

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: P596897

Luminaire Tested: **MSA-SA1D-835-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596897
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-835-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) 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: 4633 lumens
Efficiency: N/A
Efficacy: 69.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

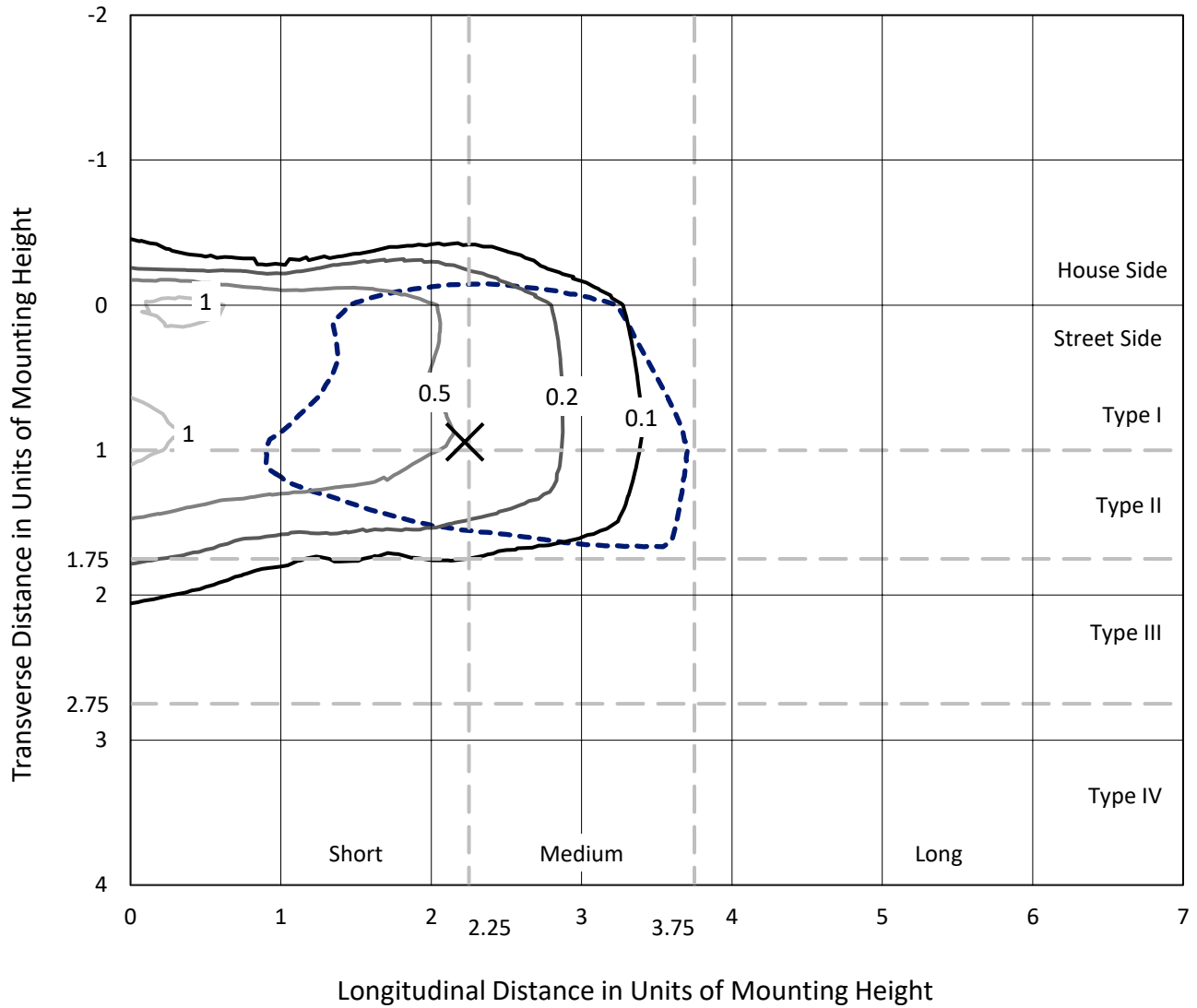
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

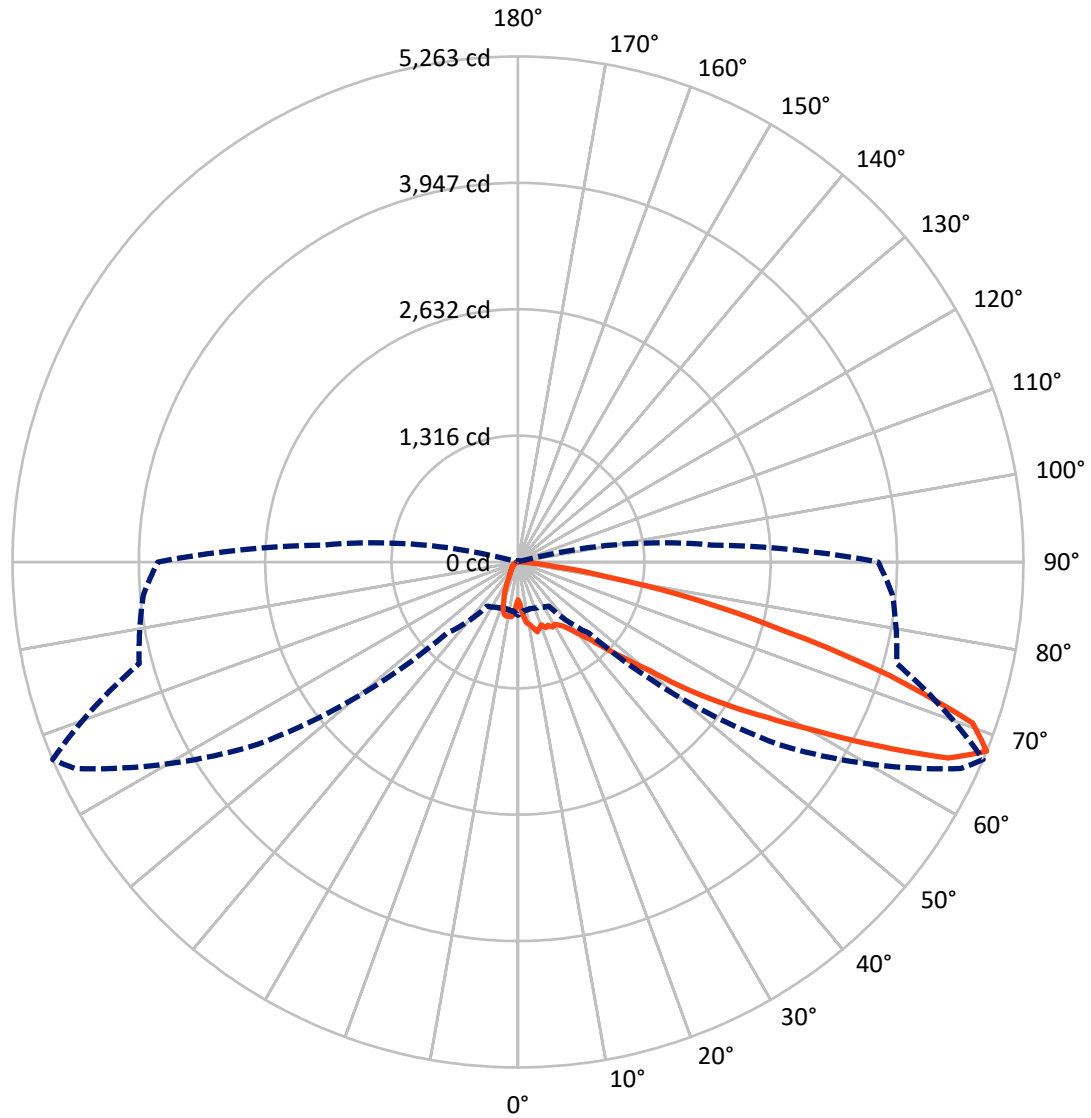
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc
 Type 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	573.0	0.0	573.0
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	4060.0	0.0	4060.0
	% Fixture	87.6	0.0	87.6
Total	Lumens	4633.0	0.0	4633.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.5	1.1
10°-20°	146.6	3.2
20°-30°	229.7	5.0
30°-40°	370.3	8.0
40°-50°	680.5	14.7
50°-60°	1149.3	24.8
60°-70°	1270.6	27.4
70°-80°	665.0	14.4
80°-90°	71.4	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°	4633.0	100.0
0°-180°	4633.0	100.0

Coefficient of Utilization



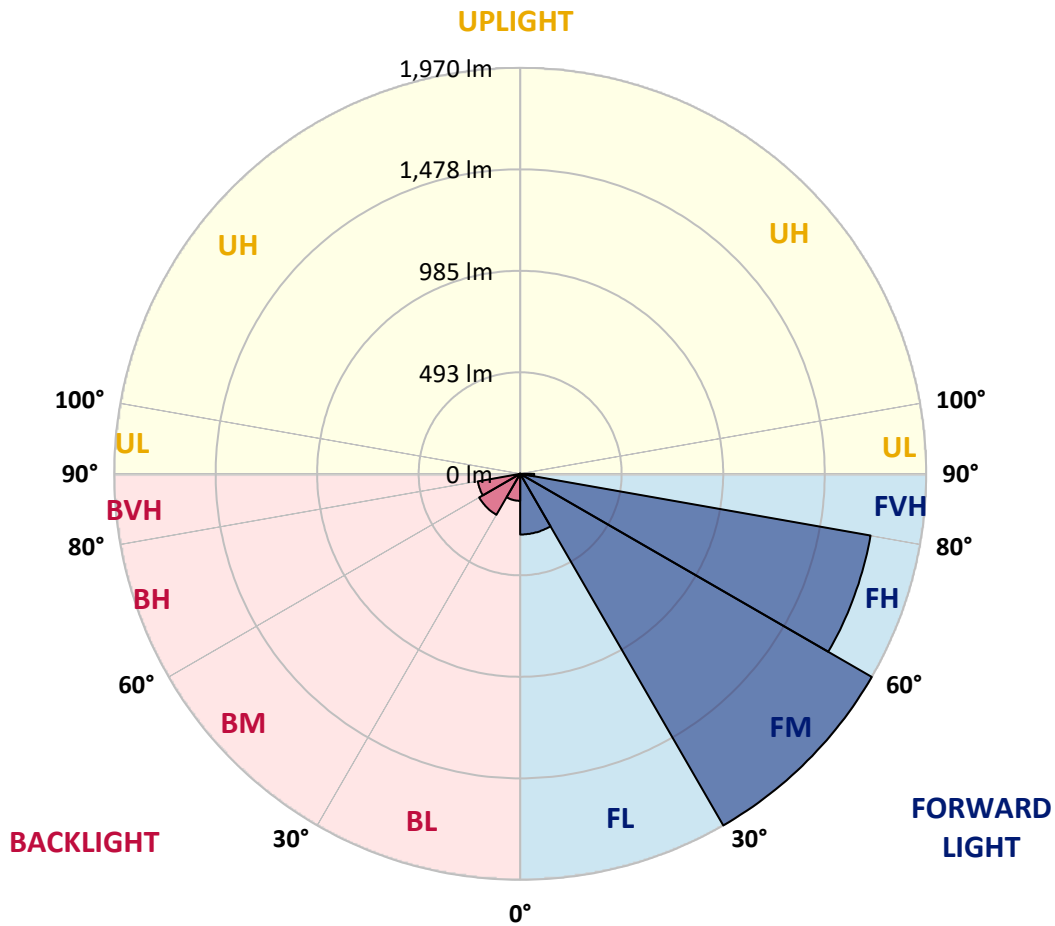
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	294.6	6.4			
FM (30°-60°)	1970.4	42.5			
FH (60°-80°)	1726.6	37.3			G1/1800
FVH (80°-90°)	68.4	1.5			G1/100
BL (0°-30°)	131.2	2.8	B1/500		
BM (30°-60°)	229.7	5.0	B1/1000		
BH (60°-80°)	209.0	4.5	B1/500		G1/500
BVH (80°-90°)	3.0	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-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6
2.5°	465.8	450.1	423.3	431.0	446.5	459.5	453.4	441.4	441.6	429.4	473.3
5°	542.0	520.8	505.3	510.7	510.0	509.5	538.4	549.5	554.2	574.4	604.2
7.5°	563.8	556.3	540.1	545.0	528.8	530.0	580.7	628.7	636.2	648.7	701.8
10°	555.4	540.8	546.7	546.7	546.9	573.2	607.3	653.1	662.3	710.2	715.9
12.5°	546.2	546.9	570.2	565.9	597.9	645.1	656.7	708.1	703.7	745.3	807.1
15°	580.3	598.1	583.1	589.0	592.0	647.5	666.1	734.4	754.2	806.8	847.0
17.5°	638.8	641.1	609.9	601.4	623.5	639.3	676.6	709.5	722.7	860.9	917.8
20°	649.4	664.4	632.7	583.8	630.6	652.2	678.3	694.0	699.7	877.6	957.7
22.5°	713.1	696.4	645.6	608.5	621.9	645.4	661.6	709.1	742.9	846.1	996.0
25°	745.7	741.3	692.8	661.1	647.5	645.6	682.7	718.7	729.5	878.7	1005.4
27.5°	824.0	813.9	720.1	716.1	671.2	631.7	683.4	748.1	768.3	848.0	1040.7
30°	930.5	926.7	801.9	799.3	727.9	656.9	721.5	766.2	753.9	863.7	1064.2
32.5°	1037.6	1068.2	940.6	867.7	814.1	749.2	710.7	760.5	782.4	902.0	1107.4
35°	1167.1	1189.2	1059.2	1006.4	887.2	792.5	782.4	814.4	823.8	947.6	1156.5
37.5°	1393.7	1360.3	1249.6	1159.6	1097.1	946.9	897.1	871.7	893.6	1009.4	1256.9
40°	1561.0	1539.9	1403.6	1349.7	1205.9	1118.0	987.8	964.1	988.5	1072.9	1326.7
42.5°	1762.9	1718.9	1590.6	1554.2	1406.1	1236.7	1104.6	1112.8	1097.6	1198.1	1449.1
45°	1945.5	1846.3	1774.9	1783.1	1704.1	1475.2	1299.4	1295.4	1282.7	1379.6	1577.9
47.5°	2068.4	1981.7	1912.1	1889.3	1879.9	1894.7	1581.0	1510.0	1500.6	1570.2	1780.8
50°	2134.5	2039.5	1953.5	1958.2	2149.0	2292.6	1871.5	1770.7	1774.2	1846.8	2058.1
52.5°	2090.0	1982.6	1891.9	1980.1	2357.7	2558.0	2352.3	2111.2	2193.0	2174.4	2430.1
55°	1884.9	1791.6	1727.2	1884.9	2380.5	2843.5	2944.4	2623.8	2605.5	2563.1	2809.5
57.5°	1539.6	1459.3	1419.5	1585.9	2131.2	3073.6	3539.0	3203.1	3046.8	2869.6	3124.4
60°	1147.1	1087.9	1046.6	1134.5	1679.2	2850.1	3928.4	3749.1	3568.1	3165.0	3407.3
62.5°	849.6	801.4	757.5	765.5	1156.3	2451.3	4077.9	4327.5	4223.6	3476.9	3674.3
65°	678.0	634.1	603.3	585.7	716.1	1844.2	3869.9	4801.5	4921.4	3770.7	3867.0
67.5°	553.7	516.6	501.3	521.5	561.7	1051.3	3314.3	5089.2	5263.1	4082.3	3914.5
70°	450.5	420.0	418.3	472.9	517.3	640.9	2437.9	4890.6	5021.5	4135.4	3629.9
72.5°	314.0	300.6	322.0	399.3	512.6	533.7	1400.0	4047.1	4051.8	3652.5	2985.7
75°	177.7	175.6	209.4	318.5	499.2	528.3	780.5	2860.0	2862.1	2762.4	2068.4
77.5°	97.8	91.4	122.0	215.3	428.7	516.1	503.4	1952.8	1902.7	1537.3	944.8
80°	45.1	42.5	66.0	138.0	313.5	488.1	403.5	1073.3	967.8	500.8	230.6
82.5°	18.6	17.6	30.3	88.6	198.1	393.2	340.1	476.2	382.1	95.2	71.2
85°	3.3	3.5	12.5	53.6	110.9	181.2	275.7	226.1	166.2	26.3	39.0
87.5°	0.0	0.0	2.6	12.9	26.8	49.6	111.9	63.2	43.5	7.8	11.5
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°	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6	394.6
2.5°	482.0	478.0	437.6	439.5	442.3	439.7	439.3	428.0	417.6	451.7	451.2
5°	609.6	581.2	553.2	542.4	519.2	488.6	488.8	479.2	469.3	483.2	483.2
7.5°	700.6	661.4	625.9	562.6	501.1	445.4	440.4	427.3	412.2	430.3	433.9
10°	721.8	687.7	641.8	549.0	490.7	436.4	376.7	327.6	304.8	294.2	292.4
12.5°	786.9	761.5	659.0	556.3	472.4	380.5	282.7	224.4	184.7	181.7	177.4
15°	830.3	812.5	675.9	538.2	394.8	273.6	177.7	136.3	120.3	118.9	116.8
17.5°	897.8	866.8	659.7	480.6	308.8	180.5	119.4	107.6	109.5	113.8	110.5
20°	925.3	864.6	624.5	397.2	216.9	121.0	103.6	97.3	102.2	106.2	104.3
22.5°	953.5	870.8	593.2	327.4	141.7	100.1	92.4	89.1	89.5	93.5	93.8
25°	953.2	887.7	557.0	255.0	105.5	89.1	83.4	79.2	77.6	80.4	79.7
27.5°	999.5	868.2	491.0	189.2	92.8	79.7	74.3	69.1	63.2	66.0	66.0
30°	999.8	899.9	444.9	135.8	85.1	71.0	66.3	58.3	51.5	53.8	54.1
32.5°	1026.3	872.4	402.4	103.9	79.0	65.8	55.5	48.2	44.2	45.6	45.6
35°	1056.7	895.9	337.0	91.7	72.9	58.5	47.5	41.6	38.5	39.7	39.7
37.5°	1156.8	891.0	291.7	85.3	68.9	52.9	43.2	36.7	35.3	36.0	36.9
40°	1193.0	926.0	230.1	81.6	62.3	47.7	38.1	33.1	31.3	31.7	32.0
42.5°	1285.1	933.7	183.8	78.5	56.4	41.4	33.8	30.3	28.0	28.0	28.7
45°	1386.9	953.2	146.2	75.9	51.5	37.1	30.6	27.7	24.2	23.7	24.7
47.5°	1534.2	1028.0	119.2	70.7	45.6	34.5	28.2	24.0	21.2	20.2	21.2
50°	1780.8	1154.9	105.3	64.4	41.4	32.4	24.9	20.4	18.3	17.2	17.9
52.5°	2128.6	1374.2	98.0	58.5	37.6	29.1	22.3	17.9	15.7	14.8	15.3
55°	2515.0	1625.6	94.5	52.6	34.3	25.6	19.5	15.7	13.9	12.7	12.9
57.5°	2872.2	1862.1	91.0	47.0	31.0	22.8	17.2	13.9	12.0	10.8	11.0
60°	3224.3	2050.8	82.5	40.4	28.0	20.4	15.0	12.0	10.8	9.4	9.4
62.5°	3535.7	2163.6	70.3	35.0	25.1	18.1	13.4	10.8	9.9	8.5	8.5
65°	3747.7	2168.8	56.6	30.1	22.1	15.5	11.8	10.1	9.2	7.5	7.3
67.5°	3750.7	2027.8	45.4	26.8	19.5	13.6	10.6	9.6	8.5	7.1	6.6
70°	3357.1	1675.2	37.8	23.5	16.9	12.0	9.2	9.2	8.2	6.8	6.1
72.5°	2685.4	1280.2	31.7	20.4	15.0	10.3	8.5	8.7	8.0	6.8	6.1
75°	1805.0	734.2	26.3	17.4	13.2	8.7	8.2	8.5	8.2	6.8	5.9
77.5°	831.3	233.8	20.4	14.3	11.3	7.3	8.0	8.0	7.5	6.1	5.2
80°	187.3	57.6	14.8	10.6	9.2	5.4	7.3	6.6	5.9	4.2	3.1
82.5°	68.2	17.6	8.9	6.6	5.6	2.1	4.7	4.7	4.2	3.1	1.9
85°	39.0	9.2	4.9	4.2	3.1	0.9	2.6	2.8	2.4	2.1	0.9
87.5°	12.7	2.1	2.4	2.6	2.4	0.5	0.9	0.9	0.7	0.5	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)