

Telescope: 60" Mt. Lem

Frame prefix #: FR87G Day of Week: Sunday

RA offset:

Focus: +14

Humdty: 67 Sheet #: 1

Observers: Fink, Levy, Mienisch Date MST/UT: March 29/30

Dec offset:

Tailpiece:

Balance:

Temp O/I: 12/22 F

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 001	101-287	20	R	1800	03:02	09 56 22	-00 26 06	-01 48	24 with 15.076
✓ 002	"	"	"	2200	03:04	"	"	-01 46	
✓ 003	G162-66	30	"	1300	03:19	10:32:18	-11 36 34	-02:08	1.12 10, 30, 40
✓ 004	"	"	"	1600	03:24	"	"	—	277 622 144
✓ 005	Hally	300	"	700	3 41 55	232	553	01:19 07	259 471 4585
✓ 006	P/Halley	600	R	12800	3 55 49	10:05:58	-10:14:57	-01 05	509 511 9154 2800
✓ 007	"	"	"	13800	4 19 04	412	424	00 41	510 448 9306
✓ 008	"	"	"	13182	4 32 20	408	432	-00:28	486 635 9261
✓ 009	"	"	"	12600	4 45 34	414	402	-00:25	388 959 9125
010					500 53			100 00	
✓ 010				12800	05 09 38	10:05:18 415	-10:14:32 455	00:09	430 812 9066
✓ 011	G 102-66	300	R	14436	05 37 02	426	497	00 09	286 724 14436
✓ 012	"	"	"	12832	5 44 35	436	419	00 17	279291 1415 took out TV tracking note
✓ 013	P/Halley	600	R	13080	5 53 55	394	469	00 53	478 509 9472
✓ 014	"			12660	6 06 28	402	483	01 05	391 901 9651

Telescope: 60" NASA

Frame prefix #: FR87G Day of Week: Sunday

RA offset:

Focus:

Humdty:

Sheet #: 2

Observers: Fink, Levy, Wasn. Date MST/UT: 3/29-30

Dec offset:

Tailpiece:

Balance:

Temp O/I: 9/19

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 015	P11ta1ley	600	R	1300	6 19 33	400	443	0119	check rate to 0.05 439740 9823
✓ 016	"	"	"	1300	6 32 45	402	503	0132	took 5 with at again 458999 9967
✓ 017	"	600	"	1340	6 47 13	398	517	0147	0.015N 481643 10218
✓ 018	"	"	"	1352	6 59 36	394	527	0159	431221 10304
✓ 019	"			1400	7 11 45	392	533	02 11	0.035N 432435 10498
✓ 020	"			1370	7 25 18	388	531	02 25	0.055N 424473 10964
✓ 021	"			14740	7 38 03	390	521	02 37	0.050N 406540 11552
✓ 022	"			14180	7 50 10	402	512	02 50	425112 12129
✓ 023	G102-06	30	"	1000	8:16 37	327	445	2:43 02:39	needed to give N & E 275423 1591
✓ "	"	"	"	1270	8:14	329	445	2:46	273513 1594
✓ 025	Doob				8:08 19 01				1023
✓ 026	"				08 20 10				1035
✓ 027	FF	3.0		17732	83915	1343038	-11 34 16	+0.04	too small (256x256) done
✓ 028	"	"		17847	83955				" "
✓ 029	"	"		17758	84050				" "

Telescope:

60" HAZI

Frame prefix #: FR876

Day of Week:

Week

RA offset:

Focus: 4 2

Humdty:

Sheet #: 4

Observers: Lory, W. S. M. H.

Date MST/UT:

Jan 30/71

Dec offset:

Tailpiece:

Balance:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set Y	Dec set X	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 038	W1-281	1.0	R	19320	02:36			02:18	15.076
✓ 039	"	0.5	"	19476	02:45			02:02	
✓ 040	"	0.5	"	15028	02:46			02:00	110312 927
✓ 041	Halley	600	"	12466	03:12:50			1:43	124 447 138 978
✓ 042	"	"	"		03:29:03	340	415	1:28	15.088 ⁵⁵¹⁰⁷⁶ 984
✓ 043	"	"	"	13454	03:44:14	10 05 27 923	10 08 03 424	1:12	15.088 15.552475 8805
✓ 044	6162-66	10	"	11368	4:16	103310	-113634	01:08	93345 1066
✓ 045	"	14	"	13608	4:18			-1:05	130517 1120
✓ 046	101-057	11 ^s	"	8240	4:55			0:02	59531 943
✓ 47	"	2 ^s	"	14556	4:57	9 57 33	-00 57 30		119190 955
✓ 48	Halley	600	"	13044	5:03:55	5		0:07	508461 894
✓ 49	"	600	"	12960	5:19:53	361	412	0:24	499736 918
✓ 50	"	600	"	12700	5:33:31	361	422	0:37	496815 908
✓ 51	"	600	"	12708	5:47:31	359	433	0:51	467192 912
✓ 52	"	600	"	14172	5:02:48	354	441	1:06	15.032 570711 917

Telescope: 60" NASA

Frame prefix #: FR976 Day of Week: MONDAY RA offset:

Focus:

Humdty:

Sheet #: 5

Observers: Gwy, Wisah

Date MST/UT: 87-10-31 Dec offset:

Tailpiece:

Balance:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set Y	Dec set X	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
.030 ✓ 053	Halley	600	R	13560	6:17:06	344	441	1:21	15.091 535445 922
.030 ✓ 054	"	600	R	13327	6:31:09	344	434	1:35	15.096 527469 911
Loss → .050 ✓ 055	"	600	R	15504	6:54:50	358	430	1:58	15.096 498552 985
.020 ✓ 056	"	600	R	14667	7:00:31	359	429	2:12	15.100 496496 985
.020 ✓ 057	"	600	L	15477	7:26:38	372	440		15.100 49643 10411
.035 ✓ 058	"	600	"	15276	7:48:37	397	441	2:52	15.092 Bad track 389461 11712
✓ 059	G162-66	30	"	400	8:11			2:47	should be 15.074 Bad seeing
✓ 060	"	30	"	21292	8:22			2:57	
✓ 061	Dank	15	"	931					931
✓ 062	"	15	"	919					
✓ 063	"	15	"	931					

Telescope: 60

Frame prefix #:

Day of Week: Tues

RA offset:

Focus: -2

Humdty:

Sheet #: 6

Observers:

Date MST/UT: 11-31/10-1

Dec offset:

Tailpiece:

Temp O/I:

Balance:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set Y	Dec set X	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 064	Dank.	1 ^s		848					
✓ 065	"	1		867					
✓ 066	101-281	1 ^s	R	12316	02:31	9:56:28	-0:26:40	-2:12	15.076 213649 722
✓ 067	"	1.5	R	22580	02:34			-2:09	
✓ 068	101-057	2 ^s	R	7604	02:49	9:57:30	-00:57:07	-2:00	109405 889
✓ 069	"	4 ^s	R	18444	02:47			-1:57	218918 917
✓ 070	G162-66	20	"	12164	02:56			-2:23	182469 1176
✓ 071	"	30	"	17180	02:58	10 33 08	-11 36 30	-2:22	272641 1326
035N ✓ 072	Hadley	300	"	7201	03:05:56			-1:46	15.003 229750 51574
035N ✓ 073	"	600	"		03:31:40	389	417	-1:20	576384 ^{elongat.} 919
010 ✓ 074	"	600	"	13818	03:49:20	383	404	-1:02	15.089 599798 8967
010 ✓ 075	"	600	"	13216	4:03:01	381	412	-0:49	15.089 481616 893
010 ✓ 076	"	600	"	13727	4:09:48	377	419	-0:31	15.090 466598 8997
023 ✓ 077	"	600	"	14416	4:36:07	366	418	-0:15	15.093 490567 8947
023 ✓ 078	"	600	"	14380	4:50:50	10 04 40 363	-10 00 02 415	-0:00	15.093 494243 8977

Hand
Camek

Telescope: 60"

to find Halley +2.5 +1'30"

Frame prefix #: FR876

Day of Week: Thu

RA offset:

Focus: 0-0

Humdty:

Sheet #: 8

Observers:

Date MST/UT: 87-10-12

Dec offset:

Tailpiece:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 082	Dark	1 ^s	R	826	2:08				
✓ 083	"	1 ^s	"	851	2:10				
Filter ✓ 084	FF	1 ^s	"	11736	2:11				}
is ✓ 085	FF	2 ^s	"	17084	2:12				
R. ✓ 086	FF	2 ^s	"	13312	2:13				
Header ✓ 087	101-281	1 ^s	"	11772	2:37	9:56:29	-00:26:38	-2:02	15.076
says ✓ 088	"	1.5	"	22372	2:40			-1:59	322563 926
"V" ✓ 089	101-057	3	"	10413	2:50	9:57:36	-00:57:10	-1:57	
by mistake ✓ 090	"	5	"	16988	2:51			-1:50	286815 954
✓ 091	E162-66	40 ^s	"	20592	2:56	10:33:08	-11:36:30	-2:20	369974 1563
✓ 092	"	40	"	22756	2:59			-2:17	372826 6544
obj ✓ 093	Halley	600	"	13900	3:11:05	10 03 56 352	-09 53 29 406	-1:36	15.089 555 235 9800
is ✓ 094	"	600	"	1384	3:25:56	397	413	-1:21	15.089 340069 10432
Halley ✓ 095	"	600	✓	15690	3:40:55	392	416	-1:06	15.089
022 ✓ 096	"	600	R		4:02:32			-0:44	15.091 together with star

Telescope: 60"

Frame prefix #: FR876

Day of Week: Wed

RA offset:

Focus: +0.00/ Humdty:

Sheet #: 9

Observers:

Date MST/UT: 87-10-1/2

Dec offset:

Tailpiece:

Balance:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set Y	Dec set X	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ .022 097	Halley	600	R		4:16:07			-0:30	15.091 elongated image
✓ .022 098	"	600	"	14036	4:29:12	412	406	-0:17	15.091 554981 9415
✓ .022 099	"	600	"	13064	4:45:40	422	404	-0:01	447210 9441
✓ .020 100	"	600	"	14445	5:01:47	427	402	+0:14	15.087 468435 9436
✓ 101	G-162-66	30	"	19944	5:30			0:48	15.076 286800 1297
✓ 102	"	30	"	22616	5:34			0:18	200946 1294
✓ .020 103	Halley	600	"		5:41:41			0:56	15.097 elongated
✓ .020 104	"	600	"	14690	5:57:31	386	434	0:10	15.092 9403 444574 nice image
✓ .020 105	"	600	"	12176	6:11:52	396	438	1:25	15.094 425701 9585
✓ .025 106	"	600	"	14632	6:27:48	407	440	1:41	15.091 460134 9927
✓ .027 107	"	600	"	137770	6:42:20	420	439	1:55	15.090 445770 10184
✓ .027 108	"	600	"	14804	6:56:54	423	438	2:10	15.090 447427 10557
✓ .030 109	"	600	"	14114	7:11:21	414	434	2:24	15.090 elongated 378480 11016
✓ .030 110	"	600	"	14049	7:26:05	425	431	2:39	15.090 41063 11338
✓ .027 111	"	600	"	16277	7:39:37	442	429	2:53	15.083 420901 11574

Telescope: 60"

Frame prefix #: FR876 Day of Week: S

RA offset:

Focus: +004 Humdty:

Sheet #: 11

Observers: Long/Wisalia Date MST/UT: 87 Apr 5/6

Dec offset: X

Tailpiece:

Balance: Y Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 123	Dank.	1 ^s		915					
✓ 124	"	1 ^s		905					
✓ 125	Hally.	600 ^s	R	18916	3:18:27	10 01 13 407	-09 24 55 379	-1:10	circus clouds possibly fog
✓ 126	"	600	R	18104	3:37:39	416	363	-0:51	421709 1422.4
.015 ✓ 127	"	600	R	18791	3:55:04	424	362	-0:33	15.090 450198 14913
.020 ✓ 128	"	600	R	19052	4:09:55	426	381	-0:18	15.090 393001 14649
.020 ✓ 129	"	600	R	18902	4:22:50	426	381	-0:05	395015 14822
✓ 130	G 162-66	20 ^s	R	18932	4:43			-0:17	175480 1301
✓ 131	"	20 ^s	R	16840	4:45			-0:15	circus: north west south clear
.020 ✓ 132	Hally	600	R	19216	4:53:14	465	376	+0:24	15.090 439603 14561
✓ 133	101-284	1 ^s	R	20968	5:09			0:45	199624 977
✓ 134	"	1 ^s	R	11886	5:14	09 56 33	-00 25 40	0:51	197501 976
✓ 135	101-057	4 ^s	R	20366	5:19			0:54	220170 1041
✓ 136	"	3 ^s	R	16998	5:21			0:56	163507 1021
.020 ✓ 137	Hally	600	R	18904	5:30:07	466	333	+1:06	15.090 500232 14894

Night 50%

Telescope: 60

Moon bright, close to comet

Frame prefix #: FR87G Day of Week: Tues

RA offset:

Focus: 10.002 Humdty:

Sheet #: 14

Observers: LEVY

Date MST/UT: Apr 7/8

Dec offset: Y

Tailpiece:

Balance:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 152	DARK	1		973	02 32 23				
✓ 153	"	1		979	02 33 56				
✓ 154	101-281	1.0	R	20036	02 27 04				194343 1007 Seeing poor
✓ 155	"	"	R	20520	3 29 29	9 56 31	00 26 38	00 46	189 019 1006
✓ 156	101-057			10192	3 38 22				163017 1149
✓ 157	101-057			15588	3 40 55	09 57 32	-00 57 10	00 36	156081 1130
✓ 158	P/Halley	360	R	21768	4 59 08	09 59 53	-09 10 47	00 40	10 min saturates field. 82502 18963
✓ 159	"	"	"	22176	5 13 28	9 59 52	-09 10 21	00 53	
✓ 160	"	"	"		5 26 19	10 00 00	-09 10 21	01 07	
✓ 161	"	180	R	11468	5 42 54	9 59 52	-09 10 21	01 24	10000 b kgd! 113084 10622
✓ 162	"	180		11234	5 49 29	450	497	01 30	121647 10434
✓ 163	G162-66	300	R	11648	6 16 15			1 24	251587 2369
✓ 164	"	"	R	13784	6 19			1 27	256138 2370
✓ 165	P/Halley	180		12229	6 22 42	468	533	2 14	73306 11174
✓ 166	"	180			7 06 12			2 47	

Name wrong on tape

Telescope: 60"

Frame prefix #: FR87G Day of Week: FRI

RA offset:

Focus: -0006

Humdty:

Sheet #: 18

Observers: LEVY, WISNE Date MST/UT: 17/18

Dec offset:

Tailpiece:

Balance:

Temp O/I:

X Y

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 195	DARK	1		861	0149				
✓ 196	"	1		839					
✓ 197	FF	0.5		11724	0217				TWT
✓ 198	"	1.0		11059	0218				"
✓ 199	"	3.0		23150	219				"
✓ 200	"	3.0		17130	221				"
✓ 201	G-162-66	20"	R		3:09			-1:04	circus cracked
✓ 202	"	40"	R	16372	3:14	10:33:10	-11 36:30	-0:59	"
.010 ✓ 203	P/Hobby	600"	R		3:21:58			-0:12	15.089
✓ 204	"	360	R		3:53:38			+0:18	circus cracked
✓ 205	"	360	R	9040	4:06:43	435	324	+0:32	
.010 ✓ 206	"	600"	R		4:16:57	441	331	+0:42	15.089
.015 ✓ 207	"	600	R		4:39:20	447	329	+1:04	15.086 cracked
.010 ✓ 208	"	600	R		4:54:48	449	322	+1:20	15.086 cracked
.020 ✓ 209	"	600	R	1473	5:12:57	448 9:54:39	317 -8:05:24	+1:38	15.088

WRONG LABEL "FF"

Telescope: 60"

Frame prefix #: FR876

Day of Week: S

RA offset:

Focus: 0

Humdy:

Sheet #: 20

Observers:

Date MST/UT: 8/4m 19/20

Dec offset:

Tailpiece:

Temp O/I:

Y

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 218	Flab	120 ^s	R	6000					5 kg FF cloudy
✓ 219	G-162-66	20 ^s	R	14326	3:16	417	341	0:49	clearing.
✓ 220	"	20 ^s	R	13746	3:19			0:46	
100 ✓ 221	Halley	600	R		3:42:01	489 09 5342	343 -07 5311	+00:06	15.093
100 ✓ 222	"	"	"	11210	3:56:31	457	346	00:30	15.085 100092 9705
200 ✓ 223	"	600	"		4:11:49	457 transient	349	00:46	15.084 clear moonhead ↑ clouds S and N ↑ treated
✓ 224	Dank	15	"	915					
✓ 225	"	15	"	909					
200 ✓ 226	Halley	600 ^s	"	13104	4:27:11	455	360	01:01	15.084 255289 9099
✓ 227	"	600	"	12650	4:41:20	454	361	01:15	15.084 333083 9597
✓ 228	"	600	"	12724	4:54:56	453	365	1:29	15.084 354515 9709
✓ 229	Dank	15	"	923					
✓ 230	G-162-66	20 ^s	R	19352	5:29	429	333	1:26	15.084 175269 1232
✓ 231	"	20 ^s	R	19100	5:36	429	333	1:31	176911 1233
✓ 232	Dank	15							

not possible to say if photometric?

Telescope: 60"

Frame prefix #: FR 876

Day of Week: S

RA offset:

Focus: 10

Humdty:

Sheet #: 21

Observers: Levy/W&M

Date MST/UT: 87/Apr 19/20

Dec offset:

Tailpiece:

Temp O/I:

✓ .20

✓ .20

✓ .20

✓ .25

✓

✓ .10

✓

✓

✓ .20

✓ .20

✓ .25

✓

✓

✓

✓

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
233	P/Hally	600	R	13824	5:44:10	494	332	2:18	15.084 360867 10328
234	"	600	R	17592	5:58:19	445	344	2:32	15.084 340640 10914
235	"	600	R		6:11:22	458	365	2:45	15.084
236	"	600	R	15200	6:26:40	453	371	3:01	15.079 330019 12050
237	G162-66	20	R	12312	6:43	458	293	2:30	15.075
238	"	25	R	17268	6:47	462	332	2:42	15 215276 1408
239	"	25	R	18076	7:07	475	341	3:01	15.070 207594 1441
240	"	25	R	18580	7:10	476	345	3:05	15.070 207458 1445
241	"	25	R	13080	7:24	481	349	3:19	15.070
242	"	25	R	14790	7:26	482	350	3:22	15.070
243	"	25	R	16344	7:36	485	357	3:31	15.068
244	Dark	1		947					
245	Dark	1		967					
246	FF	3		18658					2 done FF
247	FF	2.5		15692					

248

Telescope: 60

Frame prefix #: FR876 Day of Week: *Wed*

RA offset:

Focus: *00/*

Humdty:

Sheet #: *22*

Observers: *Long/Wisnuk*

Date MST/UT: *07 Apr 22/23*

Dec offset:

Tailpiece:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 248	<i>Dark</i>	<i>1.5</i>	<i>R</i>	<i>958</i>					every sky <i>FF</i>
✓ 249	<i>"</i>	<i>1.5</i>		<i>880</i>					
✓ 250	<i>FF</i>	<i>2.5</i>		<i>8096</i>					
✓ 251	<i>FF</i>	<i>1.5</i>	<i>R</i>	<i>8096</i>					} <i>every sky FF</i>
✓ 252	<i>FF</i>	<i>2.5</i>	<i>R</i>	<i>11052</i>					
✓ 253	<i>FF</i>	<i>4.5</i>	<i>R</i>	<i>13954</i>					
✓ 254	<i>101-281</i>	<i>1.5</i>	<i>R</i>	<i>22612</i>	<i>3:00</i>			<i>-0:10</i>	
✓ 255	<i>"</i>	<i>0.5</i>	<i>R</i>	<i>11796</i>	<i>3:08</i>			<i>-0:08</i>	
✓ 256	<i>101-057</i>	<i>1.5</i>	<i>R</i>	<i>7486</i>	<i>3:11</i>			<i>-0:08</i>	
✓ 257	<i>"</i>	<i>2.5</i>	<i>R</i>	<i>15620</i>	<i>3:12</i>			<i>-0:09</i>	
✓ 258	<i>G162-66</i>	<i>1.5</i>	<i>R</i>	<i>13910</i>	<i>7:15</i>	<i>10 3316</i>	<i>-11 3653</i>	<i>-0:37</i>	
✓ 259	<i>"</i>	<i>1.7</i>	<i>R</i>	<i>18598</i>	<i>3:18</i>			<i>-0:34</i>	<i>524256 1160</i>
✓ 260	<i>9/Halley</i>	<i>600</i>	<i>R</i>		<i>3:24:48</i>			<i>+0:11</i>	
✓ 261	<i>"</i>	<i>600</i>	<i>R</i>		<i>3:44:52</i>			<i>0:31</i>	
✓ 262	<i>G162-66</i>	<i>1.75</i>	<i>R</i>						

Telescope: 60

Frame prefix #: FR8 TG Day of Week: W

RA offset:

Focus: 001

Humdty:

Sheet #: 23

Observers: Long/Wink

Date MST/UT: 87-Apr 22/29

Dec offset: Y

Tailpiece:

Temp O/I:

Balance: X

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 263	DARK	1		291	04:13				
✓ 264	P/Haley	600	R		04:16:28			01:03	
✓ 265	"	350	R		5:04:28			1:51	350 4 464 699
✓ 266	"	350 ^s	R	17712	5:14:19	335	460	2:01	
✓ 267	"	350	R	18605	5:28:12	343	437	2:15	3729062 7690
✓ 268	"	600	B	6204	5:39:52	341	441	2:26	
✓ 269	"	350	R	18360	5:57:19	350	442	2:44	
✓ 270	"	350	V	9888 60551	6:05:51	353	449	2:53	
✓ 271	DARK	15	R	883					
✓ 272	P/Haley	350	R	18546	6:15:20	355	448	3:02	clouds SW
✓ 273	DARK	15		891					
✓ 274	P/Haley	900	R		6:26:11			3:13	
✓ 275	G162-66	25 ^s	R	13226	6:52	354	449	2:59	
✓ 276	"	25 ^s	R	16212	6:56			3:02	
✓ 277	WILDA 3	900	R		7:28:04				

Telescope: 60"

Frame prefix #: FR876

Day of Week: TH

RA offset:

Focus: \rightarrow

Humdty:

Sheet #: 25

Observers: Long/Wisn

Date MST/UT: 87-Apr 29/24

Dec offset:

Tailpiece:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 288	FF	5 ^s	R	16298					evening sky.
✓ 289	"	7 ^s	R	16790					
✓ 290	"	10 ^s	V	17576					
✓ 291	"	12 ^s	V	14948					
✓ 292	"	20 ^s	B	15772					
✓ 293	"	20 ^s	B	11476					
✓ 294	"	50	I	15950					
✓ 295	"	60	I	14645					
✓ 296	101-291	0 ^s .5	R	13332	2:52			-0:21	
✓ 297	"	0 ^s .7	R	17796	2:54	09 56 37	-00 26 00	-0:15	
✓ 298	101-057	2 ^s	R	14926	3:02			-0:12	
✓ 299	"	2 ^s	R	14258	3:04	09 57 37 437	-00 57 12 346	-0:10	
✓ 300	"	2 ^s	V	14412	3:10	440	331	-0:03	
✓ 301	"	2 ^s	V	14102	3:12			-0:01	
✓ 302	"	8 ^s	B	18720	3:13			0:00	

Telescope: 60"

Frame prefix #: FR076

Day of Week: Th

RA offset:

Focus:

Humdty:

Sheet #: 26

Observers: Lem/Wis

Date MST/UT: 07-Apr 27/24

Dec offset:

Tailpiece:

Balance:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 303	101-057	8 ^s	B	14692	3:15			.02	
✓ 304	"	4	T	16076	3:18	432	327	10:04	
✓ 305	"	4	T	16662	3:23	439	330	10:09	
✓ 306	G 162-66	16	R	14711	3:30			-0:19	
✓ 307	"	18 ^s	R	15904	3:34	437	311	-0:15	
✓ 308	P/Hall	350 ^s	R		3:42:45	445	325	00:34	
✓ 309	DARK			848					
✓ 310	P/HALLEY	450 ^s	R	16282	3:58:10	450	323	00:49	
✓ 311	"	600	I		4:13:03			1:23	
✓ 312	"	600	T		4:52:20	14			
✓ 313	"	600	R	21033	5:11:20			2:03	
✓ 314	"	400	V		5:40:04			2:31	
✓ 315	"	400	V	16200	5:51:10	472	303	2:43	
✓ 316	"	350	R	13078	6:04:04	457	325	2:55	
✓ 317	DARK			867	6:12:00				
✓ 318	P/HALLEY	400	R	14816	6:13:44	462	326	3:05	

303-318
P/HALLEY

-005

Telescope: 60"

Frame prefix #: FR87G Day of Week: TR

RA offset:

Focus: -0005

Humdty:

Sheet #: 27

Observers: LEVY

Date MST/UT: 87 Apr 23/24

Dec offset: Y

Tailpiece:

Temp O/I:

Balance: X

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 319	P1 Halley	200	B	7531	6 25 18	8 37	470	03 17	
✓ 320	"	400	R	15978	6 45 19	355	475	03 37	
✓ 321	Q162-66	25	R	1306	7 00 47	374	439	03 11	
✓ 322	"	35	R	1696	7 05	348	438	03 15	
✓ 323	DARK	1		877	7 07				
✓ 324	FF	2	R	18396	7 13				} Dome FF
✓ 325	"	1.5	R	13520	7 14				
✓ 326	"	2.5	V	13610	7 26				
✓ 327	"	2.5	V	13346	7 27				
✓ 328	"	0.75	L	18439	7 53				
✓ 329	"	0.65	I	16040	7 55				
✓ 330	"	2.5	R	15774	8 03				
✓ 331	"	2.5	B	15590	8 04				
✓ 332	"	12000	R	13400	8 22 59				Sky field
✓ 333	DARK	1		859	8 50				

Telescope: 60"

Frame prefix #: FR876

Day of Week: Fw

RA offset:

-005

Focus:

Humdty:

Sheet #:

Observers: Lemj/Wigmb.

Date MST/UT: 87 Apr 24/28

Dec offset:

Tailpiece:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 334	FF	3 ^s	R	16202					
✓ 335	"	20 ^s	R	15021					
✓ 336	Dunk	1 ^s		829					
✓ 337	"	1 ^s		843					
✓ 338	Dunk 2	1 ^s		847.					
✓ 339	101-281	0.7	R	"	2:49			-0:20	
✓ 340	"	0.7	R	14004	2:57	09 56 37	-00 26 02	-0:18	
✓ 341	101-057	2 ^s	R	9182	3:03	437	334	-0:07	
✓ 342	"	3.5	R	16046	3:04	09 57 37	-00 27 02	-0:05	
✓ 343	G-162-16	25	R		3:10	413	335	-0:33	
✓ 344	"	25 ^s	R	19052	3:15	10 53 16	-11 36 51	-0:30	
✓ 345	P/Halley	600	R	17216	3:22:00	305	445	0:17	background 10500
✓ 346	"	600	R	18487	3:37:26	325	444	0:33	
✓ 347	"	600	R	18228	3:50:58	322	445	0:46	10733

Sk suddenly clouded over, rain, but all previous images are photometric!!

Telescope: 60"

Frame prefix #: ~~FR~~876

Day of Week: TH

RA offset:

Focus:

Humdty:

Sheet #: 31

Observers: *Gary/Wick*

Date MST/UT: 87-Apr 30/1

Dec offset:

Tailpiece:

Temp O/I:

-005

X

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 361	FF	1 ^s	R	18012					
✓ 362	"	4	R	16647					
✓ 363	Dark	15							
✓ 364	4	15		824					
✓ 365	Dark 2	15		843					
✓ 366	101-28i	0.7	R	14016	2:48	330	440	+0:03	sun do
✓ 367	"	15	R	12850	2:54	09 56 37 326	-00 26 46 487	0:08	clouds use not
✓ 368	"	15	R		2:57			0:11	clouds
✓ 369	P(Heyden)	600	R	14218	3:06 48	305	472	0:28	traced
✓ 370	"	600	R	14906	3:22 25	348	436	0:43	between clouds
✓ 371	"	600	R	16064	3:47:10	335	439	1:09	clouds contamination possible
✓ 372	"	600	R	11692 15 408	4:09 37	09 49 34	-06 54 39	1:30	clear
✓ 373	G-162-16	25 ^s	R	11838	4:29			1:07	clear
✓ 374	"	35	R	14254	4:32	340	437	1:09	
✓ 375		150	VR	19456	4:46			1:23	

Telescope: 60"

Frame prefix #: FR879

Day of Week: 59

RA offset:

001

Focus:

Humdty:

Sheet #: 34

Observers: Long/Wismeh

Date MST/UT: 87 Aug 2/3

Dec offset: Y X

Tailpiece:

Balance:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 382	FF	15	R	1841					
✓ 384	"	25	R	19912					
✓ 385	"	25	VR	18916					
✓ 388	"	35	VR	18541					
✓ 387	DARK	15		860					
✓ 388	DARK	15		863					
✓ 389	DARK	15		883					
✓ 390	P/Hally	240	R	11220	3:51:17	312	452	1:00	circus saturated with 600's
✓ 391	DARK	360	R	919					
✓ 392	P/Hally	300	R		4:06:59			1:38	circus saturated, bad
✓ 398	DARK	15							
393	P/Hally	180			4:45:39			2:15	

Telescope: 60⁹

Frame prefix #: FR076 Day of Week: 5

RA offset:

Focus: -002 Humdty:

Sheet #: 35

Observers: Log/Wisid Date MST/UT: 8 July 3/4

Dec offset: Y X

Tailpiece:

Balance: Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 393	FF	75	R	15244] sky evening
✓ 394	"	125	R	16962					
✓ 395	Dank	15		867					
✓ 396	"	15		867					
✓ 397	Dank 2	15		863					
✓ 399	101-281	0.6	R	14132	2:53	9 56 37	-00 26 52	0:19	398 was dank on previous night
✓ 400	"	0.7	R	17260	2:58			0:24	
✓ 401	101-057	2.8	R	13724	3:07	9 57 37.5 324	-00 57 21 427	0:34	
✓ 402	"	3.0	R	13454	3:10			0:36	
✓ 403	"	3.4	R	20740	3:12			0:37	
✓ 404	G162-66	25	R	18484	3:20			0:40	
✓ 405	"	25	R	16128	3:24	10 33 17	-11 36 50	0:13	
✓ 406	P (Halley)	500	R	(11600) 14941	3:34.5	308	471	1:00	clear!
✓ 407	"	600	R	17753	3:48	321	427	1:21	"
✓ 408	"	600	R	(15000) 18912	4:00.38	335	431	1:35	"

Telescope: 60"

Frame prefix #: FR876 Day of Week: S

RA offset:

Focus: 002

Humdty:

Sheet #: 3.6

Observers: Leo/Wisn. Date MST/UT: 87 day 3/4

Dec offset: Y X

Tailpiece:

Balance:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 409	P/Hally	600	R	19118	4:16:41	344	432	1:50	
✓ 410	"	500	R	20640	4:29:50	330	432	2:03	
✓ 411	"	900	VR	15664	4:57:11	329	434	2:24	
✓ 412	"	500	R	18052	5:24:06	329	440	2:57	tracked
✓ 413	G-162-16	35 ^s	R	18340	5:52	326	430	2:42	
✓ 414	"	35 ^s	R	18644	5:54	324	431	2:44	
✓ 415	Dank	1 ^s		897					
✓ 416	"	1 ^s		903					
✓ 417	G-162-16	35 ^s	R	18404	6:09			2:59	
✓ 418	"		R	19796	6:14			3:04	
✓ 419	"	13 ^s	VR	17516	6:18			3:08	
✓ 420	"	35 ^s	R	18100	6:20	335	431	3:10	
✓ 421	"	35 ^s	R	16909	6:25	342	432	3:15	
✓ 422	"	35 ^s	R	18332	6:30	342	433	3:20	
✓ 423	"	35 ^s	R	16160	6:35			3:25	

Telescope: 60

Frame prefix #: FR876

Day of Week: M

RA offset:

Focus: -005

Humdty:

Sheet #: 30

Observers: Lery/Wisnuk

Date MST/UT: 8/1 day 4/5

Dec offset: Y

Tailpiece:

Balance: X

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 431	FF	15 ^s	R	16620					clean sky
✓ 432	FF	20	R	16962					every sky FF
✓ 433	FF	30	V	16204					mirrored setting
✓ 434	FF	40	V	16926					by W. W. mistake 4/5
✓ 435	Dank	10		843					
✓ 436	"	15		865					
✓ 437	Dank 2	15		823					
✓ 438	101-281	0.6	R	6	3:25			0:55	
✓ 439	"	1 ^s	R	18068	3:28			0:58	
✓ 440	P/Halley	400	R	14326	3:32:57	319	479	1:11	bk 12500
✓ 441	"	400	R	14391	3:43:44	09 49 03 313	-06 31 08 434	1:21	
✓ 442	G162-66	25 ^s	R	15244	4:02	10 33 12 328	-11 36 53 435	0:55	
✓ 443	"	25	R	15080	4:04			0:57	
✓ 444	P/Halley	500	R	15700 18568	4:09:12	295	430	1:47	
✓ 445	"	500	R	18984	4:21:46	315	457	1:59	

Telescope: 60

Frame prefix #: FR876

Day of Week: M

RA offset:

Focus: 005

Humdty:

Sheet #: 39

Observers: Lem/W. Gunt

Date MST/UT: 87 May 4/5

Dec offset: Y X

Tailpiece:

Balance:

Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 446	P/Haly	450	R	18658	4:37:00	345	434	2:14	telescope is not printing well
✓ 447	P/Haly	400	R	¹⁵⁰⁰ 17100	4:47:53	357	434	2:26	
✓ 448	"	400	R	¹⁶⁰⁰ 17516	5:09:54	336	437	2:47	
✓ 449	"	400	R	¹⁶³⁰⁰ 18421	5:18:48	343	440	2:56	
✓ 450	Dark	1"		867					
✓ 451	"	1"		875					
✓ 452	G-162-66	30 ^s	R	17924	5:39	338	443	2:33	
✓ 453	"	30 ^s	R	¹⁹⁶⁰ 17980	5:41			2:36	
✓ 454	MK421	40 ^s	V	107296	6:27	337	431	2:45	
✓ 455	"	40 ^s	V	17444	6:23	330	431	2:47	
✓ 456	"	300 ^s	V		6:25			2:49	
✓ 457	BLANK F	600 ^s	R	8320	6:41	13 06 21	+29 3850	1:02	
✓ 458	"	600	R	8471	6:54			1:56	
✓ 459	SAD 67657	0.16	V	19266	7:28				mid 0.16 but it probably rounded
✓ 460	"	0.16	V	11278					

Telescope: 60"

Frame prefix #: FR976 Day of Week: M

RA offset:

Focus: -003

Humdty:

Sheet #: 40

Observers: Levy/Wisniewski Date MST/UT: 87 days 4/5

Dec offset:

Tailpiece:

Temp O/I:

Balance: ✓

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 461	MK 501	30 ^s	V	13532		314	516		
✓ 462	"	40 ^s	V	16824	7:42			-1:43	
✓ 463	"	300 ^s	V	247	7:44			-1:41	
✓ 464	DARK	1		899	7:52				
✓ 465	DARK	1		8	7:53				
✓ 466	FF	3	(R)	16876	12:05				morning tut in R
✓ 467	FF	1	(R)	11765	12:08				" "
✓ 468	FF	1	(R)	16598	12:10				" best one "
✓ 469	DARK	1		821	12:14				
✓ 470	DARK 2	1		855	12:15				

Record says
✓ really is
best
→

Telescope: 60" -005
 Frame prefix #: FR076 Day of Week: FR RA offset: Focus: Humdty: Sheet #: 41
 Observers: VICKLEN Date MST/UT: 8/14/99 Dec offset: Balance: Temp O/I:

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
✓ 471	FF	5 ^s	R	18932					Electron clouds
✓ 472	"	10	R	18648					clouds
✓ 473	Dank	15		835					
✓ 474	"	15							
✓ 475	D/H/4	100 ^s	R						} scattered clouds
✓ 476	"	100 ^s	R		4:00:24				
✓ 477	"	120	R		4:17:03			2:11	
✓ 478	"	120	R		4:27:14				} between clouds?
✓ 479	"	120	R		4:35:08				} clear? but color
12 ✓ 480	"	120	R		4:44:24			2:39	Emu 236 in ER
02 ✓ 481	"	120	R	18196	4:58:03			2:52	
07 ✓ 482	"	120	R	18446	5:08:56			3:03	
02 ✓ 483	G-162-66	25 ^s	R	14338	5:14			2:24	
09 ✓ 484	"	30 ^s	R	13243	5:18			2:28	clouds again?
15 ✓ 485	Dank	15		879					

Please stamp it on paper