



Expanding the boundaries of lighting™



THE QUEEN'S AWARD FOR ENTERPRISE INNOVATION







INNOVATION AND EFFICIENCY

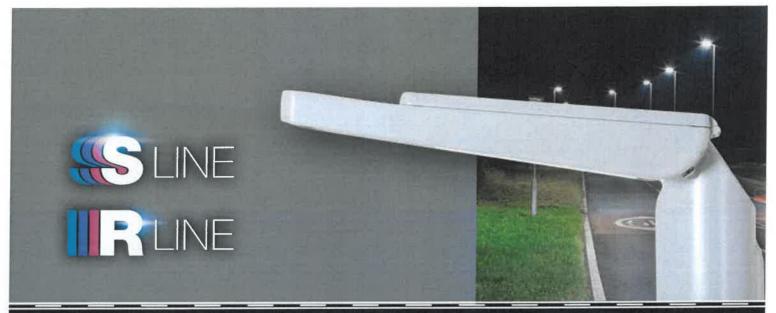
REGISTERED EUROPEAN DESIGN















Innovation and efficiency

The new 'Line' range from Holophane is a family of luminaires developed to deliver an innovative and modern lighting system for a range of street lighting applications.



The product design process at Holophane focuses on making the most efficient and reliable technology a reality. This aspiration has resulted in developments with a lasting impact. In other words, our work ensures that we are delivering the latest technologies with class leading quality. With the introduction of the new 'Line' range of luminaires we are continuing this trend. Low profile styling, adaptable mounting design and customised optics that allow for maximum column spacing, lighting and uniformity mean that the 'Line' range delivers the complete street lighting solution.

optics / light source

- > Available with a variety of optical packages
- > Lumen packages ranging from 1,000 to 17,000 lumens
- > 4000°K and 3000°K colour temperature
- > 100,000 hours life (L90B10) at 25°C tq
- > +/- 10° tilting (2.5° increments)

approvals

CE

IP 66 light engines (BS EN 60598-1)
IP 66 gear compartment (BS EN 60598-1)

Ta -40°C to +50°C

IK10 (EN 62262)

ENEC approved*

*please contact Holophane for more details

For further information please visit the Holophane website www.holophane.co.uk











performance characteristics

R-Line



Lumen range: 4,000 to 17,000 Power Consumption: 28W to 134W Lifetime: 100,000 @ L90B10 25°C tq Colour Temperature: 3000°K or 4000°K

CRI: 70

Optical IP Rating: IP66 Housing IP Rating: IP66 Impact Resistent: IK10

Controls Options:

DALI, Integrated Wireless controls.

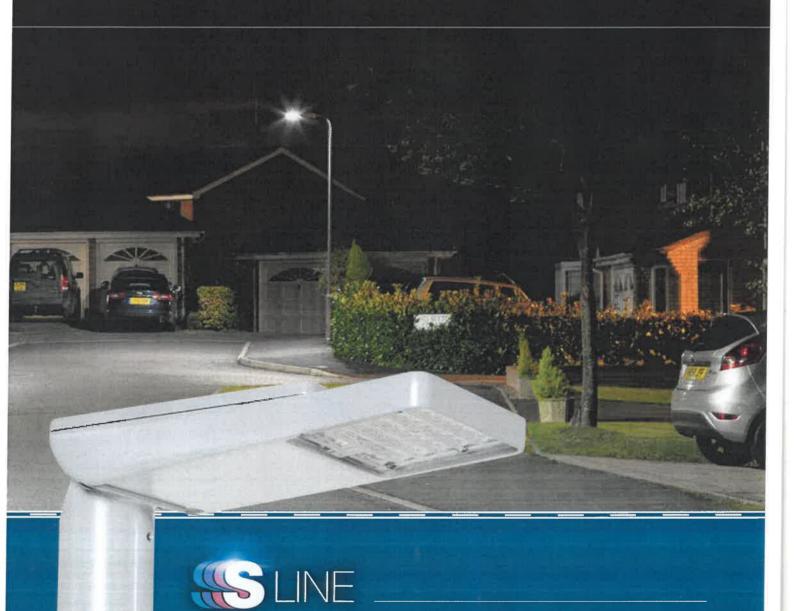
Electrical Class: Class I or II

Weight: 5kg Material:

Optic: 5mm tempered glass lens

Mounting: Post Top 76mm/60mm Side Entry 34mm/42mm/60mm

Tilting: +/- 10° tilt. (2.5° increments)



Electrical Class: Class I or II

Post Top 76mm/60mm Side

Tilting: +/- 10° tilt. (2.5° increments)

Adapter: High pressure die-cast aluminium (LM6)

Weight: 4kg

Material:

Mounting:

Lumen range: 1,000 to 8,000

Optical IP Rating: IP66 Housing IP Rating: IP66

Impact Resistent: IK10
Controls Options:

CRI: 70

Power Consumption: 6W to 68W

Lifetime: 100,000 @ L90B10 25°C tq

Colour Temperature: 3000°K or 4000°K

features and benefits

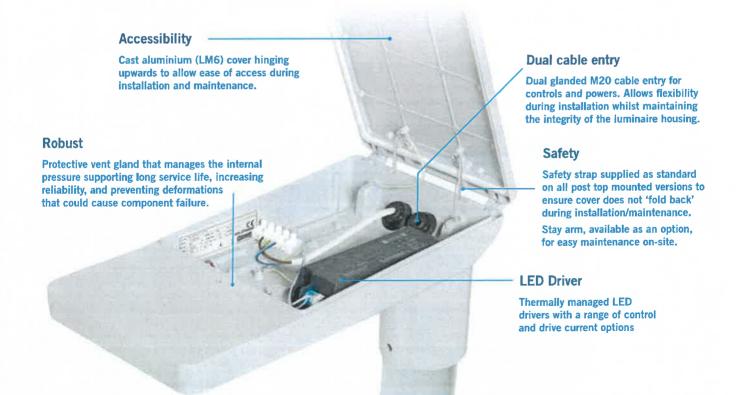
Installation/Maintenance

Convenient luminaire access from the top, via captive screw.

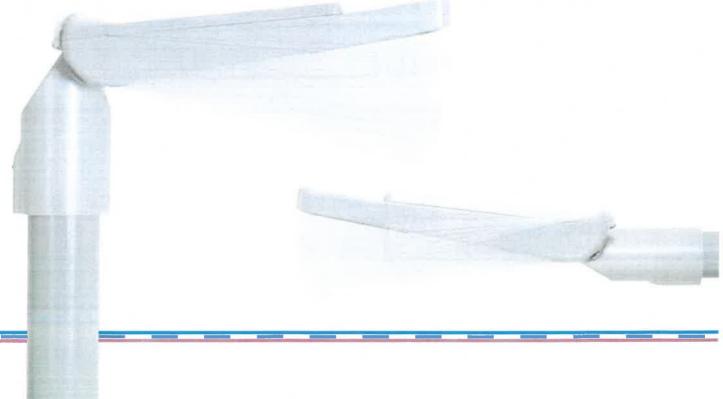
The LED light engine is separate from the driver, which encourages heat dissipation by way of conduction.











technical specifications

Enclosure - IP66

In accordance with BS EN 60598-1, IP66 luminaire enclosure has been achieved. A series of bespoke seals designed for the luminaire ensure that the IP66 seal is maintained.

Impact rating - IK10

In accordance with EN 62262, IK10 impact protection rating has been achieved. Maximum protection to ensure the projected life of the luminaire is maintained. The IK10 rating is achieved via the 4mm/5mm thick tempered glass lens.



Control

Using programmable gear, DALI protocol, the lighting is managed in a more efficient manner, minimising consumption and maximising performance. Available as part of an Integrated wireless controls system.



Mounting Arrangements

Suitable for post top (76mm/60mm) and side entry (60mm/42mm/34mm) mounting arrangements.





Electrical class Available in Cl and Cll.

Wallable III O





Pressure equalisation valve

The luminaire has a pressure equalisation valve that offsets interior/ exterior pressure. The integration of the valve extends the projected life of the seals and interior parts by reducing the pressure placed on them and prevents moisture from entering which can lead to condensation.



Overvoltage surge protector

S-Line and R-Line can be specified to include an overvoltage protection system, that protects the electronic parts of the luminaire against overvoltage of up to 10KV/KA.





Specification

The luminaire consists of a die cast LM6 aluminium housing ((EN AC-44100)(AL.Si12)) which is sealed to IP66 with a close cell gasket and M5 stainless steel fastener that also allows access to the gear compartment for electrical termination, LED modules with individual lenses, are mounted directly to the die cast LM6 aluminium housing to aid heat dissipation. The luminaire is also available with a 4mm (S-Line)/5mm (R-Line) tempered glass lens, which is secured to the housing via 4 (S-Line) or 6 (R-Line) stainless steel clips, to deliver an IK10 impact resistance. The luminaire is suitable for post mounting (60/76mm) and side entry (34/42/60mm) with the ability to adjust onsite by -10° to +10° tilt*.

3000K or warmer must be selected for IDA dark sky certification.

Features and benefits

Sleek Design

- > Slim design with a range of lumen packages that can be adapted dependent on the required lighting performance thus ensuring visual and performance consistency for a variety of street lighting schemes.
- > Suitable for post top or side entry mounting without the requirement for an additional bracket.

Enhanced Thermal Management

> LED modules and electronic driver are mounted in direct contact with die cast housing to aid heat dissipation by way of conduction and extend the life of all critical electronic components.

High Efficiency LED Technology

> High quality, highly efficient, LEDs used in conjunction with the latest LED drivers ensures that superior lumens per watt and a long system life are achieved.

Fully Controllable Luminaire

- > Developed to offer standalone flexibility for constant lumen output, variable lighting levels and part time regimes.
- > Available with DALI controls option.
- > Compatible with Holophane controls system.







performance example

Pathways & Cul De Sac (P5)

Lighting Class: BS5489 2013 (P5)

Scheme Dimensions:

Mounting Height: 6m Road Width: 9.5m Footpath: 2m

Set-Up: Single Sided

Tilt: 0

Outreach: 0.40m (Luminaire post top mounted)
Column Position: Rear of footbath (2m)

Performance Achieved:

U/O (Emin/Eav): 0.26

Average Illuminance (Eav): 2.09

Minimum Illuminance (Emin): 0.52

Spaning 40m

Luminaire Performance:

Delivered Lumens: 1513

LPW: 116

Energy Consumption: 13W



Residential Roads (P3)

Lighting Class: BS5489 2013 (P3)

Scheme Dimensions:

Mounting Height: 6m Road Width: 11.5m Footpath: 2m

Set-Hor Smale Smart

Tilt: 0°

Outreach: 0.40m (Luminaire post top mounted)
Column Position: Rear of footbath (2m)

Performance Achieved:

U/O (Emin/Eav): 0.34 Average Illuminance (Eav): 6.04

Minimum Illuminance (Emin): 2.06

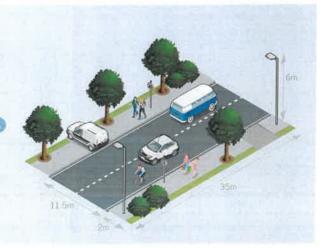
Spacing, 35m

Luminaire Performance:

Delivered Lumens: 4303

LPW: 127

Energy Consumption: 34W



Residential Street (P4)

Lighting Class: BS5489 2013 (P4)

Scheme Dimensions:

Mounting Height: 6m Road Width: 11.5m Footpath: 2m

Set-Up: Single Sided

Tilt: 0°

Outreach: 0.40m (Luminaire post top mounted) Column Position: Rear of footbath (2m)

Performance Achieved:

U/O (Emin/Eav): 0.26

Average Illuminance (Eav): 3.81

Minimum Illuminance (Emin): 0.88

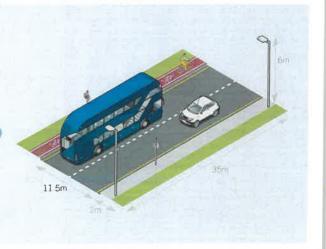
Spacing: 38m

Luminaire Performance:

Delivered Lumens: 3030

LPW: 132

Energy Consumption: 23W





Staggered



Pathways & Cul De Sac (P5)

Lighting Class: BS5489 2013 (P5)

Scheme Dimensions:

Mounting Height: 6m Road Width: 11.5m Footpath: 2m

Set-Up: Staggered

Tilt: 0°

Outreach: 0.40m (Luminaire post top mounted)
Column Position: Rear of footbath (2m)

Performance Achieved:

U/O (Emin/Eav): 0.26

Average Illuminance (Eav): 2.09

Minimum Illuminance (Emin): 0.49

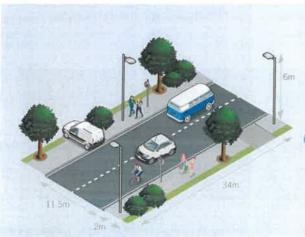
Spacing 39m

Luminaire Performance:

Delivered Lumens: 1513

LPW: 116

Energy Consumption: 13W



Residential Roads (P3)

Lighting Class: BS5489 2013 (P3)

Scheme Dimensions:

Mounting Height: 6m Road Width: 11.5m Footpath: 2m

Set-Ure Staggered

Tilt: 0°

Outreach: 0.40m (Luminaire post top mounted)
Column Position: Rear of footbath (2m)

Performance Achieved:

U/O (Emin/Eav): 0.24

Average Illuminance (Eav): 6.33

Minimum Illuminance (Emin): 1.2

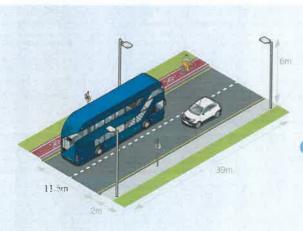
Spacine 34m

Luminaire Performance:

Delivered Lumens: 4326

LPW: 127

Energy Consumption: 34W



Residential Street (P4)

Lighting Class: BS5489 2013 (P4)

Scheme Dimensions:

Mounting Height: 6m Road Width: 11.5m Footpath: 2m

Sat Jin Staggard

Tilt: 0°

Outreach: 0.40m (Luminaire post top mounted)
Column Position: Rear of footbath (2m)

Performance Achieved:

U/O (Emin/Eav): 0.26

Average Illuminance (Eav): 3.81

Minimum Illuminarice (Emin): 0.97

Spacine: 39m

Luminaire Performance:

Delivered Lumens: 3030

LPW: 132

Energy Consumption: 23W

controls compatible with Holophane's Smart Solutions

Street lighting is capable of doing more than ever in today's smart cities. With digital networks and embedded sensors, they collect and transmit information that help cities monitor and respond to any circumstance, from traffic and air quality to crowds and noise. They can detect traffic congestion and track available parking spaces.



Those very same networks can remotely control luminaires to turn on and off, flash, dim and more, offering cities a chance to maximize low-energy lighting benefits while also improving pedestrian and bicyclist safety. With street lights creating a network canopy, those networks of data can be used by more than just lighting departments, empowering even schools and businesses via a lighting infrastructure that brightens the future of the digital city. Smart lighting helps cities save energy, lower costs, reduce maintenance - all while better serving citizens and reducing energy use and

CO2 emissions. Automation and networked control can further increase your energy savings and reduce maintenance spending. Adaptive lighting schemes based on traffic volumes aim to increase light levels when traffic levels are highest to improve safety. In Copenhagen, they have added sensors at junctions and logic which turns luminaires up as cyclists set off from the traffic lights, to ensure they are visible to a driver who might otherwise jump the lights. Leveraging intelligent control systems can rapidly increase lighting efficiencies and traffic management.





Intuitive user interface

Gain in-depth insights into every single aspect of your lighting system. Smart analytics and simple charts will help you make the right decision about your lighting infrastructure.



Automatic failure reports

Lighting-related system faults are identified, and automatic failure reports are sent in real-time. This results in optimized maintenance, better planning, reduced costs and extended luminaire life.



Power metering

Dedicated hardware provides precise energy metering, which is converted into detailed energy usage and savings reports.



Accurate real-time data

Generation of analytics per an individual light point or their groups. Available data includes: notifications about lighting-related faults, number of triggers per light point, generated energy savings, heatmaps, and more.



Map-based visualizations

Outdoor lighting points are represented in a graphic interface on Google Maps, coordinated with GPS technology, which enables you to locate, monitor and control individual light points with ease.



Continuous support

The customer Interface receives periodic security and feature upgrades. We do this to ensure optimum functionality and system performance.



Financial Benefits

By installing a Holophane controls system, you benefit financially, thanks to energy savings and reduced energy costs.

Energy savings of up to 80%



40% - 80%

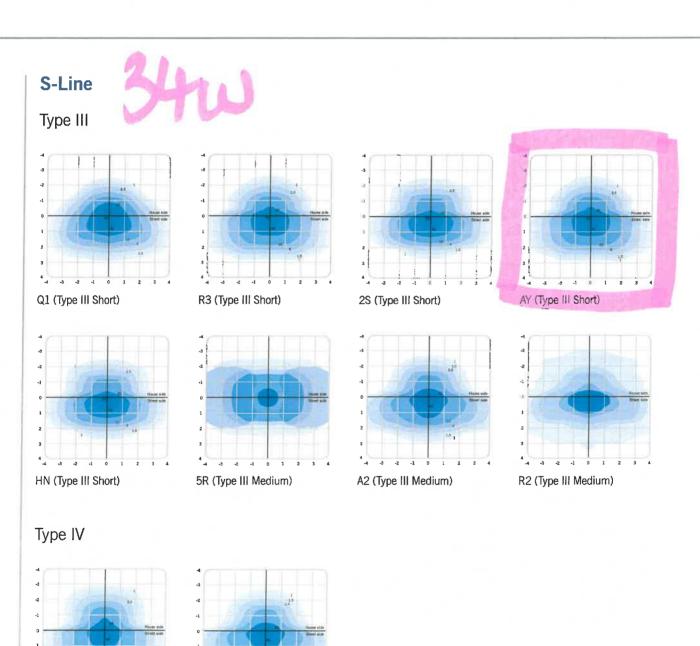
- By using dynamic lighting, it is possible to generate energy savings of 40-80%, depending on the usage environment
- In dense urban environments, the Controlux Air solution has the potential to generate energy savings of 40-50% (in this case, actual savings depend on the traffic intensity)

Maintenance costs savings up to 50%



- Automatic failure reporting
- No need for expensive visual inspections
- Extended luminaire lifetime
- Excellent preventive maintenance

distributions



A4 (Type IV Medium)

ANSI Roadway Lighting Standards.

The ANSI Roadway Lighting Series of standards addresses the variety of possible solutions available when it comes to roadway and area lighting

HA (Type IV Medium)



A4A4 (Type IV Medium)

R-Line Type III R3R3 (Type III Short) 2SA2 (Type III Short) 2SA4 (Type III Short) 2SQ1 (Type III Short) AY (Type III Short) A2R3 (Type III Medium) 2S2S (Type III Short) HN (Type III Short) Type IV A2A2 (Type III Medium) A4A2 (Type III Medium)

ANSI Roadway Lighting Standards.

The ANSI Roadway Lighting Series of standards addresses the variety of possible solutions available when it comes to roadway and area lighting



technical specifications

Weight

(with control gear)

S-Line (SLI) 4kg R-Line (RLI) 5kg

Windage

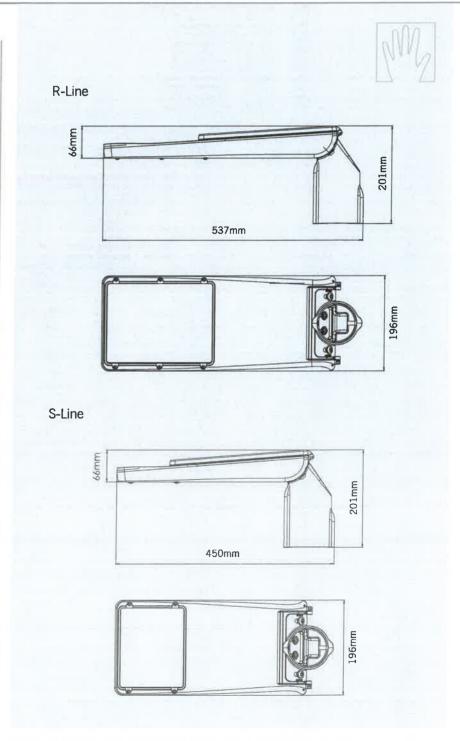
(effective projected area)

S-Line Post top 0.0297m² S-Line Side entry 0.0350m²

R-Line Post top 0.0354m² R-Line Side entry 0.0407m²

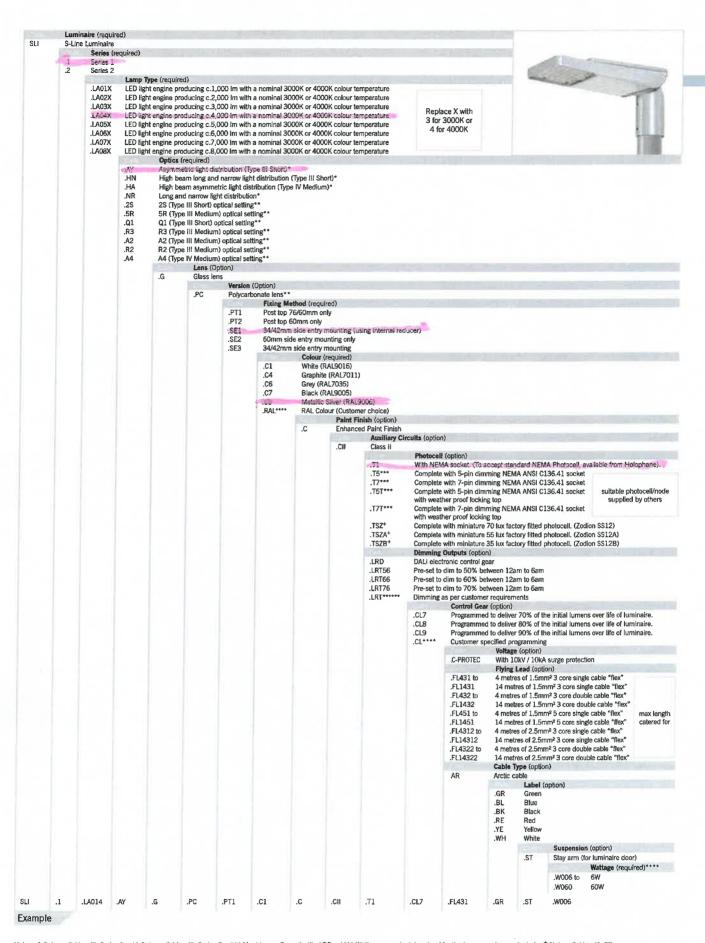
Ta

-40°C to 50°C



Note: The specifications of the Holophane luminaire represents typical values. All descriptions, illustrations, drawings and specifications in the Holophane catalogue and website represent only general particulars of the goods to which they apply and shall not form part of any contract. The company reserves the right to change specifications at its discretion without prior notification or public announcement.







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