

Grating																	
line/in		$d \sin(\theta_i) + d \sin(\theta_o) = n\lambda$															
line/mm		600															
d-spacing		0.0017		mm													
		1.6667		μm													
Sodium																	
order	color	Measured Angles				error(+ -) Angle - n=0 Angle											
		λ	deg.	min.	deg. dec.		min.	sin ()	λ		λ	-2	-1	1	2	Ave	Std
		accepted										nm	nm	nm	nm	nm	nm
-2	Y2	588.995	135	4	135.07			-45.20	-0.710	591.309	Y2	591.31	591.39	592.75	593.01	592.12	0.89
-2	Y1	589.592	135	0	135.00			-45.27	-0.710	591.992	Y1	591.99	591.84	594.11	593.18	592.78	1.07
-1	Y2		159	29	159.48			-20.78	-0.355	591.392	Y1-Y2	-0.6828	-0.4532	-1.3591	-0.1703	-0.67	-0.66
-1	Y1		159	28	159.47			-20.80	-0.355	591.845							
0	all		180	16	180.27		1	0.00	0.000								
1	Y1		201	6	201.10			20.83	0.356	592.751							
1	Y2		201	9	201.15			20.88	0.356	594.11							
2	Y1		225	38	225.63			45.37	0.712	593.015							
2	Y2		225	39	225.65			45.38	0.712	593.185							
Mercury																	
order	color	Measured Angles				error(+ -) Angle - n=0 Angle											
		λ	deg	min	deg. dec.		min.				λ	-2	-1	1	2	Ave	Std
		accepted															
-2	y	576.960	136	13	136.22			-44.05	-0.695	579.40	y	579.40	577.77	580.50	581.14	579.70	1.48
-2	g	546.074	139	6	139.10			-41.167	-0.658	548.54	g	548.54	548.11	549.48	549.82	548.99	0.80
-2	b	435.833	148	34	148.57			-31.7	-0.525	437.89	b	437.89	437.45	437.92	438.72	437.99	0.53
-2	v1	407.783	150	49	150.82			-29.45	-0.492	409.72	v1	409.72	409.32	410.26	410.14	409.86	0.43
-2	v2	404.656	151	4	151.07			-29.2	-0.488	406.55	v2	406.55	406.50	406.97	407.82	406.96	0.61
-1	y		159	59	159.98			-20.283	-0.347	577.77							
-1	g		161	4	161.07			-19.2	-0.329	548.11							
-1	b		165	3	165.05			-15.217	-0.262	437.45							
-1	v1		166	3	166.05			-14.217	-0.246	409.32							
-1	v2		166	9	166.15			-14.117	-0.244	406.50							
0	all		180	16	180.27			0									
1	v2		194	24	194.40			14.133	0.244	406.97							
1	v1		194	31	194.52			14.25	0.246	410.26							
1	b		195	30	195.50			15.233	0.263	437.92							
1	g		199	31	199.52			19.25	0.330	549.48							
1	y		200	39	200.65			20.383	0.348	580.50							
2	v2		209	34	209.57	209.55		29.3	0.489	407.82							
2	v1		209	45	209.75	209.75		29.483	0.492	410.14							
2	b		212	2	212.03	212.02		31.767	0.526	438.72							
2	g		221	33	221.55	221.52		41.283	0.660	549.82							
2	y		224	29	224.48	224.47		44.217	0.697	581.14							