

NEBULA

OUTDOOR TREE SPIKE SERIES

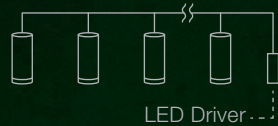
Landscape luminaires for illuminating trees and plants that operate on constant voltage platform, allowing multiple luminaires to be powered by a single LED driver remotely. Incorporating ELR's signature modular concept design, LED engines are fully interchangeable with various choices for optimal illumination and ease of maintenance.

External Driver



Constant Voltage

Multiple LED module
driven by a single
LED driver

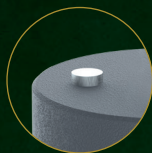


Constant Current

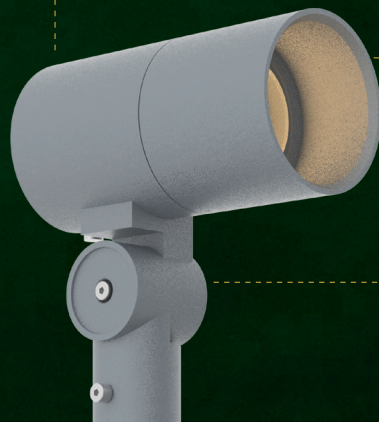
Single LED module
driven by a single
LED driver



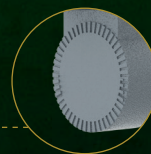
Breather
Valve



Reduced Glare



Moulded
Teething Lock



Future proof with
upgradeable module



Accessory options

Fixture Features



IP66 IK08



Class 3

Module Colour Temperature Variation



ProART



ProART98



WARM DIM



tuneWHITE

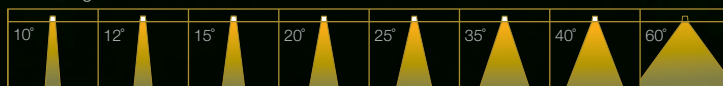


flexiK



RGBW

Beam Angle



Driver Dimming Variation



(ND)



(PH)



(AN)



(DA)

NEBULA 4 TREE SPIKE

IP 66 IK08

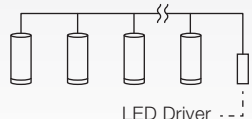
DC CONSTANT VOLTAGE / CONSTANT CURRENT
TREE SPIKE LUMINAIRE



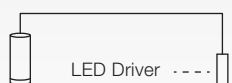
EXTERNAL DRIVER



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

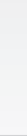


SPIKE / STRAP
OPTIONS

UPVC SPIKE

ALUMINIUM SPIKE

TREE STRAP



SNOOT OPTIONS

FULL SNOOT

45 DEGREE SNOOT



ACCESSORIES



Honeycomb Anti-Glare Louvre

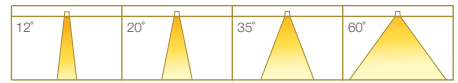
Soft Lens

Linear Spread Lens

LED MODULE
CONSTANT VOLTAGE



100PLE / 100CLE / 100CLO



CONSTANT CURRENT



100PLE / 100CLE / 100CLO

SINGLE CCT

2700K 3000K 3500K 4000K 5000K ProART ProART98

100PLE / 100CLE / 100CLO



WARM DIM

100PLE

tuneWHITE

100PLE

flexiK

100PLE

RGBW

100PLE

	12°	20°	35°	60°
100PLE / 100CLE / 100CLO	✓	✓	✓	✓
100PLE	✓	✓	✓	✓
100PLE		✓	✓	✓
100PLE			✓	✓

**tuneWHITE and flexiK are recommended to be paired with Soft Lens for better colour mixing effect.

*Drivers for RGBW LED modules are sold separately.

DRIVER
DIMMING



(ND)

(PH)

(AN)

(DA)

*Drivers for 48CV LED modules are sold separately.



Class 3



Constant Voltage

NEBULA 4 TREE SPIKE

IP 66 IK08

SPECIFICATIONS

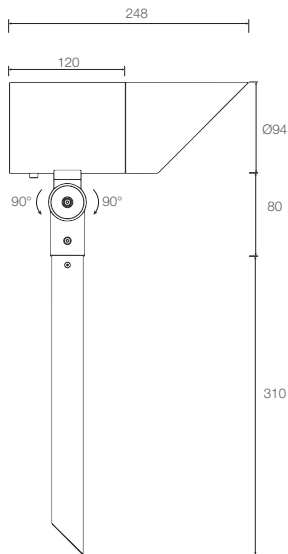
FIXTURE

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
Power Supply Cable	Supplied with 1m cable

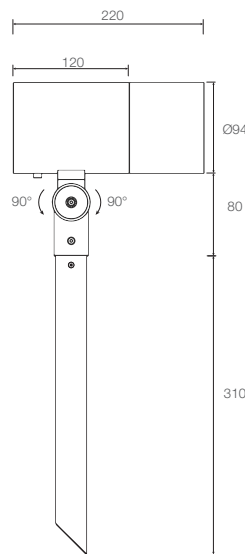
LED MODULE & DRIVER

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

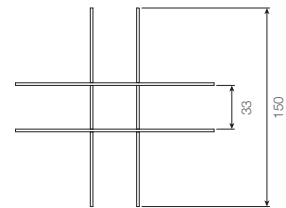
DIMENSIONS (MM)



(45 DEGREE SNOOT)



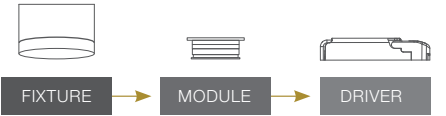
(FULL SNOOT)



(STABILISER)

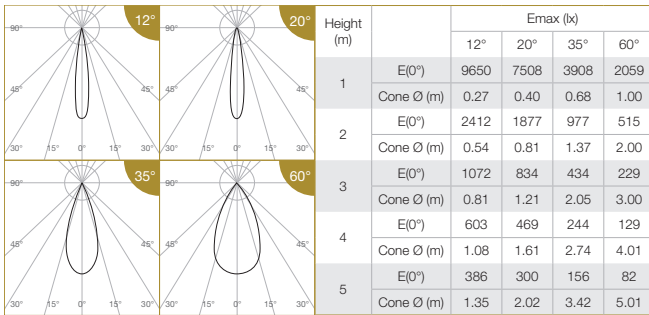
NEBULA 4 TREE SPIKE IP66 IK08

MODULAR CONCEPT



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)	48CV Single CCT (3000K)	Type	Beam Angle	CRI		
		12°	High Efficiency Ra-85	ProART Ra-95	12°	1606
1365	1012					714
1124	833					588
High Efficiency Ra-85	ProART98 Ra-98		12°	1958	1451	1024
				1664	1234	870
				1371	1015	716
High Efficiency Ra-85	ProART Ra-95		20°	1980	1467	1035
				1683	1247	880
				1386	1027	725
High Efficiency Ra-85	ProART98 Ra-98		20°	1826	1353	955
				1552	1150	812
				1278	947	668
High Efficiency Ra-85	ProART Ra-95	35°	1826	1353	955	
			1552	1150	812	
			1278	947	668	
High Efficiency Ra-85	ProART98 Ra-98	35°	1826	1353	955	
			1552	1150	812	
			1278	947	668	
High Efficiency Ra-85	ProART Ra-95	60°	1826	1353	955	
			1552	1150	812	
			1278	947	668	
High Efficiency Ra-85	ProART98 Ra-98	60°	1826	1353	955	
			1552	1150	812	
			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					Single CCT LED Module																				
	Ingress Protection		Colour		Snoot		Spike / Strap		Accessories		Input Power	Beam Angle		Colour Temp		CRI										
NEBULA-4TS	IP66	IP66	GR	Matt Grey	FS	Full Snoot	USP	uPVC Spike	N	None	ELR100PLE-48CV	23W	12	12°	27	2700K	HE	Ra-85								
																			MB	Matt Black	45S	45 Degree Snoot	ASP	Aluminium Spike	AGL	Anti-Glare Louvre
			SL	Soft Lens	ELR100CLO-48CV	12W	35	35°	35	3500K																
LSL	Linear Spread Lens	60									60°	40	4000K													
			50	5000K																						

example: NEBULA-4TS.IP66.GR.45S.USP.N.ELR100PLE-48CV.20.30.PA

*Custom RAL colour options available.

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



Class 3



Constant Current

NEBULA 4 TREE SPIKE

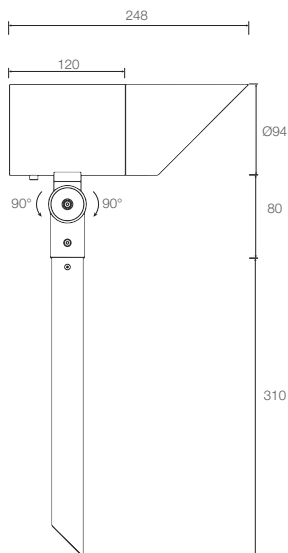
IP 66 IK08

SPECIFICATIONS

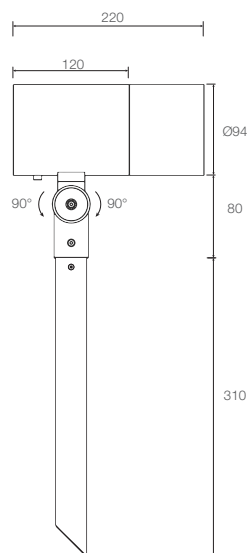
FIXTURE

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
Power Supply 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

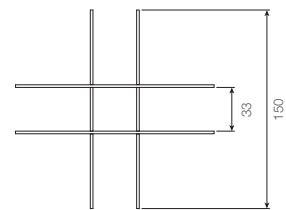
DIMENSIONS (MM)



(45 DEGREE
SNOOT)



(FULL SNOOT)



(STABILISER)

NEBULA 4 TREE SPIKE **IP 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	High Efficiency Ra-85	2190	1504	1095	
				ProART Ra-95	1862	1278	931	
				ProART98 Ra-98	1533	1053	767	
			20°	ProART Ra-95	High Efficiency Ra-85	2670	1833	1335
					ProART Ra-95	2270	1558	1135
					ProART98 Ra-98	1869	1283	935
		35°	High Efficiency Ra-85	High Efficiency Ra-85	2700	1854	1350	
				ProART Ra-95	2295	1576	1148	
				ProART98 Ra-98	1890	1298	945	
			60°	ProART Ra-95	High Efficiency Ra-85	2490	1710	1245
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

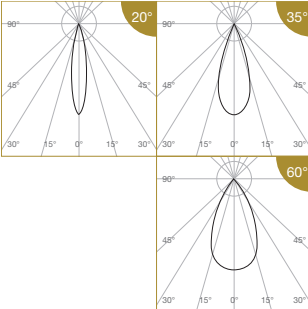
ELR LED Module				100PLE	
LED Power				23W	
System Power				28W	
Luminous Flux (lm)	Warm Dim (3100K)	Type	Beam Angle	CRI	
					ProART Ra-95
		12°	ProART Ra-95	12°	1606
				20°	1958
				35°	1980
				60°	1826

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

NEBULA 4 TREE SPIKE **IP 66 IK08**

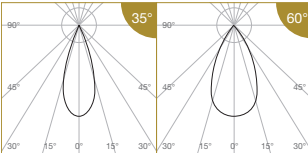
PHOTOMETRICS

100 PLE tuneWHITE/flexiK



Height (m)		Emax (lx)			ELR LED Module				100PLE
		20°	35°	60°					
1	E(0°)	7631	3972	2093	LED Power				23W
	Cone Ø (m)	0.40	0.68	1.00	System Power				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		tuneWHITE / flexiK (4000K / 6500K)	20°		
3	E(0°)	848	441	233		35°	1691		
	Cone Ø (m)	1.21	2.05	3.00	60°	1710			
4	E(0°)	477	248	131		1577			
	Cone Ø (m)	1.61	2.74	4.01	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				
5	E(0°)	305	159	84					
	Cone Ø (m)	2.02	3.42	5.01					

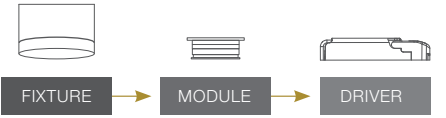
100 PLE RGBW



Height (m)		Emax (lx)		ELR LED Module				100PLE
		35°	60°					
1	E(0°)	2122	1118	LED Power				22W
	Cone Ø (m)	0.68	1.00	System Power				26W
2	E(0°)	531	280	Luminous Flux (lm)	Type	Beam Angle	CRI	N/A
	Cone Ø (m)	1.37	2.00		RGBW	35°		
3	E(0°)	236	124		60°	842		
	Cone Ø (m)	2.05	3.00	Data are based on maximum output of all 4 RGBW channels.				
4	E(0°)	133	70					
	Cone Ø (m)	2.74	4.01					
5	E(0°)	85	45					
	Cone Ø (m)	3.42	5.01					

NEBULA 4 TREE SPIKE **IP66 IK08**

MODULAR CONCEPT



ORDERING MATRIX CHART

Fixture										
Type	Ingress Protection		Colour		Snoot		Spike / Strap		Accessories	
NEBULA-4TS	IP66	IP66	GR	Matt Grey	FS	Full Snoot	USP	uPVC Spike	N	None
				MB		Matt Black		45S		45 Degree Snoot
							STR	Tree Strap	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
ELR100CLE	17W	20	20°	30	3000K	PA	ProART	PH	Phase
ELR100CLO	12W	35	35°	35	3500K	PP	ProART98	AN	0-10V
		60	60°	40	4000K			DA	DALI
				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°					AN	0-10V
		35	35°					DA	DALI
		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°					AN	0-10V
		60	60°					DA	DALI

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-4TS.IP66.GR.45S.USP.N.ELR100PLE.20.30.PA.DA

*Custom RAL colour options available.