

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: P189866

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P189866
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-AP
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 4000K LEDS AND TYPE IV OPTICS, GREY PAINTED FINISH
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22233 lumens
Efficiency: N/A
Efficacy: 122.2 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

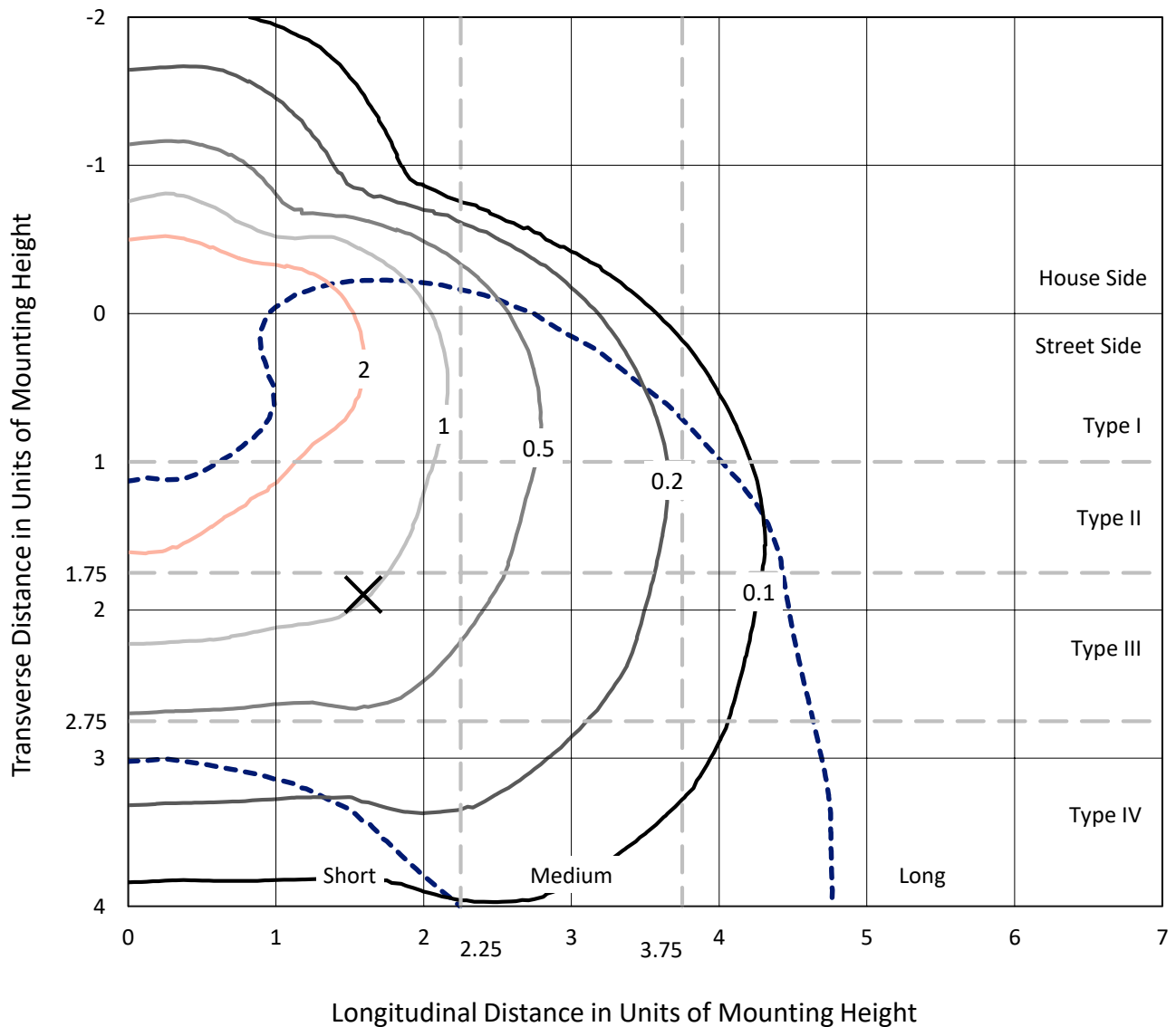


REPORT NUMBER: P189866

CATALOG NUMBER: VERD-M-A03-E-U-T4-AP

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

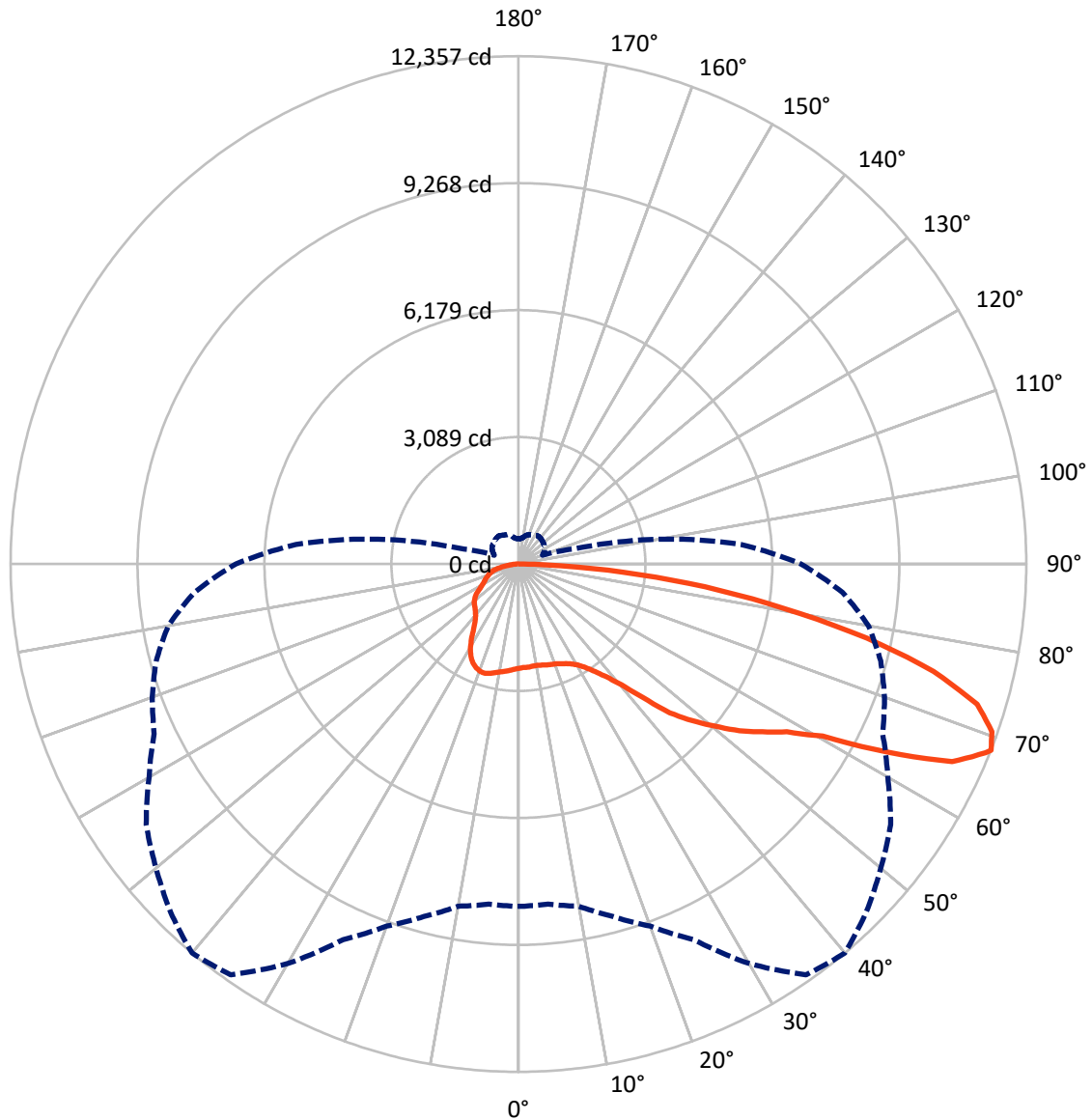


Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P189866

CATALOG NUMBER: VERD-M-A03-E-U-T4-AP

Luminous Intensity Polar Plot



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

REPORT NUMBER: P189866

CATALOG NUMBER: VERD-M-A03-E-U-T4-AP

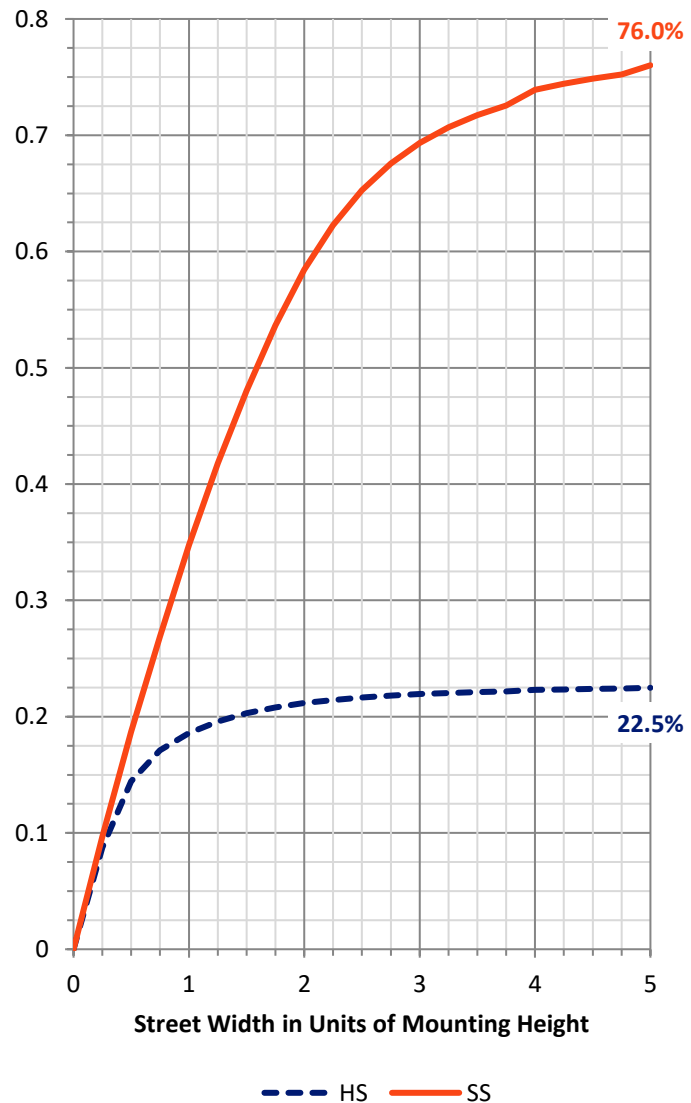
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5059.8	0.0	5059.8
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	17173.2	0.0	17173.2
	% Fixture	77.2	0.0	77.2
Total	Lumens	22233.0	0.0	22233.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.2	1.1
10°-20°	752.7	3.4
20°-30°	1267.0	5.7
30°-40°	1899.4	8.5
40°-50°	3111.4	14.0
50°-60°	4437.0	20.0
60°-70°	5590.8	25.1
70°-80°	4107.8	18.5
80°-90°	821.8	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°	22233.0	100.0
0°-180°	22233.0	100.0



REPORT NUMBER: P189866

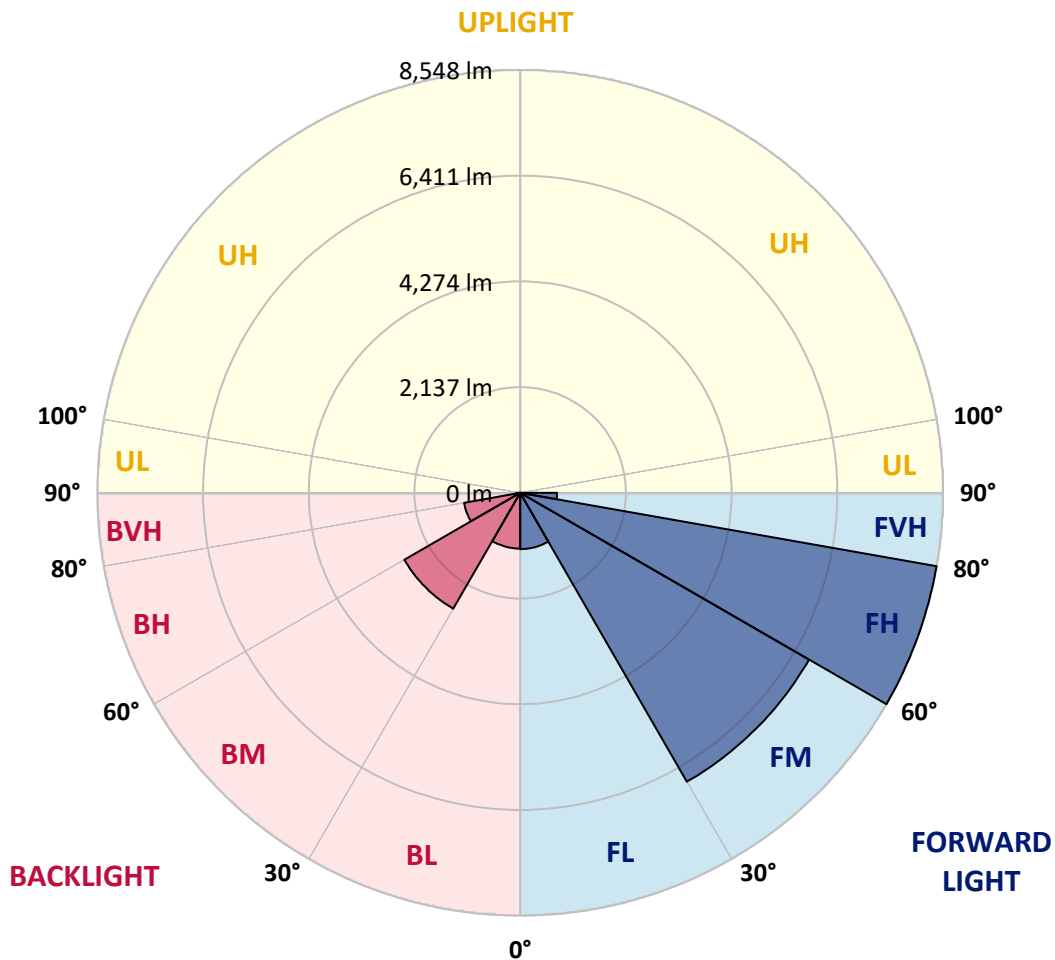
CATALOG NUMBER: VERD-M-A03-E-U-T4-AP

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1137.4	5.1			
FM	(30°-60°)	6742.8	30.3			
FH	(60°-80°)	8547.8	38.4			G4/12000
FVH	(80°-90°)	745.2	3.4			G4/750
BL	(0°-30°)	1127.4	5.1	B3/2500		
BM	(30°-60°)	2705.0	12.2	B3/5000		
BH	(60°-80°)	1150.8	5.2	B3/2500		G3/2500
BVH	(80°-90°)	76.6	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





REPORT NUMBER: P189866

CATALOG NUMBER: VERD-M-A03-E-U-T4-AP

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8
2.5°	2548.5	2547.1	2535.3	2532.4	2522.2	2523.6	2520.7	2516.3	2517.8	2509.0	2509.0
5°	2545.6	2545.6	2533.9	2531.0	2525.1	2531.0	2529.5	2520.7	2523.6	2522.2	2520.7
7.5°	2522.2	2519.2	2506.1	2504.6	2500.2	2509.0	2511.9	2504.6	2507.5	2517.8	2520.7
10°	2501.7	2503.1	2491.4	2491.4	2488.5	2503.1	2510.4	2506.1	2509.0	2523.6	2525.1
12.5°	2469.4	2473.8	2466.5	2469.4	2470.9	2491.4	2510.4	2516.3	2523.6	2536.8	2544.1
15°	2454.8	2456.3	2451.9	2457.7	2465.0	2488.5	2511.9	2529.5	2548.5	2567.6	2579.3
17.5°	2478.2	2476.8	2469.4	2470.9	2475.3	2495.8	2525.1	2551.5	2569.0	2588.1	2610.0
20°	2485.5	2489.9	2485.5	2489.9	2497.3	2519.2	2557.3	2580.8	2593.9	2611.5	2640.8
22.5°	2531.0	2525.1	2523.6	2528.0	2526.6	2547.1	2580.8	2615.9	2637.9	2648.1	2678.9
25°	2576.4	2572.0	2572.0	2580.8	2580.8	2596.9	2629.1	2658.4	2683.3	2715.5	2756.5
27.5°	2624.7	2621.8	2621.8	2639.3	2648.1	2662.8	2695.0	2727.2	2753.6	2785.8	2844.4
30°	2722.8	2717.0	2705.2	2725.8	2730.1	2743.3	2784.3	2818.0	2851.7	2894.2	2949.8
32.5°	2892.7	2882.5	2863.4	2864.9	2857.6	2867.8	2929.3	2951.3	2998.2	3042.1	3090.5
35°	3267.7	3231.1	3188.6	3162.2	3127.1	3094.9	3134.4	3165.2	3213.5	3257.4	3320.4
37.5°	3819.9	3751.0	3688.0	3658.7	3594.3	3509.4	3481.5	3437.6	3480.1	3553.3	3629.5
40°	4435.0	4435.0	4364.7	4284.2	4180.2	4038.1	3961.9	3887.2	3860.9	3885.8	3998.6
42.5°	5020.9	5039.9	4972.6	4889.1	4801.2	4653.3	4552.2	4489.2	4436.5	4410.1	4448.2
45°	5565.8	5636.1	5593.6	5501.3	5444.2	5382.7	5350.4	5236.2	5165.9	5060.4	5023.8
47.5°	5971.5	6040.3	5994.9	5860.2	5826.5	5816.2	5814.7	5740.0	5696.1	5598.0	5537.9
50°	6393.3	6494.4	6413.8	6176.5	6197.0	6204.3	6219.0	6198.5	6202.9	6180.9	6147.2
52.5°	7055.3	7065.6	6781.4	6589.6	6551.5	6560.3	6624.7	6656.9	6740.4	6668.6	6683.3
55°	8017.6	7705.6	7345.3	7197.4	7039.2	6971.8	6982.1	7077.3	7209.1	7144.7	7153.5
57.5°	8336.9	8389.6	8407.2	8102.6	8011.8	7818.4	7777.4	7579.7	7704.2	7614.8	7644.1
60°	9007.7	9155.7	9122.0	9196.7	9007.7	9000.4	9064.9	8631.3	8506.8	8260.7	8200.7
62.5°	9757.6	9756.2	9959.8	10016.9	10094.5	9975.9	10233.7	10185.3	10085.7	9368.0	8934.5
65°	9455.9	9450.1	9583.3	10033.0	10188.3	10529.5	10908.9	11433.2	11594.3	11253.1	10553.0
67.5°	8429.2	8467.3	8631.3	9165.9	9608.2	10217.5	11146.1	12123.1	12257.8	11915.1	11443.5
68°	8331.1	8307.6	8454.1	8880.3	9375.4	10082.8	11225.2	12203.6	12357.4	11973.7	11510.9
70°	7219.4	7195.9	7468.4	7951.7	8487.8	9514.5	11326.3	12183.1	12222.7	11872.6	11453.7
72.5°	5624.3	5596.5	5852.8	6243.9	6842.9	7956.1	10460.7	11648.5	11672.0	11341.0	11002.6
75°	4086.4	4052.7	4293.0	4638.6	5135.1	6115.0	8656.2	10157.5	10438.7	10476.8	10374.3
77.5°	2819.5	2889.8	3127.1	3377.5	3819.9	4562.5	6542.7	8118.7	8665.0	9009.2	9242.1
80°	1895.3	2011.0	2194.1	2431.4	2784.3	3367.3	4867.1	6066.7	6542.7	6886.9	7055.3
82.5°	1243.5	1261.1	1410.5	1615.5	1920.2	2388.9	3437.6	4304.7	4578.6	4622.5	4454.1
85°	653.2	704.5	796.8	925.7	1116.1	1398.8	1904.1	2463.6	2564.6	2545.6	2299.5
87.5°	238.7	259.2	304.7	366.2	457.0	591.7	766.0	856.8	648.8	477.5	341.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P189866

CATALOG NUMBER: VERD-M-A03-E-U-T4-AP

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8
2.5°	2513.4	2501.7	2500.2	2522.2	2516.3	2516.3	2513.4	2523.6	2513.4	2513.4	2528.0
5°	2519.2	2511.9	2511.9	2535.3	2541.2	2535.3	2541.2	2541.2	2538.3	2544.1	2554.4
7.5°	2517.8	2520.7	2522.2	2536.8	2554.4	2547.1	2564.6	2554.4	2567.6	2579.3	2582.2
10°	2517.8	2535.3	2542.7	2547.1	2563.2	2564.6	2577.8	2567.6	2588.1	2604.2	2607.1
12.5°	2544.1	2566.1	2592.5	2598.3	2611.5	2630.5	2632.0	2630.5	2656.9	2668.6	2681.8
15°	2588.1	2614.4	2646.7	2661.3	2678.9	2715.5	2711.1	2727.2	2756.5	2769.7	2793.1
17.5°	2634.9	2664.2	2702.3	2730.1	2756.5	2800.5	2797.5	2828.3	2857.6	2878.1	2904.4
20°	2677.4	2717.0	2760.9	2800.5	2844.4	2886.9	2895.7	2932.3	2973.3	3005.5	3027.5
22.5°	2727.2	2771.2	2819.5	2876.6	2932.3	2973.3	3011.4	3065.6	3111.0	3143.2	3156.4
25°	2806.3	2851.7	2905.9	2986.5	3048.0	3099.2	3169.5	3236.9	3279.4	3291.1	3286.7
27.5°	2905.9	2957.2	3023.1	3128.5	3195.9	3272.1	3373.1	3431.7	3455.2	3433.2	3376.1
30°	3021.6	3091.9	3173.9	3285.3	3373.1	3496.2	3619.2	3669.0	3642.6	3557.7	3433.2
32.5°	3181.3	3279.4	3376.1	3496.2	3641.2	3814.0	3941.4	3959.0	3857.9	3685.1	3487.4
35°	3433.2	3551.8	3674.9	3836.0	4101.1	4334.0	4438.0	4376.4	4161.1	3884.3	3587.0
37.5°	3771.5	3916.5	4099.6	4336.9	4730.9	4997.5	5041.4	4900.8	4581.5	4171.4	3730.5
40°	4168.5	4364.7	4607.9	5013.6	5435.4	5677.1	5662.4	5455.9	5045.8	4503.9	3922.4
42.5°	4666.4	4883.2	5189.3	5661.0	6137.0	6306.9	6236.6	5983.2	5498.4	4858.3	4131.8
45°	5152.7	5373.9	5719.5	6248.3	6705.3	6837.1	6725.8	6438.7	5904.1	5195.2	4369.1
47.5°	5639.0	5791.3	6230.7	6807.8	7236.9	7308.7	7146.1	6782.9	6241.0	5485.2	4540.5
50°	6211.7	6328.8	6787.3	7393.7	7713.0	7727.6	7554.8	7083.2	6478.2	5661.0	4669.4
52.5°	6749.2	6945.5	7420.0	7935.6	8131.9	8064.5	7869.7	7351.2	6651.1	5842.6	4706.0
55°	7269.2	7557.7	8074.7	8411.6	8490.7	8380.9	8080.6	7543.1	6794.6	5844.0	4675.2
57.5°	7770.1	8169.9	8653.3	8873.0	8837.8	8615.2	8165.5	7587.0	6809.3	5762.0	4552.2
60°	8317.9	8732.4	9155.7	9204.0	9051.7	8745.6	8238.8	7601.6	6724.3	5592.1	4342.8
62.5°	8918.4	9239.1	9482.3	9384.2	9171.8	8851.0	8269.5	7459.6	6582.2	5302.1	3856.5
65°	9738.6	9747.4	9725.4	9521.8	9198.1	8757.3	8140.6	7371.7	6226.3	4751.4	3001.1
67.5°	10951.3	10284.9	9800.1	9495.5	9138.1	8659.1	7988.3	6946.9	5618.5	3740.8	1721.0
68°	11056.8	10378.7	9778.1	9479.4	9126.4	8648.9	7912.2	6870.8	5432.5	3469.8	1450.0
70°	11081.7	10378.7	9644.9	9385.6	9079.5	8452.6	7509.4	6141.4	4438.0	2226.3	603.4
72.5°	10750.7	9996.4	9485.2	9303.6	8773.4	7786.2	6396.2	4681.1	2693.5	698.6	459.9
75°	10306.9	9540.9	8918.4	8383.8	7607.5	6217.5	4591.7	2693.5	786.5	341.3	399.9
77.5°	8990.2	8156.8	7442.0	6752.1	5570.1	4023.5	2274.6	686.9	247.5	273.9	336.9
80°	6402.1	5477.9	4439.4	3477.1	2003.7	764.6	275.4	175.8	178.7	208.0	271.0
82.5°	3519.6	2336.2	1394.4	540.5	187.5	161.1	145.0	120.1	126.0	168.4	197.7
85°	1533.5	739.7	224.1	136.2	118.6	108.4	92.3	83.5	106.9	111.3	106.9
87.5°	145.0	73.2	58.6	55.7	45.4	39.5	29.3	27.8	26.4	26.4	30.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P189866

CATALOG NUMBER: VERD-M-A03-E-U-T4-AP

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8	2536.8
2.5°	2525.1	2528.0	2539.7	2536.8	2545.6	2558.8	2560.2	2567.6	2576.4	2585.1	2596.9
5°	2566.1	2566.1	2572.0	2567.6	2574.9	2582.2	2593.9	2596.9	2608.6	2626.2	2642.3
7.5°	2596.9	2595.4	2596.9	2608.6	2617.4	2617.4	2629.1	2630.5	2642.3	2656.9	2670.1
10°	2627.6	2646.7	2640.8	2649.6	2652.5	2654.0	2659.8	2662.8	2678.9	2684.7	2695.0
12.5°	2695.0	2712.6	2702.3	2715.5	2717.0	2709.6	2700.9	2699.4	2699.4	2693.5	2689.1
15°	2793.1	2801.9	2796.1	2785.8	2778.5	2777.0	2749.2	2727.2	2708.2	2681.8	2661.3
17.5°	2903.0	2898.6	2882.5	2869.3	2840.0	2819.5	2782.9	2734.5	2690.6	2633.5	2593.9
20°	3020.2	2989.4	2980.6	2935.2	2882.5	2831.2	2772.6	2705.2	2626.2	2542.7	2475.3
22.5°	3124.1	3078.7	3037.7	2977.7	2895.7	2818.0	2727.2	2640.8	2541.2	2427.0	2330.3
25°	3222.3	3135.9	3065.6	2977.7	2870.8	2769.7	2655.4	2545.6	2415.2	2273.2	2147.2
27.5°	3276.5	3159.3	3045.1	2926.4	2804.8	2667.2	2541.2	2403.5	2249.7	2088.6	1937.8
30°	3282.3	3140.3	2990.9	2826.8	2680.3	2520.7	2372.8	2201.4	2033.0	1866.0	1751.7
32.5°	3285.3	3086.1	2886.9	2690.6	2510.4	2325.9	2156.0	1967.1	1825.0	1722.5	1634.6
35°	3288.2	3020.2	2765.3	2507.5	2302.5	2103.3	1924.6	1776.6	1675.6	1608.2	1537.9
37.5°	3320.4	2958.6	2633.5	2327.4	2100.3	1901.1	1751.7	1639.0	1570.1	1520.3	1467.6
40°	3357.0	2885.4	2494.3	2157.5	1923.1	1747.4	1636.0	1565.7	1514.5	1476.4	1433.9
42.5°	3383.4	2758.0	2303.9	1987.6	1762.0	1624.3	1561.3	1523.3	1494.0	1466.1	1419.3
45°	3430.3	2617.4	2090.1	1772.3	1612.6	1529.1	1502.8	1489.6	1467.6	1439.8	1388.5
47.5°	3485.9	2468.0	1873.3	1592.1	1477.9	1464.7	1463.2	1451.5	1420.7	1391.4	1338.7
50°	3515.2	2320.0	1644.8	1441.2	1394.4	1404.6	1413.4	1401.7	1356.3	1313.8	1266.9
52.5°	3606.0	2254.1	1438.3	1321.1	1324.1	1334.3	1340.2	1324.1	1280.1	1236.2	1187.8
55°	3751.0	2158.9	1284.5	1202.5	1228.9	1243.5	1258.2	1233.3	1204.0	1171.7	1135.1
57.5°	3547.4	1808.9	1124.9	1091.2	1107.3	1120.5	1130.7	1130.7	1130.7	1133.7	1107.3
60°	2872.2	1287.4	972.5	950.6	971.1	997.4	1031.1	1050.2	1057.5	1060.4	1048.7
62.5°	2022.7	914.0	837.8	851.0	877.3	921.3	953.5	974.0	971.1	953.5	927.1
65°	1132.2	760.2	773.3	812.9	834.9	870.0	899.3	911.0	889.1	862.7	839.3
67.5°	638.6	697.2	749.9	783.6	802.6	823.1	840.7	853.9	827.5	796.8	779.2
68°	622.5	688.4	744.1	773.3	792.4	812.9	826.1	834.9	807.0	779.2	764.6
70°	580.0	672.3	719.2	742.6	744.1	777.7	780.7	786.5	763.1	730.9	711.8
72.5°	531.7	637.1	660.6	679.6	695.7	707.4	735.3	723.5	694.3	666.4	622.5
75°	490.7	546.3	568.3	612.2	624.0	643.0	657.6	629.8	585.9	559.5	533.1
77.5°	426.2	454.0	477.5	486.3	521.4	536.1	552.2	552.2	525.8	528.7	489.2
80°	328.1	331.0	322.2	348.6	395.5	414.5	420.4	408.6	427.7	424.8	408.6
82.5°	188.9	175.8	190.4	197.7	221.2	238.7	268.0	292.9	295.9	287.1	304.7
85°	79.1	70.3	80.6	92.3	117.2	145.0	178.7	191.9	188.9	183.1	168.4
87.5°	32.2	32.2	38.1	45.4	60.1	76.2	86.4	101.1	109.9	112.8	105.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P189866

CATALOG NUMBER: VERD-M-A03-E-U-T4-AP

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2536.8	2536.8	2536.8	2536.8
2.5°	2601.3	2599.8	2598.3	2595.4
5°	2646.7	2648.1	2648.1	2646.7
7.5°	2680.3	2687.7	2689.1	2689.1
10°	2706.7	2712.6	2714.0	2712.6
12.5°	2697.9	2699.4	2705.2	2706.7
15°	2656.9	2646.7	2643.7	2642.3
17.5°	2560.2	2533.9	2511.9	2501.7
20°	2407.9	2356.7	2314.2	2303.9
22.5°	2238.0	2158.9	2103.3	2084.2
25°	2033.0	1934.8	1874.8	1855.7
27.5°	1832.3	1735.6	1693.2	1669.7
30°	1666.8	1595.0	1548.2	1524.7
32.5°	1556.9	1486.6	1438.3	1416.3
35°	1466.1	1392.9	1328.5	1299.2
37.5°	1406.1	1319.7	1245.0	1215.7
40°	1370.9	1293.3	1212.7	1180.5
42.5°	1353.4	1287.4	1215.7	1180.5
45°	1325.5	1255.2	1193.7	1155.6
47.5°	1283.1	1217.1	1155.6	1120.5
50°	1205.4	1138.0	1088.3	1060.4
52.5°	1123.4	1048.7	996.0	965.2
55°	1067.7	993.0	952.0	931.5
57.5°	1057.5	987.2	946.2	922.7
60°	997.4	930.1	877.3	852.4
62.5°	868.6	802.6	761.6	745.5
65°	788.0	725.0	685.5	673.7
67.5°	735.3	669.4	628.3	619.6
68°	722.1	656.2	621.0	609.3
70°	662.0	599.1	568.3	556.6
72.5°	534.6	473.1	432.1	417.4
75°	465.8	398.4	364.7	357.4
77.5°	408.6	329.6	295.9	288.5
80°	331.0	260.7	178.7	167.0
82.5°	247.5	159.6	133.3	121.6
85°	143.5	109.9	86.4	80.6
87.5°	90.8	76.2	65.9	61.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)