



AcuityBrands.
Expanding the boundaries of lighting™



FACTOR™
FACTOR™
SMALL



factor™ & factor™ small

FACTORTM

FACTORTM

SMALL



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 150W 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 2,000 - 25,000 lumens
- > Three lighting distribution options

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 (L70B50 @Tq 15°C)*
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FACTOR

FTR.LA144	c. 14000	97W	525mA	100,000+ hrs
FTR.LA174	c. 17000	130W	700mA	100,000+ hrs
FTR.LA254	c. 25000	208W	1050mA	100,000+ hrs

FACTOR Small

FTS.2.LA02X	c. 2000	17W	525mA	100,000+ hrs
FTS.2.LA03X	c. 3000	23W	700mA	100,000+ hrs
FTS.3.LA05X	c. 5000	35W	525mA	100,000+ hrs
FTS.2.LA06X	c. 6000	47W	700mA	100,000+ hrs
FTS.3.LA09X	c. 9000	66W	1050mA	100,000+ hrs
FTS.3.LA10X	c. 10,000	78W	1225mA	100,000+ hrs
FTS.2.LA07X	c. 7000	52W	525mA	100,000+ hrs
FTS.2.LA084	c. 8000	70W	700mA	100,000+ hrs
FTS.3.LA11X	c. 11000	82W	850mA	100,000+ hrs
FTS.2.LA12X	c. 12000	100W	1050mA	100,000+ 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.



Two sizes to deliver a variety of lumen packages



Tool less trigger latch entry



10 LED Board – LA024 & LA034 versions



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 2,000lm to 25,000lm with efficiencies of up to 139lpw (Lumens Per Watts).
- > Two optimised roadway distributions (asymmetric, forward throw and long & narrow) delivered by quality LEDs and bespoke UV stabilised optics
- > LED light engines with 0% ULOR ensuring night time friendly.

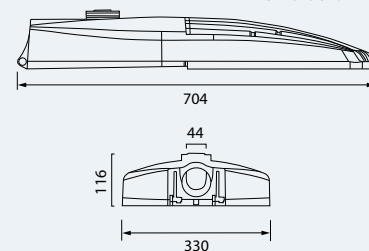
Fully Maintainable Performance

- > 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.

Factor (FTR)

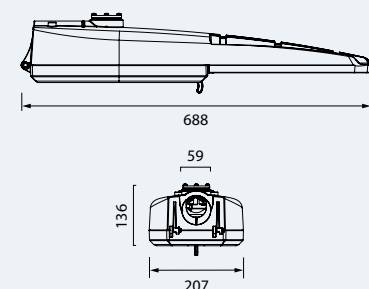


dimensions in mm



Factor is suitable for 42mm side entry as standard. The option of 60mm side entry is available with option code .SE60.

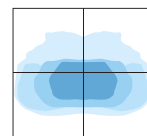
Factor Small (FTS)



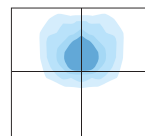
Factor Small is suitable for 42mm side entry as standard. The option of 34mm or 60mm side entry is available with option codes .SE34 or .SE60.

light distribution

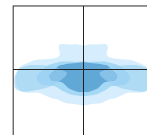
Asymmetric



Forward Throw



Long & Narrow



weight

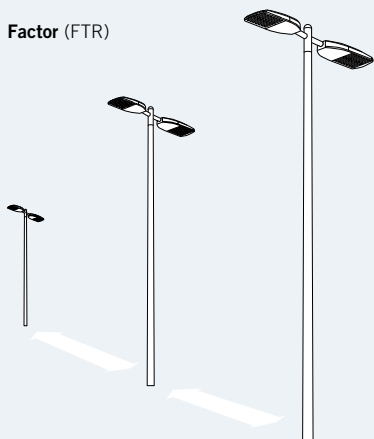
Factor	12.0 kg
Factor Small	7.0 kg

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.

Factor (FTR)

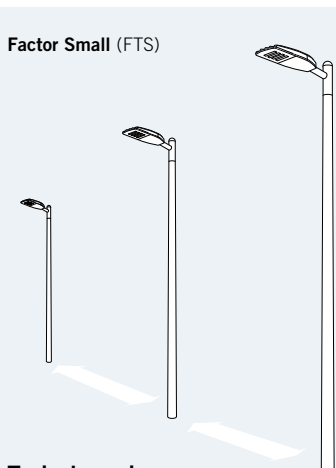


Typical spacing
36m spacing mounted at 6m

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.

Factor Small (FTS)



Typical spacing
32m spacing mounted at 6m

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.



ordering details : luminaire

Code	Factor Luminaire								
FTR									
	Code	Lamp Type (required)							
	.LA144	LED light engine producing c.14,000 lm with a nominal 4000°K colour temperature							
	.LA174	LED light engine producing c.17,000 lm with a nominal 4000°K colour temperature							
	.LA254	LED light engine producing c.25,000 lm with a nominal 4000°K colour temperature							
	Code	Light Distribution (required)							
	.SY	Symmetrical							
	.AY	Asymmetric							
	.FW	Forward Throw							
	.NR	Long and Narrow							
	Code	Colour (required)							
	.C1	White (RAL9016)							
	.C4	Graphite (RAL7011)							
	.C6	Grey (RAL7035)							
	.C7	Black (RAL9005)							
	.C9	Metallic Silver (RAL9006)							
	.RAL****	(customer choice)							
	Code	Options							
	.T1	Complete with NEMA socket. (To accept standard NEMA Photocell, available from Holophane)							
	.TSZ	Complete with miniature 70 lux factory fitted photocell. (Zodion SS12)							
	.TSZA	Complete with miniature 55 lux factory fitted photocell. (Zodion SS12A)							
	.TSZB	Complete with miniature 35 lux factory fitted photocell. (Zodion SS12B)							
	.T5	Complete with 5-pin dimming NEMA ANSI C136.41 socket (suitable photocell/node supplied by others) without locking top							
	.T7	Complete with 7-pin dimming NEMA ANSI C136.41 socket (suitable photocell/node supplied by others) without locking top							
	.T5T	Complete with 5-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) with weather proof locking top							
	.T7T	Complete with 7-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) with weather proof locking top							
	Code	Fixing Method (optional)							
	.SE60	60mm side entry mounting							
	Code	Control Gear (optional)							
	.CL7	Programmed to deliver 70% of the initial lumens over the life of the luminaire							
	.CL8	Programmed to deliver 80% of the initial lumens over the life of the luminaire							
	.CL9	Programmed to deliver 90% of the initial lumens over the life of the luminaire							
	.D2	DALI HF electronic control gear							
	Code	Dimming Outputs (optional)							
	.LRT56	pre-set to dim to 50% between 12am to 6am							
	.LRT66	pre-set to dim to 60% between 12am to 6am							
	.LRT76	pre-set to dim to 70% between 12am to 6am							
	Code	Cable Entry (optional) max length catered for							
	.FF10S	10 metres of 1.5mm ² 3 core cable "flex" for side entry mounting							
	.FS10S	10 metres of flat twin & earth 2.5mm ² for side entry mounting							
	.F510S	10 metres of 1.5mm ² 5 core cable "flex" for side entry mounting							
Example	FTR	.LA144	.AY	.C1	.TSZ	.SE60	.CL7	.LRT56	.FF10S

Lumen data is considered to be representative of the configuration shown, and may vary, with a tolerance on flux of +/- 7% (typical of LED manufacturers data) and luminaire power of +/- 5%.

Code

FTS Factor Small

Code **Prefix (optional)**

.2 Series 2

.3 Series 3

Code **Lamp Type (required)**

.LA024 LED light engine producing c.2,000 lm with a nominal 4000K colour temperature

.LA034 LED light engine producing c.3,000 lm with a nominal 4000K colour temperature

.LA054 LED light engine producing c.5,000 lm with a nominal 4000K colour temperature*

.LA064 LED light engine producing c.6,000 lm with a nominal 4000K colour temperature

.LA074 LED light engine producing c.7,000 lm with a nominal 4000K colour temperature

.LA084 LED light engine producing c.8,000 lm with a nominal 4000K colour temperature

.LA094 LED light engine producing c.9,000 lm with a nominal 4000K colour temperature

.LA104 LED light engine producing c.10,000 lm with a nominal 4000K colour temperature*

.LA114 LED light engine producing c.11,000 lm with a nominal 4000K colour temperature*

.LA124 LED light engine producing c.12,000 lm with a nominal 4000K colour temperature

.LA023 LED light engine producing c.2,000 lm with a nominal 3000K colour temperature

.LA033 LED light engine producing c.3,000 lm with a nominal 3000K colour temperature

.LA053 LED light engine producing c.5,000 lm with a nominal 3000K colour temperature*

.LA063 LED light engine producing c.6,000 lm with a nominal 3000K colour temperature

.LA073 LED light engine producing c.7,000 lm with a nominal 3000K colour temperature

.LA083 LED light engine producing c.8,000 lm with a nominal 3000K colour temperature

.LA093 LED light engine producing c.9,000 lm with a nominal 3000K colour temperature

.LA103 LED light engine producing c.10,000 lm with a nominal 3000K colour temperature*

.LA113 LED light engine producing c.11,000 lm with a nominal 3000K colour temperature*

.LA123 LED light engine producing c.12,000 lm with a nominal 3000K colour temperature

Code **Light Distribution (required)**

.SY Symmetrical

.AY Asymmetric

.FW Forward Throw

.NR Long and Narrow

Code **Colour (required)**

.C1 Smooth White (RAL9016)

.C4 Graphite (RAL7011)

.C6 Grey (RAL7035)

.C7 Black (RAL9005)

.C9 Metallic Silver (RAL9006)

.RAL**** (customer choice)

Code **Options**

.T1 Complete with NEMA socket. (To accept standard NEMA Photocell, available from Holophane)

.TSZ Complete with miniature 70 lux factory fitted photocell. (Zodion SS12)

.TSZA Complete with miniature 55 lux factory fitted photocell. (Zodion SS12A)

.TSZB Complete with miniature 35 lux factory fitted photocell. (Zodion SS12B)

.T5 Complete with 5-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) without locking top

.T7 Complete with 7-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) without locking top

.T5T Complete with 5-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) with weather proof locking top

.T7T Complete with 7-pin dimming NEMA ANSI C136.41 socket (photocell/node supplied by others) with weather proof locking top

Code **Fixing Method (optional)**

.SE60 60mm side entry mounting

.SE34 34mm side entry mounting

Code **Control Gear (optional)**

.CL7 Programmed to deliver 70% of the initial lumens over the life of the luminaire

.CL8 Programmed to deliver 80% of the initial lumens over the life of the luminaire

.CL9 Programmed to deliver 90% of the initial lumens over the life of the luminaire

.D2 DALI HF electronic control gear

Code **Dimming Outputs (optional)**

.LRT56 pre-set to dim to 50% between 12am to 6am

.LRT66 pre-set to dim to 60% between 12am to 6am

.LRT76 pre-set to dim to 70% between 12am to 6am

Code **Cable Entry (optional) max length catered for**.FF10S 10 metres of 1.5mm² 3 core cable "flex" for side entry mounting.FS10S 10 metres of flat twin & earth 2.5mm² for side entry mounting.F510S 10 metres of 1.5mm² 5 core cable "flex" for side entry mounting

Example

FTS

.2.LA024

.AY

.C1

.T1

.SE60

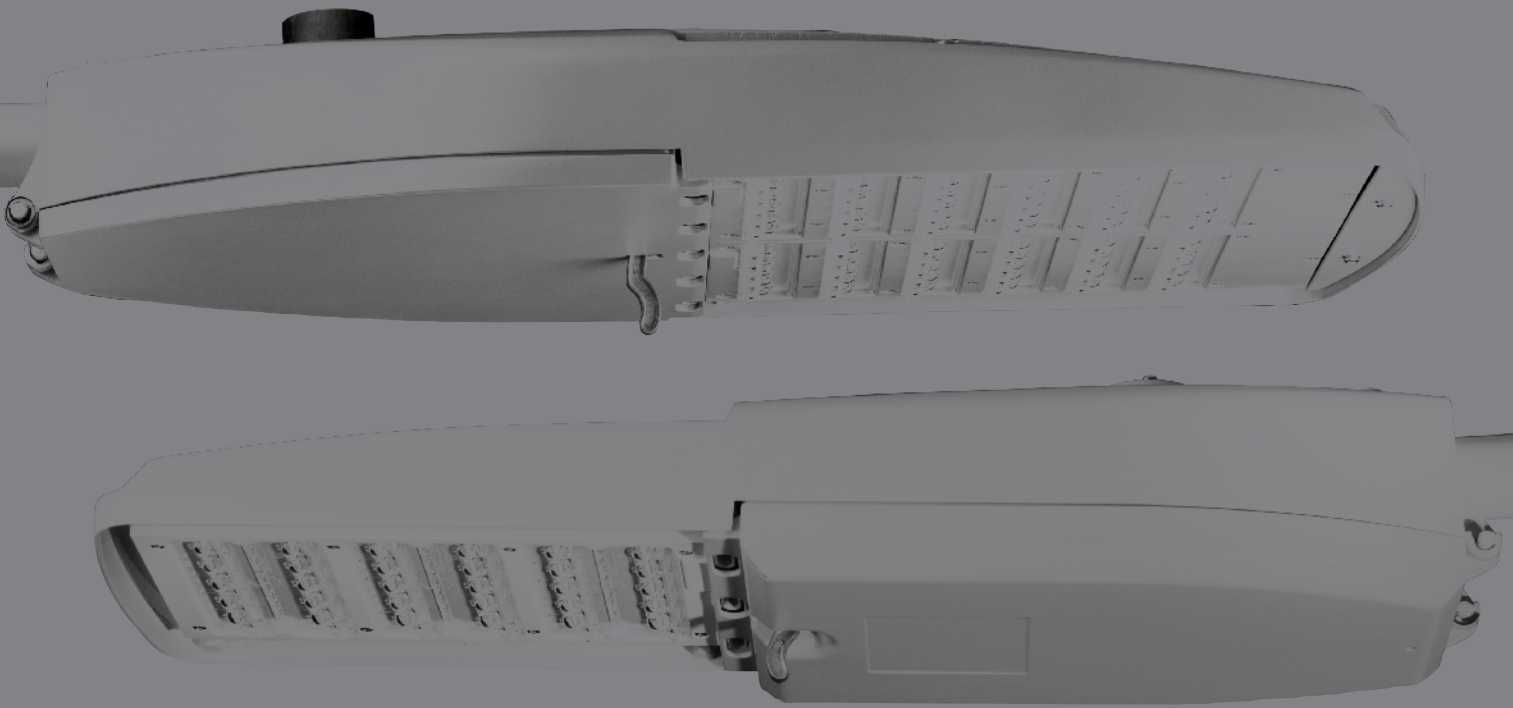
.CL7

.LRT56

.FF10S

Note: Factor and Factor Small are offered with 42mm side entry as standard. * Only available with Series 3 (.3)

Lumen data is considered to be representative of the configuration shown, and may vary, with a tolerance on flux of +/- 7% (typical of LED manufacturers data) and luminaire power of +/- 5%.



FACTOR™

FACTOR™ SMALL

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