

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: P597030

Luminaire Tested: **MSA-SA3B-835-U-SL2**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597030  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3B-835-U-SL2  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12039 lumens  
Efficiency: N/A  
Efficacy: 95.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G3

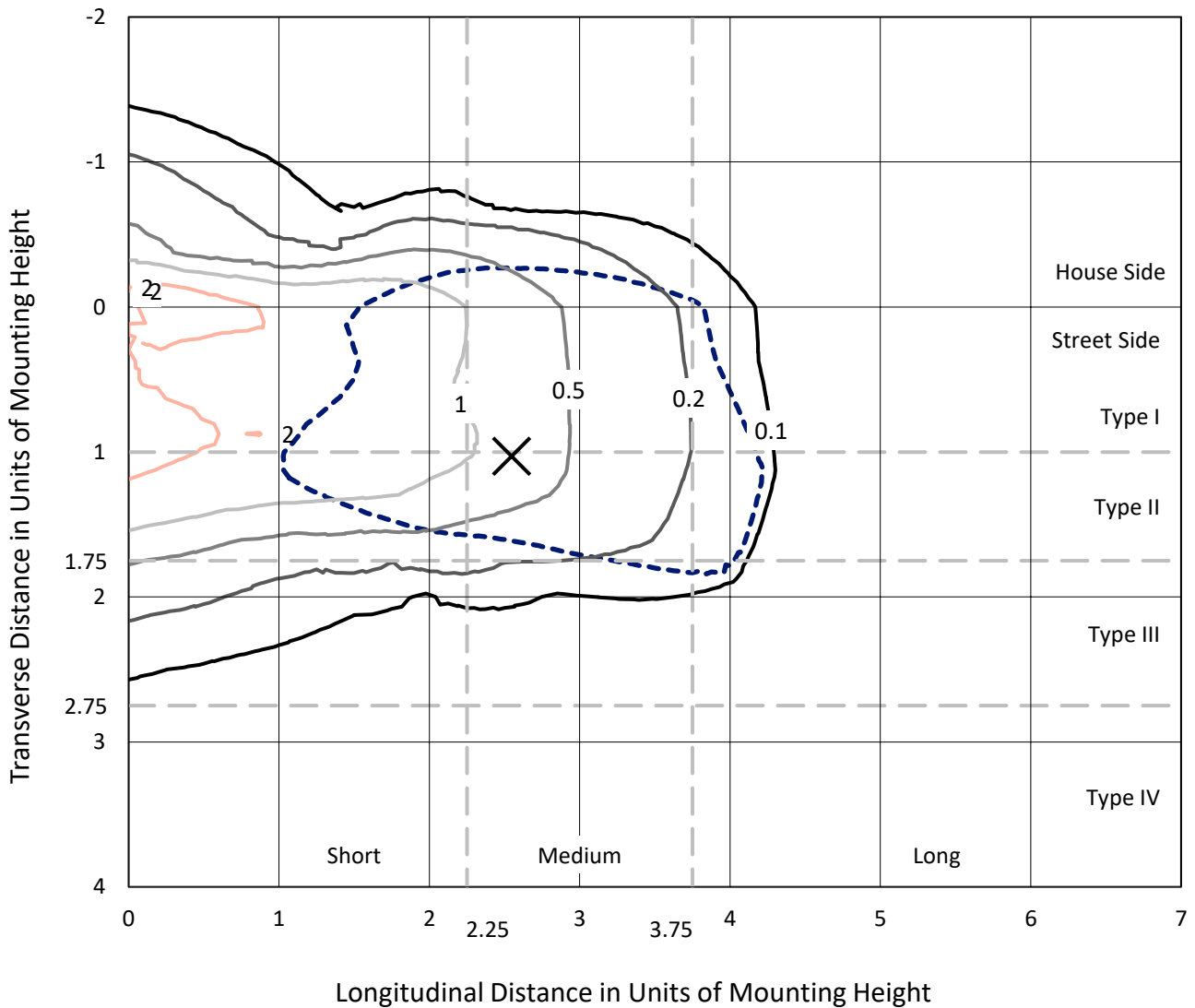
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P597030  
 CATALOG NUMBER: MSA-SA3B-835-U-SL2

### Iso-Footcandle Lines of Horizontal Illumination

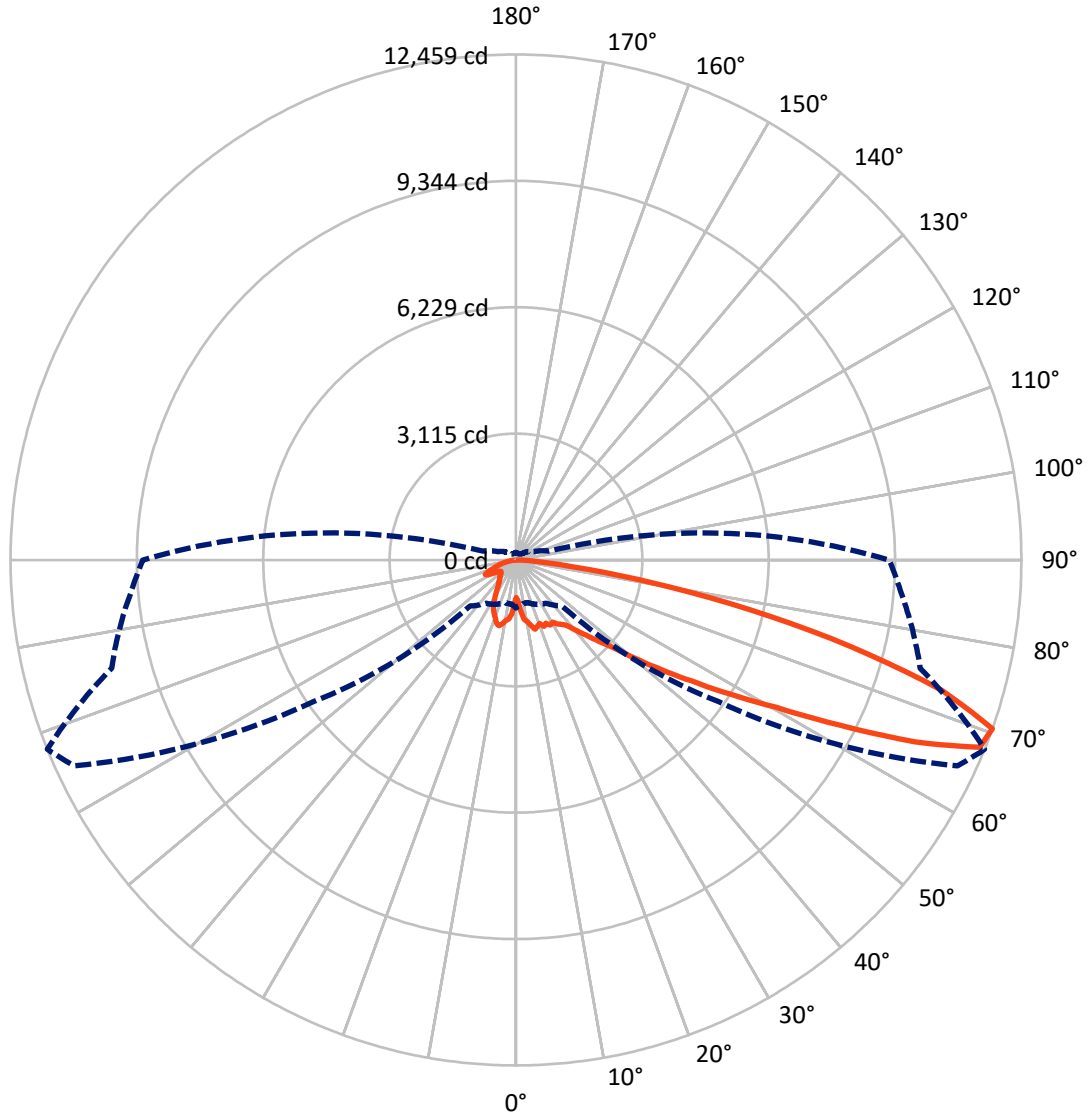
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc  
 Type III - Medium - N/A

REPORT NUMBER: P597030  
CATALOG NUMBER: MSA-SA3B-835-U-SL2

### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P597030

CATALOG NUMBER: MSA-SA3B-835-U-SL2

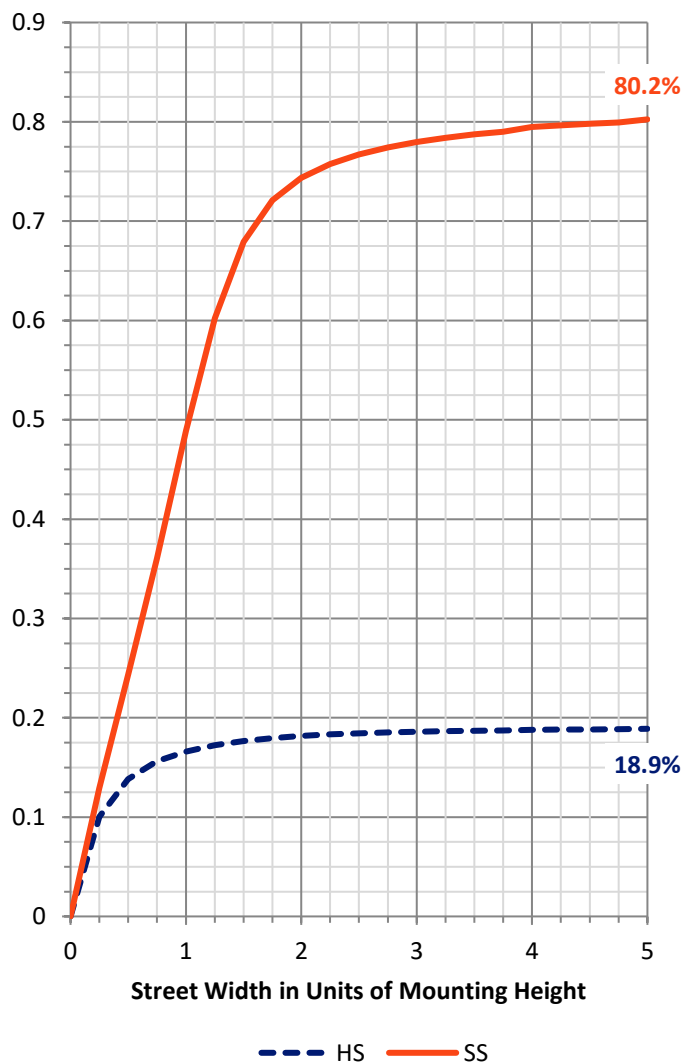
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2298.5	0.0	2298.5
	% Fixture	19.1	0.0	19.1
<b>Street Side</b>	Lumens	9740.5	0.0	9740.5
	% Fixture	80.9	0.0	80.9
<b>Total</b>	Lumens	12039.0	0.0	12039.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.3	1.0
10°-20°	401.8	3.3
20°-30°	611.2	5.1
30°-40°	933.6	7.8
40°-50°	1605.3	13.3
50°-60°	2657.1	22.1
60°-70°	3275.9	27.2
70°-80°	2104.3	17.5
80°-90°	326.4	2.7
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°	12039.0	100.0
0°-180°	12039.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P597030

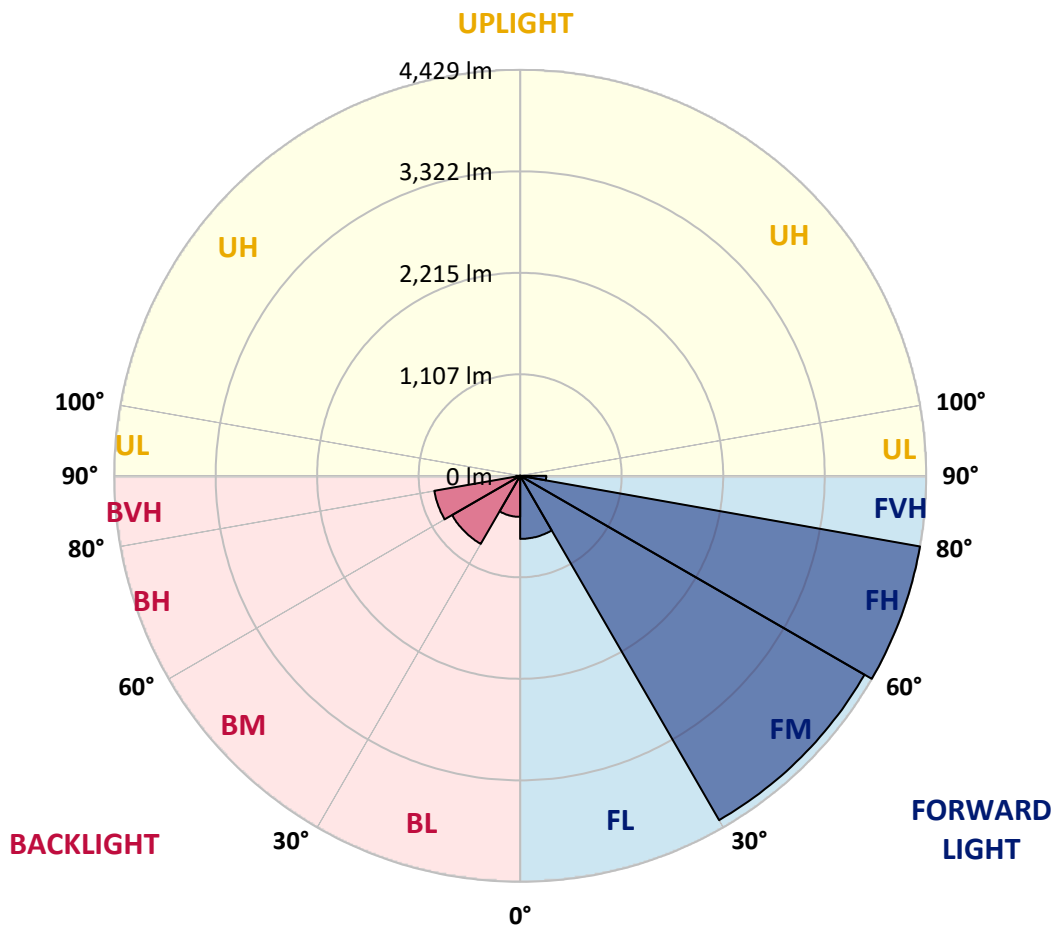
CATALOG NUMBER: MSA-SA3B-835-U-SL2

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	688.4	5.7			
FM (30°-60°)	4338.1	36.0			
FH (60°-80°)	4429.4	36.8			G2/5000
FVH (80°-90°)	284.5	2.4			G3/500
BL (0°-30°)	447.9	3.7	B1/500		
BM (30°-60°)	858.0	7.1	B1/1000		
BH (60°-80°)	950.8	7.9	B2/1000		G2/1000
BVH (80°-90°)	41.9	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Medium





REPORT NUMBER: P597030

CATALOG NUMBER: MSA-SA3B-835-U-SL2

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1
2.5°	1060.6	1017.8	974.5	995.6	1029.4	1059.1	1053.1	1056.6	1015.8	1010.2	1117.6
5°	1249.6	1176.0	1174.5	1175.5	1178.5	1144.3	1227.9	1271.2	1280.8	1325.2	1430.5
7.5°	1315.1	1285.3	1255.1	1270.2	1231.9	1235.5	1338.3	1451.1	1477.8	1510.1	1654.2
10°	1301.5	1273.3	1282.3	1284.8	1291.9	1348.8	1414.8	1523.2	1545.8	1648.6	1685.9
12.5°	1303.5	1298.4	1340.8	1342.3	1417.9	1520.1	1546.3	1646.1	1655.2	1730.8	1886.5
15°	1372.5	1407.3	1383.6	1396.2	1410.8	1533.2	1571.0	1714.1	1768.6	1865.8	1982.7
17.5°	1507.0	1517.1	1446.1	1427.4	1475.3	1512.6	1598.7	1660.7	1717.7	1989.2	2150.5
20°	1538.3	1565.5	1480.8	1384.6	1485.9	1537.8	1597.7	1626.0	1670.3	2007.4	2236.1
22.5°	1672.3	1615.9	1513.6	1430.0	1463.2	1513.6	1556.9	1663.2	1779.6	1955.5	2321.8
25°	1748.4	1715.6	1624.4	1534.8	1506.5	1508.1	1591.7	1686.9	1727.2	2031.6	2338.9
27.5°	1932.3	1879.9	1674.8	1657.7	1551.4	1468.8	1597.2	1745.4	1815.9	1972.1	2422.6
30°	2162.6	2122.8	1853.7	1831.0	1668.8	1524.7	1667.8	1788.7	1778.6	2010.9	2480.5
32.5°	2349.0	2415.5	2143.9	1965.1	1849.7	1711.6	1645.6	1781.1	1881.4	2101.1	2578.8
35°	2615.0	2677.5	2370.2	2249.2	1998.8	1798.3	1800.3	1884.9	1946.9	2206.4	2688.6
37.5°	3075.6	3020.6	2773.2	2582.3	2422.1	2122.8	2033.1	2003.4	2053.2	2335.4	2903.7
40°	3407.6	3361.3	3070.0	2961.2	2649.3	2475.5	2229.6	2201.4	2289.5	2468.4	3079.6
42.5°	3801.1	3718.5	3447.4	3357.7	3031.7	2718.3	2470.4	2486.6	2529.4	2719.3	3317.4
45°	4201.7	4001.2	3847.5	3840.4	3622.8	3189.9	2856.9	2843.8	2845.3	3088.7	3584.5
47.5°	4519.6	4339.2	4163.4	4079.8	3969.9	4005.7	3418.2	3264.5	3218.2	3460.5	3985.0
50°	4734.8	4527.2	4328.2	4308.5	4601.8	4794.7	3945.2	3781.0	3809.7	3992.6	4519.1
52.5°	4739.3	4492.9	4285.3	4422.9	5113.7	5389.8	4853.2	4394.2	4485.9	4610.3	5216.0
55°	4409.8	4154.3	4019.3	4332.7	5313.7	6095.7	6129.0	5376.7	5270.9	5316.7	6048.8
57.5°	3715.0	3457.0	3378.4	3753.8	4934.3	6776.4	7669.8	6550.7	6240.3	6048.8	6902.4
60°	2796.4	2573.2	2524.3	2763.7	4090.8	6576.4	8917.3	8011.9	7379.5	6866.6	7758.4
62.5°	2097.1	1936.8	1863.3	1897.5	2830.7	5925.9	9736.6	9858.0	8962.7	7759.5	8594.9
65°	1704.1	1574.6	1509.1	1464.7	1760.5	4582.1	9588.5	11411.9	10811.8	8697.1	9245.8
67.5°	1423.4	1308.5	1278.3	1321.6	1391.7	2658.4	8429.6	12281.1	12321.9	9622.2	9626.3
70°	1181.6	1096.4	1085.3	1208.3	1300.5	1604.3	6088.7	12008.0	12458.5	10316.0	9537.1
72.5°	913.0	867.1	865.6	1058.6	1291.9	1367.5	3625.8	10373.5	10978.6	10094.3	8664.4
75°	633.4	601.6	625.8	870.2	1262.2	1387.1	2069.4	8079.9	8532.9	8589.8	6940.7
77.5°	435.8	409.1	435.3	629.3	1127.1	1420.4	1447.6	5842.3	5892.7	5760.1	3975.5
80°	303.3	284.7	304.8	445.4	877.2	1405.8	1232.4	3678.2	3374.9	2570.7	1272.8
82.5°	187.9	182.4	204.6	317.4	617.7	1278.8	1167.9	1898.0	1449.1	709.4	454.5
85°	98.8	90.7	118.9	207.1	386.5	1003.7	1094.4	866.1	559.3	251.9	182.4
87.5°	29.2	26.2	45.9	83.6	163.8	449.9	626.3	367.3	208.6	74.1	56.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P597030

CATALOG NUMBER: MSA-SA3B-835-U-SL2

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1	923.1
2.5°	1125.1	1119.6	1045.0	1054.6	1070.7	1074.7	1074.2	1047.0	1018.3	1098.4	1095.9
5°	1433.0	1383.1	1345.8	1337.8	1291.9	1246.0	1262.2	1256.6	1249.6	1285.9	1290.4
7.5°	1654.7	1585.6	1542.3	1431.0	1325.2	1233.5	1262.7	1271.7	1253.6	1319.1	1338.8
10°	1713.1	1658.7	1611.9	1468.8	1410.3	1356.9	1277.8	1187.6	1175.5	1137.7	1142.3
12.5°	1863.8	1856.2	1696.5	1570.5	1494.5	1388.1	1217.3	1108.0	1014.3	1018.8	991.6
15°	1982.7	1986.7	1794.8	1618.4	1414.3	1252.1	1051.1	915.0	818.8	799.6	780.0
17.5°	2142.4	2134.4	1802.8	1561.0	1302.5	1064.7	818.3	683.2	667.1	678.2	661.1
20°	2211.9	2140.9	1751.4	1418.4	1127.6	808.7	618.2	546.7	577.9	622.3	623.3
22.5°	2274.4	2153.0	1724.7	1303.5	894.9	588.0	496.3	483.2	520.0	579.9	585.0
25°	2271.9	2208.9	1676.8	1187.6	693.8	459.0	431.3	440.9	484.7	547.2	550.7
27.5°	2386.3	2166.1	1552.4	1035.4	522.5	393.0	400.1	417.7	438.4	497.8	509.4
30°	2385.3	2245.7	1489.9	850.5	419.7	360.3	378.4	393.5	410.6	465.1	471.6
32.5°	2441.7	2193.8	1452.1	661.6	376.4	352.2	356.7	371.8	396.5	433.3	437.9
35°	2509.7	2252.8	1331.2	525.5	360.3	345.1	348.7	357.2	379.9	413.7	418.2
37.5°	2727.9	2263.8	1283.3	442.9	359.3	342.1	341.6	346.2	371.8	402.6	416.2
40°	2813.1	2365.1	1143.8	413.7	355.7	342.1	335.1	337.6	358.7	398.0	408.6
42.5°	3017.1	2398.9	1040.5	403.6	355.7	336.1	325.0	329.0	353.7	388.5	405.1
45°	3227.2	2446.7	917.5	401.6	355.2	335.6	314.4	323.5	343.6	372.9	391.0
47.5°	3526.5	2619.1	794.6	395.5	351.2	338.1	311.9	311.4	329.0	354.2	371.3
50°	4014.8	2888.1	699.4	388.0	351.7	336.1	306.9	299.8	311.4	333.6	350.2
52.5°	4694.5	3346.6	662.1	383.9	347.7	328.0	298.3	287.2	293.8	311.4	327.5
55°	5483.5	3965.9	698.9	383.9	339.6	315.4	286.2	273.1	276.6	288.7	304.3
57.5°	6405.6	4735.3	876.7	378.4	329.5	300.3	271.6	256.5	257.5	268.1	282.2
60°	7368.5	5594.9	1275.3	373.9	322.5	283.7	254.4	238.8	237.3	247.4	260.0
62.5°	8332.8	6387.9	1694.5	384.4	320.5	269.6	236.3	220.7	220.2	229.3	239.8
65°	9099.7	6930.1	1798.8	427.3	333.6	253.4	217.7	203.1	202.0	209.6	221.2
67.5°	9476.1	7008.7	1366.5	480.7	361.3	238.3	199.5	185.9	184.9	193.0	203.1
70°	9197.5	6471.6	843.5	486.2	359.8	220.7	180.9	169.3	167.3	175.8	183.4
72.5°	8166.6	5660.9	640.9	430.3	311.4	195.5	162.2	152.2	149.1	156.7	163.8
75°	6554.7	4494.4	513.4	347.2	245.4	164.8	143.6	134.0	130.5	137.6	143.6
77.5°	3818.3	2528.4	375.4	271.1	185.4	134.5	122.4	113.9	109.8	117.4	121.9
80°	1241.5	842.5	235.8	194.5	135.5	105.3	99.3	93.2	89.2	94.2	95.7
82.5°	445.9	313.4	130.5	119.4	90.2	75.6	75.1	71.5	66.5	68.5	68.5
85°	197.5	143.1	77.6	64.0	53.9	40.3	47.4	44.8	39.8	38.8	37.3
87.5°	55.4	47.4	28.2	21.7	17.6	6.6	15.1	13.6	11.1	10.1	7.1
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)