

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: P596923

Luminaire Tested: **MSA-SA2A-835-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596923
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-835-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5419 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

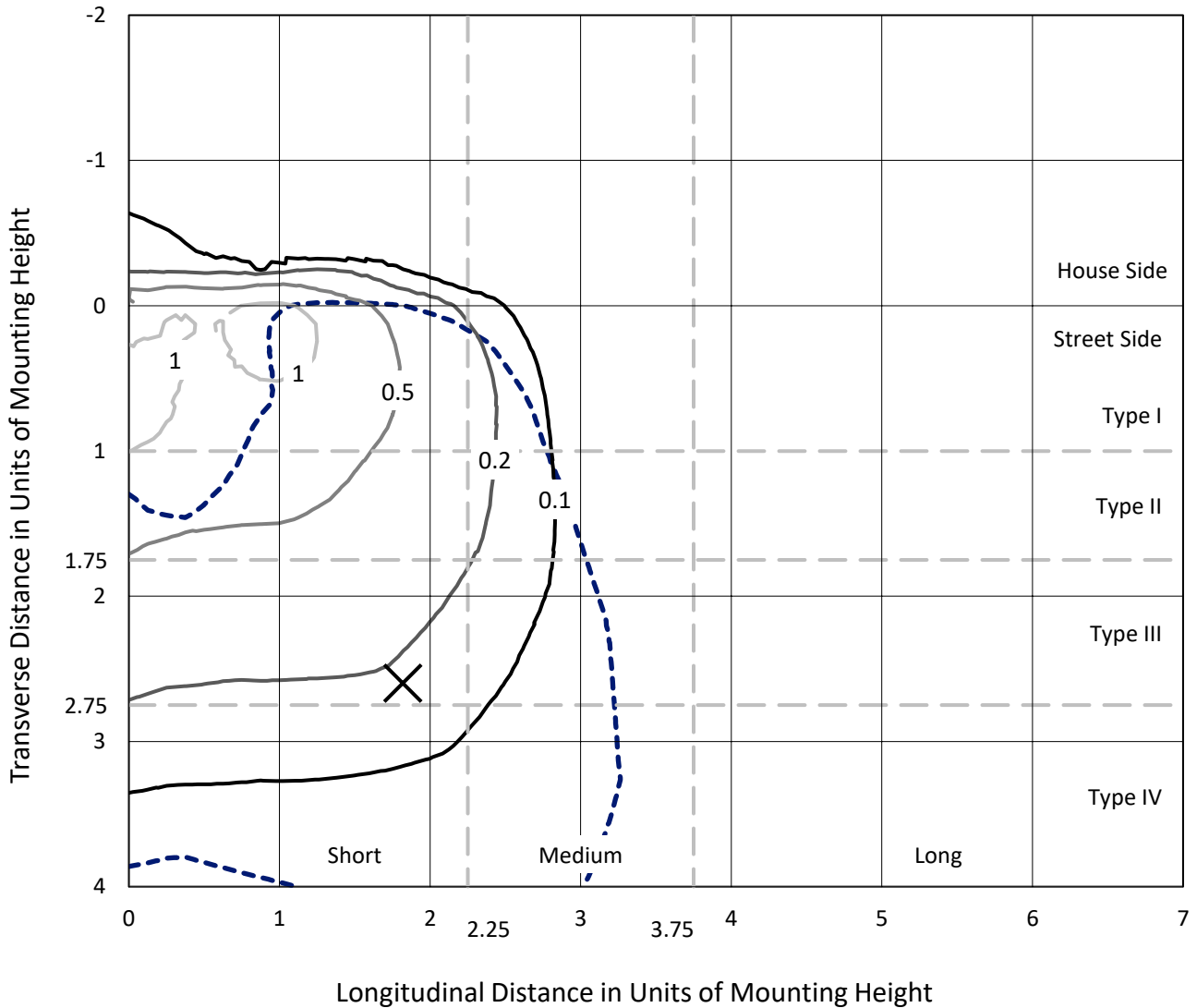
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

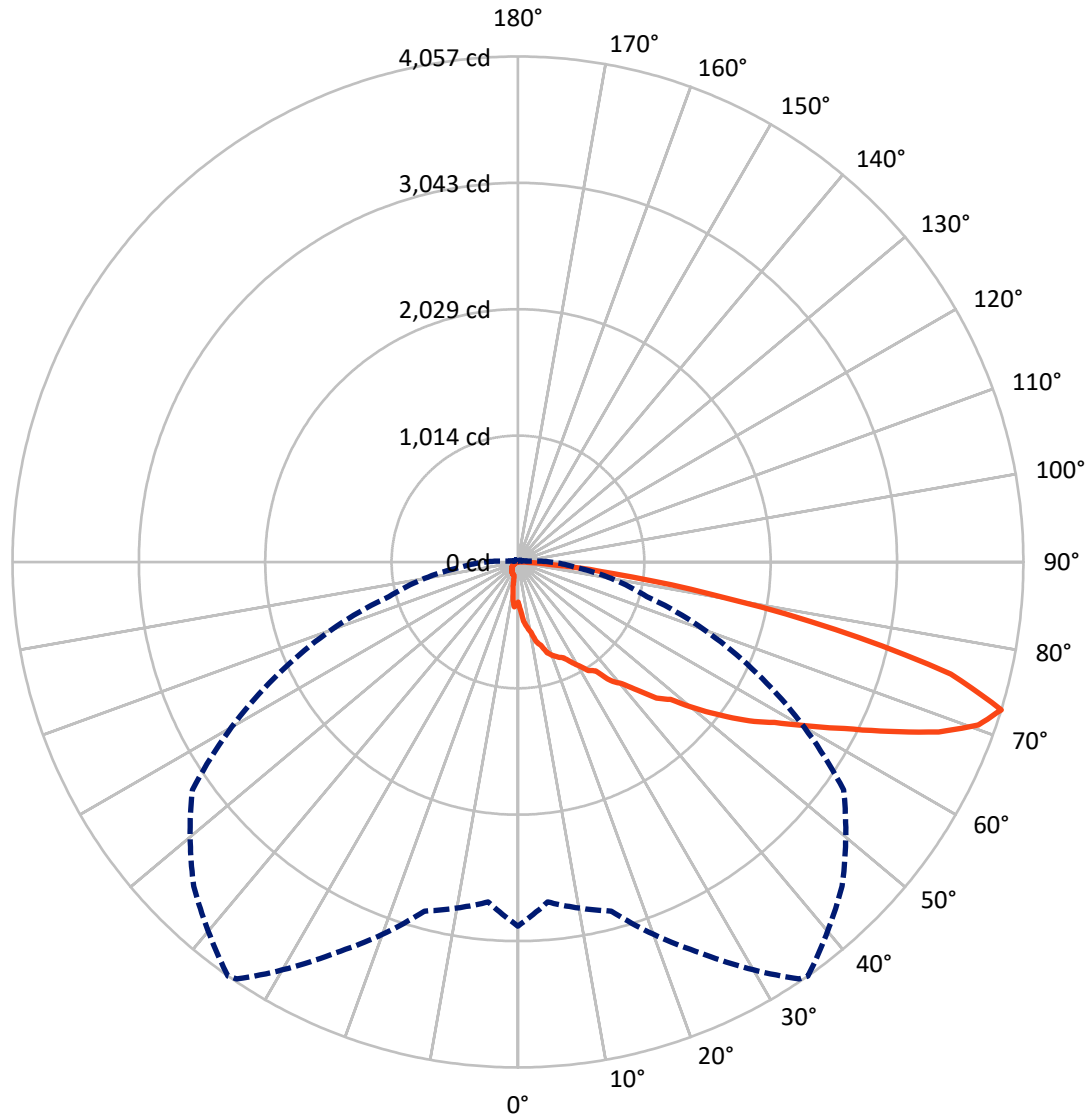
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	422.7	0.0	422.7
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	4996.3	0.0	4996.3
	% Fixture	92.2	0.0	92.2
Total	Lumens	5419.0	0.0	5419.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.2	0.8
10°-20°	138.7	2.6
20°-30°	252.6	4.7
30°-40°	435.6	8.0
40°-50°	774.4	14.3
50°-60°	1155.6	21.3
60°-70°	1476.4	27.2
70°-80°	1027.2	19.0
80°-90°	117.5	2.2
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°	5419.0	100.0
0°-180°	5419.0	100.0

Coefficient of Utilization



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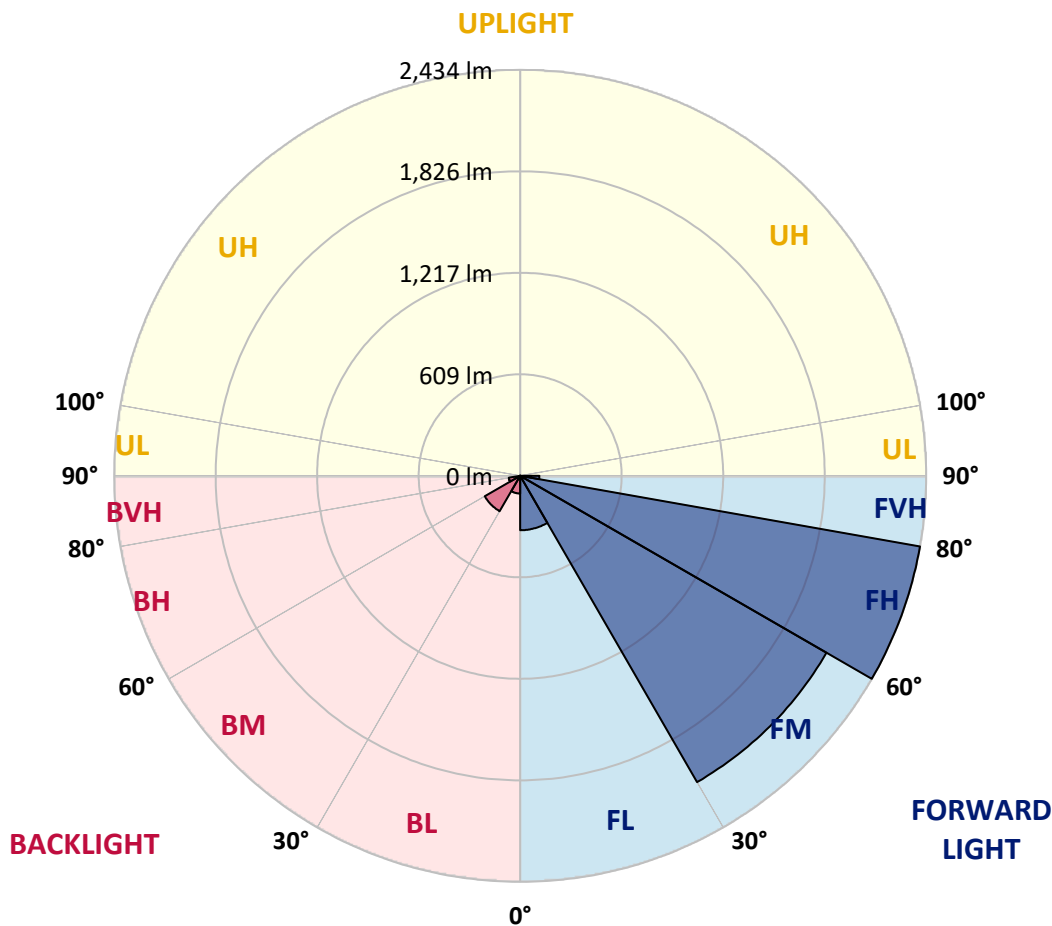
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	326.1	6.0			
FM (30°-60°)	2120.5	39.1			
FH (60°-80°)	2434.2	44.9			G2/5000
FVH (80°-90°)	115.5	2.1			G2/225
BL (0°-30°)	106.3	2.0	B0/110		
BM (30°-60°)	245.1	4.5	B1/1000		
BH (60°-80°)	69.3	1.3	B0/110		G0/110
BVH (80°-90°)	2.0	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8
2.5°	410.8	394.7	368.6	370.5	382.2	384.6	388.2	378.9	370.8	356.3	384.4
5°	526.3	503.1	488.4	483.8	477.0	477.5	460.9	466.9	465.3	475.9	488.7
7.5°	591.4	578.6	560.1	554.9	529.8	527.1	506.7	534.2	536.9	533.1	554.1
10°	617.3	600.4	602.6	583.2	570.7	574.0	577.2	579.4	583.0	586.5	560.9
12.5°	632.5	635.5	665.2	645.1	657.6	657.6	679.7	656.2	657.1	631.5	635.8
15°	701.2	717.8	704.5	704.2	690.6	694.1	719.7	701.2	710.7	703.1	673.7
17.5°	787.3	790.5	765.2	754.0	766.3	766.6	755.7	754.9	721.6	777.7	742.1
20°	814.8	833.3	797.4	753.8	804.7	802.3	801.4	788.6	733.3	811.2	781.8
22.5°	889.7	863.3	838.8	810.2	830.0	830.0	827.0	799.0	777.5	808.2	820.8
25°	913.1	916.4	884.5	875.3	875.8	851.3	849.1	837.1	816.4	869.0	843.9
27.5°	993.8	992.4	915.9	941.7	908.8	909.0	848.8	875.8	879.3	872.0	900.1
30°	1073.0	1095.1	979.6	1012.3	977.7	967.3	908.5	932.5	938.7	930.3	965.7
32.5°	1174.1	1206.5	1094.3	1062.1	1009.3	1038.7	998.1	941.5	972.5	1048.0	1067.9
35°	1281.2	1297.0	1177.4	1132.4	1072.8	1072.5	1071.1	1075.8	1110.1	1195.1	1212.0
37.5°	1473.5	1436.2	1328.0	1225.0	1238.4	1208.7	1188.0	1209.8	1245.5	1385.5	1457.7
40°	1580.8	1553.8	1401.6	1340.5	1274.3	1285.2	1341.4	1338.9	1434.0	1580.5	1688.7
42.5°	1685.1	1659.5	1509.7	1460.4	1375.4	1405.1	1429.6	1460.7	1655.5	1891.9	1951.3
45°	1778.0	1702.9	1597.2	1599.1	1554.9	1558.5	1601.8	1630.4	1912.1	2154.5	2196.2
47.5°	1834.2	1772.3	1671.0	1669.1	1666.3	1649.7	1853.8	1879.9	2116.6	2404.6	2408.4
50°	1913.2	1835.8	1747.0	1748.6	1811.5	1846.7	2090.2	2087.5	2314.1	2613.3	2525.3
52.5°	2011.5	1917.0	1819.2	1891.9	1989.2	2046.4	2244.1	2324.8	2526.4	2744.3	2571.0
55°	2137.4	2019.1	1924.9	2018.0	2230.2	2252.3	2394.8	2565.0	2757.6	2878.0	2585.7
57.5°	2285.0	2143.9	2067.6	2217.7	2429.4	2429.9	2614.1	2821.1	2899.6	2932.5	2569.1
60°	2444.1	2279.5	2202.7	2337.8	2648.9	2671.3	2857.9	2962.5	3043.7	2960.0	2539.4
62.5°	2584.1	2402.4	2342.7	2501.6	2889.8	2942.6	3070.4	3055.4	3147.7	2994.6	2464.0
65°	2750.8	2561.5	2522.3	2756.8	3204.1	3276.9	3309.0	3220.2	3182.6	2967.9	2267.6
67.5°	2915.9	2738.8	2737.7	3039.9	3616.3	3641.3	3607.6	3452.6	3142.0	2732.6	1907.7
70°	3032.2	2842.1	2913.7	3349.9	3990.8	3920.6	3778.4	3562.3	2848.9	2094.3	1246.3
72.5°	2923.0	2739.7	2901.2	3460.2	4037.2	4057.3	3679.5	3191.0	2116.6	1071.1	451.1
75°	2221.3	2109.0	2519.0	3069.8	3584.4	3589.0	3071.2	2250.7	1042.3	290.9	124.8
77.5°	1118.8	1083.1	1594.4	2179.3	2615.2	2607.5	2110.1	1205.7	335.3	96.7	62.9
80°	566.3	537.7	678.6	1175.7	1553.0	1564.5	1204.9	539.9	169.2	52.6	43.6
82.5°	347.9	330.2	371.3	532.0	753.8	772.0	457.1	341.9	104.9	31.1	39.8
85°	67.3	70.8	213.3	266.4	301.0	293.9	135.4	281.4	31.6	18.5	28.9
87.5°	0.0	1.1	49.3	86.9	87.2	77.4	30.8	62.4	4.4	5.2	3.5
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°	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8	322.8
2.5°	389.0	384.9	350.9	347.1	347.9	342.2	340.2	328.3	325.3	343.8	347.1
5°	483.3	456.0	424.4	413.0	395.3	365.3	360.9	353.3	344.9	348.1	345.7
7.5°	541.0	504.8	471.0	410.8	360.9	317.4	310.3	297.2	284.1	284.4	292.8
10°	550.3	519.8	473.2	399.9	343.0	288.5	241.1	206.8	191.2	177.3	181.4
12.5°	603.9	575.6	489.8	396.6	316.8	231.8	169.7	136.2	121.5	116.6	116.0
15°	647.0	624.6	518.1	386.6	258.8	163.2	121.5	111.7	109.0	113.6	112.2
17.5°	711.0	670.7	515.1	344.9	197.2	123.9	112.0	110.6	113.9	116.6	117.4
20°	739.1	681.0	494.7	279.5	147.6	113.6	109.2	106.5	112.5	120.7	119.0
22.5°	767.4	698.7	470.7	228.8	118.8	108.7	106.2	104.1	108.7	116.6	118.5
25°	780.2	727.1	444.0	178.7	110.3	103.0	101.3	102.2	106.0	113.1	112.2
27.5°	844.8	730.3	393.1	141.1	106.8	98.9	98.9	100.8	100.8	110.3	109.5
30°	885.1	785.6	351.7	118.8	102.7	93.2	96.4	97.3	95.9	106.2	107.1
32.5°	955.9	800.9	311.4	109.0	96.2	92.3	91.8	92.3	93.4	103.5	103.8
35°	1064.9	876.1	256.3	105.2	92.9	88.3	84.4	87.4	90.2	97.5	98.9
37.5°	1277.9	953.2	208.9	102.2	91.3	84.4	83.1	82.5	87.4	95.9	98.6
40°	1450.3	1089.7	170.0	99.7	88.0	82.3	78.7	79.0	83.4	89.6	93.7
42.5°	1694.4	1188.3	144.1	95.9	83.4	77.6	73.6	76.0	77.9	84.4	87.2
45°	1898.2	1264.8	126.9	93.4	78.7	73.3	70.0	72.7	70.8	74.1	77.9
47.5°	2060.3	1331.6	114.1	87.4	75.7	70.8	66.7	65.9	62.7	63.5	67.0
50°	2149.3	1320.4	103.5	81.5	71.9	68.4	62.7	56.9	52.6	52.3	54.5
52.5°	2180.9	1260.7	94.8	76.3	67.3	62.9	56.4	48.5	44.1	42.8	44.7
55°	2189.7	1174.9	86.9	70.6	62.9	56.1	49.3	40.9	36.2	34.1	36.0
57.5°	2161.3	1042.8	79.3	65.1	57.8	49.6	42.2	33.5	29.1	26.4	28.1
60°	2091.3	875.0	72.5	58.3	52.3	43.9	35.7	27.0	22.3	19.9	20.7
62.5°	1936.3	685.9	65.1	52.0	46.6	38.4	30.0	21.2	16.9	14.7	15.0
65°	1700.4	511.3	56.7	46.0	41.4	33.2	24.0	16.3	12.8	10.9	10.6
67.5°	1354.7	346.5	48.2	39.8	36.8	28.1	19.1	12.8	10.1	8.7	8.2
70°	796.3	174.6	40.0	34.3	31.6	23.4	15.0	10.4	9.3	8.2	7.6
72.5°	262.6	75.5	31.3	28.3	26.2	18.8	11.7	9.5	9.0	7.9	7.4
75°	91.5	43.6	23.2	21.8	20.7	14.2	9.8	8.7	8.7	7.6	6.8
77.5°	59.9	33.8	17.2	15.8	15.5	10.4	8.4	8.2	7.6	6.3	5.2
80°	49.9	19.1	12.0	11.2	10.9	6.5	6.8	6.0	4.6	2.7	1.1
82.5°	46.0	11.4	6.3	6.8	6.3	2.5	3.8	3.3	2.5	1.1	0.0
85°	27.0	5.2	3.5	3.5	2.7	0.5	1.9	1.9	1.1	0.3	0.0
87.5°	3.0	2.5	1.9	1.9	1.4	0.0	0.8	0.5	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)