

Abacus LED Lighting
powerandbeauty.co.uk

Power / Beauty

Abacus[®]
Leaders in lighting



At Abacus, we've fully embraced the possibilities of LED lighting. It's taken time and expertise to develop a new range of lighting products that truly harnesses the technology. But the results simply shine with power and beauty – bright, white light streaming from aesthetic, energy-efficient structures; well conceived products which satisfy the most stringent demands. More than this, we've carefully

considered how our LED lighting designs complement their surroundings, making all kinds of environments safer, more salubrious and more sustainable.

They already enhance cities and airports, car parks and stadia, improving the quality of life of millions of people around the world. But with Abacus products, there's always plenty more power and beauty to go around.

Abacus / LED Lighting

At Abacus, we use power intelligently and responsibly. Our advanced LED systems give you more light for less power, saving carbon and cost. They're built to last, with an impressive lifespan of greater than 50,000 hours. They stay cool too, so they're safer in public spaces, and don't emit

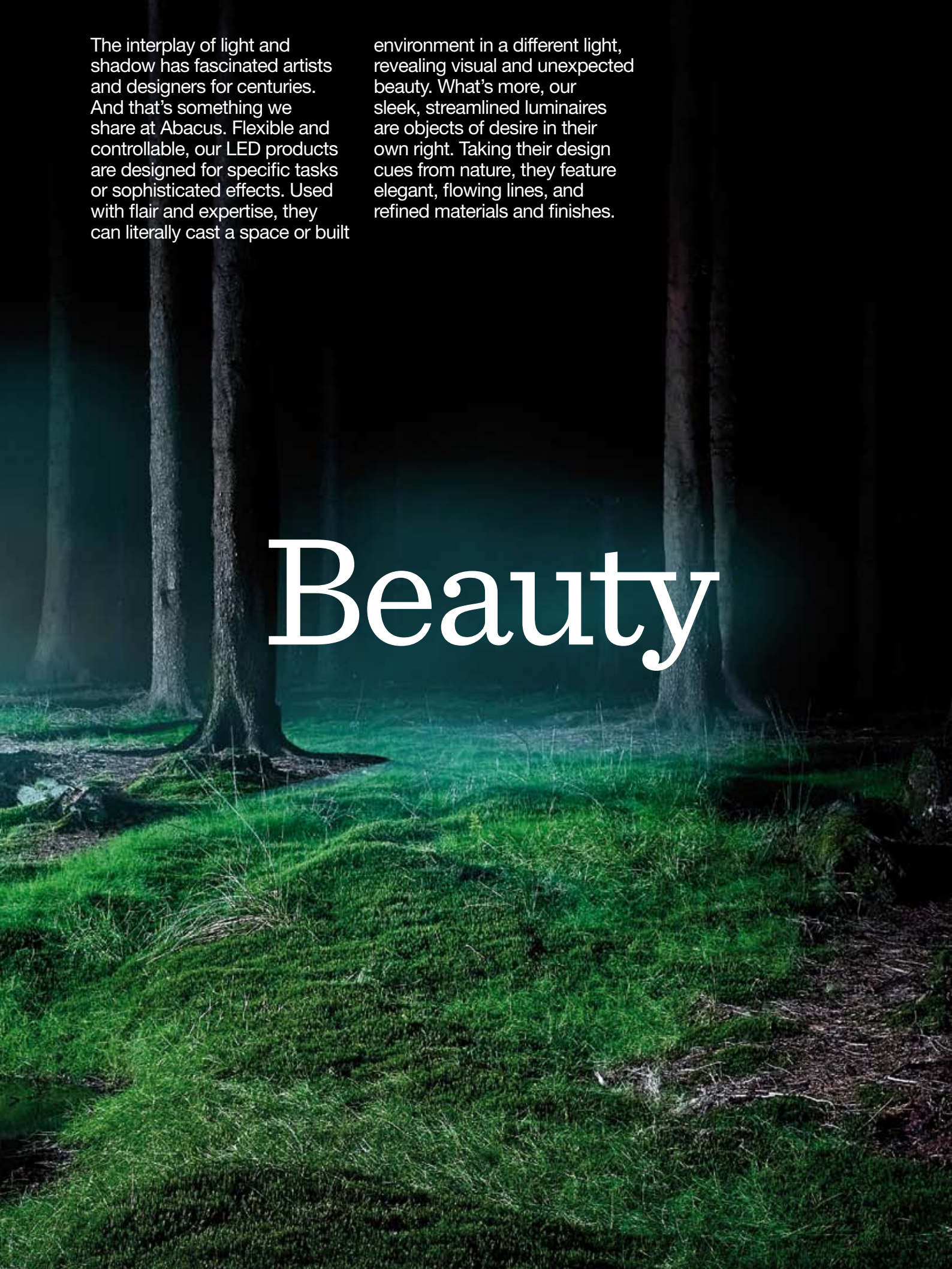
harmful infra-red radiation or ultra-violet rays. We've found ingenious new ways of directing light exactly where it's wanted, with reduced glare or overspill. And electronic controls mean you can manage when and where your lights shine.

Power

The interplay of light and shadow has fascinated artists and designers for centuries. And that's something we share at Abacus. Flexible and controllable, our LED products are designed for specific tasks or sophisticated effects. Used with flair and expertise, they can literally cast a space or built

environment in a different light, revealing visual and unexpected beauty. What's more, our sleek, streamlined luminaires are objects of desire in their own right. Taking their design cues from nature, they feature elegant, flowing lines, and refined materials and finishes.

Beauty



Abacus LED product range

We've rationalised our new LED range into three main sub-divisions for easy reference. These are: Architectural; Car Park; and Road.

Each Abacus product has been conceived to fulfil a given purpose, with informed thought given to specifications, materials and maintenance, as well as function and aesthetics. They are durable, dependable and directional – and of course, we've made sure they are as energy efficient as possible.

Inspired by flowing, natural forms, all our luminaires are designed to be at one with their surroundings. They help improve people's quality of life, keep them safe and help them get on with what they need to do.

Abacus Green Commitment

We all have a duty to the environment. Which means thinking differently about the way we use resources, and how we can go about reducing our carbon footprint.

LED lighting is a good practical start. It lasts longer and uses less energy than traditional lighting, and contains no harmful mercury or heavy metals. And because they last longer, it means fewer trips to site for servicing or repairs.

That's the nuts and bolts. But working alongside the technology, Abacus also offers rigorous energy-management systems and effective lighting design, which will move you further towards sustainable lighting. We've even developed solar-powered LED products as part of our new range – you can't get much greener than that.



LED product range

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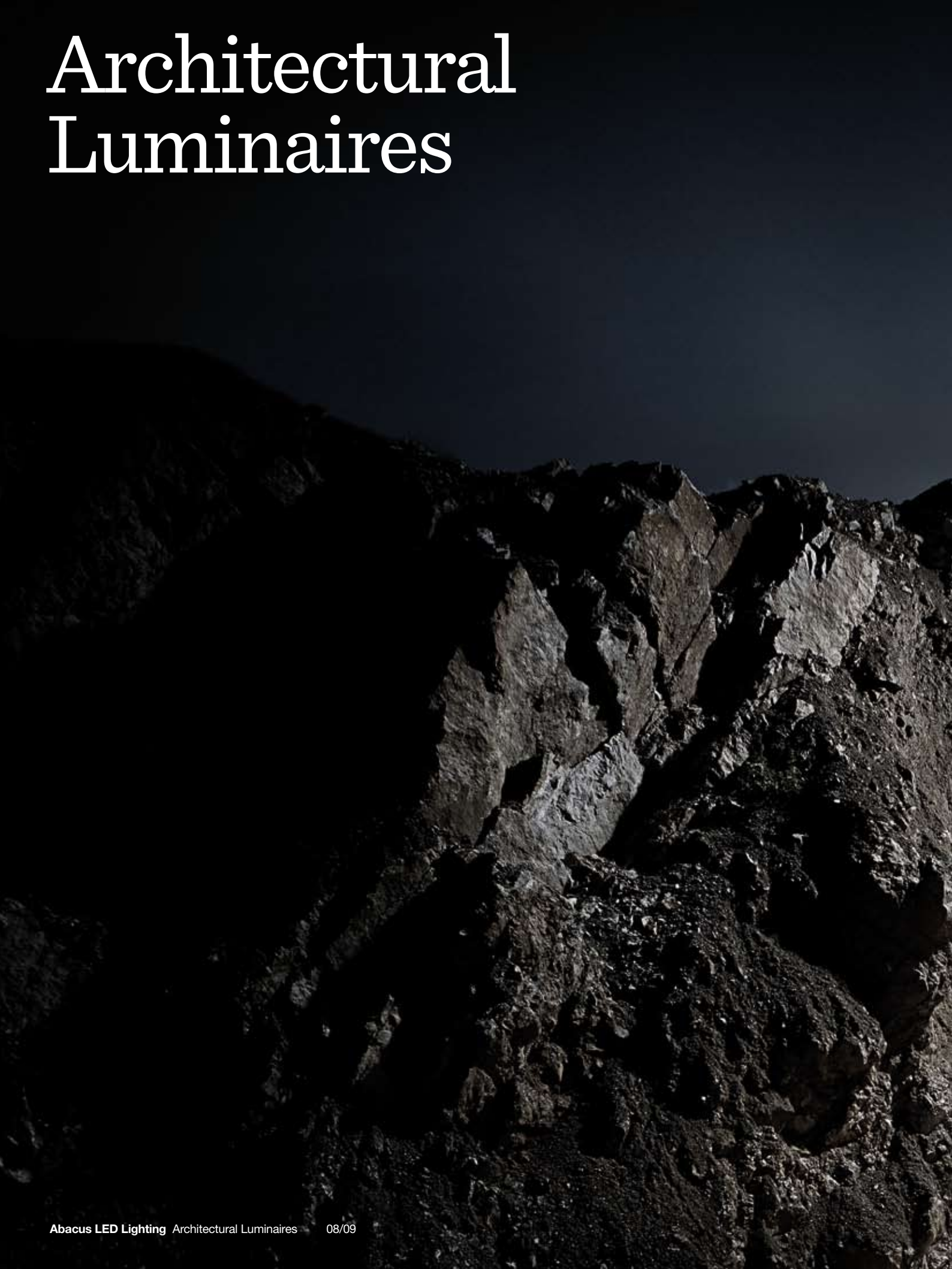


28 Lightblade LED



30 The Abacus Advantage

Architectural Luminaires



Cleverly designed and impeccably built, our architectural LED range has a distinctly contemporary edge, but covers a broad range of styles suitable for many different built environments. We design and install a wide variety of column, wall-mounted and

solar-powered lighting, and can advise on the best options for tricky or unusual spaces. We're certainly fond of our form, but function comes first – our LED products won't let you down for efficiency, reliability or purpose.



Continuum LED

Strikingly understated, the Continuum is an urban architectural lantern which lends itself beautifully to pedestrian areas, parks, cycle paths and amenity locations. Its elegant-yet-practical style sits well in modern architectural landscapes, and its design helps cast a pleasing symmetrical spread of white light. Easy to maintain and service, with a reassuringly fail safe feature. Also available as a solar-powered version.

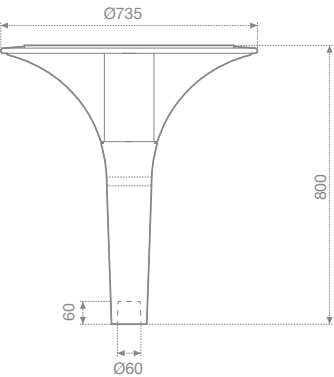
Benefits

- >50,000hrs
- Controlled obtrusive light
- Solar version available – further information is available upon request
- Clean lines giving sleek design

Features

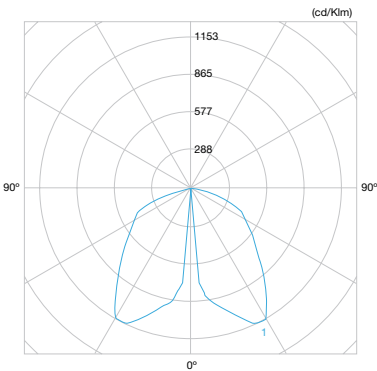
- IP65
- Polycarbonate diffuser bowl
- Double concentric ring LED assembly
- Symmetric light distribution
- Die-cast aluminium body
- Thermoplastic access door to driver unit
- Ø60mm spigot (Ø102mm column required)
- Integrated 210W/h Lithium Ion battery (solar)
- Colour: Dark graphite

Dimensions in mm

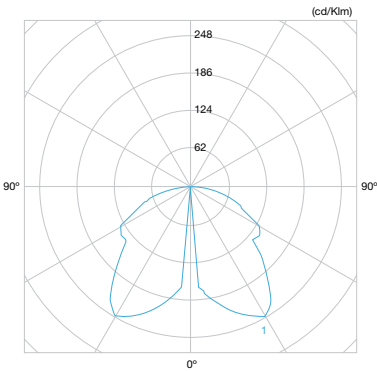


Polar diagram

AL3911



AL3912 Solar



AL3910 Series

Product variation	Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature
AL3911	AL3911	48 x 1.2W	350mA	5760lm	6000K
AL3912 Solar	AL3915	16 x 1.2W	350mA	1920lm	6000K

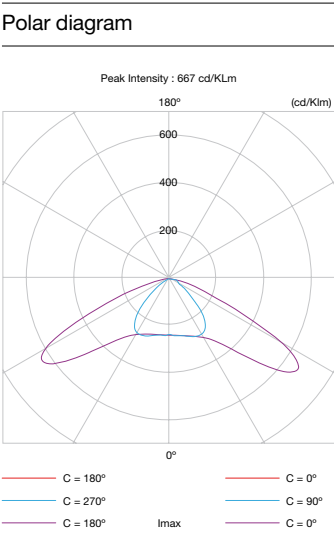
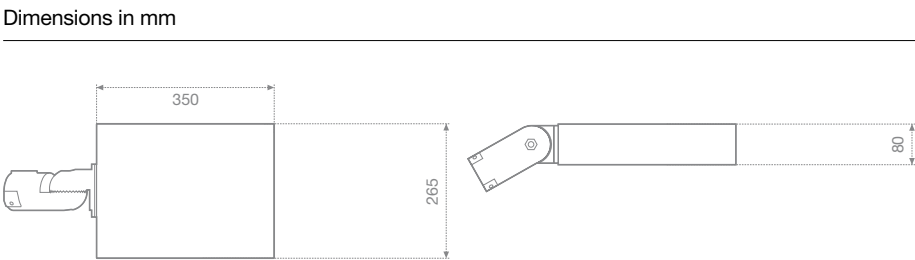


Linea LED

An uncompromisingly simple architectural lantern, Linea is suitable for pathways and walkways, architectural schemes and urban design. A design-led luminaire with beautifully clean lines, it allows the bright, directional light to speak for itself. The energy-efficient Linea comes in a choice of column attachment and in three sizes – 24W, 36W and 48W.



Benefits	Features
>50,000hrs	IP65
Easy access	5mm tempered flat glass
Architectural side entry bracket option	Hinged front cover
Side entry bracket with non slip adjustable elevation option	Colour: Dark graphite



AL3650 series					
Product variation	Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature
Post mounted – Fixed	AL3651	24, 36, 48 x 1.2W	350mA	2208/3312/4416 lm	3000 / 6000K
Post mounted – Adjustable	AL3652	24, 36, 48 x 1.2W	350mA	2208/3312/4416 lm	3000 / 6000K

Flex LED

The clue's in the name. Flex has been designed for maximum flexibility, pivoting on a central core to provide suitably angled lighting as required. The versatile lantern also comes in single or double arm configurations to suit different settings. Flex can be bracket mounted to ceiling trunking, so it comes into its own in height-restricted environments like multi-story car parks and stairwells. When mounted on a column, Flex is perfect for amenity lighting of pathways, walkways and other urban settings.



Benefits

>50,000hrs

Can be used for a variety of applications/
different configurations

Light distribution can be changed by flexing
the arms into a variety of lockable positions

Available with different fixing brackets

Features

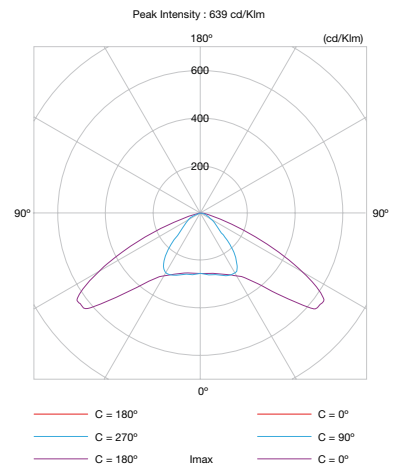
IP65

Tempered flat glass

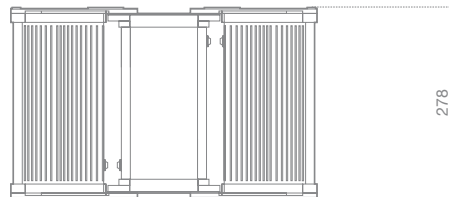
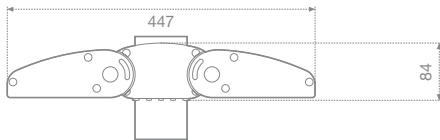
Integrated secondary lenses

Colour: Graphite

Polar diagram



Dimensions in mm – 48 LED version



AL3990 series

Product variation	Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature
Side Entry Offset	AL3991	24, 36, 48, 96 x 1.2W	350mA	2208/3312/4416/8832 lm	3000 / 6000K
Side Entry	AL3992	24, 36, 48, 96 x 1.2W	350mA	2208/3312/4416/8832 lm	3000 / 6000K
Post Mounted	AL3993	24, 36, 48, 96 x 1.2W	350mA	2208/3312/4416/8832 lm	3000 / 6000K
Stirrup	AL3994	24, 36, 48, 96 x 1.2W	350mA	2208/3312/4416/8832 lm	3000 / 6000K
Ceiling Mounted	AL3995	24, 36, 48, 96 x 1.2W	350mA	2208/3312/4416/8832 lm	3000 / 6000K

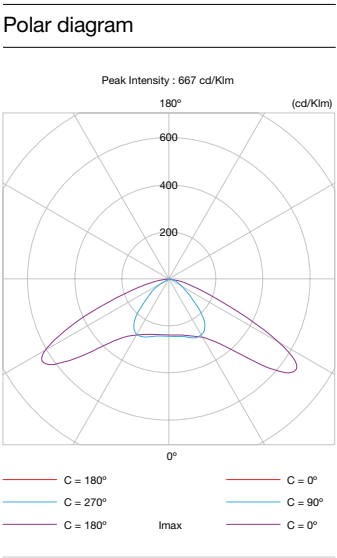
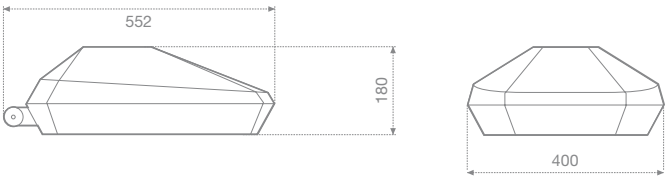
Eclisse LED

A robust LED lantern, Eclisse is a worthy choice for paths, walkways and other pedestrianised areas. Architectural in intent, it features a signature bracket which gives it a distinctive look when column mounted. Eclisse casts a bright yet contained light, giving you illumination where required whilst keeping light pollution to a minimum.



Benefits	Features
>50,000hrs	IP65
Tool free access	Modular LED bars with integral cooling system
Effective light control	Tempered 5mm flat glass
Robust construction	Die-cast aluminium body
	Integrated secondary lenses

Dimensions in mm



AL3610 series					
Product variation	Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature
Post mounted – Fixed	AL3611	24, 36, 48 x 1.2W	350mA	2208/3312/4416 lm	3000 / 6000K

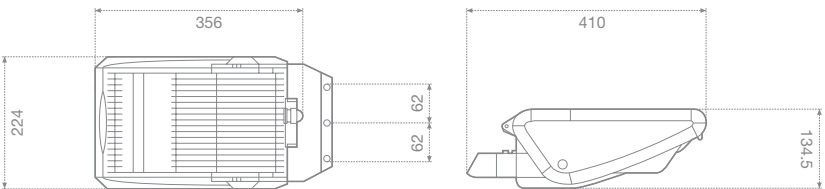
Mura LED

A compact architectural floodlight, Mura fits the bill for fascias, walls and bulkhead perimeter lighting – though it can also be used for interiors. Made from pressure die-cast aluminium, Mura features an ingenious concealed bracket fixing which keeps the silhouette clean and uncluttered. The 24W LED luminaire can be opened without tools for easy maintenance.



Benefits	Features
>50,000hrs	IP66
Unobtrusive stirrup connection giving clean lines	Die-cast aluminium body with integral cooling system
Light distribution for long spacing	4mm tempered flat glass
	Tool free access
	Integrated secondary lenses
	Colour: Black, white and RAL 9006 silver

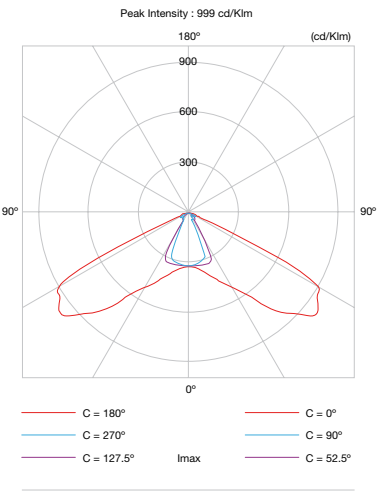
Dimensions in mm



AL5330 series

Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature	Weight	Windage
AL5331	24 x 1W	350mA	1630lm	6000K	4.65Kg	0.078m ²

Polar diagram



Form LED

Subtle and unobtrusive, Form is a discreet fitting which emits either a single or double (up/down) beam of beautiful light. It can be used to add drama to building facades for museums, exhibitions, showrooms and other buildings where architectural impact is appropriate. But it doesn't stop there... Form has the necessary versatility and aesthetics to be used in indoor settings such as stairways, corridors and other spaces which need an architectural flavour.

Dimensions in mm



Benefits

>50,000hrs

Available with single or double optics:
 – Smaller unit comes with single optics (up or down)
 – Larger unit comes with double optics (up and down)

Simple installation

Curved, clean aesthetic

Colour control (mix RGB to produce an array of different colour effects)

Different lighting distributions – so can light entrance/pathways and fascia from same lantern).

Features

IP65

Die-cast aluminium body

6mm tempered flat glass

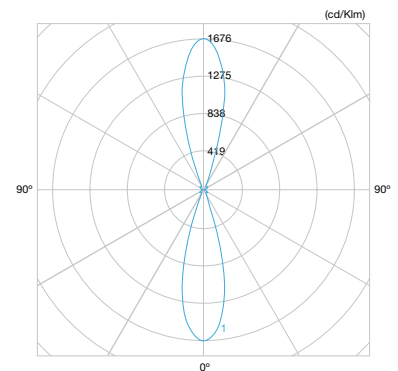
Variable pre-set beam angle

Wall mounting plate

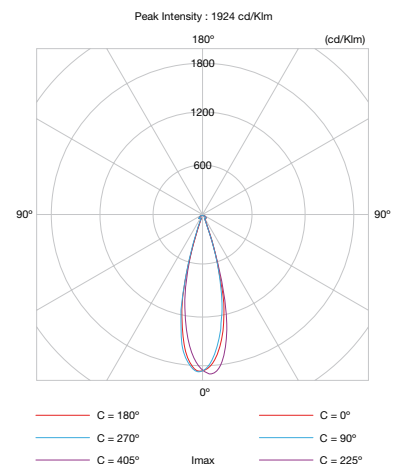
Colour: RAL 7039 dark grey and 9006 silver

Polar diagram

AL8090 double optic



AL8080 single optic



AL8080 series

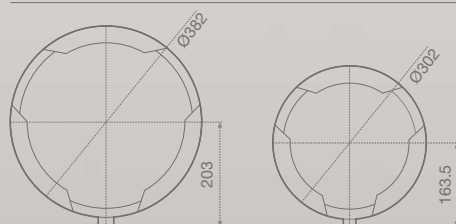
Product variation	Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature	Beam angle
Single optic	AL8081	5x3W RGB	350mA	350lm	NA	36°
Single optic	AL8082	7x1W	500mA	890lm	3500K	30°
Single optic	AL8083	7x1W	500mA	890lm	6000K	30°
Single optic	AL8084	7x1W	500mA	1100lm	6000K	30°

AL8090 series

Product variation	Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature	Beam angle
Double optic	AL8091	5x3W RGB	350mA	350lm	NA	36°
Double optic	AL8092	7x1W	500mA	890lm	3500K	30°
Double optic	AL8093	7x1W	500mA	890lm	6000K	30°
Double optic	AL8094	7x1W	500mA	1100lm	6000K	30°

A slightly different take on a classic design, Connect 1 & 2 represent a new generation of vandal resistant, compact and weatherproof light fitting. Optional features incorporate movement sensor, photocell control and timed on/off duration. Energy efficient and extremely versatile, these simple, functional fittings are suitable for hotels, commercial and industrial sites and all manner of public spaces, and can be installed indoors or out. Available in two sizes.

AL3180 / AL3190 AL3160 / AL3170



>40,000 hrs

Available in two sizes

Optional motion sensors, time settings and light control settings

Large LED array for uniform surface brightness

Shockproof and self extinguishing

Optional top shield

IP55

Reinforced nylon fibre glass body and cover

Opal polycarbonate diffuser

Colour: black, white and RAL 9006 silver

Peak intensity : 341 cd/Klm

180° (cd/Klm)

200

90°

0°

lmax

C = 180°
 C = 270°
 C = 195°
 C = 0°
 C = 90°
 C = 15°

Product series	Product variation	Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature
Small	Connect 1	AL3161	240 x 0.05W	360mA	960 / 1320lm	3000K / 6000K
Small + sensors	Connect 1	AL3162	240 x 0.05W	360mA	960 / 1320lm	3000K / 6000K
Small + top shield	Connect 1V	AL3171	240 x 0.05W	360mA	960 / 1320lm	3000K / 6000K
Small + top shield + sensors	Connect 1V	AL3172	240 x 0.05W	360mA	960 / 1320lm	3000K / 6000K

Large	Connect 2	AL3181	308 x 0.05W	360mA	1478 / 1694lm	3000K / 6000K
Large + sensors	Connect 2	AL3182	308 x 0.05W	360mA	1478 / 1694lm	3000K / 6000K
Large + top shield	Connect 2V	AL3191	308 x 0.05W	360mA	1478 / 1694lm	3000K / 6000K
Large + top shield + sensors	Connect 2V	AL3192	308 x 0.05W	360mA	1478 / 1694lm	3000K / 6000K

Car Park Luminaires



A well-lit car park can be a boon for business. It creates a warm, welcoming atmosphere, as well as contributing to customers' safety and comfort. Abacus lighting is a fixture in thousands of car parks, from retail parks and supermarkets, to stadia and transport hubs. Our products are designed to distribute light precisely

where it's needed, through the design of optical control, so fewer units are needed and light pollution is kept to a minimum. The Orion family is particularly well specified, and its very latest incarnation is the Orion 4 LED. No doubt you'll be parking up near one soon.



Orion 4 LED

The latest version of the phenomenally successful Orion range. Widely used to light large open areas, such as retail and car parks, its new incarnation as an LED luminaire reduces energy usage and maintenance costs. Robust and durable, its 4mm polycarbonate bowl protects the Orion 4 from vandalism and the ravages of the weather.

Benefits

>50,000hrs

3 light distribution patterns:

- Square
- Asymmetric 3 sides (overspill reduction),
- Asymmetric 2 sides (full overspill control)

Perfect for car parks or larger areas

Low glare

Effective light control

Uniform light distribution

Modern, slimline aesthetic

Features

IP65

Polycarbonate 4mm ‘flat glass’ bowl

Prism lenses providing combined direct and indirect beam control with low glare

Spigot fixing onto Ø76mm columns

Vertical LED stack mounted on extruded aluminium core

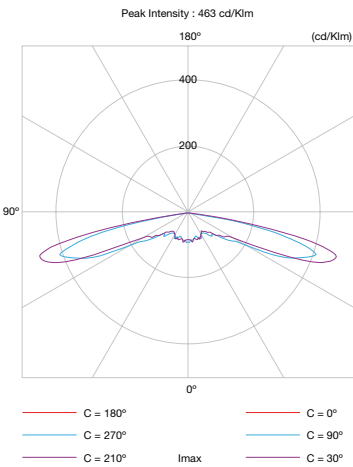
Combined internal reflector and secondary heat sink

Colour: White

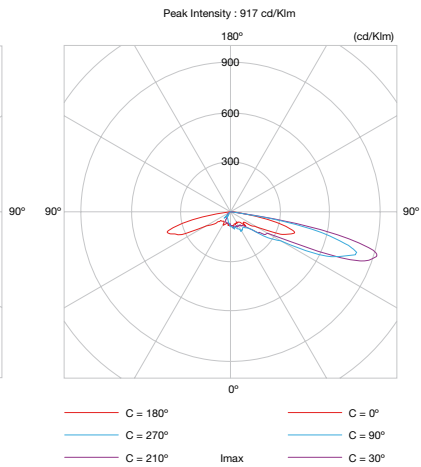
Optional photocell control

Polar diagram

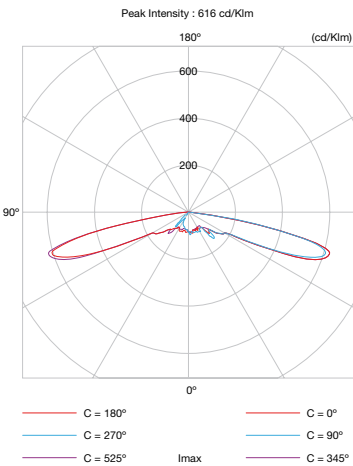
Orion 4 square distribution



Orion 4 asymmetric 2 sides



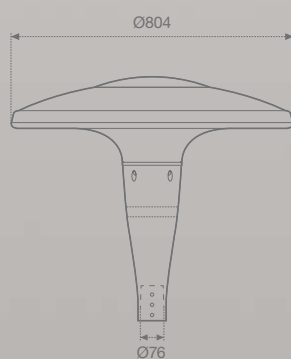
Orion 4 asymmetric 3 sides



Product variation	Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature	Weight	Windage
Square	AL4171	4 x LED Arrays: 96x1.6W	500mA	9689lm	4000K	18Kg	0.178m ²
Asymmetric 3 sides	AL4172	3 x LED Arrays: 72x1.6W	500mA	7266lm	4000K	18Kg	0.178m ²
Asymmetric 2 sides	AL4173	2 X LED Arrays: 48x1.6W	500mA	4844lm	4000K	18Kg	0.178m ²



Dimensions in mm



Quartz® Bollard LED

An uncompromisingly tough bollard offering the latest in LED technology and optical control for superb lighting performance. The louvre design emits a crisp, focused white light where it's wanted, and you can choose from three distributions – asymmetric, symmetric and axial – depending on your needs. The Quartz Bollard LED has a solid steel shaft, 5mm thick polycarbonate bowl, anti-vandal screws, and is finished in a polyester coating.

Patent pending

Benefits

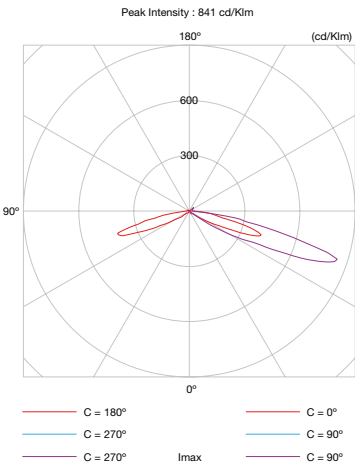
- >50,000hrs
- 90% light output efficiency (LOR)
- Vandal resistant
- Available in black or silver
- Unique colour/branding effects on the louvres
- Optional branding or visual instructions on top louvre
- 3 light distribution patterns: Square, axial or asymmetric
- Low glare

Features

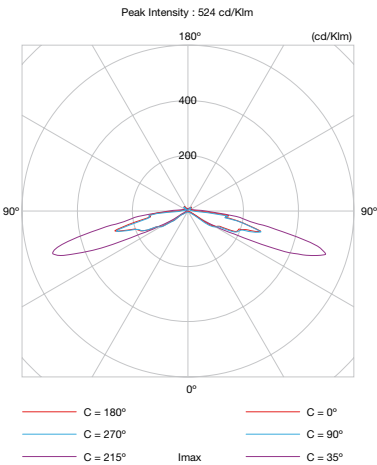
- IP66 head / IP65 body
- CHS steel body with anti-vandal screw fixings (M8)
- Optional access door
- 5mm thick polycarbonate cylinder
- Flange plate or root mounted
- Colour: Black and fusion silver

Polar diagram

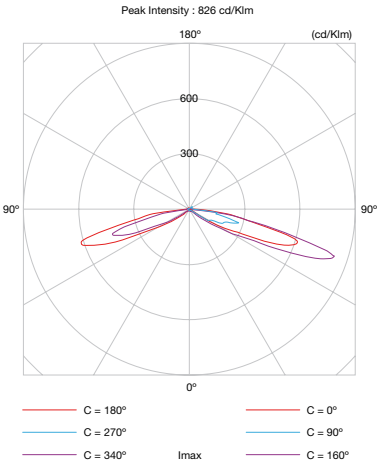
Quartz bollard asymmetric distribution



Quartz bollard square distribution



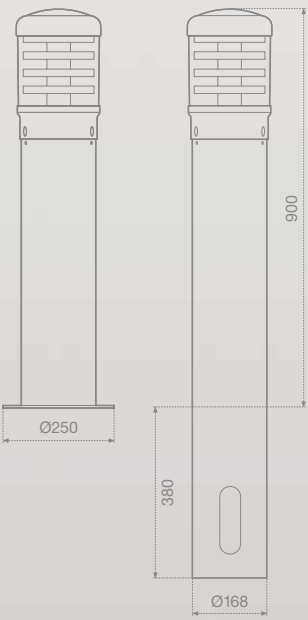
Quartz bollard axial distribution



AL9000 series

Product variation	Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature
Square	AL9001	16x1.6W	500mA	1976lm	4000K
Asymmetric	AL9002	16x1.6W	500mA	1976lm	4000K
Axial	AL9003	16x1.6W	500mA	1976lm	4000K

Dimensions in mm



Flange plate
mounted

Root
mounted



Road Luminaires



Abacus' innovative new range of LED lighting is perfect for all kinds of streets and roads, making life safer and easier for pedestrians and motorists. The combination of energy-efficient technology, longer-lasting lamps and easy maintenance add up to significant savings for councils, authorities

and private concerns. And because LED lighting allows greater optical control, it illuminates downwards on to roads, paths and pavements rather than upwards into the night sky. Thanks to Abacus, you'll be able to see the stars as well as your way home.



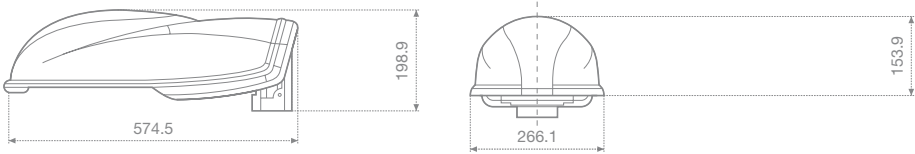
Vision Plus LED

A robust, safe ‘S’ class road lantern, suitable for residential areas and pathways. Curvaceous and contemporary, it looks the part in most settings and complements many other styles of lantern which might already be installed. The Vision Plus can be post or side entry mounted, and is easy to maintain with tool-free access.

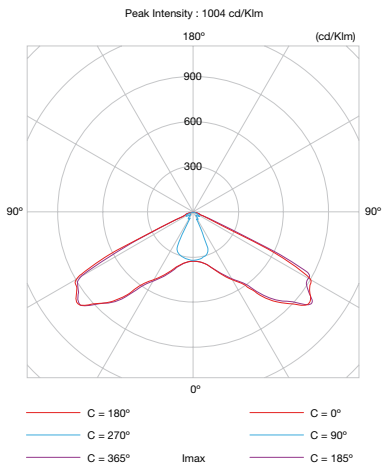


Benefits	Features
>50,000hrs	IP66
Optional photocell, dimming or CMS	Tool free access
Optimised lighting system	4mm tempered flat glass
	15°, 4 position tilt system
	Adjustable spigot for post mounted or side entry
	Integrated secondary lenses
	Colour: RAL 7038 grey with RAL 7039 dark grey

Dimensions in mm



Polar diagram – 24 LED version



AL6800 series

Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature	Weight	Windage
AL6801	12, 24, 30 x 1.2W	500mA	1050/1630/2420 lm	6000K	5.15Kg	0.158m ²

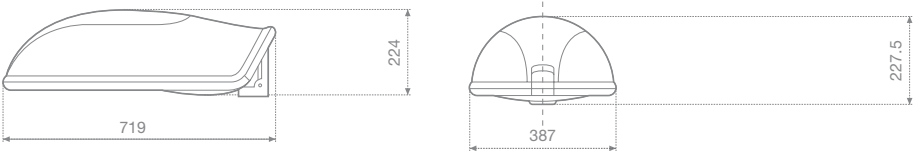
Vision XL LED

The bigger brother of the regular Vision Plus, ideal for road lighting applications, it provides greater light output than its smaller counterpart. Design-wise it utilises the same high quality materials and tool-free operation, but delivers greater lighting performance.

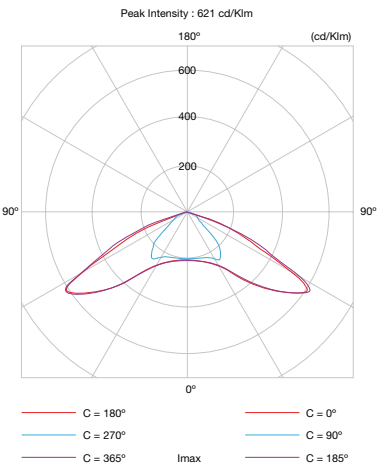


Benefits	Features
>50,000hrs	IP66
Optional photocell, dimming or CMS	Tool free access
Optimised lighting system	4mm tempered flat glass
	15°, 4 position tilt system
	Adjustable spigot for post mounted or side entry
	Integrated secondary lenses
	Colour: RAL 7038 grey with RAL 7039 dark grey

Dimensions in mm



Polar diagram – 72 LED version



AL6820 series

Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature	Weight	Windage
AL6821	36, 48, 72 x 1W LEDs	500mA	3460/4610/5050 lm	6000K	11.3Kg	0.275m ²

Lightblade LED

A totally new concept in road lighting, the Lightblade is radically different in looks, style and thinking from what's gone before. Suitable for all classifications of highways and roads, it represents the second generation of LED road lantern design. Over 90% of the Lightblade's component parts are recyclable, and it is highly energy efficient, being capable of incorporating the latest in lighting control technology.

Benefits

>50,000hrs

Future-proof plug and play LED modules for maintenance on site or upgrades

Protective cover over cooling fins

Effective road lighting

Two lantern sizes available (90W/140W)

Provides excellent reliability and long lifespan

Extended maintenance periods

Features

IP65

Integral cover

Optimised lighting system

Driver unit: constant current power supply (PFC >0.95, Ef >92%@240V)

Modular lighting cells with individual lens optics

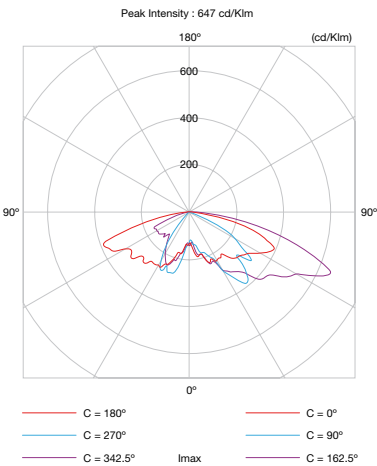
Light modules: passive thermal dissipation

5-step lantern vertical adjustment

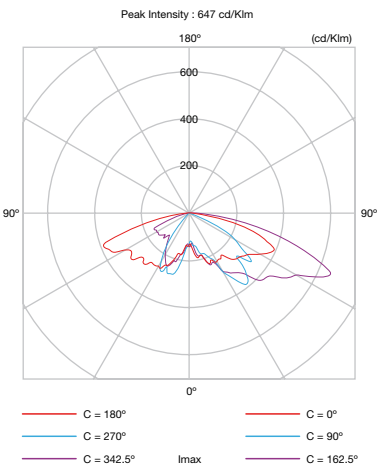
Optional photocell/dimming/CMS

Polar diagram

Lightblade 140W



Lightblade 90W

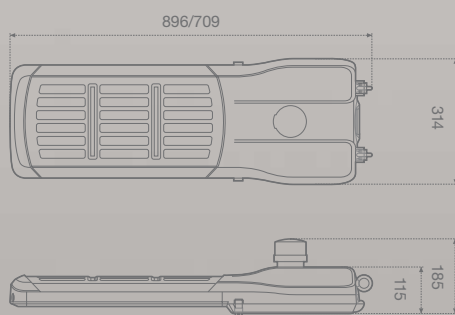


AL6700 series

Product variation	Product code	No of LEDs and wattage	Driver current	Lumen output	Colour temperature	Weight	Windage	Dimensions (mm)
90W series	AL6701	80 x 1.2W	350mA	8536lm	6000K	9.5Kg	0.076m ²	728x314x185
140W series	AL6751	128 x 1.2W	350mA	13500lm	6000K	13.5Kg	0.094m ²	896x314x185



Dimensions in mm



The Abacus Advantage

We're not just about product supply, for over 50 years we've been helping our customers with design and planning all the way through to installation and LED is no different. We can help you with this new technology and guide you through which products are right for your scheme. We can calculate pay back periods on LED installations too.

Energy management

We can help in a variety of ways with energy management and intelligent controls, from dimming and zoning solutions through to wi-fi CMS systems. Coupling this with our LED products means you get super efficient lighting control, lower energy usage and lower carbon emissions.

Our team of electrical and lighting designers can design bespoke schemes for you to get the most out of your energy usage.

Planning

- Full project management service
- Consultancy service for obtaining planning permission
- Site inspections

Design

- Tailored lighting design - low light pollution systems
- 3D CAD designs
- Structural/mechanical design - bespoke masts and headframes
- Electrical design

Product

- Base-hinged masts
- Lowering headframes masts
- Fixed masts
- Telescopic masts
- Exterior lanterns and floodlights
- Columns

Installation

- Foundation trenching, installation and cable laying
- Electrical inspections and installations
- Worldwide mast assembly and installation
- Consultancy service for mast installation

Aftercare

- Commissioning
- Aiming of floodlights
- Lighting level checks

Accreditations

- ISO 9001
- ISO 14001
- OHSAS 18001
- LinkUp audited
- NICEIC (National Inspection Council for Electrical Installation Contracting)
- BSI (British Standards Institution)
- CHAS (Construction Health and Safety Scheme)
- PTS (Personal Track Safety)
- CSCS (Construction Skills Certification Scheme)
- CPCS (Construction Plant Competence Scheme)



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Please note all technical data has been compiled
with care but errors may occur. We reserve
the right to make alterations in the interest of
improving our products.
