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Jun.
Aug.
Sep.
Oct.
Nov.
Dec.
Jan.

1. 3

Spectr. Te

Focus...

Spectr. Te

Exp. Mtr.

Transparency Conditions

Spectr. Temp.

Dome Temp./Hum.

[illegible]

S

#1

SAT-Sun

Date Dec. 29-30/79. Observers Bjo.-Th.....

Emulsion Batches:

Ilia. 01e 02059-28129

Ilia. J-eb. 12108-18129

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. Mtr.
44201F	Focus Test							Fe/-	5-5	
44201	HD 213307	22 ^h 25.5	+57° 54'	17 35	17 56	01 40 W	+58° 23'	Fe/ND	5-5-5	400/70
44202	HD 14143	02 ^h 12.2	+56° 43'	18 00	19.06	00 58 E	+57° 0	"	5-5-5	400/130
44203	MN CASS	01 35.6	+54 27	19 32	22 06	02 39 W	+54 55	"	5-5-	800/30
44203T	Spot Calc for 44201-03, 06-08, 14			15 min	E 15V	D4 3900	D3 4300	D2 4810		
44204	HD 33328	05 04.4	-8° 53'	22 11	23 15	00 22 W	-8° 42'	Fe/-	5-5-5	80/300
44205	HD 37468	05 33.7	-2 39	23 19	23 43	00 20 W	-	Fe/-	5-5-5	40/110
44206	HD 42379	06 05.3	+21 36	23 48	01 16	01 20 W	+21 40	Fe/ND	5-5-5	400/120
44206T	Spot Calc for 44204-05, 09-13.			75 min	D	17.5V D4 3900	15V D4 4300	15V D4 4810		
44207	HD 46966	06 31.1	+06 10	01 19	02 12	01 51 W	+6 12	Fe/ND	5-5-5	40/90
44208	HD 47432	06 33.5	+01 42	02 15	02 52	02 29 W	+1 42	"	5-5-5	400/100
44209	HD 62509	07 39.2	+28 16	03 00	03 07	1 37 W	+28 8	Fe/-	8-8	40/105
44210	"	"	"	03 13	03 25	1 55 W	"	"	10-10	4/155
44211	"	"	"	03 26	03 37	2 07 W	"	Fe/ND	6-6	40/145
44212	HD 47105	06 31.9	+16 29	03 40	03 54	3 32 W		Fe/ND	6-6	40/110

Spectr. Temp. $+42^{\circ}\text{F}$Dome Temp./Hum. $73.7^{\circ}\text{F}/80\%$ Transparency Conditions ... *Some thin cirrus*.....Focus 505.5

Spectr. Temp.

Dome Temp./Hum.

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
L-5-c				BC	G12/68	150u	IT-0	B			
55-5	400/76	3"	6.3	B7 I	"	"	IT-0-e	A	SBRL		V. SL. WK
55-5	400/130	"	7.17	B2 Ia	"	"	"	B	CNO	Some cloud	SL. WK
55-5	800/30	4-2"	8.8-9.4	B9	"	150/13	"	A	Bjo-Prog	too faint	V. SL. WK
		Jan 2	7mm	@ 67°F			"				
55-5	80/300	3"	4.07	B2 IV	BC	G12/68	150/1mm	III-eb	B	BeRL	SL. WK
55-5	40/110	3"	3.51	09.5	"	"	"	A	SBRL		"
55-5	400/120	4"	7.72	B1 Ib	"	150/5	IT-0-e	B	CNO	Set 506.5	V. SL. WK
		Jan 2	5mm	@ 67°F			III-eb				
55-5	400/90	4"	6.80	08 IV	BC	G12/68	150/5	IT-0-e	A	CNO	SL. WK
55-5	400/100	4-6"	6.36	9.75	"	"	"	B	CNO	T = $+39^{\circ}\text{F}$	"
8-8	40/107	3"	2.15	A012	"	"	III-eb	A	std vpl		FINE
10-	40/155	3"	"	"	"	G8/1-02	120/5	B	"	Set 504 T = 39°F	"
6-6	40/145	2-3	"	"	"	"	"	A	"		"
6-6	40/110	3"	1.9	A012	"	"	"	B	A-mag KK		

over →

7

cont

Emulsion Batches:

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[illegible]

Transparency Conditions Line

Focus 307

Spectr. Temp. +38.....Dome Temp./Hum. ~~.....~~ ^{+33°F} / ^{100%} 70

Cloud by 6 AM

[illegible]

Date Dec 30-31, 1979 Observers Tn/Tnr

...IIoD-e...02059-28129

Spectr. T.

[illegible]

Spectr. Temp. 134°F

Dome Temp./Hum. 43.7° F. / 78%

Transparency Conditions *S/4/20, OK*.....

Dome Temp./Hum. 72.7 / 100 % ++

Two Frosty

[illegible]

Spectr. Temp. 36°F Dome Temp./Hum. -5°C 80%Transparency Conditions *currus at dusk, then*
*cloud*Focus 508 Spectr. Temp. 23°F Dome Temp./Hum. -9°C 94%Comparison
Filter Exp.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6-6					BC	G12/.68	200/.5	IIa0c	B			
5-5	40/25		4.69	F7V	"	"	150/.5	IIa0c	A	std vel		FINE
5-10	800/67		7.57	F0	"	"	150/3	IIa0c	B	Fe prog	<i>cloud push as much as possible</i>	Wk
	Jan 2				7 min @ 67°F			IIa0c				
6-6	800/80		8.78	B5V	BC	G48/.5	266/.3	IIa0c*	B	30 Cas Assoc	Focus 513	fine v sl. flow??
	Jan 4				7 min @ 68°F			IIa0c*				
7-7	800/200		7.14	F8	"	G8/-0.25	120/.3	IIa0-E*	B	Sp Bin - Tru/Ly		fine
"	800/.50		6.5	A0p	"	"	120/.5	"	A	Sp Bin - Ly	Focus 508 T=27K	v sl. str.
"	200/300		6.2	A0V	"	"	"	"	B	Sp Bin - Ly		v sl. str.
"	400/186		~3.8	G0pII	"	"	"	"	A	Ceph - Evans		sl. str.
"	800/50		5.3	F5V	"	"	"	"	B	Std Vel		fine
"	200/54		4.3	F2IV	"	"	"	"	A	Asm - KK		v sl. str.
10-10	200/63		2.8	G0	"	"	"	"	B	Asm - KK		fine
6-6						"	"	"	A		T=23K	

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Date Jan 3/4 1980 Thru Fri Observers Ly-Ri / Ly-Ri

Emulsion Batches:

Emulsion Batches:
098-02-E 2004 9-17179'cc

Пав.Е 0059-02010

ИТД 612108-18129

[illegible]

Spectr. Temp. 24°FDome Temp./Hum. -09°CTransparency Conditions ... *Good*.....

14

Focus

Spectr. Temp.

Dome Temp./Hum. -13°C *92%**exposure meter remained at start of night*Comparison
Plate Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>6-6</i>				<i>B.C</i>	<i>G8/-0.025</i>	<i>120</i>	<i>IIa0</i>	<i>B</i>		<i>509 24°F</i>	
<i>5-5-5</i> <i>5-5-5</i>	<i>400</i> <i>~260</i>	<i>7.0?</i>	<i>B8</i>	<i>B.C.</i>	<i>G16/.7</i>	<i>124/3</i>	<i>098-01</i>	<i>B</i>	<i>Sp Bin - Ly</i>	<i>512 24°F</i>	<i>Fine</i>
	<i>Jan 4</i>	<i>5mm @ 67°F</i>		<i>D19</i>			<i>098-01</i>				
<i>7-7-7</i>	<i>400/250</i>	<i>7.12</i>	<i>F7II</i>	<i>B.C</i>	<i>G8/-0.025</i>	<i>120/3</i>	<i>IIa0-E</i>	<i>A</i>	<i>Hyades - Tur.</i>	<i>510 22°F</i>	<i>51 str</i>
	<i>Jan 4</i>	<i>7mm @ 68°F</i>		<i>D19</i>			<i>IIa0-E</i>				
<i>7-7-7</i>	<i>100/200</i>	<i>6.77</i>	<i>F7II</i>	<i>BC</i>	<i>G8/-0.025</i>	<i>120/3</i>	<i>IIa0-E</i>	<i>B</i>	<i>Hyades - Tur.</i>		<i>Fine</i>
<i>5-5-5</i>	<i>40/90</i>	<i>4.07</i>	<i>B2Ic</i>	<i>BC</i>	<i>G12/.68</i>	<i>150/.7</i>	<i>IIIaJ-cb</i>	<i>A</i>	<i>Be - Bln.</i>	<i>514 18°F</i>	<i>str</i>
<i>5-5-5</i>	<i>40/110</i>	<i>3.51</i>	<i>095V</i>	<i>"</i>	<i>"</i>	<i>150/1mm</i>	<i>"</i>	<i>B</i>	<i>Sp Bin - Bln.</i>		<i>str</i> <i>gray on (slit)</i> <i>(Dirt)</i>
	<i>Jan</i>	<i>5mm @ 67°F</i>		<i>D19</i>			<i>"</i>				
<i>1/10</i>	<i>40/20</i>	<i>1.51</i>	<i>B0Ja</i>	<i>BC</i>	<i>G12/.68</i>	<i>150/1mm</i>	<i>IIa0 e</i>	<i>A</i>	<i>CND - Bln.</i>		<i>Fine</i> <i>but 90%</i>
<i>"</i>	<i>40/20</i>	<i>1.59</i>	<i>09.7Ib</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>B</i>	<i>CND - Bln</i>		<i>Fine</i>
<i>1/10</i>	<i>400/110</i>	<i>6.5</i>	<i>A0p</i>	<i>"</i>	<i>G12/.68</i>	<i>15/.5</i>	<i>"</i>	<i>A</i>	<i>Sp Bin - Ly</i>		<i>Fine</i>
<i>4-5-5</i> <i>5-5-5</i>	<i>500/250</i>	<i>7.91</i>	<i>dK0</i>	<i>"</i>	<i>G16/.7</i>	<i>150/5</i>	<i>098-01E</i>	<i>B</i>	<i>SB - Bln</i>	<i>--- tilt on gratings</i>	
<i>1/10</i> <i>5-5-5</i>	<i>500/26</i>	<i>14.95</i>	<i>K1</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>A</i>	<i>501 Vd.</i>		
<i>2/-</i>					<i>-0.025</i>	<i>150/5</i>	<i>098-01E</i>	<i>B</i>		<i>514 15°F</i>	

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7^m 68°

Emulsion Batches:

ITAO-E. 02059-03010

Date Sat-Sun Jan 5-6, 1980 Observers 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.	Exp. Mu
44241F	focus test							Fe/-	6-6	
44241	HD 213307	22 ^h 25.5	+57° 54'	17:35	18:00	02 ^h 43W		Fe/ND	6-6-6	100 Exp. M
44242	HD 219150	23 ^h 08.6	+01° 39'	18:09	19:45	03 ^h 14W	+02° 10'	Fe/ND	6-5-5	
44242T	spotcal in plates 44241-				15mm @ 1520x13		24 3900	D3 4300	D2 4810	
44243	HD 16429	02 ^h 33.1	+60° 51'	19:57	21:20	01 ^h 23W	+61° 15'	Fe/ND	5-5-5	800/100
44244	HD 16832	02 ^h 36.9	+56° 14'	21:29	23:43	03 ^h 43W	+56° 35'	Fe/ND	5-5-5	800/240
44245	HD 25638	03 ^h 59.0	+62° 03'	23:53	00:49	03 ^h 25W		Fe/ND	5-5-5	400/
44246	HD 27192	04 ^h 12.6	+50° 41'	00:56	01:14	03 30W		Fe/ND	5-5-5	200/71
44247	HD 42379	06 05.3	+21° 36'	01:20	02:55	03 28W	+21° 36'	Fe/ND	5-5-5	800/24
44248	HD 65583	07 54.3	+29° 31'	03:04	04:29	03 ^h 13	+29° 48'	Fe/ND	5-5-5	800/12
44249	HD 117555	13 ^h 26.04	+24° 44'	04:37	06:37	00 ^h 09E	+24° 22'	Fe/ND	5-5-5	800/300
44250	HD 107328	12 ^h 15.3	+03° 53'	06:50	07:23	01 ^h 47W		Fe/ND	5-5-5	200/90
44250F	focus test							Fe/-	6-6	

Spectr. Temp. ... 26°F

Dome Temp./Hum. -05°C 60%

Transparency Conditions ... excellent

16

Focus ... 5.11 - 5.13

Spectr. Temp. ... 18°F

Dome Temp./Hum. -12°C 89%

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 6-6						150	IIao	B		511	
6-6	100 Exp MTR	2	6.3	B7I	B.C.	G12/1.680	150/5	IIao-E	A	SB Bln	str
6-5	"	2	7.57	70	B.C.	G12/1.680	"	"	B	Fe*	Fine
3 70							IIao-E				
5-5-5	800/200	2-3	8.29	09.5II (tnt)	BL	G12/1.680	150/5	"	A	CNO/Bln	Fine
5-5-5	800/240		9.25	09.5II	"	"	250/5	"	B	"	Fine
5-5-5	400/110		7.12	B0I	"	"	150/5	"	A	EB-Bln	Fine
5-5-5	200/71	2	5.50	B2IV	"	"	150/7	"	B	Bln/Lne	Fine
5-5-5	500/240		7.72	B1Ib	"	"	150/5	"	A	CNO/Bln	Fine
5-5-5	800/320		7.9	G7	"	"	"	"	B	801 Uel	513 20°F Fine
5-5-5	800/300		8.7- 8.83	gGe	"	"	250/5	"	A	EB-Bln	Fine
5-5-5	200/90		6.1	ho	"	"	150/5	"	B	511 Uel	Fine
6-6						150		B		513 18°F	

Date _____

Observers

Rec-Ta / Ly-Ta:

7^m 68°

..U90-e 02059-03010
..U90-e* 07119-07010

[illegible]

Spectr. Temp. 23°F Dome Temp./Hum. $14^{\circ}\text{F}/70\%$ Transparency Conditions *semi-clear* 18

Focus... 512

Spectr. Temp. $+15^{\circ}\text{F}$ Dome Temp./Hum. $17^{\circ}\text{F}/95\%$ Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/.68	150/1.0	IIaOE	A			
	4"	4.64	F7V	"	"	150/.5	IIaOE	B	std vel		Fine
		4.64	F2	"	"	150/.5	IIaOE	B	Ceph/Evans	cloud s/snow	Fine
	5"	4.44	B7V	"	G43/.5	150/.5	IIaOE	A	SU Cos Assoc	516.5 focus $T=20^{\circ}\text{F}$	slstr
	4"-6"	8.78	B5V	"	"	150/3	IIaOE	B	SU Cos Assoc		Fine
							IIaOE				
44	300/174	4"	7.78	B5V	"	G12/.68 200/3	IIaOE	A	SU Cos Assoc	Reversed 514 focus $T=20^{\circ}\text{F}$ cloudy	Fine
43	400/120	4"	7.12	F7V	BC	G8/-0.025 150/3	IIaOE*	B	Hyades - Tur	512 $T=15^{\circ}\text{F}$	Fine
							"				
44	400/72	3"	6.5	AOp	BC	G8/-0.025 150/3	IIaOE*	A	Sp Bi - Ly	hozy - cloudy	gray s'nd
				"	"	"	IIaOE	A			

17

19

Date Jan 10/11 1980 Observers KK Eng. tests

Emulsion Batches:

IIIcFe 17017-10109

IIIcFeb -08010

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.
44257 T1	Spot cal.	IIIcJ untreated	①	4300 DA	17 1/2 ^v	15 ^m			
T2	Spot cal	IIIcJ evacuated only	②	4300 DA	17 1/2 ^v	15 ^m			
T3	Spot cal.	IIIcJ e + 24 ^{hr} bake	③	4300 DA	17 1/2 ^v	15 ^m			
44257 F2	Focus & comparison test							FeNe/66	5-5
F3	"							"	15 -15
F4								FeNe/66	10 -10
F5								FeNe/66	10 -10

Spectr. Temp. 24°

Focus 512

Spectr. Temp.

[illegible]

SAT SUN

CRd
(Cameron)

6^m 68°

Emulsion Batches:

...ИАО-е 07119 - 07010

Date JAN 12-13/80... Observers Waterloo Student-Ty...

[illegible]

2701C

Focus 512

22

Spectr. Temp. 23...°F.....

Dome Temp./Hum. 116°F/89%

Comparison	
ie/Filter	Exp

5-55-5

100-5-5

4 45

155

15/5/51

23

Date Mon-Tues Jan 14-15 Observers But-Tn

Emulsion Batches:

Emulsion Batches:
 . IIA-e 07119-07010 16 172

[illegible]

Spectr. Temp. $+35^{\circ}\text{F}$

Dome Temp./Hum. 48°F / 99%

Transparency Conditions *Clear by 2 AM* 24

24

[illegible]

Emulsion Batches:

Emulsion Batches:
...H00-P 07/19-07010 15 180

Date Tue-Wed Jan 15-16/80 Observers But-Tr

[illegible]

180 in '0

130°F / 80%

26

50%

32°F.

1. +25° / 822

Comparison	Exp
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1ND 56-6

420666

155

15/2

1

[illegible]

27

Date 20/21 JAN '80... Observers Bln/Tn...

Emulsion Batches:

Πα. Ε

16 182

[illegible]

Spectr. Temp. 32° F.....

Dome Temp./Hum. 28° F / H=75%

Transparency Conditions 28

Focus 509.....

Spectr. Temp.

Dome Temp./Hum.

28

[illegible]

Date Wed-Thurs
Jan 23/24 1980 Observers Ly-Ri

... IIo.e 17 206

Spectr. T
Focus...
Spectr. T
Exp. Mtr.

50/200

200

20	50
----	----

8/24

20/11/20

Spectr. Temp.

Dome Temp./Hum. -15°C 175%

Dome Temp./Hum. - 15C / 77%

Transparency Conditions . . . ³⁰ ~~Snowing~~ ^{off} ~~the sun~~ . . .
during 1st half but cleared
for 2nd half - clear cold.

[illegible]

Transparency Conditions 32

Focus 513

Spectr. Temp. 16° F Dome Temp./Hum. *11°E 81%*

Transparency Conditions 32

[illegible]

Spectr. Temp.

Dome Temp./Hum.

Dome Temp./Hum.

Transparency Conditions 34

34

[illegible]

6th 68^o

II-2-E 07119-15010

.....

[illegible]

Spectr. Ten

Exp. Mir.

30/181

700/125

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions

36

Comparison	Exp
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37

6 1/4 60°

Emulsion Batches:

Jede 0.2119-15010

16 197

Date TUES. WED. JAN. 29/30 Observers But - Ri

1980

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
44281	HD 7374	01 08.8	+15 36	17:57	19 18	+02 21	+16 04	Fe/ND	8-14
44281F	focus test							Fe/-	6-6
44282	HD 17330	02 41.8	+29 17	19 22	20 01	+01 30	+29 37	Fe/ND	6-12
44282T1	optical fo-44281-82			15mi @ 15Votts		340	4300		
44282T2	comparison test			10s comparison	30 sec stella			Fe/ND	
44282T3	"			10s comparison	30 sec stella			Fe He	
44282T4	"			12s comparison	36 sec stella			66+1.0 Fe He W 6	

16 197

Spectr. Temp. 24° Dome Temp./Hum. $-10^{\circ}\text{C} \dots 70\%$

Transparency Conditions 38

Focus 512

Spectr. Temp. Dome Temp./Hum.

Comparison
e/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
80/181	4.00	5.8	B81P	BC	G12/68	70 μ /5	II-00E	A			1 str
1-66			"	"	"	70 μ /5	II-00E	B	Ap MR		
500/51		7.17	B81P	"	"	120 μ /5	"	B	"	SNOW	sl wk
			"	"	"	120 μ /1	Tad-E	A			
			"	"	"	"	"	B			
			"	"	G2/-1025	120/1	II-00E	A			

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions

[illegible]

41

Thurs - Fri

Date JAN 31 - Feb 1 / 80 Observers Gu - Tan / Rln - Tan

Emulsion Batches:

9 th 68 ^o	H.I.E.	12/38	16 242
7 th 68 ^o	H.I.E.	07119-1540	16 215

[illegible]

16 242
4016 245

Spectr. Temp. 1.12°F

Dome Temp./Hum. $+3^{\circ}\text{F}/75\%$

Transparency Conditions *semi clear*.....

42

Focus $51.6 \dots 51.7$

Spectr. Temp. $+6^{\circ}\text{F}$

Dome Temp./Hum. $+1^{\circ}\text{F}/80\%$

very gusty from N

Companion
Filter Exp

1- B 3

4016 245

4016 245

4016 245

4016 245

4016 245

4016 245

4016 245

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/111		1.79	F5I ₆	BC	G24/1.9	150/3	HIE	B	IR Ceph	V filter	light smudged at telescope
							"		"		strong
40/110		1.79	F5I ₆	BC	G24/1.9	150/3	"	A	IR Ceph	"	strong
40/107	3"	1.9	A0IV	"	"	"	"	B	Hism Sp tk	Redond	strong
400/100	3	6.36	69.7I ₆	BC	G12/1.68	150/5	II ₀ -OE	A	CND-Blu	T=10°F	Fine
400/100	3-7"	7.72	B1I ₆	BC	G12/1.68	150/5	II ₀ OE	B	CND-Blu	* Middle are caused Exp. meter to fire rapidly. repeated	Fine
							II ₀ -OE		extra Fe Arc uncapping -	after uncapping and then ie Almost a dbl exp	
400/160	3-6"	7.20	565 + A2	BC	G12/1.68	150/1.5	II ₀ -OE	A	V B Bl ₆	+10°F	sl strong
400/98	4-7"	6.27	A0	BC	G12/1.68	150/5	II ₀ OE	B	SB-Blu	F = 517 + 7°F	sl strong uneven
40/20	6	3.93	K2III	BC	G12/1.68	150/5	II ₀ -OE	A	std. V ₆ l.		sl strong
				BC	"	150/1.0	II ₀ FE	B		F = 517	Red

43

Date Fri Sat Feb 1-2 1980 Observers Tnr-Ri

7^m 680 * Emulsion Batches:
 Haw-E 02119-23010 17 210
 Ha-o-E 02119-01020 16 200

[illegible]

Spectr. Temp.

Dome Temp./Hum. -13°C 75%

Dome Temp./Hum. -19°C 81%

Transparency Conditions Excellent 44

44

Comparison /Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-	6-0	5				BC	G12/.680	150/.5	IIao-E*	B		12°F 516	v sl red
1/10	6-2	800/56	2-3	4.16	M2III	BC	G12/.680	150.5	IIao-E*	A	Std Vel		Star in comp. deck
1/10	6-0-6	800/161		7.97	B8III	BC	G12/.680	150/.3	IIao-E*	A	Trn- Su Cas Assoc.	* plate broken - 3 pieces.	Fine
1/10	6-0								IIao-E*				
1/10	8-8-8	400/120		6.77	F7I	BC	G8/-0.25	150/.3	IIao-E	B	Trn- Hyades Binary	} G12 focus.	slightly
1/10	8-8	400/120		7.12	F7II	"	"	"	"	A	"		fine
1/10	6-0-0	800/150	2-3	9.12	B9II	"	G12/.680	150/.3	IIao-E	B	Trn- Su Cas Assoc.	tele reversed wing	Fine
1/10	6-6-0	800/120	3-5	8.97	A3II	"	"	"	"	A	"	"	fine
1/10	6-6	400/80	2-3	5.6	G0	"	"	"	"	B	Std Vel	07°F 517	v sl str. fine
1/10	6-1	400/100		6.15	A0	"	"	150/.5	"	A	SB-Bin		v sl str.
1/10	6-0	400/200	3-5	6.1	A1	"	"	"	"	B	Std Vel		v sl str.
Fe-	8-0							150/.5		B		+06°F 517	ok

45

Emulsion Batches:
7th 68th T-0-E 07119-01020 16 18th

Date Sat-Sun Feb. 2-3/80 Observers Tnr-Tn/Tn

[illegible]

20 16-8

Spectr. Temp. $+11.5^{\circ}\text{F}$Dome Temp./Hum. $+7^{\circ}\text{F}/73\%$ Transparency Conditions *46*
snappy clouds
*streaks*Focus $51.6/513$ for 68

Spectr. Temp.

Dome Temp./Hum. $+3.3^{\circ}\text{F}/90\%$ *Gusty N winds*Comparison
Filter Exp.

1-16-8

0

9-9

ND 6-6-8

ND 8-8-8

ND 8-8-8

ND 8-8-8

ND 6-6-8

ND 6-6-8

1-16-8

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/1.68	150/10	IIa F	A			st red
							IIa O-E				
40/16	2	3.15	K2 III	BC	G12/1.680	150/15	IIa O-E	A	std vel		Fine
400/100	1-2	7.97	B8 III	B.C.	G12/1.680	150/15	IIa O-E	A	Tnr Su Cas Assoc.		v sl sm
400/20	3-4	6.77	F7 V	"	G8 1-0.25	150/13	"	A	Tnr Hyades Bin	T= $+12.5^{\circ}\text{F}$ Set 513	rows up
400/109	4	7.12	F7 V	"	"	"	"	B	"		res sat 1/4 K
400/153	3	6.53	ADP	"	"	150/15	"	A	Ly Program.	"	Fine
400/105	3"	5.28	B8	"	G12/1.68	150/15	"	B	Shell-B ₁	Set 516 T= $+10^{\circ}\text{F}$	"
400/100	4-6"	6.79	AO	"	"	120/15	"	A	Am MR	some snow	v 1949 Fine
				"	"	100/10	IIa F	A	Set 516 T= $+9^{\circ}\text{F}$	clouds seen	cm 4 vsl Red

47

Date 3/4 February '80 ^{Sun/Mon} Observers Blu-Tu

7^m 68° Emulsion Batches:
... D40-E 07119 - 02020 ¹⁶₁₉₂

[illegible]

Spectr. Temp. 15°F 515

Dome Temp./Hum. 12°F/99%

Transparency Conditions ... Clouds forming. 48

Focus 515

Spectr. Temp. 16°F

Dome Temp./Hum. 19°F/90%

Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/95	2	7.72	B1II	BC	G12/.68	150/.5	II-OE	B	CNO-Blu	Scintillation!! Cloud (Exp midpt should be weighted earlier)	Fine*
40/17	4"	3.40	K4III	BC	G12/.68	150/.5	"	A	Std Vel	T = +16°F	Fine*
400/50	"	6.79	H0	"	"	120/.5	"		Am MPR	Cloud	Fine Stark
										* Flex in Fe Arc? Yes! comp lines almost doubled on 8 strong Y flex on 7 something loose?	

But-In

7^m 69°

Emulsion Batches:

07119-0202012

16

Spectr

Focus

Spect

[illegible]

Spectr. Temp. $+17^{\circ}\text{F}$Dome Temp./Hum. $+13^{\circ}\text{F}/72\%$Transparency Conditions *Excellent*..... *50*Focus *5M*.....Spectr. Temp. $+12^{\circ}\text{F}$Dome Temp./Hum. $+49^{\circ}\text{F}/80\%$Comparison
Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/16	2"			BC	G12/68	70/5	E.O.-E	B	ST/Verl		vsl str
300/186	2"	5.80	B8 ^{III}	"	"	"	"	A	A _p MR		fine
400/92	1.2"	5.61	B8 _p	BC	G12/68	70/5	E.O.-E	B	A _p MR		vsl str
460/110	"	6.82	B8 _p	"	"	120/5	"	A	"		"
400/90	"	6.11	B8 ^{III}	"	"	70/5	"	B	"		"
400/90		4.83	B8 ^{IV}	"	"	"	"	A	A _p MR		Very Fine
400/90	2	7.16	B9	"	"	120/5	"	B	A _p MR	$T=+16^{\circ}\text{F}$	"
77100/90	2-3	7.52	A0 _p	"	"	"	"	A	A _p MR		"
77100/90	2.3-1"	6.75	A _p	"	"	70/5	"	B	A _p MR		"
77100/90	2"	7.24	A7 _p	"	"	120/5	"	A	A _p MR	no fluorescence	"
77100/90	2"	7.19	A0	"	"	"	"	B	A _m MR	" " " "	"

51

Tour = 30 min Orion Activity

Emulsion Batches:

Emulsion Batches:
D.O.F. 07/19-04020

Date 5-6 FEB TUES/WED Observers But-Tr

.....

.....

[illegible]

Spectr. Temp. $418^{\circ}F$

Dome Temp./Hum. 71.4°F / 75%

Dome Temp./Hum. 12°/92%

Transparency Conditions THIN CLOUD..... 52

52

[illegible]

CL

17

Spectr.

Focus

Spectr

Exp. Mt.

Spectr. Temp. $+17^{\circ}\text{F}$

Dome Temp./Humt 15°F/85%

Dome Temp./Hum. 41.0°F / 90%

Transparency Conditions Clearing from SE 2

54

[illegible]

55

457 1092

Emulsion Batches:

Date 7-8 FEB. Thurs-Fri Observers Bln-Tg/Tm.....

7^m 68°D.O.-E 07119-5
D.O.-E 07119-5 + 02015, 15

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.
44331	HD 29398	03 ^h 47 ^m .8	+31° 35'	18 07	18 10	00 51 E	+31° 33'	Fe/ND	9-1
44332	HD 30614	04 ^h 44 ^m .1	+66° 10'	18 18	18 29	01 37 E	+66° 12'	Fe/ND	9-9
44333	HD 12993	02 ^h 02 ^m .1	+57° 27'	18 39	21 23	04 07 W	+57 58	Fe/ND	5-5-8
44333.T	Spot C/Ln	for 44331-38			15 min @ 15V	D4 3900	D3 4300	D2 4810	
44334	HD 46966	06 ^h 31 ^m .1	+06° 10'	22 37	23 33	01 48 W			6-6-8
44335	HD 47432	06 33.5	+01 42	23 37	00 20	02 34 W	+1 42	Fe/ND	6-6-8
44336	HD 72208	08 26.5	+10 09	00 31	01 21	01 43 W	+9 58	"	8-8
44337	HD 72359	08 27.2	+10 24	01 24	02 11	02 32 W	+10 12	"	8-8
44338	HD 98547	11 15.2	+17 52	02 17	03 23	00 56 W	+17 31	"	8-8
44339	HD 140436	15 38.6	+26 37	03 30	03 38	02 12 E	+26 24	"	12-1
44340	HD 117555	13 26.1	+24 44	04 02	06 35	02 0 W	+24 24	"	5-5-5
44340.T	Spot C/Ln	for 44339-41			15 min @ 15V	D4 3900	D3 4300	D2 4810	
44341	HD 146051	16 09.1	-3 26	06 40	06 43	00 36 E		Fe/ND	7-7
44341.F	Focus Test					"	"	Fe/ND	7-7

Spectr. Temp. $+25^{\circ}\text{F}$Dome Temp./Hum. $+22^{\circ}\text{F}/+83\%$ Transparency Conditions *Photometric*.....Focus *511*.....

56

Spectr. Temp. $+17^{\circ}\text{F}$Dome Temp./Hum. $+19^{\circ}\text{F}/+92\%$ Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
9-1	90/15	2-3	2.96	BIIB	BC	G12/1.68	150/1.0	IIa-OE	A	CNO std	fine
9-9	40/18	2"	4.32	09.5Ia	BC	G12/1.68	150/1.0	IIa-OE	B	CNO std	9"9 Fine
10-55	800/240	2	9.20	06.5II	BC	G12/1.68	250/5	IIa-OE	A	CNO-B14	ST filter or focus Fine
							IIa-OE			had to cut $\approx 1/8"$ off 5" length 3900 spots in field	
6-5	400/100	3"	6.80	08V	BC	G12/1.68	150/1.5	IIa-OE	B	CNO-B14	fine
10-1	400/100	4-5"	6.36	97.1b	BC	G12/1.68	150/1.5	IIa-OE	A	CNO-B14	Set 512 Fine
11-10	400/100	5"	6.53	140p	"	G8/1.025	150/3	"	B	SB Ly	T=20°F Sat 511 SW star Fine
11-7	400/100	2-10"	6.2	140V	"	"	"	"	A	"	NE star Fine
11-11	400/100	2-3"	6.8	140	"	"	"	"	B	"	Fine
11-12	40/18	4-6"	3.81	A0IV	"	"	150/1.5	IIa-OE	A	Asa Sp KK	Labelled #38 also but has wide slit Fine
11-13	40/145	4"	8.7-8.83	9Ge	"	G12/1.68	250/1.5	"	A	EB B4	Set 513 T=19°F guiding unseen
11-14								"			
11-15	40/17	4"	4.3	m1II	BC	G12/1.68	250/1.5	"	B	std vol	fine
11-16				"	"	"	250/1.0	IIaO	A	set	no work

45

Emulsion Batches: 8m 680 11-4-0 07

Date 8/9 Feb 80 Observers Wlr/Tn

[illegible]

Spectr. Temp. $+22^{\circ}\text{F}$Dome Temp./Hum. $+17^{\circ}/90\%$Transparency Conditions *hazy - cloudy*.....Focus *515 (343)*.....Spectr. Temp. *!*.....Dome Temp./Hum. $+70/99\%$

58

Comparison
e/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/48	2"	4.6	of	BC	G43/.5	250/	IIaO-EA	Wh.		Comp had?	s/sr.
400/7				BC	G43/.5	250/	"	B		kept any way (discarded if not good) wrong * ~1" out in	dec. wh
400/45	2"	6.1	B5	BC	G43/.5	20/5	"	A	Wh.		v sl str.
400/47	2"	7.5	B9	BC	G43/.5	250/.5	"	B	"		v sl str
400/39	3"	8.3	B5	BC	"	"	"	H	"		uneven guiding
							"				
400/41	4-2"	7.7	A5	BC	G43/.5	250/.5	"	B	"		fine
400/40	3-4	7.8	A	"	"	"	"	A	"	Longell #37	fine
400/54	4"	7.9	G7	"	"	"	"	B	std vel	duot on slit?	fine
800/160	2"	7.13	A2	"	G8/.025	150/3	"	A	Ly prg	cloud T=+18° set 511	
800/20	3"	5.3	B8nc	"	G12/.68	250/.3	"	B	Wh.	thin cloud T=18° set 513	v wh
400/17			K2 WP	"	"	250/.5	"	A	std vel	Poor End broke off in comp.	some stellar

Date 9-10 Feb 1960 Observers Waters - Tz

Emulsion Batches:
...Ib0e 07119-08020 n²⁰

Spectr.

Spectr. Temp. $+17^{\circ}\text{F}$Dome Temp./Hum 107 / 96%Transparency Conditions free cash

65

Comparison e/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/10 6-65	800/215	2"	800	FG	BC	G12/168	150/15	II40-R	A	Wat prog		fine
1/10 6-65	400/80	3"	7.18	A3	"	"	"	"	B	"	cloud	fine
1/10 6-65	400/145	3.5"	5.86	K0	BC	G12/168	150/15	"	A	Wat Prog	T=+19°F	Fine
1/10 6-65	400/125	4"	6.61	F0	"	"	"	"	B	"		Fine
1/10 6-65	400/90		4.60	A8	"	"	"	"	A	"		Fine
1/10 6-65	400/125	4"	5.6	F8 III	"	"	"	"	B	"		Fine
1/10 6-65	40/10		4.0	A9 III	"	"	"	"	A	"		Fine
1/10 6-65	40/16		3.93	K0/IT	"	"	"	"	B	std vel		Fine

61

734 69°

Emulsion Batches:

Two-E-07119-08020

Date *Thurs. Fri. Feb 14-15 1980* Observers *Myd-Ri*.....

[illegible]

Spectr. Temp. ... 32°F

Dome Temp./Hum. -04°C 65%

Transparency Conditions *scattered clouds*

Focus 509

Spectr. Temp.

Dome Temp./Hum.

62

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
ND	100					B.C.	G12/.680	120/1.0	IIaD-E	B		32°F 509	ok
ND	777	400/114	2-3"	5.5	G5	BC	G12/.680	120/.5	IIaD-E	A	Solar Type		sl. str.
ND	777	400/130	"	6.15	G0	BC	"	"	"	B			vs/str.
ND	777	400/112	"	5.0	G0	BC				A			sl. str.
ND	777	400/114	"	3.63	G5	BC	G12/.680	120/.5	IIaD-E	B			fine
ND	777	400/120	"	6.6	G4	BC	G12/.680	120/.5	IIaD-E	A			fine
ND	777	400/35		6.7	G3	"	"	"	"	B	low-Sp. 1000	26°F 511 greatly lozger + thin clouds	vs/wh

#1 63

Date Sat-Sun Feb 6-17 1960 Observers W. L. R.73^m 69°

Emulsion Batches:

Ilford F. D. 2119-14020

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.
44366F	focus test							Fe/-	5-5
44366	HD 29866	4 ^h 37.3 ^m x	40° 36' x	18 ^h 39 ^m	18 ^h 58 ^m	00° 17' E	+40° 42'	Fe/ND	4-4
44367	HD 26398	4 ^h 5 ^m 4	16° 22' 0" x	19 ^h 03	19 ^h 48	1 ^h 05 W	+16° 37'	Fe/ND	4-4
44368	HD 36012	5 ^h 23.6 ^m ✓	2° 5' 3" ✓	19 ^h 54	20 ^h 49	0 ^h 50 W	+02° 13'	Fe/ND	4-4
44369	HD 33988	5 ^h 09.0 ^m ✓	46° 19' ✓	21 ^h 03	21 35	1 ^h 40 W	+46° 25'	Fe/ND	4-4
44369T ✓	spot caltn plates	44366 - 44378			15 min @ 15 V				
44370	HD 47839	6 ^h 35.5 ^m ✓	+9° 59.3' ✓	21 59	22 ^h 03	0 52 W	+09° 55'	Fe/ND	4-4
44371	HD 65583	7 ^h 54.3 ^m ✓	29° 31' ✓	22 08	23 ^h 05	0 34 W	+29° 20'	Fe/ND	4-4
44372	HD 69028	8 ^h 10 ^m ✓	35° 52' ✓	23 ^h 14 ^m	0 ^h 48	2 ^h 01 W	+35° 58'	Fe/ND	4-4
44373	HD 93521	10 ^h 42.7 ^m ✓	38° 6' ✓	0 ^h 57 ^m	1 ^h 32	0 ^h 14	37° 44'	Fe/ND	4-4
44373F	focus test							Fe/-	5-5
44374	HD 99966	11 ^h 25.0 ^m ✓	49° 29' ✓	1 ^h 47 ^m	2 ^h 42	0 ^h 40 W	+49° 05'	Fe/ND	4-4
44375	HD 107308	12 ^h 15.4 ^m ✓	-21° 39' ✓	2 57	3 ^h 14	0 24 W	-22° 00'	Fe/ND	4-4
44376	HD 114376	13 ^h 5.1 ^m	39° 4'	3 ^h 40 ^m	3 ^h 53 ^m	0 13 W	38° 40'	Fe/ND	4-4
44377	HD 100972	11 32.2	45° 17'	4 ^h 01 ^m	4 ^h 27	2 ^h 20 W	+44° 53'	Fe/ND	4-4

Spectr. T.

Focus

Spectr. T.

Exp. Mir.

65

Cont Feb 16-17

Date Feb 17 1980 Observers Wln - Ri

Emulsion Batches:

PAVE# 07119-17020

[illegible]

Spectr. Temp. 14°F

Dome Temp./Hum.

Transparency Conditions ... *Very Good* ...Focus ... 5.18 ...

Spectr. Temp.

Dome Temp./Hum. $-14^{\circ}\text{C} / 98\%$

66

Comparison
/Filter Exp.

ND 4-4

ND 1-

52

480

1- 5.5

1/-

2/- 5

r

4-

Fe/- 5.5

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/83		6.8	112	BC	G43/.5	150/.5	ITAD-E	B	STD Vel.		fine
400/65	2.3	8.0	B9		"	"	ITAD-E ²	A	wh		fine
							ITAD-E ^X				
						150/.5	ITAD-E	B		13°F	518 sl. blue
⇒ Obsig water went off half way through washing of plates — also contaminated with rust & mud											
				B.C	G12/.68	250	ITAD I-F	A			
				B.C	"	250	"	B			
				"	"	150	"	A			
						120		B			
						70		A			
						200		B			
				"	"	120/1	"	B		240E	512

67

8^m 68^o

Emulsion Batches:

Date FEB 18/19 MON TUES Observers But Ri

[illegible]

Spectr. Temp. ... 240F Dome Temp./Hum.

Transparency Conditions THIN CLOUD & Gusty.....

Focus 512

Spectr. Temp. 29°F.....

Dome Temp./Hum. 22°F / 86%

68

[illegible]

69

Emulsion Batches:

Π.Ο.-Ε 07119-18020

Date Feb 27-28/80 Wed Thurs Observers - / Ly-Tn

[illegible]

Spectr. Temp. 22°FDome Temp./Hum. $+10^{\circ}\text{F}$ / $H=90\%$ Transparency Conditions *light cirrus*.....Focus 510Spectr. Temp. 412°FDome Temp./Hum. 41°F / $H=90\%$

20

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe ND 7-72	400/53	4-5	6.2	A0I	BC	68/-0.025	150/3	IIaDe	A	Sp Bin Ly	12 49 8 31	Focus 7 or flex
D2								IIaO-e				
Fe 7-72	400/55	6"	6.87	A0	BC	68/-0.025	150/3	"	B	SB Ly	cloud $T=13^{\circ}\text{F}$	exp fine slightly flex
" 7-72	400/55	4"	6.87.6	FO-GI	BC	612/.68	150/3	"	A	Ceph. Evars.	F set 515 $\frac{1}{2}$	Fine
" 7-72	40/11	4"	3.9	K2III	BC	"	"	"	B	Std Vel.		Fine
Fe -				"	"	"	150/10	IIaO	A		$T=12^{\circ}\text{F}$	V. vs Red

Date _____

Observers

IV-NH 1:13.3 2,17
HeO 07/19-18020

Над № 07119-18020

[illegible]

Spectr. Temp. $+14^{\circ}\text{F}$ Dome Temp./Hum $+5^{\circ}\text{F}/69\%$ Transparency Conditions $\dots$ sl. Hazy

72

Focus 15.5 Spectr. Temp. -2°F Dome Temp./Hum. $-11^{\circ}\text{F}/80\%$ very cold.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G24/19	150/10	IIaO	A?			only a few lines are visible
40/120	4"-6"	1.86	FOI	BC	G24/19	150/5	IV-NH	A	IR CEPH	"V filter"	v wk
40/110	"	4.12	GoIb	"	"	"	"	B	"		wk
											weak
40/100	"	2.99	G8Ib	"	"	"	"	A	IR Ceph	Focus 517 T-70°F	wk
40/130	"	"	"	"	"	"	"	B	"	$\approx 1/2$ correct exposure	wk
40/115		2.15	KOIII	BC	G24/19	150/5	IIaO-e	A	std vel		sl str comp. sl. str
40/12	5"	3.8	GoII	"	G12/168	150/5	"	B	Ceph/Evano		v sl str
40/12		5.3	F5V	"	"	"	"	A	"		v sl str
							"			one edge light smudge	
40/142		7.20	GG5 + A2	BC	G12/168	150/5	"	B	VB Bla		sl str
40/39	7"	7.12	FOI	"	"	150/5	"	A	SB Ly	seems too faint Focus 520 T=70°F	1st sl str
40/10		6.8-7.7	FO-GI	"	"	150/5	"	B	Ceph/Evano		fine
				"	"	150/10	"	A		set 520 T -2°F	fine

73

8^m 68

Emulsion Batches:

..HCO-e 07119-18020

Date Feb 29 / Mar 1 / 80 Observers Jm - Tnr / Tnr - Tg

.....

[illegible]

Spectr. Temp. $+5^{\circ}\text{F}$Dome Temp./Hum. $+1^{\circ}\text{F}/69\%$ Transparency Conditions $sl \dots hazy$

74

Focus $518 \dots -519$Spectr. Temp. $+2^{\circ}\text{F}$Dome Temp./Hum. $-2^{\circ}\text{F}/82\%$ Comparison
pe/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
e/- 5-5				BC	G12/188	150/110	IIa0	A			vsl red
e/-	40/12	2.39	K5 III	"	"	150/15	IIa0-e	B	Std. Vel.		fine
e/ND 6-65	400/75	4"	7.44 F8 V	"	"	150/13	IIa0-e	B	Tnr-Hyad. Bin.		sl str
6-65	800/150	5-8"	8.21 G6 V	"	"	"	"	A	Tnr-Hyad. Bin.		vsl str
							"				
e/ND 6-65	800/107	5"	6.77 F7 V	BC	G12/188	"	"	B	Tnr-Hyad. Bin.		fine
" 6-65	800/132	8"	7.17 B5	BC	"	150/15	"	A	SB B _{1/2}		fine
Fe/ND 6-65	400/77	3-4"	6.31 F7 V	BC	"	150/13	"	B	Tnr-U Ma Clust		sl str.
" 6-65	400/75	2-4"	7.42 G1 V	"	"	"	"	A	"		sl str.
Fe/ND 9-9	40/13	1.29	K2 III	"	"	150/15	"	A	Std. Vel.		fine
Fe/- 1-6				"	"	150/110	"	A		Set 519 T: $+2^{\circ}\text{F}$	o/2

8th 68th

Emulsion Batches:
Dab-e 07119-29020

.....

.....

Spectr.
Focus.
Spectr.

Exp. Mur

Spectr. Temp. $+8^{\circ}\text{F}$Dome Temp./Hum. $+4^{\circ}\text{F}/69\%$ Transparency Conditions *Fine*..... 26Focus *517*.....Spectr. Temp. $+1^{\circ}$Dome Temp./Hum. $-6^{\circ}\text{F}/96\%$ Comparison
pe/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-66				BC	G12/68	150/10	II ₄ O	A		cont vs/red in Red	
0/07	40/15	3	2.39 K5 III	BC	"	150/5	II ₄ -0e	B	Std. Vel		Fine
0/06	400/75	2-3	7.44 F8 V	"	"	150/3	"	A	Tnr Hyad Bin		"
0/06							"			PDS curve: good	
0/ND 8-8	400/110	3"	5.99 Am	BC	G8/025	150/3	"	B	Tnr Hyad Bin	Set 515 T=+8°F	Fine
0/8-8	400/130	3"	7.12 F7 V	"	"	"	"	A	Tnr Hyad Bin		Fine
1/8-8	400/110	2-3	6.77 F7 V	"	"	"	"	B	"		
1/8-8	800/200	3-2'	9.06 K2 V	"	G12/1.68*	"	"	A	Tnr UMa Clust.	T=+5°F Set 517.5	Fine
1/6-6	800/140	2	8.67 B5 ne	"	"	"	"	B	Tnr/Ly Runaway	T=+2°F Set 519	?
0/0	40/16		1.29 K2 II	"	"	70/15	"	A	std vel		Fine slugg
1/7-7	40/12	2"	3.93 F0 p	"	"	"	"	B	HK prog		vs/str
1/8-8	100/130	3"	6.8-7.66 F0-61	"	"	150/15	"	A	Ceph - Rm		Fine
0/6-6				"	"	150/10	II ₄ O	B		Set 519	sl red
										* T. H probably #855 by mistake	

22

Date 2/3 MARCH 1980 Sun/MON Observers Blu-Tn/Tn

8^m 68° Emulsion Batches:

Il-0-P 07119-29070
only 2 hrs exposure → Il-0-P* 07119-02030
" " " Evacuated for longer

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.
44415F	FOCUS					0	+30°	Fe/ND	6-6
44415	HD 30614	04 44.1	+66 10	18 42	18 48	0 23W		Fe/ND	9-9
44416	HD 15690	02 26.3	+57 05	19 01	20 19	W	+57° 27'	Fe/ND	44.4
44416T	Spot Caln	for 44415	-16	15 min @ 15V		D4 3900	D3 4300	D2 4810	
44417	HD 36486	05 26.9	-00 22	20 27	20 28	1 24W		Fe/ND	9-9
44418	HD 37043	05 30.5	-05 59	20 33	20 36	01 28 W	-5° 52'	Fe/ND	9-9
44419	HD 37128	05 31.1	-01 16	20 40	20 41	01 33W	-01° 11'	Fe/ND	9-9
44420	HD 38771	05 43.0	-09 42	20 45	20 47	01 28W	-09 37	Fe/ND	9-9
44421	HD 37742	05 35.7	-02 00	20 52	20 54	01 41 W	-01 53	Fe/ND	9-9
44421T	Spot Caln	for 44417-21		15 min @ 15V		D4 3900	D3 4300	D2 4810	
44422	HD 86260	09 ^h 52 ^m .2	+25° 05'	21 02	00 29	01 00W	+24 47	Fe/ND	6-6-6
44423	HD 86857	09 56.2	+24 28	00 32	02 01	02 37W	+24 07	"	6-6-6
44424	HD 86168	09 51.7	+25 16	02 04	04 35	05 06 W	+24 57	"	6-6-6
44425	HD 124897	14 11.1	+19 42	04 39	04 40	00 55W		"	9-9
44426	HD 186688	19 40.8	+29 01	04 49	05 40	03 36 E	+29 16	"	6-6-6

Spectr. Temp. 14°FDome Temp./Hum. $+12^{\circ}\text{F}/62\%$ out

Transparency Conditions

Focus 515Spectr. Temp. $+11^{\circ}\text{F}$Dome Temp./Hum. $+5^{\circ}\text{F}/96\%$

Grabbing at 0.655 at start of night

Tilt w/ing previous night?

Ice Patches on secondary mirror

78

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	612/68	150/10	II _a -O	A		515	Fine
40/15	2	4.32	09.5 Ia	BC	612/68	150/10	"	B	CNO std		s/str
800/260	2	8.66	B1.5 Ib	BC	612/68	250/5	II _a -O-E	A	CNO std		v s/str
							II _a -O-E				
40/18	1-2"	1.99	09.5 II	BC	612/68	150/10	II _a -O-E*	B	CNO		gng s/str
40/20	1-2	2.49	09 III	BC	612/68	150/10	II _a -O-E*	A	CNO std		s/str
40/18	1-2	1.51	B0 Ia	BC	612/68	150/10	II _a -O-E*	B	CNO		v s/str
40/19	1-2	1.86	B0.5 Ia	BC	612/68	150/10	II _a -O-E*	A	CNO std		s/str
40/21	1-2	1.59	09.7 Ib	BC	612/68	150/10	II _a -O-E*	B	CNO		gng s/str
							II _a -O-E				
800/200	1-2"	9.5	KO	BC	612/68	150/13	II _a -O-E	A	Sp Bin - Bin		slwk
400/107	1-2"	9.1?	K0e	"	"	"	"	B	"	Seems brighter than 9.1 probably is brighter	wk
400/66	2"	9.1	KO	"	"	"	"	A	"	because this one obviously fainter.	slwk
40/15	2	1.29	K2 III _p	"	"	150/5	II _a -O-E*	B	std tel		s/str
400/130	2-4"	6.8-7.66	F0 G1	"	"	"	II _a -O-E	A	Ceph - Rm		Fine

Date Mar 96 Wed/Thur Observers Rm - Ri

Προ-Ε.07119-02030

Spectr. T

Exp. Mtr.

[illegible]

Spectr. Temp.

Dome Temp./Hum. -09°C 85%

Transparency Conditions *some cloud* 80

[illegible]

81

Date Sat Sun Mar 8-9 Observers Tnr-Ri

8^m 67°

Emulsion Batches:

DAO-E 07119-02030

[illegible]

Spectr. Temp. 27

Dome Temp./Hum. -06°C 98%

82

[illegible]

83

Date Sun/Mon Mar 9/10, '80 Observers Blm - R.

Emulsion Batches:

8^m 67° Dev-F 07119-08030... 19 210
5^m 66° Dev-F 12108-08010...

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. Mtr.
44433F	Focus Test							Fe/-	6-6	
44433	HD 30614	04 ^h 44 ^m .1	+66° 10'	18:50	18:57	01 00W	+66° 22'	Fe/ND	9-9	40/15
44434	HD 36486	05 26.9	-00° 22'	19:02	19:05	00 28W	-00° 19'	Fe/ND	9-9	40/15
44435	HD 37043	05 30.5	-5° 59'	19:08	19:12	00 32W	-05° 52'	Fe/ND	9-9	40/15
44436	HD 37128	05 31.1	-01° 16'	19:15	19:19	00 38W	-01° 12'	Fe/ND	9-9	40/15
44437	HD 37742	05 35.7	-02° 00'	19:21	19:25	00 40W	-01° 55'	Fe/ND	9-9	40/15
44438	HD 38771	05 43.0	-09° 42'	19:27	19:32	00 40W	-09° 36'	Fe/ND	9-9	40/15
44439	HD 33328	05 04.4	-08° 53'	19:40	20:34	02 20W	-08° 42'	Fe/-	5-10	40/15
44439T1	optical for plates 44433-38				15min @ 15V	D4 3900	D3 4300 D2 4810			
44439T2	" " " " 44439				15min @	D4 1750 3900	D4 150 4300 D4 150 4810			

1920

Spectr. Temp. 31°F

Dome Temp./Hum. -02°C 80%

Transparency Conditions ... Ro Hen

84

Focus ... 510

Spectr. Temp. 32°F

Dome Temp./Hum. -4°C 90%

Comparison
type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6.6	1			BC	612/1.68	150/1.0	IIa-01	B		31°F 510	center vs/Ref
40/15	2	4.32	09.5Ia	BC	612/1.68	150/1.0	IIa-OE	A	CNO std		Fine
40/15	2	1.99	09.5II	BC	612/1.68	150/1.0	IIa-OE	B	CNO		Fine
40/15	2	2.49	09 III	BC	612/1.68	150/1.0	IIa-OE	A	CNO std		Fine
40/15	2	1.51	B0Ia	BC	612/1.68	150/1.0	IIa-OE	B	CNO		Fine
40/15	2	1.59	09.7Ib	BC	612/1.68	150/1.0	IIa-O-E	A	CNO		sl. str.
40/15	2	1.86	B0.5Ia	BC	612/1.68	150/1.0	IIa-O-E	B	CNO std		sl. str.
40/	2-3	4.07	B2Ia	BC	612/1.68	150/1.0	IIaJeb	B	Be - Blr	cloud	sl. we, dirt & scratches
							IIa-O-E				
							IIaJeb				

85

 $8^m 67^o$

Date MON-TUES. MAR 10-11. 198

ДАО-Е 07119-08030

[illegible]

Spectr. Temp. 37°F.....

Dome Temp./Hum. $+0.4^{\circ}\text{C}$ 82%

Transparency Conditions 86

Focus 508

Spectr. Temp. 35°F.....

Dome Temp./Hum. ... 5° C ... 78%

[illegible]

Spectr. Temp. ... 18.°F.....

Dome Temp./Hum. -10°C 83%

Dome Temp./Hum. - 12°C 713

Transparency Conditions 88

Comparison pe/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/1	65							120/ 1.0	IIaO-E	B		forgot to uncover the 35°F grid's 511	
1/1	65	800/180	7.19	AO	Bc	G12/1.66	120/.5	IIaO-E	A		Am MR		Fine
3	02							IIaO-E					
00	490												
1/1	65	40/20	4.3	MI II	BC	G12/1.68	120/.5	IIaO-E	B		std/Vel	18°F	513
1/1	65								A			cent-vvsl/Red	

Date Wed-Thurs Mar 12/13/80 Observers Ly-T₂/Rin-Tn

Emulsion Batches: *20*
IIe-o 07119 - 11030 206

[illegible]

Spectr. Temp. 120 °F.....

Dome Temp./Hum. +18°F / 60%

Dome Temp./Hum. 71.5°F / 80%

Transparency Conditions *clear coming - 5/6/02*

90

[illegible]

Date 14/15 MAR '80 FRI / SAT Observers Bla-Tu / Ts

Emulsion Batches:
8th 680 700-E 07119-11030 19 203

[illegible]

030 17 203

Transparency Conditions . . . *Clear but gusty by 23?*

• •

• •

Dome Temp./Hum. 42°/90%

929-0007

92

[illegible]

93

Date 15/16 March/80 Observers Gut TN
SAT/SUN

Emulsion Batches:

8^u 68° HIE
HIE*

[illegible]

Spectr. Temp. ... 7190° ...

Dome Temp./Hum. 114°/72%

some clay

94

Comparison e/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-30-3					BC	G24/9	150/10	098-E	B		'V' filter	sl blue
1-30-3	10/90	3"?	2.15	KOIII	"	"	150/15	HIE	A	st. vel	"	strong
1-30-3	10/93	"	3.92	F7Ib	"	"	"	"	B	IR cep	"	smudges fine
								"				
1-30-3	10/90	3"	1.86	A2V	"	"	"	HIE*	A	IR cep	"	fine
1-30-3	10/100	"	"	"	"	"	"	"	B	IR cep	"	fine
1-30-3	10/90	"	2.99	G8Ib	"	"	"	"	A	IR cep	" T=23°F	strong
											Set 512 T=23°F	
1-30-3	10/93	"	2.07	F8Ib	"	"	"	"	B	IR cep	Revised	sl str
1-30-3	10/105	"	"	"	"	"	"	"	A	"	"	sl str
1-30-3	10/90	"	"	"	"	"	"	"	B	"	Hd " too lacking brose in 2	fine
1-30-3	10/100	"	3.96	F7Ib	"	"	"	"	A	"	some cloud?	exp fine flexure!

95

Erindale Tour - m3

Emulsion Batches:

Date 18/19 MAR. TUES/WED Observers But-Tr

Emulsion Batches:

.. П.О.С. 07119-11030	19 218
.. П.О.С.* 07119-15030	19 223

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.
44464	HD 63887	07 46.1	+71 57	19 15	21 39	01 14 W	+71 46	Fe	6-6-6
44463T	Spot Caln for 44463-65				15 min @ 15V	D4 D3 3900 4300			
44463F	Focus Test							Fe/-	66
44465	HD 73666	08 34.4	+20 20	22 15	00 11	03 03 W	+20 04	Fe/ND	6-6-6
44466	HD 103578	11 50.5	+16 12	00 17	01 16	00 52 W	+15 48	"	6-6-6
44467	HD 146051 (AOPH)	16 09.1	+03 26	01 25	01 36	02 54 E	-03 35	"	9-9
44468	HD 137182	15 19.5	+10 54	01 40	04 19	00 26 W	+10 42	"	6-6-6
44467T	Spot Caln for 44466-67				15 min @ 15V	D4 D3 3900 4300			

Spectr. Temp. $+30^{\circ}\text{F}$

Dome Temp./Hum. . 0°c / 78%

Transparency Conditions... *Fine but*.....

Focus 508

Spectr. Temp. $+33^{\circ}\text{F}$

Dome Temp./Hum. $-2^{\circ}\text{C} / 93\%$

cloudy periods. 96

[illegible]

57

Date 32/35 Mar/80 Observers Gu-Ri-KK-Bu (some sl. in test)

Emulsion Batches:
8th 70° HFE⁺

17 226

[illegible]

17 226

Spectr. Temp. 32°F

Dome Temp./Hum.

Transparency Conditions some cloud

Focus 502

Spectr. Temp.

Dome Temp./Hum.

98

Comparison
of Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/62	3"	1.16	K0III	BC	G24/.7	150 μ /.5	HIE	B	IR Ceph	"V" filter	strong
0/90	3"	1.86	A2II	BC	"	"	"	A	"	"	fine
				IE	G12	BS	IE	A		504, 44°F	
				BC		BS	"	B			

99

Emulsion Batches:

IBO-E 07119-2030

Date 27/28 MAR. 80... Observers Tnr - Ri

THU/FRI

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.
44471	HD 111456	12 44.3	+60 52	23 57	00 53	0 10 W	+60° 26'	Fe/ND	6-6
44471F	Focus test							Fe/-	6-6
44472	^{α Boo} HD 124897	14 11.1	+19° 42	01 00	01 02	1 06 E	+19° 19'	Fe/ND	6-12
44473	HD 127617	14 27.3	+19° 13	01 11	04 31	2 07 W	+18° 53	Fe/ND	6-66
44473T	spot out for plates	44471-			15 min @ 15 Volts	04 39 03 43 02 48			

Spectr. Temp. ... 40°F

Dome Temp./Hum. *40.20 C ... 85%*

100

[illegible]

19)

Date 30-31 MAR 1980 Observers HK-R2
Sam Mon

Emulsion Batches:
5th 68th Tra Feb - 12018-19020
9th 68th Tra E 07119-28030

[illegible]

spectr. Temp. 504Dome Temp./Hum. +05°C 80%Transparency Conditions scattered cloudsfocus 4.7°F

spectr. Temp.

Dome Temp./Hum.

102

Comparison Type/Filter Ex	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/- 6.6	40/60		2.15	KOIII	B.C.	G12/.68	BS	ITa Jeb	A	7d V-l	exp good fine	exp good
" 6.6	40/60		"	"	"	"	120/.5	"	B	"	comp. w/ one side	fine
" 6.6	40/52		1.9	ADIV	"	"	"	"	A	Asm/Sp. KK	comp. w/ one side	strong
" 6.6	40/90		"	"	"	"	"	"	B	Asm-Sp/KK	comp. w/ one side	strong
Fe/ND 6.6	400/13		6.67	dG3	"	"	"	IIso	A	Asm-Sp/KIC	clouds	v wh
15004 480								ITa Jeb				
Fe/ND 6.6	400/16		4.03	F2V	B.C.	G12/.68	120/.5	IIso-E	B	Asm-Sp/1/K	even thicker clouds!	wh
Fe/- 6.6					BC	"	120/1.0	IIso	A			v sl blue
Fe/- 6.6					"	"	BS	IIso	B			fine

103

Date Tues April 1, 1950 Observers R.

Emulsion Batches:

8m 68 Inv-E 07119-28030

Date Tues April 1, 1950 Observers R.

.....

[illegible]

Spectr. Temp. 41°F

Dome Temp./Hum. +22°C... 100%

Transparency Conditions . . . *good*

Focus 306

Spectr. Temp. 40°F

Dome Temp./Hum. $+01^{\circ}\text{C}$ 100%

104

[illegible]

195

8^m 68^a

Emulsion Batches:

Flao-E. 07119-28030.

Date Tues. Wed. April 1-2, 1980 Observers Ri

[illegible]

Spectr. Temp. 47°F.....

Dome Temp./Hum. +0.5°C 80%

Transparency Conditions

Focus 504

Spectr. Temp.

Dome Temp./Hum.

106

[illegible]

107

Date Wed Thurs. Apr 2-3/50 Observers Ly-Ta / Rm-Ta

Emulsion Batches:

8m 60

8m 60

...II-0-E 07119-03030...II-1-Eb 12018-19020 for 27

Focus 5 Fog test

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. Mtr.
44484F	Focus					00 06E	+28			
44484F2	Focus					00 02E	+28			
44484	HD 62509	07 39.2	+28 16	19:18	19:20	00 04W	+28	Fe/ND	9-9	4/20
44485	HD 27383	04 14.2	+16 18	19:25	20 30	04 39W	+16 27	"	6-6	400/50
44485T	Spot Cal'n for 44484-93.				15 min @ 15V	D4 3900	D3 4300	1.2 1.0		
44486	HD 72208	08 26.5	+10 09	20:39	22 22	02 19W	+9 52	Fe/ND	8-8	400/154
44487	HD 98547	11 15.2	+17 52	22:39	00 21	01 30W	+17 24	Fe/ND	8-8	400/10
44488	HD 89441 = ϵ Leo	9h 40.2	+24° 14	00 25	00 33	03 17W	+23 52	Fe/ND	12-12	4/21
44489	HD 89449 = δ Leo	10h 14.3	+19° 59	00 35	00 58	03 10W	+19 34	Fe/ND	8-8	4/41
44490	HD 115043A	13h 09.5	+57° 14	01 06	02 17	01 34W	+56° 45	Fe/ND	6-6-6	40/120
44491	HD 186658 = σ Cyg	19 40.8	+29° 01	02 24	04 48	02 25E	+29° 10.5	"	6-6-6	40/270
44492	HD 195295	20h 25.3	+30° 2	04 52	05 05	02 52E	+30° 17.7	Fe/ND	6-12	40/26
44493	HD 187929 = η Aql	19h 47.9	+00° 44.9	05h 10	05 21	02 00E	+00° 58	Fe/ND	9-9	40/26
44493F	Focus - (check fog level too)							Fe/-	12/12	

23030
10.00 For 21
Fog test

Spectr. Temp. 50°F Dome Temp./Hum. 45°F/60% Transparency Conditions good vsl haze
 Focus (50.3 - 505.5) G12
 Spectr. Temp. 38°F Dome Temp./Hum. 43°F/ gusty 198

Comparison
Exp/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/.68	150/10	Ilad	A		field lens out (see below)	
				"	"	"	"	A		field lens in (see below)	
40/20		2.15	K0III	BC	G12/.68		Ilad	A	Std Vel	(see below)	
400/50	3"-7"	7.44	F8V	"	"	150/3	"	B	Hyades-Tnr.	sl unconv exp str slight "flexure" (see below) due to 2	
400/154	3"	7.5	Hop	PC	G8/-.05	150/5	"	A	Sp Bin - Ly	Focus 501 T=48F CHANGED GRATING TO G8 vsl str SPRING BRACKETS WERE NOT ON GRATING - FOUND ON Focus 502.5 T=43 Wires AT BASE OF SPECTROGRAPH! Sp Bin - Ly G12 held in only by plunger fine	
400/110	3-4	6.87	AD	"	G8/-.025	150/5	"	B			
40/21		3.8	G0pI	"	"	150/5	"	A	Ceph/Evans		vsl str
40/41	4"	5.3	FSII	"	"	"	"	B	"		vsl str
400/120	4"	7.42	G12	"	G12/.68	150/5	"	A	UMa/Tnr	72°F focus 505.5	vsl str
400/270	5"-2"	6.8-7.7	F0-G1	"	"	150/5	"	B	Ceph/Evans		
40/26	2"	4.93	FSII	"	"	150/5	"	A	Ceph/Evans		sl str
40/26	2"	4.3	F6Ib-G12	"	"	150/5	"	A	Ceph/Evans		sl str
				"	"	150/10	Ilad	B		overdeveloped isolated from rest in Lx/box	ok

Date .. APR 4/5 - 80 Observers .. Wkr - Tn ..

4th 70° 098-e 20049 - 03300 21 185

[illegible]

Transparency Conditions *ba*

Focus 509

Spectr. Temp.

Dome Temp./Hum. 73.2°/95%

120

Comparison pe/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
e/-	10-5-	800/145	3.4	mv 7.7		BC	G24 B/.4	.5 150	09802	B	Wh.-WR	some cloud	
e/ND	5-5-					BC	G24 B/.9	150/10	098	A			blank

111

SAT - Sun

Date Apr. 5-6, 1980 Observers BT-Tm

Emulsion Batches:

Emulsion Batches:

8-68	Παοε 07/19 - 03040	21 m
8-68	098-02E 70049 - 03308	

8-68 098-02E 20049 - 03300

[illegible]

Spectr. Temp. ... +47.5°F

Dome Temp./Hum. +44°/70%

Transparency Conditions . sl hazy

Focus ... 5.035 - 505

Spectr. Temp. +42°F

Dome Temp./Hum. +35°/82%

112

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0-20-7					BC	G12/68	BS	098-02E	B		Brass Lens removed with correct f112 lens	vs/red very wk.
0-8-8	40/20		2.15	KO11	"	"	"	II 90-E	"	std Vel		sl str.
0-8-8					"	"	150/10	098-02E	"			
0-8-8	40/33				"	"	"	II 90-E	"	std Vel		sl str
1-6-8	400/135	2"	6.57	FO	"	"	150/5	"	A	Wat Prog		vs/str
0-8-8	400/105	2.3'	8.0	F6	BC	G12/68	150/5	"	B	Wat Prog	* Exp meter out of balance for 400/105 exp	flexer on focus
1-8-8	400/82	3.5'	7.18	A3	"	"	"	"	A	"		vs/wk
1-8-8	450/120	3"	6.8	FO	"	"	"	"	B	"	set 505	Fine
1-8-8	80/24	2"	4.65	FO	"	"	"	"	A	"	cloud	Fine
1-8-8	450/125	2"	6.20	F8	"	"	"	"	B			Fine
1-8-8	450/116	3"	7.3	G1	"	"	"	"	A			Fine

Sun-Mon

Emulsion Batches:

8m 680
5m 680

Д.р.р. 07119 - 03300

098-02 E 20049 - 03300

... who are these dates fun

30030 21st

[illegible]

Spectr. Temp. $+44.5^{\circ}\text{F}$Dome Temp./Hum. $136^{\circ}\text{F}/72\%$ Transparency Conditions *hazy - Cloudy*.....Focus *505*.....Spectr. Temp. 41°FDome Temp./Hum. $135^{\circ}\text{F}/80\%$

114

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/36	3"	2.15	KOIII	BC	G12/68	150/1.0	II-0-e	A	std/Vol		
- 9-9				"	"	150/1.0	O98-02 E	A			
				"	"	BS*	"	B		* Made sure darker limit inside slicer limit	
				"	"	BS	"	A		(did same last night)	
10/18		2.15	KOIII	"	"	"	II-0-e	A	std/Vol	Thick cloud	
							"				
100/114	2.4"	7.20	9G5+ A2	BC	G12/68	150/1.5	II-0-e	B	VB Blm	hazy T=142.5°F	
- 6-6				"	"	150/1.0	II-0-e	B	broke after	Exp 2/3 pc. saved	

Fri/Sat

Emulsion Batches:

До-е 07119-03040 и 21210
098-а-е 20049-4410

[illegible]

Spectr. Temp.

Dome Temp./Hum. 42°/88%

Transparency Conditions *Cloud*

Dome Temp./Hum. /

176

[illegible]

117 Sat-Sun

Date Apr. 12/13, 1980 Observers Bsk-Tn

Emulsion Batches:

Emulsion batches:
IIaD-e 07119-03040
 22 22

[illegible]

Transparency Conditions *partly cloudy* 118

Focus 505

Spectr. Temp. 142°F

Dome Temp./Hum. 135°/92%

Note - I found 1" end of plate with #6
wires mit wedged in PHB, prob coded 94507

[illegible]

Sun - Mon

Emulsion Batches:

5m 680
I. 12018 - 19020 28,274
II. 17117 - 06042 n 28

[illegible]

19020 22
0600 22

Spectr. Temp. 1.43°F

Dome Temp./Hum 135°F/83%

Transparency Conditions ... hazy ... 120

Focus ... 505 - 506

Spectr. Temp. ... 39°F

Dome Temp./Hum. ... /

Comparison
pe/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10-10 40/50	3"	1.9	A01V	BC	G12/1.68	120/15	III-J-Eb	A	Asm-Sp/KK		ok
10-10 50/50	4-8	"	"	"	"	"	"	B	"	v sl strong	comp lines broad
10-10 40/70	"	2.15	K0111	"	"	"	"	A	std vel		fine
10-10 40/70	"	"	"	"	"	BS	"	B	"	push-pull screws re-gapped	fine
10-10 40/70	"	"	"	"	"	"	"	A	"	43°F	sl/vel
10-10 40/100		7.2	G8VI	BC	G12/1.68	BS	IIa-O-E	B	"		fine
10-10 40/62		3.3	G0	BC	G12/1.68	BS	III-Eb	A	Asm-Sp/KK		sl/str
10-10 40/52		1.3	K2111	"	"	"	"	B	Std vel.	re-gapped over	fine
10-10 100/100	3"	6.9	G8V	"	"	"	II-O-E	A	Asm Sp/KK	F=506	fine
10-10 100/140	3"	6.07	G8V	BC	G12/1.68	BS	IIa-O-E	B	Blu Std *	T=39°F	sl/str
10-10 100/140							"	B			

Spectr. Temp. 34°F Dome Temp./Hum. -02°C 74%Transparency Conditions *light haze* 122Focus *506*

Spectr. Temp.

Dome Temp./Hum. -05°C 81%Comparison
Type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	68/-025	150/1.0	Ilave	A			comp & weak
40/15	3"	2.15	KOIII	"	"	"	"	B	Std Uel		"
100/150	2-3	6.5	AOV	"	"	"	"	A	Sp Bin-Ly		"
400/100	2-3	6.2	AOV	"	"	150/.3	"	B	Sp Bin-Ly		"
400/110	3-5	6.9	AO	BC	68/-025	150/.3	"	A	Sp Bin-Ly		"
400/170		6.8-7.6	FO-GI	BC	612/-68	150/.5	"	B	Ceph/EVANS	509 Focus Temp = 32	"
400/		9.02	FSII	"	"	"	"	A			
						150/1.0		B		Temp 30°	

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions 124

Comparison pe/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
e/-15.15						BC	G16/.7	RS	IIaF	A	+3.5 μ		
4	1					"	"	"	"	B	-1.0 μ	using external decker stop	
1	1					"	"	"	"	B	+0.2 μ		
1	1					"	"	BS	"	A	+1.4 μ		
1	1					"	"	"	"	B	-1.9 μ		
1	1					"	1	150 μ	"	A	+2.1 μ		
									IV-NH				

125

Date April 18-19, 1950 Observers Ger - Ri
Eni - SatEmulsion Batches:
9^m 67° HIF* ; IV-NH 4^m 0.001M N₂ burst
8^m 68° I¹⁰⁰ E... 17-11.9-17.040

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.
44526F	Focus test							Fe/-	15-15
44527	HD 62509	07 39.2	+28 16	20:03	20:06	01 453W	+28°07	Ne/-	30-30-30
44528	"	"	"	20:10	20:14	02 02W	+28°07	"	"
44529	HD 40183	05 52.5	+44 56	20:21	20:28	04 01W	+45°01	"	"
44530	HD 52973	06 58.2	+20 43	20:33	21:23	03 51W	+20°39	"	"
44528T	spot plate IV-N		15 min	@ 7 1/2 V	D3 8464				
44531	HD 52973	06 58.2	+20 43	21:26	22:20	04 47W	+20°39	Ne/-	30-30-30
44531T	spot calibration for plates	44529-30-31-32-33-34			7 1/2 V	10m D4 7680	10m D4 8464	30m D3 8464	
44532	HD 62509	07 39.2	+28 16	22:25	22:26	04 11W	+28 08	Ne/-	30-30-30
44533	HD 8890	01 22.4	+88 46	22:50	22:57	10 18W	+89° 10	"	"
44534	"	"	"	23:00	23:07	10 28W	"	"	"
44535	HD 7990B	01 22.5	+88 46	23:26	00:56	12 20W	+89 10	Fe/ND	6-6-6
44535T	optical for plates	44535-36			15 min @ 15 V, d4	D4 3900	D4 4380	P2 4810	
44536	HD 124897	14 11.1	+19 42	01 05	01 06	00 22W	+14 16	Fe/ND	6-12
44537	HD 213307	22 25.4	+57 54	01 29	2:28	06 28E	+58°23	Ne/-	30-30-30

Spectr. Temp. ... 52°FDome Temp./Hum. 08°C ... 80%Transparency Conditions ... excellent 126Focus 50.3

Spectr. Temp.

Dome Temp./Hum.

Comparison of Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1- 15-5					B.C.	G12/.680	RS	IIaJ-	A			comp ✓ weak
1- 30-30	40/60		1.16	K0 III	B.C.	G24/.9	R.S	II-Nh	B	IR Ceph	"V" filter	heavy fog!
" "	40/80		1.16	K0 III	"	"	"	"	B	IR Ceph		"
" "	40/90		1.86	A2 IV	"	"	"	HIE	A	IR Ceph		ok
" "	10/90		3.92	F7 Ib	"	"	"	"	B	IR Ceph (Ca II)	✓	ok
1- 30-30	10/90		3.92	F7 Ib	B.C.	G24/.9	RS	HIE	A	IR Ceph (H α)		sl weak ok
1- 40-40	10/40		1.16	K0 III	B.C.	G24/.9	RS	HIE	B	IR Ceph	(Ca II)	black
1- 40-40	10/90		2.00	F8 Ib	"	"	"	"	A	IR Ceph	50°F	"
1- 40-40	10/90		"	"	"	"	"	"	B	"	(H α)	"
1- 40-40	10/80	2-3"	7.8	F3 II	"	G12/.68	150/.3	IIaOe	B	Pol. B	50°F	503
1- 40-40	10/20		1.2	K2 III	"	"	150/.5	IIaO-E	A	suul	(Ca II)	strong
1- 40-40	10/100		4	F5 Ib	"	G24/.9	RS	HIE	A	IR Ceph	47°F	505 black

125

Date April 18/19/80 Observers Gu-Ri

Emulsion Batches:

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.....

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[illegible]

128

Dome Temp./Hum. 04°C...72%

[illegible]

129

Sun - Mon

Date Apr. 20-21/80... Observers Gu-Tn / Bln-Tn

Emulsion Batches:

098-02E* (2nd Set
Same batch)8^m 680

D-11h

D-0-e

4^m 680

098-02E

17119 - 17040 2121

20049 - 04010 (01040)

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.
44541F	Focus test							Ne/-	30-30
44541	HD 2870	01 22.4	+88 46	20:19	20:41	08 20W	+89 13	Ne/-	30-30-30
44542	"	"	"	21:16	21:48	09 27W	"	"	"
44542T	Spot calb ^m in plates 44541-42				7 1/2 V	D3 25 min 7080	D3 20 min 7680	D3 20 min 8464	"
44543	HD 8890B	01 22.5	+88 46	22:13	23:57	11 36 W	+89 14	Fe/ND	b-6-6
44543T	Spot calb ^m in plates 44543-44				15 min @	D4 15V 3900	D3 4300	D2 4810	"
44544	HD 101501	11 35.8	+34 46	00 10	00 26	02 26 W	+34° 18'	Fe/ND	7-7-7
44545	"	"	"	00 32	01 48	03 48W	"	Fe/ND Ne/-	8-8-8
44545T	Spot C ₆ H ₆ for 44545, 46, 49, 50.			15 min @	15V D3 4810	7V D1 H ₂	7V D2 5450		"
44546	HD 141004	15 41.6	+7 40	01 55	02 36	00 30W	+7 24	Fe/ND Ne/-	8-8-8
44546T	Spot C ₆ H ₆ for 44547, 48								"
44547	HD 141004	15 41.6	+7 40	02 38	03 11	01 05W	+7 24	Fe/ND Ne/-	3-3-3
44548	HD 161797	17 42.6	+27 47	03 16	03 34	00 32E	+27 43	Fe/ND Ne/-	8-8-8
44549	"	"	"	03 35	03 57	00 07E	"	Fe/ND Ne/-	8-8-8
44550	HD 188512	19 50.4	+6 09	04 02	04 50	02 13GW	+6 21	Fe/ND Ne/-	8-8-8
44550F	Focus Test							Fe/-	8-8-8

Spectr. T

Focus

Spectr. 2

Exp. Mtr.

200

25

400/49

30, 36

0/4

80/142

30/40

40/71

40/72

40/70

2nd Set
Sawyer

7040 21

8010/610

Comparison
pe/Filter Exp

2/33

2/36

11

33 min.

464

1/60

2

50

1/60

1/60

1/60

1/60

1/60

1/60

1/60

1/60

1/60

1/60

1/60

1/60

1/60

1/60

1/60

1/60

1/60

Spectr. Temp. $+56^{\circ}\text{F}$

Dome Temp./Hum. $+47^{\circ}\text{F}/60\%$

Transparency Conditions $v. s. / haze$ 130

Focus $502 - 504$

Spectr. Temp. $+30^{\circ}\text{F}$

Dome Temp./Hum. $+42^{\circ}\text{F}/63\%$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				B.C.	G24/9	RS	IV-Nh	A		broken 1" off end	
9/200		2.00	F81b	"	"	"	"	B	IR Ceph	"V" filter	sl wh, comp wh
9/253		"	"	"	"	"	"	B	"		comp wh, v sl wh
							IV-Nh				
200/49	3"-4"	~8	F81	"	G12/68	150/3	IIa0.e	A	Pol. B		sl wh
							IIa0.e				
80/36	3"	6.07	G8V	BC	G12/68	BS	IIa-0E	B	Bl. Std *		
80/140	6"	1"	"	BC	G16/7	RS	09802E	A	Bl. Std *		fine
							09802E				
80/142	6"	5.03	G0V	BC	G16/7	RS	09802E	B	Bl. Std *		v sl wh
							* 09802E				
80/140	6"	5.03	G0V	BC	G16/7	RS	* 09802E	A	Bl. Std *	Cloud	v sl wh
40/71	4"	4.14	G5IV	BC	G16/7	RS	* 09802E	B	Bl. Std *	Cloud	v sl wh
40/72	4"	4.14	G5IV	BC	G16/7	RS	09802E	A	Bl. Std *	Cloud	
40/70	6"	4.57	G8IV	BC	G16/7	RS	09802E	B	Bl. Std *	Cloud	sl wh
				B.C.	G16/7	RS	09802E	A		43°F 50g	sl red

131

Emulsion Batches:
8^m 69^o Two-E 0719-1740.

Date April 21-22, 1950 Observers MR-R: mr-Taus

[illegible]

Spectr. Temp. 56°F

Dome Temp./Hum. 10°C ... 62%

Transparency Conditions good 732

Focus 502

Spectr. Temp. 56°F

Dome Temp./Hum. +0.6°C ... 64%

Comparison Type/Filter Ex	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
K/ND 10-2	400/150		7.52	A0	B.C.	G12/1.680	B.S.	IIao-E	A	Ap - MR	tele reversed	fine
" 10-2	400/150		6.75	AP	"	"	"	"	B	"		v sl str
" 10-2	40/60		1.29	K2 III	"	"	"	"	A	Std. Vel.	x 13w	strong
" 10-2	400/150		7.52	A0	"	"	"	"	B	Ap - MR	tele. reversed.	v s' str.
300 410								IIao-E				
K/ND 10-2	400/150	2-3	6.67	B9	"	"	"	IIao-E	A	Ap - MR		fine
K/ND 10-2	400/150		7.19	A0	"	"	"	"	B	Am - MR	50°F 503	v sl str.
K/ND 10-2	400/150		7.04	A1	"	"	"	"	A	Am - MR		v sl str.
K/ND 10-2	400/150		7.48	A0	"	"	"	"	B	Am - MR		v sl str.
K/ND 10-2	40/60		3.93	K2 III	"	"	"	"	A	Std Vel		sl str.
K/- 10-2					"	"	"	"	B		48°F 503	v sl red

133

Emulsion Batches:

Doc-F 07119-19040

Date Tues. Wed. Apr. 22-23 Observers MR-Ri

[illegible]

Spectr. Temp. 43°F

Dome Temp./Hum. 03°C...74%

Transparency Conditions .. *clouds & haze* 134.

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/-					B.C.	G12/.680	B.S.	II ₁₀₀ -E	A		52°F 502	vs/red
Fe/ND 10-1	400/130	3-4	7.52	A0p	"	"	"	"	B	Ap-MR	SBZ tele. ^{clouds} reversed	fine
Fe/ND 10-1	40/30		1.29	K2IIIp	"	"	"	"	A	S12ul	48°F ^{clouds} 504	fine
Fe/ND 10-1								II ₁₀₀ -E				
Fe/ND 10-1	400/130		7.19	A0	"	"	"	"	B	Am-MR	clear again + windy	fine
Fe/ND 10-1	400/130		7.04	A1	B.C.	G12/.680	B.S.	II ₁₀₀ -E	A	Am-MR		fine
Fe/ND 10-1	400/130		7.00	A1	"	"	"	"	B	"	46°F 505	fine
Fe/ND 10-1	40/30		3.93	K2III	"	"	"	"	A	S12ul		fine
Fe/-								II ₁₀₀ -E	B		43°F 505	vs/red

135 1980

Date WED/Fri Apr 23-24 Observers Ly-Tn / Rm-Th

* Evacuation system nonfunctional

Emulsion Batches:

...Doc. E 07119-19090

xx separate #2 Exp box

[illegible]

functional
1.9040
box

Spectr. Temp. 51°F
Focus 500
Spectr. Temp. F

Dome Temp./Hum. 144°F/69%
Dome Temp./Hum. 22°F/90%

Transparency Conditions Fine us/hoze 136

Comparison
Type/Filter Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G8/-0.025	150	III-40	A		51°F 500	
Fe/ND 4-12	40/25	2.15	K2III	"	"	150/5	IIaO-e	A	STD VEL		slon
" 8-28	100/110	3-5"	6.9 A0	"	"	150/3	"	B	Sp Bin-Ly	Maybe 150/15	fine
ND 4-30							"				
Fe/ND 8-28	400/90	4"	7.1 A2	BC	G8/-0.025	150/3	"	A	Sp Bin-Ly	Maybe 150/15	
Fe/ND 6-6	50/15	4"	5.03 GOV	BC	G12/.68	150/5	"	B	Bln stop	T=43 Focus 505	vs/sr
Fe/ND 6-6	5/16	3"	5.03 GOV	BC	G12/.68	150/5	IIaO-e**	A	" "	Fe Arc adj → South	fine
ND 4-30							"**				
Fe/ND 6-6	100/60	5-3"	6.8-7.7 FO-G1	BC	G12/.68	150/5	IIaO-e	B	Aph/Evans	cloud	plakure? slnt
Fe/ND 6-6				"	"	150/10	IIaO E	A	505 set	+40°F 505 Focus	fine
								FR			

137

Date Fri/Sat. APR. 25/26 Observers Tnr.-Tn.Emulsion Batches:
8^m 67^o IIa0-e. 07119. -24040
4^m 66^o Date. for tests...

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.
44572F	Focus Test							Fe/-	8-8
44572	HD 62509 (B Gem)	07 39.2	+28 16	19 56	19 58	2 13 W		Fe/ND	9-9
44573	HD 111456	12 44.3	+60 52	20 05	20 31	2 17 E		Fe/ND	6-6
44574	HD 127617	14 27.3	+19 13	20 39	23 24	1 08 E	+18 53	Fe/ND	6-6
44574T	Spot Cal'n for 44572-			15 min @ 15V		D4 3900	D3 4300	D2 4810	
44574F1	Focus Test 150u							Fe/-	6-6
F2	Focus Test BS							Fe/-	6-6
F3	Full Aperture Shift Test			comp 1st				Fe/-	15-15
F4	" " " "			comp 1st				Fe/-	15-15
F5	1/2 Aperture by mistake			"	(was broken & repeated (mask in comp))			Fe/-	7-7
F6	Full Aperture Shift test			"				Fe/-	7-7
F7	Focus Test BS							Fe/-	17-17
F8	" " 150u							Fe/-	17-17
44575	HD 115043	13 09.5	+57 14	01 25	02 25	03 12 W		Fe/ND	6-6

24040

Spectr. Temp. ... 51°F

Dome Temp./Hum. 47°F/76%

Transparency Conditions ... S. hazy 738

Focus ... 503

Spectr. Temp. ... 48°F

Dome Temp./Hum. 40°F/92%

Comparison
Type/Filter

Comparison Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-88					BC	G12/68	150/10	II-O	B?			
Fe/ND 9-9	10/16		2.15	Ko III	BC	G12/68	150/5	IIa-Oe	A?	Srd. Vel.		uneven Some star in comp. slot
Fe/ND 6-6	100/110	1-2"	6.31	F7V	"	"	"	"	A	Thr-U Ma		vsl str.
Fe/ND 6-6	300/105	2-3	8.67	BS IV	"	"	150/3	"	B	Thr/Ly Prog.	cloud	fine
							"					
Fe-66					BC	G12/68	150/10	II-O	B	T=49°F Set 503		+3.3 μ
Fe-56					"	"	BS*	"	B	"	external deka stop insured	+2.5 μ
Fe-56	(Hr L O1 F-0020E)				"	"	"	II-F	B	"		-1.4 μ
Fe-56	Dec +18 53				"	"	"	"	A	"		-1.4 μ
Fe-77					BC	G16/7	RS*	"	B	"		-1.1 μ
Fe-77					"	"	RS	"	A	↓ ↓		± 0 μ
Fe-77					"	"	"	"	B			+1.8 μ
Fe-77					"	"	150/10	"	B	T=48°F Set 503		+1.1 μ
Fe/ND 6-6	100/72	1-2"	7.42	G1V	BC	G12/68	150/3	IIa-Oe	B	Thr-U Ma	clouds	vsl. str.

(Hr L 01 E-0020E)
Dec +18 53

139

2 Large Tours 2 2hrs Jupiter

Emulsion Batches:

8^m 67° ... 17.0.0 07119-24040

Date Sat/Sun. APR 26/27 Observers Tnr - Tn

[illegible]

Spectr. Temp. ... $+52^{\circ}\text{F}$ Dome Temp./Hum. $+42^{\circ}/84\%$ Transparency Conditions $sl. hazy$ 140

Focus 503

Spectr. Temp. ... $+45^{\circ}\text{F}$ Dome Temp./Hum. $+39^{\circ}/99\%$ Comparison
Type/Filter Exp

Companson type/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2/ND 420	6-6	800/202	1-2"	9.06	K2I	B.C.	G12/1.68	150/.3	IIa-Oe	B	Tnr-UMA	not developed with others broken - 2 pieces saved	fine
2/ND 6-6	6-6	800/103	2"	9.35	K1I	"	"	"	"	A	Tnr-UMA	reverse	fine
2/ND 6-6	9-9	40/18	"	4.15	K3II	"	"	150/.5	"	B	Std. Vel		v sl sm.
6/- 10-10					"	"	"	150/1.0	IIa F	A		comp << stellar	

1980 141

Date _____

Apr 30 / May 1
Wed / Thurs

Observers

Ly-Tn:

Emulsion Batches:

8th 6th

Page 07119 - 24040

[illegible]

Spectr. Temp. 53.5°F

Dome Temp./Hum. 50°F / 100%

dome dripping

142

[illegible]

Date 1980 May 1/2 Observers KK-Tn / Bl -Tn

(098-02^{*}E #2
batch)

Emulsion Batches:

IIaoe 07119 - 28040

098-02E 20049 - 01040

(#2 batch 17c0-07119-01050)

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.
44580	HD 47105	06 31.9	+16 29	20:50	20:55	4 41 W		Fe/ND	10-12
44581	HD 62509	07 39.2	+28 16	21:00	21:01	3 40 W	+28 06	"	"
44582	HD 103095	11 47.2	+38 26	21:10	22:24	0 55 W		Fe/ND	8-8-8
44583	HD 120742	13 58.6	+11 16	22:29	23:10	0 28 E	+	Fe/ND	8-8-8
44584	HD 124897	14 11.1	+19 42	23:16	23:16	0 35 E		"	12-12
44585	HD 137909	15 23.7	+29 27	23:21	23:25	1 40 E		"	12-12
44585T	Spot Cal'n for 44580-86, 92, 93, 96, 600,								
44586	HD 142091	15 47.5	+35 58	01 32	01 43	1 49 E		Fe/ND	7-7-
44587	HD 121501	11 35.8	+34 46	00 02	01 00	03 43 W	+34 22	Fe/ND	6-6-
44587T	Spot Cal'n for 44587, 88, 97, 99.			15min @	15V D3 4810	7V D1 Hx	7V D2 5450		
44588	HD 142091	15 47.5	+35 58	01 05	01 36	0 10 W	+35 45	Fe/ND	6-6-
44589	HD 142091	"	"	01 37	02 06	00 39 W	1	Fe/ND	6-6-
44589T	Spot Cal'n for 44589, 98,			15min @	15V D3 4810	7V D1 Hx	7V D2 5450		
44590	HD 142091	"	"	02 16	02 23	00 56 W	11	Fe/ND	10-
44590T	Spot Cal'n for 44590, 91, 94, 95, 601			15min @	15V D4 3900	123 4300	D2 4810		

Spectr. Temp. 60° Dome Temp./Hum. $55^{\circ}\text{F}/80\%$ **new D19**

Transparency Conditions scattered cloud

Focus 49.7 II20 8" D19 68°F

Spectr. Temp.

Dome Temp./Hum.

678 5" D19 67°F

144

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/18		1.9	A0IV	BC	1200/-0.025	BS	II20e	A	Asm-Sp/KK	cloudy	fine
20/26	2-3	2.8	K0II	"	"	"	"	B	Std Vel.		fine
400/210	2"	6.45	G8VI	"	"	"	"	A	Asm-Sp/KK	effective start 21:35	v slow
400/210	2"	6.21	G8VI	"	"	"	"	B	Asm-Sp/KK	meter falling back at end	v slow
40/26	2"	1.3	K819p	"	"	"	"	A	std Vel		fine
40/20	2"	3.93	F0p	"	"	"	"	B	Asm-Sp/KK		fine
80/46	1"			BC	G12/68	BS	"	A	Blu-Std *	broken 1" off red end	
80/46	-2	6.07	G3V	BC	G16/7	RS	09800E	A	Blu Std *	F-500	comp & str. fine
							09802E				
140	-	5.82	K1IV	BC	G16/7	RS	"	B	Blu Std *		fine
80/140				"	"	"	09802E*	A	"		v slow
							"				
120/	2	5.80	K1IV	BC	G12/68	BS	II20-E*	B	" *	T=56°F	fine
							"				

1245

#2

Date _____

Observers

$$B_{1n} - T_n$$

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.	Exp. Mtr.
44591	HD 142860	15 51.8	+15 59.	02 26	02 29	0 58 W	+	Fe/ND	10-10	40/16
44592	"	"	"	02 30	02 34	0 06 W		"	10-10	40/17
44593	HD 161797	17 42.6	+27 47	02 37	02 40	00 42 E	+27 45	"	10-10	40/2
44594	HD 161797	17 42.6	+27 47	02 41	02 44	00 38 E		"	10-10	40/20
44595	HD 188512	19 50.4	+6 09	02 43	02 53	02 37 E	+06 24	"	10-10	40/20
44596	"	19 50.4	+6 09	02 57	03 02	02 32 E		"	10-10	40/20
44597	"	19 50.4	+6 09	03 09	03 25	02 05 E		Fe/ND No/-	9-9	40/71
44598	HD 198149	20 43.3	+61 27	03 30	03 42	02 39 E	+61 45	Fe/ND No/-	9-9	40/71
44599	"	"	"	03 43	03 54	02 26 E	"	Fe/ND No/-	9-9	40/71
44600	"	"	"	04 02	04 06	02 16 E		Fe/ND	10-10	40/32
44601	"	"	"	04 07	04 11	02 11 E		Fe/ND	10-10	40/33
44601F	Focus Test							Fe/-	10-10	

Transparency Conditions *Broken Glass*

Dome Temp./Hum. 52°F / 98%

146

Comparison pe/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
e/10	10-	40/16	2	7.3	F6V	B/C	G12/68	BS	Ilq0-e*	A	B/h-Std		v sl str
	10-	40/17		"	"	"	"	"	Ilq0-e	B	"		"
	10-	40/20		4.14	G5IV	"	"	"	Ilq0-e	A	"		"
	10-	40/20		"	"	"	"	"	Ilq0-e*	B	"		v sl str
	10-	40/20		4.57	G8IV	"	"	BS	Ilq0-e*	A	"		
	10-	40/20		"	"	"	"	"	Ilq0-e	B	"		
e/10	9-9	40/71	4.5	"	"	"	G16/7	RS	09802E*	A	"		v sl str.
e/10	9-9	40/71	4.5	4.35	K0IV	"	"	"	09802E*	B	"		sl str.
e/10	9-9	40/71	4.5	4.35	K0IV	"	"	"	09802E	A	"		v sl str.
e/10	12	40/22	"	4.35	K0IV	"	G12/68	BS	Ilq0-e	B	"		v sl str one end light streak
e/10	12	40/22		"	"	"	"	BS	Ilq0-e*	A	"		v sl str
e/10	12				"	"	"	"	09802E	B		50° F 501	sl red.

Date 1980 May 2/3 Observers KK-Tn / W/r-Tn

Emulsion Batches:

8 ^m 68°	1120e	07119	-02050
5 ^m 67°	09802E	20049	-04040

[illegible]

Spectr. Temp. ... 62°

Dome Temp./Hum. ... 158°F/80%

Transparency Conditions ... hazy

Focus ... 499

Spectr. Temp. ... 60°F

Dome Temp./Hum. ... 156°F/90%

148

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/15	1.2'	3.9	FOP	BC	830/.68	BS	Il20e	A	Asm Sp/K		v sl str uneven!
40/14	"	"	"	"	"	"	"	B	"		v sl str uneven!
40/17	"			"	"	"	"	A	std/ve/		v sl str
800/?*	3.4	mu 8.0	B9	BC	400/.38	254/3	0980E	B	HLBS	* no exp meter V filter in	comp sl. str ✓ wk
MoMtn	4"	mu 9.4	WCT	BC	400/.38	254/3	0980E	A	WR		comp sl. str, wk
				"	"	"	Il90	B			good

149 Sat-Sun

Date 1980 May 3/4 Observers BK-Ri

Emulsion Batches:

8m 180

Doc. E^X 07119-01050

Inv-E 07119-02050

[illegible]

Spectr. Temp. ... 65°F

Dome Temp./Hum. 14°C ... 65%

Transparency Conditions ... sand ... 150

Focus ... 498 - 500

Spectr. Temp. ... 57°F

Dome Temp./Hum. 11°C ... 68%

Comparison pe/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/ND 6-6-6	400/146	3-4	5.86	K6	B.C.	830/.68	150/.5	IIao-E*	A	Waterloo		fine
1/ND 6-6-6	400/120		6.6	F7II	B.C.	830/.68	150/.5	"	B	"		vs/srv
22 810								IIao-E*		"		
1/ND 6-6-6	400/120		6.61	F0	B.C.	830/.68	150/.5	IIao-E	A	"		vs/srv
1/ND 6-6-6	400/100	3	4.6	A8	B.C.	830/.68	150/.5	IIao-E	B	"		Fine
1/ND 6-6-6	400/120		7.1	G0	B.C.	830/.68	150/.5	IIao-E	A	"	60°F 500	vs/srv.
								IIao-E			in small upper Box	
1/ND 6-6-6	400/120		4.6	F0	B.C.	830/.68	150/.5	IIao-E	B	"		sl/srv
1/ND 6-6-6	400/120	3-4	5.5	F5	B.C.	830/.68	150/.5	IIao-E	A	"		vs/srv
1/ND 6-6-6	400/150		6.2	K1	B.C.	830/.68	150/.5	IIao-E	B	"		fine
1/ND 9-9	400/12		2.9	F8	B.C.	830/.68	150/.5	IIao-E	A			vs/srv
1/ND 6-6-6	400/150		5.6	F8	B.C.	830/.68	150/.5	IIao-E	B			vs/srv
1/ND 9-9	400/12		4.2	K3	B.C.	830/.68	150/.5	IIao-E	A	Std. rel.		fine
1/ND 8-8					B.C.	830/.68	150/1.0	IIao-E	B		57°F 500	

151

Sun/Mon

Date 1980 May 4/5 Observers Rm-Tn

8-68

Emulsion Batches:

Emulsion Batches:
Π40-Ε 07119-02058

№ 07119-04050

[illegible]

Spectr. Temp. 65°F

Dome Temp./Hum. 63°F/56%

Transparency Conditions Hazy some cloud

Focus 498

Spectr. Temp. 63°F

Dome Temp./Hum. 58°F/63%

152

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1- 3-8					BC	830/.68	150/.5	IIaOE	B		broken: 2" missing 1 small piece no good	cast red prob due to break.
2- 40/13	40/13	2-3	3.8	GOpI	BC	830/.68	150/.5	IIaOE	A	Ceph/Evano		Fine sl. 94g
3- 40/13	40/13	"	5.3	F5V	BC	830/.68	150/.5	IIaOE	B	Std vel		sl/str
4- 40/184	40/184	3"	7.20	gG5+H2	"	"	150/.5	IIaOE	A	VB Blue	cloud	sl/str sl. fuzzy
5- 40/14	40/14	2-4	3.93	Fop	BC	830/.68	70/.5	IIaOE	B	KK		sl/str poor red focus
6- 40/113	40/113		5.82	F2Ia	BC	830/.68	150/.5	IIaOE	A	Ceph/Evano		fine
7- 40/91	40/91	4-6"	6.7	F6I-3	BC	830/.68	150/.5	IIaOE*	B	Ceph/Evano	Cloud	fine
8- 40/105	40/105	"	7.7	F0-G1	BC	830/.68	150/.5	"	A	Ceph/Evano		Fine
9- 40/103	40/103	3"	5.89	F2	BC	830/.68	150/.5	"	B	Ceph/Evano	64°F	fine 77?
10- 40/103	40/103							"				OK

153

Mon-Tues

Date May 5-6, 1980 Observers MR-T & WLF

Emulsion Batches:

5-68F... 09802E 2009-19090

[illegible]

Spectr. Temp. 67° F.....

Dome Temp./Hum. 68°F/56%

Dome Temp./Hum. 50°F ✓.....

Transparency Conditions .. *Cloudy*

154

[illegible]

155

Emulsion Batches:

Date .. May 6-7 Observers .. MR-TG

098-02E 19098 batch

[illegible]

Spectr. Temp.

Dome Temp./Hum. /

Transparency Conditions.....

Dome Temp./Hum.

156

[illegible]

15+

Wednesday / Thursday

Date MAY 7/8, 1980 Observers GIS - Ri

Emulsion Batches:

8^m 68^o

Doc-E. 07119-05050.

[illegible]

Spectr. Temp. ... 52°F

Dome Temp./Hum. 48°F./71%.

Transparency Conditions ... High cloud

Focus 50.3

Spectr. Temp. ... 45°F

Dome Temp./Hum. 37°F./79%.

158

Comparison
e/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/160	4"	3.85	B1 Ib	BC	1200/-025	BS	IIaOe	A	Bln-std.	52°F 500	fine
40/21		1.29	K2 IIIp	"	"	"	"	B	Vel. std-		fine
800/90		8.9	09.7 Ia b	"	830/168	"	"	A	Bln-sp bin	50°F 503	weak
							098-0				
400/130 ~6"		6.3	B0.5 IIIp	"	830/168	"	IIaOe	B	Bln-running	45°F poor seeing 504	vs/str

159

Date _____

8/9 May '80

Observers

Li. Mup.

Emulsion Batches:

Rev-B 07119-05050

[illegible]

Transparency Conditions

Spectr. Temp.

Dome Temp./Hum.

160

[illegible]

161

Thu/Fri

Date 15/16 May 1980 Observers Tnr/Tn

Emulsion Batches:

File 07119-07050

[illegible]

Spectr. Temp. 55°F.....Dome Temp./Hum. 50°F/70%Transparency Conditions 5/... haze.....Focus 501.5.....

Spectr. Temp.

Dome Temp./Hum. 49°F/76%

162

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
✓					BC	830/.68	150μ/ 1.0	IIa0-	A		55°F 501.5	
ND 9-9	40/15	4"	1.29	K2 III	"	"	150μ/ .5	IIa0-E	B	Std. Vel.		
ND 4-4	800/202	3"	9.06	K2 V	"	"	200μ/ .3	"	A	Tnr UMa		fine
ND 6-12	400/130	2-3"	6.31	F7 V	"	"	150μ/ .5	"	B	Tnr UMa		vs/sr
ND 4-4	800/70	2-3"	10.5	F+B?	"	150/.5	250μ/ .3	"	B	Tnr Prog	50°F 509	✓ unknown sl wke
ND 4-4	400/44	5"	7.5	B6 IV	"	830/.68	250/.5	"	A	Tnr Prog	49°F 503	✓ fine strong Hg
✓					"	830/.68	250/1.0	IIa0	B			sl red

163 Fri / Sat.

Date 16/17 May 1980 Observers G.I.S./Tn/Wiz.....

Emulsion Batches:
8th 68th II-0-E 07/19-08050
5th 68th 098-02E 20049-06050

5th 68° 098-02E 20049-06050

[illegible]

Spectr. Temp. 61°FDome Temp./Hum. $59^{\circ}\text{F}/52\%$ Transparency Conditions *getting cloudy*.....

Focus

Spectr. Temp. 60°FDome Temp./Hum. $54^{\circ}\text{F}/60\%$

164

Comparison Type/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
40/17	1-2"	3.85	B1 Ib	BC	1200/-0.025	120/5	IIaOe	B	Sp. Std.	Focus 497		s/sr.
								IIaD	A	T=61°F Set 497		
40/82	1-2"	3.85	B1 Ib	BC	1200/0.7	120/5	O98-02E	A	Sp. Std.	495		strong
								IIaOe				
								O98-02E				
40/87	2"	"	"	"	1200/-0.025	120/5	IIaOe	B	Sp. Std.	496	double exposure.	discarded
40/7	"	"	"	"	1200/-0.025	120/5	IIaOe	A	Std. Velocity			
40/22	2'	1.29	K2 III	"	1200/-0.025	120/5	IIaOe	B	Std. Velocity	496		vs/sr.
400/125	2"	3.54	A0 V	"	1200/-0.025	150/5	"	A	S.B. - Bln			fine
400/256	1-2"	5.72	dF8	"	1200/-0.025	150/5	"	B	S.B. - Bln/Ly			fine

165

Date MAY 19-20/80 Observers But-Tn

Emulsion Batches:

8^m 680

IIe 0-e 07119-06050

№ 07119-08050

[illegible]

Spectr. Temp. 76.4°FDome Temp./Hum. $+55^{\circ}\text{F}/90\%$ Transparency Conditions *Some Cloud*.....Focus 49.9Spectr. Temp. 55°FDome Temp./Hum. $+50^{\circ}\text{F}/100\%+$

166

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	G12/1.68	BS	IL40	B			
1/130		1.29	K2TH	BC	G12/1.68	BS	IL40E	A	STD VEL		comp sl wk star v sl sm.
100/105	3"	6.88	A2	"	"	"	"	A	Am MR	CLOUD (EXP MTR??)	comp csk fine
							"				
0/130	3"	6.67	B9	BC	G12/1.68	BS	IL40 [*]	B	Ap MR	CLOUD	comp sl wk v sl sm.
							"				
00/260 [*]	3"	7.04	A1	BC	G12/1.68	BS	IL40 [*] E	A	Am MR	* no Exp photo. 4/12/33 Set 50/ T=57°F	fine comp csk
				"	"	"	IL40	B		" T=55°F	

167

Emulsion Batches:

Emulsion Datches:
D-0-e 07119-08050

Date MAY 20/21 TUES/WED Observers But-In
1980

[illegible]

Spectr. Temp. 160°F

Dome Temp./Hum. ~~.....~~ ^{+55°}/_{80%}

Transparency Conditions *5427*

168

[illegible]

169

Emulsion Batches:

8^m 68° II 40-e... 07/19... 20050

Date 21/22 MAY 1980... Observers Bl-Tn.....

WED/THUR

5^m 68° III 25... 07.11.9... 16050

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.
44653F	Focus Test							F ₂ /-	12-12
44653	HD 107328	12 ^h 15 ^m 3	+03 53	20 24	20 48	00 11 W	+3 27	F ₂ /ND	3-8-8
44653T	Spot Calib	For 44653-			15 min @ 15 V	3900	4300	D ₂ D ₂ 4810	
44654	BD+37° 2223	1^h 41^m 3	137° 35'	21 07			+36° 53'	F₂/ND	4-
44654	HD 97991	11 ^h 11 ^m 1	-2° 55'	21 29	23 06	03 33 W	-3° 19'	F ₂ /ND	8-8-8
44655	HD 157482	17 18.5	+40 04	23 15	02 32	00 54 W	+40 00	F ₂ /ND	12-12-
44656	HD 188439	19 ^h 50 ^m 1	+47° 33'	02 39	03 18	00 50 E	+47° 44'	F ₂ /ND	3-8-3
44657	HD 188439	19 ^h 50 ^m 1	+47° 33'	03 19	04 00	00 10 E	+47° 44'	F ₂ /ND	3-8-
	May 22							+	-
44657T1	Spot calibration	D3 E464	30 ^m 7 1/2 V						
T2	" "								

Spectr. Temp. 67°F

Dome Temp./Hum. 66°F / 70%

Transparency Conditions sl/baze - very hazy

Focus 99.7

Spectr. Temp. 66°F

Dome Temp./Hum. 59°F / 64%

170

Comparison pe/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					BC	830/.68	BS	IIa-OE	A		F=497 T=67°F	
1/2 3-79	30/50	2	6.1	K1	BC	830/.68	BS	IIa-OE	A	Std. Vel.		fine
1/2 120								IIa-OE				
1/2 1-4	300/	2	11.5?	?	BC	150/.5	250/3	IIa-OE	B	?? Blk	Too Faint - No good T=67°F F=503	
1/2 3-33	200/64	2	7.18	B2V	BC	830/.68	BS	IIa-OE	A	RUNAWAY *	F=497 T=67°F	sl uneven
1/2 1-11-2	200/420	3"	6.22	dF8	BC	1200/.025	BS	"	B	SB-B/4	F=494(6?) T=67°F	sl str
1/2 1-11-3	200/65	2"	6.18	B0.5II	BC	830/0.68	BS	"	A	RUNAWAY *	F=499 T=63°F	v sl str
1/2 1-11-4	200/65	2"	6.18	B0.5II	BC	830/0.68	BS	IIa-OE	B	RUNAWAY *		v sl str
								II -	"			
								HIE(2/81)				
								III 2J				

171 Thru-Fri

Date 22/23 May 1980 Observers Rm-Tu

Emulsion Batches:

8^m 68^m

IIaO-E 07119-20050

Illegible text: 07119-16060 (20th note)

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.
44658F	Focus test							Fe/	8-8
44658	HD136202	15 ^h 14.2	+02° 09	20 ^h 25	21 ^h 32	02 ^h 01E	+1° 54	Fe/ND	8-8
44659	HD163506 = 89 Her	17 ^h 51.4	+26° 4	21 ^h 35	23 ^h 38	2 ^h 30 E	+26° 08	Fe/ND	8-8
44659 [✓]	Spot Cal'n for 44658-60			15 min. @ 15V		D4 3900	D3 7000	D2 4810	
44660	HD186688 = 5U Cyg	19 ^h 40.8	+29° 01	23:57	03:50	00 05E	+29° 15	Fe/ND	8-8
44660T	Spect Calib.		DA 4300	15 [✓]	15 ^m				

Spectr. Temp. 79°F Dome Temp./Hum. $73^{\circ}\text{F}/56\%$

Transparency Conditions haze-cloud

Focus 496 Spectr. Temp. 70°F Dome Temp./Hum. $65^{\circ}\text{F}/72\%$

172

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BC					830/.68	150/1.0	IIa 01	B		spec temp = 74°F 4/9/68	v sl red
400/126	1"	5.6	G0	BC	830/.68	150/.5	IIa 0E	A	std vel		v sl wk
400/126	2"	5.8	F2 Ia	BC	830/.68	150/.5	IIa 0E	B	Ceph/Evans		wk
							"				
830/—	2-3	6.8-7.7	F0-G1	BC	830/.68	150/.3	IIa 0E	A	Ceph/Evans	looks ok on TV though at top voltage	fine
							IIIa 2eb				

173

Emulsion Batches:

Т.О-Е 07114 - 20050

 $7^m 71^o$

HFE (med) 2/81

Date MAY 23-24/80 Observers Gu-Th

[illegible]

Spectr. Temp. 77°F.....

Dome Temp./Hum. 75°F/60%

Transparency Conditions... Hazy - cloudy.....

Focus... 4.95.....

Spectr. Temp. 77°F.....

Dome Temp./Hum. 67°F/60%

174

Comparison e/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1- 7.5					BC	¹² 830/168	150/110	IIaD	A			
ND 12-2	40/??*	1"	1.29	K21II	x	"	"	IIaD-E	A	stuve/	* Exp meter was unplugged	Foot wt 515tr
1- 30-30					"	²⁴ 830/1.9	RS ^x	098-2E	A		x with V Alter	
1- 30-30	40/160	1"	1.29	K21II	"	830/1.9	RS ^x	IIIE	B	stuve/	also back broke.	
-	40/173	"	2.00	F8Tb	"	"	"	"	A	IR ceph.	Ca & glass back cracked.	
- 30-30	40/171	1"	2.00	"	"	"	"	"	B	"	Hx nubes interruptus	
-	40/181		3.9	F8Tb	"	"	"	"	B	IR ceph		
1- 30-30	40/183	2"	2.8	G8Tb	"	"	"	"	B	"		

Date 25/06 MAY 1980 Observers Bl-Tu
Sun/MON

Page 07119 - 23050

[illegible]

Spectr. Temp. 69°F

Dome Temp./Hum. 66°F/53%

Transparency Conditions *5/10/29*.....

Focus ... 49.7 - 49.9

Spectr. Temp. 59°F.....

Dome Temp./Hum. 50°F / 70%

176

[illegible]

777

8^m 68^o

Emulsion Batches:

II-0-E 07119-23050...

Date 2/3 JUNE 1980

Observers MR - Li

[illegible]

Spectr. Temp. 640° F

Dome Temp./Hum. ... 14°C ... 10%

Transparency Conditions

74" Mirror Reclining Jet May 26/27 178

[illegible]

179

Date 3/4 JUNE 1980 Observers MR-Ri

Tue Wed

Emulsion Batches:

Ilav-E* 0719-23050...

Thw-E. 02119-03060....

[illegible]

Spectr. Temp. 60°F

Dome Temp./Hum. *120C* *89%*

Transparency Conditions clouds on off second half

180

[illegible]

181

wed - Thurs

Date June 4-5/80 Observers W/r-Tn

Emulsion Batches:

07119-03060
098-02E 20099-06050

[illegible]

Spectr. Temp. 156°F

Dome Temp./Hum. 50°/92%

182

183

Date June 8-9, 1980 Observers Ri
Sun Mon

Emulsion Batches:

Two-E 07119-03060

IIIaJ-cb. 07119-16050 (20²)

[illegible]

(20)

Transparency Conditions .. *Good with some scattered clouds*

Spectr. Temp.

Dome Temp./Hum. 104°C.....82%

184

[illegible]

185

Ann/Jul

Emulsion Batches:

8^m 69°

IIwo-E* 07119-03060 22 210
IIwo-E 07119-05060 22 210

Date _____

June 16/17

Observers

MR-Ri'

[illegible]

12 210

12 210

Spectr. Temp. ... 60°F Dome Temp./Hum. ... 10°C ... 72% Transparency Conditions ... good 186

Focus 500

Spectr. Temp. ... 51°F Dome Temp./Hum. ... 07°C ... 77%

Shutters released June 9-16

Comparison
pe/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/130		6.88	A2	B.C.	830/68	B.S.	ITao-E*	B	Am-MR	exp good. comp lines a little broad	
						B.S.	ITao-E*	A			sl recd
400/130		7.19	A0	B.C.	830/68	B.S.	ITao-E*	A	Am-MR		fine
							ITao-E*				
400/130		7.04	A1	B.C.	830/68	B.S.	ITao-E*	B	Am-MR	55°F 501	fine
400/130		7.0	A1	B.C.	830/68	B.S.	ITao-E	A	Am-MR		fine
							ITao-E				
400/130		6.77	B9p	B.C.	830/68	B.S.	ITao-E	B	Ap-MR	52°F 502	vs sl str.
40/15		4.53		B.C.	830/68	B.S.	ITao-E	A	Am-MR		vs sl str.
40/20		3.73	G0Jb	"	"	"	"	B	sl val		vs sl str.
				"	"	"	"	A		51°F 502	ok

187

Tue/Wed

Date _____

June 17/18

Observers

MR-Ri'

8^m 680

Emulsion Batches:

IIco-E 07419-05060

22,206

vacuum 5 hrs

Nav-E# 07119-17060

21, 192

[illegible]

22, 206
21 192
1

Spectr. Temp. ... 64°F

Dome Temp./Hum. 15°C 74%

Transparency Conditions ... excellent

Focus ... 999

Spectr. Temp. ... 58°F

Dome Temp./Hum. 11°C 82%

188

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1- 10m					B.C.	830/68	B.S.	IIao-E	A			
1/10 12/20	400/150	2-3	6.67	B9	B.C.	830/68	B.S.	IIao-E	B	Ap-MR		
1/10 12/20	400/130		7.19	A0	B.C.	830/68	B.S.	IIao-E	A	Am-MR		
02 0 4910								IIao-E				
1/10 12/20	400/130		7.48	A0	B.C.	830/68	B.S.	IIao-E	B	Am-MR (SB)		fine
1/10 12/20	400/130		7.04	A1	B.C.	830/68	B.S.	IIao-E	A	Am-MR SB		fine
1/10 12/20	400/130	2-3	7.00	A1	B.C.	830/68	B.S.	IIao-E	B	Am-MR	620F	
1/10 12/20	400/130		7.58	A2	B.C.	830/68	B.S.	IIao-E	A	Am-MR		fine
1/10 12/20	400/150		7.56	B9	B.C.	830/68	B.S.	IIao-E	B	Ap-MR		fine
02 0 4910								IIao-E*				
1/10 12/20	80/50		5.9	A0	B.C.	830/68	B.S.	IIao-E*	A	Std Val		fine
1- 10m								IIao-E*	B		499 580F	

187

Date June 24/21 Fri/Sat Observers KK-Fm-Brs

Emulsion Batches:

4 ^m 680	III	2 Feb	12.10.8	11040
8 ^m 680	II	acc	07.11.9	17050

[illegible]

Spectr. Temp. ... 60°

Dome Temp./Hum. ... 57°F.

Transparency Conditions Clear.....

Focus 500

Spectr. Temp. 58°.....

Dome Temp./Hum. 53°F / 89%

790

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-8-1-79					BC	1200/.025	BS	III 2Jeb	B			
-12-1-79	40/90	3"	1.29	K2 IUp	"	"	"	"	B	Std Vel.	G12 focus (500) by error	s/wk
-8-8-79	40/115		3.93	FUp	"	"	"	"	B	Asm-Sp/KK		s/wk
ND 8-8-79	40/130		"	"	"	"	"	IIaO	A	"	refocused to 197	v/s str
								III 2Jeb				
-8-8-79	40/80		2.2	A5 III	"	"	"	III 2Jeb	B	"	Redo-SC	s/wk
ND 2-1-80	40/26		3.93	K2 III	"	"	"	IIaO	A	Std. Vel		fne
4-8-80	300/107		2.9	F	"	830/.68	150μ/.3	IIaO	B	Asm-Sp/KK	F=500 T=60°	d flex gu.
								IIaO				
NOV 2-80						830/.68	"	IIaO	B		F=500 T=58°	
											Humidity too high 99% outside - closed	
											* plunger on grating tilt arm NOT engaged.	

191

5m 680

Emulsion Batches:

Emulsion Batches:
TV Nh 05018 (1/15.4^m, 0)

II 90e. 0719. - 17060...

Date June 21/22 Sat/Sun Observers Bts

[illegible]

Spectr. Temp. ... 68°

Dome Temp./Hum. 67°F/80%

Transparency Conditions . Some Haze, Scattered cloud.

Focus 497

Spectr. Temp. ... 66°

Dome Temp./Hum. 62°F/80%

1972

Companson e/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1- 60"	40/300	2"	1.99v	F8	BC	830/.9	150m/.3	IV-NH	A	GU	V filter F=497	comp wk sl snr
1- 60"	40/150	"	"	"	"	"	"	"	A	"		comp wk fine
1- 60"	10/200	"	"	"	"	"	"	"	A	"	clouds	comp wk v sl snr
1- 60"			8.9	F	"	830/.68	"	IIaOc	B	Kk	clouds removed V filter	sl wk V narrow
1- 60"						"	150/.7	"	B		T=66° F=498	

193

Emulsion Batches:

Emulsion Batches:
5-68 III-Jb 07119-16050 (20^h)

Date 22/23 June '80 Observers B1 - R1

Sun / Mon

[illegible]

Spectr. Temp. 70°F

Dome Temp./Hum. 67°F/72%

Transparency Conditions Hazy then cloud

Focus 494

Spectr. Temp. 69°F

Dome Temp./Hum. 62°F/87%

194

Comparison e/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-3-94	40/122	2"	4.10	B7nn	BC	1200/-0.005	BS	IIIa-Jb	A	Be-Bln	Cloud	fine
5004								IIIa-Jb				
489					BC	1200/-0.25	BS	IIIa-Jb	B		T=69°F F=494	ok
1-3-94												
10-10					BC	830/.9	150	IV-NH	A		680 494	sl blue
10-10					BC	830/.9	"	"	B			sl blue sl strong

Spectr. Temp. ... 76°F Dome Temp./Hum. ... $22^{\circ}\text{C}/79\%$ Transparency Conditions ... *Good with a little haze* ...Focus ... 495 Spectr. Temp. ... 74°F Dome Temp./Hum. ... $20^{\circ}\text{C}/77\%$

196

Com. n pe/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
e/ND 12-12-1	400/130	2	7.57	A0	B.C.	830/68	B.S.	ITC0-E	A	MR-Am		
D1 2 4-10								ITC0-E				
e/ND 12-12-1	400/130		7.48	A0	B.C.	830/68	B.S.	ITC0-E	B	MR-AdusB		
e/ND 12-12-1	400/130		7.04	A1	B.C.	830/68	B.S.	ITC0-E	A	MR-Am		
e/ND 12-12-1	400/130		7.58	A2	B.C.	830/68	B.S.	ITC0-E	B	MR-Am		
e/ND 12-12-1	400/130		6.77	B9p	B.C.	830/68	B.S.	ITC0-E	A	MR-AP		
e/ND 12-12-1	40/20		3.73	G01b	B.C.	830/68	B.S.	ITC0-E	B	STJ Val		
e/- 10-10					B.C.	830/68	B.S.	ITC0-E	B		74°F 495	

197

Tue / Wed

Date _____

June 24/25

Observers

MR-Ri

Emulsion Batches:

π_{ad}-E. 07119-170.60....

TP-#E* 02719-20060.

[illegible]

Spectr. Temp. ... 79°F

Dome Temp./Hum. 25°C 73%

Transparency Conditions ... *lazy slow night*

Focus 494

Spectr. Temp. ... 74°F

Dome Temp./Hum. 21°C 84%

298

Comparison e/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-	10-10					BC	830/68	BS	IIao-E	A			no stellar
/ND	12-10-8	400/115	2-3	7.19	AD	B.C.	830/68	BS	IIao-E	B	Am-MR, SB2		
DL	4810								IIao-E				
/ND	12-12-11	400/120		7.04	A1	B.C.	830/68	BS	IIao-E	A	Am-MR, SB2		
/ND	12-12-11	400/130	2-3	7.00	A1	B.C.	830/68	BS	IIao-E	B	Am-MR	76°F 495	
/ND	12-2-8	400/150		6.77	B9p	B.C.	830/68	BS	IIao-E	A	Ap-MR		
DL	4810								IIao-E*				
/ND	12-12-11	40/20		3.73	G016	BC.	830/68	BS	IIao-E*	B	std 22		
-	10-					B.C.	830/68	BS	IIao-E*	B		74°F 495	

199

Date June 25⁻²⁶ / 80 Observers Wb-Ri

Emulsion Batches:

8th 68th Had-E 07/19-20060
5th 67th 098-OLE 20049-06050

[illegible]

Spectr. Temp.

Dome Temp./Hum. 23°C / 72%

Dome Temp./Hum. 20°C / 86%

Transparency Conditions 100

[illegible]

201

Date June 26/27 Thurs/Fri Observers Rm-Ri

Emulsion Batches:

STAN-F 0719-25060

[illegible]

Spectr. Temp. 80.....

Dome Temp./Hum. 22°C / 92% 92% outside Transparency Conditions 202

Focus . . . 494

Spectr. Temp. ... 76°F

Dome Temp./Hum. 21°C 90%

Comparison	
Op/Filter	Exp

[illegible]

203

Emulsion Batches:
8m 68° II-0-07119-25060

Date JUNE 30 / JULY 1 Observers But-Tn-MR

[illegible]

Spectr. Temp. 68°F Dome Temp./Hum. 65°F 487%Transparency Conditions Hazy 204Focus 498 Spectr. Temp. 63°F Dome Temp./Hum. $^{\circ}$ 99%

Comparison e/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
ND 1/8	400/?	1.2	2.77	K2 III	BC	G12/.68	BS	IIaOE	A	STD VEL	Zone is in 2 pos	no stellar
1- 100								IIIaJ	B		no stellar - discarded	
ND 2/2	400/135	1.5	7.19	A ₀	BC	G12/.68	BS	IIaOE	B	Am MR		fine but uneven
ND 2/2								"				
ND 12-12	400/130	2	7.04	A1	BC	G12/.68	BS	"	A	Am MR	cloud	vs1 str uneven
2- 400	400/132		7.00	A1	"	"	"	"	B	"		vs1 str
1- 400	400/132	3	6.77	B9P	"	"	"	"	A	Ap MR		vs1 str
18- 400	400/15	3	4.13	F7V	"	"	"	"	B	STD VEL		vs1 str
1- 400								IIIaJ	A		63°F	weak

295

Emulsion Batches:

8^m 6^m ... 11-0-0-07119--25060
11-0-0-07119--26060

Date 2/3 JULY 1980

Observers B. - Tu

WED / THUR

ALL NBW CHEMICALS

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.
44736F	FOCUS TEST							Fe/-	24-24
44736	HD 161096	17 ^h 38 ^m .5	+4° 37'	20:47	20 52	2 23 E	04° 40'	Fe/ND	13-13
44737	HD 165174	17 ^h 59 ^m .6	+1° 55'	20:57	21:40	01 56 E	01° 59'	Fe/ND	12-12-12
44737T	Spot Cals for	44736-43			15min @ 15V	D4 3900	D3 4300	D2 4810	
44738	HD 165174	17 ^h 59 ^m .6	+1° 55'	21 42	22 18	01 18 E		Fe/ND	12-12-
44739	"	"	"	22 21	22 52	00 44 E		Fe/ND	12-12-
44740	"	"	"	22 54	23 32	00 04 E		"	12-12-12
44741	"	"	"	23 34	00 23	00 45 W		"	12-12-12
44742	"	"	"	00 24	01 07	01 29 W	+1° 57'	"	12-12-
44743	"	"	"	01 09	01 41	02 05 W		"	12-12-
44744	"	"	"	01 42	02 20	02 45 W		"	12-12-12
44745	"	"	"	02 21	02 55	03 40 W		"	12-12-
44745T	Spot Cals for	44744-46,			15min @ 15V	D4 3900	D3 4300	D2 4810	
44746	HD 165174	17 ^h 59 ^m .6	+1° 55'	02 56	03 36	04 01 W	+1° 57'	Fe/ND	12-12

Spectr. Temp. $+69^{\circ}\text{F}$ Dome Temp./Hum. $66^{\circ}\text{F}/73\%$ Transparency Conditions Excellent 206Focus 49.7 Spectr. Temp. 62°F Dome Temp./Hum. $56^{\circ}\text{F}/78\%$

Comparison /Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
- 34					BC	830/68	BS	IIIa-J	A		T = 69°F F = 49.7	
10 B 3	40/3	3"	3.93	1K2III	BC	830/68	BS	IIa-OE	B	Std Vel.		fine
ND 12-12	400/150	3"	6.15	0.5III	RC	834/68	BS	IIa-OE	A	Var - Blu		v sl sm
								IIa-O-E				
12-12	200/150	3.5"	6.15	0.95III	BC	830/68	BS	IIa-O-E	B	Var Blu	Seeing worse than for previous Exp Exp Motor Voltage @ 1100V	
12-12	400/150	2.3"	"	"	"	"	"	"	A	"	broken 1" discards/Reland	
12-12	400/150	3.4	"	"	"	"	"	"	B	"	T = 67°F	
2-2	400/150	3"	"	"	"	"	"	"	A	"	Adjusted Fo Arr for middle Exposure moved to remove fringe for 1250 exp.	
12-12	400/150	5"	"	"	"	"	"	"	B	"		
12-12	400/150	3"	"	"	"	"	"	"	A	"		
12-12	400/150	3	"	"	"	"	"	IIa-O-E	B	"		
12-12	400/120	3	"	"	"	"	"	"	A	"	Clearer Clouds	
								"				
ND 12-12	400/59	3	"	"	"	"	"	"	B	Var + Blu	Aperture partially obscured Thicker cloud	

207

8^m 68^o

Emulsion Batches:

No. 15040-26060

Date 3/4 JULY 1980

Observers Blm - Tu

THUR/FRI

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.
44747F	FOCUS TEST							Fe/-	22-2
44747	HD 165174	17 ^h 59 ^m .6	+1° 55'	20:55	21 43	01 49 E	+1° 59'	Fe/ND	12-12-1
44748	"	"	"	21 44	22 15	01 17 E	"	"	12-12-1
44749	"	"	"	22 16	22 46	00 47 E		"	12-12-1
44749T	Spot Coll' for 44747-58				15 min @ 15V	D4 3900	D3 4300	D2 4810	
44750	HD 165174	17 ^h 59 ^m .6	+1° 55'	22 47	23:19	00 14 W	+1° 59'	Fe/ND	12-12-1
44751	"	"	"	23 20	23:50	00 17 W	"	"	12-12-1
44752	"	"	"	23 51	00 25	00 52 W	"	"	12-12-1
44753	"	"	"	00 27	00 54	01 22 W	"	"	12-12-1
44754	"	"	"	00 55	01 29	01 58 W	"	"	12-12-1
44755	"	"	"	01 31	02 12	02 41 W	"	"	12-12-1
44756	"	"	"	02 16	02 47	03 45 W	"	"	12-12-1
44757	"	"	"	02 48	03 26	03 54 W	"	"	12-12-1
44758	HD 203064	21 M.7	+43 31	03 30	03 36	00 51 W	+43° 55'	"	12-12-1

Spectr. Temp. 71°FDome Temp./Hum. $69^{\circ}\text{F}/68\%$ Transparency Conditions *cloudy (partially)*.....Focus ... 4.97Spectr. Temp. 66°FDome Temp./Hum. $63^{\circ}\text{F}/84\%$

208

Comparison
Filter Exp.

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-22-2					BC	830/68	BS	IIIa-J	B		T=71°C F=497	sl recd
12-2-4	400/136	1.2"	6.15	09.5 III	BC	830/68	BS	IIa-OE	B	Var-Blu	cloud	fine
12-2-4	400/130	1"	"	"	"	"	"	"	A	"		
12-2-4	400/130	1"	"	"	"	"	"	"	B	"		
12-2-4								"				
12-2-4	400/130		6.15	09.5 II	BC	830/68	BS	IIa-OE	A	Var-Blu	cloud	
12-2-4	400/130		"	"	"	"	"	"	B	"	cloud	fine
12-2-4	400/130	1"	"	"	"	"	"	"	A	"		
12-2-4	400/130	2"	"	"	"	"	"	"	B	"	cloud (broken spec)	developed separately
12-2-4	400/130	2-3"	"	"	"	"	"	"	A	"	cloud (same)	
12-2-4	400/130	2"	"	"	"	"	"	"	B	"	T=+67°F (darker problem)	
12-2-4	400/130	"	"	"	"	"	"	"	A	"		
12-2-4	400/100	3"	"	"	"	"	"	"	B	"		ok
12-2-4	40/15	2"	4.98	08VI	"	"	"	"	A	KUNAWA *		vs str

207

Fri-Sat

Emulsion Batches:

8^m 68° II. O. E. 15040-26060

Date July 4-5/80..... Observers Bl. Tn.....

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.
44759F	FOCUS TEST							Fe/-	22-22
44759	HD 165174	17 ^h 59 ^m .6	+1° 55'	20:59	21 47	01 42 E	+1° 59'	Fe/ND	12-12-12
44760	"	"	"	21 48	22 31	00 58 E	"	"	12-12-12
44761	"	"	"	22 32	23 02	00 27 E	"	"	12-12-12
44761	Spot Cal'n for 44759-63			15 min @ 15V		D4 3900	D3 4300	D2 4810	
44762	HD 165174	17 ^h 59 ^m .6	+1° 55'	23 04	23 29	00.01 W	+1° 59'	Fe/ND	12-12-12
44763	"	"	"	23 33	00 03	00 33 W	"	"	12-12-12
	"	"	"	00 04				"	12-

Spectr. Temp. 73°FDome Temp./Hum. $73^{\circ}\text{F}/77\%$Transparency Conditions *Some cloud*..... 219Focus 496

Spectr. Temp.

Dome Temp./Hum. $69^{\circ}\text{F}/89\%$Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIa-J	B		F = 496 T = 73°F	ok
100/130	1"	6.15	09.5 III	BC	830/.68	BS	IIa-OE	A	Var - Blu		(v sl unexp) fine
400/130	1"	"	"	"	"	"	"	B	"		"
400/130	2"	"	"	"	"	"	"	A	"		fine
							"				fine
100/130	2"	6.15	09.5 III	BC	830/.68	BS	IIa-OE	B	Var - Blu		fine
100/130	"	"	"	"	"	"	"	A	"	T = 73°F	v sl unexp fine
400/	"	"	"	"	"	"	"	B	"	Cloud -	

21) 2 Large Tours - No clean strg for tours,
Sat-Sun

Sat-Sun

Date July 5-6/80 Observers Bln-Tn

Emulsion Batches:

8^m 680 Παο-ε 15040-26060

[illegible]

Spectr. Temp. 72°F

Dome Temp./Hum. 67°F/80%

Transparency Conditions . gusty - sl. haze 212

Focus 496

Spectr. Temp. 64°F

Dome Temp./Hum. 55°F/89%

Comparison
Type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/130	3 ⁰ 4'	6.15	09.5 III	BC	830/168	BS	IIa-OE	B	Var-Bln	T = 72°F F = 496	fine v sl str v sl uneven
400/130	3'	"	"	"	"	"	"	A	"		
400/120		6.15	09.5 III	BC	830/168	BS	"	B	Var-Bln		fine v sl uneven
450/115 ⁺	4"	"	"	"	"	"	"	A	"	F = 497	fine v sl uneven
400/138	4"	"	"	"	"	"	"	B	"		sl wk
40/15		4.98	08J	"	"	"	"	A	Runaway		v sl str
40/17	5"	4.64	F7J	"	"	"	"	B	std vel		v sl str
				"	"	"	IIIa-J	A		T = 64°F F = 497	sl blue

213

Emulsion Batches:

8th 69° ... Д-0-е 15040-07070

Date 6/7 JULY 1980 Observers Bl-Tu
SUN/MON

[illegible]

Spectr. Temp. $+67.0^{\circ}\text{F}$Dome Temp./Hum. $66^{\circ}\text{F}/67\%$ Transparency Conditions Excellent - some haze..Focus 498.....Spectr. Temp. $+63.0^{\circ}\text{F}$Dome Temp./Hum. $60^{\circ}\text{F}/77\%$

214

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	830/.68	BS	IIIa	A		$T=67^{\circ}\text{F}$ $F=498$	ok
400/130	1.5"	6.15	09.5 III	BC	830/.68	BS	IIIa-OE	A	Var-Bln		v sl sm.
400/130	2.3	"	"	"	"	"	"	B	"		
400/130	2.4"	"	"	"	"	"	"	A	"		
							"				
400/128	3.5	6.15	09.5 III	BC	830/.68	BS	IIIa-OE	B	Var-Bln	$T=65.8^{\circ}\text{F}$ Set 497	
400/130	3.4"	6.15	09.5 III	BC	830/.68	BS	IIIa-OE	A	Var-Bln		exp fine dust?
400/130	"	"	"	"	"	"	"	B	"		v sl uneven exp fine
400/130	"	"	"	"	"	"	"	A	"	$T=64^{\circ}$	"
400/39	2"	"	"	"	"	"	"	B	"	cloud!	weak
80/32	1"	4.51	Ble	"	"	"	"	A	Be Bln	Cloud	v sl str dust on slit?
80/30	1-2	4.98	08.7	"	"	"	"	B	Runaway	Cloud	"
400/170	2-3	5.29	06.4	"	"	"	"	A	Runaway	Cloud	v sl str

Emulsion Batches:

Date July 8-9 . . . Tues-Wed Observers But-To

[illegible]

7070

70°F/82%

U.S. / haze - scattered clouds

496

mp. +

62°F / 95%

216

Comparison pe/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/1	12-3								D40	A			
1/1	9-1	40/16	1"	1.29	K2 IIIp	BC	830/68	BS	II a o E	A	STD VEL		v s/ sm
1/1	12-1	100/130	2"	7.19	A0	"	"	"	"	A	A ₁₀₀ MR		
1/1	12-1	100/92	2"	7.48	A0	"	"	"	"	B	"	Some cloud T=71%	
1/1	8-10								"				
1/1	12-1	100/141	3"	6.77	B9p	BC	830/68	BS	"	A	A _p MR		
1/1	12-1	80/34	1.5"	5.29	O6f	"	"	"	"	B	Runaway-B ₁		v s/ sm

217

Emulsion Batches:

Ilford-F. 15090 - 08070..

Date

July 9-10 Wed/Thurs

Observers

Rm - 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.
44787F	Focus							Fe/ -	12-12
44787	HD 163506 = 89 Her	17 ^h 51.4	+26° 04	20 45	21 ^h 16	1 ^h 43 E	+26° 05	Fe/ND	12-12
44788	HD 162714 = 40 Pl	17 ^h 47.3	-06° 07	21 ^h 25	23 ^h 32	0 ^h 37 W	-06° 08	Fe/ND	12-12
44788 T	Spot Calib	For 44787 - 44782			15 min @ 15 ev		D4 3900	D3 4300	D2 4810
44789	HD 178359 = TTA	19 ^h 03.2	+01° 08	23 ^h 44	2 ^h 13	2 ^h 01 W	+01° 21	Fe/ND	12-12
44790	HD 186688 = SV Cyg	19 ^h 40.6	+29° 01	02 18	3 ^h 30	2 ^h 42 W	+29° 15	Fe/ND	12-12
44791	HD 195295 = 41 Cyg	20 ^h 25.3	+30° 2	03 33	3 44	3 ^h 11 W	+30° 18	Fe/ND	12-12
44792	HD 222368	23 ^h 34.8	+5° 05	03 49	3 ^h 55	0 ^h 47 E	+5° 34	Fe/ND	12-12
44792F	Focus test							Fe/-	12-12
44792T1	Spot calibration	2	Hx	7 ^h	15 ^m				
T2	"	"	"	"	"				
T3	"	1	"	"	"				

Spectr. Temp. 70°F

Dome Temp./Hum. 18°C / 85%

Transparency Conditions ... Good

Focus 497

Spectr. Temp. ... 66°F

Dome Temp./Hum. 16°C / 92%

218

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					830/.68	BS	IIaOE	A		497	v. sl. red
400/170	2-3	5.82	F2Ia	BC	830/.68	BS	IIaOE	B	Ceph/Evans		v. sl. str
400/300		7.01 - 7.83	F8Ib - G3Ib	BC	830/.68	BS	IIaOE	A	Ceph/Evans		fine
400/231		7.3 - 9.1	F8 - K0	BC	830/.68	BS	IIaUE	B	Ceph/Evans		fine
400/105		6.8 - 7.7	F0 - G1	BC	830/.68	BS	IIaOE	A	Ceph/Evans		fine
400/30		4.43	F5II	BC	830/.68	BS	IIaOE	B	Ceph/Evans		sl. str
400/15		4.64	F7II	BC	830/.68	BS	IIaOE	A	std val		v. sl. str
				B.C.	830/.68	BS	IIaOE	B		497	
							098.02			66°F	
							098.02e				
							IIIaFe				

277

8^m 68^o

Emulsion Batches:

IT20-E.15040-08070

Date Thurs Fri July 10-11 1980 Observers Myr - R1

[illegible]

Spectr. Temp. 75°F

Dome Temp./Hum. 23°C / 75%

Transparency Conditions *lazy / clearer after 1 hr*

Focus 495

Spectr. Temp. 73°F

Dome Temp./Hum. 20°C / 91%

then lazy again toward dawn

220

Comparison e/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/- 8-8					B.C.	830/.68	120/1.0	IIa-D-E	A			slight tilt center obs
ND 8-8	80/26	1.2"	4.8	G0	BC	830/.68	120/.5	IIa-D-E	B	Solar Types		vsl str
ND 8-8	100/115	2"	5.5	G2	"	"	"	"	A	"		fine
ND 8-	100/83	2"	7.8	G5	"	"	"	"	B	"	BROKEN 2 PIECES clouded out on 1/3 exp.	
02 2 420								IIa-D-E				
ND 16-8	150/233	2"	6.6	G2	B.C.	830/.68	120/.5	IIa-D-E	A	"		vsl str
ND 8-8	100/230	2-3"	6.7	G2	"	"	"	"	B	"		fine
ND 8-8	100/58	2"	6.2	G5	"	"	"	"	A	"	can't complete before dawn - aborted at 1/2	fine
ND 8-8	80/24	2"	4.6	F7	"	"	"	"	B	Std Vel.		vsl str

221

Emulsion Batches:

Date Fri-Sat July 11-12 Observers Fla-Ri

5^m 6^o III. a. e. b. 12108-11040...

8^m 68° II. a^N O-E. 15049-10070...

[illegible]

Spectr. Temp. 77°FDome Temp./Hum. 74°F / 70% Transparency Conditions *clear - partially cloudy*.....Focus 492Spectr. Temp. 65°FDome Temp./Hum. 57°F / 76%

222

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-30-3					BC	1200/-0.025	BS	IIIaJeb	A			sl blue
ND 12-12	20/50		1.29	K2mp	"	" "	"	IIIaJeb	B	STD VEL		
1-8-8	40/130		3.93	F0p	"	" "	"	IIIaJeb	A	Asm-Sp/KK		fine
1-9-8	40/110		2.2	ASIII	"	" "	"	IIIaJeb	B	Asm-Sp/KK		fine
2-8-8	40/15		1.99v	F8	"	830/.68	150/.5	IIa0-b	A	Asm-Sp/KK	Set F=495 Temp 75°F; two arcs at end	vsl str comp sl str exp ok
1-8-8	40/—	3-4"	8.9	F	"	830/.68	150/.3	IIa0-b	B	" "	clouds	sl. flux.
2-8-8								IIa5eb				
2-8-8								IIa0-e				
ND 8-8-1	80/24		4.15	K3II	"	830/.68	150/.5	IIa0-e	A	STD VEL.	T=68°F, Set F=497 clouds	vsl str comp. str
1-8-8	80/60		4.17	F5IV	"	1200/-0.025	BS	IIa0-e	B	Asm-Sp/KK	T=67°F, Set F=495. clouds.	vsl strong very sharp
ND 8-8-	80/60		4.13	F7V	"	" "	"	IIa0-e	A	STD VEL	clouds.	fine
1-8-8					BC	1200/-0.025	BS	IIIaJeb	B		T=65°F F=495.	vsl strong comp sl weak

2 Tours.

Tao-E 15040-10070...

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[illegible]

Spectr. Temp. ... 67°F

Dome Temp./Hum. ... 21°C / 78%

Transparency Conditions ... *excellent*

Focus ... 498

Spectr. Temp. ... 69°F

Dome Temp./Hum. ... 14°C / 82%

224

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
ND 8-8-8 P3 P2 300 480	400/120	2	6.2	F8V	B.C.	830/.68	150/.5	IIao-E	A	Waterloo		vs/sr
								IIao-E				
ND 8-8-8	400/120		7.3	G1V	B.C.	830/.68	150/.5	IIao-E	B	Waterloo		
ND 8-8-8	400/120	3	6.2	F8V	B.C.	830/.68	150/.5	IIao-E	A	"		vs/sr
ND 8-8-8	400/250		6.9	M2III	B.C.	830/.68	150/.5	IIao-E	B	"		fine
ND 8-8-8	400/120		5.6	F8V	B.C.	830/.68	150/.5	IIao-E	A	"		vs/sr
ND 8-8-8	400/120	3-4	5.9	F1IV	B.C.	830/.68	150/.5	IIao-E	B	"		vs/sr
ND 8-8-8	400/250		6.6	M2	B.C.	830/.68	150/.5	IIao-E	A	"		fine
ND 8-8-8	200/80		5.2	L1 III	B.C.	830/.68	150/.5	IIao-E	B	"		vs/sr
ND 8-8-8	40/12		4.6	F7V	B.C.	830/.68	150/.5	IIao-E	A	Std V-L		vs/sr
1- 10-10					B.C.	830/.68	150/1.0	IIao-E	B		64°F 498	

Date Sun Mon July 13-14 Observers Rm-Ri

Emulsion Batches:
8^m 68° HAO-E 15040-13070...

[illegible]

Spectr. Temp. ... 73°F

Dome Temp./Hum. ... 21°C / 70%

Transparency Conditions ... excellent

Focus ... 496

Spectr. Temp. ... 69°

Dome Temp./Hum. ... 18°C / 83%

226

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
/- 12-					B.C.	830/.68	B.S.	IIa	A			
/ND 12-12	400/170	3	5.82	F2Ja	B.C.	830/.68	BS	IIa-E	B	Ceph/Evans	BROKEN 2 PIECES	
/ND 12-12	400/300		7.01 7.83	F8Ib G3Ib	B.C.	830/.68	B.S.	IIa-E	A	"		fine
02 4910								IIa-E				
/ 12-12	400/300		5.85 6.40	CF5- CF9	BC	830/.68	BS	IIaOE	B	Ceph/Evans		sl. strong
/ 12-12	400/300	2	5.87- 7.02	FLIb- G3Ib	BC	830/.68	BS	IIaOE	A	Ceph/Evans	Spect Temp = 72°	sl strong
/ 12-12	400/150	2	6.87- 7.66	F0- G1	BC	830/.68	BS	IIa-E	B	Ceph/Evans		v sl strong
/ 12-12	400/300	2	5.89	F2	BC	830/.68	BS	IIaOE	A	Ceph/Evans		strong
/ 12-12	400/300		4.08- 5.36	FLIb- G4Ib	BC	830/.68	BS	IIaOE	B	Ceph/Evans		strong
/ 12-12	400/150		6.06- 6.86	F5II F7I	BC	830/.68	BS	IIaOE	A	Ceph/Evans		strong
/ 12-12	400/30		4.43	F5II	BC	830/.68	BS	IIaOE	B	Ceph/Evans		sl. sm.
/ 12-12	400/15		4.64	F7I	BC	830/.68	BS	IIaOE	A	3rd vel		Fine
/ 12-12	400/130		6.7	F6I-E	BC	830/.68	BS	IIaOE	B	Ceph/Evans		fine
/ 12-12					BC	830/.68	BS	IIaOE	A			

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Emulsion Batches:

Ид № 15040-13070.

Date MON / TUES. 15/16 JULY Observers But-Pi

[illegible]

Spectr. Temp. ... 76°F Dome Temp./Hum. 23°C / 95%

Dome Temp./Hum. 23°C / 95%

Transparency Conditions HAZY.....228

Focus 495

Spectr. Temp. 76° F

Dome Temp./Hum. 22°C / 100%

Com anson

[illegible]

229

Emulsion Batches:

for both batches together 68, 8^m D19

1100-2 15040-14070

68, 5^m D19

098-02E 07119-08070

Date 17/12/30

Observers B. - T.

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.
44832 F	Focus Test							Fe/-	12-12
44832	HD 186427	19 39.2	+50° 17'	20 35	21 29	2 45 E	+50° 30'	Fe/ND	12-12
44833	"	"	"	21 30	22 29	1 45 E		"	12-12
44833 T1	Spot Caln for 44832, 37			15 min @ 15V		D4 3900	D3 4300	D2 4810	
44833 T2	Spot Caln for 44833, 38			15 min @ 15V		"	"	"	
44834	HD 186427	19 39.2	+50 17	22 37	02 24	02 10 W	+50 31	Fe/ND Ne/-	6-6-6 6-6-6
44834 T	Spot Caln for 44834-36			15 min @ 15V D3 4810		7V D1 Hd	7V D2 5450		
44835	HD 432	00 03.8	+58 36	02 31	02 37	02 04 E		Fe/ND Ne/-	9-9 9-9
44836	HD 9826	01 30.7	+40 31'	02 41	03 08	03 01 E		Fe/ND Ne/-	9-9 9-9
44837	HD 9826	"	"	03 13	03 21	02 46 E	+41° 18'	"	18-18
44838	HD 9826	"	"	03 22	03 30	02 37 E	"	"	18-18
44839	HD 3651	00 34.2	+20 43	03 33	04 07	01 04 E	+21 11	Fe/ND	10-12-1
44840	HD 432	00 03.8	+58 36	04 11	04 14			"	18-18
44841	"	"	"	04 15	04 16	00 23 E		"	18-18

Spectr. Temp.

Dome Temp./Hum. 65°/100%

230

Kt.	extra 1/2 in	Box 1	FT/LogT st)
1-10 0/1)	from big box in vacuum table		7050.

231

Emulsion Batches:

Date 1980 July 19/20 ^{Sat-Sun} Observers KK / Tn

Teo e 15046-24070
Uta e -24060

[illegible]

Spectr. Temp. 80°F DDome Temp./Hum. $76^{\circ}\text{F}/95\%$ Transparency Conditions $\text{haze \& scattered cloud}$ Focus 421 Spectr. Temp. 78° Dome Temp./Hum. 73°

232

Comparison e/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
ND	10-20-0	80/60	1.2"	3.73	FOP	BC	1200/-0.025	BS	II20-e	B	Asm-Sp/10K	cloud	fine
ND	20-2	40/20	1"			"	"	BS	II40-e	A	"	α Lyr	sl str
1-155		40/110	1"	2.2	A5T	"	"	"	II40-e	A	"	α Oph	high & numerous sl weak
		80/50	1"	4.15	F3II	BC	1200/-0.025	BS	II40-e	B	sl blue		sl wh
1-20-2						"	"	"	078	B			sl blue

233

Wed - Thurs

Date _____

July/23/24

Observers

Wkr./Tm

Emulsion Batches:

Emulston Datches.
 ..Π.Α-Ε 15040 - 14070
 098-Ε 07119 - 18070

[illegible]

Focus 502

Dome Temp./Hum. 67°F/78%

Transparency Conditions ... *Fine*

Spectr. Temp. 1160° F.....

Dome Temp./Hum. 61°F / 87%

284

[illegible]

235

Date 24/25 July 1980

Thurs / Fri

Observers Blu - Tu

Emulsion Batches:

098-02E 07119-18070

Π.Ο.-ε.....15090-20070

[illegible]

Spectr. Temp. 69°F.....

Dome Temp./Hum. 72°F/69%

Dome Temp./Hum. 63°/91%

Transparency Conditions *Fine - thinly cloudy*.....

236

Comparison e/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
ND 10-10						BC	1600/0.7	RS	098-025	A		T = 73°F F = 494	
ND 6-5-5		400/700	1"2"	6.86	G5V	BC	1600/0.7	RS	098-025	B	Std - Bl _w	thin cloud standard	v sl str
ND 6-6-5									098-025				
ND 2-2-2		400/194	2-4	675	F210	BC	830/1.68	BS	IIa-0E	A	Std - Bl _w	F = 496 T = 72°F	fine
ND 2-2-2									IIa-0E				
ND 12-12-2		200/	3-4"	5.84	K50V	BC	830/1.68	BS	IIa-0E	B	std-bl _w	some cloud F = 496	v dstr.

Date 30/31 JULY 1980 Observers Fai - Ri
Woo, Thins

098-0257 18070
07119

[illegible]

Spectr. Temp. 73°F Dome Temp./Hum. 21°C 84%Transparency Conditions *Sand*Focus 494 Spectr. Temp. 68°F Dome Temp./Hum. 17°C 86%

238

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
ND 10-10 - 10-10 ND 6-6 - 6-6 ND 6-6 - 6-6 7 10-10 - 10-10 ND 6-6 - 6-6 ND 6-6 - 6-6 ND 10-10 - 10-10					BC	1200/0.7	150/1.5	098-02E	A		$T=73^{\circ}\text{F}$ $F=494$	
	40/90		2.58	09.5I	BC	1200/0.7	150/1.5	098-02E	B	Be-Blu	Comp 5/15	Std
	400/800	3	4.51	B/c	B.C.	1200/0.7	150/1.5	098-02E	A	Be-Blu		Fine
								098-02E				
	800/800	2-3	6.75	F2IV	B.C.	1200/0.7	150/1.5	098-02E	B	Blu-Std	T	Fine
	100/100		6.7	K0I	BC	1200/0.7	150/1.5	098-02E	A	Blu-Std	$T=70^{\circ}\text{F}$ $F=495$	
					BC	"	50/10	098-02E	B			

New HV supply

Development

Spect

1

Focus

Spect

Exp. M

Exp. M

Spectr. Temp. 77°F.....

Dome Temp./Hum. 75°F/82%

Transparency Conditions partially cloudy then orometric
heavy cloud later.

Focus 4.92.....

Spectr. Temp. 75°F.....

Dome Temp./Hum. 70°F/92%

240

Comparison
e/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-0.025	120/1.0	IIaOe	A			
20/40	1-1	3.93	FOP	"	" "	120/.5	"	B	Asm-Sp/KK	Clouds	Fine
20/47	2-3	3.93	K2II	"	" "	120/.5	"	A	STD VEL	Clouds	Fine
40/131		2.2	A5II	"	" "	150/.5	IIaJeb	B	Asm-Sp/KK	Clouds	"
1/4		3.78	F5I	"	" "	150/.5	IIaOe	A	Asm-Sp/KK		Fine slightly
2/42		4.2	G8I	"	1200	120/.5	IIaOe	B	Spcl. STD.	"	Fine
							IIaO-B				
40/120		2.2	F	"	1200/0.2	120/.5	IIaOe	A	Asm-Sp/KK		Fine
40/15		1.99✓	F8	"	230/.68	150/.5	IIaOe	B	" "	Too Set Foc 5=4; 2 or 3 a-ord.	str
40/—		8.9	F	"	" "	150/.3	IIaOe	A	" "	cloud band of exposure	sluck
							IIaJeb				
20/27		2.6	B6p	"	330/.68	150/.5	IIaOe	B	" "	clouds	Fine
20/51		5.7	A2	"	" "	150/.5	IIaOe	A	" "	"	Fine
20/124		4.6	F72	"	" "	150/.5	IIaOe	B	STD VEL.	"	Fine
				"	" "	120/1.0	"	A		SET F 4H Temp 75°F	

Date Aug 3-4 Jan-Mar Observers Ri

Emulsion Batches:

Has-E 15040-01080 21 193

098-02E 0719-02080 23 187

[illegible]

Spectr. Temp. ... 76°F

Dome Temp./Hum. 70°F 81%

Transparency Conditions ... good

Focus

Spectr. Temp.

Dome Temp./Hum. 64°F 82%

242

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
21 193	4-4					B.C.	150/.5	150/1.0	Ilad	A		T 76°F 501	
23 157	3-3	400/100	2-3	7.4	WN+	B.C.	150/.5	250/.3	Ilad-E	B	Wln-WR	field drawn	bad focus or flexure
	3-3	400/71	3-4	7.7	WN+	B.C.	150/.5	250/.3	Ilad-E	A	"		11
	4-4	800/63	"	"	"	"	400/.38	250/.3	098-02E	B	"	"V" Filter T 75°F 500	Fe str. Focus
	4-4	800/103	2-3	8.3- 8.6	WN55 06	B.C.	400/.38	250/.3	098-02E	A	Wln-WR	"V" Filter	fixes? Fe str Fine
	4-4								098-02E				
	4-4					B.C.	400/.38	250/1.0	098-02E	B		T 70°F 500	
	3-3	800/282	3	8.3- 8.6	WN55 06	B.C.	150/.5	250/.3	Ilad-E	A	Wln-WR	T 70°F 503	flex
	3-3	800/266	3-4	8.1	WC+	B.C.	150/.5	250/.3	Ilad-E	B	"		Flex
	5-5	800/18		9.64	F7V	B.C.	150/.5	150/.7	Ilad-E	A	std val.		Fine
	4-4					B.C.	150/.5	150/1.0	Ilad-E	B		T 68°F 503	

20 191
23 158

Spectr. Temp. ... 7.5°F

Dome Temp./Hum. 70°F... 84%

Transparency Conditions *good first half*

Focus 4.95

Spectr. Temp. ... 6.8°F

Dome Temp./Hum. 64°F... 99%

244

Comparison
Type/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/NO 242-1	400/130	7.48	A0	B.C.	830/.68	B.S.	IIAD-E	B	Am-Md	Fe vs/ wt (OK) 51 wt	
Fe/NO 12-6				B.C.	830/.68	B.S.	IIAD-E	A		T 75°F 495	
Fe/NO 12-7	400/130	7.04	A1	B.C.	830/.68	B.S.	IIAD-E	A	Am-MR		51 wt
							IIAD-E				
Fe/NO 11-2	400/130	7.00	A1	B.C.	830/.68	B.S.	IIAD-E	B	Am-MR		51 wt
Fe/NO 11-1	400/130	7.58	A2	B.C.	830/.68	B.S.	IIAD-E	A	Am-MR		wt
C/NO 11-2	40/80	2.6	F2IV	B.C.	1200/.7	R.S.	O98-02E	B	SK-bl	T 70°F 495	51-
Fe/NO 11-1	400/157	6.7	K0V	BC	1200/.7	RS	O98-02E	A	SK-bl	CLOUDS.	51 wt
							O98-02E				
Fe/NO 11-1				BC	1200/.7	RS	O98-02E	B		T 68°F 495	

245

Wed Thrus

Date ... Aug. 6-7 Observers ... L. J. - T. n.

Emulsion Batches:

1119 J. E. 24060 1645
 1120 J. E. 15040-01080 18 17
 1121 J. E. 15040-05070

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.
44881	HD 138749	15 28.9	+31 42	20:18	20:58	02 11W	+31 28	Fe/-	10-10 10
44882	HD 141513	15 44.4	-03 07	21:02	21:38	02 37W	-03 20	"	"
44883	HD 149757	16 31.6	-10 22	21:42	21:59	02 09W	-10 22	"	"
44884	HD 157482	17 48.5	+40 04	22:04	23:52	W	+39 59	Fe/ND	15-F-10
44884T1	Spot Calc	for 44881-83, 85, 90		15 min	@ 17.5V 3900	15V 4300	15V 4810		
44884T2	Spot Calc	for 44884		15 min	@ 15V 3900	D3 4300	D2 4810		
44885	HD 200120	20 56.4	+47 08	23 58	01:23	W	+47 30	Fe/-	10-10-1
44886	HD 197419	20 38.5	+35 06	01:32	02:34	02 39W	+35 25	Fe/ND	12-2-
44886T	Spot Calc	for	44886-89		15 min @ 15V 3900	D4 4300	D3 4810		
44887	HD 222368	23 34.8	+05 05	02:40	02:49	00 01E	+5 30	Fe/ND	12-12-15
44888	HD 203064	21 14.7	+43 31	02:56	03 06	02 35W	+43 55	"	12-12-15
44889	HD 210839	22 08.1	+58 55	03:09	03 23	02 00W	+59 20	"	12-12-15
44890	HD 217675	22 57.3	+41 47	03:32	04 04	01 50W	+42 15	Fe/-	10-10-10
44890F	Focus Test					01 50W	+42 15	Fe/-	10-10

33
060 164
01020 17
05070

Spectr. Temp. 79°F

Focus 4.1

Spectr. Temp. 73°F

Dome Temp./Hum. $75^{\circ}\text{F}/73\%$

Dome Temp./Hum. $70^{\circ}\text{F}/98\%$

Transparency Conditions light clouds
 $\text{Circus off on all night}$

Note re new power supply on Exposure Meter
said wire was cut $\sim 250\%$ 246

Companso pe/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
0/-	235	1-2	4.1	B7nn	BC	1200/-0.025	BS	IIaFe	B	Be-Bln	Exp METER Moving Ahead S.	
"	204	2	3.5	A0V	"	"	"	"	A	SB-Bln		
"	200	2	2.58	09SV	"	"	"	"	B	Be-Bln		
0/ND	804	2-4	6.2	2F8	"	"	"	IIaOe	A	Triple-Bln	some cloud	Fine
								IIaJ-e				
								IIaO-e		broken, but saved (It was list one)		
0/-	200	1-2	4.5	B1e	BC	1200/-0.025	"	IIaJ-e	B	Be-Bln	Set to 492 T=75°F	
0/10	84	2"	6.5	B2Fe	"	830/.68	"	IIaOe*	A	Runaway-Bln	Set to 495 T=74°F	Fine
								IIaOe*			lots of cloud	
0/-	25	3"	4.6	F7V	BC	830/.68	BS	IIaOe*	B	Std Vel.		Fine
0/-	20	2"	4.9	08V	"	"	"	"	A	Runaway		Fine
"	20	2"	5.3	06V	"	"	"	"	B	"		Fine
0/-	208	2-3	3.6	B1p	"	1200/-0.025	BS	IIaJ-e	A	Be-Bln	Set to 493 T=73°F	5' w k
					"	"	"	IIaO	B			
				IIaOe	Dev Aug 8 D19	@ 68°F	BS			8 min		
				IIaJ	Dev Aug 7 D19	@ 68°F	BS			5 min		

247

Date _____

7/8 Aug Thon/Fri

Observers

Myd - Tu

87 650

Emulsion Batches:

71a0-9

15040-05070

131

[illegible]

2-05070
11 131

Transparency Conditions *Fine - hazy*

Spectr. Temp. ... 7301

Dome Temp./Hum. 70°F / 98%

248

[illegible]

249

Emulsion Batches:

IIaD-P... 15040-05070 ²⁰₁₆₀
 IIaJ-P... 24060 16hrs ³¹₁₈
 IIaD-P... 15040 08080 17 179

Date Aug. 8-9, Fri.-Sat. Observers ... Fla.-In.....

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.
44896F	Focus Test							Fe/-	8-8
44896	HD 137909; β Cor Bor	15 ^h 23.7 ⁿ	+29° 27'	20:31	20:38	02 ^h 04W		Fe/NO	18-18
44897	HD 159561; α Dph	17 30.3	+12 38	20:42	20:48	60 08 W		Fe/-	18-1
44898	HD 202109 Σ Cyg	21 08.7	+29 49	21:06	21:57	02 28 E		FeNe/66	5-7-5
44898T	Spot Cals for 44896, 98-44903			15 min @ 15V		D4 3900 D3 4300 D2 4810			
44899	HD 215182 n Peg.	22 38.3	+29 42	21:58	22:51	03 01 E	30 11'	FeNe/66	3-8-5
44899T	Spot Cals for 97			15 min @ D4		175V 3900 15V 4300 15V 4810			
44900	HD 176524 β Del	20 22.9	+14 15	23:06	23 12	0 30 E		Fe/ND	10-10
44901	HD 206901 r Peg	21.40.7	+25 11	23:16	23 26	01 24 E		"	10-10
44902	HD 201156 A	21 02.7	+33 44	23:45	02 39	02 23 W	+34 03	"	10-10
44903	HD 217675 α And	22 57.3	+41 47	02:49	02 52	00 42 W		"	10-10
44904	HD 217182	23 01.5	+42 37	02:57	03 13	01 06 W		"	10-10
44904T	Spot Cals for 44904-05								
44905	HD 217188	23 06.9	+4 27	03:17	04 28	02 06 W	+4 57	"	10-10

50-0
30-0
30-0
19 179

Spectr. Temp. 76.5°F Dome Temp./Hum. 75°F / 98% Transparency Conditions Fine - hazy - s/c cloudy
 Focus 492
 Spectr. Temp. 74 Dome Temp./Hum. 70°F / 85% 250

Companso pe/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
e - 8-3					BC	1200/-0.025	BS	IIaO-e	A			
e/NO 12-1	40/40		3.93	FOP	"	"	"	"	B	Asm Sp AK		5
e - 8-	40/128	2"	2.2	A5II	"	"	"	IIIaJeb	A	Asm-Sp /KK		Fine
e/152-	0/151	3"-5"	4.2	G8II	"	1200/0.2	120/5	IIaO-e	B	SPEC STD	W66 = Position 5 on scale... Much misfiring of tone	Fine
								"				
- 40/	56	3"	3.8	G8II +F?	"	1200/0.2	120/5	IIaO-e	A	Asm-Sp /KK	clouds broken, but held together by emission	3PCS Fine
								IIaJ-e				
- 40/	27	3"	3.78	FSTV	"	1200/-0.025	150/5	IIaO-e	B	Asm-Sp /KK	T=76°F	Fine
1 40/	30	2-3"	4.4	FSTV	"	"	"	"	A	" "		Fine
4 40/	307	2-4"	7.3	A2	"	830/.68	150/3	"	B	" "	T=76°F Hard to distinguish Set F=495 AcB	Fine
10 40/	07		3.6	B6p	"	"	150/5	IIaO-e	A	" "	Clouds. T=73°F set F-496	Residual 5/yr
10 40/	40		5.17	A2	"	830/.68	150/5	IIaO-e*	B	" "	broken / p. sound shoiled in development	stuck
" 40/	150	2-5"	7.01	B6p	"	830/.68	150/5	"	A	Bin Pencils *	broken / p. sound / ?	stuck
				IIIaJe	Dev Aug 11 @	69°F	5 min	Bts				
				IIaOe			8 min					

Transparency Conditions *Cloud at first*.....

Focus496.....

Spectr. Temp. 64°F.....

5110

Dome Temp./Hum. ~~.....~~ ^{+59°F/100%}

1. Pass Persian sheep

Pearl Percival

252

[illegible]

753

Emulsion Batches:

IIIaJ.e 07119-25070

Παθ-ε 07119-02080

[illegible]

250-70
22080

Spectr. Temp. 72°F Dome Temp./Hum. $65^{\circ}\text{F}/94\%$ Transparency Conditions Excellent
 Focus 49.6
 Spectr. Temp. Dome Temp./Hum. $62^{\circ}\text{F}/99\%$ 254

Comparison e/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-2-2	30/300	4-3	4.51	B1e	BC	830/.68	BS	IIIa-JE IIa J-E	A	Be - Blu		fine
1/40 1-6-1	30/200	3-4	4.51	B1e	BC	1200/.7	BS	098-02 E 098-02 E	B	Be - Blu	No Good. Grating covered T = 70°F F = 195	blank
1-9-9	40/104	3	2.43	B0e	BC	1200/.7	BS	098-02 E	A	Be - Blu	4810 v. strong	v str
1-18-1	40/102	23	2.43	B0e	BC	1200/.025	BS	IIIa-JE	B	Be - Blu	T = 68°F F = 194	slr
1-18-1					"	"	BS		A			sl. cen

Date 15/16 August 1980
Fri/Sat.

Observers Blu - Ri.....

Emulsion Batches:

19080 DA@69°F R: 07F-2E..07119-02080' 22 250
" " " " " 07A-5E..07119-25070'

[illegible]

-31 185
22 290

Spectr. Temp. 70°F

Dome Temp./Hum. $69^{\circ}\text{F}/\text{H}=78\%$

Transparency Conditions *Occasional cloud banks*

Focus 49.5

Hazy otherwise 256

Spectr. Temp. 62°F

Dome Temp./Hum. $57^{\circ}\text{F}/\text{H}=90\%$

Exp. Mtr. test $\Rightarrow$ 23 counts/min @ $G=40$

Comparison
e/Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				BC	1200/-0.25	BS	IIIa-JE	A		$T=70^{\circ}\text{F}$ $F=495$	cont/sl
0/140	4	2.58	09.5V	BC	1200/-0.25	BS	IIIa-JE	B	Be - Blu		2 blue Fine
40/90	4	2.58	09.5V	BC	1200/0.7	RS	098-02E	A	Be - Blu	Grating slightly loose?	5/str
40/90	3	4.10	B7nn	BC	1200/0.7	RS	098-02	B	Be - Blu		Fine
				BC	1200/0.7	RS	098-02	A		$T=68^{\circ}\text{F}$ $F=495$	cont/blue
40/49	2	4.10	B7nn	BC	1200/-0.25	BS	IIIa-JE	B	Be - Blu	Cloud 21:07 - Rain 21:16 * Telescope moved before final Fe etc	v w/f
							IIIa SEB				
							098-02E			foggy	
00/452		6.35	Ap	BC	1200/0.7	RS	098-02E	A	Be - Blu	Intermittent cloud	5/w/f
00/		4.51	B1c	BC	1200/0.7	RS	098-02E	B	Be - Blu	Cloud 1	

19080 DA0690FR Emulsion Batches: # 5151000

Date Sat-Sun Aug 16/17 Observers Rm-Ri

Emulsion Batches.

ITAO-E15040.08.080.....	17 181
ITAO-E* 15040.11080.....	18 179

[illegible]

Spectr. Temp. 68°F Dome Temp./Hum. 62°F 97%Transparency Conditions *some wispy clouds around*

Focus

*four 1st hole*Spectr. Temp. 66°F Dome Temp./Hum. 62°F 84%

258

Comparison
Filter Exp

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
12-1 400/375	3	5.8- 6.4	CFS- CF9	BC	830/.68	BS	H ₂ O-E	A	Ceph/Evans	Focus = 494 ^{Spect} temp 68°F	Few Fine
12-2 400/190		~7.5	F0- G1	BC	830/.68	BS	H ₂ O-E	B	Ceph/Evans		Few sl/wt
12-3 400/375		~7	F6Ib- G5Ib	"	"	"	"	A	Ceph/Evans	BROKEN 3 PIECES	Few Fine
12-4 400/37		4.4	F5I	"	"	"	"	B	Ceph/Evans	F = 498 62°F	Few str
12-5 400/375	3	~6.6	F7Ib G8Ib	"	"	"	"	A	Ceph/Evans		Few sl/str
12-6 400/256		~6	F5S- F7	"	"	"	"	B	Ceph/Evans		Few Fine
12-7 400/65		3.5	K2II	"	"	"	"	A	std vel		Few sl/str
12-8 400/65				"	"	"	"	B			cont'd 15/16
										All Fe Hies particularly wk in the blue	
										Focus test quite str though?	

2020 2017

m. 466°F / 95%

Transparency Conditions *sl haze is occasional cloud*

496

..70°F.

66°F / 93%

260

Comparison	Exp
PD	1/6-1/6
1/6	1/6
1/6	1/6
1/6	1/6

261

Emulsion Batches:

Tao E 15040-11080

Date Aug 29/21 Wed/Thurs Observers Rui-Ri

[illegible]

Spectr. Temp. 75°F

Dome Temp./Hum. 68°F...96%

Transparency Conditions

Focus 495

Spectr. Temp. 70° F.....Dome Temp./Hum. *64°F 100%*

202

[illegible]

263

Emulsion Batches:

5m 680

8m 680

IIIa:eb. 7119-25070.....

№0-с 15040-11080

Date AUG. 22/23..FRI-SAT Observers Flu-Ri.....

[illegible]

Spectr. Temp. 70°F.....

Dome Temp./Hum. 67°F/H=97%

264

EXP. METER TEST: 21 counts/minute @ G 40

Companson of Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-8-7	30/310	2-3	3.66	F0p	BC	1200/-0.025	B5	IIIaJeb	A	Asm-Sp/KK		wk
1-8	40/150		B= 2.2	ASII	"	" / "	"	"	B	" "		sl wk
2/ND-6	30/70		2.62	K3II	"	" / "	"	IIaOe	A	STD VEL	Haze and fog increasing.	
2-6-5					"	" / "	"	IIaOe	B		T=70°F Set F=493.	sl wk comp wk
5000								IIIaJeb			<u>blue</u>	
1/10												
1/10	50/291	4	3.19	G8II	BC	1200/.2	120/.5	IIaOe.	A	SPEC. STD.	DOME T=67°F, H=99% T=70°F, Set F=493	shock good comp wk
2								IIaO-E				
1/10										CLOSED 03:00	FOG! Dome T=64°F, H=100% Spectr. T=70	

265

Emulsion Batches:

Date Scot. Sum. Aug 23-24/98 Observers BK-R

8m 680

Trap-E 1540-11080

Παο-Ε. 15040-22080...

[illegible]

Spectr. Temp. ... 73°F

Dome Temp./Hum. 68°F 82%₂

Transparency Conditions ... good

Focus ... 49.6

Spectr. Temp. ... 68°F

Dome Temp./Hum. 64°F 93%₁₀

266

Companso pe/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/ND 02 4810	10-10	200/210	2-3	5.9	M4	B.C.	830/.680	150/.5	Ilao-E	A	Waterloo		fine
									Ilao-E				
Fe/ND 0-10	10-10	200/50		5.6	F8	B.C.	830/.680	150/.5	Ilao-E	B	"		fine
Fe/ND 0-10	10-10	400/200		7.1	K0				Ilao-E	A	"		fine
Fe/ND 0-10	10-10	40/20		2.9	F8				Ilao-E	B	"		st strong comp sl. str.
Fe/ND 02 4810	10-10	400/150		7.5	G5				Ilao-E*	A	"		good
									Ilao-E*			Broken	
Fe/ND 10-10	10-10	100/150	2-3	7.5	G5	B.C.	830/.680	150/.5	Ilao-E*	B	"		good
Fe/ND 10-10	10-10	100/500		6.6	M2	"	"	"	"	A	"	770°F F497	fine
Fe/ND 10-10	10-10	100/200	3-4	7.7	K0	"	"	"	"	B	"		fine
Fe/ND 10-10	10-10	100/110		5.4	K3	"	"	"	"	A	"		compete
Fe/ND 10-10	10-10	80/46		4.6	K3	"	"	"	"	B	"		fine
Fe/ND 15-10	15-10	40/27		3.15	K2.11	"	"	"	"	A	Std Val		s' strong
Fe/- 10-10	10-10				"	"	"	150/1.0	"	B		T68°F F497	sl blue

Date Aug. 24/25 Observers W.H. - Bts

Emulsion Batches:

5 ^m 680	09802e	07119-16080
8 ^m 680	11a0e	15040-22080

[illegible]

Spectr. Temp. 76°

Dome Temp./Hum. 74°F./76%

Transparency Conditions ... sky ... streaked with cloud ...

Focus 491

Spectr. Temp. 74°

Dome Temp./Hum. 70°F./76%

Heavy Haze @ 200 EST.

268

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
800/125	1"-2"	7.1	WC+	BC	400/.38	250/.5	098-02e	A	Wb-wr	F=491" V Filter T=76°	fine
800/204		7.1	WC+		150/.5	"	IIa0e	B	"	F=501	focus? v sl strong
800/201	3"	8.3 8.6 V	WN5.5 +06		150/.5	250/.3	IIa0e	B	"		
800/100		"	"		400/.38	250/.3	098-02e	A	"	probably wrong star F=500 V filter T=75°	sl str
800/60					400/.38	250/.3	09802e	B	"	Stopped early clouds. V filter	fine
							09802e				
800/101		4.64	F7II		400/.38	250/.3	09802e	A.	STD vel.	V filter	sl strong
800/201		4.64	F7II		150/.5	250/.3	IIa0e	B	STD vel	F=501	strong
800/40		2.65	BoIIe		830/.64	120/.5	IIa0e	B		F=495 T=74°	strong comp. w/
800/10		2.65	BoIIe		400/.38	120/.5	098-02e	A		V Filter - Clouds!	v sl str
							09802e	A		F=495 T=74°	v sl blue

269

Emulsion Batches:
8th 6802 ..IIaOc..15240...24080

Date Aug. 25/26 ^{Mon/Tues} Observers Burt-Bts

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.
44955F	FOCUS TEST							Fe/-	10-10
44955	HD161096 (BOPH)	17 38.5	+04 37	19 59	20 03	+00 20W	+04 36	Fe/ND4	16-32
44956	HD168481	18 14.8	+15 47	20 10	21 46	+01 28W	+15 54	Fe/ND4	16-16-
44957	HD 176003	18 53.0	+44 05	21 54	23 17	2 18W	+44 15	"	16-16-16
57T	Spot Cal for	44955-57		15min 15V	^{D4} ① 3900	^{D3} ② 4300	^{D2} ③ 4810		
57F	Focus test							Fe/-	10-10
	Aug 27								
44937T2	Spot Cal plate			15min	@ 7V	^{D2} 5450	^{D2} 5450	^{D2} 5450	

Spectr. Temp. 78°F

Dome Temp./Hum. 76°F/79%

Transparency Conditions haze, scattered cloud

Focus 494

Spectr. Temp.

Dome Temp./Hum.

270

Comparison
e/Fitted Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-10-3				BC	830/68	BS	Ilao	A		F=494 T=76°	good
1-10-3	40/20			"	"	BS	Ilaoe	A			good
1-10-3	100/250	1-2	7.08	Fop	"	"	"	A	Ap MR		good
" 11-10-3	100/250	7.00	A1	"	"	"	"	A	Am MR		comps strong star sl. sn.
1-10-3							Ilaoe	B		F=494 T=76°	good
2-10-3							Ilao				

241

Tues - Wed

Emulsion Batches:

8^m 68^o Πο.ε. 15040-25080

Date Sept 2-3 / 80 Observers TJ

[illegible]

280

65°F / 42%

clearing - s/bury

497-498.....

63°F.....

58°F / 100%+

 $2+2$

Comparison No./Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
e/ND	164	300/485	5-3	7.04	H1	BC	830/1.68	B5	1140-e	B	Am MR		fine
D2	810								"				
e/ND	114	500/520	4-2	7.00	H1	BC	830/1.68	B5	"	A	Am MR	T=68°F	fine
"	144	400/300	2"	6.77	B9p	"	"	"	"	B	Ap MR	T=66°F Set 498 ^{some cloud}	v sl str
"	202	40/27	3"	4.64	F7V	"	"	"	"	A	std Vol	Too damps foggy for UV	v sl str
e/ND	202					"	"	"	098	B	T=63°F	Set 498 Too Wet	v sl blue

273

Wed - Thurs

Date Sept 3/4 80 Observers Rm-Ta

Emulsion Batches:

8^m 69^o Παθ-ε 15040-25080
 (New stop) Παθ-ε* 15040-24080

[illegible]

Spectr. Temp. 65.5.....

Dome Temp./Hum. 68°F 80%

Dome Temp./Hum. 62°/- 100%

Transparency Conditions *hazy - Foggy*

 $2+4$ [illegible]

225

Emulsion Batches:

Date 4/5 SEPT '980 Observers Bl - Tu
THUR/FRI

5^m 69° 098-2E 07119 16080
8^m 69° 120-e 15040 04090

[illegible]

Spectr. Temp. 72°F

Dome Temp./Hum. 71°F/80%

Transparency Conditions very hazy... s/c cloud

Focus 494 for 1200/1.7

Spectr. Temp. 72°F

Dome Temp./Hum. 67°F/100%

276

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					BC	1200/0.7	RS	098	B		F=494 T=72.5	
	40/180	1"	4.51	B1e	BC	1200/0.7	RS	098-02E	A	Be-B1u		good fine
								098-02E				
	30/158	1"	4.51	B1e	BC	1200/0.7	150/1.7	098-02E	B	Be-B1u	F=496	stronger than B5 plate fine
	30/50	1"	4.51	"	"	830/1.68	154/1.7	D40-e	A	Be-B1u	thin cloud	
	80/60	1-2"	"	"	"	"	BS	"	B	"	cloud at start	
								"				
	80/60	1-2	4.98	08V	BC	830/1.68	BS	"	A	Runaway	set 496 T=73°F	
	100/300	1.2	6.52	B2IIe	"	"	"	"	B	Runaway	- - -	
	100/166	"	7.39	B2III	BC	830/1.68	BS	IIa-0E	A	Runaway	cloud T=72°F	

277

Emulsion Batches: *

Emulsion Batches:
II-0-c 15090-04090

Date 5/6 Sept 1980 Observers Hud In

[illegible]

290

Spectr. Temp. 73° F.....

Dome Temp./Hum. 68°/75%.....

Transparency Conditions fine.....

Focus 496.....

Spectr. Temp. 68° F.....

Dome Temp./Hum. 68°/95%.....

278

Comparison
Type/Filter Eq

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Till	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/ - 30-2				BC	830/68	120/10	098	A			
Fe/10 30-2	10/29	2"	3.93	K2III	"	120/15	II-O-e	A	Std Vel		u sl str.
" 30-2	10/34	3"	5.0	G0	"	"	"	B	Solar Type		u sl str.
52							"				
410											
Fe/10 30-2	10/180	2"	6.9	G2	BC	830/68	120/15	A	Solar Type		fine
Fe/10 30-2	10/70	2-5"	6.7	G2	"	"	"	B	"	clouded out.	good

279

Sat - Sun

2 Large Tours.

Emulsion Batches:

II 200 15040-24080

1705-e

Date 6-7 Sept 1980 Observers Kli-Tg

[illegible]

Spectr. Temp. ... +69°F

Dome Temp./Hum. 63°F / 90%

Transparency Conditions *Photometric*.....

Focus . . . 498

Spectr. Temp. ... 62°F

Dome Temp./Hum. 57°/100% +

280

[illegible]

281

Date 7/8 Sept. 1980..... Observers Blu-Tn.....
Sun/Mon

Emulsion Batches:
8^m 69° $\rightarrow$ IT-0-e 15040 - 04090
3 hrs Evapn $\rightarrow$ IT-0-e* 13050 - 07090

[illegible]

282

7

283

Emulsion Batches:

Emulsion Batches.
ΠαΟ-ε 13050 - 07090

Date Sept 8/9 Mon/Tues Observers Rm-Tu

[illegible]

7093

+65°/ 80%

Some Cloud
Cloud

Spectr. Temp. ... 65°F ...
$$+60^{\circ}\text{F}/100\% +$$

284

Comparison of Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100/176	2"	7.5	F0- G1	BC	830/.68	BS	IIaOE	B		Ceph/Evans	Focus 497 T= 70%	good
							"					
80/70	2	4.4	FSII	BC	830/.68	BS	IIaOE	A		Ceph/Evans	(Red end missing) 1pc saved	
50/766	3"-1"	6.5	F7Ib- G5D	BC	830/.68	BS	IIaOE	B		Ceph/Evans	67°F	good
50/350	2"	5.9	F2	BC	830/.68	BS	IIaOE	A		Ceph/Evans		vsl str
1/70	2"	2.5	F7Ib- F8B	BC	830/.68	BS	IIaOE	B		Ceph/Evans	66°F focus 498	strong
1/35	0	"	"	BC	830/.68	"	IIaOE	A		Ceph/Evans		vsl str
10/70	2	2.3	FSIb	BC	830/.68	"	IIaOE	B		Ceph/Evans		strong
10/35	2	"	"	"	"	"	IIaOE	A		Ceph/Evans	broken 2 pieces	strong
10/26?	2"	7.9- 8.8	F6- G1	BC	830/.68	"	IIaOE	B		Ceph/Evans	(bad judgement) prob no good	too wht
				"	"	"	IIIaJ	A				

285 #1

Emulsion Batches:

Ilford Exp. 27

Date 1950 Sep 10/11 Wed/Thu Observers Wlr - Ri - KK

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.
45001F	Focus							Ne/ND 5-5	
45001	HD 201092	21 ^h 2.4	+38° 15'	21 ^h 20 ^m	21 ^h 26 ^m	0 ^h 35 ^m E		Ne+ND	5-
2	"	"	"	21 ^h 28 ^m	21:37	0 25 E		Ne+ND 66 +ND1	5-5
45003F	Focus								
3	HD 216131	22 ^h 45.2	+24° 4'	23 ^h 03	23 ^h 04	41 ^m E		Ne/ND	20
4	HD 216131	"	"	23 ^h 07	23 ^h 09	"		"	10
45005F	Focus							Ne/ND	10-10
5	HD 905	0 ^h 8 ^m 3	+40° 29'	0 ^h 18 ^m	0 ^h 25 ^m	0 ^h 45 ^m E		Ne/ND	10
6	HD 905	0 ^h 8 ^m 3	+40° 29'	0 ^h 27 ^m	0 ^h 30 ^m	0 ^h 48 ^m E		"	5
7	HD 5317	0 ^h 49.9	+24° 1'	0 ^h 48 ^m	0 ^h 51 ^m			"	5
45008F	Focus							Ne/ND	10-10
8	HD 9138	1 ^h 24.9	+5° 38'	1 ^h 43 ^m	1 ^h 45 ^m			Ne/ND	5
9	"	"	"	1 ^h 47 ^m	1 ^h 49 ^m			"	5
10	"	"	"	1 ^h 50 ^m	1 ^h 53 ^m			"	"
11	"	"	"	1 ^h 53 ^m	1 ^h 56 ^m			"	"

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions *photometric*

Focus

Spectr. Temp.

Dome Temp./Hum.

286

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/10 5-5					BC/IT	150/.5	150/.5	IIaDe	IT			
1/10 5-5	400/5	~4"	6.2	K7II	"	"	"	"	-2	Test	V filter over slit OK. Comp OK	
1/10 5-5	400/10	"	"	"	"	"	"	"	-3	Test	STRONG. Comp OK	OK
1/10 20	80/4		3.5	G8II	"	400/.28	150/.5	IIaDe	11		* Spectrum visible on image tube	ext. str.
1/10 10	80/8		3.5	G8II	"	"	"	"	13	"	in real time.	ext. strong
1/10 10	400/10		5.6	dA7	"	400/.23	150/.5	"	11	"	Focus drawn out ~ 1/10 rev. from prev.	
1/10 5	400/5		"	"	"	"	"	"	2	TEST		
1/10 5	400/5		"	"	"	"	"	"	3	TEST		
1/10 10	400/5		6.14	gM2	"	"	"	"	4	"	wrong #?	
1/10 5	400/15		6.2	K4	"	1200/.475	150/.5	"	1			
1/10 5	400/15		"	"	"	"	"	"	2	STD Vel (TEST)		
1/10 5	400/15		"	"	"	"	"	"	3	"		
1/10 5	"		"	"	"	"	"	"	4	"		
1/10 5	"		"	"	"	"	"	"	5	"		

284

Date _____

Sept 10/11

Observers

Wh-Ri

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[illegible]

Transparency Conditions

Spectr. Temp.

Dome Temp./Hum.

288

[illegible]

289

Emulsion Batches:

Date Sept 11/12 Observers Wlr-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.
45016F	Focus	—	—	—	—	—	—	Ne/ND	10-10
16	HD 192163	20 ^h 8 ^m .4	+38° 3'	20 ^h 20 ^m	20 ^h 47 ^m	0 ^h 15 ^m E.	—	"	5
17	HD 200527	20 ^h 58.8	+44° 24'	21 ^h 02 ^m	20 ^h 06 ^m	0 ^h 48 ^m E	—	"	"
18	HD 201733	21 ^h 06.4	+45° 6'	21 ^h 12 ^m	21 ^h 30 ^m	(?)	—	"	"
19	HD 203064	21 ^h 14.7	+43° 31'	21 ^h (?)	21 ^h 39 ^m	0 ^h 30 ^m E.	—	"	"
45020F	Focus -	—	—	—	—	—	—	—	20-20
20	HD 208727	21 ^h 53 ^m .2	+48° 12'	22 ^h 04 ^m	22 ^h 08 ^m	40 ^m E	—	Ne/ND	10
21	"	"	"	22 ^h 09	22 ^h 16 ^m	—	—	"	10
22	"	"	"	22 ^h 17 ^m	22 33	15E	—	"	10
45023F	Focus	—	—	—	—	—	—	"	40/10
23	HD 886. (Y Peg)	0 ^h 8 ^m .1	+14° 38'	23 ^h 59 ^m	0 ^h 03 ^m	1 ^h 00 E	—	—	20
24	"	"	"	0 ^h 3 ^m	0 ^h 10 ^m	53 ^m E	—	—	20
25	"	"	"	0 ^h 11 ^m	0 ^h 22 ^m	41 E	—	—	20
26	"	"	"	0 ^h 23 ^m	0 ^h 45 ^m	17 E	—	—	—

Spectr. Temp.

Dome Temp./Hum.

Transparency Conditions *High Patchy cirrus*

Focus

Spectr. Temp.

Dome Temp./Hum.

290

Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4/ND	10					BC/IT	1200/475	150/5	IIaDe	1			
"	5	300/40	2-3 sec	7.7	WN	"	"	"	"	2	WLR/WR	"V" filter.	
"		100/15	"	6.2	M3I	"	"	"	"	3	Test.		
"		100/20	"	6.5	B3e	"	"	"	"	4	Test.		
"		100/20	"	4.99	O8	"	"	"	"	5	Test		
	20					"	1200/200	"	"	1			
2/ND	10	400/5		6.33	A0	"	"	"	"	2			
"		400/10		"	"	"	"	"	"	3			
"		400/20		"	"	"	"	"	"	4			
"						"	1200/.100	"	"	1			
1/ND		100/20		2.83	B2II	"	"	"	"	2			
1/ND		100/40		"	"	"	"	"	"	3			
		100/80		"	"	"	"	"	"	4			
		100/160		"	"					5			

I-R Exposure
Test.

OK

I-R Exposure
Test.This plate was used
in the holder, ...

Date Sept 11-12 (cont) Observers Wh-Ri

... II 25 c 27. 28

.....

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
45027F	Focus	—	—					Ne/ND	40/4
27	HD13161 (B Tri)	2 ^h 3 ^m .5	+34° 31'	1 ^h 44 ^m	1 ^h 58 ^m	1 ^h 02 E		"	20
28	"	"	"	1 ^h 58 ^m	2 ^h 14 ^m	45 ^m E		"	20
4502871	ap. local plates				15 min @ 7V	D2 5450	D2 5450	D2 5450	
45029F	Focus	—	—						10-1
29	HD19356 (A per)	3 ^h 1 ^m .6	+40° 34'	2 ^h 30 ^m	2 ^h 30 ^m	1 ^h 27 ^m E		Ne/ND	5
30	"	"	"	2 ^h 33 ^m	2 ^h 33 ^m	1 ^h 24 ^m E		"	5
31	"	"	"	2 ^h 35 ^m	2 ^h 35 ^m	1 ^h 22 E		"	5
32	"	"	"	2 ^h 37 ^m	2 ^h 37 ^m	1 ^h 20 E		"	5
45033F	Focus	—	—						10-1
33	HD18764	2 ^h 56 ^m .0	+26° 4'	2 ^h 53 ^m	3 ^h 07 ^m	44 ^m E			6
34	HD19736	3 ^h 5 ^m .5	+2° 0'	3 ^h 12 ^m	3 ^h 32 ^m	29 E			5
35	HD24534 (A per)	3 ^h 49.1	+30° 45'	3 ^h 40 ^m	4 ^h 12 ^m	32 ^m E			5
36	HD26162	4 ^h 03 ^m .3	+19° 20'	4 ^h 20 ^m	4 ^h 27 ^m	31 E			5

Spectr. Temp. Dome Temp./Hum.

Transparency Conditions ... *Scattered thin clouds in second half.*

Focus

Spectr. Temp. Dome Temp./Hum. ... *50°F 84%*

292

Comparison Type/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1. 78					BC/IT	1200/0.0	150/.5	IIaDe	1			
" 20	150/80		3.00	A5II	"	"	"	"	2			vslwk
" 20	100/160		"	"	"	"	"	"	3			ok.
D2 848					"			IIaDe		IR-Exposure CAV		
"									1			
" 10	12/3		2.06	B8V		1200/475	150/.5		2	Internal		
	80/3		"	"		"	"		3	consistency		
			"	"		"	"		4	Test.		
			"	"		"	"		5	(Bright #)		
									1			
6	100/20	4"	5.86	Am		"	"		2			
	100/20	"	5.98	B8		"	"		3		H.C.	
	100/40	"	6.0	Dpc		"	"		4			
	100/30	"	6.4	K1		"	"		5	SVD Vel.		

293

Emulsion Batches:

Nav-E 13050-07090 17 182

Date Mar. Sep 15, 1988 Observers B/n - R:

[illegible]

[illegible]

295

M/Son - 9ms

Emulsion Batches:

Ira. E. 13050-07090..... 18 188

Ira. E. 13050-09090..... 17 191

Ira. E. 07119-22080..... 13 223

Date Sept 15-16, 1950 Observers Ly - 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.
45038F	focus test		'	18:58		00 18W	+26 46	Fe/-	16-1
45038	HD157482	17 18.5	+40 04	19:04	20.08	02 10 W	+40 00	Fe/ND	16-16
45038T	apertured for plate	45038-39			15min @ 15V		D4 D3 D2 3900 4300 4810		
45039	HD218356	23 02.2	+24 56	20:14	20:46	02 55E	+25 53	Fe/ND	16-16
45040	HD222107	23 32.7	+45 55	20:56	21.21	02 51E	+46 22	Fe/ND	30-30
45041	"	"	"	21:34	22:35	01:35E	"	Fe/-	16-16
45042	HD219150	23 08.6	+01 39	22:52	00:00	00 11W	+02 07	Fe/ND	16-16
45042T	apertured for plate	45040 + 42			15min @ 15V		D4 D3 D2 3900 4300 4810		
45043	HD219634	23 12.2	+61 25	00:06	00:44	00 52W	+61 54	Fe/ND	16-16
45044	HD10260	01 35.2	+60 32	00:49	01:28	00 48E	+60 57	Fe/ND	16-16
45044T	apertured for plate	45041			15min @		D4 D3 D2 3900 4300 4810		
45045	HD27789	04 20.0	+18 39	03:26	04.54	00 06E	+18 52	Fe/ND	16-16
45046	HD28911	04 28.2	+13 02	04:57	05:26	00 18W	+13 14	Fe/ND	12-12
45047	HD29137	04 30.2	+16 18	05:30	05:32	00 02W	+03 14	Fe/ND	18-18
45047F	Focus					50 04W	+03 14	Fe/-	18-18

Spectr. Temp. 63°F Dome Temp./Hum. 60°F 75% Transparency Conditions *good* *vs. hazy*

Focus 496

Spectr. Temp. Dome Temp./Hum. 50°F 100% 296

Comparison of Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>1-16</i>					BC.	$1200/-0.025$	150	<i>Ilad-E*</i>	A			
<i>1/10</i>	$100/400$	4"	6.2	df8	"	"	$150/3$	" *	B	Triple-Blu		str
<i>22</i> <i>-90</i>								<i>Ilad-E*</i>				
<i>1/10</i>	$100/400$	2"	6.1	KaIb _p	"	"	"	<i>Ilad-E*</i>	A	H+K - Ly		Fine
<i>1/10</i>	$30/64$		~5	G8III	"	"	$70/3$	<i>Ilad-E</i>	B	H+K - Ly		Fine
<i>1/10</i>	$80/200$		"	"	"	"	"	<i>Ilad-E</i>	A	"		Fine
<i>1/10</i>	$80/180$		7.5	F0	"	"	$150/3$	<i>Ilad-E</i>	B	Fe <i>pgm.</i>	T = 60°F F = 497	Fine
<i>30</i> <i>30</i>								<i>Ilad-E</i>				
<i>1/10</i>	$100/100$	2"	6.4	B8	"	"	$150/3$	<i>Ilad-E</i>	A	Sp Bin - Ly		Fine
<i>1/10</i>	$100/100$	2	5.6	B8	"	"	$150/3$	<i>Ilad-E</i>	B	Sp Bin - Ly		Fine
<i>1/10</i>								<i>Ilad-E</i>				
<i>1/10</i>	$100/150$	2"	8.2	G6V		$830/.68$	$150/3$	<i>Ilad-E</i>	A	Hyades - Tru	<i>close by fragment</i> <i>unseen</i> T = 50°F F = 500	Fine
<i>1/10</i>	$100/100$	2"	7.0	F5V		"	$150/3$	<i>Ilad-E</i>	B	Hyades - Tru		Fine
<i>1/10</i>	$40/27$		2.39	K5III		"	$150/5$	<i>Ilad-E</i>	A	std vel.		str
<i>1/10</i>							150	<i>Ilad-E</i>	B		T 56°F F 500	

297

01

Emulsion Batches:

Date *Jan 9/16 1980* Observers *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.
45647T1	<i>grading till 6.90</i>							<i>Fe/-</i>	<i>40x</i>
T2	"	"						"	"
T3	"	"						"	"
T4	"	"						"	"
T5	"	"						"	"
T6	"	"						"	<i>50</i>
T7	"	"						"	"
T8	"	"						"	"
T9	"	"						"	"
T10	"	"						"	<i>40</i>
T11	"	"						"	<i>40</i>
T12	"	"						"	"
T13	"	"						"	"
T14	<i>discarded</i>	"						"	<i>8</i>
T15	"	"						"	<i>8</i>

Spectr. Temp. 64°F

Dome Temp./Hum.

Transparency Conditions

Focus

Spectr. Temp.

Dome Temp./Hum.

* maximum length of plunger

298

Companson pe/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
i/- 40					B.C	820	150	IIIa S-F	A		setting 950 Focus 498	
" "					"	"	"	"	B		or grading 700	
" "					"	"	"	"	A		450	
" "					"	"	"	"	B		200	
" "					"	"	"	"	A		110	
" 53					"	1200	"	"	B		875* 495	
" "					"	"	"	"	A		625	
" "					"	"	"	"	B		375	
" "					"	"	"	"	A		125	
" 40					"	400	"	"	B		700 503	
" 40					"	"	"	"	A		450 1	
" "					"	"	"	"	B		200	
" "					"	"	"	"	A		0	
" 8						150			B	BLANK TARGET	TO UNCOVER grating 650 504	
" 8					"	150	"	"	A		400	

299

Date _____

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.....

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[illegible]

Transparency Conditions

Dome Temp./Hum.

300

Comparison	
oe/Filter	Exp

391 K. Tests for x/hr (clou)

Wed Thurs

Emulsion Batches:
6th D19 66°F 4 - 1/4 4th 1:7th 16 50

Date Sept 17 18 180 Observers G. & T.

[illegible]

Spectr. Temp. 60°F Dome Temp./Hum. $75^{\circ}\text{F}/84\%$ Transparency Conditions *Somewhat*Focus 497 Spectr. Temp. $^{\circ}\text{F}$ Dome Temp./Hum. $74^{\circ}\text{F}/100\%++$

302

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					BC	1200/.7	RS	098-02E	A	Set 497		
					RC	1200/.7	150/1.0	"	A	Set 497	$T=58^{\circ}\text{F}$	
	0/225	4"	2.86	GoIb	RC	830/.9	150/.5	II-Nh	A	IR Ceph	cloudy intervals	sl wk
								IV-Nh			7:00 weak	
	0/221	3'-5"	2.93	7:1b	"	"	"	"	A	"	small piece broke off of Set 499 $T=52^{\circ}\text{F}$ red end.	sl wk
	0/234	3"	2.00	ceph	"	"	"	"	B	"	"	wk
	0/131		3.96	ceph	"	"	150/.3	"	A	"	$T=50^{\circ}\text{F}$	wk
	0/250	3"	1.79	F-5Ib	"	"	150/.5	"	B	"	$T=48^{\circ}$ Set 501	sl wk
	0/190		2.4	K5m	"	"	"	"	A	"	std. vel.	blurred exp fine
											comparison weak on all	

303

Tues - Wed

8^m 680

Emulsion Batches:

II-0-e 13050 - 07090 232

Date Sept 23-24/80 Observers Ly-Tn

[illegible]

Spectr. Temp. 48.5°K.....

Dome Temp./Hum. +43°F/95%

304

884. 1101

Companson e/Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
ND 1-1-75	100/400	4.6"	6.2	2F8	BC	1200/-1025	150/3	Inde.	A	Triple - Blu.		str
ND 1-1-75								"				
ND 1-1-75	100/170	4"	7.6	F0	BC	1200/-1025	BS	"	B	Fe Pgm	through cloud almost full. T=55°F F=498.5	vs/wk
ND 1-1-75	100/290	3.4"	5.5	B8	"	"	"	"	A	Sp Blu - Ly	T=51°F F=500	fine
ND 1-1-75					"	"	"	ThaJ	B		T= 49°F At Fort Right	cent vs sl blue
ND 1-1-75	100/130	3.4"	7.0	FSV	"	830/.68	"	Inde	A	Hydro - Tur.		vs/wk
ND 1-1-75	100/30	3"	2.4	KSII	"	"	"	"	B	Std Vel.		st str
ND 1-1-75					"	"	"	"	A		Sp + 503 T=48.5	OK

305 Wed - Thurs

Date Sept 24-25/80 Observers Are-Tn

Emulsion Batches:

Emulsion Batches:
* 098-02E-07119 - 10080
098-02E-07119 - 16090

[illegible]

Spectr. Temp.

Dome Temp./Hum. 12°F / 84%

Dome Temp./Hum. 1979/997

Transparency Conditions *hazy - thick clouds*

306

prob. 3 length

Comparison e/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/1	77	400/182	3"	≈ 7	F8	RC	1200/1.7	150.5	09802E	A	Air Prog	shattered (2 pieces) The only 4.5 was oversized s broke in cutting at temp. 55°F Set 499-C/0449	sl/wk
1/10	77	400/310	3"	≈ 6	F6I-IIb	BC	1200/1.7	150.5	*09800E	B			sl/wk
									"				
1/4	14-16					BC	1200/1.7	150/110	098	B		53°F Set 499	cent sl/b40
1	19-14					BC	1200/1.025	"	"	B		" "	cent's/ b40

309

Emulsion Batches:

09800207119-12090

09806 07119-26092

Date Fri-Sat Sep 26-27 Observers Are-R.

[illegible]

Spectr. Temp. ... 59°F ... Dome Temp./Hum. ... 07°C 44°F 85% ... Transparency Conditions ... Good with clouds on 2. of 6 ...
 Focus ... 500 ...
 Spectr. Temp. ... 42°F ... Dome Temp./Hum. ... +0.3°C 99% ... 310

Companso type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/-					B.C.	1200/.7	150/1.0	098-02E*	A		500 754°F	
Fe/ND	500/262	5	7.27	F8	B.C.	1200/.7	150/.5	098-02E*	B	Acc. Prog.	air short because of clouds	wh
Fe/ND								098-02E*				
Fe/ND	500/680	7.5	5.93	F6I- B	B.C.	1200/.7	150/.5	098-02E*	A	"	501 50°F Clouds	slut
Fe/ND	500/425		4.99	GoIa	B.C.	1200/.7	150/.5	098-02E*	B	"	502 46°F	sl/str
Fe/ND	500/45		2.5	F8Ib	B.C.	1200/.7	150/.5	098-02E	A	"		str
Fe/ND	500/463		4.4	F8Iap	B.C.	1200/.7	150/.5	098-02E	B	"		str
Fe/ND	500/600		5.4	F7Ib	B.C.	1200/.7	150/.5	098-02E	A		Clouds	Fine
								098-02E				
Fe/ND	40/61	5	2.99	A8Ia	B.C.	1200/.7	150/.5	098-02E	B		503 42°F	sl/str
Fe/ND	40/40		2.27	F5Ib	"	"	"	"	A	Std. Vol		Fine
Fe/-					"	"	150/1.0	"	B		503 42°F	

311 No observing for Tours - (was cloudy)

SAT-SUN

Emulsion Batches:

8th 68th Page 13050 - 20090

III a-e 13 235

Date Sept 27-28 Observers kk-Tn

[illegible]

Spectr. Temp.

Dome Temp./Hum. 50°F/90%

Transparency Conditions ... 5/1022

Dome Temp./Hum. 40°F / 100% +

312

Comparison pe/Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
N/D	18-12	40/18	2"	3.6	B ₆ p	BC	830/1.68	BS	I _a -e	A	Asm Sp-AK		Strong *
"	2-22	80/35	2'	5.7	A2	"	"	"	"	B	"		good *
								"					
E/N/D	12-4	80/50		5.8	G5V _p	BC	830/1.68	BS	"	A	Asm Sp-AK		vsl str *
"	18-8	40/18	1.5"	4.50	H7V	"	"	"	"	B	"		st str.
C/W	10-10	100/113	"	8.7	F	"	"	15U/.3	"	A	"	T=52°F	fine
"	10-10	400/130	"	7.0	F5V	"	"	150/15	"	B	Hyades-Tar	'	vsl str comp str.
e/-	2-2	40/112	2"	1.9	A0IV	"	1200/-0.25	"	IIId-e	A	Asm spAK	T=51°F set 500	Fine
"	8-6-10	40/150	2"	3.9	F0IV	"	"	"	"	B	"		Fine
S/L-	8-10							"					
e/-	2-2					BC	1200/-0.25	150/h0	IIId-e	A	set 500 T=48.5°F		
												* slicer - central shadow filled in	

313

Date Sun/Mon 28/29 Sept. 1980 Observers B/n-Tn

Emulsion Batches:

Emulsion Batches:

5 th 6 th	II ^a -TE	07119	22090
8 th 6 th	II ^a 0-e	13050-20090	
5 th 6 th	098-02e	07119	26090w

[illegible]

314

Comparison Type/Filter	Exp.	Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe/-	24-3					BC	830/.68	BS	III _a -JE	A		T=55°F F=502	
Fe/-	16	40/90	3	4.51	B1e	BC	830/.68	BS	III _a -JE	B	Be-Bln	Cloud 59 Cyg	slightly fine
Fe/NO	12-14	400/237	3-4	6.35	A _p	BC	830/.68	BS	II _a 0-e	A	Be-Bln	Thick cloud lost 30m Cloud 88 Her	not vs! str. dust!
									III _a J-E			T=52°F @ end	
									II _a 0-e				
Fe/NO	7-7	40/100	2-3	4.51	B1e	BC	1200/.7	150/9	098-02E	A	Be-Bln	T=50°F F=503	fine
Fe/NO	7-7	40/123	3"	2.43	B0e	BC	1200/.7	150/9	098-02E	B	Be-Bln		str
									098-02E			T=50°F	
Fe/-	24-3	40/80	3	2.43	B0e	BC	830/.68	BS	III _a -JE	A	Be-Bln	T=48°F F=503	str
Fe/NO	7-7	80/60	3	5.53	B6V	"	"	"	II _a 0-e	B	Runaway		strong
"	12-14	400/261	3"	7.08	B0 ⁺ e	"	"	"	"	B	"		fine
"	12-14	400/253	3-4"	7.77	B6V	"	"	"	"	A	"	T=46°F F=504	fine

315

Emulsion Batches:

5th 680

098-02E 07119-26090 20 122

Date 0091-2 1980 Observers Bi-Arc-Mr

[illegible]

317

Date Oct 2-3, 1950. Thru Fri. Observers ... Bla-Ri. / Wla-Ri.

Emulsion Batches:

8^m 6^h

Ia-E 13050-20090.... 22 200

IIa-OF 13050-20090 22 206

5^m 6^h

098-02... 0719-01100.... 22 186

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.
45089	HD 197419	20 38.5	+35° 06'	21:08	21:46	01 35 W	+35° 26'	Fe/ND	12-12
45089T	epit. cal. for plates 45089-45092					15mm @ 15V	04 D3 D2 3900 4300 9810		
45090	HD 214930	22 ^h 36 ^m .6	+23° 19'	21:50	23:15	01 05 W	+23 45	Fe/ND	12-12
45091	HD 4142	00 ^h 38 ^m .9	+47° 19'	23:18	23:27	00 45 E	+47° 46'	Fe/ND	12-12
45092	HD 210839	204 08.1	+58° 55'	23:31	23:38	01 58 W	+59° 19'	Fe/ND	12-12
45093	HD 203064	21 ^h 14 ^m .7	+43° 3'	23:40	23 47	02 59 W	+43° 53'	Fe/ND	13-19
45093F	focus test							Fe/-	12-12
45094	HD 190918	20 ^h 2.2	+35° 31'	0 ^h 6 ^m	0 ^h 25 ^m	4 ^h 51 ^m W	+35° 46'	Fe/ND Ne	4-4 4-4
45095	HD 214419	22 ^h 32.9	+56° 28'	0 ^h 31 ^m	1 ^h 35 ^m	3 ^h 30 ^m W	+56° 51'	Fe/ND Ne	4 9 4 9
45095T	epit. cal. for plates 45093-95			1		15mm @ 15V	04 D3 D2 3900 4300 9810		
45095F	focus test							Fe/ND Ne/-	15-15 15-15
45095T	epit. cal. for plates 45094-95					15mm @ 15V	D3 D2 4810 HX		

Spectr. Temp. 60°F.....

Dome Temp./Hum. 11°C 88%

Transparency Conditions

Focus 5.50

Spectr. Temp.

Dome Temp./Hum. 10°C 86%

318

Comparison of Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/10 2-20 22 206 22 156	400/300	2	6.52	B2IVc	B.C.	830/.680	B.S.	IIa0-E*	A	Runaway*		vs) str.
								IIa0-E*				
1/12 12-20	400/300		7.39	B2IV	BC	830/.68	BS	IIa0-E*	B	Runaway*		vs) str
1/12 12-20	80/60	2	5.53	1.52	BC	830/.68	BS	IIa0-E*	A	Runaway*		vs) str
1/10 10-20	80/60		5.29	06f	BC	830/.68	BS	IIa0-E*	B	Runaway*		vs) str.
1/12 12-20	80/60		4.13	03V	BC	830/.68	BS	IIa0-E**	A	Runaway*		sl str.
1/12 12-20					B.C.	830/.68	BS	IIa0-E**	B		57°F 500	
1/10 10-20	400/100	2	7.1	W11	BC	400/.38	250/.5	098-02E	A	WR.	V Filter 57°F 506	sl wk
1/10 10-20	400/27		8.94	W112, f07	BC	400/.38	250/.5	098-02E	B	WR	V Filter, Pass at 1:07 Stopped by cloud	weak
								IIa0-E*				
1/10 10-20					B.C.	400/.38	250/.5	098-02E	A		55°F 506	

315-

Emulsion Batches:

5^m D19 69^o Hafe. 05218-07070 24 20

Date ... Oct 7/80 ... Observers ... Wh/Bjo/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.
45096F	Focus.	—	—					Ne/ND	20/20
45096	HD203064	21 ^h 14 ^m .7	+43°31'	20 ^h 24	20 ^h 26 ^m	00 ^h 1 ^m E	+43°55'	Ne/ND	10
97	"	"	"	20 ^h 26 ^m	20 ^h 28 ^m	0 ^h 01 ^m W	"	"	"
98	"	"	"	20 ^h 29	20 ^h 31 ^m	03W	"	"	"
99	"	"	"	20 ^h 32 ^m	20 ^h 35 ^m	0 ^h 07 ^m W	"	"	"
45100F	Focus.							"	10/10
45100	HD193793	20 ^h 17 ^m .1	+43°32'	21 ^h 14 ^m	21 ^h 29 ^m	2 ^h 00 ^m W	+43°50'	"	10 ^s
101	"	"	"	21 ^h 31 ^m	21 ^h 53 ^m	2 ^h 24 ^m W	"	"	10 ^s
102	HD190918	20 ^h 22 ^m .2	+35°31'	22 ^h 00	22 ^h 27 ^m	3 ^h 14 ^m W		"	10 ^s
103	HD192163	20 ^h 8 ^m .4	+38°3'	22 ^h 35 ^m	23 ^h 50 ^m	4 ^h 08 ^m W	+38°20 ^m	"	10 ^s
45104F	Focus.								20/20
45104T	Exposure test plate	21 ^h 17 ^m .2	+41°21'		15min @ 70	5450	D1 5450	D1 3450	
45104T	Flexure test.	—	—				43°50'	Ne/ND	10S
"T2	"	—	—				"	"	10S
"T3	"	—	—						
"T4	"	—	—						

Spectr. Temp. Dome Temp./Hum. *10°/94%*

Transparency Conditions *very light haze*

Focus

Spectr. Temp. Dome Temp./Hum.

320

Comparison e/Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
<i>ND 20</i>					<i>IT+RC</i>	<i>1200/.475</i>	<i>150/.5</i>	<i>IIIaFe</i>	<i>1</i>		<i>"V'f.l.t</i>	
<i>ND 10</i>	<i>400/5</i>	<i>3"</i>	<i>4.99</i>	<i>08</i>	<i>IT+RC</i>	<i>1200/.475</i>	<i>150/.5</i>	<i>"</i>	<i>2</i>	<i>Image tube</i>	<i>+</i>	
	<i>400/10</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>3</i>	<i>exposure</i>		
	<i>400/20</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>4</i>	<i>calibration</i>		
	<i>400/40</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>5</i>			
<i>5</i>					<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>1</i>	<i>WR.</i>		<i>Comp'lok</i>
<i>15</i>	<i>400/40</i>				<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>2</i>	<i>+ exposure</i>		
<i>10</i>	<i>400/80</i>		<i>7.1</i>	<i>WCT</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>3</i>	<i>cal.</i>		
<i>15</i>	<i>400/80</i>		<i>7.4</i>	<i>WNT</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>4</i>			
<i>10</i>	<i>400/80</i>		<i>7.7</i>	<i>WNT</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>5</i>			
<i>20</i>									<i>1</i>		<i>cloudy</i>	
<i>51</i>								<i>IIIaFe</i>				
<i>5470</i>									<i>2</i>	<i>FLEXURE</i>	<i>Comparison - meridian (zenith)</i> <i>Stellar 4h E</i>	
<i>e/ND 10</i>									<i>3</i>	<i>TESTS.</i>	<i>Comparison 2 zenith</i> <i>Stellar 4h W</i>	
<i>" 12</i>									<i>4</i>		<i>Comparison 2 zenith</i> <i>Stellar 0h - 30°</i>	
									<i>5</i>		<i>Comparison 0° dec 3h 50m W</i> <i>Stellar 0° dec 4h E</i>	

321

Emulsion Batches:
A^m 69° ... The Dec-097-11090 32 140

Date Oct 7-80 Observers Wh/Ri

[illegible]

Transparency Conditions

Dome Temp./Hum.

322

	Comparison Filter	Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
✓	N _B	7.5	"	"	"	I	RCTIT	1200/.475	150/.5	IIIaF	1	"	V filter.	
"	"	"	400/80	3"	6.01	dG9	"	"	"	"	2	Bln	Some cloud at end of exposure	
"	"	"	80/16	"	4.28	FBI	"	"	"	"	3	STD Vel.	Partly light struck.	
"	"	"	100/90	"	5.50	K1 III	"	"	"	"	4	STD Vel.		
"	N _B	"	100/100	"	4.95	FOIa	"	1200/.200	150/.5	"	5	ARE/Test exposure		
"	N _B	"	"	"	"	"	"	"	"	IIaD	1			
"	N _B	"	400-25	"	4.95	FOIa	"	"	"	"	2	ARE/Test exp.		
"	N _B	"	400/15	"	3.00	A5 II	"	1200/.00	"	"	3	Cathod Test exp.		
"	N _B	"	100/40	"	7.9	O6IVe	"	1200/.475	"	"	4	Wh.		
"	N _B	"	100/40	"	"	"	"	"	"	"	5	" Exposure stopped early (Bright)		
SDS							Wide pair found fainter one star appears as chr 5. Both components rather T-shaped stars.							

pg #1
323 Wed - Thurs

KALID (Grad Student)

Emulsion Batches:

8^m69° 11.00E 13050 - 28090

5^m69° 098.02E 07119 - 01100

Date Oct 8-9/80 Observers Myd - Tn - Are

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
45112F1	Focus Test							Fe/-	20-20
F2	" "	reverse sequence (stallor - comparison)						Fe/-	20-20
F3	" "							Fe/-	20-20
45112	84 Her ^{HD 161239}	1739.3	+24°22	18 50	19 15	2 25 W	+24°21	Fe/ND	13-13
45113	HD 181655	1916.1	+37°09	19 19	19 50	1 25 W	+37°15	"	13-13
45113T	Spot Ceph for 45112-15				15 min @ 15V			D3 3900 4300	48/10
45114	16 Cyg A ^{HD 186408}	1939.1	+50°18	19 55	20 24	1 36 W	+50°30	Fe/ND	13-13
45115	16 Cyg B ^{HD 186427}	"	"	20 28	21 13	2 25 W	"	Fe/ND	13-13
45116	HD 191854	20 06.9	+43°39	21:22	23 05	3 49 W	+43°54	Fe/ND	13-13
45117	HD 203156	21 15.4	+37°49	23 24	00 46	4 22 W	+38°13	Fe/ND	7 7
45117T	Spot Ceph for 45117-24				15 min @ 15V			7V D3 4810 7V D1 Ha 5150	7 7
45118	HD 217476	22 55.9	+56°25	00 55	01 21	3 17 W	+56°51	Fe/ND	7 7
45119	HD 224014	23 49.4	+56°57	01 26	01 50	2 55 W	+57°24	Fe/ND	7 7
45120	HD 8890	01 22.6	+88°46	01 55	01 59	0 31 W		Fe/ND	11-11
45121	HD 7927	01 13.8	+57°42	02 07	02 46	2 22 W	+58°08	Ne/-	7 7 7

Transparency Conditions .. occasional cloud ..
but very good

324

[illegible]

Pg #2

.....

.....

.....

Date Oct 89 Cont Observers ARE - Th

[illegible]

Transparency Conditions *Photometric*.....

Dome Temp./Hum. 36°F./95%

Dome Temp./Hum. 36°F./95%

326

[illegible]

324

Pg #1

Emulsion Batches:

Date ... Oct 9/10 ... Observers ... Wln/Tm/GIS ...

8^m 6805^m 680400-e 13050-28090
09200 E 07119-01100

20210

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.
45125	HD 193793	20 ^h 17 ^m .1	+43° 32'	18 ^h 40 ^m	18 ^h 49 ^m	0 ^h 35 ^m E	+43° 50'	Fe ND	3-3-3
45126	HD 192163	20 ^h 8 ^m .4	+38° 3'	18 ^h 59 ^m	19 ^h 15 ^m	0 ^h 01 W	+38° 20'	Fe ND	3-3-3
45127	HD 193077	20 ^h 13 ^m .3	+37° 7'	19 ^h 25 ^m	19 ^h 55 ^m	0 ^h 37 ^m W	+37° 23'	Fe ND	3-3-3
45127T	Spot Cal for 45125-30			3536	15min @ 15V	3900	4300	4810	
45128	HD 214419	22 ^h 32 ^m .9	+56° 23'	20 ^h 00 ^m	20 ^h 57 ^m	0 ^h 39 ^m E	+56° 49'	Fe ND	3-3
45129	HD 190918	20 ^h 2 ^m .2	+35° 31'	21 ^h 07 ^m	21 16	2 08 W	—	Fe ND	3-3-3
45130	HD 191765	20 ^h 6 ^m .5	+35° 53'	21 ^h 30 ^m	22 ^h 10 ^m	2 ^h 59 W	+36 10	"	3-3-3
45130F	Focus	—	—	—	—	—	—	Fe/—	7-7
45131	HD 191765	20 ^h 6 ^m .5	+35° 53'	22 ^h 27 ^m	23 ^h 07 ^m	3 ^h 56 W	+36° 10'	Fe ND Ne -	4-4 4-4
45131F	Focus	(Taken right after 45130F)						Fe/—	7-7
45131T	Spot Cal for 45131-34				15min @ 15V	4810	5450		
45132	HD 193793	20 ^h 17 ^m .1	+43° 32'	23 ^h 15 ^m	23 ^h 22 ^m	4 ^h 01 W	+43° 48'	Ne/— Fe ND	4-4 4-
45133	HD 190918	20 ^h 2 ^m .2	+35° 31'	23 ^h 27 ^m	23 ^h 36 ^m	4 ^h 29 W	+35° 45'	Ne - Fe ND	6- 6-
45134	HD 192163	20 ^h 8 ^m .4	+38° 3'	23 ^h 47 ^m	0 ^h 03 ^m	4 ^h 51 W	+38° 18'	Ne/— Fe ND	6- 6-
45135	HD 203064	21 ^h 14 ^m .7	+43° 31'	00 ^h 15 ^m	0 28 ^m	4 ^h 08 W	+43 56	Fe ND	13-13

328

Compensation Type/Filter	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
ND 3-3	100/80	5"	7.1	WLT	BC	150/.5	250/.5	Ilad-e	A	Wh WR	Focus 508.	fine
ND 3-3	100/80	4.5"	7.7	WN	"	"	"	"	B	"		"
ND 3-3	100/80	"	8.1	WN+	"	"	"	"	A	"		"
ND 3-3	100/160	"	8.94	WNH02	BC	150/15	250/15	"	B			vs/wk
ND 3-3	100/80	"	7.1	WN+	"	"	"	"	A	"	Focus 509 48°F	fine
" 3-3	100/80	4"	8.2	WN	"	"	"	"	B	"		fine
ND 3-3	100/160	"	8.2	WN	"	"	"	098e	A	—	Set 509 Temp 46°F OK?	
ND 3-3	100/160	"	8.2	WN	"	400/1.38	250/.5	098e	A	Wh WR	"V" filter focus 510	rv/wk
ND 3-3	100/160	"	"	"	"	"	"	098e	A	T=46°F Set 509	"V" filter	
ND 3-3	100/31	"	7.1	WLT	"	"	"	"	B	Wh WR		wk
ND 3-3	100/30	"	7.4	WN+	"	"	"	"	A	"		rv/wk
ND 3-3	100/30	"	7.7	WN	"	"	"	"	B	"		
ND 3-3	100/150	3"	4.2	017	"	830/1.68	B5	Ilad-e	A	Runaway *	Temp = 45°F Focus 506	fine

329 #2 Cont

Cont

Date Thursday, Oct 9/14 Observers wer / In / G/S

Emulsion Batches:

Emulsion Batches: 8m 680 I-03 13050-0911020 200

[illegible]

Spectr. Temp.

Dome Temp./Hum. 55°F / 90%

Transparency Conditions *Photometric*

330

Companson Type/Filter Ex	xp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe-ND 3-75	400/301	3"	7.27	B5V	BC	830/.68	BS	IaO-c	B	Runaway *		fine
Fe-ND 3-75	40/30	2.3"	5.53	B5V	"	"	"	IaO-c*	A	"		fine
Fe-ND 3-75	400/300		7.08	B2Ihc	"	"	"	"	B	"	Temp = 45°F	fine
Fe-ND 3-75	400/304	2	8.29	O9.5II	"	"	"	"	A	"		sl wk
Fe-ND 3-75	400/299	2"	7.47	B6V	"	"	"	"	B	"	T=43°F	fine
Fe-ND 3-75	40/30	2.2"	5.87	B8Vn	"	"	"	"	A	"		fine
Fe-6-6	40/30	"	5.71	B2V	"	"	"	"	B	"		fine
Fe-6-6	40/42	"	2.39	B5V	"	"	"	"	A	std vel	T=41°F	fine

331

Date Fri/Sat Oct 10/11 Observers Tn/Gis/Kim

Emulsion Batches:
8ⁿ 68.5 IlaVe 13050-0940^{22 212}

[illegible]

Spectr. Temp. +49°F.....

Dome Temp./Hum. 45°/99%

then closed

332

[illegible]

333

5^m 68^o Emulsion Batches: 098-02 E 07119-09100

Date Sun/Mon Oct 12/13 Observers Tn/ArE/

[illegible]

Spectr. Temp. $+93.5^{\circ}\text{F}$

Dome Temp./Hum. *+35°F/90%*...

Transparency Conditions *occasional / covered*

Dome Temp./Hum. +34°F / 98%

334

[illegible]

335 Sat-Sun

Cloudy for Tour

Emulsion Batches:

Emulsion Batches:
...098-02E 07119-09100

Date Oct 18-19/80 Observers Are-Tu

[illegible]

Spectr. Temp. 54° F.....

Dome Temp./Hum. +45°/80%

Dome Temp./Hum. 47°/85%

Transparency Conditions *clearly*

336

[illegible]

337

Emulsion Batches:

Emulsion Batches:
 ...~~Ital-e~~ 13050... - 09100²⁰²⁰

Date Oct. 19-20/80 Sun/Mon Observers Tnr./Tn

[illegible]

Spectr. Temp.

Dome Temp./Hum. / 95.70

Transparency Conditions *cloudy*

338

[illegible]

339

Tues / Wed

Emulsion Batches:

8th 68 II.O.-e. 13050-09100

Date _____

Oct 21/22

Observers

Ru-Tu-Vjo

[illegible]

Spectr. Temp.

Dome Temp./Hum. 39°/-.....

Transparency Conditions

Spectr. Temp. Dome Temp./Hum.

340

[illegible]

341

Date Oct 22/23 Observers Wbr/Ri/Ur/Arc

Emulsion Batches:

098-02 07119-19100 20163

098-02* 07119- 19100 19 180

[illegible]

Spectr. Temp.

Dome Temp./Hum. 38°F/80%

Dome Temp./Hum. $31^{\circ}\text{F} / 85\%$
 -01°C

Transparency Conditions *Photometric*

V filter for whole night

Comparison Type/Filter	Exp.	Exp. Mir.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10/10 Fe-1	1-4	800/120	3"	8.2	WN	BC	400/.38	250/.5	098	A	Wbr. wr.		sl weak
10/10 Fe-1	1-4	400/60	"	7.1	WCT	"	"	"	"	B	"		vsl weak
10/10 Fe-1	1-4	80/8	"	4.3	F8V	"	"	"	"	A	STD Vel.		good
10/10 Fe-1	1-4					BC	400/.38	250/.5	098	B		509 T 420F	
10/10 Fe-1	1-4	400/300	3	4.99	G01a	BC	1200/.7	150/.5	098-02E	A	Anc/Proc	503 420F	vsl strong, scratched
10/10 Fe-1	1-4								098-02E				
10/10 Fe-1	1-4	400/300		5.40	F7Ib	BC	1200/.7	150/.5	098-02E	B	"		fine
10/10 Fe-1	1-4	800/447		7.81	F5	BC	1200/.7	150/.5	098-02E	A	"	900F 504	good
10/10 Fe-1	1-4	400/25		7.79	AB10	BC	1200/.7	150/.5	098-02E*	B	"	360F 505	vsl strong
10/10 Fe-1	1-4								098-02E*				
10/10 Fe-1	1-4	400/25		2.27	F5Ib	BC	1200/.7	150/.5	098-02E*	A	st vel	36	vsl strong
10/10 Fe-1	1-4							150/1.0	098-02F*	B		360F 505	

PS*1
343

Date *Thurs Fri Oct 23-24* Observers *Lx-Ri - Rsk-Rann / GIS-Ri*

Emulsion Batches:

5^m 68^o *09E-02.02.119-19100* 19 176
5^m 68^o *TTA-J-E 01119-22090* 13 233
8^m 68^o *TTA-E 13050-10100*

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.
45161FI	<i>focus</i>					1 15E	+33 41	Fe/-	15-15
45161	HD200120	20 56.4	+47 08	17 57	18 14	0 51E	+47 30	Fe/ND Ne/-	6 6-6 6 6-6
45162	HD219150	23 08.6	+01 39	18 21	19 48	1 29E	+02 08	Fe/ND Ne/-	6 6-6 6 6-6
45163	HD5394	00 50.7	+60 11	20:05	20:12	2 48E	+60 39	Fe/ND Ne/-	6-6-6 6-6-6
45164	"	"	"	20:29	20:30	2 22E	"	Fe/-	8-16
45165	HD200120	20 56.4	+47 08	20:54	21:27	2 22W	+47 28	Fe/-	8-88
45166	HD218356	23 2 14	+24 56	21:39	22:19	1 07E	+25 25	Fe/ND	16-6
45164T	<i>spectral for plates 45161-63, 78</i>			15mm @	150 D3 4810	D170 H2	D270 5450		
45166T	<i>spectral for plates 45164-65, 77</i>			15mm @	17.5 D4 3900	150 D4 9300	15V D4 4810		
45167	HD222368	23 ^h 34 ^m 48 ^s	+5° 5'	22:32	22:38	00 52W	+05° 34	Fe/ND	16-1
45168	"	"	"	22:41	22:46	01 00W	"	"	16-1
45169	"	"	"	22:50	22:55	01 10W	"	"	16-1
45170	HD219634	23 12.2	+61 25	23:06	23:27	02 03W	+61 55	Fe/ND	16-
45170FI	<i>focus test</i>							Fe/-	26-
45171	HD4442	00 38.9	+47 19'	23:49	23:58	01 07W	+47 48	Fe/ND	12-12

Spectr. Temp. 43°F

Dome Temp./Hum. 40°F..... 50%

Transparency Conditions Photometric.....

Focus 503

Spectr. Temp.

Dome Temp./Hum.

344

Comparison pe/Filter	Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1-5						B.C.	1200/.7	150/110	098-02E	A			
1-6		40/80	3-4	4.5	Ble	B.C.	"	150/.7	"	B	Be - Blh.		fine
1-6		400/275	3	7.6	F0	"	"	150/.3	"	A	Fe pgm.		good
1-6		40/100	2-3	2.4	B0e	"	"	150/.9	"	B	Be - Blh.		guiding
1-6		40/124	"	"	"	B.C.	1200/-.025	BS	IIaJ-E	A	Be - Blh.	42°F 502	Fine *
1-6		40/303	2-3	4.5	Ble	"	"	"	"	B	Be - Blh.		Fine *
1-6		40/600	2	6.14	koEhp	"	"	"	IIaJ-E	A	H+K - Ly	40°F 503	sl/stn.
1-6									098-02'				
1-6									IIaJ-E				
1-6		40/32		4.64	F7V	B.C.	1200/-.025	BS	IIaJ-E	B	Std Vel	40°F 503	fine
1-6		40/30		"	"	"	"	"	"	A	"	" 505	fine
1-6		40/30		"	"	"	"	"	"	B	"	" 501	fine
1-6		400/300	2	6.5	B38	"	"	"	"	A	SpBii - Ly	" 503	wk
1-6						B.C.	"	"	IIaJ-E	B		35°F 503	
1-6		400/300	3	5.52	B5V	"	831/.68	"	IIaJ-E	A	Runaway *	39°F 506	fine

345 Thurs/Fri.

Date Oct 23-24

Observers Ri - Gis

Emulsion Batches:

Trav F 13050-10100 20 208

HAJ E. 01119-22090

098-02-107119-10100.

[illegible]

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

Focus

Spectr. Temp. Dome Temp./Hum. *35°F / 96%*

346

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
400/300		7.08	B2V _{inc}	BC	830/.68	BS	IIa0 e	B	Runaway*	39°F 506	Fine*
							IIa0-E				
400/300	3"	8.29	09.5II	"	"	"	"	A	Runaway*		slwk*
400/300		5.87	B2V _{inc}	"	"	"	"	B	"		Fine*
400/300		6.77	F7V	"	1200/-.035	"	"	A	Hyades bin. (Ly)	38° 504	slwk*
40/300		5.16	B2e	"	1200/-.025	"	IIIaJ-E	B	Be-Bln		slwk*
40/80		"	"	"	1200/.7	150/.7	098-02	A	"		good
200/150		5.71	B2V _{inc}	"	830/.68	BS	IIa0-e.	B	Runaway*	38° 507	Fine
200/150		6.18	09.5V	"	"	"	"	A	"		Fine
80/60		5.67	B1V	"	"	"	"	B	"		Fine
80/60		6.04	B2V _{inc}	"	"	"	"	A	"		Fine
20/20		2.15	K0II	"	"	"	"	B	Std. Velocity		slwk
				"	"	"	IIIaJ-E	B		39° 507	

Date Thurs / Fri
Oct. 30 / 31, '80 Observers G.I.S.

8m680 IIaDe 13050 - 24100

[illegible]

349

Fri - Sat

Date Oct 31 - Nov 1 / 80 Observers Gies - Tu - Kim

Emulsion Batches:

Emulsion Batches: DeO-e 13050-24100

[illegible]

2400

Spectr. Temp. $+49^{\circ}\text{F}$ Dome Temp./Hum. $+45^{\circ}\text{E}/67\%$ Transparency Conditions So. So. Focus 504

Spectr. Temp.

Dome Temp./Hum. $+48^{\circ}\text{F}/$

Ther Rain 350

Comparison
e/Filt. Exp.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
-67	20			BC	200/68	BS	DaO	B			Cont Red
NO 8-	40/36	3"	415	K3 II	"	"	DaO	B	std vel		Fine
NO 8-B	200/300	23"	642	B222	"	"	"	B	Runaway*		Fine
B 430							"				
NO 8-	400/231	3"	7.83	Bo III	"	"	"	A	Runaway*	Cont short by cloud. +40°	vis/wk

Date Nov 2-3 Sun-Mon Observers Wlr-Ty

Emulsion Batches:
D-0-C 13050-24100

~~IID~~

[illegible]

24100

+589 / 780

partial cloud

506

Spectr. Temp.

Dome Temp./Hum.

352

[illegible]

353

Date Nov 4-5 Tue-Wed Observers Are-Tn

Emulsion Batches:

098-02⁺ 07119 - 19100

09802E 07119-23100

[illegible]

- 19/00
- 23/00

138/97%

ns Clear by 2 AM.....

501

4.7%

349 / 977

Strange
Then Cloud 354

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/10 5-5-5	00/200	4"	V 4.95	F01A	BC	1200/.7	150 [*] _μ	098-02E [*]	A	Anc Png.	* Last 4x5 broken " V filter taped on	vslwk sl 799
1/10 8-8-8	40/25	"	2.5	F816	BC	1200/.7	"	098-02E	B	"		fine sl sta. sl 959
5-5-5	400/191	3-4'	5.4	F716	"	"	"	"	A*	"	* Combo A+B	vslwk
							"				Note - no coll for #45191	
1/10 5-5-5	40/22	3'	V 2.99	AB10	"	"	150 _μ	"		Arc Arcy		fine mg
1 8-8-8	40/20	3"	M 2.39	*5111	"	"	"	09802E [*]	A	std vel		OK exp 959
1/10 9-9-9					"	"	"	09802E [*]	B			cent blue

Emulsion Batches:

Date Observers

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.....

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[illegible]

356

40/23 A

40/22 B

40/22 A

July 23
357

^{1 m. 10. 10}
Try to make sure guiding Top forms. sides of object and underneath
by some means.

July 9

1. The slit centered for max effect. Image weaker on right than left.
Also image can be focused to be more slender on the left of slit.

K.C. sensitivity = good for H α but drops blue
of D lines ie " below 5900Å