

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: P596877

Luminaire Tested: **MSA-SA1C-835-U-SL3-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596877  
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-SA1C-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: 4246 lumens  
Efficiency: N/A  
Efficacy: 72.0 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

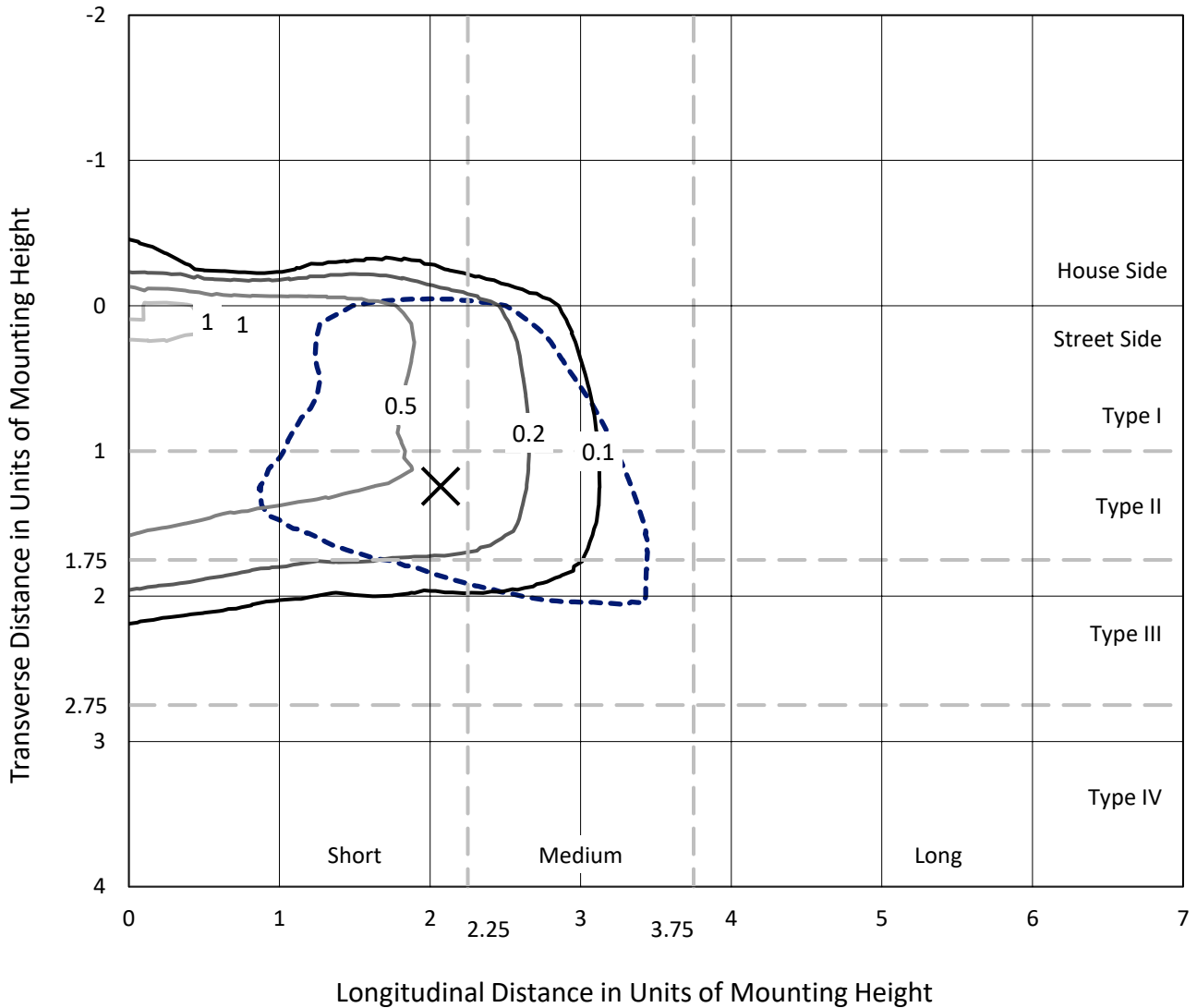
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

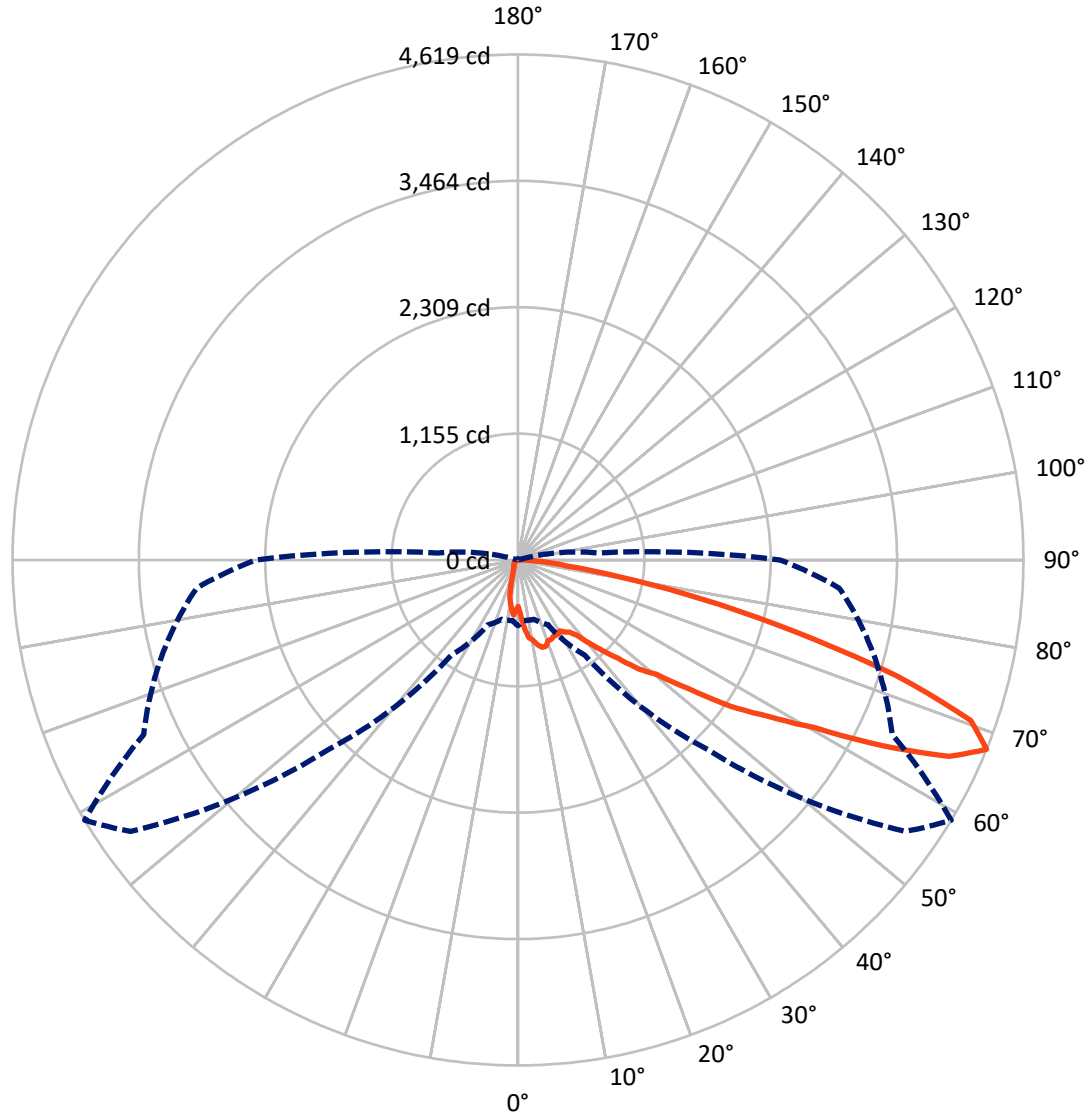
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 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
<b>House Side</b>	Lumens	361.1	0.0	361.1
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	3884.9	0.0	3884.9
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	4246.0	0.0	4246.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.7	1.2
10°-20°	145.4	3.4
20°-30°	216.3	5.1
30°-40°	333.8	7.9
40°-50°	595.7	14.0
50°-60°	1060.0	25.0
60°-70°	1234.5	29.1
70°-80°	549.0	12.9
80°-90°	59.6	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°	4246.0	100.0
0°-180°	4246.0	100.0

**Coefficient of Utilization**



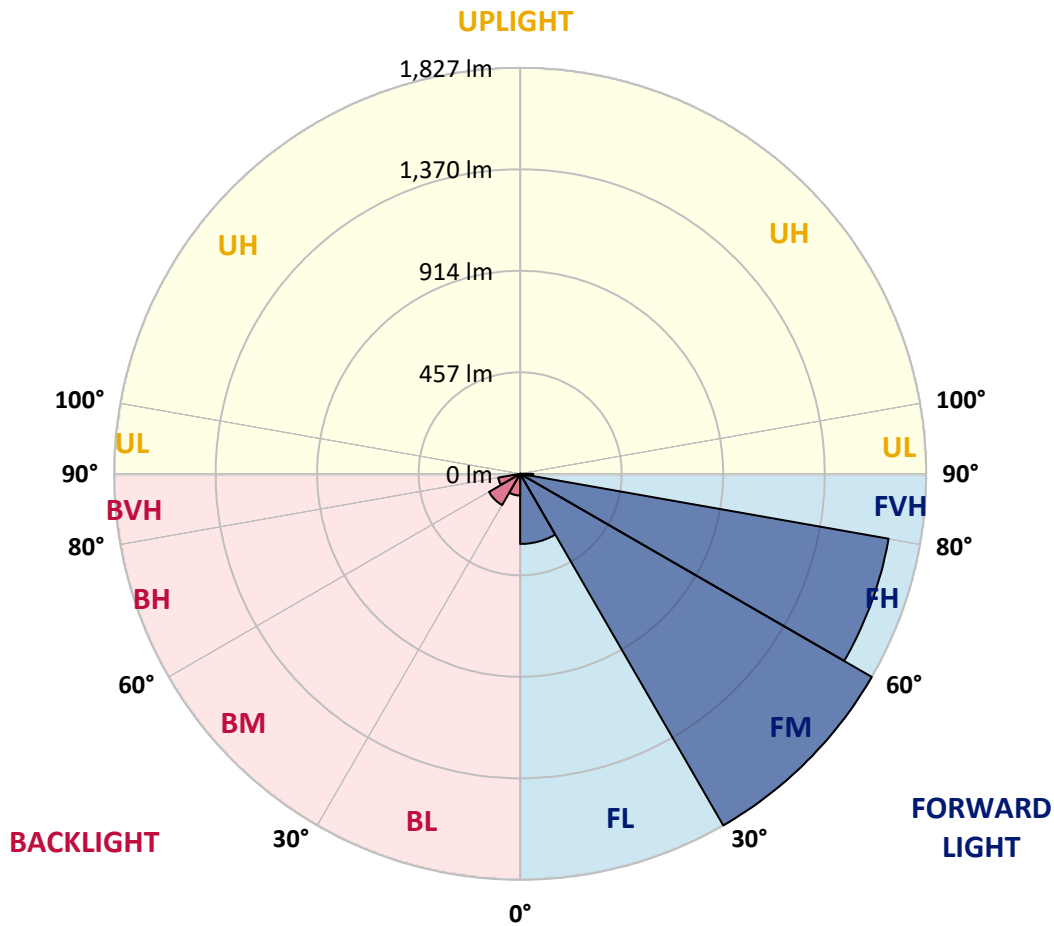
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	315.8	7.4			
FM (30°-60°)	1827.1	43.0			
FH (60°-80°)	1683.5	39.6			G1/1800
FVH (80°-90°)	58.6	1.4			G1/100
BL (0°-30°)	97.7	2.3	B0/110		
BM (30°-60°)	162.4	3.8	B0/220		
BH (60°-80°)	100.0	2.4	B0/110		G0/110
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: 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°	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8
2.5°	553.8	533.0	503.3	512.1	520.1	527.6	515.1	508.0	504.6	474.1	512.3
5°	680.0	654.0	640.5	637.0	628.4	609.3	641.1	626.9	631.6	637.7	650.1
7.5°	718.5	706.7	687.1	694.4	661.7	659.0	703.0	715.3	731.4	720.4	735.5
10°	698.7	678.3	687.5	685.0	683.7	712.5	743.4	744.1	768.2	779.8	728.8
12.5°	659.6	662.0	695.1	692.5	735.5	793.1	800.2	792.7	832.0	811.8	804.1
15°	685.6	705.0	686.7	692.9	708.2	780.2	805.4	828.6	865.8	877.8	825.6
17.5°	717.0	718.9	685.6	677.9	716.4	749.9	809.2	828.4	832.0	937.6	873.9
20°	700.0	716.6	676.8	628.0	687.8	733.3	793.5	787.5	812.0	955.2	884.9
22.5°	745.2	721.5	670.6	633.8	654.0	695.5	746.5	785.8	822.6	913.1	899.1
25°	749.5	740.9	695.5	662.8	659.4	669.9	740.9	766.2	823.9	950.9	887.1
27.5°	797.8	787.9	695.1	698.3	666.0	633.6	713.8	773.3	847.3	927.9	912.6
30°	860.2	861.0	741.3	751.4	705.4	653.1	735.9	752.3	863.2	964.7	931.6
32.5°	923.4	949.4	832.7	779.1	764.7	727.3	708.4	783.9	845.8	1027.5	978.9
35°	1019.5	1037.1	907.9	860.0	803.4	760.9	783.2	810.3	908.3	1110.7	1041.0
37.5°	1182.2	1150.4	1042.9	959.5	946.0	883.2	894.4	870.1	972.2	1208.7	1164.0
40°	1273.8	1245.0	1133.2	1092.6	1006.2	1015.8	980.6	994.8	1064.9	1310.8	1276.0
42.5°	1369.3	1341.8	1243.7	1214.9	1132.6	1092.6	1076.7	1127.6	1207.0	1480.9	1436.6
45°	1465.2	1395.3	1353.8	1368.2	1331.2	1252.1	1233.6	1279.0	1362.2	1689.8	1606.0
47.5°	1546.0	1487.1	1455.9	1449.3	1434.9	1544.7	1469.5	1489.5	1526.2	1874.7	1817.1
50°	1691.8	1633.7	1584.9	1571.4	1641.5	1797.3	1681.2	1642.5	1716.1	2098.1	2061.8
52.5°	1902.3	1828.3	1750.7	1750.9	1883.1	1968.7	2023.7	1955.8	1969.5	2343.9	2327.7
55°	2071.5	1977.5	1913.2	1964.0	2161.1	2209.1	2419.1	2359.5	2341.7	2571.7	2552.0
57.5°	2094.7	1982.0	1951.5	2040.5	2310.3	2616.5	2842.4	2693.6	2666.3	2762.4	2801.8
60°	1878.0	1758.4	1781.4	1924.6	2358.9	2864.8	3231.1	3109.7	2936.2	2985.8	3012.9
62.5°	1400.7	1305.2	1369.7	1559.3	2171.6	3031.2	3681.1	3737.4	3249.2	3153.5	3147.7
65°	908.8	849.0	891.4	1046.8	1643.4	3012.3	4083.1	4327.4	3495.8	3290.3	3190.1
67.5°	601.1	555.8	561.8	653.8	1062.7	2449.8	4323.5	4618.7	3773.1	3367.9	2947.3
70°	448.0	412.4	414.5	464.4	630.8	1615.7	3988.3	4388.9	3874.4	3098.9	2378.9
72.5°	323.1	299.3	319.3	374.7	502.7	854.4	2972.7	3614.5	3378.4	2444.3	1602.8
75°	223.8	208.1	240.8	313.5	458.8	530.4	1964.4	2601.8	2367.9	1533.5	724.5
77.5°	124.1	119.3	166.4	255.4	416.4	434.7	1203.3	1709.6	1313.4	549.7	172.4
80°	54.2	52.5	80.6	191.8	350.0	392.8	677.4	947.9	516.6	98.0	55.7
82.5°	23.2	22.4	34.4	115.5	254.3	328.5	417.7	456.2	177.8	30.3	31.6
85°	4.1	4.5	13.8	60.8	154.8	166.8	302.5	270.0	89.4	14.4	22.6
87.5°	0.0	0.0	2.1	11.8	29.0	47.7	131.1	94.6	17.0	4.7	3.9
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°	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8	424.8
2.5°	517.7	505.7	459.9	454.1	447.8	438.6	435.1	415.4	412.8	438.2	438.2
5°	644.3	601.3	557.7	523.3	492.5	450.0	437.9	425.5	415.4	412.8	420.7
7.5°	711.2	658.7	590.2	502.7	431.7	370.0	344.2	326.1	305.9	312.0	315.2
10°	707.5	651.9	564.4	451.9	373.2	305.1	239.5	201.2	179.9	169.4	168.1
12.5°	743.4	691.0	546.9	411.5	311.1	216.9	150.7	123.4	107.7	107.9	106.6
15°	764.3	707.1	526.7	360.3	219.1	139.5	104.5	98.5	96.3	98.7	97.4
17.5°	801.1	724.1	480.9	284.0	150.7	105.3	96.1	93.7	96.5	101.5	100.2
20°	798.3	694.6	415.8	200.2	111.4	94.8	90.9	87.3	93.1	98.3	97.4
22.5°	795.7	665.8	354.5	147.7	93.1	86.4	83.2	81.7	84.7	90.7	92.0
25°	772.9	651.6	292.4	110.9	84.3	78.5	77.0	75.7	76.8	81.7	81.5
27.5°	800.8	615.7	225.7	93.1	78.0	71.2	69.9	67.7	65.6	69.9	70.5
30°	795.0	620.7	176.9	81.9	71.8	62.6	63.0	58.5	54.6	58.5	58.5
32.5°	816.1	584.6	141.7	74.4	65.6	58.9	53.5	48.8	46.0	48.4	48.8
35°	846.9	586.1	110.9	69.7	60.2	52.5	46.0	41.3	38.7	39.8	40.4
37.5°	949.8	575.8	92.7	66.0	58.3	48.6	41.9	35.7	34.0	35.3	35.9
40°	1016.9	603.3	81.7	64.1	53.3	44.7	35.9	31.4	29.9	30.5	31.6
42.5°	1143.3	618.5	76.3	61.9	48.8	38.3	30.7	28.2	26.0	26.9	27.7
45°	1278.6	644.5	72.2	59.6	45.4	33.5	27.1	24.9	22.1	22.4	23.2
47.5°	1444.8	706.5	67.5	55.5	40.6	30.5	24.1	20.9	18.3	18.1	19.1
50°	1667.9	789.2	63.2	50.3	37.6	27.9	21.1	17.0	14.8	14.2	15.0
52.5°	1906.1	896.3	58.7	46.7	34.0	24.5	18.1	13.8	11.8	11.4	12.0
55°	2142.2	999.1	54.4	44.3	30.1	21.1	15.3	11.4	9.7	9.2	9.7
57.5°	2411.1	1110.2	48.8	39.6	26.4	18.3	12.7	9.5	8.0	7.5	7.7
60°	2613.7	1149.4	44.1	34.4	23.0	16.1	10.7	7.5	6.4	6.0	6.2
62.5°	2709.8	1085.5	39.6	29.9	20.2	14.0	9.0	6.2	5.4	4.9	4.9
65°	2684.8	944.0	35.0	25.6	17.4	11.6	7.1	5.4	4.7	4.1	3.9
67.5°	2396.7	738.7	29.9	21.5	14.6	9.5	6.0	5.2	4.3	3.9	3.2
70°	1900.8	534.9	24.3	17.8	12.3	7.7	4.7	4.7	4.1	3.9	3.0
72.5°	1245.9	336.7	19.8	14.4	10.1	6.0	3.7	4.3	3.9	3.9	2.8
75°	539.8	120.4	15.9	11.6	8.4	4.1	3.2	3.9	4.1	3.9	3.2
77.5°	126.4	37.4	12.5	9.2	6.9	2.8	3.2	3.9	4.1	3.7	2.8
80°	47.5	15.9	8.2	6.0	5.4	1.7	2.8	2.4	2.1	1.5	0.4
82.5°	28.8	6.7	4.3	3.0	2.6	0.4	1.3	0.9	0.4	0.4	0.0
85°	20.4	3.2	2.4	2.1	1.3	0.0	0.2	0.0	0.0	0.2	0.0
87.5°	2.8	0.9	1.1	1.1	0.9	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)