

1

Pa, Pal = Palimaka

Dr = Domander

KK = Karle KAMPER

Grating Tilt

1 Compleat turn of lower screw CW↓ (looking down)
shifts G16 ~~cm~~ spectrum 1cm along the plate towards
blue end. To bring more blue onto plate, turn lower
screw CCW↓ (as you look down on screws)

1 turn/cm or 1 turn CCW↓ = 160 Å (more blue on plate)

Tn

3

Home Temp.

ocus

Home Temp.

our Angle

End

5

Transparency Conditions

Temp

Date 1974 Aug 29/30 Thurs-Fri Observer Hu-Ri Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
38615	HD 152224	16 ^h 47.0	+32° 44	G-12	D ₂₀ -E	13/5	67°F	19:39	20:31	A
38616	HD 186547	19 39.9	+13 04	"	"	"		20:36	21:08	B
38617	HD 217312	22 54.8	+62 32	"	"	"	65°F	21:16	23:31	
3861771	cal step wedge						90°C			

Dome T

Focus

Dome T

Hour Ang
End

01:50

00:30

01:15

Dome Temp. 52°F 79%Transparency Conditions *light cirrus clouds*Focus *08-R*

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 ^h 55W	+32° 40'	2"	6.26	K0 IV	16-16-16	Sp. Br. Hel	400/240		
00 ^h 22E	+13° 20'		6.1	88 IV	16-16-16	"	400/140		
01 ^h 13E	+62° 58'	0.5	7.7	80 IV	16-16-16	"	900/354	cloud	
4th Bebel Sat 4 MW P2C2 9 min @ 68°F									

Dome Temp. 70° 78%

Transparency Conditions Hazy

8

Focus 8-R

Dome Temp. 68° 97%

Julian Day 1954 Aug 31-254 (Observer's)

me	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A	04 47 W	+69° 27'	1 1/2"	V= 3.66	AOIII	^{no filter} 3-3-3	F plate-Sp Bin	40/100	Tel reversed) cloud	
										Das 3rd Batch Sept 44	
	B	04 00 W	+38 17	"	5.7	B8	3-3-3	" "	200/496	cloud at times (1" broken off)	

2.37

Dome Temp. 63°F H=6670Focus $8-R$ Dome Temp. 53°F H=9770Transparency Conditions *Excellent - thin cloud*by 22^h

P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
8 A	00 04W	+51 32	2"	3.7	K5 III	15-30	Bt star	40/45	x Dra	
2 B	04 29W	+14 52	2-3"	8.1	B5 III	15-15-15	Sp B ₁₂ - B ₁₂	400/110		
6 C	00 40E	+30 08	2-4"	5.6- 5.8	A0	15-15-15	"	200/70		
8 A	00 08E	+57 24	2-3"	5.83	O6	15-15-15	"	200/110	thin cloud	
0 B	00 15E	+58 18	"	6.3	B7	15-15-15	"	200/70		
3 C	00 22W	+24 35	"	7.01	A0	15-15-15	"	400/140		
8 A	02 24E	-12 19	3-8"	4.85	B9 V	15-15-15	"	200/70	thin cloud again	
16 B	01 40E	+50 04	2-3"	5.44	Ap(sj)	15-15-15	"	200/70	63 And (Thru cloud)	
11 C	00 50E	+10 31	2"	6.9	A3	15-15-15	Cb prog	400/140		
50 A	00 47W	+10 32	2-3"	8.52	F2 IV	15-15-15	"	400/90		

Dome Temp. 40°F 65%

Transparency Conditions ... cirrus clouds at 10:00...

14

Focus H.R.

Dome Temp. 40°F 75%

P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
A	00°25E	+13°54'	3	3.01	AOJ ² P ₁₁	5-5	Sp-Bi-Bh	40/160	right side of Box	
B	01°00W	+26°44'	3	8.6 9.3	B8	15-15-15	Sp-Bi-Bh	800/300		
					Dew 1st 0.1 ³⁰⁺⁴	MW P2 e2	9 min in 63°F		right side	
					" "	" "	" "			
	02°00W	+35°47'		7.60	WN4.15 09.52a	15-15-15	Sp-Bi-Bh	400/120		
A	00°45W	-13°56'		4.25	B8II	3 6	Sp-Bi-Bh	40/40	clouds from S-W	
B						4-4 nights				
A	01°55W	+58°14'		6.3	B7	15-15-15	Sp-Bi-Bh	400/122	thin thin cirrus clouds	
A	01°20E			5.44	A ₀ (s)	15-20	Sp-Bi-Bh	400/23	" " " "	
									spiral plates are in unexposed Box #6	

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Date Wed. Tues. Sept 4-5 / 74 Observer J. C. T. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	How Angl End
38638	HD 197224	20 42.2	+33 36	G12	II-O-E	13/1.5	57°F	19:35	19:40	A	2° 26'
38639	HD 19798	"	"	"	IIIaj-E	13/3.5		19:43	19:53	C	2° 14'
38640	HD 201090	21 02.4	137 15	"	IIqO-E	13/1.5		20:02	21:28	B	1° 00'
38640T	Col step wedge		90sec		"						
38641	HD 200905	21 01.3	43° 32'	"	IIIaj-E	13/3.5	59°F	21:35	00:22	C	1° 55'
38642	HD 202109	21 08.7	129 49	"	"	"		00:26	00:52	A	2° 13'
38642T	Col step wedge		180sec		"						
38643	HD 210745	22 07.4	+57 42	"	"	"	56°F	00:58	03:06	B	3° 34'
38644	HD 222404	23 25.2	77 04	"	"	"		03:14	03:46	C	2° 47'
38644T	Col step wedge		for 38641		"						
38645	HD 23062	23 43.3	23° 51'	"	IIqO-E	13/1.7		3:56	04:12	A	0° 55'
38646	HD 27677	4 17.2	+17 18	"	IIqO-E	13/1.5		4:17	04:26	B	1° 16'
38647	HD 27371	4 14.1	15° 23'	"	"	"		4:30	04:38	A	1° 01'
38648	HD 28307	4 22.9	+15 44	"	"	"		4:42	04:51	B	0° 52'
38649	HD 28305	4 22.8	+18 58	"	"	"		4:53	04:59	C	0° 49'
38650	HD 12929	2 01.5	+22 59	"	"	"		5:03	05:08	A	1° 40'

Dome Temp. 58° H=71%

Focus 20-R

Dome Temp. 52° H=93%

Transparency Conditions Excellent

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** The plates placed at far right
of box #3

P.H.	Hour Angle End	Declination	Seeing	B Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	B V	Quality
	2 ^h 26E	+33 56	1-2	3.48	K0II	15-30	Ir Giant	20/17	E Cyg	1.03	
	2 14E	"	1-2	"	"	3-3-3	Ir - Giant	20/70	E Cyg **	1.03	
	1 00E	38° 40	1-2	6.38	K5II	15-15-15	"	200/400	61 Cyg A	1.19	
		Dec 2 nd b. bet Septs			MWP2 C2	9 min @		68°F			
	1 ^h 55W	44° 52'	2	5.41	K4.5 Ib	3-2-3	"	40/600	S* Cyg	1.69	
	2 ^h 13 W	30° 13'	2	4.20	G8II	3-3-3	"	40/145	S Cyg **	1.00	
		Dec 1 st betel			S 5 MWP2 C2	8 min @		68°F			
	3 34W	58° 07	2	4.96	K1.5 ^{7b}	3-2-3	"	40/500	S Cap **	1.65	
	2 47W	77 27	2	4.25	K1IV	3-3-3	"	40/158	S Cap **	1.03	
		Dec 2 nd betel			S 5 MWP2 C2	8 min @		68°F			
	0 55E	24° 08'	2	5.1	B8p	15-30	G1-shell	40/23	Plidene		
	1 16E	+17 39	1-2	4.79	K1W	15-15-15	Ir - Giant	40/32	δ Tau		
	1 01E	+15 38	1-2	4.65	K0III	15-15-15	Ir - Giant	40/32	γ Tau		
	0 57E	+16 00	"	4.21	G9III	15-15-15	"	40/32	δ Tau		
	0 49E	+19 12	1-2	4.56	K1III	15-15-15	"	40/32	ε Tau		
	1 42W	+23 25		3.15	K2IIAb	23-23	"	40/40	α Ari		

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Date 1971 Sep 5 Thurs/Fri Observer RL-Tu Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38651	Fla. Sp. W/B	17 ^h 45 ^m 7 ^s	-15° 41'	G-12	IIIa-JE	9/9	64°F	19:25	19:44	A
38652	Z. Ia. Sp. A	16 ^h 45 ^m 2 ^s	+61° 39'	G-12	IIa-DE	9/9		19:46	19:57	B
38653	Z. Ia. D. Ia	17 ^h 45 ^m 7 ^s	+65° 45'	G-12	IIa-JE	9/9		19:56	20:11	C
38654	Z. Ia. D. Ia	19 ^h 10 ^m 5 ^s	+67° 37'	G-12	IIa-DE	9/9		20:15	20:23	A
38655	DR Vnl	20 ^h 08 ^m 6 ^s	+26° 23'	G-12	IIa-DE	17/5		20:28	22:34	E
38655T	Col. step		180 sec		IIa-JE					
38656	HD 182255	19 ^h 18 ^m 8 ^s	+26° 04'	G-12	IIa-DE	13/7		22:37	22:45	C
38657	HD 218154	23 00.6	+29 07	"	"	13/5		22:49	23:32	B
38658	HD 201433	21 ^h 04 ^m 4 ^s	+29° 48'	G-12	IIa-DE	13/5		23:35	23:48	A
38659	HD 209819	22 ^h 01 ^m 0 ^s	-14° 21'	G-12	IIIa-JE	13/7		23:51	01:05	C
38660	63 And	02 ^h 14 ^m 4 ^s	+49° 42'	G-12	IIa-DE	9/9		01:11	01:29	A
38661	63 And	02 ^h 14 ^m 4 ^s	+49° 41'	G-12	IIIa-JE	9/5		01:30	03:21	B
38661T	Col. step wedge		90 sec		IIa-DE					
38662	HD 218154	23 00.6	+29 07	G-12	"	13/5		03:24	04:39	C
38663	HD 22468	05 ^h 20 ^m 7 ^s	+20° 37'	G-12	IIIa-JE	13/7		04:45	05:14	A
38664	Focus					13	57°F			

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Date April 7 1934 Fr. Sat Observer Friedman, R. Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38654	² Deneb HD 123299	14 ^m 01.2	+64° 51'	G-16	D&F-E	9/5	65°F	19:45	20:10	A
38665	HD 126318	17 ^m 54.6	+38° 07'	G-16	D&F-E	13/5		20:20	23:02	B
38665T1	cal. wedge		5mm		D&F-E					

Dome T
Focus
Dome T
Hour And
End

Date Sept 28-9 1934 San Juan Observer Blair - Ri Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38667	^{B Lyr} HD 174638	18 ^h 46.4	+33° 15'	G-12	IIaD-E	9/9	68°F	19:45	19:53	A
38668	^{B Lyr} HD 174638	18 ^h 46.4	+33° 15'	"	IIIaJ-E	9/5		19:54	20:25	B
38669	^{B Lyr} HD 174638	18 ^h 46.4	+33° 15'	G-12	IIIaJ-E	9/5		20:26	20:45	C
38670	^{B Lyr} HD 174638	18 ^h 46.4	+33° 15'	G-12	IIIaJ-E	9/5		20:46	21:15	A
38671	^{B Lyr} HD 174638	18 ^h 46.4	+33° 15'	G-12	IIIaJ-E	13/5		21:16	21:45	B
38671T1	cal step wedge	for plate	38669-71	72, 83	IIIaJ-E		180 sec			
38671T2	cal step wedge	for plate	38667, 72-82		IIaD-E		90 sec			
38672	^{B Lyr} HD 174638	18 ^h 46.4	+33° 15'	G-12	IIIaJ-E	13/5		21:46	22:28	C
38673	^{B Lyr} HD 174638	18 ^h 46.4	+33° 15'	G-12	IIaD-E	13/9		22:29	22:43	A
38674	^{B Lyr} HD 174638	18 ^h 46.4	+33° 15'	G-12	IIaD-E	13/9		22:44	23:03	B
38675	^{B Per} HD 19536	03 ^h 01.7	+40° 34'	G-12	IIaD-E	13/9		23:08	23:14	C
38676	^{B Per} HD 19536	03 ^h 01.7	+40° 34'	G-12	IIaD-E	9/9		23:15	23:24	A
38677	^{B Per} HD 19536	03 ^h 01.7	+40° 34'	G-12	IIaD-E	9/9		23:25	23:34	B
38678	^{B Per} HD 19536	03 ^h 01.7	+40° 34'	G-12	IIaD-E	9/9		23:35	23:42	C
38679	^{B Per} HD 19536	03 ^h 01.7	+40° 34'	G-12	IIaD-E	9/9		23:43	23:50	A
38680	^{B Lyr} HD 174638	18 ^h 46.4	+33° 15'	G-12	IIaD-E	9/9		23:55	00:30	B

Dome Temp. 70°F 74%

Focus OPR

Dome Temp.

Transparency Conditions *lazy (thick)*

24

* exposed Box #2 marked ITaJ
ITaO are in exposed Box #1

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A	00°04E	+33°24'	2	3.4 4.4	Bpc	15-30	Radio Star Blu	40/25		
	B	00°25W	"	2	"	"	3-3-3	"	40/96	*	
	C	00°50W	+33°24'		3.4 4.4	Bpc	3-3-3	"	40/100	*	
	A	01°20W	+33°24'	2	3.4 4.4	Bpc	3-3-3	"	40/100	*	
	B	01°50W	+33°24'	2	3.4 4.4	Bpc	3-3-3	"	40/100	* - low d	
										* NO. 70T1	
										" 70T2	
										* new box	
	C	02°32W	+33°24'		3.4 4.4	Bpc	3-3-3	"	40/100		
	C	02°42W	+33°24'		3.4 4.4	Bpc	15-30	"	40/25		
	B	03°08W	+33°24'		3.4 4.4	Bpc	22-22	"	40/25		
	B	04°59E	+40°55'		2.2 3.5	B8V	22-22	"	40/25		
	A	04°49E	+40°55'		2.2 3.5	B8V	22-22	"	40/25		
	E	04°39E	+40°55'		2.2 3.5	B8V	22-22	"	40/25		
		04°49E	+40°55'		2.2 3.5	B8V	22-22	"	40/25		
	A	04°22E	+40°55'		2.2 3.5	B8V	22-22	"	40/25		
	B	04°35W	+33°25'		3.4 4.4	Bpc	22-22	"	40/25		

Dec Sept 9 Isthalil MWID 2 C3

75 #2

(Contd)
 Date Sept 8 - 9, 1934 Observer Bla - R. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38681	B ₁ M HD 174638	18 ^h 46 ^m 4	+33° 15'	G-12	IIaO-E	13/7		00:32	01:05	A
38682	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIaO-E	9/9		01:09	01:17	A
38683	B ₁ M HD 19536	03 ^h 01 ^m 2	+40° 34'	G-12	IIIaJ-E	9/5		01:18	01:41	B
38684	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIaJ-E	9/5		01:42	02:05	C
3868471	calotype made for plates 38682, 83-94				IIIaJ-E	180 sec				
38685	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIIaJ-E	9/5		02:06	02:29	A
38686	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIIaJ-E	9/5		02:30	03:07	B
38687	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIIaJ-E	9/5		03:08	03:33	C
38688	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIIaJ-E	9/5		03:24	03:36	A
38689	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIIaJ-E	9/5		03:37	03:48	B
38690	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIIaJ-E	9/7		03:49	03:59	C
38691	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIIaJ-E	9/9		04:00	04:13	A
38692	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIIaJ-E	9/9		04:14	04:30	B
38693	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIIaJ-E	9/9		04:31	04:46	C
38694	B ₁ M HD 19536	03 ^h 01 ^m 7	+40° 34'	G-12	IIIaJ-E	9/9		04:47	05:05	A

Dome Temp.

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

Focus *0.5R*.....

* *upposed Box #2 marked IIIA*

Dome Temp. *64°F 93%*.....

P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	05 ^h 10 ^m W	+33° 25'	4.5	3.4 4.4	3pc	22-22	Radio Star B1n	40/13		
	02 ^h 55 ^m E	+40° 52'		2.2 3.5	B8V	22-22	"	40/25		
	02 ^h 32 ^m E	+40° 52'	3.7	2.2 3.5	B8V	3-3-3	"	40/97	*	
	02 ^h 07 ^m E	+40° 52'		2.2- 3.5	B8V	3-3-3	Radio Star B1n	40/100	*	
	Dns 3rd batch now done MW02			3	B8V	Q6	8°F		*	
A	01 ^h 43 ^m E	+40° 52'		2.2 3.5	B8V	3-3-3	"	40/100	*	
B	01 ^h 04 ^m E	+40° 52'		2.2 3.5	B8V	3-3-3	"	40/100	*	
	00 ^h 49 ^m E	+40° 52'		2.2 3.5	B8V	3-3-3	"	40/100	*	
A	00 ^h 35 ^m E	+40° 52'		2.2 3.5	B8V	3-3-3	"	40/100	*	
B	00 ^h 24 ^m E	+40° 52'		2.2 3.5	B8V	3-3-3	"	40/100	*	
C	00 ^h 14 ^m E	+40° 52'		2.2 3.5	B8V	3-3-3	"	40/140	*	
D	00 ^h 10 ^m	+40° 52'		2.2 3.5	B8V	3-3-5	"	40/180	*	
E	00 ^h 19 ^m W	+40° 53'	1-2	2.2 3.5	B8V	3-3-3	"	40/180	*	
F	00 ^h 35 ^m W	+40° 53'	1-2	2.2- 3.5	B8V	3-3-3	"	40/180	*	
G	00 ^h 54 ^m W	+40° 53'	1-2	2.2- 3.5	B8V	3-3-3	"	40/180	*	

Dome Temp. 68°F H=9770

Transparency Conditions foggy, hazy etc

Focus 5-R

Dome Temp. 68° H=9870

P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
C	01 51W	+33° 25'	1-3	3.4- 4.4	Bpe	^{no filter} 5-2-2	Radio Star-ph	40/95		sl. wk
C	03 19W	+33 24	"	3.4- 4.4	Bpe	3-3-3	Radio Star	40/84		sl. wk
C	04 41E	+40° 55'	2	3.2- 3.5	B8V	15-15-15	Radio Star	40/85	ALGOZ	fin
C	04 29E	"	"	3.2- 3.5	B7Z	15-15-15	Radio Star	40/25		fin
Dev 2nd batch MWPR C3 Sept 13 9mm @ 65°F										
Dev 1st batch MWPR C3 Sept 13 8mm @ 68°F										
C	04 07E	+40° 55'	2-3	3.0- 3.5	B8V	15-15-15	"	40/20+	cloud broken later	sl. wk
A	02 50E	+40° 59'	1-3	"	"	^{no filter} 3-3-3	"	40/100	(slit changed from 7-29 width)	fin
B	02 25E	"	"	"	"	3-3-3	"	40/190	1st star lighting	fin
C	02 06E	"	"	"	"	3-3-3	"	40/185	" " 1st cloud	fin
A	01 47E	"	1-2	"	"	3-2-3	"	40/180	cloud	fin

Date 1974 Wed Thurs Sep 11-12 Observer Ch. To Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angl End
38704	HD174638	18 46.4	+33 15	G12	IIIaJE	9/5	72°	19:21	20:30	A	0 45
38705	"	"	"	"	"	13/5		20:30	21:18	B	0 3
38706	"	"	"	"	"	13/5		21:19	22:55	C	3 12
38706 T	Cal step wedge		180 sec		"						D
38707	HD19535	03 01.7	+40 29	G12	"	9/5		23:32	00:02	A	0 26
38708	HD19536	03 ^h 01 ^m .7	+40° 31'	G12	IIIaJE	9/5		00:02	00:33	B	0 5
38709	HD19536	03 ^h 01 ^m .7	+40° 29'	G12	IIIaJE	9/5		00:34	00:41	C	0 21
38710	HD19536	03 ^h 01 ^m .7	+40° 29'	G12	IIIaJE	9/7		00:43	01:00	A	0 12
38711	HD19536	03 ^h 01 ^m .7	+40° 29'	G12	IIIaJE	9/9		01:01	01:22	B	0 27
38712	HD19536	03 ^h 01 ^m .7	+40° 29'	G12	IIIaJE	9/9		01:22	01:43	C	0 27
38713	HD19536	03 ^h 01 ^m .7	+40° 29'	G12	IIIaJE	9/9		01:41	02:05	A	0 27
38714	HD19536	03 ^h 01 ^m .7	+40° 29'	G12	IIIaJE	9/9		02:06	02:25	C	0 27
38715	HD19536	03 01.7	+40 29	G12	IIIaJE	9/9		02:26	02:42	A	0 14
38715 T	Cal step wedge		180 sec		IIIaJE						

Dome Temp. 74° H=89.0

Transparency Conditions Hazy & cloudy

Focus 5-B

B30 H=101.0

Dome Temp. 73° H=98.0

PH	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
A	0 45 W	+33 23	1"	3.4-4.4	Bpe	40 filter 3-3-3	Radio Star	40/100		sl. wk
B	01 35 W	"	"	"	"	3-3-3	"	40/100	Cloud	sl. wk
C	03 12 W	"	1-2	"	"	3-3-3	"	40/92	"	sl. wk
Dus 3rd batch Sept 13							MWRZ C3	3m @ 68°F		
A	04 ^H 00 ^M E	+40 54	"	2.2-3.5	B8V	3-3-3	"	40/100	4/90, 1" broken off and	fine
B	05 39 ^M E	+40° 54'	"	2.2-3.5	B8V	3-3-3	Radio Star	40/100	1" broken off and	fine
C	08 31 ^M E	+40° 54'	"	2.2-3.5	B8V	3-3-3	Radio Star	40/95		fine
A	03 02 E	+40° 54'	"	2.2-3.5	B8V	3-3-3	Radio Star	40/110		fine
B	02:39 E	+40° 54'	2	2.2-3.5	B8V	3-3-3	Radio Star	40/180		fine
C	02 17 E	+40° 54'	"	2.2-3.5	B8V	3-3-3	Radio Star	40/170		fine
A	01 55 E	+40° 54'	"	2.2-3.5	B8V	3-3-3	Radio Star	40/180	1" broken off	sl. wk
C	01 35 E	+40° 54'	"	2.2-3.5	B8V	3-3-3	Radio Star	40/180		sl. wk
A	01 19 E	+40 54	"	2.2-3.5	B8V	3-3-3	Radio Star	40/160		sl. wk

Dome Temp. 70° 98%

Transparency Conditions Fog, haze etc. 05-0000

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Focus 5-B

Dome Temp.

P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3	02 23 W	+ 33 23	1"	^{3.4-} 4.4	Bpe	³⁻³⁻³ 3-3-3	Radio Star	40/100		sl wk
7	03 08 W	"	1-3"	^{3.4-} 4.4	Bpe	4-3-3	Radio Star	40/100		sl wk
C	04 42 E	+ 40 56	1-3"	^{3.4-} 4.4	B&V	3-3-3	"	40/100		sl wk
	04 16 E		2"	^{2.2-} 3.1	B&V	3-3-3	Radio Star	40/100		sl wk
		Das 1st	Scratch	Sept	B	MWRZC3	8m	68°F		

Dome Temp. 53° H: 770

Transparency Conditions Excellent by 23:30

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Focus 5-R

Dome Temp. 48° H: 830

ime	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A	0945W	+48 09	4-6	^{v=} 8.27	B2V	^{no filter} 3-3-3	Fredwa. Sp Bin	200/505	Cloud - Sun NW	fin
		Dew	3rd batch	Sept 19		MWP2C3		6 mi @	68°F		
	A	0119W	+59 29	3-4	^{7.39} 7.29	09TV	15-15-15	Sp Bin - Rly	400/110	cloud [Fid decint check]	fin
		Dew	2nd batch	Sept 18		MWP2C3		9 mi @	68°F		

37 No visitor observing for 4 plates. → Visitors! * Final base of Cometary field

Date 1974 Sept. 14/15 Observer Bla-Ta Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38722	HD 172255	19 ^h 18 ^m .7	+26° 04'	G-12	IIa-OE	13/19		20:46	21:00	A
38723	HD 206807	19 ^h 57 ^m .6	+24° 56'	G-12	IIa-OE	25/3		21:14	23:25	C
38723 T	Cal. stop wedge		90 sec		IIa-OE			(for plates 38722, 24, 25)		
38724	HD 201433	21 ^h 04 ^m .4	+29° 48'	G-12	IIa-OE	13/15		00:21	02:16	A
38725	CC Cas	03 ^h 06 ^m .2	+59° 11'	G-12	IIa-OE	13/15		00:52	02:15	B
38726	CC Cas	03 ^h 06.2	+59 11	G-12	IIa-OE*	13/15		02:16	03:16	C
38726 T	Cal. stop wedge		90 sec		IIa-OE					
38727	CC Cas	03 ^h 06.2	+59° 11'	G-12	IIa-OE*	13/15		02:17	04:17	A
38728	CC Cas	03 06.2	+59 11	G-12	IIa-OE*	13/15	53°	04:18	05:15	B
38728 T	Cal. stop wedge		90 sec		IIa-OE*					

Dome Temp. 55° H=74%

Transparency Conditions Good by 20:30

Focus 5-R

Dome Temp. 40° H=85%

** Plates at far right end of box

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		00:55W	+26° 17'	2"	4.76	P.6 III	15-15-15	Sp. Bin-Bln	40/25	OVERDEVELOP	sl strong line
	C	02:45W	+35° 12'	3-4"	9.74	09.7 Iab	15-15-15	Sp. Bin-Bln	800/190	Cy X-1 23:25	line
		Dew 2nd P. 6th MW P2 C3 Sept 18 9 mi @ 68°F									
	A	02:56W	+30° 10'	2-3"	5.6- 5.79	A0	15-15-15	Sp. Bin-Bln	200/70		line
		01:40E	+59° 30'	5-8"	7.39- 7.54	09 IV	15-15-15	Sp. Bin-Bln	400/140		line
		00:38E	"	2-3"	"	"	15-15-15	Sp. Bin-Bln	400/140		line
		Dew 3rd Bald Sept 19 4th P2 C3 12 mi @ 68°F									
	A	00:23W			7.39- 7.54	09 IV	15-15-15	Sp. Bin-Bln	400/130		line
		01:21W		3-3"	"	09 IV	15-15-15	Sp. Bin-Bln	400/110		line
		for plates 28726-28									
		Exp Box = 1									

Dome Temp. 57° H=8770

Focus 5-R

Dome Temp. 48° H=9070

Transparency Conditions Scattered cloud

→ Super Duper Aurora - Sunset → Dawn
 Max 22^{h} & 01^{h} 04

(Best in 5000)

Line	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5	A	3 08W	+35 12	1.3"	9.74	09.7 ₂₀₆	15-15-10	Sp 8.0 - B/L	800/300	cloud → Aurora 2" below off	fin
5	B	02 35E	+59 29	2.43"	7.39- 7.59	09.14	15-15-15	"	400/140	bright Aurora still - cloud	fin
		Dev 3rd Batch		Sept 13	MWPR C3	Qmmi Q	68°F				fin
7	C	01 03E	"	2"	"	"	15-15-15	"	400/140	CC Cas	fin guiding
7	A	00 03E	"	"	"	"	15-15-15	"	400/130	CC Cas	fin
9	B	01 00W	+59 30	"	"	"	15-15-15	"	400/140	CC Cas	fin guiding
17	C	06 51W	+24 07	1.3"	5.1	B8P	15-15-15	G1-Shell	200/100		fin
							5/15	no filter			

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x ~~is~~ freshly evacuated Latch

Date 1974 Sep 16/17 Mon-Tue Observer Ir-Ta Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
38735	HD 163558	17 ^h 51.8	+56° 53'	G12	IIaOE	13/.5	59°F	19 ^h 20 ^m	19:26	A	1 ^h 02 ^m
38736	HD 163993	17 ^h 53.9	29° 16'	"	"	13/.5		19 ^h 30 ^m	19:37	B	
38737	HD 168775	18 ^h 16.4	36° 01'	"	"	"		19:39	19:55	C	1 ^h 02 ^m
38738	HD 201091	21 ^h 02.4	38° 15'	"	"	"		20:01	21:08	A	0:33 ^m
38739	HD 163970	17 ^h 52.8	37° 16'	"	"	13/.5	59°F	21:13	21:37	B	3:06 ^m
38739T	Cal stop wedge		70 sec		IIaOE	Dew	Sept 19	MWP2CS	4:12	9	0:53 ^m
38740	HD 169414	18 ^h 19.4	+21 43'	G12	"	13/.5	59°F	21:42	21:55	C	2:00 ^m
38741	HD 184466	19 ^h 29.2	+7° 10'	"	IIaOE*	13/.5		21:59	22:35	B	2:27 ^m
38742	HD 185958	19 36.6	117 15'	"	"	"		22:39	22:57	C	2:55 ^m
38743	HD 206839	21 39.8	+16° 53'	"	"	"		23:19	23:53	A	1 ^h 02 ^m
38744	HD 12929	2 ^h 01.5	22° 59'	"	IIaOE*	"		00:01	00:07	B	2:27 ^m
38745	"	"	"	"	IIIaJE	"		00:08	00:33	C	2:27 ^m
38746	HD 13611	2 ^h 07.1	+8° 23'	"	IIaOE*	"		00:39	01:00	A	2:27 ^m
38746T	Cal stop wedge		90 sec		IIaOE*	Dew	Sept 19	MWP2CS	4:12	9	0:53 ^m
38747	HD 20630	3 14.1	+3 00'	G12	"	13/.5		01:06	01:37	C	3:15 ^m
38748	HD 22649	3 ^h 28.2	-9° 48'	"	IIaOE*	13/.5		01:45	02:03	A	3:15 ^m

Dome Temp. 56°F

65% RH

Transparency Conditions clear - Excellent

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Focus 5-R

Dome Temp.

Time	P.H.	Hour Angle End	Declination	Seeing	B Pkg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	B-V	Quality
6	A	1 ^h 00 W	56° 55'	2	4.92	K2 II	15-15-15	Tr - Grant	40/29	ε Dra	1.18	lim
7	B	—	29° 20'	1-2	4.64	G8 III	15-15-15	Tr - Grant	40/31	ε Her	0.94	lim
8	F	1 ^h 00 W	36° 06'	1-2	5.49	K2 II	15-15-15	Tr - Grant	40/50	κ Syr	1.17	lim
9	A	0 33 E	+38 39	1-2	6.38	K5 V	15-15-15	"	200/400	61 Cas A	1.19	lim
10	L	3 06 W	37° 19'	2-3	5.19	K4 II	15-15-15	"	40/70	θ Her	1.85	lim
11	Y.	66.8°F	for plates		38735-	38740	also 41, 42			(different history of evaluation)		
12	C	3 ^h W	+21 50	1-2	5.0	K2.5 Mag	15-15-15	"	40/50	109 Her	1.18	lim
13	F	2 27 W	+70 25'	2-3	5.5	K3 III	15-15-15	"	40/50	μ Aql	1.16	lim
14	C	2 ^h 55 W	17° 30'	2-3	5.42	G9 III	15-15-15	"	200/175	β Sge	1.05	lim
15	A	1 ^h 25 W	17° 18'	2	5.54	G5 IV	15-15-15	"	200/200	γ Peg	1.19	lim
16	B	2 33 E	23° 25'	2	3.15	K2 III	15-15-15	"	40/40	α Ari	1.15	lim
17	C	2 07 E	"	2-3	"	"	no filter =10	"	40/40	α Ari	1.15	
18	L	2 ^h 15 E	+8 48	2	5.25	G8 II	15-15-15	"	200/130	65.5' Cet III aj by mistake	0.89	lim
19	Y.	66.8°F	Col for				Fresh Lutz			III aj by Mistake!		
20	C	2 15 E	+3 22	2	5.50	G5 V	15-15-15	"	200/125	κ Cet	0.68	lim
21	A	2 03 E	-9° 28'	3-4	4.62	K2 II	15-15-15	"	200/180	ε Eri	0.89	lim

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Date..... Observer..... Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Angle End
38749	HD29139	4 ^h 30.2	16° 18'	G17	IIaO-E [*]	13/15		2:09	2:16	B	2:52
38750	"	"	"	"	IIaO-E	"		2:18	2:55	C	2:13
38751	HD 26965	4 10.7	-7 49	"	IIaO-E	"		3:02	3:25	A	1:21
38751 T	Cal stop wedge	18050			IIaO-E		for IIaO-E plates taken				
38752	HD 27371	4 14.1	+15 23	G17	IIaO-E [*]	13/15		3:30	3:39	B	1:12
38753	"	"	"	"	IIaO-E	13/35		3:42	4:26	C	0:27
38754	HD 27697	4 17.2	17° 18'	"	IIaO-E [*]	13/15		4:32	4:42	A	0:14
38755	HD 28305	4 22.8	+18 58	"	"	"		4:45	4:56	B	0:06
38756	HD 28307	4 22.9	+15 44	"	"	"	53°	4:59	5:12	C	0:10
PRIMARY REALUMINIZED								17/18	Sept.		
Lost one clear night											

Dome Temp.

Transparency Conditions

Focus

Dome Temp. 48° H=79%

Time	P.H.	Hour Angle End	Declination	Seeing	B Fig. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
6	C	2 ^h 52E	16° 30'	3?	2.39	K5 III	23-32	Tr - Giant	20/60	broken after dev. L Tau 1.53	line
5	C	2 13E	"	1	"	"	3-15	"	20/360	L Tau 1.53	line
7	A	1 23E	7° 37'	1	5.24	K0 V	15-30	"	200/140	γ ² ETC 0.82	wk on c line
		Dew 1st Batch		Sept 18	MWR2C3	8 min	69°F				
9	B	1 12E	+15 38	2	4.65	K0 III	15-30	"	40/33	γ Tau 0.99	line
6	C	0h 27E	"	2	"	"	3-3-3	"	40/140	γ Tau 0.99	wk on line
2	A	0 14E	+17 32	2	4.74	K1 III	15-15-15	"	40/32	δ Tau 0.98	line
6	E	0 06E	+19 11	2	4.56	K1 III	15-15-15	"	40/32	ε Tau Broken in dark room 1.02	line
2	C	0 12W	+15 56	2	4.81	G9 III	15-15-15	"	40/32	θ' Tau 0.96	line
<p>* Note Use open rack development for all 1510-1 plates. Thanks Tr.</p>											

Dome Temp. 44°F 90%

Transparency Conditions

Focus 20

Dome Temp.

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		01°30W	+65°58'	4"	6.92	G8II	15-15-15	Waterloo	400/160		line
		02°13E	+40°15'		5.08	A3	15-15-15	"	400/120	may be scattering from 12533	sun disk line
		00°07E	"		3.28	K0	22-22	"	40/20	clouds	line
		01445W			5.63	FOIa	15-20	"	200/10	clouds	sun disk line
		Dew. 1st Batch Sept 23 MWPC4 9 min @ 68°F								I give up	

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*Her Procinle
M. Buckley*

Date *Aug 28-28 1974 Sun-Mon* Observer *Ri* Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38761	HD 192285	$19^{\circ} 18.8$	$+26^{\circ} 04$	G-12	IIaJ-E	13/5	80°	19:33	20:56	A
38762	HD 201483	$21^{\circ} 40.240$	$+39^{\circ} 48$	G-12	IIaO-E	13/5		21:10	21:33	B
38763	HD 213307	$22^{\circ} 35.5''$	$+57^{\circ} 54'$	S-12	IIaO-E	13/5	46°F	21:46	22:30	C
38764	HD 218077	$23^{\circ} 00.2''$	$+24^{\circ} 00$	G-12	IIaO-E	13/5	46°F	22:40	23:45	A
3876471	red strip wedge				IIaJ-E	150 μ m				
3876472	red strip wedge				IIaO-E	90 μ m				

(Wrong Star. prob G or F type) T_n

Dome Temp. 35°F 60%

Transparency Conditions ...occasional clouds.....

48

Focus 30R

Dome Temp. 30°F 65%

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A	01 ^m 24W	+26° 17'	5"	4.76	B6II	3-3-3	4 B ₂ - B ₂	40/120	left side	fine
	B	0 ^h 14 ^m W	+30° 09'	4"	5.6 5.39	A0	15-15-15	" "	200/70	right side further up side cloud	no obs fine
	E	0 ^h 14 ^m E	+58° 14'	4"	6.3	B7	15-15-15	" "	400/120	right side	fine
	A	0 ^h 31W	24° 35'	4"	7.57	F5	15-15-15	" "	400/80	clouds overdevelop phase right side	fine
		Dev 2nd Batch Sept 23				MW P2 C4	7 min @ 68°F				
		Dev 1st Batch Sept 23				MW P2 C4	9 min @ 68°F				

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Date Sept 23-24, 1974 Ma. Univ. Observer R. R. G. / R. J. R. Julian Day 72

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38765	HD 201433	21 ^h 04.4	+29°48'	G-12	IIcO-E	13/1.5	58°F	21:30	21:46	A
38766	HD 201519	22 ^h 01.0	+14°21'	G-12	IIIcJ-E	13/1.7		22:00	23:00	B
38767	HD 2018154	23 ^h 00.6	+24°07'	G-12	IIcO-E	13/1.5		23:10	23:53	C
38768	HD 206859	21 ^h 27.8	+12°53'	"	IIcO-E	13/1.5		00:17	00:46	A
38769	HD 206745	22 ^h 07.4	+57°42'	"	"	"		00:49	01:25	B
38770	HD 222404	23 ^h 35.2	+77°04'	"	"	"	47°	01:34	01:46	C
38771	HD 12929	02 ^h 01.5	+20°59'	"	"	"		01:58	02:02	A
38772	HD 12611	02 ^h 47.1	+01°23'	"	"	"		02:05	02:21	C
38773	HD 1361	02 ^h 07.1	+28°23'	"	"	"		02:22	02:37	A
38774	HD 20630	02 ^h 14.1	+08°00'	"	"	"		02:44	03:09	B
38775	HD 221019	03 ^h 28.2	+09°48'	"	"	"		03:13	03:38	C
38776	not star used for plate		38766		IIIcJ-E		180 sec			
38777	not star used for plate		38765-68		IIcO-E		90 sec			
38778	not star used for plate		38769-38773		IIcO-E		90 sec			
38776	HD 20665	4 ^h 10.7	-7°49'	"	IIcO-E	13/1.5		03:38	04:08	A
38777	HD 29139	4 ^h 30.2	+16°18'	"	"	13/1.5		04:15	04:23	B

Dome Temp. 35°F

66%

Transparency Conditions

clear at first
good after that

50

Focus 30 R

Dome Temp.

P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	0 ^h 32 W	+30° 10'	3-4	5.6 5.79	AD	15-15-15	Sp Bar - Blu	200/70	Left side of Box #2	Li
	0 ^h 48 W	-13° 55'	4"	4.18	B8V	3-3-3	" "	40/140	clouds right side of Box #2	Fine
	0 ^h 42 W	+24° 34'		7.01	AD	15-15-15	" "	400/120	Left side of Box #2	Fine
	02 ^h 56 W	+17° 18'	1	5.58	G5IB	15-15-15	11 - Giant	200/200	9 Peg	1.19
	03 ^h 07 W	+58° 07'	2	4.96	K1.5TB	1-1-1	"	200/550	S Cep	1.60
	02 ^h 00 W	+77° 32'	3	4.25	K1TB	1-1-1	"	200/180	γ Cen	1.15
	00 ^h 10 E	-23° 25'	2-3	3.15	K2TB	3 sec.	"	20/20	λ Ari	1.15
	02 ^h 03 W	+01° 48'	2-3	5.25	G8II	1-1-1	"	200/130	65 ε' Cet	0.89
	00 ^h 21 W	+06° 48'	2-3	5.25	G8II	1-1-1	"	200/30	65 ε' Cet	0.89
	00 ^h 15 E	+3° 21'	2-3	5.50	G5II	1-1-1	"	200/125	K Cet	0.68
	00 ^h 01 E	-04° 28'	2-3	4.62	K2II	1-1-1	"	200/160	ε Eri	0.89
	Dew 2nd	Batch Sept 24	9 min	668	MW02	C4			right side of Box #2	
	Dew 2 nd	Batch Sept 24	9 min	668	F Map	C4			left side of Box #2	
	Dew 1st	"	"	"	"	"				
	00 ^h 13 E	-7° 36'	2-3	5.24	K0V	1-1-1	11 - Giant	200/170	σ ² Eri	0.92
	00 ^h 17 E	+16° 30'		1.19	K1TB	1-1-1	"	20/50	λ Tau	1.53

Dome Temp.

Transparency Conditions *good*

Focus

Dome Temp. *32°F 73%*

Time	PH	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		Dew 1st	Batch MW	22 24	0.1mm	0	68°F	Sep 24			
		Dew 2nd	Batch MW	22 24	9mm	0	68°F	"			
		"	"	"	"	"	"	"			
		00" 00 E	+25° 13'	2	4.39	G8JB	1-1-1	Ir - Grant	200/375	← Gem	fair
		?	+60° 50'	3	4.20	G5III	1-1-1	Ir - Grant	200/130	0 U Ma	fair
		00" 51 W	+19° 11'	2	4.56	K1III	1-1-1	"	200/160	← Tau	fair

Dome Temp. 65° H: 75%

Transparency Conditions Hazy, Cloud at times

56

Focus 10-R

Dome Temp. 58° H: 94%

Time	PH	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
07	A	02 38W	+26 45	1-3"	8.6- 9.3	B8	15-15-15	Sp Bin-Blu	800/300	Cloud	
										Dew 2nd Batch Sept 30 MWPR C4 9 min @ 68°F	
08	B	02 05W	+30 11	3	5.6- 5.8	A0	15-15-15	Sp Bin-Blu	200/70		
09	C	00 48W		2	7.01	A0	15-15-15	Sp. Bin-Blu	400/140	~1/2" broken off end	
09	A	01 56E	+50° 04'		5.41	A _p 5	15-15-15	A _p Blu	200/126		strong
09	A	01 27E	+41° 24'	2-3"	7.26	O8 _{II}	15-15-15	Sp. Bin-Blu	400/140		strong
09	C	01 05E	-12 19	"	4.85	B3 _{II}	15-15-15	Sp. Bin-Blu	200/126	fine microfilm	fine
09	A	02 19E	+16 11	"	7.14	F8	15-15-15	Sp. Bin-Blu	400/100		fine
09	A	02 00E	+13 40	"	7.10	F5	15-15-15	Sp. Bin-Blu	400/100		strong
09	A	01 25E	-8 43	3	4.07	B3 _{II}	3-3-3 No Filter	Sp. Bin-Blu	40/140	* Right Hand Side of Box * Dark Slide not pulled 1st Time	fine
09	A	01 06E	-2 33	2-6	3.51	O9 _{II}	3-3-3 No Filter	Sp. Bin-Blu	40/100		strong
09	C	00 22E	-2 32		6.32	B3 _p	15-15-15	B _p -Blu	200/70		strong
										Dew 1st Batch Sept 30 MWPR C4 7 min @ 68	

Dome Temp. 44°F

69% RH

Transparency Conditions Clear till 22^h (partly cloudy)

Focus 30 R

Dome Temp. 37°F

86%

58

Time	P.H.	Hour Angle End	Declination	Seeing	B Pte Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	B-V	Quality
04	A	4h 35 W	35° 48	4-7	5.62	K1 IV ₀	15-15-15	Ir - Giant	200/166	K Cr B	0.99	fine
05	B	3 00 W	+08° 49'	2-4	5.59	ε 8 III	15-15-15	Ir - Giant	200/140	71 Oph	0.95	fine
		Dew 1 mi	06 ^h 0 F	MWP 2CS								
09	C	3 08 W	+52 59	2-3	6.27	K3 III	15-15-15	Ir - Giant	200/280	20 Cyg	1.27	fine
10	C	3 05 W	+61° 48'	2-3	4.35	K0 IV	15-15-15	Ir - Giant	200/160	tested ¹ η Cep moonlight brightness ~ 14% ~ 2 mag. at 10" fine	0.92	fine
48		0 ^h 05 ^m W	+5° 21'	"	"	G2 V	7 ^h 0	Ir - Giant	20/20	moon	0.63	fine
53		0 ^h 07 ^m W	+5° 21'	"	"	G2 V	2	Ir - Giant	20/25	moon	0.63	fine

61

Date Oct 3/4 1974 Thurs Fri Observer Bla-Ta Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38811	HD 182255	19 18.8	+26 04	G12	D ₀₀ -E	13/5	41°	18:41	18:45	A
38812	DR Val	20 09.6	+26 27	G12	D ₀₀ -E	20/5		18:51	20:10	B
38812 T1	Cal step wedge	for 38812			D ₀₀ -E	90sec				
38812 T2	Cal step wedge	for 38811			D ₀₀ -E	90sec				
38812 T3	Cal step wedge				D ₀₀ -E	90sec				
38812 T4	Cal step wedge				D ₀₀ -E	180sec				
38812 T5	Cal step wedge				D ₀₀ -E	90sec				
38813	HD 201433	21 04.4	+29 48	G12	D ₀₀ -E	13/5		22:43	22:54	A
38814	HD 212154	23 ^h 00 ^m 6	+24° 07'	G-12	D ₀₀ -E	13/5		22:58	23:28	B
38815	HD 14633	02 ^h 16 ^m 7	+41° 02'	G-12	D ₀₀ -E	13/5		23:31	23:42	C
38816	HD 15130	02 ^h 21 ^m 1	-12° 44'	G-12	D ₀₀ -E	13/5		23:56	00:14	A
38817	HD 25638	03 ^h 59 ^m 0	+62° 03'	G-12	D ₀₀ -E	13/5		00:48	01:17	B
38818	HD 25639	03 ^h 59 ^m 0	+62° 03'	G-12	D ₀₀ -E	13/5		01:19	02:30	A
38818 T	Cal step wedge	for 38816			D ₀₀ -E	180sec				
38819	HD 28363	04° 23 ^m 3	+15° 57'	G12	D ₀₀ -E	9/3	39°	02:51	03:17	B
38820	HD 57479	05^h 25^m 7	-2° 34'	G-12	D₀₀-E	13/5		13:21		C

Dome Temp. 40° 60%
 Focus 50-R
 Dome Temp. 30° 60%

Transparency Conditions Good - some cloud at 1 hour
 *Overdevelop Plates at Far Left of Box
 ** In separate Box

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5	A	00 05 E		2-3'	4.76	B615	15-30	Sp. Bin - Bl	40/12		sl. stray
0	B	00 30 W		2	8.6-9.3	B8	15-15-	"	800/240	*Carried 20; 10-240 cts *Overdevelop please	fine guiding
		Dev 4#	Batch MWPC5	12 min			68°F			*Overdevelop with 38812	
		Dev 2#	Batch MWPC5	9 min			68°F				
		Dev 5#	Batch MWPC5	7 min			65°F with plate rocker			} These plates in order at Far Right of Ex Box.	
		"	"	"	"	"	"				
		214	Dev 1st Batch	4 min			60°F	D 19 in closed rock.			
4	A	02 18 W	+30 11	1.2'	5.6-5.8	A0	15-15-15	Sp. Bin - Bl	200/70		sl. stray
28	B	00 56 W	+24 36	"	7.01	A0	15-15-15	Sp. Bin - Bl	400/140		sl. stray
2	C	01 57 E	+41° 29'	"	7.26	B72	15-15-15	Sp. Bin - Bl	400/140		sl. stray
	A	01 11 E	-12° 19'	1-2	4.25	B72	3-3-3	Sp. Bin - Bl	40/100		fine
7	B	02 16 E	+62° 17'	1-2	7.38	B30	15-15-15	Sp. Bin - Bl	400/160	**	sl. stray
30	A	01 03 E	+62° 17'	2"	7.41	B0	15-15-15	Sp. Bin - Bl	400/155	cloud	
		Dev 2#	Batch MWPC5	7 min			68°F			**	
17	A	00 37 E	+16 11	2'	7.14	F4	17-17-17	Sp. Bin - Bl	400/100		fine
			-2° 33'		6.82	B44	15-	Sp. Bin - Bl	300/	cloud	

Dome Temp.

Transparency Conditions

Focus 20R-10R

Dome Temp.

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
9	A	02 ^h 21 ^m W	+30° 10'		5.6 5.79	A0	15-15-15	Sp. Bin - Blk	270/70	20R Please develop in D-19 Right side of Box	fine
7	B	02 ^h 39 ^m W	+30° 10'		5.6- 5.79	A0	15-15-15	Sp. Bin - Blk	200/70	10-R	fine
5	C	03 ^h 44 ^m W	+15° 04'		4.53	Am	3-3	Sp. Bin - Blk	40/28	overdevelop #2	fine
2	A	00 20E	+41° 25'	2	7.26	08V	15-15-15	" "	40/140		fine
0	E	00 ^h 11 ^m W	+50° 05'	1-2	5.44	A _p S	15-15-15	Sp. Bin - Blk	200/126		sf strong
0	A	02 ^h 15 ^m W	-12° 19'		4.95	B3V	3-3-3	Sp. Bin - Blk	200/431	Cloud Box #2	fine
0	A	00 ^h 39 ^m E	-02° 33'	2	3.51	09.5V	3-3-3	Sp. Bin - Blk	40/100	Box #2	sf strong
10	B	00 ^h 14 ^m W	-02° 30'	2	6.32	B3p	15-15-15	" "	200/100		
		Dew. 7 ^{am} D19 Oct 7			68°F						
		" 9 ^{am} MWP2CS			"						
4	C	00 ^h 45 ^m W	+02° 25'		6.16	B3V	15-15-6	Sp. Bin - Blk	200/48	clouds overdevelop	

Dome Temp. 40° H: 85%

Transparency Conditions very good by 21:30

Focus 20-R-30R

Dome Temp. 35°F H: 100% Frost

66

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2	A	02 02 W	+30° 11'	4-8	5.6- 5.79	A0	15-15-15	Sp. Bin - Blu	200/70:		20-R
4	B	02 02 W	+24 34	"	7.01	A0	15-15-15	"	400/140		20-R
	A	fine					3/3	no filter		} actually made only in eve. before opening up.	
		center to blue 12 microns					3/3	"			
		center to blue 15 microns					3/3	"			
3	A	00 02 W	+50° 03	5-10	5.44	A/p	17-20-11	A/p Blu	200/126	63 And. - 30-R	25-still
		Dew MW2CS 9 min @ 68°F			0.89					↓	
4	C	00 18 W		4-6"	4.85	B0V	15-15-15	Sp. Bin - Blu	200/70		fine
							2 1/2"	no filter		Center to blue 14 microns	

Dome Temp. 52°F 85%

Focus 20R

Dome Temp. 50°F 98%

Transparency Conditions hazy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2 ^h 49 ^m W	+35° 47'	3	7.60	WV 4.5 09.15	15-15-15	Clust-FQY	800/440	#1	strong
04° 40W	+35° 46'	3	7.93	30-1	15-15-15		800/230	#5	fine
Dev 2nd B-tl O&S D 19 7mi @ 65°F									

Dome Temp. 45°F 86%

Focus 20" R

Dome Temp. 32°F H = 96%

Transparency Conditions

Excellent - Superb

Modest Aurora low in North when clouds cleared. Aurora to 20° N & 20° S by 23:30. South of NCP by 00:30 remained bright &/or active all night.

72

Time	P.A.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5	A	1448W	+30° 10'	10"	5.6 5.29	A0	15-15-15	Sp Bin - Bl	200/70		judging sl. strong
7	B	01 ^m 30 ^m W	+24° 35'		7.01	A0	15-15-15	Sp Bin - Bl	400/140		judging sl. strong
13	C	00 ^m 49 ^m E	+5° 04'	"	5.44	A1 S	15-15-15	Ap Bl	200/126		sl. strong
19	A	00 ^m 26 ^m W	+41° 26'		7.26	08 I	15-15-15	Sp Bin - Bl	400/140		sl. strong
		Dec 1st 00 ^m 03 ^m 15		D19	7 min	@ 68°F					
		"	"	"	"	"					
23	B	00 ^m 15 ^m W	+16° 10'	6	7.14	F8	15-15-15	Sp Bin - Bl	400/110		sl. strong
28	C	00 ^m 10 ^m E	-02° 32'	10	6.32	B3 p	15-15-15	Ep Bl	400/140		judging sl. strong
25	A	00 ^m 06 ^m W	-02° 32'		3.51	09 I	3-3-3	Sp Bin - Bl	40/80	exposed #2 marked IIIA	strong
		Dec 1st 00 ^m 03 ^m 15		D19	7 min	@ 68°F				" " " "	
0	B	01 ^m 39 ^m W	+13° 40'		7.10	F5	15-15-15	Sp Bin - Bl	400/110		judging sl. strong
52	C	01 ^m 39 ^m W	+00° 24'		6.16	B3 I	15-15-15	Sp Bin - Bl	300/100		judging sl. strong

Dome Temp. 46° 10:55³⁰

Transparency Conditions Fair - hazy

74

Focus 20-R - 56-R

Dome Temp. 43° 10:99³⁰

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
27	A	01 28W	+26 17	3"	4.76	B6II	^{no filter} 3-3-	Sp Bin - Blm	40/100		Fair
28	A	00 14W	+30 10	2.5"	5.6-5.8	A0	15-15-15	"	200/80	} Focus 20-R	Strong & steady
2	C	00 20W	-13 54	"	4.18	B6V	^{no filter} 3-3-3	"	40/140		
				min/outout			3/3 no filter			Focus changed to 56-R	
16	A	02 40 E	+50 05	3"	5.44	A _p Si	15-15-15	Sp Bin - Blm	200/130		strong
		Dew Oct 17 9mm @ 69°F D19									
53	A	01 08 E	+10 32	3'-6"	6.90	A3	15-15-15	C6 prog	400/158	slight haze with 90° part	good time
		Dew Oct 17 9mm @ 69°F D19									
		Cloud									

Dome Temp. 32°F H=6270

Focus 70-R

Dome Temp. 26°F H=9370

Transparency Conditions Excellent

76

Time T.	PH	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02	A	03 11 W	+58 50	2-6"	4.93	A1 V	no filter 3-6	Sp Bin-Pln	40/160	Approx Exp meter off for 20 min.	stray
02		D19 69°F									
11	B	04 30 W	+26 44	2-4"	8.6- 9.3	B8	15-15	Sp Bin-Pln	800/300		fine
11		D19 69°F	9 min.								
09	C	03 07 W	+24 37	3-4"	7.0	A0	18-18-18	Sp Bin-Pln	400/140		fine
09	A	00 42 W	+50 05	2-4"	6.44	Ap 51	18-18-18	Ap-Bin	200/130		stray
02	B	03 09 W	+10 32	"	8.52	F2 IV	17-18-18	Cb-Prng	400/120		fine
08	C	01 30 W	+13 42	2-3	7.10	F5	18-18-18	Sp Bin-Pln	400/78	cloud	swampy fine
							4/4	no filter			

Dome Temp. 28°F H=9070

Focus 80-R

Dome Temp. 25°F H=79

Transparency Conditions Good - some haze, light snow

78

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	A	22W	+26 55	2.9"	6.72	F5	17-17-12	Vis Bin-wat	400/180		fine
01	B	48W	+37 34	2.5"	6.8	F1 IV	18-17-17	Sp Bin-wat	400/185		Seeing S. star
		69°F	9mm								
00	C	13E	+57 26	1.3"	7.0	62 II	18-17-18	Sp Bin-wat	400/190	* Also noted as K in Vis Bin	fine
							3/3	no filter			
00	B	45W	-7 37	2"	5.14	NO V	18-18-18	Vis Bin/wat	200/61	cloud again	

Dome Temp. +30°F H-693

Transparency Conditions *Very good etc. but*

Focus 80-R

Dome Temp. 25°F H-950

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
A		1°59' W	+26°45'	1"-3"	8.6-9.3	B8	17-17-17	Sp Bin - Bin	800/300		<i>medium fine</i>
		<i>Dew end of stat Oct 21 DIA 69°F 1.9 min</i>									
B		1°39' W ^X	+30°10'	1.5"	5.6-5.7	A0	18-18-18	Sp Bin - Bin	200/70	<i>prob labelled 65</i>	<i>sl stray</i>
C		1°06' W	+24°35'	2"-4"	7.01	A0	18-18-18	"	200/70	<i>Very unfortunately fogged</i>	
46		0 53 E	+50°05'	2"-3"	5.44	ApSI	18-18-18	"	200/116	<i>cloud</i>	<i>medium strong</i>

Note - 2 extra unexposed plates put in - (ye for insurance reasons)

Dome Temp. 42° H=58%Transparency Conditions Excellent after 19^h

Focus 70-R

Dome Temp. 39° F H=71%Many water
& heavy "Flash" cloudsVery gusty at times from
S-E-W

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
26	A	01 47W	+26 17	1"-2"	4.76	B6 III	3-4 3	Sp Bin-Pln	40/110		strong
		Dev 9mm @ 68°F		D 19		Oct 22					
43	B	01 18W	—	1"	5.6- 5.8	A0	16-2-17	Sp Bin-Pln	200/35	but strong S winds; hard to manage	fine
27	C	03 18W	+54 25	1"-2"	9.21	B25/6	17-5-19	"	200/360		fine
		Dev 9mm @ 68°F		D 19		Oct 22					
29	I	02 02W	+66 55	1"-3"	7.08	A0	18-18-17	Ap-MR	400/185		fine
24	E	00 00	+44 49	2"-3"	9.9	A0	18-32	Kerr	800/85	Fld down - some clouds	Very good
27	C	01 44W	+44 44	2"-6"	8.0	A0	18-17-17	Ap-MR	900/145	marked increase fld	fine
15	A	01 44E	+73 25	2"-4"	7.46	A2	17-17-17	"	900/145	Fld down - fairly certain though	fine
	B	(Camera set at +12° 0.46)				3/3	no filter			Cloud	fine

83

Sereco College class visitors for 1/2 hr

* New EoD-B batch

Date Wed-Thurs Oct 23-24/74 Observer Lr-Tn / Bln-Tn Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38873	HD 201433	21 04.4	+29 48	G12	Il00-E	13/5	51°	18:58	19:42	A
38874	HD 218154	23 00.6	+24 07	"	"	"		19:53	21:13	B
38875	HD 208513	21 51.6	+44 29	"	"	9/5		21:23	00:19	C
38875 T	Cal step wedge		90sec		"	for 38873-		76		
38876	HD 14392	02 14.4	+49 42	G12	"	13/9		00:24	00:48	B
38877	HD 14633	02 16.7	+41 02	G12	Il00E*	13/5		00:52	01:48	C
38878	HD 28363	04 22.3	+15° 57'	G12	Il00E*	9/35		01:51	02:54	A
38878 T	Cal step wedge		96.00		Il00E*	for		38877 →		
38879	HD 30869	04 46.2	+13° 29'	G12	Il00E*	9/3		02:56	03:41	B
38880	HD 37179	05 ^h 33 ^m .7	-2° 39'	G12	Il00E*	13/7		03:44	04:41	C
38881	HD 37468	05 ^h 33 ^m .7	-2° 39'	G12	IIIa-JE	13/5		04:43	04:57	A
38882	HD 33328	05 04.4	-8° 53'	G12	IIIa-JE	13/7		05:00	05:36	B
38882 T	Cal step wedge		180sec		IIIa-JE	for 38881-		83		
38883	HD 24760	02 ^h 51 ^m .1	+39° 43'	G12	IIIa-JE	9/5	H20F	05:40	05:47	A

Dome Temp. 47° H 79
 Focus 50-R set at +20"
 Dome Temp. 36° H 79

Transparency Conditions Thin cloud at 500
 Excellent Aurora ~30° high in North @ 0^h 30^m
 East Aurora ?

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2	A	20 25 W	+30 11	3"	5.6 5.8	A0	18-18-16	Sp. Bin - Blk	200/270	?	fine
3	B	00 00	+24 35	2.4"	7.01	A0	17-17-17	"	400/145		fine
4	C	01 15 W	+44 54	"	7.8	B9	18-18-30	Ap - MR	400/175	Fldrown	fine
		Down East 9 min U	65°		D19		1st Rate				
48	B	00 20 W	+50 05	2.3"	5.44	Hpsi	20-20-20	Ap - Blk	200/130	G3 And - (Aurora Bright now)	strong
49	C	01 17 W	+41 24	2.3"	7.26	O8V	20-20-20	Sp. Bin - Blk	400/140	New Bar of Ua0-E started ↓	
54	C	00 18 W	+16 10	"	7.14	F8	20-20-20	Sp. Bin - Blk	400/110		fine
		Down East 9 min U	68°		D19		2nd Rate				
41	B	00 ^{28 W} 42 W	+13 41	2"	7.10	F5	20-20-20	Sp. Bin - Blk	400/110		fine
41	C	00 56 W	-2 32	2.3"	6.32	B3p	20-20-20	Sp. Bin - Blk	200/100		strong
57	A	01 11 W	-2 32	"	3.51	O9V	3-3-3	Sp. Bin - Blk	40/80		very strong
36	B	02 20 W	-8 43	"	4.07	R2IV	3-3-3	Sp. Bin - Blk	40/115		strong
47	A	03 42 W	+16° 00'	2	2.71	R2IV	3-5	Sp. Bin - Blk	40/70		strong

85

2 class groups for 1A (5-10)

Date Thu. & Fri. 9-24-25/71 Observer FGI-Ta/ Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38884	BD+35° 39.55	20 ^h 02 ^m 2 ^s	35° 31	G12	IIa-OF	13/5		18:22	19:33	A
38884	Cal stop	wedge			IIa-OF					
38885	HD 190919	20 ^h 02 ^m 2 ^s	35° 24	G12	IIa-OF	13/5		20:38	22:02	B

Dome T
Focus
Dome T

Hour An
End

01 22

12 02

Dome Temp. 43°F H 813

Transparency Conditions Thin cloud - Thick cloud

Focus 50-R

Dome Temp. 42°F H 867

Time S.T.	Hour End	Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01	22W		+35 49	2-3	7.31	B1	20-20-20	Clust-FQY	400/140	cloud #3	slut
Dev 4th batch Oct 28 9mi @ 68°F D19											
02	03	51W	+35 43	2-3	7.33	B1/b	20-20-20	Clust-FQY	400/140	#2 More cloud	slut
+35 22											
20 CC-5											

89 Approx. 150 Vectors until 21:15

Checked Polar Axis alignment 21:15-22:00 Azimuth & Altitude both good to better than 30".

Reg Sat Night Vectors (3 hrs)

Date 26/27 Oct 1974 Sat/Sun Observer Pla-Tr-Pla Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.	Hour Ang End
38890	HD 201433	21 ^h 04. ^m 4	+29° 48'	G-12	IIa-OE	13/7	50°F	22:09	22:31	A	03:20
38890T	Cal step wedge		90 sec		IIa-OE						Dev
38891	HD 218159	23 00.6	124 07	G12	IIa-OE	13/7		22:35	23:29	B	02:55
38892	HD 14392	02 14.4	149 42	G12	IIa-OE	9/7		23:35	00:57	C	02:40
38893	HD 14633	02 ^h 16. ^m 7	+41° 02'	G12	IIa-OE	13/5		01:01	01:42	A	01:20
38894	HD 28363	04 ^h 23. ^m 3	+15° 57'	G12	IIa-OE	9/3		01:48	02:30	B	00:00
38895	HD 30289	04 ^h 46. ^m 2	+12° 39'	G12	IIa-OE	9/3		02:33	03:06	C	00:10
38896	HD 37479	05 ^h 33. ^m 7	-2° 39'	G-12	IIa-OE	13/7		03:11	03:32	A	00:00
38897	HD 37488	05 ^h 33. ^m 7	-2° 39'	G-12	IIIa-JE	13/7		03:34	03:45	B	00:00
38898	HD 14392	02 14.4	+149° 42'	G-12	IIa-OE	9/9		03:50	04:19	C	09:00
38898T	Cal step wedge		180 sec		IIa-OE						Dev
38899	HD 25638	03 ^h 59. ^m 0	162° 03'	G-12	IIa-OE	13/5		04:03	05:19	A	00:00
38900	HD 25639	03 ^h 59. ^m 0	+62° 03'	G12	IIa-OE	20/5		05:21	05:52	B	00:00
38901	HD 24760	03 51.1	139 43	G-12	IIIa-JE	9/5	47°	05:55	05:59	C	04:00

Dome Temp. 45°F H. 66%

Transparency Conditions Excellent

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Focus 50-R

Dome Temp. 43°F H. 82%

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
31	A	03 26W	+30 13	2-3"	5.6- 5.79	AO	20-20-20	Sp. Bin-Bln	200/70	} accidentally 7 sec. length	✓ slant
		Dew 2nd batch Oct 28				9 min @ 65°F DR					
31	B	03 28W	+24 38	2"	7.01	AO	20-20-20	Sp. Bin-Bln	400/140		slant
31	C	00 40W	+50° 07'	1-4"	5.44	Ap si	2-2-2	Ap-Bln	200/400	*	Fine
31	A	01 24W	+41° 26'	3	7.26	08V	20-20-20	Sp. Bin-Bln	400/140		slant
31	B	00 06W	+16° 12'	2-3"	7.14	F4	20-20-20	Sp. Bin-Bln	400/110		slant
31	C	00 19W	+13 43	"	7.10	F5	20-20-20	Sp. Bin-Bln	400/110		slant
31	A	00 05E	-2° 31'	3	6.32	B3	20-20-20	Sp. Bin-Bln	200/100		slant
31	C	00 11W	-2° 31'	2"	3.51	08V	2-2-2	Sp. Bin-Bln	40/72	*	Fine
31	C	09 04W	+50 08	2"	5.44	Ap si	20-20-20	Sp. Bin-Bln	200/126		slant
		Dew 1st batch 7 min				0.55°F DR	Oct 28			* 3 min. 3 plates of Exp. right w/ Exp Box #4	
31	A	03 17W	+62 21	2-3"	7.36	B3	20-20-20	Sp. Bin-Bln	400/140		
31	B	03 50W	+62 20	"	7.41	B3	20-18-	Sp. Bin-Bln	400/140		slant
31	C	04 08W		"	2.71	BasV	2-4	"	40/50	*	3 min

Date Sun-Mon. Oct 27-28/74 Observer Tm - By-PA/Tm Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38902	HD 190864	20 ^h 01.9	+35 19	G12	E ^o E	18/5	45°F	18:05	19:52	A
38903	HD 227586	20 ^h 01.8	+35 20	"	"	18/4		19:58	22:23	B
38904	HD 201433	21 ^h 04.4	+29° 48'	"	IIa ^o E	13/5		22:34	22:52	C
38905	HD 218154	23 00.6	+24 07	"	"	"		23:08	00:26	A
38905 T	Cal step wedge		9/100		"					
38906	HD 14242	02 14.4	+49 42	G12	"	9/9		00:29	01:07	B
38907	HD 22441	03 31.5	+44 28	"	"	9/5		01:12	03:12	C
38908	HD 23862	03 43.3	+23 51	"	"	9/7	38°F	03:16	03:41	A
38909	HD 35967	05 19.4	+2° 16	"	"	13/5		03:46	04:15	B
38910	HD 37479	05 33.7	-2 39	"	"	13/7		04:18	05:15	C
38911	HD 37468	"	"	"	IIa ^o E	"		05:17	05:31	A
38912	HD 24760	03 51.1	+39 43	"	"	"		05:37	05:42	C
38913	"	"	"	"	"	9/7		05:43	05:55	B
38914	B. Gem	07 39.2	+28 16	"	IIa ^o E	9/7	37	06:01	06:05	C

Dome Temp. 37°F H=70%

Transparency Conditions *Excellent again*

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Focus 50-R & 65-R

Dome Temp. 32 80%

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
52	A	01 54W	+35 38	3.5"	7.76	OGF	18-18-18	NGC 6871	400/140	#4	fine
53	C	04 25W	+35 40	2.5"	8.84	Bl	18-18-18	"	800/225	#7	fine
	C	03 57W	+30 13	2.5"	5.6- 5.8	A0	20-20-20	sp. Bl - Bln	200/70		fine
56	A	03 38W ²⁴ *	+29 38	"	7.01	A0	20-20-20	"	400/140	thin cloud	Fine
		Dew 3rd before Oct 28 9mi D19									
02	C	00 55W	+50 07	2.2"	5.44	4p Si	22-22-22	Ap - Bln	200/130	thin cloud	Fine
02	C	01 43W	+44 47	1.3"	8.0	A0	22-20-22	Ap - MR	400/180		Fine
04	A	02 02W	+24 11	2"	5.1	PKp	22-22-22	Shall-G1	200/95	Focused to diff	slightly
05	C	01 00W	+2 27	2.4"	6.16	1.5V	20-20-20	sp. Bl - Bln	200/75		slightly
15	C	01 45W	-2 30	"	6.32	1.3p	20-20-20	"	200/100	thin cloud	slightly
21	A	02 02W		"	3.51	09.5V	2-2-2	"	40/70		slightly
02	C	03 54W		2"	2.71	B0.5V	2-2-2	"	40/70		slightly
55	B	04 07W		2"	"	"	2-2-2	"	40/70	ie Box # 1	slightly
55	C	00 30W		2"	2.15	K0.5V	20-40	starvel	40/35		slightly
										Warren: All (10-5)s are at far right like last night's plates	

Dome Temp. 47°F $H=90\%$

Transparency Conditions *Hazy & thin cloud*

Focus *50-R*

Dome Temp. 45°F $H=98\%$

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
19		03 10 V	+28 36	2.4	8.0	A0	22-20-20	Am - MR	400/162	cloud or haze	W
		<i>Duo 9</i>	<i>019</i>	<i>0.29</i>	<i>5.0</i>						
22	C	01 31 W	+47 55	2.3	7.5	A0	20-20-20	Am - MR	900/180		W
24	A	01 07 E	+43 30	2.0	6.7	A2	22-22-22	Am - MR	400/170		W
23	C	01 16 W	+59 34	1.3	7.85	A0	22-22-22	Am - MR	400/175	very hazy (thin cloud seen) at end of 1" <i>Don't use here.</i>	W

Dome Temp. 65°F 81%

Transparency Conditions

Focus 1.0-R

Dome Temp. 60°F 99%

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2	A	02 ^h 35 ^m W	+58° 54'	2-4"	4.93	A1T	2-2-2	Exp-Bc-Blu	40/50	left side of upper box	weak
8	B	02 ^h 23 ^m W	+26° 20'	2-4"	4.76	B6III	2-2-	"	40/50		weak
	A		+30° 14'		5.6	AD	22-22	"	20/50	used wrong type of plate	
	C	01 ^h 55 ^m W	+30° 14'		5.6	A0	22-22-22	"	20/70	fog rolled in and early	fair
		02 ^h 5 ^m W	+61° 12'		D19	N ₁ S					
		"	"		"	"					

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Date *Thursday Nov 7-8/24* Observer *FGI - To / To "only"* Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38923	HDE 227611	20 02.0	+35 37	G12	D ₀₀ -E	18/135		18:01	20:33	A
38924	HD 190412	20 02.2	+35 31	"	"	13/15	42°F	20:40	22:00	B
38925	HD 218154	23 00.6	+24 07	"	"	"		22:09	23:24	C
38925 T	Col stop wedge		90 sec		"					
38926	HD 15130	02 21.1	-12 44	G12	D ₀₀ -E	13/15		23:35	00:30	A
38927	HD 97468	05 33.7	-2 39	"	"	13/15		00:35	00:49	B
38927 T	Col stop wedge		180 sec		"					-
38928	HD 37177	05 33.7	-2 39	G12	D ₀₀ -E	13/15		00:52	01:39	C
38929	HD 28363	04 23.3	+15 57	"	"	9/13		01:44	03:02	A
38930	HD 30864	04 46.2	+13 29	"	"	"		03:05	03:55	B
38931	HD 33328	05 04.4	-8 53	"	D ₀₀ -E	13/17		03:59	04:33	C
38932	HD 37468	05 33.7	-2 39	"	"	13/17		04:36	04:53	A
38933	HD 37479	"	"	"	D ₀₀ -E	13/15		04:55	05:53	B
38934	HD 20760	03 51.1	+39 43	"	D ₀₀ -E	9/17		05:58	06:14	C
38934 F	Focus	set G2-R		"		9	71°F			B

Dome Temp. 46° H=753

Transparency Conditions Excellent

Focus 12-R

Dome Temp. 40° H=870

Time	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
3	A	3 17W		1.2"	9.5	B211	18-18-18	NGC 6871	800/190		sl wk
10	B	4 44W	+35 51	1.3"	7.6	*	18-22-20	"	400/200	* W14.5 +0957a	sl wk
24	C	3 10W	+24 41	2"	7.01	A0	20-20-20	Sp Bin - R/h	400/140		sl wk
		Dec 2nd	End Nov	9 D 9	9 min		10 18°F				
20	A	0 55W	-12 15	2.5"	4.85	B9V	2-2-2	Sp Bin - R/h	40/70	H=1000	sl wk
29	B	1 58E		2.3"	3.51	O9.5V	2-2-2	"	40/52	0.65 AB	sl wk
		Dec 1st	End Dec	5 D 19	2 min		10 18°F				
39	C	1 08E		2.2"	6.72	B7p	20-20-20	Rp R/h	200/70	0.65 H=850	sl wk
52	A	1 25W	+16 13	"	7.14	F8	22-22-22	Sp Bin - R/h	400/120		sl wk
55	B	1 55W	+13 43	1.4"	7.10	F5	22-22-22	"	400/110	Warr. (Do you only develop)	sl wk
73	C	2 16W	-8 38	2.2"	4.07	B212	2-2-2	"	40/90	12 plates per batch sl(17)	sl wk
53	A	2 06W	-2 27	"	3.51	O9.5V	2-2-2	"	40/75		sl wk
53	B	3 06W	"	3"	6.32	B3p	20-20-20	Bp R/h	200/70	III & J - E. separated to	sl wk
14	C	5 00W		3"	2.71	W0.5I	2-2-2	Sp Bin - R/h	40/90	(Left) of box in	sl wk
							3"	not filled		right	

Dome Temp. 52° H=6870

Transparency Conditions Very Good sl hazy

Focus 52-R

Dome Temp. 43° H=10070

Note^v Fresh box of IIIa-J used

ng Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
21	A	3:53 W	+58 54	1.2"	4.93	A1V	no filter 2-2-2	Sp Bin-Pln	40/100		wt
30	B	4:02 W	+26 19	"	4.76	B6III	2-2-2	"	40/70	2" broken off Level out	wt
			Dew Nod II	D19	8 min		063°F				
11	C	5:07 W	+34 28	1.3"	9.21	B25IV	18-18-18	Sp Bin-Pln	800/220	BV +0.35 (Bad before 17:00)	wt
			Dew Nod II	D19	3 min		68°F				
27	D	1 57 W	-12 15	3-5"	4.85	B9V	2-2-2	Sp Bin-Pln	40/70		wt
50	C	0 52 E	-2 28	2.3"	3.51	O95V	2-2-2	"	40/58		wt
50	A	0 07 W	-2 29	"	6.32	Kip	* 15-17-17	Rp Pln	200/70	*Fe Ar. Filter-gotten more cracks	v stab
27	B	0 58 W	+2 28	"	6.16	B5V	17-17-17	Sp Bin-Pln	200/70	Fog & weakness	wt
										SKY really more dark due to complete blanketing of TO lights.	

Not please be sure
that everything is balanced
before

Date *From Sat Nov 22-23 1974* Observer *Domanda / Ri-Pal* Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38942	HD 201433	21 ^h 04.4	+27° 48'	G-12	IIaO-E	13/5	35°F	17:41	17:55	A
38943	HD 209819	22 ^h 01.0	+14° 21'	G-12	IIaJ-E	13/7		18:02	18:42	B
38944	HD 218154	23 ^h 00.6	+24° 07'	G-12	IIaO-E	13/5	35°F	18:54	19:45	C
38944T1	cal step wedge	for plate	38944, 46, 47		IIaJ-E	150 sec		Dew 1st b. (R 1)		
38944T2	cal step wedge				IIaO-E	90 sec		Dew 2nd b. (L 2)		
38945	MOON	22 44.9	-2 14.6	G-12	IIaO-E	13/5	35°F	20:06	20:07	A
38946	HD 15130	02 ^h 21.1	-12° 44'	G-12	IIaJ-E	13/5		20:19	21:01	B
38947	HD 14392	02 ^h 14.4	+49° 12'	G-12	IIaJ-E	9/5		21:12	22:10	C
38948	HD 14633	02 ^h 16.7	+41° 02'	G-12	IIaO-E	13/5		22:16	22:57	A
38949	HD 24760	02 ^h 51.1	+39° 43'	G-12	IIaJ-E	9/7		23:05	23:13	B
38950	HD 25639	03 ^h 59.0	+62° 03'	G-12	IIaO-E	13/5		23:20	00:17	C
38951	HD 25639	03 ^h 59.0	+62° 03'	G-12	IIaO-E	13/5		00:19	01:09	A
38952	HD 33328	05 ^h 04.4	-08° 53'	G-12	IIaJ-E	13/7		01:19	01:37	B
38953	HD 37479	05 ^h 33.7	-02° 39'	G-12	IIaO-E	13/7		01:44	02:25	C
38954	HD 37468	05 ^h 33.7	-02° 39'	G-12	IIaJ-E	13/5		02:27	02:37	A
38955	HD 35467	05 ^h 19.4	+02° 16'	G-12	IIaO-E	13/5		02:43	03:10	B

Dome Temp. 38°F 76%

Focus 75K

Dome Temp.

Transparency Conditions

occasional clouds at first

* with side of exposed Box

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Time M.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
55	A	00 ^h 37 ^m W	+30° 12'	3	5.6 5.79	A0	17-17-17	Sp Bi - Blk	200/70		white spec fine
42	B	00 ^h 28 ^m W	-13° 50'	3	4.18	B8V	2-2-2	"	40/100	*	fine
45	C	00 ^h 30 ^m W	+24° 38'		7.01	A0	17-17-17	Sp Bi - Blk	400/140	clouds	→ white fine
		7 min	@ 68° P 17							*	
		9 min	@ 69° P 19								
07	A	01 ^h 15 ^m W	-2° 04'	3	-	G2V	51		20/15	clouds	fine
01	B	01 ^h 35 ^m E	-12° 17'	3	4.85	B9V	2-2-2	Sp Bi - Blk	40/70	*	fine
	C	00 ^h 25 ^m E	+50° 07'	3	5.44	A0 Si	2-2-2	Ap Blk	40/70	*	fine
57	A	00 ^h 25 ^m W	+41° 37'	2-3	7.26	O8V	17-17-17	Sp Bi - Blk	400/140		fine
13	B	00 ^h 54 ^m E	+41° 01'		2.71	B0.5V	2-2-2	Sp Bi - Blk	40/84	* new box of ITA J	fine
12	C	00 ^h 40 ^m	+62° 21'	2-3	7.38	B0	17-17-17	" "	400/150		fine
19	A	00 ^h 53 ^m W	+62° 21'	"	7.41	B0	17-17-17	" "	400/150		fine
27	B	00 ^h 30 ^m W	-08° 39'		4.07	B2IV	2-2-2	" "	40/90	*	fine
15	C	00 ^h 37 ^m W	-02° 28'	2-3	6.32	B3P	17-17-17	Bp - Blk	200/100		fine
39	A	00 ^h 50 ^m W	-02° 08'	3	3.51	O9.5V	2-2-2	Sp Bi - Blk	40/70	*	fine
10		01 ^h 26 ^m W	+02° 32'	3	6.16	B5V	17-17-17	Sp Bi - Blk	200/75		

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Date Tue. Wed. Nov 26-27 1974 Observer Ri-Burton Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38960	HD 194071	20 ^m 18.5	+27° 55'	G-12	ITA0-E	13/3	27°F	17:38	19:18	A
38961	HD 217312	22° 54.8	+62° 32'	G-12	ITA0-E	13/5		19:28	20:55	B
3896171	rel step wedge in plate 38960				ITA0-E	900 μ				
38962	HD 10516	01 ^m 37.4	+50° 11'	G-12	ITA0-E	13/5		21:06	21:16	C
38963	HD 11188	01 ^m 41.9	+46° 58'	G-12	ITA0-E	13/5		21:19	22:22	A
38964	HD 23888	03 ^m 43.1	+44° 40'	G-12	ITA0-E	13/5		22:29	23:25	B
	HD 29104	04^m 29.8	+32° 44'	G-12	ITA0-E	13/5		23:33		C
3896471	col step wedge in plate 38962				ITA0-E	180 μ				
3896492	rel step wedge in plate 38961, 63, 64				ITA0-E	90 μ				
38964F1	focus test	90R				13	26°F			B

Dome Temp. 24°F 62%

Transparency Conditions *good at first then hazy*

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Focus 90R

Dome Temp. 22°F 84%

** with side of Box*

Time T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
8		$03^{\circ}01\text{W}$	$+28^{\circ}16'$	3	8.5	K0	20-2020	S.S.U.-Hd	800/250		
55	3	$02^{\circ}01\text{W}$	$+63^{\circ}00'$		7.7	B0II	20-2020	Sp-Bw-Hd	400/170	<i>new box</i>	
		$00^{\circ}22\text{E}$	$+50^{\circ}39'$		9.95	B00	2-2-2		40/80	*	
		$00^{\circ}22\text{W}$	$+47^{\circ}23'$	3	7.14	B8	20-20-20	Sp-Bw-Hd	400/140		
		$00^{\circ}20\text{E}$	$+44^{\circ}58'$		5.79	g65	202020	" "	400/150		
		$+19^{\circ}55'$			6.56	F8	20	" "	400	<i>too hazy</i>	
		Des Nov 27	D19	6 mi	10	68°F		1st batch		* NO #65	
		Des Nov 27	D19	9 mi	6	68°F		2nd batch		NO #65	
								3-3 no filter		ok	

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3815

Date Fri-Sat Nov 29-30 / 74 Observer Dr. Tol. Pal-Tu ^{Ind} Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38965	HD 182255	19 18.8	+26 04	G12	IIIa-JE	13/5	29°F	17:28	18:19	A
38966	HD 209819	22 01.0	-14 21	"	"	13/7		18:27	19:14	C
38966 T	Cal step wedge		180sec		IIIa-E					
38967	HD 210154	23 00.6	+24 07	G12	IIa-OE	13/5		19:21	20:23	B
38968	"	"	"	"	"	"		20:30	21:35	C
38968 T	Cal step wedge		90sec		IIa-O-E					
38969	HD 15130	02 21.1	-12 44	G12	IIIa-JE	13/5		21:50	22:45	C
38970	HD 14392	02 14.4	+19 42	G12	IIa-OE	9/9	25°	22:53	23:32	A
38971	HD 14633	02 16.7	+19 02	G12	"	13/5		23:37	00:32	B
38972	HD 25363	04 23.3	+15 52	G12	"	9/35		00:37	01:38	A
38973	HD 23328	05 04.4	-8 53	G12	IIIa-JE	13/7		01:42	02:11	B
38974	HD 27479	05 33.7	-2 39	G12	IIa-OE	13/5		02:18	03:08	C
38975	HD 37469	"	"	"	IIa-JE	"		03:13	03:32	A
38976	HD 35407	05 17.4	+2 16	"	IIa-OE	"		03:36	04:24	B
38977	HD 24760	03 51.1	+39 43	"	IIIa-JE	9/5		04:29	04:42	C
38978	HD 1007	05 09 ⁰⁴	+22 ⁷⁴ 11	"	IIIa-JE	13/5		04:50	04:54	A

Dome Temp. 24°F H. 72%

Transparency Conditions Excellent

110

Focus 90-R

* Placed from right to left in box

Dome Temp.

Mag Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
19	A	03 13 W	+26 21	3-5"	4.76	B61II	^{no filter} 2-2-2	Sp Bin-Ph	40/70	*	
14	C	1 28 W	-13 52	"	4.18	B8V	2-2-2	"	40/80	*	
										*	
23	C	1 35 W	+24 39	3-4"	7.01	A0	18-18-18	Sp Bin-Ph	400/140		
35	C	2 48 W	+24 40	"	"	"	18-18-18	"	400/140		
								(Accidental change Newt carriage with Tel on setup)			
45	C	0 38 W	-12 16	4-8"	4.85	B9V	^{no filter} 2-2-2	Sp Bin-Ph	40/70	*	
12	A	1 30 W	+50 08	3-4"	5.44	Hp51	18-18-18	Ap Bin	200/126		
32	C	2 30 W	+41 22	"	7.26	O8V	18-19-18	Sp Bin-Ph	400/140		
38	C	1 28 W	+16 14	"	7.14	F8	18-18-18	"	400/120	Moon close to edge of field	
11	A	1 20 W	-8 39	"	4.07	B2V	2-2-2	"	40/80	*	
18	C	1 47 W	-2 27	"	6.32	B3p	19-19-19	Ap Bin	200/70		
22	C	2 12 W	"	4-6"	3.51	O9.5V	2-2-2	Sp Bin-Ph	40/60	*	
20	B	3 19 W	+2 28	"	6.16	H5I	19-19-19	"	300/70		
11	C	5 04 W	—	5-10"	2.71	B03V	2-2-2	"	40/80		
10	A	4 04 W					6	T-1001	20/300		

Dome Temp.

Transparency Conditions

Focus

Dome Temp. +1.7° H=9370

g Time S.T.	P.H.	H	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03	C	0				55	G1001	20/80		
12	A	0	3-5	5.29	H28	2-2-2	Sp. H. Pl.	40/79		
43	B	0	4	3.82	B9.57	2-2-2	"	40/80		
			2-1			3/3	no filter			

115

Date Dec 3/4 1979 Observer Hd-Hs-Butler Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
38982	HD 18216	19 10 6	+16 01	G12	IIaBB	20/3	+29F	18 05		A
38982	HD 27312	22 54 2	+62° 32'	G12	IIaOE	13/5	+29F	18 49	21 ^h 57 ^m	A
38983	HD 10516	01 37 4	+30° 11'	G12	IIIa3E	19/5		22 07	22 27	B
38984	HD 25296	3 56 1	+37° 52'	G12	IIaOE	13/3				A
38984	HD 29104	4 21 8	19 41	G12	IIaOE	12/5		23 25	1 14	A
	Packed it in at ~ 01 ^h 30 AM since wind <u>very</u> high, some									
	<u>$\alpha = 4 29.8$</u>									

Dome Temp. 17°
Focus
Dome Temp. 15°

Transparency Conditions *Intermittent cloud, high wind, occasional snow flakes seeing poor to del. still, much improved till 12 → later: wind gusting to 50 (cut)*

g Time S.T.	PH	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
					7.1	A2		TOO FAR OVER	800	One sector fell closed	
	A	3 ^h 35 W	+67° 01'	3-4	7.7	B0 IV	20-20 ²⁰	HD Binary	800/340	Two hooks in	fine
	B	W 1 ^h 18	+50° 48'	2-4	3.95	B0 P	2-2-2	" "	40/80 *	one sector of shutter	too strong
					8.00	B5		" "	800/180	much too faint in bad seeing	
	A	1 ^h 11 W	19° 56'	26-?	6.56	F8	20-20-	HD BINARY	800/200	? Seeing of bad in Mohrly	fine del lines
		haking.								at least 10-12". (!!!)	

* in right hand end of bar

Dome Temp. 26° H=702

Transparency Conditions *Very Good \rightarrow poor*

Focus *90-f*

Dome Temp.

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
7	A	3 25 E	+55 53	3-4	5.42	K311	20-20-20	G1001/L	20/120		
7	B	2 58 E	+4 06	2-3	4.16	M211	20-20-20	G1001/L	20/100	*	
10	C	3 00 E	+16 59	"	2.9	R	5-10	G1001/SHO	800/50	<i>Sp. 1/20 = 1 (36) bright star - cut filter</i>	
10	A	1 03 E	+17 16	2.3	10.63	K0011	5-5-5	"	800/90	<i>slight cloud</i>	
40	E	0 30 W	"	1.42	"	"	5-5-5	"	800/50	<i>cloud</i>	
							60 sec				
							30				
							20				
							12				
							8				
							33				

Dec 5
 $\approx 20^{\text{h}} \text{ EST}$

Dome Temp. 32°F H: 72%

Transparency Conditions cloudy - seen very good

726

Focus 76-R

Dome Temp. 26°F -- 94%

Time ST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
25	A	2 05 W	+62 06	2-5	6.6	A2	S-5-5	Ap(MA)-MR	400/180	field checked w/BD	fine
51	B	0 23 W	+29 40	2-4	7.7	B9	5-5-5	Mh -MR	400/180		sl. very
41	C	2 37 W	+12 32	3"	7.6	A0	5-5-5	Am-MR	400/175		fine
7	A	0 37 W	+42 27	3-5	6.6	A0	7-4-4	Ap -MR	400/177	seeing to 10" at end	sl. very
		Dec Jan 2	1st bcd 9 mi					D19C 68°F			
07		2 25 W		4-10	7.5	095J	13-13-13	S, 16-16	40/50		very
		Dec Jan 2	2nd bcd C mi					D19 68°F			
25	C	3 16 W		4-8"	8.2	B3p	5-5-5	4-4-4	400/190	seeing getting better	fine
22	A	1 03 W	+19 46	2-1	6.5	A0	5-5-5	S, 16-16	400/170	close to moon	fine

Dome Temp. 23° F

Focus 76-R

Dome Temp.

Transparency Conditions

128
 Very good to start. Clouds for ~1",
 then good until ~11 PM at which time it
 became very hazy. Completely socked in
 at 12:30

Time G.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
					10.63	B05		Sho	800/90	Many problems, submerating in clouds for an hour or so. Cost of 10.63 stars.	
	S	0 ^h 36 ^m W	+40° 02'	3"	2.71	B05±	20-20-20	Blm. Sp.	40/60	Dev 6 mi @ 68° D19	
	A	3 ^h 06 ^m W	+24° 09'	3"	5.1	B8p	20-20-20	Gl. Shell	200/600 ⁺²⁰⁰	Fisher telescope not aligned with visitors' eyepiece, cap. in RA	
		Dev will	39000	10 mi @	68°	D19	Jan 7/75		overdevelop	37000 + 35000 T	

Dome Temp. 40° @ 70%

Focus 60-R

Dome Temp. 30° 70%

Transparency Conditions some scattered cloud

Very strong winds from SW

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
04	L	01 34 E	+49 13	3-5"	4.6	F7V	10-5-7	Vis Bin-Wat	40/22		
22	3	01 22 E	+55 54	"	5.4	K3I6	7-7-7	"	40/31		sl. wk
36	3	00 47 E	+67 23	4-8	4.73	AS	7-7-7	"	40/16		sl. wk sl. wk
06	L	00 54 W	+58 11	"	5.6	FOIa	7-7-7	"	40/22	cloud	sl. wk
		Dec Jan 13	0.9	9m	6	65° F				winds too strong - part ships flying around inside dome	

Dome Temp. 16° F H-8570

Transparency Conditions Partial Cloud

132

Focus 100-R or OB

Dome Temp. 14° F H-9270

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
48	h	01 50W	+22 29	3-1/2"	6 11	B8	7-7-7	Ap-MR	400/180	thin cloud*	el string
52	l	03 19W	+24 11	"	5/1	B8p	7-7-3	Shell-G1	200/68	cloud overdevelop * overdevelop	fine
										* At far right of box (Tail of arrow)	

133

H1

Date 1975 Jan 15-16 Wed-Thurs Observer Sho - Tnt+MR Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39007	Algol	03 01.7	+40 34	G12	IlvaJ-E	9/5	23°	18:00	18:03	A
39008				"	"	9/5		18:05.5	18:10	B
39009				"	"	9/5		18:13	18:18	C
39010				"	"	9/9		18:27	18:33	A
39011				"	"	9/9		18:43	18:50	B
39012				"	"	9/9		19:01	19:08	C
39013				G16	IlvaJ-E	"		19:18	19:29	A
39014				"	"	"		19:30	19:40	B
39014T	Cal step wedge		for 39007-12		IlvaJ-E	180 sec				
39015	Algol	03 01.7	+40 34	G16	IlvaJ-E	9/9		19:50	20:01	C
39016	Algol	03 01.7	+40 34	G16	IlvaJ-E	9/9		20:12	20:25	B
39017	"	"	"	"	"	9/9		00:06	00:17	A
39017T	Cal step wedge		for 39013-17		"	5 min				
39018	Algol	03 01.7	+40 34	G12	IlvaJ-E	9/9		00:29	00:42	B
39019	"	"	"	"	"	9/9		01:08	01:17	C
39020	"	"	"	"	"	9/9		01:22	01:38	A

Dome Temp. 22° 11-20%

Transparency Conditions Scattered cloud - Good

Focus 100-R

Dome Temp.

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01	42E	+46° 57'	2"	2.2	B8V	15-45	Radio Star	40/50	Note* All ItoF-E	
01	35E		"	"	"	15-20-25		40/60	are to the left	
01	28E		"	"	"	20-40		40/85	All ItoF are	
01	12E		"	"	"	20-40		40/110	to right of box	
02	55E		"	"	"	20-40		40/120	<hr/>	
02	38E		"	"	"	30-30		40/120	T _{in}	
02	16E		1.5"	"	"	3-3-3		40/185		
02	00 05E		"	"	"	3-3-3		40/200		
Dec 7 min @ 17 06:00 F										
02	16W		1.2"	2.2	B8V	3-3-3	Radio Star	40/200		
02	40W		2-3"	2.2	B8V	3-3-3	"	40/215		
04	32W	+10 58	2"	"	"	3-3-3	"	40/203		
Dec 6 min @ 20 30 F DIA										
04	58W		2	2.0	B8I	30-30	Radio Star	40/120	Possibly ok due to (quality) grating covering	
05	33W	+10 50		"	"	30-30	"	40/135	Telet. of Balnear (oscillation in HA)	
05	54W	"	2-1"	"	"	30-30	"	40/120	"	

137

Date Jan 17/1975 Fri-Sat Observer T. Pa. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39023	HD 35638	07 59	+62 03	G12	II40-E	13/15	20°	20:03	20:57	A
39024	HD 37468	05 33.7	-2 39	"	II40-E	"		21:05	21:17	B
39025	HD 37479	"	"	"	II40-E	"		21:19	22:05	C
39025T	Cal stop wedge		90sec		"					
39026	HD 37479	05 33.7	-2 39	G12	II40-E	13/15		21:16		A
39026T	Cal stop wedge		180sec		II40-E	Dev 6 min				

139

Date Jan 19/20/75 Sun Mon Observer Sho-Ty Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39026	Algal	03 01.7	+40 32	G12	Du-J-E	91.9		22:26	22:40	A
39027	"	"	"	"	"	"		22:42	22:55	B
39028	"	"	"	"	"	"		22:56	23:10	C
39028T	Cal's top wedge		190500		"		Den b	min 26 ⁰ F	D19	
39029	Algal	03 01.7	+40 32	G12	"	91.9		23:11	23:24	A
39030	Algal	"	"	G12	"	91.9		23:27	23:43	B
39031	"	"	"	"	"	91.9	18°F	23:46	23:59	C
39032	"	"	"	"	"	91.9		00:00	00:20	A
39033	"	"	"	"	"	91.9		00:22	00:37	B
39034	"	"	"	"	"	91.9		01:05	01:33	C
39035	"	"	"	"	"	91.9		01:56 ⁵⁵	02:22	A
39036	"	"	"	"	"	91.9		02:40	03:13	B
39037	HD 170100	18 27.2	+17 17	"	Du-J-E	91.5		04:12	04:33	A
39038	"	"	"	"	Du-J-E	"		04:36	05:33	B
39039	HD 170100			"			+1°F			B

Dome Temp. $+5^{\circ}\text{F}$ H=80%

Focus 100-R

Dome Temp. -7°F H=80%Transparency Conditions *Some NW cloud*

140

g Time ST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
40	A	03 12 W		5-10	2.2		30-30	Radio Star	40/83	* Labeled #23 by mistake	guiding
55	B	03 27 W					30-30	"	40/80		
10	C	03 42 W					30-30	"	40/80		
		39027 - 39031									
50	A	03 51 W					30-30	"	40/81		
47	A	04 16 W					30-30	"	40/85		
59	C	04 32 W					30-30	"	40/85		
27	A	04 53 W					30-30	"	40/86	39031-39038 dec 6 min	
10	B	05 10 W					30-30	"	40/86	D19	
17	C	06 06 W					30-30	"	40/84	Reversed	
2	B	06 55 W					30-30	"	40/81		
17	B	07 44 W					30-30	"	40/80		
3	A	05 16 E	+71 22	4-8"	4.18	Apsi	7-14	sp Min-Min	200/65	Trouble some @ Pro	
50	A	05 06 E	"	"	"	"	30-30	"	200/210	cont'd from	

141

Date 20/21 JAN 74 Mon/Tue Observer Bla-Tu Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39039	Algal	03 06.7	+40° 34'	G16	IIa-FE	9/9	10°F	01:09	01:31	A
39040	Algal	03 01.7	+40° 34'	G16	IIa-FE	9/9		01:36	02:07	B
39041	Algal	03 06.7	+40 34	G16	IIa-FE	9/9		02:09	02:46	C
39041T	Cal step wedge		5 min		IIa-FE					
Grating Till Tests of Jan 29/75										
39054 G1	Lower screw 1/4 down		CW ↓	G16	IIa-FE	13/15	33°F	slot left		B
G2	Lower screw 1/4 down		CW ↓	G12	IIa-DE	"		slot left		B
G3	Lower screw 1/2 down		CW ↓	G12	"	"		slot in		B
G4	Lower screw 1/2 down		CW ↓	G16	IIa-FE	"		slot in		B
G5	Lower screw 1 down		CW ↓	G16	IIa-FE	"		cut out		B
G6	Lower screw 1 down		CW ↓	G12	IIa-DE	"		cut out		B
			(* Solting left at this point)							

Dome Temp. 12th H = 83%

Transparency Conditions Excellent

142

Focus 10-R - ie beyond 100-R

Dome Temp.

Log Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
31	A	06 37W	+46° 50'	3-4	2.2- 3.3	138V	No Filter 3x-3x3x	Radio Star	40/200		
07	F	06 43W		"	2.2- 3.3	BTX	4-4-4	Radio Star	40/200		
46	C	07 58W		"	"	187	4-4-4	"	40/95		
<p>Dev 6 min @ 68°F D19 3rd batch Jan 21</p>											
<p>I progressively changed tilt by lowering grating tongue to get more internal (that appears to be the way to go) To (past setting - 12 grad of approx error) * exact starting pt of series not precisely known due to screw up</p>											
<p>} Probably close to old setting</p>											
<p>Solution - Go at least 1 full turn CCW ↓ past G2 setting ie 2 turns CCW ↓ from present</p>											

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Date Wed-Thur Jan 22-23, 1975 Observer SA - R: Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39042	Algal	03 01.7	+40° 34'	G-12	ITA J-E	9/7	200F	18:53	19:05	A
39043	"	"	"	"	"	"		19:07	19:18	B
39044	"	"	"	"	"	"		19:19	19:31	C
39045	"	"	"	G-16	ITa F-E	9/7	180F	19:47	20:18	A
39046	"	"	"	G-16	ITa F-E	9/7		20:18	20:53	B
39047	"	"	"	"	"	"		20:56	21:40	C
39048	"	"	"	"	"	"		21:41	22:46	A
3904871	cal. exp. made by plate 39042-44				ITa J-E	180 μ m				
3904872	cal. exp. made by plate 39045-				ITa F-E	5 μ m				
39049	Algal	03 ^h 01.7	+40° 34'	G-16	ITa F-E	9/7		22:47	23:18	B
39050	"	"	"	"	"	"		23:10	00:12	C
39051	"	"	"	"	"	"		00:13	00:35	A
39052	"	"	"	"	"	"		00:36	01:10	B
39053	"	"	"	"	"	"		01:14	02:03	C
39054	"	"	"	"	"	"		02:05	02:52	A
39054 G	TIN Test			G12	ITA F-E	13/7				A

Dome Temp. 8°F 70%

Transparency Conditions *some cirrus clouds*

744

Focus 100-R

Dome Temp. 4°F 73%

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
05	P	00° 12 E	+40° 52'	4-5	2.2 3.3	B8V	30-30	Radio Star	40/90	Left side tele reversed	
18	B	00° 01 W	"		"	"	30-30	"	40/90	Left side of Box	
3	C	00° 14 W			"	"	30-30	"	40/90	Left side	
5		0° 01 W			"	"	4-4-4 no filter	"	40/180		
51	3	01° 38 W					4-4-4	"	40/155	hazy	
40	C	02° 22 W					4-4-4	"	40/156	clouds	
46	A	03° 30 W					4-4-4	"	40/155	clouds	
5		03° 50 W	+40° 52'		2.2 3.3	B8V	4-4-4	"	40/156		
2	C	04° 55 W	"				4-4-4	"	40/161		
35	10	05° 18 W	"				4-4-4	"	40/155		
1	2	05° 54 W		4-5	"	"	4-4-4	"	40/155		
22	10	06° 15 W					4-4-4	"	40/155		
24	22	07° 35 W					5-5	"	40/55	dark again - some flurries	
A		reset		2 turns		CCW	↓				

Dome Temp. $+22^{\circ}F$ $H=607$

Transparency Conditions *Very good at first*

Focus $100-R$

Dome Temp. $+12^{\circ}F$ $H=9870$

g Time ST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
35		3 ^h 33 E	+16 31	2.4"	1.93	A0 IV	7-50	Shell - G1	40/95	Y Gem	
										Down Feb 4 D. 9 2.4" 6.18	
										Cloud	
20		01 35 E	+19 52	2.4"	8.10	B5 IV	7-7-7	S.P. - B/n	800/270		
02	C	02 50 E	+71 23	2.4"	4.18	Apsi	20-20-20	Sp B/n - B/n	40/70		
46	A	01 05 E	+32 28	"	6.18	A3 I	7-7-7	"	200/65	Down comes	good

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Date Sun-Mon Feb 2-3/75 Observer Marsden-Tan/Tn Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39059	HD 170000	18 22.2	+71 17	G12	Ilford-Je	9/1.5	24°	18 ^h 10	18 ^h 40	A
39059T	Cal stop wedge		180 sec		"					
39060	HD 53974	07 02	-11 08	G12	Ilford-e	12/1.5		20 15	20 ^h 55	B
39060T	Cal stop wedge		90 sec		Ilford-e					
39061	HD 53975	07 02.0	-12 14	G12	"	13/1.5		21 ^h 25	22: 16	B
39062	HD 53623	07 00.6	-12 11	"	"	20/1.4	23°	00: 02	01: 16	A
39063	HD 93431	10 46.4	+6 28	"	"	13/1.5		01: 25	02: 47	B
39064	HD 97933	11 13.7	+12 23	"	"	"		02: 50	03: 45	C
39065	HD 112734	17 53.8	+28 52	"	"	9/1.5		03: 48	05: 12	A
39066	HD 112014	12 48.7	+83 52	"	"	12/1.5		05: 42	05: 54	C
39067	HD 170000	18 22.2	+71 17	"	Ilford-Je	9/1.5		06: 08	06: 33	A

Dome Temp. 22°F 10623

Transparency Conditions Good for white

748

Focus 100-R

Dome Temp. 16° H=8670

ing Time EST.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
07	08 ^h 53W	+71 17	2-3'	4.18	Apsi	3-4-4	Sp Rho-B ₁	40/52	cloud	dark
	Dew	Feb 4	2nd	batch	D.9	7	mic @ 6	8°F		
05	07 ^h 36 ^m	-11 08	2.4'	5.4	P010	9-6-8	G 1001	400/140	cloud	dark
	07:10 ^{am}	Dew	Feb 3	D.9	06	8°F	9mm		Prob 19001	
06	0 20E	-12 14	2	6.28	B.5p	7-7-7	G 1001	400/140	19002 (07 02.6 5-12 14)	dark
06	0 2 45W	-12 10	3-4	7.9	B2V	5-5-5	"	400/80	Accidental.	dark
07	0 35W	+ 6 35	"	7.07	A2	7-7-7	Sp Rho-B ₁	400/140		dark
05	1 05W	+ 13 05	"	6.19	A6 _n	2-7-9	"	200/70		dark
02	0 48W	+28 34	2-3	6.75	A4	8-8-8	Am - MR	200/80	gain incorrect (correct)	dark
04	1 41W	+83 32	"	5.81	A0	7-14	Sp Rho-B ₁	200/85	brighter stars	dark
03	0 3 44E	+71 23	"	4.18	Apsi	4-3-4	"	40/90		dark

Dome Temp. 18°F 70?

Transparency Conditions Excellent

750

Focus 100-R or O-B

Dome Temp. 7° 75 1/2

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
45	09 02 W	+71 17	2"	4.18	Apsi	4-3-4	Sp. Bin. Bin	40/60		good
	Dew Feb 4 Dia 7 min @ 68°F 2nd batch									
45	03 25 W	+59 34	2-4"	7.85	A0	7-9-8	Am-MR	400/140		fair
	Dew Feb 4 Dia 9 min @ 68°F 1st batch									
37	01 26 W	+27 55	2-3"	7.26	A3	7-7-7	Am-MR	400/150		good
55	02 55 W	-02 30	3-4"	3.57	DS5	4-3-4	Sp. Bin. Bin	40/55		fair
6	01 41 W	+34 47	2-4"	7.00	A5	7-7-7	"	400/120		fair
25	00 06 W	+26 52	"	6.72	gk2	7-7-7	Sp. Bin. Bin	400/130	cloud	fair
25	02 98 W	+13 06	"	6.49	A6u	7-7-7	Sp. Bin. Bin	400/120	cloud	good
02	00 05 E	—	2-4"	1.29	h310p	1-11	std vol	20/9		fair

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Date Fri-Sat Feb 7/18/75

Observer Th-O.C./

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39076	HD 37458	05 33.7	-2 39	G12	Duo-J-e	13/5	23°F	18:16	18:31	A
39076T	Col step wedge		180 sec		"					
39077	HD 37479	05 33.7	-2 39	G12	Il-d-e	13/5		18:36	20:06	E
39077T	Col step wedge		190 sec		"					
39078	HD 24760	03 51.4	+39 43	G12	Il-d-e	9/5		20:14	20:32	C
39078F	Focus			G12	Il-d	9	22°F			J
39079	HD 73731	08 34.7	+19 54	G12	Duo-e	13/5		21:47	22:31	A
39080	HD 86570	09 54.24	25 02	G12	Il-d	13/3		22:39		B

Dome Temp. 15°C H=69%

Transparency Conditions Faint - good

152

Focus 100-R

Dome Temp. 12 H=85%

Hour Angle End	Declination	Seeing	Fig. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2 15 E	-2 30	3-4"	3.51	09.5 V	20-20-20	Sp Bin - Bl	40/40		fine
Dev 1st betel Feb 10 7mi D19									
0 40 E	-2 30	3-6"	6.32	B3p	7-7-7	Bp - Bl	400/130	cloud	good fine
Dev 2nd betel Feb 10 9mi D19									
1 27 W	+40 02	2-3	2.71	805 V	20-20-20	Sp Bin - Bl	40/40	thin cloud	weak
4/4 no filter									
1 15 E	+19 44	3-4	6.38	Am	7-7-7	Sp L - Bl	400/2130	^{Exp meter monitor} thin cloud not too long exp	fine
	+24 42	2-4	7.91	165	7-	Sp Bin - Bl	800 f	haze → cloud	
11:00									

Dome Temp. 10°F $H=62\%$ Transparency Conditions *Very Good*

154

Focus 100-K Dome Temp. $+6^{\circ}$ $H=93\%$

ing Time E.S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
21		02 30E	-11 09	2.4"	6.58	B30	8-7-2	G1001	400/120		
21		01 02E	-10 20	"	6.97	10 μ e	7-5-6	"	400/128		
		Dew 2 μ Patch Feb 10 D19 9 min									
51		01 51W	-10 10	2.5"	8.4	B7J	5-5-6	G1001	800/215		
05		04 16E	+55 08	"	2.27	A2V	2023-24	SP/12-17	40/90		Star Seeing
		Dew 1 μ Patch Feb 10 D19 7 min									
14		04 04E	+55 02	2.7"	4.0	Am	8-8-8	50/50	40/17	South star	
11		00 12W	+69 32	"	5.4	M0II	10-4-7	G1001-L	40/	cloud - 1/2	

159

Feb 16/17

Date Sun - Mon Feb 15/17 Observer Manni - H.S. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39091	HD 53974	7 ^h 20 ^m	-11° 8'	G-12	IIaOe	13/5	31°F	19 ^h 00	19 57	A
39092	HD 52771	6 ^h 52 ^m	-11° 9'	G-12	IIaOe	13/5	31°F	20 ^h 11	21 52 ^x	B
39093	HD 53367	6 ^h 59 ^m	-10° 18'	G-12	IIaOe	13/5		22 ^h 03 ^m	0 ^h 24	C
39094	HD 97977	11 ^h 10 ^m 44 ^s	+13° 25'	G-12	IIaOe	13/5		0 ^h 57 ^m	1 ^h 59 ^m	A
39095	HD 107325	12 ^h 15 ^m	+03° 11'	G-12	IIaOe	13/5		2 ^h 41 ^m	3 ^h 18 ^m	B
39096	HD 107325	12^h 08^m	-11° 11'	G-12	IIaOe	13/5		3^h 17^m		A
39095	cal step edge		10 sec	=	IIaOe					

Dome Temp. $20^{\circ}F$

Focus

Dome Temp. $16^{\circ}F$

Transparency Conditions

Poor seeing, improved later, 760
 then degraded.
 humidity 90%

Time T.	PH	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		1 ^h 40 E	-11° 09'	5-6	5.43	103	9-6-6	Merand ⁵¹⁰⁰¹	400/135	Seeing bad (but near focus)	fine
		0 ^h 30 ^m W	-11° 09'	3-4	6.64	B3e	8-7-6	Merand ⁵¹⁰⁰¹	400/120	Tried to compensate, but made better with working; lost it.	fine
		2 ^h 44 ^m W	-10° 18'	3"	7.41	B02e	7-7-7	Merand ⁵¹⁰⁰¹	400/102	broken	sl. wk
		0 ^h 14 ^m W?	-13° 06'	4"	6.74	A6m	7-7-7	Sp. bin. bl.	400/110	broken	fine
		0 ^h 27 ^m W	+26° 52'	4"	6.72	B1K	7-7-7	Sp. bin. bl.	400/130	Tried to compensate at 180° but no working. Broken	fine
		2^h 15^m W	21° 34'	3"	6.77	A3	7-	Sp. bin. bl.	400/110	Here same as 1 only 8, count	
										Please note broken plates in back on.	

Dome Temp. 28°F 80%

Focus 75R

Dome Temp. 24°F 94% 96% outside

Transparency Conditions thin cumulus clouds around

large

102

Time T.	P.H.	Hour Angle Erd	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
51	-	0° 44 W	+39° 58'	2	2.71	B05I	202020	Sp B _u -B _u	40/50	right side of Box	ok seeing
47	3	01° 04 W	+16° 15'	2	7.4	F8	7-7-7	Sp B _u -B _u	400/110		fine
16	-	01° 12 W	+13° 43'		7.10	F5	7-7-7	"	400/110		fine
18	-	01° 00 W	-02° 30'	2	6.82	B3p	7-7-7	"	400/140		fine
24	B	01° 15 W	-02° 30'	2	8.51	O95I	2020-20	"	40/50	right side of Box	fine
2	-	01° 40 W	+14° 49'		7.17	B5	7-7-7	"	400/140	clouds	fine
		Feb 24	1st field							right side of Box	
			2nd field								
5	0	00° 32 W	+19° 44'		6.38	Am	7-7-7	"	400/140		fine seeing
2	1	00° 42 W	+24° 48'	2	7.91	O65	7-7-7	"	800/159	clouds Dew 12 mi D19, 100°F would develop phase	ok wk

Dome Temp. 22°F 84%

Transparency Conditions good

766

Focus 75R

Dome Temp. 14°F 77%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 ^h 41 ^m W	-02°30'	3	6.32	B3p	77.7	Sp B-Bh	400/140		fine
01 ^h 58 ^m W	-02°30'		3.51	095I	202020	"	40/50	north ^{side} of Box	fine
02 ^h 03 ^m W	+19°34'		6.88	AO	77.7	"	400/140		fine
00 ^h 25 ^m W	+24°27'		7.91	dB5	77.7	"	800/250		fine
00 ^h 55 ^m E	7 ^{min}							north side of Box	
	9 ^{min}								
01 ^h 55 ^m E	+83°37'	3	5.81	AO	77.7	"	400/140	north side of pair	fine
01 ^h 37 ^m E	+83°37'				77.7	"	400/140	south side of pair	fine
00 ^h 42 ^m W	+24°26'		2.7 2.83	gBe	77.7	Fo1 B-RL	500/250		sl. alt
01 ^h 34 ^m E	-12°50'		3.0 3.4	A2	77.7	Fo1 Bh-RL	400/80		sl. alt
00 ^h 25 ^m E	+22°30'	2.4	6.18	A37	77.7	Sp B-RL	400/140		fine
00 ^h 15 ^m E	+5°30'		6.19	A3	77.7	Fo1 B-RL	400/140	Down	fine

Dome Temp. 14° 71% = H

Focus

Dome Temp.

Transparency Conditions *Hazy + Intermittent* 118
*Cloud. Quit while still spectroscopic,
 I have to teach class tomorrow.*

ing Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		01 33 W	-2° 30'	2.3	3.51	69.52	20-200	Sp. Bin - Blu	40/50		sl. strong guiding
		02 56 W	-2° 30'	3	6.32	B3 p	7-7-7	Sp. Bin - Blu	400/144		sl. strong
		01 55 W	+24° 47'	3	7.91	d65	7-7-7	Sp. Bin - Blu	800/240		fine
		0 min @ 68° =		2.9							
		7 min @ 68° F =		2.9							
		01 13 E	+55° 09'	3	2.27	A2V	30-30	A225*	40/90		sl. strong

Dome Temp. 14°F 70%

Transparency Conditions good some cirrus clouds

170

Focus 100R

Dome Temp. 14°F 81%

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0	-	01°35W	+26°25'	2"	8.36	G2V	7-7-7	SSV-Hd	800/160		ok
52	8	02°13W	+25°47'	2"	8.68	G2V	7-7-7	SSV-Hd	800/160	Difficult field. Star correctly identified but it is not clear. It appears it is on chart.	fine
0		03°11E	+28°47'	2"	8.76	K2 III	7-7-7	SSV-Hd	800/175	Take 2nd following of pair.	ok
		Dev Bin 4 D19			Mar. 5	G2V					
					5.3	F5		SSV-Hd	400	clouds to check	
55	8	01°30W	+27°35'		8.26	G8IV	2-7-7	SSV-Hd	800/100	clouds again	ok

Dome Temp. 19°F H=72%

Focus

Dome Temp. 18° H=88%

Transparency Conditions Good - but increasing cloud

Aurora - weak ~20° alt in N

from 22:00 - 23:30

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Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
30	A	02 44 W	-2° 30'	3.4	6.32	B3p	7-7.4	Sp. Bin - Bln	400/200	2.5.6	Low
3	E	03 07 W	-2° 30'	3.4	3.51	09.5V	20.20-20	Sp. Bin - Bln	40/50		Low
54	C	01 47 W	+24° 46'	3	7.91	4G5	7-7.7	Sp. Bin - Bln	800/250	Hz 20 - last hour	seeing, slt wk
		01 10 E	+55° 08'	2-3	2.27	A2X	20.20-20	A225*	40/90	Cloud	Low
2		Dew 2nd Batch				Mer 10	9 mi			63° 0.19	
3		1st					7 mi				

Dome Temp. 25°F H=2070

Focus 90-R

Dome Temp. 20°F H=2570

Transparency Conditions Hazy but good

* Telescope very cool - balance
occultation in RA when reversed

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g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
44	E	2 55W	+33 16	2-3"	4.23	K3E	7-7-7	G1001-Lr	40/245		sl stony
13	E	2 38W	+25 16	"	4.78	G8Ib	7-7-7	"	40/160	cloud	sl stony
13	E	0 35W	+34 26	"	6.07	G8I	7-7-7	"	200/260	cloud	sl stony
		Dev Ma 14 7at label D19 9am @ 68°F									
7	C	1 48E	+77 20	2-3	3.55	K4E	7-7-7	G1001-Lr	40/200		sl stony
12	E	0 06W	+55 08	"	4.0	Am	7-7-7	G1001-Gry	40/16	number fogged	fine
42	B	0 28W	"	"	"	"	7-7-7	"	40/16		fine
10	E	3 10W	+62 01	"	2.8	K0E	7-7-7	G1001-Lr	40/70		fine
38	E	2 10E	+51 32	2-10"	3.74	K5E	7-7-7	"	40/193	cloud	fine

Dome Temp. 31°F H=66%

Transparency Conditions Excellent

180

Focus 90-R

Dome Temp. 29°F H=99%

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	A	0:42 W	—	2"	3.51	09.5	20-40	Sp Bin - Rln	40/45		fin
		Dew	Max 17	1st betel	7 min	D19	@ 68°F				
15	C	2 25 W	-12 10	2"	7.9	B2V	7-7-7	G1001-Md	400/125	sl haze	fine
01	C	2 16 W	+24 48	2.3"	7.91	A65	7-7-7	Sp Bin - Rln	400/130	breezy	fin
		Dew	Max 17	2 betel	9 min	D19	@ 68°F				
14	A	0:55 E	..	2"	2.72	A2V	30-30	A 225*	40/90		seeing cl. ten
24	C	1 45 E		1.2"	4.0	Am	7-7-7	G1001-Gry	40/58		seeing cl. ten Pm
27	C	0 32 W	+83 37	2.3"	5.81	A0	7-7-7	Sp Bin - Rln	200/70	N & East of Pain	fin
43	A	0 32 W	+14 55	1.2"	8.10	B512	7-7-7	"	400/140	hazy	fin
12	C	0 44 W	-3 15	2.8"	3.5	A0V	20-25	"	40/70	cloud	fin
										Thru 1 2 6, 10.	

Dome Temp. 40°F H=77%

Focus 90-R

Dome Temp. 30°F H=80%

Transparency Conditions Hazy but good

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*Warren Note All Elm plants to far right of
Y box

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
25	E	01 16 W	-2 31	2.4"	3.51	09.5V	20-24-20	Sp Bin - Elg	40/50		ok wk
01	A	02 29 W	-2 31	2"	6.32	B3	7-7-7	"	400/140		fine fading
		Dew	2nd batch		Wm	12	9 min	@ 68°F			
		"	1st "		"		7 min	"			
0	O	0 09 W	+9° 44'	1-2	7.38	Am	7-7-7	Sp Bin - Elg	400/140		fine
05	O	1 15 W	+14 47	"	7.91	d65	7-7-7	"	400/130	broken spec	fine
07	O	2 00 W	+6 35	2"	7.07	A2	7-7-7	"	400/140		fine
52	O	2 56 W	+13 07	2.4"	6.49	Am	7-7-7	"	200/70		fine fading
33	O	2 02 W	+83 33	2"	5.81	A0	7-7-7	"	200/70	reversed North of star	fine
44	A	3 17 W	+83 32	1.2"	5.28	A2	23-23-23	Shell - G1	40/80	" South of star	fine
09	A	2 57 W	—	1.2"	2.27	A2V	23-50	A225*	40/90	Appar	fine fading
21	O	3 18 W	—	"	4.0	Am	23-23-23	G1001 - org	40/65		fine
46	A	1 18 E	+71 24	"	4.18	Hpsi	22-23-22	Sp Bin - Elg	40/60	pushing down	fine

Dome Temp. 35°F H=70%

Transparency Conditions Excellent

194

Focus 70-R

Dome Temp. 31°F H=97%

Hour Angle Erd	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 11W	+42 28	1.3"	6.61	A0	7-7-7	MR-4p	400/160	broken in darkroom	fine
00 30W	+58 24	1.2"	6.96	A2	8-9-8	MR-4p	400/150	(slight contamination)	fine
00 10W	+59 54	"	8.0	A	7-7-7	"	400/135	slit shortened to avoid bright star	fine
01 31E	+55° 07'	"	2.27	A2V	222	A225*	40/90		fine
01:02W	+57° 59'	"	2.20	G8V	7-7-7	Ashro. Bin.	400/220	broken in darkroom	fine
01:13E	-12° 50'	2"	7.07	A2	7-5-6	Ecl. Bin-Blu	400/100		fine
00 13E		2-3	7.07	A	6-6-6	Ecl. Bin-Blu	400/100		fine
00 46W		"	7.07	A2	6-6-6	Ecl. Bin-Blu	400/100	broken, only 1 pc	fine
01 14W	+12 55	1-2	6.80	A0	9-9-7	Sp. Bin-Blu	400/90	broken 1 pc	fine

Dome Temp. 33°F H 75%

Transparency Conditions Excellent till 0^h

180

Focus 70-R

then some cloud but not much

Dome Temp. 21°F H 20%

Log Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
38	A	02 37W	+16 35	2.8"	2.39	K5 III	7-7-7	G1001-Lr	20/100		fin
44	B	01 34W	+25 17	"	4.8	G8 IV	7-7-7	"	40/160		fin
53	C	01 44W	+29 03	2.4"	5.37	K11 II	9-6-6	"	40/75	major fog at 1 ^h	fin
46	A	00 21 E	+34 26	2.4"	6.07	G8 V	?-7-10	G1001-Lr	20/270		fin
51	B	00 21 W	+7 58	"	5.13	G8 II	7-7-7	"	200/350		fin
24	C	01 53 E	+29 19	2.4"	3.55	K9 III	7-7-7	"	40/200		fin
5	B	00 20 E	+19 19	2.4"	5.25	G8 V	7-7-7	"	40/57		fin
25	C	00 52 E	-26 15	"	2.88	M176	7-7-7	"	20/150		fin
2	B	00 38 E	+37 20	"	5.2	K1 II	7-7-7	"	40/120		fin

Dome Temp. 12°F - 72% H

Transparency Conditions Good

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Focus 95R

Dome Temp. 06°F 75%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
04 35 W	+20° 09'	5-7"	5.1	B8p	7-7-7	G1 Shell	200/-	Exp Meter not working	strong faint
01.59 W	+16° 31'	4-5"	1.93	A00	21	"	-		fine
02.08 W	"	"	"	"	21	"	-		medium
02.23 W	"	"	"	"	7-7-7	"	-		medium
02.52 W	"	"	"	"	7-7-7	"	-		medium
03 52 W	+34° 26'		6.07	G8V	7-7-7	G-1001 Lt	200/271	Exp Meter repairs H.V. gas	medium
01 16 W	+51° 48'	3	6.0	G7V	7-7-7	"	200/300	put in new desiccant for Exp Meter	medium
00 04 E	+19° 17'	3	5.3	G8V	7-7-7	"	200/281	and after a while started to work properly	medium
Dec 11.1	46.1 Min	2.9	6.8		7 min				
Dec 20					9 min				
01 10 E	+61° 38'	3	3.6	G9V	7-7-7	"	200/300		medium
00 11 E	-26° 15'		2.88	M10	7-7-7	"	200/66		fine
00 16 E	-37° 20'	3-4	5.2	K10	7-7-7	"	200/550	fine	fine

Dome Temp. 11°F 65%

Focus 95R

Dome Temp. 10°F 65%

Transparency Conditions good haze & clouds after 50 190

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
54	A	04 ^h 07 ^m W	+24 09	4"	5.1	B80	7-7-7	GL steel	200/95		fin
49	O	02 ^h 28 ^m W	+220 38	2-3	4.52	M3II	7-7-7	G-1001 LR	40/280		fin
45	C	02 07 W	+29° 03		5.32	KII	7-7-7	"	200/373		fin
22	A	00 ^h 57 ^m W	-08° 26'	4"	3.40	K4 II	7-7-7	"	40/160		fin
		Dec 9 th 01 ^h 19 ^m		Mon 21		6 th patch	2 nd patch				
50	B	00 ^h 20 ^m W	+69° 30'		5.41	M ₀ II	7-7-7	"	200/1330	is. ls	fin

Dome Temp. 20.1 F 84%

Transparency Conditions good at first

292

Focus B.P.R.

Dome Temp.

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5.5		05° 06 E	+28° 05	3	7.40	K5 III	777	S.S.V. Hd	810/200		sl wk
7.13		00° 03 E	+28° 59	3	8.70	K2 III	777	"	810/200		sl wk
		00° 11 W	+28° 51		8.36	K2 III	777	"	810/200		sl wk
		Dw 9mi @ 68°F D19									
5.0		01° 30 W	+27° 35		8.26	G8 III	777	"	810/190	thin haze + cirrus	fin
		01° 31 W	+26° 55		8.46	K1 III	777	"	810/190	cirrus clouds + haze to thick	sl wk
					6.8		7		410		

Dome Temp. 30°F H=657

Focus 80-R

Dome Temp. 22°C H=683

Transparency Conditions Very Good but strong N wind

794

Time ST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
29		01 55 W	+24 46	2.4"	7.91	dG5	7-7-7	Sp Bin-Blu	800/235	Too windy at 2 AM	fine
		Dew 9mm @ 65°F D19									
30	C	01 37 E	+24 08	2±"	6.67	B9	9-9-9	Ap-MR	400/140	7e rich star] 1st plate with slit dirt	fine good
31		01 40 E	+12 53	"	6.80	A0	7-7-7	Sp Bin-Blu	400/80		fine
32		00 09 W	+14 55	1-3"	8.10	B5 III	7-7-7	Sp Bin-Blu	400/97		fine
33	C	00 05 E	+11 30	2.3"	7.0	A3	9-9-9	Ap-MR	400/140	Vis Binary [brightest one]	fine
34	L	00 09 W	+14 32	"	6.07	Am	7-7-7	Sp Bin-Blu	200/60	Pushing down	fine

Dome Temp. 28°F 4-5870

Transparency Conditions

Excellent

196
but windy
again

Focus 80-R

Dome Temp.

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
26	0 29W	+28 04	2.3	7.40	K5 III	7-7-7	SSV-Hd	400/130		Low
		Dew 9 mi @ 68°F		D19						
30	0 18W	+29 00	2.3	8.70	K2 III	7-7-7	SSV-Hd	200/220		Low
34	1 10W	+28 28	"	8.14	G8 III	7-7-7	"	800/210		fine
37	1 23W	+28 21	"	8.55	K0 III	7-7-7	"	800/215		fine
55	0 55W	+28 06	"	8.52	K1 III	7-7-7	"	800/210		fine
	0 41E	+28 13	"	8.59	K1 III	7-7-7	"	800/220		fine
	0 37E	+25 40	2.4	8.14	K1 III	7-7-7	"	800/220		fine
	0 05W	+04 42	"	3.93	K2 III	7-7-7	SSV-Hd	40/12		fine

Dome Temp. 28°F (67.5)Transparency Conditions *Excellent* some cloud from SW 200Focus *80-R*Dome Temp. 23°F (4-80) 20

ng Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02	A	06 11W	+24° 03'	1.6"	5.1	38p	979	51 Shell	200/95	reversed	fair
42	C	02 07E	+83 37	2.4°	5.81	A0	7-7-7	Sp Bin-B/h	200/75	North & faint part of V's Bin	fair guiding
53	C	03 53W	+24 48	"	7.91	d65	7-6-7	"	400/105		fair
2	A	00 06W	+02 09	1.4°	6.55	K0 I	7-7-7	G1001-Lr	200/200		fair
13	C	00 45E	+51 34	1.2°	3.74	K5 II	7-7-7	"	40/200		fair
01	C	03 42E	+9 50	2.5°	3.98	K250	7-7-7	"	40/186	To Down again!	fair

Dome Temp. 23°F 11-6578

Transparency Conditions Excellent

292

Focus 80-R

Dome Temp. 23°F 11-7378

sl haze in morning

g Time S.T.	PH	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02	A	03 27 W	-2 37	2-4	3.51	09.5V	25-45	SpBin-Plg	200/270	Numbered and bracketed off Labelled 22T but is 25T	Low
		D19 at batch	Apr 14	Apr 14	20W	°F					
		03			6.32	83p		SpBin	200/	or Ori E (No way)	
04	C	02 46 E	+83 36	3-4	5.81	A0	9-6-6	SpBin-Plg	200/70		Low
07		02 50 W	+24 46	2-4	7.91	d65	7-7-7	"	800/225		sl wk
03	A	02 35 W	+24 28	2-3	8.7- 8-83	96e	7-7-7	Ecl Bin-Plg	800/185		sl wk
08		00 28 W	+32 32	"	6.18	A3V	7-7-7	SpBin-Plg	400/140		scarcely
09	C	00 12 E	+14 34	"	6.07	A _m	7-7-7	"	400/140		Low
10		04 30 W		"	2.27	A2V	25-22-22	A 225°	40/		Low

Dome Temp. 28°F H=65%

Transparency Conditions *Excellent* *(some haze)*

2004

Focus *80-R*

Dome Temp. 22°F H=89%

check

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 A	01 01 W	-12° 49'	2	4.57	B8 V	No Filter 3-4-4	Sp. Bin - Bl	40/123		fin
	Dew 3rd web Apr 14		D19	6.68	F	5 min				
44 B	03 51 W	+24° 47'	1-2	7.91	K0 V	7-7-7	Sp Bin - Bl	800/230		gl wk
	Dew 2nd web Apr 14		D19	6.68	F	9 min			5 II-5	
19 C	02 55 W	+24 28	2"	8.7- 8.83	g6 c	7-7-7	Ecl Bin - Bl	800/220	2 III-5	fin
21 C	03 13 W		"	2.27	A2 V	222222	A 225*	40/90		Strong
23 C	01 03 W	+32 30	2-5"	6.18	A3 V	7-7-7	Sp Bin - Bl	200/65		fin
	Dew 1st web Apr 14		D19	6.68	F	7 min				
02 A	00 29 W	+14° 30'	2-4"	6.07	Am	7-7-7	Ecl. Bin Bl	200/60		fin

205

4 New box

Date 13/14 Apr 1975 Sun-Mon Observer KK-Tn/Tn Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39238	HD47105	06 31.9	+16 29	G12	Ma-Je	9/5	34°F	19:38	19:43	A
39239	HD56786	07 14.2	+22 10	"	"	9/5		19:51	20:17	B
392397	Cal step wedge		180sec		"					
39240	HD 76644	08 52.4	+48 26	G12	Ma-Je ⁺	9/5		20:29	20:37	C
39241	BD+38 2285	11 50.1	+38 05	"	Ma-Je	13/5		20:45	23:28	A
39242	HD116657	13 19.9	+55 27	"	Ma-Je ⁺	9/5		23:33	23:53	B
39243	HD118656	"	"	"	"	9/9		23:54	00:01	C
39244	HD 121370	13 49.9	+18 54	"	"	9/5		00:07	00:18	A
39244T	Cal step wedge		180sec		"			28:48		
39245	HD132737	14 55.6	+27 33	G12	Ma-Je	13/3		00:25	02:18	B
39245T	Cal step wedge		90sec		"					
39246	HD137569	15 21.7	+15 03	G12	"	13/4		02:23	04:13	C
39247	HD161321	17 39.7	+14 27	"	"	13/5		04:16	04:53	A
39247F	Focus Test			"		13	31°F			B

Dome Temp. 31°F H=66%

Transparency Conditions Excellent

206

Focus 80-R

Dome Temp. 27°F H=92%

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
43		0215W		2.3"	1.93	A01D	66	Asp-Sp	40/60	γ Gem	fin
17		0207W	+22 09	1.2"	3.26	101D	2222-22	"	40/80	δ Gem	fin
73		0048W		1"	3.32	A5	22-44	11sp-Sp	40/55	ε UMa	guiding
71		0045W	+37 59	1"	2.7	G8D	7-7-7	"	200/140	offset 1" to star-4) (one end broken)	fin
53		0022E		<1"	3.8	A2	22-22-22	"	40/60		fin
71		0014E		"	2.27	A-1	22-22-22	A 225 *	40/90		guiding sliding
7		0027E	+18 38	"	3.27	G0	22-22-22	Asp-Sp	40/80	η Boo	fin
		Dew hit both H ₂ & H DPA = 60% = 7min									
18		0027W	+27 22	1.5"	9.03	K00D	7-7-7	SSV-Hd	800/230	ε III.5	* slate
		Dew 3rd H ₂ & H DPA = 60% = 4min									
13		0158W	+14 53	2"	8.10	B5III	7-7-7	Sp Lin - Bly	400/110		* fin
53		0020 W	+14 32	2.3"	6.07	Am	7-7-7	50/B ₂ -th	200/70		* fin
		min / out out 3/3 no filter									
		*Note [these plates at] [end of list]									

Dome Temp. 30°F 69%

Transparency Conditions Broken cloud until 23:00

210

Focus 60R

Dome Temp. 24°F 67%

g Time ST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
45	4	01 ^m 08W	+22° 33'	2	6.75	A4	7-7-7	Am - MR	400/180		
							7-				
5	8	01 ^m 14W	+27° 22'	2	9.03	K0W	777	S.S.V. Hd	800/205		
3	6	00 ^m 30W	-32° 30'	2-3	6.18	M3V	777	Sp Br - Blh	400/140		
3	6	00 ^m 02W	+40° 05'	2-3	6.22	dF8	777	" "	400/110		
4	3	00 ^m 26W	+14° 30'		6.07	Am	777	Ed Br - Blh	400/140		

Dome Temp.

Transparency Conditions

hazy view
good after 05:00

214

Focus 50 R - 60 R

Dome Temp. 22°F 64%

ing Time EST.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	0°40W	+8°58'				NEON 4 min		20/12	FN Test	
	0°54W					10 min		20/27		
	00°30W	+55°09'	3	227	A2V	22-22-22 A225*		40/90	right side of Box	
	00°32W	+14°53'	3	810	B5V	77-7	Sp Bin - 136	800/200		
									right side of Box	
	01°02W	-06°50'	3	78	B0	777	Sp Bin - B6	400/140		
	00°40W	+40°32'	3-4	607	Am	777	Fal Bin - B6	400/140		

Dome Temp. 44°F / 54%

Transparency Conditions good at first the haze

268

Focus 60 R

Dome Temp. 35°F 75%

Hour	Angle	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
									not numbered right side of Box	
									" " " "	
			3.4"	5.1	B8p	7-14	Oil Shell	400/40	BROKEN " " " "	
									far left side of Box PLEASE Too far west. OVERDEVELOP	
									not numbered right side of Box	
									" " " "	
00 ^h	22E	+03° 35'	1-2"	+4.95	M ³ III	7.7 7	4-61681	40/250		
00 ^h	56E	-02° 12'		6.55	K0V	7.7 7		200/220		
									for left side of Box well # 44312	
00 ^h	42E	+38° 30'	3	6.38	K5V	7.7 7		200/300		

Dome Temp. 42°F H=787

Transparency Conditions

Excellent 220

Focus 60-R

Dome Temp. 32°F H=897

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
45	-	03 44W	+24 45	2.6"	7.91	JG5	7-7-7	Sp. B. - Ph	800/220		
35	5	03 53W	+24 28	3.2"	8.7- 8.8	gGc	6-6-6	L. P. - Ph	800/210		
29	5	04 28W		"	2.27	A2V	22-22-22	A 225*	40/90		
01	4	04 42W		"	3.8	A3	7-7-7	Asp. Sp. - KK	40/16		
22	1	02 31W	-3 16	4.2"	3.15	A0V	7-14	Sp. B. - Ph	40/15		

Dome Temp. 43°F H=67%

Transparency Conditions Very Good

Focus 60-R

Dome Temp. 33°F H=76%

g Time ST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	A						100sec			GI Test - not numbered	
36	B	03 21 W		3.5"	3.86	F0 IV	22-22-22	Asp - Sp - Kk	40/80		
18	A	00 30 W	+37 57	2.5"	7.2	G8 V	7-7-7	"	400/230		
7	B	00 00	+11 00	"	6.2	G8 V	7-7-7	"	400/200		
	C	00 17 W		2-3	3.27	G0	7-7-7	"	40/17		
21	B	01 01 W	+14 52	"	8.1	B5 III	7-7-7	Sp. Bin - Blk	400/110		
57	C	00 40 W	+32 28	2"	6.18	A3 V	7-7-7	Sp Bin - Plk	400/130	thin cloud coming	
37	A	00 00	+14 30	2"	6.07	Am	7-7-7	Ecl. Bin - Lk	400/130		
22	C	00 30 W	+4 27	2.6"	4.79	B0 V	22-22-22	Sp Bin - Plk	40/80		
32	A	01 04 W		3"	2.22	A5 V	70	1sp - Sp - Kk	40/60		
							3/3	no filter			

Dome Temp. 48°F H=57%Transparency Conditions *Very Good but Hazy.*Focus $50-R$ Dome Temp. 43°F H=97%

g Time ST.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
29	A	01 29 W	+25 49	1-2"	8.33	K2 III	7-7-7	SSV-Hd	800/220	(BD +26 2080 not visible in finder.) (but one west of BD126 2079 is visible.)	
33	B	02 14 W	+24 31	1-2"	9.02	K4 III	7-7-7	SSV-Hd	800/225	Shattered 1pc. Several 2pc.??	
	C	01 57 W	+28 05	2"	8.52	K1 III	7-7-7	"	800/220		
	A	01 28 W	+21 12	1.3"	8.51	K1 III	7-7-7	"	800/235		
							2/3	no filter		no filter	right on ✓

Dome Temp. 54°F H-8220 outside

Transparency Conditions Very Good

230

Focus 38-R

Dome Temp. 47°F H-8076

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
09	01 03W	+23 59	2"	3.76	G0II	11-10	Std Vel-Hd	40/18		
24	01 33W	+24 31	1-2"	9.02	K4II	7-7-7	SSV-Hd	800/240		
24	02 22W	+27 58	1-3"	7.3	G5	7-7-7	Std Vel-Hd	400/175		
30	04 10E	+39 16	2-4"	7.62	G8	7-7-7	"	400/130		
11	00 16E	+17 12	"	5.6	G4	7-7-7	"	200/80	Some cloud	
38	00 24E	+25 33	"	8.66	G8III	7-7-7	SSV III	800/225		
14	00 21W	-10 53	4-5"	6.05	G7	7-7-7	Std Vel-Hd	200/70		

Dome Temp. 55°F 54%
 Focus 300R
 Dome Temp. 49°F 63%

Transparency Conditions good poor seeing.....

log Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
49	-	03 34 W	+24°46'	2-4	7.91	dG5	7-7-7	Sp. Bin. Bin	800/220		
59	-	01 40 E	+32°27'	3	6.18	A3V	777	" "	400/140		
46	-	00 56 W	-06°00'	3-5	7.8	B0	777	" "	400/140		
38	+	04 40 W	+14°30'	5-6	6.07	Am	7-7-2	" "	400/140	"BROKEN" 4 pieces	
12	-	00 35 W	+71°23'		4.18	Ap	2040	Sp. Bin. Bin	400/550	with seal of box	

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Date 8/1 May 1935 Thur/Fri Observer Butcher Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39312	HD 90009	10 18.2	+26 04	G12	IIaBB	15"	60°F	20:15	21:33	A
39313	HD 118705	15 24.8	+27 12	"	"	"	"	21:37	23:15	B
39314	HDE 226868	17 54.2	154 56	"	"	25/4	55°F	23:46	04 01	C
39314T1	cal slip wedge for photo 39314				IIaO-E	90μ				
	Developed 39314 + 39314T1				10 min @ 68°F					

Dome Temp. 60°F 48%

Focus 20" R

Dome Temp. 46°F 59%

Transparency Conditions excellent

276

log Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
32	-	03 ^h 25W	+24°46'	2-3	7.91	d65	777	Sp B - Bl ₂	800/220		Fair
45	0	00 ^h 14W	+55°07'	3	2.27	A0T	222222	A225*	40/95	right side of Box	strong
23	0	01 ^h 27W	+83°33'	3	5.91	A0	7-7-7	Sp B ₃ - Bl ₂	200/71		Fair
04	0	01 ^h 20E	+35°12'	3	9.74	B0T6	777	" "	800/260		Fair
										right side of Box	
								Sm ₁		not numbered right side of Box	

Dome Temp. 55°F 53%

Transparency Conditions *Excellent*

238

Focus 20R

Dome Temp. 52°F 55%

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
39		0 ^h 11 ^m W	+55° 07'	2"	2.27	A0V	22-22-22	1225*	40/100	not in Box	OK
40		01 ^h 09 ^m W	+83° 33'	2"	5.81	A0	777	Sp Br - Bk	200/70	Too Fast (prob the bright star)??	OK
40		01 ^h 00 ^m E	+35° 12'	2"	9.74	B0I6	777	Sp Br - Bk	800/350	T ₇	OK
		01^h 00^m E								not in side of Box	

Dome Temp. 56°F H-8270

Focus 15-A

Dome Temp. 53°F H-9370

Transparency Conditions Hazy thin clouds

Altitude 2'

246

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
1 25 W	+27° 27'	3" 24"	9.4	G67	7.5-9	SS4-11	800/121??	cloud	ok
Dew 9 min D19 0630F									
1 58 E	+10 27	2"	5.8	F8	7-7-7	SU 11	400/120	Very good	Fine guiding
2 25 W	+17 12	3" 4"	6.1	G4	7-7-7	SU 11	400/120	with 1 pair	Fine
0 45 W	-10 54	3"	5.2	g67	7-7-7	SU Ho	200/80		Fine
(We need a 1975 Observer's Handbook To									

Dome Temp. 60°F H=7870

Transparency Conditions Good sl Haze

248

Focus 15-R

* most I/aos break easily

Dome Temp. 50°F H=9370

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 36 E	+55 06	2"	2.27	A2V	22-22-22	A225*	40/100	* 1" broken off end	new sensor sanding
01 08 E		2-3	3.8	A2	22-22-22	Asp Sp. kt	40/70		Fine but fogged
00 18 W	+83 36	"	5.81	A0	7-7-7	Sp Bin-Bin	200/60		Fine
	Dome Temp 268°F		D19						
	"	"	"						
02 20 W	+37 59	2"	7.2	G8V	7-7-7	Astr Bin-Bin	100/140	* 2" broken off	Fine
03 38 W	+24 29	2-3	8.7- 8.83	g6e	7-7-7	Ecl Bin-Bin	800/135	* broken again 2 pcs	Fine
01 33 W	+22 29	3-6"	6.18	A3V	7-7-7	Sp Bin-Bin	400/130		Fine
00 11 W	+71 23	2-3'	4.18	Ap si	22-22-22	"	40/64		fogged sl Fine
01 33 W	+14 32	2-4"	6.07	A m	7-7-7	Ecl Bin-Bin	200/60		sl. fine

Dome Temp. 63°F H=86%

Transparency Conditions Bad → better (sun & fog) 250

Focus 0-R

Dome Temp. 60°F H=97% - Dome wet

log Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
46	A					G2	no filler 4-4-3	Asp Sp. KK	40/90		
22	P	1 01 E	+18 36	4-8"	3.27	G0	4-3-3	"	40/60	Cloud	
		Dew 5 mi DIA			68°F						
48	C	2 20 E	+	2-3	2.21	A	4-3-3	Asp Sp. KK	40/100		
26	C	1 04 W	+24 05	"	5.92	G2	3-3-4	"	200/250	more cloud	
54	C	1 11 E		2'	2.23	A5 III	3-3-3	"	40/150	3" horizon off	
76	A	1 26 W		1-2'	3.93	F0p	3-3-3	"	40/60		
14	C	1 59 W	+26 27	"	3.81	A0 IV	3-4-3	"	40/80		

251

Firecracker Day

Date 1975 May 19/20 Mon-Tues Observer Tn Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39349	HD 121247	13 49.2	+42 41	G12	IIa-O-e	9/1.5	70°F	20:29	21:55	A
39349 T	Co 1 step	wedge	90 sec		"					
39350	HD 128002	14 29.9	+43 27	G12	"	9/1.5		22:42	01:17	B
	May 21	Hal - L		Test for collimation of vision arc						
39350 T ₁				G12	IIa-O	9/1.5				B
" T ₂				"	"	"				C

Dome Temp. 74°F H=68%Transparency Conditions Hazy

252

Focus O-R

Dome Temp. 63°F H=86%

log Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
55	A	00 27E	+42 22	2	6.69	A1	8-8-8	Am-MR	400/160	some cloud	Fine guiding
		DW	9 mm	D19	0.68°F						
17		02 15W	+43 11	2.5'	6.88	A2	8-8-8	Am-MR	400/120	cloud again	uh
							30s	Fe are as it was			
							30	"are. adjusted by L			

Dome Temp. 80°F H=6570
 Focus 20 - B
 Dome Temp. 68°F H=7270

Transparency Conditions *Some haze - increasing throughout night*

Time S.T.	P.R.	Hour Angle End	Declination	Secing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
2	A	00 53 E	+55 07	1.2'	2.27	A2V	22-22-22	Sp Ba P2	40/110		Good
51	C	00 46 E		2"	3.8	A2	7-7-7	Asp Sp-KK	40/14		fine
6	C	04 35 W	+24 46	1.3'	2.71	265	75.5	Sp Ba IR	800/111	Too Hazy down Low * Push with } * this col }	Very wk
46	C	01 07 W	+14 52	2.2'			7-7-7	Sp Bin-KK	800/180	clouds falling around 10:10	fine
51	C	01 03 W	+32 28	2.4"	6.18	A3V	7-7-7	"	400/130	1" broken off end	fine
24	A	00 06 E	+71 22	"	4.18	A2V	22-22-22	"	40/65		fine
21	C	00 44 E	+47 01	2"	5.54	295746	7-7-11	"	40/90	some dust	fine
47	A	00 30 W	+13 54		2.71	A2V	22-22-22	"	40/70	Omit (broken many small fragments) ??	
										Wagon	
										* Push 39356C 39356C2	
										H+ for light of box	

Dome Temp. 70°F H-853

Transparency Conditions Hazy

Focus 20-B

Dome Temp. 70°F H-853

1 short piece sand

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
01 33W	+1 59	2-4	5.6	F8.0	7-7-7	Wataion	200/65	(cloud - shattered like) "39361 onitel"	fine
02 24E		2-5	5.5	F5.0	4-7	"	200/16	cloud "A" plate held may be out post.	orig wk.
<p>(I turned upper screen 17 complete 7 sec turns CCW - ie tilting G/2 grating CCW) no more tests due to heavy rain In</p>									
<p>* Warren: Can you push these plates to</p>									

259

Free Wed

Date 1975 May 27-28

Observer Bu-Ta

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39363	HD 109777	12 29.1	-22 51	G 12	Do. O-e	13/15	73°F	20:37	20:37	A
39364	HD 100179	11 26.6	+29 52	"	"	13/13		20:45	23:48	B
39364T	Cal slip - edge		90sec		"					
39365	HD 149803	16 32.0	+29 56	G 12	"	13/13	60°F	23:52	03:33	C
39365 61	Grating tilt test			G12-G29	Da-Fe	13/15	Grating tilted	CCW (screw CCW 7 whole turns)		
G2	"			"	Da-Fe	13/15	Grating tilted	CCW (screw CCW 17 whole turns)		A
G3	"			"	Da-Fe	13/15	"	20 whole turns CCW		B
G9	"			"		13	"	" " " "		C

Dome Temp. 55° 4.598

Transparency Conditions Excellent

260

Focus 20-K

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 07W	-23 07	3-4	2.8	G4	7-7-7	Std-Vol-Hd	40/18		fine
01 20W	+24 33		9.02	K4 III	7-7-7	SSV - Hd	800/200		sl wk
Dew on lens 9 min 0.19 0.68 PF									
03 03W	+29 52	3-4	8.90	F7 V	7-7-7	SSV - Hd	800/115	Slow 27	sl wk
IR Filter Installed				Fe	36 sec	Fe Arc Filter in	*Limit seems to be 9 whole turns CCW of upper screw (9 whole turns CW from limit back to normal G12 push (hope fully, <u>check it</u>)		
" " "				Fe	60	Fe Arc Filter in			
" " "				Fe	9 sec	no filter			
" " "				A	!				
In Grating tests - top screw turned off (loosened) CCW then bottom screw manu turned to make grating solid in place									
T _n									

Dome Temp. 60°F 63%

Focus 103

Dome Temp.

Transparency Conditions *curvus clouds after 1:15*

262

log Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
25	3	4 ^m 09 E	+20° 30'	3-4	6.9	B05 Ia	2-2-2	Vul OB - Trn	400/75		fine
15	3	3 ^m 25 E	+32° 07'		7.6	07.5 III	2-2-2	"	800/90		sl wk
50	3	1 ^m 40 E	+23° 54'		8.9	B9 Ib	2-2-2	"	800/90		wk
14	4	1 ^m 50 E	+21° 55'		6.2	B1 Ib	2-4	"	800/30	clouds	wk
			Dew 9mi	D19	068°F						

Dome Temp. 58°F 73%

Transparency Conditions *thin cirrus clouds*.....

264

Focus 0

Dome Temp. 50°F 80%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
20 ^h 14 ^m W	+55° 07'	4-5	2.27	A0V	22.2222	Sp8 - Bl	40/110	exposure meter not fully opened as first so give 40 counts less <u>broken 2 pin on right side</u>	
20 ^h 28 ^m E	+12° 54'	4	6.80	A0	7.77	" "	800/280		seeing fine
21 ^h 37 ^m E	+35° 48'	3-4	6.83	WN4.5 09.5	7.77	NGC 6871-52	800/440	*1 clouds	seeing fine
								right side	
23 ^h 01 ^m W	+35° 49'		7.31	B1	27.7	"	800/220		fine

Dome Temp. 58°F H: 75%

Transparency Conditions Very Good - then cloud from East

Focus 10-R.....

Dome Temp. 52°F H: 82%

272

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
50		00 18W	+14 54	2.5"	8.10	B5II	7-7-7	SpBin-Tn	400/90	Cloud	
26	C	03 11E	+20 31	2.4"	6.9	B0.5Ia	2-2-2	Vul OB-Tnr	800/120		
25	C	01 17E	+23 53	"	8.9	B9Ib	2-2-2	"	800/120		
01	C	00 14W	+29 10	2.3	8.7	B0.5III	2-2-2	"	800/120		
19	C	00 22W	+18 44	2"	6.4	B7.5Ia	2-2-2	"	400/60		
36	C	00 19W	+21 55	2"-3"	6.2	F1Ib	2-2	"	400/61		

Dome Temp. 62°F H=62%

Focus 10-R

Dome Temp. 55°F H=80%

Transparency Conditions Very Good - some haze 274

Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
44	B	02 ^h 39.5W	+24 45	2-3"	8.7A	F8V	7-7-7	SSV-Hd	800/200		
03	C	02 19.5W	+29 39	2.4	9.0A	G8III	7-7-7	SSV-Hd	800/220	some haze	
38	B	00 47W	+10 26	"	5.8	F8	7-7-7	Std-Vel Hd	200/65		
										Slow night	

277

Date JUNE 13-14 1975 FRI-SAT Observer WEST-TN Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39388	α 60015	14 ^h 11. ^m 5	+19° 37'	G43	Ilv-o-o	9/1.9	66°F	20:46	20:47	B
39389	HD 123782	14 ^h 04. ^m 5	+49° 56'5	G42	"	13/1.5		20:57	21:25	C
39389T	Cal step wedge		90sec		"					
39390	AC 54-1686-56	16 ^h 23. ^m 1	+54° 32'	G43	"	18/1.3		22:30	2:27	E
39390T	Cal step wedge		for 39390		"					
39391	HD 156014A	17 ^h 10. ^m 2	+14° 31'	G43	Ilv-o-o	13/1.5	63°F	02:35	02:49	C
39392	HD 203395	21 ^h 16. ^m 5	+09° 55'	G-12	Ilv-o-o	13/1.9		03:03	03:50	E

Dome Temp. 67° H=842

Transparency Conditions *haze - too clear to find stars*

Focus 10-R

Dome Temp. 63° H=987

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
0016 E		2"	7.0	K2III	2-4	West *	20/17		3rd
0022 W	+19 36	1"	7 ^m	GM2	2-2-2	"	200/77	cloud	2nd
Dw 2mi	0 03° E	0.1							
03 11 W	+54 24	1.2"	7.1 ^m	S&M	2-2-1	"	800/40	hazy - cloud	* very weak
Dw 12 mi	0630 E	0.19	5 ^m					Note 23:20 clear → (prob would be better start time for 39390)	*
02 47 W	+14 23	2.3	5 ^m	GM5	2-2-2	"	40/20		
00 18 E	+10 19	3-4	7.3	F2V F8V	7-4-4	"	400/65	Part also	* weak
								* These 3 plates at far right should be pushed. T ₉	

281

Date Jan 12/19 W. H. Miller Observer W. H. Miller Julian Day 255

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39398	HD 141513	15 ^h 24 ^m 14	-03° 07'	C-12	Ilford S-F	9/5	77°F	20:55	21:22	B
39399	HD 147235	16 15.1	+32° 23'	"	Ilford E	10/5		21:31	22:02	C
39400	HD 152432	17 0.3	+40° 04'	"	Ilford E	9/5		23:05	23:38	B
39401	HD 151021	17 35.4	+14° 02'	"		13/5		00:02	01:10	C
394011	cal. obj. work				Ilford E	15/5				
394012	cal. obj. work				Ilford E	9/5				
39402	HD 141513	15 24.14	-03° 07'	"	Ilford S-F	11/5	75°F	01:19	01:40	B

Dome Temp. 38°F 77%

Transparency Conditions *overcast - clear*

Focus 20B

Dome Temp. 32°F 89%

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00:55E	-03°16'	2-3	3.50	10T	2222	Sp. B. - Bl	40/70	<i>alt not 50%</i> (incomplete at 100 if 10% remained)	
01:30E	+32°27'	2-3	6.10	103	7-7-7	"	40/140	clouds clear for 20 minutes	
02:10	+40°02'		3.62	dFB	7+3	"	40/140	clouds again	
02:57W	+14°31'		6.09	1m	7-7-7	Exp. B. - Bl	40/140	1/2" broken off	
	Des 9.00	6.07		D.1					
	"	"	"	"					
03:00W	+40°29'		4.75	AST	2244	Sp. B. - Bl	80/36	clouds + light	

Dome Temp. 63°F 80%

Transparency Conditions ~~good~~Focus ~~0~~

Dome Temp. 62°F 94%

log Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
		00°59W	+18°38'	2-3	3.27	G6	^{no filter} 3-4-3	Ap-Sp-KK	40/60	η 300	line
		02°50W	+24°05'	2-3	5.92	d62	3-4-3	" - "	40/600		line faint
		04°33W	+12°34'	3	2.27	WSE	3-4-3	" - "	40/40		line faint
		04°12E	-25°11'		5.45	185	2-2-2	" - "	40/120	2 Sp right side of Del (Barker in picture)	line
										right side of Del	
		07°32E	+54°51'		5.71	G50p	7-7-2	" - "	400/120	right side of Del μ Cas	line
		07°02E	+53°04'		4.50	07E	7-7-7	" - "	40/140	2 lines right side of Del	line faint
		08°19E	+14°38'	2	3.72	FD2	7-7-2	" - "	40/210	2 Del "	line
		09°29E	+76°17'	2-3	4.46	G20E	2-2-2	" - "	40/120	π C.p	line
		11°56E	+12°40'		5.12	702	7-2-2	" - "	40/150	2 Del	line

Dome Temp. 64°F 87%

Transparency Conditions good with some haze

Focus 0

Dome Temp. 64°F 82%

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
06	3	03 ^h 26 ^m W	+55° 06'	2	2.27	M2V	22-22-22	Sp13 - BR	40/110	BROKEN 2 pieces right side	grainy fine
50	0	00 ^h 13 ^m E	+14° 29'	2	6.07	Am	7-7-7	" "	400/140		fine, grainy
50	0	02 ^h 15 ^m E	+44° 20'		4.58	B5V	22-22-22	" "	40/120	right side	grainy weak
25	0	00 ^h 46 ^m W	+71° 21'		4.18	ApS:	22-22-22	" "	40/65	right side	scratches fine
32	0	00 ^h 44 ^m E	+54° 23'		9.56	B0.5V	7-7-7	" "	800/210		fine
										right side	

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Date Mon June 22-23 1975 Observer Fgi - R Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39419	HD 190 918	20 ^h 02.2	+35° 51'	G-12	II ₂ O-E	13/5	78°P	21:04	23:36	B
3941971	cal step wedge	for 39419			II ₂ O-E		90°			
3941972	cal step wedge	for 39420			II ₂ O-E		90°			
39420	HDE 227634	20 ^h 02.2	+35° 34'	G-12	II ₂ O-E	17/3	76°	23:55	02:05	C
	HD 190429A	15^h 59^m 46^s	+35° 44.7'	G-12	II₂O-E	17/3		02:14		B

Dome Temp. 84°F 82%

Transparency Conditions *very hazy*

Focus 20 B

Dome Temp. 78°F 95%

ing Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
26	3	02 44 E	+35°45'	2	6.93	WN4.5 09.5	7-7-10	NGC-6871-fg	800/440		sl wk
										<i>new box</i>	
25		03 15 E	+35°44'	1-2	7.93	B0.1	7-7-7	NGC 6871-fg	800/240		weak
					6.9	04 f	7-	58mm str	800/	weather	stars
										<i>clouds!</i>	

Dome Temp. 78°F 92%

Transparency Conditions *Log*

Focus 30B

Dome Temp. 75°F 96%

ing Time E.S.T.	P.M.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
32	3	00 ^h 12 ^m E	+12° 39'	3	2.23	ASW	^{with} 3-4-3	Asm-Sp-KK	40/120	α Oph	fine guiding
03	3	00 ^h 19 ^m W	"	"	"	"	3-4-3	"	40/180	"	fine
11	3	00 ^h 34 ^m E	-20° 49'	"	"	"	3-4-3	" " "	40/90	"	sl stony
54	3	02 ^h 00 ^m E	+25° 35'	4.4	FSIV	"	3-4-3	" " "	40/900	K Pog	fine
51	3	01 ^h 20 ^m E	+42° 39'	5.17	A2A	"	3-4-3	" " "	400/750	2 And. into twilight	sl wk

Dome Temp. 70°F 94%

Focus 15B

Dome Temp. 65°F 92%

Transparency Conditions thin cirrus clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
05405W	+25° 52'	3	9.19	F8V	7-7-7	S.S.V-Hd	800/100	over develop	weak
05202W	+25° 32'	2.3	8.66	G8III	2-7-7	S.S.V-Hd	800/220	wrong star at first	weak
05144W	+10 27		5.8	F8	7-7-7	S.S.V-Hd	400/130		weak

295

Date 25/26 June Wed/Thurs Observer Gm - Tn Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39429	HD 130841	14 45.4	-15 38	G12	IIIa-J-e	9/1.5?	70°	20:47	20:57	F
39430	HD 116656	13 19.9	+55 27	"	IIIa-J-e	9/1.9		21:06	21:11	B
39431	HD 116657	" "	"	"	IIIa-O-e	9/1.5		21:13	21:17	C
39432	HD 135681	15 11.3	-12 40	"	"	13/1.3		21:29	22:20	B
39433	"	"	"	"	"	"		22:21	23:05	C
39433T	Cal step wedge for 39429-30				IIIa-J-e	180sec				
39434	HD 151676	16 43.7	-15 30	G12	IIIa-O-e	18/1.5		23:09	23:33	B
39435	"	"	"	"	"	"		23:34	23:59	C
39436	"	"	"	"	"	"		00:01	00:29	B
39436T	Cal step wedge for 39431-				"	90sec				
39437	HD 161321	17 39.7	+14 27	G12	"	13/1.5		00:31	01:06	C
39438	HD 170000	18 22.2	+71 17	G12	IIIa-J-e	9/1.5		01:10	01:39	B
39439	HD 170073	18 22.5	+58 45	"	"	13/1.7		01:43	02:50	C
39440	HD 158209	19 49.0	+46 46	"	IIIa-O-e	9/1.7		02:55	03:22	B
39441	HD 209819	22 01.0	-14 21	"	IIIa-J-e	13/1.5		03:26	03:50	C

Dome Temp. 48°F 6670

Transparency Conditions clear

296

Focus 10 B

Dome Temp. 63°F H=7370

ing Time S.T.	P.M.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
5		00 01 W	-15 51	2"	2.89	Am	22-22-22	Sp Bin Plan	40/65	* .7 sec? * At far right	line
11		01 44 W	+55 05	2"	2.27	A2V	22-22-22	A225*	40/100	* of box labelled	scudgy fine
17		01 50 W	+55 05	1-2'	3.8	A	7-7-7	Asm Sp R/R	40/18		sl strong
20		01 02 W	-12 50	2"	7.0- 7.4	A2	7-7-7	Ecl Bin - 1/2	400/65		slwk
05		01 46 W	" "	"	"	"	7-7-7	"	400/62		slwk
										*	
23		00 42 W	-15 31	2-3'	6.19	A3	7-7-7	Ecl Bin - 1/2	200/62		line
59		01 09 W	"	"	"	"	7-7-7	"	200/60		line scudgy
29		01 39 W	"	2-4	"	"	7-7-7	"	200/60		line
06		01 20 W	+14 31	2-4"	6.07	Am	7-7-7	Ecl Bin - 1/2	200/60		line
39		01 15 W	+71 20	2-3'	4.18	ApS	22-22-22	Sp Bin Plan	40/66	*	line
50		02 24 W		2"	4.93	A1E	22-22-22	"	40/110	*	line
32		01 28 W	+47 01	1-2'	5.54	0952.6	7-7-7	"	40/20		line
3:50		00 17 E	-13 53	3-5"	4.18	B8V	20-22	"	40/60	*	line scudgy

Dome Temp. 71°F 91%

Transparency Conditions *hazy*

Focus 10-8

Dome Temp. 69° 98%

ing Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
22	8	00 22 E	-3 16	3-4"	3.50	A0V	22-22-22	Sp Bin. Elm	40/70	* Alt Far right of box #2	
23	8	02 20 W	+55 06	2-4"	2.27	A2V	22-22-22	A225 *	40/90	*	
										*	
49	1	02 31 W	+55 06	2-3	3.8	A	7-7-7	Asm Sp KK	40/13	Is this fagged? ^{forgot to cap before} opening door	
51	5	02 41 W	+14 51	1-3"	2.10	B5 III	7-7-7	Sp Bin. Bin	400/80	clouds S.E. <u>broken 2° isc number</u>	
24		00 18 W	+71 21	2-3	4.18	A4K	22-22-22	"	40/40	* clouds	

Dome Temp. 77°F H=81°

Transparency Conditions Hazy

300

Focus 10-B

Dome Temp. 74°F H=93°

ing Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
20	B	02 05 W	+55 07	2.5"	2.27	A2V	2222-22	A 225*	40/90	* At Far	
02	C	02 52 W	"	"	3.8	A2	22-22-22	Asp Sp KK	40/45	Thick Haze * right	
										*	
28	B	00 44 W	+36 56	2.9"	5.9	V4 III	7-7-7	Vis Bin	200/130	Murky	
12	C	00 85 W	+33 42	2.3"	5.5	F5V	7-7-7	Vis. Prism	200/85		
17	B	00 05 W	+40 15	"	2.9	F8Ib	7-14	Vis. Prism	40/18		
21	C	00 22 E	+19 47	"	5.2	K1 III	7-7-7	Vis. Prism	200/100		
26	B	00 37 E	+39 37	"	5.5	K3 III	7-7-7	Vis. Bin	200/100		
39	C	07 50 E	+30 47	"	4.5	K3 III	7-7-7	Vis. Prism	40/22		

Dome Temp. 77°F H=603
 Focus 20-B
 Dome Temp. 73°F H=750

Transparency Conditions Very Good - Excellent
Photometric

ing Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
55	1 ^h 40 ^m W	+55° 06'	1.3"	2.27	A2 V	22-22-22	A225 *	40/90		
36	3 16 E	+35 46	1.3"	6.83	WN4.5 +09.5	7-7-7	Fgi Thesis	200/110	#1	
50	0 02 E	+35 44	"	8.85	W.5 V	7-7-7	"	800/230	#8 broken 2 nd sensor (one short)	
38	1 46 W	+35 35	1.2"	7.76	Obf	7-7-7	Fgi Thesis	800/290	#4	

Dome Temp. 75°F H=65%

Transparency Conditions

Good - Very Hazy

310

Focus 20-B

Sm = Robert Smith

Dome Temp. 69°F H=72%

* To far right of Box #6

ing Time S.T.	P.M.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
58	B	02 08W		1-2"	3.27	A2V	22-22-22	A225*	40/95	} G12 Grating cup faulty* } hope 39473 isn't fogged* }	
09	C	03 10E	+44 19	"	4.58	B5V	22-22-22	Spl. Sm	40/100		
		X 0 48E									
25	B	01 13E	+32 07	2-3	7.6	07.5III	2-2-2	Tnr VuoB	400/60		
00	C	00 06E	+20 30	2-4"	6.9	B9.5Ia	2-2-2	"	800/120		Dec FOG
21	E	01 10W	+23 58	2-3"	8.0	B8Ia	2-4	"	800/108	Cloud from N1	

Dome Temp. 72° H = 82%

Transparency Conditions Hazy - Cloudy

314

Focus 25B

Dome Temp. 72° H = 84%

g Time S.T.	P.R.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03	B	02 19W	+55° 06'	3	2.27	A2V	22-222	A225*	40/90	* To far right of July 5/6 box	
18	C	02 08W	-15 47	3-4	5.57	F5IV	77-7	Sp. Bin - Blu	200/60	*	
20	D	00 17W	+14 31	2-4	6.07	Am	7-7-7	Sp. Bin - Blu	400/140		Develops
31	L	00 50W	+71 22	1-4	4.18	A _p S	22-22-22	Sp. Bin - Blu	40/75	*	FOG
41	L	01 58W	+58 50	1-2	4.93	A1V	22-22-22	"	200/300	*	
23	C	02 02W	+36 00	2"	6.9	O4F	7-7-7	Sp. Bin - Blu	400/147	real cloud	

319

Date July 11/12 Fri/Sat Observer Ri-Gm Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39487	HD 116656	13 ^h 19 ^m .9	+55° 27'	G-12	TTaJ-E	9/.9	67°F	20:59	21:09	B
39488	HD 141513	15 ^h 44.4	-03° 07'	G-12	TTaJ-E	9/.5		21:14	22:03	C
39489	HD 161321	17 ^h 39 ^m .7	+14° 27'	"	TTaO-E	13/.5		22:10	22:52	B
39488T1	cal step wedge	in plate			TTaJ-E	180 μ				
39490	HD 164284	17 55.3	+4° 22'	"	TTaJ-E	13/.5		22:57	23:43	C
39491	HD 170000	18 ^h 22 ^m .2	+71° 17'	"	TTaJ-E	9/.5		23:50	00:14	B
39492	HD 170073	18 22 ^m .5	+58° 45'	"	TTaJ-E	13/.5		00:23	01:17	C
39493	HD 188209	19 ^h 49 ^m .0	+46° 46'	"	TTaO-E	9/.7		01:23	02:06	B
39494	HD 190429A3	19 ^h 59 ^m .8	+35° 44.7'	"	TTaO-E	13/.5		02:11	03:01	C
39494T1	cal step wedge				TTaO-E	90 μ				
39495	HD 209819	20 ^h 01.0	-14° 21'	G-12	TTaJ-E	13/.7		03:07	03:43	B

Dome Temp. 68°F 73%

Focus 2

Dome Temp. 60°F 95%

Transparency Conditions clear + clouds

320

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
09	0	02 30W	+55° 06'	1.2	2.27	A2V	22-22-22	A 225*	40/95		sl study sl
03	0	01 15W	-03° 15'		3.50	A0V	22-22-22	Sp. Bin - Bl	40/70	covered for 15 min clouds	sl strong
52	0	00° 10W	+14° 30'		5.97	Am	7-77	Ecl Bin Bln	400/140		fine
43	0	00° 45W	+04° 28'	3	4.84	B2Ve	22-22-22	Sp Bin Bln	200/300		sl strong
14	0	01 03W	+71° 21'	3-4	4.18	Ap Si	22-22-22	Sp Bin Bln	80/120		fine
07	0	01 53W	+58° 49'	3-4	4.93	A1V	22-22-22	"	80/120		fine
06	0	01 15W	+47° 01'	3-4	5.60	09.5IK	7-77	"	200/100		strong
01	0	02 00W	+36° 02'	3-4	6.9	04F	7-77	"	400/150		fine
05	0	00 30W	-13° 53'	3-4	4.18	B8V	22-22-	Sp Bin - Bl	80/140		fine

Dome Temp. 70°P 73%

Focus 0

Dome Temp. 64°F H = 96%

Transparency Conditions Fair - very poor. Intern. Heat Clouds

324

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 34E	+35°47'	3	6.83	WV4.5 +09.5	7-7-7	Fgi *	800/440		
02 30E	+44°20'	5-8	4.58	B5Z	2520-20	Sp. Bin-Bln	40/30	right side of Box #4	logged
01 31E	+44°20'	5-8	"	"	20-20-20	"	40/70	right side of Box #4	fine judging
								right side of Box #4	
01 52U	+71°22'		4.14	ApSi	2222-22	Sp. Bin-Bln	40/60	middle of Box #4	fine
01 32E	+58°19'		6.3	B7	7-7-7	Sp. Bin-Bln	400/120	Broken - 2 pieces	
01 30W	+28°16'			B8V	No Filter 3-3-3	Sp. Bin-Bln	80/200	right side of Box #4	fine
								middle of Box #4	

Dome Temp. 81°F H-722

Transparency Conditions Hazy

Focus 20-B

Dome Temp. 72°F H-922

ing Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
26	C	03 24 E	+21° 54'	1-2"	6.2	B1Ib	2-2-2	Vul 08-Twr	200/30		fine
11	C	02 30 E	+22 11	"	6.7	B1Iab	2-2-2	"	400/60		fine
38	C	01 59 E	+18 43	"	6.4	075Jof	2-2-2	Vul 08-Twr	400/60		fine
27	C	00 57 E	+32 07	"	7.6	07.5III	2-2-2	"	800/120		fine
35	C	00 56 W	+29 52	"	8.3	B2III	2-2-2	"	800/120	some cloud	fine
15	C	01 56 W	+20 32	2	6.9	B0.5Ia	2-2-2	"	400/60		fine
25	C	02 58 W	+29 25	2-3"	7.1	B7Iae	2-2-2	"	400/60	cloud again	fine

Dome Temp. 80°F H 83%

Transparency Conditions Hazy + some cloud

330

Focus 20-B

Dome Temp. 73°F H 93%

reported fire E of Casview at 00:25 - quite response

log Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00	28 E	+13° 20'	1.5"	6+	B8T	7-7-7	Sp Bin: Hd	400/140		poor
00	26 W	+47 00	2"	5.5	095I ^h	8-8-8	Sp Bin: Bln	200/90		poor
						3/3	no filter		very weak exp. focus ok	
02	09 W	+35 47	1.4"	7.6	WN 4.5 095	7-7-7	Sp Bin - Bln	400/150		

Dome Temp. 80°F 11-9276

Transparency Conditions *Very hazy*

332

Focus 20-B

Dome Temp. 78° 11-997

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 03W	+33 43	2-3	5.5	F5V	7-7-7	Vic. Bin. Uxte	200/97	broken lpc Attempted to find Comet	Poor seeing
00 42W	+52 03	2-4	6.2	K1F	7-7-7	Vic. Bin.	400/220	cloud	weak
+41°58'		6+	01:35						
α 19 ^h 25.6			01:25						

335

Date Mon-Tues July 21-22Observer Lne-Tn

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39522	HD 149881	16 32.4	+14 40	G12	Ilco-0e	9.13 -1.5	73°F	20:49	22:29	A
39522 T	Cal step wedge		90sec		"	for	39522			
39523	HD 205021	21 27.4	+70 07	G12	"	91.7		22:41	22:45	B
39524	"	"	"	"	"	"		22:49	22:54	C
39525	HD 199140	20 50.1	+28 08	"	"	18/1.5		23:05	23:27	B
39526	"	"	"	"	"	18/1.7		23:28	00:04	C
39527	"	"	"	"	"	"		00:06	00:33	B
39528	"	"	"	"	"	"		00:41	01:11	A
39529	"	"	"	"	"	"		01:14	01:47	B
39530	"	"	"	"	"	"		1:49	02:22	C
39531	"	"	"	"	"	"		02:23	02:59	B
39532	"	"	"	"	"	18/1.5		03:02	03:31	C
39533	"	"	"	"	"	"	65°F	03:32	04:00	B
39533 T	Cal step wedge for		39523-33		"	90sec				

Dome Temp. 72°F H=857

Focus 10-B

Dome Temp. 65°F H=957

Transparency Conditions sl haze → Excellent

336

g Time S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
29 L	01 33W	+14 38	2-3'	6.59	B2V	7-7-7	B Ceph	400/130	broken 1pc saved } at Far right	fine
45 F	03 04 E		3-4	2.93	B2III	7-14	B Ceph	40/20		fine good
54 C	02 55 E		3'	"	"	14-7	"	40/30		fine good
27 E	01 46 E	+28 32	2-4	6.44	B2III	5-6-5	"	400/130		fine good
04 C	01 09 E	"	3	"	"	6-6-5	"	400/170		fine good
33 F	00 40 E		"	"	"	6-6-6	"	400/175		fine
11 L	00 02 E	"	"	"	"	6-6-6	"	400/170		fine
47 F	00 34 W		2-4	"	"	5-6-6	"	400/175		fine
22 C	01 09 W	+28 33	"	"	"	6-6-6	"	400/175		fine
59 F	01 46 W	"	2-5'	"	"	6-6-6	"	400/170		fine
31 C	02 18 W	"	3-5'	"	"	6-6-6	"	400/120		fine
00 C	02 48 W	"	3-4	"	"	5-6-6	"	400/120		fine &

Dome Temp. 78°F H: 8270

Focus 10-B

Dome Temp. 74°F H: 9370

Transparency Conditions *slight but Good*

Full Moon

338

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
00 30 E	+13 22	1-3"	6.1	B8 IV	7-7-7	Sp Bin-Hd	400/140		sl wk pink
01 04 W	+22 21	1-2	9.64	K I III	7-7-7	SSV HI	400/218	some slip light	very w/c
03 40 W	+13 22	2-3	6.1	R 1 V	7-7-7	Sp Bin HD	400/140		sl wk
01 22 W	+04 42	"	5.9	K0	7-7-7	Std Vel	200/75		fine

Dome Temp. +79°F H 823

Transparency Conditions Hazy - some thin cloud

Focus 10-B

Dome Temp. 69°F H 850

Good Aurora = 2ⁿ

ing Time E.S.T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
	02 26 E	+13 22	2.3	6.1	B8IV	7-8-6	Sp Bin Hd	400/150	number broken off	
05 C	04 03 W	+27 54	2.5	8.9	F7II	7-7-7	SSV Hd	800/150	windy [* (Push) Toright of Box	
11	01 12 W	+10 30	3-6	5.1	F8	7-7-7	Std Vol Hd	200/75		
									*Please push with 34539	
14 C	01 48 W	+13 23	2.0	6.1	B8IV	7-7-7	Sp Bin Hd	400/150	shattered (not saved)	
24 I	00 48 E	+8 41	3-5	6.6	M2III	7-7-7	Wat Mag	400/300		
26 =	03 35 W	+13 23	4-7	6.1	B8IV	7-7-7	Sp Bin Hd	200/75	Super clear with fast NW cloud (very gusty) Wind looking morning Aurora pushing down cutting black clouds	

341
13 21

** New batch processed for 3415

Date July 25/20 Fri Sat

Observer Th - Gn

Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39543	HD 116656	15 ^h 19 ^m .9	+55° 27'	G12	TT15-C	9/1.9	66°	20:38	20:47	B
39543 T	Cal step wedge		180 sec		"	D19 @ 68°F	7 min	Aug 2		
39544	HD 137569	15 ^h 21 ^m .7	+15° 03'	G12	Ha-O-e	13/3		20:51	23:06	A
39544 T	Cal step wedge		70 sec		"		39543-54	D19 @ 68°F	9 min	
39545	HD 199140	20 ^h 50 ^m .1	+25° 08'	"	"	18/3		23:12	23:27.5	B
39546	"	"	"	"	"	"		23:24	23:46	A
39547	"	"	"	"	"	"		23:47	00:05	B
39548	"	"	"	"	"	"		00:07.5	00:26	A
39549	"	"	"	"	"	"		00:29	00:45.5	B
39550	"	"	"	"	"	"		00:46.5	01:02	A
39551	"	"	"	"	"	"		01:03	01:16	B
39552	"	"	"	"	"	"		01:18	01:31	A
39553	"	"	"	"	Ha-O-e	"		01:32	01:46	B
39554	"	"	"	"	"	"		01:47	02:04	A
39555	"	"	"	"	"	"		02:05	02:22	B
39555 T	Cal step wedge		40 sec		"		39555-58	D19 @ 68°F	9 min	

Dome Temp. 62°F H=827

Transparency Conditions clear

Focus 10-R

Dome Temp.

Hour	Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
03	17W		2-4"	2.27	P27	2-22-20	A 225 *	40/110	* At Far right of box	
03	36 W	+14 54	3-5'	8.10	B5W	7-7-7	Sp. B. 7-7-7	400/100	seeing improved half way through exposure	
29 July										
01	00E	+28 31	3-4"	6.27	B 3	6-6-5	BW Vul	200/40	BW Vul for Chris Mackay	
01	11E	"	4-5"	"	"	6-5-6	"	200/40	simultaneous with photometry	
00	32E	"	"	"	"	6-6-5	"	200/40	at Weston	
00	32E	"	"	"	"	6-6-5	"	200/40		
00	13E	"	"	"	"	6-6-6	"	200/40		
00	04W	"	"	"	"	6-6-6	"	200/43		
00	19W	"	"	"	"	6-7-5	"	200/41		
00	34 W	"	3-2	"	"	6-5-6	"	200/45		
00	47 W	"	3-5	"	"	6-6-7	"	200/50	} at Far right of box	
01	36 W	"	"	"	"	7-7-7	"	200/50		
01	29 W	+28 32	4-6	"	"	7-7-7	"	200/44		
29 July										

Dome Temp. 63°F H=7570

Focus 10-R

Dome Temp. 61°F H=8870

Transparency Conditions

Excellent where clear
some cloud moving in

346

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
16 00 11W	+35 49	1.0	6.83	W145 7095	7-7-7	FOI THESIS	400/230		
18 02 57W	+71 19	1.50	4.18	Ap-Si	22-22-22	Sp. Pin. Plu	40/100	clouds reversed 10/	
19 00 15W	-13 51	2-3	4.18	BBV	22-22-22	"	40/60	cloud - then clearing	
02 03 55E	+35 52	1.50	7.31	B1	7-7-7	FOI THESIS	400/130	very cloudy	

344 #1
 299

* New batch

Date July 27-28 ^{Sun/mon} Observer Line - Tr Julian Day _____

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39563	HD 199140	2050.1	+28 08	643	Ilaoe	9/1.9	73°F	21:47	22:17	A
39564	"	"	"	"	"	B/1.5		22:21	22:38	B
39565	"	"	"	"	"	"		22:39	22:51	A
39566	"	"	"	"	"	"		22:52	23:04	B
39567	"	"	"	"	"	"		23:08	23:20	A
39568	"	"	"	"	"	"		23:22	23:33	B
39569	"	"	"	"	"	"		23:35	23:45	C
39570	"	"	"	"	"	"		23:46	23:56	A
39571	"	"	"	"	"	"		23:58	00:08	B
39572	"	"	"	"	"	"		00:09	00:20	C
39573	"	"	"	"	"	"		00:22	00:33	A
39574	"	"	"	"	"	"		00:34	00:44	C
39574T	Cal stop wedge for 39563-74				"					
39575	HD 199140	20 50.1	+28 08	643	Ilaoe*	13/1.5		00:46	00:56	A
39576	"	"	"	"	"	"		01:03	01:11	B
395767	Cal stop wedge for 39575-89				"	90				

Dome Temp. 73°F H=82%

Focus 10-R

Dome Temp.

Transparency Conditions Hazy but good

348

Found G12 grating very loose ?? was it since July 16/75?
I changed it last presumably - T₂

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02 34 E	+28 31	1.4"	6.27	B3	2-2-2	CEP	400/75		Fine
02 13 E	"	2-3	"	"	2-2-2	"	400/26		"
02 00 E	"	2"	"	"	2-2-2	"	400/25		"
01 46 E	"	"	"	"	3-3	"	400/25		"
01 30 E	"	"	"	"	3-3	"	400/26		"
01 17 E	"	2.3"	"	"	4-3	"	400/25		"
01 05 E	"	"	"	"	3-3	"	400/25		"
00 54 E	"	"	"	"	4-3	"	400/26		"
00 42 E	"	"	"	"	3-3	"	400/25		"
00 30 E	"	3-4	"	"	3-3	"	400/25		"
00 17 E	+28 31	"	"	"	3-3	"	400/25		"
00 05 E	"	"	"	"	"	"	400/25		"
39563-74 T Dev Jul 30, D19 @ 68° for 9 min									
00 06 W	+28 31	2-3	6.27	B3	4-4	"	400/27		
00 25 W	"	"	"	"	4-4	"	400/27		
Aug 1 D19 @ 68°F 9 min									

349

Pg 2

Date July 27-28 Sun-Mon Observer *Lee T* Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39577	HD 199140	20 50.1	+75 08	043	Il00e*	13/5	73°F	01:13	01:21.5	C
39578	"	"	"	"	"	"	"	01:23.5	01:34	A
39579	"	"	"	"	"	"	"	01:36	01:46	B
39580	"	"	"	"	"	"	"	01:47	01:56	C
39581	"	"	"	"	"	"	"	01:57	02:08	A
39582	HD 214943	20 52.0	+39 43	512	"	13/5		02:28	02:38	C
39583	"	"	"	"	"	"		02:39	02:50	A
39584	"	"	"	"	"	"		02:51	03:00	B
39585	"	"	"	"	"	"		03:01	03:10	C
39586	"	"	"	"	"	"		03:11	03:21	A
39587	"	"	"	"	"	"		03:22	03:30	B
39588	"	"	"	"	"	"		03:31	03:40	C
39589	"	"	"	"	"	"		03:55	04:00	A
39590	"	"	"	"	"	"	"	04:01	04:09	B
39590T	Cal stop	no obj	no - 39588-90	"	"	75.00	65°F			

Dome Temp. 93° $H = 82\%$

Transparency Conditions *Excellent + Max*

350

Focus

Dome Temp. 62° $H = 92\%$

g Time S.T.	P.H.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
215	C	00 32W	128 31	2"	6.77	B3	4-4	BGP	400/27	} slit length may have slipped to 35 somewhere	
34	A	00 44W	"	"	"	"	4-4	"	400/30		
46	B	00 56W	"	"	"	"	4-4	"	400/30		
56	C	01 07W	"	"	"	"	4-4	"	400/30		
07	A	01 19W	"	"	"	"	4-4	"	400/30	** Labelled 80	
38	C	00 02W	140 10	2-4"	5.1	B27II	8-8-8	"	200/75	Labelled 81	Relabelled at other end
50	A	00 15W	"	"	"	"	8-8-8	"	200/75		
00	B	00 25W	"	"	"	"	8-8-8	"	200/80		
10	C	00 36W	"	"	"	"	8-8-8	"	200/75	Loaded into 2nd Exposure	
21	A	00 47W	"	2-3"	"	"	8-8-8	"	200/70	Box	
30	B	00 56W	"	"	"	"	8-8-8	"	200/70		
40	C	01 05W	"	1-3"	"	"	8-8-8	"	200/75		
50	A	01 24W	"	"	"	"	8-8-8	"	200/75		
09	B	01 33W	"	"	"	"	8-8-8	"	200/75		
Done July 29 1992 68°F to 9 min											

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Mon-Tues

Date July 28-29 Observer Lne - Tn Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
39591	HD 177003	18 57.4	50 23	612	Ilao-e	91.5	74°F	20:44.5	21:02	A
39591T	Co 1 step wedge		90sec		"					
39592	HD 149881	16 32.4	+14 40	"	"	131.5	"	21:14.5	21:59	B
39593	HD 189687	19 56	36 46	"	"	131.5	"	22:08.5	22:18	A
39594	HD 177003	18 57.4	50 23	"	"	131.5	"	22:29	22:38	C
39595	HD 149881	16 32.4	+14 40	"	"	131.5	"	22:50	23:48	A
39596	HD 189687	19 56	36 46	"	"	131.5	"	23:54	00:02	B
39597	HD 177003	18 57.4	50 23	"	"	131.5	"	00:06.5	00:16	C
39598	HD 214993	22 37.0	39 43	"	"	131.5	"	00:29	00:38.5	A
39599	"	"	"	"	"	"	"	00:46	00:54.5	B
39600	"	"	"	"	"	"	"	01:05	01:13.5	C
39601	"	"	"	"	"	"	"	01:22.5	01:30	C
39602	"	"	"	"	"	"	"	01:38	01:45	B
39603	"	"	"	"	"	"	"	01:46	01:53	A
39604	HD 189687	19 56	36 46	"	"	"	"	1:58	2:08	B
39605	HD 177003	18 57.4	50 23	"	"	"	"	2:13	2:23	C

Dome Temp. 72° $H=77.5\%$ Focus $10-B$

Dome Temp.

Transparency Conditions $Good \& clear \& clear$

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Comet very obvious to naked eye

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
02	01 51E	50 37	1-3"	5.37	B3V	7-7-7	β Cephei	200/70		
59	01 30W	14 37	2-4	6.59	B2V	7-7-7	"	200/70	cloud	
18	01 32E	37 05	1-3"	5.00	B3V	7-7-7	"	200/75		
38	00 15E	45 34	1-2	5.37	B3V	7-7-7	"	200/70	another plate labeled 9A (possible mixup) one blank	
48	03 20W	14 37	2-4	6.59	B2V	7-7-7	"	200/60	cloud	
02	00 10W	37 05	"	5.00	B3V	7-7-7	"	200/75		
16	01 23W	50 34	"	5.37	B3V	7-7-7	"	200/70		
78	1 55E	40 10	"	5.10	B2III	7-7-7	"	200/75		
51	1 39E	" "	"	"	"	7-7-7	"	200/70		
13	1 20E	" "	"	"	"	7-7-7	"	200/70		
20	1 04E	" "	"	"	"	7-7-7	"	200/70	maybe fogged	
45	0 48E	"	"	"	"	7-7-7	"	200/70		
53	0 40E	"	"	"	"	7-7-7	"	200/70		
08	2 16W	37 05	3-4	5.00	B3V	7-7-7	"	200/72		
23	3 31W	50 34	"	5.37	B3V	7-7-7	"	200/70		

Dome Temp. $66^{\circ}F$ H=85%

Transparency Conditions

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Focus

Dome Temp.

Exp. Time S.T.	PH.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Program	Exp. Mtr.	REMARKS	Quality
45	F	00 07W	40 10	3-4	5.10	B2 II	7-77	β Cephei	200/70		
56	B	00 23W	" "	2-3	"	"	7-77	"	200/70	thin cloud	
59	F	00 36W	" "	" "	" "	" "	7-77	" "	200/70	sketch - discarded	
22	F	00 49W	" "	" "	" "	" "	7-77	" "	200/70	cloud	
36	F	01 03W	" "	" "	" "	" "	7-77	" "	200/70		
45	F	01 17W	" "	" "	" "	" "	7-77	" "	200/70		
Short one (broken) at far left of Row #3											

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356

ading Time
E.S.T.

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Gry = Richard Gray

Fqi = Dorothy Fraquelli

Pk = Ihor Prociuk

Dmd = Gerry Diamond

But = Stuart Butter

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