

ZIYA

Economical energy-efficient
LED solution



LOCALLY
manufactured

ZIYA



IP 65

IK 10



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.

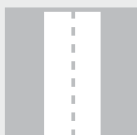
The ZIYA range is the ideal tool to shorten the payback time of an LED lighting installation and to provide the best return on investment.

Key advantages

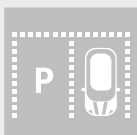
- Designed and manufactured in South Africa
- Designed to replace conventional HID and CFL streetlight luminaires
- Provides energy savings of up to 70%
- Quick and easy installation
- No lamp or component replacements for more than 10 years
- Unsurpassed light uniformity
- Sustainable and robust materials
- 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 STREET



ROAD & MOTORWAY



CAR PARK



SQUARE & PEDESTRIAN AREA



BIKE & PEDESTRIAN PATH

Characteristics

GENERAL INFORMATION

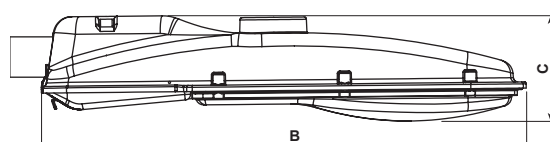
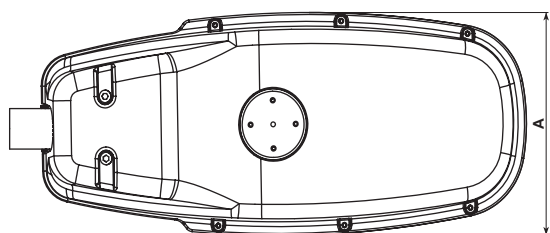
Recommended installation height	4m to 10m
Driver included	Yes
ROHS compliant	Yes
Testing standard	SANS 475, SANS 60598, SANS 62262

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 740)
Colour rendering index (CRI)	≥ 70 (Neutral white 740)
Upward Light Output Ratio (ULOR)	≤ 1.5%

OPERATING CONDITIONS

Operating temperature range (Ta)	ZIYA-E: -20°C up to +45°C ZIYA-1: -20°C up to +45°C ZIYA-2: -20°C up to +40°C
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LIFETIME OF THE LEDS @ TQ 25°C

For all versions	60,000h - L70B10
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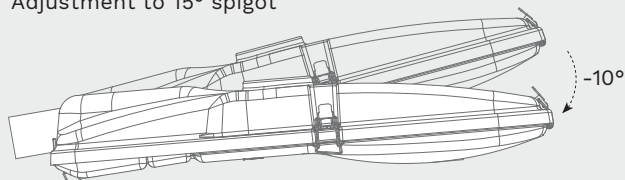
LIFETIME OF THE DRIVER @ TQ 25°C

For all versions	Up to 100,000h ≤10% failure rate
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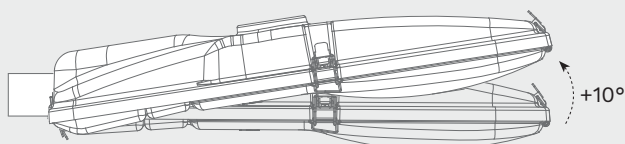
Mounting

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

Adjustment to 15° spigot



Adjustment to 0° spigot



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	
ZIYA-E	24	500	0.16	6196	36	171	5081	140	HI FLEX™
	40	600	0.13	4840	30	159	3969	130	MID FLEX™ 2
ZIYA-1	24	600	0.19	7341	44	167	6020	137	HI FLEX™
	48	550	0.35	13538	80	169	11101	138	
	40	700	0.16	5521	36	153	4527	125	MID FLEX™ 2
	80	700	0.31	11043	72	153	9055	125	
ZIYA-2	48	700	0.45	17181	104	165	14088	136	HI FLEX™
	96	580	0.74	28449	170	167	23328	137	
	80	700	0.31	11043	72	153	9055	125	MID FLEX™ 2
	80	1000	0.46	14706	107	138	12059	113	
	160	700	0.61	22276	140	159	18266	130	

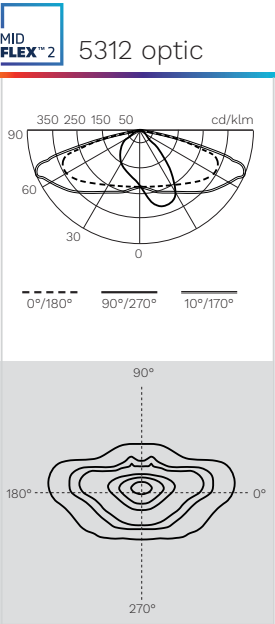
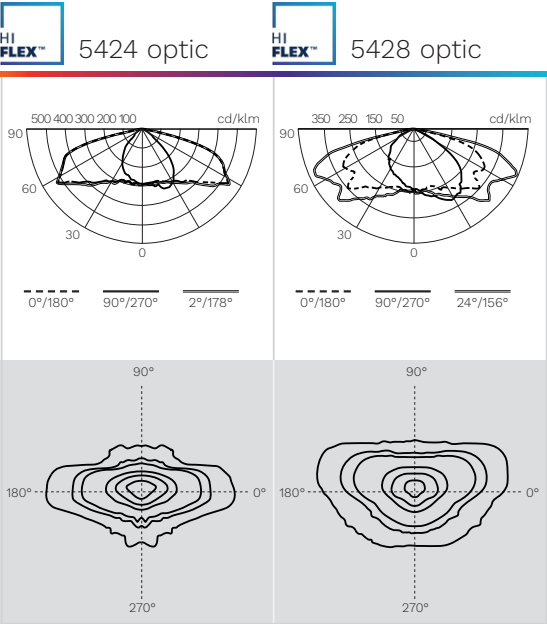
Tolerance on LED flux is $\pm 7\%$ and on total luminaire power $\pm 5\%$

^(*) 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.

Light Distributions

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



Key Features



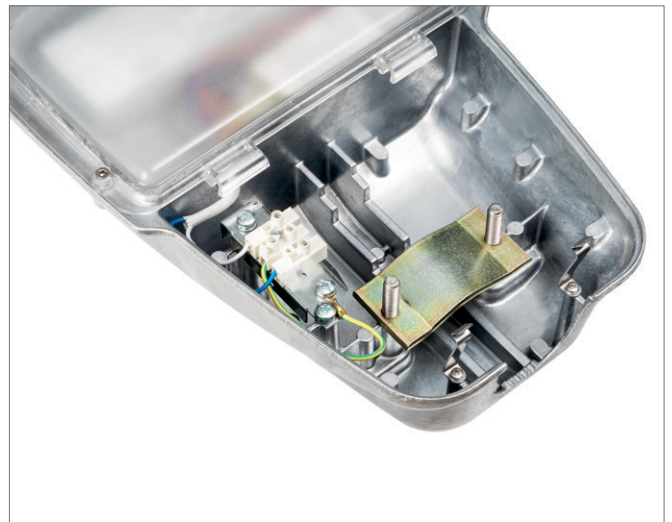
Easy access to gear and optical compartment



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



Internal spigot rake adjustment: $+10^{\circ}$ to -10°
Easily accessible terminal block for simplified power connection (tool-less)



Spigot fixation by means of a clamping bracket

Construction Details

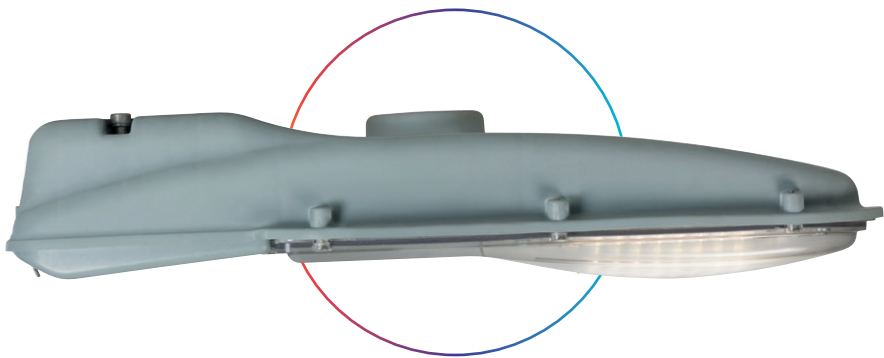
The ZIYA-E consists of a UV-stabilised, calcium-filled Polypropylene housing and hinged polycarbonate protector. The ZIYA-1 and ZIYA-2 consist of a marine grade aluminium housing (EN 1706 AC-44300) and hinged polycarbonate protector.

The protector is fixed by hinges offering easy 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 60,000hrs at L70B10, even in the most extreme environment.

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

Case Study: 70W HPS Comparison



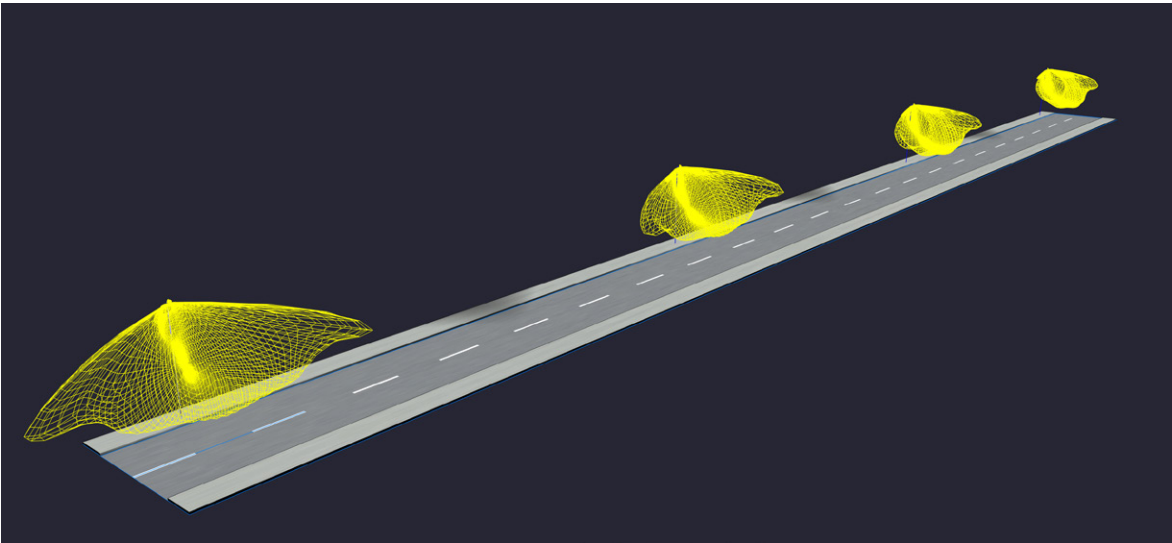
Specifications

Road: B2 classified road + 2m sidewalks
Luminaire spacing: 52m
Road width: 7m
Height: 7m

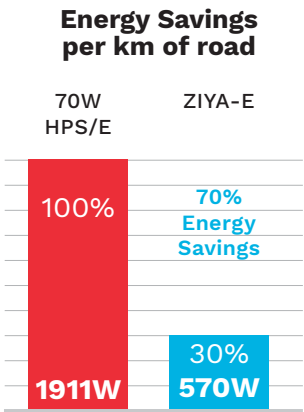
Comparing a 70W HPS to a ZIYA-E street light installation

The ZIYA-E provides a 70% 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	30
Spacing between luminaires (m)	-	45	52
Average illuminance (lux)	At least 3	3.5	3.8
Minimum illuminance (lux)	At least 0.6	1	0.6
Power consumption per km (W)	-	1911	570



Ordering Information

Example:

ZIYA 2 160140N5312A1P NEMA

ID	LED	Watt	LED Colour	Optic ⁽¹⁾	Housing finish	Surge Protection	Protector	Switching/dimming control
ZIYA-E	24	36	N Neutral White (4000K)	5312	P Polypropylene	1 10kV	P Polycarbonate	NEMA NEMA 3-Pin Socket Only
	40	30		5313				
				5424				
				5428				
ZIYA-1	24	44	N Neutral White (4000K)	5312	A Aluminium (unpainted)	1 10kV	P Polycarbonate	NEMA NEMA 3-Pin Socket Only
	40	36		5313				
	48	80		5424				
	80	72		5428				
ZIYA-2	48	104	N Neutral White (4000K)	5312	A Aluminium (unpainted)	1 10kV	P Polycarbonate	NEMA NEMA 3-Pin Socket Only
	80	72		5313				
	80	107		5424				
	96	170		5428				
	160	140						

⁽¹⁾ Custom combinations of lenses/optics to suit the project are available on request. For further assistance please contact our Applications Department.

Custom Options

Switching control	Incorporated NEMA socket assembly - 3-pin
Colour	Any RAL colour, Textured finish (ZIYA-1 and ZIYA-2 only)

BEKA Schröder

Experts in lightability™

SABS
ISO 9001



www.beka-schreder.co.za

Designed and manufactured by BEKA Schröder (Pty) Ltd



LOCALLY
manufactured

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