

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: P367680

Luminaire Tested: **MSA-SA3A-730-U-RW**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367680
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-SA3A-730-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10971 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

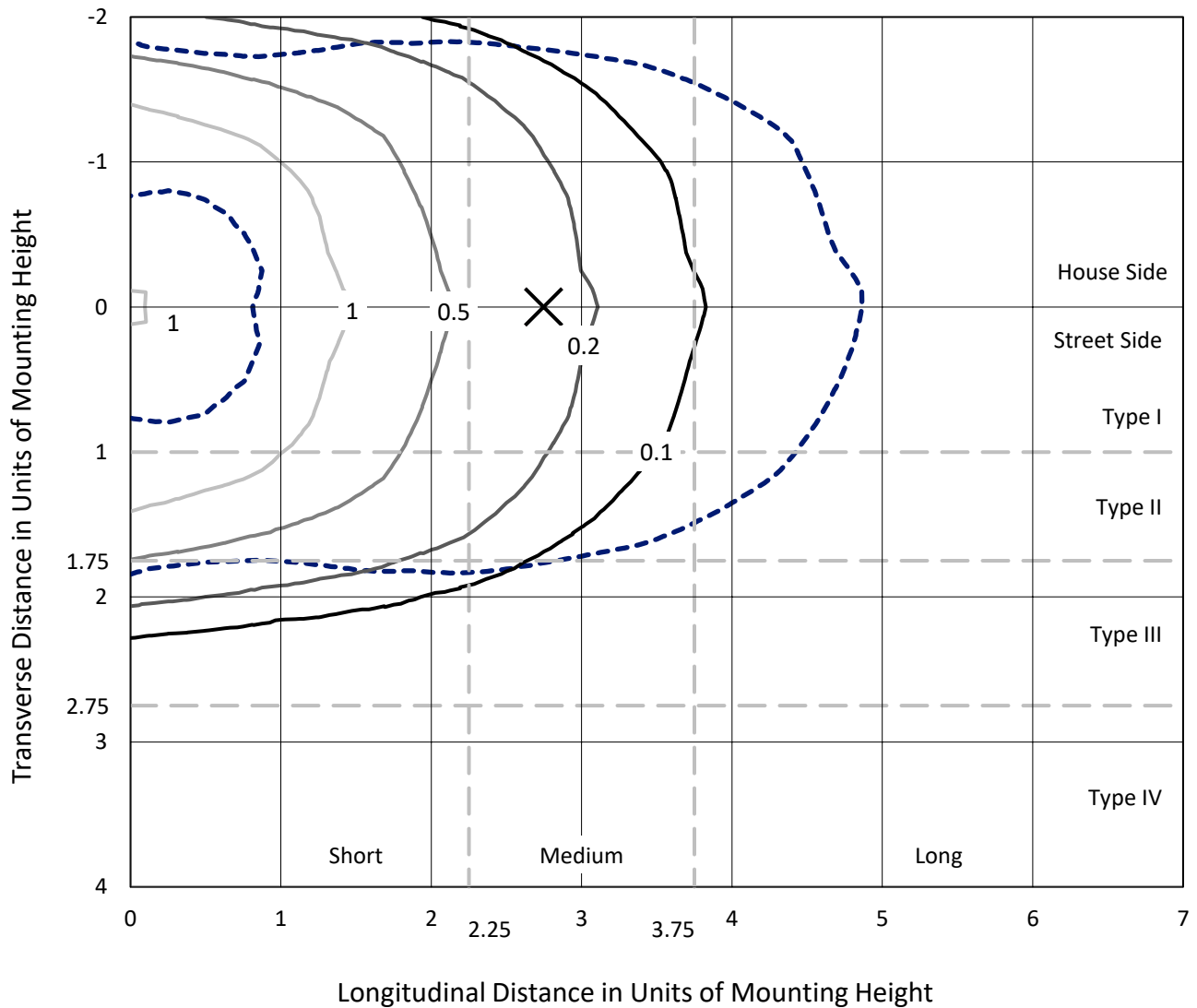
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367680
 CATALOG NUMBER: MSA-SA3A-730-U-RW

Iso-Footcandle Lines of Horizontal Illumination

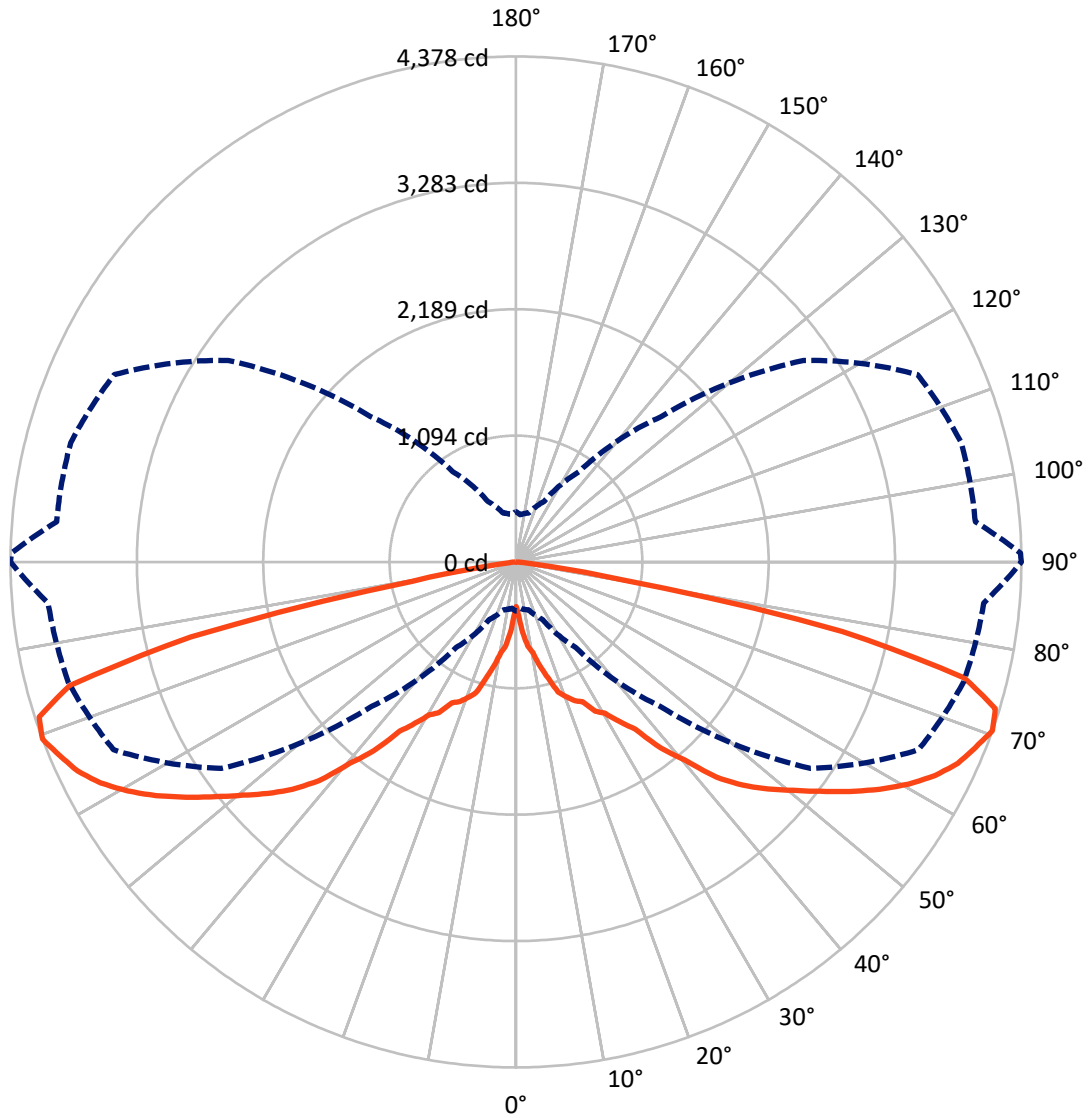
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
 Type III - Short - N/A

REPORT NUMBER: P367680
CATALOG NUMBER: MSA-SA3A-730-U-RW

Luminous Intensity Polar Plot



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



REPORT NUMBER: P367680
 CATALOG NUMBER: MSA-SA3A-730-U-RW

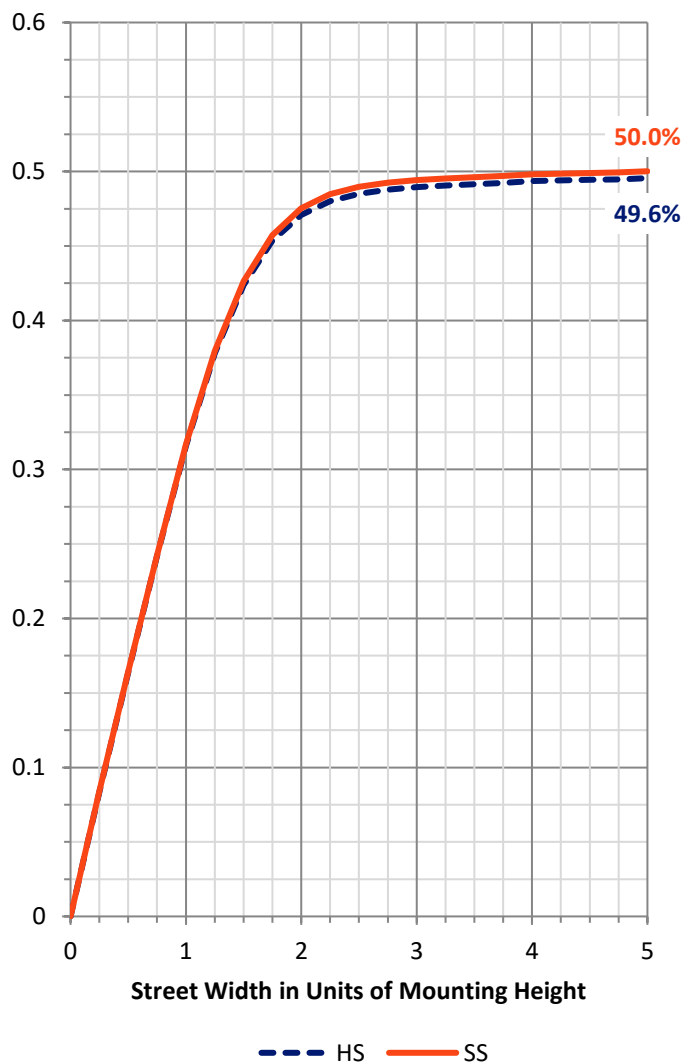
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5465.2	0.0	5465.2
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	5505.8	0.0	5505.8
	% Fixture	50.2	0.0	50.2
Total	Lumens	10971.0	0.0	10971.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	0.5
10°-20°	266.2	2.4
20°-30°	575.6	5.2
30°-40°	1098.2	10.0
40°-50°	1995.1	18.2
50°-60°	2802.6	25.5
60°-70°	2675.9	24.4
70°-80°	1373.3	12.5
80°-90°	125.9	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°	10971.0	100.0
0°-180°	10971.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367680

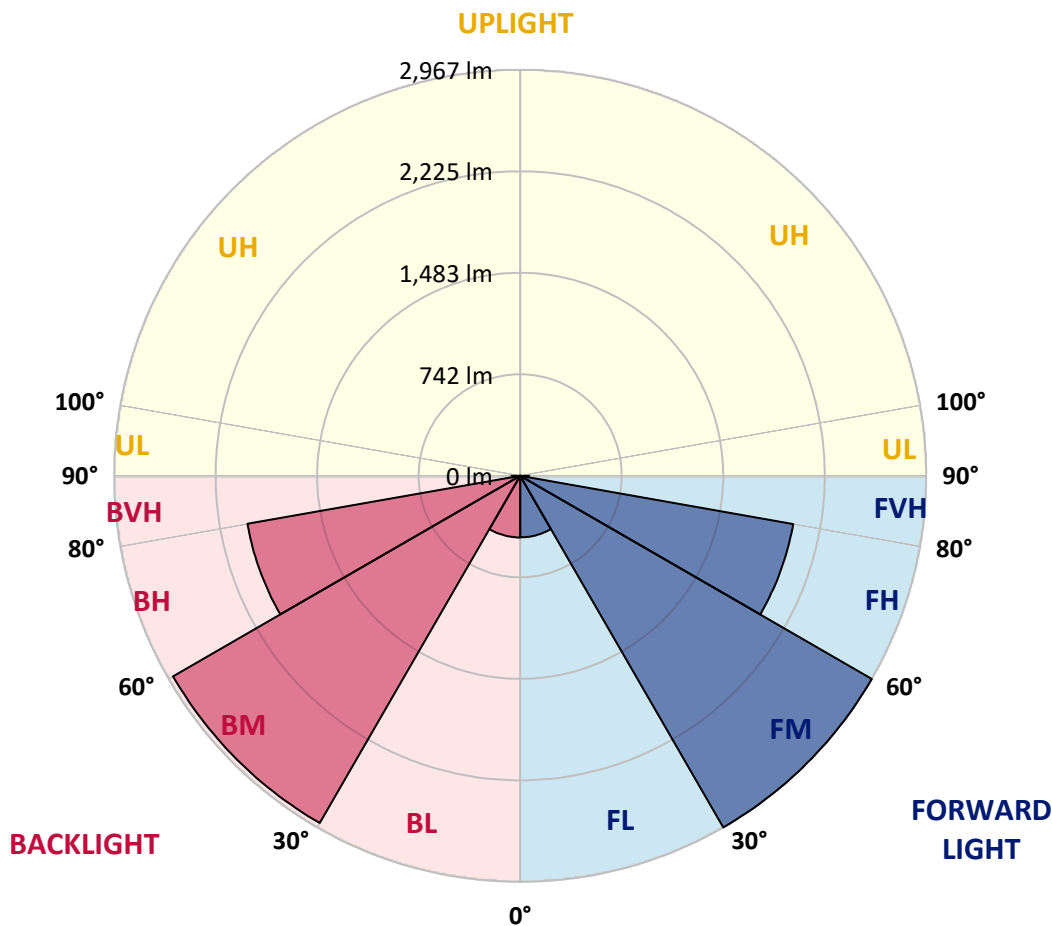
CATALOG NUMBER: MSA-SA3A-730-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	449.5	4.1			
FM (30°-60°)	2966.7	27.0			
FH (60°-80°)	2025.7	18.5			G2/5000
FVH (80°-90°)	63.9	0.6			G1/100
BL (0°-30°)	450.4	4.1	B1/500		
BM (30°-60°)	2929.2	26.7	B3/5000		
BH (60°-80°)	2023.5	18.4	B3/2500		G3/2500
BVH (80°-90°)	62.0	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: P367680

CATALOG NUMBER: MSA-SA3A-730-U-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	385.1	385.1	385.1	385.1	385.1	385.1	385.1	385.1	385.1	385.1	385.1
2.5°	466.4	449.1	427.3	440.2	445.5	454.9	453.5	449.1	430.0	462.0	465.5
5°	583.8	556.2	546.0	544.2	546.9	538.0	566.9	558.5	574.0	602.9	609.6
7.5°	664.7	644.3	622.5	629.2	601.6	597.6	634.9	668.3	676.7	729.7	733.2
10°	703.0	683.0	688.7	684.7	681.6	707.4	724.8	749.2	784.3	789.2	796.8
12.5°	735.4	743.4	768.8	767.9	809.7	855.5	848.8	874.2	879.9	941.3	922.6
15°	817.7	834.1	832.4	847.9	866.2	941.3	941.7	984.9	1024.4	1048.5	1042.2
17.5°	938.2	944.0	920.0	920.8	973.8	1004.4	1038.7	1031.1	1134.3	1181.4	1184.5
20°	1010.2	1024.9	997.3	960.9	1054.7	1096.9	1116.0	1072.0	1182.3	1245.9	1245.9
22.5°	1136.1	1098.3	1056.5	1032.0	1114.7	1159.6	1157.4	1144.9	1203.6	1316.1	1305.5
25°	1205.4	1184.1	1163.2	1169.4	1211.2	1234.3	1265.0	1236.1	1291.2	1374.8	1339.7
27.5°	1337.0	1297.5	1194.7	1276.6	1276.6	1259.2	1324.1	1337.9	1301.9	1438.0	1464.2
30°	1486.0	1472.2	1326.8	1413.5	1386.8	1337.9	1462.4	1453.5	1393.1	1531.8	1519.8
32.5°	1626.9	1672.3	1534.4	1486.9	1526.9	1545.6	1480.2	1506.9	1518.4	1652.3	1646.5
35°	1843.0	1881.3	1698.5	1686.5	1619.8	1602.5	1652.3	1661.2	1662.1	1803.0	1777.2
37.5°	2217.0	2161.8	1981.3	1896.4	1903.9	1883.0	1892.8	1822.6	1832.4	2036.9	2049.8
40°	2490.4	2428.2	2227.2	2166.3	2016.9	2106.3	2027.1	2020.0	2000.4	2265.4	2258.3
42.5°	2792.3	2707.0	2484.6	2403.3	2244.5	2208.1	2171.6	2253.9	2248.5	2494.0	2548.2
45°	3020.4	2847.9	2731.9	2681.2	2586.0	2496.6	2462.0	2498.9	2482.0	2664.3	2759.0
47.5°	3164.5	3014.7	2881.3	2774.5	2683.4	2902.6	2727.0	2677.6	2643.4	2847.5	2938.6
50°	3279.2	3106.2	2948.8	2913.3	2985.3	3179.2	2902.2	2793.2	2835.0	2985.3	3109.4
52.5°	3310.3	3127.1	2985.7	2963.1	3157.8	3193.0	3148.0	2964.9	2953.7	3150.7	3300.6
55°	3215.2	3039.6	2972.4	3096.5	3311.7	3282.3	3350.8	3233.9	3155.2	3319.7	3508.2
57.5°	2970.2	2795.9	2779.9	2958.6	3229.9	3479.7	3513.5	3421.1	3317.9	3492.2	3714.5
60°	2567.8	2408.6	2449.1	2646.5	3055.6	3411.3	3590.9	3506.4	3474.4	3647.8	3905.7
62.5°	1941.3	1817.2	1925.3	2200.5	2737.2	3322.8	3697.6	3684.3	3638.0	3813.2	4074.7
65°	1237.9	1172.5	1282.8	1562.5	2243.2	3161.8	3748.8	3766.5	3809.2	3940.8	4205.4
67.5°	719.4	684.7	751.9	980.9	1597.6	2596.2	3653.6	3908.8	3931.1	4006.6	4291.2
70°	425.5	402.8	430.4	550.9	904.4	1768.8	3116.5	3846.6	4014.6	4067.1	4377.9
72.5°	324.6	303.2	291.2	325.9	472.2	913.7	2107.1	3260.5	3947.5	4027.1	4341.5
75°	280.6	260.1	245.9	249.0	281.0	434.0	1142.3	2332.1	3363.7	3666.9	4010.2
77.5°	241.0	222.8	212.5	211.6	215.6	238.3	477.5	1264.6	2106.7	2635.8	2891.0
80°	193.0	178.7	176.5	176.5	170.7	169.0	237.4	481.1	801.7	950.6	911.5
82.5°	141.0	126.7	141.0	139.2	130.3	123.2	151.2	208.1	247.2	195.2	154.3
85°	95.2	82.3	92.9	94.7	86.3	64.0	90.7	104.0	106.7	66.7	55.1
87.5°	33.3	32.5	52.5	45.8	37.3	21.8	33.3	36.0	37.8	23.6	16.0
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: P367680

CATALOG NUMBER: MSA-SA3A-730-U-RW

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	385.1	385.1	385.1	385.1	385.1	385.1	385.1	385.1	385.1	385.1	385.1
2.5°	466.9	461.5	434.9	438.9	449.1	454.0	458.9	438.9	429.1	460.2	457.1
5°	611.4	591.8	570.0	566.9	568.2	549.1	560.2	555.4	557.6	577.6	581.6
7.5°	732.3	708.8	679.9	657.2	618.0	586.9	613.2	626.5	630.5	666.1	679.4
10°	797.7	777.7	769.2	726.5	713.6	709.6	703.4	682.1	705.6	697.2	703.9
12.5°	925.7	921.7	877.7	849.7	852.4	859.9	820.8	799.5	768.8	816.8	799.5
15°	1034.7	1052.0	1008.0	956.9	931.5	944.4	914.6	883.5	855.9	870.6	851.9
17.5°	1173.8	1173.4	1087.6	1032.9	1030.7	1029.8	985.8	917.3	950.2	940.0	940.9
20°	1247.7	1235.7	1128.9	1065.8	1119.6	1100.5	1060.9	972.9	1011.1	1023.6	1031.6
22.5°	1309.5	1302.8	1173.4	1127.2	1161.8	1162.3	1122.7	1076.5	1071.6	1110.3	1089.4
25°	1352.6	1379.3	1257.4	1246.3	1261.4	1246.3	1207.6	1177.4	1157.8	1215.6	1157.8
27.5°	1454.9	1417.1	1270.3	1333.5	1342.8	1266.8	1315.2	1279.7	1225.4	1297.0	1320.6
30°	1527.8	1550.0	1361.0	1456.2	1445.1	1374.8	1394.8	1393.5	1328.6	1468.2	1451.7
32.5°	1653.2	1626.5	1509.1	1501.5	1528.2	1525.1	1491.3	1507.8	1523.8	1625.2	1649.6
35°	1781.7	1810.1	1603.8	1654.9	1647.4	1599.4	1687.8	1677.6	1725.2	1933.3	1864.4
37.5°	2071.6	1936.0	1816.3	1809.7	1860.4	1867.9	1839.5	1884.4	1987.1	2147.2	2221.0
40°	2261.4	2199.6	1996.4	2004.4	1934.2	2055.1	1975.1	2119.6	2197.8	2467.7	2441.5
42.5°	2548.7	2397.9	2202.7	2229.4	2215.2	2156.9	2262.3	2336.6	2448.6	2654.5	2787.4
45°	2762.5	2555.8	2463.3	2446.8	2445.1	2546.4	2533.1	2651.8	2691.8	2846.6	2956.8
47.5°	2924.8	2749.2	2612.3	2630.9	2576.7	2866.1	2711.9	2748.8	2829.7	2975.5	3104.0
50°	3117.4	2921.7	2766.1	2812.3	2944.4	3055.6	2915.9	2852.8	2892.4	3064.5	3207.6
52.5°	3295.7	3089.8	2918.6	2957.3	3172.9	3122.3	3107.1	2947.5	2942.6	3080.9	3243.6
55°	3504.2	3272.1	3120.9	3243.6	3320.1	3257.4	3233.4	3039.1	2919.1	2996.0	3149.4
57.5°	3708.7	3452.6	3302.3	3327.7	3424.6	3362.4	3182.3	2883.0	2733.2	2748.3	2903.5
60°	3900.4	3618.5	3494.4	3470.0	3547.3	3303.2	2988.0	2597.1	2398.4	2361.9	2496.2
62.5°	4064.4	3757.2	3639.8	3573.1	3646.9	3305.4	2685.2	2138.3	1920.0	1796.3	1900.8
65°	4194.7	3872.4	3788.8	3754.1	3780.8	3104.5	2213.4	1570.0	1302.3	1165.4	1226.3
67.5°	4281.4	3936.8	3898.6	3943.9	3588.2	2585.6	1639.8	1004.9	757.2	682.5	720.8
70°	4371.2	3993.7	3992.4	3838.1	3042.7	1782.6	957.8	579.4	440.6	411.7	435.7
72.5°	4341.0	3926.2	3946.2	3356.6	2108.5	952.9	505.6	327.7	298.4	308.6	329.9
75°	4020.0	3569.6	3473.1	2413.1	1196.1	442.9	291.2	248.1	246.3	261.9	282.8
77.5°	2915.9	2486.0	2230.8	1367.7	512.7	239.7	214.3	207.2	207.2	219.7	238.3
80°	961.3	831.9	867.0	529.1	242.3	165.4	167.2	170.3	169.4	172.5	188.1
82.5°	157.8	163.6	253.0	216.1	146.3	112.9	126.3	132.5	134.3	120.1	136.5
85°	56.0	63.1	107.6	100.0	84.5	56.9	83.1	92.9	91.6	80.0	88.5
87.5°	17.3	22.2	39.1	30.2	25.3	15.6	31.1	36.5	45.8	18.7	16.9
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)