BEKA Schréder

Experts in lightability™

LEDNOVA

Robust and highly reliable LED bulkhead range

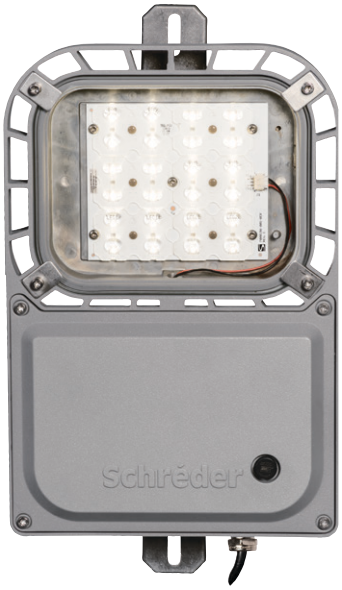
LENSO FLEX® 4 | HI FLEX™ | Ex | DoC Food & Beverage | iTERRA

LEDNOVA

IP 66

Up to
IK 10

Up to
20kV



LEDNOVA-MINI
(Painted version)

LEDNOVA-MIDI
(Painted version)

A robust and versatile LED bulkhead

The LEDNOVA offers optimal photometric performance and high reliability to reduce energy consumption and maintenance in all types of lighting applications.

The LEDNOVA range is suitable for use in various environments, which include outdoor mining areas, oil and gas refineries, food and beverage plants, manufacturing process plants and any application that requires robust and well-built luminaires. Indeed, the LEDNOVA range has been developed to reduce disability glare and thus improve the quality of light.

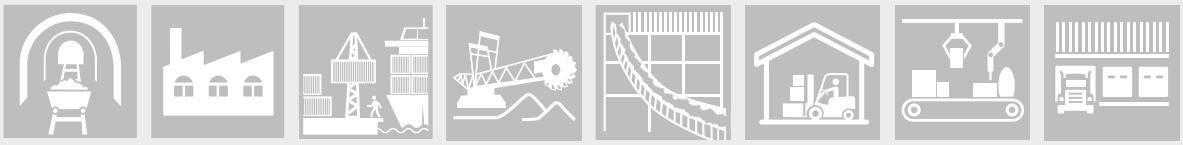
This LED bulkhead is also available in the standard surface mount version, and an optional pole mount version. This makes it truly versatile!

The LEDNOVA range can also be used in hazardous environments where a Zone 2 or 21/22 rated luminaire is required. It is also available with a battery back-up version.

The LEDNOVA takes advantage of the latest photometric innovations. It uses the LensoFlex®4 or HiFlex™ photometric engines, which have been developed around the ideas of performance, compactness, versatility and standardisation.

Key advantages

- Designed and manufactured in South Africa
- Designed to operate LED light sources of up to 81W without reducing the useful lifetime of up to 100 000 hours, at a lumen depreciation of not more than 10% (L90B10)
- Ta of up to 45°C (Not applicable to all configurations)
- Slim, aesthetical design optimised for LED characteristics
- Designed to replace conventional HID and CFL bulkhead luminaires
- Easy to install
- Surge protection 10kV/10kA
- Available in battery back-up and Zone 2 and 21/22 versions
- Circular economy 3-star rating
- 5-year warranty (Terms and conditions apply)



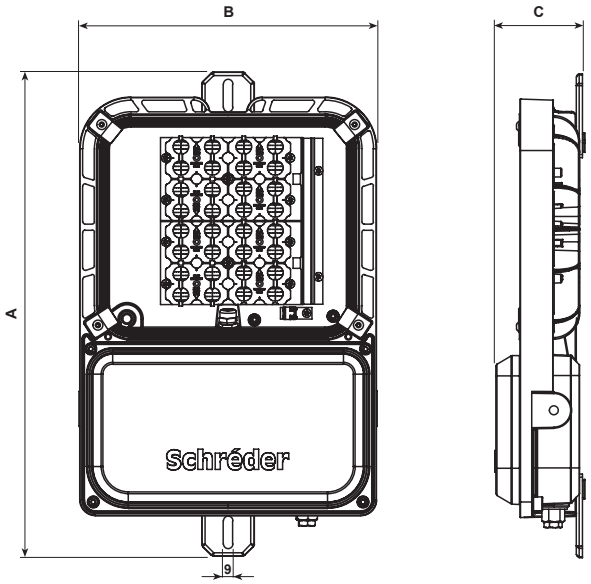
HAULAGE LIGHTING | INDUSTRIAL HALLS & WAREHOUSES | INDUSTRIAL HARBOUR | RECLAIMER | CONVEYOR BELT | WAREHOUSE | ASSEMBLY LINE | LOADING BAY

Characteristics

GENERAL INFORMATION	
Recommended installation height	Up to 8m
FutureProof	Easy replacement of the photometric engine and electronic assembly on-site
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)
Optic	Acrylic PMMA
Protector	Glass
	High-impact polycarbonate (optional)
Housing finish	Unpainted aluminium
Tightness level	IP 66
Impact resistance	Glass: IK 07
	High-impact polycarbonate: IK 10
Access for maintenance	Easy access to the gear compartment

DIMENSIONS AND MOUNTING	
AxBxC (mm)	MINI: 460x249x63
	MIDI: 462x283x83
Weight (kg)	MINI: 3.8
	MIDI: 4.8
Aerodynamic resistance (CxS) (m^2)	MINI: 0.09
	MIDI: 0.13
Mounting options	Wall/ceiling mounting (standard)
	Pole mounting (optional)
	Stirrup mounting (optional)



ELECTRICAL INFORMATION	
Electrical class	EU class I or II
Nominal voltage	90-305V – 50Hz (Universal voltage)
	230V +3%/-10% - 50Hz
Power factor	> 95% at full load
Surge protection	10kV / 10kA
	20kV / 20kA
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
	1-10V
	Optidim
	Integrated movement sensor up to 12m (MIDI only)
	Schréder ITERRA

OPTICAL INFORMATION	
LED colour temperature	4000K (Neutral white 740)
Colour rendering index (CRI)	≥ 70 (Neutral white 740)

OPERATING CONDITIONS	
Operating temperature range (Ta)	-35°C up to +45°C (*) (Not applicable to all configurations)

(*) Depending on the luminaire fixation and driving current. For more details, please contact us.

LIFETIME OF THE LEDS @ TQ 25°C	
For all versions	Up to 100,000h - L90B10

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

For options and accessories, please turn to page 11.

Performance

Luminaire	Number of LEDs	Driver Current (mA)	Line Current (A)	Nominal flux (lm) (*)	Power consumption (W)	Nominal efficacy (lm/W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)	Photometry (**)
				Typical	Typical	Typical	Typical	Typical	
MINI	24	500	0.16	6196	36	172	5143	143	
	24	700	0.23	8590	52	165	7130	137	
	24	1050	0.35	12379	81	153	10275	127	HI FLEX™
MINI Battery back-up version (3 hours)	24	500	0.16	6196 / 1000 (EM)	36	172	5143	143	
	24	700	0.23	8590 / 1000 (EM)	52	165	7130	137	
MIDI	20	850	0.24	7864	56	131	6527	116	
	40	500	0.27	10044	63	149	8337	132	
	40	550	0.3	10896	70	145	9044	129	
	40	600	0.33	11748	77	143	9751	127	LENSO FLEX® 4
MIDI Battery back-up version (3 hours)	20	850	0.24	7864 / 1000 (EM)	56	131	6527	116	
	40	500	0.27	10044 / 1000 (EM)	63	149	8337	132	
	40	550	0.3	10896 / 1000 (EM)	70	145	9044	129	
	40	600	0.33	11748 / 1000 (EM)	77	143	9751	127	

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.

Key Features

Corrosion-resistant marine grade high-pressure die-cast aluminium housing (EN 1706 AC-44300)

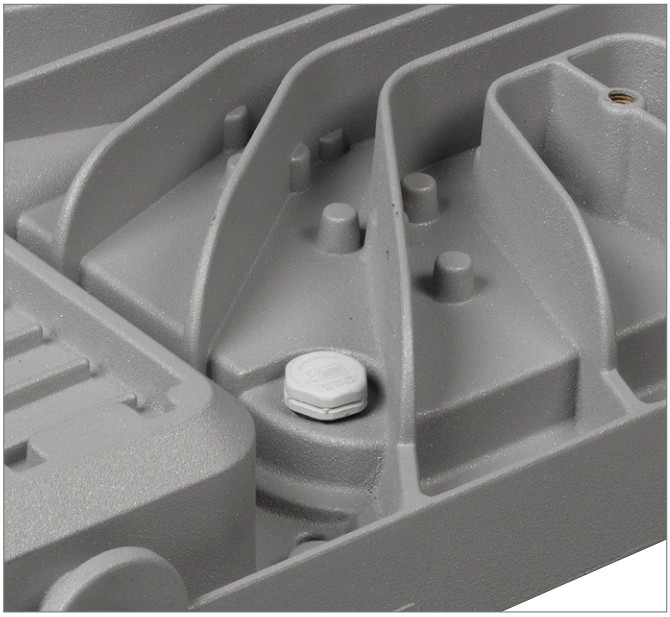
Surge protection 10kV/10kA Optional: 20kV/20kA

ThermiX®: Maintains performance over time

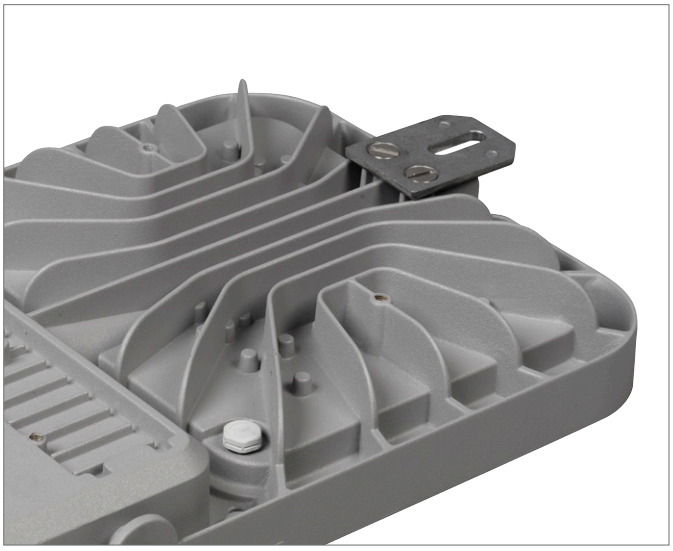
Optimised lighting through LensoFlex®4 or HiFlex™ optics

FutureProof: Direct access to photometric engine and electronic assembly in case of upgrading or replacing components

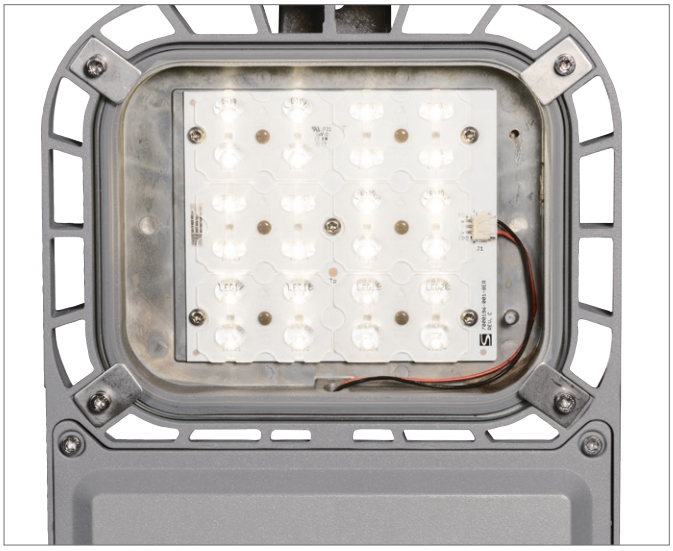
Available for Battery back-up and Zoned applications



Integrated vent (breather) for rapid pressure equalisation and reduction of condensation

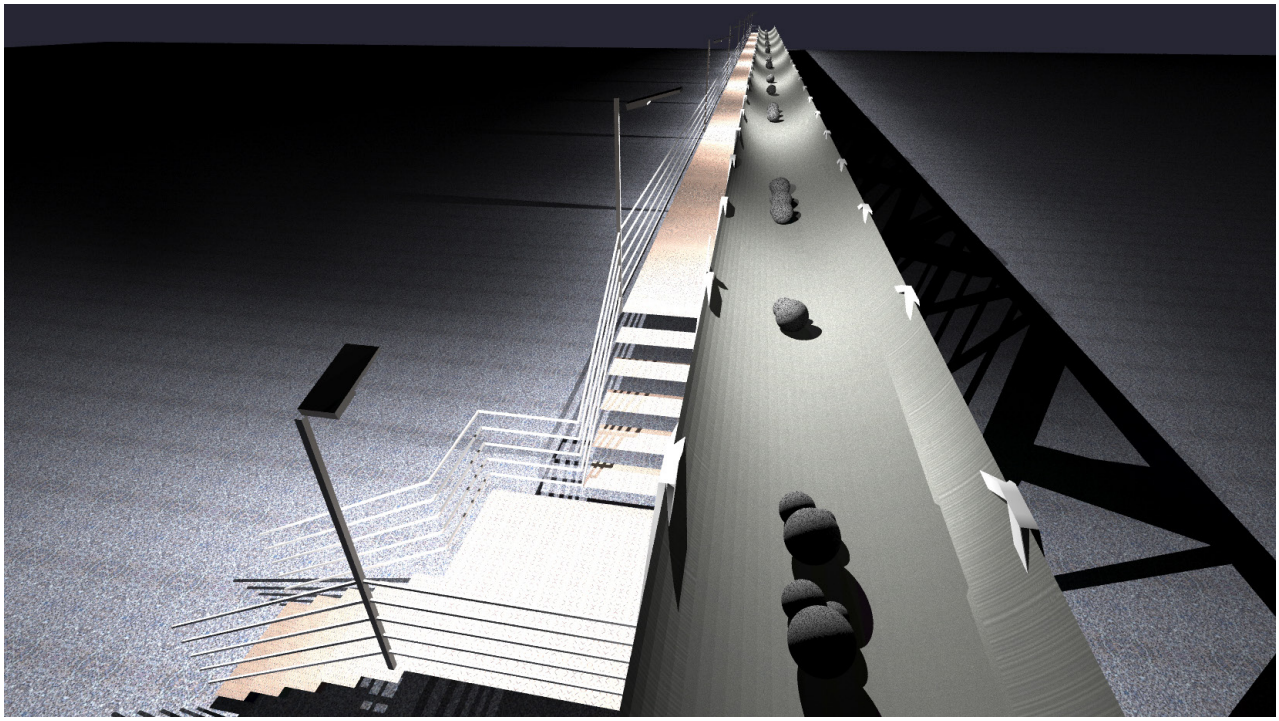


Unique thermal design concept



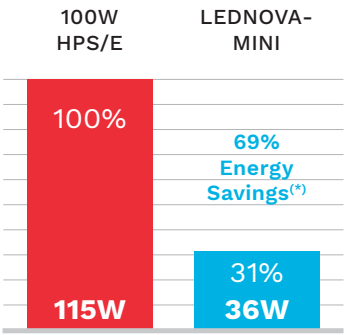
LEDNOVA-MINI: Thermal separation between gear and optical compartment, ensuring optimum performance

Case Study: Lighting a conveyor with walkway



	Bulkhead fitted with 100W High-Pressure Sodium Lamp	LEDNOVA-MINI
Luminaire power consumption	115W	36W
Spacing between luminaires	11m	12m
Total quantity	9	9
Total power consumption	1035W	324W

Energy Savings



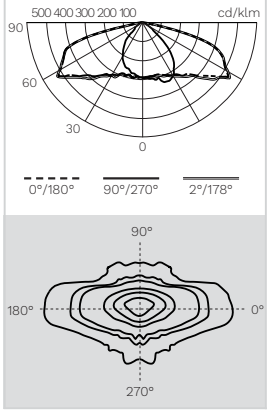
(*)Optic 5424, optimised design based on specifications. Additional savings can be generated by integrating smart control systems.

Please note: Above calculation is for demonstration purposes, please contact us for detailed energy saving and return of investment calculations.

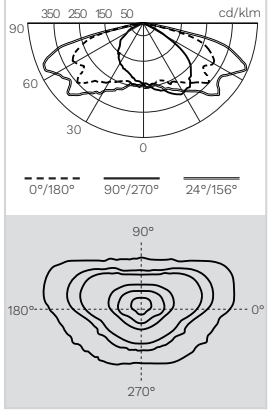
Light Distributions

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

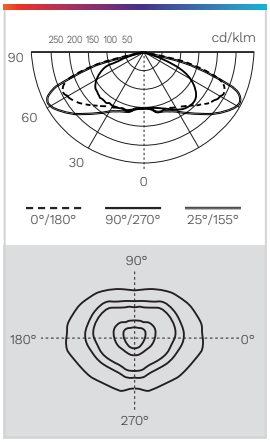
HI FLEX™ 5424 optic



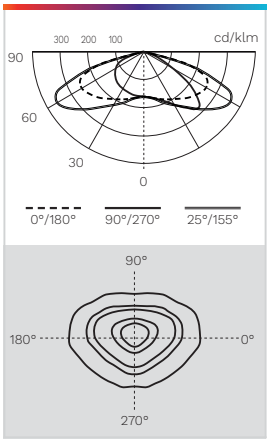
HI FLEX™ 5428 optic



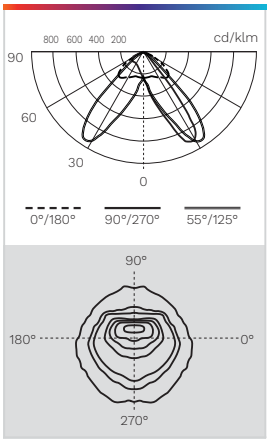
LENSO FLEX®4 5304 optic



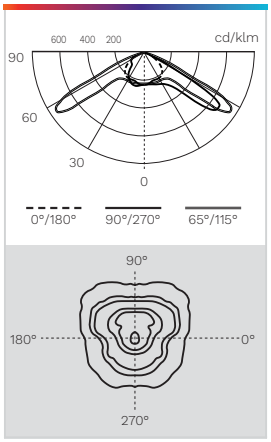
LENSO FLEX®4 5304-W optic



LENSO FLEX®4 5356 optic



LENSO FLEX®4 5366 optic



Construction Details

The LEDNOVA's slim and unique design is optimising the thermal operating environment around the LEDs enabling the long useful lifetime (up to 100 000hrs, L90B10) and low maintenance.

The luminaire housing is manufactured of corrosion-resistant marine grade high-pressure die-cast aluminium (EN 1706 AC-44300).

Electronic temperature monitoring prevents overheating of LEDs and power supply within the LED compartment (ThermiX®). To maximize the reliability of the LEDs, the photometric engine and control gear compartment are completely sealed to IP 66. This ensures that the photometric performance is maintained over time.

The LEDNOVA offers flexible combinations of LED arrays, combined with various photometric distributions (LensoFlex®4 or HiFlex™) and dimming control options to further maximise energy savings and reduce maintenance costs.

It is designed for LED light sources between 36W and 81W.

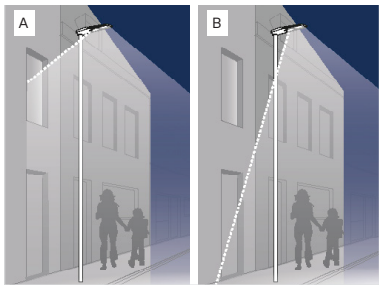
The luminaire is power factor corrected to ≥0,95.

LensoFlex®4

LensoFlex®4 maximises the heritage of the LensoFlex® 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.

Back Light control (optional)

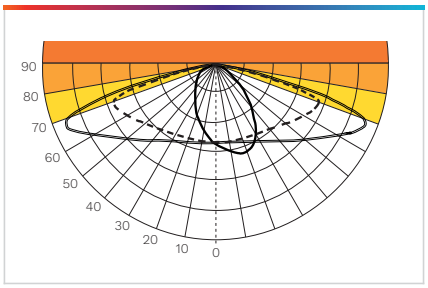
The LensoFlex®4 modules can be equipped with a Back Light control louvre. This additional feature minimises spill light towards the back of the luminaire to avoid intrusive light towards surrounding buildings.



A. Without Back Light control | **B.** With Back Light control

Anti-glare louvre (optional)

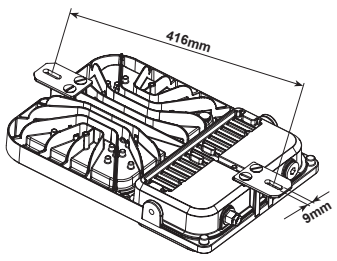
For high visual comfort, the anti-glare louvre enables a significant glare reduction in case of low glare requirements. It is designed to cut the light at high angles to still provide very efficient lighting while maintaining exceptional visual comfort.



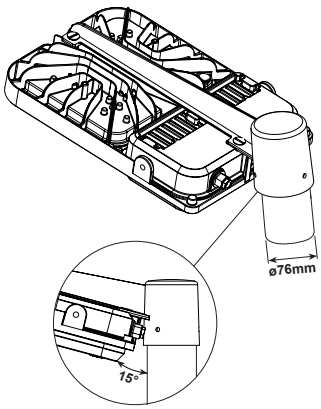
Anti-glare louvre cuts off light above 70°

Mounting Options

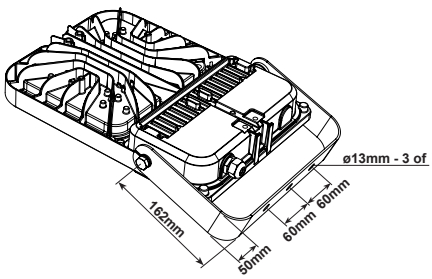
Wall/Ceiling mounting (standard)



Pole mounting (optional)



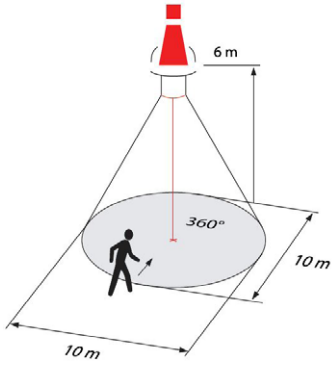
Stirrup mounting (optional)



Switching/dimming control

Integrated Movement 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.



Schréder ITERRA

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

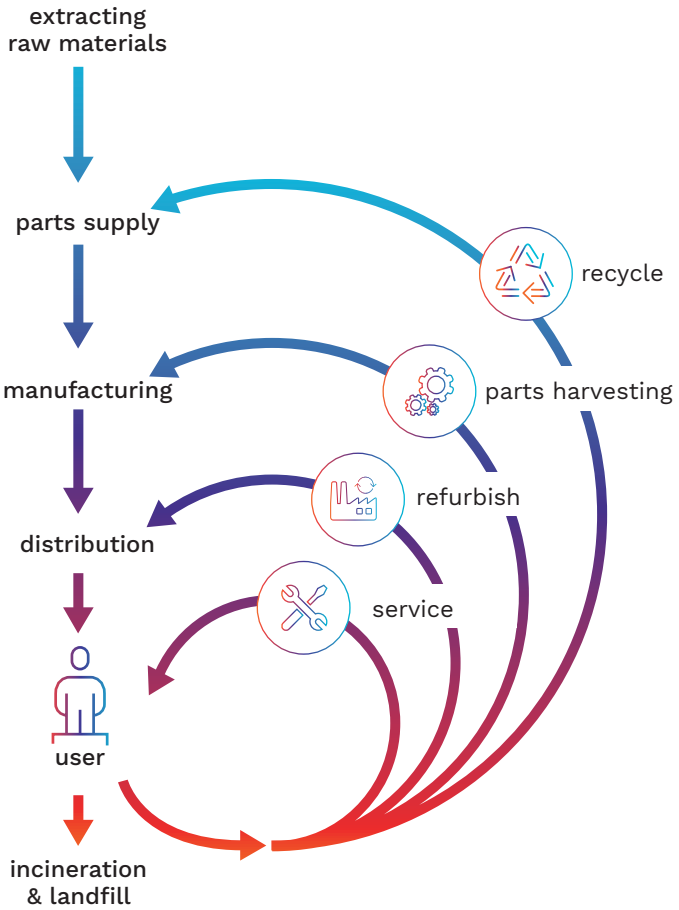
Schréder ITERRA offers site managers a robust, cost-effective and future-proof platform to run their infrastructure with the utmost flexibility for adapting the lighting to any scenario or activity while maximising energy savings and providing the best experience for employees, visitors and managers.

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

CIRCLELIGHT

Circularity concept



LEDNOVA

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

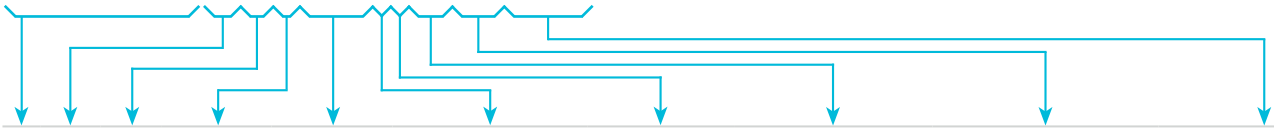
It was developed to meet most of circular economy requirements

It was developed to fully meet circular economy requirements

Ordering Information

Example:

LEDNOVA MD4077N5304A1GWmdBBUIV



ID	LED	Watt	LED Colour	Optic[1]	Colour Options	Surge Protection	Protector	Mounting	Other Options
LEDNOVA MI	24 24 24	36 52 81	**N** Neutral White (4000K)	5424 5428	**A** Aluminium finish (unpainted) **L** Pearl Light Grey (RAL 9022), Textured finish **O** Painted Other (RAL / Finish [Brilliant/Matt])	**1** 10kV **2** 20kV	**G** Glass clear **P**[3] Polycarbonate	**md** Mounting lugs (facing down) **mv** Mounting lugs (wall vertical) **p** Pole mounted **s** Stirrup mounted **o** Other (no mounting components supplied)	**Z2**[4] Zone 2 **Z21**[4] Zone 21/22 **BB**[4] Battery back-up version (3 hours) **230V** 230V input **UIV** Universal voltage input
LEDNOVA MD	20 40 40 40	56 63 70 77	**N** Neutral White (4000K)	5304 5304-W[2] 5356 5366			**G** Glass **P**[3] Polycarbonate **GW** Glass & wire guard **PW** Polycarbonate & wire guard		**Z2** Zone 2 **Z21** Zone 21/22 **BB** Battery back-up version (3 hours) **DL** Downward facing daylight switch **230V** 230V input **UIV** Universal voltage input

[1] Custom combinations of lenses/optics to suit the project are available on request.
[2] Only available for LEDNOVA-MIDI 40 LED versions
[3] Suitable for Food & Beverage industry
[4] Not available for LEDNOVA-MINI 81W version

Custom Options

Switching/dimming control	Integrated movement sensor up to 12m (LEDNOVA-MIDI only)
	DALI
	1-10V
	Optidim
Electrical class	EU Class II
Correlated colour temperature	3000K (Warm white 730)
	5700K (Cool white 757)
Extra treatment	e-Coating (for very harsh environments)
Switching/Dimming Control	Integrated Schréder ITERRA

BEKA Schréder

Experts in lightability™

SABS ISO 9001

www.beka-schreder.co.za

Designed and manufactured by BEKA Schréder (Pty) Ltd

LOCALLY manufactured

2023-10