

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: P367135

Luminaire Tested: **MSA-SA2A-727-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367135
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-SA2A-727-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: 5498 lumens
Efficiency: N/A
Efficacy: 83.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

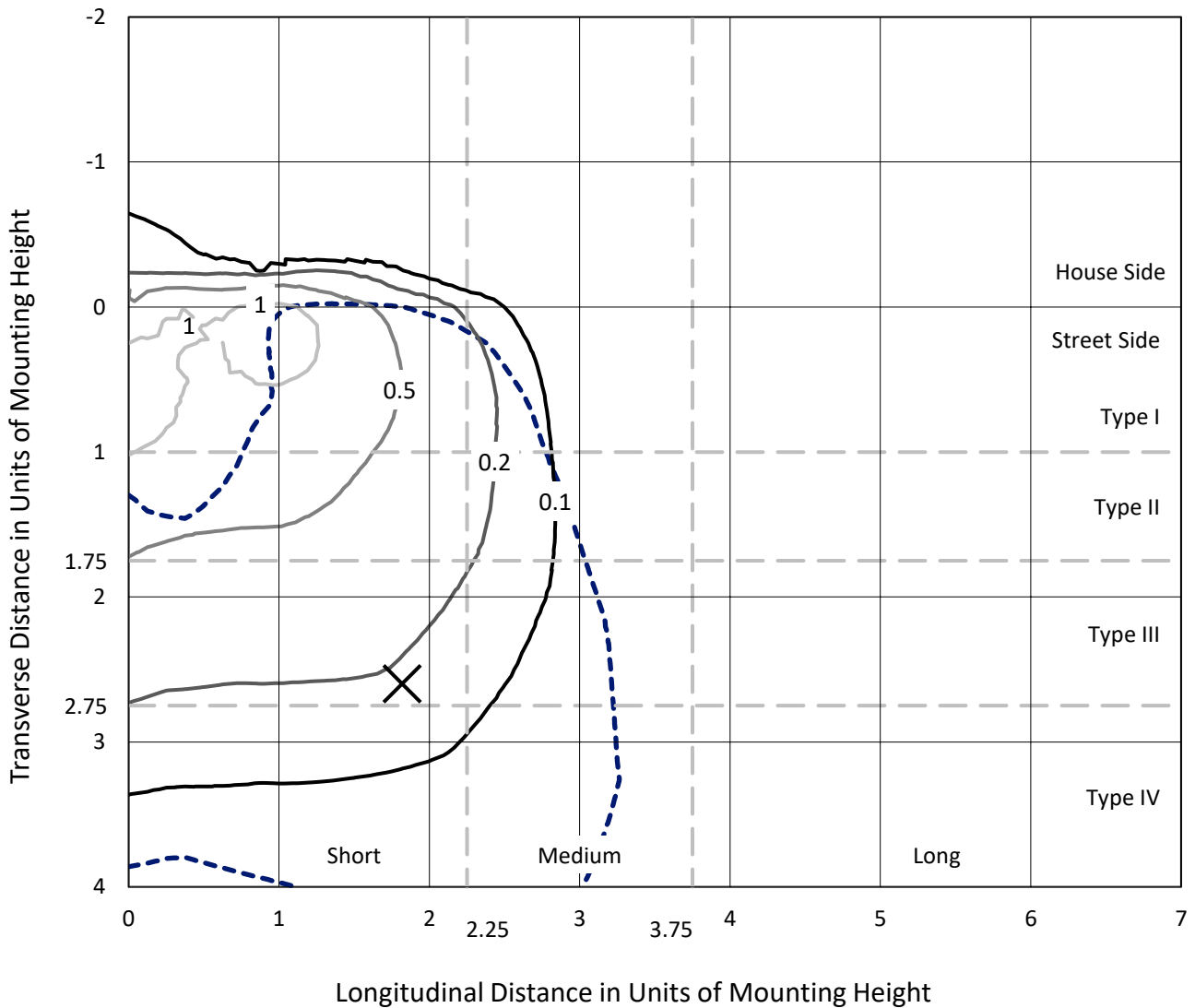
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

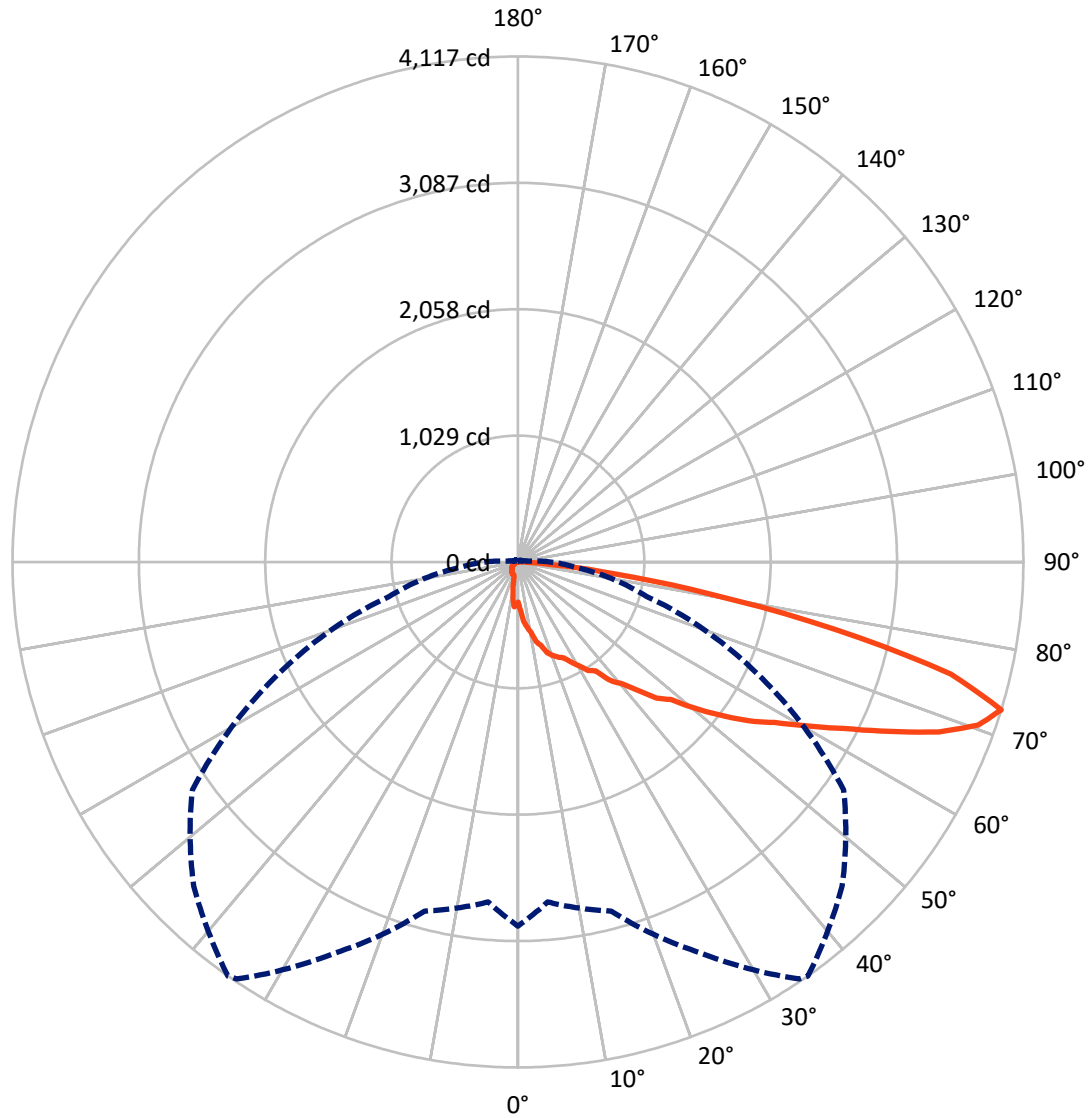
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 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	428.8	0.0	428.8
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	5069.2	0.0	5069.2
	% Fixture	92.2	0.0	92.2
Total	Lumens	5498.0	0.0	5498.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.8	0.8
10°-20°	140.7	2.6
20°-30°	256.2	4.7
30°-40°	442.0	8.0
40°-50°	785.7	14.3
50°-60°	1172.4	21.3
60°-70°	1497.9	27.2
70°-80°	1042.1	19.0
80°-90°	119.2	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°	5498.0	100.0
0°-180°	5498.0	100.0

Coefficient of Utilization

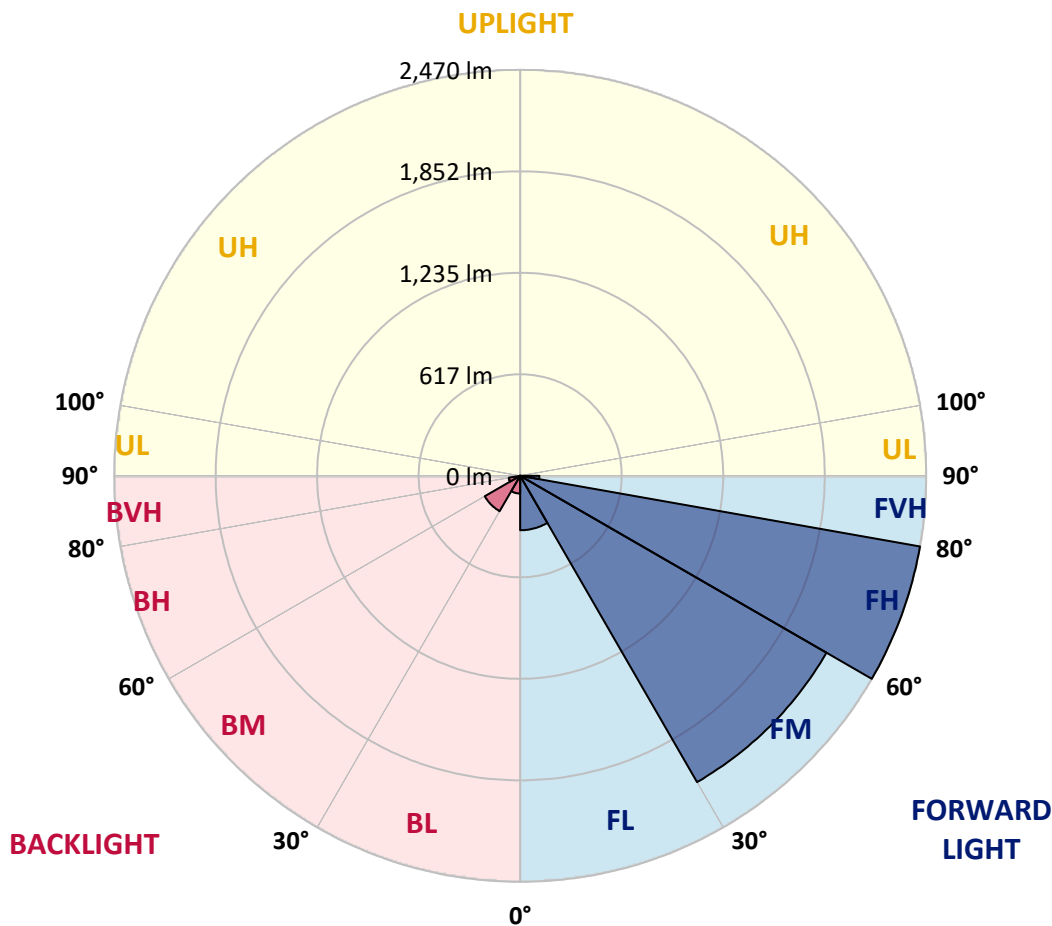


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	330.9	6.0			
FM (30°-60°)	2151.4	39.1			
FH (60°-80°)	2469.7	44.9			G2/5000
FVH (80°-90°)	117.2	2.1			G2/225
BL (0°-30°)	107.9	2.0	B0/110		
BM (30°-60°)	248.7	4.5	B1/1000		
BH (60°-80°)	70.3	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°	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5
2.5°	416.8	400.5	373.9	375.9	387.8	390.3	393.8	384.5	376.2	361.5	390.0
5°	534.0	510.5	495.6	490.9	483.9	484.5	467.6	473.7	472.1	482.8	495.8
7.5°	600.0	587.0	568.2	563.0	537.6	534.8	514.1	542.0	544.8	540.9	562.2
10°	626.3	609.2	611.4	591.7	579.0	582.3	585.7	587.9	591.5	595.1	569.1
12.5°	641.8	644.8	674.9	654.5	667.2	667.2	689.6	665.8	666.6	640.7	645.1
15°	711.4	728.3	714.7	714.5	700.6	704.2	730.2	711.4	721.1	713.3	683.5
17.5°	798.7	802.1	776.4	765.0	777.5	777.7	766.7	765.9	732.1	789.1	752.9
20°	826.7	845.5	809.0	764.8	816.4	814.0	813.1	800.1	744.0	823.1	793.2
22.5°	902.7	875.9	851.0	822.0	842.1	842.1	839.1	810.6	788.8	820.0	832.7
25°	926.4	929.8	897.4	888.0	888.6	863.7	861.5	849.3	828.3	881.7	856.2
27.5°	1008.2	1006.9	929.2	955.5	922.0	922.3	861.2	888.6	892.2	884.7	913.2
30°	1088.7	1111.1	993.9	1027.0	991.9	981.4	921.7	946.1	952.4	943.9	979.8
32.5°	1191.2	1224.1	1110.2	1077.6	1024.0	1053.9	1012.7	955.2	986.7	1063.2	1083.4
35°	1299.8	1315.9	1194.5	1148.9	1088.4	1088.1	1086.7	1091.4	1126.3	1212.5	1229.6
37.5°	1495.0	1457.1	1347.4	1242.9	1256.4	1226.3	1205.3	1227.4	1263.6	1405.7	1478.9
40°	1603.9	1576.5	1422.0	1360.1	1292.9	1304.0	1360.9	1358.4	1454.9	1603.6	1713.3
42.5°	1709.7	1683.7	1531.7	1481.7	1395.5	1425.6	1450.5	1482.0	1679.6	1919.5	1979.7
45°	1804.0	1727.7	1620.4	1622.4	1577.6	1581.2	1625.1	1654.2	1939.9	2185.9	2228.2
47.5°	1860.9	1798.2	1695.3	1693.4	1690.6	1673.8	1880.8	1907.3	2147.5	2439.6	2443.5
50°	1941.0	1862.6	1772.5	1774.1	1838.0	1873.6	2120.7	2117.9	2347.9	2651.4	2562.1
52.5°	2040.8	1944.9	1845.7	1919.5	2018.2	2076.2	2276.9	2358.7	2563.2	2784.3	2608.5
55°	2168.5	2048.6	1952.9	2047.5	2262.8	2285.1	2429.7	2602.4	2797.8	2920.0	2623.4
57.5°	2318.3	2175.1	2097.8	2250.0	2464.8	2465.3	2652.2	2862.2	2941.8	2975.3	2606.6
60°	2479.7	2312.8	2234.8	2371.9	2687.6	2710.2	2899.5	3005.7	3088.0	3003.2	2576.5
62.5°	2621.8	2437.4	2376.9	2538.0	2931.9	2985.5	3115.1	3099.9	3193.6	3038.3	2499.9
65°	2790.9	2598.8	2559.0	2797.0	3250.8	3324.6	3357.2	3267.1	3229.0	3011.2	2300.6
67.5°	2958.4	2778.8	2777.7	3084.2	3669.0	3694.4	3660.2	3502.9	3187.8	2772.4	1935.5
70°	3076.4	2883.5	2956.2	3398.7	4049.0	3977.7	3833.4	3614.3	2890.4	2124.8	1264.5
72.5°	2965.6	2779.6	2943.5	3510.6	4096.0	4116.5	3733.1	3237.6	2147.5	1086.7	457.7
75°	2253.6	2139.8	2555.7	3114.6	3636.7	3641.4	3116.0	2283.5	1057.4	295.2	126.6
77.5°	1135.1	1098.9	1617.7	2211.1	2653.3	2645.5	2140.9	1223.3	340.2	98.1	63.8
80°	574.6	545.6	688.5	1192.9	1575.7	1587.3	1222.4	547.8	171.6	53.3	44.2
82.5°	352.9	335.0	376.7	539.8	764.8	783.3	463.8	346.9	106.4	31.5	40.4
85°	68.3	71.9	216.4	270.3	305.4	298.2	137.4	285.5	32.1	18.8	29.3
87.5°	0.0	1.1	50.0	88.2	88.4	78.5	31.2	63.3	4.4	5.3	3.6
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°	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5	327.5
2.5°	394.7	390.5	356.0	352.1	352.9	347.1	345.2	333.0	330.0	348.8	352.1
5°	490.3	462.7	430.6	419.0	401.0	370.6	366.2	358.5	349.9	353.2	350.7
7.5°	548.9	512.1	477.9	416.8	366.2	322.0	314.8	301.5	288.3	288.5	297.1
10°	558.3	527.3	480.1	405.7	348.0	292.7	244.6	209.8	194.0	179.9	184.1
12.5°	612.7	584.0	496.9	402.4	321.4	235.2	172.2	138.2	123.3	118.3	117.7
15°	656.4	633.7	525.7	392.2	262.6	165.6	123.3	113.3	110.6	115.3	113.9
17.5°	721.4	680.5	522.6	349.9	200.1	125.8	113.6	112.2	115.5	118.3	119.1
20°	749.8	691.0	501.9	283.6	149.8	115.3	110.8	108.1	114.1	122.4	120.8
22.5°	778.6	708.9	477.6	232.2	120.5	110.3	107.8	105.6	110.3	118.3	120.2
25°	791.6	737.7	450.5	181.3	111.9	104.5	102.8	103.6	107.5	114.7	113.9
27.5°	857.1	741.0	398.8	143.2	108.3	100.3	100.3	102.3	102.3	111.9	111.1
30°	898.0	797.1	356.8	120.5	104.2	94.5	97.8	98.7	97.3	107.8	108.6
32.5°	969.8	812.6	315.9	110.6	97.6	93.7	93.1	93.7	94.8	105.0	105.3
35°	1080.4	888.9	260.1	106.7	94.2	89.5	85.7	88.7	91.5	98.9	100.3
37.5°	1296.5	967.1	212.0	103.6	92.6	85.7	84.3	83.7	88.7	97.3	100.1
40°	1471.5	1105.5	172.5	101.2	89.3	83.5	79.9	80.2	84.6	90.9	95.1
42.5°	1719.1	1205.6	146.2	97.3	84.6	78.8	74.6	77.1	79.0	85.7	88.4
45°	1925.8	1283.3	128.8	94.8	79.9	74.3	71.0	73.8	71.9	75.2	79.0
47.5°	2090.3	1351.0	115.8	88.7	76.8	71.9	67.7	66.9	63.6	64.4	68.0
50°	2180.7	1339.6	105.0	82.6	73.0	69.4	63.6	57.8	53.3	53.1	55.3
52.5°	2212.7	1279.1	96.2	77.4	68.3	63.8	57.2	49.2	44.8	43.4	45.3
55°	2221.6	1192.0	88.2	71.6	63.8	56.9	50.0	41.5	36.8	34.5	36.5
57.5°	2192.8	1058.0	80.4	66.1	58.6	50.3	42.8	34.0	29.6	26.8	28.5
60°	2121.8	887.7	73.5	59.1	53.1	44.5	36.2	27.4	22.7	20.2	21.0
62.5°	1964.5	695.9	66.1	52.8	47.3	39.0	30.4	21.6	17.1	14.9	15.2
65°	1725.2	518.8	57.5	46.7	42.0	33.7	24.3	16.6	13.0	11.1	10.8
67.5°	1374.5	351.6	48.9	40.4	37.3	28.5	19.3	13.0	10.2	8.8	8.3
70°	807.9	177.2	40.6	34.8	32.1	23.8	15.2	10.5	9.4	8.3	7.7
72.5°	266.4	76.6	31.8	28.7	26.5	19.1	11.9	9.7	9.1	8.0	7.5
75°	92.9	44.2	23.5	22.1	21.0	14.4	9.9	8.8	8.8	7.7	6.9
77.5°	60.8	34.3	17.4	16.0	15.8	10.5	8.6	8.3	7.7	6.4	5.3
80°	50.6	19.3	12.2	11.3	11.1	6.6	6.9	6.1	4.7	2.8	1.1
82.5°	46.7	11.6	6.4	6.9	6.4	2.5	3.9	3.3	2.5	1.1	0.0
85°	27.4	5.3	3.6	3.6	2.8	0.6	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	0.6	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)