

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: P596548

Luminaire Tested: **MSA-SA1D-827-U-SL3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596548
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-827-U-SL3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4946 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

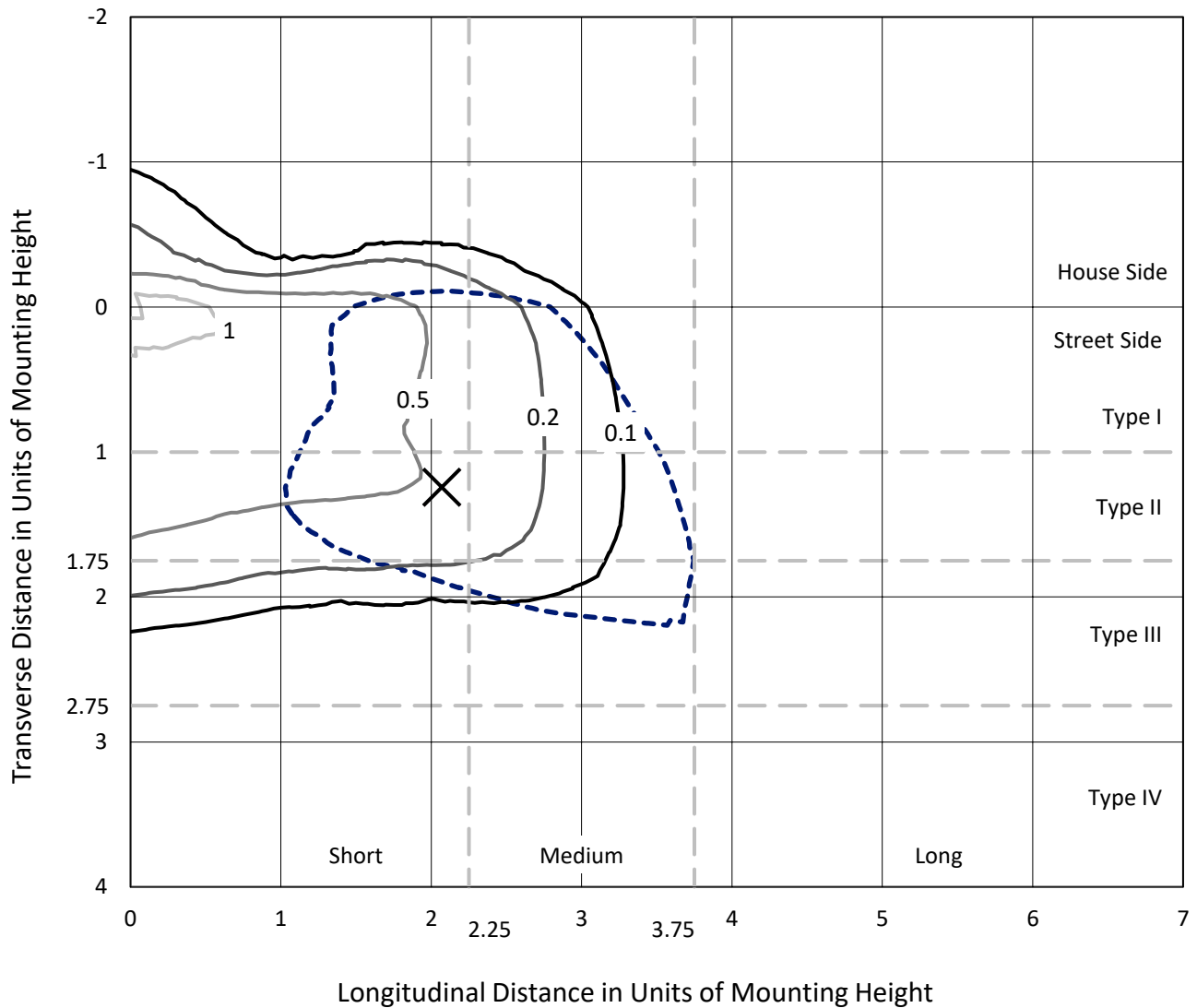
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

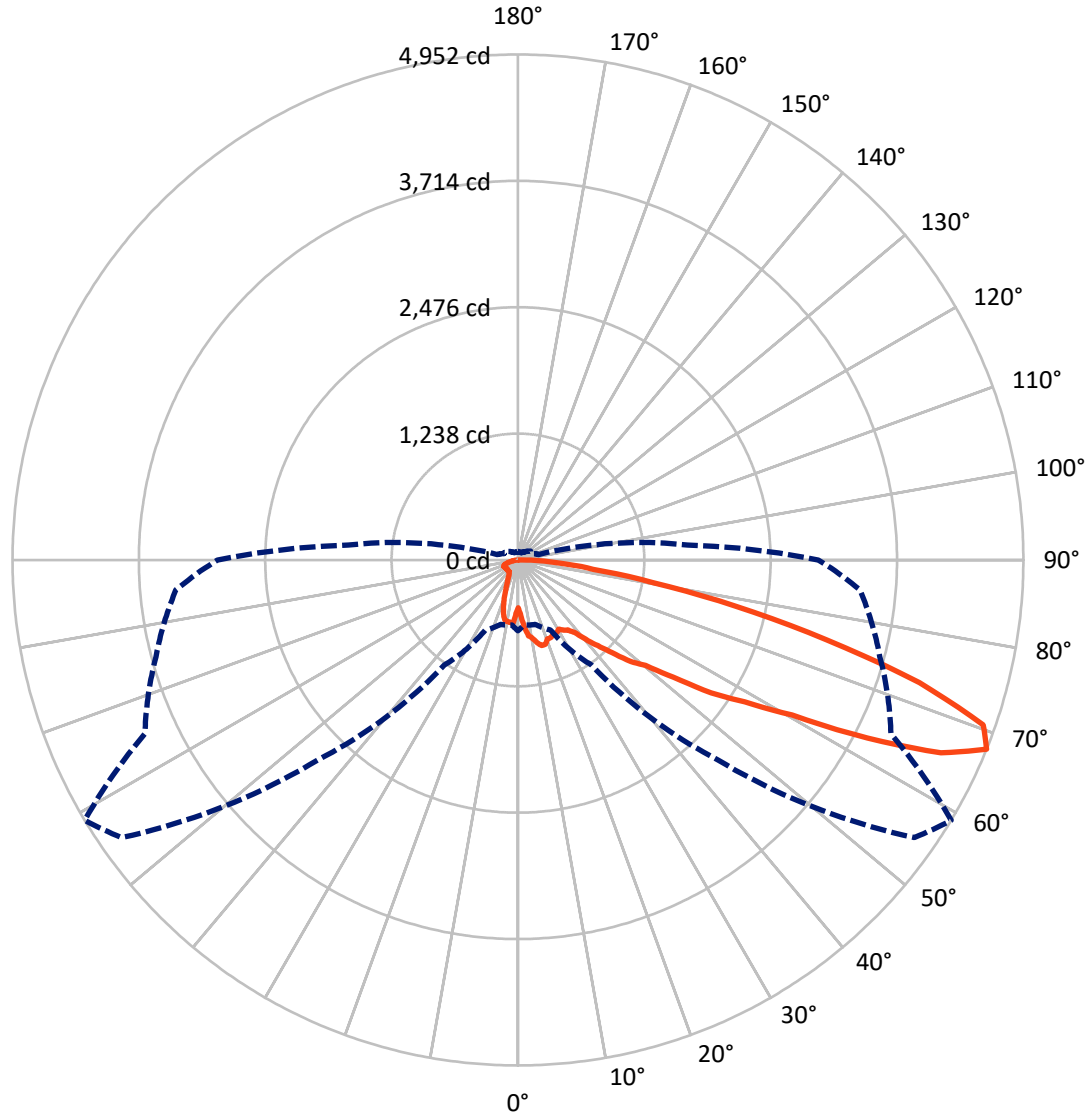
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	744.5	0.0	744.5
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	4201.5	0.0	4201.5
	% Fixture	84.9	0.0	84.9
Total	Lumens	4946.0	0.0	4946.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	1.2
10°-20°	180.9	3.7
20°-30°	258.3	5.2
30°-40°	380.6	7.7
40°-50°	643.1	13.0
50°-60°	1119.2	22.6
60°-70°	1426.1	28.8
70°-80°	755.2	15.3
80°-90°	121.5	2.5
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°	4946.0	100.0
0°-180°	4946.0	100.0

Coefficient of Utilization



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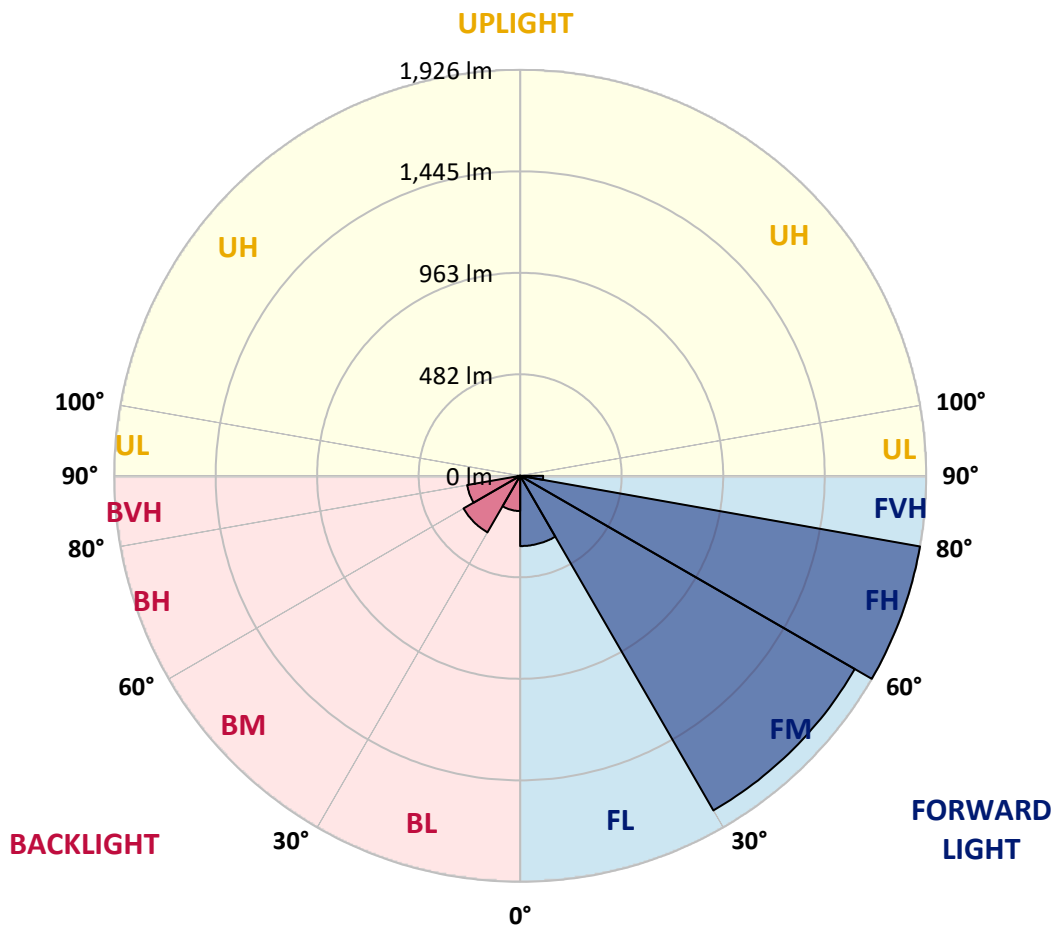
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	333.4	6.7			
FM (30°-60°)	1832.9	37.1			
FH (60°-80°)	1926.1	38.9			G2/5000
FVH (80°-90°)	109.1	2.2			G2/225
BL (0°-30°)	167.0	3.4	B1/500		
BM (30°-60°)	310.0	6.3	B1/1000		
BH (60°-80°)	255.2	5.2	B1/500		G1/500
BVH (80°-90°)	12.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0
2.5°	584.3	557.1	528.2	536.3	552.9	560.5	552.3	544.3	534.0	521.9	563.4
5°	708.6	668.2	662.3	662.1	656.2	632.8	662.9	660.8	673.0	685.6	717.9
7.5°	744.1	729.0	712.6	720.4	690.8	689.6	736.5	749.9	773.4	765.6	809.0
10°	725.8	708.8	717.4	714.3	717.0	748.0	776.8	777.6	802.7	827.5	799.6
12.5°	693.8	695.0	729.2	727.9	771.9	829.6	838.2	831.5	872.5	855.8	879.7
15°	716.6	731.9	723.3	730.6	748.0	821.4	845.3	869.6	908.6	923.7	899.8
17.5°	753.1	761.2	722.7	718.7	754.5	789.3	848.6	869.4	875.5	983.0	949.2
20°	737.6	754.1	716.4	668.0	727.5	773.6	832.1	825.8	855.4	987.6	959.5
22.5°	781.6	754.1	706.1	671.7	692.7	735.0	784.7	826.0	861.0	960.6	974.4
25°	790.0	777.0	732.1	697.9	690.8	705.9	776.8	803.8	862.9	997.5	966.4
27.5°	841.1	821.6	730.2	731.3	695.8	669.2	751.6	808.4	884.3	974.6	985.9
30°	904.6	889.7	775.1	779.3	730.2	681.2	768.8	786.0	896.6	1010.2	1010.4
32.5°	952.2	978.4	863.3	806.3	788.9	752.2	742.4	819.7	882.2	1074.8	1052.4
35°	1037.9	1058.2	931.2	885.5	826.6	785.3	814.1	841.9	942.3	1159.7	1114.6
37.5°	1196.6	1173.1	1057.4	985.5	963.5	904.0	919.9	900.4	1007.7	1255.0	1236.6
40°	1288.4	1268.0	1146.3	1106.4	1019.3	1026.8	1006.9	1021.1	1095.1	1356.5	1350.6
42.5°	1378.9	1351.7	1248.8	1221.1	1134.1	1097.2	1100.8	1146.9	1229.9	1520.4	1500.9
45°	1468.4	1398.6	1353.6	1360.9	1319.0	1243.3	1248.5	1291.9	1377.0	1707.8	1662.9
47.5°	1536.9	1479.3	1444.1	1435.1	1414.3	1515.6	1470.3	1487.9	1525.4	1874.6	1857.6
50°	1666.7	1599.4	1553.5	1540.5	1610.9	1751.8	1659.6	1621.6	1701.5	2090.3	2081.5
52.5°	1874.4	1790.6	1714.1	1713.2	1815.1	1906.5	1971.4	1906.0	1935.4	2311.2	2336.3
55°	2055.7	1958.7	1889.9	1927.8	2072.9	2128.8	2349.5	2298.4	2273.7	2534.2	2606.1
57.5°	2123.4	2010.0	1965.1	2021.1	2234.9	2522.5	2755.7	2621.2	2597.1	2786.5	2937.2
60°	1974.8	1854.9	1857.6	1963.1	2333.4	2811.5	3199.9	3085.6	2944.4	3100.7	3247.9
62.5°	1551.4	1443.1	1513.7	1674.0	2250.8	3092.3	3795.1	3843.3	3341.1	3361.2	3420.1
65°	1054.5	979.4	1043.1	1200.1	1825.6	3245.6	4362.1	4555.3	3702.5	3531.9	3494.6
67.5°	694.0	640.9	653.3	757.7	1256.7	2766.8	4741.2	4951.9	4032.8	3671.9	3363.3
70°	537.4	494.6	489.2	543.9	745.3	1922.2	4516.5	4836.8	4234.0	3540.7	2931.6
72.5°	421.7	389.2	392.1	444.8	577.2	1066.4	3495.0	4113.1	3930.9	3053.6	2252.3
75°	328.9	302.2	317.1	377.3	533.8	662.7	2411.4	3121.7	3039.1	2261.1	1284.6
77.5°	238.7	221.5	242.7	321.3	501.8	568.6	1501.1	2177.9	1946.9	1160.9	440.8
80°	156.6	146.9	164.3	262.0	455.0	547.2	927.7	1334.5	962.0	326.1	166.8
82.5°	92.2	88.0	102.5	177.3	365.7	512.9	618.7	741.5	393.6	137.9	88.7
85°	48.4	45.3	60.8	101.9	252.1	468.2	487.1	443.9	190.1	59.9	42.3
87.5°	16.1	15.7	25.8	39.4	95.4	248.6	259.9	210.9	78.4	17.4	9.2
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°	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0
2.5°	569.0	560.7	512.5	519.2	525.5	522.3	520.4	498.6	496.5	527.5	525.0
5°	717.0	682.2	641.1	639.3	612.2	584.6	590.0	581.2	583.7	596.5	597.8
7.5°	795.2	751.8	712.6	648.9	594.8	551.0	557.9	555.8	550.2	579.1	586.9
10°	793.7	755.2	710.9	633.8	597.3	561.7	519.0	478.5	466.6	452.3	453.6
12.5°	846.1	812.0	715.6	637.0	587.5	526.1	446.0	401.8	359.5	358.6	347.9
15°	862.5	837.3	725.4	618.9	518.5	430.5	347.7	299.7	269.1	263.0	254.0
17.5°	903.8	864.4	695.4	560.7	438.5	336.6	261.4	227.8	225.3	229.5	224.9
20°	906.5	842.6	641.4	474.5	352.3	255.1	213.2	196.4	205.4	215.7	215.3
22.5°	904.2	815.1	594.6	401.2	264.7	205.0	186.7	183.0	191.4	206.7	208.5
25°	880.7	806.1	536.1	329.5	214.8	175.6	170.6	172.9	183.4	201.4	201.4
27.5°	905.2	769.4	462.8	268.1	180.7	156.4	159.9	165.8	173.5	194.1	197.9
30°	897.3	781.6	403.7	215.9	159.3	142.9	150.9	156.8	165.6	187.0	188.8
32.5°	918.6	749.1	354.0	181.5	145.2	137.7	139.6	147.6	159.1	175.8	179.2
35°	951.3	761.0	297.0	163.3	138.3	131.6	135.2	141.5	153.0	169.4	172.1
37.5°	1055.7	760.4	257.6	153.2	137.1	130.4	132.0	136.4	149.9	164.7	171.0
40°	1122.8	804.0	221.7	150.9	135.6	129.7	128.3	133.1	143.8	161.4	165.8
42.5°	1248.8	830.6	206.2	150.1	135.4	126.2	124.7	130.4	140.8	157.2	163.9
45°	1381.8	868.6	193.9	149.6	134.8	125.5	121.1	128.3	137.1	152.8	160.5
47.5°	1538.4	948.8	187.0	148.2	133.5	126.4	119.9	123.5	133.3	149.0	156.8
50°	1743.4	1055.1	188.4	146.1	135.4	126.6	118.0	119.7	128.7	144.0	152.0
52.5°	1992.6	1219.6	197.9	146.9	136.7	125.5	117.2	116.3	124.1	137.5	145.5
55°	2293.0	1453.1	226.2	150.9	136.7	125.3	115.9	112.1	118.0	128.9	136.7
57.5°	2655.3	1723.5	281.5	152.8	135.6	124.1	113.2	106.5	110.0	119.0	126.4
60°	2966.6	1941.7	338.5	154.1	137.7	121.1	107.7	99.3	101.7	108.6	115.1
62.5°	3125.2	2002.9	355.7	153.0	143.4	119.3	101.2	91.8	92.0	97.9	103.7
65°	3155.0	1921.3	286.7	152.0	150.7	119.0	96.6	85.3	83.8	88.0	93.1
67.5°	2942.9	1667.7	206.9	149.6	151.5	117.8	93.5	80.1	76.3	79.2	83.4
70°	2498.8	1343.1	173.8	145.0	141.5	111.5	88.0	74.6	69.6	71.7	74.8
72.5°	1862.9	993.7	151.5	135.2	123.2	95.4	79.6	68.5	63.3	64.8	67.1
75°	1035.0	530.1	126.8	117.6	100.6	77.1	67.9	60.8	56.2	56.8	59.3
77.5°	343.7	195.6	93.1	93.3	76.1	59.5	56.0	52.0	48.4	48.6	50.7
80°	155.7	108.2	66.7	67.1	53.0	43.2	43.0	41.7	39.4	38.8	40.2
82.5°	90.3	65.6	45.7	43.6	34.2	28.1	31.2	30.6	30.0	27.7	28.1
85°	44.4	35.2	23.9	22.6	18.9	14.0	16.8	17.4	16.8	14.3	14.0
87.5°	10.9	11.5	5.9	5.4	3.1	1.5	2.5	2.5	3.1	2.1	1.0
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)