

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: P366734

Luminaire Tested: **MSA-SA1B-727-U-RW**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366734
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-727-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: 4350 lumens
Efficiency: N/A
Efficacy: 98.9 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

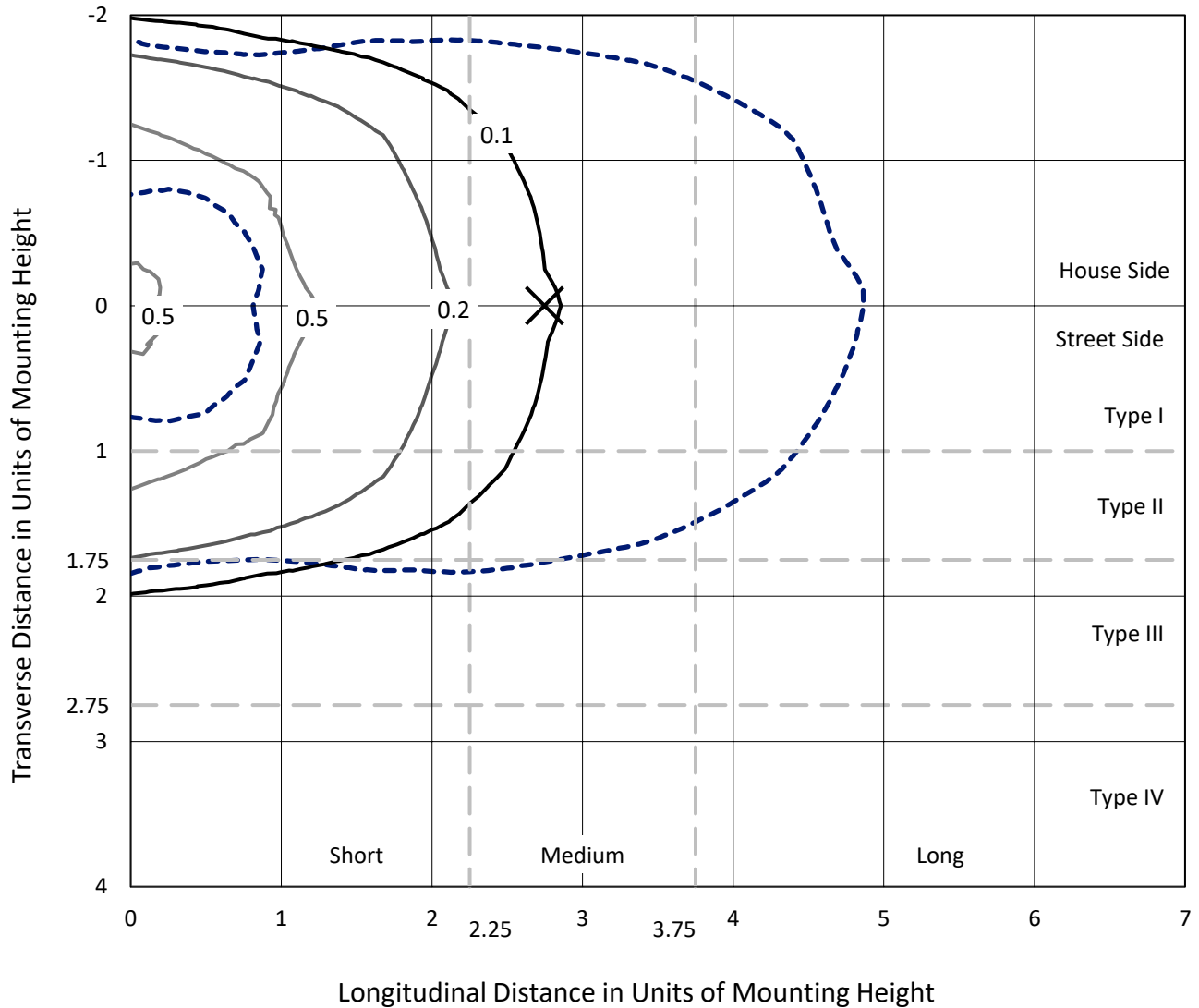
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P366734
 CATALOG NUMBER: MSA-SA1B-727-U-RW

Iso-Footcandle Lines of Horizontal Illumination

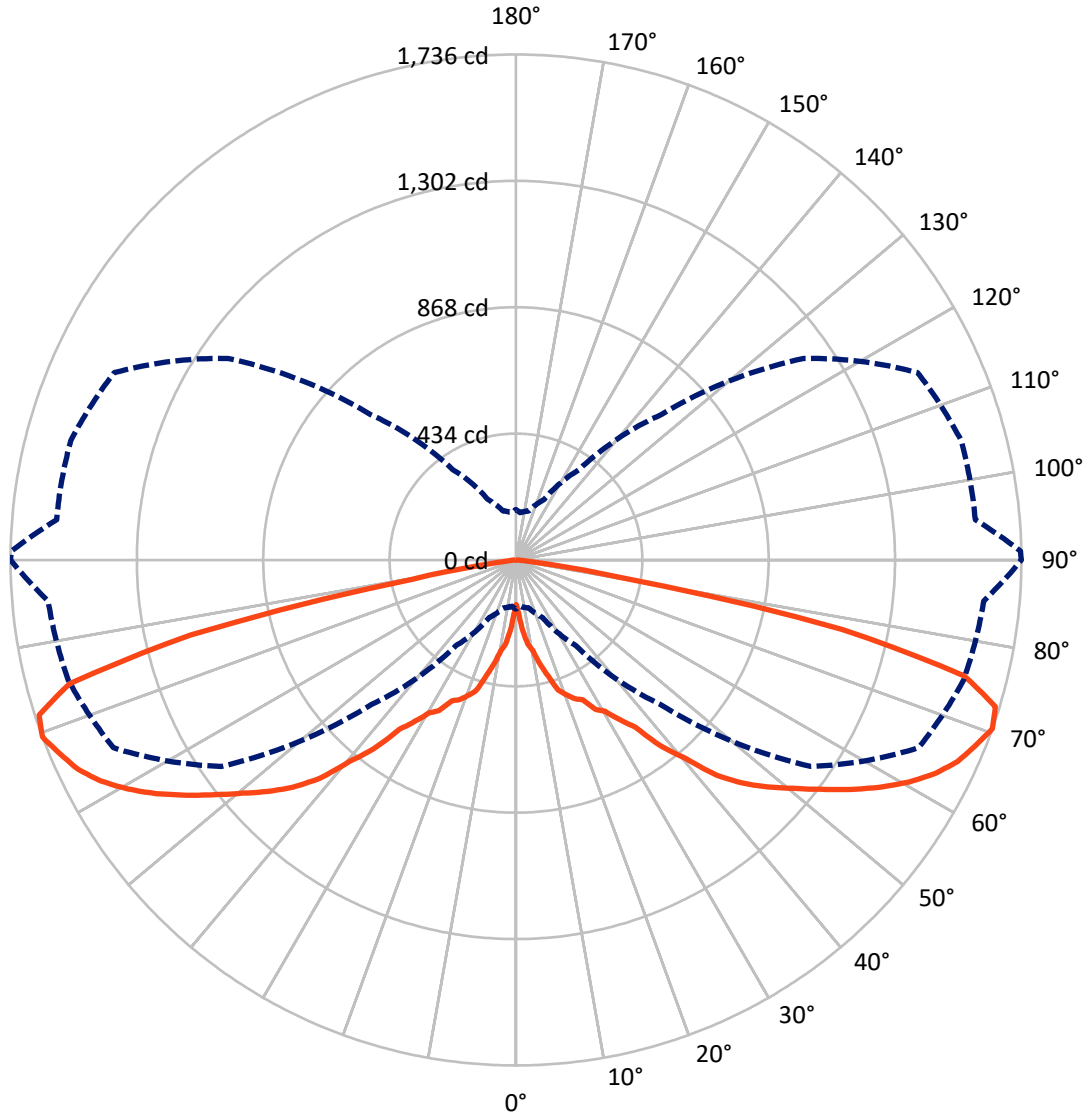
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc
 Type III - Short - N/A

REPORT NUMBER: P366734
CATALOG NUMBER: MSA-SA1B-727-U-RW

Luminous Intensity Polar Plot



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

REPORT NUMBER: P366734

CATALOG NUMBER: MSA-SA1B-727-U-RW

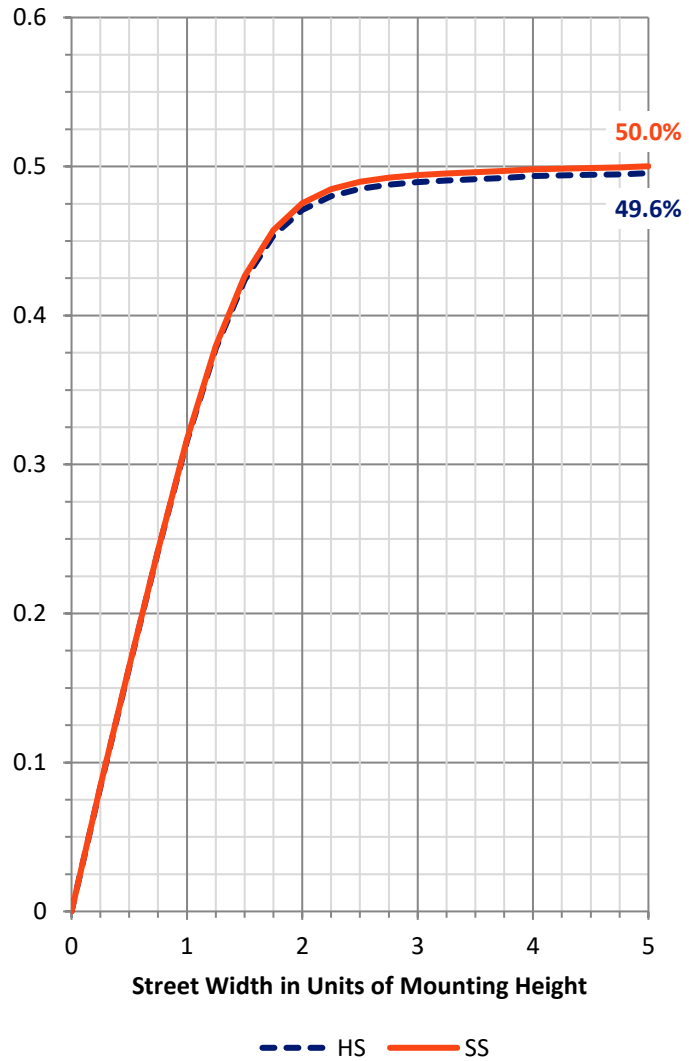
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2167.0	0.0	2167.0
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	2183.1	0.0	2183.1
	% Fixture	50.2	0.0	50.2
Total	Lumens	4350.0	0.0	4350.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.0	0.5
10°-20°	105.6	2.4
20°-30°	228.2	5.2
30°-40°	435.4	10.0
40°-50°	791.1	18.2
50°-60°	1111.2	25.5
60°-70°	1061.0	24.4
70°-80°	544.5	12.5
80°-90°	49.9	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°	4350.0	100.0
0°-180°	4350.0	100.0

Coefficient of Utilization



REPORT NUMBER: P366734

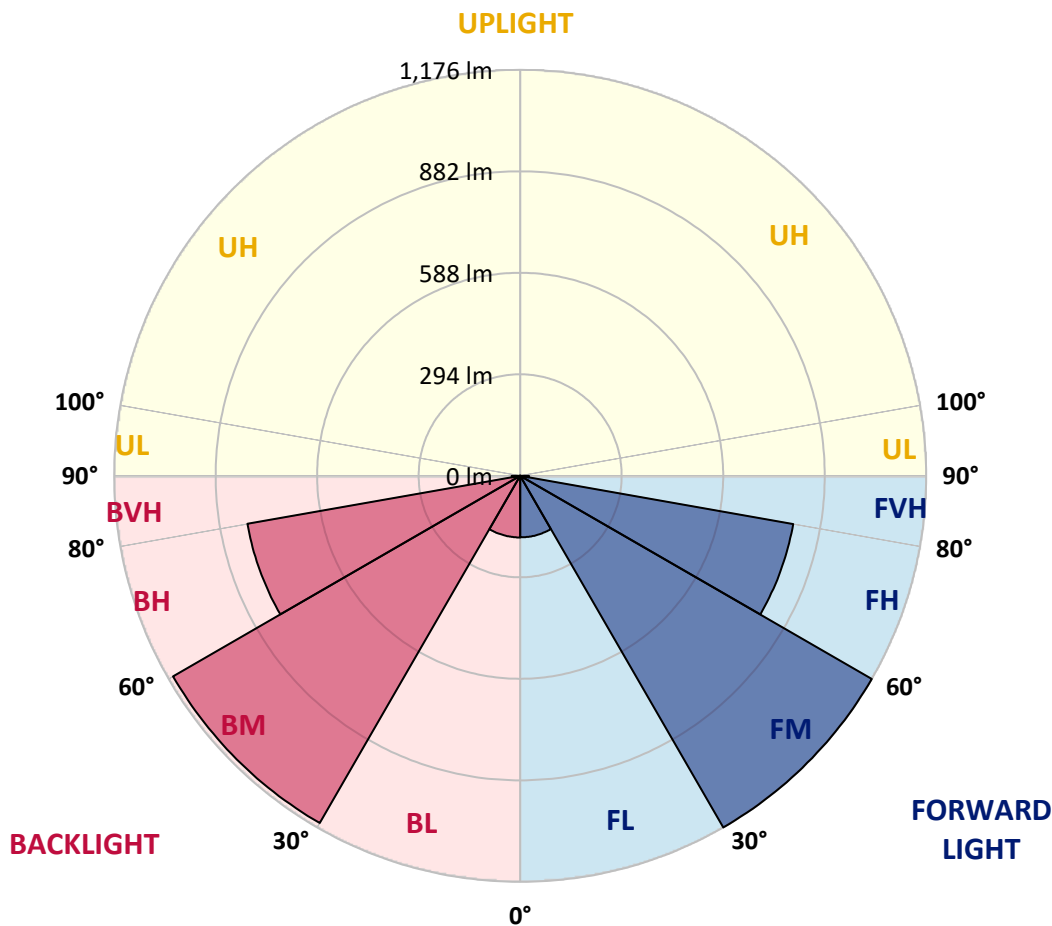
CATALOG NUMBER: MSA-SA1B-727-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	178.2	4.1			
FM (30°-60°)	1176.3	27.0			
FH (60°-80°)	803.2	18.5			G1/1800
FVH (80°-90°)	25.3	0.6			G1/100
BL (0°-30°)	178.6	4.1	B1/500		
BM (30°-60°)	1161.4	26.7	B2/2500		
BH (60°-80°)	802.3	18.4	B2/1000		G2/1000
BVH (80°-90°)	24.6	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





REPORT NUMBER: P366734
 CATALOG NUMBER: MSA-SA1B-727-U-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7
2.5°	184.9	178.1	169.4	174.5	176.7	180.4	179.8	178.1	170.5	183.2	184.6
5°	231.5	220.6	216.5	215.8	216.8	213.3	224.8	221.4	227.6	239.1	241.7
7.5°	263.6	255.5	246.8	249.5	238.5	236.9	251.8	265.0	268.3	289.3	290.7
10°	278.7	270.8	273.1	271.5	270.3	280.5	287.4	297.1	311.0	312.9	315.9
12.5°	291.6	294.8	304.8	304.5	321.0	339.2	336.6	346.6	348.9	373.2	365.8
15°	324.2	330.7	330.0	336.2	343.4	373.2	373.4	390.5	406.2	415.7	413.2
17.5°	372.0	374.3	364.8	365.1	386.1	398.3	411.8	408.8	449.7	468.4	469.7
20°	400.6	406.4	395.4	381.0	418.2	434.9	442.5	425.1	468.8	494.0	494.0
22.5°	450.4	435.5	418.9	409.2	442.0	459.8	458.9	454.0	477.2	521.8	517.6
25°	477.9	469.5	461.2	463.7	480.2	489.4	501.6	490.1	512.0	545.1	531.2
27.5°	530.1	514.4	473.7	506.2	506.2	499.3	525.0	530.5	516.2	570.2	580.6
30°	589.2	583.7	526.1	560.5	549.9	530.5	579.8	576.3	552.3	607.4	602.6
32.5°	645.1	663.1	608.4	589.5	605.4	612.8	586.9	597.5	602.1	655.1	652.8
35°	730.8	745.9	673.5	668.7	642.3	635.4	655.1	658.7	659.0	714.9	704.7
37.5°	879.0	857.2	785.6	751.9	754.9	746.6	750.5	722.7	726.5	807.6	812.7
40°	987.5	962.8	883.1	858.9	799.7	835.1	803.7	800.9	793.2	898.2	895.4
42.5°	1107.2	1073.3	985.2	952.9	890.0	875.5	861.0	893.7	891.5	988.9	1010.4
45°	1197.6	1129.2	1083.2	1063.1	1025.4	989.9	976.2	990.8	984.1	1056.4	1093.9
47.5°	1254.7	1195.3	1142.4	1100.1	1064.0	1150.9	1081.2	1061.7	1048.1	1129.0	1165.2
50°	1300.2	1231.6	1169.2	1155.1	1183.7	1260.5	1150.7	1107.5	1124.1	1183.7	1232.9
52.5°	1312.5	1239.9	1183.8	1174.9	1252.1	1266.0	1248.2	1175.6	1171.2	1249.3	1308.7
55°	1274.8	1205.2	1178.6	1227.7	1313.1	1301.4	1328.6	1282.2	1251.0	1316.3	1391.0
57.5°	1177.7	1108.6	1102.2	1173.1	1280.6	1379.7	1393.1	1356.4	1315.5	1384.7	1472.8
60°	1018.1	955.0	971.1	1049.3	1211.5	1352.6	1423.8	1390.3	1377.6	1446.4	1548.6
62.5°	769.7	720.5	763.4	872.5	1085.3	1317.5	1466.1	1460.8	1442.5	1511.9	1615.6
65°	490.8	464.9	508.6	619.5	889.4	1253.7	1486.4	1493.4	1510.4	1562.5	1667.4
67.5°	285.3	271.5	298.1	388.9	633.4	1029.4	1448.7	1549.8	1558.7	1588.6	1701.5
70°	168.7	159.7	170.7	218.4	358.6	701.3	1235.7	1525.2	1591.8	1612.6	1735.8
72.5°	128.7	120.2	115.5	129.2	187.2	362.3	835.5	1292.8	1565.2	1596.7	1721.4
75°	111.2	103.1	97.5	98.7	111.4	172.1	452.9	924.7	1333.7	1453.9	1590.0
77.5°	95.6	88.3	84.3	83.9	85.5	94.5	189.3	501.4	835.3	1045.1	1146.3
80°	76.5	70.9	70.0	70.0	67.7	67.0	94.1	190.8	317.9	376.9	361.4
82.5°	55.9	50.2	55.9	55.2	51.7	48.8	59.9	82.5	98.0	77.4	61.2
85°	37.7	32.6	36.8	37.6	34.2	25.4	36.0	41.3	42.3	26.4	21.9
87.5°	13.2	12.9	20.8	18.2	14.8	8.6	13.2	14.3	15.0	9.3	6.3
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: P366734
 CATALOG NUMBER: MSA-SA1B-727-U-RW

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7
2.5°	185.1	183.0	172.4	174.0	178.1	180.0	181.9	174.0	170.1	182.5	181.2
5°	242.4	234.7	226.0	224.8	225.3	217.7	222.1	220.2	221.1	229.0	230.6
7.5°	290.4	281.0	269.6	260.6	245.1	232.7	243.1	248.4	250.0	264.1	269.4
10°	316.3	308.3	305.0	288.1	283.0	281.4	278.9	270.4	279.8	276.4	279.1
12.5°	367.1	365.5	348.0	336.9	338.0	341.0	325.4	317.0	304.8	323.9	317.0
15°	410.2	417.1	399.7	379.4	369.3	374.5	362.6	350.3	339.4	345.2	337.8
17.5°	465.4	465.3	431.2	409.5	408.7	408.3	390.9	363.7	376.8	372.7	373.0
20°	494.7	489.9	447.6	422.6	443.9	436.3	420.7	385.7	400.9	405.8	409.0
22.5°	519.2	516.6	465.3	446.9	460.7	460.8	445.2	426.8	424.9	440.2	431.9
25°	536.3	546.9	498.6	494.2	500.2	494.2	478.8	466.8	459.1	482.0	459.1
27.5°	576.9	561.9	503.7	528.7	532.4	502.3	521.5	507.4	485.9	514.3	523.6
30°	605.8	614.6	539.7	577.4	573.0	545.1	553.1	552.5	526.8	582.1	575.6
32.5°	655.5	644.9	598.4	595.4	605.9	604.7	591.3	597.8	604.2	644.4	654.1
35°	706.4	717.7	635.9	656.2	653.2	634.1	669.2	665.2	684.0	766.5	739.2
37.5°	821.4	767.6	720.2	717.5	737.6	740.6	729.3	747.2	787.9	851.3	880.6
40°	896.7	872.2	791.6	794.8	766.9	814.9	783.1	840.4	871.4	978.5	968.1
42.5°	1010.5	950.8	873.4	884.0	878.3	855.2	897.0	926.5	970.9	1052.5	1105.2
45°	1095.3	1013.4	976.7	970.2	969.5	1009.7	1004.4	1051.4	1067.3	1128.7	1172.4
47.5°	1159.7	1090.1	1035.8	1043.2	1021.7	1136.4	1075.2	1089.9	1122.0	1179.8	1230.7
50°	1236.0	1158.5	1096.8	1115.1	1167.5	1211.5	1156.2	1131.1	1146.8	1215.1	1271.8
52.5°	1306.7	1225.1	1157.2	1172.6	1258.1	1238.0	1232.0	1168.7	1166.7	1221.6	1286.1
55°	1389.4	1297.4	1237.4	1286.1	1316.4	1291.6	1282.0	1205.0	1157.4	1187.9	1248.7
57.5°	1470.5	1369.0	1309.4	1319.4	1357.9	1333.2	1261.8	1143.1	1083.7	1089.7	1151.2
60°	1546.5	1434.7	1385.5	1375.8	1406.5	1309.7	1184.7	1029.8	951.0	936.5	989.7
62.5°	1611.6	1489.7	1443.2	1416.7	1446.0	1310.6	1064.7	847.8	761.3	712.2	753.7
65°	1663.2	1535.4	1502.2	1488.5	1499.1	1230.9	877.6	622.5	516.4	462.1	486.2
67.5°	1697.6	1561.0	1545.8	1563.8	1422.7	1025.2	650.2	398.4	300.2	270.6	285.8
70°	1733.2	1583.5	1583.0	1521.8	1206.4	706.8	379.7	229.7	174.7	163.3	172.8
72.5°	1721.2	1556.7	1564.7	1330.9	836.0	377.8	200.5	129.9	118.3	122.4	130.8
75°	1593.9	1415.3	1377.1	956.8	474.2	175.6	115.5	98.4	97.7	103.8	112.1
77.5°	1156.2	985.7	884.5	542.3	203.3	95.0	85.0	82.2	82.2	87.1	94.5
80°	381.2	329.9	343.8	209.8	96.1	65.6	66.3	67.5	67.2	68.4	74.6
82.5°	62.6	64.9	100.3	85.7	58.0	44.8	50.1	52.5	53.2	47.6	54.1
85°	22.2	25.0	42.7	39.7	33.5	22.6	33.0	36.8	36.3	31.7	35.1
87.5°	6.9	8.8	15.5	12.0	10.0	6.2	12.3	14.5	18.2	7.4	6.7
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)