

PHILIPS

Fortimo

LED

Fortimo LED Strip 1ft
2000lm BC HV6



Datasheet

Fortimo LED Strip 1ft 2000lm HV6

The Fortimo LED Strip High Flux HV6 is the ideal solution for applications where the lighting fixtures are mounted at higher heights. Key applications include industry and retail where often trunking luminaires, highbay luminaires, battens or waterproof luminaires are being used. The LED modules are designed to have a high light output combined with an extremely long lifetime.

Key features and benefits

- Two lumen output versions: 2000 lm/ft and 3000 lm/ft
- LED module efficiency of 178 Lm/W (4000K, CRI80)
- Long life time of >100,000 hours
- High color rendering: CRI >80
- Excellent color consistency of 3 SDCM
- Variation of color temperatures: 3000 K, 4000 K, 5000 K, and 6500 K
- Two lengths: 1ft and 2ft
- Wide case temperature (Tc) range from -40 °C to +95 °C
- Five years system warranty

January 2022



Ordering data

Commercial product name	EOC	12NC	Box quantity
Fortimo LED Strip 1ft 2000lm BC 840 HV6	8719514 304383 00	9290 029 17706	84
Fortimo LED Strip 1ft 2000lm BC 830 HV6	8719514 304345 00	9290 029 17506	84
Fortimo LED Strip 1ft 2000lm BC 835 HV6	8719514 304369 00	9290 029 17606	84

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
Fortimo LED Strip 1ft 2000lm BC HV6	285	480	480	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	45	90	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)

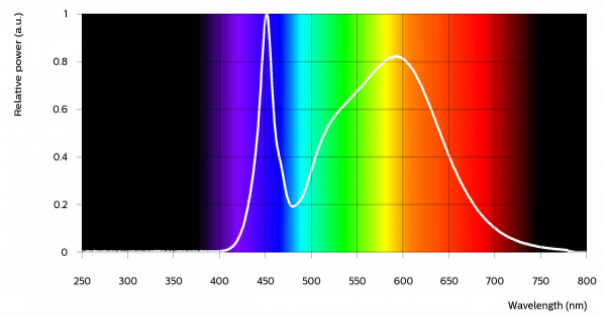
Fortimo LED Strip 1ft 2000lm BC 840 HV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1900	2000	2100	lm
Efficacy	160	178		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.379, 0.375)		-
Color consistency			3	SDCM
CRI	80			
R9	0			
Photometric code		840/359		
Photobiological safety			RG1 unlimited	



Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .

Operation point	840	lm	lm/W
80% I-nom 228mA	Tc 25 °C	1652	186
	Tc-nom 45 °C	1620	184
	Tc-max 95 °C	1506	174
I-nom 285mA	Tc 25 °C	2039	180
	Tc-nom 45 °C	2000	178
	Tc-max 95 °C	1858	168
I-max 480mA	Tc 25 °C	3308	164
	Tc-nom 45 °C	3243	162
	Tc-max 95 °C	3005	152



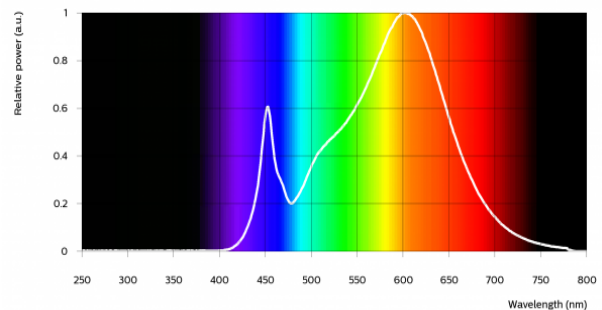
Fortimo LED Strip 1ft 2000lm BC 830 HV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1790	1880	1970	lm
Efficacy	151	167		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.430, 0.400)		-
Color consistency			3	SDCM
CRI	80			
R9	0			
Photometric code		830/359		
Photobiological safety			RG1 unlimited	



Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .

Operation point	830	lm	lm/W
80% I-nom 228mA	Tc 25 °C	1550	174
	Tc-nom 45 °C	1523	172
	Tc-max 95 °C	1425	164
I-nom 285mA	Tc 25 °C	1913	169
	Tc-nom 45 °C	1880	167
	Tc-max 95 °C	1758	159
I-max 480mA	Tc 25 °C	3103	155
	Tc-nom 45 °C	3047	153
	Tc-max 95 °C	2842	145

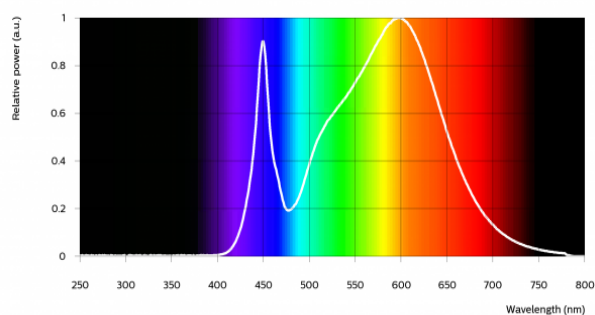


Fortimo LED Strip 1ft 2000lm BC 835 HV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1790	1880	1970	lm
Efficacy	151	167		lm/W
Correlated color temperature (CCT)		3500		K
Color coordinates (CIEx, CIEy)		(0.403, 0.388)		-
Color consistency			3	SDCM
CRI	80			
R9	0			
Photometric code		835/359		
Photobiological safety			RG1 unlimited	

Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .

Operation point	835	lm	lm/W
80% I-nom 228mA	Tc 25 °C	1550	174
	Tc-nom 45 °C	1523	172
	Tc-max 95 °C	1425	164
I-nom 285mA	Tc 25 °C	1913	169
	Tc-nom 45 °C	1880	167
	Tc-max 95 °C	1758	159
I-max 480mA	Tc 25 °C	3103	155
	Tc-nom 45 °C	3047	153
	Tc-max 95 °C	2842	145



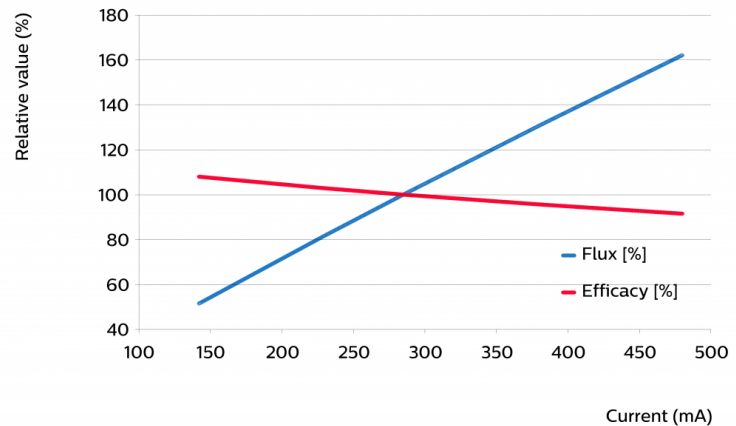
Electrical characteristics

Parameter	Min	Typ	Max	Unit
Forward voltage	38.6	39.4	40.2	V
Power consumption		11.2		W = kWh/1000h
Number of modules in series per chain			8	

Tuning information

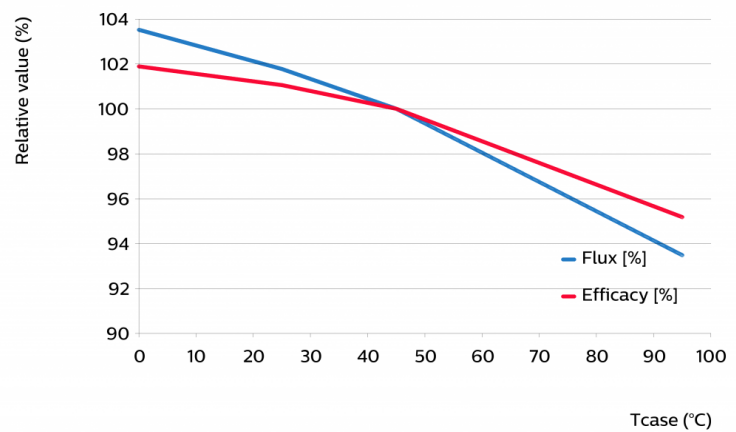
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
480	162	91
382	131	96
285	100	100
228	81	103
142	52	108



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

Tc [°C]	Flux [%]	Efficacy [%]
95	93	95
45	100	100
25	102	101
0	104	102



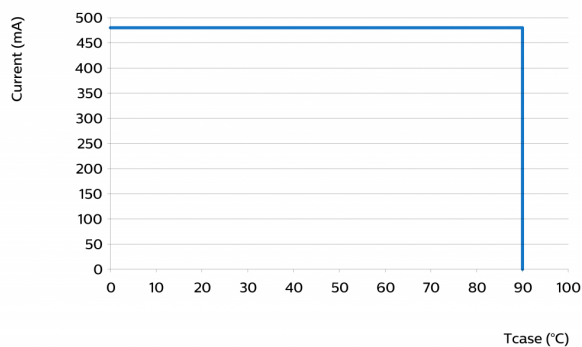
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
80% I _{nom} 228mA	T _c 25°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	T _{c_nom} 55°C	>100	>100	>100	>100	>100	>100	82	80	80
	T _{c_life} 90°C	>100	82	64	>100	82	64	57	56	55
I _{nom} 285mA	T _c 25°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	T _{c_nom} 55°C	>100	>100	>100	>100	>100	>100	78	77	76
	T _{c_life} 90°C	>100	82	64	>100	82	64	55	54	53
I _{life} 400mA	T _c 25°C	>100	>100	>100	>100	>100	>100	>100	>100	>100
	T _{c_nom} 55°C	>100	>100	>100	>100	>100	>100	73	72	71
	T _{c_life} 90°C	>100	82	64	>100	82	64	51	50	49

Lifetime

Parameter	Value	Unit
M70F50 nominal	>100000	hours
M70F50 life	>100000	hours

Performance Window

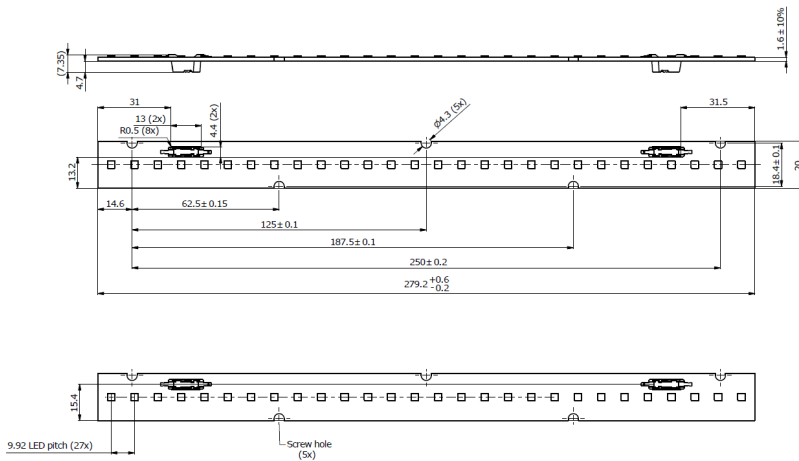


Wiring

Specification item	Value	Unit	Condition
Input wire cross-section	0.25...0.75	mm ²	solid wire
	18...24	AWG	solid wire
Input wire strip length	7.5...8.5	mm	
Input wire cross-section	0.33...0.5	mm ²	stranded wire
	20...22	AWG	stranded wire
Input wire strip length	7.5...8.5	mm	

Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	279	279.2	279.8	mm
Width	19.8	20	20.2	mm
Height PCB	1.4	1.6	1.8	mm
Height total		7.35		mm
Product mass		18		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		480	mA
Case temperature (Tc-max)		95	°C
ESD (direct contact)	8		kV
Working voltage		350	V _{dc}

Application information

Certificates and Standards

CE
ENEC
ENEC+

Application

Dimming	Yes
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