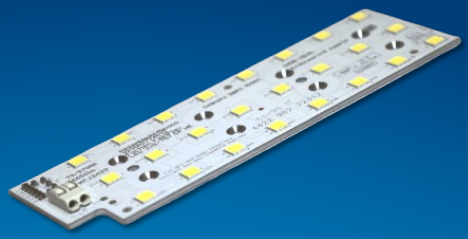
PHILIPS

Fortimo

LED

Fortimo FastFlex LED 3x8/757 DP HE



Datasheet

High Efficiency

Fortimo FastFlex LED 3x8 DP HE

Experience increased efficiency levels of ≥180lm/W

Application
- Road lighting
- Urban and residential street lighting
- Parks and recreation area lighting
- Flood and area lighting
- Tunnel lighting
- High bay lighting

Key features and benefits
- High Efficiency on LED module level
- Extensive reliability testing for OEM peace of mind
- Patented module surge protection
- Philips system warranty

December 2024



Ordering data

Commercial product name	12NC	Box quantity
Fortimo FastFlex LED 3x8/757 DP HE	9290 027 74513	25

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo FastFlex LED 3x8/757 DP HE	240	700	750	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T_c (case temperature at T_c point)	80	85	95	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value

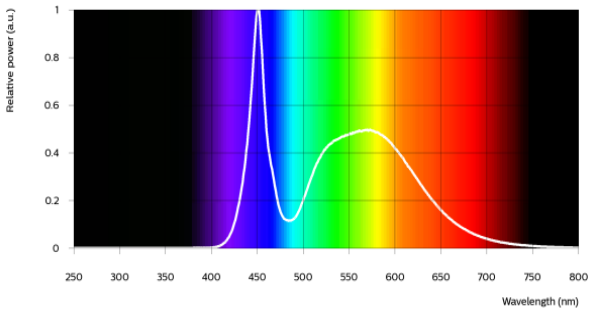
Optical characteristics - table per color (CCT)

Fortimo FastFlex LED 3x8/757 DP HE

Parameter	Min	Typ	Max	Unit
Luminous flux	5440	6040	6640	lm
Efficacy	171	191	210	lm/W
Correlated color temperature (CCT)		5700		K
Color coordinates (CIEx, CIEy)		(0.324, 0.337)		-
Color consistency			5	SDCM
CRI	70			
R9	-50			
Photobiological safety			RG2*	

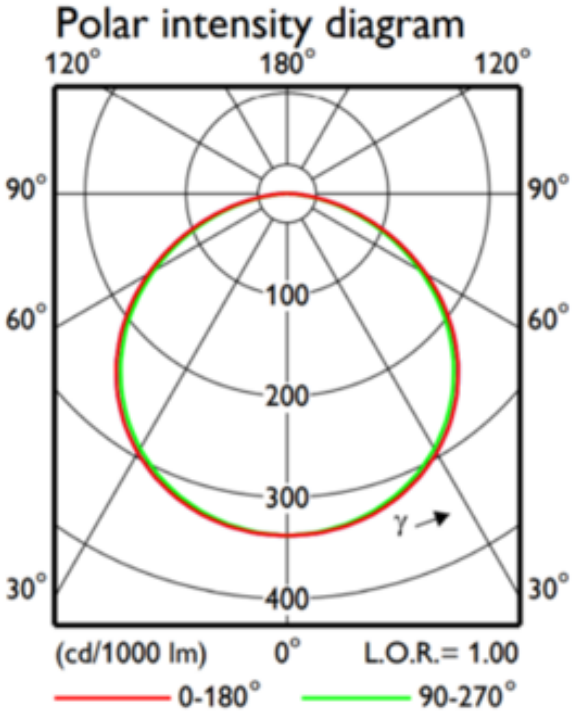
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5 and R9 ± 3.

Operation point	757	lm	lm/W
80% I-nom 192mA	Tc 25 °C	5193	204
	Tc-nom 80 °C	4876	195
	Tc-max 95 °C	4765	192
I-nom 240mA	Tc 25 °C	6435	199
	Tc-nom 80 °C	6040	191
	Tc-max 95 °C	5902	187
I-max 750mA	Tc 25 °C	18774	165
	Tc-nom 80 °C	17534	157
	Tc-max 95 °C	17099	154



*Do not stare at the light source

Beam shape


Polar intensity diagram
120°
180°
120°
90°
90°
60°
60°
100
200
300
γ
30°
30°
400
(cd/1000 lm)
0°
L.O.R.= 1.00
0-180°
90-270°

Electrical characteristics

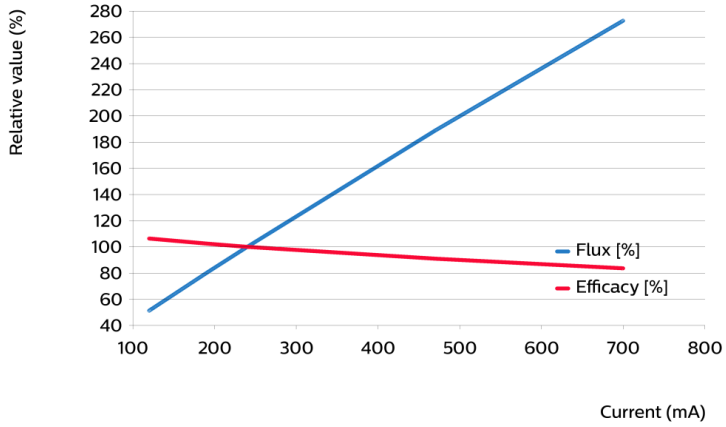
Parameter	Min	Typ	Max	Unit
Forward voltage	126.6	132.0	136.3	V
Power consumption	30.4	31.7	32.7	W = kWh/1000h
Number of modules in series per chain			2	

Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%.

Tuning information

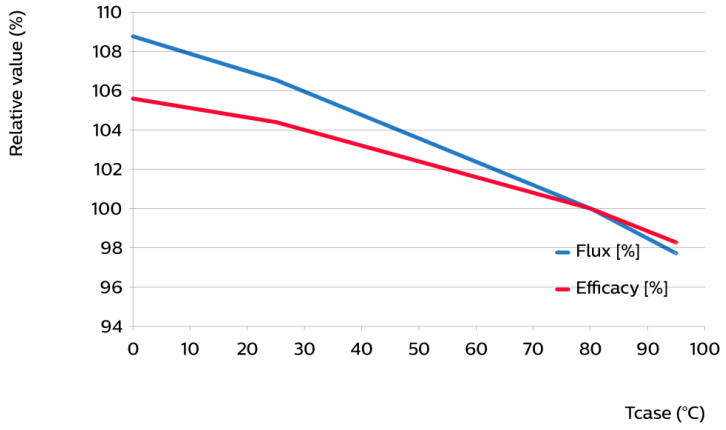
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
700	273	84
470	189	91
240	100	100
192	81	102
120	51	106



Flux and efficacy versus temperature at Tc (at I nominal)

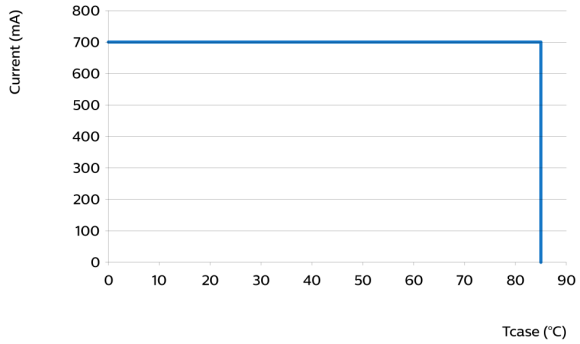
Tc [°C]	Flux [%]	Efficacy [%]
95	98	98
80	100	100
25	107	104
0	109	106



Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70 B50	L80 B50	L90 B50
80% I-nom 192 mA	Tc 75°C	>100	>100	95
	Tc-nom 80°C	>100	>100	84
	Tc life 85°C	>100	>100	75
I-nom 240 mA	Tc 75°C	>100	>100	91
	Tc-nom 80°C	>100	>100	80
	Tc life 85°C	>100	>100	72
I-life 700 mA	Tc 75°C	>100	>100	73
	Tc-nom 80°C	>100	>100	65
	Tc life 85°C	>100	>100	57

Performance Window

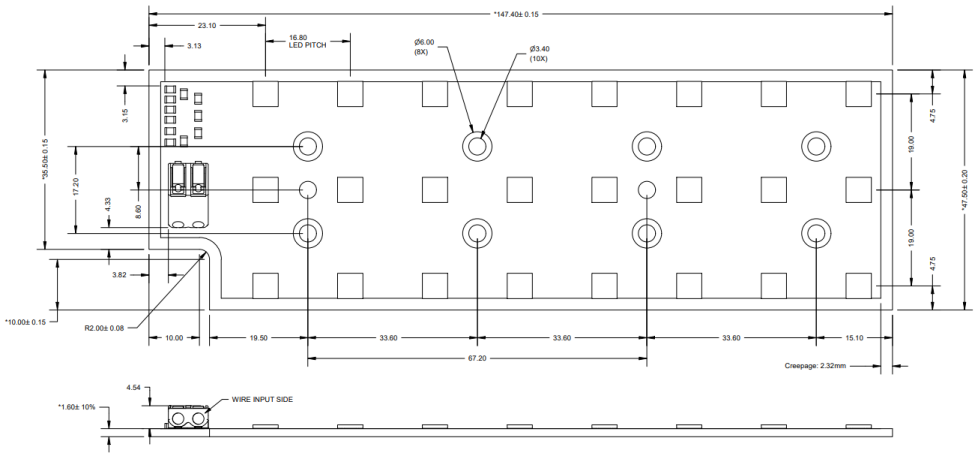


Wiring

Specification item	Value	Unit	Condition
Input wire cross-section	0.25…0.75	mm^2	solid, stranded
	18…24	AWG	solid, stranded
Input wire strip length	7.5…9.5	mm	

Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	147.25	147.4	147.55	mm
Width	47.3	47.5	47.7	mm
Height PCB	1.4	1.6	1.8	mm
Height total		6.1		mm
Warpage (IPC-TM-650)			0.75	%



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		750	mA
Case temperature (Tc-max)		95	°C
ESD (direct contact)	8		kV
Working voltage		180	V_{dc}
Ambient temperature	-40		°C

Application information

Certificates and Standards
CE
ENEC
UKCA
UL/cRUus

Environmental
RoHS/REACH

Application	
IP rating	No IP Rating
Overheating protection	No Protection
Dimming	Yes

Notes

View limited warranty at www.signify.com/warranties for details and restrictions.



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