

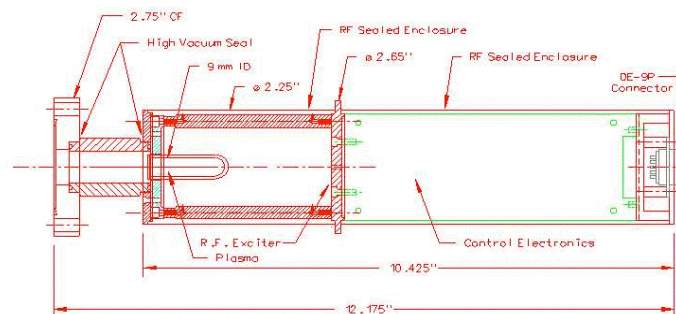
Side by Side Comparison of VUV Argon, Krypton and Xenon Light Sources with Magnesium Fluoride Windows**General Specifications for Krypton Light Source Systems with Magnesium Fluoride Windows:**

Model Number	KrLM-L XeLM-L	KrLM-LQD XeLM-LQD	KrLM-LQD12 XeLM-LQD12	ArCM-L KrCM-L XeCM-L	ArCM-LPu KrCM-LPu XeCM-LPu	ArCM-QDHP KrCM-QDHP XeCM-QDHP	ArCM-LHP KrCM-LHP XeCM-LHP	units
Status	Production	Production	Production	Production	PreProd	PreProd	Developmental	
Peak Wavelengths Ar				128	128	128	128	nm
Peak Wavelengths Kr	117, 124	117, 124	117, 124	117,124, 145	145	145	117,124, 145	nm
Peak Wavelengths Xe	147	147	147	147, 172	172	172	147, 172	nm
VUV Flux Ar	na	na	na	5×10^{14}	1×10^{15}	6×10^{15}	2×10^{16}	
VUV Flux Kr	3×10^{15}	3×10^{15}	3×10^{15}	5×10^{15}	1×10^{16}	6×10^{16}	2×10^{17}	P/sec/str
VUV Flux Xe	5×10^{15}	5×10^{15}	5×10^{15}	7×10^{15}	1.5×10^{16}	1×10^{17}	3×10^{17}	P/sec/str
Full angle output cone	45	45	45	45	40	45	45	Degrees
Bulb window location	-4	+1 cm	10 to 30	-4	-1	3 to 20	3 cm	cm
Window CA	0.8	0.8	0.8	0.8	0.8	6 x 0.8	6 x 1.8	cm
Modulation or pulse	Mod/option	Mod/option	Mod/option	Mod/option	P 2μsec/1KHz	Mod/option	CW	
Standard flanges	2.75 “ CF	2.75 “ CF	2.75 “ CF	2.75 “ CF	2.75 “ CF	4 5/8 CF	6 “ CF	inches
Features	Opt. additional window or lens flange	Rapid lamp interchange, closer to target	Can be close to target deep in vac. chamber	Continuum, good for absorption spectra	Unique VUV pulses Photoionization	Higher intensity	Still Higher intensity	

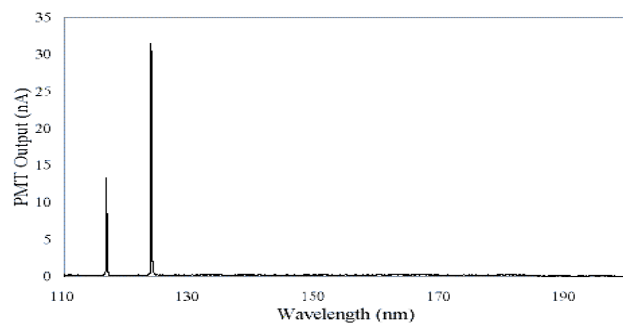
Model number	AaBC-DEF where Aa = gas e. g. Kr = Krypton, Xe = Xenon; B = Line or continuum e. g. L = line and C = mixed continuum and line or pure continuum, C=Window material e. g. M = Magnesium fluoride: -DEF is source configuration e. g. -L = standard lab model, QD = Quick Disconnect, LPu = lab model pulsed, 12QD = 12 inch re-entrant lamp with Quick disconnect flange, LHP = Lab High Power
Status	Production = in production, PreProd = pre production prototype tested, Developmental: Still in development
Spectrum type	Line: lines at 116.5 and 123.6 nm Krypton, Lines at 129 and 147 Xenon (Argon lines not transmitted by MgF2 window), Mixed: lines at 116.5 and 123.6 nm and Excimer continuum from 123.6 to 170nm which peaks at 145nm, Xenon line at 147 and continuum pk 172 Continuum: Excimer continuum: Ar 110 to 140 nm, Kr 123.6 to 170 nm Xe 145 to 200
window location	Relative to the front the CF flange face. -x.y are away from flange and +x.y depth into vacuum chamber from flange face.
Modulation or pulse	Mod/optional: Option to modulate from 1 to 1,000 Hz. P 2μsec/1KHz means that lamp has 2 microsecond pulses driven by DC pulse supply at about 1 KHz. Syncing this supply with an external waveform is possible, CW means continuous in time
System	Complete system includes power supply, EMI shielded enclosure, Vacuum flange and NIST traceable test on vacuum monochromator

Standard Krypton or Xenon Line Source Systems

Model:
KrLM-L
XeLM-L

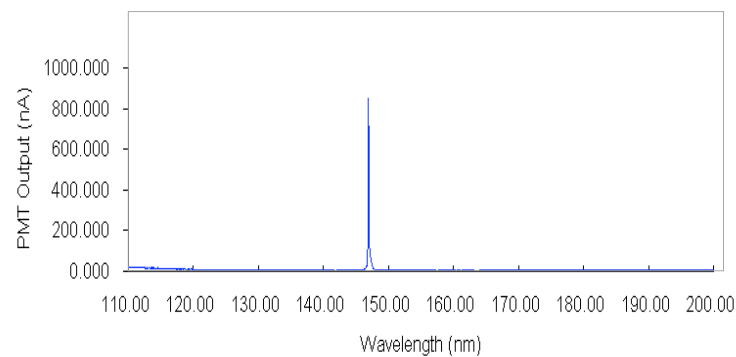


Krypton VUV Line Source Spectrum



VUV Flux 3×10^{15} photons/sec/str

Xenon VUV Line Source Spectrum



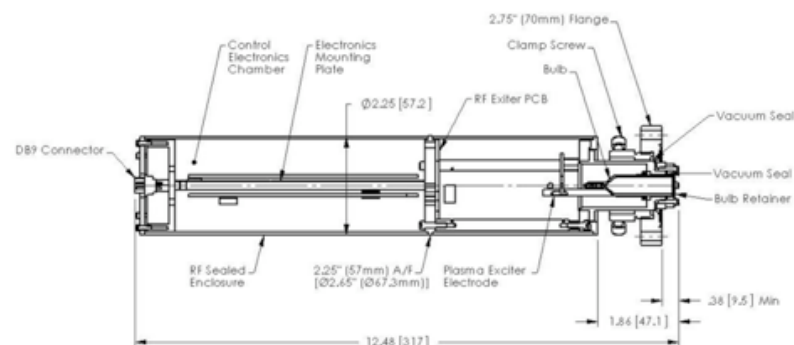
VUV Flux 5×10^{15} photons/sec/str

Standard Krypton or Xenon Line Source Systems with Quick Disconnect Flanges

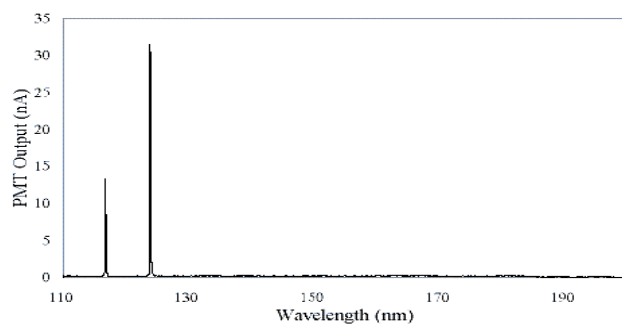
Model:

KrLM-LQD

XeLM-LQD

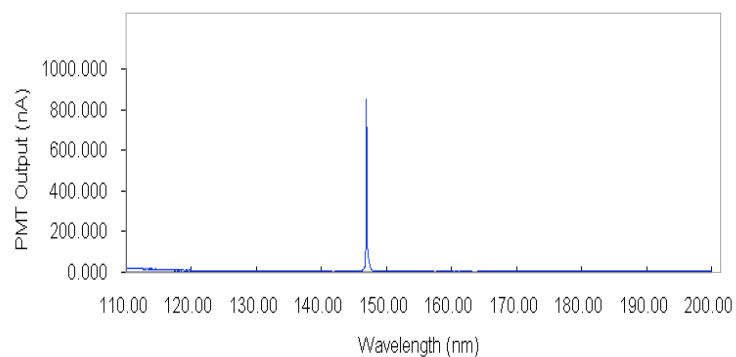


Krypton VUV Line Source Spectrum



VUV Flux 3×10^{15} photons/sec/str

Xenon VUV Line Source Spectrum

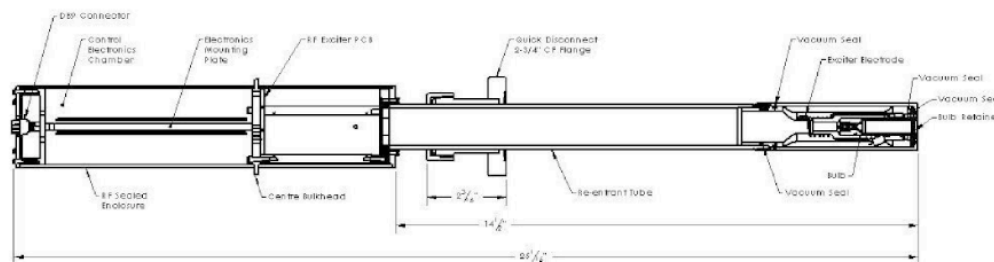
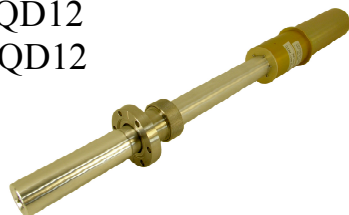


VUV Flux 5×10^{15} photons/sec/str

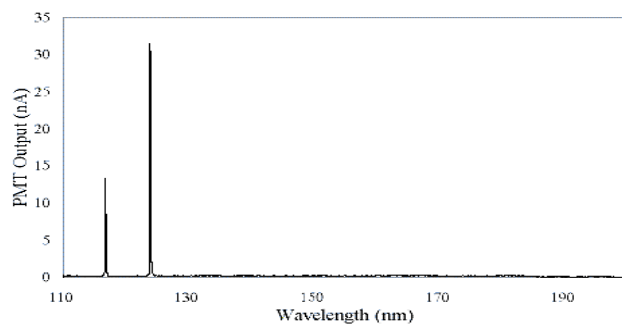
Krypton or Xenon Line Source Systems with 12 inch re-entrant tubes

Model: KrLM-LQD12

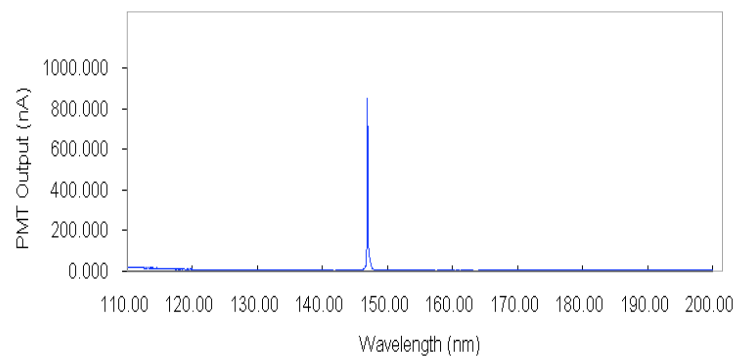
Model: XeLM-LQD12



Krypton VUV Line Source Spectrum

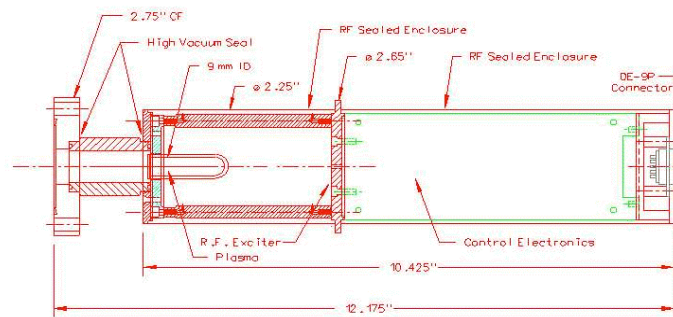
VUV Flux 3×10^{15} photons/sec/str

Xenon VUV Line Source Spectrum

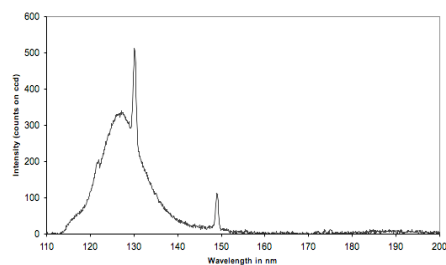
VUV Flux 5×10^{15} photons/sec/str

Standard Krypton or Xenon Continuum Source Systems

Model:
ArCM-L
KrCM-L
XeCM-L

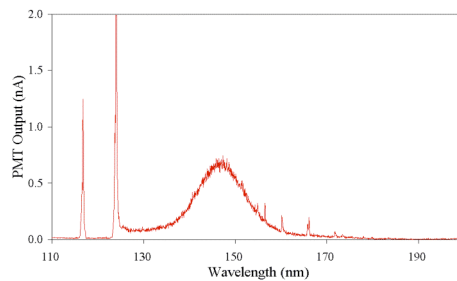


Argon Intermediate pressure Lamp VUV Spectrum



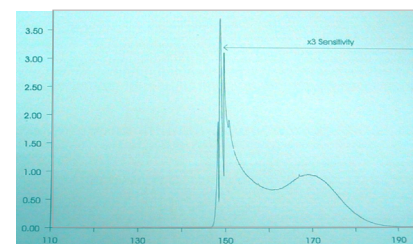
VUV Flux 5×10^{14} photons/sec/str

Krypton Intermediate pressure Lamp VUV Spectrum



VUV Flux 5×10^{15} photons/sec/str

Xenon Intermediate pressure Lamp VUV Spectrum



VUV Flux 7×10^{15} photons/sec/str

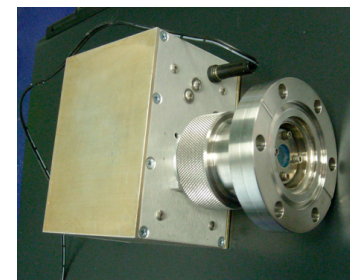
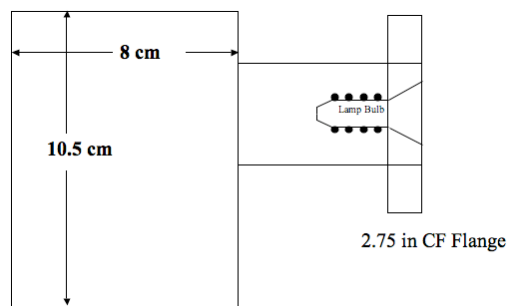
Pulsed Argon, Krypton or Xenon
Continuum Source Systems with Quick
Disconnect Flanges

Model:

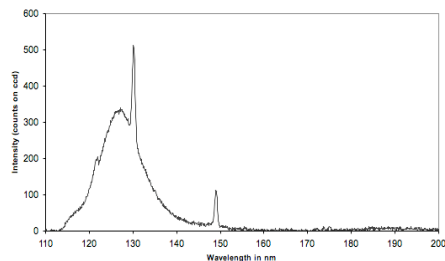
ArLM-LPu

KrLM-LPu

XeLM-LPu

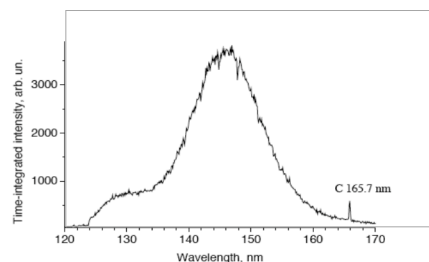


Argon high pressure Lamp VUV Spectrum



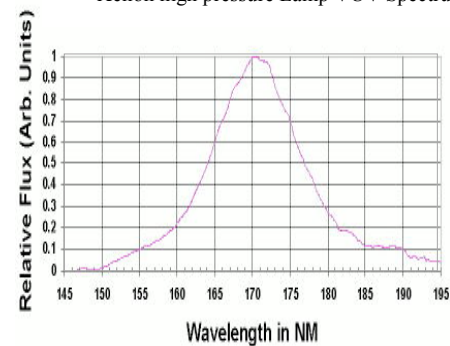
VUV Flux 1×10^{15} photons/sec/str

Krypton high pressure Lamp VUV Spectrum



VUV Flux 1×10^{16} photons/sec/str

Xenon high pressure Lamp VUV Spectrum



VUV Flux 1.5×10^{16}

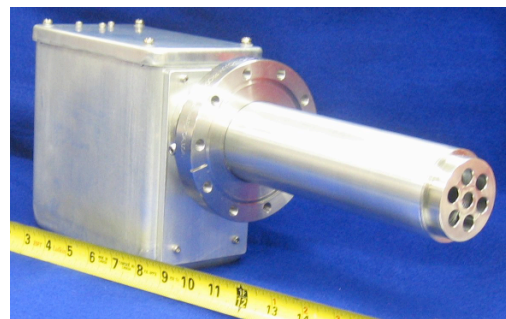
Argon, Krypton or Xenon Continuum Source Systems with Quick Disconnect Flanges

Model:

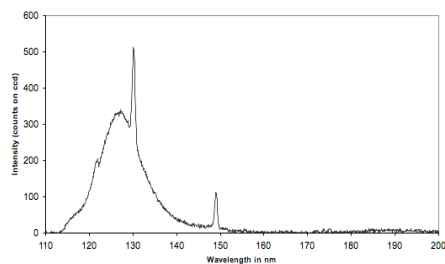
ArLM-QDHP

KrLM-QDHP

XeLM-QDHP

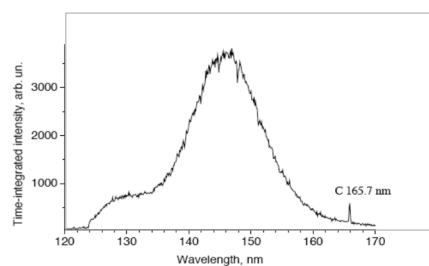


Argon high pressure Lamp VUV Spectrum



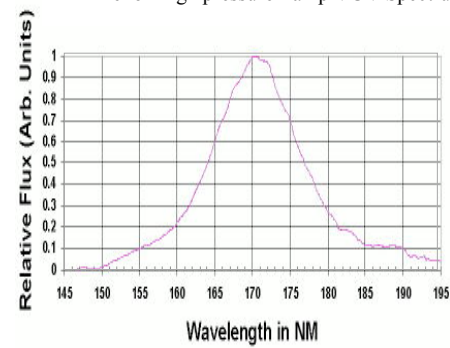
VUV Flux 6×10^{15} photons/sec/str

Krypton high pressure Lamp VUV Spectrum



VUV Flux 6×10^{16} photons/sec/str

Xenon high pressure Lamp VUV Spectrum



VUV Flux 1×10^{17} photons/sec/str

Argon, Krypton or Xenon High Power Continuum Source Systems

Model:

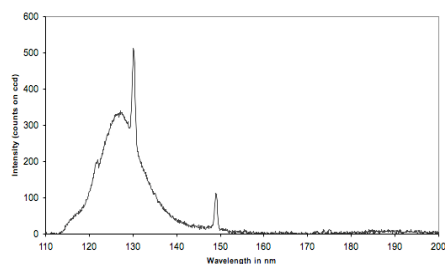
ArLM-HP

KrLM-HP

XeLM-HP

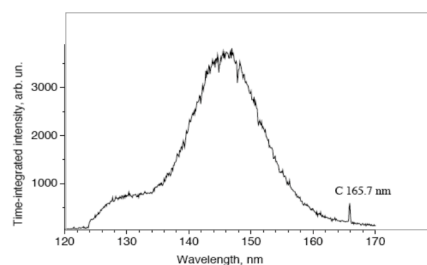


Argon high pressure Lamp VUV Spectrum



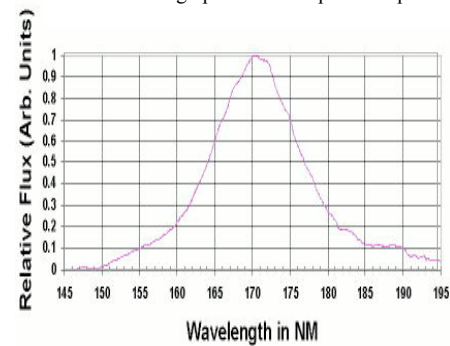
VUV Flux 2×10^{16} photons/sec/str

Krypton high pressure Lamp VUV Spectrum



VUV Flux 2×10^{17} photons/sec/str

Xenon high pressure Lamp VUV Spectrum



VUV Flux 3×10^{17} photons/sec/str