

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: STREETWORKS

Report Number: P399559

Luminaire Tested: **ARCH-L-PA3-160-727-U-T4W**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P399559  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-PA3-160-727-U-T4W  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 2700K, 705mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20757 lumens  
Efficiency: N/A  
Efficacy: 128.1 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G4

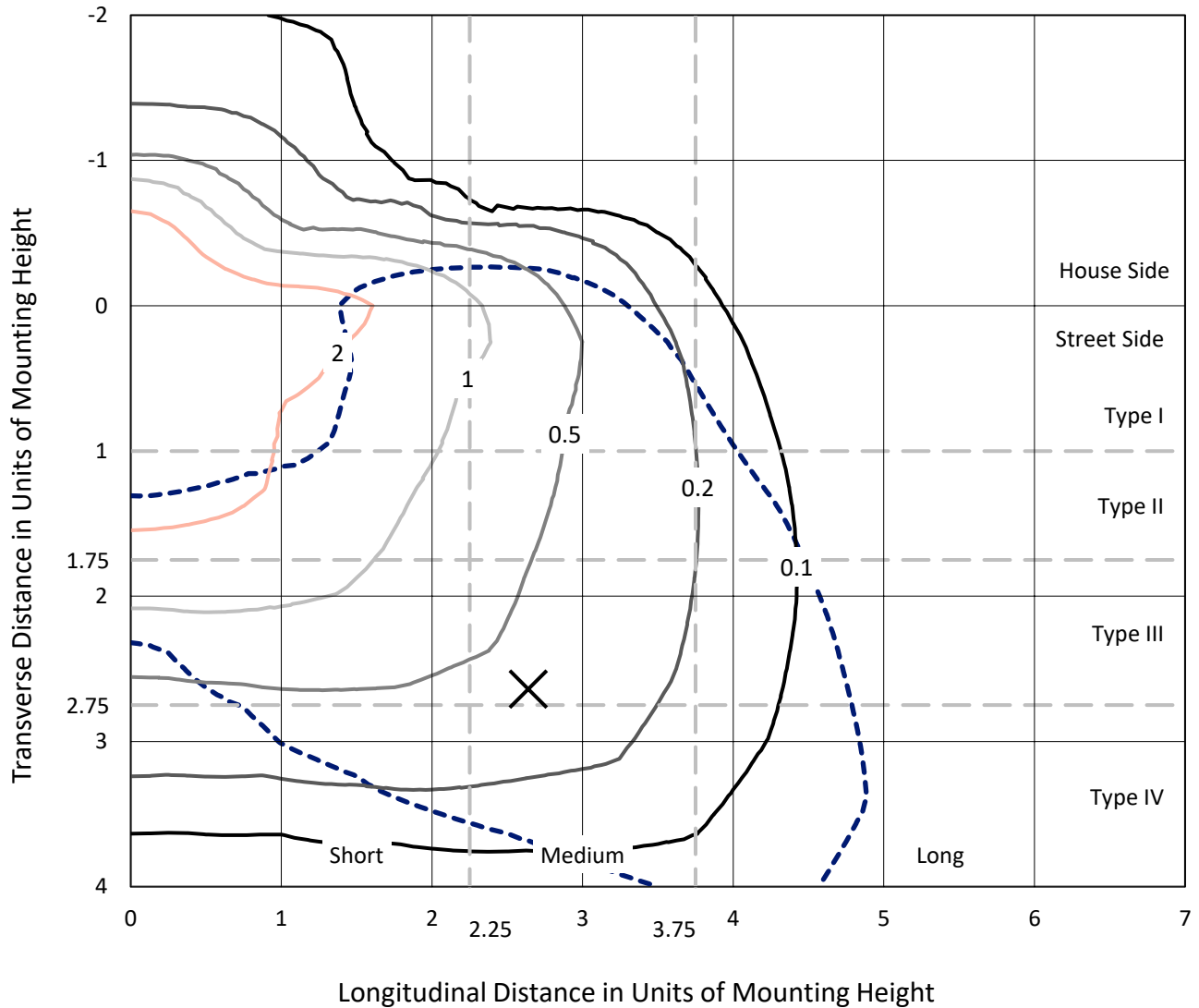
Input Watts (W): 162  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

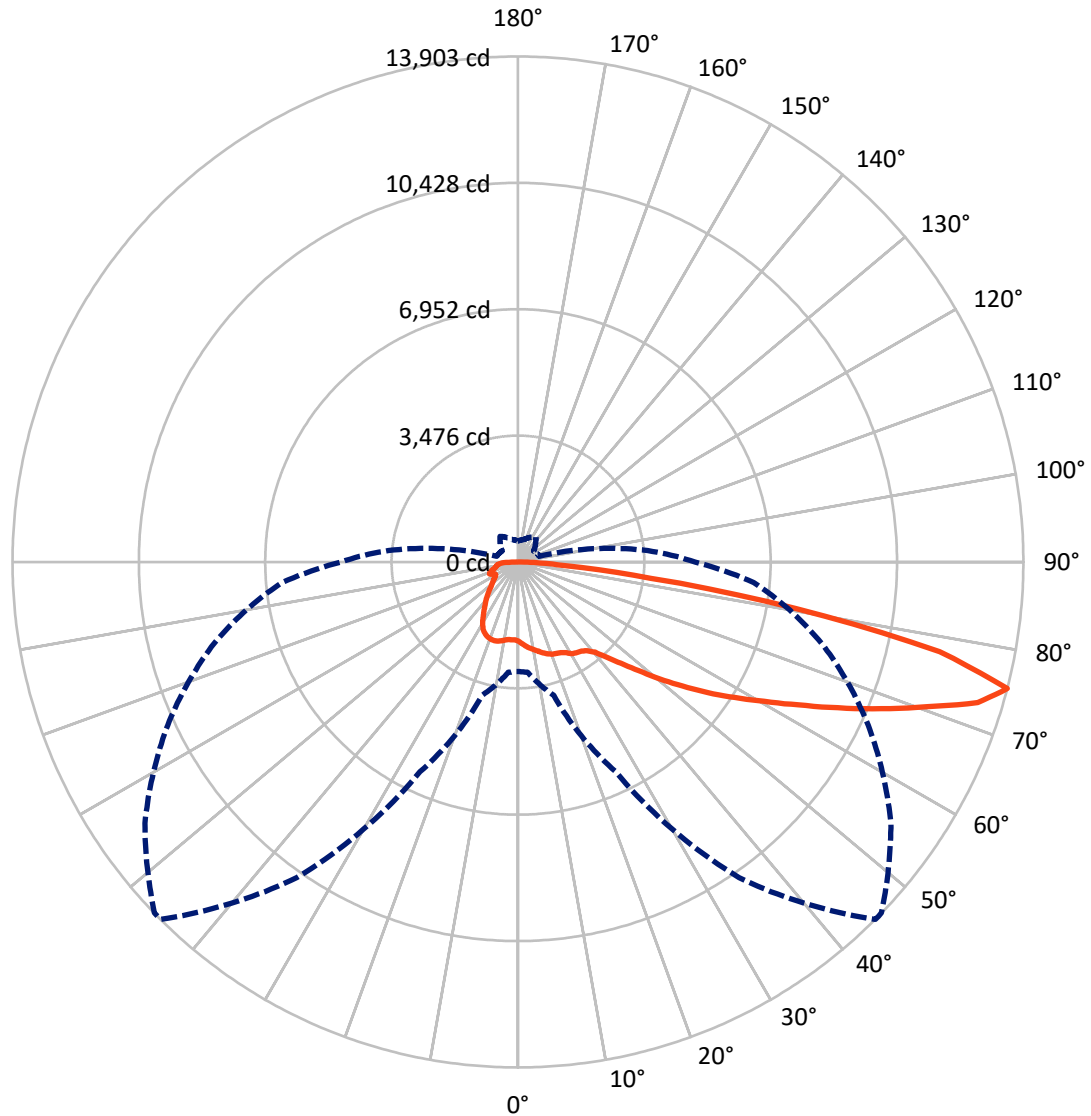
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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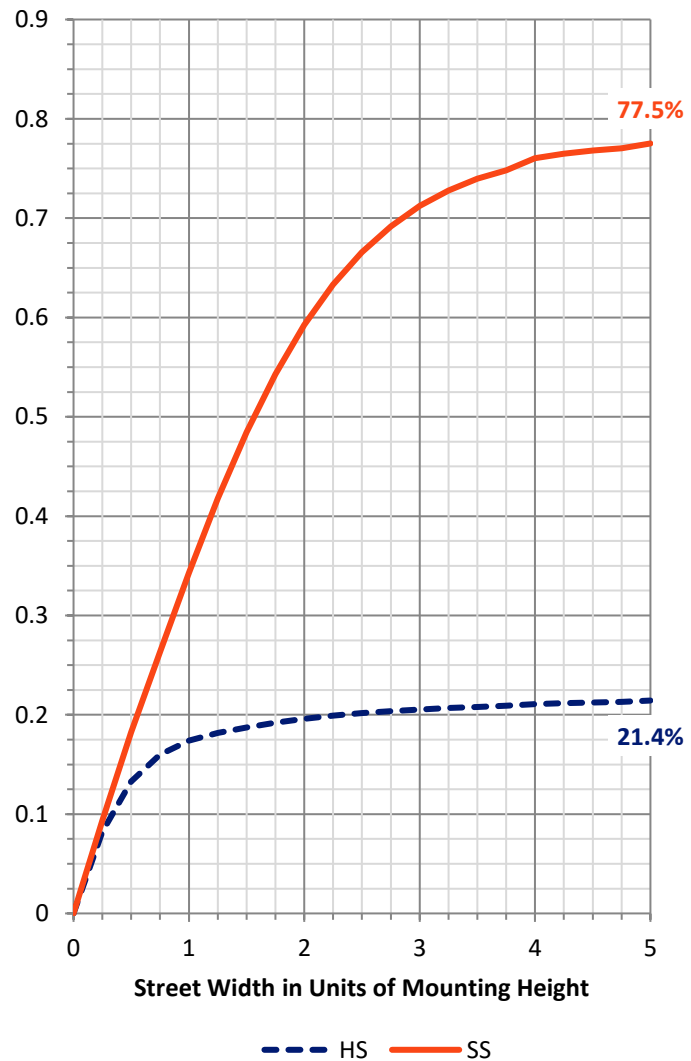
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4587.2	0.0	4587.2
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	16169.8	0.0	16169.8
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	20757.0	0.0	20757.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	215.7	1.0
10°-20°	686.1	3.3
20°-30°	1169.7	5.6
30°-40°	1638.9	7.9
40°-50°	2407.7	11.6
50°-60°	3831.9	18.5
60°-70°	5450.9	26.3
70°-80°	4564.1	22.0
80°-90°	792.1	3.8
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°	20757.0	100.0
0°-180°	20757.0	100.0



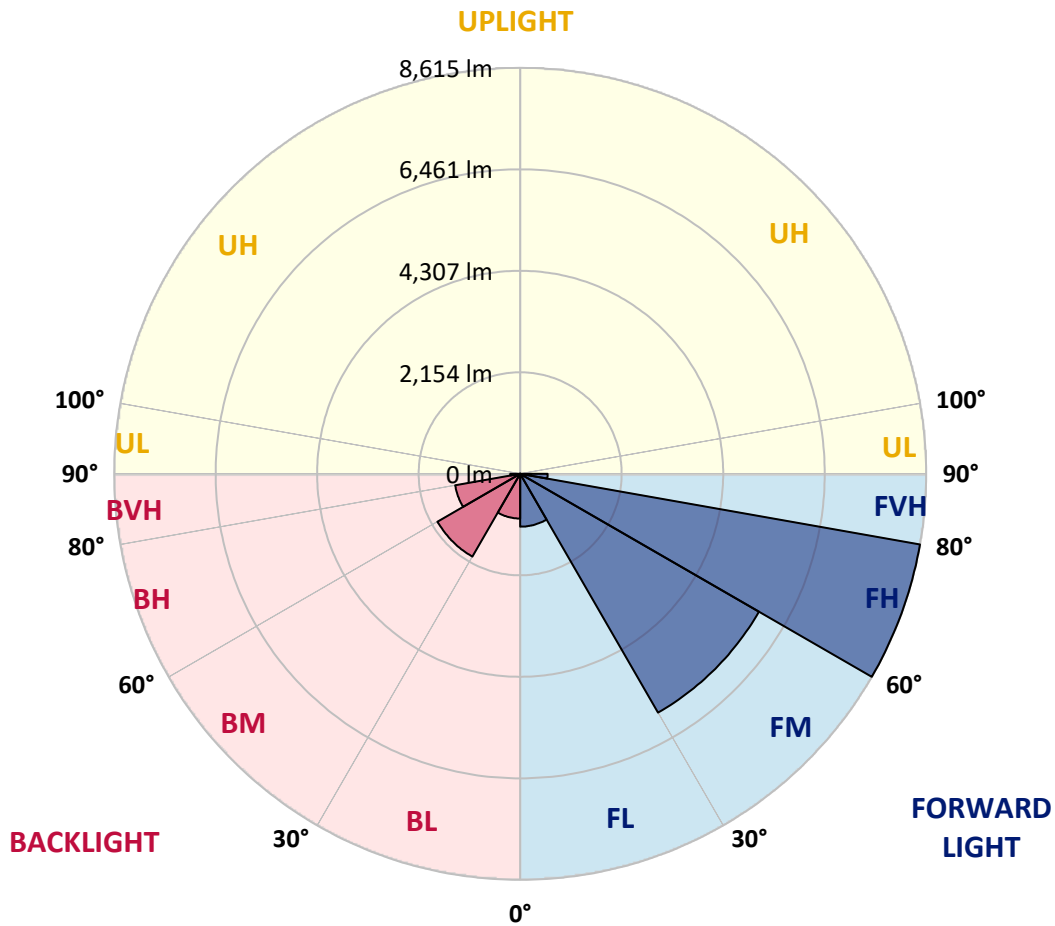
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1122.0	5.4			
FM (30°-60°)	5850.8	28.2			
FH (60°-80°)	8614.7	41.5			G4/12000
FVH (80°-90°)	582.3	2.8			G4/750
BL (0°-30°)	949.4	4.6	B2/1000		
BM (30°-60°)	2027.8	9.8	B2/2500		
BH (60°-80°)	1400.3	6.7	B3/2500		G3/2500
BVH (80°-90°)	209.8	1.0			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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9
2.5°	2304.7	2293.7	2288.1	2288.1	2265.9	2252.0	2249.3	2229.9	2213.2	2196.6	2182.7
5°	2437.9	2429.6	2412.9	2399.0	2368.5	2329.7	2324.2	2282.6	2241.0	2202.1	2168.8
7.5°	2559.9	2543.3	2523.8	2496.1	2446.2	2393.5	2385.2	2326.9	2268.7	2210.4	2166.1
10°	2662.5	2645.9	2618.1	2579.3	2515.5	2451.7	2443.4	2382.4	2321.4	2252.0	2188.3
12.5°	2759.6	2745.7	2704.1	2651.4	2576.5	2518.3	2510.0	2457.3	2393.5	2315.8	2232.6
15°	2842.8	2828.9	2784.6	2723.5	2637.6	2593.2	2582.1	2532.2	2468.4	2385.2	2299.2
17.5°	2884.4	2884.4	2837.2	2770.7	2690.3	2657.0	2648.7	2587.6	2529.4	2449.0	2363.0
20°	2898.3	2903.8	2870.5	2790.1	2720.8	2706.9	2698.6	2648.7	2582.1	2504.4	2424.0
22.5°	2906.6	2917.7	2889.9	2798.4	2740.2	2731.9	2726.3	2693.0	2640.3	2565.5	2485.0
25°	2934.3	2934.3	2914.9	2812.3	2765.1	2762.4	2762.4	2743.0	2706.9	2643.1	2562.7
27.5°	2975.9	2973.1	2948.2	2842.8	2820.6	2828.9	2826.2	2823.4	2798.4	2734.6	2648.7
30°	3045.3	3045.3	3017.5	2903.8	2889.9	2926.0	2928.8	2934.3	2895.5	2795.6	2726.3
32.5°	3150.7	3139.6	3111.8	2964.8	2942.6	2975.9	2981.5	2978.7	2945.4	2851.1	2817.8
35°	3475.1	3450.2	3350.3	3100.7	2989.8	3009.2	3012.0	3025.8	3031.4	2956.5	2939.9
37.5°	4043.7	4010.4	3857.9	3422.4	3139.6	3092.4	3089.6	3125.7	3156.2	3089.6	3089.6
40°	4662.2	4634.5	4545.7	3977.1	3416.9	3261.6	3250.5	3283.8	3322.6	3275.5	3289.3
42.5°	5194.7	5216.9	5225.2	4565.1	3832.9	3577.8	3547.3	3500.1	3561.1	3519.5	3575.0
45°	5594.1	5583.0	5735.5	5167.0	4371.0	3974.4	3932.8	3805.2	3882.8	3880.1	4002.1
47.5°	6018.4	5999.0	6062.8	5732.7	4983.9	4459.7	4395.9	4207.3	4323.8	4404.3	4606.7
50°	6420.6	6426.1	6448.3	6179.3	5649.5	5050.5	4970.0	4717.7	4884.1	5053.2	5338.9
52.5°	6944.7	6905.9	6878.2	6700.7	6395.6	5666.2	5613.5	5325.0	5558.0	5757.7	6137.7
55°	7402.4	7377.4	7360.8	7352.4	7019.6	6345.7	6290.2	5990.7	6326.3	6467.7	7027.9
57.5°	7890.5	7876.6	7965.4	8106.8	7973.7	7036.3	6978.0	6689.6	7064.0	7163.8	7993.1
60°	8248.3	8256.6	8500.7	8861.2	8769.7	7785.1	7715.8	7460.6	7782.3	7871.1	8958.3
62.5°	8251.0	8334.2	8900.0	9546.2	9651.6	8647.6	8567.2	8289.9	8520.1	8520.1	9823.6
65°	7463.4	7557.7	8827.9	9715.4	10544.7	9673.8	9596.2	9160.7	9246.7	9130.2	10636.2
67.5°	6678.5	6789.4	7984.8	9729.3	11171.5	10772.1	10680.6	10031.6	9884.6	9590.6	11204.8
70°	6157.1	6234.7	7233.2	9549.0	11548.7	11920.3	11851.0	10858.1	10386.6	9976.1	11085.5
72.5°	5183.6	5155.9	6109.9	8692.0	11759.5	13223.9	13165.6	11756.7	10822.0	9793.1	9454.7
75°	3009.2	3042.5	3791.3	6367.9	10600.2	13903.4	13897.8	12524.9	10630.7	8650.4	6514.9
77.5°	868.1	893.1	1245.3	2798.4	6703.5	11859.3	12239.3	11454.4	8986.0	6165.4	3378.1
80°	380.0	399.4	540.8	931.9	2887.2	7746.3	8079.1	7746.3	5419.3	2828.9	1325.7
82.5°	224.7	238.5	352.2	576.9	1384.0	3685.9	4135.2	3611.0	2338.0	1200.9	549.1
85°	127.6	133.1	202.5	366.1	870.9	1289.7	1447.7	1356.2	1139.9	682.3	288.4
87.5°	58.2	61.0	99.8	172.0	488.1	435.4	452.1	599.1	660.1	416.0	144.2
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°	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9	2179.9
2.5°	2177.2	2168.8	2152.2	2146.7	2138.3	2141.1	2143.9	2143.9	2146.7	2138.3	2138.3
5°	2155.0	2141.1	2124.5	2124.5	2124.5	2146.7	2166.1	2177.2	2182.7	2182.7	2177.2
7.5°	2146.7	2130.0	2110.6	2116.1	2121.7	2149.4	2185.5	2221.5	2232.6	2232.6	2227.1
10°	2163.3	2146.7	2132.8	2141.1	2155.0	2177.2	2204.9	2238.2	2265.9	2268.7	2265.9
12.5°	2202.1	2182.7	2168.8	2185.5	2202.1	2216.0	2229.9	2243.7	2279.8	2285.3	2285.3
15°	2265.9	2246.5	2229.9	2243.7	2249.3	2249.3	2249.3	2249.3	2285.3	2290.9	2290.9
17.5°	2329.7	2313.1	2296.4	2299.2	2282.6	2260.4	2252.0	2249.3	2268.7	2285.3	2288.1
20°	2390.7	2376.9	2360.2	2332.5	2290.9	2249.3	2235.4	2235.4	2246.5	2271.5	2271.5
22.5°	2457.3	2440.6	2412.9	2349.1	2279.8	2221.5	2207.7	2216.0	2229.9	2263.1	2260.4
25°	2532.2	2510.0	2462.8	2343.6	2243.7	2174.4	2177.2	2202.1	2227.1	2263.1	2263.1
27.5°	2615.4	2584.9	2490.6	2299.2	2163.3	2096.7	2121.7	2179.9	2216.0	2254.8	2260.4
30°	2706.9	2679.2	2512.8	2221.5	2032.9	1971.9	2032.9	2127.2	2182.7	2218.8	2227.1
32.5°	2817.8	2795.6	2532.2	2121.7	1863.8	1811.1	1899.8	2016.3	2105.1	2146.7	2155.0
35°	2956.5	2934.3	2557.1	2008.0	1705.7	1650.2	1730.6	1849.9	1966.4	2019.1	2035.7
37.5°	3136.8	3103.5	2579.3	1886.0	1572.6	1508.8	1547.6	1655.8	1761.1	1833.3	1852.7
40°	3367.0	3314.3	2598.7	1747.3	1456.1	1384.0	1397.8	1450.5	1511.5	1575.3	1600.3
42.5°	3691.5	3586.1	2601.5	1600.3	1336.8	1270.2	1264.7	1281.3	1281.3	1281.3	1289.7
45°	4143.5	3943.9	2607.1	1461.6	1214.8	1145.4	1128.8	1123.3	1081.6	1001.2	995.7
47.5°	4714.9	4412.6	2632.0	1345.1	1087.2	1026.2	1004.0	981.8	904.1	820.9	804.3
50°	5447.1	4956.2	2681.9	1234.2	979.0	937.4	909.7	857.0	771.0	707.2	690.6
52.5°	6290.2	5602.4	2729.1	1117.7	898.6	870.9	837.6	773.8	682.3	643.4	637.9
55°	7258.1	6323.5	2823.4	1015.1	829.3	809.9	779.3	718.3	649.0	621.3	618.5
57.5°	8248.3	7130.6	2956.5	923.6	762.7	751.6	751.6	698.9	654.5	643.4	643.4
60°	9202.3	7823.9	2853.9	837.6	701.7	707.2	759.9	746.1	712.8	726.6	735.0
62.5°	9942.9	8231.6	2315.8	768.2	657.3	707.2	843.1	843.1	804.3	798.8	798.8
65°	10259.0	8226.1	1628.0	715.6	640.7	776.6	940.2	895.8	793.2	754.4	746.1
67.5°	10178.6	7865.5	1123.3	679.5	635.1	848.7	984.6	859.8	743.3	710.0	685.0
70°	9471.4	7102.8	865.3	646.2	626.8	818.2	970.7	818.2	704.5	674.0	651.8
72.5°	7640.9	5696.7	718.3	612.9	593.5	757.2	923.6	779.3	674.0	640.7	618.5
75°	4873.0	3583.3	607.4	568.6	529.7	679.5	859.8	740.5	640.7	596.3	579.7
77.5°	2343.6	1544.8	529.7	515.9	477.0	629.6	796.0	690.6	596.3	560.2	549.1
80°	948.5	707.2	460.4	463.2	438.2	599.1	751.6	643.4	551.9	513.1	493.7
82.5°	493.7	410.5	388.3	399.4	399.4	571.3	718.3	604.6	513.1	496.4	432.7
85°	266.3	255.2	299.5	321.7	346.7	515.9	668.4	563.0	468.7	402.2	388.3
87.5°	130.4	166.4	169.2	194.1	241.3	413.2	563.0	471.5	391.1	324.5	318.9
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)