

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: P591106

Luminaire Tested: **CTN-CA10-210-722-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591106
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-CA10-210-722-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 18043 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

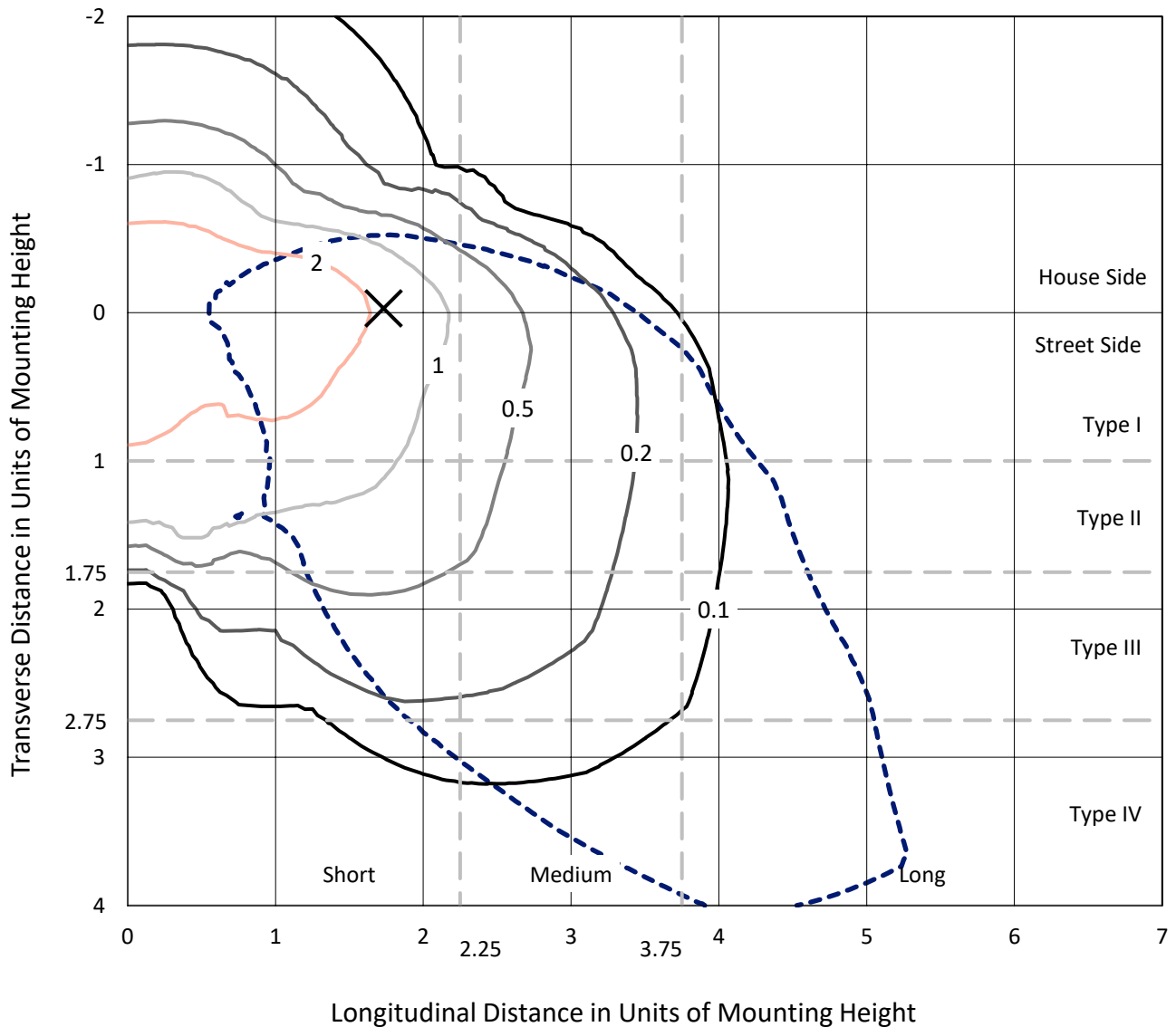
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

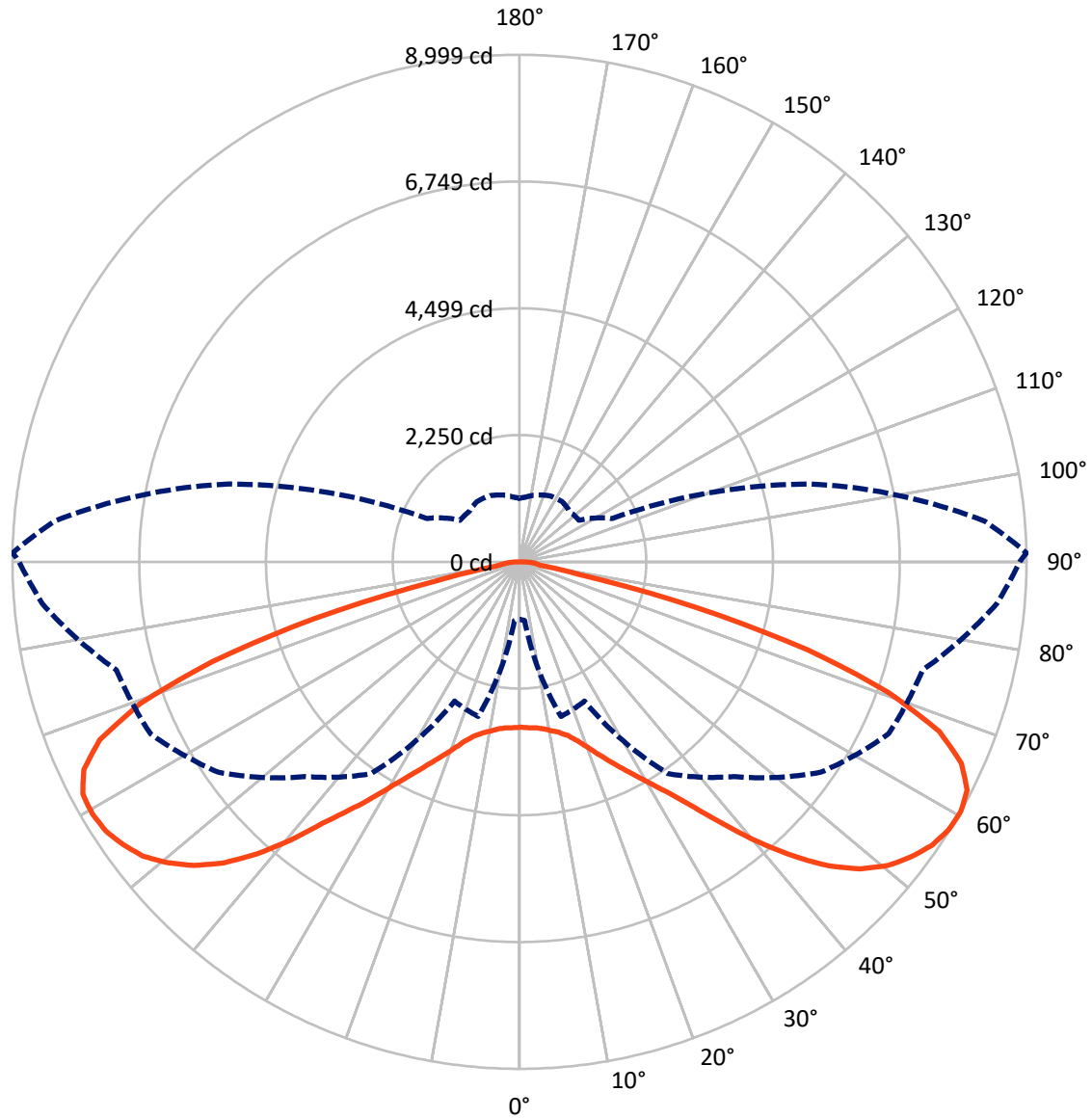
✕ Max cd
 - - - 1/2 Max cd



Based on 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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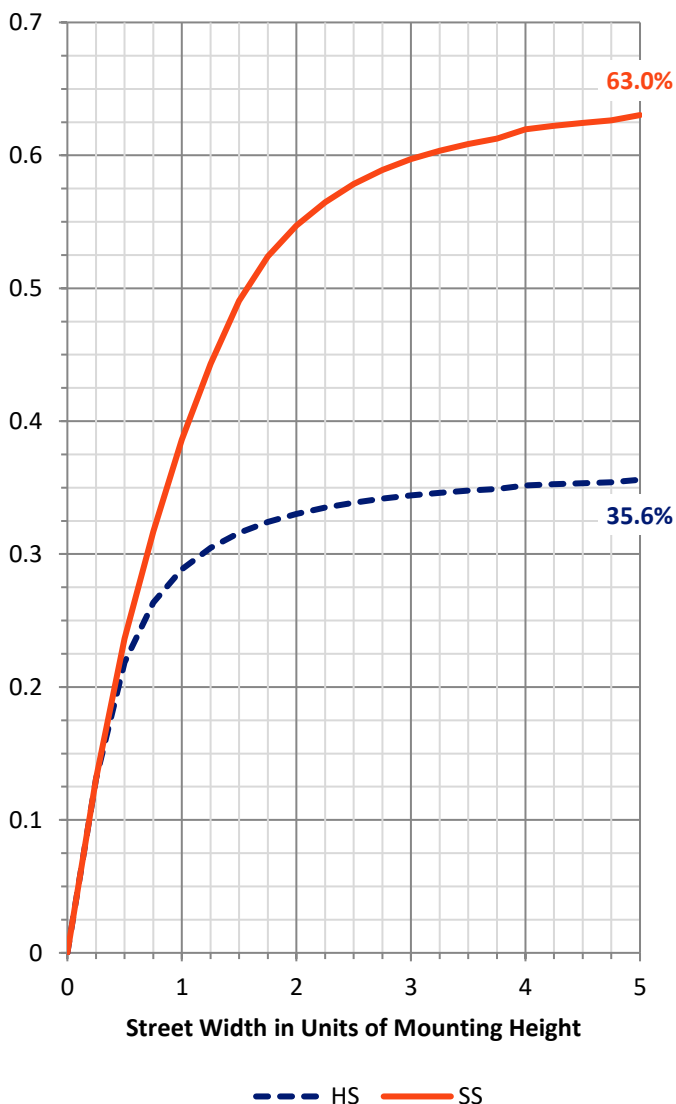
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6552.6	0.0	6552.6
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	11490.5	0.0	11490.5
	% Fixture	63.7	0.0	63.7
Total	Lumens	18043.0	0.0	18043.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.1	1.6
10°-20°	877.5	4.9
20°-30°	1438.4	8.0
30°-40°	2031.4	11.3
40°-50°	2859.7	15.8
50°-60°	3598.3	19.9
60°-70°	3621.9	20.1
70°-80°	2664.6	14.8
80°-90°	665.2	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°	18043.0	100.0
0°-180°	18043.0	100.0

Coefficient of Utilization



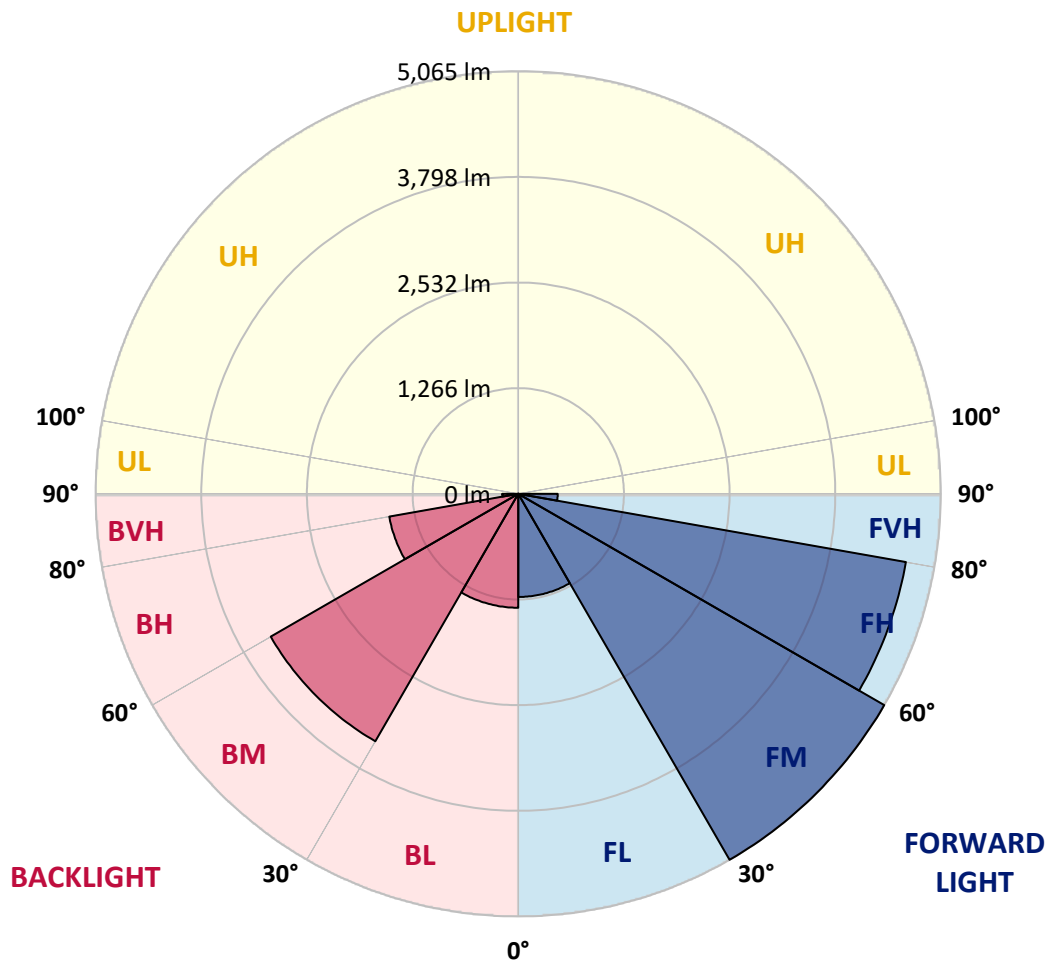
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1236.2	6.9			
FM (30°-60°)	5064.7	28.1			
FH (60°-80°)	4717.2	26.1			G2/5000
FVH (80°-90°)	472.5	2.6			G3/500
BL (0°-30°)	1365.8	7.6	B3/2500		
BM (30°-60°)	3424.7	19.0	B3/5000		
BH (60°-80°)	1569.3	8.7	B3/2500		G3/2500
BVH (80°-90°)	192.7	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°	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5
2.5°	2905.5	2887.0	2887.9	2915.1	2873.8	2900.2	2894.0	2936.2	2928.3	2943.3	2946.8
5°	2885.2	2870.3	2870.3	2902.8	2874.7	2897.5	2878.2	2915.1	2928.3	2950.3	2954.7
7.5°	2893.1	2877.3	2883.5	2911.6	2880.0	2903.7	2901.9	2934.5	2942.4	2979.3	2984.6
10°	2907.2	2893.1	2894.9	2918.6	2897.5	2941.5	2933.6	2980.2	2979.3	3037.3	3041.7
12.5°	2882.6	2872.0	2872.0	2903.7	2916.0	2962.6	2978.4	3026.8	3032.0	3097.1	3102.4
15°	2843.9	2826.3	2852.7	2900.2	2925.7	2998.6	3025.9	3102.4	3116.4	3178.0	3191.2
17.5°	2763.0	2771.0	2844.8	2811.4	2695.3	2803.5	3103.3	3200.8	3231.6	3304.6	3336.2
20°	2512.5	2414.9	2221.5	2274.3	2513.4	2821.9	3211.4	3325.7	3393.4	3479.5	3533.1
22.5°	1898.0	1959.5	2320.8	2358.7	2369.2	2574.9	3362.6	3478.6	3568.3	3677.3	3748.5
25°	1968.3	1962.2	2086.1	2473.8	2484.4	2602.2	3165.7	3678.2	3759.1	3910.3	3981.5
27.5°	2033.4	2033.4	2026.3	2335.8	2603.9	2720.0	3268.5	3531.4	4009.6	4174.0	4257.5
30°	2141.5	2145.0	2105.5	2104.6	2702.4	2828.1	3467.2	3597.3	4231.2	4542.4	4561.7
32.5°	2356.0	2343.7	2294.5	2218.9	2337.6	2953.8	3661.5	3835.6	4017.5	4956.4	4938.8
35°	2510.7	2501.1	2465.9	2413.2	2358.7	3010.9	3843.5	4085.2	4383.2	5078.6	5416.2
37.5°	2698.0	2682.2	2642.6	2580.2	2545.0	2599.5	4030.7	4367.4	4840.4	5223.7	5955.1
40°	2902.8	2898.4	2837.8	2756.9	2708.5	2749.0	4174.0	4719.1	5407.4	5839.9	6549.4
42.5°	3060.2	3056.7	3006.6	2960.0	2937.1	3018.9	3818.0	5185.0	6056.2	6399.9	7121.7
45°	3201.7	3196.4	3194.7	3178.9	3197.3	3396.0	4208.3	5472.5	6693.5	6881.7	7642.1
47.5°	3309.0	3293.1	3248.3	3252.7	3304.6	3639.5	4614.4	5039.1	7210.5	7306.3	8048.2
50°	3563.9	3548.1	3393.4	3398.6	3498.9	3941.9	4964.3	5541.0	6729.6	7673.7	8359.4
52.5°	3791.6	3660.6	3576.2	3579.7	3716.9	4263.7	5361.7	6060.6	6615.3	7964.7	8610.9
55°	3274.7	3190.3	4011.4	3897.1	3972.7	4614.4	5747.6	6510.7	6929.1	8187.1	8755.0
57.5°	1921.7	1911.2	4414.9	4514.2	4426.3	4993.3	6137.9	6885.2	7204.3	8394.6	8851.8
60°	1019.8	1044.4	2839.5	2728.8	4588.1	5388.9	6516.0	7225.4	7408.3	8501.9	8878.1
62.5°	94.1	83.5	1866.3	2120.4	4112.5	5905.9	6964.3	7571.8	7546.3	8559.0	8831.5
65°	18.5	24.6	1831.2	2094.9	4569.6	6763.0	7696.6	7838.1	7621.0	8490.4	8587.1
67.5°	14.1	21.1	1730.1	2072.1	4850.0	7092.7	8539.7	7932.2	7625.4	8271.5	8049.1
70°	14.1	22.0	1527.0	1936.7	4982.8	7106.7	8739.2	7895.3	7526.9	7775.7	7035.5
72.5°	14.1	22.0	1282.6	1678.2	4756.9	6801.7	8389.3	7690.4	7160.3	6695.3	5487.4
75°	14.1	20.2	1006.6	1363.5	4111.6	6331.3	7788.9	6799.0	6027.2	4899.3	3520.8
77.5°	14.1	19.3	742.0	1067.2	3431.2	5584.1	6773.5	5588.5	4543.2	2565.2	1295.8
80°	13.2	19.3	451.9	752.5	2643.5	4504.6	5323.0	4129.2	2387.7	645.3	374.5
82.5°	13.2	18.5	215.4	481.8	1857.6	3218.4	3473.4	1768.8	508.1	298.0	298.0
85°	11.4	16.7	115.2	262.0	1214.0	2109.9	1675.6	299.8	198.7	201.3	229.4
87.5°	7.0	8.8	54.5	117.8	699.8	1127.9	645.3	109.9	82.6	87.0	130.1
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5	2934.5
2.5°	2949.4	2945.0	2954.7	2985.5	2980.2	3002.2	2984.6	3015.3	3021.5	3012.7	3026.8
5°	2959.1	2965.2	2997.8	3026.8	3010.9	3046.1	3055.8	3098.9	3098.0	3090.1	3107.7
7.5°	2990.7	3007.4	3040.0	3076.0	3083.9	3112.0	3108.5	3163.0	3156.9	3153.4	3170.9
10°	3045.2	3070.7	3101.5	3161.3	3141.9	3189.4	3156.9	3193.8	3190.3	3181.5	3197.3
12.5°	3105.9	3141.1	3178.0	3232.5	3224.6	3223.7	3194.7	3206.1	3196.4	3175.3	3188.5
15°	3197.3	3240.4	3291.4	3326.5	3280.0	3262.4	3216.7	3192.0	3158.6	3109.4	3117.3
17.5°	3339.7	3390.7	3445.2	3451.4	3379.3	3333.6	3222.8	3134.9	3047.9	2981.9	2988.1
20°	3531.4	3578.0	3618.4	3589.4	3491.8	3389.8	3222.8	3083.9	2921.3	2800.0	2791.2
22.5°	3755.6	3769.6	3808.3	3737.1	3569.2	3426.8	3214.0	3007.4	2742.8	2581.1	2561.7
25°	3997.3	3995.6	3978.8	3831.2	3617.5	3406.5	3147.2	2876.4	2538.9	2370.1	2356.0
27.5°	4260.2	4238.2	4123.9	3910.3	3597.3	3333.6	3020.6	2655.8	2353.4	2208.3	2203.9
30°	4556.4	4498.4	4267.2	3918.2	3521.7	3189.4	2814.9	2433.4	2188.1	2058.9	2046.6
32.5°	4901.9	4788.5	4381.5	3892.7	3385.4	2969.6	2564.4	2258.4	2052.7	1911.2	1883.9
35°	5352.9	5154.2	4487.0	3809.2	3183.3	2708.5	2333.2	2102.8	1927.0	1782.0	1752.9
37.5°	5919.9	5628.1	4646.1	3687.0	2952.0	2475.6	2173.2	2000.0	1840.0	1668.5	1633.4
40°	6549.4	6185.4	4832.5	3568.3	2732.3	2302.4	2068.5	1951.6	1783.7	1595.6	1562.2
42.5°	7145.4	6746.3	5112.0	3414.5	2523.0	2163.5	2030.7	1937.6	1757.3	1563.9	1527.9
45°	7695.7	7239.5	5400.4	3259.7	2310.3	2050.1	1999.1	1896.2	1716.9	1527.0	1485.7
47.5°	8144.9	7628.0	5655.3	3099.7	2123.0	1961.3	1938.4	1817.1	1645.7	1467.2	1428.6
50°	8471.1	7926.0	5804.8	2951.2	1942.8	1872.5	1832.1	1704.6	1545.5	1396.9	1368.8
52.5°	8702.3	8183.6	5879.5	2934.5	1779.3	1752.9	1708.1	1588.6	1461.1	1345.9	1312.5
55°	8880.8	8324.3	5815.3	2836.9	1624.6	1602.6	1556.0	1482.2	1405.7	1298.4	1276.5
57.5°	8977.5	8388.5	5668.5	2392.9	1460.2	1422.4	1416.2	1400.4	1333.6	1227.2	1210.5
60°	8998.6	8286.5	5336.2	1819.8	1287.9	1263.3	1309.9	1289.7	1229.9	1150.8	1127.0
62.5°	8915.9	8068.5	4705.9	1360.9	1144.6	1185.0	1232.5	1201.7	1132.3	1054.9	1040.0
65°	8617.9	7568.3	3792.5	1059.3	1078.7	1148.1	1190.3	1153.4	1069.0	981.1	971.4
67.5°	8035.1	6789.4	2496.7	953.0	1047.9	1117.3	1164.8	1105.9	1020.6	925.7	914.3
70°	6942.3	5367.0	1189.4	888.8	989.0	1057.6	1095.4	1028.6	945.9	852.7	840.4
72.5°	5361.7	3647.4	656.7	818.5	916.0	979.3	1006.6	927.5	851.0	812.3	808.8
75°	3227.2	1567.5	593.4	749.0	822.0	880.9	929.2	869.4	802.6	727.0	707.7
77.5°	1065.5	455.4	558.2	666.4	749.0	820.2	843.1	785.0	701.5	637.4	632.1
80°	373.6	381.5	520.4	554.7	652.3	712.1	737.6	670.8	631.2	564.4	551.2
82.5°	304.2	342.0	420.2	418.5	515.2	585.5	624.2	607.5	555.6	502.0	496.7
85°	248.8	313.0	266.4	292.7	369.2	445.7	519.6	521.3	481.8	427.2	391.2
87.5°	147.7	160.0	132.7	149.4	195.2	250.5	290.1	276.9	226.8	191.6	187.3
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)