

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: P591200

Luminaire Tested: **CTN-CA10-210-727-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591200  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-210-727-U-T4-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16038 lumens  
Efficiency: N/A  
Efficacy: 75.3 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3

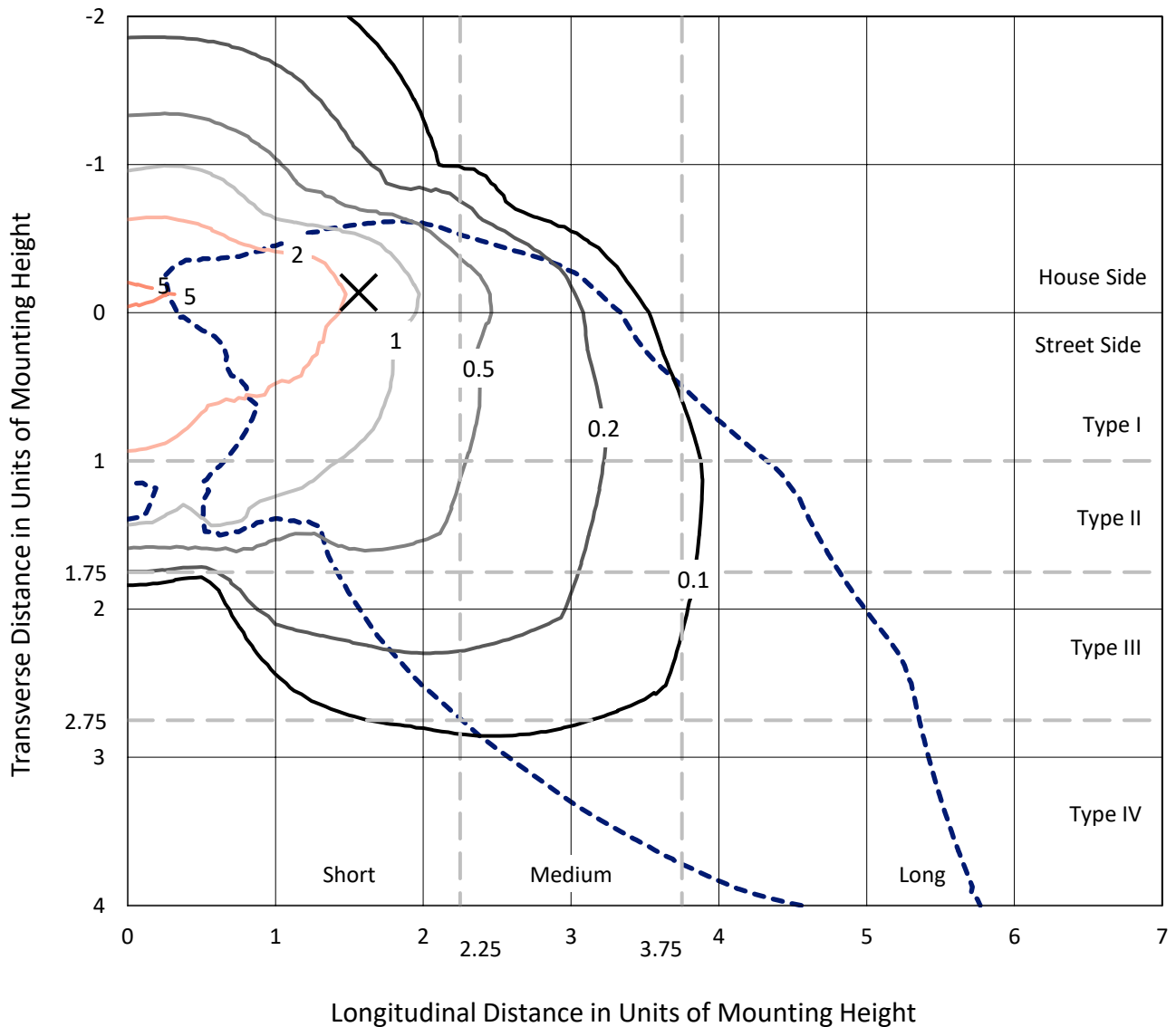
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

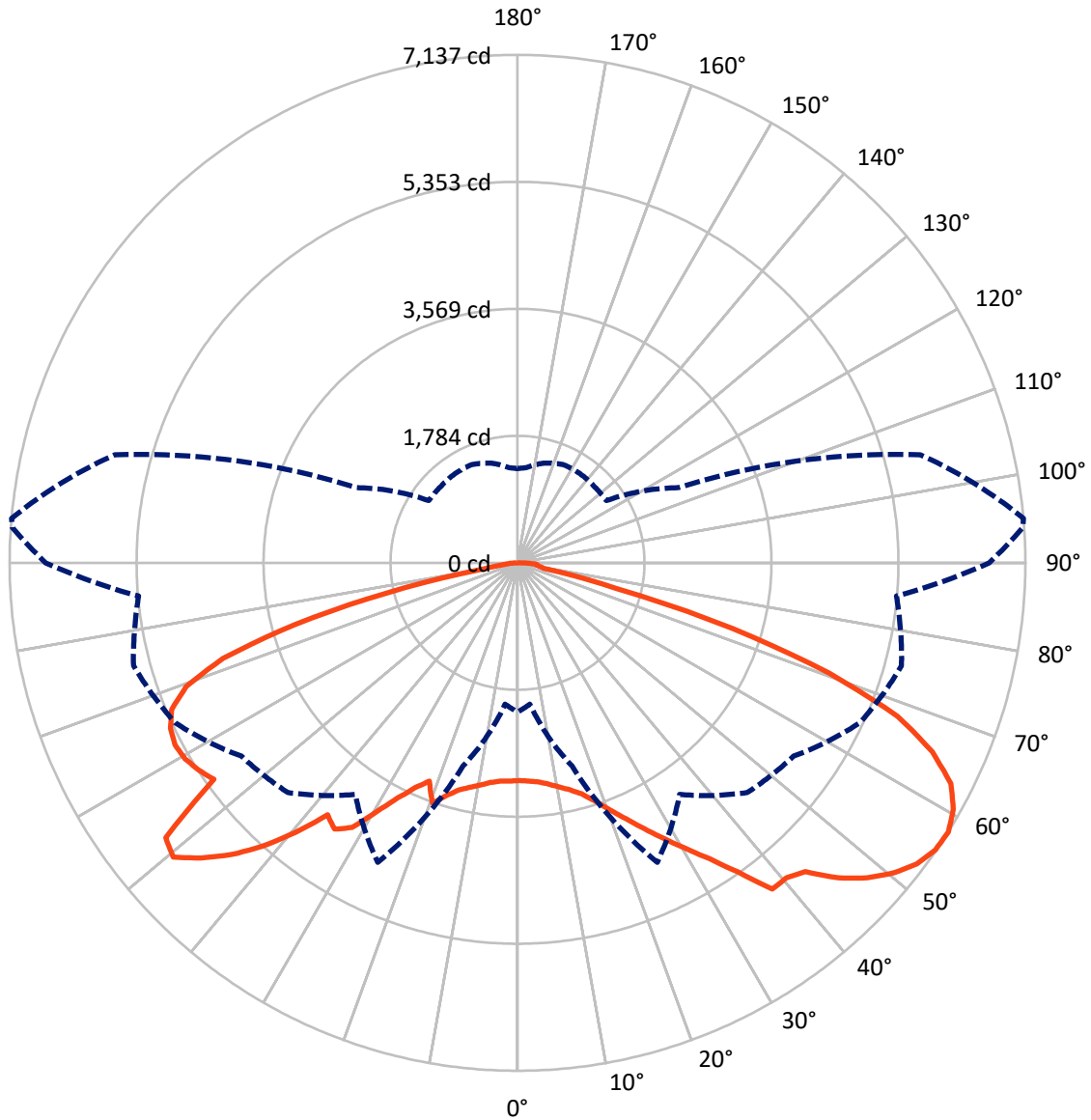
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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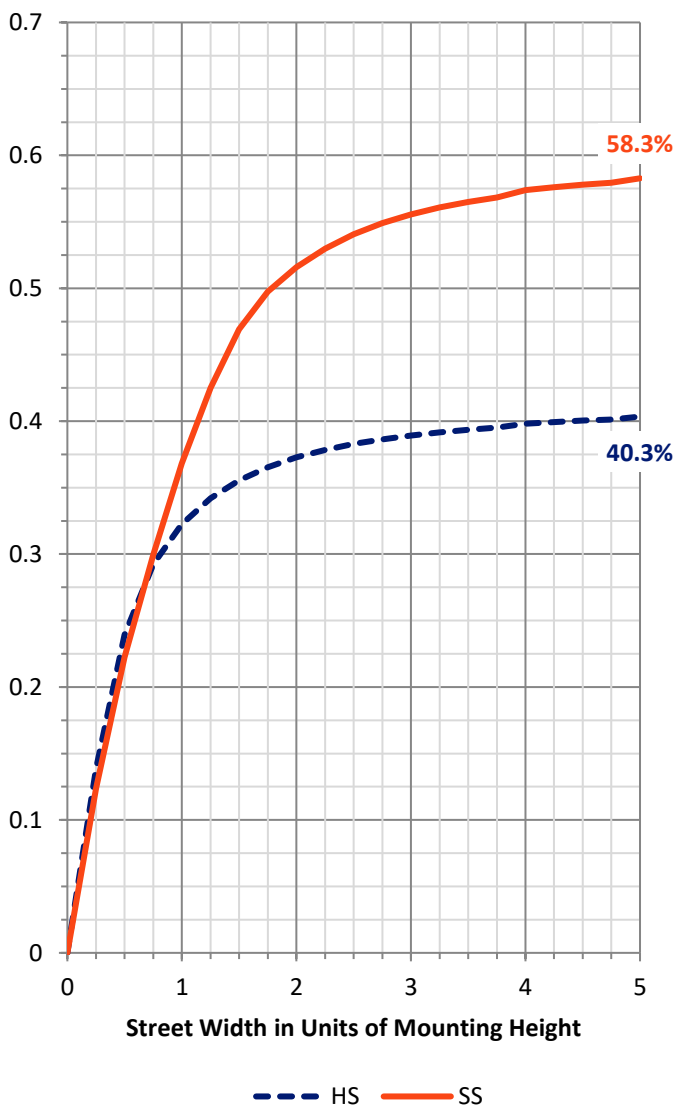
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6605.5	0.0	6605.5
	% Fixture	41.2	0.0	41.2
<b>Street Side</b>	Lumens	9432.5	0.0	9432.5
	% Fixture	58.8	0.0	58.8
<b>Total</b>	Lumens	16038.0	0.0	16038.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	298.8	1.9
10°-20°	913.8	5.7
20°-30°	1443.9	9.0
30°-40°	1995.2	12.4
40°-50°	2690.2	16.8
50°-60°	3169.1	19.8
60°-70°	2831.1	17.7
70°-80°	2113.9	13.2
80°-90°	581.9	3.6
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°	16038.0	100.0
0°-180°	16038.0	100.0

**Coefficient of Utilization**



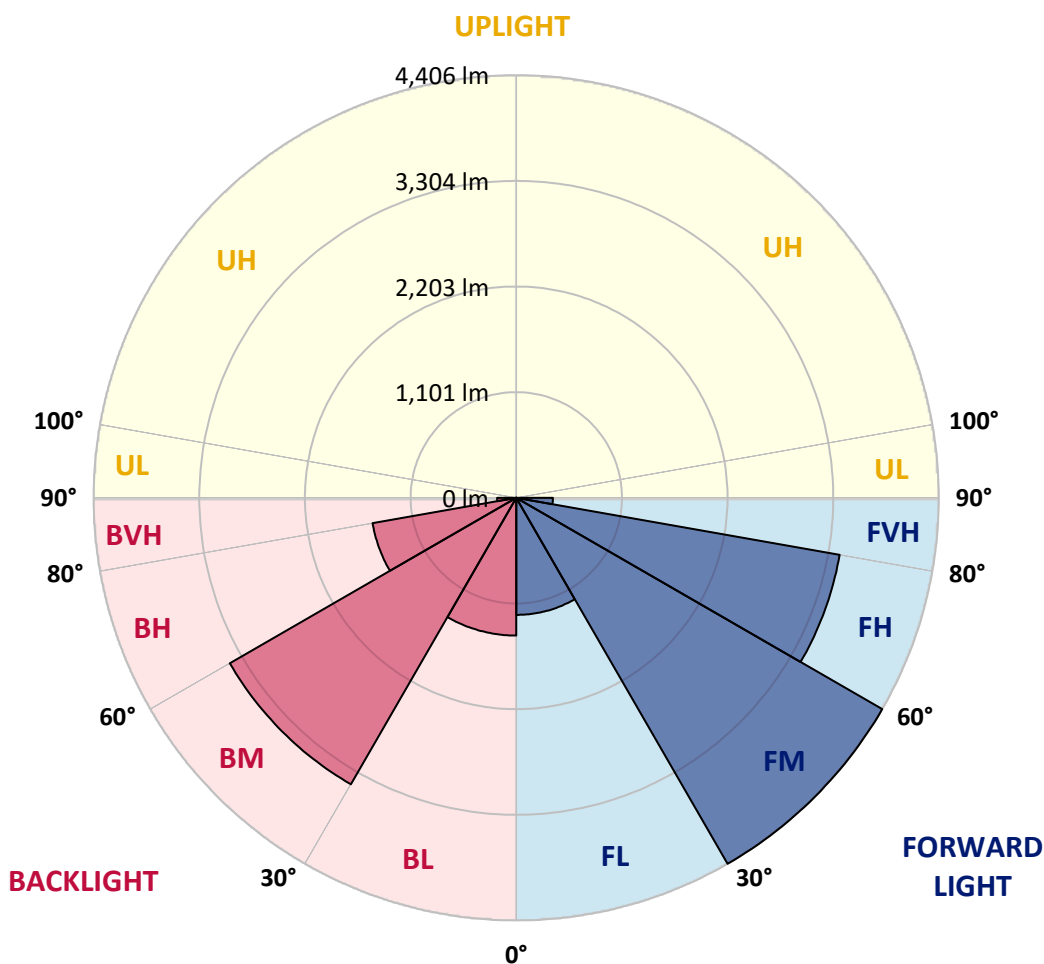
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1220.7	7.6			
FM (30°-60°)	4405.9	27.5			
FH (60°-80°)	3423.6	21.3			G2/5000
FVH (80°-90°)	382.2	2.4			G3/500
BL (0°-30°)	1435.8	9.0	B3/2500		
BM (30°-60°)	3448.6	21.5	B3/5000		
BH (60°-80°)	1521.5	9.5	B3/2500		G3/2500
BVH (80°-90°)	199.7	1.2			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9
2.5°	3019.7	3000.6	3001.5	3028.0	2988.7	3017.0	3013.3	3057.2	3050.8	3068.1	3073.6
5°	2995.1	2978.6	2979.5	3013.3	2986.9	3012.4	2995.1	3035.3	3049.9	3076.4	3081.8
7.5°	3001.5	2986.9	2992.3	3024.3	2991.4	3017.0	3018.8	3056.3	3063.6	3109.3	3116.6
10°	3017.9	3002.4	3006.0	3031.6	3010.6	3056.3	3050.8	3100.1	3101.9	3165.9	3175.0
12.5°	2996.0	2985.0	2985.0	3017.0	3028.0	3073.6	3087.3	3138.5	3149.4	3223.4	3235.3
15°	2956.7	2938.4	2964.9	3012.4	3034.4	3103.8	3129.3	3206.1	3218.9	3295.6	3321.2
17.5°	2889.1	2879.1	2976.8	2991.4	2908.3	2961.3	3070.0	3284.6	3328.5	3418.9	3466.4
20°	2687.3	2574.0	2312.8	2360.3	2616.0	2806.9	2840.7	2943.9	3132.1	3582.4	3656.4
22.5°	1975.7	2073.4	2418.7	2447.0	2438.8	2596.8	2952.1	3051.7	3141.2	3306.5	3798.0
25°	2046.0	2040.6	2209.5	2568.5	2555.7	2585.9	2734.8	3218.9	3308.4	3472.8	3984.3
27.5°	2109.1	2113.6	2100.8	2438.8	2678.1	2709.2	2754.8	3085.5	3518.5	3706.6	4188.0
30°	2234.2	2215.0	2180.3	2179.4	2785.0	2830.7	2908.3	3018.8	3712.1	4010.8	4442.8
32.5°	2445.2	2423.3	2377.6	2305.4	2406.8	2956.7	3063.6	3204.2	3425.3	4384.4	4741.5
35°	2601.4	2585.9	2554.8	2504.6	2423.3	3019.7	3215.2	3401.5	3693.8	4539.7	5133.4
37.5°	2794.1	2772.2	2736.6	2674.5	2613.3	2588.6	3361.4	3625.3	4068.3	4434.6	5218.3
40°	3012.4	2999.6	2934.8	2854.4	2786.8	2718.3	3461.8	3917.6	4549.7	4905.9	5140.7
42.5°	3176.8	3166.8	3128.4	3063.6	2997.8	2954.0	3068.1	4276.6	5074.0	5361.7	5534.4
45°	3320.2	3309.3	3309.3	3291.9	3273.7	3277.3	3326.6	4534.2	5571.8	5750.8	5907.0
47.5°	3430.8	3411.6	3334.9	3350.4	3376.9	3456.3	3606.1	3942.3	5972.8	6081.5	6220.3
50°	3700.2	3671.0	3422.6	3480.1	3566.0	3693.8	3886.6	4309.5	5577.3	6363.7	6472.4
52.5°	3948.7	3813.5	2827.0	3671.0	3767.8	3956.9	4185.2	4706.8	5133.4	6272.4	6665.2
55°	3523.0	3385.1	2841.6	4021.7	4005.3	4243.7	4466.6	5032.9	5374.5	5239.3	6616.7
57.5°	2097.2	1993.1	2956.7	4644.7	3970.6	4564.3	4736.0	5311.5	5586.4	5344.4	6629.5
60°	1086.0	1141.8	1097.9	2748.5	3418.9	4705.0	5014.6	5580.0	5729.8	5422.9	6637.8
62.5°	146.1	105.0	43.8	2010.4	2429.7	3920.4	5364.5	5835.8	5834.9	5449.4	6580.2
65°	9.1	10.0	20.1	2000.4	2679.9	4651.1	5943.6	6042.2	5886.9	5402.8	6388.4
67.5°	3.7	4.6	18.3	1986.7	2891.9	4889.5	6625.0	6108.0	5892.4	5277.7	5967.3
70°	3.7	4.6	18.3	1850.6	3036.2	4931.5	6740.1	6083.3	5824.8	4969.9	5184.5
72.5°	4.6	5.5	16.4	1607.6	2948.5	4817.3	6551.9	6033.1	5582.8	4350.6	4025.4
75°	4.6	5.5	16.4	1298.9	2608.7	4568.0	6403.0	5612.9	4894.1	3250.8	2610.5
77.5°	3.7	4.6	16.4	1013.9	2174.8	4048.2	5808.4	4880.4	3870.1	1891.7	1031.2
80°	3.7	4.6	16.4	706.1	1656.9	3318.4	4731.5	3800.7	2176.7	540.7	290.5
82.5°	3.7	4.6	15.5	440.3	1171.9	2440.6	3233.5	1751.9	466.8	211.0	226.5
85°	3.7	3.7	11.9	215.6	749.0	1621.3	1611.3	293.2	185.4	137.0	171.7
87.5°	1.8	2.7	6.4	98.6	418.3	855.0	642.1	112.3	79.5	55.7	95.9
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):**

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9	3059.9
2.5°	3075.5	3070.9	3083.7	3116.6	3114.7	3139.4	3120.2	3157.7	3164.1	3155.8	3168.6
5°	3091.9	3093.7	3128.4	3163.1	3150.4	3190.5	3198.8	3254.5	3256.3	3249.0	3265.4
7.5°	3133.0	3139.4	3174.1	3215.2	3233.5	3267.3	3262.7	3334.9	3328.5	3324.8	3344.0
10°	3190.5	3202.4	3239.9	3304.7	3296.5	3348.6	3324.8	3373.2	3371.4	3364.1	3385.1
12.5°	3260.9	3272.8	3320.2	3382.4	3383.3	3386.9	3367.7	3392.4	3384.2	3366.8	3383.3
15°	3355.9	3369.6	3434.4	3480.1	3440.8	3430.8	3394.2	3380.5	3349.5	3303.8	3317.5
17.5°	3505.7	3516.6	3589.7	3615.3	3547.7	3507.5	3403.4	3325.7	3238.0	3174.1	3186.0
20°	3694.7	3704.8	3764.2	3757.8	3667.3	3568.7	3407.0	3275.5	3112.0	2986.9	2983.2
22.5°	3903.0	3909.4	3966.0	3909.4	3748.6	3605.2	3399.7	3197.9	2922.9	2761.2	2743.9
25°	4132.3	4137.8	4136.8	4010.8	3795.2	3584.2	3332.1	3068.1	2715.6	2542.9	2524.7
27.5°	4388.9	4389.9	4289.4	4089.3	3775.1	3506.6	3201.5	2835.2	2525.6	2375.8	2362.1
30°	4662.0	4660.2	4429.1	4096.6	3697.5	3359.5	2999.6	2615.1	2354.8	2221.4	2202.2
32.5°	4973.5	4958.0	4553.4	4071.1	3555.9	3148.5	2739.3	2430.6	2220.5	2068.0	2039.6
35°	5372.7	5334.3	4659.3	3982.5	3345.8	2863.5	2498.2	2269.8	2090.8	1935.5	1907.2
37.5°	5866.8	5817.5	4825.5	3857.3	3103.8	2627.9	2321.0	2161.1	1997.6	1820.4	1783.9
40°	5724.3	5819.3	5023.8	3722.1	2869.9	2439.7	2216.8	2109.1	1941.0	1744.6	1709.9
42.5°	5944.5	5932.6	5295.0	3562.3	2645.2	2292.7	2174.8	2093.5	1910.9	1711.7	1671.5
45°	6319.0	6316.2	5587.3	3407.0	2426.0	2174.8	2142.9	2051.5	1867.9	1670.6	1626.8
47.5°	6623.1	6614.0	5866.8	3236.2	2223.2	2082.6	2078.0	1966.6	1791.2	1607.6	1567.4
50°	6835.1	6848.8	6022.1	3071.8	2031.4	1987.6	1970.2	1846.9	1683.4	1531.8	1500.7
52.5°	7002.2	7027.8	6089.7	3056.3	1863.4	1865.2	1835.0	1722.7	1594.8	1472.4	1439.5
55°	7084.4	7123.7	6020.3	2955.8	1698.9	1709.9	1680.7	1609.4	1533.6	1421.3	1397.5
57.5°	7118.2	7137.4	5859.5	2500.0	1522.7	1520.8	1530.0	1522.7	1451.4	1340.9	1323.5
60°	7060.7	7035.1	5509.7	1899.9	1343.6	1351.8	1410.3	1403.0	1340.0	1255.9	1232.2
62.5°	6883.5	6833.2	4869.4	1404.8	1200.2	1266.9	1329.0	1308.0	1231.3	1154.6	1136.3
65°	6545.5	6403.9	3880.2	1097.0	1131.7	1223.1	1280.6	1249.5	1161.9	1071.4	1060.5
67.5°	5939.0	5761.8	2546.6	983.7	1102.5	1185.6	1245.9	1193.8	1108.9	1011.1	995.6
70°	4846.6	4652.0	1205.7	917.1	1036.7	1118.9	1162.8	1109.8	1023.0	925.3	914.3
72.5°	3379.6	3158.6	649.4	844.9	960.9	1032.2	1061.4	996.5	920.7	877.8	875.0
75°	1684.3	1439.5	589.2	770.9	863.2	925.3	974.6	929.9	863.2	784.6	764.5
77.5°	448.5	385.5	554.4	688.7	785.5	855.9	884.2	837.6	760.9	694.2	682.3
80°	311.5	317.9	517.9	570.9	685.1	748.1	774.6	715.2	676.8	611.1	592.8
82.5°	264.0	277.7	418.3	430.2	544.4	612.0	658.6	648.5	593.7	540.7	533.4
85°	247.5	263.1	267.6	297.8	390.0	469.5	549.9	554.4	517.9	450.3	428.4
87.5°	142.5	140.7	128.8	151.6	213.7	260.3	315.1	300.5	244.8	211.9	207.3
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)