

KG  
11 365  
325

N42

Measuring of Photograph  
of eclipse. 1869-

Sold by T. Groom & Co., Stationers, India Building, 82 State St., Boston.



RG 113 65. 323













KG 11 365.323





1870

July

7<sup>th</sup>

E P of obs

A

B.

Angular width

Centre of instrument.

61.835

56.451

Measurement  
of No. 55 - Corona

Large protuberance opp. (1)

273° 19'

265° 6'

272° 47'

265° 30'

Centre at 269° 10½'

Moon - Corona

Corona

269°

A

B

A

A

B

51.609

46.81

46.81

610

47.06

614

46.75

611

46.90

613

46.91

4.43

611

46.89

886

264°

51.496

45.72

493

45.29

505

45.72

494

45.76

494

45.55

304

45.61

259°

51.484

45.65

490

.68

491

.61

272

492

.14

478

.64

45.54

254°

51.517

45.80

509

73

517

59

513

65

513

80

249°

51.520

46.21

514

40

503

45.90

.82

497

46.15

503

.16

46.16



	Moon A	Corona A		Moon A	Corona A	
244°	51.489 485 492 474 481	46.56 71 41 68 81		✓ 214°	51.483 487 484 480 478	46.98 47.07 47.11 47.17 47.37
239°	51.482 481 479 489 485	47.65 69 45 54 65 47.65	298	✓ 209°	51.399 403 402 405 397	46.29 46.27 48.16 41 01 46.29
✓ 234°	51.471 469 464 472 468	45.98 46.48 46.47 46.56 46.94		✓ 204	51.404 413 412 412 408	45.82 46.45 45.74 45.92 45.93
✓ 229°	51.455 465 460 453 455	47.20 38 27 46.88 47.10 47.17	83	199	51.413 422 424 426 422	46.41 43 43 35 32 46.39
✓ 224°	51.433 423 423 414 422	46.61 75 80 61 77		194	51.422 423 428 424 427	47.29 38 66 19 63
✓ 219	51.483 485 486 478 479	47.90 47.71 48.04 47.95 47.58 47.63	413 83	189	51.432 430 433 439 434	46.71 57 80 36 34 46.56



July 7

1870

July 8<sup>th</sup>

	Moon	Corona		Moon	Corona
184	51.461	46.51	154	51.388	47.89
on edge	461	46		387	89
of a	459	62		387	89
protub.	463	60		389	48.23
	457	15		390	05
179	51.398	45.99	149	51.351	47.39
	.397	46.19		364	62
	398	45.91		351	314 67
	385	46.27		351	66
	392	45.93		365	80
		46.06			47.63
174	51.381	46.18	154	51.311	48.14
	384	39		307	33
	385	34		316	14
	386	27		317	19
	384	.32		308	10
169	51.380	46.57	139	51.305	48.43
	373	42		311	37
	386	43		304	181 33
	379	08		309	37
	377	43		310	31
		46.39			48.30
164	51.372	46.48	134	51.312	48.44
	379	58		309	44
	377	85		301	41
	383	50		311	27
159	381	48		312	35
159	51.389	47.20	129	51.315	48.08
	386	28		315	40
	386	61		314	26
	394	27		327	21
	391	50		311	34
		47.37			48.26



July 8

1870

	Moon	Corona			Moon	Corona
124	51.339 341 333 338 330	48.44 47 43 56 39	94	94	51.402 392 395 389 387	47.67 66 55 51 44
119	51.330 321 333 331 329	48.26 46 55 27 37	89	89	51.392 397 398 402 390	47.87 29 16 06 23 38
		48.38				47.22
114	51.352 353 359 347 346	48.16 14 25 11 15	84	84	51.403 411 404 404 402	47.33 40 31 51 40
109	51.370 371 367 369 372	47.92 48.01 47.97 48.06 48.03	79	79	51.409 420 414 422 409	47.63 72 76 74 62
		48.00				47.69
104	51.381 380 392 378 377	47.54 55 56 52 43	74	74	51.429 415 410 416 417 419	47.81 83 48.00 47.77 70
99	51.386 391 383 385 387	47.03 06 07 06 07	69	69	51.444 451 450 452 459	47.70 86 48.88 47.88 89
		47.00				47.90



	moon	corona
64	51.468	48.10
	473	20
	472	10
	474	47.99
	475	48.22

59	51.460	47.78
	470	79 <sup>28</sup>
	471	94
	461	95
	460	82
		47.86

54	51.424	47.40
	414	.48
	426	36
	427	62
	420	84

48	51.393	47.71
	390	82 <sup>27</sup>
	392	80
	395	53
	395	41
		47.65

44	51.373	47.37 very
imperfection	376	58 indef-
in the plate		45- inite
at this point	483	28
	476	83

39	51.373	46.88
	386	99 <sup>521</sup>
	372	47.44
	374	46.92
	367	.98
		47.04

	moon	corona
34	51.419	46.77
	.410	.67
	.421	.92
	.415	47.04
	.415	46.66

29	51.477	46.97
	.484	.97 <sup>37</sup>
	.474	47.20
	.470	.06
	.475	.17
		47.07

24	51.462	46.77 <sup>431</sup>
	.467	.94
	.463	.82
	.460	.97
	.468	.87
		46.66

19	51.467	46.45
	.471	.51 <sup>279</sup>
	.469	.52
	.468	.85
	.471	.46
		46.56

14	51.478	46.93
	.475	.90
	.473	.89
	.475	47.04
	.474	.06

9	51.428	46.94 <sup>411</sup>
	.424	.82
	.422	.72
	.422	.79
	.419	.84
		46.82



	Moon	Corona		Moon	Corona
4	51.430	47.16	334	51.396	48.06
	.421	.13		.396	.11
	.428	.00		.400	.09
	.434	.03		.399	.00
	.419	46.85		.403	.22
359	51.409	47.03	329	51.414	48.61
	.407	.06		.410	.83
	.412	46.90		.417	.87
	.401	46.68		.410	.72
	.412	.81		.411	.84
354	51.416	47.12	324	51.416	49.27
	.407	.18		.413	.25
	.413	.14		.407	.37
	.407	.35		.406	.38
	.407	.14		.416	.28
349	51.417	47.50	319	51.372	49.09
	.423	.38		.372	.22
	.419	.50		.378	.32
	.422	.50		.385	.19
	.423	.27		.381	.24
344	51.416	47.65	314	51.429	48.91
	.411	.40		.421	49.22
	.420	.34		.416	49.13
	.428	.41		.412	.14
	.427	.31		.417	.09
339	51.419	47.18	309	51.411	48.60
	.430	.40		.413	.82
	.418	.22		.410	.67
	.420	.37		.408	.78
	.432	.09		.409	.74

	Moon	Corona
304	51.442	48.76
	.430	49.05
	.430	48.93
	.433	48.94
	.437	49.06

299	51.443	48.30
	.441	48.49
	.436	.34
	.434	.39
	.444	.47

294	51.421	48.31
	.427	.50
	.420	.37
	.435	.29
	.420	.45

289	51.439	48.40
	.437	.57
	.442	.53
	.446	.47
	.442	.53

284	51.439	48.83
	.447	.88
	.434	.64
	.438	.85
<del>279</del>	.447	.82

279	51.464	48.72
	.461	.83
	.457	.70
	.463	.54
	.457	.82

	Moon	Corona
274	51.442	48.03
	.441	.05
	.433	.06
	.441	47.87
	.450	.99

269	51.612	
	.619	
	.619	
	.611	
	.617	
	.616	



July 8 1870

A. S. Obs. Corona mag 10<sup>0</sup>

	Corona S-A		S-A
269	48.77 .70 .51 .54 3 05 61 <u>53</u> 48 61 +1.72	219	47.54 47 41 46.54 1.77 .55 95 73 46.85 -88 46 84 39 45.72 1.54 46.02 46.57 46.31 +0.2
259	47.17 46.87 46.56 4.48 46.72 90 46.74 46.90 +1.36	209	47.53 30 40 22.2 53 46 47.44 +1.05 45.77 67 4.92 82 46.04 22 45.90 -66 45.86 90 46.08 4.32 45.72 65 45.86 -20 46.26 04 81 20 22 09 46.16 -23
249	47.84 47.45 47.06 46.86 46.47 46.89 .940 46.76 46.86 46.87 46.34 46.94 +.78	199	
239	47.05 46.75 46.56 3.79 46.99 46.44 46.76 -.84	189	
229	47.04 46.98 58 13.8 95 .83 46.88 -29	179	
		169	

		S - A			S - A
159	47.25		99	47.44	54
	46.85	1.01		28	
	47.47			46.76	
	46.93			47.05	
	<u>47.51</u>			47.01	
	47.20	-17		47.11	+0.5
149	48.41		89	46.50	
	47.48	4.78		64	400
	47.65			83	
	47.66			47.11	
	48.28			46.92	
	47.90	+27		46.80	-42
139	48.30		79	47.40	
	17	212		72	257
	50			40	
	66			48	
	45			57	
	48.42	+06		47.51	-18
129	47.64		69	48.09	3.33
	47.18	182		47.68	
	47.31			47.29	
	47.34			.67	
	47.35			.60	
	47.36	-90		47.67	-23
119	48.29	65	59	47.60	
	01			.68	3.79
	03			.68	
	31			.79	
	01			48.04	
	48.13	-25		47.76	-10
109	48.09		49	47.59	3.57
	47.96	4.18		59	
	47.97			.92	
	47.68			39	
	47.48			48.08	
	47.82	-18		47.71	+06



39      46.83      360  
              .78  
              .59  
              46  
              .94  
              46.72      -32

29      46.55  
              45.78  
              45.05  
              46.24  
              46.20  
              46.0

19      46.59  
              45.87  
              45.96  
              46.51  
              46.06  
              46.2

9      47.20  
              46.80  
              47.08  
              46.30  
              46.80

359      46.8  
              46.77  
              47.33  
              46.66  
              46.63  
              46.52  
              46.8

349      47.56  
              47.42  
              47.47  
              47.26  
              47.48

339      47.97  
              47.92  
              47.77  
              47.43  
              47.88

329      49.03  
              48.83  
              48.75  
              49.03  
              48.98

319      49.46  
              49.18  
              49.41  
              49.48  
              49.21

309      48.89  
              49.05  
              48.63  
              48.50  
              48.71

299      48.41  
              48.54  
              48.17  
              48.24  
              48.51

289      48.65  
              48.49  
              48.43  
              48.49  
              48.49

	<i>Merin</i>	<i>Corona</i>
<del>279</del> 279	51.479	48.49
	.492	48.55
	.485	48.19
	.471	48.46
	.477	48.28

269	51.620	47.18
	.613	47.10
	.625	47.44
	.609	46.91
	.620	47.50
	<u>.87</u>	<u>36.13</u>
	51.614	47.226

























