

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: P366871

Luminaire Tested: **MSA-SA1C-727-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366871
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-SA1C-727-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: 4338 lumens
Efficiency: N/A
Efficacy: 73.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G2

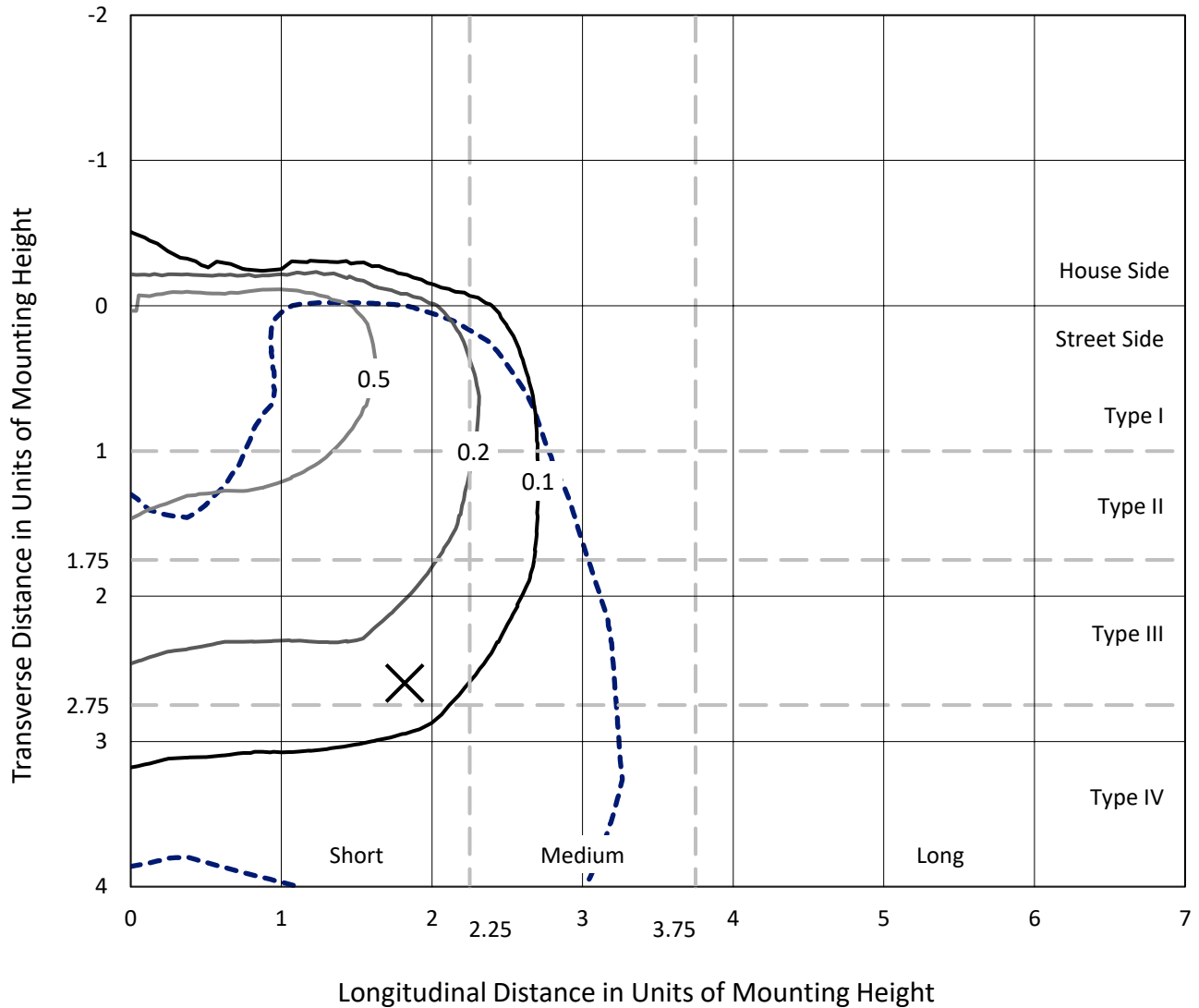
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P366871
 CATALOG NUMBER: MSA-SA1C-727-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

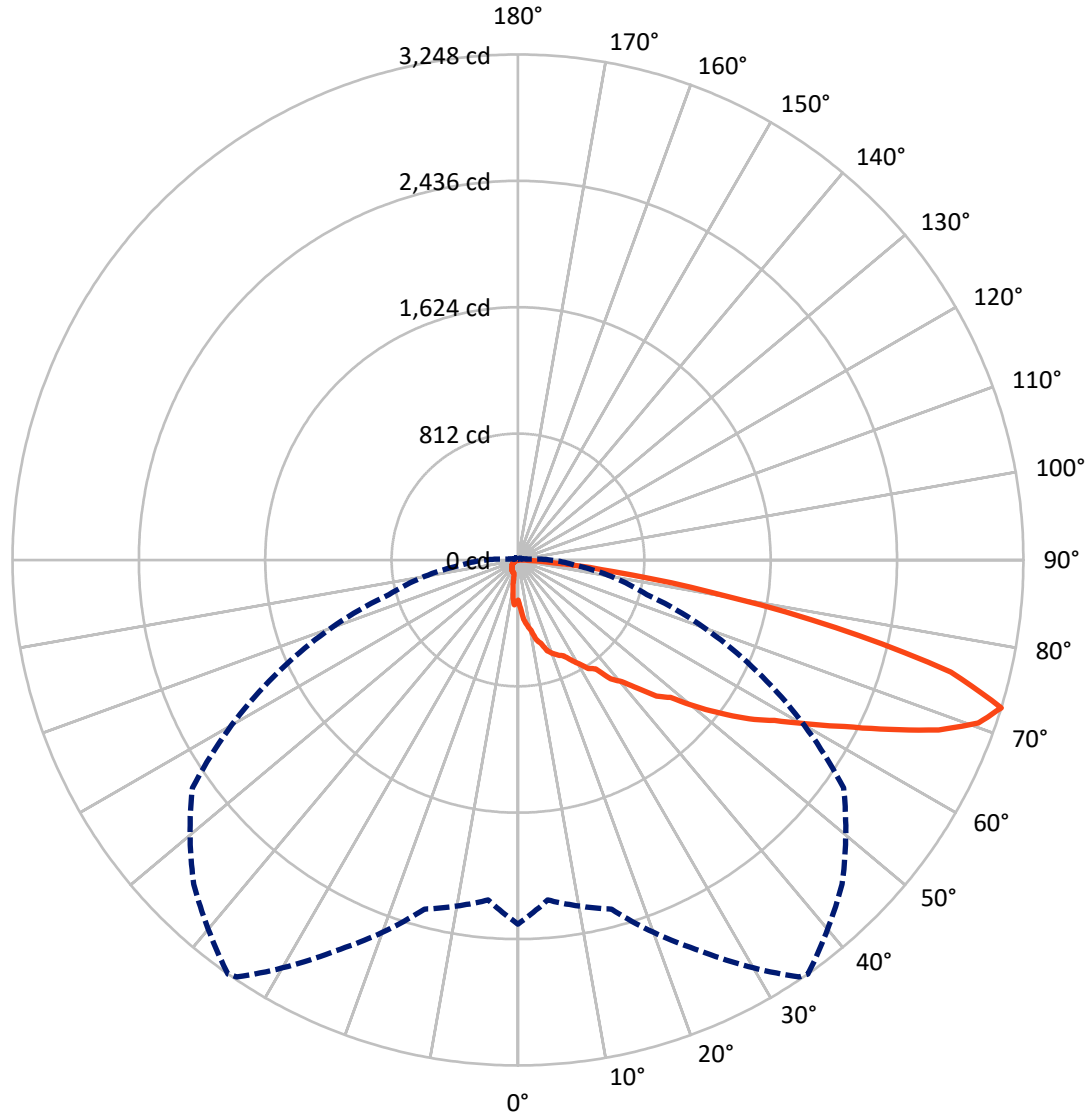
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc
 Type IV - Short - N/A

REPORT NUMBER: P366871
CATALOG NUMBER: MSA-SA1C-727-U-SL4-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P366871
 CATALOG NUMBER: MSA-SA1C-727-U-SL4-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	338.4	0.0	338.4
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	3999.6	0.0	3999.6
	% Fixture	92.2	0.0	92.2
Total	Lumens	4338.0	0.0	4338.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.0	0.8
10°-20°	111.0	2.6
20°-30°	202.2	4.7
30°-40°	348.7	8.0
40°-50°	619.9	14.3
50°-60°	925.1	21.3
60°-70°	1181.9	27.2
70°-80°	822.3	19.0
80°-90°	94.1	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°	4338.0	100.0
0°-180°	4338.0	100.0

Coefficient of Utilization

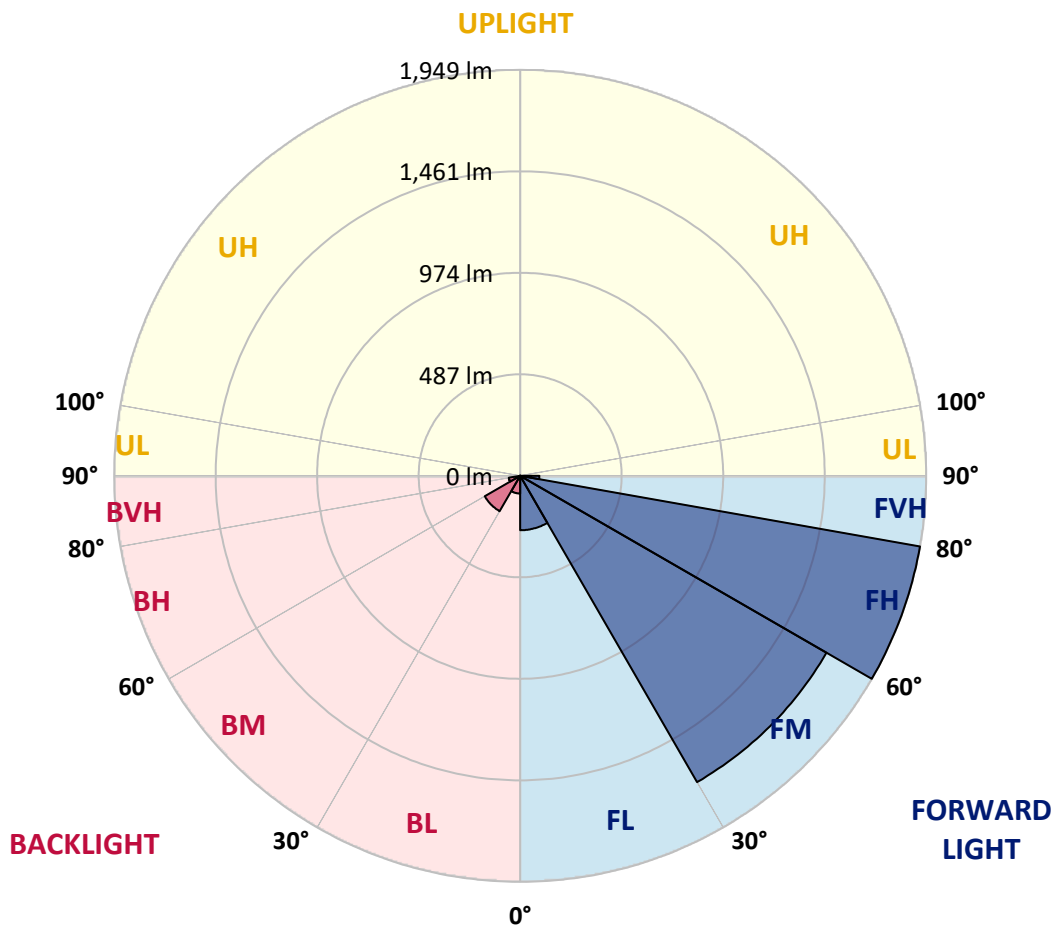


REPORT NUMBER: P366871
 CATALOG NUMBER: MSA-SA1C-727-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	261.0	6.0			
FM (30°-60°)	1697.5	39.1			
FH (60°-80°)	1948.6	44.9			G2/5000
FVH (80°-90°)	92.5	2.1			G1/100
BL (0°-30°)	85.1	2.0	B0/110		
BM (30°-60°)	196.2	4.5	B0/220		
BH (60°-80°)	55.5	1.3	B0/110		G0/110
BVH (80°-90°)	1.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2
 Type IV Short





REPORT NUMBER: P366871
 CATALOG NUMBER: MSA-SA1C-727-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4
2.5°	328.9	316.0	295.0	296.6	306.0	307.9	310.8	303.3	296.8	285.2	307.7
5°	421.3	402.8	391.0	387.3	381.8	382.3	369.0	373.8	372.5	381.0	391.2
7.5°	473.4	463.2	448.4	444.2	424.1	422.0	405.6	427.6	429.8	426.8	443.6
10°	494.1	480.6	482.4	466.9	456.9	459.5	462.1	463.8	466.7	469.5	449.0
12.5°	506.4	508.8	532.5	516.4	526.4	526.4	544.1	525.3	526.0	505.5	509.0
15°	561.3	574.6	563.9	563.7	552.8	555.6	576.1	561.3	568.9	562.8	539.3
17.5°	630.2	632.8	612.6	603.6	613.4	613.7	604.9	604.3	577.7	622.6	594.0
20°	652.3	667.1	638.3	603.4	644.2	642.2	641.6	631.3	587.0	649.4	625.9
22.5°	712.2	691.1	671.4	648.5	664.5	664.5	662.1	639.6	622.4	647.0	657.0
25°	731.0	733.6	708.1	700.7	701.1	681.5	679.7	670.1	653.6	695.6	675.6
27.5°	795.5	794.4	733.2	753.9	727.5	727.7	679.5	701.1	703.9	698.0	720.5
30°	859.0	876.6	784.2	810.4	782.7	774.4	727.3	746.5	751.5	744.7	773.1
32.5°	939.9	965.8	876.0	850.3	808.0	831.5	799.0	753.7	778.5	838.9	854.8
35°	1025.6	1038.2	942.5	906.5	858.8	858.5	857.5	861.2	888.6	956.7	970.2
37.5°	1179.5	1149.7	1063.1	980.7	991.4	967.6	951.0	968.5	997.0	1109.1	1166.9
40°	1265.5	1243.9	1122.0	1073.1	1020.1	1028.9	1073.8	1071.8	1147.9	1265.2	1351.8
42.5°	1349.0	1328.5	1208.5	1169.1	1101.0	1124.8	1144.4	1169.3	1325.2	1514.5	1562.0
45°	1423.3	1363.2	1278.5	1280.1	1244.7	1247.6	1282.3	1305.2	1530.6	1724.7	1758.1
47.5°	1468.3	1418.8	1337.6	1336.1	1333.9	1320.6	1484.0	1504.9	1694.4	1924.9	1928.0
50°	1531.5	1469.6	1398.5	1399.8	1450.2	1478.3	1673.3	1671.1	1852.5	2092.0	2021.5
52.5°	1610.2	1534.6	1456.3	1514.5	1592.4	1638.1	1796.5	1861.0	2022.4	2196.8	2058.2
55°	1711.0	1616.3	1540.9	1615.5	1785.3	1803.0	1917.1	2053.4	2207.5	2303.9	2069.9
57.5°	1829.2	1716.2	1655.2	1775.3	1944.8	1945.2	2092.6	2258.3	2321.1	2347.5	2056.6
60°	1956.5	1824.8	1763.3	1871.5	2120.5	2138.4	2287.8	2371.5	2436.5	2369.6	2032.9
62.5°	2068.6	1923.2	1875.4	2002.5	2313.3	2355.6	2457.9	2445.9	2519.8	2397.3	1972.5
65°	2202.1	2050.5	2019.1	2206.9	2565.0	2623.2	2648.9	2577.8	2547.7	2375.9	1815.2
67.5°	2334.2	2192.5	2191.6	2433.5	2894.9	2915.0	2887.9	2763.8	2515.2	2187.5	1527.2
70°	2427.3	2275.1	2332.5	2681.6	3194.7	3138.5	3024.6	2851.7	2280.6	1676.5	997.7
72.5°	2339.9	2193.1	2322.5	2769.9	3231.8	3247.9	2945.5	2554.5	1694.4	857.5	361.1
75°	1778.2	1688.3	2016.5	2457.4	2869.4	2873.1	2458.5	1801.7	834.3	232.9	99.9
77.5°	895.6	867.1	1276.4	1744.6	2093.5	2087.4	1689.2	965.2	268.4	77.4	50.4
80°	453.4	430.5	543.2	941.2	1243.2	1252.4	964.5	432.2	135.4	42.1	34.9
82.5°	278.5	264.3	297.2	425.9	603.4	618.0	365.9	273.7	84.0	24.9	31.8
85°	53.9	56.7	170.7	213.3	241.0	235.3	108.4	225.3	25.3	14.8	23.1
87.5°	0.0	0.9	39.5	69.6	69.8	61.9	24.6	49.9	3.5	4.1	2.8
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: P366871
 CATALOG NUMBER: MSA-SA1C-727-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4
2.5°	311.4	308.1	280.9	277.8	278.5	273.9	272.4	262.8	260.4	275.2	277.8
5°	386.9	365.1	339.8	330.6	316.4	292.4	288.9	282.8	276.1	278.7	276.7
7.5°	433.1	404.1	377.0	328.9	288.9	254.1	248.4	237.9	227.4	227.7	234.4
10°	440.5	416.1	378.8	320.1	274.6	230.9	193.0	165.5	153.1	142.0	145.2
12.5°	483.5	460.8	392.1	317.5	253.6	185.6	135.9	109.0	97.3	93.3	92.9
15°	517.9	500.0	414.8	309.4	207.2	130.6	97.3	89.4	87.2	90.9	89.8
17.5°	569.2	536.9	412.4	276.1	157.9	99.2	89.6	88.5	91.2	93.3	94.0
20°	591.6	545.2	396.0	223.7	118.2	90.9	87.4	85.3	90.1	96.6	95.3
22.5°	614.3	559.4	376.8	183.2	95.1	87.0	85.0	83.3	87.0	93.3	94.9
25°	624.6	582.0	355.5	143.1	88.3	82.4	81.1	81.8	84.8	90.5	89.8
27.5°	676.2	584.6	314.7	113.0	85.5	79.2	79.2	80.7	80.7	88.3	87.7
30°	708.5	628.9	281.5	95.1	82.2	74.6	77.2	77.9	76.8	85.0	85.7
32.5°	765.2	641.1	249.3	87.2	77.0	73.9	73.5	73.9	74.8	82.9	83.1
35°	852.4	701.3	205.2	84.2	74.4	70.7	67.6	70.0	72.2	78.1	79.2
37.5°	1023.0	763.0	167.3	81.8	73.1	67.6	66.5	66.1	70.0	76.8	78.9
40°	1161.0	872.3	136.1	79.8	70.4	65.9	63.0	63.2	66.7	71.7	75.0
42.5°	1356.4	951.2	115.4	76.8	66.7	62.2	58.9	60.8	62.4	67.6	69.8
45°	1519.5	1012.5	101.6	74.8	63.0	58.7	56.0	58.2	56.7	59.3	62.4
47.5°	1649.3	1065.9	91.4	70.0	60.6	56.7	53.4	52.8	50.2	50.8	53.6
50°	1720.6	1057.0	82.9	65.2	57.6	54.7	50.2	45.6	42.1	41.9	43.6
52.5°	1745.9	1009.2	75.9	61.1	53.9	50.4	45.1	38.8	35.3	34.2	35.8
55°	1752.9	940.5	69.6	56.5	50.4	44.9	39.5	32.7	29.0	27.3	28.8
57.5°	1730.2	834.8	63.5	52.1	46.2	39.7	33.8	26.8	23.3	21.2	22.5
60°	1674.1	700.4	58.0	46.7	41.9	35.1	28.6	21.6	17.9	15.9	16.6
62.5°	1550.0	549.1	52.1	41.7	37.3	30.7	24.0	17.0	13.5	11.8	12.0
65°	1361.2	409.3	45.4	36.9	33.1	26.6	19.2	13.1	10.2	8.7	8.5
67.5°	1084.5	277.4	38.6	31.8	29.4	22.5	15.3	10.2	8.1	7.0	6.5
70°	637.4	139.8	32.1	27.5	25.3	18.8	12.0	8.3	7.4	6.5	6.1
72.5°	210.2	60.4	25.1	22.7	20.9	15.0	9.4	7.6	7.2	6.3	5.9
75°	73.3	34.9	18.5	17.4	16.6	11.3	7.9	7.0	7.0	6.1	5.5
77.5°	48.0	27.0	13.7	12.6	12.4	8.3	6.8	6.5	6.1	5.0	4.1
80°	39.9	15.3	9.6	8.9	8.7	5.2	5.5	4.8	3.7	2.2	0.9
82.5°	36.9	9.2	5.0	5.5	5.0	2.0	3.1	2.6	2.0	0.9	0.0
85°	21.6	4.1	2.8	2.8	2.2	0.4	1.5	1.5	0.9	0.2	0.0
87.5°	2.4	2.0	1.5	1.5	1.1	0.0	0.7	0.4	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)