

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: P596964

Luminaire Tested: **MSA-SA2C-835-U-SL2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596964
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-835-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10103 lumens
Efficiency: N/A
Efficacy: 89.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

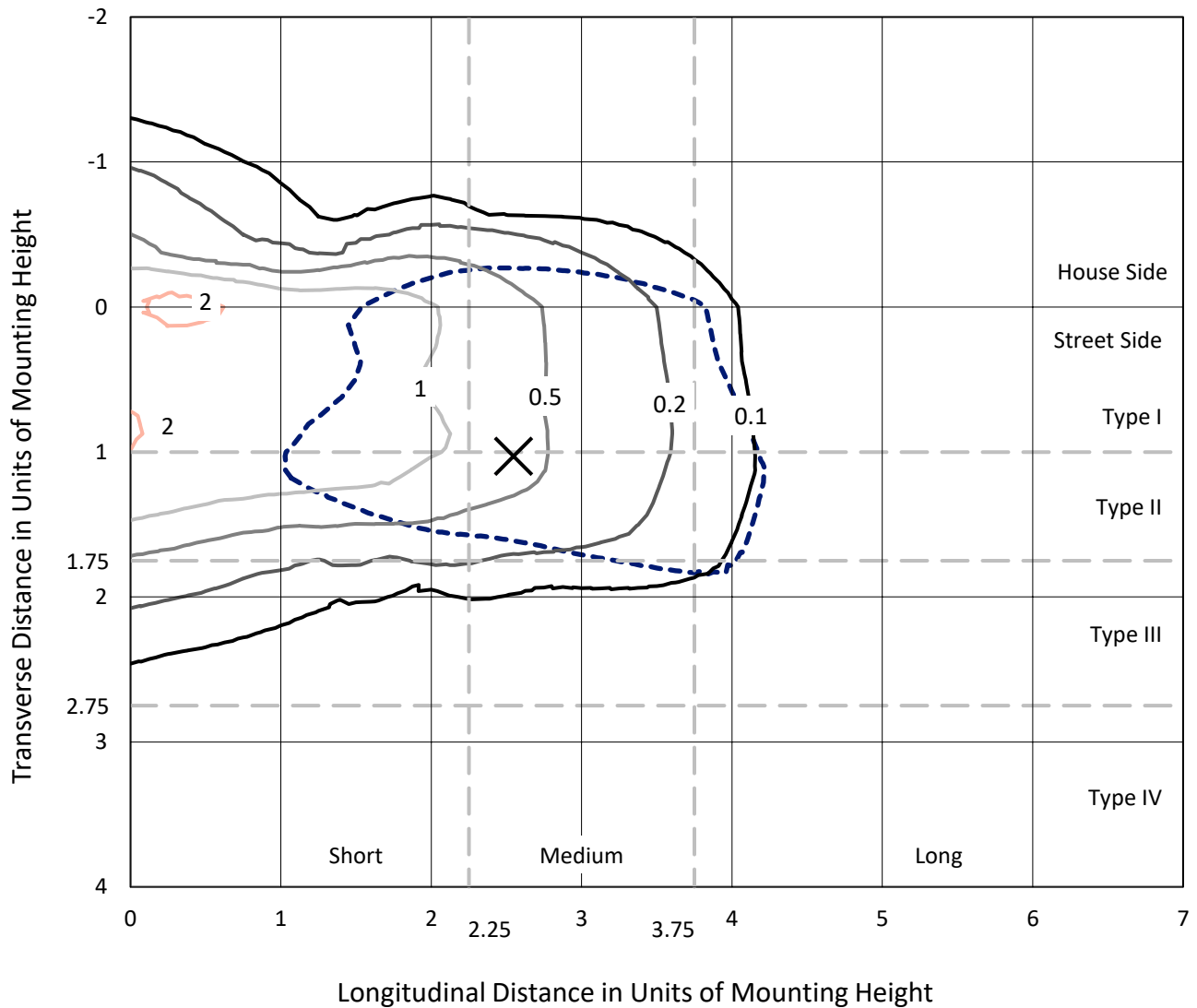
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

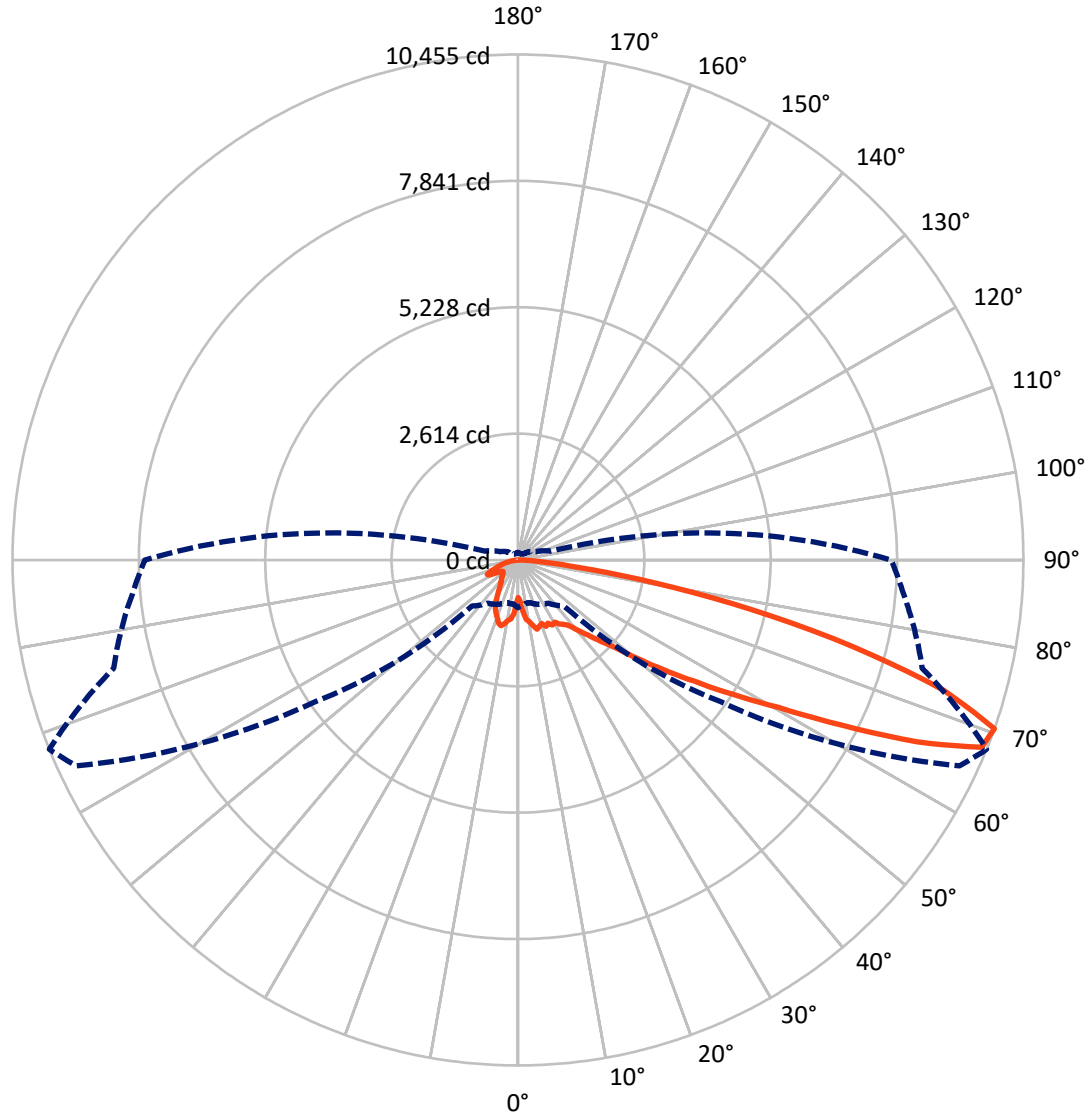
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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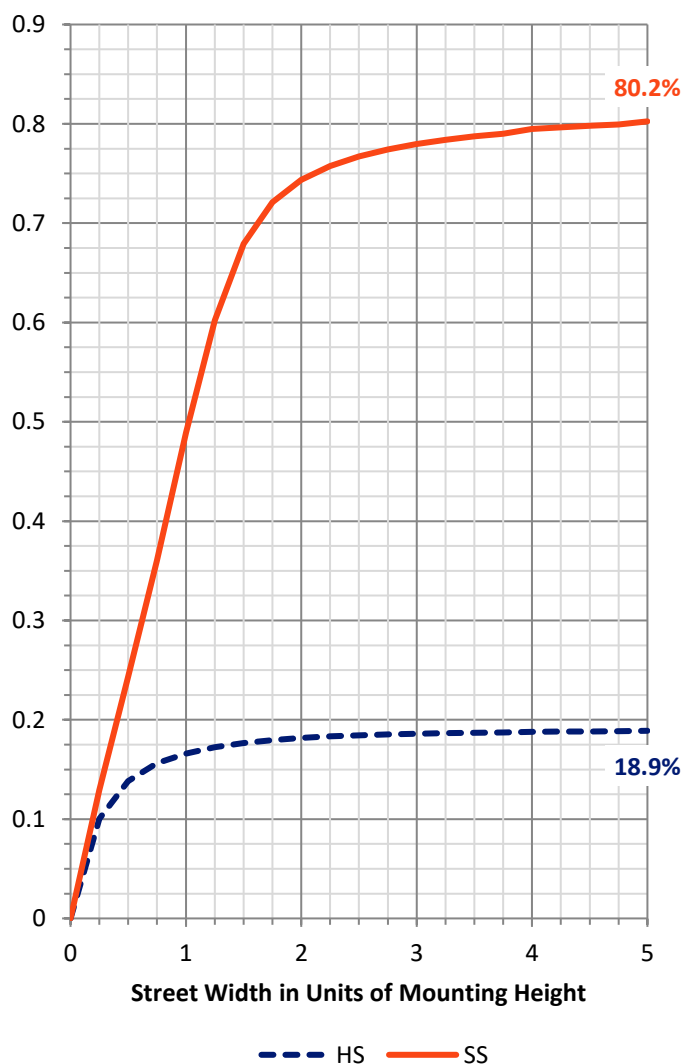
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1928.9	0.0	1928.9
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	8174.1	0.0	8174.1
	% Fixture	80.9	0.0	80.9
Total	Lumens	10103.0	0.0	10103.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.4	1.0
10°-20°	337.2	3.3
20°-30°	512.9	5.1
30°-40°	783.5	7.8
40°-50°	1347.2	13.3
50°-60°	2229.8	22.1
60°-70°	2749.1	27.2
70°-80°	1765.9	17.5
80°-90°	273.9	2.7
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°	10103.0	100.0
0°-180°	10103.0	100.0

Coefficient of Utilization



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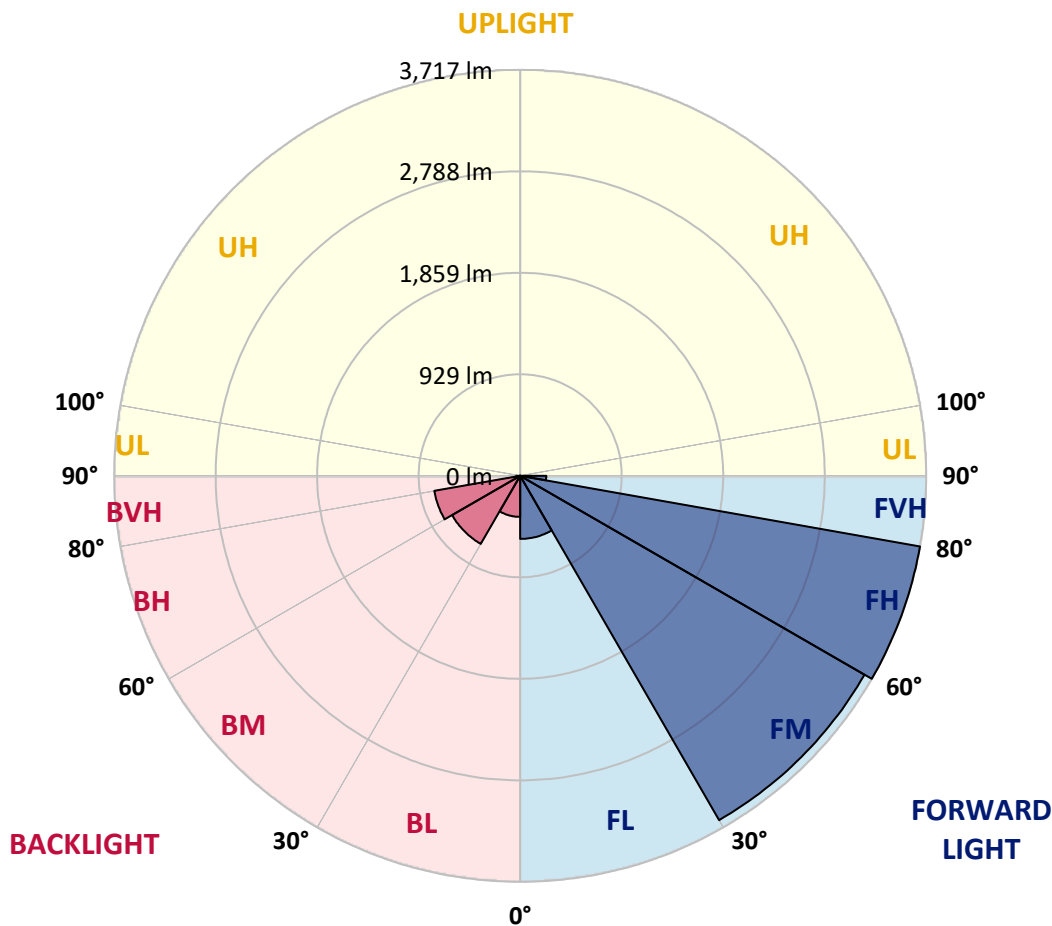
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	577.7	5.7			
FM (30°-60°)	3640.5	36.0			
FH (60°-80°)	3717.1	36.8			G2/5000
FVH (80°-90°)	238.8	2.4			G3/500
BL (0°-30°)	375.9	3.7	B1/500		
BM (30°-60°)	720.0	7.1	B1/1000		
BH (60°-80°)	797.9	7.9	B2/1000		G2/1000
BVH (80°-90°)	35.2	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	774.6	774.6	774.6	774.6	774.6	774.6	774.6	774.6	774.6	774.6	774.6
2.5°	890.1	854.1	817.8	835.5	863.9	888.8	883.7	886.7	852.4	847.8	937.8
5°	1048.6	986.9	985.6	986.5	989.0	960.3	1030.4	1066.8	1074.8	1112.1	1200.4
7.5°	1103.6	1078.7	1053.3	1066.0	1033.8	1036.8	1123.0	1217.8	1240.2	1267.2	1388.2
10°	1092.2	1068.5	1076.1	1078.2	1084.1	1131.9	1187.3	1278.2	1297.3	1383.5	1414.8
12.5°	1093.9	1089.6	1125.2	1126.4	1189.9	1275.7	1297.7	1381.4	1389.0	1452.4	1583.1
15°	1151.8	1181.0	1161.1	1171.7	1183.9	1286.7	1318.4	1438.5	1484.1	1565.8	1663.9
17.5°	1264.7	1273.2	1213.5	1197.9	1238.1	1269.3	1341.7	1393.7	1441.4	1669.4	1804.7
20°	1290.9	1313.7	1242.7	1161.9	1246.9	1290.5	1340.8	1364.5	1401.7	1684.6	1876.5
22.5°	1403.4	1356.0	1270.2	1200.0	1227.9	1270.2	1306.6	1395.8	1493.5	1641.0	1948.4
25°	1467.2	1439.8	1363.2	1288.0	1264.3	1265.5	1335.7	1415.6	1449.5	1704.9	1962.8
27.5°	1621.6	1577.6	1405.5	1391.1	1301.9	1232.6	1340.4	1464.7	1523.9	1655.0	2033.0
30°	1814.8	1781.4	1555.6	1536.6	1400.4	1279.5	1399.6	1501.1	1492.6	1687.5	2081.6
32.5°	1971.3	2027.1	1799.2	1649.1	1552.2	1436.4	1381.0	1494.7	1578.9	1763.2	2164.1
35°	2194.5	2246.9	1989.0	1887.5	1677.4	1509.1	1510.8	1581.8	1633.8	1851.6	2256.2
37.5°	2581.0	2534.9	2327.3	2167.0	2032.6	1781.4	1706.1	1681.2	1723.1	1959.8	2436.8
40°	2859.6	2820.7	2576.3	2485.0	2223.3	2077.4	1871.0	1847.4	1921.4	2071.5	2584.4
42.5°	3189.9	3120.5	2893.0	2817.8	2544.2	2281.2	2073.2	2086.7	2122.6	2282.0	2783.9
45°	3526.0	3357.7	3228.8	3222.8	3040.2	2677.0	2397.5	2386.5	2387.7	2592.0	3008.0
47.5°	3792.8	3641.5	3493.9	3423.7	3331.5	3361.5	2868.5	2739.5	2700.6	2904.0	3344.2
50°	3973.4	3799.2	3632.1	3615.7	3861.7	4023.7	3310.8	3173.0	3197.1	3350.5	3792.4
52.5°	3977.2	3770.4	3596.2	3711.6	4291.3	4523.1	4072.7	3687.5	3764.5	3868.9	4377.2
55°	3700.6	3486.3	3373.0	3636.0	4459.2	5115.5	5143.4	4512.1	4423.3	4461.7	5076.1
57.5°	3117.6	2901.1	2835.1	3150.1	4140.8	5686.7	6436.4	5497.3	5236.8	5076.1	5792.4
60°	2346.7	2159.4	2118.4	2319.2	3433.0	5518.8	7483.3	6723.5	6192.8	5762.4	6510.8
62.5°	1759.8	1625.4	1563.6	1592.4	2375.5	4973.0	8170.9	8272.8	7521.4	6511.7	7212.7
65°	1430.0	1321.4	1266.4	1229.2	1477.4	3845.3	8046.5	9576.8	9073.2	7298.5	7759.0
67.5°	1194.5	1098.1	1072.7	1109.1	1167.9	2230.9	7074.0	10306.2	10340.4	8074.9	8078.3
70°	991.5	920.1	910.8	1014.0	1091.3	1346.3	5109.5	10077.0	10455.0	8657.1	8003.4
72.5°	766.2	727.7	726.4	888.4	1084.1	1147.6	3042.7	8705.3	9213.1	8471.1	7271.1
75°	531.5	504.9	525.2	730.2	1059.2	1164.1	1736.6	6780.6	7160.7	7208.5	5824.5
77.5°	365.8	343.3	365.3	528.1	945.9	1192.0	1214.8	4902.8	4945.0	4833.8	3336.2
80°	254.5	238.9	255.8	373.8	736.2	1179.7	1034.3	3086.7	2832.1	2157.3	1068.1
82.5°	157.7	153.1	171.7	266.4	518.4	1073.2	980.1	1592.8	1216.1	595.4	381.4
85°	82.9	76.1	99.8	173.8	324.3	842.3	918.4	726.9	469.3	211.4	153.1
87.5°	24.5	22.0	38.5	70.2	137.4	377.6	525.6	308.2	175.1	62.2	47.8
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°	774.6	774.6	774.6	774.6	774.6	774.6	774.6	774.6	774.6	774.6	774.6
2.5°	944.2	939.5	877.0	885.0	898.5	901.9	901.5	878.7	854.5	921.8	919.7
5°	1202.5	1160.7	1129.4	1122.6	1084.1	1045.7	1059.2	1054.5	1048.6	1079.1	1082.9
7.5°	1388.6	1330.7	1294.3	1200.8	1112.1	1035.1	1059.6	1067.2	1052.0	1107.0	1123.5
10°	1437.6	1392.0	1352.6	1232.6	1183.5	1138.7	1072.3	996.6	986.5	954.8	958.6
12.5°	1564.1	1557.7	1423.7	1318.0	1254.1	1164.9	1021.6	929.8	851.2	855.0	832.1
15°	1663.9	1667.2	1506.1	1358.1	1186.9	1050.7	882.0	767.9	687.1	671.0	654.5
17.5°	1797.9	1791.1	1512.9	1309.9	1093.0	893.4	686.7	573.4	559.8	569.1	554.8
20°	1856.2	1796.6	1469.8	1190.3	946.3	678.6	518.8	458.8	485.0	522.2	523.0
22.5°	1908.7	1806.8	1447.4	1093.9	751.0	493.4	416.5	405.5	436.4	486.7	490.9
25°	1906.6	1853.7	1407.2	996.6	582.2	385.2	361.9	370.0	406.8	459.2	462.2
27.5°	2002.5	1817.8	1302.8	868.9	438.5	329.8	335.7	350.5	367.9	417.8	427.5
30°	2001.7	1884.6	1250.3	713.7	352.2	302.3	317.5	330.2	344.6	390.3	395.8
32.5°	2049.1	1841.0	1218.6	555.2	315.9	295.6	299.4	312.1	332.8	363.6	367.4
35°	2106.1	1890.5	1117.1	441.0	302.3	289.6	292.6	299.8	318.8	347.1	351.0
37.5°	2289.2	1899.8	1077.0	371.7	301.5	287.1	286.7	290.5	312.1	337.8	349.3
40°	2360.7	1984.8	959.8	347.1	298.5	287.1	281.2	283.3	301.1	334.0	342.9
42.5°	2531.9	2013.1	873.2	338.7	298.5	282.0	272.7	276.1	296.8	326.0	340.0
45°	2708.3	2053.3	770.0	337.0	298.1	281.6	263.8	271.5	288.4	312.9	328.1
47.5°	2959.4	2197.9	666.8	331.9	294.7	283.7	261.7	261.3	276.1	297.3	311.6
50°	3369.1	2423.7	586.9	325.6	295.1	282.0	257.5	251.6	261.3	279.9	293.9
52.5°	3939.5	2808.5	555.6	322.2	291.8	275.3	250.3	241.0	246.5	261.3	274.8
55°	4601.7	3328.1	586.5	322.2	285.0	264.7	240.2	229.2	232.1	242.3	255.4
57.5°	5375.5	3973.8	735.7	317.5	276.5	252.0	227.9	215.2	216.1	224.9	236.8
60°	6183.5	4695.2	1070.2	313.7	270.6	238.1	213.5	200.4	199.2	207.6	218.2
62.5°	6992.8	5360.7	1422.0	322.6	268.9	226.2	198.3	185.2	184.8	192.4	201.3
65°	7636.4	5815.7	1509.5	358.6	279.9	212.7	182.7	170.4	169.6	175.9	185.6
67.5°	7952.2	5881.6	1146.7	403.4	303.2	200.0	167.4	156.0	155.2	161.9	170.4
70°	7718.4	5430.9	707.8	408.0	301.9	185.2	151.8	142.1	140.4	147.6	153.9
72.5°	6853.3	4750.5	537.8	361.1	261.3	164.1	136.2	127.7	125.2	131.5	137.4
75°	5500.7	3771.7	430.9	291.3	205.9	138.3	120.5	112.5	109.5	115.4	120.5
77.5°	3204.2	2121.8	315.0	227.5	155.6	112.9	102.7	95.6	92.2	98.5	102.3
80°	1041.9	707.0	197.9	163.2	113.7	88.4	83.3	78.2	74.8	79.1	80.3
82.5°	374.2	263.0	109.5	100.2	75.7	63.4	63.0	60.0	55.8	57.5	57.5
85°	165.8	120.1	65.1	53.7	45.2	33.8	39.7	37.6	33.4	32.6	31.3
87.5°	46.5	39.7	23.7	18.2	14.8	5.5	12.7	11.4	9.3	8.5	5.9
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)