



Fortimo



LED

Fortimo HE BL Panel 6060
MC MD3

Datasheet

The Fortimo HE BL LED Panels are designed to light up spaces in office and commercial buildings. They offer an excellent performance (151 lm/W at 4000K CRI80), reliability (50,000 hours) and quality of light. It's designed to meet the standards for office lighting (UGR possible). Different sizes and color temperatures available to meet the different office requirements. The Fortimo HE BL Panels can be combined with a wide choice of Xitanium drivers to perfectly match your application.

Key features and benefits

- Efficacy up to 151 lm/W on module level
- Different color temperatures selectable via dipswitch for all standard versions
- Excellent light uniformity
- Meeting office standards for low UGR
- Good quality of light (CRI >80 and CRI > 90 versions available)
- High flexibility of lumen output due to wide driver choice
- 5-year system warranty
- MasterConnect version with integrated sensor available
- MasterConnect version with wireless driver available
- Module is provided with integrated quick install connector
- Excellent color consistency of 3 SDCM
- Single packaging for each panel

December 2023



Ordering data

Commercial product name	EOC	12NC	EPREL registration #	Box quantity
Fortimo HE BL Panel 6060 840 MC MD3	8710163 617428 00	9290 034 33506	1877562	5

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _a	25	45	45	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

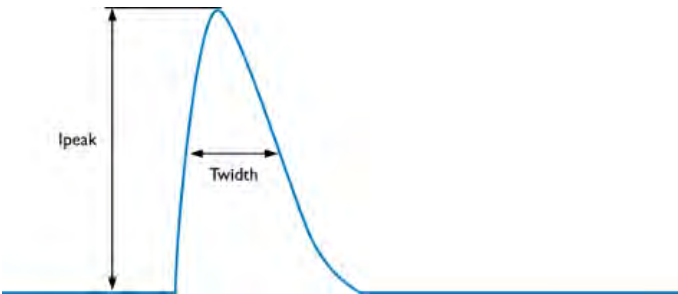
*** Maximum value for safe operation, do not operate above this value

Electrical input data

Specification item	Value	Unit	Condition
Rated input voltage	220...240	Vac	Performance range
Rated input frequency	50...60	Hz	Performance range
Input voltage	230	Vac	
Power factor	> 0.9		@ full power @ rated input voltage
Total harmonic distortion	< 20	%	@ full power @ rated input voltage
Input voltage AC	198...264	Vac	Operational range
Input frequency AC	45...66	Hz	Operational range
Pst LM	≤ 0.1		
SVM	≤ 0.1		
Tx Power	10	dBm	

Inrush current

Specification item	Value	Unit	Condition
Inrush current I_{peak}	25	A	Input voltage 230V
Inrush current T_{width}	9	μs	Input voltage 230V, measured at 50% I_{peak}
Drivers / MCB 16A type B	32	pcs	



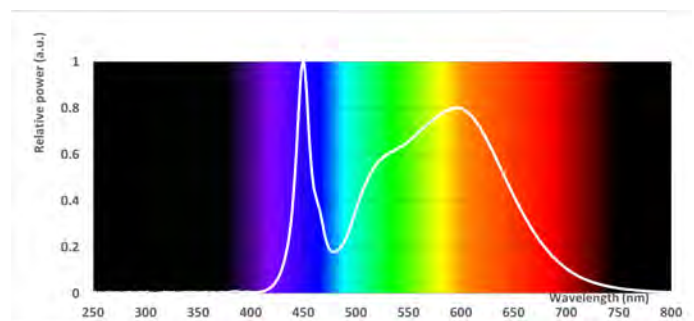
MCB	Rating	Relative number of LED systems
B	10A	63%
B	13A	81%
B	16A	100% (stated in datasheet)
B	20A	125%
B	25A	156%
C	10A	104%
C	13A	135%
C	16A	170%
C	20A	208%
C	25A	260%

Optical characteristics - table per color (CCT)

Fortimo HE BL Panel 6060 840 MC MD3

Parameter	Min	Typ	Max	Unit
Luminous flux	3150	3500	4200	lm
Efficacy		131		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.385, 0.382)		-
CRI	80			
R9	0			
Photometric code		840/359		
Radiation angle		90		deg
Photobiological safety			RG0	

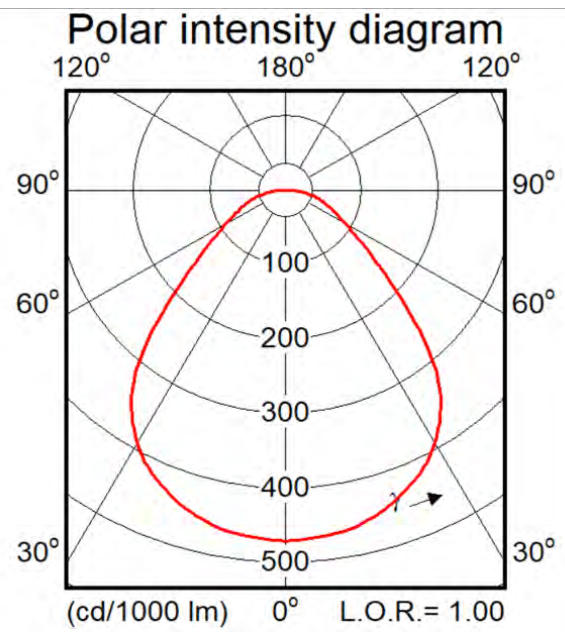
Measurement precision $\pm 5\%$ for the flux data and $\pm 6\%$ for the efficacy data. Measurement precision for color coordinates ± 0.005 . Measurement precision for CRI ± 1.5 .



This product contains a light source of energy efficiency class C. EPREL model identifier: 929003433506LS. Registration number: 1877562

Beam shape

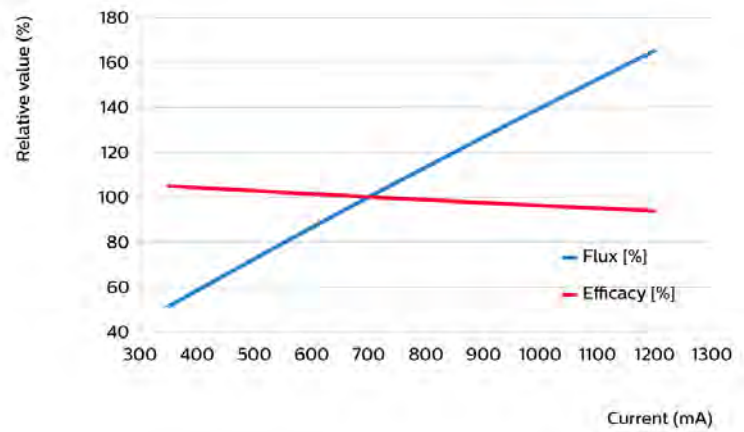
The Fortimo LED panel creates a 90° beam, enabling a Unified Glare Ratio of less than 19 which is a requirement for office applications.



Tuning information

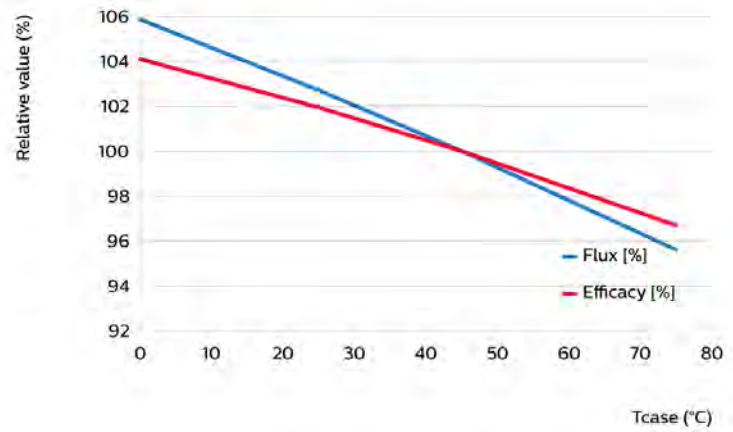
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
1200	165	94
950	133	97
700	100	100
560	81	102
350	51	105



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

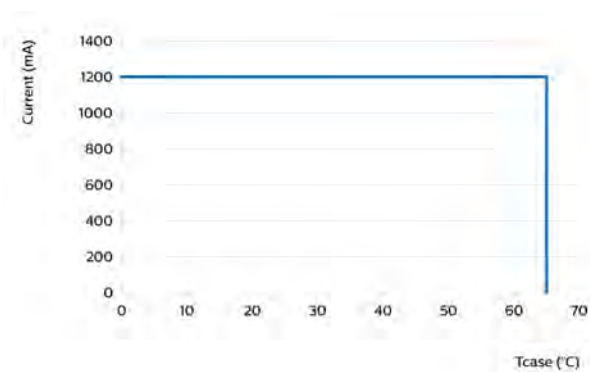
Tc [°C]	Flux [%]	Efficacy [%]
75	96	97
45	100	100
25	103	102
0	106	104



Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
I 700mA	Tc 45°C	>50	>50	>50	>50	>50	>50	>50	>50	>50
	Tc 65°C	>50	>50	>50	>50	>50	>50	>50	>50	>50
	Tc 75°C	>50	>50	>50	>50	>50	>50	>50	48	44
I 1200mA	Tc 45°C	>50	>50	>50	>50	>50	>50	>50	>50	>50
	Tc 65°C	>50	>50	>50	>50	>50	>50	>50	49	45
	Tc 75°C	>50	>50	>50	>50	>50	>50	>50	43	40
I 1300mA	Tc 45°C	>50	>50	>50	>50	>50	>50	>50	>50	>50
	Tc 65°C	>50	>50	>50	>50	>50	>50	>50	48	44
	Tc 75°C	>50	>50	>50	>50	>50	>50	>50	43	39

Performance Window

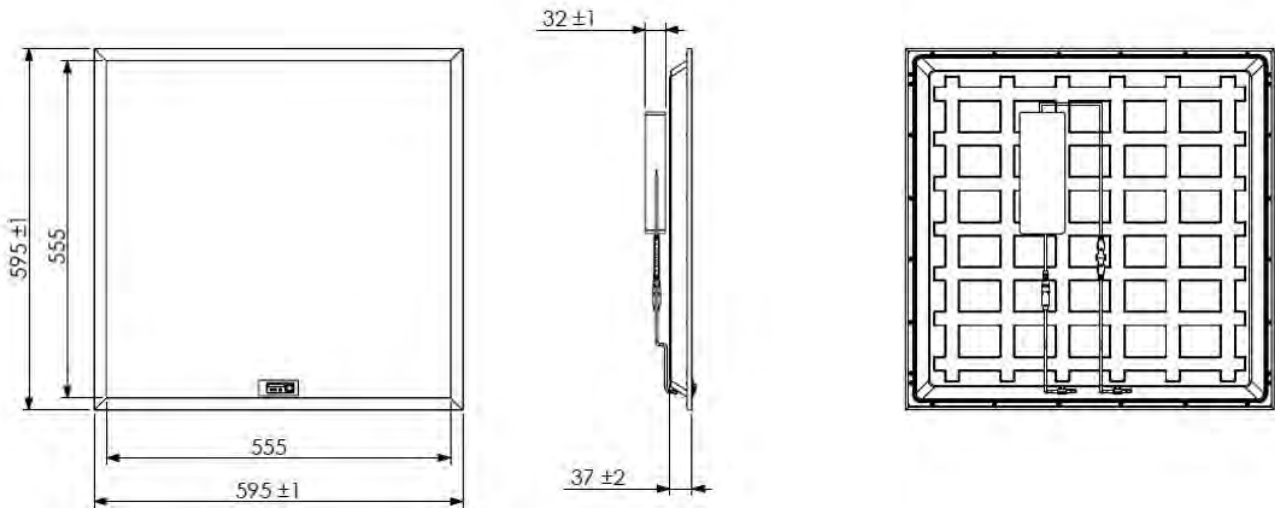


Wiring

Specification item	Value	Unit	Condition
Input wire cross-section	0.75...2.5	mm ²	solid / stranded wire
	18...14	AWG	
Input wire strip length	10...11	mm	

Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	594.5	595	595.5	mm
Width	594.5	595	595.5	mm
Height	34.5	36.5	38.5	mm
Product mass		2020		gram



Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		1300	mA
Case temperature (Tc-max)		75	°C
Power at rated Vf-max and I-max		47.3	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/EN 60598-1
IEC/EN 60598-2-1
UKCA

Environmental

RoHS/REACH

Application

IP rating	IP20
Luminaire class	Class II Luminaire
Dimming	Yes

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