



## Application Bulletin

UVP-AB-127

**Corporate Headquarters: UVP, Inc.**

2066 W. 11th Street, Upland, CA 91786

Telephone: (800)452-6788 or (909)946-3197

E-Mail: [uvp@uvp.com](mailto:uvp@uvp.com)

**European Operations: Ultra-Violet Products Limited**

Unit 1, Trinity Hall Farm Est, Nuffield Rd, Cambridge CB4 1TG UK

Telephone: +44(0)1223-420022

E-Mail: [uvp@uvp.co.uk](mailto:uvp@uvp.co.uk)

Internet: <http://www.uvp.com>

### FRAUD DETECTION CREDIT CARDS, DOCUMENTS AND OLDER U.S. CURRENCY

**WAVELENGTH:** LONG WAVE (365 nm)

**EQUIPMENT USED:** UVL-56 Lamp, 6-watt, line cord  
ML-49 Lamp, 6-watt, battery operated  
UVL-23R Lamp, 4-watt, line cord  
UVL-4 Lamp, 4-watt, battery operated

**FIELD OF USE:** SECURITY

**BACKGROUND:** Longwave ultraviolet light is used in a variety of fraud detection applications. Several examples demonstrate the versatility of UV as a fraud detection tool. For example, counterfeit currency fluoresces under longwave UV, while the paper used in genuine US currency will not fluoresce. The same principle is applied, in reverse, to credit cards. Many newer credit cards have an invisible imprint on the front, such as "AMEX" for American Express. If no imprint is detected under longwave UV, the card is a forgery.

Another example is verifications of legal documents. Most alterations of legal documents are detectable by longwave UV, because even careful erasure or eradication of ink disturbs paper textures. UV high-lights such discrepancies in the paper texture of a document requiring verification.

**RECOMMENDED LAMPS:** UVL-56 is a 6 watt, line cord lamp that can be hand-held or used with the optional J -129 lamp stand. ML-49 is a 6 watt cordless model, using two powerful, long-life 6-volt lantern batteries. UVL-23R is a 4-watt, line cord model which can be used with the optional J - 124 lamp stand. UVL-4 is an inexpensive, hand lamp that uses four "AA" batteries.

These four lamps offer a full range of options for intensity, power sources, and portability at the 365 nm wavelength required for fraud detection.