



UNILAMP MS SERIES



UNILAMPS are monochromatic lamps with highly visible green light used for testing optical parts. Their low cost and long life make it practical to cover several plant inspection stations. UNILAMPS, when combined with an optical flats, can observe workpiece flatness down to very fine perfection. They are particularly useful on surfaces which are flat to better than .0005" per inch surface.

Instruments such as spectrometers and spectrographs can be easily calibrated using the lamp's main lines and removing its green filter. Fabry-Perot etalons can be illuminated by selecting the green line or other mercury lines.

LAMP COMPONENTS

- Two fluorescent bulbs without coating (smallest lamp has one U-shaped bulb)
- Three-wire cord and tilting base, to produce about 25° forward tilt. Larger lamps can be easily suspended above the work surface.
- Window consists of two plastic sheets: one diffusing white, the other transparent green, to pass only green line (5461A) of the mercury spectrum.

FIELDS OF USE BASED ON SIZE

UL-12	General testing & inspection up to 8" flats. Optimum combination of brightness, capacity & portability.
UL-16	General testing & inspection, up to 12" flats. Convenient suspension above work.
UL-30	Simultaneous comparison standards, to 12" flats, or two or more workers. Horizontal suspension above work.

SPECIFICATIONS

	WATTS	WINDOW SIZE	BRIGHTNESS	VARIATION OVER USEFULL WINDOW	CASE SIZE	MATERIAL	WEIGHT
UL-12	12	7 x 7"	0.75	+ 0.55 db	3 x 7-1/2 x 8-1/2	Black Plastic	4 lbs.
UL-16	16	10-1/4 x 11-3/4"	0.64	+ 0.8 db	3-1/2 x 12-1/2 x 11	White Alumin.	4.5 lbs.
UL-30	30	11 x 17"	0.64	+ 0.7 db	3 x 19 x 12	White Alumin.	7 lbs.

USING YOUR UNILAMP

1. Wipe all surfaces clean
2. Place optical flat on top of workpiece surface or vice versa
3. Illuminate with UNILAMP
4. Arrange UNILAMP so lamp's reflection is seen in the workpiece surface.
Dark and light lines or fringes will appear in a pattern which varies somewhat when the surfaces are pressed slightly from above. This is the surface pattern of contours, similar to a terrain contour map.



Shown: Unilamp UL-12 and UL-6

Perfect flatness can produce uniform brightness. Slight flatness variations produce several fringes, which run along the contour of the specimen surface. Greater variation produces more fringes. Height between fringes on specimen surface is only 11 millionths of an inch. Therefore, a bump that is 50 millionths/inch (half of 1/10) will show as four concentric rough circles. It takes nine fringes to read 1/10 of a thousandth of an inch. This number is an important unit of surface variation.