

AQUILA ALPHA

PINHOLE SERIES

A series of pinhole downlight luminaires designed with a simplified modular concept. Made to be efficient and durable to suit mass deployment applications with demanding conditions, especially in commercial and hospitality sectors.



Future proof with upgradeable module

Accessory options

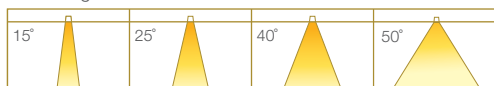
Fixture Features



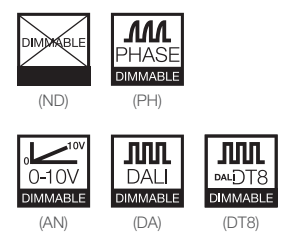
Module Colour Temperature Variation



Beam Angle

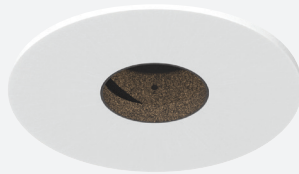


Driver Dimming Variation

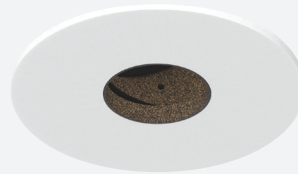


AQUILA ALPHA 3 PINHOLE

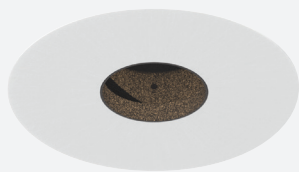
RECESSED ROUND TILT DOWNLIGHT LUMINAIRE
12W / 10W / 7W / 5W



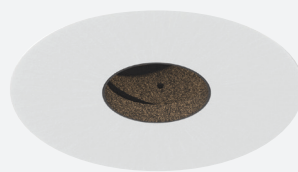
#ROUND
#FIX
#TRIM



#ROUND
#TILT
#TRIM



#ROUND
#FIX
#FLUSH MOUNT



#ROUND
#TILT
#FLUSH MOUNT

TECHNOLOGY AND FEATURES



Converging Optical Lens
Maximising LOR



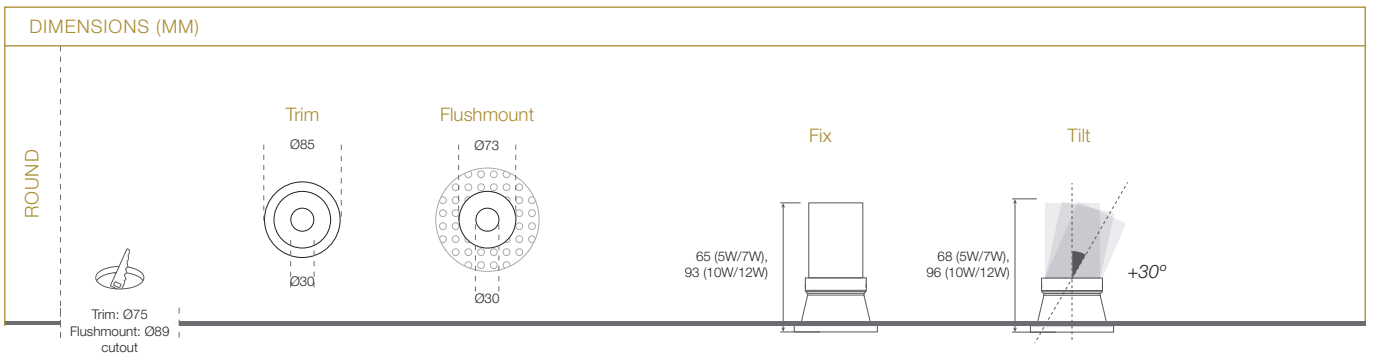
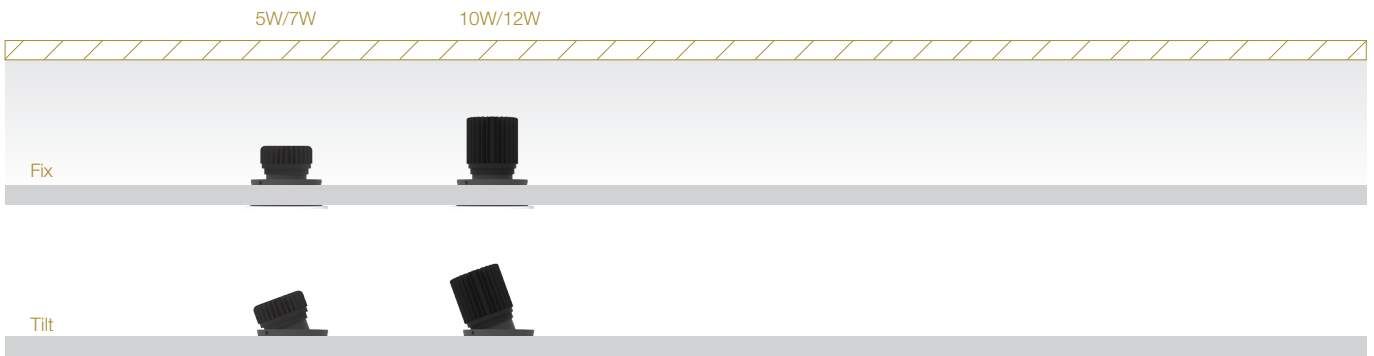
Ceiling
Safe

AVAILABLE OPTIONS						
FIXTURE COLOUR OPTIONS	Trim Colour Options	MATT WHITE RAL9003	MATT BLACK RAL9011			
ACCESSORIES		Honeycomb Anti-Glare Louvre				
		Soft Lens				
LED MODULE		MS MODULE 3				
	<p>SINGLE CCT</p> <p>2700K 3000K 3500K 4000K</p> <p>ProART ProART98*</p> <p>WARM DIM</p> <p>tuneWHITE</p>		15°	25°	40°	50°
		MS MODULE 3	✓	✓	✓	✓
		MS MODULE 3 WD	✓	✓	✓	✓
		MS MODULE 3 TW	✓	✓	✓	✓
DRIVER DIMMING						
	(ND)	(PH)	(AN)	(DA)	(DT8)	

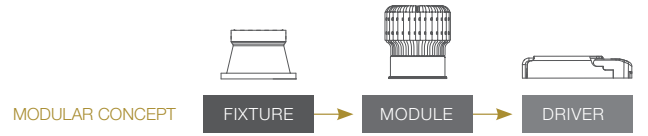
**ProART98 option is NOT available for 12W LED power.

AQUILA ALPHA 3 PINHOLE

#ROUND
#FIX
#TILT
#TRIM
#FLUSH MOUNT



AQUILA ALPHA 3 PINHOLE



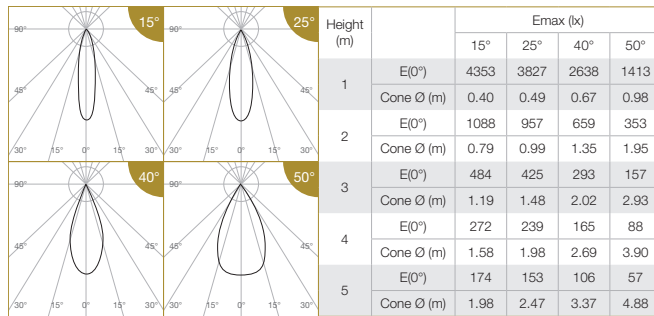
SPECIFICATIONS

FIXTURE	
Family Type	Aquila series
Fixture Colours	Matt white, matt black
Reflector Colours	N/A
Materials	Aluminium
Accessories	Honeycomb anti-glare louvre, soft lens
Ingress Protection	IP54
Weight	180g
LED MODULE & DRIVER	
Family Type	MS MO 3 Series
Typical Operating Voltage	35V
Typical Operating Current	350mA (12W), 300mA (10W), 200mA (7W), 150mA (5W)
System / Input Power	15W, 13W, 9W, 6.4W
Colour	Black
Materials	Aluminium, plastic
Compatibility	Compatible with ELR Modular Simplified size-3 fixtures
Lifetime	50,000 hours (80% lumen maintenance at Ta = 25°C), B10

Beam Angles	15°, 25°, 40°, 50°
Colour Temperatures	2700K, 3000K, 3500K, 4000K
CRI	ProART (CRI-95), ProART98 (CRI-98)
SDCM	3 step MacAdam ellipse binning
Ingress Protection	IP40 (LED module only)
Weight	200g (12W/10W LED module only), 120g (7W/5W LED module only)
Dimming	Non-dim, phase (leading & trailing edge), 0-10V, DALI
Mains Connection	Push-pin or screw terminals for convenient connection
Mains Voltage	220-240V, 50Hz
Power Factor	>0.9
Fire Safety	Glow wire test 850°C, UL94V-0, VW-1
Flammability Mark	F
Safety Class	Class 2
Standards	IEC60598-1, IEC 61347-2-13
Regulatory Markings	CE, CCC, RoHS

PHOTOMETRICS

MS MODULE 3



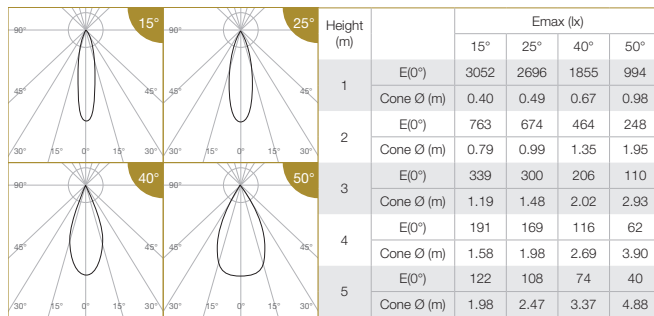
Correction Factor: MS MO 3 12W - f = 1.00
MS MO 3 10W - f = 0.83
MS MO 3 7W - f = 0.60
MS MO 3 5W - f = 0.46

ELR LED Module				MS MO 3			
LED Power				12W	10W	7W	5W
System Power				15W	13W	9W	6.4W
Luminous Flux (lm)	Type	Beam Angle	CRI				
				Single CCT (3000K)	15°	ProART CRI-95	1044
	ProART98 CRI-98		716			513	395
	25°	ProART CRI-95	1056		880	630	485
		ProART98 CRI-98			725	519	399
	40°	ProART CRI-95	1092		910	651	500
		ProART98 CRI-98			749	536	412
	50°	ProART CRI-95	1092	910	651	500	
	ProART98 CRI-98		749	536	412		

Data are based on 3000K (ProART CRI-95). Nominal data of 2700K and 3500K are shared with 3000K. Higher CCT of 4000K will have a nominal data value of 5% higher than published. (f = 1.05)
ProART98 CRI-98 will have a nominal data value of 18% lower than published. (f = 0.82)

Nominal CRI-95, equals to Ra>90-97, R9>50
Nominal CRI-98, equals to Ra>97-99, R9>93

MS MODULE 3 WD



Correction Factor: MS MO 3 WD 12W - f = 1.00
MS MO 3 WD 10W - f = 0.88

ELR LED Module				MS MO 3	
LED Power				12W	10W
System Power				15W	13W
Luminous Flux (lm)	Type	Beam Angle	CRI		
				Warm Dim (3100K)	15°
	25°	744	650		
	40°	768	670		
	50°	768	670		

Data are based on maximum output at 3100K.
Nominal CRI-95, equals to Ra>90-97, R9>50

AQUILA ALPHA 3 PINHOLE

PHOTOMETRICS

MS MODULE 3 TW

Height (m)	E(0°)	E _{max} (lx)				ELR LED Module			MS MO 3						
		15°	25°	40°	50°	LED Power		System Power		Luminous Flux (lm)					
1	E(0°)	3653	3218	2203	1180	12W		15W		-					
	Cone Ø (m)	0.40	0.49	0.67	0.98	-		-		-					
2	E(0°)	913	805	551	295	10W		13W		-					
	Cone Ø (m)	0.79	0.99	1.35	1.95	-		-		-					
3	E(0°)	406	358	245	131	Luminous Flux (lm)	Type	Beam Angle	CRI	-					
	Cone Ø (m)	1.19	1.48	2.02	2.93					-					
E(0°)	228	201	138	74	tuneWHITE (5500K)					15°	ProART CRI-95	876	780	574	440
Cone Ø (m)	1.58	1.98	2.69	3.90								888	790	581	445
E(0°)	146	129	88	47								912	810	602	460
Cone Ø (m)	1.98	2.47	3.37	4.88		912	810	602	460						

Correction Factor: MS MO 3 TW 12W - f = 1.00
 MS MO 3 TW 10W - f = 0.89
 MS MO 3 TW 7W - f = 0.85
 MS MO 3 TW 5W - f = 0.50

Data are based on maximum output at 5000K - 5500K range.
 3500K - 5000K will have a nominal data value of 5% lower than published.
 2700K - 3500K will have a nominal data value of 10% lower than published.
 2400K - 2700K will have a nominal data value of 20% lower than published.
 1800K - 2400K will have a nominal data value of 30% lower than published.

Nominal CRI-95, equals to Ra>90-97, R9>50

FIXTURE & ACCESSORIES ORDERING MATRIX CHART

Fixture						
Type	Trim Options		Shape		Angle	Colour
AQUILA-ALPHA-3PH	-		-		-	
	T	Trim	RD	Round	FX	Fix
	X	Flush Mount			TL	Tilt
					WH	Matt White
				MB	Matt Black	

example: AQUILA-ALPHA-3PH.T.RD.TL.WH

Accessories			
Type	Accessory	Fixture Size	
MPACC	-		
	AGL	Anti-Glare Louvre	-3
	SL	Soft Lens	

example: MS.ACC.AGL-3

COMPATIBLE LED MODULES & DRIVERS ORDERING MATRIX CHART

LED Module					
LED Power	Beam Angle		Colour Temp		CRI
MS.MO-3.12	12W	15°	27	2700K	PA ProART
MS.MO-3.10	10W	25°	30	3000K	PP ProART98*
MS.MO-3.7	7W	40°	35	3500K	
MS.MO-3.5	5W	50°	40	4000K	

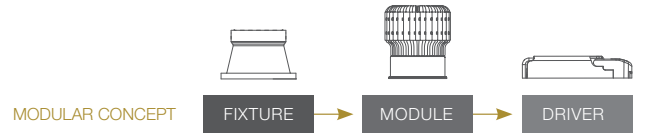
*ProART98 option is NOT available for 12W LED power.
 example: MS.MO-3.10.40.27.PA

Driver					
Type	Dimming			Output Power	
MS.DRN	Modular Simplified Driver			-	
	ND	Non-Dim		12W	12W
	PH	Phase		10W	10W
	AN	0-10V		7W	7W
	DA	DALI		5W	5W

example: MS.DRN.DA.10W

Note: Please ensure that LED Power of LED module matches the Output Power of driver when ordering.

AQUILA ALPHA 3 PINHOLE



COMPATIBLE LED MODULES & DRIVERS ORDERING MATRIX CHART

LED Module							
LED Power		Beam Angle		Colour Temp		CRI	
MS.MO-3.12	12W	15	15°	WD	Warm Dim	PA	ProART
		25	25°				
MS.MO-3.10	10W	40	40°				
		50	50°				

example: MS.MO-3.10.40.WD.PA

Driver					
Type		Dimming		Output Power	
MS.DRN	Modular Simplified Driver	PH	Phase	12W	12W
		AN	0-10V	10W	10W
		DA	DALI		

example: MS.DRN.DA.10W

Note: Please ensure that LED Power of LED module matches the Output Power of driver when ordering.

LED Module							
LED Power		Beam Angle		Colour Temp		CRI	
MS.MO-3.12	12W	15	15°	TW2755	tuneWHITE 2700K-5500K	PA	ProART
MS.MO-3.10	10W	25	25°				
MS.MO-3.7	7W	40	40°				
MS.MO-3.5	5W	50	50°				

example: MS.MO-3.10.40.TW2755.PA

Driver					
Type		Dimming		Output Power	
MS.DRN	Modular Simplified Driver	DT8	DALI DT8	12W	12W
				10W	10W
				7W	7W
				5W	5W

example: MS.DRN.DT8.10W

Note: Please ensure that LED Power of LED module matches the Output Power of driver when ordering.