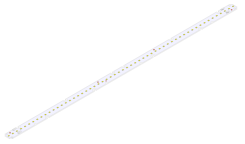


Fortimo Strip PR LV6

Advance Fortimo LED Strip PR 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 2000 lm per foot
- Narrow width of only 20mm
- 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

Application:

- Retail
- Hospitality
- Office

Ordering data

Commercial product name	12NC	Box quantity
FO Strip PR 23.7in 2200lm 927 LV6	9290 027 54513	200
FO Strip PR 23.7in 2200lm 930 LV6	9290 027 54613	200
FO Strip PR 23.7in 2200lm 935 LV6	9290 027 54713	200
FO Strip PR 23.7in 2200lm 940 LV6	9290 027 54813	200

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
FO Strip PR 23.7in 2200lm 9xx LV6	308	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*	720	625	495	360	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 Tc-life and thermal testing must be used to verify Tc-life is never exceeded for your specific luminaire. It may be necessary to adjust the final current value in order to meet the Tc-life rating of the module.

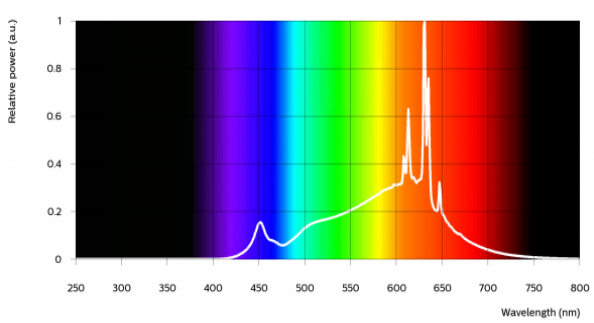
Optical characteristics - table per color (CCT)

FO Strip PR 23.7in 2200lm 927 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1820	1970	2120	lm
Efficacy	151	168		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 246mA	Tc 25 °C	1630	174
	Tc-nom 45 °C	1590	172
	Tc-life 85 °C	1500	164
I-nom 308mA	Tc 25 °C	2020	171
	Tc-nom 45 °C	1970	168
	Tc-life 85 °C	1850	160
I-life 720mA	Tc 25 °C	4450	151
	Tc-nom 45 °C	4350	148
	Tc-life 85 °C	4070	141

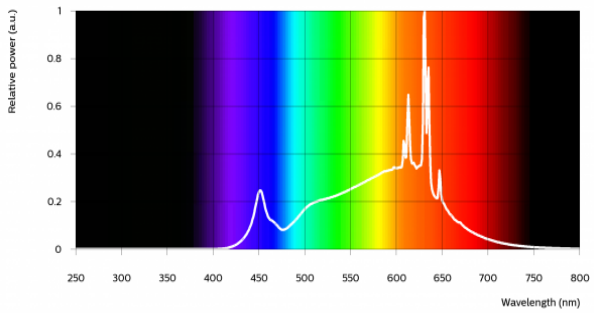


FO Strip PR 23.7in 2200lm 930 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1910	2070	2230	lm
Efficacy	158	176		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 246mA	Tc 25 °C	1710	183
	Tc-nom 45 °C	1670	180
	Tc-life 85 °C	1570	172
I-nom 308mA	Tc 25 °C	2120	179
	Tc-nom 45 °C	2070	176
	Tc-life 85 °C	1940	168
I-life 720mA	Tc 25 °C	4680	158
	Tc-nom 45 °C	4570	156
	Tc-life 85 °C	4280	148

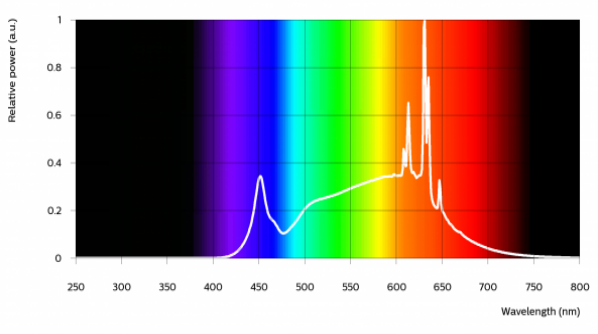


FO Strip PR 23.7in 2200lm 935 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1930	2090	2250	lm
Efficacy	160	178		lm/W
Correlated color temperature (CCT)		3500		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	935	lm	lm/W
80% I-nom 246mA	Tc 25 °C	1730	185
	Tc-nom 45 °C	1690	182
	Tc-life 85 °C	1580	173
I-nom 308mA	Tc 25 °C	2150	181
	Tc-nom 45 °C	2090	178
	Tc-life 85 °C	1960	169
I-life 720mA	Tc 25 °C	4730	160
	Tc-nom 45 °C	4610	157
	Tc-life 85 °C	4300	149

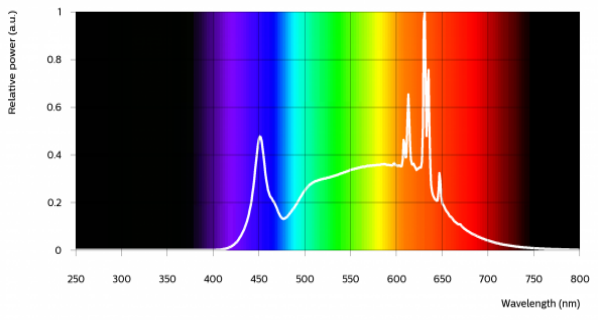


FO Strip PR 23.7in 2200lm 940 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1990	2150	2310	lm
Efficacy	164	183		lm/W
Correlated color temperature (CCT)		4000		K
Color consistency			3	SDCM
CRI	90			
R9	50			

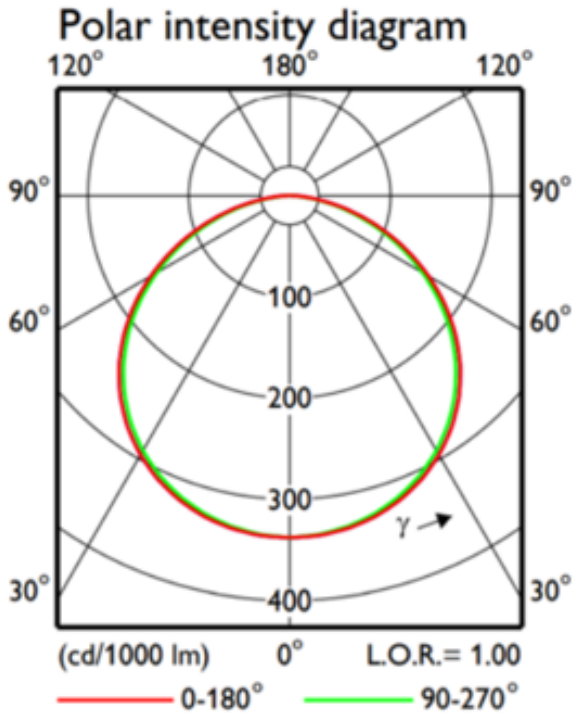
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5 and R9 ± 3.

Operation point	940	lm	lm/W
80% I-nom 246mA	Tc 25 °C	1780	191
	Tc-nom 45 °C	1740	187
	Tc-life 85 °C	1630	178
I-nom 308mA	Tc 25 °C	2210	187
	Tc-nom 45 °C	2150	183
	Tc-life 85 °C	2010	174
I-life 720mA	Tc 25 °C	4870	165
	Tc-nom 45 °C	4740	162
	Tc-life 85 °C	4420	153



Beam shape

The LED module has a Lambertian light distribution.



Electrical characteristics

Parameter	Min	Typ	Max	Unit
Forward voltage	37.8	38.1	38.8	V
Power consumption		11.7		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

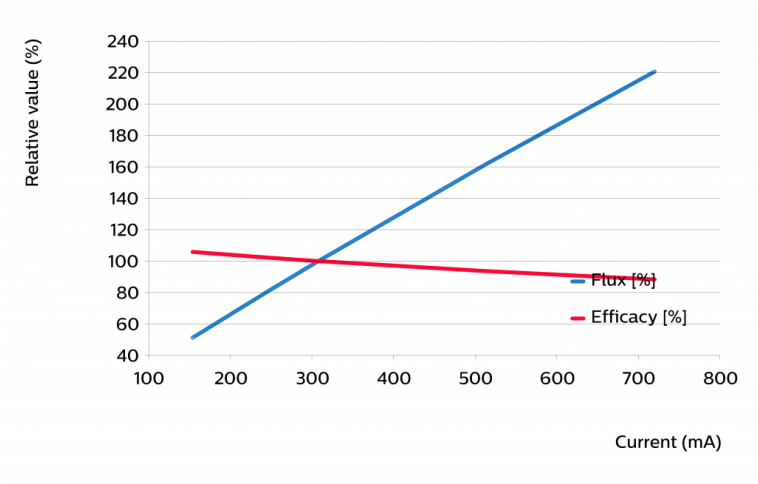
Total length (in)	Total current limit (mA)
48	1440
72	2060
96	1540

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

Tuning information

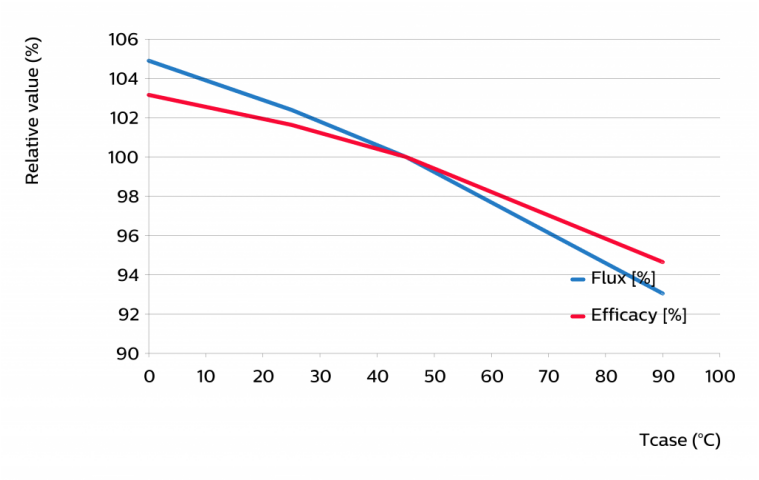
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
720	221	88
514	162	94
308	100	100
246	81	102
154	51	106



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

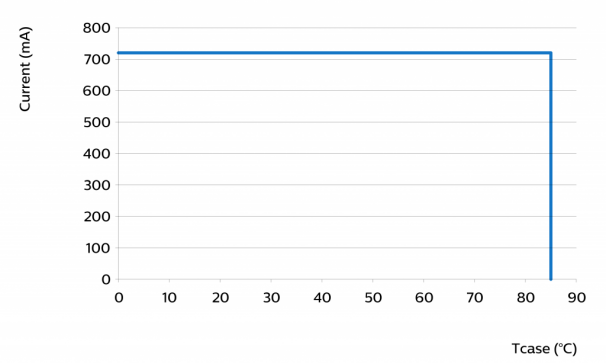
Tc [°C]	Flux [%]	Efficacy [%]
90	93	95
45	100	100
25	102	102
0	105	103



Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70 B50	L80 B50	L90 B50
80% I-nom 246mA	Ts nom 45°C	>60	>60	>36
	Ts 70°C	>60	>60	>36
	Ts-Ilife 85°C	>60	>60	>36
I-nom 308mA	Ts nom 45°C	>60	>60	>36
	Ts 70°C	>60	>60	>36
	Ts-Ilife 85°C	>60	>60	>36
I-life 720mA	Ts nom 45°C	>60	>60	>36
	Ts 70°C	>60	>60	>36
	Ts-Ilife 85°C	>60	>60	>36

Performance Window



Thermal switching table

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

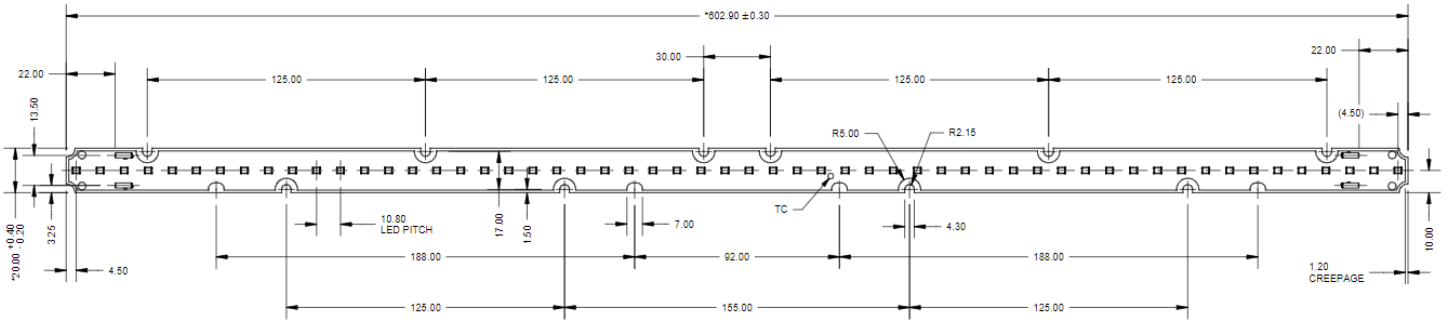
Case Temperature – Tc [°C]	Amount of Cycles
45 (or less)	>100,000
55	>100,000
65	>100,000
75	77,000
85	38,000
90	26,000

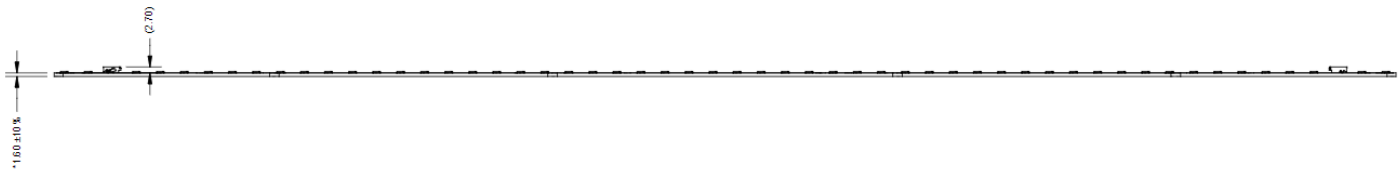
Wiring

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	602.6	602.9	603.2	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 ANSI	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.

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