

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: P596958

Luminaire Tested: **MSA-SA2B-835-U-T4W**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596958
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-SA2B-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: 8326 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

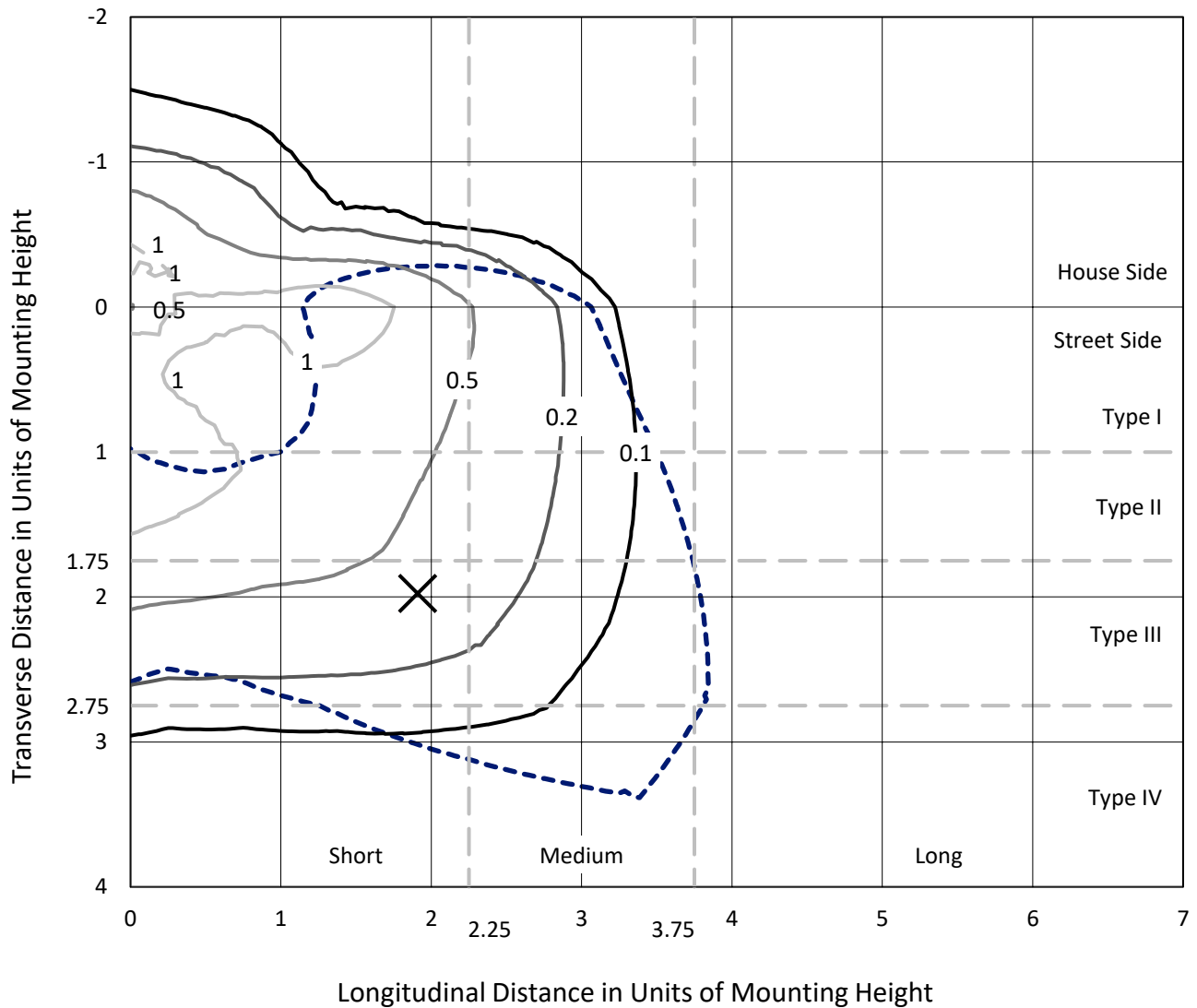
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

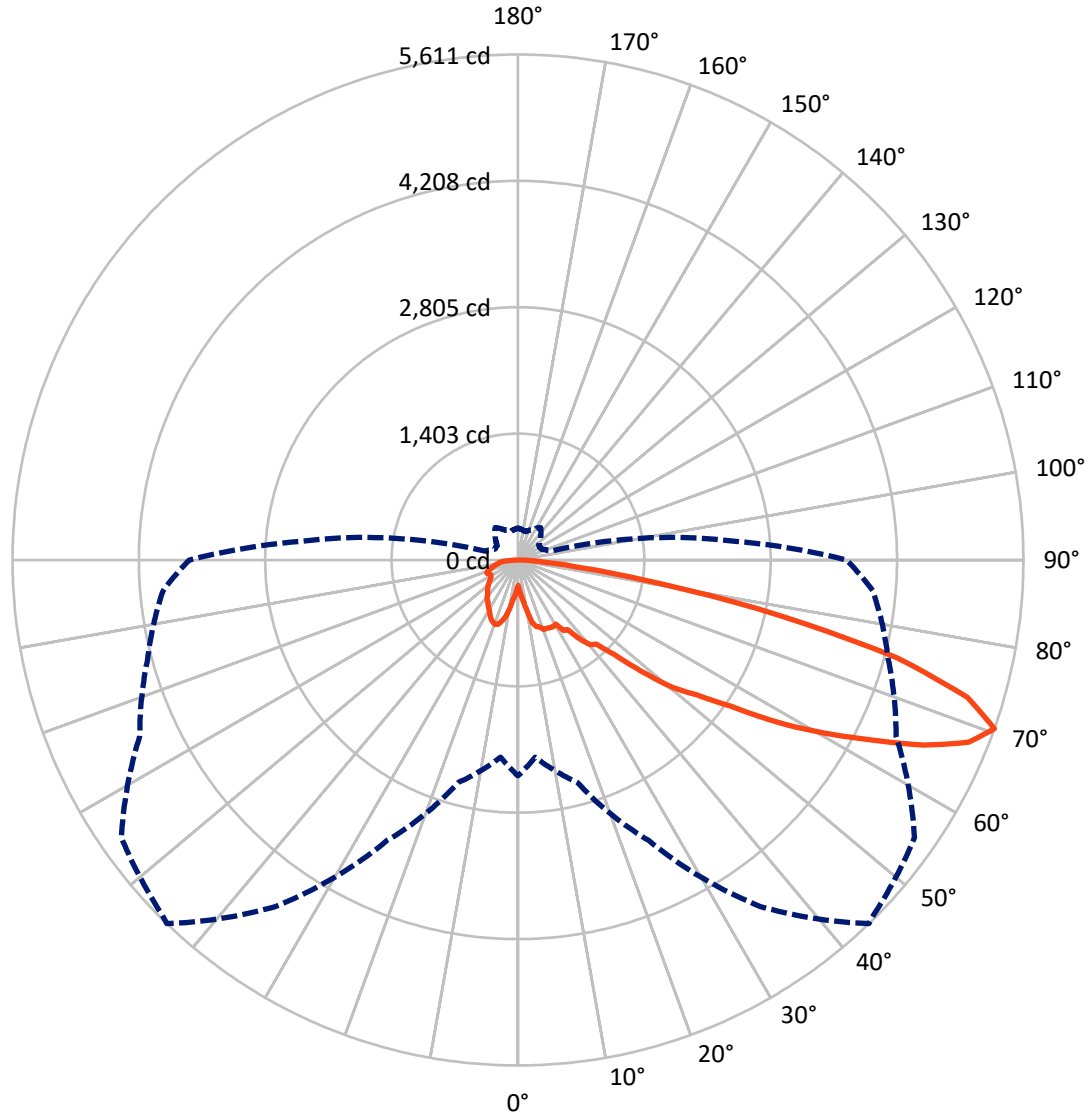
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 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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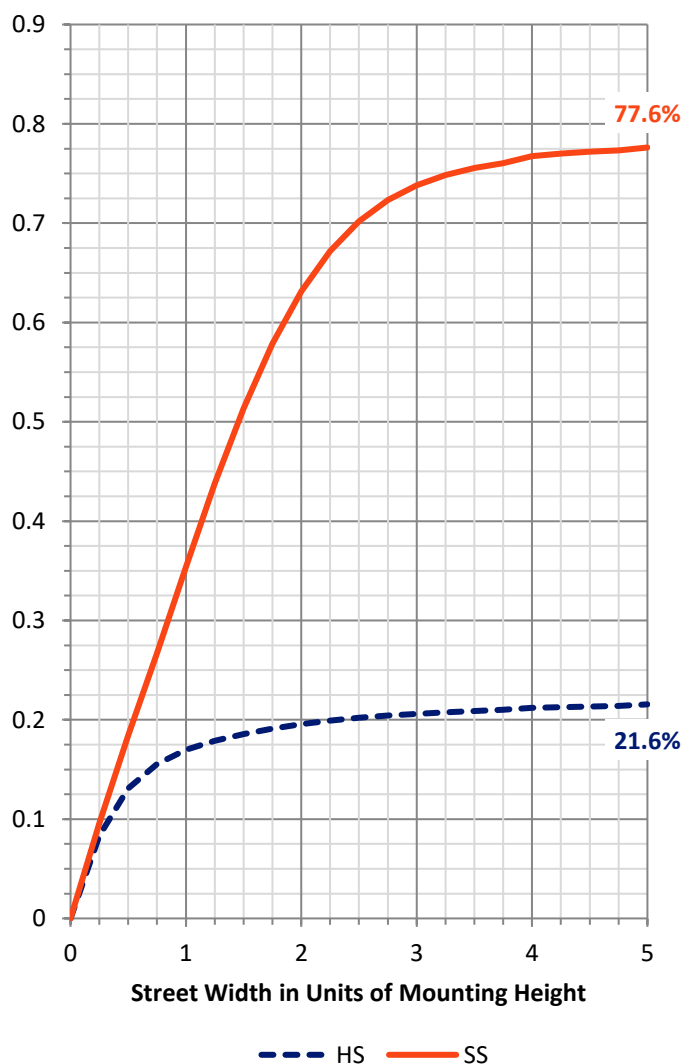
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1837.0	0.0	1837.0
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	6489.0	0.0	6489.0
	% Fixture	77.9	0.0	77.9
Total	Lumens	8326.0	0.0	8326.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.4	0.5
10°-20°	204.3	2.5
20°-30°	381.8	4.6
30°-40°	612.9	7.4
40°-50°	1034.6	12.4
50°-60°	1843.6	22.1
60°-70°	2521.8	30.3
70°-80°	1482.9	17.8
80°-90°	199.7	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°	8326.0	100.0
0°-180°	8326.0	100.0

Coefficient of Utilization



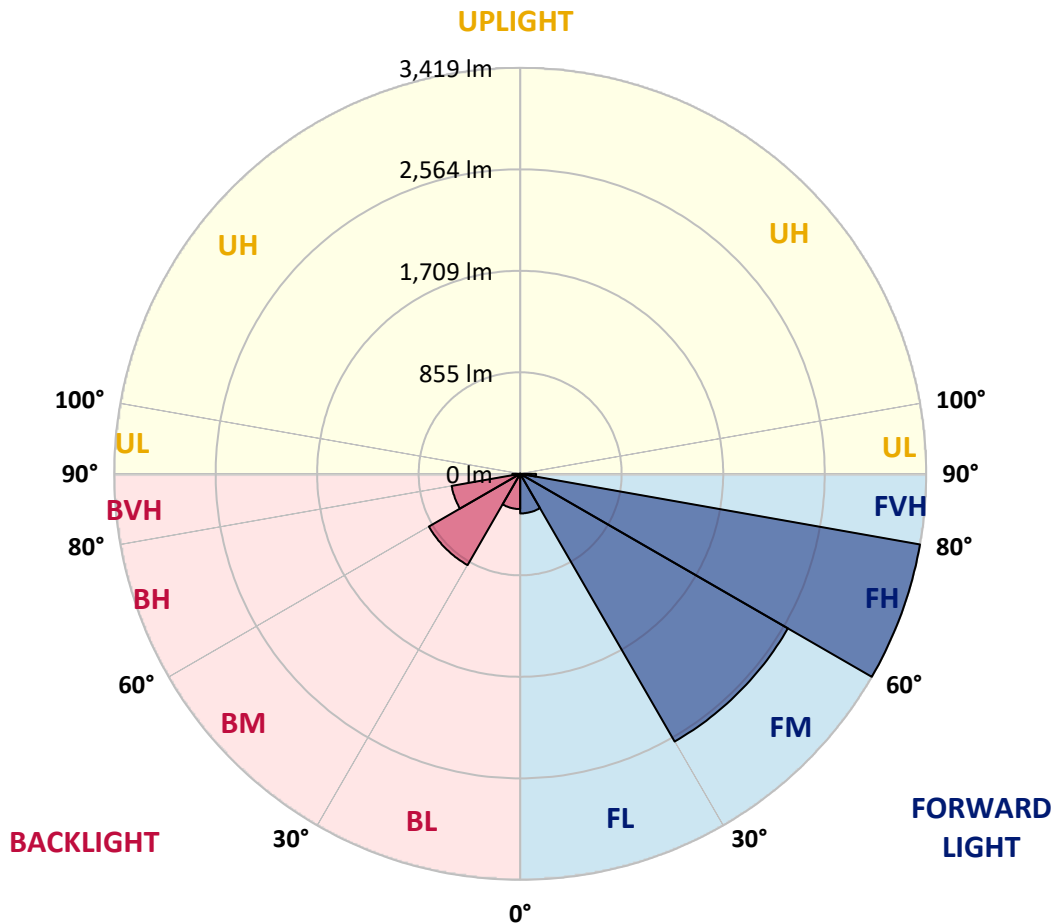
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	333.7	4.0			
FM (30°-60°)	2603.3	31.3			
FH (60°-80°)	3418.9	41.1			G2/5000
FVH (80°-90°)	133.1	1.6			G2/225
BL (0°-30°)	296.9	3.6	B1/500		
BM (30°-60°)	887.8	10.7	B1/1000		
BH (60°-80°)	585.8	7.0	B2/1000		G2/1000
BVH (80°-90°)	66.6	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0
2.5°	343.4	336.6	320.2	325.7	332.5	335.2	334.6	333.9	323.3	319.5	338.3
5°	466.7	451.7	439.7	434.9	419.2	406.9	399.4	419.2	416.2	421.3	434.2
7.5°	582.8	573.2	546.2	536.7	504.6	483.4	481.0	496.7	500.8	492.6	514.8
10°	657.5	641.1	635.7	612.8	590.6	587.2	585.1	578.0	568.1	567.4	547.6
12.5°	715.6	724.1	728.5	702.2	702.9	715.2	708.7	679.7	663.0	633.6	636.0
15°	819.7	832.0	796.8	780.1	748.0	766.4	764.0	739.8	737.4	718.3	696.1
17.5°	910.5	915.9	857.2	819.0	808.1	781.4	788.6	789.3	757.9	792.0	772.2
20°	918.0	937.5	869.9	793.7	826.5	823.1	824.1	817.3	776.0	832.3	824.8
22.5°	954.9	925.2	864.4	808.8	817.3	822.4	827.2	819.0	816.6	848.0	870.9
25°	948.0	938.5	877.0	829.9	830.9	832.0	834.4	858.9	856.2	898.9	910.8
27.5°	1011.9	997.2	880.8	869.2	842.5	836.7	820.4	871.6	911.5	910.5	976.4
30°	1133.4	1118.4	968.2	934.4	886.2	826.8	858.3	926.5	957.9	968.5	1052.2
32.5°	1323.2	1347.8	1140.2	1004.0	944.3	931.3	927.9	921.1	998.9	1051.1	1127.3
35°	1595.7	1576.2	1343.0	1153.2	1005.4	949.7	957.3	998.9	1091.4	1125.2	1195.5
37.5°	1907.7	1867.4	1602.8	1322.2	1181.5	1111.9	1087.0	1127.3	1147.8	1174.4	1318.1
40°	2224.8	2126.5	1857.8	1544.4	1287.4	1234.8	1213.0	1163.5	1211.6	1265.5	1448.2
42.5°	2531.1	2454.9	2135.4	1809.7	1465.6	1278.2	1266.2	1217.7	1366.9	1423.9	1635.9
45°	2852.0	2675.5	2419.8	2109.1	1726.1	1490.8	1473.1	1386.0	1577.2	1696.0	1900.9
47.5°	3067.7	2904.2	2680.2	2352.2	1944.2	1846.6	1812.8	1663.9	1837.4	1991.7	2310.2
50°	3271.9	3103.6	2868.4	2618.1	2339.2	2226.9	2154.8	1907.0	2161.3	2412.6	2834.9
52.5°	3564.1	3413.6	3086.8	2886.1	2763.5	2487.4	2433.8	2297.5	2540.3	2879.3	3408.4
55°	3876.5	3671.3	3375.3	3264.0	3214.5	2860.8	2817.1	2730.4	3044.9	3356.9	3965.9
57.5°	4014.4	3800.3	3637.2	3570.6	3566.5	3403.7	3353.5	3293.0	3560.7	3766.5	4490.6
60°	4124.0	3894.2	3829.0	3866.2	4001.4	3894.2	3829.0	3775.8	3980.6	4171.4	4918.7
62.5°	4103.8	3873.4	3906.9	4020.2	4365.3	4396.8	4346.6	4217.5	4396.8	4503.3	5164.2
65°	3778.8	3565.8	3760.7	4029.8	4703.7	4954.6	4951.9	4614.2	4676.4	4676.4	5138.3
67.5°	3209.4	2988.9	3308.1	3945.4	4937.5	5396.7	5397.4	5034.8	4702.0	4658.9	4736.8
70°	2396.6	2196.8	2555.6	3436.1	4696.2	5610.7	5579.7	5374.2	4631.6	4255.8	3956.7
72.5°	1431.4	1302.4	1632.5	2501.4	4005.9	5217.1	5299.7	4983.3	4240.1	3539.2	2828.4
75°	650.0	594.0	767.1	1436.9	2859.8	4351.7	4441.5	4205.6	3367.8	2545.4	1634.6
77.5°	278.2	263.2	334.9	637.4	1576.9	2975.9	3159.9	3005.6	2281.8	1479.2	723.1
80°	178.9	169.3	205.9	306.6	732.3	1607.9	1766.3	1708.7	1162.4	575.2	254.7
82.5°	106.9	103.8	137.6	192.5	399.4	707.7	797.5	818.7	482.7	258.1	145.8
85°	58.4	59.1	75.4	116.8	239.7	275.5	295.0	320.9	227.4	149.5	70.7
87.5°	19.5	22.5	30.4	47.5	85.3	77.8	78.2	90.8	95.9	62.1	22.5
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°	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0	283.0
2.5°	341.4	335.2	319.5	320.6	326.4	327.7	329.4	319.5	317.5	336.3	338.0
5°	436.3	416.2	406.9	403.9	395.0	391.9	408.3	415.8	423.3	438.0	445.2
7.5°	512.4	489.9	473.2	457.8	444.8	437.3	465.0	486.1	499.1	529.2	542.8
10°	547.2	527.8	521.6	509.4	519.3	541.8	546.9	547.6	576.3	575.6	581.4
12.5°	616.5	603.9	583.8	588.2	614.2	637.4	630.9	640.8	651.0	675.6	664.3
15°	679.7	676.3	657.5	660.6	665.7	694.7	698.5	708.4	724.1	743.5	730.2
17.5°	757.5	756.2	710.4	706.3	718.3	746.6	737.7	720.3	772.2	793.0	787.6
20°	810.5	800.2	741.5	724.1	754.5	758.2	748.0	720.3	765.4	810.8	823.1
22.5°	854.5	842.5	782.1	748.0	741.8	743.5	743.5	738.4	760.6	797.8	797.5
25°	890.0	901.3	824.5	791.7	758.9	717.9	712.8	717.3	729.9	801.6	799.2
27.5°	979.1	948.0	838.8	814.2	747.0	682.4	696.4	703.3	707.4	785.9	798.9
30°	1037.1	1046.7	890.0	827.5	729.5	642.8	647.6	667.4	691.3	784.2	787.9
32.5°	1115.3	1094.8	969.9	805.3	683.1	618.9	610.1	636.7	672.2	756.5	766.8
35°	1188.0	1212.3	1003.7	801.2	650.7	583.1	592.7	601.9	638.7	725.8	737.7
37.5°	1358.7	1303.4	1098.6	781.4	623.7	565.0	554.8	568.8	600.2	667.4	695.1
40°	1488.5	1491.9	1119.1	756.5	572.2	539.1	517.2	531.2	544.5	598.1	610.1
42.5°	1731.9	1657.4	1169.3	701.9	539.7	500.1	487.8	494.0	496.0	518.6	538.4
45°	2041.5	1867.1	1189.1	628.5	497.1	484.1	459.2	456.1	444.8	447.9	465.3
47.5°	2470.0	2194.1	1174.7	550.3	459.2	463.3	427.4	413.4	397.7	401.5	417.9
50°	3024.0	2612.0	1173.7	484.1	433.2	436.0	406.6	381.3	365.6	373.5	387.8
52.5°	3645.7	3031.2	1178.5	438.7	404.9	403.5	392.9	362.2	349.6	357.8	374.2
55°	4240.4	3391.7	1214.0	410.0	375.5	377.9	382.0	356.1	342.1	349.6	366.7
57.5°	4757.9	3676.4	1200.7	379.6	348.2	359.1	370.1	347.5	337.0	347.9	364.9
60°	5119.8	3808.5	1095.5	350.6	328.1	343.1	364.3	346.5	345.1	368.7	389.2
62.5°	5251.9	3759.7	890.7	327.7	316.1	341.0	377.6	369.0	370.4	399.4	427.8
65°	5059.0	3503.0	664.3	313.1	306.9	350.9	408.3	382.4	363.6	387.5	413.4
67.5°	4510.4	3046.6	485.5	300.4	296.3	366.7	436.6	381.0	346.2	370.4	391.6
70°	3649.1	2404.7	375.9	284.4	282.3	356.1	439.4	370.7	327.4	343.1	355.0
72.5°	2500.3	1646.5	311.3	269.0	258.1	315.4	417.2	347.9	304.9	314.1	324.0
75°	1397.3	924.1	261.8	249.9	226.0	281.0	391.2	334.2	288.1	290.9	304.5
77.5°	627.1	399.8	222.2	224.6	197.0	248.5	357.4	312.4	262.5	256.4	270.0
80°	237.3	194.9	180.3	189.8	165.6	215.4	322.3	292.6	235.6	227.7	235.6
82.5°	137.6	118.1	133.8	146.1	131.4	198.0	307.6	274.5	207.6	187.8	194.6
85°	63.8	61.1	80.2	94.9	91.8	154.3	263.2	206.5	147.8	124.9	138.3
87.5°	16.7	18.8	28.3	33.5	34.1	52.9	101.4	76.8	57.7	43.7	42.0
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)