

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: P596580

Luminaire Tested: **MSA-SA2A-827-U-T3**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596580
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-827-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5835 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

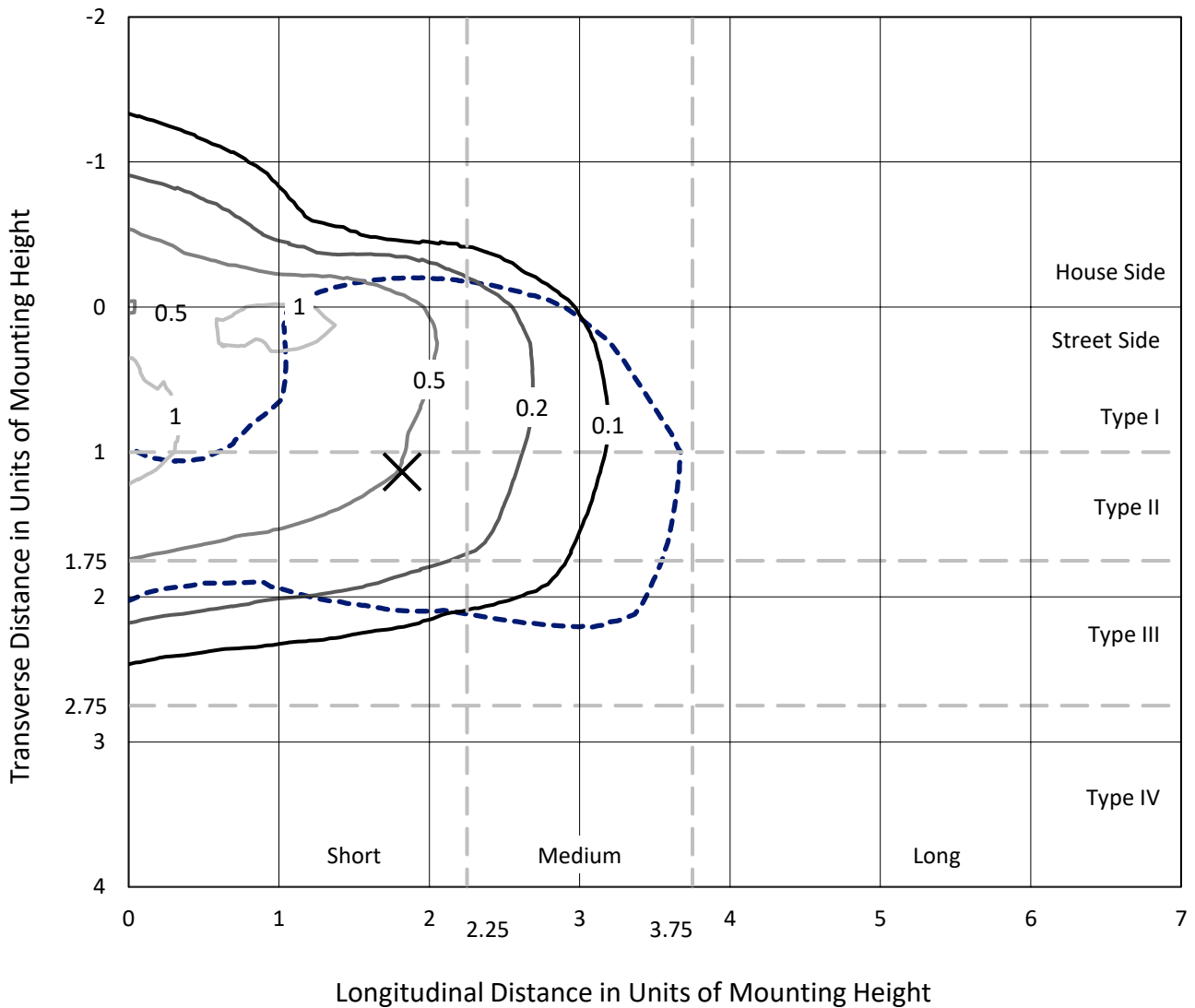
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

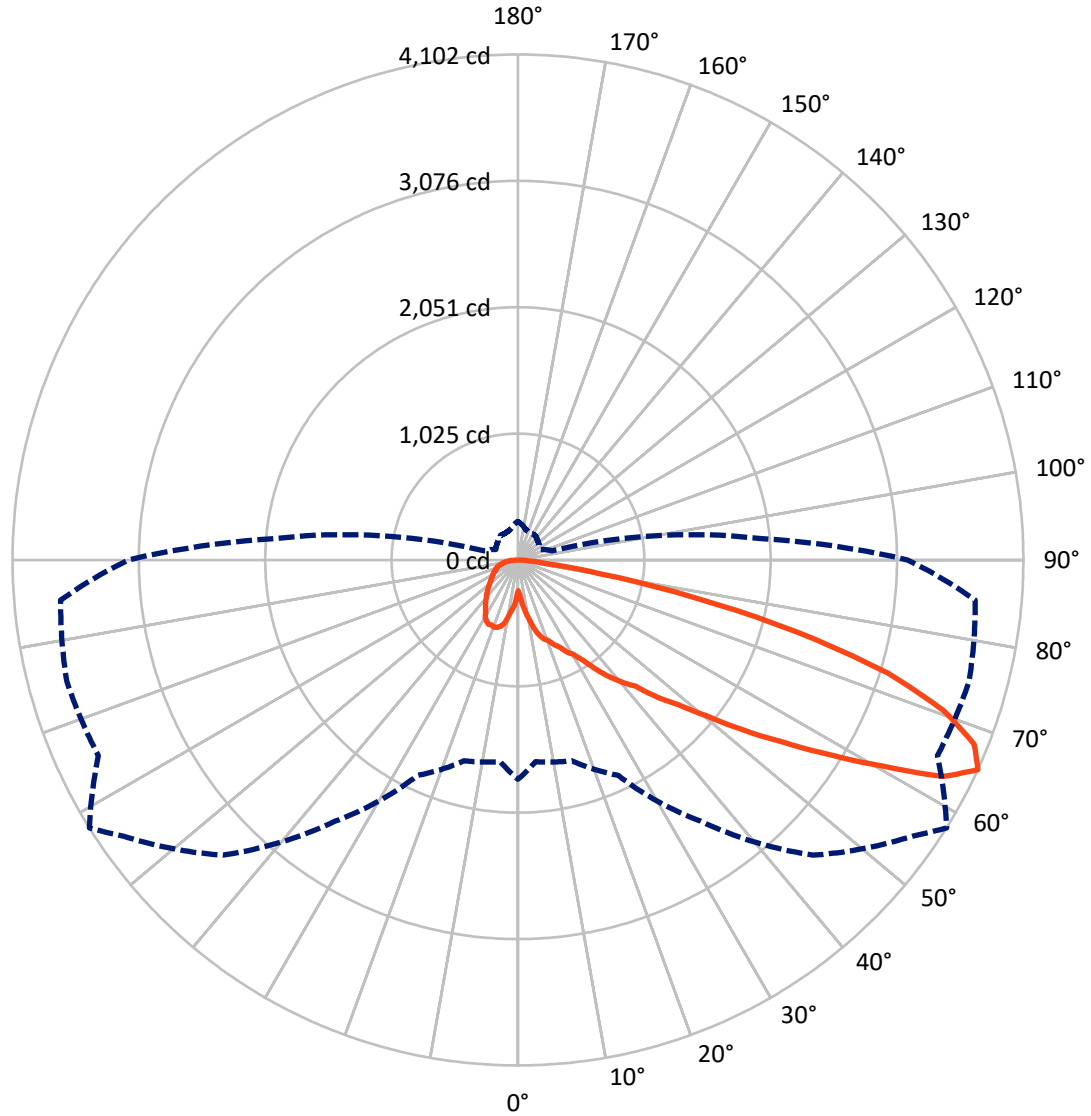
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 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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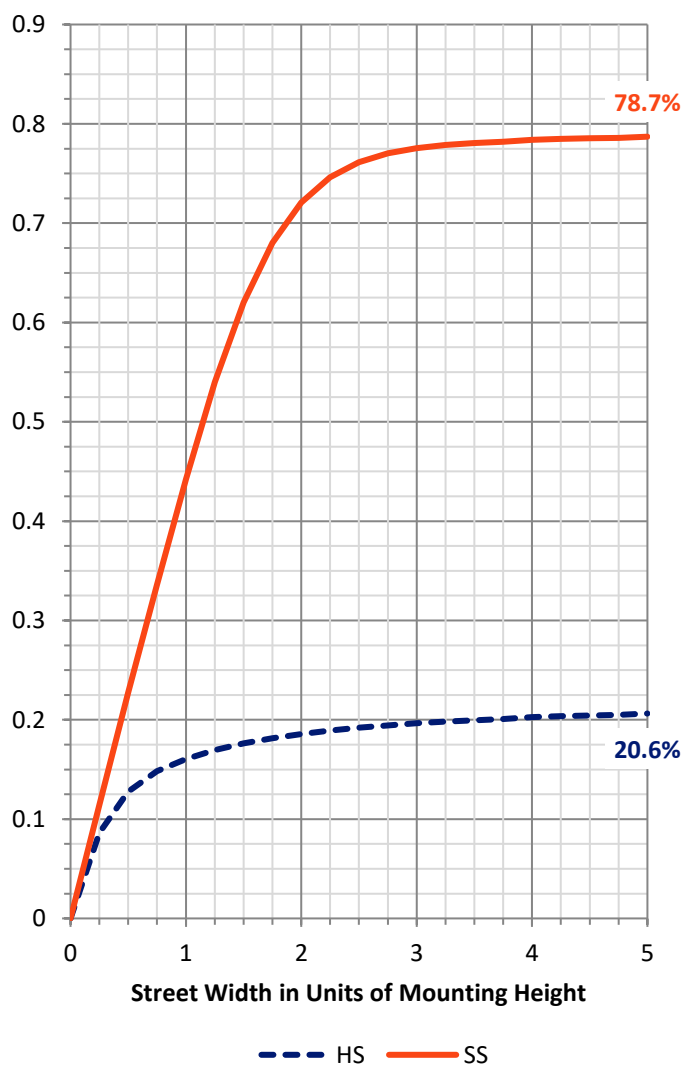
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1229.0	0.0	1229.0
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	4606.0	0.0	4606.0
	% Fixture	78.9	0.0	78.9
Total	Lumens	5835.0	0.0	5835.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.2	0.7
10°-20°	166.5	2.9
20°-30°	319.5	5.5
30°-40°	527.5	9.0
40°-50°	876.8	15.0
50°-60°	1448.1	24.8
60°-70°	1624.5	27.8
70°-80°	738.6	12.7
80°-90°	95.3	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°	5835.0	100.0
0°-180°	5835.0	100.0

Coefficient of Utilization

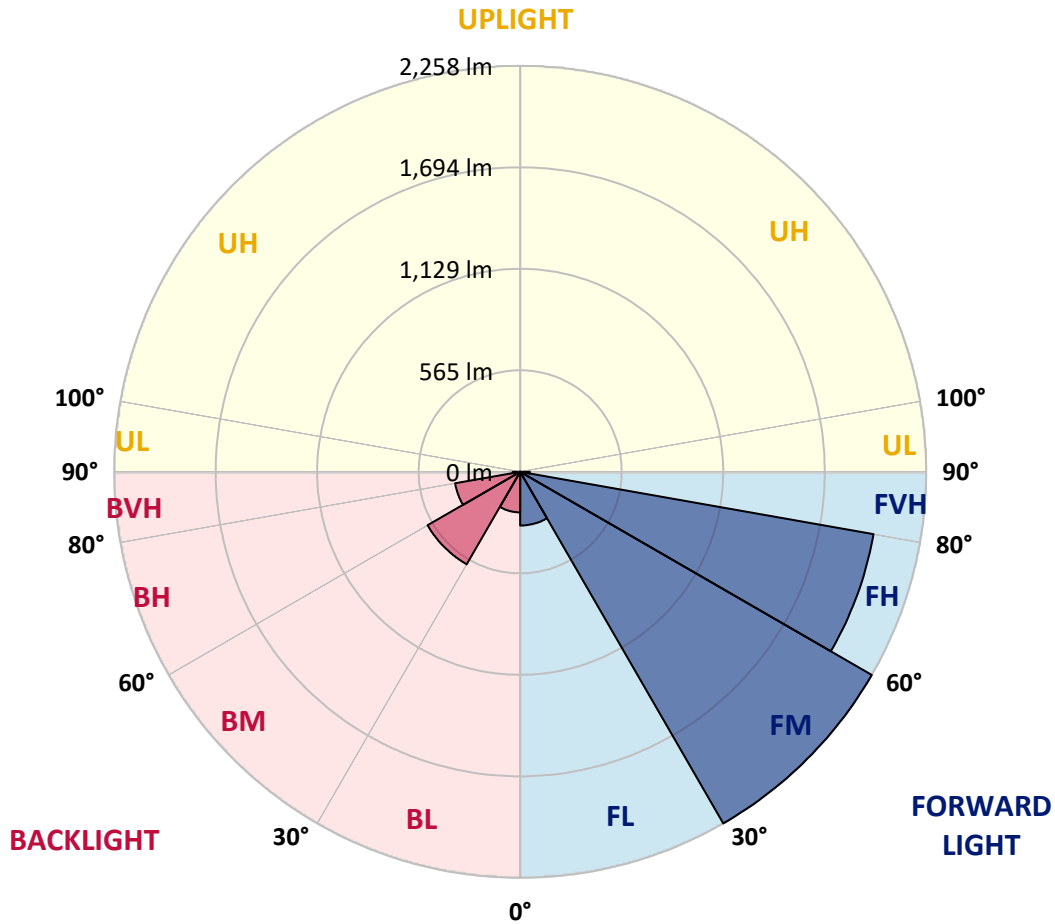


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	298.6	5.1			
FM (30°-60°)	2258.0	38.7			
FH (60°-80°)	1995.7	34.2			G2/5000
FVH (80°-90°)	53.6	0.9			G1/100
BL (0°-30°)	225.6	3.9	B1/500		
BM (30°-60°)	594.4	10.2	B1/1000		
BH (60°-80°)	367.4	6.3	B1/500		G1/500
BVH (80°-90°)	41.6	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°	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5
2.5°	299.1	290.1	275.1	278.7	287.5	292.3	289.4	285.5	280.4	279.4	301.8
5°	387.3	370.1	363.0	360.1	349.4	343.1	354.0	352.6	358.4	369.1	391.0
7.5°	451.7	439.6	427.9	426.7	406.0	398.8	413.3	421.1	431.6	431.8	461.4
10°	486.2	475.8	475.5	464.6	462.9	476.8	477.0	482.8	484.0	496.4	490.6
12.5°	523.7	522.9	536.3	536.0	551.6	574.4	563.0	563.0	566.4	551.4	569.8
15°	612.8	620.6	595.6	599.7	599.7	622.1	621.3	625.7	636.2	632.3	624.0
17.5°	705.7	710.5	682.8	657.1	659.0	654.1	671.6	673.3	663.4	708.6	698.6
20°	765.4	784.4	726.1	693.8	700.1	705.7	706.4	695.9	690.8	760.3	746.7
22.5°	839.3	823.3	769.8	734.1	743.6	736.0	734.6	742.6	749.6	775.9	798.0
25°	888.6	887.4	823.3	784.1	773.7	771.5	786.3	783.2	799.9	847.6	833.7
27.5°	960.3	982.7	869.0	878.7	832.7	784.4	832.0	846.4	876.5	868.7	899.6
30°	1099.3	1082.5	963.7	961.0	909.0	868.5	901.5	889.4	943.6	941.9	964.7
32.5°	1212.8	1224.5	1075.0	1047.1	1008.4	959.6	937.7	971.5	1000.7	1048.5	1061.4
35°	1332.8	1330.2	1189.0	1132.6	1068.7	1048.5	1075.5	1089.6	1151.6	1195.5	1164.9
37.5°	1519.5	1498.3	1336.7	1230.0	1182.2	1174.9	1221.1	1200.6	1267.7	1278.2	1295.4
40°	1692.9	1629.3	1471.8	1349.6	1273.5	1300.8	1302.2	1304.9	1340.8	1369.3	1454.6
42.5°	1857.9	1813.2	1609.1	1517.3	1405.2	1378.8	1395.3	1400.9	1491.7	1549.8	1667.9
45°	2083.4	1963.6	1806.4	1712.1	1586.8	1553.0	1541.3	1589.4	1677.2	1809.3	1910.7
47.5°	2274.2	2166.1	2016.1	1892.0	1751.8	1848.2	1782.1	1755.2	1873.0	2036.8	2198.1
50°	2432.4	2313.3	2166.3	2094.6	2072.3	2158.3	1986.7	1989.9	2097.8	2328.9	2513.8
52.5°	2554.9	2427.8	2297.5	2261.1	2386.0	2435.5	2311.6	2292.9	2371.6	2644.8	2866.9
55°	2669.3	2534.4	2433.8	2508.2	2718.6	2724.2	2715.5	2611.7	2706.5	2983.3	3232.3
57.5°	2698.7	2553.4	2486.6	2593.2	2877.8	3099.2	3186.2	2982.5	3079.0	3291.1	3545.3
60°	2547.3	2422.9	2396.2	2541.0	2963.8	3287.5	3514.7	3392.9	3356.7	3538.3	3764.5
62.5°	2237.3	2092.9	2114.5	2315.7	2873.2	3362.1	3774.2	3869.2	3650.0	3734.8	3860.2
65°	1780.7	1642.9	1686.6	1928.7	2588.6	3386.9	3906.9	4101.8	3756.0	3790.5	3724.6
67.5°	1255.8	1130.7	1185.8	1498.8	2153.4	3069.5	3929.7	3993.4	3643.2	3631.8	3354.3
70°	711.5	633.0	692.8	953.8	1519.9	2445.3	3750.6	3666.8	3441.1	3279.2	2806.6
72.5°	326.3	299.4	328.0	485.5	875.0	1627.1	3062.0	3138.0	2965.0	2762.6	2135.2
75°	173.5	164.0	176.2	242.5	409.4	885.2	2175.5	2346.6	2254.5	2095.3	1392.8
77.5°	129.0	121.7	127.6	157.2	218.7	346.3	1236.1	1451.9	1486.9	1340.4	773.5
80°	98.9	93.1	98.9	118.8	151.4	164.5	528.5	676.7	770.8	622.8	307.4
82.5°	73.4	69.5	78.5	89.2	106.4	102.8	187.6	233.5	301.1	205.8	119.8
85°	58.3	53.5	56.9	60.5	68.0	56.4	85.8	96.0	101.6	85.0	44.2
87.5°	22.8	21.1	41.3	32.6	27.7	17.0	25.8	29.2	29.9	28.7	12.9
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°	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5	250.5
2.5°	304.2	301.8	287.5	292.1	299.6	301.1	304.2	295.5	291.1	307.1	307.9
5°	392.9	379.8	373.0	373.7	368.9	361.3	372.8	380.3	383.2	395.1	399.5
7.5°	461.7	445.9	434.5	421.4	402.9	391.0	410.9	425.5	433.3	458.0	467.8
10°	492.3	479.7	477.2	460.7	460.2	460.0	459.0	453.9	470.7	468.3	475.1
12.5°	555.5	552.8	529.7	523.2	523.9	523.2	502.8	501.8	502.0	524.4	516.4
15°	614.3	614.8	593.6	569.8	548.4	541.9	533.9	530.2	535.6	548.2	540.4
17.5°	686.9	689.4	628.9	591.2	563.0	562.3	543.1	520.5	553.1	560.8	552.3
20°	733.8	723.6	649.3	586.1	578.1	556.2	532.4	501.3	529.5	548.4	553.8
22.5°	778.3	760.6	668.2	595.1	556.7	530.7	507.6	487.4	496.4	517.6	514.2
25°	808.4	803.6	694.5	616.7	556.0	498.1	467.0	454.2	458.8	491.6	488.4
27.5°	880.4	827.9	689.9	622.3	532.6	453.7	438.1	424.3	419.7	455.1	464.9
30°	928.5	906.9	720.7	613.6	503.2	417.2	394.4	391.5	392.9	433.3	435.9
32.5°	1010.1	954.0	771.3	580.0	460.5	390.3	364.0	365.2	371.8	401.2	407.3
35°	1095.2	1061.6	778.1	556.0	425.7	361.6	350.9	342.4	346.0	371.8	373.0
37.5°	1253.1	1137.2	819.9	518.8	400.2	350.6	330.2	322.7	324.6	339.2	349.7
40°	1392.1	1289.1	800.4	482.8	368.6	336.1	310.5	305.0	299.1	313.5	320.0
42.5°	1614.9	1397.5	793.9	443.2	353.8	316.4	298.9	284.1	278.5	290.6	302.5
45°	1837.8	1512.4	758.1	403.1	332.9	314.9	281.9	267.8	269.2	280.2	292.3
47.5°	2086.1	1666.7	697.6	364.3	310.1	307.9	264.9	258.8	263.2	275.3	287.5
50°	2379.7	1830.5	647.6	329.3	293.8	286.7	262.7	255.4	259.5	273.9	285.8
52.5°	2700.7	2010.1	611.1	296.9	275.3	270.0	265.6	258.5	263.4	275.8	288.2
55°	3019.7	2174.1	586.3	274.8	259.5	262.9	271.7	266.6	269.0	278.2	290.6
57.5°	3256.4	2260.6	536.5	251.3	246.6	258.8	272.4	263.9	265.4	278.2	291.6
60°	3393.9	2277.1	454.6	232.1	236.4	250.5	264.9	253.9	253.0	274.1	290.9
62.5°	3378.9	2181.1	360.6	214.6	224.8	238.1	253.4	243.0	245.7	274.6	292.3
65°	3163.1	1985.0	286.7	199.7	210.7	224.5	244.0	239.8	252.7	294.0	313.2
67.5°	2784.0	1698.5	230.4	185.9	197.6	215.3	250.5	261.5	267.1	314.0	333.6
70°	2256.2	1319.7	192.0	173.7	187.1	219.7	269.5	267.3	262.7	304.5	320.0
72.5°	1630.0	904.7	168.9	161.8	174.2	206.5	270.0	258.3	252.5	278.0	289.2
75°	1019.9	539.7	147.5	146.8	154.5	185.2	257.8	247.4	231.6	244.2	258.8
77.5°	582.5	276.3	124.2	130.7	135.3	160.6	230.8	221.4	207.3	212.6	227.0
80°	222.3	133.6	104.7	116.2	114.9	136.1	195.6	193.4	177.4	179.1	187.8
82.5°	104.7	74.8	87.0	99.9	93.3	108.4	158.9	158.2	144.1	130.5	137.5
85°	38.9	39.9	63.7	76.1	64.9	70.0	114.9	111.8	98.2	82.9	91.6
87.5°	8.7	14.3	31.3	39.6	22.6	21.6	46.4	40.3	38.9	23.1	24.3
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)