

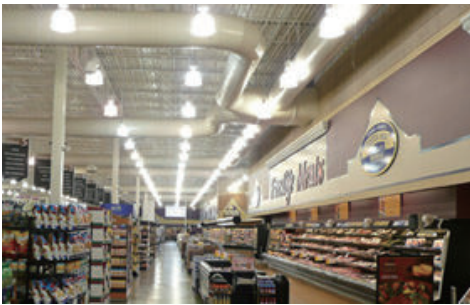


Technical Application Guide for PHILIPS LED Lamps

Philips TrueForce Core LED Industry and Retail



PHILIPS



Introduction

Philips TrueForce Core LED Industry and Retail (Highbay–HPI/SON/HPL) lamps give you a quick and easy payback solution to replace HID/CFLi lamps in industrial application. The solution gives you the LED benefits of energy-efficiency and long-lifetime, plus they come for a low initial investment. Lamp design allows to replace HID/CFLi lamps with no gear loss and high power factor.

Benefits

- Cost saving with quick payback
- Easy adoption
- Low initial investment

Features

- High energy efficiency with directional light and no gear loss
- Long lifetime 15,000/25,000hrs
- HID/CFLi lamp replacement solution with high power factor and 1KV surge protection
- Pleasant white light with CRI 80

Applications

- Industrial - Factories, Warehouses, Distribution centres
- Retail - Hyper markets, Shopping malls
- Others - Transportation hubs, Convention centres, Sports halls



E27 hook



E40 hook



12in reflector



16in reflector

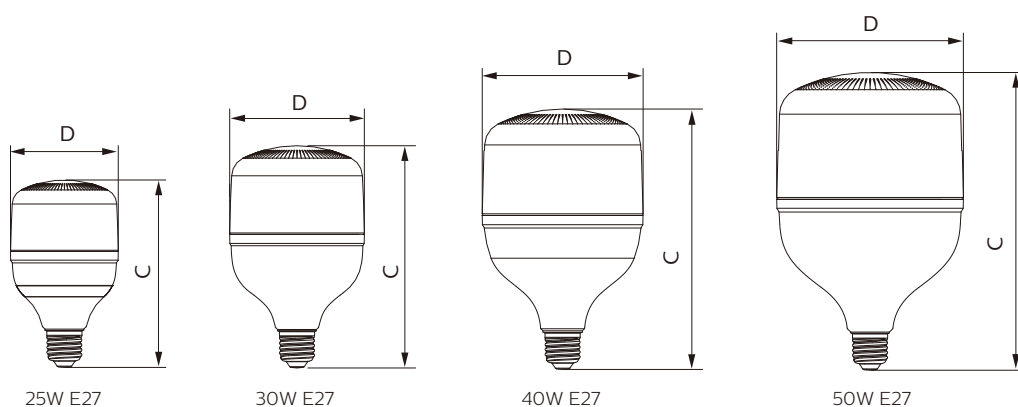


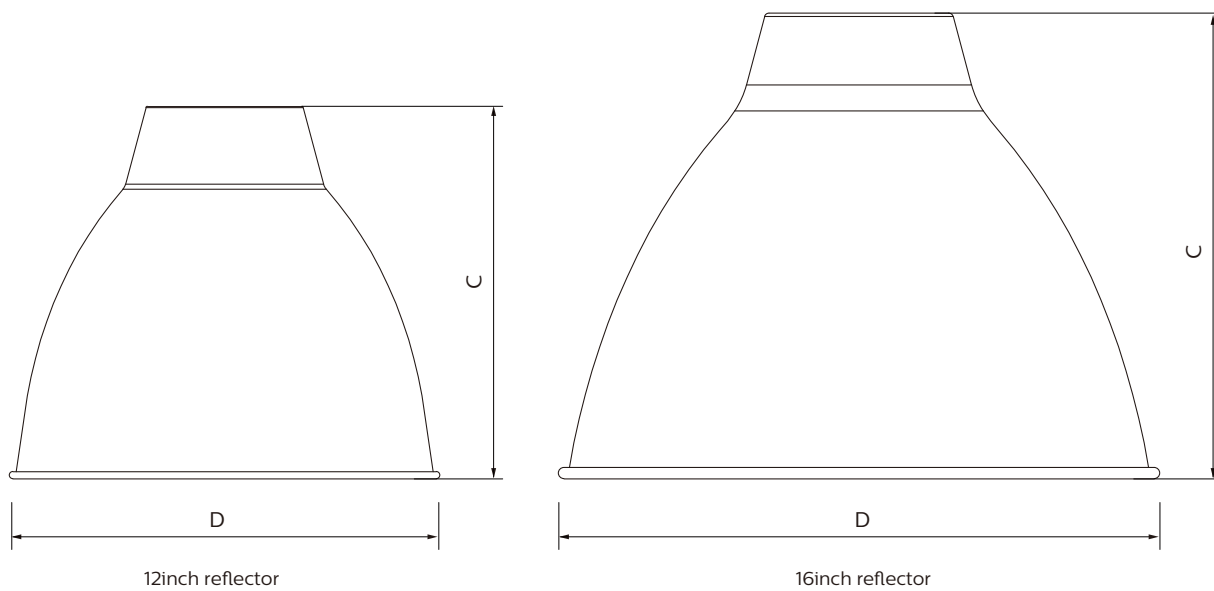
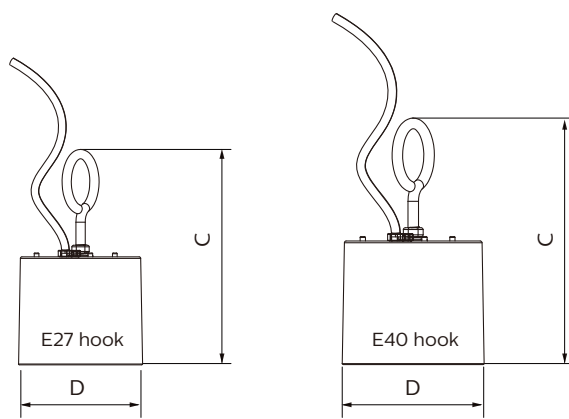
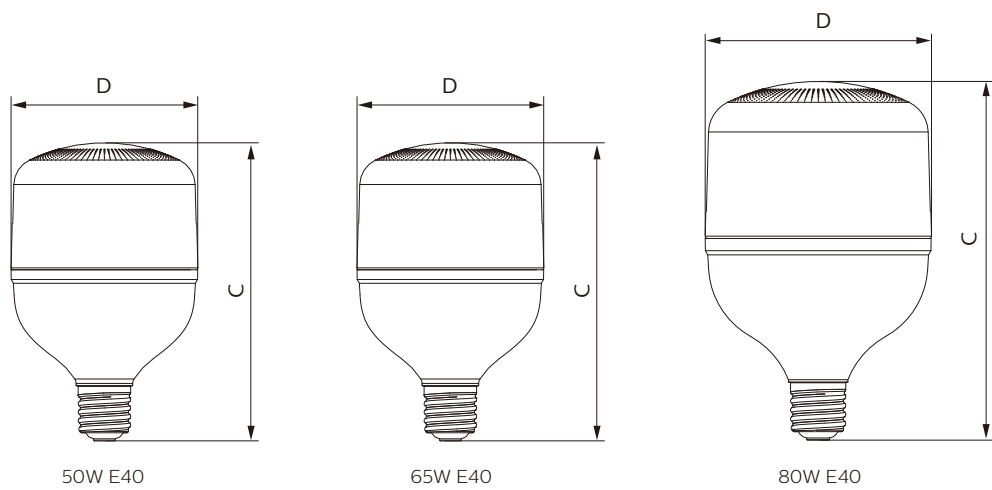
Technical Specifications

Product description	Lumen Output	Wattage	Color Temp	Beam Angle	Voltage	Cap	Lifetime	CRI	Dimmable
	lm	W	K	°	VAC		hrs		
TForce Core HB 25W E27 830 CN GN3	2600	25	3000	185	220-240	E27	15000	80	No
TForce Core HB 25W E27 865 CN GN3	2700	25	6500	185	220-240	E27	15000	80	No
TForce Core HB 30W E27 830 CN GN3	3000	30	3000	185	220-240	E27	15000	80	No
TForce Core HB 30W E27 865 CN GN3	3200	30	6500	185	220-240	E27	15000	80	No
TForce Core HB 40W E27 830 CN GN3	3700	40	3000	185	220-240	E27	15000	80	No
TForce Core HB 40W E27 865 CN GN3	4000	40	6500	185	220-240	E27	15000	80	No
TForce Core HB 50W E27 830 CN GN3	4800	50	3000	185	220-240	E27	15000	80	No
TForce Core HB 50W E27 865 CN GN3	5000	50	6500	185	220-240	E27	15000	80	No
TForce Core HB 50W E40 865 CN GN3	5000	50	6500	185	220-240	E40	15000	80	No
TForce Core HB 65W E40 840 CN GN3	7000	65	4000	185	220-240	E40	25000	80	No
TForce Core HB 65W E40 865 CN GN3	7000	65	6500	185	220-240	E40	25000	80	No
TForce Core HB 80W E40 840 CN GN3	9000	80	4000	185	220-240	E40	25000	80	No
TForce Core HB 80W E40 865 CN GN3	9000	80	6500	185	220-240	E40	25000	80	No

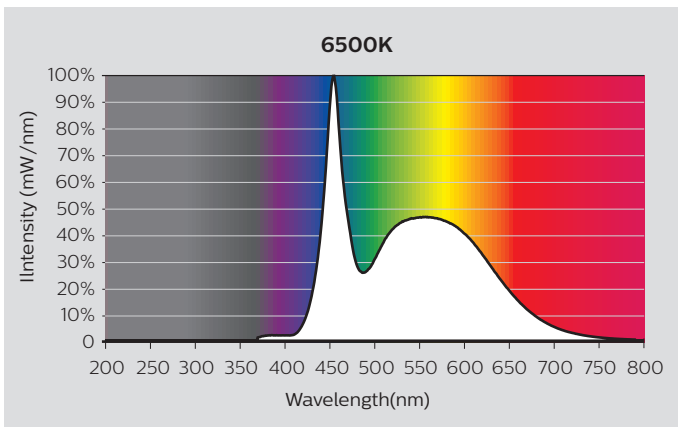
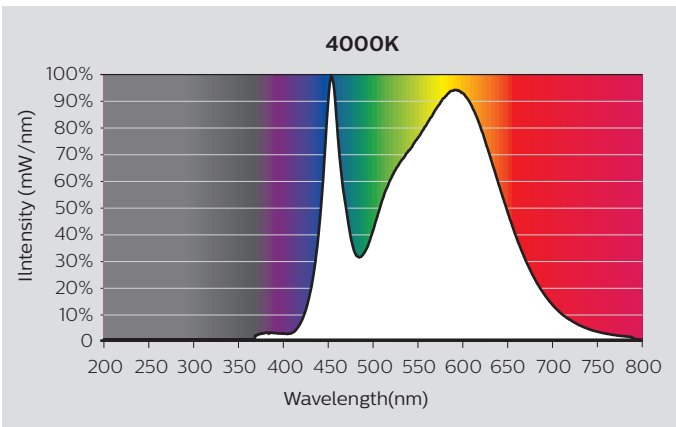
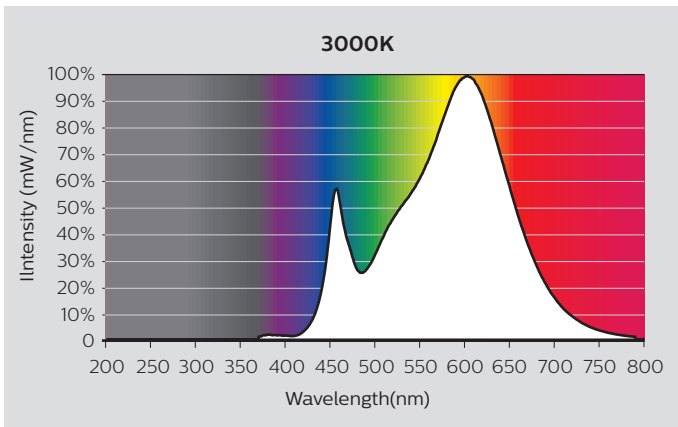
Fixture compatibility

Product description	C max. Overall Length	D max. Diameter	Weight
	mm	mm	g
25W E27	139	80	75
30W E27	165	100	118
40W E27	193	118	162
50W E27	221	140	215
50/65W E40	224	140	260
80W E40	269	160	358
E27 hook	143	80	300
E40 hook	162	80	366
12inch reflector	261	302	450
16inch reflector	311	402	540



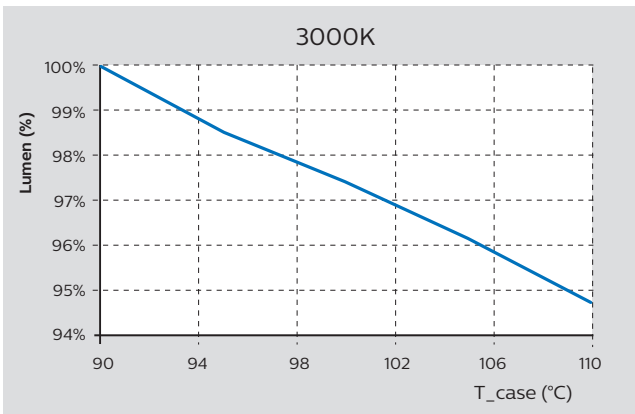


Spectral Power Distribution

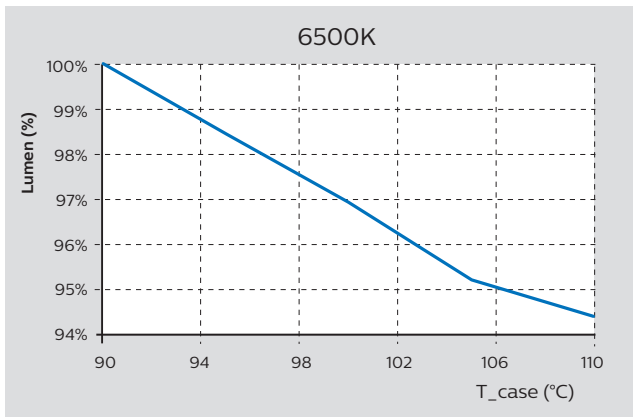


Temperature

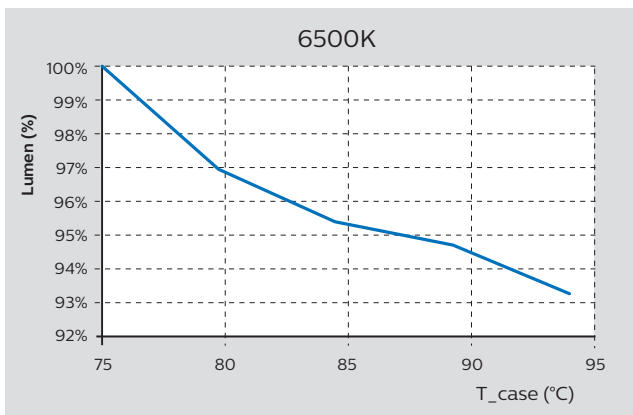
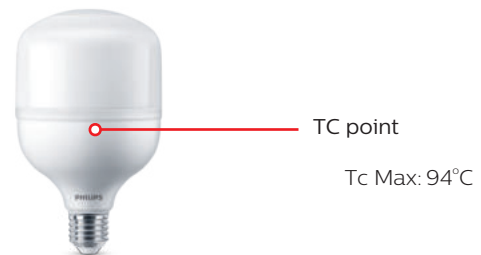
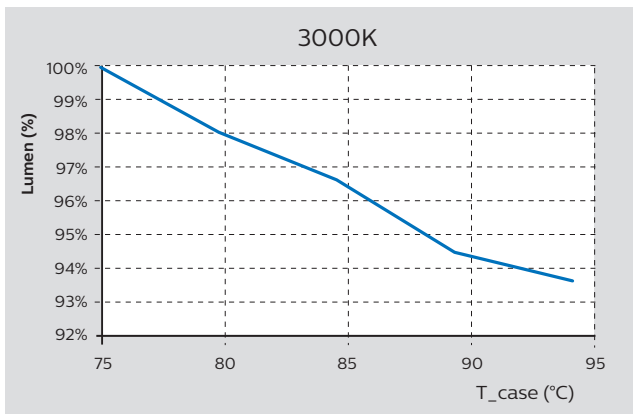
25W



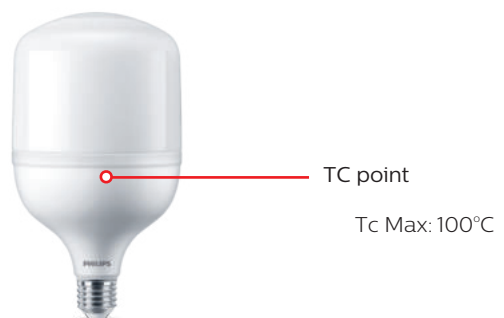
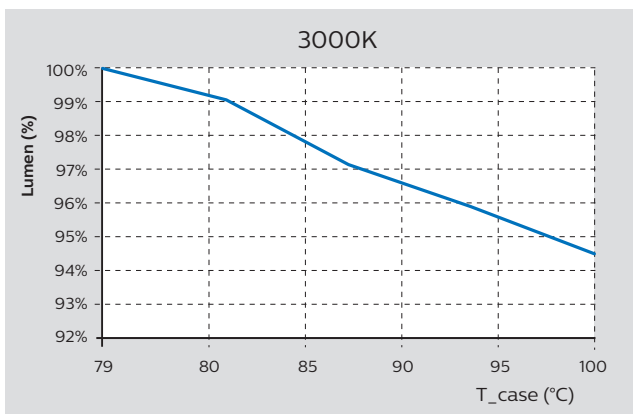
TC point
T_c Max: 110°C

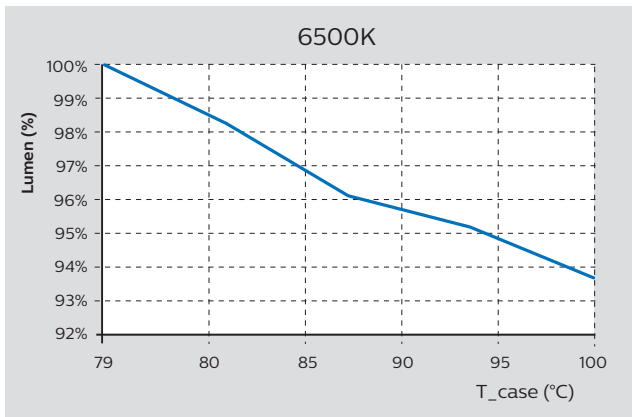


30W

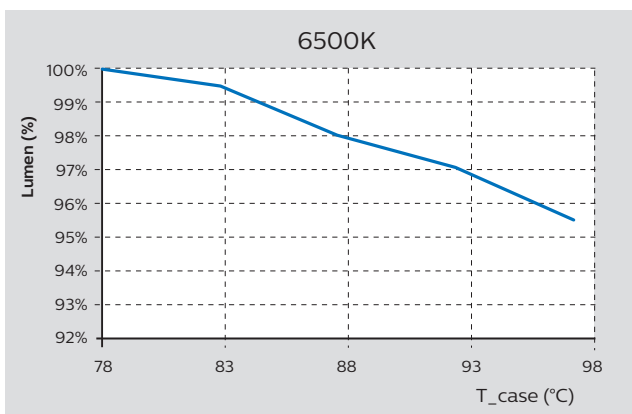
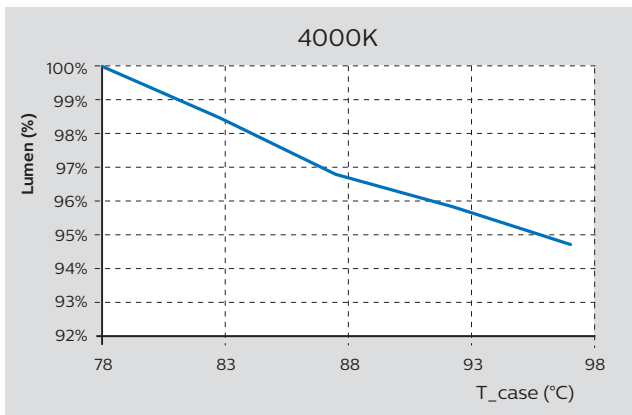
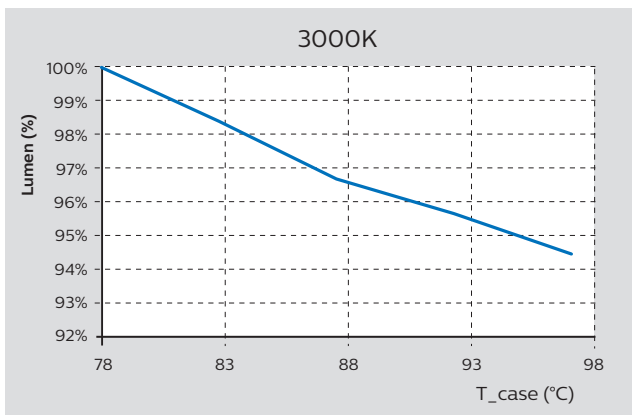


40W

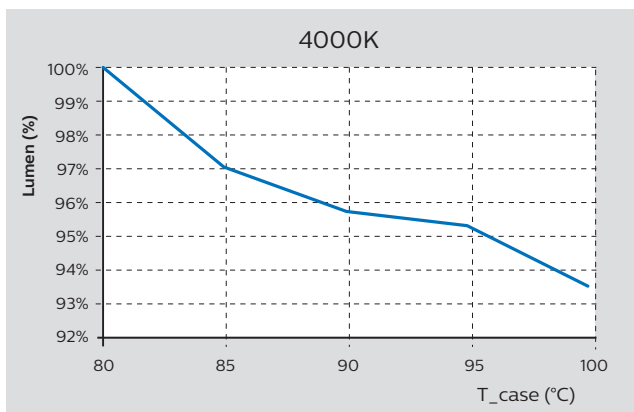




50W

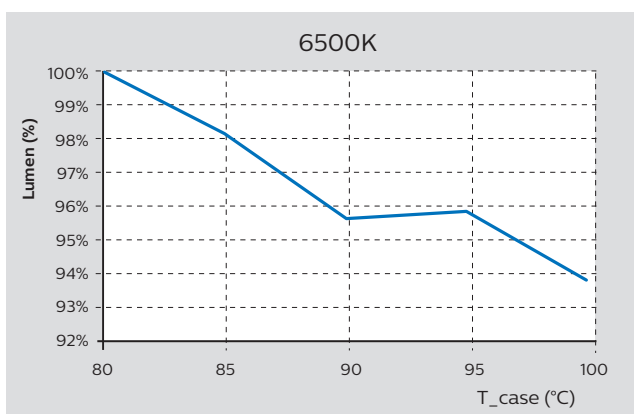


65W

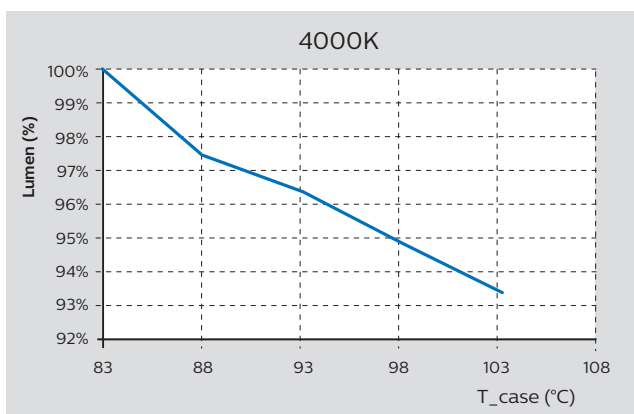


TC point

Tc Max: 99.3°C

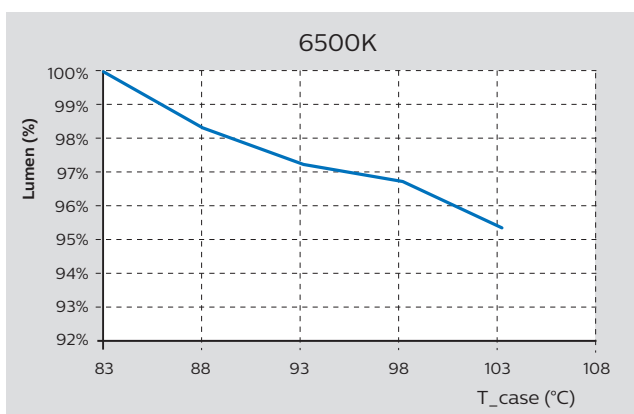


80W



TC point

Tc Max: 103.2°C

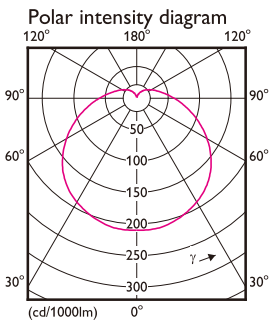


Photometric Diagrams

TForce Core HB 25W E27 830 CN GN3

1 x 2600 lm

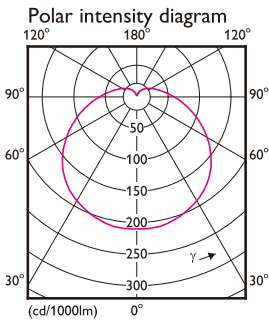
Light output ratio	1.00	CIE flux code	36 65 86 82 100
Service upward	0.18	UGRcen (4Hx8H, 0.25H)	27
Service downward	0.82		



TForce Core HB 25W E27 865 CN GN3

1 x 2700 lm

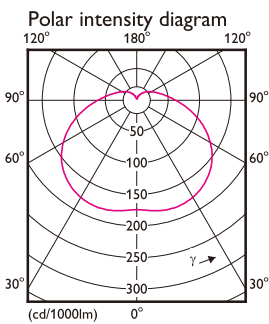
Light output ratio	1.00	CIE flux code	36 65 86 82 100
Service upward	0.18	UGRcen (4Hx8H, 0.25H)	27
Service downward	0.82		



TForce Core HB 30W E27 830 CN GN3

1 x 3000 lm

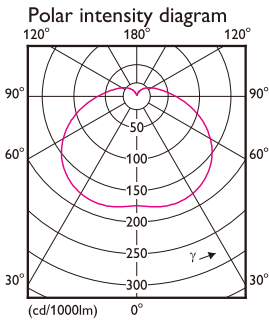
Light output ratio	1.00	CIE flux code	34 63 85 82 100
Service upward	0.18	UGRcen (4Hx8H, 0.25H)	27
Service downward	0.82		



TForce Core HB 30W E27 865 CN GN3

1 x 3200 lm

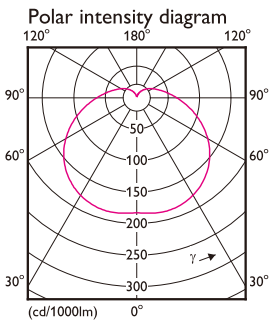
Light output ratio	1.00	CIE flux code	34 63 85 82 100
Service upward	0.18	UGRcen (4Hx8H, 0.25H)	27
Service downward	0.82		



TForce Core HB 40W E27 830 CN GN3

1 x 3700 lm

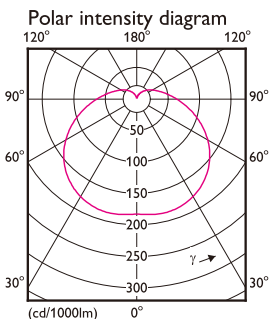
Light output ratio	1.00	CIE flux code	35 63 85 81 100
Service upward	0.19	UGRcen (4Hx8H, 0.25H)	26
Service downward	0.81		



TForce Core HB 40W E27 865 CN GN3

1 x 4000 lm

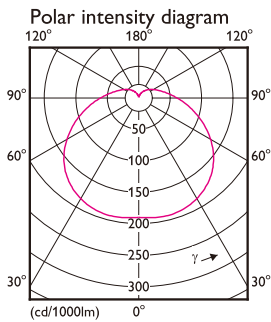
Light output ratio	1.00	CIE flux code	34 63 85 81 100
Service upward	0.19	UGRcen (4Hx8H, 0.25H)	26
Service downward	0.81		



TForce Core HB 50W E27 830 CN GN3

1 x 4800 lm

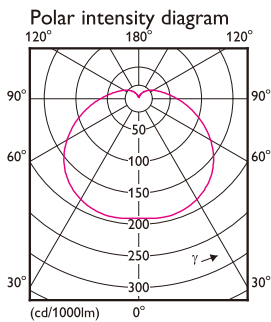
Light output ratio	1.00	CIE flux code	35 64 85 82 100
Service upward	0.18	UGRcen (4Hx8H, 0.25H)	26
Service downward	0.82		



TForce Core HB 50W E27 865 CN GN3

1 x 5000 lm

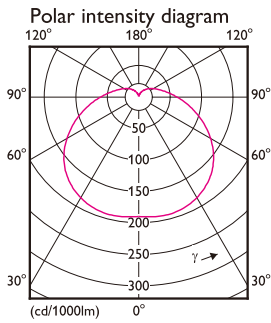
Light output ratio	1.00	CIE flux code	35 64 85 82 100
Service upward	0.18	UGRcen (4Hx8H, 0.25H)	26
Service downward	0.82		



TForce Core HB 50W E40 865 CN GN3

1 x 5000 lm

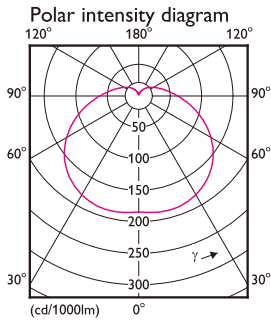
Light output ratio	1.00	CIE flux code	35 64 85 82 100
Service upward	0.18	UGRcen (4Hx8H, 0.25H)	26
Service downward	0.82		



TForce Core HB 65W E40 840 CN GN3

1 x 7000 lm

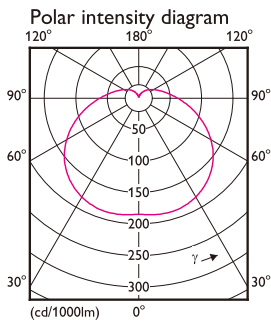
Light output ratio	1.00	CIE flux code	35 64 85 82 100
Service upward	0.18	UGRcen (4Hx8H, 0.25H)	27
Service downward	0.82		



TForce Core HB 65W E40 865 CN GN3

1 x 7000 lm

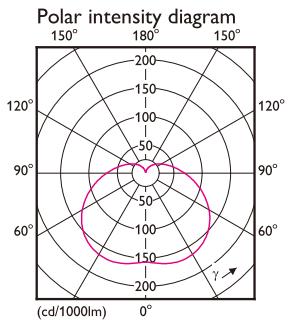
Light output ratio	1.00	CIE flux code	35 64 85 82 100
Service upward	0.18	UGRcen (4Hx8H, 0.25H)	27
Service downward	0.82		



TForce Core HB 80W E40 840 CN GN3

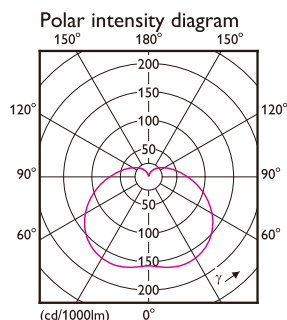
1 x 9000 lm

Light output ratio	1.00	CIE flux code	32 61 84 79 100
Service upward	0.21	UGRcen (4Hx8H, 0.25H)	27
Service downward	0.79		



Light output ratio 1.00
Service upward 0.21
Service downward 0.79

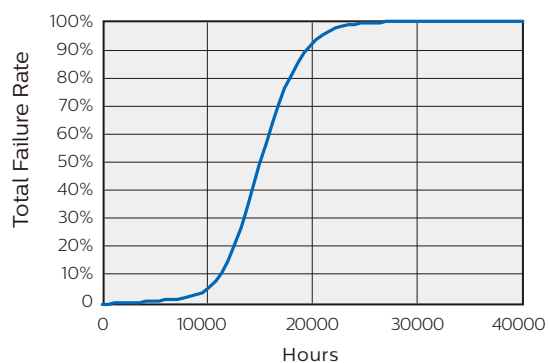
CIE flux code 32 61 84 79 100
UGR_{cen} (4Hx8H, 0.25H) 27



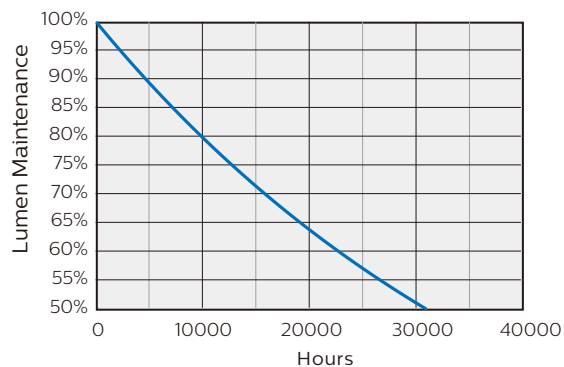
Lifetime + Sustainability

25W/30W/40W/50W

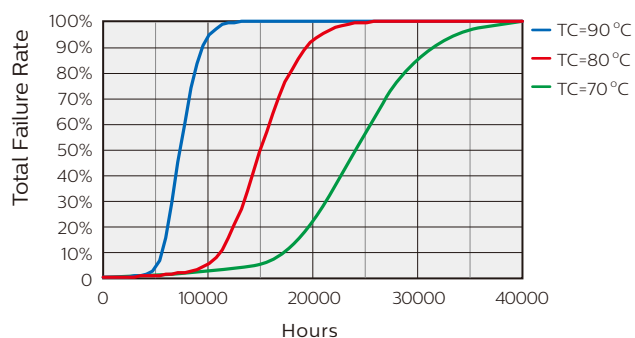
Lifetime vs. Failure Rate @ Ta 25 °C



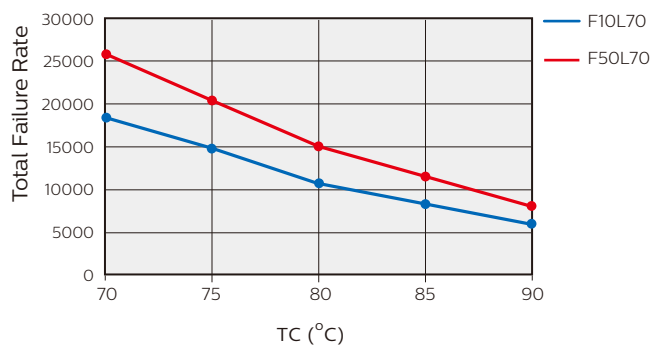
Lifetime and Lumen Maintenance



Failure Rate vs Lifetime



Lifetime vs. Tcase

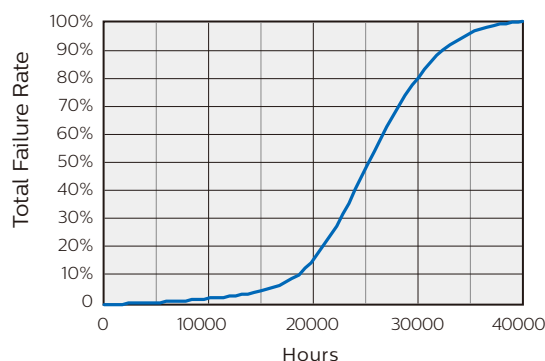


- Philips TrueForce LED Industrial and Retail lamp has a lifetime of 15,000 hours, defined as the number of hours when 50% of a large group of identical lamps fall below 70% of its initial lumens.

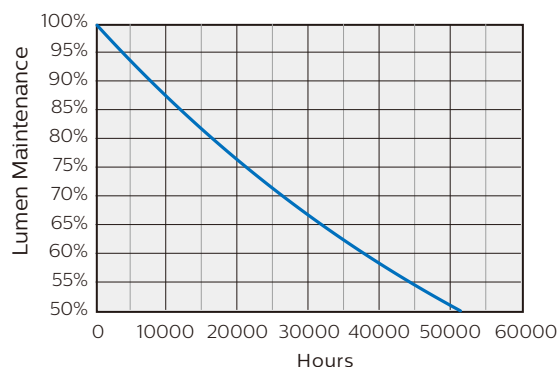
- Lifetime estimation based on the application environment condition: please refer to the Tc for lifetime forecast.

65W/80W

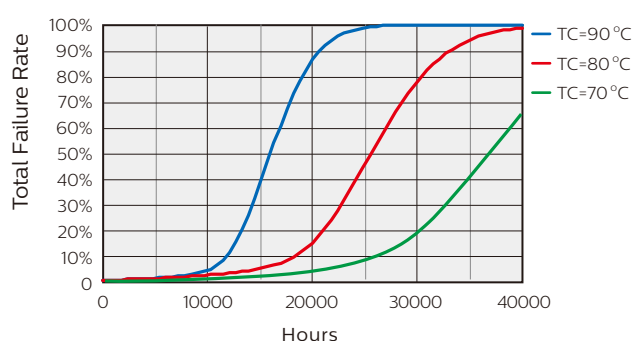
Lifetime vs. Failure Rate @ Ta 25 °C



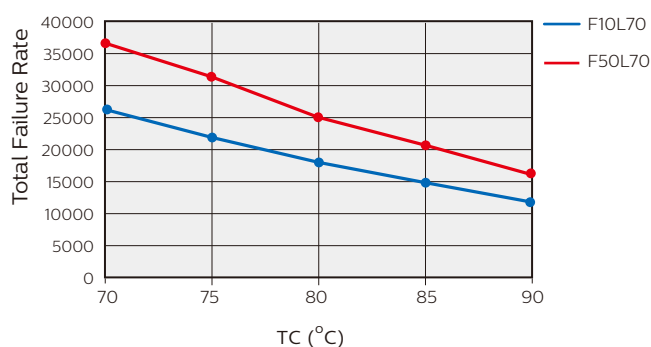
Lifetime and Lumen Maintenance



Failure Rate vs. Lifetime



Lifetime vs. Tcase



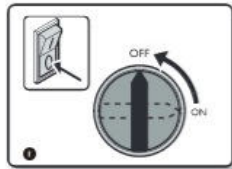
- Philips TrueForce LED Industrial and Retail lamp has a lifetime of 25,000 hours, defined as the number of hours when 50% of a large group of identical lamps fall below 70% of its initial lumens.
- Lifetime estimation based on the application environment condition: please refer to the Tc for lifetime forecast.

Installation Guide

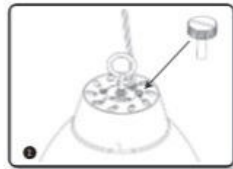
Configuration with lamp holder and reflector:

	TForce 12inch lamp reflector 9290019667	TForce 16inch lamp reflector 9290019668
TForce E27 lamp holder 92900 9665	Y	Y
TForce E40 lamp holder 92900 9666	Not recommend	Y

• with reflector



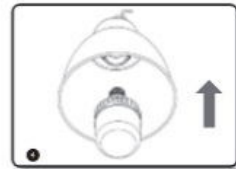
1. Turn off the switch before installation.



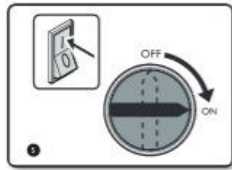
2. Fix lamp holder with reflector by two screws, which include the package of reflector.



3. Connect wire with mains power and hang on the lamp holder.

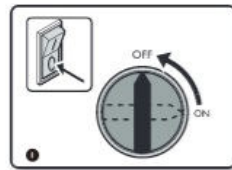


4. Install lamp into the lamp holder.



5. Turn on the switch.

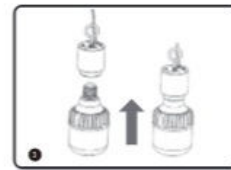
• Without reflector



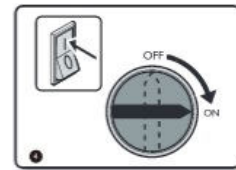
1. Turn off the switch before installation.



2. Connect wire with mains power and hang on the lamp holder.



3. Install lamp into the lamp holder.



4. Turn on the switch.

IMPORTANT!

- Always turn off power supply before commencing work!
- Use only Philips LED TrueForce lamps, maximum power is no more than 200W for E40 lamp, TForce 200W E40, and no more than 50W for E27 lamp, TForce 50W E27, for the whole lamp family, please refer to Philips website.
- Suitable for Indoor use only.
- If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.
- Only to be installed outside arms reach.
- Terminal block doesn't included in the package, please use terminal box (dimension can't be smaller than 10×20×25mm)
- Installation must be performed by a qualified person.
- Luminaire cable: L: red; N: black, 60227 IEC 52, 2X0.75mm² double insulation wiring.
- For latest information, please refer to www.lighting.Philips.com.
- In case of doubt, please consult Philips representative.

Distributed By

Choo Chiang Marketing Pte Ltd

(a subsidiary of Choo Chiang Holdings Ltd)

Tel: +65 6368 5922 | fax: +65 6363 5922

Head Office: 10 Woodlands Loop S(738388)

website: www.choochiang.com | facebook: facebook.com/choochiang.sg



CHOO CHIANG

SINGAPORE
QUALITY CLASS



bizSAFE₃

ISO9001
CERTIFIED



© 2020 Signify

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.

07/2020

www.philips.com/lighting