

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: P591105

Luminaire Tested: **CTN-CA10-210-722-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591105  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-210-722-U-T4-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12506 lumens  
Efficiency: N/A  
Efficacy: 58.7 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

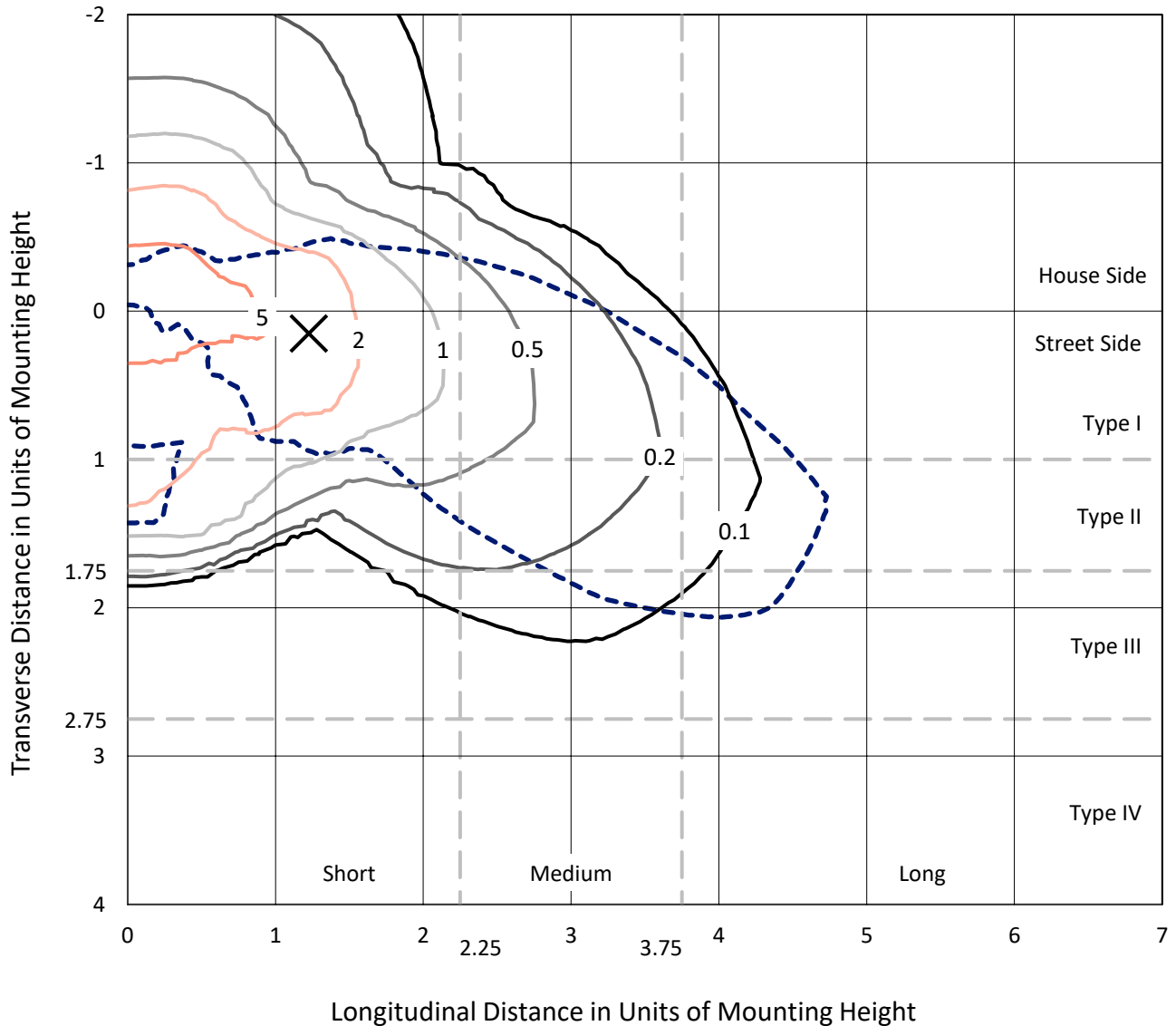
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

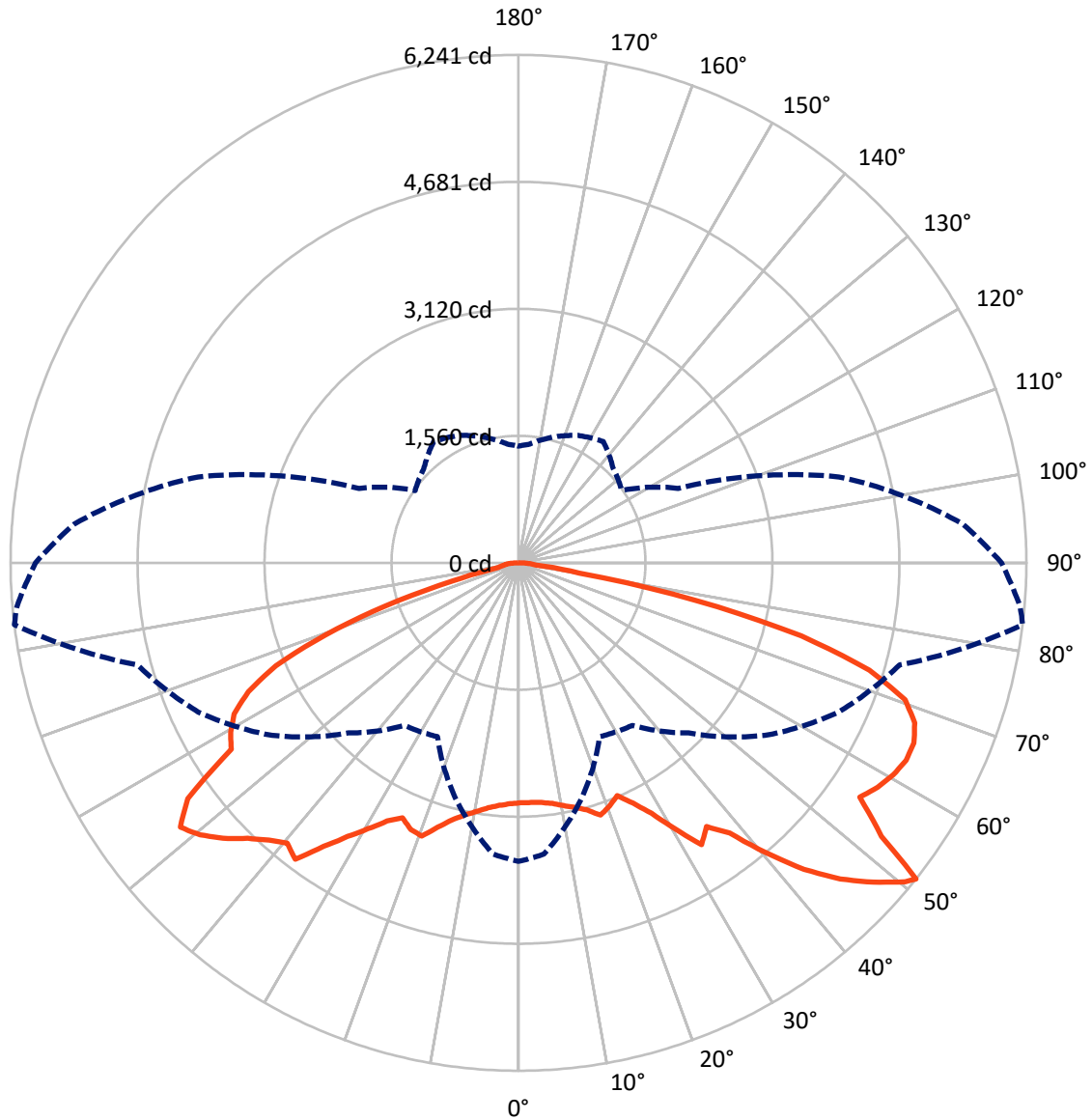
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.8 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral      - - - Horizontal Cone Through 51-Deg Vertical

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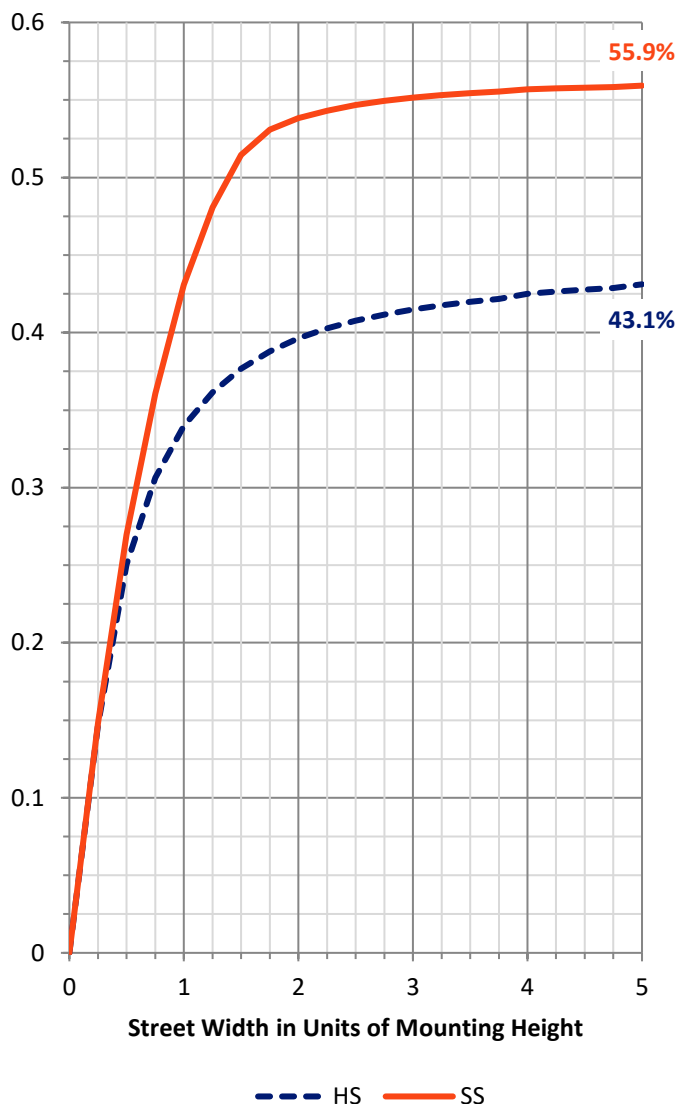
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5512.1	0.0	5512.1
	% Fixture	44.1	0.0	44.1
<b>Street Side</b>	Lumens	6993.9	0.0	6993.9
	% Fixture	55.9	0.0	55.9
<b>Total</b>	Lumens	12506.0	0.0	12506.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	287.9	2.3
10°-20°	876.3	7.0
20°-30°	1361.3	10.9
30°-40°	1821.5	14.6
40°-50°	2363.1	18.9
50°-60°	2516.8	20.1
60°-70°	1753.2	14.0
70°-80°	1223.2	9.8
80°-90°	302.6	2.4
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°	12506.0	100.0
0°-180°	12506.0	100.0

**Coefficient of Utilization**



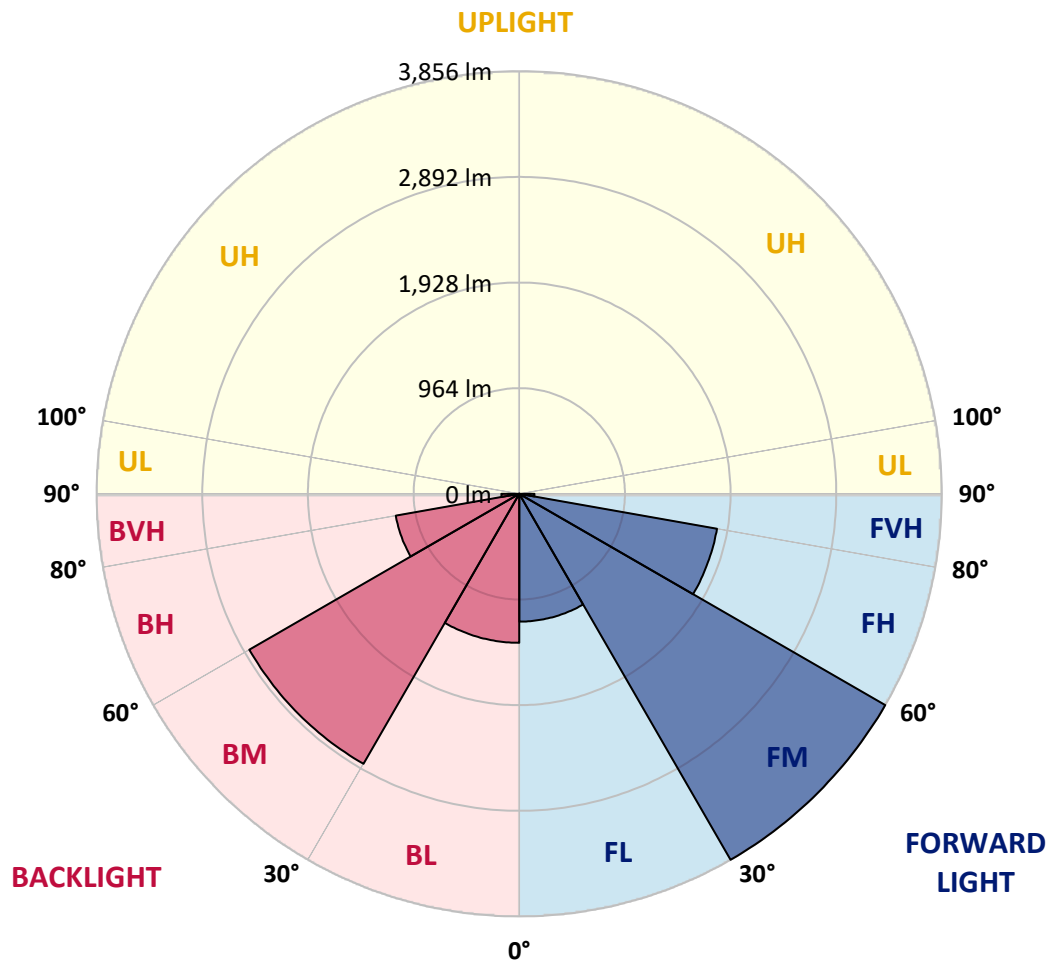
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1166.1	9.3			
FM (30°-60°)	3856.5	30.8			
FH (60°-80°)	1832.4	14.7			G2/5000
FVH (80°-90°)	138.9	1.1			G2/225
BL (0°-30°)	1359.5	10.9	B3/2500		
BM (30°-60°)	2844.9	22.7	B3/5000		
BH (60°-80°)	1144.0	9.1	B3/2500		G3/2500
BVH (80°-90°)	163.7	1.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7
2.5°	2912.5	2892.3	2894.1	2921.3	2885.3	2909.0	2905.5	2947.7	2939.8	2948.6	2954.7
5°	2887.0	2871.2	2871.2	2907.3	2881.8	2907.3	2889.7	2926.6	2938.9	2958.2	2965.3
7.5°	2892.3	2875.6	2882.6	2914.3	2886.2	2912.5	2911.7	2946.8	2951.2	2985.5	2996.9
10°	2907.3	2888.8	2892.3	2917.8	2902.0	2947.7	2939.8	2988.1	2988.1	3033.9	3051.4
12.5°	2876.5	2864.2	2871.2	2905.5	2919.6	2967.0	2977.6	3026.8	3033.9	3083.1	3105.1
15°	2843.1	2825.5	2848.4	2897.6	2921.3	2989.9	3012.8	3088.4	3098.9	3149.9	3174.5
17.5°	2681.3	2669.9	2712.1	2751.7	2764.8	2831.7	2876.5	3002.2	3153.4	3259.8	3288.8
20°	2359.6	2357.8	2279.6	2262.9	2467.7	2712.1	2742.9	2850.1	3025.1	3191.2	3250.1
22.5°	1970.1	2022.9	2276.9	2357.8	2352.5	2449.2	2843.1	2944.2	3021.5	3105.9	3141.1
25°	1970.1	1965.7	2116.0	2464.2	2465.1	2506.4	2594.3	3100.7	3174.5	3271.2	3299.3
27.5°	2032.5	2036.9	2027.3	2281.3	2586.4	2625.1	2662.9	2924.8	3377.6	3484.8	3531.4
30°	2138.0	2145.1	2106.4	2107.3	2626.8	2742.9	2815.0	2917.8	3519.1	3794.3	3815.4
32.5°	2346.4	2343.7	2295.4	2233.0	2305.1	2858.0	2963.5	3097.2	3295.8	4128.4	4177.6
35°	2512.5	2501.1	2467.7	2424.6	2329.7	2825.5	3105.1	3289.7	3542.9	3979.8	4240.0
37.5°	2697.1	2680.4	2642.6	2589.9	2503.7	1971.9	3244.8	3509.5	3902.4	4212.8	4229.5
40°	2905.5	2887.0	2835.2	2757.8	2647.9	2020.2	3307.3	3781.1	4371.0	4683.1	4680.5
42.5°	3065.5	3047.0	3019.8	2938.0	2327.9	2228.6	2884.4	4162.6	4878.3	5149.0	5126.2
45°	3200.9	3185.1	3187.7	3101.5	2183.7	2484.4	3213.2	4362.2	5356.5	5541.1	5511.2
47.5°	3306.4	3281.8	3215.0	2609.2	2240.0	2661.1	3480.4	3804.8	5760.0	5864.6	5831.2
50°	3563.1	3521.8	3124.4	2316.5	2382.4	2877.4	3734.5	4196.9	5246.6	6159.1	6100.2
51°	3667.7	3593.0	2994.3	2356.9	2438.7	2955.6	3696.7	4339.4	4846.6	6240.9	6188.1
52.5°	3777.6	3629.9	2637.4	2418.5	2507.3	3063.7	3140.2	4558.3	4958.3	5585.1	5896.3
55°	3186.8	3244.8	2723.5	2643.5	2637.4	2647.9	3207.0	4884.4	5191.2	5085.7	5024.2
57.5°	1874.3	1908.6	2766.6	2960.0	2282.2	2102.9	3383.7	5130.6	5392.5	5202.7	5134.1
60°	942.4	986.4	1007.5	918.7	1230.8	1918.2	2850.1	3718.7	5515.6	5290.6	5207.9
62.5°	41.3	68.6	27.3	29.9	50.1	669.0	2094.1	3819.8	5619.4	5344.2	5235.2
65°	3.5	3.5	4.4	8.8	22.0	702.4	2330.6	3959.6	5661.6	5338.9	5193.0
67.5°	0.9	0.9	1.8	6.2	15.8	760.4	2608.4	4016.7	5663.3	5249.2	5070.8
70°	0.0	0.9	1.8	5.3	14.1	795.6	2669.0	4005.3	5591.2	5038.3	4793.0
72.5°	0.0	0.0	0.9	4.4	12.3	750.8	2598.7	3982.4	5345.1	4507.3	4159.1
75°	0.0	0.0	0.9	3.5	10.5	764.0	2605.7	3725.7	4667.3	3588.6	3165.7
77.5°	0.0	0.0	0.9	3.5	9.7	705.1	2385.9	3226.4	3688.8	2233.9	1771.4
80°	0.0	0.0	0.9	3.5	8.8	604.8	1962.2	2518.7	2064.2	757.8	488.8
82.5°	0.0	0.0	0.9	3.5	7.0	409.7	1303.7	1258.9	415.8	217.1	195.2
85°	0.0	0.0	0.9	2.6	5.3	244.4	653.2	171.4	160.9	138.0	124.8
87.5°	0.0	0.0	0.9	1.8	3.5	103.7	201.3	52.7	66.8	56.3	50.1
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7	2947.7
2.5°	2960.0	2960.0	2969.7	3002.2	2998.7	3025.1	3010.1	3042.6	3045.3	3039.1	3054.1
5°	2971.4	2982.0	3014.5	3048.8	3034.7	3073.4	3091.9	3135.0	3133.2	3127.9	3145.5
7.5°	3004.0	3025.9	3058.5	3099.8	3114.7	3146.4	3148.1	3207.0	3203.5	3200.9	3218.5
10°	3058.5	3087.5	3123.5	3185.9	3177.2	3222.9	3203.5	3246.6	3245.7	3244.0	3261.5
12.5°	3114.7	3156.9	3200.9	3261.5	3260.7	3262.4	3245.7	3267.7	3263.3	3251.0	3264.2
15°	3193.9	3250.1	3310.8	3354.7	3316.1	3308.1	3271.2	3258.0	3232.5	3197.4	3207.9
17.5°	3324.8	3380.2	3457.6	3481.3	3418.0	3382.0	3281.8	3208.8	3129.7	3076.1	3087.5
20°	3442.6	3545.5	3619.3	3617.6	3536.7	3441.8	3286.2	3163.1	3010.1	2906.4	2897.6
22.5°	3295.8	3469.0	3790.8	3753.0	3611.4	3476.9	3280.9	3090.1	2836.1	2675.2	2669.0
25°	3380.2	3383.7	3672.1	3828.6	3644.8	3462.0	3217.6	2962.6	2637.4	2470.3	2460.7
27.5°	3595.6	3576.3	3496.3	3747.7	3614.1	3385.5	3090.1	2745.5	2456.3	2311.2	2304.2
30°	3851.4	3791.7	3603.5	3355.6	3487.5	3236.9	2894.1	2523.1	2292.8	2160.9	2150.3
32.5°	4157.4	4031.7	3701.1	3312.5	3072.5	3012.8	2640.9	2347.3	2157.4	2020.2	1993.0
35°	4520.5	4332.3	3795.2	3239.6	2749.0	2680.4	2402.6	2189.0	2029.9	1891.0	1863.7
37.5°	4519.6	4715.6	3934.1	3139.3	2548.6	2307.7	2229.5	2083.5	1941.1	1773.2	1742.4
40°	4553.0	4559.1	4087.0	3041.8	2361.3	2116.0	2126.6	2031.7	1884.8	1700.2	1668.6
42.5°	4959.1	4660.2	4274.3	2910.8	2184.6	1974.5	2082.6	2013.2	1854.9	1665.9	1630.8
45°	5312.5	4967.9	3863.7	2767.5	1999.1	1864.6	2047.5	1970.1	1812.8	1624.6	1585.1
47.5°	5620.2	5212.3	3968.4	2516.9	1818.0	1774.9	1979.8	1887.5	1737.1	1562.2	1527.0
50°	5854.1	5414.5	4059.8	2180.2	1642.2	1685.3	1869.9	1775.8	1630.8	1489.2	1459.3
51°	5934.1	5479.6	4078.3	2165.3	1549.0	1643.1	1818.0	1726.6	1596.5	1461.1	1433.8
52.5°	6020.2	5564.0	4105.5	2198.7	1417.1	1573.6	1733.6	1653.6	1545.5	1429.5	1398.7
55°	5005.7	5228.1	4036.1	2128.4	1264.2	1435.6	1578.9	1542.9	1483.1	1380.2	1358.2
57.5°	4822.9	4423.7	3347.7	1802.2	1129.7	1271.2	1428.6	1452.3	1406.6	1302.0	1286.2
60°	4862.4	4383.3	2981.1	1344.2	996.0	1124.4	1316.0	1337.1	1297.6	1218.5	1196.5
62.5°	4855.4	4279.6	2658.5	946.8	880.0	1047.9	1235.2	1244.0	1189.5	1123.5	1103.3
65°	4739.4	4041.3	2218.0	716.5	815.8	1005.7	1187.7	1192.1	1124.4	1040.0	1029.5
67.5°	4480.9	3664.2	1542.9	629.5	779.8	973.2	1156.0	1136.7	1071.7	982.9	967.0
70°	3985.9	2985.5	720.9	579.3	725.3	913.4	1078.7	1055.8	984.6	902.0	887.9
72.5°	3195.6	2074.7	342.0	530.1	668.1	838.7	983.7	947.7	888.8	858.0	850.1
75°	2091.4	974.1	285.7	477.4	592.5	748.1	902.0	888.8	834.3	772.7	742.9
77.5°	848.4	256.7	258.5	423.7	531.9	689.2	814.9	804.4	732.3	676.9	664.6
80°	213.6	192.5	236.5	349.9	463.3	600.4	714.7	684.8	658.5	598.7	579.3
82.5°	162.6	154.7	185.5	270.8	380.7	494.9	610.1	622.4	578.5	532.7	523.1
85°	113.4	140.7	112.5	192.5	282.2	390.3	511.6	533.6	503.7	451.9	416.7
87.5°	62.4	73.8	46.6	101.1	149.5	213.6	293.6	296.3	245.3	225.1	211.9
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)