

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: P237090

Luminaire Tested: **ARCH-L-AF72-170-D-U-T3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237090  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-170-D-U-T3  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 750mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22485.5 lumens  
Efficiency: N/A  
Efficacy: 130.0 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 173  
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

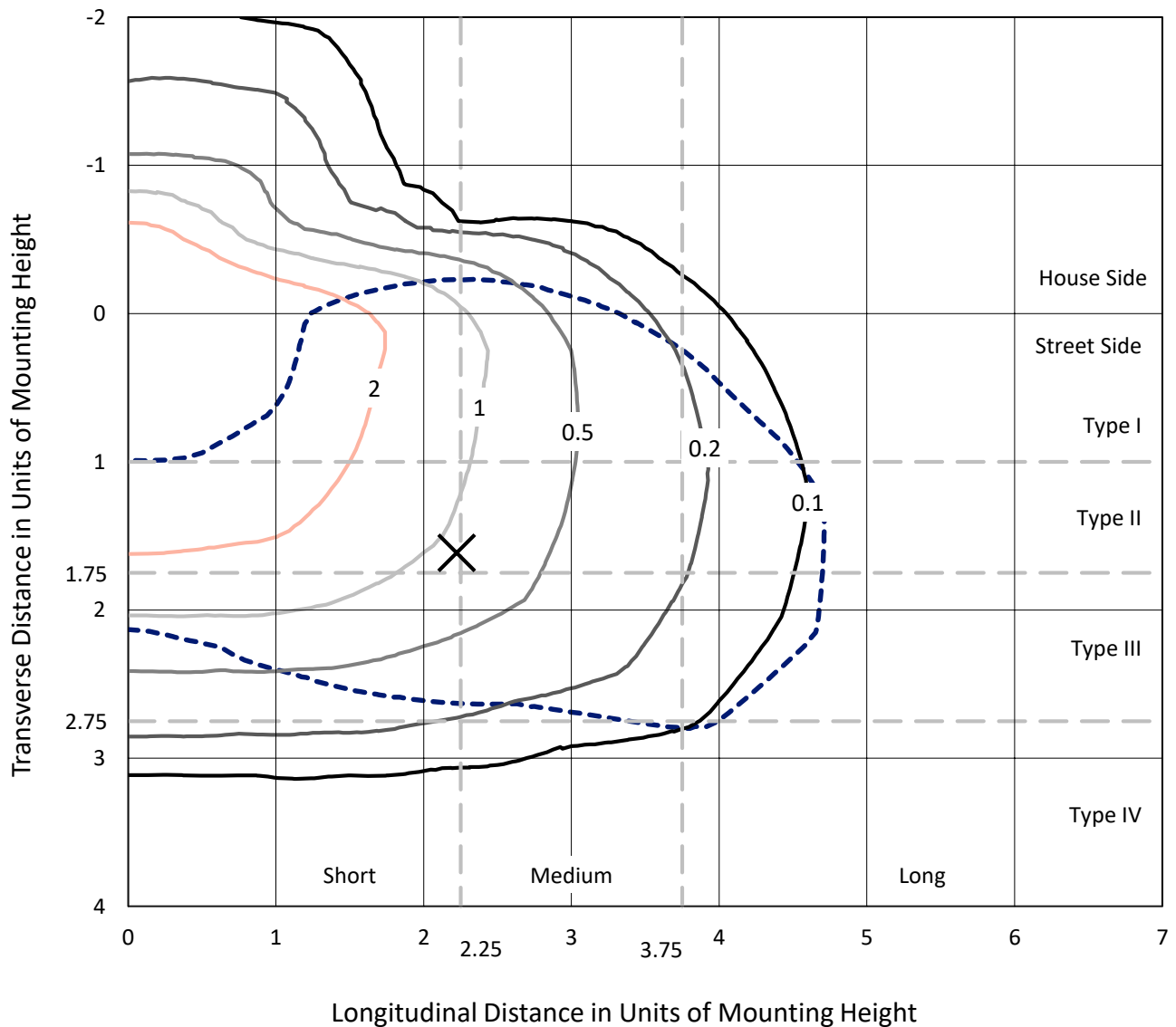


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

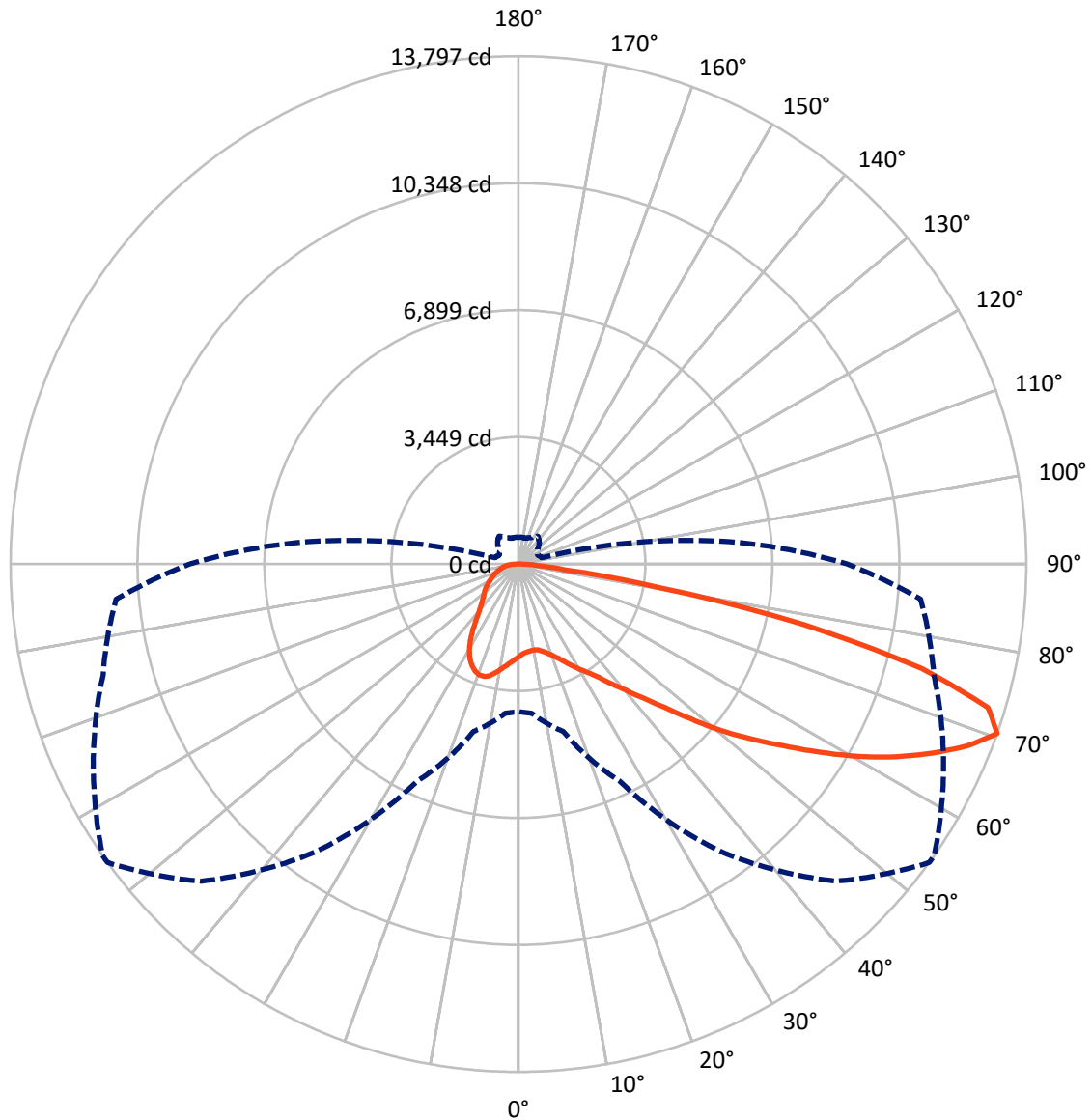


Based on 25 foot mounting height. Maximum calculated value = 4.7 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical



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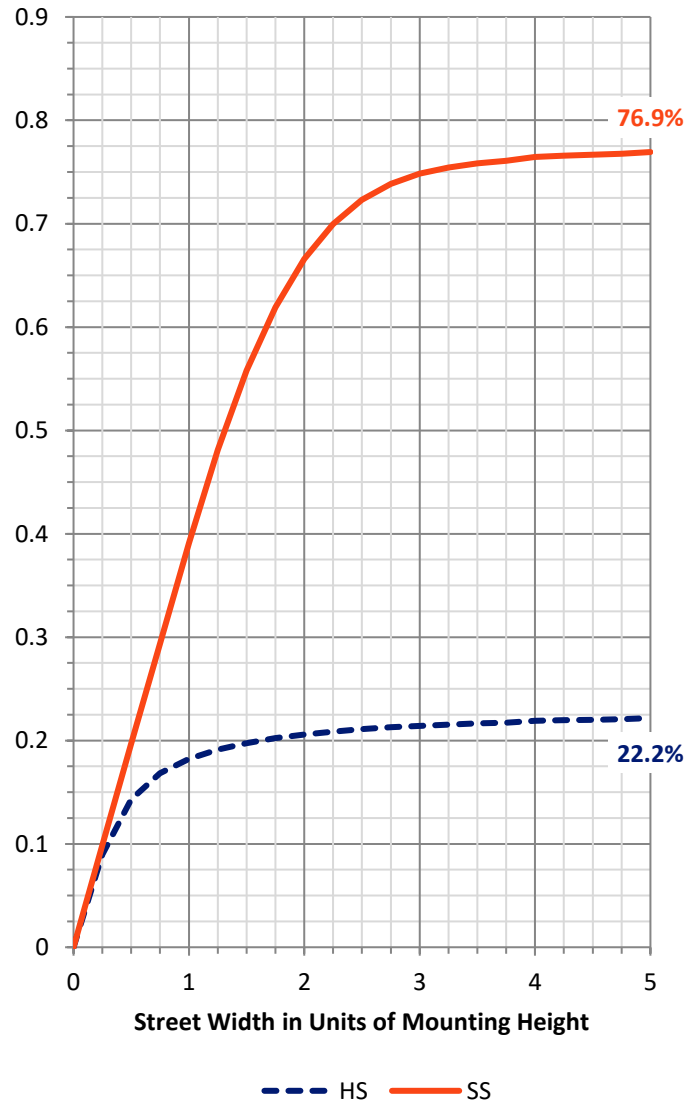
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5099.6	0.0	5099.6
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	17385.9	0.0	17385.9
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	22485.5	0.0	22485.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	246.9	1.1
10°-20°	788.9	3.5
20°-30°	1370.5	6.1
30°-40°	2002.8	8.9
40°-50°	3143.4	14.0
50°-60°	4833.8	21.5
60°-70°	5905.7	26.3
70°-80°	3661.6	16.3
80°-90°	531.9	2.4
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°	22485.5	100.0
0°-180°	22485.5	100.0

**Coefficient of Utilization**



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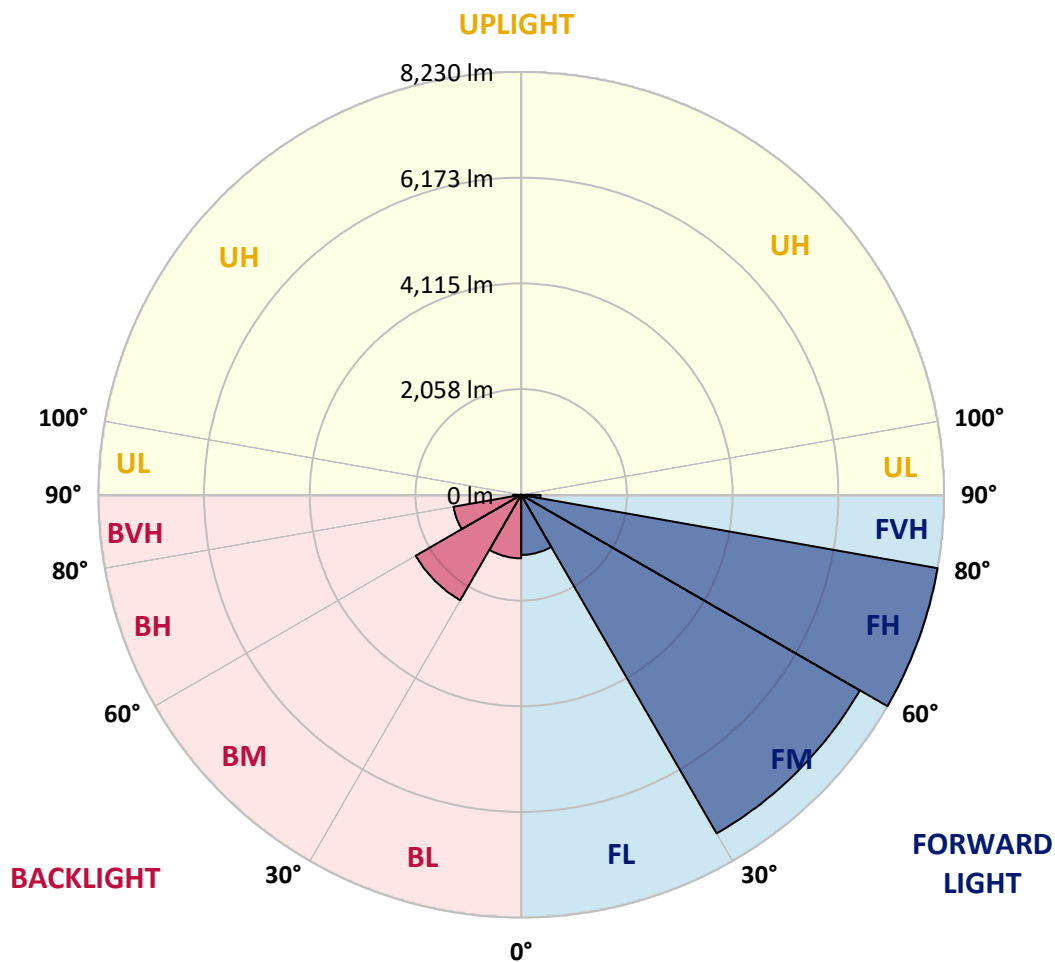
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1169.9	5.2			
FM	(30°-60°)	7610.3	33.8			
FH	(60°-80°)	8230.0	36.6			G4/12000
FVH	(80°-90°)	375.6	1.7			G3/500
BL	(0°-30°)	1236.3	5.5	B3/2500		
BM	(30°-60°)	2369.7	10.5	B2/2500		
BH	(60°-80°)	1337.3	5.9	B3/2500		G3/2500
BVH	(80°-90°)	156.3	0.7			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6
2.5°	2416.8	2408.6	2408.6	2421.0	2425.1	2437.5	2437.5	2441.6	2454.0	2474.5	2499.2
5°	2342.8	2338.7	2342.8	2359.2	2367.4	2392.2	2400.4	2404.5	2429.2	2462.1	2499.2
7.5°	2268.6	2264.5	2272.8	2297.4	2322.2	2359.2	2379.8	2383.9	2421.0	2466.2	2515.6
10°	2243.9	2239.9	2252.1	2272.8	2297.4	2338.7	2371.6	2375.7	2429.2	2482.7	2552.8
12.5°	2276.9	2272.8	2285.1	2305.7	2330.4	2359.2	2396.3	2400.4	2470.4	2540.4	2614.5
15°	2359.2	2359.2	2363.3	2375.7	2400.4	2425.1	2458.0	2462.1	2536.3	2618.7	2692.7
17.5°	2486.9	2478.6	2478.6	2474.5	2491.0	2503.4	2544.5	2548.6	2626.8	2701.0	2775.1
20°	2643.3	2639.2	2622.7	2602.2	2598.0	2606.3	2647.4	2651.6	2729.7	2791.5	2861.5
22.5°	2832.7	2836.8	2799.7	2754.5	2733.9	2746.2	2783.3	2787.4	2845.0	2898.5	2960.3
25°	3083.9	3071.5	3018.0	2952.1	2910.9	2910.9	2947.9	2947.9	3001.5	3034.5	3075.6
27.5°	3322.6	3298.0	3248.6	3153.9	3088.0	3100.4	3137.4	3137.4	3186.8	3199.2	3219.7
30°	3582.1	3557.3	3495.6	3376.1	3289.7	3281.5	3326.7	3322.6	3388.5	3384.4	3368.0
32.5°	3899.1	3886.7	3783.8	3631.5	3516.2	3487.3	3528.6	3532.7	3573.8	3561.5	3507.9
35°	4343.8	4339.7	4244.9	3977.3	3825.0	3771.4	3796.2	3796.2	3825.0	3792.1	3701.4
37.5°	4903.7	4911.9	4829.6	4434.3	4220.2	4129.7	4133.7	4129.7	4137.9	4100.8	4006.2
40°	5463.7	5484.2	5480.2	5002.5	4730.7	4574.3	4516.6	4508.5	4529.0	4512.5	4422.0
42.5°	6200.6	6250.0	6134.7	5702.4	5397.8	5134.3	4977.8	4957.2	5002.5	5023.1	4936.7
45°	6966.5	6950.0	6768.9	6455.9	6180.1	5842.5	5546.0	5513.1	5546.0	5607.7	5517.2
47.5°	7365.9	7353.5	7308.2	7151.8	7110.5	6723.5	6274.8	6245.9	6184.1	6270.7	6163.6
50°	8024.6	8037.0	7851.7	7835.2	8008.2	7794.1	7098.3	7032.4	6921.2	6991.2	6900.6
52.5°	8502.3	8448.7	8333.5	8477.5	9016.9	8901.6	7872.3	7843.5	7740.6	7724.1	7682.9
55°	8695.7	8695.7	8716.4	9049.8	9819.7	9667.4	8712.2	8741.0	8601.1	8485.8	8539.3
57.5°	8753.4	8778.0	8955.1	9506.9	10762.7	10264.4	9638.7	9679.8	9478.0	9247.5	9416.3
60°	8469.3	8543.4	8967.5	9766.2	11293.8	10898.5	10614.4	10626.7	10334.5	9996.8	10293.2
62.5°	7740.6	7831.1	8588.7	9873.3	11207.2	11549.0	11536.6	11565.5	11166.1	10746.2	11116.7
65°	6847.1	6937.7	7744.7	9572.8	11141.5	12014.3	12380.8	12458.9	11944.3	11380.2	11631.4
67.5°	5533.7	5653.0	6418.9	8559.8	10820.3	12397.2	13171.2	13253.6	12545.5	11709.6	11586.0
70°	4010.3	4067.9	4710.2	6505.4	9511.0	12187.2	13797.0	13793.0	12743.0	11684.9	10968.5
72.5°	1931.0	1976.3	2532.1	4039.1	6801.8	10342.6	13344.2	13422.4	12471.3	11326.7	9556.3
75°	794.6	839.9	1025.2	1704.5	3569.7	6834.7	11310.3	11495.5	11326.7	10165.6	7477.1
77.5°	494.1	510.6	601.1	881.1	1630.5	3190.9	7917.5	8168.8	8975.7	8144.0	4936.7
80°	370.5	382.9	448.8	617.6	1029.3	1177.5	3932.0	4249.0	5438.9	4673.1	2235.7
82.5°	308.8	312.9	358.2	448.8	699.9	675.2	1259.9	1404.0	2536.3	1782.8	770.0
85°	288.2	296.5	321.1	321.1	444.7	424.1	522.9	547.6	737.0	609.4	267.6
87.5°	148.2	139.9	284.1	251.1	230.6	205.8	222.3	238.8	275.9	292.4	119.4
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°	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6	2515.6
2.5°	2507.5	2519.8	2540.4	2561.0	2585.7	2614.5	2630.9	2651.6	2668.1	2659.8	2655.7
5°	2519.8	2540.4	2585.7	2626.8	2676.2	2733.9	2771.0	2812.1	2845.0	2853.3	2840.9
7.5°	2540.4	2577.4	2639.2	2713.3	2779.2	2853.3	2910.9	2968.6	3009.7	3018.0	3018.0
10°	2589.8	2630.9	2713.3	2812.1	2890.3	2968.6	3034.5	3079.7	3116.8	3133.3	3133.3
12.5°	2659.8	2709.2	2808.0	2927.4	3013.8	3088.0	3125.0	3145.6	3162.0	3178.5	3182.7
15°	2742.1	2795.6	2915.0	3042.7	3133.3	3170.3	3170.3	3166.2	3166.2	3174.4	3182.7
17.5°	2824.5	2882.1	3005.6	3141.5	3199.2	3178.5	3149.8	3137.4	3129.1	3125.0	3137.4
20°	2910.9	2968.6	3092.1	3219.7	3203.3	3116.8	3075.6	3046.8	3022.1	3009.7	3026.2
22.5°	3005.6	3059.1	3186.8	3273.2	3149.8	3018.0	2939.8	2894.4	2853.3	2828.6	2845.0
25°	3116.8	3170.3	3293.8	3289.7	3055.0	2869.8	2746.2	2672.2	2626.8	2602.2	2602.2
27.5°	3248.6	3293.8	3413.3	3248.6	2923.3	2672.2	2491.0	2421.0	2408.6	2388.1	2388.1
30°	3384.4	3421.5	3524.4	3153.9	2742.1	2412.7	2215.1	2182.2	2186.3	2165.7	2169.8
32.5°	3524.4	3561.5	3590.3	3013.8	2507.5	2120.4	1988.6	1964.0	1959.9	1943.4	1926.9
35°	3722.0	3775.6	3598.5	2824.5	2223.4	1877.5	1782.8	1758.0	1733.4	1675.7	1675.7
37.5°	4022.7	4080.2	3578.0	2589.8	1931.0	1688.1	1601.6	1568.7	1527.5	1469.9	1449.3
40°	4434.3	4434.3	3532.7	2326.3	1696.4	1535.8	1453.4	1412.2	1367.0	1309.3	1297.0
42.5°	4920.2	4804.9	3462.7	2058.7	1523.4	1432.8	1358.7	1313.5	1259.9	1194.0	1185.8
45°	5488.3	5175.4	3363.9	1819.8	1395.8	1371.1	1325.7	1247.6	1157.0	1087.0	1074.6
47.5°	6040.1	5509.0	3269.1	1651.0	1288.7	1346.4	1309.3	1177.5	1054.0	955.2	942.9
50°	6645.3	5805.3	3158.0	1511.0	1206.4	1329.9	1288.7	1074.6	938.8	868.8	860.5
52.5°	7250.6	6106.0	3038.6	1362.9	1136.4	1297.0	1239.3	1000.5	934.7	839.9	827.6
55°	7888.8	6455.9	2898.5	1198.2	1054.0	1231.1	1173.4	996.4	963.4	839.9	811.1
57.5°	8510.4	6842.9	2672.2	1037.6	963.4	1132.3	1148.8	971.7	901.7	831.7	798.7
60°	9198.1	7254.7	2297.4	901.7	885.3	1050.0	1115.8	918.2	831.7	807.0	790.5
62.5°	9749.7	7625.3	1795.2	807.0	819.4	984.1	1074.6	885.3	802.9	782.3	778.2
65°	9988.6	7633.5	1288.7	724.7	753.5	922.3	1033.5	856.4	778.2	770.0	765.8
67.5°	9737.5	7213.5	905.8	646.4	683.4	864.6	979.9	827.6	753.5	757.6	749.3
70°	8926.3	6328.3	662.9	572.3	617.6	802.9	922.3	790.5	724.7	732.8	720.6
72.5°	7468.8	4932.6	531.1	510.6	564.1	737.0	864.6	749.3	679.3	683.4	658.8
75°	5517.2	3269.1	444.7	457.1	502.3	675.2	790.5	695.8	629.9	613.5	597.0
77.5°	3281.5	1679.9	366.4	399.4	448.8	601.1	708.2	629.9	576.4	547.6	535.2
80°	1354.6	679.3	300.5	337.6	391.2	535.2	625.8	551.7	514.6	485.8	469.3
82.5°	539.4	333.5	238.8	275.9	329.4	465.2	547.6	485.8	448.8	428.2	382.9
85°	205.8	164.7	160.6	193.5	247.0	358.2	452.9	407.6	378.8	325.3	312.9
87.5°	82.3	74.1	74.1	94.7	139.9	226.5	325.3	284.1	296.5	234.7	238.8
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)