

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: P596857

Luminaire Tested: **MSA-SA1B-835-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596857
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-835-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: 3453 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

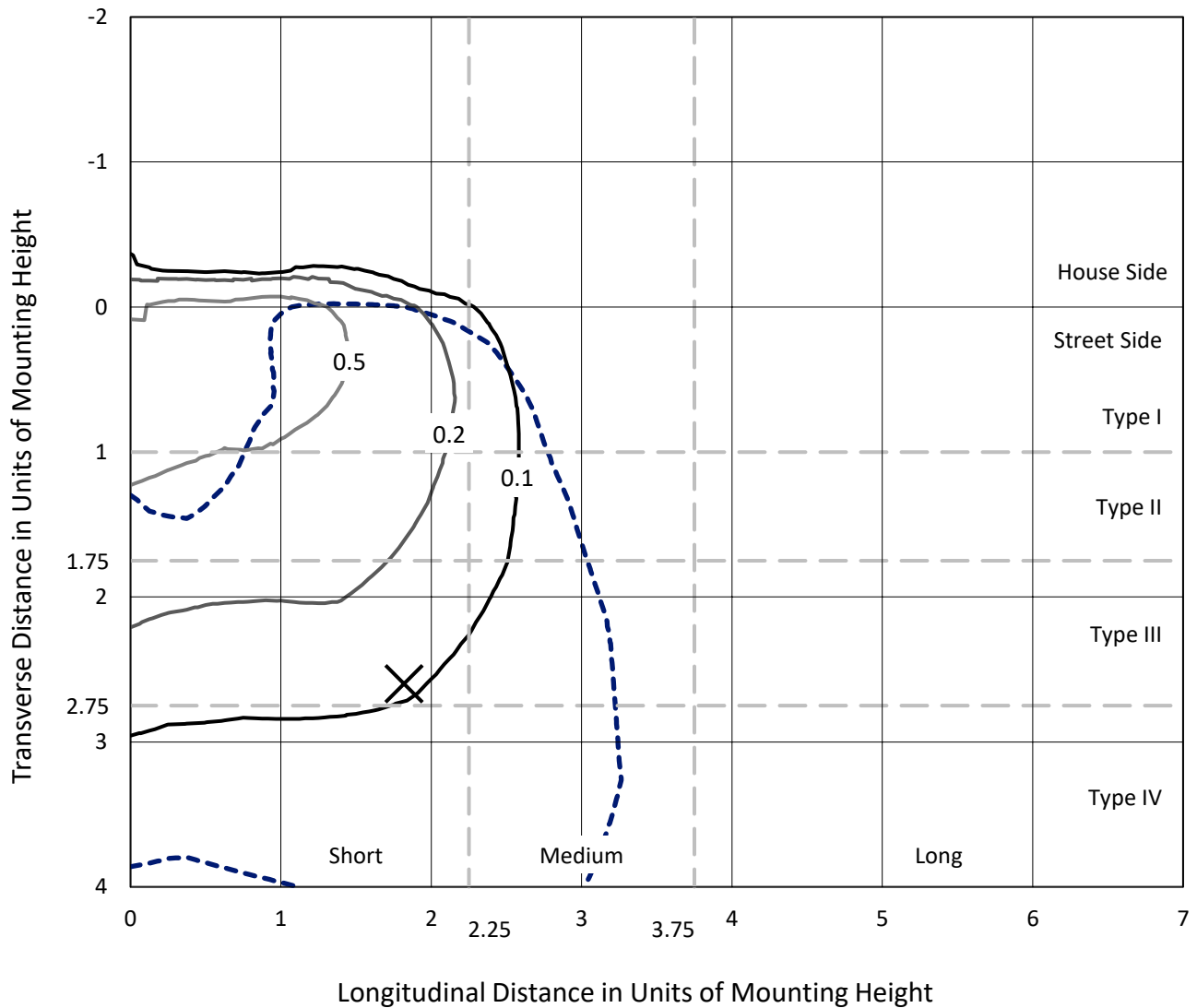
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596857
 CATALOG NUMBER: MSA-SA1B-835-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

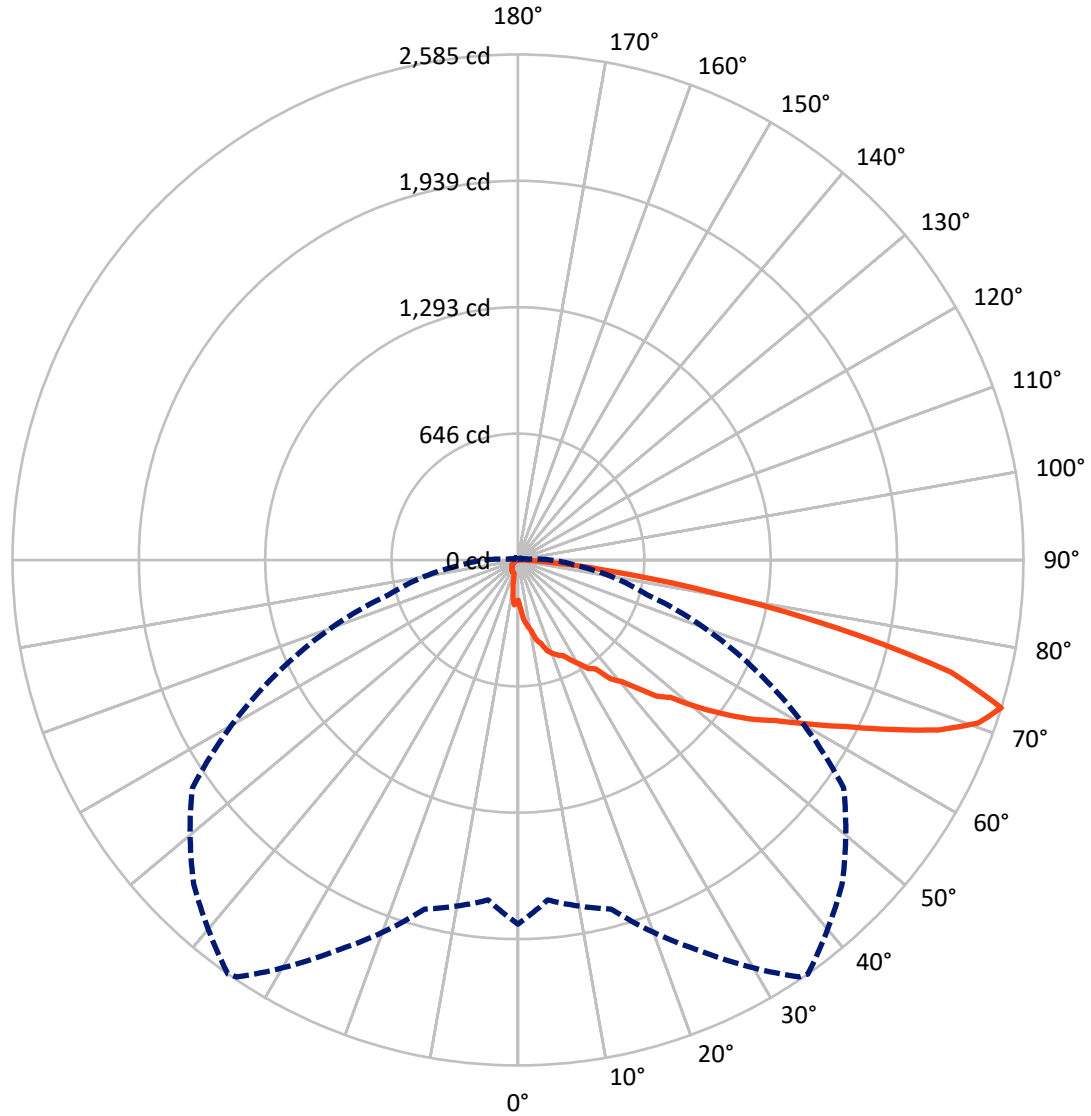
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc
 Type IV - Short - N/A

REPORT NUMBER: P596857
CATALOG NUMBER: MSA-SA1B-835-U-SL4-HSS

Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	269.3	0.0	269.3
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	3183.7	0.0	3183.7
	% Fixture	92.2	0.0	92.2
Total	Lumens	3453.0	0.0	3453.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	0.8
10°-20°	88.4	2.6
20°-30°	160.9	4.7
30°-40°	277.6	8.0
40°-50°	493.4	14.3
50°-60°	736.3	21.3
60°-70°	940.7	27.2
70°-80°	654.5	19.0
80°-90°	74.9	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°	3453.0	100.0
0°-180°	3453.0	100.0

Coefficient of Utilization

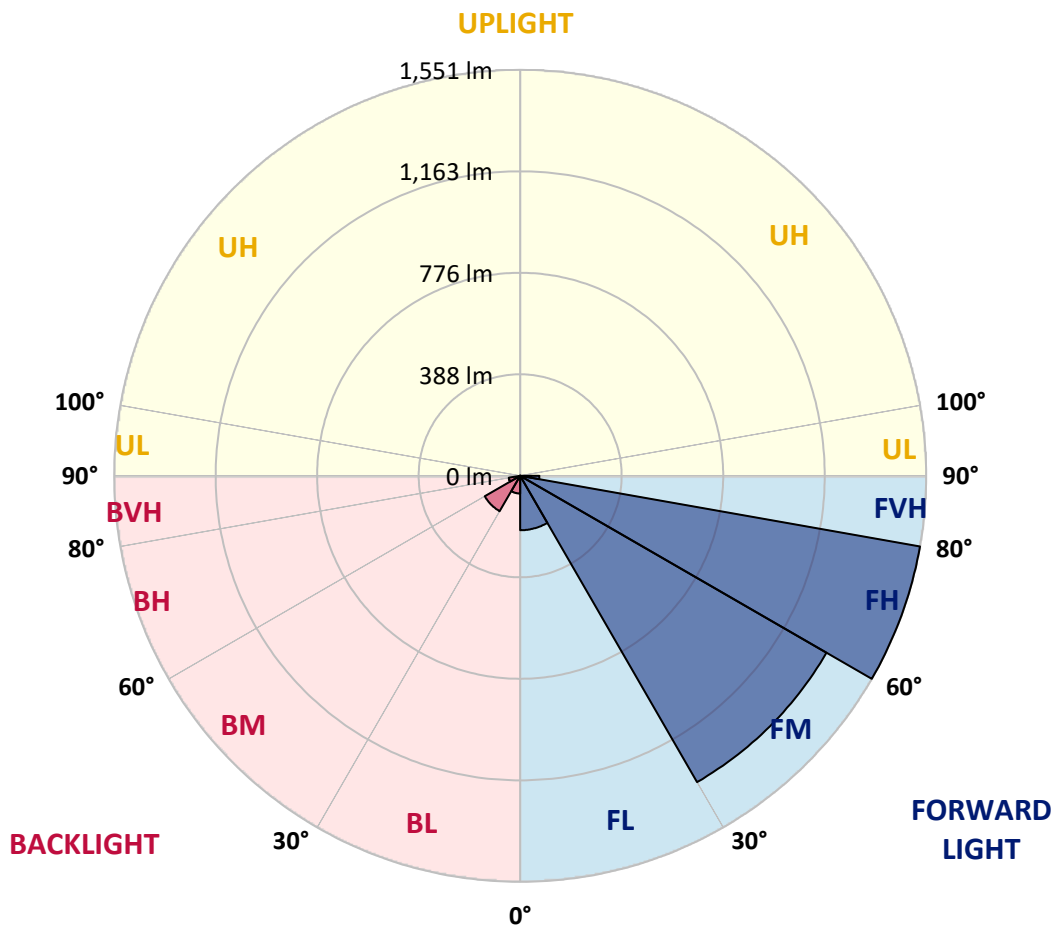


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	207.8	6.0			
FM (30°-60°)	1351.2	39.1			
FH (60°-80°)	1551.1	44.9			G1/1800
FVH (80°-90°)	73.6	2.1			G1/100
BL (0°-30°)	67.7	2.0	B0/110		
BM (30°-60°)	156.2	4.5	B0/220		
BH (60°-80°)	44.2	1.3	B0/110		G0/110
BVH (80°-90°)	1.3	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-G1
 Type IV Short





REPORT NUMBER: P596857

CATALOG NUMBER: MSA-SA1B-835-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7
2.5°	261.8	251.5	234.9	236.1	243.5	245.1	247.4	241.5	236.2	227.0	244.9
5°	335.4	320.6	311.2	308.3	303.9	304.3	293.7	297.5	296.5	303.2	311.4
7.5°	376.8	368.7	356.9	353.6	337.6	335.9	322.9	340.4	342.1	339.7	353.1
10°	393.3	382.6	384.0	371.6	363.7	365.7	367.8	369.2	371.5	373.7	357.4
12.5°	403.1	405.0	423.9	411.0	419.0	419.0	433.1	418.2	418.7	402.4	405.1
15°	446.8	457.4	448.9	448.7	440.0	442.3	458.6	446.8	452.9	448.0	429.3
17.5°	501.7	503.7	487.6	480.5	488.3	488.5	481.5	481.0	459.8	495.6	472.8
20°	519.2	531.0	508.1	480.3	512.8	511.2	510.7	502.5	467.3	516.9	498.2
22.5°	566.9	550.1	534.5	516.2	528.9	528.9	527.0	509.1	495.4	515.0	523.0
25°	581.8	583.9	563.6	557.7	558.1	542.4	541.1	533.4	520.2	553.7	537.8
27.5°	633.2	632.4	583.6	600.1	579.1	579.2	540.9	558.1	560.3	555.6	573.5
30°	683.7	697.8	624.2	645.0	623.0	616.4	578.9	594.2	598.2	592.8	615.3
32.5°	748.1	768.8	697.3	676.8	643.1	661.9	636.0	599.9	619.7	667.8	680.4
35°	816.4	826.4	750.2	721.6	683.6	683.4	682.5	685.5	707.3	761.5	772.3
37.5°	938.9	915.1	846.2	780.6	789.1	770.2	757.0	770.9	793.6	882.8	928.8
40°	1007.3	990.1	893.1	854.2	812.0	819.0	854.7	853.2	913.7	1007.1	1076.0
42.5°	1073.8	1057.5	962.0	930.6	876.4	895.3	911.0	930.7	1054.9	1205.5	1243.4
45°	1133.0	1085.1	1017.7	1018.9	990.8	993.1	1020.7	1038.9	1218.4	1372.9	1399.4
47.5°	1168.7	1129.3	1064.8	1063.5	1061.8	1051.2	1181.2	1197.9	1348.7	1532.2	1534.6
50°	1219.1	1169.8	1113.2	1114.2	1154.3	1176.7	1331.9	1330.2	1474.6	1665.2	1609.1
52.5°	1281.7	1221.5	1159.2	1205.5	1267.5	1303.9	1430.0	1481.3	1609.8	1748.7	1638.3
55°	1361.9	1286.6	1226.5	1285.9	1421.1	1435.2	1526.0	1634.4	1757.2	1833.9	1647.6
57.5°	1456.0	1366.1	1317.5	1413.1	1548.0	1548.4	1665.7	1797.6	1847.6	1868.6	1637.1
60°	1557.4	1452.5	1403.6	1489.7	1687.9	1702.1	1821.0	1887.7	1939.4	1886.1	1618.1
62.5°	1646.6	1530.8	1492.8	1594.0	1841.4	1875.0	1956.4	1946.9	2005.7	1908.2	1570.0
65°	1752.8	1632.2	1607.2	1756.7	2041.7	2088.0	2108.5	2051.9	2028.0	1891.2	1444.9
67.5°	1858.0	1745.2	1744.5	1937.0	2304.3	2320.3	2298.7	2200.0	2002.1	1741.2	1215.6
70°	1932.1	1811.0	1856.6	2134.5	2543.0	2498.2	2407.6	2269.9	1815.3	1334.5	794.1
72.5°	1862.5	1745.7	1848.6	2204.8	2572.5	2585.3	2344.6	2033.3	1348.7	682.5	287.5
75°	1415.4	1343.9	1605.1	1956.1	2284.0	2286.9	1957.0	1434.1	664.1	185.4	79.5
77.5°	712.9	690.2	1016.0	1388.7	1666.4	1661.5	1344.6	768.3	213.7	61.6	40.1
80°	360.9	342.7	432.4	749.2	989.6	996.9	767.8	344.0	107.8	33.5	27.8
82.5°	221.7	210.4	236.6	339.0	480.3	491.9	291.3	217.8	66.8	19.8	25.3
85°	42.9	45.1	135.9	169.8	191.8	187.3	86.3	179.3	20.1	11.8	18.4
87.5°	0.0	0.7	31.4	55.4	55.5	49.3	19.6	39.8	2.8	3.3	2.3
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°	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7	205.7
2.5°	247.9	245.3	223.6	221.1	221.7	218.0	216.8	209.2	207.3	219.1	221.1
5°	307.9	290.6	270.4	263.2	251.9	232.8	230.0	225.1	219.8	221.8	220.3
7.5°	344.7	321.6	300.1	261.8	230.0	202.2	197.7	189.4	181.0	181.2	186.6
10°	350.6	331.2	301.5	254.8	218.5	183.8	153.6	131.7	121.9	113.0	115.6
12.5°	384.8	366.8	312.1	252.7	201.9	147.7	108.1	86.8	77.4	74.3	73.9
15°	412.3	398.0	330.2	246.3	164.9	104.0	77.4	71.2	69.4	72.4	71.5
17.5°	453.0	427.4	328.2	219.8	125.7	79.0	71.3	70.5	72.6	74.3	74.8
20°	470.9	434.0	315.2	178.1	94.1	72.4	69.6	67.9	71.7	76.9	75.9
22.5°	489.0	445.2	299.9	145.8	75.7	69.3	67.7	66.3	69.3	74.3	75.5
25°	497.1	463.3	282.9	113.9	70.3	65.6	64.6	65.1	67.5	72.0	71.5
27.5°	538.3	465.4	250.5	89.9	68.0	63.0	63.0	64.2	64.2	70.3	69.8
30°	564.0	500.6	224.1	75.7	65.4	59.4	61.4	62.0	61.1	67.7	68.2
32.5°	609.1	510.3	198.4	69.4	61.3	58.8	58.5	58.8	59.5	66.0	66.1
35°	678.5	558.2	163.3	67.0	59.2	56.2	53.8	55.7	57.5	62.1	63.0
37.5°	814.3	607.4	133.1	65.1	58.1	53.8	52.9	52.6	55.7	61.1	62.8
40°	924.2	694.3	108.3	63.5	56.1	52.4	50.2	50.3	53.1	57.1	59.7
42.5°	1079.7	757.2	91.8	61.1	53.1	49.5	46.9	48.4	49.6	53.8	55.5
45°	1209.5	805.9	80.9	59.5	50.2	46.7	44.6	46.3	45.1	47.2	49.6
47.5°	1312.8	848.5	72.7	55.7	48.3	45.1	42.5	42.0	39.9	40.4	42.7
50°	1369.6	841.4	66.0	51.9	45.8	43.6	39.9	36.3	33.5	33.3	34.7
52.5°	1389.7	803.3	60.4	48.6	42.9	40.1	35.9	30.9	28.1	27.3	28.5
55°	1395.3	748.7	55.4	45.0	40.1	35.8	31.4	26.0	23.1	21.7	22.9
57.5°	1377.2	664.5	50.5	41.5	36.8	31.6	26.9	21.4	18.6	16.8	17.9
60°	1332.6	557.5	46.2	37.1	33.3	27.9	22.7	17.2	14.2	12.7	13.2
62.5°	1233.8	437.1	41.5	33.2	29.7	24.5	19.1	13.5	10.8	9.4	9.5
65°	1083.5	325.8	36.1	29.3	26.4	21.2	15.3	10.4	8.2	6.9	6.8
67.5°	863.2	220.8	30.7	25.3	23.4	17.9	12.2	8.2	6.4	5.6	5.2
70°	507.4	111.3	25.5	21.9	20.1	14.9	9.5	6.6	5.9	5.2	4.9
72.5°	167.3	48.1	20.0	18.1	16.7	12.0	7.5	6.1	5.7	5.0	4.7
75°	58.3	27.8	14.8	13.9	13.2	9.0	6.2	5.6	5.6	4.9	4.3
77.5°	38.2	21.5	10.9	10.1	9.9	6.6	5.4	5.2	4.9	4.0	3.3
80°	31.8	12.2	7.6	7.1	6.9	4.2	4.3	3.8	3.0	1.7	0.7
82.5°	29.3	7.3	4.0	4.3	4.0	1.6	2.4	2.1	1.6	0.7	0.0
85°	17.2	3.3	2.3	2.3	1.7	0.3	1.2	1.2	0.7	0.2	0.0
87.5°	1.9	1.6	1.2	1.2	0.9	0.0	0.5	0.3	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)