



High Intensity Discharge Lamps

Mercury Vapor Lamps

Watts	Bulb	Base	Product Number	Symbols, Footnotes	Ordering Code	ANSI Code Ballast Ref.	Pkg. Qty.‡	Description (401,407)	LCL (In.)	MOL (In.)	Rated Avg. Life (Hrs.)(351)	Approx. Initial Lumens(352)	Approx. Mean Lumens(353)	CRI	CCT (K)
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Mercury Vapor Lamps

100	A23	Med.	35658-4	★	H38MP-100/DX	H38	24	G (379)	—	5/8	24,000+	4300	3700	45	3700
	ED23 1/2	Mog.	33713-9	★	H38JA-100/DX	H38	12	G, S (379)	—	7/8	24,000+	4400	3400	45	3700
175	ED28	Mog.	31965-7	★	H39KB-175	H39	12	G, S (355)	5	8/8	24,000+	7900	7400	20	6800
	ED28	Mog.	24805-4	★	H39KC-175/DX	H39	12	G, S (379)	—	8/8	24,000+	7900	7600	45	3700
250	ED28	Mog.	31985-5	★	H37KB-250	H37	12	G, S (355)	5	8/8	24,000+	12,100	10,500	20	6700
	ED28	Mog.	24814-6	★	H37KC-250/DX	H37	12	G, S (379)	—	8/8	24,000+	13,000	10,700	45	3700
400	ED37	Mog.	24842-7	★	H33GL-400/DX	H33	6	G, S (379)	—	11/8	24,000+	23,000	19,100	45	3700
1000	BT56	Mog.	39707-5	★	H36GW-1000/DX	H36	6	G, S (359, 379)	—	15/8	24,000+	59,000	54,000	45	3600

Descriptive symbols for Mercury Vapor Lamps:

G—General Lighting

S—Street Lighting

For the most current product information, go to the e-catalog on www.philips.com

HID symbols and footnotes located on page 82

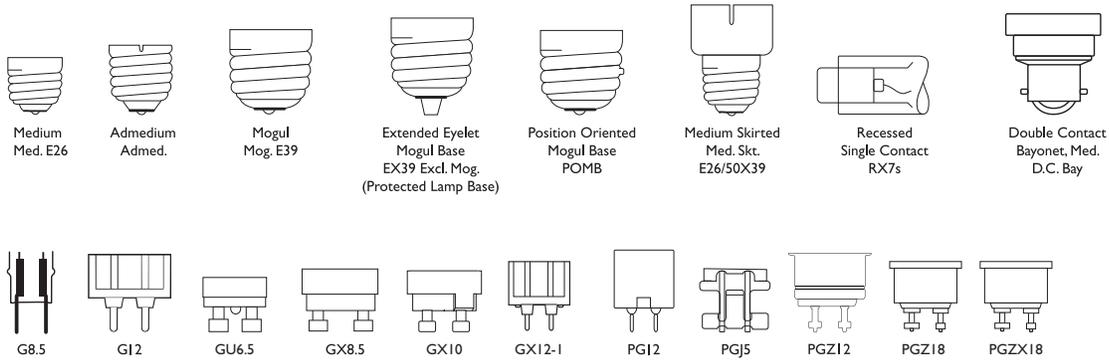




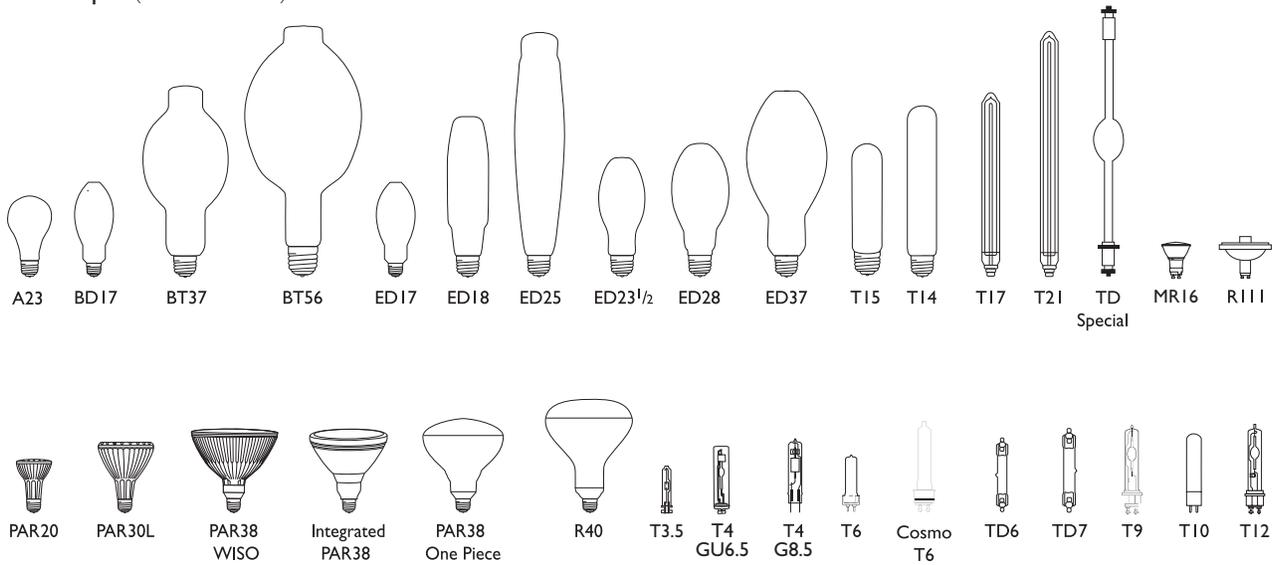
High Intensity Discharge Lamps

Base Types and Bulb Shapes

Base Types (Not Actual Sizes)



Bulb Shapes (Not Actual Sizes)





High Intensity Discharge Lamps

Symbols and Footnotes

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☐ Exclusive to Philips Lighting Company

■ Nickel plated brass base

💰 Energy Saving Product

▲ Aluminum base

★ Heat resisting glass bulb

♦ Maximum Beam Candlepower

) Can be used in open luminaire, only if operated vertically $\pm 15^\circ$

● This lamp is better for the environment because of its reduced mercury content. All Philips ALTO lamps give you end-of-life options which can simplify and reduce your lamp disposal costs depending on your state and local regulations

✕ Orders will be shipped until inventory is depleted; no longer manufactured

Ⓢ This Bulb Meets US Federal Minimum Efficiency Standard

† New since last printing

◇ Designed for instant start operation.

‡ Quantity shown is minimum shipping container—refer to Net Price Schedule for number of lamps to qualify as a standard case

G = General Lighting

S = Street Lighting

▼ PAR38 (one piece)

⌘ Satisfies the 2005 NEC for use in open luminaires. The 2005 NEC states that luminaires that use a metal halide lamp shall be provided with either a containment barrier that encloses the lamp (historically referred to as an enclosed luminaire) or shall be provided with a means, typically a special lampholder, that will only accept ANSI Type-O metal halide lamp. (Exception—this requirement will not apply to open luminaires with thick-glass parabolic reflector PAR lamps.) For more information regarding use of Type-O, S, and E metal halide systems, please refer to the NEMA white paper on this subject that is freely available at www.nema.org

(351) Rated average life is the life obtained, on average, from large representative groups of lamps in laboratory tests under controlled conditions at 10 or more operating hours per start. It is based on survival of at least 50% of the lamps, and allows for individual lamps or groups of lamps to vary considerably from the average. For HPS lamps, life is based on survival of 67% of the lamps

(352) Measured at 100 hrs. life. Approximate lumen values listed are for vertical operation of the lamp.

(353) Approximate lumen output at 40% of lamp rated average life.

(355) Separate filter is required for black light application.

(359) Electrically insulated support for bulb may be required, especially in horizontal and nearly horizontal operating positions.

(360) Follow fixture manufacturer's recommendations regarding proximity of ballast to bulb.

(362) This lamp should be shielded from moisture to prevent breakage.

(370) C150S55 and C150S56 lamps are not electrically interchangeable. Different ballasts are required for the proper operation of each lamp type. ANSI type S55 ballast is for the 55-volt (normal) lamp and the ANSI type S56 ballast is for the 100 volt (nominal) lamp.

(372) Color characteristics may vary somewhat from one lamp type to another. Time should be allowed for the lamp to stabilize in color when it is turned on for the first time or if for any reason its operating position is changed. This may require several hours' operation, with more than one start. Lamp color and output may change temporarily if the lamp is subjected to excess vibration or shock. Lamp color characteristics may change after long accumulate operating time.

(373) Fixtures should be designed so that sockets and wiring withstand starting pulse up to 5000 volts for 1000 watts and WHITE SON types and 4000 volts for other sizes.

(374) Performance may not be satisfactory unless operated within specified operating positions.

(375) If specified operating position is base up or base down to horizontal, this permits 15° beyond the horizontal.

(376) For use in fixtures which do not redirect a substantial portion of the energy toward the arc tube; otherwise very early failure is anticipated.

(377) Requires a ballast specified or approved for Philips metal halide lamps, or one that is designed to operate all popular brands of metal halide lamps. 1000W types will operate from H36 conventional lag type ballast for Mercury Vapor lamps at ambient temperatures of 50°F or higher. 1000W types must not be operated at 1500W.

(378) Requires auxiliary 10KV pulse ignitor for instant restrike.

(379) It is a characteristic of phosphor-coated vapor lamps to require a few hundred hours of operation to gradually reach normal characteristic color. New lamps may have a slight pink appearance during this initial operating period.

(385) Rated average life: vertical $\pm 15^\circ$. Other positions 75% of vertical life.

(387) This lamp can cause serious skin burns and eye inflammation from shortwave ultraviolet radiation and must be fully enclosed in a fixture with an appropriate UV filter. To protect against possible risk of property damage or personal injury due to an arc tube rupture, the fixture enclosure must be capable of withstanding particles of glass having temperatures up to 1000°C. **DO NOT USE THIS LAMP IF THE UV FILTER IS MISSING.**

(389) Operates at rated output on ANSI 430W S145 SON AGRO ballasts.

(391) Requires a ballast specified or approved for Philips Metal Halide lamp or one designed to the indicated ANSI Standard. A pulse ignitor is required. Sockets and wiring must withstand starting pulse.

(392) Supply volts must be $\pm 5\%$ of rated ballast line volts for reactor type and $\pm 10\%$ for CWA or electronic ballasts.

(393) Vertical lumens. Horizontal lumens 6%–10% lower.

(394) To maintain color consistency within 250K, group relamp at 7500 hours.

(396) UV filtered design (FadeBlock).

(397) Operate only on thermally protected ballasts.

(399) This product utilizes ALTO Lamp Technology. ALTO products pass the US EPA's Toxicity Characteristic Leaching Procedure (TCLP) for non-hazardous waste status.

(400) Energy-saver retrofit for 175W, M107 ballast.

(401) MasterColor Metal Halide Lamps are not recommended for use on dimmers and are not warranted if used on dimmer systems.

(402) Primarily used for sports-lighting applications. Life, initial and mean lumens are for horizontal operation. In vertical position and at 10 or more hours per start, lamp life is extended to 6000 hours, initial lumens are 170,000 and mean lumens are 136,000.

(405) 97% Lumen maintenance at 10% of rated average life. 93% lumen maintenance at 40% of rated average life.

(406) **CAUTION:** Beware of inadvertent circuit overload in new construction. Because of power factor of 0.57 in the ballast of the lamp, the lamp uses 0.36 amps.

(407) Operating Position is Universal, unless otherwise indicated. See Warnings, Cautions and Operating Instructions for further information.