

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: P597111

Luminaire Tested: **MSA-SA4A-835-U-T4W-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597111
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-SA4A-835-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) 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: 9636 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

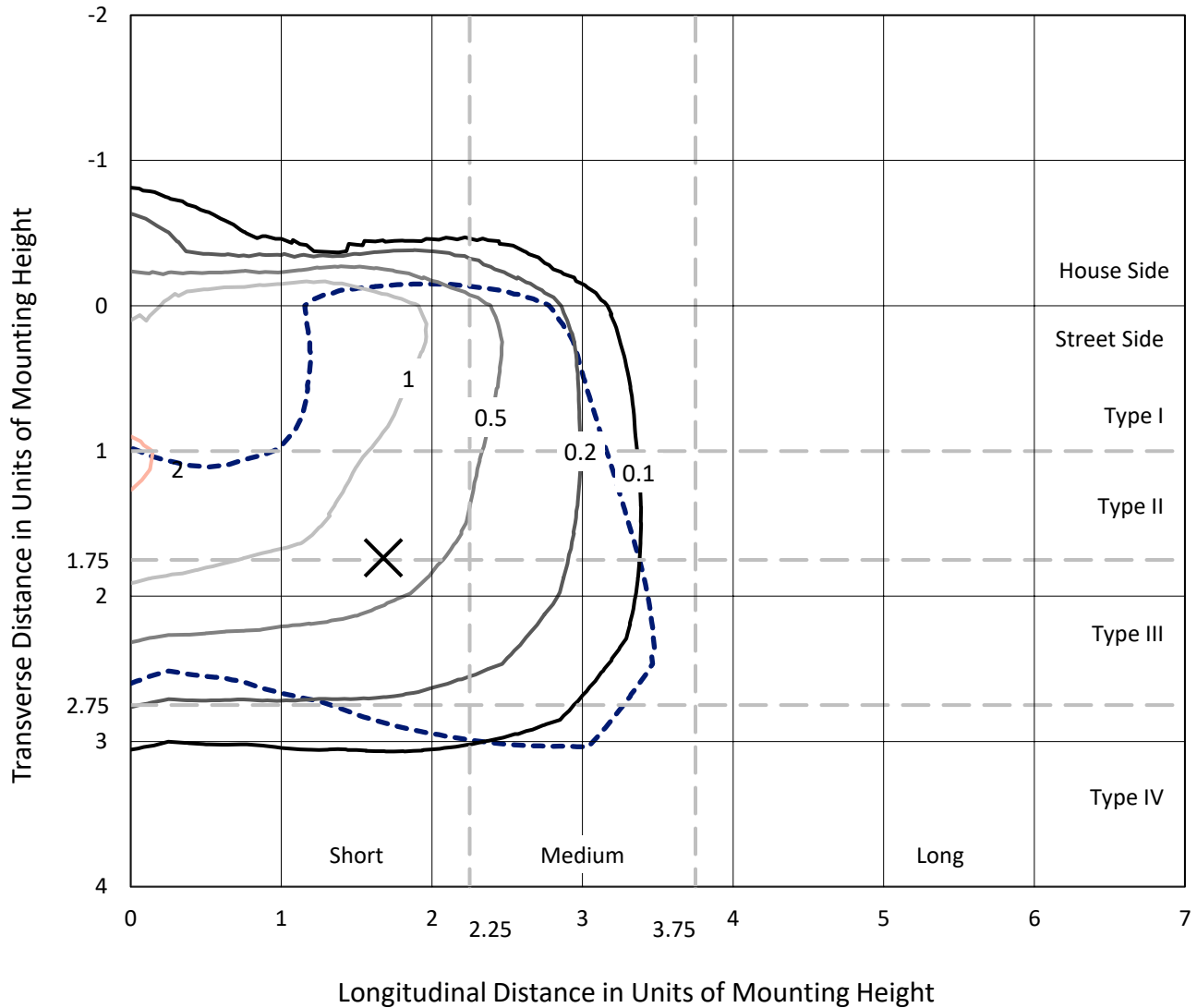
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

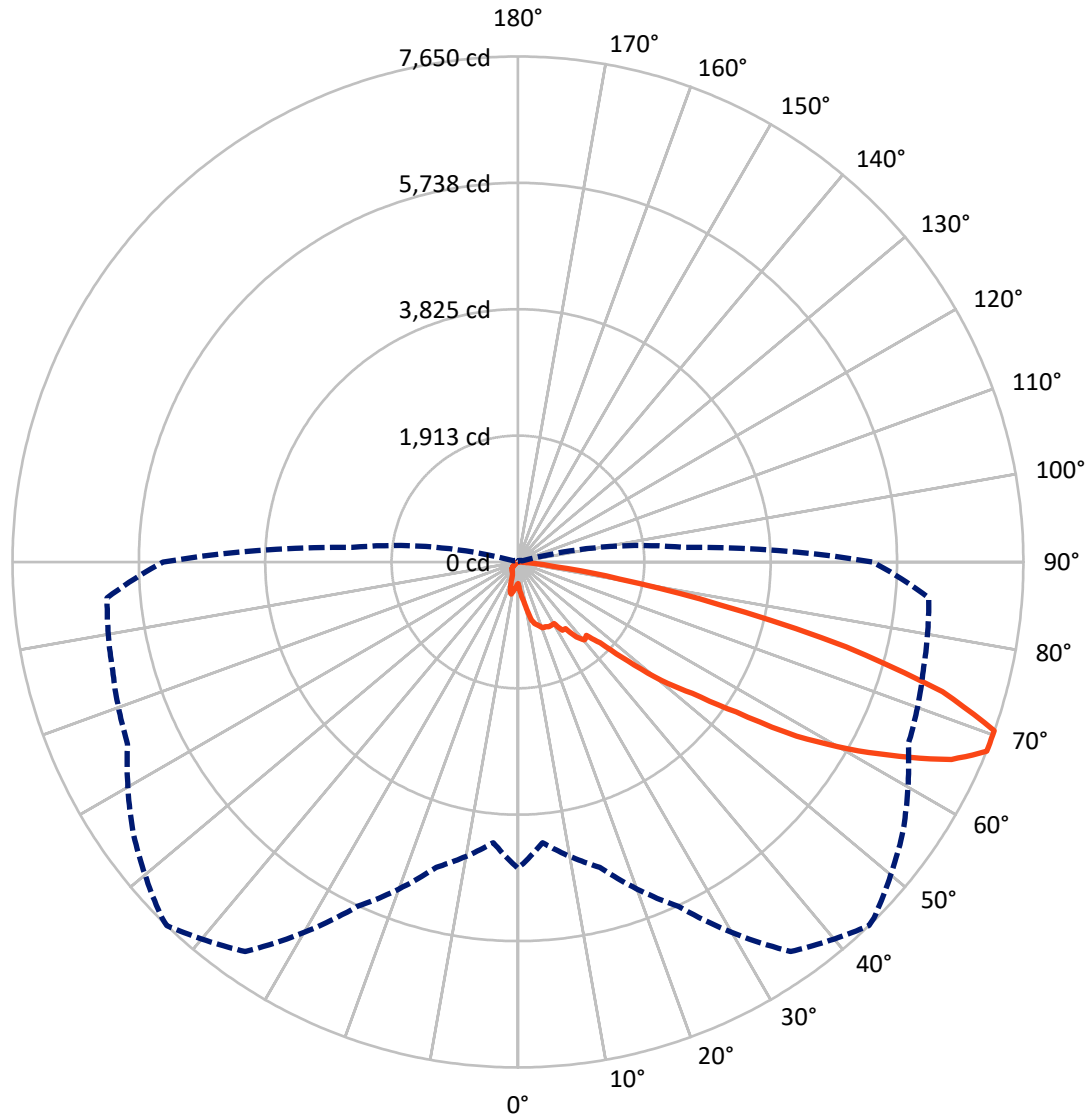
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 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	978.8	0.0	978.8
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	8657.2	0.0	8657.2
	% Fixture	89.8	0.0	89.8
Total	Lumens	9636.0	0.0	9636.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	0.5
10°-20°	201.5	2.1
20°-30°	356.9	3.7
30°-40°	580.1	6.0
40°-50°	1160.8	12.0
50°-60°	2381.4	24.7
60°-70°	3271.3	33.9
70°-80°	1537.6	16.0
80°-90°	98.5	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°	9636.0	100.0
0°-180°	9636.0	100.0

Coefficient of Utilization



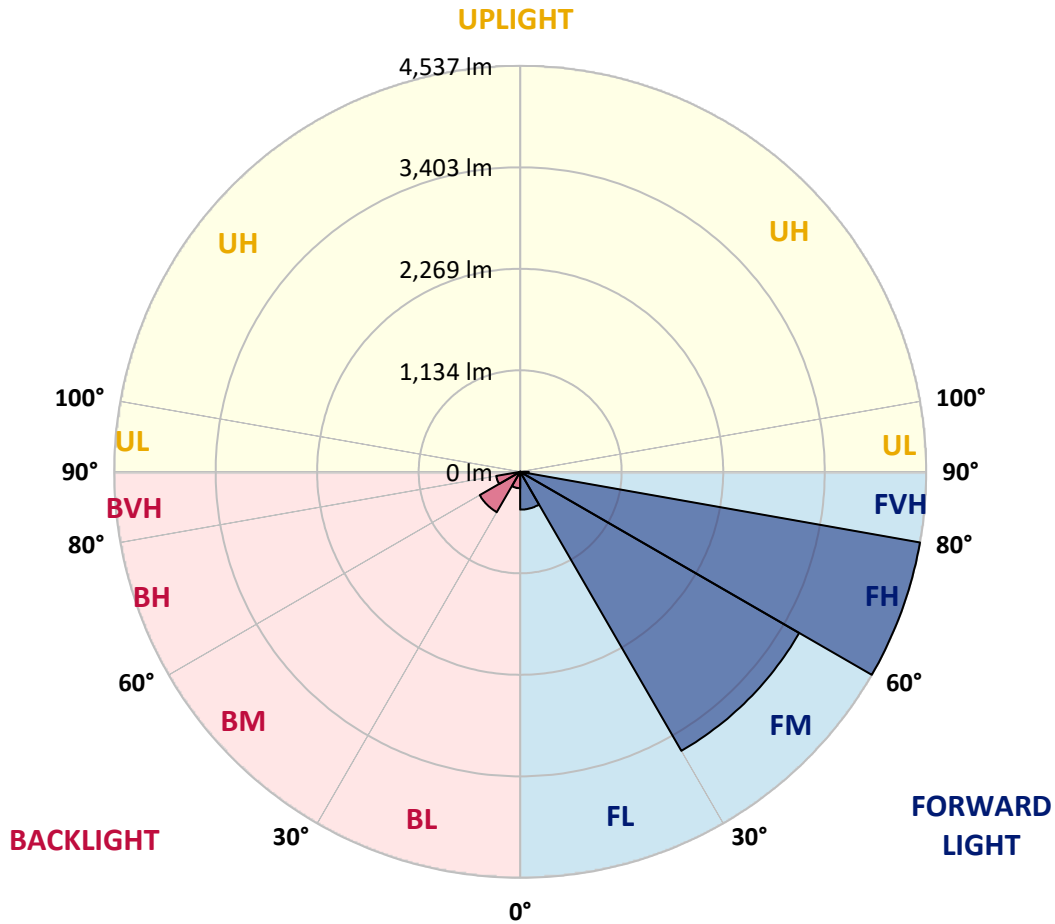
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	422.7	4.4			
FM (30°-60°)	3600.8	37.4			
FH (60°-80°)	4537.2	47.1			G2/5000
FVH (80°-90°)	96.5	1.0			G1/100
BL (0°-30°)	183.8	1.9	B1/500		
BM (30°-60°)	521.4	5.4	B1/1000		
BH (60°-80°)	271.6	2.8	B1/500		G1/500
BVH (80°-90°)	2.0	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7
2.5°	412.9	399.6	380.4	384.7	386.8	392.7	393.2	385.8	364.5	358.7	384.7
5°	578.6	546.2	540.4	528.2	503.7	490.4	487.2	500.5	483.5	478.2	485.1
7.5°	739.1	711.5	681.2	664.7	613.7	582.4	580.8	586.1	589.3	570.7	580.2
10°	845.9	815.6	809.2	770.5	726.4	718.9	715.7	695.5	679.1	665.3	619.0
12.5°	942.6	942.1	953.8	898.0	891.1	898.5	895.9	823.6	807.1	749.2	735.9
15°	1071.2	1103.1	1052.6	1005.8	946.3	971.8	964.9	918.7	907.5	868.2	811.4
17.5°	1204.6	1213.1	1128.6	1056.9	1041.4	1008.0	1014.9	998.4	942.1	973.4	917.1
20°	1207.8	1226.4	1136.0	1017.5	1064.8	1063.2	1063.8	1047.8	973.4	1046.8	995.2
22.5°	1252.4	1206.7	1122.7	1047.3	1055.8	1063.8	1072.3	1052.6	1036.7	1054.7	1064.3
25°	1234.3	1216.3	1135.5	1085.6	1077.6	1084.0	1086.1	1111.1	1101.0	1144.5	1120.6
27.5°	1281.1	1255.1	1110.5	1119.6	1091.4	1084.0	1071.2	1154.6	1184.4	1149.8	1213.6
30°	1361.3	1357.6	1153.6	1166.8	1145.1	1079.7	1113.7	1222.6	1259.8	1238.6	1316.2
32.5°	1486.7	1499.5	1279.5	1193.4	1204.6	1233.8	1221.0	1222.6	1316.7	1364.0	1425.6
35°	1664.7	1657.8	1402.2	1294.4	1235.9	1240.7	1258.8	1345.4	1467.1	1463.9	1529.2
37.5°	2014.4	1938.9	1619.6	1397.5	1415.0	1438.9	1425.6	1542.0	1553.7	1557.9	1714.1
40°	2529.8	2429.3	1962.3	1614.8	1445.8	1551.5	1545.2	1573.9	1652.0	1681.2	1909.1
42.5°	3208.8	3073.9	2565.4	2014.4	1594.6	1521.8	1561.1	1615.3	1877.8	1961.2	2211.0
45°	3959.1	3686.0	3166.9	2584.0	1967.6	1741.8	1771.5	1872.5	2236.5	2374.6	2650.4
47.5°	4445.3	4205.1	3762.5	3088.7	2356.5	2238.1	2240.7	2262.5	2657.8	2913.9	3283.8
50°	4867.7	4612.1	4201.4	3616.4	3044.6	2820.4	2769.4	2669.0	3194.5	3544.6	3954.8
52.5°	5463.9	5165.3	4640.3	4235.4	3829.5	3301.3	3283.2	3317.2	3827.3	4195.6	4643.0
55°	6001.6	5638.7	5137.6	4882.6	4724.2	4008.0	4023.4	4080.2	4639.8	4834.8	5255.1
57.5°	6239.1	5845.9	5588.2	5473.5	5389.0	4973.5	4921.4	4887.4	5280.6	5355.0	5896.4
60°	6394.8	6020.7	5903.8	5930.4	6186.5	5745.5	5698.2	5500.6	5810.9	5872.0	6471.3
62.5°	6296.5	5955.4	5980.4	6201.9	6770.5	6480.4	6343.8	6013.3	6244.4	6293.9	6884.2
65°	5677.5	5322.0	5643.0	6179.1	7215.8	7208.8	7145.6	6486.7	6484.6	6547.8	6916.1
67.5°	4637.6	4264.6	4783.8	5750.8	7197.2	7650.4	7620.6	7114.8	6519.2	6350.2	6241.3
70°	3224.2	2900.6	3489.4	4749.2	6555.8	7647.2	7599.4	7536.7	6246.0	5466.0	4839.0
72.5°	1675.4	1497.3	2045.7	3272.6	5225.8	6718.9	6876.8	6773.7	5333.2	3971.3	2849.6
75°	569.1	510.6	843.8	1737.0	3474.0	5130.7	5315.6	5211.0	3622.2	2130.7	1127.0
77.5°	220.5	205.1	302.3	705.1	1742.8	3126.5	3327.3	3220.5	1942.6	780.6	265.1
80°	125.4	121.1	166.8	317.7	768.3	1555.3	1696.6	1538.8	700.3	263.0	69.1
82.5°	53.1	54.7	93.0	171.6	386.3	548.9	612.1	558.5	293.3	180.1	25.5
85°	11.7	14.3	44.1	95.6	162.1	156.7	164.2	182.3	180.1	132.3	11.2
87.5°	0.0	0.0	13.8	26.0	38.8	25.5	20.2	35.6	55.3	53.1	4.8
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°	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7
2.5°	389.5	384.2	350.7	348.6	350.7	344.8	344.3	332.1	333.2	360.8	362.9
5°	485.1	458.6	429.9	420.8	412.3	393.2	403.8	403.8	403.8	421.4	426.7
7.5°	571.7	536.1	495.8	461.7	428.8	404.9	421.4	433.1	440.0	462.8	473.4
10°	611.1	576.0	539.9	491.5	466.0	457.0	437.8	427.7	440.0	435.2	441.0
12.5°	695.0	663.1	601.0	551.0	531.9	501.1	444.7	405.4	379.4	375.1	374.1
15°	776.8	757.2	673.8	606.8	540.4	469.2	373.0	320.9	293.3	288.5	289.1
17.5°	880.4	852.3	729.5	633.4	520.7	392.7	288.0	243.4	241.2	252.9	254.0
20°	949.5	903.3	757.7	611.6	455.9	297.0	225.3	214.7	231.7	252.9	250.8
22.5°	1015.4	965.5	794.9	592.5	353.3	225.3	207.2	208.3	222.6	245.5	251.3
25°	1059.0	1040.9	840.6	547.8	269.4	195.0	198.2	206.2	218.4	240.2	240.2
27.5°	1190.2	1105.7	835.3	461.2	207.2	181.7	189.2	199.3	205.6	231.7	234.3
30°	1269.9	1242.3	862.9	373.0	181.7	164.7	179.1	188.1	192.3	222.1	223.2
32.5°	1367.7	1306.6	896.4	275.2	169.0	163.7	160.5	167.4	179.6	205.6	207.2
35°	1486.7	1468.7	848.6	216.3	164.7	153.0	146.7	150.4	158.3	175.9	179.6
37.5°	1729.5	1622.2	819.9	185.4	164.7	149.3	142.4	132.8	133.9	146.1	153.0
40°	1934.1	1901.2	739.6	180.1	157.3	144.0	127.0	115.3	107.3	111.1	113.7
42.5°	2309.8	2157.3	636.0	177.5	150.4	130.2	107.9	95.6	83.4	84.5	88.7
45°	2765.7	2436.8	543.6	174.8	145.6	116.4	90.9	76.5	63.8	64.3	68.5
47.5°	3374.6	2844.3	431.5	166.8	137.1	103.6	73.3	58.4	51.0	52.6	56.3
50°	4066.4	3201.9	341.1	154.6	127.0	91.4	59.5	47.3	44.6	46.2	50.5
52.5°	4684.4	3465.5	281.6	143.5	112.6	74.4	49.9	42.0	40.9	42.0	45.2
55°	5233.8	3618.5	235.4	130.7	96.7	60.0	45.2	38.8	38.3	37.7	39.9
57.5°	5749.2	3662.6	183.8	110.5	78.6	52.1	42.0	36.1	35.1	33.5	35.1
60°	6124.9	3587.2	135.0	88.7	64.3	47.3	39.3	32.4	30.8	28.2	29.2
62.5°	6306.1	3380.5	102.0	71.2	54.7	43.0	35.1	28.2	26.0	22.8	23.4
65°	6133.9	3039.9	80.2	60.0	46.8	36.1	29.8	23.9	21.3	18.1	18.1
67.5°	5371.4	2521.8	68.0	52.1	39.3	30.8	24.4	21.8	17.5	14.9	14.3
70°	3942.6	1814.0	58.4	45.7	34.0	26.6	20.7	19.7	17.0	14.3	13.3
72.5°	2225.3	1026.6	49.9	40.4	28.7	22.3	17.5	18.1	16.5	13.3	12.2
75°	849.1	345.9	41.4	33.5	23.4	17.0	14.9	14.9	14.9	11.2	9.6
77.5°	210.4	88.2	32.9	27.1	18.6	11.2	12.2	12.8	12.8	9.6	6.9
80°	57.9	29.8	19.7	19.7	13.3	6.4	8.5	8.5	6.9	3.2	0.0
82.5°	21.3	11.2	6.9	8.5	5.8	2.1	3.2	2.1	1.6	0.0	0.0
85°	9.0	5.8	4.3	4.8	2.7	0.0	0.5	1.1	0.0	0.0	0.0
87.5°	3.7	2.7	2.1	2.1	1.1	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)