

# OMNISTAR

## ECO

LED floodlighting solution



**LOCALLY**  
manufactured

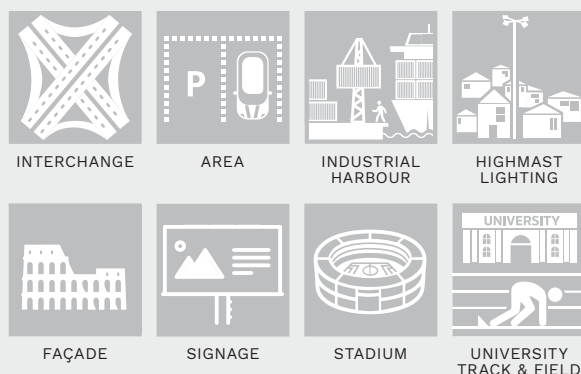
# OMNISTAR ECO



## Economical LED floodlighting solution

The OMNISTAR-ECO is an addition to the OMNISTAR family and has been designed to provide an energy-saving, performing and flexible floodlight for lighting areas where a quality replacement from conventional light sources is needed. This luminaire can be installed in various applications due to its wide range of optical light distributions to meet the specifications of the area to be lit.

The OMNISTAR-ECO guarantees optimal lighting to ensure safety and comfort. It offers a real alternative to luminaires equipped with traditional sources, with the added advantages of an LED solution: improved colour rendering index, low energy consumption and low maintenance costs with a short payback time.



## Key advantages

- Designed and manufactured in South Africa
- Designed to operate LED light sources of 195W in an ambient temperature (T<sub>a</sub>) environment of up to 25°C, without reducing the useful lifetime of 100 000 hours, at a lumen depreciation of not more than 10% (L90B10)
- Cost effective and efficient lighting solution to maximise energy and maintenance cost savings in highmast applications
- Instant switch on/off
- Sports applications: ball impact resistant
- Maintenance free
- Surge protection: Standard driver with additional 10kV/10kA
- Circular economy 3-star rating
- 3 year warranty (Terms and conditions apply)

# Characteristics

## GENERAL INFORMATION

Recommended installation height	8m to 30m
Driver included	Yes
ROHS compliant	Yes
Testing standard	SANS 60598, SANS 62262, SANS 475
Weight (kg)	5
Aerodynamic resistance (CxS) (m <sup>2</sup> )	0.0773 (calculated at a 60° rake angle)
Mounting	Standard: Stirrup enabling adjustable inclination on-site Optional: U-bracket

## HOUSING AND FINISH

Housing	Marine grade high-pressure die-cast aluminium (EN 1706 AC-44300)
Optic	Acrylic PMMA
Protector	High-impact clear glass High-impact polycarbonate (optional)
Housing finish	Unpainted aluminium
Tightness level	IP 66
Impact resistance	Glass: IK 07 Polycarbonate: IK 10

## ELECTRICAL INFORMATION

Electrical class	EU class I
Nominal voltage	198-264V – 50Hz
Power factor	> 95% at full load
Surge protection	10kV / 10kA
Electromagnetic compatibility (EMC)	SANS 55015:2013/A1:2015, SANS 61000-3-2:2014, SANS 61000-3-3:2013, SANS 61547:2009, SANS 62493:2015

## OPTICAL INFORMATION

LED colour temperature	4000K (Neutral white 740) 5700K (Cool white 757) (optional)
Colour rendering index (CRI)	≥ 70 (Neutral white 740) ≥ 70 (Cool white 757) (optional)
Standard optic	5366

## OPERATING CONDITIONS

Outdoor operating temperature range (Ta)	-40°C up to +45°C (*)
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(\*) Depending on the luminaire inclination and driving current. For more details, please contact us.

## LIFETIME OF THE LEDS @ TQ 25°C

For all versions	100,000h – L90B10
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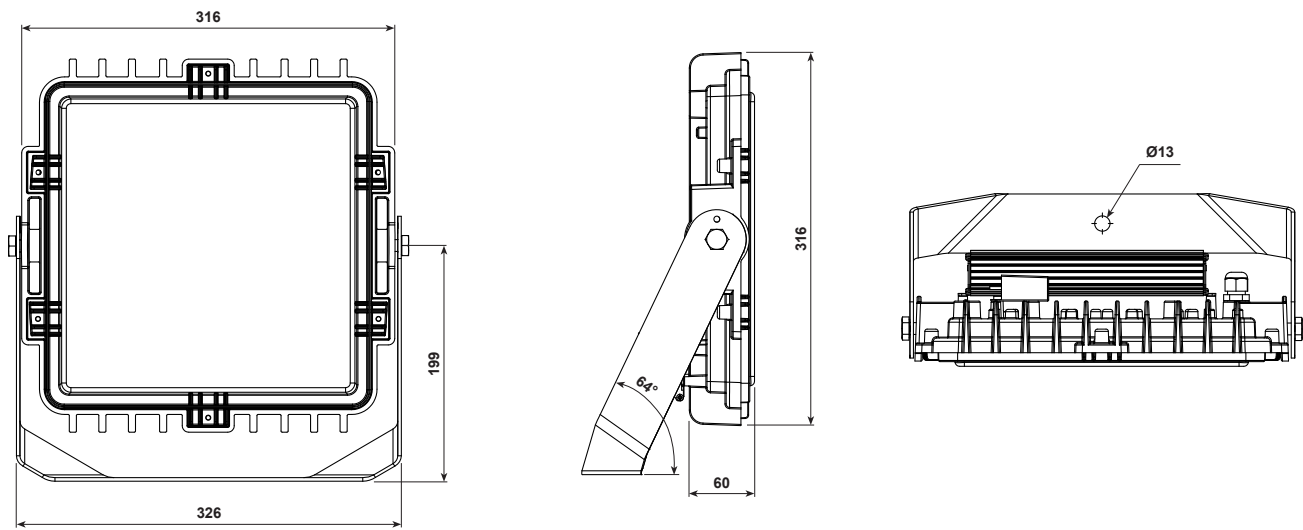
## LIFETIME OF THE DRIVER @ TQ 25°C

For all versions	100,000h ≤10% failure rate
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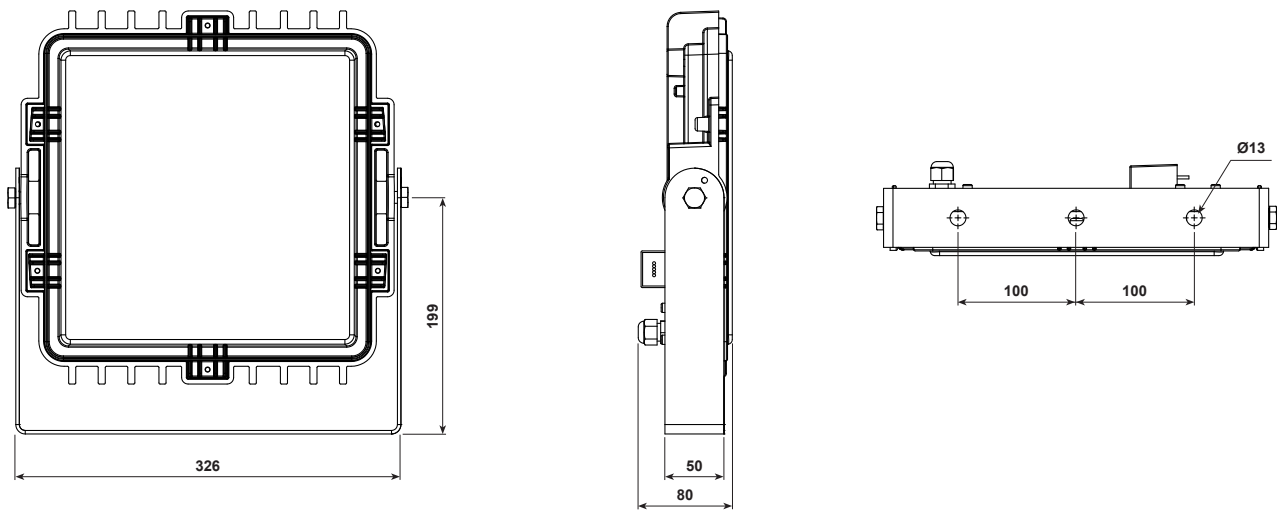
For options and accessories, please turn to page 9.

# Dimensions in mm

## OMNISTAR-ECO





## OMNISTAR-ECO U-bracket





# Performance



				Nominal flux (lm) <sup>(*)</sup>	Power consumption (W)	Nominal efficacy (lm/W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)	Photometry <sup>(**)</sup>
Luminaire	Number of LEDs	Driver Current (mA)	Line Current (A)	Typical	Typical	Typical	Typical	Typical	
OMNISTAR-ECO	80	800	0.86	30238	195	155	27244	140	 

Tolerance on LED flux is  $\pm 7\%$  and on total luminaire power  $\pm 5\%$

<sup>(\*)</sup> The nominal flux is an indicative LED flux @ Ts 85°C based on LED manufacturer's data. The real flux output of the luminaire depends on environmental conditions (e.g. temperature and pollution) and the optical efficiency of luminaire. The type of LED used is subject to change due to the ongoing rapid progress taking place in LED technology.

<sup>(\*\*)</sup> Custom combinations of lenses/optics to suit the project are available on request.



## LensoFlex<sup>®</sup>4

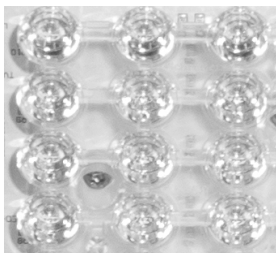


LensoFlex<sup>®</sup>4 maximises the heritage of the LensoFlex<sup>®</sup> concept with a very compact yet powerful photometric engine based upon the addition principle of photometric distribution. The number of LEDs in combination with the driving current determines the intensity level of the light distribution. With optimised light distributions and very high efficiency, this fourth generation enables the products to be downsized to meet application requirements with an optimised solution in terms of investment.

LensoFlex<sup>®</sup>4 optics can feature backlight control to prevent intrusive lighting, or a glare limiter for high visual comfort.



## BlastFlex<sup>™</sup>4

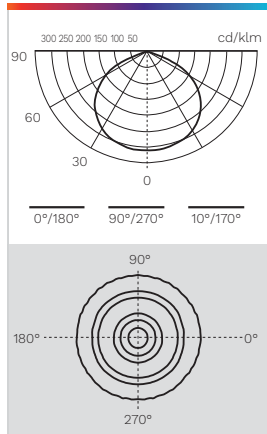


Using collimators made of high-transmission PMMA, the BlastFlex<sup>™</sup>4 photometric engine offers the highest efficiency for directional beams dedicated to specific applications in architectural and sports lighting. The ability to control the light with the highest accuracy reduces light spill in the surroundings, improves uniformity on the area to be lit and contributes to optimal use of the energy consumed.

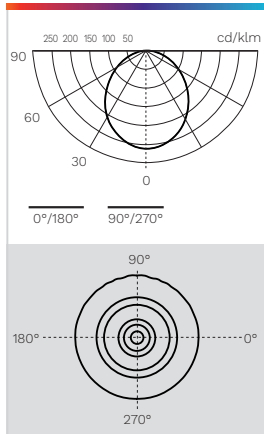
# Light Distributions

Custom combinations of lenses/optics to suit the project are available on request.

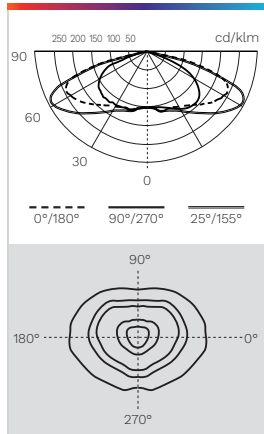
4010 optic  
Clear glass



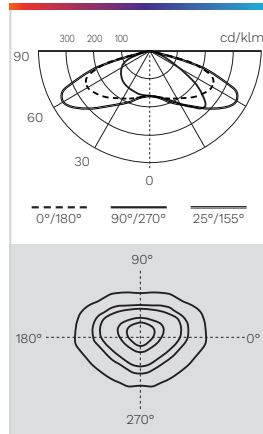
4011 optic  
Opaque polycarbonate



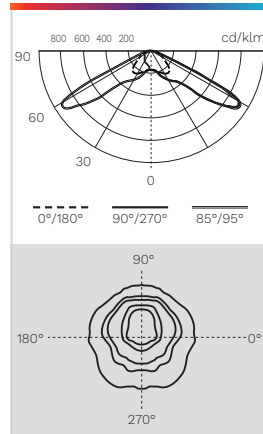
LENZO FLEX<sup>®</sup> 4  
5304 optic



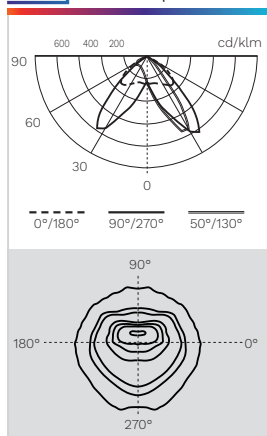
LENZO FLEX<sup>®</sup> 4  
5304-W optic



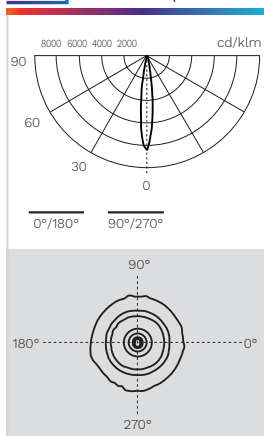
LENZO FLEX<sup>®</sup> 4  
5355 optic



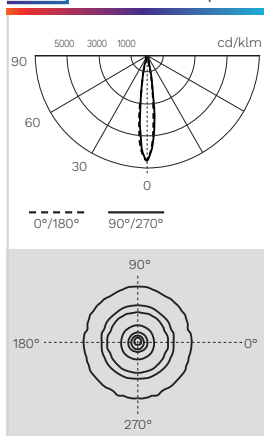
BLAST FLEX<sup>®</sup> 4  
5356 optic



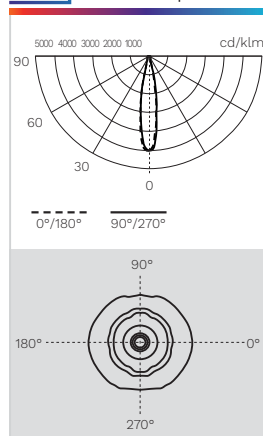
BLAST FLEX<sup>®</sup> 4  
5357 optic



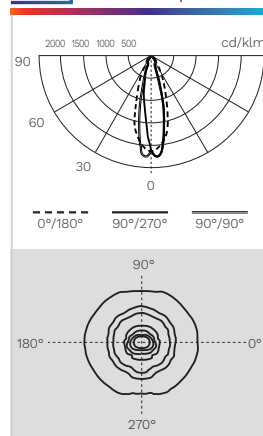
BLAST FLEX<sup>®</sup> 4  
5357-W optic



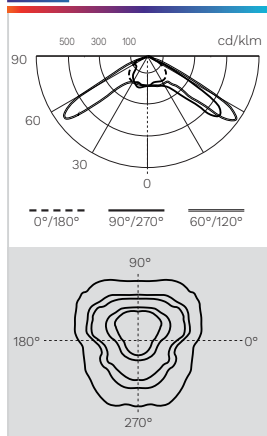
BLAST FLEX<sup>®</sup> 4  
5358 optic



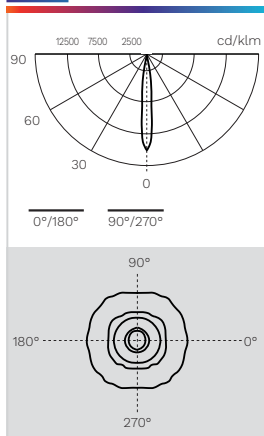
BLAST FLEX<sup>®</sup> 4  
5359 optic



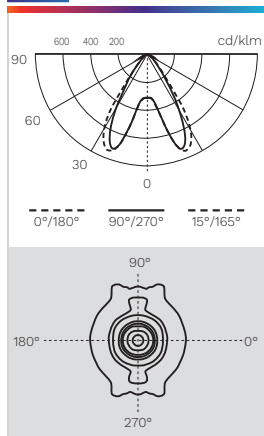
BLAST FLEX<sup>®</sup> 4  
5366 optic



LENZO FLEX<sup>®</sup> 4  
5405 optic



LENZO FLEX<sup>®</sup> 4  
5407 optic



# Key Features



Optimal heat fin dissipation design



Rake angle adjustable on site



Wall-mount bracket available as an option



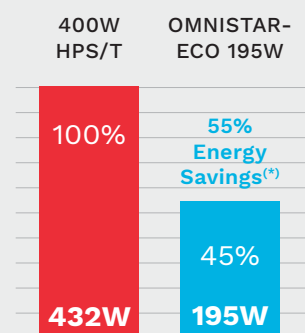
Optional opaque polycarbonate protector version

## Case Study: 400W HPS Comparison

	Luminaire fitted with 400W High Pressure Sodium lamp	OMNISTAR-ECO 195W
Luminaire power consumption (W)	432	195
9 x luminaires per mast (per mast total) (W)	3888	1755
Total power per mast (kWh)	3.89	1.76
Total power saved per mast (kWh)	-	2.13
Total power saved per mast (%)	-	55

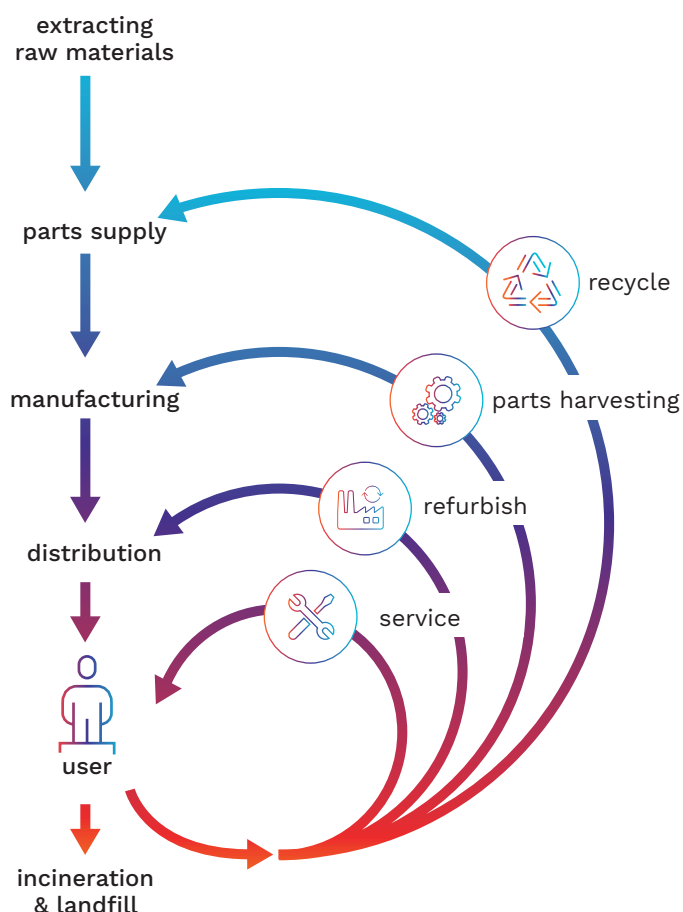
Detail on lighting design comparison available on request.

### Energy Savings





## Circularity concept



## OMNISTAR-ECO

Circularity focuses on reducing the environmental burden by valorising the flow of all materials. It is mainly defined in opposition to the traditional linear economy: take, make and dispose. In a circular economy, products are part of a value network where they will be used for as long as possible.



Then, depending on their characteristics, they can be reused, refurbished, upgraded or recycled.

BEKA Schröder takes circular economy into account, right from the offset. Before we start to design our products, we incorporate it into their DNA.

After a careful analysis of the potential circularity of our luminaires, we decided to introduce a "circular lighting" product label. This label acts as a circular indicator for our customers.

It clearly designates products that are optimised for circular economy through 12 objective criteria.

### Circular highlights:

-  Equipped with a completely replaceable LED engine
-  Materials with a high rate of recyclability

### Star rating:



It was designed to be cost-efficient



It was built to last but not with circular economy requirements



It was developed to meet most of circular economy requirements



It was developed to fully meet circular economy requirements



# Ordering Information

Example:

OMNISTAR ECO 80200N4010 A1PS IP

ID	LED	Watt	LED Colour	Optic <sup>(1)</sup>	Colour	Surge Protection	Protector	Mounting Option	Other options / accessories
OMNISTAR ECO	80	195	<b>N</b> Neutral white (4000K) <b>C</b> Cool white (5700K)	4010 4011 5304 5304-W 5355 5356 5357 5357-W 5358 5359 5366 5405 5407	<b>A</b> Aluminium finish (unpainted) <b>S</b> Pearl Light Grey (RAL 9022), Textured finish <b>B</b> Black (RAL 9017), Textured finish <b>O</b> Painted Other (RAL / Finish [Brilliant/Matt])	<b>1</b> 10kV	<b>P</b> Polycarbonate <b>G</b> Glass clear <b>O<sup>(2)</sup></b> Polycarbonate opaque	<b>S</b> Stirrup - unpainted <b>U</b> U-bracket unpainted	<b>IP</b> IP connector

<sup>(1)</sup> Custom combinations of lenses/optics to suit the project are available on request.

<sup>(2)</sup> 4011 optic only



Olifantsfontein - Gauteng, South Africa

# BEKA Schröder

Experts in lightability™

**SABS**  
ISO 9001



[www.beka-schreder.co.za](http://www.beka-schreder.co.za)

Designed and manufactured by BEKA Schröder (Pty) Ltd



**LOCALLY**  
manufactured

2023-06

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