



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.

management system, **D-Series** is capable of delivering over 100,000 optical distributions, **D-Series** delivers

With the integrated ZD4i compatibility **D-Series** delivers a controllable luminaire that helps you realise energy LED it ensures light is delivered where it needs to be, providing a uniform Nightime Friendly environment with minimal light pollution.

- Retail Parks

Optics / Light Source

- Lumen packages ranging from 2,000 50,000 in 3 different luminaire variants

TM66 CEAM-Make Rating

Approvals

C€ GK

IP IP65 luminaire and LED optic

Ta -40°C to +40°C









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

AN ENVIABLE REPUTATION THROUGHOUT THE WORLD



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.



PRODUCT FEATURES

D-SERIES



Enhanced Performance •

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

0% ULOR

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.



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





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.



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.



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.

THERMAL MANAGEMENT



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.



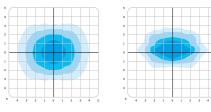
SPECIFICATION

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.

Light Distributions



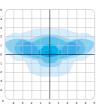
Symmetric (.SY)

Optic (.RCCO)

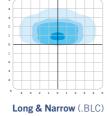
Optic (.LCCO)



Forward Throw (.FW)

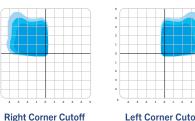


Long & Narrow (.NR)



with extreme backlight cut-off

Asymmetric (.AY)



Left Corner Cutoff

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 metalcore circuit board to maximize heat dissipation and promote long life.

Exceptional Performance

- Offering six lumen packages ranging from 2000 Im to 50,000 Im with efficiencies of up to 143 lpw (Lumens Per Watts).
- Four optimised distributions (Symmetric, asymmetric, forward throw and long and narrow) 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.

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	2,000	15	450	20	133
DSX0.1.LA03X	3,000	21	650	20	143
DSX0.1.LA04X	4,000	29	450	20	138
DSX0.1.LA05X	5,000	37	570	20	135
DSX0.1.LA06X	6,000	45	700	20	133
DSX0.1.LA08X	8,000	64	990	20	125
DSX0.1.LA10X	10,000	81	1250	20	123
DSX0.1.LA11X	11,000	88	700	40	133
DSX0.1.LA13X	13,000	107	850	40	127
DSX0.1.LA15X	15,000	133	1050	40	120
DSX0.4.LA16X	16,000	114	932	40	140
DSX0.4.LA18X	18,000	130	1050	40	138
DSX0.4.LA22X	22,000	169	1385	40	130
DSX1.2.LA30X	30,000	286	1400	60	105
DSX1.4.LA36X	36,000	256	1400	60	128
DSX2.2.LA30X	30,000	282	1050	80	115
DSX2.2.LA36X	36,000	328	1000	100	121
DSX2.4.LA40X	40,000	268	883	100	136
DSX2.4.LA45X	45,000	339	1016	100	133
DSX2.4.LA50X	50,000	386	1157	100	130

Weight (with control gear)

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

Windage (effective projected area)

 $DSX\,0 \quad \ 0.09\,m^2$ DSX 1 0.09 m² DSX 2 0.10 m²

TA

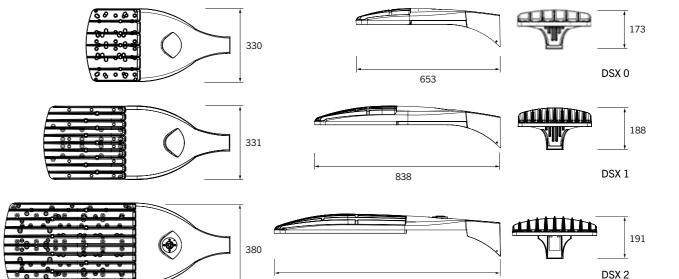
-40°C to 40°C

X - Denotes colour temperature (replace X with 2 for 2700K, 3 for 3000K and 4 for 4000K)

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.



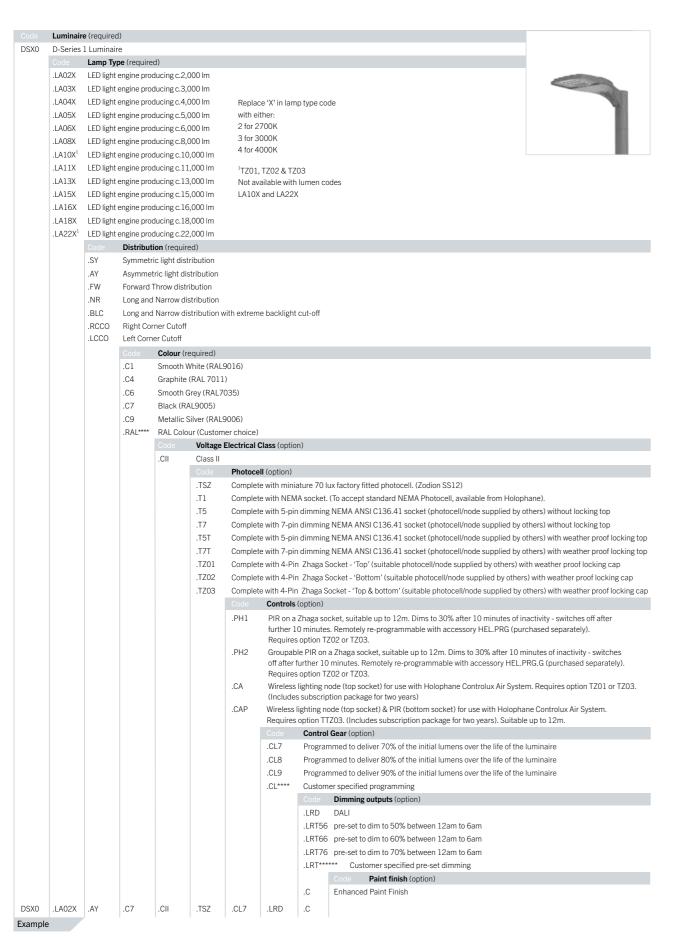
dimensions in mm



1018

15 14





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	Luminair	e (require	d)									
DSX1	D-Series	rries 1 Luminaire										
DSX2	D-Series	D-Series 2 Luminaire										
	Lamp Type (required) .LA22X* LED light engine producing c 22,000 lumens											
	.LA30X+	LED light	engine producing c 30,000 lumens With a nominal 3000K or 4000K colour temperature.									
	.LA36X**	LED light	engine producing c 36,000 lumens Replace X with 2 for 2700K, 3 for 3000K, 4 for 4000K									
	.LA40X+	LED light	engine pr	engine producing c 36,000 lumens TZ01, TZ02 & TZ03 Not available with lumen codes LA30X & LA36X when								
	.LA45X**	LED light	engine pr	engine producing c 45,000 lumens configured with DSX1. Also not available with lumen codes LA45X and LA50X								
	.LA50X**	LED light	engine pr	oducing c	50,000 lum	nens						
			Distribut	tion (requi	red)							
		.AY	Asymme	tric								
		.SY	Symmet	ric								
		.FW	Forward	throw								
		.BLC	Long and	d Narrow d	istribution v	with extre	me backlight	cut-off				
		.NR	Long and	d Narrow d	distribution							
			Code		required)	red)						
			.C1	Smooth	White (RAL	.9016)						
			.C4		(RAL 701)							
			.06		Grey (RAL7	7035)						
			.C7		(AL9005)							
			.C9		Silver (RAL							
			.RAL****		our (Custon							
				Code		ell (option))					
				.T	Mini Pho		MA cooket (T	a accept standard NEMA Photocoll, available from Helenbane)				
				.T1 .T5				o accept standard NEMA Photocell, available from Holophane)	, others) without looking top			
				.15 .T7			_	IEMA ANSI C136.41 socket (suitable photocell/node supplied by IEMA ANSI C136.41 socket (suitable photocell/node supplied by	= :			
				.17 .T5T			_	IEMA ANSI C136.41 socket (suitable photocel/hode supplied by others)	= -			
				.T7T			_					
				.TZ01		mplete with 7-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) with weather proof locking top mplete with 4-Pin Zhaga Socket - Top (suitable photocell/node supplied by others) with weather proof locking top ^{*†}						
				.TZ02				ket - Bottom (suitable node/presence detector supplied by othe				
				.TZ03		ete with 4-Pin Zhaga Socket - 'Top & bottom' (suitable photocell/node supplied by others) with weather proof locking cap.						
					Code	Control Gear (option) Programmed to deliver 70% of the initial lumens over the life of the luminaire						
					.CL7							
					.CL8	Progran	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****	Custon	Customer specified programming					
						Code	Controls	(option)				
						.PH1	PIR on a 2	of inactivity - switches off after				
							further 10 minutes. Remotely re-programmable with accessory HEL.PRG (purchased september 10 minutes).					
							(Requires					
						.PH2		10 minutes of inactivity - switches				
							off after further 10 minutes. Remotely re-programmable with accessory HEL.PRG.G (purchased sep					
								option TZ02 or TZ03).				
						.CA						
						0.15	(Includes subscription package for two years) (Requires option TZ01 or TZ03).					
						.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. (Requires option TZ03).					
									res option 1203).			
							.LRD	Dimming outputs (option) 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	.LA30X	.AY	.C7	.T1	.CL7	.PH1	.LRT56	.C				
Example				1	1		1					

*DSX1 only +DSX1 & 2 **DSX2 only

Lumen data is considered to be representative of the configuration shown, and may vary, with a tolerance on flux of +/- 7% (typical of LED manufacturers data) and luminaire power of +/- 5%.

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