

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: P367956

Luminaire Tested: **MSA-SA3C-730-U-T2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367956
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-730-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16537 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

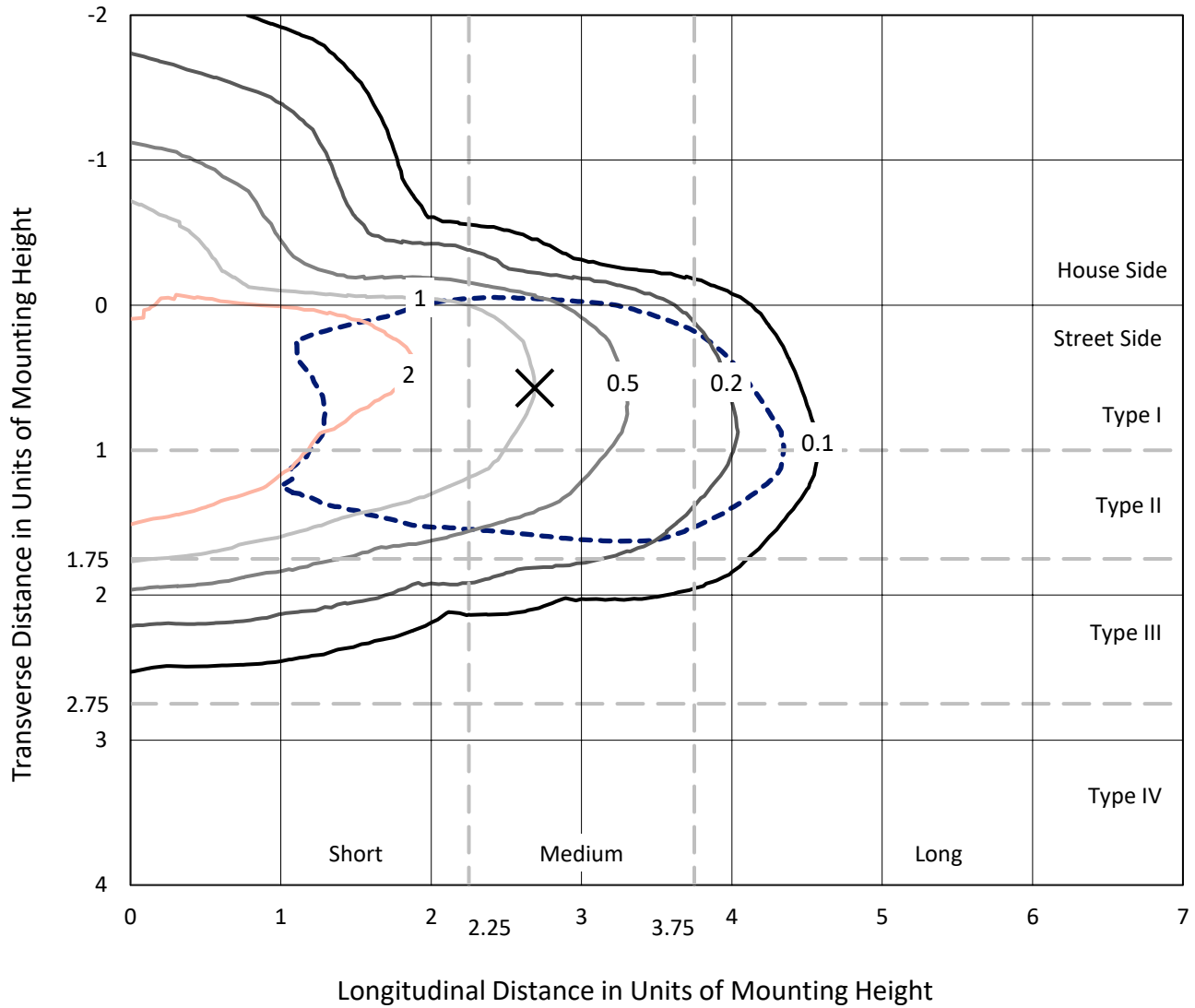
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

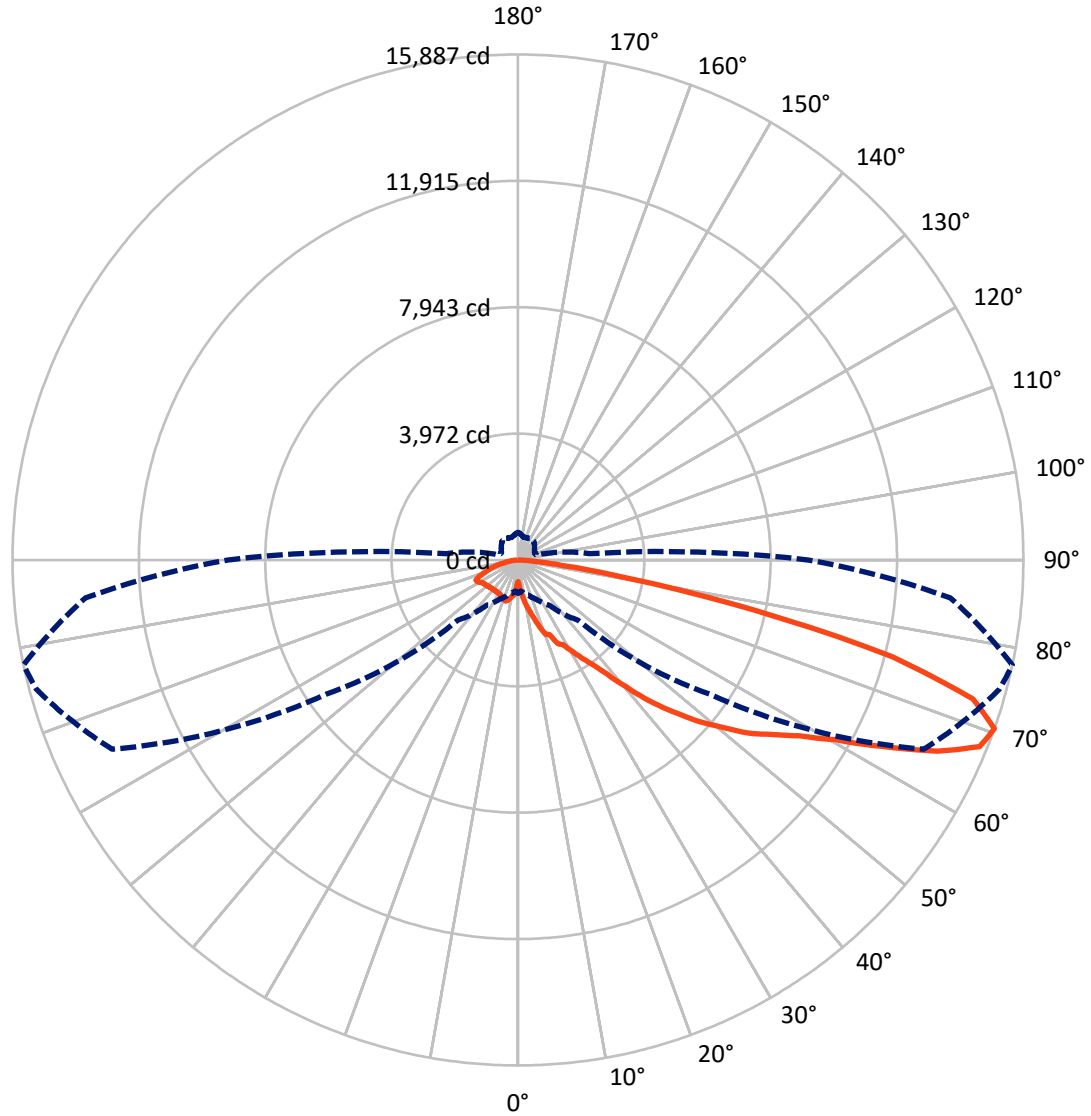
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2951.6	0.0	2951.6
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	13585.4	0.0	13585.4
	% Fixture	82.2	0.0	82.2
Total	Lumens	16537.0	0.0	16537.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.2	0.6
10°-20°	459.1	2.8
20°-30°	883.6	5.3
30°-40°	1488.4	9.0
40°-50°	2575.3	15.6
50°-60°	3888.3	23.5
60°-70°	4306.8	26.0
70°-80°	2483.0	15.0
80°-90°	348.2	2.1
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°	16537.0	100.0
0°-180°	16537.0	100.0

Coefficient of Utilization



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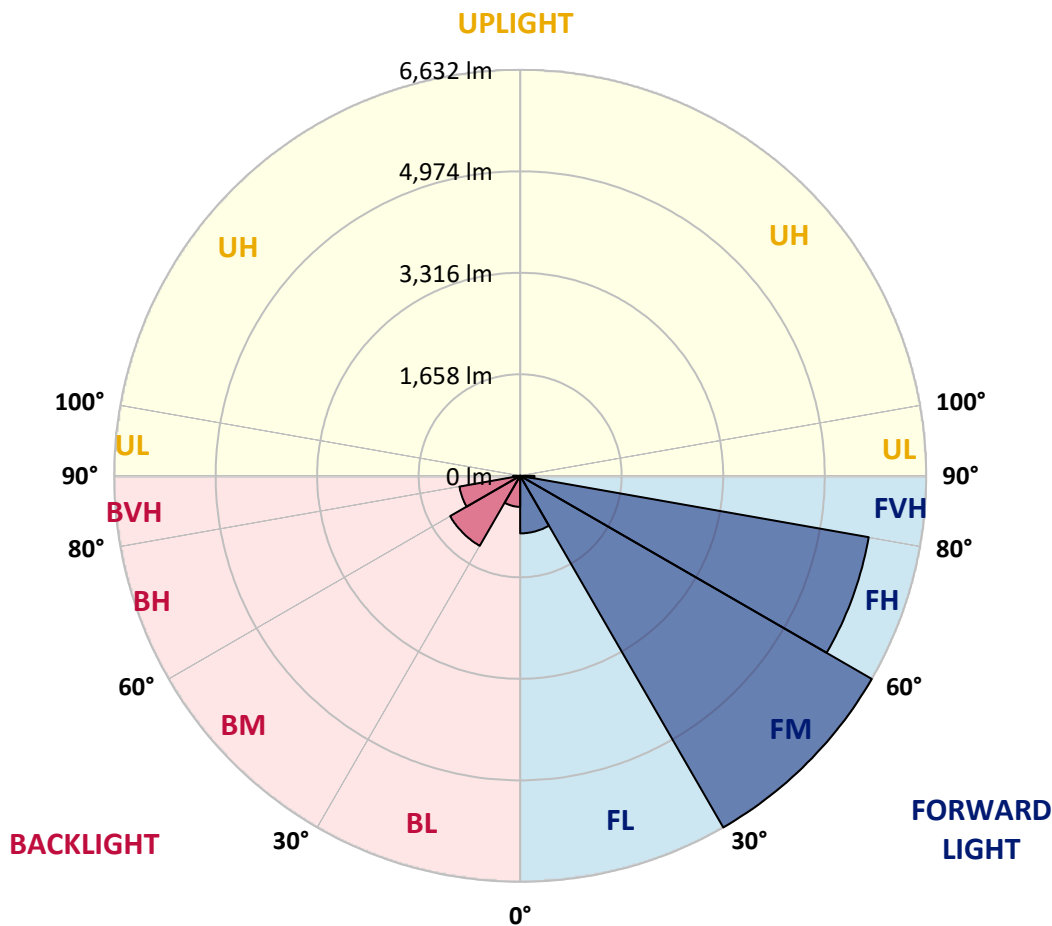
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	940.1	5.7			
FM (30°-60°)	6631.8	40.1			
FH (60°-80°)	5781.2	35.0			G3/7500
FVH (80°-90°)	232.3	1.4			G3/500
BL (0°-30°)	506.8	3.1	B2/1000		
BM (30°-60°)	1320.2	8.0	B2/2500		
BH (60°-80°)	1008.7	6.1	B3/2500		G3/2500
BVH (80°-90°)	115.9	0.7			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2
2.5°	867.9	836.9	790.0	809.3	832.8	835.5	828.0	785.2	770.7	803.1	812.8
5°	1216.1	1163.7	1132.0	1121.6	1086.5	1013.4	1065.8	1038.9	1044.4	1028.6	1059.6
7.5°	1509.1	1473.9	1427.0	1413.9	1333.3	1276.1	1311.9	1300.2	1243.7	1221.6	1256.8
10°	1658.0	1619.4	1621.4	1593.2	1571.8	1577.3	1559.4	1507.7	1465.6	1436.0	1351.2
12.5°	1747.6	1757.2	1809.0	1794.5	1875.1	1941.3	1891.0	1814.5	1681.4	1654.5	1570.4
15°	1960.6	1996.5	1948.2	1970.3	2004.7	2131.6	2110.9	2094.4	1953.7	1901.3	1746.2
17.5°	2179.8	2186.7	2113.7	2101.9	2184.7	2248.8	2329.4	2236.4	2253.6	2217.1	1966.1
20°	2226.7	2274.3	2169.5	2097.1	2267.4	2394.2	2494.2	2395.6	2486.6	2496.3	2147.4
22.5°	2398.4	2341.2	2203.3	2132.3	2281.2	2437.0	2599.7	2654.8	2625.9	2544.5	2322.5
25°	2517.6	2487.3	2346.7	2268.1	2324.6	2468.0	2753.4	2897.5	2923.0	2912.0	2489.4
27.5°	2738.9	2754.1	2464.6	2486.6	2408.0	2421.1	2845.8	3219.4	3060.2	3016.1	2696.2
30°	3088.5	3020.9	2696.2	2714.1	2583.8	2561.8	3040.9	3497.3	3354.6	3301.5	2866.5
32.5°	3453.1	3459.3	3065.0	2912.0	2842.3	2820.3	3002.3	3642.7	3726.8	3657.9	3123.6
35°	3967.4	3931.6	3464.9	3263.6	3011.9	2973.3	3277.3	4064.6	4219.1	4026.0	3429.0
37.5°	4750.6	4642.3	4099.1	3633.8	3447.6	3403.5	3670.3	4443.1	4790.6	4550.6	3928.1
40°	5379.3	5159.4	4665.8	4099.1	3784.0	3838.5	3949.5	4902.2	5383.4	5248.3	4390.0
42.5°	5880.5	5685.4	5067.0	4668.5	4240.4	4172.9	4294.2	5471.0	6190.0	6057.6	4966.3
45°	6361.0	5963.9	5517.9	5159.4	4747.8	4829.8	4811.9	6051.4	7179.3	6771.9	5475.8
47.5°	6835.3	6462.3	5995.6	5513.7	5099.4	5610.2	5419.3	6483.0	7846.6	7544.7	6012.1
50°	7444.7	7034.5	6503.0	6018.4	5770.2	6143.8	5823.3	6848.4	8593.9	8239.6	6518.2
52.5°	7849.4	7450.2	6984.2	6638.1	6615.4	6471.3	6389.2	7311.0	9248.8	9033.7	7054.5
55°	7801.8	7417.1	7206.2	7244.1	7525.4	7039.3	6972.5	7995.5	9932.0	9683.1	7633.6
57.5°	7205.5	6785.6	6830.5	7055.2	7810.8	8036.9	7923.1	8727.0	10541.4	10428.4	8349.9
60°	5613.0	5397.2	5761.9	6172.8	7428.8	8329.2	9128.9	9619.0	11291.5	11472.1	9474.9
62.5°	3646.2	3358.0	3934.3	4632.0	6289.3	8136.2	10356.7	11310.8	12520.0	12930.2	11184.6
65°	1888.9	1842.7	2246.0	2887.2	4378.3	6937.3	10789.6	13085.3	14013.2	14490.9	12817.8
67.5°	1373.3	1287.8	1474.6	1851.7	2672.8	4730.6	9969.2	14442.7	15212.0	15649.8	13767.1
70°	1045.8	982.4	1125.1	1358.8	1745.5	2672.1	7359.2	14072.5	15674.6	15886.9	13640.9
72.5°	783.1	728.7	853.5	1071.3	1345.0	1504.2	4350.0	11570.7	14885.3	14957.6	12242.8
75°	625.3	583.2	637.0	845.9	1096.1	1023.7	2310.8	8383.0	12093.9	12156.0	9351.5
77.5°	512.9	477.1	499.1	634.2	852.8	770.0	1146.5	5332.4	7678.4	7583.3	5261.4
80°	418.5	387.4	397.8	458.4	649.4	574.9	643.9	2781.7	3662.7	3515.2	2188.1
82.5°	321.9	295.7	316.4	337.1	470.2	412.9	375.7	1265.7	1500.1	1397.4	802.4
85°	215.8	191.6	275.1	253.0	307.5	253.7	205.4	503.9	559.1	521.2	282.0
87.5°	59.3	55.8	92.4	126.2	126.2	95.8	75.1	122.0	155.8	136.5	66.2
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°	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2	674.2
2.5°	816.9	801.8	761.8	758.3	768.0	769.4	763.2	748.7	741.1	782.5	776.3
5°	1052.0	998.2	965.8	936.2	894.8	865.2	872.8	893.4	900.3	931.4	934.8
7.5°	1234.7	1163.7	1092.7	997.5	934.8	894.8	925.2	947.2	964.5	1008.6	1026.5
10°	1314.0	1236.8	1136.1	1036.1	1018.9	1025.8	1008.6	1014.1	1041.0	1043.0	1052.0
12.5°	1461.5	1373.9	1192.6	1102.3	1097.5	1112.0	1105.8	1131.3	1149.9	1200.2	1178.9
15°	1602.8	1491.1	1235.4	1143.0	1123.0	1152.0	1185.7	1228.5	1268.5	1316.0	1291.9
17.5°	1774.5	1606.3	1237.5	1124.4	1127.8	1189.9	1225.0	1248.5	1367.7	1433.2	1400.1
20°	1882.7	1618.0	1191.3	1078.2	1127.8	1183.7	1232.6	1258.1	1391.9	1490.5	1513.2
22.5°	1980.6	1622.1	1155.4	1053.4	1085.1	1158.9	1232.6	1289.2	1374.6	1469.1	1472.5
25°	2034.4	1618.7	1109.2	1055.5	1084.4	1120.9	1186.4	1238.1	1301.6	1433.2	1436.7
27.5°	2172.3	1573.9	1063.7	1063.7	1078.9	1080.3	1163.7	1194.0	1203.0	1322.9	1344.3
30°	2212.2	1583.5	1058.2	1062.3	1069.9	1056.1	1092.7	1112.7	1125.8	1229.2	1232.6
32.5°	2276.4	1506.3	1074.8	1049.9	1040.3	1038.2	1047.2	1065.1	1070.6	1134.0	1145.8
35°	2354.3	1475.3	1080.3	1046.5	1027.2	1016.8	1043.7	1021.7	1038.9	1113.4	1121.6
37.5°	2608.0	1432.5	1108.5	1046.5	1021.7	1010.0	996.9	1007.2	1068.6	1140.2	1184.4
40°	2770.0	1445.6	1101.6	1056.8	1003.1	992.0	970.0	1007.9	1103.0	1229.9	1263.0
42.5°	3054.0	1453.2	1109.9	1052.0	1009.3	966.5	981.0	1022.4	1122.3	1194.7	1245.7
45°	3347.7	1476.7	1104.4	1037.5	995.5	1015.5	995.5	1032.7	1080.3	1082.3	1120.9
47.5°	3635.8	1571.1	1092.7	1007.9	992.0	1044.4	993.4	999.6	1003.1	1015.5	1061.0
50°	3974.3	1671.8	1076.1	966.5	996.9	1045.8	1001.0	970.7	967.2	1007.9	1058.9
52.5°	4359.0	1785.5	1054.8	926.5	968.6	1032.7	1027.2	972.7	943.1	982.4	1033.4
55°	4811.9	1915.1	1029.9	886.6	937.6	1034.1	1041.7	958.2	943.8	986.5	1041.0
57.5°	5413.8	2102.6	981.7	828.6	899.7	1012.7	1004.4	941.7	927.9	973.4	1029.9
60°	6440.9	2463.2	912.7	771.4	859.0	960.3	974.1	912.1	898.3	948.6	1007.9
62.5°	7816.3	2896.8	829.3	715.6	809.3	903.8	936.2	869.3	867.9	932.1	994.1
65°	9096.5	3142.9	743.2	664.6	758.3	851.4	893.4	829.3	832.1	912.7	974.8
67.5°	9628.7	2853.4	665.9	619.1	699.7	791.4	858.3	798.3	789.3	886.6	943.8
70°	9128.9	2266.7	599.1	570.8	633.5	726.6	809.3	756.9	736.3	824.5	869.3
72.5°	8077.6	1889.6	536.3	514.3	575.6	658.4	743.2	701.1	674.2	741.8	781.8
75°	6314.1	1550.4	464.6	458.4	509.5	596.3	674.2	645.3	610.8	653.5	693.5
77.5°	3595.2	981.0	390.2	394.3	430.9	522.6	591.5	568.7	533.6	551.5	597.7
80°	1438.8	495.0	313.7	316.4	347.5	429.5	490.2	481.9	445.3	459.8	491.5
82.5°	537.7	271.6	231.6	233.0	264.0	339.9	418.5	414.3	379.9	369.5	387.4
85°	213.7	134.4	142.0	148.2	177.9	244.7	335.7	297.8	257.1	225.4	236.5
87.5°	51.0	42.7	49.6	52.4	57.9	76.5	122.7	98.6	101.3	81.3	60.7
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)