

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: P596075

Luminaire Tested: **MSA-SA2A-AMB-U-T4W-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596075
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-SA2A-AMB-U-T4W-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: (32) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1315 lumens
Efficiency: N/A
Efficacy: 31.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

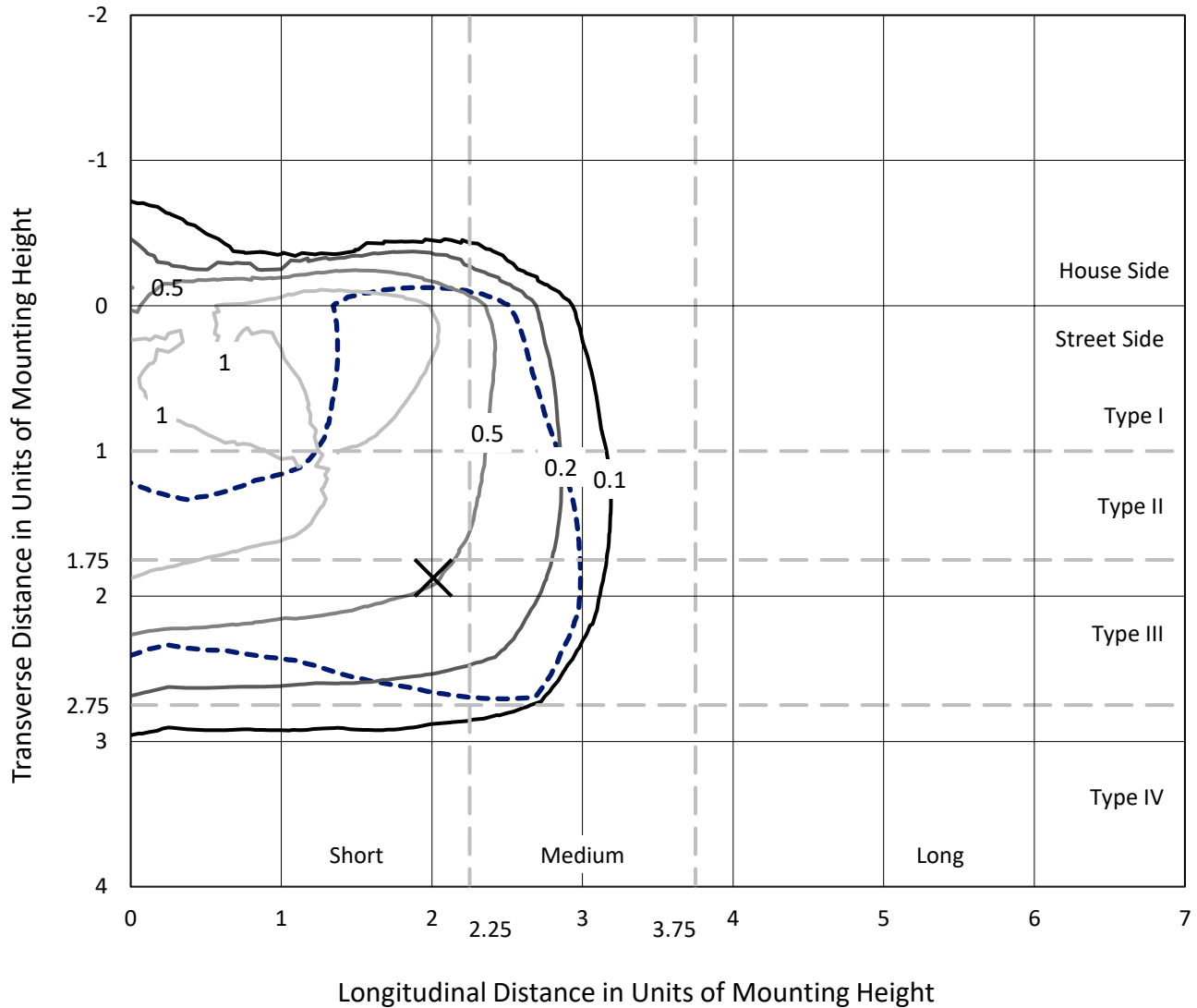
Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

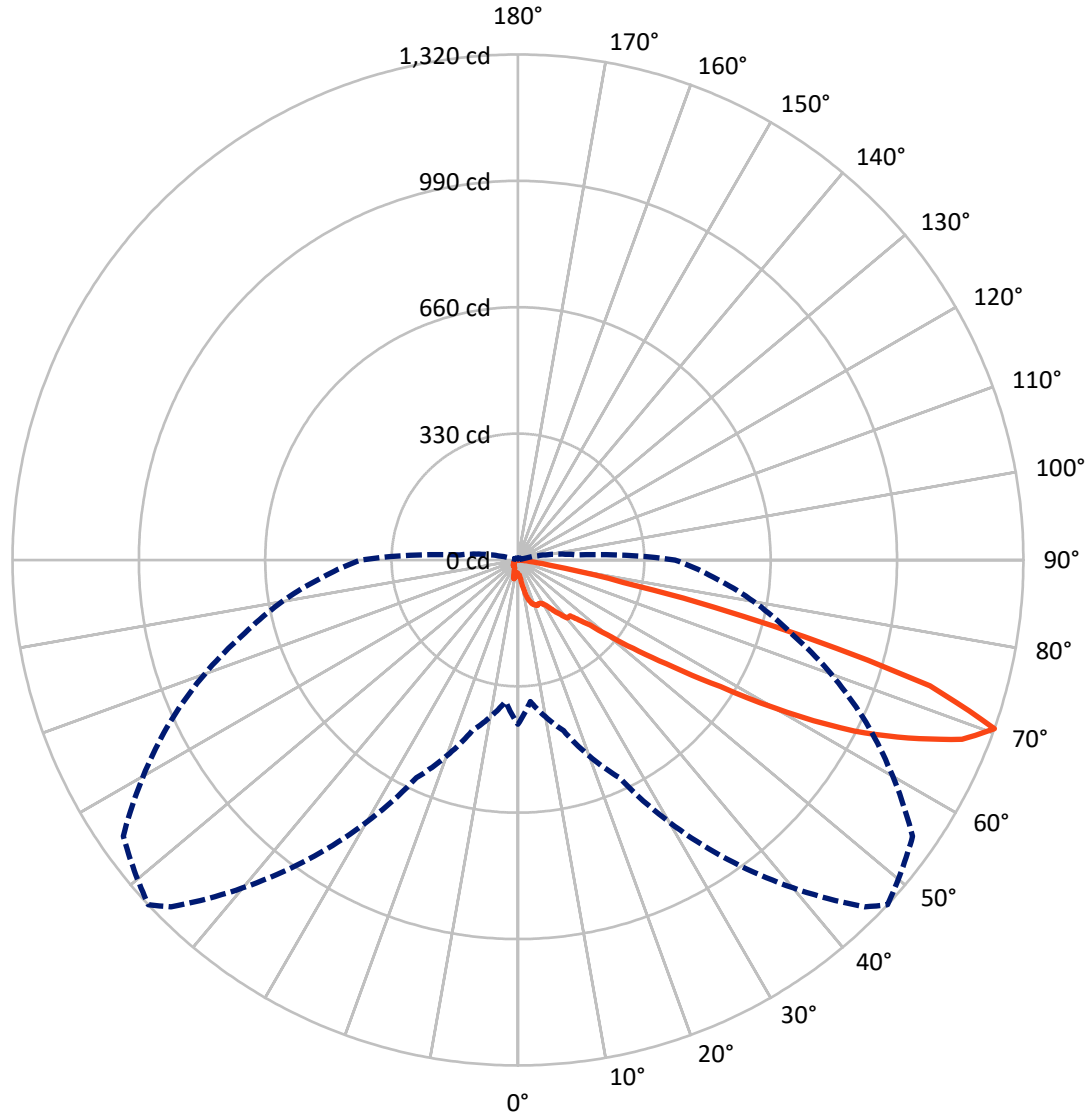
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.8 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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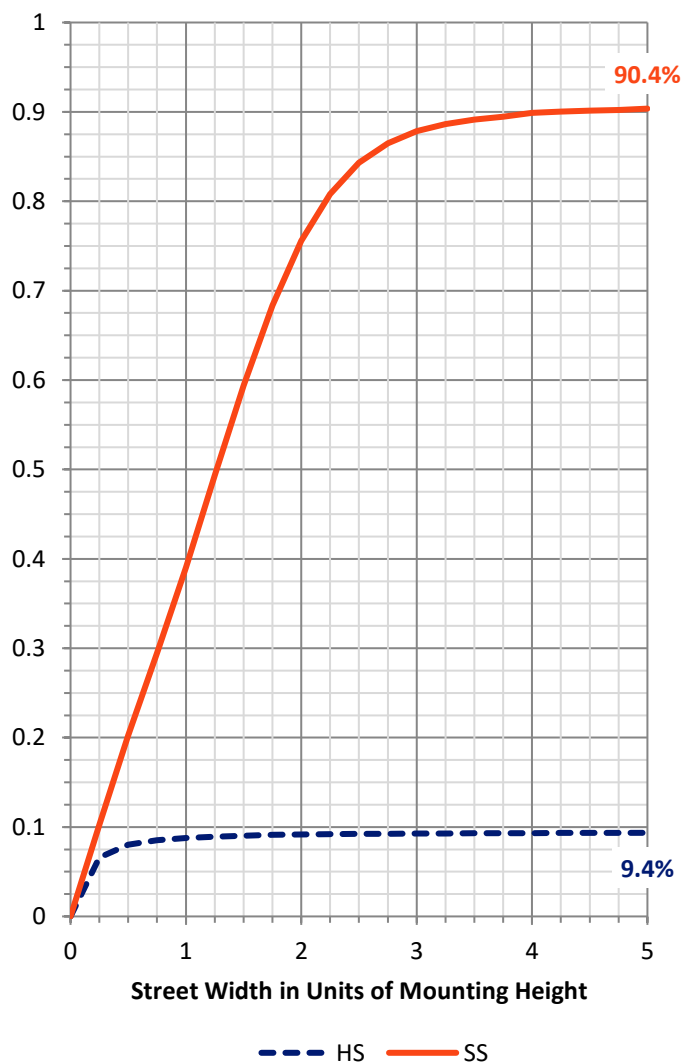
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	124.5	0.0	124.5
	% Fixture	9.5	0.0	9.5
Street Side	Lumens	1190.5	0.0	1190.5
	% Fixture	90.5	0.0	90.5
Total	Lumens	1315.0	0.0	1315.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.9	0.4
10°-20°	21.8	1.7
20°-30°	41.1	3.1
30°-40°	70.4	5.4
40°-50°	140.7	10.7
50°-60°	326.0	24.8
60°-70°	512.2	38.9
70°-80°	187.6	14.3
80°-90°	10.3	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°	1315.0	100.0
0°-180°	1315.0	100.0

Coefficient of Utilization

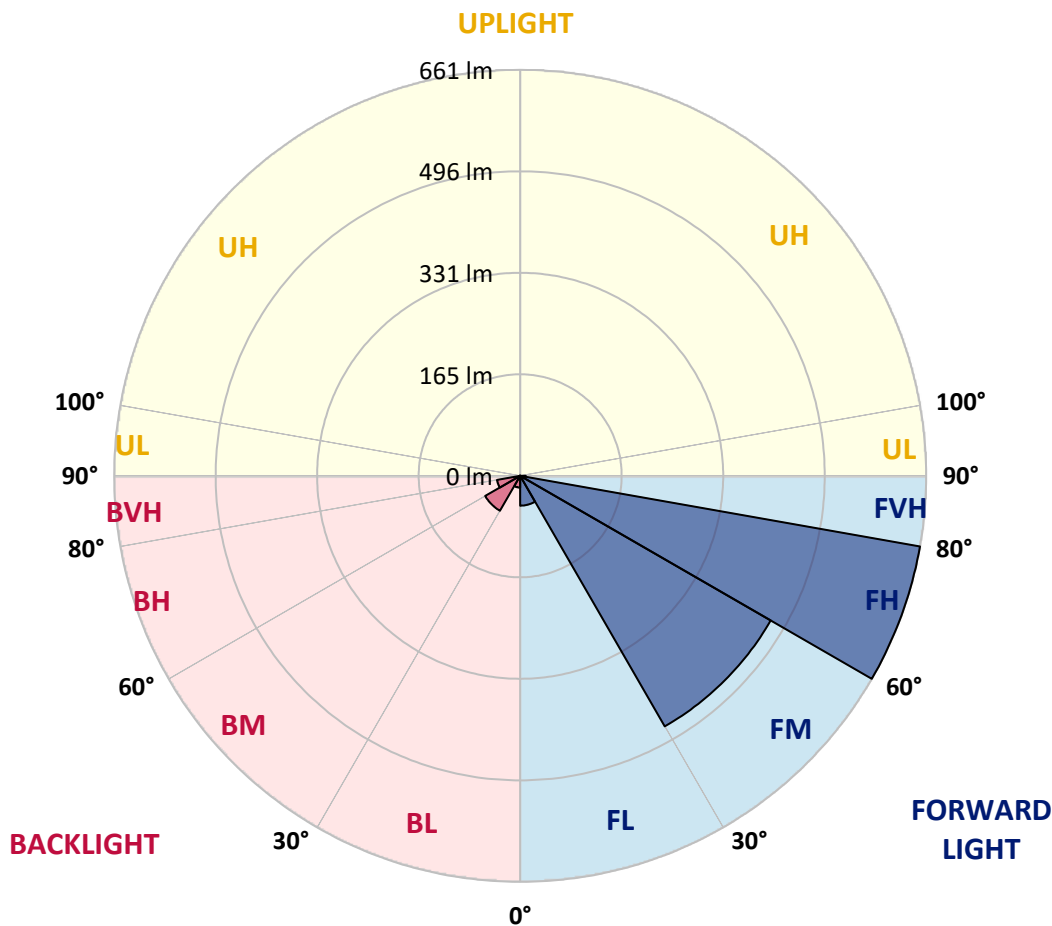


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	48.7	3.7			
FM (30°-60°)	471.3	35.8			
FH (60°-80°)	661.5	50.3			G1/1800
FVH (80°-90°)	9.0	0.7			G0/10
BL (0°-30°)	19.2	1.5	B0/110		
BM (30°-60°)	65.8	5.0	B0/220		
BH (60°-80°)	38.3	2.9	B0/110		G0/110
BVH (80°-90°)	1.2	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°	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
2.5°	50.1	44.2	44.2	40.7	40.7	40.7	41.3	39.5	37.7	40.7	41.3
5°	70.2	59.6	62.5	52.5	44.8	41.3	39.5	41.9	45.4	52.5	50.1
7.5°	92.0	82.0	79.6	67.2	56.0	51.3	50.7	54.9	58.4	62.5	60.8
10°	98.5	95.6	89.1	76.7	74.3	74.3	72.0	69.6	67.2	70.2	67.2
12.5°	103.2	103.2	107.9	97.3	98.5	95.6	95.6	91.4	87.3	82.0	74.9
15°	119.7	120.3	116.8	113.2	110.3	112.7	109.1	107.3	100.9	96.1	84.9
17.5°	131.5	133.3	125.6	123.9	122.1	122.1	119.7	118.0	111.5	109.7	100.9
20°	137.4	139.2	132.1	120.9	126.8	127.4	124.5	125.6	117.4	117.4	112.1
22.5°	143.3	140.4	128.0	122.1	124.5	126.2	129.2	126.2	120.9	122.1	126.2
25°	144.5	142.7	132.7	125.6	126.8	130.9	126.2	131.5	130.9	132.7	132.7
27.5°	149.8	146.9	129.8	133.3	129.8	128.0	128.0	133.9	139.8	135.7	141.6
30°	158.7	158.7	138.0	137.4	136.2	130.4	133.9	144.5	150.4	146.9	159.8
32.5°	181.7	177.5	155.1	142.1	144.5	148.0	146.3	151.0	164.0	169.9	176.4
35°	201.7	198.2	172.2	159.8	153.4	158.1	164.0	172.2	188.7	188.2	184.0
37.5°	240.6	232.4	193.5	171.0	175.8	180.5	181.1	201.7	211.7	194.1	207.0
40°	322.0	299.6	244.8	193.5	177.5	204.1	198.8	201.7	210.6	213.5	231.2
42.5°	414.1	389.9	320.9	245.4	192.9	189.3	199.4	201.1	231.8	244.2	257.8
45°	509.6	467.7	401.1	316.1	233.0	216.5	223.0	228.9	269.0	277.8	290.8
47.5°	570.4	536.1	484.2	397.5	294.9	261.3	254.2	265.4	309.1	334.4	349.2
50°	631.7	591.0	542.6	475.4	386.3	329.1	316.1	315.0	362.2	415.2	433.5
52.5°	721.9	683.6	608.7	562.1	503.1	401.1	395.8	392.2	451.2	524.4	565.6
55°	832.8	762.1	686.0	665.9	624.0	506.1	492.5	510.8	593.4	665.3	726.7
57.5°	894.2	834.0	793.3	773.8	760.9	645.9	623.4	656.5	751.4	809.2	917.8
60°	964.4	892.4	864.1	873.5	898.9	803.9	808.6	792.1	890.0	958.5	1116.5
62.5°	963.2	889.5	897.7	948.4	1029.2	992.1	984.4	944.3	998.6	1084.7	1252.2
65°	847.0	788.6	854.7	934.3	1118.9	1160.2	1120.7	1090.6	1083.5	1119.5	1195.6
67.5°	655.9	609.3	690.1	846.4	1107.1	1268.1	1251.0	1255.7	1144.8	997.4	929.6
70°	428.8	371.0	461.8	627.6	954.3	1281.1	1320.0	1258.1	1002.7	737.9	511.4
72.5°	184.6	180.5	245.4	386.9	674.8	1077.0	1125.4	996.8	711.9	416.4	223.0
75°	82.6	76.1	99.1	185.2	381.0	704.8	688.9	598.7	358.0	158.1	64.3
77.5°	30.7	28.9	41.3	81.4	184.6	276.6	280.8	264.2	143.9	52.5	18.3
80°	18.3	16.5	22.4	37.7	76.7	79.6	87.9	103.2	64.9	36.0	10.6
82.5°	7.7	7.7	13.0	21.2	43.1	28.3	29.5	43.1	39.5	29.5	5.9
85°	2.4	2.4	6.5	10.6	15.3	10.6	10.0	18.9	24.2	21.2	3.5
87.5°	1.2	1.2	2.4	3.5	3.5	2.4	2.9	4.7	5.9	7.1	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
2.5°	44.2	39.5	38.9	36.0	34.2	36.0	35.4	35.4	38.3	38.3	41.3
5°	54.3	48.4	46.6	41.3	36.0	33.6	35.4	40.7	44.2	45.4	49.5
7.5°	63.7	57.8	53.7	46.0	38.3	36.0	40.1	44.2	48.4	50.1	52.5
10°	66.1	61.3	56.0	48.4	46.6	45.4	41.9	40.1	41.3	40.7	42.5
12.5°	74.3	67.8	62.5	57.8	54.3	49.0	38.9	33.0	30.1	28.3	28.3
15°	80.8	76.1	72.5	64.3	57.2	40.1	29.5	24.2	23.6	24.8	24.2
17.5°	93.2	90.2	79.0	70.2	49.5	31.3	24.2	24.2	24.8	26.0	26.0
20°	105.6	100.3	87.9	69.0	38.9	24.2	23.6	23.6	24.8	27.1	26.5
22.5°	119.1	109.7	92.6	59.6	26.5	22.4	23.0	23.0	24.8	27.1	27.7
25°	128.0	120.3	98.5	49.0	21.8	21.2	21.8	23.0	24.8	27.1	27.1
27.5°	141.6	129.2	98.5	37.7	20.6	20.1	20.6	22.4	23.6	26.0	26.5
30°	150.4	151.0	99.1	27.7	20.1	18.9	20.1	20.6	21.8	24.8	25.4
32.5°	171.6	159.8	96.7	22.4	19.5	18.9	18.3	18.9	20.1	22.4	23.0
35°	181.1	181.1	86.1	21.2	19.5	18.3	17.1	17.1	17.1	18.3	18.9
37.5°	208.2	204.1	73.7	21.2	19.5	18.3	16.5	15.3	14.7	15.3	15.9
40°	237.7	228.9	59.6	20.6	19.5	18.3	15.3	13.6	11.8	12.4	13.0
42.5°	270.7	270.1	46.0	21.2	19.5	16.5	13.6	11.2	10.6	10.6	11.2
45°	317.3	300.8	34.2	21.2	19.5	15.9	11.8	10.0	9.4	10.0	10.0
47.5°	386.9	339.7	28.9	21.2	19.5	14.7	10.6	9.4	8.8	9.4	10.0
50°	485.4	392.2	26.0	20.1	18.3	14.2	10.0	9.4	8.8	9.4	10.0
52.5°	604.6	437.1	23.6	18.9	16.5	13.0	10.0	9.4	8.8	9.4	9.4
55°	755.6	484.8	21.2	17.1	14.2	11.8	10.0	8.8	8.8	8.8	8.8
57.5°	916.6	519.0	18.3	15.3	13.0	11.2	9.4	8.8	8.3	8.3	8.3
60°	1059.9	535.6	15.9	13.0	11.2	10.0	8.8	8.3	7.7	7.7	7.1
62.5°	1121.3	512.6	13.6	11.8	10.0	9.4	8.3	7.7	7.1	6.5	5.9
65°	1036.9	436.5	11.8	10.0	8.8	8.3	7.1	6.5	5.9	5.3	4.7
67.5°	778.6	299.6	10.6	8.8	8.3	7.7	6.5	5.9	5.3	4.7	4.1
70°	410.5	153.4	9.4	8.3	7.1	6.5	5.9	5.3	4.7	4.7	3.5
72.5°	165.2	57.2	8.3	7.7	6.5	5.3	5.3	5.3	4.7	4.1	3.5
75°	43.6	17.7	7.1	6.5	5.3	4.1	4.7	4.7	4.7	4.1	2.9
77.5°	14.7	8.8	6.5	5.9	4.7	3.5	4.1	3.5	3.5	2.4	1.8
80°	7.7	5.9	4.7	4.7	3.5	1.8	2.9	2.9	2.9	2.4	1.2
82.5°	4.1	3.5	2.9	3.5	2.4	1.2	2.9	2.9	2.9	2.4	1.2
85°	2.4	2.4	2.4	2.4	2.4	0.6	2.4	2.9	2.9	2.4	1.2
87.5°	1.2	2.4	2.4	2.4	2.4	1.2	2.4	2.9	2.9	2.4	1.2
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)