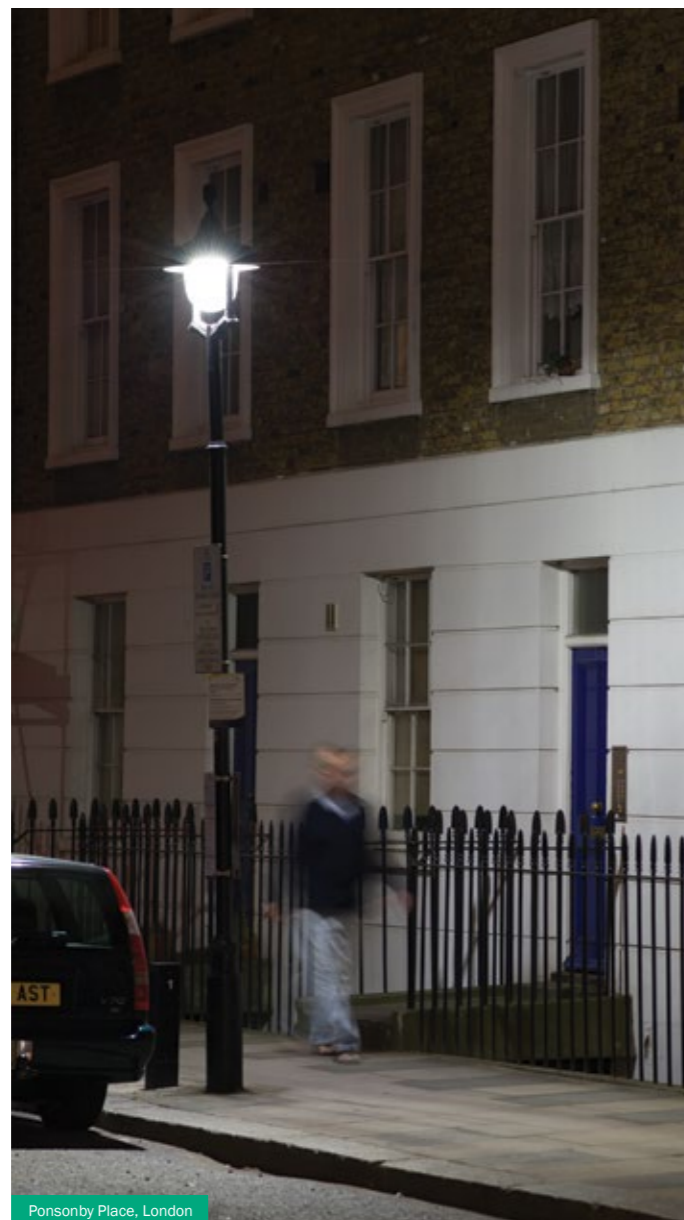


LED Light Engine

Whether your driver for specifying LED is energy savings, reducing maintenance costs or simply a desire to employ the very latest technology, your product design choice may, up until now, have been restricted to contemporary style luminaires.

Designed to fit effortlessly within the majority of our exterior lighting luminaires including the Traditional range shown in the following pages, the LED Light Engine is available in new luminaires or as a retrofit option for installation in DW Windsor products up to ten years of age.

For full technical details on LED Light Engine, please refer to pages 32 – 33.



Ponsonby Place, London

Traditional lanterns

Available for new or retrofit

Windsor, Strand, Ely, Iffley

Available new only

Lancaster, Knightsbridge, Pall Mall, Westminster, Hatfield, York, Warwick, Newport, Salisbury, Waterford, Braemar, Henley

Other lanterns

Available for new or retrofit

Rio, Stratum, Excel, Dover, Polar, Cradle, Crieff, Corvus, DW400

Available new only

Milano LED, Evora LED



LED Light Engine

LED



Key advantages

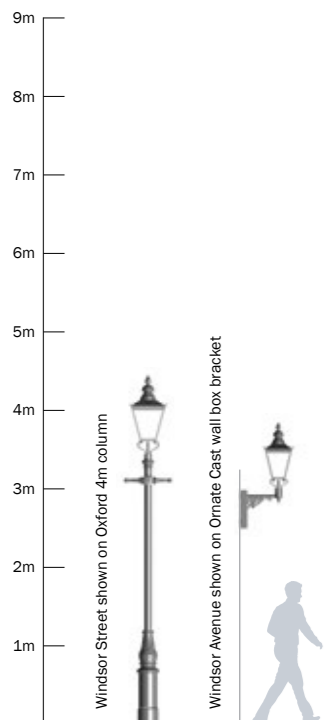
- LED Light Engine gives you the option to specify LED as a light source
- Now available for Traditional lanterns
- Available as retrofit LED solution for existing DW Windsor schemes
- Available in brand new products (see opposite for ranges)
- Significant energy savings and reduced maintenance costs
- Equivalent distribution to Diamond Optic® A, B, C & D
- Multi-layer LED Light Engine

Windsor

Product Codes

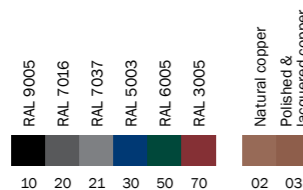
Street	Avenue		Example
1. Model			
WIS	WIA		WIS
2. Mounting			
F	F	Frog	F
C		Cast Base	
3. Control Gear – check compatibility with light sources			
E	E	Electronic Gear: available for most light sources	E
M	M	Magnetic Gear: certain lamp types only	
4. Light Source			
050S	050S	50W SON-T+/StreetWise	
070S	070S	70W SON-T+/CDO-TT/StreetWise	
100S		100W SON-T+/CDO-TT/StreetWise	
150S		150W SON-T+/CDO-TT/StreetWise	
035C*	035C*	35W CDM-T	
070C*	070C*	70W CDM-T	
150C*		150W CDM-T	
042P	042P	42W PLT	
057P*	057P*	57W PLT	
045W		45W CosmoPolis	
060W		60W CosmoPolis	
090W		90W CosmoPolis	
L230	L230	24 x 2.4W LED Light Engine – Warm White 3000K	L230
L245	L245	24 x 2.4W LED Light Engine – Neutral White 4500K	
5. Colour – for alternative colours see below			
10	10	RAL 9005 Black	10
6. Diamond Optic® Setting/LED Array Distribution			
A	A	5/35	A
B	B	10/10	
C	C	31/35	
D	D	5/25	
7. Switching, Dimming & Control – electronic gear is required for dimming and CMS			
N	N	No Photocell	
C	C	Photocell 70lux (1:0.5)	
U	U	Photocell 35lux (1:1)	U
PS	PS	Part Night Switch Off	
PD	PD	Part Night Dim	
CH	CH	CMS Harvard LeafNut	
CM	CM	CMS Mayflower CLC	
CT	CT	CMS Telensa PLANet	
CZ	CZ	CMS Zodion Vizion	
Example Code = WIS F E L230 10 A U			

*These lamp types cannot be used with dimming or CMS control



Suggested column/bracket options

For full range of columns and brackets see page 256



This product is available in the colours listed, with other colours available to special order. See inside front cover flap for further details

Options

Windsor Street
For mounting at 4 – 6 metres
Maximum lamp wattage: 150W

Windsor Avenue
For mounting at 2.5 – 5 metres
Maximum lamp wattage: 70W

Mounting:
Traditional frog (standard)
Cast base (Windsor Street only) [76mm Ø]

Glazing:
Polycarbonate one piece bowl
Acrylic one piece bowl (on request)
Toughened flat glass (on request)

Gear, switching and control:
Electronic or magnetic gear
Miniature photocell
Compatible with leading Central Management Systems (CMS)

Light source:
See product codes
For information on LED Light Engine see pages 108 – 109

Colours:
RAL 9005 Black
RAL 7016 Anthracite Grey
RAL 7037 Dusty Grey
RAL 5003 Sapphire Blue
RAL 6005 Light Moss Green
RAL 3005 Wine Red
Natural Copper Finish
NB Natural copper finish will rapidly weather usually giving a rich patina finish
Polished and Lacquered Copper Finish

Optical control:
Diamond Optic®
LED Array Distribution

Other:
Obtrusive light shield(s)

Materials

Body: Copper

Standard frog: Metal sprayed steel

Cast base: Cast aluminium

Seals: Silicone rubber

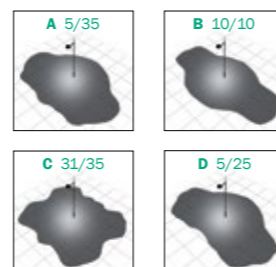
Finish: Polyester powder coated or copper

Installation and Maintenance

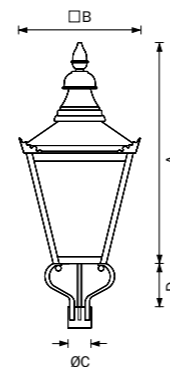
Frog and cast base have external connector blocks for ease of installation

Tool-less maintenance via hinged, sealed canopy with retaining stay and slide latches

Diamond Optic® & LED Array Distribution



Optical distributions shown are for both conventional and LED light sources. See pages 28 – 33 for details



	Dimensions mm				Weight kg	Windage
	A	B	C	D		
Windsor	833	440	76	188	10.3	0.28m ²
Street	833	440	76	188	10.3	0.28m ²
Avenue	745	390	76	119	8.3	0.22m ²



Windsor LED
St Paul's Churchyard, London

Windsor

IP65 | IK08 | CLASS I

- Energy saving CMS, dimming and switching options
- Now available in LED, with Diamond Optic® equivalent distributions
- Retrofit LED Light Engine option available (see pages 108 – 109)
- Corrosion resistant, copper construction



Optional cast base

Key Features

- Available as a retrofit LED solution for existing DW Windsor schemes or provides LED options for new luminaires
- Significant energy savings and reduced maintenance costs across all products
- Simple on-site installation for retrofit
- Equivalent distribution to Diamond Optic® A, B, C & D
- Energy saving dimming, switching and full CMS options



LED Light Engine

LED

Known for developing high performance solutions, such as our popular Diamond Optic®, we have introduced an easy and cost effective way to upgrade existing lighting schemes to LED, across our range of Contemporary to Traditional street lights.

What is our LED Light Engine?

Our commitment to include an LED version of all our product ranges has been the driving force behind introducing a self-contained LED light source, called LED Light Engine. This is available as a replacement, retrofit light source for DW Windsor schemes installed less than 10 years ago, across a number of ranges. In addition, we are now able to create new LED versions of a wide range of our luminaires.

Retrofit LED

Designed for simple on-site retrofit into DW Windsor products, installed within the last 10 years, the LED Light Engine can be fitted directly into an existing lantern. In the same time as it takes to replace a lamp all the benefits of LED can be incorporated into a previously lamped scheme, without the cost of new luminaires.



Luminaires available with LED Light Engine

Retrofit & New

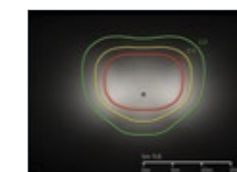
- **DW400** pages 146 – 147
- **Stratum** pages 92 – 93
- **Dover** pages 96 – 97
- **Windsor** pages 110 – 111
- **Strand Family** pages 120 – 123
- **Ely** pages 124 – 125
- **Iffley** pages 130 – 131

New

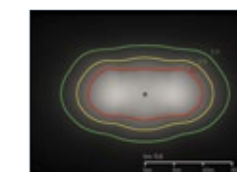
- **Milano** pages 48 – 51
- **Evora LED** pages 62 – 63
- **Lancaster** pages 112 – 113
- **Knightsbridge** pages 114 – 115
- **Pall Mall/Westminster** pages 116 – 117
- **Hatfield** pages 132 – 133
- **York/Warwick** pages 134 – 135
- **Newport/Salisbury** pages 136 – 137
- **Waterford/Braemar** pages 138 – 139
- **Henley** pages 140 – 141
- **Tizona** pages 250 – 251

Performance Equivalent to Diamond Optic®

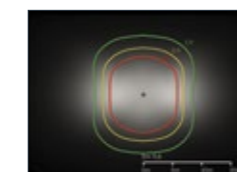
The optical performance of LED Light Engine has been designed to match that of our popular Diamond Optic, offering a choice of four different lighting distributions. The similarities are particularly useful when considering retrofitting LED as a light source into existing lanterns or schemes, where LED technology can be provided with relatively little effect on the lit environment. This is particularly interesting when considering reducing energy usage and lowering maintenance costs in an existing lamped scheme.



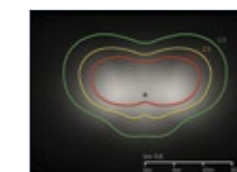
Array A



Array B



Array C



Array D

Performance Compared with Lamped Versions

The DW Windsor LED Light Engine is available in three different sizes. The specific information on which LED Light Engine is available for each luminaire option can be found within the product code tables on each product page.

Comparisons to light output of other light sources are below:

Number of LEDs	Total Wattage	Comparison Light Source
12	29W	45W CosmoPolis / 50W SON-T
24	58W	60W CosmoPolis / 70W SON-T
36	87W	90W CosmoPolis / 100W SON-T

Compatible Control Options

The following control options are available for luminaires using LED Light Engine as retrofit or new.

- Switch: on/off through conventional photocell (or part-night switch off)
- Dim: factory set/customer specific regime
- Dali: full CMS/remote monitoring functionality: suitable for use with Harvard LeafNut, Telensa and Mayflower

Light Source Information

We use high performing Cree LEDs for this offering.

Colour Temperature / Colour Rendering (CRI):

- 3000K (warm white) / 80Ra or
- 4500K (neutral white) / 70Ra

Light Engine Efficacy: 73 lm/W

Please contact answers@dwwindsor.co.uk for achievable savings or for assistance in planning an effective roll-out of upgrading to LED with our Light Engine