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 ASTR 3600-01
 Professor Aniol

Shadow Measurements

Date: November 6, 2020

Location: Santa Ana, CA

bucket D1: 11.5"

bucket D2: 10.5"

D: 0.5"

H: 40"

smallest z1: 50.01°

smallest z2:

$$A = z_2 - z_1$$

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

Time	S	X1	L=S+X1-D	tan(z)=L/H	z = ATAN(L/H)
11:05 AM	43.625"	5.75"	48.875"	1.2219"	50.70°
11:10 AM	43.25"	5.75"	48.5"	1.2125"	50.49°
11:15 AM	42.9375"	5.75"	48.1875"	1.2047"	50.30°
11:20 AM	42.8125"	5.75"	48.0625"	1.2016"	50.23°
11:25 AM	42.6875"	5.75"	47.9375"	1.1984"	50.16°
11:30 AM	42.5"	5.75"	47.75"	1.1938"	50.05°
11:35 AM	42.4375"	5.75"	47.6875"	1.1922"	50.01°
11:40 AM	42.5625"	5.75"	47.8125"	1.1953"	50.08°
11:45 AM	42.625"	5.75"	47.875"	1.1969"	50.12°
11:50 AM	42.75"	5.75"	48"	1.2"	50.19°
11:55 AM	42.9375"	5.75"	48.1875"	1.2047"	50.30°
12:00 AM	43.125"	5.75"	48.375"	1.2094"	50.41°
12:05 AM	43.4375"	5.75"	48.6875"	1.2172"	50.59°