

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: P510650

Luminaire Tested: **CTN-CA6-230-727-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510650
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-CA6-230-727-U-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (6) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25818 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

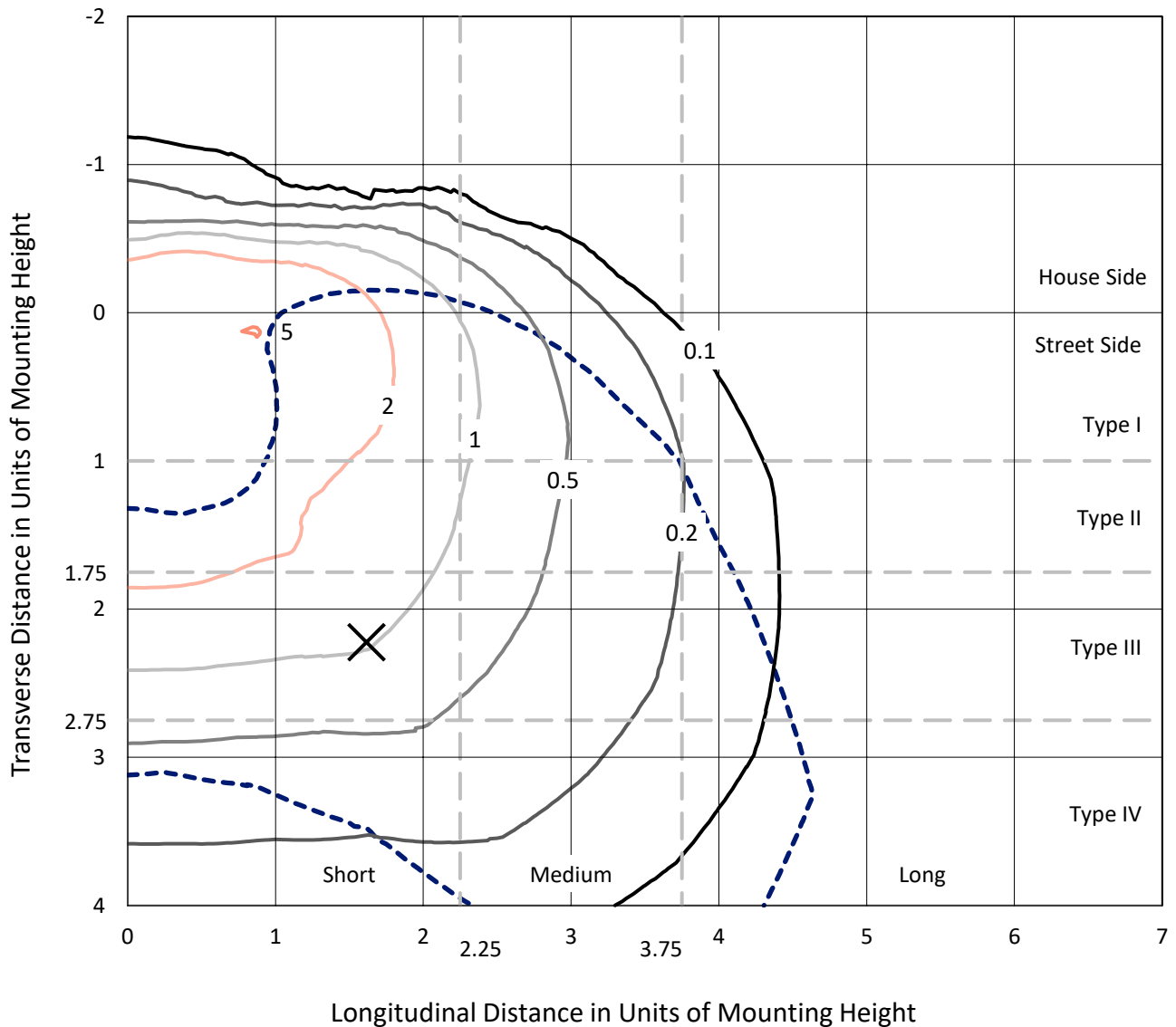
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

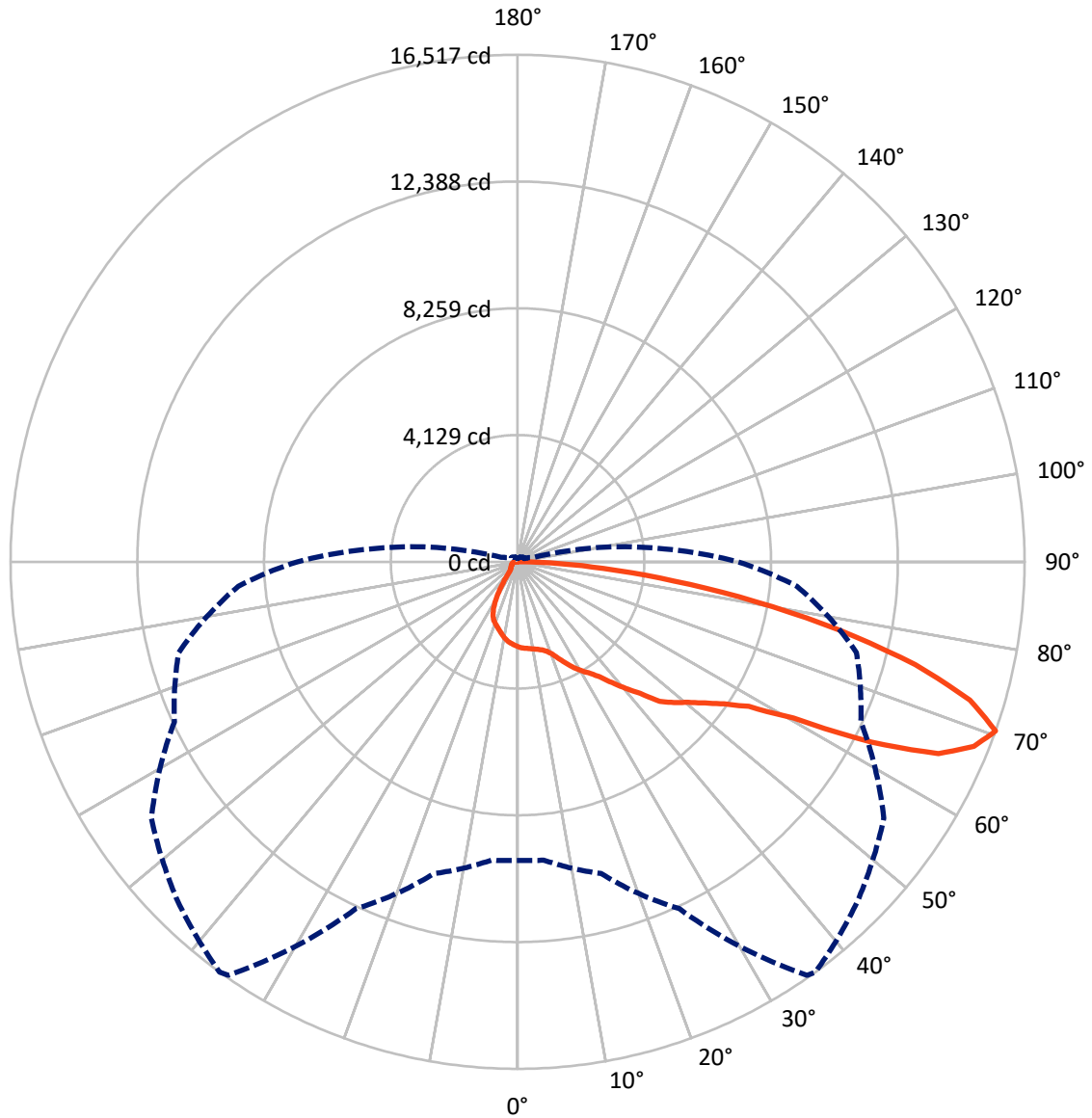
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 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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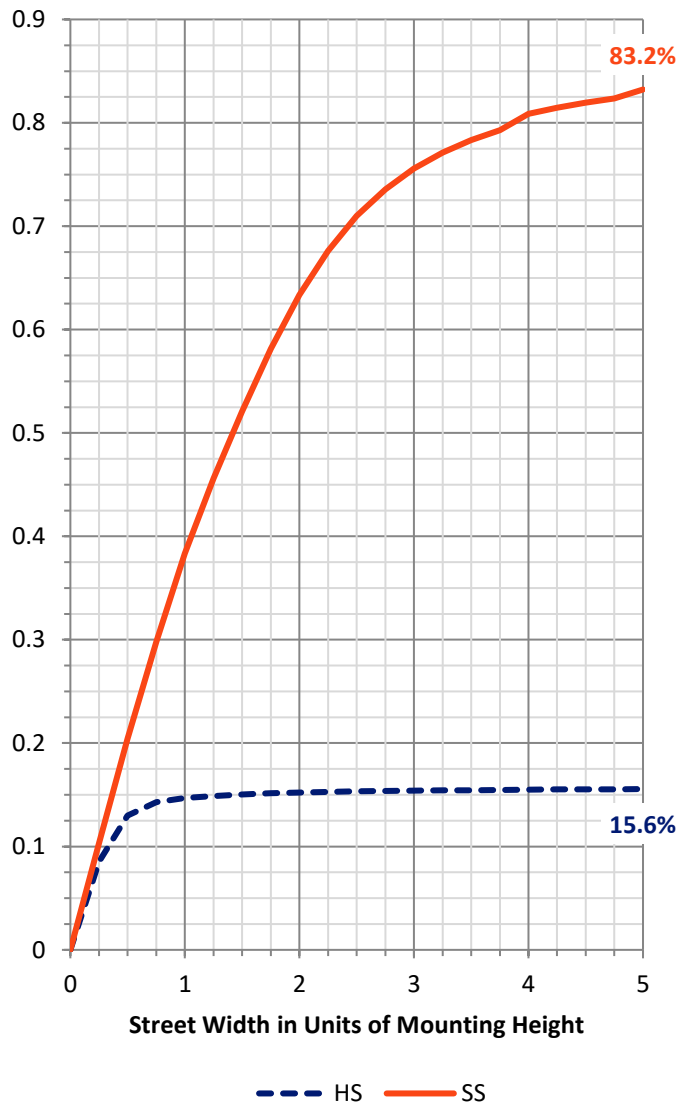
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4074.3	0.0	4074.3
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	21743.7	0.0	21743.7
	% Fixture	84.2	0.0	84.2
Total	Lumens	25818.0	0.0	25818.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.4	1.0
10°-20°	780.2	3.0
20°-30°	1403.0	5.4
30°-40°	2220.2	8.6
40°-50°	3469.8	13.4
50°-60°	4982.6	19.3
60°-70°	6758.5	26.2
70°-80°	5002.0	19.4
80°-90°	939.2	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°	25818.0	100.0
0°-180°	25818.0	100.0

Coefficient of Utilization



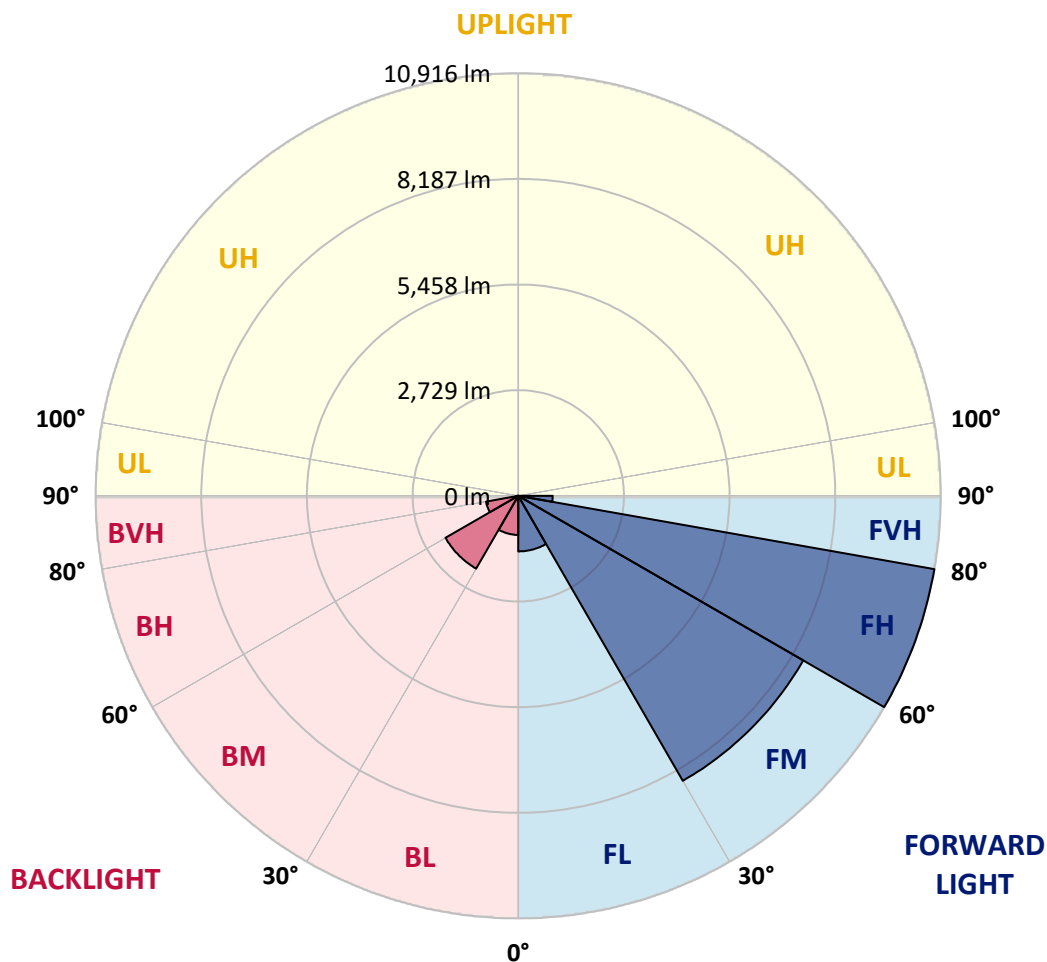
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1436.0	5.6			
FM (30°-60°)	8501.6	32.9			
FH (60°-80°)	10915.6	42.3			G4/12000
FVH (80°-90°)	890.5	3.4			G5
BL (0°-30°)	1009.6	3.9	B3/2500		
BM (30°-60°)	2171.1	8.4	B2/2500		
BH (60°-80°)	844.9	3.3	B2/1000		G2/1000
BVH (80°-90°)	48.7	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°	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3
2.5°	2822.3	2816.3	2811.6	2813.4	2809.8	2812.2	2806.8	2800.2	2784.7	2778.2	2775.2
5°	2847.3	2845.5	2840.8	2837.2	2830.6	2828.3	2822.3	2827.7	2819.3	2797.9	2785.3
7.5°	2862.2	2861.6	2856.3	2848.5	2852.1	2855.1	2861.0	2852.7	2842.0	2831.8	2806.2
10°	2868.8	2868.8	2862.2	2866.4	2884.9	2886.7	2889.7	2895.0	2884.9	2870.0	2844.4
12.5°	2885.5	2884.3	2886.7	2900.4	2919.5	2923.6	2938.5	2938.5	2939.7	2930.8	2901.0
15°	2927.2	2927.2	2932.6	2945.1	2977.9	2980.3	3002.3	3022.0	3024.4	3011.2	2988.6
17.5°	3023.8	3021.4	3018.4	3026.1	3061.3	3062.5	3100.7	3125.7	3132.2	3146.6	3143.0
20°	3207.3	3205.0	3204.4	3205.0	3202.6	3199.0	3236.6	3263.4	3296.8	3321.8	3334.3
22.5°	3470.2	3464.8	3464.8	3435.6	3413.0	3416.6	3422.5	3437.4	3481.5	3525.6	3572.7
25°	3753.3	3749.8	3752.7	3678.2	3647.8	3659.7	3652.0	3675.2	3733.1	3771.2	3821.3
27.5°	3984.6	3990.0	3973.3	3915.5	3895.8	3904.7	3886.8	3953.6	4017.4	4084.1	4159.8
30°	4272.5	4243.9	4202.8	4132.4	4125.3	4126.5	4125.3	4232.6	4364.9	4460.2	4565.2
32.5°	4648.6	4653.4	4561.0	4395.3	4334.5	4326.1	4350.0	4507.3	4686.1	4897.7	5036.0
35°	5028.9	5036.6	4969.3	4796.4	4623.0	4596.7	4561.6	4766.0	5024.1	5448.5	5657.1
37.5°	5432.4	5459.8	5380.0	5225.6	5019.9	4995.5	4829.2	5030.1	5411.5	6100.6	6374.2
40°	5972.4	5943.2	5846.7	5650.6	5459.2	5419.9	5226.8	5332.3	5909.8	6917.2	7115.7
42.5°	6370.6	6362.2	6280.6	6086.9	5894.3	5862.8	5707.2	5821.6	6537.5	7745.1	7833.9
45°	6686.5	6737.8	6736.0	6614.4	6505.9	6488.0	6396.2	6564.9	7296.3	8526.5	8483.0
47.5°	6967.2	6998.8	6948.2	6895.1	6844.4	6850.4	6918.4	7265.3	8071.7	9209.0	9016.5
50°	7426.8	7386.3	7159.2	7118.6	7190.2	7193.1	7400.0	7934.0	8925.9	9799.1	9468.3
52.5°	8039.5	7995.4	7528.7	7459.6	7628.8	7641.4	7985.3	8600.4	9806.8	10362.9	9917.7
55°	8951.5	8849.0	8348.9	8038.9	8116.4	8167.1	8583.7	9241.2	10496.4	10860.0	10258.0
57.5°	10071.5	10146.0	9889.7	9189.3	8866.8	8885.9	9268.6	9854.5	11105.0	11295.2	10457.1
60°	11255.2	11237.3	11344.6	11049.6	10432.1	10329.6	10134.6	10480.4	11576.5	11661.7	10662.2
62.5°	11903.7	12008.0	12365.7	12424.7	12982.0	12927.7	11599.1	11256.4	12121.3	11891.8	10718.2
65°	11900.1	11945.4	12611.2	13343.2	15084.2	15068.8	14451.2	12378.8	12527.2	12014.6	10606.1
67.5°	11131.2	11201.6	11980.0	13409.9	16055.8	16037.3	15610.6	13956.5	12654.7	11866.8	10083.4
70°	9729.3	9753.2	10512.5	12470.0	16446.2	16517.2	15650.5	14562.1	12337.6	11427.5	9130.3
72.5°	8026.4	7976.9	8719.6	10649.0	15452.0	15409.7	14988.9	13839.1	11803.6	10574.5	7446.5
75°	5909.8	6047.5	6713.9	8550.3	13229.9	13384.9	13571.5	12732.8	10483.3	8714.9	5149.3
77.5°	3902.3	4077.6	4751.1	6411.1	10473.8	10714.6	11198.0	10829.6	8528.3	6251.4	2452.2
80°	2016.4	2148.8	2754.9	4254.0	7508.4	7855.9	8742.3	8202.2	6046.3	2826.5	549.0
82.5°	762.9	745.7	1234.4	2434.9	4814.3	5130.2	5774.5	4918.6	2151.7	496.5	255.1
85°	335.0	354.7	511.4	1110.4	2752.6	2793.7	3271.1	1917.5	315.3	237.2	173.5
87.5°	144.8	166.3	214.6	319.5	928.6	1072.3	1326.8	609.2	95.4	82.3	87.0
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°	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3	2766.3
2.5°	2769.8	2766.3	2760.3	2745.4	2721.0	2718.0	2715.6	2713.2	2708.5	2710.8	2724.5
5°	2775.8	2769.3	2747.8	2726.3	2704.9	2685.8	2662.6	2653.6	2641.7	2633.9	2648.3
7.5°	2796.1	2782.4	2750.8	2721.6	2663.2	2635.1	2605.3	2570.2	2545.1	2529.0	2543.3
10°	2830.0	2812.8	2773.4	2713.2	2644.7	2567.8	2515.3	2456.9	2409.2	2396.1	2409.2
12.5°	2885.5	2859.8	2814.0	2732.3	2610.7	2510.0	2410.4	2333.5	2256.6	2234.6	2241.1
15°	2975.5	2955.2	2884.9	2772.2	2611.3	2457.5	2309.7	2185.7	2085.0	2049.8	2047.4
17.5°	3119.7	3098.3	3017.2	2851.5	2632.8	2416.4	2210.8	2021.8	1869.2	1791.7	1779.2
20°	3326.6	3296.8	3174.0	2968.3	2679.2	2398.5	2119.0	1865.0	1627.8	1482.4	1460.3
22.5°	3556.6	3525.0	3343.8	3058.3	2712.6	2363.3	2031.3	1691.6	1379.3	1201.6	1176.6
25°	3842.7	3773.6	3506.6	3143.6	2704.9	2289.4	1888.9	1456.2	1117.6	963.8	947.1
27.5°	4125.3	4037.6	3672.3	3188.3	2670.9	2172.0	1680.3	1180.8	875.0	765.9	752.2
30°	4475.7	4306.5	3819.5	3209.1	2585.1	1996.2	1400.7	897.7	655.1	580.0	566.8
32.5°	4892.4	4636.1	3957.8	3185.9	2442.0	1728.0	1089.0	657.4	487.0	439.9	439.3
35°	5441.9	5040.2	4109.8	3109.6	2222.7	1438.9	763.5	449.4	379.7	363.6	366.6
37.5°	6084.5	5587.4	4264.1	2984.4	1974.7	1100.9	509.0	346.3	333.8	334.4	335.0
40°	6762.2	6191.8	4472.2	2808.6	1673.7	796.9	366.6	311.1	310.5	316.5	318.3
42.5°	7409.5	6778.9	4728.5	2574.3	1358.4	526.9	317.7	296.8	289.1	291.5	293.3
45°	8010.9	7282.5	4946.6	2346.1	1020.4	376.1	311.7	280.1	268.2	267.0	268.2
47.5°	8495.5	7686.1	5079.5	2077.8	727.2	312.3	299.2	264.6	248.0	244.4	242.6
50°	8864.5	7985.9	5127.8	1773.8	491.7	298.0	282.5	246.8	226.5	227.1	227.1
52.5°	9224.5	8258.3	5071.8	1467.5	361.8	285.5	271.2	232.5	211.0	222.3	225.3
55°	9483.8	8372.7	4908.5	1136.1	301.6	270.0	258.7	215.8	200.9	219.3	225.3
57.5°	9635.2	8462.7	4608.7	820.2	276.6	255.1	242.6	200.3	186.6	191.3	194.3
60°	9729.3	8337.0	4212.3	560.9	263.5	243.2	226.5	190.1	171.7	160.3	158.5
62.5°	9677.5	8022.2	3690.1	385.6	249.7	230.1	212.8	180.6	156.2	141.3	140.1
65°	9254.9	7439.9	2833.0	312.3	241.4	224.1	204.4	171.7	145.4	131.1	129.3
67.5°	8471.1	6393.2	1654.6	277.8	237.8	218.2	197.9	163.3	139.5	124.0	121.6
70°	7183.0	4808.9	554.3	248.0	237.2	217.6	192.5	157.4	132.9	116.8	114.4
72.5°	5182.1	2901.6	270.0	218.2	221.7	208.6	188.4	152.6	128.7	108.5	104.3
75°	2945.1	944.7	243.8	188.4	206.2	199.1	186.0	153.2	130.5	98.3	93.6
77.5°	838.0	276.0	235.4	160.3	194.9	205.6	174.0	138.3	133.5	91.2	85.2
80°	283.1	245.6	227.1	124.6	157.4	169.9	150.8	121.6	134.7	82.9	76.9
82.5°	227.1	246.8	190.7	99.5	119.8	128.7	119.8	109.1	109.1	73.9	69.1
85°	181.8	228.9	121.0	79.3	89.4	98.9	84.6	81.7	76.3	62.0	60.2
87.5°	105.5	71.5	50.1	40.5	37.6	38.1	32.8	39.3	48.3	42.3	41.7
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)