

we-ef

AFL100 SERIES

The new generation street and area lighting

SEE THE STARS

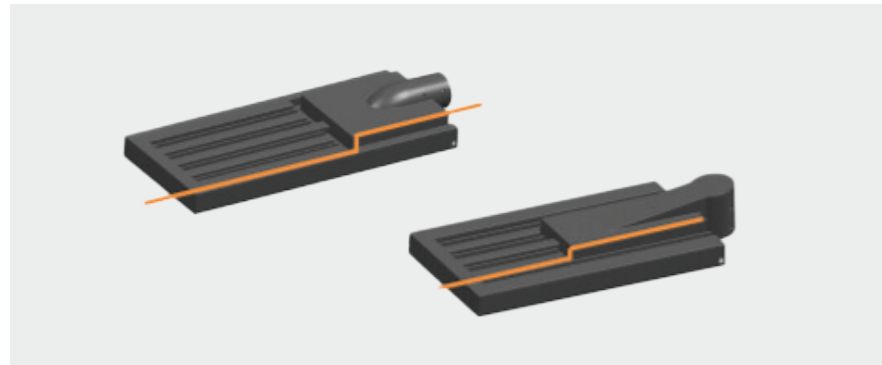


Introduction AFL100

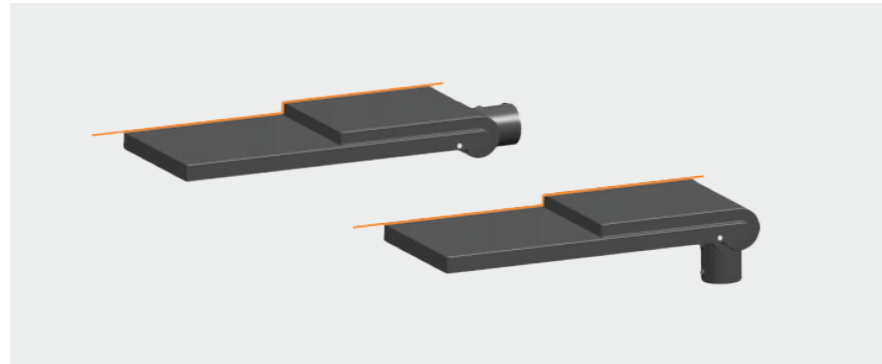
State of the art engineering

- Evolution of the VFL500 series street and area lighting luminaire - optimised design and performance
- Broader lumen package relative to size - more lumens per watt (from streets to boulevards)
- Modular and flexible spigot to fit any installation (new or refurbishment)
- Right to repair - Zhaga compliant components and upgrade kits
- Key differentiators - Sustainability, serviceability and connectivity

VFL500 Series



AFL100 Series



Connection to predecessor due to recurrence of lines and shapes.

PROTECT THE BEAUTY OF OUR SKIES



Sustainable Engineering

The entire life cycle was taken into consideration from the start



Product Overview

1

Lens

Non-reflective safety glass lens for improved LOR

2

CCG® Controlled Compression Gasket

- Weatherproof, non-ageing, high temperature rated
- Provides long-term, maintained, high IP rating

3

Body

Marine-grade, die cast aluminium alloy for long design life

4

Fasteners

Polymer Coated Stainless Steel Hardware protect against galvanic corrosion and ensures longevity

5

Spigot

Design flexibility, combined functionality - post top or side entry

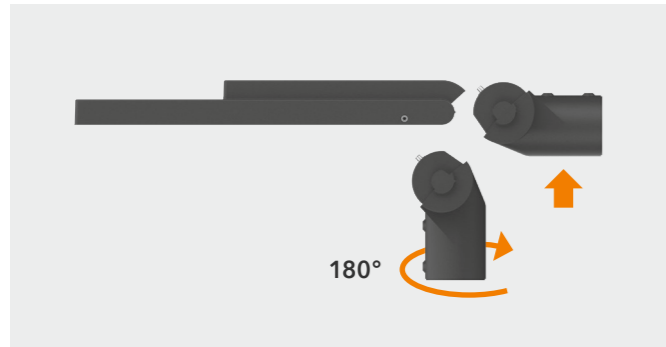
6

Driver

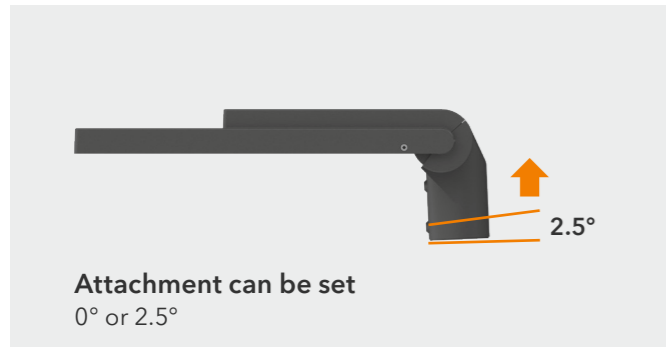
DALI, Internal EC electronic converter
220-240 V/50-60 Hz



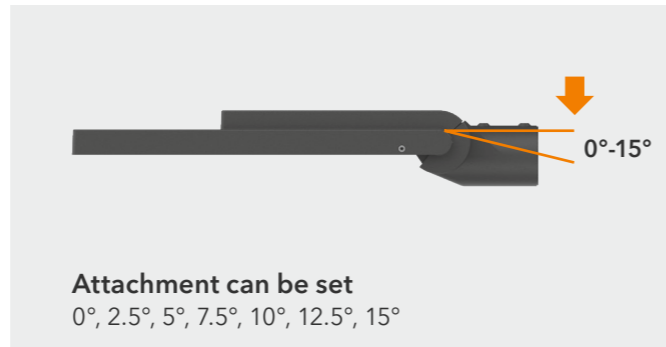
Features & Benefits



Post top or side entry



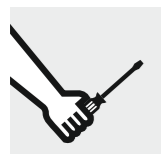
Rotate spigot to post top



Rotate spigot to side entry

Design flexibility, combined functionality fit for any application

Spigot \varnothing 76 x 100 mm



Designed for serviceability

- Easy disassembly
- Quicker and more cost-effective repair & maintenance
- Ready for upgrades in the future



DURABILITY

In-house developed technologies (5CE anti-corrosion treatment and PCS hardware to ensure a long component life).



LIGHTING SOLUTION

Precise optics, direct light exactly where it is needed.



RECYCLING

At the end of its service life, the aluminium housing can be disassembled and recycled.



5CE

Quality checks on finish parts up to 3,000 hours salt spray exposure test.



5CE + PRIMER

5CE + Primer is suitable for coastal and aggressive environments.



PCS

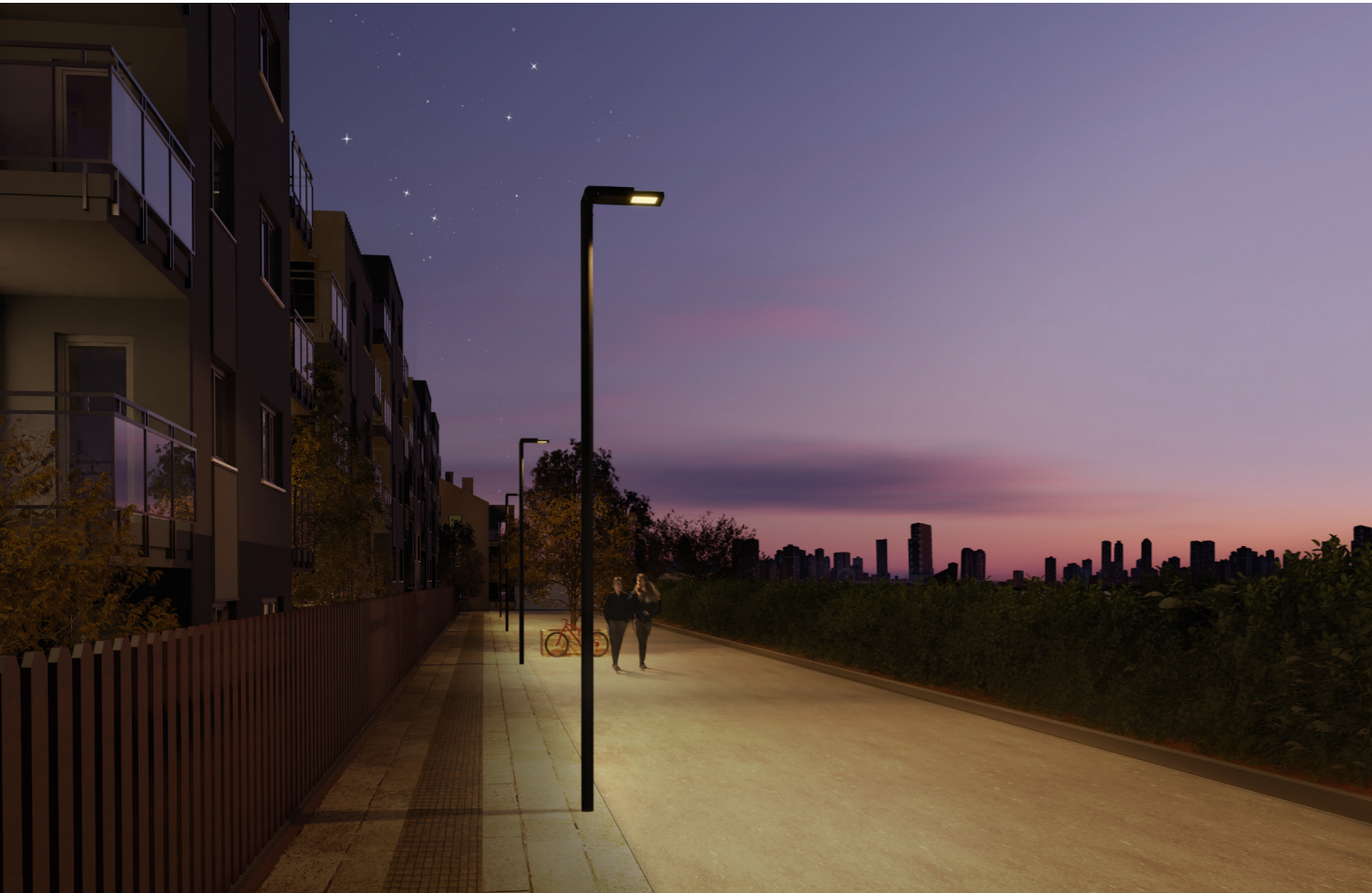
Polymer coated stainless steel hardware protects against galvanic corrosion and ensures longevity.



FACTORY SEALED

Supplied ready for connection without opening the luminaire.

Product Details



- Luminaire housing: Marine-grade, die-cast aluminium alloy
- Corrosion protection: 5CE, including PCS hardware
5CE+Primer optional
- Driver: Integral EC electronic converter, DALI
- Main lens: Non-reflective safety glass lens
- Gasketing: CCG® Controlled Compression Gasket
- Optics: CAD-optimised for superior illumination and glare control
OLC® One LED Concept
- Installation: Luminaire is factory-sealed and does not need to be opened during installation
- Accessories: Bird spike

Class I	Class II	IP66	IK08
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- Wild-Light see page 16
- Connectivity see page 18

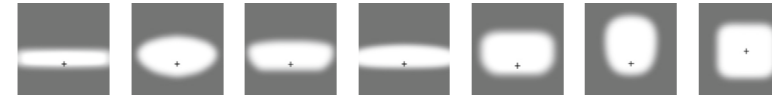
For detailed specifications, product codes and latest performance data, refer to www.we-ef.com
Shown above are rated lumens for 3000 K at $T_q = 25\text{ }^\circ\text{C}$

Standard colours:

RAL 9004	9006	9007	7016	9016



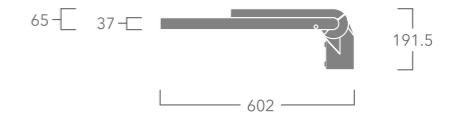
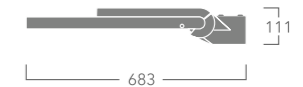
[P46R] Pedestrian crossing, for right-hand traffic
[P46L] Pedestrian crossing, for left-hand traffic



[P66] Pedestrian / bicycle lane
[S61] [S65] [S66] [S70] [S71] Streetlighting
[R60] [R61] Rectangular 'side throw'
[A61] Asymmetric 'forward throw'
[Q66] Asymmetric 'side throw'

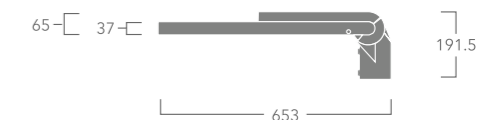
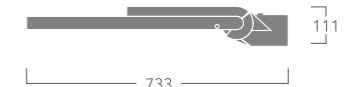
AFL120

[S70] [S65] [R60]
[S71] [S66] [R61]
[A61] [S61] [P66] [Q66] [P46R] [P46L]
24 LED
24-48 W
3480-8400 lm



AFL130

[S70] [S65] [R60]
[S71] [S66] [R61]
[A61] [S61] [P66] [Q66] [P46R] [P46L]
48 LED
48-96 W
6960-16800 lm



Four colour temperatures to enhance the lighting environment suitable for any applications



Wild-Light offers two fully integrated standard configurations



Wild-Light & Colour Temperatures

Protecting sensitive spaces with adaptive light

WE-EF developed the Wild-Light concept as a synthesis of the demands arising from the protection of nature and human users: an integrated system composed of adaptive lighting technology, sensors and networking. At the heart of the concept are new luminaires for street lighting that combine LED modules in a very warm colour temperature (e.g. True Amber or 2200 K) with LED modules in warm white eg. 3000 K. Motion sensors activate the 3000 K channel only when passers-by or vehicles are within their range. Otherwise, the lighting is reduced to a low level of the specified warmer temperature in order to continue to enable orientation from a distance - or if necessary it is switched off completely. This results in the best possible protection of the environment as well as additional energy savings. Possible areas of application are, for example, footpaths through green areas or car parks at nature reserves.

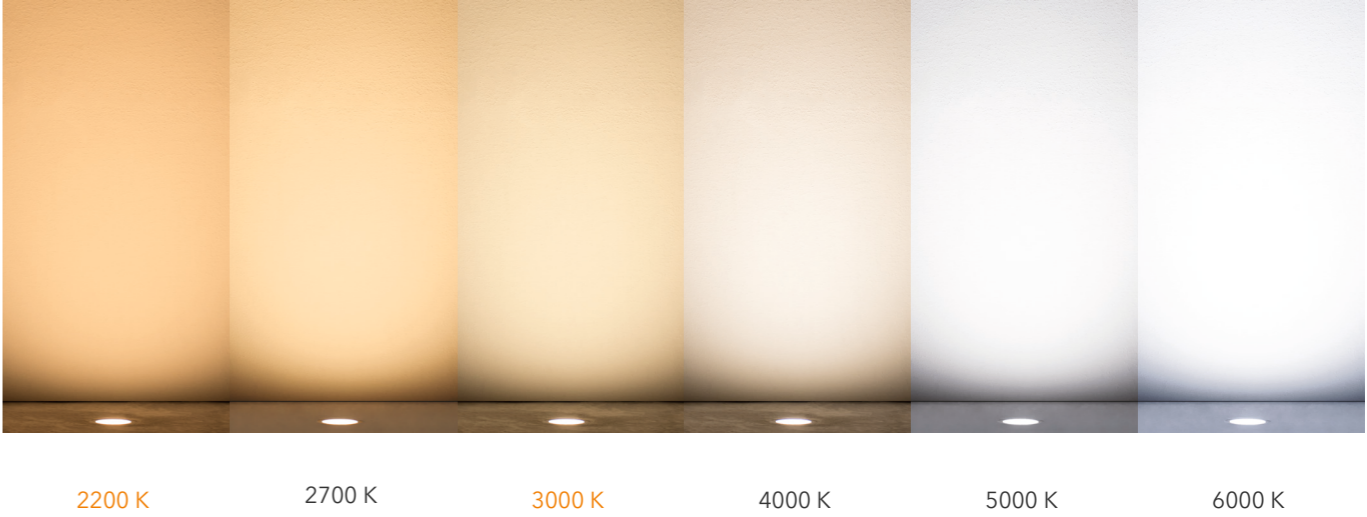
An element of the WE-EF sustainability strategy
 With Wild-Light, WE-EF develops innovative lighting solutions that minimise the negative effects on the environment, save energy and at the same time offer users comfort and safety. The technology is based on proven components and thus offers from the outset the quality, reliability and durability that our brand stands for: an all-round sustainable concept.

WE-EF offers two fully integrated standard configurations for Wild-Light:

- True Amber and 2200 K
 - 2200 K and 3000 K
- However, any combination of two colour temperatures can be configured on request.



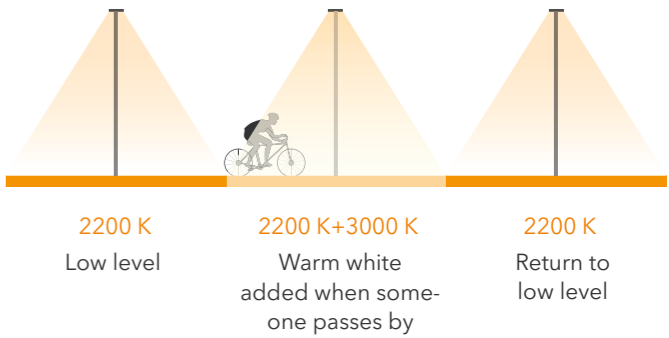
Penguin Parade, Phillip Island (AU)



The mixture between the two lighting modes can be controlled in two different ways:

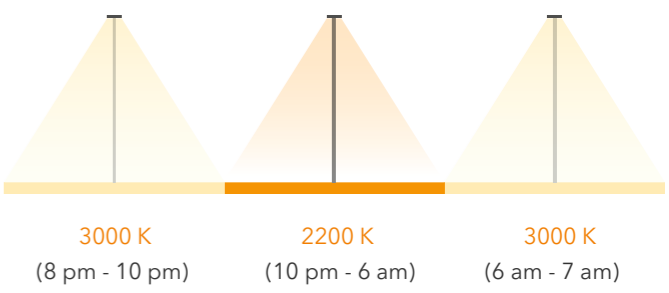
1 Wild-Light Motion

Example: The biodiversity-friendly 2200 K light shines all night at a low level to limit the impact on wildlife and save energy. In the presence of human traffic, colour temperature is immediately increased to 3000 K. When no one is in the vicinity, it then returns to 2200K.



2 Wild-Light Advanced

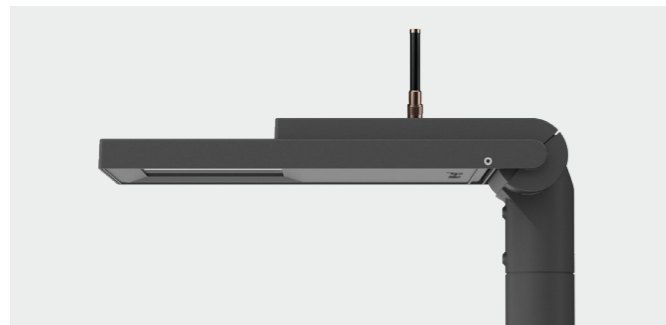
Example: Fully automatic dimming preset that starts the night with warm white (3000 K from 8 pm to 10 pm), reduces to biodiversity-friendly light in the middle of the night (2200 K from 10 pm to 6 am) and returns to warm white in the early morning (3000 K from 6 am to 7 am): a particularly simple and economical solution.



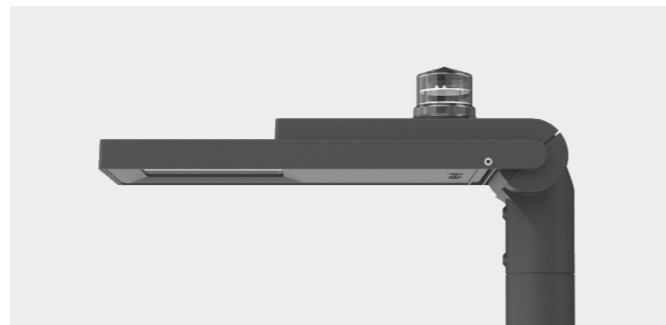
Connectivity

Smart City made easy

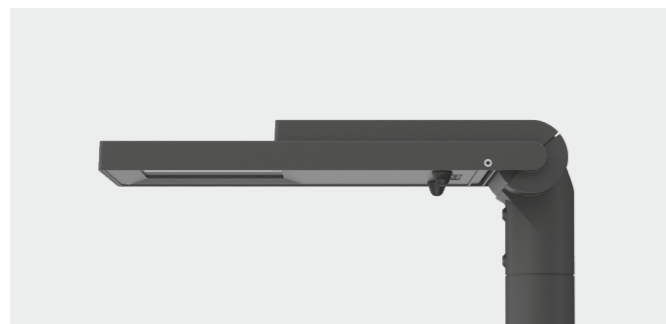
Extend to Smart City when needed for future proofing with a full suite of connectivity options. All systems compatible with Standard and Wild-Light versions.



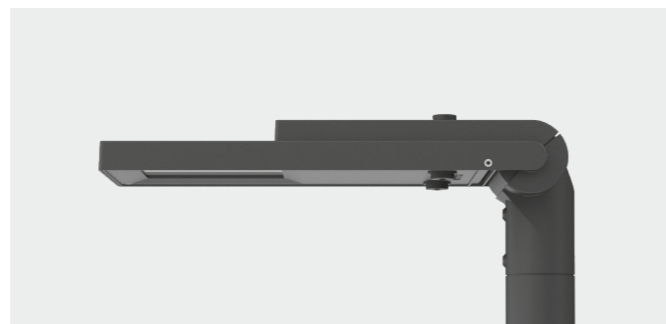
eSAVE
Option available for ANZ, AP and EU



NEMA
Option available for ANZ, EU and USA



Citygrid
Option available for ANZ and EU



Zhaga / R2C
Options available for ANZ, AP and EU

Benefits for the user



Energy savings

Light only as much as is needed, and only when it is needed: up to 85 % energy can be saved through the smart dimming of street and area lighting



Flexibility

As a state-of-the-art networked system, connectivity makes the street lighting futureproof: short-term or temporary requirements, for example for the saving of energy, can be achieved by changing the programming.



Protection and Preservation of nature

In order to minimise the influence of artificial lighting on flora and fauna, it is not only the intensity and duration of the illumination that counts, but also the light colour. Connectivity is the basis of smart concepts for environmentally friendly lighting such as WE-EF Wild-Light.



Design and effects

Theatrical area or architecture lighting (projectors, colour changers, projections) can be integrated in connectivity systems via DMX Bridge.



Safety

Road and pathway lighting is indispensable for traffic safety as well as for a feeling of safety in night-time surroundings. Connectivity enables scenarios such as "Light on Demand" for footpaths and cycle paths.



Maintenance costs

Luminaires networked with connectivity register operating data and report technical problems. Maintenance costs can be reduced by up to 40 % through remote and predictive maintenance.



Comfort

With connectivity, control scenarios can be designed conveniently - for instance "moving light" with soft dimming curves. This way the eye can adapt to the respective conditions.

Connectivity Packages

Control the light in a simple and extremely efficient way with modern connectivity solutions



Parramatta Escarpment Boardwalk, Sydney (AU)


- 1** — **Entry-level package** —

 - WE-EF supplies and configures
 - Reconfigurations available as additional service

NOT INCLUDED: Dongle/App


- 2** — **Standalone package** —


 - Operator can configure and change setting at any time via dongle/app on-site


INCLUDED: Dongle/App 


- 3** — **Smart-city package** —


 - Cloud solution intelligent outdoor lighting control
 - Dashboard for monitoring and maintenance optimisation


INCLUDED: Internet gateway (via mobile phone) and dashboard 


-  **Useful**
All lighting should have a clear purpose

-  **Low light levels**
Light should not be brighter than necessary

-  **Light colour**
As warm as possible

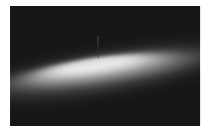
-  **Targetted**
Light should be directed only to where needed

-  **Controlled**
Light should be used only when it is useful

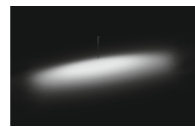
-  **Tailored lighting / light solutions**
Hybrid optics fit for any application challenges

Light Distribution & Performance

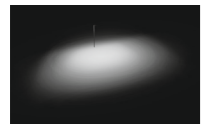
Light Distributions



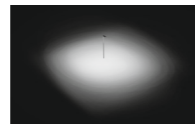
[S70] [S71]
Asymmetric,
'side throw'



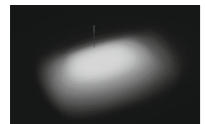
[P66]
Pedestrian/
bicycle lane



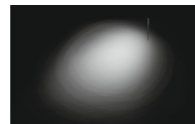
[S65] [S66]
Asymmetric,
'side throw'



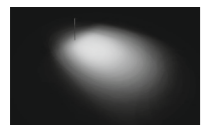
[Q66]
Asymmetric,
'side throw'



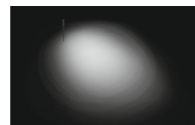
[R60] [R61]
Rectangular,
'side throw'



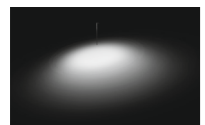
[P46L]
Pedestrian crossing,
left-hand traffic



[A61]
Asymmetric,
'forward-throw'



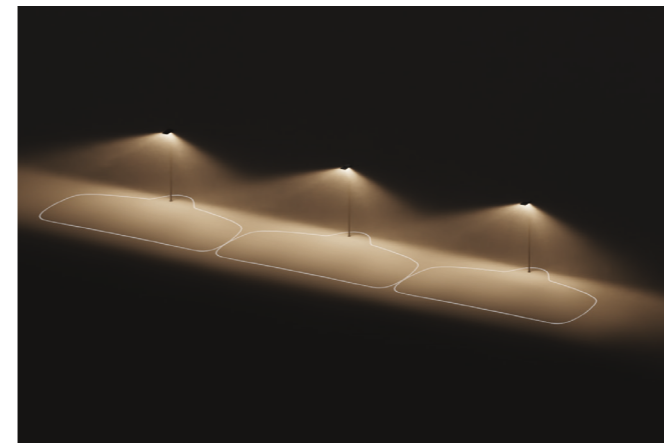
[P46R]
Pedestrian crossing,
reft-hand traffic



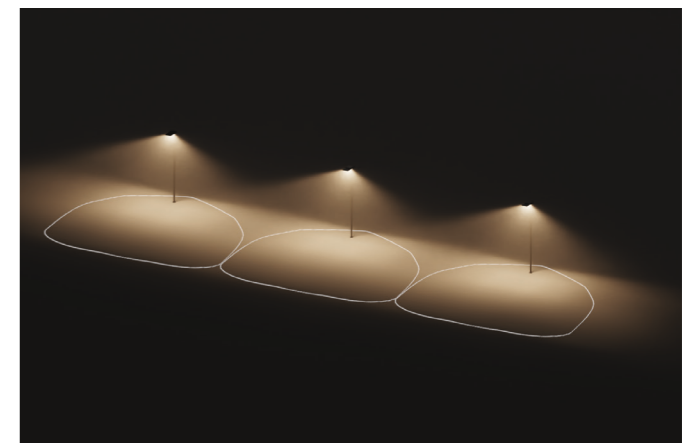
[S61]
Asymmetric,
'side throw'

Three key WE-EF lenses have been reengineered.

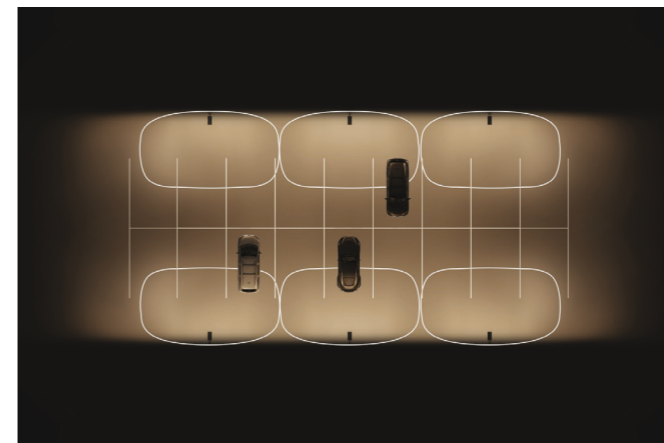
Developed in response to Night Sensitive Lighting guidelines, strict limited rear light characteristics for reducing light wastage and no light above 90°.



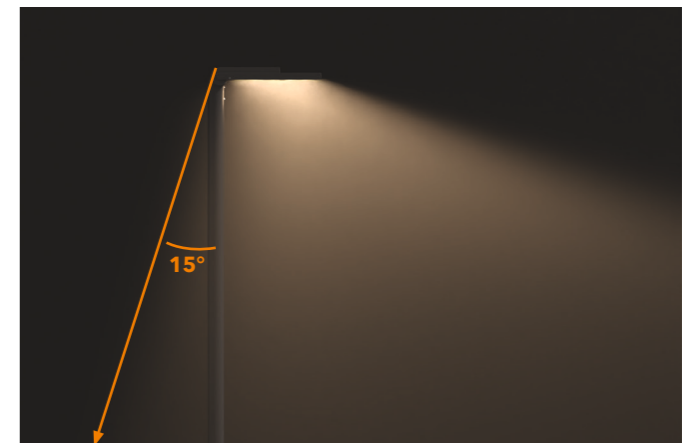
[S70] Asymmetric, 'side throw'



[S65] Asymmetric, 'side throw'



[R60] Rectangular, 'side throw'



NEW non-reflective flat glass

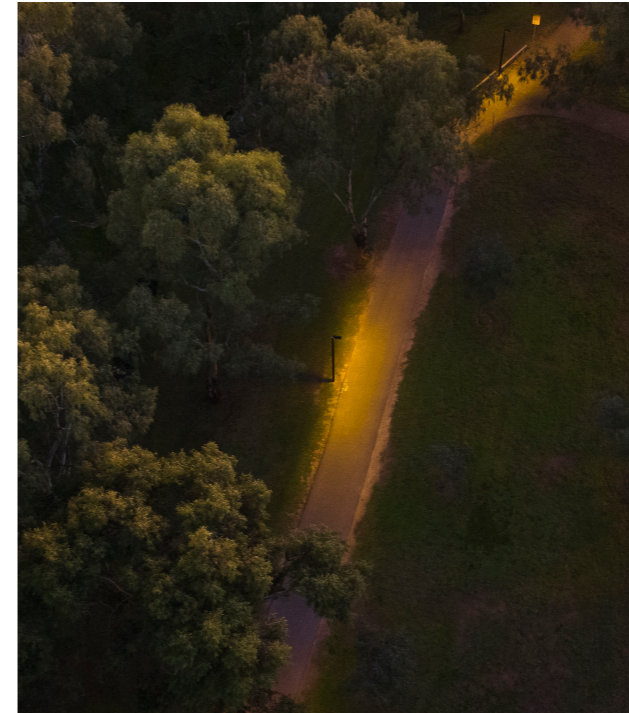
- Reduced back spill
- 20 % more lumen output in direction of the roadway

Dark Sky Compliance

WE-EF's contribution

As a manufacturer specialising in high-precision LED optics, WE-EF is able to offer certified luminaires that comply with Dark Sky regulations in many regions of the world - for example, in Australia. The portfolio ranges from bollards to luminaires for open spaces and street lighting in a wide variety of power ratings. The luminaires are specifically designed to prevent user and installation errors such as incorrect alignment or orientation. Precision and minimising stray light are a focus of all lighting technology developments. For example, WE-EF light shields were developed to this end as elements integrated in the optics of existing products, in order to meet strict Dark Sky requirements.

WE-EF also has extensive experience in the design and production of project-specific luminaires using colour temperatures with an even lower blue component than the warmest standard colour temperature of 2700 K. For example, LED modules with extremely warm amber (PC) LEDs have been used in sensitive projects such as the "Penguin Parade" in an Australian nature reserve. Thanks to WE-EF's flexibility and a high level of vertical integration, the company is the ideal partner for projects worldwide where special demands on environmental protection call for customised product and light solutions.



Little Para River Trail, Adelaide (AU)

we-ef

A Fagerhult Group Company

WE-EF LEUCHTEN GmbH

Toepinger Strasse 16

29646 Bispingen

Germany

+49 5194 909 0



we-ef.com