

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: P596831

Luminaire Tested: **MSA-SA1A-835-U-SL2-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596831  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA1A-835-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: 2731 lumens  
Efficiency: N/A  
Efficacy: 80.3 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

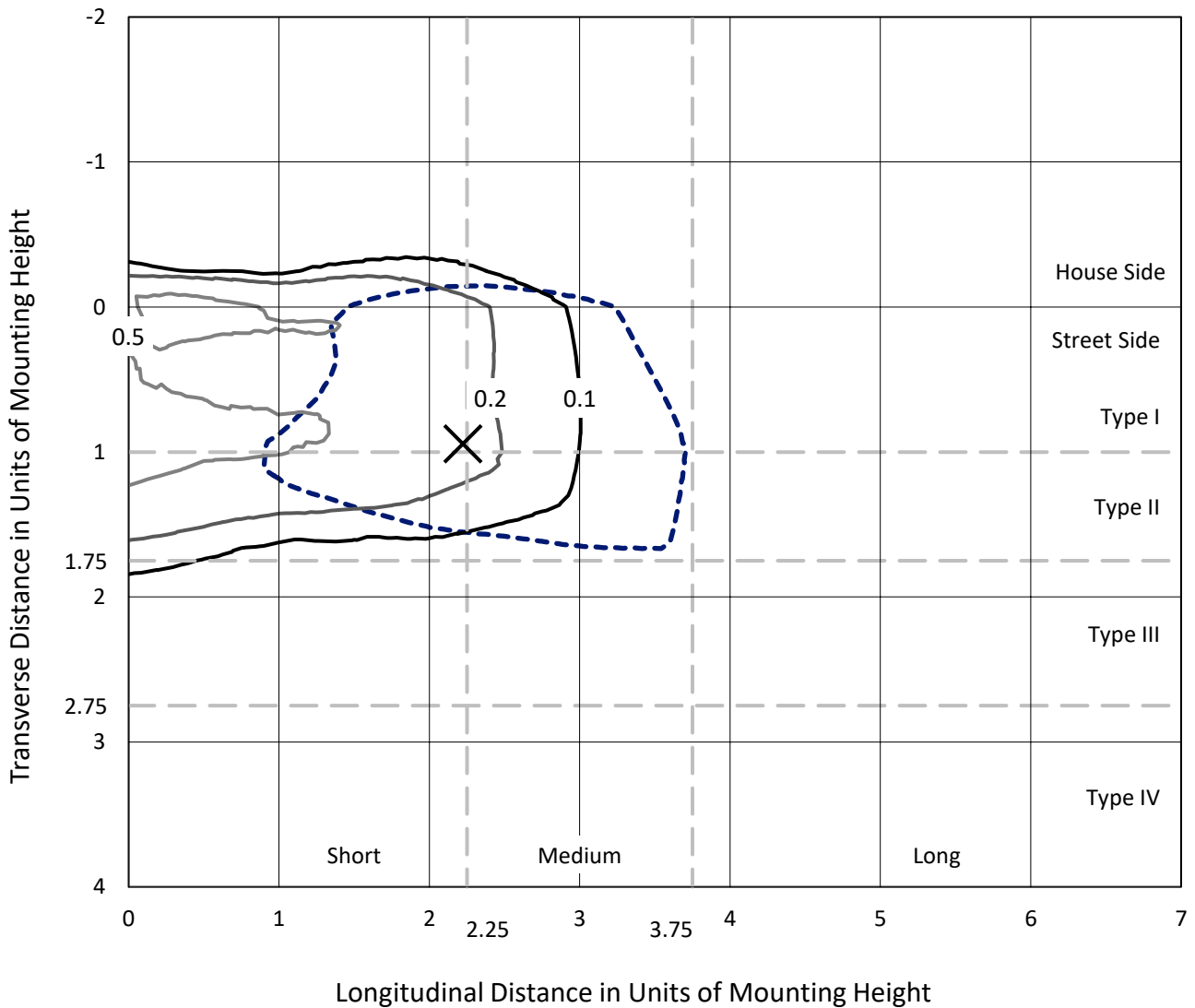
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

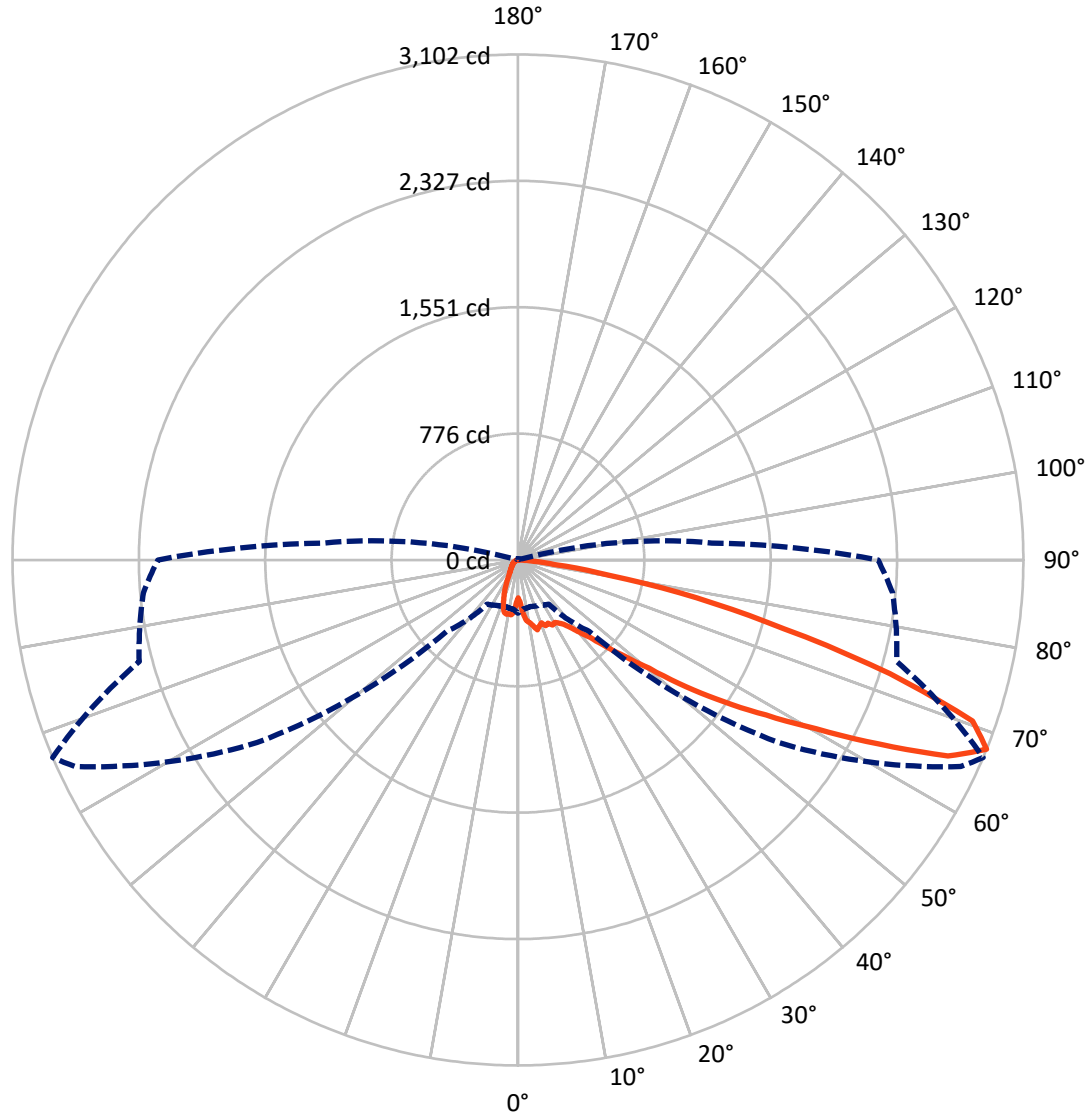
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 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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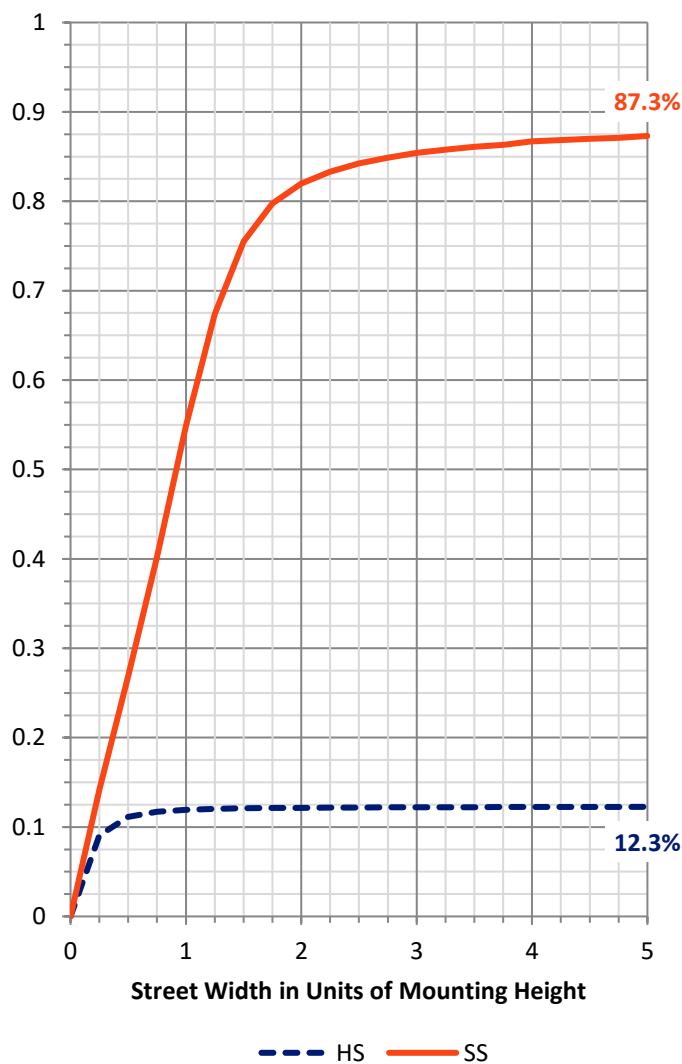
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	337.7	0.0	337.7
	% Fixture	12.4	0.0	12.4
<b>Street Side</b>	Lumens	2393.3	0.0	2393.3
	% Fixture	87.6	0.0	87.6
<b>Total</b>	Lumens	2731.0	0.0	2731.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.2	1.1
10°-20°	86.4	3.2
20°-30°	135.4	5.0
30°-40°	218.3	8.0
40°-50°	401.1	14.7
50°-60°	677.5	24.8
60°-70°	749.0	27.4
70°-80°	392.0	14.4
80°-90°	42.1	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°	2731.0	100.0
0°-180°	2731.0	100.0

**Coefficient of Utilization**

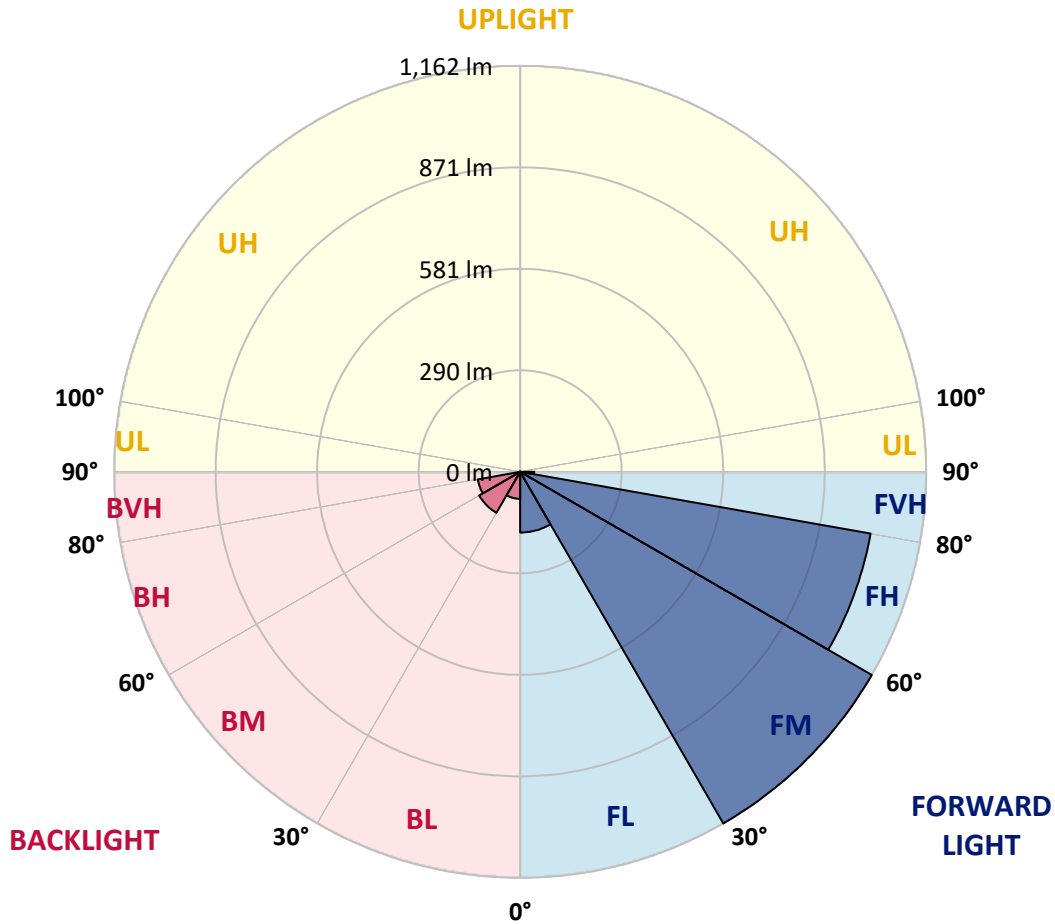


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	173.6	6.4			
FM (30°-60°)	1161.5	42.5			
FH (60°-80°)	1017.8	37.3			G1/1800
FVH (80°-90°)	40.3	1.5			G1/100
BL (0°-30°)	77.3	2.8	B0/110		
BM (30°-60°)	135.4	5.0	B0/220		
BH (60°-80°)	123.2	4.5	B1/500		G1/500
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: 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°	232.6	232.6	232.6	232.6	232.6	232.6	232.6	232.6	232.6	232.6	232.6
2.5°	274.6	265.3	249.5	254.1	263.2	270.8	267.2	260.2	260.3	253.1	279.0
5°	319.5	307.0	297.9	301.0	300.6	300.3	317.4	323.9	326.7	338.6	356.2
7.5°	332.4	327.9	318.4	321.3	311.7	312.4	342.3	370.6	375.0	382.4	413.7
10°	327.4	318.8	322.2	322.2	322.4	337.9	358.0	385.0	390.4	418.7	422.0
12.5°	322.0	322.4	336.1	333.6	352.4	380.3	387.1	417.4	414.8	439.3	475.7
15°	342.0	352.6	343.7	347.2	349.0	381.7	392.6	432.9	444.6	475.6	499.3
17.5°	376.5	377.9	359.5	354.5	367.5	376.8	398.8	418.2	426.0	507.5	541.0
20°	382.8	391.6	372.9	344.1	371.7	384.4	399.8	409.1	412.4	517.3	564.5
22.5°	420.3	410.5	380.6	358.7	366.6	380.4	390.0	418.0	437.9	498.7	587.1
25°	439.6	436.9	408.4	389.7	381.7	380.6	402.5	423.6	430.0	518.0	592.7
27.5°	485.7	479.8	424.5	422.1	395.7	372.4	402.9	441.0	452.9	499.8	613.4
30°	548.5	546.3	472.7	471.2	429.1	387.2	425.3	451.6	444.4	509.1	627.3
32.5°	611.6	629.7	554.4	511.5	479.9	441.7	418.9	448.3	461.2	531.7	652.8
35°	688.0	701.0	624.4	593.2	523.0	467.1	461.2	480.0	485.6	558.6	681.7
37.5°	821.5	801.9	736.6	683.5	646.7	558.2	528.8	513.8	526.7	595.0	740.9
40°	920.2	907.7	827.3	795.6	710.8	659.0	582.3	568.3	582.7	632.4	782.0
42.5°	1039.2	1013.3	937.6	916.1	828.9	729.0	651.1	656.0	647.0	706.3	854.2
45°	1146.8	1088.4	1046.2	1051.1	1004.5	869.6	766.0	763.6	756.1	813.2	930.1
47.5°	1219.3	1168.1	1127.1	1113.7	1108.2	1116.9	931.9	890.1	884.6	925.6	1049.7
50°	1258.2	1202.2	1151.5	1154.3	1266.8	1351.4	1103.2	1043.7	1045.8	1088.6	1213.2
52.5°	1232.0	1168.7	1115.2	1167.2	1389.8	1507.8	1386.6	1244.5	1292.7	1281.7	1432.5
55°	1111.1	1056.1	1018.1	1111.1	1403.2	1676.2	1735.6	1546.6	1535.8	1510.9	1656.1
57.5°	907.6	860.2	836.8	934.9	1256.3	1811.8	2086.1	1888.1	1796.0	1691.5	1841.7
60°	676.2	641.3	616.9	668.7	989.9	1680.0	2315.7	2210.0	2103.3	1865.7	2008.5
62.5°	500.8	472.4	446.5	451.2	681.6	1444.9	2403.8	2550.9	2489.7	2049.5	2165.9
65°	399.7	373.8	355.6	345.2	422.1	1087.1	2281.2	2830.3	2901.0	2222.7	2279.5
67.5°	326.4	304.5	295.5	307.4	331.1	619.7	1953.7	2999.9	3102.4	2406.4	2307.5
70°	265.6	247.6	246.6	278.7	304.9	377.8	1437.1	2882.8	2960.0	2437.7	2139.7
72.5°	185.1	177.2	189.8	235.4	302.2	314.6	825.3	2385.6	2388.4	2153.0	1760.0
75°	104.7	103.5	123.4	187.7	294.3	311.4	460.1	1685.9	1687.1	1628.4	1219.3
77.5°	57.6	53.9	71.9	126.9	252.7	304.2	296.7	1151.1	1121.6	906.2	556.9
80°	26.6	25.1	38.9	81.3	184.8	287.7	237.9	632.7	570.5	295.2	135.9
82.5°	10.9	10.4	17.9	52.2	116.8	231.8	200.5	280.7	225.3	56.1	42.0
85°	1.9	2.1	7.3	31.6	65.4	106.8	162.5	133.3	97.9	15.5	23.0
87.5°	0.0	0.0	1.5	7.6	15.8	29.2	65.9	37.3	25.6	4.6	6.8
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°	232.6	232.6	232.6	232.6	232.6	232.6	232.6	232.6	232.6	232.6	232.6
2.5°	284.1	281.8	258.0	259.1	260.7	259.2	258.9	252.3	246.2	266.3	266.0
5°	359.4	342.6	326.1	319.7	306.0	288.0	288.2	282.5	276.7	284.8	284.8
7.5°	413.0	389.8	368.9	331.7	295.4	262.5	259.6	251.9	243.0	253.7	255.7
10°	425.4	405.4	378.3	323.6	289.3	257.3	222.1	193.1	179.7	173.4	172.3
12.5°	463.8	448.9	388.5	327.9	278.5	224.3	166.7	132.3	108.9	107.1	104.6
15°	489.5	478.9	398.4	317.3	232.7	161.3	104.7	80.4	70.9	70.1	68.9
17.5°	529.2	510.9	388.9	283.3	182.0	106.4	70.4	63.5	64.6	67.1	65.1
20°	545.4	509.7	368.1	234.1	127.9	71.3	61.1	57.4	60.3	62.6	61.5
22.5°	562.0	513.3	349.7	193.0	83.5	59.0	54.4	52.5	52.8	55.1	55.3
25°	561.9	523.3	328.3	150.3	62.2	52.5	49.2	46.7	45.7	47.4	47.0
27.5°	589.2	511.8	289.4	111.5	54.7	47.0	43.8	40.7	37.3	38.9	38.9
30°	589.3	530.5	262.3	80.1	50.2	41.8	39.1	34.4	30.3	31.7	31.9
32.5°	605.0	514.3	237.2	61.2	46.5	38.8	32.7	28.4	26.0	26.9	26.9
35°	622.9	528.1	198.7	54.0	42.9	34.5	28.0	24.5	22.7	23.4	23.4
37.5°	681.9	525.2	171.9	50.3	40.6	31.2	25.5	21.6	20.8	21.2	21.8
40°	703.2	545.8	135.6	48.1	36.7	28.1	22.4	19.5	18.4	18.7	18.8
42.5°	757.5	550.4	108.3	46.3	33.2	24.4	19.9	17.9	16.5	16.5	16.9
45°	817.5	561.9	86.2	44.7	30.3	21.9	18.0	16.3	14.3	14.0	14.5
47.5°	904.4	606.0	70.2	41.7	26.9	20.4	16.6	14.1	12.5	11.9	12.5
50°	1049.7	680.8	62.1	38.0	24.4	19.1	14.7	12.1	10.8	10.1	10.5
52.5°	1254.7	810.0	57.8	34.5	22.2	17.2	13.2	10.5	9.3	8.7	9.0
55°	1482.5	958.3	55.7	31.0	20.2	15.1	11.5	9.3	8.2	7.5	7.6
57.5°	1693.1	1097.6	53.6	27.7	18.3	13.4	10.1	8.2	7.1	6.4	6.5
60°	1900.6	1208.9	48.6	23.8	16.5	12.1	8.9	7.1	6.4	5.5	5.5
62.5°	2084.2	1275.4	41.4	20.6	14.8	10.7	7.9	6.4	5.8	5.0	5.0
65°	2209.1	1278.4	33.4	17.7	13.0	9.1	6.9	6.0	5.4	4.4	4.3
67.5°	2210.9	1195.3	26.7	15.8	11.5	8.0	6.2	5.7	5.0	4.2	3.9
70°	1978.9	987.5	22.3	13.9	10.0	7.1	5.4	5.4	4.8	4.0	3.6
72.5°	1582.9	754.6	18.7	12.1	8.9	6.1	5.0	5.1	4.7	4.0	3.6
75°	1064.0	432.8	15.5	10.3	7.8	5.1	4.8	5.0	4.8	4.0	3.5
77.5°	490.0	137.8	12.1	8.5	6.6	4.3	4.7	4.7	4.4	3.6	3.0
80°	110.4	33.9	8.7	6.2	5.4	3.2	4.3	3.9	3.5	2.5	1.8
82.5°	40.2	10.4	5.3	3.9	3.3	1.2	2.8	2.8	2.5	1.8	1.1
85°	23.0	5.4	2.9	2.5	1.8	0.6	1.5	1.7	1.4	1.2	0.6
87.5°	7.5	1.2	1.4	1.5	1.4	0.3	0.6	0.6	0.4	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)