

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: P591123

Luminaire Tested: **CTN-CA10-630-722-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591123
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-722-U-T2-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 41271 lumens
Efficiency: N/A
Efficacy: 65.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

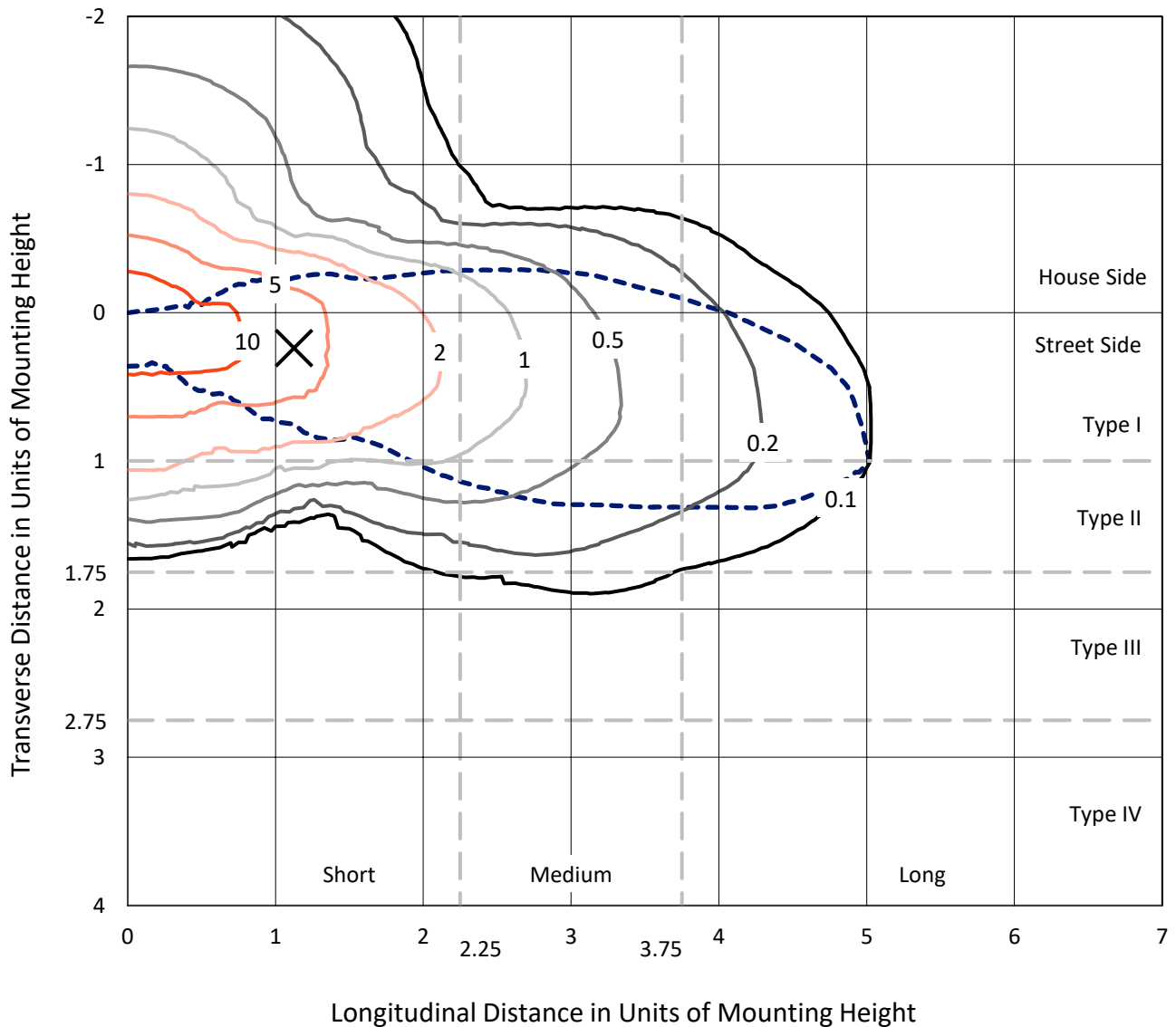
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

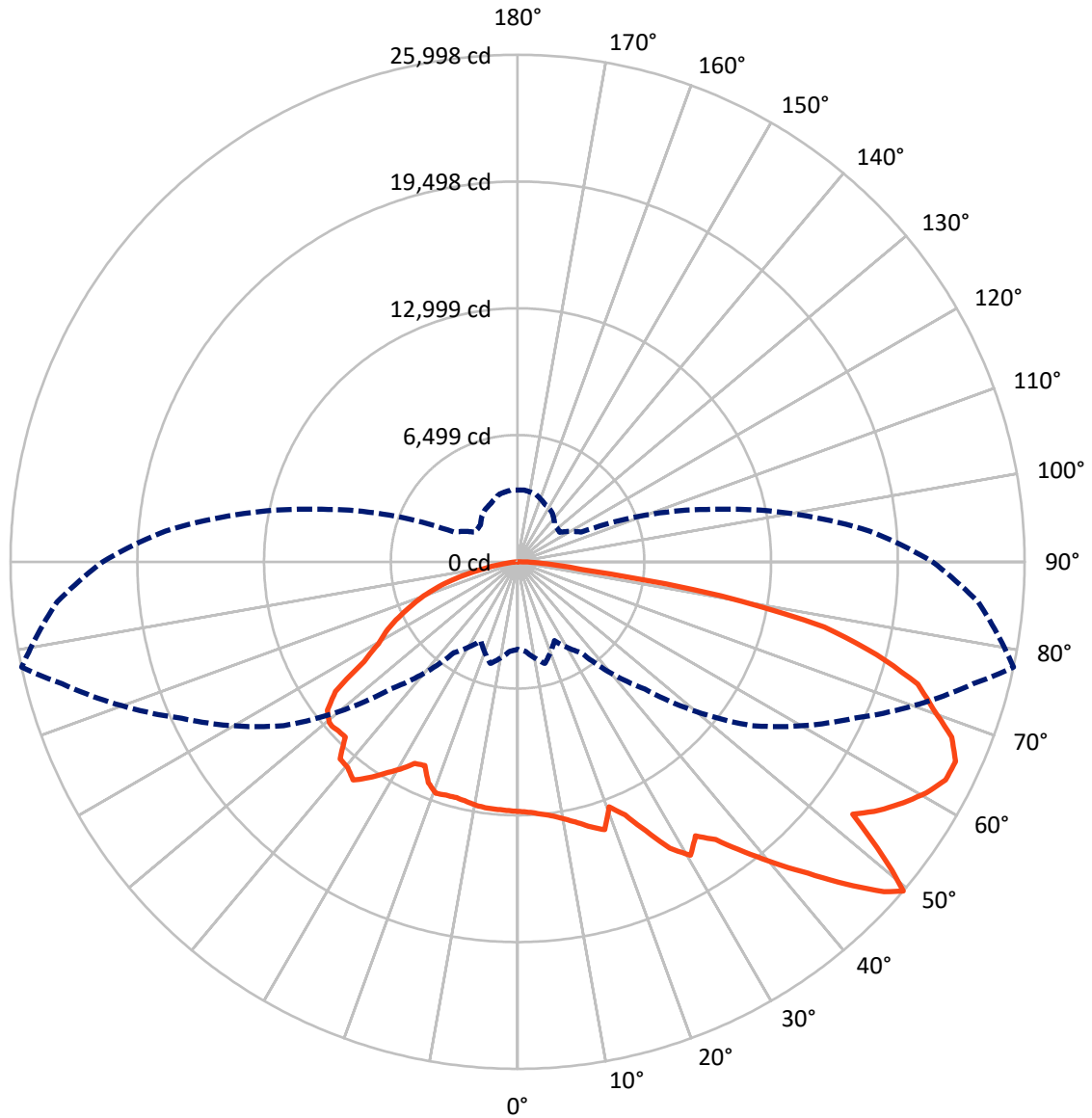
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.4 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 49-Deg Vertical

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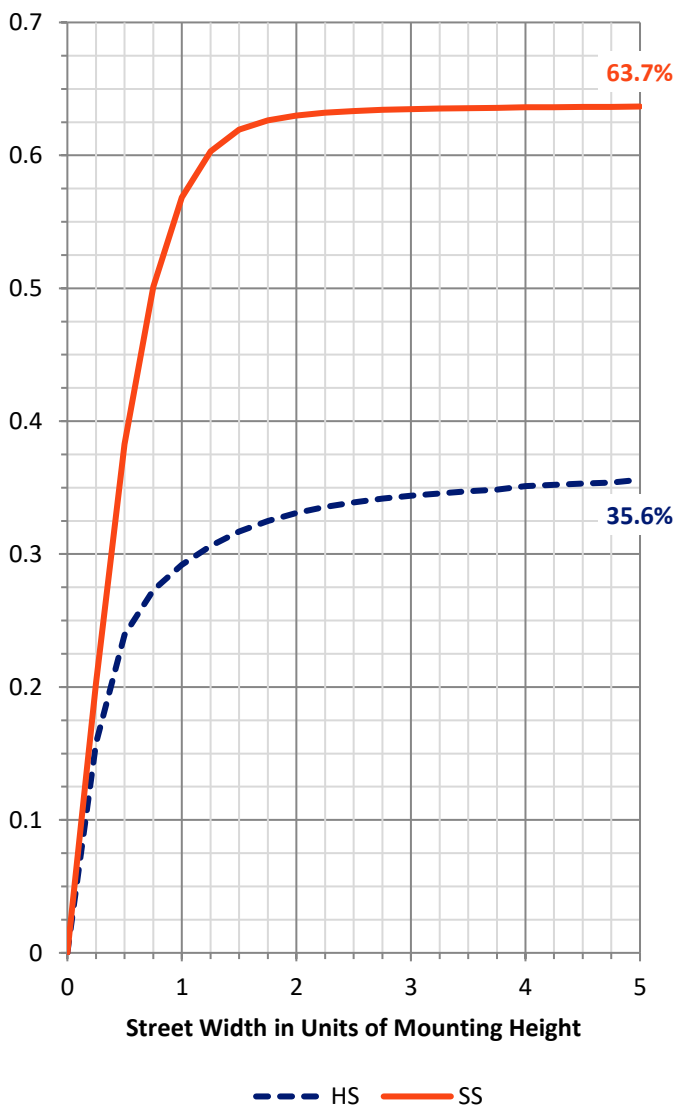
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15077.0	0.0	15077.0
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	26194.0	0.0	26194.0
	% Fixture	63.5	0.0	63.5
Total	Lumens	41271.0	0.0	41271.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1240.4	3.0
10°-20°	3647.9	8.8
20°-30°	5136.2	12.4
30°-40°	6438.4	15.6
40°-50°	7267.2	17.6
50°-60°	6982.8	16.9
60°-70°	5704.5	13.8
70°-80°	4001.8	9.7
80°-90°	851.9	2.1
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°	41271.0	100.0
0°-180°	41271.0	100.0

Coefficient of Utilization



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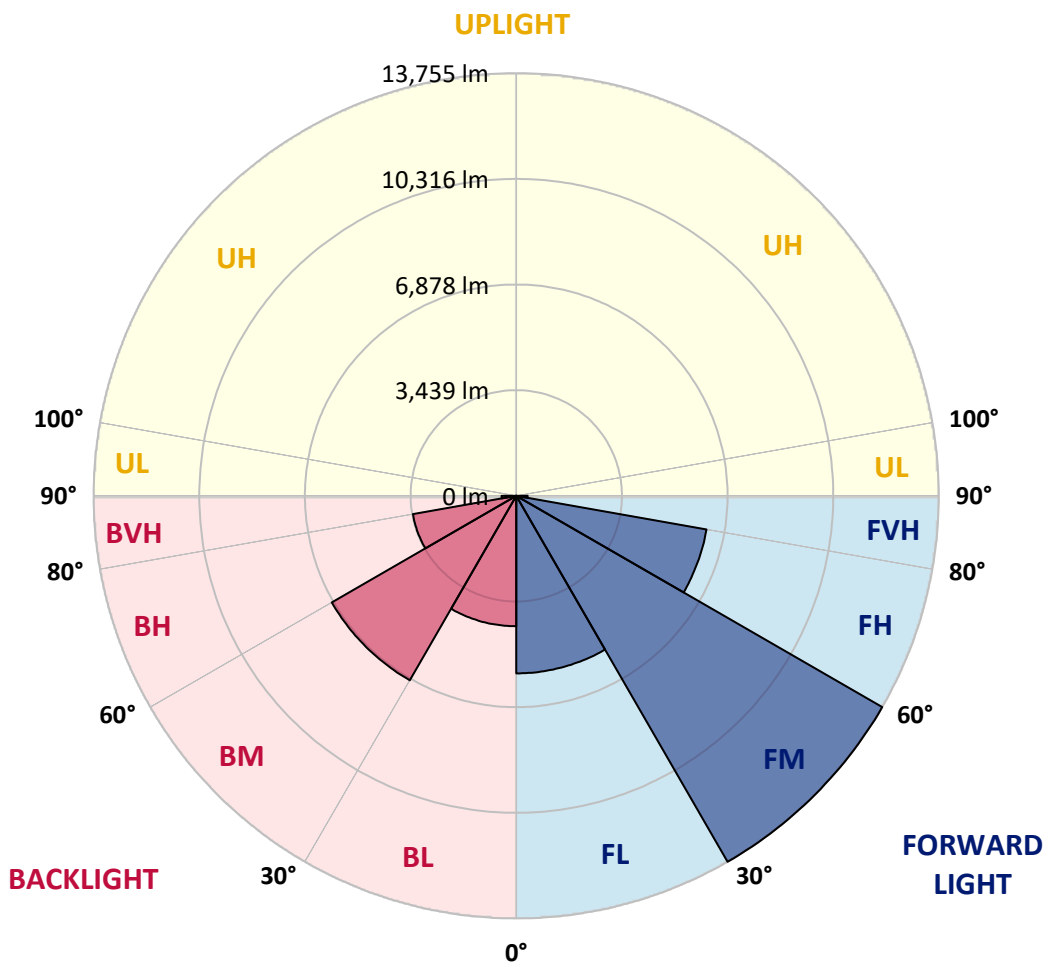
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5779.1	14.0			
FM (30°-60°)	13755.1	33.3			
FH (60°-80°)	6288.9	15.2			G3/7500
FVH (80°-90°)	371.0	0.9			G3/500
BL (0°-30°)	4245.4	10.3	B4/5000		
BM (30°-60°)	6933.2	16.8	B4/8500		
BH (60°-80°)	3417.4	8.3	B4/5000		G4/5000
BVH (80°-90°)	481.0	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3
2.5°	13328.9	13205.7	13233.6	13298.7	13047.6	13117.4	13005.8	13054.6	12922.1	12866.4	12889.6
5°	14279.4	14135.3	14167.9	14200.4	13830.9	13672.8	13361.4	13289.4	13087.2	12994.2	12982.6
7.5°	14732.6	14583.9	14618.8	14618.8	14337.5	14363.1	14047.0	13712.3	13307.9	13161.5	13096.5
10°	15460.1	15292.8	15267.2	15223.0	14855.8	14693.1	14430.5	14235.3	13621.7	13412.5	13233.6
12.5°	15992.3	15862.2	15864.5	15815.7	15402.0	15283.5	14821.0	14590.9	13984.3	13730.9	13442.7
15°	16213.1	16120.1	16180.6	16034.2	15757.6	15580.9	15362.5	14992.9	14365.4	14105.1	13749.5
17.5°	15183.5	15016.2	14572.3	14649.0	14630.4	14683.8	14470.0	14688.5	14588.5	14446.8	14212.0
20°	12857.1	13033.7	13345.1	13068.6	13047.6	13742.6	14239.9	14172.5	13614.7	13407.9	13642.6
22.5°	10925.7	10709.6	11367.3	12350.4	12627.0	13335.8	14181.8	14986.0	14356.1	14091.2	13380.0
25°	9191.9	9410.4	10433.0	11920.4	12789.7	12998.8	13968.0	15481.0	15580.9	15292.8	14370.1
27.5°	8917.7	8915.4	9605.6	11046.6	13024.4	13679.8	13977.3	15234.7	16819.7	16622.2	15562.4
30°	8854.9	8822.4	9085.0	10544.6	12385.3	14291.1	14869.8	15311.3	16810.4	17470.5	16924.3
32.5°	8585.3	8559.8	8829.4	9515.0	11516.0	14874.4	15725.0	16306.1	16392.1	16752.3	18307.1
35°	8153.0	8213.5	8566.7	9324.4	10802.5	13726.3	16591.9	17500.7	17707.5	17496.0	17507.6
37.5°	7739.3	7785.8	8148.4	8985.1	10281.9	11165.1	17186.9	18648.8	19109.0	18867.3	17737.7
40°	7202.5	7267.5	7697.5	8624.8	9940.3	9635.8	16324.7	19996.8	20635.9	20326.8	19046.2
42.5°	6598.2	6628.4	7137.4	8032.2	7128.1	9687.0	15104.5	21233.2	22128.0	21821.2	20275.7
45°	6082.2	6100.8	6516.9	7086.3	6426.2	9605.6	14260.8	20647.5	23871.1	23564.3	21577.2
47.5°	5357.1	5489.6	5940.5	4899.3	5968.4	9405.7	14544.4	18309.5	25505.0	25277.2	22841.5
49°	4487.9	4606.4	5398.9	4462.3	5684.8	9226.8	14642.0	18992.8	24180.2	25997.7	23708.4
50°	4125.3	4211.3	4136.9	4306.6	5478.0	9045.5	14486.3	19543.6	22223.3	24898.4	24266.2
52.5°	3586.1	3337.4	2842.4	3867.3	5001.5	8339.0	11936.7	21024.1	22018.8	21516.8	22736.9
55°	1515.3	2159.1	2514.7	3172.4	4520.4	5061.9	11053.5	22637.0	23006.5	22499.9	20431.4
57.5°	1185.3	1208.5	1382.9	2361.3	2500.8	3920.8	10693.3	23329.6	23752.6	23313.3	21223.9
60°	174.3	172.0	227.8	271.9	620.5	1803.5	6988.6	16605.9	22925.2	24071.0	21949.1
62.5°	62.8	65.1	65.1	76.7	113.9	790.2	5080.5	15492.6	23478.3	24626.4	22555.6
65°	4.6	7.0	11.6	25.6	60.4	746.0	4506.5	15766.9	23299.4	24679.9	22850.8
67.5°	0.0	2.3	7.0	18.6	48.8	734.4	4190.4	15304.4	22548.7	24001.3	22204.7
70°	0.0	0.0	4.6	16.3	44.2	706.5	3639.6	13735.6	21205.3	22609.1	21028.7
72.5°	0.0	0.0	4.6	16.3	39.5	674.0	2991.2	12092.4	19982.8	21451.7	19322.8
75°	0.0	0.0	4.6	13.9	34.9	613.6	2187.0	8764.3	17900.4	19023.0	16901.0
77.5°	0.0	0.0	4.6	13.9	32.5	529.9	1478.1	5022.4	14728.0	16085.3	14200.4
80°	0.0	0.0	4.6	11.6	30.2	402.1	836.7	2507.7	7697.5	10572.5	10149.5
82.5°	0.0	0.0	4.6	11.6	23.2	213.8	390.5	1094.7	2837.8	3349.1	3909.2
85°	0.0	0.0	4.6	9.3	18.6	53.5	132.5	520.6	1550.2	1722.2	1680.3
87.5°	0.0	0.0	4.6	9.3	13.9	20.9	44.2	148.7	574.1	641.5	548.5
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°	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3	12801.3
2.5°	12885.0	12812.9	12745.5	12754.8	12594.4	12559.6	12408.5	12501.5	12438.7	12359.7	12410.8
5°	12912.8	12819.9	12701.4	12568.9	12217.9	12092.4	11883.3	11943.7	11860.0	11767.1	11815.9
7.5°	12973.3	12864.0	12668.8	12324.8	11915.8	11695.0	11453.3	11660.1	11634.6	11581.1	11634.6
10°	12998.8	12903.6	12571.2	12171.5	11604.4	11453.3	11269.7	11234.8	11241.8	11253.4	11332.4
12.5°	13066.2	12924.5	12413.2	11939.0	11423.1	11123.3	10942.0	11048.9	10828.1	10730.5	10772.3
15°	13231.3	12961.7	12290.0	11616.0	11102.4	10865.3	10419.1	10419.1	10363.3	10268.0	10295.9
17.5°	13563.6	13110.4	12257.4	11402.2	10744.4	10335.4	9926.3	9710.2	9649.8	9680.0	9698.6
20°	13742.6	13384.6	12241.2	11120.9	10342.4	9868.2	9247.7	9094.3	8892.1	8920.0	8952.5
22.5°	12666.5	12199.3	12215.6	10777.0	9845.0	9243.1	8564.4	8297.1	8174.0	8150.7	8213.5
25°	13433.5	12492.2	11039.6	10588.7	9298.8	8531.9	7843.9	7476.7	7288.5	7276.8	7316.4
27.5°	14451.4	13298.7	10876.9	9705.6	8717.8	7669.6	6909.6	6647.0	6461.1	6451.8	6458.7
30°	15636.7	14374.7	11281.3	8617.9	7929.9	6674.9	6070.6	5884.7	5715.0	5640.7	5643.0
32.5°	16954.5	15348.5	11671.8	8408.7	6356.5	5808.0	5338.5	5194.4	4962.0	4855.1	4824.9
35°	18188.6	16382.8	12159.8	8057.7	5515.2	5036.4	4706.4	4513.5	4332.2	4241.5	4211.3
37.5°	17100.9	17335.7	12592.1	7769.6	4873.7	4174.1	4083.5	3955.7	3862.7	3793.0	3781.4
40°	17349.6	15615.8	12847.8	7225.7	4211.3	3646.6	3500.1	3562.9	3658.2	3600.1	3597.7
42.5°	18179.3	15883.1	12615.4	6472.7	3686.1	3144.5	3186.4	3421.1	3621.0	3583.8	3588.5
45°	19366.9	16717.4	10825.8	5573.3	3177.1	2833.1	3105.0	3379.3	3630.3	3641.9	3641.9
47.5°	20596.4	17656.4	10493.4	4374.0	2802.9	2712.3	3091.1	3328.1	3616.3	3690.7	3681.4
49°	21277.4	18111.9	10400.5	3600.1	2635.6	2686.7	3088.8	3279.3	3588.5	3693.0	3681.4
50°	21674.8	18423.4	10226.2	3291.0	2537.9	2682.0	3091.1	3249.1	3560.6	3676.8	3672.1
52.5°	22509.2	18818.5	9617.2	2709.9	2300.9	2665.8	3128.3	3221.2	3474.6	3597.7	3644.2
55°	18600.0	18151.4	8594.6	2433.4	2194.0	2633.2	3128.3	3237.5	3400.2	3472.2	3516.4
57.5°	18830.1	15520.5	6758.6	2296.2	2121.9	2598.4	3079.5	3235.2	3360.7	3372.3	3358.4
60°	19532.0	15880.8	5038.7	2156.8	2038.3	2554.2	2974.9	3160.8	3256.1	3256.1	3214.3
62.5°	19952.6	16050.4	4030.0	2003.4	1949.9	2463.6	2819.2	3016.7	3088.8	3049.3	3042.3
65°	20057.2	16187.5	2923.8	1838.4	1850.0	2366.0	2658.8	2830.8	2930.7	2863.3	2877.3
67.5°	19697.0	15209.1	2135.9	1668.7	1736.1	2233.5	2500.8	2654.2	2726.2	2691.3	2698.3
70°	18365.2	14144.6	1503.7	1378.2	1552.5	2029.0	2300.9	2477.5	2514.7	2454.3	2463.6
72.5°	16224.7	12501.5	948.2	1078.4	1366.6	1840.7	2066.1	2177.7	2184.7	2259.1	2298.6
75°	14130.7	10030.9	685.6	850.6	1085.4	1573.4	1887.2	1991.8	2068.5	2440.3	2500.8
77.5°	11325.5	6347.2	583.4	671.7	853.0	1306.2	1682.7	1843.0	2533.3	2716.9	2670.4
80°	6863.1	3941.7	439.3	529.9	711.2	1004.0	1441.0	1898.8	2563.5	2391.5	2293.9
82.5°	3167.8	1712.9	297.5	432.3	564.8	748.4	1136.5	2217.2	2196.3	1831.4	1812.8
85°	1138.8	506.7	162.7	309.1	395.1	516.0	873.9	2196.3	1722.2	1538.6	1441.0
87.5°	290.5	90.6	67.4	151.1	199.9	274.2	476.4	1162.1	894.8	787.9	760.0
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)