

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: P367297

Luminaire Tested: **MSA-SA2B-730-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367297
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-730-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: 6699 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

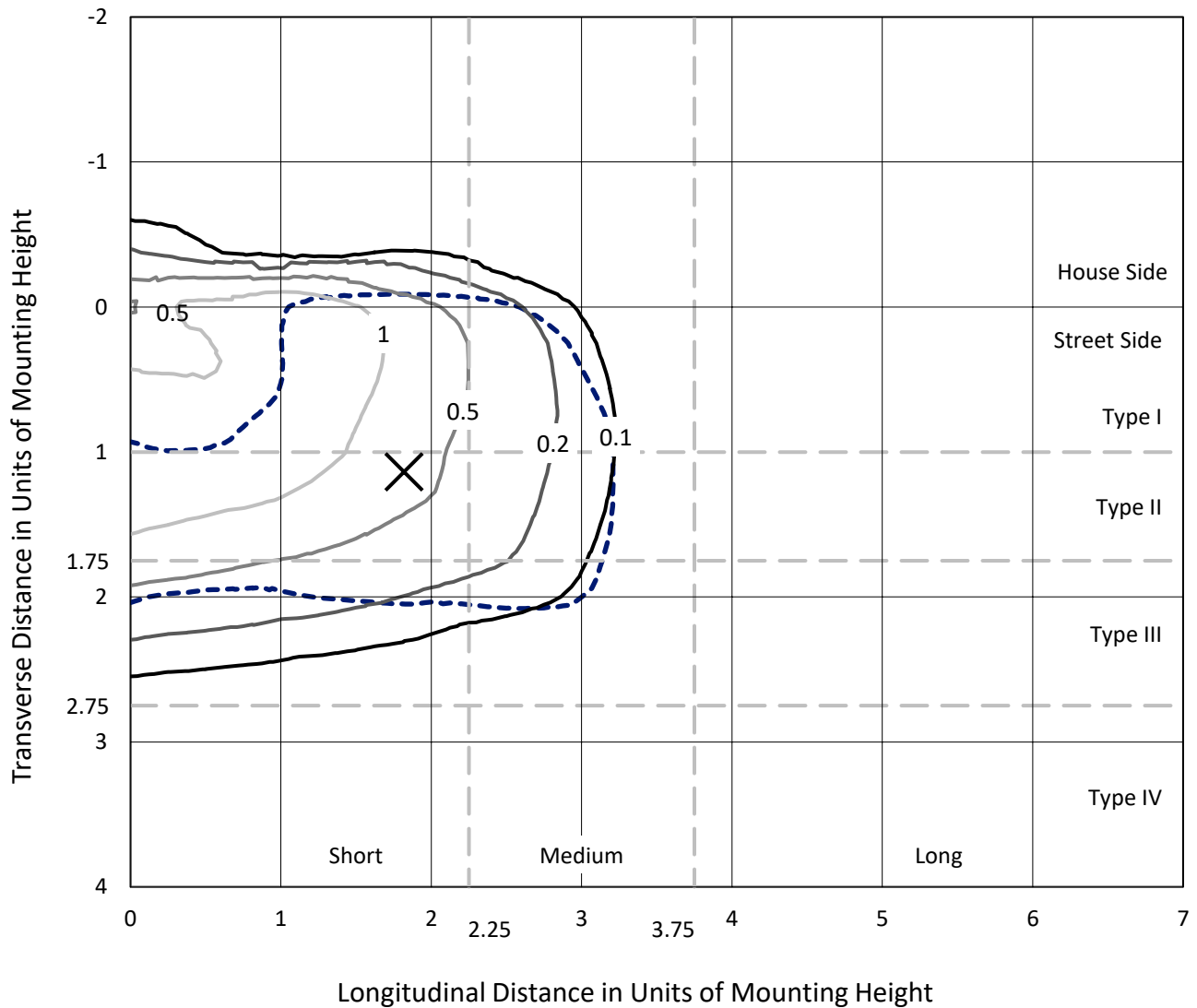
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

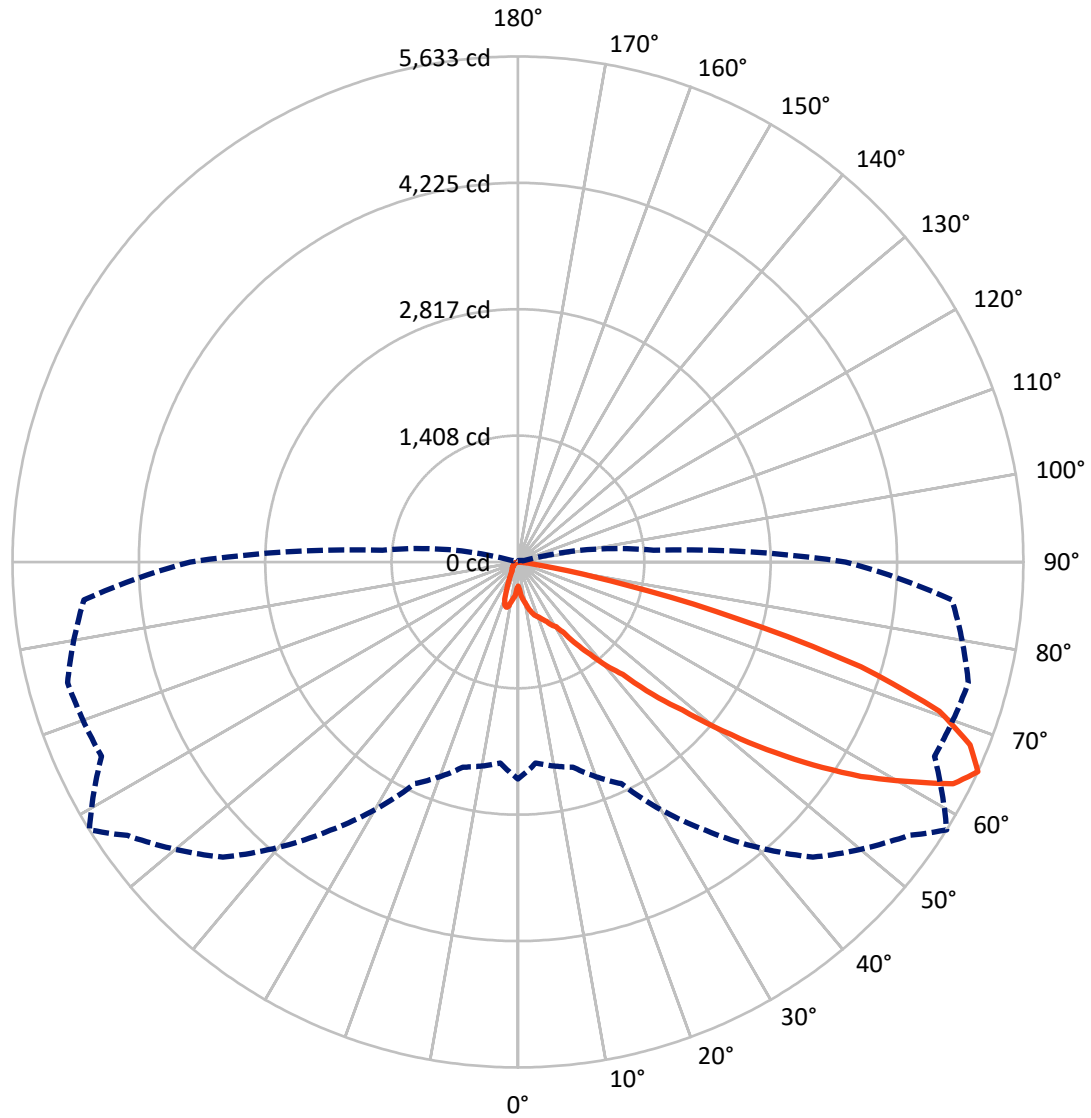
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	661.0	0.0	661.0
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	6038.0	0.0	6038.0
	% Fixture	90.1	0.0	90.1
Total	Lumens	6699.0	0.0	6699.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.7	0.6
10°-20°	137.5	2.1
20°-30°	266.2	4.0
30°-40°	531.1	7.9
40°-50°	1085.7	16.2
50°-60°	1925.6	28.7
60°-70°	2030.2	30.3
70°-80°	658.2	9.8
80°-90°	26.9	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°	6699.0	100.0
0°-180°	6699.0	100.0

Coefficient of Utilization



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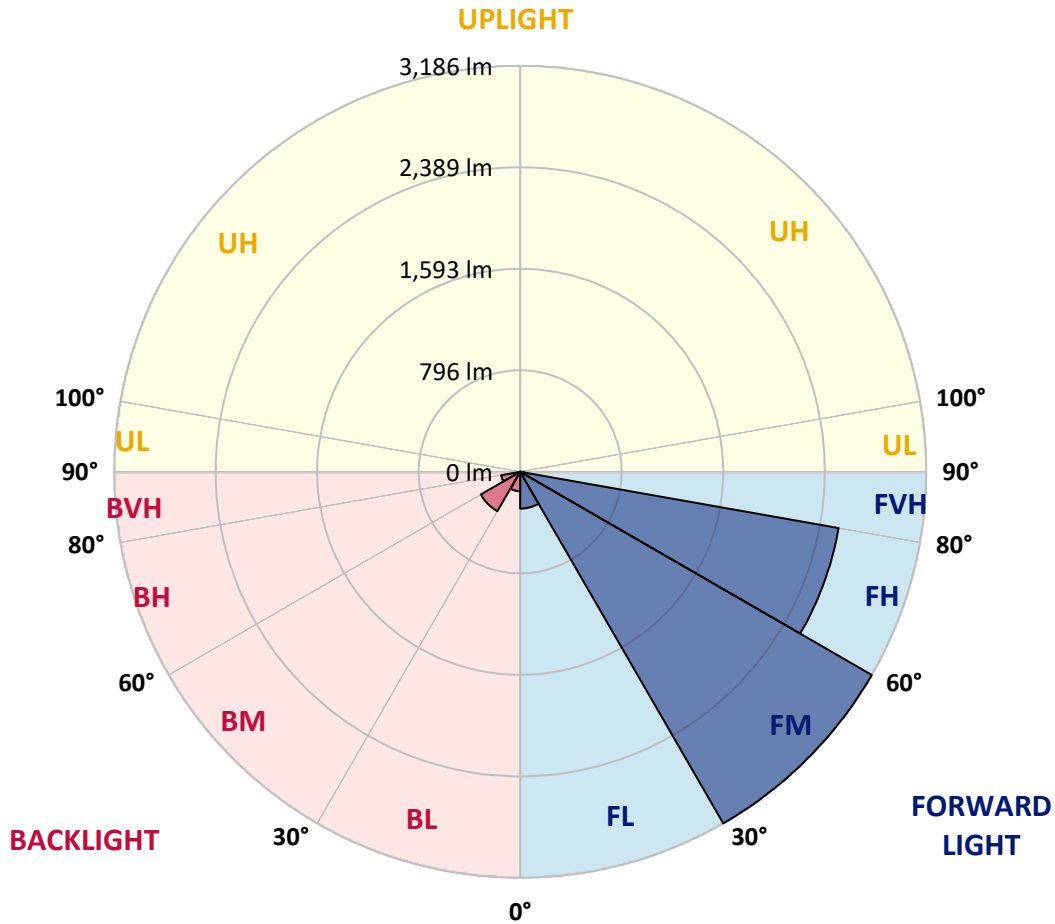
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	289.0	4.3			
FM (30°-60°)	3185.7	47.6			
FH (60°-80°)	2537.5	37.9			G2/5000
FVH (80°-90°)	25.8	0.4			G1/100
BL (0°-30°)	152.4	2.3	B1/500		
BM (30°-60°)	356.6	5.3	B1/1000		
BH (60°-80°)	150.9	2.3	B1/500		G1/500
BVH (80°-90°)	1.1	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2
2.5°	327.4	317.6	302.1	304.8	307.8	313.8	308.9	304.4	299.5	293.1	317.6
5°	395.3	379.1	377.6	374.2	371.5	371.1	377.2	375.3	377.9	390.0	402.4
7.5°	420.2	413.4	400.6	405.8	397.5	391.1	417.9	426.6	443.2	448.8	481.3
10°	417.5	407.7	413.0	415.6	421.3	444.7	461.7	471.1	485.4	516.4	509.9
12.5°	429.6	438.3	443.9	444.3	473.4	516.4	528.4	536.3	562.0	574.1	605.7
15°	470.0	484.3	475.2	479.0	488.4	540.9	569.2	586.5	622.7	661.9	669.9
17.5°	527.7	536.7	517.9	504.3	530.3	559.0	610.3	628.4	651.4	743.0	760.0
20°	600.5	615.9	575.2	521.3	555.6	589.5	645.3	654.0	678.5	798.1	824.9
22.5°	770.6	747.6	685.3	601.2	591.0	606.1	659.3	693.2	734.7	829.0	891.3
25°	938.4	930.5	838.8	744.9	677.0	643.1	713.6	732.5	800.4	902.6	936.9
27.5°	1125.1	1141.0	987.8	930.9	797.7	686.8	747.6	794.7	875.0	929.4	1012.0
30°	1371.4	1346.1	1166.6	1109.6	957.6	807.2	835.4	838.5	956.5	1017.6	1096.1
32.5°	1564.5	1580.7	1355.2	1267.7	1146.2	992.3	901.4	940.7	1025.2	1161.3	1235.6
35°	1773.5	1772.0	1552.1	1434.4	1275.6	1143.6	1097.2	1125.9	1231.9	1386.1	1405.7
37.5°	2085.8	2059.0	1799.5	1627.1	1492.1	1379.3	1343.9	1305.8	1415.2	1562.3	1635.8
40°	2380.4	2287.9	2048.1	1843.6	1670.9	1624.9	1496.6	1520.0	1552.5	1746.7	1950.0
42.5°	2677.9	2620.6	2300.0	2128.8	1916.4	1807.0	1723.3	1712.4	1866.6	2096.7	2306.8
45°	3070.6	2895.2	2638.7	2488.2	2242.3	2132.5	2065.0	2105.4	2244.2	2580.3	2720.2
47.5°	3400.2	3238.8	3018.5	2790.0	2532.0	2655.3	2528.6	2464.8	2655.3	3002.7	3188.6
50°	3683.5	3503.6	3280.7	3111.3	3069.4	3187.9	2931.4	2954.8	3078.5	3486.6	3591.5
52.5°	3889.4	3700.1	3505.5	3423.6	3595.2	3654.8	3526.2	3474.5	3586.9	3899.2	3950.2
55°	4044.4	3850.6	3698.6	3811.4	4143.3	4123.7	4168.9	3992.4	4099.9	4329.6	4305.5
57.5°	4053.9	3824.2	3735.2	3916.6	4372.2	4675.8	4808.2	4508.0	4569.1	4666.0	4611.7
60°	3757.4	3528.8	3521.7	3779.3	4438.6	4818.8	5108.5	4962.1	4880.3	4952.3	4849.3
62.5°	3166.8	3006.8	3081.5	3366.3	4191.5	4740.0	5268.4	5444.5	5125.8	5142.0	4995.7
65°	2418.1	2250.2	2367.1	2725.8	3651.4	4651.7	5313.6	5633.1	5121.3	5196.0	4855.4
67.5°	1601.5	1504.2	1636.6	2031.8	2903.1	4106.3	5290.3	5435.1	4958.7	4985.1	4334.5
70°	826.8	803.0	910.1	1222.0	1951.9	3154.7	5060.6	4981.3	4628.7	4294.5	3343.3
72.5°	264.8	265.9	368.9	558.2	1052.3	1920.6	3889.8	3998.4	3703.9	3141.5	2041.3
75°	117.3	115.4	154.3	234.2	438.7	861.1	2416.6	2533.9	2306.0	1728.2	858.1
77.5°	84.5	81.8	98.8	136.9	217.3	291.9	1133.0	1222.8	1045.5	599.0	196.5
80°	59.6	59.2	71.7	96.2	135.8	129.7	357.9	401.3	321.4	145.2	57.7
82.5°	33.6	34.7	49.8	67.9	82.6	64.9	100.7	110.9	108.2	77.3	25.3
85°	16.2	18.1	32.4	49.0	43.4	25.3	35.8	38.8	45.3	44.9	12.8
87.5°	0.0	0.0	13.2	22.3	11.7	3.8	10.9	12.4	12.1	14.3	3.0
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°	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2	268.2
2.5°	322.5	320.2	291.6	293.8	300.2	297.6	299.9	294.6	288.5	313.1	312.7
5°	407.7	390.8	381.7	373.4	374.9	357.9	367.7	372.3	371.5	385.5	389.2
7.5°	482.4	459.8	441.7	424.3	397.9	374.2	388.9	398.3	404.7	428.8	438.3
10°	517.5	499.0	491.8	457.9	439.0	424.3	406.6	393.8	399.1	392.6	399.1
12.5°	594.4	582.0	554.4	520.1	497.5	467.3	401.3	346.2	312.3	312.7	310.4
15°	664.6	663.8	622.7	565.8	500.1	414.1	311.2	241.8	209.7	200.7	197.6
17.5°	756.2	744.9	669.9	585.8	467.7	320.6	212.0	165.6	162.6	167.8	165.6
20°	814.7	798.1	693.2	556.7	385.5	216.9	159.9	146.7	155.8	163.3	161.4
22.5°	873.2	848.3	711.0	521.3	274.2	158.8	144.5	142.2	147.9	157.3	158.8
25°	905.2	900.3	745.7	454.9	187.8	139.2	139.2	138.4	140.3	147.1	146.0
27.5°	998.4	932.0	719.6	354.9	145.2	127.9	129.7	129.0	122.2	129.0	129.4
30°	1056.5	1025.9	721.5	252.7	127.9	113.2	118.1	112.0	101.8	107.5	106.4
32.5°	1173.4	1097.2	715.9	170.5	116.5	107.9	100.3	91.7	84.1	86.4	84.5
35°	1309.6	1251.5	639.3	136.9	108.6	95.4	83.4	74.7	66.8	68.6	68.3
37.5°	1580.4	1395.9	575.9	123.3	103.3	87.5	73.5	61.5	57.3	58.5	59.6
40°	1831.2	1636.9	457.9	117.3	94.3	78.1	60.7	52.1	49.4	50.2	51.3
42.5°	2206.1	1828.5	345.9	111.3	85.2	66.0	50.5	44.9	42.2	43.8	44.5
45°	2568.9	1991.5	258.4	106.0	77.7	57.0	42.6	38.8	35.8	37.0	38.5
47.5°	2931.4	2172.5	192.7	97.7	69.4	49.0	36.6	33.9	32.1	32.4	34.3
50°	3255.8	2257.0	151.6	87.5	62.6	42.6	33.2	30.6	29.8	30.2	31.7
52.5°	3494.1	2257.8	127.9	78.5	56.2	37.7	31.3	28.3	27.9	28.7	30.2
55°	3709.5	2197.4	110.9	70.5	50.5	34.3	29.8	27.2	27.2	27.9	29.4
57.5°	3852.5	2086.5	96.2	62.2	45.6	32.4	28.7	26.0	25.6	25.3	26.4
60°	3922.2	1935.3	81.5	54.7	41.1	31.3	27.9	23.0	22.6	21.9	22.6
62.5°	3878.1	1745.9	68.3	47.1	36.6	29.8	24.5	20.0	19.2	17.7	18.9
65°	3652.6	1515.9	57.7	40.4	31.7	25.3	20.7	17.0	15.1	13.2	12.8
67.5°	3191.3	1231.5	48.3	34.7	27.2	20.7	17.0	15.1	11.7	10.2	9.8
70°	2391.7	840.7	40.0	29.8	22.6	17.7	14.3	13.6	10.9	9.8	9.1
72.5°	1403.1	453.7	33.6	26.0	19.2	14.7	11.7	12.4	10.9	9.1	8.3
75°	560.5	150.9	26.8	20.7	15.5	10.6	9.8	10.2	9.8	8.3	6.8
77.5°	127.9	47.5	20.7	16.2	12.1	6.8	7.9	8.7	8.7	6.8	4.9
80°	40.0	18.9	12.1	10.2	8.7	3.8	5.7	6.0	4.1	1.9	0.0
82.5°	12.8	5.3	4.1	4.1	3.8	0.8	1.1	0.8	0.0	0.0	0.0
85°	4.9	3.4	2.6	2.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.9	1.5	1.1	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)