

Title (en)

COMPACT HIGH PRESSURE DISCHARGE LAMP

Publication

**EP 0193086 B1 19900502 (DE)**

Application

**EP 86102111 A 19860219**

Priority

DE 3506295 A 19850222

Abstract (en)

[origin: US4686419A] A metal halide high-pressure discharge lamp has a discharge vessel of compact construction, with a fill of mercury, at least one noble gas, typically argon, and a metal halide, with an excess of halogen. The halogen component of the metal halide is formed by iodine and/or bromine. An average light density in excess of 30 ksb, with a specific arc power of between 400 to 5000 W/cm is obtained over an average lifetime of 250 hours with a color rendering index Ra of at least 85 by utilizing cadmium and lithium as the metal component in the metal halide of the fill. Preferably, holmium also is used as a metal for the metal halide, the fill including between 0.1 and 5 mg cadmium, up to 0.05 mg lithium, and 0.05 to 1 mg holmium in a preferred form, halogen and bromine being present in a mol relation of between 0.5 to 2 within the discharge vessel. The excess halogen may be up to about 35 micromol per cubic centimeter of volume of the discharge vessel. The lamp is particularly suitable for optical projection systems, for example for combination with a reflector (13).

IPC 1-7

**H01J 61/12; H01J 61/82**

IPC 8 full level

**H01J 61/88** (2006.01); **H01J 61/12** (2006.01); **H01J 61/20** (2006.01); **H01J 61/82** (2006.01)

CPC (source: EP US)

**H01J 61/125** (2013.01 - EP US); **H01J 61/827** (2013.01 - EP US)

Cited by

FR2620267A1; NL8702086A; WO9501648A1; WO9423441A1

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**EP 0193086 A2 19860903; EP 0193086 A3 19881102; EP 0193086 B1 19900502**; AT E52389 T1 19900515; DE 3506295 A1 19860828; DE 3670925 D1 19900607; JP H0565976 B2 19930920; JP S61193354 A 19860827; US 4686419 A 19870811

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