

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: P366893

Luminaire Tested: **MSA-SA1C-730-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366893
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-730-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) 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: 4724 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G2

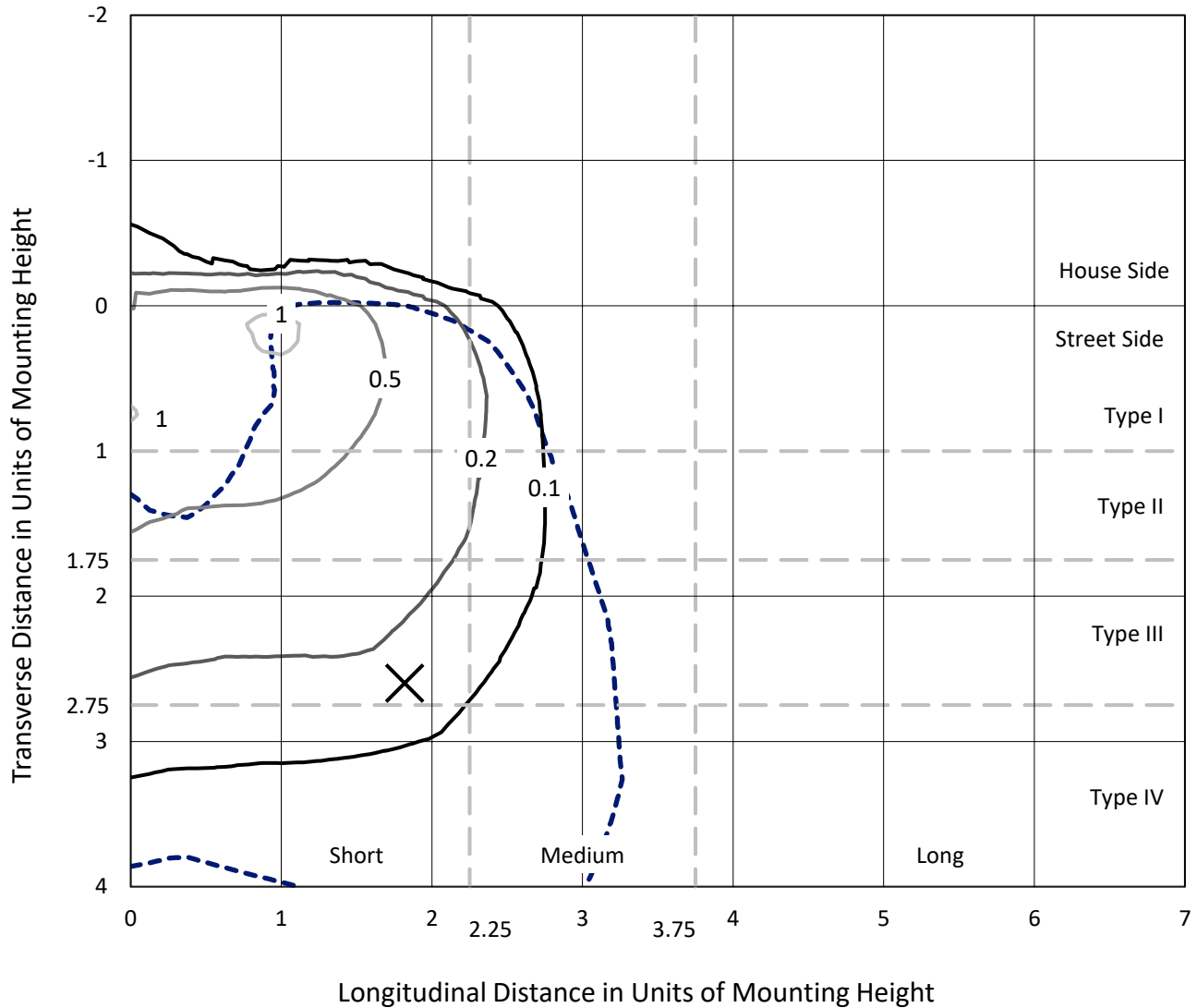
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

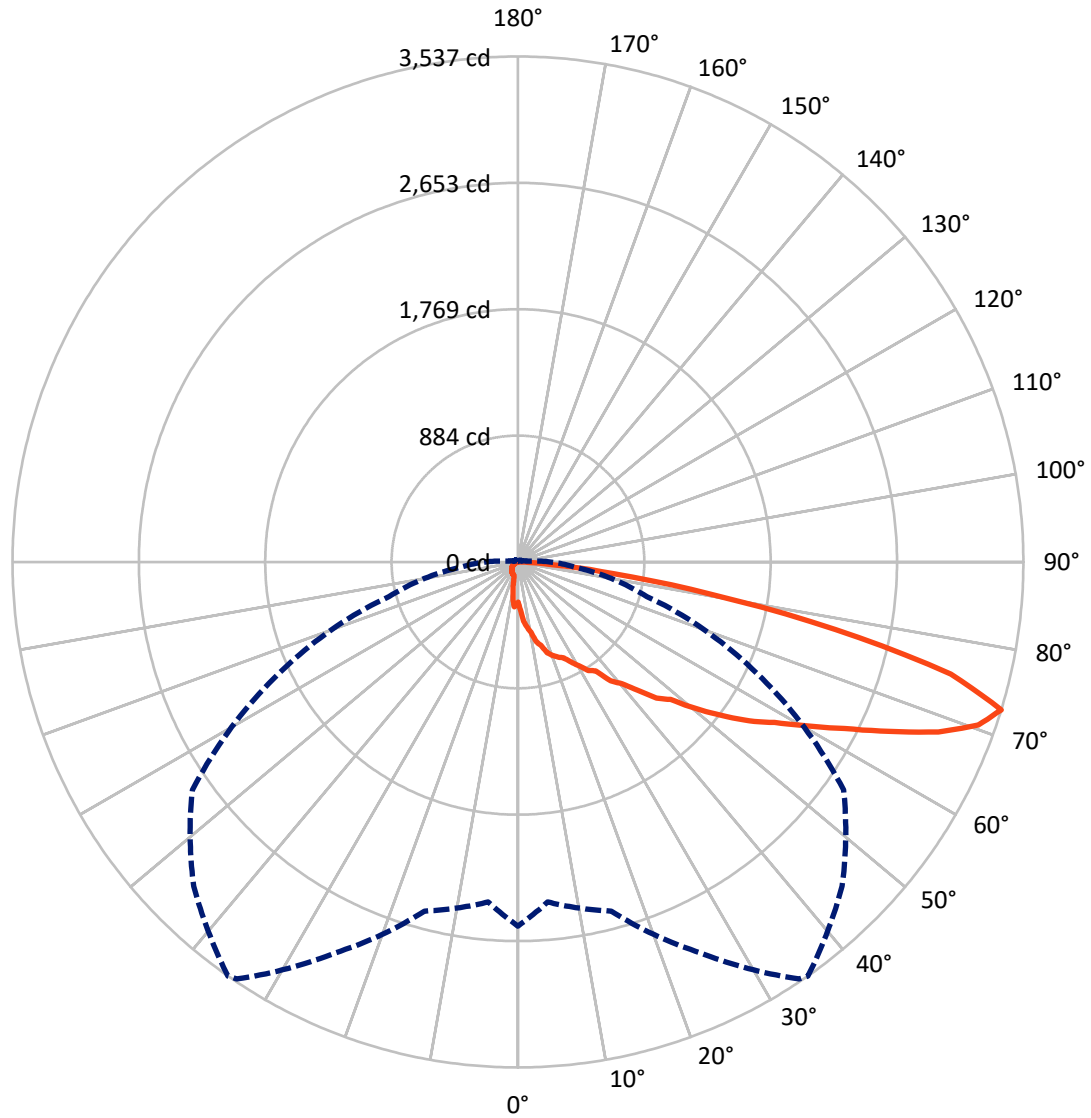
× Max cd
 - - - 1/2 Max cd



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	368.5	0.0	368.5
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	4355.5	0.0	4355.5
	% Fixture	92.2	0.0	92.2
Total	Lumens	4724.0	0.0	4724.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.9	0.8
10°-20°	120.9	2.6
20°-30°	220.2	4.7
30°-40°	379.8	8.0
40°-50°	675.1	14.3
50°-60°	1007.4	21.3
60°-70°	1287.0	27.2
70°-80°	895.4	19.0
80°-90°	102.4	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°	4724.0	100.0
0°-180°	4724.0	100.0

Coefficient of Utilization



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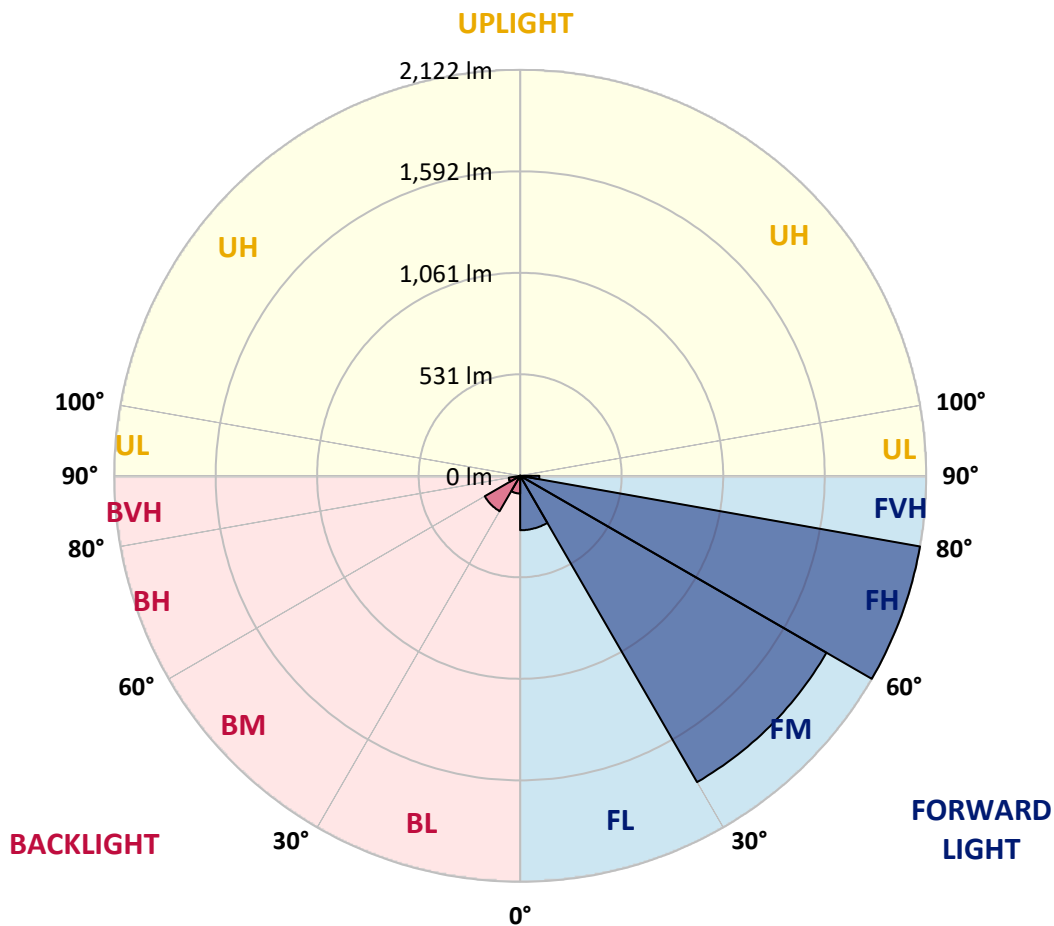
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	284.3	6.0			
FM (30°-60°)	1848.5	39.1			
FH (60°-80°)	2122.0	44.9			G2/5000
FVH (80°-90°)	100.7	2.1			G2/225
BL (0°-30°)	92.7	2.0	B0/110		
BM (30°-60°)	213.7	4.5	B0/220		
BH (60°-80°)	60.4	1.3	B0/110		G0/110
BVH (80°-90°)	1.7	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°	281.4	281.4	281.4	281.4	281.4	281.4	281.4	281.4	281.4	281.4	281.4
2.5°	358.1	344.1	321.3	323.0	333.2	335.3	338.4	330.3	323.2	310.6	335.1
5°	458.8	438.6	425.8	421.8	415.8	416.3	401.8	407.0	405.6	414.9	426.0
7.5°	515.6	504.4	488.2	483.7	461.9	459.5	441.7	465.7	468.1	464.7	483.0
10°	538.1	523.4	525.3	508.4	497.5	500.4	503.2	505.1	508.2	511.3	489.0
12.5°	551.4	554.0	579.9	562.3	573.3	573.3	592.5	572.1	572.8	550.5	554.3
15°	611.3	625.7	614.1	613.9	602.0	605.1	627.4	611.3	619.6	612.9	587.3
17.5°	686.3	689.2	667.1	657.3	668.0	668.3	658.8	658.0	629.1	678.0	646.9
20°	710.3	726.4	695.1	657.1	701.5	699.4	698.7	687.5	639.3	707.2	681.6
22.5°	775.6	752.6	731.2	706.3	723.6	723.6	721.0	696.5	677.8	704.6	715.5
25°	796.0	798.9	771.1	763.0	763.5	742.1	740.2	729.8	711.7	757.5	735.7
27.5°	866.3	865.1	798.4	821.0	792.2	792.5	740.0	763.5	766.6	760.2	784.6
30°	935.4	954.7	854.0	882.5	852.3	843.3	792.0	812.9	818.3	811.0	841.8
32.5°	1023.5	1051.8	953.9	925.9	879.8	905.5	870.1	820.7	847.8	913.6	930.9
35°	1116.8	1130.6	1026.4	987.2	935.2	934.9	933.8	937.8	967.7	1041.8	1056.5
37.5°	1284.5	1252.0	1157.7	1067.9	1079.6	1053.7	1035.6	1054.6	1085.7	1207.8	1270.7
40°	1378.1	1354.6	1221.8	1168.6	1110.9	1120.4	1169.3	1167.2	1250.1	1377.8	1472.1
42.5°	1469.0	1446.7	1316.1	1273.1	1199.0	1224.9	1246.3	1273.3	1443.1	1649.3	1701.0
45°	1550.0	1484.5	1392.3	1394.0	1355.5	1358.6	1396.4	1421.3	1666.8	1878.2	1914.5
47.5°	1598.9	1545.0	1456.7	1455.0	1452.6	1438.1	1616.0	1638.8	1845.2	2096.2	2099.5
50°	1667.8	1600.3	1522.9	1524.4	1579.2	1609.8	1822.1	1819.8	2017.4	2278.1	2201.4
52.5°	1753.5	1671.1	1585.9	1649.3	1734.0	1783.9	1956.3	2026.6	2202.3	2392.3	2241.3
55°	1863.2	1760.2	1678.0	1759.2	1944.2	1963.4	2087.6	2236.1	2404.0	2508.9	2254.1
57.5°	1991.9	1868.9	1802.4	1933.3	2117.8	2118.3	2278.8	2459.3	2527.7	2556.4	2239.6
60°	2130.6	1987.2	1920.2	2038.0	2309.2	2328.7	2491.4	2582.5	2653.3	2580.4	2213.7
62.5°	2252.7	2094.3	2042.3	2180.7	2519.1	2565.2	2676.6	2663.5	2744.0	2610.6	2148.0
65°	2398.0	2233.0	2198.8	2403.2	2793.2	2856.6	2884.6	2807.2	2774.4	2587.3	1976.7
67.5°	2541.9	2387.6	2386.6	2650.0	3152.5	3174.3	3144.9	3009.8	2739.0	2382.1	1663.0
70°	2643.3	2477.6	2540.0	2920.2	3479.0	3417.7	3293.8	3105.5	2483.5	1825.7	1086.4
72.5°	2548.1	2388.3	2529.1	3016.4	3519.4	3537.0	3207.6	2781.8	1845.2	933.8	393.3
75°	1936.4	1838.5	2195.9	2676.1	3124.7	3128.7	2677.3	1962.0	908.6	253.6	108.8
77.5°	975.3	944.2	1389.9	1899.8	2279.8	2273.1	1839.5	1051.1	292.3	84.3	54.9
80°	493.7	468.8	591.6	1024.9	1353.8	1363.8	1050.4	470.7	147.5	45.8	38.0
82.5°	303.3	287.8	323.7	463.8	657.1	673.0	398.5	298.0	91.4	27.1	34.7
85°	58.7	61.7	185.9	232.3	262.4	256.2	118.0	245.3	27.5	16.1	25.2
87.5°	0.0	0.9	43.0	75.8	76.0	67.4	26.8	54.4	3.8	4.5	3.1
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°	281.4	281.4	281.4	281.4	281.4	281.4	281.4	281.4	281.4	281.4	281.4
2.5°	339.1	335.6	305.9	302.5	303.3	298.3	296.6	286.2	283.5	299.7	302.5
5°	421.3	397.5	370.0	360.0	344.6	318.5	314.7	308.0	300.6	303.5	301.4
7.5°	471.6	440.0	410.6	358.1	314.7	276.7	270.5	259.1	247.7	247.9	255.3
10°	479.7	453.1	412.5	348.6	299.0	251.5	210.2	180.2	166.7	154.6	158.2
12.5°	526.5	501.8	427.0	345.8	276.2	202.1	147.9	118.7	105.9	101.6	101.2
15°	564.0	544.5	451.7	337.0	225.6	142.2	105.9	97.4	95.0	99.0	97.8
17.5°	619.8	584.7	449.1	300.6	171.9	108.1	97.6	96.4	99.3	101.6	102.4
20°	644.3	593.7	431.3	243.6	128.7	99.0	95.2	92.9	98.1	105.2	103.8
22.5°	669.0	609.1	410.4	199.5	103.5	94.8	92.6	90.7	94.8	101.6	103.3
25°	680.1	633.8	387.1	155.8	96.2	89.8	88.3	89.1	92.4	98.6	97.8
27.5°	736.4	636.7	342.7	123.0	93.1	86.2	86.2	87.9	87.9	96.2	95.5
30°	771.6	684.9	306.6	103.5	89.5	81.2	84.1	84.8	83.6	92.6	93.3
32.5°	833.3	698.2	271.4	95.0	83.8	80.5	80.0	80.5	81.5	90.2	90.5
35°	928.3	763.7	223.5	91.7	81.0	76.9	73.6	76.2	78.6	85.0	86.2
37.5°	1114.0	830.9	182.1	89.1	79.6	73.6	72.4	72.0	76.2	83.6	86.0
40°	1264.3	949.9	148.2	86.9	76.7	71.7	68.6	68.9	72.7	78.1	81.7
42.5°	1477.1	1035.9	125.6	83.6	72.7	67.7	64.1	66.3	67.9	73.6	76.0
45°	1654.7	1102.6	110.7	81.5	68.6	63.9	61.0	63.4	61.7	64.6	67.9
47.5°	1796.0	1160.8	99.5	76.2	66.0	61.7	58.2	57.5	54.6	55.3	58.4
50°	1873.7	1151.0	90.2	71.0	62.7	59.6	54.6	49.6	45.8	45.6	47.5
52.5°	1901.2	1099.0	82.6	66.5	58.7	54.9	49.2	42.3	38.5	37.3	38.9
55°	1908.8	1024.2	75.8	61.5	54.9	48.9	43.0	35.6	31.6	29.7	31.3
57.5°	1884.1	909.1	69.1	56.8	50.3	43.2	36.8	29.2	25.4	23.0	24.5
60°	1823.1	762.8	63.2	50.8	45.6	38.2	31.1	23.5	19.5	17.3	18.0
62.5°	1688.0	598.0	56.8	45.4	40.6	33.5	26.1	18.5	14.7	12.8	13.1
65°	1482.3	445.7	49.4	40.1	36.1	29.0	20.9	14.2	11.2	9.5	9.3
67.5°	1181.0	302.1	42.0	34.7	32.1	24.5	16.6	11.2	8.8	7.6	7.1
70°	694.1	152.2	34.9	29.9	27.5	20.4	13.1	9.0	8.1	7.1	6.6
72.5°	228.9	65.8	27.3	24.7	22.8	16.4	10.2	8.3	7.8	6.9	6.4
75°	79.8	38.0	20.2	19.0	18.0	12.3	8.5	7.6	7.6	6.6	5.9
77.5°	52.2	29.4	15.0	13.8	13.5	9.0	7.4	7.1	6.6	5.5	4.5
80°	43.5	16.6	10.4	9.7	9.5	5.7	5.9	5.2	4.0	2.4	0.9
82.5°	40.1	10.0	5.5	5.9	5.5	2.1	3.3	2.8	2.1	0.9	0.0
85°	23.5	4.5	3.1	3.1	2.4	0.5	1.7	1.7	0.9	0.2	0.0
87.5°	2.6	2.1	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)