

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: P368352

Luminaire Tested: **MSA-SA4B-730-U-T2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368352
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-SA4B-730-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17648 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

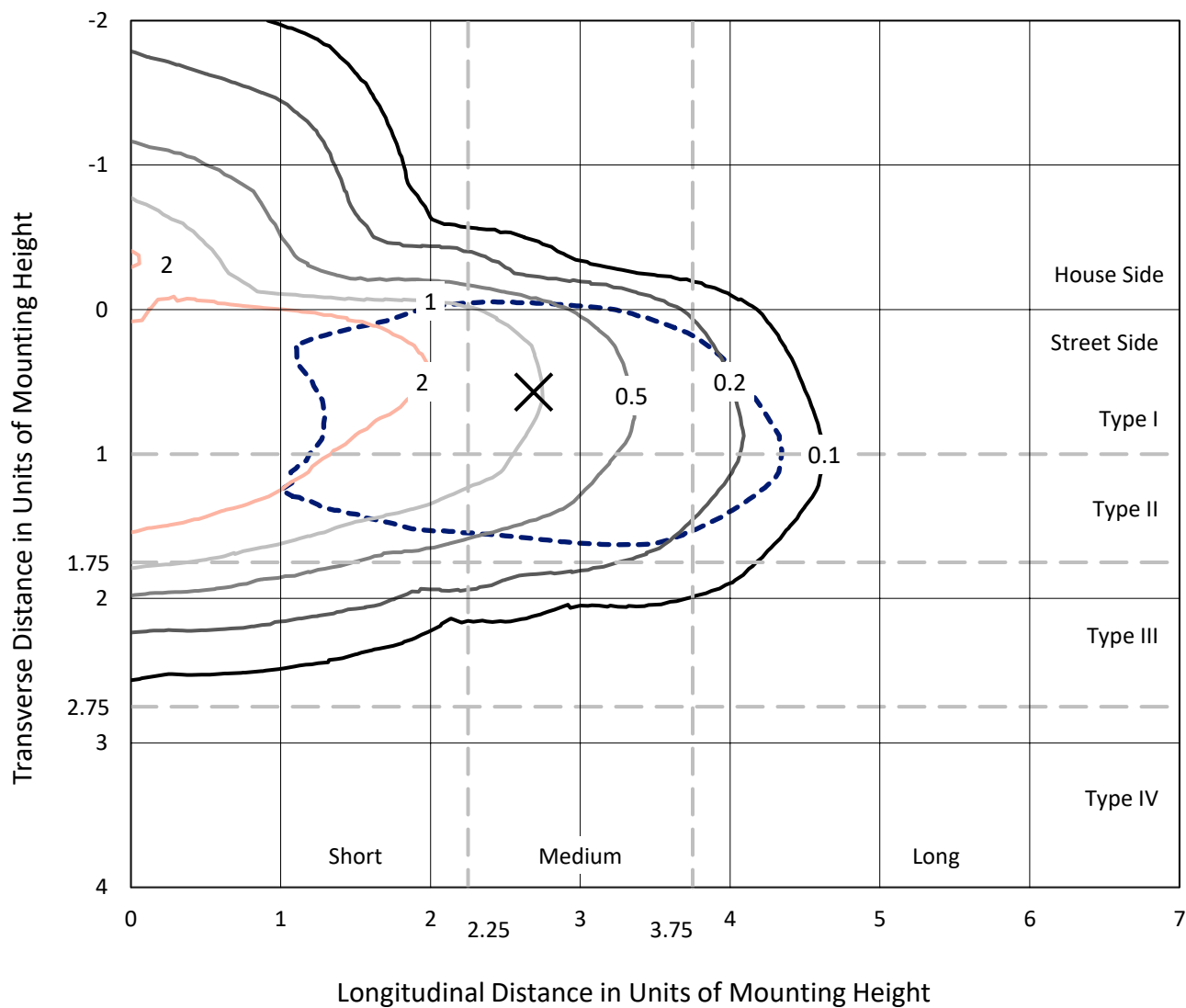
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

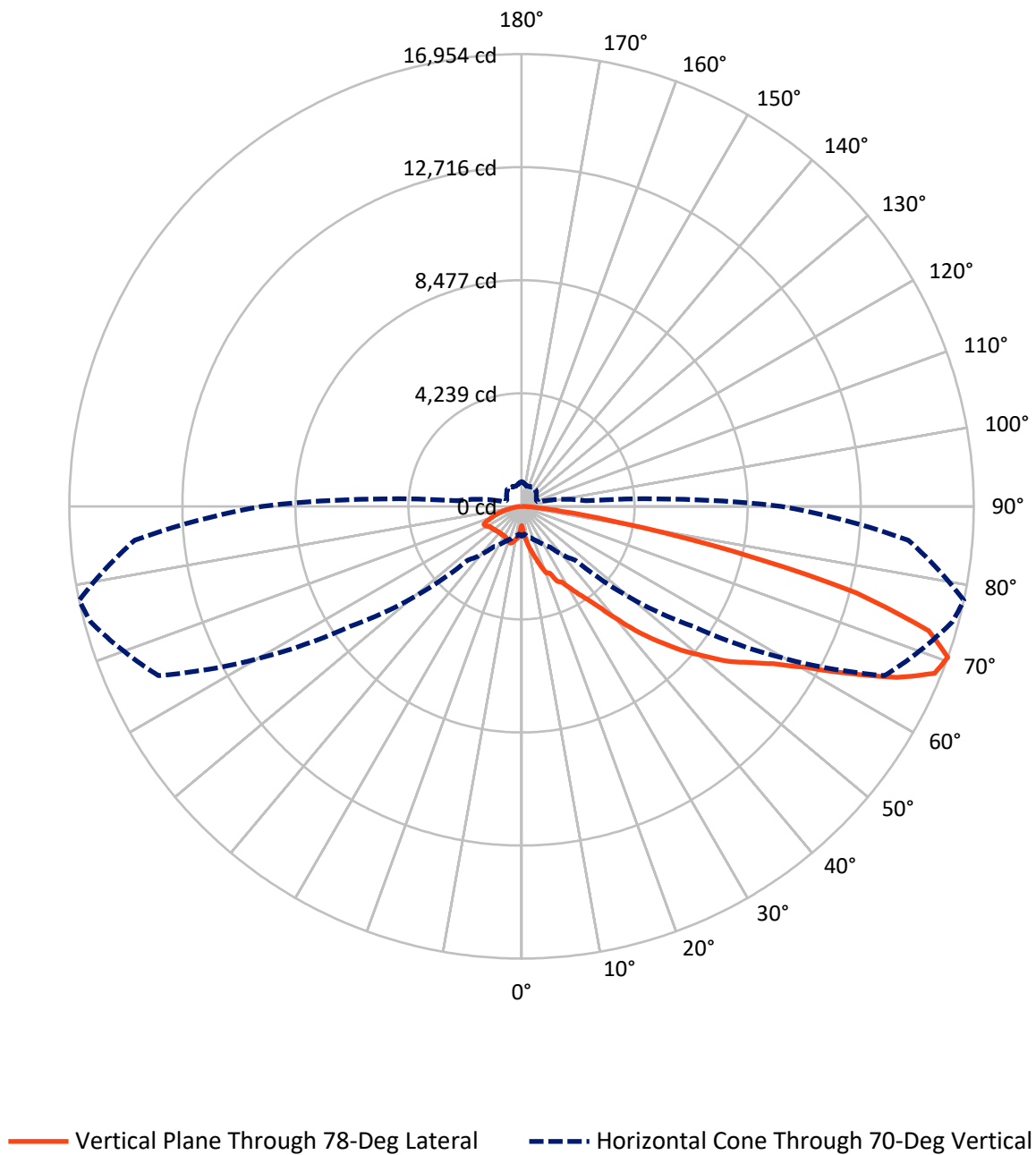


Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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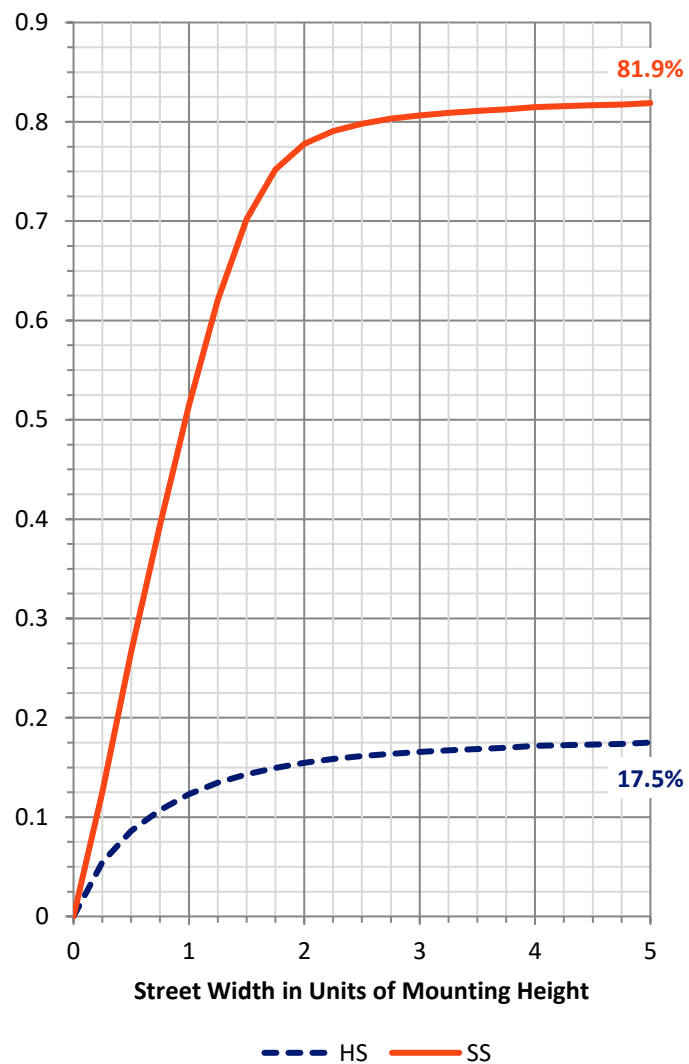
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3149.9	0.0	3149.9
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	14498.1	0.0	14498.1
	% Fixture	82.2	0.0	82.2
Total	Lumens	17648.0	0.0	17648.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.2	0.6
10°-20°	489.9	2.8
20°-30°	943.0	5.3
30°-40°	1588.4	9.0
40°-50°	2748.3	15.6
50°-60°	4149.6	23.5
60°-70°	4596.2	26.0
70°-80°	2649.9	15.0
80°-90°	371.6	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°	17648.0	100.0
0°-180°	17648.0	100.0

Coefficient of Utilization



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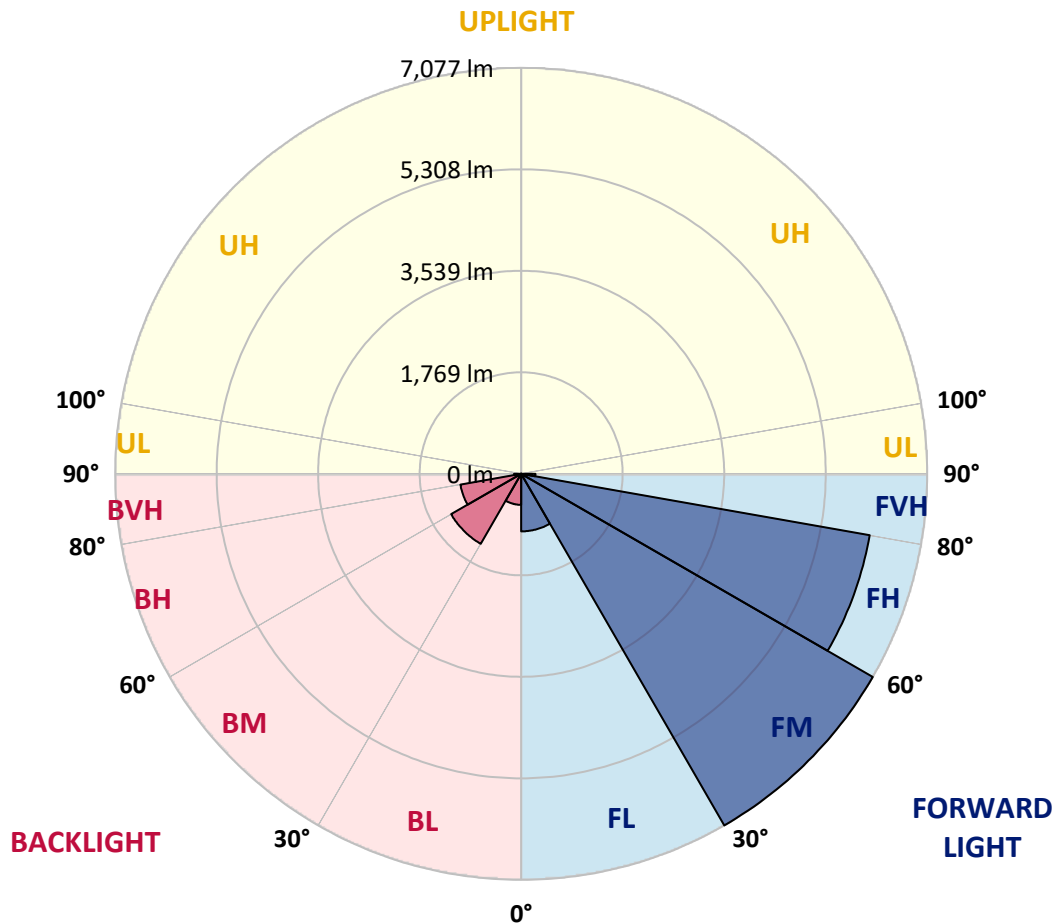
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1003.2	5.7			
FM	(30°-60°)	7077.4	40.1			
FH	(60°-80°)	6169.5	35.0			G3/7500
FVH	(80°-90°)	247.9	1.4			G3/500
BL	(0°-30°)	540.9	3.1	B2/1000		
BM	(30°-60°)	1408.9	8.0	B2/2500		
BH	(60°-80°)	1076.5	6.1	B3/2500		G3/2500
BVH	(80°-90°)	123.7	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	719.5	719.5	719.5	719.5	719.5	719.5	719.5	719.5	719.5	719.5	719.5
2.5°	926.2	893.1	843.1	863.7	888.7	891.7	883.6	838.0	822.5	857.1	867.4
5°	1297.8	1241.9	1208.0	1197.0	1159.5	1081.5	1137.4	1108.7	1114.6	1097.7	1130.8
7.5°	1610.5	1572.9	1522.9	1508.9	1422.8	1361.8	1400.0	1387.5	1327.2	1303.7	1341.2
10°	1769.4	1728.2	1730.4	1700.2	1677.4	1683.3	1664.2	1609.0	1564.1	1532.5	1442.0
12.5°	1865.0	1875.3	1930.5	1915.0	2001.1	2071.7	2018.0	1936.4	1794.4	1765.7	1675.9
15°	2092.3	2130.6	2079.1	2102.6	2139.4	2274.8	2252.7	2235.1	2085.0	2029.1	1863.5
17.5°	2326.3	2333.6	2255.7	2243.2	2331.4	2399.9	2485.9	2386.6	2405.0	2366.0	2098.2
20°	2376.3	2427.1	2315.3	2238.0	2419.7	2555.1	2661.8	2556.6	2653.7	2664.0	2291.7
22.5°	2559.5	2498.4	2351.3	2275.5	2434.4	2600.7	2774.3	2833.2	2802.3	2715.5	2478.6
25°	2686.8	2654.4	2504.3	2420.5	2480.8	2633.8	2938.4	3092.2	3119.4	3107.6	2656.6
27.5°	2922.9	2939.1	2630.1	2653.7	2569.8	2583.8	3037.0	3435.7	3265.8	3218.7	2877.3
30°	3295.9	3223.8	2877.3	2896.5	2757.4	2733.9	3245.2	3732.2	3579.9	3523.3	3059.1
32.5°	3685.1	3691.8	3270.9	3107.6	3033.3	3009.8	3204.0	3887.5	3977.2	3903.6	3333.5
35°	4234.0	4195.7	3697.6	3482.8	3214.3	3173.1	3497.5	4337.7	4502.5	4296.5	3659.4
37.5°	5069.7	4954.2	4374.5	3877.9	3679.2	3632.2	3916.9	4741.6	5112.4	4856.4	4192.0
40°	5740.7	5506.0	4979.2	4374.5	4038.3	4096.4	4214.8	5231.6	5745.1	5600.9	4685.0
42.5°	6275.5	6067.3	5407.4	4982.2	4525.3	4453.2	4582.7	5838.5	6605.9	6464.6	5300.0
45°	6788.3	6364.6	5888.6	5506.0	5066.8	5154.3	5135.2	6458.0	7661.6	7226.8	5843.7
47.5°	7294.5	6896.5	6398.4	5884.1	5442.0	5987.1	5783.4	6918.5	8373.8	8051.5	6416.1
50°	7944.9	7507.1	6939.9	6422.7	6157.8	6556.6	6214.5	7308.5	9171.3	8793.1	6956.1
52.5°	8376.7	7950.7	7453.4	7084.1	7059.8	6906.0	6818.5	7802.1	9870.2	9640.6	7528.4
55°	8325.9	7915.4	7690.3	7730.8	8030.9	7512.3	7440.9	8532.7	10599.3	10333.7	8146.4
57.5°	7689.6	7241.5	7289.3	7529.2	8335.5	8576.8	8455.4	9313.3	11249.6	11129.0	8910.8
60°	5990.1	5759.8	6149.0	6587.5	7927.9	8888.8	9742.2	10265.3	12050.1	12242.8	10111.5
62.5°	3891.1	3583.6	4198.7	4943.2	6711.8	8682.8	11052.5	12070.7	13361.1	13798.8	11936.0
65°	2015.8	1966.5	2396.9	3081.1	4672.4	7403.4	11514.5	13964.4	14954.6	15464.5	13678.9
67.5°	1465.5	1374.3	1573.7	1976.1	2852.3	5048.4	10639.0	15413.0	16234.0	16701.2	14692.0
70°	1116.1	1048.4	1200.7	1450.1	1862.8	2851.6	7853.6	15017.9	16727.7	16954.3	14557.3
72.5°	835.8	777.6	910.8	1143.3	1435.4	1605.3	4642.3	12348.0	15885.3	15962.5	13065.3
75°	667.3	622.4	679.8	902.7	1169.8	1092.5	2466.1	8946.1	12906.4	12972.6	9979.8
77.5°	547.4	509.1	532.6	676.8	910.1	821.8	1223.5	5690.7	8194.3	8092.7	5614.9
80°	446.6	413.5	424.5	489.2	693.0	613.6	687.1	2968.6	3908.8	3751.3	2335.1
82.5°	343.6	315.6	337.7	359.8	501.7	440.7	401.0	1350.7	1600.9	1491.3	856.4
85°	230.3	204.5	293.5	270.0	328.1	270.7	219.2	537.8	596.7	556.2	300.9
87.5°	63.3	59.6	98.6	134.6	134.6	102.3	80.2	130.2	166.3	145.7	70.6
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°	719.5	719.5	719.5	719.5	719.5	719.5	719.5	719.5	719.5	719.5	719.5
2.5°	871.8	855.6	813.0	809.3	819.6	821.0	814.4	799.0	790.9	835.0	828.4
5°	1122.7	1065.3	1030.7	999.1	954.9	923.3	931.4	953.5	960.8	993.9	997.6
7.5°	1317.6	1241.9	1166.1	1064.6	997.6	954.9	987.3	1010.9	1029.2	1076.3	1095.5
10°	1402.2	1319.9	1212.4	1105.8	1087.4	1094.7	1076.3	1082.2	1110.9	1113.1	1122.7
12.5°	1559.7	1466.3	1272.8	1176.4	1171.2	1186.7	1180.1	1207.3	1227.2	1280.9	1258.1
15°	1710.5	1591.3	1318.4	1219.8	1198.5	1229.4	1265.4	1311.0	1353.7	1404.5	1378.7
17.5°	1893.7	1714.2	1320.6	1199.9	1203.6	1269.8	1307.3	1332.4	1459.6	1529.5	1494.2
20°	2009.2	1726.7	1271.3	1150.6	1203.6	1263.2	1315.4	1342.7	1485.4	1590.6	1614.9
22.5°	2113.7	1731.1	1233.0	1124.2	1158.0	1236.7	1315.4	1375.8	1467.0	1567.8	1571.5
25°	2171.1	1727.4	1183.7	1126.4	1157.3	1196.3	1266.1	1321.3	1389.0	1529.5	1533.2
27.5°	2318.2	1679.6	1135.2	1135.2	1151.4	1152.8	1241.9	1274.2	1283.8	1411.8	1434.6
30°	2360.9	1689.9	1129.3	1133.7	1141.8	1127.1	1166.1	1187.4	1201.4	1311.8	1315.4
32.5°	2429.3	1607.5	1147.0	1120.5	1110.2	1108.0	1117.5	1136.7	1142.5	1210.2	1222.7
35°	2512.4	1574.4	1152.8	1116.8	1096.2	1085.2	1113.9	1090.3	1108.7	1188.2	1197.0
37.5°	2783.2	1528.8	1183.0	1116.8	1090.3	1077.8	1063.8	1074.9	1140.3	1216.9	1263.9
40°	2956.1	1542.8	1175.7	1127.8	1070.4	1058.7	1035.1	1075.6	1177.1	1312.5	1347.8
42.5°	3259.2	1550.9	1184.5	1122.7	1077.1	1031.5	1046.9	1091.0	1197.7	1275.0	1329.4
45°	3572.6	1575.9	1178.6	1107.2	1062.4	1083.7	1062.4	1102.1	1152.8	1155.1	1196.3
47.5°	3880.1	1676.7	1166.1	1075.6	1058.7	1114.6	1060.1	1066.8	1070.4	1083.7	1132.2
50°	4241.3	1784.1	1148.4	1031.5	1063.8	1116.1	1068.2	1035.9	1032.2	1075.6	1130.0
52.5°	4651.8	1905.5	1125.6	988.8	1033.7	1102.1	1096.2	1038.1	1006.4	1048.4	1102.8
55°	5135.2	2043.8	1099.1	946.1	1000.6	1103.6	1111.6	1022.6	1007.2	1052.8	1110.9
57.5°	5777.5	2243.9	1047.6	884.3	960.1	1080.7	1071.9	1005.0	990.3	1038.8	1099.1
60°	6873.7	2628.7	974.1	823.3	916.7	1024.8	1039.5	973.3	958.6	1012.3	1075.6
62.5°	8341.4	3091.4	885.1	763.7	863.7	964.5	999.1	927.7	926.2	994.7	1060.9
65°	9707.6	3354.1	793.1	709.2	809.3	908.6	953.5	885.1	888.0	974.1	1040.3
67.5°	10275.6	3045.1	710.7	660.7	746.7	844.6	915.9	851.9	842.4	946.1	1007.2
70°	9742.2	2419.0	639.3	609.2	676.1	775.4	863.7	807.8	785.7	879.9	927.7
72.5°	8620.2	2016.6	572.4	548.8	614.3	702.6	793.1	748.2	719.5	791.6	834.3
75°	6738.3	1654.6	495.9	489.2	543.7	636.4	719.5	688.6	651.8	697.4	740.1
77.5°	3836.7	1046.9	416.4	420.8	459.8	557.7	631.2	607.0	569.4	588.6	637.9
80°	1535.4	528.2	334.7	337.7	370.8	458.3	523.1	514.3	475.3	490.7	524.6
82.5°	573.8	289.9	247.2	248.7	281.8	362.7	446.6	442.2	405.4	394.3	413.5
85°	228.1	143.5	151.6	158.2	189.8	261.2	358.3	317.8	274.4	240.6	252.3
87.5°	54.4	45.6	53.0	55.9	61.8	81.7	131.0	105.2	108.1	86.8	64.7
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)