

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: P596919

Luminaire Tested: **MSA-SA2A-835-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596919
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-SA2A-835-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 5371 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

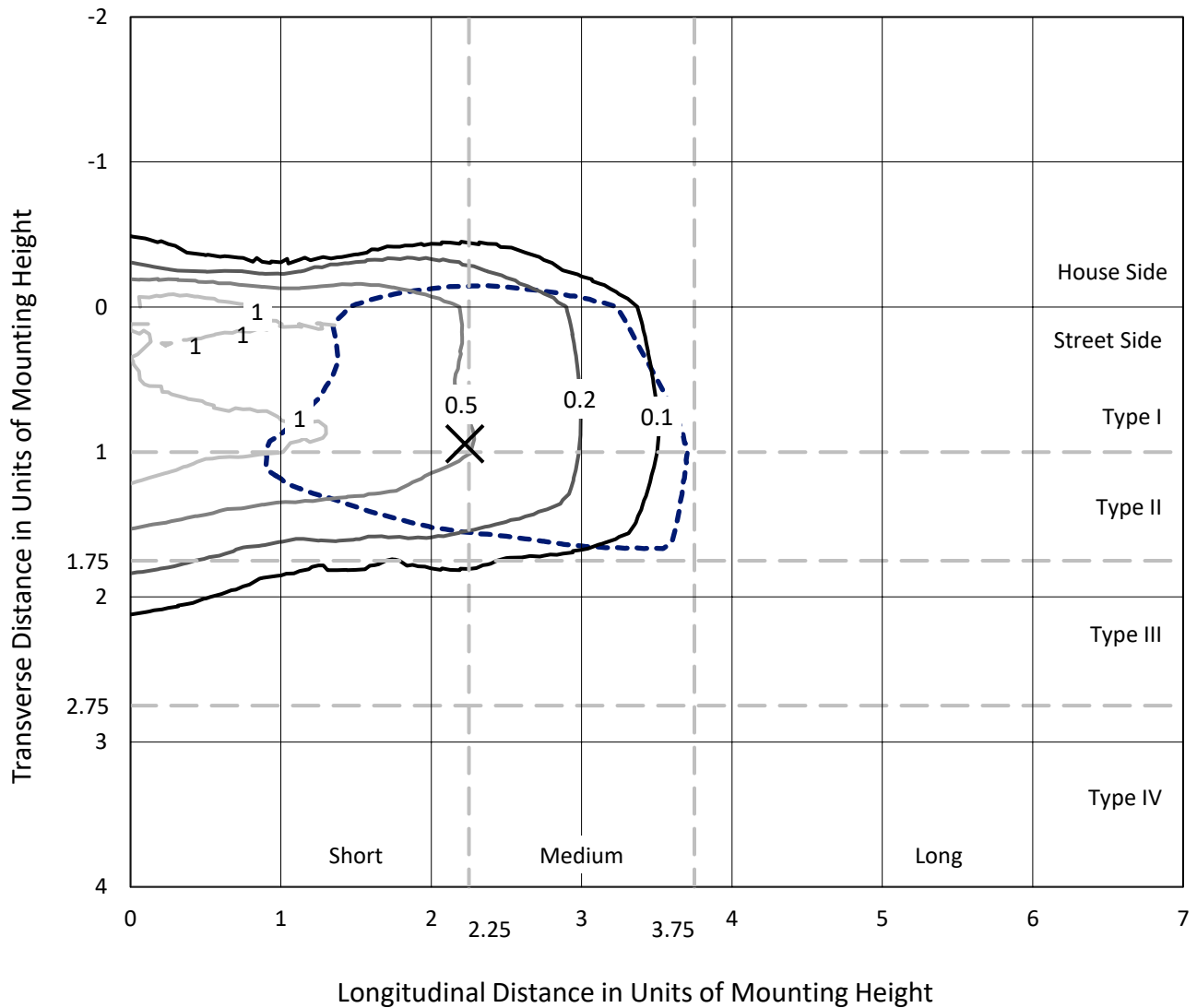
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

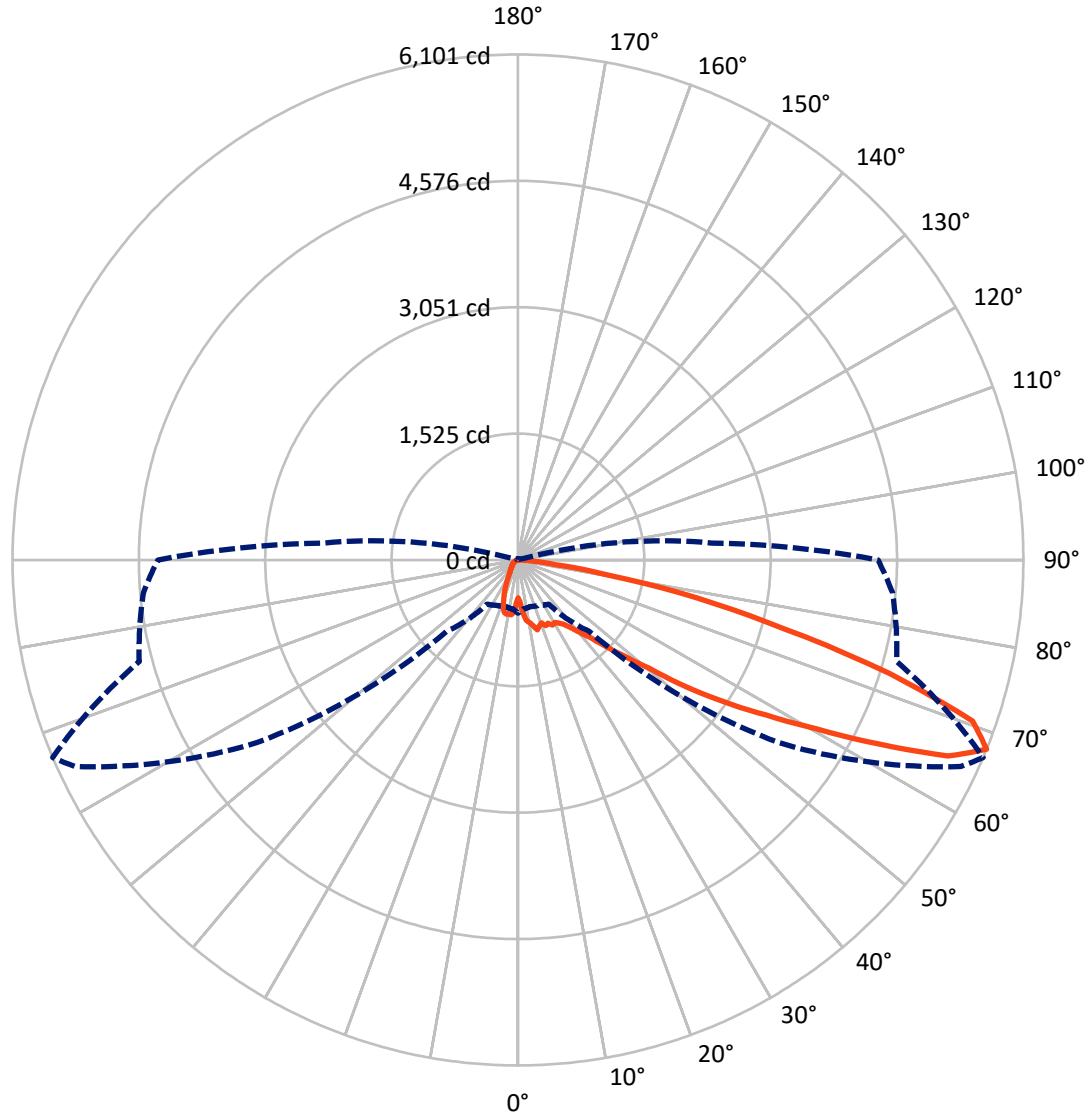
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 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	664.2	0.0	664.2
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	4706.8	0.0	4706.8
	% Fixture	87.6	0.0	87.6
Total	Lumens	5371.0	0.0	5371.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.4	1.1
10°-20°	169.9	3.2
20°-30°	266.3	5.0
30°-40°	429.3	8.0
40°-50°	788.9	14.7
50°-60°	1332.4	24.8
60°-70°	1473.0	27.4
70°-80°	771.0	14.4
80°-90°	82.8	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°	5371.0	100.0
0°-180°	5371.0	100.0

Coefficient of Utilization



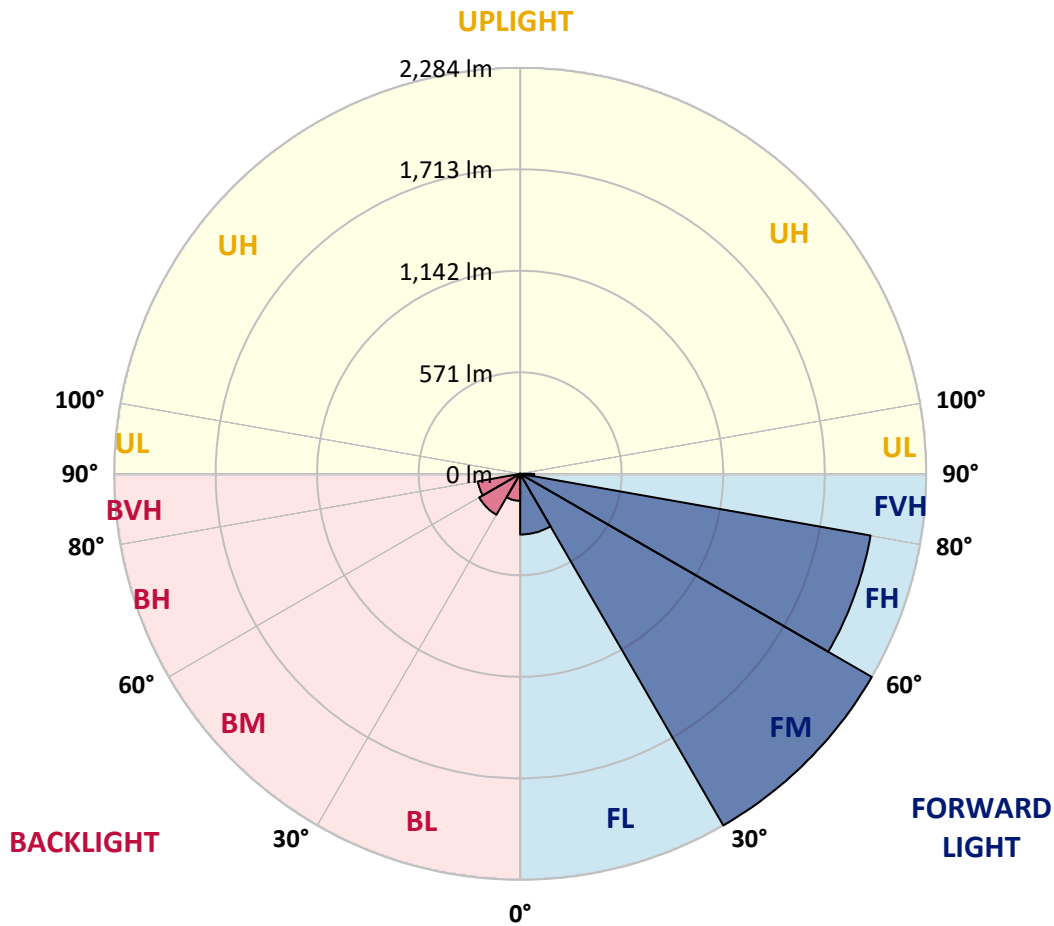
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	341.5	6.4			
FM (30°-60°)	2284.3	42.5			
FH (60°-80°)	2001.7	37.3			G2/5000
FVH (80°-90°)	79.3	1.5			G1/100
BL (0°-30°)	152.1	2.8	B1/500		
BM (30°-60°)	266.3	5.0	B1/1000		
BH (60°-80°)	242.3	4.5	B1/500		G1/500
BVH (80°-90°)	3.5	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-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5
2.5°	540.0	521.8	490.7	499.7	517.7	532.7	525.6	511.7	512.0	497.8	548.7
5°	628.3	603.8	585.8	592.1	591.2	590.7	624.2	637.0	642.5	665.9	700.5
7.5°	653.6	644.9	626.1	631.8	613.0	614.4	673.2	728.8	737.5	752.0	813.6
10°	643.8	626.9	633.7	633.7	634.0	664.5	704.0	757.2	767.8	823.4	829.9
12.5°	633.2	634.0	661.0	656.1	693.1	747.9	761.3	820.9	815.7	864.0	935.6
15°	672.7	693.4	676.0	682.8	686.3	750.6	772.1	851.4	874.3	935.4	981.9
17.5°	740.5	743.3	707.0	697.2	722.8	741.1	784.4	822.6	837.8	998.0	1064.0
20°	752.8	770.2	733.5	676.8	731.0	756.1	786.3	804.6	811.1	1017.4	1110.3
22.5°	826.6	807.3	748.4	705.4	720.9	748.2	767.0	822.0	861.2	980.9	1154.7
25°	864.5	859.3	803.2	766.4	750.6	748.4	791.5	833.2	845.7	1018.7	1165.6
27.5°	955.2	943.5	834.8	830.2	778.1	732.4	792.3	867.2	890.7	983.0	1206.4
30°	1078.7	1074.3	929.6	926.6	843.8	761.5	836.4	888.2	874.0	1001.3	1233.7
32.5°	1202.9	1238.3	1090.4	1005.9	943.8	868.6	823.9	881.7	907.0	1045.7	1283.8
35°	1353.0	1378.6	1228.0	1166.7	1028.5	918.7	907.0	944.1	955.0	1098.6	1340.8
37.5°	1615.7	1577.0	1448.7	1344.3	1271.8	1097.7	1040.0	1010.6	1035.9	1170.2	1457.1
40°	1809.7	1785.2	1627.1	1564.7	1398.0	1296.1	1145.1	1117.6	1146.0	1243.8	1538.0
42.5°	2043.7	1992.8	1844.0	1801.8	1630.1	1433.7	1280.6	1290.1	1272.4	1389.0	1680.0
45°	2255.4	2140.4	2057.6	2067.1	1975.6	1710.2	1506.4	1501.8	1487.1	1599.3	1829.3
47.5°	2397.9	2297.4	2216.7	2190.3	2179.4	2196.6	1832.8	1750.5	1739.7	1820.3	2064.4
50°	2474.5	2364.4	2264.7	2270.1	2491.4	2657.8	2169.6	2052.7	2056.8	2141.0	2385.9
52.5°	2423.0	2298.5	2193.3	2295.5	2733.3	2965.4	2727.0	2447.5	2542.3	2520.8	2817.2
55°	2185.1	2077.0	2002.3	2185.1	2759.7	3296.5	3413.4	3041.7	3020.5	2971.4	3257.0
57.5°	1784.9	1691.7	1645.7	1838.6	2470.7	3563.2	4102.7	3713.3	3532.2	3326.7	3622.1
60°	1329.9	1261.2	1213.3	1315.2	1946.7	3304.1	4554.2	4346.3	4136.5	3669.2	3950.1
62.5°	984.9	929.1	878.1	887.4	1340.5	2841.7	4727.4	5016.8	4896.4	4030.8	4259.6
65°	786.0	735.1	699.4	679.0	830.2	2138.0	4486.3	5566.3	5705.3	4371.3	4483.0
67.5°	641.9	598.9	581.2	604.6	651.2	1218.7	3842.2	5899.8	6101.4	4732.6	4538.1
70°	522.3	486.9	485.0	548.2	599.7	743.0	2826.2	5669.6	5821.4	4794.2	4208.1
72.5°	364.0	348.5	373.3	462.9	594.2	618.8	1623.0	4691.7	4697.2	4234.3	3461.3
75°	206.0	203.5	242.8	369.2	578.7	612.5	904.8	3315.6	3318.0	3202.5	2397.9
77.5°	113.3	106.0	141.4	249.6	497.0	598.3	583.6	2263.9	2205.8	1782.2	1095.3
80°	52.3	49.3	76.6	159.9	363.5	565.9	467.8	1244.3	1122.0	580.6	267.3
82.5°	21.5	20.4	35.1	102.7	229.7	455.8	394.2	552.0	443.0	110.3	82.6
85°	3.8	4.1	14.4	62.1	128.6	210.1	319.6	262.1	192.6	30.5	45.2
87.5°	0.0	0.0	3.0	15.0	31.1	57.5	129.7	73.3	50.4	9.0	13.4
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°	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5	457.5
2.5°	558.8	554.2	507.3	509.5	512.8	509.8	509.2	496.1	484.2	523.7	523.1
5°	706.8	673.8	641.4	628.8	601.9	566.4	566.7	555.5	544.1	560.2	560.2
7.5°	812.2	766.7	725.6	652.3	580.9	516.3	510.6	495.3	477.9	498.9	503.0
10°	836.7	797.2	744.1	636.5	568.9	506.0	436.8	379.8	353.4	341.1	338.9
12.5°	912.2	882.8	764.0	644.9	547.6	441.1	327.8	260.2	214.2	210.6	205.7
15°	962.6	941.9	783.6	623.9	457.7	317.1	206.0	158.0	139.5	137.9	135.4
17.5°	1040.8	1004.8	764.8	557.2	358.0	209.2	138.4	124.8	127.0	131.9	128.1
20°	1072.7	1002.4	723.9	460.5	251.5	140.3	120.2	112.8	118.5	123.2	121.0
22.5°	1105.4	1009.5	687.7	379.5	164.3	116.1	107.1	103.3	103.8	108.4	108.7
25°	1105.1	1029.1	645.7	295.6	122.3	103.3	96.7	91.8	89.9	93.2	92.4
27.5°	1158.8	1006.5	569.2	219.3	107.6	92.4	86.1	80.1	73.3	76.6	76.6
30°	1159.0	1043.2	515.8	157.5	98.6	82.3	76.8	67.6	59.7	62.4	62.7
32.5°	1189.8	1011.4	466.4	120.4	91.5	76.3	64.3	55.9	51.2	52.9	52.9
35°	1225.0	1038.6	390.7	106.3	84.5	67.8	55.0	48.2	44.7	46.0	46.0
37.5°	1341.0	1032.9	338.1	98.9	79.8	61.3	50.1	42.5	40.9	41.7	42.8
40°	1383.0	1073.5	266.7	94.5	72.2	55.3	44.1	38.4	36.2	36.8	37.1
42.5°	1489.8	1082.5	213.1	91.0	65.4	48.0	39.2	35.1	32.4	32.4	33.2
45°	1607.8	1105.1	169.5	88.0	59.7	43.0	35.4	32.2	28.1	27.5	28.6
47.5°	1778.6	1191.7	138.1	82.0	52.9	40.1	32.7	27.8	24.5	23.4	24.5
50°	2064.4	1338.9	122.1	74.7	48.0	37.6	28.9	23.7	21.3	19.9	20.7
52.5°	2467.7	1593.1	113.6	67.8	43.6	33.8	25.9	20.7	18.3	17.2	17.7
55°	2915.6	1884.6	109.5	61.0	39.8	29.7	22.6	18.3	16.1	14.7	15.0
57.5°	3329.7	2158.7	105.4	54.5	36.0	26.4	19.9	16.1	13.9	12.5	12.8
60°	3737.9	2377.5	95.6	46.9	32.4	23.7	17.4	13.9	12.5	10.9	10.9
62.5°	4098.9	2508.3	81.5	40.6	29.2	21.0	15.5	12.5	11.4	9.8	9.8
65°	4344.6	2514.3	65.7	34.9	25.6	18.0	13.6	11.7	10.6	8.7	8.4
67.5°	4348.2	2350.8	52.6	31.1	22.6	15.8	12.3	11.2	9.8	8.2	7.6
70°	3891.8	1942.1	43.9	27.2	19.6	13.9	10.6	10.6	9.5	7.9	7.1
72.5°	3113.1	1484.1	36.8	23.7	17.4	12.0	9.8	10.1	9.3	7.9	7.1
75°	2092.5	851.2	30.5	20.2	15.3	10.1	9.5	9.8	9.5	7.9	6.8
77.5°	963.7	271.1	23.7	16.6	13.1	8.4	9.3	9.3	8.7	7.1	6.0
80°	217.1	66.8	17.2	12.3	10.6	6.3	8.4	7.6	6.8	4.9	3.5
82.5°	79.0	20.4	10.4	7.6	6.5	2.5	5.4	5.4	4.9	3.5	2.2
85°	45.2	10.6	5.7	4.9	3.5	1.1	3.0	3.3	2.7	2.5	1.1
87.5°	14.7	2.5	2.7	3.0	2.7	0.5	1.1	1.1	0.8	0.5	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)