



## Technical application guide

### Philips MASTER LED candles MV D 4-25W

a dimmable LED candle with a warm white sparkle that saves 80% energy costs.

The dimmable MASTER LED 4 W candle range is ideal for installation in various kinds of fixtures where people can easily enjoy the art of light played together with glass. The lamps can perfectly work with crystal chandeliers, wall sconces where lamps are exposed or modern fixtures with a glass shield.

## Design highlights

- Classical outlook meets the need of OEM lumi-makers
- Unique optical design allows for sparkling light
- Low power consumption: 4 Watt only
- Long-lifetime of 20,000 hours (B50, L70)
- Dimmable with recommended dimmers
- Warm white CCT 2700 K available
- No UV and Cool beam (no IR)
- Environmental friendly, no Mercury or any other hazardous substances
- Low Carbon Footprint



## Application areas

MASTER LED candle is ideal for general and decorative lighting in the hospitality industry, as well as in home environments. Mounted in full view in chandeliers, wall scones or modern luminaires, the clear glass bulbs fit all existing fixtures with an E14 socket.

Drawing upon inputs from chandelier makers and designed to enhance the aesthetic appeal of the chandelier or luminaire, not only when lit but also when not, these lamps come in a classical slender shape with a unique, eye-catching lens design. They produce a beautiful sparkling warm light that delivers huge energy savings and minimizes maintenance cost.

## Application notes

- Operating temperature range is between -20 °C and 40 °C ambient
- Designed for indoor application.
- Dimmable with most of leading edge dimmers in the market (we refer to the recommended dimmer list on the last page of this document)
- Not intended for use with emergency light fixtures or exit lights
- For indoor applications in open luminaires (open/free air gap of min. 10 mm)

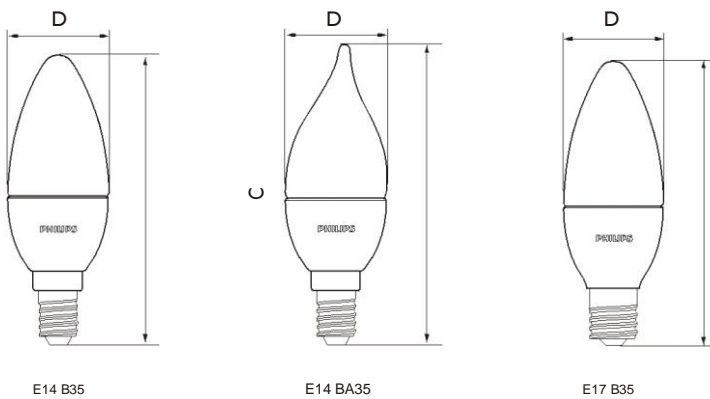
## Technical Specifications

| Product type      | Voltage | Wattage | Base | Lamp/shape finish | Color temp. | Light Output | Lifetime | CRI | Dimmable |
|-------------------|---------|---------|------|-------------------|-------------|--------------|----------|-----|----------|
|                   | V       | W       |      |                   | K           | lm           | hours    |     |          |
| MASTER LED candle | 220-240 | 4       | E14  | B35 Clear         | 2700        | 250          | 20.000   | >80 | Yes *    |
| MASTER LED candle | 220-240 | 4       | E14  | BA35 Clear        | 2700        | 250          | 20.000   | >80 | Yes *    |
| MASTER LED candle | 220-240 | 4       | E17  | B35 Clear         | 2700        | 250          | 20.000   | >80 | Yes *    |

\* Might be possible that light color looks less warm at lowest dimming levels, depending on the dimmer. Color will improve after 15mins at certain dimming level.

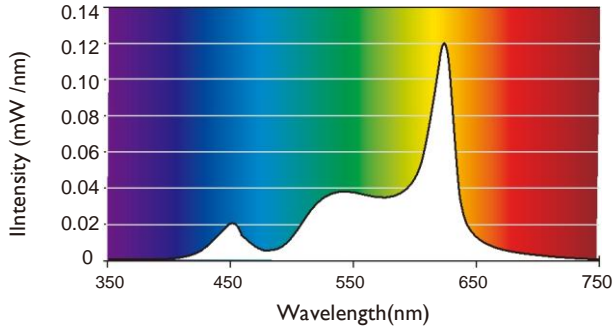
## Dimensions

| Type                   | C max.         | D max.   |
|------------------------|----------------|----------|
|                        | Overall Length | Diameter |
|                        | (mm)           | (mm)     |
| MASTER candle E14 B35  | 101.5          | 35       |
| MASTER candle E14 BA35 | 105.5          | 35       |
| MASTER candle E17 B35  | 98             | 35       |

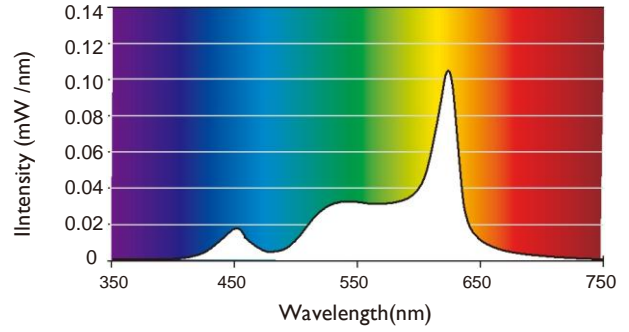


# Spectral Power Distribution

Spectrum MASTER LED E14/E17 B35

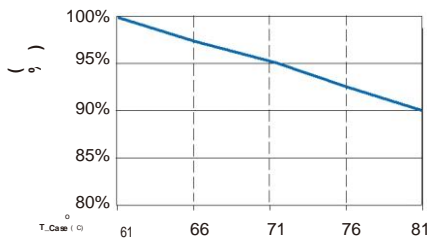


Spectrum MASTER LED E14 BA35

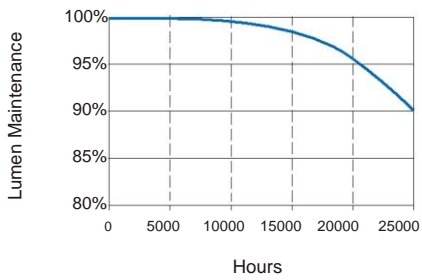


# Temperature

MASTER LED MV D 4-25W



T<sub>c</sub> Max: 80 °C

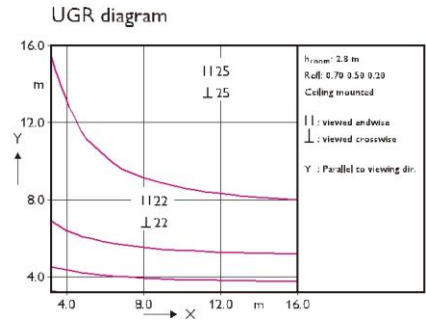
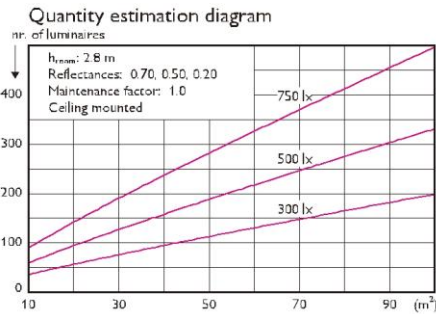
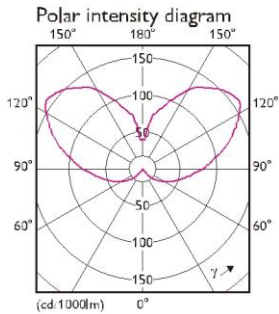


# Photometric Diagrams



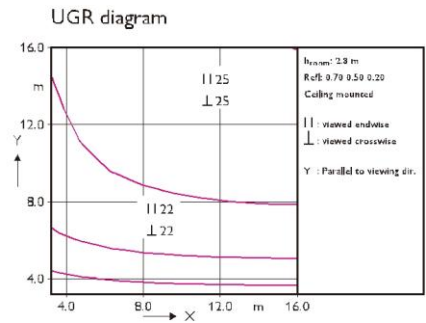
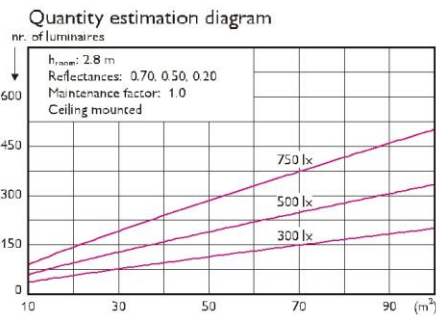
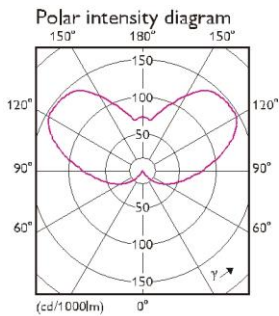
MASTER LED candle E14/E17 4W B35 2700K Clear

|                    |      |                                   |                |
|--------------------|------|-----------------------------------|----------------|
| Light output ratio | 1.00 | CIE flux code                     | 2 20 52 22 100 |
| Service upward     | 0.78 |                                   |                |
| Service downward   | 0.22 | UGR <sub>cen</sub> (4Hx8H, 0.25H) | 23             |



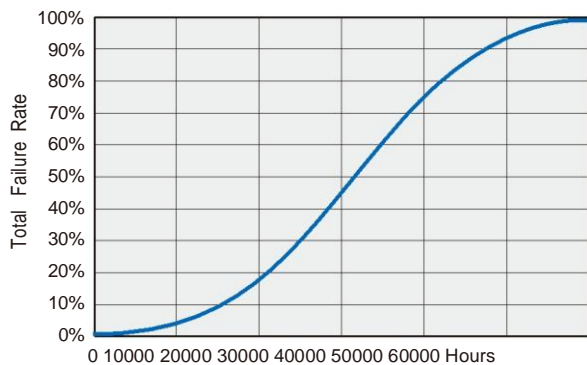
MASTER LED candle E14 4W BA35 2700K Clear

|                    |      |                                   |               |
|--------------------|------|-----------------------------------|---------------|
| Light output ratio | 0.99 | CIE flux code                     | 2 21 53 23 99 |
| Service upward     | 0.76 |                                   |               |
| Service downward   | 0.23 | UGR <sub>cen</sub> (4Hx8H, 0.25H) | 24            |



## Lifetime + Sustainability

Failure Rate Curve of MASTER LED MV D 4-25W



MASTER LED Warm White candle has a lifetime exceeding 20,000 hours defined as (L70, B50), where:

- B50, L70, meaning 50% in total of whole population of lamps either fail without light output or lumen maintenance lower than 70% of initial value
- Lifetime estimation based on the application environment condition: at room temperature (25°C), free air burning, and at rated voltage.

# Recommended dimmers

You find a selection of recommended dimmers for the MASTER candles 4-25 W in the list below.

| Brand    | Type #   | Load Type | Load    | Max. Lamps per Dimmer           |                                 |
|----------|----------|-----------|---------|---------------------------------|---------------------------------|
|          |          |           |         | E14/B15                         | E27B22                          |
| HPM      | 2000E    | RL        | 2000W   | 11                              | 20                              |
| HPM      | 2400E    | RL        | 2400W   | 20                              | 20                              |
| Honeyell | S8501    | R         | 500W    | 20                              | 20                              |
| Honeyell | S1512    | R         | 600W    | 20                              | 20                              |
| Honeyell | S1535    | R         | 1000W   | 20                              | 20                              |
| Honeyell | E8501    | R         | 500W    | 20                              | 20                              |
| Honeyell | K63501   | RL        | 40-500W | 20                              | 20                              |
| Honeyell | S8522    | R         | 500W    | 20                              | 20                              |
| Honeyell | S63535   | RL        | 1000W   | 20                              | 20                              |
| HPM      | 1000LMWE | RC        | 1000W   | 20                              | 20                              |
| HPM      | 700LWE   | RL        | 10-700W | 20                              | 20                              |
| ASA      | ASA500   | R         | 500W    | 20                              | 20                              |
| Electrex | DM500    | R         | 500W    | 20<br>(min. 6 lamps per dimmer) | 20                              |
| Clipsal  | 32/1000  | RL        | 1000W   | 20<br>(min. 6 lamps per dimmer) | 20                              |
| Wintop   | 13412    | R         | 50-500W | 20                              | 20<br>(min. 4 lamps per dimmer) |



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