

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: P596060

Luminaire Tested: **MSA-SA2A-AMB-U-SL3-HSS**

Issue Date: 4/29/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P596060  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-20)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 4/29/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA2A-AMB-U-SL3-HSS  
Description: POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH  
AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (32) 1549K CCT, -21.5 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1409 lumens  
Efficiency: N/A  
Efficacy: 34.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

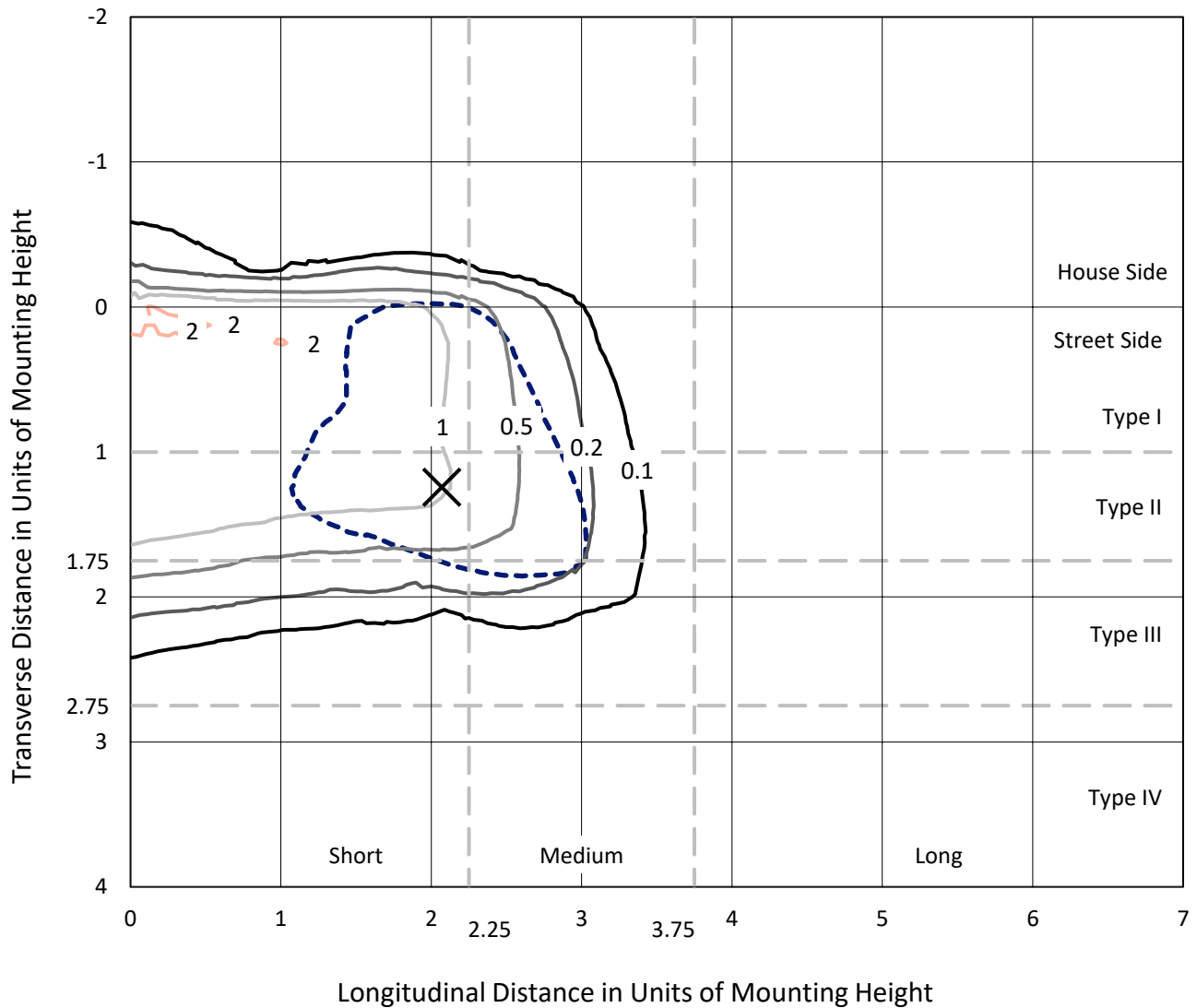
Input Watts (W): 41.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

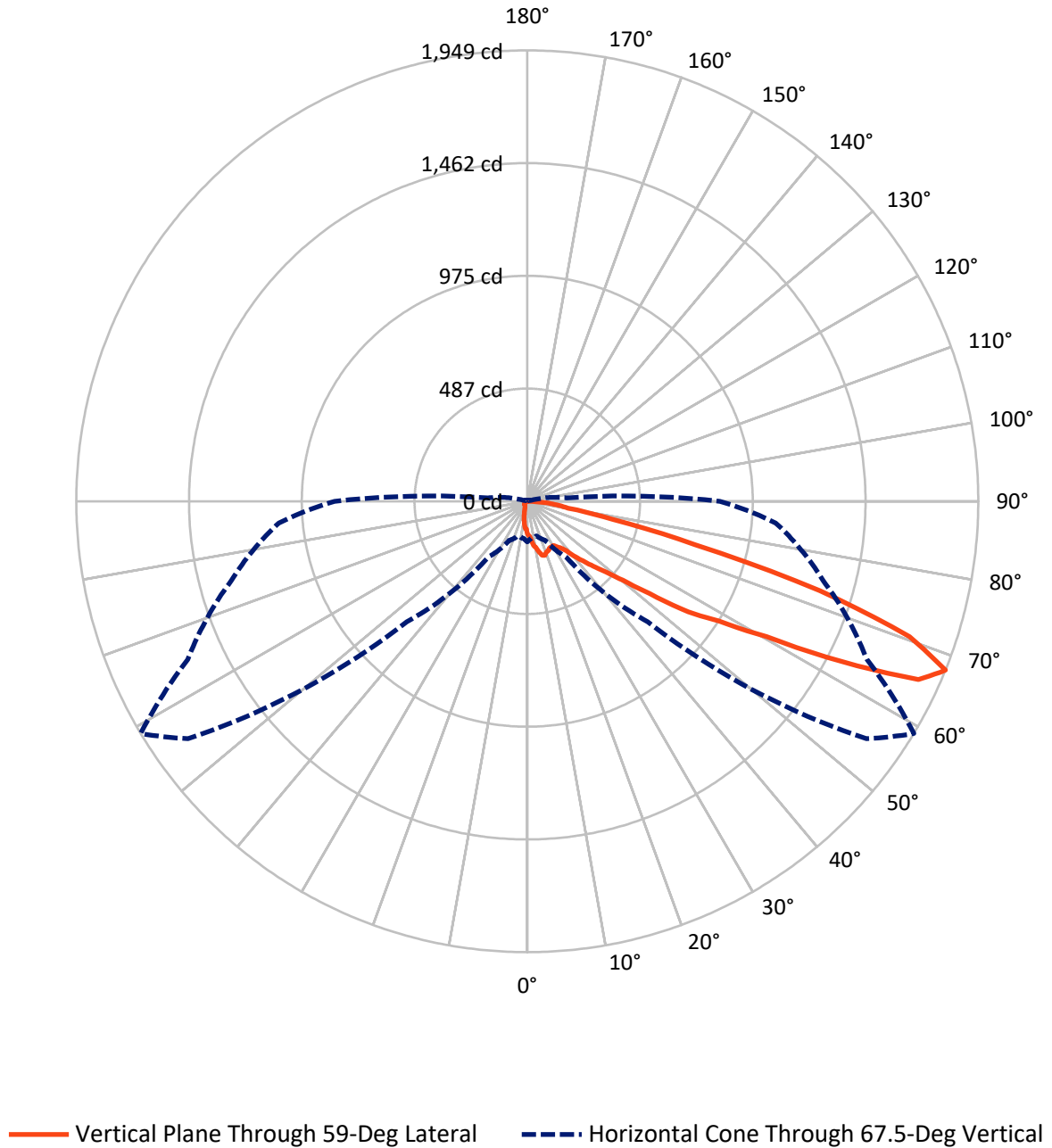
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.3 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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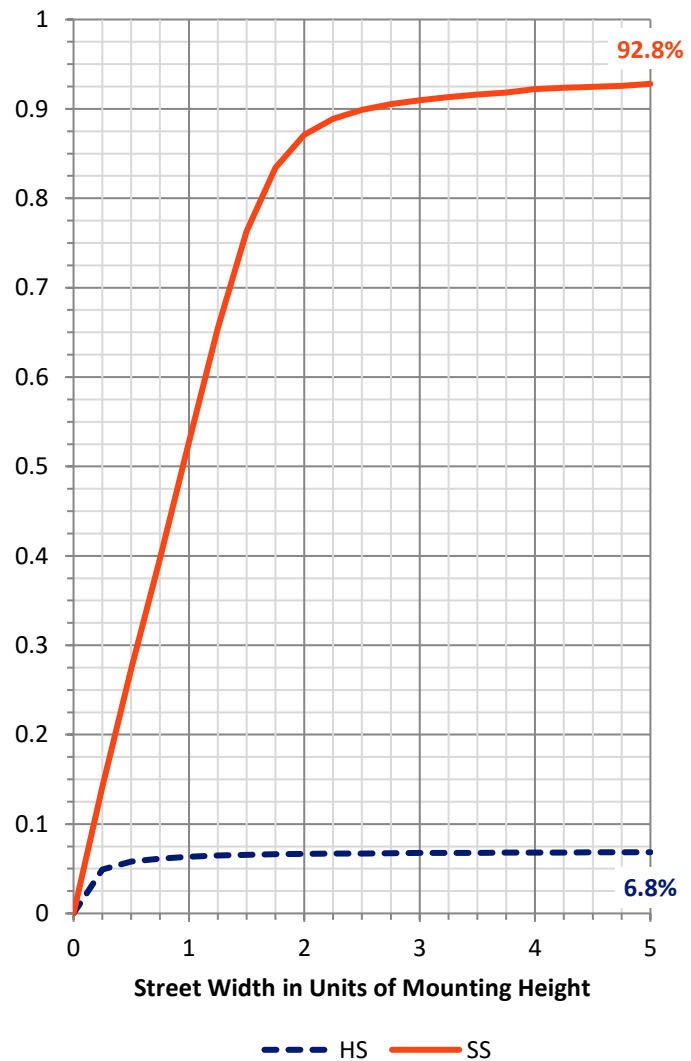
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	97.7	0.0	97.7
	% Fixture	6.9	0.0	6.9
<b>Street Side</b>	Lumens	1311.2	0.0	1311.2
	% Fixture	93.1	0.0	93.1
<b>Total</b>	Lumens	1409.0	0.0	1409.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	14.0	1.0
10°-20°	39.3	2.8
20°-30°	62.3	4.4
30°-40°	100.4	7.1
40°-50°	192.2	13.6
50°-60°	374.4	26.6
60°-70°	455.5	32.3
70°-80°	153.6	10.9
80°-90°	17.2	1.2
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°	1409.0	100.0
0°-180°	1409.0	100.0

**Coefficient of Utilization**



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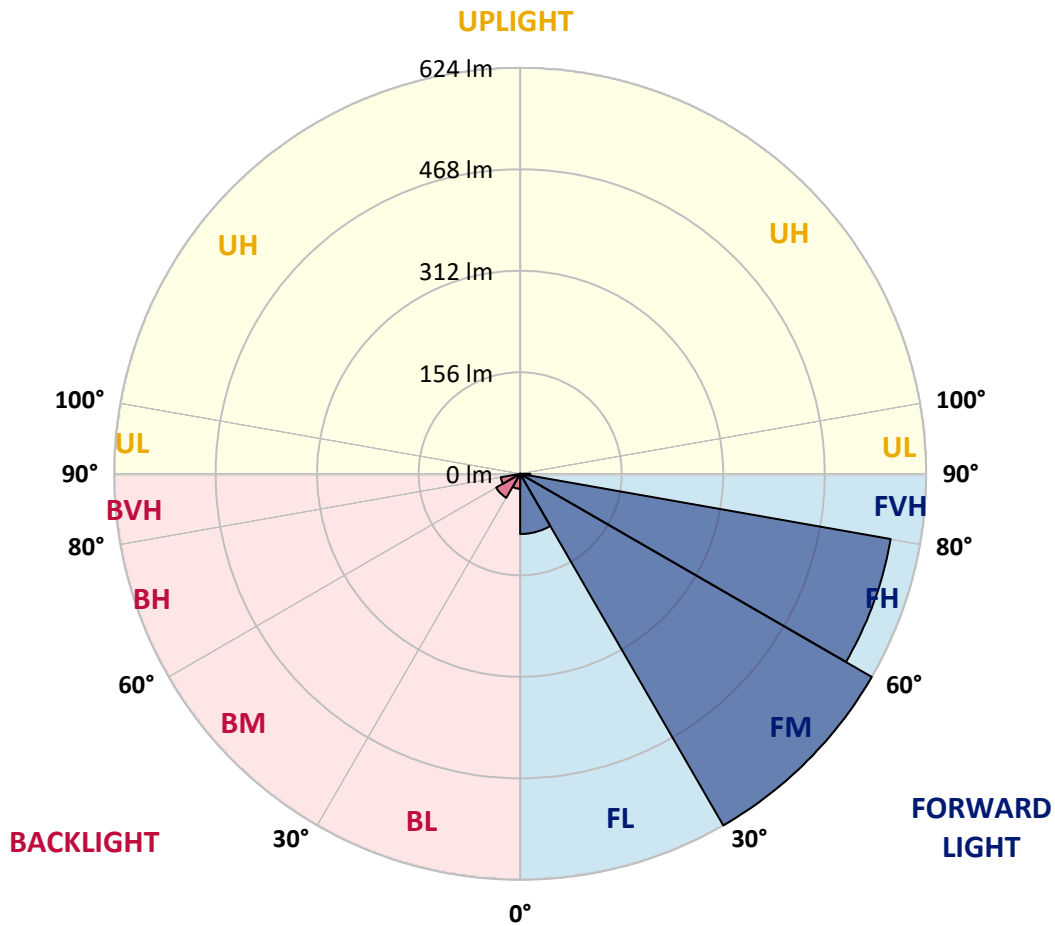
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	92.6	6.6			
FM	(30°-60°)	624.5	44.3			
FH	(60°-80°)	578.7	41.1			G0/660
FVH	(80°-90°)	15.4	1.1			G1/100
BL	(0°-30°)	23.0	1.6	B0/110		
BM	(30°-60°)	42.6	3.0	B0/220		
BH	(60°-80°)	30.4	2.2	B0/110		G0/110
BVH	(80°-90°)	1.8	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°	55°	59°	65°	75°	85°
0°	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2
2.5°	205.9	178.2	168.7	149.9	152.2	156.9	155.8	148.1	148.7	155.2	158.1
5°	234.8	201.2	205.9	184.1	163.4	157.5	154.6	162.2	176.4	203.5	190.0
7.5°	237.8	218.3	220.1	198.8	168.7	166.4	185.3	192.3	209.4	218.9	207.7
10°	205.3	200.0	194.7	184.7	189.4	200.6	198.2	202.4	211.8	228.3	211.2
12.5°	182.3	184.1	198.2	190.6	207.1	222.4	229.5	224.2	237.8	239.5	217.1
15°	184.1	184.7	187.6	195.9	207.1	230.1	239.5	242.5	251.3	259.6	226.0
17.5°	191.2	192.9	190.0	197.6	211.2	227.7	240.7	245.4	253.1	276.7	245.4
20°	200.0	201.8	195.3	185.8	204.1	218.3	235.4	235.4	247.8	280.2	253.1
22.5°	218.3	212.4	196.5	187.0	191.2	201.2	221.2	231.9	243.1	279.1	267.3
25°	223.0	221.8	208.9	197.6	194.7	199.4	215.3	223.6	250.7	295.6	265.5
27.5°	240.1	236.0	208.3	211.2	198.2	190.0	211.2	223.0	253.7	290.9	271.4
30°	256.6	259.0	226.0	224.2	210.6	190.6	216.5	221.8	254.9	303.8	283.2
32.5°	286.7	284.4	251.9	235.4	220.7	216.5	214.8	234.2	253.1	325.7	300.3
35°	319.2	316.2	281.4	264.3	242.5	229.5	241.9	247.8	270.8	351.6	315.1
37.5°	377.0	365.2	324.5	297.4	283.8	266.7	275.5	268.4	305.0	390.6	361.7
40°	422.4	407.1	363.4	345.7	309.2	308.6	300.3	309.7	328.6	439.5	416.5
42.5°	467.3	451.9	410.0	395.9	357.5	332.8	330.4	352.2	372.9	499.7	470.2
45°	508.0	478.5	449.6	441.9	424.8	399.4	391.7	399.4	427.7	575.2	532.2
47.5°	546.3	518.6	497.4	489.1	480.2	508.0	461.4	456.1	485.6	655.5	611.2
50°	619.5	578.8	550.5	541.0	563.4	590.0	553.4	536.3	554.6	733.3	688.5
52.5°	729.8	679.1	647.2	624.8	650.8	660.8	717.4	662.6	651.9	813.6	782.9
55°	790.6	744.6	726.9	744.6	777.0	771.7	875.5	843.7	801.8	902.1	902.7
57.5°	773.5	725.1	723.3	763.4	862.0	945.7	1012.4	976.4	939.8	1027.7	1057.2
60°	624.8	579.4	612.4	698.5	874.4	1059.0	1246.0	1189.4	1069.6	1165.2	1217.7
62.5°	417.7	390.6	430.7	484.4	742.2	1128.0	1522.2	1526.3	1247.8	1297.4	1320.4
65°	256.1	232.5	246.0	315.1	504.4	1047.8	1731.6	1858.4	1448.4	1376.4	1283.2
67.5°	175.2	162.2	155.2	187.6	295.0	736.9	1789.4	1949.3	1619.5	1323.9	1077.9
70°	135.1	123.9	115.0	131.6	187.0	404.7	1512.7	1752.2	1475.0	1033.1	687.3
72.5°	99.7	91.4	92.0	105.0	155.8	199.4	1008.3	1322.7	1090.9	630.1	319.8
75°	65.5	61.9	72.6	90.3	139.2	149.3	500.3	749.3	622.4	268.4	94.4
77.5°	39.5	36.0	47.2	73.2	119.2	130.4	217.7	377.6	234.2	73.2	27.7
80°	19.5	17.7	24.2	52.5	95.6	116.2	146.9	178.8	95.6	23.0	15.9
82.5°	7.7	7.7	11.8	32.4	65.5	89.1	123.3	128.0	54.3	11.8	11.8
85°	1.8	2.4	5.9	15.3	32.4	38.9	90.9	84.4	28.3	7.1	8.3
87.5°	1.2	1.2	2.4	3.5	5.3	5.9	20.1	18.3	5.9	4.1	3.5
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°	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2	142.2
2.5°	165.8	139.8	142.2	123.3	115.6	116.2	115.6	116.2	125.7	126.8	135.1
5°	202.4	173.5	159.9	133.3	106.2	93.2	93.2	102.7	109.1	105.0	114.5
7.5°	211.8	188.2	159.9	121.5	85.0	71.4	70.2	66.1	65.5	62.5	66.1
10°	200.0	175.8	139.2	96.2	70.2	54.9	41.3	34.2	31.9	31.9	31.9
12.5°	203.5	175.2	128.0	80.8	53.7	36.0	27.7	23.6	23.0	22.4	23.0
15°	200.6	174.0	117.4	65.5	38.9	27.7	23.6	23.0	22.4	23.0	23.0
17.5°	208.9	181.7	103.2	50.7	30.1	24.8	23.6	23.0	23.0	23.6	23.0
20°	215.9	176.4	86.1	37.2	25.4	23.6	23.0	21.8	22.4	23.6	23.0
22.5°	225.4	171.7	67.8	30.1	23.0	21.8	21.2	20.6	21.2	22.4	22.4
25°	223.6	164.0	54.3	25.4	21.8	20.6	19.5	19.5	19.5	20.6	20.6
27.5°	224.2	152.2	41.3	23.0	20.6	18.9	18.3	17.7	17.1	17.7	17.7
30°	220.1	150.4	32.4	21.2	18.9	16.5	16.5	15.9	14.7	15.3	15.3
32.5°	233.6	131.6	28.3	20.1	17.7	15.9	14.7	13.6	13.0	13.6	13.6
35°	238.4	123.3	25.4	19.5	17.1	14.7	13.6	12.4	11.8	11.8	11.8
37.5°	266.1	113.3	23.6	18.9	16.5	14.2	12.4	11.2	11.2	11.2	11.2
40°	300.9	112.1	22.4	18.3	15.9	13.6	11.8	10.6	10.0	10.0	10.6
42.5°	345.1	113.3	22.4	17.7	14.7	12.4	10.6	10.0	9.4	9.4	9.4
45°	393.5	114.5	21.2	17.1	14.2	11.8	10.0	9.4	8.3	8.3	8.8
47.5°	439.5	120.4	20.6	16.5	13.6	11.2	9.4	8.3	7.7	7.7	7.7
50°	497.9	133.9	20.1	15.9	13.0	10.6	8.8	7.7	7.1	7.1	6.5
52.5°	587.6	154.0	18.9	15.3	12.4	10.6	8.8	7.1	6.5	5.9	5.9
55°	702.7	188.2	17.7	14.7	11.8	10.0	8.3	6.5	5.9	5.9	5.9
57.5°	848.4	231.3	16.5	13.6	11.2	9.4	7.7	6.5	5.9	5.3	4.7
60°	991.8	256.6	15.3	12.4	10.0	8.3	7.1	5.9	5.3	4.7	4.7
62.5°	1071.4	247.8	14.2	11.8	8.8	7.7	6.5	5.9	5.3	4.7	4.1
65°	1023.0	219.5	13.0	10.6	8.3	7.1	5.9	5.9	5.3	4.7	4.1
67.5°	833.1	170.5	11.2	9.4	7.7	6.5	5.3	5.3	4.7	4.1	3.5
70°	512.1	102.7	10.0	8.3	6.5	5.9	5.3	5.3	4.7	4.1	3.5
72.5°	221.8	41.9	8.8	7.7	5.9	5.3	5.3	5.3	4.7	4.7	3.5
75°	69.0	17.1	8.3	7.1	5.9	4.7	5.3	5.3	4.7	4.1	3.5
77.5°	21.8	10.6	7.1	5.9	5.3	4.7	5.3	5.3	4.1	3.5	2.4
80°	13.0	7.1	5.9	5.3	4.7	2.9	4.7	4.7	4.1	3.5	2.4
82.5°	9.4	5.3	4.7	4.1	3.5	1.8	4.1	4.1	4.1	3.5	2.4
85°	6.5	4.1	4.1	3.5	2.9	1.8	3.5	3.5	4.1	4.1	2.4
87.5°	2.4	3.5	3.5	3.5	2.9	1.8	3.5	3.5	4.1	3.5	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)