

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: P591154

Luminaire Tested: **CTN-CA6-230-722-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591154
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)
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-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 17812 lumens
Efficiency: N/A
Efficacy: 78.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

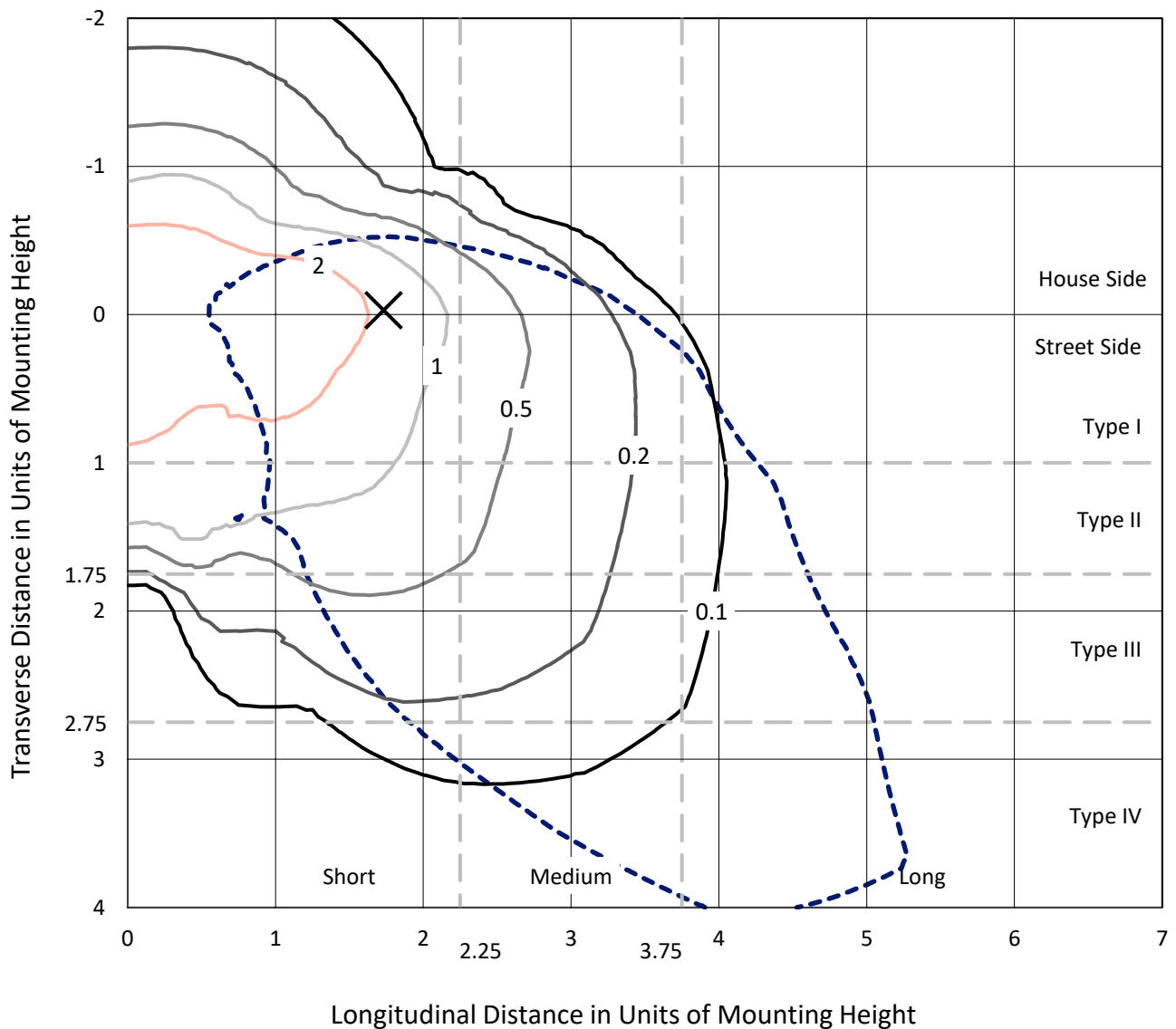
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

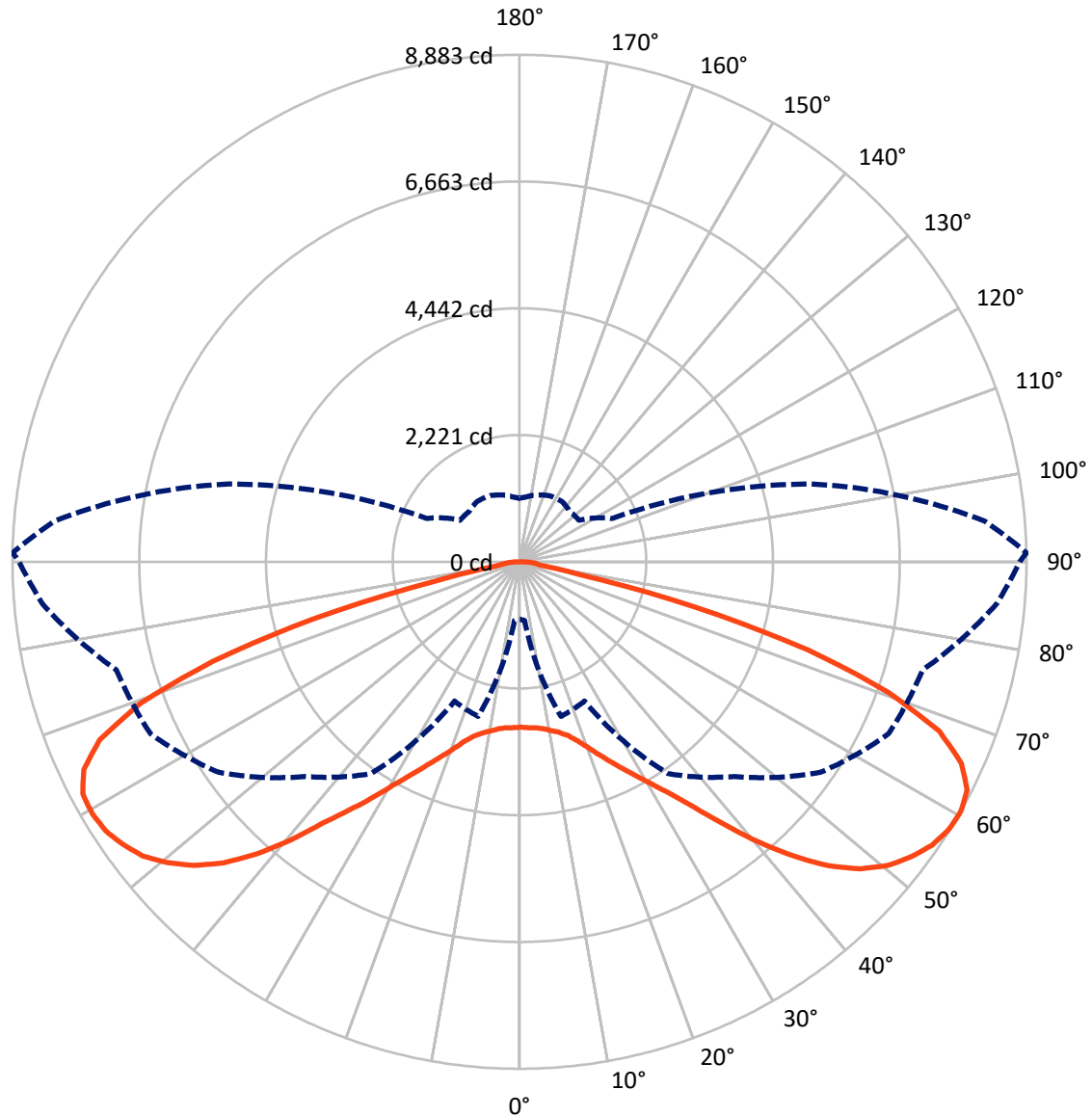
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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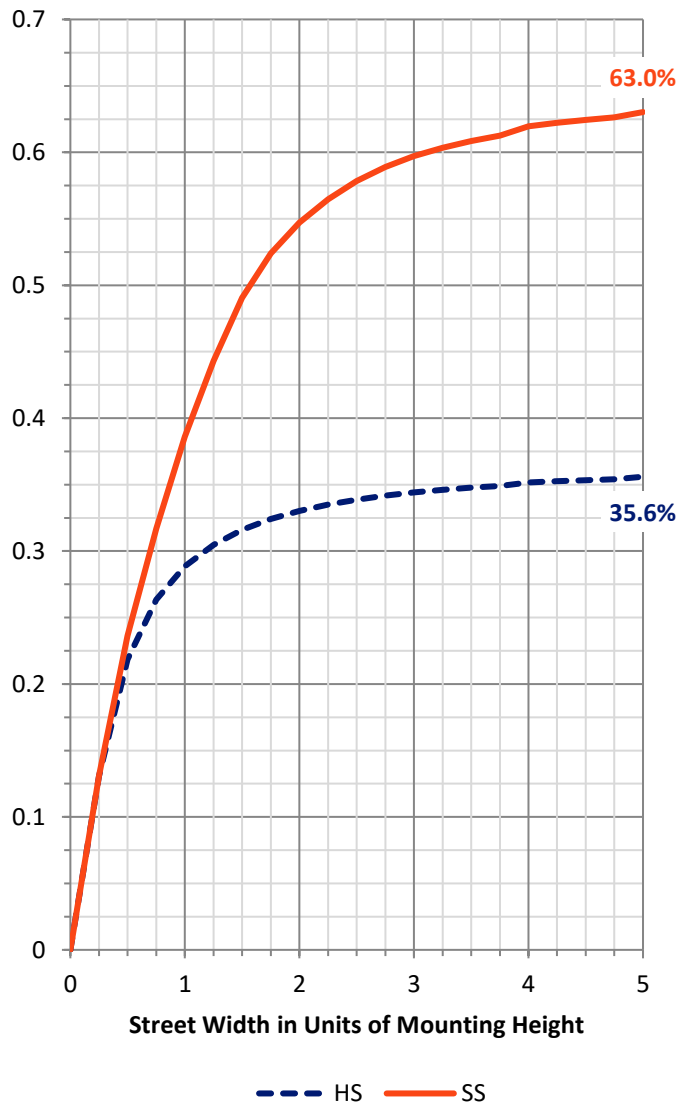
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6468.7	0.0	6468.7
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	11343.3	0.0	11343.3
	% Fixture	63.7	0.0	63.7
Total	Lumens	17812.0	0.0	17812.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.4	1.6
10°-20°	866.2	4.9
20°-30°	1419.9	8.0
30°-40°	2005.4	11.3
40°-50°	2823.0	15.8
50°-60°	3552.2	19.9
60°-70°	3575.6	20.1
70°-80°	2630.5	14.8
80°-90°	656.7	3.7
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°	17812.0	100.0
0°-180°	17812.0	100.0

Coefficient of Utilization



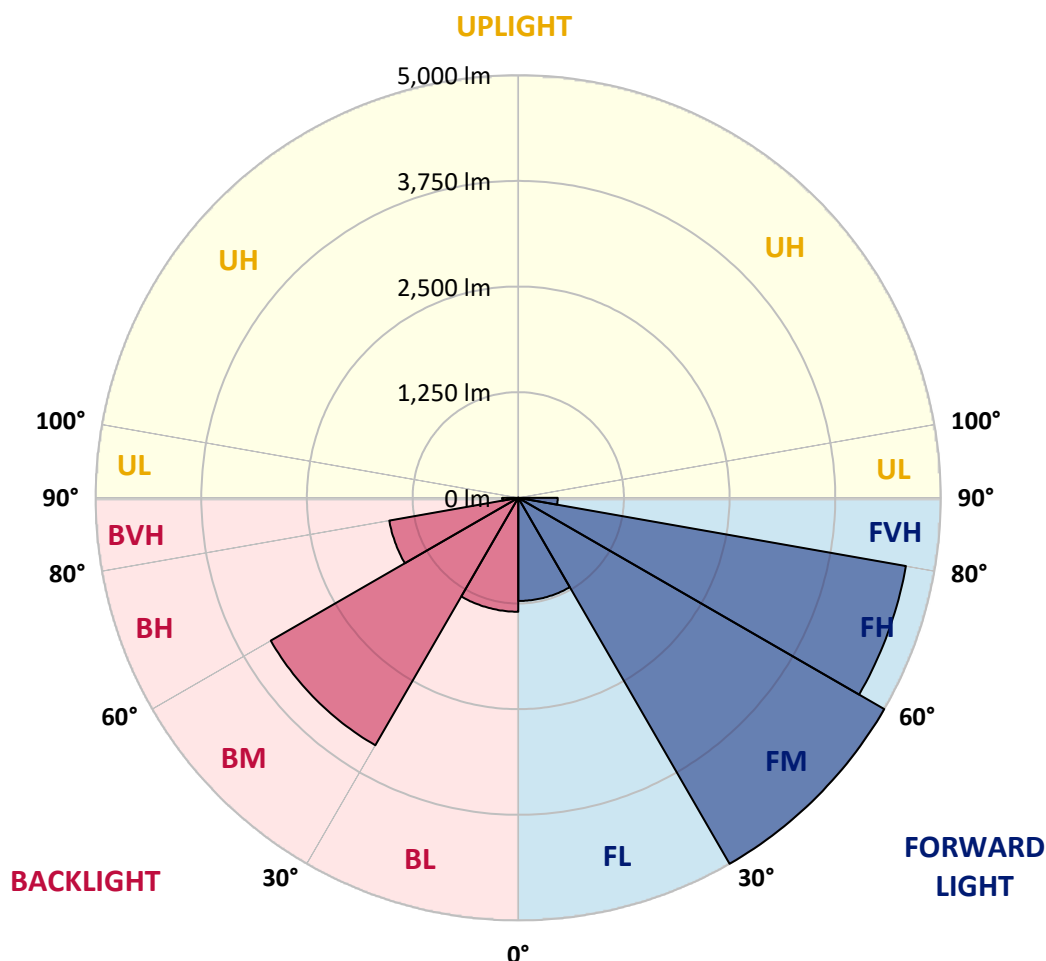
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1220.3	6.9			
FM (30°-60°)	4999.8	28.1			
FH (60°-80°)	4656.8	26.1			G2/5000
FVH (80°-90°)	466.4	2.6			G3/500
BL (0°-30°)	1348.3	7.6	B3/2500		
BM (30°-60°)	3380.9	19.0	B3/5000		
BH (60°-80°)	1549.2	8.7	B3/2500		G3/2500
BVH (80°-90°)	190.3	1.1			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9
2.5°	2868.3	2850.0	2850.9	2877.8	2837.0	2863.1	2857.0	2898.6	2890.8	2905.6	2909.0
5°	2848.3	2833.5	2833.5	2865.7	2837.9	2860.4	2841.4	2877.8	2890.8	2912.5	2916.9
7.5°	2856.1	2840.5	2846.6	2874.3	2843.1	2866.5	2864.8	2896.9	2904.7	2941.2	2946.4
10°	2870.0	2856.1	2857.8	2881.3	2860.4	2903.8	2896.0	2942.0	2941.2	2998.4	3002.8
12.5°	2845.7	2835.3	2835.3	2866.5	2878.7	2924.7	2940.3	2988.0	2993.2	3057.5	3062.7
15°	2807.5	2790.2	2816.2	2863.1	2888.2	2960.3	2987.2	3062.7	3076.5	3137.3	3150.3
17.5°	2727.7	2735.5	2808.4	2775.4	2660.8	2767.6	3063.5	3159.9	3190.2	3262.3	3293.5
20°	2480.3	2384.0	2193.1	2245.1	2481.2	2785.8	3170.3	3283.1	3349.9	3435.0	3487.9
22.5°	1873.7	1934.4	2291.1	2328.5	2338.9	2541.9	3319.5	3434.1	3522.6	3630.2	3700.5
25°	1943.1	1937.1	2059.4	2442.1	2452.6	2568.8	3125.1	3631.1	3710.9	3860.2	3930.5
27.5°	2007.3	2007.3	2000.4	2305.9	2570.6	2685.1	3226.7	3486.2	3958.3	4120.6	4203.0
30°	2114.1	2117.6	2078.5	2077.6	2667.8	2791.9	3422.8	3551.3	4177.0	4484.2	4503.3
32.5°	2325.8	2313.7	2265.1	2190.5	2307.6	2916.0	3614.6	3786.4	3966.1	4893.0	4875.6
35°	2478.6	2469.0	2434.3	2382.3	2328.5	2972.4	3794.3	4032.9	4327.1	5013.6	5346.8
37.5°	2663.4	2647.8	2608.8	2547.2	2512.4	2566.2	3979.1	4311.5	4778.4	5156.8	5878.8
40°	2865.7	2861.3	2801.4	2721.6	2673.9	2713.8	4120.6	4658.6	5338.2	5765.2	6465.5
42.5°	3021.0	3017.5	2968.1	2922.1	2899.5	2980.2	3769.1	5118.6	5978.6	6318.0	7030.5
45°	3160.7	3155.5	3153.8	3138.2	3156.4	3352.5	4154.4	5402.4	6607.8	6793.6	7544.3
47.5°	3266.6	3251.0	3206.7	3211.1	3262.3	3592.9	4555.4	4974.5	7118.1	7212.7	7945.2
50°	3518.3	3502.7	3349.9	3355.1	3454.1	3891.5	4900.8	5470.1	6643.4	7575.5	8252.4
52.5°	3743.1	3613.7	3530.4	3533.9	3669.3	4209.1	5293.0	5983.0	6530.6	7862.8	8500.6
55°	3232.8	3149.4	3960.0	3847.2	3921.8	4555.4	5674.0	6427.3	6840.4	8082.3	8643.0
57.5°	1897.1	1886.7	4358.4	4456.4	4369.6	4929.4	6059.4	6797.0	7112.1	8287.1	8738.4
60°	1006.7	1031.0	2803.2	2693.8	4529.3	5319.9	6432.5	7132.9	7313.4	8393.0	8764.5
62.5°	92.9	82.4	1842.5	2093.3	4059.8	5830.2	6875.1	7474.8	7449.7	8449.4	8718.5
65°	18.2	24.3	1807.7	2068.1	4511.1	6676.4	7598.1	7737.8	7523.4	8381.7	8477.2
67.5°	13.9	20.8	1707.9	2045.5	4788.0	7001.8	8430.3	7830.6	7527.8	8165.6	7946.1
70°	13.9	21.7	1507.5	1911.9	4919.0	7015.7	8627.3	7794.2	7430.6	7676.2	6945.4
72.5°	13.9	21.7	1266.2	1656.7	4696.0	6714.6	8281.9	7592.0	7068.7	6609.6	5417.1
75°	13.9	20.0	993.7	1346.0	4059.0	6250.3	7689.2	6712.0	5950.0	4836.6	3475.8
77.5°	13.9	19.1	732.5	1053.6	3387.2	5512.6	6686.8	5516.9	4485.1	2532.4	1279.2
80°	13.0	19.1	446.1	742.9	2609.6	4446.9	5254.9	4076.3	2357.1	637.0	369.7
82.5°	13.0	18.2	212.6	475.6	1833.8	3177.2	3428.9	1746.1	501.6	294.2	294.2
85°	11.3	16.5	113.7	258.6	1198.5	2082.9	1654.1	295.9	196.1	198.7	226.5
87.5°	6.9	8.7	53.8	116.3	690.8	1113.5	637.0	108.5	81.6	85.9	128.4
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9	2896.9
2.5°	2911.7	2907.3	2916.9	2947.2	2942.0	2963.7	2946.4	2976.7	2982.8	2974.1	2988.0
5°	2921.2	2927.3	2959.4	2988.0	2972.4	3007.1	3016.7	3059.2	3058.3	3050.5	3067.9
7.5°	2952.4	2968.9	3001.0	3036.6	3044.4	3072.2	3068.7	3122.5	3116.5	3113.0	3130.4
10°	3006.2	3031.4	3061.8	3120.8	3101.7	3148.6	3116.5	3152.9	3149.4	3140.8	3156.4
12.5°	3066.1	3100.8	3137.3	3191.1	3183.3	3182.4	3153.8	3165.1	3155.5	3134.7	3147.7
15°	3156.4	3198.9	3249.2	3284.0	3238.0	3220.6	3175.5	3151.2	3118.2	3069.6	3077.4
17.5°	3297.0	3347.3	3401.1	3407.2	3336.0	3290.9	3181.6	3094.8	3008.9	2943.8	2949.8
20°	3486.2	3532.2	3572.1	3543.4	3447.1	3346.4	3181.6	3044.4	2883.9	2764.1	2755.4
22.5°	3707.5	3721.4	3759.5	3689.2	3523.5	3382.9	3172.9	2968.9	2707.7	2548.0	2528.9
25°	3946.1	3944.4	3927.9	3782.1	3571.2	3362.9	3106.9	2839.6	2506.4	2339.7	2325.8
27.5°	4205.6	4183.9	4071.1	3860.2	3551.3	3290.9	2981.9	2621.8	2323.2	2180.0	2175.7
30°	4498.1	4440.8	4212.6	3868.0	3476.6	3148.6	2778.9	2402.2	2160.1	2032.5	2020.4
32.5°	4839.2	4727.2	4325.4	3842.9	3342.1	2931.6	2531.5	2229.5	2026.4	1886.7	1859.8
35°	5284.4	5088.2	4429.5	3760.4	3142.5	2673.9	2303.3	2075.9	1902.3	1759.1	1730.5
37.5°	5844.1	5556.0	4586.6	3639.8	2914.3	2443.9	2145.3	1974.4	1816.4	1647.2	1612.5
40°	6465.5	6106.2	4770.6	3522.6	2697.3	2272.9	2042.1	1926.6	1760.9	1575.2	1542.2
42.5°	7053.9	6659.9	5046.6	3370.7	2490.7	2135.8	2004.7	1912.8	1734.8	1543.9	1508.3
45°	7597.2	7146.8	5331.2	3218.0	2280.7	2023.8	1973.5	1872.0	1694.9	1507.5	1466.7
47.5°	8040.7	7530.4	5582.9	3060.1	2095.9	1936.2	1913.6	1793.9	1624.6	1448.4	1410.3
50°	8362.6	7824.6	5730.4	2913.4	1918.0	1848.5	1808.6	1682.8	1525.7	1379.0	1351.2
52.5°	8590.9	8078.9	5804.2	2896.9	1756.5	1730.5	1686.2	1568.2	1442.4	1328.7	1295.7
55°	8767.1	8217.7	5740.9	2800.6	1603.8	1582.1	1536.1	1463.2	1387.7	1281.8	1260.1
57.5°	8862.5	8281.1	5595.9	2362.3	1441.5	1404.2	1398.1	1382.5	1316.5	1211.5	1195.0
60°	8883.4	8180.4	5267.9	1796.5	1271.4	1247.1	1293.1	1273.1	1214.1	1136.0	1112.6
62.5°	8801.8	7965.2	4645.6	1343.4	1129.9	1169.9	1216.7	1186.4	1117.8	1041.4	1026.7
65°	8507.6	7471.4	3743.9	1045.8	1064.9	1133.4	1175.1	1138.6	1055.3	968.5	959.0
67.5°	7932.2	6702.4	2464.7	940.8	1034.5	1103.0	1149.9	1091.8	1007.6	913.9	902.6
70°	6853.4	5298.2	1174.2	877.4	976.3	1044.0	1081.3	1015.4	933.8	841.8	829.7
72.5°	5293.0	3600.7	648.3	808.0	904.3	966.8	993.7	915.6	840.1	801.9	798.4
75°	3185.9	1547.4	585.8	739.4	811.4	869.6	917.3	858.3	792.4	717.7	698.6
77.5°	1051.8	449.5	551.1	657.8	739.4	809.7	832.3	775.0	692.5	629.2	624.0
80°	368.8	376.6	513.8	547.6	643.9	703.0	728.1	662.2	623.1	557.2	544.1
82.5°	300.3	337.6	414.8	413.1	508.6	578.0	616.2	599.7	548.5	495.5	490.3
85°	245.6	309.0	263.0	289.0	364.5	440.0	512.9	514.6	475.6	421.8	386.2
87.5°	145.8	157.9	131.0	147.5	192.7	247.3	286.4	273.4	223.9	189.2	184.9
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)