

PHILIPS

CertaFlux

LED

CertaFlux LED Strip 12mm
1ft 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

May 2023



Ordering data

Commercial product name	EOC	12NC	EPREL registration #	Box quantity
CertaFlux LED Strip 12 1ft 1100lm 830 HV4	8718699 727765 00	9290 021 37406	769350	288
CertaFlux LED Strip 12 1ft 1100lm 840 HV4	8718699 727789 00	9290 021 37506	769351	288
CertaFlux LED Strip 12 1ft 1100lm 865 HV4	8718699 727802 00	9290 021 37606	769352	288

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
CertaFlux LED Strip 12mm 1ft 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

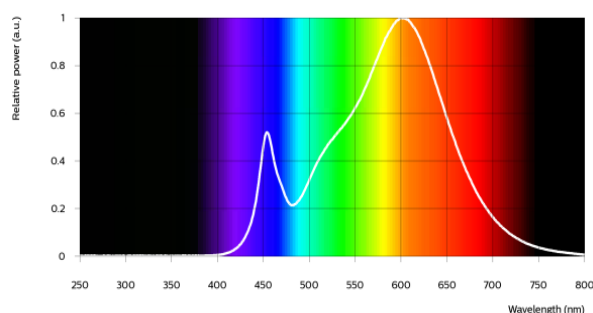
Optical characteristics - table per color (CCT)

CertaFlux LED Strip 12 1ft 1100lm 830 HV4

Parameter	Min	Typ	Max	Unit
Luminous flux	968	1030	1092	lm
Efficacy	130	138	147	lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.431, 0.401)		-
Color consistency			3	SDCM
CRI	80			
R9				
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	891	151
	Tc-nom 60 °C	845	146
	Tc-max 90 °C	802	141
I-nom 273mA	Tc 25 °C	1087	143
	Tc-nom 60 °C	1030	138
	Tc-max 90 °C	977	134
I-max 400mA	Tc 25 °C	1514	129
	Tc-nom 60 °C	1433	124
	Tc-max 90 °C	1357	120

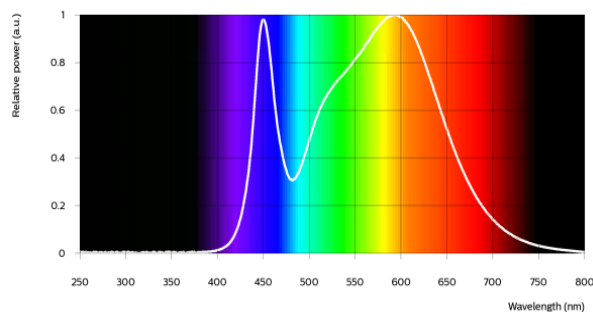


CertaFlux LED Strip 12 1ft 1100lm 840 HV4

Parameter	Min	Typ	Max	Unit
Luminous flux	1034	1100	1166	lm
Efficacy	139	148	157	lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.379, 0.375)		-
Color consistency			3	SDCM
CRI	80			
R9				
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	951	161
	Tc-nom 60 °C	902	156
	Tc-max 90 °C	856	150
I-nom 273mA	Tc 25 °C	1161	153
	Tc-nom 60 °C	1100	148
	Tc-max 90 °C	1043	143
I-max 400mA	Tc 25 °C	1617	138
	Tc-nom 60 °C	1531	133
	Tc-max 90 °C	1449	128

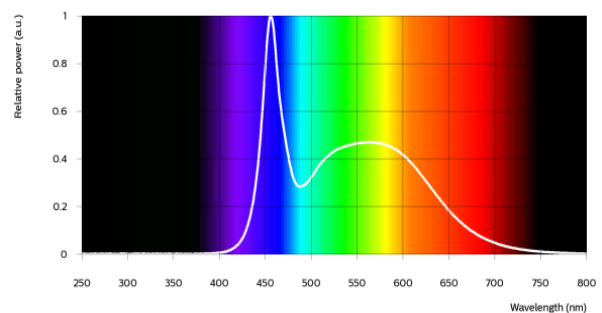


CertaFlux LED Strip 12 1ft 1100lm 865 HV4

Parameter	Min	Typ	Max	Unit
Luminous flux	968	1030	1092	lm
Efficacy	130	138	147	lm/W
Correlated color temperature (CCT)		6500		K
Color coordinates (CIEx, CIEy)		(0.309, 0.325)		-
Color consistency			3	SDCM
CRI	80			
R9				
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	891	151
	Tc-nom 60 °C	845	146
	Tc-max 90 °C	802	141
I-nom 273mA	Tc 25 °C	1087	143
	Tc-nom 60 °C	1030	138
	Tc-max 90 °C	977	134
I-max 400mA	Tc 25 °C	1514	129
	Tc-nom 60 °C	1433	124
	Tc-max 90 °C	1357	120



Electrical characteristics

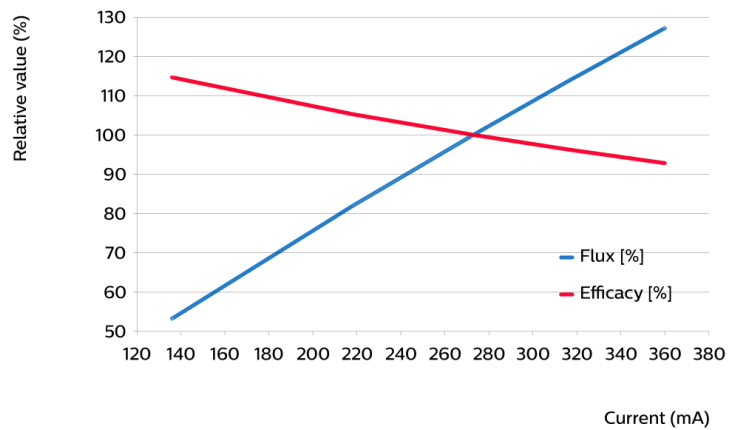
Parameter	Min	Typ	Max	Unit
Forward voltage	26.7	27.3	27.8	V
Power consumption	7.3	7.4	7.6	W = kWh/1000h
Number of modules in series per chain			10	
Number of modules per chain			1	
Number of modules in parallel			1	

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

Tuning information

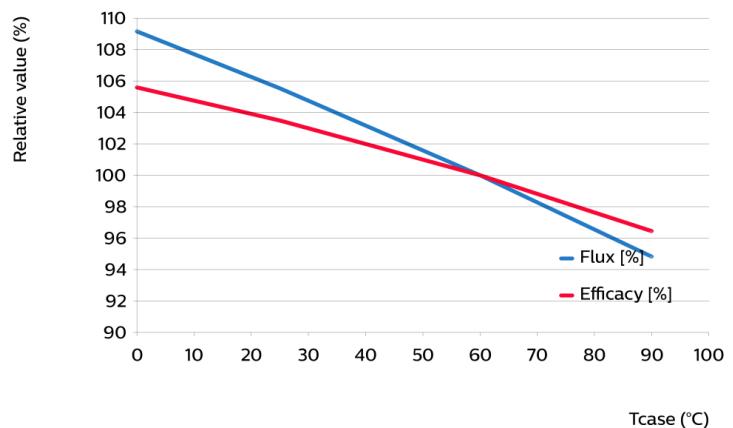
Flux and efficacy versus current (at Tc nominal)

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 [%]
90	95	96
60	100	100
25	106	103
0	109	106



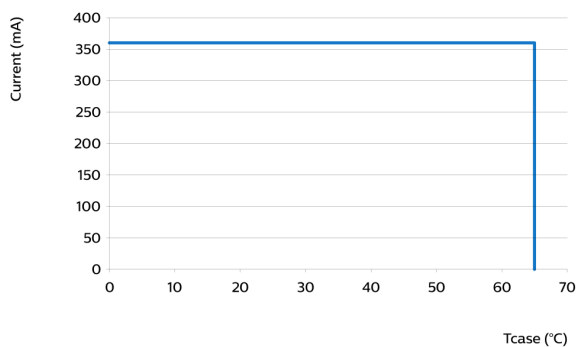
Lumen maintenance

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

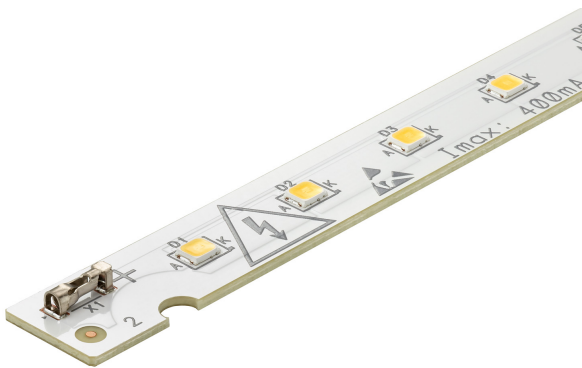
Parameter	Value	Unit
M70F50 nominal	>70000	hours
M70F50 life	>70000	hours

Performance Window



Wiring

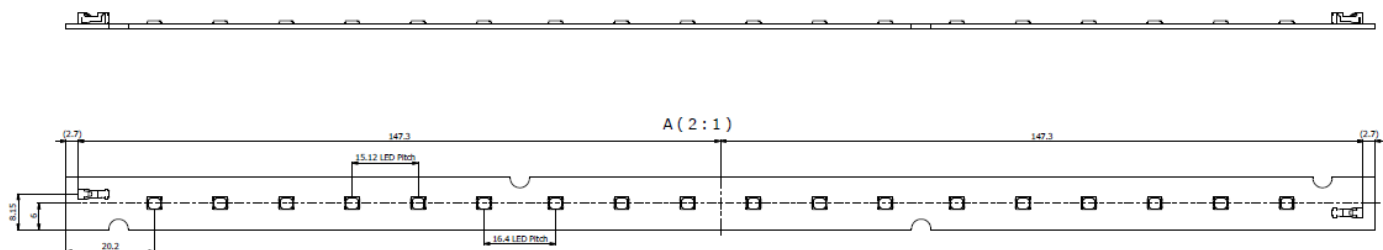
Specification item	Value	Unit	Condition
Input wire cross-section	0.2...0.5	mm ²	solid wire
	20...24	AWG	solid wire
Input wire strip length	5.2...5.8	mm	
Input wire cross-section	0.33...0.5	mm ²	stranded wire
	20...22	AWG	stranded wire
Input wire strip length	5.2...5.8	mm	



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

Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	299.75	300	300.25	mm
Width	11.8	12	12.6	mm
Height PCB		1		mm
Height total	3.25	3.45	3.65	mm
Product mass		8		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



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