

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: P597084

Luminaire Tested: **MSA-SA3D-835-U-T2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597084
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3D-835-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: 16367 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G3

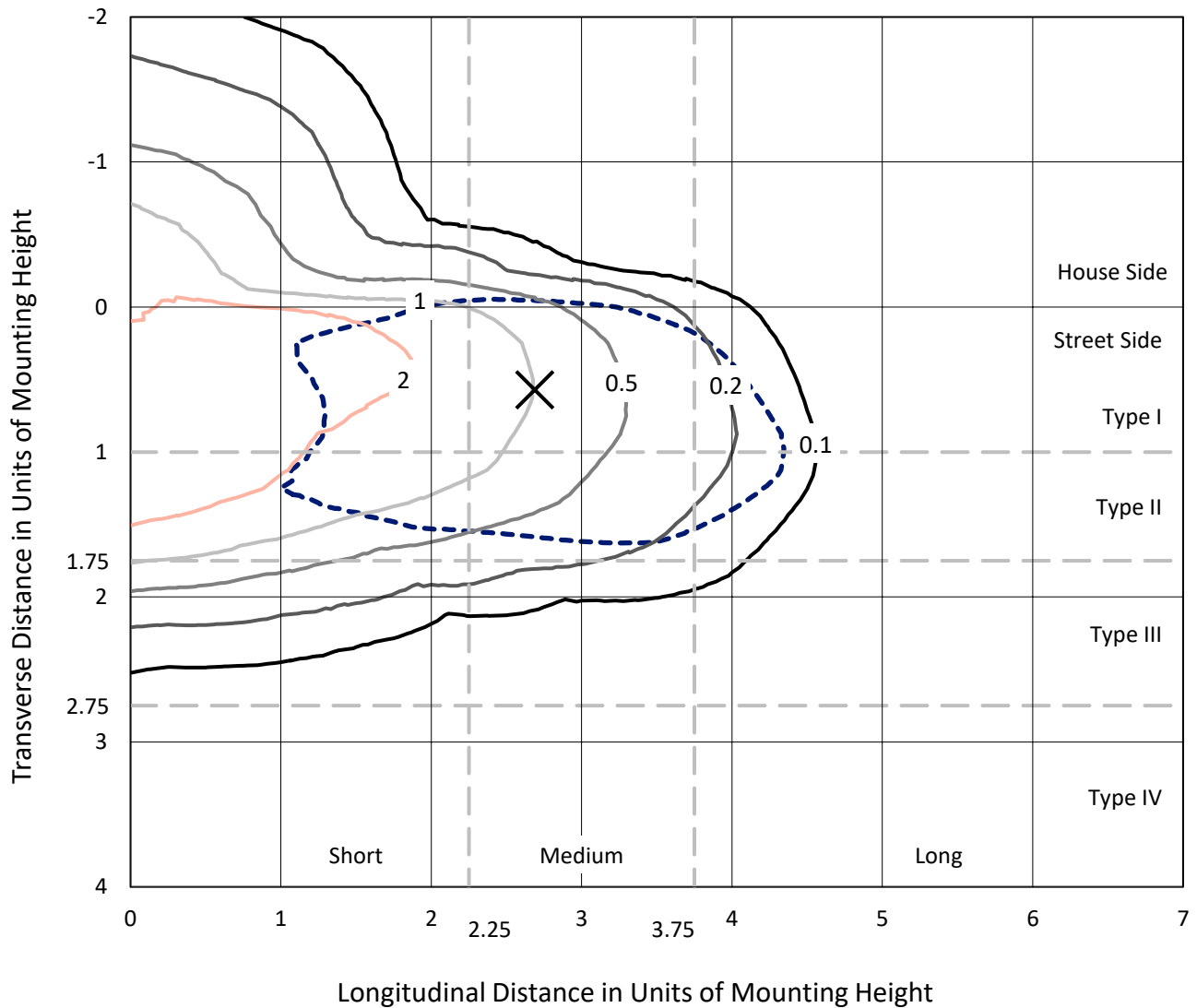
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

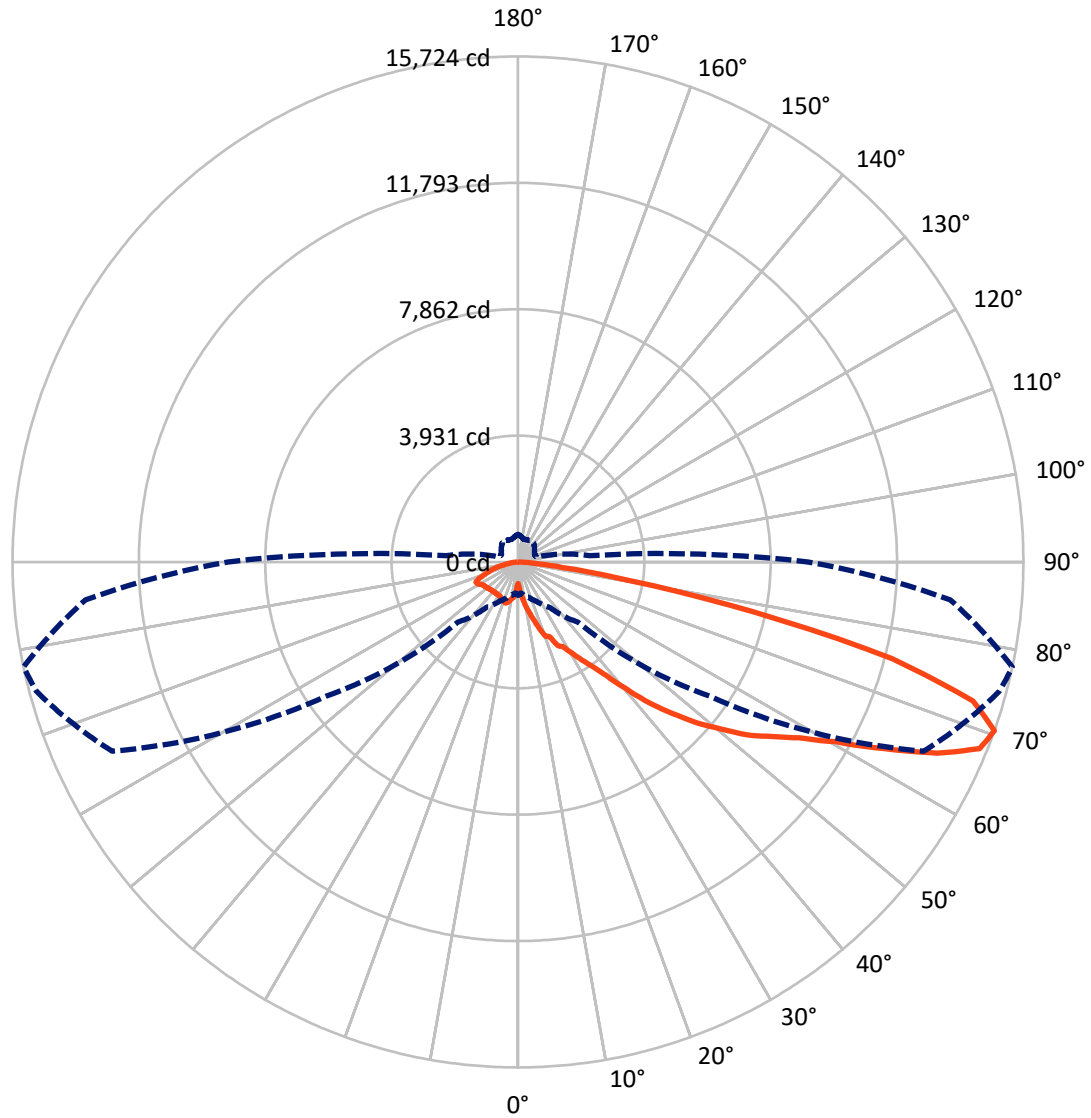
× Max cd
 - - - 1/2 Max cd



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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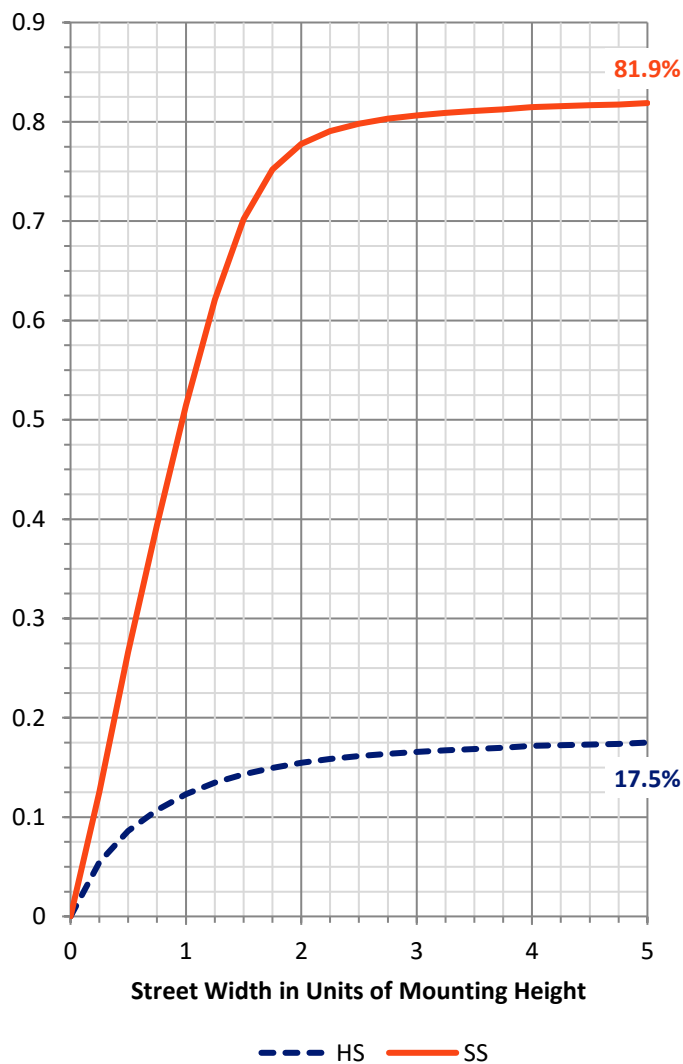
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2921.3	0.0	2921.3
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	13445.7	0.0	13445.7
	% Fixture	82.2	0.0	82.2
Total	Lumens	16367.0	0.0	16367.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	0.6
10°-20°	454.3	2.8
20°-30°	874.6	5.3
30°-40°	1473.1	9.0
40°-50°	2548.8	15.6
50°-60°	3848.4	23.5
60°-70°	4262.5	26.0
70°-80°	2457.5	15.0
80°-90°	344.7	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°	16367.0	100.0
0°-180°	16367.0	100.0

Coefficient of Utilization



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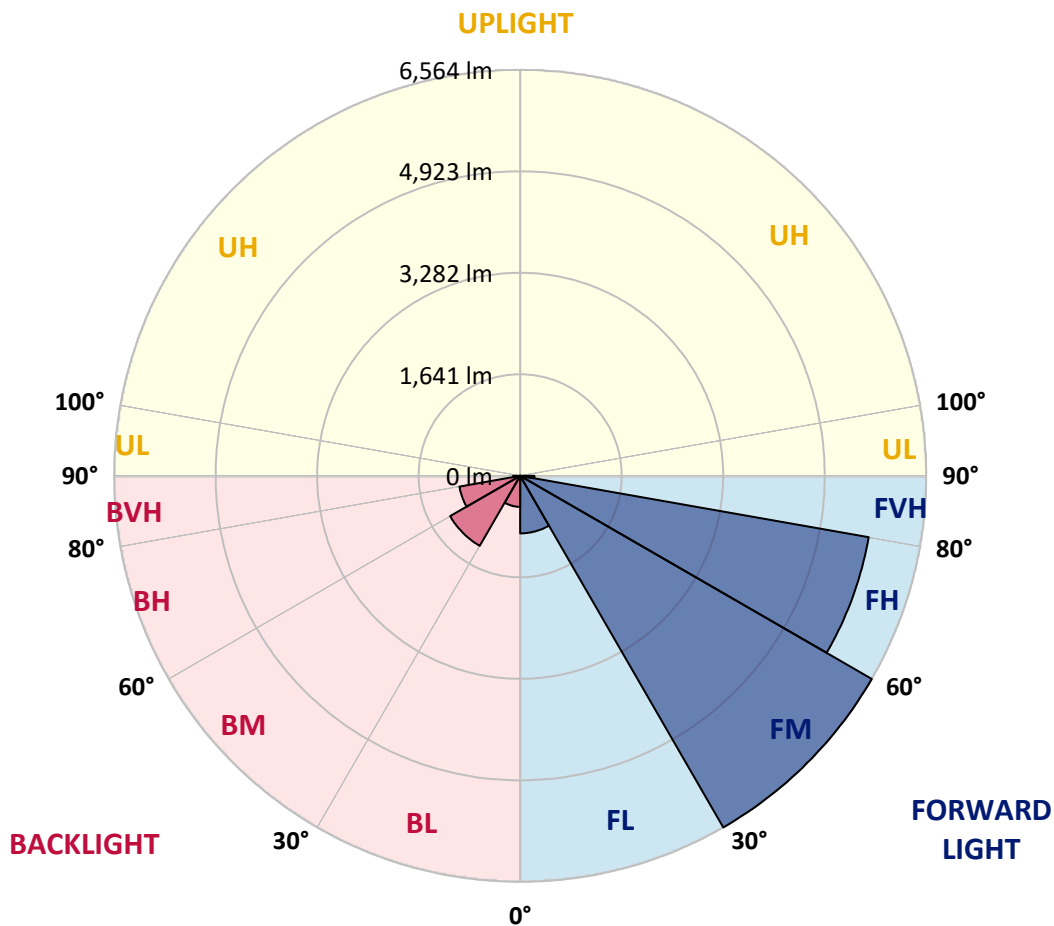
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	930.4	5.7			
FM (30°-60°)	6563.7	40.1			
FH (60°-80°)	5721.7	35.0			G3/7500
FVH (80°-90°)	229.9	1.4			G3/500
BL (0°-30°)	501.6	3.1	B2/1000		
BM (30°-60°)	1306.6	8.0	B2/2500		
BH (60°-80°)	998.3	6.1	B2/1000		G2/1000
BVH (80°-90°)	114.7	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3
2.5°	859.0	828.3	781.9	801.0	824.2	826.9	819.4	777.1	762.8	794.9	804.4
5°	1203.6	1151.7	1120.3	1110.1	1075.3	1003.0	1054.8	1028.2	1033.7	1018.0	1048.7
7.5°	1493.6	1458.8	1412.4	1399.4	1319.6	1262.9	1298.4	1286.8	1230.9	1209.0	1243.8
10°	1640.9	1602.7	1604.8	1576.8	1555.6	1561.1	1543.4	1492.2	1450.6	1421.2	1337.3
12.5°	1729.6	1739.2	1790.4	1776.0	1855.9	1921.4	1871.6	1795.8	1664.1	1637.5	1554.3
15°	1940.5	1975.9	1928.2	1950.0	1984.1	2109.7	2089.2	2072.8	1933.6	1881.8	1728.3
17.5°	2157.4	2164.3	2091.9	2080.3	2162.2	2225.7	2305.5	2213.4	2230.4	2194.3	1945.9
20°	2203.8	2250.9	2147.2	2075.6	2244.1	2369.6	2468.6	2371.0	2461.1	2470.6	2125.4
22.5°	2373.7	2317.1	2180.6	2110.4	2257.7	2411.9	2573.0	2627.5	2598.9	2518.4	2298.7
25°	2491.8	2461.7	2322.6	2244.8	2300.7	2442.6	2725.1	2867.7	2893.0	2882.0	2463.8
27.5°	2710.8	2725.8	2439.2	2461.1	2383.3	2396.2	2816.5	3186.3	3028.7	2985.1	2668.5
30°	3056.7	2989.8	2668.5	2686.2	2557.3	2535.4	3009.6	3461.3	3320.1	3267.5	2837.0
32.5°	3417.6	3423.8	3033.5	2882.0	2813.1	2791.3	2971.4	3605.3	3688.5	3620.3	3091.5
35°	3926.6	3891.2	3429.2	3230.0	2981.0	2942.8	3243.7	4022.8	4175.7	3984.6	3393.8
37.5°	4701.7	4594.6	4057.0	3596.4	3412.2	3368.5	3632.6	4397.4	4741.3	4503.9	3887.7
40°	5324.0	5106.3	4617.8	4057.0	3745.1	3799.1	3908.9	4851.8	5328.1	5194.4	4344.9
42.5°	5820.0	5626.9	5014.9	4620.5	4196.8	4130.0	4250.1	5414.7	6126.4	5995.4	4915.3
45°	6295.6	5902.6	5461.1	5106.3	4699.0	4780.2	4762.5	5989.2	7105.5	6702.2	5419.5
47.5°	6765.0	6395.9	5934.0	5457.0	5047.0	5552.6	5363.6	6416.4	7765.9	7467.1	5950.3
50°	7368.2	6962.2	6436.1	5956.5	5710.9	6080.7	5763.4	6778.0	8505.6	8154.9	6451.2
52.5°	7768.7	7373.6	6912.4	6569.9	6547.4	6404.8	6323.6	7235.8	9153.7	8940.9	6982.0
55°	7721.6	7340.9	7132.1	7169.6	7448.0	6967.0	6900.8	7913.3	9829.9	9583.6	7555.1
57.5°	7131.4	6715.9	6760.2	6982.7	7730.5	7954.3	7841.7	8637.2	10433.1	10321.2	8264.0
60°	5555.3	5341.7	5702.7	6109.3	7352.5	8243.6	9035.0	9520.1	11175.4	11354.2	9377.5
62.5°	3608.7	3323.5	3893.9	4584.4	6224.6	8052.5	10250.2	11194.5	12391.3	12797.2	11069.6
65°	1869.5	1823.8	2222.9	2857.5	4333.3	6866.0	10678.7	12950.7	13869.1	14342.0	12686.0
67.5°	1359.1	1274.5	1459.4	1832.7	2645.3	4681.9	9866.8	14294.2	15055.6	15488.9	13625.5
70°	1035.1	972.3	1113.5	1344.8	1727.6	2644.6	7283.6	13927.8	15513.5	15723.6	13500.7
72.5°	775.1	721.2	844.7	1060.3	1331.2	1488.8	4305.3	11451.7	14732.2	14803.9	12117.0
75°	618.8	577.2	630.4	837.2	1084.9	1013.2	2287.1	8296.8	11969.6	12031.0	9255.4
77.5°	507.6	472.2	494.0	627.7	844.0	762.1	1134.7	5277.6	7599.5	7505.3	5207.3
80°	414.2	383.5	393.7	453.7	642.7	569.0	637.3	2753.1	3625.1	3479.1	2165.6
82.5°	318.6	292.7	313.2	333.6	465.3	408.7	371.9	1252.7	1484.7	1383.0	794.2
85°	213.6	189.7	272.2	250.4	304.3	251.1	203.3	498.8	553.3	515.8	279.1
87.5°	58.7	55.3	91.4	124.9	124.9	94.8	74.4	120.8	154.2	135.1	65.5
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°	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3	667.3
2.5°	808.5	793.5	753.9	750.5	760.1	761.4	755.3	741.0	733.5	774.4	768.3
5°	1041.2	988.0	955.9	926.6	885.6	856.3	863.8	884.3	891.1	921.8	925.2
7.5°	1222.0	1151.7	1081.4	987.3	925.2	885.6	915.6	937.5	954.5	998.2	1015.9
10°	1300.5	1224.0	1124.4	1025.5	1008.4	1015.3	998.2	1003.7	1030.3	1032.3	1041.2
12.5°	1446.5	1359.8	1180.4	1091.0	1086.2	1100.6	1094.4	1119.7	1138.1	1187.9	1166.7
15°	1586.3	1475.8	1222.7	1131.3	1111.5	1140.1	1173.6	1215.9	1255.4	1302.5	1278.6
17.5°	1756.2	1589.8	1224.7	1112.8	1116.2	1177.7	1212.4	1235.6	1353.7	1418.5	1385.8
20°	1863.4	1601.4	1179.0	1067.1	1116.2	1171.5	1220.0	1245.2	1377.6	1475.1	1497.6
22.5°	1960.2	1605.5	1143.5	1042.6	1073.9	1146.9	1220.0	1275.9	1360.5	1454.0	1457.4
25°	2013.5	1602.0	1097.8	1044.6	1073.3	1109.4	1174.2	1225.4	1288.2	1418.5	1421.9
27.5°	2149.9	1557.7	1052.8	1052.8	1067.8	1069.2	1151.7	1181.7	1190.6	1309.3	1330.5
30°	2189.5	1567.2	1047.3	1051.4	1058.9	1045.3	1081.4	1101.2	1114.2	1216.5	1220.0
32.5°	2253.0	1490.8	1063.7	1039.1	1029.6	1027.5	1036.4	1054.2	1059.6	1122.4	1134.0
35°	2330.1	1460.1	1069.2	1035.7	1016.6	1006.4	1033.0	1011.2	1028.2	1101.9	1110.1
37.5°	2581.1	1417.8	1097.1	1035.7	1011.2	999.6	986.6	996.8	1057.6	1128.5	1172.2
40°	2741.5	1430.8	1090.3	1046.0	992.7	981.8	960.0	997.5	1091.7	1217.2	1250.0
42.5°	3022.6	1438.3	1098.5	1041.2	998.9	956.6	970.9	1011.9	1110.8	1182.4	1232.9
45°	3313.3	1461.5	1093.0	1026.9	985.2	1005.0	985.2	1022.1	1069.2	1071.2	1109.4
47.5°	3598.5	1555.0	1081.4	997.5	981.8	1033.7	983.2	989.3	992.7	1005.0	1050.1
50°	3933.5	1654.6	1065.1	956.6	986.6	1035.1	990.7	960.7	957.3	997.5	1048.0
52.5°	4314.2	1767.2	1043.9	917.0	958.6	1022.1	1016.6	962.7	933.4	972.3	1022.8
55°	4762.5	1895.4	1019.4	877.4	927.9	1023.5	1031.0	948.4	934.1	976.4	1030.3
57.5°	5358.1	2081.0	971.6	820.1	890.4	1002.3	994.1	932.0	918.4	963.4	1019.4
60°	6374.7	2437.9	903.4	763.5	850.1	950.4	964.1	902.7	889.0	938.8	997.5
62.5°	7735.9	2867.0	820.8	708.2	801.0	894.5	926.6	860.4	859.0	922.5	983.9
65°	9003.0	3110.6	735.5	657.7	750.5	842.6	884.3	820.8	823.5	903.4	964.8
67.5°	9529.7	2824.0	659.1	612.7	692.5	783.3	849.5	790.1	781.2	877.4	934.1
70°	9035.0	2243.4	592.9	564.9	627.0	719.1	801.0	749.2	728.7	816.0	860.4
72.5°	7994.5	1870.2	530.8	509.0	569.7	651.6	735.5	693.9	667.3	734.2	773.7
75°	6249.2	1534.5	459.9	453.7	504.2	590.2	667.3	638.6	604.5	646.8	686.4
77.5°	3558.2	970.9	386.2	390.3	426.4	517.2	585.4	562.9	528.1	545.8	591.6
80°	1424.0	489.9	310.4	313.2	343.9	425.1	485.1	476.9	440.8	455.1	486.5
82.5°	532.2	268.8	229.3	230.6	261.3	336.4	414.2	410.1	375.9	365.7	383.5
85°	211.5	133.0	140.6	146.7	176.0	242.2	332.3	294.8	254.5	223.1	234.0
87.5°	50.5	42.3	49.1	51.9	57.3	75.7	121.4	97.6	100.3	80.5	60.0
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)