



# 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

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

### 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



E40 Others



E40 Others



E27 T-shape Frosted



E27 T-shape Frosted



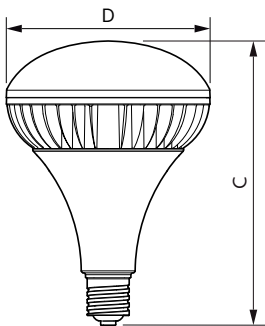
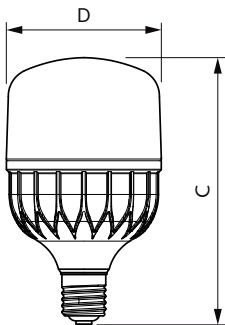
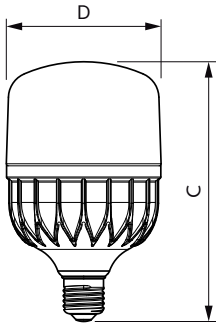
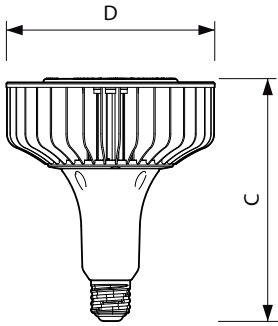
E27 T-shape Frosted



E40 T-shape Frosted

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

## Dimensional drawing



Product	D	C
TrueForce Core HB 200-160W E40 840 WB CN	211 mm	263 mm
TrueForce Core HB 200-160W E40 840 NB GM	211 mm	263 mm
TrueForce Core HB 200-160W E40 865 WB CN	211 mm	252 mm
TrueForce Core HB 200-160W E40 865 NB CN	211 mm	252 mm
TrueForce Core HB 200-160W E40 865 WB GM	211 mm	252 mm
TrueForce LED HPI ND 110-88W E40 840 60D	210 mm	250 mm
TrueForce LED HPI ND 200-145W E40 840 120D	210 mm	250 mm
TrueForce LED HPI ND 200-145W E40 840 60D	210 mm	250 mm
TrueForce LED HPI ND 110-88W E40 840 120D	210 mm	250 mm
TrueForce Core HB 200-160W E40 840 NB CN	211 mm	263 mm
TrueForce Core HB 200-160W E40 865 NB GM	211 mm	252 mm
TrueForce Core HB 200-160W E40 865 WB LA	211 mm	252 mm
TrueForce Core HB 200-160W E40 840 WB LA	211 mm	252 mm
TrueForce Core HB 200-160W E40 840 WB GM	211 mm	263 mm

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

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

Product	D	C
TrueForce HB 100-85W E40 865 120D GM	190 mm	270 mm
TrueForce HB 100-85W E40 865 120D LA	190 mm	270 mm
TrueForce HB 100-85W E40 840 120D LA	190 mm	270 mm
TrueForce HB 100-85W E40 840 120D CN	190 mm	270 mm
TrueForce HB 100-85W E40 865 120D CN	190 mm	270 mm
TrueForce HB 100-85W E40 840 120D GM	190 mm	270 mm

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

Controls and Dimming	
Dimmable	No
General Information	
Switching Cycle	50000X
Light Technical	
Color Rendering Index (Nom)	80
Llmf At End Of Nominal Lifetime (Nom)	70 %

## Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/1000 h	Energy Efficiency Label (EEL)	Order Code	Full Product Name	Energy Consumption kWh/1000 h	Energy Efficiency Label (EEL)
929001356802	TrueForce LED HPI ND 110-88W E40 840 60D	97 kWh	A+	929001812912	TrueForce Core HB 200-160W E40 840 WB LA	- kWh	Not applicable
929001356902	TrueForce LED HPI ND 110-88W E40 840 120D	97 kWh	A+	929001813112	TrueForce Core HB 200-160W E40 865 WB LA	- kWh	Not applicable
929001357002	TrueForce LED HPI ND 200-145W E40 840 60D	160 kWh	A+	929001875708	TrueForce HB 100-85W E40 840 120D GM	85 kWh	A+
929001357102	TrueForce LED HPI ND 200-145W E40 840 120D	160 kWh	A+	929001875710	TrueForce HB 100-85W E40 840 120D CN	85 kWh	A+
929001812408	TrueForce Core HB 200-160W E40 840 NB GM	- kWh	A+	929001875712	TrueForce HB 100-85W E40 840 120D LA	85 kWh	A+
929001812410	TrueForce Core HB 200-160W E40 840 NB CN	- kWh	Not applicable	929001875908	TrueForce HB 100-85W E40 865 120D GM	85 kWh	A+
929001812508	TrueForce Core HB 200-160W E40 840 WB GM	- kWh	A+	929001875910	TrueForce HB 100-85W E40 865 120D CN	85 kWh	A+
929001812510	TrueForce Core HB 200-160W E40 840 WB CN	- kWh	Not applicable	929001875912	TrueForce HB 100-85W E40 865 120D LA	85 kWh	A+
929001812608	TrueForce Core HB 200-160W E40 865 NB GM	- kWh	A+	929001987912	TrueForce Core HB 27-30W E27 865	- kWh	Not applicable
929001812610	TrueForce Core HB 200-160W E40 865 NB CN	- kWh	Not applicable	929001988112	TrueForce Core HB 36-40W E27 865	- kWh	Not applicable
929001812708	TrueForce Core HB 200-160W E40 865 WB GM	- kWh	A+	929001988312	TrueForce Core HB 45-50W E27 865	- kWh	Not applicable
929001812710	TrueForce Core HB 200-160W E40 865 WB CN	- kWh	Not applicable	929001999612	TrueForce Core HB 45-50W E40 865	- kWh	Not applicable

## Operating and Electrical

Order Code	Full Product Name	Input Frequency	Voltage (Nom)	Wattage Equivalent	Power (Rated) (Nom)	Starting Time (Nom)
929001356802	TrueForce LED HPI ND 110-88W E40 840 60D	50 Hz	100-145 V	250 W	88 W	1.2 s
929001356902	TrueForce LED HPI ND 110-88W E40 840 120D	50 Hz	100-145 V	250 W	88 W	1.2 s
929001357002	TrueForce LED HPI ND 200-145W E40 840 60D	50 Hz	100-145 V	400 W	145 W	0.7 s
929001357102	TrueForce LED HPI ND 200-145W E40 840 120D	50 Hz	100-145 V	400 W	145 W	0.7 s
929001812408	TrueForce Core HB 200-160W E40 840 NB GM	50 to 60 Hz	110-277 V	400 W	160 W	0.7 s
929001812410	TrueForce Core HB 200-160W E40 840 NB CN	50 to 60 Hz	110-277 V	400 W	160 W	0.7 s
929001812508	TrueForce Core HB 200-160W E40 840 WB GM	50 to 60 Hz	110-277 V	400 W	160 W	0.7 s
929001812510	TrueForce Core HB 200-160W E40 840 WB CN	50 to 60 Hz	110-277 V	400 W	160 W	0.7 s

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

Order Code	Full Product Name	Input Frequency	Voltage (Nom)	Wattage Equivalent	Power (Rated) (Nom)	Starting Time (Nom)
929001812608	TrueForce Core HB 200-160W E40 865 NB GM	50 to 60 Hz	110-277 V	400 W	160 W	0.7 s
929001812610	TrueForce Core HB 200-160W E40 865 NB CN	50 to 60 Hz	110-277 V	400 W	160 W	0.7 s
929001812708	TrueForce Core HB 200-160W E40 865 WB GM	50 to 60 Hz	110-277 V	400 W	160 W	0.7 s
929001812710	TrueForce Core HB 200-160W E40 865 WB CN	50 to 60 Hz	110-277 V	400 W	160 W	0.7 s
929001812912	TrueForce Core HB 200-160W E40 840 WB LA	50 to 60 Hz	110-277 V	400 W	160 W	0.7 s
929001813112	TrueForce Core HB 200-160W E40 865 WB LA	50 to 60 Hz	110-277 V	400 W	160 W	0.7 s
929001875708	TrueForce HB 100-85W E40 840 120D GM	50 to 60 Hz	110-277 V	250 W	85 W	0.5 s
929001875710	TrueForce HB 100-85W E40 840 120D CN	50 to 60 Hz	110-277 V	250 W	85 W	0.5 s
929001875712	TrueForce HB 100-85W E40 840 120D LA	50 to 60 Hz	110-277 V	250 W	85 W	0.5 s
929001875908	TrueForce HB 100-85W E40 865 120D GM	50 to 60 Hz	110-277 V	250 W	85 W	0.5 s
929001875910	TrueForce HB 100-85W E40 865 120D CN	50 to 60 Hz	110-277 V	250 W	85 W	0.5 s
929001875912	TrueForce HB 100-85W E40 865 120D LA	50 to 60 Hz	110-277 V	250 W	85 W	0.5 s
929001987912	TrueForce Core HB 27-30W E27 865	50 to 60 Hz	100-240 V	40 W	30 W	0.5 s
929001988112	TrueForce Core HB 36-40W E27 865	50 to 60 Hz	100-240 V	55 W	40 W	0.5 s
929001988312	TrueForce Core HB 45-50W E27 865	50 to 60 Hz	100-240 V	70 W	50 W	0.5 s
929001999612	TrueForce Core HB 45-50W E40 865	50 to 60 Hz	100-240 V	70 W	50 W	0.5 s

## General Information

Order Code	Full Product Name	Cap-Base	Nominal Lifetime (Nom)	Order Code	Full Product Name	Cap-Base	Nominal Lifetime (Nom)
929001356802	TrueForce LED HPI ND 110-88W E40 840 60D	E40	50000 h	929001812708	TrueForce Core HB 200-160W E40 865 WB GM	E40	25000 h
929001356902	TrueForce LED HPI ND 110-88W E40 840 120D	E40	50000 h	929001812710	TrueForce Core HB 200-160W E40 865 WB CN	E40	25000 h
929001357002	TrueForce LED HPI ND 200-145W E40 840 60D	E40	50000 h	929001812912	TrueForce Core HB 200-160W E40 840 WB LA	E40	25000 h
929001357102	TrueForce LED HPI ND 200-145W E40 840 120D	E40	50000 h	929001813112	TrueForce Core HB 200-160W E40 865 WB LA	E40	25000 h
929001812408	TrueForce Core HB 200-160W E40 840 NB GM	E40	25000 h	929001875708	TrueForce HB 100-85W E40 840 120D GM	E40	25000 h
929001812410	TrueForce Core HB 200-160W E40 840 NB CN	E40	25000 h	929001875710	TrueForce HB 100-85W E40 840 120D CN	E40	25000 h
929001812508	TrueForce Core HB 200-160W E40 840 WB GM	E40	25000 h	929001875712	TrueForce HB 100-85W E40 840 120D LA	E40	25000 h
929001812510	TrueForce Core HB 200-160W E40 840 WB CN	E40	25000 h	929001875908	TrueForce HB 100-85W E40 865 120D GM	E40	25000 h
929001812608	TrueForce Core HB 200-160W E40 865 NB GM	E40	25000 h	929001875910	TrueForce HB 100-85W E40 865 120D CN	E40	25000 h
929001812610	TrueForce Core HB 200-160W E40 865 NB CN	E40	25000 h	929001875912	TrueForce HB 100-85W E40 865 120D LA	E40	25000 h
				929001987912	TrueForce Core HB 27-30W E27 865	E27	15000 h
				929001988112	TrueForce Core HB 36-40W E27 865	E27	15000 h
				929001988312	TrueForce Core HB 45-50W E27 865	E27	15000 h
				929001999612	TrueForce Core HB 45-50W E40 865	E40	15000 h

## Light Technical

Order Code	Full Product Name	Correlated				Order Code	Full Product Name	Correlated			
		Beam Angle (Nom)	Color Code	Temperature (Nom)	Luminous Flux (Nom)			Beam Angle (Nom)	Color Code	Temperature (Nom)	Luminous Flux (Nom)
929001356802	TrueForce LED HPI ND 110-88W E40 840 60D	60 °	840	4000 K	11000 lm	929001356902	TrueForce LED HPI ND 110-88W E40 840 120D	120 °	840	4000 K	11000 lm

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

Order Code	Full Product Name	Beam Angle (Nom)	Correlated Color		Luminous Flux (Nom)
			Color Code	Temperature (Nom)	
929001357002	TrueForce LED HPI ND 200-145W E40 840 60D	60 °	840	4000 K	20000 lm
929001357102	TrueForce LED HPI ND 200-145W E40 840 120D	120 °	840	4000 K	20000 lm
929001812408	TrueForce Core HB 200-160W E40 840 NB GM	70 °	840	4000 K	20000 lm
929001812410	TrueForce Core HB 200-160W E40 840 NB CN	70 °	840	4000 K	20000 lm
929001812508	TrueForce Core HB 200-160W E40 840 WB GM	130 °	840	4000 K	20000 lm
929001812510	TrueForce Core HB 200-160W E40 840 WB CN	130 °	840	4000 K	20000 lm
929001812608	TrueForce Core HB 200-160W E40 865 NB GM	70 °	865	6500 K	20000 lm
929001812610	TrueForce Core HB 200-160W E40 865 NB CN	70 °	865	6500 K	20000 lm
929001812708	TrueForce Core HB 200-160W E40 865 WB GM	130 °	865	6500 K	20000 lm
929001812710	TrueForce Core HB 200-160W E40 865 WB CN	130 °	865	6500 K	20000 lm
929001812912	TrueForce Core HB 200-160W E40 840 WB LA	130 °	840	4000 K	20000 lm

Order Code	Full Product Name	Beam Angle (Nom)	Correlated Color		Luminous Flux (Nom)
			Color Code	Temperature (Nom)	
929001813112	TrueForce Core HB 200-160W E40 865 WB LA	130 °	865	6500 K	20000 lm
929001875708	TrueForce HB 100-85W E40 840 120D GM	120 °	840	4000 K	10000 lm
929001875710	TrueForce HB 100-85W E40 840 120D CN	120 °	840	4000 K	10000 lm
929001875712	TrueForce HB 100-85W E40 840 120D LA	120 °	840	4000 K	10000 lm
929001875908	TrueForce HB 100-85W E40 865 120D GM	120 °	865	6500 K	10000 lm
929001875910	TrueForce HB 100-85W E40 865 120D CN	120 °	865	6500 K	10000 lm
929001875912	TrueForce HB 100-85W E40 865 120D LA	120 °	865	6500 K	10000 lm
929001987912	TrueForce Core HB 27-30W E27 865	200 °	865	6500 K	2700 lm
929001988112	TrueForce Core HB 36-40W E27 865	200 °	865	6500 K	3600 lm
929001988312	TrueForce Core HB 45-50W E27 865	200 °	865	6500 K	4500 lm
929001999612	TrueForce Core HB 45-50W E40 865	200 °	865	6500 K	4500 lm

### Mechanical and Housing

Order Code	Full Product Name	Bulb Finish	Bulb Shape
929001356802	TrueForce LED HPI ND 110-88W E40 840 60D	-	Others
929001356902	TrueForce LED HPI ND 110-88W E40 840 120D	-	Others
929001357002	TrueForce LED HPI ND 200-145W E40 840 60D	-	Others
929001357102	TrueForce LED HPI ND 200-145W E40 840 120D	-	Others
929001812408	TrueForce Core HB 200-160W E40 840 NB GM	Frosted	T50
929001812410	TrueForce Core HB 200-160W E40 840 NB CN	Frosted	T50

Order Code	Full Product Name	Bulb Finish	Bulb Shape
929001812508	TrueForce Core HB 200-160W E40 840 WB GM	Frosted	T50
929001812510	TrueForce Core HB 200-160W E40 840 WB CN	Frosted	T50
929001812608	TrueForce Core HB 200-160W E40 865 NB GM	-	T50
929001812610	TrueForce Core HB 200-160W E40 865 NB CN	-	T50
929001812708	TrueForce Core HB 200-160W E40 865 WB GM	-	T50
929001812710	TrueForce Core HB 200-160W E40 865 WB CN	-	T50

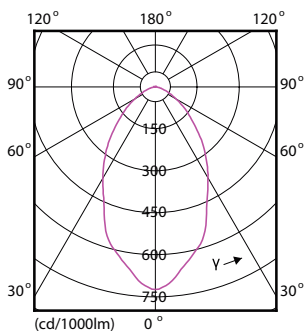
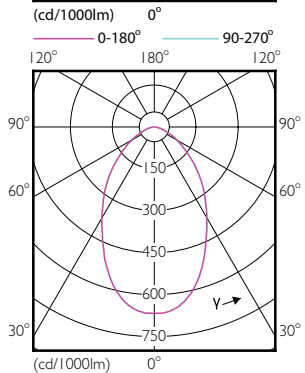
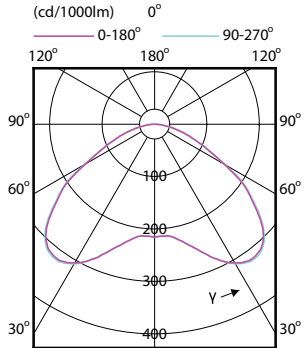
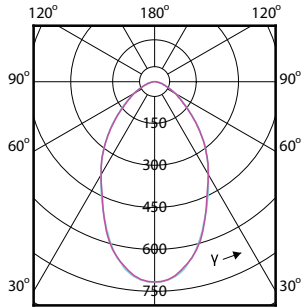
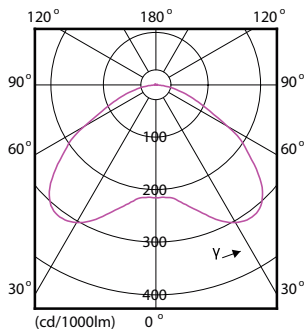
# TrueForce LED Industrial and Retail (Highbay – HPI/SO/N/HPL)

Order Code	Full Product Name	Bulb Finish	Bulb Shape
929001812912	TrueForce Core HB 200-160W E40 840 WB LA	-	T50
929001813112	TrueForce Core HB 200-160W E40 865 WB LA	-	T50
929001875708	TrueForce HB 100-85W E40 840 120D GM	Frosted	Others
929001875710	TrueForce HB 100-85W E40 840 120D CN	Frosted	Others
929001875712	TrueForce HB 100-85W E40 840 120D LA	Frosted	Others

Order Code	Full Product Name	Bulb Finish	Bulb Shape
929001875908	TrueForce HB 100-85W E40 865 120D GM	Frosted	Others
929001875910	TrueForce HB 100-85W E40 865 120D CN	Frosted	Others
929001875912	TrueForce HB 100-85W E40 865 120D LA	Frosted	Others
929001987912	TrueForce Core HB 27-30W E27 865	Frosted	T-shape
929001988112	TrueForce Core HB 36-40W E27 865	Frosted	T-shape
929001988312	TrueForce Core HB 45-50W E27 865	Frosted	T-shape
929001999612	TrueForce Core HB 45-50W E40 865	Frosted	T-shape

## Temperature

Order Code	Full Product Name	T-Case Maximum (Nom)
929001356802	TrueForce LED HPI ND 110-88W E40 840 60D	90 °C
929001356902	TrueForce LED HPI ND 110-88W E40 840 120D	90 °C
929001357002	TrueForce LED HPI ND 200-145W E40 840 60D	95 °C
929001357102	TrueForce LED HPI ND 200-145W E40 840 120D	95 °C
929001812408	TrueForce Core HB 200-160W E40 840 NB GM	100 °C
929001812410	TrueForce Core HB 200-160W E40 840 NB CN	100 °C
929001812508	TrueForce Core HB 200-160W E40 840 WB GM	100 °C
929001812510	TrueForce Core HB 200-160W E40 840 WB CN	100 °C
929001812608	TrueForce Core HB 200-160W E40 865 NB GM	100 °C
929001812610	TrueForce Core HB 200-160W E40 865 NB CN	100 °C
929001812708	TrueForce Core HB 200-160W E40 865 WB GM	100 °C
929001812710	TrueForce Core HB 200-160W E40 865 WB CN	100 °C
929001812912	TrueForce Core HB 200-160W E40 840 WB LA	100 °C
929001813112	TrueForce Core HB 200-160W E40 865 WB LA	100 °C
929001875708	TrueForce HB 100-85W E40 840 120D GM	90 °C
929001875710	TrueForce HB 100-85W E40 840 120D CN	90 °C
929001875712	TrueForce HB 100-85W E40 840 120D LA	90 °C
929001875908	TrueForce HB 100-85W E40 865 120D GM	90 °C
929001875910	TrueForce HB 100-85W E40 865 120D CN	90 °C
929001875912	TrueForce HB 100-85W E40 865 120D LA	90 °C
929001987912	TrueForce Core HB 27-30W E27 865	75 °C
929001988112	TrueForce Core HB 36-40W E27 865	75 °C
929001988312	TrueForce Core HB 45-50W E27 865	75 °C
929001999612	TrueForce Core HB 45-50W E40 865	75 °C



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