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3

Spectr. Te

Focus...

Spectr. Te

Exp. Mtr.

4.

Dome Temp./Hum.

Spectr. Temp. Dome Temp./Hum.

[illegible]

Date Mon. Aug. 11-12-83 Observers Kly-Ri

8m 680

1m 68

Flav-E 08102 - 03073

Шелб 09023-06073. 81180 27 11

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
47831	HD 108662	12 ^h 23.9	+26° 28'	20:46	21:02	0335W	-26° 00'	Fe/-	444
47831F	Focus TEST							Fe/-	2020
47832	HD 108945	12 ^h 26.0	+25° 07'	21:06	21:42	0412W	+24° 39'	Fe/-	444
47833	HD 205073	21 27.8	+47° 55'	22:23	01:56		+48° 16'	Fe/-	444
47833T	SPOT CAL FOR PLATES 47831-34				15 MIN @ 15 VOLTS	004 003 002 3900 4300 4810			
47834	HD 205331	21 ^h 29 ^m .5	+47° 51'	2:03	3:11	0040W	+48° 09'	Fe/-	44
47835	HD 3712	00 ^h 34.8	+55° 59'	3:16	3:20	00218W	+56° 25'	Fe/-	6-C
47836	HD 8890A	122.6	+88° 46'	3:35	3:42	0339E	+89° 10'	Fe/-	20-20
47837	HD 3712	0 34.8	+55° 59'	3:49	4:06	0132E	+56° 25'	Fe/-	20-20
47837T	SPOT CAL FOR PLATES 47835-37				15 MIN @ D9	D 17.5V 3900 4300			

Spectr. Temp. 79°F Dome Temp./Hum. ... 75°F ... 70% Transparency Conditions ... hazy ... 6
 Focus 508 ~~508~~ stars from
 Spectr. Temp. 73.0° Dome Temp./Hum. ... 70°F ... 90%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
44 80/81	1-2"	5.3	Ap	B.C.	830/.68	B.S.	IIao-E	B	Am+Ap		
20				B.C.	830/.68	B.S.	IIao-	A		stars from	
44 40/40	1-2"	5.5	Ap	"	830/.68	"	IIao-E	A	Am+Ap		
44 400/400		7.89	Am (Ap/AI/AI)	B.C.	830/.68	B.S.	IIao-E	B	Am+Ap/TBL	BROKEN 3 PIECES T=78°F T=508	
							IIao-E				
44 200/200	1"	6.8	Am (B9S/AMM)	BC	830/.68	B.S.	IIao-E	A	Am+Ap TBL	T=75°F T=505	
44 40/24	1"	2.2	KO IIa	"	"	"	IIIaj-eb	B	Std Vel	THROUCH IT WAS 4 GAIN T=74° T=505	
40/129	1"	2	FUT	"	1200/.025	"	IIIaj-eb	A	Polaris	T=740 F=506	
4/24	1"	2.2	KO IIa	"	"	"	"	B	Std Vel		
							IIIaj-eb				

Date Tues/Wed. July 12/13 Observers Rm-Ri

1983

JD 245514.6

Emulsion Batches:

4 1/2 m 680 ~~Trav E 08102-10073~~
098-02 65031-06073

[illegible]

Focus 81.....

Dome Temp./Hum. 75/... 66%

Transparency Conditions clear 8

Spectr. Temp. ... 71°F

Dome Temp./Hum. 65°F 83%

Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
66-12	400/120	3.4	~7.7	G3Ib	BC	1200/-0.025	BS	IlaO	A			
66-12	4/16		3.9	K2III	BC	1200/.7	RS	O98E	A	std Vel	blank filter in exposure T=76°F Focus SO6	
66-12	25/80		~6.7	F6I-IIb	"	"	"	"	B	Ceph/Evans		
66-12	40/160		~7.9	K5I-II	"	"	"	"	A	Ceph/Evans	T=74°F	
66-12	8/32		~5.3	G0II	"	"	"	"	B	Ceph/Evans	T=74°F	
66-12	40/140		~6.8	F0	"	"	"	"	A	Ceph/Evans		
66-12	40/100		~5.4	F7Tab-K0Tab	"	"	"	"	B	Ceph/Evans	T=72°F 507	

Spectr. Temp. 78°FDome Temp./Hum. $74^{\circ}\text{F}/\text{H}=68\%$ Transparency Conditions *Fine*..... 10...Focus *504*.....Spectr. Temp. 70°FDome Temp./Hum. $67^{\circ}\text{F}/\dots 80\%$ GIS tour $21^{\text{h}}:15 - 22^{\text{h}}:15$; observed M13.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/41	2"	6.15	09.5III	"	" / "	"	IIaO-E	B	Var-Blw		
40/40	2"	"	"	"	"	"	"	B	"		
							"				
40/39	2"	6.15	09.5III	BC	830/.68	BS	"	A	Var-Blw		
40/40		"	"	"	" / "	"	"	B	"		
40/40	2"	"	"	"	" / "	"	"	A	"	T = 74°F ; F = 505	
40/40	2"	"	"	"	"	"	"	B	"		
40/40		"	"	"	"	"	"	A	"		
40/28		"	"	"	"	"	"	B	"	Bad seeing.	
20/21	2"	3.7	GOIb	"	"	"	"	A	STDVEL		
20/25	1"	6.17	FZ	"	" / "	"	"	B	Cepheid/Evans	T = 71°F ; F = 506	

Date July 15-16, 1983... Observers Flr - Tn.....
 Fri - Sat -

Emulsion Batches:
8^m 68^o .H.O.-E...08102-10073

[illegible]

Spectr. Temp. ... 80° F.

Dome Temp./Hum. 76°F / H=86%

Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
200	126	2.3"	6.15	09.5 III	BC	830/.68	BS	1100-E	A	Var-Bln		fine
200	150	"	"	"	"	" / "	"	"	B	"		finger-prints exp fine
200	134	3"	"	"	"	" / "	"	"	A	"	T=83°F	fingerprints exp fine
40	60	1.2"	5.2	B3	"	1200/-0.025	"	"	B	SB-Ly	T=81°F	fine
40	66	2"	5.17	A2	BC	1200/-0.025	BS	"	A	KK Asm Sp	gusty	fine

Date July 16-17, 1983 Observers Flu-Tn
Set-Sun

Emulsion Batches:

IIa O-E... 08102... -10073

..IIa0-E*..08.10.2...15073

8m 68% IIa0-E* 08.10.2. - 1507
with 7/21-22 bunch

[illegible]

Spectr. Temp. ... 73°F.

Dome Temp./Hum+69°F/90%

Transparency Conditions . *semi cloudy* 14

[illegible]

15 *Thur/Dec 1927*

JD 2415535.6

Emulsion Batches:

Wal-cb 09023 06 073

Date July 11/72 Observers Km-Tu

$A^{n_{68^{\circ}}} . 0.98 . 0.2 . . 0.50 . 31 . . 0.6 . 0.73$

[illegible]

Spectr. Temp. *74°F*Dome Temp./Hum. *75°F/70%*Transparency Conditions *Some cloud* 16Focus: *579*Spectr. Temp. *76°F*Dome Temp./Hum. *71°F/80%*

note - for plate 4s 47866s 67, detector coupler was not fully connected. Only a slight problem upon doing mid comp for 47866

Person. Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
9-19	100	2	2.5	BC	12-0/1-05	BS	TT 2J	A	Ceph/Evans			vs. str.
8-8	40/148	2	28.3	G3	BC	1200/.7	RS	098	B	Ceph/Evans	GG135 blank in exposure with some cloud. may be induced flexure due to detector problems	fine
								"				
2-1	400/0.9	2-3	3.9	K2 III	"	"	"	"	A	Std Vel	probably no good detector problem.	discr + blank
	20/150	"	"	"	"	"	"	"	A	"		fine
	40/162	3	6.7	F6 I IIb	"	"	"	"	B	Ceph/Evans		fine
8-8	40/72	3	6.6	F7 E II	"	"	"	"	A	Ceph/Evans	T _{spec} = 76°F cloud	w/t +
											high fog on all 098's	
											+ 2 plates damaged in fall from developing rack	
	</											

Date ^{Thurs - Fri} July 21-22, 193... Observers ^{Kly - To}.....

Date July 21-22, 183... Observers .. H. J. - T. a.....

5th 6th 0-19 in tray
8th 6th
with 7/16-17 batch.

Emulsion Batches:
... Ita Seb 09023 - 06073
... Ita O-E 08102 #5063

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
47871	HD 137909	15 23.7	+29 27	20 33	21:01	01 14 W	+29° 12'	Fe/-	19-19
47872	HD 8890A	1 22.6	+88° 46'	21 08	21:17	09 22 E	+89° 10'	Fe/-	19-7
47872	HD 205073	21 ^h 27.8	+47° 55'	21:44	00:39	01 11 E	+48 19	Fe/-	4-4
47872T	Spot Cc/n for 47871.			15 min	04	3900 17.5V	15V	15V	
							4300	4810	
47873	HD 20519B	21 28.6	+48 12	00:46	4:08	2 15 W	+48 37	Fe/-	44-4

Spectr. Temp. 85

Dome Temp./Hum. *+ 72°/86%*

Dome Temp./Hum. +58°F/80% ?

Transparency Conditions File 18

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/101	5"	3.93	Fop	BC	1200/.025	B	IIa0-eb	A	Asm Sp KK	Arc masfire	fine sl. high fog
20/100	"	2	F	"	"	"	"	B	Polaris	completely shattered	Lost
400/400	4"	7.9	Am	"	830/.68	"	IIa0-E	A	JBL Am + Ap	74° set 504	fine uneven*
400/354	3.4"	8.3	Am	BC	830/.68	B.S.	IIa0-E	B	"	70° set 506	vs 1st

* Tray developed for test

Note - These IIa0s were added to the undeveloped IIa0s from July 16-17

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Fri Sat

5^m68

Emulsion Batches:

III-1:cb 09023-06073

II-0-E 08102-15063

Date July 22-23/83... Observers Tn-Kly.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp. M.
47874	HD 8890A	1 22.6	+88 46	20 27	20 36	10 00 E	+89 11	Fe/-	19-1
47875	HD 186791	19 41.5	+10 22	20 48	21 00	03 02 E	+10 37	Fe/-	9-1
47876	HD 80473452	21 28.2	+48 04	21 21	02 24	00 37 W	+48 26	Fe/	4-1
47877	HD 3712	0 34.8	+55 59	02 31	02 39	02 15 E	+56 28	"	16-16
47878	HD 203156	21 15.4	+37 49	02 48	03 22	01 48 W	+38 13	"	4-1
47878*	Spot Calc for 47874, 77, 79.				15 min @ D4	17.5V 3900	15V 4300	15V 4810	
47879	HD 8890A	1 22.6	+88 46	03 33	03 44	02 53 E	+89 12	Fe/-	19-1
47879F	Focus	Test				0 0	+10°	Fe/-	24-1

Spectr. Temp. $+74^{\circ}\text{F}$ Dome Temp./Hum. $+73^{\circ}\text{F}/58.7$ Transparency Conditions *Fine* $\dots$ *thin 10.2e* $\dots$ 120Focus $\dots$ 505Spectr. Temp. $\dots$ 64.5Dome Temp./Hum. $+62^{\circ}\text{F}/72.7$ Company
Filet

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/90	2"	2	F	BC	1200/-0.025	BS	IIa J-cb	A	Asm Sp		fine
20/	2-3"	4	K	"	"	"	IIa O-E	A	Std. Vel.	T=73° Set 505	
40/330	3-1"	9.	Am	"	830/1/68	"	"	B	JBL Am+Ap	Slit area light was on for sometime	slightly flex. fine
20/63	2"	2.5	KOIIa	"	"	"	IIa J-cb	A	std Vel		slightly strong
40/44	2"	6/7	F2	"	"	"	IIa O-E	B	Ceph Evans	Set 507 T=65°	
							IIa J-cb				
20/95	7"	2	F	BC	1200/-0.025	BS	"	A	Asm Sp		fine
				"	"	"	IIa J-cb	B		Set 507	blue chel red sl blue

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Sun - Mon

Emulsion Batches:

5^m 68°Maleb. 09023-130.73
Ita. O.E. 08142-150.53

Date July 24-25/83... Observers K.K. - K.G. - R.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
47880	ν Drac	17	+50	20:43	20:55				
47881	ν Drac	17	+50	20:59	21:10				
47882	2180	17	+55	21:15	21:22				
47883	HD 8890A	122.6	+88 46	21:47	21:56	28 E	89 10	Fe/-	19
47884	HD 137909	15 26.8 ^{23.7}	+29 27 ^{29 27}	22:01	22:28	02 51W	+29 12	Fe/-	19
47885	HD 159561	17 30.3	+12 38	22:33	22:38	00 54W	+12 37	Fe/-	15
47886	HD 182640	19 20.5	+2 55	22:43	23:05	00 26E	+3 07	Fe/-	19
47887	HD 183912	19 26.7	+27 45	23:19	01:30	01 53W	+27 55	FeNe w/8	13-14
47888	HD 186791	19 41.5	+10 22	01:43	02:23	02 30W	+10 38	"	6-
47889	HD 217782	22 58.0	+42 13	02 33	03:35	00 25W	+42 42	Fe/-	13-14
47890	HD 3712	00 34.8	+55 59	03 39	03:50	00 56E	+56 30	"	13
47887T	Spot Cal'n	for 47883-87, 89-90,			15 min @ D4	775V 3900	15V 4300	15V 4810	

Spectr. Temp. 74°K.....

Dome Temp./Hum. 71°F. / 85%

Transparency Conditions *File - 5/6924* *22*

Focus 505

Spectr. Temp. ... 69 ...

Dome Temp./Hum. 64°F / 96%

Comp Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
			4,4		DBL. Star cam	Tertiary		II-G		D.S./KIC	0.4, 30 spacing	20:52.30 20:54:45
			4,4		"			Met		"	1.0, 2.5, 6.3, 0.4	21:07:40 21:10
	2"	7,7			"			II-G		"	2.5, 6.3, 2.5	21:24
20/91	2"	2	F	BC	1200/ -.025	B.S.	IIIg-eb	A		Asm sp		
20/101	2"	3.7	Fop	"	"	"	"	B		Asm sp		
20/90	2"	2.2	FOTV	"	"	"	"	A		"		Fire
20/99	"	3.7	"	"	"	"	"	B		"		"
20/240	2.3"	4.2	K	"	*1200/.2	*150/.5	"	A		"	T=72°F Set 505	NO compens
20/50	2.3"	4.1	K	"	*1200/.2	*150/.5	IIa-E	B		"	70°F	NO compens
20/120	2"	5.2	A2	"	1200/ -.625	B.S.	IIIg-eb	A		"	69 Set 506	yes comp
20/93	2"	2.5	KOMg	"	"	"	"	B		std vel		
							"	"				

23 July

Date Jun 25-26/83 Observers Kly. - Tn.....

5° 68' Emulsion Batches: ...~~1721-8~~... 09023-1307-1

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
47891F	Focus Test					0 0	+60 13	Fe/-	20-5
47891	^{HD 124897} α Boo	14 11.1	+19 42	20 30	20 41	02 21 W	+19 19	FeNe 1000	19-7
47892	HD 137909	15 23.7	+29 27	20 49	21 08	01 35 W		Fe/-	19-9
47893	HD 8890A	122.6	88 46	21 15	21 25	09 02 E	+89 10	"	19-7
47893T	Spot C ₄ /n	for 47891, 94			15 min @ D4	17.5V 3900	15V 3900	15V 4100	
47894	HD 186791	19 41.5	+10 22	21 36	00 30	00 40 W	+10 36	FeNe/ WRC	13-8

Spectr. Temp. 73° F.

Dome Temp./Hum. 69°F./90%

Transparency Conditions . . . 24

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-025	BS	098e	A		T=78° set 504	Too small
20/213	2"	1.2	KIII	"	1200/12	150/15	IIa-J-cb	A	KK AsmSp		NO comparison
20/99	1-2"	3.7	Fop	"	1200/-025	BS	"	B	"		
20/102	"	2	F	"	"	"	"	A	"		
							"				
20/211	2-4"	4.8	K	"	1200/12	150/15	"	B	"	Then lots of some cloud - cloud	NO comparison
										* but has comparison ghosts! decker mis set? feed lens?	

25 Thu - Wau

JD 2445542.7

Emulsion Batches:

Date July 6 - 6-7-1983 Observers Rm-Th

4th US 09802 05031 26073
 HAT cb 09023 13073
 8th US HAT-E 08102-15043

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
47895F	Focus Test					0 ^h 0	+57°	Fe/-	2-2
47895	HD 8890 = α UMi	1 ^h 22.6	+88° 46.4	20 21	20:27	9 ^h 53 E	+77° 12	Fe/-	2-2
47896	HD 170583 = Λ 7308	19 ^h 12.0	+27° 45	20:48	23:07	0 ^h 09 E	+27° 51	Fe/-	2-2
47896T	Spot Caln for	47896-47906		15 min @	15V D3 4810	DI TV	54° 0		
47897	HD 182572	19 ^h 20.2	+11° 44	23:10	23:28	0 ^h 4 W	+11° 55	Fe/-	12-2
47898	HD 159121 = β Dra	17 ^h 28.2	+52° 23	23:32	23:34	2 ^h 4 W	+52° 21	Fe/-	12-2
47899	HD 194093 = γ Cys	20 ^h 18.6	+39° 56	23:40	23:43	0 ^h 38 E	+40 13	Fe/-	12-2
47900	HD 195245 = δ Cys	20 ^h 25.3	+30° 2	23:55	00:00	0 ^h 29 E	+30° 21	Fe/-	12-2
47901	HD 197572 = χ Cys	20 ^h 39.5	+35° 14	00:04	00:45	0 ^h 2 W	+35° 33	Fe/-	12-2
47902	HD 204867 = β A2	21 ^h 26.3	-6° 01	00:49	00:54	0 ^h 30 E	-5° 42	Fe/-	12-2
47903	HD 186059 = ν Vul	19 ^h 32.2	+20° 07	01:00	02:42	3 ^h 06 W	+20° 21	Fe/-	8-8
47904	HD 198726 = τ Vul	20 ^h 47.2	+27° 52	02:48	03:06	2 ^h 15 W	+28° 13	Fe/-	8-8
47905	HD 201078 = δ Cys	21 ^h 02.3	+30° 17.0	03:10	03:34	2 ^h 28 W	+31° 10	Fe/-	12-2
47906	HD 213306 = δ Cep	22 ^h 25.4	+57° 54	03:38	03:44	1 ^h 15 W	+58° 22	Fe/-	12-2
47907	HD 203186 = α B157	21 15.4	+37 49	03:50	04:22	3 ^h 04 W	+38 12	Fe/-	6-6

Spectr. Temp. 80.5°F.....Dome Temp./Hum. 77°F/65%Transparency Conditions semi cloudy - hazy 26Focus 503.....Spectr. Temp. 72.....Dome Temp./Hum. 67°F/78%

Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					BC	1200/-0.025	BS	098	A			ok
	20/92		2.6	F7B- F7B	BC	1200/-0.025	BS	IIIa Je	B	Ceph/Evans	+1 blank by mistake	
	10/100	1-3	6.7	F6I- 7B	BC	1200/.7	RS	098-02	A	Ceph/Evans	GG13 on slice; blank in exposure Focus 503 Cloud	slow
								1				
	40/160	23'	5.2	G8IV SP MAG	"	"	"	"	B	std vel	Spec 77°F	v. slow
	20/80			G2II V=2.9	"	"	"	"	A	Ceph/Evans		good
	20/50	1-2'	F8IB	~3	"	"	"	"	B	Ceph/Evans	cloud	
	20/70		F5II	4.4	"	"	"	"	A	Ceph/Evans	cloud	good
	40/60	1-2'	F7IB G8IB	~7	"	"	"	"	B	Ceph/Evans	Spec 76°F 1" broken off	
	20/52		G0IB	3-73	"	"	"	"	A	Ceph/Evans Std vel		good
	40/160	1-2'	F8-60	~80	"	"	"	"	B	Ceph/Evans	more cloud	good
	40/100	1"	F5IB G0II	5.9- 6.7	"	"	"	"	A	Ceph/Evans	Spec 73°F Focus 504	good
	40/100	1"	F5IB F7	6.1 6.1	"	"	"	"	B	Ceph/Evans		good
	20/52	1"	F5IB G2II	4.1 5.1	"	"	"	"	A	Ceph/Evans		
	40/30	1-2"	F2	6.2	"	830/-68	BS	100E	B	Ceph/Evans	Blank in exposure Focus 505	fine

Date July 27-28, 1983: Observers Flu-Ri
Wed-Thurs

8th 680 Emulsion Batches:
 IIaO-E 08102-15013
 098.02 05031-2603
 8th 680/1-2 IIaO*-E 08102-24073

[illegible]

Spectr. Temp. ... 82°F

Dome Temp./Hum. 79°F/.59%.

Transparency Conditions clear.; partly cloudy - cloudy later ²⁸

Focus 503

Spectr. Temp. ... 75°F

Dome Temp./Hum. 70°F/.79%.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	098	A			
80/80		6.15	09.5	"	" / "	"	IIaO-E	B	Var-Bln		fine
80/80	2	"	"	"	" / "	"	"	A	"		"
							IIaO-E				"
80/80		6.15	09.5	BC	830/.68	BS	"	B	Var-Bln	T=82°F	"
40/40		"	"	"	" / "	"	"	A	"		"
40/40		"	"	"	" / "	"	"	B	"		"
40/40		"	"	"	" / "	"	"	A	"	T=80°F; some cloud	"
40/40		"	"	"	" / "	"	IIaO*-E	B	"		
40/31		"	"	"	" / "	"	IIaO*-E	A	"	T=79°F; heavy at end; some cloud	fine comp sl. str.
200/200		6.17	F2	"	" / "	"	IIaO*-E	A	Cepheid/Evans	T=76°F; Focus = 504.	sl

29

Date Aug 1-2 MON-TUE Observers Stg-R8^m68^s

Emulsion Batches:

Har-E 08102-24073

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
47917F	Focus Test							Fe/-	30-30
47917	HD 180968 2 Vix	19 ^h 13.5	22°51'	20:28	21:02	1 ^h 52 E	23°02	Fe/-	4-4-4
47917T	SPOT CAL FOR PLATES 47914-479				15 MIN @ 150 VOLTS	0 ^h 54 ② 0 ^h 53 ③ 0 ^h 52			
						3900 4300 4810			
47918	HD 180968	19 ^h 13.5	22°51'	21:04	21:38	1 ^h 16 E	23°02	Fe/-	4-4-4
47919	"	"	"	21:40	22:04	0 ^h 50 E	"	"	4-4-4
47920	"	"	"	22:08	22:33	0 ^h 21 E	"	"	4-4-4
47921	"	"	"	22:35	23:05	0 ^h 11 W	"	"	4-4-4
47922	"	"	"	23:07	23:40	0 ^h 46 W	"	"	4-4-4
47923	"	"	"	23:47	00:16	01 ^h 22 W	"	"	4-4-4
47924	"	"	"	00:22	00:51	01 ^h 57 W	"	"	4-4-4
47925	"	"	"	00:56	01:24	02 ^h 30 W	"	"	4-4-4
47926	"	"	"	01:29	01:56	03 ^h 02 W	"	"	4-4-4
47927	"	"	"	02:00	02:30	03 ^h 36 W	"	"	4-4-4
47928	"	"	"	02:34	03:29	04:36 W	"	"	4-4-4

Spectr. Temp. 76°F Dome Temp./Hum. 70°F 94% Transparency Conditions ... good 30

Focus 504

Spectr. Temp. 68°F Dome Temp./Hum. 63°F 100%+

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
30-3				B.C.	830/.68	BS	098-0	A			
4	80/80	4-5	5.45	POSITIVE	"	830/.68	"	IIaO-E	B	Be-Stg	'B' FILTER IN E. MTR. fine
							IIaO-E				
4	80/90	4-5	5.45	POSITIVE	"	830/.68	"	IIaO-E	A	Be-Stg	v sl. str.
4	80/80	"	"	"	"	"	"	B	"	T=79°F F=504	v sl. str comp sl. str
4	80/80	34	"	"	"	"	"	A	"		"
4	80/80	"	"	"	"	"	"	B	"	T=73°F F=505	
4	80/90	4	"	"	"	"	"	A	"		
4	80/80	"	"	"	"	"	"	B	"		
4	80/90	"	"	"	"	"	"	A	"		fine
4	20/80	"	"	"	"	"	"	B	"	T=70°F F=506	
4	80/80	3-4	-	-	-	-	-	A	-	MAY BE BLACK FOREY PARASITES	light struck
4	80/80		-	-	-	-	-	B	-		
4	80/80	4	-	-	-	-	-	A	-	900 HUMN 100% INSIDE + OUTSIDE	fine

31

Date AUG 2-3 TUES-WED Observers STG-R

Emulsion Batches:

Hao E 08102-01083

Hao E b 09023-13073 254

Hao E b 09023-01083 254

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
47929F	FOCUS TEST							Fe/-	30-30
47929	HD180968	19 ^h 13.5 ^m	22°51'	20:16	20:37	02 ^h 14E	23°03'	Fe/-	4-44
47930	HD180968	19 13.5	22°51'	20:40	20:56	01 ^h 55E	"	"	4-44
47931	"	"	"	20:58	21:14	01 ^h 37E	"	"	4-44
47931T	SPOT CAL FOR PLATES 47929-33, 39-				15 MIN @ 150 VOLTS	① D4 3900	② P3 4300	③ D2 4810	
47932	HD180968	19 13.5	+22°51'	21:16	21:31	01 ^h 19E	+23°03'	Fe/-	4-44
47933	"	"	"	21:33	21:53	00 ^h 58E	"	Fe/-	4-44
47934	"	"	"	21:56	22:43	00 ^h 06E	"	Fe/-	11-11-11
47935	"	"	"	22:45	23:29	00 ^h 39W	"	Fe/-	11-11-11
47935T	SPOT CAL FOR PLATES 47934-36				15 MIN @ D4	① 17.5U 3900	② 15U 4300	③ 15 4810	
47936	HD180968	19 13.5	+22°51'	23:31	00:12	01 ^h 23W	"	Fe/-	11-11-11
47937	"	"	"	00:15	01:08	02 ^h 18W	"	"	11-11-11
47937T	SPOT CAL FOR PLATES 47937-38				15 MIN @ D4	① 17.5U 3900	② 15U 4300	③ 15U 4810	
47938	HD180968	19 13.5	+22°51'	01:11	02:08	3 ^h 18 W	+23°03'	Fe/-	11-11-11
47939	"	"	"	02:11	02:32	3 ^h 43W	"	Fe/-	4-44

Spectr. Temp. 76°F Dome Temp./Hum. 75°F 70% Transparency Conditions clear 32

Focus 504

Spectr. Temp. Dome Temp./Hum.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
30-3				B.C.	$830/.680$	B.S.	098	A			
4-4-40/40	2-3	5.45	B5De	B.C.	$830/.680$	B.S.	IIao-E	B	Be-Stg		
4-4-40/40		5.45	"	"	"	"	"	A	"		
4-4-40/40		"	"	"	"	"	"	B	"		
							IIao-E				
4-4-40/40		5.45	Ba5De	B.C.	$830/.68$	B.S.	"	A	Be-Stg.	$9 = 76^{\circ}\text{F}$	
4-4-40/40	2	"	"	"	"	"	"	B	"		
11-40/120		"	"	"	"	"	IIIaTe b	A	"		sl. str.
11-40/120		"	"	"	"	"	"	B	"		sl. str.
35-40/130	1-2	5.45	B0.5 IVe	B.C.	$830/.68$	B.S.	"	A	"	$9 = 76^{\circ}\text{F}$	sl. str.
11-40/140		"	"	"	"	"	IIaTe b	B	"		
35-40/140							"				
11-40/140		5.45	B0.5 IVe	B.C.	$830/.68$	B.S.	IIaTe b	A	"		sl. str.
4-4-40/40	2-3	"	"	"	"	"	IIao-E	B	"	$9 = 74^{\circ}\text{F}$	

Date Aug 2-3 TUES-WED Observers Stg-Ri

IKO-E 08102-01083

gm 600
with following
night

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions . . . excellent 34

Focus

Spectr. Temp. 720 F

Dome Temp./Hum. 68°F 82%

[illegible]

Date 10/23/73 Observers Ally - K.

5-68
8m 680

Emulsion Batches:

FFA-Jc. 609023-01083 B44025
Jad-E 0802-01083

[illegible]

Spectr. Temp. 79°F
 Focus 503
 Spectr. Temp. 70°F 98%

Dome Temp./Hum. ... 76°F ... 85%
 Dome Temp./Hum. ... 70°F ... 98%

Transparency Conditions very Hazy & thicker on 36
 the night wears on

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	1200/.025	B.S.	098	A			
20/80	1-2"	~2	F	B.C.	1200/.025	B.S.	IIIaj-eb	B	Asn-8-kk	T=71°F	
800/801	2"	7	Am	"	830/.68	B.S.	IIao-E	A	IBL Am +AP	T=78°F Set 504	Free
							IIIaTe6				
							IIao-E				
49/120	2"	2.5	KODE	B.C.	830/.68	B.S.	IIIaTe6	B	Std Vel	T=76°F set 505	
49/760	"	"	"	"	1200/.025	"	"	A	"	T=75°F set 504	
30/400	2"	5.2	A2	"	"	"	"	B	KK Asm sp		
401	"	3.6	B6P	"	"	"	"	A	"	T=73° set 505	

37

Yavr 2.5 kvo

8^m 6⁰⁰
with prev.
night

Emulsion Batches:

Tico-E 08102-01083.

Date Sat-Sun Aug 6/7, 63 Observers BK - Ri

[illegible]

Spectr. Temp. 80°K

locus 503

pectr. Temp.

Dome Temp./Hum. ~~74%~~ 93%

Dome Temp./Hum. 70°F. 97%

Transparency Conditions HALEY + SOME CLOUDS.

38

Exposure	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1	300/800	2	7.4	MO III	B.C.	830/68	B.S.	Ilford	A	WATERLOO		
2	400/280	2	7.5	GST	"	"	"	"	B	"	CLOUDS 92.77°F F=504	
3					"	"	"	Ilford	A		92.75°F F=504	
										↑	IN LAST NIGHT EXPOSED III AT 134	

39 Mon - Tues
Date Aug 8/9

Mon - Thurs

Date Aug 8/9 Observers WLn / Rv

with next
night

8ⁿ 68^o

Emulsion Batches:

Dev-E 08102-02083

43/468098 05031-06003

[illegible]

Date Tues. Wed. Aug 9-10. Observers Wyr-R

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.....

[illegible]

Dome Temp./Hum.

Transparency Conditions *very good* 1.0

FOCUS

pectr. Temp. Dome Temp./Hum.

42

[illegible]

Date Thu-Fri Aug 11-12/83 Observers Kly - Ri

Emulsion Batches:

Ilw-E 08102-02083

Date Thu-Fri Aug 11-12/83 Observers K. Ly - R. i

[illegible]

Focus 508

Spectr. Temp. .. 61°.....

Dome Temp./Hum. . . 60. / 93%

Dome Temp./Hum. 57.0°F 92%

Transparency Conditions . . . *good after it*

clean up

44

[illegible]

Date FRI SAT AUG 12-13 Observers BK-R

Emulsion Batches:

8 th 6 th	HADE 08102-01083
8 th 6 th	HADE 08102-02083
8 th 6 th	HADE 12013-12083

[illegible]

Spectr. Temp. 720 F

Dome Temp./Hum. . 69°F . 69%

Transparency Conditions ... sand

Focus 505

Spectr. Temp.

Dome Temp./Hum.

46

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4-4	5" FILTER										
4-4	80/100		6'20	F8 I	B.C.	830/168	B.S.	Ilco-E ^{xx}	A	Waterloo	fine
4-4	80/100	2	6'58	A2	B.C.	830/168	B.S.	Ilco-E ^{xx}	B	"	fine
4-4	40/50		5'56	A2	B.C.	830/168	B.S.	Ilco-E ^{xx}	A	"	fine
4-4	40/50		5'64	A0	B.C.	830/168	B.S.	Ilco-E ^{xx}	B	"	vs. str.
4-4	100/500		7'73	dG1	B.C.	830/168	B.S.	Ilco-E ^{xx}	A	"	fine
4-4	200/250	2-3	7'1	K0 IV	B.C.	830/168	B.S.	Ilco-E ^{xx}	B	"	fine
4-4	40/50		6'1	K0 III	B.C.	830/168	B.S.	Ilco-E	A	"	fine
4-4	80/120		6'6	M2 IV	B.C.	830/168	B.S.	Ilco-E	B	"	fine
4-4	80/100	3	6'4	A8 IV	B.C.	830/168	B.S.	Ilco-E	A	"	fine
4-4	40/40		6'05	A2	B.C.	830/168	B.S.	Ilco-E	B	"	fine
30-32				B.C.	830/168	B.S.	Ilco-E	A		"	vs. bha

REAJUSTED IRON ARC

T=70°F F 506

T=66°F F 507

#67

T=64°F T=507

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions 1.1

48

[illegible]

49
Date ^{Tue Wed} Aug 16/17 Observers Wln/Sc/Ri

.....

.....

.....

[illegible]

Focus

600

Transparency Conditions *Hazy* *Circle patients*

Spectr. Temp.

Dome Temp./Hum. 68°F/96%

50

[illegible]

Thu-Fri
Date .

Date _____

Ilav-E 08102-12083

8th 680
with next
night

[illegible]

Spectr. Temp. 73° F.

Dome Temp./Hum. 66°F / 100%

Transparency Conditions nice

52

[illegible]

Date FRI-SAT AUG 19-20 1983 Observers HY-R

5^m 68°
8^m 68°

Start Feb. 09023-01083 25Ha

HAO-E.08102-12093

[illegible]

Date Aug 23/24.

Tues/Wed

Observers

$$K_m - K_i$$

Emulsion Batches:

TE 08102-12083

098-02 05031-22093

[illegible]

Spectr. Temp. ... 74°F

Dome Temp./Hum. ... 71°F ... 62%

Transparency Conditions . SAME . CLOUDS . AT

Focus 505

Spectr. Temp. 63°F

Dome Temp./Hum. ... 63°F ... 80%

THE BEGINNING OF
THE NIGHT and after that

56

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-025	BS	098	A			
50/51		2.5- 2.6	F7Ib F8Ib	BC	1200/-025	BS	IIaOE	B	Ceph/Evans	74° spec - focus 505	
50/400	23	7.9	FSII	BC	830/.68	BS	IIaOE	B	Ceph/Evans	B-filter i. lipdau meter	
50/832		8.2	F7Iab K03ab	BC	1200/.7	RS	098-E	A	Ceph/Evans	GG13 on slit 51 and in exposure spec 73°F cloud	
							098E.				
50/80		5.9	F6Ib	"	"	"	"	A	Ceph/Evans	spec T 71°F focus 506	
50/5		3	F8Ib	"	"	"	"	B	"		
50/7		4.4	FSII	"	"	"	"	A	"		
50/6		3.7	G0Ib	"	"	"	"	B	" / std vel		
50/6		3.9	G2Ib	"	"	"	"	A	"		
50/16		4.6	F7I	"	"	"	"	B	std vel		
50/80		7	F7Ib- G2Ib	"	"	"	"	A	Ceph/Evans	spec 70°	
50/69		6.5	F8Ib	"	"	"	"	B	"	spec 69° focus 507	
				"	"	"	"	A		68° F = 507 sl rec	

Wed Thurs
Date Aug 24-25/83...

Date Aug 24-25/83

Observers

In-Kly

 $4\frac{1}{2}^m 70^w$

Emulsion Batches:

...Tas-Pb... 09023-24 083

[illegible]

Spectr. Temp. ... 72.5°F ...

Dome Temp./Hum. 68°F / 79%

Transparency Conditions ... Fine till 0 hrs ...

Focus ... 50.6 ...

Spectr. Temp. ... 68°F ...

Dome Temp./Hum. 62° / 92%

58

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BC					1200/-025	BS	098	A		Blue Ex. motor filter in	
20/90	3"	3.93	Fop	"	"	"	IIIa-e	B	Asm Sp. KK		Fine
20/88	2"	2.2	AST III	"	"	"	"	A	"		Fine
20/92	2-3	2"	F	"	"	"	"	B	Polaris		
20/90	"	3.7	F0 IV	"	"	"	"	A	Asm Sp. KK		Fine
20/97	2"	3.78	FS IV	"	"	"	"	B	"		Fine
20/98	2"	4.4	FS IV	"	"	"	"	A	"	T=72°F	Fine
							"				
20/90	2"	3.6	Bop	"	"	"	"	B	"		Fine
20/100	"	5.2	A2	"	"	"	"	A	"	some cloud → clouded clear	Fine

Thurs-Fri

Date Aug. 25-26. 183... Observers Tn-Rly.....

5^m 69° Emulsion Batches: 11-1-06 09

5^m 69^o Enliston Dates: III-1-eb 09023-24083 224r86
M2

...II-40-E...15013-12083

[illegible]

Spectr. Temp. 69

Dome Temp./Hum +66°F / 100% + Fog at end

Transparency Conditions . . . *hazy - cloudy*

60

[illegible]

61 Fri/Sat

Date Aug 26/27, 1963 Observers Bk-Tn

Emulsion Batches:

Emulsion Batches:
8^m 6⁸⁰ .. ILCO-EC 15013 .. 22083

[illegible]

83

Transparency Conditions..... *hazy - cloudy*.....

Spectr. Temp. 74°F.....

Dome Temp./Hum. *+72°/100%*

2015 62

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4-1-40/50	1"	5.5	F5V	BC	830/68	BS	IL40-E	A	Waterloo prog	2" missing from Red end	N
4-4-400/510	1"	7.1	HOIV	"	"	"	"	B	" "	broken 2 pcs saved	
							"				
4-1-400/500	<1"	6.5	MO II	BC	830/68	BS	"	A	Wat prog	1/2" broken off cloud set 504	O
4-1-400/500	<1"	6.0	A2	"	"	"	"	B	"	!	M
2-7-400/480	"	6.8	A0	"	"	"	"	A	"	clear!! (2 pcs broken together)	P

63

Mon/Tues

Date AUG. 29/30...1983

Observers .. Kly:.. T.n

Emulsion Batches:

Emulsion Batches:
SF012 R: 4 1/2 68 III a-l-p... 09023... 24083 22 hrs

8768 Д-О-Е 15013-22083

[illegible]

Spectr. Temp. ... 79

Dome Temp./Hum. 77/73%

Transparency Conditions ... semi cloudy

Focus ... 50.4

Spectr. Temp. ... 75

Dome Temp./Hum. 71.5/95%

Lighting by 0 hrs EST

64

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
19-10 20/72	1.2	2	F	B.C.	1200/ -.025	B.S.	III aj-e	A	Polaris	Timed 13 min EXP met. out now on	sl. str.
19-10 20/103	1"	3.6	K0III	"	"	"	"	A	KR Asm Sp		sl. str.
44- 800/850	1"	7.8	G9V	"	830/ .68	"	II a0-e	B	"	Clouds ~20 min T=79 set 504	comp. 1 yes
							"				
							III a j-e				smudged
6-3 10/38	2"	3.63	G8III	RC	1200/.2	150/5	II a0-e	A	Asm Sp	cloud KS T=75°	NO comp.

65 Wed - Thurs

SEPT 2 R. 8 68

Emulsion Batches:

UO-E 15013-22083

Date Aug. 31 - Sep 1 / 83 Observers Tg - Kly

[illegible]

Spectr. Temp. ... 76°F

Dome Temp./Hum. 71°F / 79%

Transparency Conditions .. Fine

Focus 50A

Spectr. Temp. ... 67

Dome Temp./Hum. 60°F / 85%

66

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/27	2"	4.1	K3 II	BC	830/68	BS	IL40-E	A	std vel		
00/425	23'	8.0	Am	"	"	"	"	B	JBL AmtAp		
800/811	2"	9.2	Am	"	"	"	"	A	"	1 piece developed unit A! (lost) broken 2 pcs saved in box	
00/399	23'	7.7	F5	BC	830/68	BS	"	B	Hcm Sp	T=68°F Set 507	
40/152	2-3'	3.63	G83	"	1200/* 12	150u 15	"	A	"		fine comp sl. str-

Thurs - Fri

Date Sept 1-2 183...

Observers ... T.S. - K/S

SEAT 2

5 R. $4\frac{1}{2}$ 68

2 R. 8 68

Emulsion Batches:

1005-66 09073-01043

..II.0.F...15013...29083

[illegible]

Spectr. Temp. $+74^{\circ}\text{F}$Dome Temp./Hum. $+72^{\circ}\text{F}/64\%$ Transparency Conditions *hazy - later v. nice...*

Focus5.05.....

Spectr. Temp.

Dome Temp./Hum. $+61^{\circ}\text{F}/97\%$

68

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/90	2"	2	F	BC	1200/.025	BS	IIaJ-eb	A	Asm Sp	broken / pc saved	
							IIaJ-eb				
20/100	1"	3.8	FSTV	"	1200/.025	BS	IIIaJ-eb	B	Asm Sp		good bar sl. uneven
800/811	1"	9.3	Arm	"	830/.68	"	IIaJ-eb	A	IBL ArmAD		exp ok sl. flex.
400/409	2"	7.7	F5	"	"	"	"	B	Asm Sp	T=70° set 506	
20/109	1"	4.9	FOIV	"	1200/.025	"	IIIaJ-eb	A	"		fine
40/202	2"	5.8	ASm	"	"	"	"	B	"		vsl weak
							IVaJ-eb				
20/200	2"	3.6	G8111	"	1200/.2	150M/15	IIIaJ-eb	A	"		fine

WED - THURS

Date Sept 7-8 1983 Observers Ly-Ki

Emulsion Batches:

THA-Tab 09023-01093

ИАО-Е 15013-29083

[illegible]

Spectr. Temp. ... 74°F ... Dome Temp./Hum. ... 68°F ... 72% ... Transparency Conditions ... V-good

Focus ... 505

Spectr. Temp. ... 69°F ... Dome Temp./Hum. ... 60°F ... 94%

70

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B* FILTER				B.C.	1200/-0.025	B.S.	IIIaTeb	A			cent vsl/rel
40/200		4.1	K3H	B.C.	1200/-0.025	B.S.	IIIaTeb	B	std vel		sl str
40/150	4	~6	98III-IV	"	"	"	IIIa-oc	B	H+K - Ly		Fine
40/50	2-3	5.5	B2V	"	"	"	"	A	Sp Bin - Ly	69°F set 506	sl wk
40/50	3-5	6.0	09III	"	"	"	"	B	MSB - Ly		sl wk
40/51		6.0	09III	"	"	"	"	A	"		sl wk
200/190	3-5	7.3	gK2	"	"	"	"	B	Wurda - Ly	67°F set 507	wk
20/84		~2	F	B.C.	1200/-0.025	B.S.	IIIaTeb	A	Asm KK	92 69°F	sl str

71

Date ~~Tues~~ Fri Sept 8-9 Observers Ly-Ri

Emulsion Batches:

Plate 6 09023-01093 30 296Tico-E 15013-29083Tico-B 15013-08093 10178

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48028	HD 8890A	01 22.6	+88 46	19 14	19 17	08 10 E	+89 42	Fe/-	19-19
48029	HD 219634	23 12.2	+61 25	19 27	20 00	04 24 E	+61 53	Fe/-	7-77
48030	"	"	"	20 02	20 39	03:45 E	+61 53	Fe/-	7-77
48031	"	"	"	20:40	21 16	03:07 E	+61 53	Fe/-	7-77
48032	HD 1337	00 12.4	+50 53	21:26	21 45	03 40 E	+51 24	Fe/-	7-77
48033	"	"	"	21:46	22:04	03 20 E	"	Fe/-	7-77
48034	"	-	-	22:06	23:15	02 10 E	"	Fe/-	12-121
48035	HD 16893	02 37.4	+67 23	23:37	02:37	01 14 E	+67 47	Fe/-	44-0
48035T1	SPOT CAL FOR PLATES 48028-34			15 MIN @	04 39 00	01 17.4	01 50	01 50	4810
48035T2	STRIP CAL FOR 48029-31+35				60 SEC				
48035T3	STRIP CAL FOR 48032+33, 36, 37,						60 SEC		
48036	HD 9746	01 30.3	+48 12	02:45	04:33	01 51 W	+48 41	Fe/-	77-
48036T1	SRIP CAL TICO E TEST			60 SEC					
48036T2	SPOT CAL TICO E TEST			15 MIN @	04 39 00	01 17.50	01 50	01 50	4810
48037	HD 3712	00 34.8	+55 59	04:39	04 44	02 57	+56 29	Fe/-	10-1
48037F	fluo					00 00	"	Fe/-	30-3

Spectr. Temp. 74°F

Dome Temp./Hum. 70°F 76%

Transparency Conditions good at sunset 72

Focus 585

Spectr. Temp. 66°F

Dome Temp./Hum. 60°F 98%

- then sl. hazy after midnight
then very hazy (stable later pattern)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/41	1-2	2	F	TBC	1200/.025	BS	IIIaJeb	A	Asm-KK		15 str 5/str
40/50	2	6.5	B8	"	"	"	IIaO-E*	B	SpBin-Ly		vs/wk
40/50	"	"	"	"	"	"	"	A	"	T=74°F	wk
40/50	"	"	"	"	"	"	"	B	"	BROKEN 4 PIECES	some doubling slut
40/52	"	6.0	09111	"	"	"	"	A	SpBin-Ly		vs/wk
40/52	"	"	"	"	"	"	"	B	"	T=73°F	vs/wk
40/200	"	"	"	"	"	"	IIIaJeb	A	"		Fine
40/232		8.9	A2V	BC	830/.68	"	IIaO-E*	B	SpBin-Tur	R. tried to fix one during exposure T=71°F 505	wk few wk
							IIaO-E*				
							IIaO-E				
80/120	2	7.1	gKI	TBC	1200/.025	BS	"	A	H+K-Ly	BROKEN 2 PIECES T=67°F F=507	Few wk
							IIaO-E				
							IIaO-E				
10/13		8.8	KOth	BC	1200/.015	BS	IIaO-E	B	Std Vel		Few wk Fine
							IIaO-E	A		T=66°F F=507	vvv/wk

Spectr. Temp. 65°F Dome Temp./Hum. ... 59°F 63% Transparency Conditions ... clouds at limit the good...

Focus 508

Spectr. Temp. Dome Temp./Hum. ... 48°F 85%

74

Exposure	Filter	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7-7	40/150	3.5	~6	G8III	BC	1200/-0.025	BS	Ilade	A	H+K-Ly	clouds some	Fine
7-7	40/80		6.1	09III	"	"	"	"	B	SpBri-Ly	T=61°F BROKEN 2 PAGES	Fine Exp
7-7	40/81	4.5	"	"	"	"	"	"	A	"		Fine
7-7	40/82		"	"	"	"	"	"	B	"	T=59°F F=509	Fine
7-7	80/180	3-4	7.1	gk1	"	"	"	"	A	"		Fine
9-	4/20		2.5	K0III	BC	1200/-0.025	BS	Ilade	B	std ad.	blue end of plate totally out of focus	poor
19-	4/20		2	F	"	"	"	"	A	Arm-KK.	T=56°F	Fine
7-7	80/170	3	7.0	FSV	BC	1200/-0.025	BS	Ilade	B	Hyades-Ly	BROKEN 1/2" MISSING	s/wk
								Ilade	A		T=54°F F=509	

75 p9 II

Sept 14/15

JD 445592.6

Emulsion Batches:

α^6 100 Jfg... 09023... 12093
 α^6 098-22E... 20081... 12093 31 200
 ... 15013... 08093

Date Wed/Thur..... Observers Rm Th / Jn.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48046	HD 8890 = α UMi	1 ^h 22.6	+88° 46.4	19:09	19 18	7 49 E	+89 08	Fe/-	20-20
48047	HD 159181 = β Dra	17 ^h 28.2	52° 23	19:32	19 34	1 ^h 20 W	+52° 19	Fe/ND	12-2
48048	HD 135758 = α Sge	19 ^h 35.6	+17° 47	19:39	19 50	0 ^h 33 E	+18° 59	Fe/ND	12-12
48049	HD 202109 = γ Cyg	21 ^h 8.7	+29° 49	19:54	19:57	2 ^h 00 E	+30 0	Fe/ND	12-12
48050	HD 178359 = T Tauri	19 ^h 03.2	+01° 08	20:02	21.41	1 ^h 49 W	+01° 16	Fe/ND	12-8
48051	Spot Cal for 48047-56			15 min @	15V D3 7v D1 4810 HX	7v D2 5450			
48051	HD 18727 = γ Sge	19 ^h 51.5	+16° 22	21 54	22 57	1 ^h 48 W	+16° 36	Fe/ND	12-12
48052	HD 209867 = β Hic	21 ^h 26.3	-6° 1	22 32	22 34	0 ^h 20 W	-5° 50	Fe/ND	12-12
48053	HD 206659 = η Peg	21 ^h 39.8	+16° 53	22 38	22:42	0 ^h 15 W	+17 7	Fe/ND	12-12
48054	HD 209750 = α Aps	22 ^h 0.6	-0° 0	22:45	22:48	0 00	-0° 25	Fe/ND	12-12
48055	HD 223047 = ψ And	23 41.1	+45° 52	22:53	22:58	1 ^h 30 E	+46° 20	Fe/ND	12-12
48056	HD 224165 = HR 9053	23 ^h 50.5	+46° 48	23:01	23:23	1 ^h 14 E	+47° 15	Fe/ND	12-12
48057	HD 213306 = δ Cep	22 ^h 25.4	+57° 54	23:34	23 41	0 29 W	+58° 20	Fe/ND	12-12
48058	HD 203032 = HR 8157	21 15.4	+37° 49	23:52	00 09	2 ^h 6 W	+38° 10	Fe/-	6-6
48059	HD 16893	02 37.4	+67 23	00:30	03 52	0 25 W	+67 44	Fe/-	5-4

293
293312
28093

$$60^{\circ}\text{F} / \text{H} = 70\%$$

2.47

509.

8093

• / •

76

[illegible]

Pg #2

Date Cont of Sept 14/15 Observers T. H.

.....

.....

.....

[illegible]

Spectr. Temp. ...53.5°F.....

Dome Temp./Hum. 48°F / 90%

Transparency Conditions

78

[illegible]

79 Fri-Sat

Date Sept 23-24/83... Observers Tn-Ly/Tn... + some KK

5th 68th Div

II.0-E 15013-08093

[illegible]

Spectr. Temp. 55°F Dome Temp./Hum. $48^{\circ}\text{F}/80\%$ Transparency Conditions *Fine*Focus 5.10 Spectr. Temp. 48°F Dome Temp./Hum. $40^{\circ}\text{F}/100\% + \text{very wet}$

80

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B Filter											
17-120/103	2-3"	4.1	K3 II	BC	1200/0.025	BS	IIIaJ-Efg	A	sl/0 Vel		fine
4-40/155	"	6	G8 IV	"	"	"	IIaO-E	B	Hsk-Ly	Set 511 53°F	fine sl. fog
							IIaU-E				
2-120/210	4"	6.0	09 III	BC	1200/0.025	BS	IIIaJ-Efg	A	MSB-Ly		good comp sl weak
							"				
17-120/120	4"	3.6	B6p	BC	1200/0.025	BS	IIIaJ-Efg	B	Asm. Sp	$T=49^{\circ}\text{F}$ 0.91	fine comp sl weak
17-120/215	4"	4.63	B8 V	"	"	"	"	A	SB-Bln		fine
				"	"	"	?	B		$T=48^{\circ}\text{F}$ Set 511	ok

81

Mon - Tues

Date Sept 26-27 1983 Observers Tm

Emulsion Batches:

Emulsion Batches:
...Wal-Eg 09023-12093 37²²³

[illegible]

Spectr. Temp. 63°F

Dome Temp./Hum. 46.2°F / 80%

Transparency Conditions *5/ hazy - cloudy*

Focus 509

Spectr. Temp. Dome Temp./Hum. +60°F / 92%

82

[illegible]

Tues-Wed

Date Sept 27-28 183

Observers

Ly-Ta

Emulsion Batches:

Mal-Efn 09023-12093

8m 68

ΠαοΕ 15013 -24093

[illegible]

85 Fri - Sat

Date Sep 30/Oct 1, 1983

Observers BK - Ri

Emulsion Batches:

8th 68th

8th 68th TCO-E 15013-24093

[illegible]

pectr. Temp. 71°F

Dome Temp./Hum. ... 63°F ... 70%

Transparency Conditions ... good

ocus 506

pectr. Temp. 61°F

Dome Temp./Hum. ... 56°F ... 92%

NEW D19

86

Compensation Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-	10/100	3	5.9	M4 III	B.C.	830/.680	B.S.	Ilao-E	A	Waterloo		sluck Hsk Em Fine
-	10/120		6.9	M2 II	B.C.	830/.68	B.S.	Ilao-E	B	"		sluck in Hsk Fine
-	30/100		7.4	K0 II	B.C.	830/.68	B.S.	Ilao-E	A	"	BROKEN 2 PIECES	Fine
-	30/100	3	7.5	G5 III	B.C.	830/.680	B.S.	Ilao-E	B	"	T=67°F F 507	Fine
								Ilao-E				
-	10/100		6.6	M2 III	B.C.	830/.680	B.S.	Ilao-E	A	WATERLOO		sluck Hsk Em Fine-str
-	10/20		4.6	K2 III	B.C.	830/.68	B.S.	Ilao-E	B	"		str
-	10/60	34	6.4	A8 III	B.C.	830/.68	B.S.	Ilao-E	A	"		Fine
-	100	2	7.5	F2	B.C.	830/.68	B.S.	Ilao-E	B	"	T=64°F F. 508	Fine
-	80/120	2	7.2	F5 V	B.C.	830/.68	B.S.	Ilao-E	A			VV sluck OK
-	80/120	2	7.0	F0 V	B.C.	830/.68	B.S.	Ilao-E	B		T=62°F	" " " "
-	30/110	2	7.9	G5	B.C.	830/.68	B.S.	Ilao-E	A		T=61°F	VV sluck good Hsk Em

87 Pg II/

Date Sun Mon Oct 2-3 83 Observers ... Stg - R.

5^m 68^m

Emulsion Batches:

Jia-Feb 09023-30093

Jiao-Feb 15013-24093

Jiao-E 15013-30093

1701 00101 31x
24 Hrs

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48085F	FOCUS 9F57							Fe/-	30-3
48085	HD 217675	22 57.4	+ 41° 47'	18:25	18:39	355 E	+42° 17'	Fe/-	11-11
48086	HD 217050	22 52.7	+ 48° 9'	18:44	19:02	329 E	+48° 38'	Fe/-	4-44
48086T	SPOT CAL FOR PLATES 48085, 90, 91					15 MIN WD F	17.50 150 150 3900 4300 4310		
48087	HD 224559	23 53.7	+45° 51'	19:07	20:00	331 E	+46° 20'	Fe/-	4-4
48088	HD 218674	23 4.8	+45° 07'	20:05	20:45	156 E	+49° 35'	Fe/-	4-4
48088T	STRIP CALN FOR PLATES 48086+87					60 SEC			
48089	HD 218393	23 02.7	+49° 39'	20:49	21:49	050 E	+50° 09'	Fe/-	4-4
48090	HD 217675	22 57.4	+41° 47'	22:07	22:20	014 E	+42° 16'	Fe/-	11-11
48091	HD 217050	22 52.7	+48° 9'	22:24	23:04	035 W	+48° 39'	Fe/-	11-11
48091T	SPOT CAL FOR PLATES 48088+89, 92-95					60 SEC			
48092	HD 224559	23 53.7	+45° 51'	23:08	23:40	010 W	+46° 21'	Fe/-	4-4
48093	HD 218674	23 4.8	+49° 07'	23:43	01:53	211 W	+49° 35'	Fe/-	4-4
48094	HD 217050	22 52.7	+48° 09'	01:58	1:17	248 W	+48° 38'	Fe/-	4-4
48095	HD 218393	23 02.7	+49° 39'	1:20	02:38	400 W	+50° 08'	Fe/-	4-4
48096	HD 217675	22 57.4	+41° 47'	2:43	2:57	425 W	+42° 15'	Fe/-	11-11

Spectr. Temp. 67°F Dome Temp./Hum. 64°F 82% Transparency Conditions ... VERY HAZY WITH
SCATTERED CLOUDS
 Focus 507
 Spectr. Temp. Dome Temp./Hum. 88

Companso /Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-30-3	B FILTER				B.C.	830/.68	BS	IIaTeb	A		9=67°F F=507	OK
1-11-1	20/70	3	3.6	B6p	B.C.	830/.68	B.S.	IIaTeb	B	Be Seg	REFRUSTED IRON ARC	Fine
1-4-1	0/49	3	5.1	B2pe	B.C.	830/.68	B.S.	IIaO-E*	A	"		Fine
3-5-1								IIaTeb				
1-4-1	80/100		6.5	B3IV	B.C.	830/.68	B.S.	IIaO-E*	B	"		slwk
1-4-1	80/100		6.7	B3IV	B.C.	830/.68	BS	IIaO-E	A			vs/wk
								IIaO-E*				
1-4-1	50/100		6.9	Bpe	B.C.	830/.68	BS	IIaO-E	B	"	CLOUDS	slwk
1-4-1	20/70		3.6	B6p	BC	830/.68	BS	IIaTeb	A	"	"	Fine
1-4-1	20/140		5.1	B2pe	BC	830/.68	BS	IIaTeb	B	"	"	Fine
								IIaO-E				
4-4-1	0/50		6.5	B3IV	BC	830/.68	BS	IIaO-E	A	"		Fine
4-4-1	80/100		6.7	B3IV	BC	830/.68	BS	IIaO-E	B	"	BROKEN 3 PIECES CLOUDS	slwk vs/dbl
1-4-1	40/150	3-4	5.1	B2pe	BC	830/.68	BS	IIaO-E	A	"	"	Fine
1-4-1	30/100		6.9	Bpe	BC	830/.68	BS	IIaO-E	B	"		slwk
1-4-1	20/70		3.6	B6p	BC	830/.68	BS	IIaTeb	A	"		Fine

99 P₂₉^{II}2

Date SUN MON OCT 23 83 Observers Sta-R1

5th 68th

Emulsion Batches:

Emulsion Batches: 79
79 Tel 609023-30093 24HR

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions HA24

FOCUS

Spectr. Temp. 630

Dome Temp./Hum. 60°/96%

90

[illegible]

Date Wed-Thurs Oct 5-6/82 Observers Sly-Ty

412 69. IIa1-E 09023-30093 24/45
IIa0-E 15013-30093

[illegible]

Spectr. Temp. 56°F

Dome Temp./Hum. *+59°/.938*

Dome Temp./Hum. 49.2° / 100% +

Transparency Conditions *Hazy*.....12....

92

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-	17-1/2	40/140	2-3"	3.6	B6p	BC	830/68	BS	III-J-Efg	A	Be-Stg	Labelled 99	Pos/Str 51str
-	17-1/2	40/142	"	"	"	"	"	"	"	B	"	(Labelled X)	"
-	11-1/2	40/160	3'	5.1	B2pc	BC	830/68	BS	III-J-Efg	A	Be-Stg		Fine
-	11-1/2	40/162	"	"	"	"	"	"	"	B	"		Fine
-	5-5	200/124	5-4"	6.9	B2pc	"	"	"	II-Q-E	A	"	Set 510 T=57°F. Hand	WK

93

Date Thurs-Fri. 6/7 Out Observers ... *Stg-Ri-Tm*

Emulsion Batches:

5^m 68

Hwy 4 09023-30093 AA 3.14

Hwy-E 15013-30093

Hwy-E 15013-02103

No N₂ 8^m 68

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48103	HD21767S	22 57.3	+41° 47	18 45	19 30	2 48E	+42° 17	Fe/-	11-11-
48104	HD217050	22 52.7	+48° 9	19 37	19 54	2 20E	+48° 38	Fe/-	5-5-
48105	HD 224559	23 53.7	+45° 51	19 58	20 49	2 26E	+46° 21	Fe/-	5-5-
48105 ^X	SPOT CAL FOR PLATES 48103, 10					15 MIN @ 15V	15V 15V		
48106	HD 218674	23 04.8	+49° 07	20 53	21 38	0 49E	+49° 37	Fe/-	5-5-
48106 ^T	STRIP CAL FOR PLATES 48104-09.					60 SEC			
48107	HD 218393	23 02.7	+49° 39	21 43	00 00	1 37W	+50 08	Fe/-	5-5-
48108	HD 218674	23 04.8	+49° 07	0 03	1 03	2 38W	+	Fe/-	5-5-
48108 ^X	Spot Cal'n - [Sensitivity Test after 3.75 hrs Evacuati'n]					15 min @ 15V	D4 D3 D2 3900 4300 4810		
48109	HD 218393	23 02.7	+49° 39	1 06	2 20	3 58W	+50 08	Fe/-	5-5-
48110	HD 217 675	22 57.3	+41° 47	2 40	2 53	4 35W		Fe/-	17-1-
48111	HD 217050	22 52.7	+48° 9	2 57	3 17	5 04 W	+48° 37	Fe/-	5-5-
48111 T	Strip Cal'n for 48111-13					60 sec			
48112	HD 224559	23 53.7	+45° 51	3 19	4 07	4 53 W	+46° 20	Fe/-	5-5-
48113	HD 218674	23 04.8	+49° 07	4 20	5 41	7 20 W	+49° 33	Fe/-	5-5-

AA 317

Spectr. Temp. ... 76.1°F ...Dome Temp./Hum. ... $+42^{\circ}\text{F}/80\%$...Transparency Conditions ... *mostly clear* ...Focus ... *509* ...Spectr. Temp. ... 47°F ...Dome Temp./Hum. ... $39^{\circ}\text{F}/100\%$...We noticed the Earth Tremor while observing! *5 20 EST* *Super Transparent* *94*Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/80	3-4	3.6	B6p	BC	830/.68	BS	IIaJef	A	Be-Stg	through clouds	Fine
40/60	3-4	5.1	B2pe	"	"	"	IIaO-E	B	Be-Stg		Fine
80/120	3-4	6.5	B3IV	"	"	"	IIaO-E	A	Be-Stg		Fine
							IIaJef			T = 58°F F = 509	
80/120		6.7	B3IV	BC	830/.68	BS	IIaO-E	B	Be-Stg		Fine
							IIaO-E			T = 57°F F = 510	
200/300	3-4	6.9	Bpe	BC	830/.68	BS	IIaO-E	A	Be-Stg		Fine
80/127	3"	6.7	B3IV	"	"	"	"	B	"	severe oscillate of 2 hrs W	slut
							IIaO-E*			* 06103-06103 The new IaObatch	
80/103	3	6.9	Bpe	BC	830/.68	BS	IIaO-E	A	Be-Stg	T = 52°F set 512 Cloud	slut
40/143	3"	3.6	B6p	"	"	"	IIaJef	A	"		Fine
40/61	4-5	5.1	B2pe	"	"	"	IIaO-E**	B	"		Fine
							)				
80/120	4-5	6.5	B3IV	BC	830/.68	BS	"	A	Be-Stg	T = 44°F $\rightarrow$ 512	Fine
80/75	5"	6.7	B3IV	"	"	"	"	B	"	Reversed (One Prime mirror cover fell)	Fine

Date Sat/Sun 8/9 Oct Observers Stg-Tn

Emulsion Batches:

5^m 680 III-L-E 09023-30093 AA 3101

8^m 700 II-a-E 15013-02103

[illegible]

93M
23

Spectr. Temp. 54°F
Focus 512-573
Spectr. Temp. 44

Dome Temp./Hum. 46°F/92%
Dome Temp./Hum. 37°F/100%

Transparency Conditions SI hazy - Good

96

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5-55 80/93	4"	3.6	B6p	BC	830/.68	BS	IIIa Jef	A	Re-Stg		vs. str.
							"				
5-55 80/121	4"	6.7	B3IV	BC	830/.68	BS	IIa O-E	B	Re-Stg	broken 2 pps saved	Exp Fine but 2/61
							"				
5-55 80/135	4"	6.9	Bpe	BC	830/.68	BS	"	A	Re-Stg		vs/whk
5-55 80/31	3-4"	5.1	B2pe	"	"	"	"	B	"		Fine
5-55 80/121	"	6.7	B3IV	"	"	"	"	A	"		vs/whk
5-55 80/120	3"	6.5	B3IV	"	"	"	"	B	"	T=48°F set 513	vs/whk
5-55 80/31	3"	5.1	B2pe	"	"	"	"	A	"		Fine
5-55 80/120	3"	6.5	B3IV	"	"	"	"	B	"		vs/whk
8-7 80/97	4"	"	"	"	"	"	"	A	"	Reversed	Exp sluk v. wh Fe
20-2 80/97				"	"	"	?	B	Set 513	T=44°F	cent sl Blue

97 p4#1

Date Sun/Mon 9/10/01 Observers Stg - Tnwith previous
night5^m 68°

Emulsion Batches:

III-E-Fy 09023 - 07103

8^m 70° Dale 06103-06103 27200

A2 5104

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48123	HD 217675	22 57.3	41° 47'	18:20	18:32	3:35	+42° 14'	Fe/-	17-20
48123	HD 217050	22 52.7	+48° 9'	18:35	19:20	2:40	+48° 34'	Fe/-	20-21
48124	Spot Cal'n for 48123-24, 28-29	22 57.3	41° 47'	19:23	19:33	2:32	+42° 13'	Fe/-	20-21
48125	HD 218393	23 02.7	+49° 39'	19:37	20:52	1:19	+50° 6'	Fe/-	9-9
48126	HD 218674	23 04.8	+49° 7'	20:55	21:40	0:35E	+49° 35'	Fe/-	9-9
48126	Spot Cal'n for 48125-27, 30-32	23 02.7	+49° 39'	23:08	0:41	2:30W	+50° 8'	Fe/-	9-9
48127	HD 224559	23 53.7	+45° 51'	21:44	22:18	0:45E		Fe/-	9-9
48128	HD 217675	22 57.3	+41° 47'	22:22	22:31	0:25W	+42° 13'	Fe/-	21-22
48129	HD 217050	22 52.7	+48° 9'	22:34	23:06	1:05W	+48° 36'	Fe/-	20-21
48130	HD 218393	23 02.7	+49° 39'	23:08	0:41	2:30W	+50° 8'	Fe/-	9-9
48131	HD 218674	23 04.8	+49° 7'	0:47	1:45	3:33W	+49° 23'	Fe/-	10-10
48132	HD 224559	23 53.7	+45° 51'	1:48	2:34	3:34W	+46° 18'	Fe/-	10-10
48133	HD 217675	22 57.3	+41° 47'	2:37	2:54	4:50W	+42° 15'	Fe/-	24-25
48134	HD 217050	22 52.7	+48° 9'	2:57	4:29	6:30W	+48° 17'	Fe/-	15-15

Spectr. Temp.

Dome Temp./Hum. 45°F/H=80%

Dome Temp./Hum. /

Transparency Conditions *Photomatic*

New Stop Bath

98

[illegible]

99 Pg #2

Date .. Oct. 9/10 cont. Observers

Emulsion Batches:

.....

• • • • •

.....

[illegible]

100

[illegible]

101

Thurs - Fri

Date Oct 13-14 83 Observers Stg-Th

Emulsion Batches:

IV-1-Eg. 09023-07103
IV-6-E 06103-06103

39 34

Spectr.

Focus.

Spectr.

[illegible]

Transparency Conditions *hazy - cloudy*

ocus 510

pectr. Temp. .. 54

Dome Temp./Hum. ^{+45°/95%}.....6

gusty

102

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0/70	8"	3.6	B6p	BC	830/.68	BS	IIIaJEF	4	Be-Stg		Fine
							"				
0/70	8"	3.6	B6p	BC	830/.68	BS	"	B	Be-Stg		Fine
0/54	5"	6.5	B3IV	BC	830/.68	BS	IIaO-E	A	Be-Stg	cloud	wk
							"				

03

42°F / 92.76

cloudy

512

46°F

 $+38^{\circ}\text{F} / 100^{\circ}\text{C}$

104

[illegible]

105

Tour 34 people LOOKED AT NGC 869

Emulsion Batches:

FeDE 06103-14103

Hartel 09023-13103 18L

Date Oct 20-21, 1983

Observers Kiy-Ri - Glendinning... DAF/Ri

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.	Exp. Mu
48142F	Focus 9RET							FeL	20-20	20/5
48142	HD 183912	19 26.7	+27°45'	18:15	18:51	1:00W	+27°57'	FeNe W26010	6-6-6	20/5
48143	HD 186791	19 41.5	+10°22'	18:59	20:14	2:06W	+10°36'	"	6-6-6	20/6
48144	HD 183912	19 26.7	+27°45'	20:20	21:33	3:40W		"	6-6-6	20/5
48144T	SPACAL FOR PLATES 48142-				15 MIN @ 1500 lux			① D4 ② D4 ③ D4 3600 3900 4300		
48145	HD 215182 n Peg	22 38.3	+29°42'	21:42	22:03	00:59W	+30°09'	FeNe W26010	6-6-6	20/5
48146	HD 202109	21 08.7	+29°49' +36°13'	22:07	22:48	03:14W	+30°10'	"	6-6-6	20/6
48147	HD 3712	00 34.8	+55°59'	22:55	23:15	01:00W	+56°28'	"	6-6-6	20/6
48148	HD 5448	00 51.2	+37°57'	00:19	00:36	01:19W	+38°25'	"	6-6-6	20/6
48149	HD 12111	01 53.7	+70°25'	00:42	01:12	00:50W	+70°51'		6-6-6	20/5
48150	HD 17878	02 47.2	+52°21'	01:22	01:54	00:40W	+52°44'	FeNe W26010	9-9	20/5
48151	HD 18925	02 57.6	+53°07'	02:00	02:14	00:50W	+53°27'	"	9-9	20/5
48152	HD 33328	05 09.4	-08°53'	02:35	03:16	00:14E	-08°45'	Fe/-	20-20	20/9
48152T	SPACAL FOR PLATES 48152-				15 MIN @ D4			① 17.50 ② 150 ③ 150 3900 4300 4810		
48153	HD 37468	05 33.7	-02°39'	03:22	03:47	00:12E	-02°35'	Fe/-	20-20	20/6

Spectr. Temp. 48°F Dome Temp./Hum. 42°F 61%

Transparency Conditions CIRRUS CLOUDS 1

Focus 511

Spectr. Temp.

Dome Temp./Hum.

good after mid night

106

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 20-18	3" FILTER				B.C.	1200/.2	150/.5	IIAO	A		should use .7 for focus	ok?
6-6	20/50	5	4.2	K511 TB	B.C.	1200/.2	150/.5	IIAO-E	B	KK-AsmSP	BROKEN 2 PIECES	fine
6-6	20/60	4"	4.1	K311	"	"	"	"	A	"	BROKEN 2 PIECES	lost
6-6	20/50	3"	4.2	K511 TB	"	"	"	"	B	"		Fine
5-13 6-6								IIAO-E				
6-6	20/50	3"	3.8	G811 TF	B.C.	1200/.2	150/.5	"	A	"	Set 512, T=460	Fine
6-6	10/60	3"	4.2	G811	"	"	"	"	B	"		fine
6-6	20/60		2.5	0116	"	"	"	"	A	"		UV vs lake blue strong
6-6	20/40	3	4.0	A51	B.C.	1200/.2	150/.5	IIAO-E	B	"	T=420F F=513	fine
6-6	20/45		4.70	A311	"	"	"	"	A	"		fine
9-9	20/50		13.07	G511 A5	"	"	"	"	B		BROKEN 2 PIECES	fine
9-9	20/50		3.6	G811 A311	"	"	"	"	A	"		fine
- 20-22	20/90	4	4.07	B211	B.C.	830/.68	B.S.	IIAO-E	B	Be-B11	T=400F F=515	Fine
15-1								IIAO-E				
20-22	20/90		3.51	0.9.51	B.C.	830/.68	B.S.	IIAO-E	A	SB B11		Fine

Date 09-01-22-1983 FRISAT Observers Byt-Ri - DAF

7/2nd 6⁵⁰ Emulsion Batches:
Two-E, 06103-20103...
Two-E, 09023-13103, 13103

19 156

[illegible]

Spectr. Temp. 47°F

Dome Temp./Hum. 59% 43°F

Transparency Conditions good but cirrus

Focus 513

Spectr. Temp.

Dome Temp./Hum. 46°F 100%

moving w by dawn

110

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B-Filter											
80/251	3	7.3	B2P	B.C.	830/.68	B.S.	Ilao-E	A	Bln-He ⁺		Fe too str Exp Fine
80/251		6.3	B2P	B.C.	830/.68	B.S.	Ilao-E	B	Bln-He ⁺ Star-Val		-11-
							Ilao-E			edge effects	
20/90	2	5.34	B2P	B.C.	830/.68	B.S.	Ilao-E	A	Sb-Bln		Fe vs/str s/str
20/135		5.36	B2P	B.C.	1200/.025	B.S.	Ilao-E	B	Bln-He ⁺	T=95°F F=512	Fe Fine Fine
2/10		2.2	K2IIIab	B.C.	830/.68	B.S.	Ilao-E	A	Star-Val	T=44°F F=514	Fe s/str str
40/180	4-5	3.51	O.9.5I	B.C.	830/.68	B.S.	Ilao-E	B	Sb-Bln	BROKEN 3/4 moving	Fe vs/str fine
							Ilao-E				
40/180	3-4	4.07	B2IIe	B.C.	830/.68	B.S.	Ilao-E	A	Be-Bln		Fe s/str Fine
80/240		6.42	B2IP	B.C.	830/.68	B.S.	Ilao-E	B	He-Rich: Bln		Fe s/str Fine
20/90		4.07	B2IIe	B.C.	830/.68	B.S.	Ilao-E	A	Be-Bln	T=41°F F=515	Fine
20/90		3.51	O.9.5I	B.C.	830/.68	B.S.	Ilao-E	B	Sb-Bln		Fe s/str s/str
80/240	3	6.83	B2V	B.C.	830/.68	B.S.	Ilao-E	A	He-Rich: Bln	curvus	Fe str Fine
				B.C.	830/.68	B.S.	Ilao-E	B		T=40°F F=515	OK

Thurs Fri Oct 27/28
Date

Date Thurs Fri Oct 27/28 Observers Kly-Tn-Bouchard/Tn

8^m 68°

Emulsion Batches:

..II. a. b. 06103... - 20103
42193

62193

[illegible]

20103
1219

im. 4.451.87%

Some cloud

512

44°F

n. 42. 1928

112

[illegible]

103 1/2
103

Spectr. Temp. 53°F
Focus 512
Spectr. Temp. 52°F

Dome Temp./Hum. 114°F/88.3
Dome Temp./Hum. 112°F/92.7

Transparency Conditions Solar cloud

114

Comparison
filter Exp

B-12

B-12

7-14

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/92	4"	4.07	B2IVe	BC	830/68	BS	Ilus-efg	A	Be-Bln		51 str
							Ilus-efg				51 str
20/100	4"	4.07	B2IVe	BC	830/68	BS	1)	B	Be-Bln		Fine
	4"	6.42	B2Zp	BC	830/68	BS	Ilus-E	A	SP-Bln	Cloud. ^{discarded}	

Date Sat. Sun. Oct 29-30/1983 Observers BK-R

Emulsion Batches:

[illegible]

Spectr. Temp. 47°F Dome Temp./Hum. 38°F 74% Transparency Conditions Good
 Focus 513
 Spectr. Temp. 37°F Dome Temp./Hum. 33°F 92%
116

Compensation pe/Filter Ex	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1- 21 176	B ¹ FILTER				B.C.	830/.68	B.S.	IIco	A			
1- 12-2	4/12		2.9	F8 I	B.C.	830/.68	B.S.	IIco-E	B	Waterloo	poor 16ct ?	OK
1- 22	80/140	3-5	7.0	G5 II	B.C.	830/.68	B.S.	IIco-E	A	"	0.85	comp str Fine
1- 3	8/18		3.9	K2 I	B.C.	830/.68	B.S.	IIco-E	B	"	T=44°F F=514	Fe str Str
1- 2-1	40/40		5.5	K3 II	B.C.	830/.68	B.S.	IIco-E	A	"	1.84	comp str Str
1- 2-12	80/160		7.1	G8 II	B.C.	830/.68	B.S.	IIco-E	B	"		Fe str Fine
1- 2-2	80/160		7.6	I2 V	B.C.	830/.68	B.S.	IIco-E	A	"		Fe str Fine
1- 2	200/300	3-4	7.4	G5 V	B.C.	830/.68	B.S.	IIco-E	B	"	T=40°F F=515	Fe str Fine
1- 2-2	80/160	3	7.3	F5 V	B.C.	830/.68	B.S.	IIco-E	A	"	T=37°F F=516	Fe str Fine
1- 2-3	80/160		7.2	K3 V	B.S.	830/.68	B.S.	IIco-E	B	"		comp str Fine
1- 2-1	8/16		4.0	F8 V	B.C.	830/.68	B.S.	IIco-E	A	"		Fe str Str
1- 2-2	40/40		6.4	F5 V	B.C.	830/.68	B.S.	IIco-E	B	"		comp str Fine

Date Sun. mon. Oct 30-31/93 Observers KK-Tn/Tn.....

8-680
X 1140-E 06103-30103 Emulsion Batches:

Emulsion Batches:

30103	Tral-E	09023	-27103	21
5m 6p	Tral-E	09023	-13103	28 29
5m 6p	Tral-E	09023	-27103	21 172

[illegible]

Spectr. Temp. ... $+43^{\circ}\text{F}$ Dome Temp./Hum. $+38^{\circ}\text{F}/77\%$ Transparency Conditions ... clear
 Focus ... 514
 Spectr. Temp. ... 40.5°F Dome Temp./Hum. $+34^{\circ}\text{F}/90\%$ 118

Compensation Filter E	xp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	Tral Exp		V 2.60	G30	DBL Star	Tertiary				DS KH	Spacing 20, 2.5 sec	
	" "		7.3 8.1	A2	"	"				"	Spacing 25, 6.3, 16, 2.5	
-77	0/160	1.2	7.7	F5	BC	830/68	BS	II-0-E	A	Asm Sp/KK	Visual double ~10"	str
								"				
-1	20/40	1"	4.90	F0 IV	"	"	"	"	B	Asm Sp/KK		str
					BC	830/.4	"	III-2 f _g	A	Pl. Neb/KK		
					"	"	"	III-2 f _g	A	"	Tel. reversed	
-1	20/135	1"	5.36	B2 V	BC	1200/.025	BS	"	B	He-Bln	1.19	Fine
								"				
-1	0/98	1.3	4.07	B2 V	BC	830/68	BS	III-2 f _g	A	Be-Bln	set 515 T = 41°F 1.7	Fine
								"				
-77	0/120	1.2	6.42	B2 V	BC	830/68	BS	II-0-E	B	He-Rich-Bln		
								"				
-77	0/95	2"	4.07	B2 V	BC	830/68	BS	III-2 f _g	A	Be Bln		
					"	"	"	II-0	B		Set 515 T = 40.5°F	
					BC	1800/45°	120μ	II-20	B		Set 511 T = 53°F broken	

119

Emulsion Batches:

Date Nov. 1./83..... Observers J.A.....

Begin Hr. L

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48194T1	Flexure tests with new grating mount				0 0	4 00E	+12°	FeNe ND 0.6	5-5
T2					4 00E	0 0	"	"	"
T3					4 00E	4 00W	"	"	"
T4					4 00W	0 0	1st " 2nd	"	"
T5					0	0	+50° → -20°	"	"
48194F3	Focus test				0	0	-20	FeNe 1-1	5-5
Nov 2 ↓									
48194T6	Flex tests after grating secured				0 0 →	4 0E	+12°	FeNe ND 1.6	3-3
T7					4 0E	0 0			
T8					4 0E	4 0W			
T9					4 0W	0 0			
T10					0	0	+40° → -20°	FeNe	
F4	Focus test				0	0	-20	FeNe	3-3

Spectr. Temp. 51.5°F.....

Dome Temp./Hum 47...97%

Transparency Conditions

Focus 510

Spectr. Temp.

Dome Temp./Hum.

120

	Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	-Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
M.D 08	5-7		1st exp is comp mode ALL Exp IS stellar mode	BCT	1800/45°	100μ	LiaO	A		* severe blue flex + transverse Flex ↓				
"	"	"	" "	"	"	"	"	B		severe Red/Flex tsl transverse ↑				
"	"	"	" "	"	"	"	"	B		↑ severe Red/transverse Flex				
"	"	"	" "	"	"	"	"	A		sl Red/flex				
"	"	"	" "	"	"	"	"	B		Severe Blue Flex ↑				
1-5					"	"	"	H	T 51°F	Set 510				OK
									= T1 dec or transverse flex in opposite direction of trans flex at T2 & T3					
									^{more common's} $\overline{T_4}$ = T4 is contrary to pattern of 1+3 exposures					
M.D '6	3-3		.1st Exp is comp One Exp IS Stellar	Set 507 T = 58°F	*	1800/45°	120μ	LiaO	A	* tilt reads <u>42.3°</u>	↓ severe blue + trans			
							"	B		" red ↑				
							"	B*		red A				
							"	A		sl Red/Flex				
							"	B		blue flex tsl trans ↓				
							"	A	T = 58°F set 507	cent sl Red				

Date Nov. 3 Observers Tr

Emulsion Batches:

ΠαΕ

.....

.....

Bein Hr 4

[illegible]

Spectr. Temp. ... +44.0°F

Dome Temp./Hum. /

Transparency Conditions

Focus 5.4

Spectr. Temp.

Dome Temp./Hum.

122

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Begin HRL in Comp mode End HRL in Stellar mode for all.				BC	830/68	120 μ	D40-E	A		some red flex	
								B		blue flex = trans $\uparrow$	
								A		some red flex + sl trans $\downarrow$	
								B		some red flex + trans $\uparrow$	
								A		some red flex	
								B		severe blue flex + transverse $\uparrow$	
								A		OK EW + sl trans $\downarrow$	
							D40? $\uparrow$	B	T = 43.5°F	* scrap from dark room (are they loose?)	

123 Mon-Tues

Date Nov 7-8 1983 Observers Tn

8ⁿ 680

5 m 680

Emulsion Batches:

Emulsion Dates: DAO-E 06103 - 30103 18 168

14.1-E 09023 - 27103 f9

[illegible]

Spectr. Temp. ... 78°F Dome Temp./Hum. $+77^{\circ}\text{F}/70.8$

Transparency Conditions ... some ... 5 ...

Focus ... 513

Spectr. Temp. ... 45°F Dome Temp./Hum. $+42^{\circ}\text{F}/100\%+$

124

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B filter											
772 80/255	1"	7.30	B2Vp	BC	830/.68	BS	II-O-E	A	He-Bl ₂		Fine
							II-O-E				
772 80/190	1"	7.7	F5	BC	830/.68	BS	"	B	Asm Sp tk	why so much weaker than last plate?	good
772 80/135	1"	5.36	B8Vp	"	1200/.025	BS	II-O-E	A	He-Bl ₂	broken 2 pcs saved	
							"				
772 80/100	2"	4.07	B2Vp	BC	830/.68	BS	"	B	Be Bl ₂	T=45°F S+514	Fd sl/wk Fine
772 80/120	2"	6.42	B2Vp	"	"	"	II-O-E	A	He Rich-Bl ₂	fog coming	Fine
				"	"	"	"	B		S+514 T=45°F	

Thurs - Fri

Date Nov. 17-18/83..... Observers Tn.....

Emulsion Batches:

8^m 680F .. IIA.O.E 06103 .. -08113 16 186
.. III.A.E 09023 .. -27103 5g
20hrs

[illegible]

Spectr. Temp. 136°FDome Temp./Hum. $+29^{\circ}\text{F}/88\%$ Transparency Conditions... *some cloud - sl. hazy*....Focus.... $51.7 - 515 - 518$Spectr. Temp. $+21.5^{\circ}\text{F}$Dome Temp./Hum. $+20^{\circ}\text{F}/93\%$

126

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-77	80/284	3.5	7.30	B2Vp	BC	830/1.68	BS	IIaO-E	A	He-Blu	<i>some cloud</i>	<i>fine</i>
							"					
-13-1	20/140	3"	5.36	B8Vp	BC	1200/1.025	BS	IIaJ-E	B	He-Blu	<i>Set 515 T=33°F</i>	
							"					
-17-1	20/103	3"	4.07	B2Vp	BC	830/1.68	BS	"	A	Be-Blu	<i>T=32°F Set 518</i>	<i>sl. str. fine</i>
77	80/260	3"	6.42	B2Vp	"	"	"	IIaO-E	B	He-rich		<i>vsl. str.</i>
77	20/100	2-3	4.07	B2Vp	"	"	"	IIaJ-E	A	Be-Blu		<i>strong</i>
77	80/260	"	6.42	B2Vp	"	"	"	IIaO-E	B	He-rich		<i>vsl. str.</i>
17-1	20/106	2"	4.07	B2Vp	"	"	"	IIaJ-E	A	Be-Blu		<i>sl. str.</i>
11-1	20/24	2"	5.2	K0V	"	"	"	IIaO-E	B	std/Vel		<i>fine</i>
21-1					"	"	"	IIaO	A		<i>cent vsl real</i>	

Date Nov. 21-22, Mon-Tues. Observers In.....

Emulsion Batches.

8 th 66!	W.O.-E 06103	- 08113	(8 11)
5 th 68	W.O.-E _g 09023	- 27103	

[illegible]

8/13/81
7:03

Spectr. Temp. 47°F

Dome Temp./Hum. $45^{\circ}\text{F}/70\%$

Transparency Conditions $5/$..hazy.....

Focus 513

Spectr. Temp. 43°F

Dome Temp./Hum. $34^{\circ}\text{F}/99\%$

128

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7-77 20/72	2"	6.38	B2V	BC	830/-68	BS	II40-E	A	He-StdVel		fine
							"			edge effects visible	
7-77 200/350	2-3"	8.88	B2V	BC	830/-68	BS	"	B	SB Blu		wk
20-2 20/140	2-3"	5.36	B8IIIp	"	1200/-025	"	IIIa-e	A	He-Blu	shattered 2 small pieces saved some cloud still set 513	sl/doubtful just to be safe
							"				
20-2 20/104	5-3"	4.07	B2Vc	BC	830/-68	BS	IIIa-e	B	Pe-Blu	T=47°F set 513	fine
7-77 20/125	5"	6.42	B2Vp	"	"	"	IIa0-e	A	-He-rich	some cloud	lost str Fine
20-2 20/144	3"	5.36	B8 IIIp	"	1200/-025	"	IIIa-e	B	He-Blu	T=45°F	
20-2 20/144				"	"	"	"	A		Ok enough but looks odd. not measured	

129

Note Evacuated plates may
be fogged if

Emulsion Batches:

8-66 01. II Q. 06103... - Unvacuated

Date Nov. 22-23. Tue-Wed Observers T.H.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48214	HD 186791	19 41.5	+10 22	17 31	17 49	1 51 W	+10 34	Fel -	13-13
48215	HD 209790	22 00.9	+64 09	17 59	18 30	0 14 W	+64 34	"	14-14
48216	HD 219080	23 08.0	+48 51	18 33	19 02	0 22 E	+49 19	"	14-14
48216T	Spot Calib for 48214-22			15 min 3900	17.50 D3 4300	17.50 D2 4810			
48217	HD 6582	01 01.6	+54 26	19 06	19 55	1 23 E	+64 52	Fel -	14-14
48218	HD 6961	01 05.0	+54 37	19 59	20 17	1 06 E	+55 04	"	14-14
48219	HD 221264	23 25.5	+30 18	20 23	23 28	3 47 W	+30 44	"	10-10-10
48220	HD 21699	03 25.1	+47 41	23 32	00 10	0 28 W	+47 58	"	14-14
48221	"	"	"	00 11	00 46	1 04 W	"	"	14-14
48222	HD 37017	05 30.4	-4 34	00 55	02 26	0 41 W	-4 31	"	10-10-10
Dec 4/83	Spot Calibration mounting tests.								
48222T1	Plate very carefully set in frame (Placed snug up to front left corner for each Exp)			15 min @ 15V		D4 3900	D3 4300	D2 4810	
T2	Plate set in frame so that far edge overlaps outside of frame					"	"	"	
T3	Plate with 2 corners cutoff placed under 2 springs					"	"	"	

Spectr. Temp. 44°F Dome Temp./Hum. $40^{\circ}\text{F}/65\%$ Transparency Conditions *Citrus canopy*Focus 513 Spectr. Temp. $+38$ Dome Temp./Hum. $32^{\circ}\text{F}/98\%$

130

Comparison Iter. Exp	Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B-	20/50	1-2"	4.1	X3II	BC	1204/-0.025	BS	IIaO	A	stduel		fine
14-1	20/60	2"	4.63	A3m	"	"	"	"	B	Asm Sp	nice dbl	fine
14-1	20/60	1-2"	4.90	F0IV	"	"	"	"	A	"		fine
								"				
14-1	40/120	2-3"	5.81	G5Vp	BC	1200/-0.025	BS	"	B	Asp. Sp	same cloud	fast wk fine
14-1	20/60	"	4.50	A7K	"	"	"	"	A	"		fine
10-1	30/180	2-4"	7.7	F5	"	"	"	"	B	"	nice dbl	51 wk
14-1	20/75	1-2"	5.36	B8Vp	"	"	"	"	A	He-Blk		fine
14-1	20/75	"	"	"	"	"	"	"	B	"		fine
10-1	30/240	2-3"	6.42	B2Vp	"	830/68	"	"	A	He-Rich	cloud <i>set 516</i>	Fe sl str fine
not absolutely sure of plate completely down for all Exps, as the far left corner may have stuck up found to be chipped at end of exp. Not noticed when loading, but it (didn't break during exposures) should be flush with spots on exp.												
								IIaO			plate not exactly square.	
								IIaO				
								IIaO-E				

Date 1983 Dec 10/11. Observers KK-Tn.....

8^m 66°F Emulsion Batches: Table

[illegible]

Spectr. Temp. ... 30°F

Dome Temp./Hum.

[Faint handwritten notes at the bottom of the page]

132

[illegible]

133

Sun-Mon

Date 1983 Dec. 18-19...

Observers

Kly-Tn/Tn

Emulsion Batches:

Ri Dec A@68° 8min. I.D. E 06103 - 24113

4 1/2 min. I.D. J-E 09023 - 23113

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
48224	HD 202109	21 ^h 08 ^m .7	+29°49'	18:11	19:09	3 28 W	+	wr 66 Fe/	10-10
48225 ✓	HD 215182	22 38.3	+29 42	19 15	19 52	2 11 W	+30 12'	"	10-10
48225 T	Spot Calc for 48224-27			15 min @ 15V	3600	3900			
48226	HD 17878	02 47.2	+52 21	19 56	21:03	00 17 E	+52 44	wr 66 Fe/	10-10
48227	HD 18925	2 57.6	+53 07	21 09	21:39	00 6 W	+53 28	"	10-10
48228	HD 35317	5 18.8	-0° 58'	21 49	22:44	1 08 E	-0° 52	Fe/-	77
48229 ✓	HD 29316	4 32.0	+53° 17'	22:50	23:39	0 03 W	+53° 27'	"	10-10
48229 T	Spot Calc for 48228-30			15 min @ 15V	3900	4300	4810		
48230	HD 32147	4 55.9	-5 52	23:46	01 42	2 13 W	-5 47	Fe/-	10-10
48231	HD 33328	5 4.4	-8 53	01 49	02 45	3 08 W	-8 44	Fe/-	20-20
48231 T	Spot Calc for 48231			15 min @ D4	3900	4300	4810		
48231 F	Focus test					0 0 W	-8 44	Fe/-	20-20

Spectr. Temp. $+24^{\circ}\text{F}$ Dome Temp./Hum. $+18^{\circ}\text{F}/85\%$

Transparency Conditions . semi-clear . . . 9.45 a.m.

Focus 5.16 Spectr. Temp. $+15.5^{\circ}\text{F}$ Dome Temp./Hum. $+6^{\circ}\text{F}/90\%$

note TV voltage had to be at top end to see these 2 trans stars using UG-5 filter 134

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
80/80	4"	4.2	G8II	BC	1200/0.2	150u 0.5"	IIIa-E	A	KK Asm Sp-U	UG-5 before slit	good
40/40	3"	3.8	G2II	"	"	"	"	B	"	set 516 T=22°F	good
80/83	3.5"	3.09	G5II +A5	BC	1200/0.2	150u 0.5"	"	A	KK Asm Sp-U	UG-5 in	weak
40/40	3"	3.6	G8III +A3V	"	"	"	"	B	"	"	good
40/129	3"	3.6	DF7	"	1200/0.25	BS	"	A	"	UG out	fine
40/120	4"	3	ASn	"	"	"	"	B	"	"	fine
80/104	6"	7.27	K3V	BC	1200/0.25	BS	"	A	Asm Sp	getting hazy	vs. weak
40/160	6"	4.07	B2II	"	830/68	"	IIIa-E	B	Be-Bh	set 522 T=18°F	fine
				BC	830/68	BS	?	A	T=1515F set 522	Cloud at end	
										This may be switched with #48251	

Date 1983 Dec 19-20/83

Date 1983 Dec. 19-20/83 Observers T₁...L₁/T₂" 21

Emulsion Batches:

2. D19069° Bm Dec 21	II-0-E 06103 - 18123
3. D19068° Bm Dec 21	III-1-E 09023 - 23113

III-1-E 09023-2313

Spec
Focu
Spec

Spectr. Temp. $+16^{\circ}\text{F}$Dome Temp./Hum. $+5^{\circ}\text{F}/65\%$ Transparency Conditions *hazy - cloudy* + +Focus 524Spectr. Temp. $+5.5^{\circ}\text{F}$Dome Temp./Hum. $-2^{\circ}\text{F}/70\%$

136

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
80/155	5.7"	6.38	B2V	BC	830/68	BS	IIaO-E	A	^{+50 vel} Blu-He		Fine
										+9F set 520	
40/280	5.7"	5.36	B8V	BC	1200/-025	BS	IIIaJ-e	B	He-Bl _g		fine
200/160	4"	~7	G8III	"	"	"	IIaO-E	A	H _g -Ly	increasing cloud	Fe v sl wt 3/cut
							IIIaJ-e				
				BC	1200/-025	BS	IIaO	B	set 520	T = $^{\circ}\text{F } 5.5^{\circ}\text{F}$	

Archiv - There are no more IIIaJ 4x5s in dome and there are only 2 IIaO 4x5s. If you hold development till Wednesday, I could use the same Plate boxes 4x5s If I observe Tuesday night that is.

- Also those IIIaJ's in frig should be prepared for possible use next week. KK should you how to prepare them. I believe.

Tu

Date Dec 20-21/83 Observers Ly-Tn

Emulsion Batches:
Ri DFC21 @ 68°F D19 8 MIN. IDA-O-E 06103-18123
Ri DFC21 @ 68°F D19 5 MIN. IDA-S-E 09023-23113

[illegible]

8123
8113

Spectr. Temp. 15°F

Dome Temp./Hum. $+8^{\circ}\text{F}/60\%$

Transparency Conditions $\dots$ good $\dots$

Focus 519

Spectr. Temp.

Dome Temp./Hum. $+11^{\circ}\text{F}/\dots$

138

Comparison
Filter Ev

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/125	3"	6.0	09III	BC	1200/.025	BC	IIaOE	A	MSB-Ly		Fewt Fine
40/123		"	"	"	"	"	"	B	"	one sieged in 2nd shot.	Fo sl/str Fine
80/232	2-3"	7.0	B0	"	830/.68	"	"	A		13°F set 524	Fo vsl wt Fine
90/160	2"	5.7	FSI	"	"	"	"	B	SIB-Gours		Fo sl/str Fine
40/120	2"	5.38	B1V	"	1200/.025	"	"	A		10°F set 520	Fo Fine Fluo
40/300	2"	5.36	B8H4p	"	"	"	IIaOE	B	He ⁺ B ₂		fine
00/224	2"	6.2	G8III	"	"	"	IIaOE	A	H+K-Ly	note - Lubeller STOPPED #40 SNOWING.	Fo sluk Fine

Date 1982/12/29-30 Thu-Fri Observers Blm-Tn

Emulsion Batches:

5-68 ITD-e 09023... -21123
8-68 ITD-e 06103... -18123

[illegible]

1/123
9/23

Spectr. Temp. 20°F

Focus 51.8

Spectr. Temp. 13°F

Dome Temp./Hum. $8^{\circ}\text{F}/72\%$

Dome Temp./Hum. $13^{\circ}\text{F}/$

Transparency Conditions Excellent ~ hazy
Lots of scintillation - Due to jet stream?

140

Comparison
Filter Exp

- 1/123

- 1/123

- 1/123

- 1/123

Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/270	5-8"	5.36	B3IIIp	BC	1200/-0.025	B3S	IIIa-JE	A	Bln-He*	$T=20^{\circ}\text{F}$ 20/min Fe slwt slwt	
Note - Same Spot for next night's 1494s											
20/80	5-8"	4.07	B2IVe	BC	830/.68	B3S	IIIa-JE	B	B ₀ -Bln	$T=15^{\circ}\text{F}$ set 524	Fine
20/81	11	4.07	B2IVe	BC	830/.68	B3S	IIIa-JE	A	B ₀ -Bln		Fine
				"	"	B3S	IIa-JE	B		$T=13^{\circ}\text{F}$ set 524	

141 Fri-Sat
Date 1983/10/30-31... Observers Rk-Tn/Tn.....

Date 1982/10/30-31... Observers Bh-19/7n.....

Emulsion Batches:

5 th 6 th	IIa1-E	09023	-21123
8 th 6 th	IIa0-E	06103	-18123

5^h 6^m ... Hal-E 09023 ... -21123
8^h 6^m ... Hal-E 06103 ... -18123

[illegible]

1/123
8/123

Spectr. Temp. $+15^{\circ}\text{F}$

Dome Temp./Hum. $+9^{\circ}\text{F}/72\%$

Transparency Conditions *Excellent*..... *9.45.41 P.M.*

Focus 520

Spectr. Temp. $+8^{\circ}\text{F}$

Dome Temp./Hum. $+1^{\circ}\text{F}/72\%$

getting busy today

142

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1545-1	20/125	2.4"	3.32	A3V	BC	1200/-025	BS	IIIaJ-E	A	Gry *	Fast w/kt Fine
1545-1	20/135	2"	5.36	B2IV	"	"	"	B	Blu-He *	Fast w/kt Fine	
1545-1	20/80	4-6"	4.07	B2IV	"	830/68	"	IIIaJ-E	A	Be-Blu Scintillation Set 525 T = +13 F	vs/str
1545-1	20/80	2.3"	5.34	B2IV	BC	830/68	BS	IIIaJ-E	B	SB-Blu broken 1.5" missing 1 pc saved	Fast w/kt vs/str
1545-1	20/80	"	5.50	B2IV	"	"	"	A	SB-Blu		Fast w/kt vs/str
1545-1	20/125	2-6"	5.36	B2IV	"	1200/-025	"	IIIaJ-E	B	Blu-He *	+12 F Set 520 vs/str
1545-1	20/85	2.4"	4.07	B2IV	"	830/68	"	IIIaJ-E	A	Be-Blu *Note below	vs/str
1545-1	80/200	3"	6.4	B2V	"	"	"	IIaJ-E	B	VB Blu	Fast w/kt Fine
1545-1	80/190	3-1"	7.20	965 +A2	BC	830/68	BS	IIaJ-E	A	VB Blu very good scan at end	Fast w/kt vs/str
										*This plate maybe labeled "48231 & visa versa size 48231/551 are of same star.	

1123

+5°F / 70%

... Fine.

520

Spectr. Temp.

Dome Temp./Hum. /

At this dec, can go to 240° W
before telescope contacts platform.
Does not hit pier. 144

Companions	
Filter	Ex

1-5-2

54

Date 1984 Jan 10-11 Observers Tn

Emulsion Batches:
 RiJu13D1968F5 ^{new} Title 09023-04014
 fg 27ms

[illegible]

04014
f92

Spectr. Temp. 22°F
Focus 518
Spectr. Temp. $+13^{\circ}\text{F}$

Dome Temp./Hum $+18^{\circ}\text{F}/60\%?$
Frozen?
Dome Temp./Hum $+19^{\circ}\text{F}/60\%$

Transparency Conditions *clearing but hazy*

146

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/273	10"-4"	5.36	B80p	BC	1204/ans	BS	1105-e	A	He * Blu		Fe slwt V slwt
							1105-e				
20/80	6"	407	P2IVe	BC	830/168	BS	1105-e	B	Bo-Blu	Set 524	Fe OK Fine
20/75	6"	351	095V	"	"	"	"	A	SB-Blu		Fe OK Fine
20/52	4"	473	B5V	"	"	"	"	B	SP Blu	Closed due to cloud cover	Slwt
				"	"	"	1105	B	T-+13°F	Set 524	

Note Archie - I may do some
 In the interests of conserving plates observing Wed, or other night this
 week, particularly using 1105s.
 if that seems a good idea Maybe hold off developing for 1 or 2
 days so I can include the ed. Day
 You might check strip with this film
 Thanks Th

147

Wed. Thurs

Date . Jan 11-12 .. 84.

Observers

Two

Emulsion Batches:

R: IAU 13 D19068F5

M. Q. U. A. I - E. f. g. 09023-02014

[illegible]

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions *hazy - cloudy*

148

[illegible]

149

Thurs - Fri

Date Jan. 19-20, 189.....

Observers .. *Tn. (Blz night)*

Emulsion Batches:

Emulsion Batches:
Ri-Tan 205mm @ 68°F 19 III. 4. 5: csg. 09023 - 09014

Radio 20 DIS 68 F B M A T O - E . . . 06103 . . . - 18123

[illegible]

.0404
182

Dome Temp./Hum. $+6^{\circ}\text{F.} / 72\%$

Transparency Conditions *sl. hazy - Cloud extend*

Focus 525

Spectr. Temp.

Dome Temp./Hum. -2°F / 72%

150

[illegible]

Spectr. Temp. $+34^{\circ}\text{F}$ Dome Temp./Hum. $+25^{\circ}\text{F}/69\%$ Transparency Conditions Clear in North
 Focus 5.16
 Spectr. Temp. $+26^{\circ}\text{F}$ Dome Temp./Hum. $+15^{\circ}\text{F}/85\%$ 152

Comparison e/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-120	20/150	2"	5.36	B85p	BC	1200/-025	BS	IIIa-e _g	A	He-Bln	some cloud	Fine
15/80								IIIa-e _g				
L	180/150	2"	5.36	A5 _n	BC	1200/-025	BS	IIIa-e _g	B	Asm Sp-KK		Fine
n	80/80	2"	9.07	B2IV	BC	830/68	BS	IIIa-e _g	A	Pe-Bln	T=30E Set 520	Fine
87	0/115	2.3"	6.4	B2V	"	"	"	IIa-e	B	VB Bln	(^{Street lights} Str H _g Emission)	Fine
								IIa-e				
el-88	20/140	3-4"	5.36	B85p	BS	1200/-025	BS	IIIa-e _g	A	He-Bln	T=26F Set 528* Focus Bad/Spot	
										* Should have been set <u>520</u>		

153 Fri-Sat

Fri-Sat

8-68.

Emulsion Batches:

Emulsion Batches:
 100-0 06103-30123

Date Jan. 27-28, 1884.... Observers T. N.

[illegible]

2123

m. 712°F/847.

s. sl. hazy

Set 521.

+18°F

+3°F/852

154

[illegible]

155

Tuos - wey

Date JAN 31 Feb 1 / 89 Observers Tn

$7\frac{1}{2}^m$ 70°
 5^m 68°

Emulsion Batches:

Emulsion Batches:
H2O 06103 - 29014

11701-497 3108.3 22014 22hrs

[illegible]

9014
2014 12/23

Spectr. Temp. $+123^{\circ}\text{F}$
Focus 5.21
Spectr. Temp. $+12^{\circ}\text{F}$

Dome Temp./Hum. $+12^{\circ}\text{F}/70\%$
Dome Temp./Hum. $+3^{\circ}\text{F}/95\%$

Transparency Conditions s/ hazy

1386

156

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
777 80/240	6-3"	6.42	B2V _p	BC	830/68	BS	Ilao-e	A	He Rich	(str Hg Light Em)	Fe sl str Fine
							Ilao-e				
20 20/75	3"	4.07	B2V _e	BC	830/68	BS	Ilao-e	B	Be-Bln	T= $+17^{\circ}\text{F}$ Set 524	Fe sl wk Fine
20 20/80	"	"	"	"	"	"	"	A	"		Fe sl wk Fine
20 20/72	3-4"	"	"	"	"	"	"	B	"		Fine
20 20/70	"	"	"	"	"	"	"	A	"		Fine
20 20/80	3-5"	"	"	"	"	"	"	B	"	T= $+13^{\circ}\text{F}$ Set 525	Fine
							Ilao-e				
20 20/95	4"	3.51	09.5V	BC	820/68	BS	"	A	SB Bln		Fine
20 20/130	3"	5.28	B8	"	"	"	"	B	Shell-Bln		str
10-10 20/50	3"	4.34	F2IV	"	"	"	Ilao-e	A	Abn Sp tk		sl. str.

Wed - Thurs

Date Feb 15-16/84 Observers Tn

Emulsion Batches:

Emulsion Batches.

8 th	Π.Ο.ε	06103	-	29014
5 th	Π.Ο.ε	31083	-	22014

5th Ave 31083 - 22014

[illegible]

Spectr. Temp. 436°FDome Temp./Hum. 129 / 100 %

Transparency Conditions . . . *sl hozy - foggy* . . .

158

Comparison Alter. Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7-77	80/196	3-5'	642	B2V _p	BC	830/68	BS	IIaD-e	A	Herich		exp fine st. flex?
								IIaD-e				
92-92	20/90	4"	3.51	09.5V	BC	830/68	BS	IIIaJ-e	B	SB-Bln		fine
								IIIaJ-e				
7-77	80/80	3-5"	667	d63	BC	830/68	BS	IIaD-e	A	As Sp	cut short - too frosty	fine
5-75									B	T 36 Set 517		good

Spectr. Temp. 38.0° F.....

Dome Temp./Hum. 36° F / 80% outside Transparency Conditions hazy - cloudy

Dome Temp./Hum. +30°F / 95%

160

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
+10A	-14-4-2	20/240	2.3*	5.36	B8IIIp	BC	1200/-0.025	BS	IIIa-Je	A	Blu-He *	T=40°F thin cloud F=514	fine
		3 14 sec comp near beginning of exp 10 sec at end							IIIa-Je			* Not certain of gain maybe 40 gain It was 200x at 1st then reset to 20 or 40?	

161

Tues-Wed

Date 1984 Feb 21-22 Observers Ty - Ly

Emulsion Batches:

Emulsion Batches:
 HT9J-e 31083 - 22014fg22hc
 Uuo.e 06103 - 29014

[illegible]

Spectr. Temp. . . . 28°FDome Temp./Hum. 62°F / 96%

Transparency Conditions .. good - clearly

162

[illegible]

163

Date Sun-Mon... Mar 4/5... Observers Kly - Tn.....

Emulsion Batches:

.....

.....

.....

[illegible]

Spectr. Temp. 30°F.....

Dome Temp./Hum.

Transparency Conditions 5.1

Focus 515

Spectr. Temp.

Dome Temp./Hum.

164

[illegible]

165 Tues/Wed

Date 1984 Mar 6-7 Observers Ly - Tu

Emulsion Batches:

Emulsion Batches.
Doe 06103 - 29019

[illegible]

wed-Thurs

Emulsion Batches:

Emulsion Batches:
 D-0-e 06103 - 04033

[illegible]

4033

Spectr. Temp. $+17.5^{\circ}\text{F}$ Dome Temp./Hum. $+5^{\circ}\text{F}/67\%$ Transparency Conditions sl. hazy Focus $51.7-51.8$

Spectr. Temp.

Dome Temp./Hum. 1

168

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	N1200/50°	BS	IIaD	*P		* Also a blank plate in Exp.	sl. red
400/130	6"	27	G8111	BC	"	"	IIaDc	H	H+K-Ly	* Lost comp in stellar? 2nd though (prob OK)	sl. weak comp ok
200/50	6"	27	F7126	"	"	"	"	B	"	T 120° set 518	blank
										** Exp meter unstable	
										<u>Maybe uncapped</u>	

Date 1984 Mar 9-10 Observers Ly - Tn/Tn

Fri / Sat

Emulsion Batches:

Devd/8miz 0807 II-00-E 06103-04033

March 10

[illegible]

033

11°F / 55%

Excellent

Focus . . . 518

Spectr. Temp. $\pm 8^{\circ}F$

.....+8% / 532

170

Comparison	
Filter	Exp

Date 1984 Mar. 11-12 ^{Sun. Mon} Observers Kly - Tn

Emulsion Batches:
IIIaf-e 31083 07024
IIa0-e 05103 04034

[illegible]

Spectr. Temp. 19°

Dome Temp./Hum. *+10° F / 70%*

Transparency Conditions. *Fine - sl hazy*

Focus 517

Spectr. Temp. 130° F

Dome Temp./Hum. +27°/100%

172

[illegible]

173 Wed Thurs.

Date 1984 Mar. 14-15... Observers Ly. Th......

Emulsion Batches:
8th 68° II-0-e 06103-09034

[illegible]

Spectr. Temp. $+32.2^{\circ}\text{F}$ Dome Temp./Hum. $+28^{\circ}\text{F}/60\%$ Transparency Conditions *hozy*Focus 57.4 Spectr. Temp. $+30.0^{\circ}\text{F}$ Dome Temp./Hum. $+24^{\circ}\text{F}/60\%$

174

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B Filter				BC	N1200/50	BS	Ilao	B	She Herel		
80/123	1"	6.8-7.8	F2 Iob	BC	N 1200/50	BS	Ilaoe	A	Bin Cep-Ly		sl. weak
							Ilaoe				
40/80	1"	2.7	G8 III	BC	N1200/50	BS	Ilaoe	B	H+K ₁ -Ly	(2.2" lost) broken Main pc saved	fine
40/85	<1"	6.87	B2 V	"	"	"	"	A	SB Ly	(T = +32°F still)	good
40/75	"	6.2	A0 I	"	"	"	"	B	SB-Ly		good
40/82	"	7.1	A2	"	"	"	"	A	SB-Ly		good
40/64	1	1	K2 III _p	"	"	"	"	B	Std Sel.	through thick haze	fine
				"	"	"	Ilao	A			right on

175 Fri-Sat

Reticon testing

Date Mar 23-24 / 84... Observers Wlr-Tin...

Emulsion Batches:

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[illegible]

may have
been some
Fo Me for a few
seconds during
stellar exp.

Spectr. Temp. Dome Temp./Hum. $23^{\circ}\text{F}/80\%$ Transparency Conditions $V.S./hazy$
 Focus
 Spectr. Temp. Dome Temp./Hum. $1/90\%$ Reticon $\checkmark$ Seeing $2''$ good 176

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	Time	Temp	Program	Remarks	Quality
20/30cts/min				BC	1200/41.5°	250μ		20:50	-94.1			
20/26cts/min	V=2.56	AAI		"	"	"		21:08	-95.0		Frost on window (dew)	
20/1.83cts/min	V=5.0	G8 III-IV		"	"	"		21:20	-95.7		TV threshold 2.5V	ideal 2.9V
								21:26	-96.0		Frost	
								21:44	-96.8			
								21:48	-97.0		moved	
								22:06	-92.0		no frost	
								22:17	-90.3			
								22:39	-90.6		H=8876	
								22:51	-91.2			
								23:04	-91.7		no frost	
								23:20	-89.9		moved	
								23:32	-90.6			
								23:43	-91.2			
								23:49	-91.6			
								00:04	-92.0		Last dark int	

Sat - Sun

Date Mar. 24-25/86... Observers Ly. - Tm. / Tm. = Blm....

Emulsion Batches:

8 th 6 th	IIA-C	06103	71034
5 th 6 th	IIA-C	31083	07024

[illegible]

Spectr. Temp. $+36^{\circ}\text{F}$ Dome Temp./Hum. $132^{\circ}\text{F}/60\%$ Transparency Conditions *Fine*Focus *514*

Spectr. Temp.

Dome Temp./Hum. $124^{\circ}\text{F}/70\%$

178

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	TV Remarks into	Quality
40/48	1"	6.8-7.8	F2I _{ch}	BC	N1200/50.3°	BS	IIc0-e	A	Bin Ceph-Ly	Threshold 2.5V	<i>fine</i>
40/80	1"	5.7	G8II	"	"	"	"	B	HEK	2.7V	
40/78	1"	6.9	B2V	"	"	"	"	A	Sp Bin-Ly	2.9V +36°F reset to 513	
40/81	1"	6.2	A0V	"	"	"	"	B	Sp Bin-Ly	2.6V	
							"				
40/120	1"-4"	7.20	965 A2	BC	N1200/50.3°	BS	"	A	VB-Bln	2.9V sudden seeing change	
40/60	2"	7.13	A2	"	"	"	"	B	SB-Ly	3.2V	
40/38	1-2"	4.9	F2IV	"	"	"	"	A	Prog Ly	2.4V Set 514 T=32°F	
40/150	"	4.10	B7 _{on}	"	"	"	IIIc J0	B	Be-Bln		<i>fine</i>
40/73	1"	1	K2	"	"	"	"	A	Std vel		<i>sl. str.</i>
							IIIc J-e				
				BC	N1000/50.3°	BS	IIc0	B	set 514	T 32°F	<i>sl red</i>

Date Sun-Mon, Mar 25-26/24 Observers Kly - Tn

Emulsion Batches:

5 th 6 th	III-J-e	31083-07024
8 th 6 th	IV-O-e	06103-11034

[illegible]

Transparency Conditions . . . *sl / hazy*

Focus 512.5

Spectr. Temp. ... 33.0°C

Dome Temp./Hum. 42°F/59%

180

Compensation Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
E/11-18 r66'	20/80	"	U= 2.0	A0IV	BC	N1200/47°	150/5	III _a J-e	B	KK UV	(UV filter above slit) (on all UV exps)	fine
"	20/84	"	U=2.5	BTV	"	"	"	"	A	"		fine
"	20/90	"	U= 3.40	A7V	"	"	"	"	B	"		fine
"	20/90	"	U= 3.95	F0II	"	"	"	"	A	"		fine exc. scratches
"	20/9-	"	U= 3.54	"	"	"	"	"	B	"	broken 2pcs	v sl. scr.
"								"				
"	20/92	"	U= 3.81	G8 I-II	BC	N1200/47°	150/5	III _a J-e	A	KK UV		fine exc. scratches
"	20/100	"	U= 2.20	A4V	"	"	"	"	B	"		fine exc. scratches
"	20/84	"	U= 3.4	A2V	"	"	"	"	A	"	T=357 Set 5	fine
-7±	200/130	2"	V= 760	Mb	"	N1200/50.3	BS	II _a O-e	B	Armsp KK		weaker
0	* I think this was D3 instead of D4							"				

181

#1

8^m 68°

Emulsion Batches:

IT-0-C 06103 -24034

Date Mon. Tues. Mar 26-27/84 Observers ... G. Ry. ... T. Ry.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
48322F	Focus test					0	+10	Fe/-	1717
48322	HD 27819	04 18.3	+17 13	19 17	19 41	3 19W		"	10-10
48323	HD 28319	04 22.9	+15 39	19 48	19 54	3 27W		"	10-10
48324	HD 33111	05 02.9	-5 13	19 59	20 04	2 59W			10-10
48325	HD 73819	8 35.2	19 56	20 18	21 24	0 45W	+19 38	"	7-77
48326	HD 73576	8 34.0	19 38	21 29	23 55	3 17W	+	"	7-77
48326TV	Spot Cal'n	for 48322-36		15 min @ 15V		D4 3900	D3 4300	D2 4810	
48327	HD 70313	8 16.2	53 33	00 02	00 39	4 17W	+53 15	Fe/-	10-10
48328	HD 87696	10 01.5	35 44	00 43	00 57	2 52W	+	"	10-10
48329	HD 102647	11 44.0	15 08	01 01	01 04	1 17W		"	10-10
48330	HD 107966	12 19.3	+26 39	01 08	01 39	1 17W		"	10-10
48331	HD 118098	13 29.6	-0 05	01 44	01 53	0 21W		"	10-10
48332	HD 136202	15 14.2	+2 09	01 56	02 24	0 53E		"	10-10
48333	HD 103095	11 47.2	+38 26	02 33	03 43	3 55W	+37 49	"	7-77
48334	HD 118216	13 30.3	+37 42	03 48	04 09	2 38W		"	10-10

4924

Spectr. Temp. 37.0°FDome Temp./Hum. $73.2^{\circ}/60\%$Transparency Conditions $\text{Fine} \dots \text{v.s. / hazy} \dots$ Focus $51.3 - 51.4$

Spectr. Temp.

Dome Temp./Hum. $72.9^{\circ}/$

182

Companion
/Filter E

1-14

10-1

1-1

10-1

7-1

1-1

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10-1

10-1

10-1

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7-1

1-1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/49 $^{\circ}$	BS	$\Pi_0 0$	A	(* Flayed Jarral by plate cap probably)	cent	* Rel
20/70	2"	4.95	A7V	"	"	"	$\Pi_0 0-e$	B	A stars		fine
20/60	"	3.58	A7III	"	"	"	"	A	"		fine
20/60	"	2.92	A3III	"	"	"	"	B	"		fine
20/120	"	6.95	A7 III-IV	"	"	"	"	A	"		fine
20/240	"	7.87	A7IV	"	"	"	"	B	"	T=35 $^{\circ}$	slwk
							"				
20/60	2.4"	5.51	A3V	BC	1200/49 $^{\circ}$	BS	"	A	A stars	(re perfect)	fine
20/60	2"	4.66	A7	"	"	"	"	B	"		fine re slstr
20/60	2"	2.23	A3V	"	"	"	"	A	"		slstr
20/60	2"	5.28	A3V	"	"	"	"	B	"		fine re slstr
20/96	2"	3.48	A3V	"	"	"	"	A	"		slstr - fine re slstr
20/53	"	5.6	F8	"	"	"	"	B	std vel	(RA oscilator 355W)	fine
20/73	2"	7.2	G8V	"	1200/50.3	"	"	A	Asm Sp	set 5/4 T=30 $^{\circ}$	fine
20/57	2"	4.9	F2IV	"	"	"	"	B	Ly prog		fine

#2

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Date Observers

[illegible]

184

Comparison	Filter	E
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185 Tues-Wed Reticon Testing

Date Mar 27-28, 1894 Observers W. L. T. J.

Emulsion Batches:

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[illegible]

Spectr. Temp.

Dome Temp./Hum. $+30^{\circ}\text{F}/62\%$

Transparency Conditions .. Cloud .. South .. Hazy .. elsewhere

Focus

Spectr. Temp.

Dome Temp./Hum. $+27^{\circ}\text{F}/88\%$

186

Comparison
Filter Exp

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2	2"	1.14	KOIIb								
10/85	2"	4.79	F6 IV							(5 cts/min with B filter) (5 cts/min Hx)	$T = -90.2^{\circ}\text{C}$
										(56 cts in 12 min) Hx filter	
80/47	2"	8.9	GOV							Hx Filter	$T = -92.6^{\circ}\text{C}$
10/										Nistarot pair Thin cloud	
										16 cts/min Hx filter	
										filter filter filter filter filter	
										B Hx 5450 3600 3900	
										↓ ↓	
10/		1.77	A0pv								
		n	n								
				BC	1200/36°	250u	48/min	31/min			
10/		B=4.9	F2IV	4	1200/32°	"	2.9/min	2.8/min	3.9/min	0.5/min 0.9/min	
80/83	1"	8.02	KOIIb	"	"	"		1/min		1 1.3/min	
10/	1"	3.38	B5+	"	1200/418	"		7.4/min		2.0/min	
			A								

Date Sat. - Sun. - Mar. 31 - Apr. 1/84 Observers Kly. - Jn

..IIIa L-e 31083-28034fg
..IIg d-e 06103-27034

[illegible]

Spectr. Temp. 43°

Dome Temp./Hum. 40°/57%

Transparency Conditions Fine - s/c cloudy

Focus 512.5

Spectr. Temp. 38°

Dome Temp./Hum. 30°/72%

Auror + by 23h 188

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10-15	10/48	2.2"	2	AOTV	BC	1200/ 50.3	BS	IIaj-e	A	KK AsmSp		fine
20-25	10/40	"	3.9	FOIV	"	"	"	"	B	"		fine exp vs/wk
0								"				
7-11	40/103	2.2"	6.6	dF8	BC	1200/ 50.3	BS	II40-e	A	KK AsmSp		fine
								"				good
-17-21	200/177	2.3", 2.8"	8	Mb	BC	830/ 40.2	BS	IIa0-e	B	KK AsmSp	still set 512.5 T=40°	exp good flexure
-20-25					"	"	"	"	A			cat's blue
1-10-15	10/26	1	1/2	"	"	"	"	"	B	std vel	T=38.5	strong
"	10/38	"	"	"	"	1200/50.3	"	"	A			sl str.
1-20-25					"	"	"	"	B		still set 512.5	cat's blue
1-20-25	10/46	2.3"	2.8	GO	"	"	BS	IIaJ-e	A	AsmSp KK		fine
1-20-25	40/91	3.4"	6.0	dG-2	"	"	"	IIa0-e	B	AsmSp KK	T=38°	fine

Date Apr 1-2 1884.

Date April 2 / 84 Observers KK-Tg

Emulsion Batches:

Emulsion Batches:
 Wal-e 31083-28034 fy

ИГО-Е 06103 - 27034

[illegible]

Spectr. Temp. 48°FDome Temp./Hum $+43^{\circ}\text{F}/5.3\%$ Transparency Conditions *Fine*.....Focus $5/1$Spectr. Temp. 41Dome Temp./Hum $+36^{\circ}\text{F}/7.5\%$

190

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/50.3	BS	II ₂₀₀ e	B		$T=48^{\circ}\text{F}$ Set 5/1	cont red
10/44	1 ^h	1.9	HO IV	BC	1200/50.3	"	III ₂₀₀ -e	A	Asa Sp-KA		good
10/50	1 ^h 2 ^h	$\frac{U}{3.95}$	FO IV	"	"	"	"	A	"		good
40/80	"	7.0	dG7	"	"	"	II ₂₀₀ -e	B	"		good
	pigg back too				dbl star camera		II-G			2 ^h 5, 25; 6 ^h 3, 35	2.5 dk
TRAIL E	Hya at 23:23				"		II-G			6 ^h 3, 16 ^h 3, 40 ^h 16 ^h ; 20	16 ^h dk
							II-G				strong
TRAIL SAME					"		II-G			0 ^h 4, 10	strong

191 Big Ast 100 Tour Looked at NGC 2392.
Mon-Tues

Mon-Tues

Date Apr 2-3, 1984 Observers Ty - Eln (in touch)

Emulsion Batches:

U.O.E. 06103 - 11034

[illegible]

034

Spectr. Temp. $+44^{\circ}\text{F}$Dome Temp./Hum. $+38^{\circ}\text{F}/70\%$Transparency Conditions *slightly cloudy*.....Focus $5.11-5.12$Spectr. Temp. $+40^{\circ}\text{F}$Dome Temp./Hum. $+30^{\circ}\text{F}/77\%$

1972

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
77-70/123	2-3	7.2	965 +A2	BC	830/40.2	BS	IIaO-e	A	VB B/L		Fine
							IIaO-e				
				BC	830/40.2	BS	IIaO-e	A		$T=42^{\circ}\text{F}$ Set 5/11	cont sl blue
77-40/98	2-3"	7.2	G8V	"	1200/50.2	"	"	B	Asm Sp	Set 5/12	v. sl w/
10-120/40	3-5"	5.6	F8	"	"	"	IIaO-e*	A	Std Vel	(*different batch)	scratch Fine
				"	"	"	"	B		Set 5/12 $T=48^{\circ}\text{F}$	sl red

193

Mon-Tues

Reticon

Emulsion Batches:

Date April 9/10 - 1984 Observers Wlr

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
-	EU MA								
-	FO VIR								
Tues-Wed Apr 10-11/84 1984.4 Wlr-Tu Reticon - use at 1800 inel/min grating									
	BC Vn	12 33.1	+41 26	21 12				FeNe 1"	
	B Com	13 11.2	+27 57	22 59		(30 mins very good)		" "	
	BS 5107	13 33.9	-0 31						
	FO Vir	13 28.9	+1° 11						
	HD 124897	14 15	+19 17						
	B Lyr	18 49.5	+33 21			(10 min good)			
	HD 184927	19 34.7	+31 15	04 16	04 59				
	Focus test					Comparison Stellar		FeNe 4-4	

Spectr. Temp. Dome Temp./Hum. Transparency Conditions

Focus

Spectr. Temp. Dome Temp./Hum.

194

[illegible]

195

Wed-Thurs

Date Apr. 11-12, 1984 Observers Wlr-Ta

Emulsion Batches:

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[illegible]

Spectr. Temp. $+50^{\circ}$

Dome Temp./Hum. 48°f./55%

Transparency Conditions *5/1/2024*

Focus

Spectr. Temp.

Dome Temp./Hum. 41°F / 73%

196

[illegible]

spectr. Temp. Dome Temp./Hum. $+50^{\circ}\text{F}/50\%$ Transparency Conditions ... *getting cloudy* ...
 focus
 spectr. Temp. Dome Temp./Hum. $+42^{\circ}\text{F}/70\%$ 198

Comparison Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	200/8	4"			BC	830/37.75	250μ	7680 <i>filter</i>				
	200/195	3"			"	"	"	"		-88.8 ^{Ret} Temp	} forgot V filter	
	200/32	2.3"			"	"	"	"		-92.0°C		
					"	"	"	"				
	20/85	2"			"	1800/56.5	"	Hd		-92.8	OK Comp for previous exp Ideal for Hx's HeI	
	200/200	2"	1.2	B8V	"	1800/56	"	"		-92.6	*Ideal for Hd	
	20/200					"				-92		
	20/15	3"			BC	1800/454	250μ	4500		-92.1	cloud	

199 Wed Thurs

Date Apr 25-26 1984 Observers Wlr-Tg

Emulsion Batches:

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[illegible]

Spectr. Temp. ... 55.5 °F

Dome Temp./Hum. 54.8 / 63.7

Transparency Conditions ... S1 ... hazy

Focus

Spectr. Temp.

Dome Temp./Hum.

Good Aurora
Reduced
Counts

200

Comparison
Filter Exp

Filter Exp

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Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	Exp. Counts	Program	Remarks	Quality
40/92	1.2"	6.7	A2V	BC	1800/56.5	250 μ	T=-89.6	1150	H α filter		OK
40/83	"	"	"	"	"	"	T=-92.5	"	"		OK
40/337	"	3.37	A3V	"	1200/47.25	250 μ	T=-92.8	2330	V filter only.	(nothing in) Clear to Egender	Fine
40/36	"	"	"	"	"	"	T=-92.2		7680+V filter	T-40 at end	Fine
40/13	2.3"	4.5	gme	"	1800/41.5	"	T=-88		4300 note	1/2 lens put in place of lens	
40/15	"	"	"	"	"	"	T=-98.9	821	"	for rest of night, slit	
40/16	170				"	"				(both too faint)	
40/21	2"	4.8	Blep	BC	"	"	T=-88.3	1087	4300		OK
40/40	2.3"	4.60	"	"	1800/44.5	"	T=-88.9	1260	4300		OK

201

Date Apr. 26-27 Thurs. Fri. 84 Observers Wlr-Tn

Emulsion Batches:

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[illegible]

Spectr. Temp.

Dome Temp./Hum. /

202

[illegible]

Date Fri. - Sat. Apr. 27-28/84 Observers Kly. - Jn.

8th 68 Emulsion Batches:
 II-0-E 06103 - 27034
 * II-0-E 06103 - 03044

* П.а.е. 06103 - 03044

Spectr.
Focus
Spectr

Exp. Mt.

Spectr. Temp. ... 62°F

Dome Temp./Hum. +60°F/58%

Transparency Conditions ... hazy ... cloudy

Focus ... 504

Spectr. Temp. ... 60°F

Dome Temp./Hum. +55°F/60%

New D19

204

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/53	1-2"	4.3	F2IV	BC	1200/50.3	BS	IIaO-e	A	AsmSp-KK		fine
40/86	1-3"	7.2	G8VI	"	"	"	"	B	"	cloud	good
40/106	3"	3.9	Fop	BC	1200/50.3	BS	"	A	AsmSp-KK	cloud	fine
30/161	2"	6	dG2	"	"	"	IIaO-e*	B	"	real cloud at end	good
				BC	1200/50.3	BS	IIIaI-e*	A	*also foy test of 28034 plates in separate IIIaI exp box		sl blue weak

205 Sun-Mon

Sun-Mon

Date MAY 6/7/84 Observers Sch-Tn

Emulsion Batches: 8th 60 Π-0-e 06/03 -03044

Emulsion Batches:

8th 6th

Emulsion Batches.
D.O.E 06/03

-03044

[illegible]

12014

+54°/66°

hazy → cloudy

508-510...

mp. ~~153~~ 53°.....

$1479 / 858$

206

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
7-7-77	40/95	2-3	6.7	A2V	BC	830/40 ⁰ 2	BS	II40-e	A	Var-Sch		fine
								II40-e				
7-7-77	80/148	3"	6.7	A2V	BC	830/40 ⁰ 2	BS	II40-e	B	Var Sch	getting cloudy	fine
7-7-77	40/285	3"	6.7	G8III	"	"	"	"	A	Std Vel		fine
7-7-77	80/33	2-4*	6.7	A2V	"	"	"	"	B	Var Sch	cloud then	weak
12-7-77					"	"	"	"	A	Set 510	T=53°F	vs blue

207

Date MAY 13/14 Observers Tm - Sch

Emulsion Batches:

Emulsion Batches:
...Д-0-е 06/03-03044

[illegible]

Spectr. Temp. + 46° F.....

Focus 513

Spectr. Temp. + 42.5°

Dome Temp./Hum $+92^{\circ}\text{F}/98\%$

Dome Temp./Hum. +34° / 100%

Transparency Conditions hazy - 51 foggy

Then much better

[illegible]

209 Mon - Tues
Date MAY 14-15, 184. Observers Tn

Emulsion Batches:

8 ^m 68°	IIa 0-e	06103-03044 focus
		test
5 ^m 68°	IIa 0-e	06103-14054
	IIIa 1-e	31083-28034 focus

Emulsion Batches:

IIaO-e	06103-03044	focus
IIaO-e	06103-14054	test
IIIa-e	31083-28034	focus

Spectr.
Focus.
Spectr.
Exp. Mtr.

Spectr. Temp. 4650.....

Dome Temp./Hum. ^{+47°F} / 70%

Dome Temp./Hum. 140°F / 90%

Transparency Conditions *cloudy, a bit*

210

[illegible]

Spectr. Temp. ... 47°F

Dome Temp./Hum. ... 42°F/69.2

Transparency Conditions ... Fine ... after ... 2 hrs ...

Focus ... 508

Spectr. Temp. ... 41.5°F

Dome Temp./Hum. ... 36°F/69.2

212

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/122	2-3'	6.8	G8V	BC	1200/50.3	BS	IIaO-e	A	15m Sp		fine
40/100	2-3'	6.6	dG5	"	"	"	"	B	"	Set 509 T=45°F	fine
20/135	"	3.93	Fop	"	"	"	IIaO-e	A	"		fine
20/107	"	4.64	H3m	"	"	"	"	B	"	**check HD# OK	fine double traced
40/75	"	7.1	dK1	"	830/ 40.2	"	IIaO-e	A	"	T=43° Set 514	fine
20/40	"	4.1	K3II	"	"	"	"	B	std Vel		strong comp strong
								A	prob fogged	Set 514	sl. blue

Date Wed - THURS. MAY 23-24/84 Observers Jm - Kly.....

Emulsion Batches:

8m 680	II.0-E	06103 - 14054
5m 680	III.1-E	31083 - 16054

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	E
48374F	focus test					0 0		Fc/-	20-2
48374	HD 81797	9 ^h 22 ^m 7	-8° 14'	20 ^h 22 ^m	20 ^h 38 ^m	3 ^h 02 ^m W	-8° 34'	Fe/-	10-2
48375	HD 99028	11 ^h 18.7	+11 05	20 45	21 05	1 31 W	+10 40	"	12-2
48376	HD 103095	11 47.2	+38 26	21 08	22 59	2 56 W	+37 52	"	9-9
48376T	Spot Caln' for 48374-7780				15min @ 15V	D4 3900	D3 4300	D2 4810	
48377	HD 140538	15 39.1	+2 50	23 05	01 29	1 35 W	+2° 36'	Fe/-	9-9
48378	HD 137909	15 23.7	+29 27	1 33	02 05	2 28 W	+29 12	"	22-2
48379	HD 209790	22 00.9	+64 08	2 11	03 37	2 36 E	+64 35	"	22-2
48379T	Spot Caln' for 48378-79				15min @ 15V	D4 3900	D3 4300	D2 4810	
48380	HD 186791	19 41.5	+10 22	3 42	04 01	0 06 W		Fe/-	12-6
48380F	Focus test					11	+10 39	Fe/-	

Spectr. Temp. 64°F Dome Temp./Hum. $60^{\circ}\text{F}/63\%$ Transparency Conditions *fine - Photometric*Focus $507-504$ Spectr. Temp. 53°F Dome Temp./Hum. $46^{\circ}\text{F}/63\%$ * Plate holders mixed (A tops B bottoms)
At least for plate #s 75C 76 B tops A bottoms

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/402	BS	II ₄₀ O	A*	set 504	prob 507?	red
20/32	3"	2.2	K3II-TL	"	"	"	II ₄₀ -E	A*	STD VEL		strong comp strong
70/52	3-6	4.0	F2IV	"	1200/503	"	"	B*	Asm Sp KK	T=63°F set 504	fine
80/143	3-4	7.2	G8IV	"	"	"	"	A*	"	oscillation of 'scope	good
40/101	3-6	6.6	dG5	BC	1200/503	BS	II ₄₀ -E	A	Asm Sp KK	T=58°F set 505	fine
0/121	3"	3.9	F0p	"	"	"	III ₄₀ -E	B	"		fine
0/121	4-5	4.6	A3m	"	"	"	"	A	"	check AP # T=55°F set 507 OK	
20/40	5"	4.1	K3II	BC	1200/503	BS	II ₄₀ -E	B	std vel		fine
	"			"	"	"	III ₄₀ -E	A	set 507	* old batch of III ₄₀	

215 Sat-Sun

Date MAY 26-27/84 Observers Sch-Tn

8^m 680 Emulsion Batches:
 D-0-E 06103 - 23054
 20 1.9%

[illegible]

Spectr. Temp. 60°FDome Temp./Hum. $49^{\circ}\text{F}/83\%$ Transparency Conditions... *Some cloud*.....Focus 509Spectr. Temp. 51.5°FDome Temp./Hum. $42^{\circ}\text{F}/80\%$

216

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-7-20/130	5"	6.7	A2V	BC	830/40.2	BS	D ₀ D-E	A	Var Sch	<i>Broken</i> Oscillat. @ 2.20 W. 2PES	Exps/wk c/b/feat
							D ₀ D-E				
1-7-30/137	4"	7.09	dk	BC	830/40.2	BS	"	B	Asm Sp KK	<i>* no g₂ G9V</i> T = 56°F Set 510	Fe s/str v s/str
10-1-20/44	3-4"	3.78	F5V	"	"	"	"	A	"	T = 52°F Set 512	Fe str str
10-1-20/	"	4.1	K3II	"	"	"	"	B	std Vel		Fe s/str s/str
				"	"	"	D ₀ D	A		Set 512 T 51.5 cal v s/red	

Wed- Thurs

Large June inst Tour

Emulsion Batches:

II-O-E 06103-23054

Date MAY 30-31/84 Observers Tn.....

[illegible]

Spectr. Temp. 50°f

Dome Temp./Hum. 44°/90%

Transparency Conditions .. Fine .. by .. 20:30 ..

Focus 512

Spectr. Temp. ... 48.5°

Dome Temp./Hum. ^{+40°K}/95%

218

[illegible]

219 Thurs - Fri

Date MAY 31 - June 1... Observers Kly-Tu.....

Emulsion Batches:

Emulsion Batches:
8^m 680-ITa.0-E 06103-23054
ITa.1-E 28034

[illegible]

73054
8034

Spectr. Temp. 58° F

Focus 5.05

Spectr. Temp. 56° F

Dome Temp./Hum. ~~56° / 60%~~ ^{Sundown} ~~52° / 90%~~

Dome Temp./Hum. 51° F /

Transparency Conditions Clear, a little s. / haze

220

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/53	1-2"	4.6	A3m	BC	1200 / 50.3	BS	IIa0L	A	Asim Sp		fine
20/57	"	3.6	K0III	"	"	"	"	B	"		strong
20/54	"	4	FSIV	"	"	"	"	A	"		sl. strong
20/52	"	4.4	FSIV	"	"	"	"	B	"		vs sl str
20/50	"	3.68	F0IV	"	"	"	"	A	"	prefer III2J	fine
20/50	"	2	F	"	"	"	"	B	"		strong
20/48	"	4.1	K3II	"	"	"	"	A	std vel		fine
				"	"	"	IIIa JE	B		fog test too (sl fog) yes, but 8m dev.	sl. blue

Date June 1-2/84, Fri/Sat Observers Tn.....

Emulsion Batches:
1100-E 06103...-01064

[illegible]

Spectr. Temp. 57

Dome Temp./Hum. 45.2/57.8

RA 17 21.2 - 157482 +40 222

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223

Sun Mon

Pocket Spectrograph

Emulsion Batches:

III-E 31083-16054

Date June 3-4/84

Observers KK-Tn - Kly

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48397A	focus								
B	HD 120136	13 42.5	+17 57	21 15	21 22				
C	"	"	"	21 24 ^{sec} 24	21 25 54				
48398A	n Boo #2	13 53.9	+18 29	22 25	00 51	3 31 W	+18 15		
B	n Boo	"	"	00 58	00 59	339 W	+18 29		
C	"	"	"	00 59	00 59	339 W	"		
48399	HD 137909	15 23.7	+29 27	1 18	01 43	250 W	+29 43	Fe/-	22-22
48400	HD 159561	17 30.3	+12 38	1 47	1 57	0 59 W	+12 34	"	22-22
48401	HD 182640	19 20.5	+2 55	2 02	2 15	037 E	+3 06	"	22-22
48402	HD 196524	20 32.9	+14 15	2 23	2 45	1 18 E	+14 32	"	22-22
48402T	Spot Cyl ⁿ for			48399-48403	15 min @ D4	17.5V 15V 15V 3900 4300 4810			
48403	HD 8890A	01 22.6	+86 46	2 48	3 23	00 E	+89 13	Fe/-	22-22
48403F						0 0		Fe/-	22-22

Spectr. Temp. 62°f.....

Focus 505

Spectr. Temp. ... 6050°f

Dome Temp./Hum. 46.7 / 57%

Dome Temp./Hum. +57 / 60

Transparency Conditions *Very Fine*.....

224

[illegible]

Mon-Tues
Date June 4-5/84.....

Date June 4-5/84 Observers T. - Kly

Emulsion Batches:

Emulsion Batches:
~~II.0-E 06103 - 03064~~
 * II.0-E 06103 - 23054 201

* II-0-E 0603-23059.201

[illegible]

Spectr. Temp. 72.5°f.....

Focus 502

Spectr. Temp. 68° F.....

Dome Temp./Hum. 68°/57%

Dome Temp./Hum. 76.3°/70%

Transparency Conditions *Free till 23hrs*

226

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 30-32		1"			BC	1200/503	BS	II ₉₀ O	A		view field	OK but too weak
14-1420/46	1-2"	4.03	F2IV	"	"	"	"	II ₉₀ O-E	A?	Asm Sp	field cloud	Fe v wk Fine
71-200 k11 + ?	1"	~9	d66	"	"	830/402	"	*II ₉₀ O-E	B	"	still set 502	Rever Fine
								II ₉₀ O-E				
								*II ₉₀ O-E				
- 7-730/73	1"	7.09	dK1		BC	830/402	BS	*II ₉₀ O-E	A	Asm Sp	T=69° cloud	Unreversed Fe v wk sl wk
								Cloud			cloud up	
											broken 1" missing off red end.	

227 Tues - Wed

Date June 5-6, 1984 Observers Tn

Emulsion Batches:

Emulsion Batches:
8-68, D.A.P.-E 06/03-05064
(3rd later!)

[illegible]

Spectr. Temp. 73°

Focus 505

Spectr. Temp.

Dome Temp./Hum. ~~103°/80%~~

Dome Temp./Hum. 60°/90%

Transparency Conditions ... *hazy → cloudy* ...

228

[illegible]

22⁹ Thurs-Fri'

Thurs-Fri'

Date June 14-15/84.....

Observers

72

FL

...twin photometer)

Emulsion Batches:

Emulsion Batches:
8-68 Π-0-E 06103 -05064

05064

[illegible]

Spectr. Temp. ... 58°f

Dome Temp./Hum. *+50°/93%*

230

	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-777	40/42	4-7"	6.15	B05III _n	BC	830/40.2	BS	TaO-E	A	Fln prog	slo, at 1st	Fine
777	40/56	4.5"	"	"	"	"	"	"	B	"		Fine
777	40/60	"	"	"	"	"	"	"	H	"	T=62°F Set 509	Fine
							"					
-777	40/45	3-6"	6.15	B05 III _n	BC	830/40.2	BS	"	B	Fln prog	some cloud → more cloud	Fine
"	40/60	4"	3.9	K2III	"	"	"	"	A	std Vel		S/S+ focus VWK OK too weak to measure <u>discarded</u>
L 220-					"	"	"	"	H		T = +58°F Set 509	
											All have very weak comp arcs	

Date Fri-Sat Jun 15/16/84 Observers Kly - Tr

IIIa-F 31083-14064
IIc0-F 06103-05064

[illegible]

4064
5064Spectr. Temp. 64°F Dome Temp./Hum. $+60^{\circ}/70\%$ Transparency Conditions *some cloud*Focus 504 Spectr. Temp. 67°F Dome Temp./Hum. $+52^{\circ}/85\%$

232

Comparison
/Filt Exp- 24
- 47
50
810- 77
- 772
10

- 22

- 10

- 10
A

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/100	3"	2.8	GO	BC	1200/503	BS	IIIaJ-E	A	Asm Spk	Lead (broken 1 pc sun)	
20/100	"	3.9	FO	"	"	"	"	B	"		fine
20/56	3"	6.2	G2V	BC	1200/503	BS	IIIaJ-E	A	Asm Sp		fine
20/50	3-2"	6.6	dG5	"	"	"	"	B	"	T = 60°F	fine
20/104	3"	2.2	ASTU	BC	1200/503	BS	IIIaJ-E	A	Asm Sp	Set 505 T = 60°F	vs. strong
40/80	1-2"	7.1	AKI	"	"	"	IIIaJ-E	B	"	some high cloud	fine
40/99	"	4.63	A3m	"	"	"	"	A	"	cloudy	fine
				"	"	"	IIIaJ-E	B	57°F	* Also fog test of first old batch	vs. blue

Date Mon-Tue Jun 18-19/84 Observers Kly - Tn

Emulsion Batches:

Emulsion Batches:

Mal-e	3083 - 14064
Tro-e	06103 - 05064

[illegible]

234

[illegible]

235

Date June 19-20 Tues/Wed Observers Tn some KK & Gies

Emulsion Batches:

Emulsion Batches:
 Dap-E 06103 - 16069.71
 Dap-E 31083 - 14064

[illegible]

1069.1
4054

Spectr. Temp. 73°F
Focus 505
Spectr. Temp. 63°F

Dome Temp./Hum. $+65^{\circ}\text{F}/65\%$
Dome Temp./Hum. $+58^{\circ}\text{F}/93\%$

Transparency Conditions *fine - sl hazy*

236

Comparison
Filter Exp.

L 262

665

999

999

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999

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999

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/40.2	BS	IIaO	A			OK
40/60	2"	6.7	A2V	"	"	"	IIaO-E	A	Sch Var	*Comp filter problems	fine
							IIaO-E				
20/115	2-3"	3.96	A _n	BC	1200/50.3	BS	IIIaJ-E	B	Arm Sp KK	T=71°F set 502	Strong ave Fine
20/100	"	1.66	B3V	"	"	"	IIIaJ-E	A	MX std		Strong ave
20/150	3"	6.2	JF81G	"	"	"	IIaO-E	A	SB Bl		Comp s/str Fine
20/100	2-3"	5.19	B3V	"	830/40.2	"	IIIaJ-E	B	SB Bl	T=66°F set 508	fine
							IIIaJ-E			*Comp filter problems	
20/120	2-3"	3.71	B9V	BC	1200/50.3	BS	IIIaJ-E	A	MX std		Strong ave Fine
20/40	"	4.1	K3J	"	"	"	IIaO-E	B	std vel		s/str

Date Jun 20-21, Wed-Thurs. Observers Tn - Kly

II-0-E 06103 - 16064

20 1.87

[illegible]

Spectr. Temp. ... 61° F

Dome Temp./Hum. 63°F/59%

Dome Temp./Hum. 53°F/90%

Transparency Conditions *✓ cl. hazy*.....

238

[illegible]

1984

Emulsion Batches:

Emulsion Batches:
Tr.O-E 06103 - 15064 ^{18 1.98}
 * Duo-E 06103 - 21064 ^{20 1.87}

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48438F	Focus test					00	+19	Fd-250-SC	
48438	HD124897			20 38	20 39	00 09W	+19 16	Fd/-	13-13
48438	HD120315	13 43.6	+49 49	20 44	20 45	00 42W	+49 23	Fd/-	13-13
48439	HD124897	14 11.1	+19 42	20 49	20 50	00 19W	+19 16	"	13-13
48440	HD157482	17 18.5	+40 04	20 56	22 37	01 00E	+40 00	"	9-9-9
48441	HD174403	18 45.2	-20 25	22 43	01 21	00 16W	-20 20	"	6-12-
48441T	Spot Col'n	For	48438-41.		15min @ 15V	D4 3900	D3 4300	D2 4810	
48442	HD157482	17 18.5	+40 04	01 28	03 00	03 25W	+40 00	Fd/-	9-9 ²
48443	HD186791	19 41.5	+10 22	03 06	03 20	01 19W	+10 34	"	13-13
48444	HD196867	20 35.0	+15 34	03 22	03 28	00 34W	+15 53	"	B-
48444T	Spot Col'n	For	48442-44		15min @ 15V	D4 3900	D3 4300	D2 4810	

Spectr. Temp. 65° F

Dome Temp./Hum. +60°/57%

Transparency Conditions *getting hazy - cloudy...*

240

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-A50-50					BC	1200/50.3	BS	II40-E	B		1" missing (brotoof)	OK
-B-13	20/28	2"		K2IIp	"	"	"	II40-E	B	std uel.	shattered - discarded	
B-13	20/28	2"	1.7	B3V	BC	1200/50.3	BS	II40-E	A	MK Std.		Fine
B-13	20/28	1"	1.2	K2IIp	"	"	"	"	B	std uel.		S/str
B-13	40/170	1"	6.2	F8+G	"	"	"	"	A	SB Blu/Ly		Fine
B-13	100/275	2.3"	7.5	B6IV	"	830/40.2	"	"	B	EB Ly/Tur	broken 2 pcs T=70°F set 506	OK
B-13	40/125	1.2"	6.2	F8+G	Be	1200/50.3	BS	II40-E*	A	SB Blu/Ly	T=67°F ^{slow} set 503	Fine
B-13	20/30	"	4.1	K3II	"	"	"	"	B	std uel		Fine
B-13	20/35	"	3.71	B9V	"	"	"	"	A	MK Std		Fine

21064
22064

Spectr. Temp. 70°F

Dome Temp./Hum. $64^{\circ}\text{F}/59\%$

Transparency Conditions *cirrus off 9 on*

Focus *502*

Spectr. Temp.

Dome Temp./Hum. $57^{\circ}\text{F}/67\%$

242

Comparison
Filter Exp

50-50

25-25

7-7

2-2

0

7-7

10

7-7

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/50.3	BS	<i>old</i> IIIaJ	A			center vs/blue
20/122	1"	1.2	K2IIIp	"	"	"	IIIaJ-E	A	std val.		strong
40/157	1"	6.2	CF8 + G	"	"	"	IIIaJ-E	B	SB B ₁ /Ly		Fine
20/107	1"	5.2	B3IV	"	"	"	IIIaJ-E	A	SB B ₁ n.		Fine
							IIIaJ-E				
00/190	1-2"	7.4	G0p	BC	1200/50.3	BS	IIIaJ-E	B	Gph - Ly	some cloud (and at 64°F)	slwk
							IIIaJ-E				
40/110	2"	6.0	G8III	BC	1200/50.3	BS	IIIaJ-E	A	SB - Ly	T=64°F set 504	Fe slwk Fine

243

Sun-Mon

Date June 24-25/84... Observers KK-TG.....

Emulsion Batches:

.....

.....

.....

[illegible]

Dome Temp./Hum. 65°/62%

Transparency Conditions

Focus

Spectr. Temp.

Dome Temp./Hum. /

244

[illegible]

Focus

Dome Temp./Hum. 59°/60%

Transparency Conditions *Fine*..... *11*

Spectr. Temp.

Dome Temp./Hum. 52°/92%

246

[illegible]

247 Tour looked at Mars & Saturn
Tues Wed

Tues Wed

Date June 26-27/84... Observers Bl-Ty.....

Emulsion Batches:

Emulsion Batches:
 IIa1-E 31083 - 22064
 IIa0-E 06103 - 21064

ΠαΟ-Ε 06/03-21064

[illegible]

72564
71064

Transparency Conditions *getting clearly*

Spectr. Temp. ... 63°

Dome Temp./Hum. +/..... 1998

248

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-12-70	20/240	1-2"	5.19	B3IV	BC	1200/50.3	BS	IIaJ-E	A	SB Bln	* Uncertain Arc	comp sl/wk Fine
								IIaJ-E				
1-7-70	20/150	1-3"	6.2	df8 +G	BC	1200/50.3	BS	IIaO-E	A	SB Bln	no spot Cal available	wk comp Fine Exp
1-18-70	20/115	"	3.93	Fop	"	"	"	IIaJ-E	B	Hsm sp KK		wk comp Fine
11-11-70	20/139	1-2"	4.63	A3m	"	"	"	IIaO-E	A	"	no spot Cal	sl/wk comp fine
1-12-70	20/110	"	5.19	B3IV	"	"	"	IIaJ-E	B	SB Bln	T=63°F Set 504	comp wk sl/wk
1-7-70	20/41	2-3	6.2	df8 +G	"	"	"	IIaO-E	A	SB Bln	cloud. no spot cal	few wk sl/wk

Date ^{Sun - Mon} July 8-9 1984 Observers Kly - Ri

Emulsion Batches:

8 ^m 680	Two-E 96103 - 27064
5 ^m 680	Two-Tel 31083 - 22064

323.4

[illegible]

Spectr. Temp. 67.....

Dome Temp./Hum. 65°/76%

Dome Temp./Hum. 63°/78.5%

Transparency Conditions lots of cirrus - s/ haze - cirrus
- clear → clouds

250

Comp. Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-7-77	80/200	1"	6.8	G8V	BC	1200/ 50.0	BS	IIaO-E	A	KK-Asm Sp		exp good but uneven
481b								IIaO-E				
2-2-78	0/100	1"	3.93	F0p	BC	1200/ 50.5	BS	IIIaj-E	B	KK Asm Sp		fine uneven
7-7-78	40/100	1"	6.6	G5	"	"	BS	IIaO-E	A	"		"
154 481b								IIIaj-EF				
1-14-78	10/32	1"	2.2	ASIII	BC	1200/ 50.5	BS	"	B	KK Asm-Sp	short exp	good
1-22-78	10/50	1"	3.8	F5IV	"	"	"	"	A	"	short	fine
3-11-78	10/50	1"	3.7	F0IV	BC	"	"	"	B	"		fast str fine
4-2-78	200/123	1"	7.8	G9V	"	"	"	IIbO-E	A	"	sudden thick cloud	sl weak
4-28-78						"	"	IIcO-E	B		T = 67° F	
											dust on slicer?	

1984
(25)

Date Mon-Tues July 9-10 Observers Kly-Ri

Emulsion Batches:

Emulsion Batches:
 Wafef 31083-22064
 Trip-E 06103-27064

8^m 680

[illegible]

Spectr. Temp. ...72.....

Dome Temp./Hum. 66.5/60.9%

Transparency Conditions . hazy - sl haze - clouds
Damn it!!

Focus502.....

Spectr. Temp. ...69.....

Dome Temp./Hum. 62.0/92.9%

252

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
25-28	10/50	2"	2	F	BC	1200/ 50.5	BS	IIIaj-E	A	KKAsmSp	$\alpha = 2^h 23^m.8$	fine
6-10 3/02 4810	100/122	1-2"	9	dG6	"	830/ 46.2	"	IIaO-E	B	"	reversed F=505	went
- 25-28					BC	830/ 46.2	BS	IIaO-E	A		T=69° F=505	

Date WED THURS July 11-12 Observers Ri-KK-Fin

Emulsion Batches:

DAO-E 06103-09074

Date WED THURS July 11-12 Observers Ri - KK - Fin

[illegible]

Spectr. Temp. ... 67°F

Dome Temp./Hum. 63°F 89%

254

comparison slightly strong

255

THUR - FRI

Date July 12-13, 1984 Observers R. - F. IN 24 IN DOME

8^m 68°

Emulsion Batches:

Hao-F. 06103-09074.

Hao-F. 06103-12074.

Hao-F. 31083-12074.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48472F	Focus Test							Fe/-	27-2
48472	HD 165174	17 59.6	+01° 55	20:43	21:13	01445E	+01° 58'	Fe/-	7-7-7
48473	HD 165174	17 59.6	+01° 55	21:15	21:40	01417E	+01° 58'	Fe/-	7-7-7
48473T	SPOT CALN' FOR PLATES 48472-48478				15 MIN @ 150 VOLTS		① D4 ② D3 ③ D2 3900 4300 4810		
48474	HD 165174	17 59.6	+01° 55	21:42	22:08	00450E	+01° 58	Fe/-	7-7-7
48475	"	"	"	22:09	22:39	00415E	"	"	7-7-7
48476	"	"	"	22:41	23:12	00415W	"	"	7-7-7
48477	"	"	"	23:15	23:46	00450W	"	"	7-7-7
48478	HD 182572	19 20.2	+11° 44	23:52	00:32	00415W	+12° 00	"	7-7-7
48478F	Focus Test							Fe/-	27-2
48479	HD 164852	17 58.1	+20° 50	00:48	01:49	02455W	+20° 53	Fe/-	12-12-7
48479T	SPOT CALN' FOR PLATES 48479-48483				15 MIN @ D4		① 17.5V ② 15V ③ 15V 3900 4300 4810		
48480	HD 159561	17 30.3	+12° 38	01:54	02:14	3 ⁿ 47 ^m W	+12° 36	Fe/-	12-12-7
48481	HD 182640	19 20.5	+02° 55	02:19	02:48	2 ⁿ 31 ^m W	+03° 09	Fe/-	12-12-7
48482	HD 196524	20 32.9	+14° 15'	02:53	03:14	01445W	+14° 33	Fe/-	12-12-7

Spectr. Temp. ... 74°FDome Temp./Hum. ... 70°F 70%Transparency Conditions ... CIRRUS AFTER 01:00Focus ... 504

Spectr. Temp.

Dome Temp./Hum.

central wavelength on G12
is slightly to the red: 256

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 07-1					B.C.	830/40.2	B.S.	II _{AO}	A		BROKEN 2 PIECES	
- 7-7	40/70	3-4	6.15	130.5 III _n	B.C.	830/40.2	B.S.	II _{AO-E}	B	FL - Prog.	BROKEN (2 PIECES)	good
- 7-7	40/70	"	6.15	130.5 III _n	B.C.	830/40.2	B.S.	II _{AO-E}	A	"	BROKEN 1/2" MISSING	good
02 - 8-10								II _{AO-E}				
- 7-7	40/70	"	6.15	130.5 III _n	B.C.	830/40.2	B.S.	II _{AO-E}	B	FL - Prog.	BROKEN 1/2" MISSING	good
- 7-7	40/70	"	"	"	"	"	"	"	A	"		fine
- 7-7	40/70	"	"	"	"	"	"	"	B	"		fine
- 7-7	40/70	"	"	"	"	"	"	"	A	"		fine
- 7-7	20/35	4-5	5.2	G8 IV	"	"	"	II _{AO-E}	B	STD VEL		fine 5+ 5+
- 7-7					"	"	"	II _{AO}	A		T = 71°F F = 505	
- 12-12	40/240		5.19	B3 IV	B.C.	1200/50.7	B.S.	III _{AO-E}	A	SB - Bl	T = 71°F F = 502	good
015 - 12-12								III _{AO-E}				
- 12-12	10/50	4	2.2	A5 III	B.C.	1200/50.7	B.S.	III _{AO-E}	B	Asm Sp/KK		good
- 12-12	20/100		3.68	F0 IV	B.C.	1200/50.7	B.S.	III _{AO-E}	A	"	T = 68°F ; F = 502 1/2	good
- 12-12	20/100		3.78	F5 IV	"	" / "	"	"	B	"		good

25-1
Date Fri. July 13/84

Observers R. F. L.

Emulsion Batches:

Plant 31083-12074

[illegible]

Spectr. Temp. ..67°F.....

Dome Temp./Hum. 64° F. 83%

Transparency Conditions . *some curries cloud*
around

258

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 12-12		40/240		4.6	F7V	BC	1200/50.7	BS	IIIaJef	A	STDVEL		good
- 3-31					"	"	"	"	IIa	B		T=67°F; F=502.5	

259

Fri SAT

Date July 13-14 84 Observers R. - F. H. B. W. D. M. K.

Emulsion Batches:

Fluo-F 06103-12074

Instel 31083-12074

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
48484F	FOCUS QEST							Fe/-	30-30
48484	HD 165174	17 59.6	+01° 55'	20:40	21:08	01° 45'E	+02° 00'	Fe/-	7-7-7
48485	"	"	"	21:11	21:38	01° 15'E	"	Fe/-	7-7-7
48485T	SPOT CALN' FOR PLATES 48484				15 MIN @ 15 VOLTS		① D4 ② D3 ③ D2 3900 4300 4810		
48486	HD 165174	17 59.6	+01° 55'	21:40	22:06	00° 46'E	+02° 00'	Fe/-	7-7-7
48487	"	"	"	22:08	22:32	00° 21'E	"	"	7-7-7
48488	"	"	"	22:33	22:55	00° 03'W	"	"	7-7-7
48489	"	"	"	22:58	23:27	00° 35'W	"	"	7-7-7
48490	HD 171391	18 29.5	-11° 03'	23:33	00:11	00° 48'W	-10° 56'	Fe/-	7-7-7
48490F	FOCUS QEST							Fe/-	30-30
48491	HD 138749	15 28.9	+31° 42'	00:25	00:44	4° 24'W	+31° 32'	Fe/-	12-12-
48492	HD 164852	17 ^h 58. ^m 1	+20° 50'	00:49	01:23	2° 34'W	+20° 52'	Fe/-	12-12-1
48492T	SPOT CALN' FOR PLATES 48491- 48492				15 MIN @ D4	① 17.5V ② 15V ③ 13V 3900 4300 4810			
48493	HD 157482	17 ^h 18. ^m 5	+40° 04'	01:28	02:38	04° 29'W	+40° 04'	Fe/-	7-7-7
48494	HD 181391	19 15.2	-05° 36'	02:45	03:33	03° 25'W	-05° 24'	Fe/-	7-7-7

Spectr. Temp. 79°F

Dome Temp./Hum. 75°F 68%

Transparency Conditions .. Good WITH some
THIN CIRBUS CLOUDS
AROUND

Focus 503

Spectr. Temp.

Dome Temp./Hum.

260

Companion Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
L 30-30					B.C.	830/40.2	B.S.	IIa0	A			
- 7-74	40/80	2-3	6.15	B0.5 III	B.C.	830/40.2	B.S.	IIa0-E	B	Flu Prog		
- 7-74	40/80	"	"	"	"	"	"	"	A	"	T = 78°F	
- 7-74	40/80							IIa0-E				
- 7-74	40/80		6.15	B0.5 III	B.C.	830/40.2	B.S.	IIa0-E	B	Flu Prog		
- 7-74	40/80	"	"	"	"	"	"	"	A	"	T = 78°F	
- 7-74	40/80	"	"	"	"	"	"	"	B	"		
- 7-74	40/80	"	"	"	"	"	"	"	A	"	T = 77°F F = 504	fine
- 7-74	40/80	6.0	G8 III	B.C.	830/40.2	B.S.	IIa0-E	B		STD VEL	"	for 51 str fine
- 30-30								IIa0	A		T = 75½°F F = 504	
- 12-12	20/120	2-3	4.10	B7n	B.C.	1200/50.7	B.S.	IIa0-E	B	Be - Blu	F = 501	
- 12-12	20/120		5.19	B3III	"	" / "	"	"	A	SB - Blu		
- 10-10	10/160	3	6.2	dF8 + G	RL	1200/50.7	BS	IIa0-E	B	SB Blu/ly	T = 74°F, F = 501	fine
- 7-74	40/70	3-4	6.0	G8III -II	B.C.	1200/50.7	B.S.	IIa0-E	A	SB 1/ly	T = 73°F F = 501½	fine 51/wk
											TELESCOPE LIMIT	

2612

Date SAT JULY 14 1984 Observers R. - F/h

Emulsion Batches:

DAO-E 06103-12074...

.....

.....

[illegible]

Transparency Conditions *good*

Spectr. Temp. 71° F.....

Dome Temp./Hum. 68°F 86%

262

[illegible]

263

Sat - Sun.

Date July 14-15, 1984 Observers Flu-Ri

Emulsion Batches:

Tao-R 06103-12074

[illegible]

Spectr. Temp. ... 80° F

Dome Temp./Hum. 76°F./60%

Transparency Conditions *hazy*

Focus . . . 500

Spectr. Temp. 78°F

Dome Temp./Hum. 75°F / 60%

264

[illegible]

MON TUE

Date July 16-17, 1984...

Observers

Ly-Ri

Emulsion Batches:

5th 68

8m 68

File # 31083-12074

TracE 06103-13074

[illegible]

Transparency Conditions

266

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
5-3					BC	1200/50.7	BS	IIIaE	A		broken	ok
5-5	0/100		1	K2III	"	"	"	"	B			strong
7-7	40/160	3-5	6.2	dF8+G	"	"	"	IIaD-E	A	SB Bin/Ly		fine
								IIaD-E				
12-2	20/120		5.2	BSIV	BC	1200/50.7	BS	IIIaJ-E	B	SB-Bin.	71°F set 502	
7-7	40/211		4.6	G8II	"	"	"	IIaD-E	A	H+K-Ly		fine
								IIIaJ-E				
7-7	30/120			F5-G3	BC	830/40.2	BS	IIaD-E	B	Bin Cp-Ly	68°F set 506	
7-7	30/158	3-4	7.2	BOIV	"	1200/50.7	"	"	A	MSB-Ly	67°F set 503	weak
3-3								IIaD-E	B		65°F	

267 Thurs-Fri

Date 1984 July 19/20 Observers HA-Ly-Ri

Emulsion Batches:

8th 68th IIaOe0603-13074
5th 68th ~~IIaOe0603-13074~~ 31083-15074

[illegible]

Spectr. Temp. 73° Dome Temp./Hum. $67^{\circ}/82\%$ Transparency Conditions $sl. haze$

Focus

Spectr. Temp. $67^{\circ}F$ Dome Temp./Hum. $62^{\circ}F/87\%$ $\rightarrow$ patchy cloud

268

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 10-	0/16	2-3	4.3	M0.5 III	BC	1200/50.7	BS	Ilaoe	A	Std Vel.	some Eng. at BEGINNING of Slit	fine
- 7-7-	0/160		6.2	d8+16	"	"	"	"	B	SB - Blu/Ly		fine but grainy!
- 7-7-	0/76		7.5	B6IV	"	830/40.2	"	"	A	SB - Ly	T=72°F set 505	
- 7-7-	0/185		6.2	B0.5 III	"	"	"	"	B	Flu pgm.	T=70°F	Fine
- 7-7-	0/320		6.2	d8+16	BC	1200/50.7	BS	Ilaoe	A	SB Blu-Ly	T=69°F set 502	fine - grainy
- 7-7-	0/100		5.0	B3V	"	"	"	Ilaoe	B	Ly pgm.		
- 7-7-	0/95		5.3	B8V	"	"	"	Ilaoe	A	Ly pgm.	T=67°F 503	
- 7-7-								Ilaoe	B		T=67°F 503	no stellar disc

269 Wed-Thurs
Date July 25/26/84... Ob

Date July 25-26/84... Observers Ally-Tn.....

Emulsion Batches:

Emulsion Dates.

8 th 68 th	II nd - E	06103	- 13074
5 th 68 th	III rd - E	31083	- 15074

5^m 68' III 41-E 31083 - 15074

[illegible]

3074
1074

Spectr. Temp. ... 73°F

Dome Temp./Hum. 70°F / 70%

Transparency Conditions slazy - plutonic

Focus ... 503

"La Via Lacta!"

Spectr. Temp. ... 64°F

Dome Temp./Hum. +58°F / 88%

270

Comparison
filter Exp

-20-2

10-1

20-1

20-1

20-1

10-1

0

7-7

20-1

Note slit fld Lens
left in, in addition
to correct lens

Note July 28 - This last exposure
may not have had BS decker out far enough for
full efficiency or anything else.
(Note image quality)

27) Sat-Sun 1 Large Tour (Ring Nebula)

Lat-Sun

Date July 28-29/84... Observers ... Tu.....

Emulsion Batches:

Emulsion Batches.
 P.O.E. 06103 - 20074

[illegible]

2074

163°F / 83.7

File -

503.

640f

160° 1892

272

Comparison	
Filter	Exp

1984

273

Date Sun-Mon. July 29-30 Observers Kly-Tn

Emulsion Batches:

...ДОО-Е 06103-20074

.....

[illegible]

Spectr. Temp. ... 74°F

Dome Temp./Hum. 71°/60%

Transparency Conditions ... Cloudy - hazy

Focus ... 50.2

Spectr. Temp. ... 70°F

Dome Temp./Hum. 65°/80%

274

Comparison
Filter Exp

15-15

100

15-1

15-1

15-1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0/100	2"	3.9	F0p	BC	1200/ 50.7	BS	Ilac-E	A	KKAsmSp	cloudy 23°C	fine
00/176	1.3"	7.1	dkI-	"	"	"	"	A	"	hazy - cloudy 22.5°C	wt
20/52	"	2	F	"	"	"	"	A	"	" 22°C	str
20/50	"	3.78	F5IV	"	"	"	"	A	"	"	fine
20/50	"	3.6	K0III	"	"	"	"	B	"	21°C	str

H17 Fe ARGS sl strNote comments on f/l lens next page.

275

Date *Mon-Tues. July 30-31* Observers *Kly-Tp*.....

Emulsion Batches:

Ilco-F 06103-20074
5^m 68° Ilco-J-E 31083 15074

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
48525 F	Focus test					0 10		Fe/-	30-2
48525	HD 156014	17 10.1	+14 30	20 17	20 41	0 15E	+14 27	"	17-2
48525 T	Spot caln for 48525-27								
48526	HD 161096	17 38.5	+4 37	20 45	20 58	0 27E	+4 38	Fe/-	25-2
48527	HD 8890A	1 22.6	+88 46	21 05	21 10	8 59E	+89 14	"	25-25
48528	HD 158633	17 25.3	+67 24	21 16	22 43	1 35 W	+67 26	"	10-10
48528 T	Spot caln for 48528, 29, 31.			15 min @ 15V		^{D4} 3900 ^{D3} 4300 ^{D2} 4810			
48529	HD 2011156A	21 02.7	+33 44	22 54	01 21	0 34 W	+34 06	Fe/-	1010-
48530	HD 209790	22 00.9	+64 08	01 28	1 55	0 12E	+64 35	"	25-25
48531	HD 221264	23 25.5	+30 18	2 01	4 21	0 10 W	+30 48	"	101010

2007
15074

Spectr. Temp. 75.5
Focus 502-501-502
Spectr. Temp. 70°F

Dome Temp./Hum. +72°/57%
Dome Temp./Hum. +65°/92%

Transparency Conditions s/hazy

276

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/50.7	BS	IIaD-E	B		Set 502 T=75.5	OK
17-2	C/111/	<1"	4.4	MJB	"	"	IIaJ-E	B	MSd vel	set 501	fine
							IIaJ-E				
1-2-3	0/104	<1"	3.9	KOIII	1200/50.7	BS	IIaJ-E	A	STD VEL		s/str
1-2-3	20/105	<1"	Z	F	"	"	"	B	KKASmSp	$\alpha = 224^m.3$	s/str
10-11	1/100	<1"	7.09	dKT	"	"	IIaD-E	A	HsmSp	23°C	fine
							IIaD-E				
1-11	BC/130	1"	7.3	A2	1200/50.7	150/.3	IIaD-E	B	KKASmSp	22°C 1pc saved	Fest str fine
15-16	10/100	1-2"	4.6	A3m	"	"	BS IIIaJ-E	A	"	set 502	fine
10-11	30/190	1"	7.7	F5	"	"	IIaD-E	B	"	dawn	fine

Note* BS exps # 48516 Thru 48528 had the slit comp fld lens in as well as the correct fld lens.

277) pg #1

Clear Fe Ore 1 - comp. unit; - Done

Emulsion Batches:

110A-S-E... 31083-30074

110A-O-E... 06103-...

Date Aug. 7-8/84 Tue. Wed Observers Th. - Hily.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
48532F	Focus test					0 10W	+29 11	Fe/-	40-40
48532	HD 137909	15 23.7	+29 27	20 11	20 29	1 50W	+29 14	Fe/-	20-2
48533	HD 161096	17 ^{38.5} 42.5	+4 ³⁷ 34	20 31	20 55	0 03W	+4 40	Fe/-	23-2
48533T	Spot Cal'n for	48532	33.35-43	15 min @ D4	3900	17.5V 15V 4300	15V 4810		
48534	HD 158633	17 25.3	+67 24	21 03	22 22	146 W	+67 21	Fe/-	8-8
48535	HD 8890A	1 22.4	+88 46	22 26	23 32	705 E	+89 13	"	23-23
48536	HD 209790	22 00.9	+64 08	22 39	23 06	208 E	+64 37	"	15-15
48536T	Spot Cal'n for	48534	44.	15 min @ 15V	3900	D4 D3 D2 3900 4300 4810			
48537	HD 182640	19 20.5	+25 5	23 12	23 38	0 52W	+3 10	Fe/-	23-23
48538	HD 196524	20 32.9	+14 15	23 41	23 47	000W	+14 35	"	23-23
48539	HD 197989	20 42.2	+33 36	23 51	00 00	005W	+33 58	"	23-23
48540	HD 206901	21 40.1	+25 11	00 04	00 26	0 28E	+25 37	"	23-23
48541	HD 217675	22 57.3	+41 47	00 29	00 41	1 30E	+42 19	"	23-23
48542	HD 217782	22 55.0	+42 13	00 45	01 25	045E	+42 45	"	23-23
48543	HD 219080	23 08.0	+48 51	1 30	1 54	027E	+49 24	"	23-23

Spectr. Temp. 82.5°FDome Temp./Hum. +77°F/73%Transparency Conditions fine → S1 hazyFocus 501

Spectr. Temp.

Dome Temp./Hum.

→ thin cloud
278

Companso Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-2-2	20/107	1"	3.9	Fop	"	"	"	IIaJ-E	A	Asm Sp	too w k to make re vs blue	fine
1-2-2	20/100	1-2"	3.9	K2III	"	"	"	"	B	std vel	likely Fe comp. stellar	fine
								IIaJ-E			(no interlock when manual)	
1-2-2	20/200	2"	7.09	dk1	BC	1200/507	BS	IIaJ-E	A	Asm Sp		good
1-2-2	20/105	1-3"	2	F	"	"	"	IIIaJ-E	B	"		fine
1-2-2	20/103	1-2"	4.6	F3m	"	"	"	"	A	"		good
								IIaJ-E				
1-2-2	20/102	1-2"	3.7	FOIV	BC	1200/507	BS	IIIaJ-E	B	Asm Sp		good
1-2-2	20/105	"	3.8	FSTV	"	"	"	IIIaJ-E	A	"		good
1-2-2	20/104	"	3.6	KOIII	"	"	"	IIIaJ-E	B	"	set 502 T=77°F	fine
1-2-2	20/103	"	4.4	FSTV	"	"	"	"	A	"		good
1-2-2	20/115	2	3.6	B6p	"	"	"	"	B	"		good
1-2-2	20/116	2	5.2	A2	"	"	"	"	A	"		good
1-2-2	20/105	1"	4.9	FOIV	"	"	"	"	B	"	Arc gap reset broken 2" missing	good

Date Aug 7-8 cont Observers

.....

.....

.....

[illegible]

Spectr. Temp.

Dome Temp./Hum. +68°/98%

280

[illegible]

Spectr. Temp. 79°f

Dome Temp./Hum. 76°F / 98%

Transparency Conditions . . . *S/ haze*

282

[illegible]

283 Wed-Thur

Date Aug 15-16/84 Observers Tn-Das

Emulsion Batches: 8th 6th ΠαΟ-Ε 06103 30074

[illegible]

Spectr. Temp. 80°F.....

Dome Temp./Hum. 77.6 / 44 = 70%

284

[illegible]

Date Aug 16-17/84 Observers Lg-Tn

Emulsion Batches:
8^m6⁰ II-O-E 06103-15084

[illegible]

287

Fri-Sat

Date Aug 17-18/84

Observers Ly-Tn

8^m 68°

Emulsion Batches:

5^m 68°

II-0-E 06103-15084

III-1-E 31083-30074

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48557F	Focus test					0 10W	+45	Fe/-	20-20
48557	HD120315	13 43.6	+49 49	19 50	19 51	3 31W	+49 21	Fe/-	10-10
48558	HD128167	14 30.3	+30 11	19 59	20 08	3 03W	+29 84	"	10-10
48559	HD134083	15 02.9	+25 16	20 11	20 24	2 45W	+24 59	"	10-10
48560	HD152598	16 49.2	+31 52	20 29	20 43	1 19W	+31 46	"	10-10
48561	HD157482	17 18.5	+40 04	20 47	21 40	1 48W	+40 00	"	8-8-8
48561T	Spot cal for 48557-61, 63, 65				15 min @ 15V		D4 3900	D3 4300	D5 4810
48562	HD164852	17 58.1	+20 50	21 43	22 29	1 56W	+20 55	Fe/-	15-16
48563	HD181391	19 15.2	-05 36	22 32	00 10	2 20W	-5 24	Fe/-	8-8-8
48563TV	Spot Cal for 48562, 64				15 min @ D4	D4 3900	15V 4300	15V 4810	
48564	HD175426	18 50.2	+36 51	00 14	01 08	3 44W	+37 00	Fe/-	15-12-1
48565	HD217312	22 54.8	+62 32	01 12	03 10	1 42W	+63 01	Fe/-	8-8-8
	HD11188	01 44.9	+46 58	03 17			+47 23		

288

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-20"					BC	1200/50.7	BS	II ₄₀	A			OK
-10-15	20/50	1"	1.7	B3V	"	"	"	II ₄₀ -E	A	MK std		Fine
10-15	20/40	1"	4.46	F2V	"	830/40.2	"	"	A	Algal pgn.	set 506 5 Poo.	Fine Fes/stk
10-15	20/42	2"	4.93	F5V	"	"	"	"	B	"	45 Poo.	Fine Fes/stk
10-15	20/40	2"	5.3	F0V	"	"	"	"	A	"	53 Hw.	Fine sl. Flexure?
88-90	20/80	3"	6.2	F8+9	"	1200/50.7	"	"	B	SB - Blw/Ly	72°F set 503	Fine
10-15	20/137	2"	5.2	B3V	BC	1200/50.7	BS	III ₄₀ -E	A	SB - Blw		
10-15	20/103	3"	~6.	G8II	"	"	"	II ₄₀ -E	B	H+K - Ly		Fine
0								III ₄₀ -E				
-5-12	20/125	2-3"	5.3	B3	BC	1200/50.7	BS	III ₄₀ -E	A	SB - Ly	68°F set 504	Fes/stk
88-90	20/195	2"	7.2	BOLV +B0IV	"	"	"	III ₄₀ -E	B	SB - Ly		slw H
			7.1	B8	"	830/40.2		"	A	SB - Ly	64°F set 508 thick cloud from SW.	

289 Sun - Mom

Date Aug. 19-20, 184 Observers Kly-Jm

New D19

5 m 680

Emulsion Batches:

Mod-E 31083 -13084

[illegible]

13084

Spectr. Temp. 70°FDome Temp./Hum. $465^{\circ}\text{F}/59\%$Transparency Conditions $\dots$ Fine - cloudy - fine.

Focus 506.....

Spectr. Temp. 570°FDome Temp./Hum. $150^{\circ}\text{F}/88\%$

290

comparison
filter Exp.

20-2

7-7

SV

300

7-7

7-7

7-7

10-1

20-2

20-2

20-2

20-2

20-2

20-2

20-2

20-2

20-2

20-2

20-2

20-2

20-2

20-2

20-2

20-2

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/400	BS	II _u O	A	set 506 T=70°F		OK
* 20/1404	2'	B=4.2 U=4.8	K5 II B?	BC	1200/47	150/5	III _{aj} -E	A	KK UV	UV filter on slit Set 504	Comp work
							"				
20/298	2' 1/2"	B=4.2	G8 II	BC	1200/47	150/5	"	B	KK UV	some cloud Set 506 T=64°F	"
20/300	"	B=3.8 U=4.3	G8 II F?	"	"	"	"	A	"		"
20/230	2' 4"	B=4.1 U=4.1	G5 III +A5	"	"	"	"	B	"	set 507 T=60°	"
20/260	"	2.81	A5 V	"	"	"	"	A	"		"
				"	"	"	"	B		Set 507 T=57°F conts/blue	

Plates useless — instead of UV transmitting filter,
The minus UV filter was used

* miscommunication From KK did 4 x 4x (green)
Wij

Spectr. Temp. 73°f

Dome Temp./Hum. 168°F / 80%

Transparency Conditions good.....-s/hazy...fog...

Focus 503

Spectr. Temp. *68°f*

Dome Temp./Hum. *162°/100%*

292

Companson Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6888	01/40	1"	4.2	K511 + B	N BC	1200 /47°	150 1.5	III _{aj} -E III _{aj} -E	B	KK UV	Exp meter "B" filter in UG-5 filter in (the right one)	Fine
6888	01/80	1"	4.2	6888	BC	1200/47°	150/5	III _{aj} -E	A	KKUV std	"	Fine
6888	01/	1"	3.8	6888	"	"	"	"	B	KK UV	"	Fine sampled
6888	01/	1"	3.8	6888	"	"	"	II _{aj} -E	B	(se/503std)	Some dropping too bad.	OK

Note - Total of 5 II_{aj}-E strips & Complement 4x55
in 2 boxes.
We may need more. II_{aj}-E OK over here.

293

Thurs - Fri

Date Aug 23-24/84.....

Observers .. 7p-

Emulsion Batches:

Emulsion Batches:
 8th 6th 1101-E 31083-30074
 1100-E 06103-15084

8^m 680

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exposure
48574	HD 164852	17 58.1	+20 50	21 55	22 50	2 40W	+	Fe/-	16-2-10
48574	✓ Spot Cal'n for 48574		15 min @ D4	175V 3900	15V 4300	15V 4810			
48575	HD 217312	22 54.8	+62 32	22 56	01 09	0 03W	+63 02	Fe/-	9-9-10
48575	✓ Spot + Cal'n for 48575		15 min @ 15V	D4 3900	D3 4300	D2 4810			

30074
15084

Spectr. Temp. 65°F

Dome Temp./Hum. $60^{\circ}\text{F}/92\%$

Transparency Conditions *Fine*.....

Focus 50.5

Spectr. Temp. 62°F

Dome Temp./Hum. $56^{\circ}\text{F}/97\%$

294

Comparison
Filter Em

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-20/130	4"	5.19	B3 IV	BC	1200/507	BS	IIIa-J-E	A	SB B/n	(filter wheel turned) middle Arc uncertain	comp slstr v sl wk
							"				
1-99-30/260	3"	7.2	B0 IV	BC	1200/507	BS	IIa-J-E	B	SB-Ly		good
							"				

KK What's score
on IIIa-J?
Only 4 s 1 4x5 left now.
I didn't check over

295

Eri - Sat

Date Aug 24-25, 84..... Observers Th.....

Emulsion Batches:

Emulsion Batches:
* Mas-E 31083 -13084
Mas-E 31083 -24084

77a5-E 31083 - 24084

[illegible]

Transparency Conditions *fine*.....

Focus 504

Spectr. Temp. $+62^{\circ}\text{F}$ Dome Temp./Hum. 157 / 927

2 Cass

296

[illegible]

297 Sat Sun 2 Large Tours Earlier

Sat Sun

Date Aug 25-26, 1841 Observers Tn

Emulsion Batches:

Emulsion Batches:
D.O-E 06103-17084

[illegible]

Spectr. Temp. ... 6.7° F

Dome Temp./Hum. +61°/95%

Transparency Conditions *OK thin cloud (some)*

298

[illegible]

299 Sun Mon

Date Aug 26-27/84..... Observers T. - Kly.....

Emulsion Batches:

8 ^m 68°	<u>Π-0-E</u>	06103-17084
5 ^m 68°	<u>1H-1-E</u>	31083-24084

[illegible]

Spectr. Temp. ... 73.5°

Dome Temp./Hum. 70°/70%

Transparency Conditions OK ~ cloudy

Focus ... 503

Spectr. Temp. ... 66

Dome Temp./Hum. 60°/90%

300

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/50.7	BS	IIaO-E	A			sl/Red
10/40	<1"	3.9	K2M	BC	1200/50.7	BS	"	A	stdue/		fine
10/40	"	3.93	Fop	"	"	"	"	A	Asm Sp HK		fine
7-20/264	1.3"	7.3	A2	"	"	150/13	"	A	"	some cloud	fine
10/126	2"	4.63	A3m	BC	1200/50.7	BS	IIIaJ-E	B	Asm Sp HK	some cloud	Fine
							IIIaJ-E				
10/58	2"	5.81	G5Vp	BC	1200/50.7	BS	IIaO-E	A	Asm Sp	cloud	fine
10/55	"	4.50	K2M	"	"	"	"	B	"		fine
10/139	"	3.5	G8II + F	"	1200/47	150/15	IIIaJ-E	B	KK'UV	T=689 Set 504	star fine companion broken up
							"		"		
10/75	2.3"	3.09	G5M + NG	BC	1200/47	150/15	"	A	KK UV	cloud, Note: All exp at beginning & end of exposure. Cloud during blank	uneven dust on slit?
				KK	Note: No more IRad in dome					NO;	(Spot guiding included)

301 Wed-Thurs
Date Sept 5-6/84 Observers Ly-Tn

8^m 6⁸⁰ Emulsion Batches: II₀₀-E...06103...-1.7084

[illegible]

084

+52°/99.8

sl. haze $\rightarrow$ sl. cloudy

507

7.53.9f.

.....+98°F/982

302

[illegible]

303

Date Sept 6-7/84 Thurs-Fri Observers Ly.-Tm

Emulsion Batches:

D40-E 06103-05094D41-E 31083-31084

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48594	HD 181391	19 15.2	-5 36	21 12	23 17	02 45W	-5 22	Fe/-	6-6-6
48594T	Spot Calc for 48594, 96				15 min @ 15V		D4 123 D2 3900 4300 4800		
48595	HD 175426	18 50.2	+36 51	23 23	00 05	04 00W	+37 00	Fe/-	12-12-1
48596	HD 217312	22 54.8	+62 32	00 10	01 40	01 31W	+63 02	"	6-6-6
48596T	Spot Calc for 48595, 97				15 min @	17.5V 15V D4 3900 4300	15V 4810		
48597	HD 1337	00 12.4	+50 53	01 45	02 37	01 08W	+51 24	Fe/-	12-12-1
48598	HD 11188	01 44.9	+46 58	02 43	03 43	00 43W	+47 23	Fe/-	6-6-6
48599	HD 3712	00 34.8	+55 59	03 47	03 51	02 00W	+	Fe/-	16-16
48600	HD 91948	10 31.9	+60 38	04 03	05 00	06 48E	+60 13	Fe/-	6-6-6
48600F	Focus					00 00	+26	"	23-23
48600F1	Focus tests done Sept 14. Dome temp 59°F					0 0	+9°	hr 6+6 Fe/Ne	14-14
F2						1	"	"	"
F3						"	"	"	"
F4						"	"	"	"

5094
1084

..... 150% / 80 %

then collect

506

1517/99

1517/99

304

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6-1-50/150	1-3"	2.6	G8III	BC	1200/50.7	BS	IIaD-E	A	HK-Ly	some cloud	res/sfr Fine
							IIaD-E				
12-2-50/150	1"	5.3	B3	BC	1200/50.7	BS	IIIaJc	B	SB-Ly	T=60°F	fine
6-1-50/110	1"	7.2	B0IV	"	"	"	IIaDc	A	SB-Ly		vs/slk
							IIIaJ-e				
6-1-50/150	<1"	6.1	O9III	BC	1200/50.7	BS	"	B	SB-Ly		fine
6-1-50/118	<1"	7.1	B8	"	"	"	IIaD-E	A	SB-Ly	56°F set 507	fine
6-1-50/92	<1"	2.5	K0III	"	"	"	IIIaJ-E	B	Std Vel.		fine
6-1-50/57	"	7.4	F8	"	"	"	IIaD-E	A			slwk
				"	"	"	IIaD	B		56°F	cent sl/blue
Optics for slit except for 1/2 lens over slit " "					1200/47°	150/9	IIaD	B	set 509 T=62°F	UV filter in ok	
					"	"	"	B	set 504 T=62°F	"	cent blue
					"	"	"	H	set 504 T=62°F	"	cent blue
					"	BS	"	B	"	no UV filter	blank
proper optics for slicer											

365 Mon-Tues

Date Sept 17-18/84..... Observers Ly-Tn.....

Emulsion Batches:

8" 68" IIaD-E 06103 -05094
IIIaE 31083 - 31084

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48601	HD 183344	19 24.0	-7 15	19:07	20:56	00 59 W	-7 02	Fe/-	6-6-6
48601T	Spot Calc for 48601-2,04				15min @ 15V	^{D4} 3900	^{D3} 4300	^{D2} 4810	
48602	HD 192713	20 11.2	+23 12	21:13	22:28	01 44 W	+23 30	Fe/-	7-7-7
48603	HD 175426	18 50.2	+36 51	22 33	23 23	04 01 W	+37 02	Fe/-	12-12-1
48603T	Spot Calc for 48603				15min @ D4	^{175V} 3900	^{15V} 4300	^{15V} 4810	
48604	HD 217312	22 54.8	+62 32	23 29	01 20	01 54 W	+63 04	Fe/-	7-7-7
48604F1	form					00 00	+15 00	Fe/-	20-20
48604F2	u					u	u	u	20-20

5094
1084

Spectr. Temp. ... 63°F

Dome Temp./Hum. 60°F / 73% H

Transparency Conditions V. S / hazy

Focus ... 50.6

Spectr. Temp. ... 58°F

Dome Temp./Hum. 58°F / 95% H

306

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-66-700/?	2"	8.8	F5 -G3	BC	830/402	BS	IIaD-E IIaD-E	A	Cap Bi-Ly	No exposure meter.	Fe str. blue v slt/c
7-77	1-2"	6.2	G3 Ib + B9	BC	1200/48	BS	IIaD-E	B	Fe Pgr	62°F set 507	31 str
-126	2"	5.3	B3	BC	1200/50.7	"	IIaD-E IIaD-E	A	SB-Ly.		Fine
7-77	1-2"	7.2	B0 IV	BC	1200/50.7	BS	IIaD-E	B	SB-Ly	cloud	Fe sl wk fine
20-20				"	"	"	"	B	T=58°F	Set 507	cap + sl blue
20-				"	"	"	"	H	Broken		

307 Tues Wed

Date Sept 18-19/84..... Observers Kly-Ty.....

6" 48° Emulsion Batches:

117a1-E 31083-31084

8" 48° IIa0-E 06103-17014

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
48605F1	Focus tests to compare PHs AcB					0 0	+11°	Fe/-	20-20
05F2						0 0	"	"	"
48605	HD 161096	17 38.5	+4 37	18 53	19 09	1 01W	+4 38	"	18-18
48606	HD 137909	15 23.7	+29 27	19 14	19 29	336 W	+29 14	"	18-18
48606T	Spot Calc for 48605-06				15 min @ 17.5V	D4	3900 4300	15V 4810	
48607	HD 192713 = 22 Vul	20 11.2	+23 12	19 46	22 53	2 14 W	+23 32	FeNe	7-7
48607T	Spot Calc for 48607-12.				15 min @ 15V	D4	3600 3900	D3 4300	
48608	HD 202109	21 08.7	+29 39	22 58	23 42	2 05 W	+30 15	FeNe	8-8
48609	HD 215182	22 38.3	+29 42	23 44	00 15	1 07 W	+29 13	"	8-
48610	^{8 Cas} HD 8538	1 19.3	+59 43	00 19	00 30	1 20 E	+60 14	"	8-8-8
48611	HD 17878	2 47.2	+52 21	00 34	1 41	1 30 E	+52 44	"	8-8
48612	HD 18925	2 57.6	+53 07	1 48	2 16	1 11 E	+53 32	"	8-8-8
48612 F	Focus test					1 05 E	"	FeNe	12-12

Windy SW
308

[illegible]

Date Sept 19-20 1881 Observers T. + some Ly...

8^m 68^o Emulsion Batches:
II-0-E 06103-17094

[illegible]

7099

Spectr. Temp. $+68^{\circ}\text{F}$Dome Temp./Hum. $+67^{\circ}\text{F}/78\%$ Transparency Conditions *fine - s/hazy*.....Focus 50.5Spectr. Temp. 69°FDome Temp./Hum. $+58^{\circ}\text{F}/95\%$ ✓ 310
- cloud by 01hComparison
Filter Ev

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- H70/300	4.1"	2.6	G80	BC	1200/48	BS	IIc0-E	A	HEK-Ly	broken 1pc saved	fine
- H70/147	4.3"	6.2	G316	BC	1200/48	BS	IIc0-E	B	Fe prog		fine
- H70/110	2"	7.1	B8	"	1200/50	"	11"	A	SB-Ly	T=67F set 505	s/wt
				"	"	"	"	B			Cent vs blue

311 Thurs - Fri

Thurs - Fri

Date Sept 20-21 1884 Observers T_n

63 60

Emulsion Batches:

Emulsion Batches:
...II^oO-E 06103 - 20094

20172

[illegible]

Spectr. Temp.53°f.....

Dome Temp./Hum. +63°F / 60%

Dome Temp./Hum. 45.3 F / 98.7%

Transparency Conditions Five.....

312

[illegible]

313 Fri - Sat

Date Sept 21-22/84... Observers Bt-Tn.....

Emulsion Batches:

...II-0-E 06103 - 20094

...De-E 06103 - 21094

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
48621	HD 161096	17 38.5	+4 37	19 02	19 13	1 17W	+4 37	Fe/-	9-9
48622	HD 189319	19 54.3	+19 13	19 26	19 42	0 31E	+19 31	"	9-9
48623	HD 184313	19 28.8	+5 15	19 50	22 44	3 00W	+5 30	"	6-6
48623T	Spot Calc for	48621-27			15min @ 15V		D4 3900	D3 4300	D2 4800
48624	HD 218329	23 02.0	+08 53	23 30	00 42	1 22W	+9 22	Fe/-	6-6
48625	HD 10761	01 40.1	+8 39	00 52	01 15	0 42E	+9 08	"	6-6
48626	HD 17709	02 45.4	+34 39	01 24	02 13	0 50E	+35 04	"	6-6
48627	HD 23475	03 40.4	+65 13	02 26	03 25	0 35E	+	"	6-6
48627	HD 23180	03 38.0	+31 58	03 33	03 38	0 18E	+	"	9-9
48628	HD 30652	04 44.5	+6 47	03 45	03 49	1 11E		"	9-9
48629	HD 37160	05 31.5	+9 14	03 56	04 13	1 34E	+9 20	"	9-9
48630T	Spot Calc for	48628-30			15min @ 15V		D4 3900	D3 4300	D2 4800

314

[illegible]

994
10 10'

Dome Temp./Hum 47°/60%

Transparency Conditions *Some cloud*

Focus 509

Spectr. Temp. 74.....

Dome Temp./Hum. 43.7°/100%

316

[illegible]

1099
1092Spectr. Temp. ... $+56.5^{\circ}\text{F}$...Dome Temp./Hum. $+59^{\circ}\text{F}/65\%$ Transparency Conditions *this cloud at times*Focus ... $514 \rightarrow 508$ Spectr. Temp. ... $+53^{\circ}\text{F}$...Dome Temp./Hum. $+190^{\circ}\text{F}$

318

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-7-1-20/85	1"	3.9	K2III	BC	830/402	BS	IIIa-E	A	std vel	Set 514	fine
				"	"	"	IIIa-E	A		Fe are gap adjusted	Red
20/112	1"	3.9	K2III	"	1200/507	"	IIIa-E	A	std vel	Set 508	fine
				"	"	"	IIIa-E	A			OK to good?
20/134	2"	3.93	Fop	BC	"	"	IIIa-E	B	Asm Sp		fine
							IIIa-E				
20/140	2"	5.19	B3IV	BC	1200/507	BS	IIIa-E	A	SB B/n	thick cloud T=55°F	Fe vs ok fine
20/134	1.5"	4.63	A3m	"	"	"	"	B	Asm Sp		Fe vs ok fine
20/230	2"	7.2	B0IV	"	"	"	IIa0-E	A	SB Ly	cloud	slow
							IIa0-E				
20/40	2"	5.04	M4 II-III	BC	1200/507	BS	IIa0-E	B	Pg prog	thick cloud	slow

Date Oct 3/94..... Observers St-17.....

Emulsion Batches:
8th 68° PaO-E 06103-21094
with previous night

[illegible]

0099

Transparency Conditions *Some cloud & gusty*

Spectr. Temp. ... 53.5°f

Dome Temp./Hum. 49/65%

much cloud by 04 EST
S Rain 320

[illegible]

321

Thurs-Fri

Date Oct 11-12/84 Observers KK-Ri-TA Es to

Emulsion Batches:

[illegible]

Spectr. Temp. Dome Temp./Hum. ^{155°}/96%

Transparency Conditions ^{hazy} - 5994

Focus

Spectr. Temp. Dome Temp./Hum. ^{50°F}/100%

322 {Spec-
FP}

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	H2 filter											
L 1 sec	20/200		2.22	F8 Ib	BC	1800/56°	250u	Retican		Tests	Temp -123.5°C	5969
	B140 filter											
L 1 sec	20/100					1800/40°	v	n		n	-123.4	1121
	yellow filter (above slit)											
L 1 sec	50/200					600/335	n	n		n	-123.2	4088
	0/200					"	n	n		n	-123.2	3867
L 1 sec	20/200					n	n	n		n	-123.0	3639
L 1 sec	0/500					n	n	n		n	-122.8 for saturation	9483
						n	n	n		n	-122.8	
						n	n	n			-122.7	

323

Date Oct. 16-17. Tues-Wed Observers B. + T.

Emulsion Batches:
5^m 680 IIIa-E 31083-21094
8^m 680 IIa-E 06103-02104

22 18

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Ex
48644	HD 164852	17 58.1	+20 50	18 32	19 35	2 58W	+20° 54'	Fe/-	13+
48644T	Spot Calc for 48644-45, 49			15min	D4 17.50 15V 3900 4300		15V 4810		
48645	HD 209790	22 00.9	+64 08	19 43	20 16	0 22E	+64° 37'	Fe/-	13-13-
48646	HD 206936	21 40.4	+58 19	20 22	21 27	1 9W	+58° 48'	Fe/-	7-7-
48646T	Spot Calc for 48646-48, 50-53.				15min D4 15V 3900 4300		D3 4810		
48647	HD 19058	02 58.8	+38 27	21 33	22 03	3 35E	+ —	Fe/-	7-8-
48648	HD 1337	00 12.4	+50 53	22 11	22 45	0 6E	+51° 24'	"	8-8-
48649	HD 21844	3 26.2	+47 36	22 52	23 19	0 48E	+47° 56'	"	13-13-
48649	HD 21699	3 25.1	+47 41	23 21	00 04	2 00E	+48° 01'	"	13-13-
48650	HD 36485	5 26.9	-0 22	00 17	02 03	2 02E	-0° 13'	"	6-6-
48651	HD 37017	5 30.4	-4 34	02 09	03 27	0 41E	-4° 27'	"	6-6-
48652	HD 37776	5 35.9	-1 32	03 39	05 25	1 11W	-1° 27'	"	6-6-
48653	HD 66141	7 57.1	+2 36	05 29	05 56	0 38E	+2° 26'	"	6-6-
48653F	Focus test					"	"	"	40-

Spectr. Temp. ... 56°F

Dome Temp./Hum. +58°F/62%

Transparency Conditions . Fine . some cloud .
at beginning

Focus ... 509

Spectr. Temp. ... 55°F

Dome Temp./Hum. +52°F/98%

324

Companion
of Filter Ex

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-13-20/140	2"	5.19	B3IV	BC	1200/507	BS	IIaJ-E	A	SB-Blk		few slwk
							IIaJ-E				
1-13-20/145	2"	4.63	A3m	BC	1200/507	BS	II	B	AsnSp		few v slwk
1-17-20/70	"	6.43	M2Ia	"	"	"	IIaOE	A	Archive	broken (1" missing)	few fine
							II				
1-18-20/80	3"	5.04	M4II-III	BC	1200/507	BS	IIaO-E	B	P ₂ Prog	T=57°F	fine
1-18-20/70	4"	6.1	O9II	"	"	"	II	A	Ly prog		fine
1-18-20/20	2"	6.97	FO	"	"	"	IIaSE	B	wrong set	cut short	v wk
1-18-20/136	2"	5.36	B8III	"	"	"	II	A	He Blk		fine
1-18-200/500	4"	6.7	B2V	"	830/402	"	IIaO-E	B	He Blk	T=57°F 50-511	fine
1-18-40/120	2-3	6.42	B2V	"	"	"	II	A	"	smaller 2pc serial	lost in develop
1-18-40/120	3-4	6.83	B2V	"	"	"	II	B	"		fine
1-18-40/72	4-5	5.5	K2III	"	"	"	II	A	slblue		fine
				"	"	"	IIaSE	B		set 511 T=55°F	cat slblue

325

Reticon Night _{1.5}

Emulsion Batches:

Date Oct 18-19/84 Thurs-Fri Observers KK-Tn-Raj - Shantanu

[illegible]

spectr. Temp. Dome Temp./Hum. $156^{\circ}\text{F}/61\%$ Transparency Conditions ... *Fixed* ...
 focus rapidly rising
 spectr. Temp. Dome Temp./Hum. $150^{\circ}\text{F}/78\%$

326

Comp. Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Filter	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	Stellar	→	Comp		1800/54	250K	-0.38	Reticon			T = 121.0	
	Comp	→	Stellar				+0.30				5° clockwise	
	"	"	"				+0.53	wrong way			another 10-15° clockwise	
	"	"	"				+0.19				Then 40° ccw	
	"	"	"				+0.01	good			another 20° ccw	
1/5	20/200	2"	2.22	F856	H α	1800/56		for H α			Trailing - 120.7	
1/3	0/200	"	"	"	H α	1800/56		for H α			No trailing	
1/2	0/100	"	"	"	Blue	1800/455		for H β			note H β off to blue end	
1/6	0/125	"	"	"	"	1800/455		H β			-120.4°C	
1/1	2/150	1-2"	4.3	B2	"	"	"	"			-120.3°C fine	

Date Oct 22-23 Nov 1965 Observers BT-Tn

Emulsion Batches:

* TAO-E 0.6103... 16104

[illegible]

2104 11/12/83
 104 11/12/83
 Spectr. Temp. 53° Dome Temp./Hum. $47^{\circ}/90\%$ Transparency Conditions $T=50^{\circ}$ cloudy
 Focus 50.9 only North clear
 Spectr. Temp. 49° Dome Temp./Hum. $42^{\circ}/93\%$ 328

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-82	0/70	3"-4"	6.1	O9II	BC	1200/50.7	BS	IIaD-E IIaO-E	A	Ly Prog.	cloud stand	vs slurr
1-82	0/80	2"-3"	5.04	M4II-III	BC	1200/30.7	BS	IIaO-E	B	Py Prog		Fine
82	0/70	3"-4"	6.1	O9II	"	"	"	"	A	Ly Prog	cloud	Fine
12-80	0/70	3"	2.2	K2II	"	"	"	"	B	st/Vel		Fine
82	0/150	3"	6.08	G5IIb	..	1200/30.7	"	"	A	Archive	bad - Prob emulsion reversal in bdd	Focus
82	0/80	3"	5.80	K4.5III-IIb	"	"	"	*IIaO-E *IIaO-E	B	"	T=51°F	Fine
1-82	0/83	3"	5.00	K4.1II +B9.0.5	BC	1200/50.7	BS	"	A	Archive	forgot lost Focus	Fine
								IIa J	B	set 509	49°F	right on.
											Suspect because of Hartmann mask problems.	

329

Date Oct 23-24 Tuesday Observers Bt-Tn

0.24 Ri 8 min @ 68°F

Emulsion Batches:

..II.O.E. 06103-16104₂₀ 192

[illegible]

Spectr. Temp. 52°f

Focus 508

Spectr. Temp. 46°.....

Dome Temp./Hum. 72°F / 60%

Dome Temp./Hum. 40°C/60%

Transparency Conditions cloud again

then clear, etc
mainly clear in NW only

330

Companson e/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	1-88-30/89	2-3"	5.04	M4 II-E	BC	1200/50.7	BS	Π_9 O-E H40-E	A	Py Prog	cloud	fine
	1-88-20/85	2"	6.1	09 III	BC	1200/50.7	BS	"	B	Ly Prog	some cloud	fine
	6-8-20/100	2-3"	5.34	B2 V	"	830/40.2	"	"	A	SB B ₁₆	some cloud T-47 F Set 514	Fine
	6-8-20/37	"	6.08	65 DB	"	"	"	"	B	Archive	some cloud - Lots now	fine

331

Wed-Thurs

Date Oct 24-25/84... Observers B.T.-Tn.....

Emulsion Batches:

R. 00225 8m. W 68°F. P. 0-E. 06103-23108
R. 00254 4m. W 69°F. P. 0-E. 31083-01104

19172

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48665F	Focus test					0 10W	+30	Fel	2-25
48665	HD 186791	19 41.5	+10 22	18 14	18 24	0 35 W	+10 36	"	9-9
48666	HD 164852	17 58.1	+20 50	18 31	20 02	3 59 W	+20 54	"	13-20-23
48667	HD 209790	22 00.9	+64 08	22 08	20 40	0 42 W	+64 35	"	16-16-16
48667T	Spot Calc for 48666-67, 70-72			15 min @ D4		17.5V 15V 15V 3900 4300 4810			
48668	HD 217312	22 54.8	+62 32	20 53	23 46	2 45 W	+63 01	Fel-	8-8-8
48668T	Spot Calc for 48665, 48668, 69, 73-75.			15 min @ 15V		D4 103 D2 3900 4300 4810			
48669	HD 19058	02 58.8	+38 27	23 52	00 15	0 52 E	+38 48	Fel-	8-8-8
48670	HD 21699	03 25.1	+47 41	00 21	01 54	0 19 W	+47 59	Fel-	16-16-16
48671	HD 11241	01 45.5	+54 39	01 58	03 02	3 07 W	+55 07	"	13-13-13
48672	HD 47839	06 35.5	+9 59	03 07	03 33	1 09 E	+9 59	"	13-13-13
48673	HD 77912	09 0.2	+38 51	03 36	04 12	2 56 E	+38 35	"	9-6-6
48674	HD 82210	09 25.6	+70 16	04 18	04 43	2 53 E	+69 59	"	9-9
48675	HD 90537	10 22.1	+37 13	04 48	05 29	3 00 E	+36 51	"	6-6-6
48675F	Focus test					"	"	"	20-20

3/10
0/104

Spectr. Temp. ... 51.5°F ...
Focus ... 5/4 ...
Spectr. Temp. ... 42.0° ...

Dome Temp./Hum. 48°F / 56%
Dome Temp./Hum. 37°F / 94%

Transparency Conditions Mostly clear
Many slow, long lasting meteors
from all directions. 322

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/40.2	BS	II-O	A		*note (Hartman Mask Ok now)	centered fe sl/str fine
9-9 20/52	2.3"	4.1	K3 II	"	"	"	II-O-E	A	stave/		
20/188	3"	5.19	B3 IV	"	1200/50.7	"	III-O-E	B	SB Blm	set 509 somewhat	fine
20/148	3"	4.63	A3 m	"	"	"	"	A	Asm Sp-kk	50°F	fine
							"			Note kk. watch narrow strip in exposure.	
20/300	3-5"	7.2	B0 IV	BC	1200/50.7	BS	II-O-E	B	Ly prog		sl/wk
							II-O-E				
20/184	3"	5.04	M4	BC	1200/50.7	BS	"	A	Pg prog	+47°F	fine
20/185	2"	5.36	B8 IV	"	"	"	III-O-E	B	He rich	set 510 T=47°F	fine vs/wk
20/210	2"	5.34	B2 IV	"	830/40.2	"	"	A	SB-Blm	set 515 T=43°F	fine
20/151	2-3	4.41	O7 Ve	"	"	"	"	B	Archive		fine fe sl/str
20/60	"	5.60	G7 Ib-II	"	"	"	II-O-E	A	Archive		fine
20/61	"	5.31	G7 Ib-IV	"	"	"	"	B	Archive		Fine
20/60	2	5.11	G9 IIIa-I	"	"	"	"	A	Archive	cloud lead	Fine
				"	"	"	II-O	B	set 515 T=42°F		cent Blm

333

Mon - Tues

Date Oct 29-30/84 Observers Pt-Tn

8^m 68° Emulsion Batches:Il-0-E 06103-23108
Mas-E 31083-01104

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter Exp.
48676	F Focus test					0 0		Fe/- 25-25
48676	HD 186791	19 41.5	+10 22	17 53	18 12	0 42W	+10 36	Fe/- 12-12
48677	HD 164852	17 58.1	+20 50	18 14	19 40	3 55W	+20 53	Fe/- 12-15 0
48678	HD 217312	22 54.8	+62 32	19 44	23 03	2 21W	+63 01	Fe/- 8-9-8
48678T	Spot Colln for 48677,80				15 min D4	17.5V 3900	15V 4300	15V 4810
48679	HD 11188	01 44.9	+46 58	23 08	01 13	1 39W	+47 23	Fe/- 8-8-8
48679T	Spot Colln for 48676,78-79,81-85				15 min D4	15V 3900	D4 D3 4300 4810	D2 4810
48680	HD 21699	03 25.1	+47 41	01 15	02 14	1 00W	+48 02	Fe/- 16-16-6
48681	HD 19058	02 58.8	+38 27	02 17	02 39	1 53W	+38 48	" 10-10
48681	F focus test					2 00V	"	" 25-25
48682	HD 37479	05 33.7	-2 39	02 49	03 45	0 24W	-2 35	" 6-6-6
48683	HD 36485	05 26.9	-0 22	03 49	04 44	1 31W	-0 14	" 6-6-6
48684	HD 37776	05 35.9	-1 32	04 46	06 01	2 34W	-1 29	" 6-6-6
48685	HD 102870	11 45.5	+2 20	06 05	06 14	4 45E	+1 37	" 9-9

Spectr. Temp. 53.5°F

Dome Temp./Hum. +46°F/72%

Transparency Conditions *Fine*

Focus 5.08 - 09 - (575)

Spectr. Temp. 43.0°F

Dome Temp./Hum. +38°F/90%

334

Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/50.7	BS	II ₀₀	A			right on
20/72	3"	4.1	K3II	"	"	BS	II ₀₀ -E	A	std vel		fine
20/190	3"	5.19	B3IV	"	"	"	II ₀₀ -E	B	SR Blu		
20/301	4.2"	7.2	B0IV	"	"	"	II ₀₀ -E	A	Ly prog		fine
							II ₀₀ -E				
20/152	2"	7.1	B8	BC	1200/50.7	BS	II ₀₀ -E	B	Ly prog	Set 509 T=47°F	fine
							II ₀₀ -E				
20/200	2"	5.36	B8IV	BC	1200/50.7	BS	II ₀₀ -E	A	He rich		
20/83	2"	5.04	M4V-II	"	"	"	II ₀₀ -E	B	Py prog	T=44°F	sl/str
				"	"	"	"	A	Set 509	T=44°F (gap adjusted in advance)	right on Fe sl/str Fine
20/62	1.2"	6.32	B2V	"	830/102	"	"	A	He rich	Set 515 T=44°F	Fe sl/str Fine
20/125	"	6.70	B2V	"	"	"	"	B	"		Fe sl/str Fine
20/123	"	6.83	B2V	"	"	"	"	A	"		Fe sl/str Fine
20/56	4"	4.16	F0IV	"	"	"	"	B	Archive		Fe sl/str sl/str

Note - Brass fld lens in foc this night.

335

Date Oct 30, 51/84 Observers BT-Tm

Emulsion Batches:

II.G.O.E. 19103-29104

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48686	HD 8890A	22.6	88 46	19 54	20 03	4 09 E	—	Fel- 11-11	10/6
48686F	Focus test					4 00 E	+42°	Fel- 30-00	
48686I	Spot Calc for 48686-89				15 min @ 15V	^{D4} 3900	^{D3} 4300	^D 4810	
2nd Installment									
48687	HD 19058	02 58.8	+38 27	02 30	02 58	2 15 W	+38 48	Fel- 6-12-6	10/75
48688	HD 66751	7 59.9	+70 00	03 02	05 24	0 27 E	+69 48	" 8-8-8	10/156
48689	HD 74395	8 38.8	-06 52	05 31	06 21	0 01 W	-07 09	" 8-8-8	10/70

Transparency Conditions . . . clearly seen . . .

Spectr. Temp. 44°C Dome Temp./Hum. 137°F/82%

336

	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
L-11-100/65	2"	2	F	BC	1700/507	BS	IaO-E	A	Asm Sp	-		fine
L-10-30				"	"	"	"	A				center S/bk
							IaO-E					
						Note-	Brass Comp	Fld Lens removed after this night's work.				
								It was probably in for last night's.				
-6-12-80/75	3"-5"	5.04	MAD-14	BC	1700/507	BS	IaO-E	A	Pg prag	Brass lens out now		fine
8-8-80/160	4"-2"	2.7	dF8	"	"	"	IaO-E	B	Asm Sp			fine
8-8-80/70	"	5.46	G.I.B	"	"	"	"	A	Archive	Set 510 T=95°F		fine
						KK	Only 6 IaO strips in Ponce					

Date Oct. 31 - Nov. 1 / 84 Observers .. Ri - Flw.....
Wed - Thurs.

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
	Reticon Testing								
	HD 3712	0 ^h 34 ^m 8	+55° 59'	22:05	22:07			FeNe/5	5 ^s
	" "	"	"	22:10	22:13			FeNe/5	5 ^s
	" "	"	"	22:16	22:23			FeNe/5	5 ^s
	" "	"	"	22:35	22:39			FeNe/5	5 ^s
	" "	"	"	22:43	22:52			FeNe/5	5 ^s
	" "	"	"	22:57	23:03			FeNe/5	5 ^s
	" "	"	"	23:07	23:12	1 ^h :05 ^m W		FeNe/5	5 ^s
	" "	"	"	23:21	23:27			FeNe/5	5 ^s
	Closed — overcast								
	HD 24760	3 ^h 51 ^m 1	+39° 43'	03:39	03:48			FeNe/5	1 ^s
	"	"	"	04:00	04:13			FeNe/5	1 ^s
	"	"	"	04:20	04:28			FeNe/5	10 ^s

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions *Cloudy... with some clear patches.*

Focus

Spectr. Temp.

Dome Temp./Hum. *44°F / 98%**Second open Very hazy.**338*

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20/50		2.5	KOIII	BC	600/34.5	250μ	RETICON			$\lambda_c = 9004 \text{ Å}$	
20/50		"	"	"	600/35.5	"	"			$\lambda_c = 9533 \text{ Å}$	
20/97		"	"	"	600/36.5	"	"			$10,059 \text{ Å} = \lambda_c$	
20/100		"	"	"	600/37.5	"	"			$\lambda_c = 10582 \text{ Å}$	
20/150		"	"	"	600/38.0	"	"			$\lambda_c = 10843 \text{ Å}$	
20/100		"	"	"	600/35.5	"	"			$\lambda_c = 9533 \text{ Å}$	
20/100		"	"	"	600/34.5	"	"			$\lambda_c = 9004 \text{ Å}$	
20/42		"	"	"	600/33.5	"	"			$\lambda_c = 8472 \text{ Å}$	
20/150		2.71	80.7II	BC	1800/57	250μ	"		6 Per / Flm		
20/200		"	"	"	" / "	"	"		"		
20/200		"	"	"	1800/43.5	"	"		"	Window fogged!	

339

Date 1984 Nov 2/3 ^{Fri}/_{Sat} Observers KK-Ri-Flu.....

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
	61 Cyg A	21 02.4	+38 15	19:40	20:35			FeNe Wr66	
	HD 1326	0 12.7	+43 27	21:47	22:30	00 ^h 46W		FeNe Wr66	15 Sec
	HD 24760	3 ^h 51.1 ^m	+39° 43'	0:27	01:01	00 ^h 22 ^m E		FeNe/-	5 Sec
	"	"	"	1:11	01:29			"	
	"	"	"	01:32	01:46	00 ^h 25W			
	"	"	"	01:48	02:03	00 ^h 40W		FeNe/-	5 Sec
	"	"	"	02:07	02:22	00 ^h 59W			
	"	"	"	02:23	02:34	01 ^h 11W		Fe/No	5 Sec
	"	"	"	02:38	02:50			(Pdr)	
	"	"	"	02:51	03:01	01 ^h 38W		FeNe/-	8 Sec
	"	"	"	03:05	03:12	01 ^h 49W			
	"	"	"	03:13	03:20		+40° 02		
	"	"	"	03:23	03:30	00 ^h 09W			
	"	"	"	03:32	03:39			Fe/NE	9 Sec
	FLAT FIELD	10 MIN		03:45	04:00				

Spectr. Temp. Dome Temp./Hum. Transparency Conditions

Focus

Spectr. Temp. Dome Temp./Hum.

340

Companso /Filter Ev	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	20/108	4"	5.6V	K5V	RETICON BC	600/33	250 μ	RETICON		Asm-Sp/KK		
152	20/80	4"	8.1V	MIV	BC	600/33	250 μ	RETICON		Asm Sp/KK		
52	20/400		2.71	BOITTE	BC	1800/43.5	250 μ	Reticon		E Per / Flw	Cloud.	
	20/400		"	"	"	" / "	"	"		"		
	20/400		✓	✓	✓	✓	✓	✓		✓		
553	20/400		✓	✓	✓	✓	✓	✓		✓		
	20/400		✓	✓	✓	✓	✓	✓		✓		
55	20/300		✓	✓	✓	✓	✓	✓		✓		
(F24)	20/300		✓	✓	✓	✓	✓	✓		✓		
20	20/300		✓	✓	✓	✓	✓	✓		✓		
	20/200		✓	✓	✓	✓	✓	✓		✓		
	20/200		✓	✓	✓	✓	✓	✓		✓		
	20/200		✓	✓	✓	✓	✓	✓		✓		
	20/200		✓	✓	✓	✓	✓	✓		✓		
	20/200		✓	✓	✓	✓	✓	✓		✓		
	20/200		✓	✓	✓	✓	✓	✓		✓		

TOPPED LN2

SYSTEM WENT DOWN
READ FRAMING ERROR
2 NTEST2: SV43

THE SYSTEM WENT
DOWN
SAME ERROR

Date Observers

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[illegible]

Spectr. Temp.

Dome Temp./Hum. 21°F / 65%

342

[illegible]

343 SAT SUN

Date Nov. 3-4, 1964 Observers Ri. - Fl.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
	HD 213310	22 25.4	+47° 12'	21:05	21:23	01° 30' W	+47° 42'	FENE/WR66 1s	2/4
	"	"	"	21:24	21:48	01° 55' W	"		2/6
	COMPARISON							Fe/WR66 1s	
	FLAT FIELD	15 SEC							
	HD 1326	0 12.7	+43° 27'	02:27	00:28	02° 47' W	+44° 00'	FENE/WR66 1 sec	2/4
	FLAT FIELD	5 SEC							
	HD 24760	03 51.1	+39° 43'	01:12	01:13				2/10
	"	"	"	01:22	01:23				2/10
	"	"	"	01:25	01:28				2/20
	"	"	"	01:29	01:34				2/40
	"	"	"	01:35	01:43	00° 25' W	+40° 00'		2/60
	"	"	"	01:45	01:56	00° 36' W	"	Fe NC, F WR66 1 sec	2/80
	"	"	"	02:02	02:16	00° 56' W	"	FLAT FIELD	2/80
	"	"	"	02:17	02:33	01° 14' W			2/120
	"	"	"	03:07	03:29	02° 10' W		Fe NC WR66 1 sec	2/120
	FLAT FIELD	40 SEC	+ 60 SEC						2/120

Transparency Conditions

Focus

Dome Temp./Hum.

344

Comp. Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15		20/400	2-3	4.82	MOJob +8	B.C.	1200/50.5	250	RETICON			TAPPED LN ₂ 19:45	
		20/600		"	"	"	"	"	"				
							"	"	"				
							"	"	"				
		HD FILTER											
		80/400		V.8.07	141V	B.C.	600/33.5	250	"		ASM SP/HH	T = +1230F	
							"	"	"				
		2/10	2	9.71	80.71	1BC	1200/43.8	250	"		C PER/FLN	TOPPED DEWAR T = -122.8	
		2/10		"	"	"	1200/42.5	250	"			YELLOW FILTER OVER SLIT	
		2/20		"	"	"	"	"	"				
		2/40		"	"	"	"	"	"				
		2/60		"	"	"	"	"	"				
		2/80		"	"	"	"	"	"				
		2/100		"	"	"	"	"	"				
		2/120		"	"	"	"	"	"				
		2/140		"	"	"	"	"	"				

345

Date NOV 4/84

Observers

Emulsion Batches:

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[illegible]

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions

346

[illegible]

Date Nov 56/84 Observers BT-Ri

ThO-E 19103-29104

[illegible]

Spectr. Temp. *49°f*.....Dome Temp./Hum. *41°F/84%*

Transparency Conditions . clouds in west

348

Exp. Mtr. <i>B filter</i>	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
12-100/73	2-3"	4.57	K ⁰ III	BC	1200/30.7	B5	IIaO-E	A	Archive	wrong gain	tes/str sl/wk
6-6-130/280	"	6.89	K ^{3.5} IIab -IIb	"	"	"	"	B	Archive		fine
6-18-20/38	3"	5.04	M+II-III	"	"	"	"	A	Py Prog.	cloud ended exp.	fine
10-20-3				"	"	"	"	B		T = 4905	center B ₁₀

Date Nov. 6-7, 1984 Observers Flu-Ri

Tue Wed

5^m 68°

Ata-Tab 31083-01104

IIIaJeb 31083-02114

[illegible]

Spectr. Temp. ... 35°F

Dome Temp./Hum. 30°F/86%

Transparency Conditions

350

[illegible]

351

Date Nov. 7-8, 1984 Observers Flu-Tr
Wed - Thurs.

Emulsion Batches:

8^m Ilco-E 19103 - 05114
 5^m Ilco-E 31083 - 02114

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
48702	HD 217312	22 ^h 54 ^m .8	+62° 32'	18:02	20 45	0 ^h 38 ^m W	+63° 02'	Fe/-	8-8-8
48702	Spot Calc for 48702, 12			15 min @ 15V	D4 3900	D3 4300	D2 4810		
48703	HD 24912	3 ^h 52 ^m .5	+35° 30'	20:52	21 08	3 ^h 58 ^m E	+35° 47'	Fe/-	16-16-16
48704	" "	"	"	21:10	21:24	3 ^h 43 ^m E	"	Fe/-	16-16-1
48705	" "	"	"	21:26	21:42	3 ^h 25 ^m E	"	Fe/-	22-22
48706	" "	"	"	21:48	22:03	3 ^h 04 ^m E	"	Fe/-	22-22
48707	" "	"	"	22:04	22:19	2 ^h 48 ^m E	"	Fe/-	22-22
48708	" "	"	"	22:21	22:34	2 ^h 33 ^m E	"	Fe/-	22-22
48709	" "	"	"	22:38	22:51	2 ^h 16 ^m E	"	Fe/-	22-22
48709	Spot Calc for 48703-11			15 min @ 17.5V	D4 3900	15V 4300	15V 4810		
48710	HD 24912	3 ^h 52 ^m .5	+35° 30'	22:52	23:15	1 52 E	+35° 47'	Fe/-	22-22
48710	F Focus test					0 05 E	+21 30	"	30
48711	HD 24912	3 ^h 52 ^m .3	+35° 30'	00:05	00 24	0 ^h 41 ^m E	+35° 47'	Fe/-	22-22
48712	HD 19058	2 ^h 58 ^m .8	+38° 27'	00:36	01 03	0 ^h 53 ^m W	+38° 50'	Fe/-	8-8-

352

Exp.	Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
80/269	1"	7.2	BOTZ Bo II	BC	1200/50.7	BS	IIaO-e	A	SB Ly		Middle arc @ 19:40.	Fine
20/153	2"	4.05	07.5 III	PC	1200/50.7	BS	IIIaJ-e	B	OSTAR/FW			fine
20/155	1-2"	"	"	"	" / "	"	"	A	" / "			"
20/153	"	"	"	"	" / "	"	"	B	" / "	T=41°		"
20/155	1-2"	"	"	"	" / "	"	"	A	" / "	2" missing (broken) 1P		"
20/152	1"	"	"	"	" / "	"	"	B	" / "			"
20/157	1"	"	"	"	" / "	"	"	A	" / "			"
20/159	"	"	"	"	" / "	"	"	B	" / "			"
20/153	1"	4.05	07.5 III	BC	1200/50.7	BS	" "	A	OSTAR/FW	some cloud (just 3 exp.)		fine
20/152	1-2"	4.15	07.5 II	"	" / "	"	IIaO	A	T=41° set 5/11			right on
20/152	1-2"	4.15	07.5 II	"	" / "	"	IIIaJ-e	A	OSTAR/FW	some cloud		fine
20/83	"	5.0	14.5-II	"	" / "	"	IIaO-e	A	Py Prog.	some cloud		Fine
										+15m LOTS		

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Date Nov 13/14, 1984 Observers KK-Tn / BT-Tn
Tues - Wed

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
	FLAT							Tung	5 ^s
	Flat fld (twice)							Tung	5 ^s
	FLAT				98			Tungsta	5 ^s
	HD 21782	22 58.0	+42 13	18 45	19 15	0 28E	+42 46	FeNe W 5' HD1	1 ^s
7,8,9	HD 217675	22 57.3	+41 47	(19 25)	19 45	0 02W	+42 18	FeNe W 5' HD1	1 ^s -1 ^s
	HD 6961	01 5.0	+54 37	19 55	20 31		+55 10	FeNe clear	1 ^s -1 ^s
13	Flat Fld					"	"	Tung clear	15 ^s
	HD 24760	03 51.1	+39 43	20 58	21 06	E +		FeNe clear	1 ^s -1 ^s
	"	"	"	(21 15)	21 26	108		FeNe clear	3 ^s -3 ^s
	"	"	"	21 31	21 42.5			"	3 ^s
	"	"	"	21 47	21 57			"	3 ^s -3 ^s
	Flat Fld							Tungsta clear	15min
	HD 24760	03 51.1	+39 43	22 23	22 31			FeNe clear	3 ^s
	"	"	"	22 33	22 42				
	"	"	"	22 45	22 53.5				

355 pg #2 cont

Date Nov 13/14 Observers Bt/Tu

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp
	HD 24760			23 04	23 13			FeNe clear	3
				23 15	23 24				
				23 26.5	23 35				
				23 37	23 46				
				23 58.5	20 09				
				00 17	00 25				
				00 34	00 42				
				00 53	01 01		20/300		
				01 06	01 14		20/314		
	Moon			01 34	01 45		20/300	FeNe clear	3
	"			01 48	01 51		20/70	"	3
	HD 24760			02 08	02 17		20/340	"	3
				02 22	02 30		4/118		3
				02 34	02 44		4/143		3
				02 48	02 58		4/144		3

20/3

All done the same as previous page

T = -126.1°C

20/327

-126.2°C

Refil at 0 h

Job strong
sl wk

Continued next Logbook

357

$\log A$

$$1.6 \approx \ln 2$$

$$10^{0.6} =$$

358

ff

F = at + b
SIS/ = 7

