

Expanding the boundaries of lighting™





FACTOR FACTOR SMALL

factor™& factor™small

FACTOR* FACTOR*







Optical Performance
Heat Management
Long System Life
Reduced Maintenance







FACTOR™and **FACTOR**™**Small**

from Holophane, are dedicated LED luminaires that deliver a variety of efficient lumen per watt packages with excellent optical performance. With their precision engineered optics and sleek body design - perfect for dissipating heat away from the LEDs and extending the luminaire life, FACTOR & FACTOR Small give the complete cost saving solution for street lighting environments. With a range of delivered lumen packages equivalent from 35W to 100W ceramic metal halide lamps, FACTOR & FACTOR Small deliver efficient sustainable lighting solutions that have the flexibility to meet today's and tomorrow's lighting requirements.

FACTOR & FACTOR Small's design ensures cool operation that keeps it running for the long haul.

optics / light source

- > Lumen package of between 2000 11000 lumens.
- > Two dedicated street lighting optics

applications

> S-Class, ME-Class, Pedestrian Areas, Residential Areas and Car Parks

approvals

Complies with EN60598

CE

IP65 light engines

TA: Rated for -40°C to 40°C

For further information please visit the Holophane website www.holophane.co.uk

Typical Luminaire Performance

Configuration	Delivered Lumens	Power Consumption	Drive Current	Rated Life of LED Module (L70F50 @Tq 20°C)*
FACTOR				
FTR.L034	c.3000	38W	350mA	100,000+ hrs
FTR,L064	c.6000	73W	700mA	100,000+ hrs
FTR.L074	c.7000	70W	350mA	100,000+ hrs
FTR.L114	c.14000	140W	700mA	100,000+ hrs
FACTOR Sma	II			
FTS.L024	c.2000	26W**	350mA	100,000+ hrs
FTS.L034	c.3000	37W**	525mA	100,000+ hrs
FTS.L044	c.4000	51W**	700mA	95,000 hrs

Note: Data is correct at time of print.

^{*} For other life metric data in line with IEC PAS62722-2-1 and 62717 contact your Holophane Representative for details.

^{**} Estimated at time of print.



Two sizes to deliver a variety of lumen packages



Tool less trigger latch entry



Range of lumen packages



External fins to dissipate heat

specification

The 'finned' luminaire body, designed to dissipate heat, is manufactured from high pressure die cast aluminium that conforms to EN1706 AC-46500. A die cast aluminium door with tool less trigger latch allows access to the gear compartment concealing the IP65 control gear and connectors. The IP65 LED optical modules, with individual lenses, are mounted directly to the cast aluminium housing and wired in series. A thermal transfer interface is sandwiched between the LED module(s) and high grade aluminium housing to transfer heat away from the LEDs and dissipate through the 'finned' housing for cooling. FACTOR & FACTOR Small have been specifically designed for side entry mounting suitable for 42mm side entry. Option of 60mm version is available with code .SE60.

features and benefits

Sleek Design with tool-less access

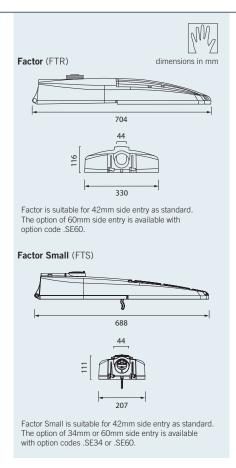
- > FACTOR & FACTOR Small's diecast aluminium housing acts as its primary heat sink. Its longitudinal fins employ conductive cooling techniques to dissipate heat away from the key LED components and extend luminaire life.
- > A die-cast trigger latch allows easy tool less access into the luminaire during installation and maintenance visits.

Exceptional Performance

- > Offering four lumen packages ranging from 2000 lm to 11000 lm with efficiencies of up to 90 lpw (Lumens Per Watts).
- > Two optimised roadway distributions (asymmetric and long & narrow) delivered by quality LEDs and bespoke UV stabilised optics
- > LED light engines with 0% ULOR ensuring night time friendly.

Fully Maintainable Performance

- > Single tool-less latch access to the luminaire ensures straightforward entry to the luminaire at installation and maintenance.
- > Unique IP65 rated LED light engines that are interchangeable ensuring a futureproof and maintainable LED luminaire.



light distribution

Asymmetric



weight Factor 12.0 kg Factor Small 6.3 kg

windage (effective projected area)

Factor	0.084 m ²
Factor Small	0.071 m ²

Note: The specifications of the Holophane luminaire and columns represents typical values. All descriptions, illustrations, drawings and specifications in the Holophane catalogue and website represent only general particulars of the goods to which they apply and shall not form part of any contract. The company reserves the right to change specifications at its discretion without prior notification or public announcement.



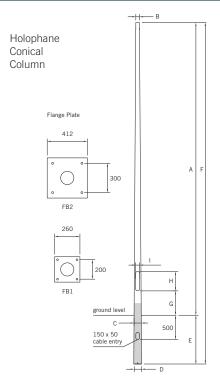
typical spacing

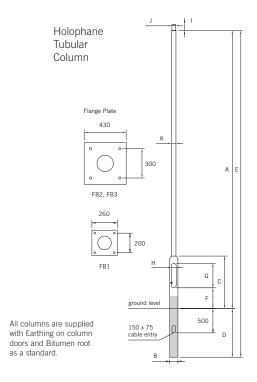
- > Designed to S4, BSEN13201 P2, 2003
- > 6m mounting height, 2 lanes, 10m road width with 2m setback.
- > Achieving 36m max spacing with 0.22 uniformity.



typical spacing

- > Designed to S4, BSEN13201 P2, 2003
- > 6m mounting height, 2 lanes, 10m road width with 2m setback.
- > Achieving 32m max spacing with 0.25 uniformity.





Holophane Conical Column

Height (m)	Nominal Height	Top Diameter	Base Diameter	Root End Diameter	Planting Depth	Overall Length	Door to Ground	Door Opening Length	Door Opening Width	Weight kg*	Bending Moment Nm
drawing ref	Α	В	С	D	E	F	G	Н	I		
3m std	3000	76	127	141	800	3800	425	400	85	33.68	5040
4m std	4000	76	118	126	800	4800	425	400	85	39.08	3890
4m hd	4000	76	133	144	800	4800	425	400	85	40.08	5640
5m std	5000	76	128	136	800	5800	425	400	85	49.45	4900
5m hd	5000	76	147	158	800	5800	425	400	85	51.65	6960
6m std	6000	76	138	148	1000	7000	425	400	85	65.84	5800
6m hd	6000	76	161	175	1000	7000	425	400	85	67.39	8070
8m std	8000	76	158	170	1200	9200	425	500	100	119	11920
8m hd	8000	76	189	206	1200	9200	425	400	85	124.45	18000

 Code
 Height
 Flange Plate
 Bolt

 HELC.FS1
 3-5m Poles
 FB1
 M18 x 400

 HELC.FS2
 6-8m Poles
 FB2
 M24 x 500

* Exclusion TBC

* Exclusion TBC

Holophane Tubular Column

Height (m)	Nominal Height	Base Diameter*	Base Height	Planting Depth	Overall Length	Door to Ground	Door Opening Length	Door Opening Width	Spigot Length*	Spigot Diameter*	Shaft Diameter*	Weight kg*	Bending Moment Nm
drawing ref	Α	В	С	D	E	F	G	Н	1	J	K		
3m std	3000	140	1075	800	3800	425	500	100	_	-	76	28.42	TBC
4m std	4000	140	1075	800	4800	425	500	100	_	-	76	32.96	6500
4m hd	4000	168	1250	800	4800	425	500	100	130	76	89	51.6	9865
5m std	4700	140	1075	800	5500	425	500	100	_	-	76	36.13	6200
5m hd	4700	168	1075	800	5500	425	500	100	130	76	89	50.7	9865
6m std	5700	140	1075	1000	6700	425	500	100	-	-	76	42.69	6000
6m hd	5700	168	1075	1000	6700	425	500	100	130	76	89	60.07	9550
8m std	7700	168	1250	1200	8900	500	600	115	130	76	89	77.30	10100
8m hd	7700	168	1250	1200	8900	500	600	115	250	102	114	96.32	14000

 Code
 Height
 Flange Plate
 Bolt

 HELB.FS1
 3-5m Poles
 FB1
 M18 x 400

 HELB.FS2
 6-8m Poles
 FB2
 M24 x 500

Column type to be confirmed at time of order as this is based on luminaire weight, windage and geographical location.

ordering details : luminaire

Code												
FTR	Factor I	_uminaire)									
	Code	Lamp T	ype (requ	ired)								
	.L034	LED ligh	nt engine	t engine producing c.3,000 Im with a nominal 4000°K colour temperature t engine producing c.6,000 Im with a nominal 4000°K colour temperature t engine producing c.7,000 Im with a nominal 4000°K colour temperature								
	.L064	LED ligh	nt engine									
	.L074	LED ligh	nt engine									
	.L114	LED ligh	nt engine	engine producing c.11,000 lm with a nominal 4000°K colour temperature								
		Code	Light D	Distribution (required)								
		.AY	Asymm	netric								
		.NR	Long ar	and Narrow								
			Code	Colour (required)								
			.C1	White (RAL9016)								
			.C4	Graphite (RAL7011)								
			.C6	Grey (RAL7035)								
			.C7	Black (RAL9005)								
			.C9	Metallic	Silver (RA	AL9006)						
			.RAL***	(custon	ner choice)						
				Code	Options	;						
				.T1	Comple	te with NEMA socket. (To accept standard						
					NEMA Photocell, available from Holophane)							
				.TSZ Complete with miniature 70 lux factory fitted photocell.								
				(Zodion SS12)								
					Code	Fixing Method (optional)						
					.SE60	60mm side entry mounting						
FTR	.L034	.AY	.C1	.TSZ	.SE60							

Code												
FTS	Factor S	Small										
	Code	Lamp Ty	amp Type (required)									
	.L024	LED ligh	nt engine producing c.2,000 Im with a nominal 4000°K colour temperature									
	.L034	LED ligh	t engine producing c.3,000 lm with a nominal 4000°K colour temperature									
	.L044	LED ligh	nt engine producing c.4,000 Im with a nominal 4000°K colour temperature									
		Code	Light Di	Distribution (required)								
		.AY	Asymme	tric								
		.NR	Long and	d Narrow								
			Code	Colour (required)							
			.C1	Smooth	White (R	AL9016)						
			.C4	Graphite (RAL7011)								
			.C6	Grey (RAL7035)								
			.C7	Black (RAL9005)								
			.C9	Metallic Silver (RAL9006)								
			.RAL****	(customer choice)								
				Code	Code Options							
				.T1	Comple	te with NEMA socket.						
					(To accep	ot standard NEMA Photocell, available from Holophane)						
				.TSZ	.TSZ Complete with miniature 70 lux factory fitted photocell.							
				(Zodion SS12)								
					Code Fixing Method (optional)							
					.SE60	60mm side entry mounting						
					.SE34	34mm side entry mounting						
FTS	.L024	.AY	.C1	.T1	.SE60							

Note: Factor and Factor Small are offered with 42mm side entry as standrad

Example

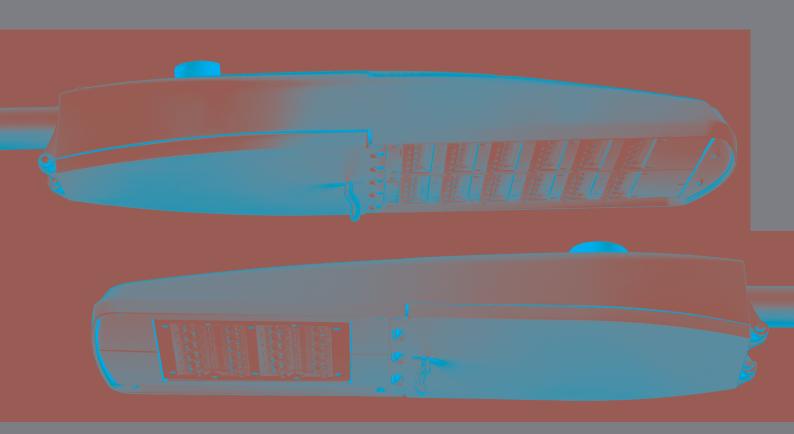
ordering details : column

Example

	Code														
	FTSB	Factor S	mall Tubu	ılar Comp	artment C	olumn									
	FTSC	Factor Small Conical Steel Column													
	FTRB	Factor Tubular Compartment Column													
	FTRC	Factor C	onical Ste	eel Colum	n										
		Code	Luminai	ire Mount	ing Heigh	t									
		.3	3 metres	S											
		.4	4 metres	S											
		.5	5 metres	S											
		.6	6 metres	25											
		.8	8 metres	s (availabl	(available with FTRB & FTRC only)										
			Code	Bracket	s										
			.1S	Single h	head short bracket										
			.1L	Single h	ead long b	oracket									
			.2S	Twin he	ad short b	racket									
			.2L	Twin he	ad long br										
				Code	Column	Column Category									
				.LMZ	_	& mediur		nd zones							
				.HVZ		vy area wir									
				.HEZ	For extra	a heavy area wind zones									
					Code	Bracket Angle									
					.AO	Angle of									
					.A5	Angle of									
						Code	Colour								
						.C1		RAL9016)							
						.C4		e (RAL701	11)						
						.C6	-	AL7035)							
						.C7	-	RAL9005)							
						.C9 .RAL****		Silver (RA er choice	,						
						.IVAL	Code		I Base Ty	ne					
							.FB1	Flange [pe					
							.FB2	_		y applicable to FTRB & FTRC)					
							.1 02	Code		Il Column Finish					
								.P1	-	ndercoat primed					
								.P2		pat primed to match specified RAL colour					
									Code	Optional Paint Finish (Bracket Only)					
									.C	Enhanced Paint Finish					
T I	FTRB	.3	.1S	.LMZ	.A0	.C1	.FB1	.P1	.C						



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