

Mount Calibration Stars

Site: Chandler, Arizona (33.31° N, 111.84° W) | Date: 15th of each month | Time: 45 minutes after local sunset (MST)

Each entry is formatted as: visual magnitude, star name, IAU constellation abbreviation

Stars are listed east side of the meridian first (north to south), then west side of the meridian (north to south).

All stars are magnitude 4.0 or brighter, more than 30° from the north celestial pole (Dec < +60°), at least 30° above the horizon, below 80° altitude (avoiding the zenith), within 4.5 hours of the meridian (avoiding the east/west horizons), and separated from each other by at least 15°.

Month	1st Star	2nd Star	3rd Star	4th Star
January	2.0 Hamal (Ari)	2.5 Menkar (Cet)	2.1 Alpheratz (And)	2.0 Diphda (Cet)
February	0.8 Aldebaran (Tau)	0.1 Rigel (Ori)	2.5 Menkar (Cet)	3.0 Zaurak (Eri)
March	0.3 Procyon (CMi)	-1.5 Sirius (CMa)	0.5 Betelgeuse (Ori)	0.1 Rigel (Ori)
April	1.4 Regulus (Leo)	2.0 Alphard (Hya)	0.3 Procyon (CMi)	-1.5 Sirius (CMa)
May	2.1 Denebola (Leo)	1.0 Spica (Vir)	1.4 Regulus (Leo)	2.0 Alphard (Hya)
June	1.9 Alkaid (UMa)	-0.1 Arcturus (Boo)	2.8 Vindemiatrix (Vir)	1.0 Spica (Vir)
July	2.6 Unukalhai (Ser)	2.3 Dschubba (Sco)	-0.1 Arcturus (Boo)	2.6 Zubeneshamali (Lib)
August	0.0 Vega (Lyr)	2.1 Rasalhague (Oph)	-0.1 Arcturus (Boo)	2.6 Zeta Ophiuchi (Oph)
September	0.8 Altair (Aql)	2.0 Nunki (Sgr)	2.1 Rasalhague (Oph)	2.4 Sabik (Oph)
October	1.2 Deneb (Cyg)	0.8 Altair (Aql)	0.0 Vega (Lyr)	2.1 Rasalhague (Oph)
November	2.4 Enif (Peg)	2.9 Sadalsuud (Aqr)	1.2 Deneb (Cyg)	0.8 Altair (Aql)
December	2.1 Alpheratz (And)	2.0 Diphda (Cet)	2.5 Markab (Peg)	3.0 Sadalmelik (Aqr)

Star Details by Month

Altitude/azimuth values are for the observation time shown (45 minutes after sunset on the 15th). E/W indicates the star's side of the meridian.

Month	Obs. Time (MST)	Star	Mag	Dec	Alt	Az	Side
January	6:28 PM	Hamal (Ari)	+2.0	+23.5°	79°	150°	E
		Menkar (Cet)	+2.5	+4.1°	55°	143°	E
		Alpheratz (And)	+2.1	+29.1°	69°	265°	W
		Diphda (Cet)	+2.0	-18.0°	37°	198°	W
February	6:57 PM	Aldebaran (Tau)	+0.8	+16.5°	73°	163°	E
		Rigel (Ori)	+0.1	-8.2°	46°	158°	E
		Menkar (Cet)	+2.5	+4.1°	56°	214°	W
		Zaurak (Eri)	+3.0	-13.5°	43°	185°	W
March	7:20 PM	Procyon (CMi)	+0.3	+5.2°	57°	145°	E
		Sirius (CMa)	-1.5	-16.7°	40°	175°	E
		Betelgeuse (Ori)	+0.5	+7.4°	63°	198°	W
		Rigel (Ori)	+0.1	-8.2°	45°	206°	W
April	7:43 PM	Regulus (Leo)	+1.4	+12.0°	63°	137°	E
		Alphard (Hya)	+2.0	-8.7°	47°	167°	E
		Procyon (CMi)	+0.3	+5.2°	57°	215°	W
		Sirius (CMa)	-1.5	-16.7°	31°	216°	W
May	8:05 PM	Denebola (Leo)	+2.1	+14.6°	70°	155°	E
		Spica (Vir)	+1.0	-11.2°	36°	139°	E

Month	Obs. Time (MST)	Star	Mag	Dec	Alt	Az	Side
		Regulus (Leo)	+1.4	+12.0°	64°	219°	W
		Alphard (Hya)	+2.0	-8.7°	41°	216°	W
June	8:23 PM	Alkaid (UMa)	+1.9	+49.3°	74°	8°	E
		Arcturus (Boo)	-0.1	+19.2°	73°	144°	E
		Vindemiatrix (Vir)	+2.8	+11.0°	67°	200°	W
		Spica (Vir)	+1.0	-11.2°	45°	183°	W
July	8:22 PM	Unukalhai (Ser)	+2.6	+6.4°	63°	173°	E
		Dschubba (Sco)	+2.3	-22.6°	34°	172°	E
		Arcturus (Boo)	-0.1	+19.2°	68°	235°	W
		Zubeneschamali (Lib)	+2.6	-9.4°	47°	185°	W
August	7:57 PM	Vega (Lyr)	+0.0	+38.8°	71°	67°	E
		Rasalhague (Oph)	+2.1	+12.6°	68°	162°	E
		Arcturus (Boo)	-0.1	+19.2°	49°	261°	W
		Zeta Ophiuchi (Oph)	+2.6	-10.6°	45°	191°	W
September	7:18 PM	Altair (Aql)	+0.8	+8.9°	59°	139°	E
		Nunki (Sgr)	+2.0	-26.3°	30°	174°	E
		Rasalhague (Oph)	+2.1	+12.6°	66°	215°	W
		Sabik (Oph)	+2.4	-15.7°	37°	205°	W
October	6:38 PM	Deneb (Cyg)	+1.2	+45.3°	74°	36°	E
		Altair (Aql)	+0.8	+8.9°	66°	179°	E

Month	Obs. Time (MST)	Star	Mag	Dec	Alt	Az	Side
		Vega (Lyr)	+0.0	+38.8°	74°	296°	W
		Rasalhague (Oph)	+2.1	+12.6°	53°	244°	W
November	6:10 PM	Enif (Peg)	+2.4	+9.9°	66°	167°	E
		Sadalsuud (Aqr)	+2.9	-5.6°	51°	177°	E
		Deneb (Cyg)	+1.2	+45.3°	76°	329°	W
		Altair (Aql)	+0.8	+8.9°	58°	226°	W
December	6:06 PM	Alpheratz (And)	+2.1	+29.1°	78°	108°	E
		Diphda (Cet)	+2.0	-18.0°	35°	155°	E
		Markab (Peg)	+2.5	+15.2°	72°	190°	W
		Sadalmelik (Aqr)	+3.0	-0.3°	52°	210°	W

Notes

- Times computed for 2026; sunset shifts by only a few minutes year to year, so the list remains valid for other years.
- Arizona does not observe daylight saving time; all times are MST (UTC-7).
- Star positions are J2000 catalog coordinates; precession to the current epoch is negligible for mount calibration pointing.
- The 1st and 2nd stars are east of the meridian (north to south); the 3rd and 4th are west of the meridian (north to south).