

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: P367385

Luminaire Tested: **MSA-SA2B-830-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367385
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-830-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5845 lumens
Efficiency: N/A
Efficacy: 68.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

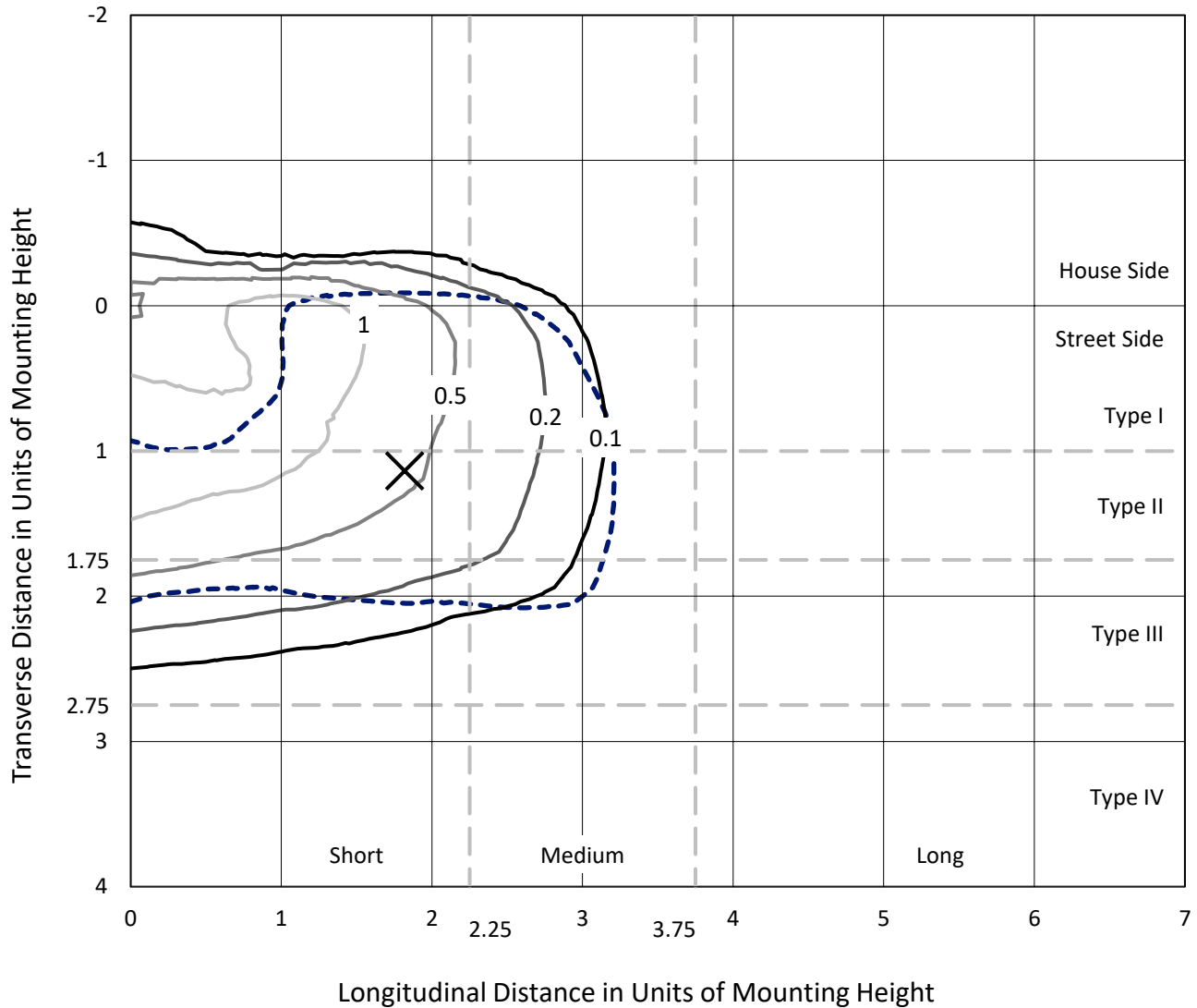
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367385
 CATALOG NUMBER: MSA-SA2B-830-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

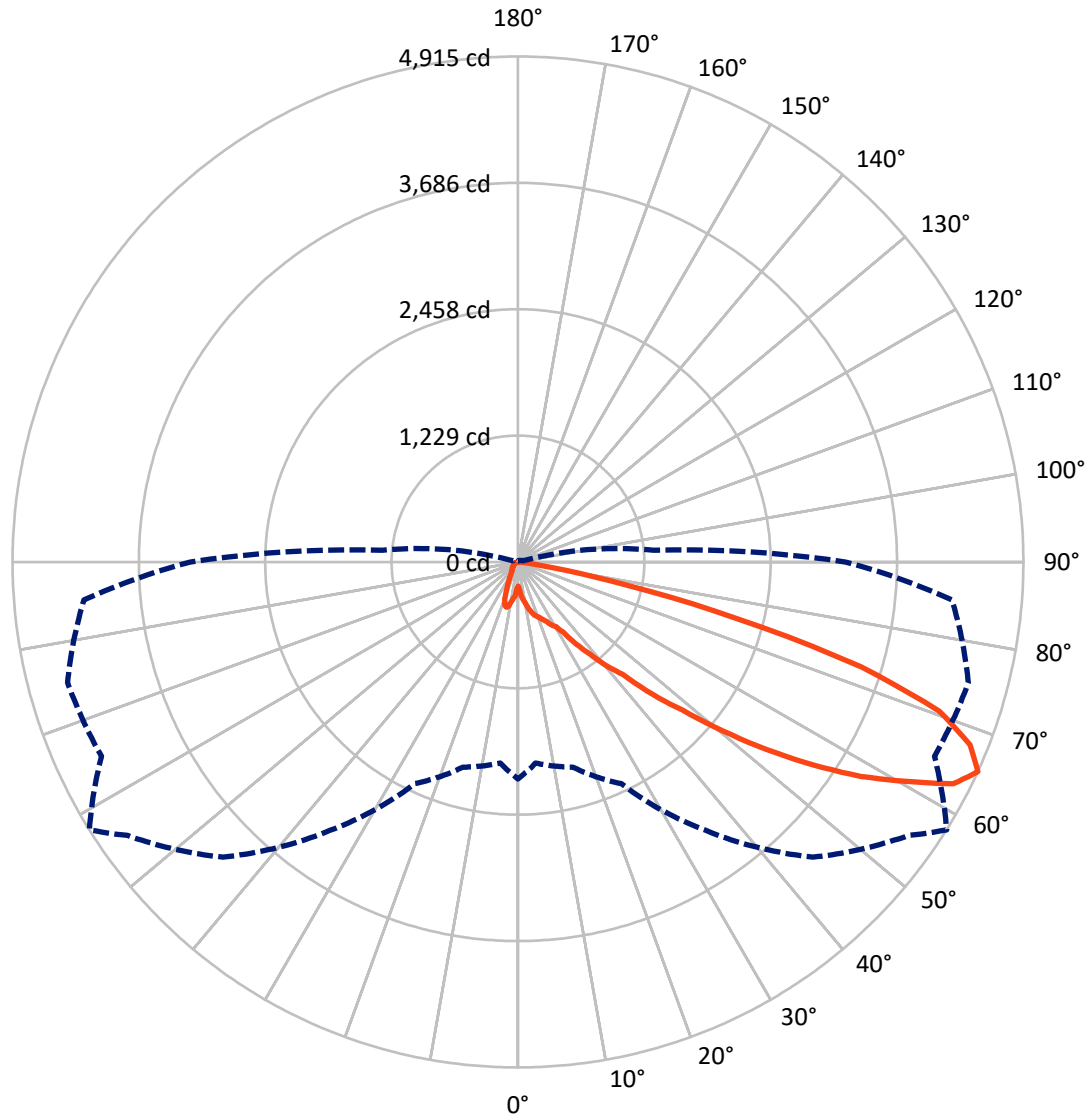
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
 Type III - Short - N/A

REPORT NUMBER: P367385
CATALOG NUMBER: MSA-SA2B-830-U-T3-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P367385

CATALOG NUMBER: MSA-SA2B-830-U-T3-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	576.8	0.0	576.8
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	5268.2	0.0	5268.2
	% Fixture	90.1	0.0	90.1
Total	Lumens	5845.0	0.0	5845.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.9	0.6
10°-20°	120.0	2.1
20°-30°	232.2	4.0
30°-40°	463.4	7.9
40°-50°	947.3	16.2
50°-60°	1680.2	28.7
60°-70°	1771.3	30.3
70°-80°	574.3	9.8
80°-90°	23.5	0.4
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°	5845.0	100.0
0°-180°	5845.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367385

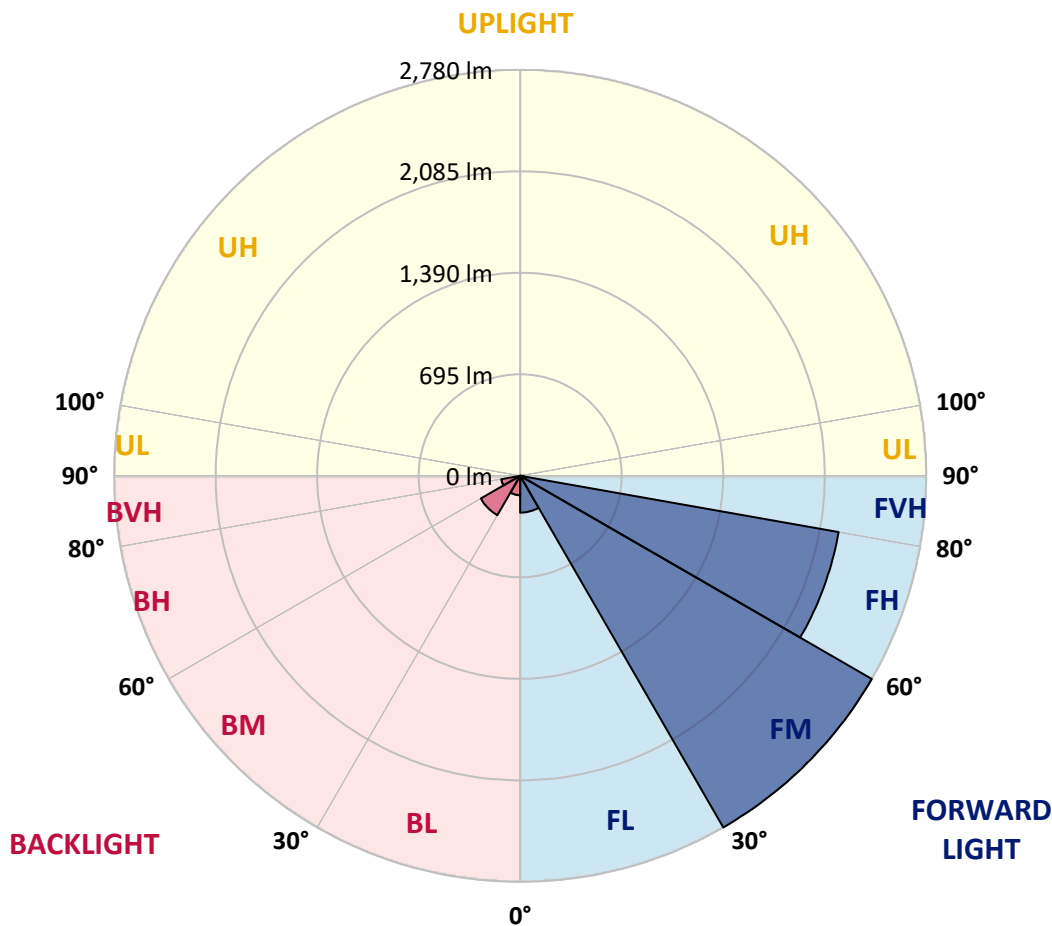
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	252.2	4.3			
FM (30°-60°)	2779.6	47.6			
FH (60°-80°)	2214.0	37.9			G2/5000
FVH (80°-90°)	22.5	0.4			G1/100
BL (0°-30°)	132.9	2.3	B1/500		
BM (30°-60°)	311.2	5.3	B1/1000		
BH (60°-80°)	131.6	2.3	B1/500		G1/500
BVH (80°-90°)	1.0	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 III Short





REPORT NUMBER: P367385

CATALOG NUMBER: MSA-SA2B-830-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0
2.5°	285.7	277.1	263.6	265.9	268.5	273.8	269.5	265.6	261.3	255.7	277.1
5°	344.9	330.7	329.4	326.5	324.2	323.8	329.1	327.4	329.8	340.3	351.1
7.5°	366.6	360.7	349.5	354.1	346.9	341.3	364.6	372.2	386.7	391.6	419.9
10°	364.3	355.7	360.4	362.7	367.6	388.0	402.8	411.0	423.5	450.5	444.9
12.5°	374.8	382.4	387.3	387.7	413.0	450.5	461.1	468.0	490.3	500.9	528.5
15°	410.0	422.6	414.7	417.9	426.2	471.9	496.6	511.7	543.3	577.6	584.5
17.5°	460.4	468.3	451.8	440.0	462.7	487.7	532.5	548.3	568.3	648.3	663.1
20°	523.9	537.4	501.9	454.8	484.8	514.4	563.1	570.6	592.0	696.4	719.7
22.5°	672.3	652.3	598.0	524.6	515.7	528.9	575.3	604.9	641.1	723.3	777.6
25°	818.8	811.9	731.9	650.0	590.7	561.1	622.6	639.1	698.3	787.5	817.5
27.5°	981.7	995.5	861.9	812.2	696.0	599.3	652.3	693.4	763.5	810.9	883.0
30°	1196.6	1174.5	1017.9	968.2	835.6	704.3	728.9	731.6	834.6	887.9	956.3
32.5°	1365.1	1379.2	1182.4	1106.1	1000.1	865.8	786.5	820.8	894.5	1013.3	1078.1
35°	1547.4	1546.1	1354.2	1251.5	1113.0	997.8	957.3	982.3	1074.8	1209.4	1226.5
37.5°	1819.9	1796.5	1570.1	1419.7	1301.9	1203.5	1172.6	1139.3	1234.8	1363.1	1427.3
40°	2076.9	1996.3	1787.0	1608.6	1457.9	1417.7	1305.8	1326.2	1354.5	1524.0	1701.4
42.5°	2336.6	2286.5	2006.8	1857.4	1672.1	1576.7	1503.6	1494.1	1628.7	1829.4	2012.7
45°	2679.1	2526.1	2302.3	2171.0	1956.5	1860.7	1801.8	1837.0	1958.1	2251.3	2373.4
47.5°	2966.8	2825.9	2633.7	2434.3	2209.2	2316.8	2206.2	2150.6	2316.8	2619.9	2782.1
50°	3213.9	3056.9	2862.4	2714.7	2678.2	2781.5	2557.7	2578.1	2686.0	3042.1	3133.6
52.5°	3393.6	3228.4	3058.6	2987.2	3136.9	3188.9	3076.7	3031.6	3129.7	3402.2	3446.6
55°	3528.9	3359.7	3227.1	3325.5	3615.1	3598.0	3637.5	3483.4	3577.2	3777.6	3756.6
57.5°	3537.1	3336.7	3259.0	3417.3	3814.8	4079.8	4195.3	3933.3	3986.6	4071.2	4023.8
60°	3278.4	3079.0	3072.7	3297.5	3872.8	4204.5	4457.2	4329.5	4258.1	4321.0	4231.1
62.5°	2763.1	2623.5	2688.7	2937.1	3657.2	4135.7	4596.8	4750.4	4472.4	4486.5	4358.8
65°	2109.8	1963.4	2065.4	2378.3	3185.9	4058.7	4636.2	4915.0	4468.4	4533.6	4236.4
67.5°	1397.3	1312.4	1427.9	1772.8	2533.0	3582.8	4615.8	4742.2	4326.6	4349.6	3781.9
70°	721.4	700.6	794.1	1066.3	1703.1	2752.5	4415.4	4346.3	4038.6	3747.0	2917.1
72.5°	231.0	232.0	321.9	487.1	918.2	1675.7	3393.9	3488.7	3231.7	2741.0	1781.0
75°	102.3	100.7	134.6	204.4	382.7	751.3	2108.5	2210.8	2012.1	1507.9	748.7
77.5°	73.7	71.4	86.2	119.5	189.6	254.7	988.6	1066.9	912.2	522.6	171.5
80°	52.0	51.7	62.5	83.9	118.5	113.2	312.3	350.2	280.4	126.7	50.4
82.5°	29.3	30.3	43.4	59.2	72.1	56.6	87.9	96.8	94.4	67.5	22.0
85°	14.2	15.8	28.3	42.8	37.8	22.0	31.3	33.9	39.5	39.2	11.2
87.5°	0.0	0.0	11.5	19.4	10.2	3.3	9.5	10.9	10.5	12.5	2.6
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: P367385
 CATALOG NUMBER: MSA-SA2B-830-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0	234.0
2.5°	281.4	279.4	254.4	256.4	262.0	259.7	261.6	257.0	251.8	273.1	272.8
5°	355.7	340.9	333.0	325.8	327.1	312.3	320.9	324.8	324.2	336.3	339.6
7.5°	420.9	401.2	385.4	370.2	347.2	326.5	339.3	347.5	353.1	374.2	382.4
10°	451.5	435.4	429.1	399.5	383.1	370.2	354.8	343.6	348.2	342.6	348.2
12.5°	518.6	507.8	483.8	453.8	434.1	407.7	350.2	302.1	272.5	272.8	270.8
15°	579.9	579.2	543.3	493.6	436.4	361.3	271.5	210.9	183.0	175.1	172.4
17.5°	659.8	650.0	584.5	511.1	408.1	279.7	184.9	144.5	141.8	146.4	144.5
20°	710.8	696.4	604.9	485.7	336.3	189.2	139.5	128.0	135.9	142.5	140.9
22.5°	761.8	740.1	620.3	454.8	239.2	138.5	126.0	124.1	129.0	137.2	138.5
25°	789.8	785.5	650.6	396.9	163.9	121.4	121.4	120.8	122.4	128.3	127.4
27.5°	871.1	813.2	627.9	309.7	126.7	111.6	113.2	112.5	106.6	112.5	112.9
30°	921.8	895.1	629.6	220.5	111.6	98.7	103.0	97.7	88.9	93.8	92.8
32.5°	1023.8	957.3	624.6	148.7	101.7	94.1	87.5	80.0	73.4	75.4	73.7
35°	1142.6	1091.9	557.8	119.5	94.8	83.3	72.7	65.2	58.2	59.9	59.6
37.5°	1378.9	1218.0	502.5	107.6	90.2	76.3	64.2	53.6	50.0	51.0	52.0
40°	1597.7	1428.3	399.5	102.3	82.3	68.1	53.0	45.4	43.1	43.8	44.8
42.5°	1924.9	1595.4	301.8	97.1	74.4	57.6	44.1	39.2	36.9	38.2	38.8
45°	2241.4	1737.6	225.4	92.5	67.8	49.7	37.2	33.9	31.3	32.3	33.6
47.5°	2557.7	1895.6	168.2	85.2	60.6	42.8	31.9	29.6	28.0	28.3	29.9
50°	2840.7	1969.3	132.3	76.3	54.6	37.2	29.0	26.7	26.0	26.3	27.6
52.5°	3048.7	1969.9	111.6	68.5	49.0	32.9	27.3	24.7	24.4	25.0	26.3
55°	3236.6	1917.3	96.8	61.5	44.1	29.9	26.0	23.7	23.7	24.4	25.7
57.5°	3361.3	1820.5	83.9	54.3	39.8	28.3	25.0	22.7	22.4	22.0	23.0
60°	3422.2	1688.6	71.1	47.7	35.9	27.3	24.4	20.1	19.7	19.1	19.7
62.5°	3383.7	1523.4	59.6	41.1	31.9	26.0	21.4	17.4	16.8	15.5	16.5
65°	3186.9	1322.6	50.4	35.2	27.6	22.0	18.1	14.8	13.2	11.5	11.2
67.5°	2784.4	1074.5	42.1	30.3	23.7	18.1	14.8	13.2	10.2	8.9	8.6
70°	2086.8	733.5	34.9	26.0	19.7	15.5	12.5	11.8	9.5	8.6	7.9
72.5°	1224.2	395.9	29.3	22.7	16.8	12.8	10.2	10.9	9.5	7.9	7.2
75°	489.0	131.6	23.4	18.1	13.5	9.2	8.6	8.9	8.6	7.2	5.9
77.5°	111.6	41.5	18.1	14.2	10.5	5.9	6.9	7.6	7.6	5.9	4.3
80°	34.9	16.5	10.5	8.9	7.6	3.3	4.9	5.3	3.6	1.6	0.0
82.5°	11.2	4.6	3.6	3.6	3.3	0.7	1.0	0.7	0.0	0.0	0.0
85°	4.3	3.0	2.3	2.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.6	1.3	1.0	1.3	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)