

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: P596098

Luminaire Tested: **MSA-SA3A-AMB-U-T4W-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596098
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-16)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-AMB-U-T4W-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: (48) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1779 lumens
Efficiency: N/A
Efficacy: 29.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

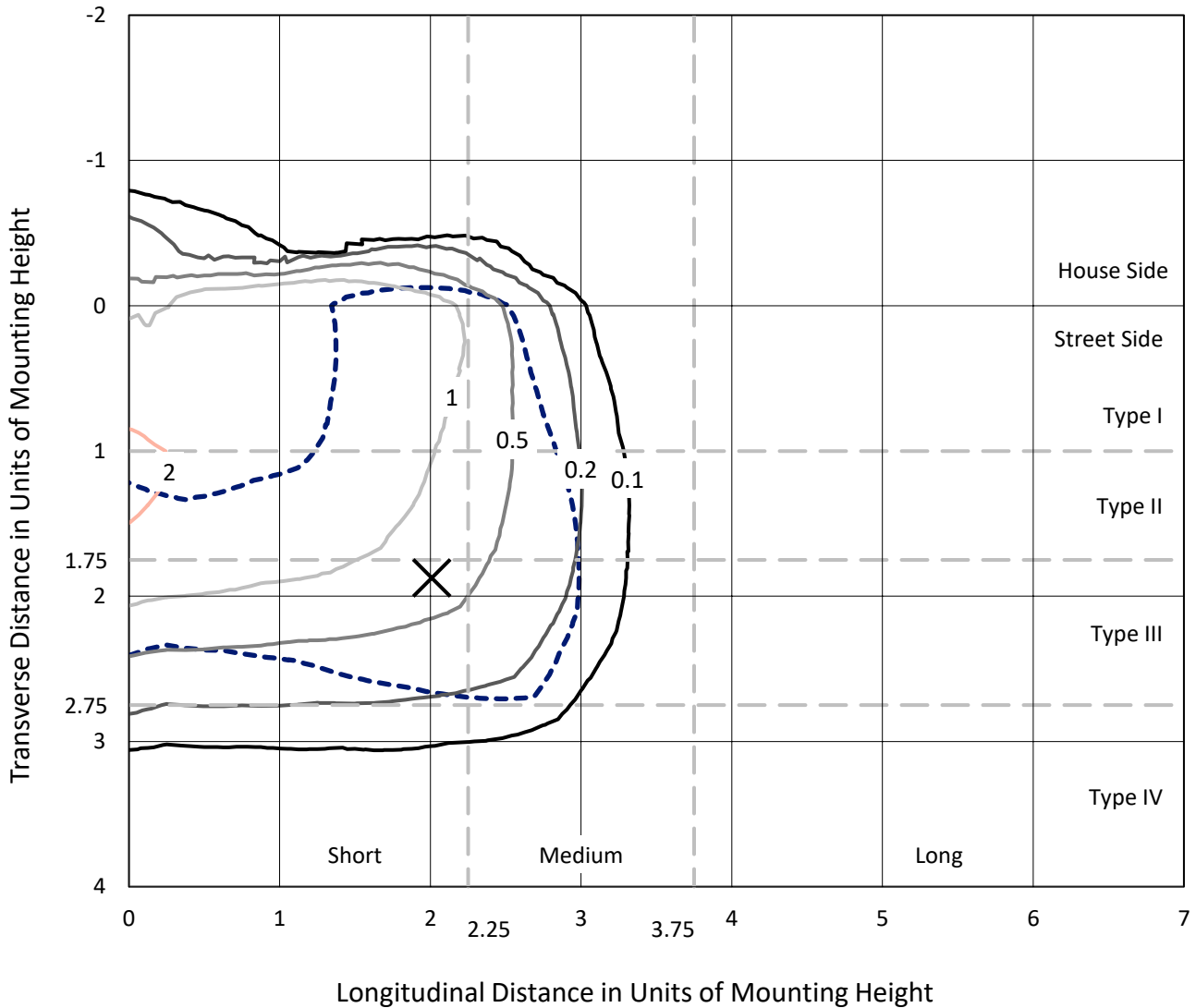
Input Watts (W): 59.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

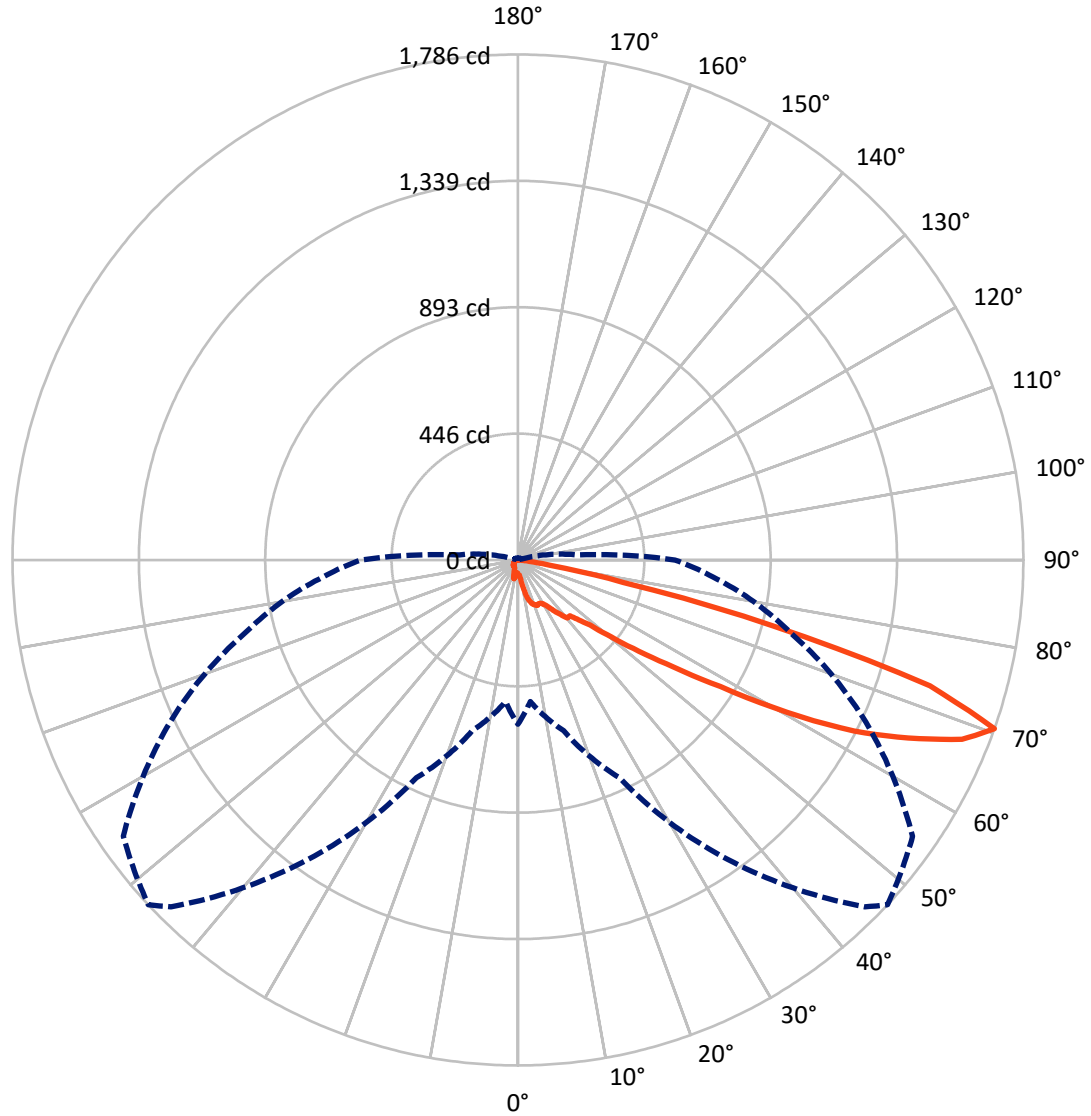
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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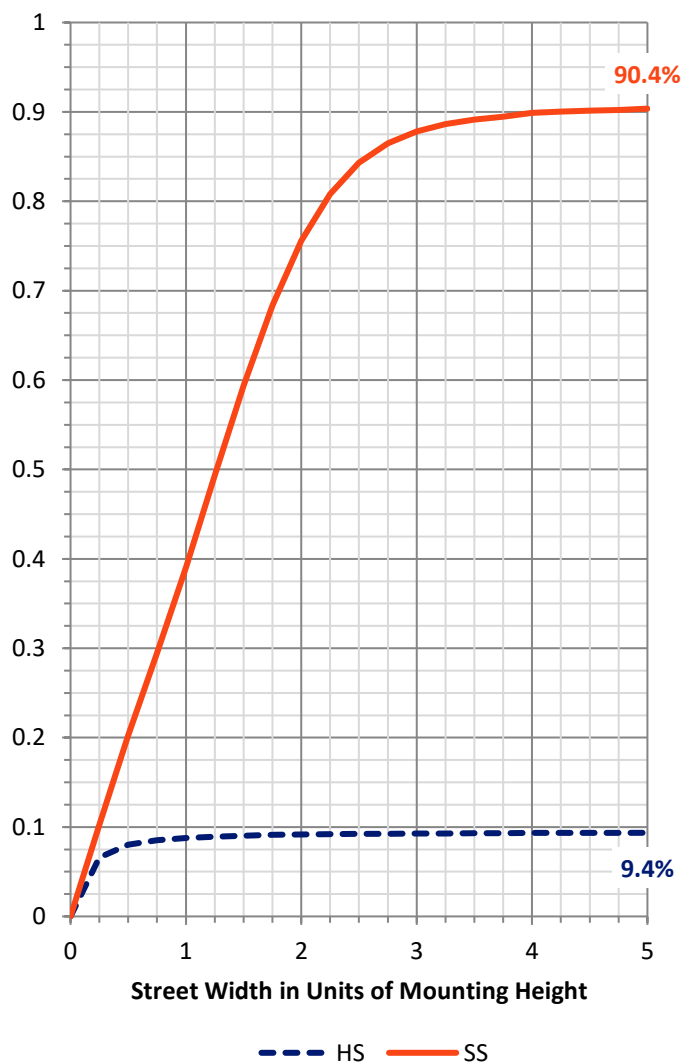
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	168.5	0.0	168.5
	% Fixture	9.5	0.0	9.5
Street Side	Lumens	1610.6	0.0	1610.6
	% Fixture	90.5	0.0	90.5
Total	Lumens	1779.0	0.0	1779.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.7	0.4
10°-20°	29.5	1.7
20°-30°	55.7	3.1
30°-40°	95.2	5.4
40°-50°	190.4	10.7
50°-60°	441.0	24.8
60°-70°	692.9	38.9
70°-80°	253.8	14.3
80°-90°	13.9	0.8
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°	1779.0	100.0
0°-180°	1779.0	100.0

Coefficient of Utilization



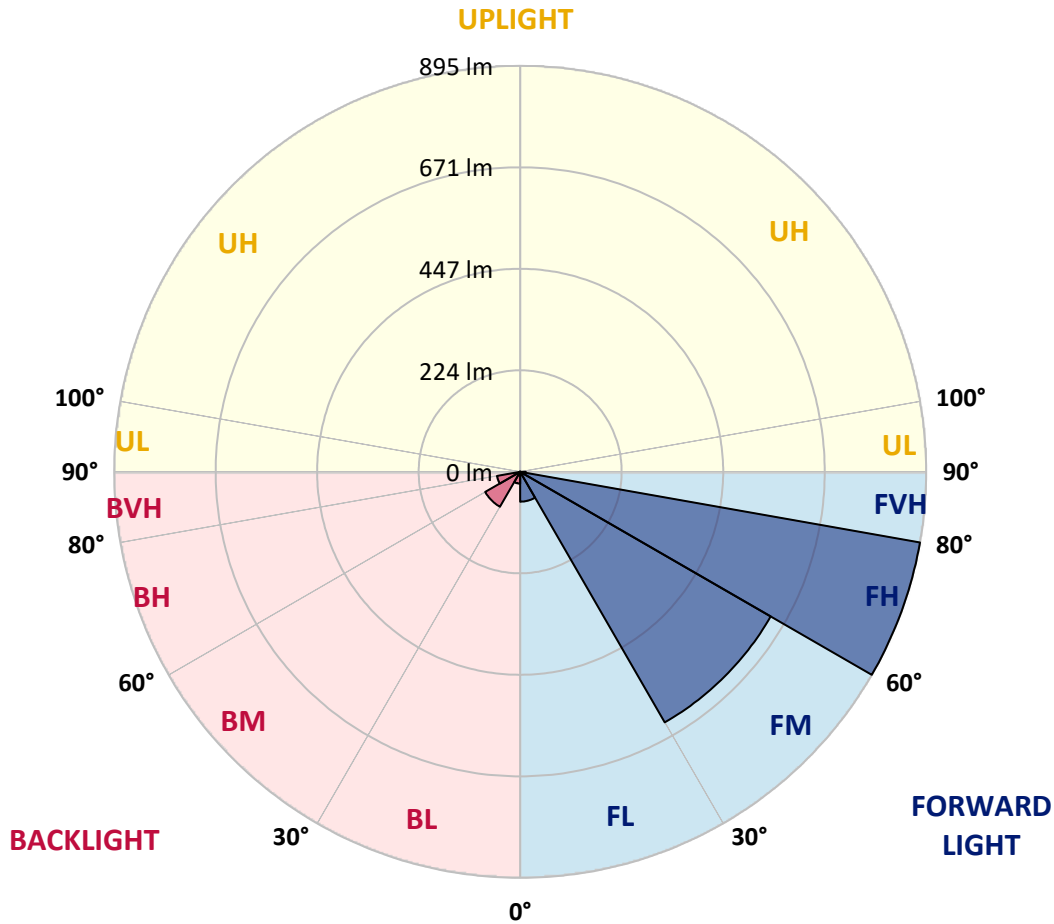
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	65.8	3.7			
FM (30°-60°)	637.6	35.8			
FH (60°-80°)	894.9	50.3			G1/1800
FVH (80°-90°)	12.2	0.7			G1/100
BL (0°-30°)	26.0	1.5	B0/110		
BM (30°-60°)	89.0	5.0	B0/220		
BH (60°-80°)	51.8	2.9	B0/110		G0/110
BVH (80°-90°)	1.7	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
2.5°	67.8	59.8	59.8	55.1	55.1	55.1	55.9	53.5	51.1	55.1	55.9
5°	95.0	80.6	84.6	71.0	60.6	55.9	53.5	56.7	61.4	71.0	67.8
7.5°	124.5	110.9	107.7	91.0	75.8	69.4	68.6	74.2	79.0	84.6	82.2
10°	133.3	129.3	120.5	103.7	100.5	100.5	97.3	94.2	91.0	95.0	91.0
12.5°	139.6	139.6	146.0	131.7	133.3	129.3	129.3	123.7	118.1	110.9	101.3
15°	162.0	162.8	158.0	153.2	149.2	152.4	147.6	145.2	136.4	130.1	114.9
17.5°	177.9	180.3	170.0	167.6	165.2	165.2	162.0	159.6	150.8	148.4	136.4
20°	185.9	188.3	178.7	163.6	171.6	172.4	168.4	170.0	158.8	158.8	151.6
22.5°	193.9	189.9	173.2	165.2	168.4	170.8	174.7	170.8	163.6	165.2	170.8
25°	195.5	193.1	179.5	170.0	171.6	177.1	170.8	177.9	177.1	179.5	179.5
27.5°	202.7	198.7	175.5	180.3	175.5	173.2	173.2	181.1	189.1	183.5	191.5
30°	214.6	214.6	186.7	185.9	184.3	176.3	181.1	195.5	203.5	198.7	216.2
32.5°	245.8	240.2	209.9	192.3	195.5	200.3	197.9	204.3	221.8	229.8	238.6
35°	272.9	268.1	233.0	216.2	207.5	213.8	221.8	233.0	255.3	254.5	249.0
37.5°	325.6	314.4	261.7	231.4	237.8	244.2	245.0	272.9	286.5	262.5	280.1
40°	435.7	405.4	331.1	261.7	240.2	276.1	268.9	272.9	284.9	288.9	312.8
42.5°	560.2	527.4	434.1	331.9	260.9	256.1	269.7	272.1	313.6	330.3	348.7
45°	689.4	632.8	542.6	427.7	315.2	292.8	301.6	309.6	363.9	375.8	393.4
47.5°	771.6	725.3	655.1	537.8	399.0	353.5	343.9	359.1	418.1	452.4	472.4
50°	854.6	799.5	734.1	643.1	522.7	445.3	427.7	426.1	489.9	561.8	586.5
52.5°	976.7	924.8	823.5	760.4	680.6	542.6	535.4	530.6	610.4	709.4	765.2
55°	1126.7	1030.9	928.0	900.9	844.2	684.6	666.3	691.0	802.7	900.1	983.1
57.5°	1209.7	1128.3	1073.2	1046.9	1029.3	873.7	843.4	888.1	1016.6	1094.8	1241.6
60°	1304.6	1207.3	1169.0	1181.8	1216.1	1087.6	1094.0	1071.6	1204.1	1296.7	1510.5
62.5°	1303.0	1203.3	1214.5	1283.1	1392.4	1342.1	1331.8	1277.5	1350.9	1467.4	1694.0
65°	1145.8	1066.9	1156.2	1263.9	1513.7	1569.6	1516.1	1475.4	1465.8	1514.5	1617.4
67.5°	887.3	824.3	933.6	1145.0	1497.7	1715.6	1692.4	1698.8	1548.8	1349.3	1257.6
70°	580.1	501.9	624.8	849.0	1291.1	1733.1	1785.8	1702.0	1356.5	998.2	691.8
72.5°	249.8	244.2	331.9	523.5	912.8	1457.0	1522.5	1348.5	963.1	563.3	301.6
75°	111.7	102.9	134.1	250.6	515.5	953.5	932.0	809.9	484.4	213.8	87.0
77.5°	41.5	39.1	55.9	110.1	249.8	374.2	379.8	357.5	194.7	71.0	24.7
80°	24.7	22.3	30.3	51.1	103.7	107.7	118.9	139.6	87.8	48.7	14.4
82.5°	10.4	10.4	17.6	28.7	58.2	38.3	39.9	58.2	53.5	39.9	8.0
85°	3.2	3.2	8.8	14.4	20.7	14.4	13.6	25.5	32.7	28.7	4.8
87.5°	1.6	1.6	3.2	4.8	4.8	3.2	4.0	6.4	8.0	9.6	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°	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
2.5°	59.8	53.5	52.7	48.7	46.3	48.7	47.9	47.9	51.9	51.9	55.9
5°	73.4	65.4	63.0	55.9	48.7	45.5	47.9	55.1	59.8	61.4	67.0
7.5°	86.2	78.2	72.6	62.2	51.9	48.7	54.3	59.8	65.4	67.8	71.0
10°	89.4	83.0	75.8	65.4	63.0	61.4	56.7	54.3	55.9	55.1	57.5
12.5°	100.5	91.8	84.6	78.2	73.4	66.2	52.7	44.7	40.7	38.3	38.3
15°	109.3	102.9	98.1	87.0	77.4	54.3	39.9	32.7	31.9	33.5	32.7
17.5°	126.1	122.1	106.9	95.0	67.0	42.3	32.7	32.7	33.5	35.1	35.1
20°	142.8	135.7	118.9	93.4	52.7	32.7	31.9	31.9	33.5	36.7	35.9
22.5°	161.2	148.4	125.3	80.6	35.9	30.3	31.1	31.1	33.5	36.7	37.5
25°	173.2	162.8	133.3	66.2	29.5	28.7	29.5	31.1	33.5	36.7	36.7
27.5°	191.5	174.7	133.3	51.1	27.9	27.1	27.9	30.3	31.9	35.1	35.9
30°	203.5	204.3	134.1	37.5	27.1	25.5	27.1	27.9	29.5	33.5	34.3
32.5°	232.2	216.2	130.9	30.3	26.3	25.5	24.7	25.5	27.1	30.3	31.1
35°	245.0	245.0	116.5	28.7	26.3	24.7	23.1	23.1	23.1	24.7	25.5
37.5°	281.7	276.1	99.7	28.7	26.3	24.7	22.3	20.7	19.9	20.7	21.5
40°	321.6	309.6	80.6	27.9	26.3	24.7	20.7	18.4	16.0	16.8	17.6
42.5°	366.3	365.5	62.2	28.7	26.3	22.3	18.4	15.2	14.4	14.4	15.2
45°	429.3	407.0	46.3	28.7	26.3	21.5	16.0	13.6	12.8	13.6	13.6
47.5°	523.5	459.6	39.1	28.7	26.3	19.9	14.4	12.8	12.0	12.8	13.6
50°	656.7	530.6	35.1	27.1	24.7	19.2	13.6	12.8	12.0	12.0	13.6
52.5°	817.9	591.3	31.9	25.5	22.3	17.6	13.6	12.8	12.0	12.8	12.8
55°	1022.2	655.9	28.7	23.1	19.2	16.0	13.6	12.0	12.0	12.0	12.0
57.5°	1240.0	702.2	24.7	20.7	17.6	15.2	12.8	12.0	11.2	11.2	11.2
60°	1433.9	724.5	21.5	17.6	15.2	13.6	12.0	11.2	10.4	10.4	9.6
62.5°	1516.9	693.4	18.4	16.0	13.6	12.8	11.2	10.4	9.6	8.8	8.0
65°	1402.8	590.5	16.0	13.6	12.0	11.2	9.6	8.8	8.0	7.2	6.4
67.5°	1053.3	405.4	14.4	12.0	11.2	10.4	8.8	8.0	7.2	6.4	5.6
70°	555.4	207.5	12.8	11.2	9.6	8.8	8.0	7.2	6.4	6.4	4.8
72.5°	223.4	77.4	11.2	10.4	8.8	7.2	7.2	7.2	6.4	5.6	4.8
75°	59.0	23.9	9.6	8.8	7.2	5.6	6.4	6.4	6.4	5.6	4.0
77.5°	19.9	12.0	8.8	8.0	6.4	4.8	5.6	4.8	4.8	3.2	2.4
80°	10.4	8.0	6.4	6.4	4.8	2.4	4.0	4.0	4.0	3.2	1.6
82.5°	5.6	4.8	4.0	4.8	3.2	1.6	4.0	4.0	4.0	3.2	1.6
85°	3.2	3.2	3.2	3.2	3.2	0.8	3.2	4.0	4.0	3.2	1.6
87.5°	1.6	3.2	3.2	3.2	3.2	1.6	3.2	4.0	4.0	3.2	1.6
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)