

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: P596715

Luminaire Tested: **MSA-SA3C-827-U-T4W-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596715
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-SA3C-827-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: 10089 lumens
Efficiency: N/A
Efficacy: 60.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

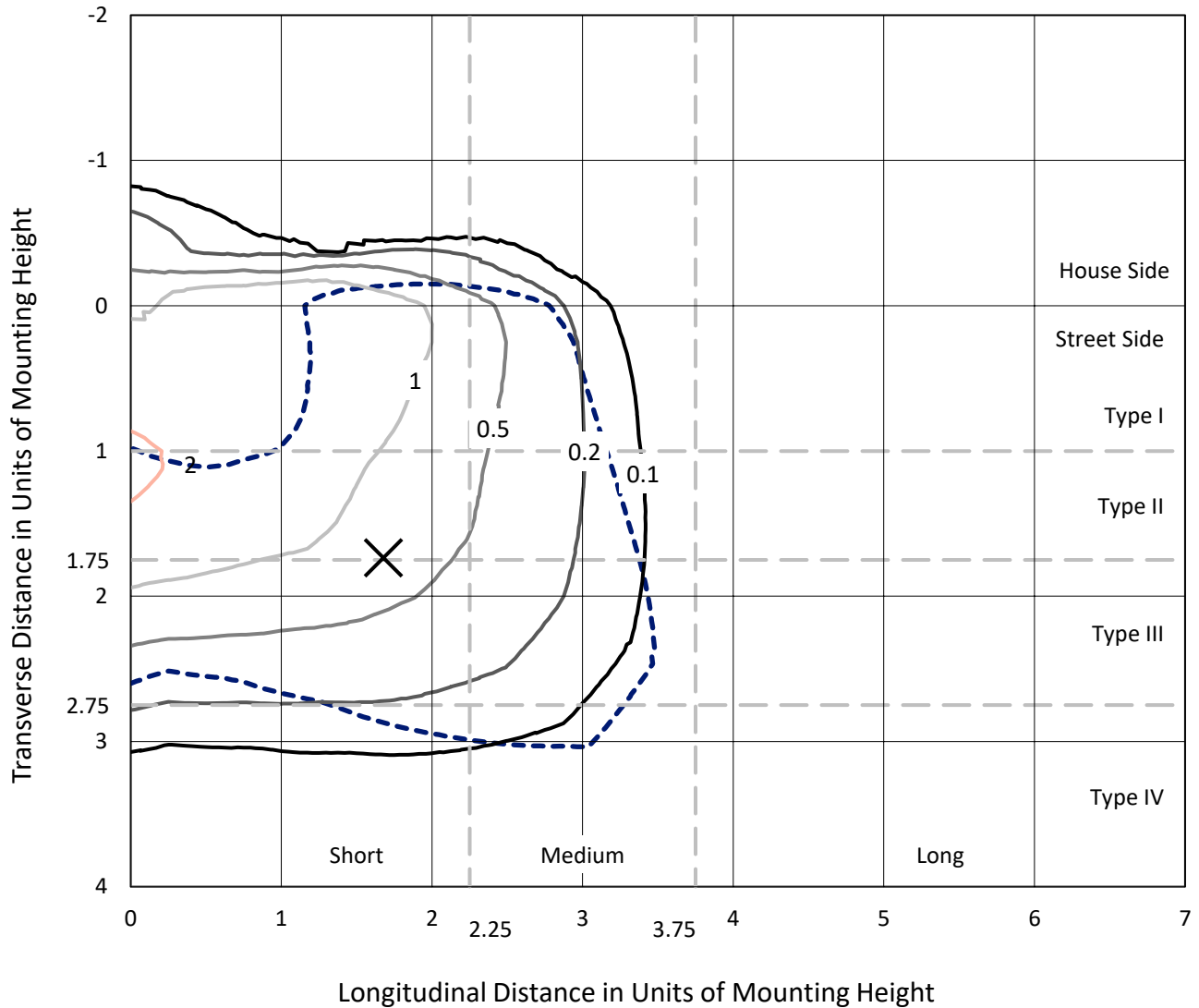
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

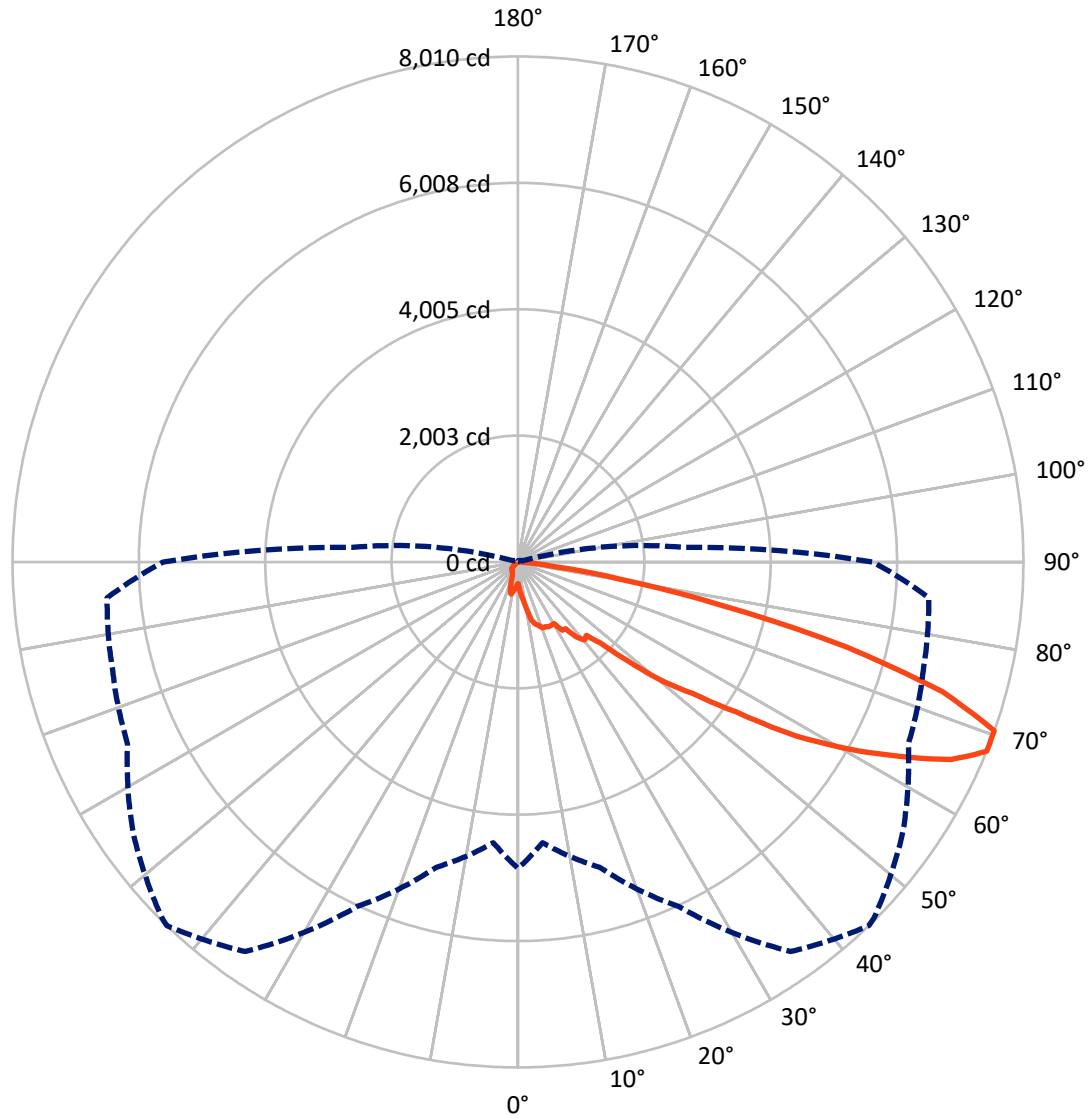
✕ Max cd
 - - - 1/2 Max cd



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	1024.9	0.0	1024.9
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	9064.1	0.0	9064.1
	% Fixture	89.8	0.0	89.8
Total	Lumens	10089.0	0.0	10089.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	0.5
10°-20°	210.9	2.1
20°-30°	373.7	3.7
30°-40°	607.3	6.0
40°-50°	1215.3	12.0
50°-60°	2493.3	24.7
60°-70°	3425.1	33.9
70°-80°	1609.8	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°	10089.0	100.0
0°-180°	10089.0	100.0

Coefficient of Utilization

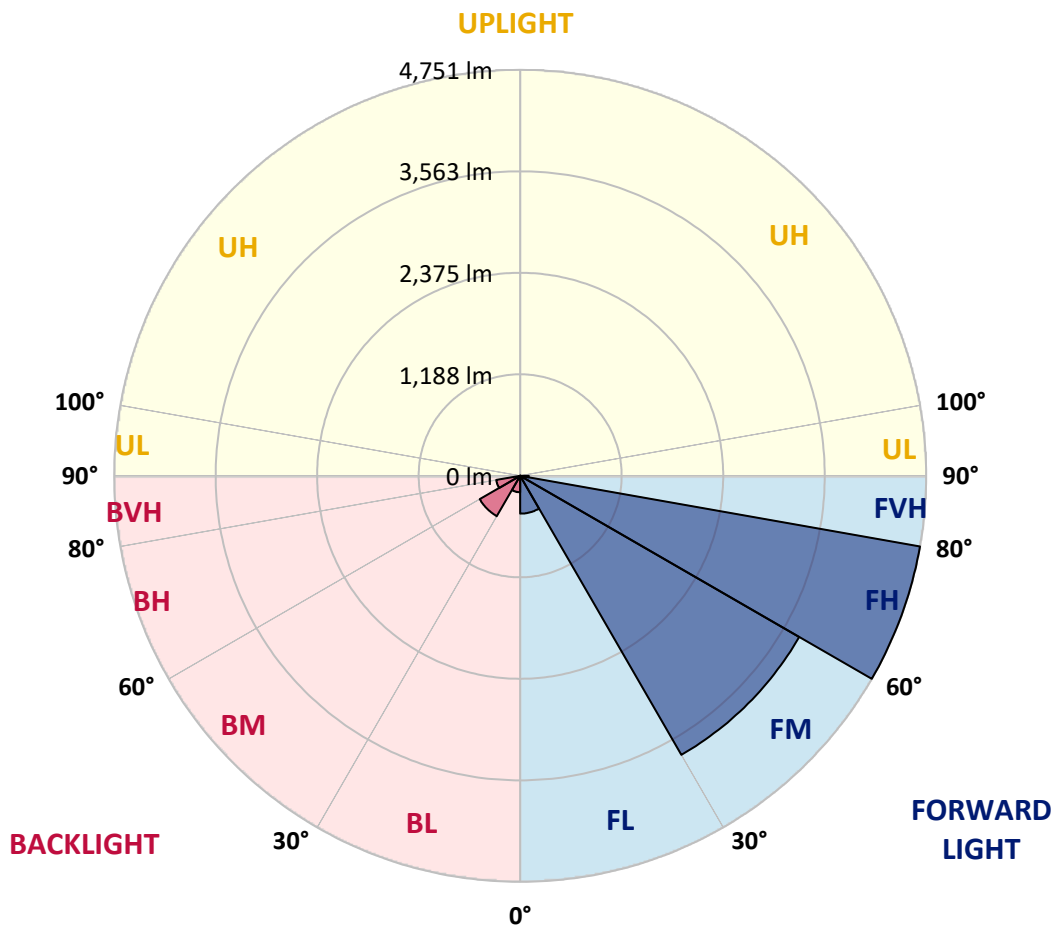


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	442.5	4.4			
FM (30°-60°)	3770.1	37.4			
FH (60°-80°)	4750.5	47.1			G2/5000
FVH (80°-90°)	101.0	1.0			G2/225
BL (0°-30°)	192.4	1.9	B1/500		
BM (30°-60°)	545.9	5.4	B1/1000		
BH (60°-80°)	284.4	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°	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9
2.5°	432.3	418.4	398.3	402.8	405.0	411.1	411.7	403.9	381.6	375.5	402.8
5°	605.8	571.9	565.8	553.0	527.4	513.5	510.2	524.1	506.3	500.7	507.9
7.5°	773.9	744.9	713.2	696.0	642.6	609.7	608.1	613.6	617.0	597.5	607.5
10°	885.7	854.0	847.3	806.7	760.5	752.7	749.4	728.2	711.0	696.5	648.1
12.5°	986.9	986.4	998.6	940.2	933.0	940.8	938.0	862.3	845.1	784.4	770.5
15°	1121.6	1154.9	1102.1	1053.1	990.8	1017.5	1010.3	961.9	950.2	909.0	849.5
17.5°	1261.2	1270.1	1181.6	1106.5	1090.4	1055.4	1062.6	1045.3	986.4	1019.2	960.2
20°	1264.5	1284.0	1189.4	1065.4	1114.9	1113.2	1113.8	1097.1	1019.2	1096.0	1042.0
22.5°	1311.3	1263.4	1175.5	1096.5	1105.4	1113.8	1122.7	1102.1	1085.4	1104.3	1114.3
25°	1292.4	1273.4	1188.9	1136.6	1128.2	1134.9	1137.1	1163.3	1152.7	1198.3	1173.3
27.5°	1341.3	1314.1	1162.7	1172.2	1142.7	1134.9	1121.6	1208.9	1240.1	1203.9	1270.7
30°	1425.3	1421.4	1207.8	1221.7	1198.9	1130.5	1166.1	1280.1	1319.1	1296.8	1378.0
32.5°	1556.6	1570.0	1339.6	1249.5	1261.2	1291.8	1278.4	1280.1	1378.6	1428.1	1492.6
35°	1743.0	1735.8	1468.2	1355.2	1294.0	1299.0	1317.9	1408.6	1536.0	1532.7	1601.1
37.5°	2109.1	2030.1	1695.7	1463.2	1481.5	1506.5	1492.6	1614.5	1626.7	1631.2	1794.7
40°	2648.7	2543.5	2054.5	1690.7	1513.8	1624.5	1617.8	1647.9	1729.6	1760.2	1998.9
42.5°	3359.7	3218.4	2686.0	2109.1	1669.5	1593.3	1634.5	1691.2	1966.1	2053.4	2314.9
45°	4145.2	3859.3	3315.7	2705.4	2060.1	1823.7	1854.8	1960.5	2341.6	2486.2	2775.0
47.5°	4654.3	4402.8	3939.4	3234.0	2467.3	2343.3	2346.0	2368.9	2782.8	3050.9	3438.1
50°	5096.5	4829.0	4398.9	3786.4	3187.8	2953.0	2899.6	2794.5	3344.7	3711.3	4140.8
52.5°	5720.8	5408.1	4858.4	4434.5	4009.5	3456.5	3437.6	3473.2	4007.3	4392.8	4861.2
55°	6283.8	5903.8	5379.2	5112.1	4946.3	4196.4	4212.5	4272.1	4857.9	5062.1	5502.1
57.5°	6532.4	6120.8	5850.9	5730.8	5642.3	5207.3	5152.7	5117.1	5528.8	5606.7	6173.6
60°	6695.4	6303.8	6181.4	6209.2	6477.4	6015.6	5966.1	5759.1	6084.0	6148.0	6775.6
62.5°	6592.5	6235.4	6261.5	6493.5	7088.8	6785.0	6642.0	6296.0	6538.0	6589.7	7207.8
65°	5944.4	5572.2	5908.2	6469.6	7555.0	7547.7	7481.5	6791.7	6789.5	6855.7	7241.2
67.5°	4855.7	4465.1	5008.6	6021.2	7535.5	8010.1	7978.9	7449.3	6825.6	6648.7	6534.7
70°	3375.8	3037.0	3653.4	4972.5	6864.0	8006.7	7956.6	7891.0	6539.7	5723.0	5066.5
72.5°	1754.1	1567.7	2141.9	3426.4	5471.5	7034.8	7200.0	7092.1	5583.9	4158.0	2983.6
75°	595.8	534.6	883.5	1818.6	3637.3	5371.9	5565.5	5455.9	3792.5	2230.9	1180.0
77.5°	230.9	214.7	316.6	738.3	1824.8	3273.5	3483.7	3371.9	2033.9	817.3	277.6
80°	131.3	126.8	174.7	332.7	804.5	1628.4	1776.4	1611.1	733.2	275.4	72.3
82.5°	55.6	57.3	97.4	179.7	404.5	574.7	640.9	584.7	307.1	188.6	26.7
85°	12.2	15.0	46.2	100.1	169.7	164.1	171.9	190.8	188.6	138.5	11.7
87.5°	0.0	0.0	14.5	27.3	40.6	26.7	21.1	37.3	57.9	55.6	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°	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9	339.9
2.5°	407.8	402.2	367.2	365.0	367.2	361.1	360.5	347.7	348.8	377.7	380.0
5°	507.9	480.1	450.1	440.6	431.7	411.7	422.8	422.8	422.8	441.2	446.7
7.5°	598.6	561.3	519.1	483.5	449.0	423.9	441.2	453.4	460.6	484.6	495.7
10°	639.8	603.1	565.2	514.6	487.9	478.4	458.4	447.8	460.6	455.6	461.8
12.5°	727.7	694.3	629.2	576.9	556.9	524.6	465.6	424.5	397.2	392.8	391.7
15°	813.4	792.8	705.4	635.3	565.8	491.2	390.5	336.0	307.1	302.1	302.6
17.5°	921.8	892.4	763.8	663.1	545.2	411.1	301.5	254.8	252.6	264.8	265.9
20°	994.2	945.8	793.3	640.3	477.3	311.0	235.9	224.8	242.6	264.8	262.6
22.5°	1063.1	1010.9	832.3	620.3	370.0	235.9	217.0	218.1	233.1	257.0	263.1
25°	1108.8	1089.9	880.1	573.6	282.1	204.2	207.5	215.9	228.7	251.5	251.5
27.5°	1246.2	1157.7	874.6	482.9	217.0	190.3	198.1	208.6	215.3	242.6	245.3
30°	1329.6	1300.7	903.5	390.5	190.3	172.5	187.5	196.9	201.4	232.5	233.7
32.5°	1432.0	1368.0	938.5	288.2	176.9	171.3	168.0	175.2	188.0	215.3	217.0
35°	1556.6	1537.7	888.5	226.4	172.5	160.2	153.5	157.4	165.8	184.1	188.0
37.5°	1810.9	1698.5	858.4	194.2	172.5	156.3	149.1	139.1	140.2	153.0	160.2
40°	2025.0	1990.6	774.4	188.6	164.7	150.8	133.0	120.7	112.4	116.3	119.1
42.5°	2418.4	2258.7	665.9	185.8	157.4	136.3	112.9	100.1	87.3	88.5	92.9
45°	2895.7	2551.3	569.1	183.0	152.4	121.8	95.1	80.1	66.8	67.3	71.8
47.5°	3533.3	2978.0	451.7	174.7	143.5	108.5	76.8	61.2	53.4	55.1	59.0
50°	4257.6	3352.5	357.2	161.9	133.0	95.7	62.3	49.5	46.7	48.4	52.9
52.5°	4904.6	3628.4	294.9	150.2	117.9	77.9	52.3	44.0	42.8	44.0	47.3
55°	5479.9	3788.6	246.5	136.9	101.3	62.9	47.3	40.6	40.1	39.5	41.7
57.5°	6019.5	3834.8	192.5	115.7	82.3	54.5	44.0	37.8	36.7	35.0	36.7
60°	6412.8	3755.8	141.3	92.9	67.3	49.5	41.2	33.9	32.3	29.5	30.6
62.5°	6602.5	3539.4	106.8	74.5	57.3	45.1	36.7	29.5	27.3	23.9	24.5
65°	6422.3	3182.8	84.0	62.9	49.0	37.8	31.2	25.0	22.3	18.9	18.9
67.5°	5624.0	2640.3	71.2	54.5	41.2	32.3	25.6	22.8	18.4	15.6	15.0
70°	4128.0	1899.3	61.2	47.8	35.6	27.8	21.7	20.6	17.8	15.0	13.9
72.5°	2329.9	1074.8	52.3	42.3	30.0	23.4	18.4	18.9	17.2	13.9	12.8
75°	889.0	362.2	43.4	35.0	24.5	17.8	15.6	15.6	15.6	11.7	10.0
77.5°	220.3	92.4	34.5	28.4	19.5	11.7	12.8	13.4	13.4	10.0	7.2
80°	60.6	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)