HMAO Series

PRODUCT DESCRIPTION

The High Mast Advanced Optix (HMAO) luminaire has been engineered for new and retrofit high mast applications. With the latest in high-efficiency LED technology it provides a complete lighting solution for the simplest through to the most complex area lighting applications.

PERFORMANCE SUMMARY

- Colour Rendering Index: 70+
- Colour Temperature: 3000 K 4000°K
- Rated Life: 100 000 Hours
- Lumen packages from 30,000 to 100,000
- Approvals: IP 66 & IK 07
- Complies with EN60598
- Temperature: -20°C to 45°C
- Weight/Windage: 23kgs/0.120m2
- Warranty: 5 years

TYPICAL LUMINAIRE PERFORMANCE

Configuration	Delivered Lumens	Power Consumption (W)	Driver output current (mA)	Luminaire total no. of LED modules	Luminaire efficacy (llm/W)	Rated life of LED module (L70B50 @Tq 25°C)
HMAO.4.LC30X	c.30,000	180	565	6	167	100,000
HMAO.4.LC35X	c.35,000	212	667	6	165	100,000
HMAO.4.LC45X	c.45,000	279	878	6	161	100,000
HMAO.4.LC52X	c.50,000	317	989	6	164	100,000
HMAO.4.LC60X	c.60,000	374	787	9	160	100,000
HMAO.4.LC70X	c.70,000	446	938	9	157	100,000
HMAO.4.LC75X	c.75,000	486	1017	9	154	100,000
HMAO.4.LC80X	c.80,000	502	792	12	159	100,000
HMAO.4.LC90X	c.90,000	583	919	12	154	100,000
HMAO.4.LC100X	c.100,000	658	1040	12	152	100,000

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%.

Four bolt mounting suitable for 42mm and 60mm side entry

Rotatable optical assembly

Hinged upper casting

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ORDERING INFORMATION

Code	**Luminaire** (required)						
HMAO	High Mast Advanced Optix						
	Code	**Series** (required)					
	.4	Series 4					
		Code	**Lamp Type** (required)				
		.LC30X	LED light engine producing c.30,000 lm with a nominal 3000K or 4000K colour temperature				
		.LC35X	LED light engine producing c.35,000 lm with a nominal 3000K or 4000K colour temperature				
		.LC45X	LED light engine producing c.45,000 lm with a nominal 3000K or 4000K colour temperature				
		.LC50X	LED light engine producing c.52,000 lm with a nominal 3000K or 4000K colour temperature				
		.LC60X	LED light engine producing c.60,000 lm with a nominal 3000K or 4000K colour temperature				
		.LC70X	LED light engine producing c.70,000 lm with a nominal 3000K or 4000K colour temperature				
		.LC75X	LED light engine producing c.75,000 lm with a nominal 3000K or 4000K colour temperature				
		.LC80X	LED light engine producing c.80,000 lm with a nominal 3000K or 4000K colour temperature				
		.LC90X	LED light engine producing c.90,000 lm with a nominal 3000K or 4000K colour temperature				
		.LC100X	LED light engine producing c.100,000 lm with a nominal 3000K or 4000K colour temperature				
			Code	**Optics**			
			.NR	Long and Narrow light distribution			
			.HS	High beam symmetric distribution			
			.AY	Asymmetric light distribution			
			.FW	Forward throw light distribution			
			.SQ	Square light distribution			
			.SY	Symmetrical light distribution			
			.SQW	Square wide light distribution			
				Code	**Colour**		
				.C9	Metallic Silver RAL9006		
				.RAL****	RAL Colour (customer choice)		
					Code	**Control Gear** (options)	
					.LRD	DALI, number of addresses will vary on the lumen version configured	
					.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	
						Code	**Photocell** (options)
						.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 (suitable photocell/node supplied by others)
						.T5T	Complete with 5-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) with weather proof locking top
						.T7	Complete with 7-pin dimming NEMA ANSI C136.41 socket (suitable photocell/node supplied by others)
						.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.†
							Code **Paint Finish** (options)
							.C Enhanced Paint Finish
							Code **Voltage** (options)
							.C-PROTEC With 20kV/10kA surge protection
HMAO	.4	.LC30X	.NR	.C9	.LRD	.TSZ	.C
Example							

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

Note: 42/60mm side entry, 10kV/10kA surge protection as standard.
*Luminaire is IP65 when options .T1 or .T are selected. † Not available with .LRD

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accessories

Code	
HMAO.SD90	90° shield
HMAO.SD120	120° shield
HMAO.SD180	180° shield

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FEATURES & BENEFITS

Thermally Managed Solution

- Utilises convection and conduction to thermally manage the LEDs ensuring longer life.
- Gear housing designed to maximise heat dissipation, via conduction, from critical electronic components to ensure that they are run as cool as possible to deliver a long system life.

Exceptional Optical Performance

- Glass refractor technology which delivers a wholly luminous effect that accurately controls the output of the LEDs, reduces glare with its 'PrismGlow', delivers excellent uniformity.
- Rotatable optical assembly providing on site alignment of distributions to specific lighting requirements.
- Seven dedicated distributions designed for all types of retrofit or new installations where high mounting is required.

Enchanced Lumen Maintenance

- Glass optics ensure a low electrostatic charge which make it less attractive to dust and dirt accumulation over time.
- Ventilated luminaire chassis works together with the glass optics to create self-cleaning system which enhances the lumen maintenance of the luminaire over time.

Installation Flexibility

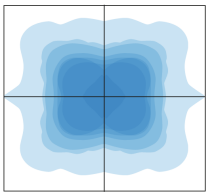
- Suitable for side entry mounting via the integrated four bolt mounting system which also offers 0 or 5 degree tilt.

SPECIFICATION

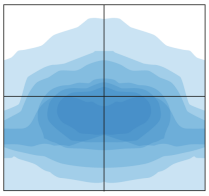
The luminaire shall consist of six, nine or twelve prismatic glass refractors manufactured from borosilicate glass to ensure longevity and minimise dirt depreciation. Each glass lens houses a multi die LED 'chip on board' and creates individual optical pods. Each optical pod is housed in a fully ventilated and finned housing manufactured from aluminium to maximise heat transfer. The electrical housing consists of two castings containing the drivers, 10kV surge protection and electrical termination.

The luminaire chassis and electrical housing utilises all three heat transfer mechanisms of conduction, convection and radiation to ensure that the multi die 'chip on board' LED's and electronic drivers are thermally managed. Mounting is via the four bolt side arm mounting with +/-5 degree tilt and suitable for 42mm and 60mm.

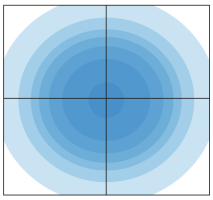
LIGHT DISTRIBUTION



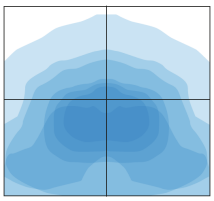
Square (.SQ)



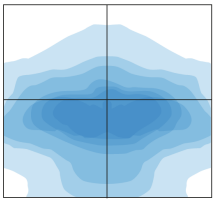
Asymmetric (.AY)



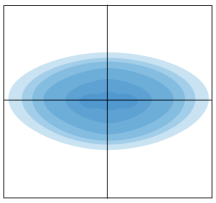
Symmetric (.SY)



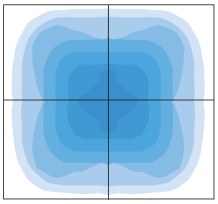
Forward Throw (.FW)



Long & Narrow (.NR)

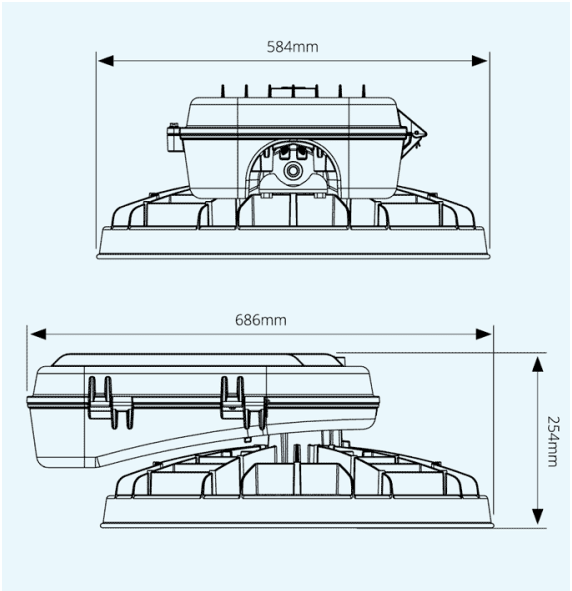


High Beam Symmetric (.HS)



Square Wide (.SQW)* **HMAO.4 only*

DIMENSIONS



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