



PHILIPS

LED PAR30L



Technical Application Guide

Philips LED PAR30L 1800lm (20W)

PHILIPS 220V PAR30L integrates a leading COB LED light source and a compact high efficiency driver into a traditional CDM Par30 form-factor. Additionally, the lamp features an AirFlux technology to ensure a long operating life.



www.philips.com/ledinnovation

43%
Energy cost
saving



Design highlights

- Up to 43% energy savings compared to standard halogen and incandescent spot lamps
- Long design lifetime of PAR30L 1800lm: 25,000 hours
- Safe design with over temperature protection (OTP)
- 15 and 30 degrees beam spread
- Emits virtually no heat and will not fade colors
- 2 CCT selections: 3000K and 4000K
- Discharges virtually no UV/IR light
- Environmental friendly, RoHS compliant, contains no Mercury or other hazardous substances



Application areas

PHILIPS 220V PAR30L lamp is suitably designed for spot and general lighting applications in hospitality and retail industries. Unlike the conventional halogen Philips LED ensuring minimum maintenance cost in shops, hotels, restaurants and cafes.

Application notes

- Limited to applications in indoor and some semi-protected environments
- Not intended for use with emergency exit fixtures or emergency lights
- For use in fixtures that can structurally support a lamp weighing 0.53 lbs (0.25 kg)

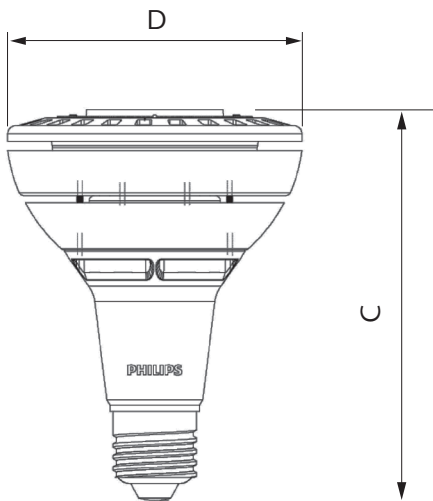
* http://www.usa.lighting.philips.com/connect/tools_literature/compatibility.wpd

Technical Specifications

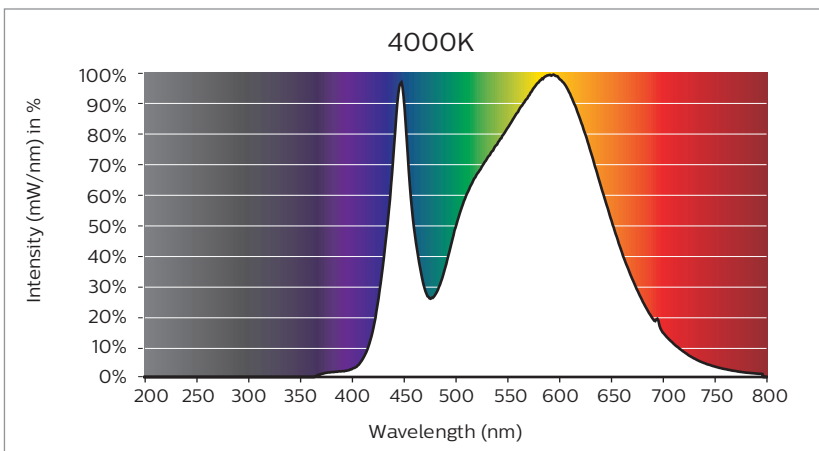
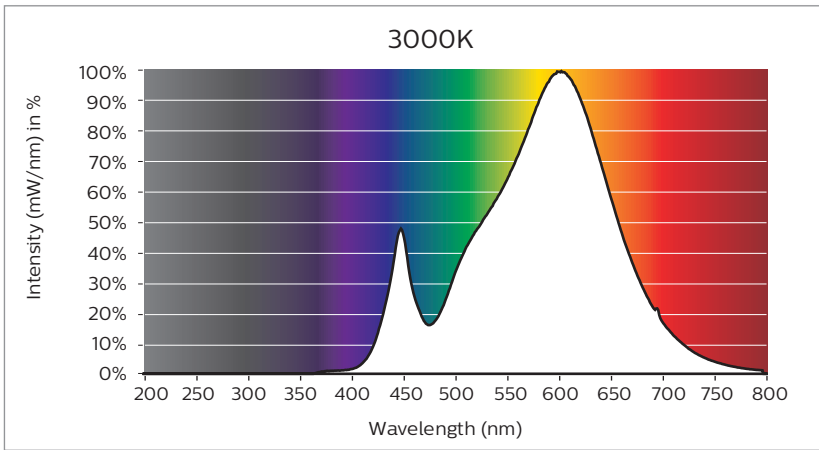
12 NC	Product type	Voltage	Lamp	Lamp	Color	Lumen	Lamp Output (90° φ)	Beam	Lifetime	CRI	Dimmable
			Wattage		Shape	Temp.	MBCP	Angle			
		V	W		K	lm	Cd	°	Hours		
929001132908	MasterLED PAR30L 20W 15D 3000K SO	220	20.0	PAR30L	3000	1800	1710	18000	25000	80	Yes
929001133008	MasterLED PAR30L 20W 15D 4000K SO	220	20.0	PAR30L	4000	1800	1710	18500	25000	80	Yes
929001133108	MasterLED PAR30L 20W 30D 3000K SO	220	20.0	PAR30L	3000	1800	1600	4850	25000	80	Yes
929001133208	MasterLED PAR30L 20W 30D 4000K SO	220	20.0	PAR30L	4000	1800	1600	5000	25000	80	Yes

Fixture compatibility

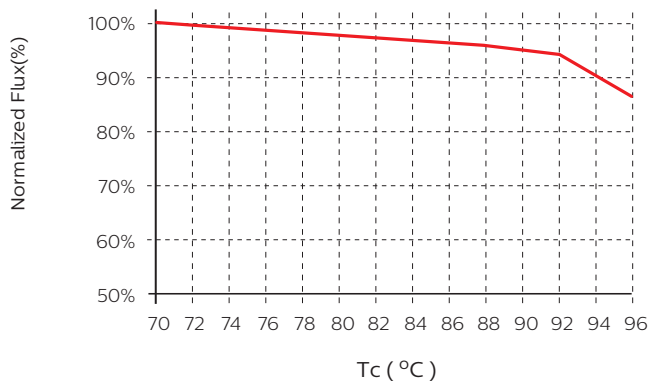
Type	C max.	D max.
	Overall Length	Diameter
	(mm)	(mm)
PAR30L 20W	124	93



Spectral Power Distribution



Temperature



T_c
T_c Max: 82 °C

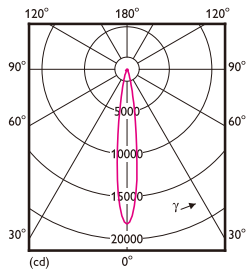
Photometric Diagrams

MasterLED PAR30L 20W 15D 3000K SO

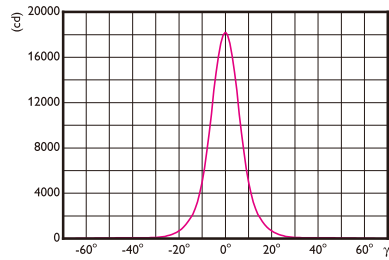
1 x 1800 lm

Light output ratio	1.00	VBA	$2 \times 41^\circ$	I_{max}	18206 cd
Service upward	0.00	BS ($1/2 I_{max}$)	$2 \times 8^\circ$	K5	
Service downward	1.00	VBA ($1/2 E_0$)	$2 \times 7^\circ$		

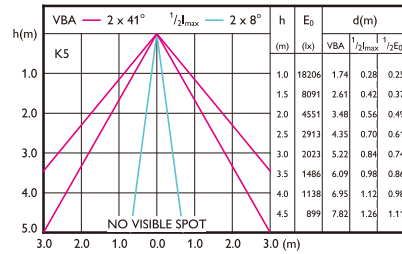
Polar intensity diagram



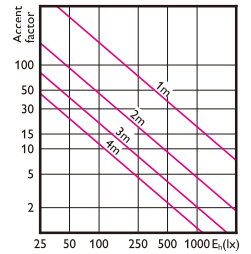
Cartesian intensity diagram



Beam diagram



Visual impact diagram

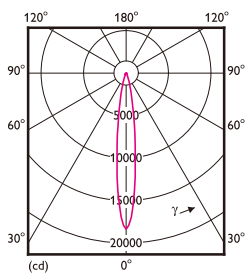


MasterLED PAR30L 20W 15D 4000K SO

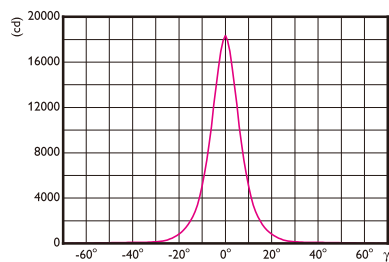
1 x 1800 lm

Light output ratio	1.00	VBA	$2 \times 41^\circ$	I_{max}	18354 cd
Service upward	0.00	BS ($1/2 I_{max}$)	$2 \times 7^\circ$	K5	
Service downward	1.00	VBA ($1/2 E_0$)	$2 \times 7^\circ$		

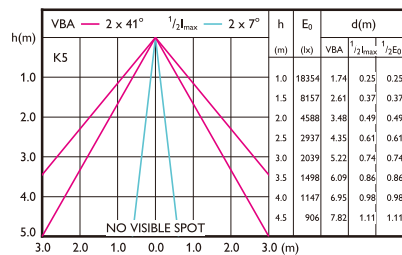
Polar intensity diagram



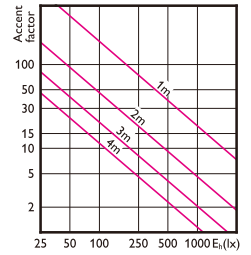
Cartesian intensity diagram



Beam diagram



Visual impact diagram

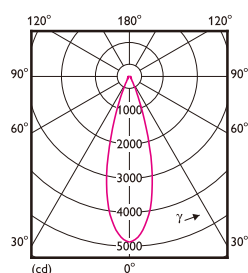


MasterLED PAR30L 20W 30D 3000K SO

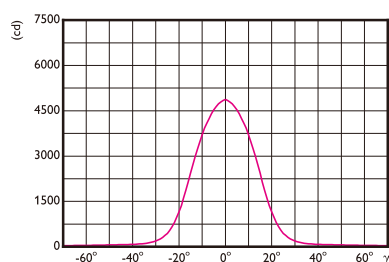
1 x 1800 lm

Light output ratio	1.00	VBA	$2 \times 41^\circ$	I_{max}	4871 cd
Service upward	0.00	BS ($1/2 I_{max}$)	$2 \times 15^\circ$	K5	
Service downward	1.00	VBA ($1/2 E_0$)	$2 \times 15^\circ$		

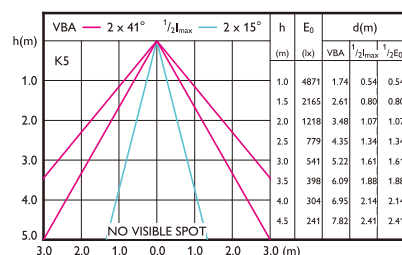
Polar intensity diagram



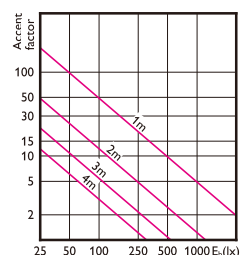
Cartesian intensity diagram



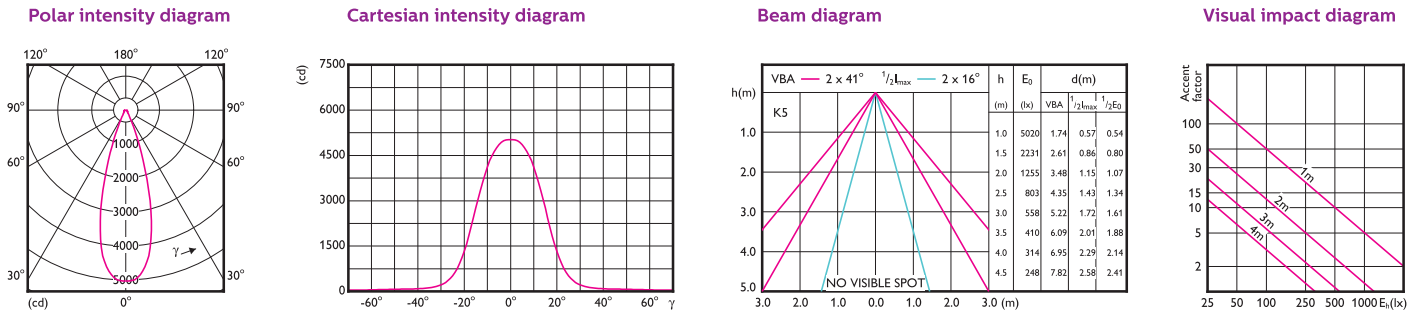
Beam diagram



Visual impact diagram

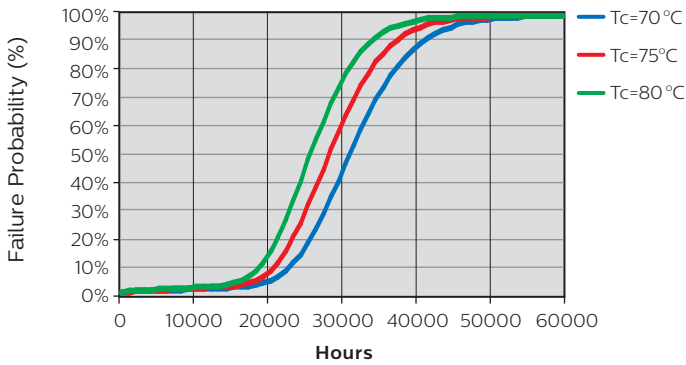


Light output ratio	1.00	VBA	2 x 41°	Imax	5020 cd
Service upward	0.00	BS (1/2 Imax)	2 x 16°	K5	
Service downward	1.00	VBA (1/2 E0)	2 x 15°		

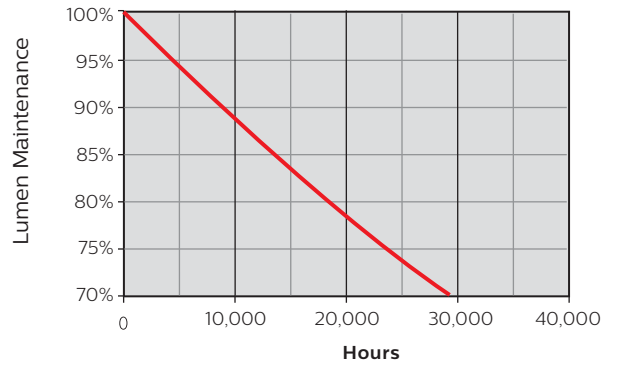


Lifetime and sustainability

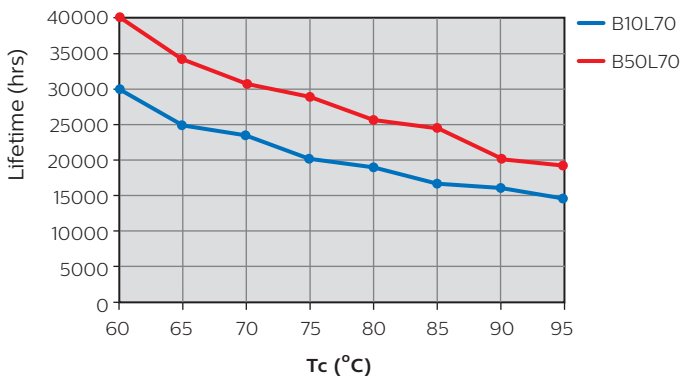
Failure Rate Curve of PAR30L 20W



Lifetime and Lumen Maintenance



Lifetime Vs Tc



PHILIPS 220V PAR30L 1800lm lamp has a lifetime of 25,000 hours at Tc=70°C, defined as the number of hours when 50% of a large group of identical lamps drop below 70% of its initial lumens.

Lifetime estimation based on the application environment condition: please refer to the Tc for lifetime forecast.



© 2016 Philips Lighting
 All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice. No liability will be accepted by the publisher for any consequence of its use. Publication thereof does not convey nor imply any license under patent or other industrial or intellectual property rights.