

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: P367146

Luminaire Tested: **MSA-SA2A-727-U-T4FT**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367146
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-727-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: 6663 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

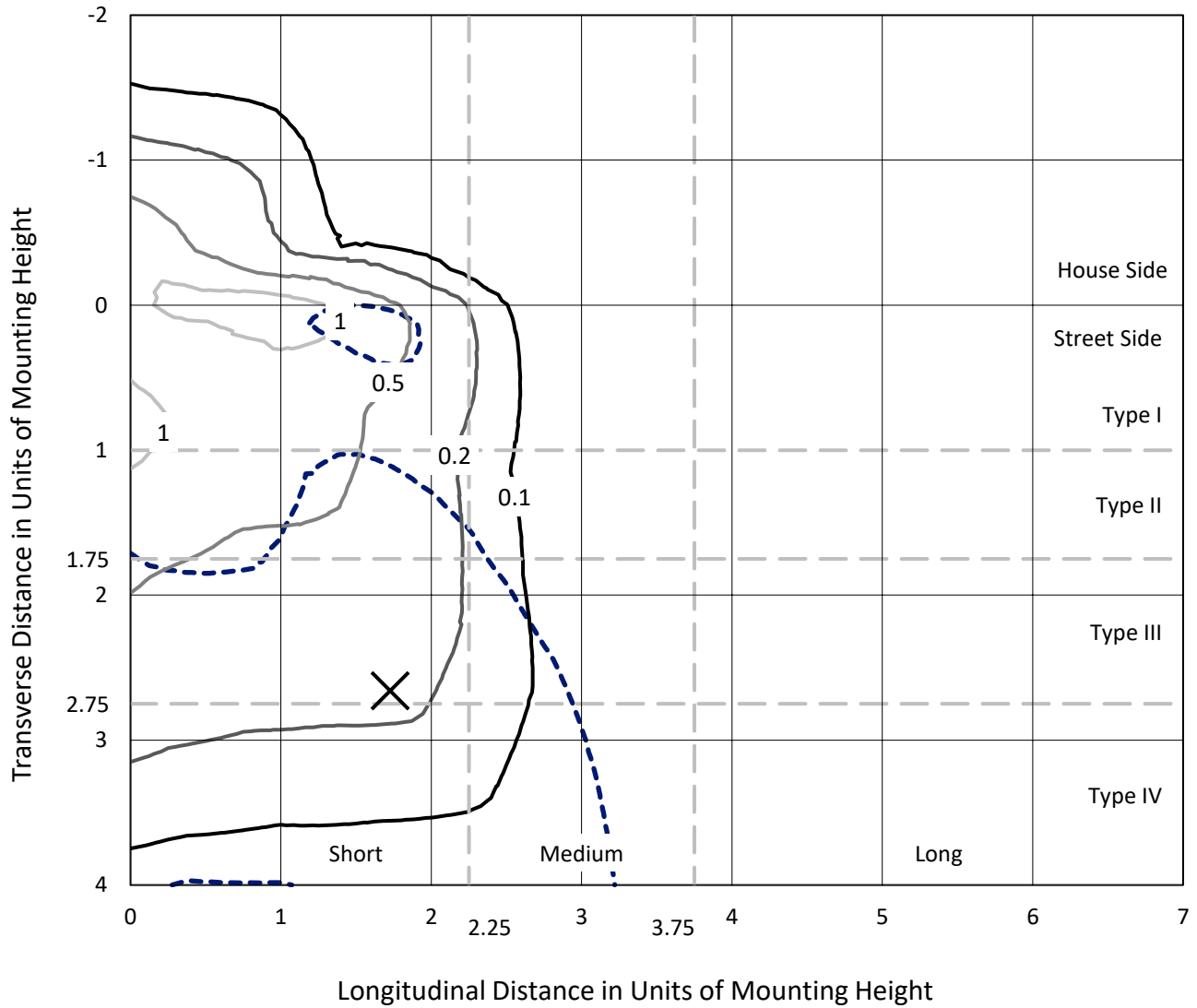
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367146
 CATALOG NUMBER: MSA-SA2A-727-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

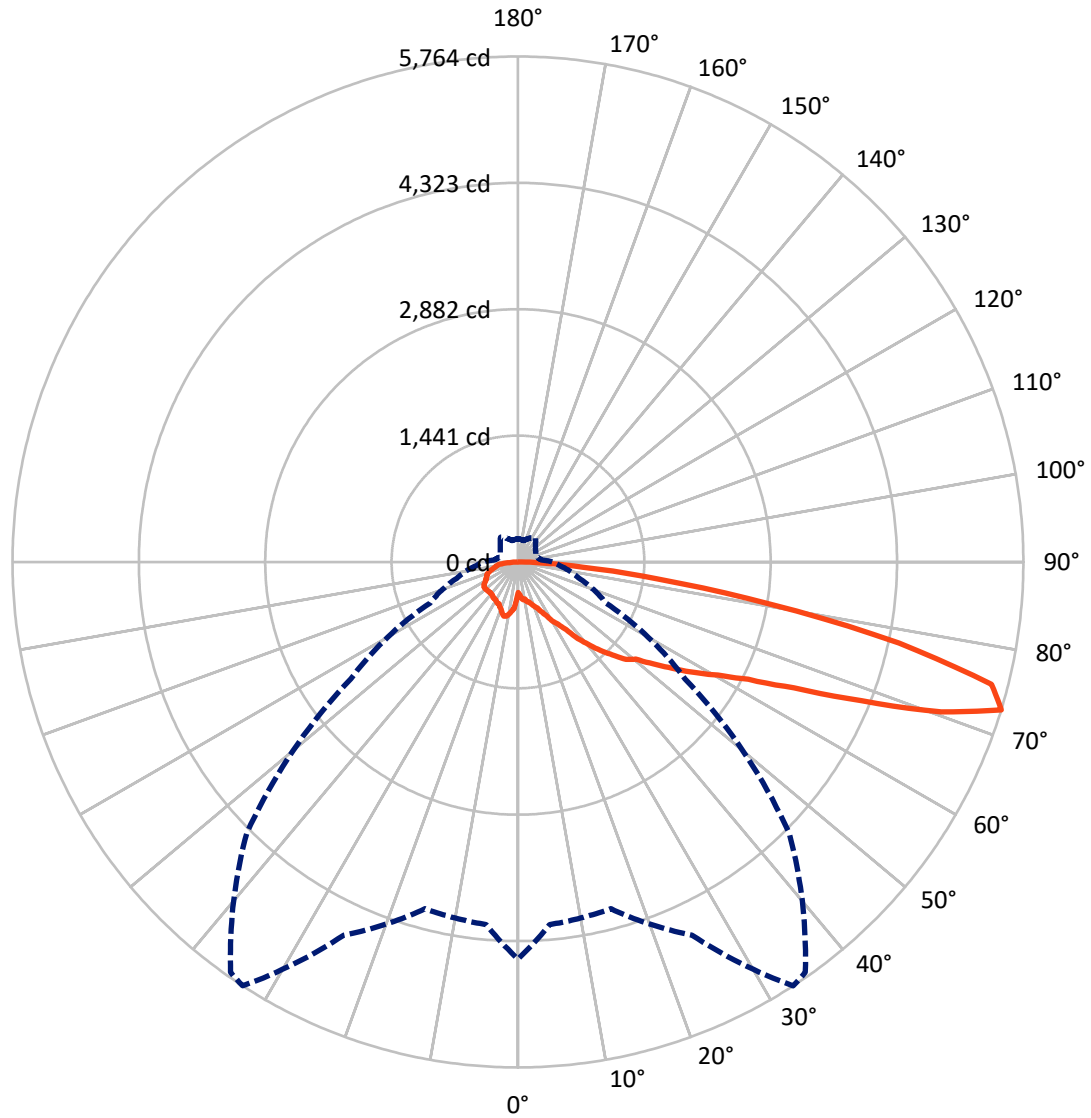
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
 Type IV - Short - N/A

REPORT NUMBER: P367146
CATALOG NUMBER: MSA-SA2A-727-U-T4FT

Luminous Intensity Polar Plot



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

REPORT NUMBER: P367146
 CATALOG NUMBER: MSA-SA2A-727-U-T4FT

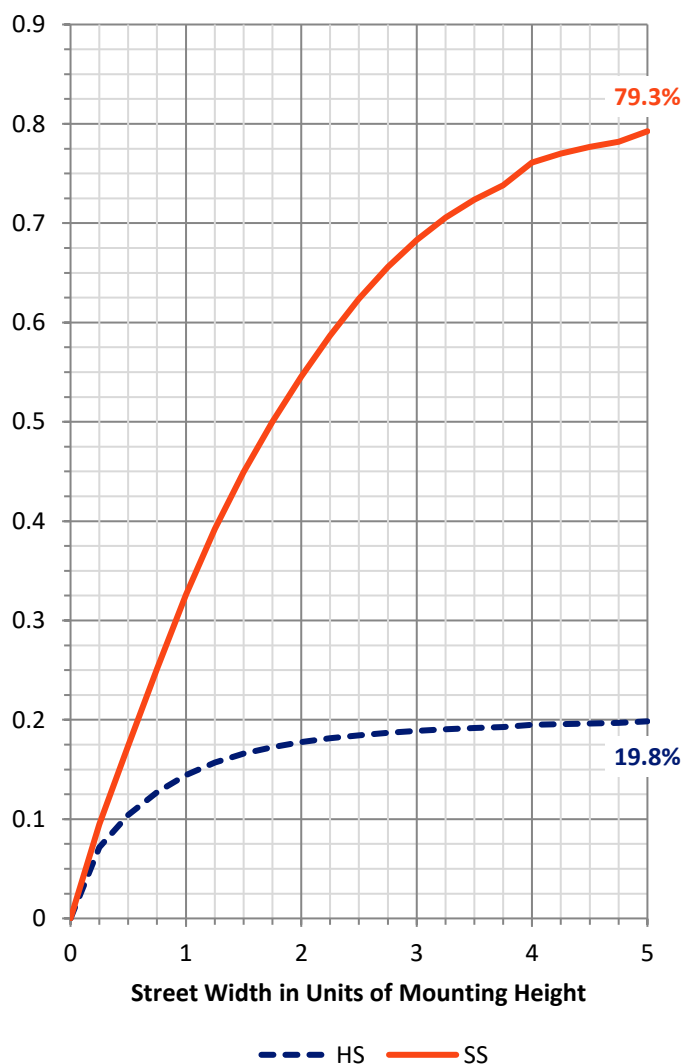
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1347.9	0.0	1347.9
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	5315.1	0.0	5315.1
	% Fixture	79.8	0.0	79.8
Total	Lumens	6663.0	0.0	6663.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.0	0.7
10°-20°	177.5	2.7
20°-30°	323.7	4.9
30°-40°	547.7	8.2
40°-50°	911.1	13.7
50°-60°	1337.2	20.1
60°-70°	1710.5	25.7
70°-80°	1391.7	20.9
80°-90°	215.5	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°	6663.0	100.0
0°-180°	6663.0	100.0

Coefficient of Utilization

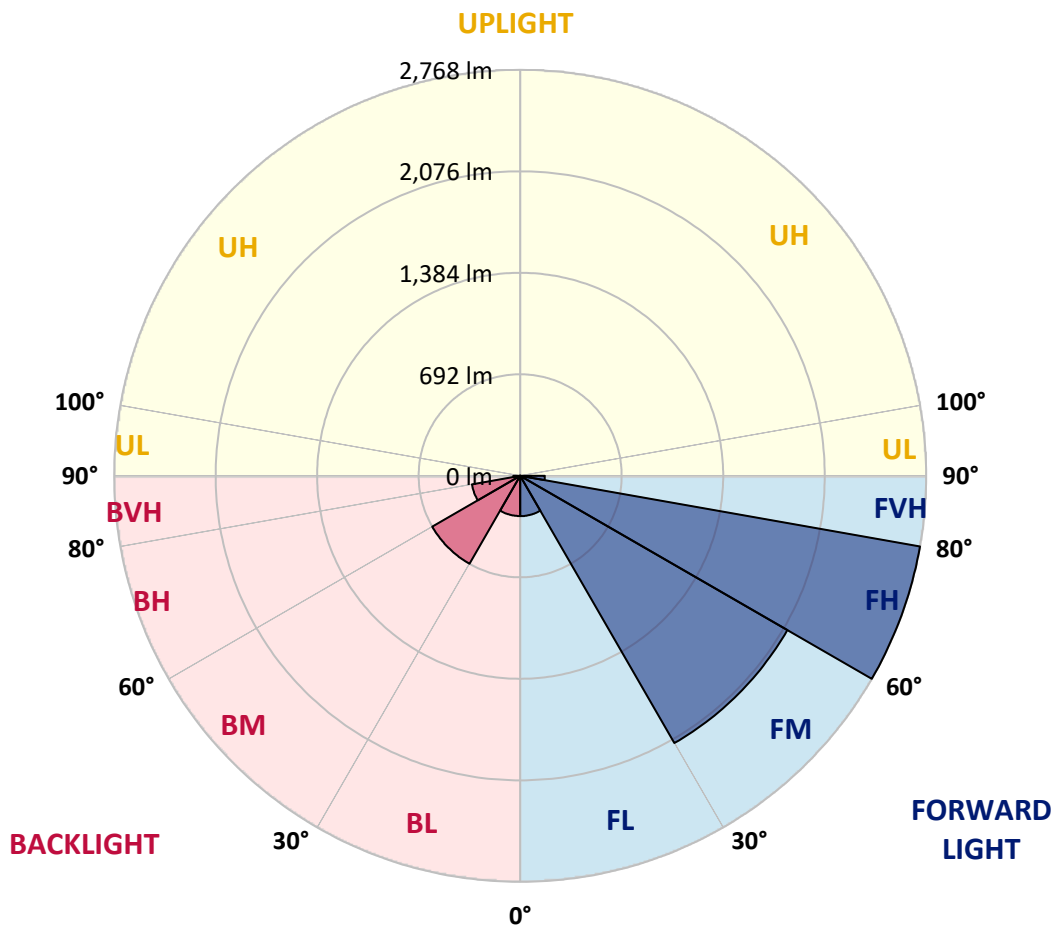


REPORT NUMBER: P367146
 CATALOG NUMBER: MSA-SA2A-727-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	275.0	4.1			
FM (30°-60°)	2103.7	31.6			
FH (60°-80°)	2768.2	41.5			G2/5000
FVH (80°-90°)	168.2	2.5			G2/225
BL (0°-30°)	274.3	4.1	B1/500		
BM (30°-60°)	692.3	10.4	B1/1000		
BH (60°-80°)	334.0	5.0	B1/500		G1/500
BVH (80°-90°)	47.3	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type IV Short





REPORT NUMBER: P367146

CATALOG NUMBER: MSA-SA2A-727-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	349.4	349.4	349.4	349.4	349.4	349.4	349.4	349.4	349.4	349.4	349.4
2.5°	396.1	383.7	363.2	362.6	374.0	376.5	383.9	384.5	387.2	382.8	414.3
5°	437.0	423.7	415.7	418.5	413.2	419.6	419.6	437.8	462.2	490.4	530.4
7.5°	446.7	437.0	427.9	434.8	435.9	429.8	435.6	478.5	522.4	550.6	614.7
10°	427.3	417.7	424.6	426.8	426.5	440.3	470.4	504.7	553.6	605.6	640.2
12.5°	423.7	430.6	434.0	437.8	464.1	468.2	513.8	549.2	598.4	644.0	733.9
15°	477.1	486.2	465.8	464.4	472.9	476.8	524.1	559.7	631.6	708.2	788.9
17.5°	553.1	556.4	519.7	500.9	507.2	510.3	531.0	575.8	620.0	761.5	862.1
20°	626.6	628.8	559.7	517.7	540.1	543.4	562.8	588.5	623.3	791.4	911.6
22.5°	703.7	689.6	613.9	560.8	573.8	574.7	586.0	600.1	649.6	786.7	971.9
25°	788.0	779.2	683.8	633.0	632.4	621.1	621.6	641.8	677.5	837.0	1011.4
27.5°	900.0	901.1	762.6	735.2	692.4	684.9	647.6	685.2	725.9	837.5	1096.8
30°	1045.1	1018.3	872.3	828.1	785.8	770.1	719.5	751.6	769.2	885.3	1189.7
32.5°	1163.1	1155.4	986.8	919.9	850.8	869.0	813.2	785.0	816.8	967.7	1330.4
35°	1276.2	1250.8	1107.8	1020.8	948.1	937.0	900.8	905.5	924.9	1071.9	1514.2
37.5°	1444.8	1431.0	1279.2	1139.9	1105.9	1060.9	1037.9	1052.6	1037.4	1205.4	1789.8
40°	1633.3	1553.1	1422.4	1298.3	1234.7	1202.9	1211.0	1197.1	1185.5	1355.2	2036.9
42.5°	1813.8	1740.8	1517.5	1461.7	1378.7	1392.0	1348.0	1357.7	1390.6	1567.8	2265.5
45°	2010.3	1852.5	1618.4	1569.2	1509.7	1526.6	1561.7	1551.2	1605.1	1818.5	2480.8
47.5°	2108.5	1958.4	1742.2	1662.1	1661.2	1626.1	1839.8	1863.0	1778.7	2004.2	2699.4
50°	2203.0	2055.4	1834.3	1780.1	1740.8	1816.0	2106.5	2053.2	1935.7	2217.4	2939.9
52.5°	2334.6	2166.2	1939.8	1882.1	1930.7	2000.4	2319.4	2308.8	2089.7	2436.6	3148.9
55°	2434.9	2264.9	2098.8	2045.2	2138.0	2206.3	2536.1	2472.8	2221.5	2597.4	3281.3
57.5°	2610.7	2436.3	2333.5	2214.3	2381.3	2380.2	2745.0	2696.1	2362.5	2729.5	3334.6
60°	2890.1	2685.3	2577.8	2440.4	2619.3	2683.1	2983.8	2842.9	2462.3	2813.0	3238.4
62.5°	3282.4	3039.1	2864.7	2728.7	2946.8	3062.3	3278.8	2949.8	2468.6	2789.2	2985.5
65°	3767.5	3471.7	3243.1	3099.4	3459.3	3624.3	3635.3	3015.9	2410.0	2543.5	2453.7
67.5°	4240.7	3908.2	3669.6	3697.0	4222.4	4300.7	4021.8	3071.2	2095.2	2042.4	1703.8
70°	4552.2	4191.8	4032.8	4323.0	5121.3	5041.2	4334.9	2925.5	1649.9	1324.0	959.4
72.5°	4528.7	4151.4	4094.2	4695.1	5764.2	5714.2	4373.1	2326.5	1105.1	723.9	478.5
75°	3689.5	3396.2	3526.2	4444.7	5579.1	5576.6	3796.8	1440.1	566.9	371.8	302.4
77.5°	2039.9	1926.0	2307.7	3365.3	4442.2	4464.8	2565.4	653.2	305.7	263.4	227.8
80°	714.5	704.0	1000.1	1816.0	2922.2	2927.7	1193.0	298.8	222.2	199.3	167.2
82.5°	261.2	259.0	414.6	843.6	1609.0	1605.4	452.5	186.0	164.7	141.0	110.3
85°	104.2	102.0	189.6	374.5	739.1	727.2	175.8	105.6	107.8	84.0	54.2
87.5°	28.7	29.9	64.4	117.2	226.4	209.8	44.2	35.7	43.7	34.3	17.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P367146
 CATALOG NUMBER: MSA-SA2A-727-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	349.4	349.4	349.4	349.4	349.4	349.4	349.4	349.4	349.4	349.4	349.4
2.5°	419.9	422.6	395.3	404.9	417.4	424.0	427.3	413.2	417.9	437.8	437.0
5°	538.7	527.7	517.2	527.9	520.8	510.5	527.1	526.3	537.1	547.8	550.3
7.5°	627.4	613.1	608.1	583.8	559.5	534.9	556.1	569.4	572.2	599.0	610.3
10°	659.5	654.0	655.9	623.9	620.8	623.3	603.7	582.4	595.4	584.3	592.6
12.5°	733.6	747.4	713.1	691.3	689.4	674.2	634.9	621.1	606.4	621.6	613.9
15°	793.0	818.7	782.0	743.5	700.1	676.7	643.2	622.2	612.5	615.8	606.4
17.5°	880.1	904.1	810.7	751.8	707.1	672.5	621.4	576.6	600.4	602.3	591.5
20°	937.9	939.5	820.4	731.4	691.0	631.0	581.3	542.0	569.4	597.3	609.5
22.5°	994.2	981.8	832.3	715.1	632.7	574.7	550.3	547.8	568.3	591.8	594.6
25°	1036.5	1038.5	839.2	709.0	598.4	519.4	519.4	537.3	555.3	611.1	608.4
27.5°	1139.1	1063.6	812.4	681.1	550.9	487.0	519.7	543.7	552.3	612.8	618.9
30°	1213.7	1164.5	817.9	633.3	502.8	471.8	498.6	528.8	552.5	622.5	620.3
32.5°	1338.9	1206.5	830.9	566.1	466.9	466.0	489.8	521.6	550.1	612.0	615.3
35°	1477.4	1330.4	794.7	515.0	458.3	462.7	493.4	506.1	539.6	607.8	610.9
37.5°	1733.6	1395.0	771.7	475.4	452.8	465.5	477.1	496.7	530.4	587.1	607.0
40°	1884.0	1528.3	686.6	452.5	441.1	463.3	469.1	485.7	503.9	562.2	574.9
42.5°	2081.9	1570.3	613.9	427.1	435.3	454.1	471.6	475.7	487.9	523.0	546.2
45°	2246.9	1601.8	536.8	406.6	415.7	474.3	475.4	473.5	471.3	484.3	503.3
47.5°	2417.8	1686.4	465.8	383.9	408.3	490.9	477.4	459.7	450.5	452.2	469.9
50°	2606.3	1747.7	415.4	365.4	409.9	490.9	486.8	445.6	427.3	422.6	441.1
52.5°	2772.1	1754.9	377.3	350.5	403.0	474.0	493.1	436.7	406.0	394.7	412.1
55°	2862.5	1664.0	349.7	336.9	385.3	458.8	489.8	431.8	380.3	371.8	387.2
57.5°	2860.6	1513.1	326.2	318.1	365.1	437.6	471.3	404.7	364.6	359.6	374.8
60°	2757.5	1336.2	308.2	302.7	344.4	406.6	438.1	387.0	349.4	346.9	363.5
62.5°	2523.6	1153.5	290.8	286.4	325.1	384.8	422.4	367.3	333.6	333.4	349.1
65°	2066.7	926.0	274.5	273.4	307.1	363.2	407.4	350.8	317.3	322.8	338.9
67.5°	1424.1	650.7	257.1	260.4	290.5	342.5	396.1	339.7	300.2	311.5	325.9
70°	781.4	402.5	237.7	244.3	269.5	318.4	378.4	321.7	277.8	295.2	305.2
72.5°	397.5	268.4	213.7	224.2	243.8	283.0	345.2	295.8	253.7	260.4	265.6
75°	267.0	202.1	186.9	198.5	212.6	249.3	306.3	271.4	230.8	230.0	235.8
77.5°	201.8	157.8	158.7	171.9	181.0	219.2	275.3	251.0	211.5	209.5	218.1
80°	147.6	119.7	127.7	141.5	149.8	196.8	255.1	228.3	185.2	177.5	184.6
82.5°	97.8	84.9	94.5	108.4	115.0	164.5	231.6	193.8	150.9	131.3	132.4
85°	46.2	44.5	56.4	63.0	71.6	102.0	173.3	134.1	96.2	79.6	83.2
87.5°	10.5	14.1	18.5	18.2	21.3	27.4	53.9	37.6	27.9	19.1	12.7
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)