



Ideal for HPI/SON/HPL LED replacement in Highbay application

TrueForce LED Industrial and Retail (Highbay – HPI/SON/HPL)

Philips TrueForce LED Industrial and Retail lamps give you a quick and easy payback solution to replace HID lamps in Highbay application. The solution gives you the LED benefits of energy-efficiency and long-lifetime, plus they come for a low initial investment. With unique lamp design and compatibility, you can directly retrofit HID lamps with TrueForce LED lamps without changing the fixtures or gear. Multiple beam angle options and high colour rendering index enhance the lighting distribution while creating a comfortable, safe and high productivity environment.

Benefits

- Instant upgrade and easy to install - less time consuming and safer working at height
- Great payback (<2 years) and extended energy savings of 65% vs. existing conventional systems
- Low initial investment

Features

- Direct lamp replacement solution without changing the fixture or gear
- High energy efficiency with directional light
- Long lifetime 50,000hrs for operation efficiency
- Crispy white light 4000K, CRI80 for better visual colour
- Product weight < 1,3kg

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Application

- Industrial - factories, warehouses, distribution centres
- Retail - hyper markets, shopping malls
- Others - transportation hubs, convention centres, sport/city halls

Warnings and Safety

- EM version requires an EM ballast to operate. Please refer to the installation guide or consult a Philips Lighting representative.

Versions



LEDTForce Entry GC T120



LEDTForce 50W Tshape E40



LEDTForce 30W Tshape E27



LEDTForce 40W Tshape E27



LEDTForce Entry GC T120

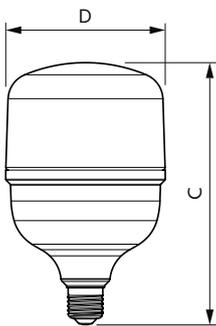


LEDTForce 50W Tshape E27



LEDTForce MV T70 E27

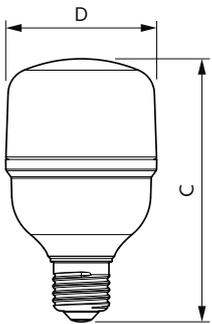
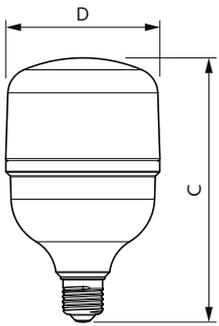
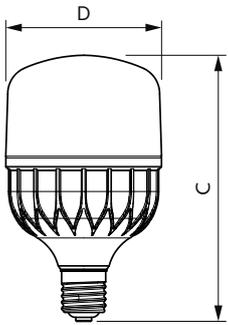
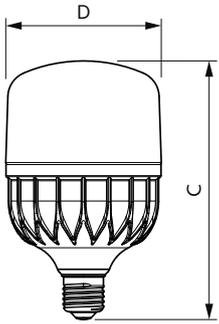
Dimensional drawing



Product	D	C
TForce ESS LED HB MV 3.5Klm 35W 865 E27	102 mm	174 mm
TForce ESS LED HB MV 3.5Klm 35W 865 E27	102 mm	174 mm
TForce ESS LED HB MV 3.5Klm 35W865E27 OL	102 mm	174 mm

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Dimensional drawing



Product	D	C
TForce Core HB 27-30W E27 865	100 mm	168 mm
TForce Core HB 36-40W E27 865	118 mm	194 mm
TForce Core HB 45-50W E27 865	138 mm	221 mm

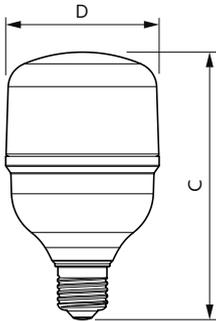
Product	D	C
TForce Core HB 45-50W E40 865	138 mm	238 mm

Product	D	C
TForce ESS LED HB MV 4.5Klm 45W 865 E27	121 mm	199 mm
TForce ESS LED HB MV 4.5Klm 45W 865 E27	121 mm	199 mm
TForce ESS LED HB MV 4.5Klm 45W865E27 OL	121 mm	199 mm

Product	D	C
TForce ESS LED HB MV 2Klm 20W 865 E27	72 mm	125 mm
TForce ESS LED HB MV 2Klm 20W 865 E27 OL	72 mm	125 mm

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Dimensional drawing



Product	D	C
TForce ESS LED HB MV 2.5Klm 25W 865 E27	82 mm	141 mm
TForce ESS LED HB MV 2.7Klm 25W 865 E27	82 mm	141 mm
TForce ESS LED HB MV 2.7Klm 25W865E27 OL	82 mm	141 mm

General Information	
Switching Cycle	50,000
Nominal lifetime	15,000 hour(s)
Light Technical	
Correlated Color Temperature (Nom)	6500 K
Color rendering index (CRI)	80
Color Code	865
LLMF At End Of Nominal Lifetime (Nom)	70 %
Operating and Electrical	
Input Frequency	50 to 60 Hz
Starting Time (Nom)	0.5 s
Controls and Dimming	
Dimmable	No
Mechanical and Housing	
Bulb Finish	Frosted

General Information

Order Code	Full Product Name	Cap-Base
929003001092	TForce ESS LED HB MV 4.5Klm 45W865E27 OL	E27
929003632108	TForce ESS LED HB MV 4.5Klm 45W 865 E27	E27
929003712708	TForce ESS LED HB MV 4.5Klm 45W 865 E27	E27
929003000692	TForce ESS LED HB MV 2.7Klm 25W865E27 OL	E27
929003631908	TForce ESS LED HB MV 2.7Klm 25W 865 E27	E27
929003712508	TForce ESS LED HB MV 2.5Klm 25W 865 E27	E27
929001999612	TForce Core HB 45-50W E40 865	E40
929001987912	TForce Core HB 27-30W E27 865	E27
929001988112	TForce Core HB 36-40W E27 865	E27
929003000892	TForce ESS LED HB MV 3.5Klm 35W865E27 OL	E27
929003632008	TForce ESS LED HB MV 3.5Klm 35W 865 E27	E27
929003712608	TForce ESS LED HB MV 3.5Klm 35W 865 E27	E27
929001988312	TForce Core HB 45-50W E27 865	E27
929003631808	TForce ESS LED HB MV 2Klm 20W 865 E27	E27
929003764992	TForce ESS LED HB MV 2Klm 20W 865 E27 OL	E27

Light Technical

Order Code	Full Product Name	Beam Angle (Nom)	Luminous Flux
929003001092	TForce ESS LED HB MV 4.5Klm 45W865E27 OL	180 degree(s)	4,500 lm
929003632108	TForce ESS LED HB MV 4.5Klm 45W 865 E27	180 degree(s)	4,500 lm
929003712708	TForce ESS LED HB MV 4.5Klm 45W 865 E27	180 degree(s)	4,500 lm
929003000692	TForce ESS LED HB MV 2.7Klm 25W865E27 OL	180 degree(s)	2,700 lm
929003631908	TForce ESS LED HB MV 2.7Klm 25W 865 E27	180 degree(s)	2,700 lm
929003712508	TForce ESS LED HB MV 2.5Klm 25W 865 E27	180 degree(s)	2,500 lm
929001999612	TForce Core HB 45-50W E40 865	200 degree(s)	4,500 lm

Order Code	Full Product Name	Beam Angle (Nom)	Luminous Flux
929001987912	TForce Core HB 27-30W E27 865	200 degree(s)	2,700 lm
929001988112	TForce Core HB 36-40W E27 865	200 degree(s)	3,600 lm
929003000892	TForce ESS LED HB MV 3.5Klm 35W865E27 OL	180 degree(s)	3,500 lm
929003632008	TForce ESS LED HB MV 3.5Klm 35W 865 E27	180 degree(s)	3,500 lm
929003712608	TForce ESS LED HB MV 3.5Klm 35W 865 E27	180 degree(s)	3,500 lm
929001988312	TForce Core HB 45-50W E27 865	200 degree(s)	4,500 lm
929003631808	TForce ESS LED HB MV 2Klm 20W 865 E27	180 degree(s)	2,000 lm
929003764992	TForce ESS LED HB MV 2Klm 20W 865 E27 OL	180 degree(s)	2,000 lm

TrueForce LED Industrial and Retail (Highbay – HPI/SON/HPL)

Operating and Electrical

Order Code	Full Product Name	Line Frequency	Power
			Consumption
929003001092	TForce ESS LED HB MV 4.5Klm 45W865E27 OL	-	45 W
929003632108	TForce ESS LED HB MV 4.5Klm 45W 865 E27	50 to 60 Hz	45 W
929003712708	TForce ESS LED HB MV 4.5Klm 45W 865 E27	-	45 W
929003000692	TForce ESS LED HB MV 2.7Klm 25W865E27 OL	-	25 W
929003631908	TForce ESS LED HB MV 2.7Klm 25W 865 E27	50 to 60 Hz	25 W
929003712508	TForce ESS LED HB MV 2.5Klm 25W 865 E27	-	25 W
929001999612	TForce Core HB 45-50W E40 865	50 to 60 Hz	50 W

Order Code	Full Product Name	Line Frequency	Power
			Consumption
929001987912	TForce Core HB 27-30W E27 865	50 to 60 Hz	30 W
929001988112	TForce Core HB 36-40W E27 865	50 to 60 Hz	40 W
929003000892	TForce ESS LED HB MV 3.5Klm 35W865E27 OL	-	35 W
929003632008	TForce ESS LED HB MV 3.5Klm 35W 865 E27	50 to 60 Hz	35 W
929003712608	TForce ESS LED HB MV 3.5Klm 35W 865 E27	-	35 W
929001988312	TForce Core HB 45-50W E27 865	50 to 60 Hz	50 W
929003631808	TForce ESS LED HB MV 2Klm 20W 865 E27	50 to 60 Hz	20 W
929003764992	TForce ESS LED HB MV 2Klm 20W 865 E27 OL	-	20 W

Temperature

Order Code	Full Product Name	Ambient temperature	T-Case
		range	Maximum (Nom)
929003001092	TForce ESS LED HB MV 4.5Klm 45W865E27 OL	-20 to +45 °C	77 °C
929003632108	TForce ESS LED HB MV 4.5Klm 45W 865 E27	-20 °C to 45 °C	77 °C
929003712708	TForce ESS LED HB MV 4.5Klm 45W 865 E27	-20 to +45 °C	78 °C
929003000692	TForce ESS LED HB MV 2.7Klm 25W865E27 OL	-20 to +45 °C	77 °C
929003631908	TForce ESS LED HB MV 2.7Klm 25W 865 E27	-20 °C to 45 °C	77 °C
929003712508	TForce ESS LED HB MV 2.5Klm 25W 865 E27	-20 to +45 °C	78 °C
929001999612	TForce Core HB 45-50W E40 865	-20 °C to 45 °C	90 °C
929001987912	TForce Core HB 27-30W E27 865	-20 °C to 45 °C	80 °C

Order Code	Full Product Name	Ambient temperature	T-Case
		range	Maximum (Nom)
929001988112	TForce Core HB 36-40W E27 865	-20 °C to 45 °C	90 °C
929003000892	TForce ESS LED HB MV 3.5Klm 35W865E27 OL	-20 to +45 °C	78 °C
929003632008	TForce ESS LED HB MV 3.5Klm 35W 865 E27	-20 °C to 45 °C	78 °C
929003712608	TForce ESS LED HB MV 3.5Klm 35W 865 E27	-20 to +45 °C	79 °C
929001988312	TForce Core HB 45-50W E27 865	-20 °C to 45 °C	90 °C
929003631808	TForce ESS LED HB MV 2Klm 20W 865 E27	-20 °C to 45 °C	82 °C
929003764992	TForce ESS LED HB MV 2Klm 20W 865 E27 OL	-20 to +45 °C	82 °C

Mechanical and Housing

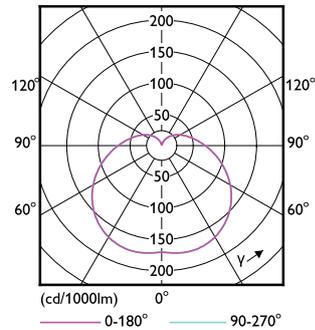
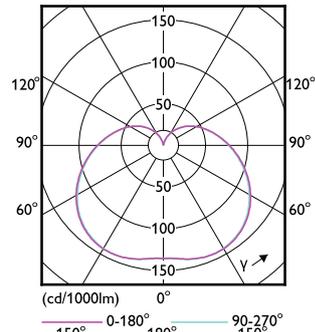
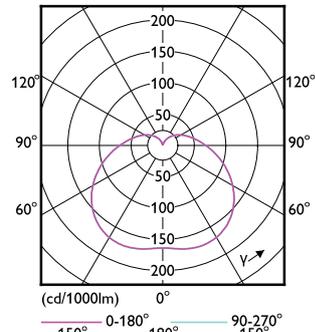
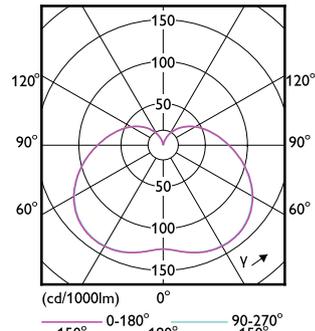
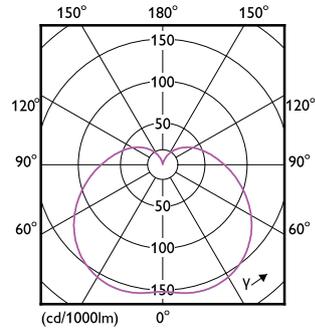
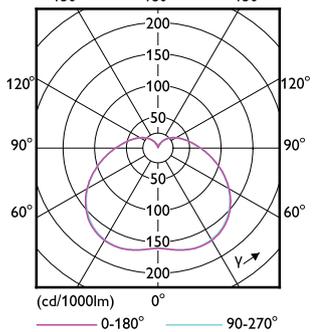
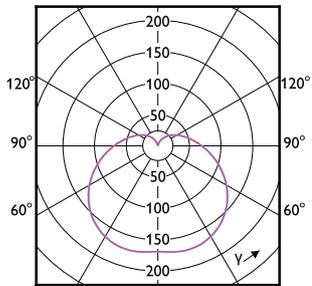
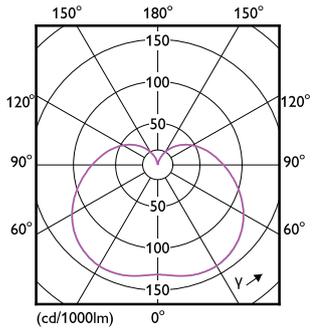
Order Code	Full Product Name	Bulb Shape
929003001092	TForce ESS LED HB MV 4.5Klm 45W865E27 OL	T120
929003632108	TForce ESS LED HB MV 4.5Klm 45W 865 E27	T120
929003712708	TForce ESS LED HB MV 4.5Klm 45W 865 E27	T120
929003000692	TForce ESS LED HB MV 2.7Klm 25W865E27 OL	T80
929003631908	TForce ESS LED HB MV 2.7Klm 25W 865 E27	T80
929003712508	TForce ESS LED HB MV 2.5Klm 25W 865 E27	T80
929001999612	TForce Core HB 45-50W E40 865	T-shape
929001987912	TForce Core HB 27-30W E27 865	T-shape

Order Code	Full Product Name	Bulb Shape
929001988112	TForce Core HB 36-40W E27 865	T-shape
929003000892	TForce ESS LED HB MV 3.5Klm 35W865E27 OL	T100
929003632008	TForce ESS LED HB MV 3.5Klm 35W 865 E27	T100
929003712608	TForce ESS LED HB MV 3.5Klm 35W 865 E27	T100
929001988312	TForce Core HB 45-50W E27 865	T-shape
929003631808	TForce ESS LED HB MV 2Klm 20W 865 E27	T70
929003764992	TForce ESS LED HB MV 2Klm 20W 865 E27 OL	T70

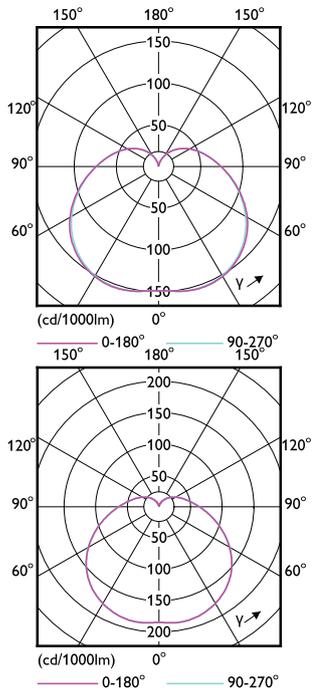
Approval and Application

TrueForce LED Industrial and Retail (Highbay – HPI/SO/SON/HPL)

Order Code	Full Product Name	Energy Consumption kWh/1000 h
929003001092	TForce ESS LED HB MV 4.5Klm 45W865E27 OL -	-
929003632108	TForce ESS LED HB MV 4.5Klm 45W 865 E27 -	-
929003712708	TForce ESS LED HB MV 4.5Klm 45W 865 E27 -	-
929003000692	TForce ESS LED HB MV 2.7Klm 25W865E27 OL -	-
929003631908	TForce ESS LED HB MV 2.7Klm 25W 865 E27 -	-
929003712508	TForce ESS LED HB MV 2.5Klm 25W 865 E27 -	-
929001999612	TForce Core HB 45-50W E40 865	- kWh
929001987912	TForce Core HB 27-30W E27 865	- kWh
929001988112	TForce Core HB 36-40W E27 865	- kWh
929003000892	TForce ESS LED HB MV 3.5Klm 35W865E27 OL -	-
929003632008	TForce ESS LED HB MV 3.5Klm 35W 865 E27 -	-
929003712608	TForce ESS LED HB MV 3.5Klm 35W 865 E27 -	-
929001988312	TForce Core HB 45-50W E27 865	- kWh
929003631808	TForce ESS LED HB MV 2Klm 20W 865 E27 -	-
929003764992	TForce ESS LED HB MV 2Klm 20W 865 E27 OL -	-



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