

Wschody i zachody Słońca w Krakowie - Listopad 2019

| Data | Ws h m | Za h m | Dług. Dnia h m | Dłuższy od Najkrot | Krótszy od Najdluz | Fazy Księżyca, Przew. akt. Słońca (m, s, d, bd) |
|--------|-----------|-----------|----------------------|--------------------------|--------------------------|---|
| 1.Pia | 06 30 | 16 17 | 09 47 | 1 42 | 6 36 | m - mala |
| 2.Sob | 06 31 | 16 16 | 09 45 | 1 40 | 6 38 | m |
| 3.Nie | 06 33 | 16 14 | 09 41 | 1 36 | 6 42 | m h m |
| 4.Pon | 06 34 | 16 12 | 09 38 | 1 33 | 6 45 | m I kwadra 11 23 |
| 5.Wto | 06 35 | 16 10 | 09 35 | 1 30 | 6 48 | m |
| 6.Sro | 06 37 | 16 09 | 09 32 | 1 27 | 6 51 | m h |
| 7.Czw | 06 39 | 16 07 | 09 28 | 1 23 | 6 55 | m Ks. w apogeum 10 |
| 8.Pia | 06 41 | 16 06 | 09 25 | 1 20 | 6 58 | m |
| 9.Sob | 06 43 | 16 05 | 09 22 | 1 17 | 7 01 | m |
| 10.Nie | 06 44 | 16 03 | 09 19 | 1 14 | 7 04 | m |
| 11.Pon | 06 45 | 16 01 | 09 16 | 1 11 | 7 07 | m h m |
| 12.Wto | 06 47 | 16 00 | 09 13 | 1 08 | 7 10 | m Pełnia 14 34 |
| 13.Sro | 06 49 | 15 59 | 09 10 | 1 05 | 7 13 | m |
| 14.Czw | 06 50 | 15 58 | 09 08 | 1 03 | 7 15 | m |
| 15.Pia | 06 52 | 15 56 | 09 04 | 0 59 | 7 19 | m |
| 16.Sob | 06 54 | 15 55 | 09 01 | 0 56 | 7 22 | m |
| 17.Nie | 06 56 | 15 54 | 08 58 | 0 53 | 7 25 | m |
| 18.Pon | 06 57 | 15 53 | 08 56 | 0 51 | 7 27 | m h m |
| 19.Wto | 06 59 | 15 51 | 08 52 | 0 47 | 7 31 | m Ost.kwadra 22 11 |
| 20.Sro | 07 01 | 15 50 | 08 49 | 0 44 | 7 34 | m |
| 21.Czw | 07 02 | 15 49 | 08 47 | 0 42 | 7 36 | m |
| 22.Pia | 07 03 | 15 48 | 08 45 | 0 40 | 7 38 | m h |
| 23.Sob | 07 05 | 15 47 | 08 42 | 0 37 | 7 41 | m Ks. w perygeum 09 |
| 24.Nie | 07 06 | 15 46 | 08 40 | 0 35 | 7 43 | m |
| 25.Pon | 07 07 | 15 45 | 08 38 | 0 33 | 7 45 | m h m |
| 26.Wto | 07 09 | 15 45 | 08 36 | 0 31 | 7 47 | m Now 16 06 |
| 27.Sro | 07 11 | 15 44 | 08 33 | 0 28 | 7 50 | m |
| 28.Czw | 07 12 | 15 43 | 08 31 | 0 26 | 7 52 | m |
| 29.Pia | 07 13 | 15 42 | 08 29 | 0 24 | 7 54 | m |
| 30.Sob | 07 15 | 15 42 | 08 27 | 0 22 | 7 56 | m |

Dane wyznaczone na podstawie: The American Ephemeris and Nautical Almanac * 2019 Staniatki, dnia 16 wrzesnia 2019 <Adam Michalec>