

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: P596936

Luminaire Tested: **MSA-SA2A-835-U-T4W**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596936
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-835-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6644 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

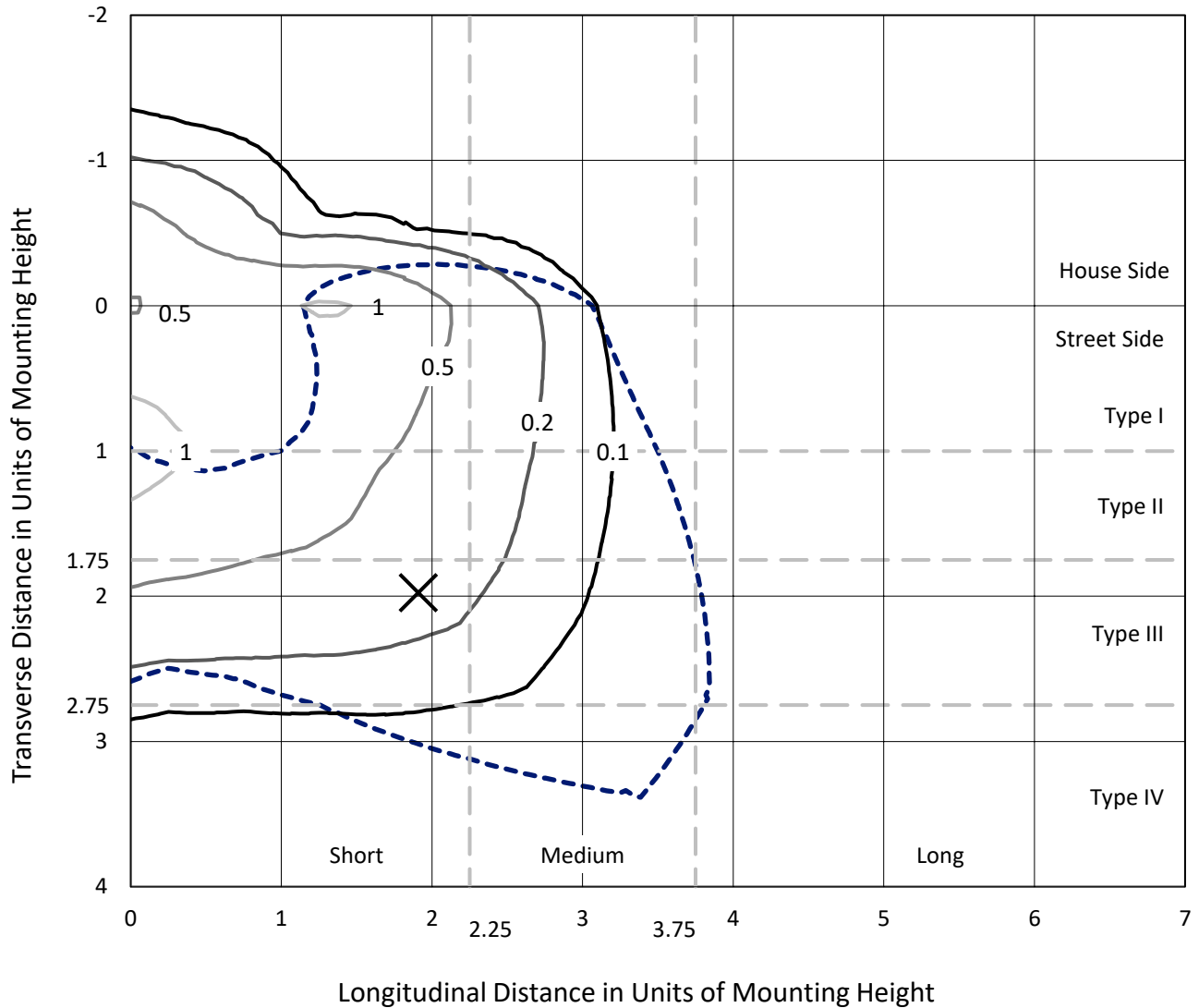
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

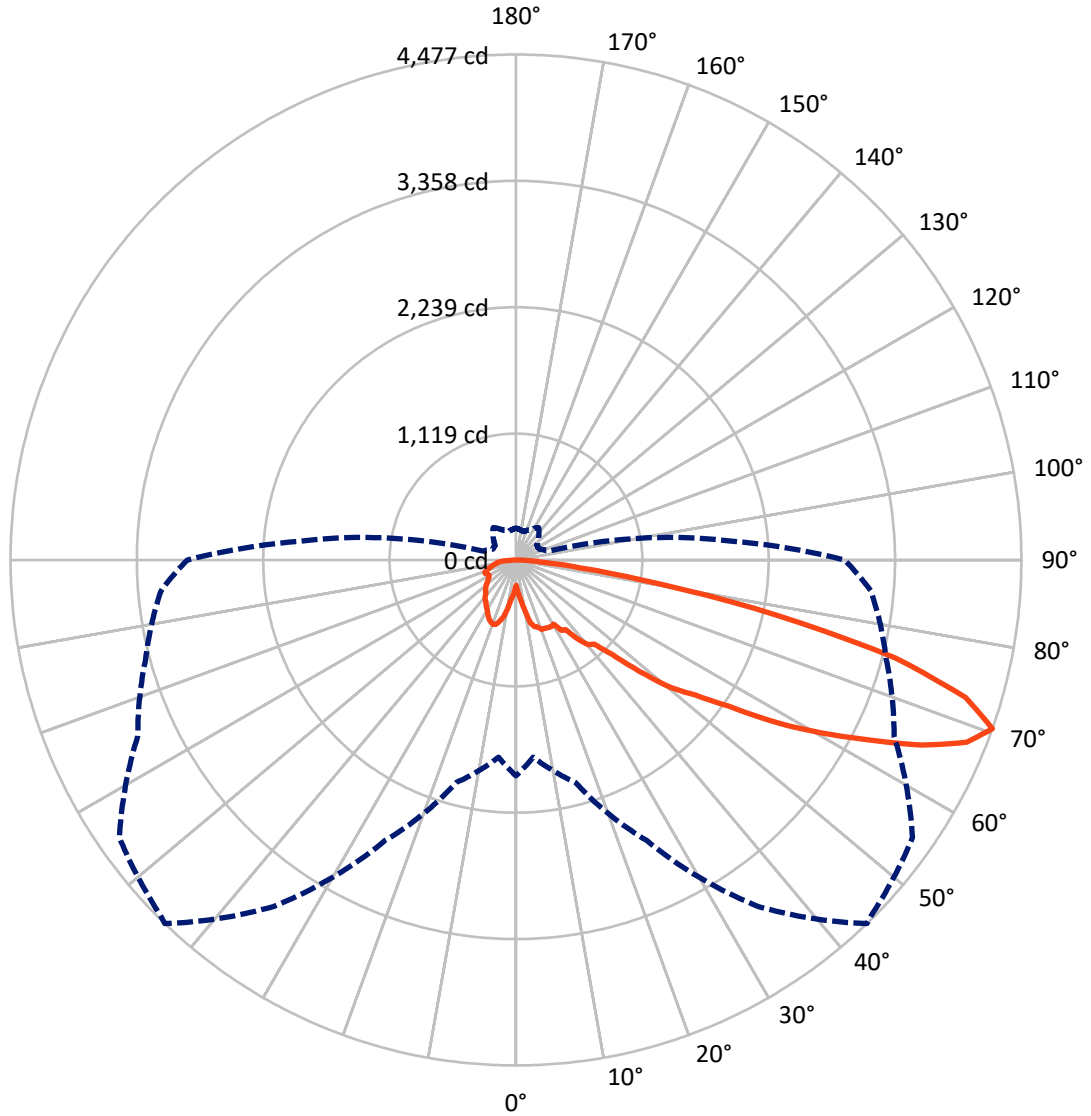
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 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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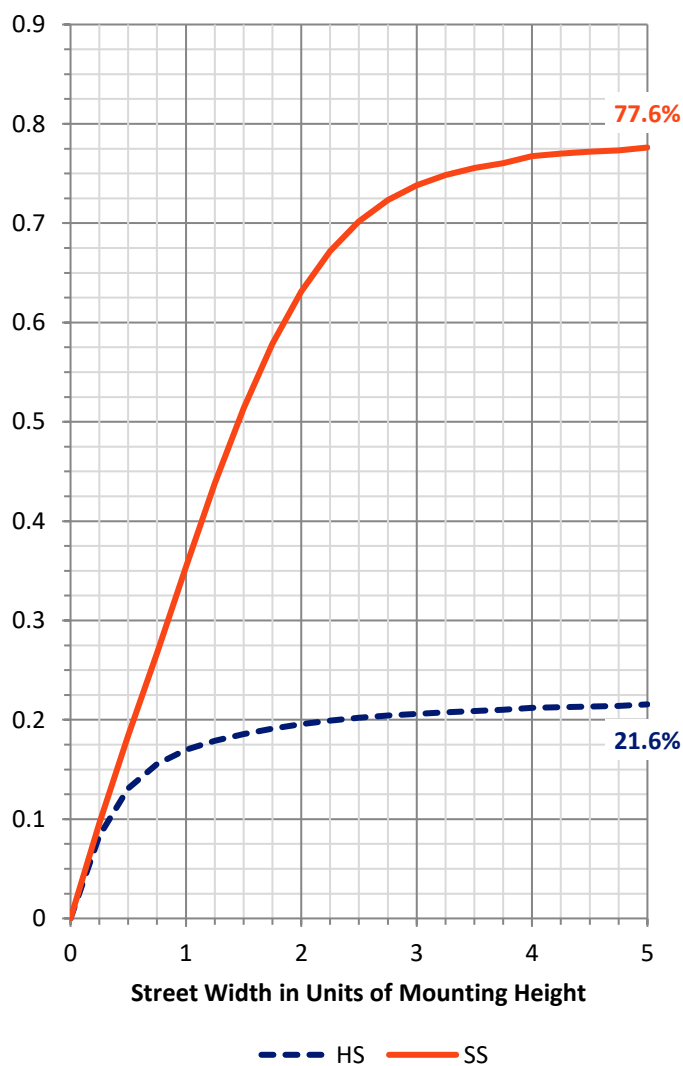
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1465.9	0.0	1465.9
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	5178.1	0.0	5178.1
	% Fixture	77.9	0.0	77.9
Total	Lumens	6644.0	0.0	6644.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	0.5
10°-20°	163.1	2.5
20°-30°	304.7	4.6
30°-40°	489.1	7.4
40°-50°	825.6	12.4
50°-60°	1471.1	22.1
60°-70°	2012.3	30.3
70°-80°	1183.4	17.8
80°-90°	159.3	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°	6644.0	100.0
0°-180°	6644.0	100.0

Coefficient of Utilization

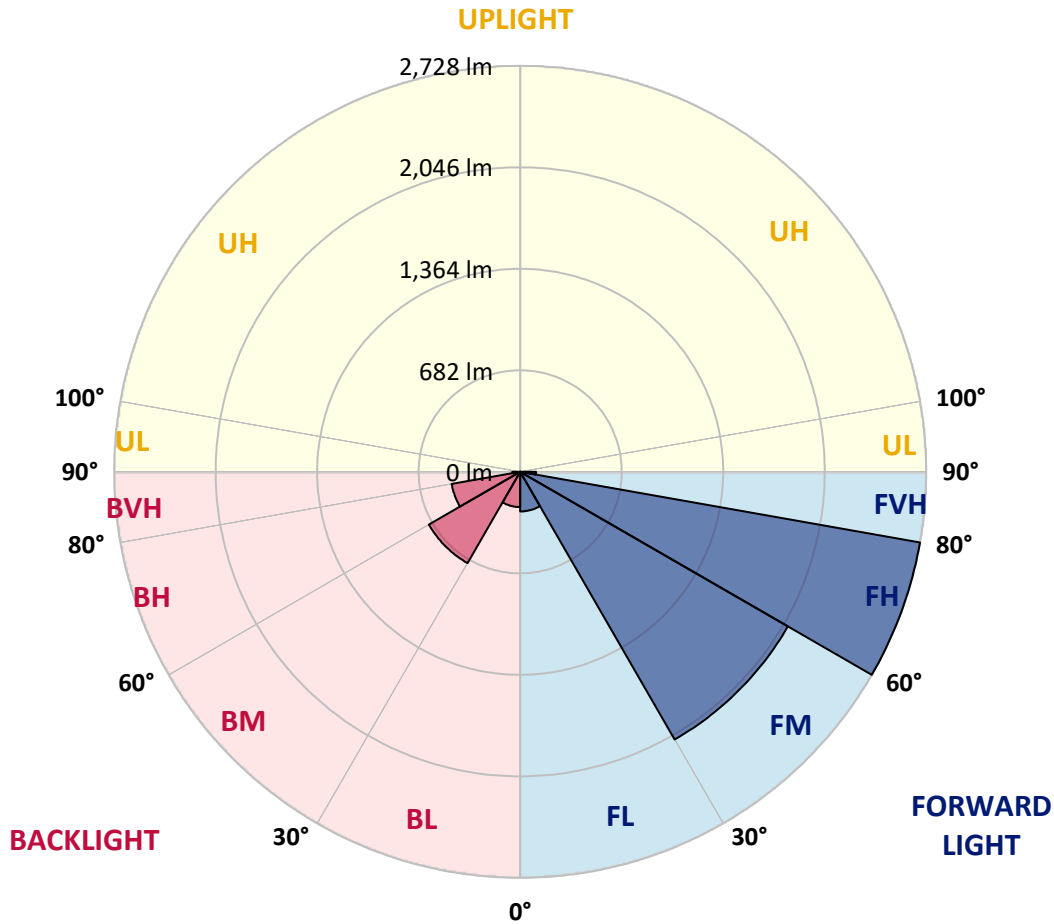


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	266.3	4.0			
FM (30°-60°)	2077.4	31.3			
FH (60°-80°)	2728.2	41.1			G2/5000
FVH (80°-90°)	106.2	1.6			G2/225
BL (0°-30°)	236.9	3.6	B1/500		
BM (30°-60°)	708.4	10.7	B1/1000		
BH (60°-80°)	467.5	7.0	B1/500		G1/500
BVH (80°-90°)	53.1	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°	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8
2.5°	274.1	268.6	255.5	259.9	265.3	267.5	267.0	266.4	258.0	255.0	270.0
5°	372.4	360.4	350.9	347.1	334.5	324.7	318.7	334.5	332.1	336.2	346.5
7.5°	465.0	457.4	435.9	428.2	402.6	385.8	383.8	396.4	399.6	393.1	410.8
10°	524.7	511.6	507.3	489.0	471.3	468.6	466.9	461.2	453.3	452.8	437.0
12.5°	571.0	577.8	581.3	560.4	560.9	570.7	565.5	542.4	529.0	505.6	507.5
15°	654.1	663.9	635.8	622.5	596.9	611.6	609.7	590.3	588.4	573.2	555.5
17.5°	726.6	730.9	684.1	653.5	644.8	623.6	629.3	629.8	604.8	632.0	616.2
20°	732.5	748.1	694.1	633.4	659.5	656.8	657.6	652.2	619.2	664.2	658.2
22.5°	762.0	738.3	689.8	645.4	652.2	656.3	660.1	653.5	651.6	676.7	695.0
25°	756.5	748.9	699.9	662.3	663.1	663.9	665.8	685.4	683.2	717.3	726.8
27.5°	807.5	795.7	702.9	693.6	672.3	667.7	654.6	695.5	727.4	726.6	779.1
30°	904.4	892.5	772.6	745.6	707.2	659.8	684.9	739.4	764.4	772.9	839.6
32.5°	1055.9	1075.5	909.9	801.2	753.5	743.2	740.4	735.0	797.1	838.8	899.5
35°	1273.3	1257.8	1071.7	920.2	802.3	757.9	763.9	797.1	870.9	897.9	954.0
37.5°	1522.3	1490.2	1279.0	1055.1	942.9	887.3	867.4	899.5	915.9	937.1	1051.8
40°	1775.4	1696.9	1482.5	1232.4	1027.3	985.4	967.9	928.4	966.8	1009.9	1155.6
42.5°	2019.7	1959.0	1704.0	1444.1	1169.5	1020.0	1010.4	971.7	1090.8	1136.3	1305.4
45°	2275.8	2135.0	1930.9	1683.0	1377.4	1189.7	1175.5	1106.0	1258.6	1353.4	1516.8
47.5°	2448.0	2317.5	2138.8	1877.0	1551.4	1473.5	1446.6	1327.8	1466.2	1589.3	1843.5
50°	2610.9	2476.6	2288.9	2089.2	1866.6	1777.0	1719.5	1521.8	1724.7	1925.2	2262.2
52.5°	2844.1	2724.0	2463.2	2303.1	2205.3	1984.9	1942.1	1833.4	2027.1	2297.6	2719.9
55°	3093.4	2929.6	2693.4	2604.6	2565.1	2282.9	2248.0	2178.8	2429.7	2678.7	3164.7
57.5°	3203.4	3032.6	2902.4	2849.3	2846.0	2716.1	2676.0	2627.8	2841.4	3005.6	3583.4
60°	3290.9	3107.5	3055.5	3085.2	3193.1	3107.5	3055.5	3013.0	3176.4	3328.7	3925.1
62.5°	3274.8	3090.9	3117.6	3208.0	3483.5	3508.5	3468.5	3365.5	3508.5	3593.5	4120.9
65°	3015.4	2845.5	3001.0	3215.7	3753.4	3953.7	3951.5	3682.1	3731.6	3731.6	4100.2
67.5°	2561.0	2385.1	2639.8	3148.4	3940.0	4306.5	4307.0	4017.7	3752.1	3717.8	3779.9
70°	1912.4	1753.0	2039.4	2741.9	3747.4	4477.3	4452.5	4288.5	3696.0	3396.0	3157.4
72.5°	1142.3	1039.3	1302.7	1996.0	3196.6	4163.2	4229.1	3976.6	3383.5	2824.2	2257.0
75°	518.7	474.0	612.1	1146.6	2282.1	3472.6	3544.2	3356.0	2687.4	2031.2	1304.4
77.5°	222.0	210.0	267.2	508.6	1258.3	2374.7	2521.5	2398.4	1820.9	1180.4	577.0
80°	142.7	135.1	164.3	244.6	584.3	1283.1	1409.5	1363.5	927.6	459.0	203.2
82.5°	85.3	82.8	109.8	153.6	318.7	564.7	636.4	653.3	385.2	206.0	116.3
85°	46.6	47.1	60.2	93.2	191.2	219.8	235.4	256.1	181.4	119.3	56.4
87.5°	15.5	18.0	24.2	37.9	68.1	62.1	62.4	72.5	76.6	49.6	18.0
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°	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8	225.8
2.5°	272.4	267.5	255.0	255.8	260.4	261.5	262.9	255.0	253.4	268.3	269.7
5°	348.2	332.1	324.7	322.3	315.2	312.7	325.8	331.8	337.8	349.5	355.2
7.5°	408.9	390.9	377.6	365.3	355.0	349.0	371.0	387.9	398.3	422.3	433.2
10°	436.7	421.2	416.3	406.5	414.4	432.3	436.4	437.0	459.8	459.3	463.9
12.5°	492.0	481.9	465.8	469.4	490.1	508.6	503.4	511.3	519.5	539.1	530.1
15°	542.4	539.7	524.7	527.1	531.2	554.4	557.4	565.3	577.8	593.3	582.7
17.5°	604.5	603.4	566.9	563.6	573.2	595.8	588.7	574.8	616.2	632.8	628.5
20°	646.7	638.6	591.7	577.8	602.1	605.1	596.9	574.8	610.8	647.0	656.8
22.5°	681.9	672.3	624.1	596.9	592.0	593.3	593.3	589.3	607.0	636.7	636.4
25°	710.2	719.2	657.9	631.7	605.6	572.9	568.8	572.4	582.4	639.6	637.7
27.5°	781.3	756.5	669.3	649.7	596.1	544.6	555.7	561.2	564.5	627.1	637.5
30°	827.6	835.2	710.2	660.4	582.2	513.0	516.8	532.6	551.7	625.8	628.8
32.5°	890.0	873.7	774.0	642.6	545.1	493.9	486.8	508.1	536.4	603.7	611.9
35°	948.0	967.4	800.9	639.4	519.2	465.3	472.9	480.3	509.7	579.2	588.7
37.5°	1084.2	1040.1	876.7	623.6	497.7	450.9	442.7	453.9	478.9	532.6	554.7
40°	1187.8	1190.5	893.0	603.7	456.6	430.2	412.7	423.9	434.5	477.3	486.8
42.5°	1382.0	1322.6	933.0	560.1	430.7	399.1	389.3	394.2	395.8	413.8	429.6
45°	1629.1	1489.9	948.8	501.5	396.6	386.3	366.4	364.0	355.0	357.4	371.3
47.5°	1971.0	1750.9	937.4	439.1	366.4	369.7	341.1	329.9	317.4	320.4	333.4
50°	2413.1	2084.3	936.6	386.3	345.7	347.9	324.5	304.3	291.8	298.0	309.5
52.5°	2909.2	2418.8	940.4	350.1	323.1	322.0	313.6	289.0	279.0	285.5	298.6
55°	3383.8	2706.5	968.7	327.2	299.7	301.6	304.8	284.1	273.0	279.0	292.6
57.5°	3796.8	2933.7	958.1	302.9	277.9	286.6	295.3	277.3	268.9	277.6	291.2
60°	4085.5	3039.1	874.2	279.8	261.8	273.8	290.7	276.5	275.4	294.2	310.6
62.5°	4190.9	3000.2	710.8	261.5	252.3	272.2	301.3	294.5	295.6	318.7	341.3
65°	4037.0	2795.3	530.1	249.8	244.9	280.1	325.8	305.1	290.1	309.2	329.9
67.5°	3599.2	2431.1	387.4	239.7	236.5	292.6	348.4	304.0	276.2	295.6	312.5
70°	2911.9	1918.9	299.9	226.9	225.3	284.1	350.6	295.9	261.3	273.8	283.3
72.5°	1995.2	1313.9	248.4	214.7	206.0	251.7	332.9	277.6	243.3	250.6	258.5
75°	1115.0	737.4	208.9	199.4	180.3	224.2	312.2	266.7	229.9	232.1	243.0
77.5°	500.4	319.0	177.3	179.3	157.2	198.3	285.2	249.3	209.5	204.6	215.5
80°	189.3	155.6	143.8	151.5	132.1	171.9	257.2	233.5	188.0	181.7	188.0
82.5°	109.8	94.3	106.8	116.6	104.9	158.0	245.5	219.0	165.6	149.8	155.3
85°	50.9	48.8	64.0	75.7	73.3	123.1	210.0	164.8	118.0	99.7	110.3
87.5°	13.3	15.0	22.6	26.7	27.2	42.2	80.9	61.3	46.0	34.9	33.5
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)