

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: P368202

Luminaire Tested: **MSA-SA4A-727-U-T4FT**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368202
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-SA4A-727-U-T4FT
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) 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: 12996 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

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

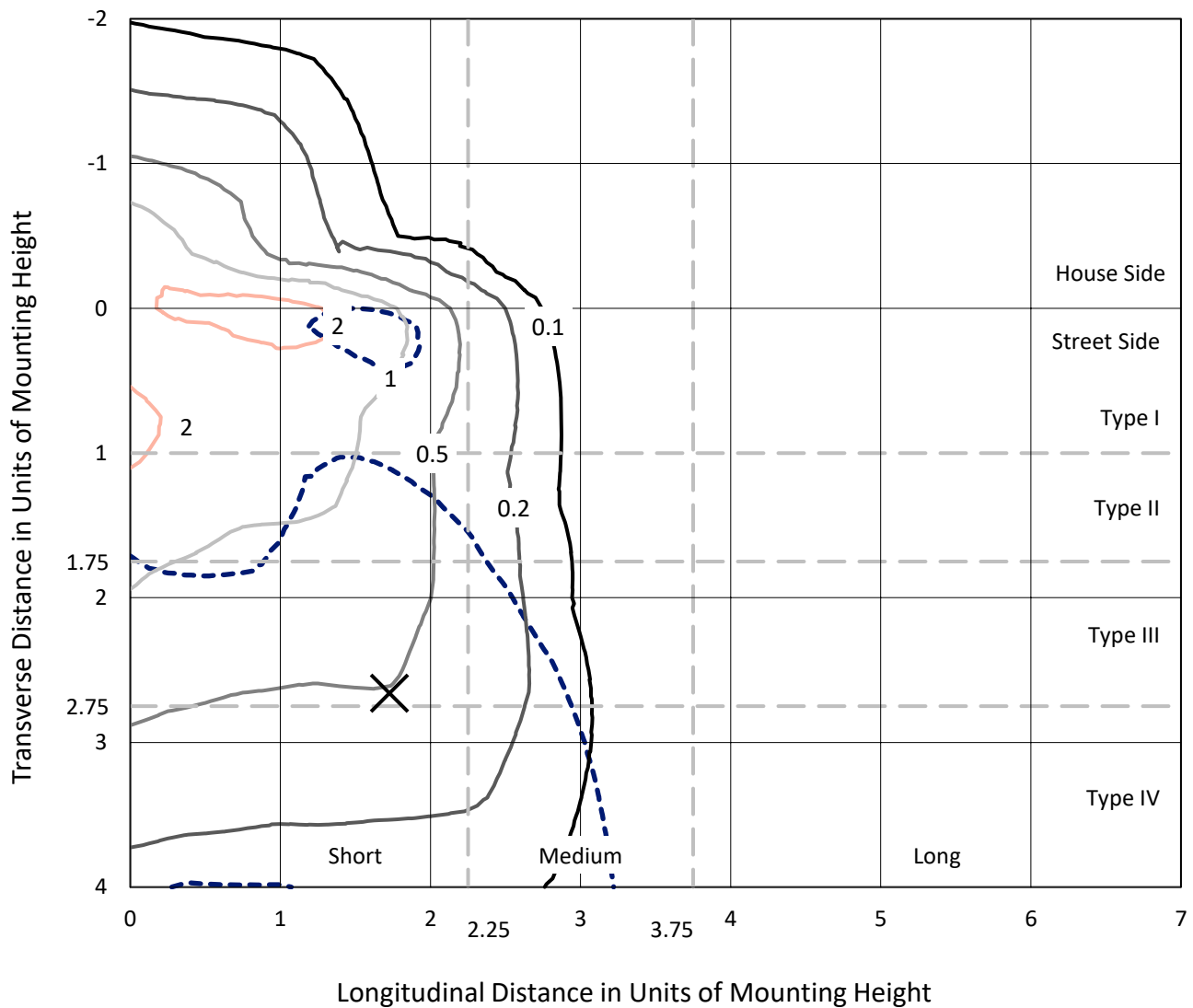


REPORT NUMBER: P368202

CATALOG NUMBER: MSA-SA4A-727-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

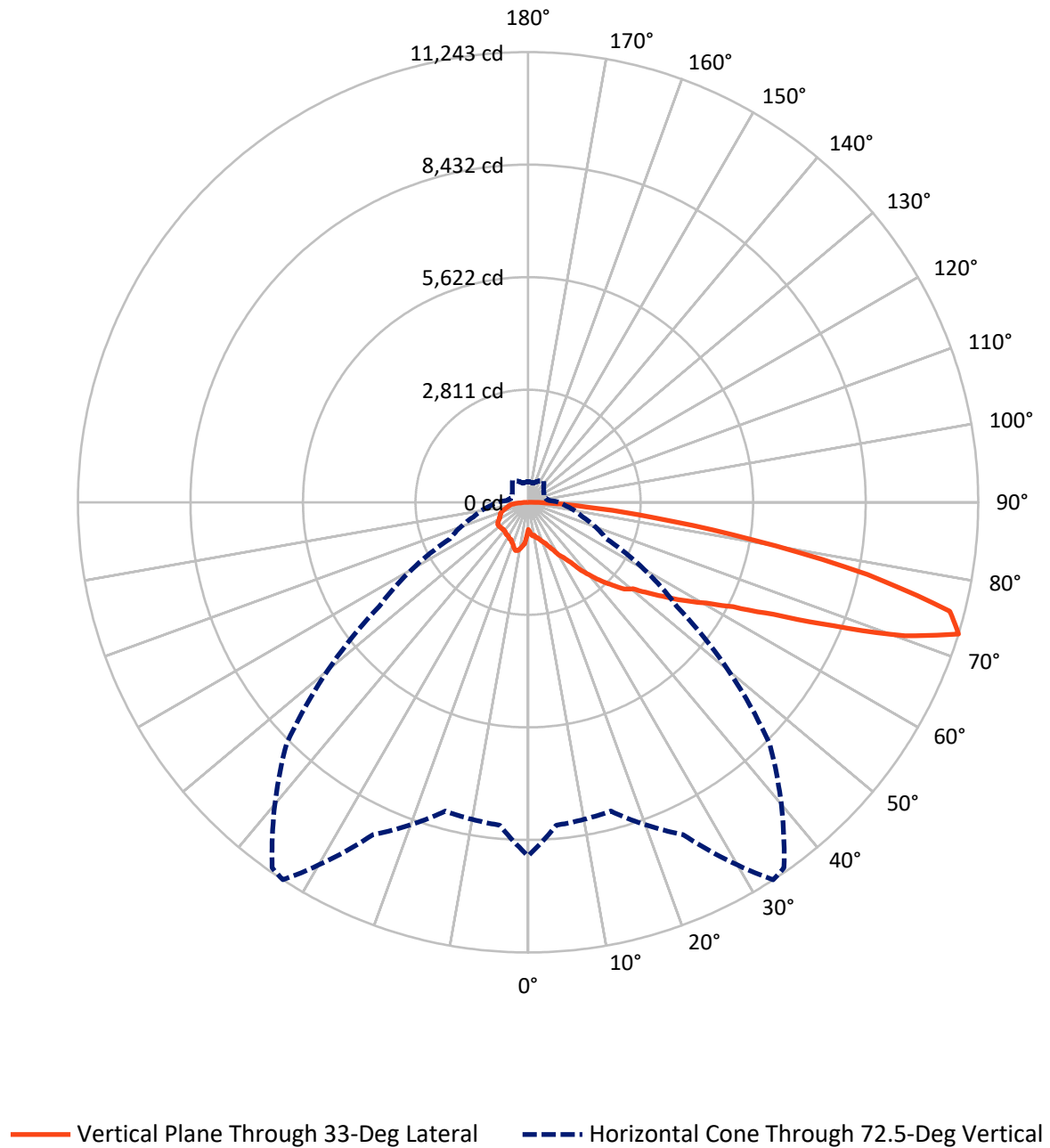
× Max cd
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
Type IV - Short - N/A

REPORT NUMBER: P368202
CATALOG NUMBER: MSA-SA4A-727-U-T4FT

Luminous Intensity Polar Plot



REPORT NUMBER: P368202

CATALOG NUMBER: MSA-SA4A-727-U-T4FT

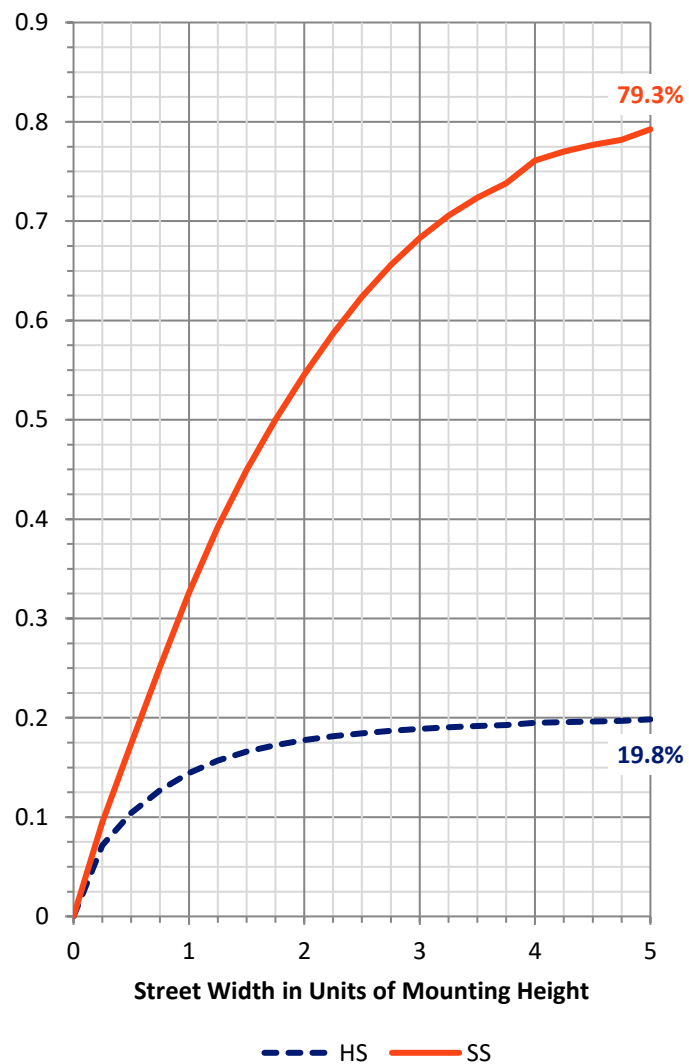
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2629.1	0.0	2629.1
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	10366.9	0.0	10366.9
	% Fixture	79.8	0.0	79.8
Total	Lumens	12996.0	0.0	12996.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.7	0.7
10°-20°	346.3	2.7
20°-30°	631.4	4.9
30°-40°	1068.2	8.2
40°-50°	1777.1	13.7
50°-60°	2608.1	20.1
60°-70°	3336.4	25.7
70°-80°	2714.4	20.9
80°-90°	420.4	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°	12996.0	100.0
0°-180°	12996.0	100.0

Coefficient of Utilization



REPORT NUMBER: P368202

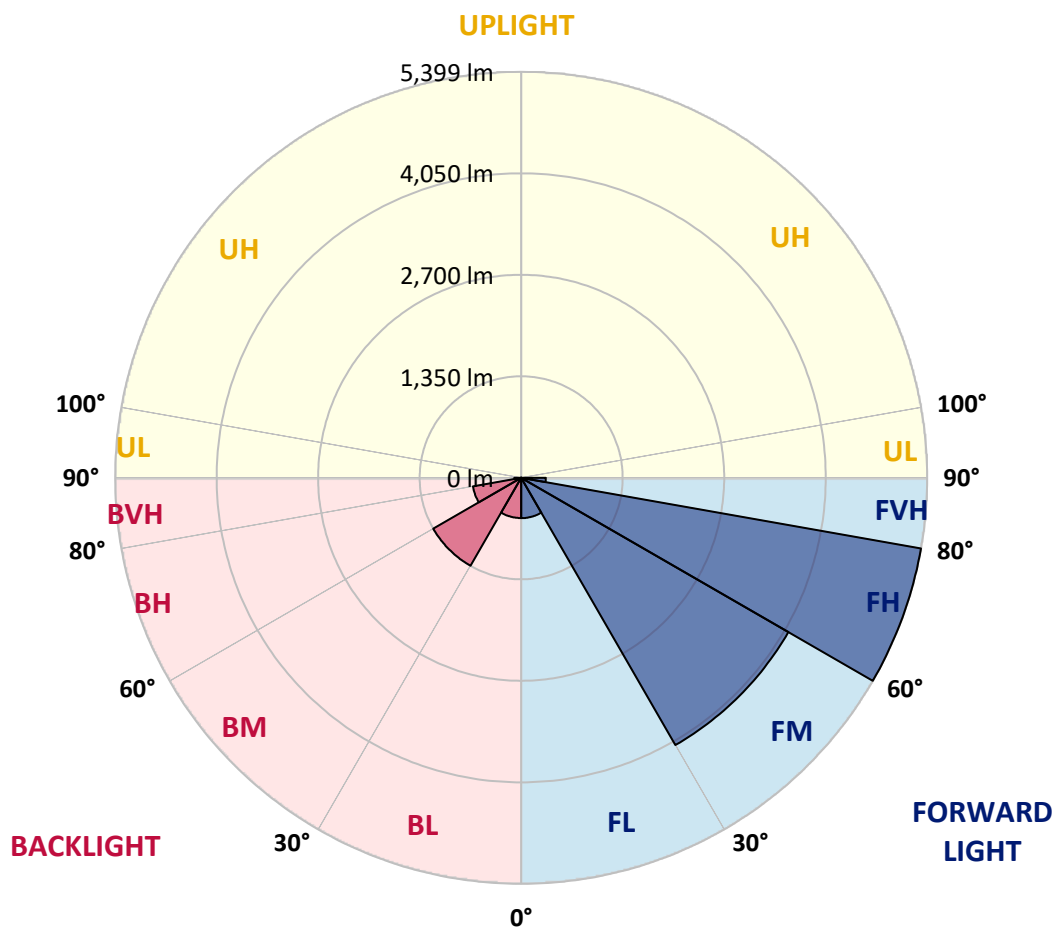
CATALOG NUMBER: MSA-SA4A-727-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	536.3	4.1			
FM	(30°-60°)	4103.1	31.6			
FH	(60°-80°)	5399.3	41.5			G3/7500
FVH	(80°-90°)	328.1	2.5			G3/500
BL	(0°-30°)	535.1	4.1	B2/1000		
BM	(30°-60°)	1350.3	10.4	B2/2500		
BH	(60°-80°)	651.4	5.0	B2/1000		G2/1000
BVH	(80°-90°)	92.3	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-G3

Type IV Short



REPORT NUMBER: P368202

CATALOG NUMBER: MSA-SA4A-727-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	681.5	681.5	681.5	681.5	681.5	681.5	681.5	681.5	681.5	681.5	681.5
2.5°	772.6	748.3	708.4	707.3	729.4	734.3	748.9	749.9	755.3	746.7	808.2
5°	852.4	826.5	810.9	816.2	806.0	818.4	818.4	854.0	901.4	956.4	1034.6
7.5°	871.2	852.4	834.6	848.1	850.2	838.3	849.7	933.2	1019.0	1073.9	1199.0
10°	833.5	814.6	828.1	832.4	831.9	858.8	917.6	984.5	1079.9	1181.2	1248.6
12.5°	826.5	840.0	846.4	854.0	905.2	913.3	1002.2	1071.3	1167.2	1256.2	1431.4
15°	930.5	948.3	908.4	905.7	922.5	930.0	1022.2	1091.7	1231.9	1381.2	1538.7
17.5°	1078.8	1085.3	1013.6	976.9	989.3	995.2	1035.7	1123.0	1209.3	1485.3	1681.5
20°	1222.2	1226.5	1091.7	1009.8	1053.5	1059.9	1097.7	1147.8	1215.7	1543.5	1778.0
22.5°	1372.6	1345.1	1197.4	1093.9	1119.2	1120.9	1143.0	1170.5	1267.0	1534.4	1895.6
25°	1537.1	1519.8	1333.8	1234.6	1233.5	1211.4	1212.5	1251.9	1321.4	1632.5	1972.7
27.5°	1755.4	1757.6	1487.5	1434.1	1350.5	1336.0	1263.2	1336.5	1415.8	1633.6	2139.3
30°	2038.4	1986.2	1701.5	1615.2	1532.7	1502.0	1403.4	1465.9	1500.4	1726.8	2320.4
32.5°	2268.7	2253.6	1924.7	1794.2	1659.4	1695.0	1586.1	1531.1	1593.1	1887.5	2594.8
35°	2489.2	2439.6	2160.8	1991.0	1849.2	1827.6	1757.0	1766.2	1803.9	2090.7	2953.4
37.5°	2818.0	2791.1	2495.1	2223.4	2157.1	2069.2	2024.4	2053.0	2023.4	2351.1	3490.9
40°	3185.7	3029.4	2774.4	2532.3	2408.3	2346.3	2361.9	2335.0	2312.3	2643.4	3972.8
42.5°	3537.8	3395.4	2959.8	2850.9	2689.2	2715.1	2629.3	2648.2	2712.4	3057.9	4418.7
45°	3921.1	3613.2	3156.6	3060.6	2944.7	2977.6	3046.1	3025.6	3130.7	3546.9	4838.7
47.5°	4112.5	3819.7	3398.1	3241.8	3240.2	3171.7	3588.4	3633.7	3469.3	3909.2	5265.1
50°	4296.9	4009.0	3577.7	3472.0	3395.4	3542.1	4108.7	4004.7	3775.5	4324.9	5734.2
52.5°	4553.5	4225.2	3783.6	3670.9	3765.8	3901.7	4523.8	4503.3	4075.8	4752.4	6141.8
55°	4749.2	4417.6	4093.6	3989.0	4170.2	4303.3	4946.5	4823.1	4333.0	5066.2	6400.0
57.5°	5092.1	4751.9	4551.3	4319.0	4644.6	4642.4	5354.1	5258.7	4607.9	5323.9	6504.1
60°	5637.1	5237.6	5027.9	4760.0	5108.8	5233.3	5819.9	5544.9	4802.6	5486.7	6316.4
62.5°	6402.2	5927.7	5587.5	5322.3	5747.7	5973.0	6395.2	5753.6	4815.0	5440.4	5823.1
65°	7348.3	6771.5	6325.6	6045.3	6747.2	7069.1	7090.6	5882.4	4700.7	4961.1	4785.9
67.5°	8271.3	7622.8	7157.5	7210.9	8235.7	8388.3	7844.3	5990.3	4086.6	3983.6	3323.2
70°	8878.9	8175.9	7865.9	8432.0	9989.0	9832.6	8455.2	5706.1	3218.1	2582.4	1871.3
72.5°	8833.1	8097.2	7985.6	9157.7	11243.0	11145.4	8529.6	4537.9	2155.4	1412.0	933.2
75°	7196.3	6624.3	6877.7	8669.2	10881.8	10876.9	7405.5	2808.9	1105.8	725.1	589.8
77.5°	3978.8	3756.7	4501.2	6563.9	8664.3	8708.6	5003.7	1274.0	596.3	513.8	444.2
80°	1393.6	1373.2	1950.6	3542.1	5699.7	5710.5	2326.9	582.8	433.5	388.7	326.2
82.5°	509.5	505.2	808.7	1645.4	3138.3	3131.3	882.6	362.8	321.3	275.0	215.1
85°	203.3	198.9	369.8	730.5	1441.6	1418.4	342.9	205.9	210.3	163.9	105.7
87.5°	56.1	58.2	125.6	228.6	441.5	409.2	86.3	69.5	85.2	66.9	33.4
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: P368202

CATALOG NUMBER: MSA-SA4A-727-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	681.5	681.5	681.5	681.5	681.5	681.5	681.5	681.5	681.5	681.5	681.5
2.5°	818.9	824.3	771.0	789.8	814.1	827.0	833.5	806.0	815.2	854.0	852.4
5°	1050.8	1029.2	1008.7	1029.7	1015.7	995.8	1028.1	1026.5	1047.5	1068.6	1073.4
7.5°	1223.8	1195.8	1186.1	1138.6	1091.2	1043.2	1084.7	1110.6	1116.0	1168.3	1190.4
10°	1286.4	1275.6	1279.4	1216.8	1210.9	1215.7	1177.5	1135.9	1161.3	1139.7	1155.9
12.5°	1430.8	1457.8	1391.0	1348.4	1344.6	1314.9	1238.4	1211.4	1182.9	1212.5	1197.4
15°	1546.8	1596.9	1525.2	1450.3	1365.6	1319.8	1254.6	1213.6	1194.7	1201.2	1182.9
17.5°	1716.6	1763.5	1581.3	1466.4	1379.1	1311.7	1212.0	1124.6	1171.0	1174.8	1153.7
20°	1829.3	1832.5	1600.1	1426.5	1347.8	1230.8	1133.8	1057.2	1110.6	1165.1	1188.8
22.5°	1939.2	1915.0	1623.3	1394.7	1234.1	1120.9	1073.4	1068.6	1108.5	1154.3	1159.7
25°	2021.7	2025.5	1636.8	1382.9	1167.2	1013.0	1013.0	1048.1	1083.1	1192.0	1186.6
27.5°	2221.8	2074.6	1584.5	1328.4	1074.5	949.9	1013.6	1060.5	1077.2	1195.3	1207.1
30°	2367.3	2271.4	1595.3	1235.1	980.7	920.3	972.6	1031.4	1077.7	1214.1	1209.8
32.5°	2611.5	2353.3	1620.6	1104.1	910.6	909.0	955.3	1017.3	1072.9	1193.6	1200.1
35°	2881.6	2594.8	1550.0	1004.4	893.9	902.5	962.3	987.1	1052.4	1185.5	1191.5
37.5°	3381.4	2721.0	1505.2	927.3	883.1	907.9	930.5	968.8	1034.6	1145.1	1183.9
40°	3674.7	2980.8	1339.2	882.6	860.5	903.6	914.9	947.3	982.8	1096.6	1121.4
42.5°	4060.7	3062.8	1197.4	833.0	849.1	885.8	919.8	927.8	951.6	1020.0	1065.3
45°	4382.6	3124.3	1047.0	793.1	810.9	925.1	927.3	923.5	919.2	944.6	981.8
47.5°	4715.8	3289.2	908.4	748.9	796.3	957.5	931.1	896.6	878.8	882.0	916.5
50°	5083.5	3408.9	810.3	712.7	799.5	957.5	949.4	869.1	833.5	824.3	860.5
52.5°	5406.9	3422.9	735.9	683.6	786.1	924.6	961.8	851.8	792.0	769.9	803.8
55°	5583.2	3245.6	682.0	657.2	751.5	895.0	955.3	842.1	741.8	725.1	755.3
57.5°	5579.5	2951.2	636.2	620.5	712.2	853.4	919.2	789.3	711.1	701.4	731.1
60°	5378.4	2606.2	601.1	590.3	671.8	793.1	854.5	754.8	681.5	676.6	709.0
62.5°	4922.3	2249.8	567.2	558.5	634.0	750.5	823.8	716.5	650.7	650.2	680.9
65°	4031.1	1806.1	535.4	533.2	599.0	708.4	794.7	684.2	618.9	629.7	661.0
67.5°	2777.6	1269.1	501.4	507.9	566.6	668.0	772.6	662.6	585.5	607.6	635.6
70°	1524.1	785.0	463.7	476.6	525.7	621.1	738.1	627.5	541.8	575.8	595.2
72.5°	775.3	523.5	416.7	437.2	475.5	552.1	673.4	576.9	494.9	507.9	518.1
75°	520.8	394.1	364.5	387.1	414.6	486.3	597.4	529.4	450.2	448.6	459.9
77.5°	393.6	307.8	309.5	335.3	353.1	427.5	537.0	489.5	412.4	408.7	425.4
80°	287.9	233.4	249.1	276.0	292.2	383.9	497.6	445.3	361.2	346.1	360.1
82.5°	190.9	165.5	184.4	211.3	224.3	320.8	451.8	377.9	294.4	256.1	258.2
85°	90.0	86.8	110.0	122.9	139.6	198.9	338.0	261.5	187.6	155.3	162.3
87.5°	20.5	27.5	36.1	35.6	41.5	53.4	105.1	73.3	54.5	37.2	24.8
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)