

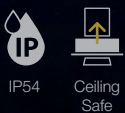
CASTOR

DOWNLIGHT SERIES

A series of pinhole downlights with reflector available in various sizes and finishing, designed with a deep aperture for optimum glare control. The Castor downlight is equipped with an off-set tilt mechanism that maximises light output for most demanding applications.



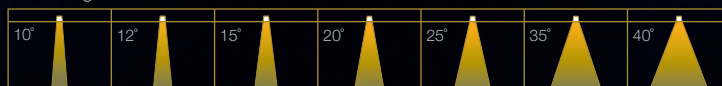
Fixture Features



Module Colour Temperature Variation



Beam Angle

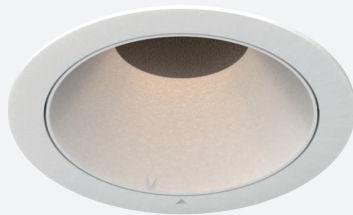


Driver Dimming Variation

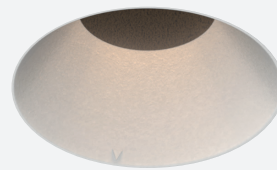


CASTOR 4 MINI

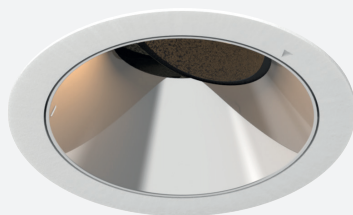
RECESSED ROUND FIX / TILT DOWNLIGHT LUMINAIRE



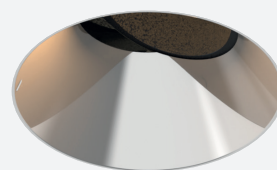
#ROUND
#FIX
#TRIM



#ROUND
#FIX
#TRIMLESS



#ROUND
#TILT
#TRIM



#ROUND
#TILT
#TRIMLESS

TECHNOLOGY AND FEATURES











ATePS
Advanced Thermal Protection System

ComfyEYE
Low Flicker, No Risk (IEEE 1789)

BEAM
Converging Optical Lens Maximising LOR

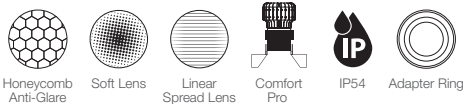
Ceiling Safe

AVAILABLE OPTIONS

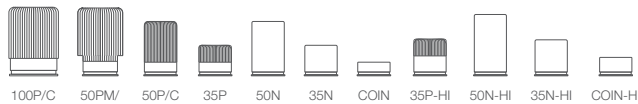
FITTURE COLOUR OPTIONS	Trim Colour Options	Reflector Colour Options				
		MATT WHITE RAL9003	MATT BLACK RAL9011	CHROME	CHROME BLACK	CHROME GOLD
MATT WHITE RAL9003						
MATT BLACK RAL9011						

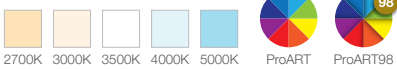





ACCESSORIES

*IP54 seal accessory is valid for fix angle fixtures only.
 ***Adapter Ring accessory is necessary when paired with COIN, 35 or 50 series LED module variants.



LED MODULE



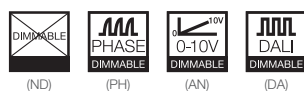
LED MODULE	10°	12°	20°	35°
SINGLE CCT 		✓	✓	✓
100P / 100C 50PM / 50CM / 50P / 50C / 35P / 50N / 35N / COIN	✓		✓	✓
35P-HI / 50N-HI / 35N-HI / COIN-HI	✓			
ComfySHIFT 	✓		✓	✓
WARM DIM 	✓	✓	✓	✓
tuneWHITE 			✓	✓
flexiK 				
RGBW 				✓

*Drivers for 24CV LED modules are sold separately.

**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

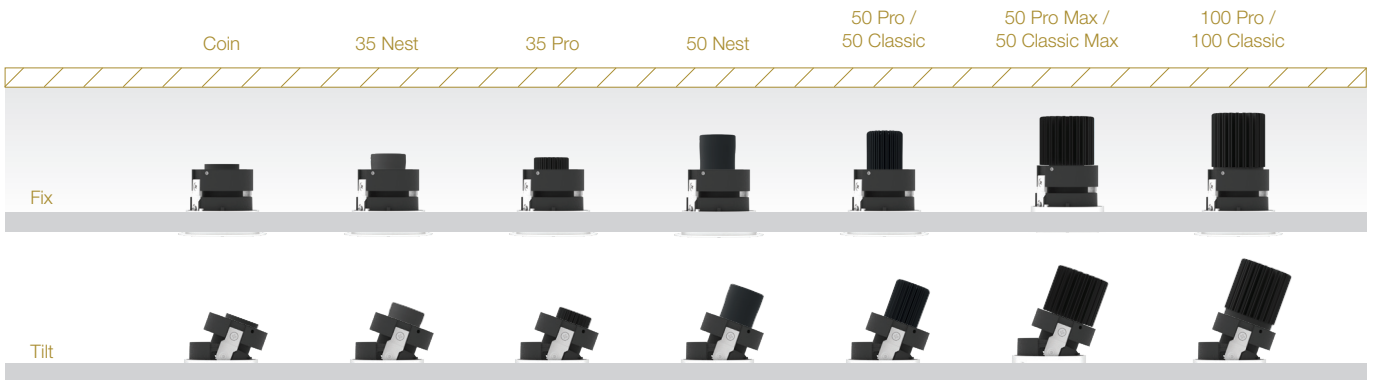


CASTOR 4 MINI

#ROUND
#FIX
#TILT
#TRIM
#TRIMLESS

SPECIFICATIONS

FITTURE	
Family Type	Castor series
Fixture Colours	Matt white, matt black
Reflector Colours	Matt white, matt black, chrome, chrome black, chrome gold
Fixture Materials	Aluminium (and plastic for reflector)
Accessories	Honeycomb anti-glare louvre, soft lens, linear spread lens, Comfy Pro, IP54 seal
Ingress Protection	IP40, IP54
LED MODULE & DRIVER	
Compatible LED Modules	100, 50, 35, COIN series LED modules
Lifetime	Up to 50,000 hours L80 lamp life with LM80 tested LED chip packages
Beam Angles	10°, 12°, 20°, 35°
Colour Temperatures	2700K, 3000K, 3500K, 4000K, 5000K, ComfySHIFT, 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

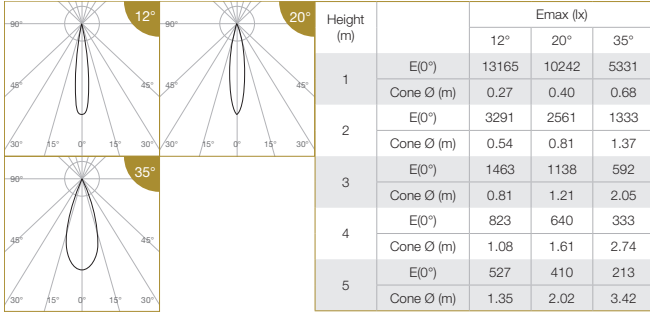


DIMENSIONS (MM)				Height (h)			Height increase with accessories: Anti-Glare Louvre : Height +6 Soft Lens : Height +3 Linear Spread Lens : Height +3 Comfy Pro : Height +20 (refer to module driver dimensions)
ROUND	Trim Ø116 60	Trimless Ø102 60	Fix (h)	Module	Fix	Tilt	
				100P / 100C:	164	170	
				50PM / 50CM:	161	166	
				50P / 50C:	147	150	
				50N:	144	147	
				35P / 35N:	118	124	
				COIN:	94	103	
				50N-HI:	154	157	
				35N-HI / 35P-HI:	128	134	
				COIN-HI:	104	113	

CASTOR 4 MINI

PHOTOMETRICS

100 PRO



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

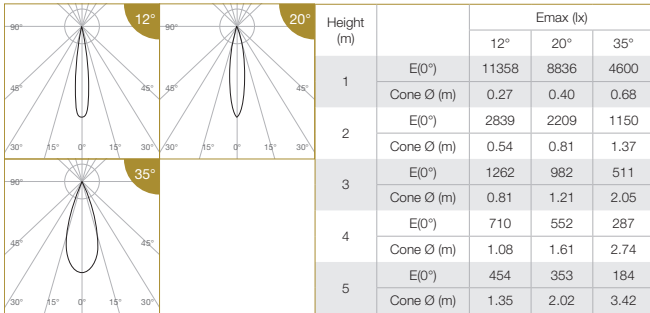
Correction Factor: 100P - f = 1.00
100C - f = 0.69

ELR LED Module				100P	100C	
LED Power				23W	17W	
System Power				28W	21W	
Luminous Flux (lm)	Type	Beam Angle	CRI			
		Single CCT (3000K)	12°	High Efficiency Ra-85	2190	1504
					ProART Ra-95	1862
			20°	High Efficiency Ra-85	2670	1833
					ProART Ra-95	2270
	35°		High Efficiency Ra-85	2700	1854	
				ProART Ra-95	2295	1576
			ProART98 Ra-98	1890	1298	

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 PRO WARM DIM



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

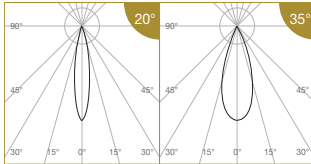
ELR LED Module				100P
LED Power				23W
System Power				28W
Luminous Flux (lm)	Type	Beam Angle	CRI	
	Warm Dim (3100K)	12°	ProART Ra-95	1606
				1958
	35°	ProART Ra-95	1980	

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

CASTOR 4 MINI

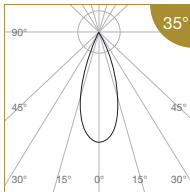
PHOTOMETRICS

100 PRO tuneWHITE/flexiK



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

100 PRO RGBW



Height (m)		E _{max} (lx)		ELR LED Module				100P	
		35°							
1	E(0°)	2122		LED Power				22W	
	Cone Ø (m)	0.68		System Power				28W	
2	E(0°)	531		Luminous Flux (lm)	Type	Beam Angle	CRI		
	Cone Ø (m)	1.37							
3	E(0°)	236			RGBW	35°	N/A		914
	Cone Ø (m)	2.05			<small>Data are based on maximum output of all 4 RGBW channels.</small>				
4	E(0°)	133							
	Cone Ø (m)	2.74							
5	E(0°)	85							
	Cone Ø (m)	3.42							

CASTOR 4 MINI

PHOTOMETRICS

50 PRO



ELR LED Module				50P	50C	35P	50N	35N	COIN	50PM	50CM	
LED Power				12W	10W	8W	7.5W	5.5W	4.5W	21W	17W	
System Power				15.2W	12.8W	11W	10W	7.5W	6W	25W	21W	
Luminous Flux (lm)	Single CCT (3000K)	10°	Type	Beam Angle	CRI							
			High Efficiency Ra-85	962	755	599	555	407	333	1628	1317	
			ProART Ra-95	818	642	510	472	346	283	1384	1120	
		ProART98 Ra-98	673	528	420	389	285	233	1140	922		
		High Efficiency Ra-85	1305	1044	931	827	609	496	2262	1827		
		ProART Ra-95	1109	887	792	703	518	422	1923	1553		
	ProART98 Ra-98	914	731	652	579	426	347	1583	1279			
	24CV Single CCT (3000K)	10°	Type	Beam Angle	CRI							
			High Efficiency Ra-85	1320	1056	942	836	616	502	2288	1848	
			ProART Ra-95	1122	898	801	711	524	427	1945	1571	
		ProART98 Ra-98	924	739	659	585	431	351	1602	1294		
		Input Power (24CV)				12W	10W	8W			4.5W	
Luminous Flux (lm)		24CV Single CCT (3000K)	10°	Type	Beam Angle	CRI						
	High Efficiency Ra-85			718	592	466				274		
	ProART Ra-95			611	503	397				233		
	ProART98 Ra-98		502	414	326				192			
	High Efficiency Ra-85		914	748	644				357			
	ProART Ra-95		777	636	547				304			
	ProART98 Ra-98	639	524	451				250				
	35°	Type	Beam Angle	CRI								
		High Efficiency Ra-85	924	757	651				361			
		ProART Ra-95	786	643	554				307			
	ProART98 Ra-98	647	530	456				253				

Correction Factor:
 50P (10°) - f = 1.00
 50C (10°) - f = 0.78
 35P (10°) - f = 0.62
 50N (10°) - f = 0.58
 35N (10°) - f = 0.42
 COIN (10°) - f = 0.35
 50PM (10°) - f = 1.69
 50CM (10°) - f = 1.37
 50P-24CV (10°) - f = 0.75
 50C-24CV (10°) - f = 0.62
 35P-24CV (10°) - f = 0.48
 COIN-24CV (10°) - f = 0.28
 50P (20°; 35°) - f = 1.00
 50C (20°; 35°) - f = 0.80
 35P (20°; 35°) - f = 0.71
 50N (20°; 35°) - f = 0.63
 35N (20°; 35°) - f = 0.47
 COIN (20°; 35°) - f = 0.38
 50PM (20°; 35°) - f = 1.73
 50CM (20°; 35°) - f = 1.40
 50P-24CV (20°; 35°) - f = 0.70
 50C-24CV (20°; 35°) - f = 0.57
 35P-24CV (20°; 35°) - f = 0.49
 COIN-24CV (20°; 35°) - f = 0.27

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

35 PRO ComfySHIFT

ELR LED Module				35P	50N	
LED Power				8W	7.5W	
System Power				11W	10W	
Luminous Flux (lm)	ComfySHIFT (3100K)	10°	Type	Beam Angle	CRI	
			High Efficiency Ra-85	621	584	
			ProART Ra-95	740	696	
	35°	Type	Beam Angle	CRI		
		High Efficiency Ra-85	748	704		
		ProART Ra-95	748	704		

Correction Factor: 35P CS - f = 1.00
 50N CS - f = 0.94

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

CASTOR 4 MINI

PHOTOMETRICS

50 PRO WARM DIM

Height (m)		E _{max} (lx)			ELR LED Module																
		10°	20°	35°	50P	35P	50N	35N	COIN												
1	E(0°)	6608	5439	3199	LED Power					12W	8W	7.5W	5.5W	4.5W							
	Cone Ø (m)	0.27	0.35	0.58	System Power					15.2W	11W	10W	7.5W	6W							
2	E(0°)	1652	1360	800	Luminous Flux (lm)	Type	Beam Angle	CRI	934	621	584	431	350								
	Cone Ø (m)	0.54	0.69	1.17																	
3	E(0°)	734	604	355										Warm Dim (3100K)	10°	ProART Ra-95	1114	740	696	513	418
	Cone Ø (m)	0.81	1.04	1.75													1126	748	704	519	422
4	E(0°)	413	340	200										35°							
	Cone Ø (m)	1.08	1.38	2.34																	
5	E(0°)	264	218	128																	
	Cone Ø (m)	1.35	1.73	2.92																	

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

*Correction Factor: 50P WD - f = 1.00
35P WD - f = 0.66
50N WD - f = 0.63
35N WD - f = 0.46
COIN WD - f = 0.38*

50 PRO tuneWHITE/flexiK

Height (m)		E _{max} (lx)		ELR LED Module												
		20°	35°	50P	50N	COIN										
1	E(0°)	4249	2499	LED Power				12W	7.5W	4.5W						
	Cone Ø (m)	0.35	0.58	System Power				15.2W	10W	6W						
2	E(0°)	1062	625	Luminous Flux (lm)	Type	Beam Angle	CRI	870	522	313						
	Cone Ø (m)	0.69	1.17													
3	E(0°)	472	278								tuneWHITE / flexiK (4000K / 6500K)	20°	ProART Ra-95	880	528	317
	Cone Ø (m)	1.04	1.75											880	528	317
4	E(0°)	266	156								35°					
	Cone Ø (m)	1.38	2.34													
5	E(0°)	170	100													
	Cone Ø (m)	1.73	2.92													

*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*

*Correction Factor: 50P TW / FK - f = 1.00
50N TW / FK - f = 0.60
COIN TW / FK - f = 0.36*

50 PRO RGBW

Height (m)		E _{max} (lx)		ELR LED Module						
		35°	50P							
1	E(0°)	1512	LED Power			12W				
	Cone Ø (m)	0.58	System Power			15.2W				
2	E(0°)	378	Luminous Flux (lm)	Type	Beam Angle	CRI				
	Cone Ø (m)	1.17					RGBW	35°	N/A	532
3	E(0°)	168								
	Cone Ø (m)	1.75								
4	E(0°)	94								
	Cone Ø (m)	2.34								
5	E(0°)	60								
	Cone Ø (m)	2.92								

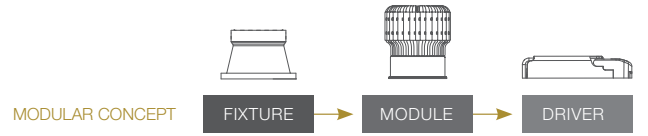
Data are based on maximum output of all 4 RGBW channels.

35 PRO HIGH INTENSITY

Height (m)		E _{max} (lx)		ELR LED Module														
		10°	35P-HI	50N-HI	35N-HI	COIN-HI												
1	E(0°)	10417	LED Power					8W	7.5W	5.5W	4.5W							
	Cone Ø (m)	0.19	System Power					11W	10W	7.5W	6W							
2	E(0°)	2604	Luminous Flux (lm)	Type	Beam Angle	CRI	High Efficiency Ra-85	568	533	391	318							
	Cone Ø (m)	0.37																
3	E(0°)	1157										Single CCT (3000K)	10°	ProART Ra-95	482	453	333	271
	Cone Ø (m)	0.56													397	373	274	223
4	E(0°)	651																
	Cone Ø (m)	0.74																
5	E(0°)	417																
	Cone Ø (m)	0.93																

*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*

CASTOR 4 MINI



ORDERING MATRIX CHART

Fixture																								
Type	Trim Options		Shape		Angle		Colour		Reflector Colour		Accessories													
CASTOR-4MINI	T	Trim	RD	Round	FX	Fix	WH	Matt White	WH	Matt White	N	None												
	X	Trimless											TL	Tilt	MB	Matt Black	MB	Matt Black	AGL	Anti-Glare Louvre				
																					CR	Chrome	SL	Soft Lens
		CG	Chrome Gold	CP	Comfort Pro	IP	IP54**	ADT	Adapter Ring***															

**IP54 seal accessory is valid for fix angle fixtures only.
 ***Adapter Ring accessory is necessary when paired with COIN, 35 or 50 series LED module variants.

Single CCT LED Module						Driver							
LED Power		Beam Angle		Colour Temp	CRI	Dimming							
ELR100P	23W	12	12°	27	2700K	HE	Ra~85	ND	Non-Dim				
		20	20°	30	3000K					PA	ProART	PH	Phase
		35	35°	35	3500K								
ELR100C	17W			40	4000K	AN	0-10V	DA	DALI				
				50	5000K								
ELR50PM	21W	12	12°	27	2700K	HE	Ra~85	ND	Non-Dim				
ELR50CM	17W	20	20°	30	3000K	PA	ProART	PH	Phase				
ELR50P	12W	35	35°	35	3500K	PP	ProART98	AN	0-10V				
ELR50C	10W			40	4000K			DA	DALI				
ELR35P	8W			50	5000K								
ELR50N	7.5W												
ELR35N	5.5W												
ELRCOIN	4.5W												
ELR35P-HI	8W	NS	10°	27	2700K	HE	Ra~85	ND	Non-Dim				
ELR50N-HI	7.5W			30	3000K	PA	ProART	PH	Phase				
ELR35N-HI	5.5W			35	3500K	PP	ProART98	AN	0-10V				
ELRCOIN-HI	4.5W			40	4000K			DA	DALI				
				50	5000K								
ELR50P-24CV	12W	12	12°	27	2700K	HE	Ra~85						
ELR50C-24CV	10W	20	20°	30	3000K	PA	ProART						
ELR35P-24CV	8W	35	35°	35	3500K	PP	ProART98						
ELRCOIN-24CV	4.5W			40	4000K								
				50	5000K								

*Drivers for 24CV LED modules are sold separately.

ComfySHIFT LED Module						Driver			
LED Power		Beam Angle		Colour Temp	CRI	Dimming			
ELR35P	8W	12	12°	CS	ComfySHIFT	PA	ProART	ND	Non-Dim
ELR50N	7.5W	20	20°						
		35	35°						

example: CASTOR-4MINI.T.RD.TL.WH.WH.SL.ELR100P.20.30.PA.DA
 *Custom RAL colour options available.

Warm Dim LED Module						Driver					
LED Power		Beam Angle		Colour Temp	CRI	Dimming					
ELR100P	23W	12	12°	WD	Warm Dim	PA	ProART	PH	Phase		
		20	20°							AN	0-10V
		35	35°								
ELR50P	12W	10	10°	WD	Warm Dim	PA	ProART	PH	Phase		
ELR35P	8W	20	20°					AN	0-10V		
ELR50N	7.5W	35	35°					DA	DALI		
ELR35N	5.5W										
ELRCOIN	4.5W										

tuneWHITE LED Module						Driver									
LED Power		Beam Angle		Colour Temp		CRI	Dimming								
ELR100P	23W	20	20°	TW1831	tuneWHITE 1800K-3100K	PA	ProART	DA	DALI						
										ELR50P	12W	35	35°	TW1840	tuneWHITE 1800K-4000K
ELRCOIN	4.5W														

flexiK LED Module						Driver			
LED Power		Beam Angle		Colour Temp		CRI	Dimming		
ELR100P	23W	20	20°	FK##	flexiK	PA	ProART	PH	Phase
ELR50P	12W	35	35°					AN	0-10V
ELR50N	7.5W							DA	DALI
ELRCOIN	4.5W								

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
ELR100P	22W	35	35°	RGBW
ELR50P	12W			Red, Green, Blue, White

*Drivers for RGBW LED modules are sold separately.