Hs = _ _ ° _ _ ‘. _

ε = _ _ ‘. _

\+ Dip = _ _ ‘. _

Ha = _ _ ° _ _ ‘. _

+ sun correct. LL/UL = _ _ ‘. _

Ho = _ _ ° _ _ ‘. _

Date ___ / ___ / _____

UT _____ h_____ m_____ s

index error = _ _ ‘. _

+ non adjust.error = _ _ ‘. _

ε = _ _ ‘. _

L = _ _ ° _ _ ‘. _

G = _ _ _ ° _ _ ‘. _

Height of the eye = _ _ m

□ *lower limb* □ *upper limb*

GHA = _ _ _ ° _ _ ‘. _

+ pp = _ _ _ ° _ _ ‘. _ + increment)

GHA = _ _ _ ° _ _ ‘. _

G = _ _ _ ° _ _ ‘. _ G = East→ add

LHA = _ _ _ ° _ _ ‘. _ G = West→ subtract

LHA < 180° ; sun in the west; $P = LHA$

LHA >180° ; sun in the east; $P = 360 - LHA$

P = _ _ _ ° _ _ ‘. _

(corr.*d* ↑ *or* ↓ = _ _ ‘, _)

D = _ _ _ ° _ _ ‘. _

+ d = _ _ ‘. _

D = _ _ _ ° _ _ ‘. _

Hc = arcsin (sin (*L* : _ _ _ ° _ _ ‘. _) × sin (*D* : _ _ _ ° _ _ ‘. _)
+ cos (*L* : _ _ _ ° _ _ ‘. _) × cos (*D* : _ _ _ ° _ _ ‘. _)
× cos (*P* : _ _ _ ° _ _ ‘. _)) **Hc** = _ _ ° _ _ ‘. _

Z = arccos ((sin (*D* : _ _ _ ° _ _ ‘. _) — sin (*L* : _ _ _ ° _ _ ‘. _)
× sin (*Hc* : _ _ _ ° _ _ ‘. _)) ÷ (cos (*L* : _ _ _ ° _ _ ‘. _)
× cos (*Hc* : _ _ _ ° _ _ ‘. _)))

□ sun in the east **Zv** = **Z** / □ sun in the west **Zv** = **360 - Z** **Zv** = _ _ _ .° _

Ho = _ _ ° _ _ ‘. _

\- Hc = _ _ ° _ _ ‘. _

intercept = _ _ ‘. _

intercept = Ho − Hc

− Intercept away from the sun

+ Intercept towards the sun