

# CertaFlux P Gen 1

The CertaFlux PLM is an integrated module solution with IP66 protection, made possible by its mid-power LED and glass lens technology. The entire driver and connectors, creating a total IP solution perfect for easy design - is a modular system, with each module having lumen output of 4500lm and portfolio has been broadened to include color temperatures of 3000K, 4000K and 5000K. Suitable for streetlight installations and can replace SON 150W, 250W and 400W.

## Key features and benefits

- " Up to 4500 lumen per module
- " Integrated heatsink and optics
- " Complete IP 66 system including module, driver and connector from Philips
- " Color temperatures: 3000K, 4000K and 5000K
- " CRI 70
- " 50,000 hours lifetime at one switching cycle per day
- " Easy design in
- " Relatively low investment
- " Reliable and flexible
- " Good value-for-money

## Applications

- " Street and Road lighting

September 2016

## Ordering data

Commercial product name	EOC	12NC	Box quantity
CertaFlux PLM II 4500lm 730 G1	-	9290 014 44980	12
CertaFlux PLM II 4500lm 740 G1	-	9290 014 45080	12
CertaFlux PLM II 4500lm 750 G1	-	9290 014 45180	12

## Drive currents

Parameter	Nominal*	Life**	Max***	Unit
CertaFlux PLM Gen1	700	700	860	mA

## Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
$T_c$ (case temperature) at T <sub>amb</sub>	75	75	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

\*\*\* Operation of this module at  $I_c$  860mA will cause  $T_c$  its in application to increase. At of 85°C,

## Optical characteristics - table per color (CCT)

### CertaFlux PLM II 4500lm 730 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	3735	4150	4980	lm
Module efficacy		124		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.434, 0.403)		-
Color consistency			4	SDCM
CRI	70			
Photobiological safety			RG1	

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

### CertaFlux PLM II 4500lm 740 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	3960	4500	5280	lm
Module efficacy		134		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.382, 0.380)		-
Color consistency			4	SDCM
CRI	70			
Photobiological safety			RG1	

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

## CertaFlux PLM II 4500lm 750 G1

Parameter	Min	Typ	Max	Unit
Luminous flux	3960	4500	5280	lm
Module efficacy		134		lm/W
Correlated color temperature (CCT)		5000		K
Color coordinates (CIEx, CIEy)		(0.348, 0.355)		-
Color consistency			4	SDCM
CRI	70			
Photobiological safety			RG1	

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

## Beam shape

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The Philips LED module generates a Type II light distribution which can be widely used for road lighting.

## Electrical characteristics

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CertaFlux PLM II 4500lm 730 G1

CertaFlux PLM II 4500lm 740 G1

CertaFlux PLM II 4500lm 750 G1

Parameter	Min	Typ	Max	Unit
Forward voltage	46.0	48.0	50.0	V
Power consumption	32.2	33.6	35.0	W
Number of modules in series			5	

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

## Lumen maintenance graphs

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Lumen maintenance at I-life and Tc-life conditions

Lumen maintenance for B50 at current I-life conditions

## Mechanical characteristics

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CertaFlux PLM II 4500lm 730 G1

CertaFlux PLM II 4500lm 740 G1

CertaFlux PLM II 4500lm 750 G1

Parameter	Min	Typ	Max	Unit
Length	299.3	300	300	mm
Width	69.4	70	70	mm
Height without lens	43.9	44.2	44.5	mm
Height with lens	69	69.4	69.8	mm

## Absolute ratings

Parameter	Min	Typ	Max	Unit
Case temperature (Tc-max)			90	°C
Power at rated Vf-max and I-max			44	W
Working voltage			600	V <sub>dc</sub>
Ambient temperature	-30		50	°C

## Application information

### Certificates and Standards

IEC/TR 62278:2014

IEC 62717

IEC 62031:2008 (First Edition) + A1:2012 + A2:2014

EN 62031:2008 (First Edition) + A1:2013 + A2:2015

GB 24819-2009

GB 19510.1-2009

GB 17743-2007

### Environmental

RoHS/REACH

### Application

IP rating	IP66
Overheating protection	No
Luminaire class	Please refer to design in guide
Dimming	Yes

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09/2016  
Data subject to change.