

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: P367157

Luminaire Tested: **MSA-SA2A-730-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367157
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-730-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: 5987 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

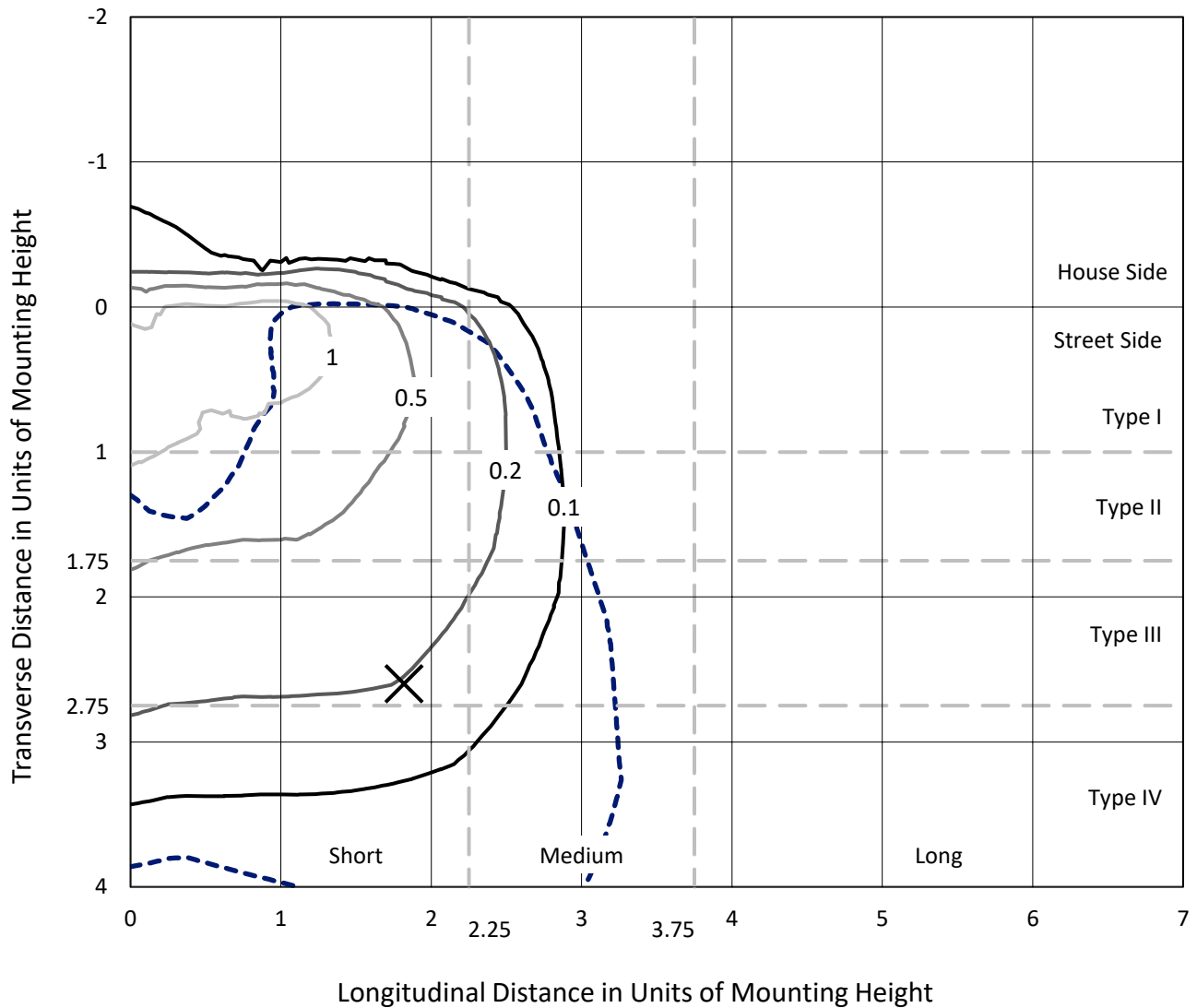
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

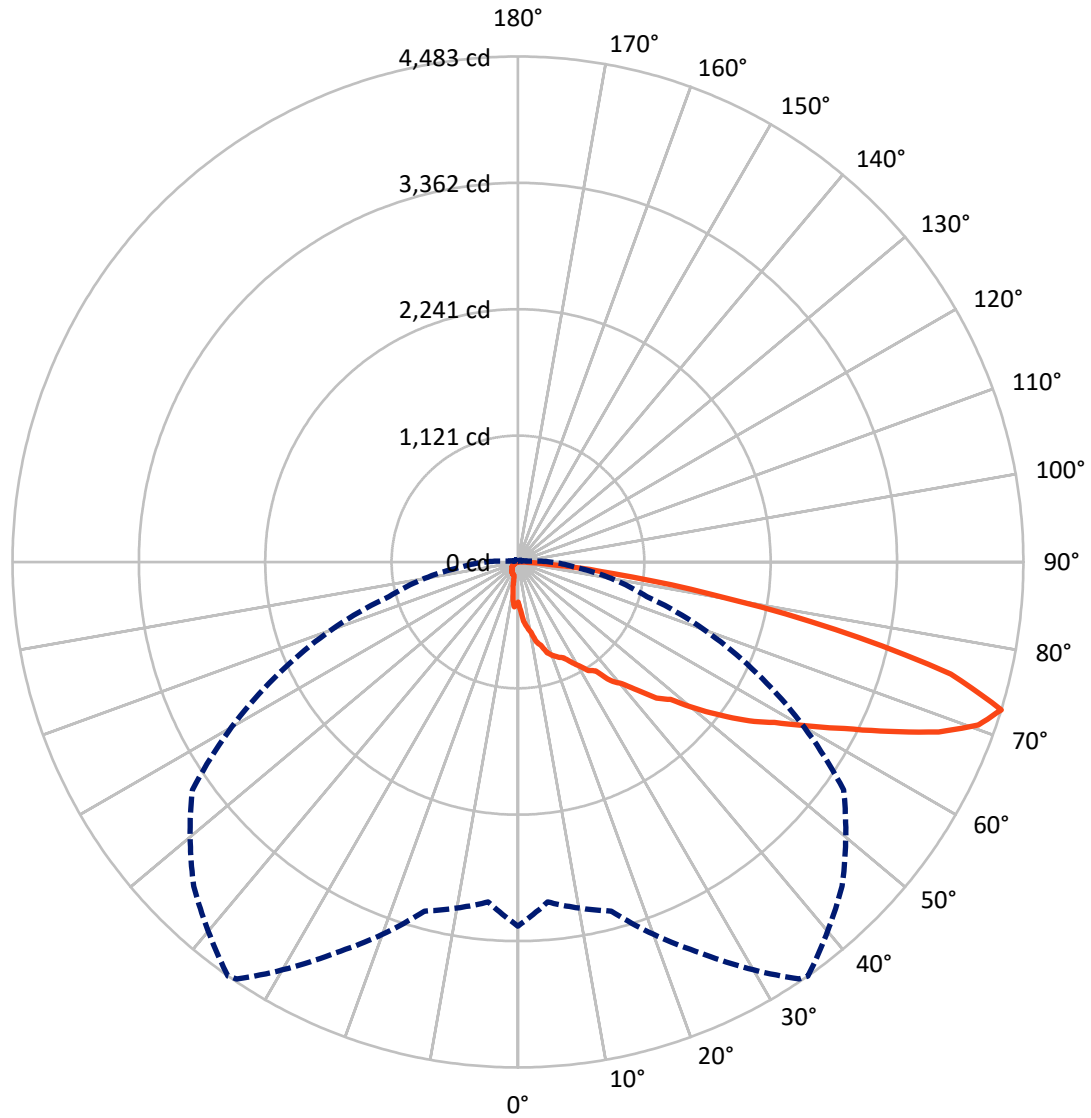
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 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	467.0	0.0	467.0
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	5520.0	0.0	5520.0
	% Fixture	92.2	0.0	92.2
Total	Lumens	5987.0	0.0	5987.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	0.8
10°-20°	153.2	2.6
20°-30°	279.0	4.7
30°-40°	481.3	8.0
40°-50°	855.6	14.3
50°-60°	1276.7	21.3
60°-70°	1631.1	27.2
70°-80°	1134.8	19.0
80°-90°	129.8	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°	5987.0	100.0
0°-180°	5987.0	100.0

Coefficient of Utilization



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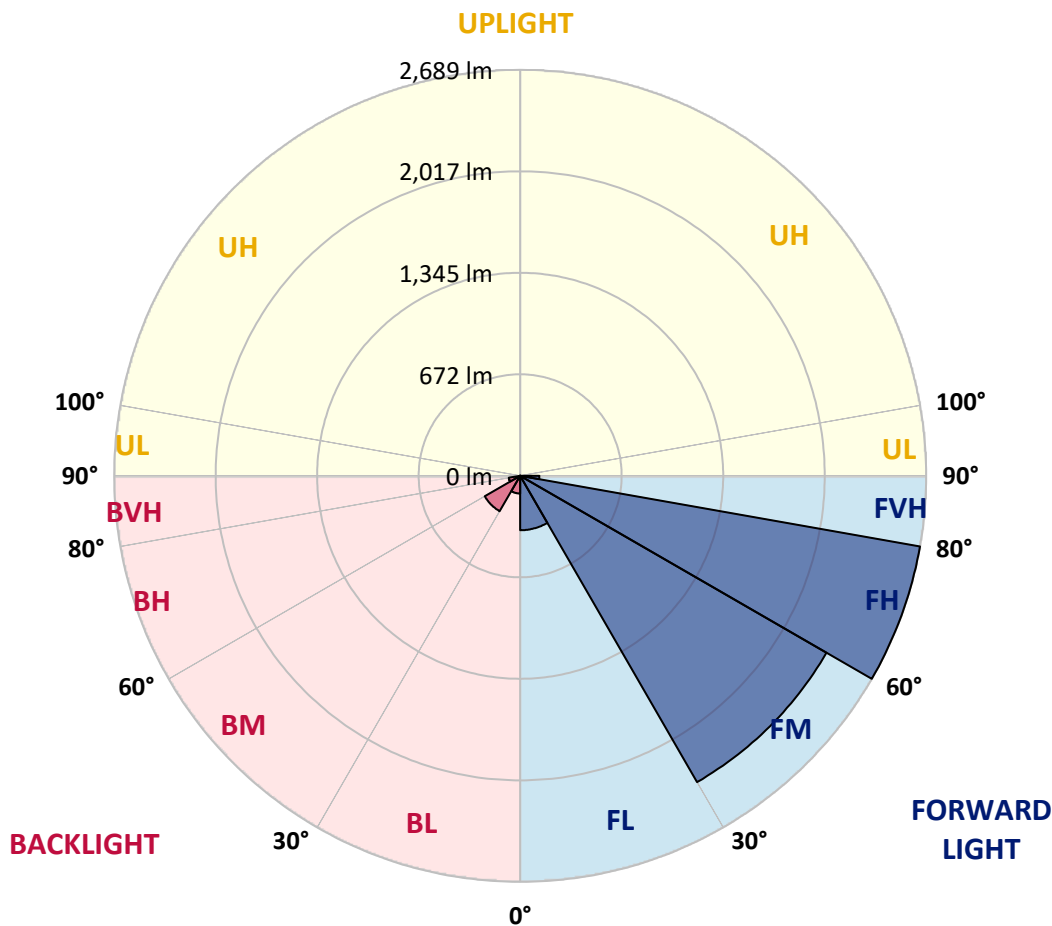
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	360.3	6.0			
FM (30°-60°)	2342.7	39.1			
FH (60°-80°)	2689.4	44.9			G2/5000
FVH (80°-90°)	127.6	2.1			G2/225
BL (0°-30°)	117.4	2.0	B1/500		
BM (30°-60°)	270.8	4.5	B1/1000		
BH (60°-80°)	76.6	1.3	B0/110		G0/110
BVH (80°-90°)	2.2	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°	356.6	356.6	356.6	356.6	356.6	356.6	356.6	356.6	356.6	356.6	356.6
2.5°	453.9	436.1	407.2	409.3	422.3	425.0	428.9	418.6	409.6	393.7	424.7
5°	581.5	555.9	539.6	534.5	527.0	527.6	509.2	515.9	514.1	525.8	539.9
7.5°	653.4	639.3	618.8	613.1	585.4	582.4	559.8	590.2	593.2	589.0	612.2
10°	682.0	663.3	665.7	644.4	630.5	634.1	637.7	640.2	644.1	648.0	619.7
12.5°	698.8	702.2	735.0	712.7	726.5	726.5	750.9	725.0	725.9	697.6	702.5
15°	774.7	793.0	778.3	778.0	762.9	766.9	795.2	774.7	785.2	776.8	744.3
17.5°	869.8	873.4	845.4	833.1	846.6	846.9	834.9	834.0	797.3	859.3	819.8
20°	900.2	920.7	880.9	832.8	889.1	886.3	885.4	871.3	810.2	896.3	863.8
22.5°	983.0	953.8	926.7	895.1	917.0	917.0	913.7	882.7	859.0	893.0	906.8
25°	1008.8	1012.4	977.2	967.0	967.6	940.5	938.1	924.9	902.0	960.1	932.4
27.5°	1097.9	1096.4	1011.8	1040.4	1004.0	1004.3	937.8	967.6	971.5	963.4	994.4
30°	1185.5	1209.9	1082.3	1118.4	1080.2	1068.7	1003.7	1030.2	1037.1	1027.8	1066.9
32.5°	1297.2	1333.0	1209.0	1173.5	1115.1	1147.6	1102.7	1040.1	1074.4	1157.8	1179.8
35°	1415.4	1432.9	1300.8	1251.1	1185.2	1184.9	1183.4	1188.5	1226.4	1320.3	1339.0
37.5°	1627.9	1586.7	1467.2	1353.4	1368.2	1335.4	1312.5	1336.6	1376.0	1530.7	1610.5
40°	1746.5	1716.7	1548.5	1481.1	1407.9	1420.0	1482.0	1479.2	1584.3	1746.2	1865.7
42.5°	1861.8	1833.5	1668.0	1613.5	1519.6	1552.4	1579.5	1613.8	1829.0	2090.2	2155.8
45°	1964.4	1881.3	1764.6	1766.7	1717.9	1721.8	1769.7	1801.3	2112.5	2380.3	2426.4
47.5°	2026.4	1958.1	1846.1	1844.0	1841.0	1822.7	2048.1	2077.0	2338.5	2656.6	2660.8
50°	2113.7	2028.2	1930.1	1931.9	2001.4	2040.2	2309.3	2306.3	2556.7	2887.2	2790.0
52.5°	2222.3	2117.9	2009.9	2090.2	2197.7	2260.9	2479.4	2568.4	2791.2	3031.9	2840.5
55°	2361.4	2230.8	2126.6	2229.6	2464.0	2488.4	2645.8	2833.9	3046.7	3179.7	2856.8
57.5°	2524.5	2368.6	2284.3	2450.2	2684.0	2684.6	2888.1	3116.8	3203.5	3239.9	2838.4
60°	2700.3	2518.5	2433.6	2582.9	2926.6	2951.3	3157.4	3273.0	3362.7	3270.3	2805.6
62.5°	2855.0	2654.2	2588.3	2763.8	3192.6	3251.0	3392.2	3375.6	3477.7	3308.5	2722.2
65°	3039.2	2830.0	2786.6	3045.8	3540.0	3620.3	3655.8	3557.7	3516.2	3279.0	2505.2
67.5°	3221.5	3025.9	3024.7	3358.5	3995.3	4023.0	3985.7	3814.4	3471.3	3019.0	2107.7
70°	3350.1	3140.0	3219.1	3701.0	4409.2	4331.5	4174.4	3935.7	3147.5	2313.8	1376.9
72.5°	3229.4	3026.8	3205.3	3822.9	4460.3	4482.6	4065.1	3525.5	2338.5	1183.4	498.4
75°	2454.1	2330.1	2783.0	3391.6	3960.1	3965.2	3393.1	2486.6	1151.5	321.4	137.8
77.5°	1236.1	1196.6	1761.6	2407.7	2889.3	2880.8	2331.3	1332.1	370.5	106.8	69.5
80°	625.7	594.1	749.7	1299.0	1715.8	1728.4	1331.2	596.5	186.9	58.1	48.2
82.5°	384.3	364.8	410.2	587.8	832.8	852.9	505.0	377.7	115.9	34.3	43.9
85°	74.3	78.3	235.7	294.3	332.6	324.7	149.6	310.9	34.9	20.5	31.9
87.5°	0.0	1.2	54.5	96.0	96.3	85.5	34.0	68.9	4.8	5.7	3.9
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°	356.6	356.6	356.6	356.6	356.6	356.6	356.6	356.6	356.6	356.6	356.6
2.5°	429.8	425.3	387.6	383.4	384.3	378.0	375.9	362.7	359.4	379.8	383.4
5°	533.9	503.8	468.9	456.3	436.7	403.6	398.8	390.4	381.0	384.6	381.9
7.5°	597.7	557.7	520.4	453.9	398.8	350.6	342.8	328.4	313.9	314.2	323.5
10°	608.0	574.2	522.8	441.8	378.9	318.7	266.4	228.4	211.3	195.9	200.4
12.5°	667.2	635.9	541.1	438.2	350.0	256.1	187.5	150.5	134.2	128.8	128.2
15°	714.8	690.1	572.4	427.1	285.9	180.3	134.2	123.4	120.4	125.5	124.0
17.5°	785.5	741.0	569.1	381.0	217.9	136.9	123.7	122.2	125.8	128.8	129.7
20°	816.5	752.4	546.6	308.8	163.1	125.5	120.7	117.7	124.3	133.3	131.5
22.5°	847.8	772.0	520.1	252.8	131.2	120.1	117.4	115.0	120.1	128.8	130.9
25°	862.0	803.3	490.6	197.4	121.9	113.8	112.0	112.9	117.1	124.9	124.0
27.5°	933.3	806.9	434.3	155.9	118.0	109.3	109.3	111.4	111.4	121.9	121.0
30°	977.8	868.0	388.5	131.2	113.5	102.9	106.5	107.4	105.9	117.4	118.3
32.5°	1056.1	884.8	344.0	120.4	106.2	102.0	101.4	102.0	103.2	114.4	114.7
35°	1176.5	967.9	283.2	116.2	102.6	97.5	93.3	96.6	99.6	107.7	109.3
37.5°	1411.8	1053.1	230.8	112.9	100.8	93.3	91.8	91.2	96.6	105.9	108.9
40°	1602.3	1203.9	187.8	110.2	97.2	90.9	87.0	87.3	92.1	99.0	103.5
42.5°	1872.0	1312.8	159.2	105.9	92.1	85.8	81.3	84.0	86.1	93.3	96.3
45°	2097.1	1397.4	140.3	103.2	87.0	81.0	77.3	80.4	78.3	81.9	86.1
47.5°	2276.2	1471.1	126.1	96.6	83.7	78.3	73.7	72.8	69.2	70.1	74.0
50°	2374.6	1458.8	114.4	90.0	79.5	75.5	69.2	62.9	58.1	57.8	60.2
52.5°	2409.5	1392.9	104.7	84.3	74.3	69.5	62.3	53.6	48.8	47.3	49.4
55°	2419.2	1298.1	96.0	78.0	69.5	62.0	54.5	45.1	40.0	37.6	39.7
57.5°	2387.9	1152.1	87.6	71.9	63.8	54.8	46.6	37.0	32.2	29.2	31.0
60°	2310.5	966.7	80.1	64.4	57.8	48.5	39.4	29.8	24.7	22.0	22.9
62.5°	2139.3	757.8	71.9	57.5	51.5	42.4	33.1	23.5	18.7	16.3	16.6
65°	1878.6	564.9	62.6	50.9	45.7	36.7	26.5	18.1	14.1	12.0	11.7
67.5°	1496.7	382.8	53.3	43.9	40.6	31.0	21.1	14.1	11.1	9.6	9.0
70°	879.7	192.9	44.2	37.9	34.9	25.9	16.6	11.4	10.2	9.0	8.4
72.5°	290.1	83.4	34.6	31.3	28.9	20.8	12.9	10.5	9.9	8.7	8.1
75°	101.1	48.2	25.6	24.1	22.9	15.7	10.8	9.6	9.6	8.4	7.5
77.5°	66.2	37.3	19.0	17.5	17.2	11.4	9.3	9.0	8.4	6.9	5.7
80°	55.1	21.1	13.2	12.3	12.0	7.2	7.5	6.6	5.1	3.0	1.2
82.5°	50.9	12.6	6.9	7.5	6.9	2.7	4.2	3.6	2.7	1.2	0.0
85°	29.8	5.7	3.9	3.9	3.0	0.6	2.1	2.1	1.2	0.3	0.0
87.5°	3.3	2.7	2.1	2.1	1.5	0.0	0.9	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)