

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: P647417

Luminaire Tested: **GALN-SA4D-835-U-T4W**

Issue Date: 5/13/2021

Test Information

Test Method: LM-79-08
Report Number: P647417
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2011-042-41)
Test Lab: INNOVATION CENTER
Issue Date: 5/13/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-835-U-T4W
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23979.4 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

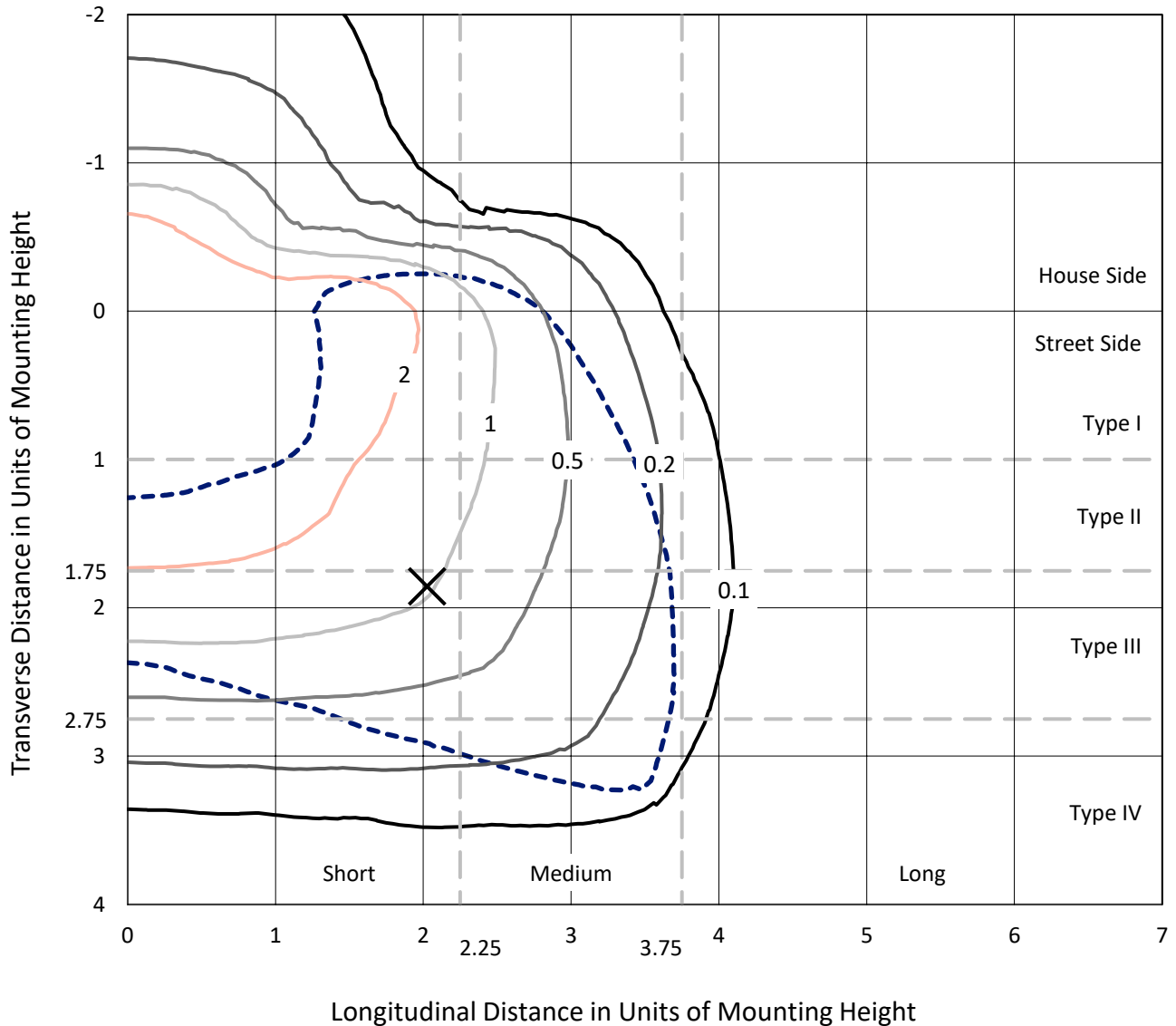
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

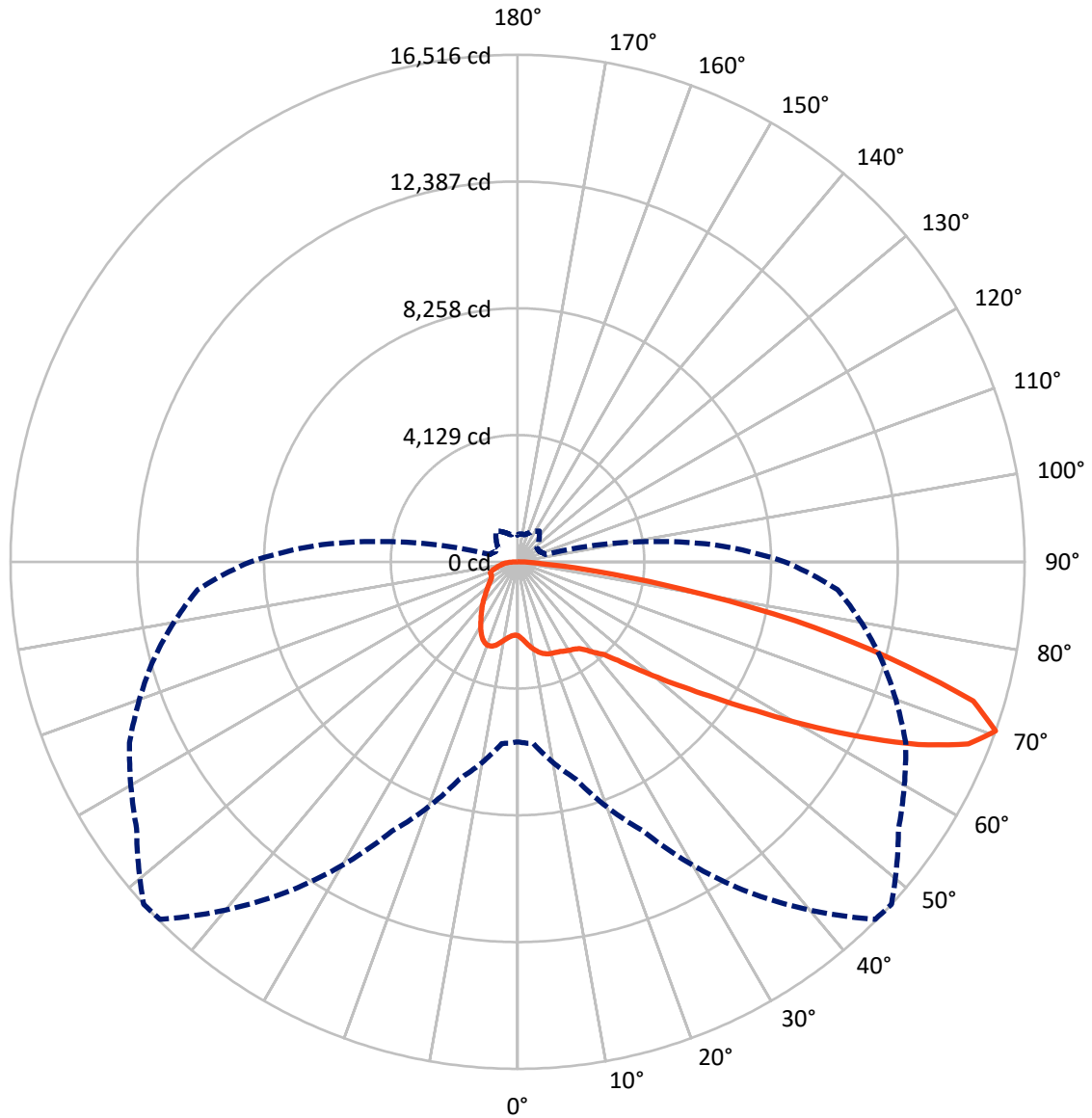
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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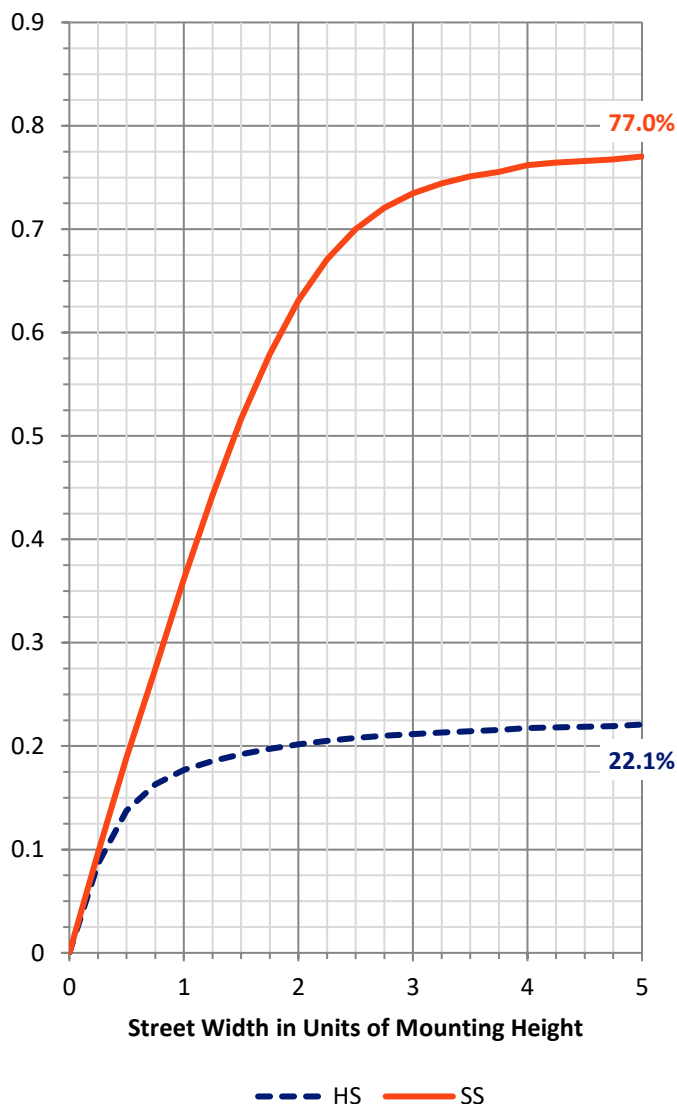
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5429.4	0.0	5429.4
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	18550.0	0.0	18550.0
	% Fixture	77.4	0.0	77.4
Total	Lumens	23979.4	0.0	23979.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.1	1.0
10°-20°	829.5	3.5
20°-30°	1379.5	5.8
30°-40°	1955.3	8.2
40°-50°	2886.4	12.0
50°-60°	4999.3	20.8
60°-70°	7061.7	29.4
70°-80°	4059.4	16.9
80°-90°	560.1	2.3
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°	23979.4	100.0
0°-180°	23979.4	100.0

Coefficient of Utilization



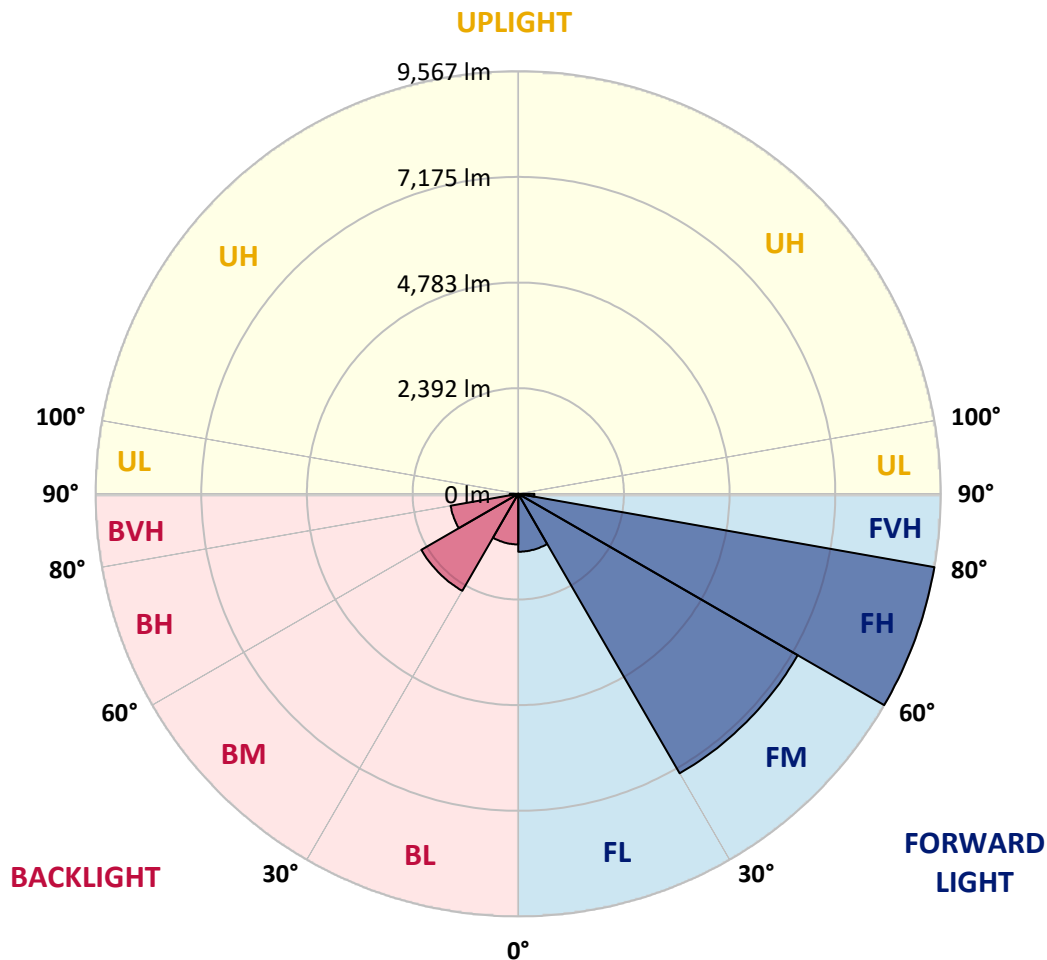
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1311.3	5.5			
FM (30°-60°)	7306.1	30.5			
FH (60°-80°)	9566.8	39.9			G4/12000
FVH (80°-90°)	365.9	1.5			G3/500
BL (0°-30°)	1145.9	4.8	B3/2500		
BM (30°-60°)	2534.9	10.6	B3/5000		
BH (60°-80°)	1554.4	6.5	B3/2500		G3/2500
BVH (80°-90°)	194.2	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47.5°	55°	65°	75°	85°
0°	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3
2.5°	2562.5	2553.5	2552.3	2533.0	2522.7	2503.5	2495.8	2477.8	2456.0	2434.2	2413.7
5°	2764.0	2764.0	2755.0	2728.1	2685.7	2642.1	2622.8	2588.2	2526.6	2476.6	2434.2
7.5°	2970.5	2973.1	2955.1	2915.3	2855.1	2784.5	2766.5	2715.2	2628.0	2554.8	2491.9
10°	3148.9	3148.9	3124.6	3070.6	2995.0	2917.9	2900.0	2842.2	2744.7	2653.6	2571.5
12.5°	3284.9	3284.9	3252.8	3182.3	3100.1	3030.8	3010.3	2955.1	2864.1	2762.7	2658.8
15°	3373.5	3367.1	3331.1	3251.6	3172.0	3111.7	3097.6	3051.4	2968.0	2865.3	2748.6
17.5°	3377.3	3374.7	3340.1	3273.4	3204.1	3163.0	3154.1	3123.2	3057.8	2960.3	2837.1
20°	3302.9	3308.0	3284.9	3237.5	3204.1	3186.1	3182.3	3172.0	3125.8	3034.8	2911.5
22.5°	3223.4	3232.3	3210.5	3184.9	3182.3	3200.3	3202.8	3205.4	3175.8	3087.3	2974.4
25°	3204.1	3210.5	3188.7	3165.6	3179.7	3227.2	3237.5	3247.7	3224.6	3150.2	3048.8
27.5°	3301.6	3296.5	3254.1	3204.1	3213.0	3277.2	3291.3	3302.9	3291.3	3227.2	3141.2
30°	3577.5	3560.8	3476.1	3329.9	3283.7	3328.5	3342.7	3374.7	3374.7	3327.3	3241.3
32.5°	4039.4	4007.4	3852.1	3564.7	3404.2	3377.3	3391.4	3444.0	3471.0	3433.8	3340.1
35°	4600.2	4566.8	4344.9	3958.6	3625.0	3474.9	3471.0	3530.0	3601.9	3518.5	3396.6
37.5°	5163.5	5128.9	4862.0	4428.3	3947.0	3680.2	3657.1	3677.6	3708.4	3555.7	3474.9
40°	5726.8	5685.8	5452.2	4953.1	4341.0	3952.2	3891.9	3799.5	3786.7	3677.6	3626.2
42.5°	6285.0	6247.8	6129.7	5542.1	4813.2	4217.8	4125.4	3966.3	4015.1	3949.6	3904.7
45°	6848.4	6850.9	6725.1	6202.8	5382.9	4707.9	4583.5	4334.6	4450.0	4425.7	4451.4
47.5°	7347.4	7341.1	7296.2	6844.4	6089.9	5339.3	5178.9	4890.2	5087.8	5177.6	5374.0
50°	7831.3	7827.4	7829.9	7572.0	6911.2	6089.9	5912.9	5610.0	6055.3	6367.1	6718.7
52.5°	8524.1	8546.0	8390.7	8322.7	7909.5	6976.6	6781.6	6468.5	7198.6	7690.1	8376.6
55°	9219.7	9201.7	9079.7	9150.4	8954.0	8026.3	7822.2	7573.3	8471.5	9009.2	10040.9
57.5°	9628.9	9635.4	9759.9	10105.0	10243.6	9335.1	9150.4	8957.8	9902.3	10283.4	11521.7
60°	9997.3	10026.8	10384.8	11036.6	11412.6	10943.0	10778.7	10591.3	11215.0	11366.4	12807.4
62.5°	10112.8	10203.8	10828.7	11804.0	12552.0	12757.3	12553.3	12140.1	12464.8	12405.8	13678.7
65°	9536.5	9661.0	10781.3	12091.4	13569.6	14479.4	14349.8	13582.5	13529.8	13174.4	13821.1
67.5°	8019.9	8144.3	9582.7	11488.3	13990.5	15970.5	15840.8	14634.7	14176.5	13246.2	12743.2
70°	5868.0	5946.3	7321.8	9672.6	13144.8	16470.9	16515.7	15147.9	13945.5	12269.8	10463.0
72.5°	3381.2	3554.4	4518.1	6804.7	10738.9	15205.6	15517.5	14080.3	12485.3	10235.9	7315.4
75°	1453.9	1457.7	2089.0	3753.3	7273.1	12222.2	12523.9	11671.8	9804.7	7078.0	3906.0
77.5°	691.6	704.5	918.8	1675.9	4003.5	8444.6	9258.1	8245.7	6270.9	3400.4	1475.6
80°	449.1	458.1	562.0	831.5	1963.3	4896.6	5463.8	4756.7	2766.5	1215.1	636.4
82.5°	272.0	274.6	376.0	508.2	1080.5	2217.3	2613.8	2064.6	1180.5	727.6	374.7
85°	165.5	166.8	228.4	314.4	655.7	766.1	786.6	780.2	692.9	476.1	200.2
87.5°	79.6	82.1	118.1	148.8	257.9	237.4	224.6	260.5	327.2	256.7	86.0
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°	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3	2407.3
2.5°	2404.7	2400.8	2391.8	2388.0	2385.4	2386.7	2385.4	2385.4	2386.7	2386.7	2386.7
5°	2416.3	2409.8	2395.7	2395.7	2403.4	2421.3	2438.0	2450.9	2465.0	2463.7	2463.7
7.5°	2466.3	2454.7	2438.0	2443.2	2462.4	2490.6	2520.2	2548.4	2576.6	2579.2	2577.9
10°	2539.4	2527.8	2509.9	2516.3	2547.1	2589.5	2626.7	2667.8	2698.5	2707.5	2705.0
12.5°	2622.8	2599.7	2584.3	2602.3	2651.1	2707.5	2743.4	2774.2	2796.0	2808.9	2803.8
15°	2707.5	2685.7	2667.8	2705.0	2764.0	2816.6	2834.5	2839.7	2843.5	2856.4	2853.8
17.5°	2789.6	2760.2	2753.7	2802.4	2858.9	2882.0	2871.7	2850.0	2833.3	2843.5	2842.2
20°	2862.8	2839.7	2837.1	2885.9	2907.7	2885.9	2842.2	2803.8	2774.2	2776.8	2775.5
22.5°	2932.0	2914.1	2916.7	2937.2	2902.6	2828.1	2756.2	2703.6	2671.6	2678.0	2681.9
25°	3009.1	2991.1	2997.5	2964.1	2850.0	2720.3	2616.4	2571.5	2558.7	2571.5	2580.5
27.5°	3109.1	3097.6	3093.7	2965.5	2756.2	2561.2	2443.2	2426.5	2438.0	2466.3	2480.4
30°	3217.0	3217.0	3196.4	2943.6	2628.0	2370.1	2267.4	2269.9	2309.7	2349.5	2363.6
32.5°	3320.9	3342.7	3278.5	2884.6	2462.4	2183.9	2105.7	2108.2	2142.9	2191.7	2204.5
35°	3406.8	3469.7	3349.1	2776.8	2267.4	2027.4	1968.4	1933.8	1935.0	1972.2	1982.5
37.5°	3524.9	3641.7	3390.2	2616.4	2059.5	1894.0	1827.2	1766.9	1727.1	1711.8	1711.8
40°	3730.2	3902.2	3400.4	2379.0	1863.1	1766.9	1672.0	1600.1	1523.2	1453.9	1441.0
42.5°	4077.9	4294.8	3379.9	2105.7	1686.1	1627.1	1534.7	1446.1	1339.6	1242.2	1234.4
45°	4693.9	4805.5	3324.7	1822.1	1528.3	1492.3	1402.5	1306.3	1193.4	1106.1	1099.6
47.5°	5680.7	5522.8	3251.6	1570.6	1384.6	1374.3	1305.0	1193.4	1080.5	1020.1	1013.7
50°	7121.6	6652.0	3241.3	1388.4	1269.1	1274.2	1217.7	1115.1	1016.3	966.2	958.5
52.5°	8856.5	8016.0	3309.3	1260.1	1167.7	1186.9	1158.7	1063.8	976.5	934.1	926.4
55°	10540.0	9242.7	3350.4	1160.0	1072.7	1108.6	1112.5	1032.9	953.4	911.0	905.9
57.5°	11906.6	10166.6	3168.2	1068.9	990.7	1045.8	1074.0	1015.0	941.9	909.8	904.7
60°	12857.4	10602.9	2649.8	988.1	930.3	995.7	1059.9	1016.3	970.1	973.9	976.5
62.5°	13160.3	10409.1	1987.6	927.7	889.3	979.1	1083.0	1068.9	1021.4	1050.9	1056.0
65°	12658.5	9608.4	1441.0	880.2	853.3	990.7	1152.3	1107.4	1003.4	1025.3	1025.3
67.5°	10978.8	8277.8	1121.5	836.6	812.3	1012.4	1221.6	1103.6	961.1	986.7	963.6
70°	8708.9	6403.1	934.1	787.9	768.6	980.3	1228.0	1063.8	911.0	916.2	872.6
72.5°	5779.4	4210.1	803.3	741.7	701.9	881.6	1175.4	1012.4	862.3	832.8	789.2
75°	2832.0	2099.3	700.6	684.0	614.7	767.3	1103.6	963.6	809.7	763.5	739.1
77.5°	1097.1	893.1	598.0	610.8	535.1	676.2	1008.6	894.3	740.4	677.5	658.3
80°	532.5	506.8	490.2	509.4	440.1	576.1	921.4	834.1	676.2	607.0	578.7
82.5°	331.1	313.1	376.0	396.5	338.7	526.1	873.8	782.8	595.4	503.0	479.9
85°	168.1	179.6	251.5	270.8	242.5	418.3	719.9	587.7	429.9	356.7	359.3
87.5°	64.1	86.0	132.2	142.4	129.6	220.7	396.5	342.6	275.9	187.4	173.2
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)