

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: P651843

Luminaire Tested: **GALN-SA4A-840-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651843
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4A-840-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14892.5 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

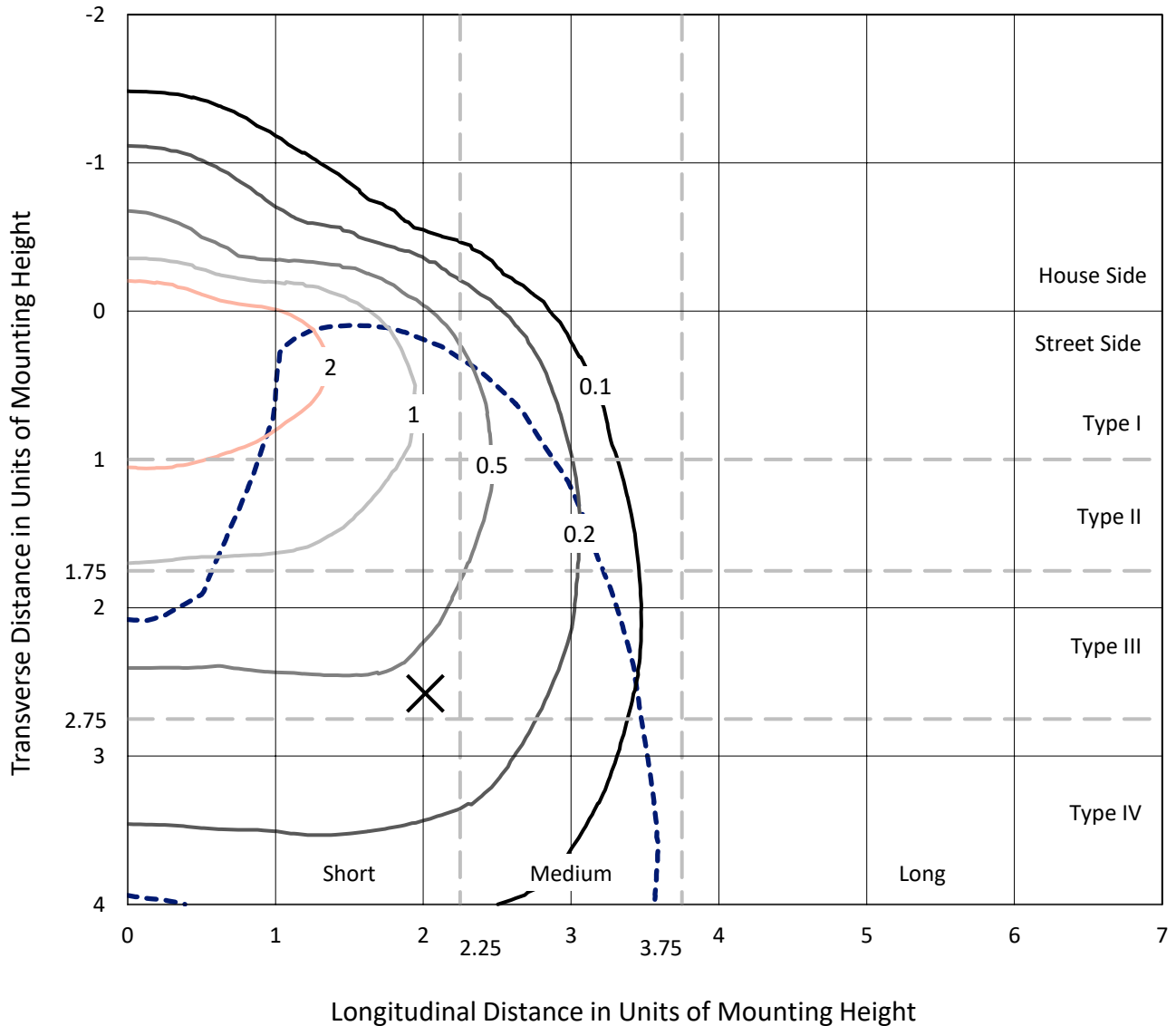
Input Watts (W): 121
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

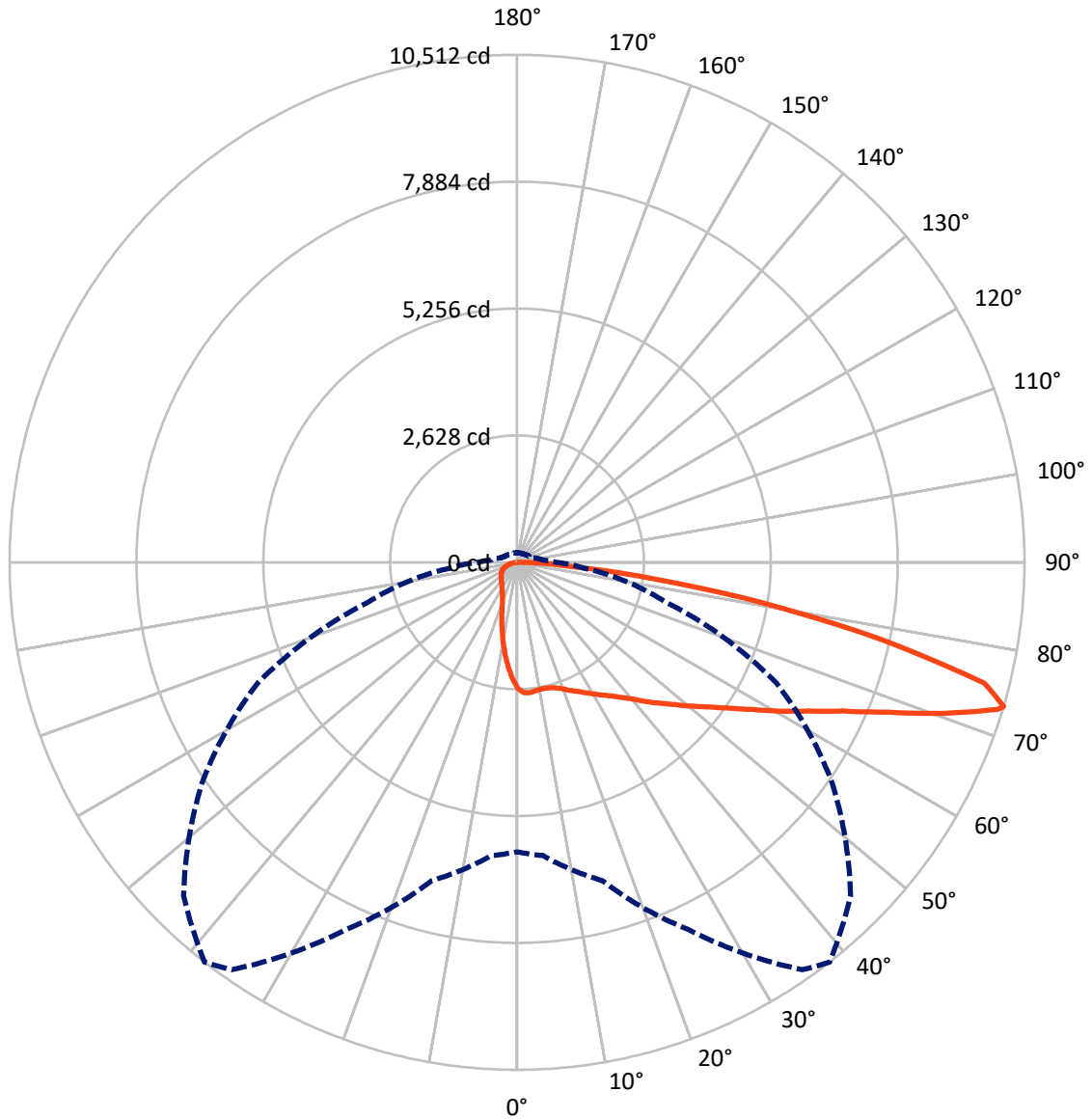
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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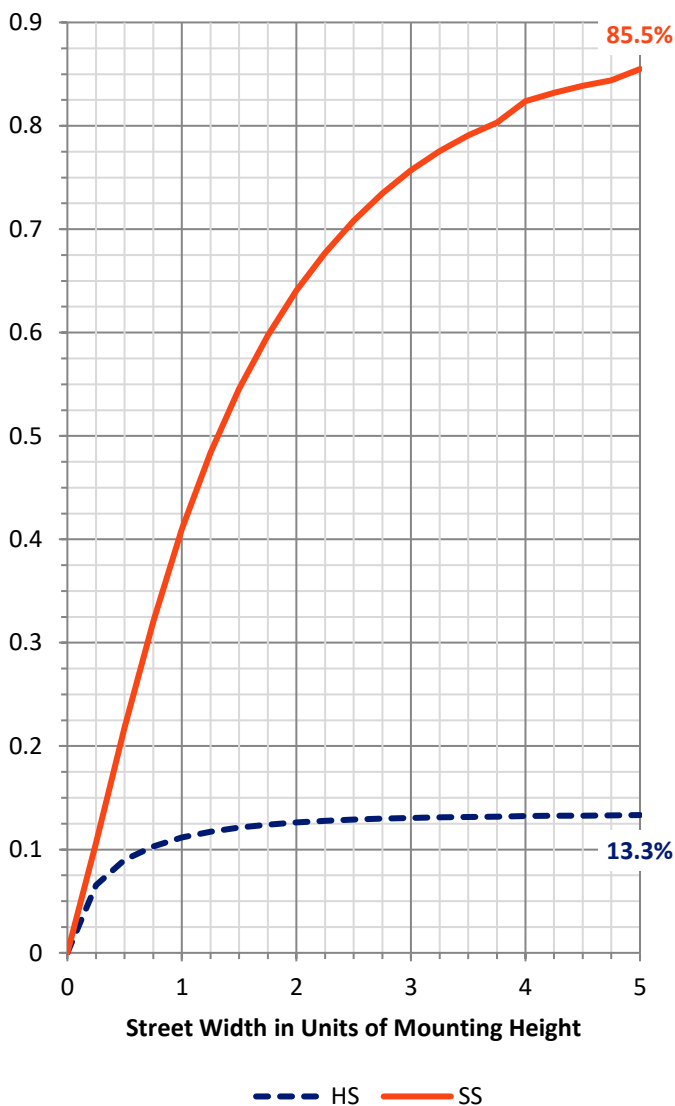
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2002.0	0.0	2002.0
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	12890.5	0.0	12890.5
	% Fixture	86.6	0.0	86.6
Total	Lumens	14892.5	0.0	14892.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.4	1.5
10°-20°	585.6	3.9
20°-30°	912.0	6.1
30°-40°	1337.6	9.0
40°-50°	1984.2	13.3
50°-60°	2811.2	18.9
60°-70°	3566.1	23.9
70°-80°	2968.5	19.9
80°-90°	498.8	3.3
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°	14892.5	100.0
0°-180°	14892.5	100.0

Coefficient of Utilization

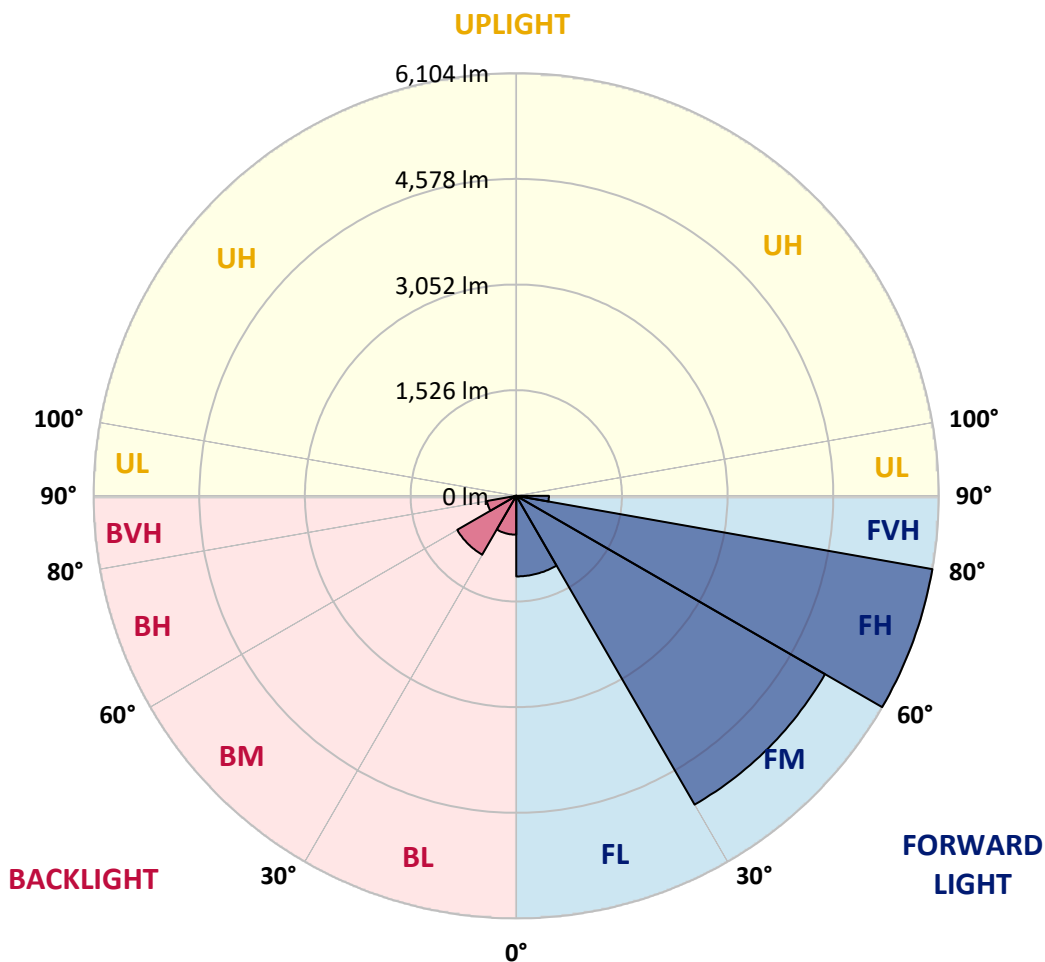


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1164.2	7.8			
FM (30°-60°)	5150.2	34.6			
FH (60°-80°)	6104.4	41.0			G3/7500
FVH (80°-90°)	471.7	3.2			G3/500
BL (0°-30°)	561.8	3.8	B2/1000		
BM (30°-60°)	982.9	6.6	B1/1000		
BH (60°-80°)	430.3	2.9	B1/500		G1/500
BVH (80°-90°)	27.0	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4
2.5°	2721.5	2734.9	2728.2	2719.0	2713.1	2707.2	2698.8	2674.4	2655.0	2634.0	2601.2
5°	2741.7	2750.1	2744.2	2732.4	2719.0	2713.1	2697.1	2665.1	2634.0	2598.7	2549.9
7.5°	2729.9	2733.2	2726.5	2712.2	2700.5	2689.5	2671.0	2635.7	2597.8	2555.0	2491.0
10°	2687.8	2700.5	2700.5	2688.7	2676.9	2671.0	2652.5	2618.9	2584.4	2535.6	2459.9
12.5°	2653.4	2666.8	2677.7	2674.4	2673.5	2673.5	2659.2	2634.0	2593.6	2547.4	2457.4
15°	2629.8	2645.8	2669.3	2682.8	2691.2	2693.7	2687.8	2666.0	2624.8	2570.9	2467.5
17.5°	2624.8	2644.1	2687.0	2716.4	2738.3	2737.5	2735.8	2705.5	2660.1	2604.6	2480.1
20°	2647.5	2672.7	2732.4	2778.7	2810.6	2804.7	2795.5	2756.0	2703.0	2640.7	2491.9
22.5°	2715.6	2741.7	2807.3	2857.7	2888.8	2888.8	2861.1	2808.9	2752.6	2682.8	2507.9
25°	2813.1	2841.7	2911.5	2962.8	2977.1	2966.2	2938.5	2875.4	2810.6	2743.3	2541.5
27.5°	2932.6	2967.0	3031.8	3074.7	3070.5	3062.1	3033.5	2952.8	2888.0	2826.6	2598.7
30°	3081.4	3106.7	3173.9	3184.0	3168.9	3167.2	3126.8	3046.1	2985.5	2938.5	2680.3
32.5°	3221.9	3244.6	3298.4	3302.6	3275.7	3279.1	3241.2	3167.2	3132.7	3115.9	2817.4
35°	3370.7	3382.5	3428.8	3423.7	3406.0	3403.5	3388.4	3317.7	3328.7	3359.0	3011.6
37.5°	3495.2	3518.7	3544.8	3549.0	3548.2	3556.6	3566.7	3533.0	3596.1	3691.1	3266.4
40°	3609.6	3629.8	3668.4	3681.9	3714.7	3731.5	3766.0	3766.8	3912.3	4068.8	3580.1
42.5°	3686.9	3721.4	3793.8	3818.1	3898.0	3948.5	3999.8	4054.5	4265.6	4466.6	3950.2
45°	3754.2	3799.6	3919.9	3995.6	4104.1	4165.5	4274.0	4388.3	4691.9	4955.2	4326.1
47.5°	3856.0	3896.4	4034.3	4168.0	4332.0	4402.6	4564.9	4735.7	5132.6	5421.1	4686.1
50°	3997.3	4021.7	4162.1	4379.9	4589.3	4680.2	4894.6	5141.0	5603.6	5881.1	5002.3
52.5°	4178.1	4188.2	4300.0	4590.2	4866.0	4978.7	5263.0	5550.6	6015.7	6280.6	5252.9
55°	4391.7	4374.9	4462.3	4813.0	5182.2	5329.4	5634.7	5965.2	6479.1	6603.5	5435.4
57.5°	4602.8	4576.7	4646.5	5083.8	5572.5	5749.9	6105.7	6392.4	6892.8	6905.5	5563.2
60°	4826.5	4807.2	4890.4	5401.7	6051.0	6261.2	6590.1	6835.6	7293.2	7115.7	5583.4
62.5°	5056.1	5025.0	5143.6	5759.2	6590.1	6781.0	7099.7	7306.6	7685.9	7193.9	5389.1
65°	5279.0	5264.7	5448.0	6183.9	7204.0	7421.0	7730.5	7870.9	8000.4	7076.2	4907.2
67.5°	5516.1	5544.7	5837.4	6750.7	8004.6	8277.1	8611.0	8479.0	8090.4	6518.6	4132.7
70°	5877.7	5896.3	6348.7	7493.3	9036.5	9365.4	9526.8	8695.1	7656.5	5459.8	3106.7
72.5°	6033.3	6114.9	6805.4	8272.9	10208.9	10409.9	9834.7	8213.2	6378.1	3708.8	1632.4
73°	5998.9	6096.4	6826.4	8391.5	10300.6	10511.7	9769.1	7965.1	5929.0	3194.1	1399.4
75°	5569.1	5689.4	6553.1	8292.3	10122.3	9996.1	8714.4	6788.6	4006.5	1452.4	637.5
77.5°	4394.2	4428.7	5192.3	6696.0	7971.0	7737.2	6522.0	4242.8	1636.6	539.9	361.6
80°	2204.3	2331.3	2926.7	3835.8	5330.3	5253.7	4116.7	2006.6	682.1	317.1	239.7
82.5°	1060.5	1150.5	1425.5	1870.4	2945.2	2875.4	2038.6	1096.7	433.1	185.0	141.3
85°	682.9	750.2	907.4	892.3	1211.0	1156.4	915.8	830.1	256.5	96.7	98.4
87.5°	450.8	493.7	592.1	473.5	440.7	398.6	404.5	467.6	50.5	37.0	13.5
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°	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4	2616.4
2.5°	2587.8	2576.8	2540.7	2505.3	2471.7	2439.7	2418.7	2391.0	2372.5	2377.5	2385.1
5°	2523.0	2498.6	2434.7	2372.5	2313.6	2243.8	2187.4	2142.0	2107.5	2094.9	2092.4
7.5°	2454.9	2413.7	2322.0	2215.2	2115.1	2028.5	1928.4	1878.8	1820.8	1800.6	1793.9
10°	2413.7	2358.2	2229.5	2080.6	1930.1	1786.3	1677.8	1589.5	1509.6	1494.5	1486.9
12.5°	2401.9	2328.7	2155.5	1963.7	1763.6	1587.0	1426.3	1310.3	1232.9	1215.2	1189.2
15°	2395.2	2304.3	2086.5	1846.0	1592.0	1376.7	1207.7	1072.3	1001.6	954.5	955.4
17.5°	2389.3	2276.6	2009.1	1717.3	1444.0	1195.9	1009.2	887.3	822.5	797.3	794.7
20°	2380.9	2243.8	1920.0	1581.9	1275.0	1031.1	862.0	771.2	727.5	706.4	705.6
22.5°	2377.5	2211.8	1832.5	1444.0	1125.3	904.1	764.5	700.6	672.8	658.5	658.5
25°	2385.9	2189.1	1740.9	1312.8	992.4	795.6	697.2	653.5	637.5	629.9	627.4
27.5°	2412.0	2179.0	1650.0	1181.6	870.4	721.6	651.8	621.5	609.7	603.8	604.7
30°	2461.6	2178.2	1560.9	1052.1	779.6	665.2	615.6	594.6	585.3	582.0	581.1
32.5°	2541.5	2196.7	1473.4	945.3	703.1	618.1	582.0	566.8	562.6	560.1	559.3
35°	2676.9	2248.8	1386.8	847.7	644.2	576.1	550.0	542.4	536.6	539.1	539.9
37.5°	2859.4	2338.8	1304.4	771.2	599.6	545.0	523.1	516.4	513.0	515.5	518.1
40°	3104.1	2468.3	1235.4	709.8	567.7	518.9	499.6	493.7	490.3	494.5	495.3
42.5°	3374.1	2618.0	1178.2	661.9	541.6	497.0	478.5	471.8	469.3	471.8	472.6
45°	3651.6	2792.1	1148.8	627.4	519.7	481.1	461.7	454.1	448.3	446.6	449.1
47.5°	3924.9	2943.5	1148.0	606.4	502.1	466.8	445.7	437.3	429.8	425.5	424.7
50°	4147.8	3063.8	1168.1	597.1	486.9	450.8	429.8	421.3	411.2	402.8	404.5
52.5°	4316.0	3142.0	1177.4	592.9	478.5	434.0	412.9	405.4	393.6	382.7	382.7
55°	4424.5	3160.5	1154.7	588.7	471.8	416.3	393.6	386.9	375.1	364.2	364.2
57.5°	4461.5	3103.3	1073.1	578.6	465.1	401.2	374.2	368.4	359.1	348.2	346.5
60°	4375.7	2909.9	930.1	548.3	451.6	385.2	353.2	350.7	347.3	338.1	337.2
62.5°	4045.2	2499.5	774.6	508.8	428.9	368.4	333.9	338.1	340.6	335.6	334.7
65°	3495.2	2029.3	661.9	454.1	398.6	344.8	312.9	323.8	330.5	330.5	328.8
67.5°	2835.0	1558.4	557.6	407.0	360.8	312.9	289.3	297.7	302.8	301.1	305.3
70°	2015.0	1055.5	454.1	353.2	312.9	276.7	259.0	259.0	255.7	254.0	254.0
72.5°	977.2	603.0	368.4	295.2	266.6	236.3	222.0	216.1	209.4	208.6	204.4
73°	816.6	540.8	351.5	284.3	255.7	230.4	214.5	205.2	201.0	197.6	196.8
75°	497.0	410.4	293.5	239.7	217.8	198.5	184.2	175.8	171.6	169.0	168.2
77.5°	327.1	306.1	227.9	183.3	166.5	154.7	148.9	140.4	137.9	134.6	134.6
80°	243.9	233.8	163.2	129.5	119.4	109.3	107.6	106.0	99.2	95.0	93.4
82.5°	157.3	166.5	111.0	86.6	75.7	67.3	68.1	70.6	63.9	58.0	56.3
85°	111.9	120.3	67.3	39.5	32.0	27.8	31.1	27.8	28.6	22.7	18.5
87.5°	18.5	32.0	11.8	5.0	2.5	1.7	0.0	0.0	0.0	0.0	0.0
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)