

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: P366625

Luminaire Tested: **MSA-SA1A-730-U-SL2-HSS**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P366625  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA1A-730-U-SL2-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3016 lumens  
Efficiency: N/A  
Efficacy: 88.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

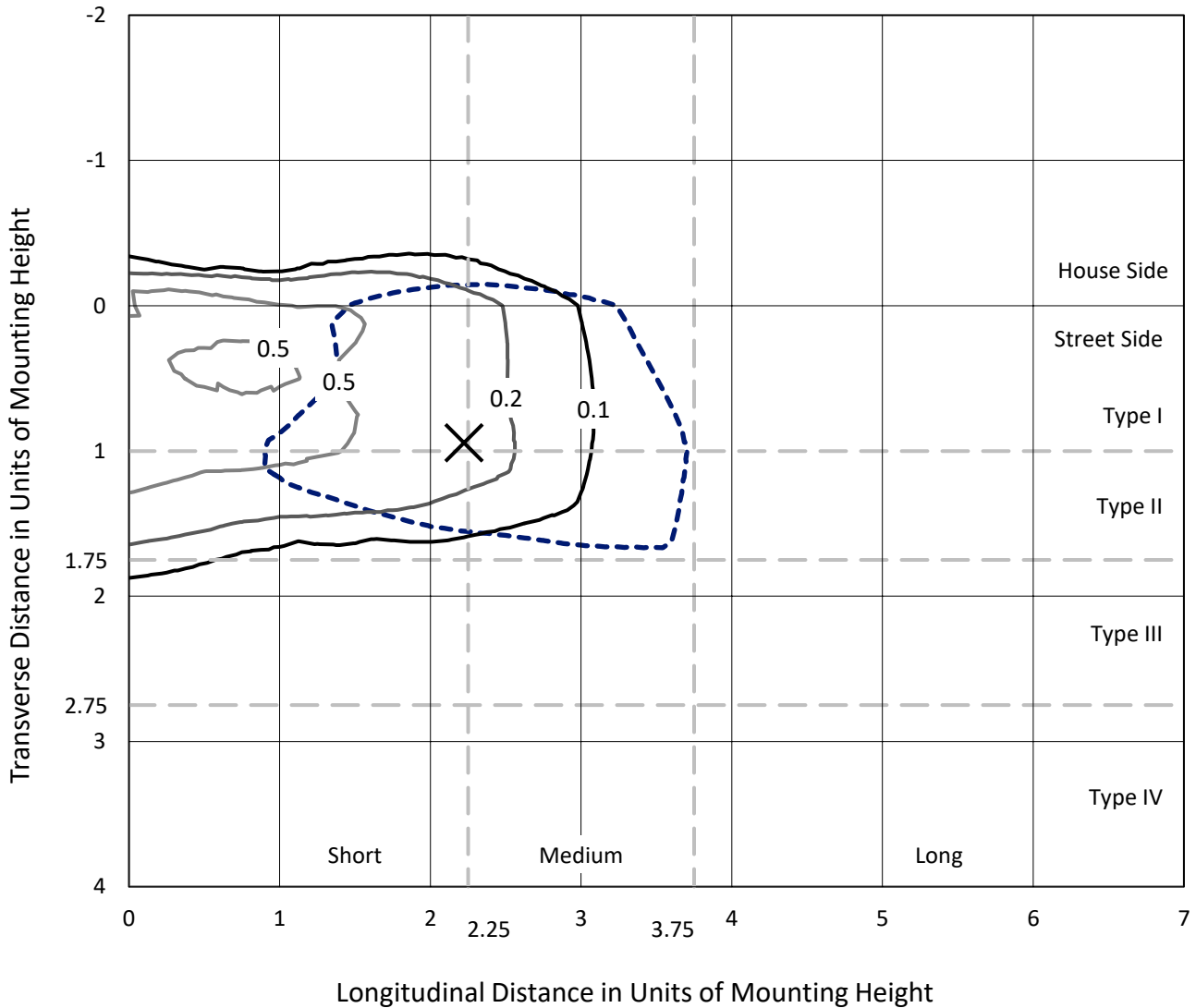
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

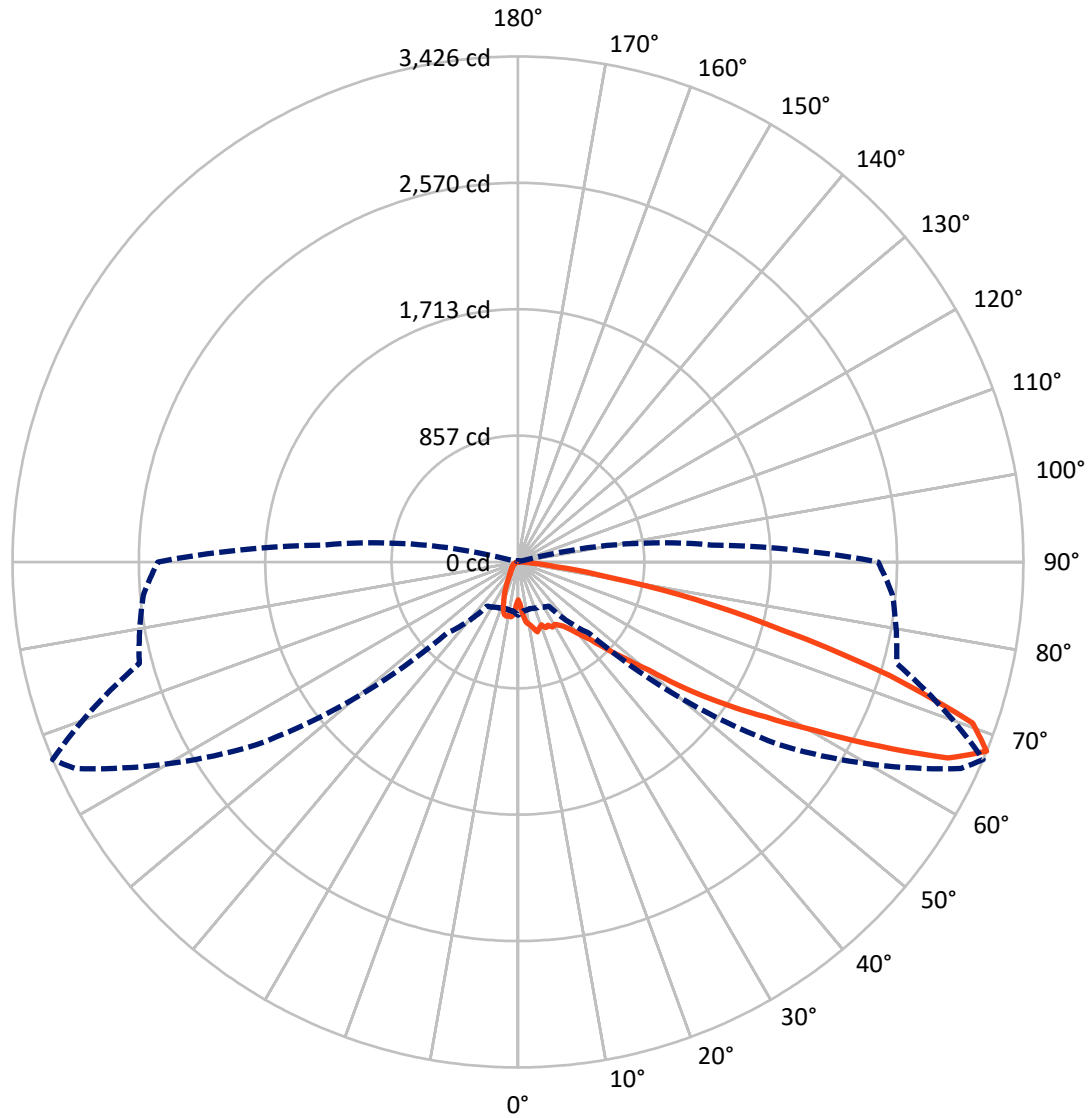
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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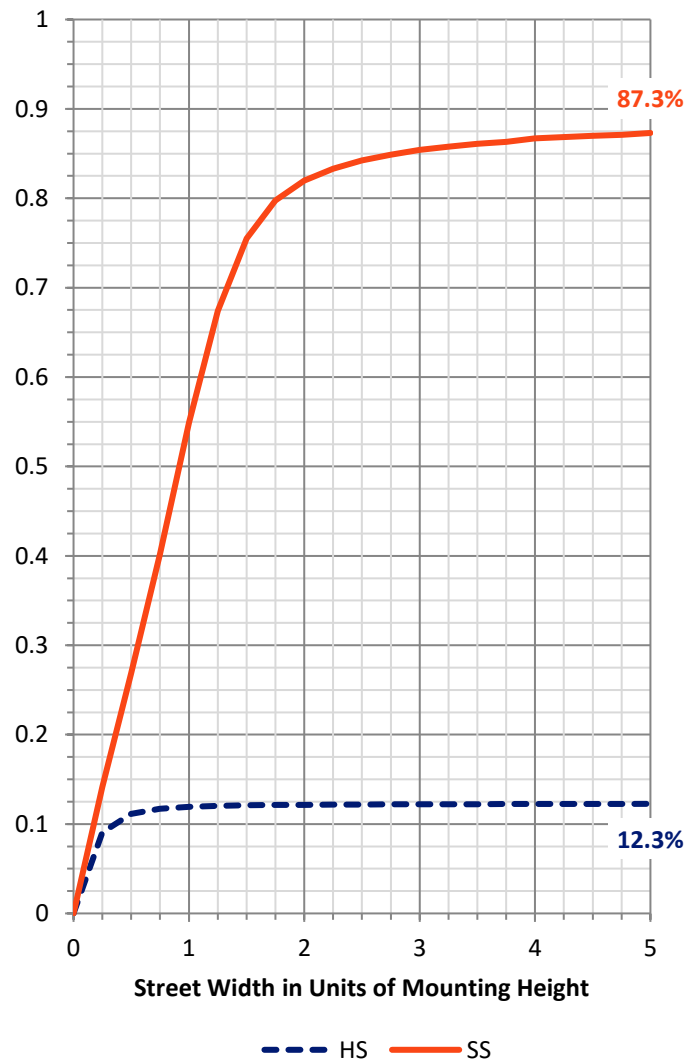
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	373.0	0.0	373.0
	% Fixture	12.4	0.0	12.4
<b>Street Side</b>	Lumens	2643.0	0.0	2643.0
	% Fixture	87.6	0.0	87.6
<b>Total</b>	Lumens	3016.0	0.0	3016.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.2	1.1
10°-20°	95.4	3.2
20°-30°	149.5	5.0
30°-40°	241.1	8.0
40°-50°	443.0	14.7
50°-60°	748.2	24.8
60°-70°	827.1	27.4
70°-80°	432.9	14.4
80°-90°	46.5	1.5
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°	3016.0	100.0
0°-180°	3016.0	100.0

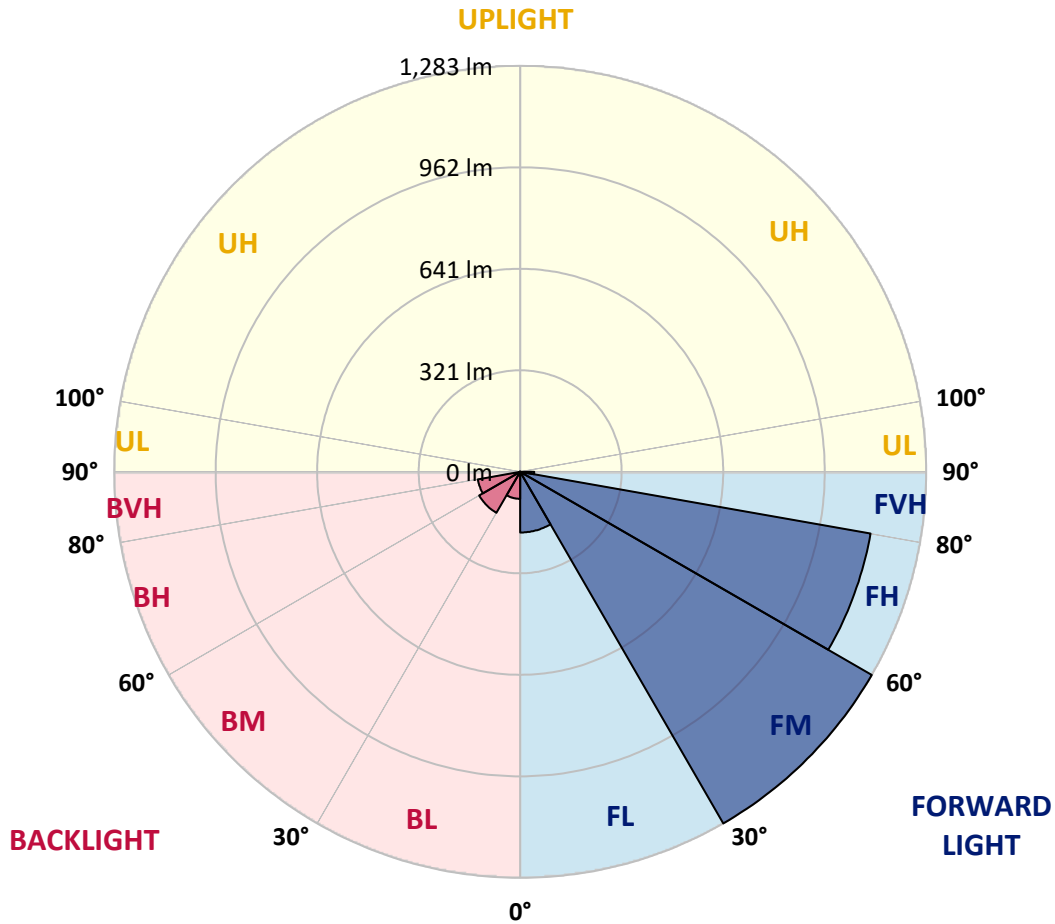


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	191.8	6.4			
FM (30°-60°)	1282.7	42.5			
FH (60°-80°)	1124.0	37.3			G1/1800
FVH (80°-90°)	44.5	1.5			G1/100
BL (0°-30°)	85.4	2.8	B0/110		
BM (30°-60°)	149.6	5.0	B0/220		
BH (60°-80°)	136.1	4.5	B1/500		G1/500
BVH (80°-90°)	2.0	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	256.9	256.9	256.9	256.9	256.9	256.9	256.9	256.9	256.9	256.9	256.9
2.5°	303.2	293.0	275.5	280.6	290.7	299.1	295.1	287.3	287.5	279.5	308.1
5°	352.8	339.0	328.9	332.5	332.0	331.7	350.5	357.7	360.8	373.9	393.4
7.5°	367.0	362.1	351.6	354.8	344.2	345.0	378.1	409.3	414.2	422.3	456.8
10°	361.5	352.0	355.9	355.9	356.0	373.2	395.3	425.2	431.1	462.4	466.0
12.5°	355.6	356.0	371.2	368.4	389.2	420.0	427.5	461.0	458.1	485.1	525.4
15°	377.7	389.4	379.6	383.4	385.4	421.5	433.6	478.1	491.0	525.2	551.4
17.5°	415.8	417.4	397.0	391.5	405.9	416.1	440.5	461.9	470.5	560.4	597.4
20°	422.7	432.5	411.9	380.0	410.5	424.6	441.5	451.8	455.5	571.3	623.5
22.5°	464.2	453.3	420.3	396.1	404.8	420.1	430.7	461.6	483.6	550.8	648.4
25°	485.5	482.5	451.0	430.4	421.5	420.3	444.5	467.9	474.9	572.0	654.5
27.5°	536.4	529.8	468.8	466.2	437.0	411.3	444.9	487.0	500.1	552.0	677.5
30°	605.7	603.3	522.0	520.3	473.8	427.6	469.7	498.8	490.8	562.3	692.8
32.5°	675.5	695.4	612.3	564.9	530.0	487.7	462.7	495.1	509.3	587.2	720.9
35°	759.8	774.2	689.5	655.1	577.6	515.9	509.3	530.1	536.2	616.9	752.9
37.5°	907.3	885.5	813.5	754.9	714.2	616.4	584.0	567.5	581.7	657.1	818.2
40°	1016.2	1002.4	913.7	878.7	785.0	727.8	643.0	627.6	643.5	698.4	863.7
42.5°	1147.6	1119.0	1035.5	1011.8	915.4	805.1	719.1	724.4	714.5	780.0	943.4
45°	1266.5	1201.9	1155.4	1160.8	1109.4	960.3	845.9	843.3	835.0	898.1	1027.2
47.5°	1346.5	1290.1	1244.8	1229.9	1223.8	1233.4	1029.2	983.0	976.9	1022.2	1159.2
50°	1389.5	1327.7	1271.7	1274.8	1399.0	1492.5	1218.3	1152.7	1155.0	1202.2	1339.8
52.5°	1360.6	1290.7	1231.6	1289.0	1534.8	1665.2	1531.3	1374.4	1427.6	1415.5	1582.0
55°	1227.0	1166.3	1124.4	1227.0	1549.7	1851.1	1916.7	1708.0	1696.1	1668.6	1828.9
57.5°	1002.3	949.9	924.1	1032.4	1387.4	2000.9	2303.8	2085.2	1983.4	1868.1	2033.9
60°	746.8	708.2	681.3	738.5	1093.1	1855.4	2557.3	2440.6	2322.8	2060.4	2218.1
62.5°	553.1	521.7	493.1	498.3	752.7	1595.7	2654.6	2817.1	2749.5	2263.4	2391.9
65°	441.4	412.8	392.7	381.3	466.2	1200.6	2519.2	3125.7	3203.7	2454.7	2517.4
67.5°	360.5	336.3	326.3	339.5	365.7	684.3	2157.5	3313.0	3426.2	2657.5	2548.3
70°	293.3	273.4	272.3	307.8	336.7	417.2	1587.0	3183.7	3268.9	2692.1	2363.0
72.5°	204.4	195.7	209.6	259.9	333.7	347.5	911.4	2634.6	2637.6	2377.7	1943.6
75°	115.7	114.3	136.3	207.3	325.0	343.9	508.1	1861.8	1863.2	1798.3	1346.5
77.5°	63.6	59.5	79.4	140.1	279.1	336.0	327.7	1271.2	1238.6	1000.7	615.0
80°	29.4	27.7	43.0	89.8	204.1	317.8	262.7	698.7	630.0	326.0	150.1
82.5°	12.1	11.5	19.7	57.7	129.0	256.0	221.4	310.0	248.8	62.0	46.4
85°	2.1	2.3	8.1	34.9	72.2	118.0	179.5	147.2	108.2	17.1	25.4
87.5°	0.0	0.0	1.7	8.4	17.4	32.3	72.8	41.2	28.3	5.0	7.5
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°	256.9	256.9	256.9	256.9	256.9	256.9	256.9	256.9	256.9	256.9	256.9
2.5°	313.8	311.2	284.9	286.1	287.9	286.3	285.9	278.6	271.9	294.1	293.8
5°	396.9	378.4	360.2	353.1	338.0	318.1	318.2	312.0	305.5	314.6	314.6
7.5°	456.1	430.5	407.4	366.3	326.2	289.9	286.7	278.1	268.4	280.1	282.4
10°	469.8	447.7	417.8	357.4	319.5	284.1	245.3	213.3	198.4	191.5	190.3
12.5°	512.2	495.7	429.0	362.1	307.5	247.7	184.1	146.1	120.3	118.3	115.5
15°	540.5	528.9	440.0	350.4	257.0	178.1	115.7	88.7	78.3	77.4	76.0
17.5°	584.4	564.2	429.5	312.9	201.0	117.5	77.7	70.1	71.3	74.0	71.9
20°	602.3	562.9	406.5	258.6	141.2	78.8	67.5	63.3	66.6	69.2	67.9
22.5°	620.7	566.8	386.2	213.1	92.3	65.2	60.1	58.0	58.3	60.9	61.0
25°	620.5	577.9	362.6	166.0	68.7	58.0	54.3	51.6	50.5	52.3	51.9
27.5°	650.7	565.2	319.6	123.2	60.4	51.9	48.3	45.0	41.2	43.0	43.0
30°	650.8	585.8	289.6	88.4	55.4	46.2	43.1	37.9	33.5	35.0	35.2
32.5°	668.1	567.9	261.9	67.6	51.4	42.8	36.1	31.4	28.8	29.7	29.7
35°	687.9	583.2	219.4	59.7	47.4	38.1	30.9	27.1	25.1	25.9	25.9
37.5°	753.0	580.0	189.9	55.5	44.8	34.4	28.2	23.9	22.9	23.4	24.0
40°	776.6	602.8	149.8	53.1	40.5	31.1	24.8	21.6	20.3	20.7	20.8
42.5°	836.6	607.8	119.6	51.1	36.7	26.9	22.0	19.7	18.2	18.2	18.7
45°	902.8	620.5	95.2	49.4	33.5	24.2	19.9	18.1	15.8	15.5	16.1
47.5°	998.8	669.2	77.6	46.1	29.7	22.5	18.4	15.6	13.8	13.2	13.8
50°	1159.2	751.8	68.5	41.9	26.9	21.1	16.2	13.3	11.9	11.2	11.6
52.5°	1385.7	894.6	63.8	38.1	24.5	19.0	14.5	11.6	10.3	9.6	9.9
55°	1637.2	1058.3	61.5	34.3	22.3	16.7	12.7	10.3	9.0	8.3	8.4
57.5°	1869.8	1212.2	59.2	30.6	20.2	14.8	11.2	9.0	7.8	7.0	7.2
60°	2098.9	1335.0	53.7	26.3	18.2	13.3	9.8	7.8	7.0	6.1	6.1
62.5°	2301.7	1408.5	45.7	22.8	16.4	11.8	8.7	7.0	6.4	5.5	5.5
65°	2439.7	1411.8	36.9	19.6	14.4	10.1	7.6	6.6	6.0	4.9	4.7
67.5°	2441.6	1320.0	29.5	17.4	12.7	8.9	6.9	6.3	5.5	4.6	4.3
70°	2185.4	1090.5	24.6	15.3	11.0	7.8	6.0	6.0	5.4	4.4	4.0
72.5°	1748.1	833.4	20.7	13.3	9.8	6.7	5.5	5.7	5.2	4.4	4.0
75°	1175.0	478.0	17.1	11.3	8.6	5.7	5.4	5.5	5.4	4.4	3.8
77.5°	541.1	152.2	13.3	9.3	7.3	4.7	5.2	5.2	4.9	4.0	3.4
80°	121.9	37.5	9.6	6.9	6.0	3.5	4.7	4.3	3.8	2.8	2.0
82.5°	44.4	11.5	5.8	4.3	3.7	1.4	3.1	3.1	2.8	2.0	1.2
85°	25.4	6.0	3.2	2.8	2.0	0.6	1.7	1.8	1.5	1.4	0.6
87.5°	8.3	1.4	1.5	1.7	1.5	0.3	0.6	0.6	0.5	0.3	0.0
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)