

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: P596502

Luminaire Tested: **MSA-SA1B-827-U-SL2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596502
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-SA1B-827-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) 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: 3698 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G1

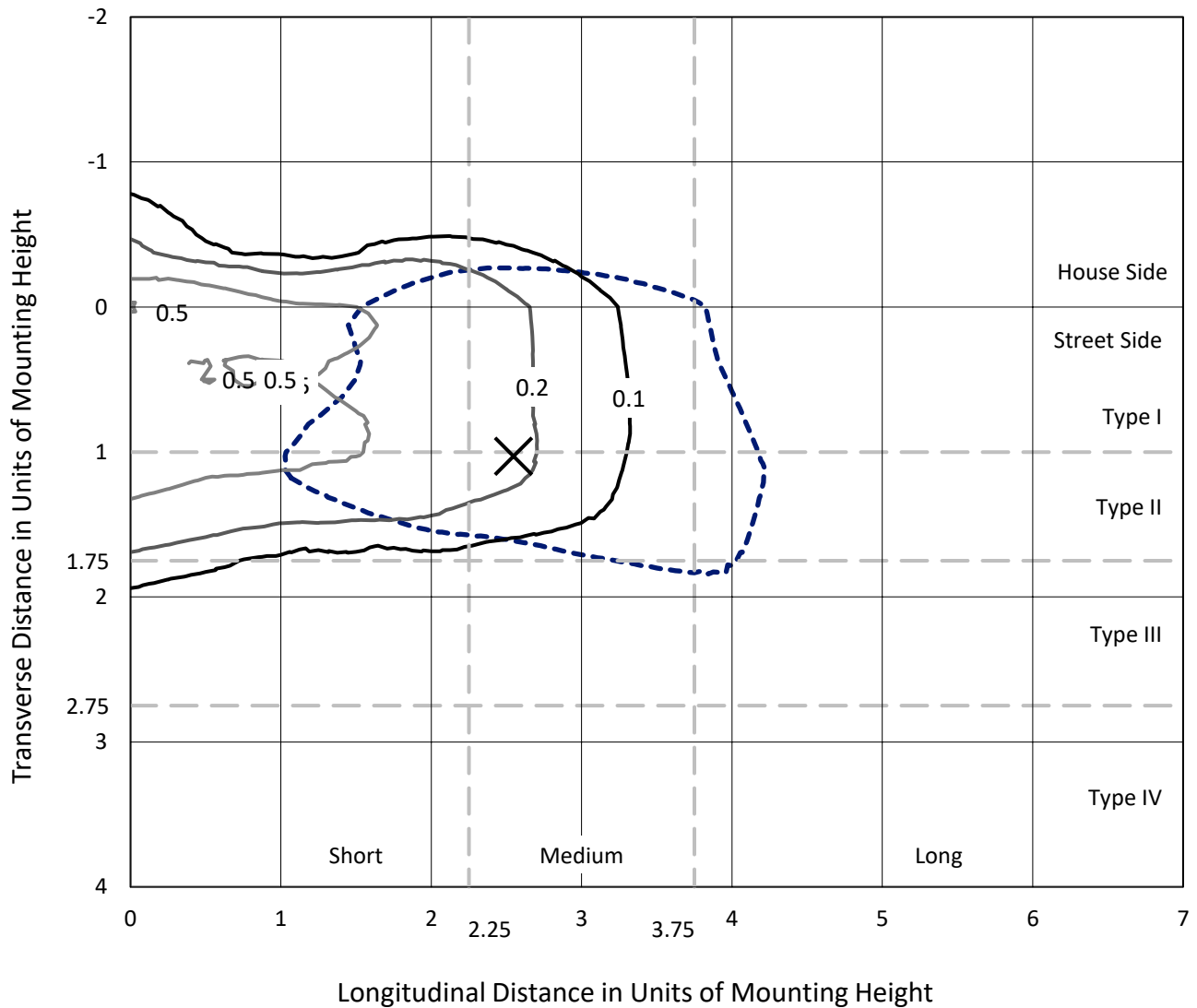
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

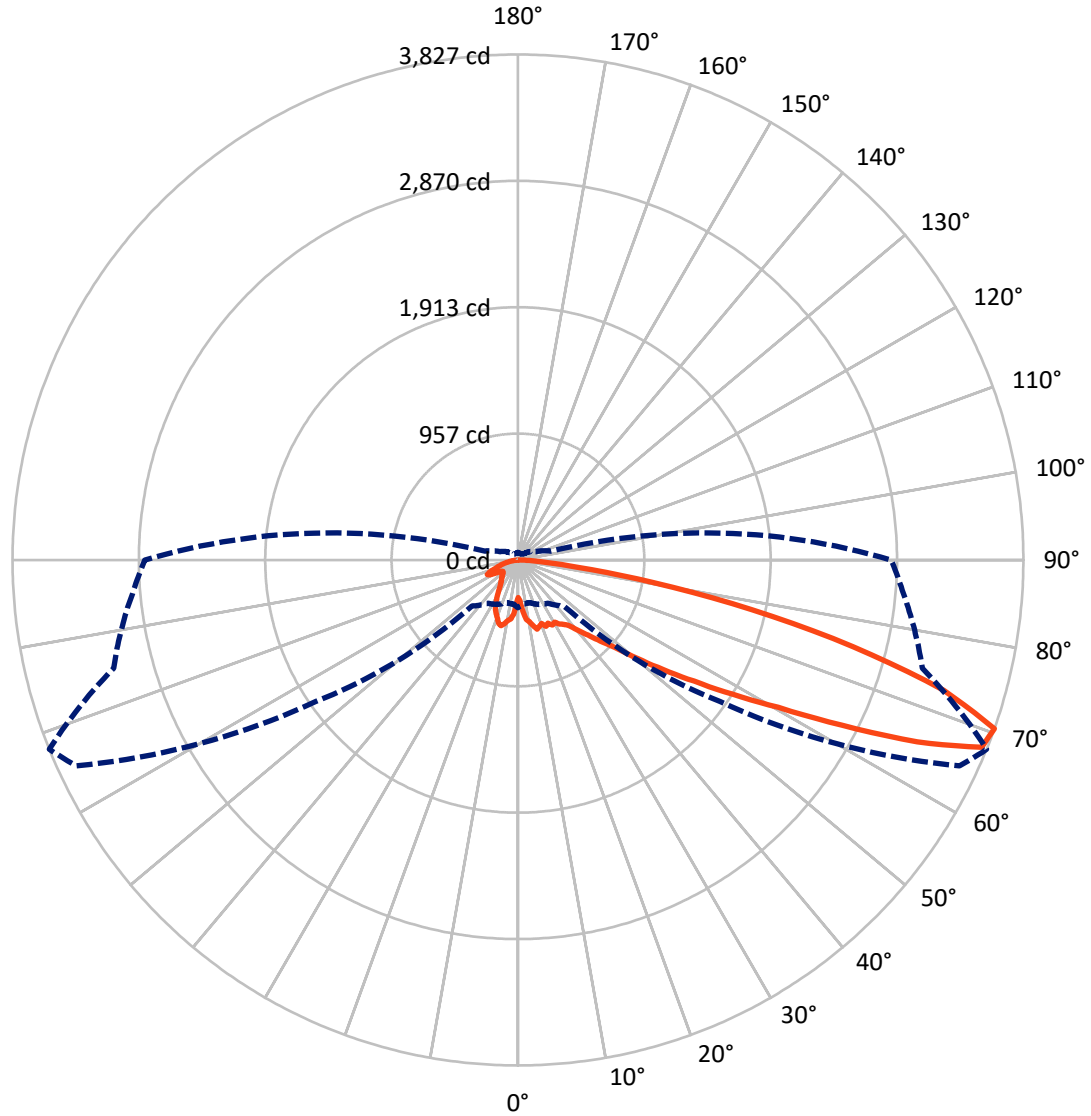
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
 Type III - 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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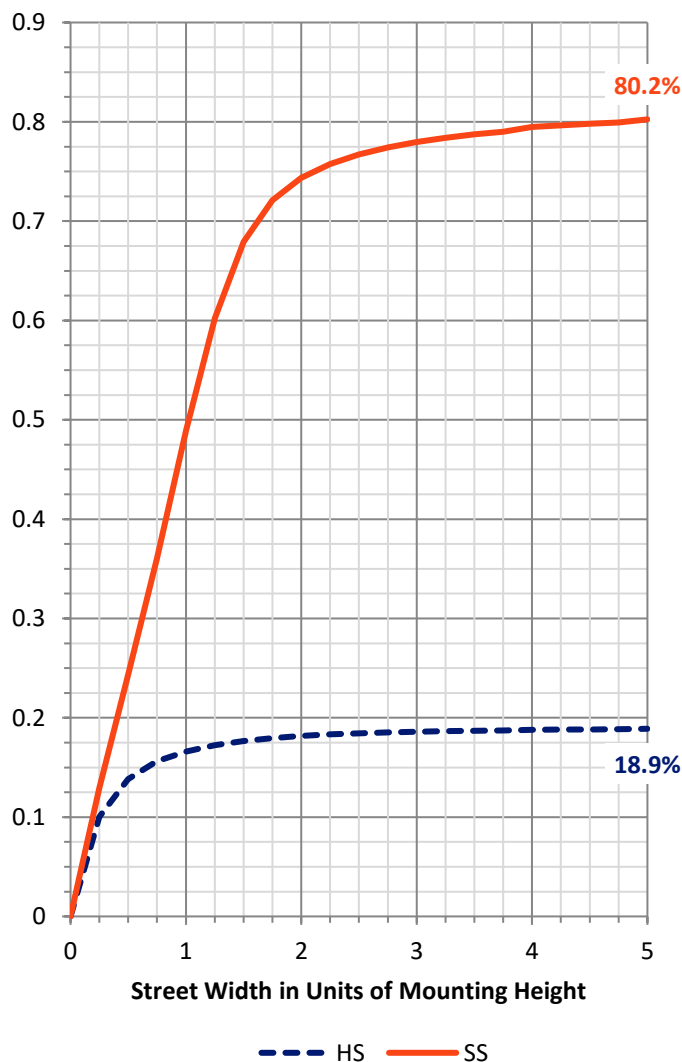
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	706.0	0.0	706.0
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	2992.0	0.0	2992.0
	% Fixture	80.9	0.0	80.9
Total	Lumens	3698.0	0.0	3698.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.9	1.0
10°-20°	123.4	3.3
20°-30°	187.7	5.1
30°-40°	286.8	7.8
40°-50°	493.1	13.3
50°-60°	816.2	22.1
60°-70°	1006.2	27.2
70°-80°	646.4	17.5
80°-90°	100.3	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°	3698.0	100.0
0°-180°	3698.0	100.0

Coefficient of Utilization



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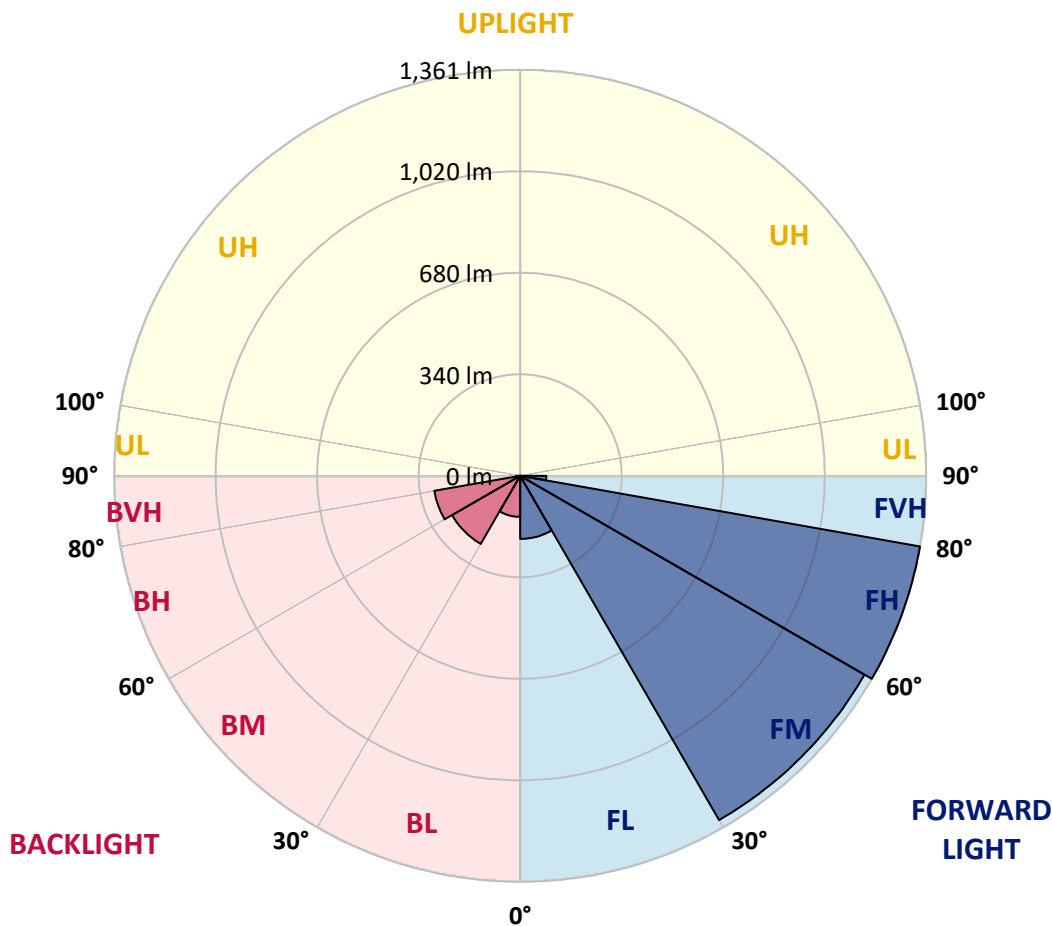
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	211.5	5.7			
FM (30°-60°)	1332.5	36.0			
FH (60°-80°)	1360.6	36.8			G1/1800
FVH (80°-90°)	87.4	2.4			G1/100
BL (0°-30°)	137.6	3.7	B1/500		
BM (30°-60°)	263.5	7.1	B1/1000		
BH (60°-80°)	292.1	7.9	B1/500		G1/500
BVH (80°-90°)	12.9	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	283.5	283.5	283.5	283.5	283.5	283.5	283.5	283.5	283.5	283.5	283.5
2.5°	325.8	312.6	299.3	305.8	316.2	325.3	323.5	324.6	312.0	310.3	343.3
5°	383.8	361.2	360.8	361.1	362.0	351.5	377.2	390.5	393.4	407.0	439.4
7.5°	403.9	394.8	385.5	390.2	378.4	379.5	411.1	445.7	453.9	463.8	508.1
10°	399.8	391.1	393.9	394.7	396.8	414.3	434.6	467.9	474.8	506.4	517.9
12.5°	400.4	398.8	411.8	412.3	435.5	466.9	475.0	505.6	508.4	531.6	579.5
15°	421.6	432.3	425.0	428.9	433.4	471.0	482.6	526.5	543.2	573.1	609.0
17.5°	462.9	466.0	444.2	438.5	453.2	464.6	491.1	510.1	527.6	611.0	660.6
20°	472.5	480.9	454.9	425.3	456.4	472.4	490.8	499.4	513.1	616.6	686.9
22.5°	513.7	496.3	464.9	439.2	449.5	464.9	478.2	510.9	546.6	600.7	713.2
25°	537.1	527.0	499.0	471.4	462.8	463.2	488.9	518.2	530.6	624.0	718.4
27.5°	593.5	577.4	514.5	509.2	476.5	451.2	490.6	536.1	557.8	605.8	744.1
30°	664.3	652.0	569.4	562.4	512.6	468.3	512.3	549.4	546.3	617.7	761.9
32.5°	721.5	742.0	658.5	603.6	568.2	525.8	505.5	547.1	577.9	645.4	792.1
35°	803.3	822.4	728.0	690.9	614.0	552.4	553.0	579.0	598.0	677.7	825.9
37.5°	944.7	927.8	851.9	793.2	744.0	652.0	624.5	615.4	630.7	717.4	891.9
40°	1046.7	1032.5	943.0	909.6	813.8	760.4	684.9	676.2	703.3	758.2	946.0
42.5°	1167.6	1142.2	1058.9	1031.4	931.3	835.0	758.8	763.8	776.9	835.3	1019.0
45°	1290.6	1229.0	1181.8	1179.7	1112.8	979.8	877.5	873.5	874.0	948.7	1101.0
47.5°	1388.3	1332.9	1278.9	1253.2	1219.4	1230.4	1050.0	1002.8	988.5	1063.0	1224.1
50°	1454.4	1390.6	1329.5	1323.4	1413.5	1472.8	1211.8	1161.4	1170.2	1226.4	1388.1
52.5°	1455.8	1380.1	1316.3	1358.6	1570.8	1655.6	1490.7	1349.7	1377.9	1416.1	1602.2
55°	1354.5	1276.1	1234.6	1330.9	1632.2	1872.4	1882.6	1651.6	1619.0	1633.1	1858.0
57.5°	1141.1	1061.9	1037.7	1153.0	1515.7	2081.5	2355.9	2012.2	1916.8	1858.0	2120.2
60°	859.0	790.4	775.4	848.9	1256.6	2020.1	2739.1	2461.0	2266.8	2109.2	2383.1
62.5°	644.2	594.9	572.3	582.9	869.5	1820.3	2990.8	3028.1	2753.0	2383.5	2640.1
65°	523.4	483.7	463.5	449.9	540.8	1407.5	2945.3	3505.4	3321.1	2671.5	2840.0
67.5°	437.2	401.9	392.7	406.0	427.5	816.6	2589.3	3772.4	3784.9	2955.6	2956.9
70°	362.9	336.8	333.4	371.1	399.5	492.8	1870.2	3688.5	3826.8	3168.8	2929.5
72.5°	280.4	266.4	265.9	325.2	396.8	420.0	1113.7	3186.4	3372.3	3100.7	2661.4
75°	194.5	184.8	192.2	267.3	387.7	426.1	635.6	2481.9	2621.0	2638.5	2132.0
77.5°	133.9	125.7	133.7	193.3	346.2	436.3	444.7	1794.6	1810.0	1769.3	1221.1
80°	93.2	87.4	93.6	136.8	269.5	431.8	378.6	1129.8	1036.6	789.6	390.9
82.5°	57.7	56.0	62.8	97.5	189.7	392.8	358.8	583.0	445.1	217.9	139.6
85°	30.3	27.9	36.5	63.6	118.7	308.3	336.2	266.0	171.8	77.4	56.0
87.5°	9.0	8.0	14.1	25.7	50.3	138.2	192.4	112.8	64.1	22.8	17.5
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°	283.5	283.5	283.5	283.5	283.5	283.5	283.5	283.5	283.5	283.5	283.5
2.5°	345.6	343.9	321.0	323.9	328.9	330.1	330.0	321.6	312.8	337.4	336.6
5°	440.2	424.8	413.4	410.9	396.8	382.7	387.7	386.0	383.8	395.0	396.4
7.5°	508.3	487.1	473.8	439.5	407.0	378.9	387.9	390.6	385.1	405.2	411.2
10°	526.2	509.5	495.1	451.2	433.2	416.8	392.5	364.8	361.1	349.5	350.9
12.5°	572.5	570.2	521.1	482.4	459.0	426.4	373.9	340.3	311.6	312.9	304.6
15°	609.0	610.3	551.3	497.1	434.4	384.6	322.9	281.1	251.5	245.6	239.6
17.5°	658.1	655.6	553.8	479.5	400.1	327.0	251.3	209.9	204.9	208.3	203.1
20°	679.4	657.6	538.0	435.7	346.4	248.4	189.9	167.9	177.5	191.1	191.5
22.5°	698.6	661.3	529.8	400.4	274.9	180.6	152.4	148.4	159.7	178.1	179.7
25°	697.9	678.5	515.1	364.8	213.1	141.0	132.5	135.4	148.9	168.1	169.2
27.5°	733.0	665.4	476.8	318.1	160.5	120.7	122.9	128.3	134.6	152.9	156.5
30°	732.7	689.8	457.7	261.3	128.9	110.7	116.2	120.9	126.1	142.9	144.9
32.5°	750.0	673.9	446.0	203.2	115.6	108.2	109.6	114.2	121.8	133.1	134.5
35°	770.9	692.0	408.9	161.4	110.7	106.0	107.1	109.7	116.7	127.1	128.5
37.5°	837.9	695.4	394.2	136.0	110.4	105.1	104.9	106.3	114.2	123.7	127.8
40°	864.1	726.5	351.3	127.1	109.3	105.1	102.9	103.7	110.2	122.3	125.5
42.5°	926.8	736.9	319.6	124.0	109.3	103.2	99.8	101.1	108.6	119.3	124.4
45°	991.3	751.6	281.8	123.4	109.1	103.1	96.6	99.4	105.6	114.5	120.1
47.5°	1083.2	804.5	244.1	121.5	107.9	103.9	95.8	95.6	101.1	108.8	114.1
50°	1233.2	887.1	214.8	119.2	108.0	103.2	94.3	92.1	95.6	102.5	107.6
52.5°	1442.0	1028.0	203.4	117.9	106.8	100.8	91.6	88.2	90.2	95.6	100.6
55°	1684.4	1218.2	214.7	117.9	104.3	96.9	87.9	83.9	85.0	88.7	93.5
57.5°	1967.6	1454.5	269.3	116.2	101.2	92.2	83.4	78.8	79.1	82.3	86.7
60°	2263.4	1718.6	391.7	114.8	99.1	87.1	78.2	73.4	72.9	76.0	79.9
62.5°	2559.6	1962.2	520.5	118.1	98.4	82.8	72.6	67.8	67.6	70.4	73.7
65°	2795.1	2128.7	552.5	131.2	102.5	77.8	66.9	62.4	62.1	64.4	67.9
67.5°	2910.8	2152.9	419.7	147.7	111.0	73.2	61.3	57.1	56.8	59.3	62.4
70°	2825.2	1987.9	259.1	149.4	110.5	67.8	55.6	52.0	51.4	54.0	56.3
72.5°	2508.5	1738.8	196.9	132.2	95.6	60.1	49.8	46.7	45.8	48.1	50.3
75°	2013.4	1380.5	157.7	106.6	75.4	50.6	44.1	41.2	40.1	42.3	44.1
77.5°	1172.8	776.6	115.3	83.3	57.0	41.3	37.6	35.0	33.7	36.1	37.5
80°	381.4	258.8	72.4	59.7	41.6	32.3	30.5	28.6	27.4	28.9	29.4
82.5°	137.0	96.3	40.1	36.7	27.7	23.2	23.1	22.0	20.4	21.0	21.0
85°	60.7	44.0	23.8	19.7	16.6	12.4	14.5	13.8	12.2	11.9	11.5
87.5°	17.0	14.5	8.7	6.7	5.4	2.0	4.6	4.2	3.4	3.1	2.2
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)