

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: 768833\_450MP

Luminaire Tested: **GSM-AM-450-MP-MT-AS-FG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: 768833\_450MP  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GSM-AM-450-MP-MT-AS-FG  
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-SQUARE DISTRIBUTION  
Light Source: 450 WATT PULSE-START CLEAR ED-37 VBU BURN  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 50000 (1 lamp)  
Luminaire Lumens: 36576 lumens  
Efficiency: 73.2%  
Efficacy: 72.0 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3

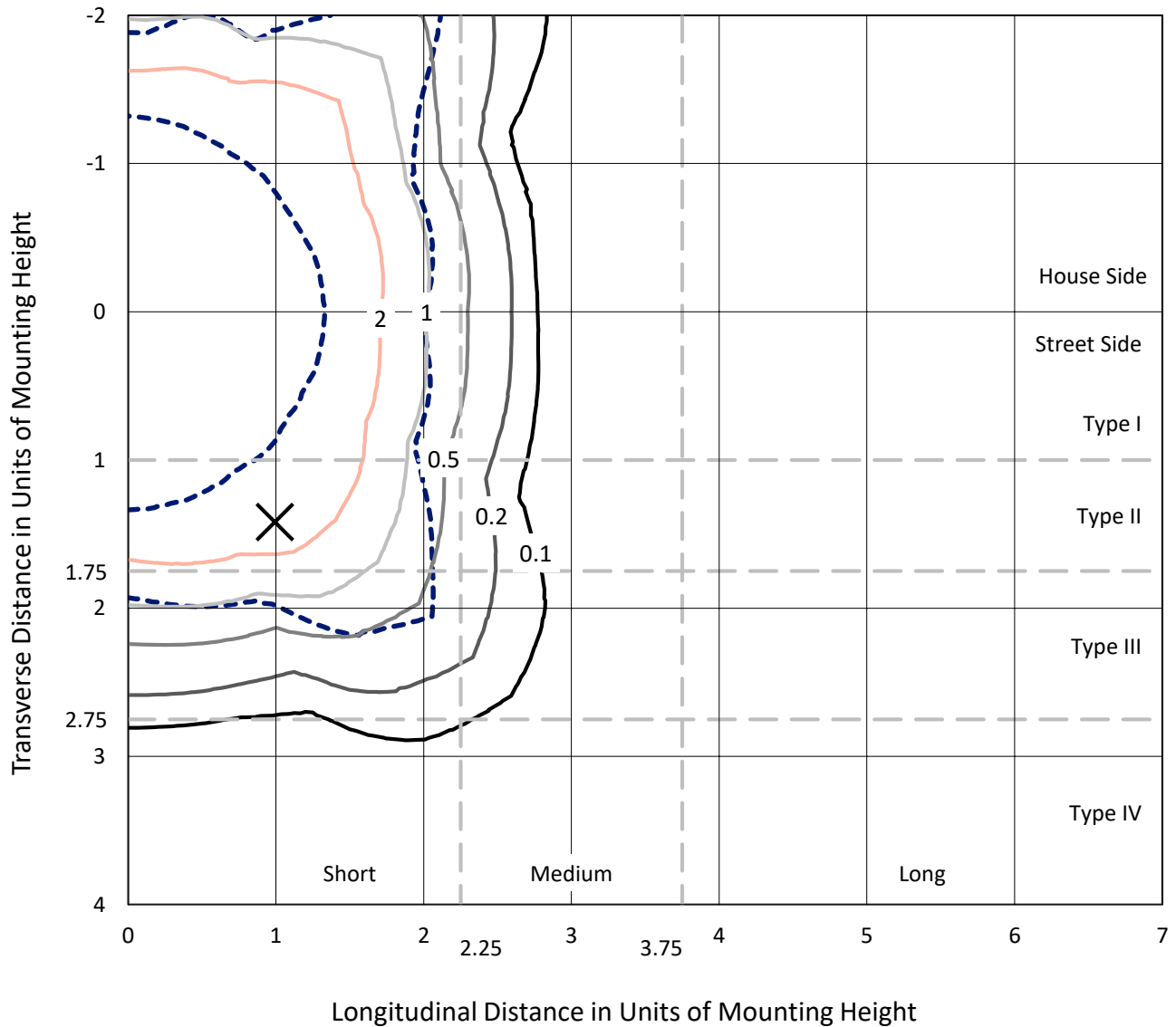
Input Watts (W): 508  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

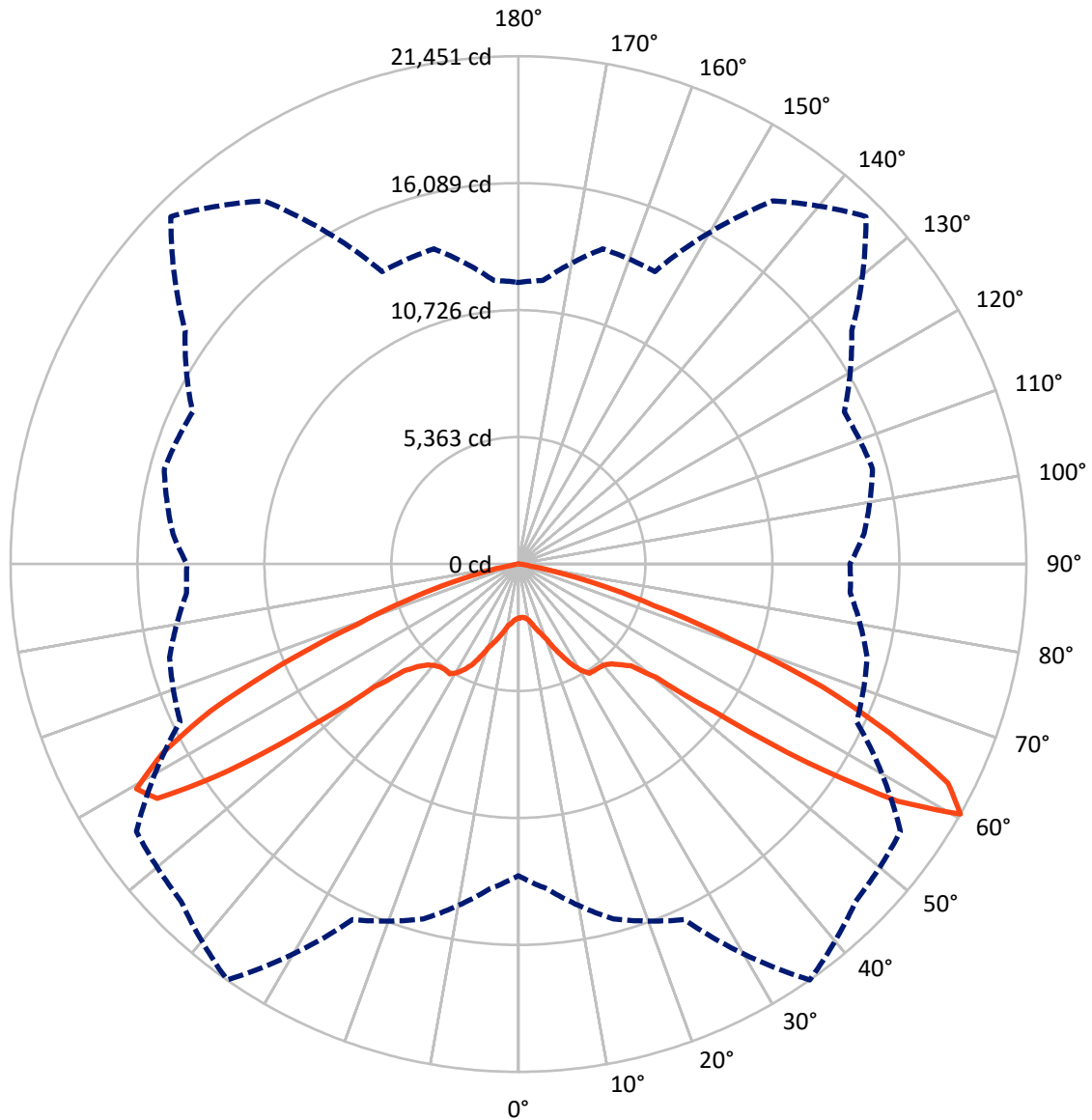
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.9 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 60-Deg Vertical

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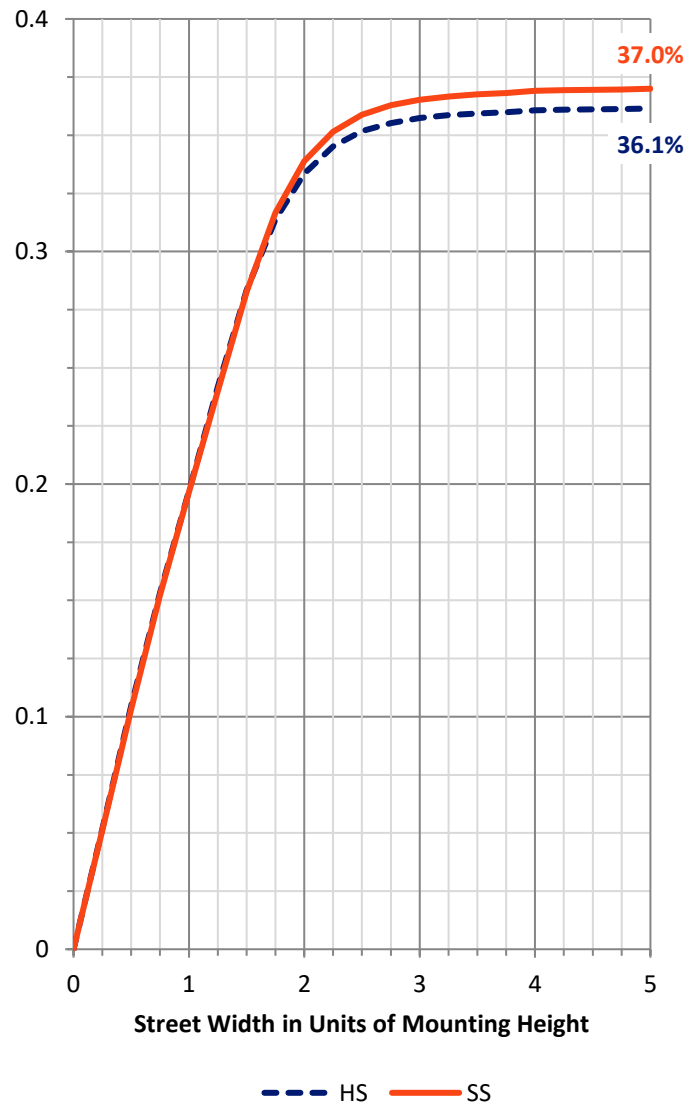
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	18071.4	0.0	18071.4
	% Lamp	36.1	0.0	36.1
<b>Street Side</b>	Lumens	18504.6	0.0	18504.6
	% Lamp	37.0	0.0	37.0
<b>Total</b>	Lumens	36576.0	0.0	36576.0
	% Lamp	73.2	0.0	73.2

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	229.8	0.6	0.5
10°-20°	886.9	2.4	1.8
20°-30°	2101.2	5.7	4.2
30°-40°	3436.4	9.4	6.9
40°-50°	4959.4	13.6	9.9
50°-60°	11593.1	31.7	23.2
60°-70°	11143.4	30.5	22.3
70°-80°	2163.0	5.9	4.3
80°-90°	62.8	0.2	0.1
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°	36576.0	100.0	73.2
0°-180°	36576.0	100.0	73.2

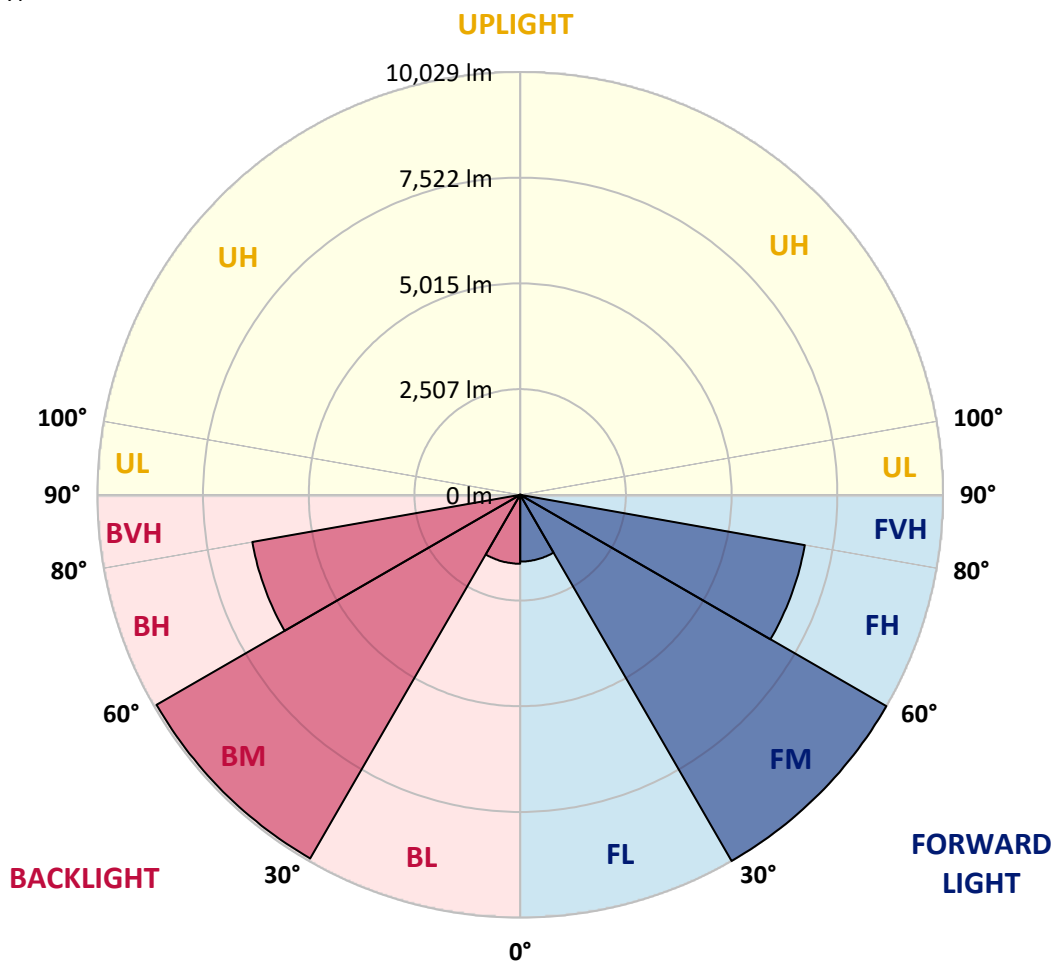


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1583.3	3.2			
FM (30°-60°)	10029.2	20.1			
FH (60°-80°)	6855.6	13.7			G3/7500
FVH (80°-90°)	36.5	0.1			G1/100
BL (0°-30°)	1634.6	3.3	B3/2500		
BM (30°-60°)	9959.7	19.9	B5		
BH (60°-80°)	6450.7	12.9	B5		G3/7500
BVH (80°-90°)	26.3	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	13424.0	26.8			

**BUG Rating: B5-U0-G3**  
 Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2288.9	2288.9	2288.9	2288.9	2288.9	2288.9	2288.9	2288.9	2288.9	2288.9	2288.9
2.5°	2269.4	2261.1	2241.7	2261.1	2261.1	2269.4	2279.2	2269.4	2279.2	2279.2	2298.6
5°	2251.4	2261.1	2261.1	2269.4	2269.4	2298.6	2306.9	2316.7	2326.4	2326.4	2326.4
7.5°	2288.9	2288.9	2279.2	2279.2	2279.2	2336.1	2373.6	2391.7	2391.7	2411.1	2419.4
10°	2401.4	2391.7	2391.7	2391.7	2391.7	2438.9	2486.1	2523.6	2561.1	2598.6	2606.9
12.5°	2588.9	2579.2	2579.2	2598.6	2598.6	2683.3	2766.7	2841.7	2898.6	2916.7	2916.7
15°	2888.9	2898.6	2861.1	2870.8	2870.8	2898.6	2963.9	3029.2	3066.7	3104.2	3104.2
17.5°	2983.3	2983.3	2973.6	3011.1	3011.1	3170.8	3273.6	3386.1	3470.8	3518.1	3526.4
20°	3395.8	3386.1	3376.4	3395.8	3395.8	3470.8	3620.8	3751.4	3826.4	3836.1	3845.8
22.5°	3883.3	3873.6	3883.3	3883.3	3883.3	3948.6	4118.1	4258.3	4315.3	4333.3	4343.1
25°	4370.8	4333.3	4305.6	4352.8	4352.8	4390.3	4577.8	4700.0	4727.8	4745.8	4737.5
27.5°	4745.8	4727.8	4690.3	4775.0	4775.0	4812.5	5027.8	5083.3	5055.6	5045.8	4980.6
30°	5065.3	5055.6	5045.8	5140.3	5140.3	5262.5	5365.3	5375.0	5290.3	5195.8	5168.1
32.5°	5272.2	5252.8	5300.0	5402.8	5402.8	5627.8	5618.1	5600.0	5422.2	5280.6	5243.1
35°	5497.2	5440.3	5487.5	5580.6	5580.6	5655.6	5702.8	5750.0	5580.6	5430.6	5430.6
37.5°	5759.7	5684.7	5655.6	5647.2	5647.2	5609.7	5740.3	5797.2	5740.3	5618.1	5647.2
40°	6059.7	5975.0	5880.6	5777.8	5777.8	5562.5	5825.0	5919.4	5909.7	5797.2	5805.6
42.5°	6359.7	6275.0	6181.9	5984.7	5984.7	5647.2	5975.0	6115.3	6077.8	5965.3	5919.4
45°	6716.7	6622.2	6612.5	6294.4	6294.4	6069.4	5919.4	6247.2	6387.5	6340.3	6190.3
47.5°	6922.2	6875.0	6997.2	6734.7	6734.7	6425.0	6350.0	6800.0	6894.4	6679.2	6444.4
50°	7334.7	7316.7	7559.7	7588.9	7588.9	7531.9	7419.4	8216.7	8244.4	7654.2	7204.2
52.5°	9418.1	9388.9	9726.4	9877.8	9877.8	10290.3	9548.6	10280.6	10280.6	9801.4	9576.4
55°	12569.4	12644.4	13179.2	13066.7	13066.7	14791.7	12859.7	13881.9	13347.2	13009.7	13000.0
57.5°	13676.4	14116.7	15130.6	15383.3	15383.3	18900.0	16912.5	17212.5	15111.1	14716.7	14463.9
60°	13169.4	13769.4	15523.6	16575.0	16575.0	21451.4	20148.6	19698.6	15768.1	15251.4	14069.4
62.5°	10562.5	11040.3	12879.2	14408.3	14408.3	20363.9	20326.4	18075.0	13638.9	13104.2	11547.2
65°	7559.7	7822.2	9041.7	10308.3	10308.3	17250.0	18150.0	14895.8	10298.6	10083.3	8986.1
67.5°	5195.8	5355.6	5872.2	6641.7	6641.7	13863.9	15233.3	11500.0	6716.7	6575.0	5872.2
70°	2606.9	2616.7	2795.8	3423.6	3423.6	9483.3	11902.8	7766.7	3320.8	2908.3	2466.7
72.5°	1050.0	1079.2	1229.2	2186.1	2186.1	5994.4	8244.4	5093.1	1491.7	1144.4	937.5
75°	581.9	619.4	694.4	1584.7	1584.7	3593.1	4502.8	3301.4	1041.7	694.4	544.4
77.5°	375.0	450.0	412.5	769.4	769.4	1584.7	1763.9	1697.2	637.5	431.9	319.4
80°	150.0	177.8	215.3	356.9	356.9	497.2	627.8	394.4	252.8	197.2	140.3
82.5°	56.9	65.3	75.0	140.3	140.3	131.9	177.8	112.5	65.3	65.3	37.5
85°	0.0	0.0	9.7	19.4	19.4	27.8	37.5	19.4	9.7	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2288.9	2288.9	2288.9	2288.9	2288.9	2288.9	2288.9	2288.9	2288.9	2288.9
2.5°	2298.6	2298.6	2306.9	2306.9	2306.9	2316.7	2306.9	2316.7	2316.7	2326.4
5°	2336.1	2354.2	2354.2	2354.2	2373.6	2391.7	2401.4	2419.4	2429.2	2438.9
7.5°	2419.4	2429.2	2448.6	2476.4	2504.2	2523.6	2561.1	2569.4	2579.2	2569.4
10°	2606.9	2626.4	2636.1	2645.8	2654.2	2636.1	2645.8	2673.6	2673.6	2663.9
12.5°	2916.7	2908.3	2888.9	2851.4	2870.8	2898.6	2898.6	2908.3	2908.3	2908.3
15°	3113.9	3113.9	3133.3	3113.9	3141.7	3170.8	3188.9	3188.9	3216.7	3226.4
17.5°	3536.1	3508.3	3488.9	3433.3	3433.3	3433.3	3395.8	3395.8	3348.6	3358.3
20°	3855.6	3855.6	3836.1	3788.9	3770.8	3713.9	3705.6	3723.6	3695.8	3676.4
22.5°	4323.6	4315.3	4277.8	4240.3	4211.1	4165.3	4098.6	4052.8	4005.6	3977.8
25°	4727.8	4708.3	4680.6	4662.5	4662.5	4643.1	4473.6	4370.8	4333.3	4315.3
27.5°	4970.8	5027.8	5008.3	5055.6	5008.3	4990.3	4783.3	4670.8	4595.8	4577.8
30°	5120.8	5272.2	5252.8	5337.5	5422.2	5272.2	5027.8	4887.5	4775.0	4727.8
32.5°	5205.6	5365.3	5440.3	5534.7	5768.1	5468.1	5205.6	5055.6	4793.1	4765.3
35°	5375.0	5402.8	5562.5	5525.0	5740.3	5430.6	5290.3	5102.8	4877.8	4877.8
37.5°	5580.6	5515.3	5572.2	5525.0	5627.8	5450.0	5318.1	5262.5	5083.3	5102.8
40°	5712.5	5665.3	5647.2	5562.5	5590.3	5552.8	5505.6	5543.1	5412.5	5402.8
42.5°	5872.2	5852.8	5815.3	5665.3	5702.8	5730.6	5825.0	5919.4	5777.8	5759.7
45°	6106.9	6097.2	6050.0	5947.2	5947.2	6069.4	6227.8	6369.4	6284.7	6209.7
47.5°	6369.4	6397.2	6650.0	6527.8	6415.3	6612.5	6894.4	6997.2	7109.7	7016.7
50°	7184.7	7372.2	8179.2	8094.4	7588.9	7981.9	8329.2	8216.7	8094.4	7936.1
52.5°	9651.4	9933.3	10833.3	11218.1	10580.6	11095.8	10720.8	10308.3	10045.8	9886.1
55°	13254.2	13234.7	13684.7	14331.9	14013.9	15036.1	13506.9	13047.2	12794.4	12662.5
57.5°	14811.1	15148.6	15261.1	16677.8	18056.9	18187.5	14623.6	14276.4	13066.7	12869.4
60°	14651.4	15486.1	15186.1	17184.7	20758.3	18722.2	13629.2	13779.2	12025.0	11894.4
62.5°	12119.4	13422.2	13263.9	15918.1	21058.3	17025.0	11509.7	12334.7	10073.6	10073.6
65°	9351.4	10158.3	10045.8	13347.2	19172.2	14388.9	8995.8	9943.1	8338.9	8516.7
67.5°	6040.3	6265.3	6322.2	10261.1	16040.3	10862.5	5534.7	6144.4	5262.5	5402.8
70°	2381.9	2541.7	2711.1	7025.0	12737.5	7251.4	2551.4	2879.2	2336.1	2419.4
72.5°	900.0	1388.9	1388.9	5093.1	9041.7	4962.5	1406.9	1397.2	956.9	956.9
75°	572.2	825.0	937.5	3461.1	4493.1	3011.1	834.7	769.4	562.5	525.0
77.5°	375.0	394.4	581.9	1613.9	1781.9	1388.9	487.5	375.0	327.8	300.0
80°	122.2	187.5	244.4	365.3	515.3	309.7	252.8	177.8	131.9	131.9
82.5°	37.5	47.2	65.3	84.7	122.2	84.7	75.0	37.5	19.4	19.4
85°	0.0	0.0	0.0	0.0	19.4	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	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)