

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: P367803

Luminaire Tested: **MSA-SA3B-727-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367803
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-727-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9079 lumens
Efficiency: N/A
Efficacy: 72.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

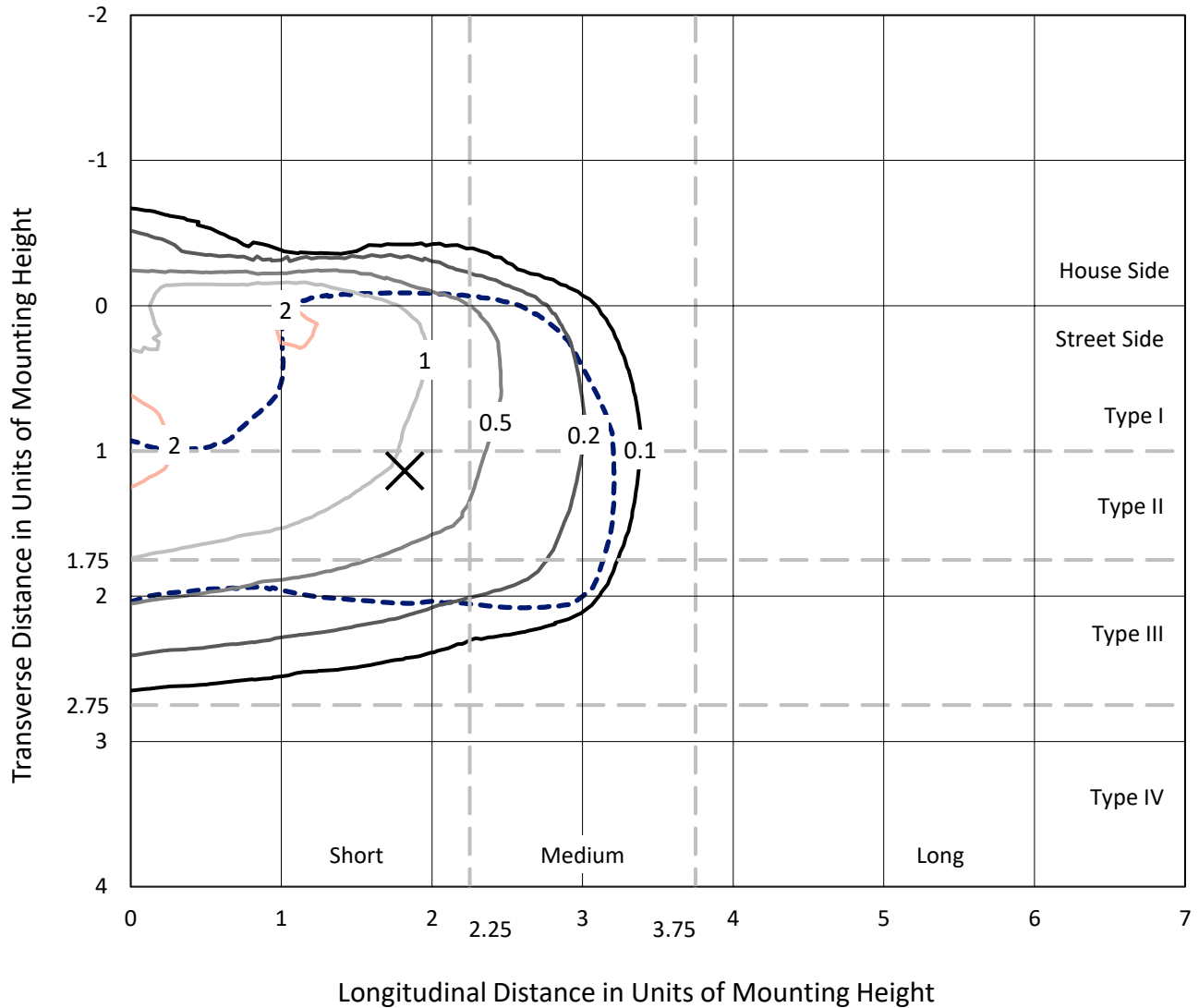
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

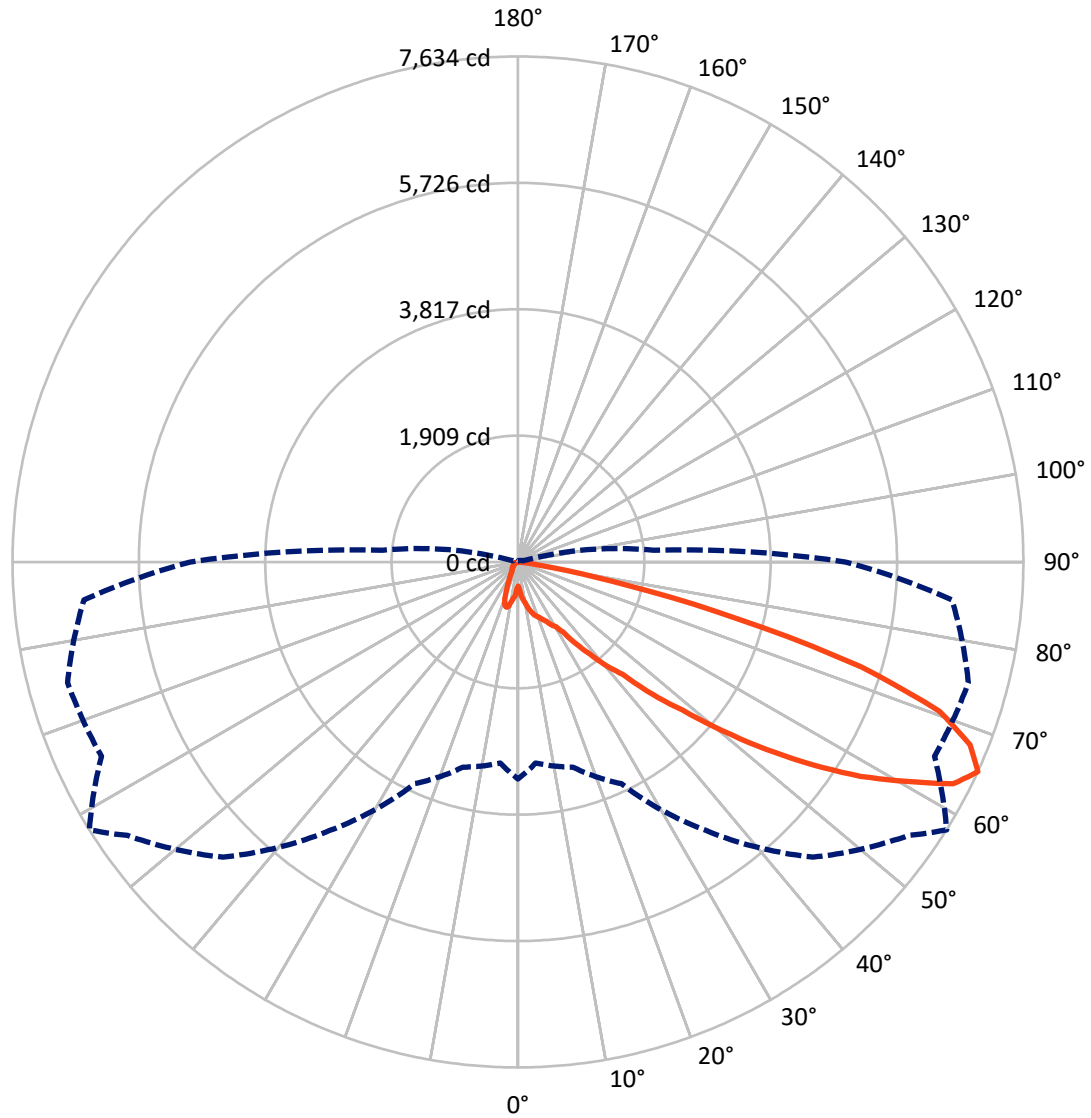
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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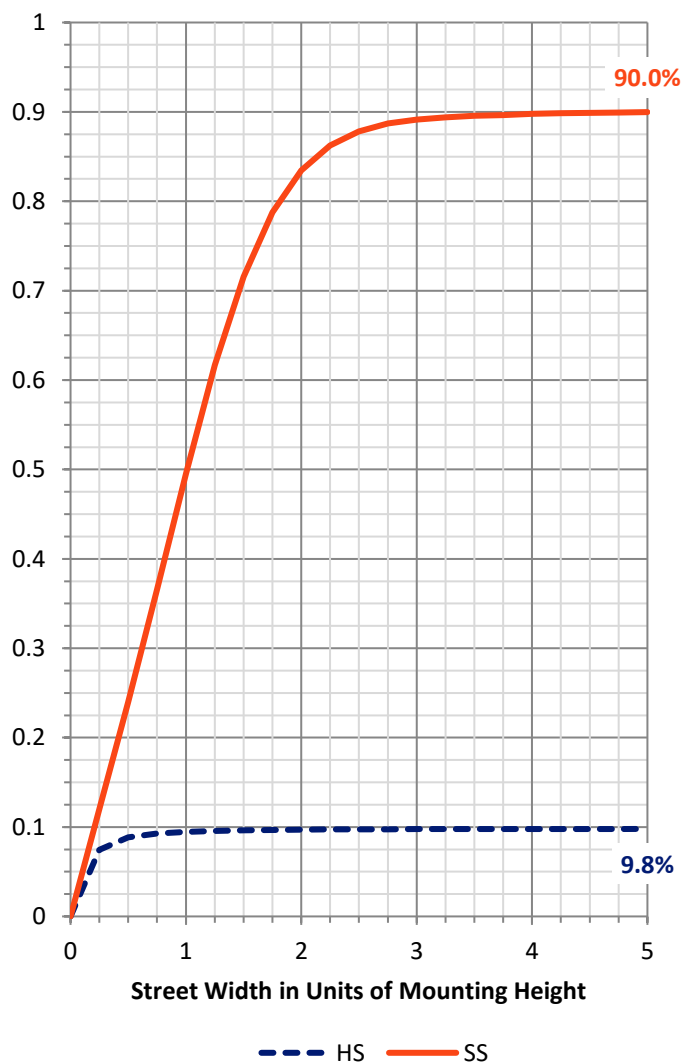
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	895.9	0.0	895.9
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	8183.1	0.0	8183.1
	% Fixture	90.1	0.0	90.1
Total	Lumens	9079.0	0.0	9079.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.1	0.6
10°-20°	186.4	2.1
20°-30°	360.7	4.0
30°-40°	719.7	7.9
40°-50°	1471.4	16.2
50°-60°	2609.8	28.7
60°-70°	2751.4	30.3
70°-80°	892.0	9.8
80°-90°	36.5	0.4
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°	9079.0	100.0
0°-180°	9079.0	100.0

Coefficient of Utilization



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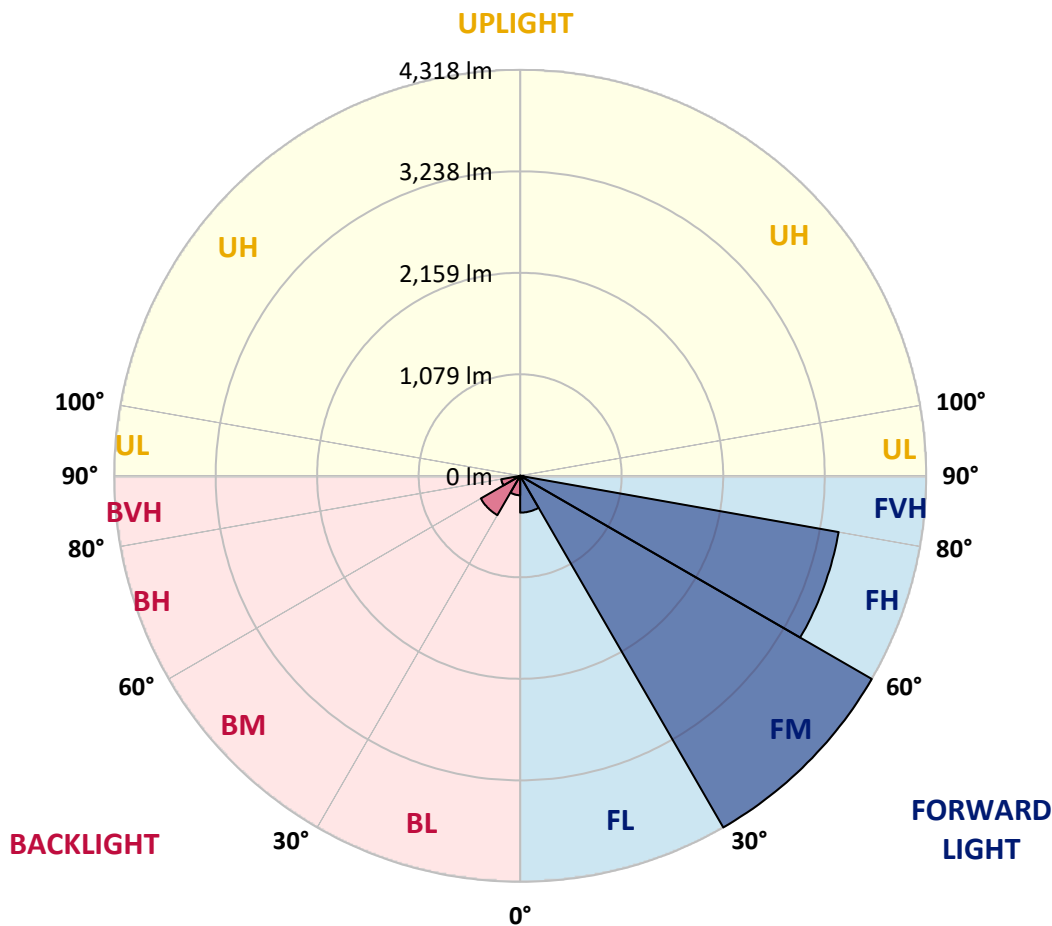
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	391.7	4.3			
FM (30°-60°)	4317.5	47.6			
FH (60°-80°)	3439.0	37.9			G2/5000
FVH (80°-90°)	34.9	0.4			G1/100
BL (0°-30°)	206.5	2.3	B1/500		
BM (30°-60°)	483.4	5.3	B1/1000		
BH (60°-80°)	204.5	2.3	B1/500		G1/500
BVH (80°-90°)	1.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4
2.5°	443.7	430.4	409.5	413.0	417.1	425.3	418.7	412.5	405.9	397.2	430.4
5°	535.7	513.7	511.7	507.1	503.5	503.0	511.2	508.6	512.2	528.6	545.4
7.5°	569.5	560.2	542.9	550.0	538.8	530.1	566.4	578.1	600.6	608.3	652.3
10°	565.9	552.6	559.7	563.3	571.0	602.7	625.7	638.5	657.9	699.8	691.1
12.5°	582.2	594.0	601.7	602.2	641.5	699.8	716.2	726.9	761.7	778.0	820.9
15°	636.9	656.4	644.1	649.2	662.0	733.0	771.4	794.9	844.0	897.1	907.8
17.5°	715.1	727.4	701.8	683.4	718.7	757.6	827.1	851.6	882.8	1007.0	1030.0
20°	813.8	834.8	779.5	706.4	753.0	799.0	874.6	886.4	919.6	1081.6	1117.9
22.5°	1044.3	1013.2	928.8	814.8	801.0	821.5	893.5	939.5	995.8	1123.6	1207.9
25°	1271.8	1261.1	1136.9	1009.6	917.6	871.6	967.1	992.7	1084.7	1223.2	1269.8
27.5°	1524.8	1546.3	1338.8	1261.6	1081.1	930.9	1013.2	1077.0	1185.9	1259.5	1371.5
30°	1858.6	1824.4	1581.1	1503.9	1297.9	1093.9	1132.3	1136.3	1296.3	1379.2	1485.5
32.5°	2120.4	2142.3	1836.7	1718.1	1553.5	1344.9	1221.7	1274.9	1389.4	1573.9	1674.6
35°	2403.6	2401.5	2103.5	1944.0	1728.8	1549.9	1487.0	1525.9	1669.5	1878.6	1905.2
37.5°	2826.8	2790.5	2438.8	2205.2	2022.2	1869.4	1821.3	1769.7	1917.9	2117.3	2217.0
40°	3226.0	3100.8	2775.7	2498.6	2264.5	2202.1	2028.3	2060.0	2104.0	2367.3	2642.8
42.5°	3629.4	3551.7	3117.2	2885.1	2597.3	2449.0	2335.6	2320.7	2529.8	2841.6	3126.4
45°	4161.5	3923.8	3576.2	3372.2	3038.9	2890.2	2798.7	2853.4	3041.5	3497.0	3686.6
47.5°	4608.3	4389.5	4090.9	3781.2	3431.5	3598.7	3426.9	3340.5	3598.7	4069.5	4321.5
50°	4992.1	4748.3	4446.2	4216.7	4160.0	4320.5	3972.9	4004.6	4172.2	4725.3	4867.4
52.5°	5271.3	5014.6	4750.9	4639.9	4872.5	4953.3	4779.0	4709.0	4861.3	5284.5	5353.6
55°	5481.3	5218.6	5012.6	5165.4	5615.3	5588.7	5650.0	5410.8	5556.5	5867.8	5835.1
57.5°	5494.1	5182.8	5062.2	5308.1	5925.6	6337.1	6516.5	6109.6	6192.4	6323.8	6250.2
60°	5092.3	4782.6	4772.9	5122.0	6015.5	6530.8	6923.4	6725.0	6614.1	6711.7	6572.2
62.5°	4291.8	4075.1	4176.3	4562.2	5680.7	6424.0	7140.1	7378.8	6946.9	6968.9	6770.5
65°	3277.2	3049.7	3208.1	3694.3	4948.7	6304.3	7201.5	7634.4	6940.8	7042.0	6580.4
67.5°	2170.5	2038.6	2218.0	2753.7	3934.5	5565.2	7169.8	7366.1	6720.4	6756.2	5874.4
70°	1120.5	1088.3	1233.5	1656.2	2645.3	4275.5	6858.5	6751.1	6273.2	5820.3	4531.1
72.5°	358.8	360.4	499.9	756.5	1426.2	2602.9	5271.8	5419.0	5019.8	4257.6	2766.5
75°	159.0	156.4	209.1	317.4	594.5	1167.0	3275.1	3434.1	3125.3	2342.2	1162.9
77.5°	114.5	110.9	133.9	185.6	294.4	395.7	1535.6	1657.2	1417.0	811.7	266.3
80°	80.8	80.3	97.1	130.3	184.0	175.8	485.1	543.9	435.5	196.8	78.2
82.5°	45.5	47.0	67.5	92.0	111.9	87.9	136.5	150.3	146.7	104.8	34.2
85°	22.0	24.5	44.0	66.5	58.8	34.2	48.6	52.7	61.3	60.8	17.4
87.5°	0.0	0.0	17.9	30.2	15.8	5.1	14.8	16.9	16.4	19.4	4.1
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°	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4	363.4
2.5°	437.1	434.0	395.1	398.2	406.9	403.3	406.4	399.2	391.0	424.3	423.8
5°	552.6	529.6	517.3	506.1	508.1	485.1	498.4	504.5	503.5	522.4	527.5
7.5°	653.8	623.1	598.6	575.1	539.3	507.1	527.0	539.8	548.5	581.2	594.0
10°	701.3	676.3	666.6	620.6	595.0	575.1	551.0	533.7	540.8	532.1	540.8
12.5°	805.6	788.7	751.4	704.9	674.2	633.3	543.9	469.3	423.3	423.8	420.7
15°	900.7	899.7	844.0	766.8	677.8	561.3	421.7	327.7	284.2	271.9	267.9
17.5°	1024.9	1009.6	907.8	793.9	633.9	434.5	287.3	224.4	220.3	227.5	224.4
20°	1104.1	1081.6	939.5	754.5	522.4	293.9	216.7	198.8	211.1	221.3	218.8
22.5°	1183.4	1149.6	963.6	706.4	371.6	215.2	195.8	192.7	200.4	213.2	215.2
25°	1226.8	1220.2	1010.6	616.5	254.6	188.6	188.6	187.6	190.2	199.4	197.8
27.5°	1353.1	1263.1	975.3	481.0	196.8	173.3	175.8	174.8	165.6	174.8	175.3
30°	1431.8	1390.4	977.9	342.5	173.3	153.4	160.0	151.8	138.0	145.7	144.2
32.5°	1590.3	1487.0	970.2	231.1	158.0	146.2	136.0	124.2	114.0	117.1	114.5
35°	1774.8	1696.1	866.4	185.6	147.2	129.3	113.0	101.2	90.5	93.0	92.5
37.5°	2141.8	1891.9	780.6	167.2	140.1	118.6	99.7	83.3	77.7	79.2	80.8
40°	2481.8	2218.5	620.6	159.0	127.8	105.8	82.3	70.5	67.0	68.0	69.5
42.5°	2989.9	2478.2	468.7	150.8	115.5	89.5	68.5	60.8	57.3	59.3	60.3
45°	3481.6	2699.0	350.2	143.6	105.3	77.2	57.8	52.7	48.6	50.1	52.1
47.5°	3972.9	2944.4	261.2	132.4	94.1	66.5	49.6	46.0	43.4	44.0	46.5
50°	4412.5	3058.9	205.5	118.6	84.9	57.8	45.0	41.4	40.4	40.9	42.9
52.5°	4735.5	3059.9	173.3	106.3	76.2	51.1	42.4	38.3	37.8	38.8	40.9
55°	5027.4	2978.1	150.3	95.6	68.5	46.5	40.4	36.8	36.8	37.8	39.9
57.5°	5221.2	2827.8	130.3	84.3	61.9	44.0	38.8	35.3	34.8	34.2	35.8
60°	5315.7	2622.8	110.4	74.1	55.7	42.4	37.8	31.2	30.7	29.6	30.7
62.5°	5255.9	2366.2	92.5	63.9	49.6	40.4	33.2	27.1	26.1	24.0	25.6
65°	4950.2	2054.4	78.2	54.7	42.9	34.2	28.1	23.0	20.4	17.9	17.4
67.5°	4325.1	1669.0	65.4	47.0	36.8	28.1	23.0	20.4	15.8	13.8	13.3
70°	3241.4	1139.4	54.2	40.4	30.7	24.0	19.4	18.4	14.8	13.3	12.3
72.5°	1901.6	614.9	45.5	35.3	26.1	19.9	15.8	16.9	14.8	12.3	11.2
75°	759.6	204.5	36.3	28.1	21.0	14.3	13.3	13.8	13.3	11.2	9.2
77.5°	173.3	64.4	28.1	22.0	16.4	9.2	10.7	11.8	11.8	9.2	6.6
80°	54.2	25.6	16.4	13.8	11.8	5.1	7.7	8.2	5.6	2.6	0.0
82.5°	17.4	7.2	5.6	5.6	5.1	1.0	1.5	1.0	0.0	0.0	0.0
85°	6.6	4.6	3.6	3.6	2.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.6	2.0	1.5	2.0	1.0	0.0	0.0	0.0	0.0	0.0	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)