

## HBO Microlithography Lamps for Canon i-line Systems

Microlithography lamps for Canon i-line systems

### Areas of application

- Microlithography



### Product features and benefits

- High spectral intensity with peak irradiance at 365nm wavelength, making it ideal for microlithography
- Designed for long lasting performance
- Qualified with Canon



## Product family datasheet

### Technical data

Product description	General Product Information			
	Product number (Americas)	Product name (Americas)	Family brand	Lamp type
HBO 1002 W/CEL	69177	HBO 1002W/CEL 1/CS 1/SKU	HBO	DOUBLE ENDED
HBO 1500 W/CIEL	69171	HBO 1500W/CIEL 6/CS 1/SKU	HBO	DOUBLE ENDED
HBO 2001 W/CIEL	69166	HBO 2001W/CIEL 4/CS 1/SKU	HBO	DOUBLE ENDED
HBO 2002 W/MA	69199	HBO 2002W/37V/MA 4/CS 1/SKU	HBO	DOUBLE ENDED
HBO 2001 W/CIELX	69157	HBO 2001W/CIELX 4/CS 1/SKU	HBO	
HBO 2001 W/CIL	69189	HBO 2001W/CIL 4/CS 1/SKU	HBO	DOUBLE ENDED
HBO 2700 W/CIL <sup>1)</sup>	69344	HBO 2700W/24V/CIL 1/CS 1/SKU	HBO	
HBO 4500 W/CIL <sup>1)</sup>	69162	HBO 4500W/30V/CIL 4/CS 1/SKU	HBO	

Product description	Global order reference	Electrical Data		Photometric Data
		Nominal wattage	Nominal voltage	Light center length (LCL)
HBO 1002 W/CEL	HBO 1002 W/CEL	750 W	47.0 V	78.5 mm <sup>2)</sup>
HBO 1500 W/CIEL	HBO 1500 W/CIEL	1500 W	23.0 V	122.0 mm <sup>2)</sup>
HBO 2001 W/CIEL	HBO 2001 W/CIEL	2000 W	26.0 V	148.75 mm <sup>2)</sup>
HBO 2002 W/MA	HBO 2002 W/MA	2000 W	37.0 V	138.5 mm <sup>2)</sup>
HBO 2001 W/CIELX	HBO 2001 W/CIELX	2000 W	24.5 V	
HBO 2001 W/CIL	HBO 2001 W/CIL	2000 W	26 V	
HBO 2700 W/CIL <sup>1)</sup>	HBO 2700 W/CIL	2700 W	26.0 V	149.1 mm <sup>2)</sup>
HBO 4500 W/CIL <sup>1)</sup>	HBO 4500 W/CIL	4500 W	30 V	157.75 mm <sup>2)</sup>

Product description	Physical Attributes & Dimensions	Operating Conditions		Lifetime Data
	Length	Burning position	Cooling	Nominal lifetime
HBO 1002 W/CEL	175.0 mm	Other <sup>3)</sup>		2500 hr
HBO 1500 W/CIEL	262.0 mm	Other <sup>3)</sup>		2100 hr
HBO 2001 W/CIEL	327.0 mm	Other <sup>4)</sup>	Forced <sup>5)</sup>	2250 hr
HBO 2002 W/MA	270.0 mm	Other <sup>3)</sup>		750 hr
HBO 2001 W/CIELX	307.0 mm	Other <sup>4)</sup>		2250 hr
HBO 2001 W/CIL	309.0 mm	Other <sup>4)</sup>		850 hr

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Product description	Physical Attributes & Dimensions	Operating Conditions		Lifetime Data
	Length	Burning position	Cooling	Nominal lifetime
HBO 2700 W/CIL <sup>1)</sup>	332.0 mm	Other <sup>4)</sup>	Forced <sup>5)</sup>	1500 hr
HBO 4500 W/CIL <sup>1)</sup>	354.0 mm	Other <sup>4)</sup>	Forced <sup>5)</sup>	

Product description	Environmental & Regulatory Information Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)			
	Primary article identifier	Declaration no. in SCIP database	Candidate list substance 1	CAS No. of substance 1
HBO 1002 W/CEL	4050300412634	5ec6ff55-9ef7-453c-af73-6d14ad4c8c6b	Lead	7439-92-1
HBO 1500 W/CIEL	4050300624037	61751f10-f0e4-4368-a7ca-91508cae74ba	Lead	7439-92-1
HBO 2001 W/CIEL	4050300972121	68376090-2d92-4e76-ba65-9555d035ba5a	Lead	7439-92-1
HBO 2002 W/MA	4050300947259   4050300628240	d3ee2a8f-7201-41c8-8fe6-b8140950a0a3   af958d72-01f1-43c6-98a7-e4cb52024dea	Lead	7439-92-1
HBO 2001 W/CIELX	4008321122735	e3c72fe1-3c0b-479b-a66a-65df6460acca	Lead	7439-92-1
HBO 2001 W/CIL	4050300947235	f6a39f81-4148-42c8-aede-bcd004fd3eb9	Lead	7439-92-1
HBO 2700 W/CIL <sup>1)</sup>	4050300896588   4008321786838	65f8f183-407d-4000-b41f-fbefb99408fd   42d7a85e-dbe6-483f-9659-4d2b45293e9f	Lead	7439-92-1
HBO 4500 W/CIL <sup>1)</sup>	4008321387455	628eb817-c420-4811-85b9-6af88badc991	Lead	7439-92-1

Product description	Safe use instruction
HBO 1002 W/CEL	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 1500 W/CIEL	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 2001 W/CIEL	The identification of the Candidate List substance is sufficient to allow safe use of the article.

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Product description	Safe use instruction
HBO 2002 W/MA	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 2001 W/CIELX	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 2001 W/CIL	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 2700 W/CIL <sup>1)</sup>	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 4500 W/CIL <sup>1)</sup>	The identification of the Candidate List substance is sufficient to allow safe use of the article.

<sup>1)</sup> Lamp contains overpressure even in cold status - additional safety regulations, supplied with the lamps, have to be fulfilled. Please read Technical bulletin DO-SEM TB 004 carefully

<sup>2)</sup> Distance from end of base to tip of anode or cathode (cold)

<sup>3)</sup> Anode underneath

<sup>4)</sup> Anode on top

<sup>5)</sup> Maximum permissible base temperature: 200 °C

## Product family datasheet

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### Safety advice

Because of their high luminance, UV radiation and high internal pressure (when hot) HBO lamps may only be operated in enclosed lamp casings specially constructed for the purpose. Mercury is released if the lamp breaks. Special safety precautions must be taken. More information is available on request or can be found in the leaflet included with the lamp or in the operating instructions.

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### Application advice

For more detailed application information and graphics please see product datasheet.

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### Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.