

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: P367024

Luminaire Tested: **MSA-SA1D-730-U-SL3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367024
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-730-U-SL3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6128 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

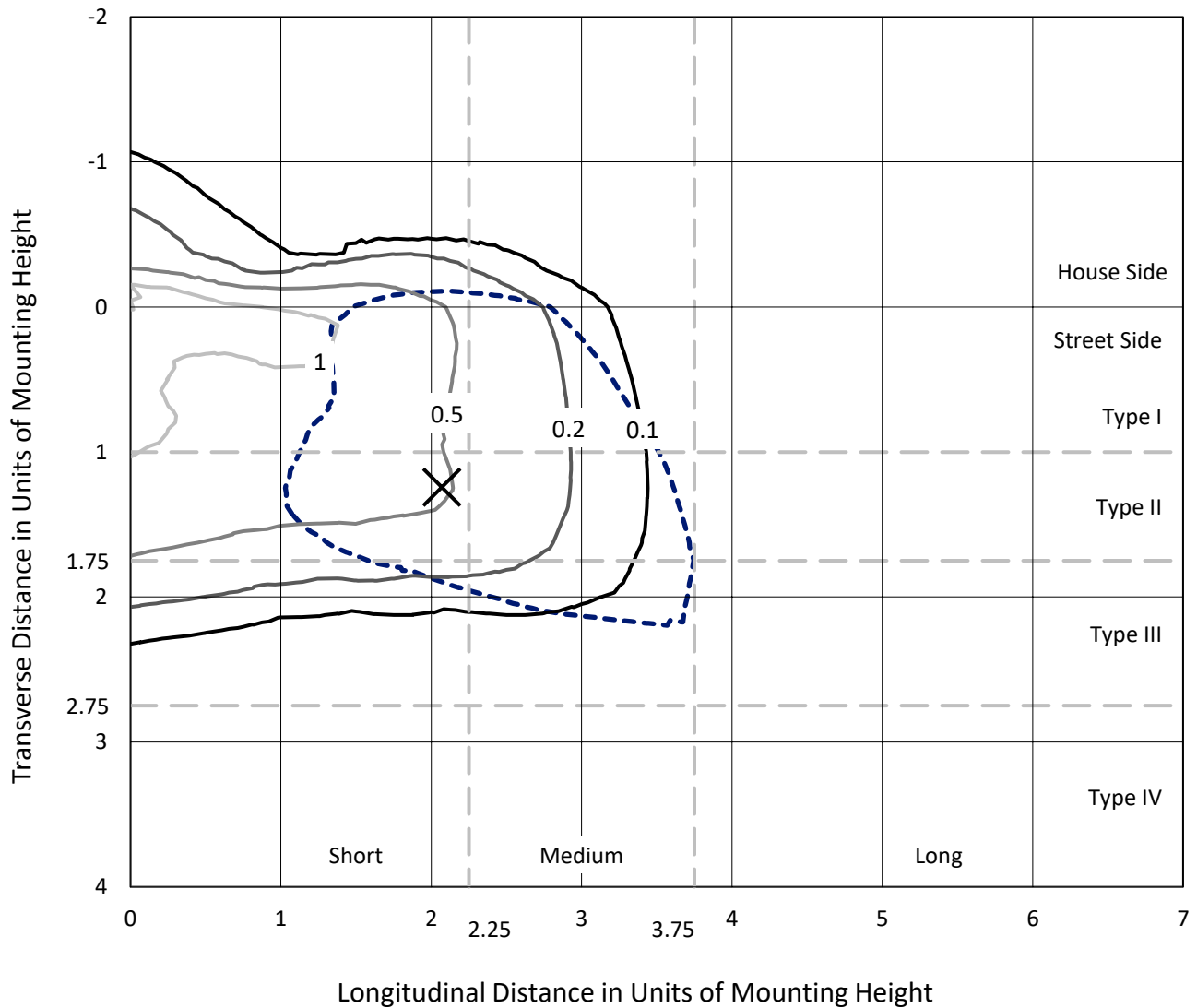
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

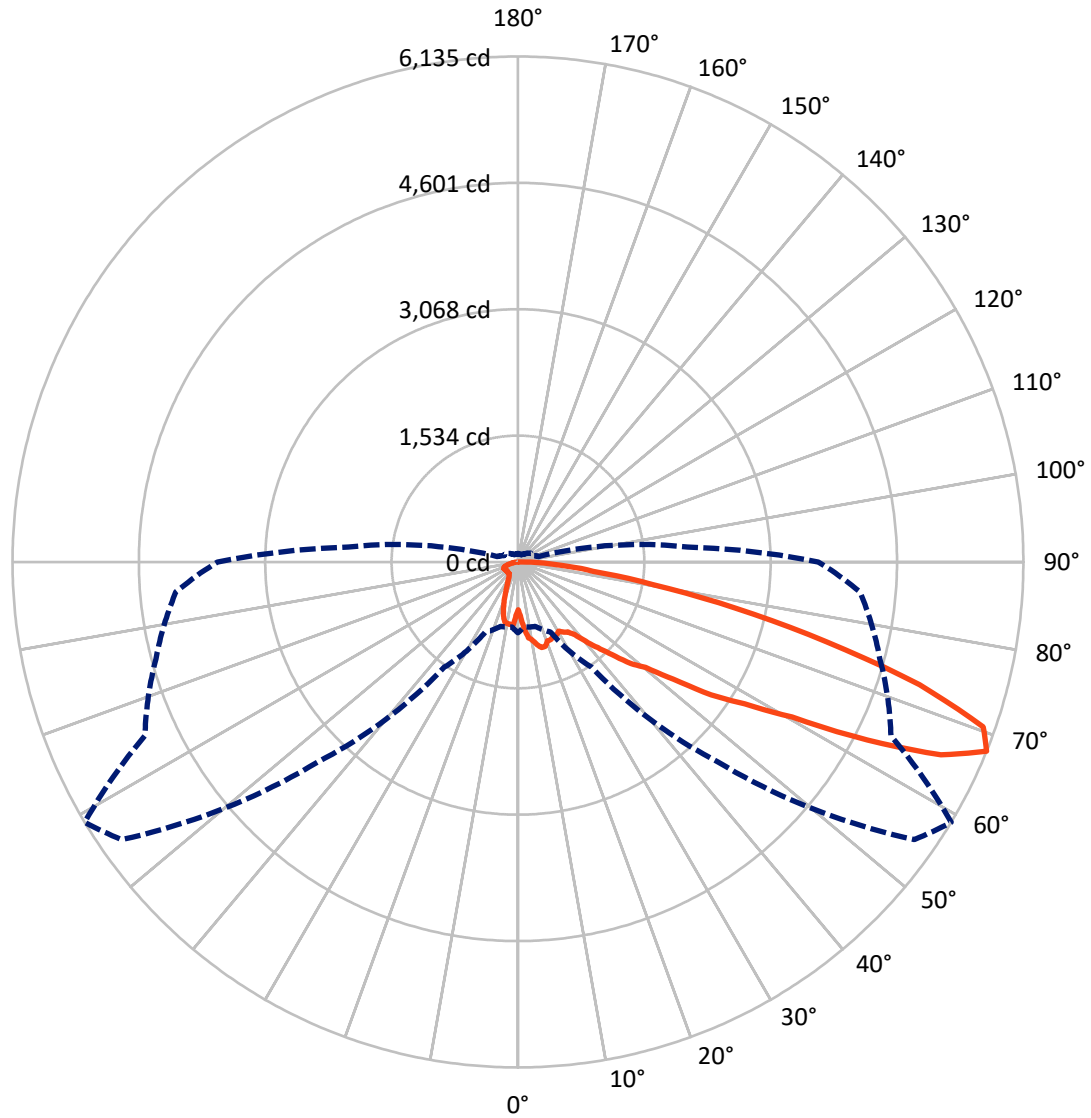
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	922.4	0.0	922.4
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	5205.6	0.0	5205.6
	% Fixture	84.9	0.0	84.9
Total	Lumens	6128.0	0.0	6128.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.7	1.2
10°-20°	224.1	3.7
20°-30°	320.0	5.2
30°-40°	471.6	7.7
40°-50°	796.8	13.0
50°-60°	1386.6	22.6
60°-70°	1766.9	28.8
70°-80°	935.6	15.3
80°-90°	150.5	2.5
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°	6128.0	100.0
0°-180°	6128.0	100.0

Coefficient of Utilization



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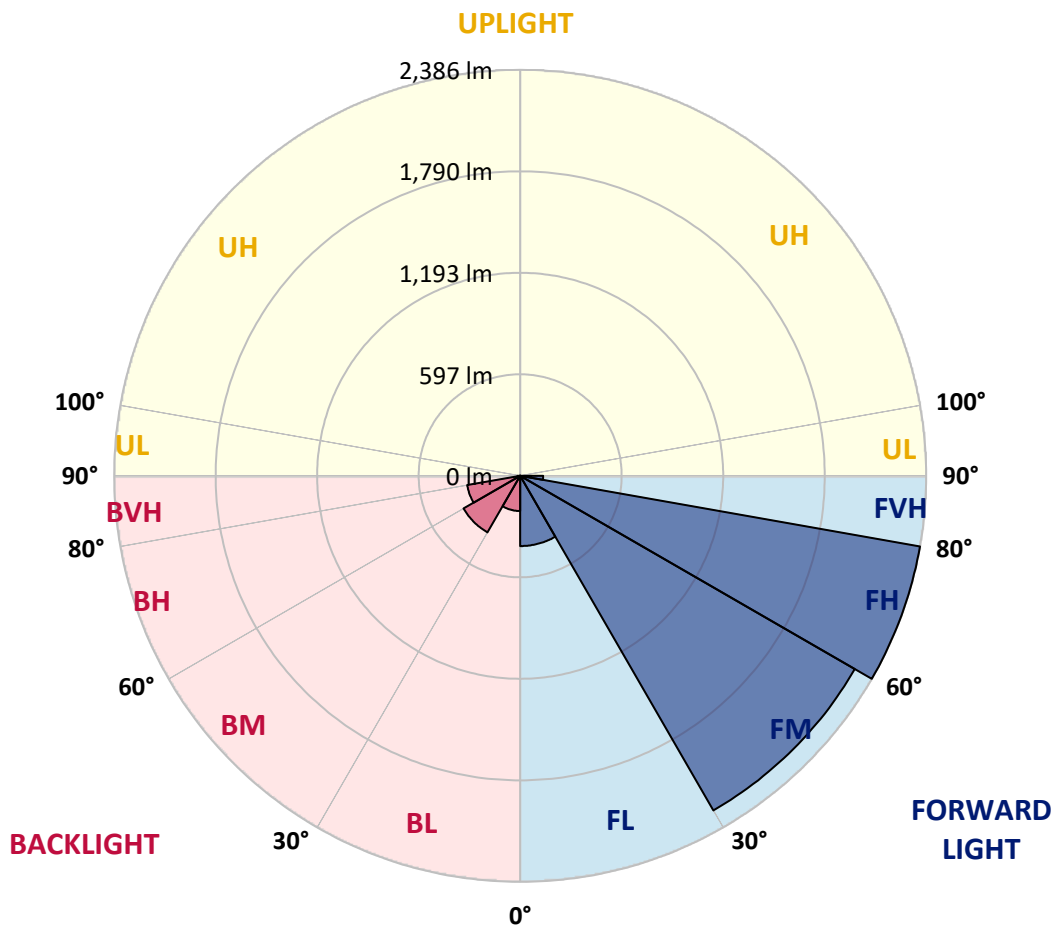
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	413.0	6.7			
FM (30°-60°)	2271.0	37.1			
FH (60°-80°)	2386.4	38.9			G2/5000
FVH (80°-90°)	135.2	2.2			G2/225
BL (0°-30°)	206.8	3.4	B1/500		
BM (30°-60°)	384.1	6.3	B1/1000		
BH (60°-80°)	316.1	5.2	B1/500		G1/500
BVH (80°-90°)	15.3	0.3			G1/100
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°	59°	65°	75°	85°
0°	579.9	579.9	579.9	579.9	579.9	579.9	579.9	579.9	579.9	579.9	579.9
2.5°	724.0	690.2	654.4	664.5	685.0	694.4	684.3	674.4	661.7	646.6	698.0
5°	878.0	827.9	820.6	820.3	813.1	784.0	821.4	818.8	833.8	849.4	889.4
7.5°	921.9	903.2	882.9	892.5	855.9	854.4	912.5	929.1	958.2	948.6	1002.4
10°	899.3	878.2	888.9	885.0	888.4	926.8	962.4	963.4	994.6	1025.2	990.7
12.5°	859.5	861.1	903.4	901.9	956.4	1027.8	1038.5	1030.2	1081.1	1060.3	1089.9
15°	887.9	906.8	896.2	905.3	926.8	1017.7	1047.3	1077.4	1125.7	1144.4	1114.8
17.5°	933.0	943.2	895.4	890.5	934.9	978.0	1051.5	1077.2	1084.7	1217.9	1176.1
20°	913.8	934.3	887.6	827.6	901.4	958.5	1030.9	1023.1	1059.8	1223.6	1188.8
22.5°	968.4	934.3	874.9	832.3	858.2	910.7	972.3	1023.4	1066.8	1190.1	1207.3
25°	978.7	962.6	907.1	864.7	855.9	874.6	962.4	995.9	1069.1	1235.8	1197.4
27.5°	1042.1	1018.0	904.7	906.0	862.1	829.2	931.2	1001.6	1095.6	1207.5	1221.5
30°	1120.8	1102.4	960.3	965.5	904.7	844.0	952.5	973.8	1110.9	1251.7	1251.9
32.5°	1179.7	1212.2	1069.6	999.0	977.4	932.0	919.8	1015.6	1093.0	1331.7	1303.9
35°	1285.9	1311.1	1153.8	1097.2	1024.2	973.0	1008.6	1043.1	1167.5	1436.8	1381.0
37.5°	1482.5	1453.4	1310.1	1221.0	1193.8	1120.0	1139.7	1115.6	1248.6	1555.0	1532.1
40°	1596.3	1571.1	1420.2	1370.9	1262.8	1272.2	1247.5	1265.2	1356.8	1680.7	1673.4
42.5°	1708.4	1674.7	1547.2	1512.9	1405.1	1359.4	1363.9	1421.0	1523.8	1883.7	1859.6
45°	1819.3	1732.9	1677.0	1686.1	1634.2	1540.4	1546.9	1600.7	1706.1	2115.9	2060.3
47.5°	1904.2	1832.8	1789.2	1778.0	1752.3	1877.8	1821.7	1843.5	1890.0	2322.6	2301.6
50°	2065.0	1981.6	1924.8	1908.7	1995.9	2170.4	2056.2	2009.2	2108.1	2589.8	2578.9
52.5°	2322.3	2218.5	2123.7	2122.6	2248.8	2362.1	2442.6	2361.5	2397.9	2863.5	2894.7
55°	2547.0	2426.7	2341.6	2388.6	2568.3	2637.6	2911.0	2847.7	2817.0	3139.8	3228.9
57.5°	2630.8	2490.4	2434.8	2504.1	2769.0	3125.3	3414.3	3247.6	3217.7	3452.5	3639.2
60°	2446.7	2298.2	2301.6	2432.2	2891.0	3483.4	3964.6	3823.0	3648.0	3841.7	4024.0
62.5°	1922.2	1787.9	1875.4	2074.1	2788.7	3831.4	4702.1	4761.8	4139.6	4164.5	4237.5
65°	1306.5	1213.5	1292.4	1486.9	2261.8	4021.2	5404.5	5643.9	4587.3	4375.9	4329.7
67.5°	859.8	794.1	809.4	938.8	1557.1	3428.1	5874.3	6135.3	4996.5	4549.4	4167.1
70°	665.8	612.8	606.1	673.9	923.4	2381.5	5595.9	5992.7	5245.8	4386.8	3632.2
72.5°	522.5	482.2	485.9	551.0	715.2	1321.3	4330.2	5096.0	4870.3	3783.3	2790.5
75°	407.4	374.5	392.9	467.4	661.4	821.1	2987.6	3867.7	3765.4	2801.5	1591.6
77.5°	295.8	274.5	300.7	398.1	621.7	704.5	1859.8	2698.4	2412.2	1438.4	546.1
80°	194.0	182.0	203.6	324.6	563.8	678.0	1149.4	1653.4	1191.9	404.1	206.7
82.5°	114.3	109.1	127.0	219.7	453.1	635.4	766.6	918.8	487.7	170.9	109.8
85°	60.0	56.1	75.3	126.2	312.4	580.1	603.5	550.0	235.5	74.3	52.5
87.5°	20.0	19.5	31.9	48.8	118.2	308.0	322.0	261.2	97.1	21.6	11.4
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°	579.9	579.9	579.9	579.9	579.9	579.9	579.9	579.9	579.9	579.9	579.9
2.5°	705.0	694.6	634.9	643.2	651.0	647.1	644.8	617.8	615.2	653.6	650.5
5°	888.4	845.3	794.4	792.0	758.5	724.3	731.0	720.1	723.2	739.1	740.6
7.5°	985.2	931.5	882.9	804.0	737.0	682.7	691.3	688.7	681.7	717.5	727.1
10°	983.4	935.6	880.8	785.3	740.1	695.9	643.0	592.9	578.1	560.4	562.0
12.5°	1048.3	1006.0	886.6	789.2	727.9	651.8	552.6	497.8	445.4	444.3	431.1
15°	1068.6	1037.4	898.8	766.8	642.5	533.4	430.8	371.3	333.4	325.9	314.7
17.5°	1119.7	1070.9	861.6	694.6	543.3	417.0	323.8	282.3	279.2	284.4	278.6
20°	1123.1	1043.9	794.6	587.9	436.5	316.0	264.1	243.3	254.5	267.2	266.7
22.5°	1120.3	1009.9	736.7	497.0	328.0	254.0	231.4	226.7	237.1	256.0	258.4
25°	1091.2	998.7	664.3	408.2	266.2	217.6	211.4	214.2	227.2	249.6	249.6
27.5°	1121.6	953.3	573.4	332.1	223.8	193.7	198.1	205.4	215.0	240.5	245.1
30°	1111.7	968.4	500.1	267.5	197.4	177.1	187.0	194.2	205.1	231.6	234.0
32.5°	1138.2	928.1	438.6	224.9	180.0	170.6	172.9	182.8	197.1	217.9	222.0
35°	1178.7	942.9	368.0	202.3	171.4	163.1	167.5	175.3	189.6	209.8	213.2
37.5°	1308.0	942.1	319.1	189.8	169.8	161.5	163.6	169.1	185.7	204.1	211.9
40°	1391.1	996.1	274.7	187.0	168.0	160.7	158.9	164.9	178.1	200.0	205.4
42.5°	1547.2	1029.1	255.5	185.9	167.8	156.3	154.5	161.5	174.5	194.8	203.1
45°	1712.1	1076.1	240.2	185.4	167.0	155.5	150.1	158.9	169.8	189.3	198.9
47.5°	1906.1	1175.6	231.6	183.6	165.4	156.6	148.5	153.0	165.2	184.6	194.2
50°	2160.0	1307.2	233.5	181.0	167.8	156.8	146.2	148.3	159.4	178.4	188.3
52.5°	2468.8	1511.1	245.1	182.0	169.3	155.5	145.2	144.1	153.7	170.4	180.2
55°	2840.9	1800.4	280.2	187.0	169.3	155.3	143.6	138.9	146.2	159.7	169.3
57.5°	3289.9	2135.4	348.8	189.3	168.0	153.7	140.2	131.9	136.3	147.5	156.6
60°	3675.5	2405.7	419.4	190.9	170.6	150.1	133.5	123.1	125.9	134.5	142.6
62.5°	3872.1	2481.5	440.7	189.6	177.6	147.8	125.4	113.7	114.0	121.3	128.5
65°	3909.0	2380.5	355.2	188.3	186.7	147.5	119.7	105.7	103.9	109.1	115.3
67.5°	3646.2	2066.3	256.3	185.4	187.8	145.9	115.8	99.2	94.5	98.2	103.4
70°	3095.9	1664.0	215.3	179.7	175.3	138.2	109.1	92.4	86.2	88.8	92.7
72.5°	2308.1	1231.2	187.8	167.5	152.7	118.2	98.7	84.9	78.4	80.2	83.1
75°	1282.3	656.7	157.1	145.7	124.6	95.6	84.1	75.3	69.6	70.4	73.5
77.5°	425.9	242.3	115.3	115.6	94.3	73.7	69.3	64.4	60.0	60.2	62.8
80°	192.9	134.0	82.6	83.1	65.7	53.5	53.2	51.7	48.8	48.0	49.9
82.5°	111.9	81.3	56.6	54.0	42.3	34.8	38.7	37.9	37.1	34.3	34.8
85°	55.1	43.6	29.6	28.0	23.4	17.4	20.8	21.6	20.8	17.7	17.4
87.5°	13.5	14.3	7.3	6.8	3.9	1.8	3.1	3.1	3.9	2.6	1.3
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)