

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: P368490

Luminaire Tested: **MSA-SA4C-730-U-T4W**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368490
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-SA4C-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: 22219 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

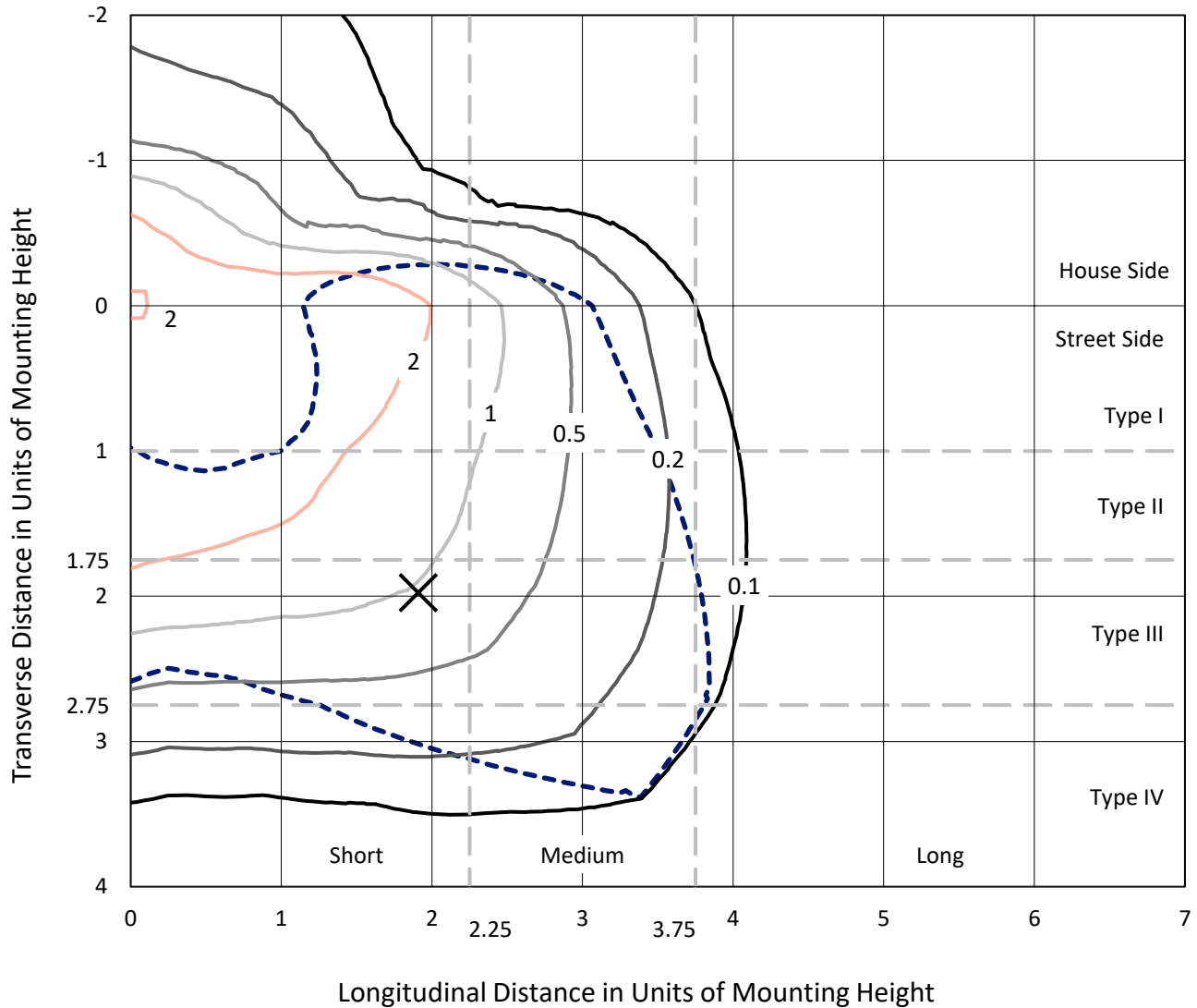
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

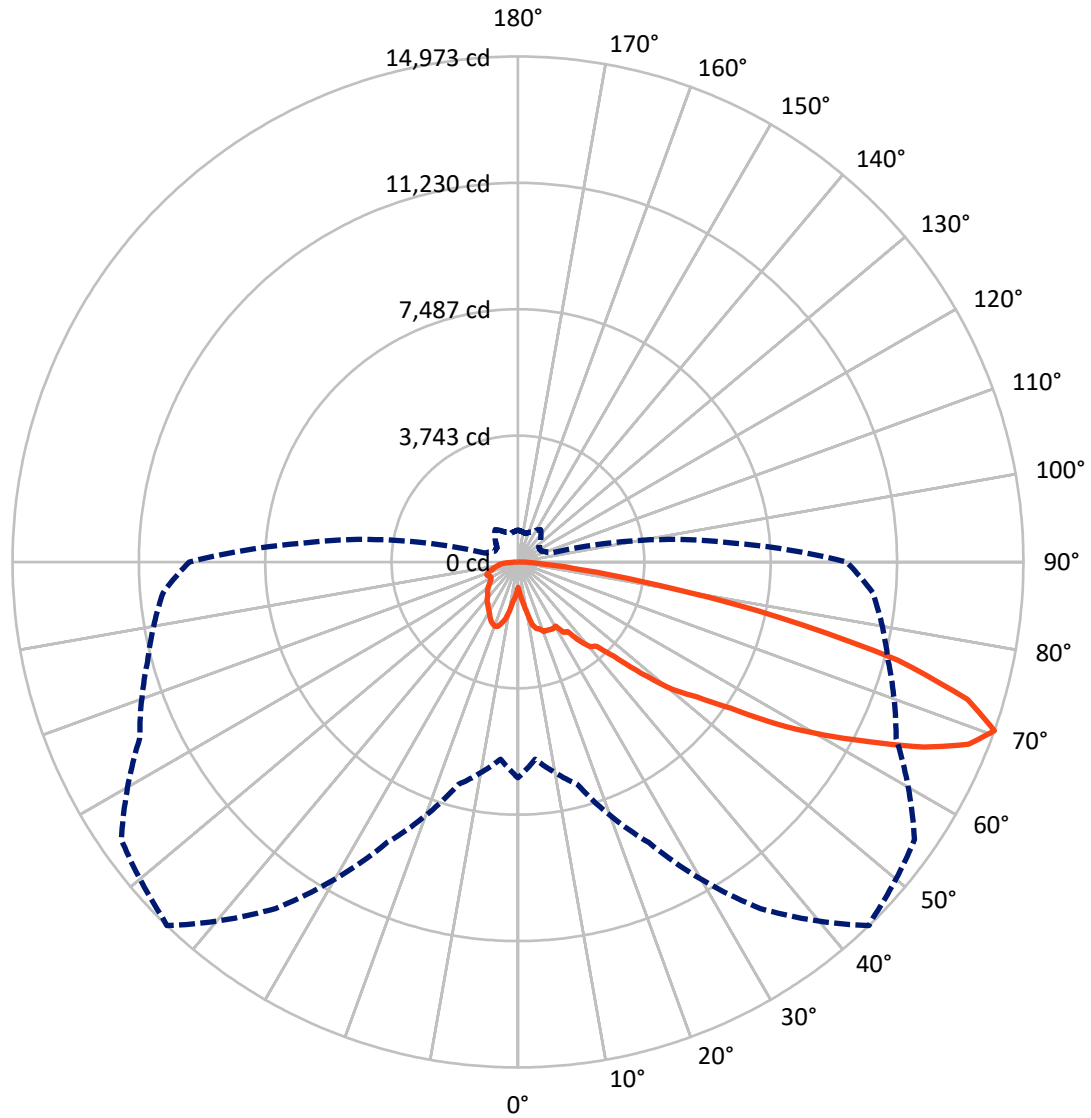
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 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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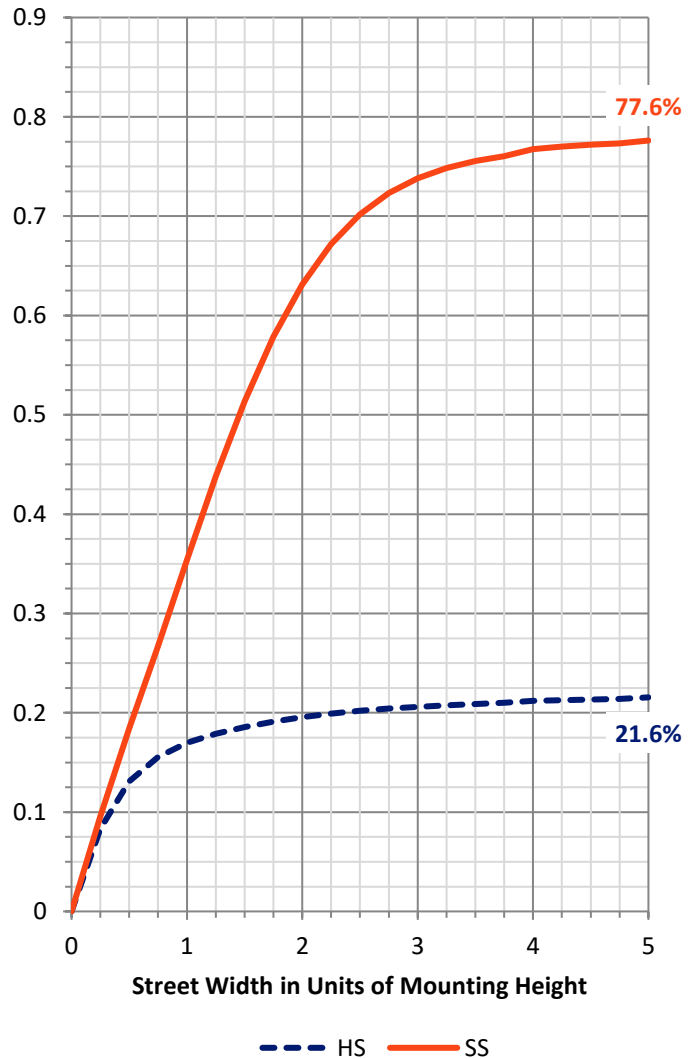
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4902.4	0.0	4902.4
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	17316.6	0.0	17316.6
	% Fixture	77.9	0.0	77.9
Total	Lumens	22219.0	0.0	22219.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.4	0.5
10°-20°	545.3	2.5
20°-30°	1019.0	4.6
30°-40°	1635.7	7.4
40°-50°	2760.9	12.4
50°-60°	4919.8	22.1
60°-70°	6729.7	30.3
70°-80°	3957.4	17.8
80°-90°	532.8	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°	22219.0	100.0
0°-180°	22219.0	100.0

Coefficient of Utilization

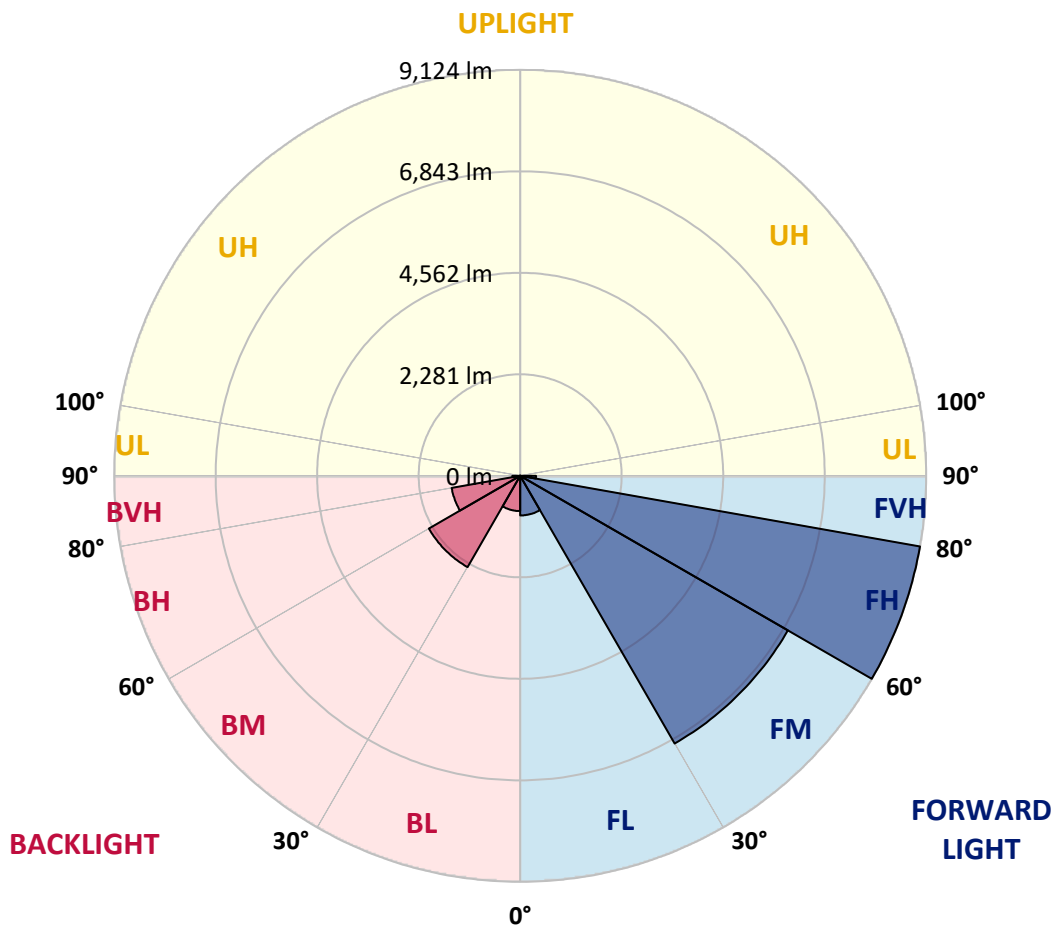


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	890.4	4.0			
FM (30°-60°)	6947.3	31.3			
FH (60°-80°)	9123.8	41.1			G4/12000
FVH (80°-90°)	355.1	1.6			G3/500
BL (0°-30°)	792.3	3.6	B2/1000		
BM (30°-60°)	2369.1	10.7	B2/2500		
BH (60°-80°)	1563.3	7.0	B3/2500		G3/2500
BVH (80°-90°)	177.7	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-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	755.3	755.3	755.3	755.3	755.3	755.3	755.3	755.3	755.3	755.3	755.3
2.5°	916.5	898.3	854.6	869.1	887.4	894.6	892.8	891.0	862.8	852.7	902.8
5°	1245.4	1205.3	1173.4	1160.7	1118.8	1086.0	1065.9	1118.8	1110.6	1124.2	1158.8
7.5°	1555.1	1529.6	1457.7	1432.2	1346.5	1290.0	1283.7	1325.6	1336.5	1314.6	1373.9
10°	1754.7	1710.9	1696.4	1635.3	1576.1	1567.0	1561.5	1542.4	1516.0	1514.2	1461.3
12.5°	1909.5	1932.3	1944.2	1874.0	1875.8	1908.6	1891.3	1813.9	1769.2	1690.9	1697.3
15°	2187.4	2220.2	2126.4	2081.7	1996.1	2045.3	2038.9	1974.2	1967.8	1916.8	1857.6
17.5°	2429.7	2444.3	2287.6	2185.6	2156.4	2085.4	2104.5	2106.3	2022.5	2113.6	2060.8
20°	2449.8	2501.7	2321.3	2118.2	2205.6	2196.5	2199.3	2181.0	2070.8	2221.1	2201.1
22.5°	2548.2	2468.9	2306.8	2158.3	2181.0	2194.7	2207.5	2185.6	2179.2	2263.0	2324.1
25°	2530.0	2504.5	2340.5	2214.7	2217.5	2220.2	2226.6	2292.2	2284.9	2398.8	2430.7
27.5°	2700.3	2661.2	2350.5	2319.5	2248.4	2233.0	2189.2	2325.9	2432.5	2429.7	2605.6
30°	3024.7	2984.6	2583.7	2493.5	2365.1	2206.5	2290.4	2472.6	2556.4	2584.6	2807.8
32.5°	3531.2	3596.8	3042.9	2679.4	2519.9	2485.3	2476.2	2458.0	2665.7	2805.1	3008.3
35°	4258.2	4206.3	3584.0	3077.5	2683.0	2534.5	2554.6	2665.7	2912.6	3002.8	3190.5
37.5°	5090.9	4983.4	4277.3	3528.5	3153.1	2967.3	2900.8	3008.3	3062.9	3134.0	3517.5
40°	5937.3	5674.9	4957.9	4121.6	3435.5	3295.2	3236.9	3104.8	3233.3	3377.2	3864.6
42.5°	6754.5	6551.3	5698.6	4829.4	3911.1	3410.9	3379.1	3249.7	3647.8	3800.0	4365.7
45°	7610.8	7139.8	6457.5	5628.4	4606.2	3978.5	3931.1	3698.8	4209.0	4526.1	5072.7
47.5°	8186.6	7750.2	7152.6	6277.1	5188.4	4927.8	4837.6	4440.4	4903.2	5315.0	6165.0
50°	8731.4	8282.3	7654.6	6986.8	6242.5	5942.7	5750.5	5089.1	5767.8	6438.3	7565.3
52.5°	9511.3	9109.5	8237.6	7701.9	7374.9	6637.8	6494.8	6131.3	6779.1	7683.7	9095.8
55°	10344.9	9797.3	9007.5	8710.5	8578.4	7634.5	7517.9	7286.5	8125.6	8958.3	10583.6
57.5°	10712.9	10141.7	9706.2	9528.6	9517.6	9083.1	8949.2	8787.9	9502.2	10051.5	11983.8
60°	11005.4	10392.2	10218.2	10317.5	10678.3	10392.2	10218.2	10076.1	10622.7	11132.0	13126.3
62.5°	10951.6	10336.7	10426.0	10728.4	11649.5	11733.3	11599.4	11255.0	11733.3	12017.5	13781.3
65°	10084.3	9515.8	10036.0	10753.9	12552.3	13221.9	13214.7	12313.6	12479.4	12479.4	13712.1
67.5°	8564.7	7976.2	8828.0	10528.9	13176.4	14401.7	14403.6	13436.0	12547.8	12433.0	12640.7
70°	6395.5	5862.5	6820.1	9169.6	12532.3	14973.0	14890.1	14341.6	12360.1	11357.0	10559.0
72.5°	3820.0	3475.6	4356.6	6675.2	10690.2	13922.5	14143.0	13298.5	11315.1	9444.8	7548.0
75°	1734.6	1585.2	2047.1	3834.6	7631.8	11613.0	11852.6	11223.1	8987.4	6792.7	4362.1
77.5°	742.5	702.4	893.7	1700.9	4208.1	7941.5	8432.6	8020.8	6089.4	3947.5	1929.6
80°	477.4	451.9	549.4	818.1	1954.2	4291.0	4713.7	4559.8	3102.1	1535.1	679.6
82.5°	285.2	277.0	367.1	513.8	1065.9	1888.6	2128.2	2184.7	1288.2	688.7	389.0
85°	155.8	157.6	201.3	311.6	639.6	735.2	787.1	856.4	606.8	399.0	188.6
87.5°	51.9	60.1	81.1	126.6	227.8	207.7	208.6	242.3	256.0	165.8	60.1
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°	755.3	755.3	755.3	755.3	755.3	755.3	755.3	755.3	755.3	755.3	755.3
2.5°	911.0	894.6	852.7	855.5	871.0	874.6	879.2	852.7	847.3	897.4	901.9
5°	1164.3	1110.6	1086.0	1077.8	1054.1	1045.9	1089.6	1109.6	1129.7	1168.9	1188.0
7.5°	1367.5	1307.3	1262.7	1221.7	1187.1	1167.0	1240.8	1297.3	1331.9	1412.1	1448.6
10°	1460.4	1408.5	1392.1	1359.3	1385.7	1445.8	1459.5	1461.3	1537.8	1536.0	1551.5
12.5°	1645.3	1611.6	1557.9	1569.7	1639.0	1700.9	1683.6	1710.0	1737.4	1803.0	1772.9
15°	1813.9	1804.8	1754.7	1762.9	1776.5	1854.0	1864.0	1890.4	1932.3	1984.2	1948.7
17.5°	2021.6	2018.0	1895.9	1884.9	1916.8	1992.4	1968.8	1922.3	2060.8	2116.3	2101.8
20°	2162.8	2135.5	1978.8	1932.3	2013.4	2023.4	1996.1	1922.3	2042.6	2163.7	2196.5
22.5°	2280.3	2248.4	2087.2	1996.1	1979.7	1984.2	1984.2	1970.6	2029.8	2129.1	2128.2
25°	2375.1	2405.1	2200.2	2112.7	2025.2	1915.9	1902.3	1914.1	1947.8	2139.1	2132.7
27.5°	2612.9	2530.0	2238.4	2172.8	1993.4	1821.2	1858.5	1876.7	1887.7	2097.2	2131.8
30°	2767.7	2793.3	2375.1	2208.4	1946.9	1715.5	1728.2	1781.1	1844.9	2092.7	2102.7
32.5°	2976.4	2921.7	2588.3	2149.1	1823.0	1651.7	1628.0	1699.1	1793.8	2018.9	2046.2
35°	3170.4	3235.1	2678.5	2138.2	1736.4	1556.1	1581.6	1606.2	1704.6	1936.9	1968.8
37.5°	3625.9	3478.4	2931.7	2085.4	1664.5	1507.8	1480.4	1517.8	1601.6	1781.1	1854.9
40°	3972.1	3981.2	2986.4	2018.9	1526.9	1438.5	1380.2	1417.6	1453.1	1596.1	1628.0
42.5°	4621.7	4423.1	3120.3	1873.1	1440.4	1334.7	1301.9	1318.3	1323.7	1383.9	1436.7
45°	5448.0	4982.5	3173.2	1677.2	1326.5	1291.9	1225.4	1217.2	1187.1	1195.3	1241.7
47.5°	6591.4	5855.3	3134.9	1468.6	1225.4	1236.3	1140.6	1103.3	1061.4	1071.4	1115.1
50°	8070.0	6970.4	3132.2	1291.9	1156.1	1163.4	1085.1	1017.6	975.7	996.7	1034.9
52.5°	9729.0	8089.1	3144.9	1170.7	1080.5	1076.9	1048.6	966.6	932.9	954.8	998.5
55°	11316.0	9051.2	3239.7	1094.2	1002.1	1008.5	1019.5	950.2	912.9	932.9	978.5
57.5°	12697.2	9811.0	3204.1	1013.1	929.3	958.4	987.6	927.4	899.2	928.4	973.9
60°	13662.9	10163.6	2923.5	935.6	875.5	915.6	972.1	924.7	921.1	983.9	1038.6
62.5°	14015.5	10033.3	2376.9	874.6	843.6	910.1	1007.6	984.8	988.5	1065.9	1141.5
65°	13500.7	9348.2	1772.9	835.4	819.0	936.6	1089.6	1020.4	970.3	1034.0	1103.3
67.5°	12036.7	8130.1	1295.5	801.7	790.8	978.5	1165.2	1016.7	923.8	988.5	1045.0
70°	9738.1	6417.4	1003.1	758.9	753.4	950.2	1172.5	989.4	873.7	915.6	947.5
72.5°	6672.5	4394.0	830.9	717.9	688.7	841.8	1113.3	928.4	813.6	838.2	864.6
75°	3728.9	2466.2	698.8	666.9	603.1	749.8	1044.1	891.9	768.9	776.2	812.6
77.5°	1673.6	1066.8	593.1	599.5	525.7	663.2	953.9	833.6	700.6	684.2	720.6
80°	633.2	520.2	481.0	506.5	441.9	574.9	860.0	780.8	628.6	607.7	628.6
82.5°	367.1	315.2	357.1	389.9	350.8	528.4	820.8	732.5	553.9	501.1	519.3
85°	170.4	163.1	214.1	253.3	245.1	411.8	702.4	551.2	394.5	333.4	369.0
87.5°	44.6	50.1	75.6	89.3	91.1	141.2	270.6	205.0	154.0	116.6	112.1
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)