

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: P591249

Luminaire Tested: **CTN-CA6-230-727-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591249
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-CA6-230-727-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12828 lumens
Efficiency: N/A
Efficacy: 56.3 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

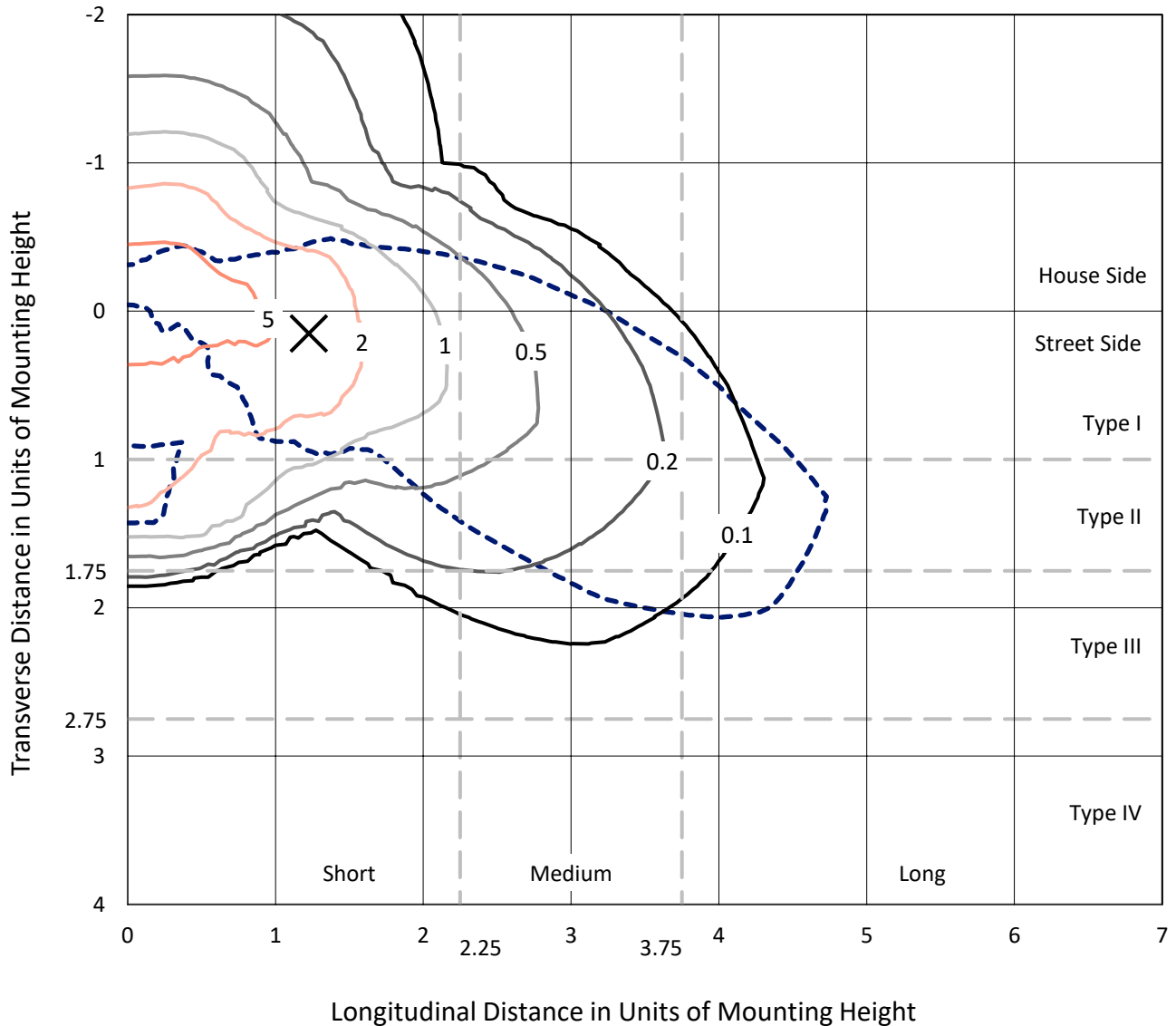




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Iso-Footcandle Lines of Horizontal Illumination

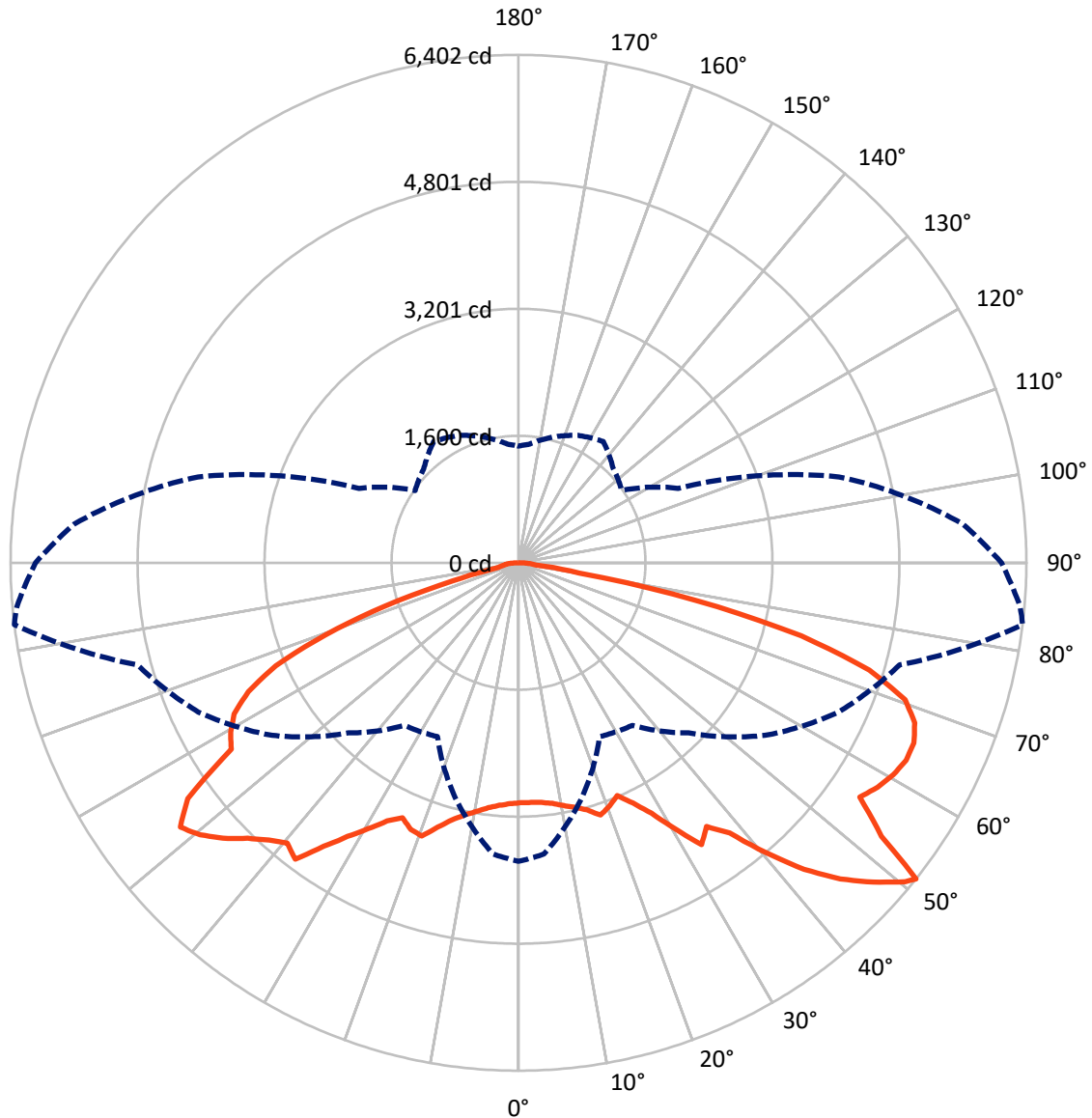
× Max cd
 - - - 1/2 Max cd



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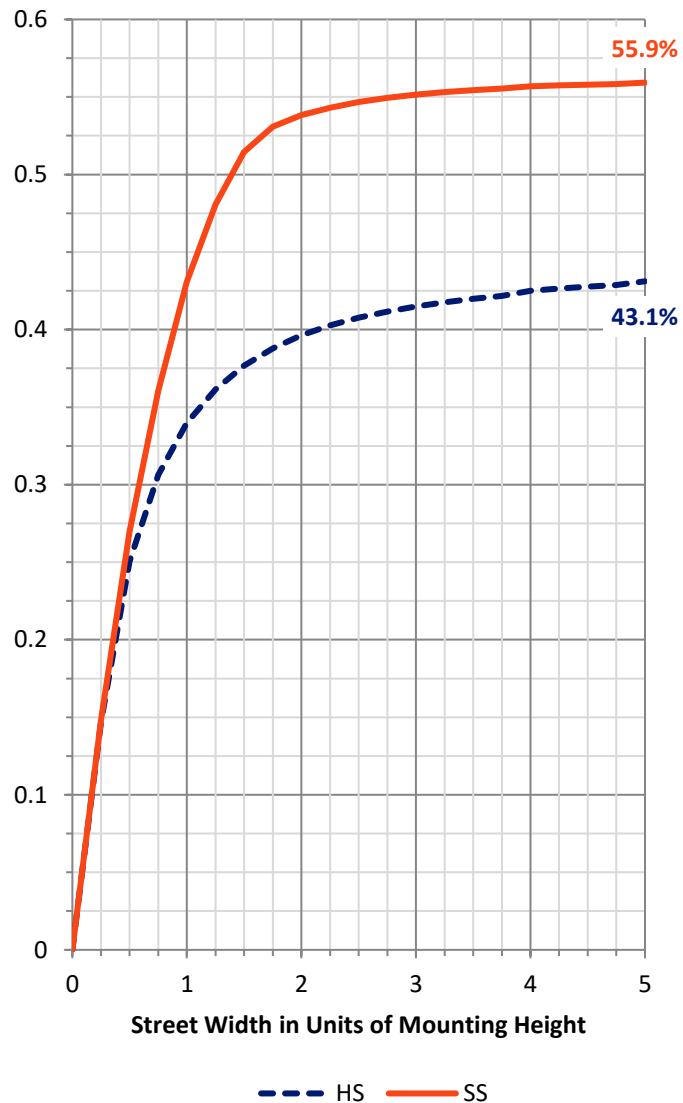
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5654.0	0.0	5654.0
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	7174.0	0.0	7174.0
	% Fixture	55.9	0.0	55.9
Total	Lumens	12828.0	0.0	12828.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.4	2.3
10°-20°	898.9	7.0
20°-30°	1396.3	10.9
30°-40°	1868.4	14.6
40°-50°	2424.0	18.9
50°-60°	2581.6	20.1
60°-70°	1798.4	14.0
70°-80°	1254.7	9.8
80°-90°	310.4	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°	12828.0	100.0
0°-180°	12828.0	100.0

Coefficient of Utilization

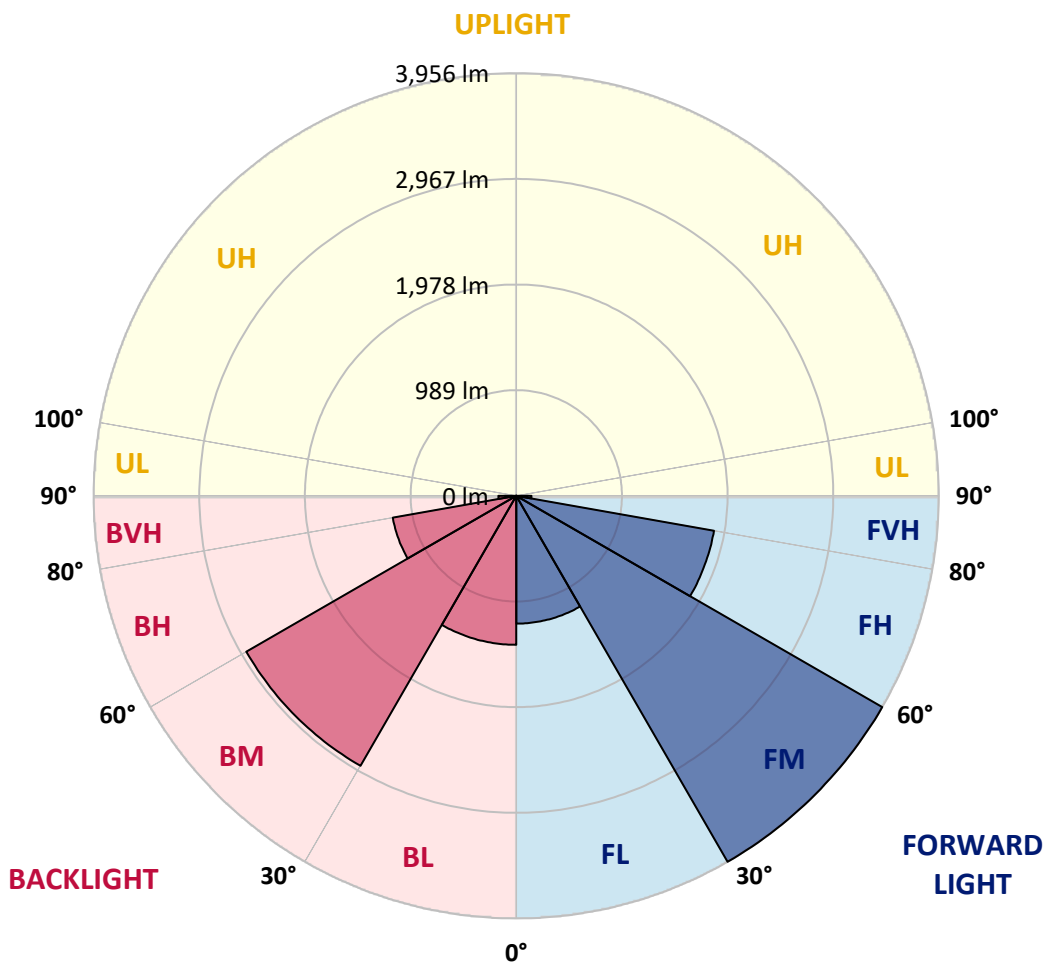


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1196.1	9.3			
FM (30°-60°)	3955.8	30.8			
FH (60°-80°)	1879.6	14.7			G2/5000
FVH (80°-90°)	142.5	1.1			G2/225
BL (0°-30°)	1394.5	10.9	B3/2500		
BM (30°-60°)	2918.2	22.7	B3/5000		
BH (60°-80°)	1173.4	9.1	B3/2500		G3/2500
BVH (80°-90°)	167.9	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°	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6
2.5°	2987.5	2966.8	2968.6	2996.5	2959.6	2983.9	2980.3	3023.6	3015.5	3024.5	3030.8
5°	2961.4	2945.1	2945.1	2982.1	2956.0	2982.1	2964.1	3002.0	3014.6	3034.4	3041.6
7.5°	2966.8	2949.7	2956.9	2989.3	2960.5	2987.5	2986.6	3022.7	3027.2	3062.4	3074.1
10°	2982.1	2963.2	2966.8	2992.9	2976.7	3023.6	3015.5	3065.1	3065.1	3112.0	3130.0
12.5°	2950.6	2937.9	2945.1	2980.3	2994.7	3043.4	3054.3	3104.8	3112.0	3162.5	3185.0
15°	2916.3	2898.3	2921.7	2972.2	2996.5	3066.9	3090.3	3167.9	3178.7	3231.0	3256.2
17.5°	2750.4	2738.6	2781.9	2822.5	2836.0	2904.6	2950.6	3079.5	3234.6	3343.7	3373.5
20°	2420.3	2418.5	2338.3	2321.1	2531.2	2781.9	2813.5	2923.5	3103.0	3273.4	3333.8
22.5°	2020.8	2074.9	2335.6	2418.5	2413.1	2512.3	2916.3	3020.0	3099.3	3185.9	3222.0
25°	2020.8	2016.3	2170.5	2527.6	2528.5	2570.9	2661.1	3180.5	3256.2	3355.4	3384.3
27.5°	2084.9	2089.4	2079.5	2340.1	2653.0	2692.7	2731.4	3000.2	3464.6	3574.6	3622.4
30°	2193.1	2200.3	2160.6	2161.5	2694.5	2813.5	2887.4	2992.9	3609.7	3892.0	3913.6
32.5°	2406.8	2404.1	2354.5	2290.5	2364.4	2931.6	3039.8	3176.9	3380.7	4234.7	4285.2
35°	2577.2	2565.5	2531.2	2487.0	2389.7	2898.3	3185.0	3374.4	3634.1	4082.3	4349.2
37.5°	2766.6	2749.5	2710.7	2656.6	2568.2	2022.6	3328.4	3599.8	4002.9	4321.2	4338.4
40°	2980.3	2961.4	2908.2	2828.8	2716.1	2072.2	3392.4	3878.5	4483.5	4803.7	4801.0
42.5°	3144.4	3125.5	3097.5	3013.7	2387.9	2286.0	2958.7	4269.8	5003.9	5281.6	5258.2
45°	3283.3	3267.1	3269.8	3181.4	2240.0	2548.4	3295.9	4474.5	5494.4	5683.8	5653.1
47.5°	3391.5	3366.3	3297.7	2676.4	2297.7	2729.6	3570.1	3902.8	5908.3	6015.6	5981.4
50°	3654.8	3612.4	3204.8	2376.1	2443.8	2951.5	3830.7	4305.0	5381.7	6317.7	6257.3
51°	3762.1	3685.5	3071.4	2417.6	2501.5	3031.7	3791.9	4451.1	4971.4	6401.6	6347.5
52.5°	3874.9	3723.4	2705.3	2480.7	2571.8	3142.6	3221.1	4675.6	5085.9	5728.9	6048.1
55°	3268.9	3328.4	2793.6	2711.6	2705.3	2716.1	3289.6	5010.2	5324.9	5216.7	5153.5
57.5°	1922.5	1957.7	2837.8	3036.2	2341.0	2157.0	3470.9	5262.7	5531.4	5336.6	5266.3
60°	966.7	1011.8	1033.4	942.3	1262.5	1967.6	2923.5	3814.4	5657.6	5426.8	5342.0
62.5°	42.4	70.3	28.0	30.7	51.4	686.2	2148.0	3918.1	5764.0	5481.8	5370.0
65°	3.6	3.6	4.5	9.0	22.5	720.5	2390.6	4061.5	5807.3	5476.4	5326.7
67.5°	0.9	0.9	1.8	6.3	16.2	780.0	2675.5	4120.1	5809.1	5384.4	5201.3
70°	0.0	0.9	1.8	5.4	14.4	816.1	2737.7	4108.4	5735.2	5168.0	4916.4
72.5°	0.0	0.0	0.9	4.5	12.6	770.1	2665.6	4085.0	5482.7	4623.3	4266.2
75°	0.0	0.0	0.9	3.6	10.8	783.6	2672.8	3821.7	4787.4	3681.0	3247.2
77.5°	0.0	0.0	0.9	3.6	9.9	723.2	2447.4	3309.5	3783.8	2291.4	1817.0
80°	0.0	0.0	0.9	3.6	9.0	620.4	2012.7	2583.5	2117.3	777.3	501.4
82.5°	0.0	0.0	0.9	3.6	7.2	420.2	1337.3	1291.3	426.5	222.7	200.2
85°	0.0	0.0	0.9	2.7	5.4	250.7	670.0	175.8	165.0	141.6	128.0
87.5°	0.0	0.0	0.9	1.8	3.6	106.4	206.5	54.1	68.5	57.7	51.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6	3023.6
2.5°	3036.2	3036.2	3046.1	3079.5	3075.9	3103.0	3087.6	3121.0	3123.7	3117.4	3132.7
5°	3047.9	3058.8	3092.1	3127.3	3112.9	3152.5	3171.5	3215.7	3213.9	3208.5	3226.5
7.5°	3081.3	3103.9	3137.2	3179.6	3194.9	3227.4	3229.2	3289.6	3286.0	3283.3	3301.3
10°	3137.2	3167.0	3203.9	3268.0	3259.0	3305.8	3286.0	3330.2	3329.3	3327.5	3345.5
12.5°	3194.9	3238.2	3283.3	3345.5	3344.6	3346.4	3329.3	3351.8	3347.3	3334.7	3348.2
15°	3276.1	3333.8	3396.0	3441.1	3401.4	3393.3	3355.4	3341.9	3315.8	3279.7	3290.5
17.5°	3410.5	3467.3	3546.6	3571.0	3506.0	3469.1	3366.3	3291.4	3210.3	3155.3	3167.0
20°	3531.3	3636.8	3712.5	3710.7	3627.8	3530.4	3370.8	3244.5	3087.6	2981.2	2972.2
22.5°	3380.7	3558.3	3888.4	3849.6	3704.4	3566.5	3365.4	3169.7	2909.1	2744.1	2737.7
25°	3467.3	3470.9	3766.6	3927.2	3738.7	3551.1	3300.4	3038.9	2705.3	2533.9	2524.0
27.5°	3688.2	3668.4	3586.3	3844.2	3707.1	3472.7	3169.7	2816.2	2519.5	2370.7	2363.5
30°	3950.6	3889.3	3696.3	3442.0	3577.3	3320.3	2968.6	2588.0	2351.8	2216.5	2205.7
32.5°	4264.4	4135.5	3796.4	3397.8	3151.6	3090.3	2708.9	2407.7	2212.9	2072.2	2044.3
35°	4636.8	4443.9	3892.9	3323.0	2819.8	2749.5	2464.5	2245.4	2082.2	1939.7	1911.7
37.5°	4635.9	4837.0	4035.4	3220.2	2614.2	2367.1	2286.9	2137.2	1991.1	1818.8	1787.3
40°	4670.2	4676.5	4192.3	3120.1	2422.1	2170.5	2181.4	2084.0	1933.4	1744.0	1711.5
42.5°	5086.8	4780.2	4384.3	2985.7	2240.9	2025.3	2136.3	2065.0	1902.7	1708.8	1672.8
45°	5449.3	5095.8	3963.2	2838.7	2050.6	1912.6	2100.2	2020.8	1859.4	1666.4	1625.9
47.5°	5764.9	5346.5	4070.5	2581.7	1864.8	1820.7	2030.8	1936.1	1781.9	1602.4	1566.4
50°	6004.8	5553.9	4164.3	2236.4	1684.5	1728.7	1918.0	1821.6	1672.8	1527.6	1496.9
51°	6086.9	5620.7	4183.3	2221.0	1588.9	1685.4	1864.8	1771.1	1637.6	1498.7	1470.8
52.5°	6175.2	5707.2	4211.2	2255.3	1453.6	1614.1	1778.3	1696.2	1585.3	1466.3	1434.7
55°	5134.6	5362.8	4140.0	2183.2	1296.7	1472.6	1619.6	1582.6	1521.3	1415.8	1393.2
57.5°	4947.0	4537.6	3433.9	1848.6	1158.8	1303.9	1465.4	1489.7	1442.8	1335.5	1319.3
60°	4987.6	4496.2	3057.9	1378.8	1021.7	1153.3	1349.9	1371.6	1331.0	1249.8	1227.3
62.5°	4980.4	4389.8	2726.9	971.2	902.7	1074.9	1267.0	1276.0	1220.1	1152.4	1131.7
65°	4861.4	4145.4	2275.1	734.9	836.8	1031.6	1218.3	1222.8	1153.3	1066.8	1056.0
67.5°	4596.3	3758.5	1582.6	645.7	799.9	998.2	1185.8	1166.0	1099.2	1008.2	991.9
70°	4088.6	3062.4	739.4	594.3	744.0	936.9	1106.5	1083.0	1010.0	925.2	910.8
72.5°	3277.9	2128.1	350.8	543.8	685.3	860.3	1009.1	972.1	911.7	880.1	872.0
75°	2145.3	999.1	293.1	489.7	607.8	767.4	925.2	911.7	855.8	792.6	762.0
77.5°	870.2	263.3	265.1	434.6	545.6	707.0	835.9	825.1	751.2	694.4	681.7
80°	219.1	197.5	242.6	358.9	475.2	615.9	733.1	702.5	675.4	614.1	594.3
82.5°	166.8	158.7	190.3	277.7	390.5	507.7	625.8	638.4	593.4	546.5	536.5
85°	116.3	144.3	115.4	197.5	289.5	400.4	524.8	547.4	516.7	463.5	427.4
87.5°	64.0	75.7	47.8	103.7	153.3	219.1	301.2	303.9	251.6	230.9	217.3
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)