DW Windsor

Solar Lighting

Sustainable lighting solutions
powered by the sun

Let there be light

At DW Windsor, we design lighting that connects people, place, and planet. Our growing solar portfolio reflects this commitment, offering practical, high-performance solutions that deliver light responsibly and efficiently.

With more than a decade of solar experience, we pair proven technology with expert in-house support to help customers achieve reliable, long-lasting results. Inside this brochure, you'll discover our latest range of off-grid and hybrid solar lighting solutions for a wide variety of applications.

Contents

Why choose solar lighting?	3
How we design for solar	5
Solar lighting technology	7
Off-grid solar solutions	10
Hybrid solar solutions	17

Why choose solar lighting?

Solar lighting is redefining how we illuminate our streets and spaces. Using energy drawn directly from the sun, it provides a sustainable, and cost-effective alternative to traditional grid-powered systems. Whether completely off-grid or supported by a hybrid configuration, solar technology offers greater flexibility and resilience for every environment.

Clean, renewable energy

Solar lighting harnesses an abundant natural resource to cut reliance on fossil fuels and lower carbon emissions. By generating light from a clean source, every off-grid and hybrid system supports a more sustainable, low-carbon future.

Reduced energy costs

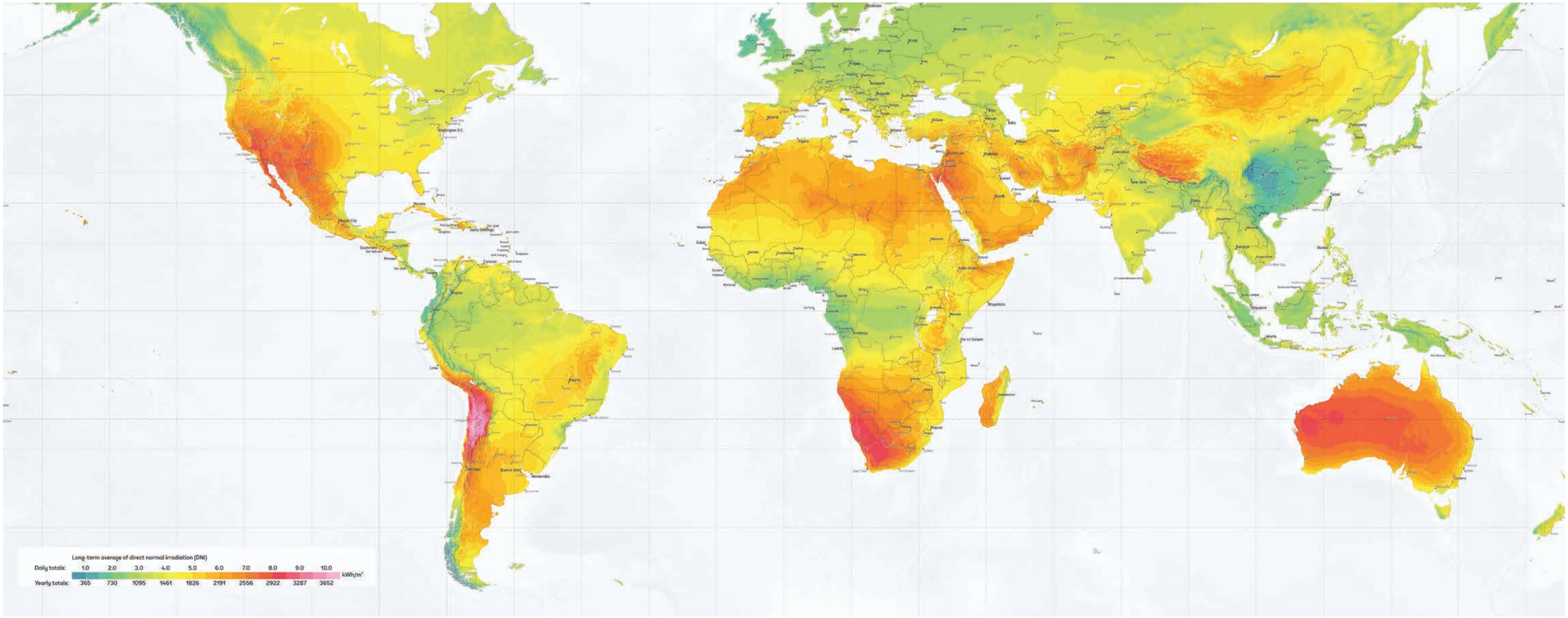
Once installed, solar lighting significantly lowers electricity use and operating costs. Off-grid systems run entirely on solar power, while hybrid solutions offset grid consumption, reducing energy spend and environmental impact.

Light where it's needed

With no cabling or trenching required, solar lighting can be installed almost anywhere. Off-grid systems bring light to remote or sensitive locations, while hybrid options extend solar benefits to higher-demand sites.

Easy to install

Solar lighting systems are quick to deploy with minimal ground disturbance or electrical work. Ideal for retrofit or new projects, they offer faster installation, lower disruption, and immediate results wherever light is needed.



How we design for solar

At DW Windsor, we recognise that every solar lighting project is unique, shaped by its location, usage, and environment. Guided by our experienced team, our Power Design approach provides tailored support to ensure each scheme is optimised for performance and delivers reliable, year-round light.

1

Initial assessment

We begin by gathering detailed site data and customer requirements. This includes location, usage patterns, and environmental conditions to evaluate whether solar is a feasible and appropriate option.

2

Lighting design

We create a tailored lighting design to understand if solar will work effectively on-site. This includes identifying optimal column positions and accounting for shading from trees or surrounding structures.

3

Power analysis

We analyse the available solar energy at each site, focusing on the year's most challenging months. This ensures the system delivers reliable performance, even during periods of low solar irradiance.

4

Product specification

We recommend the most suitable solar solution based on project needs and design goals. This includes the luminaire choice and solar configuration to deliver the desired performance and appearance.

Solar lighting technology

At DW Windsor, our solar lighting solutions combine advanced technology with high-quality materials to ensure consistent, long-term performance. Each system is precision-engineered for reliability and efficiency, delivering dependable, energy-efficient lighting in all conditions. Designed for durability, our solutions provide lasting quality across a wide range of environments and applications.

Photovoltaic panels

We utilise high-efficiency solar panels featuring advanced HPBC and monocrystalline technology to increase energy capture and durability, maximising performance and ensuring reliable charging throughout the year.

Lithium iron battery

Our solar solutions utilise lithium iron phosphate (LiFePO4) batteries which offer significant advantages over other battery types due to their higher energy density, including a longer lifespan and a wider operational temperature range.

Charge controller

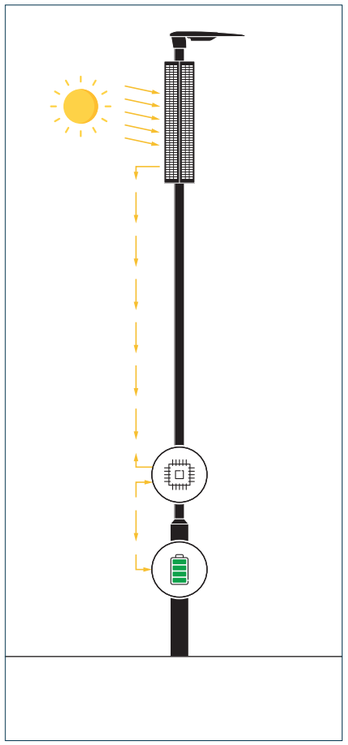
We use advanced MPPT charge controllers, programmed to optimise energy efficiency and manage light output through custom dimming profiles. This ensures consistent performance, extended battery life, and reliable operation.

Motion sensors

Motion sensors adjust light levels in response to activity, reducing energy use during quieter periods while maintaining safety and comfort, helping to extend battery life and ensures light is available whenever it's needed.

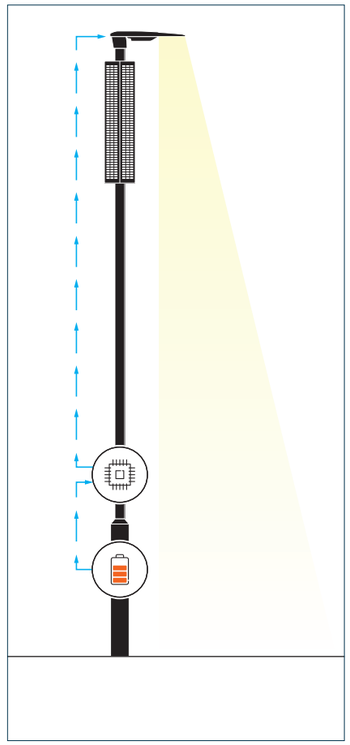
How solar systems work

Solar lighting systems operate as off-grid or hybrid solutions. Off-grid systems rely solely on solar energy, while hybrid systems draw from both solar and mains power to maintain consistent performance. The type of system you choose will depend on your lighting requirements and metering arrangements.



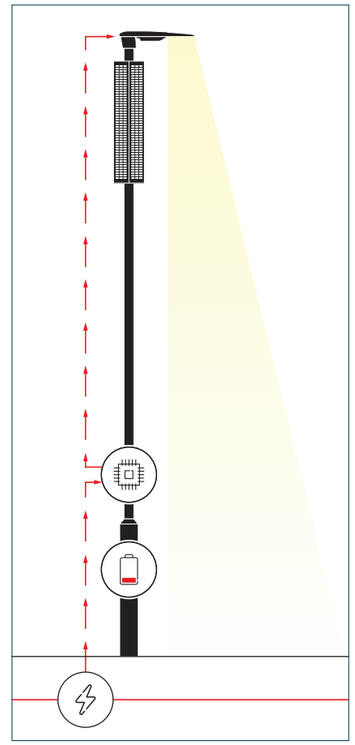
Charging

Solar panels capture sunlight and store energy in the system's battery throughout the day. This stored power is managed efficiently to provide dependable illumination after dark.



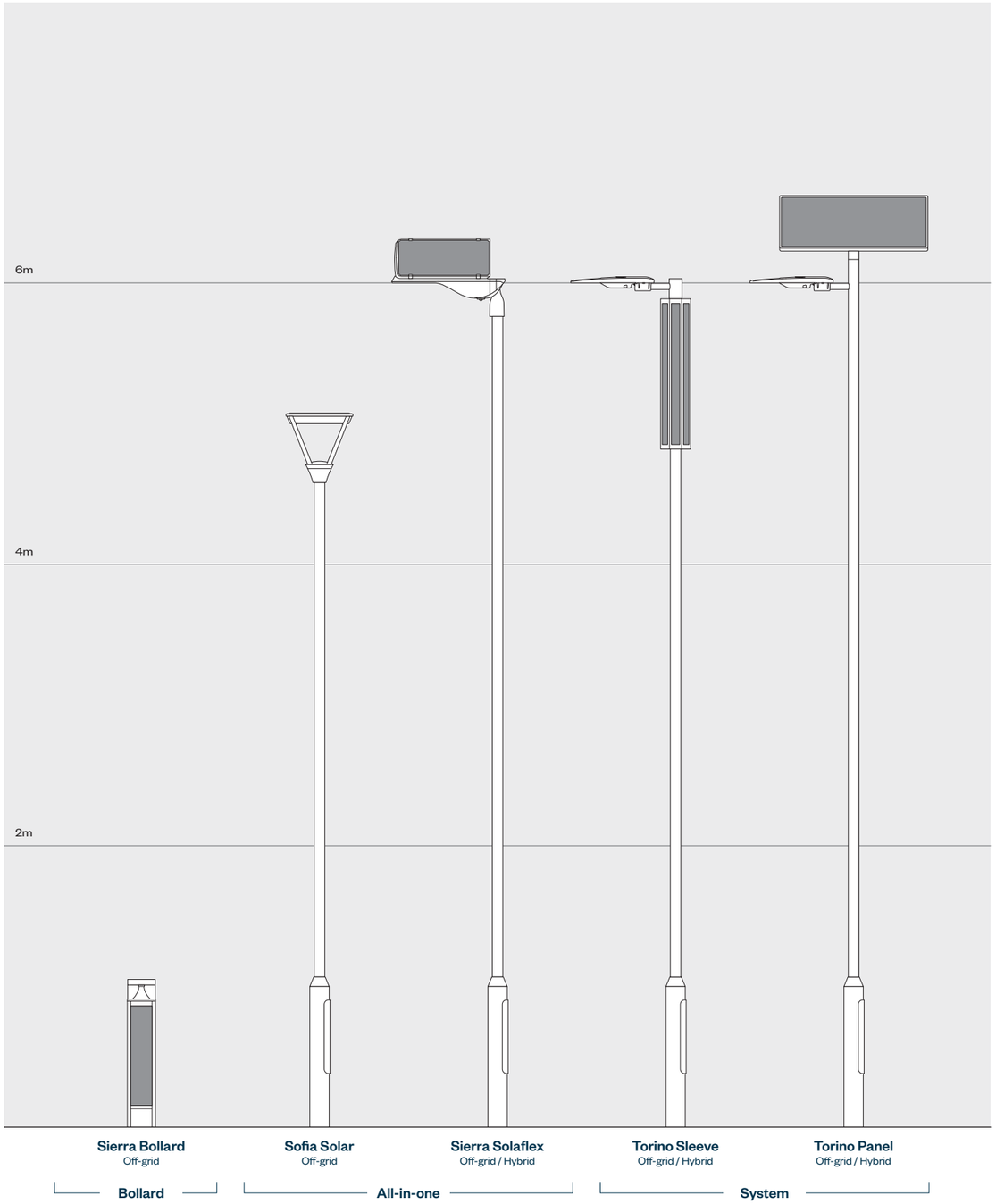
Off-grid Solar

Off-grid systems operate independently from the mains supply, using stored solar energy to power the luminaire, and a PIR sensor to ensure illumination is provided when required.



Hybrid Solar

Hybrid systems combine solar generation with a mains connection to ensure continuous lighting. When solar energy is depleted, the system automatically draws power from the electrical grid.

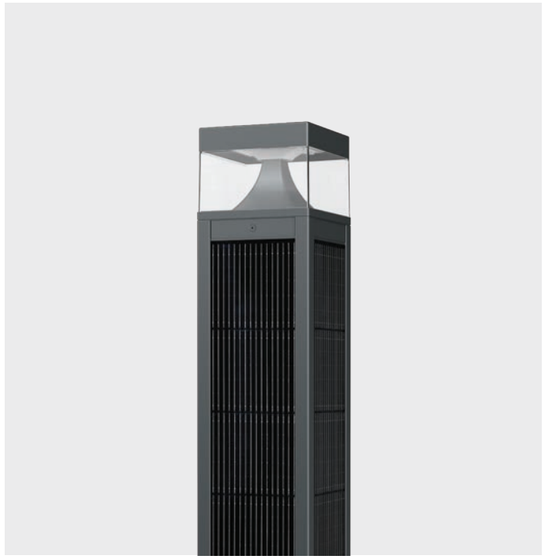


Solar lighting solutions

We offer a range of off-grid and hybrid solar lighting solutions – from all-in-one solar bollards and lanterns with integrated panels, to modular solar systems which can be customised to suit the specific needs of your location, helping to deliver the right light in the right place at the right time.

Off-grid
Solar Solutions

OFF-GRID SOLAR



Sierra Bollard

Off-grid solar bollard

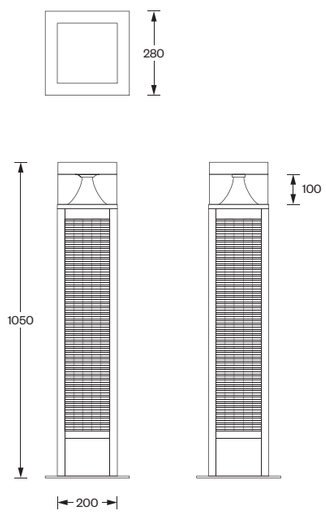
Sierra Bollard is a high-quality solar-powered solution combining robust construction with a refined, modern square profile. Featuring precision optics and integrated panels on all four sides, it provides reliable charging and flexible installation for pathways, parks, and car parks.

Typical applications

- Parks
- Footpaths
- Retail parks

Technical details

Lumen output:	up to 1,300lm
Power:	10W
Optical control:	2 distributions
Colour temperature:	2200K / 2700K / 3000K / 4000K
Solar panel:	88W (4x 22W)
Battery capacity:	230Wh
Control:	Pre-programmed dimming Integrated microwave sensor
Materials:	Die-cast aluminium housing Polycarbonate diffuser Monocrystalline panel Lithium iron phosphate battery
Mounting:	Flange plate



Luminaire Colour:

BLACK RAL 9011

IP 65 · IK 08 · UKCA · CE

OFF-GRID SOLAR

Sofia Solar

Off-grid solar lantern

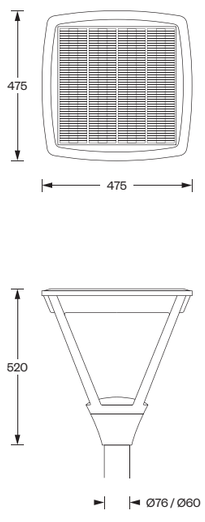
Sofia Solar is a contemporary, post-top luminaire that draws inspiration from traditional lanterns. It features an elegant, open-sided design and an integrated solar panel for a more discreet appearance. The luminaire is also Dark Sky friendly, helping to combat light pollution.

Typical applications

- Footpaths
- Parks & plazas
- Business parks

Technical details

Lumen output:	up to 1,800lm
Power:	12W
Optical control:	4 distributions
Colour temperature:	2700K / 3000K / 4000K
Solar panel:	18W*
Battery capacity:	154Wh
Control:	Integrated PIR sensor
Materials:	Die-cast aluminium housing Tempered glass glazing Monocrystalline panel Lithium iron phosphate battery
Mounting:	Ø76 / Ø60mm post-top



Luminaire Colour:

BLACK RAL 9005 · METALLIC GREY RAL 9007

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*Expandable with Torino Sleeve

OFF-GRID SOLAR

Sierra Solaflex®

Off-grid solar lantern

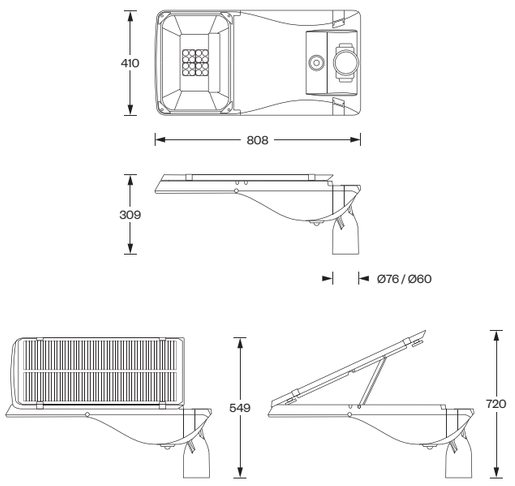
Sierra Solaflex is a next-generation all-in-one solar streetlight combining a sleek, contemporary design with a fully adjustable solar panel. Independently orientated from the luminaire, it maximises solar capture and delivers reliable, year-round performance across all locations.

Typical applications

- Car parks
- Cycleways
- Housing developments

Technical details

Lumen output:	up to 6,850lm
Power:	39W
Optical control:	12 distributions
Colour temperature:	2200K / 2700K / 3000K / 4000K
Solar panel:	50W
Battery capacity:	576Wh
Control:	Pre-programmed dimming Integrated PIR sensor
Materials:	Die-cast aluminium housing Tempered glass glazing HPBC (monocrystalline) panel Lithium iron phosphate battery
Mounting:	Ø76 / Ø60mm post-top & side entry



Luminaire Colour:
(other colours available on request)

BLACK RAL 9005 | MID GREY RAL 7046

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OFF-GRID SOLAR

Sierra Solaflex® Plus

Off-grid solar lantern

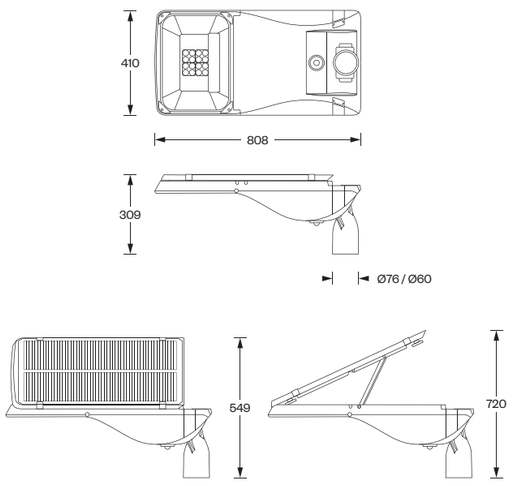
Sierra Solaflex Plus builds on the proven Solaflex design, integrating advanced Zhaga D4i driver technology for enhanced control and connectivity. Offering Bluetooth and CMS capability, it provides intelligent, adaptable lighting with the same reliable, all-in-one solar performance.

Typical applications

- Car parks
- Cycleways
- Housing developments

Technical details

Lumen output:	up to 6,850lm
Power:	42W
Optical control:	12 distributions
Colour temperature:	2200K / 2700K / 3000K / 4000K
Solar panel:	50W
Battery capacity:	576Wh
Control:	Bluetooth / CMS Enhanced PIR / Photocell Real time dimming Zhaga socket expansion
Materials:	Die-cast aluminium housing Tempered glass glazing HPBC (monocrystalline) panel Lithium iron phosphate battery
Mounting:	Ø76 / Ø60mm post-top & side entry



Luminaire Colour:
(other colours available on request)

BLACK RAL 9005 | MID GREY RAL 7046

IP 66 | IK 08 | UK CA | CE | D4i

OFF-GRID SOLAR

Torino Sleeve

Off-grid solar system

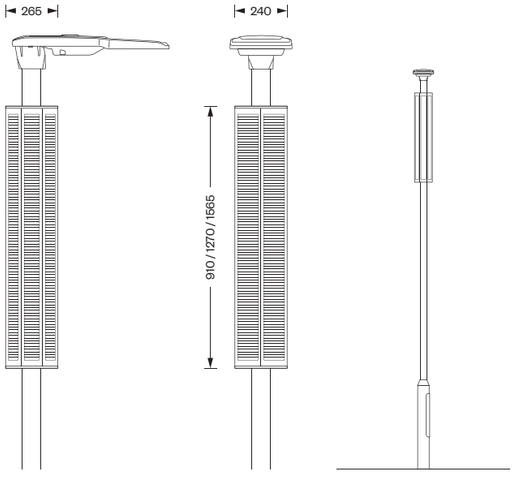
Torino Sleeve is a vertical solar solution featuring wraparound photovoltaic panels to maximise solar absorption regardless of orientation. Available in three sizes, the tubular design is also wind and weather-resistant. Torino Sleeve can be specified with almost all of DW Windsor luminaires.

Typical applications

- Footpaths
- Car parks
- Housing developments

Technical details

Lumen output:	up to 6,000lm
Power:	up to 40W
Optical control:	Luminaire dependant
Colour temperature:	Luminaire dependant
Solar panel:	100W / 150W / 200W
Battery capacity:	307Wh / 691Wh
Control:	Pre-programmed dimming Integrated PIR sensor
Materials:	Die-cast aluminium frame Monocrystalline panel Lithium iron phosphate battery
Mounting:	Ø76 / Ø60mm post-top & side entry



Sleeve Colour:
(see website for individual luminaire colour options)

BLACK RAL 9005

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OFF-GRID SOLAR

Torino Panel

Off-grid solar system

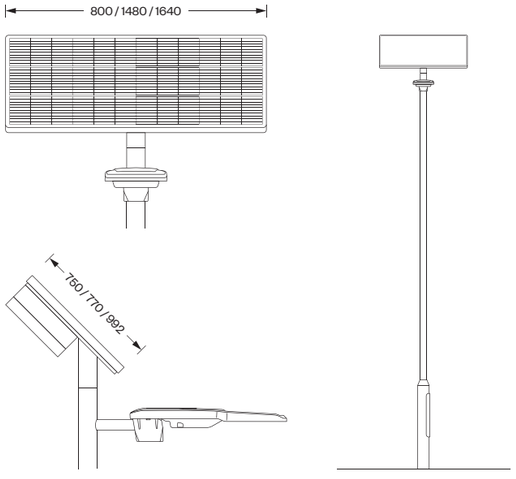
Torino Panel is a simple, cost-effective solar solution featuring a flat photovoltaic panel mounted directly to the top of the column. With a tilt angle optimised for the UK, the panel can be easily orientated on site to maximise solar absorption. Torino Panel can be specified with a range of DW Windsor luminaires.

Typical applications

- Footpaths
- Car parks
- Housing developments

Technical details

Lumen output:	up to 6,000lm
Power:	up to 40W
Optical control:	Luminaire dependant
Colour temperature:	Luminaire dependant
Solar panel:	100W / 200W / 300W
Battery capacity:	307Wh / 691Wh
Control:	Pre-programmed dimming Integrated PIR sensor
Materials:	Aluminium frame Monocrystalline panel Lithium iron phosphate battery
Mounting:	Ø60mm side entry



Frame Colour:
(see website for individual luminaire colour options)

BLACK RAL 9005 | MID GREY RAL 7046 | LIGHT GREY RAL 7035

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Hybrid
Solar Solutions

Sierra Solaflex® Hybrid

Hybrid solar lantern

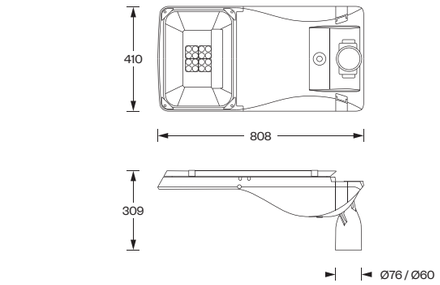
Sierra Solaflex Hybrid combines solar efficiency with the reliability of mains power. Using the same fully adjustable panel design as Solaflex, it maximises solar capture while seamlessly switching to grid supply only when required for guaranteed year-round performance.

Typical applications

- Car parks
- Cycleways
- Housing developments

Technical details

Lumen output:	up to 14,000lm
Power:	51W - 78W
Optical control:	12 distributions
Colour temperature:	2200K / 2700K / 3000K / 4000K
Solar panel:	50W
Battery capacity:	576Wh
Control:	Pre-programmed dimming
Materials:	Die-cast aluminium housing Tempered glass glazing HPBC (monocrystalline) panel Lithium iron phosphate battery
Mounting:	Ø76 / Ø60mm post-top & side entry



Luminaire Colour:
(other colours available on request)

BLACK RAL 9005 | MID GREY RAL 7046

IP 66 | IK 08 | UK CA | CE

HYBRID SOLAR

Torino Sleeve Hybrid

Hybrid solar system

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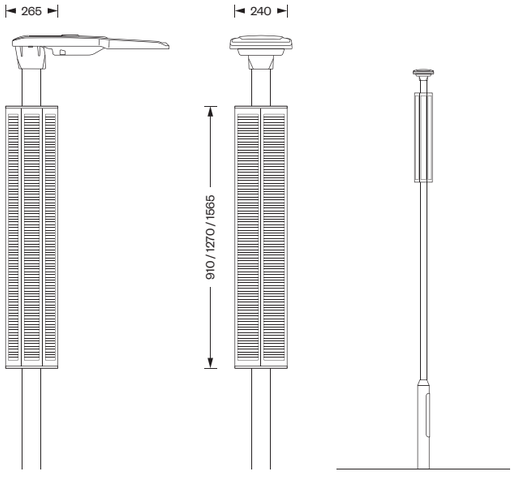
Typical applications

- Footpaths
- Car parks
- Housing developments

Technical details

Lumen output:	up to 11,000 lm
Power:	up to 72 W
Optical control:	Luminaire dependant
Colour temperature:	Luminaire dependant
Solar panel:	100 W / 150 W / 200 W
Battery capacity:	307 Wh / 691 Wh
Control:	Pre-programmed dimming
Materials:	Die-cast aluminium frame Monocrystalline panel Lithium iron phosphate battery
Mounting:	Ø76 / Ø60mm post-top & side entry



Sleeve Colour:
(see website for individual luminaire colour options)

BLACK RAL 9005

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HYBRID SOLAR

Torino Panel Hybrid

Hybrid solar system

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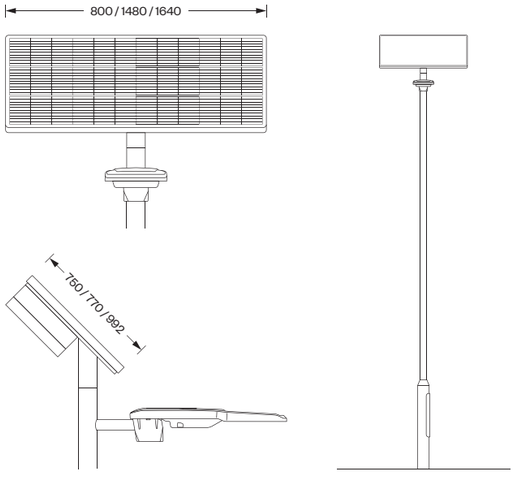

Frame Colour:
(see website for individual luminaire colour options)

BLACK RAL 9005 | MID GREY RAL 7046 | LIGHT GREY RAL 7035

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Notes

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

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