

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: P596625

Luminaire Tested: **MSA-SA2C-827-U-T4FT-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596625
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-827-U-T4FT-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6791 lumens
Efficiency: N/A
Efficacy: 60.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

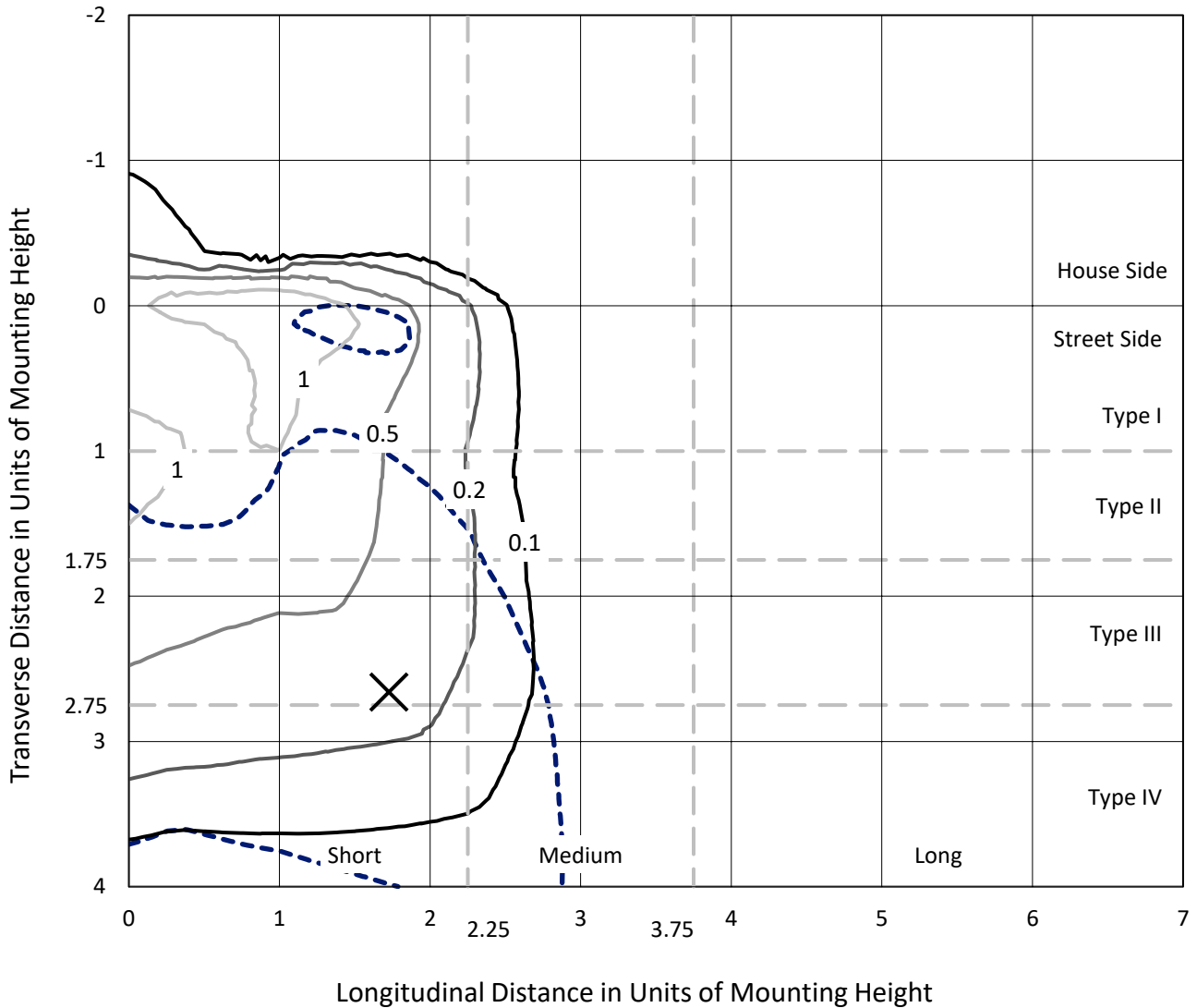
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

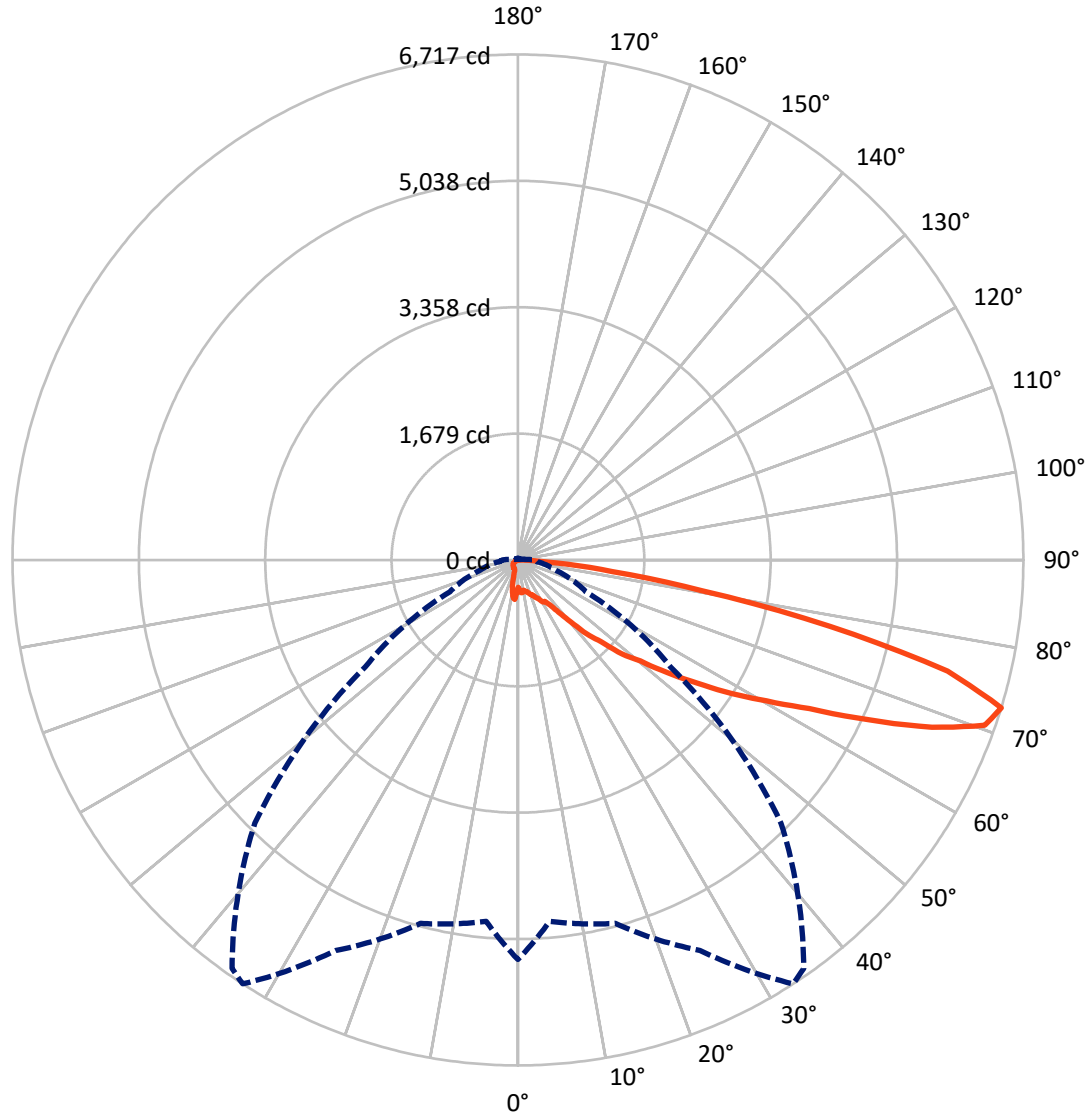
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	627.9	0.0	627.9
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	6163.1	0.0	6163.1
	% Fixture	90.8	0.0	90.8
Total	Lumens	6791.0	0.0	6791.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.8	0.7
10°-20°	139.3	2.1
20°-30°	236.3	3.5
30°-40°	432.4	6.4
40°-50°	912.6	13.4
50°-60°	1526.8	22.5
60°-70°	2043.7	30.1
70°-80°	1334.9	19.7
80°-90°	118.4	1.7
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°	6791.0	100.0
0°-180°	6791.0	100.0

Coefficient of Utilization

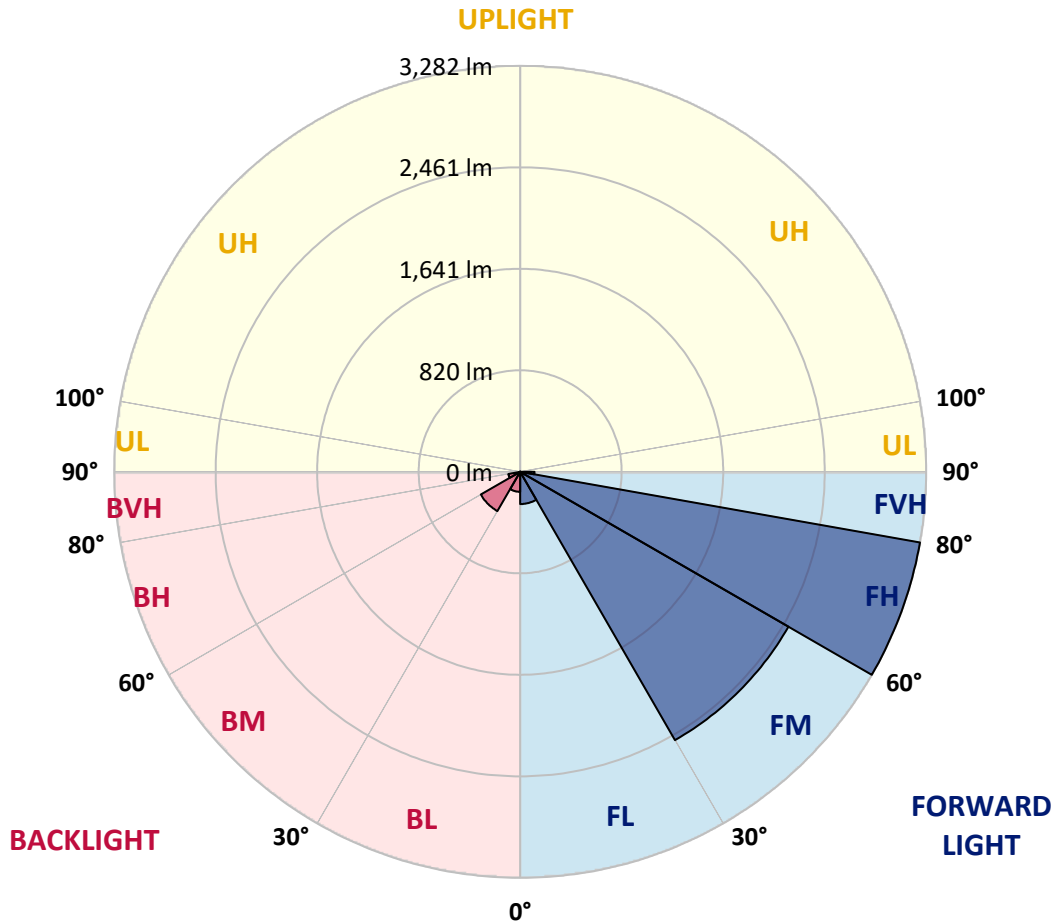


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	260.7	3.8			
FM (30°-60°)	2504.6	36.9			
FH (60°-80°)	3281.7	48.3			G2/5000
FVH (80°-90°)	116.1	1.7			G2/225
BL (0°-30°)	161.6	2.4	B1/500		
BM (30°-60°)	367.1	5.4	B1/1000		
BH (60°-80°)	96.9	1.4	B0/110		G0/110
BVH (80°-90°)	2.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2
2.5°	430.6	414.0	389.9	391.4	395.5	398.9	408.0	404.2	397.0	396.6	430.6
5°	456.2	437.7	436.2	438.5	437.4	443.4	435.9	460.4	481.1	506.0	546.0
7.5°	443.8	435.1	424.2	435.5	435.1	432.1	437.0	486.8	536.9	568.6	634.6
10°	408.0	398.2	406.4	410.2	407.6	420.8	453.6	494.3	554.2	620.6	652.7
12.5°	397.8	403.8	406.8	406.8	432.1	438.9	489.0	527.5	598.7	651.1	744.3
15°	437.4	449.1	428.3	423.8	431.7	435.5	491.3	537.7	628.9	724.7	802.7
17.5°	500.3	499.6	467.5	449.8	462.2	471.3	502.2	556.5	610.0	782.4	895.5
20°	543.7	544.4	486.8	449.8	490.9	496.2	530.5	573.9	616.1	811.4	956.2
22.5°	599.5	579.5	515.8	480.0	507.9	512.8	550.5	584.8	647.0	808.0	1033.8
25°	645.1	632.3	552.0	527.1	552.0	545.2	579.5	631.2	680.2	861.9	1079.5
27.5°	716.0	694.1	577.6	582.1	580.6	585.5	593.5	672.6	738.6	864.5	1185.0
30°	782.0	769.2	634.9	634.9	649.6	640.2	645.9	741.6	795.2	925.6	1303.8
32.5°	850.2	851.0	702.4	666.6	654.9	693.7	731.8	775.2	863.4	1030.4	1485.5
35°	1030.8	1015.7	831.7	742.4	733.0	730.7	791.8	909.0	984.4	1166.9	1730.2
37.5°	1394.7	1342.3	1110.0	914.3	878.9	866.8	936.2	1056.5	1131.5	1367.5	2134.8
40°	1767.9	1671.8	1413.9	1193.3	1078.3	1026.3	1107.0	1209.2	1342.6	1589.2	2509.2
42.5°	2095.6	1976.8	1642.8	1494.2	1344.5	1321.9	1246.1	1412.4	1644.3	1912.0	2876.0
45°	2414.9	2181.2	1846.4	1728.7	1547.0	1559.8	1534.2	1678.2	1957.6	2265.6	3201.4
47.5°	2634.7	2424.7	2096.0	1943.3	1870.5	1795.5	1999.1	2148.7	2236.6	2490.3	3482.7
50°	2871.5	2658.9	2310.5	2203.8	2108.0	2183.8	2448.1	2468.1	2460.9	2700.0	3674.2
52.5°	3177.3	2926.6	2556.7	2436.0	2490.3	2565.7	2870.8	2874.5	2660.4	2876.4	3812.2
55°	3460.1	3182.2	2884.7	2770.9	2884.3	2948.1	3286.3	3162.2	2776.5	2996.3	3880.1
57.5°	3858.6	3537.0	3320.9	3120.4	3350.4	3289.3	3651.6	3467.2	2907.0	3075.9	3855.2
60°	4362.3	3983.8	3767.4	3555.1	3801.7	3843.1	4008.3	3619.6	2957.5	3101.9	3705.5
62.5°	4874.7	4493.9	4209.3	4065.2	4345.0	4481.5	4338.6	3695.3	2896.8	3051.0	3366.6
65°	5510.4	5022.9	4690.4	4605.9	5124.3	5324.9	4729.2	3713.8	2779.5	2770.9	2706.8
67.5°	5945.9	5471.2	5166.2	5307.6	5933.8	5950.0	5079.8	3719.5	2384.8	2169.5	1776.6
70°	6049.2	5540.9	5404.5	5820.7	6579.7	6375.7	5192.9	3432.9	1768.7	1287.6	812.1
72.5°	5310.2	4820.8	4998.4	5723.8	6716.9	6623.4	4943.0	2476.8	995.8	515.0	249.2
75°	3257.2	2961.3	3749.6	4852.9	5896.1	5835.8	3856.3	1279.7	401.2	205.9	93.1
77.5°	1416.5	1315.5	1956.8	3219.9	4236.8	4182.9	2259.6	471.3	207.4	144.8	47.1
80°	468.7	454.7	741.3	1524.7	2481.7	2434.2	952.0	196.1	147.8	116.1	26.4
82.5°	111.2	110.5	258.6	701.7	1264.2	1224.6	292.2	108.2	107.1	91.6	14.0
85°	27.9	28.7	71.6	286.9	513.5	452.8	76.2	53.9	75.4	62.2	7.2
87.5°	0.0	0.0	18.5	41.1	77.7	48.6	8.3	14.3	21.1	22.2	3.8
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°	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2
2.5°	438.1	434.0	400.0	408.3	421.2	420.0	428.3	421.9	416.2	444.2	441.5
5°	557.3	534.6	524.1	538.8	530.9	512.4	527.9	525.2	520.7	530.1	537.3
7.5°	646.6	625.9	616.5	585.5	540.7	505.2	510.9	497.7	485.2	500.0	515.0
10°	676.0	664.7	663.6	603.3	561.0	509.8	449.1	396.6	382.7	364.2	372.5
12.5°	756.0	762.7	720.1	649.6	568.2	469.8	362.0	287.7	257.5	237.9	239.0
15°	821.6	845.3	783.5	656.8	500.0	358.2	240.9	174.2	155.3	150.4	148.9
17.5°	919.2	942.2	803.1	605.9	403.1	242.8	155.0	135.7	136.9	140.3	139.5
20°	991.6	988.2	786.1	515.8	297.1	159.1	129.7	127.1	133.1	142.9	140.6
22.5°	1061.4	1038.0	775.6	432.5	192.3	127.8	125.2	124.8	130.5	139.9	142.5
25°	1111.1	1114.9	757.8	338.6	139.9	118.8	121.0	124.4	130.1	140.3	138.7
27.5°	1253.7	1148.1	683.9	245.8	118.0	113.9	119.5	126.3	128.2	141.0	141.4
30°	1346.0	1273.3	635.7	165.5	109.0	105.2	116.5	125.6	127.8	144.4	145.5
32.5°	1507.0	1327.2	579.9	122.9	101.4	102.6	109.7	121.8	132.3	150.1	150.8
35°	1707.2	1500.2	478.8	110.5	98.8	96.9	100.3	114.2	131.6	150.8	154.6
37.5°	2088.4	1603.9	379.7	107.1	98.8	95.4	98.8	107.1	129.3	158.4	166.3
40°	2343.7	1815.1	273.7	106.3	96.9	93.9	95.0	103.3	122.9	153.8	165.5
42.5°	2658.1	1904.0	201.7	104.4	95.0	90.5	91.2	101.8	116.5	144.4	153.1
45°	2915.6	1968.9	158.7	103.7	90.5	89.0	90.5	100.7	110.5	124.0	132.0
47.5°	3111.3	2044.3	127.4	98.8	89.4	89.0	87.1	94.3	100.3	103.7	109.0
50°	3254.6	2027.3	105.6	91.2	85.6	87.8	84.5	85.6	87.1	85.2	91.2
52.5°	3342.4	1966.3	87.8	82.2	81.1	82.9	78.8	75.4	72.8	71.3	75.0
55°	3374.5	1843.7	74.7	70.5	73.1	73.9	70.5	64.5	59.9	57.7	60.7
57.5°	3313.8	1657.1	64.9	58.4	64.5	64.5	59.9	53.5	48.3	44.5	47.5
60°	3160.0	1450.8	57.7	48.6	55.0	55.4	50.1	43.4	39.2	35.4	37.3
62.5°	2873.4	1226.1	50.5	42.2	47.5	47.9	41.5	35.1	32.0	27.9	29.4
65°	2300.3	937.7	43.0	37.3	41.1	40.0	34.3	29.8	26.0	22.2	23.0
67.5°	1493.1	578.8	37.3	33.9	34.7	33.6	29.0	26.0	21.9	18.9	19.2
70°	668.5	249.2	32.8	30.5	30.2	28.3	24.5	24.1	21.5	18.9	18.9
72.5°	206.2	93.9	28.3	27.5	26.0	23.8	21.5	23.0	21.1	18.1	17.7
75°	81.4	43.0	23.4	23.4	22.6	19.6	19.2	20.7	19.6	16.6	15.8
77.5°	42.6	27.1	19.2	20.0	19.6	15.1	17.3	18.9	18.1	14.0	11.7
80°	25.3	16.6	14.3	16.2	15.8	10.6	13.2	12.1	8.7	4.1	1.1
82.5°	14.0	7.5	6.4	9.4	9.4	3.8	6.8	6.0	3.4	0.0	0.0
85°	6.8	5.3	4.9	5.3	3.8	1.1	3.4	3.4	1.9	0.0	0.0
87.5°	3.4	3.0	2.3	1.9	1.5	0.0	1.1	1.5	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)