

Specification:

1. The light source should have high and intense emission of 300 mW at 500 nm. The power distribution over the wavelength region 190 nm to 800 nm must be provided.
2. Lamp should be equipped with proper housing and reflectors to obtain efficient output, and equipped with adequate safety features. The housing should have adjustable feet for leveling.
3. Air cooling and external venting provisions, like exhaust hose adapter, should be available for ozone-free operation.
4. Quartz window should be used for coupling light.
5. The source should have a short arc with UV enhanced lamp with higher power rating (approximately 1000 W). The price for a spare lamp should also be quoted. The lifetime and shelf life of the lamps should be mentioned. A suitable power supply and igniter with appropriate power rating, and input/output characteristics as given below in the general specifications should be included.
6. Indicators should be included for showing the error conditions.
7. The light source should be fitted with a manually adjustable monochromator ($\leq f/4$) that should be equipped with adjustable entrance and exit slits/ports along with proper accessories and optional grating (preferably with a mechanical scanning range of 150 – 1000 nm and a mechanical) for optical requirement. Optional driver for stepper motor assembly must also be included.
8. Warranty of the product and CMC charges for maintenance for a total period of five years should be separately quoted.
9. The whole assembly as a single system (including lamp, igniter, power supply and monochromator or filters) should be portable by keeping in a movable table.
10. Suitable and compatible power cords should be provided.
11. Optional stepper motor assembly for controlling the monochromator, and driver including software and other accessories related to it should be quoted separately.
12. Additional and optional features for the lamp like collimator, water cooled IR filter etc. should be separately quoted.
13. Safety features and instruction manual should be provided.
14. The general specification should be as follows:

Optical Power	300 mW at 500 nm.
Spot Size at Slit Exit	approximately 10 mm (slit dependent)
Diverging Beam angle (full)	approximately 15 degrees
Numerical Aperture (N.A.)	above 0.1
Optical Noise	<0.08% RMS
Optical Stability	0.2%
Input	210–240 V AC 50/60 Hz
Typical igniter pulse	Approximately 45 kV. Actually value to be specified.
Power Rating	800–1200 watts (adjustable)
Lamp Module Type	1000 W Xenon or Mercury
Lamp Life	$\leq 1,500$ hrs
Focusing Optics	$\leq f/4$
Power Precision	0.04% (0.4 watts)
Window Diameter (D)	approximately 125 mm (5.0 inches)
Center Beam Line Height (without feet)	approximately 125 mm (5.0 inches)