

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: P596446

Luminaire Tested: **MSA-SA4C-722-U-T2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596446
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-SA4C-722-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: 17642 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

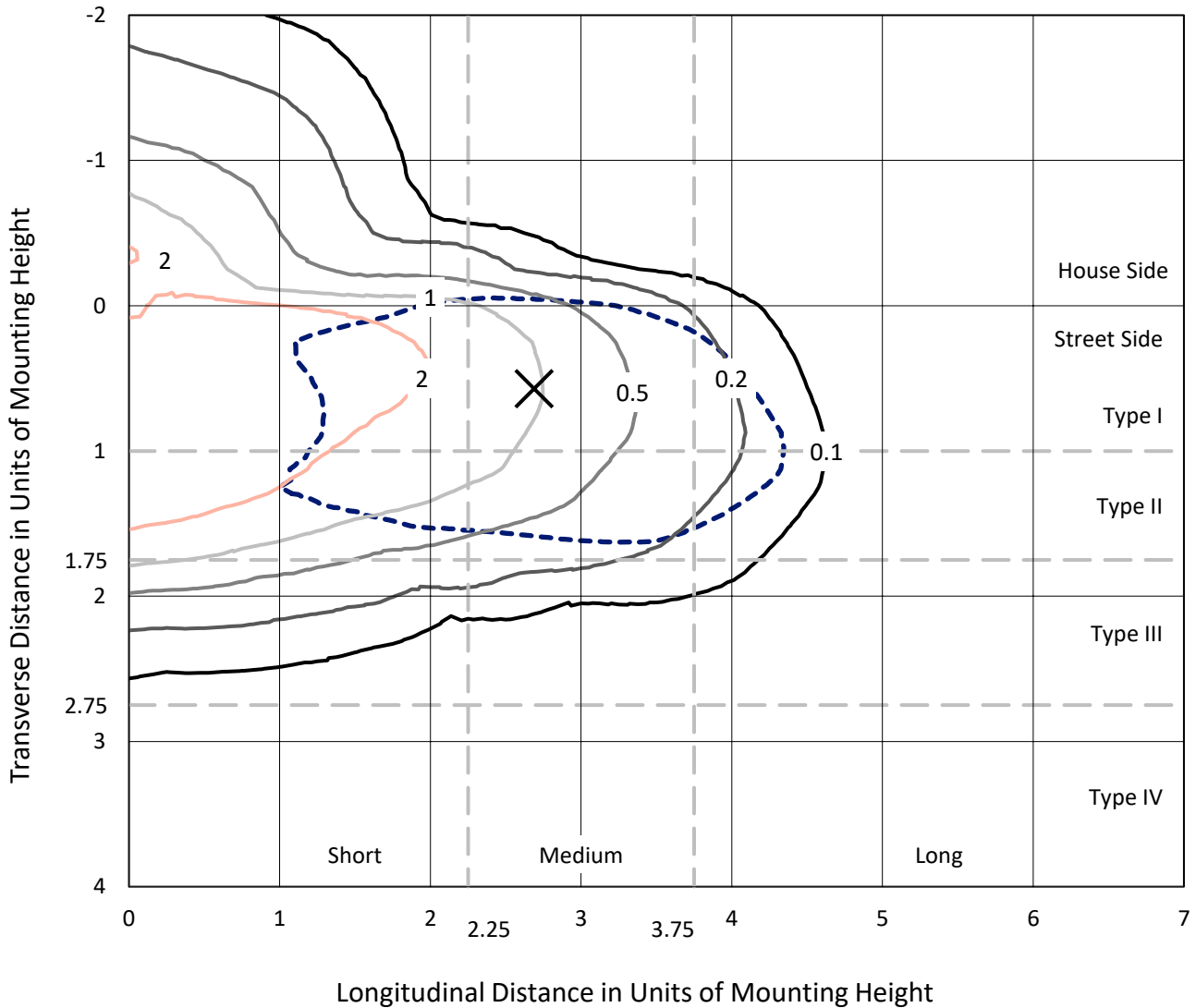
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

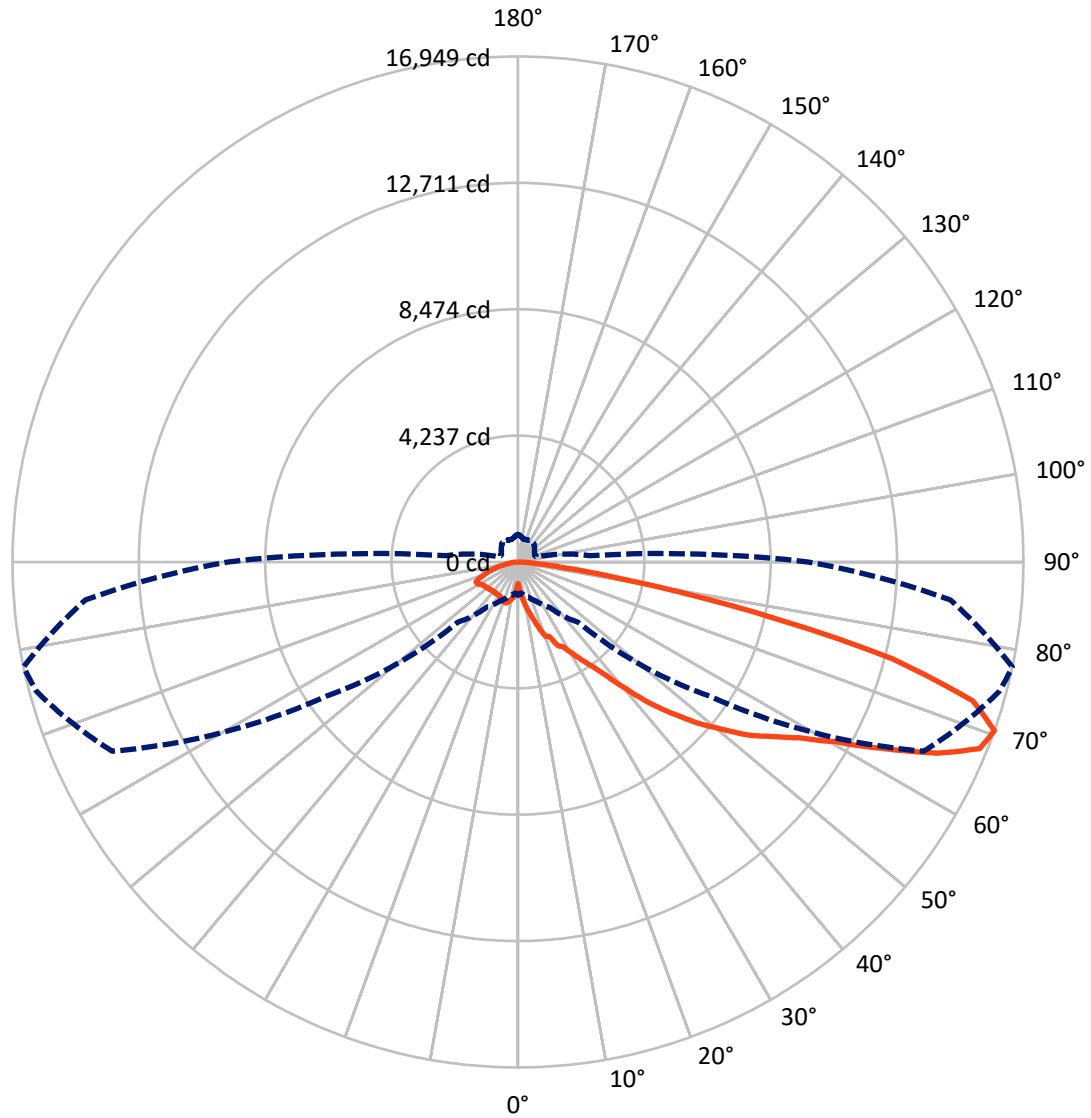
× Max cd
 - - - 1/2 Max cd



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



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

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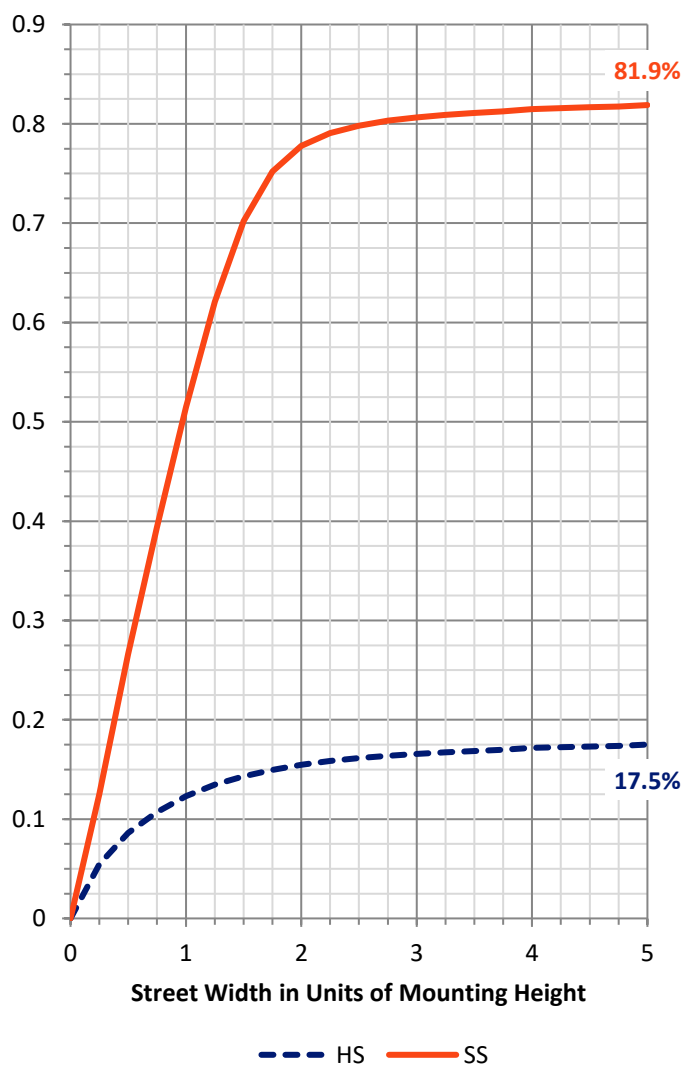
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3148.8	0.0	3148.8
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	14493.2	0.0	14493.2
	% Fixture	82.2	0.0	82.2
Total	Lumens	17642.0	0.0	17642.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.2	0.6
10°-20°	489.7	2.8
20°-30°	942.7	5.3
30°-40°	1587.8	9.0
40°-50°	2747.4	15.6
50°-60°	4148.2	23.5
60°-70°	4594.6	26.0
70°-80°	2649.0	15.0
80°-90°	371.5	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°	17642.0	100.0
0°-180°	17642.0	100.0

Coefficient of Utilization

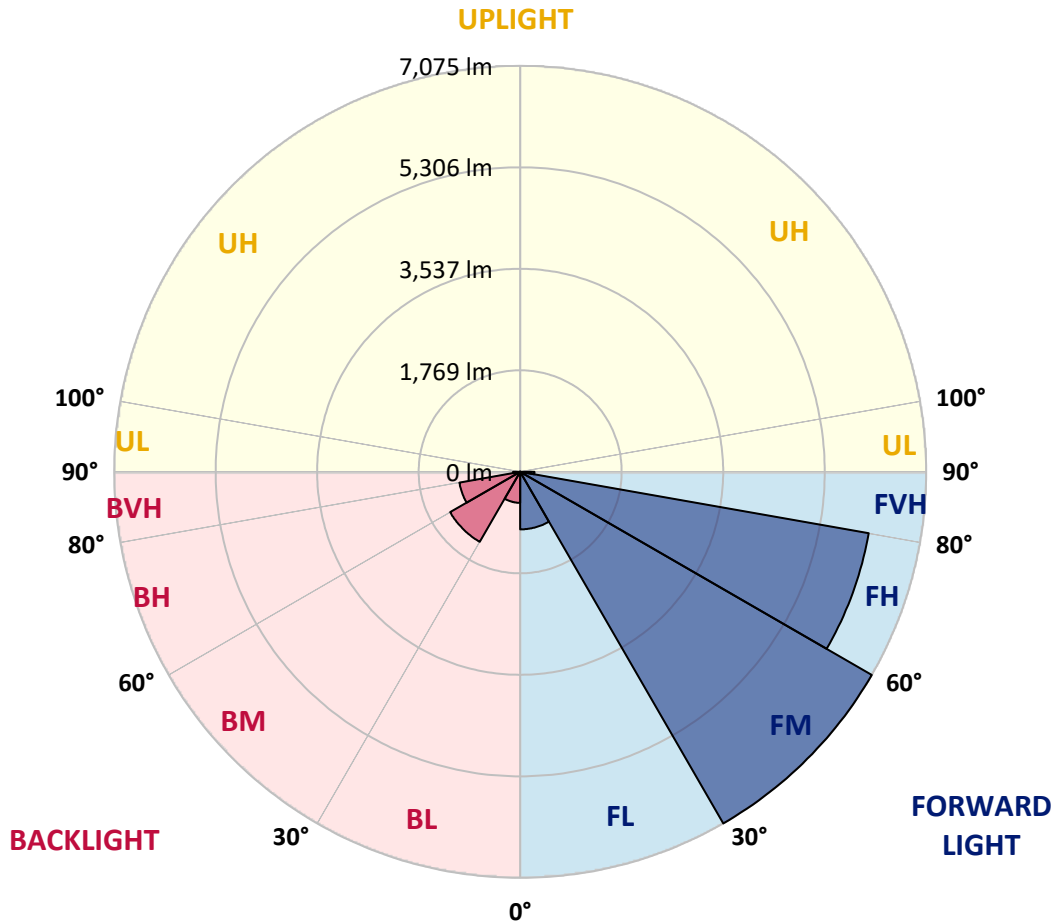


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1002.9	5.7			
FM (30°-60°)	7075.0	40.1			
FH (60°-80°)	6167.5	35.0			G3/7500
FVH (80°-90°)	247.8	1.4			G3/500
BL (0°-30°)	540.7	3.1	B2/1000		
BM (30°-60°)	1408.4	8.0	B2/2500		
BH (60°-80°)	1076.1	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°	719.3	719.3	719.3	719.3	719.3	719.3	719.3	719.3	719.3	719.3	719.3
2.5°	925.9	892.8	842.8	863.4	888.4	891.4	883.3	837.7	822.2	856.8	867.1
5°	1297.3	1241.4	1207.6	1196.6	1159.1	1081.1	1137.0	1108.3	1114.2	1097.3	1130.4
7.5°	1609.9	1572.4	1522.4	1508.4	1422.4	1361.3	1399.6	1387.1	1326.8	1303.2	1340.7
10°	1768.8	1727.6	1729.8	1699.6	1676.8	1682.7	1663.6	1608.4	1563.6	1531.9	1441.5
12.5°	1864.4	1874.7	1929.8	1914.4	2000.4	2071.0	2017.3	1935.7	1793.8	1765.1	1675.4
15°	2091.6	2129.9	2078.4	2101.9	2138.7	2274.0	2252.0	2234.3	2084.3	2028.4	1862.9
17.5°	2325.5	2332.9	2254.9	2242.4	2330.6	2399.0	2485.1	2385.8	2404.2	2365.2	2097.5
20°	2375.5	2426.3	2314.5	2237.2	2418.9	2554.2	2660.9	2555.7	2652.8	2663.1	2290.9
22.5°	2558.6	2497.6	2350.5	2274.8	2433.6	2599.8	2773.4	2832.2	2801.3	2714.6	2477.7
25°	2685.9	2653.5	2503.5	2419.6	2479.9	2632.9	2937.4	3091.1	3118.3	3106.6	2655.7
27.5°	2922.0	2938.1	2629.2	2652.8	2568.9	2582.9	3035.9	3434.6	3264.7	3217.6	2876.4
30°	3294.8	3222.8	2876.4	2895.5	2756.5	2732.9	3244.1	3730.9	3578.7	3522.1	3058.0
32.5°	3683.9	3690.5	3269.8	3106.6	3032.3	3008.7	3202.9	3886.1	3975.9	3902.3	3332.3
35°	4232.5	4194.3	3696.4	3481.6	3213.2	3172.0	3496.3	4336.2	4501.0	4295.0	3658.1
37.5°	5068.0	4952.5	4373.0	3876.6	3678.0	3630.9	3915.5	4740.0	5110.7	4854.7	4190.6
40°	5738.7	5504.1	4977.5	4373.0	4036.9	4095.0	4213.4	5229.8	5743.1	5599.0	4683.4
42.5°	6273.4	6065.3	5405.6	4980.5	4523.8	4451.7	4581.1	5836.5	6603.6	6462.4	5298.2
45°	6786.0	6362.4	5886.6	5504.1	5065.1	5152.6	5133.5	6455.8	7659.0	7224.3	5841.7
47.5°	7292.0	6894.1	6396.2	5882.1	5440.1	5985.1	5781.4	6916.2	8370.9	8048.8	6413.9
50°	7942.1	7504.6	6937.5	6420.5	6155.7	6554.4	6212.4	7306.0	9168.1	8790.1	6953.7
52.5°	8373.9	7948.0	7450.9	7081.7	7057.4	6903.7	6816.2	7799.5	9866.8	9637.4	7525.9
55°	8323.1	7912.7	7687.7	7728.1	8028.2	7509.7	7438.4	8529.8	10595.7	10330.2	8143.7
57.5°	7686.9	7239.1	7286.9	7526.6	8332.7	8573.9	8452.6	9310.1	11245.8	11125.2	8907.8
60°	5988.1	5757.9	6146.9	6585.2	7925.2	8885.7	9738.9	10261.8	12046.0	12238.7	10108.1
62.5°	3889.8	3582.4	4197.2	4941.5	6709.5	8679.8	11048.7	12066.6	13356.5	13794.1	11932.0
65°	2015.1	1965.9	2396.1	3080.1	4670.9	7400.9	11510.6	13959.6	14949.5	15459.2	13674.3
67.5°	1465.0	1373.8	1573.1	1975.4	2851.3	5046.7	10635.4	15407.7	16228.5	16695.5	14687.0
70°	1115.7	1048.0	1200.3	1449.6	1862.2	2850.6	7851.0	15012.8	16722.0	16948.5	14552.4
72.5°	835.5	777.4	910.5	1142.9	1434.9	1604.8	4640.7	12343.8	15879.9	15957.1	13060.9
75°	667.1	622.2	679.6	902.4	1169.4	1092.1	2465.2	8943.1	12902.0	12968.2	9976.4
77.5°	547.2	508.9	532.5	676.6	909.8	821.5	1223.1	5688.7	8191.5	8090.0	5613.0
80°	446.4	413.3	424.4	489.1	692.8	613.4	686.9	2967.6	3907.5	3750.1	2334.3
82.5°	343.5	315.5	337.6	359.6	501.6	440.5	400.8	1350.3	1600.3	1490.8	856.1
85°	230.2	204.5	293.4	269.9	328.0	270.6	219.2	537.6	596.5	556.0	300.8
87.5°	63.2	59.6	98.6	134.6	134.6	102.2	80.2	130.2	166.2	145.6	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°	719.3	719.3	719.3	719.3	719.3	719.3	719.3	719.3	719.3	719.3	719.3
2.5°	871.5	855.3	812.7	809.0	819.3	820.8	814.1	798.7	790.6	834.7	828.1
5°	1122.3	1064.9	1030.4	998.7	954.6	923.0	931.1	953.1	960.5	993.6	997.3
7.5°	1317.2	1241.4	1165.7	1064.2	997.3	954.6	987.0	1010.5	1028.9	1076.0	1095.1
10°	1401.8	1319.4	1212.0	1105.4	1087.0	1094.4	1076.0	1081.9	1110.5	1112.7	1122.3
12.5°	1559.2	1465.8	1272.3	1176.0	1170.8	1186.3	1179.7	1206.9	1226.7	1280.4	1257.6
15°	1709.9	1590.8	1317.9	1219.4	1198.1	1228.9	1265.0	1310.6	1353.2	1404.0	1378.2
17.5°	1893.1	1713.6	1320.1	1199.5	1203.2	1269.4	1306.9	1331.9	1459.1	1529.0	1493.7
20°	2008.5	1726.1	1270.9	1150.2	1203.2	1262.8	1315.0	1342.2	1484.9	1590.0	1614.3
22.5°	2113.0	1730.5	1232.6	1123.8	1157.6	1236.3	1315.0	1375.3	1466.5	1567.2	1570.9
25°	2170.3	1726.8	1183.3	1126.0	1156.9	1195.8	1265.7	1320.9	1388.5	1529.0	1532.7
27.5°	2317.4	1679.0	1134.8	1134.8	1151.0	1152.5	1241.4	1273.8	1283.4	1411.3	1434.1
30°	2360.1	1689.3	1128.9	1133.3	1141.4	1126.7	1165.7	1187.0	1201.0	1311.3	1315.0
32.5°	2428.5	1607.0	1146.6	1120.1	1109.8	1107.6	1117.2	1136.3	1142.2	1209.8	1222.3
35°	2511.6	1573.9	1152.5	1116.4	1095.8	1084.8	1113.5	1089.9	1108.3	1187.8	1196.6
37.5°	2782.2	1528.3	1182.6	1116.4	1089.9	1077.4	1063.5	1074.5	1140.0	1216.4	1263.5
40°	2955.0	1542.2	1175.3	1127.4	1070.1	1058.3	1034.8	1075.2	1176.7	1312.0	1347.3
42.5°	3258.1	1550.3	1184.1	1122.3	1076.7	1031.1	1046.5	1090.7	1197.3	1274.5	1329.0
45°	3571.4	1575.3	1178.2	1106.9	1062.0	1083.3	1062.0	1101.7	1152.5	1154.7	1195.8
47.5°	3878.8	1676.1	1165.7	1075.2	1058.3	1114.2	1059.8	1066.4	1070.1	1083.3	1131.9
50°	4239.9	1783.5	1148.0	1031.1	1063.5	1115.7	1067.9	1035.5	1031.8	1075.2	1129.7
52.5°	4650.3	1904.8	1125.2	988.4	1033.3	1101.7	1095.8	1037.7	1006.1	1048.0	1102.4
55°	5133.5	2043.1	1098.8	945.8	1000.2	1103.2	1111.3	1022.3	1006.8	1052.4	1110.5
57.5°	5775.5	2243.1	1047.3	884.0	959.8	1080.4	1071.6	1004.6	989.9	1038.5	1098.8
60°	6871.3	2627.8	973.7	823.0	916.4	1024.5	1039.2	973.0	958.3	1012.0	1075.2
62.5°	8338.6	3090.4	884.7	763.4	863.4	964.2	998.7	927.4	925.9	994.3	1060.5
65°	9704.3	3352.9	792.8	709.0	809.0	908.3	953.1	884.7	887.7	973.7	1039.9
67.5°	10272.1	3044.0	710.4	660.4	746.5	844.3	915.6	851.7	842.1	945.8	1006.8
70°	9738.9	2418.2	639.1	609.0	675.9	775.2	863.4	807.5	785.5	879.6	927.4
72.5°	8617.3	2015.9	572.2	548.6	614.1	702.4	792.8	748.0	719.3	791.3	834.0
75°	6736.0	1654.0	495.7	489.1	543.5	636.2	719.3	688.4	651.6	697.2	739.9
77.5°	3835.4	1046.5	416.3	420.7	459.7	557.5	631.0	606.7	569.2	588.4	637.6
80°	1534.9	528.1	334.6	337.6	370.7	458.2	522.9	514.1	475.1	490.5	524.4
82.5°	573.7	289.8	247.1	248.6	281.7	362.6	446.4	442.0	405.2	394.2	413.3
85°	228.0	143.4	151.5	158.1	189.7	261.1	358.2	317.7	274.3	240.5	252.3
87.5°	54.4	45.6	53.0	55.9	61.8	81.6	130.9	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)