

## HBO 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
- 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<br>1/CS 1/SKU     | HBO          | DOUBLE ENDED |
| HBO 1500 W/CIEL              | 69171                       | HBO 1500W/CIEL<br>6/CS 1/SKU    | HBO          | DOUBLE ENDED |
| HBO 2001 W/CIEL              | 69166                       | HBO 2001W/CIEL<br>4/CS 1/SKU    | HBO          | DOUBLE ENDED |
| HBO 2002 W/MA                | 69199                       | HBO 2002W/37V/MA<br>4/CS 1/SKU  | HBO          | DOUBLE ENDED |
| HBO 2700 W/CIL <sup>1)</sup> | 69344                       | HBO 2700W/24V/CIL<br>1/CS 1/SKU | HBO          |              |
| HBO 4500 W/CIL <sup>1)</sup> | 69162                       | HBO 4500W/30V/CIL<br>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 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 V            | 148.75 mm <sup>2)</sup>   |
| HBO 2002 W/MA                | HBO 2002 W/MA          | 2000 W          | 37 V            | 138.5 mm <sup>2)</sup>    |
| HBO 2700 W/CIL <sup>1)</sup> | HBO 2700 W/CIL         | 2700 W          | 26 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 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<br>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              |

## Product family datasheet

| Environmental & Regulatory Information                                |                               |   |                            |                        |
|---|-------------------------------|---|----------------------------|------------------------|
| Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH) |                               |   |                            |                        |
| Product description   | Primary article identifier    | Declaration no. in SCIP database  | Candidate list substance 1 | CAS No. of substance 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 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. |
| HBO 2002 W/MA                | 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. |

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| Product description          | Safe use instruction   |
|------------------------------|--|
| 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.