DW Windsor

Kirium Eco

Kirium Eco Ultra

Kirium Eco Max

Kirium Eco Midi

Kirium Eco Mini
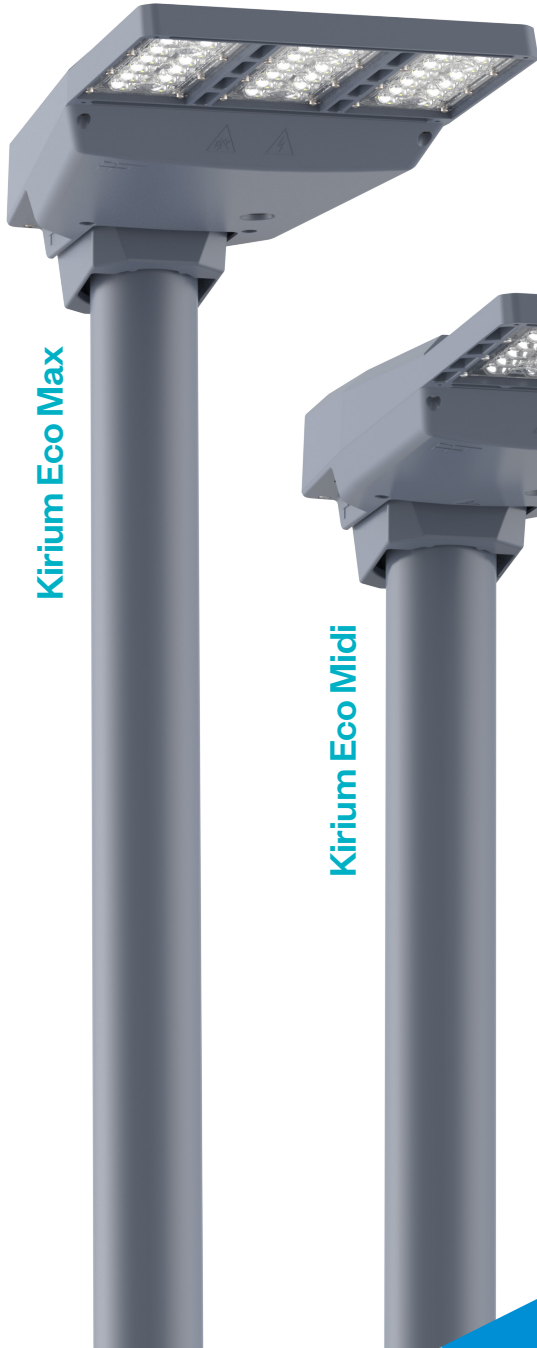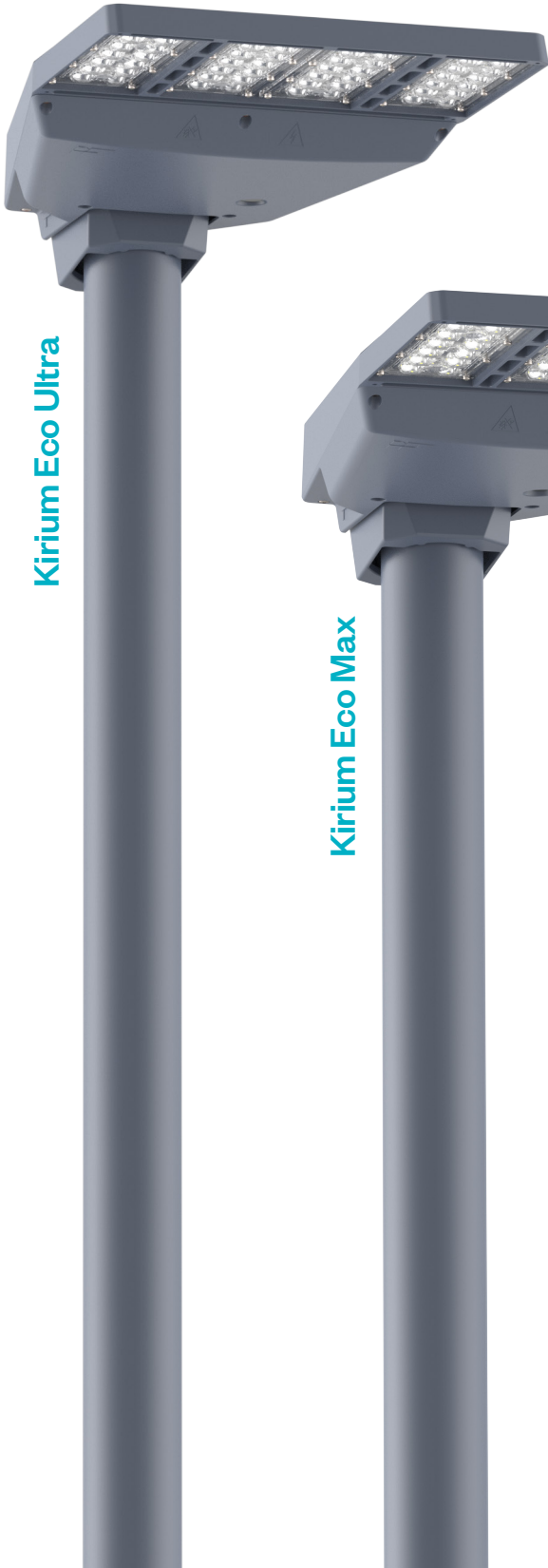
Quality Needn't Cost The Earth

Introducing the NEW Kirium Eco. Our most competitive range of LED street lighting to-date; optimised for residential applications.

Need market-leading performance (up to 185lm/W), with a minimal whole life cost?

Think Kirium Eco.

Key features - benefits:

- 4 sizes: 12, 24, 36 or 48 LEDs - ideal for 1-for-1 replacement of traditional light sources
- Lumen outputs of up to 22,500lm with 10 optical solutions - perfect for a variety of applications
- Market-leading luminaire efficacy of up to 185lm/W - providing low total cost of ownership
- Choice of smart control options - delivering further energy savings and enabling asset management
- Adaptable mounting block - allows for easy side entry or post top switching on-site
- Extremely lightweight - for minimal column loading
- 2,200K / 2,700K / 3,000K / 4,000K - warmer colour temperatures as standard for enhanced visual an environmental comfort
- BIM ready - for use in Autodesk® Revit®
- WEEE compliant - end of life recyclability service through our service provider, Lumicom

Low total cost of ownership

Easy to install

Optically enhanced for residential lighting

Smart city ready

Applications:

Roads

Housing Developments

Residential

Footpaths
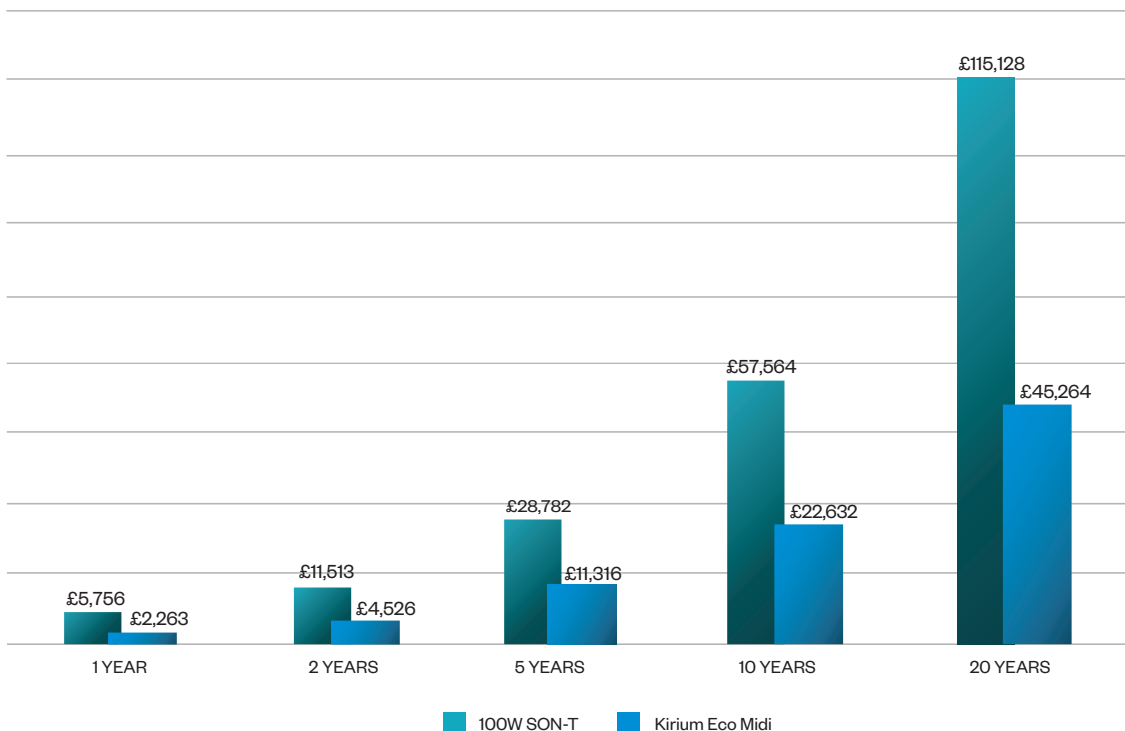
Car Parks

Pedestrian Crossings

Low Total Cost Of Ownership

Compared to traditional light sources, LED technology offers immediate savings on energy consumption. Combined with lower maintenance costs and lamp replacement needs, Kirium Eco provides substantial savings on energy costs over its 100,000 hour (L90) lifetime, lowering the overall lifetime investment. Whether it's one-for-one replacement or a new installation, Kirium Eco is the smart choice for when low total cost of ownership is a key requirement for your project.

Luminaire Comparison	100W SON-T	Kirium Eco Midi (650mA)
Total Circuit Watts	117W	46W
Luminaire Lumens	7,600lm	7,630lm
Luminaire Efficacy	65lm/W	166lm/W
Average Burning Hours per Year	4100 hours	4100 hours
Elexon Switching Regime	808	808
Annual Energy Consumption	480kW	189kW
Annual Energy Cost per Luminaire (based on energy cost p/KwH = £0.12)	£57.56	£22.63
Annual Energy Consumption Saved (per Kirium Eco)	-	71W
Annual Energy Cost Saved (per Kirium Eco)	-	£34.93
Summary of Saving (per Kirium Eco)	-	61%

Cost of Ownership (electricity)
based on 100 luminaires

	1 YEAR	2 YEARS	5 YEARS	10 YEARS	20 YEARS
100W SON-T	£5,756	£11,513	£28,782	£57,564	£115,128
Kirium Eco Midi	£2,263	£4,526	£11,316	£22,632	£45,264

■ 100W SON-T   ■ Kirium Eco Midi

Optimised For Residential Applications

Kirium Eco is suitable for P2, P3, P4 and P5 lighting class applications.

Kirium Eco Mini

Using 12 LEDs, suitable for mounting up to 6 metres. Kirium Eco Mini is a compact and extremely efficient LED lantern for footpaths, cycle ways and minor residential roads.

Luminaire lumen output: up to 5,800lm

Suitable for replacing: 70W SON-T, 90W SOX

Kirium Eco Midi

Using 24 LEDs, suitable for mounting up to 8 metres. Kirium Eco Midi is recommended for residential roads, pedestrian crossings and private car parks.

Luminaire lumen output: up to 11,600lm

Suitable for replacing: 100W SON-T

Kirium Eco Max

Using 36 LEDs, suitable for mounting up to 10 metres. Kirium Eco Max is a compact and extremely efficient LED lantern for minor traffic conflict areas and town centres.

Luminaire lumen output: up to 17,000lm

Suitable for replacing: 135W SOX, 150W SON-T

Kirium Eco Ultra

Using 48 LEDs, suitable for mounting up to 12 metres. Kirium Eco Ultra is recommended for major traffic conflict areas and car parks.

Luminaire lumen output: up to 22,500lm

Suitable for replacing: 180W SOX, 250W SON-T

Design Features

Anti-Condensation Valve

Further protects the enclosure by preventing internal condensation build up as a result of rapid ambient temperature fluctuations

Choice of Housing Material

Full LM6 die-cast aluminium as standard or hybrid version with UV-stabilised polypropylene lower cover
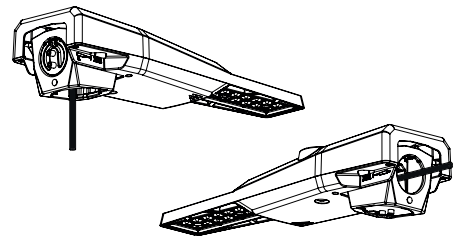
Smart City Ready

Minature / NEMA photocell
Factory set dimming
Zhaga Book 18 connectivity
Internal / external CMS
urban control® ready

Easy Installation

Adaptable from post top to side entry mounting on-site, even with pre-fitted cable tail

Post top: Ø60-76mm
Side entry: Ø34-60mm

Dedicated Optics

- Pathways
- Narrow Roads
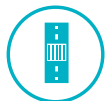- Medium Roads
- Wide Roads
- Asymmetrical Areas
- Symmetrical Areas
- Traffic Routes
- Pedestrian Crossings

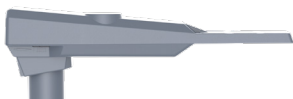## Wide Range of Colour Temperatures

2200K   2700K   3000K   4000K

Dark Sky Friendly

To combat sky glow and light pollution, Kirium Eco features a 0% Upward Light Output Ratio

0% ULOR

100% DLOR

Adjustable Tilt

Side entry: -15˚ to +10˚
Post top: -5˚ to +15˚

Controls & Connectivity

From simple photocells and factory-set dimming or switching regimes to full CMS connectivity, Kirium Eco can be enhanced through intelligent and connected sensors and control systems.

Benefits of Smart Control

- Reduced energy consumption and carbon footprint
- Longer luminaire life
- Lower capital, maintenance and energy costs
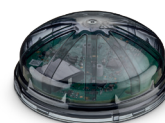- Remote asset management and fault monitoring

Smart City Ready

Available with an internal or external node to wirelessly connect to a central management system (CMS) network. Allows for remote device management offering ultimate flexibilty and control.

CMS

Connected Lighting

Connect NEMA or Zhaga Book 18 compliant sensors or wireless communication devices for on/off switching, light control and dimming.

Simple, Stand-Alone Control

Factory-set dimming or switching regimes, photocells and presence detectors. Control in its simplest form.

Presence detection

Ordering Details

Specification	Code	Example
Model		
Kirium Eco Mini	KEM	
Kirium Eco Midi	KEMD	**KEMD**
Kirium Eco Max	KEMX	
Kirium Eco Ultra	KEMU	
Housing Material		
Full die-cast aluminium (upper and lower - availble in Mini / Midi / Max / Ultra)	AL	**AL**
Hybrid (die cast aluminium upper housing housing with polypropylene lower cover - available in Mini / Midi)	PP	
Colour Temperature		
2,200K	22	
2,700K	27	**30**
3,000K	30	
4,000K	40	
Distribution		
Narrow Road - Type 1	NR1	
Narrow Road - Type 2 (also suitable for pathways)	NR2	
Medium Road - Type 1	MR1	
Medium Road - Type 2	MR2	
Wide Road - Type 1	WR1	
Wide Road - Type 2	WR2	**NR2**
Traffic Routes	TR	
Asymmetric Area	AA	
Symmetric Area	SA	
Pedestrian Crossing	PX	
Drive current		
Drive currents from 250mA to 1,050mA are available in 50mA increments Insert drive current value in 4-digit format (eg 250mA = 0250)	0250 / 0300 / 0350 / 0400 / 0450 / 0500 / 0550 / 0600 / 0650 / 0700 / 0750 / 0800 / 0850 / 0900 / 0950 / 1000 / 1050	**0750**
Electrical class		
Class I (default)	I	**I**
Class II	II	
Product colours		
RAL 7046 Mid Grey	CF	
RAL 7035 Light Grey	29	**CF**
RAL 9005 Black	10	
Pre-Programmed Dimming (optional)		
Pre-programmed dimming profile (please specify on order)	DIM [Specify]	-
Integrated Control (optional)		
Miniature Photocell 20 lux (1:1)	U20	
Miniature Photocell 35 lux (1:0.5)	U35	
Miniature Photocell 70 lux (1:0.5)	U70	**U35**
Integral CMS - Urban Control (with puck antenna)	IUC	
Integral CMS - Telensa (with monopole antenna)	ITE	
Integral CMS - Mayflower (with stub antenna)	IMA	
External Connectivity - Top (optional)		
3 pin NEMA socket	E	
5 pin NEMA socket	C3	-
7 pin NEMA socket	D2	
4 pin Zhaga Book 18 socket	Z4	
External Connectivity - Bottom (optional)		
4 pin Zhaga Book 18 socket (available when fitted with a NEMA or Zhaga Book 18 socket to the top and in full die-cast housings only)	Z4B	-
Example code = KEMD AL 30 NR2 0750 I CF U35		

Kirium Eco

IP66 | IK08 | CLASS I or II

Features & Benefits

Our most competitive range of LED luminaires to date

Low total cost of ownership

Extensive optical solutions for roads, footpaths and zebra crossings

Integrated anti-condensation valve to prevent moisture build up inside the housing and protect the IP66 rating

Adaptable mounting block allows on-site switching from side entry to post top, with cable fitted

Quick and easy tilt adjustment

End of life recyclability through WEEE compliance scheme (Lumicom)

Lumen Outputs

Kirium Eco Mini (12 LED): up to 5,800lm (for mounting up to 6m)

Kirium Eco Midi (24 LED): up to 11,600lm (for mounting up to 8m)

Kirium Eco Max (36 LED): up to 17,000lm (for mounting up to 10m)

Kirium Eco Ultra (48 LED): up to 22,500lm (for mounting up to 12m)

Optical Control

Narrow Road (Type 1 / Type 2)

Medium Road (Type 1 / Type 2)

Wide Road (Type 1 / Type 2)

Traffic Routes

Area (Symmetric / Asymmetric)

Pedestrian Crossing

Optional obtrusive light shield(s) are available and can be fitted after installation without opening the luminaire

Colour Temperatures

2,200K / 2,700K / 3,000K / 4,000K

Colour Rendering Index

70Ra (80Ra on request)

Light Source

High Power LED

Lifetime

100,000 hours L90

Luminaire Efficacy

Up to 185lm/W

Driver

Fully programmable from 250mA to 1050mA (in 50mA increments)

Sensor-ready

CLO: Constant Light Output enabled - for energy savings and dependable light throughout the lifetime of the luminaire

Control & Connectivity Options

On/off through a conventional minature or NEMA photocell

Factory set pre-programmed dimming profiles

Zhaga Book 18 compliant interface for connecting a wide array of sensors or wireless communication modules

Compatible with all available central management systems (CMS)

urbancontrol® ready with an internal or external CMS node solution - allows for full asset management through the urbanmaster® platform

Mounting

Adaptable mounting block allowing for side entry or post top switching on-site

Post Top [Ø60-76mm] [Inclination: -5° 0° +5° +10° +15°]

Side Entry [Ø34-60mm] [Inclination: -15° -10° -5° 0° +5° +10°]

Installation & Maintenance

Available with various cable tail options prefitted

Short form UMSUG codes available on the website

Operational temperature range: -20°C to +25°C (please contact us for lifetime information at higher ambient temperatures)

Surge protection: Up to 10kV

Materials

Body (Standard): Full LM6 die-cast aluminium alloy

Body (Hybrid): LM6 die-cast aluminium alloy upper housing with a UV-stabilised polypropylene lower cover
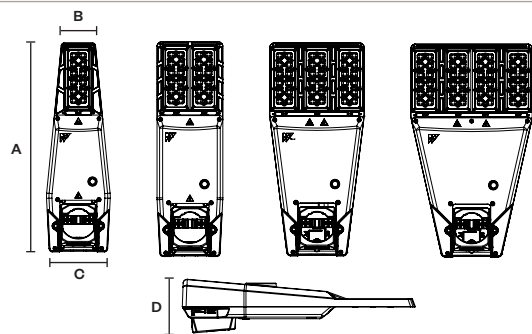
Lenses: PMMA (polycarbonate on request)

Seals: Silicone

Finish: Polyester powder coat

Product Colours

RAL 7046 Mid Grey / RAL 7035 Light Grey / RAL 9005 Black

Other RAL colours on request

Model	Dimensions (mm)				Weight (kg)		Windage (m²)	CxS (m²)
	A	**B**	**C**	**D**	**Standard**	**Hybrid**		
Kirium Eco Mini	588	97	180	135	4.3	3.8	0.039	0.028
Kirium Eco Midi	588	180	180	135	4.6	4.1	0.039	0.025
Kirium Eco Max	588	261	180	139	6.0	-	0.041	0.032
Kirium Eco Ultra	588	336	180	139	7.3	-	0.041	0.026

Kirium® Eco is a registered design

Due to continuous product development the details within this brochure are subject to change at any time. Please contact us for the most up-to-date information or visit: www.dwwindsor.com

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