

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: P596918

Luminaire Tested: **MSA-SA2A-835-U-RW**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596918  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA2A-835-U-RW  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6729 lumens  
Efficiency: N/A  
Efficacy: 102.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3

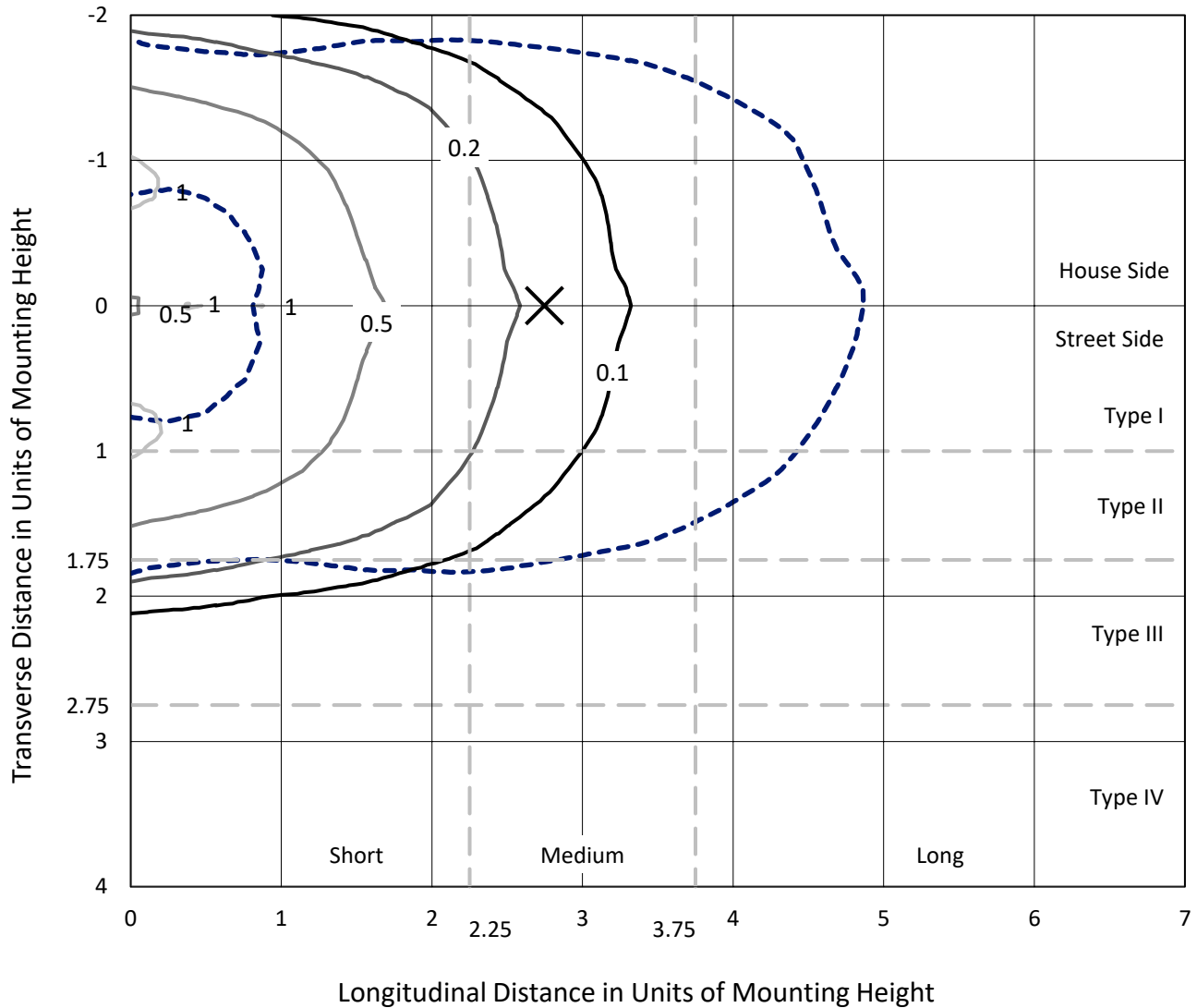
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

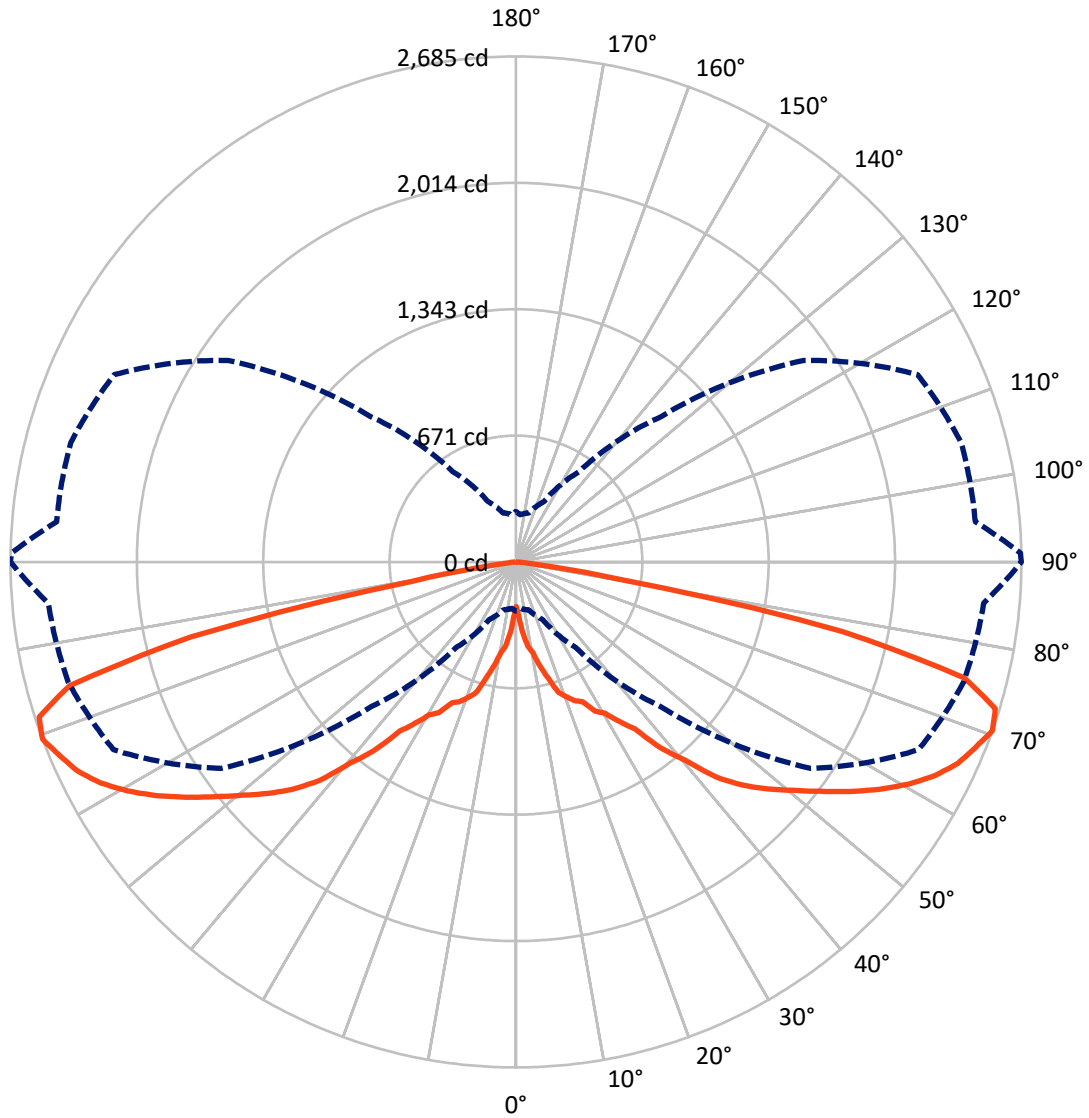
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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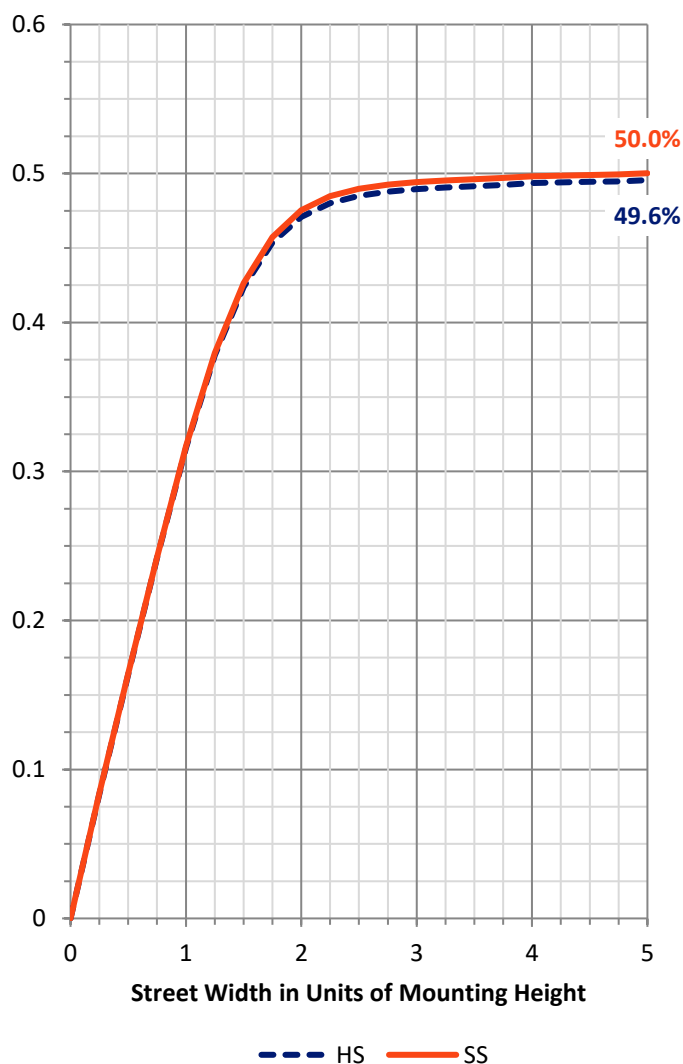
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3352.0	0.0	3352.0
	% Fixture	49.8	0.0	49.8
<b>Street Side</b>	Lumens	3377.0	0.0	3377.0
	% Fixture	50.2	0.0	50.2
<b>Total</b>	Lumens	6729.0	0.0	6729.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.6	0.5
10°-20°	163.3	2.4
20°-30°	353.0	5.2
30°-40°	673.6	10.0
40°-50°	1223.7	18.2
50°-60°	1719.0	25.5
60°-70°	1641.3	24.4
70°-80°	842.3	12.5
80°-90°	77.2	1.1
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°	6729.0	100.0
0°-180°	6729.0	100.0

**Coefficient of Utilization**



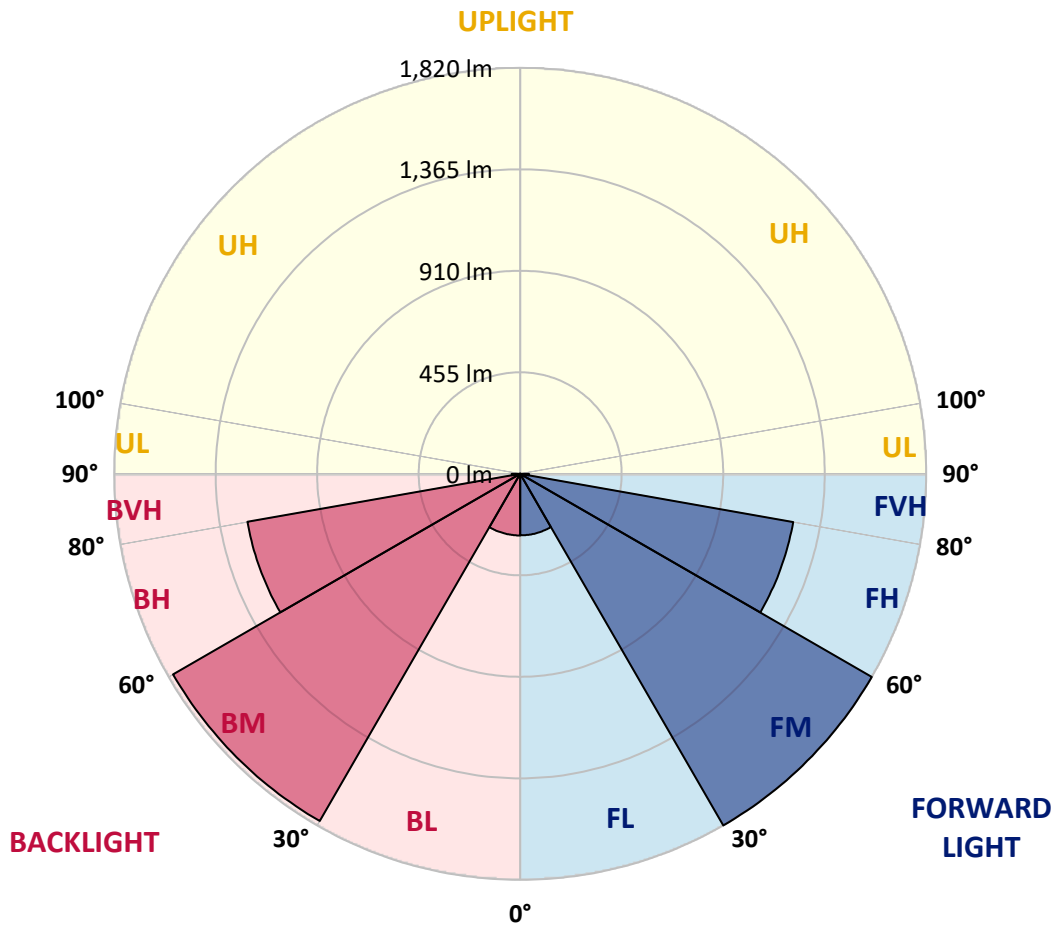
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	275.7	4.1			
FM (30°-60°)	1819.6	27.0			
FH (60°-80°)	1242.5	18.5			G1/1800
FVH (80°-90°)	39.2	0.6			G1/100
BL (0°-30°)	276.2	4.1	B1/500		
BM (30°-60°)	1796.6	26.7	B2/2500		
BH (60°-80°)	1241.1	18.4	B3/2500		G3/2500
BVH (80°-90°)	38.0	0.6			G1/100
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°	65°	75°	85°	90°
0°	236.2	236.2	236.2	236.2	236.2	236.2	236.2	236.2	236.2	236.2	236.2
2.5°	286.1	275.4	262.1	270.0	273.3	279.0	278.2	275.4	263.7	283.4	285.5
5°	358.1	341.2	334.9	333.8	335.4	330.0	347.7	342.5	352.1	369.8	373.9
7.5°	407.7	395.2	381.8	385.9	369.0	366.5	389.4	409.9	415.1	447.5	449.7
10°	431.2	418.9	422.4	420.0	418.1	433.9	444.5	459.5	481.1	484.1	488.7
12.5°	451.1	456.0	471.5	471.0	496.6	524.7	520.6	536.2	539.7	577.3	565.9
15°	501.5	511.6	510.5	520.1	531.3	577.3	577.6	604.1	628.3	643.1	639.2
17.5°	575.4	579.0	564.3	564.8	597.2	616.1	637.1	632.4	695.7	724.6	726.5
20°	619.6	628.6	611.7	589.3	646.9	672.8	684.5	657.5	725.2	764.2	764.2
22.5°	696.8	673.6	648.0	633.0	683.7	711.2	709.9	702.2	738.2	807.2	800.7
25°	739.3	726.2	713.4	717.2	742.9	757.1	775.9	758.2	792.0	843.2	821.7
27.5°	820.1	795.8	732.8	783.0	783.0	772.3	812.2	820.6	798.5	882.0	898.1
30°	911.4	903.0	813.8	867.0	850.6	820.6	897.0	891.5	854.4	939.5	932.1
32.5°	997.9	1025.7	941.1	912.0	936.5	948.0	907.9	924.2	931.3	1013.4	1009.9
35°	1130.4	1153.9	1041.8	1034.4	993.5	982.9	1013.4	1018.9	1019.4	1105.9	1090.0
37.5°	1359.8	1325.9	1215.2	1163.1	1167.8	1155.0	1161.0	1117.9	1123.9	1249.3	1257.2
40°	1527.5	1489.3	1366.0	1328.7	1237.0	1291.9	1243.3	1239.0	1227.0	1389.5	1385.1
42.5°	1712.7	1660.3	1523.9	1474.0	1376.7	1354.3	1331.9	1382.4	1379.1	1529.7	1562.9
45°	1852.6	1746.8	1675.6	1644.5	1586.1	1531.3	1510.0	1532.7	1522.3	1634.1	1692.2
47.5°	1940.9	1849.0	1767.2	1701.8	1645.8	1780.3	1672.6	1642.3	1621.3	1746.5	1802.4
50°	2011.3	1905.2	1808.7	1786.8	1831.0	1949.9	1780.0	1713.2	1738.8	1831.0	1907.1
52.5°	2030.4	1918.0	1831.3	1817.4	1936.8	1958.4	1930.8	1818.5	1811.7	1932.5	2024.4
55°	1972.0	1864.3	1823.1	1899.2	2031.2	2013.2	2055.2	1983.5	1935.2	2036.1	2151.7
57.5°	1821.7	1714.8	1705.0	1814.7	1981.0	2134.3	2155.0	2098.3	2035.0	2141.9	2278.3
60°	1574.9	1477.3	1502.1	1623.2	1874.1	2092.3	2202.5	2150.6	2131.0	2237.4	2395.5
62.5°	1190.7	1114.6	1180.9	1349.7	1678.8	2038.0	2267.9	2259.7	2231.4	2338.8	2499.2
65°	759.2	719.2	786.8	958.3	1375.9	1939.3	2299.3	2310.2	2336.4	2417.1	2579.4
67.5°	441.3	420.0	461.2	601.6	979.9	1592.4	2240.9	2397.5	2411.1	2457.5	2632.0
70°	261.0	247.1	264.0	337.9	554.7	1084.9	1911.5	2359.3	2462.4	2494.5	2685.2
72.5°	199.1	186.0	178.6	199.9	289.6	560.4	1292.4	1999.8	2421.2	2470.0	2662.8
75°	172.1	159.5	150.8	152.7	172.4	266.2	700.6	1430.4	2063.1	2249.1	2459.6
77.5°	147.8	136.6	130.4	129.8	132.3	146.2	292.9	775.6	1292.1	1616.7	1773.2
80°	118.4	109.6	108.3	108.3	104.7	103.6	145.6	295.1	491.7	583.1	559.1
82.5°	86.5	77.7	86.5	85.4	79.9	75.5	92.7	127.6	151.6	119.7	94.6
85°	58.4	50.5	57.0	58.1	52.9	39.3	55.6	63.8	65.5	40.9	33.8
87.5°	20.5	19.9	32.2	28.1	22.9	13.4	20.5	22.1	23.2	14.5	9.8
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):**

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	236.2	236.2	236.2	236.2	236.2	236.2	236.2	236.2	236.2	236.2	236.2
2.5°	286.4	283.1	266.7	269.2	275.4	278.4	281.4	269.2	263.2	282.3	280.4
5°	375.0	363.0	349.6	347.7	348.5	336.8	343.6	340.6	342.0	354.3	356.7
7.5°	449.2	434.7	417.0	403.1	379.1	360.0	376.1	384.3	386.7	408.5	416.7
10°	489.3	477.0	471.8	445.6	437.7	435.3	431.4	418.3	432.8	427.6	431.7
12.5°	567.8	565.3	538.3	521.2	522.8	527.4	503.4	490.3	471.5	501.0	490.3
15°	634.6	645.2	618.2	586.9	571.3	579.3	561.0	541.9	525.0	534.0	522.5
17.5°	720.0	719.7	667.1	633.5	632.2	631.6	604.6	562.6	582.8	576.5	577.1
20°	765.2	757.9	692.4	653.7	686.7	675.0	650.7	596.7	620.2	627.8	632.7
22.5°	803.2	799.1	719.7	691.3	712.6	712.9	688.6	660.2	657.2	681.0	668.2
25°	829.6	846.0	771.2	764.4	773.7	764.4	740.7	722.2	710.2	745.6	710.2
27.5°	892.3	869.1	779.2	817.9	823.6	777.0	806.7	784.9	751.6	795.5	810.0
30°	937.1	950.7	834.8	893.1	886.3	843.2	855.5	854.7	814.9	900.5	890.4
32.5°	1014.0	997.6	925.6	921.0	937.3	935.4	914.7	924.8	934.6	996.8	1011.8
35°	1092.8	1110.2	983.7	1015.1	1010.4	981.0	1035.2	1029.0	1058.1	1185.8	1143.5
37.5°	1270.6	1187.4	1114.0	1110.0	1141.0	1145.7	1128.2	1155.8	1218.8	1316.9	1362.2
40°	1387.0	1349.1	1224.5	1229.4	1186.3	1260.5	1211.4	1300.0	1348.0	1513.6	1497.5
42.5°	1563.2	1470.8	1351.0	1367.4	1358.7	1322.9	1387.6	1433.1	1501.9	1628.1	1709.7
45°	1694.4	1567.6	1510.9	1500.8	1499.7	1561.8	1553.7	1626.5	1651.0	1745.9	1813.6
47.5°	1793.9	1686.2	1602.2	1613.7	1580.4	1757.9	1663.3	1685.9	1735.6	1825.0	1903.8
50°	1912.0	1792.0	1696.6	1724.9	1805.9	1874.1	1788.5	1749.8	1774.0	1879.6	1967.4
52.5°	2021.4	1895.1	1790.1	1813.8	1946.1	1915.0	1905.7	1807.8	1804.8	1889.7	1989.5
55°	2149.3	2006.9	1914.2	1989.5	2036.4	1997.9	1983.2	1864.0	1790.4	1837.6	1931.7
57.5°	2274.7	2117.6	2025.5	2041.0	2100.5	2062.3	1951.8	1768.3	1676.4	1685.7	1780.8
60°	2392.3	2219.4	2143.3	2128.3	2175.7	2026.0	1832.7	1592.9	1471.0	1448.7	1531.0
62.5°	2492.9	2304.5	2232.5	2191.6	2236.8	2027.4	1646.9	1311.5	1177.6	1101.8	1165.9
65°	2572.8	2375.1	2323.8	2302.5	2318.9	1904.1	1357.6	963.0	798.8	714.8	752.2
67.5°	2626.0	2414.6	2391.2	2419.0	2200.8	1585.8	1005.8	616.3	464.4	418.6	442.1
70°	2681.1	2449.5	2448.7	2354.1	1866.2	1093.3	587.4	355.3	270.3	252.5	267.3
72.5°	2662.5	2408.1	2420.4	2058.7	1293.2	584.4	310.1	201.0	183.0	189.3	202.4
75°	2465.6	2189.4	2130.2	1480.0	733.6	271.6	178.6	152.2	151.1	160.6	173.4
77.5°	1788.5	1524.8	1368.2	838.9	314.4	147.0	131.4	127.1	127.1	134.7	146.2
80°	589.6	510.3	531.8	324.5	148.6	101.5	102.5	104.5	103.9	105.8	115.4
82.5°	96.8	100.4	155.2	132.5	89.7	69.3	77.5	81.3	82.4	73.6	83.7
85°	34.4	38.7	66.0	61.4	51.8	34.9	51.0	57.0	56.2	49.1	54.3
87.5°	10.6	13.6	24.0	18.5	15.5	9.5	19.1	22.4	28.1	11.5	10.4
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)