

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: P367175

Luminaire Tested: **MSA-SA2A-740-U-SL2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367175
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-740-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: 6514 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

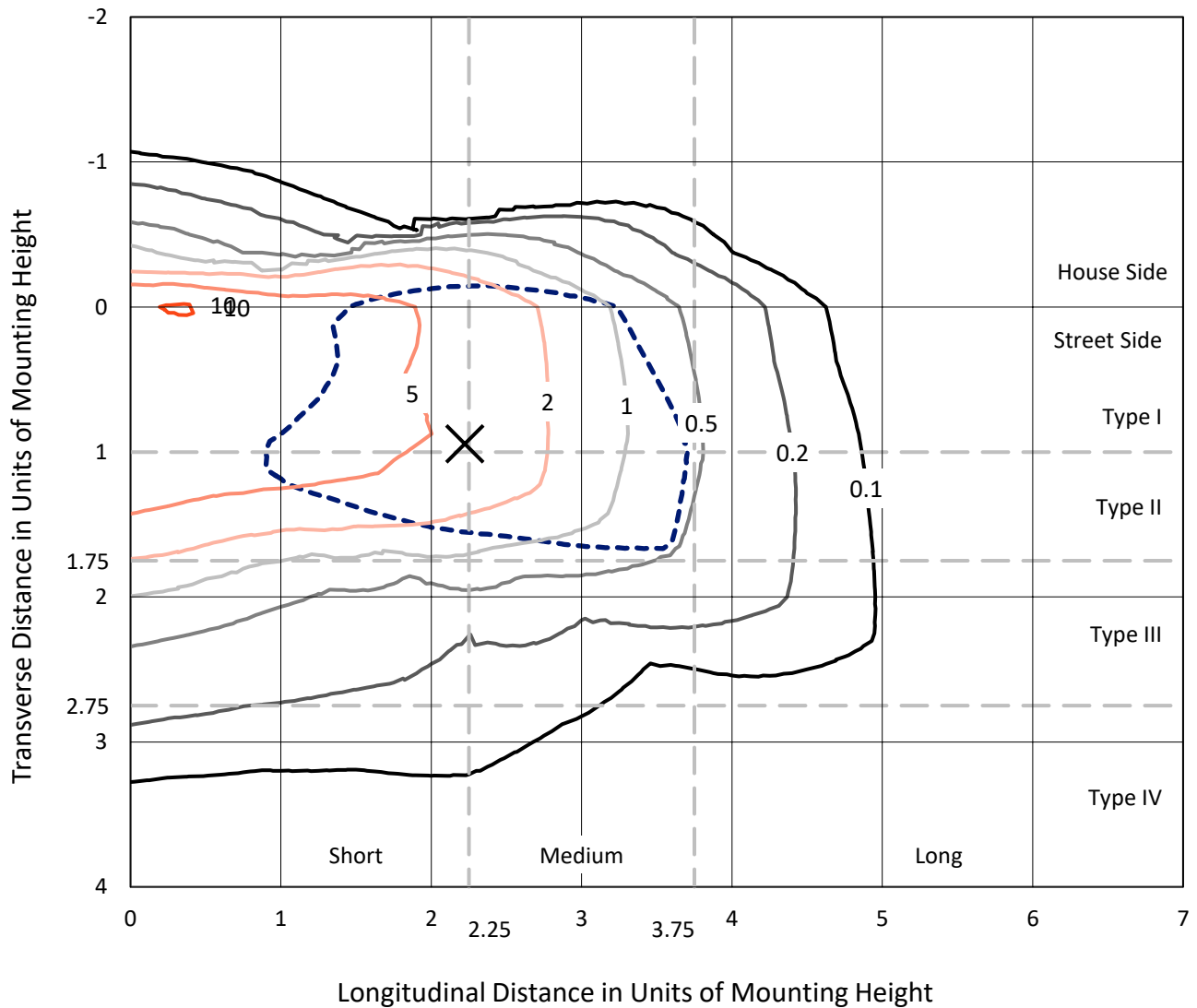
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

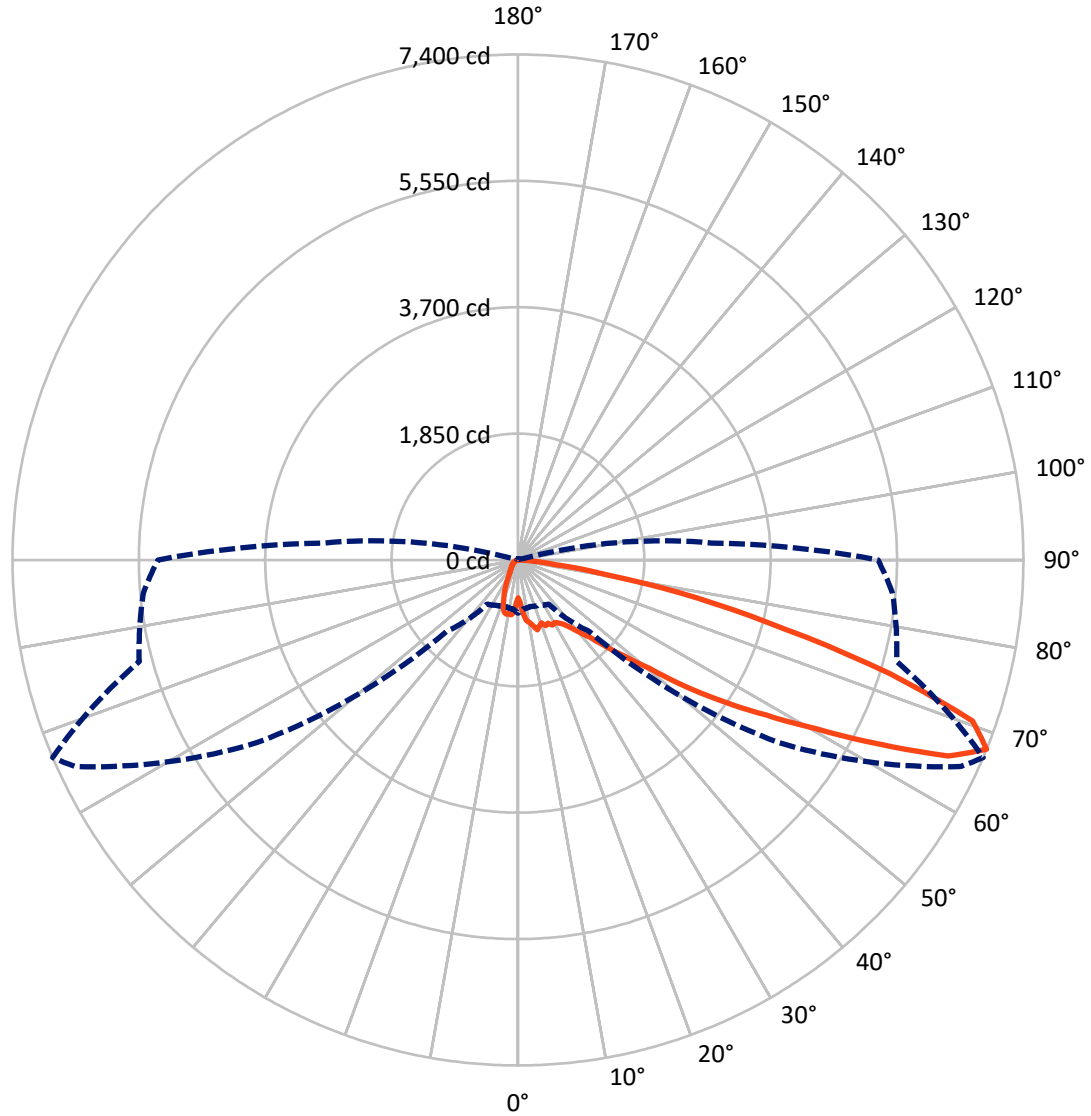
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.8 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	805.6	0.0	805.6
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	5708.4	0.0	5708.4
	% Fixture	87.6	0.0	87.6
Total	Lumens	6514.0	0.0	6514.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	1.1
10°-20°	206.1	3.2
20°-30°	322.9	5.0
30°-40°	520.7	8.0
40°-50°	956.8	14.7
50°-60°	1615.9	24.8
60°-70°	1786.5	27.4
70°-80°	935.0	14.4
80°-90°	100.4	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°	6514.0	100.0
0°-180°	6514.0	100.0

Coefficient of Utilization

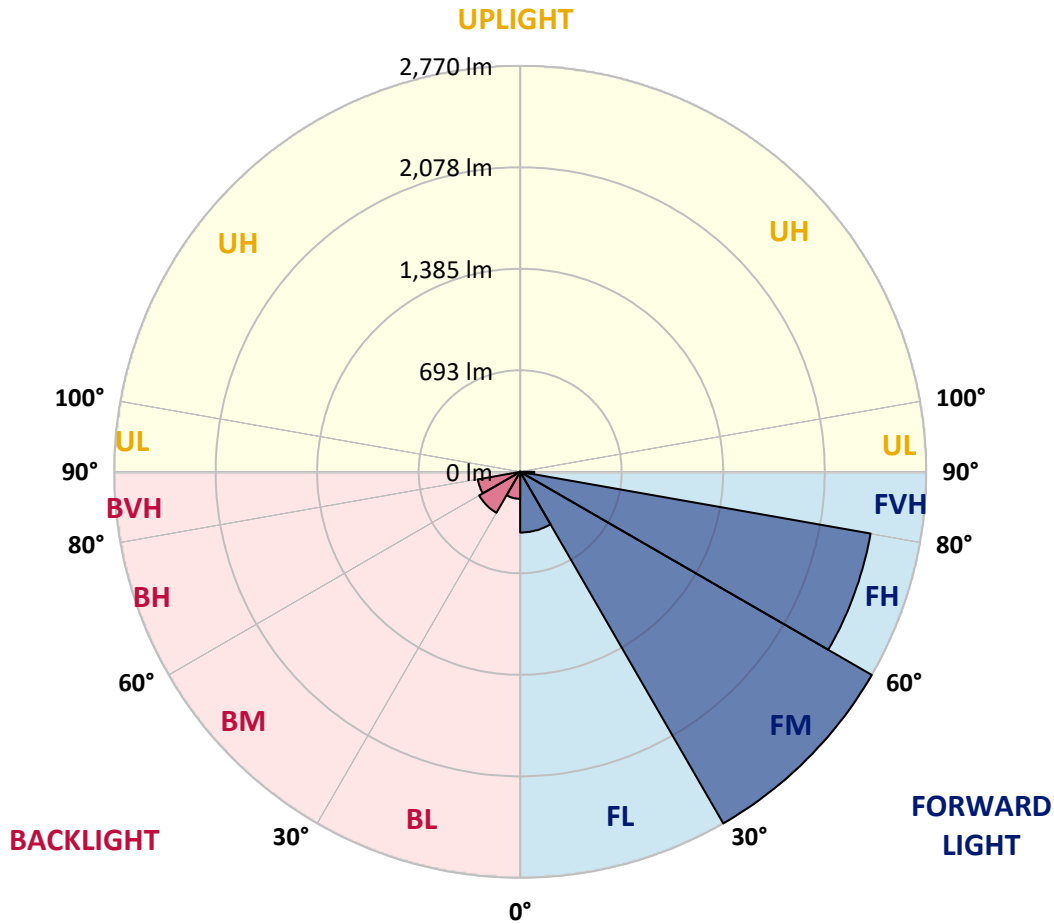


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	414.2	6.4			
FM (30°-60°)	2770.4	42.5			
FH (60°-80°)	2427.7	37.3			G2/5000
FVH (80°-90°)	96.1	1.5			G1/100
BL (0°-30°)	184.5	2.8	B1/500		
BM (30°-60°)	323.0	5.0	B1/1000		
BH (60°-80°)	293.8	4.5	B1/500		G1/500
BVH (80°-90°)	4.3	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°	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8
2.5°	654.9	632.8	595.1	606.0	627.8	646.0	637.4	620.6	620.9	603.7	665.5
5°	762.0	732.3	710.4	718.0	717.1	716.4	757.0	772.6	779.2	807.6	849.6
7.5°	792.7	782.2	759.4	766.3	743.5	745.1	816.5	883.9	894.5	912.0	986.7
10°	780.8	760.3	768.6	768.6	768.9	805.9	853.9	918.3	931.2	998.6	1006.5
12.5°	767.9	768.9	801.6	795.7	840.6	907.1	923.3	995.6	989.3	1047.8	1134.7
15°	815.9	841.0	819.8	828.1	832.4	910.4	936.5	1032.6	1060.4	1134.4	1190.9
17.5°	898.1	901.4	857.5	845.6	876.7	898.8	951.3	997.6	1016.1	1210.4	1290.4
20°	913.0	934.2	889.5	820.8	886.6	917.0	953.7	975.8	983.7	1233.9	1346.5
22.5°	1002.6	979.1	907.7	855.5	874.3	907.4	930.2	996.9	1044.5	1189.6	1400.4
25°	1048.5	1042.2	974.1	929.5	910.4	907.7	959.9	1010.5	1025.7	1235.5	1413.6
27.5°	1158.5	1144.3	1012.5	1006.9	943.7	888.2	960.9	1051.8	1080.2	1192.2	1463.2
30°	1308.2	1302.9	1127.5	1123.8	1023.4	923.6	1014.5	1077.2	1060.1	1214.4	1496.2
32.5°	1458.9	1501.9	1322.4	1220.0	1144.6	1053.4	999.3	1069.3	1100.0	1268.2	1557.0
35°	1641.0	1672.0	1489.3	1414.9	1247.4	1114.2	1100.0	1145.0	1158.2	1332.3	1626.1
37.5°	1959.5	1912.6	1757.0	1630.4	1542.5	1331.3	1261.3	1225.6	1256.3	1419.2	1767.2
40°	2194.8	2165.0	1973.4	1897.7	1695.5	1571.9	1388.8	1355.5	1389.8	1508.5	1865.3
42.5°	2478.6	2416.8	2236.4	2185.2	1977.0	1738.8	1553.1	1564.6	1543.2	1684.6	2037.5
45°	2735.4	2595.9	2495.5	2507.1	2396.0	2074.2	1827.0	1821.4	1803.5	1939.7	2218.6
47.5°	2908.2	2786.3	2688.5	2656.4	2643.2	2664.0	2222.9	2123.1	2109.9	2207.7	2503.7
50°	3001.1	2867.6	2746.6	2753.2	3021.6	3223.4	2631.3	2489.5	2494.5	2596.6	2893.7
52.5°	2938.6	2787.6	2660.0	2784.0	3315.0	3596.5	3307.4	2968.3	3083.3	3057.2	3416.8
55°	2650.1	2518.9	2428.4	2650.1	3347.0	3998.0	4139.8	3689.0	3663.3	3603.8	3950.1
57.5°	2164.7	2051.7	1995.9	2229.8	2996.4	4321.5	4975.8	4503.6	4283.8	4034.7	4392.9
60°	1612.9	1529.6	1471.5	1595.0	2361.0	4007.3	5523.3	5271.2	5016.8	4450.0	4790.7
62.5°	1194.5	1126.8	1065.0	1076.2	1625.8	3446.5	5733.5	6084.4	5938.4	4888.5	5166.1
65°	953.3	891.5	848.2	823.5	1006.9	2593.0	5441.0	6750.9	6919.4	5301.6	5437.1
67.5°	778.5	726.3	704.8	733.2	789.8	1478.1	4659.9	7155.4	7399.9	5739.8	5503.8
70°	633.5	590.5	588.2	664.8	727.3	901.1	3427.7	6876.1	7060.2	5814.4	5103.7
72.5°	441.5	422.6	452.7	561.4	720.7	750.4	1968.4	5690.2	5696.8	5135.4	4197.9
75°	249.8	246.8	294.4	447.7	701.9	742.8	1097.4	4021.1	4024.1	3884.0	2908.2
77.5°	137.5	128.5	171.5	302.7	602.7	725.6	707.8	2745.6	2675.2	2161.4	1328.4
80°	63.4	59.8	92.9	194.0	440.8	686.3	567.4	1509.1	1360.8	704.2	324.2
82.5°	26.1	24.8	42.6	124.6	278.6	552.8	478.1	669.5	537.3	133.8	100.1
85°	4.6	5.0	17.5	75.3	156.0	254.8	387.6	317.9	233.6	37.0	54.9
87.5°	0.0	0.0	3.6	18.2	37.7	69.7	157.3	88.9	61.1	10.9	16.2
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°	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8	554.8
2.5°	677.7	672.1	615.3	617.9	621.9	618.3	617.6	601.7	587.2	635.1	634.4
5°	857.2	817.2	777.9	762.7	729.9	687.0	687.3	673.8	659.9	679.4	679.4
7.5°	985.0	929.9	880.0	791.1	704.5	626.2	619.2	600.7	579.6	605.0	610.0
10°	1014.8	966.9	902.4	771.9	690.0	613.6	529.7	460.6	428.6	413.7	411.1
12.5°	1106.3	1070.6	926.6	782.2	664.2	535.0	397.5	315.6	259.7	255.4	249.5
15°	1167.4	1142.3	950.3	756.7	555.1	384.6	249.8	191.7	169.2	167.2	164.2
17.5°	1262.3	1218.7	927.5	675.8	434.2	253.8	167.9	151.3	154.0	159.9	155.3
20°	1300.9	1215.7	878.0	558.4	305.0	170.2	145.7	136.8	143.7	149.4	146.7
22.5°	1340.6	1224.3	834.0	460.3	199.3	140.8	129.9	125.2	125.9	131.5	131.8
25°	1340.3	1248.1	783.1	358.5	148.4	125.2	117.3	111.4	109.0	113.0	112.0
27.5°	1405.4	1220.6	690.3	266.0	130.5	112.0	104.4	97.1	88.9	92.9	92.9
30°	1405.7	1265.3	625.5	191.0	119.6	99.8	93.2	81.9	72.4	75.7	76.0
32.5°	1443.0	1226.6	565.7	146.1	111.0	92.5	78.0	67.7	62.1	64.1	64.1
35°	1485.7	1259.6	473.9	128.9	102.4	82.3	66.7	58.5	54.2	55.8	55.8
37.5°	1626.4	1252.7	410.1	119.9	96.8	74.3	60.8	51.5	49.6	50.6	51.9
40°	1677.3	1301.9	323.5	114.7	87.6	67.1	53.5	46.6	43.9	44.6	44.9
42.5°	1806.9	1312.8	258.4	110.4	79.3	58.2	47.6	42.6	39.3	39.3	40.3
45°	1949.9	1340.3	205.5	106.7	72.4	52.2	43.0	39.0	34.0	33.4	34.7
47.5°	2157.1	1445.3	167.5	99.5	64.1	48.6	39.7	33.7	29.7	28.4	29.7
50°	2503.7	1623.8	148.0	90.5	58.2	45.6	35.0	28.7	25.8	24.1	25.1
52.5°	2992.8	1932.1	137.8	82.3	52.9	41.0	31.4	25.1	22.1	20.8	21.5
55°	3536.0	2285.7	132.8	74.0	48.2	36.0	27.4	22.1	19.5	17.8	18.2
57.5°	4038.3	2618.1	127.9	66.1	43.6	32.1	24.1	19.5	16.9	15.2	15.5
60°	4533.3	2883.4	116.0	56.8	39.3	28.7	21.1	16.9	15.2	13.2	13.2
62.5°	4971.2	3042.0	98.8	49.2	35.4	25.4	18.8	15.2	13.9	11.9	11.9
65°	5269.2	3049.3	79.6	42.3	31.1	21.8	16.5	14.2	12.9	10.6	10.2
67.5°	5273.5	2851.0	63.8	37.7	27.4	19.2	14.9	13.5	11.9	9.9	9.3
70°	4720.0	2355.4	53.2	33.0	23.8	16.9	12.9	12.9	11.6	9.6	8.6
72.5°	3775.6	1799.9	44.6	28.7	21.1	14.5	11.9	12.2	11.2	9.6	8.6
75°	2537.8	1032.3	37.0	24.5	18.5	12.2	11.6	11.9	11.6	9.6	8.3
77.5°	1168.8	328.8	28.7	20.2	15.9	10.2	11.2	11.2	10.6	8.6	7.3
80°	263.4	81.0	20.8	14.9	12.9	7.6	10.2	9.3	8.3	5.9	4.3
82.5°	95.8	24.8	12.6	9.3	7.9	3.0	6.6	6.6	5.9	4.3	2.6
85°	54.9	12.9	6.9	5.9	4.3	1.3	3.6	4.0	3.3	3.0	1.3
87.5°	17.8	3.0	3.3	3.6	3.3	0.7	1.3	1.3	1.0	0.7	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)