

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: P597094

Luminaire Tested: **MSA-SA4A-835-U-RW**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597094
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4A-835-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13126 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

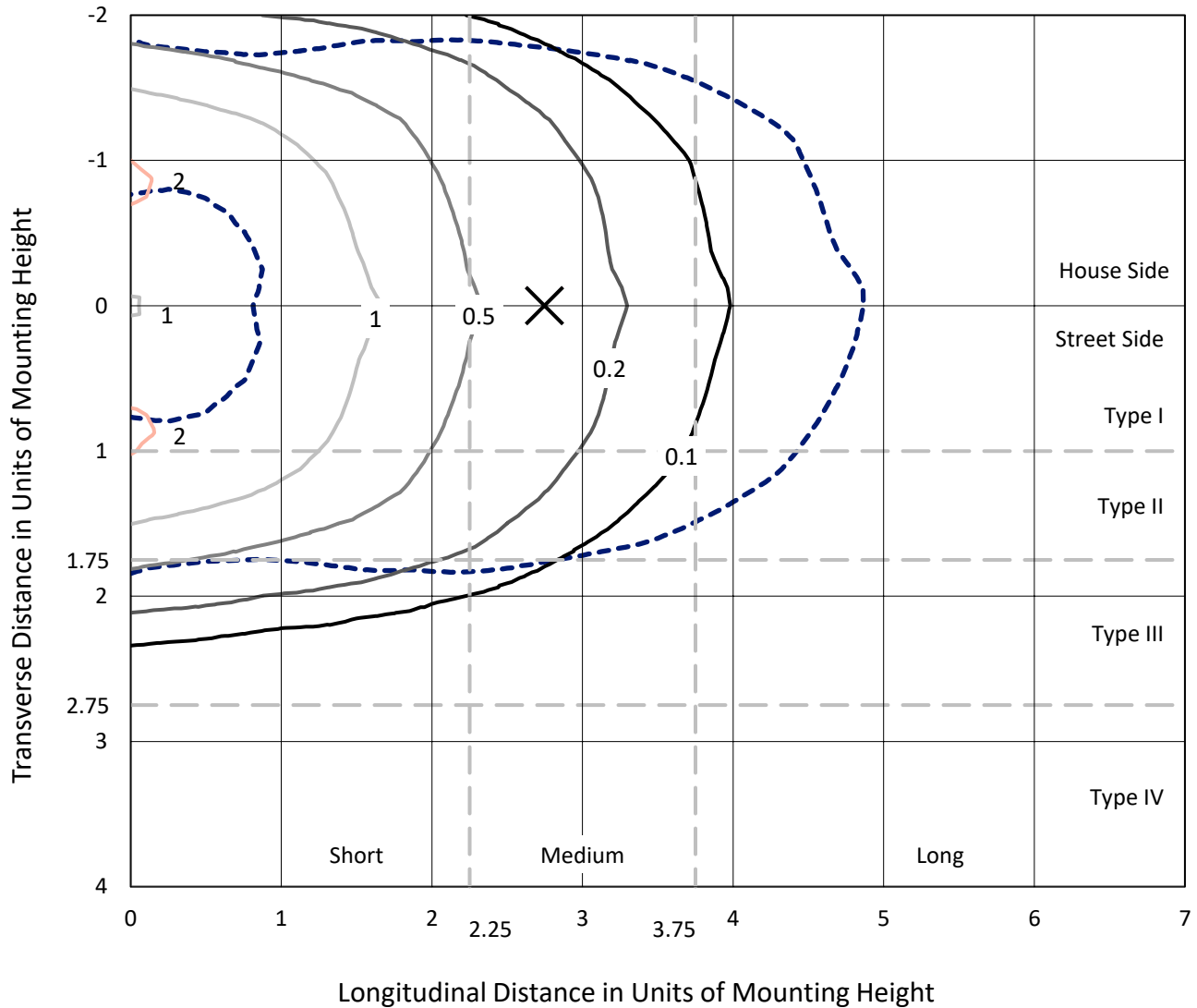
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

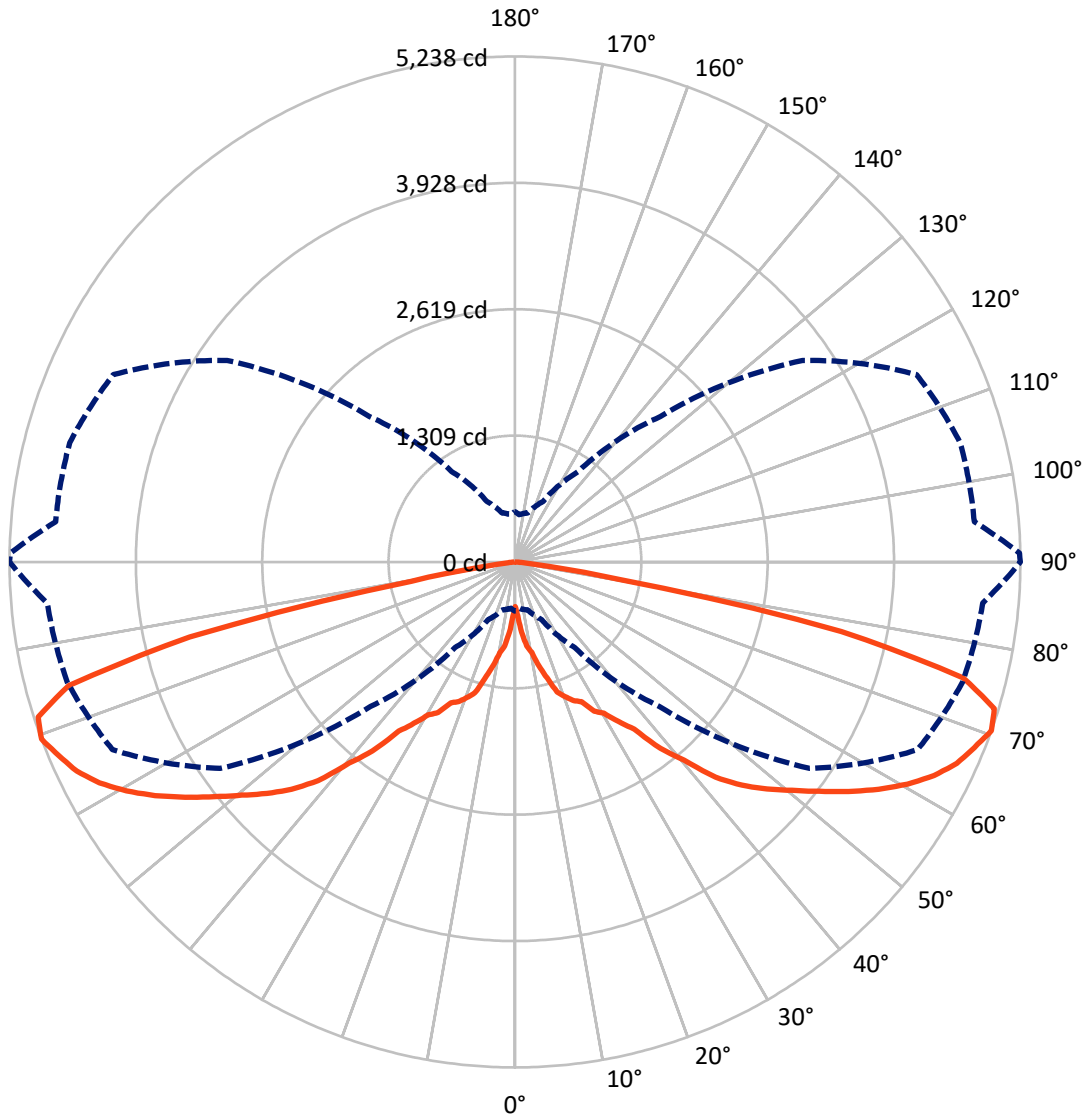
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 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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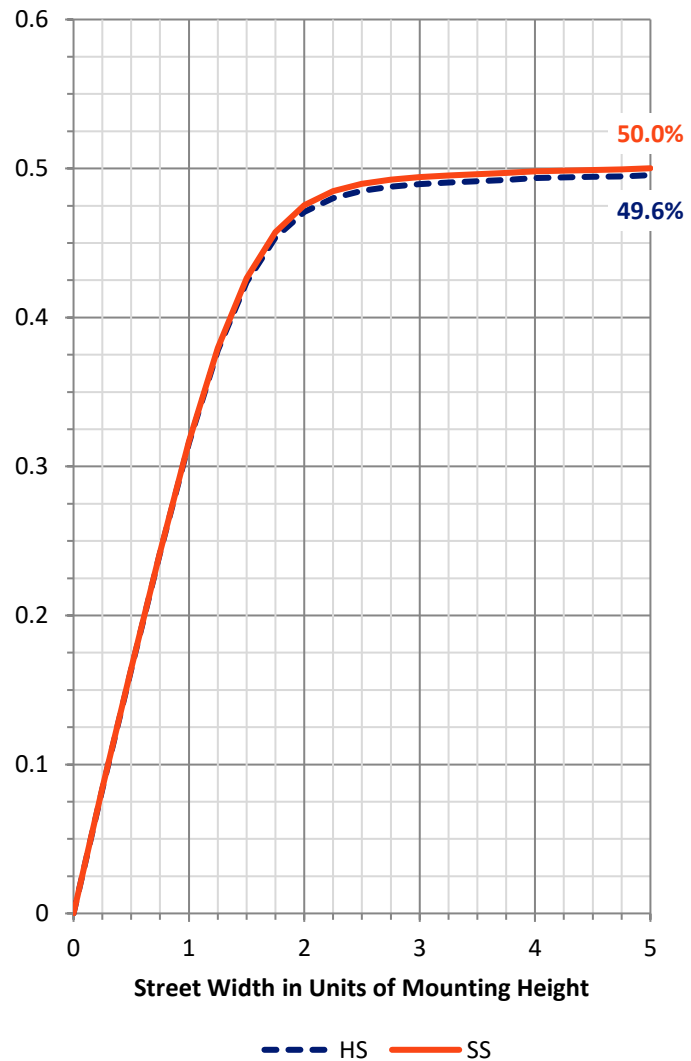
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6538.7	0.0	6538.7
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	6587.3	0.0	6587.3
	% Fixture	50.2	0.0	50.2
Total	Lumens	13126.0	0.0	13126.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.5	0.5
10°-20°	318.5	2.4
20°-30°	688.7	5.2
30°-40°	1313.9	10.0
40°-50°	2387.0	18.2
50°-60°	3353.1	25.5
60°-70°	3201.6	24.4
70°-80°	1643.1	12.5
80°-90°	150.6	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°	13126.0	100.0
0°-180°	13126.0	100.0



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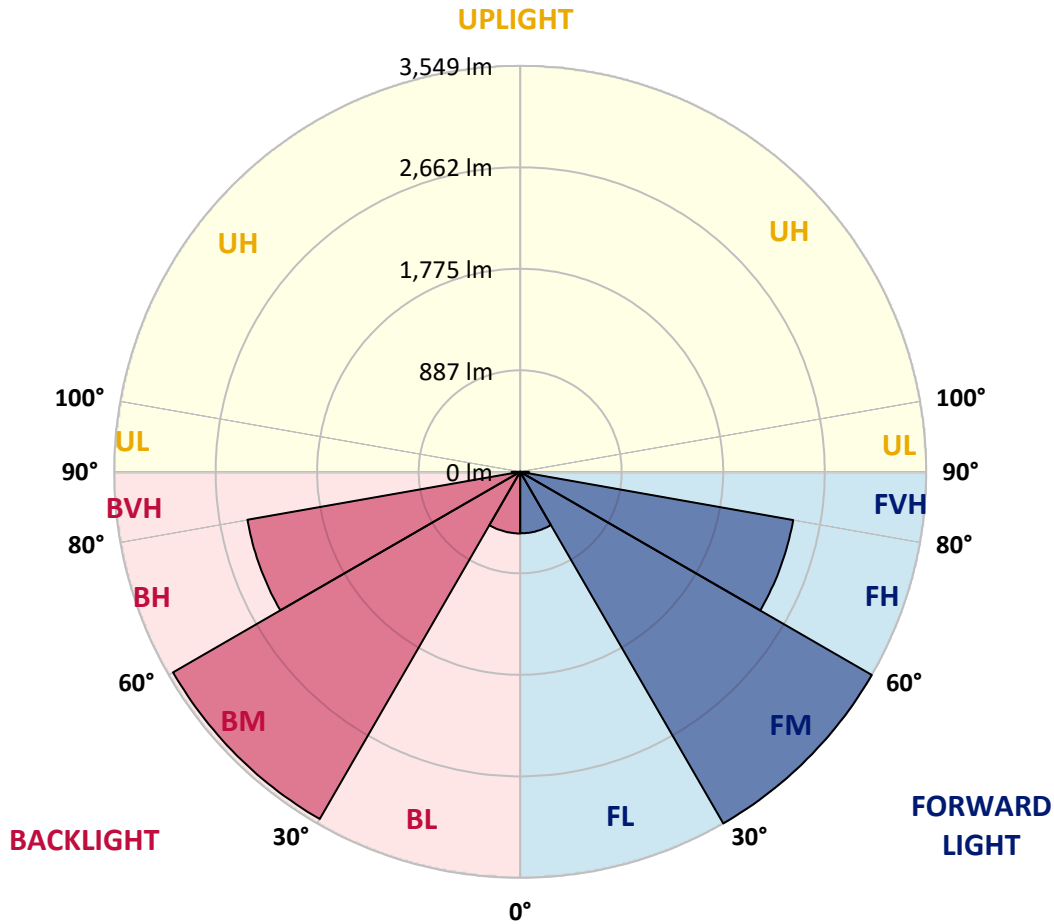
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	537.8	4.1			
FM (30°-60°)	3549.4	27.0			
FH (60°-80°)	2423.6	18.5			G2/5000
FVH (80°-90°)	76.4	0.6			G1/100
BL (0°-30°)	538.9	4.1	B2/1000		
BM (30°-60°)	3504.6	26.7	B3/5000		
BH (60°-80°)	2421.0	18.4	B3/2500		G3/2500
BVH (80°-90°)	74.2	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°	460.7	460.7	460.7	460.7	460.7	460.7	460.7	460.7	460.7	460.7	460.7
2.5°	558.0	537.3	511.2	526.7	533.0	544.2	542.6	537.3	514.4	552.7	557.0
5°	698.5	665.5	653.3	651.1	654.3	643.7	678.3	668.2	686.8	721.4	729.3
7.5°	795.3	770.8	744.8	752.7	719.8	715.0	759.7	799.6	809.7	873.0	877.2
10°	841.1	817.1	824.0	819.2	815.5	846.4	867.1	896.4	938.4	944.3	953.3
12.5°	879.9	889.5	919.8	918.7	968.7	1023.5	1015.5	1045.9	1052.8	1126.2	1103.9
15°	978.3	998.0	995.9	1014.5	1036.3	1126.2	1126.7	1178.3	1225.7	1254.4	1247.0
17.5°	1122.5	1129.4	1100.7	1101.7	1165.0	1201.7	1242.7	1233.7	1357.1	1413.5	1417.2
20°	1208.7	1226.2	1193.2	1149.6	1261.9	1312.4	1335.3	1282.6	1414.5	1490.6	1490.6
22.5°	1359.2	1314.0	1264.0	1234.7	1333.7	1387.4	1384.7	1369.8	1440.1	1574.7	1561.9
25°	1442.2	1416.7	1391.7	1399.1	1449.1	1476.8	1513.5	1478.9	1544.9	1644.9	1602.8
27.5°	1599.7	1552.3	1429.4	1527.3	1527.3	1506.6	1584.2	1600.7	1557.6	1720.4	1751.8
30°	1777.9	1761.4	1587.4	1691.2	1659.2	1600.7	1749.7	1739.0	1666.7	1832.7	1818.3
32.5°	1946.5	2000.8	1835.9	1778.9	1826.8	1849.2	1771.0	1802.9	1816.7	1976.8	1969.9
35°	2205.0	2250.8	2032.2	2017.8	1938.0	1917.2	1976.8	1987.5	1988.5	2157.2	2126.3
37.5°	2652.4	2586.5	2370.5	2268.9	2277.9	2252.9	2264.6	2180.6	2192.3	2437.0	2452.4
40°	2979.6	2905.1	2664.7	2591.8	2413.1	2520.0	2425.3	2416.8	2393.4	2710.4	2701.9
42.5°	3340.8	3238.7	2972.7	2875.3	2685.4	2641.8	2598.2	2696.6	2690.2	2983.9	3048.8
45°	3613.7	3407.3	3268.5	3207.8	3094.0	2987.1	2945.6	2989.7	2969.5	3187.6	3300.9
47.5°	3786.1	3606.8	3447.2	3319.5	3210.5	3472.8	3262.6	3203.6	3162.6	3406.8	3515.8
50°	3923.3	3716.4	3528.1	3485.5	3571.7	3803.6	3472.2	3341.9	3391.9	3571.7	3720.1
52.5°	3960.6	3741.4	3572.2	3545.1	3778.1	3820.1	3766.4	3547.2	3533.9	3769.6	3948.9
55°	3846.7	3636.6	3556.3	3704.7	3962.2	3927.1	4009.0	3869.1	3774.9	3971.7	4197.3
57.5°	3553.6	3345.1	3325.9	3539.8	3864.3	4163.3	4203.7	4093.0	3969.6	4178.2	4444.1
60°	3072.2	2881.7	2930.1	3166.3	3655.8	4081.3	4296.3	4195.2	4156.9	4364.3	4672.9
62.5°	2322.6	2174.2	2303.5	2632.8	3274.9	3975.5	4423.9	4408.0	4352.6	4562.2	4875.0
65°	1481.0	1402.8	1534.8	1869.4	2683.8	3782.9	4485.1	4506.4	4557.5	4714.9	5031.4
67.5°	860.7	819.2	899.6	1173.5	1911.4	3106.2	4371.3	4676.6	4703.2	4793.7	5134.1
70°	509.1	482.0	515.0	659.1	1082.0	2116.2	3728.6	4602.1	4803.2	4866.0	5237.9
72.5°	388.3	362.8	348.4	389.9	565.0	1093.2	2521.0	3901.0	4722.9	4818.1	5194.2
75°	335.7	311.2	294.2	297.9	336.2	519.2	1366.7	2790.2	4024.4	4387.2	4797.9
77.5°	288.3	266.5	254.3	253.2	258.0	285.1	571.3	1512.9	2520.5	3153.6	3458.9
80°	230.9	213.9	211.2	211.2	204.3	202.2	284.1	575.6	959.2	1137.4	1090.6
82.5°	168.6	151.6	168.6	166.5	155.9	147.4	180.9	249.0	295.8	233.5	184.6
85°	113.8	98.4	111.2	113.3	103.2	76.6	108.5	124.5	127.7	79.8	66.0
87.5°	39.9	38.8	62.8	54.8	44.7	26.1	39.9	43.1	45.2	28.2	19.2
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	460.7	460.7	460.7	460.7	460.7	460.7	460.7	460.7	460.7	460.7	460.7
2.5°	558.6	552.2	520.3	525.1	537.3	543.1	549.0	525.1	513.4	550.6	546.9
5°	731.5	708.1	682.0	678.3	679.9	657.0	670.3	664.4	667.1	691.0	695.8
7.5°	876.2	848.0	813.4	786.3	739.4	702.2	733.6	749.6	754.3	796.9	812.9
10°	954.4	930.4	920.3	869.3	853.8	849.0	841.6	816.1	844.2	834.1	842.1
12.5°	1107.6	1102.8	1050.1	1016.6	1019.8	1028.8	982.0	956.5	919.8	977.2	956.5
15°	1237.9	1258.7	1206.0	1144.8	1114.5	1129.9	1094.3	1057.0	1024.1	1041.6	1019.3
17.5°	1404.4	1403.9	1301.2	1235.8	1233.1	1232.1	1179.4	1097.5	1136.8	1124.6	1125.7
20°	1492.7	1478.4	1350.7	1275.2	1339.5	1316.6	1269.3	1164.0	1209.7	1224.6	1234.2
22.5°	1566.7	1558.7	1403.9	1348.6	1390.1	1390.6	1343.2	1287.9	1282.1	1328.3	1303.3
25°	1618.3	1650.2	1504.4	1491.1	1509.2	1491.1	1444.9	1408.7	1385.3	1454.4	1385.3
27.5°	1740.6	1695.4	1519.9	1595.4	1606.6	1515.6	1573.6	1531.0	1466.1	1551.8	1580.0
30°	1827.9	1854.5	1628.4	1742.2	1728.9	1644.9	1668.8	1667.2	1589.6	1756.6	1736.9
32.5°	1977.9	1946.0	1805.5	1796.5	1828.4	1824.7	1784.3	1803.9	1823.1	1944.4	1973.6
35°	2131.6	2165.7	1918.8	1980.0	1971.0	1913.5	2019.4	2007.2	2064.1	2313.0	2230.6
37.5°	2478.5	2316.2	2173.1	2165.2	2225.8	2234.8	2200.8	2254.5	2377.4	2568.9	2657.2
40°	2705.6	2631.7	2388.6	2398.2	2314.1	2458.8	2363.0	2535.9	2629.6	2952.5	2921.1
42.5°	3049.3	2869.0	2635.4	2667.3	2650.3	2580.6	2706.7	2795.5	2929.6	3175.9	3335.0
45°	3305.2	3057.8	2947.2	2927.5	2925.3	3046.6	3030.7	3172.7	3220.6	3405.7	3537.7
47.5°	3499.4	3289.2	3125.4	3147.7	3082.8	3429.1	3244.5	3288.7	3385.5	3560.0	3713.7
50°	3729.7	3495.6	3309.4	3364.8	3522.8	3655.8	3488.7	3413.2	3460.5	3666.4	3837.7
52.5°	3943.0	3696.7	3491.9	3538.2	3796.2	3735.5	3717.5	3526.5	3520.6	3686.1	3880.8
55°	4192.5	3914.8	3734.0	3880.8	3972.3	3897.3	3868.5	3636.1	3492.4	3584.5	3768.0
57.5°	4437.2	4130.8	3951.0	3981.3	4097.3	4022.8	3807.4	3449.3	3270.1	3288.2	3473.8
60°	4666.5	4329.2	4180.8	4151.6	4244.1	3952.1	3574.9	3107.3	2869.5	2825.9	2986.5
62.5°	4862.8	4495.2	4354.8	4275.0	4363.3	3954.7	3212.6	2558.3	2297.1	2149.2	2274.2
65°	5018.7	4633.0	4533.0	4491.5	4523.4	3714.3	2648.2	1878.4	1558.2	1394.3	1467.2
67.5°	5122.4	4710.1	4664.4	4718.6	4293.1	3093.5	1961.9	1202.3	906.0	816.6	862.3
70°	5229.9	4778.2	4776.6	4592.0	3640.3	2132.7	1145.9	693.2	527.2	492.6	521.3
72.5°	5193.7	4697.4	4721.3	4015.9	2522.6	1140.0	604.9	392.1	357.0	369.2	394.7
75°	4809.6	4270.7	4155.3	2887.0	1431.0	529.9	348.4	296.8	294.7	313.3	338.3
77.5°	3488.7	2974.3	2668.9	1636.4	613.4	286.7	256.4	247.9	247.9	262.8	285.1
80°	1150.1	995.3	1037.4	633.1	289.9	197.9	200.0	203.7	202.7	206.4	225.0
82.5°	188.9	195.8	302.7	258.5	175.0	135.1	151.1	158.5	160.7	143.6	163.3
85°	67.0	75.5	128.7	119.7	101.1	68.1	99.5	111.2	109.6	95.8	105.9
87.5°	20.7	26.6	46.8	36.2	30.3	18.6	37.2	43.6	54.8	22.3	20.2
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)