ORION LED AL4500

IP66 | ULOR <1% | LOW LIGHT POLLUTION

Benefits

- Asymmetrical beam distribution ideal for boundary mounting location to reduce overspill and wasted light
- Symmetrical beam distribution ideal for wide column spacings whilst maintaining light uniformity

Technical Features

- IP66 rated
- Available in symmetrical and asymmetrical beam distributions
- Acrylic bowl and white polyester powder coated acrylic top canopy as standard
- 3mm thick aluminium LED mounting plate
- Die-cast aluminium top cap heat sink
- Die-cast aluminium spigot
- LEDs are covered by lenses with an outer bowl on the main fitting
- Harvard CLH150-1000S2A-305-B drivers
- Cree XPL LEDs
- L70 Hrs >60000
- L80 Hrs >60000
- Running current 1000mA
- Less than 1% upward light output ratio
- Colour rendering 77 (Ra)
- Colour temperature 4000K as standard
- Drivers located remotely
- Weight: 18.2kg
- Windage: 0.178m^2

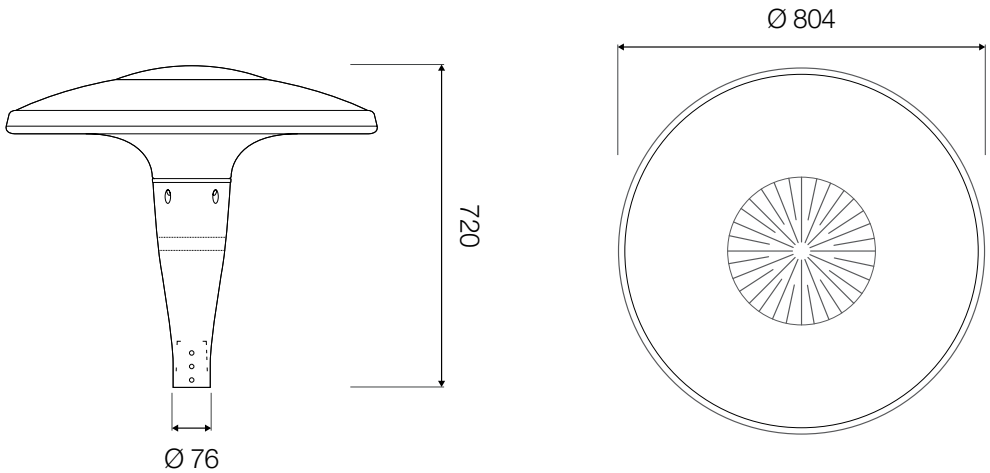
Applications

- Amenity
- Car park

Colour

◯ White canopy

Key features



All dimensions are in mm.

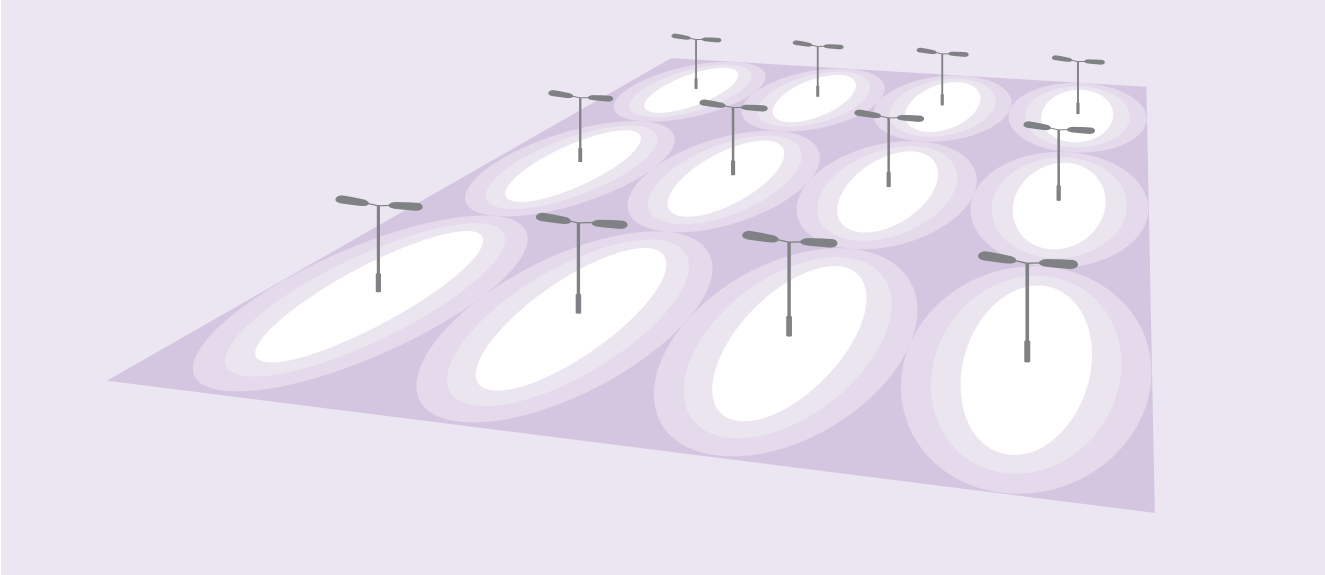
	Wattage (W)	Distribution	No. of LED Modules	Lumen Output (lm)	Power Factor	Luminous Efficacy (lm / W)	Running Current (mA)	No. of Drivers *
AL4501	302	Symmetric	8	32036	0.994	106	1000	2
AL4502	231.6	Asymmetric	6	24795	0.989	107	1000	2
AL4503	153.8	Symmetric	4	16946	0.994	110	1000	1
AL4504	117	Asymmetric	3	12723	0.990	109	1000	1
AL4505	172.5	Asymmetric	6	19426	0.961	111	1000	1

*Drivers: Harvard CLH150-1000S2A-305-B

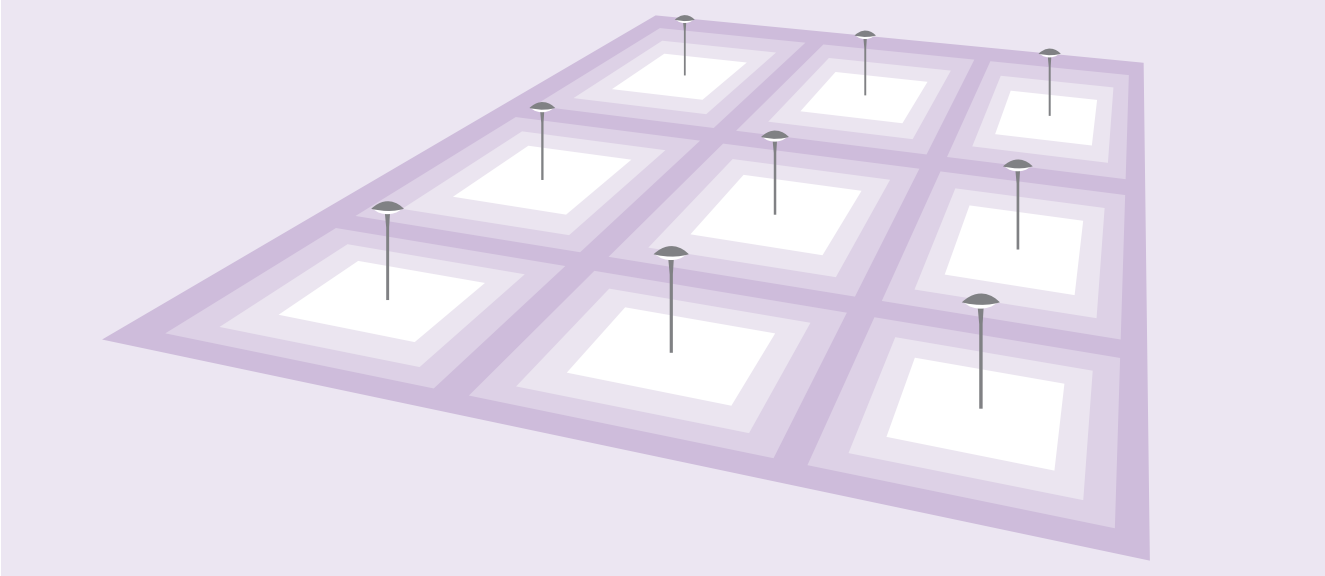
Orion LED distribution

Fitting	No. of Columns	No. of Luminaires	Mounting Height (m)	Average Lux Level (Lux)	Uniformity	Total Energy Consumption (W)	Power Density
Road Lantern	12	24	8	25.47	0.33	6.000	0.600W/m²/25 Lux
Orion LED	9	9	8	25.19	0.26	2.682	0.268W/m²/25 Lux

Using back-to-back road lanterns mounted at 8m to achieve 25 Lux average, total energy consumption is 6000 Watts



Using Orion LED mounted at 8m achieving 25 Lux average, total energy consumption drops to 2682 Watts

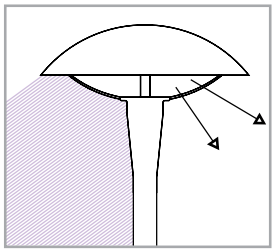


OPTIMUM REFLECTOR STORY

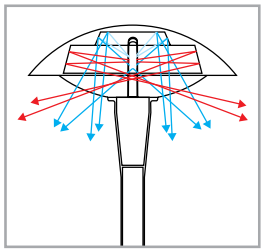
Optimum Reflector System

This unique and patented reflector system was developed to provide high optical performance within a low profile body. The twin step reflector balances the light output between the areas below the lantern and the furthest areas away. Its unmatched uniformity and performance delivers economies on power, column and associated infrastructure costs.

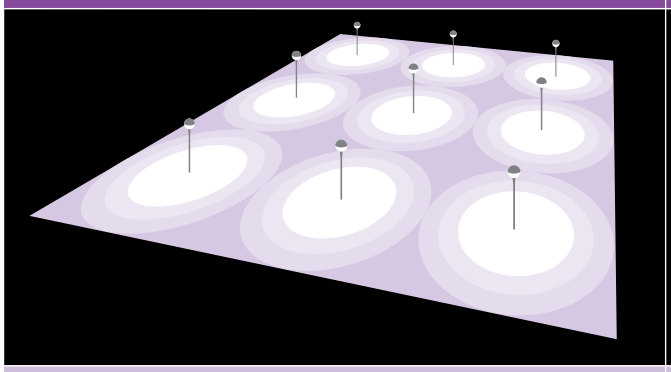
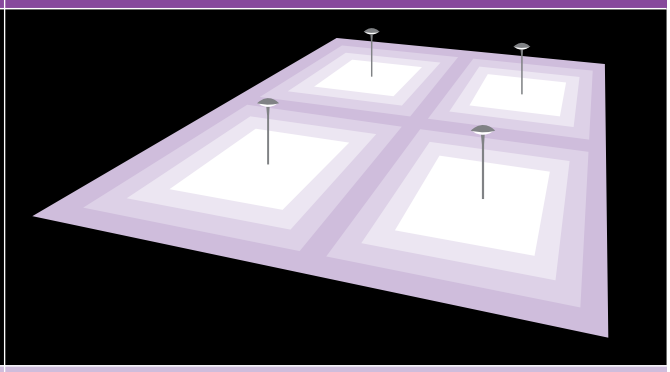
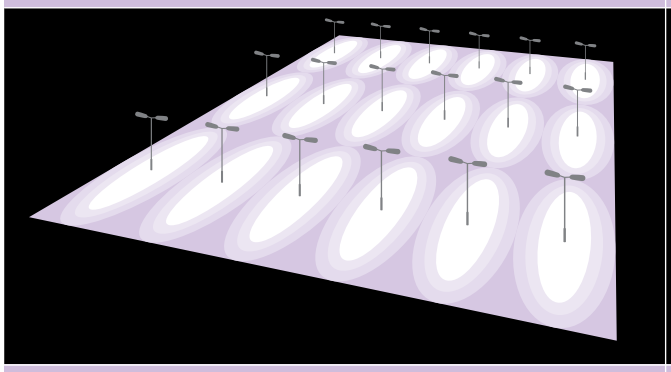
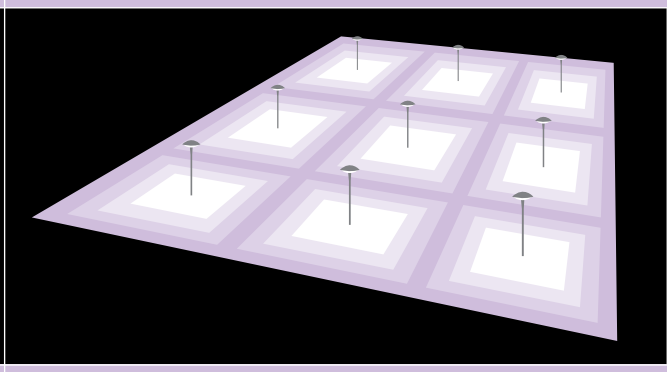
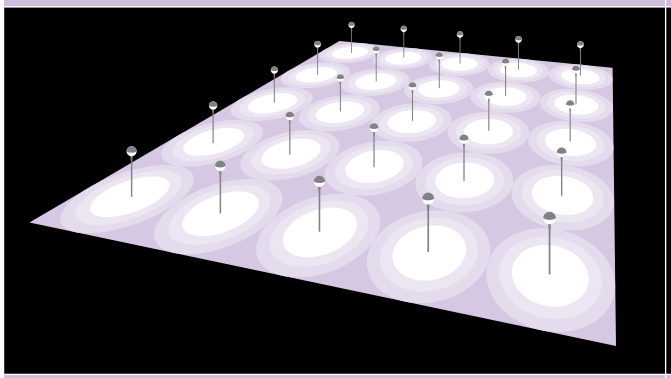
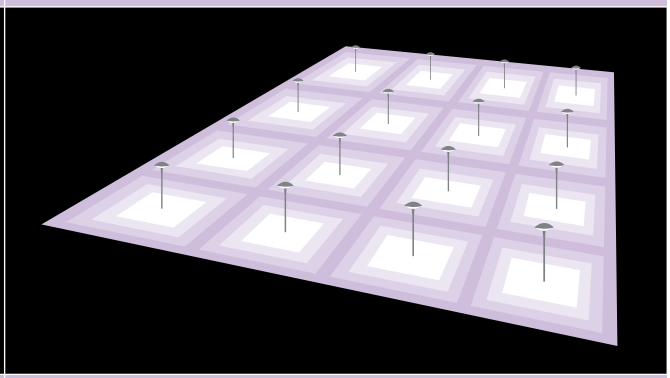
The energy effectiveness of the Optimum Reflector System in comparison with standard reflector systems is clearly shown when the power density per unit illuminance level of an installation is measured. In examples below, we compare different systems based on a 100m x 100m area illuminated to 25 Lux from either 6m, 8m or 12m with a minimum uniformity of 0.25 Emin/Eave.



Shade
Asymmetric version, with internal 120° shield to restrict overspill



Optimum Reflector System
- Upper Reflector Tier for diffused reflection
- Lower Reflector Tier for main beam

CONVENTIONAL REFLECTOR SYSTEMS	OPTIMUM REFLECTOR SYSTEM
	
9 x Lanterns at 12m: 1 x 400W SON-T Energy Consumption: 3.87kW Power Density: 0.36W/m²/25 Lux Cable lengths: 390m Columns/Foundation: 9	**4 x Orion at 12m: 2 x 400W SON-T** Energy Consumption: 3.44kW Power Density: 0.33W/m²/25 Lux Cable lengths: 260m Columns/Foundation: 4
	
18 x Twin Road Lanterns at 8m: 2 x 150W SON-T Energy Consumption: 5.4kW Power Density: 0.50W/m²/25 Lux Cable lengths: 550m Columns/Foundation: 18	**9 x Orion 2 at 8m: 400W SON-T** Energy Consumption: 3.87kW Power Density: 0.36W/m²/25 Lux Cable lengths: 410m Columns/Foundation: 9
	
25 x Standard Reflectors at 6m: 250W SON-T Energy Consumption: 6.9kW Power Density: 0.84W/m²/25 Lux Cable lengths: 700m Columns/Foundation: 25	**16 x Orion 3 at 6m: 250W SON-T** Energy Consumption: 4.14kW Power Density: 0.38W/m²/25 Lux Cable lengths: 620m Columns/Foundation: 16

For comparison purposes the lighting levels are calculated on initial levels. Cables are assumed to lead to a central point on one side.
Optimum Reflector System Patent No. 1151226