

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: P596693

Luminaire Tested: **MSA-SA3B-827-U-T4W-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596693
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-827-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8147 lumens
Efficiency: N/A
Efficacy: 64.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

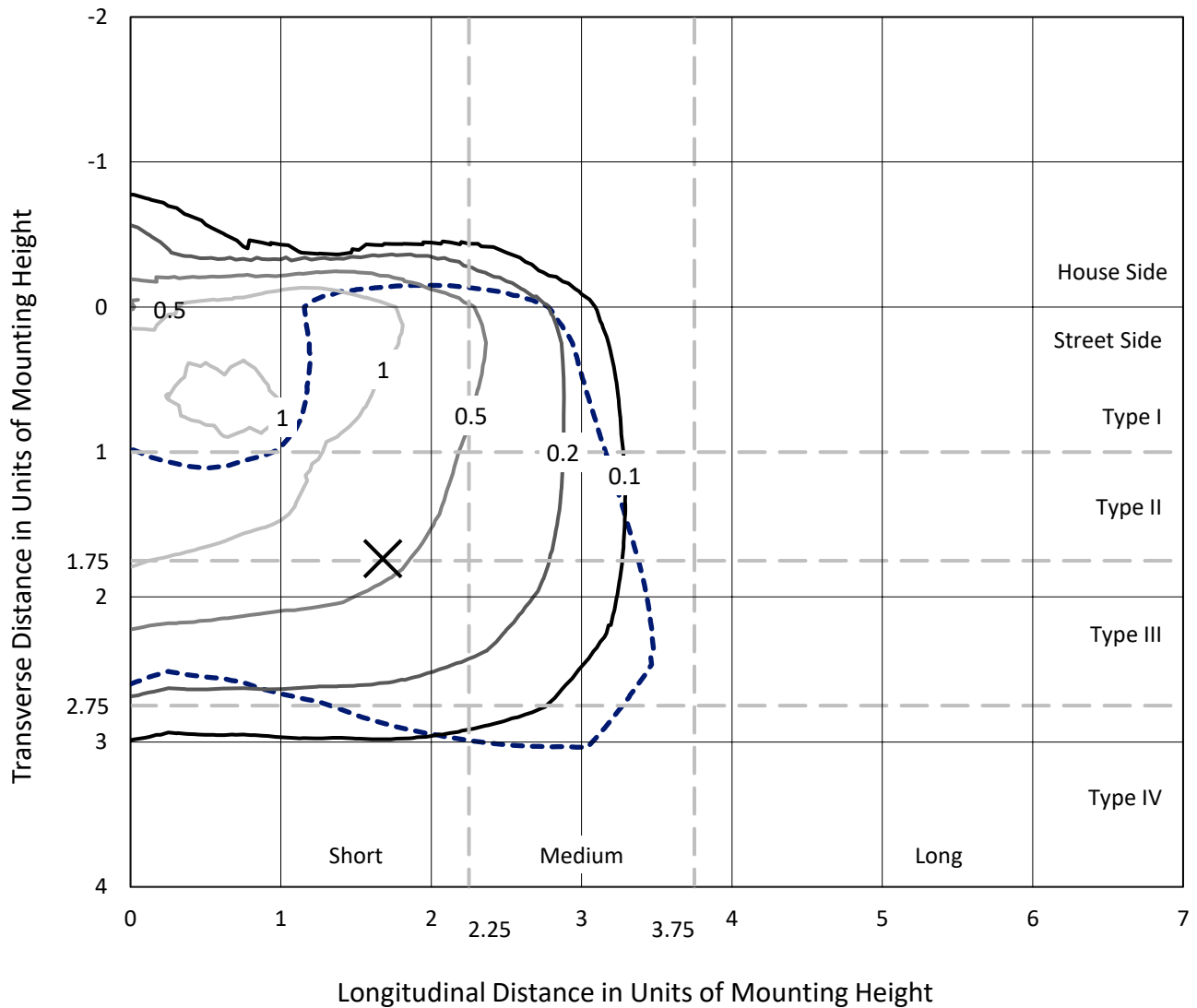
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

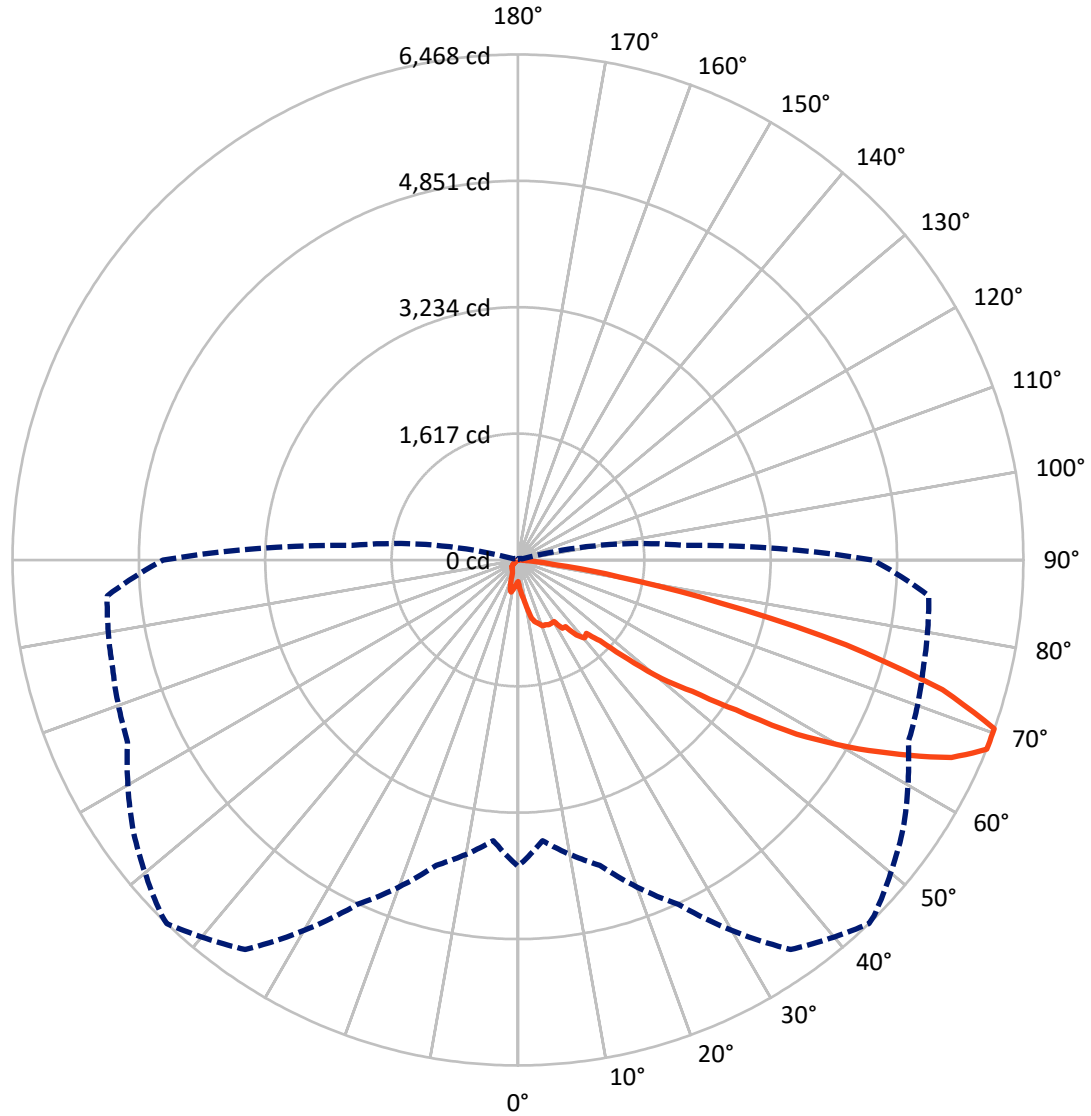
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	827.6	0.0	827.6
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	7319.4	0.0	7319.4
	% Fixture	89.8	0.0	89.8
Total	Lumens	8147.0	0.0	8147.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.7	0.5
10°-20°	170.3	2.1
20°-30°	301.7	3.7
30°-40°	490.4	6.0
40°-50°	981.4	12.0
50°-60°	2013.4	24.7
60°-70°	2765.8	33.9
70°-80°	1300.0	16.0
80°-90°	83.3	1.0
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°	8147.0	100.0
0°-180°	8147.0	100.0

Coefficient of Utilization



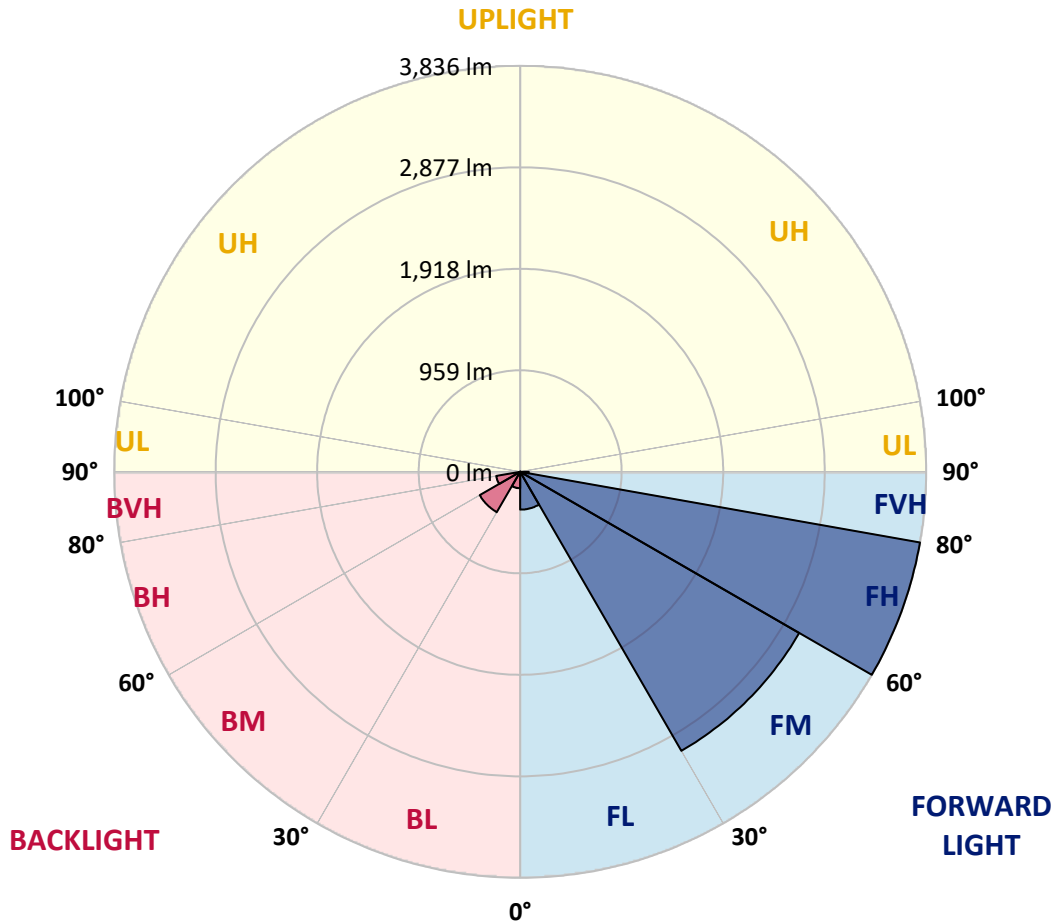
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	357.3	4.4			
FM (30°-60°)	3044.4	37.4			
FH (60°-80°)	3836.1	47.1			G2/5000
FVH (80°-90°)	81.6	1.0			G1/100
BL (0°-30°)	155.4	1.9	B1/500		
BM (30°-60°)	440.8	5.4	B1/1000		
BH (60°-80°)	229.7	2.8	B1/500		G1/500
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: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5
2.5°	349.1	337.8	321.7	325.3	327.1	332.0	332.4	326.2	308.2	303.2	325.3
5°	489.2	461.8	456.9	446.5	425.9	414.7	412.0	423.2	408.8	404.3	410.2
7.5°	624.9	601.5	575.9	562.0	518.9	492.4	491.0	495.5	498.2	482.5	490.6
10°	715.2	689.6	684.2	651.4	614.1	607.8	605.1	588.1	574.1	562.5	523.4
12.5°	797.0	796.5	806.4	759.2	753.4	759.7	757.4	696.3	682.4	633.4	622.2
15°	905.7	932.6	890.0	850.4	800.1	821.7	815.8	776.7	767.3	734.1	686.0
17.5°	1018.4	1025.6	954.2	893.5	880.5	852.2	858.1	844.1	796.5	823.0	775.4
20°	1021.1	1036.9	960.5	860.3	900.3	898.9	899.4	885.9	823.0	885.0	841.4
22.5°	1058.9	1020.2	949.3	885.5	892.6	899.4	906.6	890.0	876.5	891.8	899.8
25°	1043.6	1028.3	960.0	917.8	911.1	916.5	918.3	939.4	930.8	967.7	947.5
27.5°	1083.1	1061.1	938.9	946.6	922.7	916.5	905.7	976.2	1001.4	972.2	1026.1
30°	1151.0	1147.8	975.3	986.5	968.1	912.9	941.6	1033.7	1065.2	1047.2	1112.8
32.5°	1257.0	1267.8	1081.8	1009.0	1018.4	1043.1	1032.4	1033.7	1113.2	1153.2	1205.3
35°	1407.5	1401.6	1185.6	1094.4	1044.9	1049.0	1064.3	1137.5	1240.4	1237.7	1292.9
37.5°	1703.1	1639.3	1369.3	1181.5	1196.3	1216.6	1205.3	1303.7	1313.6	1317.2	1449.3
40°	2138.9	2053.9	1659.1	1365.3	1222.4	1311.8	1306.4	1330.7	1396.7	1421.4	1614.1
42.5°	2713.0	2598.9	2169.0	1703.1	1348.2	1286.6	1319.9	1365.7	1587.6	1658.2	1869.3
45°	3347.3	3116.4	2677.5	2184.7	1663.6	1472.6	1497.8	1583.1	1890.9	2007.7	2240.8
47.5°	3758.4	3555.3	3181.1	2611.5	1992.4	1892.2	1894.5	1912.9	2247.1	2463.7	2776.3
50°	4115.5	3899.4	3552.2	3057.6	2574.2	2384.6	2341.5	2256.6	2700.9	2996.9	3343.7
52.5°	4619.6	4367.1	3923.3	3580.9	3237.7	2791.2	2775.9	2804.6	3235.9	3547.2	3925.5
55°	5074.2	4767.4	4343.7	4128.1	3994.2	3388.7	3401.7	3449.7	3922.8	4087.7	4443.0
57.5°	5275.0	4942.6	4724.7	4627.7	4556.2	4204.9	4160.9	4132.2	4464.6	4527.5	4985.3
60°	5406.7	5090.4	4991.6	5014.0	5230.6	4857.7	4817.7	4650.6	4912.9	4964.6	5471.4
62.5°	5323.5	5035.1	5056.2	5243.6	5724.3	5479.0	5363.5	5084.1	5279.5	5321.3	5820.4
65°	4800.2	4499.6	4771.0	5224.3	6100.7	6094.9	6041.4	5484.4	5482.6	5536.0	5847.4
67.5°	3921.0	3605.6	4044.5	4862.2	6085.0	6468.2	6443.1	6015.4	5511.8	5368.9	5276.8
70°	2726.0	2452.4	2950.2	4015.3	5542.8	6465.5	6425.1	6372.1	5280.9	4621.4	4091.3
72.5°	1416.5	1266.0	1729.6	2766.9	4418.3	5680.7	5814.1	5727.0	4509.1	3357.7	2409.3
75°	481.1	431.7	713.4	1468.6	2937.2	4337.9	4494.2	4405.7	3062.5	1801.5	952.8
77.5°	186.4	173.4	255.6	596.1	1473.5	2643.4	2813.2	2722.9	1642.4	659.9	224.2
80°	106.0	102.4	141.1	268.6	649.6	1314.9	1434.4	1301.0	592.1	222.4	58.4
82.5°	44.9	46.3	78.6	145.1	326.6	464.1	517.5	472.2	248.0	152.3	21.6
85°	9.9	12.1	37.3	80.9	137.0	132.5	138.8	154.1	152.3	111.9	9.4
87.5°	0.0	0.0	11.7	22.0	32.8	21.6	17.1	30.1	46.7	44.9	4.0
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°	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5	274.5
2.5°	329.3	324.8	296.5	294.7	296.5	291.6	291.1	280.8	281.7	305.0	306.8
5°	410.2	387.7	363.4	355.8	348.6	332.4	341.4	341.4	341.4	356.3	360.7
7.5°	483.4	453.3	419.1	390.4	362.5	342.3	356.3	366.1	372.0	391.3	400.3
10°	516.6	487.0	456.4	415.6	394.0	386.4	370.2	361.6	372.0	367.9	372.9
12.5°	587.6	560.7	508.1	465.9	449.7	423.6	376.0	342.8	320.8	317.2	316.3
15°	656.8	640.2	569.6	513.0	456.9	396.7	315.4	271.3	248.0	243.9	244.4
17.5°	744.4	720.6	616.8	535.5	440.3	332.0	243.5	205.8	204.0	213.8	214.7
20°	802.8	763.7	640.6	517.1	385.5	251.1	190.5	181.5	195.9	213.8	212.0
22.5°	858.5	816.3	672.1	500.9	298.7	190.5	175.2	176.1	188.2	207.6	212.5
25°	895.3	880.1	710.7	463.2	227.8	164.9	167.6	174.3	184.6	203.1	203.1
27.5°	1006.3	934.9	706.2	389.9	175.2	153.6	159.9	168.5	173.9	195.9	198.1
30°	1073.7	1050.3	729.6	315.4	153.6	139.3	151.4	159.0	162.6	187.8	188.7
32.5°	1156.4	1104.7	757.9	232.7	142.9	138.4	135.7	141.5	151.8	173.9	175.2
35°	1257.0	1241.7	717.4	182.8	139.3	129.4	124.0	127.1	133.9	148.7	151.8
37.5°	1462.3	1371.5	693.2	156.8	139.3	126.2	120.4	112.3	113.2	123.5	129.4
40°	1635.3	1607.4	625.3	152.3	133.0	121.7	107.4	97.5	90.7	93.9	96.1
42.5°	1952.9	1823.9	537.7	150.0	127.1	110.1	91.2	80.9	70.5	71.4	75.0
45°	2338.3	2060.2	459.6	147.8	123.1	98.4	76.8	64.7	53.9	54.4	58.0
47.5°	2853.2	2404.8	364.8	141.1	115.9	87.6	62.0	49.4	43.1	44.5	47.6
50°	3438.1	2707.1	288.4	130.7	107.4	77.3	50.3	40.0	37.7	39.1	42.7
52.5°	3960.5	2930.0	238.1	121.3	95.2	62.9	42.2	35.5	34.6	35.5	38.2
55°	4425.1	3059.4	199.0	110.5	81.8	50.8	38.2	32.8	32.3	31.9	33.7
57.5°	4860.8	3096.6	155.4	93.4	66.5	44.0	35.5	30.5	29.7	28.3	29.7
60°	5178.4	3032.9	114.1	75.0	54.4	40.0	33.2	27.4	26.1	23.8	24.7
62.5°	5331.6	2858.1	86.3	60.2	46.3	36.4	29.7	23.8	22.0	19.3	19.8
65°	5186.1	2570.1	67.8	50.8	39.5	30.5	25.2	20.2	18.0	15.3	15.3
67.5°	4541.4	2132.1	57.5	44.0	33.2	26.1	20.7	18.4	14.8	12.6	12.1
70°	3333.4	1533.7	49.4	38.6	28.8	22.5	17.5	16.6	14.4	12.1	11.2
72.5°	1881.4	867.9	42.2	34.1	24.3	18.9	14.8	15.3	13.9	11.2	10.3
75°	717.9	292.5	35.0	28.3	19.8	14.4	12.6	12.6	12.6	9.4	8.1
77.5°	177.9	74.6	27.9	22.9	15.7	9.4	10.3	10.8	10.8	8.1	5.8
80°	49.0	25.2	16.6	16.6	11.2	5.4	7.2	7.2	5.8	2.7	0.0
82.5°	18.0	9.4	5.8	7.2	4.9	1.8	2.7	1.8	1.3	0.0	0.0
85°	7.6	4.9	3.6	4.0	2.2	0.0	0.4	0.9	0.0	0.0	0.0
87.5°	3.1	2.2	1.8	1.8	0.9	0.0	0.0	0.0	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)