BEKA Schréder
Experts in lightability™

ZIYA

Economical energy-efficient
LED solution

ZIYA

IP 65

IK 10

10kV

ZIYA-E

ZIYA-1

ZIYA-2

Delivering the highest efficacy for road and outdoor area lighting at an affordable price

Compact yet powerful, light yet robust, affordable yet highly efficient, the ZIYA range provides the fastest return on investment in road and area lighting.

The ZIYA range offers a superior lumen/watt ratio to deliver a high-performing, energy-efficient lighting solution at an affordable price for various landscapes, including pedestrian zones, streets, roads and car parks.

The ZIYA range comprises of the ZIYA-1 and ZIYA-2 with aluminium housing, and the ZIYA-E with calcium-filled Polypropylene housing. The range incorporates a universal side-entry mounting for 42mm diameter spigots. Precise on-site setting is facilitated through an incorporated inclination system. Built to withstand high ambient temperatures and vandalism (IK 10) and with a high Ingress Protection level (IP 65), the ZIYA range provides a sustainable performance over time.

The ZIYA range is the ideal tool to shorten the payback time of an LED lighting installation and to provide the best return on investment.

Key advantages

- Designed and manufactured in South Africa
- Designed to replace conventional HID and CFL streetlight luminaires
- Provides energy savings of up to 70%
- Quick and easy installation
- No lamp or component replacements for more than 10 years
- Unsurpassed light uniformity
- Sustainable and robust materials
- No ingress of dust and moisture into the LED and controller compartment - IP 65
- Vandal-resistant - IK 10
- Surge protection 10kV/10kA
- 3 year warranty (Terms and conditions apply)

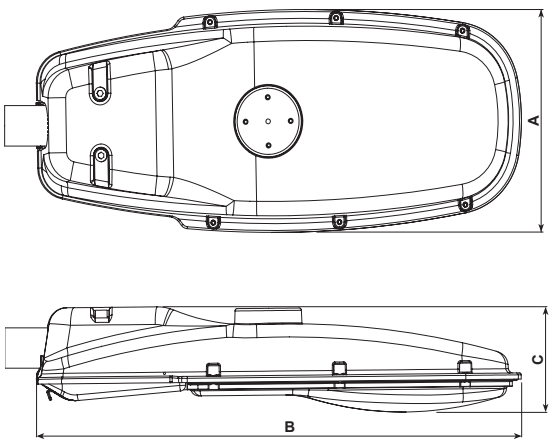
URBAN & RESIDENTIAL STREETS | ROADS & MOTORWAYS | CAR PARKS | SQUARES & PEDESTRIAN AREAS | BIKE & PEDESTRIAN PATHS

Characteristics

GENERAL INFORMATION	
Recommended installation height	4m to 10m
Driver included	Yes
ROHS compliant	Yes
Testing standard	SANS 60598, SANS 62262

HOUSING AND FINISH	
Housing	ZIYA-E - UV-stabilised, calcium-filled Polypropylene
	ZIYA-1 - Marine grade aluminium (EN 1706 AC-44300)
	ZIYA-2 - Marine grade aluminium (EN 1706 AC-44300)
Optic	Acrylic PMMA
Protector	High-impact polycarbonate
Housing finish	ZIYA-E - Polypropylene (light grey)
	ZIYA-1 - Unpainted aluminium
	ZIYA-2 - Unpainted aluminium
Tightness level	IP 65
Impact resistance	IK 10

DIMENSIONS AND MOUNTING	
AxBxC (mm)	ZIYA-E – 212x500x96
	ZIYA-1 – 212x500x96
	ZIYA-2 - 358x641x114
Weight (kg)	ZIYA-E – 2.2
	ZIYA-1 – 3.6
	ZIYA-2 - 6.8
Aerodynamic resistance (CxS) (m^2)	ZIYA-E – 0.107
	ZIYA-1 – 0.107
	ZIYA-2 - 0.182
Standard mounting (mm)	Slip-over side-entry Ø42
Spigot length (mm)	≥ 125



ELECTRICAL INFORMATION	
Electrical class	EU class I
Nominal voltage	150-305V – 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)
Colour rendering index (CRI)	≥ 70
Upward Light Output Ratio (ULOR)	≤ 1.5%

OPERATING CONDITIONS	
Operating temperature range (Ta)	ZIYA-E: -20°C up to +35°C (*)
	ZIYA-1: -20°C up to +40°C (*)
	ZIYA-2: -20°C up to +40°C (*)

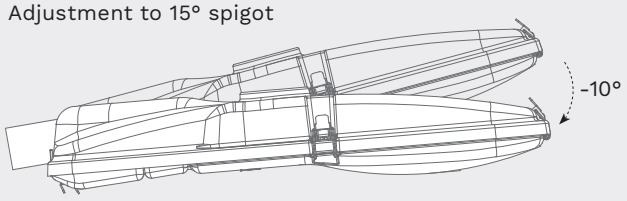
(*) Depending on the luminaire inclination and driving current. For more details, please contact us.

LIFETIME OF THE LEDS @ TQ 25°C	
For all versions	50,000h - L70B10

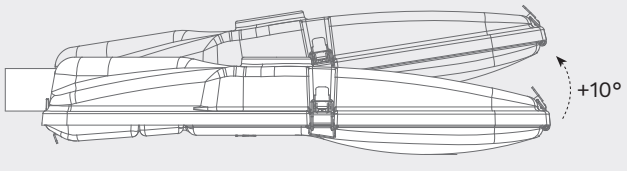
Mounting

The ZIYA luminaire offers an incorporated inclination system to allow for precise on-site setting.

Adjustment to 15° spigot



Adjustment to 0° spigot



Key Features

Easy access to gear and optical compartment

Provision for NEMA socket to mount daylight switch - available in all three versions

Internal spigot rake adjustment: +10° to -10°
Easily accessible terminal block for simplified power connection (tool-less)

Spigot fixation by means of a clamping bracket

Construction Details

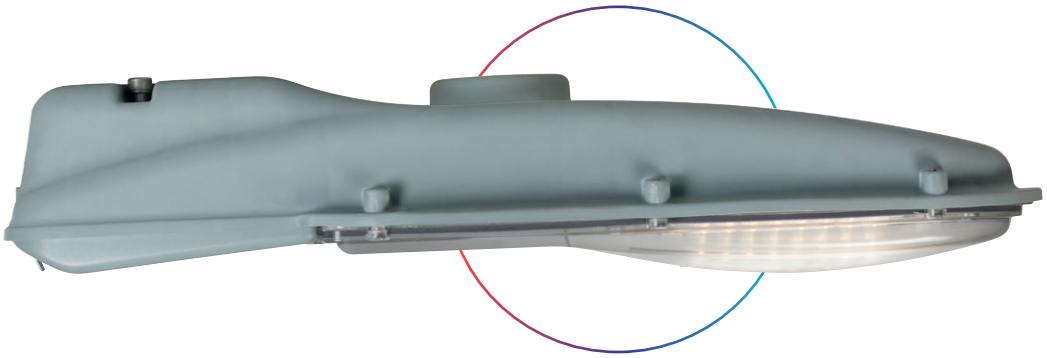
The ZIYA-E consists of a UV-stabilised, calcium-filled Polypropylene housing and hinged polycarbonate protector. The ZIYA-1 and ZIYA-2 consist of a marine grade aluminium housing (EN 1706 AC-44300) and hinged polycarbonate protector.

The protector is fixed by hinges offering tool-less access to the gear and optical compartment. To maximize the reliability of the LEDs, the photometric engine and control gear compartment are completely sealed to IP 65. This ensures that the photometric performance is maintained over time.

The latest LED technology has been utilized to provide the most energy-efficient solution. The thermal design has been optimized to offer a high lifetime of all electronic components, thereby providing an expected lifetime of the luminaire of 50,000hrs at L70, even in the most extreme environment.

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

Case Study: 70W HPS Comparison



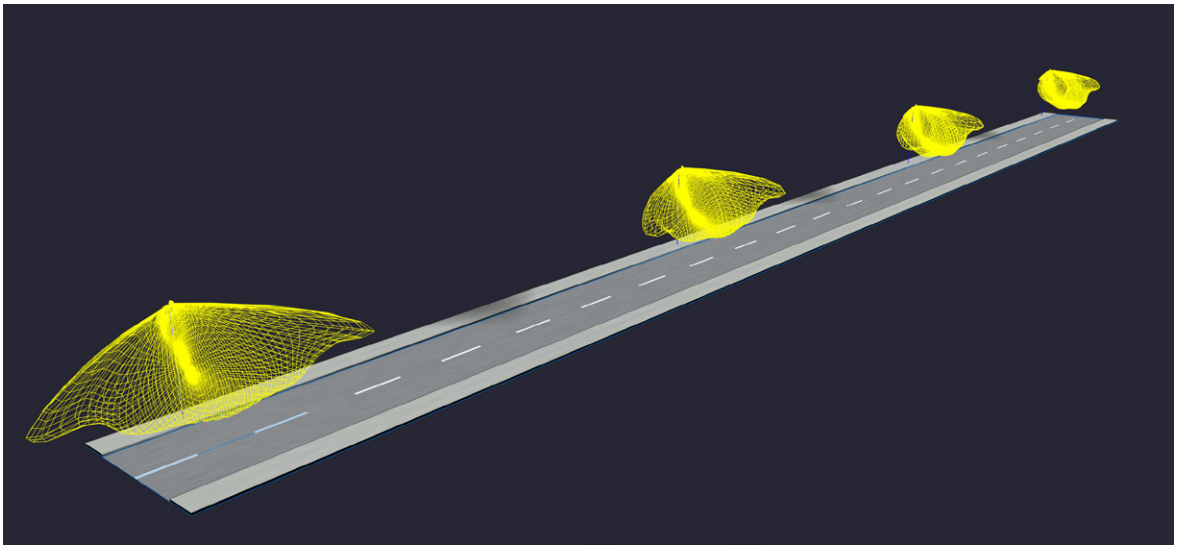
Specifications

Road: B2 classified road + 2m sidewalks
Luminaire spacing: 47m
Road width: 7m
Height: 7m

Comparing a 70W HPS to a ZIYA-E street light installation

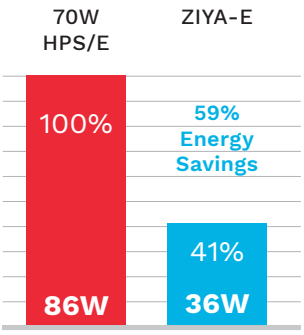
The ZIYA-E provides a 59% energy saving compared to a 70W high-pressure sodium luminaire, while fully meeting the road light level requirements.

Furthermore, a much better colour rendering index is provided, thereby enhancing the safety and visibility of pedestrians and road users.



	B2 Requirements	Luminaire fitted with 70W High-Pressure Sodium Lamp	ZIYA-E
Luminaire power consumption (W)	-	86	36
Spacing between luminaires (m)	-	45	47
Average illuminance (lux)	At least 3	3.5	4.9
Minimum illuminance (lux)	At least 0.6	1	0.6
Power consumption per km (W)	-	1911	760

Energy Savings



Performance

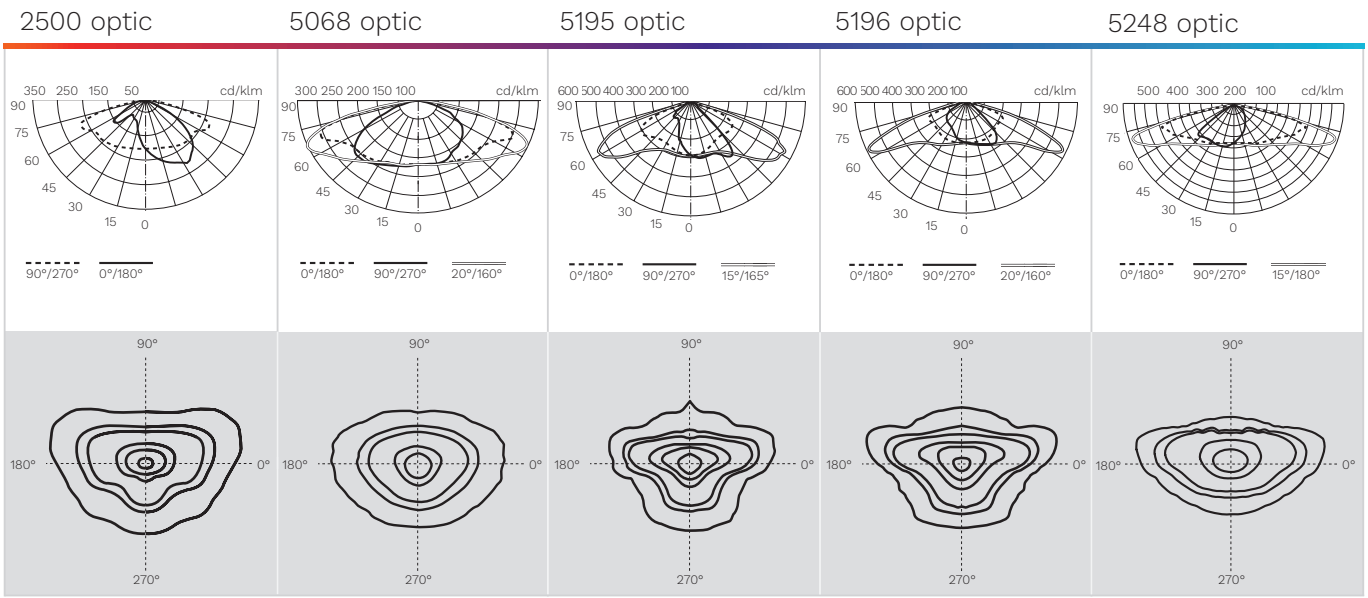
Luminaire	Number of LEDs	Current (mA)	Nominal flux (lm) (*)	Power consumption (W)	Nominal efficacy (lm/W)	Luminaire output flux (lm)	Luminaire efficacy (lm/W)	Photometry
			Typical	Typical	Typical	Typical	Typical	
ZIYA-E	64	700	5400	36	150	5130	143	2500
ZIYA-1	16	350	2832	19	149	2294	121	5068 5248
	16	500	3877	26	150	3140	121	
	16	700	5157	37	140	4177	113	
	16	1000	6995	55	128	5666	103	
ZIYA-2	96	700	10848	71	153	9094	128	5195 5196
	144	700	16272	108	151	13756	128	
	192	700	21696	142	153	18259	129	

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

(*) The nominal flux is an indicative LED flux @ Tj 25°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.

Light Distributions

2500 optic | 5068 optic | 5195 optic | 5196 optic | 5248 optic



Ordering Data

ZIYA-E

Description	Line current (A)	LEDs	LED current (mA)	Nominal flux (lm)	Mass (kg)
ZIYA-E 36W	0.16	64	700	5 400	2.2

Standard finish: Grey
Standard CCT: Neutral white (4000K)
Standard optic: 2500

ZIYA-1

Description	Line current (A)	LEDs	LED current (mA)	Nominal flux (lm)	Mass (kg)
ZIYA-1 19W	0.09	16	350	2 832	3.6
ZIYA-1 26W	0.12	16	500	3 877	3.6
ZIYA-1 37W	0.16	16	700	5 157	3.6
ZIYA-1 55W	0.24	16	1000	6 995	3.6

Standard finish: Unpainted aluminium
Standard CCT: Neutral white (4000K)
Standard optic: 5068

ZIYA-2

Description	Line current (A)	LEDs	LED current (mA)	Nominal flux (lm)	Mass (kg)
ZIYA-2 71W	0.31	96	700	10 848	6.6
ZIYA-2 108W	0.47	144	700	16 272	6.7
ZIYA-2 142W	0.62	192	700	21 696	6.8

Standard finish: Unpainted aluminium
Standard CCT: Neutral white (4000K)
Standard optic: 5195

Options & Accessories

Electrical	
Switching control	Incorporated NEMA socket assembly - 3-pin
Mechanical	
Colour	Any RAL colour, Textured finish (ZIYA-1 and ZIYA-2 only)
Photometrics	
Optics	5248 (ZIYA-1 only)
	5196 (ZIYA-2 only)

More options available on request.

BEKA Schréder

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SABS ISO 9001

www.beka-schreder.co.za

Designed and manufactured by BEKA Schréder (Pty) Ltd

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