

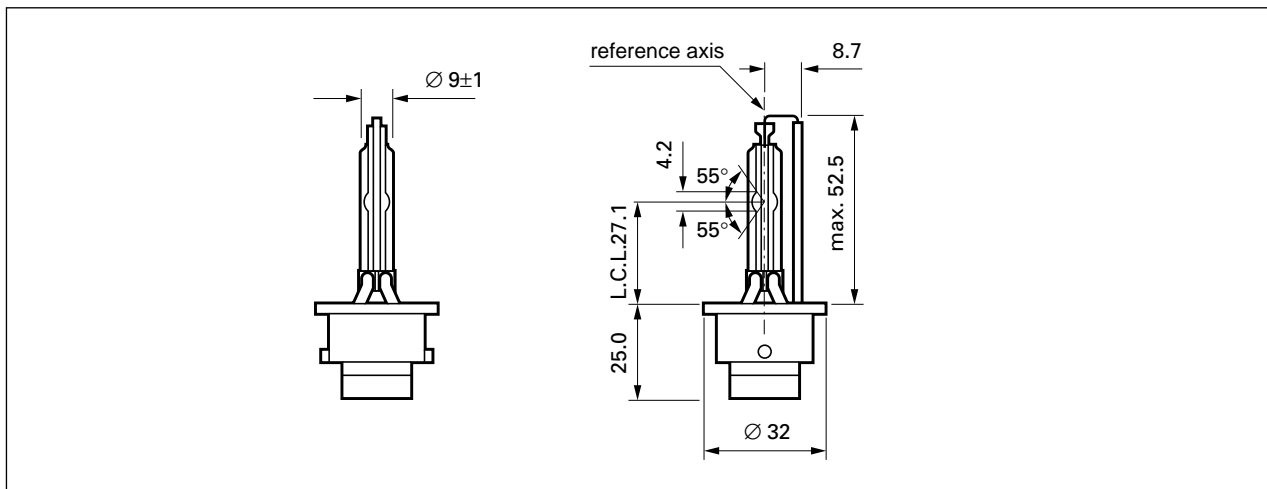
Business Center  
Automotive  
Aachen

Product Information Sheet  
for  
Micro Power Xenon Light  
D2S

No. 1000 - 1

1996-09-01 NEW

1996-03-01 OLD



Applications

- projection headlights
- working lights
- rally lights
- optional lighting
- portable lighting

Technical data	R99
Testpower at	35W ±0.3W
Voltage	85V ± 17V
Luminous flux	3200 lm ±450 lm
Lumen maintenance	1500 h 75%
Colour x	0.380 ±0.025
Colour y	0.390 ±0.015
Colour temp.	4100 k

• Starting characteristics

Starting voltage, max.*	23 kV
Starting current, max.	2.6 A
Wattage, max.	75.0 W
Run-up time, max.*	1.3 s

• Service life\*

	Min	Typ.
Tc>	2500	3000
B3>	1000	1300

\*Depending on ballast system applied

• Temperatures

Temperature at pinch, max.:	350 °C
Temperature at protective bulb:	700 °C
Temperature at lamp base, max.:	240 °C

Micro Power Light

85V 35W

Cap: P32d-2 <sup>1)</sup>

Type: 85122

ECE R99

Code No. 9285 013 29400

D2S

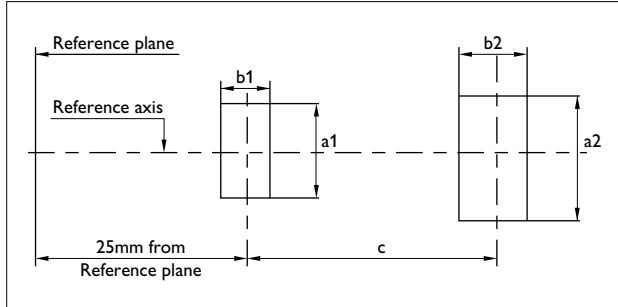
Made in Germany/Aachen

<sup>1)</sup> according to IEC 61-1 sheet 7004-111-1



**Geometric specifications**

**1. Electrode position**



This test is used to determine whether the electrodes are correctly positioned relative to the reference axis and the reference plane.

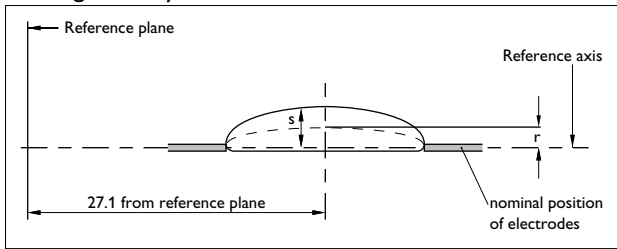
Measuring direction: light source side and top view

Dimensions in mm	Production light sources
a1	d + 0.2
a2	d + 0.5
b1	0.3
b2	0.6
c	4.2

d=diameter of the electrode < 0.3

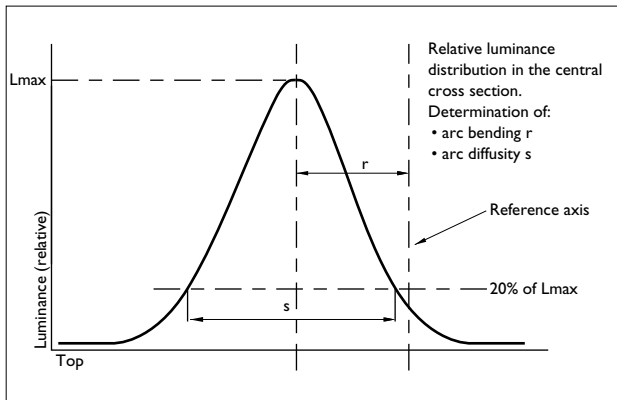
The top of the electrode nearest to the reference plane shall be positioned in the area defined by a1 and b1. The top of the electrode furthest from the reference plane shall be positioned in the area defined by a2 and b2.

**2. Arc geometry**



Dimensions in mm	Production light sources
bending	0.50 ± 0.40
arc diffusion	1.10 ± 0.40

Referring to base reference plane



Vertical Luminance cross-section at centre of the arc: measured at 27.1mm from reference plane

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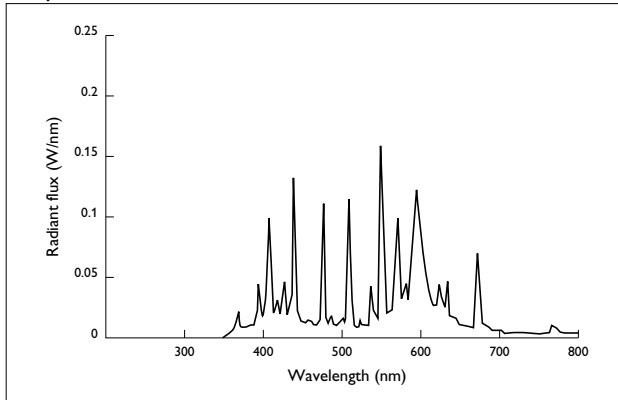
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Photometric specifications

1. Spectral radiant flux



Emitted radiation: > 250 nm  
Nature of radiation: CIE values

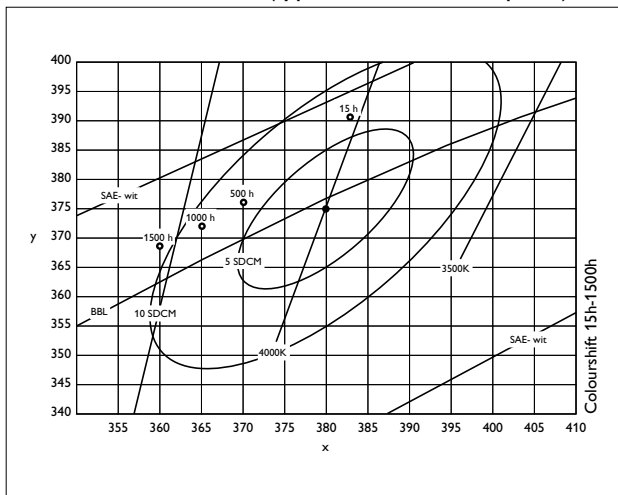
UVA (315...400 nm): 1.0W Typ.  
UVB (280...315 nm): 0.03W Typ.  
UVC (250...280 nm): 0.015W Typ.

PET: 1.5h/klx Typ.

Damage factor: 0.50 Typ.

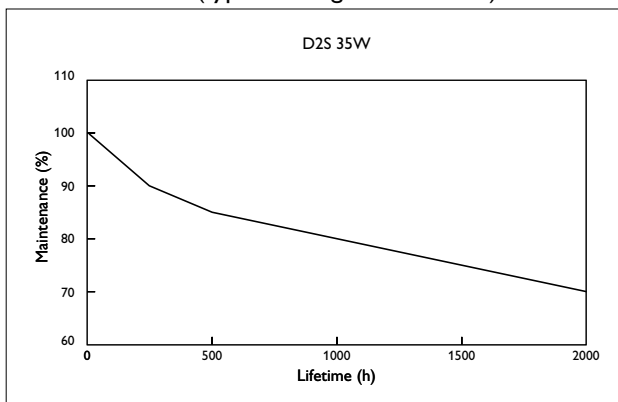
Bulb should only be used & operated in a closed reflector.

2. Colour co-ordinates. (typical shift of colourpoint)



CIE colour coordinates for white-recognition  
SDCM = Standard Deviation Colour Matching

3. Luminous flux. (typical change of lum. flux.)



Lumen maintenance for 1500h  
M = 75% Typ.



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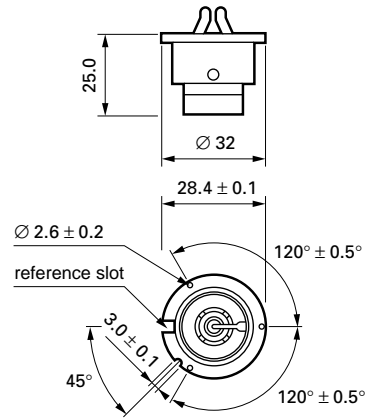
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**Bulb markings:**

- Brand name: PHILIPS
- ANSI number : ---
- ECE Identifier: D2S
- Philips' Part Number: 85122
- E1 03V ECE approval

**Other Information**

- A. Bulb drawing and main dimensions.  
See sheet D2S -1
- B. The D2S replaceable light source will be specified in  
ECE Regulation No. 99.  
Latest available document: TRANS/WP.29/R99
- C. The base P32d-2 is specified in IEC Standard 61.  
Latest available document: IEC 34B/584/FDIS



**Safety and pollution control**

**Personal safety**

The micro high-pressure burner emits fewer UV rays when equipped with a protective UV filtering bulb. Always adhere to instructions concerning personal safety.

When adjusting the bulb and the case of direct eye contact with the open bulb, always wear safety UV glasses.

Avoid direct contact with bare hands.  
Wear protective gloves.

Also wear safety glasses and gloves when working with bulb when switched off or in non-luminous state.

Pressures inside lamp  
In cold state approx.: 7 bar  
In hot state approx.: 100 bar

Parts of the body exposed to direct light from the bulb for long periods of time should be covered.

**Discharge bulbs for Headlights**

The following safety instructions should be observed.  
Only hold the bulb by the base.  
The bulb is manufactured from high-quality quartz and is under high pressure. Damage, soiling and fingerprints should be avoided and, if necessary, removed with alcohol before the bulb is switched on. When handling the bulb the necessary safety precautions should always be taken on account of the high pressure (i.e. wear gloves and safety glasses and use the bulb in a closed headlight etc.).

The bulb may only be operated with a suitable ballast which produces very high voltages on switching on and during operation (**Caution!**). Contact with bulb and wires should therefore be avoided and a safe distance of at least 30mm should be maintained.

When it is switched on, the bulb produces a certain amount of UV radiation.

In order to avoid any impairment of health (sunburn and conjunctivitis) the bulb should only be used in closed headlights with the appropriate UV-absorbing front glass. Due to the risk of burning, the bulb should be left to cool down for three minutes after switching off before touching.

For safety reasons the bulb should only be fitted by a specialist.

Due to the use of mercury and various salts, the bulb should be treated as special waste when discarded.

**Environmental protection**

Do not mechanically damage defective bulbs.  
Defective bulbs should be disposed of as special waste.

**Note:**

**D2S bulb should be used only in combination with ballast and starter complying with automotive specifications.**

**All specifications are given according to the actual ballast specification.**