

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: P366737

Luminaire Tested: **MSA-SA1B-727-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366737
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-727-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3478 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

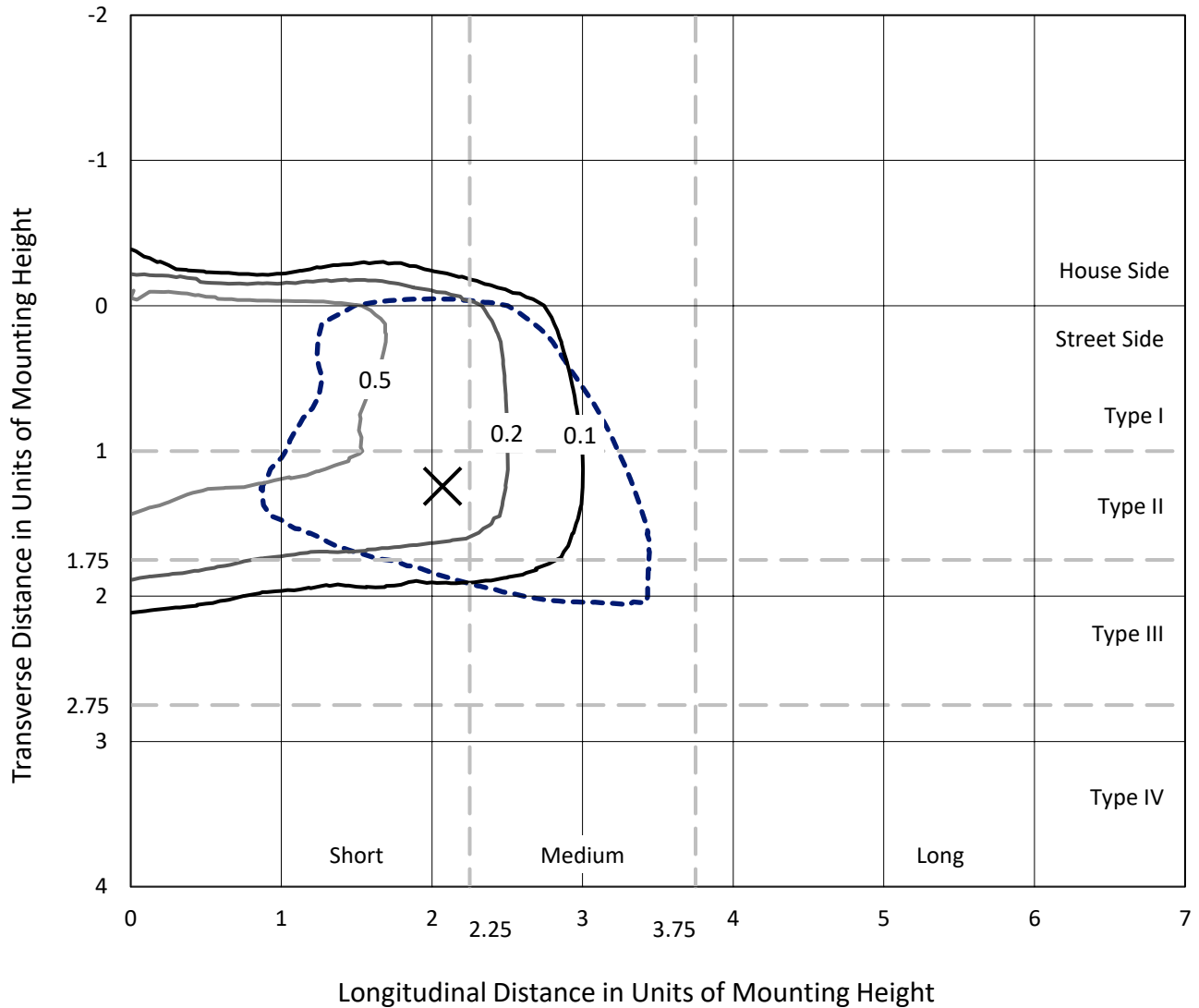
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

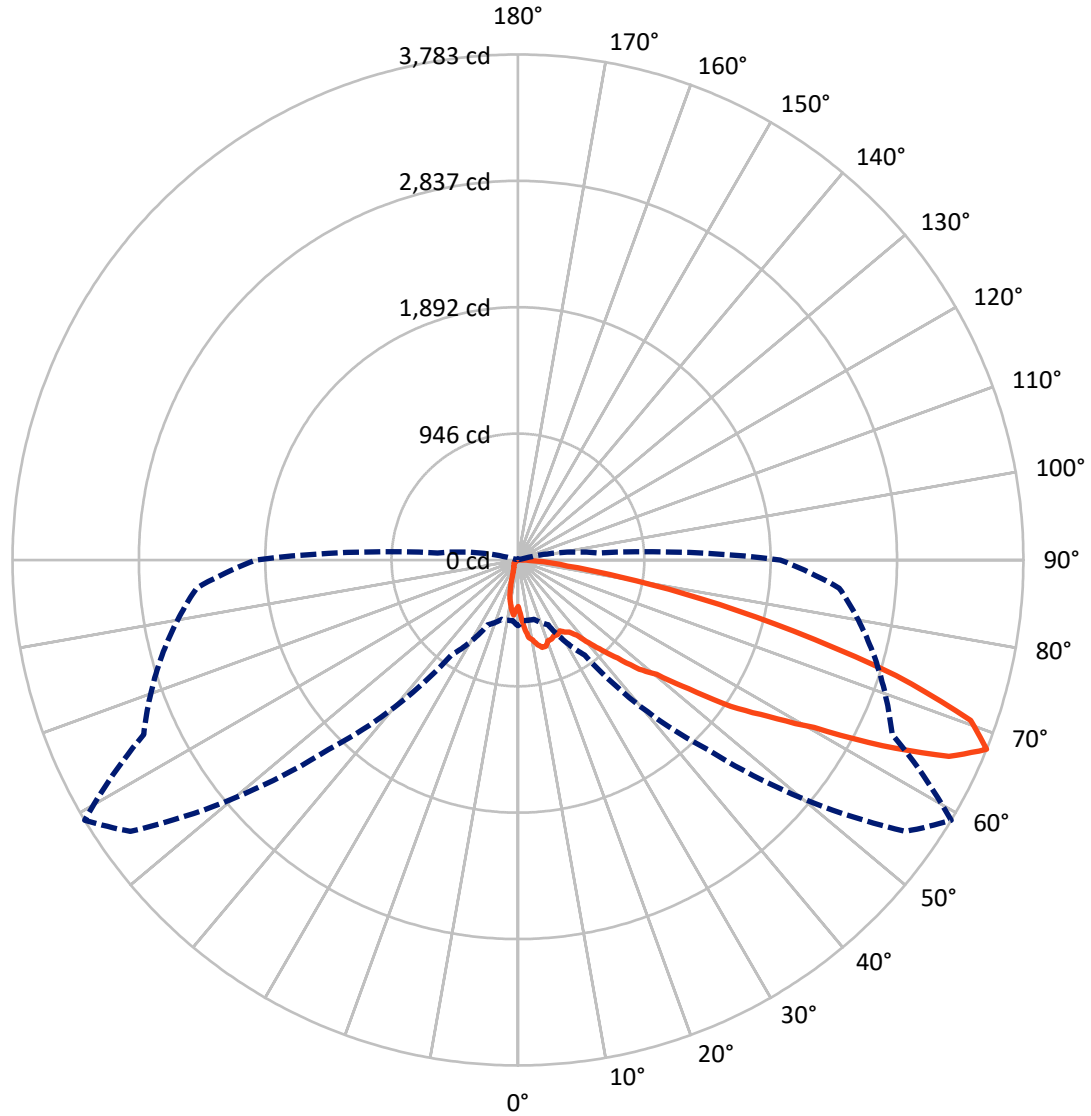
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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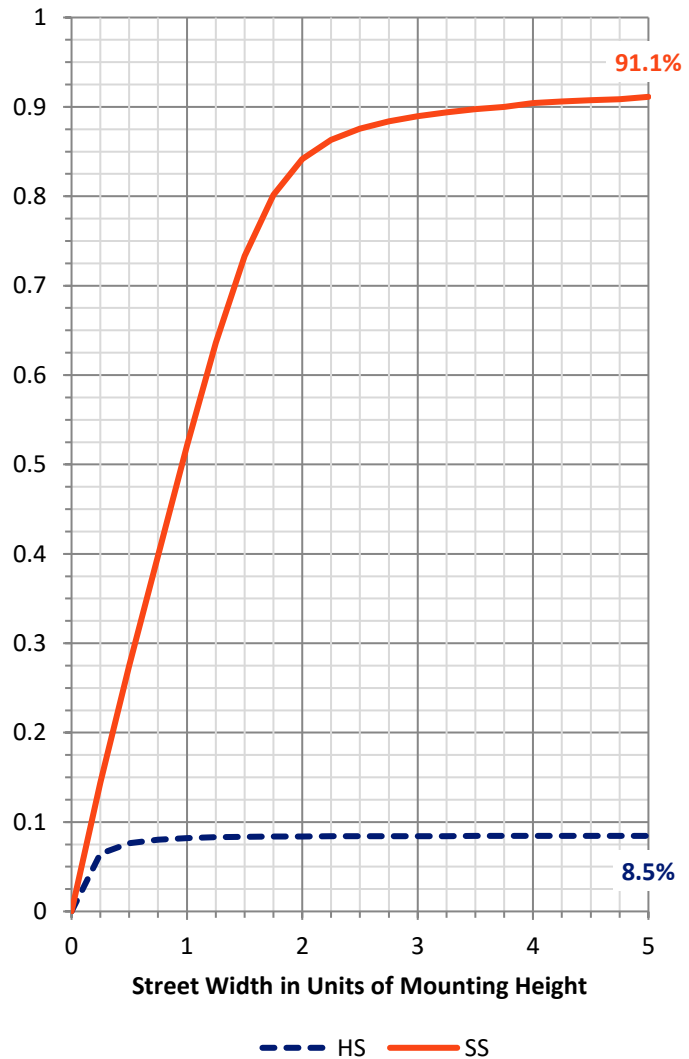
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	295.8	0.0	295.8
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	3182.2	0.0	3182.2
	% Fixture	91.5	0.0	91.5
Total	Lumens	3478.0	0.0	3478.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.3	1.2
10°-20°	119.1	3.4
20°-30°	177.2	5.1
30°-40°	273.4	7.9
40°-50°	487.9	14.0
50°-60°	868.3	25.0
60°-70°	1011.2	29.1
70°-80°	449.7	12.9
80°-90°	48.8	1.4
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°	3478.0	100.0
0°-180°	3478.0	100.0

Coefficient of Utilization



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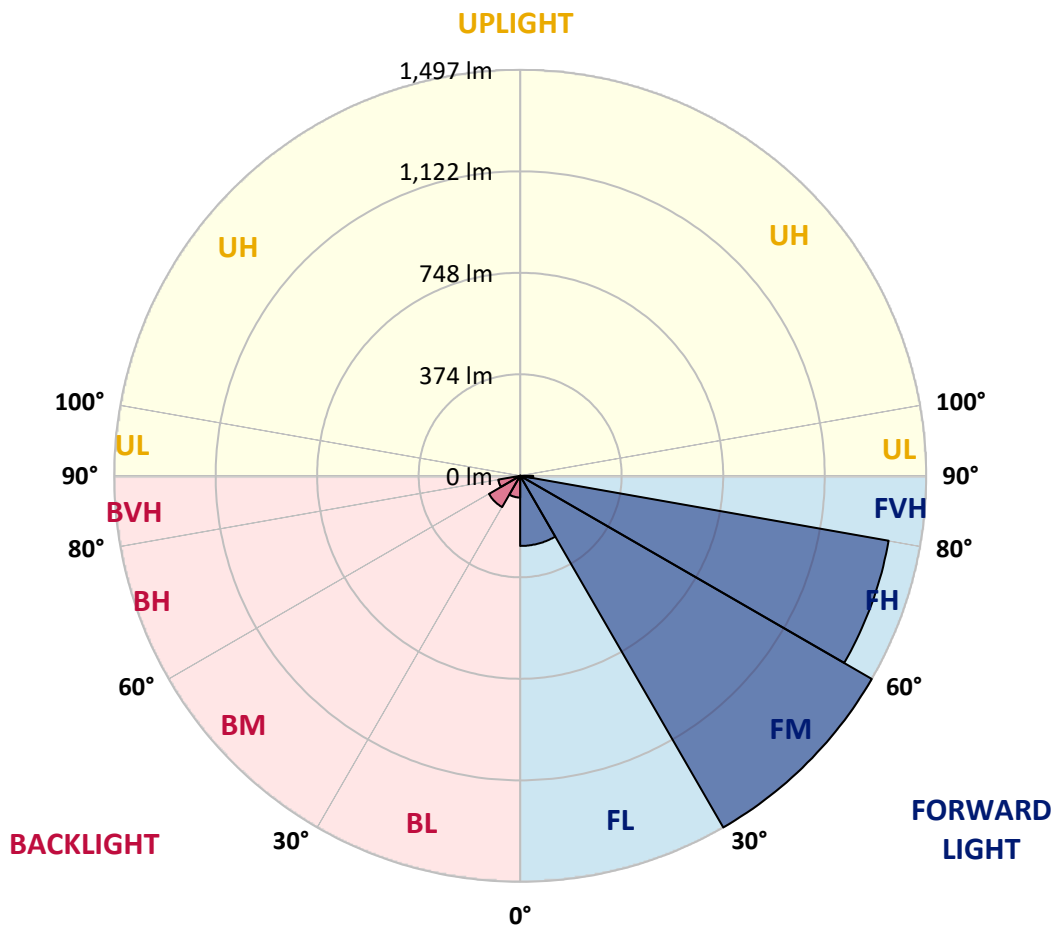
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	258.7	7.4			
FM (30°-60°)	1496.6	43.0			
FH (60°-80°)	1379.0	39.6			G1/1800
FVH (80°-90°)	48.0	1.4			G1/100
BL (0°-30°)	80.0	2.3	B0/110		
BM (30°-60°)	133.0	3.8	B0/220		
BH (60°-80°)	81.9	2.4	B0/110		G0/110
BVH (80°-90°)	0.9	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0
2.5°	453.6	436.6	412.3	419.5	426.0	432.2	421.9	416.1	413.3	388.3	419.7
5°	557.0	535.7	524.6	521.8	514.8	499.1	525.1	513.5	517.4	522.3	532.5
7.5°	588.5	578.9	562.8	568.8	542.1	539.8	575.9	585.9	599.1	590.1	602.5
10°	572.3	555.6	563.2	561.1	560.0	583.6	609.0	609.5	629.2	638.7	597.0
12.5°	540.3	542.2	569.4	567.2	602.5	649.7	655.5	649.3	681.5	665.0	658.6
15°	561.6	577.5	562.5	567.6	580.1	639.1	659.7	678.7	709.2	719.0	676.2
17.5°	587.3	588.9	561.6	555.3	586.8	614.3	662.9	678.5	681.5	768.0	715.9
20°	573.4	587.0	554.4	514.4	563.4	600.7	650.0	645.1	665.2	782.4	724.9
22.5°	610.4	591.0	549.3	519.2	535.7	569.7	611.4	643.7	673.8	747.9	736.5
25°	613.9	606.9	569.7	542.9	540.1	548.7	606.9	627.6	674.8	778.9	726.6
27.5°	653.5	645.4	569.4	572.0	545.6	519.0	584.7	633.5	694.0	760.1	747.6
30°	704.6	705.3	607.2	615.5	577.8	535.0	602.8	616.2	707.1	790.2	763.1
32.5°	756.4	777.7	682.1	638.2	626.4	595.8	580.3	642.1	692.8	841.6	801.8
35°	835.1	849.5	743.7	704.4	658.1	623.2	641.6	663.7	744.0	909.8	852.7
37.5°	968.4	942.3	854.3	786.0	774.9	723.4	732.6	712.7	796.4	990.1	953.4
40°	1043.4	1019.8	928.3	895.0	824.2	832.1	803.2	814.8	872.3	1073.7	1045.2
42.5°	1121.6	1099.1	1018.8	995.2	927.7	895.0	881.9	923.7	988.7	1213.0	1176.7
45°	1200.2	1142.9	1108.9	1120.7	1090.4	1025.6	1010.5	1047.7	1115.8	1384.2	1315.5
47.5°	1266.4	1218.1	1192.6	1187.1	1175.3	1265.3	1203.7	1220.1	1250.2	1535.6	1488.4
50°	1385.8	1338.2	1298.3	1287.2	1344.6	1472.2	1377.1	1345.4	1405.7	1718.6	1688.9
52.5°	1558.2	1497.6	1434.0	1434.2	1542.5	1612.6	1657.7	1602.0	1613.3	1919.9	1906.7
55°	1696.8	1619.8	1567.2	1608.7	1770.2	1809.5	1981.5	1932.8	1918.1	2106.6	2090.4
57.5°	1715.8	1623.5	1598.5	1671.4	1892.4	2143.2	2328.3	2206.4	2184.1	2262.8	2295.0
60°	1538.3	1440.4	1459.2	1576.5	1932.2	2346.6	2646.7	2547.2	2405.1	2445.8	2467.9
62.5°	1147.3	1069.1	1122.0	1277.3	1778.8	2482.9	3015.3	3061.4	2661.5	2583.1	2578.4
65°	744.4	695.4	730.1	857.5	1346.2	2467.4	3344.6	3544.7	2863.5	2695.1	2613.1
67.5°	492.4	455.2	460.2	535.5	870.5	2006.7	3541.5	3783.3	3090.7	2758.7	2414.2
70°	367.0	337.8	339.5	380.4	516.7	1323.4	3266.9	3595.0	3173.6	2538.4	1948.6
72.5°	264.7	245.1	261.5	307.0	411.7	699.8	2435.0	2960.7	2767.3	2002.1	1312.9
75°	183.3	170.5	197.2	256.8	375.8	434.5	1609.1	2131.2	1939.6	1256.2	593.5
77.5°	101.6	97.7	136.3	209.2	341.1	356.1	985.7	1400.4	1075.8	450.3	141.2
80°	44.4	43.0	66.0	157.1	286.7	321.7	554.9	776.5	423.2	80.3	45.6
82.5°	19.0	18.3	28.2	94.6	208.3	269.1	342.2	373.7	145.6	24.8	25.9
85°	3.3	3.7	11.3	49.8	126.8	136.7	247.8	221.2	73.3	11.8	18.5
87.5°	0.0	0.0	1.8	9.7	23.8	39.1	107.4	77.5	13.9	3.9	3.2
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°	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0
2.5°	424.1	414.2	376.7	371.9	366.8	359.3	356.4	340.2	338.1	358.9	358.9
5°	527.8	492.6	456.8	428.6	403.5	368.6	358.7	348.5	340.2	338.1	344.6
7.5°	582.6	539.6	483.4	411.7	353.6	303.1	281.9	267.2	250.6	255.5	258.2
10°	579.6	534.0	462.3	370.2	305.7	249.9	196.2	164.8	147.4	138.8	137.7
12.5°	609.0	566.0	448.0	337.1	254.8	177.7	123.5	101.1	88.2	88.4	87.3
15°	626.1	579.2	431.5	295.2	179.5	114.3	85.6	80.7	78.9	80.8	79.8
17.5°	656.2	593.1	393.9	232.6	123.5	86.3	78.7	76.8	79.1	83.1	82.1
20°	653.9	569.0	340.6	164.0	91.2	77.7	74.5	71.5	76.3	80.5	79.8
22.5°	651.8	545.4	290.4	121.0	76.3	70.8	68.2	66.9	69.4	74.3	75.4
25°	633.1	533.8	239.5	90.9	69.0	64.3	63.0	62.0	62.9	66.9	66.7
27.5°	656.0	504.4	184.9	76.3	63.9	58.3	57.2	55.5	53.7	57.2	57.8
30°	651.2	508.4	144.9	67.1	58.8	51.2	51.6	47.9	44.7	47.9	47.9
32.5°	668.5	478.8	116.1	60.9	53.7	48.3	43.9	40.0	37.7	39.6	40.0
35°	693.7	480.1	90.9	57.1	49.3	43.0	37.7	33.8	31.7	32.6	33.1
37.5°	778.0	471.6	75.9	54.1	47.7	39.8	34.3	29.2	27.8	28.9	29.4
40°	833.0	494.2	66.9	52.5	43.7	36.6	29.4	25.7	24.5	25.0	25.9
42.5°	936.5	506.7	62.5	50.7	40.0	31.3	25.2	23.1	21.3	22.0	22.7
45°	1047.3	528.0	59.2	48.8	37.2	27.5	22.2	20.4	18.1	18.3	19.0
47.5°	1183.4	578.7	55.3	45.4	33.3	25.0	19.7	17.1	15.0	14.8	15.7
50°	1366.2	646.5	51.8	41.2	30.8	22.9	17.3	13.9	12.2	11.6	12.3
52.5°	1561.4	734.2	48.1	38.2	27.8	20.1	14.8	11.3	9.7	9.3	9.9
55°	1754.7	818.4	44.6	36.3	24.7	17.3	12.5	9.3	7.9	7.6	7.9
57.5°	1975.0	909.4	40.0	32.4	21.7	15.0	10.4	7.7	6.5	6.2	6.3
60°	2140.9	941.5	36.1	28.2	18.8	13.2	8.8	6.2	5.3	4.9	5.1
62.5°	2219.6	889.2	32.4	24.5	16.6	11.4	7.4	5.1	4.4	4.1	4.1
65°	2199.2	773.3	28.7	21.0	14.3	9.5	5.8	4.4	3.9	3.3	3.2
67.5°	1963.2	605.1	24.5	17.6	12.0	7.7	4.9	4.2	3.5	3.2	2.6
70°	1557.0	438.2	19.9	14.6	10.0	6.3	3.9	3.9	3.3	3.2	2.5
72.5°	1020.5	275.8	16.2	11.8	8.3	4.9	3.0	3.5	3.2	3.2	2.3
75°	442.2	98.6	13.0	9.5	6.9	3.3	2.6	3.2	3.3	3.2	2.6
77.5°	103.6	30.6	10.2	7.6	5.6	2.3	2.6	3.2	3.3	3.0	2.3
80°	38.9	13.0	6.7	4.9	4.4	1.4	2.3	1.9	1.8	1.2	0.4
82.5°	23.6	5.5	3.5	2.5	2.1	0.4	1.1	0.7	0.4	0.4	0.0
85°	16.7	2.6	1.9	1.8	1.1	0.0	0.2	0.0	0.0	0.2	0.0
87.5°	2.3	0.7	0.9	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0
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)