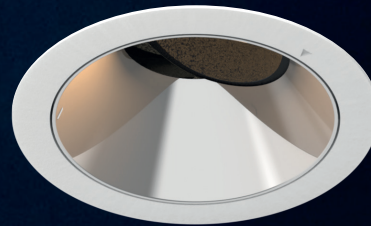
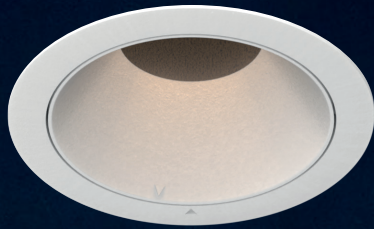


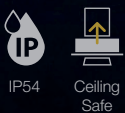
CASTOR

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.



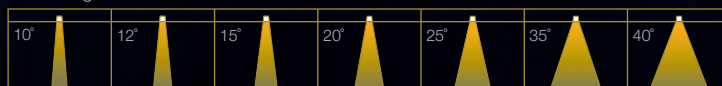
Fixture Features



Module Colour Temperature Variation



Beam Angle

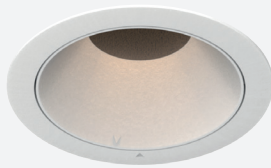


Driver Dimming Variation

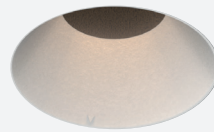


CASTOR 3 MINI

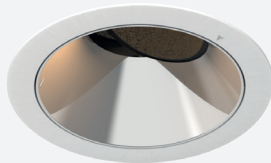
RECESSED ROUND FIX / TILT DOWNLIGHT LUMINAIRE



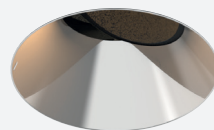
#ROUND
#FIX
#TRIM



#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

Pinhole

AVAILABLE OPTIONS

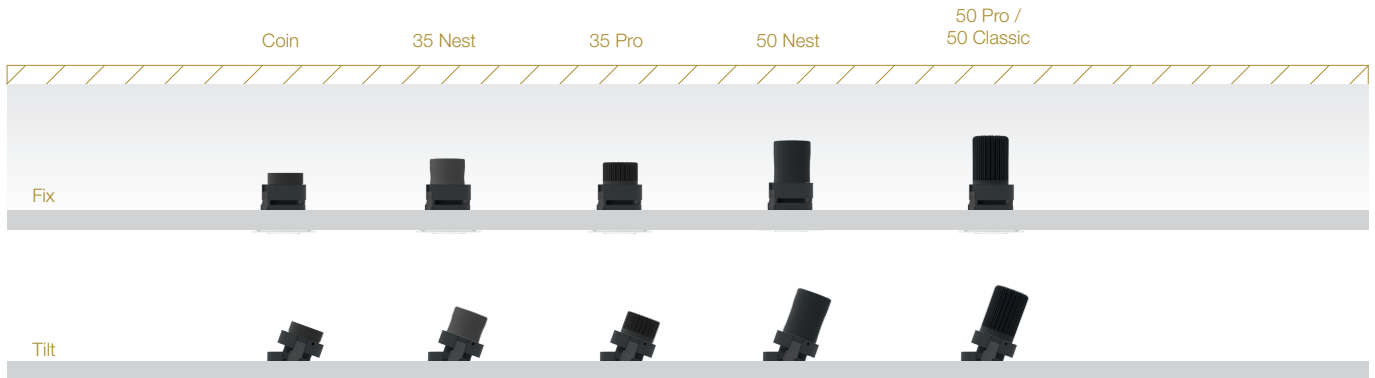
FIXTURE COLOUR OPTIONS	Trim Colour Options	Reflector Colour Options				
		MATT WHITE RAL9003	MATT BLACK RAL9011	CHROME	CHROME BLACK	CHROME GOLD
MATT WHITE RAL9003						
MATT BLACK RAL9011						
ACCESSORIES	<p>Honeycomb Anti-Glare Louvre Soft Lens Linear Spread Lens Comfort Pro IP54 MR16 Holder GU10 Holder</p> <p><i>*IP54 seal accessory is valid for fix angle fixtures only.</i></p>					
LED MODULE	<p>50P/C 35P 50N 35N COIN 35P-HI 50N-HI 35N-HI COIN-HI MR16/GU10</p>					
<p><i>*Drivers for 24CV LED modules are sold separately.</i></p> <p><i>**tuneWHITE and flexiK are recommended to be paired with Soft Lens for better colour mixing effect.</i></p> <p><i>*Drivers for RGBW LED modules are sold separately.</i></p>	<p>SINGLE CCT</p> <p>2700K 3000K 3500K 4000K 5000K</p> <p>ProART ProART98</p>	50P / 50C / 35P / 50N / 35N / COIN	✓	✓	✓	
		35P-HI / 50N-HI / 35N-HI / COIN-HI	✓			
	ComfySHIFT		35P / 50N	✓	✓	✓
	WARM DIM		50P / 35P / 50N / 35N / COIN	✓	✓	✓
	tuneWHITE		50P / 50N / COIN		✓	✓
	flexiK					
RGBW		50P			✓	
DRIVER DIMMING	<p>(ND) (PH) (AN) (DA)</p>					

CASTOR 3 MINI

#ROUND
#FIX
#TILT
#TRIM
#TRIMLESS

SPECIFICATIONS

FIXTURE	
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, Comfort Pro, IP54 seal
Ingress Protection	IP40, IP54
LED MODULE & DRIVER	
Compatible LED Modules	50, 35, COIN series LED modules or MR16/GU10
Lifetime	Up to 50,000 hours L80 lamp life with LM80 tested LED chip packages
Beam Angles	10°, 20°, 35°
Colour Temperatures	2700K, 3000K, 3500K, 4000K, 5000K, ConfySHIFT, 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

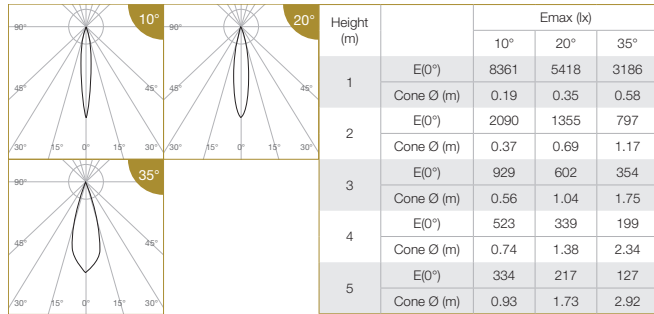


DIMENSIONS (MM)									
ROUND	Trim: Ø77 Trimless: Ø76 cutout	Trim	Trimless	Fix	Tilt	Height (h)		Height increase with accessories: Comfort Pro : Height +20 (refer to module driver dimensions)	
		Ø86	Ø76			Module	Fix		Tilt
		42	42				50P / 50C:		118
					50N:	115	122		
					35P / 35N:	89	99		
					COIN:	65	78		
					50N-HI:	125	132		
					35P-HI / 35N-HI:	99	109		
					COIN-HI:	75	88		
					MR16 / GU10	89	99		

CASTOR 3 MINI

PHOTOMETRICS

50 PRO



Correction Factor:

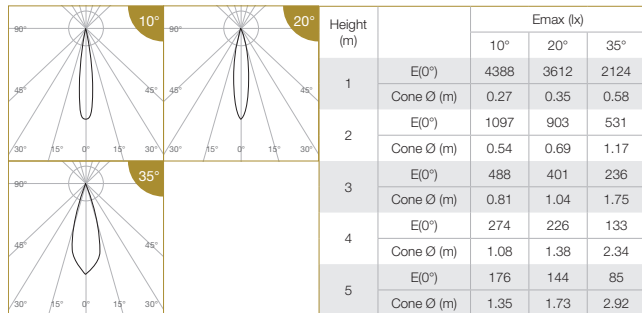
50P (10°) - f = 1.00	50P (20°, 35°) - f = 1.00
50C (10°) - f = 0.78	50C (20°, 35°) - f = 0.80
35P (10°) - f = 0.62	35P (20°, 35°) - f = 0.71
50N (10°) - f = 0.58	50N (20°, 35°) - f = 0.63
35N (10°) - f = 0.42	35N (20°, 35°) - f = 0.47
COIN (10°) - f = 0.35	COIN (20°, 35°) - f = 0.38
50P-24CV (10°) - f = 0.75	50P-24CV (20°, 35°) - f = 0.70
50C-24CV (10°) - f = 0.62	50C-24CV (20°, 35°) - f = 0.57
35P-24CV (10°) - f = 0.48	35P-24CV (20°, 35°) - f = 0.49
COIN-24CV (10°) - f = 0.28	COIN-24CV (20°, 35°) - f = 0.27

ELR LED Module				50P	50C	35P	50N	35N	COIN	
LED Power				12W	10W	8W	7.5W	5.5W	4.5W	
System Power				15.2W	12.8W	11W	10W	7.5W	6W	
Luminous Flux (lm)	Single CCT (3000K)	10°	Type	Beam Angle	CRI					
			High Efficiency Ra-85	962	755	599	555	407	333	
				ProART Ra-95	818	642	510	472	346	283
		ProART98 Ra-98	673	528	420	389	285	233		
		20°	High Efficiency Ra-85	1305	1044	931	827	609	496	
				ProART Ra-95	1109	887	792	703	518	422
	ProART98 Ra-98		914	731	652	579	426	347		
	35°	High Efficiency Ra-85	1320	1056	942	836	616	502		
			ProART Ra-95	1122	898	801	711	524	427	
		ProART98 Ra-98	924	739	659	585	431	351		
	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		
20°			High Efficiency Ra-85	914	748	644			357	
				ProART Ra-95	777	636	547			304
		ProART98 Ra-98	639	524	451			250		
35°		High Efficiency Ra-85	924	757	651			361		
			ProART Ra-95	786	643	554			307	
		ProART98 Ra-98	647	530	456			253		

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



Correction Factor:

35P CS - f = 1.00
50N CS - f = 0.94

ELR LED Module				35P	50N		
LED Power				8W	7.5W		
System Power				11W	10W		
Luminous Flux (lm)	ComfySHIFT (3100K)	10°	Type	Beam Angle	CRI		
			ComfySHIFT (3100K)	10°	ProART Ra-95	621	584
				20°	740	696	
		20°	ComfySHIFT (3100K)	35°	748	704	
				35°			

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

CASTOR 3 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																
	Cone Ø (m)	0.27	0.35	0.58	System Power																
2	E(0°)	1652	1360	800	Luminous Flux (lm)	Type	Beam Angle	CRI	50P	35P	50N	35N	COIN								
	Cone Ø (m)	0.54	0.69	1.17																	
3	E(0°)	734	604	355										Warm Dim (3100K)	10°	ProART Ra-95	934	621	584	431	350
	Cone Ø (m)	0.81	1.04	1.75													1114	740	696	513	418
4	E(0°)	413	340	200										35°			1126	748	704	519	422
	Cone Ø (m)	1.08	1.38	2.34																	
5	E(0°)	264	218	128	Data are based on maximum output at 3100K.																
	Cone Ø (m)	1.35	1.73	2.92	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													
	Cone Ø (m)	0.35	0.58	System Power													
2	E(0°)	1062	625	Luminous Flux (lm)	Type	Beam Angle	CRI	50P	50N	COIN							
	Cone Ø (m)	0.69	1.17														
3	E(0°)	472	278								tuneWHITE / flexiK (4000K / 6500K)	20°	ProART Ra-95	870	522	313	
	Cone Ø (m)	1.04	1.75											880	528	317	
4	E(0°)	266	156								35°			Data are based on maximum output at highest CCT (4000K / 6500K).			
	Cone Ø (m)	1.38	2.34											2700K will have a nominal data value of 10% lower than published. (f = 0.90)			
5	E(0°)	170	100	1800K will have a nominal data value of 30% lower than published. (f = 0.70)													
	Cone Ø (m)	1.73	2.92	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							
	Cone Ø (m)	0.58	System Power							
2	E(0°)	378	Luminous Flux (lm)	Type	Beam Angle	CRI				
	Cone Ø (m)	1.17								
3	E(0°)	168					RGBW	35°	N/A	50P
	Cone Ø (m)	1.75								
4	E(0°)	94					Data are based on maximum output of all 4 RGBW channels.			
	Cone Ø (m)	2.34								
5	E(0°)	60								
	Cone Ø (m)	2.92								

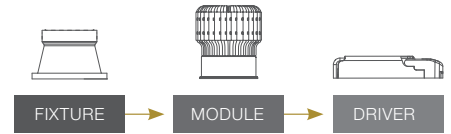
35 PRO HIGH INTENSITY

Height (m)		E _{max} (lx)		ELR LED Module													
		10°	COIN-HI														
1	E(0°)	10417	LED Power														
	Cone Ø (m)	0.19	System Power														
2	E(0°)	2604	Luminous Flux (lm)	Type	Beam Angle	CRI	35P-HI	50N-HI	35N-HI	COIN-HI							
	Cone Ø (m)	0.37															
3	E(0°)	1157									Single CCT (3000K)	10°	High Efficiency Ra-85	568	533	391	318
	Cone Ø (m)	0.56												ProART Ra-95	482	453	333
4	E(0°)	651									35°		ProART98 Ra-98	397	373	274	223
	Cone Ø (m)	0.74															
5	E(0°)	417	Data are based on 3000K (ProART CRI-95). Nominal data of 2700K and 3500K are shared with 3000K.														
	Cone Ø (m)	0.93	Higher CCT of 4000K and 5000K will have a nominal data value of 5% higher than published. (f = 1.05)														

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 3 MINI

MODULAR CONCEPT



ORDERING MATRIX CHART

Fixture																				
Type	Trim Options		Shape		Angle		Colour		Reflector Colour		Accessories									
CASTOR-3MINI	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				
													CB	Chrome Black	LSL	Linear Spread Lens				
													CG	Chrome Gold	CP	Comfort Pro				
															IP	IP54**				
				MR16	MR16 Holder															
				GU10	GU10 Holder															

**IP54 seal accessory is valid for fix angle fixtures only.

Single CCT LED Module				Driver					
LED Power		Beam Angle		Colour Temp		CRI		Dimming	
ELR50P	12W	10	10°	27	2700K	HE	Ra~85	ND	Non-Dim
ELR50C	10W	20	20°	30	3000K	PA	ProART	PH	Phase
ELR35P	8W	35	35°	35	3500K	PP	ProART98	AN	0-10V
ELR50N	7.5W			40	4000K			DA	DALI
ELR35N	5.5W			50	5000K				
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	10	10°	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	10	10°	CS	ComfySHIFT	PA	ProART	ND	Non-Dim
ELR50N	7.5W	20	20°						
		35	35°						
		60	60°						

example: CASTOR-3MINI.X.RD.TL.WH.WH.N.ELR50P.35.27.PA.DA

*Custom RAL colour options available.

Warm Dim LED Module				Driver					
LED Power		Beam Angle		Colour Temp		CRI		Dimming	
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	
ELR50P	12W	20	20°	TW1831	tuneWHITE 1800K-3100K	PA	ProART	DA	DALI
ELR50N	7.5W	35	35°	TW1840	tuneWHITE 1800K-4000K				
ELRCOIN	4.5W			TW2765	tuneWHITE 2700K-6500K				

flexiK LED Module				Driver					
LED Power		Beam Angle		Colour Temp		CRI		Dimming	
ELR50P	12W	20	20°	FK##	flexiK	PA	ProART	PH	Phase
ELR50N	7.5W	35	35°					AN	0-10V
ELRCOIN	4.5W							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	
ELR50P	12W	35	35°	RGBW	Red, Green, Blue, White

*Drivers for RGBW LED modules are sold separately.