PHILIPS

CertaFlux

LED

CertaFlux LED Panel 6060

Datasheet

CertaFlux LED Panel

The ultra-slim CertaFlux LED panels enable an easy and economical solution for commercial spaces and buildings. With a wide choice of drivers different light levels can be achieved. It's different sizes (60x60; 62x62; 30x120; 60x120) makes it suitable for a wide range of ceilings. CertaFlux LED panels offer a good product performance (100 lm/W at 4000K CRI80) and reliability (30,000 hours).

Key features and benefits

- Efficacy up to 100 lm/W on module level
- Ultra-slim LED module
- Excellent light uniformity
- Good color rendering (CRI >80)
- Flexible lumen output due to wide driver choice
- 3 years system warranty
- Quick install connector is integrated
- Wide range of dimensions: 60x60; 62x62; 30x120; 60x120

December 2020

Ordering data

Commercial product name	EOC	12NC	Box quantity
CertaFlux LED Panel 6060 830 MD2	8718699 676193 00	9290 016 87406	5
CertaFlux LED Panel 6060 840 MD2	8718699 676216 00	9290 016 87506	5
CertaFlux LED Panel 6060 865 MD2	8718699 676230 00	9290 016 87606	5

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
CertaFlux LED Panel 6060	800	1050	1150	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T_c (case temperature at T_c point)	45	65	75	°C

* Nominal value at which typical performance is specified

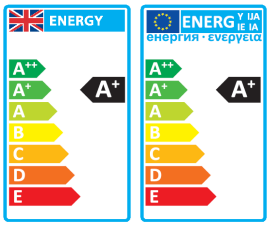
** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value

Optical characteristics - table per color (CCT)

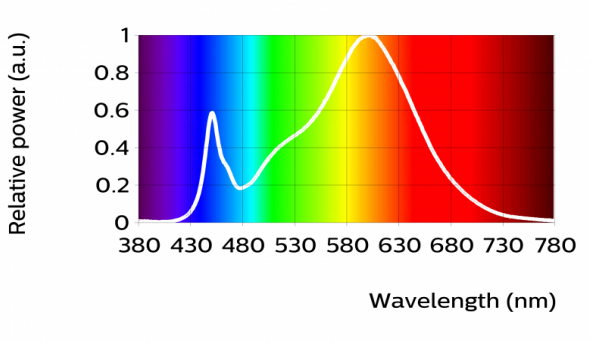
CertaFlux LED Panel 6060 830 MD2

Parameter	Min	Typ	Max	Unit
Luminous flux	2610	2900	3190	lm
Module efficacy		101		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.439, 0.404)		-
Color consistency			6	SDCM
CRI	80			
Photometric code		830/699		
Radiation angle		115		deg



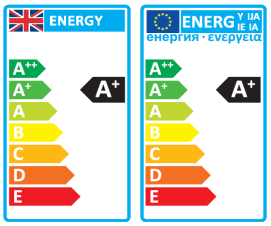
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5

Operation point	830	lm	lm/W
50% I-nom 400mA	Tc 25 °C	1605	114
	Tc-nom 45 °C	1555	112
	Tc-max 75 °C	1472	107
I-nom 800mA	Tc 25 °C	2999	103
	Tc-nom 45 °C	2900	101
	Tc-max 75 °C	2736	96
I-max 1150mA	Tc 25 °C	4078	95
	Tc-nom 45 °C	3936	93
	Tc-max 75 °C	3699	88



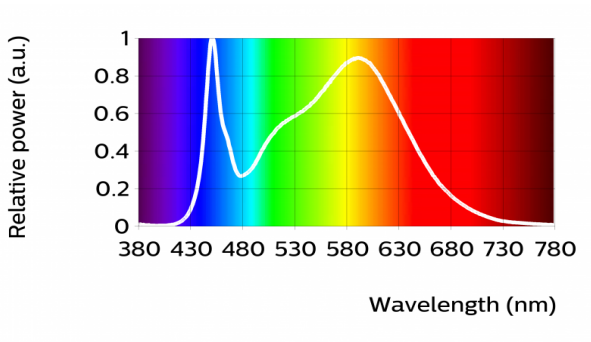
CertaFlux LED Panel 6060 840 MD2

Parameter	Min	Typ	Max	Unit
Luminous flux	2790	3100	3410	lm
Module efficacy		108		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.380, 0.384)		-
Color consistency			6	SDCM
CRI	80			
Photometric code		840/699		
Radiation angle		115		deg



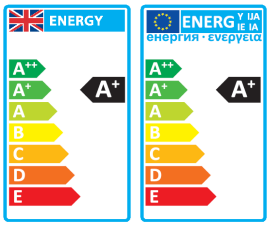
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5

Operation point	840	lm	lm/W
50% I-nom 400mA	Tc 25 °C	1714	122
	Tc-nom 45 °C	1661	119
	Tc-max 75 °C	1572	114
I-nom 800mA	Tc 25 °C	3206	110
	Tc-nom 45 °C	3100	108
	Tc-max 75 °C	2925	103
I-max 1150mA	Tc 25 °C	4361	102
	Tc-nom 45 °C	4209	99
	Tc-max 75 °C	3956	95



CertaFlux LED Panel 6060 865 MD2

Parameter	Min	Typ	Max	Unit
Luminous flux	2790	3100	3410	lm
Module efficacy		108		lm/W
Correlated color temperature (CCT)		6500		K
Color coordinates (CIEx, CIEy)		(0.311, 0.337)		-
Color consistency			6	SDCM
CRI	80			
Photometric code		865/699		
Radiation angle		115		deg



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

Operation point	865	lm	lm/W
50% I-nom 400mA	Tc 25 °C	1714	122
	Tc-nom 45 °C	1661	119
	Tc-max 75 °C	1572	114
I-nom 800mA	Tc 25 °C	3206	110
	Tc-nom 45 °C	3100	108
	Tc-max 75 °C	2925	103
I-max 1150mA	Tc 25 °C	4361	102
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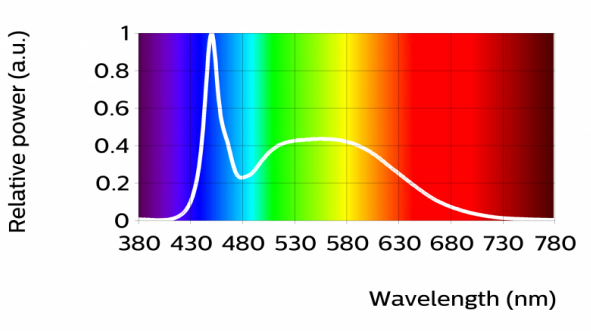
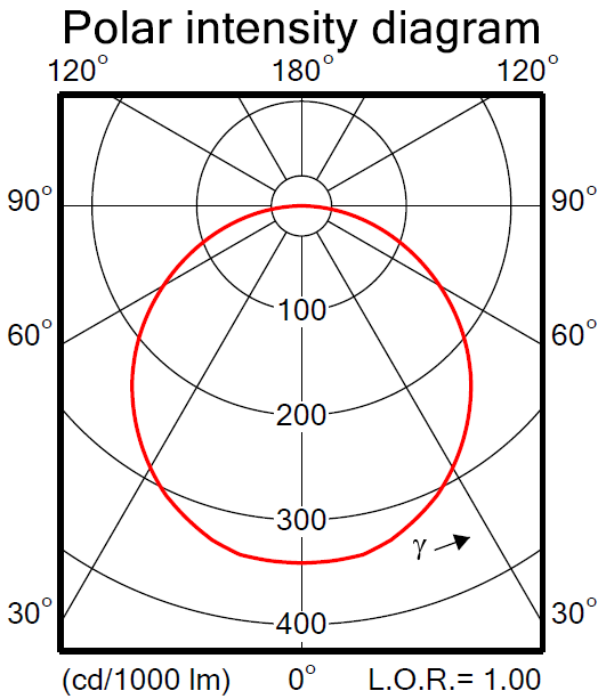


Beam shape

The CertaFlux LED panel creates a Lambertian light distribution.



Electrical characteristics

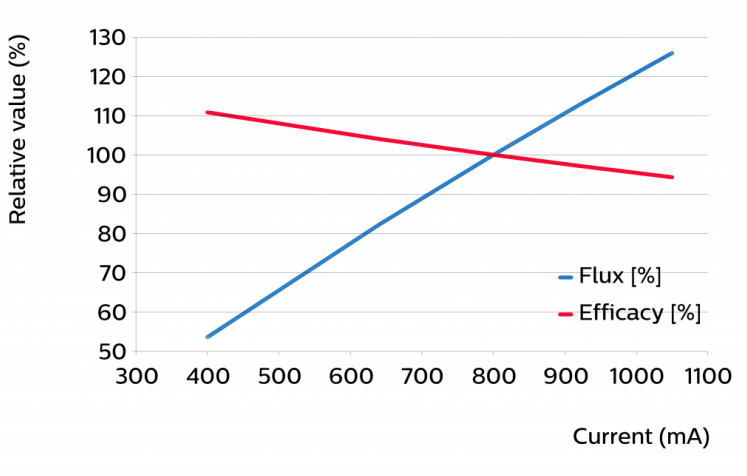
Parameter	Min	Typ	Max	Unit
Forward voltage	33.5	36.0	38.5	V
Power consumption	26.8	28.8	30.8	W = kWh/1000h
Number of modules in series per chain			1	
Number of modules in parallel			1	

Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%
Specifications stated at Tc-nom and I-nom

Tuning information

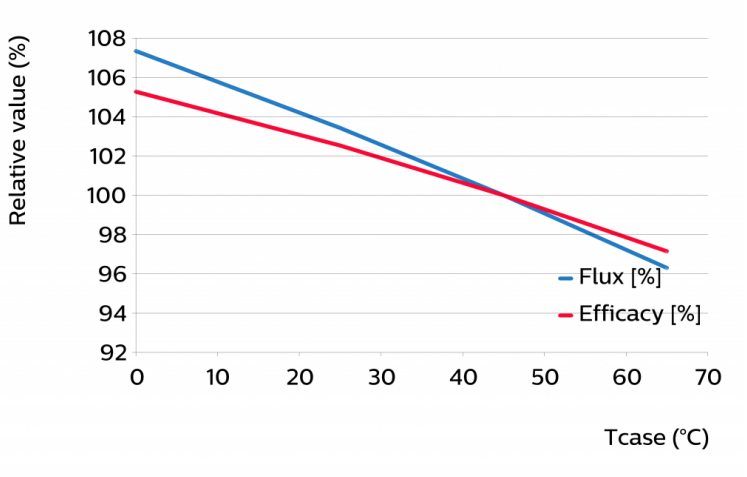
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1050	126	94
925	113	97
800	100	100
640	82	104
400	54	111



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

Tc [°C]	Flux [%]	Efficacy [%]
65	96	97
45	100	100
25	103	103
0	107	105



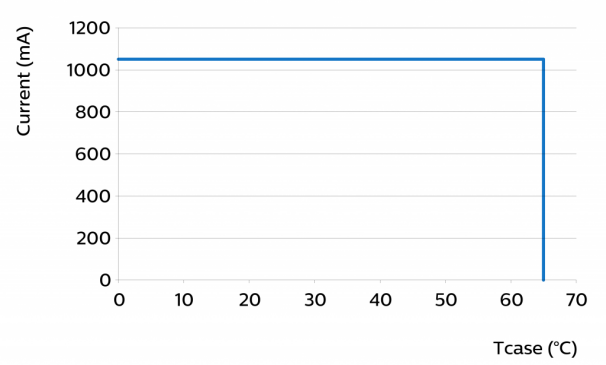
Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70		
		B50	B20	B10
I nom 800 mA	Tc 45°C	>30	>30	>30
	Tc 65°C	>30	>30	>30
	Tc 75°C	26	23	21
I life 1050 mA	Tc 45°C	>30	>30	>30
	Tc 65°C	>30	>30	>30
	Tc 75°C	21	18	17

Lifetime

Parameter	Value	Unit
C10 at Tc life	>50000	hours
M70F50 nominal	>30000	hours
M70F50 life	>30000	hours

Performance Window



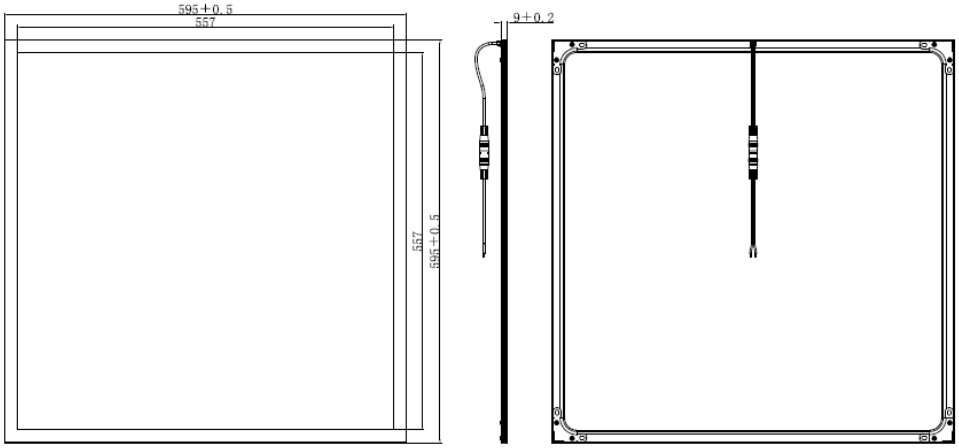
Wiring

Specification item	Value	Unit	Condition
Input wire cross-section	0.5…0.5	mm^2	stranded
	20…20	AWG	stranded
Input wire strip length	7…9	mm	

The LED module is provided with a quick install connector pair. Color coding for lead wires: Brown = + and Blue = -

Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	594.5	595	595.5	mm
Width	594.5	595	595.5	mm
Height	8.8	9	9.2	mm
Product mass		2000		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		1150	mA
Case temperature (Tc-max)		75	°C
Power at rated Vf-max and I-max		38	W
ESD (direct contact)	8		kV
ESD (air)	15		kV
Working voltage		60	V_{dc}
Ambient temperature	-10	45	°C
Storage temperature	-20	60	°C

Application information

Certificates and Standards
CB
CE
IEC 62031
IEC 60598-1
IEC 60598-2-1
IEC 60598-2-2

Environmental
RoHS/REACH

Application	
IP rating	IP40
Overheating protection	No protection
Luminaire class	IEC Class I, II and III. SELV input only.
Dimming	Yes

UK importer address: 3 Guildford Business Park, GU2 8XG

www.philips.com/oem

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