

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: P596071

Luminaire Tested: **MSA-SA2A-AMB-U-T3-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596071
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-SA2A-AMB-U-T3-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: (32) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1287 lumens
Efficiency: N/A
Efficacy: 31.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G0

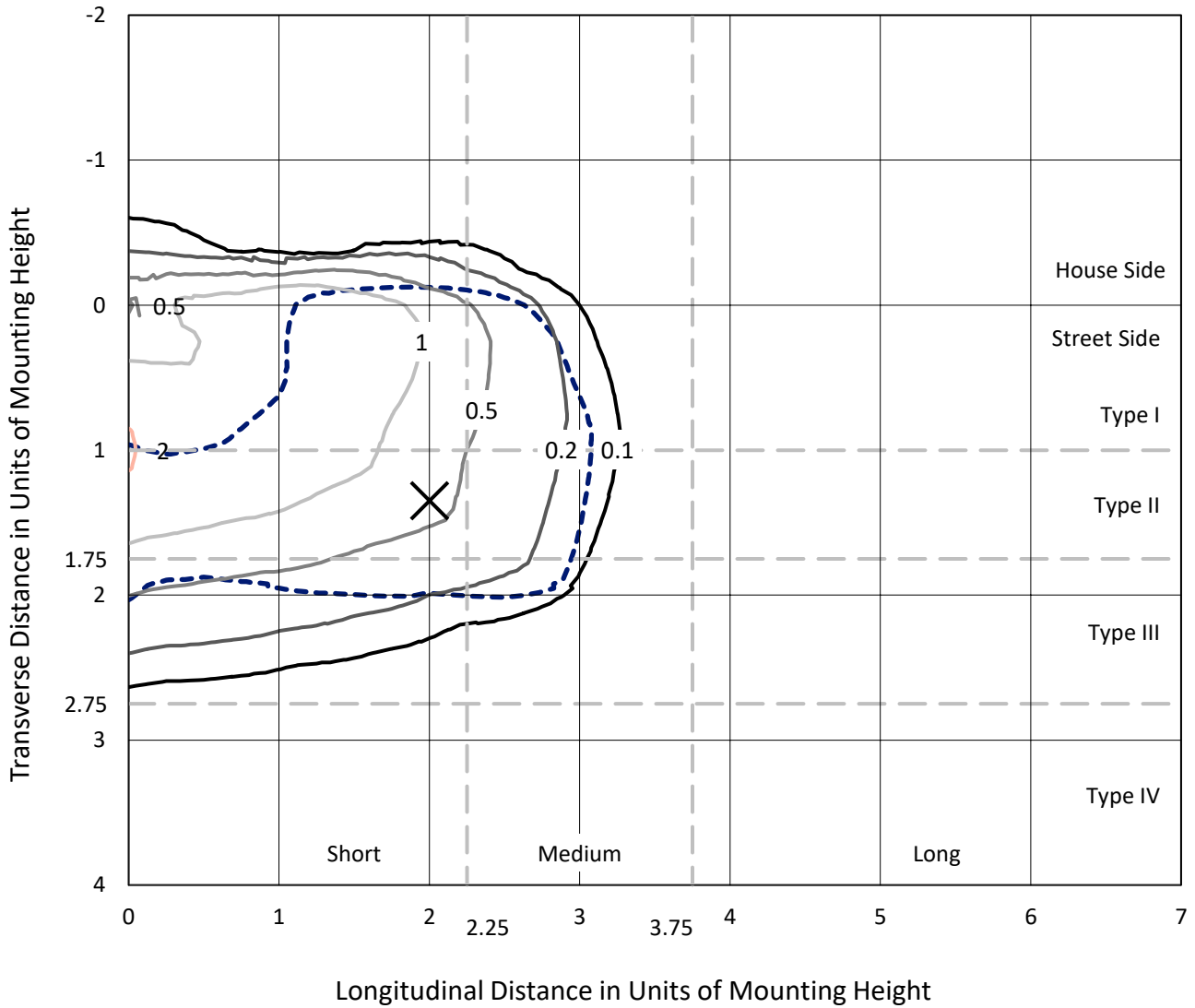
Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

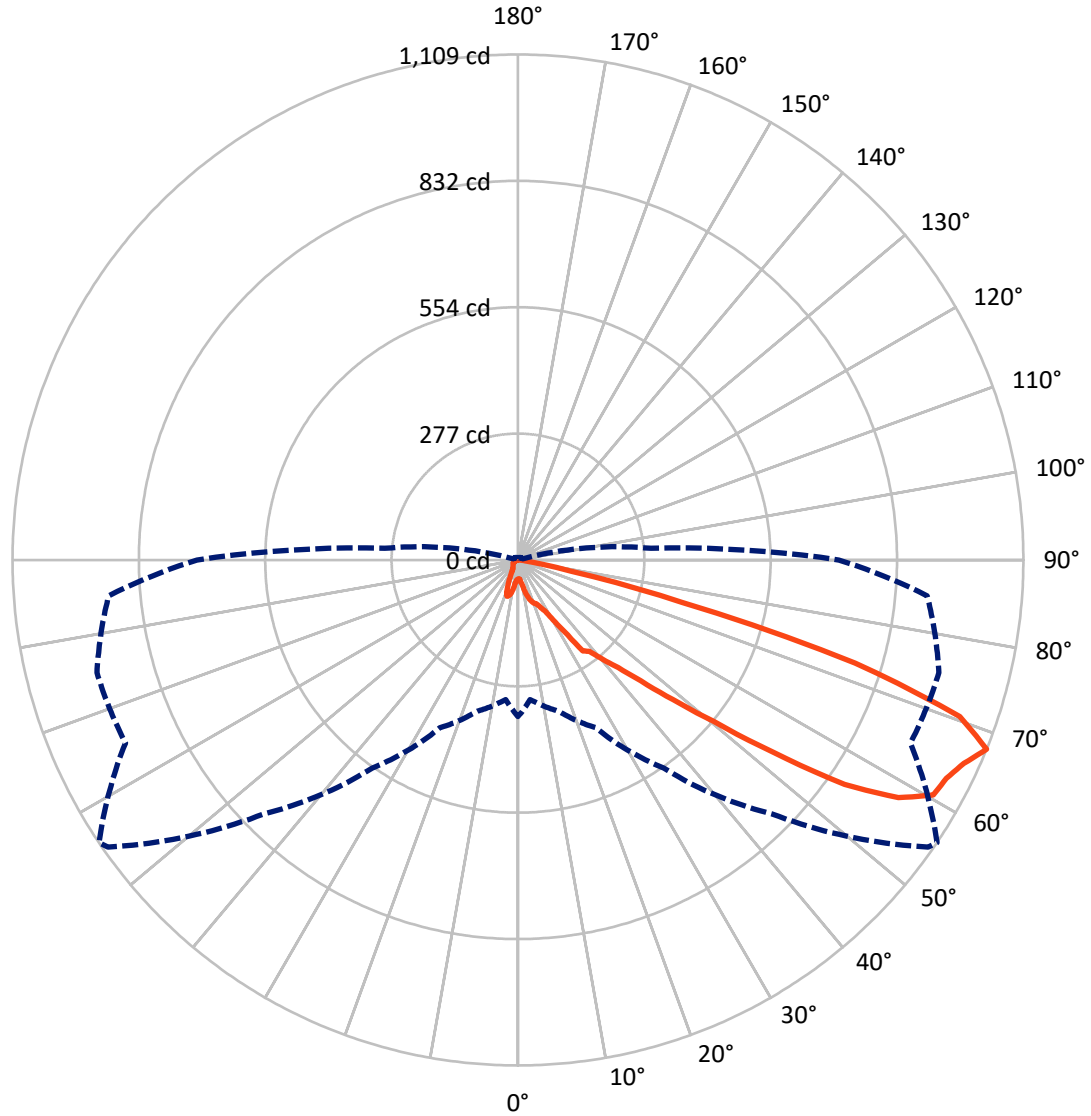
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.1 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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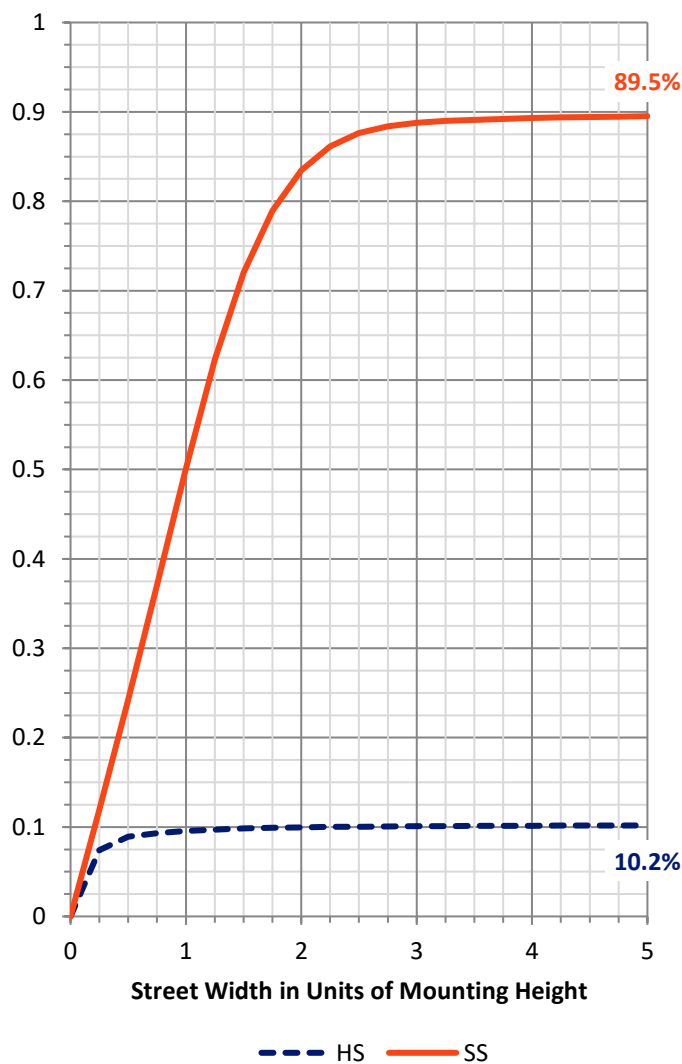
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	132.7	0.0	132.7
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	1154.3	0.0	1154.3
	% Fixture	89.7	0.0	89.7
Total	Lumens	1287.0	0.0	1287.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.3	0.4
10°-20°	21.7	1.7
20°-30°	47.2	3.7
30°-40°	99.9	7.8
40°-50°	202.6	15.7
50°-60°	387.8	30.1
60°-70°	403.2	31.3
70°-80°	113.2	8.8
80°-90°	6.2	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°	1287.0	100.0
0°-180°	1287.0	100.0

Coefficient of Utilization

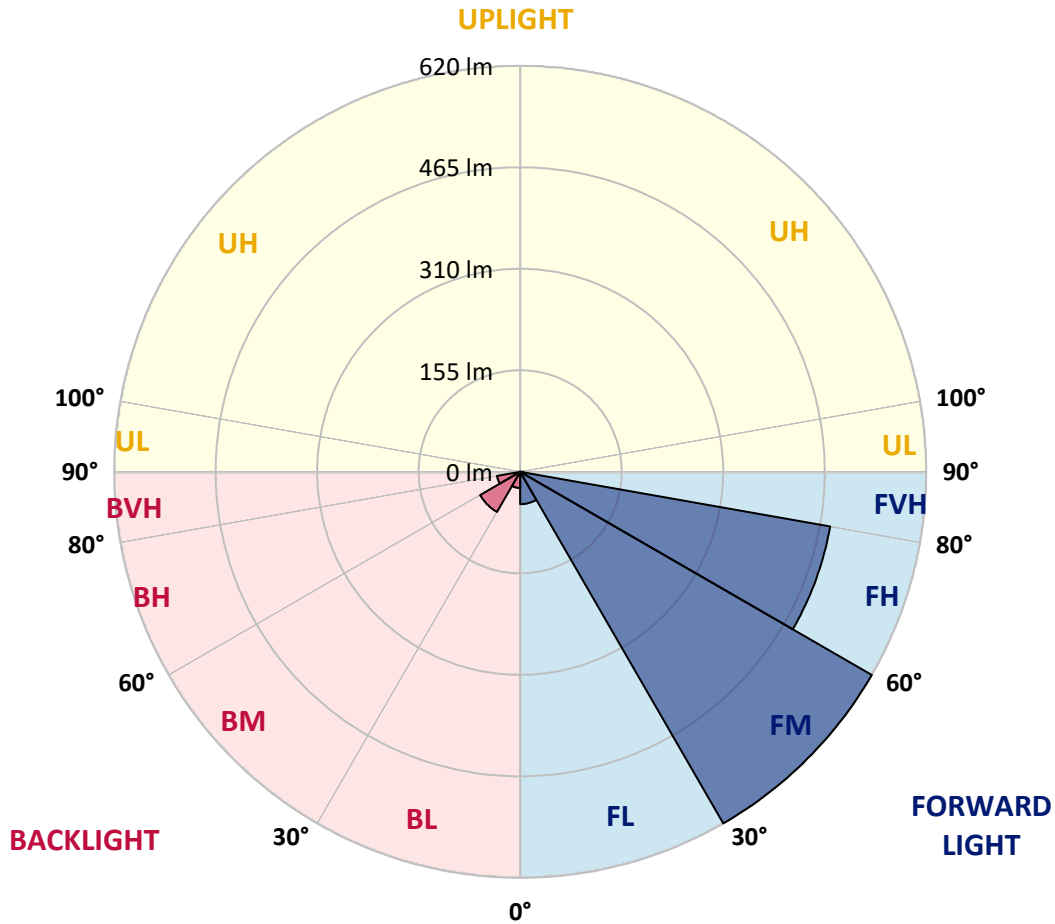


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	49.4	3.8			
FM (30°-60°)	619.6	48.1			
FH (60°-80°)	480.4	37.3			G0/660
FVH (80°-90°)	4.8	0.4			G0/10
BL (0°-30°)	24.7	1.9	B0/110		
BM (30°-60°)	70.7	5.5	B0/220		
BH (60°-80°)	35.9	2.8	B0/110		G0/110
BVH (80°-90°)	1.4	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°	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6
2.5°	51.3	46.6	44.8	40.1	39.5	41.3	41.9	41.9	41.9	46.0	48.4
5°	55.4	50.1	50.1	45.4	38.9	38.9	41.9	42.5	49.0	57.2	60.7
7.5°	60.7	56.0	55.4	49.5	44.2	44.2	49.5	49.5	59.0	67.8	72.5
10°	61.9	59.6	57.2	52.5	53.7	57.2	58.4	57.8	64.3	76.1	81.4
12.5°	64.3	63.7	65.5	63.7	66.1	70.8	73.1	73.7	81.4	89.6	90.2
15°	70.2	70.8	70.8	72.5	74.3	80.2	84.3	85.5	94.4	104.4	105.0
17.5°	84.3	86.7	82.6	82.6	84.3	87.9	94.4	95.0	105.0	119.7	123.3
20°	108.5	108.5	101.4	92.6	93.2	94.4	100.8	101.4	110.9	130.9	135.6
22.5°	151.6	147.4	128.6	112.6	103.2	99.7	105.0	104.4	118.0	138.6	149.2
25°	189.9	187.5	167.5	143.3	121.5	112.1	112.6	115.0	132.1	153.9	159.8
27.5°	234.7	234.7	204.6	187.0	152.7	125.6	126.2	126.8	148.0	162.8	175.7
30°	268.3	261.9	231.8	224.7	196.4	161.0	151.6	152.2	164.0	187.5	199.9
32.5°	303.7	301.4	254.2	245.9	228.2	208.2	188.1	185.8	200.5	234.1	230.6
35°	339.1	332.0	300.8	279.5	247.7	235.9	244.2	244.8	268.3	278.4	246.5
37.5°	383.3	379.8	339.7	312.6	290.8	266.6	258.9	254.2	265.4	282.5	280.1
40°	445.3	425.8	380.4	351.5	321.4	314.9	284.9	286.6	281.3	318.5	330.3
42.5°	507.8	491.9	438.8	408.1	363.9	344.4	322.6	323.2	324.4	371.0	382.8
45°	581.5	551.4	493.6	475.3	421.1	399.9	389.8	378.0	385.1	443.5	457.7
47.5°	663.5	627.5	575.0	549.1	501.3	499.5	458.8	457.7	468.9	559.1	561.5
50°	739.6	696.5	647.6	602.1	596.2	623.4	569.1	556.7	572.7	694.1	695.9
52.5°	780.3	724.8	684.1	674.1	704.2	713.6	714.2	698.9	709.5	826.3	819.8
55°	781.4	731.3	697.1	714.2	793.8	822.7	865.8	869.3	866.4	942.4	923.6
57.5°	747.8	694.7	687.7	717.7	812.7	894.1	974.9	983.7	971.3	1024.4	1003.2
60°	662.3	613.9	626.9	685.3	809.7	891.7	1036.2	1046.8	1007.9	1069.8	1071.0
62.5°	602.7	544.9	559.7	621.6	770.8	884.1	1061.0	1054.5	987.9	1065.1	1082.8
65°	500.1	452.3	462.4	544.9	703.6	858.1	1075.1	1075.1	940.7	1017.3	1036.2
67.5°	343.8	307.3	343.2	406.3	557.3	787.3	1098.1	1108.8	950.1	956.0	901.2
70°	166.9	150.4	182.2	237.1	366.8	595.7	1019.7	1028.5	859.9	808.6	641.1
72.5°	61.9	53.7	70.2	102.0	185.2	310.2	744.3	773.8	651.1	560.9	332.6
75°	27.7	27.1	31.8	40.7	71.4	88.5	339.7	371.0	342.1	266.6	111.5
77.5°	20.1	18.9	21.8	28.3	36.0	34.8	103.2	119.7	112.6	70.2	27.1
80°	14.2	13.6	15.3	20.1	24.2	21.2	34.2	37.2	41.3	28.3	14.2
82.5°	7.7	7.7	10.6	14.7	14.7	11.8	17.1	17.7	20.6	17.1	7.7
85°	2.4	2.9	6.5	9.4	7.7	5.9	8.3	8.8	9.4	10.6	4.7
87.5°	0.6	1.2	2.9	3.5	2.9	1.8	3.5	3.5	3.5	4.1	2.9
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°	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6	43.6
2.5°	51.3	46.0	47.8	43.1	42.5	44.8	44.2	43.1	45.4	46.6	50.1
5°	66.6	59.6	58.4	53.7	46.6	43.1	44.2	51.9	57.8	59.0	64.3
7.5°	77.3	72.5	70.2	61.9	50.7	48.4	50.7	56.6	61.9	63.1	67.2
10°	83.2	79.6	76.7	66.6	65.5	62.5	56.6	54.8	59.0	60.2	61.3
12.5°	92.6	92.0	88.5	80.8	74.9	70.2	63.1	57.2	51.9	50.1	50.1
15°	104.4	102.6	102.0	89.6	79.6	71.4	56.0	41.9	37.7	34.2	32.4
17.5°	119.1	120.3	107.9	92.0	82.0	61.9	39.5	27.7	25.4	24.8	24.2
20°	132.1	130.9	113.8	93.2	72.5	41.9	25.9	23.0	23.6	24.8	24.2
22.5°	146.9	139.8	113.2	90.8	52.5	25.9	22.4	22.4	23.0	24.2	24.2
25°	155.1	148.0	114.4	86.1	36.0	21.8	21.8	21.8	22.4	23.0	23.0
27.5°	168.1	153.3	113.2	73.7	23.6	20.1	20.6	20.1	18.9	19.5	19.5
30°	182.8	171.6	118.5	53.7	20.1	18.3	18.3	17.7	15.9	16.5	16.5
32.5°	204.6	176.3	129.7	33.6	18.9	17.7	16.5	14.7	14.2	14.2	14.2
35°	217.6	192.3	127.4	23.6	18.3	16.5	14.2	13.0	12.4	12.4	12.4
37.5°	251.2	218.8	118.0	20.6	17.7	15.3	13.0	11.8	11.2	11.8	11.8
40°	297.8	261.3	99.7	20.1	16.5	14.2	11.8	10.6	10.6	10.6	11.2
42.5°	352.1	308.4	74.9	19.5	15.3	13.0	10.6	10.0	10.0	10.6	10.6
45°	424.0	352.7	50.7	18.3	14.7	12.4	10.0	9.4	9.4	10.0	10.0
47.5°	529.0	398.1	37.2	17.1	14.2	11.2	10.0	9.4	9.4	10.0	10.0
50°	638.7	451.8	28.9	16.5	13.6	11.2	10.0	9.4	9.4	10.0	10.0
52.5°	740.2	479.5	24.2	15.3	13.0	10.6	10.0	9.4	9.4	10.0	10.0
55°	825.1	486.0	21.2	14.7	12.4	10.6	10.0	9.4	9.4	9.4	9.4
57.5°	891.1	479.5	19.5	13.6	11.8	10.0	9.4	8.8	8.8	8.8	8.8
60°	923.0	461.2	17.1	12.4	11.2	10.0	8.8	8.8	8.3	8.3	8.3
62.5°	899.4	429.3	14.7	11.2	10.0	8.8	8.3	7.7	7.1	7.1	6.5
65°	836.9	378.6	13.0	10.0	8.8	8.3	7.7	7.1	5.9	5.9	5.3
67.5°	704.2	293.1	11.2	8.8	8.3	7.7	6.5	5.9	5.3	4.7	4.1
70°	475.9	185.8	10.0	8.3	7.1	6.5	5.9	5.9	5.3	4.7	4.1
72.5°	217.6	73.7	9.4	7.7	6.5	5.9	5.3	5.9	5.3	5.3	4.1
75°	69.0	24.2	8.3	7.1	5.9	4.7	5.3	5.3	4.7	4.1	2.9
77.5°	20.1	10.6	7.1	6.5	5.3	4.1	4.7	4.1	3.5	2.9	1.8
80°	9.4	6.5	5.3	4.7	4.1	2.4	3.5	3.5	3.5	2.9	1.8
82.5°	4.7	3.5	3.5	3.5	2.4	1.2	2.9	3.5	2.9	2.9	1.8
85°	2.9	2.9	2.9	2.9	2.4	0.6	2.4	2.9	2.9	2.9	1.8
87.5°	1.8	2.4	2.9	2.9	2.4	1.2	2.9	2.9	2.9	2.9	1.8
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)