

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: P368220

Luminaire Tested: **MSA-SA4A-730-U-T2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368220
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-SA4A-730-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14082 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

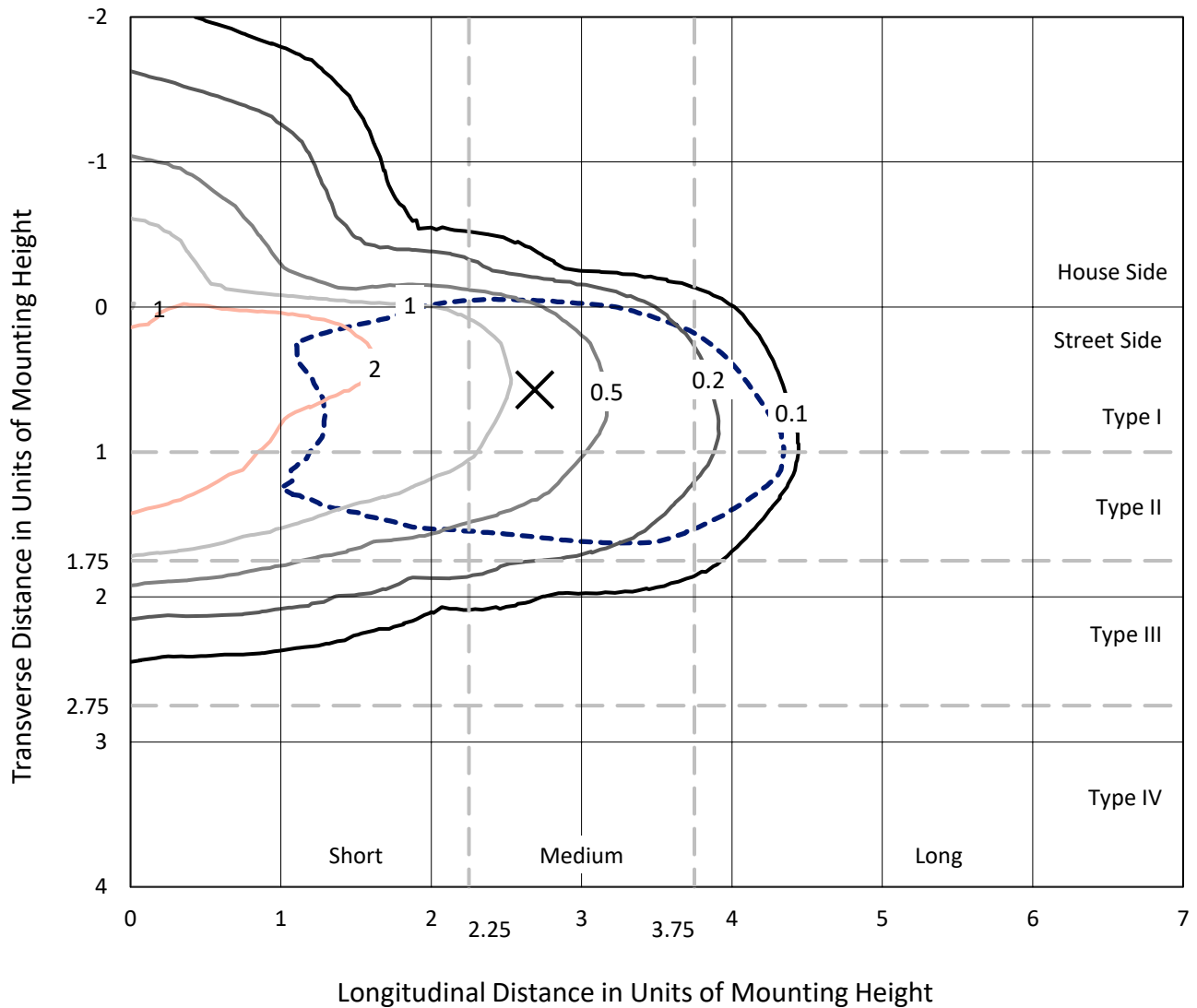
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368220
 CATALOG NUMBER: MSA-SA4A-730-U-T2

Iso-Footcandle Lines of Horizontal Illumination

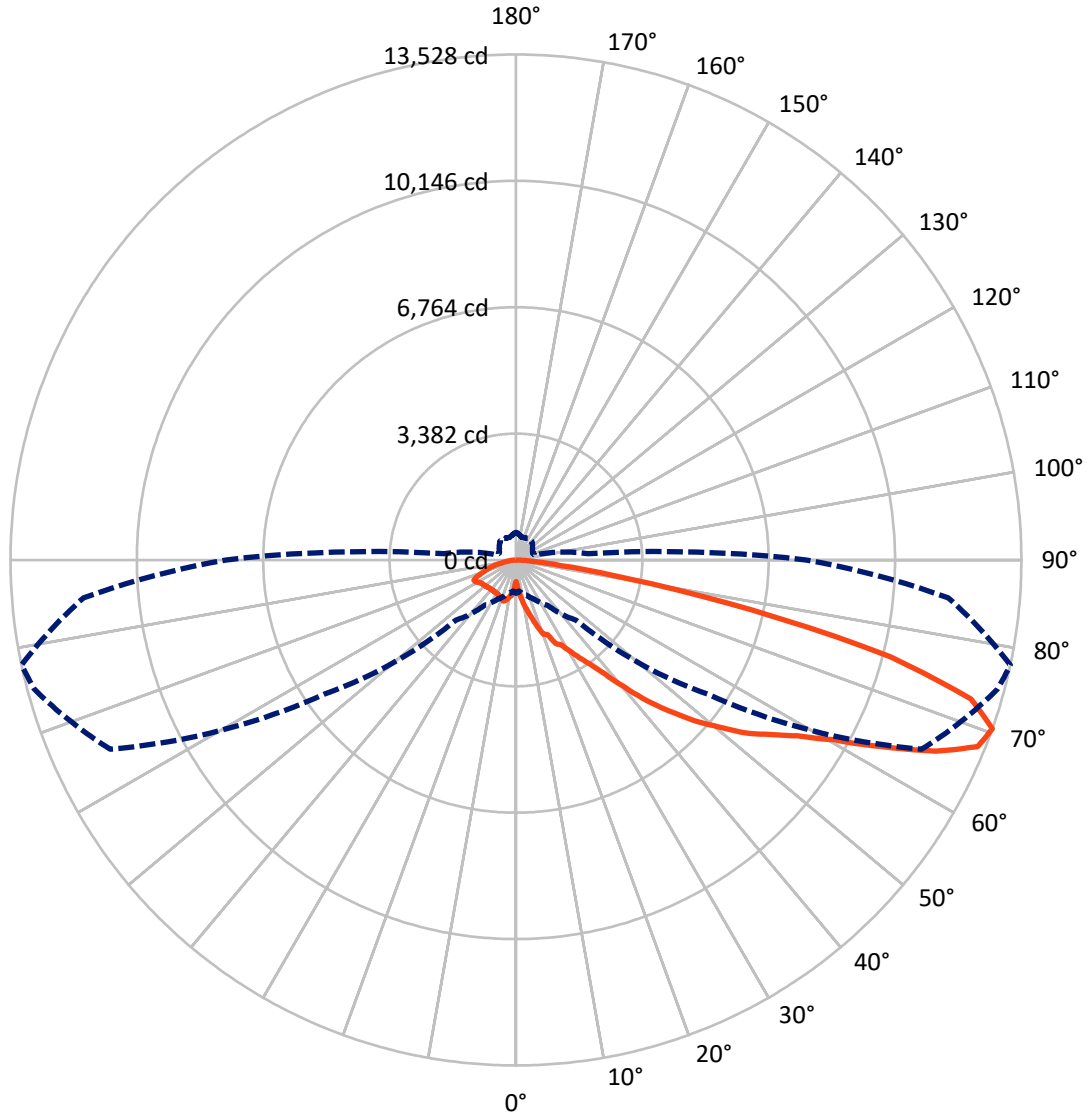
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type II - Medium - N/A

REPORT NUMBER: P368220
CATALOG NUMBER: MSA-SA4A-730-U-T2

Luminous Intensity Polar Plot



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

REPORT NUMBER: P368220

CATALOG NUMBER: MSA-SA4A-730-U-T2

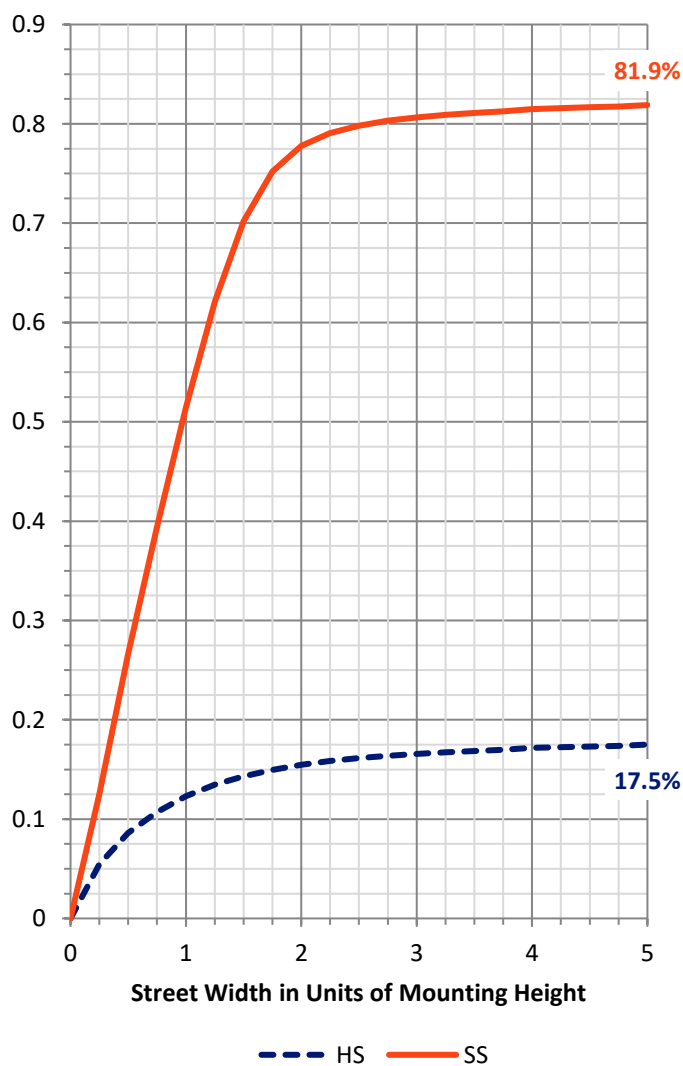
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2513.4	0.0	2513.4
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	11568.6	0.0	11568.6
	% Fixture	82.2	0.0	82.2
Total	Lumens	14082.0	0.0	14082.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.7	0.6
10°-20°	390.9	2.8
20°-30°	752.5	5.3
30°-40°	1267.4	9.0
40°-50°	2193.0	15.6
50°-60°	3311.1	23.5
60°-70°	3667.5	26.0
70°-80°	2114.4	15.0
80°-90°	296.5	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°	14082.0	100.0
0°-180°	14082.0	100.0

Coefficient of Utilization

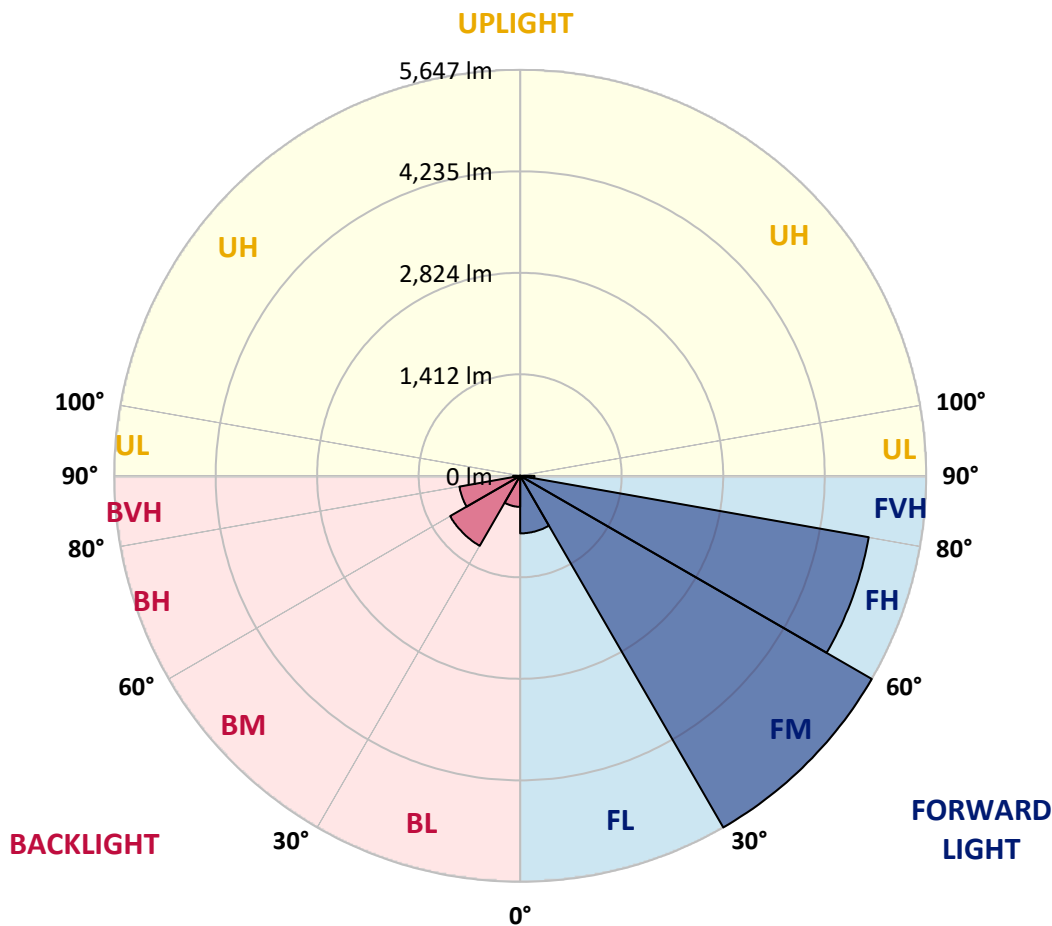


REPORT NUMBER: P368220
 CATALOG NUMBER: MSA-SA4A-730-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	800.5	5.7			
FM (30°-60°)	5647.3	40.1			
FH (60°-80°)	4922.9	35.0			G2/5000
FVH (80°-90°)	197.8	1.4			G2/225
BL (0°-30°)	431.6	3.1	B1/500		
BM (30°-60°)	1124.2	8.0	B2/2500		
BH (60°-80°)	859.0	6.1	B2/1000		G2/1000
BVH (80°-90°)	98.7	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





REPORT NUMBER: P368220

CATALOG NUMBER: MSA-SA4A-730-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1
2.5°	739.1	712.7	672.8	689.2	709.1	711.5	705.0	668.6	656.3	683.9	692.1
5°	1035.5	990.9	963.9	955.1	925.2	863.0	907.6	884.7	889.4	875.9	902.3
7.5°	1285.0	1255.1	1215.2	1204.0	1135.3	1086.6	1117.1	1107.2	1059.0	1040.2	1070.2
10°	1411.8	1379.0	1380.7	1356.7	1338.5	1343.2	1327.9	1283.9	1248.1	1222.8	1150.6
12.5°	1488.2	1496.4	1540.4	1528.1	1596.8	1653.1	1610.3	1545.1	1431.8	1408.9	1337.3
15°	1669.6	1700.1	1659.0	1677.8	1707.1	1815.1	1797.5	1783.4	1663.7	1619.1	1487.0
17.5°	1856.2	1862.1	1799.9	1789.9	1860.3	1914.9	1983.6	1904.4	1919.0	1887.9	1674.3
20°	1896.2	1936.7	1847.4	1785.8	1930.8	2038.8	2123.9	2040.0	2117.5	2125.7	1828.6
22.5°	2042.3	1993.6	1876.2	1815.7	1942.5	2075.2	2213.7	2260.7	2236.1	2166.8	1977.8
25°	2143.9	2118.1	1998.3	1931.4	1979.5	2101.6	2344.7	2467.3	2489.1	2479.7	2119.8
27.5°	2332.3	2345.2	2098.7	2117.5	2050.5	2061.7	2423.3	2741.5	2605.9	2568.3	2295.9
30°	2630.0	2572.4	2295.9	2311.2	2200.2	2181.5	2589.5	2978.1	2856.6	2811.4	2440.9
32.5°	2940.5	2945.8	2610.0	2479.7	2420.4	2401.6	2556.6	3101.9	3173.6	3114.9	2659.9
35°	3378.4	3347.9	2950.5	2779.1	2564.8	2531.9	2790.8	3461.2	3592.7	3428.3	2920.0
37.5°	4045.3	3953.2	3490.6	3094.3	2935.8	2898.2	3125.4	3783.5	4079.4	3875.1	3345.0
40°	4580.7	4393.4	3973.1	3490.6	3222.3	3268.7	3363.2	4174.5	4584.2	4469.2	3738.3
42.5°	5007.5	4841.4	4314.8	3975.5	3610.9	3553.4	3656.7	4658.8	5271.1	5158.4	4229.1
45°	5416.7	5078.5	4698.7	4393.4	4043.0	4112.8	4097.6	5153.1	6113.5	5766.5	4662.9
47.5°	5820.5	5503.0	5105.5	4695.2	4342.4	4777.4	4614.8	5520.6	6681.7	6424.6	5119.6
50°	6339.5	5990.2	5537.6	5124.9	4913.6	5231.7	4958.8	5831.7	7318.1	7016.4	5550.5
52.5°	6684.1	6344.2	5947.3	5652.7	5633.3	5510.6	5440.7	6225.6	7875.8	7692.6	6007.2
55°	6643.6	6316.0	6136.4	6168.7	6408.2	5994.3	5937.4	6808.5	8457.6	8245.6	6500.3
57.5°	6135.8	5778.3	5816.4	6007.8	6651.2	6843.8	6746.9	7431.4	8976.5	8880.2	7110.3
60°	4779.7	4596.0	4906.5	5256.4	6326.0	7092.7	7773.6	8191.0	9615.2	9769.0	8068.3
62.5°	3104.9	2859.5	3350.3	3944.4	5355.6	6928.3	8819.2	9631.6	10661.3	11010.6	9524.2
65°	1608.5	1569.2	1912.6	2458.5	3728.3	5907.4	9187.8	11142.7	11932.9	12339.7	10914.9
67.5°	1169.4	1096.6	1255.7	1576.8	2276.0	4028.3	8489.3	12298.6	12953.7	13326.5	11723.3
70°	890.5	836.5	958.1	1157.1	1486.4	2275.4	6266.7	11983.3	13347.6	13528.4	11615.9
72.5°	666.9	620.5	726.8	912.3	1145.3	1280.9	3704.3	9853.0	12675.5	12737.1	10425.3
75°	532.4	496.6	542.4	720.3	933.4	871.8	1967.8	7138.5	10298.5	10351.4	7963.3
77.5°	436.8	406.2	425.0	540.1	726.2	655.7	976.3	4540.8	6538.5	6457.5	4480.3
80°	356.3	329.9	338.7	390.4	553.0	489.6	548.3	2368.7	3119.0	2993.3	1863.3
82.5°	274.1	251.8	269.5	287.1	400.4	351.6	319.9	1077.8	1277.4	1189.9	683.3
85°	183.7	163.2	234.2	215.4	261.8	216.0	174.9	429.1	476.1	443.8	240.1
87.5°	50.5	47.6	78.7	107.4	107.4	81.6	64.0	103.9	132.7	116.2	56.4
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: P368220
 CATALOG NUMBER: MSA-SA4A-730-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1
2.5°	695.6	682.7	648.7	645.7	654.0	655.1	649.9	637.5	631.1	666.3	661.0
5°	895.8	850.0	822.4	797.2	762.0	736.7	743.2	760.8	766.7	793.1	796.0
7.5°	1051.4	990.9	930.5	849.5	796.0	762.0	787.8	806.6	821.3	858.8	874.1
10°	1118.9	1053.2	967.4	882.3	867.7	873.5	858.8	863.5	886.4	888.2	895.8
12.5°	1244.5	1170.0	1015.6	938.7	934.6	946.9	941.6	963.3	979.2	1022.0	1003.8
15°	1364.9	1269.8	1052.0	973.3	956.3	981.0	1009.7	1046.1	1080.2	1120.7	1100.1
17.5°	1511.1	1367.8	1053.7	957.5	960.4	1013.2	1043.2	1063.1	1164.7	1220.5	1192.3
20°	1603.2	1377.8	1014.4	918.1	960.4	1008.0	1049.6	1071.4	1185.2	1269.2	1288.6
22.5°	1686.6	1381.3	983.9	897.0	924.0	986.8	1049.6	1097.8	1170.6	1251.0	1253.9
25°	1732.4	1378.4	944.6	898.8	923.4	954.5	1010.3	1054.3	1108.3	1220.5	1223.4
27.5°	1849.8	1340.2	905.8	905.8	918.7	919.9	990.9	1016.8	1024.4	1126.5	1144.7
30°	1883.8	1348.4	901.1	904.6	911.1	899.4	930.5	947.5	958.6	1046.7	1049.6
32.5°	1938.4	1282.7	915.2	894.1	885.9	884.1	891.7	907.0	911.7	965.7	975.7
35°	2004.8	1256.3	919.9	891.1	874.7	865.9	888.8	870.0	884.7	948.1	955.1
37.5°	2220.8	1219.9	944.0	891.1	870.0	860.0	848.9	857.7	909.9	971.0	1008.5
40°	2358.7	1231.0	938.1	899.9	854.1	844.8	826.0	858.3	939.3	1047.3	1075.5
42.5°	2600.6	1237.5	945.1	895.8	859.4	823.0	835.4	870.6	955.7	1017.3	1060.8
45°	2850.7	1257.4	940.4	883.5	847.7	864.7	847.7	879.4	919.9	921.7	954.5
47.5°	3096.1	1337.9	930.5	858.3	844.8	889.4	845.9	851.2	854.1	864.7	903.5
50°	3384.3	1423.6	916.4	823.0	848.9	890.5	852.4	826.6	823.6	858.3	901.7
52.5°	3711.9	1520.4	898.2	789.0	824.8	879.4	874.7	828.3	803.1	836.5	880.0
55°	4097.6	1630.8	877.0	754.9	798.4	880.6	887.0	816.0	803.7	840.1	886.4
57.5°	4610.1	1790.5	836.0	705.6	766.1	862.4	855.3	801.9	790.2	828.9	877.0
60°	5484.8	2097.5	777.2	656.9	731.5	817.8	829.5	776.7	764.9	807.8	858.3
62.5°	6655.9	2466.8	706.2	609.4	689.2	769.6	797.2	740.3	739.1	793.7	846.5
65°	7746.1	2676.3	632.8	565.9	645.7	725.0	760.8	706.2	708.6	777.2	830.1
67.5°	8199.3	2429.8	567.1	527.2	595.9	673.9	730.9	679.8	672.2	754.9	803.7
70°	7773.6	1930.2	510.1	486.1	539.5	618.7	689.2	644.6	627.0	702.1	740.3
72.5°	6878.4	1609.1	456.7	437.9	490.2	560.6	632.8	597.0	574.1	631.7	665.7
75°	5376.7	1320.3	395.7	390.4	433.8	507.8	574.1	549.5	520.1	556.5	590.6
77.5°	3061.4	835.4	332.3	335.8	366.9	445.0	503.7	484.3	454.4	469.6	509.0
80°	1225.2	421.5	267.1	269.5	295.9	365.7	417.4	410.3	379.2	391.6	418.6
82.5°	457.9	231.3	197.2	198.4	224.8	289.4	356.3	352.8	323.5	314.7	329.9
85°	182.0	114.5	120.9	126.2	151.5	208.4	285.9	253.6	219.0	192.0	201.4
87.5°	43.4	36.4	42.3	44.6	49.3	65.2	104.5	83.9	86.3	69.3	51.7
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)