



# A simple LED solution for direct HID lamp replacement with instant saving and low initial cost

## TrueForce LED Industrial and Retail (Highbay – MH)

Philips TrueForce LED Industrial and Retail (Highbay – MH) lamps give you a quick and easy payback solution to replace HID lamps in Highbay applications. The solution gives you the LED benefits of energy-efficiency and long-lifetime, plus they come for a low initial investment. Lamp design enables directly retrofitting of HID lamps with TrueForce LED lamps without changing the fixtures or gear. The lamp is compatible with both 250W and 400W gears maximizing feasibility of such retrofits. Ignitor smart logic eliminates ignitor failure and continued ignition which may generate overhear and EMI risks. Multiple beam angle options and high color rendering index enhance the lighting distribution while creating a comfortable, safe and highly productivity environment.

### Benefits

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

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## Features

- High energy efficiency with directional light
- Long lifetime 50,000hrs
- Direct lamp replacement solution without changing the fixture or gear
- Compatible with both 250W and 400W gear systems
- 2 beam angles selection and Up+Down or Down light options

## Application

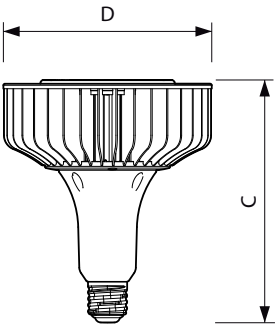
- Industrial - factories, warehouses, distribution centres
- Retail - Hyper markets, shopping malls
- Others - Transportation hubs, convention centres, sports halls

## Versions



EX39 Others

## Dimensional drawing



| Product                       | D        | C        |
|-------------------------------|----------|----------|
| 165HB/LED/740/ND WB DL 2/1    | 209.7 mm | 245.7 mm |
| 165HB/LED/740/ND NB DL 2/1    | 209.7 mm | 245.7 mm |
| 165HB/LED/840/ND WB UDL 2/1   | 209.7 mm | 245.7 mm |
| 165HB/LED/840/ND NB UDL 2/1   | 209.7 mm | 245.7 mm |
| 100HB/LED/740/ND WB DL BB 2/1 | 211 mm   | 252 mm   |
| 125HB/LED/740/ND WB DL BB 2/1 | 211 mm   | 252 mm   |
| 125HB/LED/750/ND NB DL BB 2/1 | 211 mm   | 252 mm   |
| 100HB/LED/740/ND NB DL BB 2/1 | 211 mm   | 252 mm   |
| 100HB/LED/750/ND WB DL BB 2/1 | 211 mm   | 252 mm   |
| 125HB/LED/750/ND WB DL BB 2/1 | 211 mm   | 252 mm   |
| 100HB/LED/750/ND NB DL BB 2/1 | 211 mm   | 252 mm   |
| 125HB/LED/740/ND NB DL BB 2/1 | 211 mm   | 252 mm   |
| 150HB/LED/750/ND NB DL BB 2/1 | 211 mm   | 252 mm   |
| 150HB/LED/740/ND WB DL BB 2/1 | 211 mm   | 252 mm   |
| 150HB/LED/740/ND NB DL BB 2/1 | 211 mm   | 252 mm   |
| 150HB/LED/750/ND WB DL BB 2/1 | 211 mm   | 252 mm   |

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| Controls and Dimming                  |             |
|---------------------------------------|-------------|
| Dimmable                              | No          |
| Operating and Electrical              |             |
| Input Frequency                       | 50 to 60 Hz |
| Starting Time (Nom)                   | 0.5 s       |
| General Information                   |             |
| Cap-Base                              | EX39        |
| Nominal Lifetime (Nom)                | 50000 h     |
| Rated Lifetime (Hours)                | 50000 h     |
| Switching Cycle                       | 50000X      |
| Light Technical                       |             |
| Llmf At End Of Nominal Lifetime (Nom) | 70 %        |
| Mechanical and Housing                |             |
| Bulb Shape                            | Others      |

## Operating and Electrical

| Order Code | Full Product Name             | Voltage (Nom) | Wattage Equivalent | Power (Rated) (Nom) |
|------------|-------------------------------|---------------|--------------------|---------------------|
| 465609     | 165HB/LED/740/ND NB DL 2/1    | / V           | 400 W              | 165 W               |
| 465625     | 165HB/LED/740/ND WB DL 2/1    | / V           | 400 W              | 165 W               |
| 465658     | 165HB/LED/840/ND NB UDL 2/1   | / V           | 400 W              | 165 W               |
| 465674     | 165HB/LED/840/ND WB UDL 2/1   | / V           | 400 W              | 165 W               |
| 477991     | 100HB/LED/740/ND NB DL BB 2/1 | 120-277 V     | 250 W              | 100 W               |
| 478008     | 100HB/LED/740/ND WB DL BB 2/1 | 120-277 V     | 250 W              | 100 W               |
| 478032     | 100HB/LED/750/ND NB DL BB 2/1 | 120-277 V     | 250 W              | 100 W               |
| 478040     | 100HB/LED/750/ND WB DL BB 2/1 | 120-277 V     | 250 W              | 100 W               |
| 478073     | 125HB/LED/740/ND NB DL BB 2/1 | 120-277 V     | 320 W              | 125 W               |
| 478081     | 125HB/LED/740/ND WB DL BB 2/1 | 120-277 V     | 320 W              | 125 W               |
| 478115     | 125HB/LED/750/ND NB DL BB 2/1 | 120-277 V     | 320 W              | 125 W               |
| 478123     | 125HB/LED/750/ND WB DL BB 2/1 | 120-277 V     | 320 W              | 125 W               |
| 478156     | 150HB/LED/740/ND NB DL BB 2/1 | 120-277 V     | 400 W              | 150 W               |
| 478164     | 150HB/LED/740/ND WB DL BB 2/1 | 120-277 V     | 400 W              | 150 W               |
| 478198     | 150HB/LED/750/ND NB DL BB 2/1 | 120-277 V     | 400 W              | 150 W               |
| 478206     | 150HB/LED/750/ND WB DL BB 2/1 | 120-277 V     | 400 W              | 150 W               |

## Light Technical (1/2)

| Order             | Beam                          | Correlated Color | Color       |
|-------------------|-------------------------------|------------------|-------------|
| Code              | Angle                         | Temperature      | Rendering   |
| Full Product Name | (Nom)                         | (Nom)            | Index (Nom) |
| 465609            | 165HB/LED/740/ND NB DL 2/1    | 60 °             | 740         |
| 465625            | 165HB/LED/740/ND WB DL 2/1    | 120 °            | 740         |
| 465658            | 165HB/LED/840/ND NB UDL 2/1   | 60 °             | 841         |
| 465674            | 165HB/LED/840/ND WB UDL 2/1   | 120 °            | 841         |
| 477991            | 100HB/LED/740/ND NB DL BB 2/1 | 70 °             | 740         |
| 478008            | 100HB/LED/740/ND WB DL BB 2/1 | 130 °            | 740         |
| 478032            | 100HB/LED/750/ND NB DL BB 2/1 | 70 °             | 750         |
| 478040            | 100HB/LED/750/ND WB DL BB 2/1 | 130 °            | 750         |

| Order             | Beam                          | Correlated Color | Color       |
|-------------------|-------------------------------|------------------|-------------|
| Code              | Angle                         | Temperature      | Rendering   |
| Full Product Name | (Nom)                         | (Nom)            | Index (Nom) |
| 478073            | 125HB/LED/740/ND NB DL BB 2/1 | 70 °             | 740         |
| 478081            | 125HB/LED/740/ND WB DL BB 2/1 | 130 °            | 740         |
| 478115            | 125HB/LED/750/ND NB DL BB 2/1 | 70 °             | 750         |
| 478123            | 125HB/LED/750/ND WB DL BB 2/1 | 130 °            | 750         |
| 478156            | 150HB/LED/740/ND NB DL BB 2/1 | 70 °             | 740         |
| 478164            | 150HB/LED/740/ND WB DL BB 2/1 | 130 °            | 740         |
| 478198            | 150HB/LED/750/ND NB DL BB 2/1 | 70 °             | 750         |
| 478206            | 150HB/LED/750/ND WB DL BB 2/1 | 130 °            | 750         |

## Light Technical (2/2)

| Order Code | Full Product Name             | Luminous Flux (Nom) | Luminous Flux (Rated) (Nom) |
|------------|-------------------------------|---------------------|-----------------------------|
| 465609     | 165HB/LED/740/ND NB DL 2/1    | 20000 lm            | 20000 lm                    |
| 465625     | 165HB/LED/740/ND WB DL 2/1    | 20000 lm            | 20000 lm                    |
| 465658     | 165HB/LED/840/ND NB UDL 2/1   | 19000 lm            | 19000 lm                    |
| 465674     | 165HB/LED/840/ND WB UDL 2/1   | 19000 lm            | 19000 lm                    |
| 477991     | 100HB/LED/740/ND NB DL BB 2/1 | 12000 lm            | 12000 lm                    |
| 478008     | 100HB/LED/740/ND WB DL BB 2/1 | 12000 lm            | 12000 lm                    |

| Order Code | Full Product Name             | Luminous Flux (Nom) | Luminous Flux (Rated) (Nom) |
|------------|-------------------------------|---------------------|-----------------------------|
| 478032     | 100HB/LED/750/ND NB DL BB 2/1 | 12000 lm            | 12000 lm                    |
| 478040     | 100HB/LED/750/ND WB DL BB 2/1 | 12000 lm            | 12000 lm                    |
| 478073     | 125HB/LED/740/ND NB DL BB 2/1 | 16000 lm            | 16000 lm                    |
| 478081     | 125HB/LED/740/ND WB DL BB 2/1 | 16000 lm            | 16000 lm                    |
| 478115     | 125HB/LED/750/ND NB DL BB 2/1 | 16000 lm            | 16000 lm                    |
| 478123     | 125HB/LED/750/ND WB DL BB 2/1 | 16000 lm            | 16000 lm                    |

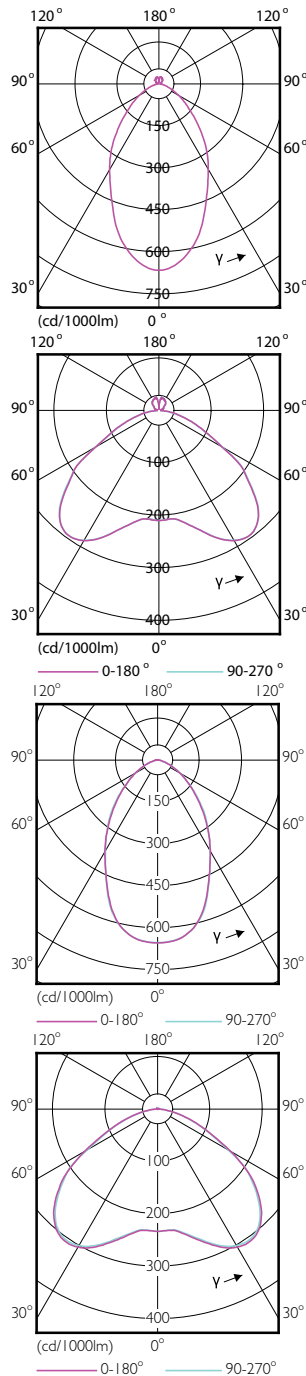
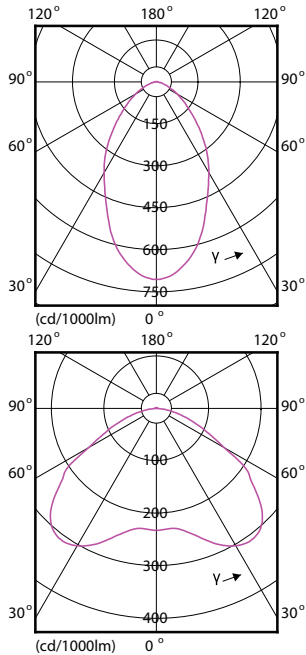
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| Order Code | Full Product Name             | Luminous Flux<br>(Nom) | Luminous Flux<br>(Rated) (Nom) |
|------------|-------------------------------|------------------------|--------------------------------|
| 478156     | 150HB/LED/740/ND NB DL BB 2/1 | 20000 lm               | 20000 lm                       |
| 478164     | 150HB/LED/740/ND WB DL BB 2/1 | 20000 lm               | 20000 lm                       |

| Order Code | Full Product Name             | Luminous Flux<br>(Nom) | Luminous Flux<br>(Rated) (Nom) |
|------------|-------------------------------|------------------------|--------------------------------|
| 478198     | 150HB/LED/750/ND NB DL BB 2/1 | 20000 lm               | 20000 lm                       |
| 478206     | 150HB/LED/750/ND WB DL BB 2/1 | 20000 lm               | 20000 lm                       |

### Temperature

| Order Code | Full Product Name             | T-Case Maximum (Nom) |
|------------|-------------------------------|----------------------|
| 465609     | 165HB/LED/740/ND NB DL 2/1    | 85 °C                |
| 465625     | 165HB/LED/740/ND WB DL 2/1    | 85 °C                |
| 465658     | 165HB/LED/840/ND NB UDL 2/1   | 85 °C                |
| 465674     | 165HB/LED/840/ND WB UDL 2/1   | 85 °C                |
| 477991     | 100HB/LED/740/ND NB DL BB 2/1 | 70 °C                |
| 478008     | 100HB/LED/740/ND WB DL BB 2/1 | 70 °C                |
| 478032     | 100HB/LED/750/ND NB DL BB 2/1 | 70 °C                |
| 478040     | 100HB/LED/750/ND WB DL BB 2/1 | 70 °C                |
| 478073     | 125HB/LED/740/ND NB DL BB 2/1 | 75 °C                |
| 478081     | 125HB/LED/740/ND WB DL BB 2/1 | 75 °C                |
| 478115     | 125HB/LED/750/ND NB DL BB 2/1 | 75 °C                |
| 478123     | 125HB/LED/750/ND WB DL BB 2/1 | 75 °C                |
| 478156     | 150HB/LED/740/ND NB DL BB 2/1 | 80 °C                |
| 478164     | 150HB/LED/740/ND WB DL BB 2/1 | 80 °C                |
| 478198     | 150HB/LED/750/ND NB DL BB 2/1 | 80 °C                |
| 478206     | 150HB/LED/750/ND WB DL BB 2/1 | 80 °C                |



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