



PHOTRON ***PTY.LTD.***

LIGHTEN YOUR HORIZON

Photron specializes in the research, development and manufacture of high quality light sources used in analytical spectroscopy.

28 years of Photron's of lamp production history

INTRODUCTION

Deuterium (D2) lamps are a broad spectrum light source in the range of 190nm up to 400nm. These lamps are used in a wide variety of analytical instruments e.g. AA,UV,HPLC

The Three main criteria for a great D2 lamp:

1. **Lifetime**
2. **Intensity**
3. **Stability**

Photron over the past few years have spent many development hours improving these three area's.



P701 D2 LAMP



PHOTRON PTY.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com

1. LIFETIME

By using a UV glass material instead of the traditional quartz glass, Photron's D2 lamps have improved lifetime as the internal D2 gas cannot leach through the glass. Also quartz based D2 lamps are also effected by a reaction called vitrification. This process will decrease the transmission of light.

In in-house tests of lifetime of Photron UV D2's many exceed 2000 hours.



PHOTRONPTY.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com

2. INTENSITY

There has been many improvements to Photron's D2 lamp to improve the intensity.

A. Cup shape and aperture size

The design of our discharge cup and the aperture size have seen some changes. The different profile increasing in intensity, yet not effecting other performance, life of lamp etc.

B. Alignment

Many D2 lamps also require alignment in a bracket, if this alignment is out it can greatly effect the reading that the instrument receives. We use a spectrometer with fiber optic, bringing alignment to less then 0.5mm.

C. Polishing

The reflective surface off the discharge cup is made of Molybedem. It can be found by our polishing technique that the energy out is increased by 20%.



PHOTRONPTV.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com

3. STABILITY

Photron have improved the tools used in producing the internal components so all our D2's will produce similar intensity. This has also made the signal very stable. The glass bases are now also made in house which allows Photron to have total control over all of the components in our lamps.



PHOTRONPTV.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com

OTHER DEVELOPMENTS

- Many UV-VIS instruments require a “see through” design with their lamps eg. Agilent Technologies. This is so a visible source (tungsten lamp) can add it’s signal to the same light path.
- Many new brackets have been developed.



PHOTRONPTV.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com

D2 LAMPS

Photron's traditionally supplied D2 lamps for use in AAS instruments. However, in the past few years we have been expanding into the UV-VIS and HPLC markets.

A full range of Photron's D2 lamps can be viewed at

www.photronlamp.com



PHOTRONPTY.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com

COMPANIES WE MAKE LAMPS FOR

- **Altex**
- **Agilent**
- **Biochrom**
- **Biorad**
- **Carlo Erba**
- **Dupont**
- **Hitachi**
- **IBM**
- **Kontron**
- **GBC**
- **LDC**
- **Perkin Elmer**
- **Perspectivve Biosystem**
- **Shimadzu**
- **Speck Analytical**
- **Thermo Fisher**
- **Varian**
- **Waters**



PHOTRONPTV.LTD.

LIGHTEN YOUR HORIZON

www.photronlamp.com

NEW D2 LAMPS

P707 – Bracket lamps, BAS, Dionex, GBC, IBM,
Prespective Biosystems, Speck Analytical, Spectra

Physics, Thermo, Varian.



P733 – Waters 996



PHOTRON PTY.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com

NEW D2 LAMPS con't

P735 – PE Analyst 600/700/800. We will also have more Analyst lamps available in 2009.



P737 – Thermo Fisher S4 Solar



PHOTRON PTY.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com

NEW D2 LAMPS con't

P738 – Thermo Fisher M5, M6 Solar



P739 – Thermo Fisher 929



PHOTRON PTY.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com

NEW D2 LAMPS con't

P747 – Unicam 8625



A complete copy of our new D2 range is available, please see Grzegorz Cison for a copy.
We also have a list of our complete range of lamps on our website:

WWW.photronlamp.com



PHOTRON PTY.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com

PRICE COMPARISON

Price is a big issue with the current state of the global economy. Photron's low production cost enable us to give the end user a high quality and cheaper alternative to many Big name brands.

D2 list prices for our new D2 range are as follows:-

	Competitor's price	Photron Slesin Special
•P707	2000.00 zl	- discount of 500 = 1500 zl
•P733	2200.00 zl	- discount of 500 = 1700 zl
•P735	2200.00 zl	- discount of 500 = 1700 zl
•P737	1900.00 zl	- discount of 500 = 1400 zl
•P738	1900.00 zl	- discount of 500 = 1400 zl
•P739	1900.00 zl	- discount of 500 = 1400 zl
•P747	1900.00 zl	- discount of 500 = 1400 zl



PHOTRONPTV.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com

THANK YOU

Thank-you for your attendance at Slesin, I look forward to answering any questions you may have regarding D2 lamps.



Photron's
Head office



PHOTRON PTY.LTD.
LIGHTEN YOUR HORIZON

www.photronlamp.com