

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: P189867

Luminaire Tested: **VERD-M-A0385-E-U-T4-AP**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P189867
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-A0385-E-U-T4-AP
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 4000K LEDS AT 85% STANDARD LUMENS AND TYPE IV OPTICS, GREY
PAINTED FINISH
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19377 lumens
Efficiency: N/A
Efficacy: 127.5 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): 152
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

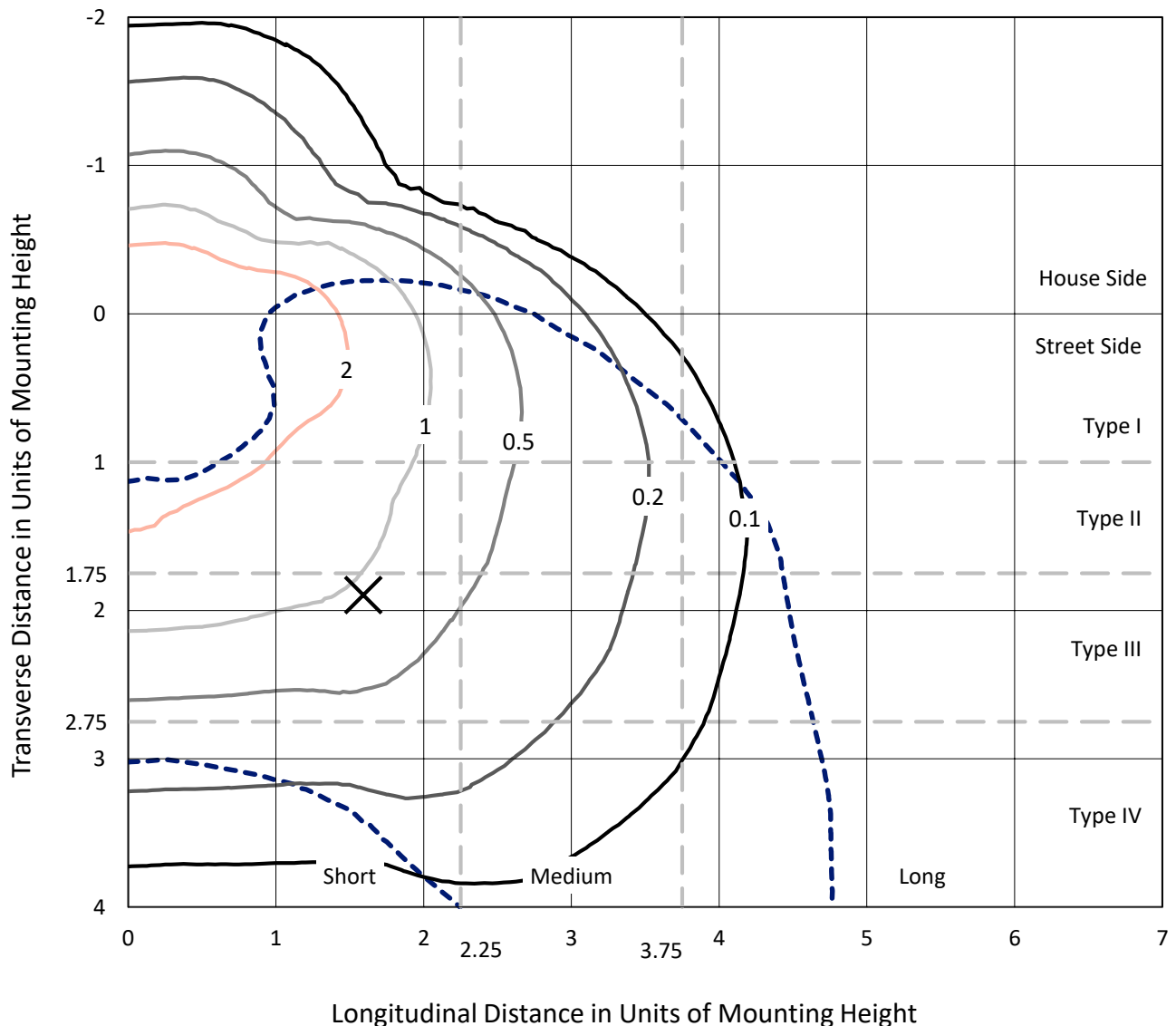


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Iso-Footcandle Lines of Horizontal Illumination

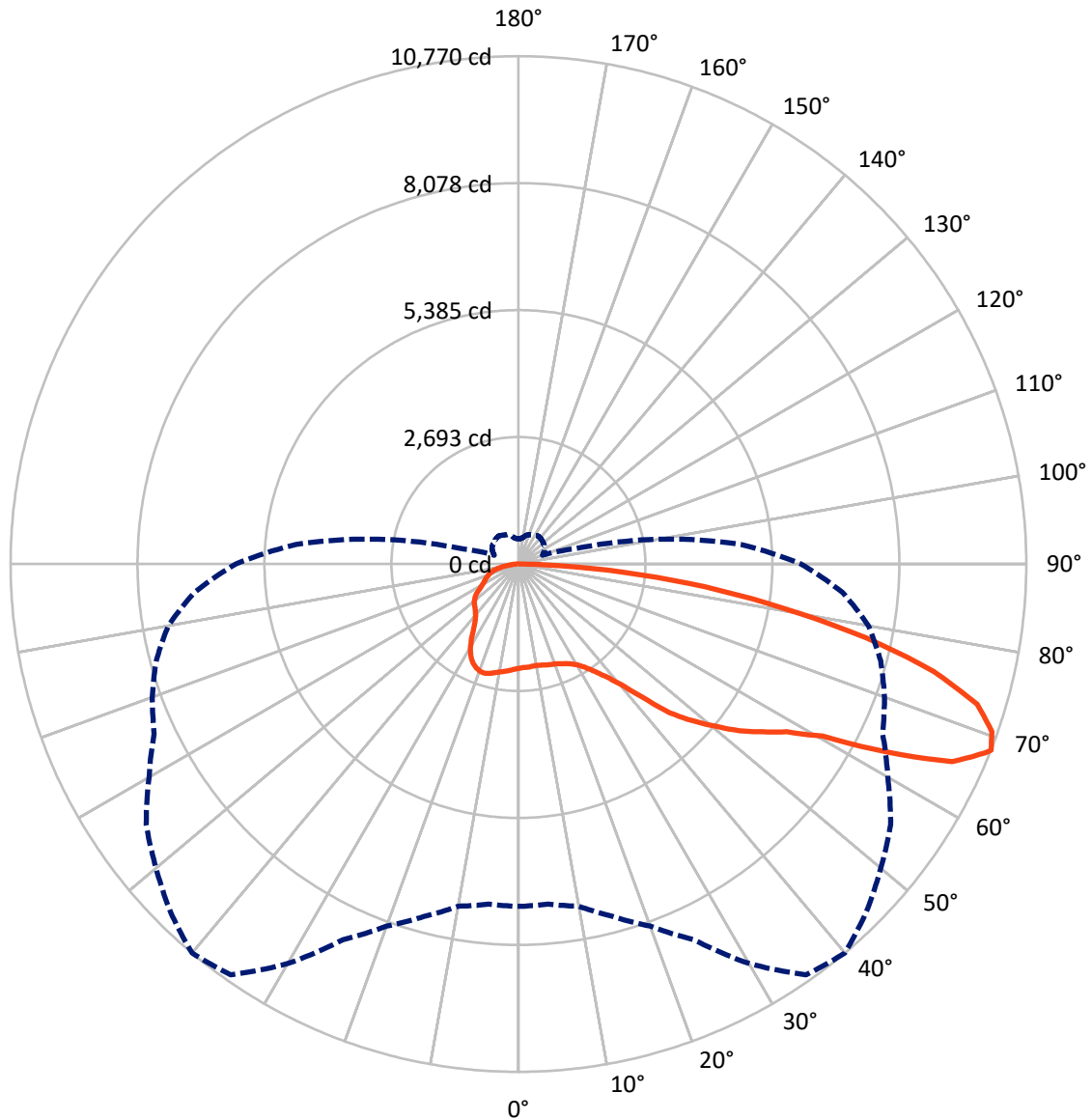
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 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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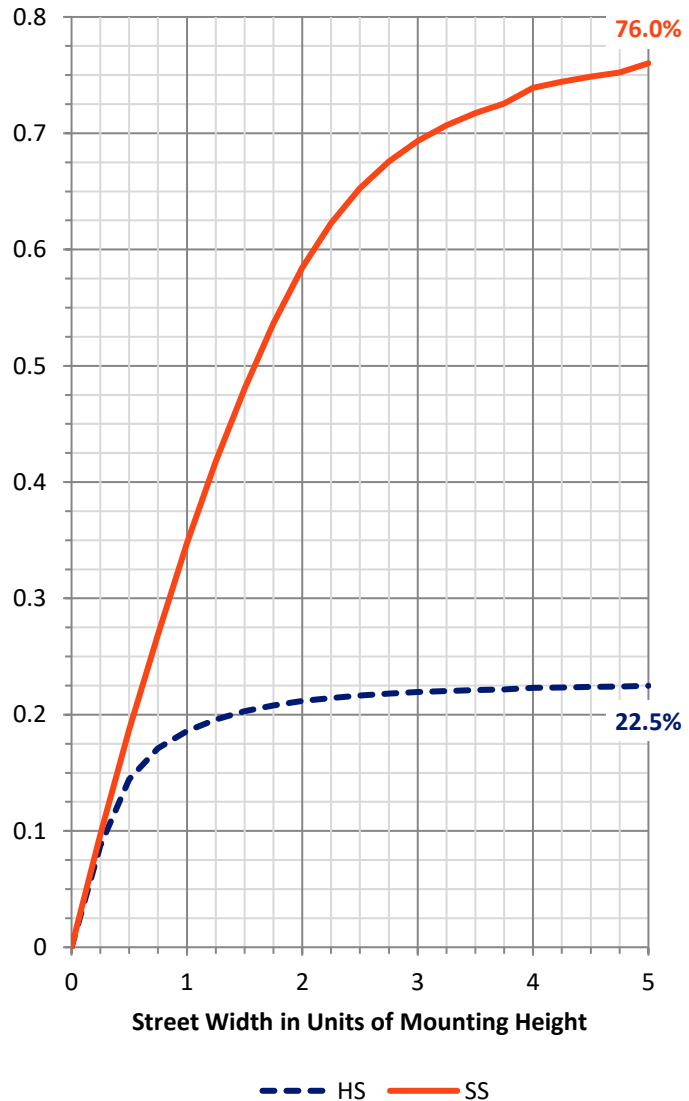
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4409.8	0.0	4409.8
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	14967.2	0.0	14967.2
	% Fixture	77.2	0.0	77.2
Total	Lumens	19377.0	0.0	19377.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.7	1.1
10°-20°	656.0	3.4
20°-30°	1104.2	5.7
30°-40°	1655.4	8.5
40°-50°	2711.7	14.0
50°-60°	3867.0	20.0
60°-70°	4872.6	25.1
70°-80°	3580.1	18.5
80°-90°	716.2	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°	19377.0	100.0
0°-180°	19377.0	100.0

Coefficient of Utilization



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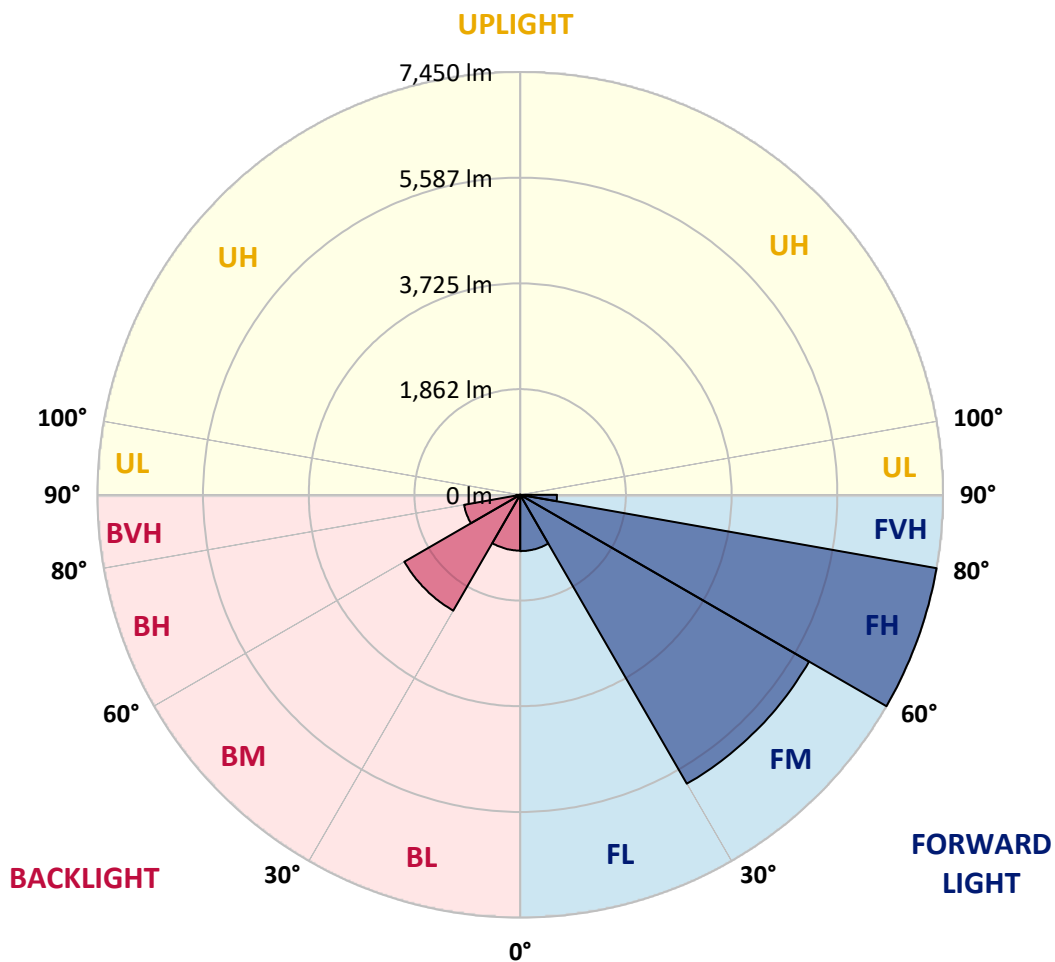
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	991.3	5.1			
FM	(30°-60°)	5876.6	30.3			
FH	(60°-80°)	7449.8	38.4			G3/7500
FVH	(80°-90°)	649.5	3.4			G4/750
BL	(0°-30°)	982.6	5.1	B2/1000		
BM	(30°-60°)	2357.5	12.2	B2/2500		
BH	(60°-80°)	1003.0	5.2	B3/2500		G3/2500
BVH	(80°-90°)	66.7	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°	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9
2.5°	2221.2	2219.9	2209.7	2207.1	2198.2	2199.4	2196.9	2193.1	2194.3	2186.7	2186.7
5°	2218.6	2218.6	2208.4	2205.8	2200.7	2205.8	2204.6	2196.9	2199.4	2198.2	2196.9
7.5°	2198.2	2195.6	2184.1	2182.9	2179.0	2186.7	2189.2	2182.9	2185.4	2194.3	2196.9
10°	2180.3	2181.6	2171.4	2171.4	2168.8	2181.6	2188.0	2184.1	2186.7	2199.4	2200.7
12.5°	2152.2	2156.0	2149.7	2152.2	2153.5	2171.4	2188.0	2193.1	2199.4	2210.9	2217.3
15°	2139.5	2140.7	2136.9	2142.0	2148.4	2168.8	2189.2	2204.6	2221.2	2237.7	2248.0
17.5°	2159.9	2158.6	2152.2	2153.5	2157.3	2175.2	2200.7	2223.7	2239.0	2255.6	2274.8
20°	2166.3	2170.1	2166.3	2170.1	2176.5	2195.6	2228.8	2249.2	2260.7	2276.0	2301.6
22.5°	2205.8	2200.7	2199.4	2203.3	2202.0	2219.9	2249.2	2279.9	2299.0	2308.0	2334.8
25°	2245.4	2241.6	2241.6	2249.2	2249.2	2263.3	2291.4	2316.9	2338.6	2366.7	2402.4
27.5°	2287.5	2285.0	2285.0	2300.3	2308.0	2320.7	2348.8	2376.9	2399.9	2427.9	2479.0
30°	2373.1	2368.0	2357.7	2375.6	2379.4	2390.9	2426.7	2456.0	2485.4	2522.4	2570.9
32.5°	2521.1	2512.2	2495.6	2496.9	2490.5	2499.4	2553.0	2572.2	2613.0	2651.3	2693.5
35°	2847.9	2816.0	2779.0	2756.0	2725.4	2697.3	2731.8	2758.6	2800.7	2839.0	2893.9
37.5°	3329.2	3269.2	3214.3	3188.8	3132.6	3058.5	3034.3	2996.0	3033.0	3096.8	3163.2
40°	3865.3	3865.3	3804.0	3733.8	3643.2	3519.4	3453.0	3387.9	3364.9	3386.6	3484.9
42.5°	4375.9	4392.5	4333.8	4261.0	4184.4	4055.5	3967.4	3912.5	3866.6	3843.6	3876.8
45°	4850.8	4912.1	4875.0	4794.6	4744.8	4691.2	4663.1	4563.6	4502.3	4410.4	4378.5
47.5°	5204.4	5264.4	5224.8	5107.4	5078.0	5069.1	5067.8	5002.7	4964.4	4878.9	4826.5
50°	5572.0	5660.1	5589.9	5383.1	5401.0	5407.4	5420.1	5402.2	5406.1	5386.9	5357.6
52.5°	6149.0	6157.9	5910.3	5743.1	5709.9	5717.5	5773.7	5801.8	5874.6	5812.0	5824.8
55°	6987.7	6715.8	6401.8	6272.8	6135.0	6076.3	6085.2	6168.2	6283.0	6226.9	6234.5
57.5°	7266.0	7311.9	7327.2	7061.7	6982.6	6814.1	6778.3	6606.0	6714.5	6636.6	6662.2
60°	7850.6	7979.5	7950.2	8015.3	7850.6	7844.2	7900.4	7522.6	7414.0	7199.6	7147.3
62.5°	8504.2	8502.9	8680.4	8730.1	8797.8	8694.4	8919.1	8876.9	8790.1	8164.6	7786.8
65°	8241.2	8236.1	8352.3	8744.2	8879.5	9176.9	9507.5	9964.5	10105.0	9807.5	9197.3
67.5°	7346.4	7379.6	7522.6	7988.5	8374.0	8905.0	9714.3	10565.8	10683.2	10384.5	9973.5
68°	7260.9	7240.4	7368.1	7739.6	8171.0	8787.6	9783.3	10636.0	10770.0	10435.6	10032.2
70°	6292.0	6271.6	6509.0	6930.2	7397.5	8292.3	9871.4	10618.1	10652.6	10347.5	9982.4
72.5°	4901.8	4877.6	5101.0	5441.8	5963.9	6934.1	9116.9	10152.2	10172.6	9884.1	9589.2
75°	3561.5	3532.1	3741.5	4042.7	4475.5	5329.5	7544.3	8852.7	9097.8	9131.0	9041.6
77.5°	2457.3	2518.6	2725.4	2943.7	3329.2	3976.4	5702.2	7075.8	7551.9	7851.9	8054.9
80°	1651.8	1752.7	1912.2	2119.0	2426.7	2934.7	4241.9	5287.4	5702.2	6002.2	6149.0
82.5°	1083.8	1099.1	1229.3	1408.0	1673.5	2082.0	2996.0	3751.7	3990.4	4028.7	3881.9
85°	569.3	614.0	694.4	806.8	972.7	1219.1	1659.5	2147.1	2235.2	2218.6	2004.1
87.5°	208.1	225.9	265.5	319.1	398.3	515.7	667.6	746.8	565.5	416.1	297.4
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9
2.5°	2190.5	2180.3	2179.0	2198.2	2193.1	2193.1	2190.5	2199.4	2190.5	2190.5	2203.3
5°	2195.6	2189.2	2189.2	2209.7	2214.8	2209.7	2214.8	2214.8	2212.2	2217.3	2226.3
7.5°	2194.3	2196.9	2198.2	2210.9	2226.3	2219.9	2235.2	2226.3	2237.7	2248.0	2250.5
10°	2194.3	2209.7	2216.0	2219.9	2233.9	2235.2	2246.7	2237.7	2255.6	2269.7	2272.2
12.5°	2217.3	2236.5	2259.4	2264.6	2276.0	2292.6	2293.9	2292.6	2315.6	2325.8	2337.3
15°	2255.6	2278.6	2306.7	2319.4	2334.8	2366.7	2362.8	2376.9	2402.4	2413.9	2434.3
17.5°	2296.5	2322.0	2355.2	2379.4	2402.4	2440.7	2438.2	2465.0	2490.5	2508.4	2531.3
20°	2333.5	2368.0	2406.2	2440.7	2479.0	2516.0	2523.7	2555.6	2591.3	2619.4	2638.6
22.5°	2376.9	2415.2	2457.3	2507.1	2555.6	2591.3	2624.5	2671.8	2711.3	2739.4	2750.9
25°	2445.8	2485.4	2532.6	2602.8	2656.4	2701.1	2762.4	2821.1	2858.1	2868.3	2864.5
27.5°	2532.6	2577.3	2634.7	2726.7	2785.4	2851.8	2939.8	2990.9	3011.3	2992.2	2942.4
30°	2633.5	2694.7	2766.2	2863.2	2939.8	3047.1	3154.3	3197.7	3174.7	3100.7	2992.2
32.5°	2772.6	2858.1	2942.4	3047.1	3173.4	3324.1	3435.1	3450.4	3362.4	3211.7	3039.4
35°	2992.2	3095.6	3202.8	3343.2	3574.3	3777.2	3867.9	3814.3	3626.6	3385.3	3126.2
37.5°	3287.0	3413.4	3573.0	3779.8	4123.2	4355.5	4393.8	4271.2	3993.0	3635.5	3251.3
40°	3633.0	3804.0	4015.9	4369.5	4737.2	4947.8	4935.0	4755.0	4397.6	3925.3	3418.5
42.5°	4067.0	4255.9	4522.7	4933.8	5348.6	5496.7	5435.4	5214.6	4792.1	4234.2	3601.1
45°	4490.8	4683.6	4984.8	5445.6	5843.9	5958.8	5861.8	5611.6	5145.7	4527.8	3807.9
47.5°	4914.6	5047.4	5430.3	5933.3	6307.3	6369.9	6228.2	5911.6	5439.3	4780.6	3957.2
50°	5413.7	5515.9	5915.4	6443.9	6722.2	6734.9	6584.3	6173.3	5646.1	4933.8	4069.6
52.5°	5882.2	6053.3	6466.9	6916.2	7087.3	7028.5	6858.8	6406.9	5796.7	5092.1	4101.5
55°	6335.4	6586.9	7037.5	7331.1	7400.0	7304.3	7042.6	6574.1	5921.8	5093.3	4074.7
57.5°	6772.0	7120.4	7541.7	7733.2	7702.5	7508.5	7116.6	6612.4	5934.6	5021.8	3967.4
60°	7249.4	7610.6	7979.5	8021.7	7888.9	7622.1	7180.4	6625.2	5860.5	4873.8	3784.9
62.5°	7772.7	8052.3	8264.2	8178.7	7993.6	7714.0	7207.2	6501.3	5736.7	4621.0	3361.1
65°	8487.6	8495.3	8476.1	8298.7	8016.6	7632.3	7094.9	6424.7	5426.5	4141.0	2615.6
67.5°	9544.6	8963.7	8541.2	8275.7	7964.2	7546.8	6962.2	6054.5	4896.7	3260.2	1499.9
68°	9636.5	9045.4	8522.1	8261.7	7954.0	7537.9	6895.8	5988.2	4734.6	3024.1	1263.8
70°	9658.2	9045.4	8405.9	8180.0	7913.2	7366.8	6544.7	5352.5	3867.9	1940.3	525.9
72.5°	9369.7	8712.3	8266.8	8108.5	7646.4	6786.0	5574.6	4079.8	2347.5	608.9	400.8
75°	8982.9	8315.3	7772.7	7306.8	6630.3	5418.8	4001.9	2347.5	685.5	297.4	348.5
77.5°	7835.3	7109.0	6486.0	5884.8	4854.6	3506.6	1982.4	598.7	215.7	238.7	293.6
80°	5579.7	4774.2	3869.1	3030.5	1746.3	666.3	240.0	153.2	155.7	181.3	236.2
82.5°	3067.5	2036.1	1215.3	471.0	163.4	140.4	126.4	104.7	109.8	146.8	172.3
85°	1336.5	644.6	195.3	118.7	103.4	94.5	80.4	72.8	93.2	97.0	93.2
87.5°	126.4	63.8	51.1	48.5	39.6	34.5	25.5	24.3	23.0	23.0	26.8
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°	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9	2210.9
2.5°	2200.7	2203.3	2213.5	2210.9	2218.6	2230.1	2231.4	2237.7	2245.4	2253.1	2263.3
5°	2236.5	2236.5	2241.6	2237.7	2244.1	2250.5	2260.7	2263.3	2273.5	2288.8	2302.8
7.5°	2263.3	2262.0	2263.3	2273.5	2281.1	2281.1	2291.4	2292.6	2302.8	2315.6	2327.1
10°	2290.1	2306.7	2301.6	2309.2	2311.8	2313.1	2318.2	2320.7	2334.8	2339.9	2348.8
12.5°	2348.8	2364.1	2355.2	2366.7	2368.0	2361.6	2353.9	2352.6	2352.6	2347.5	2343.7
15°	2434.3	2442.0	2436.9	2427.9	2421.6	2420.3	2396.0	2376.9	2360.3	2337.3	2319.4
17.5°	2530.1	2526.2	2512.2	2500.7	2475.2	2457.3	2425.4	2383.3	2345.0	2295.2	2260.7
20°	2632.2	2605.4	2597.7	2558.2	2512.2	2467.5	2416.5	2357.7	2288.8	2216.0	2157.3
22.5°	2722.8	2683.3	2647.5	2595.2	2523.7	2456.0	2376.9	2301.6	2214.8	2115.2	2030.9
25°	2808.4	2733.0	2671.8	2595.2	2502.0	2413.9	2314.3	2218.6	2105.0	1981.2	1871.4
27.5°	2855.6	2753.5	2653.9	2550.5	2444.5	2324.5	2214.8	2094.8	1960.7	1820.3	1688.8
30°	2860.7	2736.9	2606.7	2463.7	2336.0	2196.9	2068.0	1918.6	1771.8	1626.3	1526.7
32.5°	2863.2	2689.6	2516.0	2345.0	2188.0	2027.1	1879.0	1714.4	1590.5	1501.2	1424.6
35°	2865.8	2632.2	2410.1	2185.4	2006.7	1833.1	1677.4	1548.4	1460.3	1401.6	1340.3
37.5°	2893.9	2578.6	2295.2	2028.4	1830.5	1656.9	1526.7	1428.4	1368.4	1325.0	1279.1
40°	2925.8	2514.8	2173.9	1880.3	1676.1	1522.9	1425.9	1364.6	1319.9	1286.7	1249.7
42.5°	2948.8	2403.7	2008.0	1732.2	1535.7	1415.7	1360.8	1327.6	1302.1	1277.8	1237.0
45°	2989.6	2281.1	1821.6	1544.6	1405.5	1332.7	1309.7	1298.2	1279.1	1254.8	1210.1
47.5°	3038.1	2150.9	1632.7	1387.6	1288.0	1276.5	1275.2	1265.0	1238.2	1212.7	1166.7
50°	3063.7	2022.0	1433.5	1256.1	1215.3	1224.2	1231.8	1221.6	1182.1	1145.0	1104.2
52.5°	3142.8	1964.6	1253.5	1151.4	1154.0	1162.9	1168.0	1154.0	1115.7	1077.4	1035.3
55°	3269.2	1881.6	1119.5	1048.0	1071.0	1083.8	1096.5	1074.8	1049.3	1021.2	989.3
57.5°	3091.7	1576.5	980.4	951.0	965.1	976.5	985.5	985.5	985.5	988.0	965.1
60°	2503.3	1122.1	847.6	828.5	846.3	869.3	898.7	915.3	921.6	924.2	914.0
62.5°	1762.9	796.6	730.2	741.7	764.6	802.9	831.0	848.9	846.3	831.0	808.0
65°	986.8	662.5	674.0	708.5	727.6	758.3	783.8	794.0	774.8	751.9	731.4
67.5°	556.6	607.6	653.6	682.9	699.5	717.4	732.7	744.2	721.2	694.4	679.1
68°	542.5	600.0	648.5	674.0	690.6	708.5	720.0	727.6	703.4	679.1	666.3
70°	505.5	585.9	626.8	647.2	648.5	677.8	680.4	685.5	665.1	637.0	620.4
72.5°	463.4	555.3	575.7	592.3	606.3	616.6	640.8	630.6	605.1	580.8	542.5
75°	427.6	476.1	495.3	533.6	543.8	560.4	573.2	548.9	510.6	487.6	464.7
77.5°	371.5	395.7	416.1	423.8	454.4	467.2	481.2	481.2	458.3	460.8	426.4
80°	285.9	288.5	280.8	303.8	344.7	361.3	366.4	356.1	372.7	370.2	356.1
82.5°	164.7	153.2	165.9	172.3	192.8	208.1	233.6	255.3	257.9	250.2	265.5
85°	68.9	61.3	70.2	80.4	102.1	126.4	155.7	167.2	164.7	159.6	146.8
87.5°	28.1	28.1	33.2	39.6	52.3	66.4	75.3	88.1	95.7	98.3	91.9
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°	2210.9	2210.9	2210.9	2210.9
2.5°	2267.1	2265.8	2264.6	2262.0
5°	2306.7	2308.0	2308.0	2306.7
7.5°	2336.0	2342.4	2343.7	2343.7
10°	2359.0	2364.1	2365.4	2364.1
12.5°	2351.4	2352.6	2357.7	2359.0
15°	2315.6	2306.7	2304.1	2302.8
17.5°	2231.4	2208.4	2189.2	2180.3
20°	2098.6	2053.9	2016.9	2008.0
22.5°	1950.5	1881.6	1833.1	1816.5
25°	1771.8	1686.3	1633.9	1617.4
27.5°	1596.9	1512.7	1475.7	1455.2
30°	1452.7	1390.1	1349.3	1328.9
32.5°	1356.9	1295.7	1253.5	1234.4
35°	1277.8	1214.0	1157.8	1132.3
37.5°	1225.5	1150.1	1085.0	1059.5
40°	1194.8	1127.2	1057.0	1028.9
42.5°	1179.5	1122.1	1059.5	1028.9
45°	1155.3	1094.0	1040.4	1007.2
47.5°	1118.2	1060.8	1007.2	976.5
50°	1050.6	991.9	948.5	924.2
52.5°	979.1	914.0	868.0	841.2
55°	930.6	865.5	829.7	811.9
57.5°	921.6	860.4	824.6	804.2
60°	869.3	810.6	764.6	742.9
62.5°	757.0	699.5	663.8	649.8
65°	686.8	631.9	597.4	587.2
67.5°	640.8	583.4	547.6	540.0
68°	629.3	571.9	541.2	531.0
70°	577.0	522.1	495.3	485.1
72.5°	465.9	412.3	376.6	363.8
75°	405.9	347.2	317.9	311.5
77.5°	356.1	287.2	257.9	251.5
80°	288.5	227.2	155.7	145.5
82.5°	215.7	139.1	116.2	106.0
85°	125.1	95.7	75.3	70.2
87.5°	79.1	66.4	57.4	53.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)