

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: P367274

Luminaire Tested: **MSA-SA2B-727-U-T2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367274
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-727-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8309 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

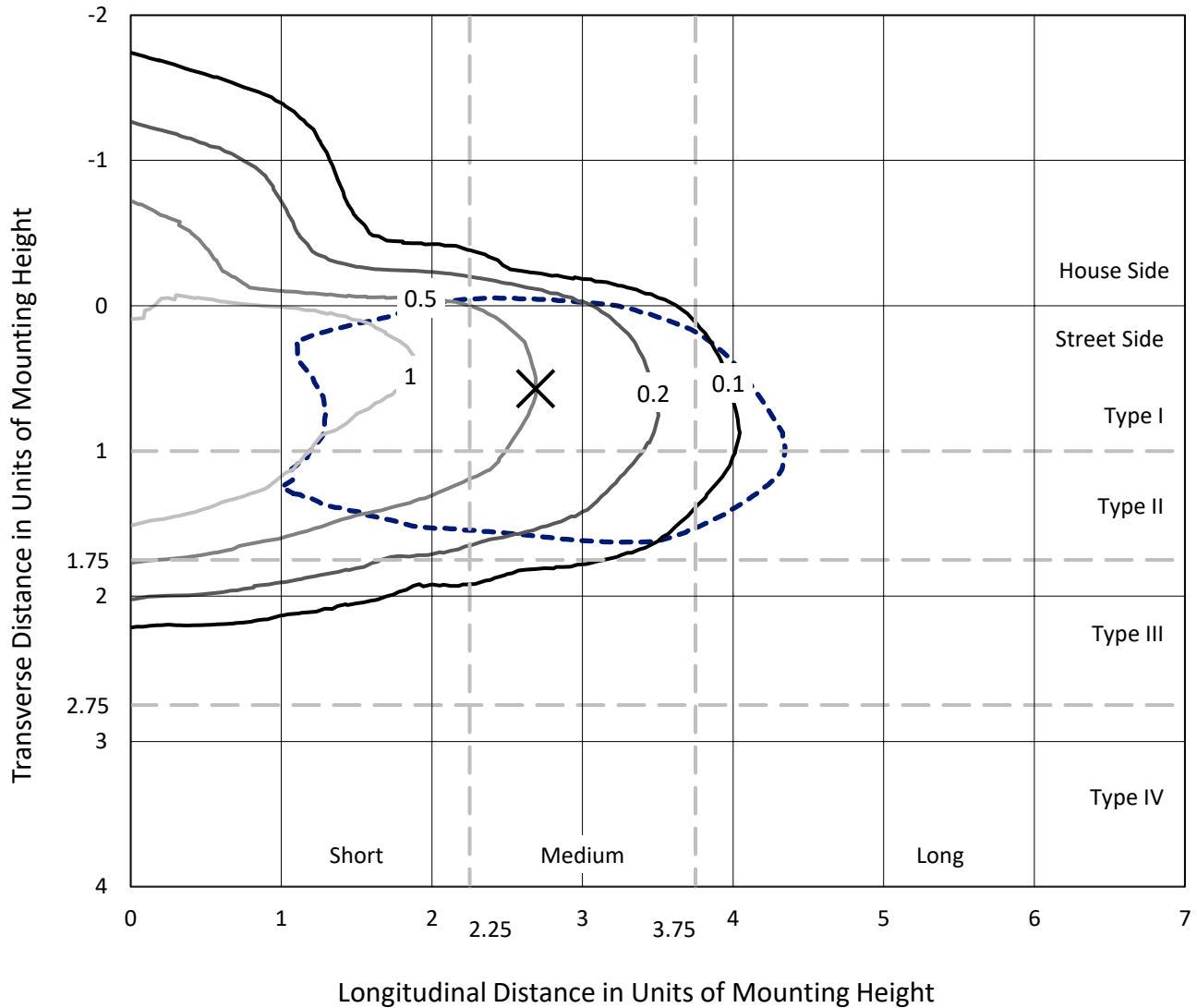
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

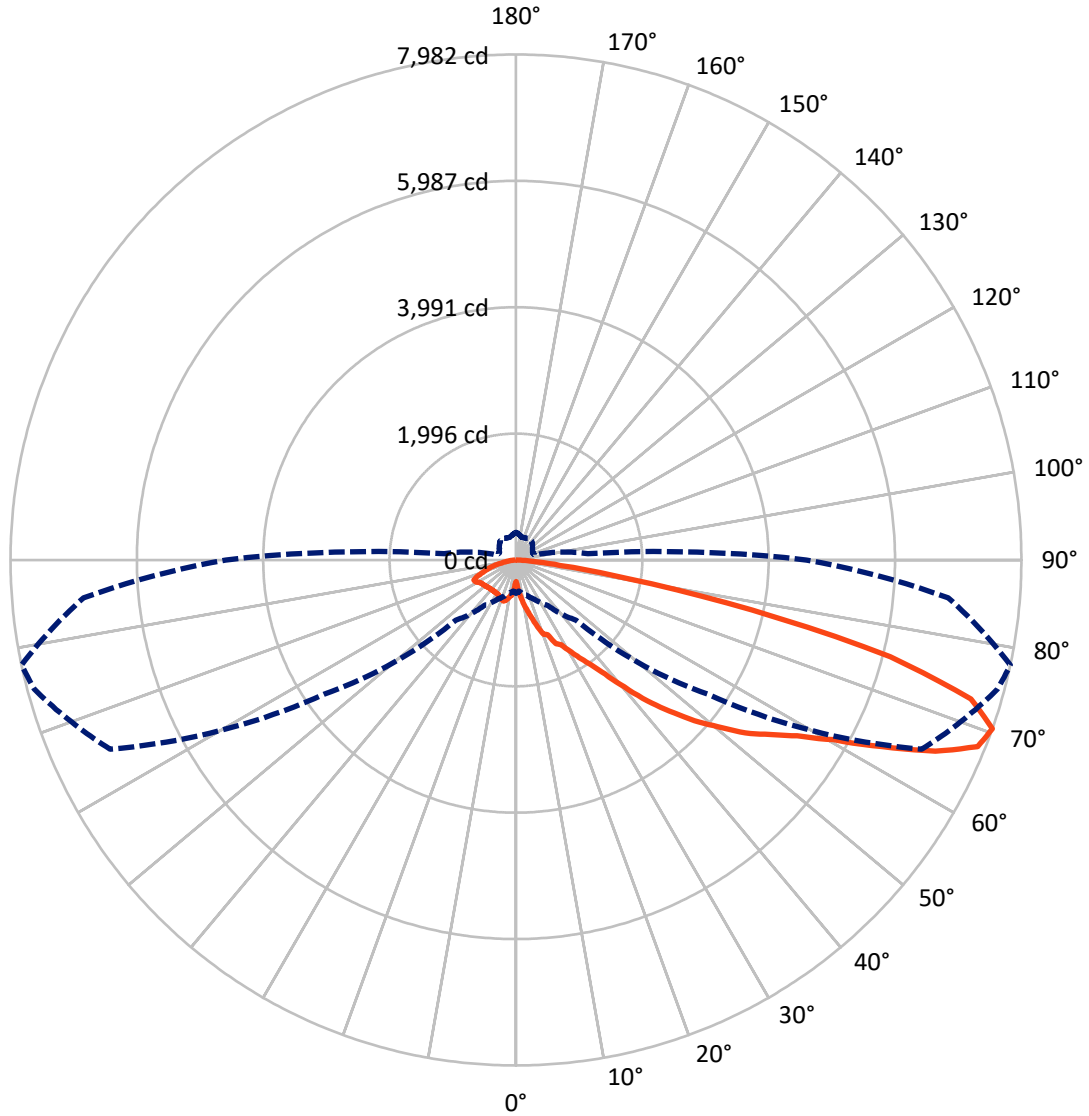
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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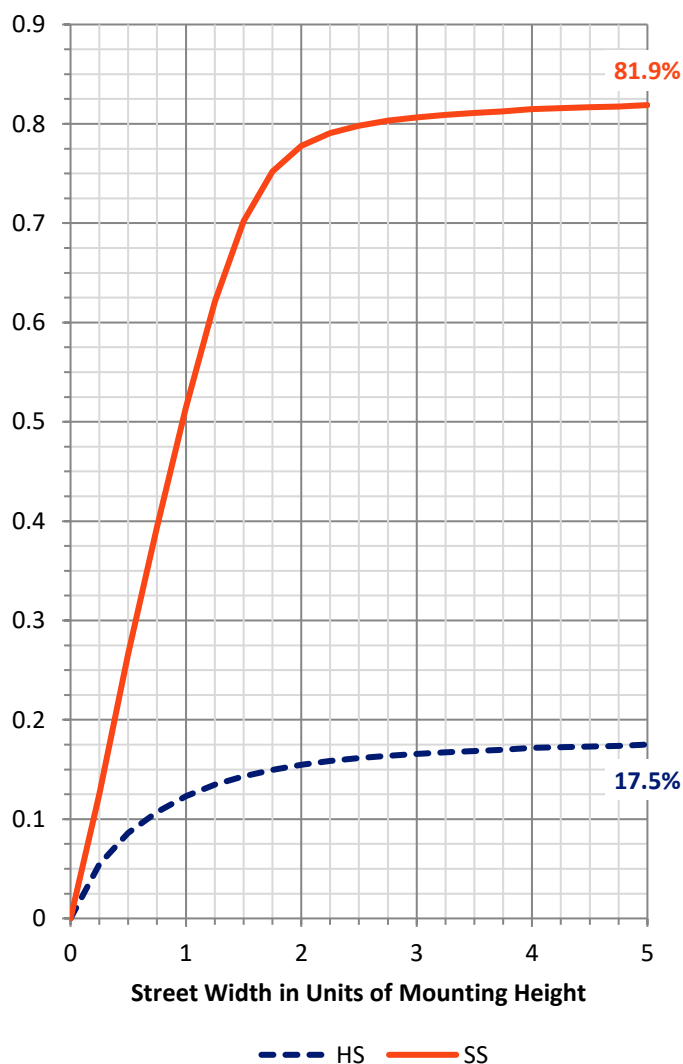
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1483.0	0.0	1483.0
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	6826.0	0.0	6826.0
	% Fixture	82.2	0.0	82.2
Total	Lumens	8309.0	0.0	8309.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.4	0.6
10°-20°	230.7	2.8
20°-30°	444.0	5.3
30°-40°	747.8	9.0
40°-50°	1293.9	15.6
50°-60°	1953.7	23.5
60°-70°	2164.0	26.0
70°-80°	1247.6	15.0
80°-90°	175.0	2.1
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°	8309.0	100.0
0°-180°	8309.0	100.0

Coefficient of Utilization



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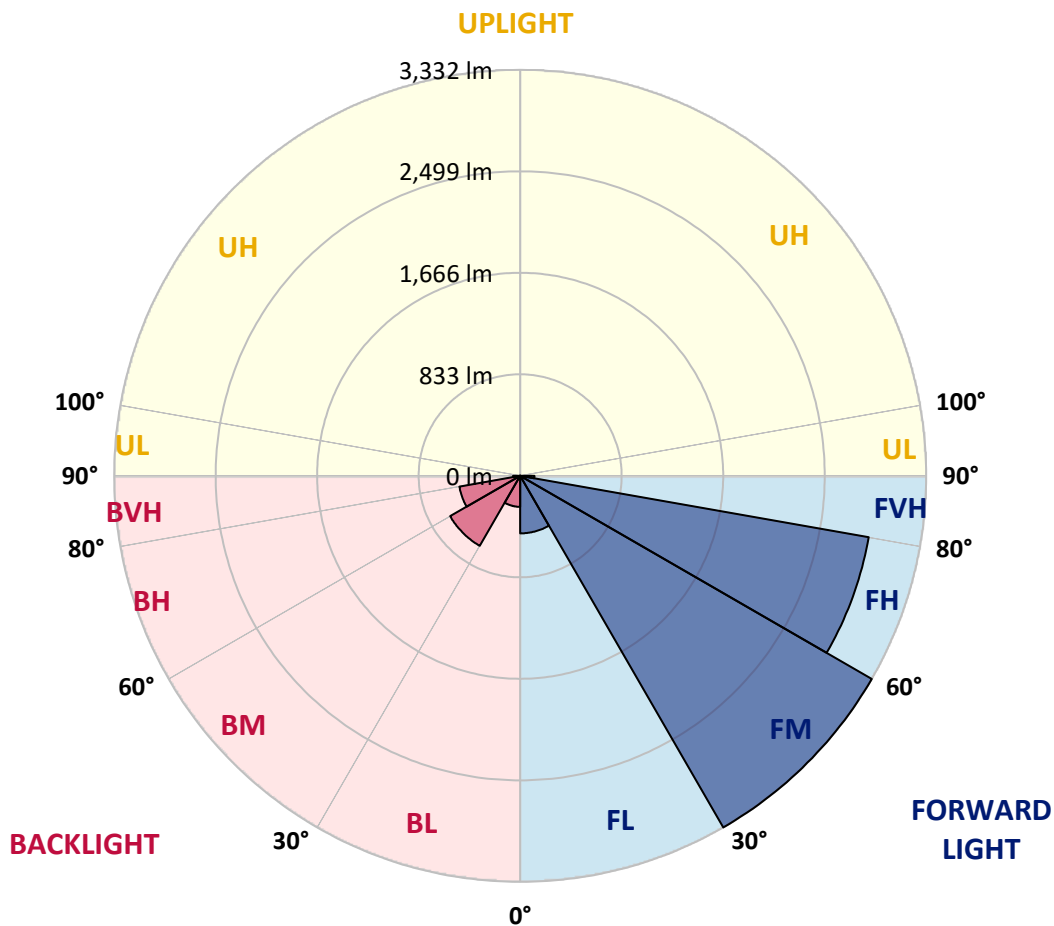
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	472.3	5.7			
FM (30°-60°)	3332.2	40.1			
FH (60°-80°)	2904.7	35.0			G2/5000
FVH (80°-90°)	116.7	1.4			G2/225
BL (0°-30°)	254.6	3.1	B1/500		
BM (30°-60°)	663.3	8.0	B1/1000		
BH (60°-80°)	506.8	6.1	B2/1000		G2/1000
BVH (80°-90°)	58.3	0.7			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	338.8	338.8	338.8	338.8	338.8	338.8	338.8	338.8	338.8	338.8	338.8
2.5°	436.1	420.5	397.0	406.7	418.4	419.8	416.0	394.5	387.3	403.5	408.4
5°	611.0	584.7	568.8	563.6	545.9	509.2	535.5	522.0	524.8	516.8	532.4
7.5°	758.2	740.6	717.0	710.4	669.9	641.2	659.2	653.3	624.9	613.8	631.5
10°	833.0	813.7	814.7	800.5	789.8	792.5	783.5	757.5	736.4	721.5	678.9
12.5°	878.1	882.9	908.9	901.6	942.2	975.4	950.1	911.7	844.8	831.3	789.1
15°	985.1	1003.1	978.9	990.0	1007.3	1071.0	1060.6	1052.3	981.6	955.3	877.4
17.5°	1095.3	1098.7	1062.0	1056.1	1097.7	1129.9	1170.4	1123.7	1132.3	1114.0	987.9
20°	1118.8	1142.7	1090.1	1053.7	1139.3	1203.0	1253.2	1203.7	1249.4	1254.2	1079.0
22.5°	1205.1	1176.3	1107.0	1071.4	1146.2	1224.5	1306.2	1333.9	1319.4	1278.5	1167.0
25°	1265.0	1249.7	1179.1	1139.6	1168.0	1240.0	1383.5	1455.8	1468.7	1463.1	1250.8
27.5°	1376.2	1383.8	1238.3	1249.4	1209.9	1216.5	1429.9	1617.6	1537.6	1515.4	1354.7
30°	1551.8	1517.8	1354.7	1363.7	1298.2	1287.2	1527.9	1757.2	1685.5	1658.8	1440.3
32.5°	1735.0	1738.1	1540.0	1463.1	1428.1	1417.0	1508.5	1830.3	1872.5	1837.9	1569.5
35°	1993.4	1975.4	1740.9	1639.8	1513.3	1493.9	1646.7	2042.3	2119.9	2022.9	1722.9
37.5°	2386.9	2332.5	2059.6	1825.8	1732.3	1710.1	1844.1	2232.4	2407.0	2286.5	1973.7
40°	2702.8	2592.3	2344.3	2059.6	1901.3	1928.7	1984.4	2463.1	2704.9	2637.0	2205.8
42.5°	2954.6	2856.6	2545.9	2345.7	2130.6	2096.7	2157.6	2748.9	3110.2	3043.7	2495.3
45°	3196.1	2996.6	2772.4	2592.3	2385.5	2426.8	2417.7	3040.5	3607.2	3402.5	2751.3
47.5°	3434.4	3247.0	3012.5	2770.4	2562.2	2818.9	2722.9	3257.4	3942.5	3790.8	3020.8
50°	3740.6	3534.5	3267.4	3023.9	2899.2	3087.0	2925.9	3441.0	4318.0	4140.0	3275.0
52.5°	3943.9	3743.4	3509.2	3335.3	3323.9	3251.5	3210.3	3673.4	4647.1	4539.0	3544.5
55°	3920.0	3726.7	3620.7	3639.8	3781.1	3536.9	3503.3	4017.3	4990.3	4865.3	3835.5
57.5°	3620.4	3409.4	3432.0	3544.9	3924.5	4038.1	3981.0	4384.9	5296.5	5239.7	4195.4
60°	2820.2	2711.8	2895.1	3101.5	3732.6	4185.0	4586.8	4833.1	5673.4	5764.1	4760.7
62.5°	1832.0	1687.2	1976.8	2327.3	3160.0	4088.0	5203.7	5683.1	6290.6	6496.7	5619.7
65°	949.1	925.9	1128.5	1450.6	2199.9	3485.6	5421.2	6574.7	7040.9	7281.0	6440.3
67.5°	690.0	647.0	740.9	930.4	1342.9	2376.9	5009.0	7256.7	7643.3	7863.2	6917.3
70°	525.5	493.6	565.3	682.7	877.0	1342.6	3697.6	7070.7	7875.7	7982.4	6853.9
72.5°	393.5	366.1	428.8	538.3	675.8	755.8	2185.7	5813.7	7479.1	7515.5	6151.4
75°	314.2	293.0	320.1	425.0	550.7	514.4	1161.1	4212.0	6076.6	6107.8	4698.7
77.5°	257.7	239.7	250.8	318.7	428.5	386.9	576.0	2679.3	3858.0	3810.2	2643.6
80°	210.3	194.7	199.9	230.3	326.3	288.9	323.5	1397.7	1840.3	1766.2	1099.4
82.5°	161.8	148.6	159.0	169.4	236.2	207.5	188.8	636.0	753.7	702.1	403.2
85°	108.4	96.3	138.2	127.1	154.5	127.5	103.2	253.2	280.9	261.9	141.7
87.5°	29.8	28.1	46.4	63.4	63.4	48.1	37.8	61.3	78.3	68.6	33.3
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°	338.8	338.8	338.8	338.8	338.8	338.8	338.8	338.8	338.8	338.8	338.8
2.5°	410.5	402.8	382.8	381.0	385.9	386.6	383.4	376.2	372.4	393.1	390.0
5°	528.6	501.6	485.3	470.4	449.6	434.7	438.5	448.9	452.4	468.0	469.7
7.5°	620.4	584.7	549.0	501.2	469.7	449.6	464.8	475.9	484.6	506.8	515.8
10°	660.2	621.4	570.8	520.6	512.0	515.4	506.8	509.5	523.0	524.1	528.6
12.5°	734.3	690.3	599.2	553.9	551.4	558.7	555.6	568.4	577.8	603.1	592.3
15°	805.3	749.2	620.7	574.3	564.3	578.8	595.8	617.3	637.3	661.2	649.1
17.5°	891.6	807.1	621.8	564.9	566.7	597.9	615.5	627.3	687.2	720.1	703.5
20°	946.0	813.0	598.5	541.7	566.7	594.7	619.3	632.1	699.3	748.9	760.3
22.5°	995.2	815.0	580.5	529.3	545.2	582.3	619.3	647.7	690.7	738.1	739.9
25°	1022.2	813.3	557.3	530.3	544.9	563.2	596.1	622.1	654.0	720.1	721.9
27.5°	1091.5	790.8	534.5	534.5	542.1	542.8	584.7	599.9	604.4	664.7	675.4
30°	1111.5	795.6	531.7	533.8	537.6	530.7	549.0	559.1	565.6	617.6	619.3
32.5°	1143.8	756.8	540.0	527.5	522.7	521.7	526.2	535.2	537.9	569.8	575.7
35°	1182.9	741.3	542.8	525.8	516.1	510.9	524.4	513.3	522.0	559.4	563.6
37.5°	1310.4	719.8	557.0	525.8	513.3	507.4	500.9	506.1	536.9	572.9	595.1
40°	1391.8	726.4	553.5	531.0	504.0	498.4	487.4	506.4	554.2	617.9	634.6
42.5°	1534.5	730.2	557.7	528.6	507.1	485.6	492.9	513.7	563.9	600.3	625.9
45°	1682.0	742.0	554.9	521.3	500.2	510.2	500.2	518.9	542.8	543.8	563.2
47.5°	1826.8	789.4	549.0	506.4	498.4	524.8	499.1	502.3	504.0	510.2	533.1
50°	1996.9	840.0	540.7	485.6	500.9	525.5	502.9	487.7	486.0	506.4	532.0
52.5°	2190.2	897.1	530.0	465.5	486.7	518.9	516.1	488.7	473.9	493.6	519.2
55°	2417.7	962.2	517.5	445.4	471.1	519.6	523.4	481.5	474.2	495.7	523.0
57.5°	2720.1	1056.5	493.2	416.4	452.0	508.8	504.7	473.2	466.2	489.1	517.5
60°	3236.2	1237.6	458.6	387.6	431.6	482.5	489.4	458.3	451.3	476.6	506.4
62.5°	3927.3	1455.5	416.7	359.5	406.7	454.1	470.4	436.8	436.1	468.3	499.5
65°	4570.5	1579.2	373.4	333.9	381.0	427.8	448.9	416.7	418.1	458.6	489.8
67.5°	4837.9	1433.7	334.6	311.1	351.6	397.6	431.2	401.1	396.6	445.4	474.2
70°	4586.8	1138.9	301.0	286.8	318.3	365.1	406.7	380.3	369.9	414.3	436.8
72.5°	4058.6	949.4	269.5	258.4	289.2	330.8	373.4	352.3	338.8	372.7	392.8
75°	3172.5	779.0	233.5	230.3	256.0	299.6	338.8	324.2	306.9	328.4	348.5
77.5°	1806.4	492.9	196.1	198.1	216.5	262.6	297.2	285.8	268.1	277.1	300.3
80°	722.9	248.7	157.6	159.0	174.6	215.8	246.3	242.1	223.8	231.0	247.0
82.5°	270.2	136.5	116.4	117.1	132.7	170.8	210.3	208.2	190.9	185.7	194.7
85°	107.4	67.5	71.4	74.5	89.4	123.0	168.7	149.6	129.2	113.3	118.8
87.5°	25.6	21.5	24.9	26.3	29.1	38.4	61.7	49.5	50.9	40.9	30.5
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)