

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: P367168

Luminaire Tested: **MSA-SA2A-730-U-T4FT**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367168
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-12)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-730-U-T4FT
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7255 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

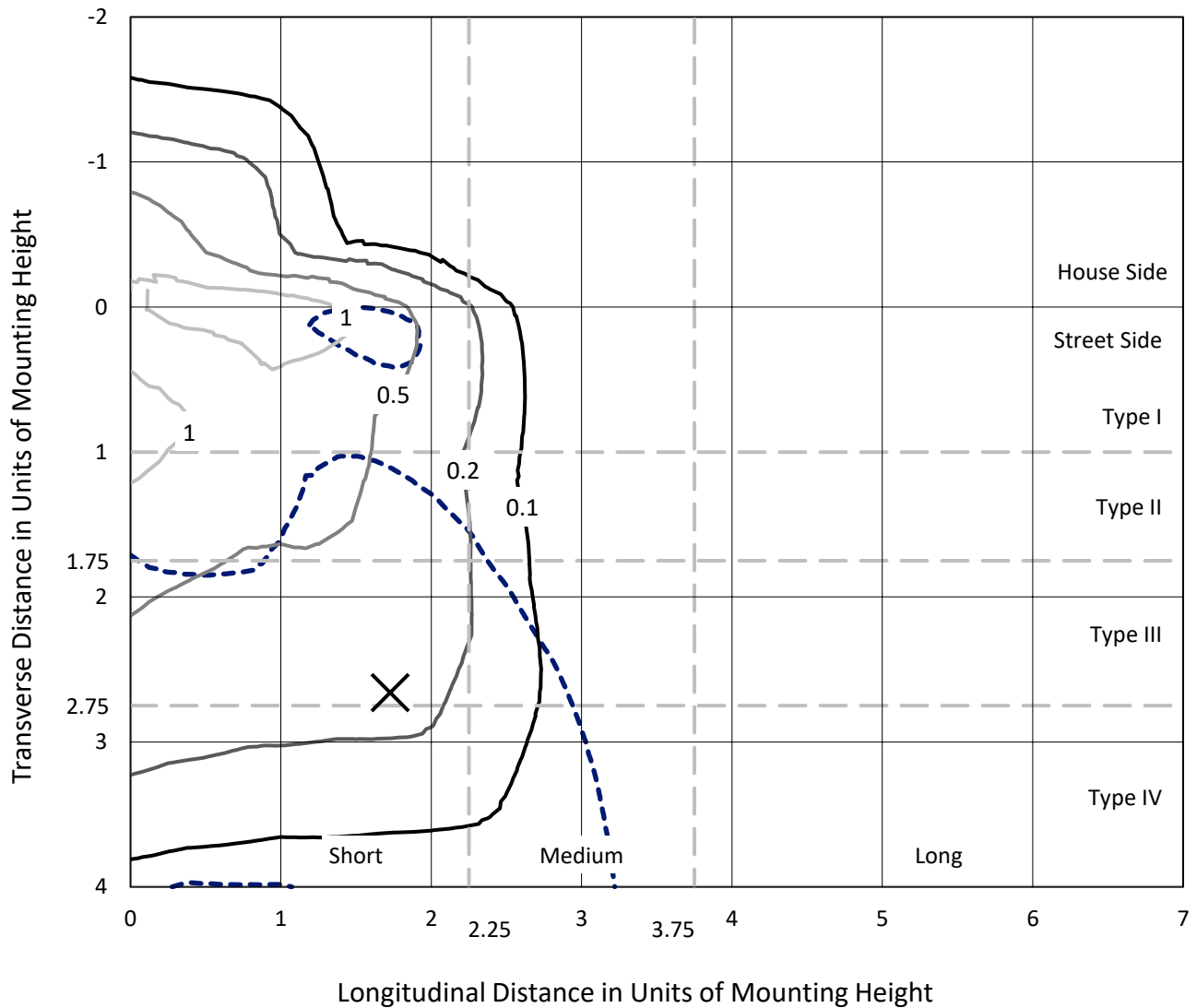
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

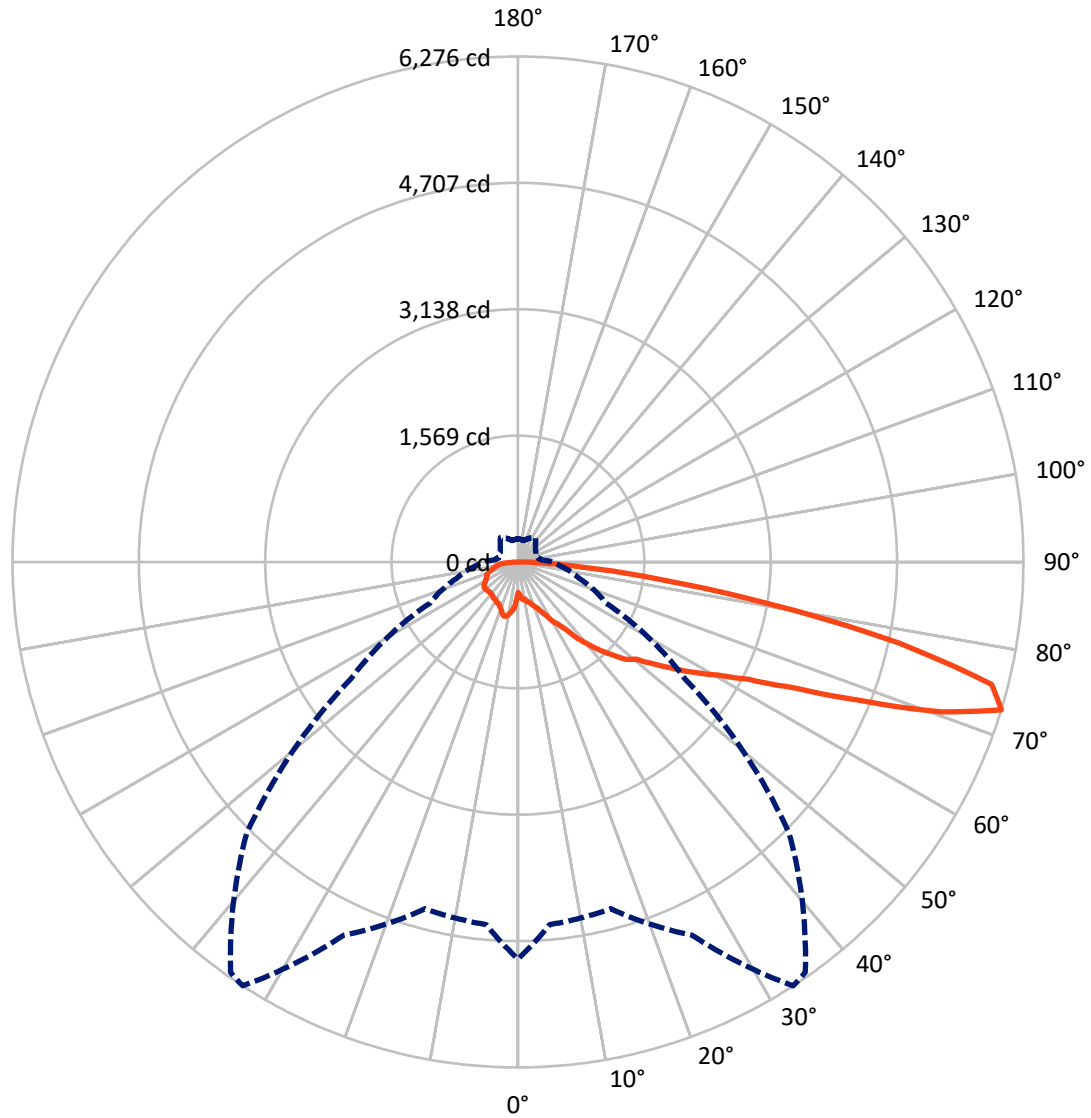
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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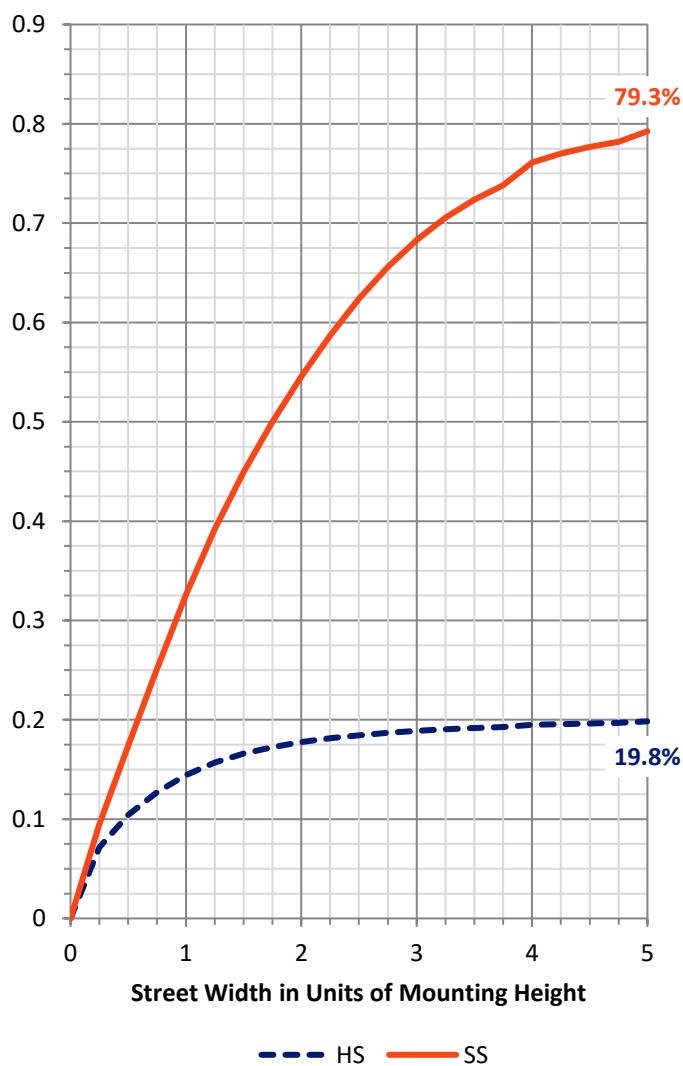
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1467.7	0.0	1467.7
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	5787.3	0.0	5787.3
	% Fixture	79.8	0.0	79.8
Total	Lumens	7255.0	0.0	7255.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.3	0.7
10°-20°	193.3	2.7
20°-30°	352.5	4.9
30°-40°	596.3	8.2
40°-50°	992.1	13.7
50°-60°	1455.9	20.1
60°-70°	1862.5	25.7
70°-80°	1515.3	20.9
80°-90°	234.7	3.2
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°	7255.0	100.0
0°-180°	7255.0	100.0

Coefficient of Utilization

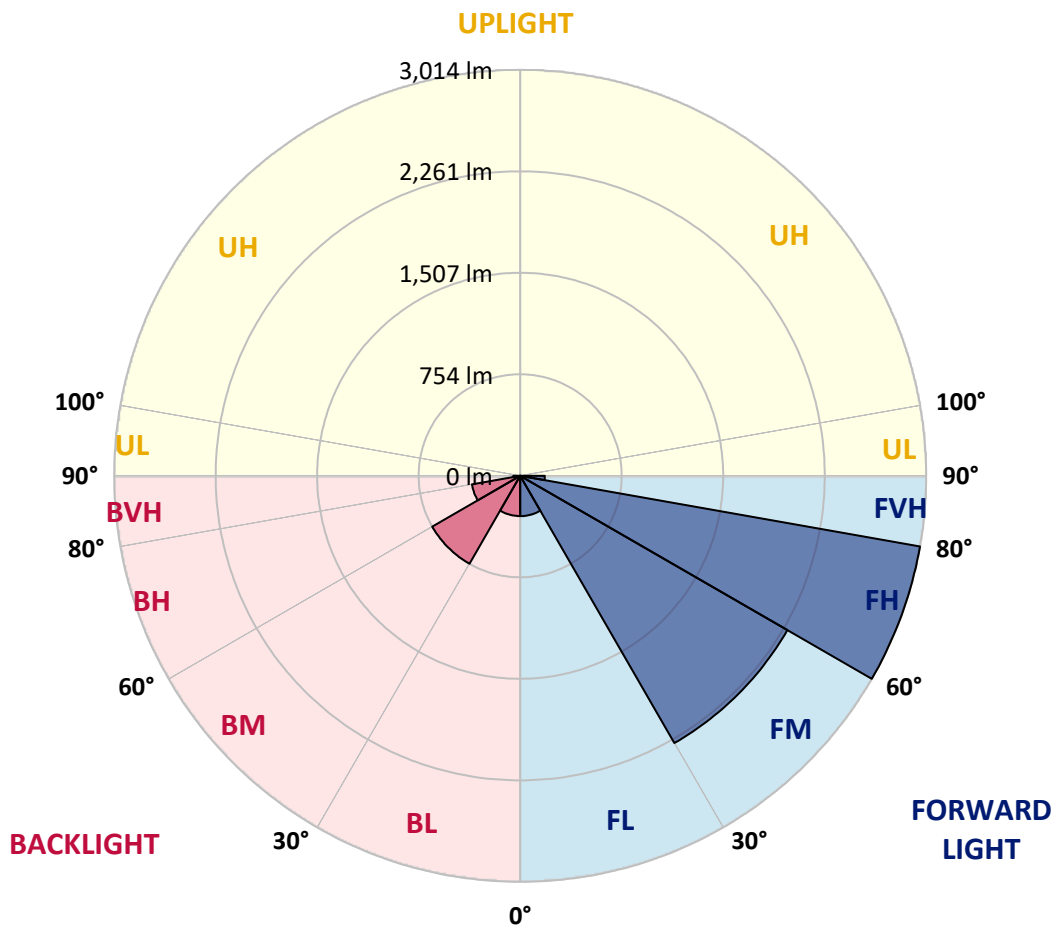


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	299.4	4.1			
FM (30°-60°)	2290.6	31.6			
FH (60°-80°)	3014.2	41.5			G2/5000
FVH (80°-90°)	183.2	2.5			G2/225
BL (0°-30°)	298.7	4.1	B1/500		
BM (30°-60°)	753.8	10.4	B1/1000		
BH (60°-80°)	363.7	5.0	B1/500		G1/500
BVH (80°-90°)	51.5	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4
2.5°	431.3	417.7	395.5	394.9	407.2	409.9	418.0	418.6	421.7	416.8	451.2
5°	475.8	461.4	452.7	455.7	449.9	456.9	456.9	476.7	503.2	533.9	577.6
7.5°	486.4	475.8	465.9	473.4	474.6	468.0	474.3	521.0	568.8	599.5	669.4
10°	465.3	454.8	462.3	464.7	464.4	479.4	512.2	549.6	602.8	659.4	697.0
12.5°	461.4	468.9	472.5	476.7	505.3	509.8	559.5	598.0	651.6	701.3	799.1
15°	519.5	529.4	507.1	505.6	515.0	519.2	570.6	609.5	687.7	771.1	859.0
17.5°	602.2	605.8	565.8	545.4	552.3	555.6	578.2	626.9	675.1	829.2	938.7
20°	682.3	684.7	609.5	563.7	588.1	591.7	612.8	640.8	678.7	861.7	992.6
22.5°	766.3	750.9	668.5	610.7	624.8	625.7	638.1	653.4	707.3	856.6	1058.2
25°	858.1	848.4	744.6	689.2	688.6	676.3	676.9	698.8	737.7	911.3	1101.2
27.5°	980.0	981.2	830.4	800.6	753.9	745.8	705.2	746.1	790.3	911.9	1194.2
30°	1138.0	1108.8	949.9	901.7	855.7	838.5	783.4	818.3	837.6	964.0	1295.4
32.5°	1266.5	1258.0	1074.5	1001.6	926.4	946.2	885.4	854.8	889.4	1053.7	1448.6
35°	1389.6	1361.9	1206.3	1111.5	1032.3	1020.3	980.9	986.0	1007.0	1167.2	1648.7
37.5°	1573.2	1558.1	1392.9	1241.2	1204.2	1155.1	1130.1	1146.1	1129.5	1312.5	1948.8
40°	1778.4	1691.1	1548.8	1413.6	1344.4	1309.8	1318.5	1303.5	1290.9	1475.6	2217.8
42.5°	1975.0	1895.5	1652.3	1591.5	1501.2	1515.7	1467.8	1478.4	1514.2	1707.1	2466.7
45°	2188.9	2017.1	1762.2	1708.6	1643.9	1662.2	1700.5	1689.0	1747.7	1980.1	2701.2
47.5°	2295.8	2132.4	1897.0	1809.7	1808.8	1770.6	2003.2	2028.5	1936.7	2182.3	2939.3
50°	2398.7	2238.0	1997.2	1938.2	1895.5	1977.4	2293.7	2235.6	2107.7	2414.4	3201.1
52.5°	2542.0	2358.7	2112.2	2049.3	2102.3	2178.1	2525.4	2514.0	2275.3	2653.0	3428.6
55°	2651.2	2466.1	2285.3	2226.9	2328.0	2402.3	2761.4	2692.5	2418.9	2828.2	3572.8
57.5°	2842.6	2652.7	2540.8	2411.1	2592.8	2591.6	2988.9	2935.6	2572.4	2972.1	3630.9
60°	3146.9	2923.9	2806.8	2657.2	2852.0	2921.5	3249.0	3095.5	2681.0	3063.0	3526.1
62.5°	3574.0	3309.1	3119.2	2971.2	3208.6	3334.4	3570.1	3211.9	2687.9	3037.1	3250.8
65°	4102.2	3780.2	3531.3	3374.8	3766.6	3946.3	3958.3	3283.9	2624.1	2769.5	2671.7
67.5°	4617.5	4255.4	3995.7	4025.5	4597.6	4682.8	4379.1	3344.1	2281.3	2223.9	1855.2
70°	4956.6	4564.2	4391.1	4707.1	5576.3	5489.1	4720.1	3185.4	1796.5	1441.6	1044.7
72.5°	4931.1	4520.2	4457.9	5112.2	6276.4	6221.9	4761.6	2533.3	1203.3	788.2	521.0
75°	4017.3	3698.0	3839.5	4839.6	6074.7	6072.0	4134.1	1568.0	617.3	404.8	329.3
77.5°	2221.1	2097.1	2512.8	3664.3	4836.9	4861.5	2793.3	711.2	332.9	286.8	248.0
80°	778.0	766.6	1088.9	1977.4	3181.8	3187.9	1299.0	325.3	242.0	217.0	182.1
82.5°	284.4	282.0	451.5	918.6	1751.9	1748.0	492.7	202.6	179.4	153.5	120.1
85°	113.5	111.1	206.5	407.8	804.8	791.8	191.4	115.0	117.4	91.5	59.0
87.5°	31.3	32.5	70.1	127.6	246.5	228.4	48.2	38.8	47.6	37.3	18.7
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°	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4	380.4
2.5°	457.2	460.2	430.4	440.9	454.5	461.7	465.3	449.9	455.1	476.7	475.8
5°	586.6	574.5	563.1	574.8	567.0	555.9	573.9	573.0	584.8	596.5	599.2
7.5°	683.2	667.5	662.1	635.6	609.2	582.4	605.5	620.0	623.0	652.2	664.5
10°	718.1	712.1	714.2	679.3	676.0	678.7	657.3	634.1	648.3	636.2	645.3
12.5°	798.8	813.8	776.5	752.7	750.6	734.1	691.3	676.3	660.3	676.9	668.5
15°	863.5	891.5	851.4	809.6	762.4	736.8	700.4	677.5	666.9	670.6	660.3
17.5°	958.3	984.5	882.7	818.6	769.9	732.3	676.6	627.8	653.7	655.8	644.1
20°	1021.2	1023.0	893.3	796.4	752.4	687.1	632.9	590.2	620.0	650.4	663.6
22.5°	1082.6	1069.0	906.2	778.6	688.9	625.7	599.2	596.5	618.8	644.4	647.4
25°	1128.6	1130.7	913.7	772.0	651.6	565.5	565.5	585.1	604.6	665.4	662.4
27.5°	1240.3	1158.1	884.5	741.6	599.8	530.3	565.8	592.0	601.3	667.2	673.9
30°	1321.6	1268.0	890.6	689.5	547.5	513.8	542.9	575.8	601.6	677.8	675.4
32.5°	1457.9	1313.7	904.7	616.4	508.3	507.4	533.3	567.9	598.9	666.3	670.0
35°	1608.7	1448.6	865.3	560.7	499.0	503.8	537.2	551.1	587.5	661.8	665.1
37.5°	1887.7	1519.0	840.3	517.7	493.0	506.8	519.5	540.8	577.6	639.3	660.9
40°	2051.4	1664.1	747.6	492.7	480.3	504.4	510.7	528.8	548.7	612.2	626.0
42.5°	2266.9	1709.8	668.5	465.0	474.0	494.5	513.5	518.0	531.2	569.4	594.7
45°	2446.6	1744.1	584.5	442.7	452.7	516.5	517.7	515.6	513.2	527.3	548.1
47.5°	2632.6	1836.2	507.1	418.0	444.5	534.5	519.8	500.5	490.6	492.4	511.6
50°	2837.8	1903.0	452.4	397.9	446.3	534.5	530.0	485.2	465.3	460.2	480.3
52.5°	3018.4	1910.8	410.8	381.6	438.8	516.2	536.9	475.5	442.1	429.8	448.7
55°	3116.8	1811.8	380.7	366.9	419.5	499.6	533.3	470.1	414.1	404.8	421.7
57.5°	3114.7	1647.5	355.1	346.4	397.6	476.4	513.2	440.6	397.0	391.6	408.1
60°	3002.5	1454.9	335.6	329.6	375.0	442.7	477.0	421.4	380.4	377.7	395.8
62.5°	2747.8	1255.9	316.6	311.8	353.9	418.9	459.9	400.0	363.3	363.0	380.1
65°	2250.3	1008.2	298.9	297.7	334.4	395.5	443.6	381.9	345.5	351.5	369.0
67.5°	1550.6	708.5	279.9	283.5	316.3	372.9	431.3	369.9	326.9	339.2	354.8
70°	850.8	438.2	258.8	266.1	293.4	346.7	412.0	350.3	302.5	321.4	332.3
72.5°	432.8	292.2	232.6	244.1	265.5	308.2	375.9	322.0	276.3	283.5	289.2
75°	290.7	220.0	203.5	216.1	231.4	271.5	333.5	295.6	251.3	250.4	256.7
77.5°	219.7	171.9	172.8	187.2	197.1	238.7	299.8	273.3	230.2	228.1	237.5
80°	160.7	130.3	139.0	154.1	163.1	214.3	277.8	248.6	201.6	193.2	201.0
82.5°	106.5	92.4	102.9	118.0	125.2	179.1	252.2	211.0	164.3	143.0	144.2
85°	50.3	48.5	61.4	68.6	78.0	111.1	188.7	146.0	104.7	86.7	90.6
87.5°	11.4	15.3	20.2	19.9	23.2	29.8	58.7	40.9	30.4	20.8	13.8
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)