BEKA Schréder

Experts in lightability™

LEDBAY

LED lowbay and highbay

LOCALLY manufactured

LEDBAY

IP 66

Up to IK 10

10kV optional

LEDBAY-MIDI

Setting the benchmark in lowbay and highbay lighting

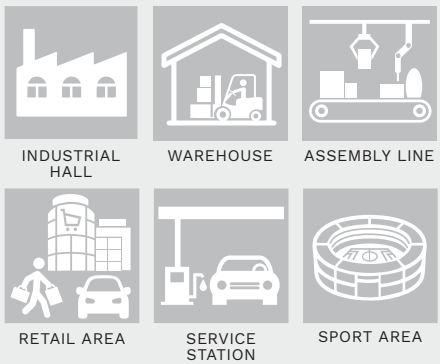
With the LEDBAY, BEKA Schréder offers the leading luminaire for lighting industrial facilities with a minimised total cost of ownership.

More efficient and light in weight, it delivers the best solution on the market today for lowbay and highbay applications. It outperforms all other fixtures thanks to the substantial energy savings it generates and the performance it delivers over time.

Available with three typical lumen packages, various light distributions and mounting options, the LEDBAY is perfectly suited to multiple indoor and outdoor lighting applications.

The LEDBAY can be used in hazardous environments where a Zone 2 or 21/22 rated luminaire is required. Furthermore, the LEDBAY is available with a battery backup version, to be used in emergency situations.

The LEDBAY not only lowers your investment. It maximises it by providing a comfortable environment for your staff while limiting energy consumption to what is absolutely necessary. Thanks to its reliable performance, low dust accumulation and no need for relamping, the LEDBAY minimises maintenance costs.



Key advantages

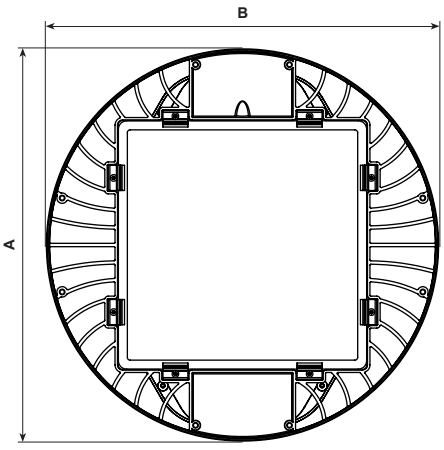
- Designed and manufactured in South Africa
- Highly efficient and energy saving (replaces up to 400W HID light sources)
- Very flexible: Available for lowbay or highbay applications
- Optimised heatsink design by means of vertical ribs for heat dissipation for up to 177W for the LEDBAY-MIDI, and up to 321W for the OMNISTAR-MAXI
- Designed to operate LED light sources of up to 177W (LEDBAY-MIDI) and 321W (OMNISTAR-MAXI) in an ambient temperature (Tq) environment of at least 25°C, without reducing the useful lifetime of up to 100 000 hours, at a lumen depreciation of not more than 30% (L70)
- Long lifetime and low maintenance, no lamp replacement for more than 10 years
- Various optical solutions available
- Suitable for very low Unified Glare Rating (UGR) requirements
- Flicker-free lighting
- Optional motion sensor for even higher energy savings
- Available in Emergency and Zone 2 and 21/22 versions
- Circular economy 3-star rating
- 5-year warranty (Terms and conditions apply)

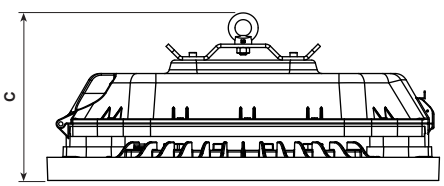
Characteristics

GENERAL INFORMATION	
Recommended installation height	4m to 12m
Driver included	Yes
ROHS compliant	Yes
Testing standard	SANS 60598, SANS 62262

HOUSING AND FINISH	
Housing	Marine grade high-pressure die-cast aluminium (EN 1706 AC-44300)
Gear compartment	Glass filled nylon
Optic	Acrylic PMMA
Protector	Glass
	High-impact polycarbonate (optional)
Housing finish	Pearl Light Grey (RAL 9022), Textured finish
Tightness level	IP 66
Impact resistance	Glass: IK 07
	High-impact polycarbonate: IK 10
Access for maintenance	Easy access to the gear compartment by means of a hinging mechanism

DIMENSIONS AND MOUNTING	
AxBxC (mm)	468x468x200
Weight (kg)	7.4
Standard mounting	Eyebolt for suspension chain





ELECTRICAL INFORMATION	
Electrical class	EU class I
Nominal voltage	198-264V – 50Hz
Power factor	> 95% at full load
Surge protection	10kV / 10kA (optional)
Electromagnetic compatibility (EMC)	SANS 55015:2013/A1:2015, SANS 61000-3-2:2014, SANS 61000-3-3:2013, SANS 61547:2009, SANS 62493:2015
Control options	DALI or 1-10V
	Schréder ITERRA

OPTICAL INFORMATION	
LED colour temperature	4000K (Neutral white 740)
Colour rendering index (CRI)	≥ 70 (Neutral white 740)
Upward Light Output Ratio (ULOR)	0%
Standard optic	4130

OPERATING CONDITIONS	
Operating temperature range (Ta)	-30°C up to +35°C

LIFETIME OF THE LEDS @ TQ 25°C	
For all versions	100,000h - L70B10

LIFETIME OF THE DRIVER @ TQ 25°C	
For all versions	100,000h ≤10% failure rate

For options and accessories, please turn to page 10.

For the OMNISTAR-MAXI product information, please refer to the OMNISTAR-MAXI brochure.

Switching/dimming control

5 good reasons to **smartify your lighting**

1 Optimising energy efficiency

Reduce your electricity bills and minimise your carbon footprint. Use control features and sensors to define when your lights are turned on, off or dimmed.

- **Scheduled lighting** based on working shifts and human activity.
- **Light sensors** to harvest natural light and only compensate with artificial lighting if necessary.
- **Motion sensors** to trigger lighting through detection of people entering an area.

2 Getting the right light

Take advantage of a lighting control system to precisely adjust the light intensity, colour temperature and scenario according to the actual needs.

3 Maximising safety and productivity

Help your employees perform at their best with human-centred lighting. Lighting plays an essential role in the daily life of your business. Not only does it create the atmosphere of a place, it also contributes to the mental well-being, sleep, safety and work efficiency of your staff.

4 Making technology convenient

Remotely control all parameters of your lighting. Check the status at a glance, monitor energy consumption and adjust your scenarios anytime, anywhere.

5 Increasing the life span of luminaires

Dimming and light-on-demand features limit energy usage for each luminaire and allow them to last longer.

This reduces the number of replacements required and also provides environmental benefits.

Schréder ITERRA

Schréder ITERRA provides a complete user- and installer-friendly wireless control solution for various lighting applications.

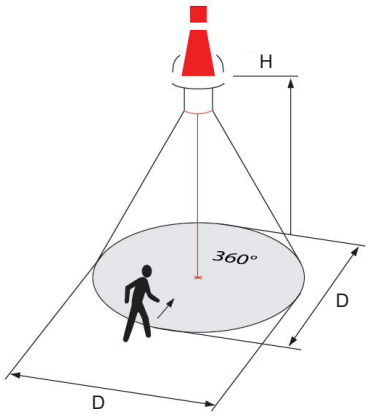
Schréder ITERRA offers site managers a robust, cost-effective and future-proof platform to run their infrastructure with the utmost flexibility for adapting the lighting to any scenario or activity while maximising energy savings and providing the best experience for employees, visitors and managers.

A mobile App based system, Schréder ITERRA is very easy to operate. It comes with a visual interface that users can quickly personalise to the layout and settings of their lighting installation.

Download on the App Store GET IT ON Google Play

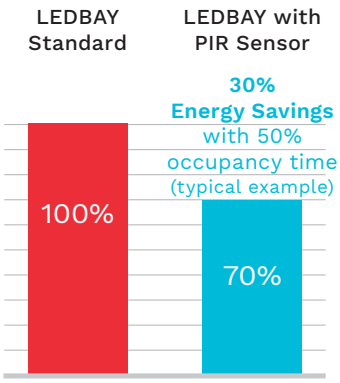
Integrated Movement & Daylight Sensor (optional)

The integrated motion sensor uses a specific lens to determine a detection zone. The standard lens is suitable for most applications. As an option, lenses can be provided for special needs.

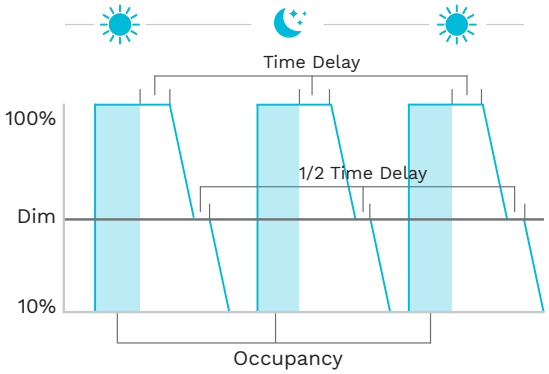


H	D
Up to 6m	12m
Up to 12m	30m

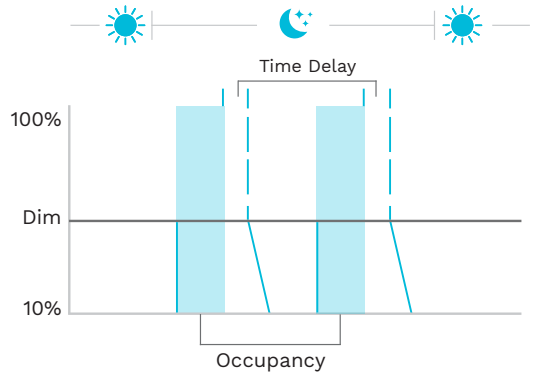
Energy Savings



Mode C
Indoor parking structure or highbay with no daylight control
Features: High/Low/Off Levels - Day or Night



Mode D
Indoor parking structure or highbay with daylight control
Features: At dusk, turns ON with occupancy; High Dim levels sets maximum ON level; OFF at dawn



Performance

				Nominal flux (lm) (*)	Power consumption (W)	Nominal efficacy (lm/W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)	Photometry (**)
Luminaire	Number of LEDs	Driver Current (mA)	Line Current (A)	Typical	Typical	Typical	Typical	Typical	
LEDBAY-MIDI	164	800	0.56	20924	129	163	18832	147	4010 4120 4130 4140
	192	780	0.68	25103	155	162	22593	145	
	256	720	0.77	29485	177	167	26537	150	
LEDBAY-MIDI Emergency version	164	800	0.56	20924 / 746 (EM)	129	163	18832	147	4010 4120 4130 4140
	192	780	0.68	25103 / 746 (EM)	155	162	22593	145	
	256	720	0.77	29485 / 746 (EM)	177	167	26537	150	
OMNISTAR-MAXI	144	700	1.37	47670	321	149	38990	121	2259 2260 2261

Tolerance on LED flux is ± 7% and on total luminaire power ± 5%

(*) 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.

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

Construction Details

The LEDBAY-MIDI consists of a glass filled nylon gear compartment and a die-cast aluminium (EN 1706 AC-44300) optical housing, enclosed by a glass protector (IK 07) or optional polycarbonate protector (IK 10). The luminaire is suspended by means of an eyebolt or anti-rotation fixation.

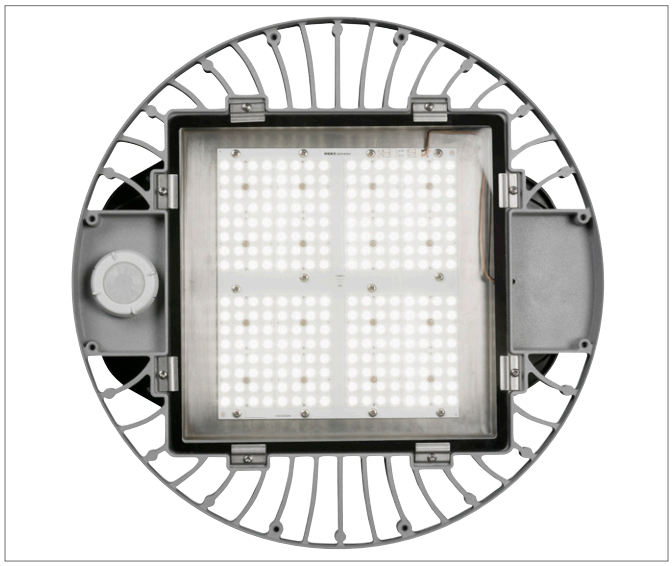
The luminaire bears the SANS 60598 safety mark.

The electronic power supply is suitable for operation with a 198-264V 50Hz single phase system. The power factor is rated at ≥0,95.

Electronic temperature monitoring prevents overheating of LEDs and power supply (ThermiX®).

Various optical solutions are available to achieve the highest energy savings and the most economical solution for almost any application.

Key Features



Various optical solutions available

Designed for easy technology upgrade (FutureProof) and easy access to the gear compartment

Optional motion sensor for even higher energy savings

Suspended mounting

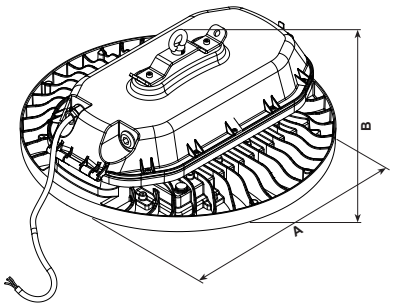
Optimised heatsink design

OMNISTAR-MAXI

Mounting Options

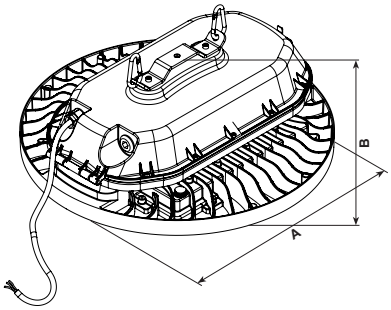
LEDBAY-MIDI

Eyebolt fixation

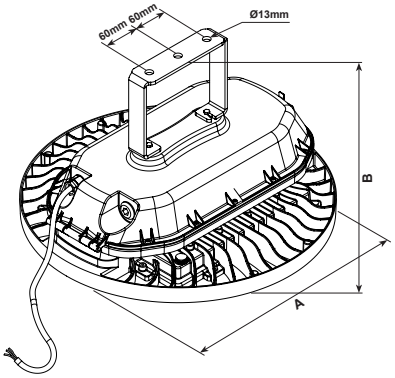


Anti-rotation fixation

(Carabiners not included)

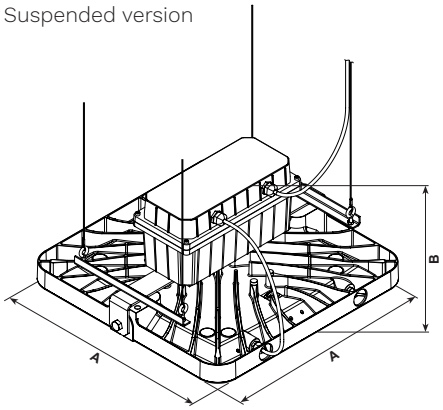


U-bracket



OMNISTAR-MAXI

Suspended version



	LEDBAY-MIDI (Eyebolt)	LEDBAY-MIDI (Anti-rotation)	LEDBAY-MIDI (U-bracket)	OMNISTAR-MAXI
Dimensions AxB (mm)	468x200	468x163	468x282	530x254
Weight (kg)	7.4	7.4	8	20.6 (incl. gearbox)

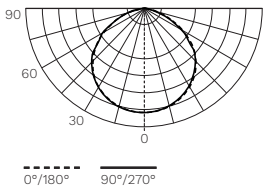
Light Distributions

Symmetrical Beams

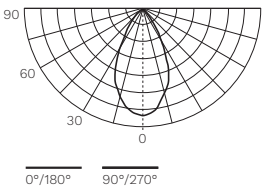
Optics

(LEDBAY-MIDI only)

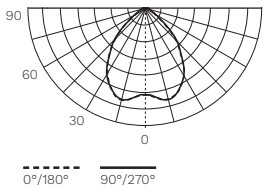
4010 optic



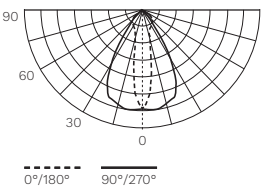
4120 optic



4130 optic



4140 optic

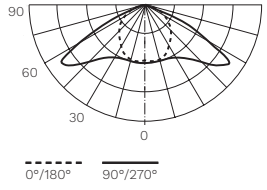


Symmetrical Beams

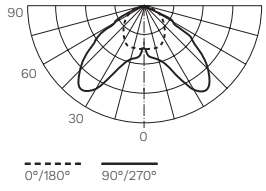
Reflector

(OMNISTAR-MAXI only)

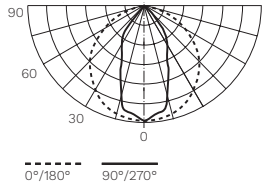
2261 optic



2260 optic



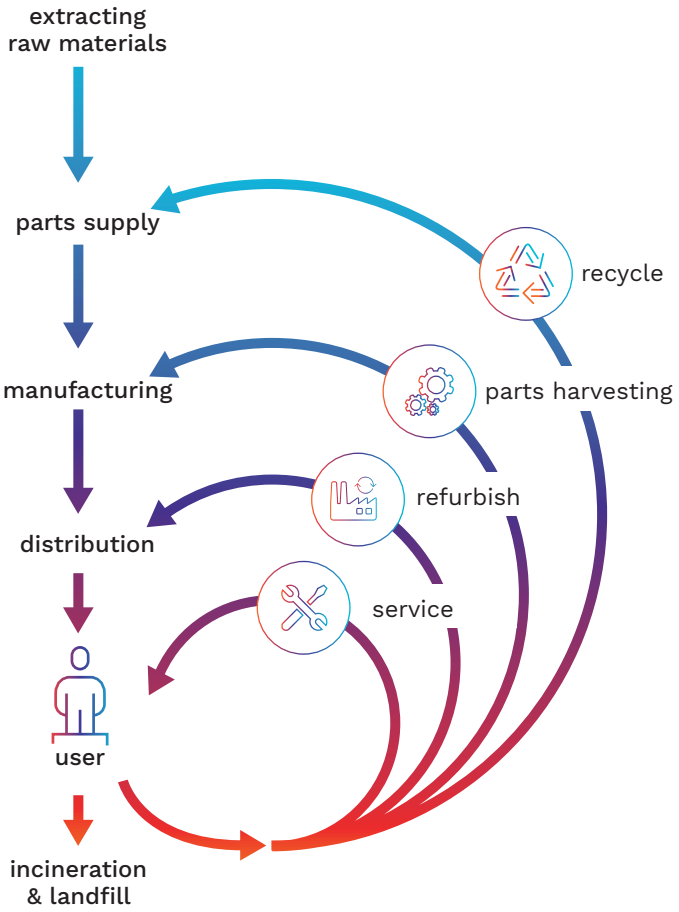
2259 optic



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

CIRCLELIGHT

Circularity concept



LEDBAY

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 Schréder 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

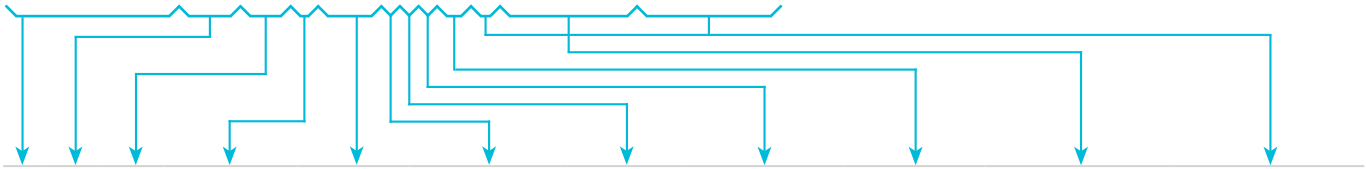
It was developed to meet most of circular economy requirements

It was developed to fully meet circular economy requirements

Ordering Information

Example:

LEDBAY MD256/177N4140A1G/SE1M6CDALITWZ21/22



ID	LED	Watt	LED Colour	Optic[1]	Colour options	Surge Protection	Protector	Mounting	Switching/dimming control	Other options / accessories
LEDBAY MD	164 192 256	129 155 177	**N** Neutral White (4000K)	4010 4120 4130 4140	**A** Aluminium finish (unpainted) **S** Pearl Light Grey (RAL 9022), Textured finish **B** Black (RAL 9017), Textured finish **O** Painted Other (RAL / Finish [Brilliant/Matt])	**1** 10kV	**G** Glass clear **P**[2] Polycarbonate	**/S** Suspended **/U** U-bracket	**1-10** 1-10V dimming **DALI** DALI dimming **M6** Movement sensor up to 6m (Mode C or Mode D) **M12** Movement sensor up to 12m (Mode C or Mode D)	**E1** Emergency version (1 hour) **E3** Emergency version (3 hour) **TW** Through-wiring **3M**[3] 3 meter cabtyre complete with 6A plug **5M**[3] 5 meter cabtyre complete with 16A plug **Z2** Zone 2 **Z21/22** Zone 21/22

[1] Custom combinations of lenses/optics to suit the project are available on request.
[2] Suitable for Food & Beverage industry
[3] Excluding through-wire, emergency and dimmable versions

Custom Options

Surge protection	20kV
Extra treatment	e-Coating for very harsh environments (casting only)
Switching/dimming control	Integrated Schréder ITERRA

For the OMNISTAR-MAXI ordering information, please refer to the OMNISTAR-MAXI brochure.

BEKA Schréder

Experts in lightability™

SABS ISO 9001

www.beka-schreder.co.za

Designed and manufactured by BEKA Schréder (Pty) Ltd

LOCALLY manufactured

2023-11