D-SERIES

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HOLOPHANE®

MADE IN BRITAIN

DSX1

D-SERIES

The modern styling of the **D-Series** is striking yet unobtrusive - making a bold, progressive statement as it blends seamlessly with its environment. **D-Series** takes all the benefits of LED technology and moulds it into a high performance, high efficacy and long life area lighting luminaire.

With its exceptional 'finned' thermal management system, **D-Series** is capable of delivering over 100,000 hours LED module life. Offering a wide range of lumen packages and optical distributions, **D-Series** delivers optimised lighting application designs.

With the integrated ZD4i compatibility **D-Series** delivers a controllable luminaire that helps you realise energy consumption goals and demonstrate environmental responsibility. With its unique optics placed below each LED it ensures light is delivered where it needs to be, providing a uniform Nightime Friendly environment with minimal light pollution.

Applications

- Amenity Areas
- Car Parks
- Retail Parks
- Truck Yards
- Warehousing Exterior Areas

Optics / Light Source

- Lumen packages ranging from 2,000 - 36,000 in 3 different luminaire variants
- Fully soak tested light engines ensuring LED reliability and eliminating early failures.
- 4000K/3000K colour temperature.
- RA 70.

Approvals

Complies with EN60598

CE UK CA

IP IP65 luminaire and LED optic

Ta -40°C to +40°C

MADE IN BRITAIN

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

AN ENVIABLE REPUTATION THROUGHOUT THE WORLD

125 years of Innovation & Excellence

When Holophane was founded in 1896 in London, headed by Pelham Trotter, it marked the start of an incredible history that has now seen Holophane become a global business revered throughout the world for its expertise, quality, innovation and excellence in lighting.

Holophane's first product was the famous patented globe in 'white' or 'rose crystal' that sold for around 2 shilling (10p). Today, Holophane continues this proud tradition with our values deeply rooted in the dedication to creating luminaires, with exceptional lighting performance, innovative patented technologies, and delivering added customer value beyond illumination.

What does it mean for our customers?

A Trusted & Reliable UK Manufacturer

From Royalty all the way to small residential projects, Holophane has been a trusted manufacturer over the decades for all manner of projects. You can be sure you are in good hands and can rely on the collective knowledge and expertise we have gathered since our inception in 1896.

Development of Innovative Products

As part of our design philosophy, Holophane are always trying to push boundaries in the development of unique product innovations. As such many of our luminaires hold UK and International design patents.

Products That Deliver Added Value

In today's world, sustainability and added value are becoming increasingly important. As such our products and solutions go further than just lighting. Many of our innovations include integrated smart connected solutions to help customers achieve further energy savings and can also enable remote monitoring.

Delivering excellent customer service

Over our 125-year history we have always been committed to delivering the best service to our customers and supporting in a myriad of ways to ensure the best possible outcomes. This goes as far as offering a free lighting design service to one-off products/ solutions to meet customers unique needs.

THE D-SERIES RANGE 3 LUMINAIRES, ONE COMPLETE PROJECT SOLUTION

The **D-Series** range has been designed not only for super optical quality and performance but also to have a cohesive family aesthetic.

Available in 3 luminaire sizes, the D-Series range offers a full outdoor lighting solution for any environment.

DSX2

30,000 - 36,000 lumens
8m mounting heights and above

DSX1

11,000 - 30,000 lumens
between 6m & 10m mounting heights

DSX0

2,000 to 10,000 lumens
up to 6m mounting heights

PRODUCT FEATURES

D-SERIES

ZD4i ready

0% ULOR

Enhanced Performance

The **D-Series** range features the very latest LED technologies. In conjunction with PMMA optics this delivers the best lighting performance coupled with low-energy consumption and high efficacy. This also means D-Series meets BREEAM compliance.

Class leading optics

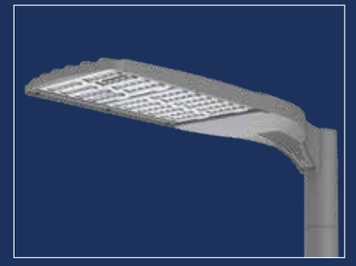
The **D-Series** range has the flexibility of 4 optimised optical distributions. Through using individual bubble optics per LED D-Series controls the light exactly where it's needed. This results in a luminaire that provides best in class spacings and uniformity.

Easy maintenance

The **D-Series** range has an easily accessible gear compartment ensuring fast and simple component changes if required.

ida DARK SKY APPROVED

DSX1



DSX2

Connected

The **D-Series** range is ZD4i compatible when specified with the 4-pin Zhaga socket options (TZ01 or TZ02) enabling a future proof luminaire that can be used in conjunction with Controlux Air or a expanding ecosystem of third party devices and sensors.

Note: Post Top Bracket for The D-Series range is sold separately. Please enquire with your Holophane representative for the full range of mounting options.

DSXO

THERMAL MANAGEMENT

The reliability and performance of an LED luminaire is dependent on a combination of factors. Keeping the temperature of the drivers, LEDs and electronic components as low as possible is critical to maintaining the luminaire's efficiency.

One of Holophane's key luminaire design principles ensures that the **D-Series** family utilises all three heat transfer principles of conduction, convection and radiation.

Conduction

Taking heat away from electronic components, LEDs and drivers.

The **D-Series** range has drivers and LEDs that are mounted directly to thermally efficient, LM6 Aluminium to promote efficient transfer of heat from these critical components.

Convection

From luminaire heat sink chassis and LED module to ambient air.

The **D-Series** range is designed to have drivers and LEDs that are mounted separately to avoid compound heating of components. This ensures critical components are kept as cool as possible to ensure long system life.

Radiation

Surface finish and form designed to maximise heat radiation.

The **D-Series** range incorporates a large finned casting design which increases the total surface area of the luminaire and in turn helps to promote cooling through radiation.

THERMAL MANAGEMENT

DSX1

SPECIFICATION

Specification

Single-piece die-cast aluminium housing, that conforms to EN1706 AC-46500, with integral heat sink fins to optimise thermal management through conductive cooling. LED modules are IP65 with individual lenses, and high grade aluminium housing to transfer heat away from the LEDs and dissipate through the finned housing for cooling. The LED driver is mounted in direct contact with the finned housing for cooling to promote low operating temperature and long system life. Housing is completely sealed against moisture and environmental contaminants (IP65). Installation is via the integrated mounting block and integral arm that facilitate a quick and easy installation.

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

Features and benefits

System Longevity

- The D-Series's diecast aluminium housing acts as its primary heat sink. Its longitudinal fins employ conductive cooling techniques to dissipate heat away from the key LED components and driver that extends the life of the luminaire.
- Light engine(s) consist of either 20 or 30 high efficacy LEDs (subject to chosen configuration) mounted to a metal-core circuit board to maximize heat dissipation and promote long life.

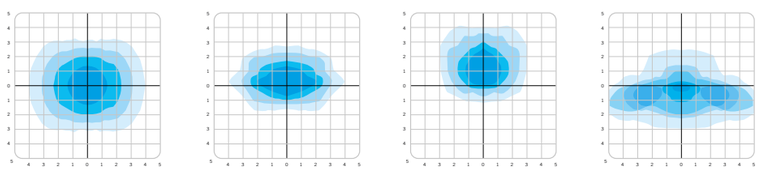
Exceptional Performance

- Offering six lumen packages ranging from 2000 lm to 36,000 lm with efficiencies of up to 143 lpw (Lumens Per Watts).
- Three optimised distributions (asymmetric, symmetric and forward throw) delivered by quality LEDs and bespoke UV stabilised optics.
- LED light engines with 0% ULOR ensuring night time friendly.

Complete Light Package

- Available with ZD4i compatibility for use with range of 3rd-party sensors and devices.
- Fully integrated into Holophane standard column range.

Light Distributions



Symmetric (.SY) **Asymmetric** (.AY) **Forward Throw** (.FW) **Long & Narrow** (.NR) only available in DSX0

SPECIFICATION

DIMENSIONS & PERFORMANCE

Typical luminaire performance

Configuration	Delivered Lumens	Circuit Power (W)	Driver output current (mA)	Luminaire total number of LEDs	Luminaire efficacy (lm/W)
DSX0.1.LA02X	c.2,000	15	450	20	133
DSX0.1.LA03X	c.3,000	21	650	20	143
DSX0.1.LA04X	c.4,000	29	450	20	138
DSX0.1.LA05X	c.5,000	37	570	20	135
DSX0.1.LA06X	c.6,000	45	700	20	133
DSX0.1.LA08X	c.8,000	64	990	20	125
DSX0.1.LA10X	c.10,000	81	1250	20	123
DSX1.2.LA11X	c.11,000	105	1050	30	116
DSX1.2.LA16X	c.16,000	131	700	60	126
DSX1.2.LA22X	c.22,000	208	1050	60	113
DSX1.2.LA30X	c.30,000	286	1400	60	105
DSX2.2.LA30X	c.30,000	282	1050	100	115
DSX2.2.LA36X	c.36,000	328	1000	100	121

Note: Data is correct at time of print.
* For other life metric data in line with IEC PAS62722-2-1 and 62717 contact your Holophane Representative for details.

Weight (with control gear)

DSX 0 8.0 kg
DSX 1 12.2 kg
DSX 2 15.0 kg

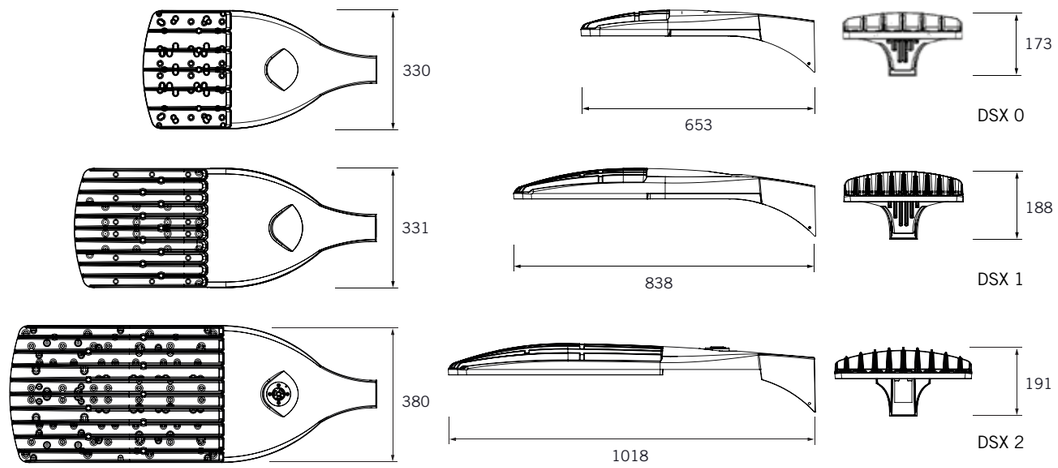
Windage (effective projected area)

DSX 0 0.09 m^2
DSX 1 0.09 m^2
DSX 2 0.10 m^2

TA

-40°C to 40°C

dimensions in mm



DSX2

ORDERING DETAILS

Code	**Luminaire** (required)
DSX0	D-Series 1 Luminaire

Code	**Series** (required)
.1	Series 1

Code	**Lamp Type** (required)
.LA02X	LED light engine producing c.2,000 lm with a nominal 3000K or 4000K colour temperature
.LA03X	LED light engine producing c.3,000 lm with a nominal 3000K or 4000K colour temperature
.LA04X	LED light engine producing c.4,000 lm with a nominal 3000K or 4000K colour temperature
.LA05X	LED light engine producing c.5,000 lm with a nominal 3000K or 4000K colour temperature
.LA06X	LED light engine producing c.6,000 lm with a nominal 3000K or 4000K colour temperature
.LA08X	LED light engine producing c.8,000 lm with a nominal 3000K or 4000K colour temperature
.LA10X	LED light engine producing c.10,000 lm with a nominal 3000K or 4000K colour temperature

Replace 'X' in lamp type code with either:
3 for 3000K
4 for 4000K

Code	**Distribution** (required)
.SY	Symmetric light distribution
.AY	Asymmetric light distribution
.FW	Forward Throw distribution
.NR	Long & Narrow distribution

Code	**Colour** (required)
.C1	Smooth White (RAL9016)
.C4	Graphite (RAL 7011)
.C6	Smooth Grey (RAL7035)
.C7	Black (RAL9005)
.C9	Metallic Silver (RAL9006)
.RAL****	RAL Colour (Customer choice)

Code	**Voltage Electrical Class** (option)
.CII	Class II

Code	**Photocell** (option)
.TSZ	Complete with miniature 70 lux factory fitted photocell. (Zodion SS12)
.T1	Complete with NEMA socket. (To accept standard NEMA Photocell, available from Holophane).
.T5	Complete with 5-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) without locking top
.T7	Complete with 7-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) without locking top
.T5T	Complete with 5-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) with weather proof locking top
.T7T	Complete with 7-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) with weather proof locking top
.TZ01	Complete with 4-Pin Zhaga Socket - 'Top' (suitable photocell/node supplied by others) with weather proof locking cap
.TZ02	Complete with 4-Pin Zhaga Socket - 'Bottom' (suitable photocell/node supplied by others) with weather proof locking cap
.TZ03	Complete with 4-Pin Zhaga Socket - 'Top & bottom' (suitable photocell/node supplied by others) with weather proof locking cap

Code	**Controls** (option)
.PH1	PIR on a Zhaga socket, suitable up to 12m. Dims to 30% after 10 minutes of inactivity - switches off after further 10 minutes. Remotely re-programmable with accessory HEL.PRG (purchased separately).
.PH2	Groupable PIR on a Zhaga socket, suitable up to 12m. Dims to 30% after 10 minutes of inactivity - switches off after further 10 minutes. Remotely re-programmable with accessory HEL.PRG.G (purchased separately).
.CA	Wireless lighting node (top socket) for use with Holophane Controlux Air System. (Includes subscription package for two years)
.CAP	Wireless lighting node (top socket) & PIR (bottom socket) for use with Holophane Controlux Air System. (Includes subscription package for two years). Suitable up to 12m.

Code	**Control Gear** (option)
.CL7	Programmed to deliver 70% of the initial lumens over the life of the luminaire
.CL8	Programmed to deliver 80% of the initial lumens over the life of the luminaire
.CL9	Programmed to deliver 90% of the initial lumens over the life of the luminaire
.CL****	Customer specified programming

Code	**Dimming outputs** (option)
.LRD	DALI enabled
.LRT56	pre-set to dim to 50% between 12am to 6am
.LRT66	pre-set to dim to 60% between 12am to 6am
.LRT76	pre-set to dim to 70% between 12am to 6am
.LRT******	Customer specified pre-set dimming

Code	**Paint finish** (option)
.C	Enhanced Paint Finish

DSX0	.LA02X	.AY	.C7	.CII	.TSZ	.CL7	.LRD	.C	

Example

Note: The specifications of the Holophane luminaire, 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.

Code	**Luminaire** (required)
DSX1	D-Series 1 Luminaire
DSX2	D-Series 2 Luminaire

Lamp Type (required)		
.LA05X*	LED light engine producing c 5,000 lumens	With a nominal 3000K or 4000K colour temperature. Replace X with 3 for 3000K or 4 for 4000K.
.LA06X*	LED light engine producing c 6,000 lumens	
.LA08X*	LED light engine producing c 8,000 lumens	
.LA11X*	LED light engine producing c 11,000 lumens	
.LA16X*	LED light engine producing c 16,000 lumens	
.LA22X*	LED light engine producing c 22,000 lumens	
.LA30X+	LED light engine producing c 30,000 lumens	
.LA364**	LED light engine producing c 36,000 lumens	

Code	**Distribution** (required)
.AY	Asymmetric
.SY	Symmetric
.FW	Forward throw

Code	**Colour** (required)
.C1	Smooth White (RAL9016)
.C4	Graphite (RAL 7011)
.C6	Smooth Grey (RAL7035)
.C7	Black (RAL9005)
.C9	Metallic Silver (RAL9006)
.RAL****	RAL Colour (Customer choice)

Code	**Photocell** (option)
.T	Mini Photocell
.T1	Complete with NEMA socket (To accept standard NEMA Photocell, available from Holophane)
.T5	Complete with 5-pin dimming NEMA ANSI C136.41 socket (suitable photocell/node supplied by others) without locking top
.T7	Complete with 7-pin dimming NEMA ANSI C136.41 socket (suitable photocell/node supplied by others) without locking top
.T5T	Complete with 5-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) with weather proof locking top
.T7T	Complete with 7-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) with weather proof locking top
.TZ01	Complete with 4-Pin Zhaga Socket - Top (suitable photocell/node supplied by others) with weather proof locking top*‡
.TZ02	Complete with 4-Pin Zhaga Socket – Bottom (suitable node/presence detector supplied by others) with weather proof locking top*‡
.TZ03	Complete with 4-Pin Zhaga Socket - 'Top & bottom' (suitable photocell/node supplied by others) with weather proof locking cap.

Code	**Control Gear** (option)
.CL7	Programmed to deliver 70% of the initial lumens over the life of the luminaire
.CL8	Programmed to deliver 80% of the initial lumens over the life of the luminaire
.CL9	Programmed to deliver 90% of the initial lumens over the life of the luminaire
.D2	DALI HF electronic control gear

Code	**Controls** (option)
.PH1	PIR on a Zhaga socket, suitable up to 12m. Dims to 30% after 10 minutes of inactivity - switches off after further 10 minutes. Remotely re-programmable with accessory HEL.PRG (purchased separately).
.PH2	Groupable PIR on a Zhaga socket, suitable up to 12m. Dims to 30% after 10 minutes of inactivity - switches off after further 10 minutes. Remotely re-programmable with accessory HEL.PRG.G (purchased separately).
.CA	Wireless lighting node (top socket) for use with Holophane Controlux Air System. (Includes subscription package for two years)
.CAP	Wireless lighting node (top socket) & PIR (bottom socket) for use with Holophane Controlux Air System. (Includes subscription package for two years). Suitable up to 12m.

Code	**Dimming outputs** (option)
.LRD	DALI
.LRT56	Pre-set to dim to 50% between 12am to 6am
.LRT66	Pre-set to dim to 60% between 12am to 6am
.LRT76	Pre-set to dim to 70% between 12am to 6am

Code	**Paint finish** (option)
.C	Enhanced Paint Finish

DSX1	.LA224	.AY	.C7	.T1	.CL7	.PH1	.LRT56	.C

Example

*DSX1 only +DSX1 & 2 **DSX2 only

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AcuityBrands.
Expanding the boundaries of lighting™

DSX UK v2b