

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: P522755

Luminaire Tested: **GALN-SA4D-827-U-T4W**

Issue Date: 5/13/2021

Test Information

Test Method: LM-79-08
Report Number: P522755
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-827-U-T4W
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 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: 22513 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

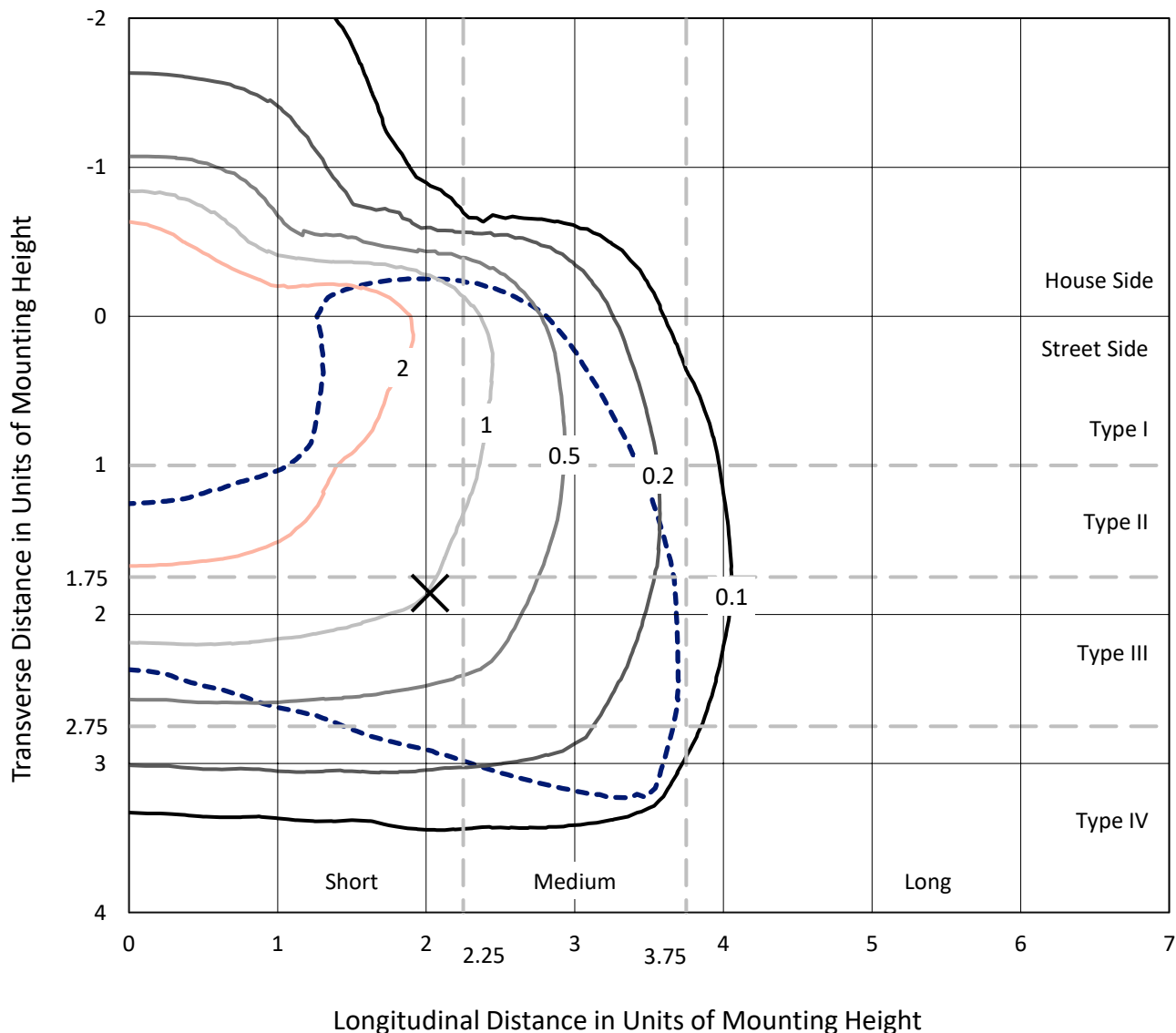
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

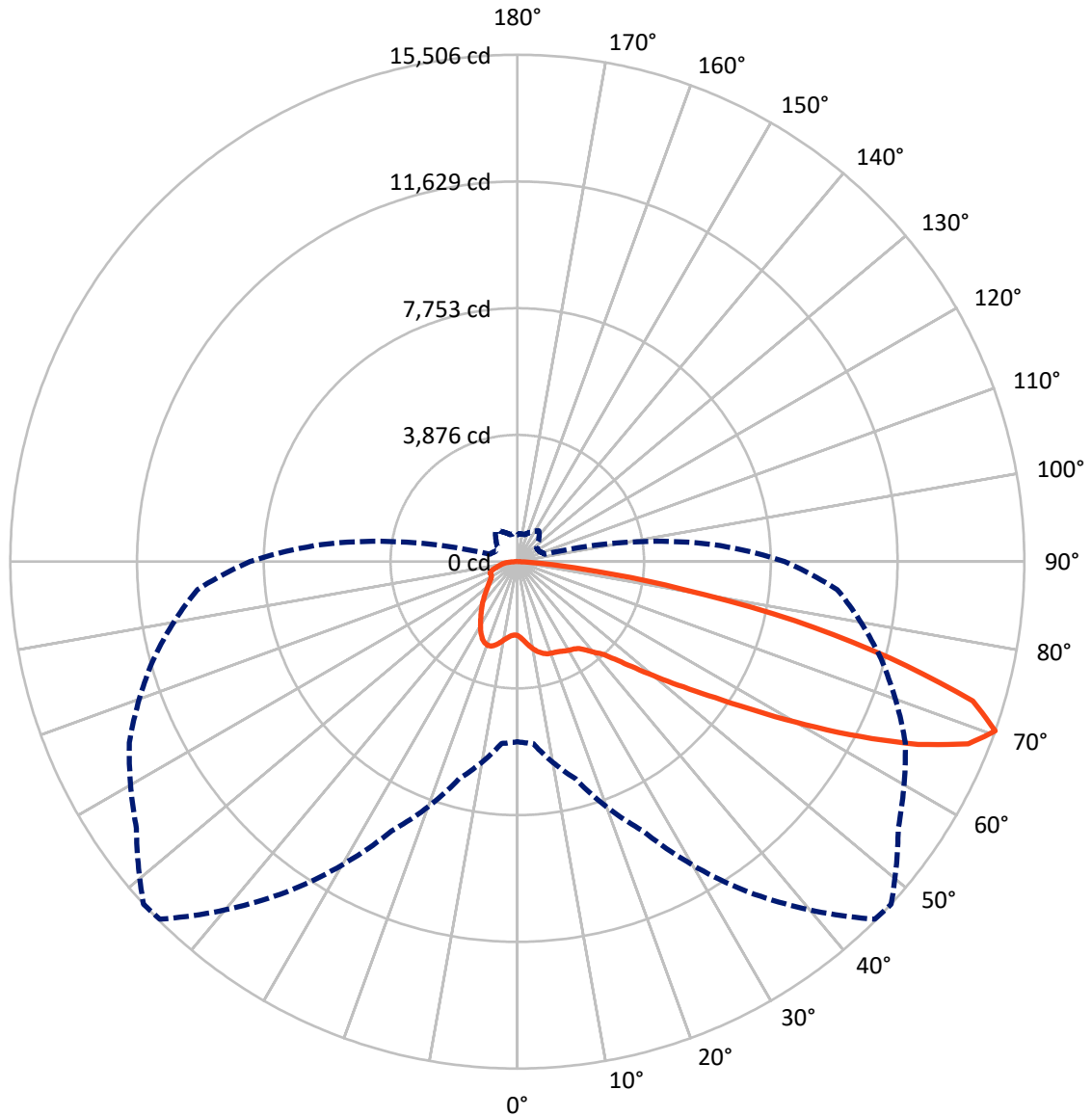
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 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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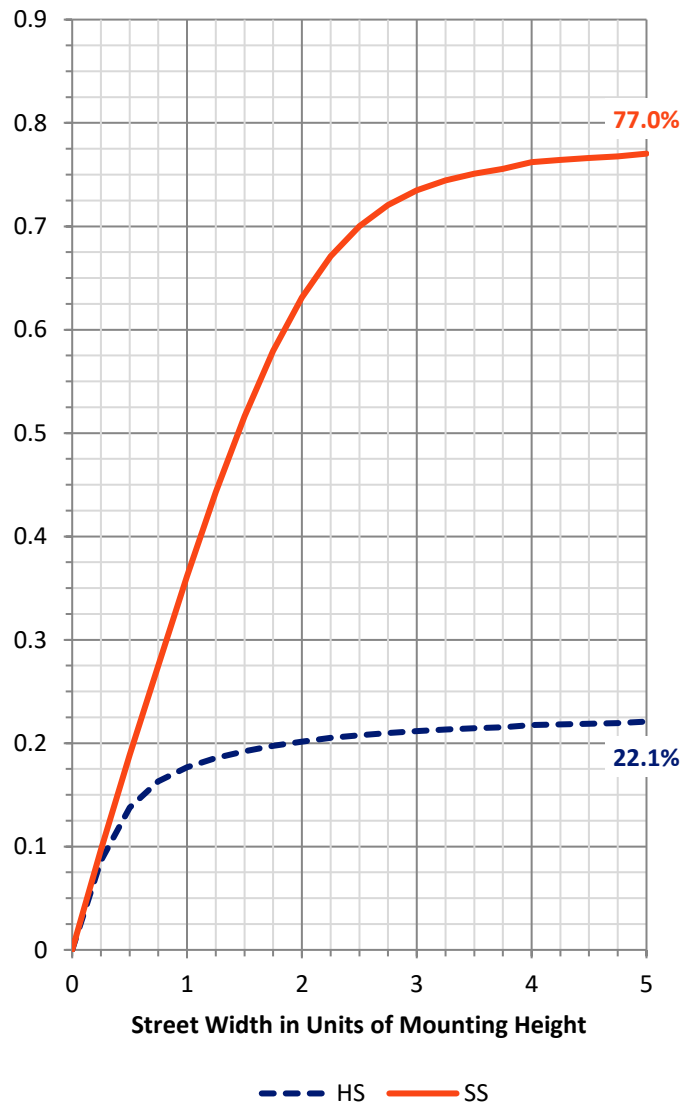
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5097.4	0.0	5097.4
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	17415.6	0.0	17415.6
	% Fixture	77.4	0.0	77.4
Total	Lumens	22513.0	0.0	22513.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.0	1.0
10°-20°	778.8	3.5
20°-30°	1295.2	5.8
30°-40°	1835.7	8.2
40°-50°	2709.9	12.0
50°-60°	4693.6	20.8
60°-70°	6629.9	29.4
70°-80°	3811.2	16.9
80°-90°	525.9	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°	22513.0	100.0
0°-180°	22513.0	100.0

Coefficient of Utilization



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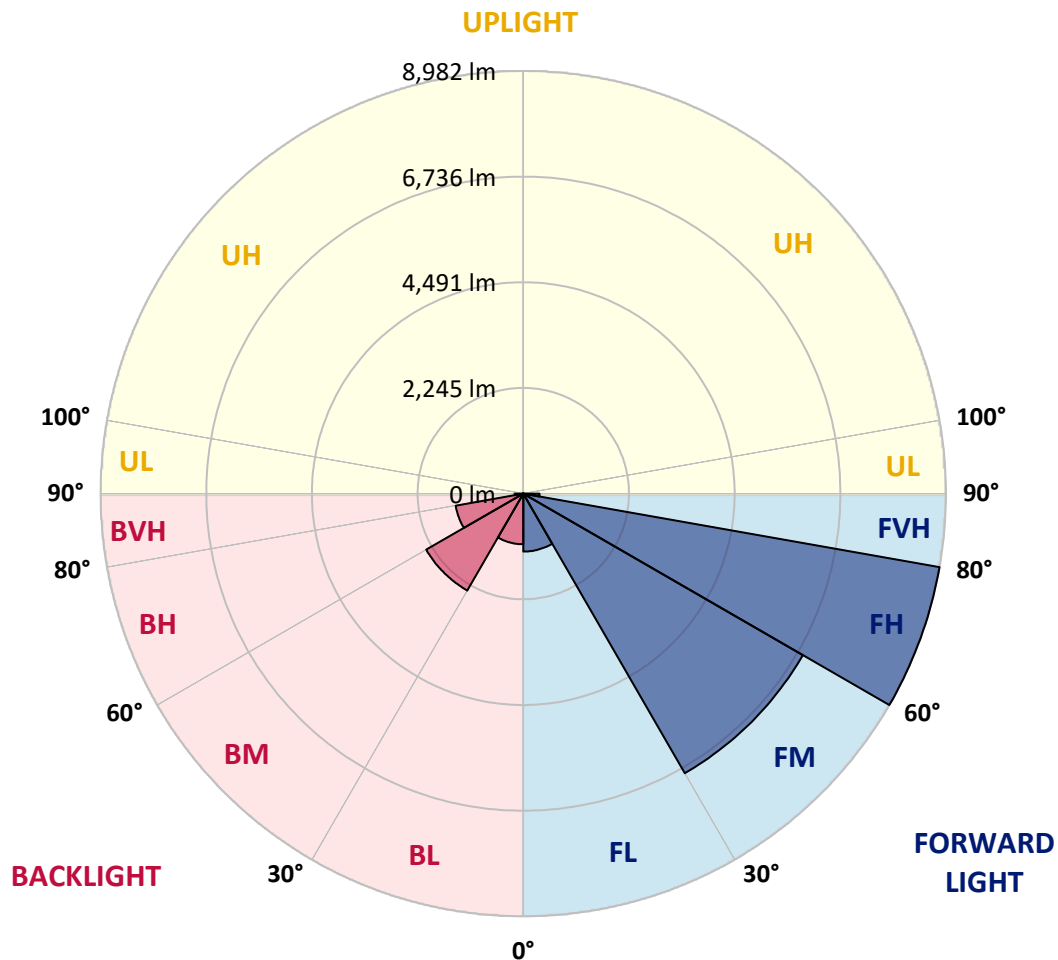
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1231.1	5.5			
FM	(30°-60°)	6859.3	30.5			
FH	(60°-80°)	8981.8	39.9			G4/12000
FVH	(80°-90°)	343.5	1.5			G3/500
BL	(0°-30°)	1075.8	4.8	B3/2500		
BM	(30°-60°)	2379.9	10.6	B2/2500		
BH	(60°-80°)	1459.3	6.5	B3/2500		G3/2500
BVH	(80°-90°)	182.4	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°	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0
2.5°	2405.8	2397.4	2396.2	2378.1	2368.5	2350.4	2343.2	2326.3	2305.8	2285.3	2266.1
5°	2594.9	2594.9	2586.5	2561.2	2521.5	2480.5	2462.4	2429.9	2372.1	2325.1	2285.3
7.5°	2788.9	2791.3	2774.4	2737.1	2680.5	2614.2	2597.4	2549.2	2467.2	2398.6	2339.5
10°	2956.4	2956.4	2933.5	2882.9	2811.8	2739.5	2722.6	2668.4	2576.9	2491.3	2414.2
12.5°	3084.1	3084.1	3053.9	2987.7	2910.6	2845.5	2826.2	2774.4	2688.9	2593.7	2496.2
15°	3167.2	3161.2	3127.4	3052.7	2978.0	2921.4	2908.2	2864.8	2786.5	2690.1	2580.5
17.5°	3170.8	3168.4	3135.9	3073.2	3008.2	2969.6	2961.2	2932.3	2870.8	2779.3	2663.6
20°	3100.9	3105.7	3084.1	3039.5	3008.2	2991.3	2987.7	2978.0	2934.7	2849.1	2733.5
22.5°	3026.2	3034.7	3014.2	2990.1	2987.7	3004.5	3007.0	3009.4	2981.7	2898.5	2792.5
25°	3008.2	3014.2	2993.7	2972.0	2985.3	3029.8	3039.5	3049.1	3027.4	2957.6	2862.4
27.5°	3099.7	3094.9	3055.1	3008.2	3016.6	3076.8	3090.1	3100.9	3090.1	3029.8	2949.1
30°	3358.7	3343.1	3263.6	3126.2	3082.9	3125.0	3138.3	3168.4	3168.4	3123.8	3043.1
32.5°	3792.4	3762.3	3616.5	3346.7	3196.1	3170.8	3184.0	3233.4	3258.7	3223.8	3135.9
35°	4318.9	4287.6	4079.1	3716.5	3403.3	3262.4	3258.7	3314.2	3381.6	3303.3	3188.9
37.5°	4847.7	4815.2	4564.6	4157.5	3705.7	3455.1	3433.4	3452.7	3481.6	3338.2	3262.4
40°	5376.6	5338.1	5118.8	4650.2	4075.5	3710.5	3653.9	3567.1	3555.1	3452.7	3404.5
42.5°	5900.7	5865.7	5754.9	5203.1	4518.9	3959.9	3873.1	3723.8	3769.5	3708.1	3665.9
45°	6429.5	6431.9	6313.9	5823.6	5053.8	4420.1	4303.2	4069.5	4177.9	4155.0	4179.1
47.5°	6898.2	6892.1	6850.0	6425.9	5717.5	5012.8	4862.2	4591.1	4776.7	4861.0	5045.3
50°	7352.3	7348.7	7351.1	7109.0	6488.6	5717.5	5551.3	5267.0	5685.0	5977.8	6307.9
52.5°	8002.9	8023.4	7877.6	7813.7	7425.8	6550.0	6366.9	6072.9	6758.4	7219.8	7864.3
55°	8655.8	8639.0	8524.5	8590.8	8406.5	7535.5	7343.9	7110.2	7953.5	8458.3	9426.8
57.5°	9040.1	9046.2	9163.0	9487.1	9617.2	8764.3	8590.8	8410.1	9296.7	9654.5	10817.1
60°	9385.9	9413.6	9749.7	10361.7	10714.7	10273.8	10119.6	9943.7	10529.2	10671.3	12024.2
62.5°	9494.3	9579.8	10166.5	11082.1	11784.5	11977.2	11785.7	11397.8	11702.5	11647.1	12842.2
65°	8953.4	9070.3	10122.0	11352.0	12739.8	13593.9	13472.3	12751.8	12702.5	12368.7	12975.9
67.5°	7529.4	7646.3	8996.8	10785.8	13134.9	14993.8	14872.1	13739.7	13309.6	12436.2	11964.0
70°	5509.1	5582.6	6874.1	9081.1	12341.0	15463.6	15505.8	14221.6	13092.8	11519.4	9823.2
72.5°	3174.4	3337.0	4241.8	6388.6	10082.2	14275.8	14568.5	13219.3	11721.8	9610.0	6868.0
75°	1364.9	1368.5	1961.3	3523.8	6828.3	11474.9	11758.0	10958.0	9205.2	6645.2	3667.1
77.5°	649.3	661.4	862.6	1573.4	3758.7	7928.2	8692.0	7741.5	5887.4	3192.5	1385.4
80°	421.6	430.1	527.7	780.7	1843.2	4597.2	5129.7	4465.9	2597.4	1140.9	597.5
82.5°	255.4	257.8	353.0	477.1	1014.4	2081.7	2454.0	1938.4	1108.3	683.1	351.8
85°	155.4	156.6	214.4	295.2	615.6	719.2	738.5	732.5	650.5	446.9	187.9
87.5°	74.7	77.1	110.8	139.7	242.1	222.9	210.8	244.6	307.2	240.9	80.7
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°	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0	2260.0
2.5°	2257.6	2254.0	2245.6	2242.0	2239.6	2240.8	2239.6	2239.6	2240.8	2240.8	2240.8
5°	2268.5	2262.4	2249.2	2249.2	2256.4	2273.3	2288.9	2301.0	2314.2	2313.0	2313.0
7.5°	2315.5	2304.6	2288.9	2293.8	2311.8	2338.3	2366.0	2392.6	2419.1	2421.5	2420.3
10°	2384.1	2373.3	2356.4	2362.4	2391.3	2431.1	2466.0	2504.6	2533.5	2541.9	2539.5
12.5°	2462.4	2440.7	2426.3	2443.2	2488.9	2541.9	2575.7	2604.6	2625.1	2637.1	2632.3
15°	2541.9	2521.5	2504.6	2539.5	2594.9	2644.3	2661.2	2666.0	2669.6	2681.7	2679.3
17.5°	2619.0	2591.3	2585.3	2631.1	2684.1	2705.8	2696.1	2675.7	2660.0	2669.6	2668.4
20°	2687.7	2666.0	2663.6	2709.4	2729.9	2709.4	2668.4	2632.3	2604.6	2607.0	2605.8
22.5°	2752.8	2735.9	2738.3	2757.6	2725.1	2655.2	2587.7	2538.3	2508.2	2514.2	2517.8
25°	2825.0	2808.2	2814.2	2782.9	2675.7	2554.0	2456.4	2414.2	2402.2	2414.2	2422.7
27.5°	2919.0	2908.2	2904.6	2784.1	2587.7	2404.6	2293.8	2278.1	2288.9	2315.5	2328.7
30°	3020.2	3020.2	3000.9	2763.6	2467.2	2225.1	2128.7	2131.1	2168.5	2205.8	2219.1
32.5°	3117.8	3138.3	3078.0	2708.2	2311.8	2050.4	1976.9	1979.3	2011.9	2057.6	2069.7
35°	3198.5	3257.5	3144.3	2607.0	2128.7	1903.4	1848.0	1815.5	1816.7	1851.6	1861.3
37.5°	3309.3	3419.0	3182.8	2456.4	1933.6	1778.2	1715.5	1658.9	1621.5	1607.1	1607.1
40°	3502.1	3663.5	3192.5	2233.5	1749.2	1658.9	1569.7	1502.3	1430.0	1364.9	1352.9
42.5°	3828.6	4032.2	3173.2	1976.9	1583.0	1527.6	1440.8	1357.7	1257.7	1166.2	1158.9
45°	4406.8	4511.6	3121.4	1710.7	1434.8	1401.1	1316.7	1226.4	1120.4	1038.5	1032.4
47.5°	5333.2	5185.1	3052.7	1474.6	1299.9	1290.2	1225.2	1120.4	1014.4	957.7	951.7
50°	6686.1	6245.2	3043.1	1303.5	1191.5	1196.3	1143.3	1046.9	954.1	907.1	899.9
52.5°	8314.9	7525.8	3106.9	1183.0	1096.3	1114.4	1087.9	998.7	916.8	877.0	869.8
55°	9895.5	8677.5	3145.5	1089.1	1007.1	1040.9	1044.5	969.8	895.1	855.3	850.5
57.5°	11178.5	9544.9	2974.4	1003.5	930.0	981.8	1008.3	952.9	884.3	854.1	849.3
60°	12071.2	9954.5	2487.7	927.6	873.4	934.9	995.1	954.1	910.8	914.4	916.8
62.5°	12355.5	9772.6	1866.1	871.0	834.9	919.2	1016.8	1003.5	958.9	986.7	991.5
65°	11884.5	9020.9	1352.9	826.4	801.1	930.0	1081.8	1039.7	942.1	962.6	962.6
67.5°	10307.5	7771.6	1052.9	785.5	762.6	950.5	1146.9	1036.0	902.3	926.4	904.7
70°	8176.4	6011.5	877.0	739.7	721.6	920.4	1152.9	998.7	855.3	860.2	819.2
72.5°	5426.0	3952.7	754.1	696.3	659.0	827.6	1103.5	950.5	809.6	781.9	740.9
75°	2658.8	1970.9	657.8	642.1	577.1	720.4	1036.0	904.7	760.2	716.8	693.9
77.5°	1030.0	838.5	561.4	573.4	502.4	634.9	946.9	839.7	695.1	636.1	618.0
80°	500.0	475.9	460.2	478.3	413.2	540.9	865.0	783.1	634.9	569.8	543.3
82.5°	310.8	293.9	353.0	372.3	318.0	493.9	820.4	734.9	559.0	472.2	450.6
85°	157.8	168.7	236.1	254.2	227.7	392.7	675.8	551.8	403.6	334.9	337.3
87.5°	60.2	80.7	124.1	133.7	121.7	207.2	372.3	321.7	259.0	175.9	162.6
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)