



Fortimo Strip ST LV6

Advance Fortimo LED Strip ST LV6 modules are an ideal choice for high-performance architectural and indoor luminaires. Designed for high efficiency, offered in variable lengths, allowing for daisy chaining, and incorporating tight Vf binning to create a high-quality base for your luminaire designs.

Key features and benefits

Features

- High flux density of up to 4000 lm per foot
- Narrow width of only 20mm
- High energy efficacy of up to 194lm/W at nominal conditions
- High lumen maintenance (TM21) of L90 36,000 hours
- 3 SDCM color consistency
- Tight Vf binning enables longer daisy chaining

Benefits

- High energy efficacy and long lifetime provide optimized total cost of ownership
- Slim width and Zhaga compliant form factor provide excellent design-in options and assembly
- High quality and warm color temperatures of light enables new application areas like hospitality
- 5-year limited system warranty with Advance Xitanium LED drivers
- Specifications enable DLC Premium category

Applications

- Retail
- Hospitality
- Office

Ordering data

Commercial product name	12NC	Box quantity
FO Strip ST 11in 2000lm 927 LV6	9290 027 60313	160
FO Strip ST 11in 2000lm 930 LV6	9290 027 60413	160
FO Strip ST 11in 2000lm 935 LV6	9290 027 60513	160
FO Strip ST 11in 2000lm 940 LV6	9290 027 60613	160

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
FO Strip ST 11in 2000lm 9xx LV6	280	720	800	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	45	85	90	°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

Suggested maximum current at elevated ambient

Setting	1	2	3	4	Unit
Luminaire maximum ambient	35	45	55	65	°C
Suggested maximum current*	460	380	300	220	mA

* Drive current that may be possible at the reference external ambient temperature. The maximum suggested current given is for a typical non-lensed luminaire design with good thermal transfer capability. Use of a lensed luminaire or luminaires with non-optimal thermal characteristics will require a further current reduction to meet the same maximum ambient temperature. The current suggestion is based on the module T_c-life and thermal testing must be used to verify T_c-life is never exceeded for your specific luminaire. It may be necessary to adjust the final current value in order to meet the T_c-life rating of the module.

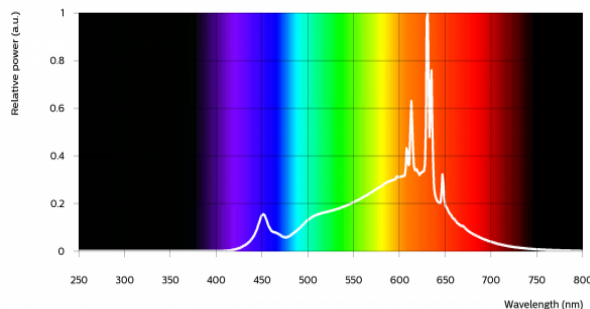
Optical characteristics - table per color (CCT)

FO Strip ST 11in 2000lm 927 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1670	1800	1940	lm
Efficacy	152	170		lm/W
Correlated color temperature (CCT)		2700		K
Color consistency			3	SDCM
CRI	90			
R9	50			

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	927	lm	lm/W
80% I-nom 224mA	Tc 25 °C	1490	176
	Tc-nom 45 °C	1450	173
	Tc-life 85 °C	1370	165
I-nom 280mA	Tc 25 °C	1840	172
	Tc-nom 45 °C	1800	170
	Tc-life 85 °C	1690	162
I-life 720mA	Tc 25 °C	4460	151
	Tc-nom 45 °C	4350	148
	Tc-life 85 °C	4070	141

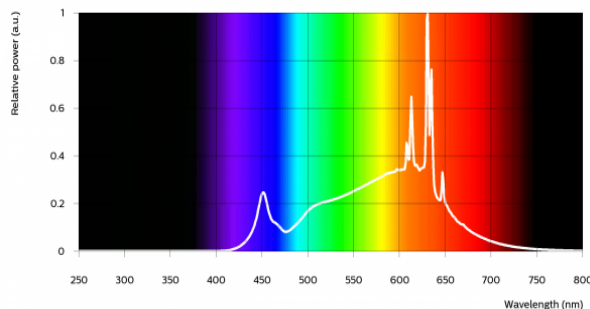


FO Strip ST 11in 2000lm 930 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1750	1890	2030	lm
Efficacy	160	178		lm/W
Correlated color temperature (CCT)		3000		K
Color consistency			3	SDCM
CRI	90			
R9	50			

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	930	lm	lm/W
80% I-nom 224mA	Tc 25 °C	1560	185
	Tc-nom 45 °C	1530	182
	Tc-life 85 °C	1430	173
I-nom 280mA	Tc 25 °C	1940	181
	Tc-nom 45 °C	1890	178
	Tc-life 85 °C	1780	170
I-life 720mA	Tc 25 °C	4680	158
	Tc-nom 45 °C	4570	156
	Tc-life 85 °C	4280	148

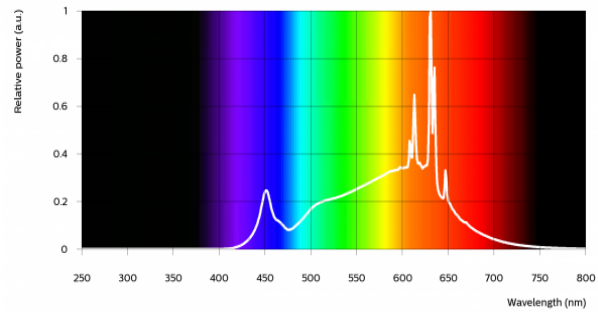


FO Strip ST 11in 2000lm 935 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1770	1910	2050	lm
Efficacy	161	180		lm/W
Correlated color temperature (CCT)		3500		K
Color consistency			3	SDCM
CRI	90			
R9	50			

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 and R9 ± 3 .

Operation point	935	lm	lm/W
80% I-nom 224mA	Tc 25 °C	1580	187
	Tc-nom 45 °C	1540	184
	Tc-life 85 °C	1440	175
I-nom 280mA	Tc 25 °C	1960	183
	Tc-nom 45 °C	1910	180
	Tc-life 85 °C	1790	171
I-life 720mA	Tc 25 °C	4740	160
	Tc-nom 45 °C	4610	157
	Tc-life 85 °C	4300	149

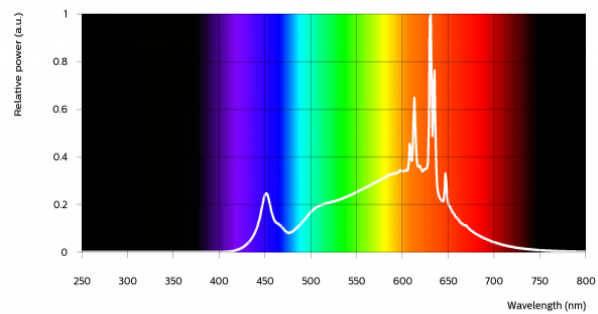


FO Strip ST 11in 2000lm 940 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1820	1970	2120	lm
Efficacy	167	186		lm/W
Correlated color temperature (CCT)		4000		K
Color consistency			3	SDCM
CRI	90			
R9	50			

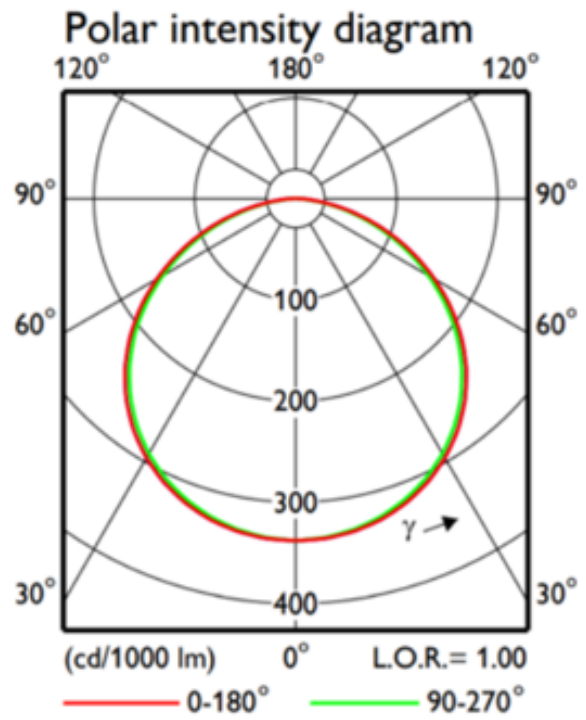
Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 and R9 ± 3 .

Operation point	940	lm	lm/W
80% I-nom 224mA	Tc 25 °C	1630	193
	Tc-nom 45 °C	1590	189
	Tc-life 85 °C	1490	180
I-nom 280mA	Tc 25 °C	2020	189
	Tc-nom 45 °C	1970	186
	Tc-life 85 °C	1840	176
I-life 720mA	Tc 25 °C	4890	165
	Tc-nom 45 °C	4760	162
	Tc-life 85 °C	4440	154



Beam shape

The LED module has a Lambertian light distribution.



Electrical characteristics

Parameter	Min	Typ	Max	Unit
Forward voltage	37.7	37.9	38.7	V
Power consumption		10.6		W
Number of modules in series per chain			1	

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

System chain limits for Same Length modules

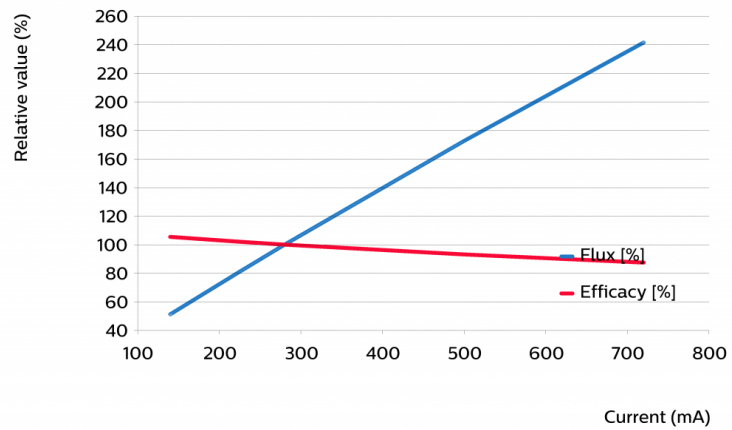
Total length (in)	Total current limit (mA)
44	2.88
66	2.52
88	1.92

*Please review the design-in guide or contact the Design-in team for further information.

Tuning information

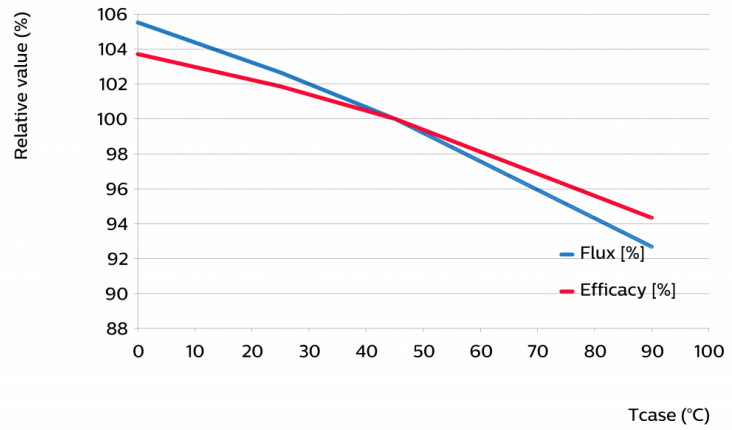
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
720	241	87
500	173	93
280	100	100
224	81	102
140	51	105



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

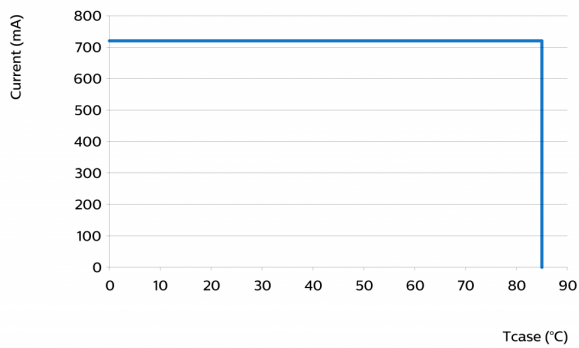
Tc [°C]	Flux [%]	Efficacy [%]
90	93	94
45	100	100
25	103	102
0	106	104



Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70	L80	L90
		B50	B50	B50
80% I-nom 224mA	Ts nom 45°C	>60	>60	>36
	Ts 70°C	>60	>60	>36
	Ts-l-life 85°C	>60	>60	>36
I-nom 280mA	Ts nom 45°C	>60	>60	>36
	Ts 70°C	>60	>60	>36
	Ts-l-life 85°C	>60	>60	>36
I-life 720mA	Ts nom 45°C	>60	>60	>36
	Ts 70°C	>60	>60	>36
	Ts-l-life 85°C	>60	>60	>36

Performance Window



Thermal switching table

Warranted number of full thermal product cycles at 25°C ambient temperature

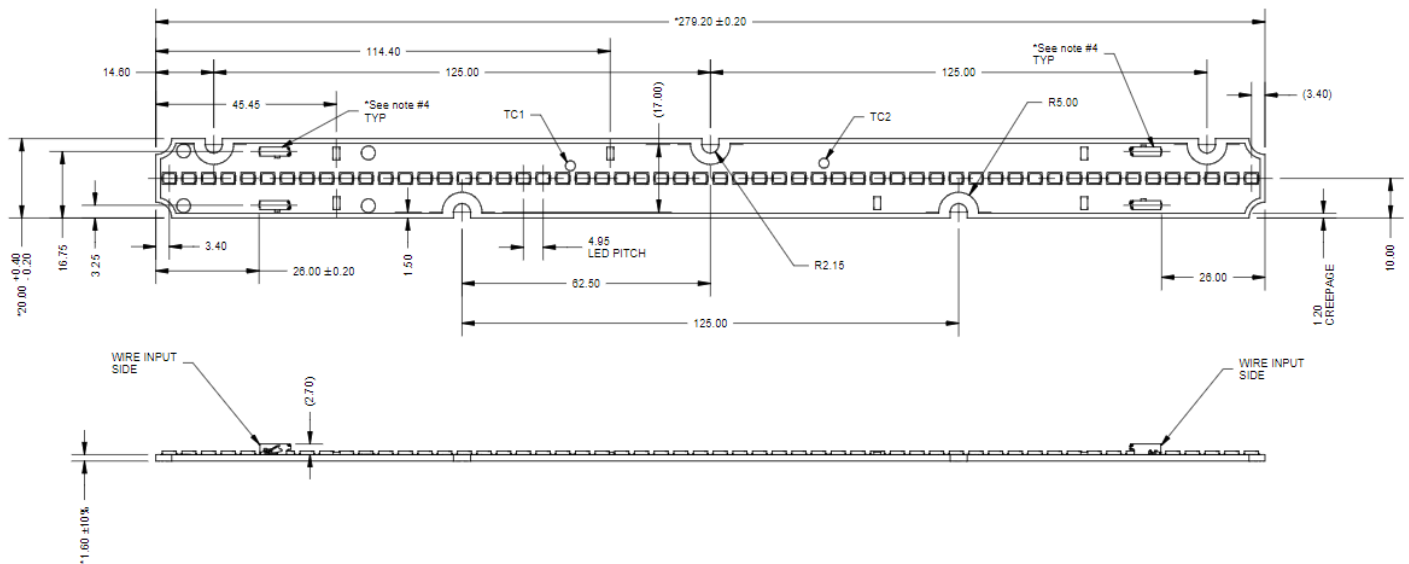
Case Temperature - Tc [°C]	Amount of Cycles
45 (or less)	>100,000
55	>100,000
65	88,000
75	35,000
85	15,000
90	10,000

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	278.9	279.2	279.5	mm
Width	19.8	20	20.2	mm
Height PCB	1.4	1.6	1.8	mm
Height total		4.3		mm
Warpage (IPC-TM-650)			0.75	%



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		800	mA
Case temperature (Tc-max)		90	°C
ESD (direct contact)	8		kV
Working voltage		60	V _{dc}
Ambient temperature	-40		°C

Surge protection of the module must be provided by the driver or other components. Advance Xitanium and Certadrive drivers have built in protection circuitry and will protect the module up to the specified driver surge rating. When using third party drivers testing or confirmation from manufacturer is suggested to ensure adequate module protection.

Application information

Certificates and Standards

UL 8750

Environmental

RoHS/REACH

Application

IP rating	No IP rating
Overheating protection	No protection
Luminaire class	UL Class 2
Dimming	Yes

There cannot be any ice/fog/mist on any part of the module surface during the application at -40°C.

Notes

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

