

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: P596500

Luminaire Tested: **MSA-SA1B-827-U-RW**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596500
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-SA1B-827-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: 3823 lumens
Efficiency: N/A
Efficacy: 86.9 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

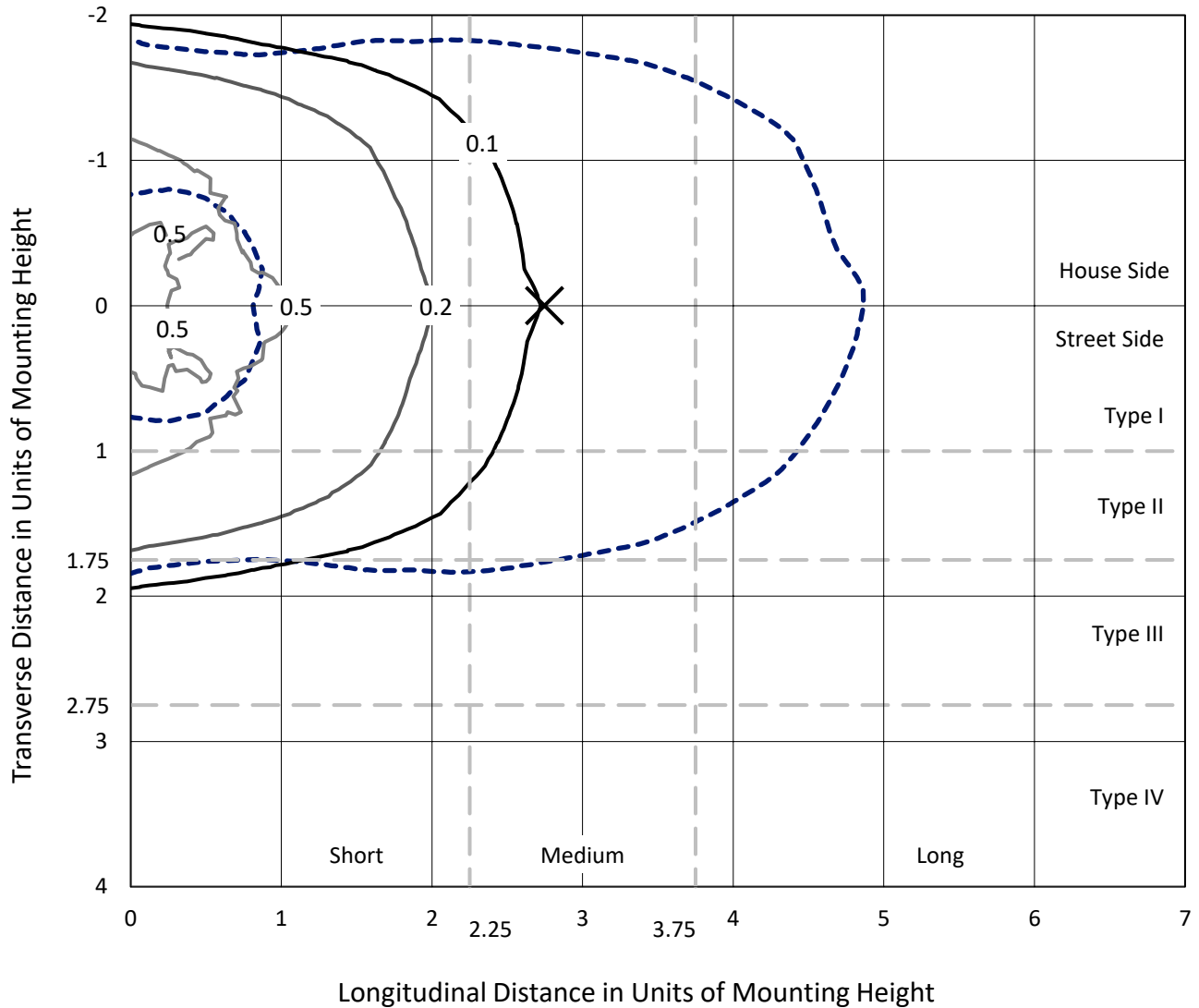
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596500
 CATALOG NUMBER: MSA-SA1B-827-U-RW

Iso-Footcandle Lines of Horizontal Illumination

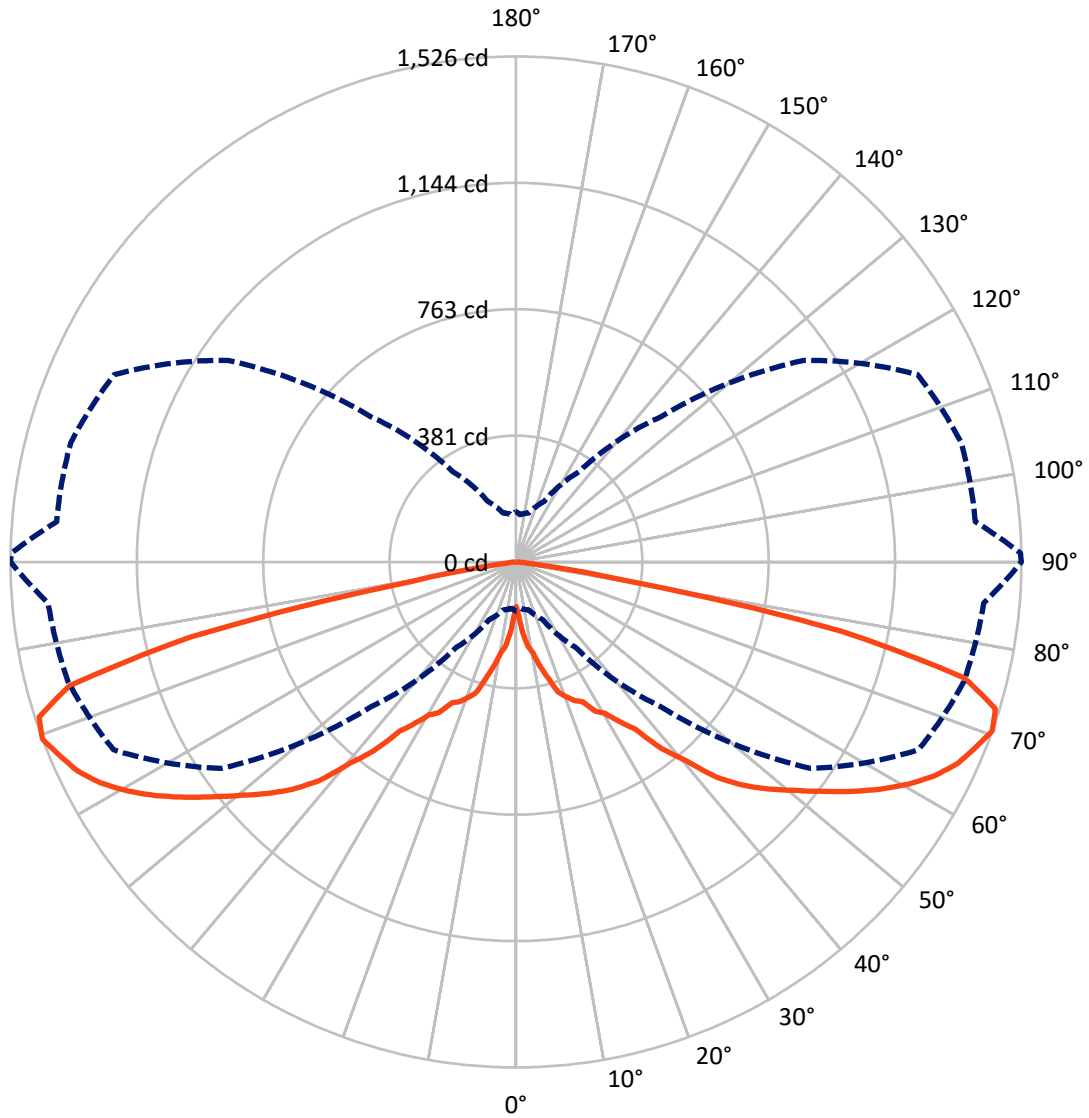
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.6 fc
 Type III - Short - N/A

REPORT NUMBER: P596500
CATALOG NUMBER: MSA-SA1B-827-U-RW

Luminous Intensity Polar Plot



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

REPORT NUMBER: P596500

CATALOG NUMBER: MSA-SA1B-827-U-RW

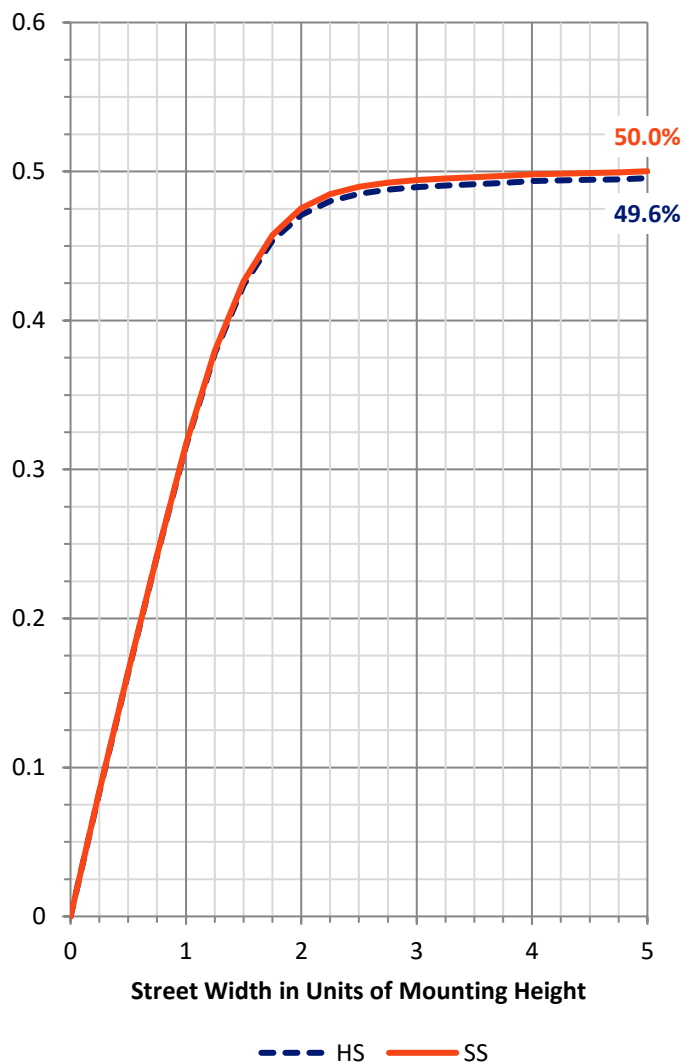
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1904.4	0.0	1904.4
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	1918.6	0.0	1918.6
	% Fixture	50.2	0.0	50.2
Total	Lumens	3823.0	0.0	3823.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.2	0.5
10°-20°	92.8	2.4
20°-30°	200.6	5.2
30°-40°	382.7	10.0
40°-50°	695.2	18.2
50°-60°	976.6	25.5
60°-70°	932.5	24.4
70°-80°	478.5	12.5
80°-90°	43.9	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°	3823.0	100.0
0°-180°	3823.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596500

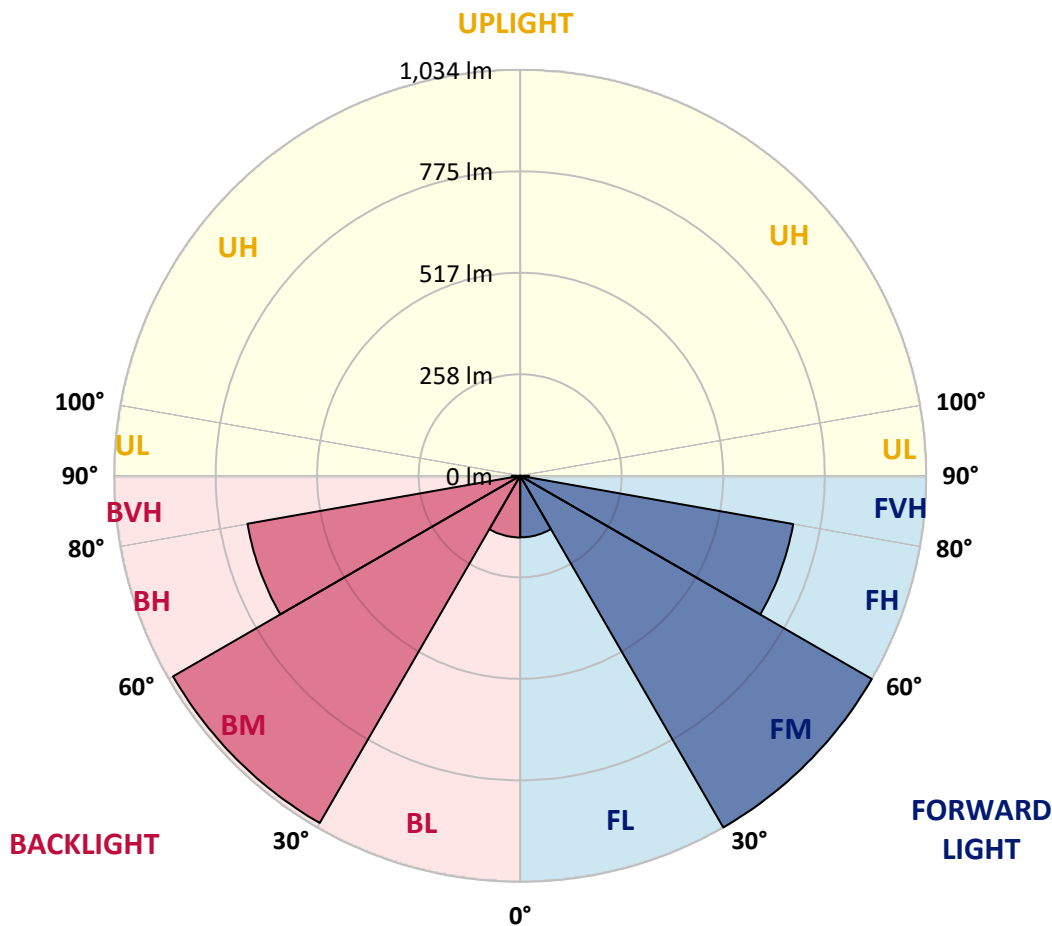
CATALOG NUMBER: MSA-SA1B-827-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	156.6	4.1			
FM (30°-60°)	1033.8	27.0			
FH (60°-80°)	705.9	18.5			G1/1800
FVH (80°-90°)	22.3	0.6			G1/100
BL (0°-30°)	156.9	4.1	B1/500		
BM (30°-60°)	1020.7	26.7	B2/2500		
BH (60°-80°)	705.1	18.4	B2/1000		G2/1000
BVH (80°-90°)	21.6	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: P596500
 CATALOG NUMBER: MSA-SA1B-827-U-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.2
2.5°	162.5	156.5	148.9	153.4	155.3	158.5	158.0	156.5	149.8	161.0	162.2
5°	203.4	193.8	190.3	189.6	190.6	187.5	197.5	194.6	200.0	210.1	212.4
7.5°	231.6	224.5	216.9	219.2	209.6	208.2	221.3	232.9	235.8	254.3	255.5
10°	245.0	238.0	240.0	238.6	237.5	246.5	252.6	261.1	273.3	275.0	277.7
12.5°	256.3	259.1	267.9	267.6	282.1	298.1	295.8	304.6	306.6	328.0	321.5
15°	284.9	290.7	290.0	295.5	301.8	328.0	328.2	343.2	357.0	365.4	363.2
17.5°	326.9	328.9	320.6	320.9	339.3	350.0	361.9	359.3	395.3	411.7	412.8
20°	352.0	357.1	347.5	334.8	367.5	382.2	388.9	373.6	412.0	434.1	434.1
22.5°	395.9	382.7	368.1	359.6	388.4	404.1	403.3	399.0	419.4	458.6	454.9
25°	420.0	412.6	405.3	407.5	422.1	430.1	440.8	430.7	449.9	479.1	466.8
27.5°	465.9	452.1	416.3	444.8	444.8	438.8	461.4	466.2	453.7	501.1	510.2
30°	517.8	513.0	462.3	492.6	483.3	466.2	509.6	506.5	485.4	533.8	529.6
32.5°	566.9	582.7	534.7	518.1	532.1	538.6	515.8	525.1	529.1	575.8	573.7
35°	642.2	655.6	591.9	587.7	564.4	558.4	575.8	578.9	579.2	628.3	619.3
37.5°	772.5	753.3	690.4	660.8	663.5	656.2	659.6	635.1	638.5	709.8	714.3
40°	867.8	846.1	776.1	754.9	702.8	734.0	706.4	703.9	697.1	789.4	786.9
42.5°	973.0	943.3	865.8	837.5	782.1	769.4	756.7	785.4	783.5	869.1	888.0
45°	1052.5	992.4	952.0	934.3	901.1	870.0	857.9	870.8	864.9	928.4	961.4
47.5°	1102.7	1050.5	1004.0	966.8	935.1	1011.5	950.3	933.1	921.1	992.2	1024.0
50°	1142.7	1082.4	1027.6	1015.2	1040.3	1107.8	1011.3	973.3	987.9	1040.3	1083.5
52.5°	1153.5	1089.7	1040.4	1032.5	1100.4	1112.6	1097.0	1033.1	1029.3	1097.9	1150.1
55°	1120.4	1059.2	1035.8	1079.0	1154.0	1143.8	1167.6	1126.9	1099.5	1156.8	1222.5
57.5°	1035.0	974.3	968.7	1031.0	1125.5	1212.6	1224.3	1192.1	1156.2	1216.9	1294.4
60°	894.8	839.3	853.4	922.2	1064.8	1188.7	1251.3	1221.9	1210.7	1271.1	1361.0
62.5°	676.5	633.2	670.9	766.8	953.8	1157.9	1288.5	1283.8	1267.7	1328.8	1419.9
65°	431.4	408.6	447.0	544.5	781.7	1101.8	1306.3	1312.5	1327.4	1373.2	1465.4
67.5°	250.7	238.6	262.0	341.8	556.7	904.7	1273.1	1362.1	1369.8	1396.2	1495.3
70°	148.3	140.4	150.0	192.0	315.1	616.4	1086.0	1340.4	1399.0	1417.2	1525.5
72.5°	113.1	105.7	101.5	113.6	164.5	318.4	734.3	1136.2	1375.6	1403.3	1512.8
75°	97.8	90.6	85.7	86.8	97.9	151.2	398.0	812.7	1172.1	1277.8	1397.4
77.5°	84.0	77.6	74.1	73.8	75.1	83.0	166.4	440.7	734.1	918.5	1007.4
80°	67.2	62.3	61.5	61.5	59.5	58.9	82.7	167.6	279.4	331.3	317.6
82.5°	49.1	44.2	49.1	48.5	45.4	42.9	52.7	72.5	86.1	68.0	53.8
85°	33.2	28.7	32.4	33.0	30.1	22.3	31.6	36.3	37.2	23.2	19.2
87.5°	11.6	11.3	18.3	16.0	13.0	7.6	11.6	12.6	13.2	8.2	5.6
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: P596500
 CATALOG NUMBER: MSA-SA1B-827-U-RW

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.2	134.2
2.5°	162.7	160.8	151.5	152.9	156.5	158.2	159.9	152.9	149.5	160.4	159.3
5°	213.0	206.2	198.6	197.5	198.0	191.4	195.2	193.5	194.3	201.3	202.7
7.5°	255.2	247.0	236.9	229.0	215.4	204.5	213.7	218.3	219.7	232.1	236.7
10°	278.0	271.0	268.0	253.2	248.7	247.3	245.1	237.7	245.9	242.9	245.3
12.5°	322.6	321.2	305.9	296.1	297.0	299.7	286.0	278.6	267.9	284.6	278.6
15°	360.5	366.6	351.3	333.4	324.6	329.1	318.7	307.9	298.3	303.4	296.9
17.5°	409.0	408.9	379.0	359.9	359.2	358.8	343.5	319.6	331.1	327.5	327.9
20°	434.8	430.6	393.4	371.4	390.1	383.5	369.7	339.0	352.3	356.7	359.5
22.5°	456.3	454.0	408.9	392.8	404.9	405.0	391.2	375.1	373.4	386.9	379.6
25°	471.3	480.6	438.2	434.3	439.6	434.3	420.8	410.3	403.5	423.6	403.5
27.5°	507.0	493.8	442.7	464.7	467.9	441.4	458.3	445.9	427.0	452.0	460.2
30°	532.4	540.1	474.3	507.4	503.6	479.1	486.0	485.6	463.0	511.6	505.9
32.5°	576.1	566.8	525.9	523.2	532.5	531.4	519.7	525.4	531.0	566.3	574.8
35°	620.8	630.8	558.9	576.7	574.1	557.3	588.2	584.6	601.2	673.7	649.7
37.5°	721.9	674.6	632.9	630.6	648.3	650.9	641.0	656.6	692.4	748.2	773.9
40°	788.0	766.5	695.7	698.5	674.0	716.1	688.2	738.6	765.9	859.9	850.8
42.5°	888.1	835.6	767.6	776.9	771.9	751.6	788.3	814.2	853.3	925.0	971.3
45°	962.6	890.6	858.4	852.6	852.0	887.3	882.7	924.1	938.0	991.9	1030.4
47.5°	1019.2	958.0	910.3	916.8	897.9	998.7	945.0	957.8	986.0	1036.9	1081.6
50°	1086.3	1018.1	963.9	980.0	1026.0	1064.8	1016.1	994.1	1007.9	1067.9	1117.7
52.5°	1148.4	1076.7	1017.0	1030.5	1105.7	1088.0	1082.7	1027.1	1025.4	1073.6	1130.3
55°	1221.1	1140.2	1087.5	1130.3	1156.9	1135.1	1126.7	1059.0	1017.2	1044.0	1097.4
57.5°	1292.4	1203.1	1150.7	1159.6	1193.4	1171.7	1108.9	1004.6	952.4	957.7	1011.8
60°	1359.1	1260.9	1217.7	1209.2	1236.1	1151.1	1041.2	905.0	835.8	823.0	869.8
62.5°	1416.3	1309.2	1268.3	1245.1	1270.8	1151.8	935.7	745.1	669.0	626.0	662.4
65°	1461.7	1349.4	1320.2	1308.2	1317.5	1081.8	771.3	547.1	453.8	406.1	427.3
67.5°	1491.9	1371.8	1358.5	1374.3	1250.4	901.0	571.4	350.2	263.9	237.8	251.2
70°	1523.2	1391.7	1391.2	1337.4	1060.3	621.2	333.7	201.9	153.5	143.5	151.8
72.5°	1512.7	1368.1	1375.1	1169.6	734.7	332.0	176.2	114.2	104.0	107.5	115.0
75°	1400.8	1243.9	1210.2	840.9	416.8	154.3	101.5	86.5	85.8	91.3	98.5
77.5°	1016.1	866.3	777.3	476.6	178.6	83.5	74.7	72.2	72.2	76.5	83.0
80°	335.0	289.9	302.1	184.4	84.4	57.6	58.3	59.3	59.0	60.1	65.5
82.5°	55.0	57.0	88.2	75.3	51.0	39.4	44.0	46.2	46.8	41.8	47.6
85°	19.5	22.0	37.5	34.9	29.4	19.8	29.0	32.4	31.9	27.9	30.8
87.5°	6.0	7.7	13.6	10.5	8.8	5.4	10.8	12.7	16.0	6.5	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)