

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 22in 2200lm 830 LV6	9290 027 53313	200
FO Strip PR 22in 2200lm 835 LV6	9290 027 53413	200
FO Strip PR 22in 2200lm 840 LV6	9290 027 53513	200
FO Strip PR 22in 2200lm 850 LV6	9290 027 53613	200

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
FO Strip PR 22in 2200lm 8xx 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	365	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.

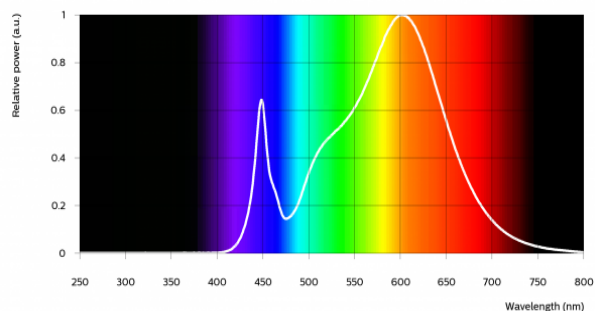
Optical characteristics – table per color (CCT)

FO Strip PR 22in 2200lm 830 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	1960	2120	2280	lm
Efficacy	162	181		lm/W
Correlated color temperature (CCT)		3000		K
Color consistency			3	SDCM
CRI	80			
R9	0			

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	830	lm	lm/W
80% I-nom 246mA	Tc 25 °C	1760	188
	Tc-nom 45 °C	1720	185
	Tc-life 85 °C	1610	176
I-nom 308mA	Tc 25 °C	2170	184
	Tc-nom 45 °C	2120	181
	Tc-life 85 °C	1990	173
I-life 720mA	Tc 25 °C	4760	165
	Tc-nom 45 °C	4630	162
	Tc-life 85 °C	4340	154

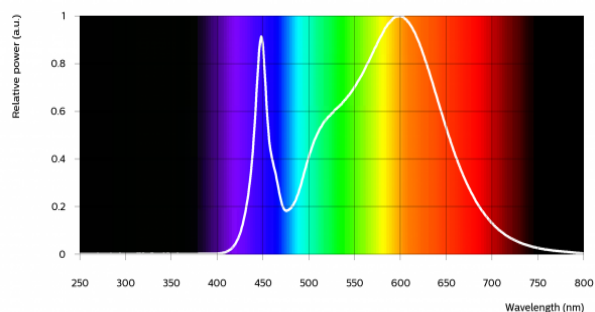


FO Strip PR 22in 2200lm 835 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	2020	2180	2340	lm
Efficacy	167	186		lm/W
Correlated color temperature (CCT)		3500		K
Color consistency			3	SDCM
CRI	80			
R9	0			

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	835	lm	lm/W
80% I-nom 246mA	Tc 25 °C	1810	194
	Tc-nom 45 °C	1760	190
	Tc-life 85 °C	1650	181
I-nom 308mA	Tc 25 °C	2240	190
	Tc-nom 45 °C	2180	186
	Tc-life 85 °C	2040	177
I-life 720mA	Tc 25 °C	4910	170
	Tc-nom 45 °C	4780	166
	Tc-life 85 °C	4480	158

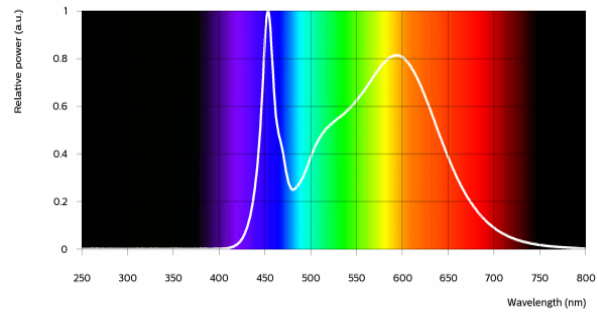


FO Strip PR 22in 2200lm 840 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	2080	2250	2420	lm
Efficacy	172	192		lm/W
Correlated color temperature (CCT)		4000		K
Color consistency			3	SDCM
CRI	80			
R9	0			

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	840	lm	lm/W
80% I-nom 246mA	Tc 25 °C	1870	200
	Tc-nom 45 °C	1820	196
	Tc-life 85 °C	1710	187
I-nom 308mA	Tc 25 °C	2310	196
	Tc-nom 45 °C	2250	192
	Tc-life 85 °C	2110	183
I-life 720mA	Tc 25 °C	5070	175
	Tc-nom 45 °C	4940	172
	Tc-life 85 °C	4620	163

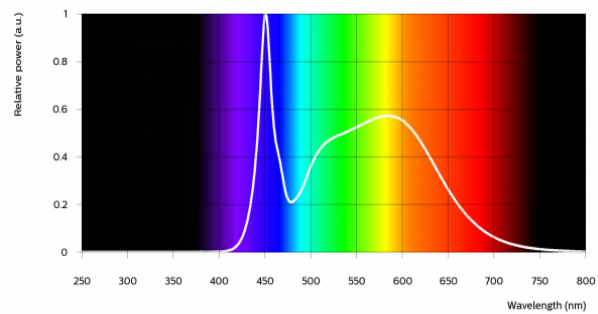


FO Strip PR 22in 2200lm 850 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	2080	2250	2420	lm
Efficacy	172	192		lm/W
Correlated color temperature (CCT)		5000		K
Color consistency			3	SDCM
CRI	80			
R9	0			

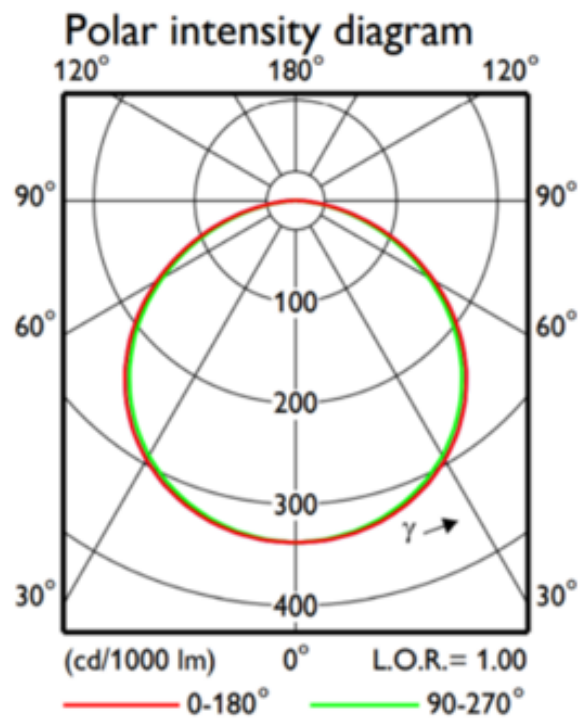
Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 and R9 ± 3 .

Operation point	850	lm	lm/W
80% I-nom 246mA	Tc 25 °C	1870	200
	Tc-nom 45 °C	1820	196
	Tc-life 85 °C	1710	187
I-nom 308mA	Tc 25 °C	2310	196
	Tc-nom 45 °C	2250	192
	Tc-life 85 °C	2110	183
I-life 720mA	Tc 25 °C	5070	175
	Tc-nom 45 °C	4940	172
	Tc-life 85 °C	4620	163



Beam shape

The LED module has a Lambertian light distribution.



Electrical characteristics

Parameter	Min	Typ	Max	Unit
Forward voltage	37.5	38.0	38.5	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

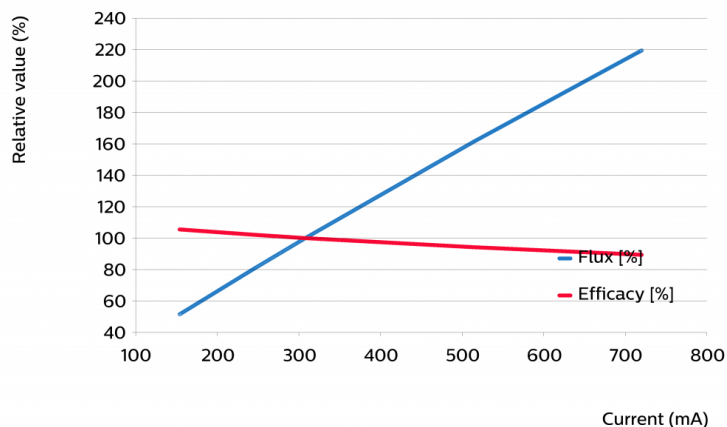
Total length (in)	Total current limit (mA)
44	1440
66	2060
88	1540

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

Tuning information

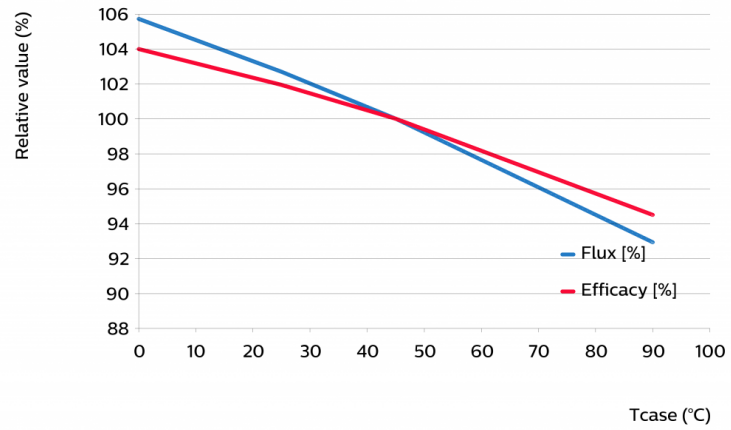
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
720	219	89
514	161	94
308	100	100
246	81	102
154	51	105



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

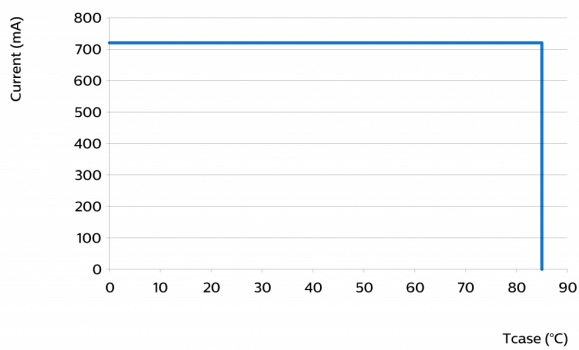
Tc [°C]	Flux [%]	Efficacy [%]
90	93	94
45	100	100
25	103	102
0	106	104



Lumen maintenance

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

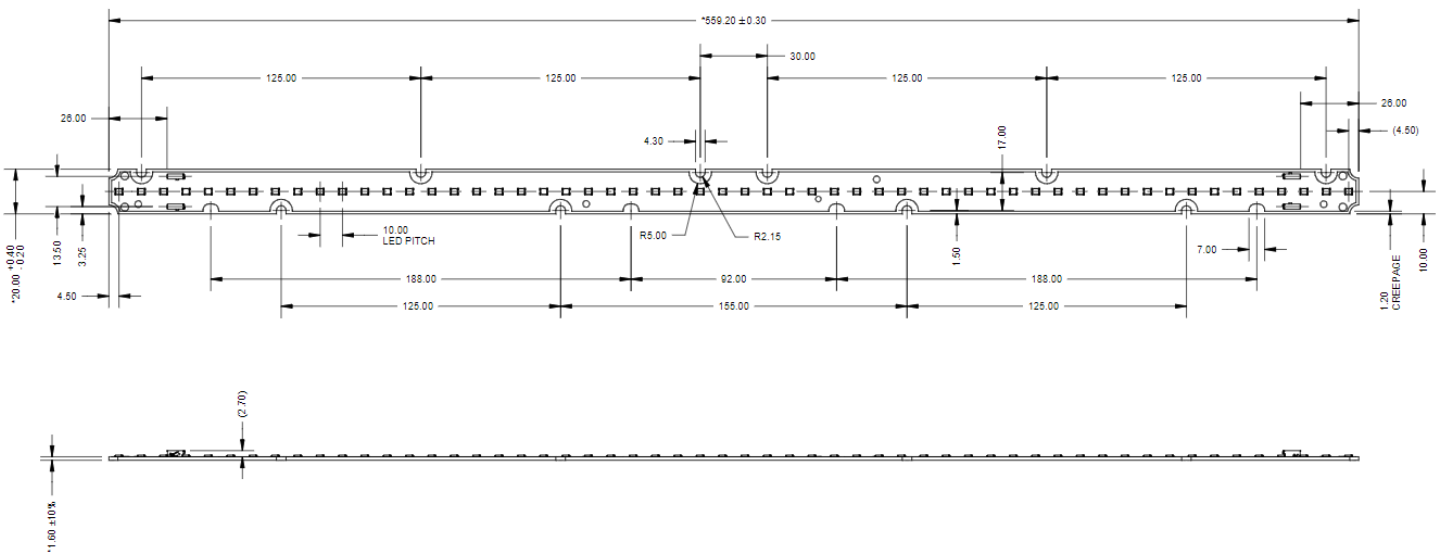
Case Temperature - Tc [°C]	Amount of Cycles
45 (or less)	>100,000
55	>100,000
65	>100,000
75	77,000
85	38,000
90	26,000

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	558.9	559.2	559.5	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 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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