

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: P200752

Luminaire Tested: **VERD-M-A03-E-U-T4-7050-AP**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P200752
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26232)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-A03-E-U-T4-7050-AP
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 5000K LEDS AND TYPE IV OPTICS, GREY PAINTED FINISH
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21921 lumens
Efficiency: N/A
Efficacy: 120.4 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

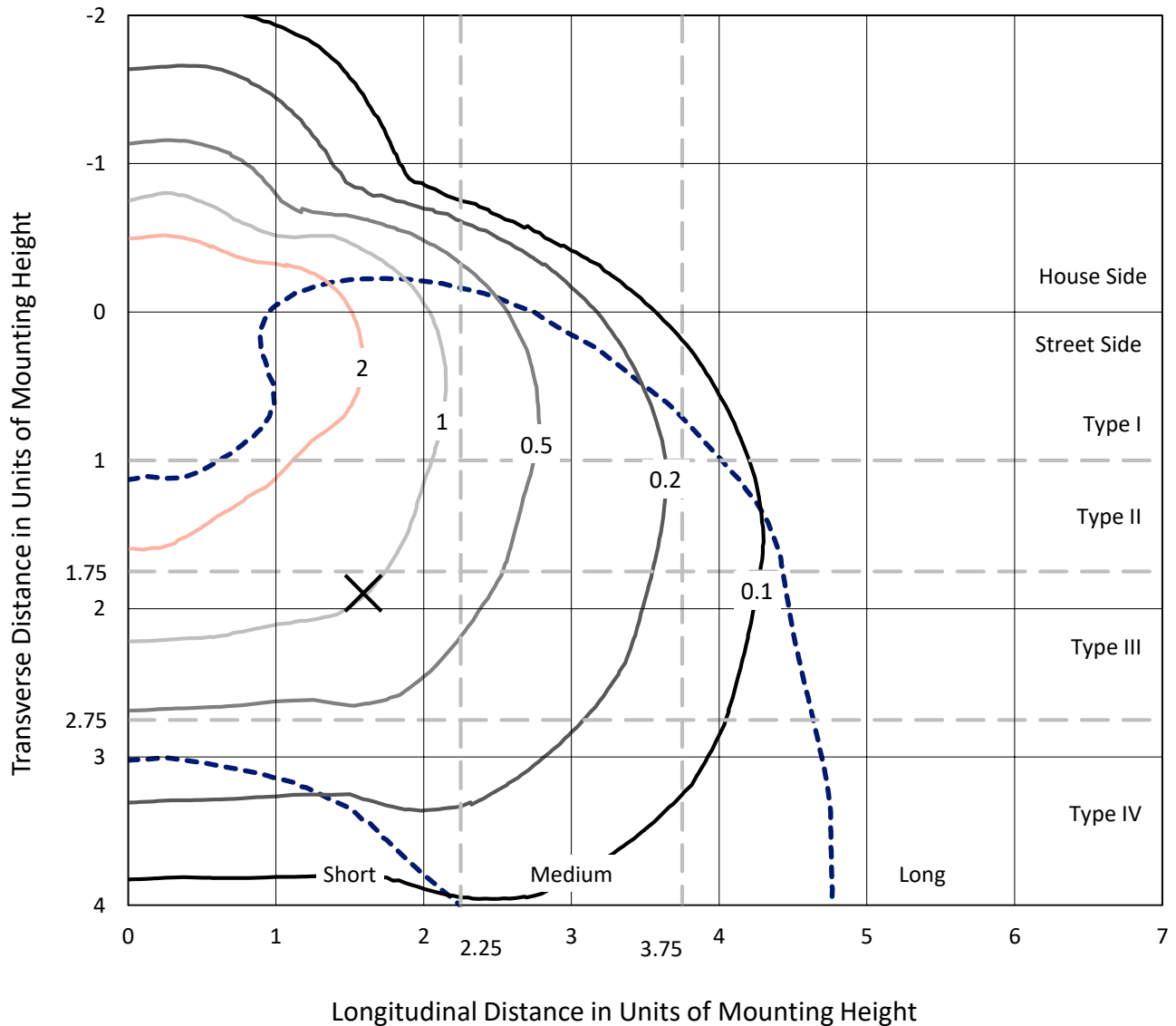
Input Watts (W): 182
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

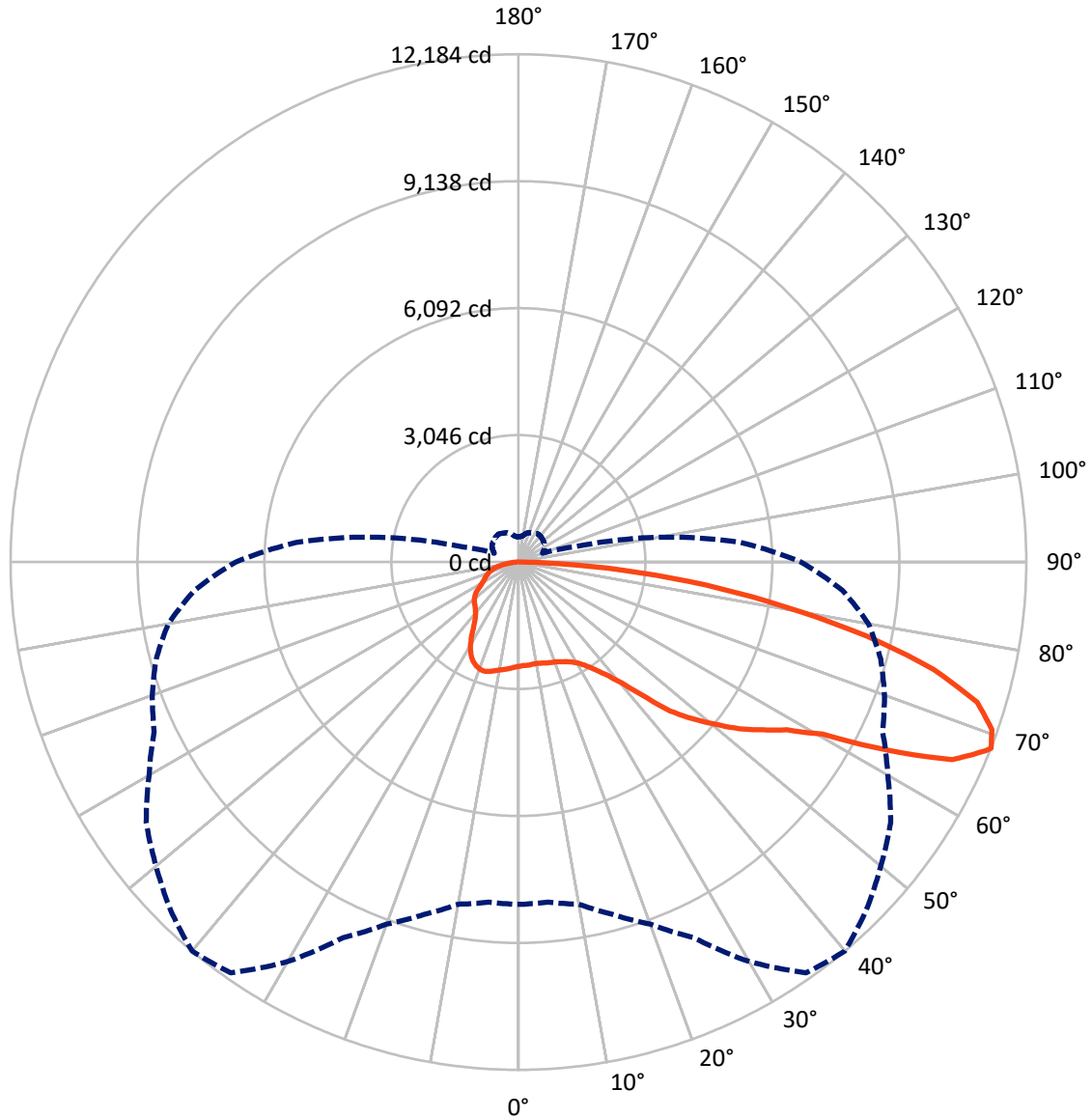
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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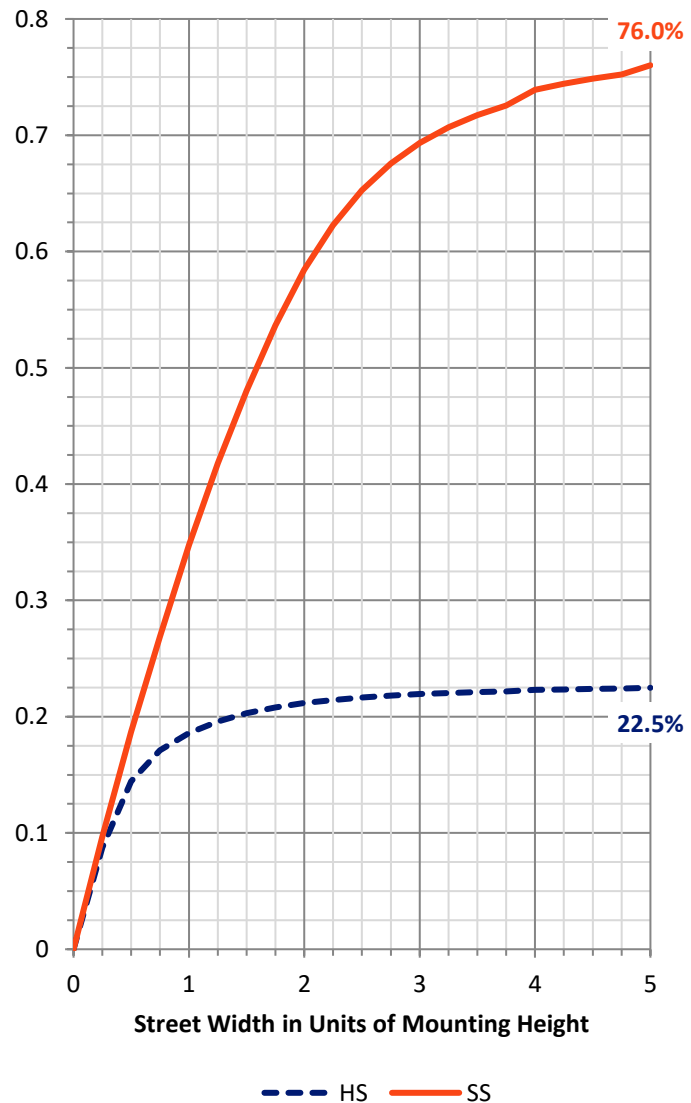
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4988.8	0.0	4988.8
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	16932.2	0.0	16932.2
	% Fixture	77.2	0.0	77.2
Total	Lumens	21921.0	0.0	21921.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.8	1.1
10°-20°	742.1	3.4
20°-30°	1249.2	5.7
30°-40°	1872.7	8.5
40°-50°	3067.7	14.0
50°-60°	4374.7	20.0
60°-70°	5512.4	25.1
70°-80°	4050.1	18.5
80°-90°	810.3	3.7
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°	21921.0	100.0
0°-180°	21921.0	100.0



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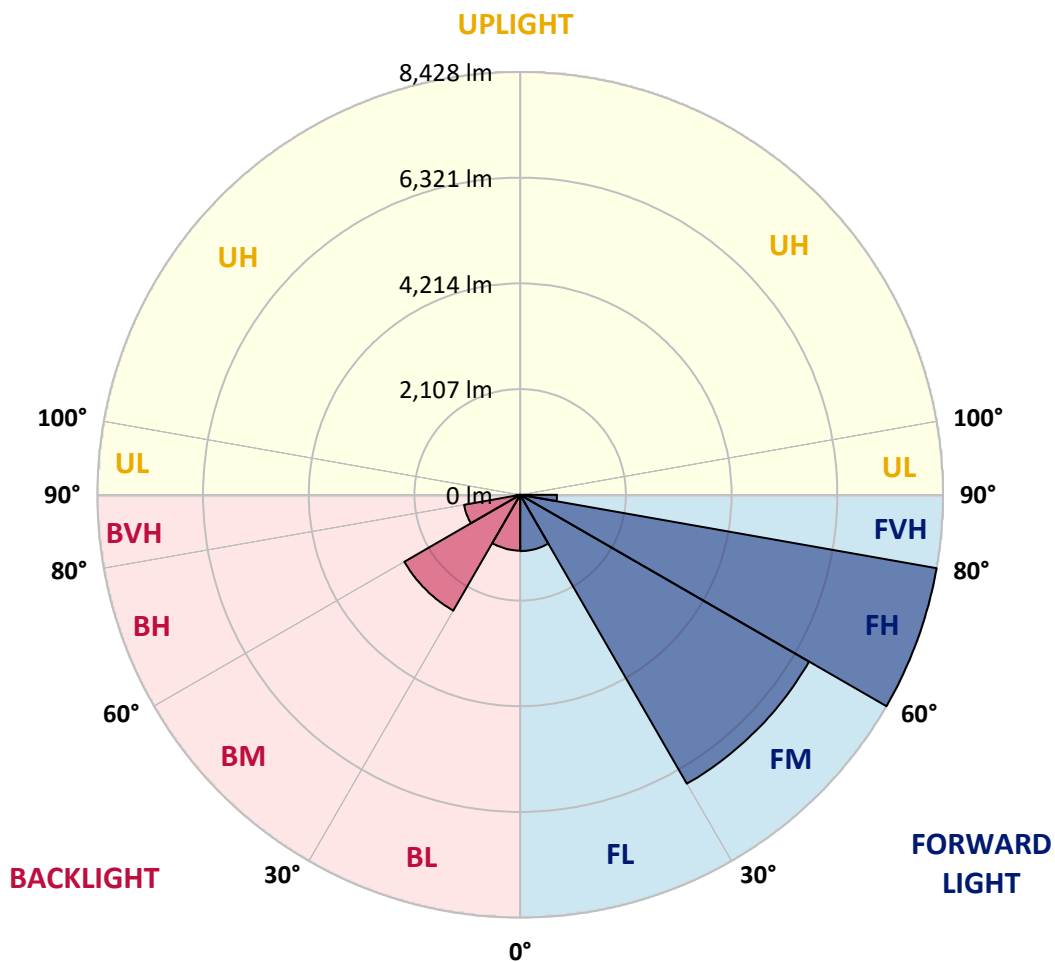
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1121.5	5.1			
FM	(30°-60°)	6648.2	30.3			
FH	(60°-80°)	8427.8	38.4			G4/12000
FVH	(80°-90°)	734.8	3.4			G4/750
BL	(0°-30°)	1111.6	5.1	B3/2500		
BM	(30°-60°)	2667.0	12.2	B3/5000		
BH	(60°-80°)	1134.6	5.2	B3/2500		G3/2500
BVH	(80°-90°)	75.5	0.3			G1/100
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°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2
2.5°	2512.8	2511.3	2499.8	2496.9	2486.8	2488.2	2485.3	2481.0	2482.4	2473.8	2473.8
5°	2509.9	2509.9	2498.3	2495.4	2489.7	2495.4	2494.0	2485.3	2488.2	2486.8	2485.3
7.5°	2486.8	2483.9	2470.9	2469.4	2465.1	2473.8	2476.7	2469.4	2472.3	2482.4	2485.3
10°	2466.6	2468.0	2456.4	2456.4	2453.6	2468.0	2475.2	2470.9	2473.8	2488.2	2489.7
12.5°	2434.8	2439.1	2431.9	2434.8	2436.2	2456.4	2475.2	2481.0	2488.2	2501.2	2508.4
15°	2420.3	2421.8	2417.5	2423.2	2430.4	2453.6	2476.7	2494.0	2512.8	2531.5	2543.1
17.5°	2443.4	2442.0	2434.8	2436.2	2440.6	2460.8	2489.7	2515.7	2533.0	2551.8	2573.4
20°	2450.7	2455.0	2450.7	2455.0	2462.2	2483.9	2521.4	2544.5	2557.5	2574.9	2603.7
22.5°	2495.4	2489.7	2488.2	2492.5	2491.1	2511.3	2544.5	2579.2	2600.9	2611.0	2641.3
25°	2540.2	2535.9	2535.9	2544.5	2544.5	2560.4	2592.2	2621.1	2645.6	2677.4	2717.8
27.5°	2587.9	2585.0	2585.0	2602.3	2611.0	2625.4	2657.2	2688.9	2714.9	2746.7	2804.5
30°	2684.6	2678.8	2667.3	2687.5	2691.8	2704.8	2745.3	2778.5	2811.7	2853.6	2908.5
32.5°	2852.1	2842.0	2823.2	2824.7	2817.5	2827.6	2888.2	2909.9	2956.1	2999.4	3047.1
35°	3221.8	3185.7	3143.8	3117.8	3083.2	3051.4	3090.4	3120.7	3168.4	3211.7	3273.8
37.5°	3766.3	3698.4	3636.3	3607.4	3543.9	3460.1	3432.7	3389.3	3431.2	3503.4	3578.5
40°	4372.8	4372.8	4303.5	4224.0	4121.5	3981.4	3906.3	3832.7	3806.7	3831.2	3942.4
42.5°	4950.4	4969.2	4902.8	4820.5	4733.8	4588.0	4488.3	4426.2	4374.2	4348.2	4385.8
45°	5487.6	5557.0	5515.1	5424.1	5367.8	5307.1	5275.4	5162.7	5093.4	4989.4	4953.3
47.5°	5887.7	5955.5	5910.8	5777.9	5744.7	5734.6	5733.1	5659.5	5616.2	5519.4	5460.2
50°	6303.6	6403.2	6323.8	6089.8	6110.1	6117.3	6131.7	6111.5	6115.8	6094.2	6061.0
52.5°	6956.3	6966.4	6686.3	6497.1	6459.5	6468.2	6531.7	6563.5	6645.8	6575.1	6589.5
55°	7905.1	7597.5	7242.2	7096.4	6940.4	6874.0	6884.1	6978.0	7107.9	7044.4	7053.1
57.5°	8219.9	8271.9	8289.2	7988.9	7899.3	7708.7	7668.3	7473.3	7596.1	7508.0	7536.8
60°	8881.3	9027.2	8994.0	9067.6	8881.3	8874.1	8937.6	8510.2	8387.4	8144.8	8085.6
62.5°	9620.7	9619.3	9820.0	9876.3	9952.9	9835.9	10090.0	10042.4	9944.2	9236.6	8809.1
65°	9323.2	9317.4	9448.9	9892.2	10045.3	10381.8	10755.8	11272.8	11431.6	11095.2	10404.9
67.5°	8310.9	8348.4	8510.2	9037.3	9473.4	10074.2	10989.7	11953.0	12085.8	11747.9	11282.9
68°	8214.1	8191.0	8335.4	8755.7	9243.8	9941.3	11067.7	12032.4	12184.0	11805.7	11349.3
70°	7118.1	7094.9	7363.6	7840.1	8368.7	9381.0	11167.4	12012.2	12051.2	11706.0	11293.0
72.5°	5545.4	5518.0	5770.7	6156.3	6746.9	7844.4	10313.9	11485.1	11508.2	11181.8	10848.2
75°	4029.1	3995.9	4232.7	4573.5	5063.1	6029.2	8534.7	10015.0	10292.2	10329.8	10228.7
77.5°	2779.9	2849.2	3083.2	3330.1	3766.3	4498.4	6450.9	8004.7	8543.4	8882.8	9112.4
80°	1868.7	1982.8	2163.3	2397.2	2745.3	3320.0	4798.8	5981.5	6450.9	6790.2	6956.3
82.5°	1226.1	1243.4	1390.7	1592.9	1893.2	2355.4	3389.3	4244.3	4514.3	4557.6	4391.6
85°	644.1	694.6	785.6	912.7	1100.4	1379.1	1877.4	2429.0	2528.6	2509.9	2267.3
87.5°	235.4	255.6	300.4	361.0	450.6	583.4	755.3	844.8	639.7	470.8	336.5
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2
2.5°	2478.1	2466.6	2465.1	2486.8	2481.0	2481.0	2478.1	2488.2	2478.1	2478.1	2492.5
5°	2483.9	2476.7	2476.7	2499.8	2505.5	2499.8	2505.5	2505.5	2502.7	2508.4	2518.5
7.5°	2482.4	2485.3	2486.8	2501.2	2518.5	2511.3	2528.6	2518.5	2531.5	2543.1	2546.0
10°	2482.4	2499.8	2507.0	2511.3	2527.2	2528.6	2541.6	2531.5	2551.8	2567.6	2570.5
12.5°	2508.4	2530.1	2556.1	2561.9	2574.9	2593.6	2595.1	2593.6	2619.6	2631.2	2644.2
15°	2551.8	2577.7	2609.5	2624.0	2641.3	2677.4	2673.1	2688.9	2717.8	2730.8	2753.9
17.5°	2598.0	2626.8	2664.4	2691.8	2717.8	2761.2	2758.3	2788.6	2817.5	2837.7	2863.7
20°	2639.8	2678.8	2722.2	2761.2	2804.5	2846.4	2855.0	2891.1	2931.6	2963.3	2985.0
22.5°	2688.9	2732.3	2779.9	2836.2	2891.1	2931.6	2969.1	3022.5	3067.3	3099.1	3112.1
25°	2766.9	2811.7	2865.1	2944.6	3005.2	3055.8	3125.1	3191.5	3233.4	3244.9	3240.6
27.5°	2865.1	2915.7	2980.7	3084.6	3151.1	3226.2	3325.8	3383.6	3406.7	3385.0	3328.7
30°	2979.2	3048.5	3129.4	3239.2	3325.8	3447.1	3568.4	3617.5	3591.5	3507.8	3385.0
32.5°	3136.6	3233.4	3328.7	3447.1	3590.1	3760.5	3886.1	3903.4	3803.8	3633.4	3438.4
35°	3385.0	3502.0	3623.3	3782.1	4043.5	4273.1	4375.7	4315.0	4102.7	3829.8	3536.6
37.5°	3718.6	3861.6	4042.1	4276.0	4664.5	4927.3	4970.7	4832.0	4517.2	4112.8	3678.2
40°	4110.0	4303.5	4543.2	4943.2	5359.1	5597.4	5583.0	5379.3	4975.0	4440.7	3867.3
42.5°	4601.0	4814.7	5116.5	5581.5	6050.9	6218.4	6149.1	5899.2	5421.2	4790.1	4073.9
45°	5080.4	5298.5	5639.3	6160.6	6611.2	6741.1	6631.4	6348.3	5821.2	5122.3	4307.8
47.5°	5559.9	5710.0	6143.3	6712.3	7135.4	7206.1	7045.8	6687.7	6153.4	5408.2	4476.8
50°	6124.5	6240.0	6692.0	7289.9	7604.7	7619.2	7448.8	6983.8	6387.3	5581.5	4603.8
52.5°	6654.5	6848.0	7315.9	7824.2	8017.7	7951.3	7759.2	7248.0	6557.7	5760.6	4639.9
55°	7167.2	7451.6	7961.4	8293.6	8371.5	8263.2	7967.2	7437.2	6699.3	5762.0	4609.6
57.5°	7661.0	8055.3	8531.8	8748.5	8713.8	8494.3	8051.0	7480.5	6713.7	5681.2	4488.3
60°	8201.1	8609.8	9027.2	9074.8	8924.6	8622.8	8123.2	7495.0	6629.9	5513.6	4281.8
62.5°	8793.2	9109.5	9349.2	9252.5	9043.1	8726.8	8153.5	7354.9	6489.9	5227.7	3802.4
65°	9601.9	9610.6	9588.9	9388.2	9069.1	8634.4	8026.4	7268.2	6138.9	4684.7	2959.0
67.5°	10797.7	10140.6	9662.6	9362.2	9009.8	8537.6	7876.2	6849.4	5539.6	3688.3	1696.8
68°	10901.6	10233.0	9640.9	9346.3	8998.3	8527.5	7801.1	6774.4	5356.2	3421.1	1429.7
70°	10926.2	10233.0	9509.5	9253.9	8952.1	8334.0	7404.0	6055.2	4375.7	2195.1	595.0
72.5°	10599.8	9856.1	9352.1	9173.0	8650.3	7676.9	6306.5	4615.4	2655.7	688.8	453.5
75°	10162.3	9407.0	8793.2	8266.1	7500.7	6130.3	4527.3	2655.7	775.5	336.5	394.2
77.5°	8864.0	8042.3	7337.6	6657.4	5492.0	3967.0	2242.7	677.3	244.1	270.0	332.1
80°	6312.2	5401.0	4377.1	3428.3	1975.6	753.8	271.5	173.3	176.2	205.1	267.2
82.5°	3470.2	2303.4	1374.8	532.9	184.8	158.9	143.0	118.4	124.2	166.1	195.0
85°	1512.0	729.3	220.9	134.3	117.0	106.9	91.0	82.3	105.4	109.8	105.4
87.5°	143.0	72.2	57.8	54.9	44.8	39.0	28.9	27.4	26.0	26.0	30.3
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2	2501.2
2.5°	2489.7	2492.5	2504.1	2501.2	2509.9	2522.9	2524.3	2531.5	2540.2	2548.9	2560.4
5°	2530.1	2530.1	2535.9	2531.5	2538.8	2546.0	2557.5	2560.4	2572.0	2589.3	2605.2
7.5°	2560.4	2559.0	2560.4	2572.0	2580.6	2580.6	2592.2	2593.6	2605.2	2619.6	2632.6
10°	2590.7	2609.5	2603.7	2612.4	2615.3	2616.7	2622.5	2625.4	2641.3	2647.1	2657.2
12.5°	2657.2	2674.5	2664.4	2677.4	2678.8	2671.6	2663.0	2661.5	2661.5	2655.7	2651.4
15°	2753.9	2762.6	2756.8	2746.7	2739.5	2738.0	2710.6	2688.9	2670.2	2644.2	2624.0
17.5°	2862.2	2857.9	2842.0	2829.0	2800.1	2779.9	2743.8	2696.2	2652.8	2596.5	2557.5
20°	2977.8	2947.4	2938.8	2894.0	2842.0	2791.5	2733.7	2667.3	2589.3	2507.0	2440.6
22.5°	3080.3	3035.5	2995.1	2935.9	2855.0	2778.5	2688.9	2603.7	2505.5	2392.9	2297.6
25°	3177.1	3091.9	3022.5	2935.9	2830.5	2730.8	2618.2	2509.9	2381.3	2241.3	2117.1
27.5°	3230.5	3115.0	3002.3	2885.3	2765.5	2629.7	2505.5	2369.8	2218.2	2059.3	1910.6
30°	3236.3	3096.2	2948.9	2787.1	2642.7	2485.3	2339.5	2170.5	2004.4	1839.8	1727.2
32.5°	3239.2	3042.8	2846.4	2652.8	2475.2	2293.3	2125.7	1939.4	1799.4	1698.3	1611.6
35°	3242.0	2977.8	2726.5	2472.3	2270.2	2073.8	1897.6	1751.7	1652.1	1585.6	1516.3
37.5°	3273.8	2917.1	2596.5	2294.7	2070.9	1874.5	1727.2	1616.0	1548.1	1499.0	1447.0
40°	3309.9	2844.9	2459.3	2127.2	1896.1	1722.8	1613.1	1543.8	1493.2	1455.7	1413.8
42.5°	3335.9	2719.3	2271.6	1959.7	1737.3	1601.5	1539.4	1501.9	1473.0	1445.6	1399.3
45°	3382.1	2580.6	2060.8	1747.4	1590.0	1507.7	1481.7	1468.7	1447.0	1419.6	1369.0
47.5°	3437.0	2433.3	1847.0	1569.8	1457.1	1444.1	1442.7	1431.1	1400.8	1371.9	1319.9
50°	3465.9	2287.5	1621.7	1421.0	1374.8	1384.9	1393.6	1382.0	1337.3	1295.4	1249.2
52.5°	3555.4	2222.5	1418.1	1302.6	1305.5	1315.6	1321.4	1305.5	1262.2	1218.8	1171.2
55°	3698.4	2128.6	1266.5	1185.6	1211.6	1226.1	1240.5	1215.9	1187.1	1155.3	1119.2
57.5°	3497.7	1783.5	1109.1	1075.9	1091.8	1104.7	1114.9	1114.9	1114.9	1117.7	1091.8
60°	2831.9	1269.4	958.9	937.2	957.4	983.4	1016.7	1035.4	1042.7	1045.5	1034.0
62.5°	1994.3	901.1	826.0	839.0	865.0	908.3	940.1	960.3	957.4	940.1	914.1
65°	1116.3	749.5	762.5	801.5	823.1	857.8	886.7	898.2	876.6	850.6	827.5
67.5°	629.6	687.4	739.4	772.6	791.4	811.6	828.9	841.9	815.9	785.6	768.3
68°	613.7	678.7	733.6	762.5	781.3	801.5	814.5	823.1	795.7	768.3	753.8
70°	571.9	662.8	709.1	732.2	733.6	766.8	769.7	775.5	752.4	720.6	701.8
72.5°	524.2	628.2	651.3	670.1	686.0	697.5	724.9	713.4	684.5	657.1	613.7
75°	483.8	538.7	560.3	603.6	615.2	634.0	648.4	621.0	577.6	551.7	525.7
77.5°	420.2	447.7	470.8	479.4	514.1	528.5	544.4	544.4	518.4	521.3	482.3
80°	323.5	326.4	317.7	343.7	389.9	408.7	414.5	402.9	421.7	418.8	402.9
82.5°	186.3	173.3	187.7	195.0	218.1	235.4	264.3	288.8	291.7	283.0	300.4
85°	78.0	69.3	79.4	91.0	115.5	143.0	176.2	189.2	186.3	180.5	166.1
87.5°	31.8	31.8	37.5	44.8	59.2	75.1	85.2	99.6	108.3	111.2	104.0
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):

	165°	170°	175°	180°
0°	2501.2	2501.2	2501.2	2501.2
2.5°	2564.8	2563.3	2561.9	2559.0
5°	2609.5	2611.0	2611.0	2609.5
7.5°	2642.7	2650.0	2651.4	2651.4
10°	2668.7	2674.5	2675.9	2674.5
12.5°	2660.1	2661.5	2667.3	2668.7
15°	2619.6	2609.5	2606.6	2605.2
17.5°	2524.3	2498.3	2476.7	2466.6
20°	2374.1	2323.6	2281.7	2271.6
22.5°	2206.6	2128.6	2073.8	2055.0
25°	2004.4	1907.7	1848.5	1829.7
27.5°	1806.6	1711.3	1669.4	1646.3
30°	1643.4	1572.6	1526.4	1503.3
32.5°	1535.1	1465.8	1418.1	1396.5
35°	1445.6	1373.4	1309.8	1280.9
37.5°	1386.4	1301.1	1227.5	1198.6
40°	1351.7	1275.2	1195.7	1164.0
42.5°	1334.4	1269.4	1198.6	1164.0
45°	1306.9	1237.6	1177.0	1139.4
47.5°	1265.0	1200.1	1139.4	1104.7
50°	1188.5	1122.1	1073.0	1045.5
52.5°	1107.6	1034.0	982.0	951.7
55°	1052.8	979.1	938.7	918.5
57.5°	1042.7	973.3	932.9	909.8
60°	983.4	917.0	865.0	840.5
62.5°	856.4	791.4	750.9	735.1
65°	776.9	714.8	675.8	664.3
67.5°	724.9	660.0	619.5	610.9
68°	711.9	647.0	612.3	600.8
70°	652.7	590.6	560.3	548.8
72.5°	527.1	466.4	426.0	411.6
75°	459.2	392.8	359.6	352.4
77.5°	402.9	324.9	291.7	284.5
80°	326.4	257.1	176.2	164.6
82.5°	244.1	157.4	131.4	119.9
85°	141.5	108.3	85.2	79.4
87.5°	89.5	75.1	65.0	60.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)