

NEBULA

OUTDOOR SURFACE SERIES

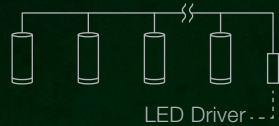
Surface mounted luminaires suitable for installation in areas without false ceiling that operate on constant voltage platform, allowing multiple luminaires to be powered by a single LED driver remotely. Incorporating ELR's signature modular concept design, LED engines are fully interchangeable with various choices for optimal illumination and ease of maintenance.

External Driver



Constant Voltage

Multiple LED module driven by a single LED driver



Constant Current

Single LED module driven by a single LED driver



Reduced Glare

Future proof with upgradeable module



Accessory options

Fixture Features



IP66 IK08



Class 3

Module Colour Temperature Variation



ProART



ProART98



WARM DIM



tuneWHITE

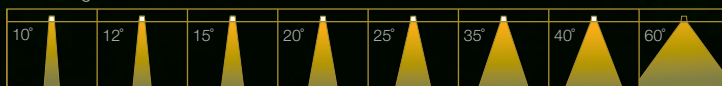


flexiK



RGBW

Beam Angle



Driver Dimming Variation



(ND)



(PH)



(AN)



(DA)

NEBULA 4 SURFACE

IP 66 IK08

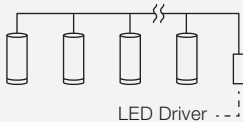
DC CONSTANT VOLTAGE / CONSTANT CURRENT
OUTDOOR SURFACE MOUNTED LUMINAIRE



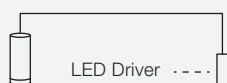
EXTERNAL DRIVER



Constant Voltage
Multiple LED module driven by a single LED driver



Constant Current
Single LED module driven by a single LED driver



TECHNOLOGY AND FEATURES



Advanced Thermal Protection System



Low Flicker, No Risk (IEEE 1789)

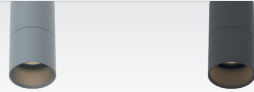


Converging Optical Lens Maximising LOR

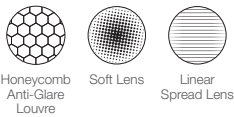
AVAILABLE OPTIONS

FIXTURE
COLOUR OPTIONS

MATT GREY RAL7001 MATT BLACK RAL9011



ACCESSORIES



LED MODULE
CONSTANT VOLTAGE



CONSTANT CURRENT

100PLE / 100CLE / 100CLO	12°	20°	35°	60°
<p>SINGLE CCT</p> <p>2700K 3000K 3500K 4000K 5000K ProART ProART98</p>	✓	✓	✓	✓
<p>WARM DIM</p>	✓	✓	✓	✓
<p>tuneWHITE</p>		✓	✓	✓
<p>flexiK</p>				
<p>RGBW</p>			✓	✓

DRIVER
DIMMING



*Drivers for 48CV LED modules are sold separately.



Class 3



Constant Voltage

NEBULA 4 SURFACE

IP 66 IK08

SPECIFICATIONS

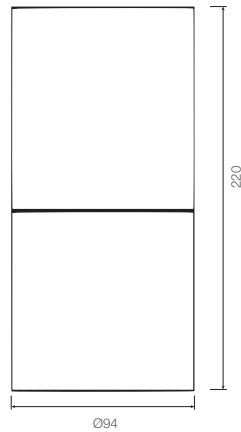
FIXTURE

Family Type	Nebula series
Fixture Colours	Matt grey, matt black
Fixture Materials	Aluminium
Accessories	Honeycomb anti-glare louvre, soft lens, linear spread lens
Ingress Protection	IP66

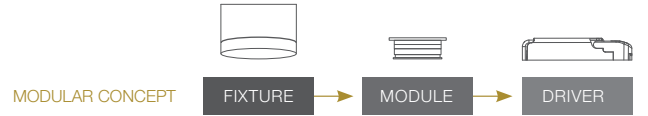
LED MODULE & DRIVER

Compatible LED Modules	100 series 48CV LED engines
Lifetime	Up to 50,000 hours L80 lamp life with LM80 tested LED chip packages
Beam Angles	12°, 20°, 35°, 60°
Colour Temperatures	2700K, 3000K, 3500K, 4000K, 5000K
CRI	High Efficiency (CRI-85), ProART (CRI-95), ProART98 (CRI-98)
Driver (Dimming)	48V DC constant voltage non-dim, 0-10V, DALI

DIMENSIONS (MM)

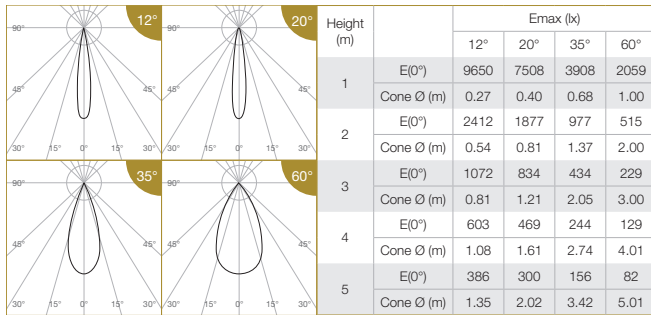


NEBULA 4 SURFACE 66 IK08



PHOTOMETRICS

100 PLE 48CV



Correction Factor: 100PLE-48CV - f = 1.00
100CLE-48CV - f = 0.74
100CLO-48CV - f = 0.52

ELR LED Module				100PLE	100CLE	100CLO
Input Power (48CV)				23W	17W	12W
Luminous Flux (lm)	Type	Beam Angle	CRI	48CV Single CCT (3000K)		
				12°	High Efficiency Ra-85	1606
20°	ProART Ra-95	1365	1012	714		
	ProART98 Ra-98	1124	833	588		
35°	High Efficiency Ra-85	1958	1451	1024		
	ProART Ra-95	1664	1234	870		
60°	ProART98 Ra-98	1371	1015	716		
	High Efficiency Ra-85	1980	1467	1035		
35°	ProART Ra-95	1683	1247	880		
	ProART98 Ra-98	1386	1027	725		
60°	High Efficiency Ra-85	1826	1353	955		
	ProART Ra-95	1552	1150	812		
ProART98 Ra-98	1278	947	668			

Data are based on 3000K (ProART CRI-95). Nominal data of 2700K and 3500K are shared with 3000K. Higher CCT of 4000K and 5000K will have a nominal data value of 5% higher than published. (f = 1.05)
High Efficiency CRI-85 will have a nominal data value of 15% higher than published. (f = 1.17)
ProART98 CRI-98 will have a nominal data value of 18% lower than published. (f = 0.82)

Nominal CRI-85, equals to Ra-80-87, R9-0
Nominal CRI-95, equals to Ra-90-97, R9-50
Nominal CRI-98, equals to Ra-97-99, R9-93

ORDERING MATRIX CHART

Type	Fixture				Accessories	
	Ingress Protection		Colour			
NEBULA-4SM	IP66		GR	Matt Grey	N	None
	IP66		MB	Matt Black	AGL	Anti-Glare Louvre
	IP66				SL	Soft Lens
	IP66				LSL	Linear Spread Lens

example: NEBULA-4SM.IP66.GR.N.ELR100PLE-48CV.35.30.PA

*Custom RAL colour options available.

Single CCT LED Module							
Input Power		Beam Angle		Colour Temp		CRI	
ELR100PLE-48CV	23W	12	12°	27	2700K	HE	Ra-85
ELR100CLE-48CV	17W	20	20°	30	3000K	PA	ProART
ELR100CLO-48CV	12W	35	35°	35	3500K	PP	ProART98
		40	40°	40	4000K		
		50	5000K				

*Drivers for 48CV LED modules are sold separately, please refer to recommended driver list.



Class 3



Constant Current

NEBULA 4 SURFACE

IP 66 IK08

SPECIFICATIONS

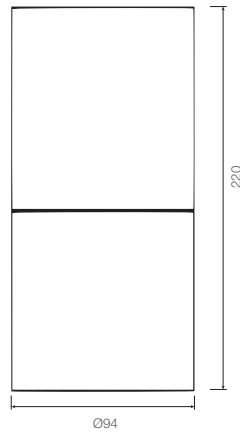
FIXTURE

Family Type	Nebula series
Fixture Colours	Matt grey, matt black
Fixture Materials	Aluminium
Accessories	Honeycomb anti-glare louvre, soft lens, linear spread lens
Ingress Protection	IP66
Safety Class	Class 3
DC Input Cable	Supplied with 1m cable

LED MODULE & DRIVER

Compatible LED Modules	100 series LED engines
Lifetime	Up to 50,000 hours L80 lamp life with LM80 tested LED chip packages
Beam Angles	12°, 20°, 35°, 60°
Colour Temperatures	2700K, 3000K, 3500K, 4000K, 5000K, Warm Dim, tuneWHITE, flexiK, RGBW
CRI	High Efficiency (CRI~85), ProART (CRI~95), ProART98 (CRI~98)
Driver (Dimming)	Non-dim, phase (leading & trailing edge), 0-10V, DALI

DIMENSIONS (MM)



NEBULA 4 SURFACE 66 IK08

PHOTOMETRICS

100 PLE

Height (m)	E(0°)	Emax (lx)			
		12°	20°	35°	60°
1	E(0°)	13165	10242	5331	2809
	Cone Ø (m)	0.27	0.40	0.68	1.00
2	E(0°)	3291	2561	1333	702
	Cone Ø (m)	0.54	0.81	1.37	2.00
3	E(0°)	1463	1138	592	312
	Cone Ø (m)	0.81	1.21	2.05	3.00
4	E(0°)	823	640	333	176
	Cone Ø (m)	1.08	1.61	2.74	4.01
5	E(0°)	527	410	213	112
	Cone Ø (m)	1.35	2.02	3.42	5.01

Correction Factor:
 100PLE - f = 1.00
 100CLE - f = 0.69
 100CLO - f = 0.50

ELR LED Module				100PLE	100CLE	100CLO					
LED Power				23W	17W	12W					
System Power				28W	21W	15.2W					
Luminous Flux (lm)	Single CCT (3000K)	Type	Beam Angle	CRI							
				High Efficiency Ra-85	100PLE	100CLE	100CLO				
		12°	ProART Ra-95	1862	1278	931	1095				
								ProART98 Ra-98	1533	1053	767
			ProART Ra-95	2270	1558	1135					
								ProART98 Ra-98	1869	1283	935
		ProART Ra-95	2295	1576	1148						
						ProART98 Ra-98	1890	1298	945		
										High Efficiency Ra-85	2490
		ProART Ra-95	2117	1453	1058						
ProART98 Ra-98	1743					1197	872				

Data are based on 3000K (ProART CRI-95). Nominal data of 2700K and 3500K are shared with 3000K.
 Higher CCT of 4000K and 5000K will have a nominal data value of 5% higher than published. (f = 1.05)
 High Efficiency CRI-85 will have a nominal data value of 15% higher than published. (f = 1.17)
 ProART98 CRI-98 will have a nominal data value of 18% lower than published. (f = 0.82)

Nominal CRI-85, equals to Ra>80-87, R9>0
 Nominal CRI-95, equals to Ra>90-97, R9>50
 Nominal CRI-98, equals to Ra>97-99, R9>93

100 PLE WARM DIM

Height (m)	E(0°)	Emax (lx)			
		12°	20°	35°	60°
1	E(0°)	11358	8836	4600	2424
	Cone Ø (m)	0.27	0.40	0.68	1.00
2	E(0°)	2839	2209	1150	606
	Cone Ø (m)	0.54	0.81	1.37	2.00
3	E(0°)	1262	982	511	269
	Cone Ø (m)	0.81	1.21	2.05	3.00
4	E(0°)	710	552	287	151
	Cone Ø (m)	1.08	1.61	2.74	4.01
5	E(0°)	454	353	184	97
	Cone Ø (m)	1.35	2.02	3.42	5.01

ELR LED Module				100PLE
LED Power				23W
System Power				28W
Luminous Flux (lm)	Warm Dim (3100K)	Type	Beam Angle	ProART Ra-95
		20°	1958	
		60°	1826	

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

NEBULA 4 SURFACE IP 66 IK08

PHOTOMETRICS

100 PLE tuneWHITE/flexiK

		Height (m)	E _{max} (lx)			ELR LED Module				100PLE				
			20°	35°	60°	LED Power		System Power						
1	E(0°)	7631	3972	2093					23W					
	Cone Ø (m)	0.40	0.68	1.00					28W					
2	E(0°)	1908	993	523	Luminous Flux (lm)	Type	Beam Angle	CRI	ProART Ra-95					
	Cone Ø (m)	0.81	1.37	2.00										
3	E(0°)	848	441	233							tuneWHITE / flexiK (4000K / 6500K)	20°		1691
	Cone Ø (m)	1.21	2.05	3.00							35°		1710	
4	E(0°)	477	248	131							60°		1577	
	Cone Ø (m)	1.61	2.74	4.01										
5	E(0°)	305	159	84										
	Cone Ø (m)	2.02	3.42	5.01										

Data are based on maximum output at highest CCT (4000K / 6500K).
2700K will have a nominal data value of 10% lower than published. (f = 0.90)
1800K will have a nominal data value of 30% lower than published. (f = 0.70)
Nominal CRI-95, equals to Ra>90-97, R9>50

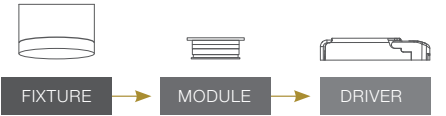
100 PLE RGBW

		Height (m)	E _{max} (lx)		ELR LED Module				100PLE			
			35°	60°	LED Power		System Power					
1	E(0°)	2122	1118					22W				
	Cone Ø (m)	0.68	1.00					26W				
2	E(0°)	531	280	Luminous Flux (lm)	Type	Beam Angle	CRI					
	Cone Ø (m)	1.37	2.00									
3	E(0°)	236	124						RGBW	35°	N/A	914
	Cone Ø (m)	2.05	3.00						60°		842	
4	E(0°)	133	70									
	Cone Ø (m)	2.74	4.01									
5	E(0°)	85	45									
	Cone Ø (m)	3.42	5.01									

Data are based on maximum output of all 4 RGBW channels.

NEBULA 4 SURFACE 66 IK08

MODULAR CONCEPT



ORDERING MATRIX CHART

Fixture						
Type	Ingress Protection		Colour		Accessories	
NEBULA-4SM	IP66	IP66	GR	Matt Grey	N	None
				MB		Matt Black
				SL		Soft Lens
				LSL		Linear Spread Lens

Single CCT LED Module							Driver		
Input Power		Beam Angle		Colour Temp		CRI		Dimming	
ELR100PLE	23W	12	12°	27	2700K	HE	Ra~85	ND	Non-Dim
		20	20°	30	3000K				
ELR100CLE	17W	35	35°	35	3500K	PP	ProART98	AN	0-10V
ELR100CLO	12W	60	60°	40	4000K				
				50	5000K				

Warm Dim LED Module							Driver		
LED Power		Beam Angle		Colour Temp		CRI		Dimming	
ELR100PLE	23W	12	12°	WD	Warm Dim	PA	ProART	PH	Phase
		20	20°						
		35	35°						
		60	60°						

tuneWHITE LED Module							Driver		
LED Power		Beam Angle		Colour Temp		CRI		Dimming	
ELR100PLE	23W	20	20°	TW1831	tuneWHITE 1800K-3100K	PA	ProART	DA	DALI
		35	35°	TW1840	tuneWHITE 1800K-4000K				
		60	60°	TW2765	tuneWHITE 2700K-6500K				

flexiK LED Module							Driver		
LED Power		Beam Angle		Colour Temp		CRI		Dimming	
ELR100PLE	23W	20	20°	FK##	flexiK	PA	ProART	PH	Phase
		35	35°						
		60	60°						

denotes the first two digits of preferred CCT ranging from 1800K to 6500K by increment of 100K.

RGBW LED Module						
LED Power		Beam Angle		Colour Temp		
ELR100PLE	22W	35	35°	RGBW	Red, Green, Blue, White	
		60	60°			

*Drivers for RGBW LED modules are sold separately.

example: NEBULA-4SM.IP66.GR.N.ELR100PLE.35.30.PA.DA

*Custom RAL colour options available.