

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: P367858

Luminaire Tested: **MSA-SA3B-750-U-SL2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367858
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-750-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: 14603 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - 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: 24 FT

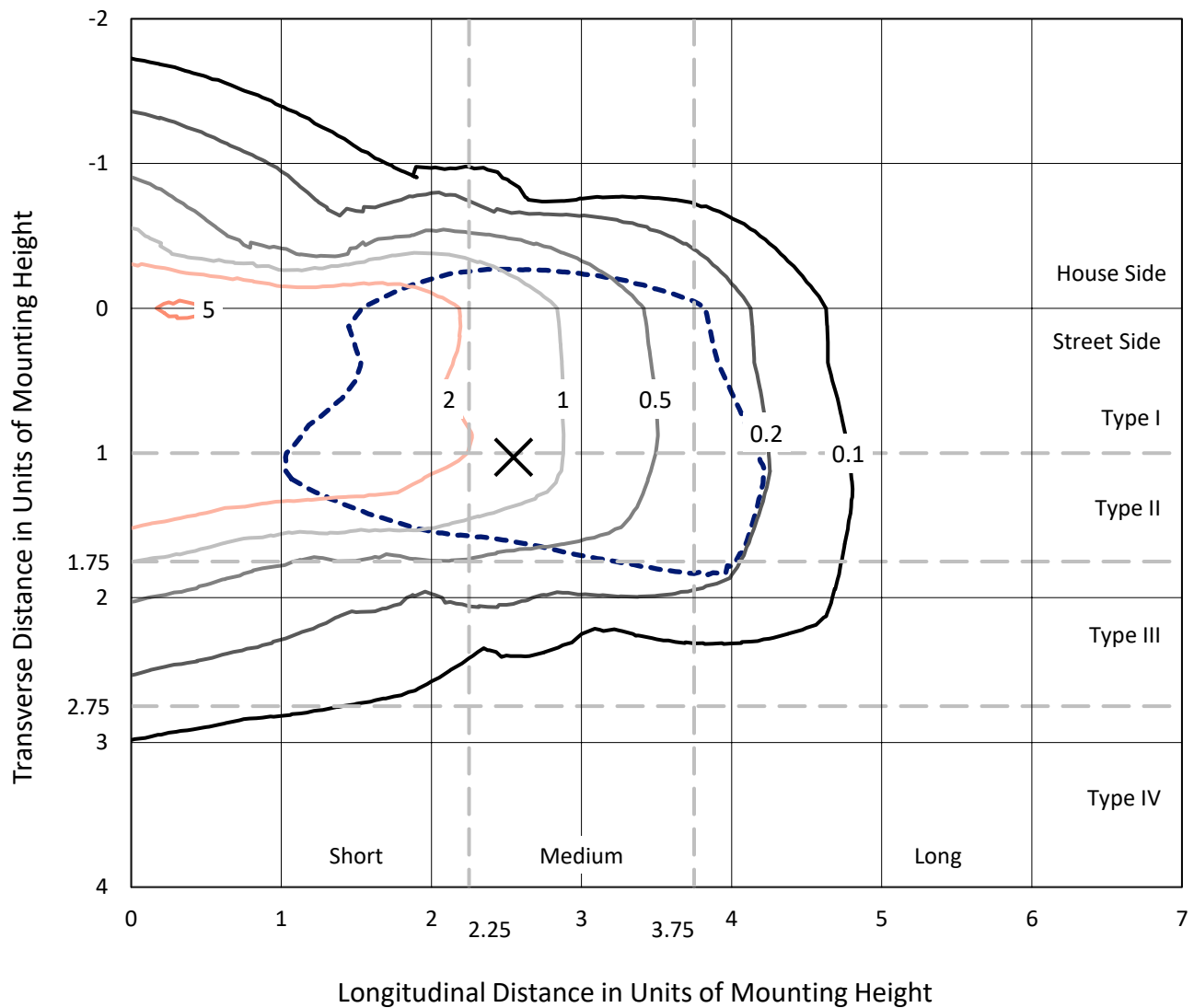


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

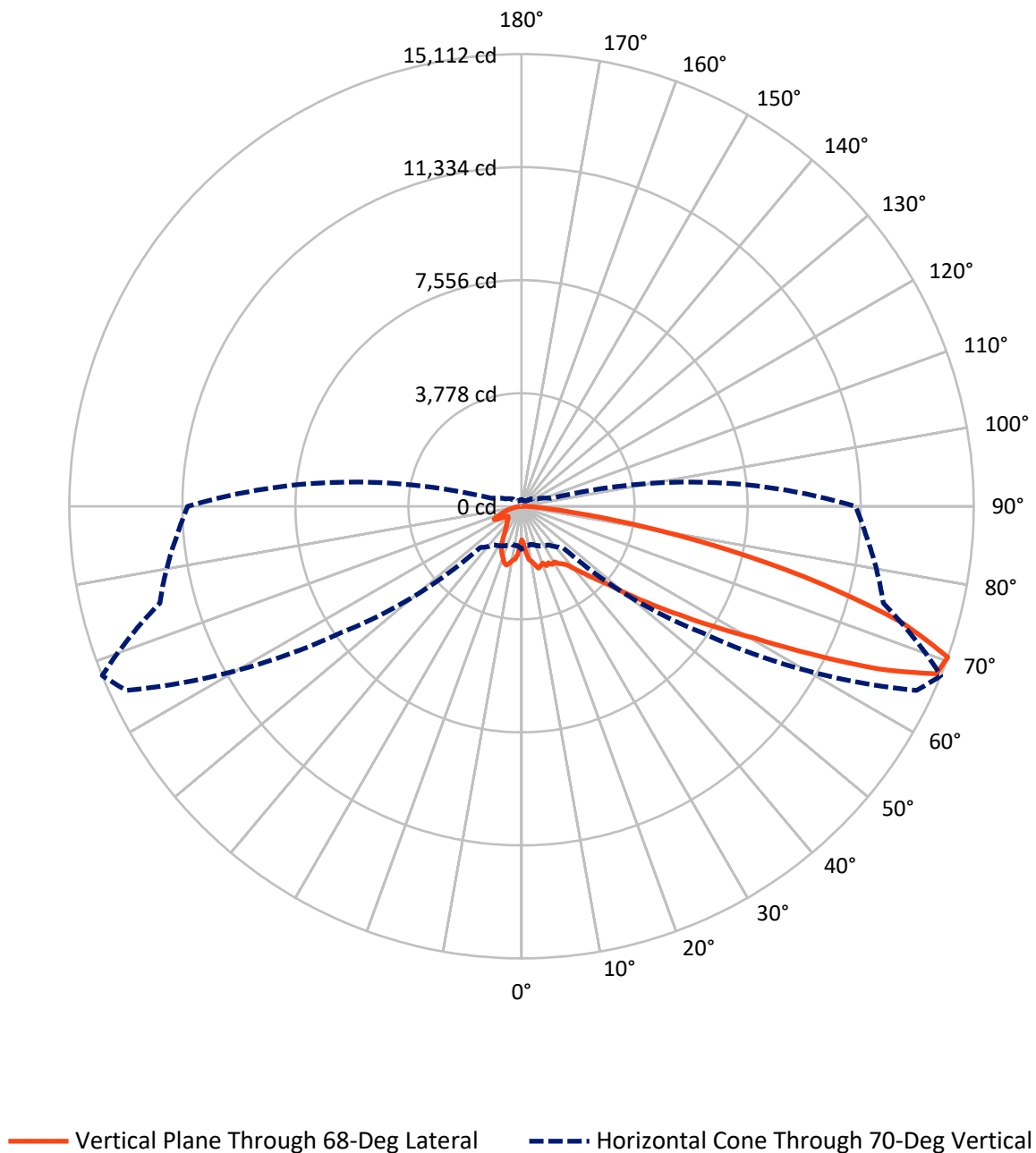


Based on 20 foot mounting height. Maximum calculated value = 5.5 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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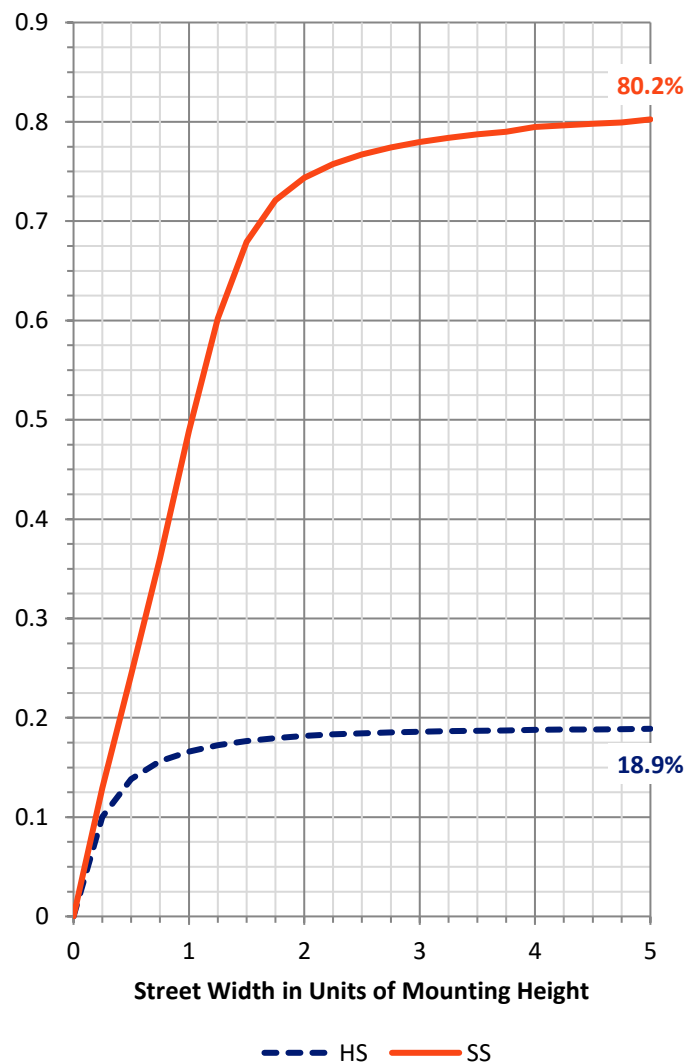
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2788.1	0.0	2788.1
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	11814.9	0.0	11814.9
	% Fixture	80.9	0.0	80.9
Total	Lumens	14603.0	0.0	14603.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.5	1.0
10°-20°	487.4	3.3
20°-30°	741.4	5.1
30°-40°	1132.5	7.8
40°-50°	1947.2	13.3
50°-60°	3223.0	22.1
60°-70°	3973.5	27.2
70°-80°	2552.5	17.5
80°-90°	395.9	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°	14603.0	100.0
0°-180°	14603.0	100.0

Coefficient of Utilization



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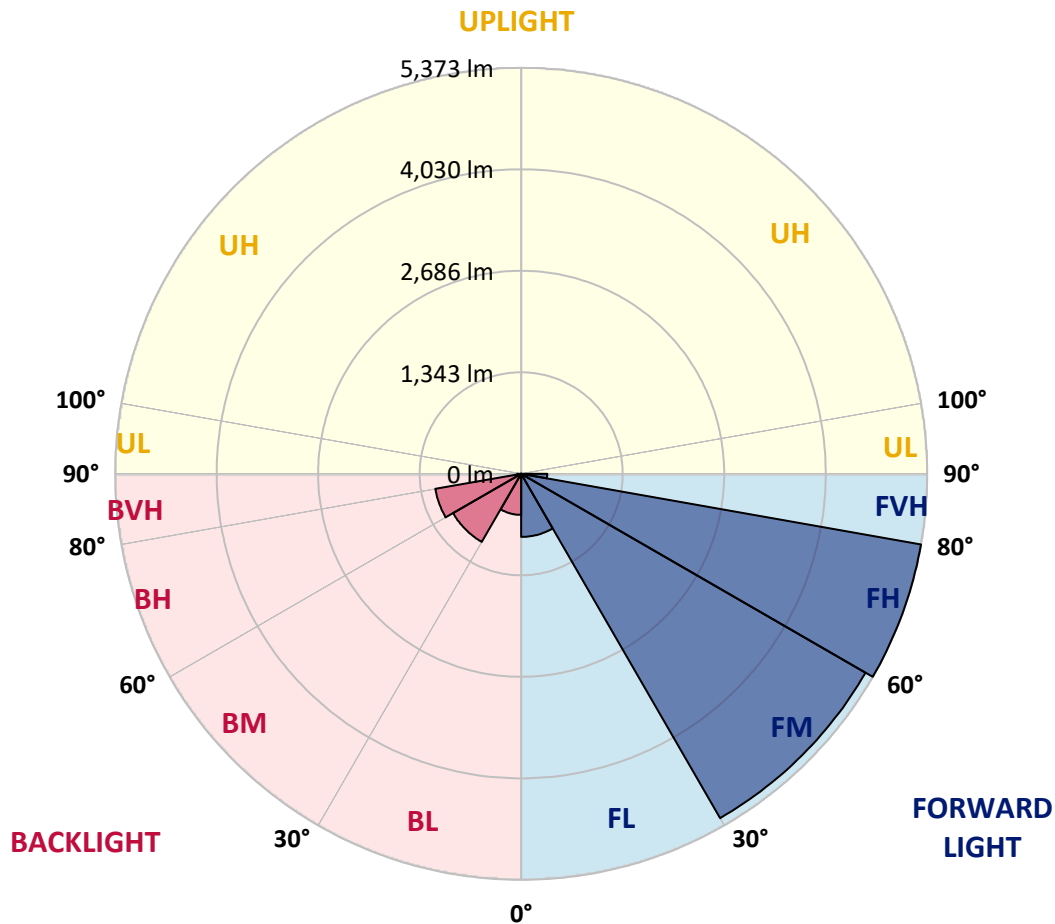
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	835.0	5.7			
FM	(30°-60°)	5262.0	36.0			
FH	(60°-80°)	5372.8	36.8			G3/7500
FVH	(80°-90°)	345.1	2.4			G3/500
BL	(0°-30°)	543.3	3.7	B2/1000		
BM	(30°-60°)	1040.7	7.1	B2/2500		
BH	(60°-80°)	1153.3	7.9	B3/2500		G3/2500
BVH	(80°-90°)	50.8	0.3			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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7
2.5°	1286.5	1234.6	1182.0	1207.7	1248.6	1284.7	1277.3	1281.6	1232.1	1225.4	1355.6
5°	1515.7	1426.5	1424.6	1425.9	1429.5	1388.0	1489.4	1542.0	1553.6	1607.4	1735.1
7.5°	1595.2	1559.1	1522.4	1540.8	1494.3	1498.6	1623.3	1760.2	1792.6	1831.7	2006.5
10°	1578.7	1544.4	1555.4	1558.5	1567.0	1636.1	1716.2	1847.6	1875.1	1999.7	2045.0
12.5°	1581.1	1575.0	1626.3	1628.2	1719.8	1843.9	1875.7	1996.7	2007.7	2099.4	2288.2
15°	1664.8	1707.0	1678.3	1693.6	1711.3	1859.8	1905.6	2079.2	2145.2	2263.2	2405.0
17.5°	1828.0	1840.2	1754.1	1731.4	1789.5	1834.7	1939.2	2014.4	2083.5	2412.9	2608.5
20°	1865.9	1898.9	1796.2	1679.5	1802.3	1865.3	1938.0	1972.2	2026.0	2434.9	2712.4
22.5°	2028.5	1960.0	1836.0	1734.5	1774.8	1836.0	1888.5	2017.5	2158.7	2372.0	2816.3
25°	2120.8	2081.0	1970.4	1861.6	1827.4	1829.2	1930.7	2046.2	2095.1	2464.2	2837.1
27.5°	2343.8	2280.3	2031.5	2010.7	1881.8	1781.6	1937.4	2117.1	2202.7	2392.1	2938.5
30°	2623.1	2574.9	2248.5	2221.0	2024.2	1849.4	2023.0	2169.7	2157.4	2439.2	3008.8
32.5°	2849.3	2929.9	2600.5	2383.6	2243.6	2076.1	1996.1	2160.5	2282.1	2548.6	3128.0
35°	3172.0	3247.8	2874.9	2728.3	2424.5	2181.3	2183.7	2286.4	2361.6	2676.3	3261.2
37.5°	3730.6	3664.0	3363.9	3132.2	2937.9	2574.9	2466.1	2430.0	2490.5	2832.8	3522.2
40°	4133.3	4077.1	3723.9	3591.8	3213.5	3002.7	2704.4	2670.2	2777.2	2994.1	3735.5
42.5°	4610.7	4510.4	4181.6	4072.8	3677.4	3297.3	2996.6	3016.1	3068.1	3298.5	4023.9
45°	5096.5	4853.3	4666.9	4658.3	4394.3	3869.3	3465.3	3449.4	3451.3	3746.5	4347.9
47.5°	5482.2	5263.4	5050.1	4948.6	4815.4	4858.8	4146.2	3959.8	3903.5	4197.5	4833.7
50°	5743.2	5491.4	5250.0	5226.1	5581.8	5815.9	4785.5	4586.2	4621.1	4842.9	5481.6
52.5°	5748.7	5449.8	5198.0	5364.9	6202.8	6537.7	5886.8	5330.0	5441.2	5592.2	6326.8
55°	5349.0	5039.1	4875.3	5255.5	6445.4	7393.9	7434.3	6521.8	6393.5	6449.1	7337.1
57.5°	4506.2	4193.2	4097.9	4553.2	5985.2	8219.6	9303.2	7945.8	7569.3	7337.1	8372.4
60°	3392.0	3121.2	3062.0	3352.3	4962.1	7977.0	10816.5	9718.2	8951.2	8329.0	9410.8
62.5°	2543.7	2349.3	2260.1	2301.7	3433.6	7188.0	11810.3	11957.5	10871.5	9412.0	10425.3
65°	2067.0	1909.9	1830.5	1776.7	2135.4	5558.0	11630.6	13842.4	13114.5	10549.4	11215.0
67.5°	1726.6	1587.2	1550.5	1603.1	1688.1	3224.5	10224.9	14896.7	14946.2	11671.5	11676.4
70°	1433.2	1329.9	1316.5	1465.6	1577.4	1946.0	7385.4	14565.4	15111.8	12513.1	11568.2
72.5°	1107.4	1051.8	1050.0	1284.1	1567.0	1658.7	4398.0	12582.8	13316.8	12244.2	10509.7
75°	768.2	729.7	759.1	1055.5	1531.0	1682.6	2510.1	9800.7	10350.2	10419.2	8418.9
77.5°	528.7	496.3	528.1	763.4	1367.2	1722.9	1755.9	7086.5	7147.6	6986.9	4822.1
80°	367.9	345.3	369.8	540.3	1064.0	1705.2	1494.9	4461.5	4093.6	3118.2	1543.8
82.5°	228.0	221.2	248.1	385.0	749.3	1551.1	1416.7	2302.3	1757.7	860.5	551.3
85°	119.8	110.0	144.2	251.2	468.8	1217.5	1327.5	1050.6	678.4	305.6	221.2
87.5°	35.4	31.8	55.6	101.5	198.6	545.8	759.7	445.5	253.0	89.8	69.1
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°	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7	1119.7
2.5°	1364.7	1358.0	1267.6	1279.2	1298.7	1303.6	1303.0	1270.0	1235.2	1332.4	1329.3
5°	1738.2	1677.7	1632.4	1622.7	1567.0	1511.4	1531.0	1524.3	1515.7	1559.7	1565.2
7.5°	2007.1	1923.4	1870.8	1735.7	1607.4	1496.1	1531.6	1542.6	1520.6	1600.0	1623.9
10°	2078.0	2012.0	1955.1	1781.6	1710.7	1645.9	1549.9	1440.5	1425.9	1380.0	1385.5
12.5°	2260.7	2251.6	2057.8	1905.0	1812.7	1683.8	1476.6	1344.0	1230.3	1235.8	1202.8
15°	2405.0	2409.8	2177.0	1963.1	1715.6	1518.8	1274.9	1109.9	993.2	969.9	946.1
17.5°	2598.7	2588.9	2186.8	1893.4	1579.9	1291.4	992.5	828.7	809.2	822.6	801.9
20°	2683.0	2596.9	2124.4	1720.4	1367.8	980.9	749.9	663.1	701.0	754.8	756.0
22.5°	2758.8	2611.5	2092.0	1581.1	1085.4	713.2	602.0	586.1	630.7	703.5	709.6
25°	2755.8	2679.4	2034.0	1440.5	841.6	556.8	523.2	534.8	587.9	663.7	668.0
27.5°	2894.5	2627.4	1883.0	1256.0	633.8	476.7	485.3	506.7	531.7	603.8	617.9
30°	2893.3	2724.0	1807.2	1031.7	509.1	437.0	459.0	477.3	498.1	564.1	572.1
32.5°	2961.7	2661.0	1761.4	802.5	456.5	427.2	432.7	451.0	481.0	525.6	531.1
35°	3044.2	2732.5	1614.7	637.5	437.0	418.7	422.9	433.3	460.8	501.8	507.3
37.5°	3308.9	2746.0	1556.7	537.2	435.8	415.0	414.4	419.9	451.0	488.3	504.8
40°	3412.2	2868.8	1387.4	501.8	431.5	415.0	406.4	409.5	435.2	482.8	495.7
42.5°	3659.7	2909.8	1262.1	489.5	431.5	407.7	394.2	399.1	429.0	471.2	491.4
45°	3914.5	2967.8	1112.9	487.1	430.9	407.0	381.4	392.4	416.8	452.3	474.3
47.5°	4277.6	3176.9	963.8	479.8	426.0	410.1	378.3	377.7	399.1	429.7	450.4
50°	4869.8	3503.2	848.3	470.6	426.6	407.7	372.2	363.6	377.7	404.6	424.8
52.5°	5694.3	4059.4	803.1	465.7	421.7	397.9	361.8	348.4	356.3	377.7	397.3
55°	6651.4	4810.5	847.7	465.7	411.9	382.6	347.1	331.3	335.5	350.2	369.1
57.5°	7769.8	5743.8	1063.4	459.0	399.7	364.3	329.4	311.1	312.3	325.1	342.3
60°	8937.8	6786.4	1546.9	453.5	391.1	344.1	308.6	289.7	287.9	300.1	315.4
62.5°	10107.5	7748.4	2055.4	466.3	388.7	327.0	286.6	267.7	267.1	278.1	290.9
65°	11037.7	8406.0	2181.9	518.3	404.6	307.4	264.0	246.3	245.1	254.2	268.3
67.5°	11494.3	8501.4	1657.5	583.1	438.2	289.1	242.0	225.5	224.3	234.1	246.3
70°	11156.3	7849.9	1023.1	589.8	436.4	267.7	219.4	205.4	202.9	213.3	222.5
72.5°	9905.8	6866.5	777.4	521.9	377.7	237.1	196.8	184.6	180.9	190.1	198.6
75°	7950.7	5451.6	622.8	421.1	297.6	199.9	174.2	162.6	158.3	166.8	174.2
77.5°	4631.4	3066.9	455.3	328.8	224.9	163.2	148.5	138.1	133.2	142.4	147.9
80°	1505.9	1021.9	286.0	235.9	164.4	127.7	120.4	113.1	108.2	114.3	116.1
82.5°	540.9	380.1	158.3	144.8	109.4	91.7	91.1	86.8	80.7	83.1	83.1
85°	239.6	173.6	94.1	77.6	65.4	48.9	57.4	54.4	48.3	47.1	45.2
87.5°	67.2	57.4	34.2	26.3	21.4	7.9	18.3	16.5	13.4	12.2	8.6
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)