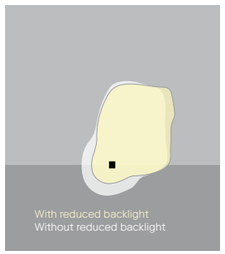
EP09-L/R
Asymmetric Extra Forward –
Left/Right Reduced Backlight



EP09-R
Asymmetric Extra Forward –
Right Reduced Backlight







You will find the complete selection of light distributions on ewo.com

IP66 RoHS IK08

① Projected windage area [m²]
* Tilt 0° ** Tilt 30°

② Lateral windage area [m²]

full-cut-off visor

no light above the horizontal

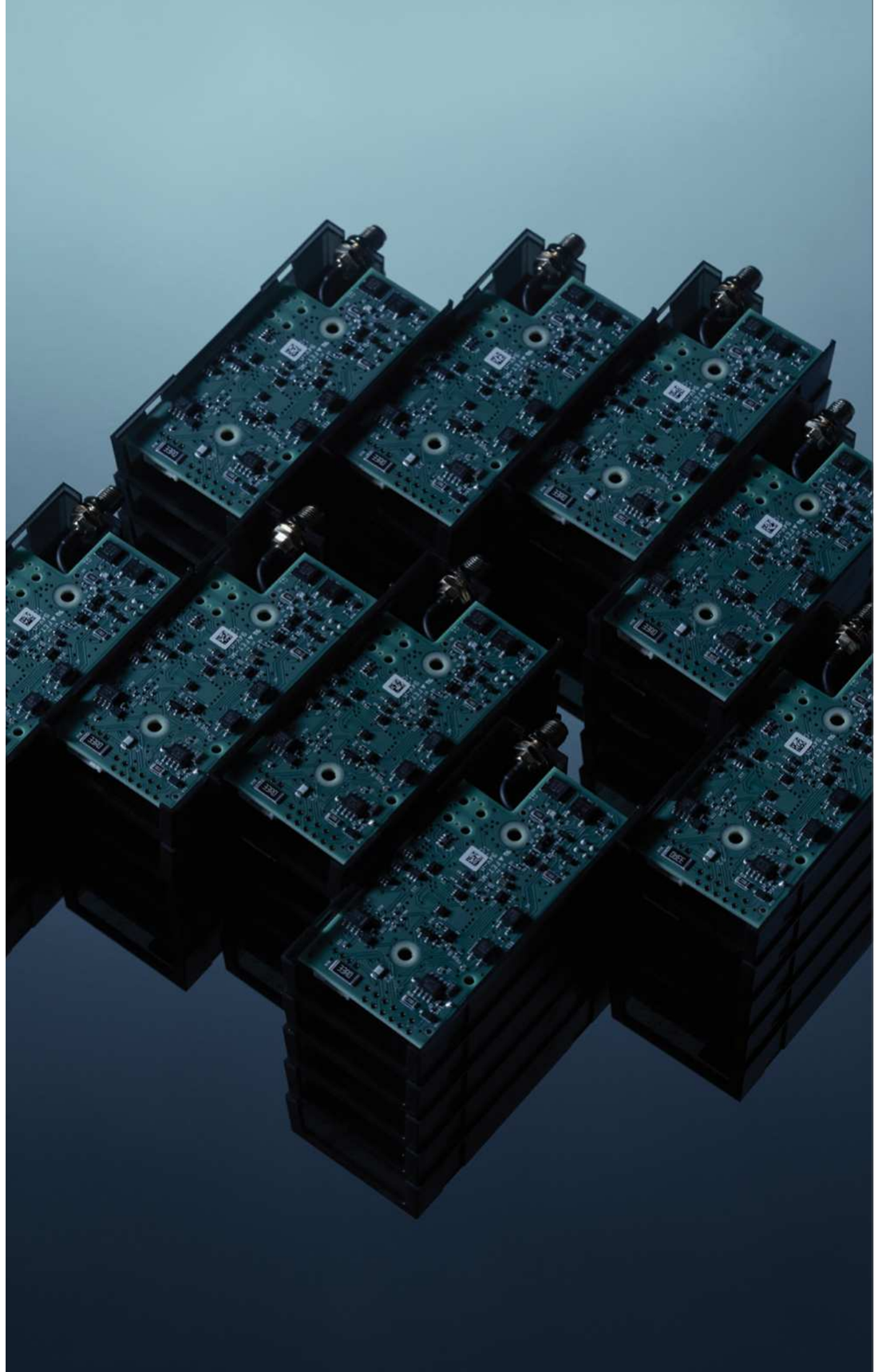
When necessary to tilt spotlights up to 7°, Full-Cut-Off visors can be used to prevent direct uplighting. Ideal for projects where the avoidance of light pollution is paramount.

Compatible with
R–System gen3 / R–System gen3 MAX / E–Series

Full-Cut-Off visor for R2, Tilt 7°

Full-Cut-Off Visor for R4, Tilt 7°

Bill Brown Reserve / Netball Courts / 2020



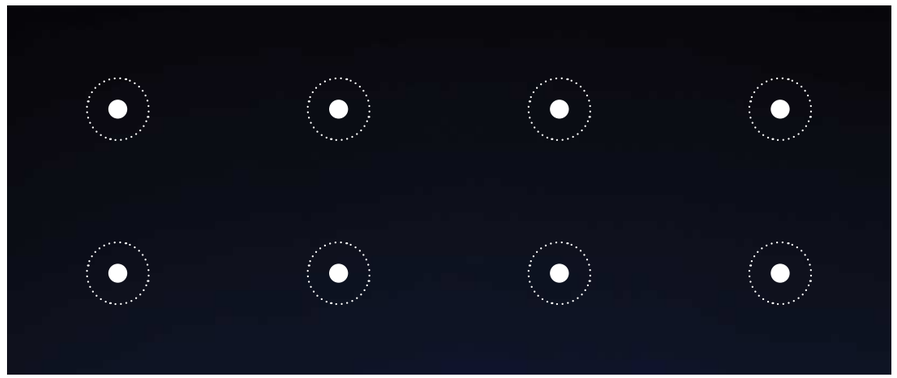
mastering the intelligence of light

Light doesn’t think, but it can react. Light can be equipped with intelligence that processes in a matter of seconds. As part of the so-called Intelligence of Light, ewo has been responsible for the software that connects the luminaires to the Internet of Things since 2017: with the brand connexx, ewo combines all aspects of smart light management in-house and thus offers the lighting competence for future innovations.

Left: nodexx integral for the highest aesthetic demands, since the smart module is not visible from the outside.

Right: nodexx external (top) and nodexx integral (bottom)

1.



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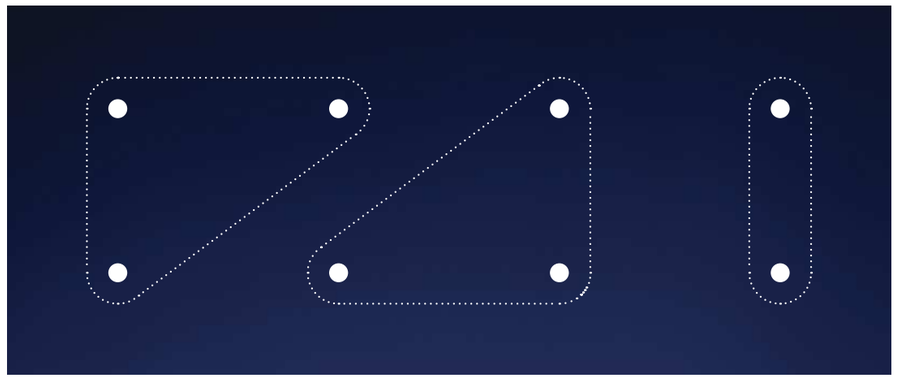

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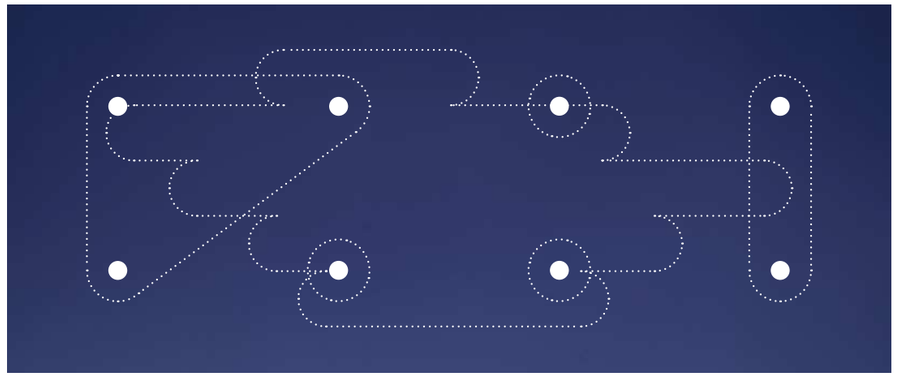


① Luminaire level: a single luminaire reacts (e.g., via sensors) to signals. ② Group level: the different luminaires communicate with each other – for example the sensor of one light can cause another to react. ③ Cloud level: not only can individual luminaires or groups be set locally, but they can also be controlled via software.

With Smart Lighting, no reinstallation is required to save energy: just a single click dims specific groups of luminaires at set times. All standards are met, safety is guaranteed. Luminaires can be controlled via a cloud solution. Different lighting scenarios can be defined for different parts of a city: whether residential areas, streets, or pedestrian crossings, the luminaires in those areas can be grouped together and also be controlled individually.

smart lighting

When lighting is intelligent, it can respond to a variety of elements in the environment. To enhance end-user enjoyment, maximum flexibility is required. Intelligent lighting management is always a step towards any goal, be it safety, sustainability or a unique lighting experience.

- Intelligent lighting options with wireless and touchscreen control or with touchscreen control that responds to a DALI signal
- DMX converter for light shows
- Nema socket
- Zhaga Book 18 socket
- Line Switch

Alfortville, France / Rugby field / R–System gen3 / 2020

sustainability statement

“Customers are thinking more about energy costs and how they can reduce spending and emissions. Smart Lighting can improve people’s wellbeing – because digitization gives us so many incredible opportunities to dynamically design an outdoor space – and the climate footprint.”

Hannes Wohlgemuth, CEO

“The light scatters in all directions.”, ewo’s co-founder Ernst Wohlgemuth asserted back in the 1980s while he and co-founder Flora Emma Kröss were studying the region’s streetlights, tinkering with the idea of expanding their metal workshop in Sarnthein/Sarentino to outdoor lighting. Ernst was sure: “There has to be a better solution.”

Precise lighting distribution has been one of the company’s prime objectives ever since ewo began developing its own lighting systems with conventional technology, further mastered it when tackling LED and will continue to prioritize it without compromise. ewo works to protect the environment out of conviction. Sustainability is not a new buzzword to ewo, but a mainspring of action.

Likewise, the second generation of ewo, led by Hannes Wohlgemuth, brings into focus the capacity of ewo to take an active role by emphasizing the mission to “empower wellbeing outdoors”. Hannes says: “Public space is democratic. It is here for everyone: to enter into dialogue and explore new possibilities through new encounters. In the end it is all about people – and our planet.”

Now and in the future even more so, especially smart lighting can improve people’s wellbeing, because digitization gives us many incredible opportunities to dynamically design an outdoor space, thus contributing in a great deal to reducing our carbon footprint.

ewo for future

A company that places people and their wellbeing outdoors at the center of its philosophy will do everything to ensure that this wellbeing can be as long-term, sustainable, and future-oriented as possible. This awareness begins in ewo's immediate vicinity: from cooling with geothermal energy, using green electricity, providing free and regional fruit and vegetables to the employees, and using recycled materials for packaging in a modern, open and diverse office environment, to the opportunities and CO_2 reductions thanks to remote working. Ultimately, our commitment to sustainability is expressed in the quality of the products, in the sophisticated product design, and in the innovative power of our luminaires.

Longevity, one of the keys to enhanced sustainability, is guaranteed by the modular design of the luminaires, which means that individual components can be easily replaced. Extremely durable LED luminaires and anti-corrosion processes applied to the Body of Light also ensure the longest possible lifetime for ewo products. The design of the Shape of Light not only prevents light pollution with its precise cut of the light; it also guarantees the highest possible effectiveness in the illumination, ideally leading to the use of fewer luminaires and thus to a reduction in the number of products, materials, and energy costs.

Finally, thanks to the smart control processes and the possibility of working with sensors, different regions, and time zones, the Intelligence of Light ensures enormous savings potential in terms of energy. Wellbeing as the goal: at ewo, this not only applies to the employees and the people outside; wellbeing must also be created for the environment itself. Greatest possible sustainability across all processes is key to achieving this goal.

in-house manufacturing

short distances, smooth running logistics

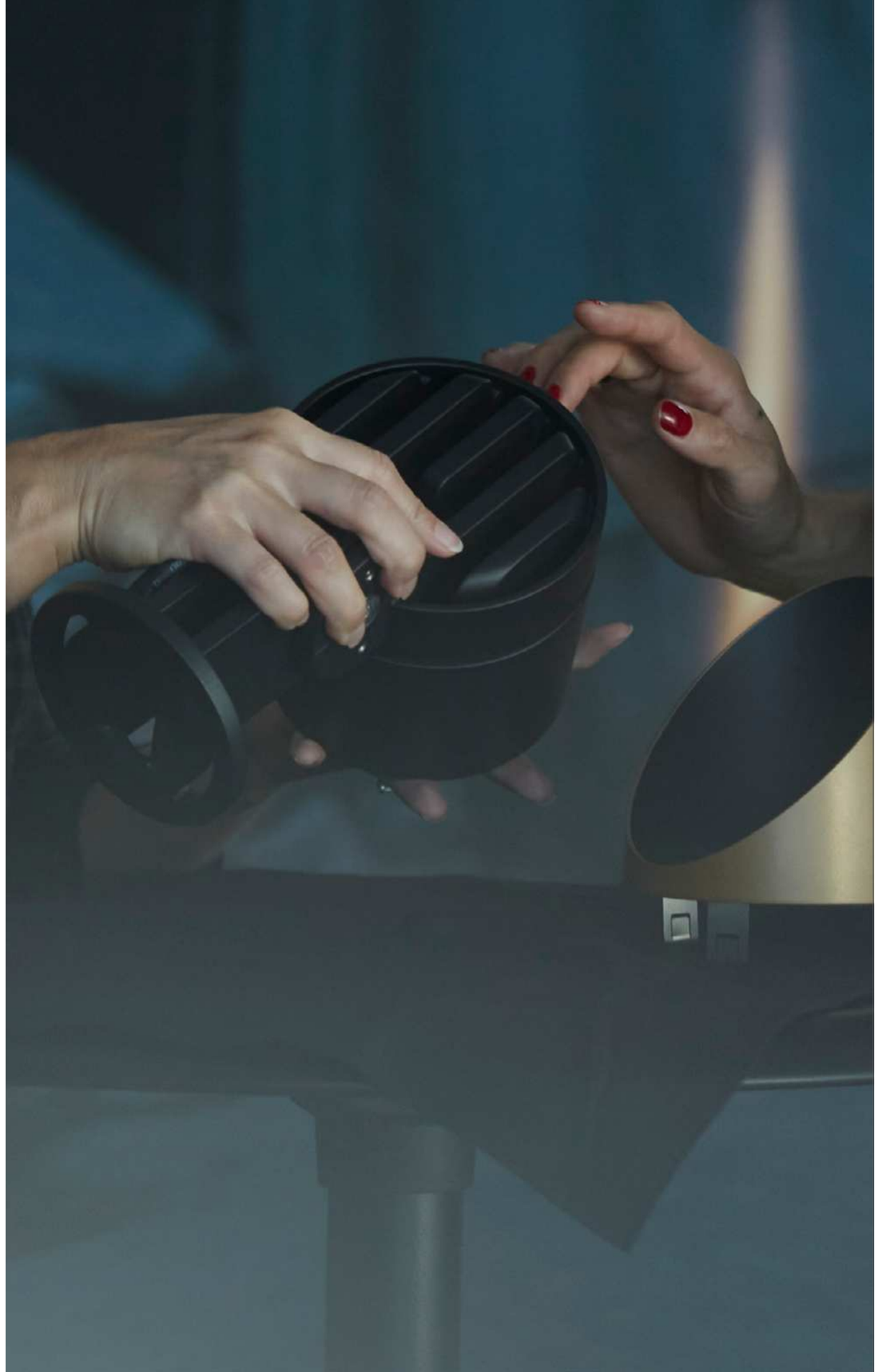
By manufacturing products in-house, we have greater control over the entire production process, from design to final assembly. This control allows for better quality management, ensuring that products meet the company's high standards and that any issues can be quickly identified, making communication more straightforward, allowing for faster decision-making and problem-solving.

Regarding lead times, ewo can respond more quickly to changes in customer demand or product design without waiting for external suppliers to deliver components.

Keeping knowledge within the company is another critical advantage of in-house manufacturing. This knowledge can be shared across different teams, improving efficiency and reducing errors. Additionally, with in-house manufacturing, ewo can protect its intellectual property and maintain a competitive edge in the market.

Overall, in-house manufacturing is a valuable investment for ewo to maintain high product quality, reduce lead times, and preserve knowledge within their organization. By controlling the entire production process, ewo can create a more efficient, streamlined operation that results in better products and greater customer satisfaction.

Top: metal workshop at Sarentino
Bottom: production area at Cortaccia



product quality

ewo is ISO 9001:2015 certified (Quality management). Under our quality management system, processes have been set up across all areas of operation that ensure quality in our operations and an efficient day-to-day management.

- ISO 9001:2015
  quality management system
- EN 40–5:2002
  certification for poles
- ISO 14001:2015
  for environmental management
- EN1090
  for statically relevant components
- EN 1090–3:2019
  Welding Certificate for execution of structural aluminium components
- EN 1090–2:2018
  Welding Certificate for execution of structural steel components
- EN 1090–3
  Structural components and kits for aluminium structures to EXC1
- EN 1090–2
  Structural components and kits for steel structures to EXC2
- ETL listed Production qualification
  for devices certified for the U.S. market
- ENEC IEC Production qualification
  for devices certified for the world

product lifetime

The lifetime of a luminaire is affected by several factors, including the lifetime of the LEDs, the luminaire housing, and the electronics inside.

Firstly, the lifetime of the LEDs is critical in determining the longevity of a luminaire. LEDs are known for their long lifespan, with most high-quality LEDs rated to last for tens of thousands of hours. However, the quality of the LED and the operating conditions, such as temperature and voltage, can also affect its lifetime. Proper thermal management and voltage regulation can help extend the life of LEDs.

Luminaire housing is also important in determining its lifespan. The housing material and design can impact durability, and resistance to environmental factors such as moisture, dust, and UV radiation.

Finally, the electronics inside the luminaire also play a crucial role in determining its lifespan. The power supply and other electronic components can be subject to wear and tear over time, and the quality and reliability of these components can vary. High-quality electronic components with proper thermal management and voltage regulation can help to prolong the life of a luminaire.

Overall, the lifespan of a luminaire depends on the quality of all its components and how well they are designed and integrated together. By using high-quality materials, careful thermal management, and proper voltage regulation, it is possible to extend the lifespan of a luminaire and ensure that it provides reliable lighting for many years.

our modular building block system: resource efficiency

Modular product design is an innovative approach to product development that allows for the easy refurbishment, maintenance, and eventual recycling of a luminaire. This design strategy breaks down the luminaire into its component parts, making it easy to replace and repair individual elements as needed.

One of the key benefits of a modular design is that it extends the lifetime of a luminaire. Rather than having to replace an entire fixture when a single component fails or becomes outdated, modular luminaires can be easily refurbished or upgraded with new, more efficient components. This allows for a longer lifespan for the luminaire, reducing the need for frequent replacements and reducing the environmental impact of discarded fixtures.

refurbishment

renovate existing lighting systems

Not every large-scale project requires a completely new lighting system. In some cases, it is a more sensible, energy and cost-saving as well as a more sustainable option to modernize the existing lighting system instead of simply replacing it:

Older systems that were installed before 2010 – and therefore possibly not yet designed for the concept of resource conservation in terms of lighting technology – can achieve energy and cost savings of up to 80% by modernizing the system, for instance. Updating the lighting system – e.g. by integrating intelligent control options – can result in a reduction in costs and energy of between 40 % and 60 %, even with newer LED systems.

Modernizing and maintaining lighting systems over time is easy thanks to our modular building block system: This makes it straightforward to replace individual parts at the end of their life cycle without having to replace the entire luminaires. Our verdict? Thinking ahead saves time, money and energy.

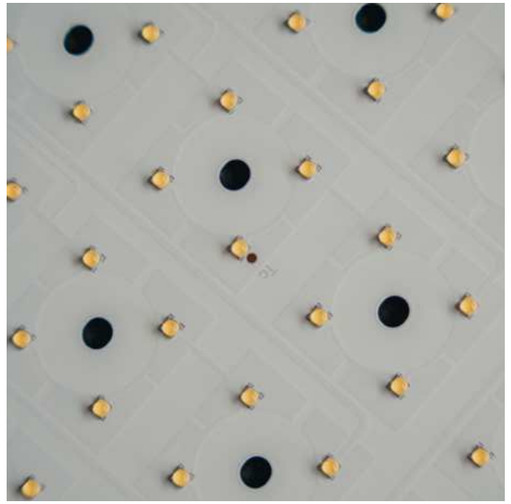
product efficacy

LED, optics, electronics and controls are all essential components of a highly efficient lighting solution. By working together, they can create lighting that is not only energy-efficient but also highly effective in illuminating urban spaces.

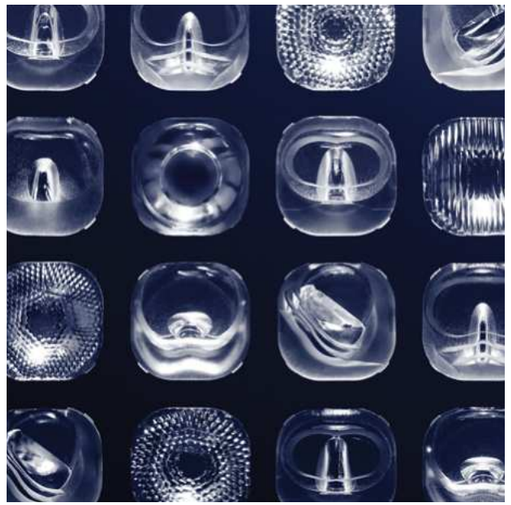
At ewo, we believe that efficient technology not only helps conserve resources but also plays a pivotal role in enhancing the quality of light to empower wellbeing outdoors. We understand that lighting has a profound impact on the human experience, and we are dedicated to creating lighting solutions that prioritize both energy efficiency and human-centric design. By harnessing advanced systems and processes, we optimize resource utilization while delivering exceptional light quality that promotes comfort, safety, and a sense of well-being in outdoor spaces.

Our mission is to illuminate the world with efficient and high-quality lighting, making a positive impact on people's lives and the environment. Together, let's create a sustainable future where efficient technology and light quality coexist harmoniously, transforming outdoor spaces for the betterment of all.

ewo possesses specialized software that performs heat management calculations, ensuring longevity. This eliminates the need for producing oversized heat sinks. Through this innovation, ewo has gained expertise in high-performance floodlights, which can now be applied to small architectural spotlights. The advantage lies in having all this knowledge in-house.

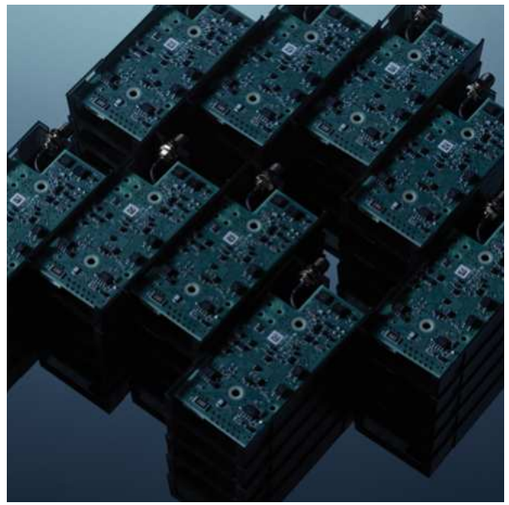


1 LED technology



2 optics technology

3 electronics technology



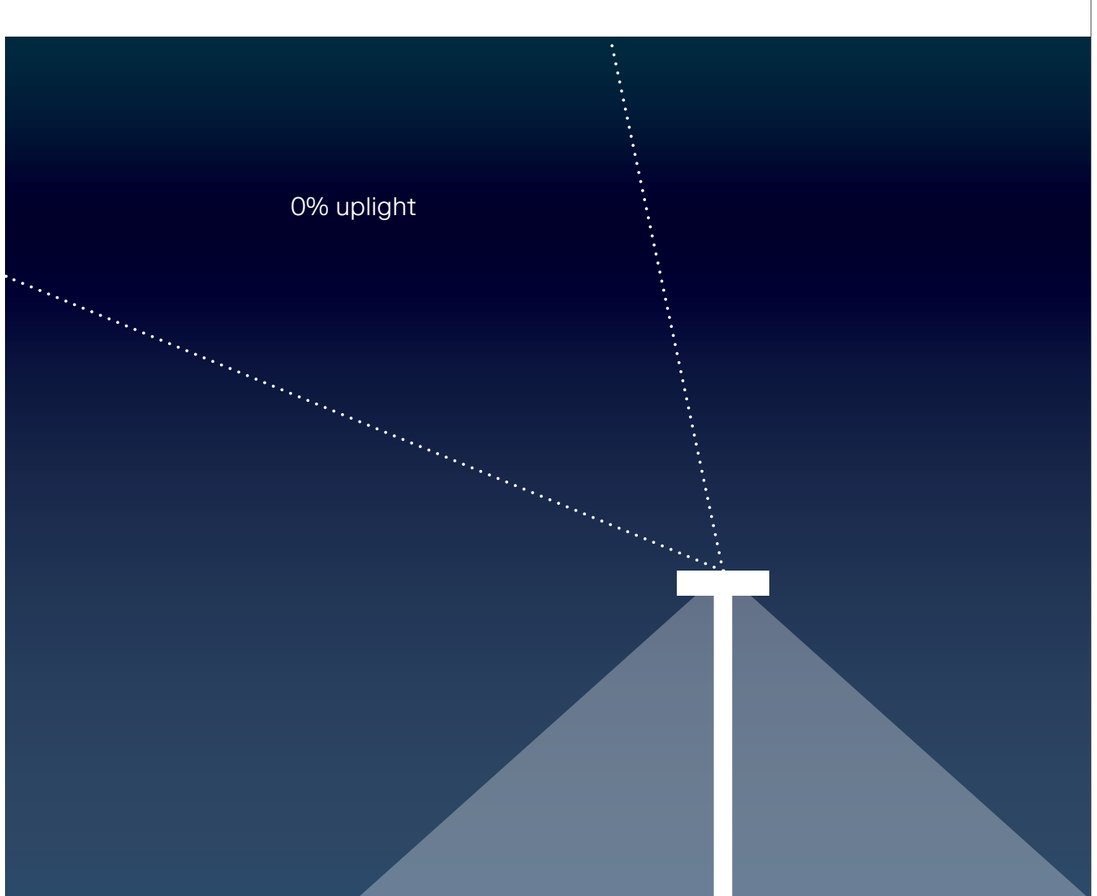
4 controls technology

dark sky approved luminaires

From the very beginning, our products were designed to reduce and prevent light pollution and save energy wherever possible. Of this, we are proud.

The ADSA (Australasian Dark Sky Alliance) Prize certifies a high level of luminaire management and performance providing greater control over sky glow and associated light pollution as well as glare and other human factors.

The luminaires feature an Upward Waste Light of 0%, a CCT ≤ 2,700 K and Front and Back Very High Up-light (FVH & BVH) ≤1.0%.



ADSA prized and approved products

IR

With lenses:
AS06, AS07, AS08, AS09, AP07

CN500

With lenses:
AS06, AS07, AS08, AS09, AP07

CN600

With lenses:
AS08, AS06, AS07, AP07

DA400

With lenses:
AS06, AS07, AS08, AS09, AP07

DA520

With lenses:
AS06, AS07, AS08, AS09, AP07

FA170

With lenses:
AS06, AS07, AS08, AS09, AP07

FA770

With lenses:
AS06, AS07, AS08, AS09, AP07

GO

With lenses:
AS06, AS07, AS08, AS09, AP07

F-System S

With lenses:
AS06, AS07, AS08, AS09, AP07

F-System XS

With lenses:
AS07, AS06, AS07, AS08, AS09, AP07 AH02

recycled, plastic & glue free packaging

Since 2019, ewo has continuously adapted its packaging, shifting to sustainable and plastic free materials.

To package our products, we use:

- Packaging made from cardboard
- Wooden crates where need for over-seas transport
- Filling materials made from recycled paper
- Sustainable tape (paper tape)
- No glue
- Where possible, recycled packaging material, offering an option to return the materials to the factory so we can re-use them.

As with most of our sustainability tasks, we are on a journey and continuously review our packaging to find further areas of improvement.

“Driven by short product lifecycles and a highly price-sensitive market intolerant to qualitative errors, companies like ours are forced to position innovative successful products in a short period of time.

In a globalized world, our corporate success is linked to an efficient supply chain and well-organized supply partners. Therefore, we maintain long-term, sustainable, and fair partnerships with our suppliers. This enables us to always act in a solution-oriented manner, even in more challenging times.”

Bernd Prosch, COO

our services

ewo remains close to the customer from the initial project idea, through support in project planning, to installation and even afterwards. Because we are not just focused on products, but also on providing all-embracing solutions and a full set of services for sustainable projects.

ewo services

design support

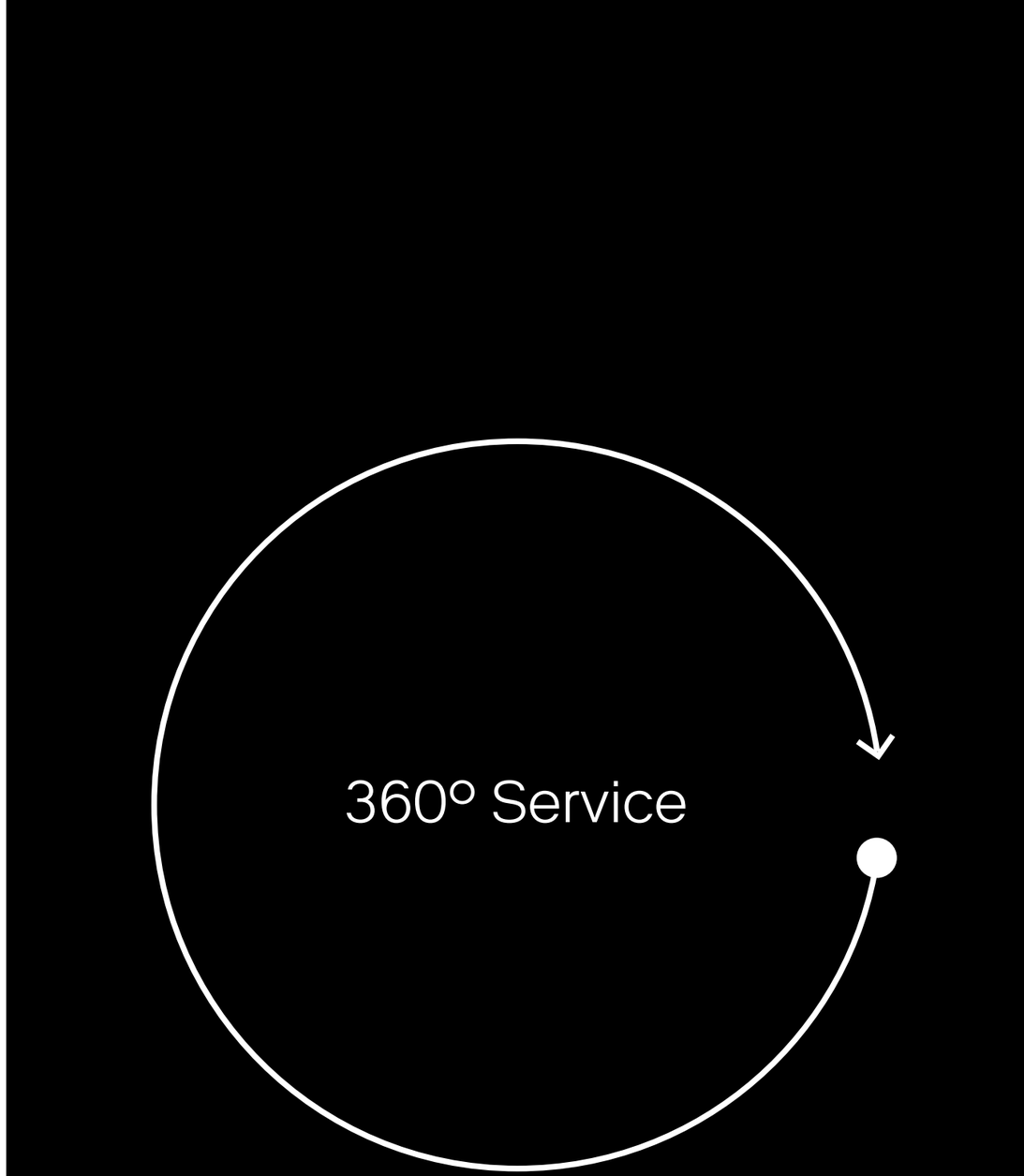
Our solutions include, for example, meticulous support in lighting design and planning. All over the world, our experienced lighting engineers work to ensure that current standards like ICAO, EASA, MOS and ISNEA are met and that the perfect light is found for each individual area.

installation support and commissioning

Above and beyond light, our technicians support customers by providing comprehensive instructions and guidance in the installation of lighting poles on site. We support installation of our high-performance floodlights worldwide.

aftersales services

Our floodlights are easy to upgrade, repair and adjust. On top of all this, we offer efficient, sustainable spare parts management: central components of the luminaire can be easily replaced using a structured modular system. Maintenance work and costs are reduced to a minimum while upholding the same quality standards.



ewoLightLogger

resource efficiency & data-driven decision making

ewoLightLogger is a hardware and software for lighting measurements. This easy-to-use mobile measuring instrument increases accuracy and saves time for precise measurement of illuminance lux (lx), for airport aprons, parking spaces, ports, container terminals. The robust product allows fast assembly and is easy to transport. It also allows georeferencing via GPS with self-aligning measurement sensors.

LightLogger delivers measurement of single points or wider surface areas, with simultaneous measurement of up to six measuring points, and a horizontal measurement of 2 m, with vertical measurement at 2 m in four directions. The system automatically records and evaluates in real time with various measurement modes, producing reports and management of results, and the export of data in numerous formats.

Compliant with numerous regulations and standards (e.g. EASA, ICAO, EN 12464–2).

areas of application	airports, car parks, ports, sports grounds, terminals
handling & functionality	quick assembly for only one person, mobile assembly, georeferencing via GPS, robust transport case, self-aligning measuring sensors, rugged tablet
measurement specifications	potential measurement of single points / wider surface areas: 1. simultaneous recording of up to 6 measuring points 2. horizontal measurement at 0 or 2 m 3. vertical measurement in four directions on 2 m measurement of illuminance lux (lx) and other values
software	automatic recording and evaluation in real time. Various measurement modes: 1. free measurement 2. raster measurement 3. measurement based on existing light calculations 4. comparative measurement reports and management of measurements export of data in different formats (e.g. GPS coordinates, Excel, CSV, ...)
illuminance meter class	class AA of JIS 1609-1:2006 illuminance meters part 1: general measuring instruments DIN 5032 Part 7 Class B

ewo

Company headquarters in Cortaccia, in the Bolzano area in South Tyrol, Italy. Numerous international partners. Number of employees > 100. CEO: Hannes Wohlgemuth. Subsidiaries in Germany, Austria, France, and the USA:

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