



# Switch Start Metal Halide Standard

## Switch Start Metal Halide Standard

High performance, Long life and Superior light quality A compact, energy efficient metal halide lamp that provides crisp, sparkling light with long life and high efficiency.

### Features

- Long life up to 20,000 hours for 360 and 400 watt lamps.
- Up to 100 lumens per watt.

### Application

- Ideal for industrial and retail high/low bays, and parking lots.

### Warnings and Safety

- R "WARNING: These lamps can cause serious skin burn and eye inflammation from short wave ultraviolet radiation if outer envelope of the lamp is broken or punctured. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Certain lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available." This lamp complies with FDA radiation performance standard 21 CFR subchapter J. (USA:21 CFR 1040.30 Canada: SOR/DORS/80-381)

**PHILIPS**

Related products



E26, BD-17, Coated



E39, BT-37, Clear



ED17, ED28, Clear

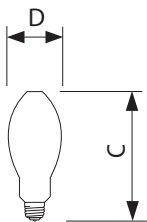


E39/E40/41, ED-37, Clear

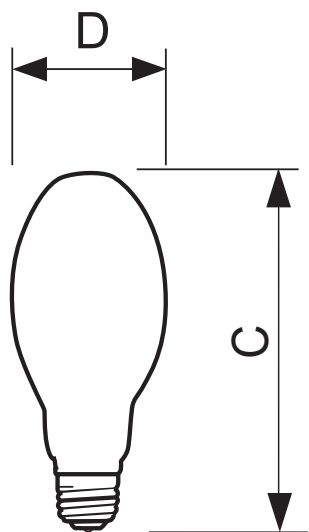
Dimensional drawing

Switch Start MH Std 175W/640 Med BD17 CO

| Product                     | C (Max) | D (Norm) |
|-----------------------------|---------|----------|
| MH R 175W/640 E26 BD17 CO U | 5.438   | 2.125    |



## Dimensional drawing

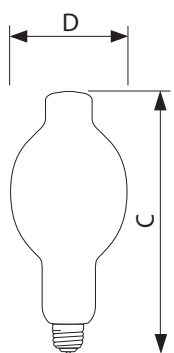


## Switch Start MH Std 175W/640 Mog ED28 CL 1CT

| Product                     | C (Max) | D (Norm) |
|-----------------------------|---------|----------|
| MH R 175W/640 E39 ED28 U    | 8.313   | 3.5      |
| MH R 175W/640 E39 ED28 U    | 8.313   | 3.5      |
| MH R 250W/640 E39 ED28 U    | 8.313   | 3.5      |
| MH R 250W/640 E39 ED28 U    | 8.313   | 3.5      |
| MH R 400W/640 E39 ED28 U    | 8.313   | 3.5      |
| MH R 400W/640 E39 ED28 U    | 8.313   | 3.5      |
| MH R 175W/640 E26 ED17 CL U | 5.4     | 2.1      |
| MH R 150W/640 E26 ED17 CL U | 5.438   | 2.125    |

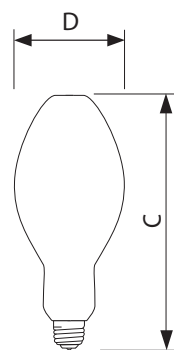
## Switch Start MH Std 1000W BT37 U

| Product                      | C (Max) | D (Norm) |
|------------------------------|---------|----------|
| MH R 1000W/640 E39 BT37 CL U | 11.5    | 4.6      |



## Switch Start MH Std 400W ED37 CL U

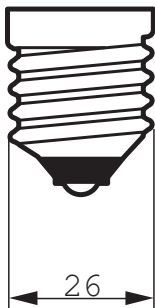
| Product                  | C (Max) | D (Norm) |
|--------------------------|---------|----------|
| MH R 400W/640 E39 ED37 U | 11.5    | 4.625    |
| MH R 400W/640 E39 ED37 U | 11.5    | 4.625    |



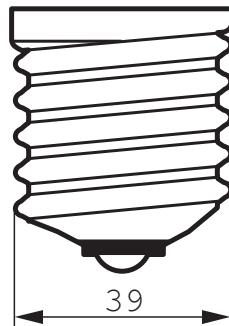
## General Characteristics

| Product number | Full product name                            | Base   | Bulb | Bulb Mate-<br>rial | Bulb<br>Finish | Oper-<br>ating<br>Position | Main Appli-<br>cation       | RatedAvgLife(See<br>Family Notes) | Energy<br>Saving |
|----------------|----------------------------------------------|--------|------|--------------------|----------------|----------------------------|-----------------------------|-----------------------------------|------------------|
| 313593         | Switch Start MH Std 175W/640 Med BD17 CO     | Medium | BD17 | Hard Glass         | Coated         | Universal                  | General Lighting            | 10000 hr                          | Not Applicable   |
| 321505         | Switch Start MH Std 1000W BT37 U             | Mogul  | BT37 | Hard Glass         | Clear          | Universal                  | General Lighting            | 12000 hr                          | Not Applicable   |
| 140855         | Switch Start MH Std 175W/640 Mog ED28 CL 1CT | Mogul  | ED28 | Hard Glass         | Clear          | Universal                  | General and Street Lighting | 10000 hr                          | Not Applicable   |
| 287334         | Switch Start MH Std 175W/640 Mog ED28 CL     | Mogul  | ED28 | Hard Glass         | Clear          | Universal                  | General and Street Lighting | 10000 hr                          | Not Applicable   |
| 140822         | Switch Start MH Std 250W/640 Mogul ED28 CL   | Mogul  | ED28 | Hard Glass         | Clear          | Universal                  | General and Street Lighting | 10000 hr                          | Not Applicable   |
| 274845         | -                                            | Mogul  | ED28 | Hard Glass         | Clear          | Universal                  | General and Street Lighting | 10000 hr                          | Not Applicable   |
| 426023         | Switch Start MH Std 400W ED28 CL U           | Mogul  | ED28 | Hard Glass         | Clear          | Universal                  | General Lighting            | 20000 hr                          | Not Applicable   |
| 140848         | Switch Start MH Std 400W ED28 CL U           | Mogul  | ED28 | Hard Glass         | Clear          | Universal                  | General Lighting            | 20000 hr                          | Not Applicable   |
| 140897         | Switch Start MH Std 175W ED17 U              | Medium | ED17 | Hard Glass         | Clear          | Universal                  | General Lighting            | 10000 hr                          | Not Applicable   |
| 354621         | Switch Start MH Std 150W ED17 CL U           | Medium | ED17 | Hard Glass         | Clear          | Universal                  | General Lighting            | 10000 hr                          | Not Applicable   |
| 274498         | Switch Start MH Std 400W ED37 CL U           | Mogul  | ED37 | Hard Glass         | Clear          | Universal                  | General Lighting            | 20000 hr                          | Not Applicable   |
| 419341         | Switch Start MH Std 400W CL U                | Mogul  | ED37 | Hard Glass         | Clear          | Universal                  | General Lighting            | 20000 hr                          | Not Applicable   |

## Installation diagrams

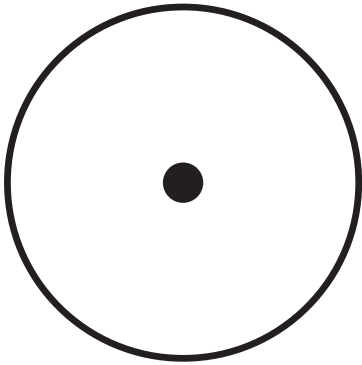


E26



E39

## Installation diagrams



any

## Light Technical Characteristics (1/2)

| Product number | Full product name                            | Color Code | Color Rendering Index | Color Designation | Color Temperature | Initial Lumens | Luminous Efficacy Lamp | Lumen Maintenance - 10% life | Lumen Maintenance - 40% life | Design Mean Lumens | Chromaticity Coordinate X |
|----------------|----------------------------------------------|------------|-----------------------|-------------------|-------------------|----------------|------------------------|------------------------------|------------------------------|--------------------|---------------------------|
| 313593         | Switch Start MH Std 175W/640 Med BD17 CO     | 640        | 65 Ra8                | Cool White        | 3700 K            | 13300 Lm       | 80 Lm/W                | -                            | 65 %                         | 8380 Lm            | 0.395 -                   |
| 321505         | Switch Start MH Std 1000W BT37 U             | 640        | 65 Ra8                | Cool White        | 4000 K            | 110000 Lm      | 110 Lm/W               | %                            | 65 %                         | 71500 Lm           | 0.385 -                   |
| 140855         | Switch Start MH Std 175W/640 Mog ED28 CL 1CT | 640        | 65 Ra8                | Cool White        | 4000 K            | 14700 Lm       | 84 Lm/W                | 90 %                         | 68 %                         | 8775 Lm            | 0.375 -                   |
| 287334         | Switch Start MH Std 175W/640 Mog ED28 CL     | 640        | 65 Ra8                | Cool White        | 4000 K            | 14700 Lm       | 84 Lm/W                | 90 %                         | 68 %                         | 8775 Lm            | 0.375 -                   |
| 140822         | Switch Start MH Std 250W/640 Mogul ED28 CL   | 640        | 65 Ra8                | Cool White        | 4000 K            | 21250 Lm       | 85 Lm/W                | -                            | -                            | 13500 Lm           | 0.385 -                   |
| 274845         | -                                            | 640        | 65 Ra8                | Cool White        | 4000 K            | 21250 Lm       | 85 Lm/W                | -                            | -                            | 13500 Lm           | 0.385 -                   |
| 426023         | Switch Start MH Std 400W ED28 CL U           | 640        | 65 Ra8                | Cool White        | 4000 K            | 36000 Lm       | 90 Lm/W                | -                            | -                            | 24000 Lm           | 0.390 -                   |
| 140848         | Switch Start MH Std 400W ED28 CL U           | 640        | 65 Ra8                | Cool White        | 4000 K            | 36000 Lm       | 90 Lm/W                | -                            | -                            | 24000 Lm           | 0.390 -                   |
| 140897         | Switch Start MH Std 175W ED17 U              | 640        | 65 Ra8                | White             | 4000 K            | 14000 Lm       | 80 Lm/W                | %                            | 65 %                         | 9100 Lm            | 0.395 -                   |
| 354621         | Switch Start MH Std 150W ED17 CL U           | 640        | 65 Ra8                | White             | 4000 K            | 13500 Lm       | 90 Lm/W                | %                            | 65 %                         | 8775 Lm            | 0.385 -                   |
| 274498         | Switch Start MH Std 400W ED37 CL U           | 640        | 65 Ra8                | Cool White        | 3900 K            | 39000 Lm       | 97.5 Lm/W              | %                            | 65 %                         | 25350 Lm           | 0.385 -                   |
| 419341         | Switch Start MH Std 400W CL U                | 640        | 65 Ra8                | Cool White        | 3900 K            | 39000 Lm       | 97.5 Lm/W              | %                            | 65 %                         | 25350 Lm           | 0.385 -                   |

## Light Technical Characteristics (2/2)

| Product number | Full product name                        | Chromaticity Coordinate Y |
|----------------|------------------------------------------|---------------------------|
| 313593         | Switch Start MH Std 175W/640 Med BD17 CO | 0.390 -                   |
| 321505         | Switch Start MH Std 1000W BT37 U         | 0.390 -                   |

| Product number | Full product name                            | Chromaticity Coordinate Y |
|----------------|----------------------------------------------|---------------------------|
| 140855         | Switch Start MH Std 175W/640 Mog ED28 CL 1CT | 0.400 -                   |
| 287334         | Switch Start MH Std 175W/640 Mog ED28 CL     | 0.400 -                   |

| Product number | Full product name                          | Chromaticity Coordinate Y |
|----------------|--------------------------------------------|---------------------------|
| 140822         | Switch Start MH Std 250W/640 Mogul ED28 CL | 0.395 -                   |
| 274845         | -                                          | 0.395 -                   |
| 426023         | Switch Start MH Std 400W ED28 CL U         | 0.400 -                   |
| 140848         | Switch Start MH Std 400W ED28 CL U         | 0.400 -                   |
| 140897         | Switch Start MH Std 175W ED17 U            | 0.390 -                   |
| 354621         | Switch Start MH Std 150W ED17 CL U         | 0.390 -                   |
| 274498         | Switch Start MH Std 400W ED37 CL U         | 0.395 -                   |
| 419341         | Switch Start MH Std 400W CL U              | 0.395 -                   |

## Electrical Characteristics

| Product number | Full product name                            | Watts  | Lamp Voltage | Lamp Current |
|----------------|----------------------------------------------|--------|--------------|--------------|
| 313593         | Switch Start MH Std 175W/640 Med BD17 CO     | 175 W  | 132 V        | 1.5 A        |
| 321505         | Switch Start MH Std 1000W BT37 U             | 1000 W | 263 V        | 4.1 A        |
| 140855         | Switch Start MH Std 175W/640 Mog ED28 CL 1CT | 175 W  | 132 V        | 1.5 A        |
| 287334         | Switch Start MH Std 175W/640 Mog ED28 CL     | 175 W  | 132 V        | 1.5 A        |
| 140822         | Switch Start MH Std 250W/640 Mogul ED28 CL   | 250 W  | 133 V        | 2.1 A        |
| 274845         | -                                            | 250 W  | 133 V        | 2.1 A        |
| 426023         | Switch Start MH Std 400W ED28 CL U           | 400 W  | 135 V        | 3.25 A       |
| 140848         | Switch Start MH Std 400W ED28 CL U           | 400 W  | 135 V        | 3.25 A       |
| 140897         | Switch Start MH Std 175W ED17 U              | 175 W  | 132 V        | 1.5 A        |
| 354621         | Switch Start MH Std 150W ED17 CL U           | 150 W  | 110 V        | 1.5 A        |
| 274498         | Switch Start MH Std 400W ED37 CL U           | 400 W  | 135 V        | 3.25 A       |
| 419341         | Switch Start MH Std 400W CL U                | 400 W  | 135 V        | 3.25 A       |

## Environmental Characteristics

| Product number | Full product name                        | Mercury (Hg) Content | Picogram per Lumen Hour |
|----------------|------------------------------------------|----------------------|-------------------------|
| 313593         | Switch Start MH Std 175W/640 Med BD17 CO | 24.0 (max) mg        | -                       |
| 321505         | Switch Start MH Std 1000W BT37 U         | 151.0 mg             | 176 p/LuHr              |

| Product number | Full product name                            | Mercury (Hg) Content | Picogram per Lumen Hour |
|----------------|----------------------------------------------|----------------------|-------------------------|
| 140855         | Switch Start MH Std 175W/640 Mog ED28 CL 1CT | 28.0 (max) mg        | 255.1 p/LuHr            |
| 287334         | Switch Start MH Std 175W/640 Mog ED28 CL     | 28.0 (max) mg        | 255.1 p/LuHr            |
| 140822         | Switch Start MH Std 250W/640 Mogul ED28 CL   | 36.0 (max) mg        | 215.1 p/LuHr            |
| 274845         | -                                            | 36.0 (max) mg        | 215.1 p/LuHr            |
| 426023         | Switch Start MH Std 400W ED28 CL U           | 52.0 (max) mg        | -                       |
| 140848         | Switch Start MH Std 400W ED28 CL U           | 52.0 (max) mg        | -                       |
| 140897         | Switch Start MH Std 175W ED17 U              | 24.0 mg              | 264 p/LuHr              |
| 354621         | Switch Start MH Std 150W ED17 CL U           | 17.5 mg              | 199.4 p/LuHr            |
| 274498         | Switch Start MH Std 400W ED37 CL U           | 52.0 (max) mg        | 102.6 p/LuHr            |
| 419341         | Switch Start MH Std 400W CL U                | 52.0 (max) mg        | 102.6 p/LuHr            |

## Luminaire Design Requirements

| Product number | Full product name                            | Cap-Base Temperature | Bulb Temperature |
|----------------|----------------------------------------------|----------------------|------------------|
| 313593         | Switch Start MH Std 175W/640 Med BD17 CO     | 210 (max) C          | 400 (max) C      |
| 321505         | Switch Start MH Std 1000W BT37 U             | 250 (max) C          | 450 (max) C      |
| 140855         | Switch Start MH Std 175W/640 Mog ED28 CL 1CT | 210 (max) C          | 400 (max) C      |
| 287334         | Switch Start MH Std 175W/640 Mog ED28 CL     | 210 (max) C          | 400 (max) C      |
| 140822         | Switch Start MH Std 250W/640 Mogul ED28 CL   | 210 (max) C          | 400 (max) C      |
| 274845         | -                                            | 210 (max) C          | 400 (max) C      |
| 426023         | Switch Start MH Std 400W ED28 CL U           | 250 (max) C          | 400 (max) C      |
| 140848         | Switch Start MH Std 400W ED28 CL U           | 250 (max) C          | 400 (max) C      |
| 140897         | Switch Start MH Std 175W ED17 U              | 210 (max) C          | 450 (max) C      |
| 354621         | Switch Start MH Std 150W ED17 CL U           | 210 (max) C          | 400 (max) C      |
| 274498         | Switch Start MH Std 400W ED37 CL U           | 210 (max) C          | 400 (max) C      |
| 419341         | Switch Start MH Std 400W CL U                | 210 (max) C          | 400 (max) C      |



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