

# Lunar Eclipse, November 19, 2021

Primary Data from the USNO's MICA 2.2.2 Software, EST

Fred Espenak Data from..

<https://eclipse.gsfc.nasa.gov/LEplot/LEplot2001/LE2021Nov19P.pdf>

Partial Eclipse of the Moon of 2021 Nov. 19  
Delta T: 71.6s

75-40

Location: W 75°00'00.0", N40°00'00.0", Alt 10m  
(Longitude referred to Greenwich meridian)

Time Zone: 5h 00m west of Greenwich

	Zone			Moon's		Position	Espenak
	d	h	m	Altitude °	Azimuth °	Angle °	
Moon enters penumbra	19	01:00.4		62.2	224.7	54.5	1:02:09
Moon enters umbra	19	02:18.4		50.0	249.2	43.6	2:18:41
Maximum Eclipse	19	04:02.9		30.9	269.2	341.0	4:02:53
Moon exits umbra	19	05:47.4		11.8	284.9	278.5	5:47:04
Moonset	19	07:00		----	295.9	-----	-----
Moon exits penumbra	-----			----	-----	-----	7:03:38

Penumbral Duration: 6h 00.1m (MICA through moonset) 6h 01m 29s  
 Umbral Duration: 3h 29.0m 3h 28m 23s  
 Magnitude: 0.979 0.9742

Full Moon, MICA: 3:57  
 Espenak 3:57:24.4

## Sun

75-40

Location: W 75°00'00.0", N40°00'00.0", 10m  
(Longitude referred to Greenwich meridian)

Time Zone: 5h 00m west of Greenwich

Date (Zone)	Begin Astron. Twilight	Rise	Az.	Transit Alt.	Set	Az.	End Astron. Twilight
	h m	h m	°	h m	h m	°	h m
2021 Nov 19 (Fri)	05:16	06:50	115	11:45 30S	16:41	245	18:15