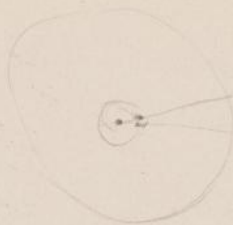


KG
11366
399

Fundamental Stars
Circle Readings
Dec 1879
From Dec 16/1879 to Jan. 1/1880

A24



1879 Dec. 16-17

Sun. C=46723

7 40 10

-23 23

m

m

30 3 38.9 5 1 46.4

500 58.0

563 4.8

43.0 52.0

1882 2212

47.05 55.30

B. Arctus

1 47 57

+20 13

m m R R m

15 0 15.2 ~~12.2~~ 22.2 22.1 21.9

22.9 29.0 29.2 29.1 28.6

28.2 ~~31.0~~ 34.2 33.8 34.0

19.8 24.9 24.7 25.0 24.1

53 1100 303 300 1086

21.32 27.50 27.58 27.50 27.15

27.32 27.54

A6+c for 1st limb in R.A.

B. 6.00 Min. L. 6.0

14 51 5

+105 20

m m

5 4 47.9 34.6

52.0 39.1

52.2 39.3

46.3 33.1

1984 261

49.60 36.52

L. beta

2 55 57

+3 37

m m R R W

50 1 7.1 2 11.2 11.1 11.0 10.8

16.1 20.2 21.1 21.1 21.1

19.6 23.6 23.8 23.7 23.0

10.1 14.1 13.9 14.0 13.1

52.9 691 699 698 670

13.22 17.28 17.48 17.45 16.75

17.02 17.46

*L Arietis*2 0 21
+22 53

	M	~~M~~	M	R	R	M
30	4	53.8	351	149	15.2	14.9 14.3
		0.3		21.8	21.8	22.4 21.7
		1.9		24.1	24.0	24.2 24.1
		54.1		17.1	17.4	17.2 17.9
		23.01		77.9	78.4	78.7 78.0
		57.52		19.48	19.60	19.68 19.50
				19.49	19.64	

*B Her. Min. L.C. #*14 51 5
+105 20

	M	M	M
10	1	51.4	0 20.5 5.1
		55.8	24.0 8.5
		55.3	24.4 9.0
		49.8	18.6 2.9
		21.23	15 25.5
		53.08	21.88 6.38

*E Eridani*3 27 14
-9 52

	M	M	"	R	R	M
15	4	35.4	20	11.1	1.8	11.4 19
		43.7		9.1	9.9	10.2 9.7
		53.1		18.5	18.7	18.7 18.7
		38.1		4.9	5.0	5.0 5.0
		17.03		33.6	35.4	35.3 35.3
		42.58		80.40	8.85	8.82 8.82
				8.61	8.83	

*S Eridani*3 37 30
-10 11

	M	M	R
35	2	56.4	4 23.1 22.5
		4.9	31.4 31.3
		12.6	39.1 39.9
		58.1	24.9 25.0
		25.20	11.85 11.87
		3.00	29.62 29.68

4

879, Dec. 17
Tauri

3 40 18 Sun

+23 44

m m R R m

45	0	29.1	1	8.1	8.7	8.6	8.5
363		15.3		15.7	15.9	15.9	
389		15.1		17.7	17.8	17.0	
311		10.1		10.0	9.7	10.6	
154		516		521	520	524	
33.85		1290		13.02	13.00	13.10	
		13.00		13.01			

8 Persei

3 46 32

+31 31

m m R R m

55	2	11.4	3	19.6	19.2	19.4	19.4
		17.9		26.1	26.6	26.8	26.1
		20.9		29.8	29.5	29.7	29.9
		13.1		21.8	21.6	21.8	21.6
		633		973	969	977	970
		15.82		24.32	24.22	24.42	24.25
				24.28	24.32		

3 Corvi

12 28 2

-22 44

m m R R m

10	0	45.9	2	8.0	7.8	7.8	7.8
		56.4		18.9	19.1	19.2	18.1
		59.7		20.9	21.4	21.7	21.7
		44.9		17.1	6.8	7.3	6.9
		6.9		54.9	55.1	56.0	54.5
		51.72		13.72	13.78	14.00	13.62
				13.67	13.89		

γ Virginis

12 35 32

-0 47

m m R R m

15	0	42.9	15.59	55.2	55.5	56.4
		52.0	4.9	5.5	5.6	4.4
		54.9	7.3	7.2	8.0	7.2
		60.9	53.9	53.3	53.0	53.5
		19.07	2.0	1.2	2.1	1.5
		47.68	0.50	0.30	0.52	0.38
			0.44	0.41		

Pr. #

ϵ Corvi

12 3 54

-21 57

	m	m	R	R	m
20 3	56.9	0	16.1	16.0	15.8
	7.5	25.1	25.6	25.3	25.0
	11.1	29.9	30.0	29.6	29.9
	56.9	15.9	15.7	16.0	15.7
1	25.24	87.0	87.3	86.7	86.4
	3.10	21.75	21.82	21.68	21.60
		21.67	21.75		

 δ Corvi

12 23 37

-15 50

	m	m	R	R	m
15 3	11.1	4	36.6	35.6	35.6
	22.9	48.1	48.1	48.4	
	26.0	50.1	50.0	49.7	
	11.0	35.1	35.0	35.4	
	71.0	169.9	168.7	169.1	
	17.75	42.48	42.18	42.28	
		42.48	42.23		

 δ Virginis

12 49 30

+4 3

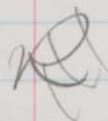
	m	m	R	R	m
25 0	26.0	1	49.1	48.0	48.6
	36.0	59.2	59.9	59.3	59.0
	35.5	57.7	57.6	58.0	57.9
	23.1	45.8	46.0	45.9	46.8
	120.6	211.8	211.5	211.8	212.9
	30.15	52.95	52.88	52.95	53.22
		53.08	52.91		

 ϵ Virginis

12 56 9

+11 37

	m	m
50 2	25.4	3
	34.1	55.1
	34.9	55.3
	22.0	42.3
	11.64	199.6
	29.10	49.90



β Ura. Min.

14 51 5

+74 40

R R R R

50 1 29.2 56.9 39.6 57.4

27.0 55.1 39.1 56.9

26.0 54.0 37.0 55.1

19.7 48.4 31.0 49.9

1019 2144 267 193

25.48 53.60 36.68 54.82

8

1879 Dec. 17-18

Sun. c = 46723

17 44 36

-23 24

m

m

35 0	34.1	5	3	48.3
	42.1			58.4
	43.9			0.9
	30.9			45.3
	15 10			21 29
	37.75			53.22

β Arietis c = 46.646

1 47 57

+20 13

m m R R m

15 0	18.2	1	26.9	26.8	26.4	27.1
	24.1		22.0	32.3	32.8	32.2
	26.0		33.8	33.8	33.9	33.7
	16.9		24.8	24.5	24.3	25.1
	85 2		117.5	117.4	117.4	117.1
	21.30		29.38	29.35	29.35	29.28
			29.33	29.35		

Seeing very bad.

β Ursa Min. L.G.

14 51 5

+105 20

m m m m

17.1	5.1	51.9	37.8
19.0	7.1	54.3	39.8
15.1	3.9	50.3	35.0
10.9	58.6	44.1	29.9
22.1	14.7	06	22.5
15.52	3.68	50.15	35.62

α Ceti

2 55 57

+3 37

m m R R m

50 1	8.0	2	25.1	24.8	25.0	24.9
	16.5		33.1	33.3	34.0	33.1
	15.9		32.1	32.8	32.4	32.9
	6.2		23.1	23.7	23.2	23.5
	46 6		113.4	114.6	114.6	114.7
	11.65		28.35	28.65	28.65	28.68
			28.51	28.65		

L Arietis

7 0 21

+22 53

	m	m	R	R	m
35 0	7.9	14.9	15.0	14.3	14.9
	14.3	20.2	20.4	20.8	20.1
	12.2	18.6	18.2	18.2	19.2
	6.1	12.9	12.2	12.1	11.3
	405	666	658	654	655
	10.12	16.65	16.45	16.35	16.38
		16.51	16.40		

Bloss. Mini. L.C.

14 51 5

+103 20

	m	m	m	m
10 1	18.9	57.9	44.5	33.8
	15.0	59.1	46.3	35.1
	10.2	55.3	42.1	32.1
	6.9	50.9	38.1	27.1
	460	232	1710	81
	11.50	55.80	42.75	32.02

E Eridani

3 27 14

-9 52

	m	m	R	R	m
15 4	35.1	20.0	59.1	58.5	58.2
	42.2		4.9	5.1	5.0
	47.1		9.9	9.4	10.0
	32.7		57.1	56.8	56.6
	157.1		11.0	9.8	9.8
	39.28		2.75	2.45	2.45
			2.77	2.45	

E Eridani

3 37 30

-10 11

	m	m
35 3	53.2	4
	59.1	244
	3.7	290
	49.9	145
	225.9	863
	56.48	21.58

1879 Dec. 18

7 Tauri

3 40 18

+ 23 44

m m R R m

40	4	47.9	450	57.1	58.2	58.0	57.9
		53.5		2.9	3.0	2.8	2.0
		50.9		0.6	1.2	1.0	0.8
		42.6		53.6	53.9	53.9	54.0
		1949		2342	2363	2357	2357
		48.72		58.55	59.08	58.92	58.92
				58.74	59.00		

8 Persei

3 46 32

+ 31 31

m m R R m

55	2	13.2	3	31.1	31.4	31.6	31.9
		17.2		35.9	36.5	36.0	36.0
		16.1		35.7	35.2	35.0	36.0
		8.9		27.1	28.0	27.2	28.0
		55.4		129.2	131.1	129.8	131.9
		13.85		32.30	32.78	32.45	32.98
				32.64	32.61		

12

1879 Dec. 20

E Corvi

12 3 54 C-46.646

-21 57

m m R R M

20	4	10.0	250	249	25.8	25.7	250
		20.0		33.1	33.2	33.6	34.0
		22.4		37.9	37.1	37.3	37.2
		9.5		24.6	24.9	25.0	24.8
		61.9		120.5	121.0	121.6	121.0
		15.48		30.12	30.25	30.40	30.25
				30.18	30.32		

S Corvi

12 23 37

-15 50

m m R R

15	3	13.3	4	33.1	32.3	32.0
		22.1		41.6	42.0	42.3
		24.1		42.9	42.7	43.1
		10.9		30.9	30.8	30.6
		70.4		148.7	147.8	148.0
		17.60		37.18	36.95	37.00
				37.18	36.97	

E Virginia

12 56 9

+11 37

m m R

50	2	33.2	3	48.2	48.8
		39.4		55.1	55.0
		38.9		53.9	54.2
		27.9		43.9	43.2
		13.94		11	12
		34.85		50.28	50.30

R Prodis

13 48 55

719.00

R R

30	0	22.2	22.8
		27.7	28.7
		28.3	28.4
		17.8	17.9
		9.60	9.78
		24.00	24.45
		24.22	

Ry 151

γ Virginis

12 35 32

- 0 47

	m	m	R	R	m		
15	1	19.9	2	10.9	10.3	10.1	9.7
		26.0		17.2	17.2	17.0	17.0
		28.5		18.1	18.7	18.4	18.1
		16.1		6.1	6.2	6.1	6.1
		90.5		52.1	52.4	51.6	50.9
		22.62		13.02	13.10	12.90	12.72

12.87 13.00
 Seungbok
 Mean σ & R.A.
 Cont-A +1

δ Virginis

12 49 30

+4 3

	m	m	R	R	m		
25	0	25.2	1	47.0	48.0	47.7	47.9
		33.4		56.1	53.7	55.8	55.9
		32.1		53.1	53.4	53.2	53.1
		22.0		43.0	43.2	43.7	43.2
		112.7		19.92	0.3	0.4	0.1
		28.18		49.80	50.08	50.10	50.02
				49.91	50.09		

14

879 Dec. 20-21

Sun. C = 46.646

7 57 55

- 23 27

m

m

35 3 14.9

10 1 30.3

24.2

40.6

25.3

41.7

11.4

27.0

75.8

13 96

18.95

34.90

 β Arietis C = 46.589

1 47 57

+20 13

A. R. only

Seeing very bad indeed.

16

879 Dec. 23

3 *Arctis* $c = 46.589$

47 57

+20 13

m m

15 1 33.9 33.9

36.2 35.9

37.0 36.9

27.9 28.0

13 50 1347

33.75 33.68

33.71

2 *Arctis*

2 0 21

+22 53

m m

35 0 6.1 6.8

10.1 10.3

7.1 7.1

2.1 2.1

254 263

6.35 6.58

6.46

Last wire about 1^{sec} late
J. F. M. obs.

J. F. M. obs.

18

879 Dec. 25

Virginis C=46.589

2 56 9

+11 37

m

50 4 81

14.1

14.1

3.0

39.3

9.82

1 stroke for P. J. F. M. obs.

1879 Dec. 25-26

Sun. C-46.589

18 20 7

- 23 22

m

.30 3 29.9

37.8

39.8

24.8

13 2 3

33.08

5 1

m

46.1

55.8

56.0

42.8

20 0 7

50.18

γ Pegasi

0 7 0

+ 14 31

m

55 3 48.1

54.7

53.9

41.1

19 7 8

49.45

J. T. m obs.

J. T. m. obs & Androm also in A.R.
only.Seeing ^{very} ~~pretty~~ bad.

20

1879, Dec. 27

L. Arcturus

2 0 21

+ 22 53

35 m

35 0 1.1

5.0

3.1

56.0

52

130

Ref. 1^h 47^m B Arcturus

3 strokes for S G. F. M. obs.

22

879, Dec. 28-29

Sun C=46.663

18 33 25

- 23 14

m

m

20 4 57.8 55 3 50.1

8.0

59.9

11.1

3.1

58.9

49.9

158

22.30

3.95

55.75

L. Arctis

2 0 21

+ 22 53

m m

R R m

30 4 52.1 85.1 190 19.2 19.5 19.0

57.0

28.6 24.0 24.1 24.1

57.9

25.4 25.3 25.2 25.3

52.8

21.1 20.2 20.2 21.0

198

91 87 90 94

54.95

22.28 22.18 22.25 22.35

22.31 22.21

Feeling pretty fair

Lost 1st 4 wires of 2nd limit

L. Beti

2 55 57

+ 3 37

m m R R m

50 1 6.2 33.0 33.5 33.6 32.9

14.9 42.0 41.9 41.9 41.8

17.0 44.1 43.8 43.7 44.0

8.9 35.4 35.9 35.8 35.9

47.0 154.5 155.3 155.0 154.6

11.75 38.62 38.82 38.75 38.65

38.64 38.78

E. Eidani

3 27 14

- 9 52

m m R R m

15 4 47.9 20 1 4.9 4.2 3.9 4.2

53.8 10.9 11.0 11.2 11.0

2.0 19.1 19.2 18.8 19.1

48.3 6.9 6.3 6.2 6.9

21.20 41.8 40.7 40.1 41.2

53.00 10.45 10.18 10.12 10.30

10.37 10.15

67 Ceti

2 10 57

-6 59

m m R R m

25	1	52.0	2	35.9	35.8	36.2	35.3
		58.8		42.7	42.8	43.0	42.4
		4.7		48.9	49.2	49.0	49.1
		54.1		37.2	37.3	37.2	37.1
		22.96		47	57	54	39
		57.40		41.18	41.28	41.35	41.98

41.58

Long A (345)
Ti

Bloss. Min. L.C.

14 51 5

+105 22

m m m m m

10	0	59.6	45.2	15.5	5	4	53.1	27.3
		3.2	49.1	19.1			57.1	31.0
		3.2	49.9	18.9			58.1	30.8
		58.1	43.9	14.1			50.9	24.9
		41	28.1	27.6			17.2	11.40
		1.02	47.02	16.90			54.30	28.50

P Eridani

3 37 30

-10 11

m m

35	3	55.9	4	20.8
		2.9		27.1
		10.1		35.1
		56.9		21.6
		5.8		10.46
		1.45		26.15

Long A

η Tauri

3 40 18

+23 44

m m R R m

40	4	45.1	45.1	3.1	3.2	3.3	2.9
		52.0		9.1	9.2	9.9	8.7
		53.5		11.2	10.7	10.3	11.3
		46.0		4.1	4.0	3.8	4.3
		19.66		27.5	27.1	27.3	27.2
		49.15		6.88	6.78	6.82	6.80
				6.84	6.80		

24

1879 Dec. 29

γ Persei

3 46 32

+31 31

m m R R m

55	2	15.2	3	407	410	40.9	40.1
		21.2		470	478	47.2	46.8
		24.8		494	50.2	49.9	49.9
		17.0		419	42.1	41.8	42.1
		782		190	1811	198	184
		19.55		44.75	45.28	44.95	44.72
				44.74	45.12		

26

1879 Dec. 30

x Arctis c=46.663

2 0 21

+22 53

m m

95 1 25.3 25.0

31.7 31.4

31.9 31.9

26.8 26.3

1157 1146

28.92 28.65

28.78

3 strokes for 8.

J. T. M. obs.

28

1879 Dec. 31

Corvi $C=46.663$

2 3 54

-21 57

m

m R R m

20 4 21.8 25 0 41.9 41.8 41.8 421

29.9 48.2 48.6 49.0 48.4

22.7 50.0 50.1 50.2 50.4

17.2 37.4 36.9 37.2 37.5

91.6 177.5 177.4 178.2 178.4

24 22.90 25 44.38 44.35 44.55 44.60

8 Corvi

12 23 37

-15 50

m m R R m

15 3 23.7 4 44.1 43.3 43.0 43.9

31.9 51.5 52.1 52.2 51.9

32.0 51.5 52.0 52.0 52.1

18.8 39.8 39.1 39.2 38.9

106.9 186.9 186.5 186.4 186.8

18 26.72 19 46.72 46.62 46.60 46.70

e Virginis

12 56 9

+11 37

m

m

50 3 5.2 4 0.9

11.0 5.1

10.5 6.3

58.1 55.0

24.8 9.3

53 6.20 54 2.32

d Virginis

13 18 49

-10 32

m m

R R

55 4 59.6 0 12.2.9 22.7 22.8

5.0 27.2 28.0 27.9

8.7 31.9 31.9 32.0

53.9 17.8 17.3 17.8

7.2 99.8 99.9 100.5

0 1.80 1 24.95 24.98 25.12

γ Virginis

12 35 32

- 0 47

	M	M	R	R	M
15 0	55.9	2	21.9	21.8	22.0 22.4
	1.9		29.7	27.9	28.5 27.6
	3.9		29.1	29.5	29.1 28.8
	50.9		16.8	16.4	16.1 16.1
	2426		955	956	957 949
16	065	17	23.88	23.90	23.92 23.72

δ Virginis

12 49 30

	M	M	R	R	M
25 0	33.3	1	55.1	55.7	55.4 54.9
	40.1		2.1	2.2	2.4 2.0
	37.9		58.9	58.8	59.0 59.5
	25.2		49.4	49.0	49.2 49.3
	1395		2255	2257	2260 2237
25	34.88	26	56.38	56.42	56.50 55.92

File #

30

880 Jan. 1

x Aetis c = 46.663

2 0 21

+22 53

m m

30 4 57.1 56.3

1.9 1.9

58.9 59.1

53.0 53.2

23.09 23.05

34 57.72 34 57.62

x Beti

2 55 57

+3 37

m m R R m

50 1 10.9 2 30.9 31.0 31.3 31.0

18.5 38.6 39.0 39.0 39.0

18.2 37.9 37.4 38.6 37.9

97 29.5 29.3 29.0 29.6

57.3 136.9 136.7 137.9 137.5

51 14.32 34.22 34.18 34.48 34.38

34.30 34.38

34.32

3 strokes for P q t. m. ok.

7 Jani

3 40 18

+23 44

m m R R m

40 4 54.1 45' 13.9 3.4 3.7 3.9

59.9 8.1 9.0 9.0 7.9

57.9 7.1 7.0 6.7 7.6

50.9 0.4 0.0 59.8 0.5

22.28 19.5 19.4 19.2 19.9

44 55.70 46 4.88 4.85 4.80 4.98

ϵ Eridani3 27 14
- 9 52

m m R R m

15	4	41.7	20	1	4.8	4.8	4.9	4.8
		46.8			10.1	10.1	10.9	10.1
		51.4			15.5	15.4	15.4	15.9
		39.2			3.0	2.8	2.2	3.0
		179.1			334	331	334	338
19		44.78	21		8.35	8.28	8.35	8.45

 ρ Eridani3 37 30
- 10 11

m m

35	3	0.2	4	19.6
		6.1		26.1
		10.0		30.8
		56.9		17.3
		133.2		93.8
38		3.33	39	23.45

34

880 Jan. 1 - 2

Sun C = 46.663

18 51 6

- 22 56

m

m

5 2.20.9

40 0 27.9

28.7

35.4

32.3

39.6

21.2

28.0

103 1

130.9

7 25.78

40 32.72

Seeing very fine

C = 46.628

1880 Jan 3-4

Sun 0 - 46.628

18 59 54 -

-22 44

25 0 32.5

41.1

46.4

38.2

1552

25 38.80

JRM failed
to be on hand again
Reported his car to hit
a wall

1st limb in R.A.
Low limb in S

1879phase.pr01.1483R