

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: P596853

Luminaire Tested: **MSA-SA1B-835-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596853
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-SA1B-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: 3422 lumens
Efficiency: N/A
Efficacy: 77.8 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

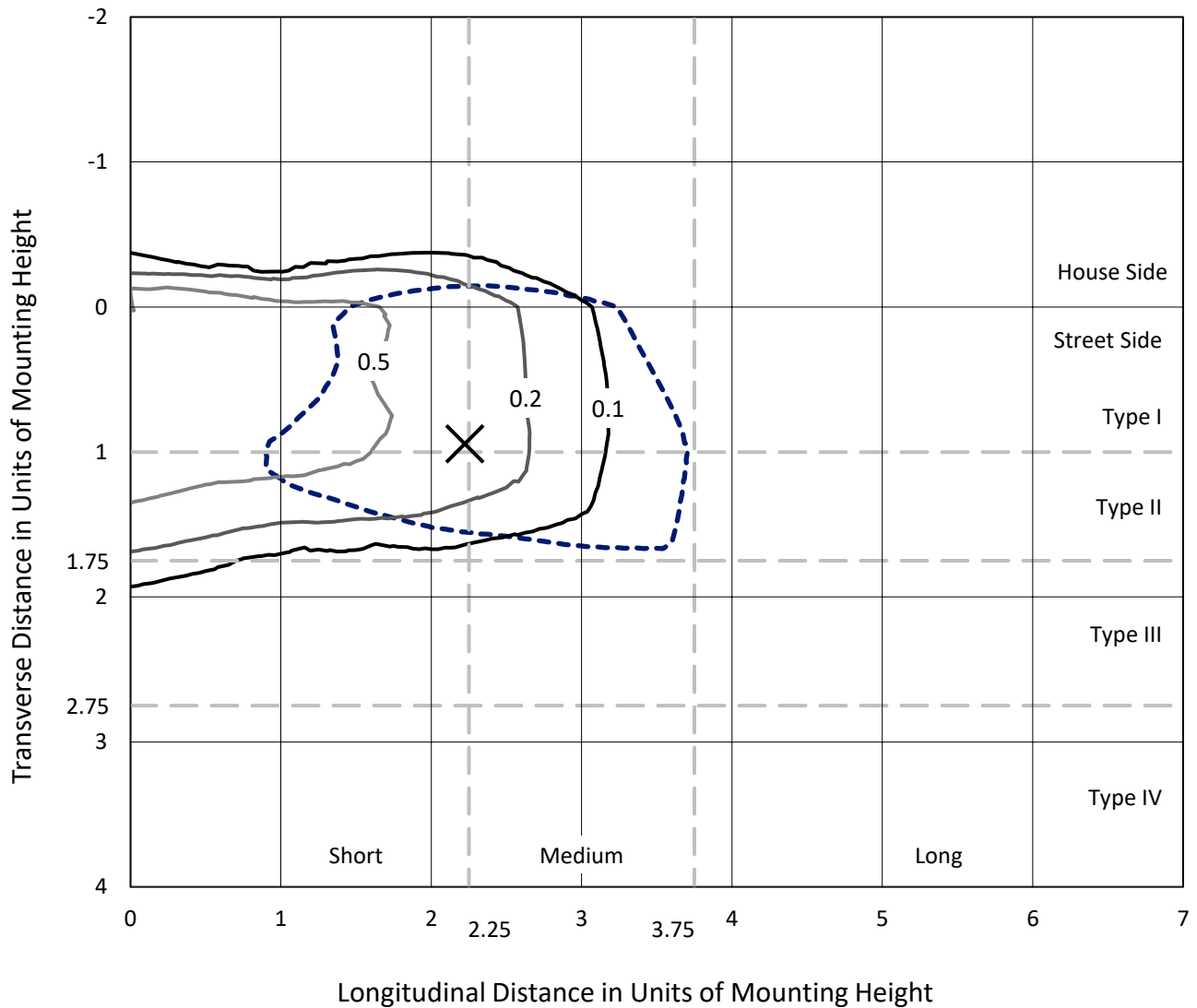
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

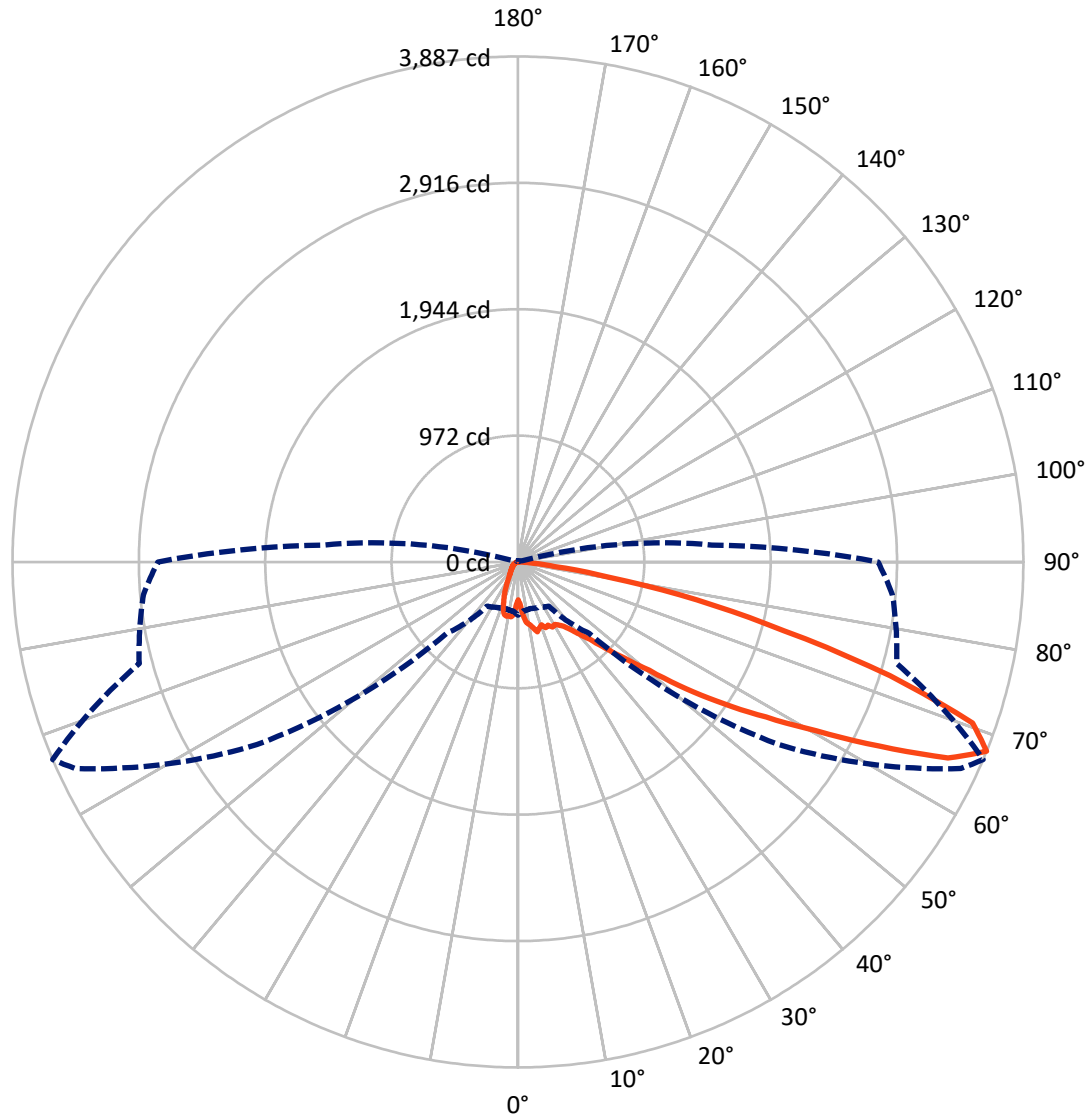
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 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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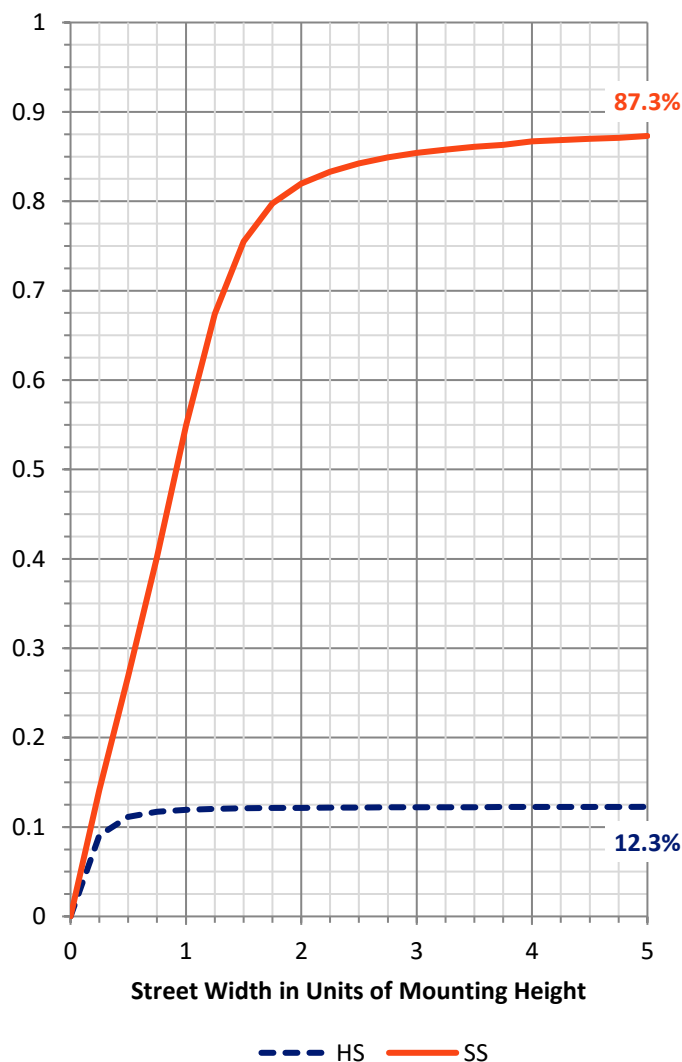
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	423.2	0.0	423.2
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	2998.8	0.0	2998.8
	% Fixture	87.6	0.0	87.6
Total	Lumens	3422.0	0.0	3422.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.6	1.1
10°-20°	108.2	3.2
20°-30°	169.6	5.0
30°-40°	273.5	8.0
40°-50°	502.6	14.7
50°-60°	848.9	24.8
60°-70°	938.5	27.4
70°-80°	491.2	14.4
80°-90°	52.7	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°	3422.0	100.0
0°-180°	3422.0	100.0

Coefficient of Utilization

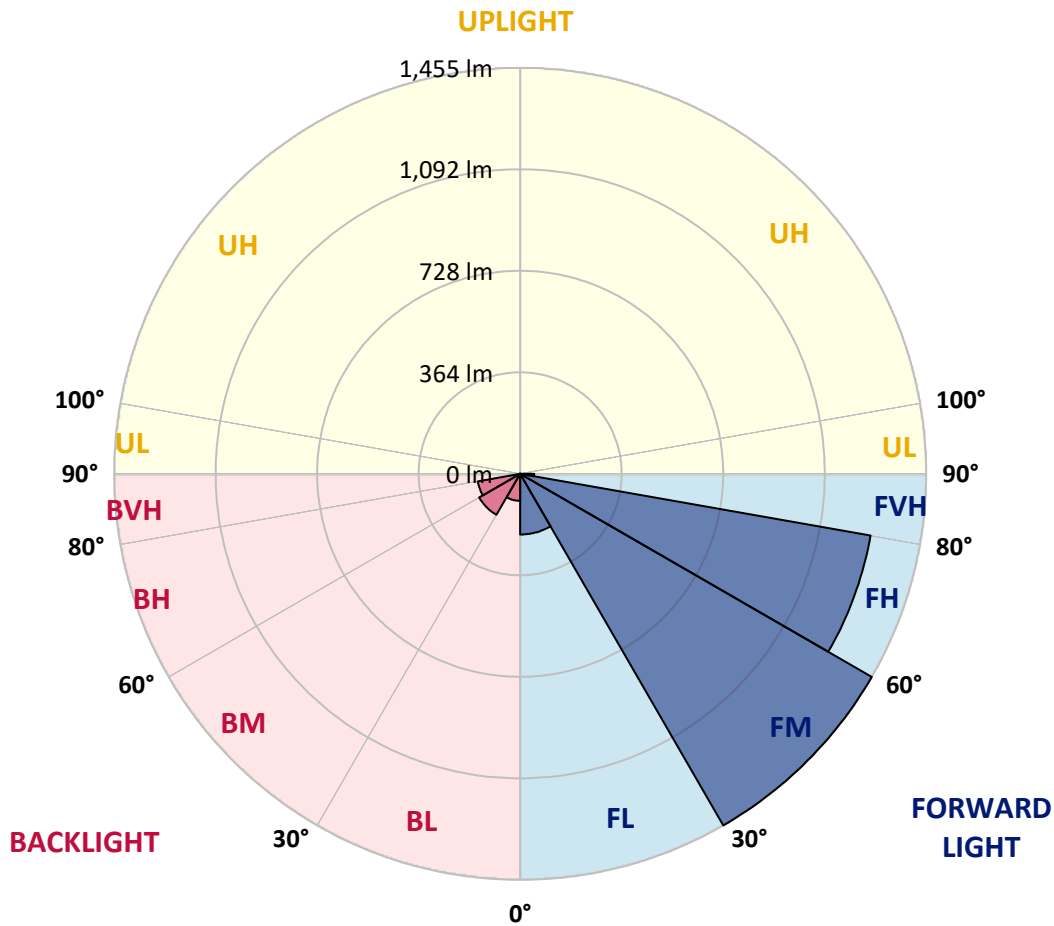


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	217.6	6.4			
FM (30°-60°)	1455.4	42.5			
FH (60°-80°)	1275.3	37.3			G1/1800
FVH (80°-90°)	50.5	1.5			G1/100
BL (0°-30°)	96.9	2.8	B0/110		
BM (30°-60°)	169.7	5.0	B0/220		
BH (60°-80°)	154.4	4.5	B1/500		G1/500
BVH (80°-90°)	2.2	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°	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5
2.5°	344.1	332.4	312.6	318.4	329.8	339.4	334.9	326.0	326.2	317.1	349.6
5°	400.3	384.7	373.2	377.2	376.7	376.3	397.7	405.9	409.3	424.3	446.3
7.5°	416.4	410.9	398.9	402.6	390.6	391.4	428.9	464.4	469.9	479.1	518.3
10°	410.2	399.4	403.8	403.8	403.9	423.4	448.6	482.4	489.2	524.6	528.8
12.5°	403.4	403.9	421.1	418.0	441.6	476.5	485.0	523.0	519.7	550.5	596.1
15°	428.6	441.8	430.7	435.0	437.3	478.2	492.0	542.5	557.1	595.9	625.6
17.5°	471.8	473.6	450.5	444.2	460.5	472.2	499.8	524.1	533.8	635.9	677.9
20°	479.6	490.7	467.3	431.2	465.7	481.7	501.0	512.6	516.8	648.2	707.4
22.5°	526.7	514.3	476.9	449.4	459.3	476.7	488.7	523.7	548.7	624.9	735.7
25°	550.8	547.5	511.7	488.3	478.2	476.9	504.3	530.8	538.8	649.1	742.6
27.5°	608.6	601.1	531.9	528.9	495.8	466.6	504.8	552.5	567.5	626.3	768.7
30°	687.2	684.5	592.3	590.4	537.6	485.2	532.9	565.9	556.9	637.9	786.0
32.5°	766.4	789.0	694.7	640.9	601.3	553.4	524.9	561.7	577.9	666.2	818.0
35°	862.1	878.4	782.4	743.3	655.3	585.3	577.9	601.5	608.4	699.9	854.2
37.5°	1029.4	1004.7	923.0	856.5	810.3	699.4	662.6	643.8	660.0	745.6	928.4
40°	1153.0	1137.4	1036.7	996.9	890.7	825.8	729.6	712.1	730.1	792.4	979.9
42.5°	1302.1	1269.6	1174.9	1148.0	1038.6	913.4	815.9	822.0	810.7	885.0	1070.4
45°	1437.0	1363.7	1311.0	1317.0	1258.7	1089.6	959.8	956.8	947.5	1019.0	1165.5
47.5°	1527.8	1463.7	1412.3	1395.5	1388.6	1399.5	1167.7	1115.3	1108.4	1159.8	1315.3
50°	1576.5	1506.4	1442.9	1446.4	1587.3	1693.4	1382.3	1307.8	1310.4	1364.1	1520.1
52.5°	1543.7	1464.4	1397.4	1462.5	1741.5	1889.4	1737.5	1559.4	1619.8	1606.1	1794.9
55°	1392.2	1323.3	1275.7	1392.2	1758.3	2100.3	2174.7	1938.0	1924.4	1893.2	2075.1
57.5°	1137.2	1077.8	1048.5	1171.4	1574.1	2270.2	2613.9	2365.9	2250.4	2119.5	2307.7
60°	847.3	803.6	773.0	837.9	1240.3	2105.1	2901.6	2769.1	2635.5	2337.7	2516.7
62.5°	627.5	591.9	559.5	565.4	854.1	1810.5	3012.0	3196.3	3119.6	2568.1	2713.9
65°	500.8	468.3	445.6	432.6	528.9	1362.2	2858.3	3546.5	3635.0	2785.1	2856.3
67.5°	409.0	381.6	370.3	385.2	414.9	776.5	2448.0	3758.9	3887.4	3015.3	2891.3
70°	332.8	310.2	309.0	349.3	382.1	473.4	1800.7	3612.2	3708.9	3054.5	2681.1
72.5°	231.9	222.0	237.8	294.9	378.6	394.2	1034.1	2989.2	2992.7	2697.8	2205.3
75°	131.2	129.7	154.7	235.2	368.7	390.2	576.5	2112.4	2114.0	2040.4	1527.8
77.5°	72.2	67.5	90.1	159.0	316.6	381.2	371.8	1442.4	1405.4	1135.5	697.8
80°	33.3	31.4	48.8	101.9	231.6	360.5	298.1	792.8	714.8	369.9	170.3
82.5°	13.7	13.0	22.4	65.4	146.3	290.4	251.2	351.7	282.3	70.3	52.6
85°	2.4	2.6	9.2	39.6	81.9	133.8	203.6	167.0	122.7	19.4	28.8
87.5°	0.0	0.0	1.9	9.5	19.8	36.6	82.6	46.7	32.1	5.7	8.5
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°	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5	291.5
2.5°	356.0	353.1	323.2	324.6	326.7	324.8	324.4	316.1	308.5	333.6	333.3
5°	450.3	429.3	408.6	400.6	383.5	360.9	361.1	354.0	346.7	356.9	356.9
7.5°	517.5	488.5	462.3	415.6	370.1	329.0	325.3	315.6	304.5	317.8	320.4
10°	533.1	507.9	474.1	405.5	362.5	322.4	278.3	242.0	225.1	217.3	215.9
12.5°	581.2	562.4	486.7	410.9	348.9	281.0	208.8	165.8	136.4	134.2	131.1
15°	613.3	600.1	499.2	397.5	291.6	202.1	131.2	100.7	88.9	87.8	86.3
17.5°	663.1	640.2	487.3	355.0	228.1	133.3	88.2	79.5	80.9	84.0	81.6
20°	683.4	638.6	461.2	293.4	160.2	89.4	76.6	71.9	75.5	78.5	77.1
22.5°	704.3	643.2	438.1	241.8	104.7	73.9	68.2	65.8	66.1	69.1	69.3
25°	704.1	655.7	411.4	188.3	77.9	65.8	61.6	58.5	57.3	59.4	58.8
27.5°	738.3	641.2	362.6	139.7	68.6	58.8	54.9	51.0	46.7	48.8	48.8
30°	738.5	664.7	328.6	100.3	62.8	52.4	49.0	43.1	38.0	39.8	39.9
32.5°	758.1	644.4	297.2	76.7	58.3	48.6	41.0	35.6	32.6	33.7	33.7
35°	780.5	661.7	248.9	67.7	53.8	43.2	35.1	30.7	28.5	29.3	29.3
37.5°	854.4	658.1	215.4	63.0	50.9	39.1	31.9	27.1	26.0	26.6	27.3
40°	881.1	683.9	169.9	60.2	46.0	35.2	28.1	24.5	23.1	23.4	23.6
42.5°	949.2	689.7	135.7	58.0	41.7	30.6	25.0	22.4	20.7	20.7	21.2
45°	1024.4	704.1	108.0	56.1	38.0	27.4	22.6	20.5	17.9	17.5	18.2
47.5°	1133.2	759.3	88.0	52.3	33.7	25.5	20.8	17.7	15.6	14.9	15.6
50°	1315.3	853.0	77.8	47.6	30.6	24.0	18.4	15.1	13.5	12.7	13.2
52.5°	1572.2	1015.0	72.4	43.2	27.8	21.5	16.5	13.2	11.6	10.9	11.3
55°	1857.6	1200.7	69.8	38.9	25.3	18.9	14.4	11.6	10.2	9.4	9.5
57.5°	2121.4	1375.4	67.2	34.7	22.9	16.8	12.7	10.2	8.9	8.0	8.2
60°	2381.5	1514.8	60.9	29.9	20.7	15.1	11.1	8.9	8.0	6.9	6.9
62.5°	2611.5	1598.1	51.9	25.9	18.6	13.4	9.9	8.0	7.3	6.2	6.2
65°	2768.1	1601.9	41.8	22.2	16.3	11.5	8.7	7.5	6.8	5.6	5.4
67.5°	2770.3	1497.7	33.5	19.8	14.4	10.1	7.8	7.1	6.2	5.2	4.9
70°	2479.6	1237.4	27.9	17.4	12.5	8.9	6.8	6.8	6.1	5.0	4.5
72.5°	1983.4	945.5	23.4	15.1	11.1	7.6	6.2	6.4	5.9	5.0	4.5
75°	1333.2	542.3	19.4	12.8	9.7	6.4	6.1	6.2	6.1	5.0	4.3
77.5°	614.0	172.7	15.1	10.6	8.3	5.4	5.9	5.9	5.6	4.5	3.8
80°	138.4	42.5	10.9	7.8	6.8	4.0	5.4	4.9	4.3	3.1	2.3
82.5°	50.3	13.0	6.6	4.9	4.2	1.6	3.5	3.5	3.1	2.3	1.4
85°	28.8	6.8	3.6	3.1	2.3	0.7	1.9	2.1	1.7	1.6	0.7
87.5°	9.4	1.6	1.7	1.9	1.7	0.3	0.7	0.7	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)