

sample est 12 am											
note	moon rise/set is independent to core rise/end - cross reference to see if suitable to photograph										
	eg so might have a bright moon that rises/sets before photographing the MW core										
Date	Day	Moon Set	Moon Rise	Moon luminosity	core start	start elevation	core end	end elevation	KEY	events	
1/01/2023	Sunday	01-03	14-28	66.8%						new years day	
2/01/2023	Monday	01-33	15-29	75.9%							
3/01/2023	Tuesday	02-07	16-28	83.9%						Quadrantids Meteor shower	
4/01/2023	Wednesday	02-44	17-27	90.3%							
5/01/2023	Thursday	03-27	18-23	95.2%							
6/01/2023	Friday	04-14	19-16	98.4%	03-38	0.00	03-40	0.20			
7/01/2023	Saturday	05-07	20-03	99.8%	03-35	0.00	03-41	1.00			
8/01/2023	Sunday	06-03	20-44	99.4%	03-31	0.00	03-42	1.80			
9/01/2023	Monday	07-00	21-20	97.3%	03-27	0.00	03-43	2.60			
10/01/2023	Tuesday	07-57	21-52	93.5%	03-23	0.00	03-44	3.40			
11/01/2023	Wednesday	08-53	22-20	88.1%	03-19	0.00	03-45	4.30			
12/01/2023	Thursday	09-49	22-47	81.3%	03-15	0.00	03-47	5.20			
13/01/2023	Friday	10-44	23-14	73.3%	03-11	0.00	03-48	6.10			
14/01/2023	Saturday	11-41	23-41	64.3%	03-07	0.00	03-49	7.00			
15/01/2023	Sunday	12-39		54.5%	03-03	0.00	03-50	7.90			
16/01/2023	Monday	13-41	00-10	44.2%	02-59	0.00	03-51	8.90			
17/01/2023	Tuesday	14-46	00-43	33.7%	02-56	0.00	03-52	9.80			
18/01/2023	Wednesday	15-56	01-22	23.7%	02-52	0.00	03-53	10.80			
19/01/2023	Thursday	17-07	02-10	14.7%	02-48	0.00	03-55	11.70			
20/01/2023	Friday	18-15	03-08	7.4%	02-44	0.00	03-56	12.70			
21/01/2023	Saturday	19-17	04-15	2.4%	02-40	0.00	03-57	13.70			
22/01/2023	Sunday	20-09	05-30	0.2%	02-36	0.00	03-58	14.70			
23/01/2023	Monday	20-53	06-46	1.2%	02-32	0.00	03-59	15.70			
24/01/2023	Tuesday	21-30	08-00	5.1%	02-28	0.00	04-01	16.70			
25/01/2023	Wednesday	22-03	09-10	11.6%	02-24	0.00	04-02	17.70			
26/01/2023	Thursday	22-33	10-15	20.0%	02-20	0.00	04-03	18.70		Australia Day	
27/01/2023	Friday	23-03	11-19	29.7%	02-16	0.00	04-04	19.70			
28/01/2023	Saturday	21-34	12-20	40.0%	02-12	0.00	04-05	20.70			
29/01/2023	Sunday	00-00	13-22	50.4%	02-08	0.00	04-07	21.70			
30/01/2023	Monday	00-07	14-22	60.5%	02-05	0.00	04-08	22.70			
31/01/2023	Tuesday	00-43	15-22	69.9%	02-01	0.00	04-09	23.80			
1/02/2023	Wednesday	01-25	16-19	78.3%	01-57	0.00	04-10	24.80			
2/02/2023	Thursday	02-11	17-15	85.6%	01-53	0.00	04-12	25.80			
3/02/2023	Friday	03-02	18-01	91.5%	01-49	0.00	04-13	26.90			
4/02/2023	Saturday	03-57	18-44	95.9%	01-45	0.00	04-14	27.90			
5/02/2023	Sunday	04-53	19-21	98.7%	01-41	0.00	04-15	28.90			
6/02/2023	Monday	05-51	19-54	99.8%	01-37	0.00	04-16	30.00			
7/02/2023	Tuesday	06-48	20-23	99.1%	01-33	0.00	04-18	31.00			
8/02/2023	Wednesday	07-44	20-51	96.6%	01-29	0.00	04-19	32.10			
9/02/2023	Thursday	08-39	21-17	92.4%	01-25	0.00	04-20	33.10			
10/02/2023	Friday	09-36	21-44	86.6%	01-21	0.00	04-21	34.20			
11/02/2023	Saturday	10-32	22-11	79.2%	01-17	0.00	04-22	35.20			
12/02/2023	Sunday	11-32	22-42	70.5%	01-13	0.00	04-24	36.30			
13/02/2023	Monday	12-34	23-17	60.7%	01-09	0.00	04-25	37.30			
14/02/2023	Tuesday	13-40	23-49	50.0%	01-05	0.00	04-26	38.40			
15/02/2023	Wednesday	14-47	00-00	39.3%	01-01	0.00	04-27	39.40			
16/02/2023	Thursday	15-55	00-50	28.6%	00-57	0.00	04-28	40.50			
17/02/2023	Friday	16-58	01-52	18.7%	00-53	0.00	04-29	41.50			
18/02/2023	Saturday	17-54	03-01	10.4%	00-49	0.00	04-30	42.60			
19/02/2023	Sunday	18-41	04-16	4.2%	00-45	0.00	04-31	43.60			
20/02/2023	Monday	19-22	05-32	0.8%	00-42	0.00	04-33	44.70			
21/02/2023	Tuesday	19-57	06-44	0.4%	00-38	0.00	04-34	45.70			
22/02/2023	Wednesday	20-29	07-54	2.9%	00-34	0.00	04-35	46.80			
23/02/2023	Thursday	21-01	09-01	8.0%	00-30	0.00	04-36	47.80			
24/02/2023	Friday	21-32	10-05	15.2%	00-26	0.00	04-37	48.90			
25/02/2023	Saturday	22-05	11-09	23.9%	00-22	0.00	04-38	49.90			
26/02/2023	Sunday	22-40	12-12	33.5%	00-18	0.00	04-39	51.00			
27/02/2023	Monday	23-21	13-13	43.5%	00-14	0.00	04-40	52.00			
28/02/2023	Tuesday	00-00	14-12	53.4%	00-10	0.00	04-41	53.00			
1/03/2023	Wednesday	00-06	15-08	62.9%	00-07	0.00	04-42	54.10			
2/03/2023	Thursday	00-56	15-58	71.8%	23-59	0.00	04-43	55.10			
3/03/2023	Friday	01-50	16-43	79.9%	23-55	0.00	04-44	56.10			
4/03/2023	Saturday	02-46	17-22	86.8%	23-51	0.00	04-45	57.20			
5/03/2023	Sunday	03-44	17-56	92.5%	23-47	0.00	04-46	58.20			
6/03/2023	Monday	04-41	18-26	96.6%	23-43	0.00	04-47	59.20		Labour Day	
7/03/2023	Tuesday	05-38	18-54	99.2%	23-39	0.00	04-47	60.30			
8/03/2023	Wednesday	06-34	19-21	99.9%	23-35	0.00	04-48	61.30			
9/03/2023	Thursday	07-30	19-47	98.7%	23-31	0.00	04-49	62.30			
10/03/2023	Friday	08-27	20-14	95.6%	23-27	0.00	04-50	63.40			
11/03/2023	Saturday	09-26	20-44	90.5%	23-23	0.00	04-51	64.40			
12/03/2023	Sunday	10-27	21-17	83.7%	23-19	0.00	04-52	65.40			
13/03/2023	Monday	11-32	21-57	75.3%	23-15	0.00	04-53	66.40			
14/03/2023	Tuesday	12-38	22-43	65.5%	23-12	0.00	04-54	67.40			
15/03/2023	Wednesday	13-44	23-39	54.8%	23-08	0.00	04-54	68.40			
16/03/2023	Thursday	14-47	00-00	43.6%	23-04	0.00	04-55	69.50			
17/03/2023	Friday	15-44	00-43	32.5%	23-00	0.00	04-56	70.50			
18/03/2023	Saturday	16-33	01-54	22.1%	22-56	0.00	04-57	71.50			
19/03/2023	Sunday	17-15	03-07	13.1%	22-52	0.00	04-58	72.50			
20/03/2023	Monday	17-52	04-19	6.1%	22-48	0.00	04-58	73.50			
21/03/2023	Tuesday	18-24	05-30	1.7%	22-44	0.00	04-59	74.50			
22/03/2023	Wednesday	18-56	06-38	0.1%	22-40	0.00	05-00	75.50			
23/03/2023	Thursday	19-27	07-44	1.2%	22-36	0.00	05-01	76.50			
24/03/2023	Friday	20-00	08-50	5.0%	22-32	0.00	05-01	77.40			
25/03/2023	Saturday	20-35	09-55	10.8%	22-28	0.00	05-02	78.40			
26/03/2023	Sunday	21-14	10-59	18.3%	22-24	0.00	05-03	79.40			
27/03/2023	Monday	21-58	12-01	27.0%	22-20	0.00	05-04	80.40			
28/03/2023	Tuesday	22-47	12-59	36.3%	22-16	0.00	05-04	81.30			
29/03/2023	Wednesday	23-41	13-53	45.9%	22-12	0.00	05-05	82.30			
30/03/2023	Thursday	00-00	14-39	55.5%	22-08	0.00	05-03	83.20			
31/03/2023	Friday	00-36	15-21	64.8%	22-04	0.00	05-06	84.10			

Date	Day	Moon Set	Moon Rise	Moon luminosity	core start	start elevation	core end	end elevation	KEY	events
1/04/2023	Saturday	01-34	15-56	73.5%		22-00	0.00	05-07	84.90	
2/04/2023	Sunday	02-31	16-28	81.3%		21-56	0.00	05-08	85.70	
3/04/2023	Monday	03-29	16-57	88.2%		21-52	0.00	05-08	86.40	
4/04/2023	Tuesday	04-25	17-24	93.7%		21-49	0.00	05-09	87.00	
5/04/2023	Wednesday	05-22	17-50	97.6%		21-45	0.00	05-10	87.20	
6/04/2023	Thursday	06-19	18-17	99.7%		21-41	0.00	05-10	87.10	
7/04/2023	Friday	07-18	18-46	99.8%		21-37	0.00	05-11	86.70	Good Friday
8/04/2023	Saturday	08-19	19-18	97.7%		21-33	0.00	05-12	86.10	
9/04/2023	Sunday	09-24	19-56	93.4%		21-29	0.00	05-12	85.40	Easter Sunday
10/04/2023	Monday	10-30	20-40	87.1%		21-25	0.00	05-13	84.50	Easter Monday
11/04/2023	Tuesday	11-38	21-34	78.9%		21-21	0.00	05-14	83.70	
12/04/2023	Wednesday	12-41	22-35	69.1%		21-17	0.00	05-14	82.80	
13/04/2023	Thursday	13-40	23-43	58.3%		21-14	0.00	05-15	81.80	
14/04/2023	Friday	14-29	00-00	46.9%		21-10	0.00	05-15	80.90	
15/04/2023	Saturday	15-13	12-53	35.5%		21-06	0.00	05-16	80.00	
16/04/2023	Sunday	15-50	02-03	24.9%		21-02	0.00	05-17	79.00	
17/04/2023	Monday	16-22	03-12	15.5%		20-58	0.00	05-17	78.10	
18/04/2023	Tuesday	16-54	04-19	8.1%		20-54	0.00	05-18	77.10	
19/04/2023	Wednesday	17-24	05-25	2.9%		20-50	0.00	05-18	76.20	
20/04/2023	Thursday	17-56	06-30	0.3%		20-46	0.00	05-19	75.20	Hybrid solar eclipse
21/04/2023	Friday	18-29	07-36	0.3%		20-42	0.00	05-20	74.20	
22/04/2023	Saturday	19-07	08-40	2.7%		20-38	0.00	05-20	73.30	Lyrids Meteor shower
23/04/2023	Sunday	19-49	09-45	7.2%		20-34	0.00	05-21	72.30	
24/04/2023	Monday	20-37	10-46	13.4%		20-30	0.00	05-21	71.40	
25/04/2023	Tuesday	21-30	11-43	21.0%		20-26	0.00	05-22	70.40	ANZAC Day
26/04/2023	Wednesday	22-25	12-33	29.5%		20-22	0.00	05-23	69.40	
27/04/2023	Thursday	23-23	13-17	38.6%		20-19	0.00	05-23	68.50	
28/04/2023	Friday	00-00	13-55	48.0%		20-15	0.00	05-24	67.50	
29/04/2023	Saturday	00-20	14-28	57.5%		20-11	0.00	05-24	66.50	
30/04/2023	Sunday	01-18	14-57	66.7%		20-07	0.00	05-25	65.60	
1/05/2023	Monday	02-14	15-25	75.4%		20-03	0.00	05-26	64.60	
2/05/2023	Tuesday	03-10	15-51	83.3%		19-59	0.00	05-26	63.70	
3/05/2023	Wednesday	04-07	16-17	90.0%		19-55	0.00	05-27	62.70	
4/05/2023	Thursday	05-05	16-46	95.3%		19-51	0.00	05-27	61.70	
5/05/2023	Friday	06-06	17-17	98.7%		19-47	0.00	05-28	60.80	
6/05/2023	Saturday	07-11	17-53	100.0%		19-43	0.00	05-28	59.80	ETA Aquarids Meteor shower
7/05/2023	Sunday	08-18	18-36	98.9%		19-39	0.00	05-29	58.90	
8/05/2023	Monday	09-27	19-28	95.4%		19-35	0.00	05-30	57.90	
9/05/2023	Tuesday	10-34	20-27	89.5%		19-31	0.00	05-30	57.00	
10/05/2023	Wednesday	11-35	21-35	81.5%		19-27	0.00	05-31	56.00	
11/05/2023	Thursday	12-28	22-44	71.7%		19-23	0.00	05-31	55.10	
12/05/2023	Friday	13-13	23-55	60.8%		19-19	0.00	05-32	54.10	
13/05/2023	Saturday	13-51	00-00	49.4%		19-15	0.00	05-32	53.20	
14/05/2023	Sunday	14-24	01-03	38.0%		19-11	0.00	05-33	52.20	
15/05/2023	Monday	14-55	02-09	27.3%		19-07	0.00	05-33	51.30	
16/05/2023	Tuesday	15-25	03-13	17.9%		19-03	0.00	05-34	50.30	
17/05/2023	Wednesday	15-55	04-17	10.2%		19-00	0.00	05-35	49.40	
18/05/2023	Thursday	16-27	05-21	4.5%		18-56	0.00	05-35	48.40	
19/05/2023	Friday	17-02	06-25	1.1%		18-52	0.00	05-36	47.50	
20/05/2023	Saturday	17-43	07-29	0.0%		18-51	0.40	05-36	46.50	
21/05/2023	Sunday	18-28	08-32	1.2%		18-50	0.90	05-37	45.60	
22/05/2023	Monday	19-19	09-31	4.3%		18-50	1.50	05-37	44.70	
23/05/2023	Tuesday	20-14	10-24	9.3%		18-49	2.10	05-38	43.70	
24/05/2023	Wednesday	21-11	11-12	15.7%		18-49	2.70	05-38	42.80	
25/05/2023	Thursday	22-09	11-52	23.3%		18-49	3.30	05-39	41.90	
26/05/2023	Friday	23-07	12-27	31.8%		18-49	3.90	05-39	41.00	
27/05/2023	Saturday	00-00	12-57	40.9%		18-48	4.60	05-40	40.00	
28/05/2023	Sunday	00-03	13-25	50.4%		18-48	5.20	05-40	39.10	
29/05/2023	Monday	00-58	13-52	59.9%		18-48	5.90	05-41	38.20	
30/05/2023	Tuesday	01-54	14-17	69.3%		18-48	6.60	05-41	37.30	
31/05/2023	Wednesday	02-51	14-44	78.1%		18-47	7.20	05-42	36.40	
1/06/2023	Thursday	03-50	15-14	85.9%		18-47	7.90	05-42	35.50	
2/06/2023	Friday	04-53	15-48	92.4%		18-47	8.60	05-43	34.60	
3/06/2023	Saturday	05-59	16-28	97.2%		18-47	9.30	05-43	33.70	
4/06/2023	Sunday	07-09	17-17	99.6%		18-47	10.00	05-44	32.80	
5/06/2023	Monday	08-18	18-15	99.5%		18-47	10.80	05-44	31.90	Western Australia Day
6/06/2023	Tuesday	09-24	19-22	96.7%		18-47	11.50	05-44	31.00	
7/06/2023	Wednesday	10-22	20-33	91.3%		18-47	12.20	05-45	30.10	
8/06/2023	Thursday	11-11	21-45	83.5%		18-47	13.00	05-45	29.20	
9/06/2023	Friday	11-52	22-55	73.9%		18-47	13.70	05-46	28.40	
10/06/2023	Saturday	12-27	00-00	63.1%		18-47	14.50	05-46	27.50	
11/06/2023	Sunday	12-58	00-02	51.8%		18-47	15.20	05-46	26.60	
12/06/2023	Monday	13-28	01-07	40.6%		18-47	16.00	05-47	25.80	
13/06/2023	Tuesday	13-57	02-10	30.0%		18-47	16.80	05-47	24.90	
14/06/2023	Wednesday	14-28	03-12	20.6%		18-47	17.60	05-47	24.10	
15/06/2023	Thursday	15-02	04-15	12.6%		18-47	18.30	05-48	23.20	
16/06/2023	Friday	15-40	05-18	6.6%		18-47	19.10	05-48	22.40	
17/06/2023	Saturday	16-22	06-21	2.4%		18-47	19.90	05-48	21.50	
18/06/2023	Sunday	17-11	07-21	0.4%		18-47	20.70	05-49	20.70	
19/06/2023	Monday	18-05	08-16	0.4%		18-48	21.60	05-49	19.90	
20/06/2023	Tuesday	19-02	09-06	2.3%		18-48	22.40	05-49	19.10	
21/06/2023	Wednesday	20-00	09-49	6.0%		18-48	23.20	05-49	18.20	
22/06/2023	Thursday	20-57	10-25	11.3%		18-48	24.00	05-50	17.40	
23/06/2023	Friday	21-54	10-58	17.9%		18-48	24.90	05-50	16.60	
24/06/2023	Saturday	22-49	11-26	25.7%		18-49	25.70	05-50	15.80	
25/06/2023	Sunday	23-44	11-53	34.4%		18-49	26.50	05-50	15.00	
26/06/2023	Monday	00-00	12-18	43.7%		18-49	27.40	05-50	14.30	
27/06/2023	Tuesday	00-38	12-44	53.5%		18-50	28.20	05-50	13.50	
28/06/2023	Wednesday	01-36	13-12	63.3%		18-50	29.10	05-51	12.70	
29/06/2023	Thursday	02-35	13-43	72.9%		18-50	30.00	05-51	11.90	
30/06/2023	Friday	03-39	14-19	81.7%		18-51	30.80	05-51	11.20	
1/07/2023	Saturday	04-47	15-03	89.4%		18-51	31.70	05-51	10.40	
2/07/2023	Sunday	05-57	15-57	95.3%		18-51	32.60	05-51	9.70	
3/07/2023	Monday	07-05	17-01	98.9%		18-52	33.50	05-51	9.00	
4/07/2023	Tuesday	08-08	18-13	99.8%		18-52	34.30	05-51	8.20	
5/07/2023	Wednesday	09-02	19-28	97.7%		18-52	35.20	05-51	7.50	

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6/07/2023	Thursday	09-48	20-41	92.9%	18-53	36.10	05-51	6.80		
7/07/2023	Friday	10-26	21-52	85.5%	18-53	37.00	05-51	6.10		
8/07/2023	Saturday	11-00	22-59	76.2%	18-54	37.90	05-51	5.40		
9/07/2023	Sunday	11-31	00-00	65.7%	18-54	38.80	05-51	4.70		
10/07/2023	Monday	12-00	00-03	54.7%	18-54	39.70	05-50	4.10		
11/07/2023	Tuesday	12-30	01-06	43.7%	18-55	40.60	05-50	3.40		
12/07/2023	Wednesday	13-03	02-09	33.2%	18-55	41.50	05-50	2.80		
13/07/2023	Thursday	13-40	03-12	23.8%	18-56	42.40	05-50	2.10		
14/07/2023	Friday	14-20	04-14	15.7%	18-56	43.40	05-50	1.50		
15/07/2023	Saturday	15-07	05-15	9.1%	18-57	44.30	05-50	0.90		
16/07/2023	Sunday	15-58	06-11	4.3%	18-57	45.20	05-49	0.40		
17/07/2023	Monday	16-54	07-02	1.3%	18-58	46.10	05-48	0.00		
18/07/2023	Tuesday	17-52	07-47	0.9%	18-58	47.10	05-44	0.00		
19/07/2023	Wednesday	18-50	08-25	3.4%	18-59	48.00	05-40	0.00		
20/07/2023	Thursday	19-47	08-59	7.5%	18-59	48.90	05-36	0.00		
21/07/2023	Friday	20-42	09-28	13.2%	19-00	49.80	05-32	0.00		
22/07/2023	Saturday	21-37	09-55	20.2%	19-00	50.80	05-28	0.00		
23/07/2023	Sunday	22-31	10-20	28.4%	19-01	51.70	05-24	0.00		
24/07/2023	Monday	23-26	10-45	37.5%	19-01	52.60	05-20	0.00		
25/07/2023	Tuesday	00-00	11-12	47.4%	19-02	53.60	05-16	0.00		
26/07/2023	Wednesday	00-23	11-41	57.6%	19-02	54.50	05-12	0.00		
27/07/2023	Thursday	01-24	12-13	67.8%	19-03	55.50	05-08	0.00		
28/07/2023	Friday	02-27	12-53	77.5%	19-03	56.40	05-05	0.00		Delta Aquarids Meteor shower
29/07/2023	Saturday	03-35	13-41	86.2%	19-04	57.30	05-01	0.00		
30/07/2023	Sunday	04-43	14-39	93.2%	19-04	58.30	04-57	0.00		
31/07/2023	Monday	05-49	15-47	97.9%	19-05	59.20	04-53	0.00		
1/08/2023	Tuesday	06-47	17-01	99.8%	19-05	60.20	04-49	0.00		
2/08/2023	Wednesday	07-38	18-17	98.7%	19-06	61.10	04-45	0.00		supermoon
3/08/2023	Thursday	08-20	19-32	94.6%	19-06	62.10	04-41	0.00		
4/08/2023	Friday	08-56	20-42	87.9%	19-07	63.00	04-37	0.00		
5/08/2023	Saturday	09-29	21-51	79.2%	19-07	64.00	04-33	0.00		
6/08/2023	Sunday	10-00	22-56	69.2%	19-08	64.90	04-29	0.00		
7/08/2023	Monday	10-31	00-00	58.5%	19-08	65.90	04-25	0.00		
8/08/2023	Tuesday	11-04	00-01	47.8%	19-09	66.80	04-22	0.00		
9/08/2023	Wednesday	11-39	01-05	37.6%	19-09	67.80	04-18	0.00		
10/08/2023	Thursday	12-19	02-08	28.1%	19-10	68.70	04-14	0.00		
11/08/2023	Friday	13-04	03-10	19.7%	19-10	69.70	04-10	0.00		
12/08/2023	Saturday	13-54	04-07	12.5%	19-11	70.60	04-06	0.00		Perseids Meteor Shower
13/08/2023	Sunday	14-48	05-00	6.9%	19-11	71.60	04-02	0.00		
14/08/2023	Monday	15-46	05-46	2.9%	19-12	72.50	03-58	0.00		
15/08/2023	Tuesday	16-43	06-26	0.7%	19-12	73.50	03-54	0.00		
16/08/2023	Wednesday	17-41	07-01	0.2%	19-13	74.40	03-50	0.00		
17/08/2023	Thursday	18-37	07-31	1.5%	19-14	75.40	03-46	0.00		
18/08/2023	Friday	19-32	07-59	4.6%	19-14	76.30	03-42	0.00		
19/08/2023	Saturday	20-26	08-24	9.4%	19-15	77.20	03-38	0.00		
20/08/2023	Sunday	21-21	08-49	15.7%	19-15	78.20	03-34	0.00		
21/08/2023	Monday	22-16	09-15	23.4%	19-16	79.10	03-30	0.00		
22/08/2023	Tuesday	23-15	09-42	32.3%	19-16	80.00	03-26	0.00		
23/08/2023	Wednesday	00-00	10-12	42.2%	19-17	81.00	03-22	0.00		
24/08/2023	Thursday	00-16	10-48	52.7%	19-17	81.90	03-18	0.00		
25/08/2023	Friday	01-20	11-31	63.4%	19-18	82.80	03-15	0.00		
26/08/2023	Saturday	02-26	12-22	73.8%	19-18	83.70	03-11	0.00		
27/08/2023	Sunday	03-31	13-24	83.3%	19-19	84.50	03-07	0.00		
28/08/2023	Monday	04-31	14-34	91.1%	19-19	85.30	03-03	0.00		
29/08/2023	Tuesday	05-25	15-49	96.8%	19-20	86.10	02-59	0.00		
30/08/2023	Wednesday	06-10	17-05	99.6%	19-21	86.70	02-55	0.00		
31/08/2023	Thursday	06-49	18-18	99.4%	19-21	87.10	02-51	0.00		supermoon
1/09/2023	Friday	07-25	19-29	96.2%	19-22	87.20	02-47	0.00		
2/09/2023	Saturday	07-57	20-38	90.4%	19-22	87.00	02-43	0.00		
3/09/2023	Sunday	08-28	21-46	82.5%	19-23	86.50	02-39	0.00		
4/09/2023	Monday	09-01	22-52	73.3%	19-23	85.90	02-35	0.00		
5/09/2023	Tuesday	09-37	23-58	63.2%	19-24	85.10	02-31	0.00		
6/09/2023	Wednesday	10-15	00-00	53.0%	19-24	84.30	02-27	0.00		
7/09/2023	Thursday	11-00	01-01	42.9%	19-25	83.40	02-23	0.00		
8/09/2023	Friday	11-49	02-02	33.3%	19-26	82.50	02-19	0.00		
9/09/2023	Saturday	12-42	02-57	24.5%	19-26	81.60	02-15	0.00		
10/09/2023	Sunday	13-39	03-45	16.8%	19-27	80.70	02-11	0.00		
11/09/2023	Monday	14-37	04-27	10.4%	19-27	79.70	02-07	0.00		
12/09/2023	Tuesday	15-35	05-03	5.4%	19-28	78.80	02-04	0.00		
13/09/2023	Wednesday	16-31	05-35	1.9%	19-29	77.80	02-00	0.00		
14/09/2023	Thursday	17-27	06-02	0.2%	19-29	76.90	01-56	0.00		
15/09/2023	Friday	18-21	06-28	0.4%	19-30	75.90	01-52	0.00		
16/09/2023	Saturday	19-16	06-53	2.3%	19-31	75.00	01-48	0.00		
17/09/2023	Sunday	20-11	07-19	6.2%	19-31	74.00	01-44	0.00		
18/09/2023	Monday	21-09	07-45	11.8%	19-32	73.00	01-40	0.00		
19/09/2023	Tuesday	22-09	08-14	19.1%	19-32	72.00	01-36	0.00		
20/09/2023	Wednesday	23-12	08-48	27.8%	19-33	71.10	01-32	0.00		
21/09/2023	Thursday	00-00	09-27	37.7%	19-34	70.10	01-28	0.00		
22/09/2023	Friday	00-16	10-14	48.4%	19-34	69.10	01-25	0.00		
23/09/2023	Saturday	01-21	11-11	59.4%	19-35	68.10	01-21	0.00		
24/09/2023	Sunday	02-20	12-15	70.3%	19-36	67.10	01-17	0.00		
25/09/2023	Monday	03-15	13-27	80.4%	19-37	66.10	01-13	0.00		Queens Birthday
26/09/2023	Tuesday	04-02	14-39	89.0%	19-37	65.20	01-09	0.00		
27/09/2023	Wednesday	04-42	15-53	95.4%	19-38	64.20	01-05	0.00		
28/09/2023	Thursday	05-19	17-04	99.1%	19-39	63.20	01-01	0.00		
29/09/2023	Friday	05-52	18-13	99.9%	19-39	62.20	00-57	0.00		
30/09/2023	Saturday	06-23	19-23	97.8%	19-40	61.20	00-53	0.00		
1/10/2023	Sunday	06-56	20-31	93.2%	19-41	60.20	00-49	0.00		
2/10/2023	Monday	07-31	21-40	86.4%	19-42	59.20	00-45	0.00		
3/10/2023	Tuesday	08-09	22-46	78.2%	19-42	58.20	00-41	0.00		
4/10/2023	Wednesday	08-52	23-51	68.9%	19-43	57.20	00-37	0.00		
5/10/2023	Thursday	09-41	00-00	59.2%	19-44	56.20	00-33	0.00		
6/10/2023	Friday	10-33	00-49	49.4%	19-45	56.20	00-29	0.00		
7/10/2023	Saturday	11-31	01-41	39.8%	19-46	54.20	00-25	0.00		Draconids Meteor Shower
8/10/2023	Sunday	12-28	02-25	30.7%	19-46	53.20	00-21	0.00		

Date	Day	Moon Set	Moon Rise	Moon luminosity	core start	start elevation	core end	end elevation	KEY	events
9/10/2023	Monday	13-27	03-04	22.3%	19-47	52.20	00-17	0.00		
10/10/2023	Tuesday	14-23	03-37	15.0%	19-48	51.20	00-13	0.00		
11/10/2023	Wednesday	15-20	04-05	8.9%	19-49	50.20	00-09	0.00		
12/10/2023	Thursday	16-14	04-32	4.2%	19-50	49.10	00-06	0.00		
13/10/2023	Friday	17-09	04-57	1.2%	19-51	48.10	23-58	0.00		
14/10/2023	Saturday	18-05	05-23	0.0%	19-52	47.10	23-54	0.00		Annular Solar Eclipse (not WA)
15/10/2023	Sunday	19-02	05-49	0.8%	19-52	46.10	23-50	0.00		
16/10/2023	Monday	20-02	06-17	3.7%	19-53	45.10	23-46	0.00		
17/10/2023	Tuesday	21-05	06-49	8.6%	19-54	44.10	11-42	0.00		
18/10/2023	Wednesday	22-10	07-27	15.4%	19-55	43.10	23-39	0.00		
19/10/2023	Thursday	23-14	08-12	23.9%	19-56	42.00	23-35	0.00		
20/10/2023	Friday	00-00	09-05	33.8%	19-57	41.00	23-31	0.00		
21/10/2023	Saturday	00-15	10-06	44.6%	19-58	40.00	23-27	0.00		Orionids Meteor Shower
22/10/2023	Sunday	01-10	11-14	44.7%	19-59	39.00	23-23	0.00		
23/10/2023	Monday	01-58	12-24	56.0%	20-00	38.00	23-19	0.00		
24/10/2023	Tuesday	02-39	13-35	67.2%	20-01	36.90	23-15	0.00		
25/10/2023	Wednesday	03-16	14-44	77.6%	20-02	35.90	23-11	0.00		
26/10/2023	Thursday	03-49	15-52	86.6%	20-03	34.90	23-07	0.00		
27/10/2023	Friday	04-20	17-00	93.6%	20-04	33.90	23-03	0.00		
28/10/2023	Saturday	04-51	18-08	98.1%	20-05	32.90	22-59	0.00		
29/10/2023	Sunday	05-24	19-17	100.0%	20-06	31.80	22-55	0.00		
30/10/2023	Monday	06-01	20-25	99.1%	20-07	30.80	22-51	0.00		
31/10/2023	Tuesday	06-42	21-33	95.8%	20-08	29.80	22-47	0.00		
1/11/2023	Wednesday	07-29	22-35	90.4%	20-10	28.80	22-43	0.00		
2/11/2023	Thursday	08-21	23-32	83.4%	20-11	27.80	22-39	0.00		
3/11/2023	Friday	09-18	00-00	75.1%	20-12	26.70	22-35	0.00		
4/11/2023	Saturday	10-17	00-20	66.1%	20-13	25.70	22-31	0.00		Taurids Meteor Shower
5/11/2023	Sunday	11-16	01-01	56.7%	20-14	24.70	22-27	0.00		
6/11/2023	Monday	12-13	01-36	47.2%	20-15	23.70	22-23	0.00		
7/11/2023	Tuesday	13-10	02-07	37.9%	20-16	22.70	22-20	0.00		
8/11/2023	Wednesday	14-05	02-34	29.0%	20-18	21.70	22-16	0.00		
9/11/2023	Thursday	15-00	02-59	20.8%	20-18	20.70	22-12	0.00		
10/11/2023	Friday	15-55	03-25	13.5%	20-20	19.70	22-08	0.00		
11/11/2023	Saturday	16-52	03-50	7.6%	20-21	18.70	22-04	0.00		
12/11/2023	Sunday	17-52	04-18	3.1%	20-22	17.70	22-00	0.00		
13/11/2023	Monday	18-54	04-49	0.6%	20-23	16.70	21-56	0.00		
14/11/2023	Tuesday	19-59	05-25	0.1%	20-25	15.70	21-52	0.00		
15/11/2023	Wednesday	21-06	06-08	1.9%	20-26	14.70	21-48	0.00		
16/11/2023	Thursday	22-09	07-00	6.0%	20-27	13.70	21-44	0.00		
17/11/2023	Friday	23-07	08-00	12.3%	20-28	12.70	21-40	0.00		Leonids Meteor Shower
18/11/2023	Saturday	23-57	09-06	20.5%	20-29	11.70	21-36	0.00		
19/11/2023	Sunday	00-00	10-15	30.3%	20-31	10.80	21-32	0.00		
20/11/2023	Monday	00-40	11-26	41.2%	20-32	9.80	21-28	0.00		
21/11/2023	Tuesday	01-17	12-33	52.6%	20-33	8.90	21-25	0.00		
22/11/2023	Wednesday	01-50	13-40	63.9%	20-34	7.90	21-21	0.00		
23/11/2023	Thursday	02-20	14-45	74.4%	20-35	7.00	21-17	0.00		
24/11/2023	Friday	02-50	15-51	83.7%	20-37	6.10	21-13	0.00		
25/11/2023	Saturday	03-22	16-58	91.1%	20-38	5.20	21-09	0.00		
26/11/2023	Sunday	03-56	18-05	96.4%	20-39	4.30	21-05	0.00		
27/11/2023	Monday	04-34	19-13	99.3%	20-40	3.40	21-01	0.00		
28/11/2023	Tuesday	05-18	20-18	99.8%	20-41	2.50	20-57	0.00		
29/11/2023	Wednesday	06-08	21-18	98.0%	20-42	1.70	20-53	0.00		
30/11/2023	Thursday	07-04	22-11	94.1%	20-43	0.90	20-49	0.00		
1/12/2023	Friday	08-03	22-56	88.5%	20-45	0.10	20-45	0.00		
2/12/2023	Saturday	09-03	23-34	81.6%						
3/12/2023	Sunday	10-02	00-00	73.5%						
4/12/2023	Monday	10-59	00-06	64.8%						
5/12/2023	Tuesday	11-54	00-34	55.6%						
6/12/2023	Wednesday	12-49	01-01	46.1%						
7/12/2023	Thursday	13-43	01-26	36.8%						
8/12/2023	Friday	14-38	01-51	27.8%						
9/12/2023	Saturday	15-37	02-17	19.5%						
10/12/2023	Sunday	16-38	02-46	12.2%						
11/12/2023	Monday	17-43	03-20	6.3%						
12/12/2023	Tuesday	18-49	04-01	2.2%						
13/12/2023	Wednesday	19-56	04-49	0.3%						Geminids Meteor Shower
14/12/2023	Thursday	20-58	05-48	0.8%						
15/12/2023	Friday	21-52	06-54	3.9%						
16/12/2023	Saturday	22-38	08-05	9.5%						
17/12/2023	Sunday	23-18	09-17	17.3%						Michael needs a shower
18/12/2023	Monday	23-52	10-26	26.8%						
19/12/2023	Tuesday	00-00	11-33	37.6%						
20/12/2023	Wednesday	00-23	12-38	48.9%						
21/12/2023	Thursday	00-53	13-43	60.1%						Ursids Meteor Shower
22/12/2023	Friday	01-23	14-47	70.7%						
23/12/2023	Saturday	01-55	15-53	80.1%						
24/12/2023	Sunday	02-31	16-59	88.0%						
25/12/2023	Monday	03-12	18-04	94.0%						Christmas Day
26/12/2023	Tuesday	03-59	19-06	97.9%						Boxing Day
27/12/2023	Wednesday	04-52	20-01	99.7%						
28/12/2023	Thursday	05-50	20-49	99.4%						
29/12/2023	Friday	06-50	21-30	97.1%						
30/12/2023	Saturday	07-50	22-04	93.0%						
31/12/2023	Sunday	08-48	22-34	87.5%						