LARGE AREA LIGHTING

ewo

designplan™

Luminous projects around the globe

ewo's growing presence in the airport sector

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)
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
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)
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 (Greenland)
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 100 airports worldwide – from desert regions to Greenland – rely on ewo.

A development that never stops.

The R-System's third generation of floodlights is on the market now, since 2020.

R-System gen3 is optimised for

AIRPORTS | PORTS | TRAFFIC | LOGISTICS | SPORTS

R-System gen3 MAX forges ahead into new fields such as

SPORTS

ewo continues to pioneer in this field.

Access all Areas

Optimised, 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

Stuttgart Airport / Stuttgart, Germany, 2014 / act consult AG

PORTS

Venice, Italy, 2010 / Tifs Ingeneria Padua

LOGISTICS

ÖBB Container Terminal, Wolfurt / Austria, 2019

TRAFFIC

Zero Center, Treviso, Italy / 2010

SPORTS

Vintl, Italy, 2015 / Engineering 3M Srl

R–System gen3
Recipe for success: simplexity

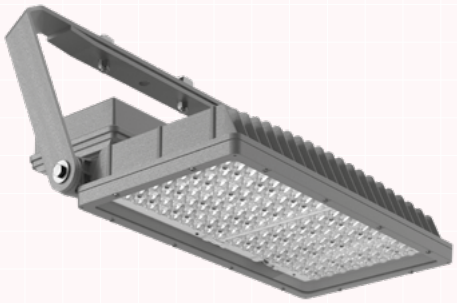
Cost efficiency with maximum performance and a focus on what matters. At ewo we have a word for this: simplexity. Because simplexity in design and application optimises performance by R–System gen3 in any large area, with up to 480 LEDs. An astonishing lifetime of over 60,000 hours and a newly developed optical system offer the utmost in performance along with precise illumination.

AREAS OF APPLICATION	airports, ports, logistics centres and sports facilities (EP09, AP, AG), roads (AS07, AS08)
HIGH LUMEN PACKAGE	R2 90,000 lm / R4 180,000 lm
CURRENT FEED	up to 1,850 mA depending on ambient temperature
AMBIENT TEMPERATURE RANGE	–40 to +55 °C (-40° to 131°F)
OUTSTANDING LIFETIME	L90B10 > 60,000 h
DARK SKY	automatic full cut-off optic at 0° tilt
ELECTRONIC OPERATING DEVICE	on request with DALI2 or line switch, 1-10 V, CLO and DMX
SMART LIGHTING	control modules for different communication standards available upon request
LENSES	made with UV-stabilised polycarbonate (E–Series) or PMMA (A–Series)
COVER	single-pane safety glass (ESG)
LUMINAIRE HOUSING	in die-cast aluminum
BRACKET	made of hot-dip galvanized steel, on request with swiveling bracket for floor, wall and ceiling mounting
FINISH	polyester powder coating, white aluminum (RAL 9006 / DB 701)

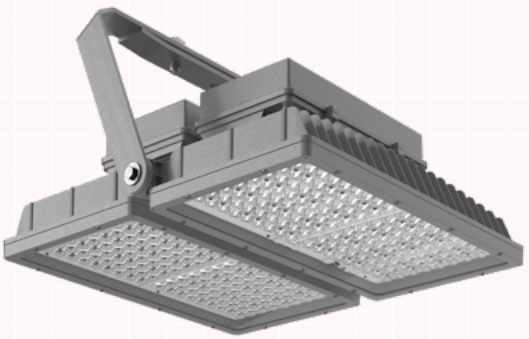
Left R2 (144 LEDs) / right R4 (288 LEDs)

R–System gen3

MODEL VARIANTS



R2 (E–Series light distribution)

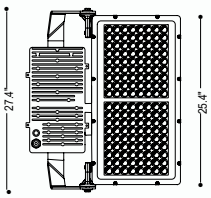


R4 (E–Series light distribution)

R2
(E–Series light distribution)

52.9 lbs
+ 4.4 lbs
driver

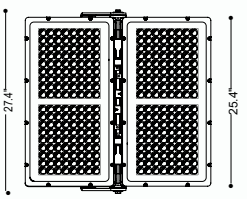
↓ ① = 0.33
→ ② = 0.11* / 0.12** / 0.15***



R4
(E–Series light distribution)

89.3 lbs
+ 9.9 lbs
driver

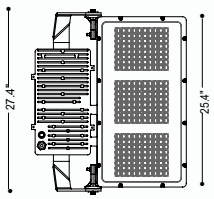
↓ ① = 0.45
→ ② = 0.12* / 0.16** / 0.31***



R2
(A–Series light distribution)

52.9 lbs
+ 4.4 lbs driver

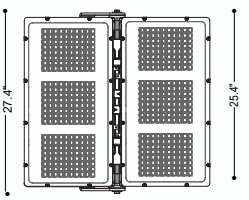
↓ ① = 0.33
→ ② = 0.11* / 0.12** / 0.15***



R4
(A–Series light distribution

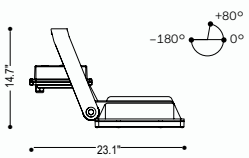
89.3 lbs
+ 9.9 lbs
driver

↓ ① = 0.45
→ ② = 0.12* / 0.16** / 0.31***

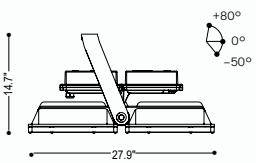


① Projected windage area [m²] ② Lateral windage area [m²] *Tilt 0° **Tilt 5° ***Tilt 30°

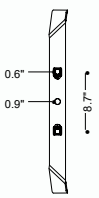
R2 (E– and A–Series)



R4 (E– and A–Series)



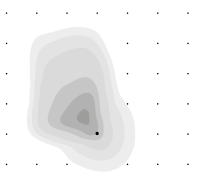
ACCESSORY



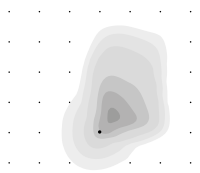
360° Swivel-mounted bracket

MODEL	LIGHT DISTRIBUTION	LUMINOUS FLUX [lm	MAX. POWER [W]	CURRENT FEED [mA]	LEDs
R2	E–Series	91,448	807	1,850	144
R4	E–Series	182,895	1,614	1,850	288
R2	A–Series	90,000	733	1,000	240
R4	A–Series	180,000	1,466.25	1,000	480

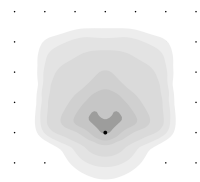
LIGHT DISTRIBUTIONS



EP09-L (Tilt 5°)
Asymmetric Extra Forward – Left

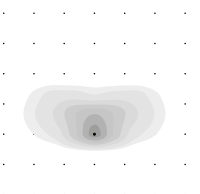


EP09-R (Tilt 5°)
Asymmetric Extra Forward – Right

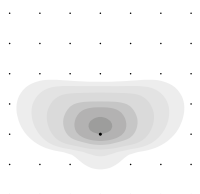


EP09-L/R (Tilt 5°)
Asymmetric Extra Forward – Left/Right

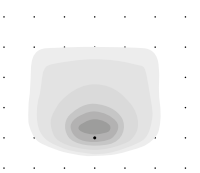
AIRPORTS
PORTS
TRAFFIC
LOGISTICS
SPORTS



AS07
Asymmetric Side Throw

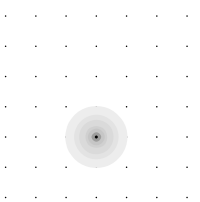


AS08
Asymmetric Side and Forward Throw

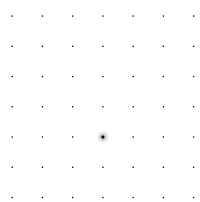


AP07
Asymmetric Extra Forward

TRAFFIC



AH02
Symmetric Wide Flood



AG01
Symmetric Narrow 17°

AG02
Symmetric Medium 32°

SPORTS

COLOUR TEMPERATURES

4,000 K

5,700 K

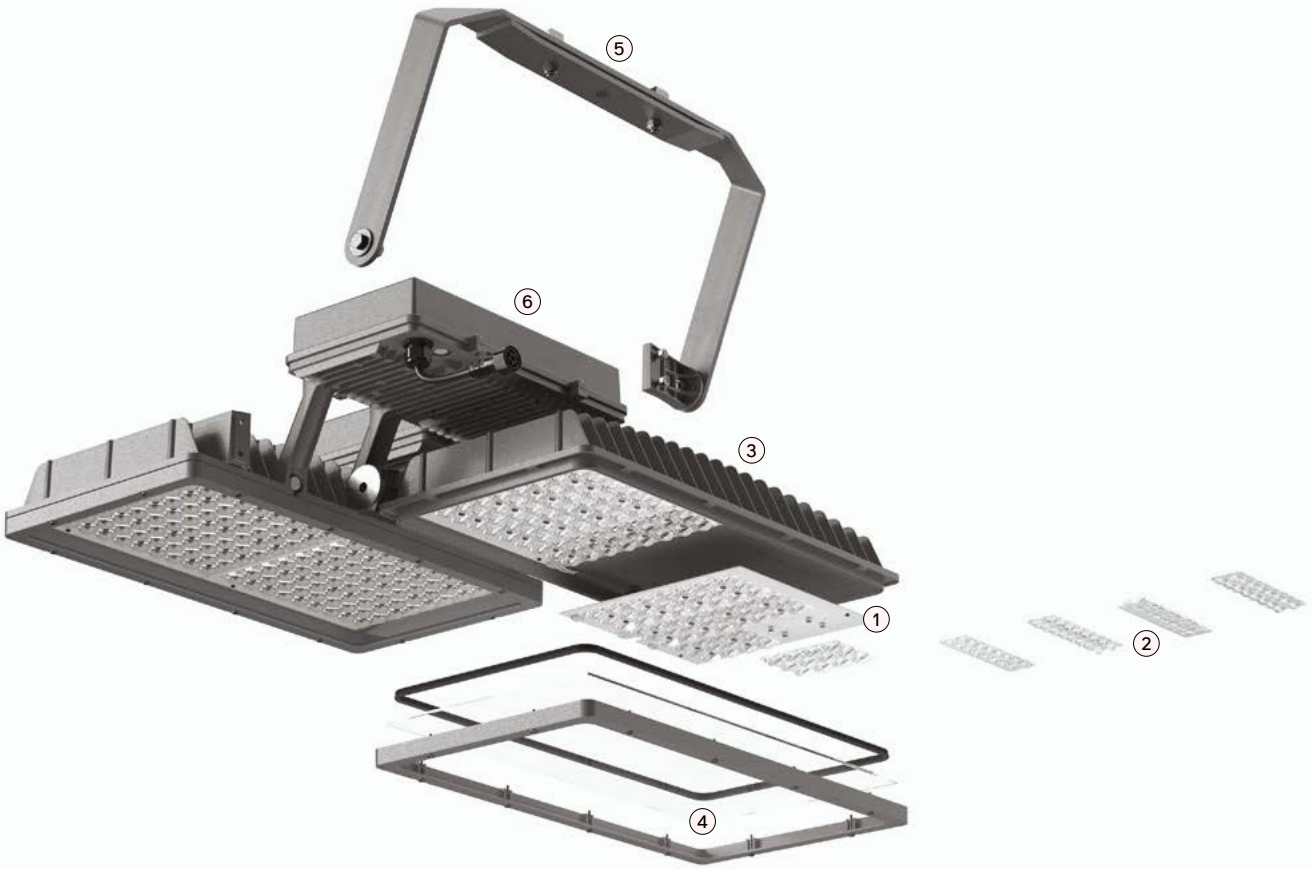
Standard CRI ≥ 70, CRI ≥ 80 on request

IP66 RoHS IK08

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

R–System gen3
Superior flexibility thanks to modular design

Each project has its own specific requirements. That's why we have developed a modular product system, which we can modify and fine-tune down to the smallest details, allowing us to produce sophisticated and technologically advanced solutions in different settings as well as a sustainable spare parts supply system.



1	CIRCUIT BOARD	individually interchangeable	wide-ranging configuration options
2	LENS OPTICS	non-yellowing PMMA and UV stabilised PC	different light distributions
3	COOLING SYSTEM	reliable temperature management	optimal thermal performance
4	GLASS COVER	high transmittance level	protection of optical components
5	ASSEMBLY BAR	infinitely variable, 360° swivelling	floor, wall and ceiling mounting
6	DRIVER CASING	separate mounting	for optimal thermal separation

R4 / Tilt 5°
EP09-L / Asymmetric Extra Forward - Left (144 LEDs) /
EP09-R / Asymmetric Extra Forward - Right (144 LEDs)

R2 / Tilt 5°
EP09-L / Asymmetric Extra Forward - Left (72 LEDs) /
EP09-R / Asymmetric Extra Forward - Right (72 LEDs)

R–System gen3 MAX
Top performance for sports

When it comes to sports stadium lighting, maximum performance and output are an absolute must. And that is just what the R–System gen3 MAX delivers with about 270,000 lm. Moreover, it is compatible with DMX-DALI converters for light shows and, with its swivel mount, can be mounted to cope with any situation.

AREAS OF APPLICATION	Recreational, semi-professional and professional sports areas
HIGH LUMEN PACKAGE	R2–MAX 134,630 lm / R4–MAX 269,260 lm
CURRENT FEED	up to 2,200 mA, depending on ambient temperature
AMBIENT TEMPERATURE RANGE	–40 to +55 °C (-40° to 131°F)
OUTSTANDING LIFETIME	L90B10 21,000 h, L80B10 43,000 h
ELECTRONIC OPERATING DEVICE	on request with DALI2 or Line Switch, 1-10 V, CLO and DMX
SMART LIGHTING	control modules for different communication standards available
LENSES	UV-stabilised Polycarbonate
COVER	single-pane safety glass (ESG)
LUMINAIRE HOUSING	in die-cast aluminum
BRACKET	made of hot-dip galvanized steel, on request with swiveling bracket, for floor, wall and ceiling mounting
FINISH	polyester powder coating, white aluminum (RAL 9006 / DB 701)

Top performance in sport, shown in its best light

R–System gen3 MAX

MODEL VARIANTS

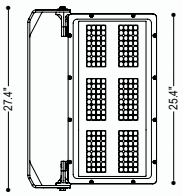
R2–MAX (light distribution A–Series)

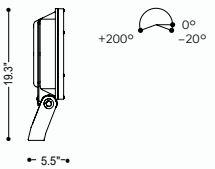
R4–MAX (light distribution A–Series)

R2–MAX (A–Series)

38.6 lbs
+ **9.9 lbs** driver

① = 0.27* / 0.27** / 0.09***
② = 0.06* / 0.15** / 0.24***

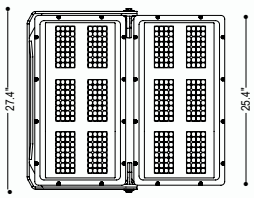


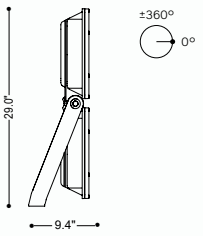


R4–MAX (A–Series)

75.0 lbs
+ **14.3 lbs** driver

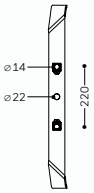
① = 0.45* / 0.45** / 0.10***
② = 0.10* / 0.28** / 0.47***





① Projected windage area [m²] ② Lateral windage area [m²] *Tilt 0° **Tilt 30° ***Tilt 90°

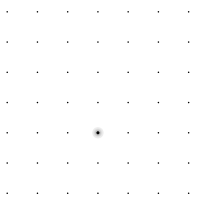
ACCESSORIES



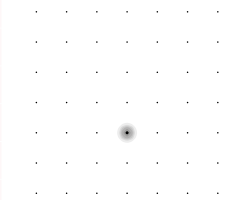
360° swivel-mounted

MODEL	LIGHT DISTRIBUTION	LUMINOUS FLUX [lm]	MAX. POWER [W]	CURRENT FEED [mA]	LEDs
R2 MAX	E–Series	96,780	892	2.200	144
R4 MAX	E–Series	193,560	1,785	2.200	288
R2 MAX	A–Series	134,630	1,057	2,200	192
R2 MAX	A–Series	269,260	2,114	2,200	384

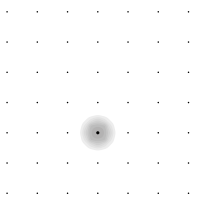
LIGHT DISTRIBUTIONS



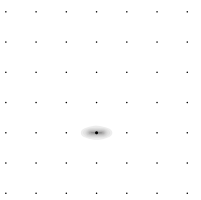
AG01
Symmetric Narrow 17°



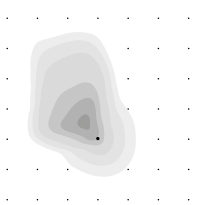
AG02
Symmetric Medium 32°



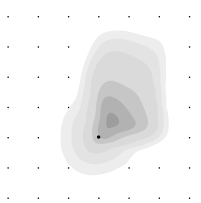
AG03
Symmetric Flood 55°



AG04
Symmetric Elliptical 17°– 46°

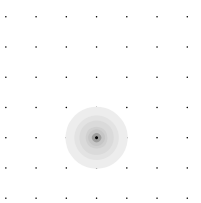


EP09-L (Tilt 5°)
Asymmetric Extra Forward – Left



EP09-R (Tilt 5°)
Asymmetric Extra Forward – Right

EP09-L/R (Tilt 5°)
Asymmetric Extra Forward – Left/Right



AH02
Symmetric Wide Flood

COLOR TEMPERATURES

4,000 K

5,700 K

Standard CRI ≥ 70, CRI ≥ 80 on request

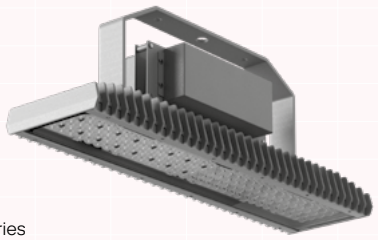
220-277VAC 50 / 60 Hz

IP66 RoHS IK08

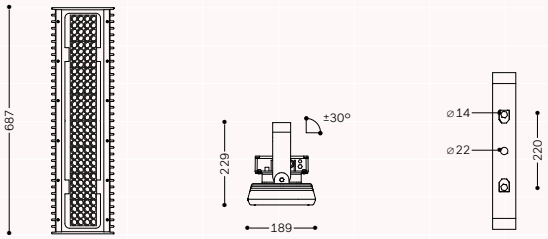
You will find the complete selection of light distributions on ewo.com

R–System R1

The tried-and-proven R–System R1 is still available and optimised for applications such as traffic areas as well as small sports areas (tennis courts etc.).

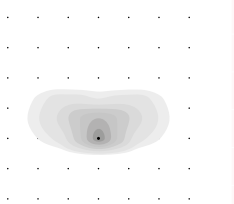


R1 A–Series

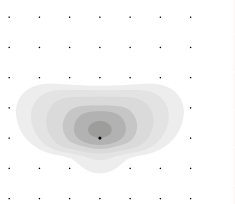


MODEL	LIGHT DISTRIBUTION	LUMINOUS FLUX [lm]	MAX. POWER [W]	MAX CURRENT FEED [mA]	LEDs
R1	A–Series	33,961	273	700	128

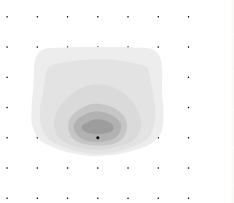
LIGHT DISTRIBUTIONS



AS07
Asymmetric Side Throw



AS08
Asymmetric Side and Forward Throw



AP07
Asymmetric Extra Forward

7.5 kg
+ 3 kg driver

① = 0.13
② = 0.05* / 0.08**

IP66 RoHS IK08

② Lateral windage area [m²]
① Projected windage area [m²]
*Tilt 0° **Tilt 30°

COLOURS · 4.000 K · 5.700 K

Standard CRI ≥ 70, CRI ≥ 80 upon request

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

OPTIMISED PERFORMANCE	33,961 lm, 110–130 lm/W
LIFETIME	L90B10 > 60,000 h
ELECTRONIC OPERATING DEVICE	DALI interface and CLO on request
SMART LIGHTING	different control modules possible
MATERIALS	lens optics made from PMMA luminaire body from die-cast aluminum luminaire cover of reinforced safety glass (ESG)

Heliport projector

ewo’s heliport luminaire is suitable as a surface light on platforms and landing fields for helicopters. The permissible total height of 25 cm (9.8") under ICAO is not exceeded and therefore does not create any obstacle on the platform. Thanks to stepless adjustment of the glare shield, a glare-free landing can be guaranteed.

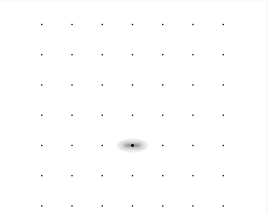
IN Series

ADJUSTABLE
Glare shield -10° +20°
Bracket -30° +30°

① = 0.12

② = 0.04

OPTIONAL
External power supply unit in SELV



AG04
Symmetric Elliptical 17° – 46°

LIGHTING UNITS	holds 1 lighting unit board (16 LEDs)
CURRENT FEED	200–500 mA
LIFETIME	L80B10 > 100,000 h
ELECTR. OPERATING UNIT	electronic operating device on request with DALI interface, 1-10 V or stand-alone programming

Dubai International Airport DXB
A global hub, made ship-shape for the future

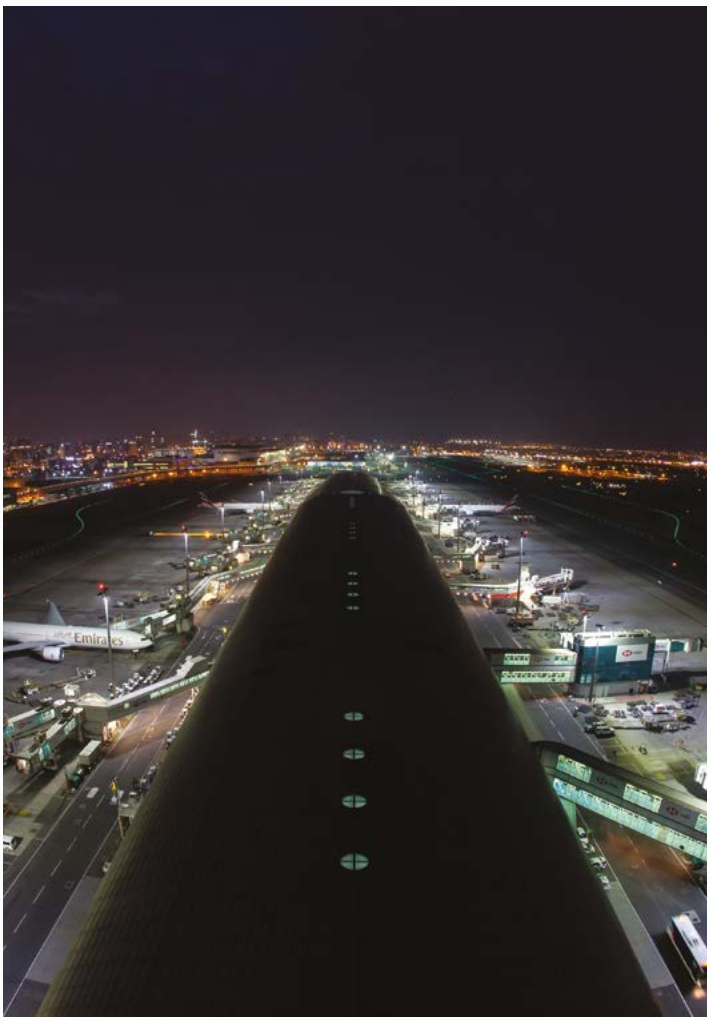
AREA	12.5 km² (7.77 miles²) / 12,500,000 m²
PRODUCT	R–System gen1
QUANTITY	1.000 floodlights
POLE SYSTEM	Europoles

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 (2.8 fc).

Dubai International Airport DXB / UAE / 2020

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.

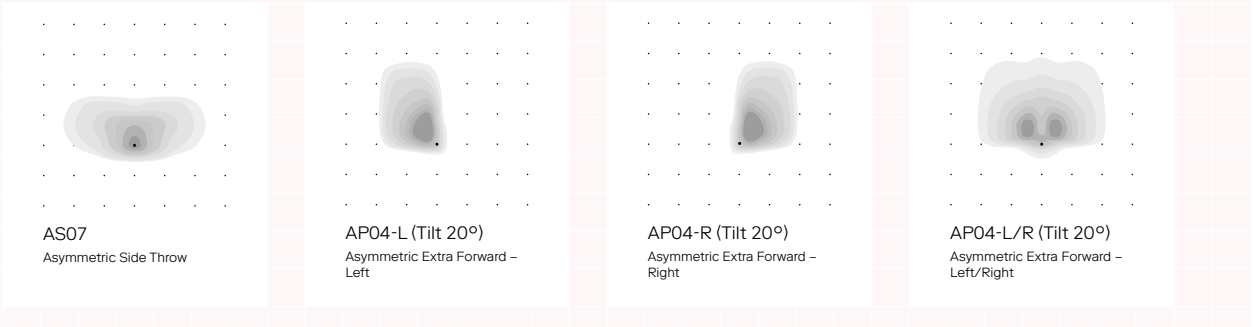


Safety at the workplace and therefore for 90 million annual passengers through precision lighting

“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

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

Wolfurt ÖBB Container Terminal
The logistics of logistics

AREA	177165.4 ft² (54,000 m²)
PRODUCT	F–System LARGE, F32
QUANTITY	103 floodlights
POLE SYSTEM	Europoles

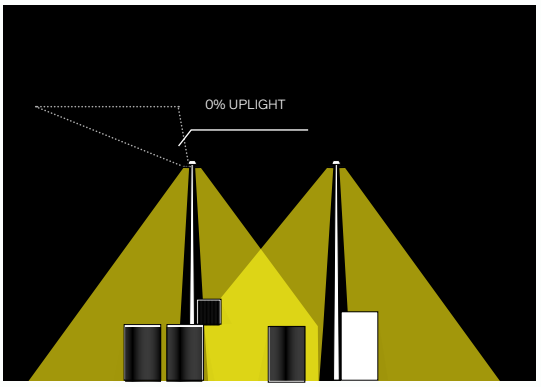
The ÖBB terminal in Wolfurt comprises 54,000 square meters (17,7165.4') of space. Every square meter (foot) must be perfectly accessible and visible day and night in order to guarantee the smooth flow of goods.

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

High-tech lighting for complex deliveries

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

Power and efficiency - 30 lx (2.8 fc) and 45.4 kW

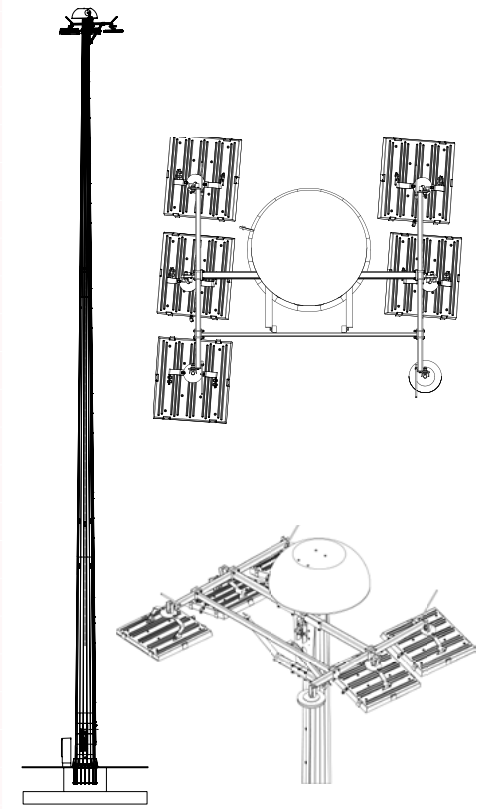


Shadow-free multi-layer lighting

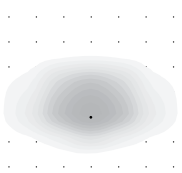
“The key factor is precision. Our left-right system illuminates containers and aisles without casting shadows, of course with 0% light pollution.”

Ernst Wohlgemuth, Founder and CTO

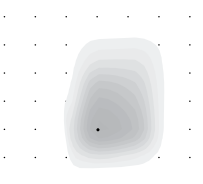
POLES WITH LOWERING SYSTEM



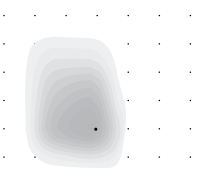
LIGHT DISTRIBUTIONS



LS34
Asymmetric Side Throw



LP32-R
Asymmetric Extra Forward - Right



LP32-L
Asymmetric Extra Forward - Left

LightLogger – Hardware and Software

This easy-to-operate mobile measuring device increases accuracy and saves time when it comes to the precise measurement of illuminance values - for any and all large areas.

Munich Airport

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 6.56' 3. vertical measurement in four directions on 6.56' measurement of illuminance lux (lx) or footcandles (fc) 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, ...)

designplan™

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ewo

ewo LARGE AREA LIGHTING

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