

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: P367829

Luminaire Tested: **MSA-SA3B-730-U-T4W-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367829
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-730-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 10093 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

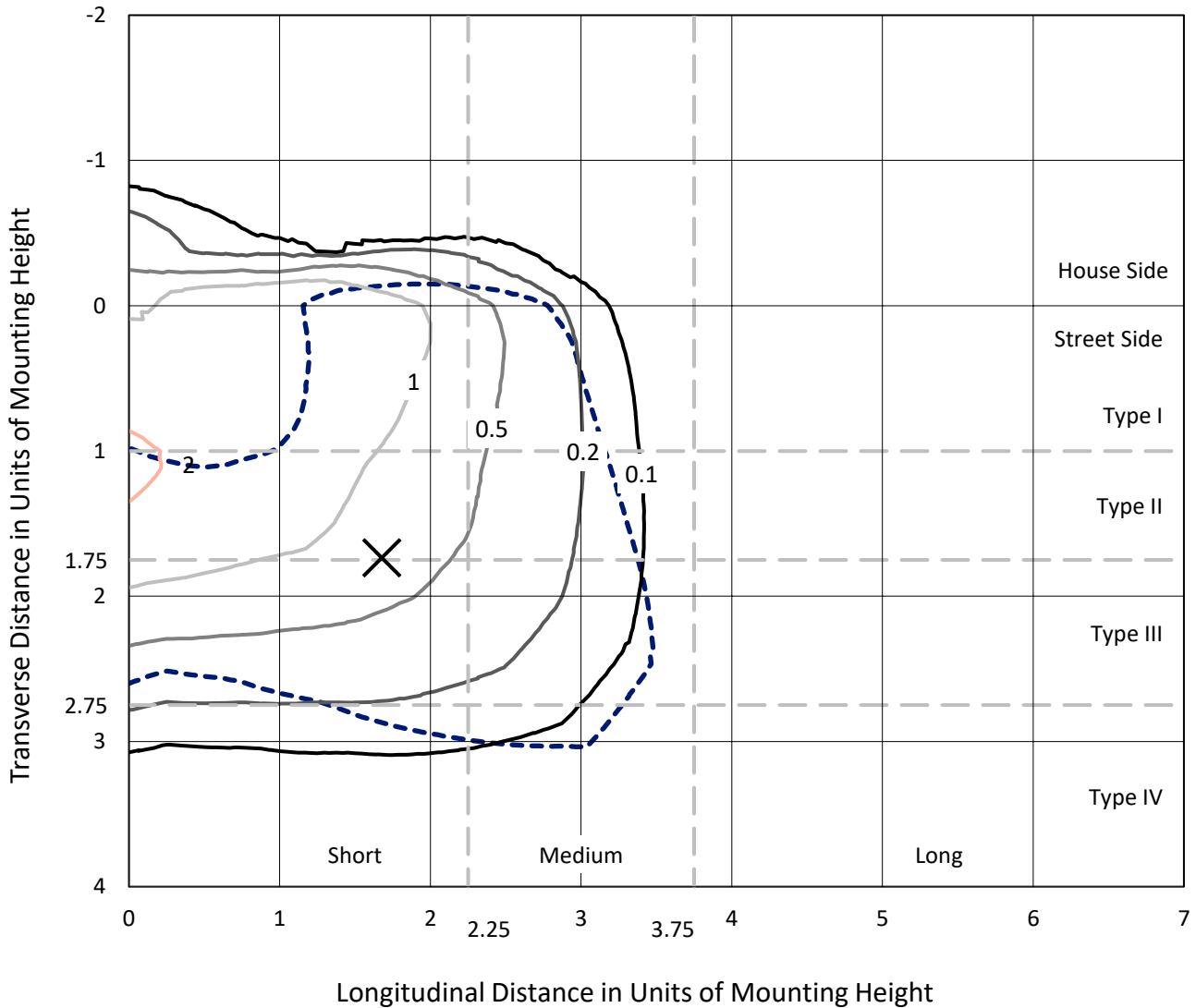
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

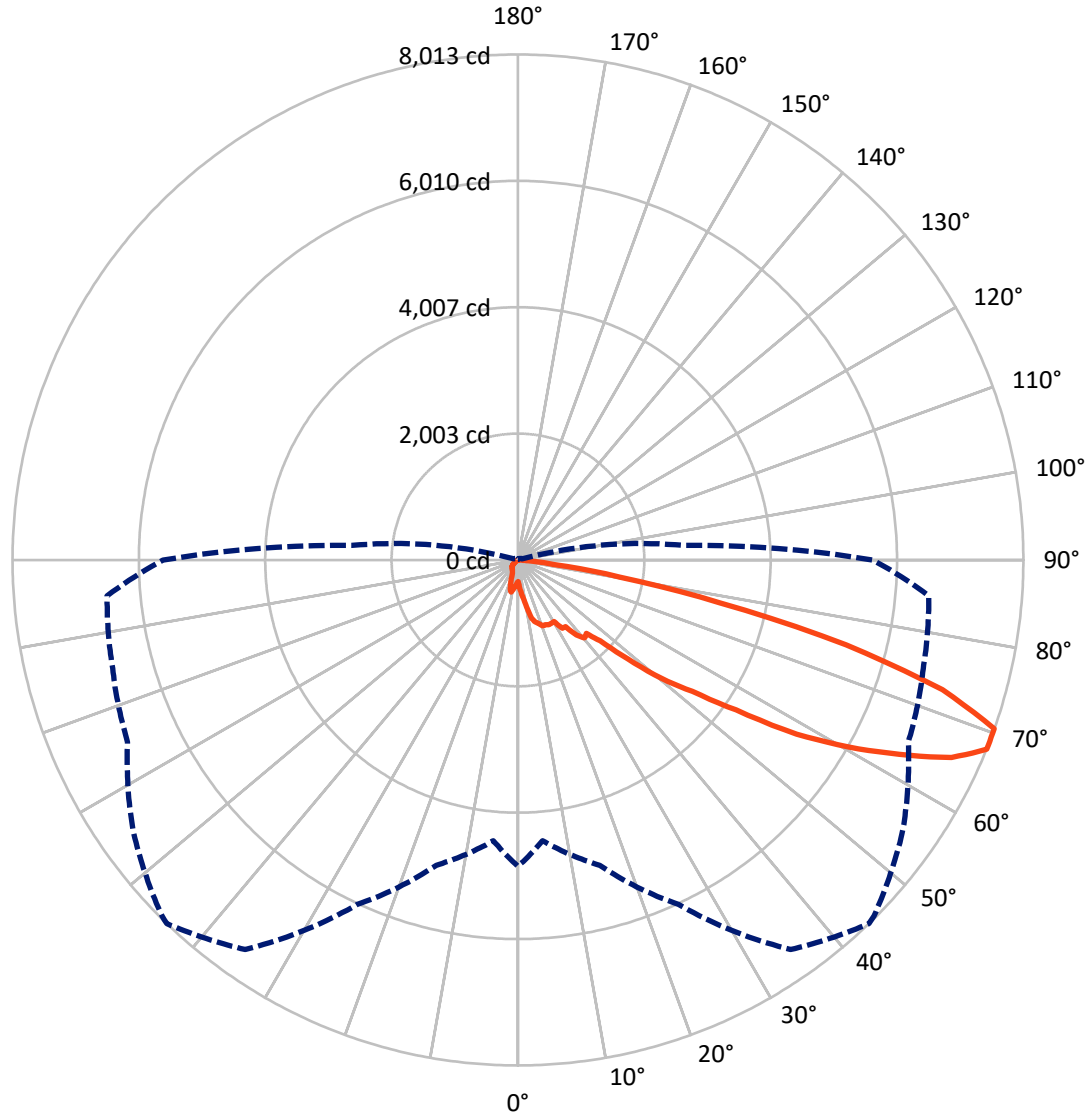
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 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	1025.3	0.0	1025.3
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	9067.7	0.0	9067.7
	% Fixture	89.8	0.0	89.8
Total	Lumens	10093.0	0.0	10093.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	0.5
10°-20°	211.0	2.1
20°-30°	373.8	3.7
30°-40°	607.6	6.0
40°-50°	1215.8	12.0
50°-60°	2494.3	24.7
60°-70°	3426.4	33.9
70°-80°	1610.5	16.0
80°-90°	103.1	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°	10093.0	100.0
0°-180°	10093.0	100.0

Coefficient of Utilization

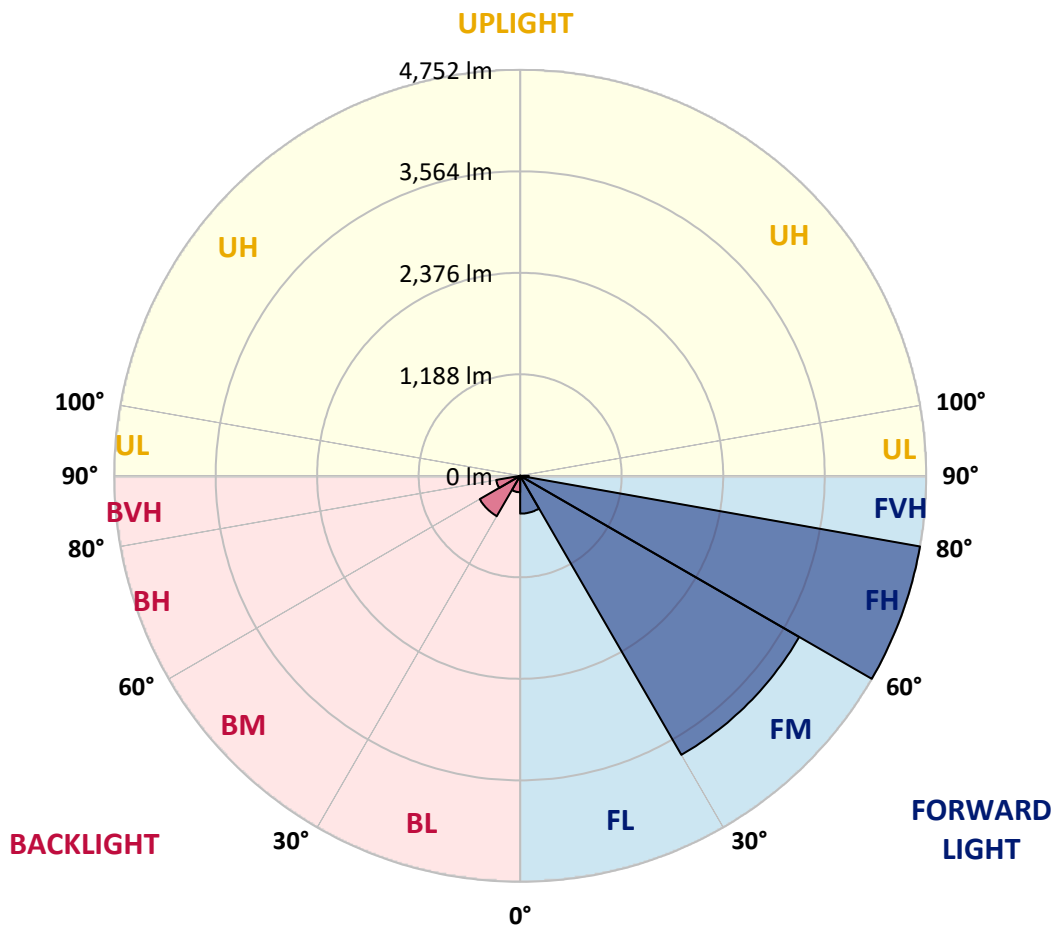


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	442.7	4.4			
FM (30°-60°)	3771.6	37.4			
FH (60°-80°)	4752.4	47.1			G2/5000
FVH (80°-90°)	101.0	1.0			G2/225
BL (0°-30°)	192.5	1.9	B1/500		
BM (30°-60°)	546.1	5.4	B1/1000		
BH (60°-80°)	284.5	2.8	B1/500		G1/500
BVH (80°-90°)	2.1	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	340.1	340.1	340.1	340.1	340.1	340.1	340.1	340.1	340.1	340.1	340.1
2.5°	432.4	418.5	398.5	402.9	405.2	411.3	411.8	404.1	381.8	375.7	402.9
5°	606.1	572.1	566.0	553.2	527.6	513.7	510.4	524.3	506.5	500.9	508.1
7.5°	774.2	745.2	713.5	696.2	642.8	610.0	608.3	613.9	617.2	597.7	607.8
10°	886.0	854.3	847.6	807.0	760.8	753.0	749.7	728.5	711.3	696.8	648.4
12.5°	987.3	986.8	999.0	940.6	933.3	941.1	938.3	862.7	845.4	784.7	770.8
15°	1122.0	1155.4	1102.5	1053.6	991.2	1017.9	1010.7	962.3	950.6	909.4	849.9
17.5°	1261.7	1270.6	1182.1	1107.0	1090.8	1055.8	1063.0	1045.8	986.8	1019.6	960.6
20°	1265.0	1284.5	1189.9	1065.8	1115.3	1113.7	1114.2	1097.5	1019.6	1096.4	1042.4
22.5°	1311.8	1263.9	1176.0	1097.0	1105.9	1114.2	1123.1	1102.5	1085.8	1104.8	1114.8
25°	1292.9	1273.9	1189.4	1137.0	1128.7	1135.4	1137.6	1163.7	1153.2	1198.8	1173.8
27.5°	1341.8	1314.6	1163.2	1172.7	1143.2	1135.4	1122.0	1209.4	1240.6	1204.4	1271.2
30°	1425.9	1422.0	1208.3	1222.2	1199.4	1130.9	1166.5	1280.6	1319.6	1297.3	1378.6
32.5°	1557.2	1570.6	1340.2	1250.0	1261.7	1292.3	1279.0	1280.6	1379.1	1428.7	1493.2
35°	1743.7	1736.4	1468.7	1355.8	1294.5	1299.5	1318.5	1409.2	1536.6	1533.3	1601.8
37.5°	2109.9	2030.9	1696.4	1463.7	1482.1	1507.1	1493.2	1615.1	1627.4	1631.8	1795.4
40°	2649.7	2544.6	2055.3	1691.4	1514.4	1625.1	1618.5	1648.5	1730.3	1760.9	1999.7
42.5°	3361.0	3219.7	2687.0	2109.9	1670.2	1594.0	1635.1	1691.9	1966.9	2054.2	2315.8
45°	4146.9	3860.8	3317.0	2706.5	2060.9	1824.4	1855.5	1961.3	2342.5	2487.2	2776.1
47.5°	4656.1	4404.5	3940.9	3235.2	2468.3	2344.2	2347.0	2369.8	2783.9	3052.1	3439.5
50°	5098.6	4830.9	4400.7	3787.9	3189.0	2954.2	2900.7	2795.6	3346.0	3712.8	4142.4
52.5°	5723.0	5410.2	4860.4	4436.3	4011.1	3457.9	3438.9	3474.6	4008.8	4394.5	4863.1
55°	6286.3	5906.1	5381.3	5114.2	4948.3	4198.1	4214.2	4273.8	4859.8	5064.1	5504.3
57.5°	6535.0	6123.2	5853.3	5733.0	5644.5	5209.3	5154.8	5119.2	5531.0	5608.9	6176.1
60°	6698.1	6306.3	6183.8	6211.7	6479.9	6018.0	5968.5	5761.4	6086.4	6150.5	6778.2
62.5°	6595.1	6237.8	6264.0	6496.1	7091.6	6787.7	6644.7	6298.5	6540.6	6592.4	7210.7
65°	5946.8	5574.4	5910.6	6472.1	7558.0	7550.7	7484.5	6794.4	6792.2	6858.4	7244.1
67.5°	4857.6	4466.9	5010.6	6023.6	7538.5	8013.2	7982.1	7452.2	6828.3	6651.3	6537.3
70°	3377.2	3038.2	3654.9	4974.5	6866.7	8009.9	7959.8	7894.1	6542.3	5725.2	5068.5
72.5°	1754.8	1568.4	2142.7	3427.8	5473.7	7037.6	7202.9	7094.9	5586.1	4159.7	2984.8
75°	596.1	534.8	883.8	1819.4	3638.7	5374.1	5567.7	5458.1	3794.0	2231.8	1180.4
77.5°	231.0	214.8	316.7	738.5	1825.5	3274.7	3485.1	3373.3	2034.8	817.6	277.7
80°	131.3	126.9	174.8	332.8	804.8	1629.0	1777.1	1611.8	733.5	275.5	72.4
82.5°	55.7	57.3	97.4	179.8	404.6	574.9	641.1	584.9	307.2	188.7	26.7
85°	12.2	15.0	46.2	100.2	169.7	164.2	172.0	190.9	188.7	138.6	11.7
87.5°	0.0	0.0	14.5	27.3	40.6	26.7	21.1	37.3	57.9	55.7	5.0
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°	340.1	340.1	340.1	340.1	340.1	340.1	340.1	340.1	340.1	340.1	340.1
2.5°	408.0	402.4	367.3	365.1	367.3	361.2	360.6	347.8	349.0	377.9	380.1
5°	508.1	480.3	450.3	440.8	431.9	411.8	423.0	423.0	423.0	441.3	446.9
7.5°	598.8	561.6	519.3	483.6	449.1	424.1	441.3	453.6	460.8	484.8	495.9
10°	640.0	603.3	565.5	514.8	488.1	478.6	458.6	448.0	460.8	455.8	461.9
12.5°	728.0	694.6	629.5	577.1	557.1	524.8	465.8	424.6	397.4	392.9	391.8
15°	813.7	793.1	705.7	635.6	566.0	491.4	390.7	336.2	307.2	302.2	302.8
17.5°	922.2	892.7	764.1	663.4	545.4	411.3	301.7	254.9	252.7	264.9	266.0
20°	994.6	946.1	793.6	640.6	477.5	311.1	236.0	224.8	242.7	264.9	262.7
22.5°	1063.6	1011.3	832.6	620.6	370.1	236.0	217.1	218.2	233.2	257.1	263.2
25°	1109.2	1090.3	880.5	573.8	282.2	204.3	207.6	215.9	228.7	251.6	251.6
27.5°	1246.7	1158.2	874.9	483.1	217.1	190.3	198.1	208.7	215.4	242.7	245.4
30°	1330.2	1301.2	903.8	390.7	190.3	172.5	187.6	197.0	201.5	232.6	233.8
32.5°	1432.6	1368.6	938.9	288.3	177.0	171.4	168.1	175.3	188.1	215.4	217.1
35°	1557.2	1538.3	888.8	226.5	172.5	160.3	153.6	157.5	165.9	184.2	188.1
37.5°	1811.6	1699.2	858.8	194.2	172.5	156.4	149.2	139.1	140.3	153.1	160.3
40°	2025.8	1991.3	774.7	188.7	164.7	150.8	133.0	120.8	112.4	116.3	119.1
42.5°	2419.3	2259.6	666.2	185.9	157.5	136.4	113.0	100.2	87.4	88.5	92.9
45°	2896.9	2552.3	569.4	183.1	152.5	121.9	95.2	80.1	66.8	67.3	71.8
47.5°	3534.7	2979.2	451.9	174.8	143.6	108.5	76.8	61.2	53.4	55.1	59.0
50°	4259.3	3353.8	357.3	162.0	133.0	95.7	62.3	49.5	46.8	48.4	52.9
52.5°	4906.6	3629.8	295.0	150.3	118.0	77.9	52.3	44.0	42.9	44.0	47.3
55°	5482.0	3790.1	246.6	136.9	101.3	62.9	47.3	40.6	40.1	39.5	41.7
57.5°	6021.9	3836.3	192.6	115.8	82.4	54.5	44.0	37.8	36.7	35.1	36.7
60°	6415.4	3757.3	141.4	92.9	67.3	49.5	41.2	33.9	32.3	29.5	30.6
62.5°	6605.2	3540.8	106.9	74.6	57.3	45.1	36.7	29.5	27.3	23.9	24.5
65°	6424.8	3184.0	84.0	62.9	49.0	37.8	31.2	25.0	22.3	18.9	18.9
67.5°	5626.2	2641.4	71.2	54.5	41.2	32.3	25.6	22.8	18.4	15.6	15.0
70°	4129.6	1900.1	61.2	47.9	35.6	27.8	21.7	20.6	17.8	15.0	13.9
72.5°	2330.8	1075.3	52.3	42.3	30.1	23.4	18.4	18.9	17.3	13.9	12.8
75°	889.4	362.3	43.4	35.1	24.5	17.8	15.6	15.6	15.6	11.7	10.0
77.5°	220.4	92.4	34.5	28.4	19.5	11.7	12.8	13.4	13.4	10.0	7.2
80°	60.7	31.2	20.6	20.6	13.9	6.7	8.9	8.9	7.2	3.3	0.0
82.5°	22.3	11.7	7.2	8.9	6.1	2.2	3.3	2.2	1.7	0.0	0.0
85°	9.5	6.1	4.5	5.0	2.8	0.0	0.6	1.1	0.0	0.0	0.0
87.5°	3.9	2.8	2.2	2.2	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)