

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: P366902

Luminaire Tested: **MSA-SA1C-730-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366902
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-SA1C-730-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5704 lumens
Efficiency: N/A
Efficacy: 96.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

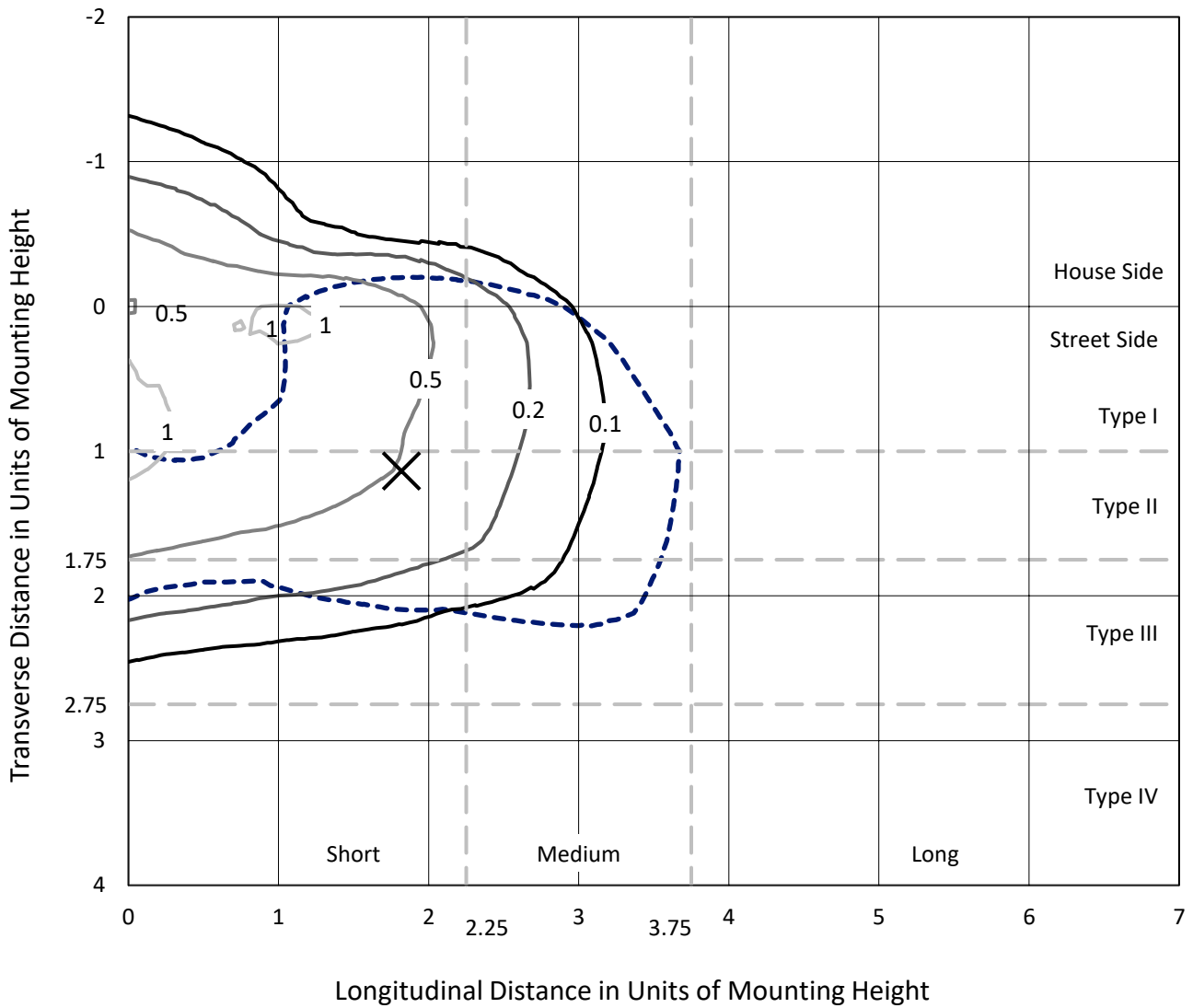
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

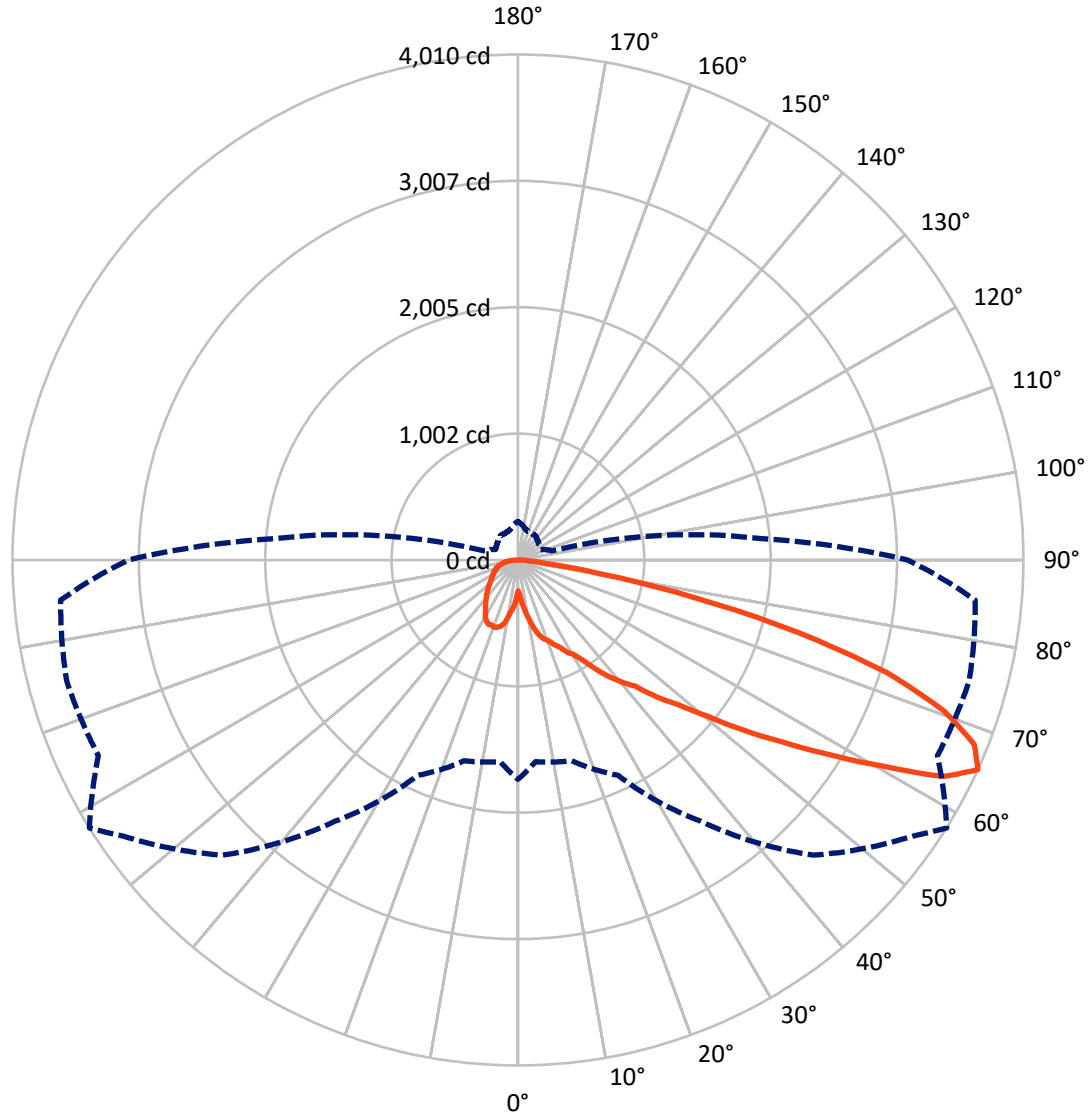
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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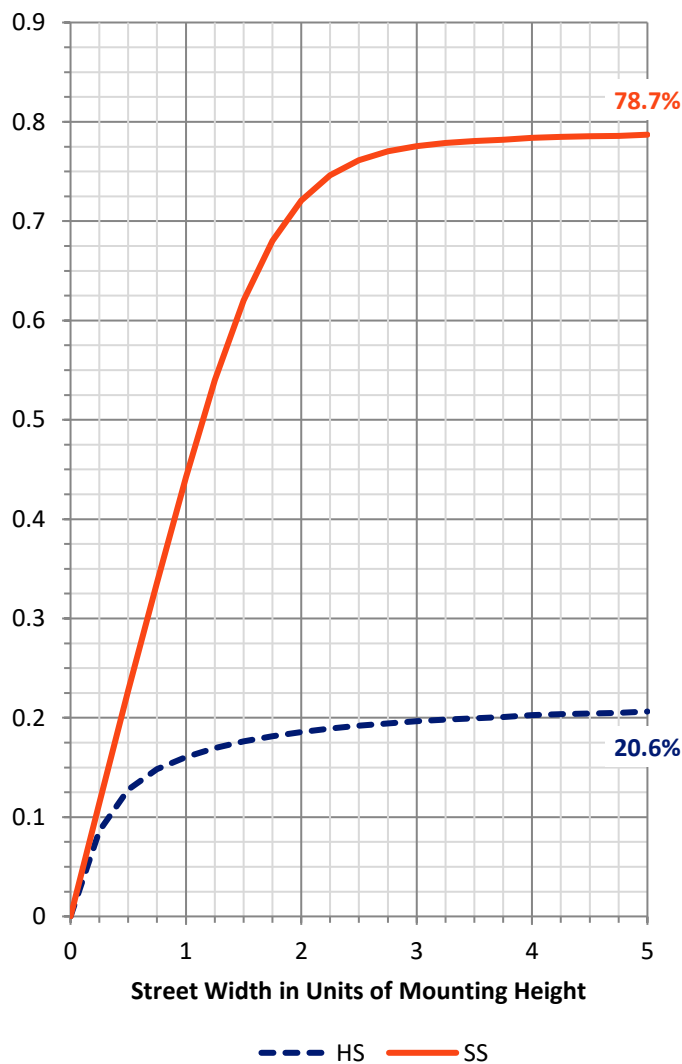
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1201.4	0.0	1201.4
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	4502.6	0.0	4502.6
	% Fixture	78.9	0.0	78.9
Total	Lumens	5704.0	0.0	5704.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.3	0.7
10°-20°	162.8	2.9
20°-30°	312.4	5.5
30°-40°	515.7	9.0
40°-50°	857.1	15.0
50°-60°	1415.6	24.8
60°-70°	1588.0	27.8
70°-80°	722.0	12.7
80°-90°	93.1	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°	5704.0	100.0
0°-180°	5704.0	100.0

Coefficient of Utilization

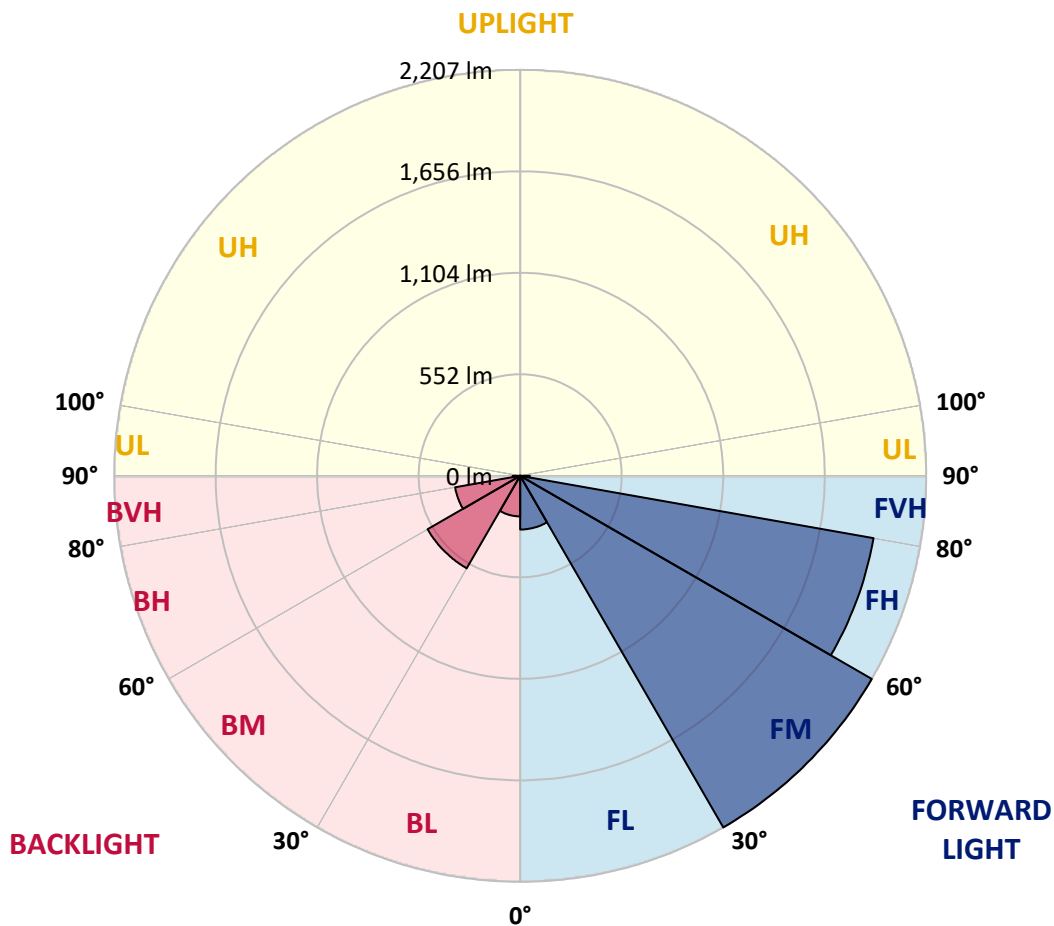


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	291.9	5.1			
FM (30°-60°)	2207.4	38.7			
FH (60°-80°)	1950.9	34.2			G2/5000
FVH (80°-90°)	52.4	0.9			G1/100
BL (0°-30°)	220.6	3.9	B1/500		
BM (30°-60°)	581.0	10.2	B1/1000		
BH (60°-80°)	359.1	6.3	B1/500		G1/500
BVH (80°-90°)	40.7	0.7			G1/100
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°	58°	65°	75°	85°
0°	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9
2.5°	292.4	283.6	268.9	272.5	281.0	285.8	282.9	279.1	274.1	273.2	295.0
5°	378.6	361.8	354.9	352.0	341.6	335.4	346.1	344.7	350.4	360.8	382.2
7.5°	441.6	429.7	418.3	417.1	396.9	389.8	404.1	411.7	421.9	422.1	451.1
10°	475.3	465.1	464.9	454.2	452.5	466.1	466.3	472.0	473.2	485.3	479.6
12.5°	511.9	511.2	524.3	524.0	539.2	561.5	550.4	550.4	553.7	539.0	557.0
15°	599.1	606.7	582.2	586.2	586.2	608.1	607.4	611.7	621.9	618.1	610.0
17.5°	689.8	694.6	667.5	642.3	644.2	639.5	656.6	658.2	648.5	692.7	682.9
20°	748.3	766.8	709.8	678.2	684.4	689.8	690.5	680.3	675.3	743.3	730.0
22.5°	820.5	804.8	752.5	717.6	726.9	719.5	718.1	725.9	732.8	758.5	780.1
25°	868.7	867.5	804.8	766.5	756.3	754.2	768.7	765.6	782.0	828.5	815.0
27.5°	938.8	960.6	849.4	858.9	814.0	766.8	813.3	827.4	856.8	849.2	879.4
30°	1074.6	1058.2	942.1	939.5	888.6	849.0	881.3	869.4	922.4	920.7	943.0
32.5°	1185.6	1197.0	1050.9	1023.6	985.8	938.0	916.7	949.7	978.2	1025.0	1037.6
35°	1302.9	1300.3	1162.3	1107.2	1044.7	1025.0	1051.4	1065.1	1125.7	1168.7	1138.8
37.5°	1485.3	1464.7	1306.7	1202.4	1155.6	1148.5	1193.6	1173.7	1239.2	1249.5	1266.3
40°	1654.9	1592.7	1438.8	1319.3	1244.9	1271.6	1273.0	1275.6	1310.7	1338.5	1421.9
42.5°	1816.2	1772.5	1573.0	1483.2	1373.7	1347.8	1364.0	1369.4	1458.3	1515.0	1630.5
45°	2036.7	1919.6	1765.9	1673.7	1551.1	1518.1	1506.7	1553.7	1639.5	1768.7	1867.8
47.5°	2223.1	2117.4	1970.9	1849.5	1712.4	1806.7	1742.1	1715.8	1831.0	1991.1	2148.8
50°	2377.8	2261.4	2117.7	2047.6	2025.7	2109.8	1942.1	1945.2	2050.7	2276.6	2457.4
52.5°	2497.5	2373.3	2245.9	2210.3	2332.4	2380.9	2259.7	2241.4	2318.4	2585.4	2802.5
55°	2609.4	2477.5	2379.2	2451.9	2657.6	2663.1	2654.5	2553.1	2645.7	2916.3	3159.8
57.5°	2638.1	2496.1	2430.7	2535.0	2813.2	3029.6	3114.6	2915.6	3009.9	3217.2	3465.7
60°	2490.1	2368.5	2342.4	2484.0	2897.3	3213.7	3435.8	3316.8	3281.4	3458.8	3680.0
62.5°	2187.0	2045.9	2067.1	2263.8	2808.7	3286.6	3689.5	3782.3	3568.1	3651.0	3773.6
65°	1740.7	1606.0	1648.8	1885.4	2530.5	3310.8	3819.2	4009.7	3671.7	3705.4	3641.0
67.5°	1227.6	1105.3	1159.2	1465.1	2105.1	3000.6	3841.5	3903.7	3561.4	3550.3	3279.0
70°	695.5	618.8	677.2	932.3	1485.8	2390.4	3666.4	3584.5	3363.8	3205.6	2743.6
72.5°	319.0	292.6	320.7	474.6	855.4	1590.6	2993.2	3067.6	2898.5	2700.6	2087.3
75°	169.6	160.3	172.2	237.1	400.3	865.4	2126.7	2293.9	2203.9	2048.3	1361.6
77.5°	126.1	119.0	124.7	153.7	213.8	338.5	1208.4	1419.3	1453.5	1310.3	756.1
80°	96.7	91.0	96.7	116.2	148.0	160.8	516.6	661.5	753.5	608.8	300.5
82.5°	71.7	67.9	76.7	87.2	104.0	100.5	183.4	228.3	294.3	201.2	117.1
85°	57.0	52.3	55.6	59.1	66.5	55.1	83.9	93.8	99.3	83.1	43.2
87.5°	22.3	20.7	40.4	31.8	27.1	16.6	25.2	28.5	29.2	28.0	12.6
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°	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9	244.9
2.5°	297.4	295.0	281.0	285.5	292.9	294.3	297.4	288.8	284.6	300.3	301.0
5°	384.1	371.3	364.6	365.3	360.6	353.2	364.4	371.8	374.6	386.2	390.5
7.5°	451.3	435.9	424.7	411.9	393.8	382.2	401.7	415.9	423.5	447.8	457.3
10°	481.3	468.9	466.5	450.4	449.9	449.7	448.7	443.7	460.1	457.7	464.4
12.5°	543.0	540.4	517.8	511.4	512.1	511.4	491.5	490.5	490.8	512.6	504.8
15°	600.5	601.0	580.3	557.0	536.1	529.7	521.9	518.3	523.5	535.9	528.3
17.5°	671.5	673.9	614.8	577.9	550.4	549.7	530.9	508.8	540.6	548.2	539.9
20°	717.4	707.4	634.7	572.9	565.1	543.7	520.5	490.0	517.6	536.1	541.4
22.5°	760.8	743.5	653.2	581.7	544.2	518.8	496.2	476.5	485.3	506.0	502.6
25°	790.3	785.5	678.9	602.9	543.5	487.0	456.6	444.0	448.5	480.5	477.5
27.5°	860.6	809.3	674.4	608.3	520.7	443.5	428.3	414.7	410.2	444.9	454.4
30°	907.6	886.5	704.5	599.8	491.9	407.9	385.5	382.7	384.1	423.5	426.1
32.5°	987.5	932.6	754.0	567.0	450.1	381.5	355.8	357.0	363.4	392.2	398.1
35°	1070.6	1037.8	760.6	543.5	416.2	353.5	343.0	334.7	338.3	363.4	364.6
37.5°	1225.0	1111.7	801.5	507.1	391.2	342.8	322.8	315.5	317.4	331.6	341.8
40°	1360.9	1260.1	782.5	472.0	360.3	328.5	303.6	298.1	292.4	306.4	312.8
42.5°	1578.7	1366.1	776.0	433.3	345.9	309.3	292.2	277.7	272.2	284.1	295.7
45°	1796.5	1478.4	741.1	394.1	325.4	307.9	275.5	261.8	263.2	273.9	285.8
47.5°	2039.3	1629.3	682.0	356.1	303.1	301.0	258.9	253.0	257.3	269.1	281.0
50°	2326.2	1789.4	633.0	321.9	287.2	280.3	256.8	249.7	253.7	267.7	279.3
52.5°	2640.0	1964.9	597.4	290.3	269.1	263.9	259.6	252.7	257.5	269.6	281.7
55°	2951.9	2125.3	573.2	268.7	253.7	257.0	265.6	260.6	263.0	272.0	284.1
57.5°	3183.3	2209.8	524.5	245.6	241.1	253.0	266.3	258.0	259.4	272.0	285.0
60°	3317.7	2226.0	444.4	226.9	231.1	244.9	258.9	248.2	247.3	267.9	284.3
62.5°	3303.0	2132.2	352.5	209.7	219.7	232.8	247.8	237.5	240.2	268.4	285.8
65°	3092.1	1940.5	280.3	195.3	205.9	219.5	238.5	234.5	247.0	287.4	306.2
67.5°	2721.5	1660.4	225.2	181.7	193.1	210.5	244.9	255.6	261.1	306.9	326.1
70°	2205.6	1290.1	187.7	169.8	182.9	214.7	263.4	261.3	256.8	297.6	312.8
72.5°	1593.4	884.4	165.1	158.2	170.3	201.9	263.9	252.5	246.8	271.7	282.7
75°	997.0	527.6	144.2	143.5	151.1	181.0	252.0	241.8	226.4	238.7	253.0
77.5°	569.4	270.1	121.4	127.8	132.3	157.0	225.7	216.4	202.6	207.8	221.9
80°	217.3	130.6	102.4	113.5	112.4	133.0	191.2	189.1	173.4	175.1	183.6
82.5°	102.4	73.2	85.0	97.6	91.2	105.9	155.4	154.6	140.9	127.6	134.4
85°	38.0	39.0	62.2	74.4	63.4	68.4	112.4	109.3	96.0	81.0	89.6
87.5°	8.6	14.0	30.6	38.7	22.1	21.1	45.4	39.4	38.0	22.6	23.8
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)