

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: P368486

Luminaire Tested: **MSA-SA4C-730-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368486
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-730-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21882 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

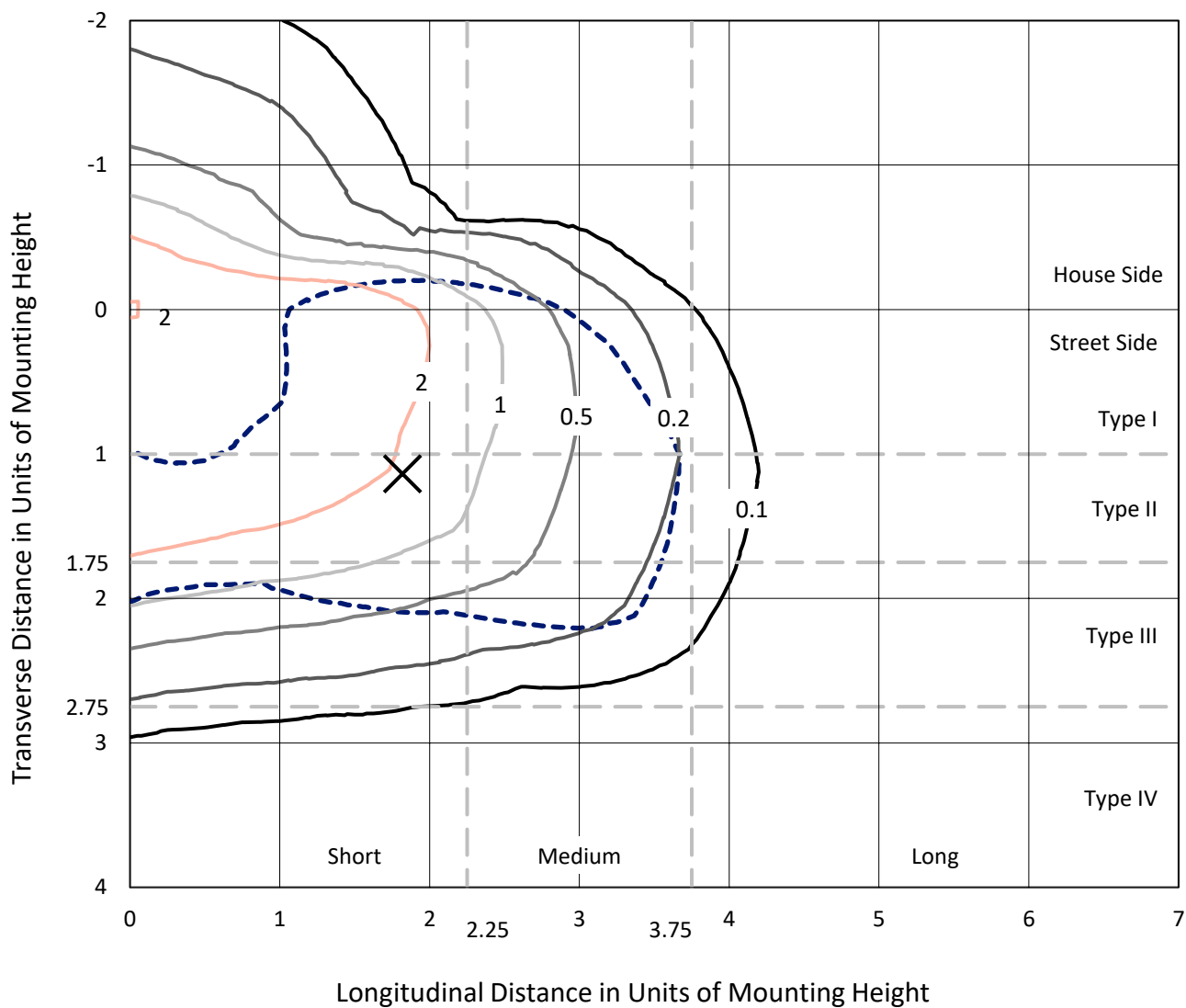
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

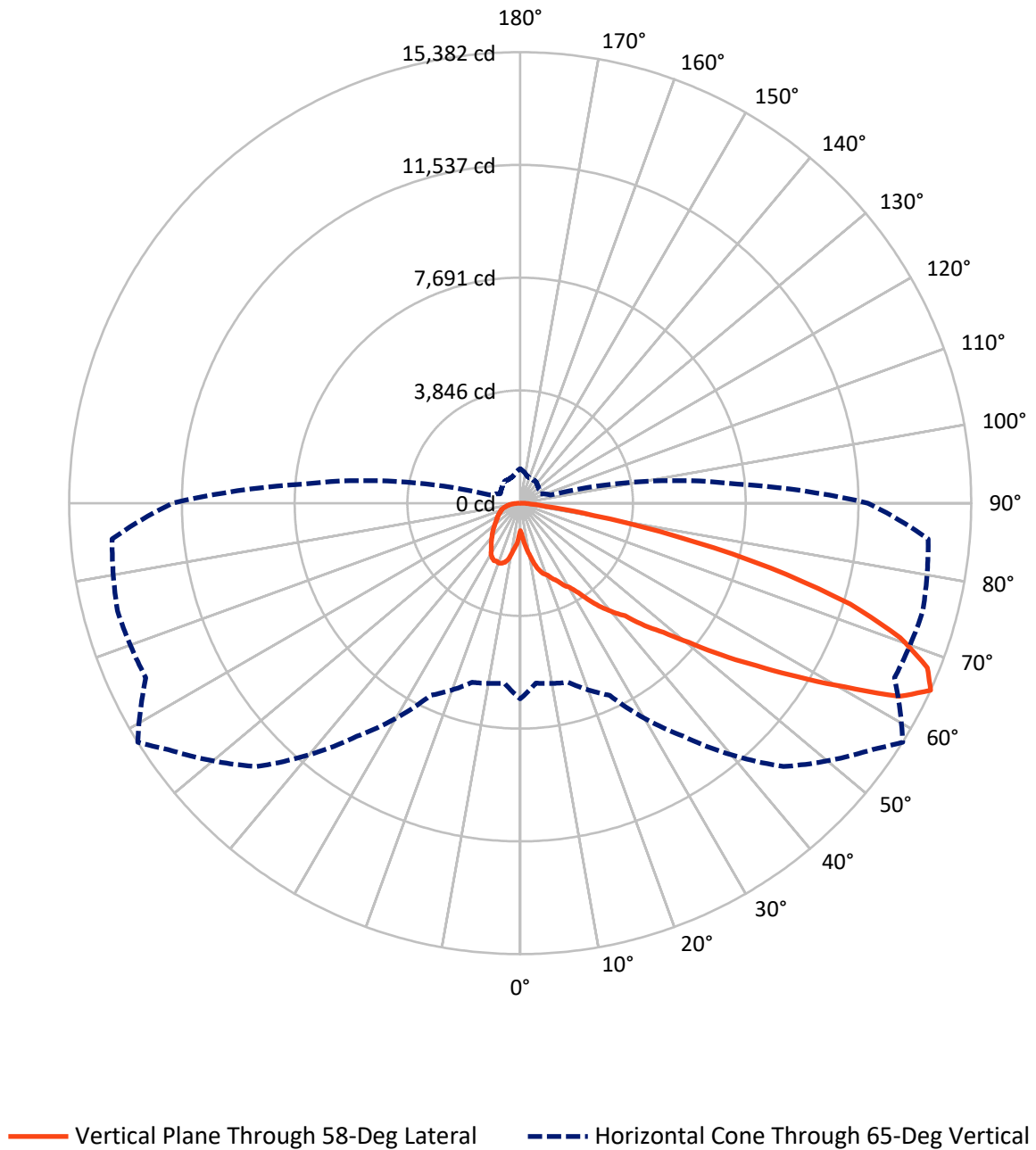
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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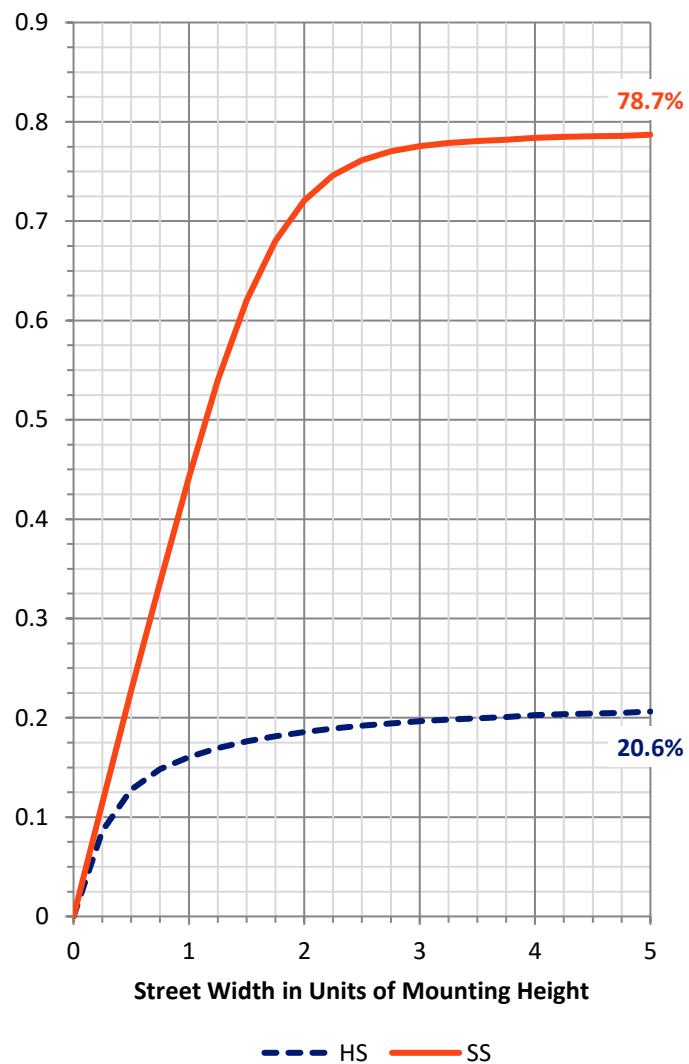
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4609.0	0.0	4609.0
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	17273.0	0.0	17273.0
	% Fixture	78.9	0.0	78.9
Total	Lumens	21882.0	0.0	21882.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.1	0.7
10°-20°	624.5	2.9
20°-30°	1198.3	5.5
30°-40°	1978.3	9.0
40°-50°	3288.2	15.0
50°-60°	5430.5	24.8
60°-70°	6092.0	27.8
70°-80°	2769.9	12.7
80°-90°	357.2	1.6
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°	21882.0	100.0
0°-180°	21882.0	100.0

Coefficient of Utilization



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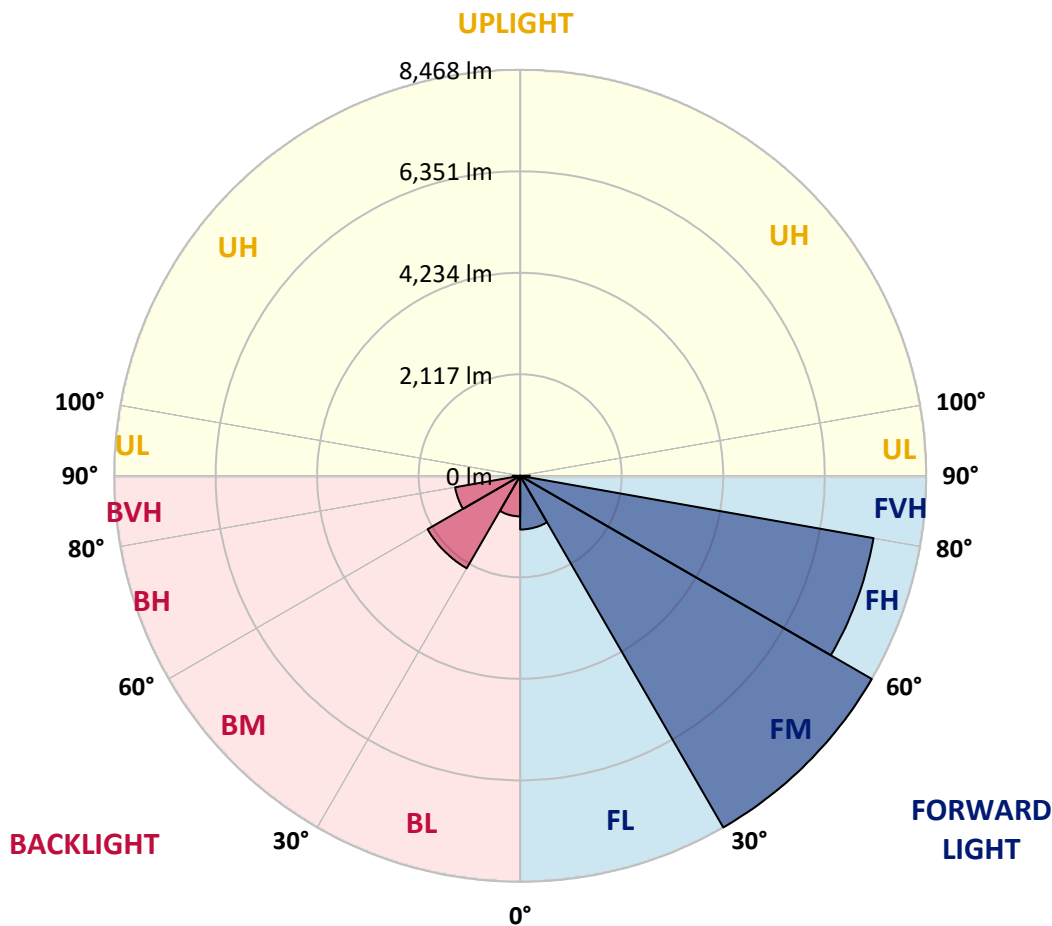
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1119.8	5.1			
FM	(30°-60°)	8468.0	38.7			
FH	(60°-80°)	7484.1	34.2			G3/7500
FVH	(80°-90°)	201.2	0.9			G2/225
BL	(0°-30°)	846.1	3.9	B2/1000		
BM	(30°-60°)	2229.0	10.2	B2/2500		
BH	(60°-80°)	1377.8	6.3	B3/2500		G3/2500
BVH	(80°-90°)	156.1	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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	939.5	939.5	939.5	939.5	939.5	939.5	939.5	939.5	939.5	939.5	939.5
2.5°	1121.8	1088.0	1031.6	1045.2	1078.0	1096.3	1085.3	1070.7	1051.6	1048.0	1131.8
5°	1452.6	1387.9	1361.4	1350.5	1310.4	1286.7	1327.7	1322.2	1344.1	1384.2	1466.2
7.5°	1694.0	1648.5	1604.7	1600.2	1522.7	1495.4	1550.1	1579.2	1618.4	1619.3	1730.5
10°	1823.4	1784.3	1783.3	1742.3	1736.0	1787.9	1788.8	1810.7	1815.2	1861.7	1839.8
12.5°	1963.8	1961.0	2011.2	2010.2	2068.6	2154.2	2111.4	2111.4	2124.2	2067.7	2136.9
15°	2298.2	2327.4	2233.5	2249.0	2249.0	2332.8	2330.1	2346.5	2385.7	2371.1	2340.1
17.5°	2646.3	2664.5	2560.7	2464.1	2471.3	2453.1	2518.7	2525.1	2487.8	2657.2	2619.9
20°	2870.5	2941.6	2722.9	2601.7	2625.4	2646.3	2649.0	2609.9	2590.7	2851.3	2800.3
22.5°	3147.5	3087.4	2886.9	2752.9	2788.5	2760.2	2754.8	2784.8	2811.2	2909.7	2992.6
25°	3332.5	3327.9	3087.4	2940.6	2901.5	2893.3	2948.9	2937.0	2999.9	3178.5	3126.5
27.5°	3601.3	3685.2	3258.7	3295.1	3122.9	2941.6	3120.2	3173.9	3286.9	3257.8	3373.5
30°	4122.6	4059.7	3614.1	3604.0	3409.0	3256.9	3380.8	3335.2	3538.4	3532.1	3617.7
32.5°	4548.1	4591.9	4031.4	3926.6	3781.7	3598.6	3516.6	3643.2	3752.6	3932.1	3980.4
35°	4998.3	4988.3	4458.8	4247.4	4007.7	3932.1	4033.3	4086.1	4318.5	4483.4	4368.6
37.5°	5698.1	5618.9	5012.9	4612.8	4433.3	4406.0	4579.1	4502.6	4754.1	4793.2	4857.9
40°	6348.8	6110.0	5519.5	5061.2	4775.9	4878.0	4883.5	4893.5	5028.4	5135.0	5454.8
42.5°	6967.5	6799.9	6034.4	5689.9	5269.8	5170.5	5232.5	5253.4	5594.3	5812.0	6254.9
45°	7813.2	7363.9	6774.3	6420.8	5950.6	5823.9	5780.1	5960.6	6289.5	6785.3	7165.3
47.5°	8528.5	8123.0	7560.8	7095.1	6569.3	6931.1	6683.2	6582.1	7024.0	7638.2	8243.3
50°	9121.8	8675.2	8123.9	7855.1	7771.3	8093.8	7450.5	7462.3	7866.9	8733.6	9427.0
52.5°	9581.0	9104.4	8616.0	8479.3	8947.7	9133.6	8668.9	8598.7	8893.9	9918.2	10751.1
55°	10010.2	9504.5	9127.2	9406.1	10195.2	10216.2	10183.4	9794.3	10149.7	11187.6	12121.6
57.5°	10120.5	9575.6	9325.0	9725.0	10792.1	11622.3	11948.5	11184.9	11546.6	12342.2	13295.3
60°	9552.8	9086.2	8986.0	9529.1	11114.7	12328.5	13180.5	12724.0	12588.2	13268.9	14117.3
62.5°	8390.0	7848.7	7929.8	8684.3	10774.8	12608.3	14153.8	14510.1	13688.1	14006.1	14476.3
65°	6677.7	6161.1	6325.1	7232.7	9707.7	12701.2	14651.3	15382.1	14085.4	14214.8	13967.9
67.5°	4709.4	4240.1	4447.0	5620.7	8075.6	11511.1	14737.0	14975.7	13662.6	13619.8	12579.1
70°	2668.2	2373.8	2598.0	3576.7	5700.0	9170.1	14065.4	13751.0	12904.4	12297.5	10525.1
72.5°	1223.8	1122.7	1230.2	1820.7	3281.5	6101.8	11482.8	11768.1	11119.2	10360.2	8007.3
75°	650.6	615.1	660.7	909.4	1535.5	3319.7	8158.5	8800.1	8454.7	7857.8	5223.4
77.5°	483.9	456.5	478.4	589.6	820.1	1298.6	4635.6	5444.8	5576.0	5026.5	2900.6
80°	370.9	349.0	370.9	445.6	567.7	616.9	1982.0	2537.9	2890.5	2335.6	1152.7
82.5°	275.2	260.6	294.3	334.4	399.1	385.5	703.5	875.7	1129.1	771.8	449.3
85°	218.7	200.5	213.2	226.9	255.2	211.4	321.7	359.9	380.9	318.9	165.9
87.5°	85.7	79.3	154.9	122.1	103.9	63.8	96.6	109.4	112.1	107.5	48.3
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°	939.5	939.5	939.5	939.5	939.5	939.5	939.5	939.5	939.5	939.5	939.5
2.5°	1140.9	1131.8	1078.0	1095.3	1123.6	1129.1	1140.9	1108.1	1091.7	1151.8	1154.6
5°	1473.5	1424.3	1398.8	1401.5	1383.3	1355.0	1397.9	1426.1	1437.1	1481.7	1498.1
7.5°	1731.4	1672.2	1629.3	1580.1	1510.9	1466.2	1540.9	1595.6	1624.8	1717.7	1754.2
10°	1846.2	1798.8	1789.7	1727.8	1725.9	1725.0	1721.4	1702.2	1765.1	1756.0	1781.5
12.5°	2083.1	2073.1	1986.6	1962.0	1964.7	1962.0	1885.4	1881.8	1882.7	1966.5	1936.4
15°	2303.7	2305.5	2226.2	2136.9	2056.7	2032.1	2002.0	1988.4	2008.4	2055.8	2026.7
17.5°	2576.1	2585.3	2358.4	2217.1	2111.4	2108.7	2036.7	1951.9	2074.0	2103.2	2071.3
20°	2752.0	2713.7	2434.9	2198.0	2167.9	2085.9	1996.6	1879.9	1985.6	2056.7	2076.8
22.5°	2918.8	2852.3	2506.0	2231.7	2087.7	1990.2	1903.6	1828.0	1861.7	1941.0	1928.2
25°	3031.8	3013.6	2604.4	2312.8	2085.0	1868.1	1751.4	1703.2	1720.5	1843.5	1831.6
27.5°	3301.5	3104.7	2587.1	2333.7	1997.5	1701.3	1643.0	1591.1	1573.8	1706.8	1743.2
30°	3481.9	3400.8	2702.8	2300.9	1887.2	1564.6	1479.0	1468.0	1473.5	1624.8	1634.8
32.5°	3788.1	3577.6	2892.4	2175.2	1726.8	1463.5	1365.1	1369.6	1394.2	1504.5	1527.3
35°	4107.1	3981.3	2917.9	2085.0	1596.5	1356.0	1315.9	1284.0	1297.6	1394.2	1398.8
37.5°	4699.4	4264.7	3074.6	1945.5	1500.9	1315.0	1238.4	1210.2	1217.4	1272.1	1311.3
40°	5220.6	4834.3	3001.7	1810.7	1382.4	1260.3	1164.6	1143.6	1121.8	1175.5	1200.1
42.5°	6056.3	5240.7	2977.1	1662.1	1326.8	1186.5	1120.9	1065.3	1044.3	1089.9	1134.5
45°	6891.9	5671.7	2843.1	1511.8	1248.4	1181.0	1057.1	1004.2	1009.7	1050.7	1096.3
47.5°	7823.2	6250.4	2616.2	1366.0	1162.8	1154.6	993.3	970.5	986.9	1032.5	1078.0
50°	8924.0	6864.6	2428.5	1234.8	1101.7	1075.3	985.1	957.7	973.2	1027.0	1071.6
52.5°	10127.8	7538.0	2291.8	1113.6	1032.5	1012.4	996.0	969.6	987.8	1034.3	1080.8
55°	11324.3	8153.1	2198.9	1030.6	973.2	986.0	1018.8	999.7	1008.8	1043.4	1089.9
57.5°	12211.9	8477.5	2012.1	942.2	924.9	970.5	1021.5	989.6	995.1	1043.4	1093.5
60°	12727.6	8539.5	1705.0	870.3	886.7	939.5	993.3	952.3	948.6	1027.9	1090.8
62.5°	12671.1	8179.5	1352.3	804.6	842.9	893.0	950.4	911.3	921.3	1029.7	1096.3
65°	11861.9	7444.1	1075.3	749.1	790.1	842.0	914.9	899.4	947.7	1102.6	1174.6
67.5°	10440.4	6369.7	863.9	697.1	740.9	807.4	939.5	980.5	1001.5	1177.4	1251.2
70°	8461.1	4949.1	719.9	651.6	701.7	823.8	1010.6	1002.4	985.1	1141.8	1200.1
72.5°	6112.8	3392.6	633.3	606.9	653.4	774.6	1012.4	968.7	946.8	1042.5	1084.4
75°	3824.6	2023.9	553.1	550.4	579.6	694.4	966.9	927.7	868.4	915.8	970.5
77.5°	2184.3	1036.1	465.7	490.3	507.6	602.3	865.7	830.2	777.3	797.4	851.1
80°	833.8	501.2	392.8	435.6	431.0	510.3	733.6	725.4	665.2	671.6	704.4
82.5°	392.8	280.7	326.2	374.5	349.9	406.4	596.0	593.2	540.4	489.3	515.8
85°	145.8	149.4	238.8	285.2	243.3	262.4	431.0	419.2	368.2	310.7	343.5
87.5°	32.8	53.8	117.6	148.5	84.7	81.1	174.1	151.3	145.8	86.6	91.1
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)