



The best LED solution for High Intensity Discharge (HID) lamp replacement

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

Philips MASTER – LED HID HPI EM/Mains Highbay lamps give you a quick and easy payback solution to replace HID alternatives in high-bay applications. MASTER – LED HID HPI EM/Mains solutions give you the LED benefits of energy efficiency and a long lifetime with a retrofit solution. The design of MASTER – LED HID HPI EM/Mains enables the direct retrofit of HID lamps without changing the fixtures or EM ballast (see installation guide for more info). The MASTER – LED HID HPI EM/Mains lamp is compatible with both 250W and 400W EM ballast to maximize the feasibility of such retrofits.

Benefits

- Cost saving with short payback time
- Low initial investment
- Enhance lighting quality with easy adoption

Features

- High Energy efficient lamps
- Long lifetime - 50,000 hrs
- Surge protection 4KV
- Direct lamp replacement solution without changing the fixture or EM ballast
- Compatible with 250W and 400W EM gear systems
- Additional Energy saving by Direct Mains connection
- Pleasant white light with CRI 80

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Application

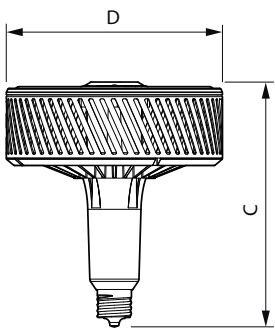
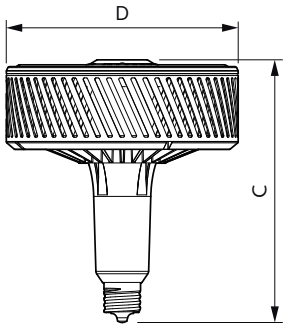
- Industrial/retail - warehouses, factories, shops, transport hubs

Versions



LEDTForce HPI Others E40 sensor

Dimensional drawing

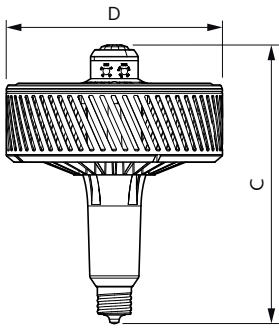
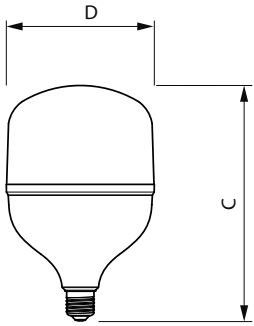


Product	D	C
TForce HB 140W E40 840 NB LA	250 mm	290 mm
TForce HB 140W E40 840 WB LA	250 mm	290 mm
TForce HB 140W E40 865 NB LA	250 mm	290 mm
TForce HB 140W E40 865 WB LA	250 mm	290 mm

Product	D	C
TForce HB 140W E39 850 WB JP	250 mm	285 mm
TForce HB 140W E40 840 NB GM	250 mm	290 mm
TForce HB 140W E40 840 WB GM	250 mm	290 mm
TForce HB 140W E40 865 NB GM	250 mm	290 mm
TForce HB 140W E40 865 WB GM	250 mm	290 mm
TForce HB 160W E39 850 WB JP	250 mm	285 mm

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Dimensional drawing



Product	D	C
Entry LED HPI MV 5.3Klm 55W 830 E27	138 mm	222 mm
Entry LED HPI MV 5.5Klm 55W 865 E27	138 mm	222 mm

Product	D	C
TForce HB 160W E40 865 WB Sensor LA	250 mm	330 mm

General Information	
Switching Cycle	50,000
Light Technical	
Color rendering index (CRI)	80
LLMF At End Of Nominal Lifetime (Nom)	70 %
Operating and Electrical	
Input Frequency	50 to 60 Hz
Starting Time (Nom)	0.5 s

General Information

Order Code	Full Product Name	Cap-Base	Nominal lifetime
929002282112	TForce HB 160W E40 865 WB Sensor LA	E40	50,000 hour(s)
929002473608	TForce HB 140W E39 850 WB JP	E39	50,000 hour(s)
929002473708	TForce HB 160W E39 850 WB JP	E39	50,000 hour(s)
929002281608	TForce HB 140W E40 840 NB GM	E40	50,000 hour(s)
929002281612	TForce HB 140W E40 840 NB LA	E40	50,000 hour(s)
929002281708	TForce HB 140W E40 840 WB GM	E40	50,000 hour(s)
929002281712	TForce HB 140W E40 840 WB LA	E40	50,000 hour(s)

Order Code	Full Product Name	Cap-Base	Nominal lifetime
929002281808	TForce HB 140W E40 865 NB GM	E40	50,000 hour(s)
929002281812	TForce HB 140W E40 865 NB LA	E40	50,000 hour(s)
929002281908	TForce HB 140W E40 865 WB GM	E40	50,000 hour(s)
929002281912	TForce HB 140W E40 865 WB LA	E40	50,000 hour(s)
929004299810	Entry LED HPI MV 5.3Klm 55W 830 E27	E27	15,000 hour(s)
929004299910	Entry LED HPI MV 5.5Klm 55W 865 E27	E27	15,000 hour(s)

Light Technical

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Order Code	Full Product Name	Beam Angle (Nom)	Correlated Color		
			Temperature (Nom)	Color Code	Luminous Flux
929002282112	TForce HB 160W	120	6500 K	865	25,000 lm
	E40 865 WB	degree(s)			
	Sensor LA				
929002473608	TForce HB 140W	120	5000 K	850	20,000 lm
	E39 850 WB JP	degree(s)			
929002473708	TForce HB 160W	120	5000 K	850	25,000 lm
	E39 850 WB JP	degree(s)			
929002281608	TForce HB 140W	60	4000 K	840	20,000 lm
	E40 840 NB GM	degree(s)			
929002281612	TForce HB 140W	60	4000 K	840	20,000 lm
	E40 840 NB LA	degree(s)			
929002281708	TForce HB 140W	120	4000 K	840	20,000 lm
	E40 840 WB GM	degree(s)			
929002281712	TForce HB 140W	120	4000 K	840	20,000 lm
	E40 840 WB LA	degree(s)			

Order Code	Full Product Name	Beam Angle (Nom)	Correlated Color		
			Temperature (Nom)	Color Code	Luminous Flux
929002281808	TForce HB 140W	60	6500 K	865	20,000 lm
	E40 865 NB GM	degree(s)			
929002281812	TForce HB 140W	60	6500 K	865	20,000 lm
	E40 865 NB LA	degree(s)			
929002281908	TForce HB 140W	120	6500 K	865	20,000 lm
	E40 865 WB GM	degree(s)			
929002281912	TForce HB 140W	120	6500 K	865	20,000 lm
	E40 865 WB LA	degree(s)			
929004299810	Entry LED HPI	180	3000 K	830	5,300 lm
	MV 5.3Klm 55W	degree(s)			
	830 E27				
929004299910	Entry LED HPI	180	6500 K	865	5,500 lm
	MV 5.5Klm 55W	degree(s)			
	865 E27				

Operating and Electrical

Order Code	Full Product Name	Line Frequency	Power
			Consumption
929002282112	TForce HB 160W E40 865 WB	50 to 60 Hz	160 W
	Sensor LA		
929002473608	TForce HB 140W E39 850 WB	-	140 W
	JP		
929002473708	TForce HB 160W E39 850 WB	-	160 W
	JP		
929002281608	TForce HB 140W E40 840 NB	50 to 60 Hz	140 W
	GM		
929002281612	TForce HB 140W E40 840 NB	50 to 60 Hz	140 W
	LA		
929002281708	TForce HB 140W E40 840 WB	50 to 60 Hz	140 W
	GM		
929002281712	TForce HB 140W E40 840 WB	50 to 60 Hz	140 W
	LA		

Order Code	Full Product Name	Line Frequency	Power
			Consumption
929002281808	TForce HB 140W E40 865 NB	50 to 60 Hz	140 W
	GM		
929002281812	TForce HB 140W E40 865 NB	50 to 60 Hz	140 W
	LA		
929002281908	TForce HB 140W E40 865 WB	50 to 60 Hz	140 W
	GM		
929002281912	TForce HB 140W E40 865 WB	50 to 60 Hz	140 W
	LA		
929004299810	Entry LED HPI MV 5.3Klm 55W	-	55 W
	830 E27		
929004299910	Entry LED HPI MV 5.5Klm 55W	-	55 W
	865 E27		

Temperature

Order Code	Full Product Name	T-Case Maximum (Nom)
929002282112	TForce HB 160W E40 865 WB Sensor LA	58 °C
929002473608	TForce HB 140W E39 850 WB JP	57 °C
929002473708	TForce HB 160W E39 850 WB JP	50.5 °C
929002281608	TForce HB 140W E40 840 NB GM	57 °C
929002281612	TForce HB 140W E40 840 NB LA	60 °C
929002281708	TForce HB 140W E40 840 WB GM	57 °C
929002281712	TForce HB 140W E40 840 WB LA	60 °C

Order Code	Full Product Name	T-Case Maximum (Nom)
929002281808	TForce HB 140W E40 865 NB GM	57 °C
929002281812	TForce HB 140W E40 865 NB LA	60 °C
929002281908	TForce HB 140W E40 865 WB GM	57 °C
929002281912	TForce HB 140W E40 865 WB LA	60 °C
929004299810	Entry LED HPI MV 5.3Klm 55W 830 E27	80 °C
929004299910	Entry LED HPI MV 5.5Klm 55W 865 E27	80 °C

Controls and Dimming

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Order Code	Full Product Name	Dimmable
929002282112	TForce HB 160W E40 865 WB Sensor LA	Yes
929002473608	TForce HB 140W E39 850 WB JP	No
929002473708	TForce HB 160W E39 850 WB JP	No
929002281608	TForce HB 140W E40 840 NB GM	No
929002281612	TForce HB 140W E40 840 NB LA	No
929002281708	TForce HB 140W E40 840 WB GM	No
929002281712	TForce HB 140W E40 840 WB LA	No

Order Code	Full Product Name	Dimmable
929002281808	TForce HB 140W E40 865 NB GM	No
929002281812	TForce HB 140W E40 865 NB LA	No
929002281908	TForce HB 140W E40 865 WB GM	No
929002281912	TForce HB 140W E40 865 WB LA	No
929004299810	Entry LED HPI MV 5.3Klm 55W 830 E27	No
929004299910	Entry LED HPI MV 5.5Klm 55W 865 E27	No

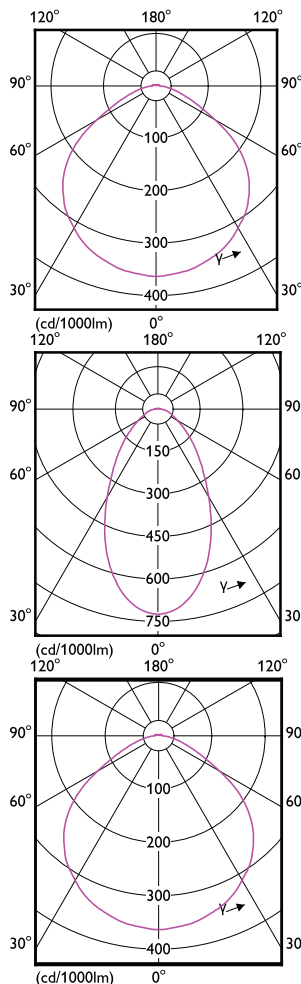
Mechanical and Housing

Order Code	Full Product Name	Bulb Finish	Bulb Shape
929002282112	TForce HB 160W E40 865 WB Sensor LA	Clear	Highbay
929002473608	TForce HB 140W E39 850 WB JP	Clear	Highbay
929002473708	TForce HB 160W E39 850 WB JP	Clear	Highbay
929002281608	TForce HB 140W E40 840 NB GM	Clear	Highbay
929002281612	TForce HB 140W E40 840 NB LA	Clear	Highbay
929002281708	TForce HB 140W E40 840 WB GM	Clear	Highbay
929002281712	TForce HB 140W E40 840 WB LA	Clear	Highbay

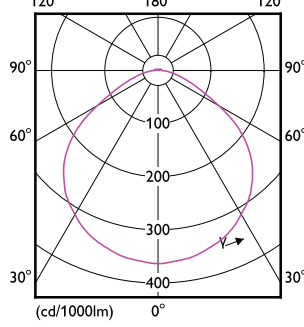
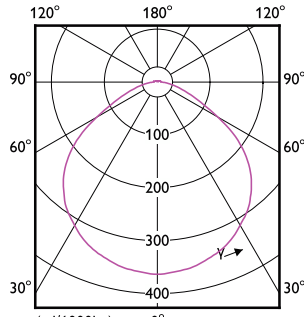
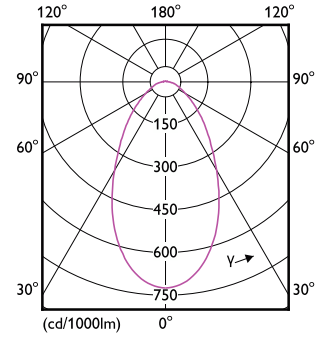
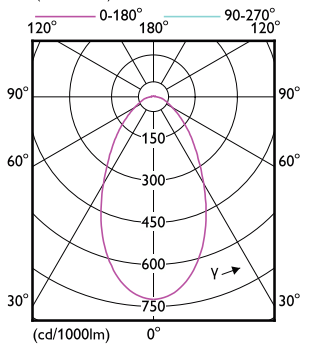
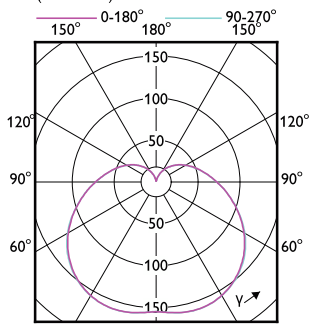
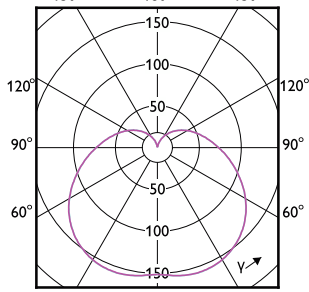
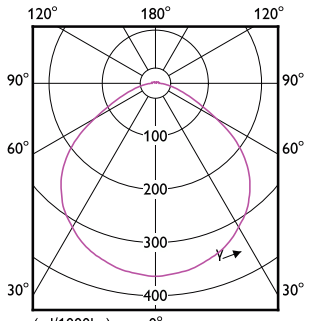
Order Code	Full Product Name	Bulb Finish	Bulb Shape
929002281808	TForce HB 140W E40 865 NB GM	Clear	Highbay
929002281812	TForce HB 140W E40 865 NB LA	Clear	Highbay
929002281908	TForce HB 140W E40 865 WB GM	Clear	Highbay
929002281912	TForce HB 140W E40 865 WB LA	Clear	Highbay
929004299810	Entry LED HPI MV 5.3Klm 55W 830 E27	Frosted	T-shape T140
929004299910	Entry LED HPI MV 5.5Klm 55W 865 E27	Frosted	T-shape T140

Approval and Application

Order Code	Full Product Name	Ambient temperature range	Energy Consumption kWh/1000 h
929002282112	TForce HB 160W E40 865 WB Sensor LA	-20 °C to 45 °C	160 kWh
929002473608	TForce HB 140W E39 850 WB JP	-20 to +45 °C	140 kWh
929002473708	TForce HB 160W E39 850 WB JP	-20 to +45 °C	160 kWh
929002281608	TForce HB 140W E40 840 NB GM	-20 to +45 °C	140 kWh
929002281612	TForce HB 140W E40 840 NB LA	-20 °C to 45 °C	140 kWh
929002281708	TForce HB 140W E40 840 WB GM	-20 to +45 °C	140 kWh
929002281712	TForce HB 140W E40 840 WB LA	-20 °C to 45 °C	140 kWh
929002281808	TForce HB 140W E40 865 NB GM	-20 to +45 °C	140 kWh
929002281812	TForce HB 140W E40 865 NB LA	-20 °C to 45 °C	140 kWh
929002281908	TForce HB 140W E40 865 WB GM	-20 to +45 °C	140 kWh
929002281912	TForce HB 140W E40 865 WB LA	-20 °C to 45 °C	140 kWh
929004299810	Entry LED HPI MV 5.3Klm 55W 830 E27	-20 to +45 °C	55 kWh
929004299910	Entry LED HPI MV 5.5Klm 55W 865 E27	-20 to +45 °C	55 kWh



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