

Fortimo Strip PR FlexTune LV6

Advance Fortimo LED Strip FlexTune LV6 LED modules are the preferred light source for the Advance FlexTune system, which provides a new level of design flexibility, control precision, and simplicity in tunable white lighting systems for commercial retail, office, healthcare, hospitality, and education applications.

Key features and benefits

Features:

- Pairs with Advance Xitanium SR FlexTune LED driver to provide digital wireless control designed to provide precise CCT tuning and dimming control from 2700-6500K
- 3 SDCM color consistency
- (TM21) of L90 >36,000 hours

Benefits:

- Enables digital tuning of color temperature for tunable white applications
- High energy efficacy and long lifetime
- Low total cost of ownership
- Slim width and varied lengths provide excellent design flexibility
- 5-year limited system warranty with Advance Xitanium LED drivers

Application:

- Education
- Office
- Healthcare
- Retail
- Hospitality

Ordering data

Commercial product name	12NC	Box quantity
FO Strip PR FT 5.5in 550lm 927-965 LV6	9290 027 62413	120

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
FO Strip PR FT 5.5in 550lm 927-965 LV6	77	180	200	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*	180	180	180	180	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.

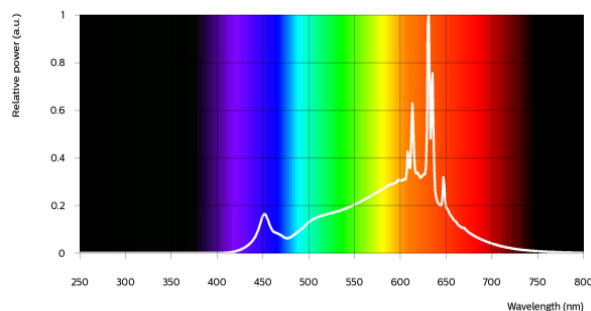
Optical characteristics – table per color (CCT)

FO Strip PR FT 5.5in 550lm 927-965 LV6 [2700K]

Parameter	Min	Typ	Max	Unit
Luminous flux	450	490	530	lm
Efficacy	150	167		lm/W
Correlated color temperature (CCT)		2700		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	927	lm	lm/W
80% I-nom 62mA	Tc 25 °C	410	173
	Tc-nom 45 °C	400	171
	Tc-life 85 °C	370	163
I-nom 77mA	Tc 25 °C	500	170
	Tc-nom 45 °C	490	167
	Tc-life 85 °C	460	159
I-life 180mA	Tc 25 °C	1110	150
	Tc-nom 45 °C	1080	147
	Tc-life 85 °C	1010	140

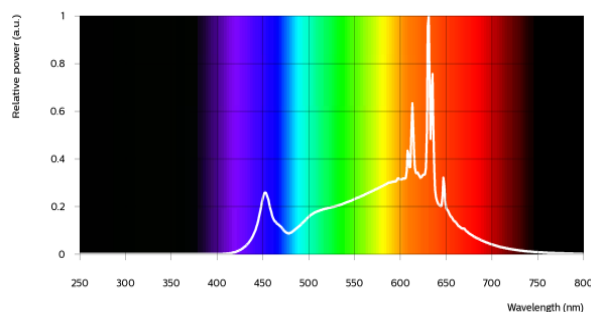


FO Strip PR FT 5.5in 550lm 927-965 LV6 [3000K]

Parameter	Min	Typ	Max	Unit
Luminous flux	460	500	540	lm
Efficacy	153	170		lm/W
Correlated color temperature (CCT)		3000		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	930	lm	lm/W
80% I-nom 62mA	Tc 25 °C	410	177
	Tc-nom 45 °C	400	174
	Tc-life 85 °C	380	166
I-nom 77mA	Tc 25 °C	510	173
	Tc-nom 45 °C	500	170
	Tc-life 85 °C	470	163
I-life 180mA	Tc 25 °C	1130	153
	Tc-nom 45 °C	1100	150
	Tc-life 85 °C	1030	143

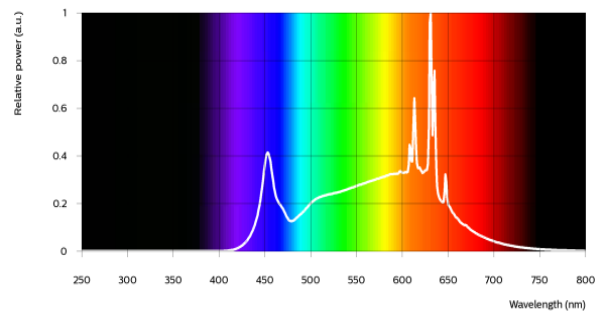


FO Strip PR FT 5.5in 550lm 927-965 LV6 [3500K]

Parameter	Min	Typ	Max	Unit
Luminous flux	480	520	560	lm
Efficacy	159	177		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 62mA	Tc 25 °C	430	184
	Tc-nom 45 °C	420	181
	Tc-life 85 °C	390	173
I-nom 77mA	Tc 25 °C	530	180
	Tc-nom 45 °C	520	177
	Tc-life 85 °C	490	169
I-life 180mA	Tc 25 °C	1180	159
	Tc-nom 45 °C	1150	156
	Tc-life 85 °C	1070	149

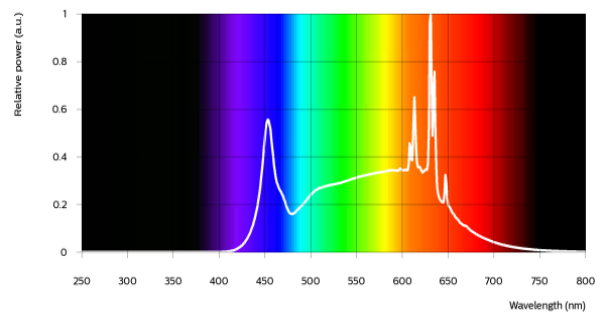


FO Strip PR FT 5.5in 550lm 927-965 LV6 [4000K]

Parameter	Min	Typ	Max	Unit
Luminous flux	490	530	570	lm
Efficacy	162	181		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 62mA	Tc 25 °C	440	188
	Tc-nom 45 °C	430	185
	Tc-life 85 °C	400	176
I-nom 77mA	Tc 25 °C	540	184
	Tc-nom 45 °C	530	181
	Tc-life 85 °C	500	172
I-life 180mA	Tc 25 °C	1200	162
	Tc-nom 45 °C	1170	159
	Tc-life 85 °C	1100	152

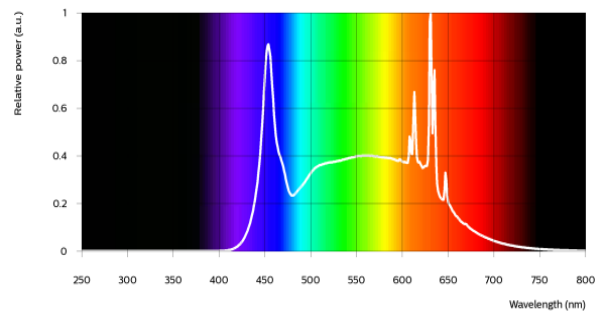


FO Strip PR FT 5.5in 550lm 927-965 LV6 [5000K]

Parameter	Min	Typ	Max	Unit
Luminous flux	490	530	570	lm
Efficacy	162	181		lm/W
Correlated color temperature (CCT)		5000		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	950	lm	lm/W
80% I-nom 62mA	Tc 25 °C	440	188
	Tc-nom 45 °C	430	185
	Tc-life 85 °C	400	176
I-nom 77mA	Tc 25 °C	540	184
	Tc-nom 45 °C	530	181
	Tc-life 85 °C	500	172
I-life 180mA	Tc 25 °C	1200	162
	Tc-nom 45 °C	1170	159
	Tc-life 85 °C	1100	152

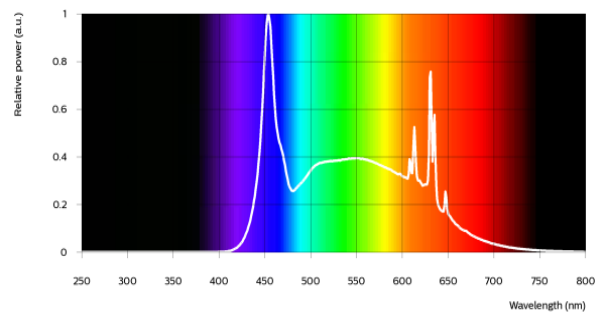


FO Strip PR FT 5.5in 550lm 927-965 LV6 [6500K]

Parameter	Min	Typ	Max	Unit
Luminous flux	490	530	570	lm
Efficacy	162	181		lm/W
Correlated color temperature (CCT)		6500		K
Color consistency			3	SDCM
CRI	90			
R9	50			

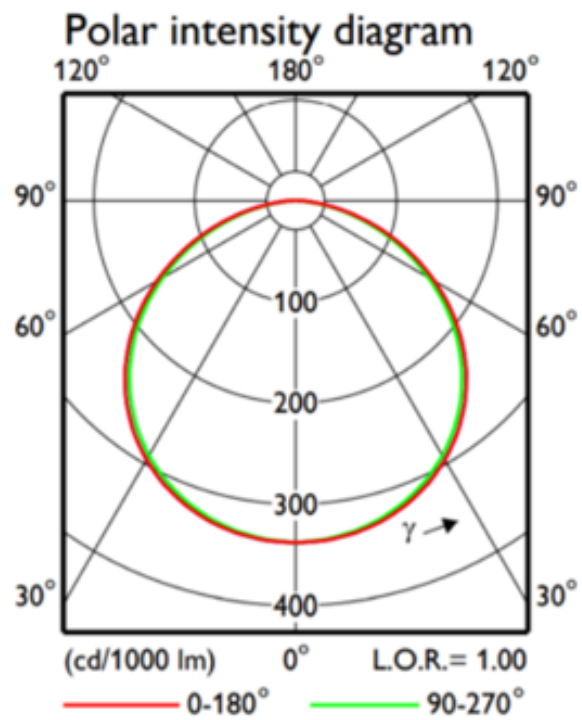
Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 and R9 ± 3 .

Operation point	965	lm	lm/W
80% I-nom 62mA	Tc 25 °C	440	188
	Tc-nom 45 °C	430	185
	Tc-life 85 °C	400	176
I-nom 77mA	Tc 25 °C	540	184
	Tc-nom 45 °C	530	181
	Tc-life 85 °C	500	172
I-life 180mA	Tc 25 °C	1200	162
	Tc-nom 45 °C	1170	159
	Tc-life 85 °C	1100	152



Beam shape

The LED module has a Lambertian light distribution.



Electrical characteristics

Parameter	Min	Typ	Max	Unit
Forward voltage	37.8	38.1	38.9	V
Power consumption		2.9		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

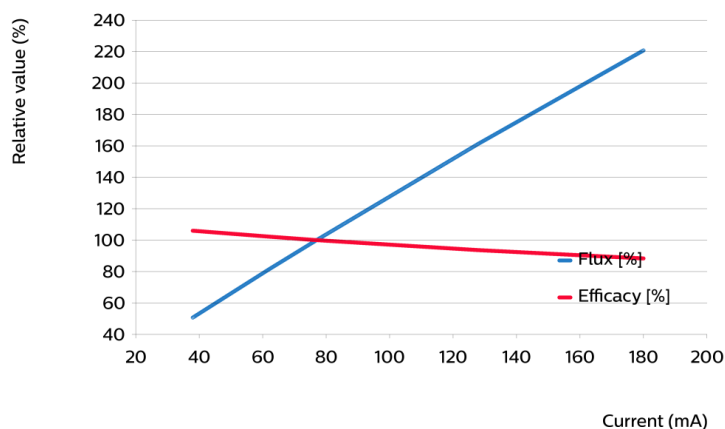
Total length (in)	Total current limit (mA)
44	1.44
66	1.26
88	0.94

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

Tuning information

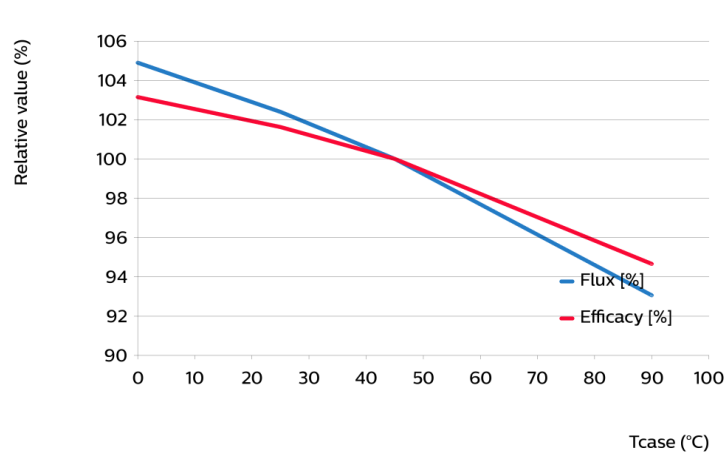
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
180	221	88
128	161	94
77	100	100
62	81	102
38	51	106



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

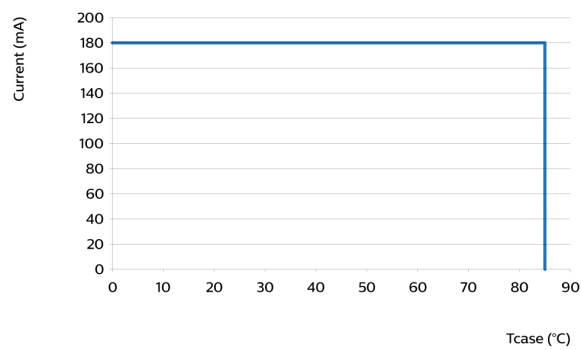
Tc [°C]	Flux [%]	Efficacy [%]
90	93	95
45	100	100
25	102	102
0	105	103



Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70	L80	L90
		B50	B50	B50
80% I-nom 61.6mA	Ts-nom 45°C	>60	>60	>36
	Ts 75°C	>60	>60	>36
	Ts-life 85°C	>60	>60	>36
I-nom 77mA	Ts-nom 45°C	>60	>60	>36
	Ts 75°C	>60	>60	>36
	Ts-life 85°C	>60	>60	>36
I-life 180mA	Ts-nom 45°C	>60	>60	>36
	Ts 75°C	>60	>60	>36
	Ts-life 85°C	>60	>60	>36

Performance Window



Thermal switching table

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

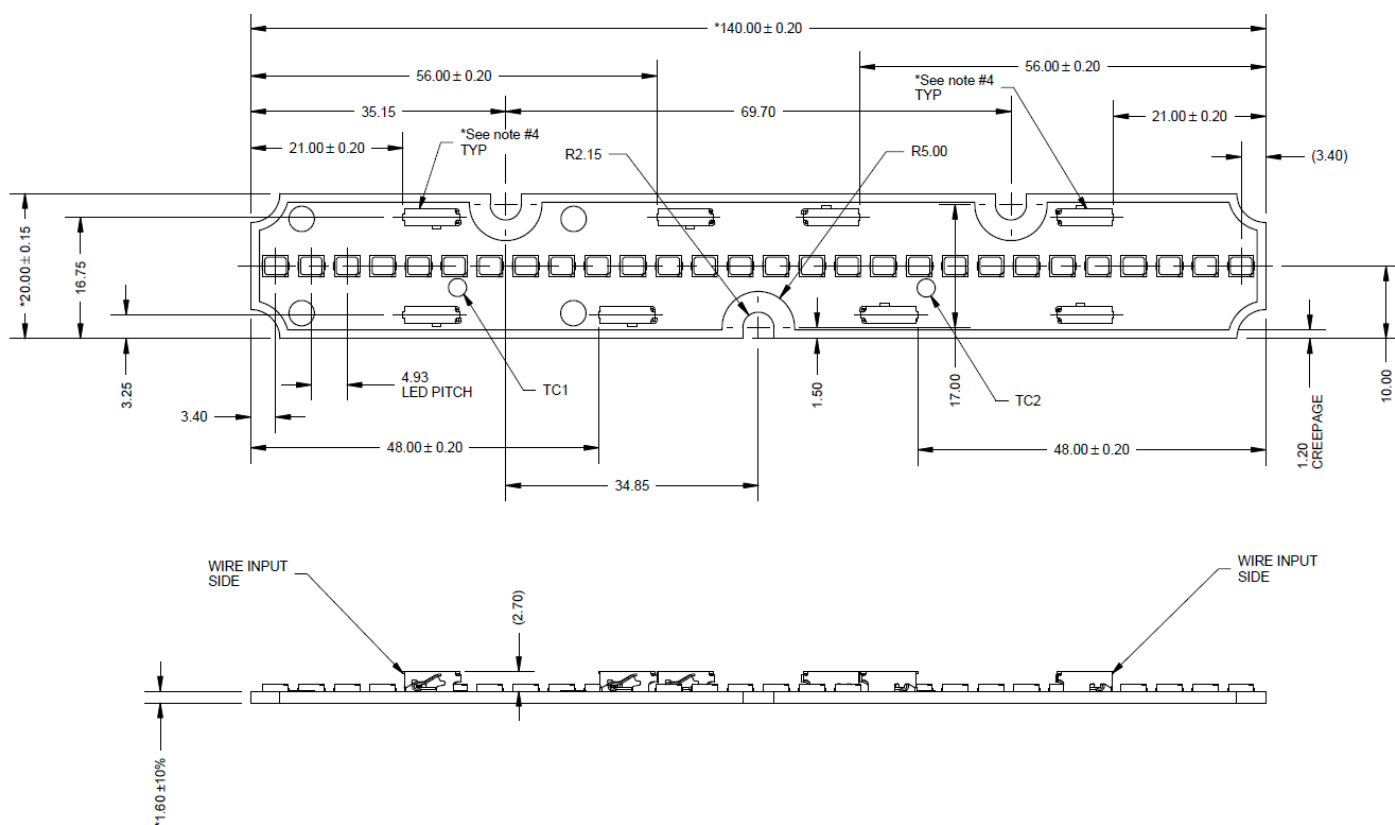
Case Temperature - Tc [°C]	Amount of Cycles
45 (or less)	>100,000
55	>100,000
65	88,000
75	35,000
85	15,000
90	10,000

Wiring

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

Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	139.8	140	140.2	mm
Width	19.85	20	20.15	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)		200	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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