

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: P596527

Luminaire Tested: **MSA-SA1C-827-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596527
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-SA1C-827-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: 3813 lumens
Efficiency: N/A
Efficacy: 64.6 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

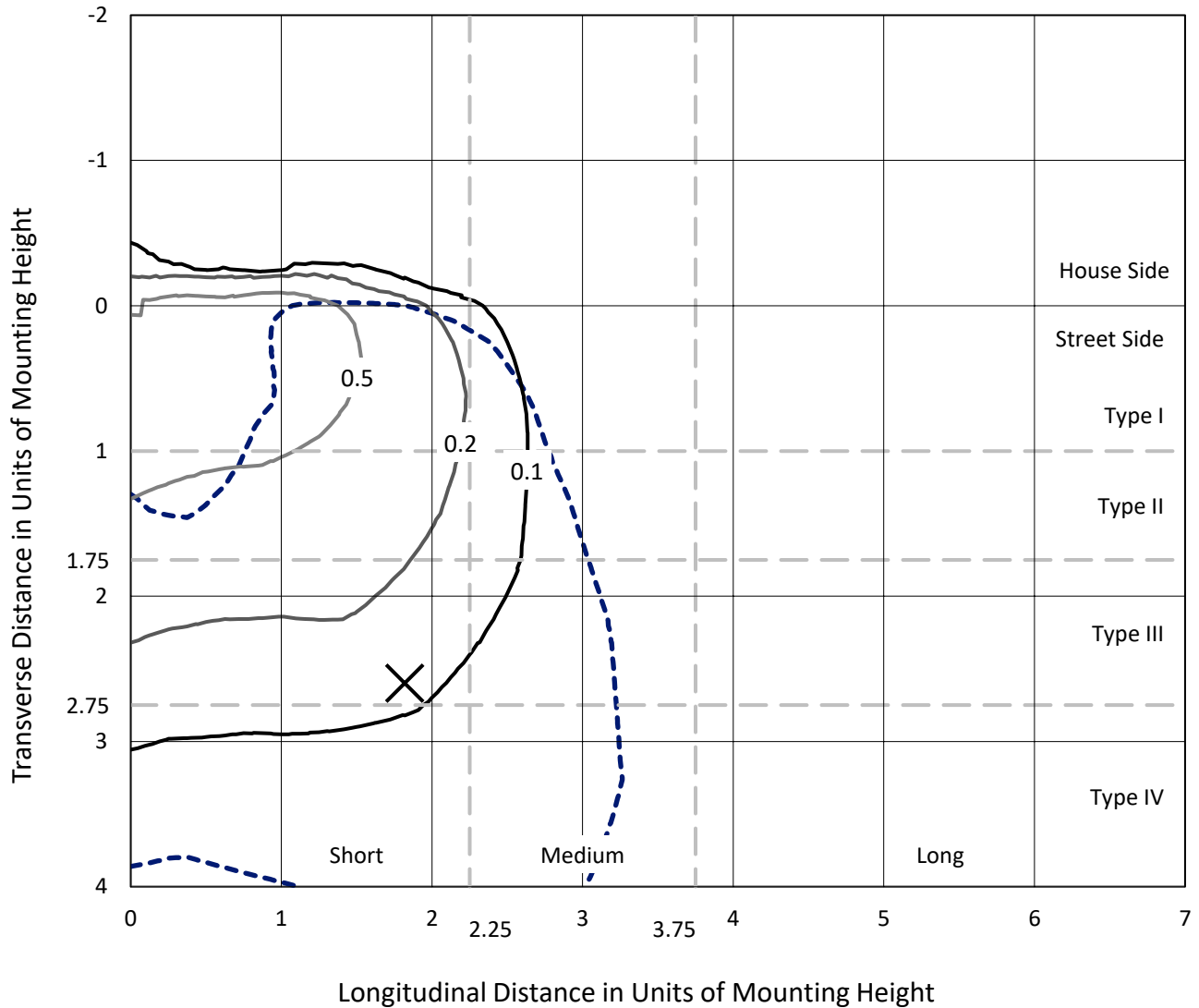
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

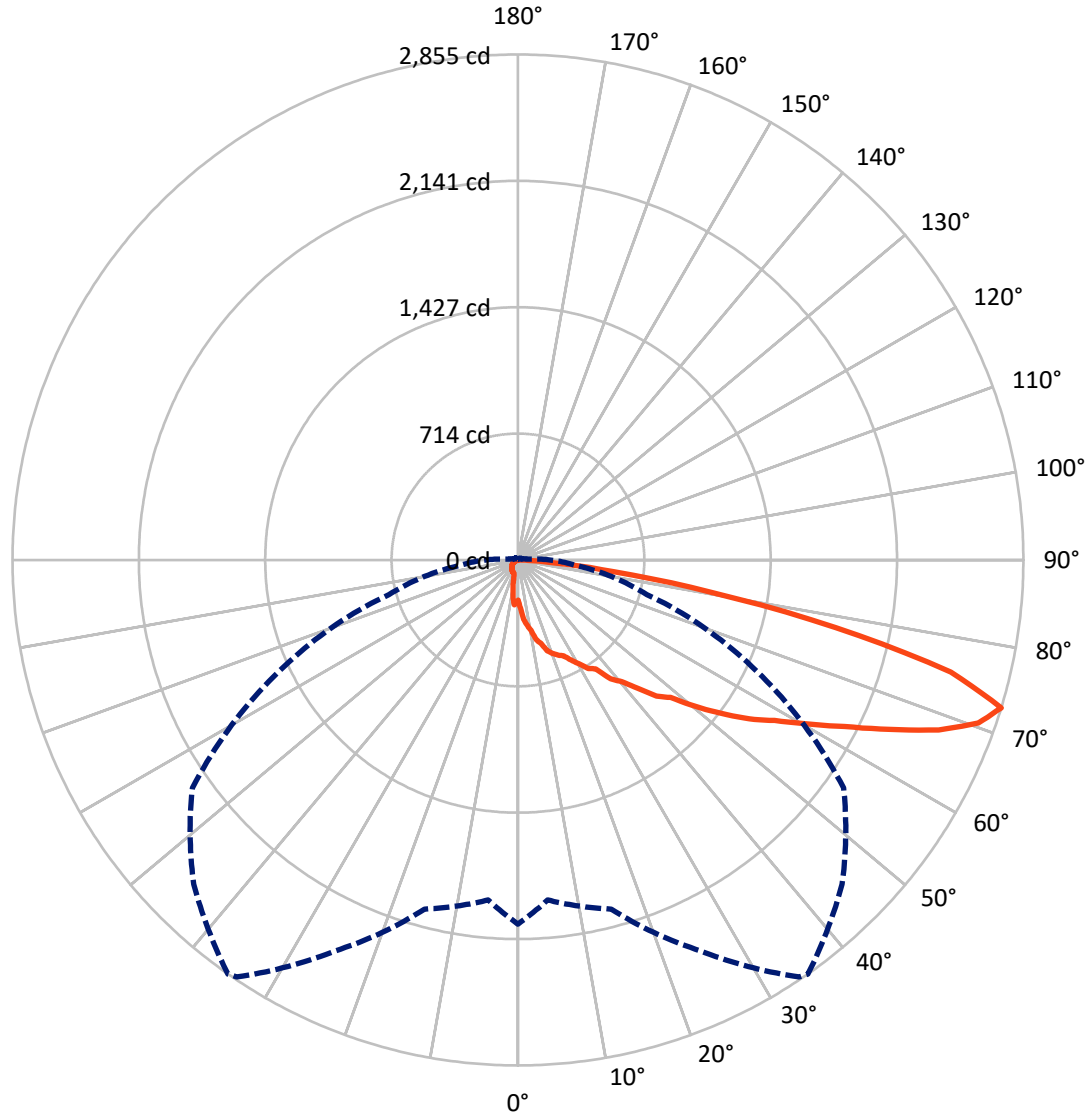
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
 Type IV - Short - N/A

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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	297.4	0.0	297.4
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	3515.6	0.0	3515.6
	% Fixture	92.2	0.0	92.2
Total	Lumens	3813.0	0.0	3813.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	0.8
10°-20°	97.6	2.6
20°-30°	177.7	4.7
30°-40°	306.5	8.0
40°-50°	544.9	14.3
50°-60°	813.1	21.3
60°-70°	1038.8	27.2
70°-80°	722.7	19.0
80°-90°	82.7	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°	3813.0	100.0
0°-180°	3813.0	100.0

Coefficient of Utilization



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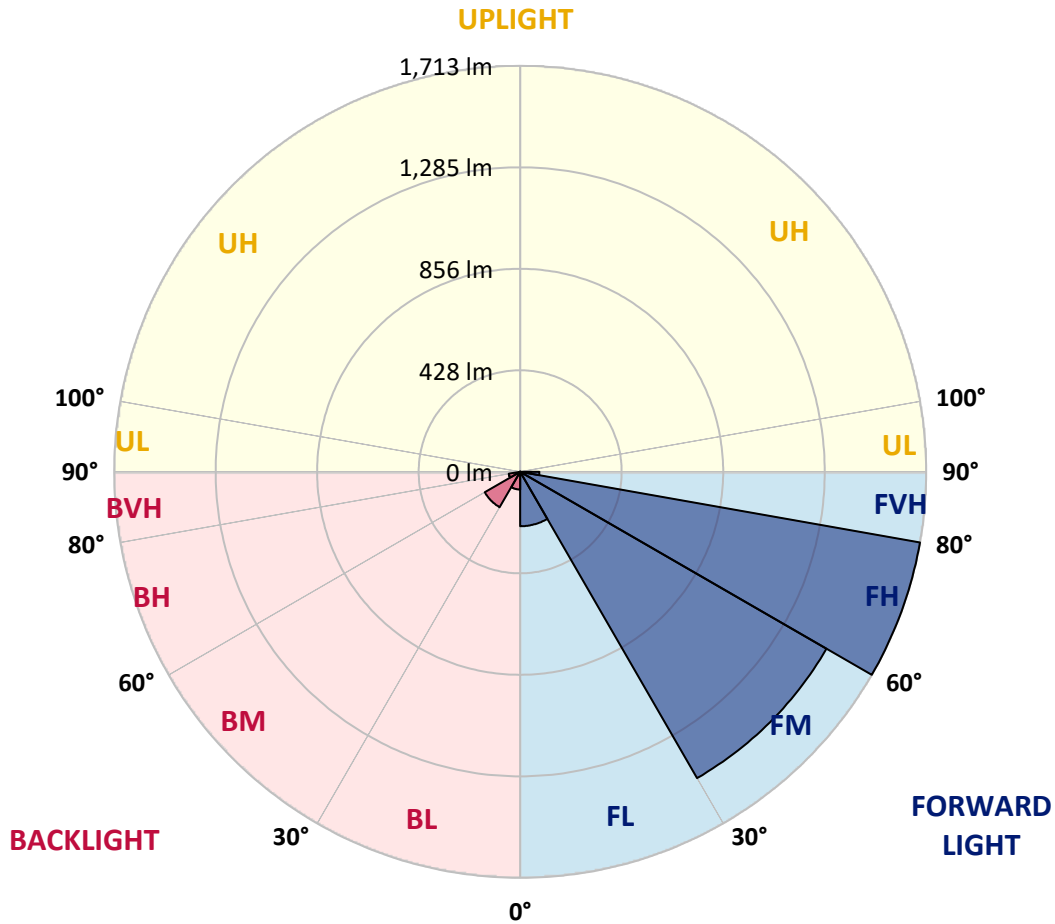
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	229.5	6.0			
FM (30°-60°)	1492.0	39.1			
FH (60°-80°)	1712.8	44.9			G1/1800
FVH (80°-90°)	81.3	2.1			G1/100
BL (0°-30°)	74.8	2.0	B0/110		
BM (30°-60°)	172.5	4.5	B0/220		
BH (60°-80°)	48.8	1.3	B0/110		G0/110
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: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	227.1	227.1	227.1	227.1	227.1	227.1	227.1	227.1	227.1	227.1	227.1
2.5°	289.1	277.7	259.3	260.7	268.9	270.7	273.1	266.6	260.9	250.7	270.5
5°	370.3	354.0	343.7	340.4	335.6	336.0	324.3	328.5	327.4	334.9	343.9
7.5°	416.1	407.1	394.1	390.5	372.8	370.9	356.5	375.9	377.8	375.1	389.9
10°	434.3	422.5	424.0	410.4	401.6	403.9	406.2	407.7	410.2	412.7	394.7
12.5°	445.1	447.2	468.1	453.9	462.7	462.7	478.2	461.8	462.3	444.3	447.4
15°	493.4	505.1	495.7	495.5	485.9	488.4	506.4	493.4	500.1	494.7	474.0
17.5°	554.0	556.3	538.4	530.6	539.2	539.4	531.7	531.1	507.8	547.2	522.1
20°	573.3	586.3	561.0	530.4	566.2	564.5	563.9	554.9	516.0	570.8	550.1
22.5°	626.0	607.4	590.2	570.1	584.0	584.0	581.9	562.2	547.1	568.7	577.5
25°	642.5	644.8	622.4	615.9	616.2	599.0	597.5	589.0	574.5	611.5	593.8
27.5°	699.2	698.3	644.4	662.6	639.4	639.6	597.3	616.2	618.7	613.6	633.3
30°	755.0	770.6	689.3	712.3	687.9	680.7	639.3	656.1	660.5	654.6	679.5
32.5°	826.1	848.9	770.0	747.4	710.2	730.9	702.3	662.4	684.3	737.4	751.4
35°	901.5	912.6	828.4	796.8	754.8	754.6	753.7	756.9	781.1	840.9	852.8
37.5°	1036.8	1010.5	934.4	862.0	871.4	850.5	835.9	851.2	876.4	974.9	1025.7
40°	1112.3	1093.3	986.2	943.3	896.7	904.3	943.8	942.1	1009.0	1112.1	1188.2
42.5°	1185.7	1167.7	1062.3	1027.6	967.8	988.7	1005.9	1027.8	1164.8	1331.2	1373.0
45°	1251.1	1198.2	1123.8	1125.2	1094.1	1096.6	1127.1	1147.2	1345.4	1516.0	1545.3
47.5°	1290.6	1247.1	1175.8	1174.4	1172.5	1160.8	1304.4	1322.8	1489.3	1692.0	1694.6
50°	1346.2	1291.7	1229.2	1230.4	1274.7	1299.4	1470.8	1468.8	1628.3	1838.8	1776.9
52.5°	1415.4	1348.8	1280.0	1331.2	1399.6	1439.9	1579.1	1635.8	1777.6	1931.0	1809.1
55°	1503.9	1420.7	1354.4	1420.0	1569.3	1584.8	1685.1	1804.9	1940.4	2025.1	1819.4
57.5°	1607.8	1508.5	1454.8	1560.5	1709.4	1709.8	1839.4	1985.0	2040.2	2063.4	1807.7
60°	1719.7	1604.0	1549.9	1645.0	1863.9	1879.6	2010.9	2084.5	2141.6	2082.8	1786.8
62.5°	1818.3	1690.4	1648.4	1760.2	2033.3	2070.5	2160.4	2149.9	2214.9	2107.1	1733.7
65°	1935.6	1802.4	1774.8	1939.8	2254.5	2305.7	2328.3	2265.8	2239.4	2088.3	1595.5
67.5°	2051.7	1927.1	1926.4	2138.9	2544.5	2562.2	2538.4	2429.3	2210.8	1922.7	1342.3
70°	2133.6	1999.8	2050.2	2357.1	2808.1	2758.6	2658.6	2506.6	2004.6	1473.6	876.9
72.5°	2056.7	1927.7	2041.4	2434.7	2840.7	2854.9	2589.0	2245.3	1489.3	753.7	317.4
75°	1563.0	1484.0	1772.5	2160.0	2522.1	2525.4	2161.0	1583.7	733.4	204.7	87.8
77.5°	787.2	762.1	1121.9	1533.4	1840.1	1834.8	1484.7	848.4	236.0	68.0	44.3
80°	398.5	378.4	477.5	827.3	1092.8	1100.8	847.8	379.9	119.0	37.0	30.7
82.5°	244.8	232.3	261.3	374.3	530.4	543.2	321.6	240.6	73.8	21.9	28.0
85°	47.3	49.8	150.1	187.5	211.8	206.8	95.3	198.0	22.2	13.0	20.3
87.5°	0.0	0.8	34.7	61.1	61.3	54.4	21.7	43.9	3.1	3.6	2.5
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°	227.1	227.1	227.1	227.1	227.1	227.1	227.1	227.1	227.1	227.1	227.1
2.5°	273.7	270.8	246.9	244.2	244.8	240.7	239.4	231.0	228.9	241.9	244.2
5°	340.0	320.9	298.6	290.6	278.1	257.0	254.0	248.6	242.7	245.0	243.2
7.5°	380.7	355.2	331.4	289.1	254.0	223.3	218.3	209.1	199.9	200.1	206.1
10°	387.2	365.7	332.9	281.4	241.3	203.0	169.6	145.5	134.6	124.8	127.7
12.5°	425.0	405.0	344.6	279.1	222.9	163.1	119.4	95.8	85.5	82.0	81.7
15°	455.2	439.5	364.6	272.0	182.1	114.8	85.5	78.6	76.7	79.9	79.0
17.5°	500.3	471.9	362.5	242.7	138.8	87.2	78.8	77.8	80.1	82.0	82.6
20°	520.0	479.2	348.1	196.7	103.9	79.9	76.9	74.9	79.2	84.9	83.8
22.5°	540.0	491.7	331.2	161.0	83.6	76.5	74.8	73.2	76.5	82.0	83.4
25°	549.0	511.6	312.4	125.7	77.6	72.5	71.3	71.9	74.6	79.5	79.0
27.5°	594.4	513.9	276.6	99.3	75.1	69.6	69.6	70.9	70.9	77.6	77.1
30°	622.8	552.8	247.5	83.6	72.3	65.6	67.9	68.4	67.5	74.8	75.3
32.5°	672.6	563.5	219.1	76.7	67.7	65.0	64.6	65.0	65.7	72.8	73.0
35°	749.3	616.4	180.4	74.0	65.4	62.1	59.4	61.5	63.4	68.6	69.6
37.5°	899.2	670.7	147.0	71.9	64.2	59.4	58.5	58.1	61.5	67.5	69.4
40°	1020.5	766.7	119.6	70.2	61.9	57.9	55.4	55.6	58.7	63.1	65.9
42.5°	1192.2	836.1	101.4	67.5	58.7	54.6	51.8	53.5	54.8	59.4	61.3
45°	1335.6	890.0	89.3	65.7	55.4	51.6	49.3	51.2	49.8	52.1	54.8
47.5°	1449.7	936.9	80.3	61.5	53.3	49.8	47.0	46.4	44.1	44.7	47.2
50°	1512.3	929.1	72.8	57.3	50.6	48.1	44.1	40.1	37.0	36.8	38.3
52.5°	1534.6	887.1	66.7	53.7	47.3	44.3	39.7	34.1	31.1	30.1	31.4
55°	1540.7	826.7	61.1	49.6	44.3	39.5	34.7	28.8	25.5	24.0	25.3
57.5°	1520.8	733.7	55.8	45.8	40.6	34.9	29.7	23.6	20.5	18.6	19.7
60°	1471.5	615.7	51.0	41.0	36.8	30.9	25.1	19.0	15.7	14.0	14.6
62.5°	1362.5	482.6	45.8	36.6	32.8	27.0	21.1	15.0	11.9	10.4	10.5
65°	1196.5	359.8	39.9	32.4	29.1	23.4	16.9	11.5	9.0	7.7	7.5
67.5°	953.2	243.8	33.9	28.0	25.9	19.7	13.4	9.0	7.1	6.1	5.8
70°	560.3	122.9	28.2	24.2	22.2	16.5	10.5	7.3	6.5	5.8	5.4
72.5°	184.8	53.1	22.0	19.9	18.4	13.2	8.2	6.7	6.3	5.6	5.2
75°	64.4	30.7	16.3	15.3	14.6	10.0	6.9	6.1	6.1	5.4	4.8
77.5°	42.2	23.8	12.1	11.1	10.9	7.3	5.9	5.8	5.4	4.4	3.6
80°	35.1	13.4	8.4	7.9	7.7	4.6	4.8	4.2	3.3	1.9	0.8
82.5°	32.4	8.1	4.4	4.8	4.4	1.7	2.7	2.3	1.7	0.8	0.0
85°	19.0	3.6	2.5	2.5	1.9	0.4	1.3	1.3	0.8	0.2	0.0
87.5°	2.1	1.7	1.3	1.3	1.0	0.0	0.6	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)