

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: P596627

Luminaire Tested: **MSA-SA2C-827-U-T4W-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596627
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-827-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6837 lumens
Efficiency: N/A
Efficacy: 60.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

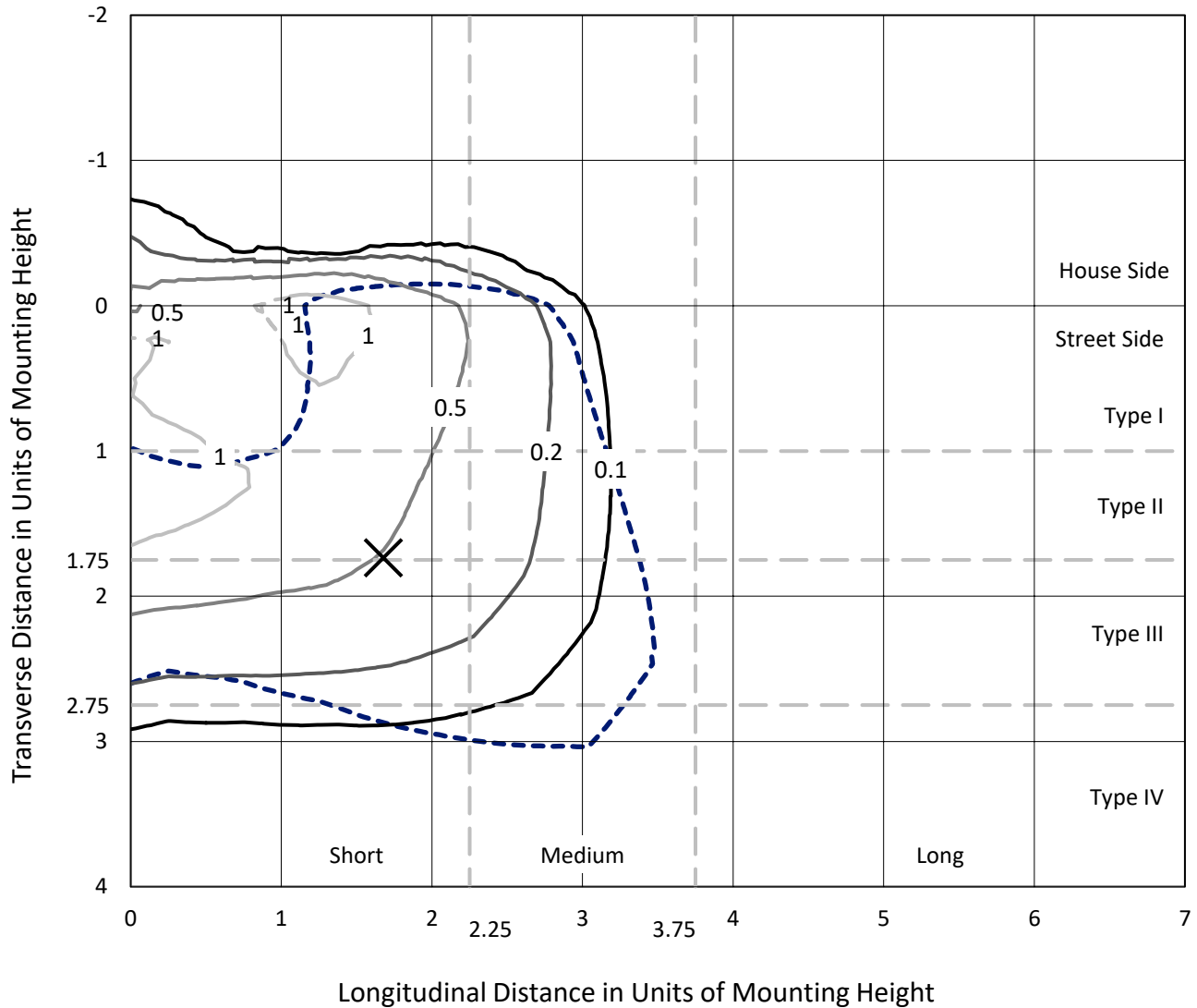
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

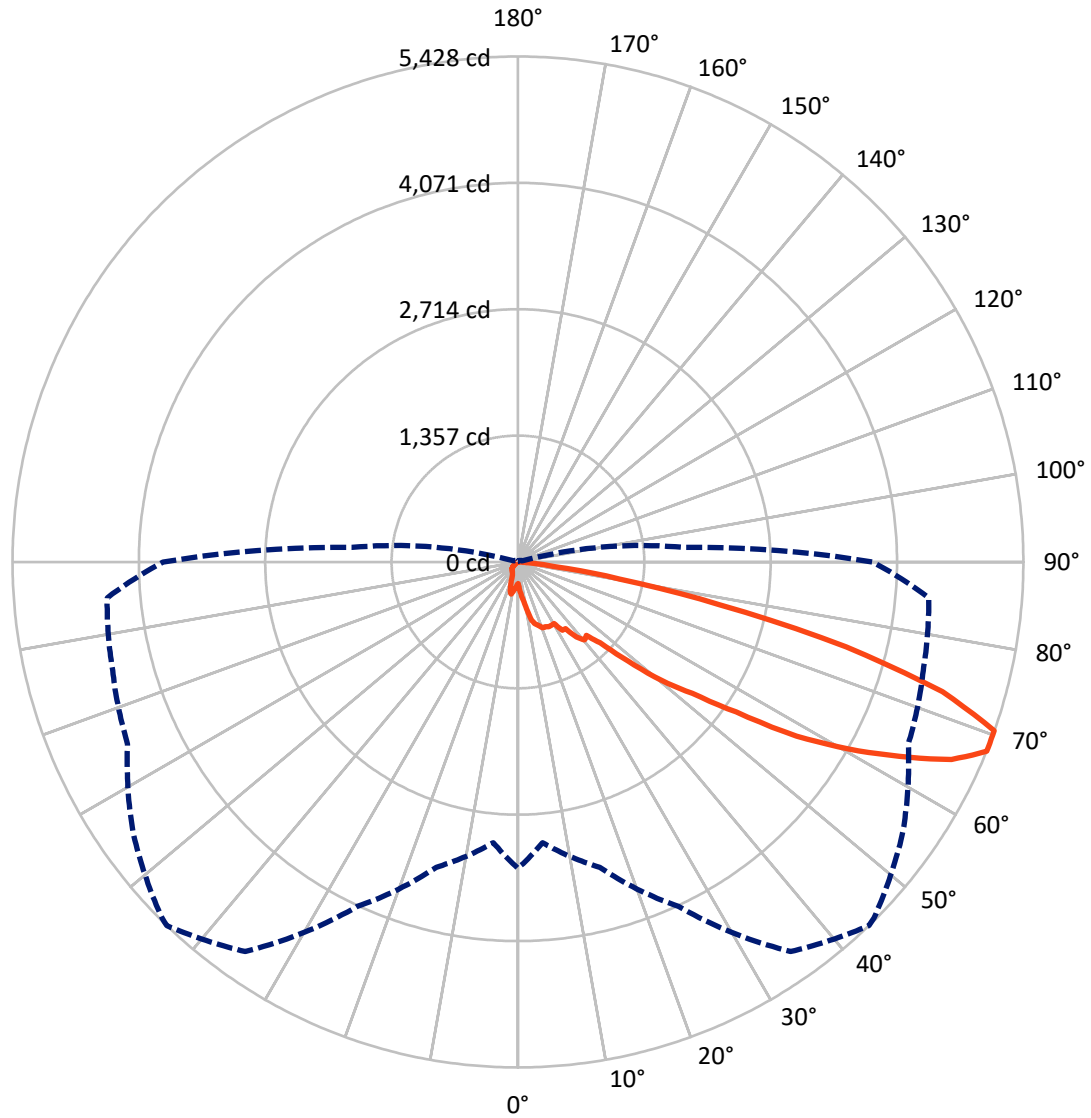
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	694.5	0.0	694.5
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	6142.5	0.0	6142.5
	% Fixture	89.8	0.0	89.8
Total	Lumens	6837.0	0.0	6837.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.1	0.5
10°-20°	142.9	2.1
20°-30°	253.2	3.7
30°-40°	411.6	6.0
40°-50°	823.6	12.0
50°-60°	1689.6	24.7
60°-70°	2321.1	33.9
70°-80°	1090.9	16.0
80°-90°	69.9	1.0
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°	6837.0	100.0
0°-180°	6837.0	100.0

Coefficient of Utilization



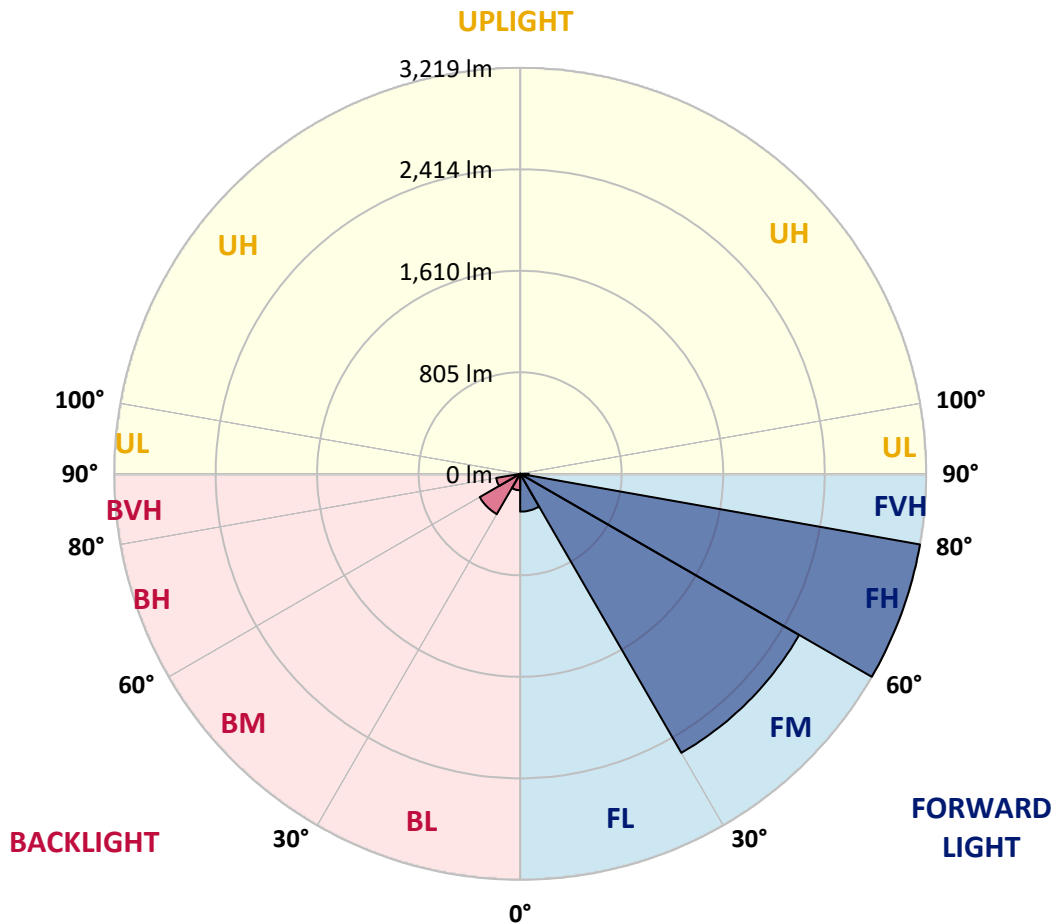
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	299.9	4.4			
FM (30°-60°)	2554.9	37.4			
FH (60°-80°)	3219.3	47.1			G2/5000
FVH (80°-90°)	68.4	1.0			G1/100
BL (0°-30°)	130.4	1.9	B1/500		
BM (30°-60°)	370.0	5.4	B1/1000		
BH (60°-80°)	192.7	2.8	B1/500		G1/500
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: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	230.4	230.4	230.4	230.4	230.4	230.4	230.4	230.4	230.4	230.4	230.4
2.5°	292.9	283.5	269.9	273.0	274.5	278.6	279.0	273.7	258.6	254.5	273.0
5°	410.6	387.6	383.4	374.7	357.4	348.0	345.7	355.1	343.1	339.3	344.2
7.5°	524.4	504.8	483.3	471.6	435.4	413.2	412.1	415.8	418.1	404.9	411.7
10°	600.2	578.7	574.2	546.7	515.4	510.1	507.8	493.5	481.8	472.0	439.2
12.5°	668.8	668.4	676.7	637.1	632.2	637.5	635.6	584.4	572.7	531.6	522.2
15°	760.0	782.7	746.9	713.7	671.5	689.5	684.6	651.8	643.9	616.0	575.7
17.5°	854.7	860.7	800.8	749.9	738.9	715.2	720.1	708.4	668.4	690.7	650.7
20°	856.9	870.1	806.0	722.0	755.5	754.4	754.8	743.5	690.7	742.7	706.1
22.5°	888.6	856.2	796.6	743.1	749.1	754.8	760.8	746.9	735.5	748.4	755.1
25°	875.8	863.0	805.7	770.2	764.6	769.1	770.6	788.3	781.2	812.1	795.1
27.5°	909.0	890.5	787.9	794.4	774.4	769.1	760.0	819.2	840.4	815.8	861.1
30°	965.9	963.3	818.5	827.9	812.5	766.1	790.2	867.5	893.9	878.8	933.8
32.5°	1054.9	1063.9	907.8	846.8	854.7	875.4	866.4	867.5	934.2	967.8	1011.5
35°	1181.2	1176.3	994.9	918.4	876.9	880.3	893.1	954.6	1040.9	1038.7	1085.0
37.5°	1429.2	1375.7	1149.1	991.5	1004.0	1020.9	1011.5	1094.1	1102.4	1105.4	1216.2
40°	1794.9	1723.7	1392.3	1145.7	1025.8	1100.9	1096.3	1116.7	1172.1	1192.9	1354.6
42.5°	2276.8	2181.0	1820.2	1429.2	1131.4	1079.8	1107.6	1146.1	1332.3	1391.5	1568.7
45°	2809.1	2615.3	2247.0	1833.4	1396.1	1235.8	1256.9	1328.6	1586.8	1684.8	1880.5
47.5°	3154.1	2983.6	2669.6	2191.5	1672.0	1588.0	1589.8	1605.3	1885.8	2067.5	2329.9
50°	3453.8	3272.4	2981.0	2565.9	2160.3	2001.2	1965.0	1893.7	2266.6	2515.0	2806.1
52.5°	3876.8	3664.9	3292.4	3005.1	2717.1	2342.4	2329.5	2353.7	2715.6	2976.9	3294.3
55°	4258.3	4000.8	3645.3	3464.3	3352.0	2843.8	2854.7	2895.0	3292.0	3430.4	3728.6
57.5°	4426.8	4147.8	3965.0	3883.6	3823.6	3528.8	3491.8	3467.7	3746.7	3799.5	4183.7
60°	4537.3	4271.9	4188.9	4207.8	4389.5	4076.6	4043.0	3902.8	4123.0	4166.3	4591.6
62.5°	4467.5	4225.5	4243.2	4400.4	4803.8	4598.0	4501.1	4266.6	4430.6	4465.7	4884.5
65°	4028.3	3776.1	4003.8	4384.2	5119.8	5114.9	5070.0	4602.5	4601.0	4645.9	4907.1
67.5°	3290.5	3025.9	3394.2	4080.4	5106.6	5428.2	5407.1	5048.1	4625.5	4505.6	4428.3
70°	2287.7	2058.1	2475.8	3369.7	4651.5	5425.9	5392.0	5347.5	4431.7	3878.3	3433.4
72.5°	1188.7	1062.4	1451.5	2322.0	3707.9	4767.3	4879.2	4806.1	3784.0	2817.8	2021.9
75°	403.8	362.3	598.7	1232.4	2464.9	3640.4	3771.6	3697.3	2570.1	1511.8	799.6
77.5°	156.5	145.5	214.5	500.3	1236.6	2218.3	2360.8	2285.0	1378.3	553.8	188.1
80°	89.0	86.0	118.4	225.5	545.2	1103.5	1203.8	1091.8	496.9	186.6	49.0
82.5°	37.7	38.8	66.0	121.8	274.1	389.4	434.3	396.2	208.1	127.8	18.1
85°	8.3	10.2	31.3	67.9	115.0	111.2	116.5	129.3	127.8	93.9	7.9
87.5°	0.0	0.0	9.8	18.5	27.5	18.1	14.3	25.3	39.2	37.7	3.4
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°	230.4	230.4	230.4	230.4	230.4	230.4	230.4	230.4	230.4	230.4	230.4
2.5°	276.3	272.6	248.8	247.3	248.8	244.7	244.3	235.6	236.4	256.0	257.5
5°	344.2	325.4	305.0	298.6	292.6	279.0	286.5	286.5	286.5	299.0	302.7
7.5°	405.7	380.4	351.7	327.6	304.2	287.3	299.0	307.3	312.2	328.4	335.9
10°	433.6	408.7	383.0	348.7	330.6	324.2	310.7	303.5	312.2	308.8	312.9
12.5°	493.1	470.5	426.4	391.0	377.4	355.5	315.6	287.7	269.2	266.2	265.4
15°	551.2	537.2	478.0	430.5	383.4	332.9	264.7	227.7	208.1	204.7	205.1
17.5°	624.7	604.7	517.6	449.4	369.5	278.6	204.3	172.7	171.2	179.5	180.2
20°	673.7	640.9	537.6	433.9	323.5	210.7	159.9	152.3	164.4	179.5	177.9
22.5°	720.5	685.0	564.0	420.4	250.7	159.9	147.0	147.8	158.0	174.2	178.3
25°	751.4	738.6	596.4	388.7	191.1	138.4	140.6	146.3	155.0	170.4	170.4
27.5°	844.5	784.6	592.7	327.2	147.0	128.9	134.2	141.4	145.9	164.4	166.3
30°	901.0	881.4	612.3	264.7	128.9	116.9	127.1	133.5	136.5	157.6	158.3
32.5°	970.4	927.1	636.0	195.3	119.9	116.1	113.9	118.8	127.4	145.9	147.0
35°	1054.9	1042.1	602.1	153.4	116.9	108.6	104.1	106.7	112.3	124.8	127.4
37.5°	1227.2	1151.0	581.7	131.6	116.9	105.9	101.0	94.3	95.0	103.7	108.6
40°	1372.3	1348.9	524.8	127.8	111.6	102.2	90.1	81.8	76.2	78.8	80.7
42.5°	1638.9	1530.7	451.3	125.9	106.7	92.4	76.5	67.9	59.2	59.9	63.0
45°	1962.3	1729.0	385.7	124.0	103.3	82.6	64.5	54.3	45.2	45.6	48.6
47.5°	2394.4	2018.1	306.1	118.4	97.3	73.5	52.0	41.5	36.2	37.3	40.0
50°	2885.2	2271.9	242.0	109.7	90.1	64.8	42.2	33.6	31.7	32.8	35.8
52.5°	3323.7	2458.8	199.8	101.8	79.9	52.8	35.4	29.8	29.0	29.8	32.0
55°	3713.5	2567.4	167.0	92.7	68.6	42.6	32.0	27.5	27.1	26.8	28.3
57.5°	4079.2	2598.7	130.4	78.4	55.8	36.9	29.8	25.6	24.9	23.8	24.9
60°	4345.8	2545.2	95.8	63.0	45.6	33.6	27.9	23.0	21.9	20.0	20.7
62.5°	4474.3	2398.5	72.4	50.5	38.8	30.5	24.9	20.0	18.5	16.2	16.6
65°	4352.2	2156.9	56.9	42.6	33.2	25.6	21.1	17.0	15.1	12.8	12.8
67.5°	3811.2	1789.3	48.3	36.9	27.9	21.9	17.3	15.5	12.4	10.6	10.2
70°	2797.4	1287.1	41.5	32.4	24.1	18.9	14.7	13.9	12.1	10.2	9.4
72.5°	1578.9	728.4	35.4	28.7	20.4	15.8	12.4	12.8	11.7	9.4	8.7
75°	602.5	245.4	29.4	23.8	16.6	12.1	10.6	10.6	10.6	7.9	6.8
77.5°	149.3	62.6	23.4	19.2	13.2	7.9	8.7	9.0	9.0	6.8	4.9
80°	41.1	21.1	13.9	13.9	9.4	4.5	6.0	6.0	4.9	2.3	0.0
82.5°	15.1	7.9	4.9	6.0	4.1	1.5	2.3	1.5	1.1	0.0	0.0
85°	6.4	4.1	3.0	3.4	1.9	0.0	0.4	0.8	0.0	0.0	0.0
87.5°	2.6	1.9	1.5	1.5	0.8	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)