

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: P596052

Luminaire Tested: **MSA-SA1A-AMB-U-T4W-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596052
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-SA1A-AMB-U-T4W-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: (16) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 668 lumens
Efficiency: N/A
Efficacy: 32.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B0 - U0 - G0

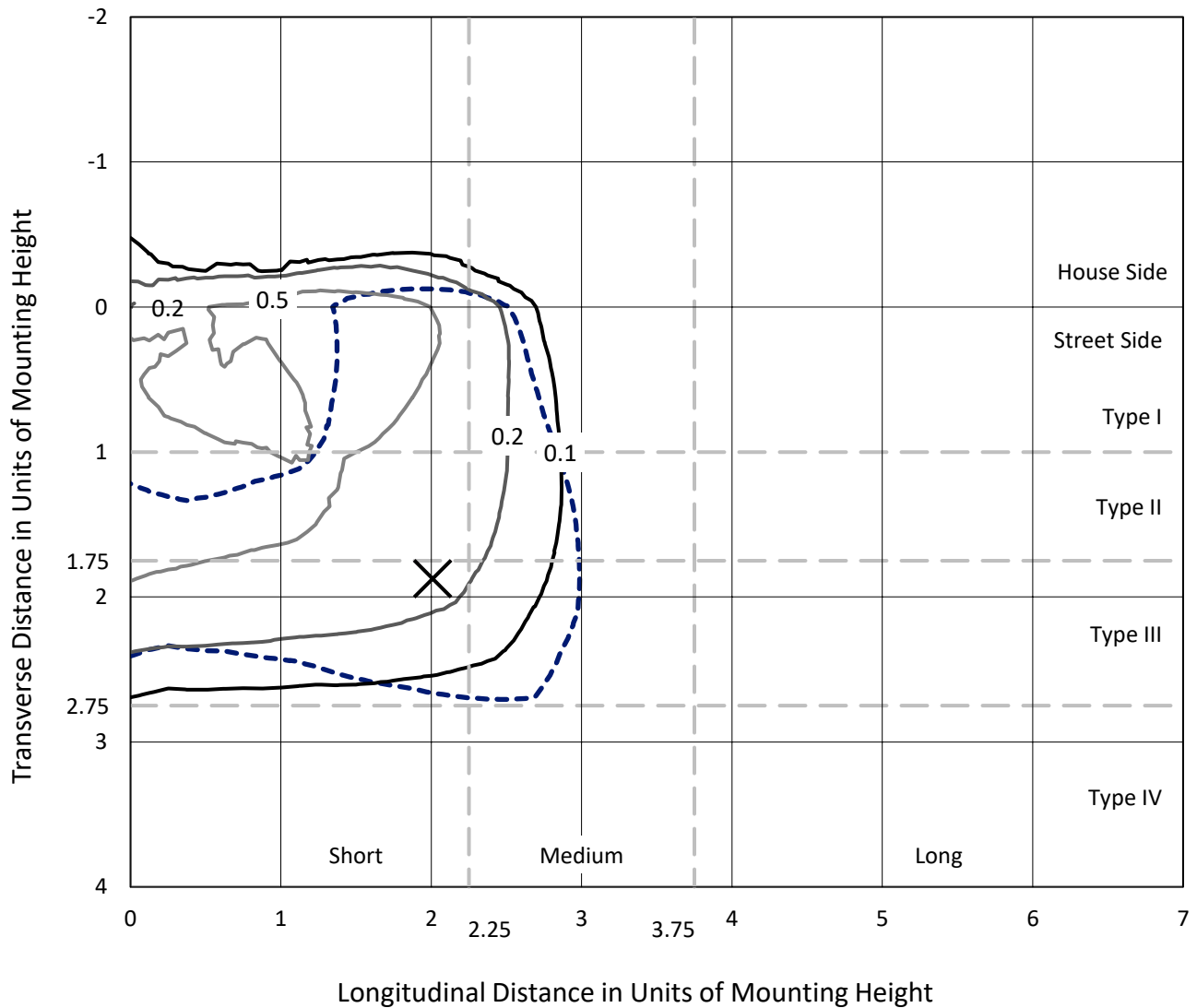
Input Watts (W): 20.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

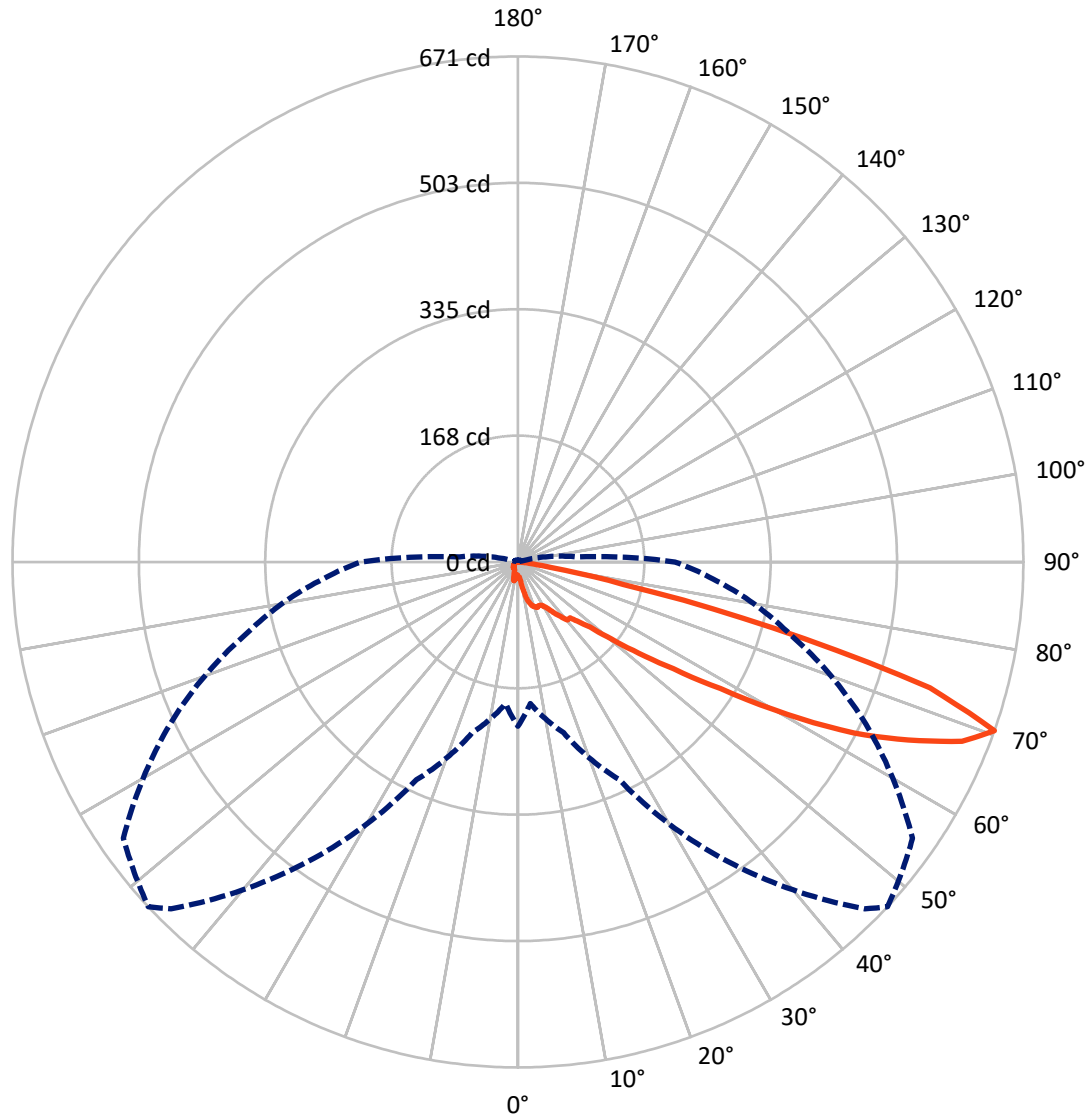
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.9 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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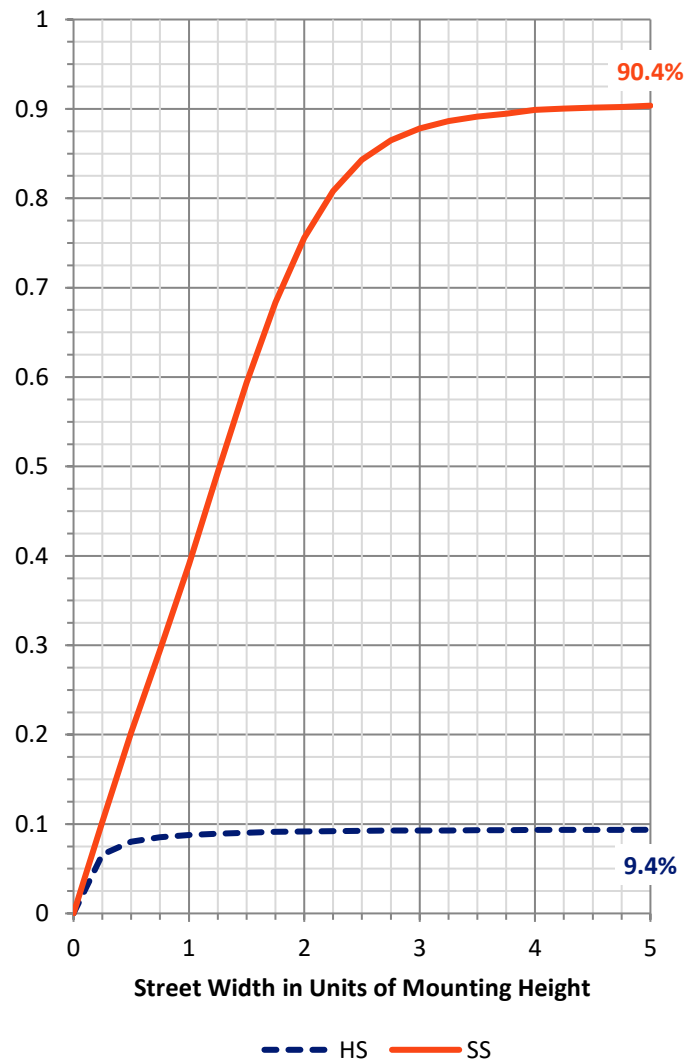
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	63.3	0.0	63.3
	% Fixture	9.5	0.0	9.5
Street Side	Lumens	604.8	0.0	604.8
	% Fixture	90.5	0.0	90.5
Total	Lumens	668.0	0.0	668.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.5	0.4
10°-20°	11.1	1.7
20°-30°	20.9	3.1
30°-40°	35.8	5.4
40°-50°	71.5	10.7
50°-60°	165.6	24.8
60°-70°	260.2	38.9
70°-80°	95.3	14.3
80°-90°	5.2	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°	668.0	100.0
0°-180°	668.0	100.0

Coefficient of Utilization



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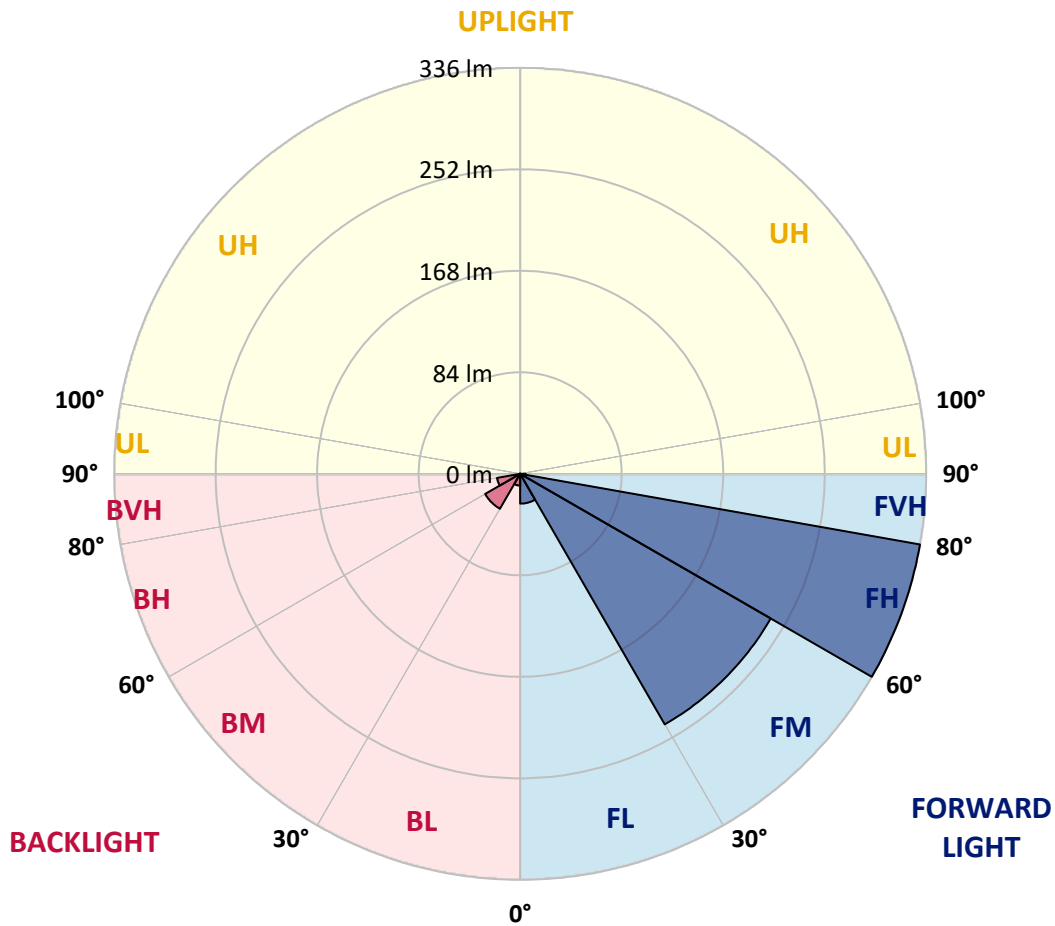
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	24.7	3.7			
FM (30°-60°)	239.4	35.8			
FH (60°-80°)	336.0	50.3			G0/660
FVH (80°-90°)	4.6	0.7			G0/10
BL (0°-30°)	9.8	1.5	B0/110		
BM (30°-60°)	33.4	5.0	B0/220		
BH (60°-80°)	19.4	2.9	B0/110		G0/110
BVH (80°-90°)	0.6	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°	47°	55°	65°	75°	85°
0°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
2.5°	25.5	22.5	22.5	20.7	20.7	20.7	21.0	20.1	19.2	20.7	21.0
5°	35.7	30.3	31.8	26.7	22.8	21.0	20.1	21.3	23.1	26.7	25.5
7.5°	46.7	41.6	40.4	34.2	28.5	26.1	25.8	27.9	29.7	31.8	30.9
10°	50.0	48.5	45.2	39.0	37.8	37.8	36.6	35.4	34.2	35.7	34.2
12.5°	52.4	52.4	54.8	49.4	50.0	48.5	48.5	46.4	44.3	41.6	38.1
15°	60.8	61.1	59.3	57.5	56.0	57.2	55.4	54.5	51.2	48.8	43.1
17.5°	66.8	67.7	63.8	62.9	62.0	62.0	60.8	59.9	56.6	55.7	51.2
20°	69.8	70.7	67.1	61.4	64.4	64.7	63.2	63.8	59.6	59.6	56.9
22.5°	72.8	71.3	65.0	62.0	63.2	64.1	65.6	64.1	61.4	62.0	64.1
25°	73.4	72.5	67.4	63.8	64.4	66.5	64.1	66.8	66.5	67.4	67.4
27.5°	76.1	74.6	65.9	67.7	65.9	65.0	65.0	68.0	71.0	68.9	71.9
30°	80.6	80.6	70.1	69.8	69.2	66.2	68.0	73.4	76.4	74.6	81.2
32.5°	92.3	90.2	78.8	72.2	73.4	75.2	74.3	76.7	83.3	86.3	89.6
35°	102.5	100.7	87.5	81.2	77.9	80.3	83.3	87.5	95.9	95.6	93.5
37.5°	122.2	118.1	98.3	86.9	89.3	91.7	92.0	102.5	107.6	98.6	105.2
40°	163.6	152.2	124.3	98.3	90.2	103.7	101.0	102.5	107.0	108.5	117.5
42.5°	210.3	198.0	163.0	124.6	98.0	96.2	101.3	102.2	117.8	124.0	130.9
45°	258.9	237.6	203.7	160.6	118.4	110.0	113.3	116.3	136.6	141.1	147.7
47.5°	289.7	272.4	246.0	201.9	149.8	132.7	129.1	134.8	157.0	169.9	177.4
50°	320.9	300.2	275.7	241.5	196.3	167.2	160.6	160.0	184.0	210.9	220.2
52.5°	366.7	347.3	309.2	285.5	255.6	203.7	201.0	199.2	229.2	266.4	287.3
55°	423.1	387.1	348.5	338.3	317.0	257.1	250.2	259.5	301.4	338.0	369.1
57.5°	454.2	423.7	403.0	393.1	386.5	328.1	316.7	333.5	381.7	411.1	466.2
60°	489.9	453.3	438.9	443.7	456.6	408.4	410.8	402.4	452.1	486.9	567.2
62.5°	489.3	451.8	456.0	481.8	522.8	504.0	500.1	479.7	507.3	551.0	636.1
65°	430.3	400.6	434.2	474.6	568.4	589.4	569.3	554.0	550.4	568.7	607.3
67.5°	333.2	309.5	350.6	430.0	562.4	644.2	635.5	637.9	581.6	506.7	472.2
70°	217.8	188.5	234.6	318.8	484.8	650.8	670.6	639.1	509.4	374.8	259.8
72.5°	93.8	91.7	124.6	196.6	342.8	547.1	571.7	506.4	361.6	211.5	113.3
75°	41.9	38.7	50.3	94.1	193.6	358.0	350.0	304.1	181.9	80.3	32.7
77.5°	15.6	14.7	21.0	41.3	93.8	140.5	142.6	134.2	73.1	26.7	9.3
80°	9.3	8.4	11.4	19.2	39.0	40.4	44.6	52.4	33.0	18.3	5.4
82.5°	3.9	3.9	6.6	10.8	21.9	14.4	15.0	21.9	20.1	15.0	3.0
85°	1.2	1.2	3.3	5.4	7.8	5.4	5.1	9.6	12.3	10.8	1.8
87.5°	0.6	0.6	1.2	1.8	1.8	1.2	1.5	2.4	3.0	3.6	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
2.5°	22.5	20.1	19.8	18.3	17.4	18.3	18.0	18.0	19.5	19.5	21.0
5°	27.6	24.6	23.7	21.0	18.3	17.1	18.0	20.7	22.5	23.1	25.2
7.5°	32.4	29.4	27.3	23.4	19.5	18.3	20.4	22.5	24.6	25.5	26.7
10°	33.6	31.2	28.5	24.6	23.7	23.1	21.3	20.4	21.0	20.7	21.6
12.5°	37.8	34.5	31.8	29.4	27.6	24.9	19.8	16.8	15.3	14.4	14.4
15°	41.0	38.7	36.9	32.7	29.1	20.4	15.0	12.3	12.0	12.6	12.3
17.5°	47.3	45.8	40.1	35.7	25.2	15.9	12.3	12.3	12.6	13.2	13.2
20°	53.6	50.9	44.6	35.1	19.8	12.3	12.0	12.0	12.6	13.8	13.5
22.5°	60.5	55.7	47.0	30.3	13.5	11.4	11.7	11.7	12.6	13.8	14.1
25°	65.0	61.1	50.0	24.9	11.1	10.8	11.1	11.7	12.6	13.8	13.8
27.5°	71.9	65.6	50.0	19.2	10.5	10.2	10.5	11.4	12.0	13.2	13.5
30°	76.4	76.7	50.3	14.1	10.2	9.6	10.2	10.5	11.1	12.6	12.9
32.5°	87.2	81.2	49.1	11.4	9.9	9.6	9.3	9.6	10.2	11.4	11.7
35°	92.0	92.0	43.7	10.8	9.9	9.3	8.7	8.7	8.7	9.3	9.6
37.5°	105.8	103.7	37.5	10.8	9.9	9.3	8.4	7.8	7.5	7.8	8.1
40°	120.7	116.3	30.3	10.5	9.9	9.3	7.8	6.9	6.0	6.3	6.6
42.5°	137.5	137.2	23.4	10.8	9.9	8.4	6.9	5.7	5.4	5.4	5.7
45°	161.2	152.8	17.4	10.8	9.9	8.1	6.0	5.1	4.8	5.1	5.1
47.5°	196.6	172.6	14.7	10.8	9.9	7.5	5.4	4.8	4.5	4.8	5.1
50°	246.6	199.2	13.2	10.2	9.3	7.2	5.1	4.8	4.5	4.8	5.1
52.5°	307.1	222.0	12.0	9.6	8.4	6.6	5.1	4.8	4.5	4.8	4.8
55°	383.8	246.3	10.8	8.7	7.2	6.0	5.1	4.5	4.5	4.5	4.5
57.5°	465.6	263.7	9.3	7.8	6.6	5.7	4.8	4.5	4.2	4.2	4.2
60°	538.4	272.1	8.1	6.6	5.7	5.1	4.5	4.2	3.9	3.9	3.6
62.5°	569.6	260.4	6.9	6.0	5.1	4.8	4.2	3.9	3.6	3.3	3.0
65°	526.7	221.7	6.0	5.1	4.5	4.2	3.6	3.3	3.0	2.7	2.4
67.5°	395.5	152.2	5.4	4.5	4.2	3.9	3.3	3.0	2.7	2.4	2.1
70°	208.5	77.9	4.8	4.2	3.6	3.3	3.0	2.7	2.4	2.4	1.8
72.5°	83.9	29.1	4.2	3.9	3.3	2.7	2.7	2.7	2.4	2.1	1.8
75°	22.2	9.0	3.6	3.3	2.7	2.1	2.4	2.4	2.4	2.1	1.5
77.5°	7.5	4.5	3.3	3.0	2.4	1.8	2.1	1.8	1.8	1.2	0.9
80°	3.9	3.0	2.4	2.4	1.8	0.9	1.5	1.5	1.5	1.2	0.6
82.5°	2.1	1.8	1.5	1.8	1.2	0.6	1.5	1.5	1.5	1.2	0.6
85°	1.2	1.2	1.2	1.2	1.2	0.3	1.2	1.5	1.5	1.2	0.6
87.5°	0.6	1.2	1.2	1.2	1.2	0.6	1.2	1.5	1.5	1.2	0.6
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)