

Astronomy 360 – Field Report

Date: 10/30/2021

Location: South Gate

bucket D1: 9"

bucket D2: 8"

D: 0.5"

H: 41"

smallest z1: 47.02°

smallest z2:

$A = z_2 - z_1$

$R = 180 \cdot D / (A \cdot \pi)$

Time	S	X1	L=S+X1-D	tan(z)=L/H	z = ATAN(L/H)
12:20	43"	4.5"	43+4.5-0.5=47"	tan(z)=47/41=1.15	z=arctan(47/41)=48.9°
12:25	42"	4.5"	42+4.5-0.5=46"	tan(z)=46/41=1.12	z=arctan(46/41)=48.29°
12:30	41"	4.5"	41+4.5-0.5=45"	tan(z)=45/41=1.10	z=arctan(45/41)=47.66°
12:35	41"	4.5"	41+4.5-0.5=45"	tan(z)=45/41=1.10	z=arctan(45/41)=47.66°
12:40	40"	4.5"	40+4.5-0.5=44"	tan(z)=44/41=1.07	z=arctan(44/41)=47.02°
12:45	40"	4.5"	40+4.5-0.5=44"	tan(z)=44/41=1.07	z=arctan(44/41)=47.02°
12:50	41"	4.5"	41+4.5-0.5=45"	tan(z)=45/41=1.10	z=arctan(45/41)=47.66°
12:55	41"	4.5"	41+4.5-0.5=45"	tan(z)=45/41=1.10	z=arctan(45/41)=47.66°
1:00	41"	4.5"	41+4.5-0.5=45"	tan(z)=45/41=1.10	z=arctan(45/41)=47.66°
1:15	42"	4.5"	42+4.5-0.5=46"	tan(z)=46/41=1.12	z=arctan(46/41)=48.29°

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