Kirium Pro

**Unequalled performance.
Unrivalled choice.**

DW
Windsor

2ND GENERATION

Think all street lights are made equal? Think again.

Featuring our latest generation LED technology for increased performance and improved efficiency for greater savings, with Kirum Pro, the best just got better.

Available in four sizes and with 14 Diamond+ optical solutions, it's the most innovative, forward-thinking, and future-proof product we've ever developed. Whatever your requirements, we have the solution: from 455 lm – suitable for residential roads and car parks – to 54,485 lm, ideal for larger roads and motorways.

Key advantages

- Our most comprehensive range of LED street lighting luminaires, available in four sizes
- 14 optical solutions with Diamond+ technology for precise lighting control to suit any project
- Exceptional thermal management for optimised performance and product life
- Impressive energy efficiency up to 188 lm/W delivering a minimal whole life cost solution
- Flexible drive current for tailored performance and accurate lighting levels
- Choice of control & connectivity options for even greater energy savings
- Toolless access via quick release latches offers easy installation and maintenance
- Safety first with automatic electrical disconnect for Kirium Pro 1, 2 & 3 models
- 2700K / 3000K / 4000K colour temperatures
- ENEC approved
- Emergency option available for Kirium Pro 1, 2 & 3 models
- Suitable for international markets with operating temperature range -45°C to +50°C

Applications

- Footpaths
- Cycleways
- Residential
- Car parks
- Roads
- Rail
- Motorways

Unequalled flexibility, unrivalled choice

Our Kirium Pro range is offered in four distinct sizes which share a unified design aesthetic for a consistent appearance across lighting schemes. With multiple LED configurations, light outputs and mounting heights available, Kirium Pro is suited to a wide range of applications.
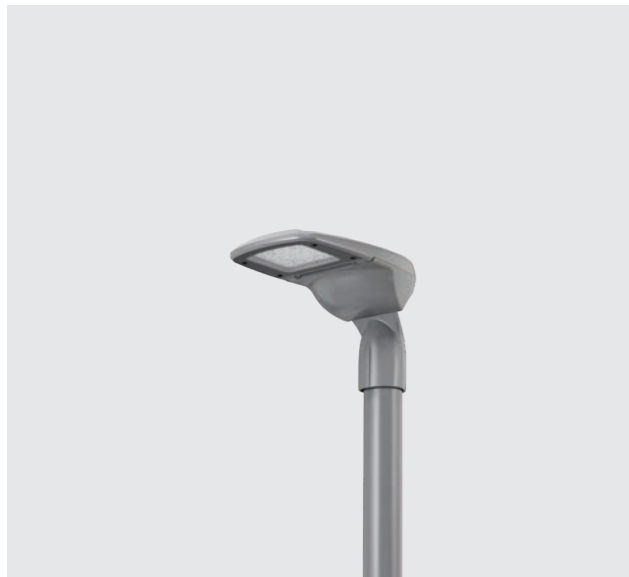
Kirium Pro Mini

Lumen Range
455 – 6,400 lm

Power Range
3 – 40 W

LED Quantity
4 / 8 / 16

Mounting Height
4 - 6 m

Typical Applications
Footpaths / Cycleways / Residential

Kirium Pro 2

Lumen Range
5,525 – 27,715 lm

Power Range
31 – 187 W

LED Quantity
48 / 64

Mounting Height
6 - 10 m

Typical Applications
Car Parks / Conflict Areas / Pedestrian Crossings

Kirium Pro 1

Lumen Range
990 – 14,115 lm

Power Range
6 – 95 W

LED Quantity
8 / 16 / 24 / 32

Mounting Height
5 - 8 m

Typical Applications
Residential / Railway Platforms

Kirium Pro 3

Lumen Range
7,090 – 54,485 lm

Power Range
55 – 374 W

LED Quantity
80 / 96 / 128

Mounting Height
8 - 15 m

Typical Applications
Motorways / Roundabouts

Design features

Surge protection device
Maximises the lifetime value and prevents down-time due to storms, lightning strikes etc

Constant Light Output (CLO)
Fully programmable

Automatic electrical disconnection
Safety feature; cuts power to the luminaire when opened*

Cooling fins
To aid thermal management and dissipate heat, extend LED lifetime

Safety tether
Supplied with an integral dampening safety tether, and an external fail-safe device as standard (Kirium Pro 3 only)

Cool Zone™ Exceptional thermal performance
Air void and thermal barrier that assists in delivering a long lifetime

Flexible mounting
Direct post [Ø60mm / Ø60-76mm]
Side entry [Ø34-42mm / Ø60mm]
Direct post/side entry inclination:
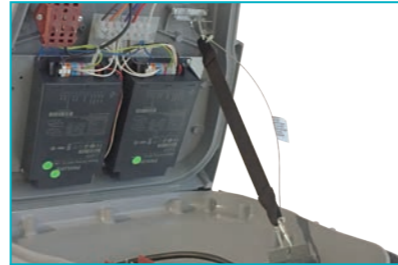-15° -10° -5° 0° +5° +10° +15°

Hinged opening
Easy access to control gear, aiding installation and maintenance. Lift off head on larger models*

Durable construction
High pressure die-cast LM6 aluminium body for corrosion resistance and added strength and durability
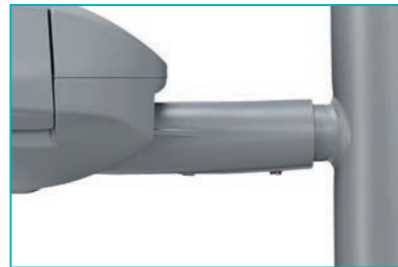
Performance lighting
High power LEDs (from 4 to 128 LED options)

Toolless entry
Quick-release latches for speedy installation and maintenance

Kirium Pro Mini

*available on Kirium Pro 1, 2 and 3 only

Optical control

Featuring Diamond+

14 optical distributions for ultimate flexibility and precise lighting control.

An evolution of our award-winning and patented Diamond Optic® reflector technology, Diamond+ gives you the ability to create widely different lighting distributions from a single luminaire.

Choose Diamond+ for refined lighting distribution

Diamond+ A Optic
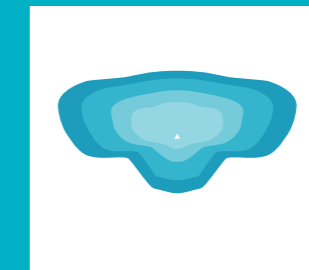
Options
A1 / A2 / A3 / A5 / A6

Applications
Roads
Carriageways

Diamond+ B Optic
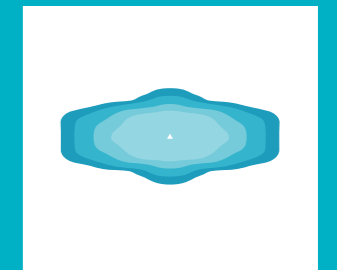
Options
B1 / B2 / B3

Applications
Footpaths
Cyclepaths

Diamond+ C Optic
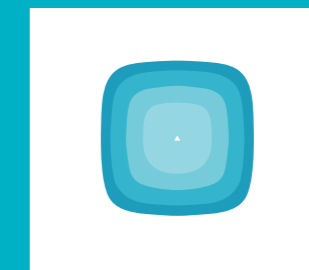
Options
C1 / C2 / C6

Applications
Area lighting
Car parks

Diamond+ Z Optic
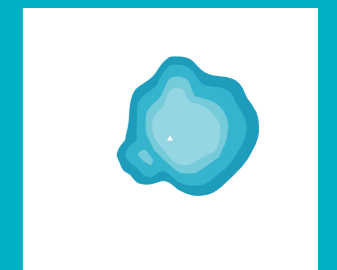
Options
ZL / ZR / ZF

Applcations
Zebra crossings
Pedestrian crossings

Further Information

Please refer to our website for full optical configurations at **dwwindsor.com/diamond**

Control & connectivity

From simple factory-set dimming to full CMS: enhance your luminaire through intelligent, connected sensors and control systems. Kirium Pro is now available with more connectivity options than ever and can be specified with both NEMA and Zhaga sockets mounted in top and bottom locations.

The benefits of smart control

- Adjust light levels remotely to adapt to environmental and social changes
- Reduced energy consumption and lower carbon footprint
- Longer luminaire life
- Lower maintenance and energy costs over the life of the product
- Energy metering: paying for actual consumption
- Ability to collect data

Wide Network Solutions

INTEGRAL CMS

Integral CMS via internal or external nodes for real-time control, monitoring, metering and dynamic management of lighting infrastructure. Connected (or Smart) assets use wireless communications networks, offering optimal flexibility. Control a single luminaire or group switch remotely.

Local Network Solutions

BLUETOOTH

Switch, dim and configure luminaires wirelessly via Bluetooth for increased convenience and flexibility. Manage luminaires individually or in a group using scenes. Controlled directly from a smart device, no additional controls cabling required.

Zhaga Socket (top)
4-pin option

NEMA Socket (top)
3 / 5 / 6 / 7-pin options

Zhaga Socket (bottom)
4-pin option

Stand-alone controls

PRESENCE DETECTOR

Direct control in its simplest form, stand-alone systems are reliable and straightforward, utilising devices such as photocells to manage the lighting. Full manual and dependable control, including factory-set dimming, time switches and presence detectors.
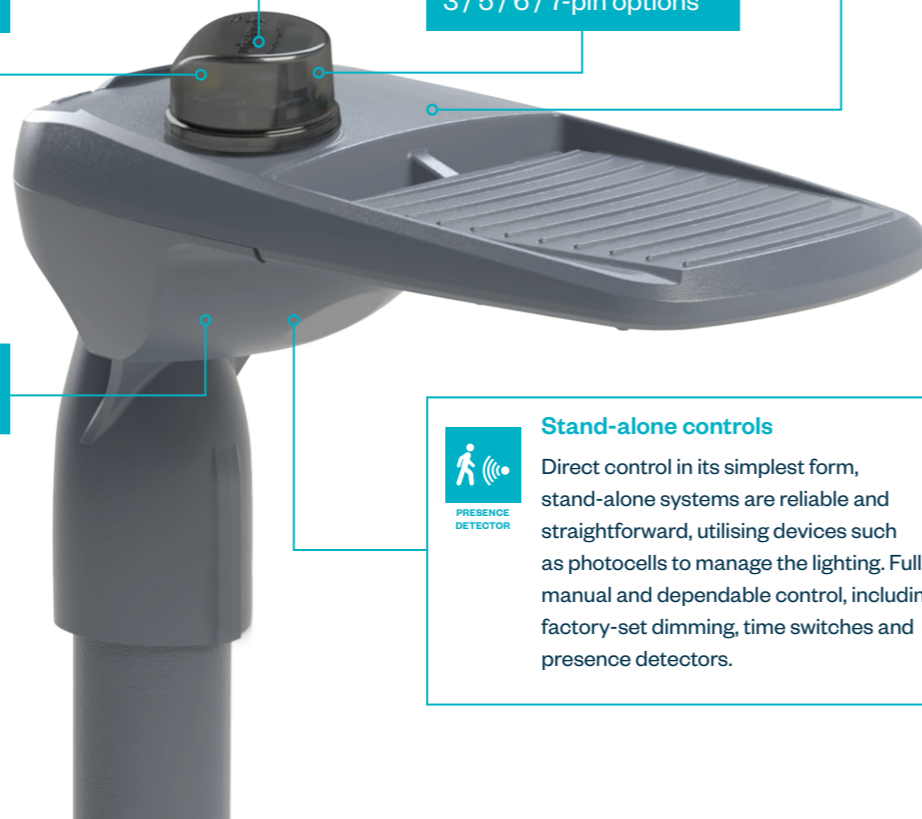
Kirium Pro Vision

Kirium Pro Vision is a high-performance street lighting solution with integrated CCTV technology. Designed as an intelligent solution for a safer world, Kirium Pro Vision consolidates multiple services into a single product, offering increased security with lower complexity.

Learn more at dwwindsor.com/kirium-pro-vision

Key features

- 3 different camera solutions to suit a range of urban applications from high streets to car parks
- Wired or wireless connectivity, secure encryption and authentication
- ONVIF compliant to ensure interoperability with IP-based CCTV security systems
- Reduces visual clutter and provides a more subtle solution in areas subject to high vandalism
- Camera data and recordings can be internally stored via a standard 128GB micro SD card
- An alarm can be set up to activate in the event of unauthorised access to the column door

Camera solutions

Static

A discreet, all-round solution for monitoring any environment

A fixed position camera, which can be manually adjusted by hand, to offer a great general overview of any area

Pan Tilt Zoom

A flexible, fully-motorised solution for covering large, open areas

With a 360° continuous rotation, -5° to 90° tilt and built-in infrared, perfect in emergency response scenarios

Fisheye

A 360°, panoramic solution with added sensors for analytical insights

Features a wide field of view, built-in microphone and infrared, ideal for town centres and urbanised areas

Installation and maintenance

Toolless entry via quick-release latches for simple maintenance

Hinged opening for easy access to internal control gear

Lift-off head, with automatic electrical disconnect (Kirium Pro 1, 2 and 3 only)

Luminaire Dimensions

Kirium Pro Mini
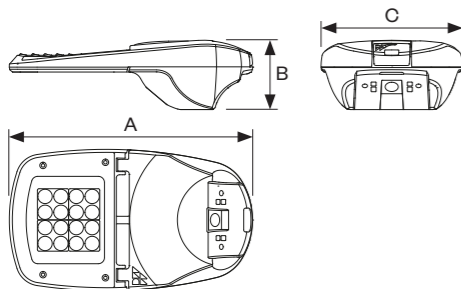
Kirium Pro 2
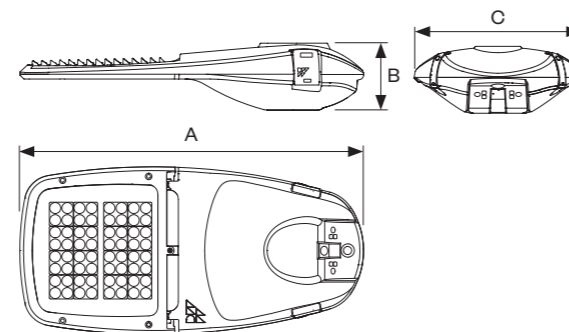
Kirium Pro 1
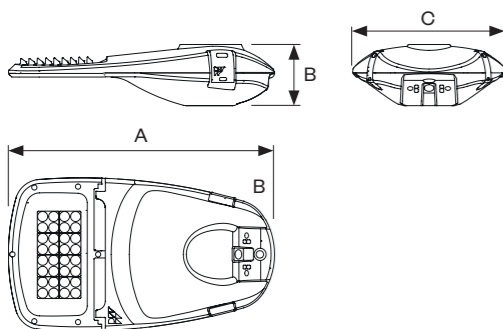
Kirium Pro 3
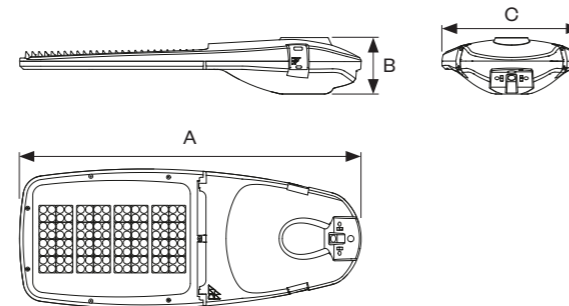
	Dimensions (mm)			Weight (kg)	Windage (m²)
	A	B	C		
Kirium Pro Mini	390	110	227	3.6	0.032 (CxS = 0.021)
Kirium Pro 1	610	140	350	8.5	0.054 (CxS = 0.029)
Kirium Pro 2	720	140	350	9.8	0.059 (CxS = 0.034)
Kirium Pro 3	1010	167	415	17.1	0.094 (CxS = 0.056)

Kirium Pro lumen packages and wattages matrix

Model	No of LEDs		250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
Kirium Pro Mini	4	lm	457	557	656	754	850	943	1,035	1,124	1,211	1,295	1,376	1,454	1,528	1,598	1,665	1,727	1,786
		W	3	4	5	5	6	7	7	8	9	9	10	11	12	13	13	14	15
Kirium Pro Mini Kirium Pro 1	8	lm	987	1,204	1,418	1,629	1,836	2,038	2,237	2,430	2,617	2,798	2,973	3,141	3,301	3,454	3,598	3,732	3,858
		W	6	7	8	10	11	12	14	15	16	18	19	21	22	24	25	26	28
Kirium Pro Mini* Kirium Pro 1	16	lm	1,915	2,335	2,750	3,159	3,561	3,954	4,339	4,713	5,077	5,429	5,768	6,093	6,404	6,700	6,979	7,241	7,484
		W	11	13	15	18	20	22	25	27	30	32	35	38	40	43	46	48	51
Kirium Pro 1	24	lm	2,755	3,360	3,957	4,546	5,123	5,690	6,243	6,781	7,305	7,811	8,299	8,767	9,214	9,639	10,041	10,418	10,769
		W	16	19	22	25	28	32	35	39	43	46	50	54	57	61	65	69	73
	32	lm	3,611	4,404	5,187	5,958	6,716	7,458	8,183	8,889	9,575	10,239	10,878	11,492	12,078	12,636	13,162	13,656	14,116
		W	21	25	29	33	37	41	46	51	55	60	65	70	75	80	85	90	95
Kirium Pro 2	48	lm	5,525	6,792	7,936	9,116	10,274	11,410	12,519	13,599	14,648	15,664	16,642	17,581	18,478	19,331	20,136	20,892	21,595
		W	31	37	44	50	57	63	70	77	84	92	99	107	114	122	130	137	145
	64	lm	7,091	8,648	10,185	11,700	13,187	14,644	16,068	17,454	18,801	20,104	21,359	22,565	23,716	24,811	25,844	26,814	27,717
		W	41	48	56	64	73	82	91	100	109	118	128	138	147	157	167	177	187
Kirium Pro 3	80	lm	8,755	10,665	12,553	14,414	16,245	18,039	19,793	21,503	23,163	24,770	26,319	27,806	29,226	30,575	31,848	33,040	33,930
		W	55	64	73	83	93	104	116	128	140	152	165	178	190	203	216	228	241
	96	lm	11,247	13,445	15,615	17,753	19,852	21,909	23,918	25,876	27,776	29,615	31,388	32,218	34,714	35,305	37,718	38,059	40,361
		W	62	74	86	98	111	124	138	152	166	180	195	208	225	238	252	268	285
	128	lm	15,182	18,150	21,080	23,965	26,799	29,575	32,288	34,930	37,496	39,978	42,371	44,668	46,862	48,947	50,917	52,764	54,484
		W	81	97	112	129	146	163	181	199	218	237	256	275	295	314	334	354	374

Calculations based on 4000K with A2 optic and no Light Output Reduction (LOR) factor applied

Glare ratings

Optic	Rating	Optic	Rating	Optic	Rating	Optic	Rating
A1	None	B1	G3	C1	G6	ZL	G6
A2	G3	B2	G3	C2	G3	ZR	G6
A3	G3	B3	G3	C6	G1	ZF	None
A5	None						
A6	G2						

CCT details

	Light output reduction factor	S/P Ratio
4000K	1.00	1.5
3000K	0.93	1.3
2700K	0.86	1.2

Equivalent LED specifications for HID replacement schemes

Lamp and LED Equivalent		Power (W)	Energy Saving (%)
SOX	35W SOX	54	
	8 LED @ 750mA	19	65
	55W SOX	75	
	16 LED @ 650mA	30	60
	90W SOX	127	
	32 LED @ 550mA	48	62
	135W SOX	179	
	48 LED @ 600mA	76	58
	180W SOX	246	
	24 LED @ 650mA	99	60
SON-T+	50W SON-T+	65	
	16 LED @ 350mA	17	74
SON-T+ / CDO-TT	70W SON-T+ / CDO-TT	85	
	16 LED @ 550mA	26	69
	100W SON-T+ / CDO-TT	118	
	24 LED @ 700mA	46	61
	150W SON-T+ / CDO-TT	172	
	48 LED @ 600mA	76	56
	250W SON-T+ / CDO-TT	280	
	80 LED @ 750mA	160	43
CPO-TW	45W CPO-TW	52	
	8 LED @ 950mA	25	52
	60W CPO-TW	66	
	16 LED @ 650mA	30	55
	90W CPO-TW	100	
	24 LED @ 700mA	46	54
	140W CPO-TW	154	
	32 LED @ 850mA	75	51

Product codes

				Code	Example
Model					
Kirium Pro Mini				KPM	
	Kirium Pro 1			KP1	
		Kirium Pro 2		KP2	KP2
			Kirium Pro 3	KP3	
LED Quantity					
4 LED				4	
8 LED	8 LED			8	
16 LED	16 LED			16	
	24 LED			24	
	32 LED			32	48
		48 LED		48	
		64 LED		64	
			80 LED	80	
			96 LED	96	
			128 LED	128	
Mounting					
Ø34-42mm Side entry (Kirium Pro Mini / 1 / 2 only)		Ø42mm Side entry (Pro 3)		S	
Ø60mm Side entry / Direct post				I	D
Ø76mm Direct post				D	
Colour Temperature					
2700K				27	
3000K				30	30
4000K				40	
Light Distribution					
Roads – Diamond+ A Optic				A1 / A2 / A3 / A5 / A6	
Pathways – Diamond+ B Optic				B1 / B2 / B3	A1
Areas – Diamond+ C Optic				C1 / C2 / C6	
Crossings – Diamond+ Z Optic				ZL / ZR / ZF	
Drive Current					
Drive currents from 250mA to 1050mA are available in 50mA increments. Insert drive current value (eg 750mA - 750)				250 / 300 / 350 400 / 450 / 500 550 / 600 / 650 700 / 750 / 800 850 / 900 / 950 1000 / 1050	750
Glazing					
Toughened glass				FG	FG
Polycarbonate [Kirium Pro Mini / 1 only]				RA	
Colour Finish					
RAL 9005 Black				10	
RAL 7046 Mid grey				CF	29
RAL 7035 Light grey				29	
Other RAL colour				RAL [specify]	
Control					
No connectivity or control				N	
Miniature photocell – 20 lux (1:0.5)				U20	
Miniature photocell – 35 lux (1:0.5)				U35	
3-pin NEMA socket				E	
5-pin NEMA socket				C3	U20
6-pin NEMA socket				B1	
7-pin NEMA socket				D2	
4-pin Zhaga Book 18 socket (top)				Z4	
4-pin Zhaga Book 18 socket (bottom) [can be combined with top NEMA or miniature photocell]				Z4A	
4-pin Zhaga Book 18 socket (top and bottom)				Z4B	
CMS (optional)					
Integral CMS – Urban Control (AC node with puck antenna)				UAC	
Integral CMS – Urban Control (DC node with puck antenna)				UDC	-
Integral CMS – Telensa (with monopole antenna)				ITE	
Integral CMS – Mayflower (with stub antenna)				IMA	
Presence Detector (optional)					
Miniature presence detector				PD	-

Example Code: KP2 48 D 30 A1 750 FG 29 U20

Kirium® Pro

Key Features

Our most comprehensive range of high performance LED street lighting luminaires, available in four sizes

Extensive optical solutions; introducing Diamond+ the ultimate in flexible, precise lighting control. 23 standard optical solutions available

Quick and safe installation and maintenance via toolless, quick-release latches. Lift-off head and automatic electrical disconnect

Emergency option available (Kirium Pro 1, 2 and 3 only)

Environmentally tested to BS EN 60068-2-6 2008

Complementary bollard and wall luminaire available

Options

Kirium Pro Mini: (4 / 8 / 16 LEDs) for mounting at 4-6 metres

Kirium Pro 1: (8 / 16 / 24 / 32 LEDs) for mounting at 5-8 metres

Kirium Pro 2: (48 / 64 LEDs) for mounting at 6-10 metres

Kirium Pro 3: (80 / 96 / 128 LEDs) for mounting at 8-15 metres

Optical Control

Diamond+ A Optic: Roads (A1 / A2 / A3 / A5 / A6)

Diamond+ B Optic: Pathways (B1 / B2 / B3)

Diamond+ C Optic: Areas (C1 / C2 / C6)

Diamond+ Z Optic: Crossings (ZL / ZR / ZF)

Lifetime

> 100,000 hours L90 B10

Total Luminaire Lumens

Kirium Pro Mini: 455 - 6,400 lm

Kirium Pro 1: 990 - 14,115 lm

Kirium Pro 2: 5,525 - 27,715 lm

Kirium Pro 3: 8,755 - 54,485 lm

Colour Temperature

2700K

3000K

4000K

Colour Rendering Index

70Ra

Luminaire Efficacy

Up to 188 lm/W

Drive Current

250mA - 1050mA (in 50mA increments)

Mounting

Direct post: Ø60mm / Ø60 - 76mm

Side entry: Ø34 - 42mm / Ø60mm

Direct post/side entry inclination: -15° -10° -5° 0° +5° +10° +15°

Adaptors available for various spigot diameters

Control

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

Switch: On/off through conventional miniature or NEMA photocell

Dim: Factory set pre-programmed dimming profiles

CMS: Compatible with all available CMS systems

Smart City Ready: Supports Smart City equipment and Zhaga compliant connectors

Colours

RAL 9005 Black

RAL 7046 Mid grey

RAL 7035 Light grey

(Other RAL colours available on request)

Materials

Body: High-pressure die-cast aluminium (LM6)

Glazing: Toughened glass (IK08) / Polycarbonate (IK10)

Seals: Silicone

Finish: Polyester powder coat

Accessories

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

Installation & Maintenance

Available with various cable tail options prefitted

Short form UMSUG codes available on the website

Operational temperature range: -45°C to +50°C

Surge protection: 10kV

* Class II on request

Due to continuous product development the details within this document are subject to change at any time. For the more up-to-date information please visit **dwwindsor.com.**