

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: P189862

Luminaire Tested: **VERD-M-A03-E-U-T4-7030-AP**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P189862
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-T4-7030-AP
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 3000K LEDS AND TYPE IV OPTICS, GREY PAINTED FINISH
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21375 lumens
Efficiency: N/A
Efficacy: 117.4 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

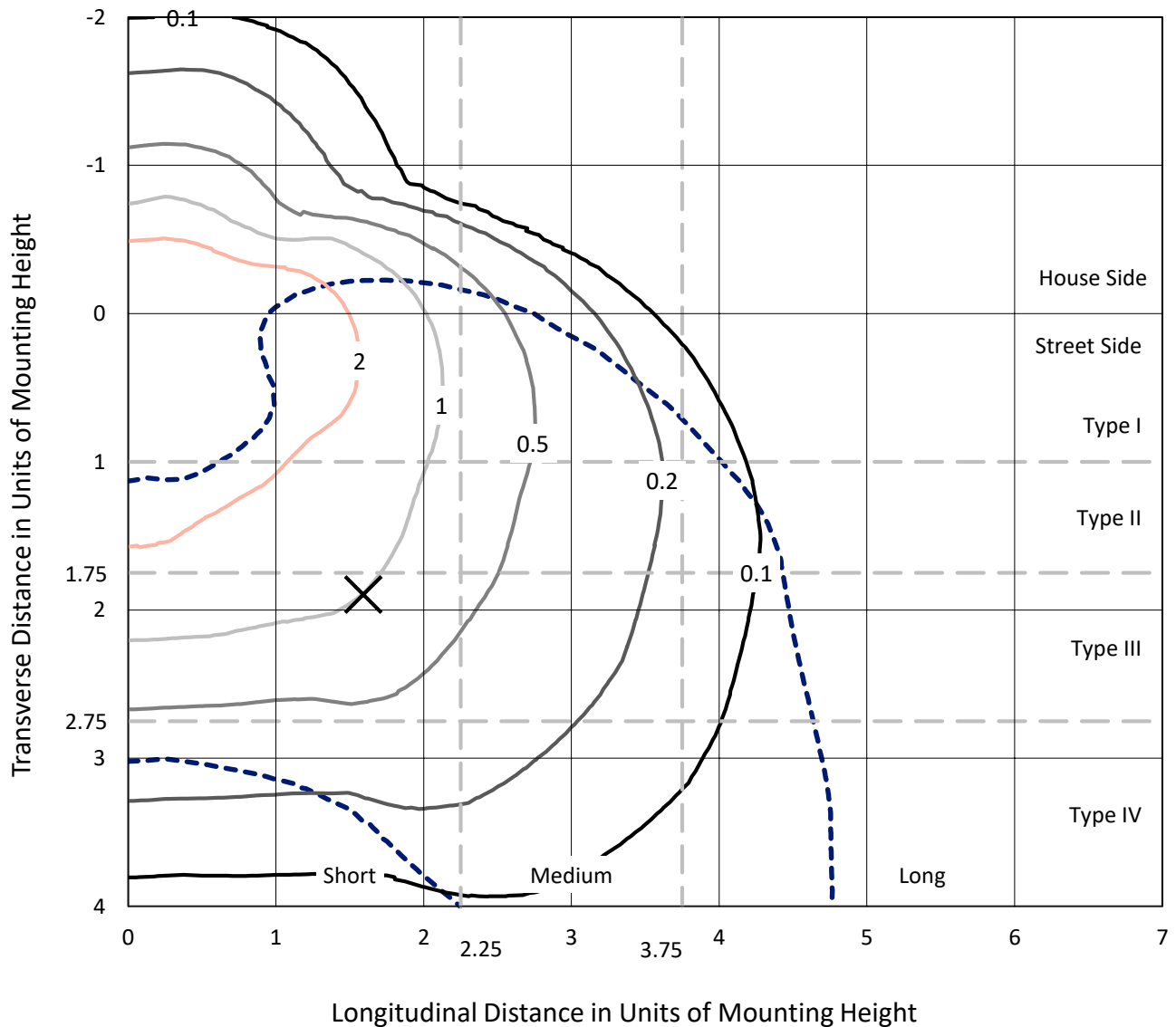
Input Watts (W): 182
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

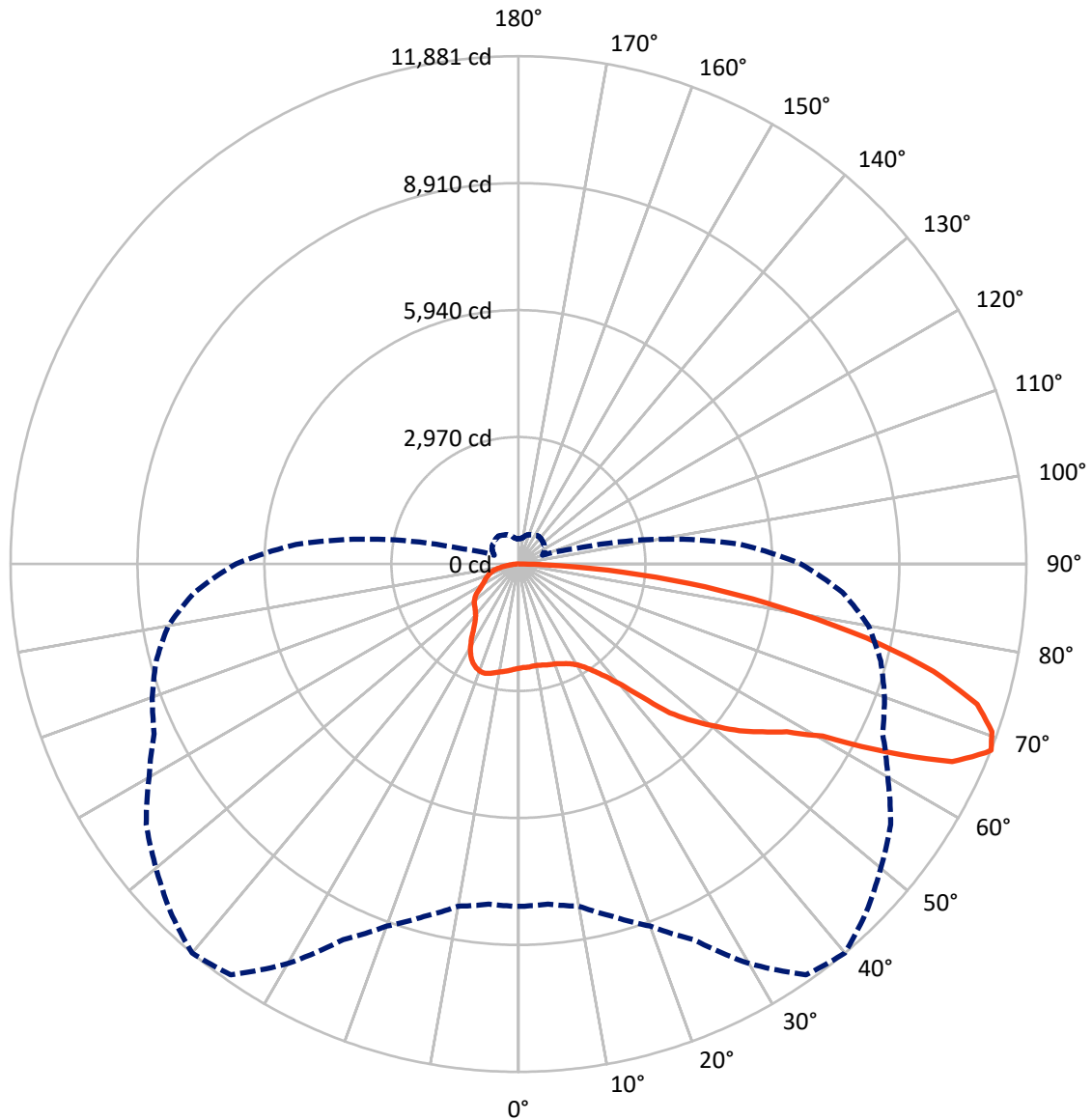
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 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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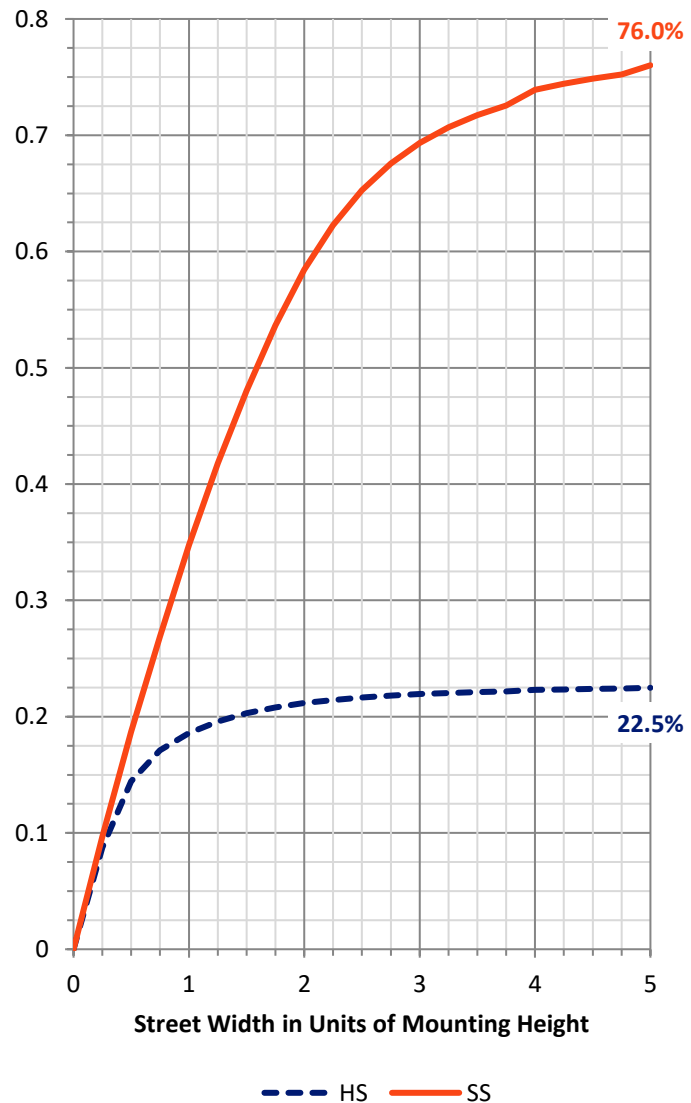
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4864.5	0.0	4864.5
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	16510.5	0.0	16510.5
	% Fixture	77.2	0.0	77.2
Total	Lumens	21375.0	0.0	21375.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.7	1.1
10°-20°	723.6	3.4
20°-30°	1218.1	5.7
30°-40°	1826.1	8.5
40°-50°	2991.3	14.0
50°-60°	4265.8	20.0
60°-70°	5375.1	25.1
70°-80°	3949.2	18.5
80°-90°	790.1	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°	21375.0	100.0
0°-180°	21375.0	100.0



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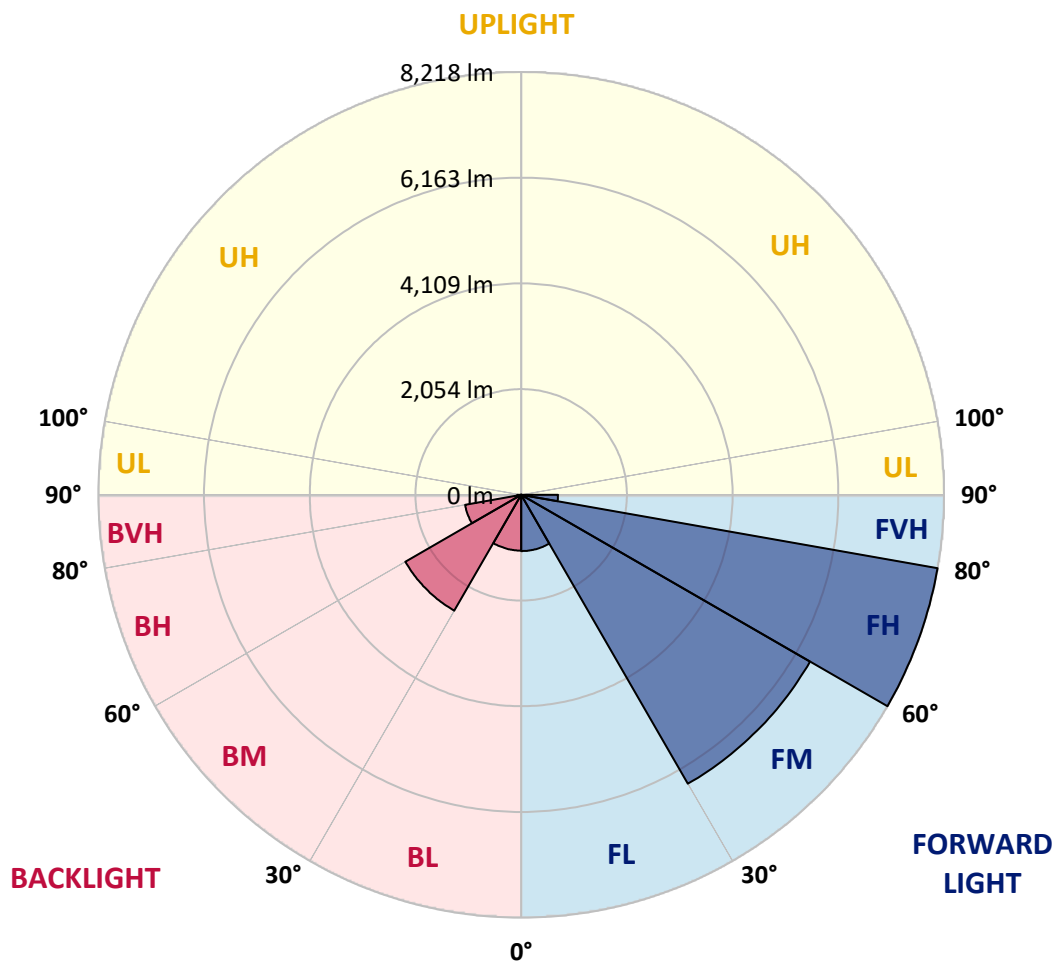
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1093.5	5.1			
FM	(30°-60°)	6482.6	30.3			
FH	(60°-80°)	8217.9	38.4			G4/12000
FVH	(80°-90°)	716.5	3.4			G4/750
BL	(0°-30°)	1083.9	5.1	B3/2500		
BM	(30°-60°)	2600.6	12.2	B3/5000		
BH	(60°-80°)	1106.4	5.2	B3/2500		G3/2500
BVH	(80°-90°)	73.6	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°	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9
2.5°	2450.2	2448.8	2437.5	2434.7	2424.8	2426.2	2423.4	2419.2	2420.6	2412.2	2412.2
5°	2447.4	2447.4	2436.1	2433.3	2427.6	2433.3	2431.9	2423.4	2426.2	2424.8	2423.4
7.5°	2424.8	2422.0	2409.3	2407.9	2403.7	2412.2	2415.0	2407.9	2410.7	2420.6	2423.4
10°	2405.1	2406.5	2395.3	2395.3	2392.4	2406.5	2413.6	2409.3	2412.2	2426.2	2427.6
12.5°	2374.1	2378.4	2371.3	2374.1	2375.5	2395.3	2413.6	2419.2	2426.2	2438.9	2446.0
15°	2360.1	2361.5	2357.2	2362.9	2369.9	2392.4	2415.0	2431.9	2450.2	2468.5	2479.7
17.5°	2382.6	2381.2	2374.1	2375.5	2379.8	2399.5	2427.6	2453.0	2469.9	2488.2	2509.3
20°	2389.6	2393.9	2389.6	2393.9	2400.9	2422.0	2458.6	2481.2	2493.8	2510.7	2538.9
22.5°	2433.3	2427.6	2426.2	2430.5	2429.1	2448.8	2481.2	2515.0	2536.1	2545.9	2575.5
25°	2476.9	2472.7	2472.7	2481.2	2481.2	2496.6	2527.6	2555.8	2579.7	2610.7	2650.1
27.5°	2523.4	2520.6	2520.6	2537.5	2545.9	2560.0	2591.0	2622.0	2647.3	2678.3	2734.6
30°	2617.7	2612.1	2600.8	2620.6	2624.8	2637.5	2676.9	2709.3	2741.7	2782.5	2836.0
32.5°	2781.1	2771.2	2752.9	2754.3	2747.3	2757.2	2816.3	2837.4	2882.5	2924.7	2971.2
35°	3141.6	3106.4	3065.5	3040.2	3006.4	2975.4	3013.4	3043.0	3089.5	3131.7	3192.3
37.5°	3672.4	3606.3	3545.7	3517.6	3455.6	3373.9	3347.2	3304.9	3345.8	3416.2	3489.4
40°	4263.9	4263.9	4196.3	4118.8	4018.9	3882.3	3809.0	3737.2	3711.9	3735.8	3844.2
42.5°	4827.1	4845.4	4780.7	4700.4	4615.9	4473.7	4376.5	4316.0	4265.3	4239.9	4276.5
45°	5351.0	5418.6	5377.7	5289.0	5234.1	5174.9	5144.0	5034.1	4966.5	4865.2	4829.9
47.5°	5741.0	5807.2	5763.5	5634.0	5601.6	5591.8	5590.3	5518.5	5476.3	5381.9	5324.2
50°	6146.6	6243.7	6166.3	5938.2	5957.9	5964.9	5979.0	5959.3	5963.5	5942.4	5910.0
52.5°	6783.0	6792.9	6519.7	6335.3	6298.6	6307.1	6369.1	6400.0	6480.3	6411.3	6425.4
55°	7708.2	7408.3	7061.9	6919.6	6767.6	6702.8	6712.6	6804.2	6930.9	6868.9	6877.4
57.5°	8015.2	8065.9	8082.8	7789.9	7702.6	7516.7	7477.3	7287.2	7406.9	7321.0	7349.1
60°	8660.1	8802.3	8769.9	8841.8	8660.1	8653.1	8715.0	8298.2	8178.5	7942.0	7884.2
62.5°	9381.1	9379.7	9575.4	9630.3	9705.0	9590.9	9838.7	9792.3	9696.5	9006.5	8589.7
65°	9091.0	9085.4	9213.5	9645.8	9795.1	10123.2	10487.9	10992.0	11146.9	10818.8	10145.7
67.5°	8103.9	8140.5	8298.2	8812.2	9237.5	9823.2	10716.0	11655.2	11784.8	11455.3	11001.9
68°	8009.5	7987.0	8127.8	8537.6	9013.6	9693.7	10792.0	11732.7	11880.5	11511.6	11066.6
70°	6940.8	6918.2	7180.1	7644.8	8160.2	9147.3	10889.2	11713.0	11751.0	11414.4	11011.7
72.5°	5407.3	5380.5	5627.0	6002.9	6578.9	7649.1	10057.0	11199.0	11221.5	10903.3	10578.0
75°	3928.7	3896.3	4127.3	4459.6	4937.0	5879.0	8322.2	9765.5	10035.9	10072.5	9973.9
77.5°	2710.7	2778.3	3006.4	3247.2	3672.4	4386.4	6290.2	7805.4	8330.6	8661.5	8885.4
80°	1822.1	1933.4	2109.4	2337.5	2676.9	3237.3	4679.3	5832.5	6290.2	6621.1	6783.0
82.5°	1195.5	1212.4	1356.0	1553.2	1846.1	2296.7	3304.9	4138.5	4401.9	4444.1	4282.2
85°	628.0	677.3	766.0	889.9	1073.0	1344.8	1830.6	2368.5	2465.7	2447.4	2210.8
87.5°	229.5	249.2	292.9	352.0	439.3	568.9	736.5	823.8	623.8	459.1	328.1
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°	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9
2.5°	2416.4	2405.1	2403.7	2424.8	2419.2	2419.2	2416.4	2426.2	2416.4	2416.4	2430.5
5°	2422.0	2415.0	2415.0	2437.5	2443.1	2437.5	2443.1	2443.1	2440.3	2446.0	2455.8
7.5°	2420.6	2423.4	2424.8	2438.9	2455.8	2448.8	2465.7	2455.8	2468.5	2479.7	2482.6
10°	2420.6	2437.5	2444.5	2448.8	2464.3	2465.7	2478.3	2468.5	2488.2	2503.7	2506.5
12.5°	2446.0	2467.1	2492.4	2498.1	2510.7	2529.0	2530.4	2529.0	2554.4	2565.6	2578.3
15°	2488.2	2513.5	2544.5	2558.6	2575.5	2610.7	2606.5	2622.0	2650.1	2662.8	2685.3
17.5°	2533.3	2561.4	2598.0	2624.8	2650.1	2692.4	2689.6	2719.1	2747.3	2767.0	2792.4
20°	2574.1	2612.1	2654.4	2692.4	2734.6	2775.5	2783.9	2819.1	2858.5	2889.5	2910.6
22.5°	2622.0	2664.2	2710.7	2765.6	2819.1	2858.5	2895.2	2947.3	2990.9	3021.9	3034.6
25°	2698.0	2741.7	2793.8	2871.2	2930.4	2979.6	3047.2	3112.0	3152.8	3164.1	3159.9
27.5°	2793.8	2843.1	2906.4	3007.8	3072.6	3145.8	3243.0	3299.3	3321.8	3300.7	3245.8
30°	2905.0	2972.6	3051.5	3158.5	3243.0	3361.2	3479.5	3527.4	3502.1	3420.4	3300.7
32.5°	3058.5	3152.8	3245.8	3361.2	3500.7	3666.8	3789.3	3806.2	3709.1	3542.9	3352.8
35°	3300.7	3414.8	3533.0	3687.9	3942.8	4166.7	4266.7	4207.5	4000.5	3734.4	3448.6
37.5°	3626.0	3765.4	3941.4	4169.5	4548.3	4804.6	4846.8	4711.7	4404.7	4010.4	3586.6
40°	4007.6	4196.3	4430.0	4820.1	5225.6	5458.0	5443.9	5245.4	4851.1	4330.1	3771.0
42.5°	4486.4	4694.8	4989.1	5442.5	5900.1	6063.5	5995.9	5752.3	5286.2	4670.8	3972.4
45°	4953.9	5166.5	5498.8	6007.2	6446.5	6573.2	6466.2	6190.2	5676.2	4994.7	4200.5
47.5°	5421.4	5567.8	5990.3	6545.1	6957.7	7026.7	6870.4	6521.1	6000.1	5273.5	4365.3
50°	5972.0	6084.6	6525.4	7108.3	7415.3	7429.4	7263.2	6809.8	6228.2	5442.5	4489.2
52.5°	6488.7	6677.4	7133.7	7629.3	7818.0	7753.3	7566.0	7067.5	6394.4	5617.1	4524.4
55°	6988.6	7266.0	7763.1	8087.0	8163.0	8057.4	7768.8	7252.0	6532.4	5618.5	4494.8
57.5°	7470.2	7854.6	8319.3	8530.6	8496.8	8282.7	7850.4	7294.2	6546.5	5539.7	4376.5
60°	7996.9	8395.4	8802.3	8848.8	8702.4	8408.1	7920.8	7308.3	6464.8	5376.3	4175.2
62.5°	8574.2	8882.6	9116.3	9022.0	8817.8	8509.4	7950.4	7171.7	6328.2	5097.5	3707.7
65°	9362.8	9371.2	9350.1	9154.4	8843.2	8419.3	7826.5	7087.2	5986.0	4568.0	2885.3
67.5°	10528.7	9888.0	9421.9	9129.0	8785.4	8325.0	7680.0	6678.8	5401.7	3596.4	1654.6
68°	10630.1	9978.1	9400.8	9113.5	8774.2	8315.1	7606.8	6605.6	5222.8	3335.9	1394.1
70°	10654.0	9978.1	9272.7	9023.4	8729.1	8126.4	7219.6	5904.4	4266.7	2140.4	580.2
72.5°	10335.8	9610.6	9119.2	8944.6	8434.8	7485.7	6149.4	4500.4	2589.6	671.7	442.2
75°	9909.1	9172.7	8574.2	8060.2	7313.9	5977.6	4414.5	2589.6	756.2	328.1	384.4
77.5°	8643.2	7842.0	7154.8	6491.6	5355.2	3868.2	2186.9	660.4	238.0	263.3	323.9
80°	6155.0	5266.5	4268.1	3342.9	1926.3	735.1	264.7	169.0	171.8	200.0	260.5
82.5°	3383.8	2246.0	1340.6	519.6	180.2	154.9	139.4	115.5	121.1	161.9	190.1
85°	1474.3	711.1	215.4	131.0	114.1	104.2	88.7	80.3	102.8	107.0	102.8
87.5°	139.4	70.4	56.3	53.5	43.7	38.0	28.2	26.8	25.3	25.3	29.6
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°	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9	2438.9
2.5°	2427.6	2430.5	2441.7	2438.9	2447.4	2460.0	2461.4	2468.5	2476.9	2485.4	2496.6
5°	2467.1	2467.1	2472.7	2468.5	2475.5	2482.6	2493.8	2496.6	2507.9	2524.8	2540.3
7.5°	2496.6	2495.2	2496.6	2507.9	2516.4	2516.4	2527.6	2529.0	2540.3	2554.4	2567.1
10°	2526.2	2544.5	2538.9	2547.3	2550.2	2551.6	2557.2	2560.0	2575.5	2581.1	2591.0
12.5°	2591.0	2607.9	2598.0	2610.7	2612.1	2605.1	2596.6	2595.2	2595.2	2589.6	2585.4
15°	2685.3	2693.8	2688.2	2678.3	2671.3	2669.8	2643.1	2622.0	2603.7	2578.3	2558.6
17.5°	2790.9	2786.7	2771.2	2758.6	2730.4	2710.7	2675.5	2629.0	2586.8	2531.8	2493.8
20°	2903.6	2874.0	2865.6	2821.9	2771.2	2721.9	2665.6	2600.8	2524.8	2444.5	2379.8
22.5°	3003.6	2959.9	2920.5	2862.8	2783.9	2709.3	2622.0	2538.9	2443.1	2333.3	2240.4
25°	3097.9	3014.8	2947.3	2862.8	2760.0	2662.8	2553.0	2447.4	2322.0	2185.4	2064.3
27.5°	3150.0	3037.4	2927.5	2813.5	2696.6	2564.2	2443.1	2310.8	2162.9	2008.0	1863.0
30°	3155.7	3019.1	2875.4	2717.7	2576.9	2423.4	2281.2	2116.4	1954.5	1794.0	1684.1
32.5°	3158.5	2967.0	2775.5	2586.8	2413.6	2236.1	2072.8	1891.1	1754.6	1656.0	1571.5
35°	3161.3	2903.6	2658.6	2410.7	2213.6	2022.1	1850.3	1708.1	1610.9	1546.1	1478.6
37.5°	3192.3	2844.5	2531.8	2237.5	2019.3	1827.8	1684.1	1575.7	1509.5	1461.7	1411.0
40°	3227.5	2774.1	2398.1	2074.2	1848.9	1679.9	1572.9	1505.3	1456.0	1419.4	1378.6
42.5°	3252.8	2651.5	2215.0	1910.9	1694.0	1561.6	1501.1	1464.5	1436.3	1409.6	1364.5
45°	3297.9	2516.4	2009.4	1703.9	1550.4	1470.1	1444.8	1432.1	1411.0	1384.2	1334.9
47.5°	3351.4	2372.7	1801.0	1530.7	1420.8	1408.1	1406.7	1395.5	1365.9	1337.7	1287.0
50°	3379.6	2230.5	1581.4	1385.6	1340.6	1350.4	1358.9	1347.6	1303.9	1263.1	1218.0
52.5°	3466.9	2167.1	1382.8	1270.1	1273.0	1282.8	1288.5	1273.0	1230.7	1188.5	1142.0
55°	3606.3	2075.6	1234.9	1156.1	1181.4	1195.5	1209.6	1185.7	1157.5	1126.5	1091.3
57.5°	3410.5	1739.1	1081.5	1049.1	1064.6	1077.2	1087.1	1087.1	1087.1	1089.9	1064.6
60°	2761.4	1237.8	935.0	913.9	933.6	958.9	991.3	1009.6	1016.7	1019.5	1008.2
62.5°	1944.7	878.7	805.5	818.1	843.5	885.7	916.7	936.4	933.6	916.7	891.4
65°	1088.5	730.8	743.5	781.5	802.6	836.4	864.6	875.9	854.7	829.4	806.9
67.5°	614.0	670.3	721.0	753.4	771.7	791.4	808.3	821.0	795.6	766.0	749.1
68°	598.5	661.8	715.3	743.5	761.8	781.5	794.2	802.6	775.9	749.1	735.1
70°	557.6	646.3	691.4	713.9	715.3	747.7	750.5	756.2	733.6	702.7	684.4
72.5°	511.2	612.5	635.1	653.4	668.9	680.1	706.9	695.6	667.5	640.7	598.5
75°	471.7	525.2	546.4	588.6	599.9	618.2	632.3	605.5	563.3	537.9	512.6
77.5°	409.8	436.5	459.1	467.5	501.3	515.4	530.9	530.9	505.5	508.3	470.3
80°	315.4	318.2	309.8	335.1	380.2	398.5	404.1	392.9	411.2	408.4	392.9
82.5°	181.7	169.0	183.1	190.1	212.6	229.5	257.7	281.6	284.4	276.0	292.9
85°	76.0	67.6	77.4	88.7	112.7	139.4	171.8	184.5	181.7	176.0	161.9
87.5°	31.0	31.0	36.6	43.7	57.7	73.2	83.1	97.2	105.6	108.4	101.4
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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CATALOG NUMBER: VERD-M-A03-E-U-T4-7030-AP

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2438.9	2438.9	2438.9	2438.9
2.5°	2500.9	2499.5	2498.1	2495.2
5°	2544.5	2545.9	2545.9	2544.5
7.5°	2576.9	2584.0	2585.4	2585.4
10°	2602.3	2607.9	2609.3	2607.9
12.5°	2593.8	2595.2	2600.8	2602.3
15°	2554.4	2544.5	2541.7	2540.3
17.5°	2461.4	2436.1	2415.0	2405.1
20°	2315.0	2265.7	2224.9	2215.0
22.5°	2151.7	2075.6	2022.1	2003.8
25°	1954.5	1860.2	1802.4	1784.1
27.5°	1761.6	1668.7	1627.8	1605.3
30°	1602.5	1533.5	1488.4	1465.9
32.5°	1496.9	1429.3	1382.8	1361.7
35°	1409.6	1339.1	1277.2	1249.0
37.5°	1351.8	1268.7	1196.9	1168.8
40°	1318.0	1243.4	1165.9	1135.0
42.5°	1301.1	1237.8	1168.8	1135.0
45°	1274.4	1206.8	1147.6	1111.0
47.5°	1233.5	1170.2	1111.0	1077.2
50°	1158.9	1094.1	1046.3	1019.5
52.5°	1080.0	1008.2	957.5	928.0
55°	1026.5	954.7	915.3	895.6
57.5°	1016.7	949.1	909.7	887.1
60°	958.9	894.2	843.5	819.5
62.5°	835.0	771.7	732.2	716.7
65°	757.6	697.0	659.0	647.7
67.5°	706.9	643.5	604.1	595.6
68°	694.2	630.9	597.1	585.8
70°	636.5	575.9	546.4	535.1
72.5°	514.0	454.8	415.4	401.3
75°	447.8	383.0	350.6	343.6
77.5°	392.9	316.8	284.4	277.4
80°	318.2	250.7	171.8	160.5
82.5°	238.0	153.5	128.1	116.9
85°	138.0	105.6	83.1	77.4
87.5°	87.3	73.2	63.4	59.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)