

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: P596855

Luminaire Tested: **MSA-SA1B-835-U-SL3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596855
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-835-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: 3428 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

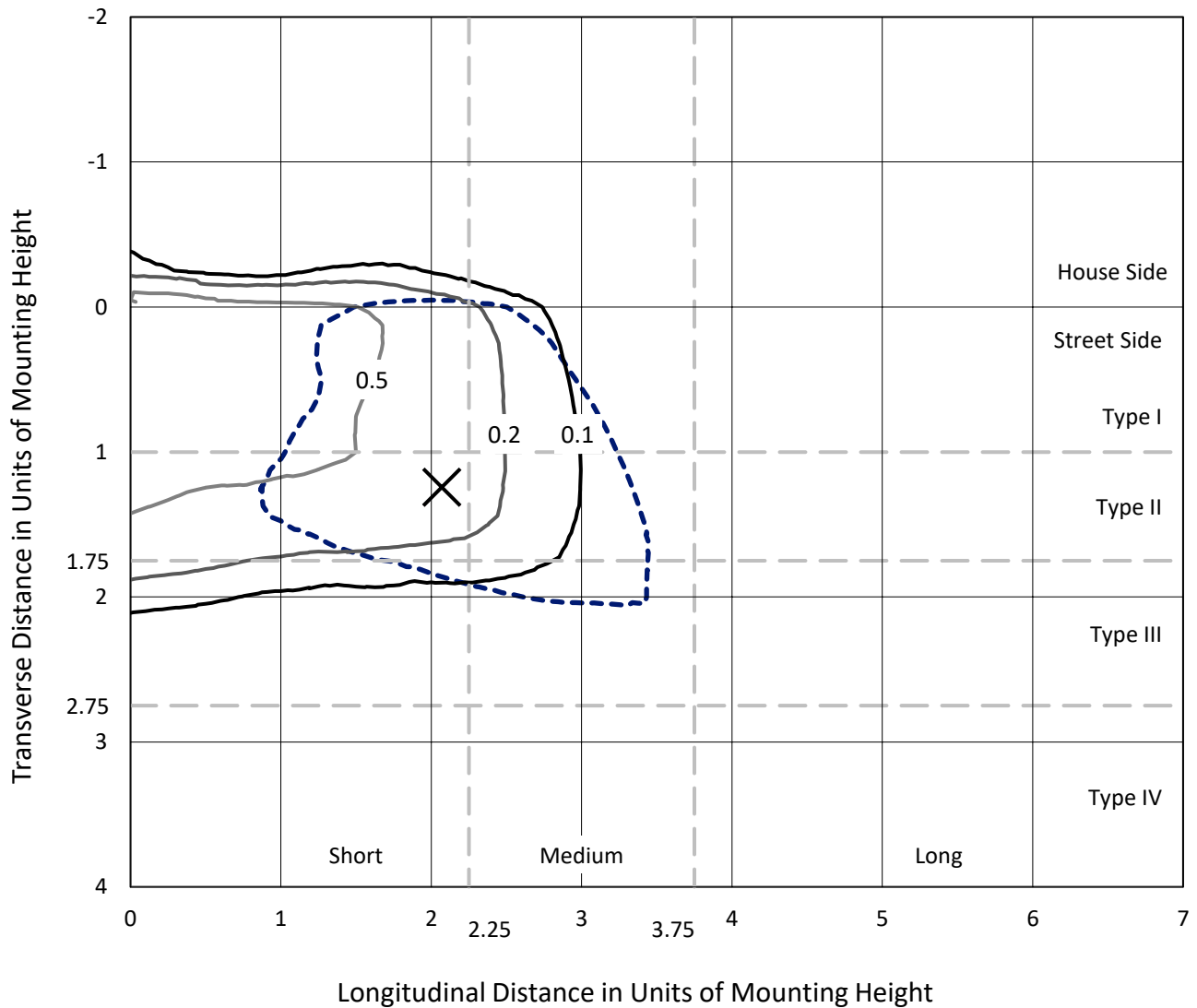
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

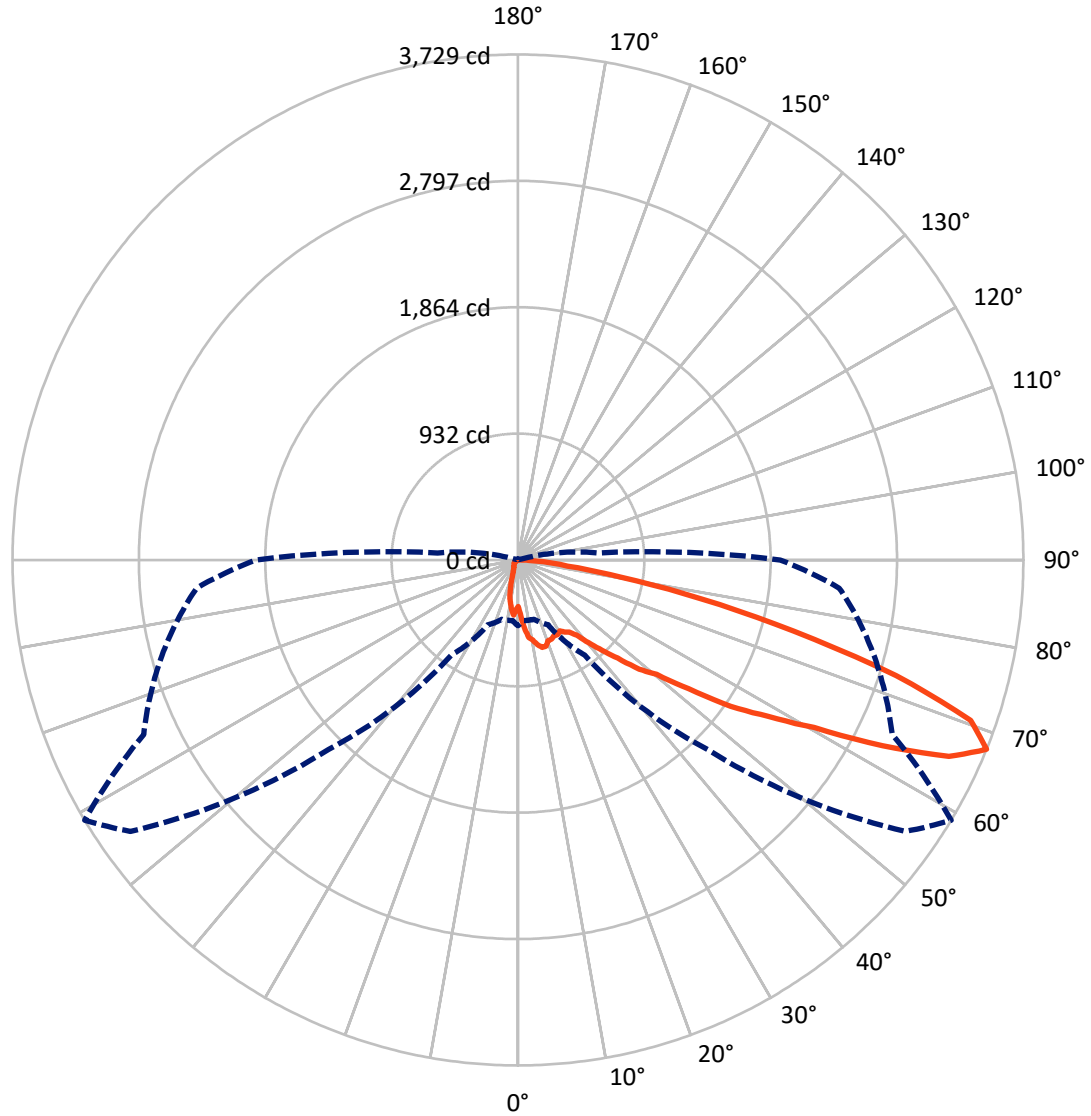
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	291.5	0.0	291.5
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	3136.5	0.0	3136.5
	% Fixture	91.5	0.0	91.5
Total	Lumens	3428.0	0.0	3428.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.7	1.2
10°-20°	117.4	3.4
20°-30°	174.7	5.1
30°-40°	269.5	7.9
40°-50°	480.9	14.0
50°-60°	855.8	25.0
60°-70°	996.7	29.1
70°-80°	443.2	12.9
80°-90°	48.1	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°	3428.0	100.0
0°-180°	3428.0	100.0

Coefficient of Utilization



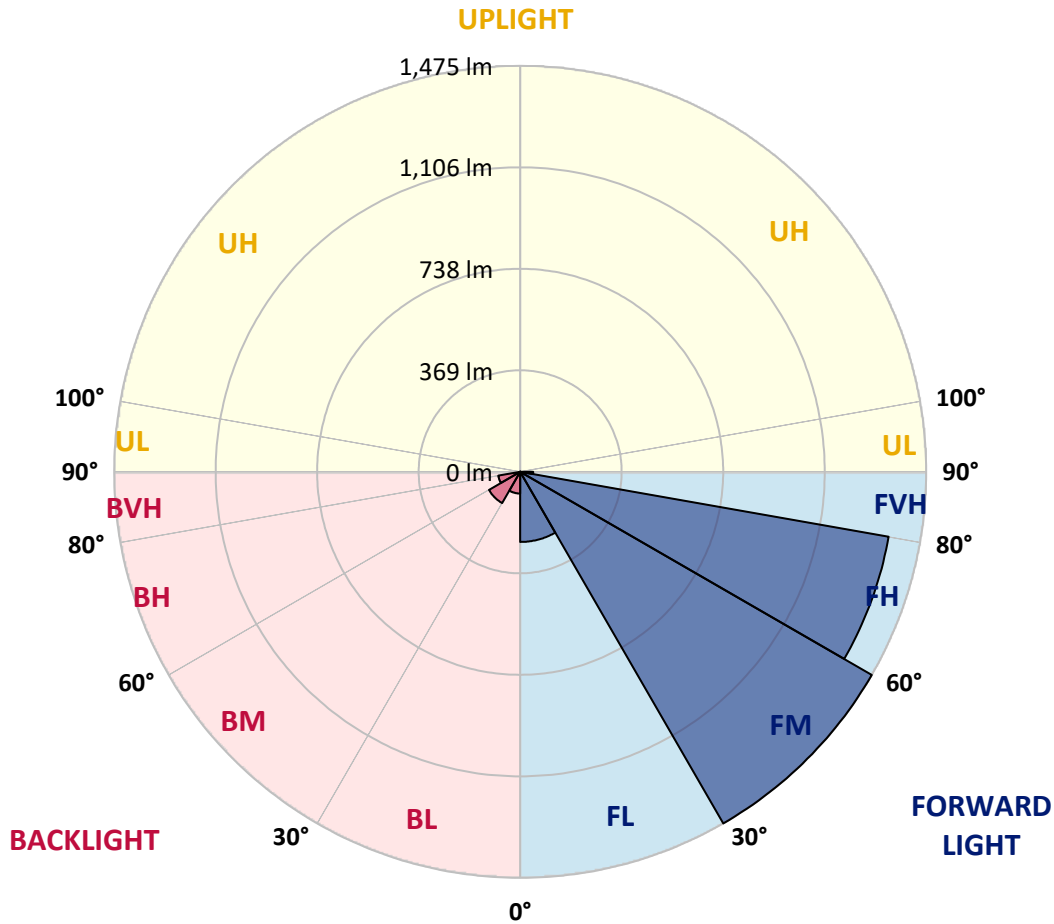
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	254.9	7.4			
FM (30°-60°)	1475.1	43.0			
FH (60°-80°)	1359.2	39.6			G1/1800
FVH (80°-90°)	47.3	1.4			G1/100
BL (0°-30°)	78.8	2.3	B0/110		
BM (30°-60°)	131.1	3.8	B0/220		
BH (60°-80°)	80.8	2.4	B0/110		G0/110
BVH (80°-90°)	0.9	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	343.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0
2.5°	447.1	430.3	406.3	413.5	419.9	426.0	415.9	410.2	407.4	382.7	413.6
5°	549.0	528.0	517.1	514.3	507.4	491.9	517.6	506.1	510.0	514.8	524.9
7.5°	580.1	570.5	554.7	560.6	534.3	532.0	567.6	577.5	590.5	581.6	593.8
10°	564.1	547.6	555.1	553.0	552.0	575.2	600.2	600.7	620.2	629.6	588.4
12.5°	532.5	534.4	561.2	559.1	593.8	640.3	646.0	640.0	671.7	655.4	649.2
15°	553.5	569.1	554.4	559.4	571.8	629.9	650.2	669.0	699.0	708.7	666.5
17.5°	578.9	580.4	553.5	547.3	578.3	605.4	653.3	668.8	671.7	757.0	705.6
20°	565.2	578.5	546.4	507.0	555.3	592.1	640.7	635.8	655.6	771.2	714.4
22.5°	601.6	582.5	541.4	511.7	528.0	561.5	602.6	634.4	664.1	737.2	725.9
25°	605.1	598.1	561.5	535.1	532.4	540.9	598.1	618.6	665.1	767.7	716.2
27.5°	644.1	636.1	561.2	563.8	537.7	511.5	576.3	624.3	684.1	749.1	736.8
30°	694.5	695.2	598.5	606.6	569.5	527.3	594.1	607.3	696.9	778.8	752.1
32.5°	745.5	766.5	672.3	629.0	617.4	587.2	571.9	632.9	682.8	829.5	790.3
35°	823.1	837.3	733.0	694.3	648.6	614.3	632.3	654.2	733.4	896.7	840.4
37.5°	954.5	928.8	842.0	774.7	763.7	713.0	722.1	702.5	784.9	975.8	939.7
40°	1028.4	1005.2	914.9	882.1	812.3	820.1	791.7	803.1	859.7	1058.3	1030.2
42.5°	1105.5	1083.3	1004.1	980.9	914.4	882.1	869.3	910.4	974.4	1195.6	1159.8
45°	1182.9	1126.5	1093.0	1104.6	1074.8	1010.9	996.0	1032.6	1099.8	1364.3	1296.6
47.5°	1248.2	1200.6	1175.4	1170.1	1158.4	1247.1	1186.4	1202.5	1232.2	1513.6	1467.0
50°	1365.9	1319.0	1279.6	1268.7	1325.2	1451.1	1357.3	1326.1	1385.5	1693.9	1664.6
52.5°	1535.8	1476.1	1413.4	1413.6	1520.3	1589.4	1633.9	1579.0	1590.1	1892.3	1879.3
55°	1672.4	1596.5	1544.6	1585.6	1744.8	1783.5	1953.1	1905.0	1890.6	2076.3	2060.3
57.5°	1691.1	1600.2	1575.5	1647.4	1865.2	2112.4	2294.8	2174.7	2152.7	2230.3	2262.0
60°	1516.2	1419.7	1438.2	1553.8	1904.5	2312.9	2608.6	2510.6	2370.5	2410.6	2432.5
62.5°	1130.8	1053.8	1105.8	1258.9	1753.3	2447.2	2971.9	3017.4	2623.2	2546.0	2541.3
65°	733.7	685.4	719.6	845.1	1326.8	2431.9	3296.5	3493.7	2822.3	2656.4	2575.5
67.5°	485.3	448.7	453.5	527.8	858.0	1977.9	3490.6	3728.9	3046.2	2719.0	2379.5
70°	361.7	332.9	334.7	374.9	509.3	1304.4	3220.0	3543.3	3128.0	2501.9	1920.6
72.5°	260.9	241.6	257.8	302.5	405.8	689.8	2400.0	2918.1	2727.5	1973.4	1294.0
75°	180.7	168.0	194.4	253.1	370.4	428.2	1585.9	2100.6	1911.7	1238.1	584.9
77.5°	100.2	96.3	134.3	206.2	336.2	351.0	971.5	1380.3	1060.4	443.8	139.2
80°	43.7	42.4	65.1	154.8	282.6	317.1	546.9	765.3	417.1	79.1	45.0
82.5°	18.7	18.1	27.8	93.2	205.3	265.2	337.3	368.3	143.5	24.5	25.5
85°	3.3	3.6	11.1	49.1	125.0	134.7	244.2	218.0	72.2	11.6	18.2
87.5°	0.0	0.0	1.7	9.5	23.4	38.5	105.9	76.4	13.7	3.8	3.1
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°	343.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0	343.0
2.5°	418.0	408.2	371.3	366.6	361.6	354.1	351.3	335.3	333.3	353.7	353.7
5°	520.2	485.5	450.3	422.5	397.7	363.3	353.6	343.5	335.3	333.3	339.7
7.5°	574.2	531.8	476.5	405.8	348.5	298.7	277.9	263.3	247.0	251.9	254.5
10°	571.2	526.3	455.6	364.9	301.3	246.3	193.4	162.5	145.3	136.8	135.7
12.5°	600.2	557.9	441.6	332.2	251.2	175.1	121.7	99.6	87.0	87.1	86.1
15°	617.1	570.9	425.3	290.9	176.9	112.6	84.4	79.5	77.8	79.7	78.6
17.5°	646.7	584.6	388.3	229.3	121.7	85.1	77.6	75.7	77.9	81.9	80.9
20°	644.5	560.8	335.7	161.6	89.9	76.5	73.4	70.5	75.2	79.3	78.6
22.5°	642.4	537.6	286.2	119.2	75.2	69.8	67.2	66.0	68.4	73.2	74.3
25°	624.0	526.1	236.1	89.6	68.0	63.4	62.1	61.1	62.0	66.0	65.8
27.5°	646.6	497.1	182.3	75.2	63.0	57.5	56.4	54.7	52.9	56.4	56.9
30°	641.9	501.1	142.9	66.1	58.0	50.5	50.9	47.2	44.1	47.2	47.2
32.5°	658.9	471.9	114.4	60.1	52.9	47.6	43.2	39.4	37.1	39.1	39.4
35°	683.7	473.2	89.6	56.2	48.6	42.4	37.1	33.3	31.2	32.1	32.6
37.5°	766.9	464.8	74.8	53.3	47.0	39.2	33.8	28.8	27.4	28.5	29.0
40°	821.0	487.0	66.0	51.7	43.0	36.1	29.0	25.3	24.1	24.6	25.5
42.5°	923.1	499.4	61.6	50.0	39.4	30.9	24.8	22.7	21.0	21.7	22.4
45°	1032.2	520.4	58.3	48.1	36.6	27.1	21.9	20.1	17.9	18.1	18.7
47.5°	1166.4	570.4	54.5	44.8	32.8	24.6	19.4	16.8	14.8	14.6	15.4
50°	1346.6	637.2	51.0	40.6	30.4	22.6	17.0	13.7	12.0	11.5	12.2
52.5°	1538.9	723.6	47.4	37.7	27.4	19.8	14.6	11.1	9.5	9.2	9.7
55°	1729.5	806.6	43.9	35.8	24.3	17.0	12.3	9.2	7.8	7.5	7.8
57.5°	1946.6	896.3	39.4	31.9	21.3	14.8	10.2	7.6	6.4	6.1	6.2
60°	2110.1	927.9	35.6	27.8	18.6	13.0	8.7	6.1	5.2	4.9	5.0
62.5°	2187.7	876.4	31.9	24.1	16.3	11.3	7.3	5.0	4.3	4.0	4.0
65°	2167.6	762.2	28.3	20.7	14.1	9.4	5.7	4.3	3.8	3.3	3.1
67.5°	1935.0	596.4	24.1	17.4	11.8	7.6	4.9	4.2	3.5	3.1	2.6
70°	1534.6	431.9	19.6	14.4	9.9	6.2	3.8	3.8	3.3	3.1	2.4
72.5°	1005.9	271.8	16.0	11.6	8.2	4.9	3.0	3.5	3.1	3.1	2.3
75°	435.8	97.2	12.8	9.4	6.8	3.3	2.6	3.1	3.3	3.1	2.6
77.5°	102.1	30.2	10.1	7.5	5.6	2.3	2.6	3.1	3.3	3.0	2.3
80°	38.4	12.8	6.6	4.9	4.3	1.4	2.3	1.9	1.7	1.2	0.3
82.5°	23.3	5.4	3.5	2.4	2.1	0.3	1.0	0.7	0.3	0.3	0.0
85°	16.5	2.6	1.9	1.7	1.0	0.0	0.2	0.0	0.0	0.2	0.0
87.5°	2.3	0.7	0.9	0.9	0.7	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)