

DeVený Gratings / Filters / Lamps

Instruments

[Instrumentation Main Page](#)

Facility Instruments:

[Large Monolithic Imager \(LMI\)](#)

[DeVený Optical Spectrograph](#)

[NIR Spectrograph \(NIHTS\)](#)

Visitor / PI Instruments:

[High-Res Spectrograph \(EXPRES\)](#)

[Speckle Imager \(QWSSI\)](#)

[High Speed Imager \(POETS\)](#)

[NIR Spectrograph \(RIMAS\)](#)

[At the Telescope](#)

[Observing Quick Links](#)

[Remote Observing](#)

[LDT Startup Procedures](#)

[Closure Conditions](#)

[Night Feedback Form](#)

[End of Night Tasks](#)

[Observing Planning](#)

[Applying for Observing Time](#)

[Planning Checklist](#)

[Remote Observing](#)

[Target Lists](#)

[First-Time Users](#)

[Logistics](#)

Quick Links

[LDT Observer Information Home](#)

[Instrumentation](#)

[Applying for Observing Time](#)

[Observing Run Planning](#)

[At the Telescope \(Printable Logsheets\)](#)

[After Your Observing Run](#)

[First-Time Users](#)

[Logistics](#)

[LDT Important Notes](#)

[Facility](#)

[LDT Science Schedule](#)

[LDT Staff](#)

[Telescope](#)

[Site Information](#)

[Weather](#)

[Acknowledging LDT](#)

[Selected Technical Publications](#)

This page is for quick reference. Please consult the [DeVený Users Manual](#) for more detailed information.

DeVený Gratings:

ID	Ruling (g/mm)	Blaze (Å)	Dispersion (Å/pix)	Free Spectra Range (Å)	Comments
DV1	150	5000	4.3	8800	KPNO 201
DV2	300	4000	2.17	4440	KPNO 09
DV3	300	6750	2.17	4440	KPNO 32
DV4	400	8500	1.66	3400	
DV5	500	5500	1.33	2720	KPNO 240
DV6	600	4900	1.14	2320	KPNO 26new
DV7	600	6750	1.14	2320	KPNO 35
DV8	831	8000	0.80	1630	KPNO 47
DV9	1200	5000	0.58	1180	
DV10	2160	5000	0.33	670	4500Å red tilt limit

DeVený Filters:

Wheel	Position C	Position 1	Position 2	Position 3	Position 4
"Front" pre-slit	Clear	Neutral Density 2.5 mag	Neutral Density 5.0 mag	Neutral Density 7.5 mag	EMPTY
"Rear" post-slit	Clear	Order Sorting GG420	NOT INSTALLED* GG495	Order Sorting OG570	NOT INSTALLED (e.g., WG360?)

*The GG495 filter has been removed from the instrument; replacement plan TBD. (2021Apr29)

DeVeny Calibration Arc Lamps:

Ne - Neon (stabilizes within seconds) – [Video illustrating stabilization](#)

Ar - Argon (stabilizes within 1 minute) – [Video illustrating stabilization](#)

Hg - Mercury (stabilizes in 1-3 minutes) – [Video illustrating stabilization](#)

Cd - Cadmium (stabilizes in ~6 minutes) – [Video illustrating stabilization](#)

Example Grating Settings:

Grating	Tilt Angle	Central Wavelength	Range	Filter	Notes
DV1	21.00°	7200 Å	2600 Å 11,600 Å	GG420	O(2) at > 8400 Å
DV2	22.54°	5200 Å	3000 Å 7400 Å	GG420	
DV3	24.05°	6750 Å	4500 Å 9000 Å	GG420	O(2) at > 8400Å
DV3	25.28°	8000 Å	5800 Å 10,200 Å	OG570	
DV4	26.06°	6600 Å	4900 Å 8300 Å	GG420	
DV4	27.89°	8000 Å	5800 Å 10,200 Å	OG570	
DV5	24.62°	4400 Å	3000 Å 5800 Å	Clear	
DV5	27.24°	6000 Å	4600 Å 7400 Å	GG420	
DV5	29.04°	7100 Å	5700 Å 8500 Å	GG495	
DV6	27.04°	4900 Å	3750 Å 6050 Å	Clear	
DV7	31.19°	7000 Å	5850 Å 8150 Å	GG495	
DV8	39.51°	8000 Å	7200 Å 8800 Å	OG570	
DV9	33.20°	4000 Å	3400 Å 4600 Å	Clear	
DV9	37.27°	5000 Å	4400 Å 5600 Å	Clear	
DV9	42.30°	6200 Å	5600 Å 6800 Å	GG495	
DV9	46.65°	7200 Å	6600 Å 7800 Å	OG570	Collimator rails at lower limit
DV10	44.28°	3700 Å	3370 Å 4030 Å	Clear	Collimator rails at lower limit
DV10	48.0°	4170 Å	3840 4500	Clear	Red tilt limit