

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: P510710

Luminaire Tested: **CTN-CA8-230-727-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-727-U-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26861 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

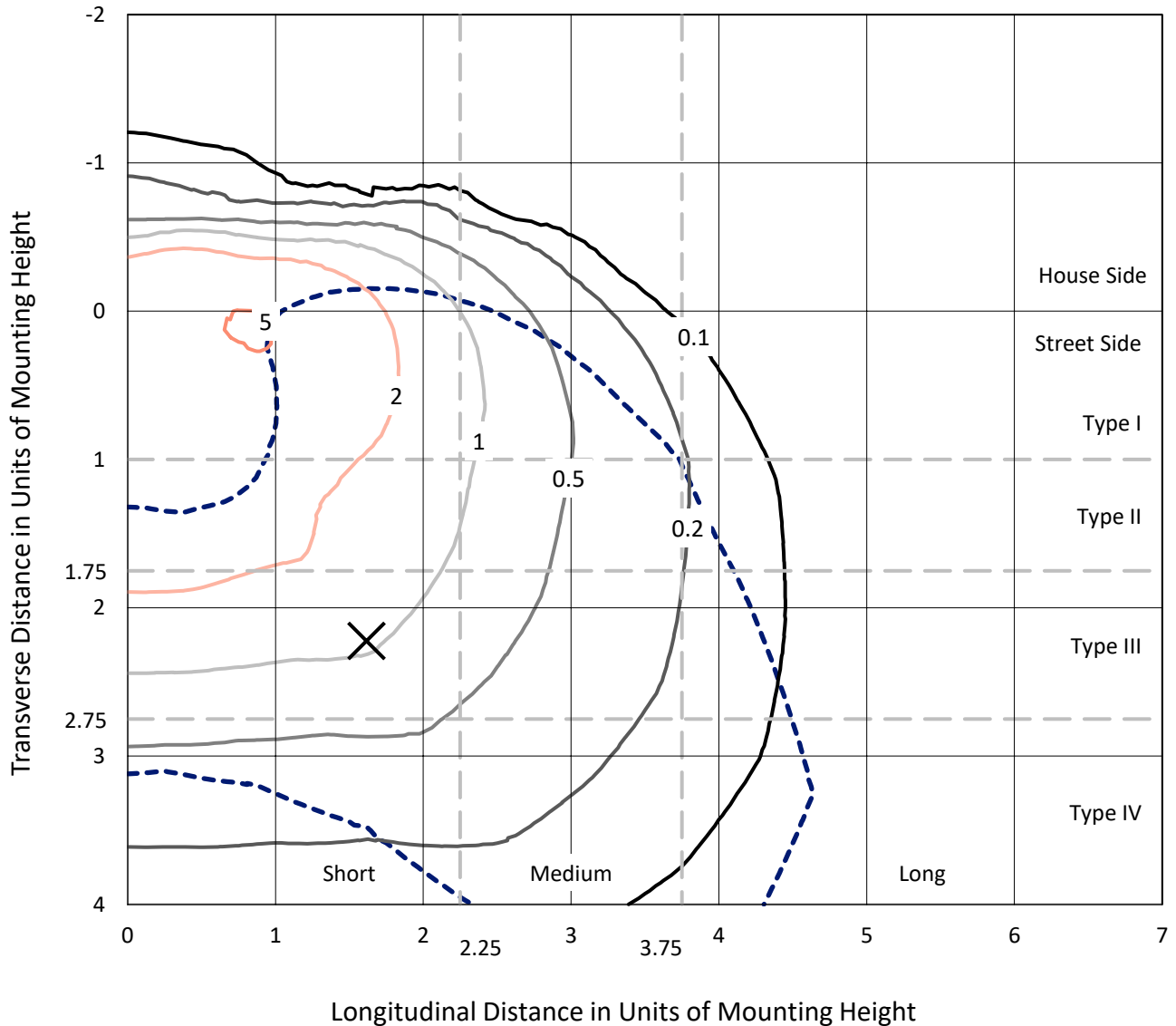
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

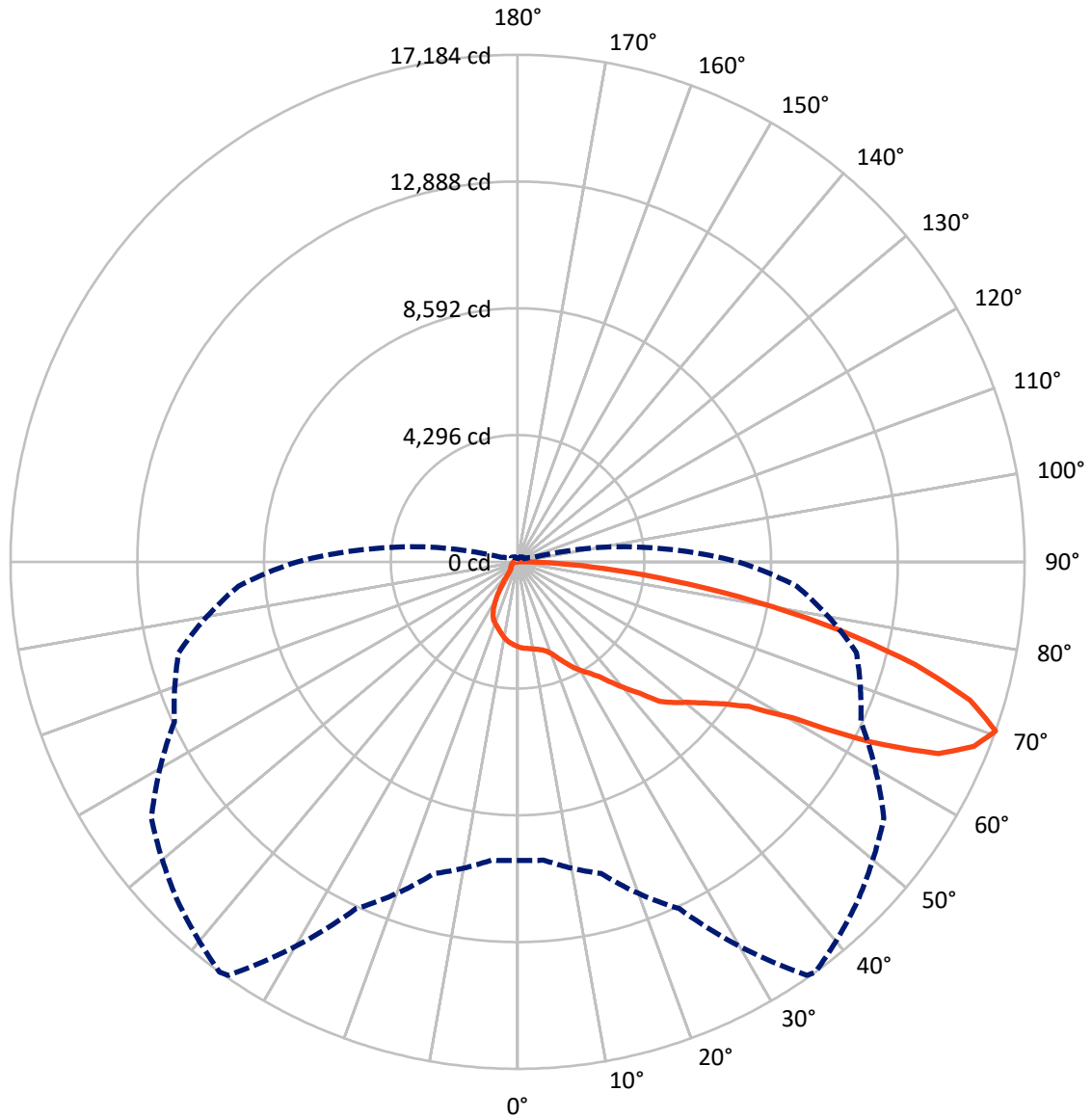
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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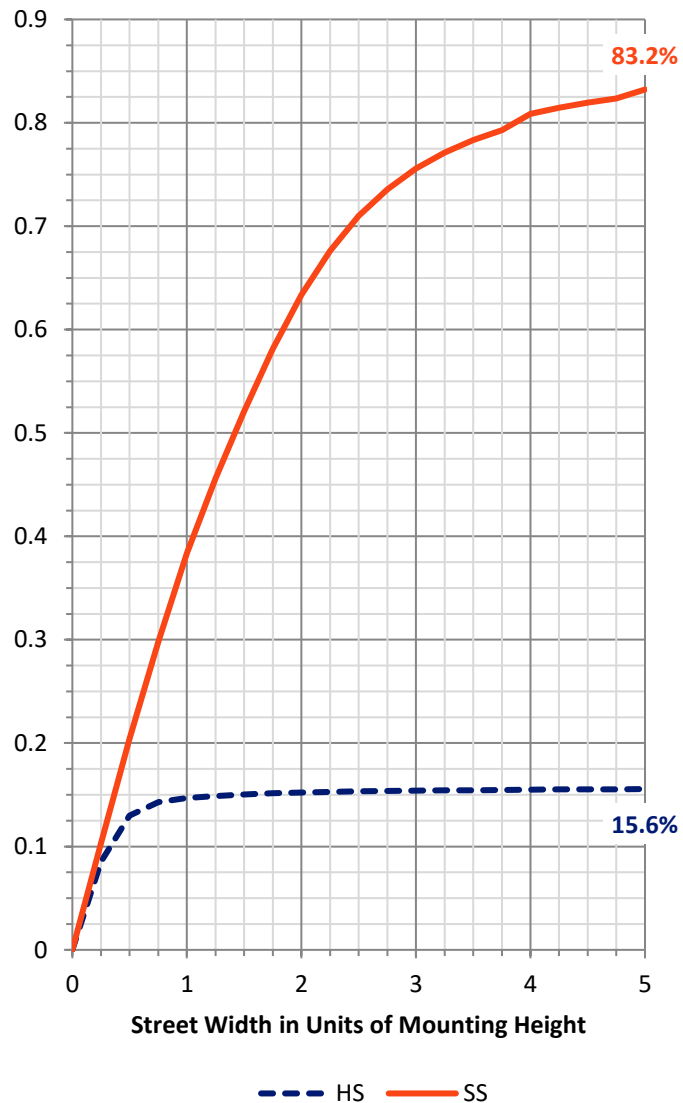
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4238.9	0.0	4238.9
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	22622.1	0.0	22622.1
	% Fixture	84.2	0.0	84.2
Total	Lumens	26861.0	0.0	26861.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.0	1.0
10°-20°	811.7	3.0
20°-30°	1459.7	5.4
30°-40°	2309.9	8.6
40°-50°	3610.0	13.4
50°-60°	5183.9	19.3
60°-70°	7031.5	26.2
70°-80°	5204.1	19.4
80°-90°	977.2	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°	26861.0	100.0
0°-180°	26861.0	100.0

Coefficient of Utilization



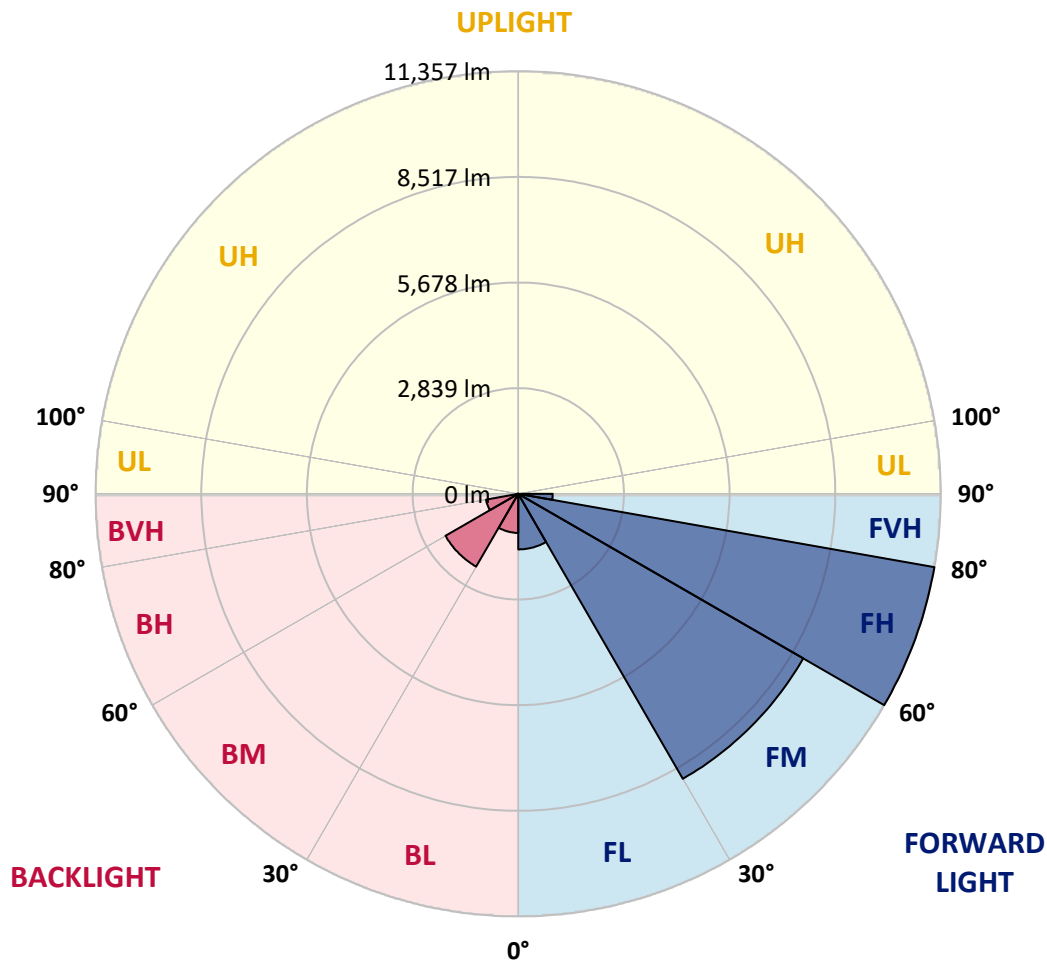
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1494.0	5.6			
FM (30°-60°)	8845.1	32.9			
FH (60°-80°)	11356.6	42.3			G4/12000
FVH (80°-90°)	926.5	3.4			G5
BL (0°-30°)	1050.4	3.9	B3/2500		
BM (30°-60°)	2258.8	8.4	B2/2500		
BH (60°-80°)	879.0	3.3	B2/1000		G2/1000
BVH (80°-90°)	50.7	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0
2.5°	2936.3	2930.1	2925.2	2927.0	2923.3	2925.8	2920.2	2913.4	2897.2	2890.4	2887.3
5°	2962.4	2960.5	2955.5	2951.8	2945.0	2942.5	2936.3	2941.9	2933.2	2910.9	2897.9
7.5°	2977.9	2977.2	2971.7	2963.6	2967.3	2970.4	2976.6	2967.9	2956.8	2946.2	2919.6
10°	2984.7	2984.7	2977.9	2982.2	3001.4	3003.3	3006.4	3012.0	3001.4	2985.9	2959.3
12.5°	3002.0	3000.8	3003.3	3017.6	3037.4	3041.7	3057.2	3057.2	3058.5	3049.2	3018.2
15°	3045.5	3045.5	3051.0	3064.1	3098.2	3100.6	3123.6	3144.1	3146.5	3132.9	3109.3
17.5°	3145.9	3143.4	3140.3	3148.4	3185.0	3186.2	3225.9	3252.0	3258.8	3273.7	3269.9
20°	3336.9	3334.4	3333.8	3334.4	3332.0	3328.2	3367.3	3395.2	3429.9	3456.0	3469.0
22.5°	3610.4	3604.8	3604.8	3574.4	3550.9	3554.6	3560.8	3576.3	3622.2	3668.1	3717.1
25°	3905.0	3901.2	3904.3	3826.8	3795.2	3807.6	3799.5	3823.7	3883.9	3923.6	3975.7
27.5°	4145.6	4151.1	4133.8	4073.6	4053.2	4062.5	4043.9	4113.3	4179.7	4249.1	4327.9
30°	4445.1	4415.3	4372.5	4299.4	4291.9	4293.2	4291.9	4403.5	4541.2	4640.4	4749.6
32.5°	4836.4	4841.4	4745.2	4572.8	4509.6	4500.9	4525.7	4689.4	4875.5	5095.6	5239.5
35°	5232.0	5240.1	5170.0	4990.2	4809.7	4782.4	4745.9	4958.6	5227.1	5668.6	5885.7
37.5°	5651.9	5680.4	5597.3	5436.7	5222.7	5197.3	5024.3	5233.3	5630.2	6347.0	6631.7
40°	6213.7	6183.3	6082.9	5878.8	5679.8	5638.8	5437.9	5547.7	6148.6	7196.6	7403.1
42.5°	6627.9	6619.3	6534.3	6332.8	6132.5	6099.6	5937.7	6056.8	6801.6	8058.0	8150.4
45°	6956.6	7009.9	7008.1	6881.6	6768.7	6750.1	6654.6	6830.1	7591.0	8871.0	8825.7
47.5°	7248.7	7281.6	7228.9	7173.7	7121.0	7127.2	7197.8	7558.8	8397.8	9581.0	9380.7
50°	7726.8	7684.6	7448.4	7406.2	7480.6	7483.7	7698.9	8254.5	9286.4	10194.9	9850.8
52.5°	8364.3	8318.4	7832.9	7760.9	7937.0	7950.1	8307.9	8947.9	10203.0	10781.6	10318.3
55°	9313.1	9206.4	8686.2	8363.7	8444.3	8497.0	8930.5	9614.5	10920.5	11298.8	10672.4
57.5°	10478.3	10555.8	10289.2	9560.5	9225.1	9244.9	9643.0	10252.6	11553.6	11751.5	10879.6
60°	11709.9	11691.3	11802.9	11496.0	10853.5	10746.8	10544.1	10903.7	12044.2	12132.8	11092.9
62.5°	12384.6	12493.1	12865.2	12926.6	13506.4	13450.0	12067.7	11711.2	12611.0	12372.2	11151.2
65°	12380.9	12428.0	13120.7	13882.2	15693.6	15677.5	15035.0	12878.9	13033.3	12500.0	11034.6
67.5°	11580.9	11654.1	12464.0	13951.7	16704.4	16685.2	16241.2	14520.3	13166.0	12346.2	10490.7
70°	10122.4	10147.2	10937.2	12973.7	17110.6	17184.4	16282.7	15150.4	12836.1	11889.1	9499.1
72.5°	8350.7	8299.2	9071.9	11079.2	16076.2	16032.2	15594.4	14398.2	12280.4	11001.7	7747.3
75°	6148.6	6291.8	6985.1	8895.8	13764.4	13925.6	14119.7	13247.2	10906.8	9066.9	5357.3
77.5°	4060.0	4242.3	4943.1	6670.1	10896.9	11147.5	11650.4	11267.1	8872.8	6503.9	2551.2
80°	2097.9	2235.6	2866.2	4425.9	7811.8	8173.3	9095.4	8533.6	6290.6	2940.7	571.1
82.5°	793.8	775.8	1284.3	2533.2	5008.8	5337.5	6007.8	5117.3	2238.7	516.6	265.4
85°	348.5	369.0	532.1	1155.3	2863.8	2906.5	3403.3	1995.0	328.0	246.8	180.5
87.5°	150.7	173.0	223.2	332.4	966.2	1115.6	1380.4	633.8	99.2	85.6	90.5
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°	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0	2878.0
2.5°	2881.7	2878.0	2871.8	2856.3	2830.9	2827.8	2825.3	2822.8	2817.9	2820.4	2834.6
5°	2887.9	2881.1	2858.8	2836.5	2814.1	2794.3	2770.1	2760.8	2748.4	2740.4	2755.2
7.5°	2909.0	2894.8	2861.9	2831.5	2770.7	2741.6	2710.6	2674.0	2648.0	2631.2	2646.1
10°	2944.4	2926.4	2885.5	2822.8	2751.5	2671.5	2616.9	2556.2	2506.6	2492.9	2506.6
12.5°	3002.0	2975.4	2927.6	2842.7	2716.2	2611.4	2507.8	2427.8	2347.8	2324.9	2331.7
15°	3095.7	3074.6	3001.4	2884.2	2716.8	2556.8	2403.0	2274.0	2169.2	2132.6	2130.1
17.5°	3245.8	3223.4	3139.1	2966.7	2739.1	2514.0	2300.1	2103.5	1944.7	1864.1	1851.1
20°	3460.9	3429.9	3302.2	3088.2	2787.5	2495.4	2204.6	1940.4	1693.6	1542.3	1519.3
22.5°	3700.3	3667.4	3478.9	3181.9	2822.2	2458.8	2113.4	1759.9	1435.0	1250.2	1224.1
25°	3998.0	3926.0	3648.2	3270.6	2814.1	2381.9	1965.2	1515.0	1162.7	1002.7	985.4
27.5°	4291.9	4200.8	3820.6	3317.1	2778.8	2259.8	1748.1	1228.5	910.4	796.9	782.6
30°	4656.6	4480.4	3973.8	3338.8	2689.5	2076.8	1457.3	933.9	681.5	603.4	589.7
32.5°	5090.0	4823.4	4117.7	3314.6	2540.7	1797.8	1133.0	684.0	506.6	457.7	457.0
35°	5661.8	5243.8	4275.8	3235.2	2312.5	1497.0	794.4	467.6	395.0	378.3	381.4
37.5°	6330.3	5813.1	4436.4	3105.0	2054.5	1145.4	529.6	360.3	347.3	347.9	348.5
40°	7035.4	6441.9	4652.8	2922.1	1741.3	829.1	381.4	323.7	323.1	329.3	331.1
42.5°	7708.8	7052.7	4919.5	2678.3	1413.3	548.2	330.5	308.8	300.8	303.2	305.1
45°	8334.5	7576.7	5146.5	2440.8	1061.7	391.3	324.3	291.5	279.1	277.8	279.1
47.5°	8838.7	7996.6	5284.7	2161.8	756.6	324.9	311.3	275.3	258.0	254.3	252.4
50°	9222.6	8308.5	5335.0	1845.5	511.6	310.1	293.9	256.7	235.6	236.3	236.3
52.5°	9597.1	8591.9	5276.7	1526.8	376.4	297.0	282.2	241.9	219.5	231.3	234.4
55°	9866.9	8711.0	5106.8	1182.0	313.8	280.9	269.1	224.5	209.0	228.2	234.4
57.5°	10024.4	8804.6	4794.8	853.3	287.7	265.4	252.4	208.4	194.1	199.1	202.2
60°	10122.4	8673.8	4382.5	583.5	274.1	253.0	235.6	197.8	178.6	166.8	165.0
62.5°	10068.4	8346.3	3839.2	401.2	259.8	239.4	221.4	187.9	162.5	147.0	145.7
65°	9628.8	7740.5	2947.5	324.9	251.2	233.2	212.7	178.6	151.3	136.4	134.6
67.5°	8813.3	6651.5	1721.5	289.0	247.4	227.0	205.9	169.9	145.1	129.0	126.5
70°	7473.2	5003.2	576.7	258.0	246.8	226.3	200.3	163.7	138.3	121.5	119.1
72.5°	5391.4	3018.8	280.9	227.0	230.7	217.0	196.0	158.8	133.9	112.9	108.5
75°	3064.1	982.9	253.6	196.0	214.6	207.1	193.5	159.4	135.8	102.3	97.4
77.5°	871.9	287.1	245.0	166.8	202.8	213.9	181.1	143.9	138.9	94.9	88.7
80°	294.6	255.5	236.3	129.6	163.7	176.7	156.9	126.5	140.1	86.2	80.0
82.5°	236.3	256.7	198.4	103.6	124.6	133.9	124.6	113.5	113.5	76.9	71.9
85°	189.1	238.1	125.9	82.5	93.0	102.9	88.1	85.0	79.4	64.5	62.6
87.5°	109.8	74.4	52.1	42.2	39.1	39.7	34.1	40.9	50.2	44.0	43.4
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)