

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: P367025

Luminaire Tested: **MSA-SA1D-730-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367025
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-SA1D-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: 5165 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

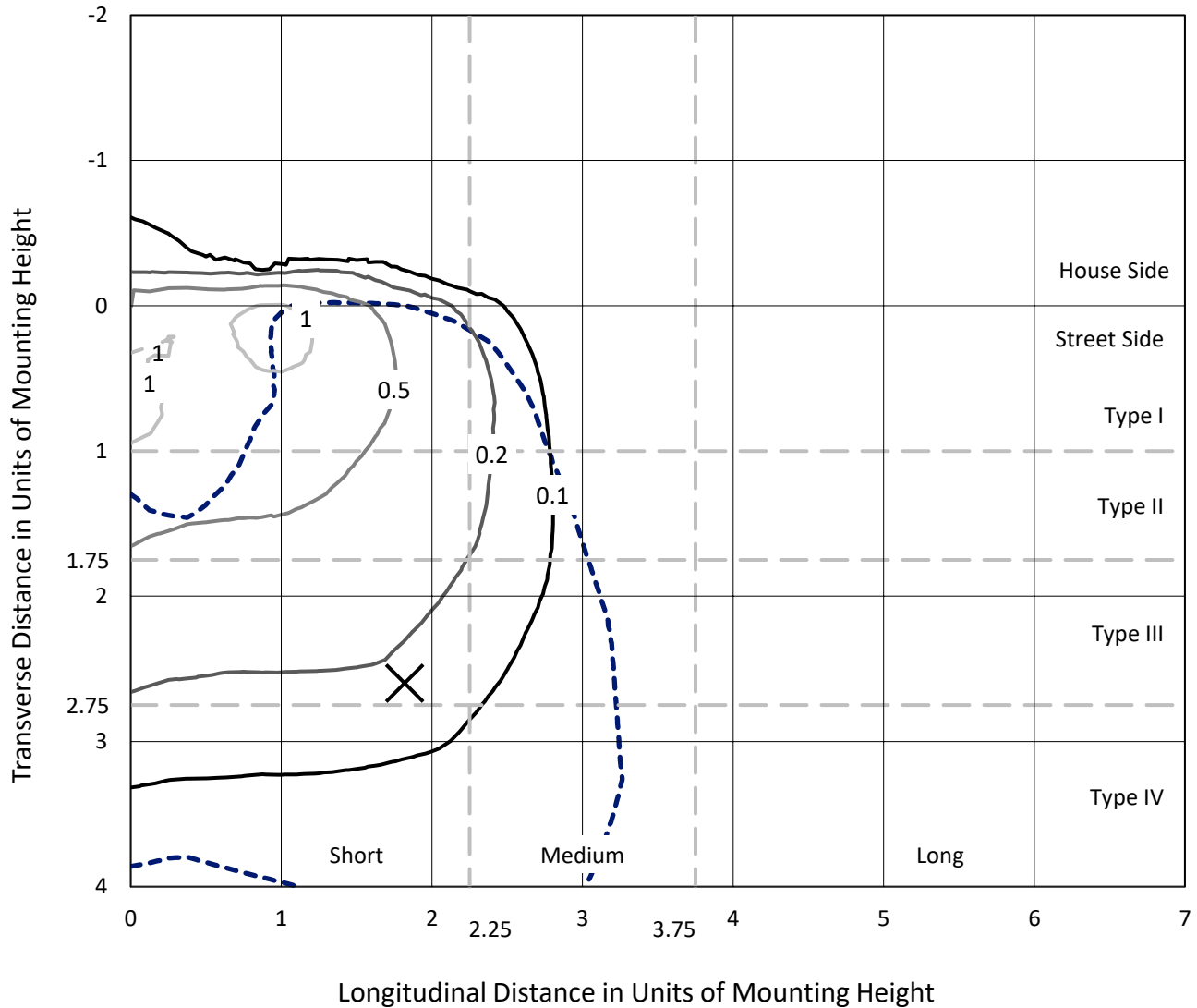
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

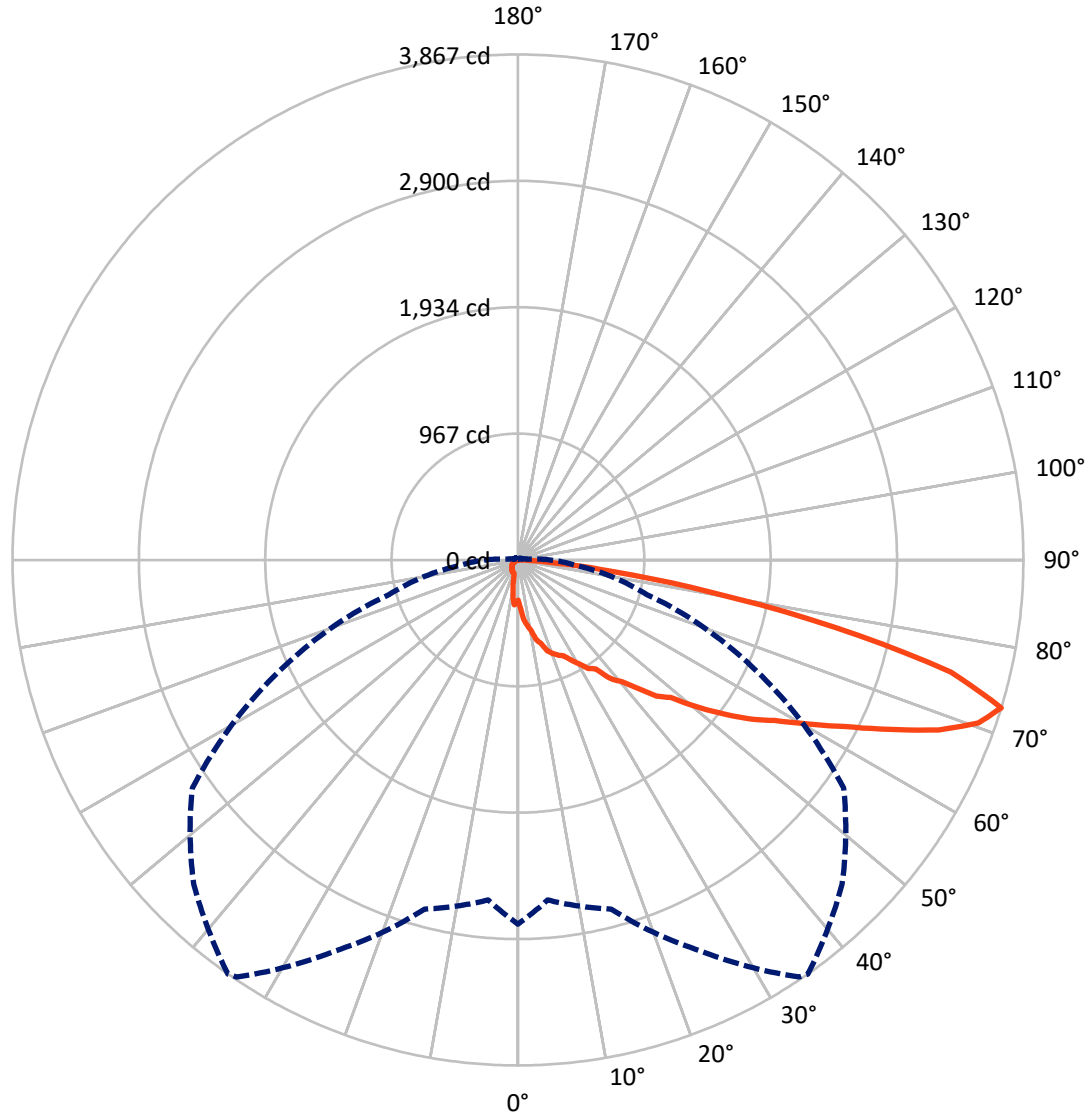
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 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	402.9	0.0	402.9
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	4762.1	0.0	4762.1
	% Fixture	92.2	0.0	92.2
Total	Lumens	5165.0	0.0	5165.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	0.8
10°-20°	132.2	2.6
20°-30°	240.7	4.7
30°-40°	415.2	8.0
40°-50°	738.1	14.3
50°-60°	1101.4	21.3
60°-70°	1407.2	27.2
70°-80°	979.0	19.0
80°-90°	112.0	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°	5165.0	100.0
0°-180°	5165.0	100.0

Coefficient of Utilization

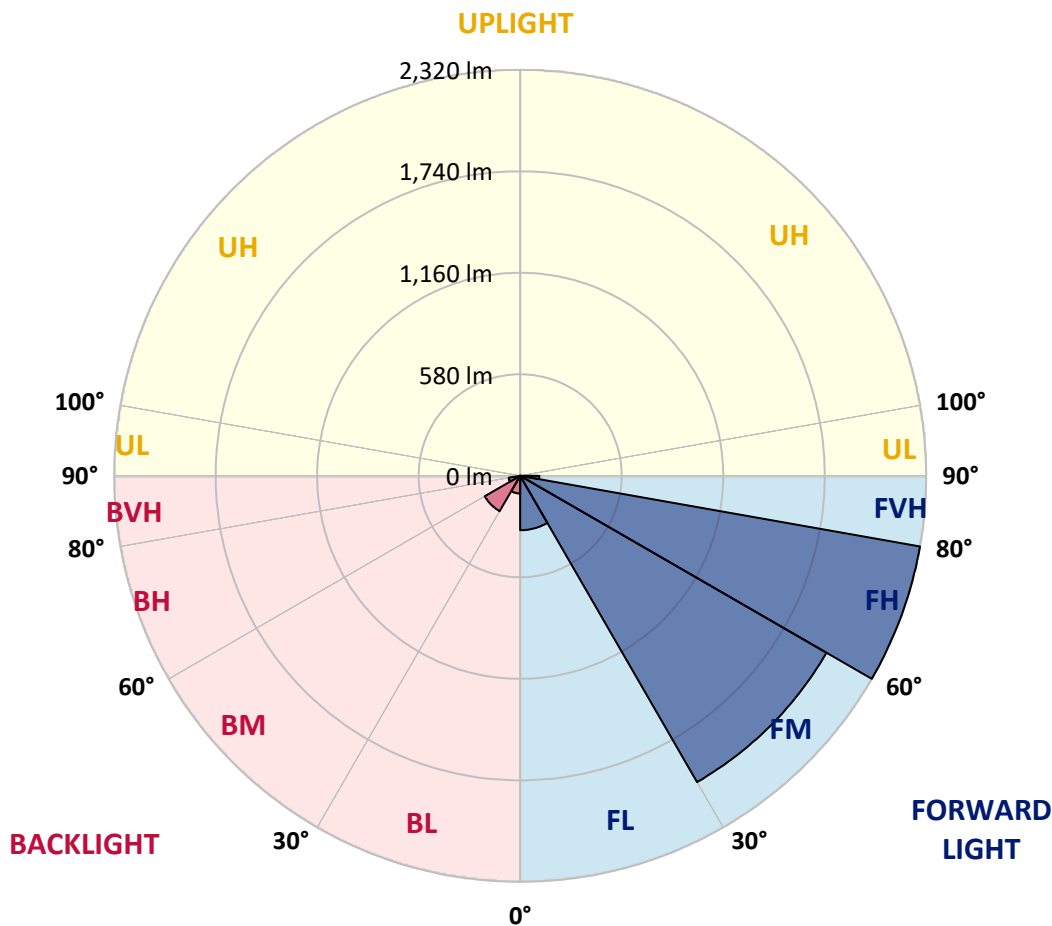


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	310.8	6.0			
FM (30°-60°)	2021.1	39.1			
FH (60°-80°)	2320.1	44.9			G2/5000
FVH (80°-90°)	110.1	2.1			G2/225
BL (0°-30°)	101.3	2.0	B0/110		
BM (30°-60°)	233.6	4.5	B1/1000		
BH (60°-80°)	66.1	1.3	B0/110		G0/110
BVH (80°-90°)	1.9	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°	307.7	307.7	307.7	307.7	307.7	307.7	307.7	307.7	307.7	307.7	307.7
2.5°	391.5	376.2	351.3	353.1	364.3	366.6	370.0	361.2	353.4	339.6	366.4
5°	501.6	479.6	465.5	461.1	454.6	455.2	439.3	445.0	443.5	453.6	465.8
7.5°	563.7	551.5	533.8	528.9	505.0	502.4	482.9	509.2	511.8	508.1	528.1
10°	588.4	572.3	574.3	555.9	544.0	547.1	550.2	552.3	555.6	559.0	534.6
12.5°	602.9	605.7	634.1	614.8	626.8	626.8	647.8	625.5	626.3	601.9	606.0
15°	668.3	684.2	671.4	671.2	658.2	661.6	686.0	668.3	677.4	670.1	642.1
17.5°	750.4	753.5	729.3	718.7	730.4	730.6	720.3	719.5	687.8	741.3	707.3
20°	776.6	794.3	760.0	718.4	767.0	764.7	763.9	751.7	699.0	773.2	745.2
22.5°	848.0	822.8	799.4	772.2	791.1	791.1	788.3	761.5	741.0	770.4	782.3
25°	870.3	873.4	843.1	834.2	834.8	811.4	809.3	797.9	778.2	828.3	804.4
27.5°	947.2	945.9	872.9	897.6	866.2	866.4	809.1	834.8	838.1	831.1	857.9
30°	1022.7	1043.8	933.7	964.8	931.9	922.0	865.9	888.8	894.7	886.7	920.4
32.5°	1119.1	1150.0	1043.0	1012.4	962.0	990.0	951.3	897.3	926.9	998.9	1017.8
35°	1221.1	1236.2	1122.2	1079.3	1022.5	1022.2	1020.9	1025.3	1058.1	1139.1	1155.2
37.5°	1404.4	1368.8	1265.8	1167.6	1180.3	1152.0	1132.3	1153.1	1187.1	1320.6	1389.4
40°	1506.7	1481.0	1335.9	1277.7	1214.6	1225.0	1278.5	1276.2	1366.8	1506.5	1609.5
42.5°	1606.2	1581.8	1438.9	1392.0	1310.9	1339.2	1362.6	1392.2	1577.9	1803.2	1859.8
45°	1694.7	1623.0	1522.3	1524.1	1482.0	1485.4	1526.7	1554.0	1822.4	2053.5	2093.3
47.5°	1748.2	1689.2	1592.7	1590.8	1588.2	1572.4	1766.9	1791.8	2017.4	2291.9	2295.5
50°	1823.5	1749.7	1665.1	1666.7	1726.6	1760.1	1992.2	1989.7	2205.7	2490.8	2406.9
52.5°	1917.2	1827.1	1733.9	1803.2	1895.9	1950.4	2138.9	2215.8	2407.9	2615.7	2450.5
55°	2037.2	1924.5	1834.6	1923.4	2125.7	2146.7	2282.5	2444.8	2628.4	2743.1	2464.5
57.5°	2177.9	2043.4	1970.7	2113.8	2315.5	2316.0	2491.5	2688.9	2763.7	2795.1	2448.7
60°	2329.5	2172.7	2099.5	2228.3	2524.8	2546.1	2723.9	2823.6	2901.0	2821.3	2420.4
62.5°	2463.0	2289.8	2232.9	2384.3	2754.3	2804.7	2926.4	2912.2	3000.2	2854.3	2348.5
65°	2621.9	2441.4	2404.0	2627.6	3053.9	3123.3	3153.9	3069.3	3033.4	2828.8	2161.3
67.5°	2779.2	2610.5	2609.4	2897.4	3446.8	3470.7	3438.5	3290.7	2994.7	2604.5	1818.3
70°	2890.1	2708.9	2777.2	3192.8	3803.8	3736.8	3601.3	3395.4	2715.4	1996.1	1187.9
72.5°	2786.0	2611.2	2765.2	3298.0	3847.9	3867.1	3507.0	3041.5	2017.4	1020.9	430.0
75°	2117.1	2010.2	2400.9	2925.9	3416.4	3420.8	2927.2	2145.2	993.4	277.3	118.9
77.5°	1066.4	1032.3	1519.7	2077.2	2492.6	2485.3	2011.2	1149.2	319.6	92.2	60.0
80°	539.8	512.5	646.8	1120.6	1480.2	1491.1	1148.4	514.6	161.2	50.1	41.5
82.5°	331.6	314.7	353.9	507.1	718.4	735.8	435.7	325.9	100.0	29.6	37.9
85°	64.1	67.5	203.3	253.9	286.9	280.2	129.0	268.2	30.1	17.7	27.5
87.5°	0.0	1.0	47.0	82.8	83.1	73.7	29.3	59.5	4.2	4.9	3.4
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°	307.7	307.7	307.7	307.7	307.7	307.7	307.7	307.7	307.7	307.7	307.7
2.5°	370.8	366.9	334.4	330.8	331.6	326.1	324.3	312.9	310.0	327.7	330.8
5°	460.6	434.6	404.5	393.6	376.7	348.2	344.0	336.8	328.7	331.8	329.5
7.5°	515.7	481.1	448.9	391.5	344.0	302.5	295.7	283.3	270.8	271.1	279.1
10°	524.5	495.4	451.0	381.2	326.9	275.0	229.8	197.1	182.3	169.0	172.9
12.5°	575.6	548.6	466.8	378.0	302.0	221.0	161.8	129.8	115.8	111.1	110.6
15°	616.7	595.4	493.8	368.4	246.7	155.5	115.8	106.5	103.9	108.3	107.0
17.5°	677.7	639.2	491.0	328.7	188.0	118.1	106.7	105.4	108.5	111.1	111.9
20°	704.4	649.1	471.5	266.4	140.7	108.3	104.1	101.5	107.2	115.0	113.5
22.5°	731.4	666.0	448.7	218.1	113.2	103.6	101.3	99.2	103.6	111.1	112.9
25°	743.6	693.0	423.2	170.3	105.2	98.1	96.6	97.4	101.0	107.8	107.0
27.5°	805.2	696.1	374.7	134.5	101.8	94.3	94.3	96.1	96.1	105.2	104.4
30°	843.6	748.8	335.2	113.2	97.9	88.8	91.9	92.7	91.4	101.3	102.0
32.5°	911.1	763.4	296.8	103.9	91.7	88.0	87.5	88.0	89.1	98.7	98.9
35°	1014.9	835.0	244.3	100.2	88.5	84.1	80.5	83.3	85.9	93.0	94.3
37.5°	1218.0	908.5	199.1	97.4	87.0	80.5	79.2	78.7	83.3	91.4	94.0
40°	1382.3	1038.6	162.0	95.0	83.9	78.4	75.0	75.3	79.5	85.4	89.3
42.5°	1615.0	1132.6	137.4	91.4	79.5	74.0	70.1	72.4	74.3	80.5	83.1
45°	1809.2	1205.5	121.0	89.1	75.0	69.8	66.7	69.3	67.5	70.6	74.3
47.5°	1963.7	1269.1	108.8	83.3	72.2	67.5	63.6	62.8	59.7	60.5	63.9
50°	2048.6	1258.5	98.7	77.6	68.5	65.2	59.7	54.3	50.1	49.9	51.9
52.5°	2078.7	1201.6	90.4	72.7	64.1	60.0	53.7	46.2	42.1	40.8	42.6
55°	2087.0	1119.8	82.8	67.2	60.0	53.5	47.0	38.9	34.5	32.5	34.3
57.5°	2060.0	993.9	75.6	62.1	55.0	47.3	40.2	31.9	27.8	25.2	26.7
60°	1993.3	834.0	69.1	55.6	49.9	41.8	34.0	25.7	21.3	19.0	19.7
62.5°	1845.6	653.8	62.1	49.6	44.4	36.6	28.6	20.3	16.1	14.0	14.3
65°	1620.7	487.4	54.0	43.9	39.5	31.7	22.8	15.6	12.2	10.4	10.1
67.5°	1291.2	330.3	46.0	37.9	35.1	26.7	18.2	12.2	9.6	8.3	7.8
70°	758.9	166.4	38.2	32.7	30.1	22.3	14.3	9.9	8.8	7.8	7.3
72.5°	250.3	71.9	29.9	27.0	24.9	17.9	11.2	9.1	8.6	7.5	7.0
75°	87.2	41.5	22.1	20.8	19.7	13.5	9.3	8.3	8.3	7.3	6.5
77.5°	57.1	32.2	16.4	15.1	14.8	9.9	8.0	7.8	7.3	6.0	4.9
80°	47.5	18.2	11.4	10.6	10.4	6.2	6.5	5.7	4.4	2.6	1.0
82.5°	43.9	10.9	6.0	6.5	6.0	2.3	3.6	3.1	2.3	1.0	0.0
85°	25.7	4.9	3.4	3.4	2.6	0.5	1.8	1.8	1.0	0.3	0.0
87.5°	2.9	2.3	1.8	1.8	1.3	0.0	0.8	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)