

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: P597150

Luminaire Tested: **MSA-SA4C-835-U-T2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597150
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-835-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19785 lumens
Efficiency: N/A
Efficacy: 87.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

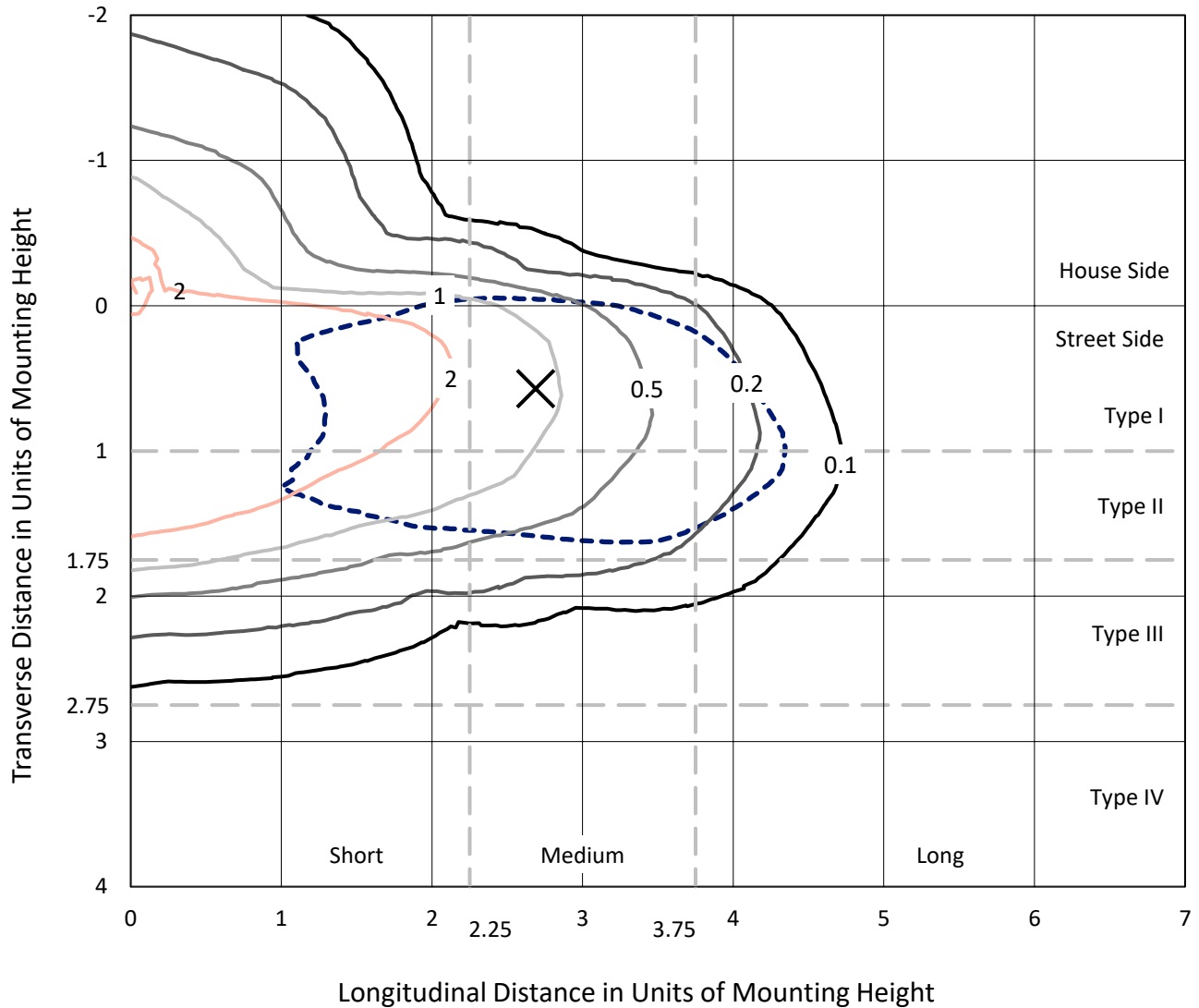
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

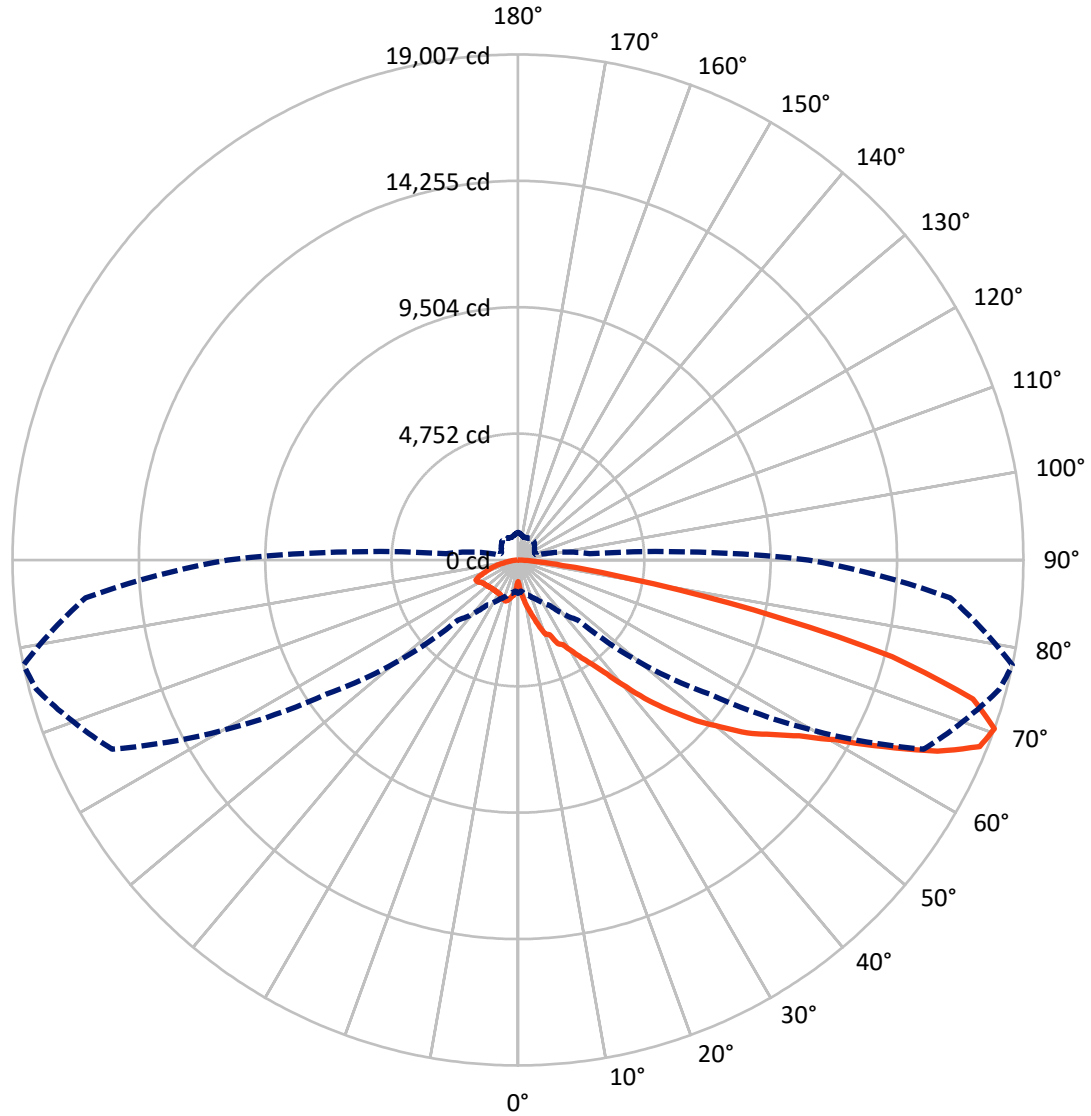
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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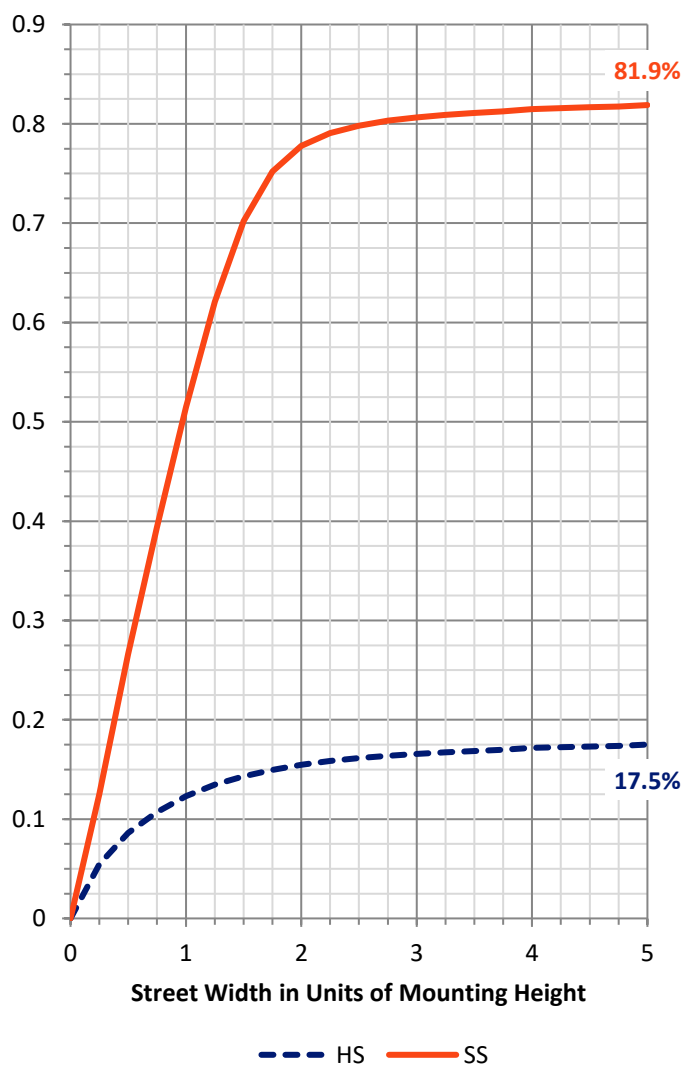
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3531.3	0.0	3531.3
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	16253.7	0.0	16253.7
	% Fixture	82.2	0.0	82.2
Total	Lumens	19785.0	0.0	19785.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.7	0.6
10°-20°	549.2	2.8
20°-30°	1057.2	5.3
30°-40°	1780.7	9.0
40°-50°	3081.1	15.6
50°-60°	4652.0	23.5
60°-70°	5152.7	26.0
70°-80°	2970.7	15.0
80°-90°	416.6	2.1
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°	19785.0	100.0
0°-180°	19785.0	100.0

Coefficient of Utilization



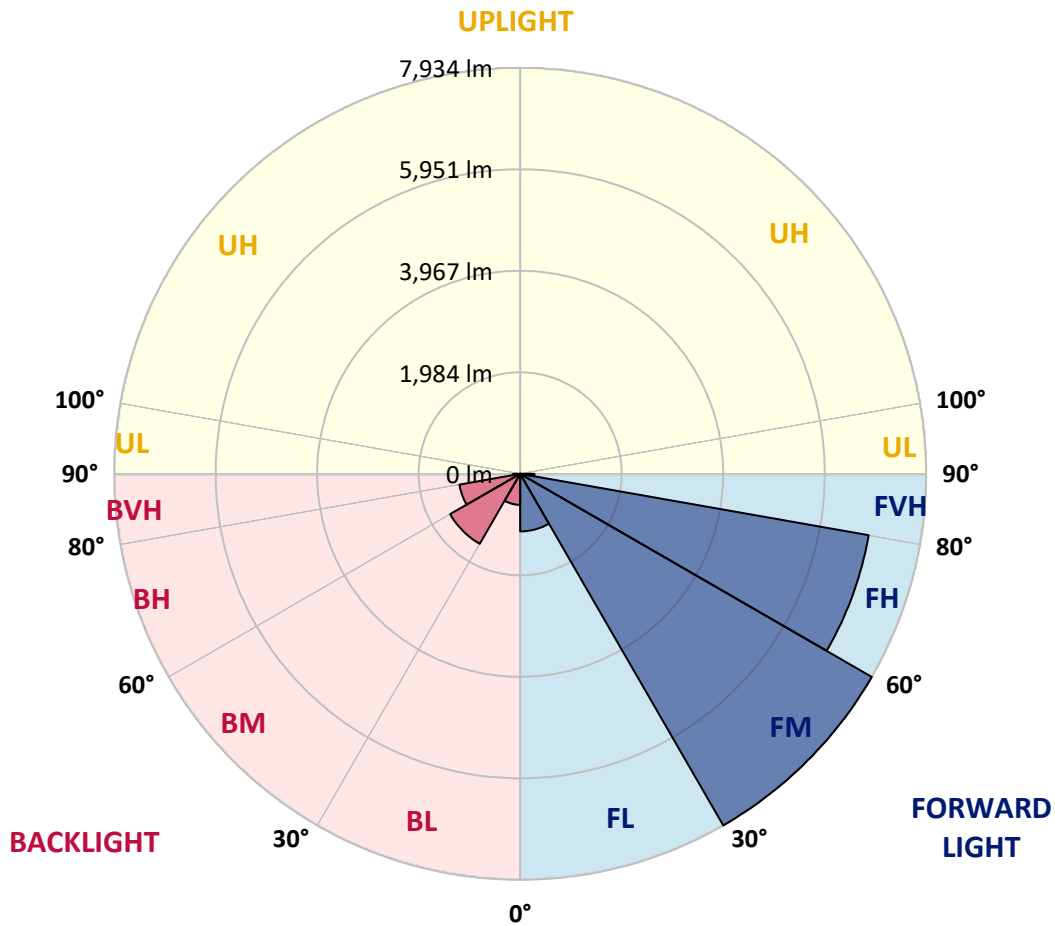
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1124.7	5.7			
FM (30°-60°)	7934.4	40.1			
FH (60°-80°)	6916.6	35.0			G3/7500
FVH (80°-90°)	277.9	1.4			G3/500
BL (0°-30°)	606.4	3.1	B2/1000		
BM (30°-60°)	1579.4	8.0	B2/2500		
BH (60°-80°)	1206.8	6.1	B3/2500		G3/2500
BVH (80°-90°)	138.7	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6
2.5°	1038.4	1001.3	945.2	968.3	996.3	999.6	990.6	939.4	922.1	960.9	972.4
5°	1454.9	1392.2	1354.3	1341.9	1299.9	1212.4	1275.1	1243.0	1249.6	1230.6	1267.7
7.5°	1805.5	1763.4	1707.3	1691.6	1595.1	1526.7	1569.6	1555.6	1487.9	1461.5	1503.6
10°	1983.6	1937.4	1939.9	1906.1	1880.5	1887.1	1865.7	1803.8	1753.5	1718.0	1616.6
12.5°	2090.8	2102.4	2164.2	2146.9	2243.4	2322.6	2262.4	2170.8	2011.7	1979.5	1878.9
15°	2345.7	2388.6	2330.9	2357.2	2398.5	2550.2	2525.5	2505.7	2337.5	2274.8	2089.2
17.5°	2608.0	2616.2	2528.8	2514.8	2613.8	2690.5	2787.0	2675.6	2696.2	2652.5	2352.3
20°	2664.1	2721.0	2595.6	2509.0	2712.7	2864.5	2984.1	2866.1	2975.0	2986.6	2569.2
22.5°	2869.4	2801.0	2636.0	2551.1	2729.2	2915.6	3110.3	3176.3	3141.6	3044.3	2778.7
25°	3012.1	2975.8	2807.6	2713.6	2781.2	2952.7	3294.2	3466.6	3497.1	3483.9	2978.3
27.5°	3276.9	3295.0	2948.6	2975.0	2881.0	2896.7	3404.7	3851.8	3661.2	3608.5	3225.7
30°	3695.1	3614.2	3225.7	3247.2	3091.3	3064.9	3638.1	4184.2	4013.4	3949.9	3429.5
32.5°	4131.4	4138.8	3667.0	3483.9	3400.6	3374.2	3592.0	4358.2	4458.8	4376.3	3737.1
35°	4746.7	4703.8	4145.4	3904.6	3603.5	3557.3	3921.0	4863.0	5047.7	4816.8	4102.5
37.5°	5683.6	5554.1	4904.2	4347.5	4124.8	4072.0	4391.2	5315.8	5731.5	5444.4	4699.6
40°	6435.8	6172.7	5582.2	4904.2	4527.3	4592.4	4725.2	5865.1	6440.8	6279.1	5252.3
42.5°	7035.4	6802.0	6062.2	5585.5	5073.3	4992.4	5137.6	6545.5	7405.8	7247.4	5941.8
45°	7610.3	7135.2	6601.6	6172.7	5680.3	5778.5	5757.0	7240.0	8589.4	8101.9	6551.3
47.5°	8177.8	7731.6	7173.2	6596.7	6101.0	6712.1	6483.7	7756.3	9387.7	9026.5	7193.0
50°	8906.9	8416.1	7780.2	7200.4	6903.5	7350.5	6967.0	8193.5	10281.8	9857.9	7798.4
52.5°	9391.0	8913.5	8355.9	7941.9	7914.7	7742.3	7644.1	8746.9	11065.4	10808.0	8440.1
55°	9334.1	8873.9	8621.5	8666.9	9003.4	8421.9	8341.9	9565.9	11882.7	11585.0	9132.9
57.5°	8620.7	8118.4	8172.0	8440.9	9344.9	9615.4	9479.3	10441.0	12611.8	12476.6	9989.8
60°	6715.4	6457.3	6893.6	7385.2	8887.9	9965.1	10921.9	11508.3	13509.2	13725.3	11335.9
62.5°	4362.3	4017.5	4707.1	5541.8	7524.5	9734.2	12390.8	13532.3	14979.0	15469.7	13381.4
65°	2259.9	2204.7	2687.2	3454.2	5238.2	8299.9	12908.8	15655.3	16765.5	17337.1	15335.3
67.5°	1643.0	1540.7	1764.2	2215.4	3197.7	5659.7	11927.3	17279.3	18199.8	18723.5	16471.0
70°	1251.2	1175.3	1346.1	1625.7	2088.4	3196.9	8804.6	16836.4	18753.2	19007.3	16320.1
72.5°	937.0	871.8	1021.1	1281.7	1609.2	1799.7	5204.4	13843.3	17808.8	17895.4	14647.4
75°	748.1	697.8	762.1	1012.0	1311.4	1224.8	2764.7	10029.4	14469.3	14543.5	11188.3
77.5°	613.6	570.8	597.1	758.8	1020.3	921.3	1371.6	6379.7	9186.5	9072.7	6294.8
80°	500.6	463.5	475.9	548.5	777.0	687.9	770.4	3328.0	4382.1	4205.6	2617.9
82.5°	385.2	353.8	378.6	403.3	562.5	494.0	449.5	1514.3	1794.7	1671.8	960.1
85°	258.2	229.3	329.1	302.7	367.9	303.5	245.8	602.9	668.9	623.5	337.3
87.5°	70.9	66.8	110.5	150.9	150.9	114.6	89.9	146.0	186.4	163.3	79.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6	806.6
2.5°	977.4	959.2	911.4	907.3	918.8	920.5	913.0	895.7	886.6	936.1	928.7
5°	1258.6	1194.3	1155.5	1120.1	1070.6	1035.1	1044.2	1068.9	1077.2	1114.3	1118.4
7.5°	1477.2	1392.2	1307.3	1193.5	1118.4	1070.6	1106.9	1133.3	1153.9	1206.7	1228.1
10°	1572.0	1479.7	1359.3	1239.7	1219.0	1227.3	1206.7	1213.3	1245.4	1247.9	1258.6
12.5°	1748.6	1643.8	1426.9	1318.8	1313.1	1330.4	1323.0	1353.5	1375.7	1436.0	1410.4
15°	1917.6	1784.0	1478.0	1367.5	1343.6	1378.2	1418.6	1469.8	1517.6	1574.5	1545.7
17.5°	2123.0	1921.8	1480.5	1345.2	1349.4	1423.6	1465.6	1493.7	1636.4	1714.7	1675.1
20°	2252.5	1935.8	1425.2	1290.0	1349.4	1416.2	1474.7	1505.2	1665.2	1783.2	1810.4
22.5°	2369.6	1940.7	1382.3	1260.3	1298.2	1386.5	1474.7	1542.4	1644.6	1757.6	1761.7
25°	2434.0	1936.6	1327.1	1262.8	1297.4	1341.1	1419.5	1481.3	1557.2	1714.7	1718.9
27.5°	2598.9	1883.0	1272.6	1272.6	1290.8	1292.4	1392.2	1428.5	1439.3	1582.8	1608.3
30°	2646.7	1894.5	1266.1	1271.0	1280.1	1263.6	1307.3	1331.2	1346.9	1470.6	1474.7
32.5°	2723.5	1802.2	1285.8	1256.2	1244.6	1242.1	1252.9	1274.3	1280.9	1356.8	1370.8
35°	2816.7	1765.0	1292.4	1252.0	1228.9	1216.6	1248.7	1222.3	1243.0	1332.0	1341.9
37.5°	3120.2	1713.9	1326.3	1252.0	1222.3	1208.3	1192.6	1205.0	1278.4	1364.2	1417.0
40°	3314.0	1729.6	1318.0	1264.4	1200.1	1186.9	1160.5	1205.8	1319.7	1471.4	1511.0
42.5°	3653.8	1738.7	1327.9	1258.6	1207.5	1156.4	1173.7	1223.2	1342.8	1429.4	1490.4
45°	4005.2	1766.7	1321.3	1241.3	1191.0	1214.9	1191.0	1235.5	1292.4	1294.9	1341.1
47.5°	4349.9	1879.7	1307.3	1205.8	1186.9	1249.6	1188.5	1195.9	1200.1	1214.9	1269.4
50°	4754.9	2000.1	1287.5	1156.4	1192.6	1251.2	1197.6	1161.3	1157.2	1205.8	1266.9
52.5°	5215.1	2136.2	1261.9	1108.5	1158.8	1235.5	1228.9	1163.8	1128.3	1175.3	1236.4
55°	5757.0	2291.3	1232.2	1060.7	1121.7	1237.2	1246.3	1146.5	1129.1	1180.3	1245.4
57.5°	6477.1	2515.6	1174.5	991.4	1076.3	1211.6	1201.7	1126.7	1110.2	1164.6	1232.2
60°	7706.0	2947.0	1092.0	922.9	1027.7	1148.9	1165.4	1091.2	1074.7	1134.9	1205.8
62.5°	9351.5	3465.8	992.2	856.1	968.3	1081.3	1120.1	1040.1	1038.4	1115.1	1189.3
65°	10883.1	3760.2	889.1	795.1	907.3	1018.6	1068.9	992.2	995.5	1092.0	1166.3
67.5°	11519.8	3413.8	796.7	740.7	837.2	946.9	1026.9	955.1	944.4	1060.7	1129.1
70°	10921.9	2711.9	716.7	682.9	758.0	869.3	968.3	905.6	880.9	986.4	1040.1
72.5°	9664.1	2260.7	641.7	615.3	688.7	787.7	889.1	838.8	806.6	887.5	935.3
75°	7554.2	1855.0	555.9	548.5	609.5	713.4	806.6	772.0	730.8	781.9	829.7
77.5°	4301.3	1173.7	466.8	471.8	515.5	625.2	707.7	680.5	638.4	659.8	715.1
80°	1721.3	592.2	375.3	378.6	415.7	513.8	586.4	576.5	532.8	550.1	588.1
82.5°	643.3	325.0	277.1	278.8	315.9	406.6	500.6	495.7	454.5	442.1	463.5
85°	255.7	160.8	169.9	177.3	212.8	292.8	401.7	356.3	307.6	269.7	282.9
87.5°	61.0	51.1	59.4	62.7	69.3	91.6	146.8	117.9	121.2	97.3	72.6
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)