

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: P367504

Luminaire Tested: **MSA-SA2C-830-U-RW**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367504
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-SA2C-830-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: 10067 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

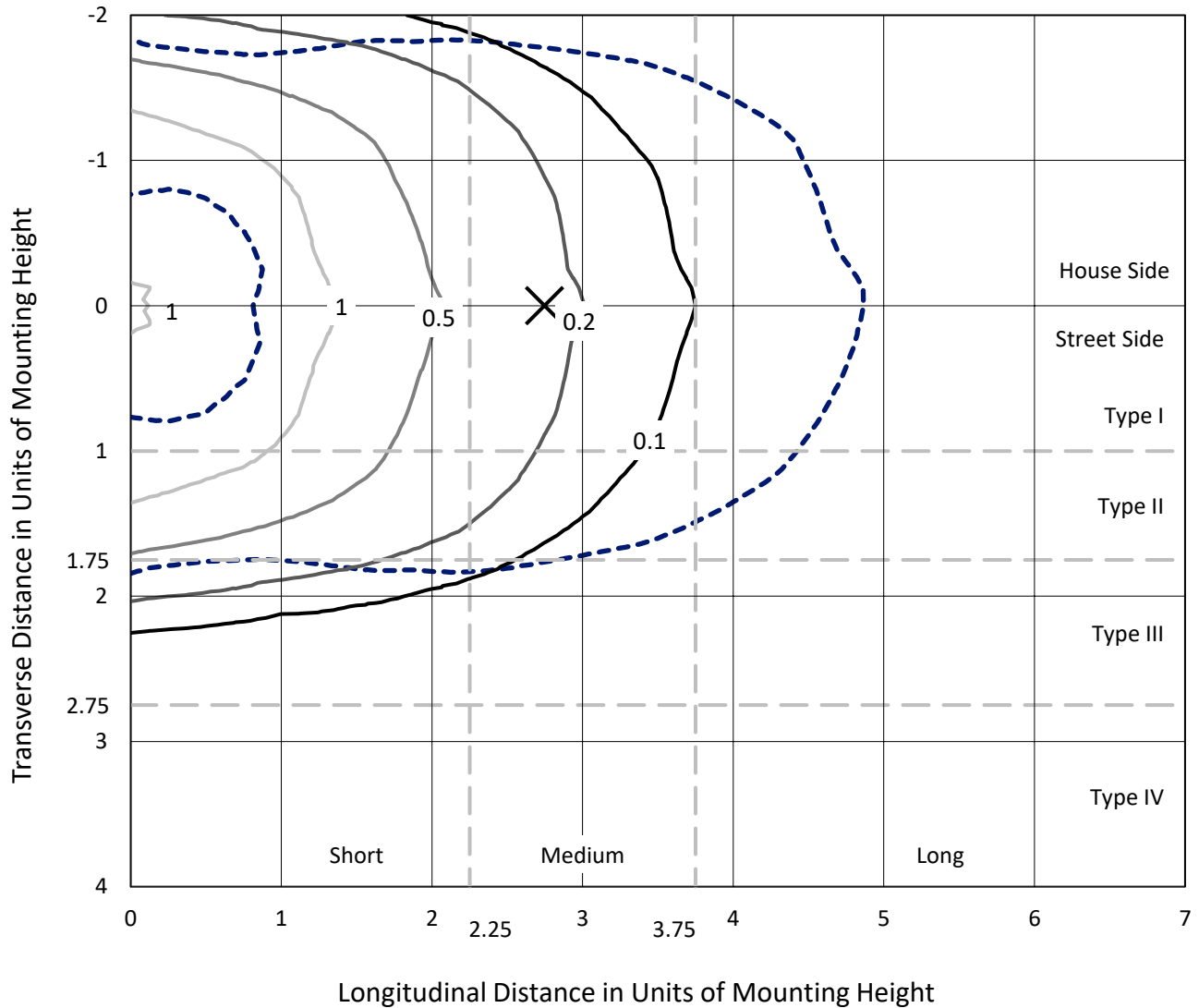
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367504
 CATALOG NUMBER: MSA-SA2C-830-U-RW

Iso-Footcandle Lines of Horizontal Illumination

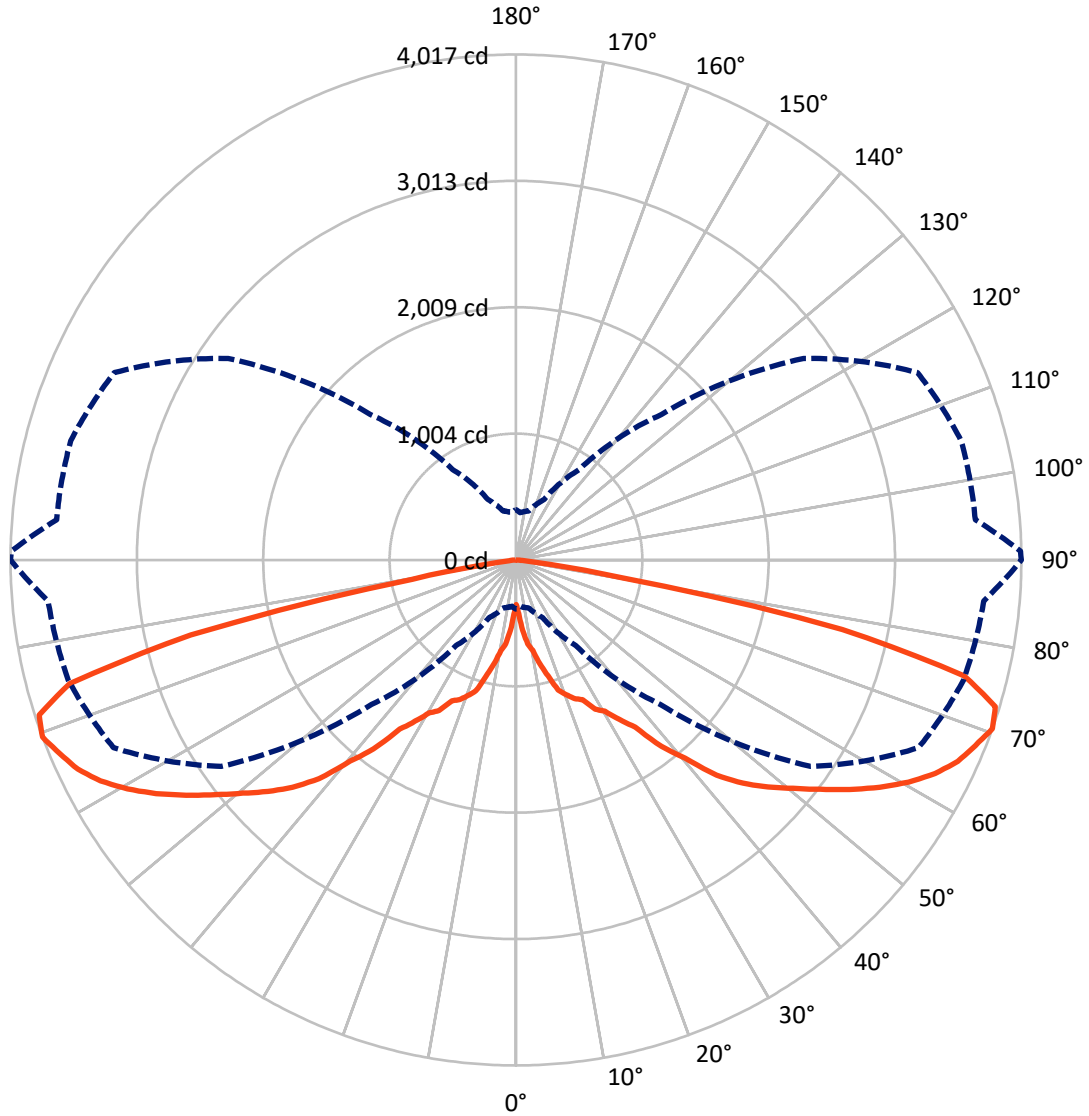
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
 Type III - Short - N/A

REPORT NUMBER: P367504
CATALOG NUMBER: MSA-SA2C-830-U-RW

Luminous Intensity Polar Plot



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

REPORT NUMBER: P367504

CATALOG NUMBER: MSA-SA2C-830-U-RW

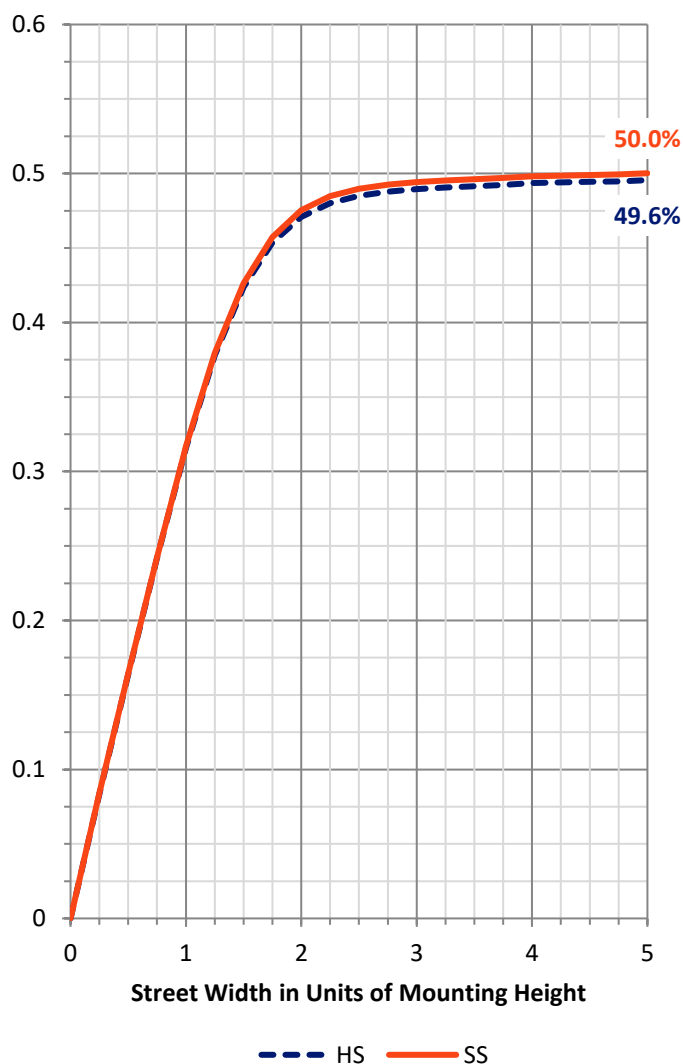
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5014.8	0.0	5014.8
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	5052.1	0.0	5052.1
	% Fixture	50.2	0.0	50.2
Total	Lumens	10067.0	0.0	10067.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.3	0.5
10°-20°	244.3	2.4
20°-30°	528.2	5.2
30°-40°	1007.7	10.0
40°-50°	1830.7	18.2
50°-60°	2571.7	25.5
60°-70°	2455.5	24.4
70°-80°	1260.1	12.5
80°-90°	115.5	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°	10067.0	100.0
0°-180°	10067.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367504

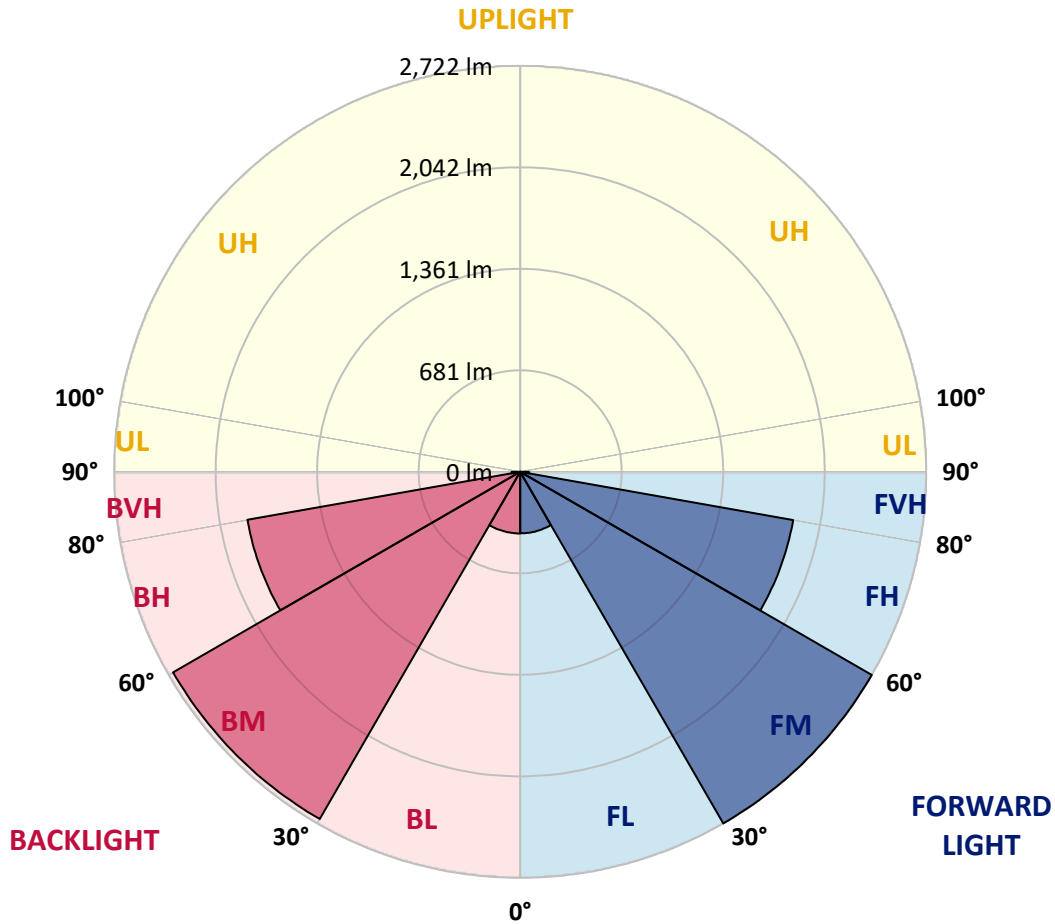
CATALOG NUMBER: MSA-SA2C-830-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	412.5	4.1			
FM (30°-60°)	2722.2	27.0			
FH (60°-80°)	1858.8	18.5			G2/5000
FVH (80°-90°)	58.6	0.6			G1/100
BL (0°-30°)	413.3	4.1	B1/500		
BM (30°-60°)	2687.9	26.7	B3/5000		
BH (60°-80°)	1856.8	18.4	B3/2500		G3/2500
BVH (80°-90°)	56.9	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: P367504

CATALOG NUMBER: MSA-SA2C-830-U-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3
2.5°	428.0	412.1	392.1	403.9	408.8	417.4	416.2	412.1	394.5	423.9	427.2
5°	535.7	510.4	501.0	499.4	501.8	493.7	520.2	512.4	526.7	553.2	559.4
7.5°	610.0	591.2	571.2	577.3	552.0	548.4	582.6	613.2	621.0	669.5	672.8
10°	645.0	626.7	632.0	628.3	625.5	649.1	665.0	687.5	719.7	724.2	731.1
12.5°	674.8	682.2	705.4	704.6	743.0	785.0	778.9	802.1	807.4	863.7	846.6
15°	750.3	765.4	763.8	778.1	794.8	863.7	864.1	903.7	940.0	962.1	956.4
17.5°	860.9	866.2	844.2	845.0	893.5	921.7	953.1	946.2	1040.8	1084.1	1086.9
20°	927.0	940.4	915.1	881.7	967.8	1006.5	1024.1	983.7	1084.9	1143.2	1143.2
22.5°	1042.4	1007.8	969.4	947.0	1022.9	1064.1	1062.0	1050.6	1104.5	1207.7	1197.9
25°	1106.1	1086.5	1067.3	1073.0	1111.4	1132.6	1160.8	1134.2	1184.8	1261.5	1229.3
27.5°	1226.9	1190.5	1096.3	1171.4	1171.4	1155.5	1215.0	1227.7	1194.6	1319.5	1343.5
30°	1363.5	1350.9	1217.5	1297.0	1272.6	1227.7	1341.9	1333.8	1278.3	1405.6	1394.5
32.5°	1492.9	1534.5	1408.0	1364.4	1401.1	1418.2	1358.2	1382.7	1393.3	1516.1	1510.8
35°	1691.2	1726.3	1558.6	1547.5	1486.3	1470.4	1516.1	1524.3	1525.1	1654.4	1630.8
37.5°	2034.3	1983.7	1818.1	1740.1	1747.1	1727.9	1736.9	1672.4	1681.4	1869.1	1880.9
40°	2285.2	2228.1	2043.7	1987.8	1850.7	1932.7	1860.1	1853.5	1835.6	2078.8	2072.2
42.5°	2562.2	2483.9	2279.9	2205.2	2059.6	2026.1	1992.7	2068.2	2063.3	2288.5	2338.3
45°	2771.6	2613.2	2506.8	2460.2	2372.9	2290.9	2259.1	2293.0	2277.5	2444.7	2531.6
47.5°	2903.7	2766.2	2643.8	2545.9	2462.3	2663.4	2502.3	2457.0	2425.6	2612.8	2696.5
50°	3009.0	2850.3	2705.9	2673.2	2739.3	2917.2	2663.0	2563.1	2601.4	2739.3	2853.2
52.5°	3037.6	2869.5	2739.7	2718.9	2897.6	2929.9	2888.6	2720.6	2710.4	2891.1	3028.6
55°	2950.3	2789.1	2727.5	2841.3	3038.8	3011.9	3074.7	2967.4	2895.2	3046.1	3219.1
57.5°	2725.4	2565.5	2550.8	2714.8	2963.7	3193.0	3224.0	3139.2	3044.5	3204.4	3408.4
60°	2356.2	2210.1	2247.3	2428.4	2803.8	3130.2	3295.0	3217.5	3188.1	3347.2	3583.9
62.5°	1781.3	1667.5	1766.6	2019.2	2511.7	3049.0	3392.9	3380.7	3338.3	3499.0	3738.9
65°	1135.9	1075.9	1177.1	1433.7	2058.4	2901.3	3439.9	3456.2	3495.3	3616.1	3858.9
67.5°	660.1	628.3	689.9	900.1	1465.9	2382.3	3352.5	3586.7	3607.1	3676.5	3937.6
70°	390.5	369.6	394.9	505.5	829.9	1623.0	2859.7	3529.6	3683.8	3732.0	4017.2
72.5°	297.8	278.3	267.2	299.1	433.3	838.4	1933.5	2991.9	3622.2	3695.3	3983.7
75°	257.4	238.7	225.6	228.5	257.9	398.2	1048.2	2140.0	3086.5	3364.8	3679.8
77.5°	221.1	204.4	195.0	194.2	197.9	218.7	438.2	1160.4	1933.1	2418.6	2652.8
80°	177.1	164.0	162.0	162.0	156.7	155.0	217.9	441.5	735.6	872.3	836.4
82.5°	129.3	116.3	129.3	127.7	119.5	113.0	138.7	190.9	226.8	179.1	141.6
85°	87.3	75.5	85.3	86.9	79.2	58.8	83.2	95.5	97.9	61.2	50.6
87.5°	30.6	29.8	48.1	42.0	34.3	20.0	30.6	33.0	34.7	21.6	14.7
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: P367504
 CATALOG NUMBER: MSA-SA2C-830-U-RW

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3
2.5°	428.4	423.5	399.0	402.7	412.1	416.6	421.1	402.7	393.7	422.3	419.4
5°	561.0	543.0	523.1	520.2	521.4	503.9	514.1	509.6	511.6	530.0	533.7
7.5°	672.0	650.4	623.8	603.0	567.1	538.6	562.6	574.9	578.5	611.2	623.4
10°	732.0	713.6	705.8	666.7	654.8	651.2	645.5	625.9	647.5	639.7	645.9
12.5°	849.5	845.8	805.4	779.7	782.1	789.1	753.2	733.6	705.4	749.5	733.6
15°	949.4	965.3	924.9	878.0	854.8	866.6	839.3	810.7	785.4	798.9	781.7
17.5°	1077.1	1076.7	998.0	947.8	945.7	944.9	904.5	841.7	871.9	862.5	863.3
20°	1144.9	1133.8	1035.9	978.0	1027.3	1009.8	973.5	892.7	927.8	939.2	946.6
22.5°	1201.6	1195.4	1076.7	1034.3	1066.1	1066.5	1030.2	987.8	983.3	1018.8	999.6
25°	1241.1	1265.6	1153.8	1143.6	1157.5	1143.6	1108.1	1080.4	1062.4	1115.5	1062.4
27.5°	1335.0	1300.3	1165.7	1223.6	1232.2	1162.4	1206.9	1174.2	1124.5	1190.1	1211.8
30°	1401.9	1422.3	1248.9	1336.2	1326.0	1261.5	1279.9	1278.7	1219.1	1347.2	1332.1
32.5°	1516.9	1492.5	1384.8	1377.8	1402.3	1399.4	1368.4	1383.5	1398.2	1491.2	1513.7
35°	1634.9	1661.0	1471.7	1518.6	1511.6	1467.6	1548.8	1539.4	1583.0	1774.0	1710.7
37.5°	1900.9	1776.4	1666.7	1660.6	1707.1	1714.0	1687.9	1729.1	1823.4	1970.2	2038.0
40°	2075.1	2018.4	1831.9	1839.3	1774.8	1885.8	1812.3	1944.9	2016.7	2264.4	2240.3
42.5°	2338.7	2200.3	2021.2	2045.7	2032.7	1979.2	2075.9	2144.0	2246.9	2435.8	2557.8
45°	2534.9	2345.2	2260.3	2245.2	2243.6	2336.6	2324.4	2433.3	2470.0	2612.0	2713.2
47.5°	2683.8	2522.7	2397.0	2414.1	2364.4	2630.0	2488.4	2522.3	2596.5	2730.3	2848.3
50°	2860.5	2681.0	2538.2	2580.6	2701.8	2803.8	2675.7	2617.7	2654.0	2811.9	2943.3
52.5°	3024.1	2835.2	2678.1	2713.6	2911.5	2865.0	2851.1	2704.6	2700.2	2827.0	2976.4
55°	3215.5	3002.5	2863.8	2976.4	3046.5	2989.0	2967.0	2788.7	2678.5	2749.1	2889.9
57.5°	3403.1	3168.1	3030.2	3053.5	3142.4	3085.3	2920.1	2645.5	2508.0	2521.9	2664.2
60°	3579.0	3320.3	3206.5	3184.0	3255.0	3031.0	2741.8	2383.1	2200.8	2167.3	2290.5
62.5°	3729.5	3447.6	3339.9	3278.7	3346.4	3033.1	2463.9	1962.1	1761.7	1648.3	1744.2
65°	3849.1	3553.3	3476.6	3444.8	3469.2	2848.7	2031.0	1440.7	1195.0	1069.4	1125.3
67.5°	3928.6	3612.4	3577.4	3619.0	3292.6	2372.5	1504.7	922.1	694.8	626.3	661.4
70°	4011.1	3664.7	3663.4	3521.9	2792.0	1635.7	878.8	531.6	404.3	377.8	399.8
72.5°	3983.3	3602.6	3621.0	3080.0	1934.7	874.3	463.9	300.7	273.8	283.2	302.7
75°	3688.7	3275.4	3186.9	2214.2	1097.5	406.4	267.2	227.7	226.0	240.3	259.5
77.5°	2675.7	2281.1	2046.9	1255.0	470.4	219.9	196.7	190.1	190.1	201.6	218.7
80°	882.1	763.4	795.6	485.5	222.4	151.8	153.4	156.3	155.4	158.3	172.6
82.5°	144.8	150.1	232.2	198.3	134.2	103.6	115.9	121.6	123.2	110.2	125.3
85°	51.4	57.9	98.7	91.8	77.5	52.2	76.3	85.3	84.0	73.4	81.2
87.5°	15.9	20.4	35.9	27.7	23.3	14.3	28.6	33.5	42.0	17.1	15.5
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)