

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: P596092

Luminaire Tested: **MSA-SA3A-AMB-U-T2-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596092
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-10)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-AMB-U-T2-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: (48) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1738 lumens
Efficiency: N/A
Efficacy: 29.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B0 - U0 - G1

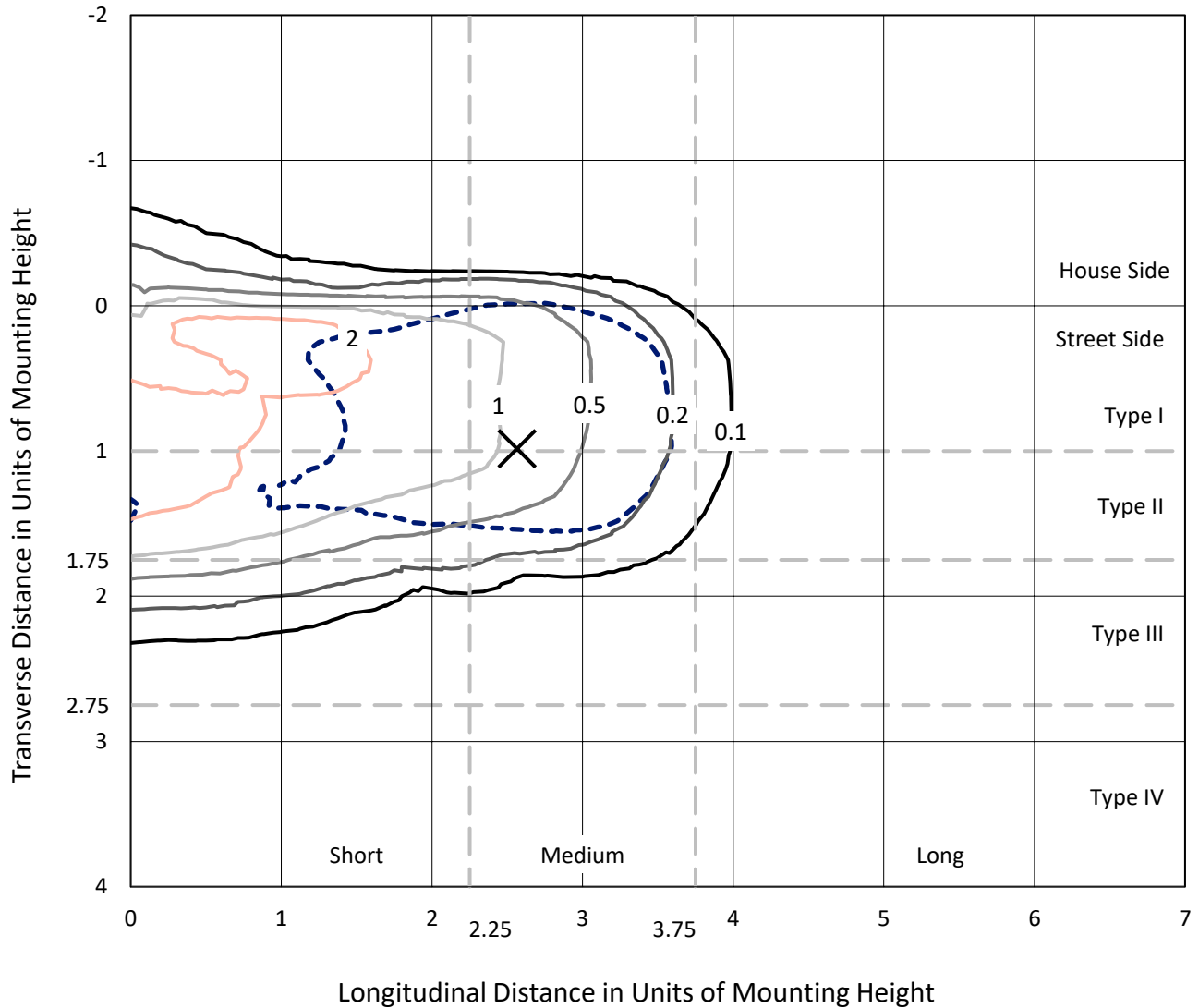
Input Watts (W): 59.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

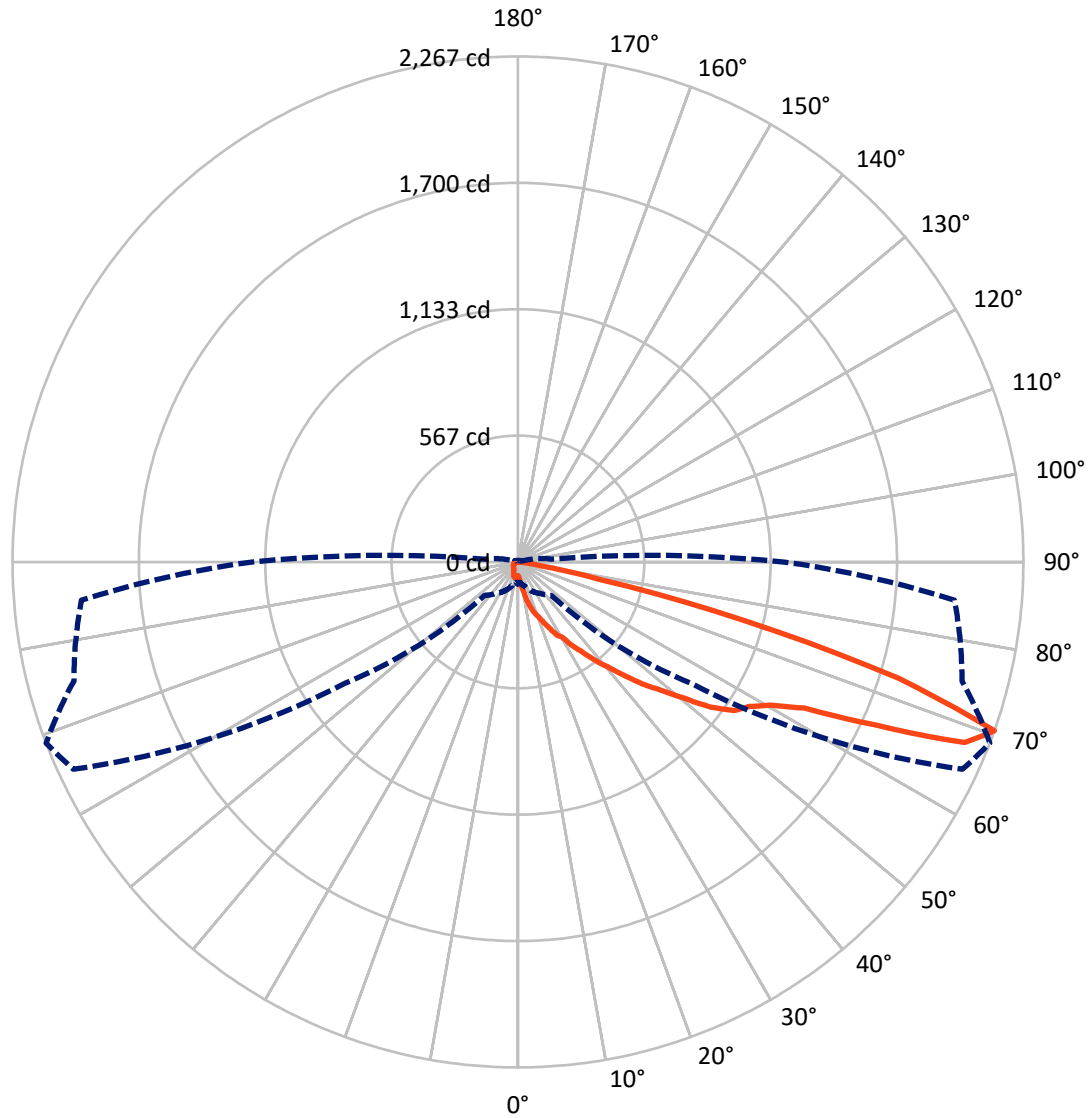
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.1 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 69-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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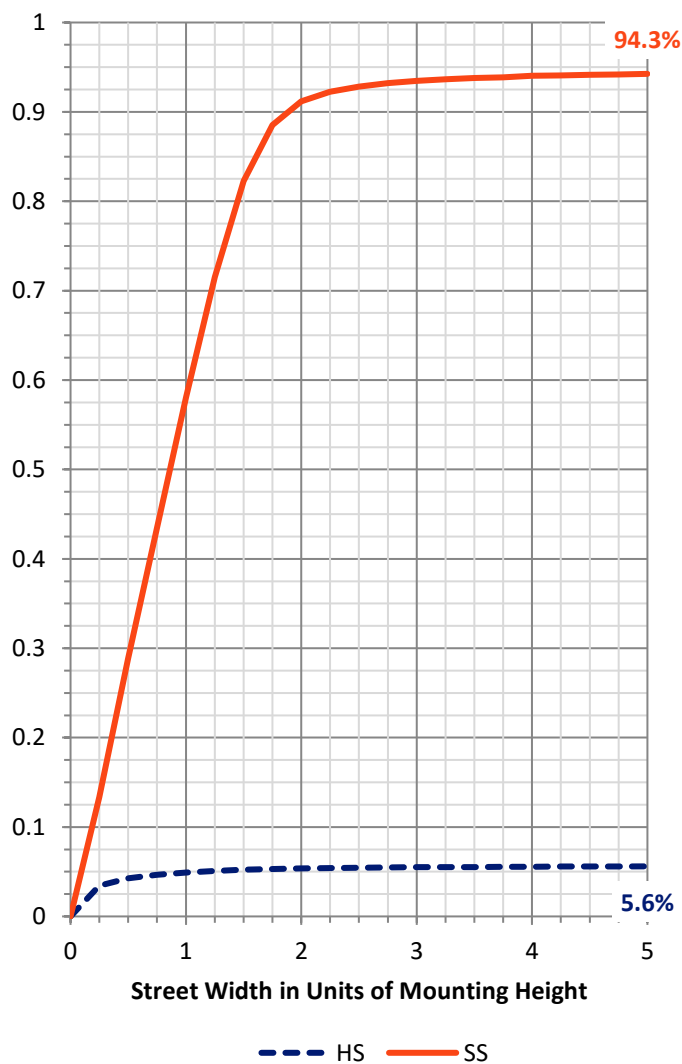
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	98.7	0.0	98.7
	% Fixture	5.7	0.0	5.7
Street Side	Lumens	1639.3	0.0	1639.3
	% Fixture	94.3	0.0	94.3
Total	Lumens	1738.0	0.0	1738.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.8	0.5
10°-20°	33.5	1.9
20°-30°	69.1	4.0
30°-40°	139.2	8.0
40°-50°	275.8	15.9
50°-60°	469.2	27.0
60°-70°	506.3	29.1
70°-80°	225.9	13.0
80°-90°	11.3	0.6
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°	1738.0	100.0
0°-180°	1738.0	100.0

Coefficient of Utilization

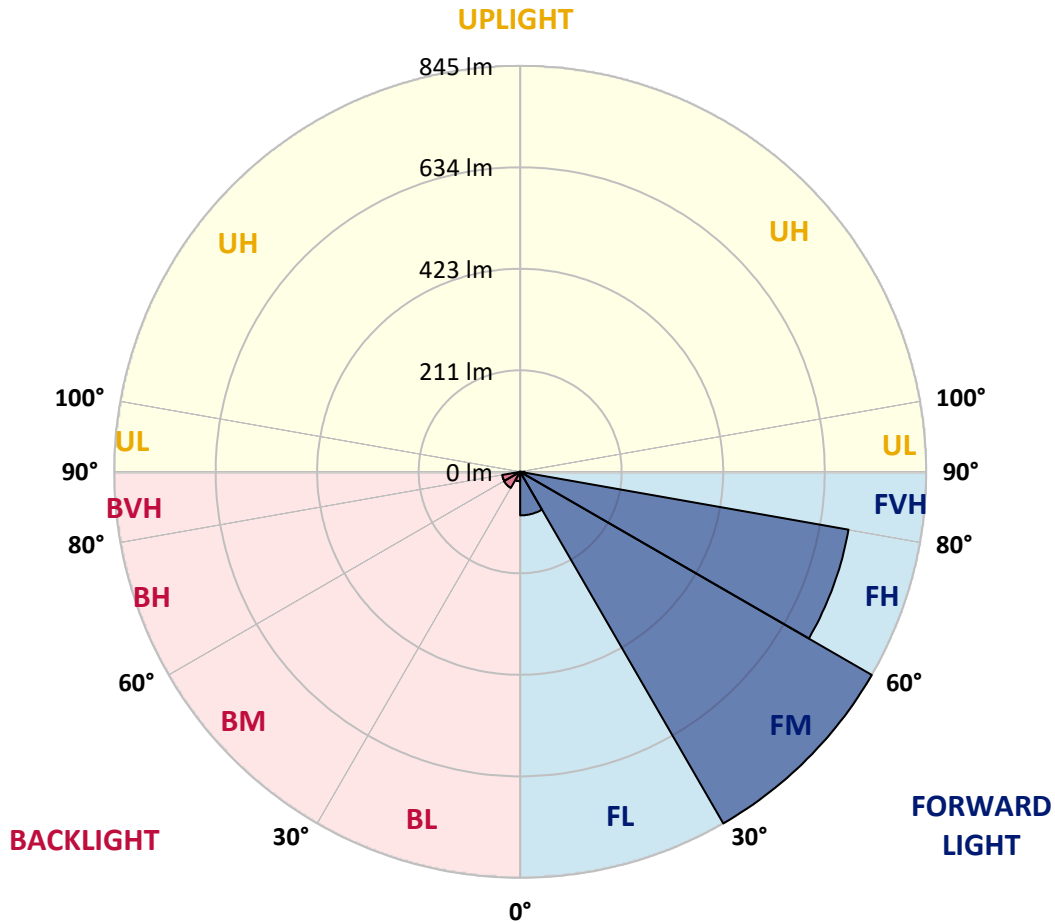


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	90.8	5.2			
FM (30°-60°)	845.4	48.6			
FH (60°-80°)	694.2	39.9			G1/1800
FVH (80°-90°)	9.0	0.5			G0/10
BL (0°-30°)	19.6	1.1	B0/110		
BM (30°-60°)	38.8	2.2	B0/220		
BH (60°-80°)	38.0	2.2	B0/110		G0/110
BVH (80°-90°)	2.3	0.1			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	69°	75°	85°
0°	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
2.5°	87.0	77.4	74.3	70.3	69.5	71.9	68.7	65.5	66.3	66.3	71.9
5°	121.4	103.8	102.2	92.6	79.0	75.8	74.3	79.8	80.6	93.4	91.8
7.5°	145.3	134.1	136.5	119.0	101.4	92.6	100.6	109.4	109.4	112.6	106.2
10°	148.5	144.5	141.3	131.7	133.3	134.9	133.3	131.7	130.1	135.7	120.6
12.5°	142.9	142.9	154.9	154.1	167.7	180.4	175.6	172.5	172.5	161.3	137.3
15°	151.7	151.7	158.9	168.5	184.4	208.4	213.2	206.8	207.6	200.4	160.5
17.5°	161.3	162.9	165.3	177.2	198.0	227.5	243.5	241.9	239.5	236.3	189.2
20°	172.5	174.0	169.3	169.3	199.6	231.5	263.5	265.1	261.1	264.3	211.6
22.5°	209.2	203.6	185.2	175.6	188.4	224.3	271.5	287.4	293.0	287.4	238.7
25°	244.3	243.5	222.8	206.8	195.6	223.6	279.4	328.1	327.3	332.1	252.3
27.5°	290.6	291.4	257.1	252.3	224.3	218.8	283.4	363.3	370.5	347.3	278.6
30°	342.5	340.1	300.2	294.6	266.7	233.9	295.4	392.0	391.2	387.2	305.8
32.5°	407.2	403.2	348.9	333.7	310.6	281.8	291.4	410.4	447.1	445.5	335.3
35°	481.4	475.0	420.8	388.8	348.1	316.2	323.3	439.9	494.2	500.6	372.9
37.5°	598.0	572.4	507.8	451.1	412.0	383.2	372.1	489.4	558.1	586.8	426.3
40°	687.4	655.5	590.8	519.0	467.1	451.9	415.2	523.7	616.4	675.4	487.8
42.5°	765.7	741.7	669.1	608.4	535.7	499.8	472.6	584.4	690.6	771.2	554.9
45°	823.9	786.4	719.4	679.4	603.6	597.2	565.3	665.9	777.6	885.4	616.4
47.5°	895.0	845.5	786.4	736.9	669.1	701.0	642.7	747.3	855.9	1029.1	701.0
50°	991.6	934.1	869.5	791.2	759.3	773.6	719.4	826.3	954.9	1172.8	800.8
52.5°	1132.9	1064.3	997.2	928.5	866.3	816.8	790.4	922.9	1080.2	1291.0	896.6
55°	1160.1	1087.4	1067.5	1059.5	1052.3	908.6	860.7	1061.9	1176.0	1386.0	985.2
57.5°	1073.8	1004.4	1023.5	1064.3	1156.1	1087.4	954.9	1162.5	1223.1	1465.9	1061.9
60°	783.2	744.9	823.1	928.5	1129.7	1184.8	1140.9	1251.9	1303.0	1493.8	1133.7
62.5°	403.2	383.2	473.4	610.8	916.6	1182.4	1388.4	1409.2	1441.9	1540.9	1292.6
65°	204.4	198.0	242.7	307.4	507.0	970.0	1509.8	1778.8	1762.1	1700.6	1595.2
67.5°	138.9	132.5	157.3	197.2	251.5	530.9	1422.7	2237.9	2160.5	1928.1	1912.2
70°	99.0	91.8	111.8	143.7	171.7	211.6	948.5	2198.8	2266.6	2061.5	1964.8
72.5°	61.5	58.3	78.2	105.4	134.1	105.4	388.8	1674.2	1785.2	1796.4	1567.2
75°	39.9	38.3	47.9	74.3	103.8	75.8	110.2	880.6	1044.3	1116.2	890.2
77.5°	29.5	27.9	33.5	50.3	67.9	54.3	58.3	342.5	372.1	444.7	317.8
80°	15.2	15.2	23.2	29.5	44.7	35.9	39.1	101.4	106.2	128.5	63.1
82.5°	8.0	8.0	12.8	21.6	27.1	22.4	20.0	41.5	43.1	43.9	22.4
85°	1.6	2.4	8.0	12.8	14.4	9.6	11.2	16.0	17.6	19.2	10.4
87.5°	0.8	1.6	3.2	4.0	4.0	3.2	5.6	6.4	6.4	6.4	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
2.5°	73.5	63.9	66.3	56.7	54.3	53.5	52.7	52.7	59.1	59.9	63.9
5°	95.8	83.8	77.4	66.3	54.3	47.9	49.5	55.1	59.1	60.7	63.1
7.5°	111.0	96.6	84.6	65.5	50.3	44.7	47.9	49.5	51.1	51.1	53.5
10°	113.4	99.8	79.8	59.9	52.7	47.9	42.3	39.1	39.9	39.9	40.7
12.5°	126.1	106.2	80.6	60.7	52.7	43.9	37.5	34.3	31.9	31.1	31.9
15°	136.5	114.2	79.8	59.1	47.1	37.5	31.1	29.5	30.3	30.3	30.3
17.5°	151.7	124.5	76.6	55.9	40.7	31.9	29.5	30.3	30.3	31.9	31.1
20°	164.5	124.5	71.9	47.9	33.5	28.7	28.7	27.9	28.7	28.7	28.7
22.5°	178.8	124.5	63.9	40.7	29.5	27.1	25.5	24.8	24.8	24.8	25.5
25°	180.4	116.6	58.3	35.9	27.9	24.8	23.2	21.6	21.6	22.4	22.4
27.5°	186.0	108.6	51.9	31.9	27.1	22.4	20.8	20.0	19.2	20.0	20.0
30°	186.0	104.6	47.9	30.3	25.5	20.8	19.2	18.4	17.6	18.4	18.4
32.5°	186.0	94.2	43.9	29.5	24.0	19.2	17.6	16.8	16.8	17.6	17.6
35°	186.0	87.0	40.7	27.9	22.4	18.4	16.8	16.0	16.0	16.8	16.8
37.5°	206.0	83.8	38.3	27.9	21.6	18.4	16.8	16.0	16.0	16.8	16.8
40°	215.6	84.6	35.1	26.3	20.8	18.4	16.8	16.0	15.2	16.0	16.0
42.5°	233.1	83.8	34.3	25.5	20.0	17.6	16.0	15.2	15.2	15.2	15.2
45°	263.5	83.8	33.5	24.8	20.0	17.6	16.0	15.2	14.4	14.4	15.2
47.5°	296.2	88.6	32.7	23.2	19.2	17.6	15.2	14.4	13.6	14.4	14.4
50°	340.1	91.8	31.9	22.4	19.2	17.6	15.2	13.6	13.6	13.6	13.6
52.5°	395.2	95.0	30.3	21.6	19.2	16.8	14.4	13.6	12.8	13.6	13.6
55°	455.1	97.4	29.5	20.8	19.2	16.0	14.4	12.8	12.8	12.8	12.8
57.5°	517.4	98.2	28.7	20.0	17.6	16.0	13.6	12.8	12.0	12.0	12.0
60°	594.8	99.0	26.3	19.2	16.8	14.4	12.8	12.0	11.2	11.2	10.4
62.5°	717.0	106.2	24.0	18.4	15.2	13.6	12.0	10.4	10.4	9.6	8.8
65°	945.3	119.8	20.8	16.8	14.4	12.0	10.4	9.6	8.8	8.0	7.2
67.5°	1172.8	146.1	18.4	15.2	12.8	11.2	9.6	8.8	7.2	7.2	5.6
70°	1192.8	150.1	16.0	13.6	11.2	10.4	8.8	8.0	7.2	6.4	5.6
72.5°	914.2	100.6	14.4	12.8	10.4	8.0	8.0	8.0	7.2	6.4	5.6
75°	480.6	45.5	12.8	11.2	8.8	7.2	8.0	7.2	6.4	5.6	4.0
77.5°	142.1	20.8	10.4	9.6	8.0	5.6	6.4	5.6	5.6	4.0	2.4
80°	27.9	11.2	8.0	8.0	6.4	3.2	4.8	5.6	4.8	4.0	2.4
82.5°	10.4	7.2	6.4	5.6	4.8	2.4	4.8	4.8	4.8	4.8	3.2
85°	4.8	4.8	5.6	4.8	4.0	1.6	4.0	4.8	4.8	4.8	3.2
87.5°	3.2	4.8	4.8	4.8	4.0	2.4	4.0	4.8	4.8	4.8	2.4
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)