

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: P367284

Luminaire Tested: **MSA-SA2B-730-U-RW**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367284
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-SA2B-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: 9316 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

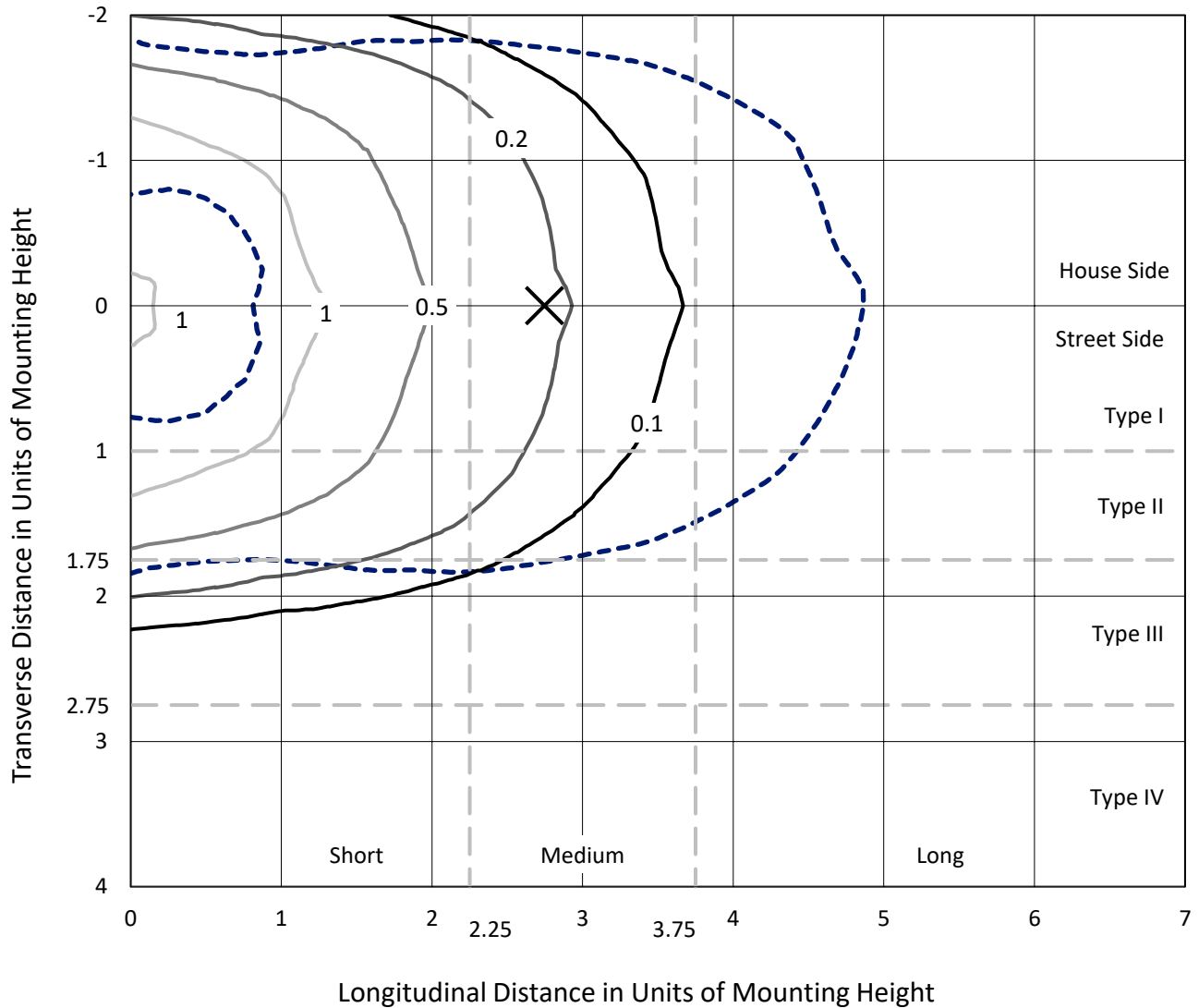
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

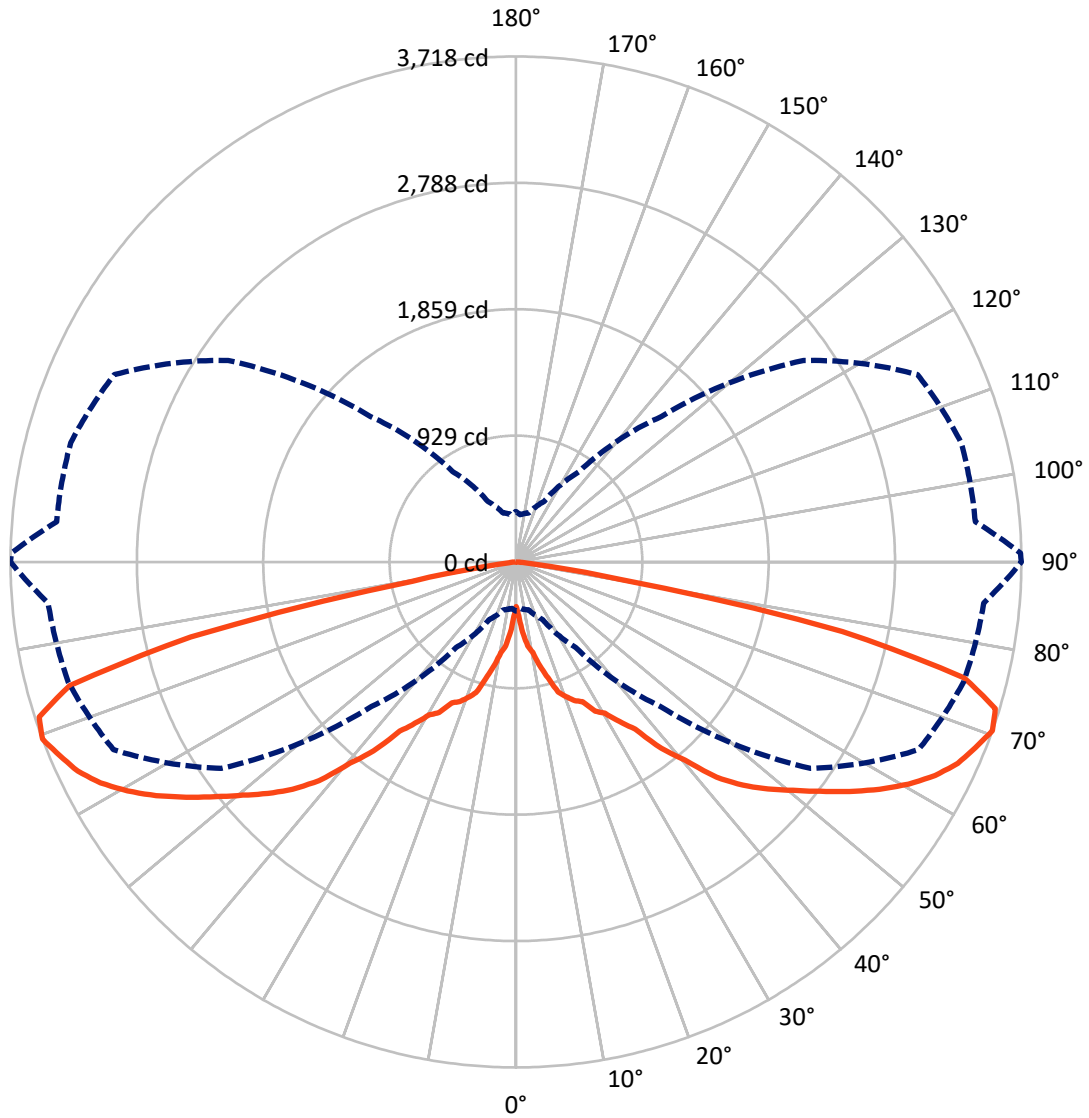
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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

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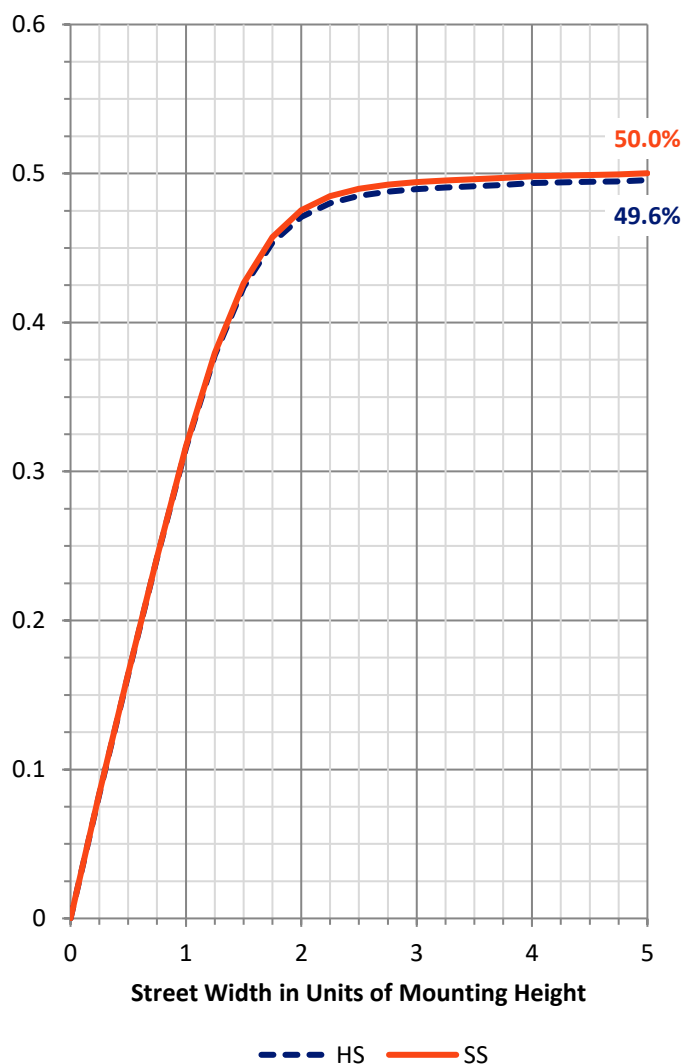
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4640.7	0.0	4640.7
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	4675.3	0.0	4675.3
	% Fixture	50.2	0.0	50.2
Total	Lumens	9316.0	0.0	9316.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.3	0.5
10°-20°	226.1	2.4
20°-30°	488.8	5.2
30°-40°	932.5	10.0
40°-50°	1694.1	18.2
50°-60°	2379.8	25.5
60°-70°	2272.3	24.4
70°-80°	1166.1	12.5
80°-90°	106.9	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°	9316.0	100.0
0°-180°	9316.0	100.0

Coefficient of Utilization



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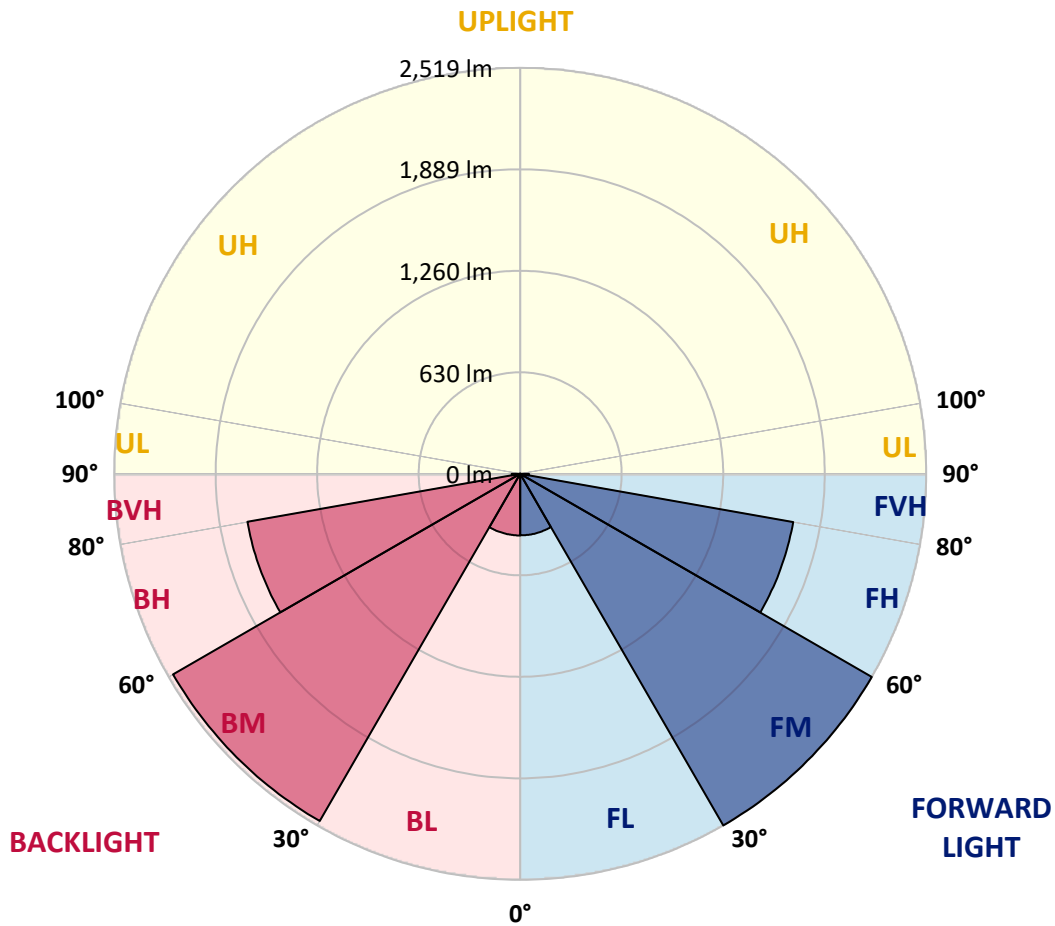
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	381.7	4.1			
FM (30°-60°)	2519.1	27.0			
FH (60°-80°)	1720.2	18.5			G1/1800
FVH (80°-90°)	54.3	0.6			G1/100
BL (0°-30°)	382.5	4.1	B1/500		
BM (30°-60°)	2487.4	26.7	B2/2500		
BH (60°-80°)	1718.3	18.4	B3/2500		G3/2500
BVH (80°-90°)	52.7	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	327.0	327.0	327.0	327.0	327.0	327.0	327.0	327.0	327.0	327.0	327.0
2.5°	396.1	381.3	362.8	373.8	378.3	386.2	385.1	381.3	365.1	392.3	395.3
5°	495.7	472.3	463.6	462.1	464.4	456.9	481.4	474.2	487.4	512.0	517.6
7.5°	564.5	547.1	528.6	534.3	510.8	507.4	539.2	567.5	574.7	619.6	622.6
10°	596.9	579.9	584.8	581.4	578.8	600.7	615.4	636.2	666.0	670.2	676.6
12.5°	624.5	631.3	652.8	652.1	687.5	726.4	720.8	742.3	747.2	799.3	783.4
15°	694.3	708.3	706.8	720.0	735.5	799.3	799.7	836.3	869.9	890.3	885.0
17.5°	796.7	801.6	781.2	781.9	826.9	852.9	882.0	875.6	963.2	1003.2	1005.8
20°	857.8	870.3	846.9	815.9	895.6	931.5	947.7	910.3	1003.9	1057.9	1057.9
22.5°	964.7	932.6	897.1	876.3	946.6	984.7	982.8	972.2	1022.1	1117.6	1108.5
25°	1023.6	1005.5	987.7	993.0	1028.5	1048.1	1074.2	1049.6	1096.4	1167.4	1137.6
27.5°	1135.3	1101.7	1014.5	1084.0	1084.0	1069.3	1124.4	1136.1	1105.5	1221.0	1243.3
30°	1261.8	1250.1	1126.7	1200.3	1177.6	1136.1	1241.8	1234.3	1182.9	1300.7	1290.5
32.5°	1381.5	1420.0	1303.0	1262.6	1296.6	1312.4	1256.9	1279.6	1289.4	1403.0	1398.1
35°	1565.0	1597.5	1442.3	1432.1	1375.5	1360.7	1403.0	1410.6	1411.3	1531.0	1509.1
37.5°	1882.5	1835.7	1682.4	1610.3	1616.7	1599.0	1607.3	1547.6	1555.9	1729.6	1740.6
40°	2114.7	2061.9	1891.2	1839.5	1712.6	1788.5	1721.3	1715.3	1698.7	1923.7	1917.6
42.5°	2371.1	2298.6	2109.8	2040.7	1905.9	1875.0	1844.0	1913.9	1909.3	2117.8	2163.8
45°	2564.8	2418.3	2319.8	2276.7	2195.9	2120.0	2090.6	2121.9	2107.6	2262.4	2342.8
47.5°	2687.1	2559.9	2446.6	2356.0	2278.6	2464.7	2315.6	2273.7	2244.6	2417.9	2495.3
50°	2784.5	2637.7	2504.0	2473.8	2535.0	2699.6	2464.4	2371.9	2407.3	2535.0	2640.3
52.5°	2811.0	2655.4	2535.3	2516.1	2681.5	2711.3	2673.2	2517.6	2508.2	2675.4	2802.7
55°	2730.2	2581.0	2524.0	2629.4	2812.1	2787.2	2845.3	2746.0	2679.2	2818.9	2979.0
57.5°	2522.1	2374.1	2360.5	2512.3	2742.6	2954.8	2983.5	2905.0	2817.4	2965.4	3154.2
60°	2180.4	2045.3	2079.6	2247.3	2594.6	2896.7	3049.2	2977.5	2950.3	3097.5	3316.5
62.5°	1648.4	1543.1	1634.9	1868.6	2324.3	2821.5	3139.8	3128.5	3089.2	3238.0	3460.0
65°	1051.1	995.6	1089.3	1326.8	1904.8	2684.9	3183.2	3198.3	3234.6	3346.4	3571.0
67.5°	610.9	581.4	638.5	832.9	1356.6	2204.6	3102.4	3319.2	3338.0	3402.2	3643.9
70°	361.3	342.1	365.5	467.8	768.0	1501.9	2646.3	3266.3	3409.0	3453.6	3717.5
72.5°	275.6	257.5	247.3	276.8	401.0	775.9	1789.3	2768.7	3352.0	3419.6	3686.5
75°	238.2	220.9	208.8	211.4	238.6	368.5	970.0	1980.3	2856.3	3113.8	3405.3
77.5°	204.6	189.2	180.5	179.7	183.1	202.4	405.5	1073.8	1788.9	2238.2	2454.9
80°	163.9	151.8	149.9	149.9	145.0	143.5	201.6	408.5	680.7	807.2	774.0
82.5°	119.7	107.6	119.7	118.2	110.6	104.6	128.4	176.7	209.9	165.8	131.0
85°	80.8	69.8	78.9	80.4	73.2	54.4	77.0	88.3	90.6	56.6	46.8
87.5°	28.3	27.6	44.6	38.9	31.7	18.5	28.3	30.6	32.1	20.0	13.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	327.0	327.0	327.0	327.0	327.0	327.0	327.0	327.0	327.0	327.0	327.0
2.5°	396.4	391.9	369.3	372.7	381.3	385.5	389.6	372.7	364.3	390.8	388.1
5°	519.2	502.5	484.0	481.4	482.5	466.3	475.7	471.6	473.5	490.5	493.9
7.5°	621.8	601.8	577.3	558.0	524.8	498.4	520.7	532.0	535.4	565.6	576.9
10°	677.3	660.4	653.2	616.9	606.0	602.6	597.3	579.2	599.2	592.0	597.7
12.5°	786.1	782.7	745.3	721.5	723.8	730.2	697.0	678.9	652.8	693.6	678.9
15°	878.6	893.3	855.9	812.5	791.0	801.9	776.6	750.2	726.8	739.3	723.4
17.5°	996.8	996.4	923.5	877.1	875.2	874.4	837.1	778.9	806.9	798.2	798.9
20°	1059.4	1049.3	958.6	905.0	950.7	934.5	900.9	826.1	858.6	869.2	875.9
22.5°	1111.9	1106.3	996.4	957.1	986.6	987.0	953.3	914.1	909.9	942.8	925.0
25°	1148.5	1171.2	1067.8	1058.3	1071.1	1058.3	1025.5	999.8	983.2	1032.3	983.2
27.5°	1235.4	1203.3	1078.7	1132.3	1140.2	1075.7	1116.8	1086.6	1040.6	1101.4	1121.4
30°	1297.3	1316.2	1155.7	1236.5	1227.1	1167.4	1184.4	1183.3	1128.2	1246.7	1232.7
32.5°	1403.8	1381.1	1281.5	1275.0	1297.7	1295.0	1266.3	1280.3	1293.9	1380.0	1400.8
35°	1512.9	1537.1	1361.9	1405.3	1398.9	1358.1	1433.2	1424.5	1464.9	1641.6	1583.1
37.5°	1759.1	1643.9	1542.3	1536.7	1579.7	1586.1	1562.0	1600.1	1687.3	1823.3	1885.9
40°	1920.3	1867.8	1695.3	1702.1	1642.4	1745.1	1677.1	1799.8	1866.3	2095.5	2073.2
42.5°	2164.2	2036.2	1870.5	1893.1	1881.0	1831.6	1921.0	1984.1	2079.2	2254.1	2366.9
45°	2345.8	2170.2	2091.7	2077.7	2076.2	2162.3	2151.0	2251.8	2285.8	2417.2	2510.8
47.5°	2483.6	2334.5	2218.2	2234.0	2188.0	2433.8	2302.8	2334.1	2402.8	2526.7	2635.8
50°	2647.1	2481.0	2348.8	2388.1	2500.2	2594.6	2476.1	2422.5	2456.1	2602.2	2723.7
52.5°	2798.5	2623.7	2478.3	2511.2	2694.3	2651.3	2638.4	2502.9	2498.7	2616.1	2754.3
55°	2975.6	2778.5	2650.1	2754.3	2819.3	2766.0	2745.6	2580.7	2478.7	2544.0	2674.3
57.5°	3149.3	2931.8	2804.2	2825.7	2908.0	2855.1	2702.2	2448.1	2320.9	2333.7	2465.5
60°	3312.0	3072.6	2967.3	2946.5	3012.2	2804.9	2537.2	2205.4	2036.6	2005.6	2119.6
62.5°	3451.3	3190.4	3090.7	3034.1	3096.8	2806.8	2280.1	1815.7	1630.3	1525.4	1614.1
65°	3561.9	3288.2	3217.2	3187.8	3210.4	2636.2	1879.5	1333.2	1105.9	989.6	1041.3
67.5°	3635.6	3343.0	3310.5	3349.0	3046.9	2195.5	1392.5	853.3	643.0	579.6	612.0
70°	3711.8	3391.3	3390.1	3259.1	2583.7	1513.7	813.3	492.0	374.2	349.6	370.0
72.5°	3686.2	3333.9	3350.9	2850.2	1790.4	809.1	429.3	278.3	253.3	262.0	280.2
75°	3413.6	3031.1	2949.2	2049.0	1015.6	376.1	247.3	210.7	209.2	222.4	240.1
77.5°	2476.1	2111.0	1894.2	1161.4	435.3	203.5	182.0	175.9	175.9	186.5	202.4
80°	816.3	706.4	736.2	449.3	205.8	140.5	142.0	144.6	143.9	146.5	159.7
82.5°	134.0	138.9	214.8	183.5	124.2	95.9	107.2	112.5	114.0	101.9	115.9
85°	47.6	53.6	91.4	85.0	71.7	48.3	70.6	78.9	77.8	68.0	75.1
87.5°	14.7	18.9	33.2	25.7	21.5	13.2	26.4	31.0	38.9	15.9	14.3
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)