



# LEDs in functional street lighting now you can!

**Philips Fortimo LED Linear system** – a LED breakthrough in energy efficacy, comfortable and high quality light.



The fortimo LED linear system consist of an LED module and a driver and cable designed for use in existing or new luminaires toghether with a heatsink. It is intended for the professional market in (functional) outdoor lighting applications& indoor applications.

The fortimo LED module is equipped with a Fortimo Phosphor technology, enabling a breakthrough in LED efficacy. The Fortimo driver is one of the most efficient on the market. This results in a system efficacy (LED module and driver) of up to 64lm/W at 3000K and with a colour rendering greater than 70, which is unique in the market place (comparable to a bare LED efficiency of 110lm/W).

As advances in bare LED efficacies are made, these will be incorporated into the Fortimo LED module, without changing the dimensions, shape or lumen output of the system. A really future proofed approach to enable Luminair manufactures to plan ahead and for adapting and designing new luminair ranges for the coming years.

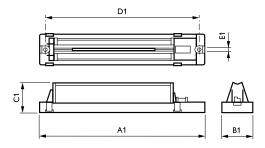
## Benefits

- Breakthrough efficacy of up to 64lm/W at system level (comparable to 110 lm/W bare LED efficiency)
- No light depreciation (constant lumen output)
- Easily creation of uniform and rectangular lightpatterns
- Reducing light polution (no sky glow)
- Reduced Time to Market (TTM) and related cost for OEMs.

### **Dimensions (mm)**

AI	BI	СІ	DI	EI	
230.0	45.0	42.0	214.5	4.5	

### Module



- Fixed form factor and lumen packages
- Environmentally friendly (energy saving)
- Reliable (system approach)
- Comfortable and safe high quality LED light (3000 & 4000K with Ra 75)
- Upgradeable & service-able
- Controls (Lumistep dimming)

### **Applications**

Outdoor:

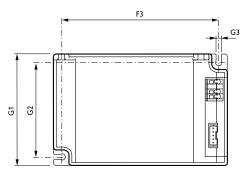
- Residential area's
- Streetlighting
- Parks
- City centres
- Parking lots
- Squares
- Off-grid (Solar powered)

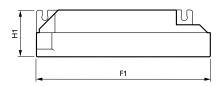
Indoor:

- corridors
- wall
- stairwell
- safety lighting.

FI	F3	GI	G2	G3	н
123.0	110.0	79.0	67.0	4.5	33.0

### Driver





# **Product** specifications

Light ouput	Initial Power	Efficacy module + driver	Color rendering index	Color temp.	Controls Lumistep dimming	input voltage	Input frequency	Burning position	Approvals	
(lm)	(₩)	(lm/w)	(Ra)	(K)	(hrs)	(^)	(Hz)		CE	ENEC
1800	28	64,3	75	3000	-	220-240	50-60	Universal	yes	yes
1800	25	72,0	75	4000		220-240	50-60	Universal	yes	yes
1800	28	64,3	75	3000	8 *	220-240	50-60	Universal	yes	yes
1800	25	72,0	75	4000	8 *	220-240	50-60	Universal	yes	yes
1100	17	64,7	75	3000	-	220-240	50-60	Universal	yes	yes
1100	15,5	71,0	75	4000	-	220-240	50-60	Universal	yes	yes
1100	17	64,7	75	3000	8 *	220-240	50-60	Universal	yes	yes
1100	15,5	71,0	75	4000	8 *	220-240	50-60	Universal	yes	yes
	ouput (Im) 1800 1800 1800 1800 1100 1100	Power           (Im)         (W)           1800         28           1800         25           1800         28           1800         28           1800         25           1100         17           1100         15,5           1100         17	Power         module + driver           (m)         (W)         (m/w)           1800         28         64,3           1800         25         72,0           1800         28         64,3           1800         28         64,3           1800         25         72,0           1800         25         72,0           1100         17         64,7           1100         17         64,7	Power         module + driver         rendering index           (m)         (W)         (Im/w)         (Ra)           1800         28         64,3         75           1800         25         72,0         75           1800         28         64,3         75           1800         28         64,3         75           1800         28         64,3         75           1800         25         72,0         75           1800         17         64,7         75           1100         17,0         75           1100         17         64,7         75	Power         module + driver         rendering index         temp.           (m)         (W)         (m/w)         (Ra)         (K)           1800         28         64,3         75         3000           1800         28         64,3         75         4000           1800         28         64,3         75         4000           1800         28         64,3         75         3000           1800         28         64,3         75         3000           1800         28         64,3         75         3000           1800         25         72,0         75         4000           100         17         64,7         75         3000           1100         15,5         71,0         75         4000           1100         17         64,7         75         3000	Power         module + driver         rendering index         temp.         Lumistep dimming           (m)         (W)         (m/w)         (Ra)         (K)         (nrs)           1800         28         64,3         75         3000         -           1800         28         64,3         75         4000         -           1800         28         64,3         75         3000         8*           1800         28         64,3         75         3000         8*           1800         28         64,3         75         3000         8*           1800         25         72,0         75         4000         8*           1800         17         64,7         75         3000         -           1100         17         64,7         75         3000         -           1100         17         64,7         75         3000         8*	Power         module + driver         rendering index         temp.         Lumistep dimming         voltage           (m)         (W)         (m/w)         (Ra)         (K)         (hrs)         (V)           1800         28         64,3         75         3000         -         220-240           1800         25         72,0         75         4000         -         220-240           1800         28         64,3         75         3000         8*         220-240           1800         28         64,3         75         3000         8*         220-240           1800         25         72,0         75         4000         8*         220-240           1800         17         64,7         75         3000         -         220-240           1100         17,5         71,0         75         4000         -         220-240           1100         17         64,7         75         3000         -         220-240	ouput         Power         module + driver         rendering index         temp.         Lumistep dimming         voltage         frequency           (m)         (W)         (m/w)         (Ra)         (K)         (nrs)         (V)         (Hz)           1800         28         64,3         75         3000         -         220-240         50-60           1800         25         72,0         75         4000         -         220-240         50-60           1800         28         64,3         75         3000         8*         220-240         50-60           1800         28         64,3         75         3000         8*         220-240         50-60           1800         25         72,0         75         4000         8*         220-240         50-60           1800         17         64,7         75         3000         -         220-240         50-60           1100         17.0         64,7         75         3000         -         220-240         50-60           1100         17.0         64,7         75         3000         8*         220-240         50-60	ouputPowermodule + driverrendering indextemp.Lumistep dimmingvoltagefrequencyposition(m)(W)(m/w)(Ra)(K)(hrs)(V)(Hz)18002864,3753000-220-24050-60Universal18002572,0754000-220-24050-60Universal18002864,37530008*220-24050-60Universal18002572,07540008*220-24050-60Universal18001764,7753000-220-24050-60Universal110017,571,0754000-220-24050-60Universal11001764,77530008*220-24050-60Universal11001764,77530005220-24050-60Universal	ouputPowermodule + driverrendering indextemp.Lumistep dimmingvoltagefrequencyposition(m)(W)(m/w)(Ra)(K)(hrs)(V)(Hz)CE18002864.3753000-220-24050-60Universalyes18002572.0754000-220-24050-60Universalyes18002864.37530008*220-24050-60Universalyes18002572.07540008*220-24050-60Universalyes18002572.07540008*220-24050-60Universalyes18001764.7753000-220-24050-60Universalyes110017.064.7753000-220-24050-60Universalyes110017.064.7753000-220-24050-60Universalyes110017.064.77530008*220-24050-60Universalyes

Philips Fortimo LED Linear Light Module system	Average lifetime at 10% failures	lumen output	av. Lumen maintenance @ 50 Khrs	over 50Khrs	Max po- wer End of Life	Class	factor	harmonic distortion	& driver	& driver	module & driver	consistency initial	range Iuminaire
	(hrs)	(CLO)	(lm)	(\vv)	(₩)		(Pf)	(%)	(°C)	(°C)	(°C)	(SDCM)	(°C)
Fortimo LED LLM 1800 28W/730 220-240	50.000	yes	1800	30,8	33,6	II	0.9	< 15	-20	55	75	7	-20 to +35
Fortimo LED LLM 1800 25W/740 220-240	50.000	yes	1800	27,5	30	II	0.9	< 15	-20	55	75	7	-20 to +35
Fortimo LED LLM 1800 28W/730 LS	50.000	yes	1800	23,2 **	33,6	II	0.85	< 15	-20	55	75	7	-20 to +35
Fortimo LED LLM 1800 25W/740 LS	50.000	yes	1800	20,7 **	30	II	0.85	< 15	-20	55	75	7	-20 to +35
Fortimo LED LLM 1100 17W/730 220-240	50.000	yes	1100	18,7	20,4	II	0.9	< 15	-20	55	75	7	-20 to +35
Fortimo LED LLM 1100 15W/740 220-240	50.000	yes	1100	17	18,6	II	0.9	< 15	-20	55	75	7	-20 to +35
Fortimo LED LLM 1100 17W/730 LS	50.000	yes	1100	4,  **	20,4	II	0.85	< 15	-20	55	75	7	-20 to +35
Fortimo LED LLM 1100 15W/740 LS	50.000	yes	1100	12,8 **	18,6	II	0.85	< 15	-20	55	75	7	-20 to +35

 $\ast$  dimming to 66% of light ouput; also available in 6 and 10 hrs

\*\* Calculation based on LS-8

For more information, visit: www/philips.com/fortimo

\* LED technology is continuously improving. For latest updated information on efficacy range and wattages, please check www.philips.com/fortimo



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