

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: P367683

Luminaire Tested: **MSA-SA3A-730-U-SL3-HSS**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367683  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3A-730-U-SL3-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8772 lumens  
Efficiency: N/A  
Efficacy: 91.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

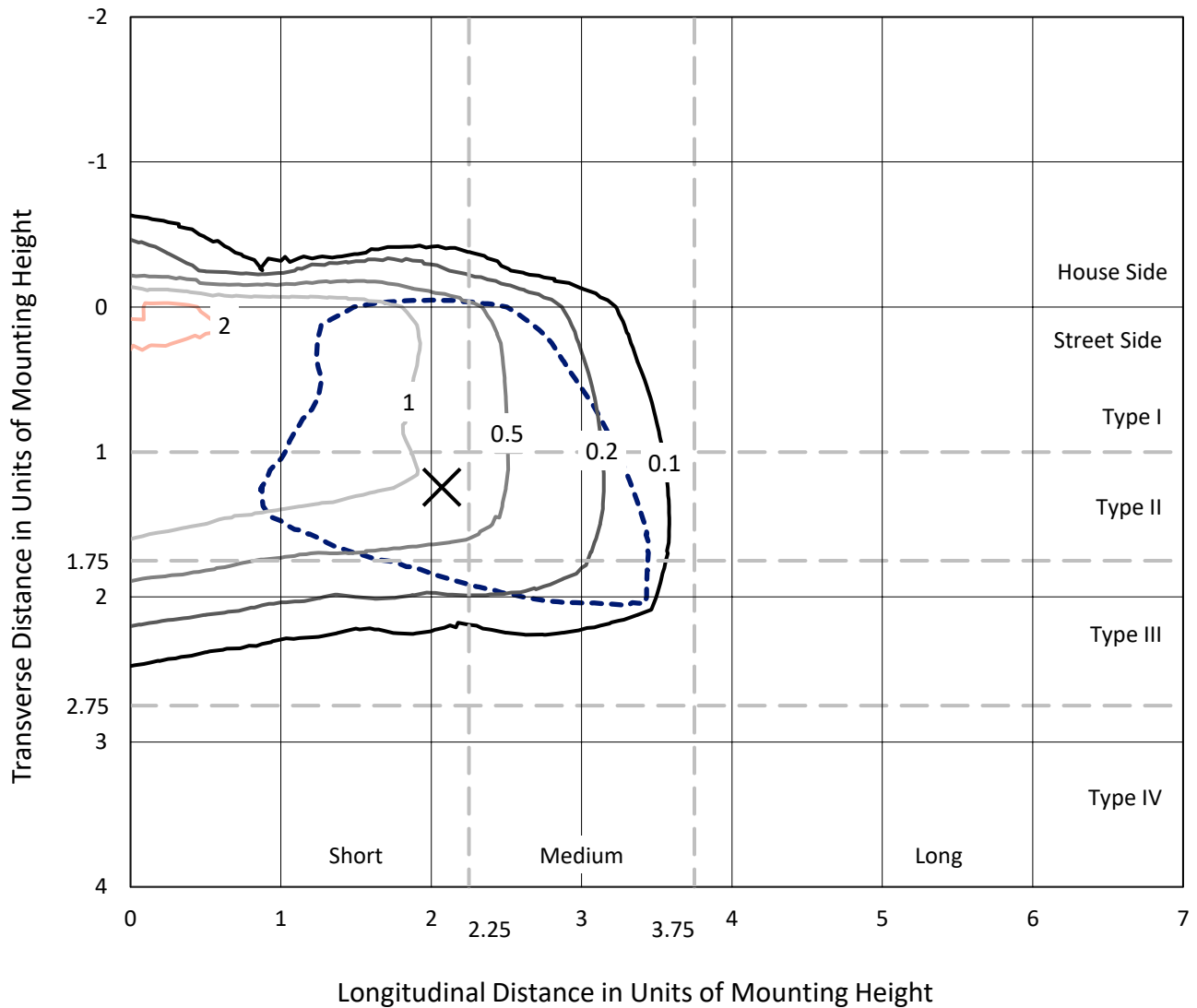
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

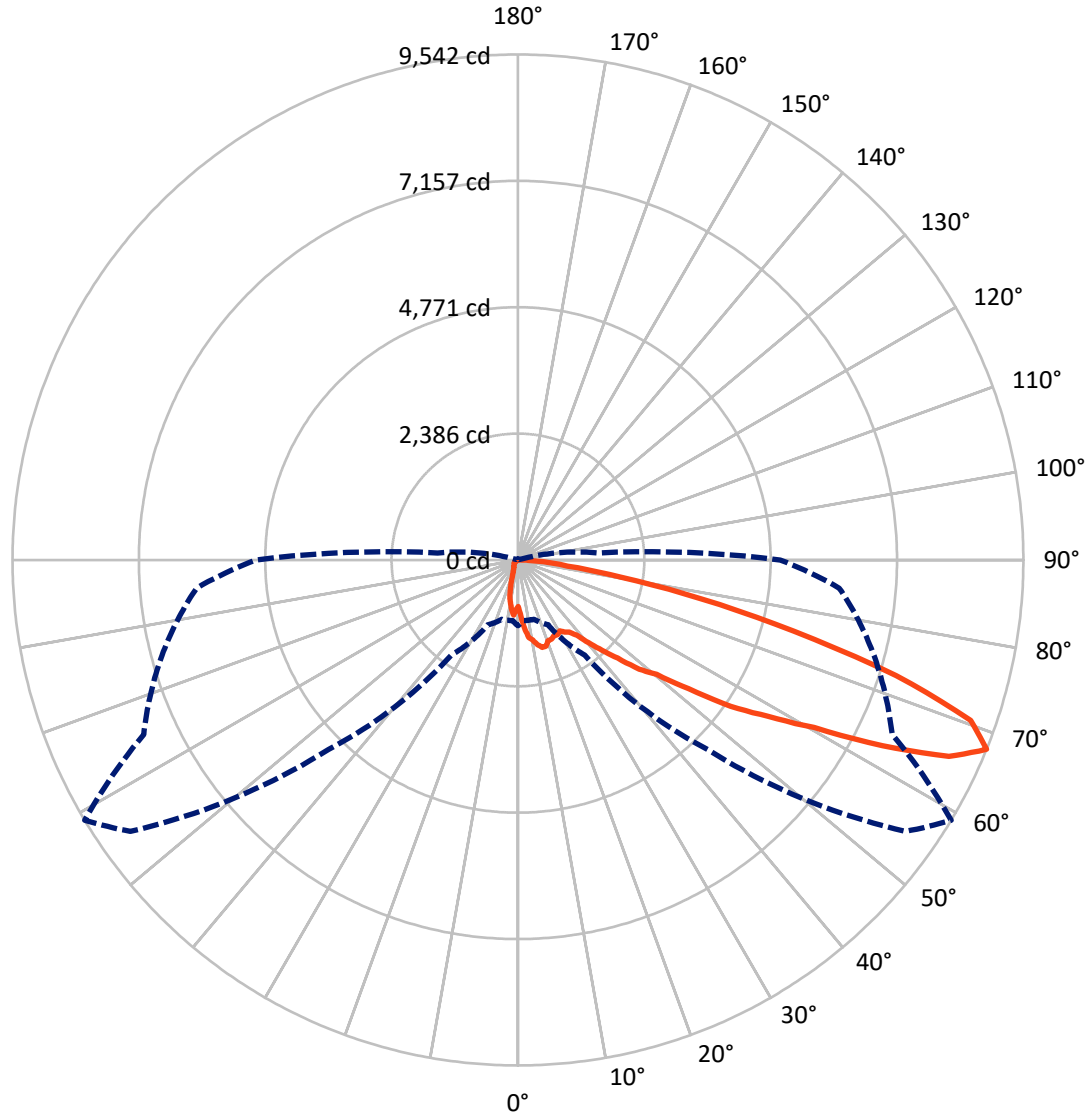
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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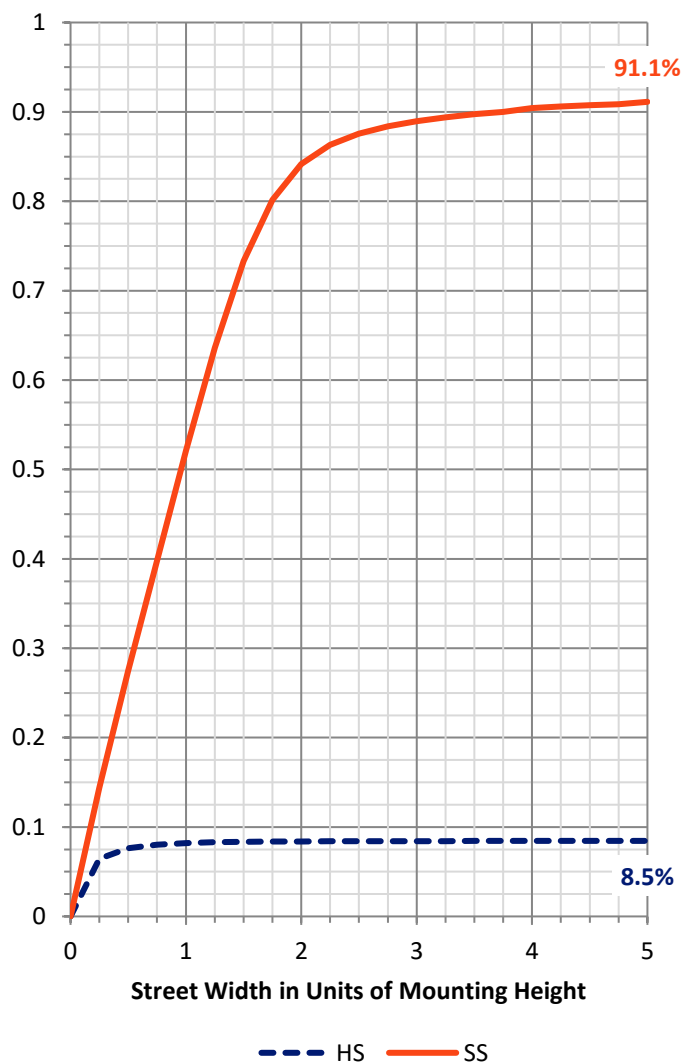
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	746.0	0.0	746.0
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	8026.0	0.0	8026.0
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	8772.0	0.0	8772.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.7	1.2
10°-20°	300.5	3.4
20°-30°	446.9	5.1
30°-40°	689.5	7.9
40°-50°	1230.6	14.0
50°-60°	2189.9	25.0
60°-70°	2550.5	29.1
70°-80°	1134.2	12.9
80°-90°	123.2	1.4
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°	8772.0	100.0
0°-180°	8772.0	100.0

**Coefficient of Utilization**

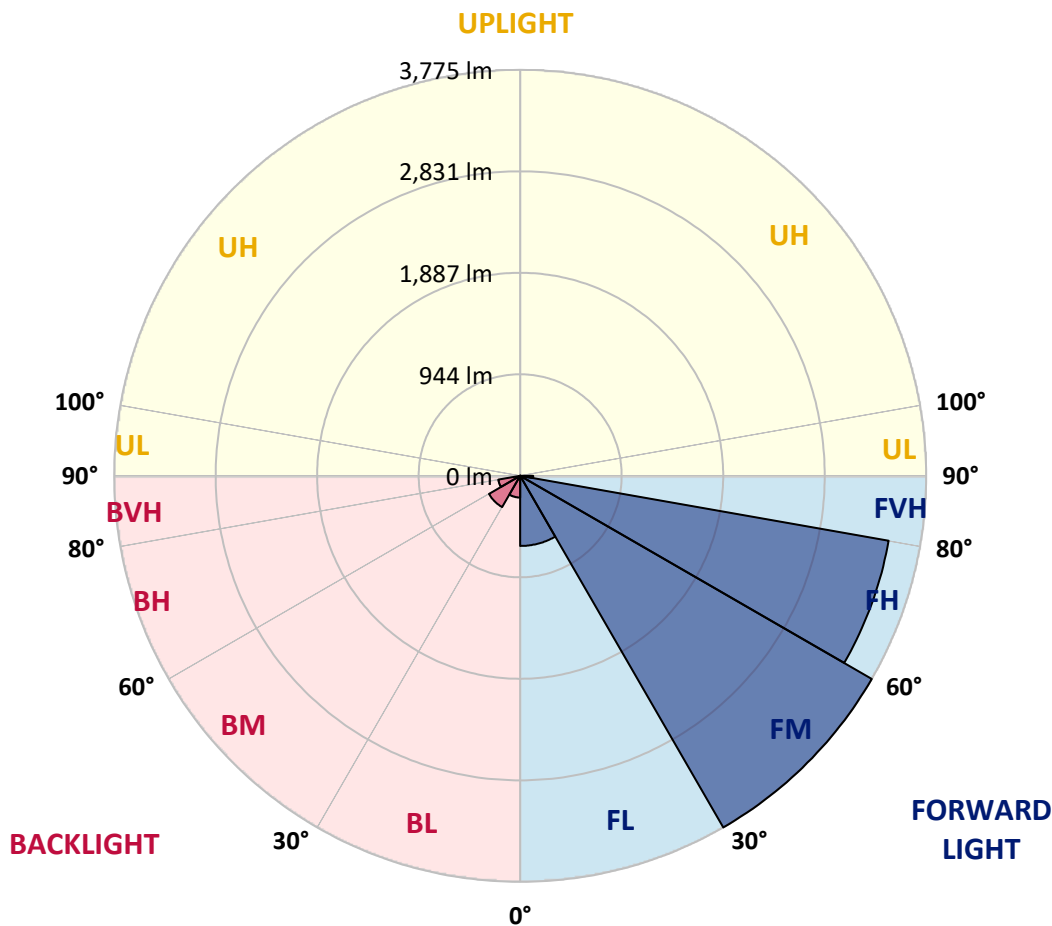


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	652.4	7.4			
FM (30°-60°)	3774.6	43.0			
FH (60°-80°)	3478.0	39.6			G2/5000
FVH (80°-90°)	121.0	1.4			G2/225
BL (0°-30°)	201.7	2.3	B1/500		
BM (30°-60°)	335.4	3.8	B1/1000		
BH (60°-80°)	206.6	2.4	B1/500		G1/500
BVH (80°-90°)	2.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**  
 Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7
2.5°	1144.2	1101.1	1039.8	1058.0	1074.4	1090.0	1064.2	1049.6	1042.5	979.4	1058.4
5°	1404.9	1351.1	1323.2	1316.1	1298.3	1258.8	1324.5	1295.2	1305.0	1317.4	1343.1
7.5°	1484.4	1460.0	1419.5	1434.6	1367.1	1361.4	1452.4	1477.7	1511.0	1488.4	1519.5
10°	1443.5	1401.3	1420.4	1415.1	1412.4	1472.0	1535.9	1537.2	1587.0	1611.0	1505.7
12.5°	1362.7	1367.6	1436.0	1430.7	1519.5	1638.5	1653.2	1637.6	1718.9	1677.2	1661.2
15°	1416.4	1456.4	1418.7	1431.5	1463.1	1611.9	1663.8	1711.8	1788.6	1813.5	1705.6
17.5°	1481.3	1485.3	1416.4	1400.4	1480.0	1549.2	1671.8	1711.4	1718.9	1937.0	1805.5
20°	1446.2	1480.4	1398.2	1297.4	1420.9	1515.0	1639.4	1627.0	1677.6	1973.4	1828.2
22.5°	1539.5	1490.6	1385.3	1309.4	1351.1	1436.9	1542.1	1623.4	1699.4	1886.4	1857.5
25°	1548.4	1530.6	1436.9	1369.4	1362.2	1384.0	1530.6	1583.0	1702.0	1964.5	1832.6
27.5°	1648.3	1627.9	1436.0	1442.6	1376.0	1308.9	1474.6	1597.7	1750.4	1917.0	1885.5
30°	1777.1	1778.9	1531.5	1552.4	1457.3	1349.4	1520.4	1554.1	1783.3	1993.0	1924.6
32.5°	1907.7	1961.4	1720.2	1609.6	1579.9	1502.6	1463.5	1619.4	1747.3	2122.7	2022.3
35°	2106.2	2142.6	1875.7	1776.7	1659.8	1571.9	1618.1	1674.1	1876.6	2294.5	2150.6
37.5°	2442.5	2376.7	2154.6	1982.3	1954.3	1824.6	1847.7	1797.5	2008.5	2497.1	2404.7
40°	2631.7	2572.1	2341.2	2257.2	2078.7	2098.7	2025.8	2055.1	2199.9	2708.1	2636.1
42.5°	2828.9	2772.0	2569.5	2510.0	2339.9	2257.2	2224.4	2329.6	2493.5	3059.4	2967.9
45°	3027.0	2882.6	2796.9	2826.7	2750.3	2586.8	2548.6	2642.3	2814.2	3491.1	3317.9
47.5°	3194.0	3072.3	3007.9	2994.1	2964.3	3191.3	3035.9	3077.2	3153.1	3873.1	3754.1
50°	3495.1	3375.2	3274.4	3246.4	3391.2	3713.2	3473.4	3393.4	3545.3	4334.6	4259.5
52.5°	3930.0	3777.2	3616.8	3617.3	3890.4	4067.2	4180.9	4040.6	4069.0	4842.3	4809.0
55°	4279.5	4085.4	3952.6	4057.4	4464.7	4563.8	4997.7	4874.7	4837.8	5313.1	5272.2
57.5°	4327.5	4094.7	4031.7	4215.6	4773.0	5405.5	5872.3	5564.9	5508.5	5707.1	5788.3
60°	3879.8	3632.8	3680.3	3976.2	4873.4	5918.5	6675.3	6424.4	6065.9	6168.5	6224.5
62.5°	2893.7	2696.5	2829.8	3221.5	4486.5	6262.3	7605.0	7721.3	6712.6	6515.0	6503.0
65°	1877.5	1754.0	1841.5	2162.6	3395.2	6223.2	8435.5	8940.1	7222.1	6797.5	6590.5
67.5°	1241.9	1148.2	1160.6	1350.7	2195.5	5061.2	8932.1	9542.0	7795.1	6957.8	6089.0
70°	925.6	851.9	856.3	959.4	1303.2	3337.9	8239.7	9067.1	8004.3	6402.2	4914.7
72.5°	667.6	618.3	659.6	774.2	1038.5	1765.1	6141.4	7467.3	6979.6	5049.7	3311.2
75°	462.4	430.0	497.5	647.6	947.8	1095.8	4058.3	5375.3	4892.0	3168.2	1496.8
77.5°	256.3	246.5	343.8	527.7	860.3	898.1	2486.0	3532.0	2713.4	1135.7	356.2
80°	111.9	108.4	166.6	396.2	723.1	811.5	1399.6	1958.3	1067.3	202.5	115.0
82.5°	48.0	46.2	71.1	238.5	525.4	678.7	863.0	942.5	367.3	62.6	65.3
85°	8.4	9.3	28.4	125.7	319.8	344.7	624.9	557.9	184.8	29.8	46.6
87.5°	0.0	0.0	4.4	24.4	60.0	98.6	270.9	195.4	35.1	9.8	8.0
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°	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7	877.7
2.5°	1069.5	1044.7	950.1	938.1	925.2	906.1	899.0	858.1	852.8	905.2	905.2
5°	1331.2	1242.3	1152.2	1081.1	1017.6	929.6	904.8	879.0	858.1	852.8	869.2
7.5°	1469.3	1360.9	1219.2	1038.5	891.9	764.4	711.1	673.8	632.0	644.5	651.1
10°	1461.7	1346.7	1165.9	933.6	771.1	630.3	494.8	415.7	371.8	350.0	347.3
12.5°	1535.9	1427.5	1130.0	850.1	642.7	448.2	311.4	254.9	222.5	223.0	220.3
15°	1579.0	1460.9	1088.2	744.4	452.6	288.3	215.9	203.4	199.0	203.9	201.2
17.5°	1655.0	1495.9	993.6	586.7	311.4	217.6	198.5	193.7	199.4	209.6	207.0
20°	1649.2	1435.1	859.0	413.5	230.1	195.9	187.9	180.3	192.3	203.0	201.2
22.5°	1643.8	1375.6	732.4	305.1	192.3	178.6	171.9	168.8	175.0	187.4	190.1
25°	1596.8	1346.3	604.1	229.2	174.1	162.1	159.0	156.3	158.6	168.8	168.3
27.5°	1654.5	1272.1	466.4	192.3	161.2	147.0	144.4	139.9	135.5	144.4	145.7
30°	1642.5	1282.3	365.5	169.2	148.4	129.3	130.1	120.8	112.8	120.8	120.8
32.5°	1686.0	1207.7	292.7	153.7	135.5	121.7	110.6	100.8	95.1	99.9	100.8
35°	1749.6	1210.8	229.2	143.9	124.4	108.4	95.1	85.3	79.9	82.2	83.5
37.5°	1962.3	1189.5	191.4	136.4	120.4	100.4	86.6	73.7	70.2	72.8	74.2
40°	2100.9	1246.3	168.8	132.4	110.2	92.4	74.2	64.8	61.7	63.1	65.3
42.5°	2362.1	1277.9	157.7	127.9	100.8	79.1	63.5	58.2	53.7	55.5	57.3
45°	2641.4	1331.6	149.2	123.0	93.7	69.3	56.0	51.5	45.7	46.2	48.0
47.5°	2984.8	1459.5	139.5	114.6	83.9	63.1	49.7	43.1	37.8	37.3	39.5
50°	3445.8	1630.5	130.6	103.9	77.7	57.7	43.5	35.1	30.6	29.3	31.1
52.5°	3938.0	1851.7	121.3	96.4	70.2	50.6	37.3	28.4	24.4	23.5	24.9
55°	4425.6	2064.0	112.4	91.5	62.2	43.5	31.5	23.5	20.0	19.1	20.0
57.5°	4981.3	2293.7	100.8	81.7	54.6	37.8	26.2	19.5	16.4	15.5	16.0
60°	5399.7	2374.5	91.1	71.1	47.5	33.3	22.2	15.5	13.3	12.4	12.9
62.5°	5598.2	2242.6	81.7	61.7	41.8	28.9	18.7	12.9	11.1	10.2	10.2
65°	5546.7	1950.3	72.4	52.9	36.0	24.0	14.7	11.1	9.8	8.4	8.0
67.5°	4951.5	1526.1	61.7	44.4	30.2	19.5	12.4	10.7	8.9	8.0	6.7
70°	3926.8	1105.1	50.2	36.9	25.3	16.0	9.8	9.8	8.4	8.0	6.2
72.5°	2573.9	695.6	40.9	29.8	20.9	12.4	7.6	8.9	8.0	8.0	5.8
75°	1115.3	248.7	32.9	24.0	17.3	8.4	6.7	8.0	8.4	8.0	6.7
77.5°	261.2	77.3	25.8	19.1	14.2	5.8	6.7	8.0	8.4	7.6	5.8
80°	98.2	32.9	16.9	12.4	11.1	3.6	5.8	4.9	4.4	3.1	0.9
82.5°	59.5	13.8	8.9	6.2	5.3	0.9	2.7	1.8	0.9	0.9	0.0
85°	42.2	6.7	4.9	4.4	2.7	0.0	0.4	0.0	0.0	0.4	0.0
87.5°	5.8	1.8	2.2	2.2	1.8	0.0	0.0	0.0	0.0	0.0	0.0
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)