

PHILIPS

CertaFlux

LED

CertaFlux LED Strip 12mm
4ft 8xx HV4



Datasheet

The CertaFlux LED Strip 12 is a uniquely narrow LED module of only 12mm wide. It is available in 1ft, 2ft, 4ft and 5ft versions. This makes the product very suitable for applications like waterproof, battens and trunking.

Key features and benefits

- Long life-time: >50,000 hours
- LED module efficiency of 160 lm/W
- Economical choice for waterproof, battens and trunking luminaires
- Good color rendering, CRI: >80
- Color consistency of 3 SDCM
- 1ft, 2ft, 4ft and 5ft available
- 1100 lm/ft
- PCB width only 12mm
- Three year system warranty

January 2022



Ordering data

Commercial product name	EOC	12NC	Box quantity
CertaFlux LED Strip 12 4ft 4400lm 830 HV4	8718699 727642 00	9290 021 38006	240
CertaFlux LED Strip 12 4ft 4400lm 840 HV4	8718699 727666 00	9290 021 38106	240
CertaFlux LED Strip 12 4ft 4400lm 865 HV4	8718699 727680 00	9290 021 38206	240

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
CertaFlux LED Strip 12mm 4ft 8xx HV4	273	360	400	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _c (case temperature at T _c point)	60	65	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

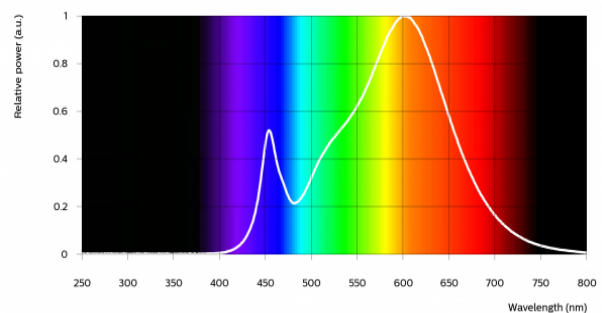
Optical characteristics - table per color (CCT)

CertaFlux LED Strip 12 4ft 4400lm 830 HV4

Parameter	Min	Typ	Max	Unit
Luminous flux	3737	4040	4343	lm
Efficacy	130	136		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.431, 0.401)		-
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 218mA	Tc 25 °C	3494	148
	Tc-nom 60 °C	3314	143
	Tc-max 90 °C	3145	138
I-nom 273mA	Tc 25 °C	4263	140
	Tc-nom 60 °C	4040	136
	Tc-max 90 °C	3830	131
I-max 400mA	Tc 25 °C	5939	127
	Tc-nom 60 °C	5621	122
	Tc-max 90 °C	5321	117

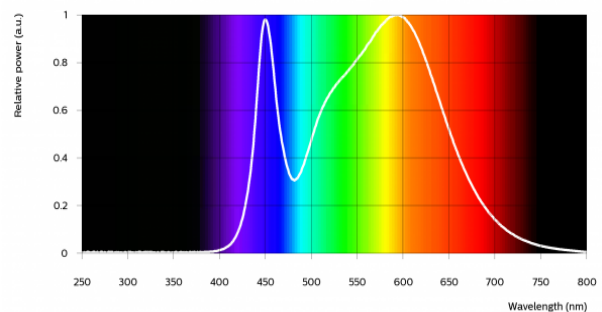


CertaFlux LED Strip 12 4ft 4400lm 840 HV4

Parameter	Min	Typ	Max	Unit
Luminous flux	3830	4140	4450	lm
Efficacy	139	139		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 218mA	Tc 25 °C	3580	151
	Tc-nom 60 °C	3396	146
	Tc-max 90 °C	3222	141
I-nom 273mA	Tc 25 °C	4369	144
	Tc-nom 60 °C	4140	139
	Tc-max 90 °C	3925	134
I-max 400mA	Tc 25 °C	6086	130
	Tc-nom 60 °C	5760	125
	Tc-max 90 °C	5453	120

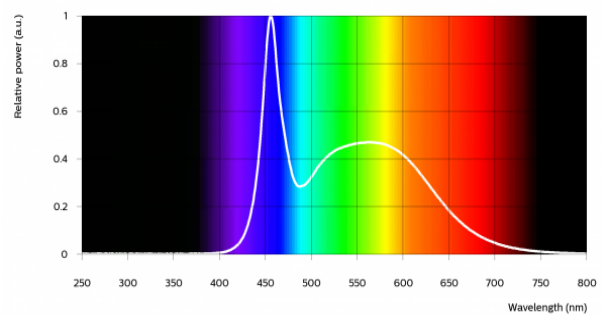


CertaFlux LED Strip 12 4ft 4400lm 865 HV4

Parameter	Min	Typ	Max	Unit
Luminous flux	3774	4080	4386	lm
Efficacy	136	137		lm/W
Correlated color temperature (CCT)		6500		K
Color coordinates (CIEx, CIEy)		(0.309, 0.325)		-
Color consistency			3	SDCM
CRI	80			
R9	0			
Photometric code		865/359		
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	865	lm	lm/W
80% I-nom 218mA	Tc 25 °C	3528	149
	Tc-nom 60 °C	3347	144
	Tc-max 90 °C	3176	139
I-nom 273mA	Tc 25 °C	4305	142
	Tc-nom 60 °C	4080	137
	Tc-max 90 °C	3868	132
I-max 400mA	Tc 25 °C	5998	128
	Tc-nom 60 °C	5677	123
	Tc-max 90 °C	5374	118



Electrical characteristics

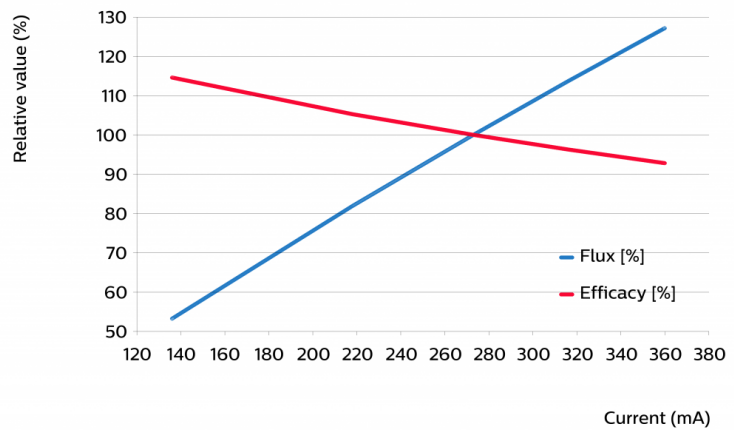
Parameter	Min	Typ	Max	Unit
Forward voltage	106.5	109.0	110.9	V
Power consumption	29.1	29.8	30.3	W = kWh/1000h
Number of modules in series per chain			2	
Number of modules in parallel			4	

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

Tuning information

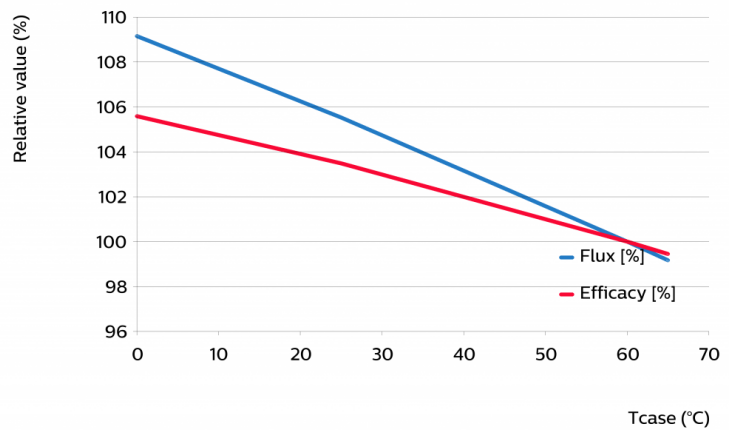
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
360	127	93
316	114	96
273	100	100
218	82	105
136	53	115



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

Tc [°C]	Flux [%]	Efficacy [%]
65	99	99
60	100	100
25	106	103
0	109	106



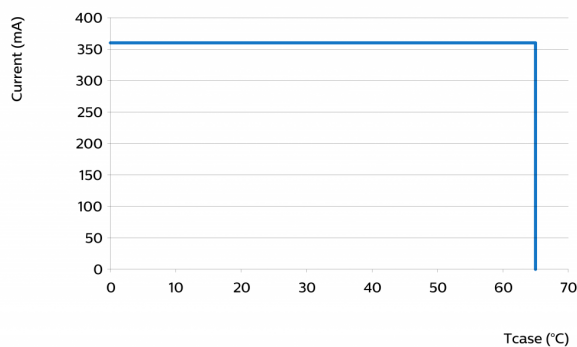
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
Tc 25°C	80% Inom 218 mA	>70	>70	>70	>70	>70	>70	57	54	52
	I nom 273 mA	>70	>70	>70	>70	>70	>70	38	35	34
	I life 360 mA	>70	>70	>70	>70	>70	70	36	34	33
Tc nom 60°C	80% Inom 218 mA	>70	>70	>70	>70	>70	>70	54	51	50
	I nom 273 mA	>70	>70	>70	>70	>70	>70	36	34	33
	I life 360 mA	>70	>70	>70	>70	69	67	34	32	31
Tc life 65°C	80% I nom 218 mA	>70	>70	>70	>70	>70	>70	51	48	47
	I nom 273 mA	>70	>70	>70	>70	69	67	34	32	31
	I life 360 mA	>70	>70	>70	69	65	63	32	30	29

Lifetime

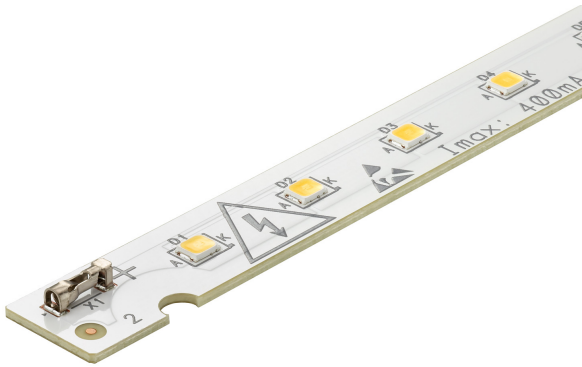
Parameter	Value	Unit
M70F50 nominal	>70000	hours
M70F50 life	>70000	hours

Performance Window



Wiring

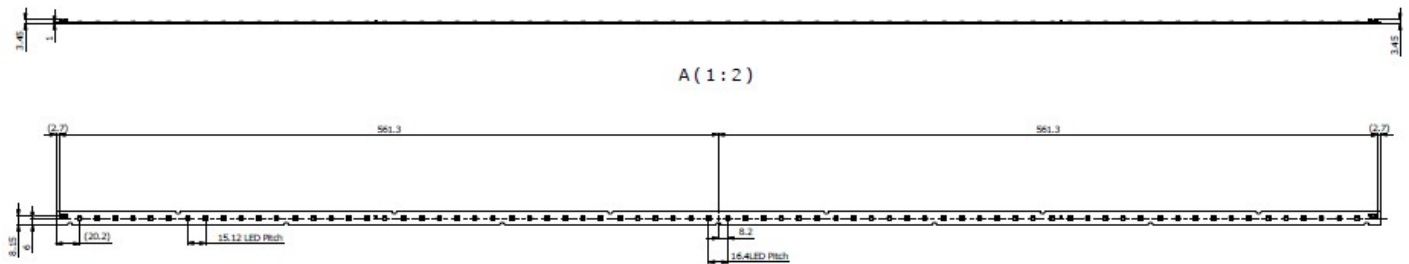
Specification item	Value	Unit	Condition
Input wire cross-section	0.2...0.5	mm ²	solid wire
	20...24	AWG	solid wire
Input wire strip length	5.2...5.8	mm	
Input wire cross-section	0.33...0.5	mm ²	stranded wire
	20...22	AWG	stranded wire
Input wire strip length	5.2...5.8	mm	



Connecting the module with wrong polarity may result in damage beyond repair.

Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	1127	1128	1129	mm
Width	11.8	12	12.6	mm
Height PCB		1		mm
Height total	3.25	3.45	3.65	mm
Product mass		30		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		400	mA
Case temperature (Tc-max)		90	°C
ESD (direct contact)	1		kV
Working voltage		350	V _{dc}

Application information

Certificates and Standards

CE
ENEC
ENEC+

Environmental

RoHS/REACH

Application

Dimming	Yes
---------	-----



© 2022 Signify Holding, IBRS 10461, 5600VB, NL. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

www.philips.com/oem

Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V. All other trademarks are owned by Signify Holding or their respective owners.
UK importer address: 3 Guildford Business Park, GU2 8XG

05/01/2022