

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: P368226

Luminaire Tested: **MSA-SA4A-730-U-T4W**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368226
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4A-730-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14316 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

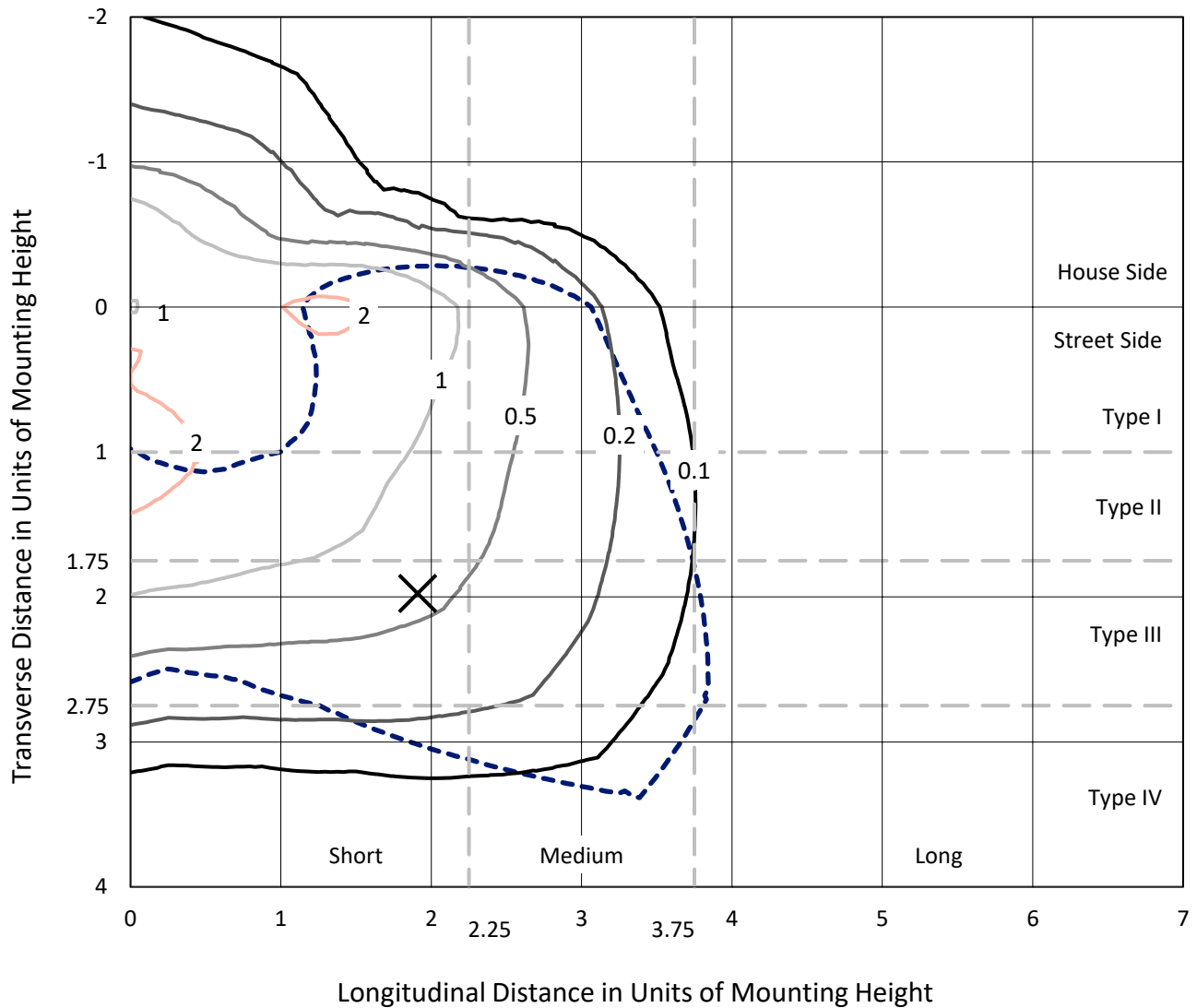
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

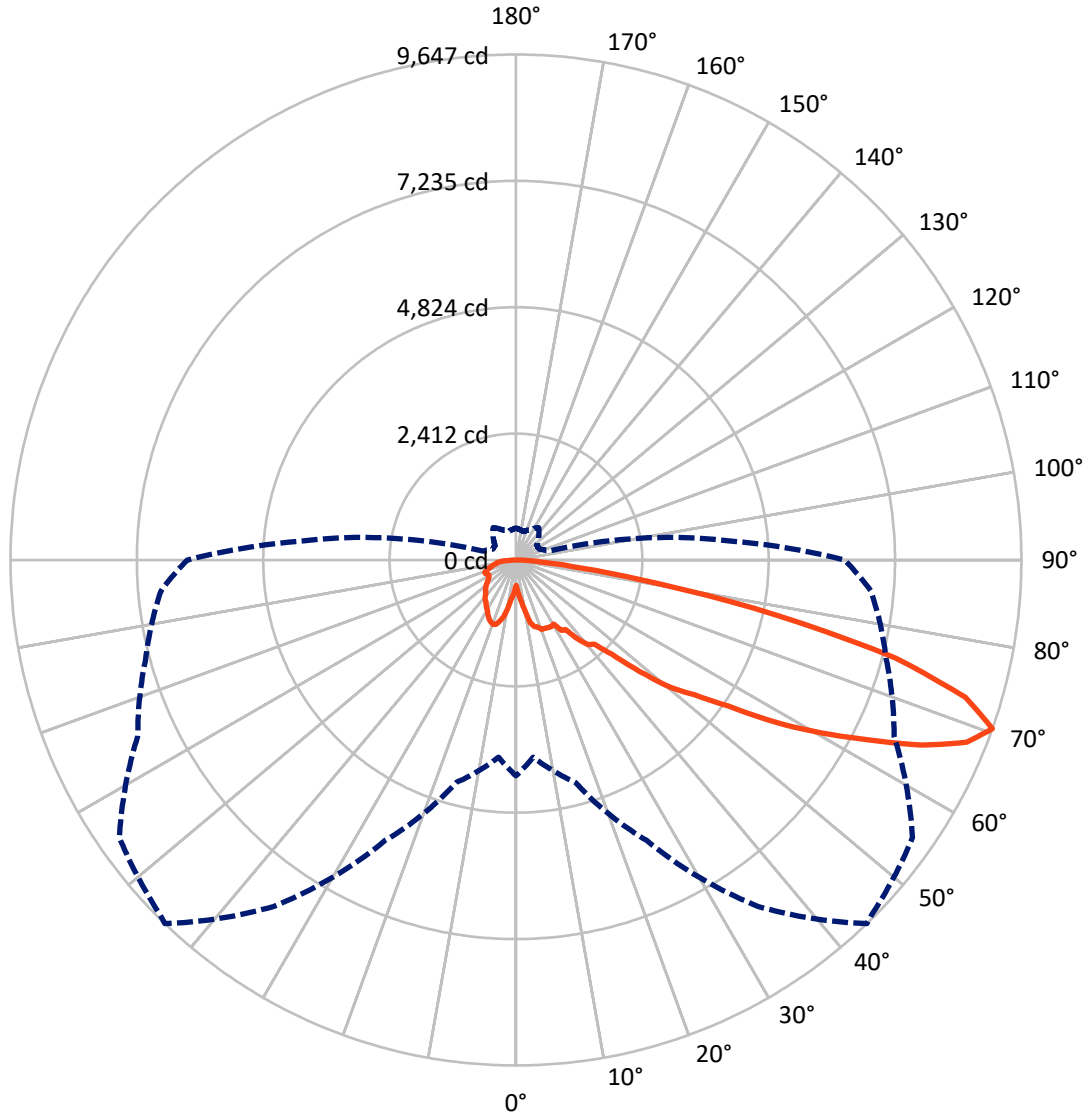
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3158.7	0.0	3158.7
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	11157.3	0.0	11157.3
	% Fixture	77.9	0.0	77.9
Total	Lumens	14316.0	0.0	14316.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.3	0.5
10°-20°	351.4	2.5
20°-30°	656.6	4.6
30°-40°	1053.9	7.4
40°-50°	1778.9	12.4
50°-60°	3169.9	22.1
60°-70°	4336.0	30.3
70°-80°	2549.8	17.8
80°-90°	343.3	2.4
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°	14316.0	100.0
0°-180°	14316.0	100.0

Coefficient of Utilization

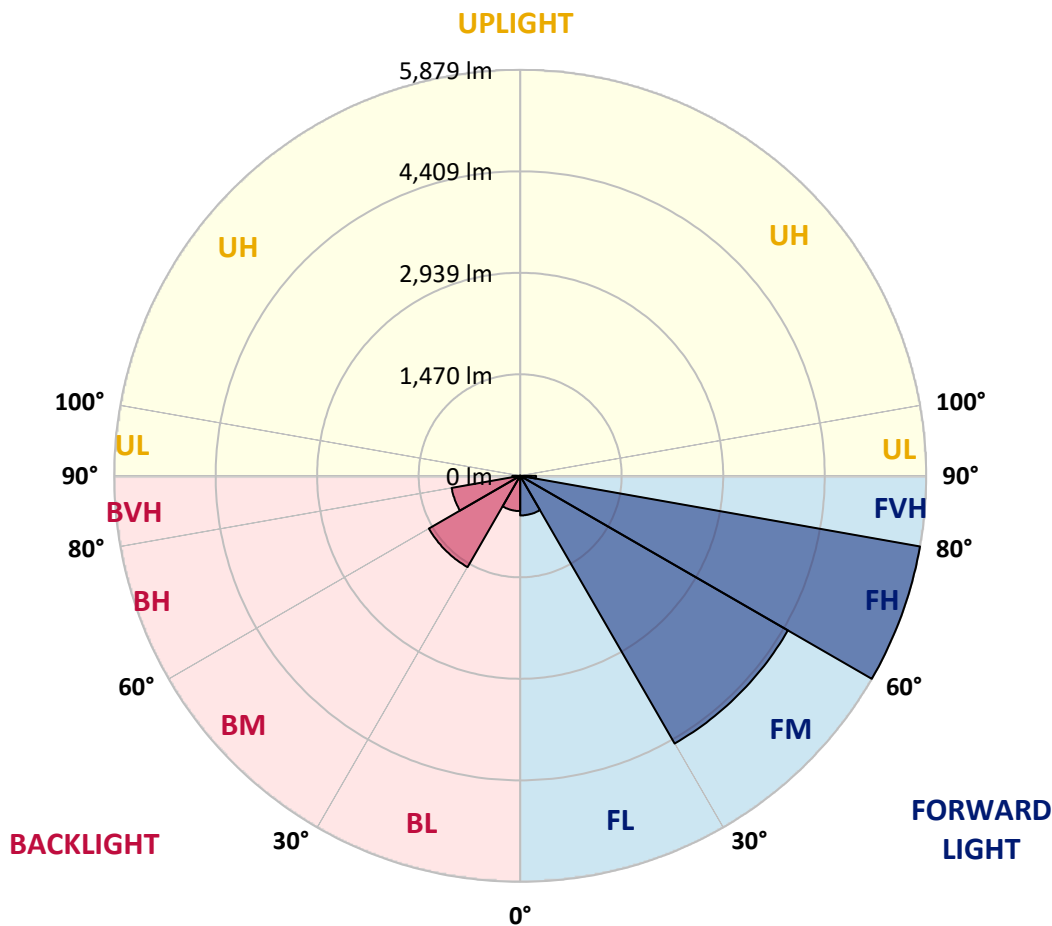


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	573.7	4.0			
FM (30°-60°)	4476.2	31.3			
FH (60°-80°)	5878.6	41.1			G3/7500
FVH (80°-90°)	228.8	1.6			G3/500
BL (0°-30°)	510.5	3.6	B2/1000		
BM (30°-60°)	1526.4	10.7	B2/2500		
BH (60°-80°)	1007.2	7.0	B3/2500		G3/2500
BVH (80°-90°)	114.5	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	486.6	486.6	486.6	486.6	486.6	486.6	486.6	486.6	486.6	486.6	486.6
2.5°	590.5	578.8	550.6	560.0	571.7	576.4	575.3	574.1	555.9	549.4	581.7
5°	802.4	776.6	756.1	747.8	720.8	699.7	686.8	720.8	715.5	724.4	746.7
7.5°	1002.0	985.6	939.2	922.8	867.6	831.2	827.1	854.1	861.1	847.0	885.2
10°	1130.6	1102.4	1093.0	1053.7	1015.5	1009.6	1006.1	993.8	976.8	975.6	941.5
12.5°	1230.3	1245.0	1252.6	1207.5	1208.6	1229.8	1218.6	1168.7	1139.9	1089.5	1093.6
15°	1409.4	1430.5	1370.0	1341.3	1286.1	1317.8	1313.7	1272.0	1267.9	1235.0	1196.9
17.5°	1565.5	1574.9	1473.9	1408.2	1389.4	1343.6	1356.0	1357.1	1303.1	1361.8	1327.8
20°	1578.4	1611.9	1495.7	1364.8	1421.1	1415.2	1417.0	1405.3	1334.2	1431.1	1418.2
22.5°	1641.8	1590.8	1486.3	1390.6	1405.3	1414.1	1422.3	1408.2	1404.1	1458.1	1497.4
25°	1630.1	1613.7	1508.0	1427.0	1428.7	1430.5	1434.6	1476.9	1472.2	1545.6	1566.1
27.5°	1739.9	1714.6	1514.4	1494.5	1448.7	1438.7	1410.6	1498.6	1567.3	1565.5	1678.8
30°	1948.8	1923.0	1664.7	1606.6	1523.8	1421.7	1475.7	1593.1	1647.1	1665.3	1809.1
32.5°	2275.2	2317.5	1960.6	1726.4	1623.6	1601.3	1595.5	1583.7	1717.6	1807.4	1938.3
35°	2743.6	2710.2	2309.2	1982.9	1728.7	1633.0	1645.9	1717.6	1876.6	1934.7	2055.7
37.5°	3280.1	3210.9	2755.9	2273.4	2031.6	1911.8	1869.0	1938.3	1973.5	2019.3	2266.4
40°	3825.5	3656.4	3194.4	2655.6	2213.6	2123.2	2085.6	2000.5	2083.2	2176.0	2490.0
42.5°	4352.0	4221.1	3671.7	3111.7	2520.0	2197.7	2177.2	2093.8	2350.3	2448.4	2812.9
45°	4903.8	4600.3	4160.6	3626.5	2967.9	2563.4	2532.9	2383.2	2711.9	2916.2	3268.4
47.5°	5274.7	4993.6	4608.5	4044.4	3342.9	3175.1	3116.9	2861.0	3159.2	3424.5	3972.2
50°	5625.8	5336.4	4931.9	4501.7	4022.1	3829.0	3705.1	3279.0	3716.3	4148.3	4874.4
52.5°	6128.2	5869.4	5307.6	4962.5	4751.7	4276.9	4184.7	3950.5	4367.8	4950.7	5860.6
55°	6665.3	6312.6	5803.6	5612.3	5527.2	4919.0	4843.9	4694.8	5235.4	5771.9	6819.1
57.5°	6902.5	6534.4	6253.9	6139.4	6132.3	5852.4	5766.1	5662.2	6122.4	6476.3	7721.3
60°	7090.9	6695.9	6583.7	6647.7	6880.2	6695.9	6583.7	6492.2	6844.4	7172.5	8457.4
62.5°	7056.3	6660.1	6717.6	6912.5	7505.9	7559.9	7473.6	7251.7	7559.9	7743.1	8879.5
65°	6497.5	6131.2	6466.3	6928.9	8087.6	8519.1	8514.4	7933.8	8040.7	8040.7	8834.9
67.5°	5518.3	5139.2	5688.0	6783.9	8489.7	9279.2	9280.4	8657.0	8084.7	8010.7	8144.6
70°	4120.7	3777.3	4394.3	5908.1	8074.7	9647.3	9593.9	9240.5	7963.8	7317.5	6803.3
72.5°	2461.3	2239.4	2807.0	4300.9	6887.8	8970.5	9112.5	8568.4	7290.5	6085.4	4863.3
75°	1117.6	1021.4	1319.0	2470.7	4917.3	7482.4	7636.8	7231.2	5790.7	4376.6	2810.5
77.5°	478.4	452.6	575.8	1095.9	2711.3	5116.8	5433.2	5167.9	3923.5	2543.5	1243.3
80°	307.6	291.2	354.0	527.1	1259.1	2764.8	3037.1	2937.9	1998.7	989.1	437.9
82.5°	183.7	178.4	236.6	331.1	686.8	1216.8	1371.2	1407.6	830.0	443.8	250.6
85°	100.4	101.6	129.7	200.8	412.1	473.7	507.2	551.8	390.9	257.1	121.5
87.5°	33.5	38.7	52.2	81.6	146.7	133.8	134.4	156.1	164.9	106.8	38.7
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°	486.6	486.6	486.6	486.6	486.6	486.6	486.6	486.6	486.6	486.6	486.6
2.5°	587.0	576.4	549.4	551.2	561.2	563.5	566.5	549.4	545.9	578.2	581.1
5°	750.2	715.5	699.7	694.4	679.2	673.9	702.0	715.0	727.9	753.1	765.4
7.5°	881.1	842.3	813.6	787.2	764.9	751.9	799.5	835.9	858.2	909.8	933.3
10°	941.0	907.5	896.9	875.8	892.8	931.6	940.4	941.5	990.8	989.7	999.7
12.5°	1060.1	1038.4	1003.8	1011.4	1056.0	1095.9	1084.8	1101.8	1119.4	1161.7	1142.3
15°	1168.7	1162.8	1130.6	1135.8	1144.6	1194.5	1201.0	1218.0	1245.0	1278.5	1255.6
17.5°	1302.5	1300.2	1221.5	1214.5	1235.0	1283.8	1268.5	1238.6	1327.8	1363.6	1354.2
20°	1393.5	1375.9	1275.0	1245.0	1297.3	1303.7	1286.1	1238.6	1316.0	1394.1	1415.2
22.5°	1469.3	1448.7	1344.8	1286.1	1275.5	1278.5	1278.5	1269.7	1307.8	1371.8	1371.2
25°	1530.3	1549.7	1417.6	1361.2	1304.9	1234.5	1225.6	1233.3	1255.0	1378.3	1374.2
27.5°	1683.5	1630.1	1442.2	1400.0	1284.3	1173.4	1197.5	1209.2	1216.3	1351.3	1373.6
30°	1783.3	1799.7	1530.3	1422.9	1254.4	1105.3	1113.5	1147.6	1188.7	1348.3	1354.8
32.5°	1917.7	1882.5	1667.7	1384.7	1174.6	1064.2	1049.0	1094.7	1155.8	1300.8	1318.4
35°	2042.7	2084.4	1725.8	1377.7	1118.8	1002.6	1019.0	1034.9	1098.3	1248.0	1268.5
37.5°	2336.2	2241.2	1889.0	1343.6	1072.4	971.5	953.9	977.9	1031.9	1147.6	1195.1
40°	2559.3	2565.2	1924.2	1300.8	983.8	926.9	889.3	913.4	936.3	1028.4	1049.0
42.5°	2977.8	2849.9	2010.5	1206.9	928.0	859.9	838.8	849.4	852.9	891.6	925.7
45°	3510.2	3210.3	2044.5	1080.7	854.7	832.4	789.5	784.2	764.9	770.1	800.1
47.5°	4246.9	3772.6	2019.9	946.2	789.5	796.6	734.9	710.9	683.9	690.3	718.5
50°	5199.6	4491.1	2018.1	832.4	744.9	749.6	699.1	655.7	628.7	642.2	666.8
52.5°	6268.5	5211.9	2026.3	754.3	696.2	693.8	675.6	622.8	601.1	615.2	643.3
55°	7291.1	5831.8	2087.4	705.0	645.7	649.8	656.8	612.2	588.2	601.1	630.4
57.5°	8181.0	6321.4	2064.5	652.7	598.7	617.5	636.3	597.6	579.4	598.1	627.5
60°	8803.2	6548.5	1883.7	602.8	564.1	589.9	626.3	595.8	593.5	634.0	669.2
62.5°	9030.3	6464.6	1531.5	563.5	543.6	586.4	649.2	634.5	636.9	686.8	735.5
65°	8698.7	6023.2	1142.3	538.3	527.7	603.4	702.0	657.4	625.2	666.2	710.9
67.5°	7755.4	5238.4	834.7	516.6	509.5	630.4	750.8	655.1	595.2	636.9	673.3
70°	6274.4	4134.8	646.3	489.0	485.4	612.2	755.5	637.5	562.9	589.9	610.5
72.5°	4299.2	2831.1	535.3	462.6	443.8	542.4	717.3	598.1	524.2	540.0	557.1
75°	2402.6	1589.0	450.2	429.7	388.6	483.1	672.7	574.7	495.4	500.1	523.6
77.5°	1078.3	687.4	382.1	386.2	338.7	427.3	614.6	537.1	451.4	440.8	464.3
80°	408.0	335.2	309.9	326.4	284.7	370.4	554.1	503.1	405.0	391.5	405.0
82.5°	236.6	203.1	230.1	251.2	226.0	340.5	528.9	471.9	356.9	322.8	334.6
85°	109.8	105.1	137.9	163.2	157.9	265.3	452.6	355.1	254.2	214.8	237.7
87.5°	28.8	32.3	48.7	57.5	58.7	91.0	174.3	132.1	99.2	75.1	72.2
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)