

# Technical Information

No. FO 4968

Edition: March 05, 2008 - subject to change

Substitutes: edition 11/2004

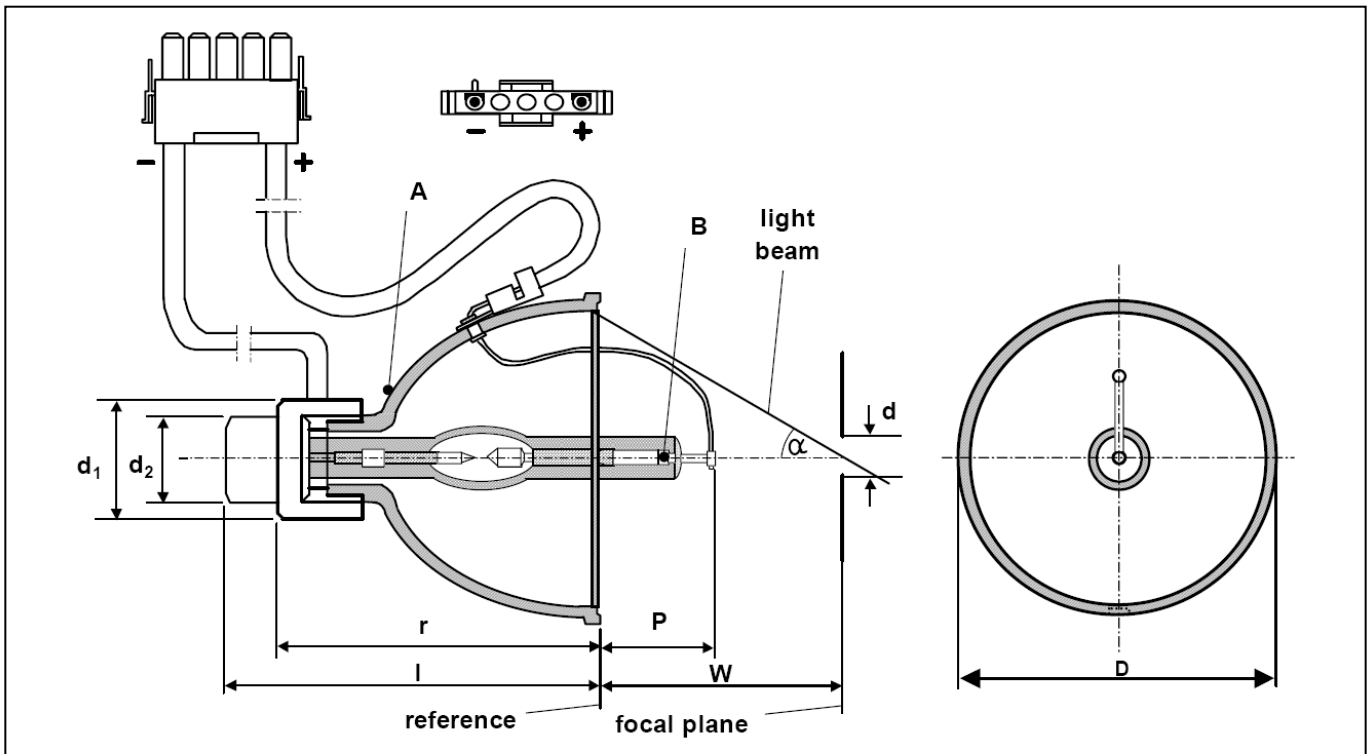
Status: valid

# Xenon Short Arc Reflector Lamp

## XBO<sup>®</sup> R 300 W/60C OFR

### ■ Product description

- Xenon discharge lamp for DC operation
- Short arc, high pressure
- Elliptical reflector
- Focused light with approx. 60° full cone angle
- Focus diameter approx. 5 mm
- 60 mm working distance
- Interference coating for suppressed IR reflectivity
- Ozone-free
- Cables with universal MATE-N-LOK plug<sup>1</sup>
- Allows hot re-ignition



### ■ Technical data

Rated lamp wattage	W	300 (see also information under "Power operation range")
Typical lamp current	A	16.5 (at rated lamp wattage)
Initial voltage range	V	16V ... 20V (at rated lamp wattage)
Ignition voltage (cold and hot)	kV	max. 20
Colour temperature	K	approx. 6,200
Colour rendering index	R <sub>a</sub>	better than 95, typically 97-98
Beam-to-axis angle $\alpha$	deg	max. 30
Length l	mm	max. 80
Length p	mm	max. 30
Length r	mm	max. 62
Reflector diameter D	mm	max. $\varnothing$ 82.5
Diameter d <sub>1</sub>	mm	$\varnothing$ 31

<sup>1</sup> MATE-N-LOK is trademark of AMP Inc.

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Diameter  $d_2$  mm  $\varnothing 23$

Electrical connection approx. 150 mm<sup>2</sup> long cables terminated with universal MATE-N-LOK plug no. 350809-1 with pins no. 926868-3 by AMP Inc.

### ■ Performance data at 300 W

Working distance WD mm 60

Initial aperture lumens lm

- for aperture diameter  $d = \varnothing 3$  mm: min. 1,400, max. 2,300
- for aperture diameter  $d = \varnothing 5$  mm: min. 2,350, max. 3,900

Declared service life<sup>3</sup> h 1,000

Min. individual life<sup>4</sup> h 500

### ■ Mounting

Mounting rim mounting; for details see Technical Information no. FO 4974

### ■ Operation conditions

Burning position horizontal  $\pm 20^\circ$  (p 20)

Temperature at point A °C max. 250 allowed

Temperature at point B °C max. 350 allowed

Cooling Forced cooling required, air flow velocity and distribution to be chosen in such a way as to ensure proper temperatures at points A and B (see drawing)

Current operation range A 15 ... 19 (at rated lamp wattage)

Power operation range W 250 ... 300, (constant power operation only!)

Polarity proper polarity to be observed

XBO<sup>®</sup> R 300 W/60C OFR must be operated with a lamp driver and ignition unit complying with OSRAM Guidelines for Power Supplies and Igniters (see below).

### Additional documentation

- Guidelines for Mounting and Centering of Reflector Discharge Lamps (2);
- Technical Information no. FO 4974 (in preparation)
- Guidelines for Power Supplies and Igniters for Xenon Short Arc Lamps Photo Optics no. FO GL-36
- Cooling Scheme; Technical Information no. FO 4969
- Typical spectral power distribution

<sup>2</sup> Until August 2003 approx. 120 mm long

<sup>3</sup> Expected average life-time at switching cycle 3h on / 20 min off.

<sup>4</sup> Operation time after which aperture lumens can decrease to 50% of initial value; switching cycle: cycle 3h on / 20 min off.