

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P367548

Luminaire Tested: **MSA-SA2D-730-U-RW**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367548
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2D-730-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12614 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

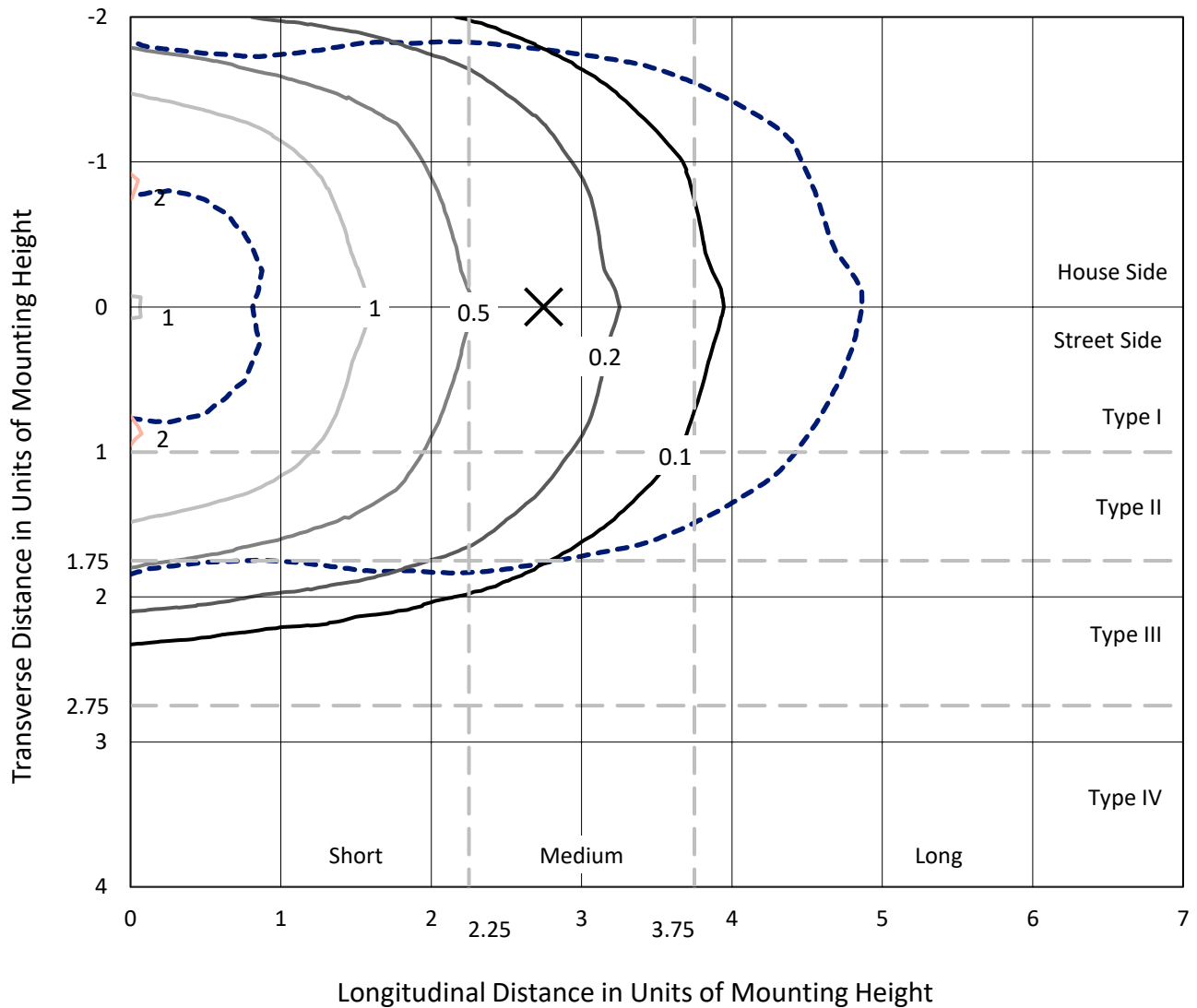
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367548
 CATALOG NUMBER: MSA-SA2D-730-U-RW

Iso-Footcandle Lines of Horizontal Illumination

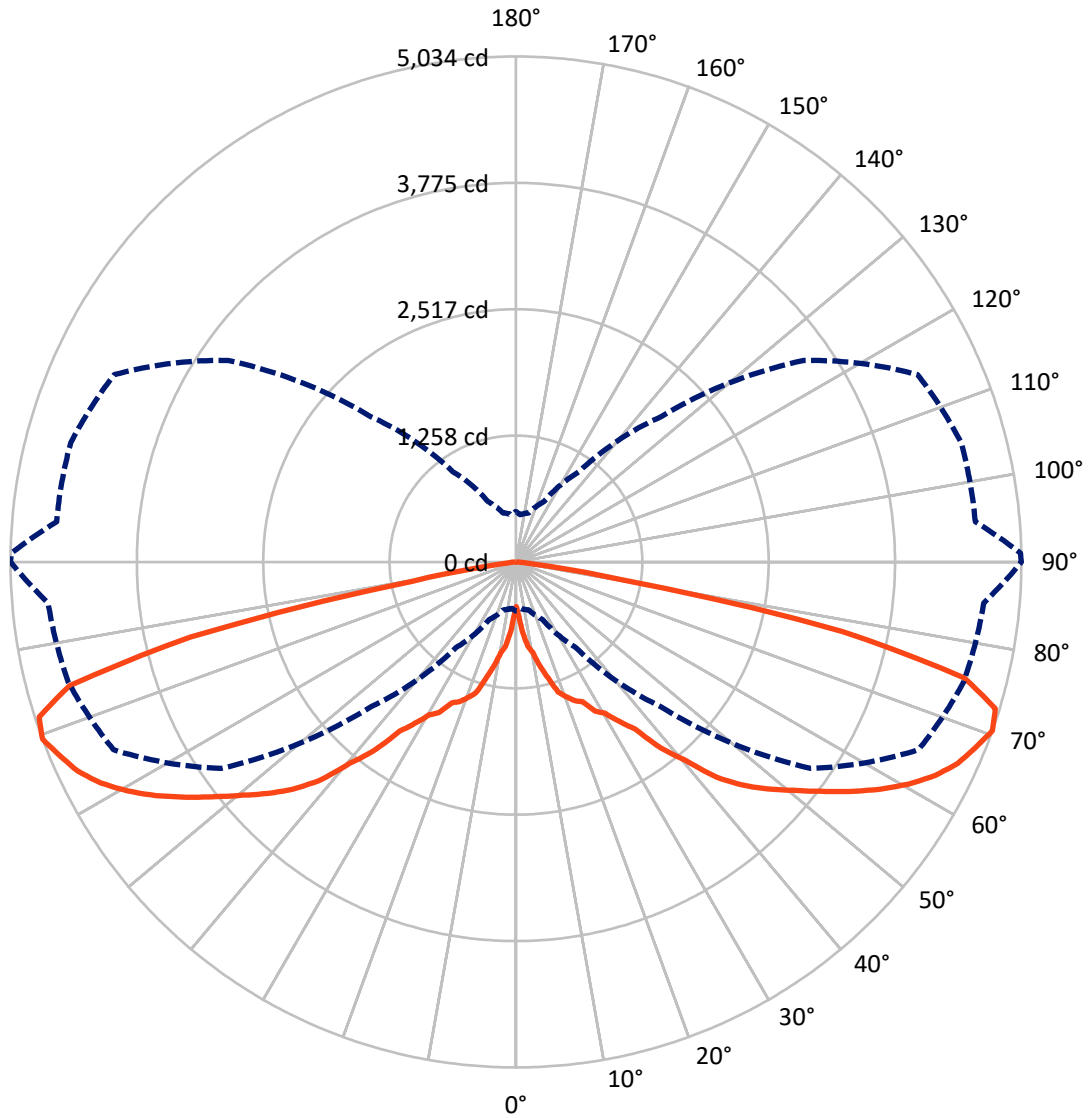
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc
 Type III - Short - N/A

REPORT NUMBER: P367548
CATALOG NUMBER: MSA-SA2D-730-U-RW

Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P367548

CATALOG NUMBER: MSA-SA2D-730-U-RW

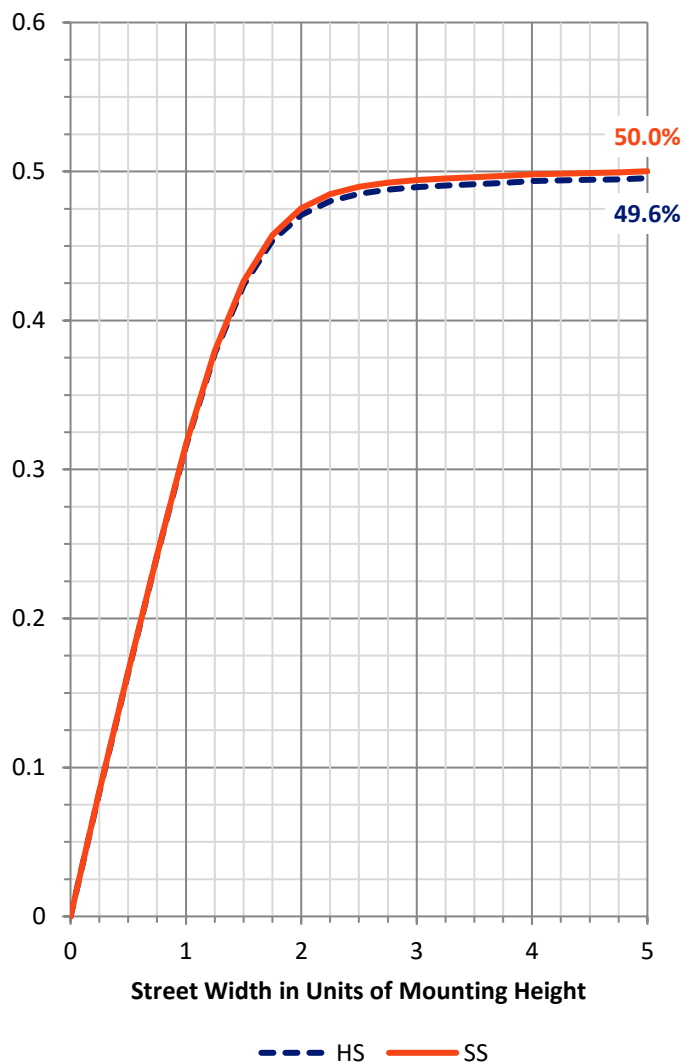
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6283.6	0.0	6283.6
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	6330.4	0.0	6330.4
	% Fixture	50.2	0.0	50.2
Total	Lumens	12614.0	0.0	12614.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	0.5
10°-20°	306.1	2.4
20°-30°	661.8	5.2
30°-40°	1262.7	10.0
40°-50°	2293.9	18.2
50°-60°	3222.3	25.5
60°-70°	3076.7	24.4
70°-80°	1579.0	12.5
80°-90°	144.8	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	12614.0	100.0
0°-180°	12614.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367548

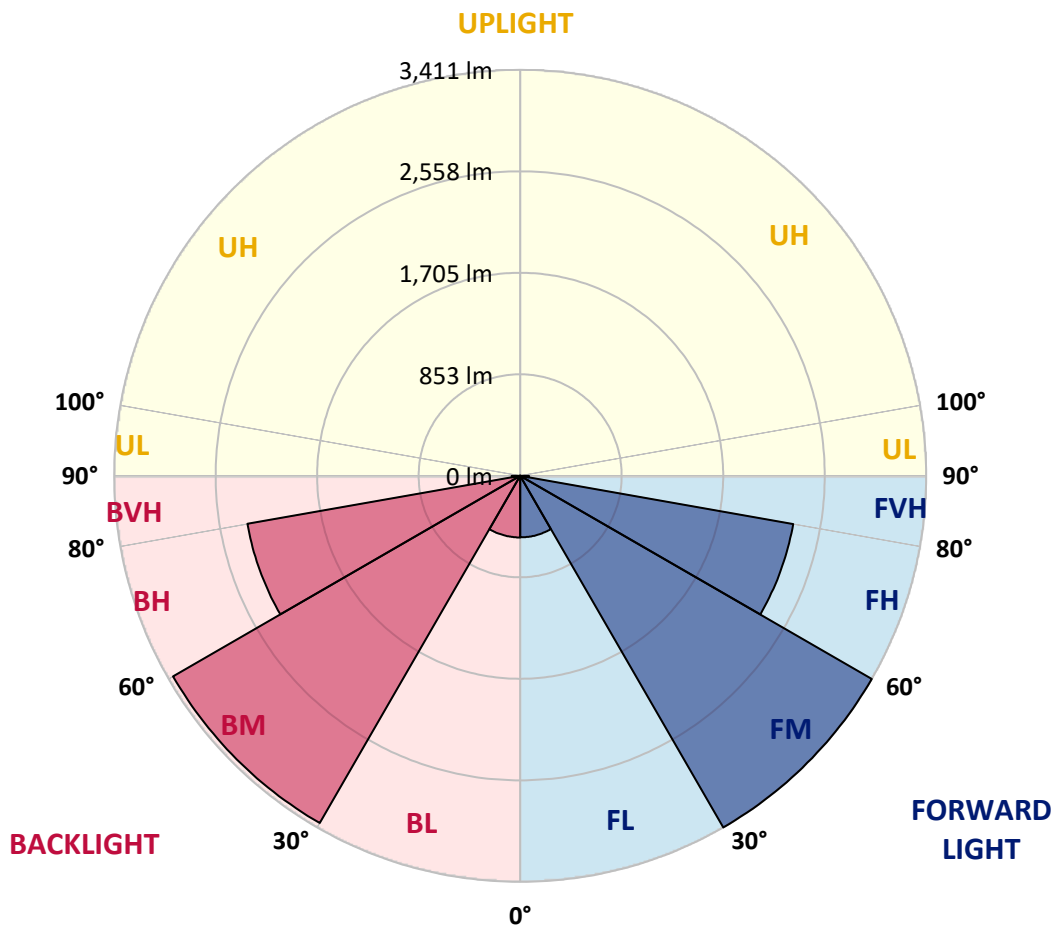
CATALOG NUMBER: MSA-SA2D-730-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	516.8	4.1			
FM (30°-60°)	3411.0	27.0			
FH (60°-80°)	2329.1	18.5			G2/5000
FVH (80°-90°)	73.5	0.6			G1/100
BL (0°-30°)	517.8	4.1	B2/1000		
BM (30°-60°)	3367.9	26.7	B3/5000		
BH (60°-80°)	2326.6	18.4	B3/2500		G3/2500
BVH (80°-90°)	71.3	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





REPORT NUMBER: P367548
 CATALOG NUMBER: MSA-SA2D-730-U-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	442.7	442.7	442.7	442.7	442.7	442.7	442.7	442.7	442.7	442.7	442.7
2.5°	536.3	516.3	491.3	506.1	512.2	523.0	521.5	516.3	494.4	531.2	535.3
5°	671.2	639.5	627.8	625.7	628.8	618.6	651.8	642.1	660.0	693.2	700.9
7.5°	764.3	740.8	715.7	723.4	691.7	687.1	730.0	768.4	778.1	838.9	843.0
10°	808.3	785.2	791.9	787.3	783.7	813.4	833.3	861.4	901.8	907.4	916.1
12.5°	845.6	854.8	883.9	882.9	930.9	983.6	975.9	1005.1	1011.7	1082.3	1060.8
15°	940.1	959.1	957.0	974.9	995.9	1082.3	1082.8	1132.4	1177.9	1205.5	1198.3
17.5°	1078.7	1085.3	1057.7	1058.8	1119.6	1154.9	1194.2	1185.5	1304.1	1358.3	1361.9
20°	1161.5	1178.4	1146.7	1104.8	1212.6	1261.2	1283.2	1232.6	1359.4	1432.5	1432.5
22.5°	1306.2	1262.7	1214.7	1186.6	1281.6	1333.3	1330.7	1316.4	1383.9	1513.2	1501.0
25°	1385.9	1361.4	1337.4	1344.5	1392.6	1419.2	1454.4	1421.2	1484.6	1580.7	1540.3
27.5°	1537.3	1491.8	1373.7	1467.7	1467.7	1447.8	1522.4	1538.3	1496.9	1653.3	1683.5
30°	1708.5	1692.7	1525.5	1625.2	1594.5	1538.3	1681.4	1671.2	1601.7	1761.2	1747.4
32.5°	1870.6	1922.7	1764.2	1709.5	1755.6	1777.0	1701.9	1732.5	1745.8	1899.7	1893.1
35°	2119.0	2163.0	1952.9	1939.1	1862.4	1842.5	1899.7	1909.9	1911.0	2073.0	2043.4
37.5°	2549.0	2485.6	2278.0	2180.4	2189.1	2165.0	2176.3	2095.5	2106.8	2341.9	2356.8
40°	2863.4	2791.8	2560.7	2490.7	2318.9	2421.7	2330.7	2322.5	2300.0	2604.7	2596.5
42.5°	3210.5	3112.4	2856.7	2763.2	2580.7	2538.8	2496.8	2591.4	2585.3	2867.5	2929.8
45°	3472.8	3274.4	3141.0	3082.7	2973.3	2870.5	2830.7	2873.1	2853.7	3063.3	3172.2
47.5°	3638.4	3466.1	3312.8	3190.1	3085.3	3337.3	3135.4	3078.6	3039.2	3273.9	3378.7
50°	3770.3	3571.4	3390.5	3349.6	3432.4	3655.3	3336.8	3211.5	3259.6	3432.4	3575.0
52.5°	3806.1	3595.5	3432.9	3406.8	3630.7	3671.1	3619.5	3408.9	3396.1	3622.6	3794.8
55°	3696.7	3494.7	3417.6	3560.2	3807.6	3773.9	3852.6	3718.2	3627.7	3816.8	4033.6
57.5°	3415.0	3214.6	3196.2	3401.7	3713.6	4000.9	4039.7	3933.4	3814.8	4015.2	4270.8
60°	2952.3	2769.3	2815.8	3042.8	3513.2	3922.1	4128.7	4031.5	3994.7	4194.1	4490.6
62.5°	2232.0	2089.4	2213.6	2530.1	3147.1	3820.4	4251.4	4236.0	4182.9	4384.3	4684.9
65°	1423.3	1348.1	1474.9	1796.5	2579.1	3635.3	4310.2	4330.6	4379.7	4531.0	4835.2
67.5°	827.2	787.3	864.5	1127.8	1836.8	2985.1	4200.8	4494.2	4519.8	4606.7	4933.9
70°	489.2	463.2	494.9	633.4	1039.8	2033.7	3583.2	4422.6	4615.9	4676.2	5033.5
72.5°	373.2	348.7	334.9	374.7	542.9	1050.6	2422.7	3748.8	4538.7	4630.2	4991.6
75°	322.6	299.1	282.7	286.3	323.1	499.0	1313.3	2681.4	3867.4	4216.1	4610.8
77.5°	277.1	256.1	244.4	243.3	247.9	274.0	549.1	1453.9	2422.2	3030.6	3324.0
80°	221.9	205.5	203.0	203.0	196.3	194.3	273.0	553.1	921.7	1093.0	1048.0
82.5°	162.1	145.7	162.1	160.0	149.8	141.6	173.8	239.3	284.2	224.4	177.4
85°	109.4	94.6	106.8	108.9	99.2	73.6	104.3	119.6	122.7	76.7	63.4
87.5°	38.3	37.3	60.3	52.7	42.9	25.1	38.3	41.4	43.5	27.1	18.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P367548
 CATALOG NUMBER: MSA-SA2D-730-U-RW

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	442.7	442.7	442.7	442.7	442.7	442.7	442.7	442.7	442.7	442.7	442.7
2.5°	536.8	530.7	500.0	504.6	516.3	522.0	527.6	504.6	493.3	529.1	525.5
5°	702.9	680.4	655.4	651.8	653.3	631.4	644.1	638.5	641.1	664.1	668.7
7.5°	842.0	814.9	781.7	755.6	710.6	674.8	705.0	720.3	724.9	765.8	781.2
10°	917.1	894.1	884.4	835.3	820.5	815.9	808.8	784.2	811.3	801.6	809.3
12.5°	1064.4	1059.8	1009.2	977.0	980.0	988.7	943.7	919.2	883.9	939.1	919.2
15°	1189.6	1209.6	1159.0	1100.2	1071.0	1085.8	1051.6	1015.8	984.1	1001.0	979.5
17.5°	1349.6	1349.1	1250.5	1187.6	1185.0	1184.0	1133.4	1054.7	1092.5	1080.7	1081.8
20°	1434.5	1420.7	1298.0	1225.4	1287.3	1265.3	1219.8	1118.6	1162.5	1176.8	1186.0
22.5°	1505.6	1497.9	1349.1	1296.0	1335.8	1336.3	1290.8	1237.7	1232.1	1276.5	1252.5
25°	1555.2	1585.8	1445.8	1433.0	1450.4	1433.0	1388.5	1353.7	1331.2	1397.7	1331.2
27.5°	1672.7	1629.3	1460.6	1533.2	1543.9	1456.5	1512.2	1471.3	1408.9	1491.3	1518.3
30°	1756.6	1782.1	1564.9	1674.3	1661.5	1580.7	1603.7	1602.2	1527.5	1688.1	1669.2
32.5°	1900.7	1870.1	1735.1	1726.4	1757.1	1753.5	1714.7	1733.6	1752.0	1868.5	1896.7
35°	2048.5	2081.2	1844.0	1902.8	1894.1	1838.9	1940.6	1928.9	1983.6	2222.8	2143.6
37.5°	2381.8	2225.9	2088.4	2080.7	2139.0	2147.7	2114.9	2166.6	2284.7	2468.7	2553.6
40°	2600.1	2529.0	2295.4	2304.6	2223.8	2362.9	2270.9	2437.0	2527.0	2837.3	2807.1
42.5°	2930.4	2757.0	2532.6	2563.3	2546.9	2480.0	2601.1	2686.5	2815.3	3052.0	3204.9
45°	3176.3	2938.5	2832.2	2813.3	2811.2	2927.8	2912.5	3049.0	3095.0	3272.9	3399.7
47.5°	3362.9	3160.9	3003.5	3024.9	2962.6	3295.4	3118.0	3160.4	3253.5	3421.1	3568.9
50°	3584.2	3359.3	3180.3	3233.5	3385.3	3513.2	3352.6	3280.0	3325.5	3523.4	3688.0
52.5°	3789.2	3552.5	3355.7	3400.2	3648.1	3589.8	3572.5	3388.9	3383.3	3542.3	3729.4
55°	4029.0	3762.1	3588.3	3729.4	3817.3	3745.3	3717.6	3494.2	3356.2	3444.6	3621.0
57.5°	4264.1	3969.7	3796.9	3826.0	3937.5	3865.9	3658.9	3314.8	3142.5	3159.9	3338.3
60°	4484.5	4160.4	4017.7	3989.6	4078.6	3797.9	3435.4	2986.1	2757.6	2715.6	2870.0
62.5°	4673.1	4319.9	4184.9	4108.2	4193.1	3800.5	3087.3	2458.5	2207.5	2065.4	2185.5
65°	4822.9	4452.3	4356.2	4316.3	4347.0	3569.4	2544.9	1805.1	1497.4	1339.9	1410.0
67.5°	4922.6	4526.4	4482.4	4534.6	4125.6	2972.8	1885.4	1155.4	870.6	784.7	828.7
70°	5025.9	4591.8	4590.3	4412.9	3498.3	2049.5	1101.2	666.1	506.6	473.4	501.0
72.5°	4991.1	4514.1	4537.1	3859.3	2424.2	1095.6	581.3	376.8	343.0	354.8	379.3
75°	4622.0	4104.1	3993.2	2774.4	1375.2	509.2	334.9	285.3	283.2	301.1	325.1
77.5°	3352.6	2858.3	2564.8	1572.5	589.4	275.6	246.4	238.2	238.2	252.5	274.0
80°	1105.3	956.5	996.9	608.4	278.6	190.2	192.2	195.8	194.8	198.4	216.2
82.5°	181.5	188.1	290.9	248.5	168.2	129.9	145.2	152.3	154.4	138.0	156.9
85°	64.4	72.6	123.7	115.0	97.1	65.4	95.6	106.8	105.3	92.0	101.7
87.5°	19.9	25.6	45.0	34.8	29.1	17.9	35.8	41.9	52.7	21.5	19.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)