

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: P367262

Luminaire Tested: **MSA-SA2B-727-U-RW**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367262
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-727-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: 8555 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

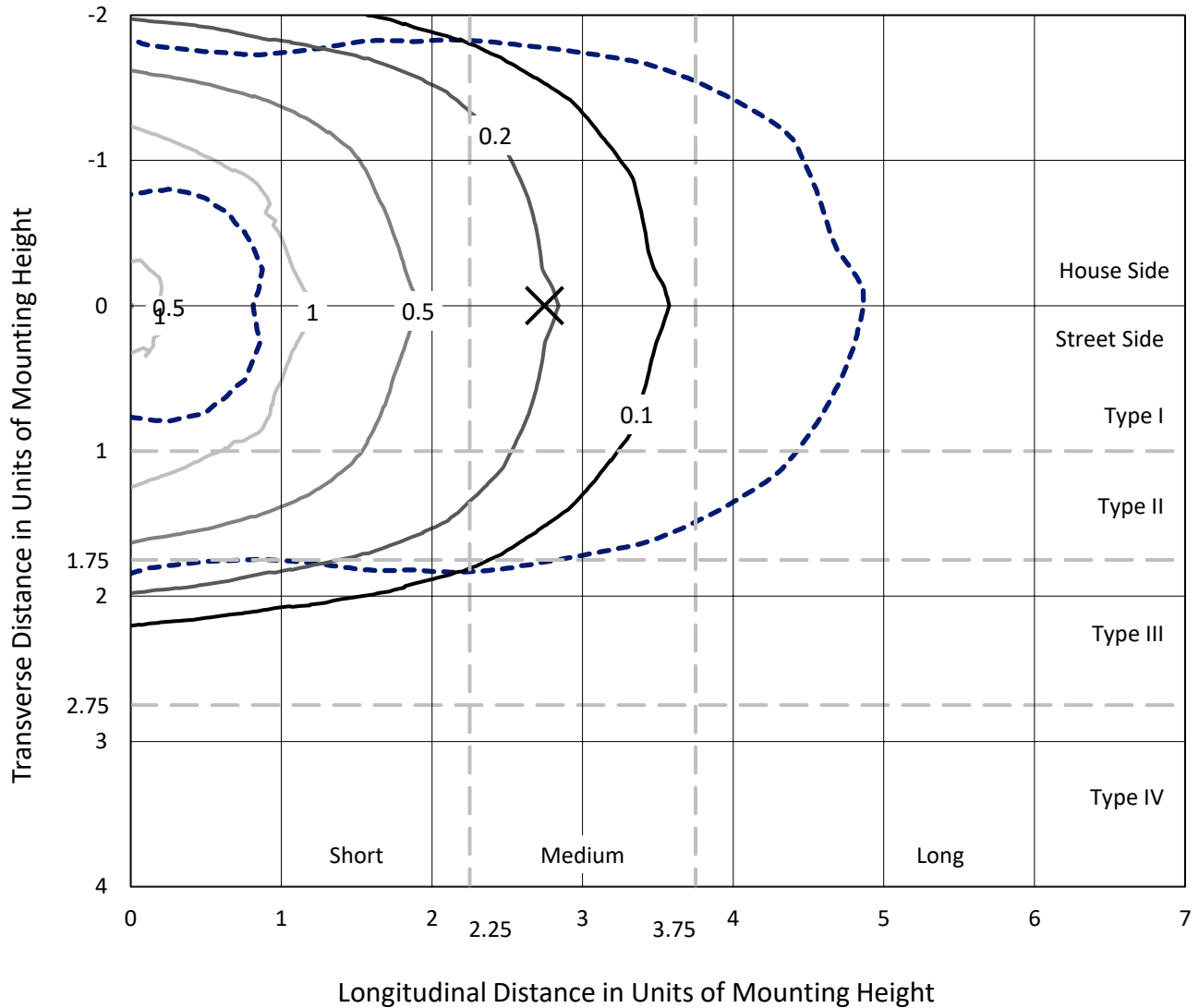
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

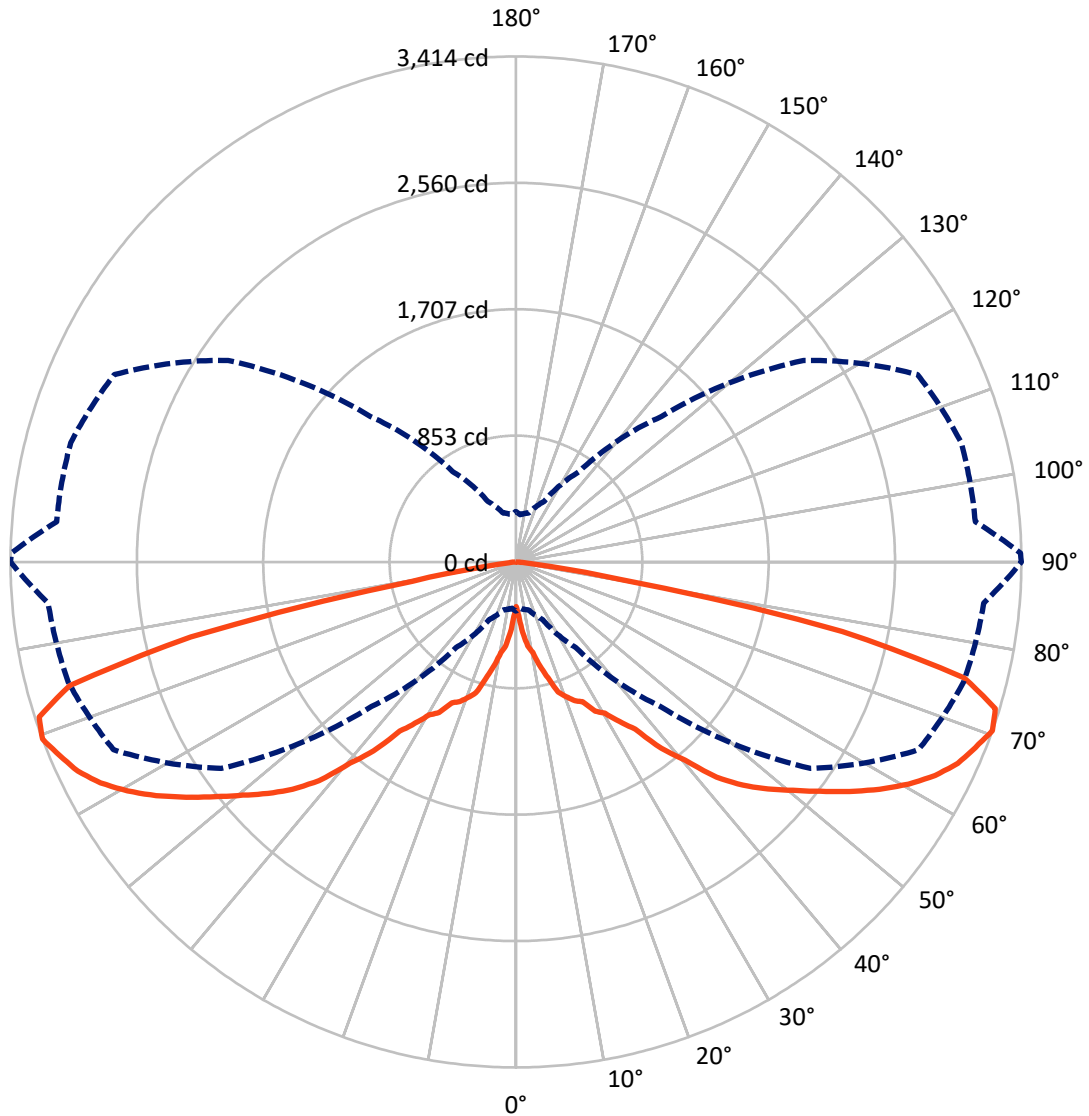
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 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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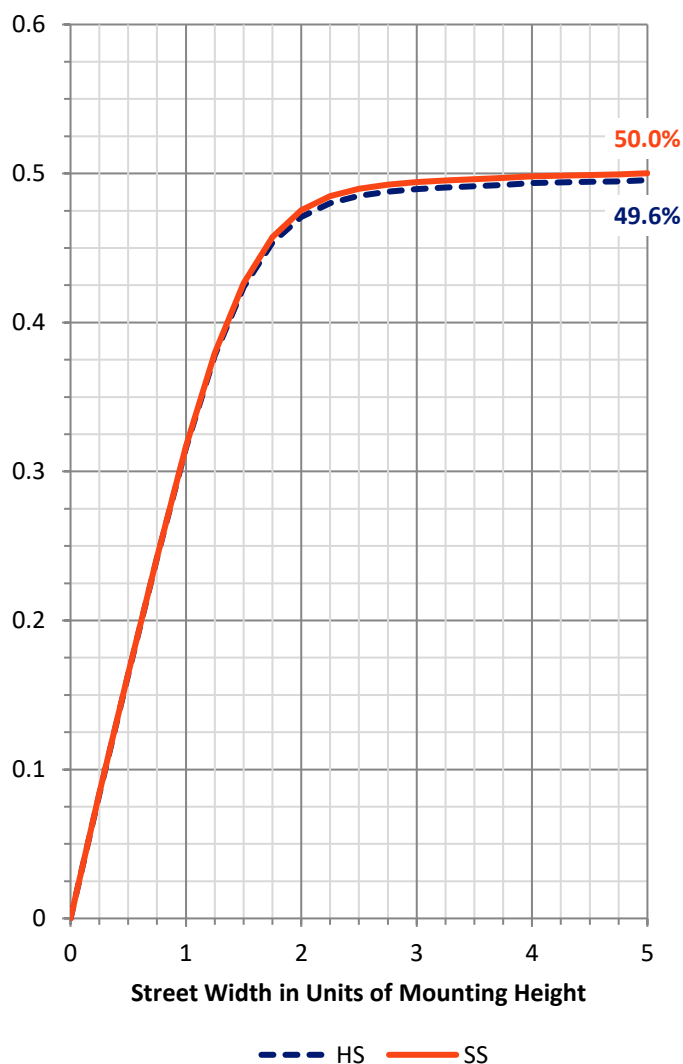
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4261.7	0.0	4261.7
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	4293.3	0.0	4293.3
	% Fixture	50.2	0.0	50.2
Total	Lumens	8555.0	0.0	8555.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.3	0.5
10°-20°	207.6	2.4
20°-30°	448.8	5.2
30°-40°	856.4	10.0
40°-50°	1555.7	18.2
50°-60°	2185.4	25.5
60°-70°	2086.7	24.4
70°-80°	1070.9	12.5
80°-90°	98.2	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°	8555.0	100.0
0°-180°	8555.0	100.0

Coefficient of Utilization



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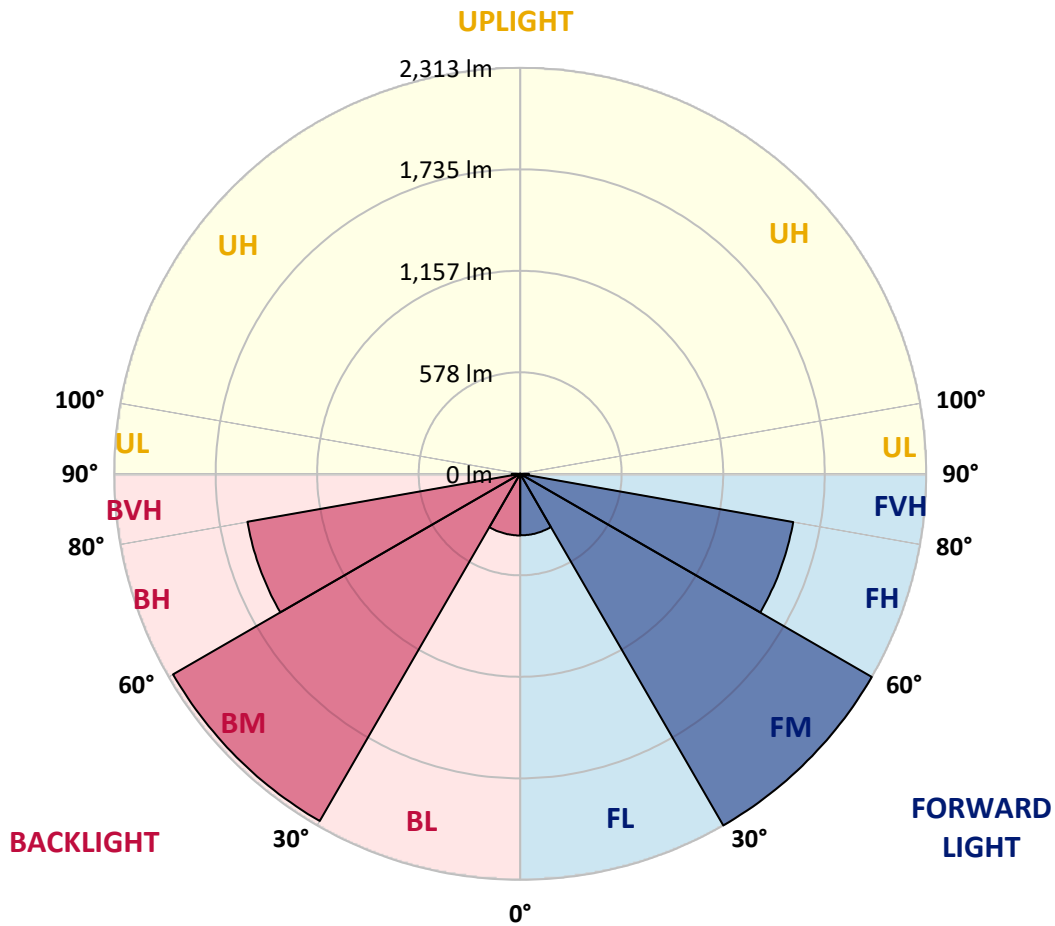
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	350.5	4.1			
FM (30°-60°)	2313.4	27.0			
FH (60°-80°)	1579.6	18.5			G1/1800
FVH (80°-90°)	49.8	0.6			G1/100
BL (0°-30°)	351.2	4.1	B1/500		
BM (30°-60°)	2284.2	26.7	B2/2500		
BH (60°-80°)	1577.9	18.4	B3/2500		G3/2500
BVH (80°-90°)	48.4	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°	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3
2.5°	363.7	350.2	333.2	343.3	347.4	354.7	353.7	350.2	335.3	360.2	363.0
5°	455.2	433.7	425.8	424.4	426.5	419.5	442.1	435.5	447.6	470.2	475.4
7.5°	518.3	502.4	485.4	490.6	469.1	466.0	495.1	521.1	527.7	569.0	571.7
10°	548.2	532.6	537.1	534.0	531.5	551.6	565.2	584.2	611.6	615.4	621.3
12.5°	573.5	579.7	599.5	598.8	631.4	667.1	661.9	681.7	686.2	734.0	719.4
15°	637.6	650.5	649.1	661.2	675.4	734.0	734.4	768.0	798.8	817.6	812.7
17.5°	731.6	736.1	717.4	718.1	759.3	783.2	809.9	804.0	884.5	921.2	923.7
20°	787.8	799.2	777.7	749.3	822.4	855.4	870.3	835.9	921.9	971.5	971.5
22.5°	885.9	856.4	823.8	804.7	869.2	904.3	902.5	892.8	938.6	1026.3	1018.0
25°	940.0	923.3	907.0	911.9	944.5	962.5	986.4	963.9	1006.9	1072.1	1044.7
27.5°	1042.6	1011.7	931.6	995.4	995.4	981.9	1032.5	1043.3	1015.2	1121.3	1141.8
30°	1158.7	1148.0	1034.6	1102.2	1081.4	1043.3	1140.4	1133.4	1086.3	1194.5	1185.1
32.5°	1268.7	1304.0	1196.5	1159.4	1190.6	1205.2	1154.2	1175.0	1184.1	1288.4	1283.9
35°	1437.2	1467.0	1324.5	1315.1	1263.1	1249.6	1288.4	1295.4	1296.0	1406.0	1385.8
37.5°	1728.8	1685.8	1545.0	1478.8	1484.7	1468.4	1476.0	1421.2	1428.8	1588.3	1598.4
40°	1942.0	1893.4	1736.7	1689.2	1572.7	1642.4	1580.7	1575.2	1559.9	1766.5	1761.0
42.5°	2177.4	2110.8	1937.5	1874.0	1750.3	1721.8	1693.4	1757.5	1753.4	1944.8	1987.1
45°	2355.3	2220.8	2130.3	2090.7	2016.5	1946.8	1919.8	1948.6	1935.4	2077.6	2151.4
47.5°	2467.6	2350.8	2246.8	2163.5	2092.5	2263.4	2126.4	2088.0	2061.3	2220.4	2291.5
50°	2557.1	2422.2	2299.5	2271.7	2327.9	2479.1	2263.1	2178.1	2210.7	2327.9	2424.6
52.5°	2581.3	2438.5	2328.2	2310.6	2462.4	2489.8	2454.8	2311.9	2303.3	2456.9	2573.7
55°	2507.1	2370.2	2317.8	2414.6	2582.4	2559.5	2612.9	2521.7	2460.3	2588.6	2735.6
57.5°	2316.1	2180.2	2167.7	2307.1	2518.6	2713.4	2739.8	2667.7	2587.2	2723.2	2896.5
60°	2002.3	1878.2	1909.7	2063.7	2382.7	2660.1	2800.1	2734.2	2709.3	2844.5	3045.6
62.5°	1513.8	1417.1	1501.3	1715.9	2134.4	2591.1	2883.3	2872.9	2836.9	2973.5	3177.4
65°	965.3	914.3	1000.3	1218.4	1749.2	2465.5	2923.2	2937.1	2970.4	3073.0	3279.3
67.5°	561.0	534.0	586.3	764.9	1245.8	2024.5	2849.0	3048.0	3065.4	3124.3	3346.2
70°	331.8	314.1	335.6	429.6	705.2	1379.3	2430.2	2999.5	3130.6	3171.5	3413.8
72.5°	253.1	236.5	227.1	254.1	368.2	712.5	1643.1	2542.5	3078.2	3140.3	3385.4
75°	218.8	202.8	191.7	194.2	219.1	338.4	890.7	1818.6	2623.0	2859.4	3127.1
77.5°	187.9	173.7	165.7	165.0	168.2	185.8	372.4	986.1	1642.8	2055.4	2254.4
80°	150.5	139.4	137.6	137.6	133.1	131.8	185.1	375.2	625.1	741.3	710.8
82.5°	109.9	98.8	109.9	108.5	101.6	96.0	117.9	162.3	192.8	152.2	120.3
85°	74.2	64.1	72.5	73.9	67.3	49.9	70.7	81.1	83.2	52.0	43.0
87.5°	26.0	25.3	40.9	35.7	29.1	17.0	26.0	28.1	29.5	18.4	12.5
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°	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3
2.5°	364.1	359.9	339.1	342.2	350.2	354.0	357.8	342.2	334.6	358.9	356.4
5°	476.7	461.5	444.5	442.1	443.1	428.2	436.9	433.1	434.8	450.4	453.5
7.5°	571.1	552.7	530.1	512.5	481.9	457.7	478.1	488.5	491.7	519.4	529.8
10°	622.0	606.4	599.8	566.5	556.5	553.4	548.5	531.9	550.2	543.7	548.9
12.5°	721.9	718.8	684.4	662.6	664.7	670.6	640.0	623.4	599.5	636.9	623.4
15°	806.8	820.3	786.0	746.1	726.4	736.4	713.2	688.9	667.4	678.9	664.3
17.5°	915.3	915.0	848.1	805.4	803.7	803.0	768.7	715.3	740.9	733.0	733.7
20°	972.9	963.5	880.3	831.1	873.0	858.1	827.3	758.6	788.4	798.2	804.4
22.5°	1021.1	1015.9	915.0	878.9	906.0	906.3	875.5	839.4	835.6	865.8	849.5
25°	1054.7	1075.5	980.5	971.9	983.6	971.9	941.7	918.1	902.9	947.9	902.9
27.5°	1134.5	1105.0	990.6	1039.8	1047.1	987.8	1025.6	997.9	955.6	1011.4	1029.8
30°	1191.3	1208.7	1061.3	1135.5	1126.8	1072.1	1087.7	1086.6	1036.0	1144.9	1132.0
32.5°	1289.1	1268.3	1176.8	1170.9	1191.7	1189.3	1162.9	1175.7	1188.2	1267.3	1286.3
35°	1389.3	1411.5	1250.6	1290.5	1284.6	1247.2	1316.2	1308.2	1345.3	1507.5	1453.8
37.5°	1615.4	1509.6	1416.4	1411.2	1450.7	1456.6	1434.4	1469.4	1549.5	1674.3	1731.9
40°	1763.4	1715.2	1556.8	1563.0	1508.2	1602.5	1540.1	1652.8	1713.8	1924.3	1903.8
42.5°	1987.4	1869.9	1717.7	1738.5	1727.4	1681.9	1764.1	1822.0	1909.4	2069.9	2173.6
45°	2154.2	1993.0	1920.8	1908.0	1906.6	1985.7	1975.3	2067.8	2099.1	2219.7	2305.7
47.5°	2280.7	2143.8	2037.0	2051.6	2009.3	2235.0	2114.7	2143.4	2206.5	2320.3	2420.5
50°	2430.9	2278.3	2157.0	2193.0	2296.0	2382.7	2273.8	2224.6	2255.4	2389.6	2501.3
52.5°	2569.9	2409.4	2275.9	2306.0	2474.2	2434.7	2422.9	2298.4	2294.6	2402.4	2529.3
55°	2732.5	2551.5	2433.6	2529.3	2589.0	2540.1	2521.4	2369.8	2276.2	2336.2	2455.8
57.5°	2892.0	2692.3	2575.1	2594.9	2670.5	2621.9	2481.5	2248.1	2131.3	2143.1	2264.1
60°	3041.4	2821.6	2724.9	2705.8	2766.1	2575.8	2330.0	2025.2	1870.2	1841.8	1946.5
62.5°	3169.4	2929.8	2838.3	2786.3	2843.8	2577.5	2093.9	1667.4	1497.1	1400.8	1482.2
65°	3271.0	3019.6	2954.4	2927.4	2948.2	2420.8	1726.0	1224.3	1015.5	908.8	956.3
67.5°	3338.6	3069.9	3040.1	3075.4	2798.0	2016.2	1278.7	783.6	590.5	532.2	562.0
70°	3408.6	3114.3	3113.2	2992.9	2372.6	1390.0	746.8	451.8	343.6	321.1	339.8
72.5°	3385.0	3061.6	3077.2	2617.4	1644.2	743.0	394.2	255.5	232.7	240.6	257.3
75°	3134.7	2783.5	2708.2	1881.7	932.7	345.3	227.1	193.5	192.1	204.2	220.5
77.5°	2273.8	1938.5	1739.5	1066.5	399.8	186.9	167.1	161.6	161.6	171.3	185.8
80°	749.6	648.7	676.1	412.6	189.0	129.0	130.4	132.8	132.1	134.5	146.7
82.5°	123.1	127.6	197.3	168.5	114.1	88.1	98.5	103.3	104.7	93.6	106.4
85°	43.7	49.2	83.9	78.0	65.9	44.4	64.8	72.5	71.4	62.4	69.0
87.5°	13.5	17.3	30.5	23.6	19.8	12.1	24.3	28.4	35.7	14.6	13.2
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)