

Technical Information

No. FO 4798

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Status: valid

Mercury Short Arc Lamp
for Microlithography

HBO[®] 1500 W/CIEL & /CIL

n Product description

The OSRAM HBO[®] 1500 W/CIEL is a direct current mercury short arc i-line lamp designed for the manufacture of integrated circuits (microlithography). This lamp type emits a very high radiant intensity in the ultraviolet and visible wavelength range and is especially suited for use in Canon equipment (e.g. FPA 3000 i1, i2, i3). The extended longlife version HBO[®] 1500 W/CIEL is also available as longlife version HBO[®] 1500 W/CIL with an average 1500h service life. The standard type HBO[®] 1500 W/CI (850h) is obsolete, delivery on demand only.

n Technical data

Order reference	HBO [®]	1500	/CIL
Rated lamp wattage	W	1.500	
Rated lamp voltage	V	23	
Rated lamp current (=)	A	65	
Ignition voltage (cold)	kV _s	max. 20	
Radiant intensity (wave length range 365 ± 2,5nm)	mW/sr	4.850	
Electrode gap e (cold)	mm	4	
Lamp length (overall) l ₁	mm	--- / max. 262	
Lamp length l ₂	mm	240 / max. 242	
Bulb diameter d	mm	52	50
LCL a	mm	122	
Average service life	h	2.250	1.500
Base		• Cathode: SFa 27-20/22 with cable connection (M8) • Anode: Sfa 27-10/35 with cable connection (M10)	

n Lamp operation

Maximum permissible base temperature	°C	200
Cooling		forced base cooling
Burning position		vertical, anode (+) underneath

The HBO[®] 1500 W/CIEL can either be operated on standard ballasts or on electronic power supplies (ECG).

n Safety Instruction

Because their high luminous efficacy, the UV radiation which they emit and the high pressure within the lamp, HBO[®] lamps must be operated within enclosed, purpose-built housings. When a lamp breaks, mercury is released. Particular safety regulations must be paid attention (for details please request technical information sheet no. FO 4574).

