

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: P596874

Luminaire Tested: **MSA-SA1C-835-U-RW**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596874
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-SA1C-835-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5310 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

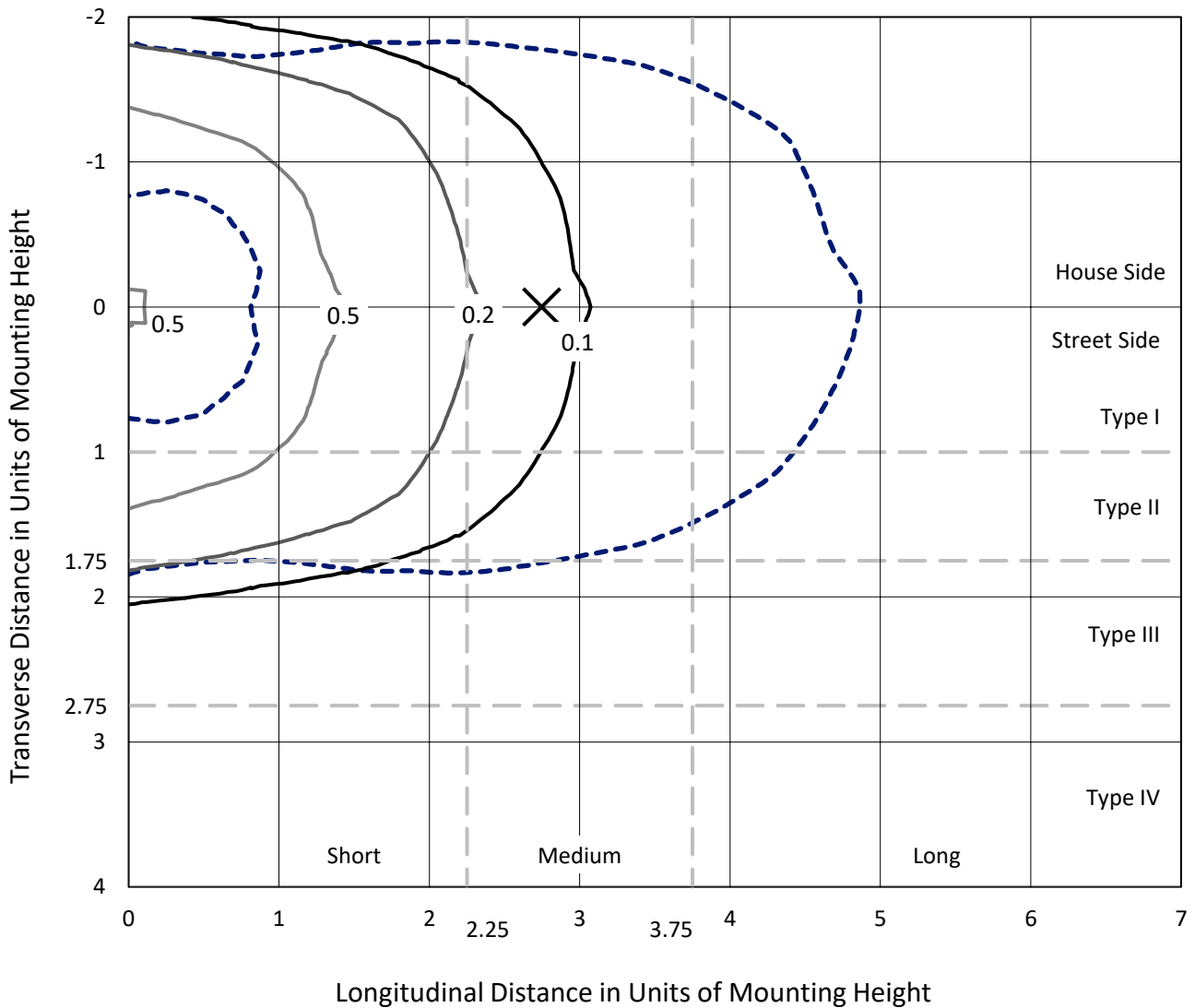
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

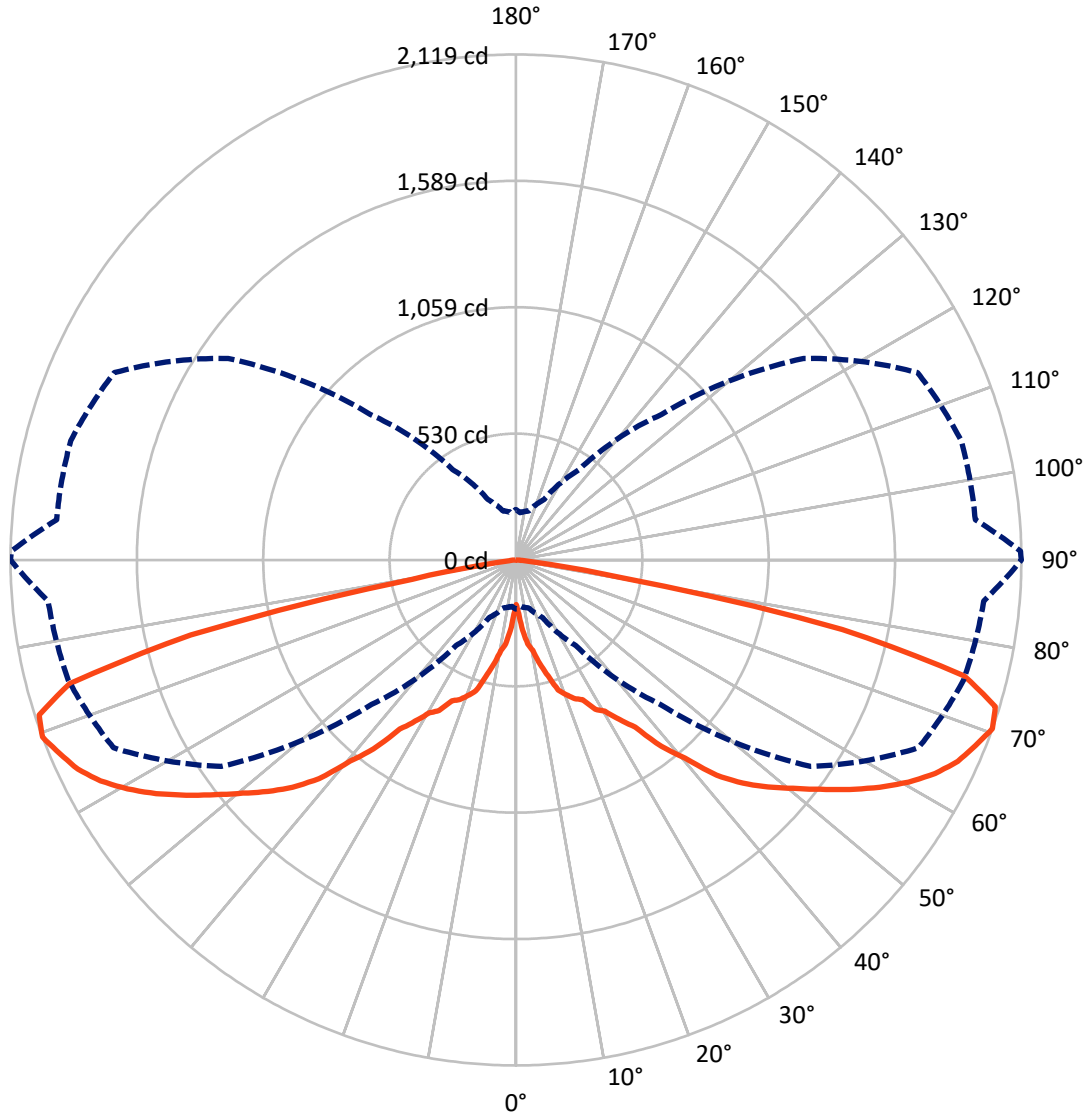
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 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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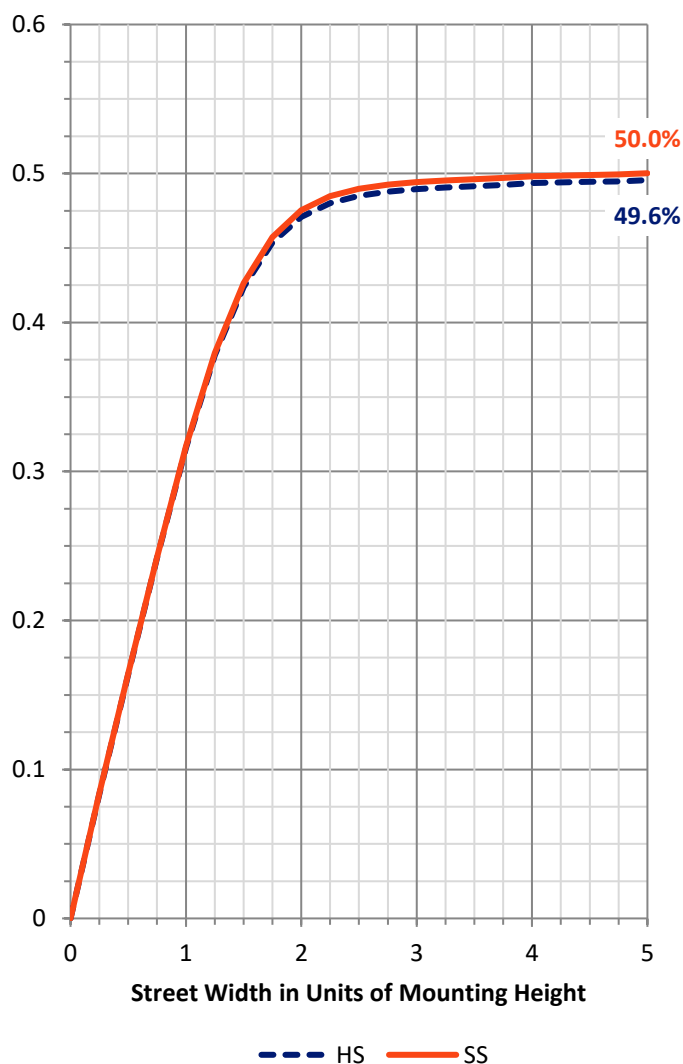
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2645.2	0.0	2645.2
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	2664.8	0.0	2664.8
	% Fixture	50.2	0.0	50.2
Total	Lumens	5310.0	0.0	5310.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.1	0.5
10°-20°	128.9	2.4
20°-30°	278.6	5.2
30°-40°	531.5	10.0
40°-50°	965.6	18.2
50°-60°	1356.5	25.5
60°-70°	1295.2	24.4
70°-80°	664.7	12.5
80°-90°	60.9	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°	5310.0	100.0
0°-180°	5310.0	100.0

Coefficient of Utilization



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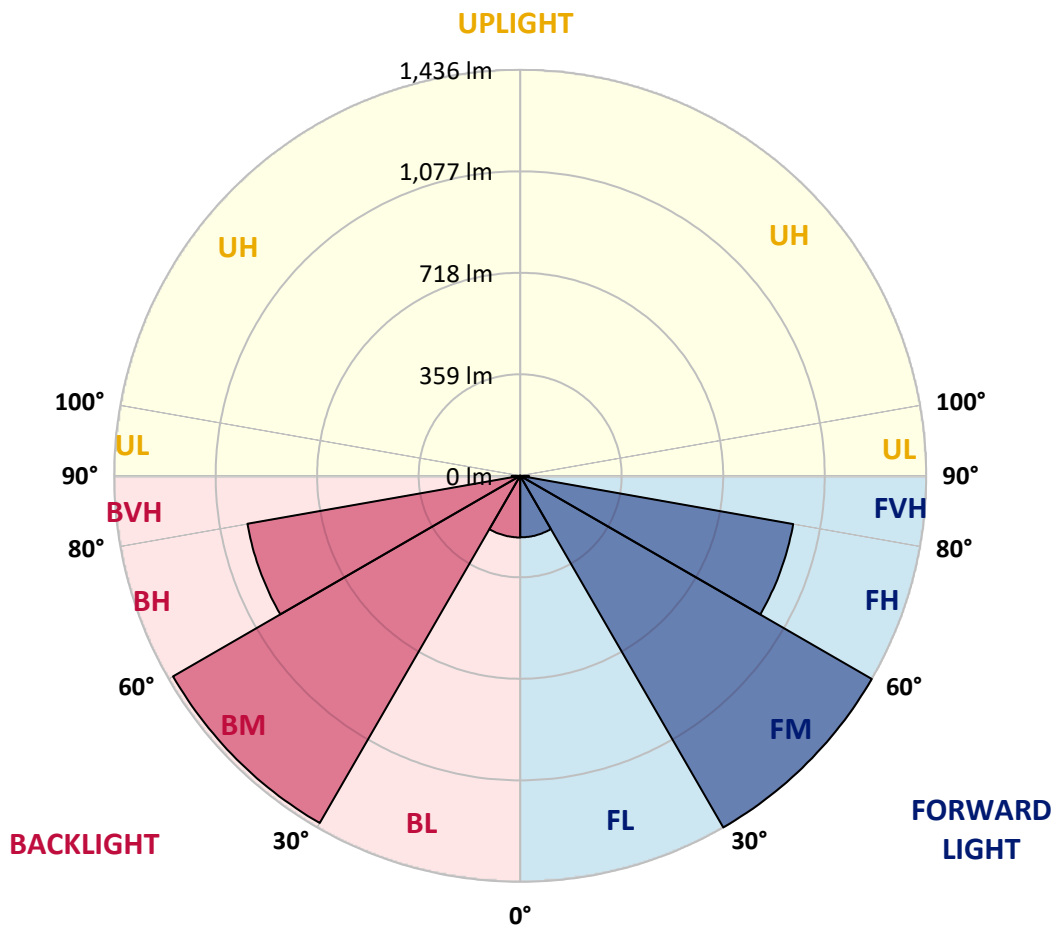
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	217.6	4.1			
FM (30°-60°)	1435.9	27.0			
FH (60°-80°)	980.5	18.5			G1/1800
FVH (80°-90°)	30.9	0.6			G1/100
BL (0°-30°)	218.0	4.1	B1/500		
BM (30°-60°)	1417.8	26.7	B2/2500		
BH (60°-80°)	979.4	18.4	B2/1000		G2/1000
BVH (80°-90°)	30.0	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	186.4	186.4	186.4	186.4	186.4	186.4	186.4	186.4	186.4	186.4	186.4
2.5°	225.8	217.4	206.8	213.1	215.6	220.2	219.5	217.4	208.1	223.6	225.3
5°	282.6	269.2	264.3	263.4	264.7	260.4	274.4	270.3	277.8	291.8	295.0
7.5°	321.7	311.8	301.3	304.5	291.2	289.2	307.3	323.5	327.5	353.2	354.9
10°	340.2	330.6	333.4	331.4	329.9	342.4	350.8	362.6	379.6	382.0	385.7
12.5°	356.0	359.8	372.1	371.7	391.9	414.1	410.8	423.1	425.9	455.6	446.6
15°	395.8	403.7	402.9	410.4	419.2	455.6	455.8	476.7	495.8	507.5	504.4
17.5°	454.1	456.9	445.3	445.7	471.3	486.2	502.7	499.1	549.0	571.8	573.3
20°	488.9	496.1	482.7	465.1	510.5	530.9	540.2	518.9	572.2	603.0	603.0
22.5°	549.9	531.6	511.3	499.5	539.5	561.3	560.2	554.2	582.6	637.0	631.8
25°	583.4	573.1	563.0	566.0	586.2	597.4	612.3	598.3	625.0	665.4	648.4
27.5°	647.1	628.0	578.3	617.9	617.9	609.5	640.9	647.6	630.1	696.0	708.7
30°	719.2	712.5	642.2	684.1	671.2	647.6	707.8	703.5	674.2	741.4	735.6
32.5°	787.4	809.4	742.7	719.7	739.0	748.1	716.4	729.3	734.9	799.7	796.9
35°	892.0	910.5	822.1	816.3	784.0	775.6	799.7	804.0	804.4	872.7	860.2
37.5°	1073.0	1046.3	959.0	917.9	921.5	911.4	916.1	882.1	886.9	985.9	992.1
40°	1205.4	1175.2	1078.0	1048.5	976.2	1019.4	981.1	977.7	968.2	1096.5	1093.0
42.5°	1351.5	1310.2	1202.6	1163.2	1086.4	1068.7	1051.1	1090.9	1088.3	1207.1	1233.3
45°	1461.9	1378.4	1322.2	1297.7	1251.6	1208.4	1191.6	1209.5	1201.3	1289.5	1335.4
47.5°	1531.6	1459.1	1394.5	1342.9	1298.8	1404.9	1319.9	1296.0	1279.4	1378.2	1422.3
50°	1587.1	1503.4	1427.3	1410.0	1444.9	1538.7	1404.7	1351.9	1372.2	1444.9	1504.9
52.5°	1602.2	1513.5	1445.1	1434.1	1528.4	1545.4	1523.7	1435.0	1429.6	1525.0	1597.5
55°	1556.2	1471.2	1438.7	1498.7	1602.9	1588.7	1621.8	1565.2	1527.1	1606.7	1698.0
57.5°	1437.6	1353.2	1345.5	1432.0	1563.3	1684.2	1700.6	1655.8	1605.9	1690.2	1797.8
60°	1242.8	1165.8	1185.4	1280.9	1478.9	1651.1	1738.0	1697.1	1681.6	1765.6	1890.4
62.5°	939.6	879.5	931.8	1065.1	1324.8	1608.2	1789.7	1783.2	1760.8	1845.6	1972.2
65°	599.1	567.5	620.9	756.2	1085.7	1530.3	1814.4	1823.0	1843.7	1907.4	2035.4
67.5°	348.2	331.4	363.9	474.7	773.2	1256.6	1768.4	1891.9	1902.6	1939.2	2077.0
70°	206.0	195.0	208.3	266.6	437.7	856.1	1508.4	1861.8	1943.1	1968.5	2118.9
72.5°	157.1	146.8	141.0	157.7	228.5	442.2	1019.9	1578.1	1910.6	1949.1	2101.3
75°	135.8	125.9	119.0	120.5	136.0	210.0	552.9	1128.8	1628.0	1774.8	1940.9
77.5°	116.6	107.8	102.9	102.4	104.4	115.4	231.1	612.0	1019.6	1275.7	1399.3
80°	93.4	86.5	85.4	85.4	82.6	81.8	114.9	232.9	388.0	460.1	441.2
82.5°	68.2	61.3	68.2	67.4	63.1	59.6	73.2	100.7	119.7	94.5	74.7
85°	46.1	39.8	45.0	45.8	41.8	31.0	43.9	50.4	51.6	32.3	26.7
87.5°	16.1	15.7	25.4	22.2	18.1	10.5	16.1	17.4	18.3	11.4	7.7
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°	186.4	186.4	186.4	186.4	186.4	186.4	186.4	186.4	186.4	186.4	186.4
2.5°	226.0	223.4	210.5	212.4	217.4	219.7	222.1	212.4	207.7	222.7	221.2
5°	295.9	286.4	275.9	274.4	275.0	265.8	271.2	268.8	269.9	279.6	281.5
7.5°	354.4	343.0	329.1	318.1	299.1	284.1	296.8	303.2	305.2	322.4	328.8
10°	386.1	376.4	372.3	351.6	345.4	343.5	340.5	330.1	341.5	337.4	340.7
12.5°	448.1	446.1	424.8	411.3	412.6	416.2	397.3	386.9	372.1	395.3	386.9
15°	500.8	509.2	487.9	463.1	450.9	457.1	442.7	427.6	414.3	421.4	412.3
17.5°	568.1	567.9	526.4	499.9	498.8	498.4	477.1	444.0	459.9	454.9	455.4
20°	603.9	598.1	546.4	515.9	541.9	532.6	513.5	470.9	489.4	495.4	499.3
22.5°	633.8	630.6	567.9	545.5	562.3	562.6	543.4	521.0	518.6	537.4	527.3
25°	654.7	667.6	608.6	603.2	610.5	603.2	584.5	569.9	560.4	588.4	560.4
27.5°	704.2	685.9	614.8	645.4	649.9	613.1	636.6	619.4	593.1	627.8	639.2
30°	739.5	750.2	658.7	704.8	699.4	665.4	675.1	674.5	643.0	710.6	702.6
32.5°	800.1	787.2	730.4	726.8	739.7	738.2	721.8	729.8	737.5	786.6	798.4
35°	862.3	876.1	776.3	801.0	797.3	774.1	816.9	812.0	835.0	935.7	902.4
37.5°	1002.6	937.0	879.1	875.9	900.4	904.1	890.3	912.0	961.8	1039.2	1075.0
40°	1094.5	1064.6	966.3	970.2	936.1	994.7	955.9	1025.9	1063.8	1194.4	1181.7
42.5°	1233.6	1160.6	1066.1	1079.0	1072.2	1044.0	1095.0	1130.9	1185.1	1284.8	1349.1
45°	1337.1	1237.0	1192.2	1184.3	1183.4	1232.5	1226.0	1283.5	1302.9	1377.8	1431.1
47.5°	1415.6	1330.6	1264.3	1273.4	1247.1	1387.2	1312.5	1330.4	1369.6	1440.2	1502.4
50°	1508.8	1414.1	1338.8	1361.2	1425.1	1478.9	1411.3	1380.8	1399.9	1483.2	1552.5
52.5°	1595.1	1495.5	1412.6	1431.3	1535.7	1511.2	1503.9	1426.6	1424.2	1491.2	1569.9
55°	1696.0	1583.7	1510.5	1569.9	1606.9	1576.6	1565.0	1470.9	1412.8	1450.1	1524.3
57.5°	1795.0	1671.1	1598.3	1610.6	1657.5	1627.4	1540.2	1395.4	1322.9	1330.2	1405.3
60°	1887.8	1751.4	1691.3	1679.5	1716.9	1598.8	1446.2	1257.0	1160.8	1143.2	1208.2
62.5°	1967.2	1818.5	1761.7	1729.4	1765.1	1599.8	1299.6	1034.9	929.3	869.4	920.0
65°	2030.3	1874.2	1833.8	1817.0	1829.9	1502.6	1071.3	759.9	630.3	564.1	593.5
67.5°	2072.2	1905.4	1886.9	1908.9	1736.7	1251.4	793.7	486.4	366.5	330.3	348.9
70°	2115.7	1933.0	1932.3	1857.7	1472.7	862.8	463.6	280.4	213.3	199.3	210.9
72.5°	2101.1	1900.3	1910.0	1624.6	1020.5	461.2	244.7	158.6	144.4	149.4	159.7
75°	1945.7	1727.7	1681.0	1167.9	578.9	214.3	141.0	120.1	119.2	126.8	136.9
77.5°	1411.3	1203.2	1079.7	662.0	248.1	116.0	103.7	100.3	100.3	106.3	115.4
80°	465.3	402.7	419.7	256.1	117.3	80.1	80.9	82.4	82.0	83.5	91.0
82.5°	76.4	79.2	122.5	104.6	70.8	54.7	61.1	64.1	65.0	58.1	66.1
85°	27.1	30.6	52.1	48.4	40.9	27.5	40.2	45.0	44.3	38.7	42.8
87.5°	8.4	10.8	18.9	14.6	12.3	7.5	15.1	17.6	22.2	9.0	8.2
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)