

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: P366906

Luminaire Tested: **MSA-SA1C-730-U-T4W**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366906
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-730-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5792 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

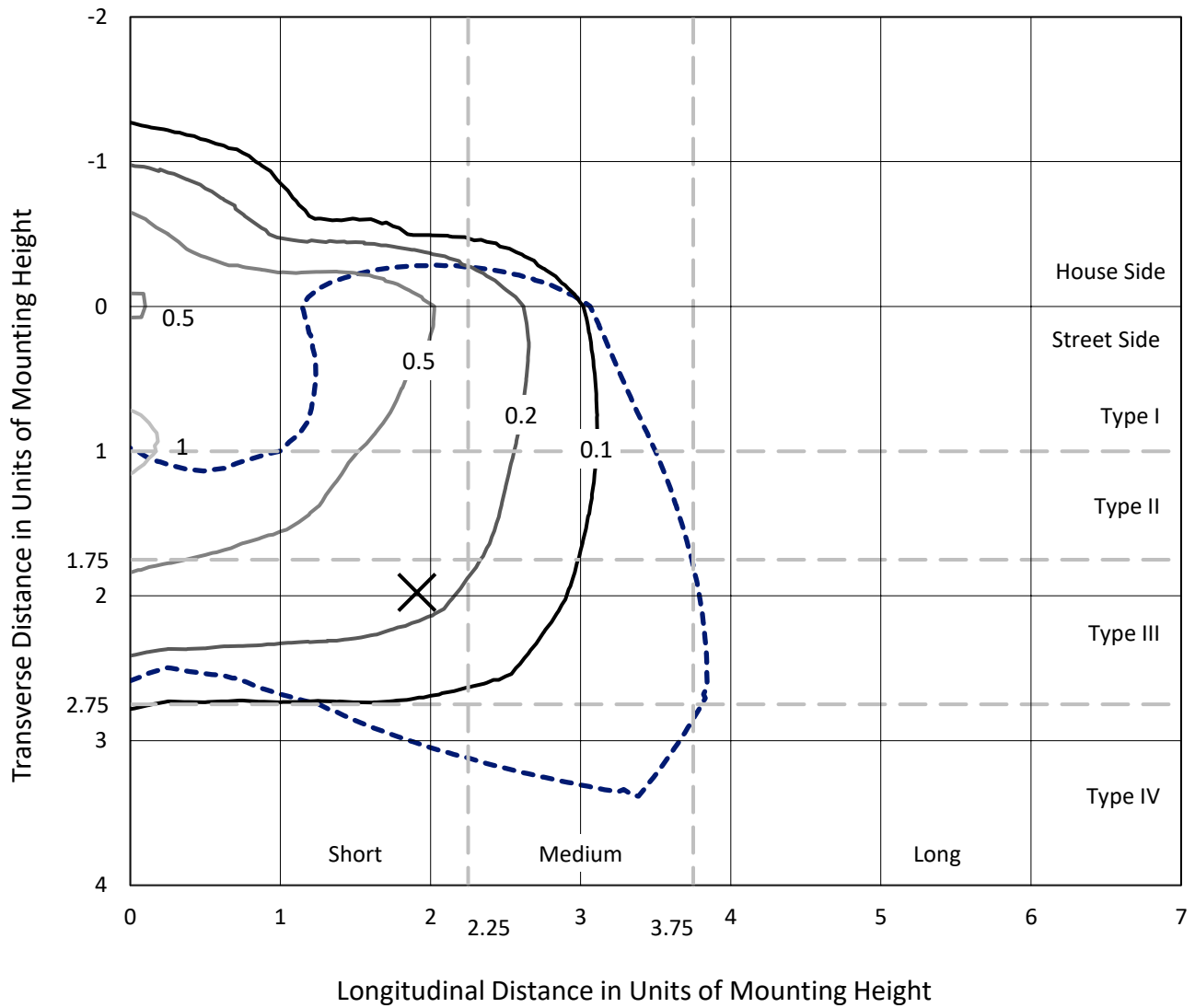
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

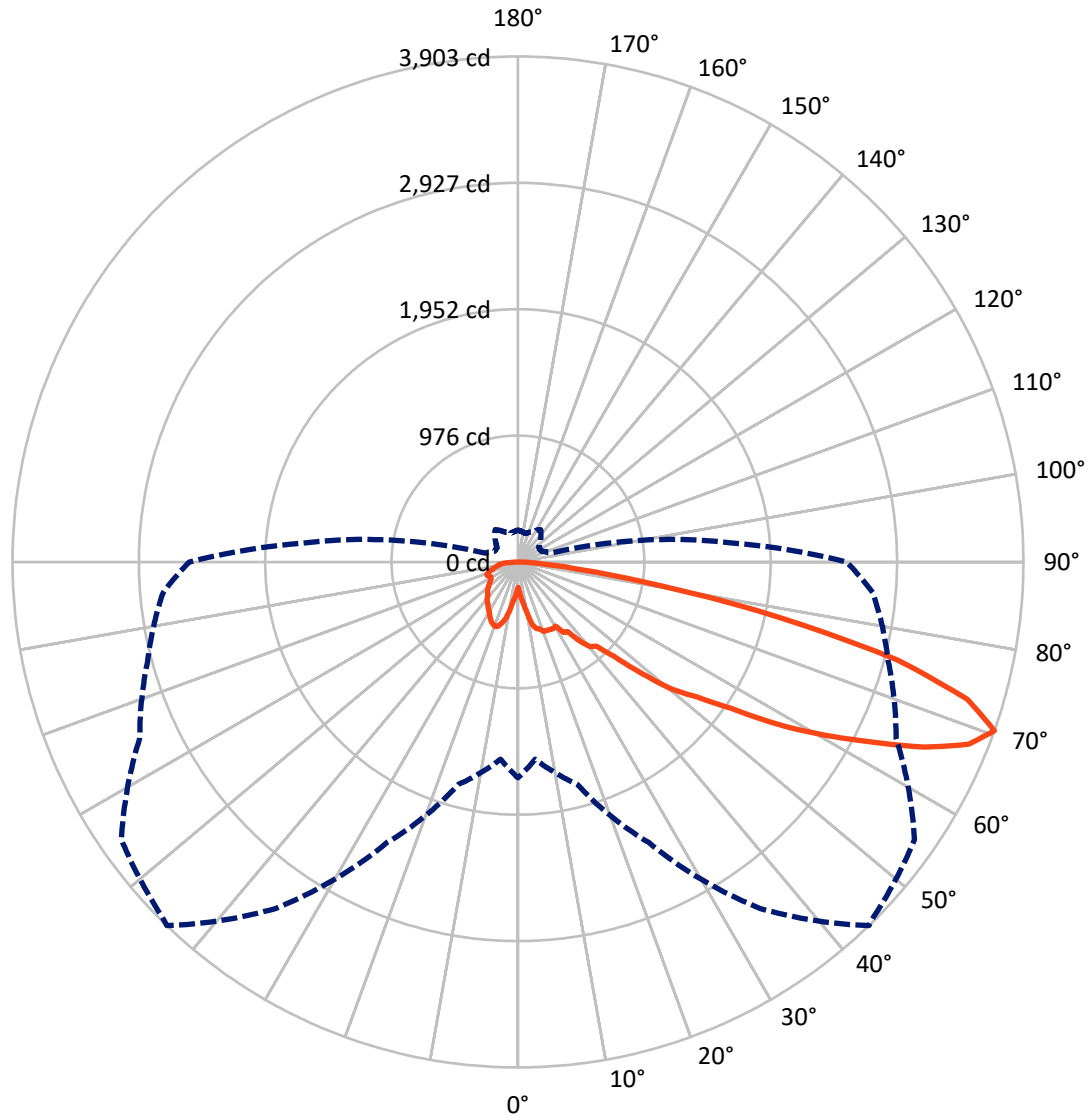
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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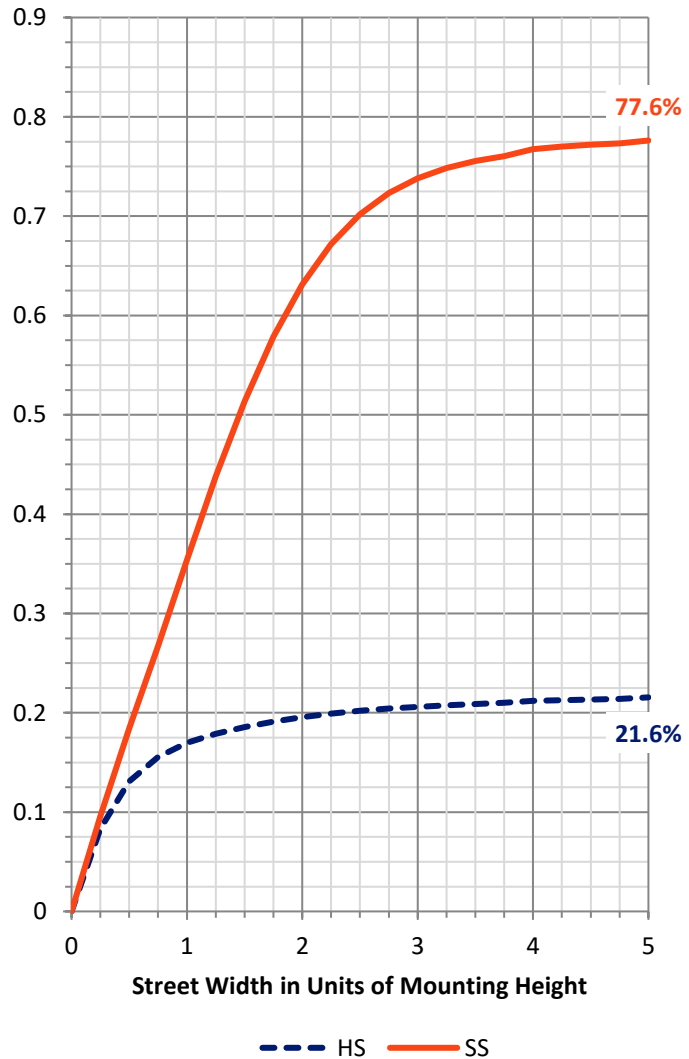
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1277.9	0.0	1277.9
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	4514.0	0.0	4514.0
	% Fixture	77.9	0.0	77.9
Total	Lumens	5792.0	0.0	5792.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.9	0.5
10°-20°	142.2	2.5
20°-30°	265.6	4.6
30°-40°	426.4	7.4
40°-50°	719.7	12.4
50°-60°	1282.5	22.1
60°-70°	1754.3	30.3
70°-80°	1031.6	17.8
80°-90°	138.9	2.4
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°	5792.0	100.0
0°-180°	5792.0	100.0

Coefficient of Utilization

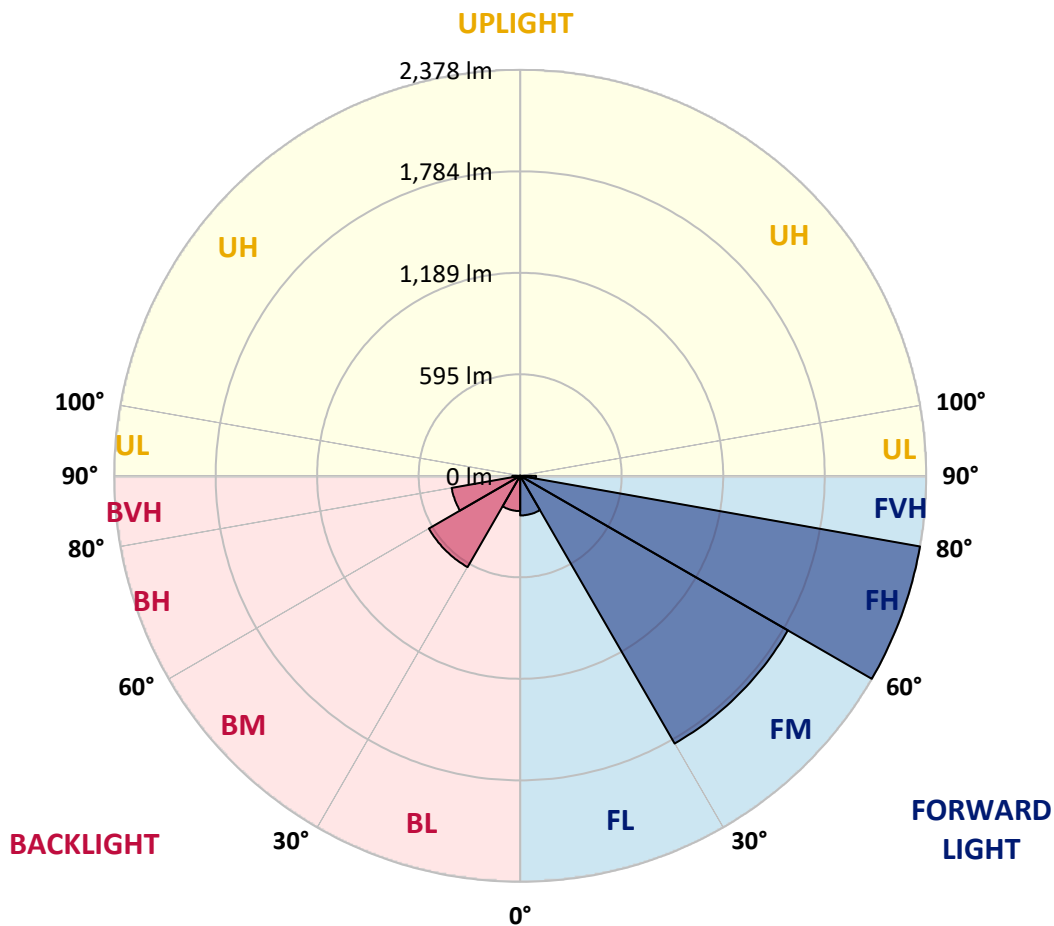


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	232.1	4.0			
FM (30°-60°)	1811.0	31.3			
FH (60°-80°)	2378.4	41.1			G2/5000
FVH (80°-90°)	92.6	1.6			G1/100
BL (0°-30°)	206.5	3.6	B1/500		
BM (30°-60°)	617.6	10.7	B1/1000		
BH (60°-80°)	407.5	7.0	B1/500		G1/500
BVH (80°-90°)	46.3	0.8			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	196.9	196.9	196.9	196.9	196.9	196.9	196.9	196.9	196.9	196.9	196.9
2.5°	238.9	234.2	222.8	226.6	231.3	233.2	232.7	232.3	224.9	222.3	235.4
5°	324.6	314.2	305.9	302.6	291.6	283.1	277.9	291.6	289.5	293.1	302.1
7.5°	405.4	398.7	380.0	373.3	351.0	336.3	334.6	345.5	348.4	342.7	358.1
10°	457.4	446.0	442.2	426.3	410.9	408.5	407.1	402.1	395.2	394.7	380.9
12.5°	497.8	503.7	506.8	488.5	489.0	497.5	493.0	472.8	461.2	440.8	442.4
15°	570.2	578.8	554.3	542.7	520.3	533.2	531.5	514.6	513.0	499.7	484.2
17.5°	633.4	637.2	596.3	569.7	562.1	543.6	548.6	549.1	527.2	551.0	537.2
20°	638.6	652.1	605.1	552.2	575.0	572.6	573.3	568.5	539.8	579.0	573.8
22.5°	664.3	643.6	601.3	562.6	568.5	572.1	575.4	569.7	568.1	589.9	605.8
25°	659.5	652.9	610.1	577.3	578.0	578.8	580.4	597.5	595.6	625.3	633.6
27.5°	703.9	693.7	612.7	604.6	586.1	582.1	570.7	606.3	634.1	633.4	679.2
30°	788.5	778.0	673.5	650.0	616.5	575.2	597.0	644.5	666.4	673.8	731.9
32.5°	920.5	937.6	793.2	698.5	656.9	647.9	645.5	640.7	694.9	731.2	784.2
35°	1110.0	1096.5	934.3	802.2	699.4	660.7	665.9	694.9	759.2	782.8	831.7
37.5°	1327.1	1299.1	1115.0	919.8	821.9	773.5	756.2	784.2	798.4	817.0	916.9
40°	1547.7	1479.3	1292.4	1074.4	895.6	859.0	843.8	809.4	842.8	880.4	1007.4
42.5°	1760.7	1707.8	1485.5	1258.9	1019.5	889.2	880.8	847.1	950.9	990.6	1138.0
45°	1984.0	1861.2	1683.3	1467.2	1200.7	1037.1	1024.8	964.2	1097.2	1179.8	1322.3
47.5°	2134.1	2020.3	1864.5	1636.3	1352.5	1284.6	1261.1	1157.5	1278.2	1385.5	1607.1
50°	2276.1	2159.0	1995.4	1821.3	1627.3	1549.1	1499.0	1326.6	1503.5	1678.3	1972.1
52.5°	2479.4	2374.6	2147.4	2007.7	1922.5	1730.3	1693.1	1598.3	1767.1	2003.0	2371.1
55°	2696.7	2553.9	2348.0	2270.6	2236.2	1990.2	1959.8	1899.4	2118.2	2335.2	2758.9
57.5°	2792.6	2643.7	2530.2	2483.9	2481.0	2367.8	2332.8	2290.8	2477.0	2620.2	3123.9
60°	2868.9	2709.0	2663.7	2689.6	2783.6	2709.0	2663.7	2626.6	2769.1	2901.9	3421.7
62.5°	2854.8	2694.5	2717.8	2796.7	3036.8	3058.6	3023.7	2933.9	3058.6	3132.7	3592.5
65°	2628.8	2480.6	2616.2	2803.3	3272.1	3446.7	3444.8	3209.9	3253.1	3253.1	3574.4
67.5°	2232.6	2079.2	2301.3	2744.7	3434.8	3754.2	3754.7	3502.5	3270.9	3241.0	3295.1
70°	1667.2	1528.2	1777.8	2390.3	3266.9	3903.1	3881.5	3738.5	3222.0	2960.5	2752.5
72.5°	995.8	906.0	1135.7	1740.1	2786.7	3629.3	3686.8	3466.6	2949.6	2462.0	1967.6
75°	452.2	413.2	533.6	999.6	1989.4	3027.3	3089.7	2925.6	2342.8	1770.7	1137.1
77.5°	193.6	183.1	233.0	443.4	1097.0	2070.2	2198.2	2090.8	1587.4	1029.0	503.0
80°	124.4	117.8	143.2	213.3	509.4	1118.6	1228.8	1188.6	808.6	400.2	177.2
82.5°	74.3	72.2	95.7	133.9	277.9	492.3	554.8	569.5	335.8	179.5	101.4
85°	40.6	41.1	52.5	81.2	166.7	191.7	205.2	223.2	158.2	104.0	49.2
87.5°	13.5	15.7	21.1	33.0	59.4	54.1	54.4	63.2	66.7	43.2	15.7
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°	196.9	196.9	196.9	196.9	196.9	196.9	196.9	196.9	196.9	196.9	196.9
2.5°	237.5	233.2	222.3	223.0	227.0	228.0	229.2	222.3	220.9	233.9	235.1
5°	303.5	289.5	283.1	280.9	274.8	272.6	284.0	289.3	294.5	304.7	309.7
7.5°	356.5	340.8	329.2	318.5	309.4	304.2	323.5	338.2	347.2	368.1	377.6
10°	380.7	367.2	362.9	354.3	361.2	376.9	380.5	380.9	400.9	400.4	404.4
12.5°	428.9	420.1	406.1	409.2	427.2	443.4	438.9	445.8	452.9	470.0	462.2
15°	472.8	470.5	457.4	459.5	463.1	483.3	485.9	492.8	503.7	517.2	508.0
17.5°	527.0	526.0	494.2	491.4	499.7	519.4	513.2	501.1	537.2	551.7	547.9
20°	563.8	556.7	515.8	503.7	524.8	527.5	520.3	501.1	532.4	564.0	572.6
22.5°	594.4	586.1	544.1	520.3	516.1	517.2	517.2	513.7	529.1	555.0	554.8
25°	619.1	627.0	573.5	550.7	527.9	499.4	495.9	499.0	507.7	557.6	556.0
27.5°	681.1	659.5	583.5	566.4	519.6	474.7	484.5	489.2	492.1	546.7	555.7
30°	721.5	728.1	619.1	575.7	507.5	447.2	450.5	464.3	480.9	545.5	548.1
32.5°	775.9	761.6	674.7	560.2	475.2	430.6	424.4	442.9	467.6	526.3	533.4
35°	826.5	843.3	698.2	557.4	452.7	405.6	412.3	418.7	444.3	504.9	513.2
37.5°	945.2	906.7	764.2	543.6	433.9	393.0	385.9	395.7	417.5	464.3	483.5
40°	1035.4	1037.8	778.5	526.3	398.0	375.0	359.8	369.5	378.8	416.1	424.4
42.5°	1204.8	1153.0	813.4	488.3	375.5	347.9	339.4	343.6	345.1	360.7	374.5
45°	1420.2	1298.8	827.2	437.2	345.8	336.8	319.4	317.3	309.4	311.6	323.7
47.5°	1718.2	1526.3	817.2	382.8	319.4	322.3	297.3	287.6	276.7	279.3	290.7
50°	2103.7	1817.0	816.5	336.8	301.4	303.3	282.8	265.3	254.3	259.8	269.8
52.5°	2536.1	2108.7	819.8	305.2	281.7	280.7	273.3	252.0	243.2	248.9	260.3
55°	2949.8	2359.4	844.5	285.2	261.2	262.9	265.7	247.7	238.0	243.2	255.1
57.5°	3309.9	2557.5	835.2	264.1	242.2	249.8	257.4	241.8	234.4	242.0	253.9
60°	3561.6	2649.4	762.1	243.9	228.2	238.7	253.4	241.1	240.1	256.5	270.7
62.5°	3653.5	2615.5	619.6	228.0	219.9	237.3	262.7	256.7	257.7	277.9	297.6
65°	3519.3	2436.9	462.2	217.8	213.5	244.1	284.0	266.0	252.9	269.5	287.6
67.5°	3137.7	2119.3	337.7	209.0	206.1	255.1	303.7	265.0	240.8	257.7	272.4
70°	2538.5	1672.9	261.5	197.8	196.4	247.7	305.6	257.9	227.8	238.7	247.0
72.5°	1739.4	1145.4	216.6	187.1	179.5	219.4	290.2	242.0	212.1	218.5	225.4
75°	972.0	642.9	182.2	173.8	157.2	195.5	272.2	232.5	200.4	202.3	211.8
77.5°	436.3	278.1	154.6	156.3	137.0	172.9	248.7	217.3	182.6	178.4	187.9
80°	165.1	135.6	125.4	132.0	115.2	149.9	224.2	203.5	163.9	158.4	163.9
82.5°	95.7	82.2	93.1	101.6	91.4	137.7	214.0	190.9	144.4	130.6	135.4
85°	44.4	42.5	55.8	66.0	63.9	107.3	183.1	143.7	102.8	86.9	96.2
87.5°	11.6	13.1	19.7	23.3	23.7	36.8	70.5	53.4	40.1	30.4	29.2
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)