

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: P596896

Luminaire Tested: **MSA-SA1D-835-U-RW**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596896
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-SA1D-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: 5806 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

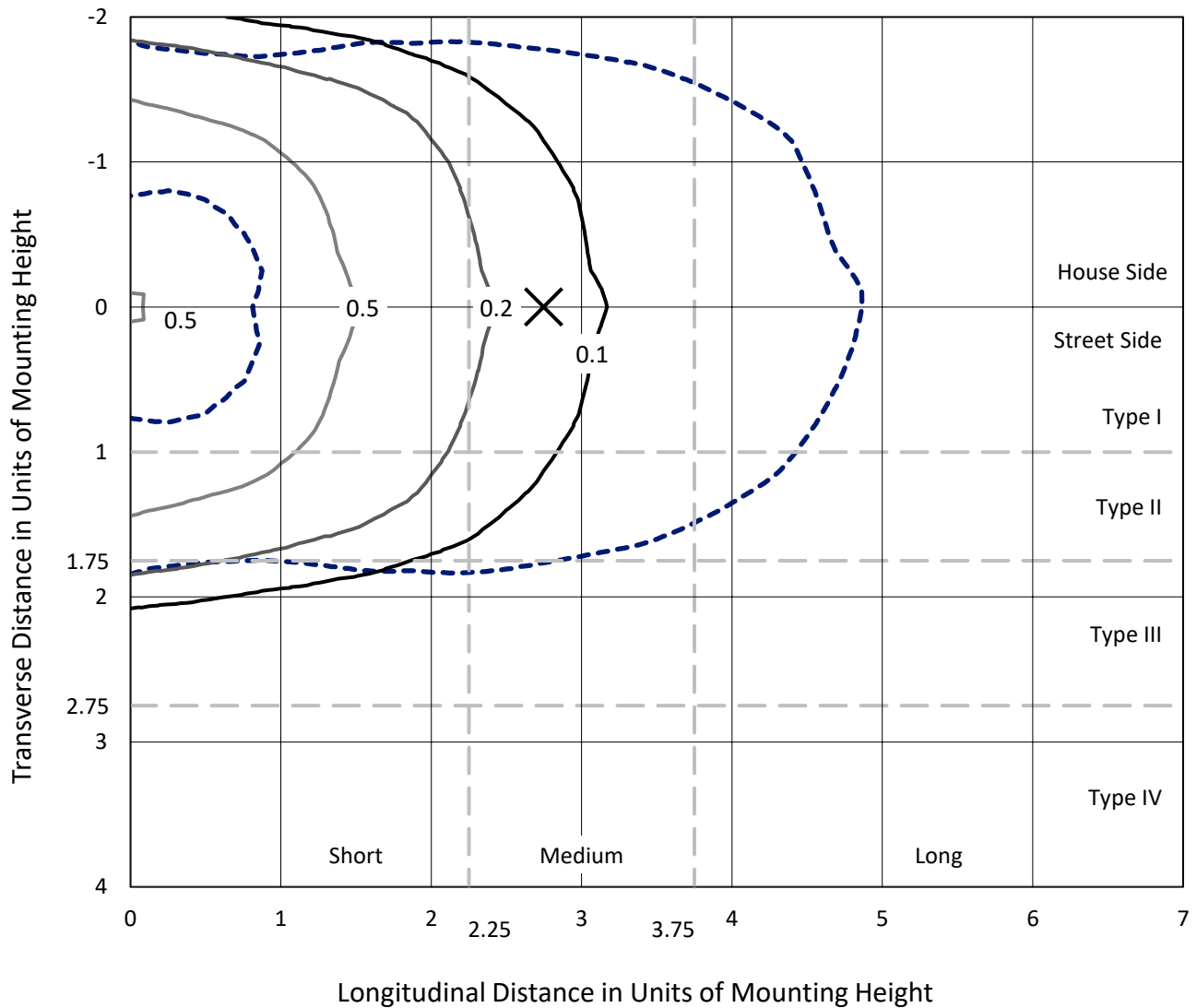
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596896
 CATALOG NUMBER: MSA-SA1D-835-U-RW

Iso-Footcandle Lines of Horizontal Illumination

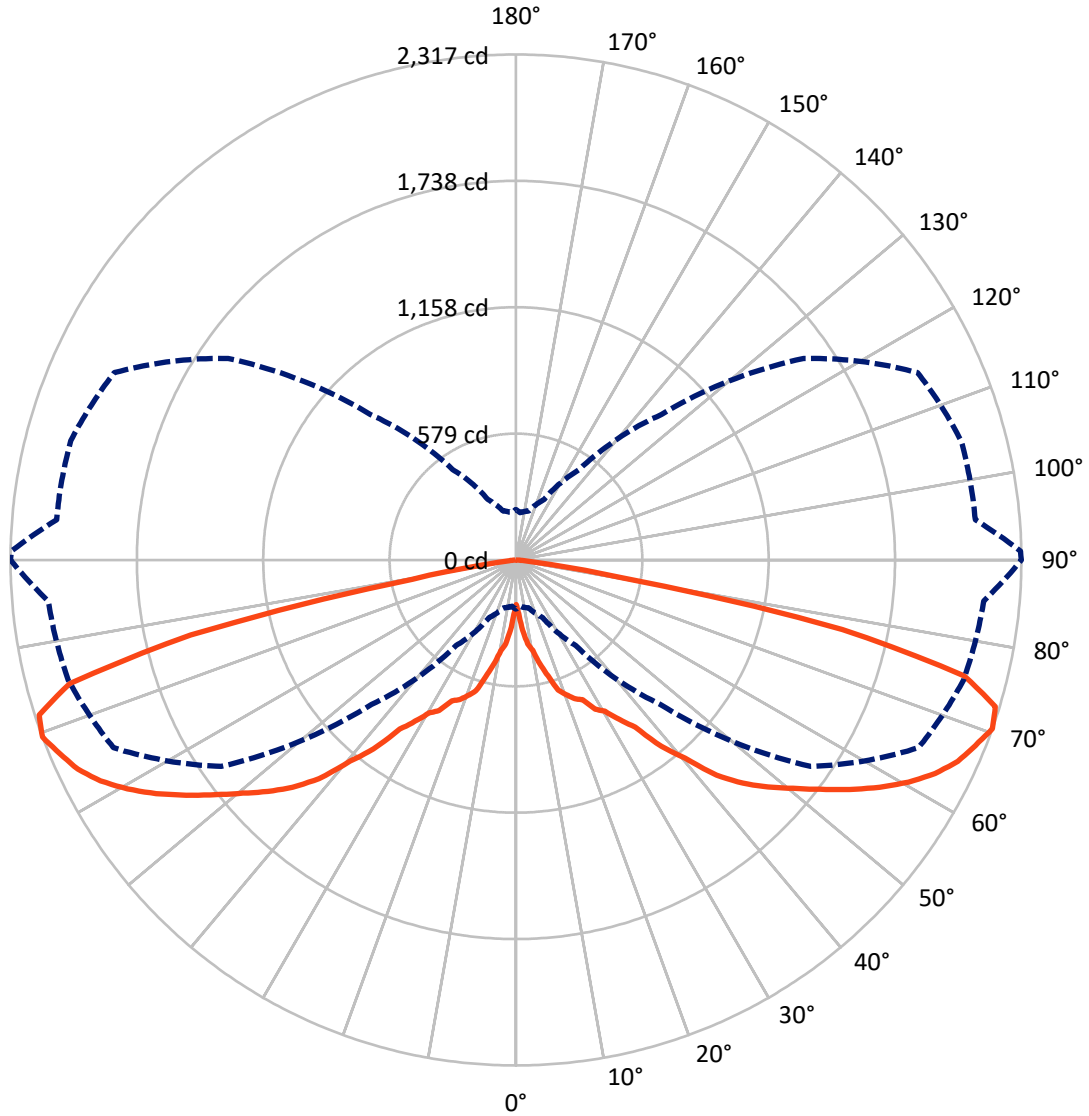
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc
 Type III - Short - N/A

REPORT NUMBER: P596896
CATALOG NUMBER: MSA-SA1D-835-U-RW

Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P596896

CATALOG NUMBER: MSA-SA1D-835-U-RW

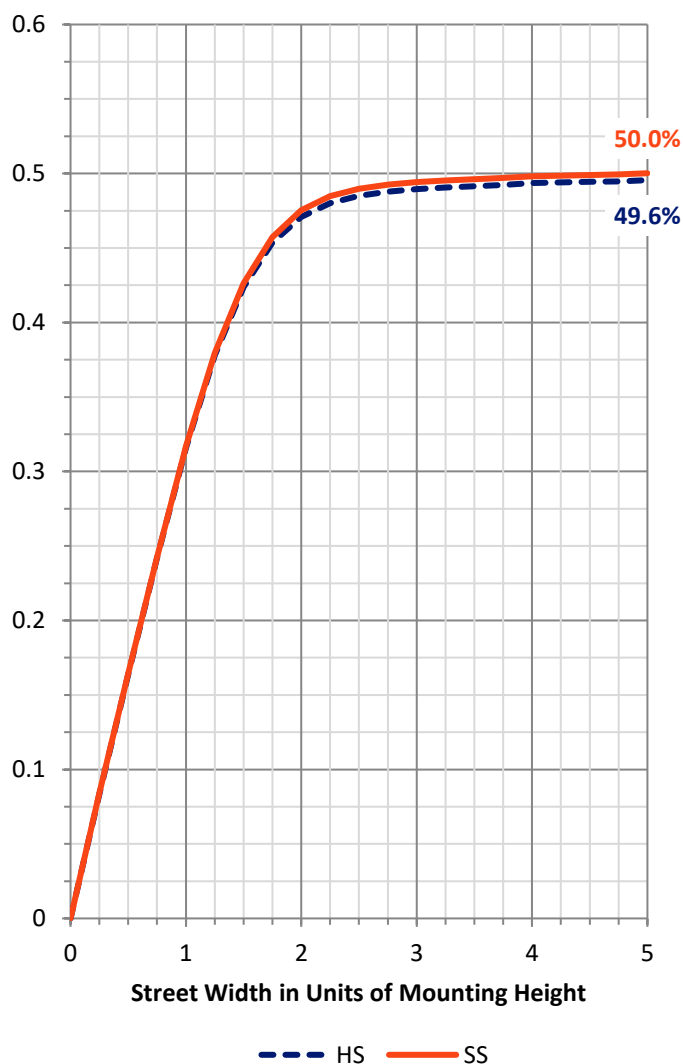
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2892.2	0.0	2892.2
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	2913.8	0.0	2913.8
	% Fixture	50.2	0.0	50.2
Total	Lumens	5806.0	0.0	5806.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.7	0.5
10°-20°	140.9	2.4
20°-30°	304.6	5.2
30°-40°	581.2	10.0
40°-50°	1055.8	18.2
50°-60°	1483.2	25.5
60°-70°	1416.2	24.4
70°-80°	726.8	12.5
80°-90°	66.6	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°	5806.0	100.0
0°-180°	5806.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596896

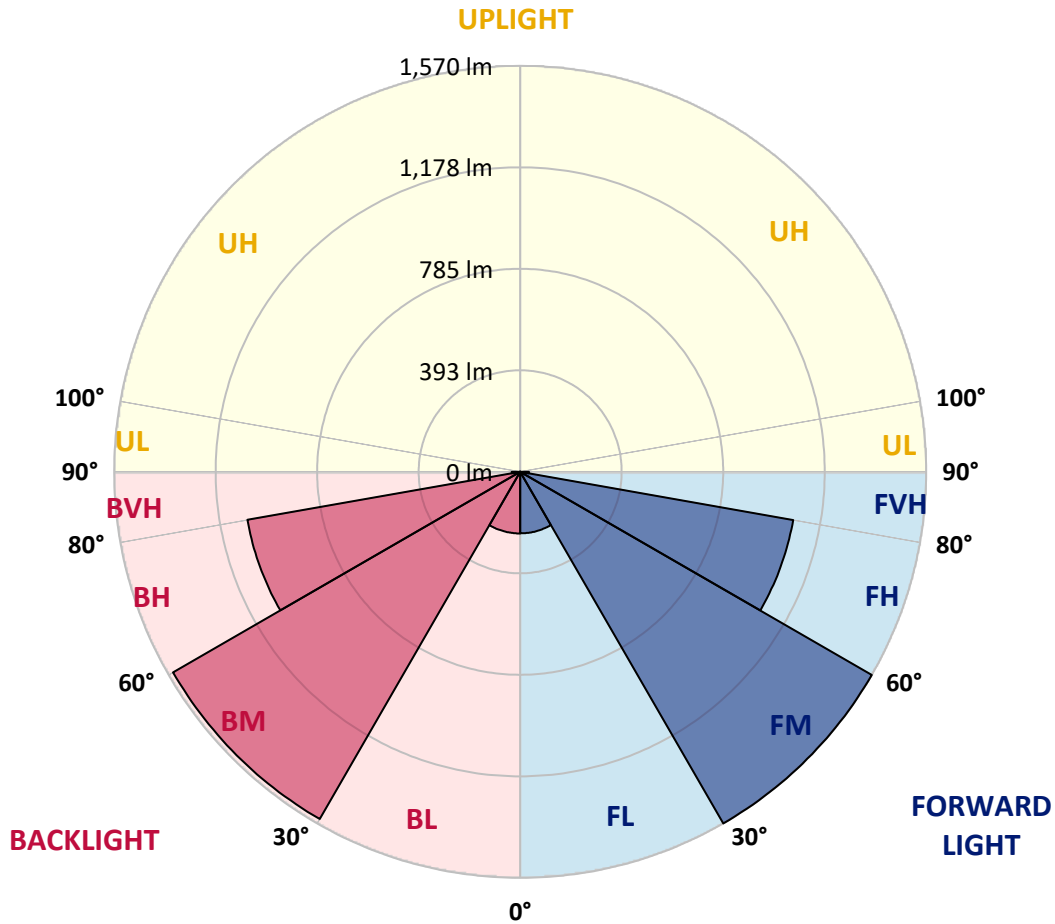
CATALOG NUMBER: MSA-SA1D-835-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	237.9	4.1			
FM (30°-60°)	1570.0	27.0			
FH (60°-80°)	1072.1	18.5			G1/1800
FVH (80°-90°)	33.8	0.6			G1/100
BL (0°-30°)	238.4	4.1	B1/500		
BM (30°-60°)	1550.2	26.7	B2/2500		
BH (60°-80°)	1070.9	18.4	B3/2500		G3/2500
BVH (80°-90°)	32.8	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





REPORT NUMBER: P596896
 CATALOG NUMBER: MSA-SA1D-835-U-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8
2.5°	246.8	237.7	226.1	233.0	235.8	240.7	240.0	237.7	227.5	244.5	246.4
5°	309.0	294.4	289.0	288.0	289.4	284.7	300.0	295.5	303.8	319.1	322.6
7.5°	351.8	341.0	329.4	333.0	318.4	316.3	336.0	353.7	358.1	386.1	388.0
10°	372.0	361.4	364.5	362.4	360.7	374.4	383.6	396.5	415.1	417.7	421.7
12.5°	389.2	393.4	406.8	406.4	428.5	452.7	449.2	462.6	465.7	498.1	488.3
15°	432.7	441.4	440.5	448.7	458.4	498.1	498.4	521.2	542.2	554.9	551.6
17.5°	496.5	499.6	486.9	487.3	515.3	531.6	549.7	545.7	600.3	625.2	626.9
20°	534.6	542.4	527.8	508.5	558.2	580.5	590.6	567.3	625.7	659.3	659.3
22.5°	601.2	581.2	559.1	546.2	589.9	613.7	612.5	605.9	637.0	696.5	690.9
25°	637.9	626.6	615.6	618.9	641.0	653.2	669.5	654.2	683.3	727.6	709.0
27.5°	707.6	686.6	632.3	675.6	675.6	666.4	700.7	708.0	689.0	761.0	774.9
30°	786.4	779.1	702.2	748.0	733.9	708.0	773.9	769.2	737.2	810.6	804.3
32.5°	861.0	885.0	812.1	786.9	808.1	817.9	783.3	797.5	803.6	874.4	871.3
35°	975.4	995.6	898.9	892.5	857.2	848.1	874.4	879.1	879.6	954.2	940.5
37.5°	1173.2	1144.1	1048.5	1003.6	1007.6	996.5	1001.7	964.5	969.7	1077.9	1084.8
40°	1318.0	1285.0	1178.7	1146.4	1067.4	1114.7	1072.8	1069.0	1058.7	1198.9	1195.1
42.5°	1477.7	1432.6	1314.9	1271.8	1187.8	1168.5	1149.2	1192.8	1190.0	1319.8	1348.6
45°	1598.5	1507.2	1445.7	1418.9	1368.6	1321.3	1302.9	1322.4	1313.5	1410.0	1460.1
47.5°	1674.7	1595.4	1524.8	1468.3	1420.1	1536.1	1443.1	1417.0	1398.9	1506.9	1555.2
50°	1735.4	1643.9	1560.6	1541.7	1579.9	1682.5	1535.9	1478.2	1500.3	1579.9	1645.5
52.5°	1751.9	1654.9	1580.1	1568.1	1671.2	1689.8	1666.0	1569.0	1563.2	1667.4	1746.7
55°	1701.5	1608.6	1573.0	1638.7	1752.6	1737.0	1773.3	1711.4	1669.8	1756.8	1856.6
57.5°	1571.9	1479.6	1471.2	1565.7	1709.3	1841.5	1859.4	1810.5	1755.9	1848.1	1965.8
60°	1358.9	1274.7	1296.1	1400.6	1617.0	1805.3	1900.4	1855.6	1838.7	1930.5	2067.0
62.5°	1027.4	961.7	1018.9	1164.5	1448.6	1758.5	1956.8	1949.8	1925.3	2018.0	2156.4
65°	655.1	620.5	678.9	826.9	1187.1	1673.3	1983.9	1993.3	2015.9	2085.5	2225.6
67.5°	380.7	362.4	397.9	519.1	845.5	1374.0	1933.5	2068.6	2080.4	2120.4	2271.0
70°	225.2	213.2	227.8	291.5	478.6	936.1	1649.3	2035.7	2124.6	2152.4	2316.9
72.5°	171.8	160.5	154.1	172.5	249.9	483.6	1115.1	1725.5	2089.1	2131.2	2297.6
75°	148.5	137.7	130.1	131.8	148.7	229.7	604.5	1234.2	1780.1	1940.6	2122.3
77.5°	127.5	117.9	112.5	112.0	114.1	126.1	252.7	669.2	1114.9	1394.9	1530.0
80°	102.1	94.6	93.4	93.4	90.4	89.4	125.7	254.6	424.3	503.1	482.4
82.5°	74.6	67.1	74.6	73.7	68.9	65.2	80.0	110.1	130.8	103.3	81.7
85°	50.4	43.5	49.2	50.1	45.6	33.9	48.0	55.1	56.5	35.3	29.2
87.5°	17.6	17.2	27.8	24.2	19.8	11.5	17.6	19.1	20.0	12.5	8.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P596896
 CATALOG NUMBER: MSA-SA1D-835-U-RW

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8	203.8
2.5°	247.1	244.3	230.1	232.2	237.7	240.3	242.8	232.2	227.1	243.5	241.9
5°	323.5	313.2	301.7	300.0	300.7	290.6	296.5	293.9	295.1	305.7	307.8
7.5°	387.6	375.1	359.8	347.8	327.1	310.6	324.5	331.6	333.7	352.5	359.6
10°	422.1	411.6	407.1	384.5	377.7	375.6	372.3	361.0	373.4	369.0	372.5
12.5°	489.9	487.8	464.5	449.7	451.1	455.1	434.4	423.1	406.8	432.3	423.1
15°	547.6	556.7	533.4	506.4	493.0	499.8	484.0	467.6	453.0	460.7	450.9
17.5°	621.2	621.0	575.6	546.6	545.4	545.0	521.7	485.4	502.9	497.4	497.9
20°	660.3	653.9	597.4	564.0	592.5	582.4	561.4	514.9	535.1	541.7	545.9
22.5°	693.0	689.5	621.0	596.5	614.9	615.1	594.2	569.7	567.1	587.6	576.5
25°	715.8	729.9	665.5	659.6	667.6	659.6	639.1	623.1	612.7	643.3	612.7
27.5°	769.9	749.9	672.3	705.7	710.6	670.4	696.0	677.2	648.5	686.4	698.9
30°	808.5	820.3	720.3	770.6	764.8	727.6	738.2	737.5	703.1	777.0	768.3
32.5°	874.9	860.8	798.6	794.6	808.8	807.1	789.2	797.9	806.4	860.1	873.0
35°	942.9	957.9	848.8	875.8	871.8	846.4	893.2	887.8	913.0	1023.1	986.6
37.5°	1096.3	1024.5	961.2	957.7	984.5	988.5	973.5	997.2	1051.6	1136.3	1175.4
40°	1196.8	1164.1	1056.5	1060.8	1023.6	1087.6	1045.2	1121.7	1163.1	1306.0	1292.1
42.5°	1348.8	1269.0	1165.7	1179.8	1172.3	1141.5	1197.3	1236.5	1295.8	1404.8	1475.2
45°	1462.0	1352.6	1303.6	1294.9	1294.0	1347.6	1340.6	1403.4	1424.6	1506.4	1564.8
47.5°	1547.9	1454.9	1382.4	1392.3	1363.6	1516.8	1435.1	1454.7	1497.5	1574.7	1642.7
50°	1649.8	1546.2	1463.9	1488.3	1558.2	1617.0	1543.2	1509.7	1530.7	1621.7	1697.5
52.5°	1744.1	1635.2	1544.6	1565.0	1679.2	1652.3	1644.3	1559.9	1557.3	1630.5	1716.6
55°	1854.5	1731.6	1651.6	1716.6	1757.1	1723.9	1711.2	1608.3	1544.8	1585.5	1666.7
57.5°	1962.7	1827.2	1747.6	1761.1	1812.3	1779.4	1684.1	1525.7	1446.4	1454.4	1536.6
60°	2064.1	1914.9	1849.3	1836.4	1877.3	1748.1	1581.3	1374.4	1269.3	1250.0	1321.0
62.5°	2151.0	1988.4	1926.2	1890.9	1930.0	1749.3	1421.0	1131.6	1016.1	950.6	1005.9
65°	2219.9	2049.3	2005.1	1986.7	2000.8	1642.9	1171.4	830.9	689.2	616.7	649.0
67.5°	2265.8	2083.4	2063.2	2087.2	1898.9	1368.3	867.8	531.8	400.7	361.2	381.4
70°	2313.3	2113.5	2112.8	2031.2	1610.2	943.4	506.9	306.6	233.2	217.9	230.6
72.5°	2297.3	2077.8	2088.4	1776.3	1115.8	504.3	267.5	173.4	157.9	163.3	174.6
75°	2127.4	1889.1	1838.0	1277.0	633.0	234.4	154.1	131.3	130.4	138.6	149.7
77.5°	1543.2	1315.6	1180.5	723.8	271.3	126.8	113.4	109.7	109.7	116.2	126.1
80°	508.7	440.3	458.9	280.0	128.2	87.5	88.5	90.1	89.7	91.3	99.5
82.5°	83.5	86.6	133.9	114.4	77.4	59.8	66.8	70.1	71.1	63.5	72.2
85°	29.6	33.4	56.9	52.9	44.7	30.1	44.0	49.2	48.5	42.4	46.8
87.5°	9.2	11.8	20.7	16.0	13.4	8.2	16.5	19.3	24.2	9.9	8.9
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)