

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: P366849

Luminaire Tested: **MSA-SA1B-830-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366849
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-SA1B-830-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: 3328 lumens
Efficiency: N/A
Efficacy: 75.6 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

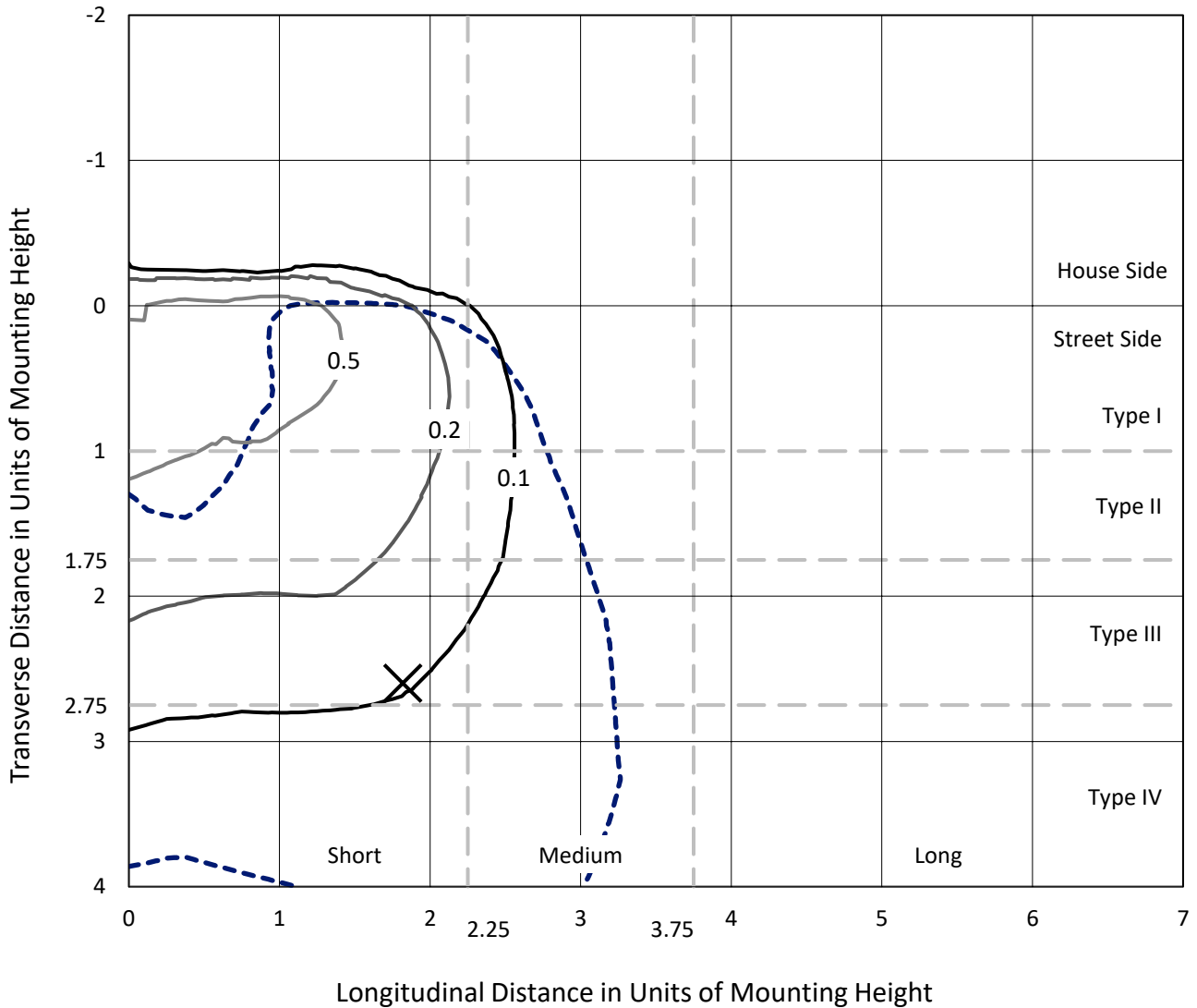
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P366849
 CATALOG NUMBER: MSA-SA1B-830-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

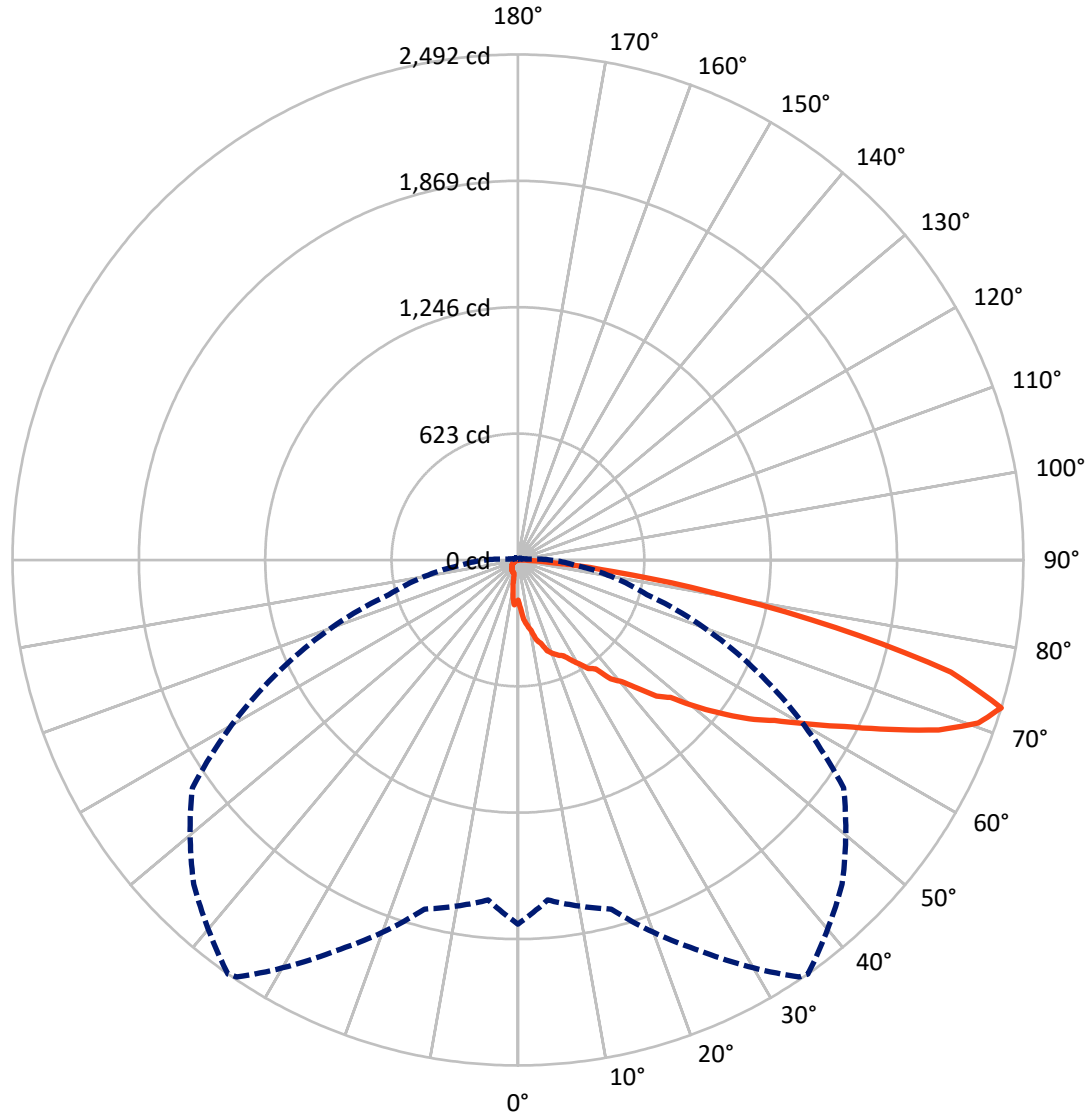
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P366849
CATALOG NUMBER: MSA-SA1B-830-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	259.6	0.0	259.6
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	3068.4	0.0	3068.4
	% Fixture	92.2	0.0	92.2
Total	Lumens	3328.0	0.0	3328.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.3	0.8
10°-20°	85.2	2.6
20°-30°	155.1	4.7
30°-40°	267.5	8.0
40°-50°	475.6	14.3
50°-60°	709.7	21.3
60°-70°	906.7	27.2
70°-80°	630.8	19.0
80°-90°	72.2	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°	3328.0	100.0
0°-180°	3328.0	100.0

Coefficient of Utilization



REPORT NUMBER: P366849

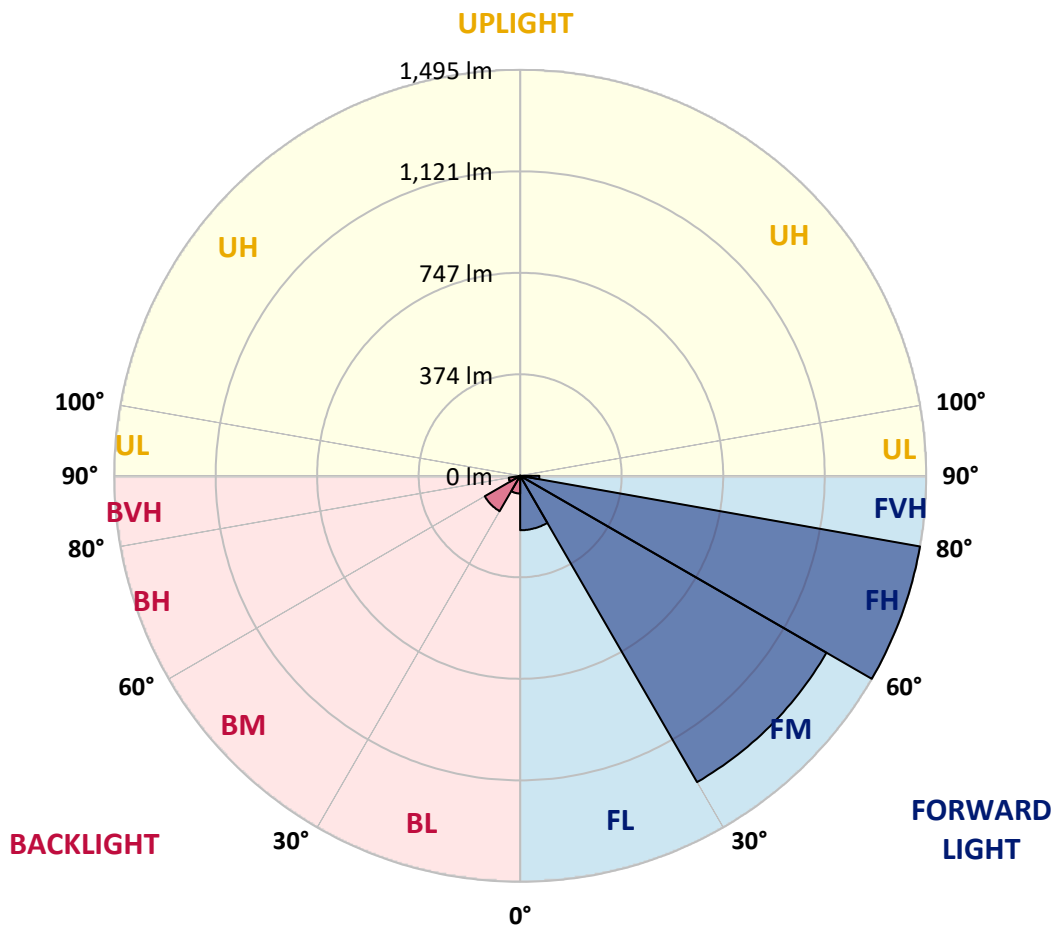
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	200.3	6.0			
FM (30°-60°)	1302.3	39.1			
FH (60°-80°)	1494.9	44.9			G1/1800
FVH (80°-90°)	70.9	2.1			G1/100
BL (0°-30°)	65.3	2.0	B0/110		
BM (30°-60°)	150.5	4.5	B0/220		
BH (60°-80°)	42.6	1.3	B0/110		G0/110
BVH (80°-90°)	1.2	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: P366849
 CATALOG NUMBER: MSA-SA1B-830-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	198.2	198.2	198.2	198.2	198.2	198.2	198.2	198.2	198.2	198.2	198.2
2.5°	252.3	242.4	226.4	227.5	234.7	236.2	238.4	232.7	227.7	218.8	236.1
5°	323.2	309.0	300.0	297.1	292.9	293.3	283.1	286.7	285.7	292.3	300.1
7.5°	363.2	355.3	344.0	340.8	325.4	323.7	311.2	328.1	329.7	327.4	340.3
10°	379.1	368.7	370.1	358.2	350.5	352.5	354.5	355.8	358.0	360.2	344.5
12.5°	388.5	390.3	408.5	396.2	403.9	403.9	417.4	403.0	403.5	387.8	390.5
15°	430.6	440.8	432.6	432.5	424.1	426.3	442.0	430.6	436.5	431.8	413.7
17.5°	483.5	485.5	469.9	463.1	470.6	470.8	464.1	463.6	443.2	477.6	455.7
20°	500.4	511.8	489.7	462.9	494.2	492.7	492.2	484.3	450.4	498.2	480.1
22.5°	546.4	530.2	515.1	497.5	509.8	509.8	507.9	490.7	477.5	496.4	504.1
25°	560.8	562.8	543.2	537.5	537.9	522.8	521.5	514.1	501.4	533.7	518.3
27.5°	610.3	609.5	562.5	578.4	558.1	558.3	521.3	537.9	540.0	535.5	552.8
30°	659.0	672.5	601.6	621.7	600.4	594.1	557.9	572.7	576.5	571.3	593.1
32.5°	721.1	741.0	672.0	652.3	619.8	637.9	613.0	578.2	597.3	643.6	655.8
35°	786.8	796.5	723.1	695.5	658.8	658.7	657.8	660.7	681.7	733.9	744.3
37.5°	904.9	882.0	815.6	752.3	760.5	742.3	729.6	743.0	764.9	850.9	895.2
40°	970.8	954.3	860.7	823.3	782.6	789.3	823.8	822.3	880.7	970.7	1037.1
42.5°	1034.9	1019.2	927.2	896.9	844.7	862.9	878.0	897.1	1016.7	1161.9	1198.4
45°	1092.0	1045.8	980.9	982.0	954.9	957.1	983.7	1001.3	1174.3	1323.2	1348.8
47.5°	1126.4	1088.4	1026.2	1025.0	1023.4	1013.2	1138.5	1154.5	1299.9	1476.7	1479.1
50°	1174.9	1127.4	1072.9	1073.9	1112.5	1134.1	1283.7	1282.0	1421.2	1604.9	1550.9
52.5°	1235.3	1177.3	1117.2	1161.9	1221.6	1256.7	1378.2	1427.7	1551.5	1685.4	1579.0
55°	1312.6	1240.0	1182.1	1239.3	1369.7	1383.2	1470.7	1575.3	1693.6	1767.5	1588.0
57.5°	1403.3	1316.6	1269.8	1362.0	1492.0	1492.3	1605.4	1732.5	1780.7	1801.0	1577.8
60°	1501.0	1400.0	1352.8	1435.8	1626.8	1640.5	1755.1	1819.4	1869.2	1817.9	1559.6
62.5°	1587.0	1475.4	1438.8	1536.3	1774.7	1807.2	1885.6	1876.4	1933.1	1839.1	1513.2
65°	1689.4	1573.1	1549.0	1693.1	1967.8	2012.4	2032.2	1977.6	1954.5	1822.7	1392.6
67.5°	1790.8	1682.0	1681.3	1866.9	2220.9	2236.3	2215.5	2120.3	1929.6	1678.2	1171.6
70°	1862.2	1745.4	1789.4	2057.3	2450.9	2407.8	2320.4	2187.8	1749.6	1286.2	765.4
72.5°	1795.1	1682.5	1781.7	2125.0	2479.4	2491.7	2259.7	1959.7	1299.9	657.8	277.0
75°	1364.2	1295.2	1547.0	1885.3	2201.3	2204.2	1886.1	1382.2	640.1	178.7	76.6
77.5°	687.1	665.2	979.2	1338.4	1606.1	1601.4	1295.9	740.5	205.9	59.4	38.6
80°	347.8	330.2	416.7	722.1	953.8	960.8	740.0	331.6	103.9	32.3	26.8
82.5°	213.6	202.8	228.0	326.7	462.9	474.1	280.7	210.0	64.4	19.1	24.4
85°	41.3	43.5	131.0	163.6	184.9	180.5	83.1	172.8	19.4	11.4	17.7
87.5°	0.0	0.7	30.3	53.4	53.5	47.5	18.9	38.3	2.7	3.2	2.2
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: P366849
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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	198.2	198.2	198.2	198.2	198.2	198.2	198.2	198.2	198.2	198.2	198.2
2.5°	238.9	236.4	215.5	213.1	213.6	210.1	209.0	201.6	199.8	211.1	213.1
5°	296.8	280.1	260.7	253.6	242.7	224.3	221.7	217.0	211.8	213.8	212.3
7.5°	332.3	310.0	289.3	252.3	221.7	194.9	190.6	182.5	174.5	174.7	179.8
10°	337.9	319.2	290.6	245.6	210.6	177.2	148.1	127.0	117.4	108.9	111.4
12.5°	370.9	353.5	300.8	243.6	194.6	142.4	104.2	83.6	74.6	71.6	71.3
15°	397.3	383.6	318.2	237.4	158.9	100.2	74.6	68.6	66.9	69.8	68.9
17.5°	436.6	411.9	316.4	211.8	121.1	76.1	68.8	67.9	69.9	71.6	72.1
20°	453.9	418.2	303.8	171.6	90.7	69.8	67.1	65.4	69.1	74.1	73.1
22.5°	471.3	429.1	289.1	140.5	72.9	66.8	65.2	63.9	66.8	71.6	72.8
25°	479.1	446.5	272.7	109.7	67.8	63.2	62.2	62.7	65.1	69.4	68.9
27.5°	518.8	448.5	241.4	86.7	65.6	60.7	60.7	61.9	61.9	67.8	67.3
30°	543.6	482.5	216.0	72.9	63.1	57.2	59.2	59.7	58.9	65.2	65.7
32.5°	587.0	491.9	191.2	66.9	59.1	56.7	56.4	56.7	57.4	63.6	63.7
35°	654.0	538.0	157.4	64.6	57.0	54.2	51.9	53.7	55.4	59.9	60.7
37.5°	784.8	585.4	128.3	62.7	56.0	51.9	51.0	50.7	53.7	58.9	60.6
40°	890.7	669.2	104.4	61.2	54.0	50.5	48.3	48.5	51.2	55.0	57.6
42.5°	1040.6	729.8	88.5	58.9	51.2	47.7	45.2	46.7	47.8	51.9	53.5
45°	1165.7	776.8	78.0	57.4	48.3	45.0	43.0	44.7	43.5	45.5	47.8
47.5°	1265.3	817.8	70.1	53.7	46.5	43.5	41.0	40.5	38.5	39.0	41.2
50°	1320.0	810.9	63.6	50.0	44.2	42.0	38.5	35.0	32.3	32.1	33.5
52.5°	1339.4	774.3	58.2	46.8	41.3	38.6	34.6	29.8	27.1	26.3	27.4
55°	1344.7	721.6	53.4	43.3	38.6	34.5	30.3	25.1	22.3	20.9	22.1
57.5°	1327.3	640.4	48.7	40.0	35.5	30.4	25.9	20.6	17.9	16.2	17.2
60°	1284.3	537.4	44.5	35.8	32.1	26.9	21.9	16.6	13.7	12.2	12.7
62.5°	1189.2	421.3	40.0	32.0	28.6	23.6	18.4	13.0	10.4	9.0	9.2
65°	1044.3	314.0	34.8	28.3	25.4	20.4	14.7	10.0	7.9	6.7	6.5
67.5°	832.0	212.8	29.6	24.4	22.6	17.2	11.7	7.9	6.2	5.4	5.0
70°	489.0	107.2	24.6	21.1	19.4	14.4	9.2	6.4	5.7	5.0	4.7
72.5°	161.3	46.3	19.2	17.4	16.1	11.5	7.2	5.9	5.5	4.9	4.5
75°	56.2	26.8	14.2	13.4	12.7	8.7	6.0	5.4	5.4	4.7	4.2
77.5°	36.8	20.7	10.5	9.7	9.5	6.4	5.2	5.0	4.7	3.8	3.2
80°	30.6	11.7	7.4	6.9	6.7	4.0	4.2	3.7	2.8	1.7	0.7
82.5°	28.3	7.0	3.8	4.2	3.8	1.5	2.3	2.0	1.5	0.7	0.0
85°	16.6	3.2	2.2	2.2	1.7	0.3	1.2	1.2	0.7	0.2	0.0
87.5°	1.8	1.5	1.2	1.2	0.8	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)