

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: P596571

Luminaire Tested: **MSA-SA2A-827-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596571
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-827-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: 4832 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G2

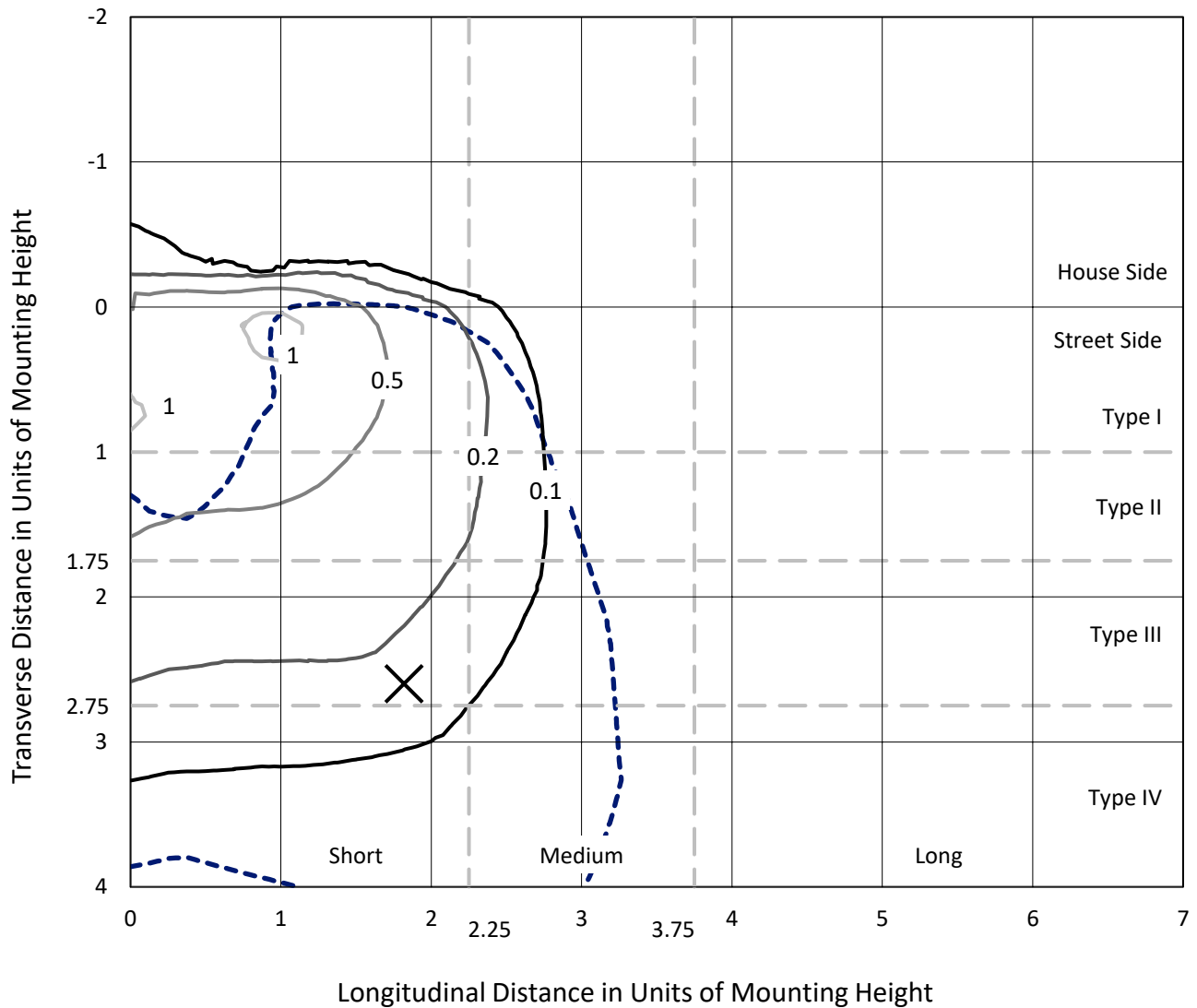
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

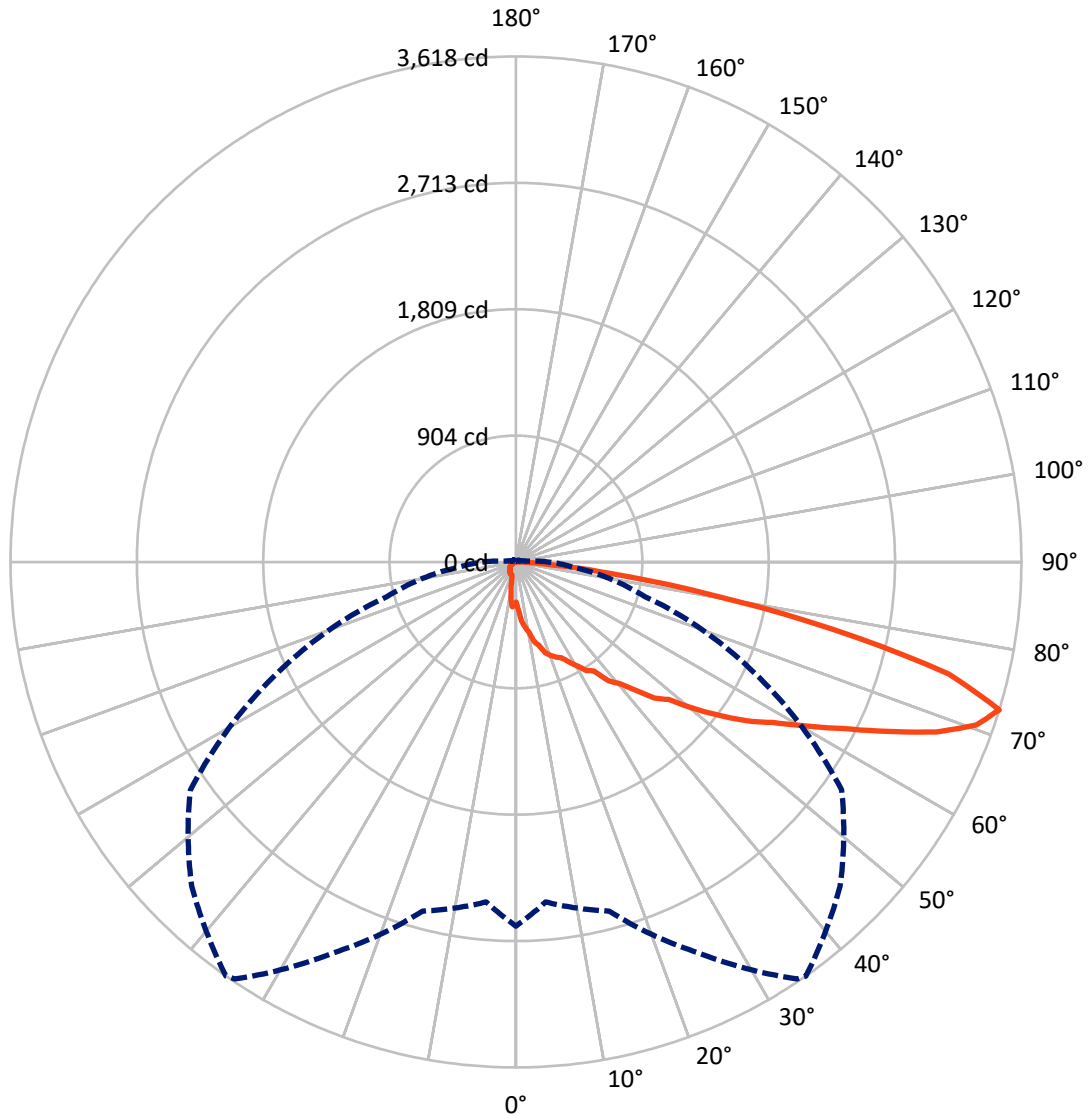
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 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	376.9	0.0	376.9
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	4455.1	0.0	4455.1
	% Fixture	92.2	0.0	92.2
Total	Lumens	4832.0	0.0	4832.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.7	0.8
10°-20°	123.7	2.6
20°-30°	225.2	4.7
30°-40°	388.4	8.0
40°-50°	690.5	14.3
50°-60°	1030.4	21.3
60°-70°	1316.4	27.2
70°-80°	915.9	19.0
80°-90°	104.8	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°	4832.0	100.0
0°-180°	4832.0	100.0

Coefficient of Utilization



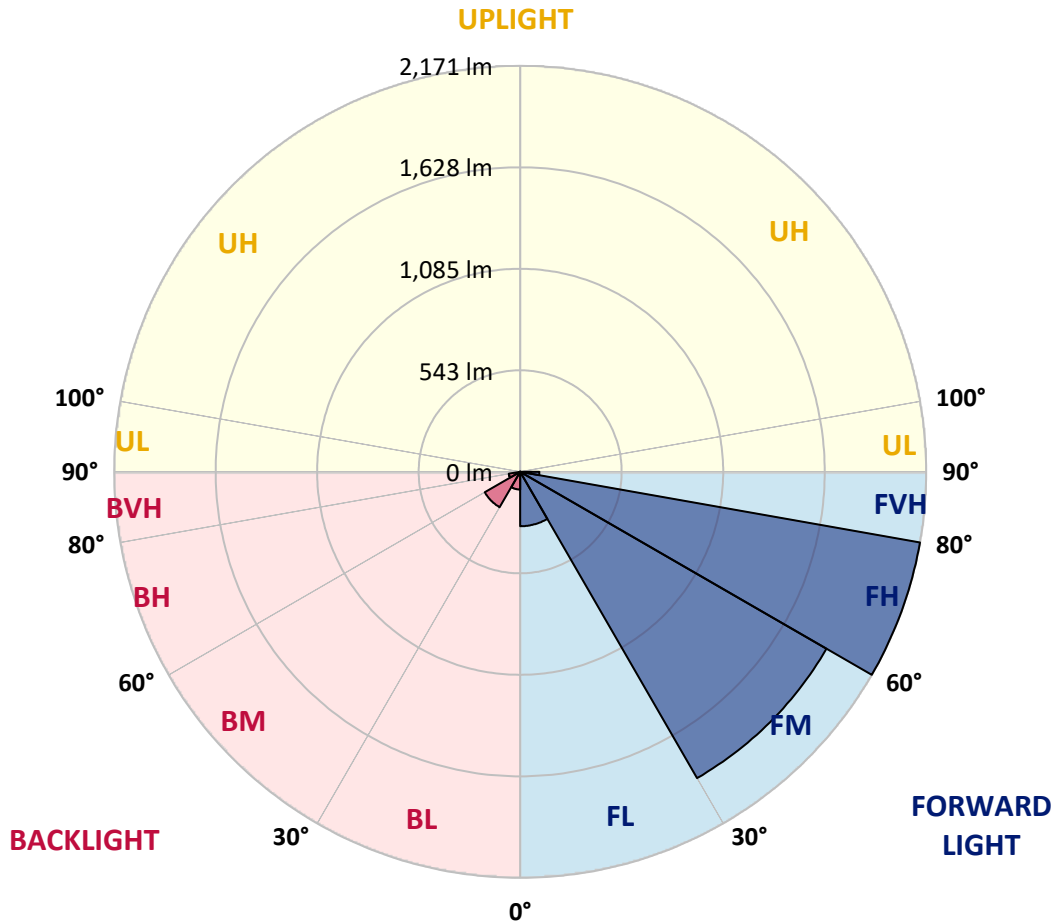
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	290.8	6.0			
FM (30°-60°)	1890.8	39.1			
FH (60°-80°)	2170.6	44.9			G2/5000
FVH (80°-90°)	103.0	2.1			G2/225
BL (0°-30°)	94.8	2.0	B0/110		
BM (30°-60°)	218.5	4.5	B0/220		
BH (60°-80°)	61.8	1.3	B0/110		G0/110
BVH (80°-90°)	1.8	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8
2.5°	366.3	352.0	328.6	330.3	340.8	343.0	346.1	337.9	330.6	317.7	342.7
5°	469.3	448.6	435.5	431.4	425.3	425.8	411.0	416.3	414.9	424.4	435.8
7.5°	527.3	515.9	499.4	494.8	472.4	470.0	451.8	476.3	478.8	475.4	494.1
10°	550.4	535.4	537.3	520.1	508.9	511.8	514.7	516.7	519.8	523.0	500.1
12.5°	564.0	566.7	593.2	575.2	586.4	586.4	606.0	585.2	585.9	563.1	566.9
15°	625.2	640.1	628.2	627.9	615.8	618.9	641.8	625.2	633.7	626.9	600.7
17.5°	702.0	704.9	682.3	672.4	683.3	683.5	673.8	673.1	643.5	693.5	661.7
20°	726.5	743.0	711.0	672.1	717.5	715.4	714.6	703.2	653.9	723.4	697.1
22.5°	793.3	769.8	747.9	722.4	740.1	740.1	737.5	712.4	693.2	720.7	731.9
25°	814.2	817.1	788.7	780.5	780.9	759.1	757.1	746.4	728.0	774.9	752.5
27.5°	886.1	884.9	816.6	839.7	810.3	810.6	756.9	780.9	784.1	777.5	802.6
30°	956.8	976.5	873.5	902.6	871.8	862.6	810.1	831.5	837.0	829.5	861.1
32.5°	1046.9	1075.8	975.7	947.1	900.0	926.2	890.0	839.5	867.2	934.5	952.2
35°	1142.4	1156.5	1049.8	1009.8	956.6	956.3	955.1	959.2	989.8	1065.6	1080.7
37.5°	1313.9	1280.6	1184.2	1092.3	1104.2	1077.8	1059.3	1078.7	1110.6	1235.4	1299.8
40°	1409.6	1385.5	1249.7	1195.3	1136.3	1146.0	1196.1	1193.9	1278.6	1409.3	1505.8
42.5°	1502.6	1479.8	1346.2	1302.2	1226.4	1252.9	1274.8	1302.5	1476.1	1687.0	1739.9
45°	1585.4	1518.4	1424.1	1425.8	1386.5	1389.7	1428.3	1453.8	1704.9	1921.1	1958.3
47.5°	1635.5	1580.3	1490.0	1488.3	1485.8	1471.0	1653.0	1676.3	1887.4	2144.1	2147.5
50°	1705.9	1636.9	1557.7	1559.2	1615.3	1646.6	1863.8	1861.4	2063.5	2330.2	2251.7
52.5°	1793.6	1709.3	1622.1	1687.0	1773.7	1824.7	2001.0	2072.9	2252.7	2447.0	2292.5
55°	1905.8	1800.4	1716.4	1799.4	1988.7	2008.3	2135.4	2287.2	2458.9	2566.3	2305.6
57.5°	2037.5	1911.7	1843.6	1977.5	2166.2	2166.7	2330.9	2515.5	2585.5	2614.9	2290.8
60°	2179.3	2032.6	1964.1	2084.6	2362.0	2381.9	2548.3	2641.6	2714.0	2639.4	2264.4
62.5°	2304.2	2142.2	2089.0	2230.6	2576.7	2623.9	2737.8	2724.4	2806.8	2670.2	2197.1
65°	2452.8	2284.0	2249.1	2458.2	2857.0	2921.9	2950.6	2871.4	2837.9	2646.4	2021.9
67.5°	2600.0	2442.2	2441.2	2710.6	3224.6	3246.9	3216.8	3078.6	2801.7	2436.6	1701.1
70°	2703.8	2534.2	2598.1	2987.0	3558.5	3495.9	3369.1	3176.5	2540.3	1867.4	1111.3
72.5°	2606.4	2442.9	2586.9	3085.4	3599.8	3617.8	3280.9	2845.4	1887.4	955.1	402.2
75°	1980.6	1880.6	2246.1	2737.3	3196.1	3200.3	2738.5	2006.9	929.4	259.4	111.3
77.5°	997.6	965.8	1421.7	1943.2	2331.9	2325.1	1881.5	1075.1	299.0	86.2	56.1
80°	505.0	479.5	605.1	1048.4	1384.8	1395.0	1074.4	481.4	150.8	46.9	38.9
82.5°	310.2	294.4	331.1	474.4	672.1	688.4	407.6	304.8	93.5	27.7	35.5
85°	60.0	63.2	190.2	237.6	268.4	262.1	120.7	250.9	28.2	16.5	25.7
87.5°	0.0	1.0	44.0	77.5	77.7	69.0	27.4	55.6	3.9	4.6	3.2
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°	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8	287.8
2.5°	346.9	343.2	312.9	309.5	310.2	305.1	303.4	292.7	290.0	306.5	309.5
5°	430.9	406.6	378.4	368.2	352.5	325.7	321.8	315.0	307.5	310.4	308.2
7.5°	482.4	450.1	420.0	366.3	321.8	283.0	276.7	265.0	253.3	253.6	261.1
10°	490.7	463.5	421.9	356.6	305.8	257.2	215.0	184.4	170.5	158.1	161.8
12.5°	538.5	513.3	436.7	353.7	282.5	206.7	151.3	121.5	108.3	104.0	103.5
15°	576.9	557.0	462.0	344.7	230.8	145.5	108.3	99.6	97.2	101.3	100.1
17.5°	634.0	598.0	459.3	307.5	175.9	110.5	99.8	98.6	101.5	104.0	104.7
20°	659.0	607.3	441.1	249.2	131.7	101.3	97.4	95.0	100.3	107.6	106.1
22.5°	684.3	623.0	419.7	204.0	105.9	96.9	94.7	92.8	96.9	104.0	105.7
25°	695.7	648.3	395.9	159.3	98.4	91.8	90.4	91.1	94.5	100.8	100.1
27.5°	753.2	651.2	350.5	125.8	95.2	88.2	88.2	89.9	89.9	98.4	97.6
30°	789.2	700.5	313.6	105.9	91.6	83.1	86.0	86.7	85.5	94.7	95.5
32.5°	852.4	714.1	277.6	97.2	85.7	82.3	81.9	82.3	83.3	92.3	92.5
35°	949.5	781.2	228.6	93.8	82.8	78.7	75.3	78.0	80.4	87.0	88.2
37.5°	1139.5	849.9	186.3	91.1	81.4	75.3	74.1	73.6	78.0	85.5	87.9
40°	1293.2	971.6	151.6	88.9	78.5	73.4	70.2	70.4	74.3	79.9	83.6
42.5°	1510.9	1059.5	128.5	85.5	74.3	69.2	65.6	67.8	69.5	75.3	77.7
45°	1692.6	1127.8	113.2	83.3	70.2	65.3	62.4	64.9	63.2	66.1	69.5
47.5°	1837.1	1187.3	101.8	78.0	67.5	63.2	59.5	58.8	55.9	56.6	59.8
50°	1916.5	1177.4	92.3	72.6	64.1	61.0	55.9	50.8	46.9	46.6	48.6
52.5°	1944.7	1124.2	84.5	68.0	60.0	56.1	50.3	43.2	39.4	38.1	39.8
55°	1952.5	1047.6	77.5	62.9	56.1	50.0	44.0	36.4	32.3	30.4	32.1
57.5°	1927.2	929.8	70.7	58.1	51.5	44.2	37.7	29.9	26.0	23.6	25.0
60°	1864.8	780.2	64.6	52.0	46.6	39.1	31.8	24.0	19.9	17.7	18.5
62.5°	1726.6	611.6	58.1	46.4	41.5	34.2	26.7	18.9	15.1	13.1	13.4
65°	1516.2	455.9	50.5	41.1	36.9	29.6	21.4	14.6	11.4	9.7	9.5
67.5°	1208.0	309.0	43.0	35.5	32.8	25.0	17.0	11.4	9.0	7.8	7.3
70°	710.0	155.7	35.7	30.6	28.2	20.9	13.4	9.2	8.3	7.3	6.8
72.5°	234.2	67.3	27.9	25.3	23.3	16.8	10.4	8.5	8.0	7.0	6.6
75°	81.6	38.9	20.6	19.4	18.5	12.6	8.7	7.8	7.8	6.8	6.1
77.5°	53.4	30.1	15.3	14.1	13.8	9.2	7.5	7.3	6.8	5.6	4.6
80°	44.5	17.0	10.7	10.0	9.7	5.8	6.1	5.3	4.1	2.4	1.0
82.5°	41.1	10.2	5.6	6.1	5.6	2.2	3.4	2.9	2.2	1.0	0.0
85°	24.0	4.6	3.2	3.2	2.4	0.5	1.7	1.7	1.0	0.2	0.0
87.5°	2.7	2.2	1.7	1.7	1.2	0.0	0.7	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)