

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: P591164

Luminaire Tested: **CTN-CA8-230-722-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591164
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-CA8-230-722-U-T4-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15853 lumens
Efficiency: N/A
Efficacy: 69.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

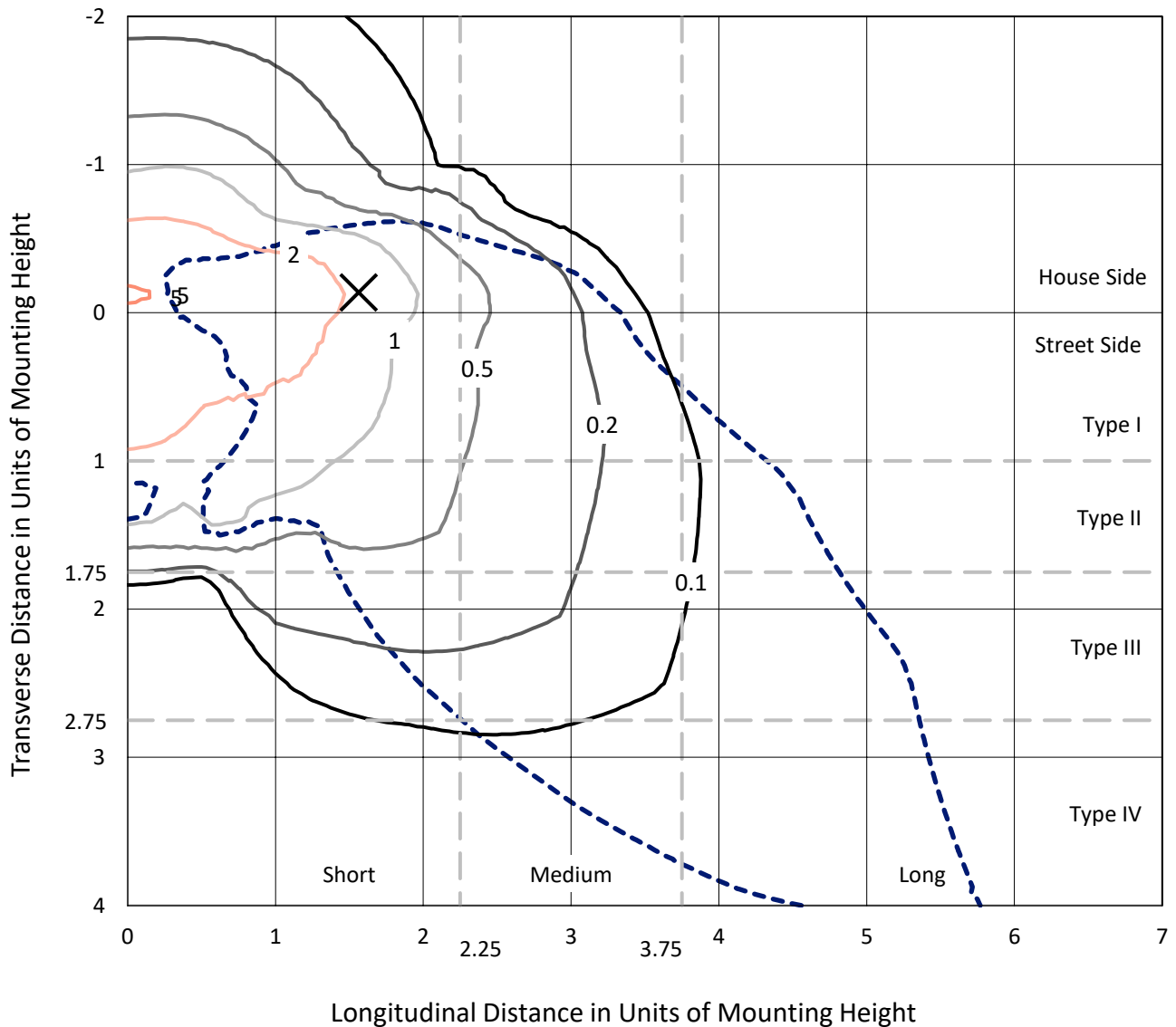
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

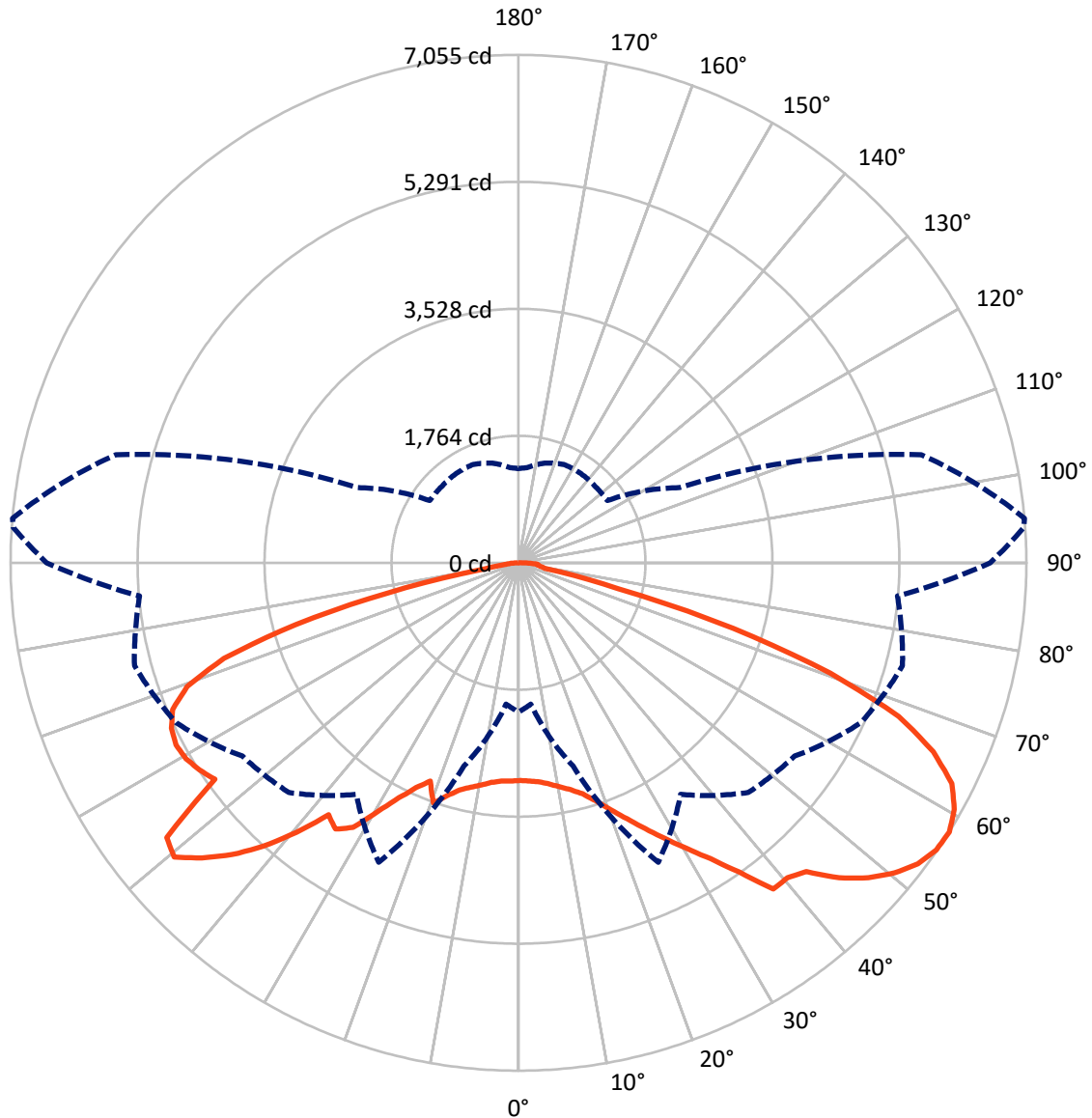
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 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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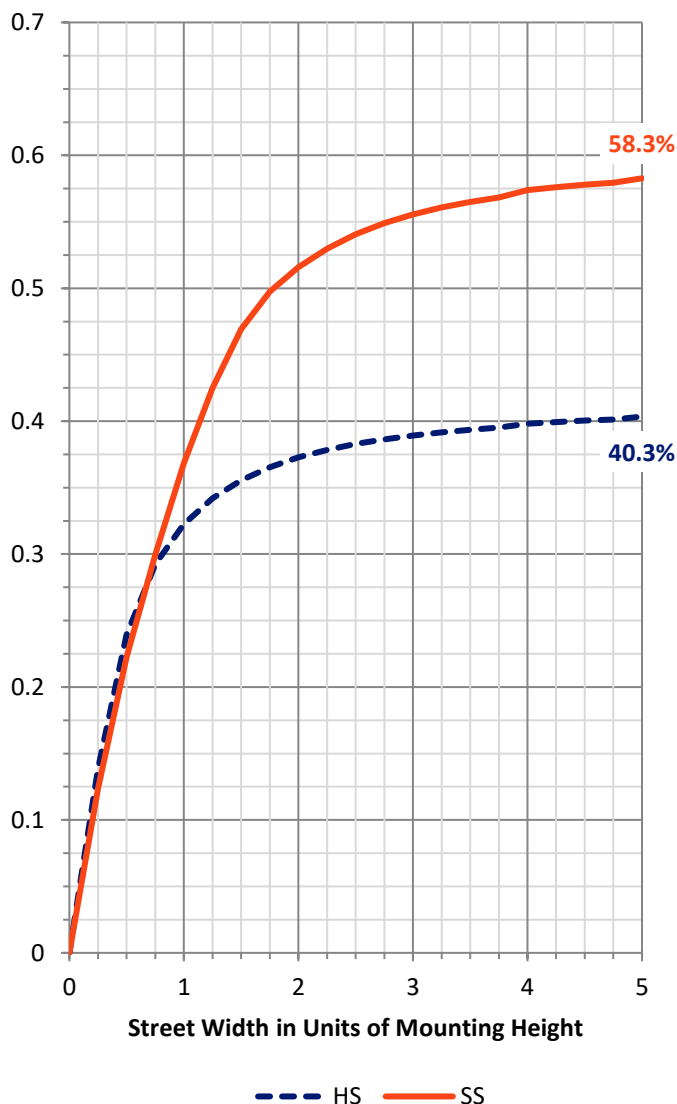
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6529.3	0.0	6529.3
	% Fixture	41.2	0.0	41.2
Street Side	Lumens	9323.7	0.0	9323.7
	% Fixture	58.8	0.0	58.8
Total	Lumens	15853.0	0.0	15853.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.4	1.9
10°-20°	903.2	5.7
20°-30°	1427.3	9.0
30°-40°	1972.2	12.4
40°-50°	2659.2	16.8
50°-60°	3132.5	19.8
60°-70°	2798.5	17.7
70°-80°	2089.6	13.2
80°-90°	575.2	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°	15853.0	100.0
0°-180°	15853.0	100.0

Coefficient of Utilization



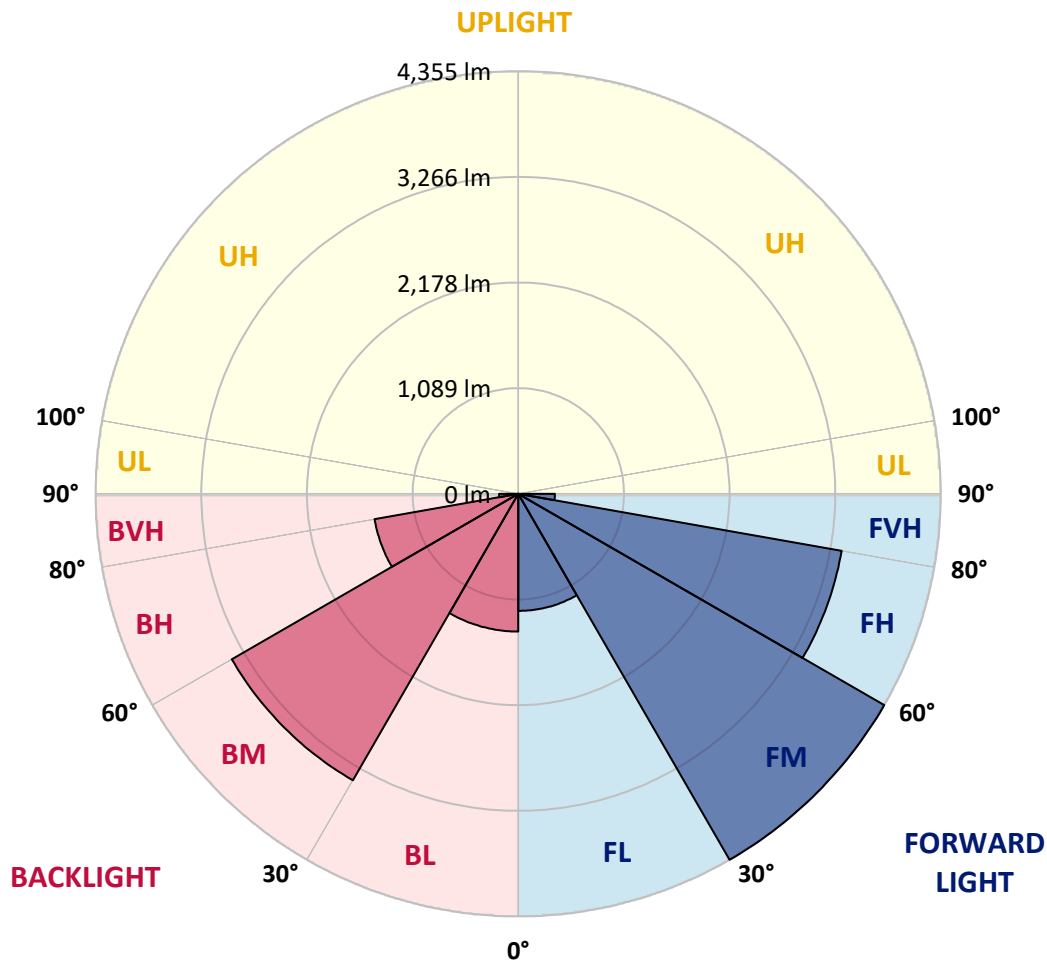
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1206.6	7.6			
FM	(30°-60°)	4355.1	27.5			
FH	(60°-80°)	3384.1	21.3			G2/5000
FVH	(80°-90°)	377.8	2.4			G3/500
BL	(0°-30°)	1419.2	9.0	B3/2500		
BM	(30°-60°)	3408.8	21.5	B3/5000		
BH	(60°-80°)	1503.9	9.5	B3/2500		G3/2500
BVH	(80°-90°)	197.4	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°	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6
2.5°	2984.9	2965.9	2966.8	2993.0	2954.2	2982.2	2978.6	3021.9	3015.6	3032.8	3038.2
5°	2960.5	2944.3	2945.2	2978.6	2952.4	2977.7	2960.5	3000.3	3014.7	3040.9	3046.3
7.5°	2966.8	2952.4	2957.8	2989.4	2956.9	2982.2	2984.0	3021.0	3028.2	3073.4	3080.6
10°	2983.1	2967.7	2971.4	2996.6	2975.9	3021.0	3015.6	3064.4	3066.2	3129.4	3138.4
12.5°	2961.4	2950.6	2950.6	2982.2	2993.0	3038.2	3051.7	3102.3	3113.1	3186.2	3198.0
15°	2922.6	2904.5	2930.7	2977.7	2999.3	3068.0	3093.2	3169.1	3181.7	3257.6	3282.9
17.5°	2855.8	2845.9	2942.5	2956.9	2874.8	2927.1	3034.6	3246.7	3290.1	3379.5	3426.4
20°	2656.3	2544.3	2286.1	2333.0	2585.8	2774.5	2807.9	2910.0	3096.0	3541.1	3614.2
22.5°	1952.9	2049.5	2390.8	2418.8	2410.7	2566.9	2918.1	3016.5	3105.0	3268.4	3754.2
25°	2022.4	2017.0	2184.1	2538.9	2526.2	2556.0	2703.2	3181.7	3270.2	3432.7	3938.3
27.5°	2084.7	2089.3	2076.6	2410.7	2647.2	2677.9	2723.1	3049.9	3477.9	3663.9	4139.7
30°	2208.4	2189.5	2155.2	2154.3	2752.9	2798.0	2874.8	2984.0	3669.3	3964.5	4391.6
32.5°	2417.0	2395.3	2350.2	2278.9	2379.1	2922.6	3028.2	3167.3	3385.8	4333.8	4686.8
35°	2571.4	2556.0	2525.3	2475.7	2395.3	2984.9	3178.1	3362.3	3651.2	4487.3	5074.2
37.5°	2761.9	2740.2	2705.0	2643.6	2583.1	2558.7	3322.6	3583.5	4021.4	4383.5	5158.1
40°	2977.7	2965.0	2900.9	2821.5	2754.7	2687.0	3421.9	3872.4	4497.2	4849.3	5081.4
42.5°	3140.2	3130.3	3092.3	3028.2	2963.2	2919.9	3032.8	4227.3	5015.5	5299.9	5470.5
45°	3281.9	3271.1	3271.1	3254.0	3235.9	3239.5	3288.3	4481.9	5507.5	5684.5	5838.9
47.5°	3391.2	3372.2	3296.4	3311.7	3337.9	3416.5	3564.5	3896.8	5903.9	6011.3	6148.6
50°	3657.5	3628.7	3383.1	3440.0	3524.8	3651.2	3841.7	4259.8	5513.0	6290.3	6397.8
52.5°	3903.1	3769.5	2794.4	3628.7	3724.4	3911.3	4137.0	4652.5	5074.2	6200.0	6588.3
55°	3482.4	3346.1	2808.8	3975.4	3959.1	4194.8	4415.1	4974.8	5312.5	5178.9	6540.4
57.5°	2073.0	1970.1	2922.6	4591.1	3924.8	4511.7	4681.4	5250.2	5522.0	5282.7	6553.1
60°	1073.5	1128.6	1085.3	2716.7	3379.5	4650.7	4956.8	5515.7	5663.7	5360.4	6561.2
62.5°	144.5	103.8	43.3	1987.2	2401.6	3875.1	5302.6	5768.5	5767.6	5386.5	6504.3
65°	9.0	9.9	19.9	1977.3	2649.0	4597.4	5875.0	5972.5	5819.0	5340.5	6314.7
67.5°	3.6	4.5	18.1	1963.8	2858.5	4833.1	6548.5	6037.5	5824.4	5216.8	5898.5
70°	3.6	4.5	18.1	1829.2	3001.2	4874.6	6662.3	6013.1	5757.6	4912.5	5124.7
72.5°	4.5	5.4	16.3	1589.1	2914.5	4761.8	6476.3	5963.5	5518.4	4300.4	3979.0
75°	4.5	5.4	16.3	1283.9	2578.6	4515.3	6329.2	5548.2	4837.6	3213.3	2580.4
77.5°	3.6	4.5	16.3	1002.2	2149.7	4001.5	5741.4	4824.1	3825.5	1869.9	1019.3
80°	3.6	4.5	16.3	697.9	1637.8	3280.1	4676.9	3756.9	2151.6	534.5	287.1
82.5°	3.6	4.5	15.3	435.2	1158.4	2412.5	3196.2	1731.7	461.4	208.6	223.9
85°	3.6	3.6	11.7	213.1	740.4	1602.6	1592.7	289.8	183.3	135.4	169.7
87.5°	1.8	2.7	6.3	97.5	413.5	845.1	634.7	111.1	78.6	55.1	94.8
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°	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6	3024.6
2.5°	3040.0	3035.5	3048.1	3080.6	3078.8	3103.2	3084.2	3121.2	3127.6	3119.4	3132.1
5°	3056.2	3058.0	3092.3	3126.7	3114.0	3153.7	3161.9	3216.9	3218.7	3211.5	3227.8
7.5°	3096.9	3103.2	3137.5	3178.1	3196.2	3229.6	3225.1	3296.4	3290.1	3286.5	3305.4
10°	3153.7	3165.5	3202.5	3266.6	3258.5	3309.9	3286.5	3334.3	3332.5	3325.3	3346.1
12.5°	3223.3	3235.0	3281.9	3343.3	3344.2	3347.9	3328.9	3353.3	3345.2	3328.0	3344.2
15°	3317.2	3330.7	3394.8	3440.0	3401.1	3391.2	3355.1	3341.5	3310.8	3265.7	3279.2
17.5°	3465.2	3476.1	3548.3	3573.6	3506.8	3467.0	3364.1	3287.4	3200.7	3137.5	3149.2
20°	3652.1	3662.1	3720.7	3714.4	3625.0	3527.5	3367.7	3237.7	3076.1	2952.4	2948.8
22.5°	3858.0	3864.3	3920.3	3864.3	3705.4	3563.6	3360.5	3161.0	2889.2	2729.4	2712.2
25°	4084.6	4090.0	4089.1	3964.5	3751.4	3542.9	3293.7	3032.8	2684.2	2513.6	2495.5
27.5°	4338.3	4339.2	4239.9	4042.2	3731.6	3466.1	3164.6	2802.5	2496.4	2348.4	2334.8
30°	4608.3	4606.5	4378.0	4049.4	3654.8	3320.8	2965.0	2584.9	2327.6	2195.8	2176.8
32.5°	4916.2	4900.8	4500.8	4024.1	3514.9	3112.2	2707.7	2402.5	2194.9	2044.1	2016.1
35°	5310.7	5272.8	4605.6	3936.5	3307.2	2830.5	2469.4	2243.6	2066.7	1913.2	1885.2
37.5°	5799.2	5750.4	4769.9	3812.8	3068.0	2597.6	2294.2	2136.2	1974.6	1799.4	1763.3
40°	5658.3	5752.2	4965.8	3679.2	2836.8	2411.6	2191.3	2084.7	1918.6	1724.5	1690.2
42.5°	5875.9	5864.2	5234.0	3521.2	2614.7	2266.2	2149.7	2069.4	1888.8	1692.0	1652.3
45°	6246.1	6243.4	5522.9	3367.7	2398.0	2149.7	2118.1	2027.9	1846.4	1651.4	1608.0
47.5°	6546.7	6537.7	5799.2	3198.9	2197.6	2058.6	2054.0	1943.9	1770.5	1589.1	1549.3
50°	6756.2	6769.8	5952.7	3036.4	2008.0	1964.7	1947.5	1825.6	1664.0	1514.1	1483.4
52.5°	6921.4	6946.7	6019.5	3021.0	1841.9	1843.7	1813.9	1702.8	1576.4	1455.4	1422.9
55°	7002.7	7041.5	5950.8	2921.7	1679.3	1690.2	1661.3	1590.9	1515.9	1404.9	1381.4
57.5°	7036.1	7055.1	5791.9	2471.2	1505.1	1503.3	1512.3	1505.1	1434.7	1325.4	1308.3
60°	6979.2	6953.9	5446.1	1878.0	1328.1	1336.3	1394.0	1386.8	1324.5	1241.5	1218.0
62.5°	6804.1	6754.4	4813.2	1388.6	1186.4	1252.3	1313.7	1292.9	1217.1	1141.2	1123.2
65°	6470.0	6330.1	3835.4	1084.4	1118.7	1208.9	1265.8	1235.1	1148.5	1059.1	1048.2
67.5°	5870.5	5695.3	2517.2	972.4	1089.8	1171.9	1231.5	1180.1	1096.1	999.5	984.1
70°	4790.7	4598.3	1191.8	906.5	1024.8	1106.0	1149.4	1097.0	1011.2	914.6	903.8
72.5°	3340.6	3122.1	641.9	835.2	949.8	1020.2	1049.1	985.0	910.1	867.7	865.0
75°	1664.9	1422.9	582.4	762.0	853.2	914.6	963.4	919.1	853.2	775.6	755.7
77.5°	443.3	381.0	548.0	680.8	776.5	846.0	874.0	827.9	752.1	686.2	674.4
80°	307.9	314.2	511.9	564.3	677.2	739.5	765.6	707.0	669.0	604.0	586.0
82.5°	260.9	274.5	413.5	425.3	538.1	604.9	651.0	641.0	586.9	534.5	527.3
85°	244.7	260.0	264.5	294.3	385.5	464.1	543.5	548.0	511.9	445.1	423.4
87.5°	140.8	139.0	127.3	149.9	211.3	257.3	311.5	297.0	242.0	209.5	205.0
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)