D Series (DSX0 / DSX1 / DSX2)
LED STREET & AREA LUMINAIRES

FEATURES & CONFIGURATIONS

- Available with nominal lumen ranges from 2,000 - 50,000 (delivered) in 3 different luminaire variants.
- A range of distributions for a variety of applications with 0% ULOR.
- 2700K, 3000K, 4000K & Amber CCT available.
- CRI > 70.
- Available with integrated control options.
- Complies with EN60598.
- IP65 and IK07.
- -40˚C to +40˚C.
- 5-year warranty.
- Optional backlight shields available on request.

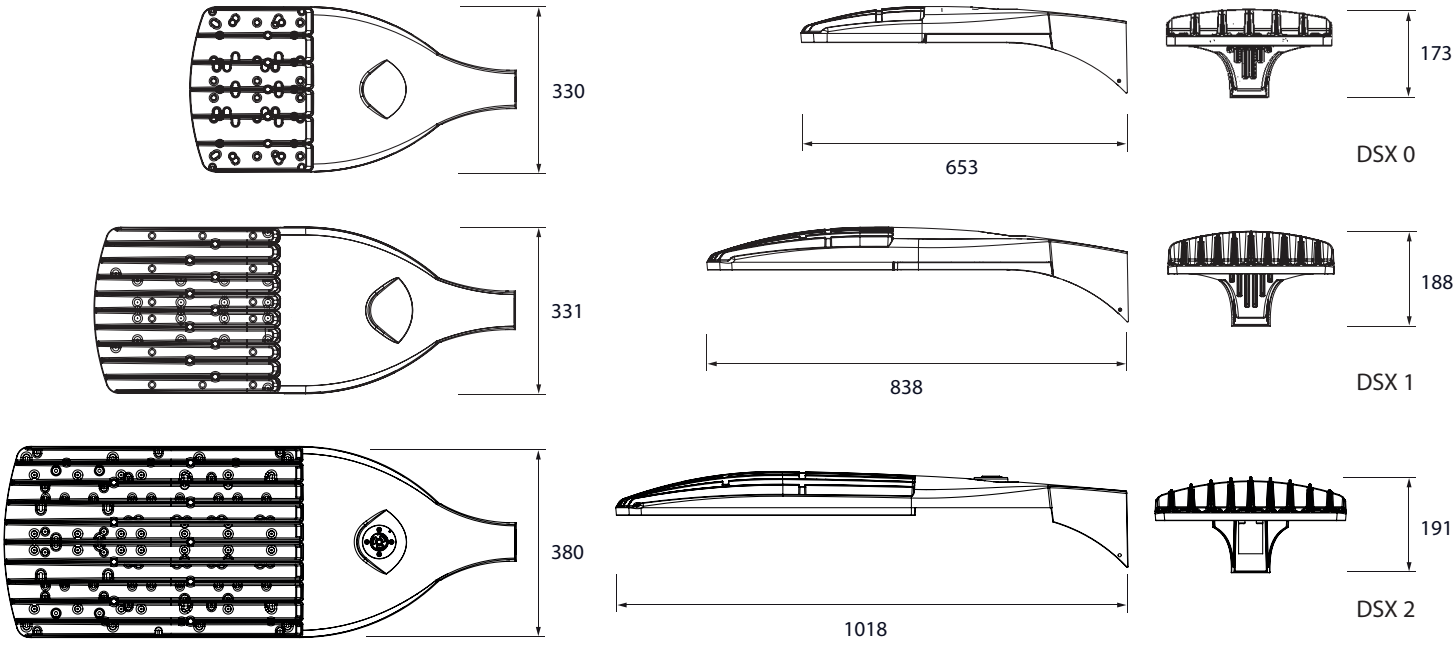
Images display fitting with optional post-top bracket (sold separately).

DSX0 (20 - 40 LEDs)
Weight: 8.0kg
Windage: 0.09m²
Outreach to Optical Centre: 520mm

DSX1 (60 LEDs)
Weight: 12.2kg
Windage: 0.09m²
Outreach to Optical Centre: 625mm

DSX2 (80 - 100 LEDs)
Weight: 15.0kg
Windage: 0.10m²
Outreach to Optical Centre: 780mm

DIMENSIONS



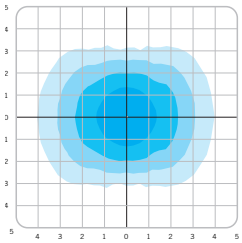
SPECIFICATION

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. International Dark-Sky Association Approved*.

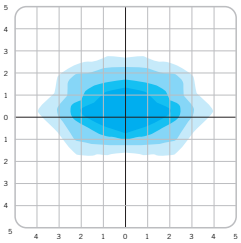
**Colour temperatures 3000K or warmer are approved under the International Dark-Sky Association.*

D Series (DSX0 / DSX1 / DSX2)
LED STREET & AREA LUMINAIRES

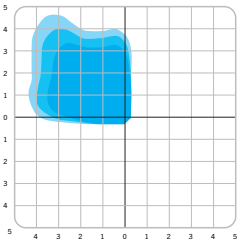
DISTRIBUTIONS



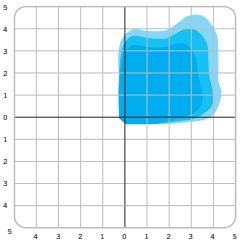
Symmetric (.SY)



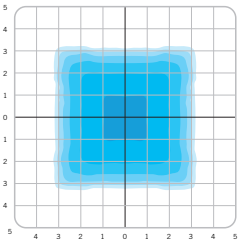
Asymmetric (.AY)



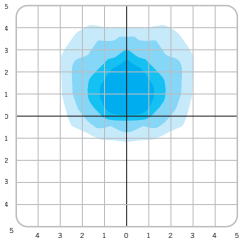
Right Corner Cut Off (.RCCO)



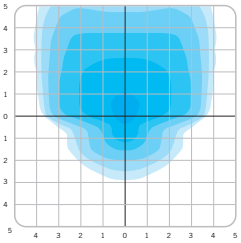
Left Corner Cut Off (.LCCO)



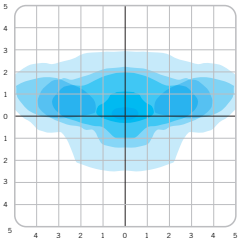
Square (.SQ)



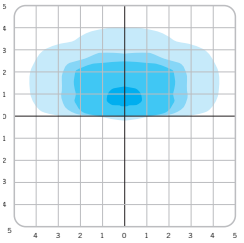
Forward Throw (.FW)



Forward Throw Extra (.FWE)



Long & Narrow (.NR)
DSX0 & DSX1 only



Long & Narrow (.BLC)
with extreme backlight cut off

TYPICAL LUMINAIRE PERFORMANCE

Configuration	Variant	Delivered Lumens	Circuit Power (W)	Driver Output Current (mA)	Total No. Of LEDs	Efficacy (lm/w)
DSX0.4.LA02X	DSX0	2,000	14	203	20	143
DSX0.4.LA03X	DSX0	3,000	20	309	20	150
DSX0.4.LA04X	DSX0	4,000	27	419	20	148
DSX0.4.LA05X	DSX0	5,000	34	534	20	147
DSX0.4.LA06X	DSX0	6,000	40	653	20	150
DSX0.4.LA08X	DSX0	8,000	56	906	20	143
DSX0.4.LA10X	DSX0	10,000	68	1181**	20	147
DSX0.4.LA11X	DSX0	11,000	75	609	40	147
DSX0.4.LA13X	DSX0	13,000	90	733	40	144
DSX0.4.LA15X	DSX0	15,000	106	864	40	142
DSX0.4.LA16X	DSX0	16,000	114	932	40	140
DSX0.4.LA18X	DSX0	18,000	130	1050	40	138
DSX0.4.LA22X	DSX0	22,000	169	1385	40	130
DSX1.4.LA22X	DSX1	22,000	145	799	60	152
DSX1.4.LA30X	DSX1	30,000	213	1150	60	141
DSX1.4.LA36X	DSX1	36,000	256	1400	60	128
DSX2.4.LA30X	DSX2	30,000	202	838	80	149
DSX2.4.LA36X	DSX2	36,000	239	781	100	151
DSX2.4.LA40X	DSX2	40,000	268	883	100	149
DSX2.4.LA45X	DSX2	45,000	310	1016	100	145
DSX2.4.LA50X	DSX2	50,000	351	1157	100	142

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%.

D Series (DSX0 / DSX1 / DSX2)
LED STREET & AREA LUMINAIRES

ELECTRICAL

Configuration	LA024	LA034	LA044	LA054	LA064	LA084	LA104	LA114	LA134	LA154	LA164
Model	DSX0	DSX0	DSX0	DSX0	DSX0	DSX0	DSX0	DSX0	DSX0	DSX0	DSX0
Drive Current From Driver	203mA	309mA	419mA	534mA	653mA	906mA	1,181mA	609mA	733mA	864mA	932mA
Power	14W	20W	27W	34W	40W	56W	79W	75W	90W	106W	114W
Fitting Current	0.06A	0.09A	0.12A	0.15A	0.18A	0.25A	0.35A	0.34A	0.4A	0.48A	0.51A
Fitting Inrush	22A - 0.29ms	22A - 0.29ms	22A - 0.29ms	22A - 0.29ms	35A - 0.355ms	35A - 0.355ms	43A - 0.26ms	43A - 0.26ms	53A - 0.3ms	53A - 0.3ms	53A - 0.3ms
Number of Drivers	1	1	1	1	1	1	1	1	1	1	1
1 x Driver 1 Inrush	22A - 0.29ms	22A - 0.29ms	22A - 0.29ms	22A - 0.29ms	35A - 0.355ms	35A - 0.355ms	43A - 0.26ms	43A - 0.26ms	53A - 0.3ms	53A - 0.3ms	53A - 0.3ms
Max Drivers per 16A Type B MCB	20	20	20	20	10	10	10	10	8	8	8
Max Fittings per 16A Type B MCB	20	20	20	20	10	10	10	10	8	8	8
Total Number of LEDs	20	20	20	20	20	20	20	40	40	40	40
Minimum Dim Level	26%	17%	13%	10%	2%	1%	8%	8%	10%	8%	8%

Configuration	LA184	LA224	LA224	LA304	LA364	LA304	LA364	LA404	LA454	LA504
Model	DSX0	DSX0	DSX1	DSX1	DSX1	DSX2	DSX2	DSX2	DSX2	DSX2
Drive Current From Driver	1,050mA	1,385mA	799mA	575mA	700mA	838mA	781mA	883mA	1,016mA	1,157mA
Power	130W	169W	145W	231W	256W	202W	239W	268W	310W	351W
Fitting Current	0.58A	0.76A	0.65A	1.04AA	1.15A	0.91A	1.07A	1.2A	1.39A	1.57A
Fitting Inrush	53A - 0.3ms	83.2A - 0.261ms	53A - 0.3ms	13A - 1.32ms	13A - 1.32ms	11.5A - 1.32ms	106A - 0.3ms	106A - 0.3ms	116A - 0.34ms	166.4A - 0.261ms
Number of Drivers	1	1	1	1	1	1	2	2	2	2
1 x Driver 1 Inrush	53A - 0.3ms	83.2A - 0.261ms	53A - 0.3ms	13A - 1.32ms	13A - 1.32ms	11.5A - 1.32ms	N/A	N/A	N/A	N/A
2 x Driver 1 Inrush	N/A	N/A	N/A	N/A	N/A	N/A	53A - 0.3ms	53A - 0.3ms	58A - 0.34ms	83.2A - 0.261ms
Max Drivers per 16A Type B MCB	8	5	8	7	7	10	8	8	7	5
Max Fittings per 16A Type B MCB	8	5	8	7	7	10	4	4	3	2
Total Number of LEDs	40	40	60	60	60	80	100	100	100	100
Minimum Dim Level	7%	5%	9%	9%	7%	8%	9%	8%	7%	6%

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%.

STANDARD COLOURS

- C1 — Smooth White (RAL9016)
- C4 — Graphite (RAL7011)
- C6 — Smooth Grey (RAL7035)
- C7 — Black (RAL9005)
- C9 — Metallic Silver (RAL9006)

CUSTOM COLOURS

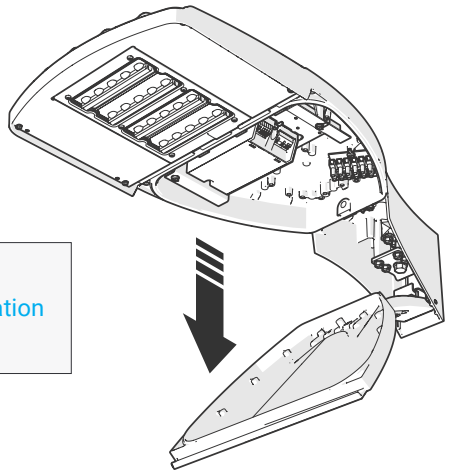
RAL**** — Customer Specified Colour

**Choosing a custom colour may increase cost and lead time.*

MAINTENANCE

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

View Installation Guide



D Series (DSX0 / DSX1 / DSX2)
LED STREET & AREA LUMINAIRES

LLMF

Configuration	Wattage	CCT	Optic	Depreciation @ 50K Hours	Depreciation @ 100K Hours
DSX0.4.LA024.AY.C1	14W	4000K	AY	L95B50	L90B50
DSX0.4.LA034.AY.C1	20W	4000K	AY	L95B50	L90B50
DSX0.4.LA044.AY.C1	27W	4000K	AY	L94B50	L88B50
DSX0.4.LA054.AY.C1	34W	4000K	AY	L93B50	L86B50
DSX0.4.LA064.AY.C1	40W	4000K	AY	L93B50	L86B50
DSX0.4.LA084.AY.C1	56W	4000K	AY	L92B50	L85B50
DSX0.4.LA104.AY.C1	79W	4000K	AY	L91B50	L83B50
DSX0.4.LA114.AY.C1	75W	4000K	AY	L93B50	L86B50
DSX0.4.LA134.AY.C1	90W	4000K	AY	L93B50	L85B50
DSX0.4.LA154.AY.C1	106W	4000K	AY	L92B50	L85B50
DSX0.4.LA164.AY.C1	114W	4000K	AY	L92B50	L85B50
DSX0.4.LA184.AY.C1	130W	4000K	AY	L91B50	L83B50
DSX0.4.LA224.AY.C1	169W	4000K	AY	L91B50	L82B50
DSX1.4.LA224.AY.C1	145W	4000K	AY	L92B50	L85B50
DSX1.4.LA304.AY.C1	231W	4000K	AY	L92B50	L84B50
DSX1.4.LA364.AY.C1	256W	4000K	AY	L91B50	L83B50
DSX2.4.LA304.AY.C1	202W	4000K	AY	L92B50	L85B50
DSX2.4.LA364.AY.C1	239W	4000K	AY	L92B50	L85B50
DSX2.4.LA404.AY.C1	268W	4000K	AY	L93B50	L85B50
DSX2.4.LA454.AY.C1	310W	4000K	AY	L93B50	L85B50
DSX2.4.LA504.AY.C1	351W	4000K	AY	L91B50	L83B50
		AVERAGE (ROUNDED)		**L92B50**	**L85B50**

Note: Ta: 25°C. Approximate LLMF data provided as a guide only. LLMF for other configurations may be different. For reference purposes, the data may extrapolate beyond the recommended 6x LM-80 data in IESNA TM-21, which these calculations are based on. Contact ADLT for more information.

MOUNTING OPTIONS

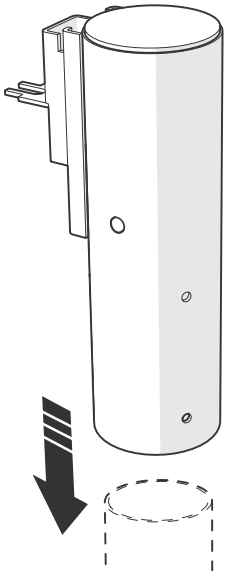
- Mounts to be ordered separately - wall or post-top (below).
- Single post-top bracket available to suit the following standard vertical spigots*: 60mm / 76mm.
- Back-to-back post-top bracket available to suit the following standard vertical spigots*: 60mm / 76mm.

**Larger spigot sizes up to 127mm also available. Contact ADLT for more information.*

POST TOP BRACKET OPTIONS

Product Code*	Bracket Type	Diameter	Height (H)	Tilt**
HAUA.1A.60.GV#	Single x 60mm OD	76	330	0°
HAUA.1A.76.GV#	Single x 76mm OD	89	330	0°
HAUA.2A.60.GV#	Double x 60mm OD	76	330	0°
HAUA.2A.76.GV#	Double x 76mm OD	89	330	0°

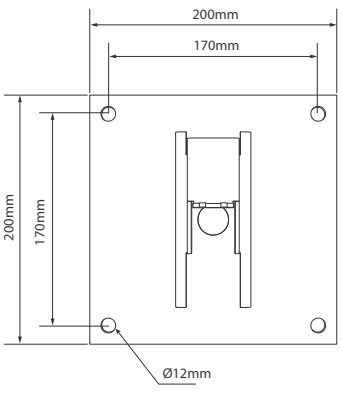
**Replace # with colour code.*
***5° & 10° tilt angle options also available. Contact ADLT for more information.*

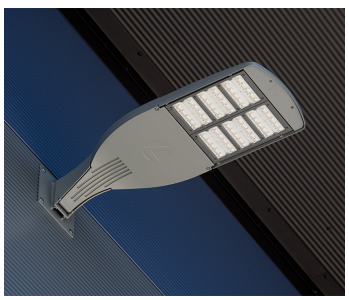


WALL MOUNT BRACKET OPTIONS

Description / Code	Tilt Angle	Width (W)	Height (H)
HAWA.AU.GV#	0°	200	200
HAWA.AU5.GV#	5°	200	200
HAWA.AU10.GV#	10°	200	200

**Replace # with colour code.*
Wall mount w/ outreach arm options also available. Contact ADLT for more information.





D Series (DSX0 / DSX1 / DSX2)
LED STREET & AREA LUMINAIRES

BACKLIGHT CONTROLS - THE BLC OPTIC

LIGHTING WHERE YOU NEED IT

Addressing unwanted spill light along the perimeter of your outdoor lighting design is no easy task. Whether you are trying to limit the light trespass due to concern for neighbouring properties, or simply seeking to achieve the most optimised lighting design, you need the most stringent light control available.

The D-Series Extreme Cut-Off Optics, with its industry-leading optics addresses light trespass using innovative backlight control, delivering outstanding performance, long life and energy efficiency. This is accomplished through the use of specialised point-source black light engines, integrated specular reflectors with optimised optics and dedicated light-absorbing backlight shields to provide maximum control for backlight while providing superior lighting levels and luminaire efficiency.

DEDICATED BACKLIGHT CONTROL

Holophane's BLC optic enables significant backlight control, projecting light directly to the front and side of the task area while having as little as 0.5% of total backlight beyond the boundary line or column placement. This optic allows for optimal back-lighting results when used on paths, curbs and parameter edging where backlight is not required. This is accomplished using a specialised point-source black light engine with integral reflectors, optimised optics and light-absorbing backlight shields, providing superior lighting levels and luminaire efficiency. LEDs also can't be seen from the rear, which helps reduce glare when looking at the fitting from behind.

SPECIAL BLACK LIGHT ENGINE

The stray-light absorbing light engines remove light scattered during refraction, ensuring light is directed exactly where it is needed - virtually eliminating spill light.

INTEGRATED SHIELD

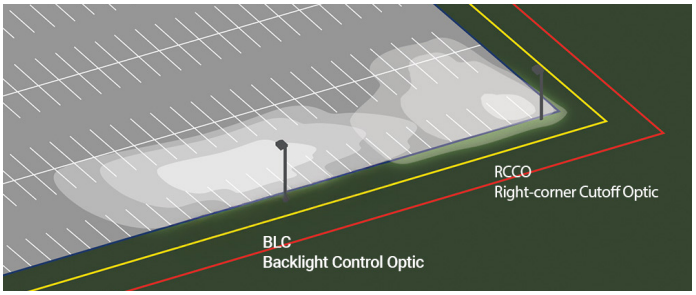
The integrated shield design virtually eliminates light trespass, reduces glare, and maximises forward-reflected light, while maintaining high luminaire efficiency.

D-SERIES W/ BLC OPTIC

DSX0

DSX2

DSX1



CURB LINE

PROPERTY LINE
Virtually all light is cut-off right at the property line

BOUNDARY LINE

CORNER CUT-OFF CONTROL

The RCCO (right-corner cut-off optic) and LCCO (left-corner cut-off optic) apply the same principles as the BLC optic. However, this optical distribution caters to aiding perimeter lighting control to the corners of parking lots and other outside areas. The image above illustrates this optic working in harmony with the BLC optic to provide unmatched perimeter lighting while maintaining light levels that offer high visibility to the target area. The image further illustrates how sharp the cut-off is of the light. Allowing for projects to have a column mounted in the corner without any light spill going to one side. This helps support compliance with intrusive light requirements along the perimeter area while the target area remains illuminated.

DSX with BLC optic

DSX without BLC optic

OTHER BACKLIGHT OPTIONS*

.EGS

.BLS

**Shielding options may not be available with all variants and optics.*

D Series (DSX0 / DSX1 / DSX2)
LED STREET & AREA LUMINAIRES

ORDERING INFORMATION

Code	**Luminaire** (required)
DSX0	D-Series 0 Luminaire

Code	**Lamp Type** (required)	
.LA02X	LED light engine producing c.2,000 lm	
.LA03X	LED light engine producing c.3,000 lm	
.LA04X	LED light engine producing c.4,000 lm	Replace 'X' in lamp type code with either: 2 for 2700K 3 for 3000K 4 for 4000K
.LA05X	LED light engine producing c.5,000 lm	
.LA06X	LED light engine producing c.6,000 lm	
.LA08X	LED light engine producing c.8,000 lm	
.LA10X[1]	LED light engine producing c.10,000 lm	
.LA11X	LED light engine producing c.11,000 lm	[1]TZ01, TZ02 & TZ03 Not available with lumen codes LA10X and LA22X
.LA13X	LED light engine producing c.13,000 lm	
.LA15X	LED light engine producing c.15,000 lm	
.LA16X	LED light engine producing c.16,000 lm	
.LA18X	LED light engine producing c.18,000 lm	
.LA22X[1]	LED light engine producing c.22,000 lm	

Code	**Distribution** (required)
.SY	Symmetric light distribution
.AY	Asymmetric light distribution
.FW	Forward Throw distribution
.NR	Long and Narrow distribution
.BLC	Long and Narrow distribution with extreme backlight cut-off
.RCCO	Right Corner Cutoff
.LCCO	Left Corner Cutoff
.FWE	Forward Throw Extra
.SQ	Square light 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).
.T7	Complete with 7-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) without 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). Requires option TZ02 or TZ03.
.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). Requires option TZ02 or TZ03.
.CA	Wireless lighting node (top socket) for use with Holophane Controlux Air System. Requires option TZ01 or TZ03. (Includes subscription package for two years)
.CAP	Wireless lighting node (top socket) & PIR (bottom socket) for use with Holophane Controlux Air System. Requires option TTZ03. (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
.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.

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%.

D Series (DSX0 / DSX1 / DSX2)
LED STREET & AREA LUMINAIRES

ORDERING INFORMATION

Code	**Luminaire** (required)	
DSX1	D-Series 1 Luminaire	
DSX2	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 producing c 36,000 lumens	TZ01, TZ02 & TZ03 Not available with lumen codes LA30X & LA36X when
.LA45X**	LED light engine producing c 45,000 lumens	configured with DSX1. Also not available with lumen codes LA45X and LA50X
.LA50X**	LED light engine producing c 50,000 lumens	

Code	**Distribution** (required)
.AY	Asymmetric
.SY	Symmetric
.FW	Forward throw
.BLC	Long and Narrow distribution with extreme backlight cut-off
.NR	Long and Narrow distribution
.RCCO	Right Corner Cutoff
.LCCO	Left Corner Cutoff
.FWE	Forward Throw Extra
. SQ	Square light 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	**Photocell** (option)
.T	Mini Photocell
.T1	Complete with NEMA socket (To accept standard NEMA Photocell, available from Holophane)
.T7	Complete with 7-pin dimming NEMA ANSI C136.41 socket (suitable photocell/node supplied by others) without 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
.CL****	Customer specified programming

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). (Requires option TZ02 or TZ03).
.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). (Requires option TZ02 or TZ03).
.CA	Wireless lighting node (top socket) for use with Holophane Controlux Air System (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).

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

Example								
DSX1	.LA30X	.AY	.C7	.T1	.CL7	.PH1	.LRT56	.C

*DSX1 only +DSX1 & 2 **DSX2 only

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.*

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%.

D-Series

MADE IN BRITAIN

Advanced LIGHTING TECHNOLOGIES | HOLOPHANE

ADVANCED LIGHTING TECHNOLOGIES

AUSTRALIA | adlt.com.au | +61 3 9800 5600

NEW ZEALAND | adlt.co.nz | +64 9 415 6332