

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: P596094

Luminaire Tested: **MSA-SA3A-AMB-U-T3-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596094
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-12)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-AMB-U-T3-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: (48) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1742 lumens
Efficiency: N/A
Efficacy: 29.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G0

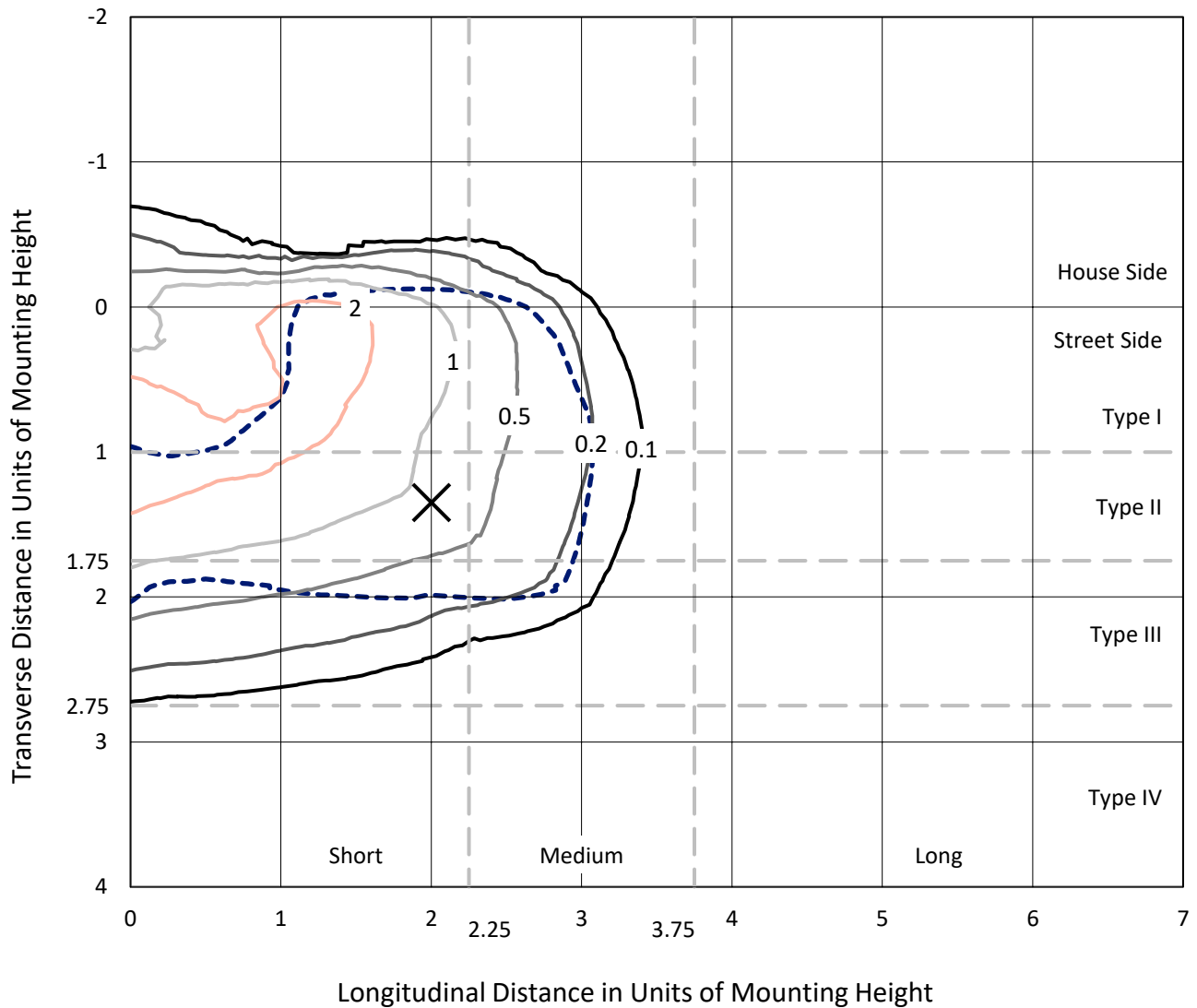
Input Watts (W): 59.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

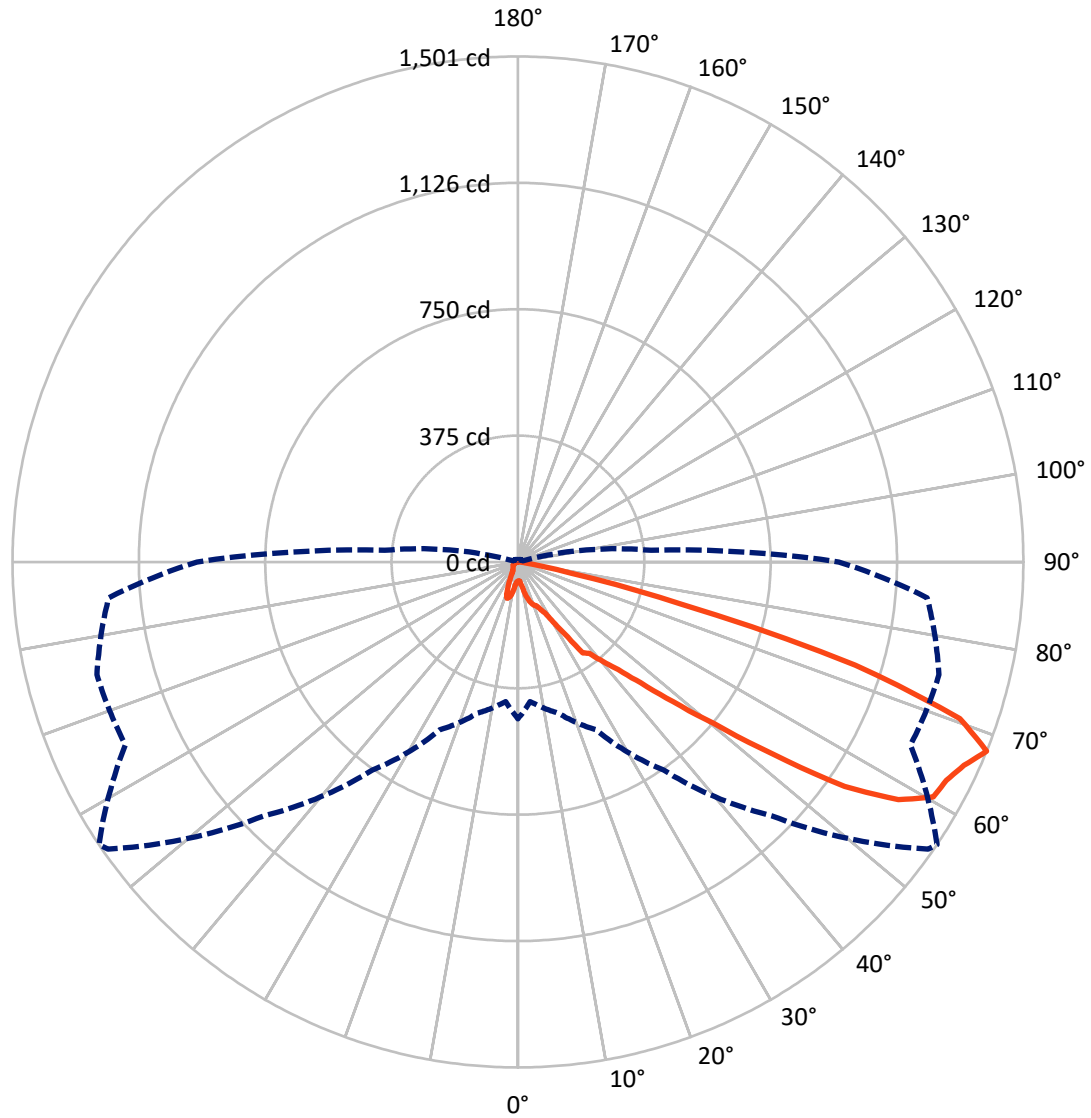
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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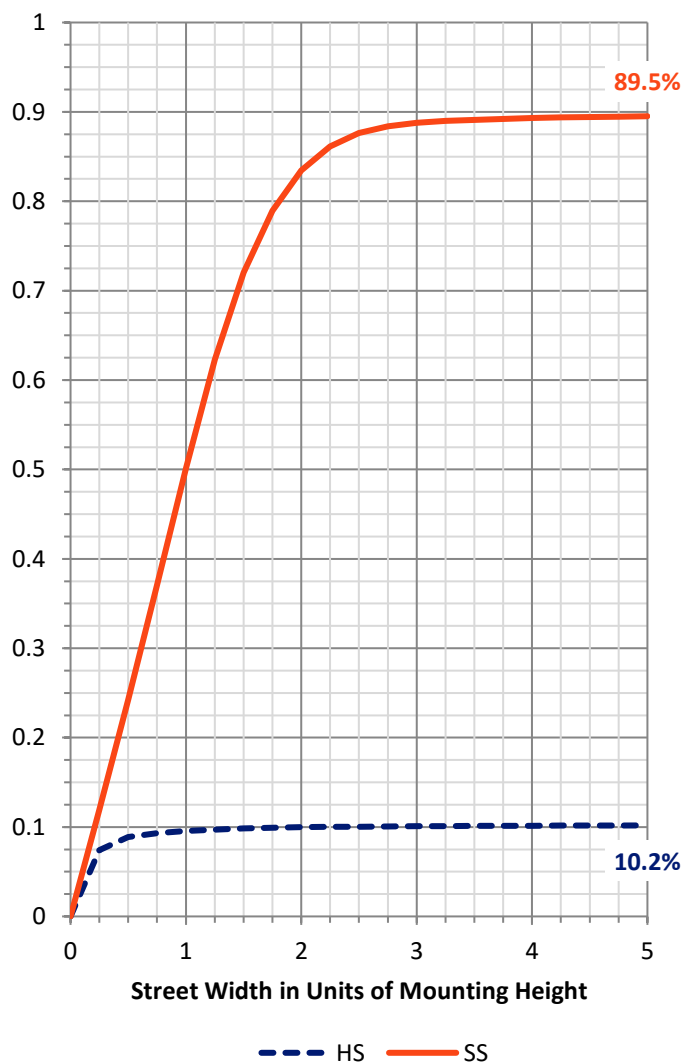
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	179.7	0.0	179.7
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	1562.3	0.0	1562.3
	% Fixture	89.7	0.0	89.7
Total	Lumens	1742.0	0.0	1742.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.1	0.4
10°-20°	29.4	1.7
20°-30°	63.9	3.7
30°-40°	135.2	7.8
40°-50°	274.2	15.7
50°-60°	525.0	30.1
60°-70°	545.7	31.3
70°-80°	153.2	8.8
80°-90°	8.4	0.5
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°	1742.0	100.0
0°-180°	1742.0	100.0

Coefficient of Utilization



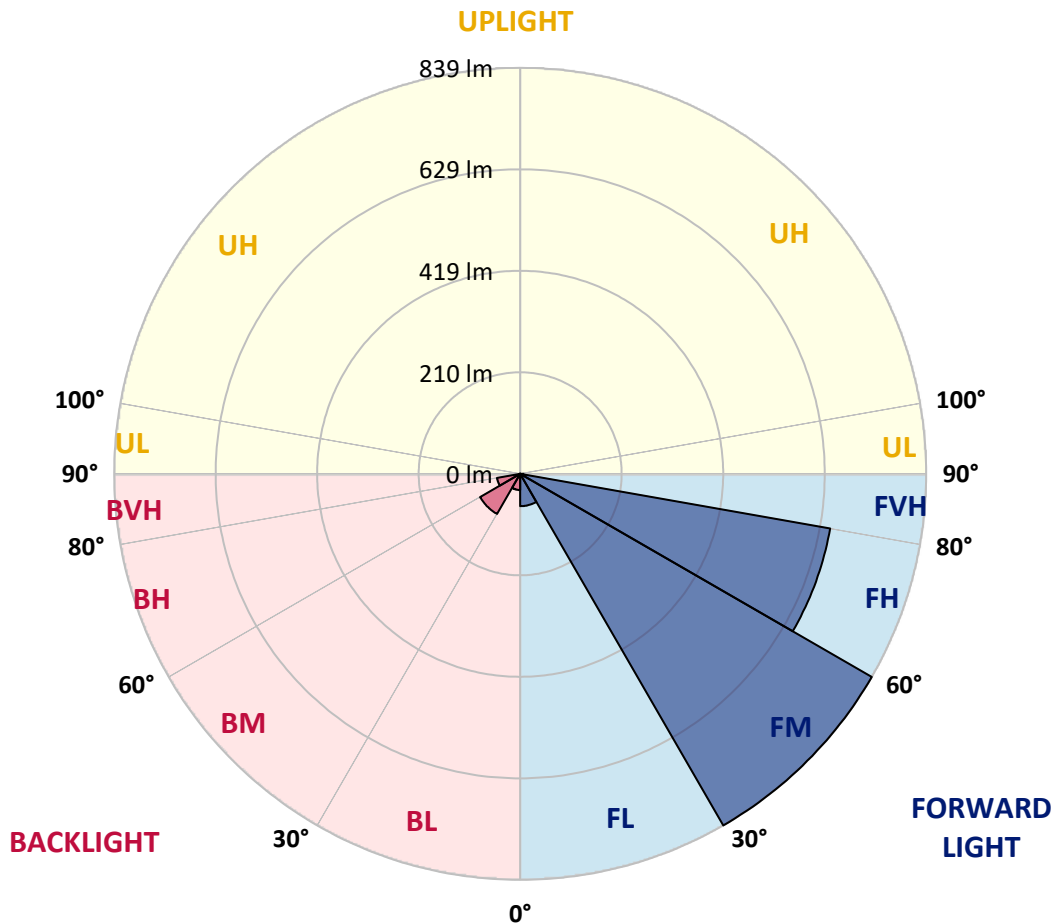
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	66.9	3.8			
FM (30°-60°)	838.7	48.1			
FH (60°-80°)	650.3	37.3			G0/660
FVH (80°-90°)	6.5	0.4			G0/10
BL (0°-30°)	33.5	1.9	B0/110		
BM (30°-60°)	95.7	5.5	B0/220		
BH (60°-80°)	48.7	2.8	B0/110		G0/110
BVH (80°-90°)	1.9	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-G0

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1
2.5°	69.4	63.1	60.7	54.3	53.5	55.9	56.7	56.7	56.7	62.3	65.5
5°	75.0	67.9	67.9	61.5	52.7	52.7	56.7	57.5	66.3	77.4	82.2
7.5°	82.2	75.8	75.0	67.1	59.9	59.9	67.1	67.1	79.8	91.8	98.2
10°	83.8	80.6	77.4	71.0	72.6	77.4	79.0	78.2	87.0	103.0	110.2
12.5°	87.0	86.2	88.6	86.2	89.4	95.8	99.0	99.8	110.2	121.3	122.1
15°	95.0	95.8	95.8	98.2	100.6	108.6	114.2	115.7	127.7	141.3	142.1
17.5°	114.2	117.3	111.8	111.8	114.2	118.9	127.7	128.5	142.1	162.0	166.8
20°	146.9	146.9	137.3	125.3	126.1	127.7	136.5	137.3	150.1	177.2	183.6
22.5°	205.2	199.6	174.0	152.5	139.7	134.9	142.1	141.3	159.7	187.6	202.0
25°	257.0	253.8	226.7	194.0	164.4	151.7	152.5	155.7	178.8	208.3	216.3
27.5°	317.7	317.7	277.0	253.0	206.8	170.0	170.8	171.6	200.4	220.3	237.9
30°	363.2	354.4	313.7	304.1	265.8	217.9	205.2	206.0	221.9	253.8	270.6
32.5°	411.1	407.9	344.1	332.9	308.9	281.8	254.6	251.5	271.4	316.9	312.1
35°	459.0	449.4	407.1	378.4	335.3	319.3	330.5	331.3	363.2	376.8	333.7
37.5°	518.9	514.1	459.8	423.1	393.5	360.8	350.4	344.1	359.2	382.4	379.2
40°	602.7	576.3	514.9	475.8	435.1	426.3	385.6	388.0	380.8	431.1	447.0
42.5°	687.3	665.8	593.9	552.4	492.5	466.2	436.7	437.4	439.0	502.1	518.1
45°	787.1	746.4	668.1	643.4	570.0	541.2	527.7	511.7	521.3	600.3	619.5
47.5°	898.0	849.4	778.3	743.2	678.5	676.1	621.0	619.5	634.6	756.8	759.9
50°	1001.0	942.7	876.5	815.0	807.0	843.8	770.3	753.6	775.1	939.6	942.0
52.5°	1056.1	981.1	926.0	912.4	953.1	965.9	966.7	945.9	960.3	1118.4	1109.6
55°	1057.7	989.8	943.5	966.7	1074.5	1113.6	1171.9	1176.6	1172.6	1275.6	1250.1
57.5°	1012.2	940.4	930.8	971.5	1100.0	1210.2	1319.5	1331.5	1314.7	1386.6	1357.8
60°	896.4	831.0	848.6	927.6	1096.0	1207.0	1402.5	1416.9	1364.2	1448.0	1449.6
62.5°	815.8	737.6	757.6	841.4	1043.3	1196.6	1436.1	1427.3	1337.1	1441.7	1465.6
65°	676.9	612.3	625.8	737.6	952.3	1161.5	1455.2	1455.2	1273.2	1377.0	1402.5
67.5°	465.4	415.9	464.6	550.0	754.4	1065.7	1486.4	1500.7	1286.0	1294.0	1219.7
70°	225.9	203.6	246.7	320.9	496.5	806.2	1380.2	1392.2	1163.9	1094.4	867.7
72.5°	83.8	72.6	95.0	138.1	250.7	419.9	1007.4	1047.3	881.3	759.1	450.2
75°	37.5	36.7	43.1	55.1	96.6	119.7	459.8	502.1	463.0	360.8	150.9
77.5°	27.1	25.5	29.5	38.3	48.7	47.1	139.7	162.0	152.5	95.0	36.7
80°	19.2	18.4	20.8	27.1	32.7	28.7	46.3	50.3	55.9	38.3	19.2
82.5°	10.4	10.4	14.4	20.0	20.0	16.0	23.1	23.9	27.9	23.1	10.4
85°	3.2	4.0	8.8	12.8	10.4	8.0	11.2	12.0	12.8	14.4	6.4
87.5°	0.8	1.6	4.0	4.8	4.0	2.4	4.8	4.8	4.8	5.6	4.0
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°	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1
2.5°	69.4	62.3	64.7	58.3	57.5	60.7	59.9	58.3	61.5	63.1	67.9
5°	90.2	80.6	79.0	72.6	63.1	58.3	59.9	70.2	78.2	79.8	87.0
7.5°	104.6	98.2	95.0	83.8	68.7	65.5	68.7	76.6	83.8	85.4	91.0
10°	112.6	107.8	103.8	90.2	88.6	84.6	76.6	74.2	79.8	81.4	83.0
12.5°	125.3	124.5	119.7	109.4	101.4	95.0	85.4	77.4	70.2	67.9	67.9
15°	141.3	138.9	138.1	121.3	107.8	96.6	75.8	56.7	51.1	46.3	43.9
17.5°	161.2	162.8	146.1	124.5	111.0	83.8	53.5	37.5	34.3	33.5	32.7
20°	178.8	177.2	154.1	126.1	98.2	56.7	35.1	31.1	31.9	33.5	32.7
22.5°	198.8	189.2	153.3	122.9	71.0	35.1	30.3	30.3	31.1	32.7	32.7
25°	209.9	200.4	154.9	116.5	48.7	29.5	29.5	29.5	30.3	31.1	31.1
27.5°	227.5	207.5	153.3	99.8	31.9	27.1	27.9	27.1	25.5	26.3	26.3
30°	247.5	232.3	160.5	72.6	27.1	24.7	24.7	23.9	21.6	22.4	22.4
32.5°	277.0	238.7	175.6	45.5	25.5	23.9	22.4	20.0	19.2	19.2	19.2
35°	294.6	260.2	172.4	31.9	24.7	22.4	19.2	17.6	16.8	16.8	16.8
37.5°	340.1	296.2	159.7	27.9	23.9	20.8	17.6	16.0	15.2	16.0	16.0
40°	403.1	353.6	134.9	27.1	22.4	19.2	16.0	14.4	14.4	14.4	15.2
42.5°	476.6	417.5	101.4	26.3	20.8	17.6	14.4	13.6	13.6	14.4	14.4
45°	574.0	477.4	68.7	24.7	20.0	16.8	13.6	12.8	12.8	13.6	13.6
47.5°	716.0	538.8	50.3	23.1	19.2	15.2	13.6	12.8	12.8	13.6	13.6
50°	864.5	611.5	39.1	22.4	18.4	15.2	13.6	12.8	12.8	13.6	13.6
52.5°	1001.8	649.0	32.7	20.8	17.6	14.4	13.6	12.8	12.8	13.6	13.6
55°	1116.8	657.8	28.7	20.0	16.8	14.4	13.6	12.8	12.8	12.8	12.8
57.5°	1206.2	649.0	26.3	18.4	16.0	13.6	12.8	12.0	12.0	12.0	12.0
60°	1249.3	624.2	23.1	16.8	15.2	13.6	12.0	12.0	11.2	11.2	11.2
62.5°	1217.4	581.1	20.0	15.2	13.6	12.0	11.2	10.4	9.6	9.6	8.8
65°	1132.7	512.5	17.6	13.6	12.0	11.2	10.4	9.6	8.0	8.0	7.2
67.5°	953.1	396.7	15.2	12.0	11.2	10.4	8.8	8.0	7.2	6.4	5.6
70°	644.2	251.5	13.6	11.2	9.6	8.8	8.0	8.0	7.2	6.4	5.6
72.5°	294.6	99.8	12.8	10.4	8.8	8.0	7.2	8.0	7.2	7.2	5.6
75°	93.4	32.7	11.2	9.6	8.0	6.4	7.2	7.2	6.4	5.6	4.0
77.5°	27.1	14.4	9.6	8.8	7.2	5.6	6.4	5.6	4.8	4.0	2.4
80°	12.8	8.8	7.2	6.4	5.6	3.2	4.8	4.8	4.8	4.0	2.4
82.5°	6.4	4.8	4.8	4.8	3.2	1.6	4.0	4.8	4.0	4.0	2.4
85°	4.0	4.0	4.0	4.0	3.2	0.8	3.2	4.0	4.0	4.0	2.4
87.5°	2.4	3.2	4.0	4.0	3.2	1.6	4.0	4.0	4.0	4.0	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)