

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: McGRAW-EDISON

Report Number: 768839_400MP

Luminaire Tested: **GSM-AM-400-MP-MT-AS-FG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 768839_400MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GSM-AM-400-MP-MT-AS-FG
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-SQUARE DISTRIBUTION
Light Source: 400 WATT PULSE-START CLEAR ED-28 VBU BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 44000 (1 lamp)
Luminaire Lumens: 31089.1 lumens
Efficiency: 70.7%
Efficacy: 68.8 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

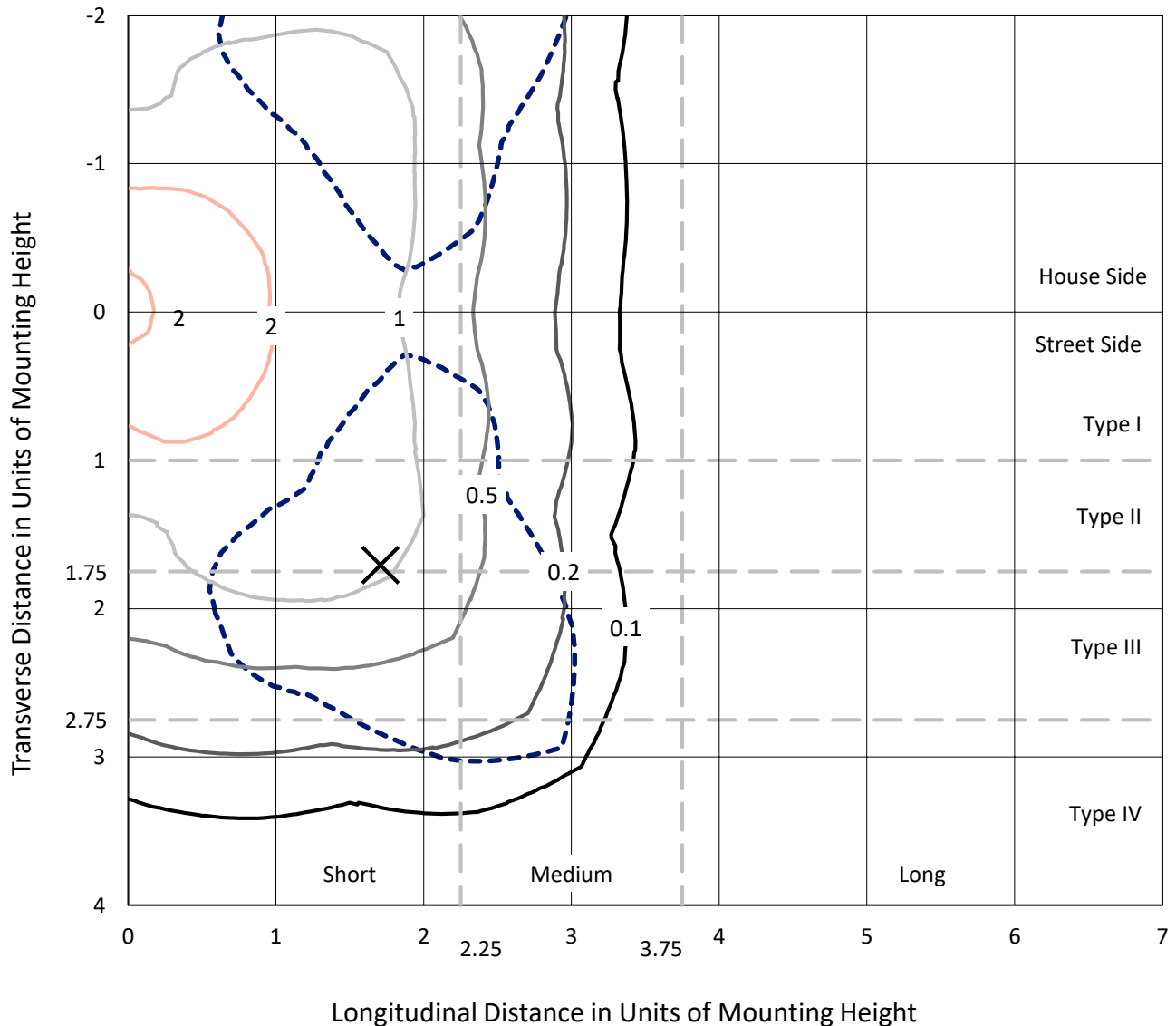
Input Watts (W): 452
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

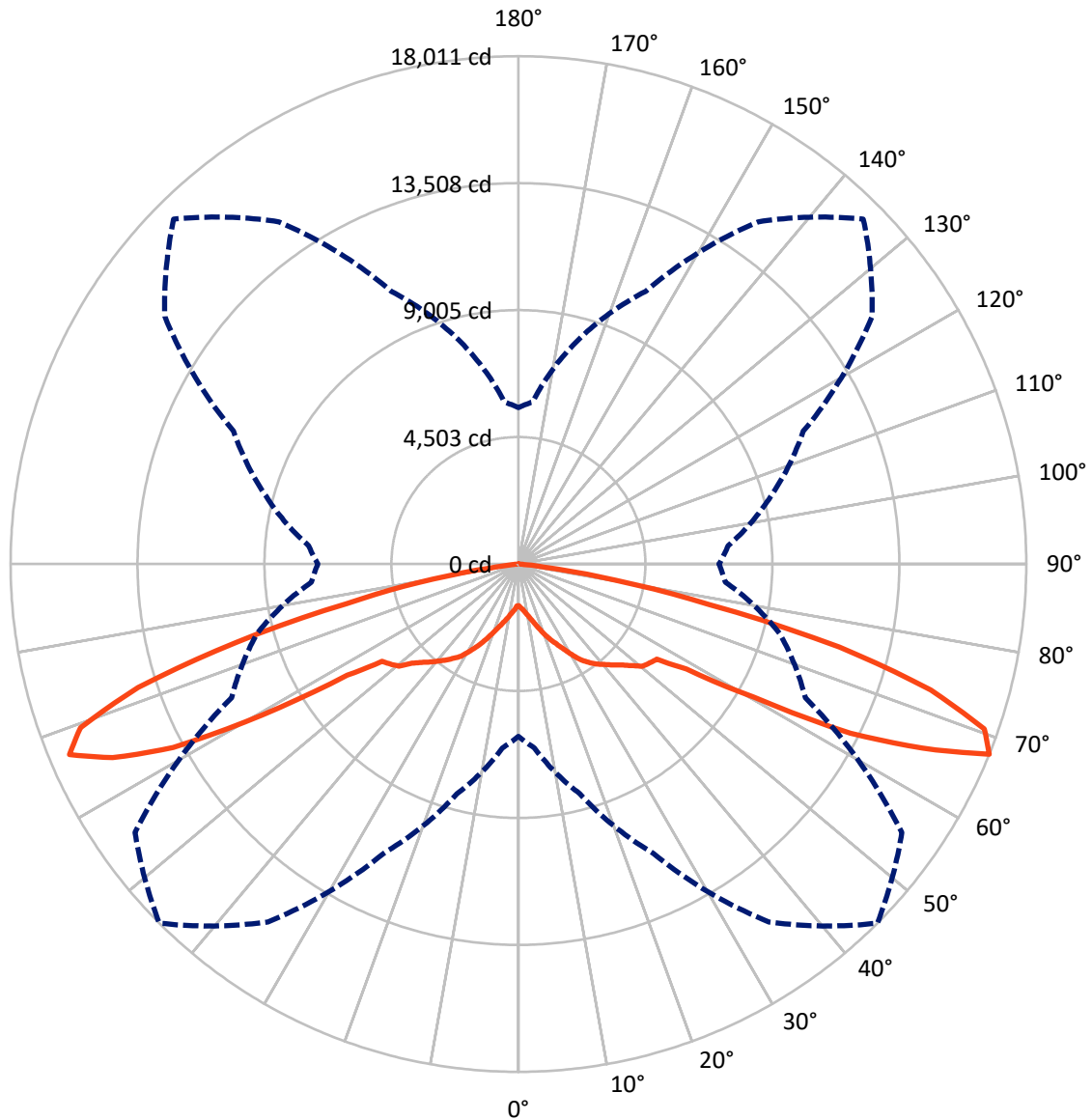
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 2.7 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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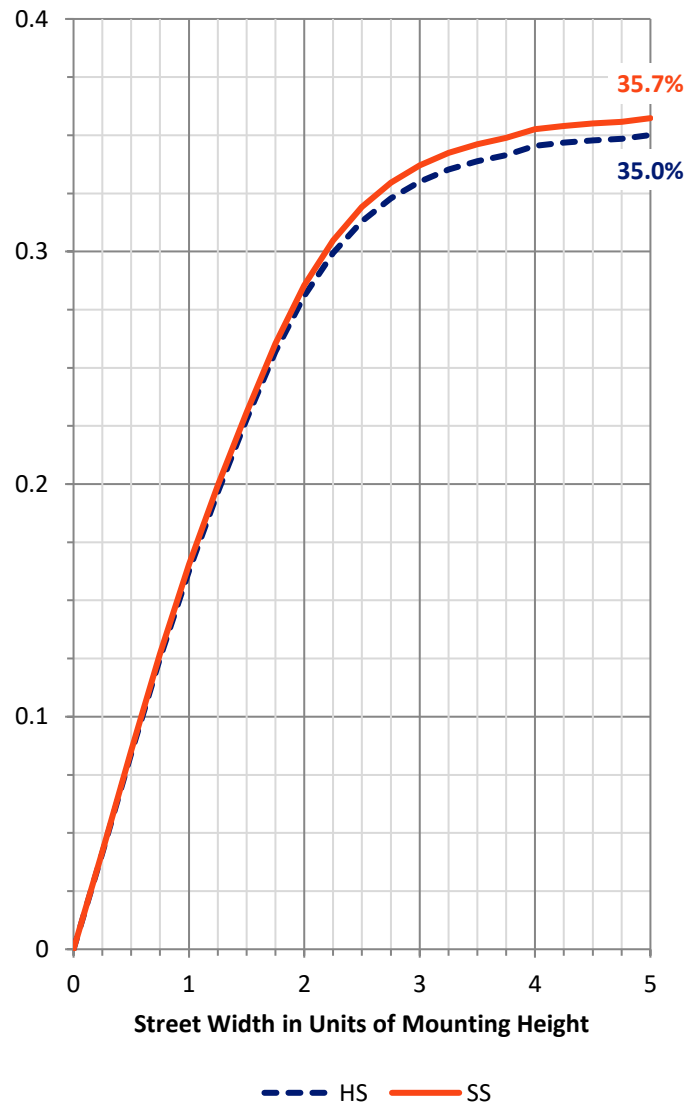
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15342.2	0.0	15342.2
	% Lamp	34.9	0.0	34.9
Street Side	Lumens	15746.9	0.0	15746.9
	% Lamp	35.8	0.0	35.8
Total	Lumens	31089.1	0.0	31089.1
	% Lamp	70.7	0.0	70.7

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	161.1	0.5	0.4
10°-20°	621.0	2.0	1.4
20°-30°	1394.0	4.5	3.2
30°-40°	2498.3	8.0	5.7
40°-50°	3759.9	12.1	8.5
50°-60°	5665.0	18.2	12.9
60°-70°	10665.2	34.3	24.2
70°-80°	5887.0	18.9	13.4
80°-90°	437.6	1.4	1.0
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	31089.1	100.0	70.7
0°-180°	31089.1	100.0	70.7

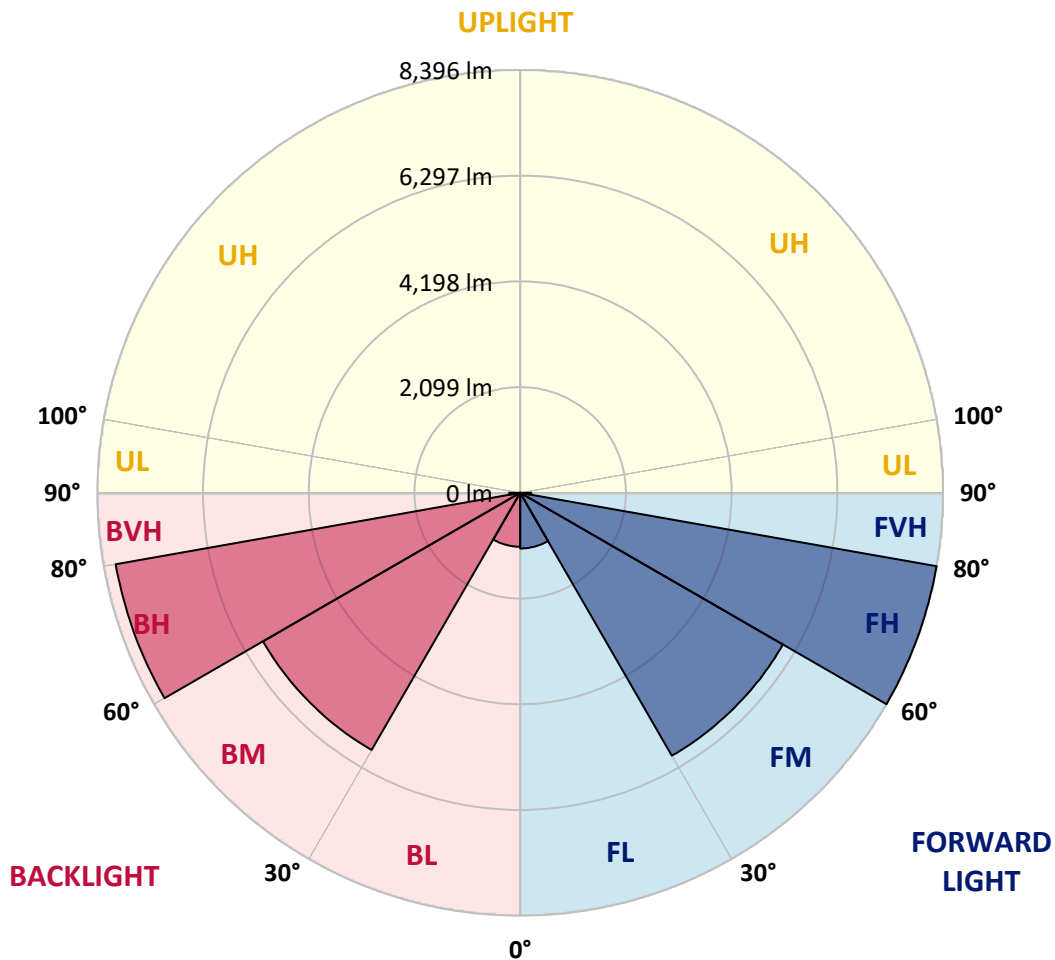


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1105.5	2.5			
FM (30°-60°)	6026.0	13.7			
FH (60°-80°)	8396.4	19.1			G4/12000
FVH (80°-90°)	219.0	0.5			G2/225
BL (0°-30°)	1070.6	2.4	B3/2500		
BM (30°-60°)	5897.2	13.4	B4/8500		
BH (60°-80°)	8155.7	18.5	B5		G4/12000
BVH (80°-90°)	218.7	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	12910.9	29.3			

BUG Rating: B5-U0-G4
 Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1475.2	1475.2	1475.2	1475.2	1475.2	1475.2	1475.2	1475.2	1475.2	1475.2	1475.2
2.5°	1533.9	1546.1	1533.9	1546.1	1540.0	1551.0	1546.1	1551.0	1546.1	1546.1	1540.0
5°	1604.8	1610.9	1617.0	1628.0	1621.9	1621.9	1621.9	1628.0	1640.2	1640.2	1651.2
7.5°	1711.1	1722.1	1711.1	1711.1	1722.1	1734.3	1746.6	1752.7	1757.6	1763.7	1769.8
10°	1805.2	1811.3	1805.2	1817.4	1828.4	1852.9	1863.9	1870.0	1882.2	1882.2	1882.2
12.5°	1934.8	1940.9	1953.1	1976.3	1999.6	2011.8	2024.0	2017.9	2024.0	2017.9	2011.8
15°	2064.3	2070.4	2099.8	2141.3	2176.8	2206.1	2206.1	2206.1	2212.2	2189.0	2189.0
17.5°	2182.9	2212.2	2277.0	2347.9	2395.6	2418.8	2424.9	2431.0	2412.7	2395.6	2383.3
20°	2324.7	2360.1	2454.2	2548.3	2613.1	2666.9	2690.1	2696.2	2666.9	2642.4	2625.3
22.5°	2454.2	2501.9	2619.2	2725.6	2831.9	2908.9	2949.2	2949.2	2908.9	2873.4	2855.1
25°	2571.6	2625.3	2778.1	2932.1	3044.6	3144.8	3215.7	3209.6	3155.8	3109.3	3080.0
27.5°	2725.6	2784.2	2984.7	3168.0	3315.9	3416.1	3498.0	3504.1	3403.9	3356.2	3339.1
30°	2913.8	2984.7	3209.6	3410.0	3598.2	3722.9	3752.2	3727.8	3627.6	3568.9	3527.3
32.5°	3149.7	3215.7	3474.8	3710.7	3929.4	4052.9	4052.9	3999.1	3887.9	3793.8	3746.1
35°	3386.8	3445.4	3746.1	3994.2	4170.2	4282.7	4282.7	4236.2	4105.4	4046.8	3982.0
37.5°	3622.7	3687.4	4023.6	4253.3	4412.2	4501.4	4501.4	4430.6	4371.9	4318.1	4236.2
40°	3787.7	3852.4	4236.2	4466.0	4618.8	4683.6	4719.0	4654.2	4631.0	4566.2	4472.1
42.5°	3894.0	3994.2	4447.7	4701.9	4837.6	4890.1	4931.7	4908.4	4914.6	4796.0	4683.6
45°	3975.9	4117.7	4612.7	4896.2	5025.8	5102.8	5115.0	5115.0	5115.0	4973.2	4854.7
47.5°	4070.0	4205.7	4743.4	5115.0	5267.8	5380.2	5327.7	5386.3	5321.6	5132.1	5020.9
50°	4117.7	4247.2	4796.0	5397.3	5674.8	5699.2	5745.7	5764.0	5545.2	5280.0	5185.9
52.5°	4188.6	4276.6	4748.3	5451.1	5864.2	5828.8	5929.0	5852.0	5599.0	5327.7	5215.2
55°	4518.6	4624.9	5008.7	5639.3	6058.6	5958.3	6336.0	6177.1	5981.6	5522.0	5421.8
57.5°	5096.7	5286.1	6152.7	7179.3	7563.1	7026.6	8093.6	7863.8	7191.6	6382.4	6252.9
60°	6064.7	6288.3	7627.9	9669.0	10731.1	9585.9	11326.3	10159.1	8831.8	8076.4	7916.3
62.5°	6348.2	6901.9	8560.4	11338.6	13509.2	13214.7	14193.7	11616.0	9763.1	8613.0	8371.0
65°	6430.1	6595.1	8483.4	11828.7	14771.8	15744.7	15715.3	11839.7	9840.1	8111.9	7946.9
67.5°	6111.1	6548.7	8435.8	11320.2	15497.8	18010.7	16600.2	11226.1	9610.3	7368.8	7114.6
70°	5179.8	6023.1	7592.4	9515.0	13974.9	17526.7	14736.3	9061.6	7970.1	5828.8	5610.0
72.5°	3952.7	4589.4	5810.4	6961.8	11616.0	15291.2	11939.9	6595.1	6117.2	4353.6	4276.6
75°	2466.4	2908.9	3781.6	4442.8	8660.7	11757.8	8630.1	4170.2	3905.0	2619.2	2566.7
77.5°	1049.9	1144.0	1799.1	2195.1	5280.0	6937.3	5038.0	2053.3	1675.7	1174.6	991.2
80°	672.2	726.0	1227.1	1469.1	2990.8	3504.1	2318.6	1386.0	968.0	684.4	572.0
82.5°	365.4	400.9	601.3	790.8	884.9	897.1	642.9	726.0	465.7	323.9	300.7
85°	94.1	94.1	106.3	129.6	147.9	183.3	158.9	129.6	94.1	83.1	83.1
87.5°	0.0	0.0	6.1	0.0	17.1	12.2	12.2	12.2	0.0	0.0	0.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1475.2	1475.2	1475.2	1475.2	1475.2	1475.2	1475.2	1475.2	1475.2	1475.2
2.5°	1546.1	1533.9	1527.8	1504.6	1492.3	1469.1	1445.9	1433.7	1427.6	1427.6
5°	1646.3	1640.2	1640.2	1621.9	1610.9	1563.2	1563.2	1540.0	1546.1	1546.1
7.5°	1763.7	1763.7	1752.7	1740.4	1717.2	1686.7	1675.7	1669.6	1657.3	1651.2
10°	1893.2	1882.2	1882.2	1852.9	1840.7	1811.3	1799.1	1769.8	1757.6	1757.6
12.5°	2017.9	2011.8	2011.8	2005.7	1993.4	1958.0	1911.6	1893.2	1882.2	1876.1
15°	2176.8	2176.8	2153.6	2147.4	2141.3	2088.8	2047.2	2011.8	1993.4	1982.4
17.5°	2366.2	2347.9	2354.0	2354.0	2324.7	2259.9	2212.2	2147.4	2112.0	2099.8
20°	2613.1	2589.9	2577.7	2566.7	2531.2	2466.4	2383.3	2289.2	2229.3	2218.3
22.5°	2842.9	2819.7	2831.9	2831.9	2767.1	2696.2	2607.0	2483.6	2412.7	2383.3
25°	3061.7	3049.4	3091.0	3114.2	3044.6	2926.0	2808.7	2660.8	2571.6	2548.3
27.5°	3315.9	3315.9	3374.6	3386.8	3303.7	3174.1	3026.2	2861.2	2773.2	2761.0
30°	3510.2	3539.6	3627.6	3627.6	3568.9	3421.0	3226.7	3097.1	2978.6	2973.7
32.5°	3722.9	3798.7	3894.0	3881.8	3858.6	3704.6	3504.1	3368.4	3232.8	3197.3
35°	3952.7	4029.7	4129.9	4082.2	4052.9	3934.3	3769.3	3633.7	3510.2	3491.9
37.5°	4224.0	4271.7	4324.2	4276.6	4259.4	4153.1	3999.1	3887.9	3781.6	3787.7
40°	4477.0	4554.0	4554.0	4501.4	4459.9	4371.9	4241.1	4111.6	3999.1	4011.3
42.5°	4714.1	4789.9	4802.1	4725.1	4672.6	4578.4	4453.8	4288.8	4194.7	4188.6
45°	4908.4	5002.6	5050.2	4919.4	4890.1	4783.8	4683.6	4472.1	4365.8	4318.1
47.5°	5050.2	5215.2	5332.6	5173.7	5156.6	5020.9	4860.8	4612.7	4459.9	4401.2
50°	5221.3	5392.4	5668.7	5563.6	5574.6	5361.9	5150.4	4714.1	4477.0	4412.2
52.5°	5238.4	5486.6	5810.4	5770.1	5764.0	5599.0	5261.7	4714.1	4341.3	4282.7
55°	5421.8	5858.1	6265.1	6052.4	5940.0	5916.8	5539.1	4973.2	4477.0	4389.0
57.5°	6365.3	7233.1	7780.7	7692.7	7238.0	7344.3	6820.0	6052.4	5215.2	5014.8
60°	8034.9	8925.9	10140.8	10896.1	10547.8	10294.8	8771.9	7438.4	6530.3	6382.4
62.5°	8471.2	10088.2	11958.2	13644.9	13863.7	12949.4	10259.3	8358.8	6943.4	6595.1
65°	7976.2	9752.1	11798.1	14813.3	15946.3	14064.1	10541.7	8400.3	6359.2	6171.0
67.5°	7469.0	9262.0	11149.1	15308.3	17296.9	14813.3	10671.2	8241.4	5770.1	5545.2
70°	5958.3	7544.8	9214.3	14099.6	16583.1	13910.1	9568.8	7338.2	5102.8	4954.9
72.5°	4518.6	5651.6	6837.1	11828.7	14187.6	11710.1	7392.0	5757.9	3952.7	3823.1
75°	2719.4	3421.0	4407.3	8594.7	10388.9	8483.4	4536.9	3445.4	2366.2	2289.2
77.5°	1091.4	1510.7	2377.2	5126.0	6271.2	5031.9	2306.3	1439.8	997.3	1108.6
80°	661.2	1014.4	1663.4	2660.8	3592.1	2471.3	1621.9	855.6	649.0	625.8
82.5°	300.7	490.1	891.0	749.2	972.9	719.9	826.2	459.6	365.4	306.8
85°	77.0	100.2	135.7	147.9	200.4	141.8	141.8	100.2	88.0	70.9
87.5°	0.0	0.0	6.1	6.1	12.2	6.1	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)