

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: P367089

Luminaire Tested: **MSA-SA1D-760-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367089
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-760-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5631 lumens
Efficiency: N/A
Efficacy: 84.0 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

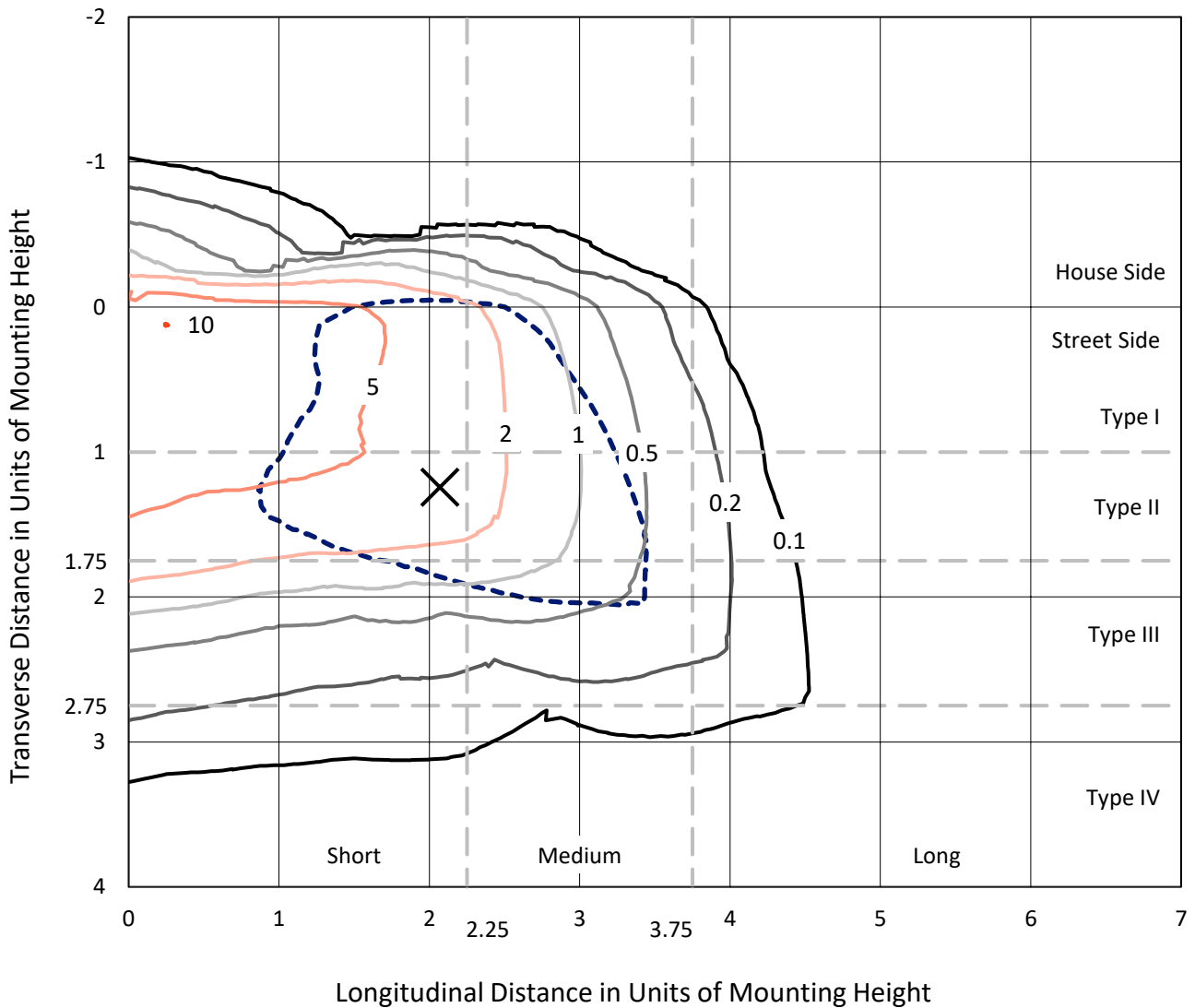
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P367089
 CATALOG NUMBER: MSA-SA1D-760-U-SL3-HSS

Iso-Footcandle Lines of Horizontal Illumination

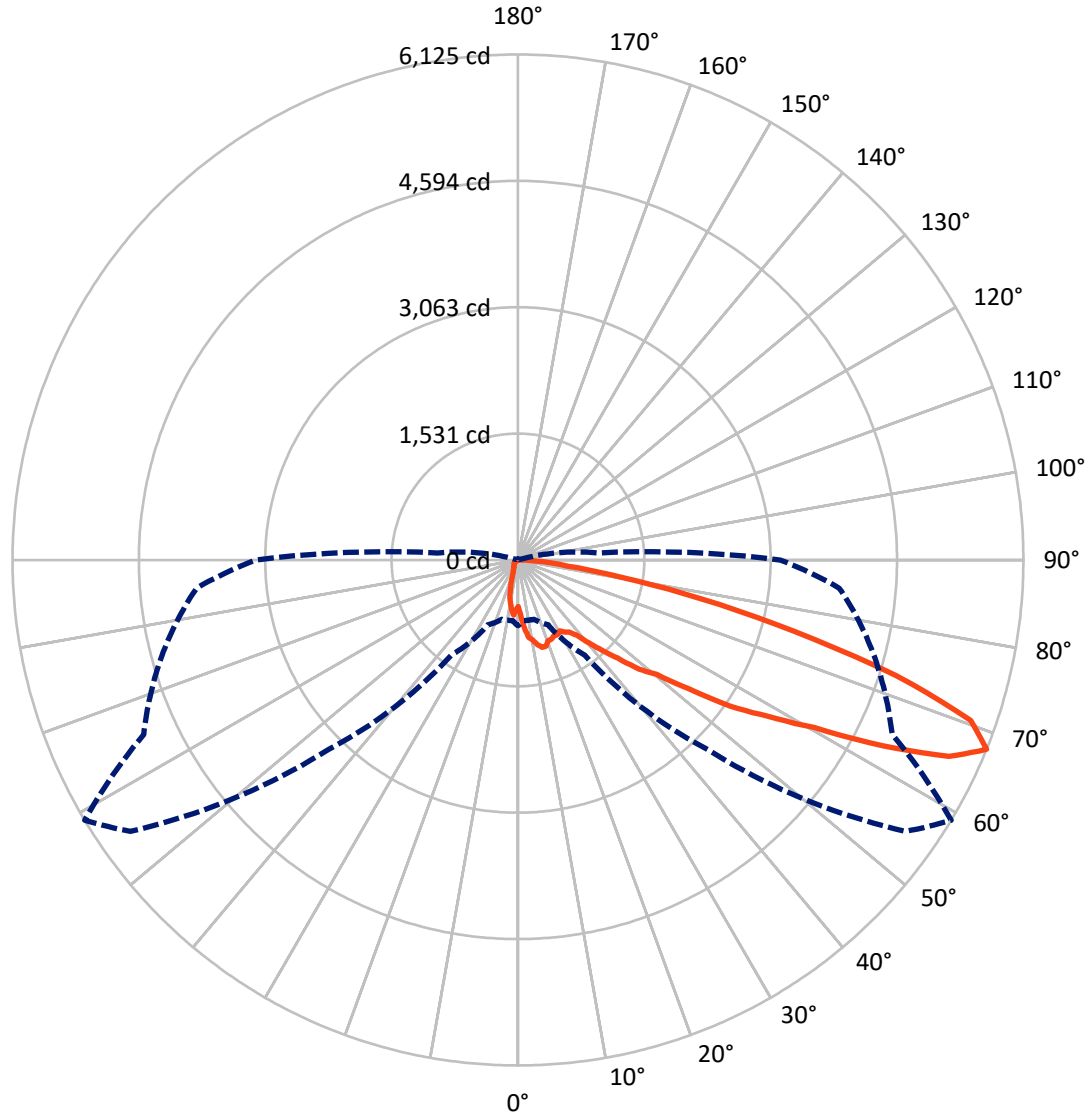
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.1 fc
 Type III - Short - N/A

REPORT NUMBER: P367089
CATALOG NUMBER: MSA-SA1D-760-U-SL3-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P367089
 CATALOG NUMBER: MSA-SA1D-760-U-SL3-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	478.9	0.0	478.9
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	5152.1	0.0	5152.1
	% Fixture	91.5	0.0	91.5
Total	Lumens	5631.0	0.0	5631.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	1.2
10°-20°	192.9	3.4
20°-30°	286.9	5.1
30°-40°	442.6	7.9
40°-50°	790.0	14.0
50°-60°	1405.7	25.0
60°-70°	1637.2	29.1
70°-80°	728.1	12.9
80°-90°	79.1	1.4
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°	5631.0	100.0
0°-180°	5631.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367089

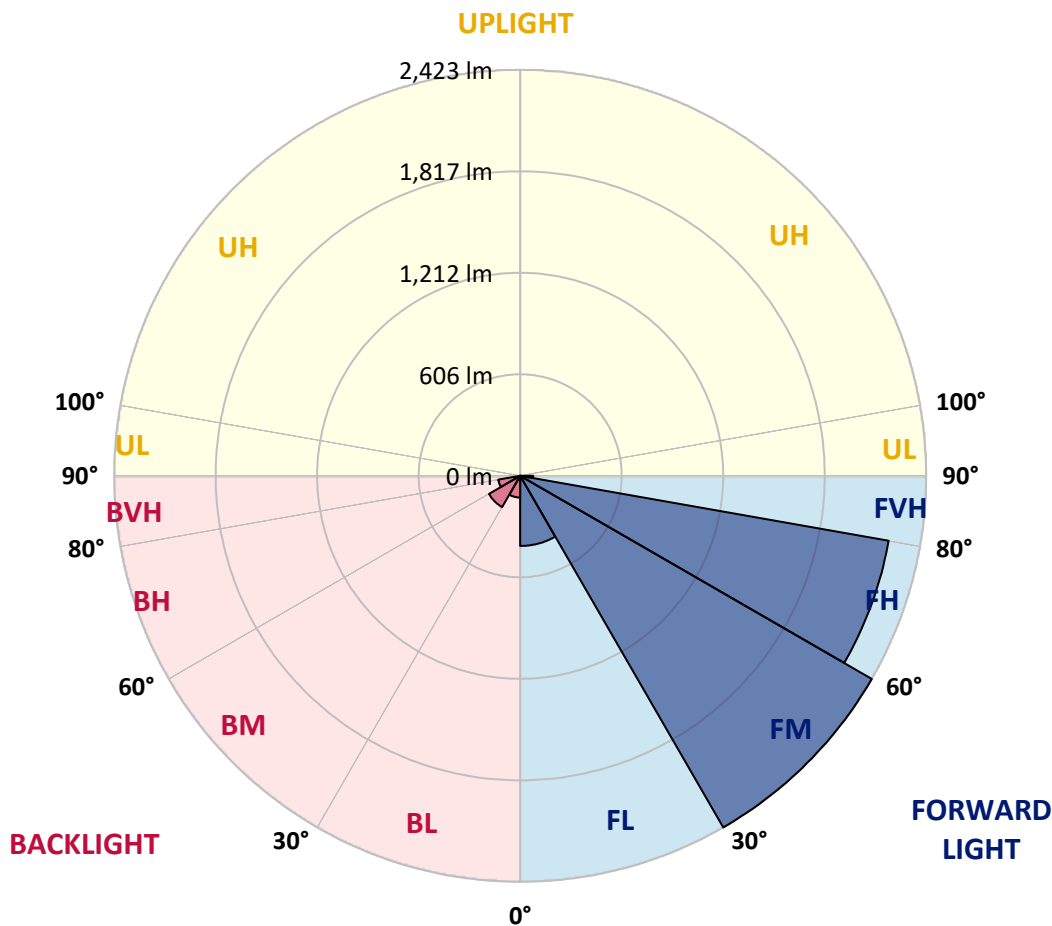
CATALOG NUMBER: MSA-SA1D-760-U-SL3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	418.8	7.4			
FM (30°-60°)	2423.0	43.0			
FH (60°-80°)	2232.6	39.6			G2/5000
FVH (80°-90°)	77.7	1.4			G1/100
BL (0°-30°)	129.5	2.3	B1/500		
BM (30°-60°)	215.3	3.8	B0/220		
BH (60°-80°)	132.6	2.4	B1/500		G1/500
BVH (80°-90°)	1.4	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 III Short





REPORT NUMBER: P367089

CATALOG NUMBER: MSA-SA1D-760-U-SL3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	563.4	563.4	563.4	563.4	563.4	563.4	563.4	563.4	563.4	563.4	563.4
2.5°	734.5	706.8	667.5	679.2	689.7	699.7	683.2	673.7	669.2	628.7	679.4
5°	901.8	867.3	849.4	844.8	833.4	808.0	850.2	831.4	837.7	845.7	862.2
7.5°	952.9	937.2	911.2	920.9	877.6	873.9	932.3	948.6	970.0	955.4	975.4
10°	926.6	899.6	911.8	908.4	906.7	944.9	985.9	986.8	1018.7	1034.1	966.6
12.5°	874.8	877.9	921.8	918.4	975.4	1051.8	1061.2	1051.2	1103.4	1076.6	1066.4
15°	909.3	934.9	910.7	918.9	939.2	1034.7	1068.1	1098.9	1148.2	1164.2	1094.9
17.5°	950.9	953.4	909.3	899.0	950.0	994.5	1073.2	1098.6	1103.4	1243.4	1159.0
20°	928.4	950.3	897.6	832.8	912.1	972.5	1052.4	1044.4	1076.9	1266.8	1173.6
22.5°	988.2	956.9	889.3	840.5	867.3	922.4	989.9	1042.1	1090.9	1210.9	1192.4
25°	993.9	982.5	922.4	879.0	874.5	888.4	982.5	1016.2	1092.6	1261.1	1176.4
27.5°	1058.1	1045.0	921.8	926.1	883.3	840.3	946.6	1025.6	1123.7	1230.6	1210.3
30°	1140.8	1141.9	983.1	996.5	935.5	866.2	976.0	997.6	1144.8	1279.3	1235.4
32.5°	1224.6	1259.1	1104.3	1033.3	1014.2	964.6	939.5	1039.6	1121.7	1362.6	1298.2
35°	1352.0	1375.4	1204.1	1140.5	1065.5	1009.0	1038.7	1074.6	1204.6	1472.9	1380.6
37.5°	1567.9	1525.7	1383.1	1272.5	1254.5	1171.3	1186.1	1153.9	1289.3	1603.0	1543.6
40°	1689.3	1651.1	1502.9	1449.0	1334.4	1347.2	1300.4	1319.3	1412.2	1738.4	1692.2
42.5°	1815.9	1779.4	1649.4	1611.2	1502.0	1449.0	1427.9	1495.5	1600.7	1963.9	1905.2
45°	1943.1	1850.4	1795.4	1814.5	1765.5	1660.5	1636.0	1696.2	1806.5	2241.1	2129.9
47.5°	2050.3	1972.2	1930.8	1922.0	1902.9	2048.6	1948.8	1975.3	2024.1	2486.3	2409.8
50°	2243.6	2166.6	2101.9	2084.0	2176.9	2383.6	2229.6	2178.3	2275.8	2782.5	2734.3
52.5°	2522.8	2424.7	2321.7	2322.0	2497.4	2610.9	2683.8	2593.7	2612.0	3108.4	3087.0
55°	2747.1	2622.5	2537.3	2604.6	2866.0	2929.6	3208.2	3129.2	3105.5	3410.6	3384.4
57.5°	2777.9	2628.5	2588.0	2706.1	3063.9	3469.9	3769.6	3572.3	3536.1	3663.5	3715.7
60°	2490.5	2332.0	2362.5	2552.4	3128.4	3799.2	4285.1	4124.0	3893.9	3959.8	3995.7
62.5°	1857.6	1731.0	1816.5	2068.0	2880.0	4019.9	4881.8	4956.5	4309.0	4182.2	4174.5
65°	1205.2	1125.9	1182.1	1388.3	2179.5	3994.8	5415.0	5738.9	4636.1	4363.5	4230.6
67.5°	797.2	737.0	745.0	867.1	1409.4	3249.0	5733.8	6125.3	5003.9	4466.4	3908.7
70°	594.2	546.9	549.7	615.9	836.5	2142.7	5289.3	5820.5	5138.2	4109.7	3154.9
72.5°	428.5	396.9	423.4	497.0	666.6	1133.1	3942.4	4793.5	4480.4	3241.5	2125.6
75°	296.8	276.0	319.3	415.7	608.4	703.4	2605.2	3450.5	3140.3	2033.8	960.9
77.5°	164.5	158.2	220.7	338.7	552.3	576.5	1595.8	2267.3	1741.8	729.1	228.7
80°	71.9	69.6	106.9	254.3	464.2	520.9	898.4	1257.1	685.1	130.0	73.8
82.5°	30.8	29.7	45.6	153.1	337.3	435.7	554.0	605.0	235.8	40.2	41.9
85°	5.4	6.0	18.2	80.7	205.3	221.3	401.2	358.1	118.6	19.1	29.9
87.5°	0.0	0.0	2.9	15.7	38.5	63.3	173.9	125.5	22.5	6.3	5.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P367089
 CATALOG NUMBER: MSA-SA1D-760-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	563.4	563.4	563.4	563.4	563.4	563.4	563.4	563.4	563.4	563.4	563.4
2.5°	686.6	670.6	609.9	602.2	593.9	581.6	577.1	550.9	547.4	581.1	581.1
5°	854.5	797.5	739.6	694.0	653.2	596.8	580.8	564.3	550.9	547.4	558.0
7.5°	943.2	873.6	782.7	666.6	572.5	490.7	456.5	432.5	405.7	413.7	418.0
10°	938.3	864.5	748.4	599.3	495.0	404.6	317.6	266.9	238.6	224.7	223.0
12.5°	985.9	916.4	725.3	545.7	412.6	287.7	199.9	163.7	142.8	143.1	141.4
15°	1013.6	937.8	698.5	477.9	290.5	185.0	138.6	130.6	127.7	130.9	129.2
17.5°	1062.4	960.3	637.8	376.6	199.9	139.7	127.4	124.3	128.0	134.6	132.9
20°	1058.7	921.2	551.4	265.4	147.7	125.7	120.6	115.8	123.5	130.3	129.2
22.5°	1055.2	883.0	470.2	195.9	123.5	114.6	110.3	108.3	112.3	120.3	122.0
25°	1025.0	864.2	387.8	147.1	111.8	104.1	102.1	100.4	101.8	108.3	108.1
27.5°	1062.1	816.6	299.4	123.5	103.5	94.4	92.7	89.8	87.0	92.7	93.5
30°	1054.4	823.1	234.7	108.6	95.2	83.0	83.5	77.6	72.4	77.6	77.6
32.5°	1082.3	775.2	187.9	98.7	87.0	78.1	71.0	64.7	61.0	64.2	64.7
35°	1123.1	777.2	147.1	92.4	79.8	69.6	61.0	54.7	51.3	52.7	53.6
37.5°	1259.7	763.6	122.9	87.5	77.3	64.4	55.6	47.3	45.0	46.8	47.6
40°	1348.6	800.1	108.3	85.0	70.7	59.3	47.6	41.6	39.6	40.5	41.9
42.5°	1516.3	820.3	101.2	82.1	64.7	50.8	40.8	37.4	34.5	35.6	36.8
45°	1695.6	854.8	95.8	79.0	60.2	44.5	35.9	33.1	29.4	29.7	30.8
47.5°	1916.0	936.9	89.5	73.6	53.9	40.5	31.9	27.7	24.2	24.0	25.4
50°	2212.0	1046.7	83.8	66.7	49.9	37.1	27.9	22.5	19.7	18.8	20.0
52.5°	2527.9	1188.7	77.8	61.9	45.0	32.5	24.0	18.2	15.7	15.1	16.0
55°	2840.9	1325.0	72.1	58.7	39.9	27.9	20.2	15.1	12.8	12.3	12.8
57.5°	3197.6	1472.4	64.7	52.5	35.1	24.2	16.8	12.5	10.5	10.0	10.3
60°	3466.2	1524.3	58.4	45.6	30.5	21.4	14.3	10.0	8.6	8.0	8.3
62.5°	3593.7	1439.6	52.5	39.6	26.8	18.5	12.0	8.3	7.1	6.6	6.6
65°	3560.6	1252.0	46.5	33.9	23.1	15.4	9.4	7.1	6.3	5.4	5.1
67.5°	3178.5	979.7	39.6	28.5	19.4	12.5	8.0	6.8	5.7	5.1	4.3
70°	2520.8	709.4	32.2	23.7	16.3	10.3	6.3	6.3	5.4	5.1	4.0
72.5°	1652.3	446.5	26.2	19.1	13.4	8.0	4.8	5.7	5.1	5.1	3.7
75°	715.9	159.7	21.1	15.4	11.1	5.4	4.3	5.1	5.4	5.1	4.3
77.5°	167.7	49.6	16.5	12.3	9.1	3.7	4.3	5.1	5.4	4.8	3.7
80°	63.0	21.1	10.8	8.0	7.1	2.3	3.7	3.1	2.9	2.0	0.6
82.5°	38.2	8.8	5.7	4.0	3.4	0.6	1.7	1.1	0.6	0.6	0.0
85°	27.1	4.3	3.1	2.9	1.7	0.0	0.3	0.0	0.0	0.3	0.0
87.5°	3.7	1.1	1.4	1.4	1.1	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)