

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: 768803_320MP

Luminaire Tested: **GSM-AM-320-MP-MT-3V-FG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 768803_320MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GSM-AM-320-MP-MT-3V-FG
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-TYPE 3 DISTRIBUTION
Light Source: 320 WATT PULSE-START CLEAR ED-37 VBU BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 33000 (1 lamp)
Luminaire Lumens: 23967.5 lumens
Efficiency: 72.6%
Efficacy: 68.5 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B4 - U0 - G4

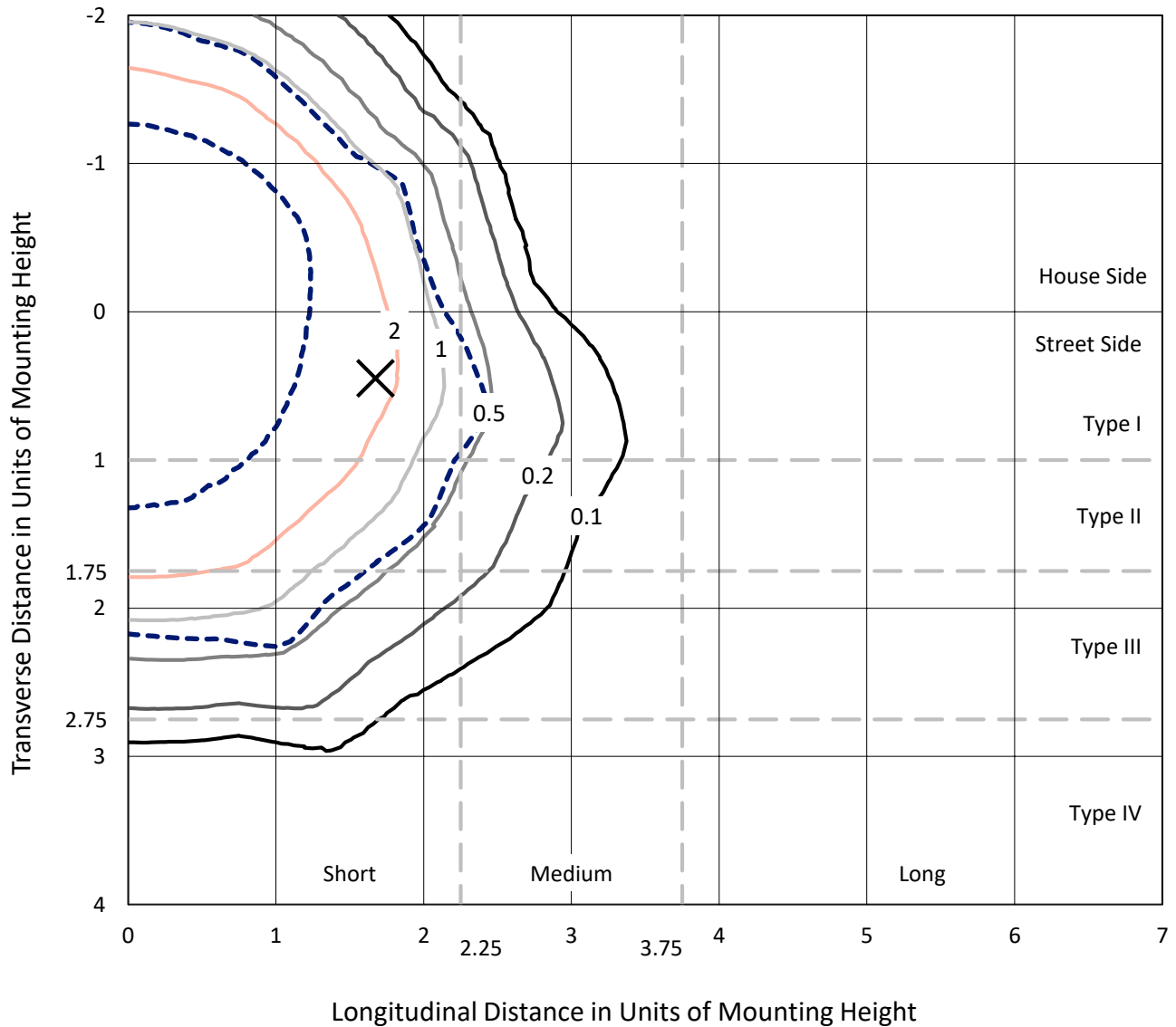
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

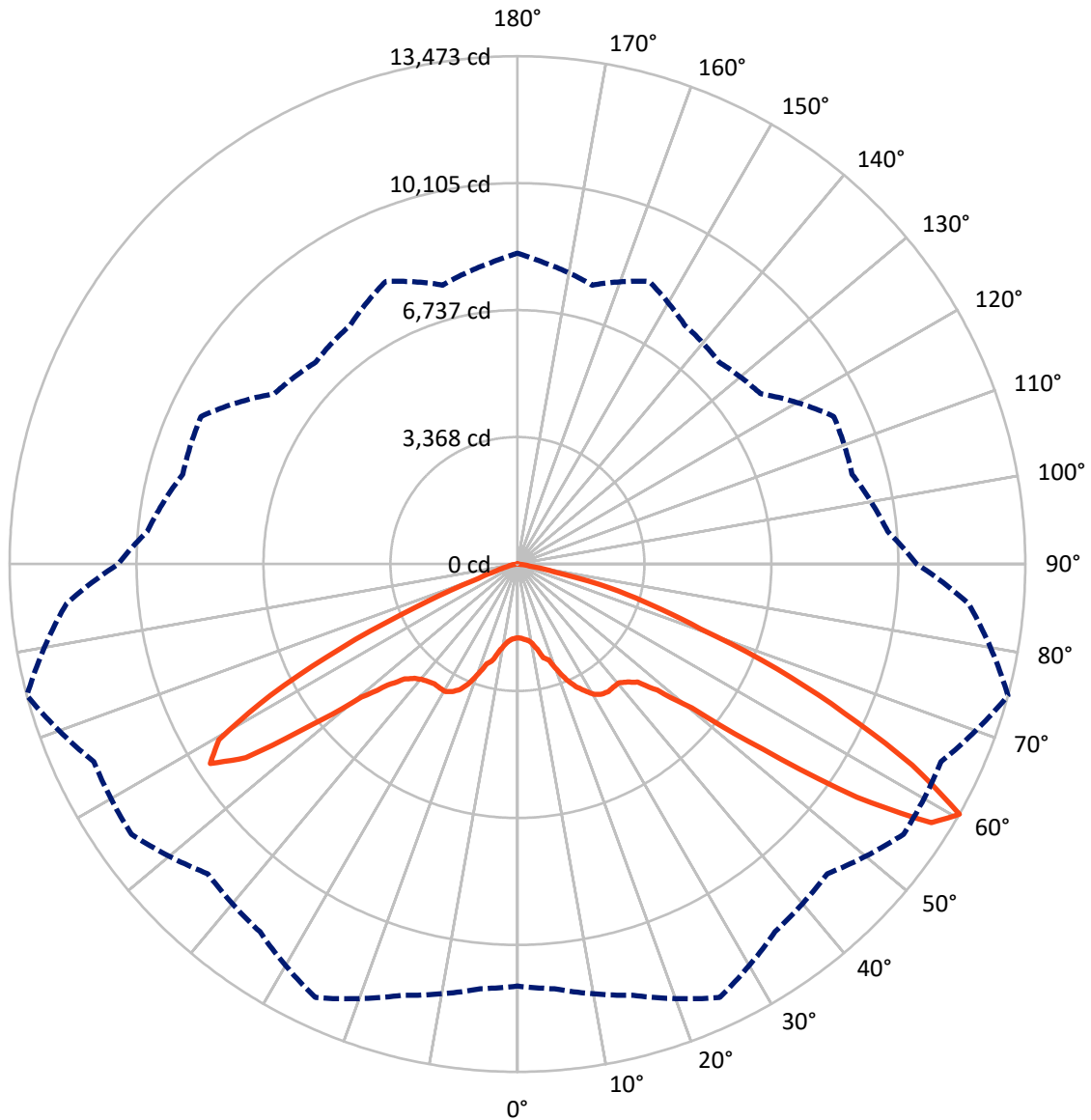
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: 768803_320MP
CATALOG NUMBER: GSM-AM-320-MP-MT-3V-FG

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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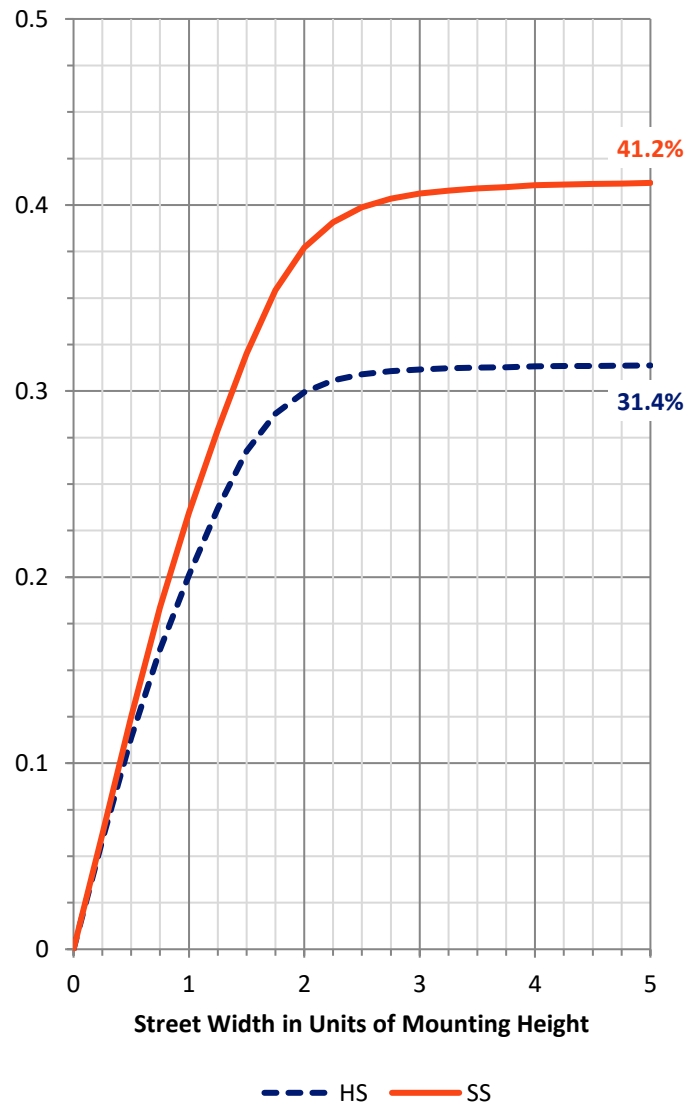
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10375.8	0.0	10375.8
	% Lamp	31.4	0.0	31.4
Street Side	Lumens	13591.7	0.0	13591.7
	% Lamp	41.2	0.0	41.2
Total	Lumens	23967.5	0.0	23967.5
	% Lamp	72.6	0.0	72.6

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	196.9	0.8	0.6
10°-20°	725.1	3.0	2.2
20°-30°	1604.8	6.7	4.9
30°-40°	2477.8	10.3	7.5
40°-50°	3468.4	14.5	10.5
50°-60°	7758.8	32.4	23.5
60°-70°	6477.5	27.0	19.6
70°-80°	1205.1	5.0	3.7
80°-90°	53.0	0.2	0.2
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°	23967.5	100.0	72.6
0°-180°	23967.5	100.0	72.6

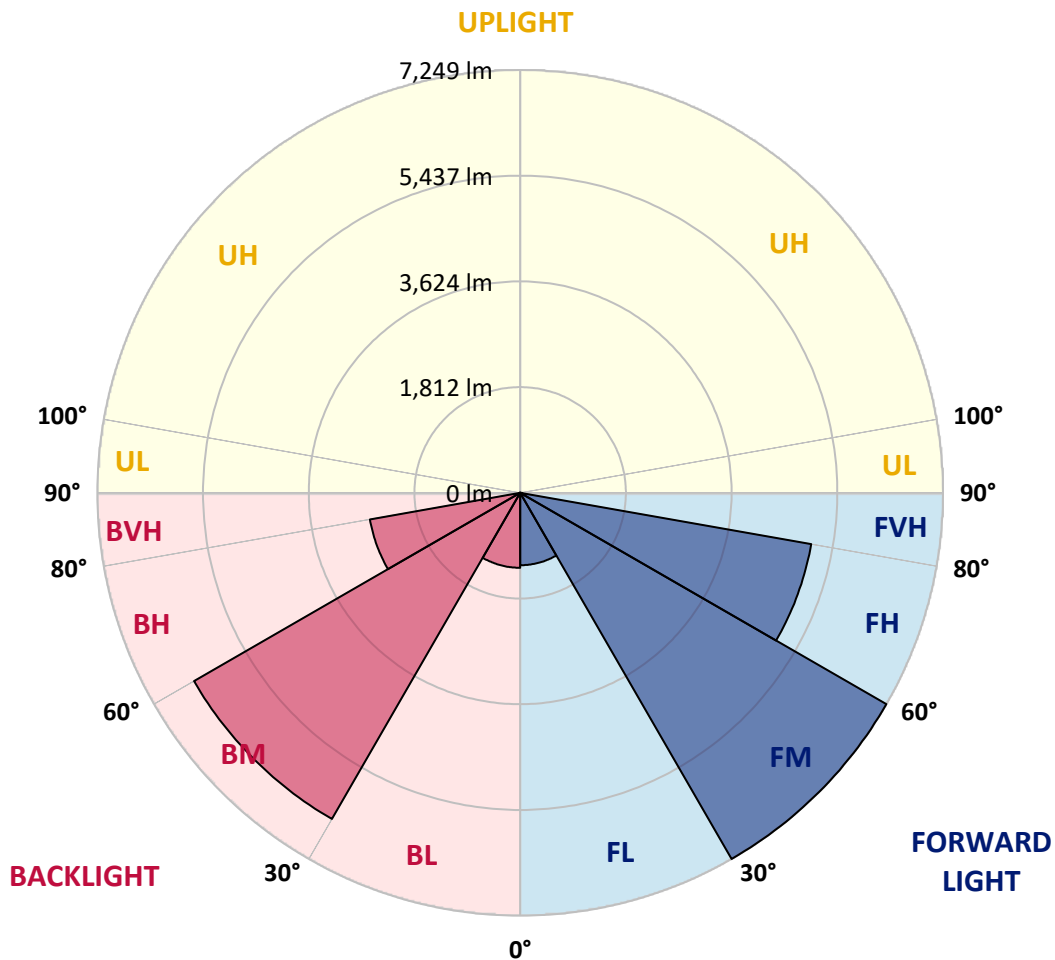


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1241.1	3.8			
FM	(30°-60°)	7248.9	22.0			
FH	(60°-80°)	5066.4	15.4			G3/7500
FVH	(80°-90°)	35.3	0.1			G1/100
BL	(0°-30°)	1285.7	3.9	B3/2500		
BM	(30°-60°)	6456.1	19.6	B4/8500		
BH	(60°-80°)	2616.2	7.9	B4/5000		G4/5000
BVH	(80°-90°)	17.7	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		9032.5	27.4			

BUG Rating: B4-U0-G4
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3
2.5°	1967.2	1967.2	1960.8	1967.2	1967.2	1967.2	1973.6	1973.6	1973.6	1980.0	1973.6
5°	2017.6	1998.3	2017.6	2011.2	1998.3	1998.3	2004.8	1998.3	2011.2	2011.2	2004.8
7.5°	2017.6	2030.4	2024.0	2030.4	2030.4	2030.4	2017.6	2036.8	2042.3	2048.8	2048.8
10°	2092.8	2099.2	2087.2	2092.8	2105.6	2105.6	2118.4	2143.2	2143.2	2143.2	2156.0
12.5°	2206.4	2212.8	2200.0	2206.4	2212.8	2244.9	2256.8	2288.9	2313.7	2332.9	2345.8
15°	2408.1	2414.5	2401.7	2396.2	2414.5	2408.1	2471.3	2547.4	2585.0	2597.8	2609.8
17.5°	2458.5	2458.5	2452.1	2458.5	2490.6	2528.2	2559.3	2629.0	2666.6	2685.8	2698.7
20°	2698.7	2698.7	2673.0	2698.7	2742.7	2742.7	2812.3	2925.1	2994.8	3025.9	3032.3
22.5°	3025.9	3014.0	3001.2	3038.8	3058.0	3038.8	3121.2	3259.7	3334.8	3360.5	3360.5
25°	3329.3	3322.9	3329.3	3347.7	3347.7	3329.3	3417.3	3549.3	3599.8	3619.0	3631.8
27.5°	3619.0	3612.6	3638.2	3675.8	3593.3	3549.3	3650.2	3763.8	3807.8	3820.7	3789.5
30°	3883.9	3851.8	3890.3	3965.5	3827.1	3757.4	3871.1	3991.2	4015.9	3959.1	3902.2
32.5°	4098.4	4041.6	4059.9	4142.4	3991.2	3934.3	4048.0	4148.8	4116.8	4035.2	3965.5
35°	4211.2	4186.4	4180.0	4211.2	4066.3	4041.6	4129.6	4230.4	4155.2	4041.6	3984.8
37.5°	4287.2	4261.6	4230.4	4199.2	4103.9	4015.9	4116.8	4180.0	4142.4	4066.3	4066.3
40°	4388.1	4362.4	4293.7	4211.2	4129.6	4022.3	4142.4	4186.4	4142.4	4123.2	4116.8
42.5°	4526.5	4501.8	4444.9	4312.0	4350.5	4199.2	4293.7	4432.1	4280.8	4280.8	4356.9
45°	4728.2	4697.0	4615.4	4552.2	4589.8	4444.9	4570.5	4665.8	4469.7	4659.4	4734.6
47.5°	5043.5	5018.8	4867.5	4760.2	4829.0	4785.0	4867.5	4955.5	4999.5	5277.2	5144.3
50°	5194.8	5144.3	5082.0	5049.9	5251.6	5258.0	5441.3	5743.8	6002.3	5983.1	5945.5
52.5°	5762.2	5812.6	5901.5	6204.0	6544.1	6771.4	7181.2	7874.2	8164.8	7950.2	7559.8
55°	8423.2	8700.1	8694.6	9205.2	9154.8	9425.2	9841.3	10207.1	10925.8	10289.6	9406.8
57.5°	10504.1	10592.1	10736.9	11449.2	11008.2	10888.2	11588.5	11808.5	12949.8	11884.6	10673.7
60°	11197.1	11310.8	11847.0	12691.2	11909.3	11619.7	12502.4	12401.6	13473.2	12010.2	10592.1
62.5°	9722.2	9841.3	10610.4	11795.7	10610.4	10440.8	11228.2	10749.8	11758.1	10093.4	8681.8
65°	6796.2	7017.1	7836.6	9374.8	8233.5	8309.6	9078.7	8574.5	9532.4	7786.2	6544.1
67.5°	4514.6	4778.6	5453.2	7218.8	6147.2	6355.2	7029.9	6600.9	7433.2	5434.9	4236.8
70°	2471.3	2553.8	2906.8	4848.2	3959.1	4249.7	4797.8	4495.3	5144.3	3354.1	2143.2
72.5°	794.8	794.8	990.0	2692.2	2401.7	2817.8	3511.8	3133.2	3744.6	2345.8	1279.7
75°	429.0	422.6	548.2	1765.5	1733.4	2042.3	2534.6	2162.4	2541.0	1614.2	876.3
77.5°	252.1	252.1	352.9	1078.0	1008.3	1242.1	1204.5	1172.4	1002.8	876.3	510.6
80°	113.7	120.1	151.2	264.9	352.9	504.2	315.3	340.1	321.8	334.6	232.8
82.5°	50.4	56.8	56.8	94.4	107.2	100.8	113.7	126.5	88.0	88.0	81.6
85°	12.8	12.8	6.4	19.2	12.8	12.8	31.2	37.6	19.2	6.4	12.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	6.4	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°	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3	1954.3
2.5°	1980.0	1973.6	1980.0	1980.0	1986.4	1967.2	1973.6	1973.6	1967.2	1967.2
5°	2017.6	2004.8	2017.6	2030.4	2030.4	2048.8	2061.6	2074.4	2074.4	2068.0
7.5°	2061.6	2074.4	2099.2	2105.6	2118.4	2124.8	2131.2	2131.2	2124.8	2131.2
10°	2168.8	2200.0	2225.7	2225.7	2225.7	2225.7	2219.2	2212.8	2206.4	2219.2
12.5°	2357.7	2376.9	2414.5	2427.3	2414.5	2420.9	2420.9	2414.5	2408.1	2408.1
15°	2629.0	2641.8	2648.2	2629.0	2648.2	2641.8	2629.0	2641.8	2616.2	2622.6
17.5°	2723.4	2767.4	2805.9	2799.5	2799.5	2761.9	2742.7	2742.7	2742.7	2736.2
20°	3051.6	3076.3	3108.4	3076.3	3064.4	3025.9	3007.6	3007.6	3001.2	3001.2
22.5°	3379.8	3404.5	3404.5	3360.5	3341.2	3310.1	3253.2	3240.4	3222.1	3215.7
25°	3643.8	3656.6	3650.2	3587.8	3581.4	3524.6	3467.8	3417.3	3391.7	3379.8
27.5°	3789.5	3795.0	3776.7	3707.0	3700.6	3638.2	3587.8	3549.3	3467.8	3467.8
30°	3864.7	3883.9	3845.4	3789.5	3783.1	3719.8	3669.4	3575.0	3454.9	3454.9
32.5°	3890.3	3883.9	3877.5	3801.4	3814.2	3744.6	3732.7	3581.4	3474.2	3505.3
35°	3927.9	3864.7	3871.1	3776.7	3795.0	3732.7	3707.0	3638.2	3562.2	3581.4
37.5°	3978.3	3908.7	3908.7	3814.2	3833.5	3776.7	3732.7	3707.0	3650.2	3656.6
40°	4035.2	3971.9	3921.5	3883.9	3890.3	3851.8	3776.7	3789.5	3732.7	3744.6
42.5°	4287.2	4079.2	4003.1	3971.9	3940.8	3947.2	3864.7	3915.1	3846.3	3858.2
45°	4558.6	4274.4	4142.4	4059.9	4009.5	4015.9	3971.9	4015.9	3984.8	3947.2
47.5°	5012.3	4709.8	4388.1	4217.6	4186.4	4243.2	4199.2	4256.1	4217.6	4211.2
50°	5863.0	5441.3	4911.5	4861.1	5005.9	5119.6	5245.2	5352.4	5049.9	5031.6
52.5°	7470.8	6929.1	6311.2	6695.3	6966.7	7086.8	7326.0	7446.1	7345.2	7402.1
55°	9362.8	8852.2	8145.5	8555.2	8750.5	8675.3	9097.9	9236.3	9154.8	9242.8
57.5°	10358.3	9715.8	9293.2	9223.5	9009.0	8845.8	9324.3	8688.2	9179.5	9494.8
60°	9860.6	9192.3	9262.0	7874.2	7571.7	7735.8	8272.0	7660.6	8026.3	8246.3
62.5°	8038.2	7426.8	7887.0	5882.2	5724.6	5983.1	6550.5	6412.1	6796.2	6885.1
65°	5800.7	5188.3	5654.9	3707.0	3739.1	4072.8	4425.7	4791.4	5087.5	5119.6
67.5°	3461.3	2931.5	3171.7	2080.8	2238.5	2490.6	2717.0	2957.2	3076.3	3114.8
70°	1450.2	1210.9	1305.3	1046.8	1160.5	1254.9	1342.9	1419.0	1399.8	1424.5
72.5°	718.7	580.2	586.7	554.6	580.2	605.0	624.2	661.8	637.1	630.7
75°	485.8	390.5	352.9	346.5	372.2	359.3	359.3	359.3	365.8	340.1
77.5°	308.9	264.9	220.9	232.8	232.8	232.8	214.5	195.2	188.8	188.8
80°	195.2	170.5	138.4	144.8	144.8	126.5	138.4	113.7	100.8	100.8
82.5°	88.0	76.1	50.4	44.0	56.8	56.8	44.0	44.0	37.6	37.6
85°	0.0	6.4	0.0	6.4	6.4	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	6.4	6.4	0.0	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)