

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: P591153

Luminaire Tested: **CTN-CA6-230-722-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591153
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-CA6-230-722-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12346 lumens
Efficiency: N/A
Efficacy: 54.2 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): 227.8
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

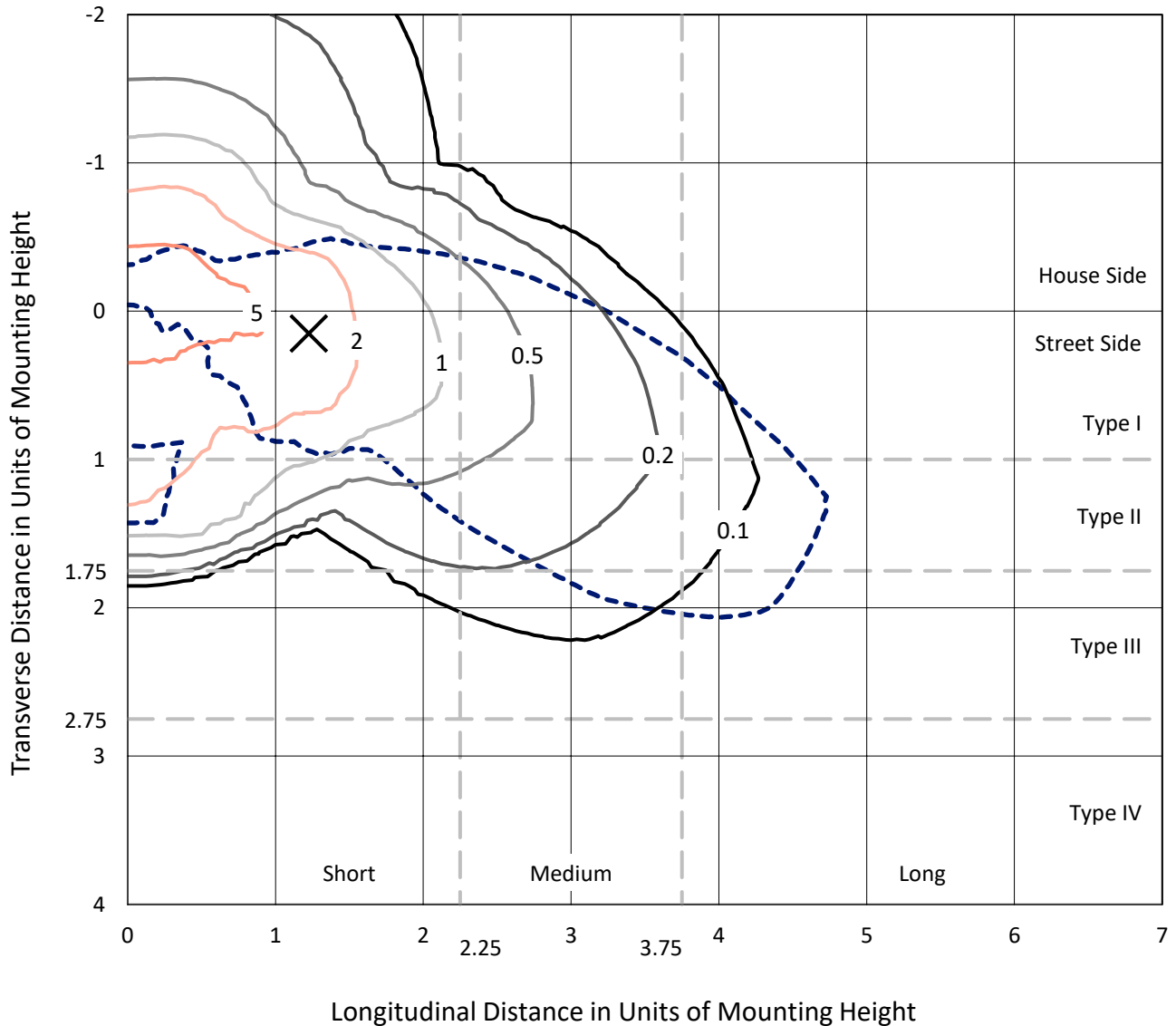




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Iso-Footcandle Lines of Horizontal Illumination

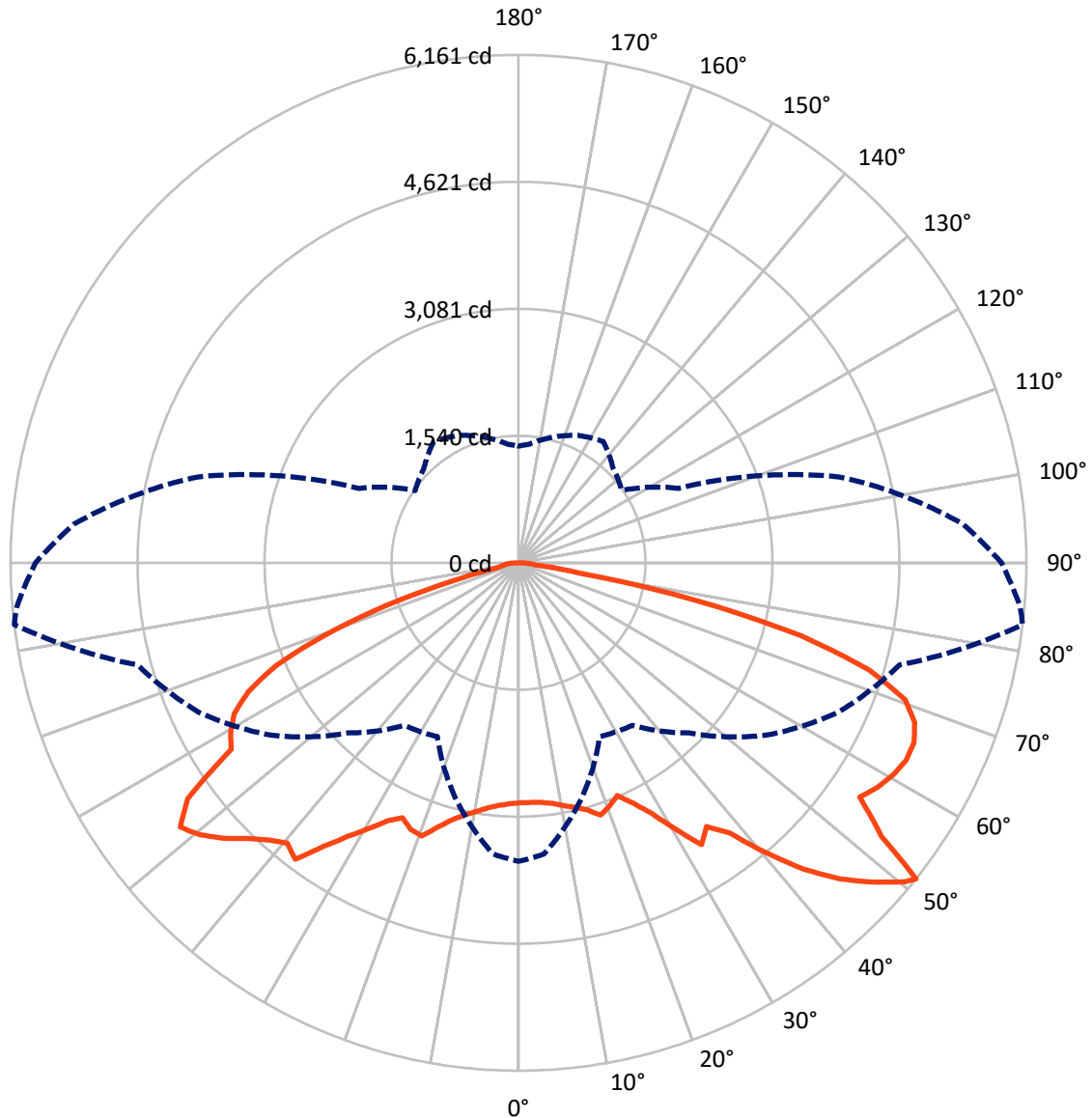
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.7 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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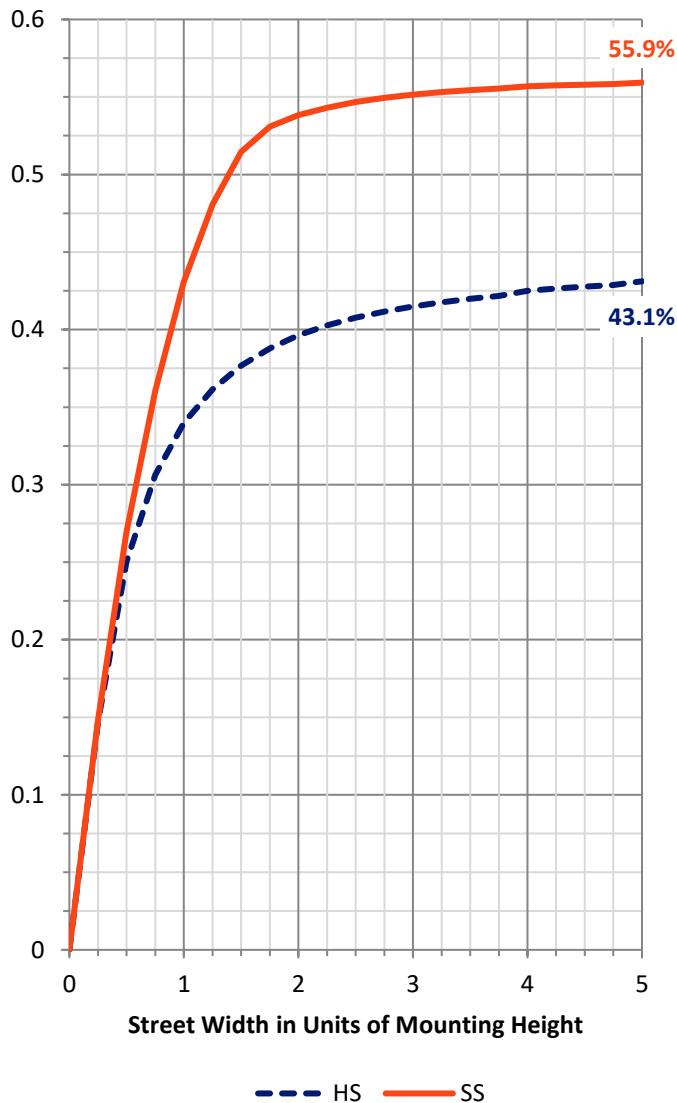
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5441.6	0.0	5441.6
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	6904.4	0.0	6904.4
	% Fixture	55.9	0.0	55.9
Total	Lumens	12346.0	0.0	12346.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.3	2.3
10°-20°	865.1	7.0
20°-30°	1343.9	10.9
30°-40°	1798.2	14.6
40°-50°	2332.9	18.9
50°-60°	2484.6	20.1
60°-70°	1730.8	14.0
70°-80°	1207.5	9.8
80°-90°	298.8	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°	12346.0	100.0
0°-180°	12346.0	100.0



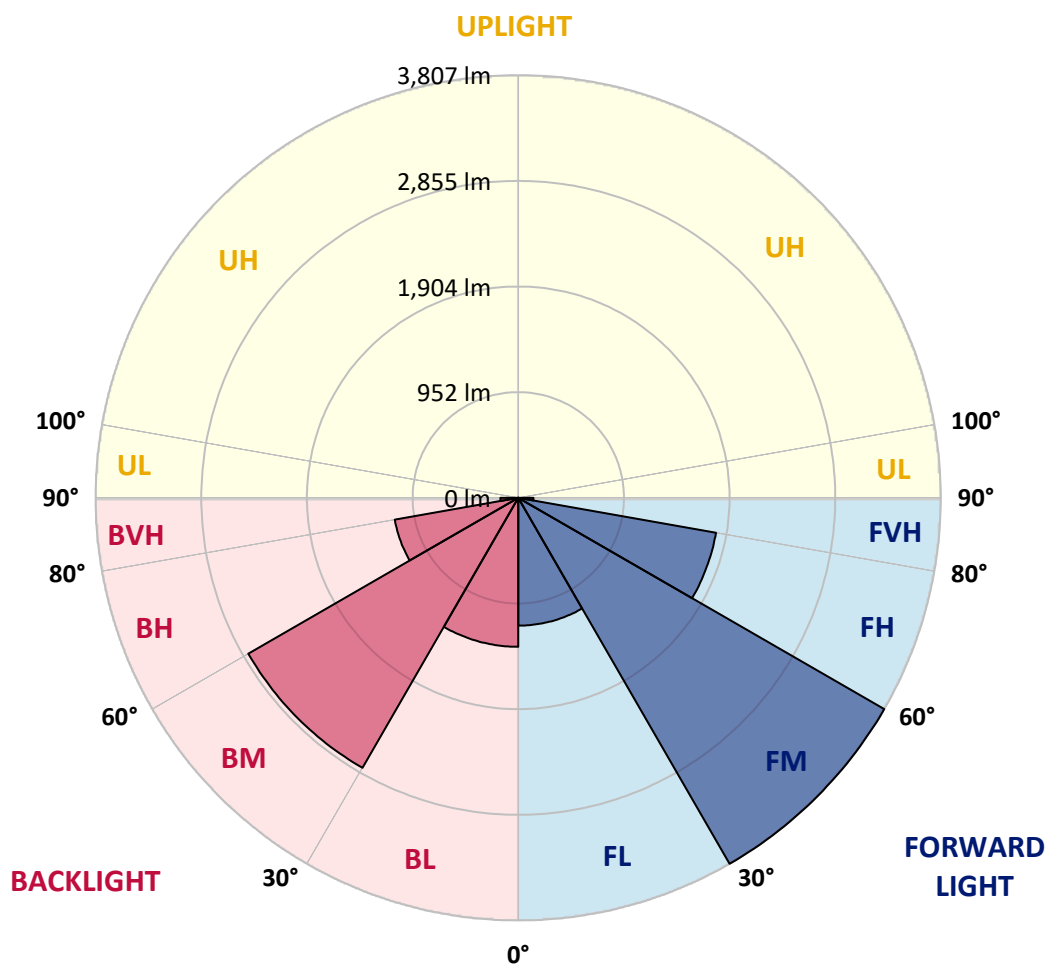
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1151.1	9.3			
FM	(30°-60°)	3807.1	30.8			
FH	(60°-80°)	1809.0	14.7			G2/5000
FVH	(80°-90°)	137.2	1.1			G2/225
BL	(0°-30°)	1342.1	10.9	B3/2500		
BM	(30°-60°)	2808.5	22.7	B3/5000		
BH	(60°-80°)	1129.3	9.1	B3/2500		G3/2500
BVH	(80°-90°)	161.6	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°	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0
2.5°	2875.3	2855.3	2857.0	2884.0	2848.4	2871.8	2868.3	2910.0	2902.2	2910.9	2916.9
5°	2850.1	2834.5	2834.5	2870.1	2844.9	2870.1	2852.7	2889.2	2901.3	2920.4	2927.3
7.5°	2855.3	2838.8	2845.8	2877.0	2849.2	2875.3	2874.4	2909.1	2913.5	2947.3	2958.6
10°	2870.1	2851.8	2855.3	2880.5	2864.9	2910.0	2902.2	2949.9	2949.9	2995.0	3012.4
12.5°	2839.7	2827.5	2834.5	2868.3	2882.2	2929.1	2939.5	2988.1	2995.0	3043.6	3065.3
15°	2806.7	2789.4	2811.9	2860.5	2884.0	2951.6	2974.2	3048.8	3059.3	3109.6	3133.9
17.5°	2647.0	2635.7	2677.4	2716.5	2729.5	2795.4	2839.7	2963.8	3113.1	3218.1	3246.7
20°	2329.4	2327.6	2250.4	2233.9	2436.1	2677.4	2707.8	2813.7	2986.4	3150.4	3208.5
22.5°	1944.9	1997.0	2247.8	2327.6	2322.4	2417.9	2806.7	2906.5	2982.9	3066.2	3100.9
25°	1944.9	1940.6	2089.0	2432.7	2433.5	2474.3	2561.1	3061.0	3133.9	3229.4	3257.1
27.5°	2006.5	2010.9	2001.3	2252.1	2553.3	2591.5	2628.8	2887.4	3334.4	3440.3	3486.3
30°	2110.7	2117.6	2079.4	2080.3	2593.2	2707.8	2778.9	2880.5	3474.1	3745.8	3766.6
32.5°	2316.4	2313.8	2266.0	2204.4	2275.6	2821.5	2925.6	3057.5	3253.7	4075.5	4124.1
35°	2480.4	2469.1	2436.1	2393.6	2299.9	2789.4	3065.3	3247.6	3497.5	3928.9	4185.8
37.5°	2662.6	2646.2	2608.8	2556.8	2471.7	1946.6	3203.3	3464.6	3852.5	4158.9	4175.3
40°	2868.3	2850.1	2798.9	2722.5	2614.0	1994.4	3264.9	3732.7	4315.1	4623.2	4620.6
42.5°	3026.3	3008.1	2981.2	2900.4	2298.1	2200.1	2847.5	4109.4	4815.8	5083.1	5060.6
45°	3159.9	3144.3	3146.9	3061.9	2155.8	2452.6	3172.1	4306.4	5288.0	5470.2	5440.7
47.5°	3264.1	3239.8	3173.8	2575.9	2211.3	2627.1	3435.9	3756.2	5686.3	5789.6	5756.6
50°	3517.5	3476.7	3084.4	2286.9	2351.9	2840.6	3686.7	4143.2	5179.5	6080.3	6022.2
51°	3620.8	3547.0	2956.0	2326.8	2407.5	2917.8	3649.4	4283.8	4784.6	6161.0	6109.0
52.5°	3729.3	3583.5	2603.6	2387.5	2475.2	3024.5	3100.1	4499.9	4894.8	5513.6	5820.8
55°	3146.0	3203.3	2688.7	2609.7	2603.6	2614.0	3166.0	4821.9	5124.8	5020.7	4959.9
57.5°	1850.3	1884.2	2731.2	2922.1	2253.0	2076.0	3340.5	5064.9	5323.5	5136.1	5068.4
60°	930.4	973.8	994.6	906.9	1215.0	1893.7	2813.7	3671.1	5445.1	5222.9	5141.3
62.5°	40.8	67.7	26.9	29.5	49.5	660.5	2067.3	3770.9	5547.5	5275.8	5168.2
65°	3.5	3.5	4.3	8.7	21.7	693.4	2300.7	3908.9	5589.1	5270.6	5126.5
67.5°	0.9	0.9	1.7	6.1	15.6	750.7	2575.0	3965.3	5590.9	5182.1	5005.9
70°	0.0	0.9	1.7	5.2	13.9	785.4	2634.9	3954.0	5519.7	4973.8	4731.7
72.5°	0.0	0.0	0.9	4.3	12.2	741.2	2565.4	3931.5	5276.7	4449.6	4105.9
75°	0.0	0.0	0.9	3.5	10.4	754.2	2572.4	3678.1	4607.6	3542.7	3125.2
77.5°	0.0	0.0	0.9	3.5	9.5	696.0	2355.4	3185.1	3641.6	2205.3	1748.8
80°	0.0	0.0	0.9	3.5	8.7	597.1	1937.1	2486.5	2037.8	748.1	482.5
82.5°	0.0	0.0	0.9	3.5	6.9	404.4	1287.1	1242.8	410.5	214.4	192.7
85°	0.0	0.0	0.9	2.6	5.2	241.3	644.8	169.2	158.8	136.3	123.2
87.5°	0.0	0.0	0.9	1.7	3.5	102.4	198.7	52.1	66.0	55.5	49.5
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°	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0	2910.0
2.5°	2922.1	2922.1	2931.7	2963.8	2960.3	2986.4	2971.6	3003.7	3006.3	3000.2	3015.0
5°	2933.4	2943.8	2975.9	3009.8	2995.9	3034.1	3052.3	3094.8	3093.1	3087.9	3105.3
7.5°	2965.5	2987.2	3019.3	3060.1	3074.9	3106.1	3107.9	3166.0	3162.5	3159.9	3177.3
10°	3019.3	3048.0	3083.6	3145.2	3136.5	3181.6	3162.5	3205.1	3204.2	3202.5	3219.8
12.5°	3074.9	3116.5	3159.9	3219.8	3219.0	3220.7	3204.2	3225.9	3221.6	3209.4	3222.4
15°	3153.0	3208.5	3268.4	3311.8	3273.6	3265.8	3229.4	3216.3	3191.2	3156.5	3166.9
17.5°	3282.3	3337.0	3413.4	3436.8	3374.3	3338.7	3239.8	3167.7	3089.6	3036.7	3048.0
20°	3398.6	3500.1	3573.0	3571.3	3491.5	3397.7	3244.1	3122.6	2971.6	2869.2	2860.5
22.5°	3253.7	3424.6	3742.3	3705.0	3565.2	3432.4	3238.9	3050.6	2799.8	2640.9	2634.9
25°	3337.0	3340.5	3625.1	3779.6	3598.2	3417.7	3176.4	2924.7	2603.6	2438.7	2429.2
27.5°	3549.6	3530.5	3451.5	3699.8	3567.8	3342.2	3050.6	2710.4	2424.8	2281.6	2274.7
30°	3802.2	3743.1	3557.4	3312.7	3442.9	3195.5	2857.0	2490.8	2263.4	2133.2	2122.8
32.5°	4104.2	3980.1	3653.8	3270.2	3033.2	2974.2	2607.1	2317.2	2129.8	1994.4	1967.5
35°	4462.6	4276.9	3746.6	3198.1	2713.8	2646.2	2371.9	2161.0	2003.9	1866.8	1839.9
37.5°	4461.7	4655.3	3883.7	3099.2	2516.0	2278.2	2200.9	2056.9	1916.3	1750.5	1720.1
40°	4494.7	4500.8	4034.8	3002.8	2331.1	2089.0	2099.4	2005.7	1860.7	1678.5	1647.2
42.5°	4895.7	4600.6	4219.6	2873.5	2156.7	1949.2	2056.0	1987.4	1831.2	1644.6	1609.9
45°	5244.6	4904.4	3814.3	2732.1	1973.5	1840.8	2021.3	1944.9	1789.6	1603.8	1564.8
47.5°	5548.3	5145.6	3917.6	2484.7	1794.8	1752.2	1954.5	1863.3	1714.9	1542.2	1507.5
50°	5779.2	5345.2	4007.8	2152.3	1621.2	1663.7	1846.0	1753.1	1609.9	1470.2	1440.7
51°	5858.2	5409.5	4026.1	2137.6	1529.2	1622.1	1794.8	1704.5	1576.1	1442.4	1415.5
52.5°	5943.2	5492.8	4053.0	2170.6	1399.0	1553.5	1711.5	1632.5	1525.7	1411.2	1380.8
55°	4941.7	5161.3	3984.4	2101.1	1248.0	1417.2	1558.7	1523.1	1464.1	1362.6	1340.9
57.5°	4761.2	4367.2	3304.9	1779.1	1115.2	1254.9	1410.3	1433.7	1388.6	1285.3	1269.7
60°	4800.2	4327.2	2943.0	1327.0	983.3	1110.0	1299.2	1320.0	1281.0	1202.9	1181.2
62.5°	4793.3	4224.8	2624.5	934.7	868.7	1034.5	1219.4	1228.0	1174.2	1109.1	1089.2
65°	4678.7	3989.6	2189.7	707.3	805.4	992.8	1172.5	1176.8	1110.0	1026.7	1016.3
67.5°	4423.6	3617.3	1523.1	621.4	769.8	960.7	1141.3	1122.2	1057.9	970.3	954.7
70°	3934.9	2947.3	711.7	571.9	716.0	901.7	1064.9	1042.3	972.0	890.4	876.6
72.5°	3154.7	2048.2	337.6	523.3	659.6	828.0	971.2	935.6	877.4	847.0	839.2
75°	2064.7	961.6	282.1	471.3	584.9	738.6	890.4	877.4	823.6	762.9	733.4
77.5°	837.5	253.4	255.2	418.3	525.1	680.4	804.5	794.1	722.9	668.3	656.1
80°	210.9	190.1	233.5	345.4	457.4	592.8	705.6	676.1	650.0	591.0	571.9
82.5°	160.6	152.7	183.1	267.3	375.8	488.6	602.3	614.5	571.1	525.9	516.4
85°	112.0	138.9	111.1	190.1	278.6	385.3	505.1	526.8	497.3	446.1	411.4
87.5°	61.6	72.9	46.0	99.8	147.5	210.9	289.9	292.5	242.1	222.2	209.2
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)