

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: P510025

Luminaire Tested: **VERD-M-CA4-190-727-U-T4**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510025
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-6)
Test Lab: INNOVATION CENTER
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-CA4-190-727-U-T4
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 2700K, 870mA LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23375 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

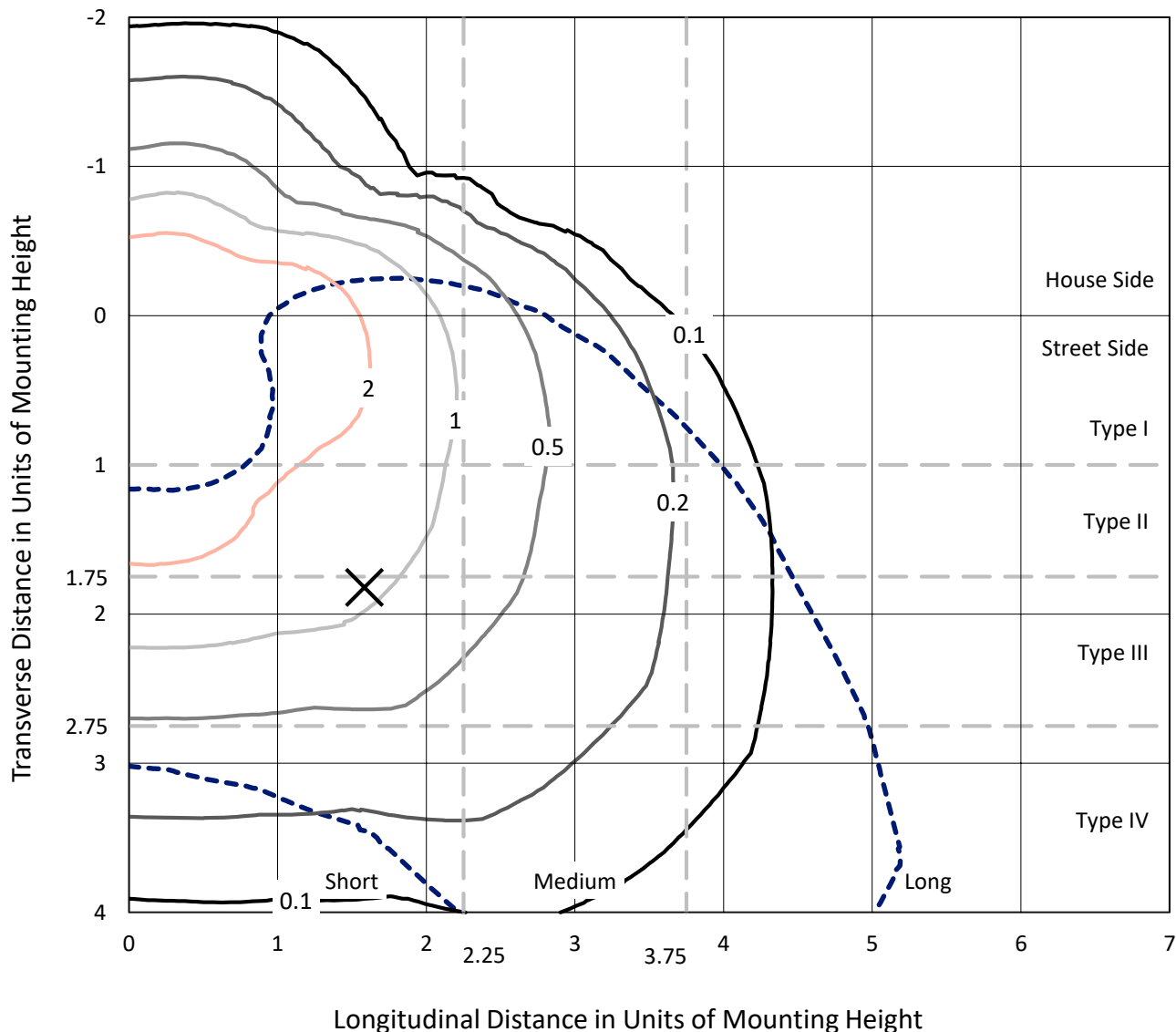
Input Watts (W): 193.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P510025
 CATALOG NUMBER: VERD-M-CA4-190-727-U-T4

Iso-Footcandle Lines of Horizontal Illumination

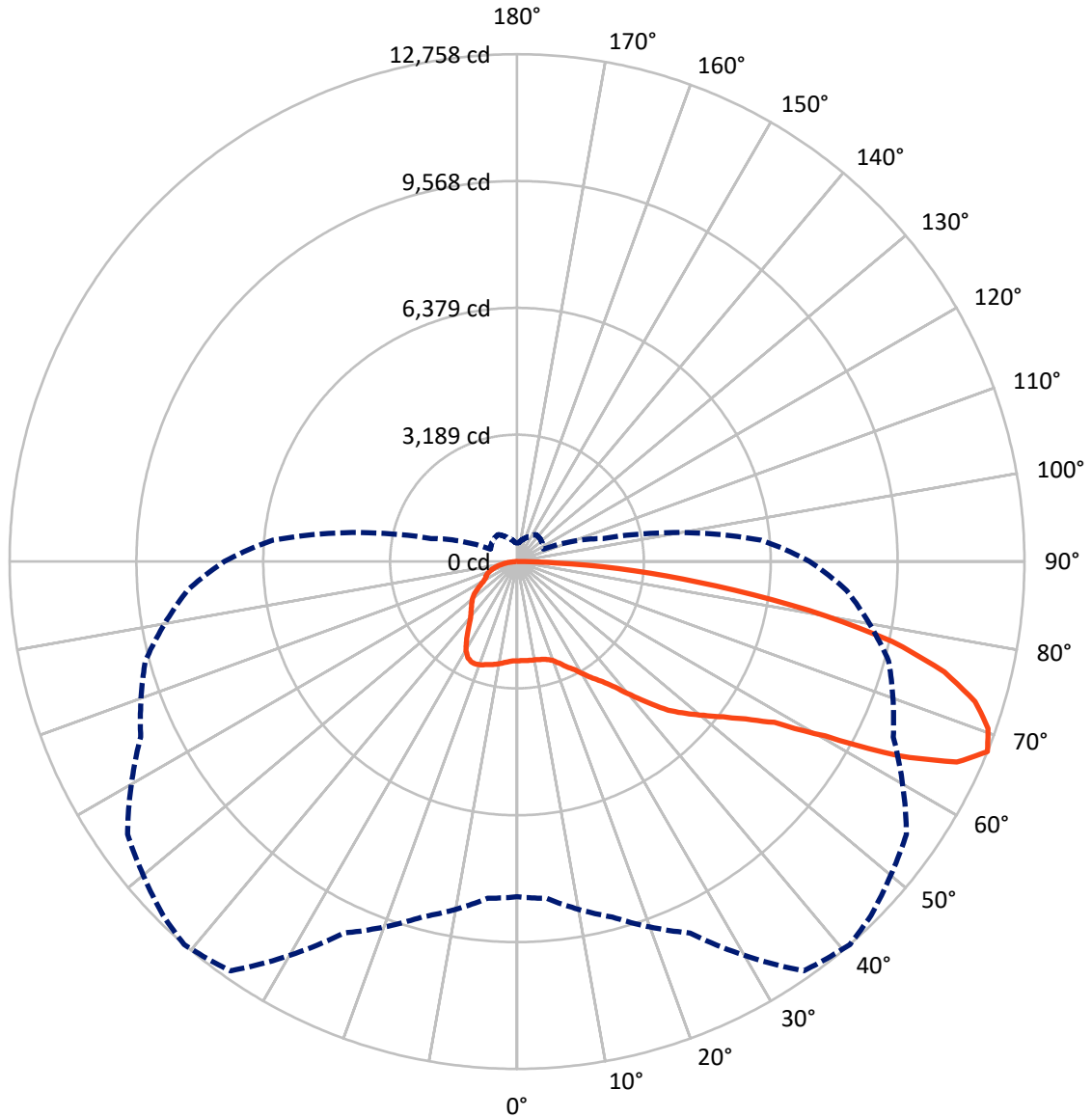
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - N/A

REPORT NUMBER: P510025
CATALOG NUMBER: VERD-M-CA4-190-727-U-T4

Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P510025

CATALOG NUMBER: VERD-M-CA4-190-727-U-T4

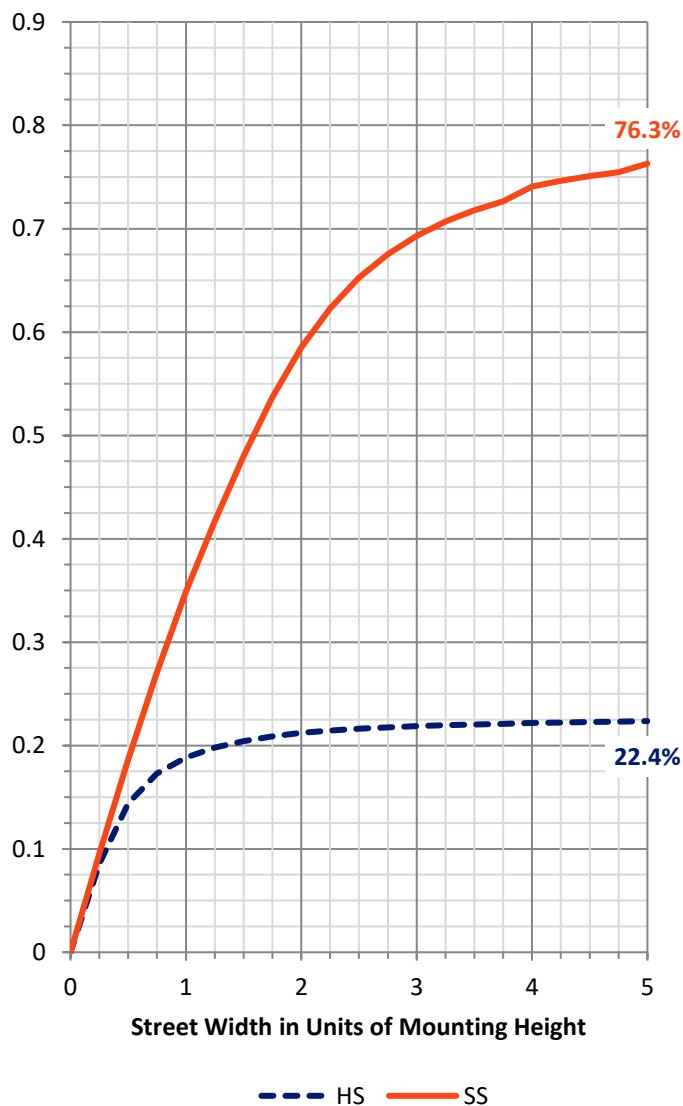
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5289.7 | 0.0 | 5289.7 |
| | % Fixture | 22.6 | 0.0 | 22.6 |
| Street Side | Lumens | 18085.4 | 0.0 | 18085.4 |
| | % Fixture | 77.4 | 0.0 | 77.4 |
| Total | Lumens | 23375.0 | 0.0 | 23375.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 241.2 | 1.0 |
| 10°-20° | 748.0 | 3.2 |
| 20°-30° | 1337.5 | 5.7 |
| 30°-40° | 2097.3 | 9.0 |
| 40°-50° | 3252.2 | 13.9 |
| 50°-60° | 4584.8 | 19.6 |
| 60°-70° | 5844.6 | 25.0 |
| 70°-80° | 4373.7 | 18.7 |
| 80°-90° | 895.8 | 3.8 |
| 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° | 23375.0 | 100.0 |
| 0°-180° | 23375.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P510025

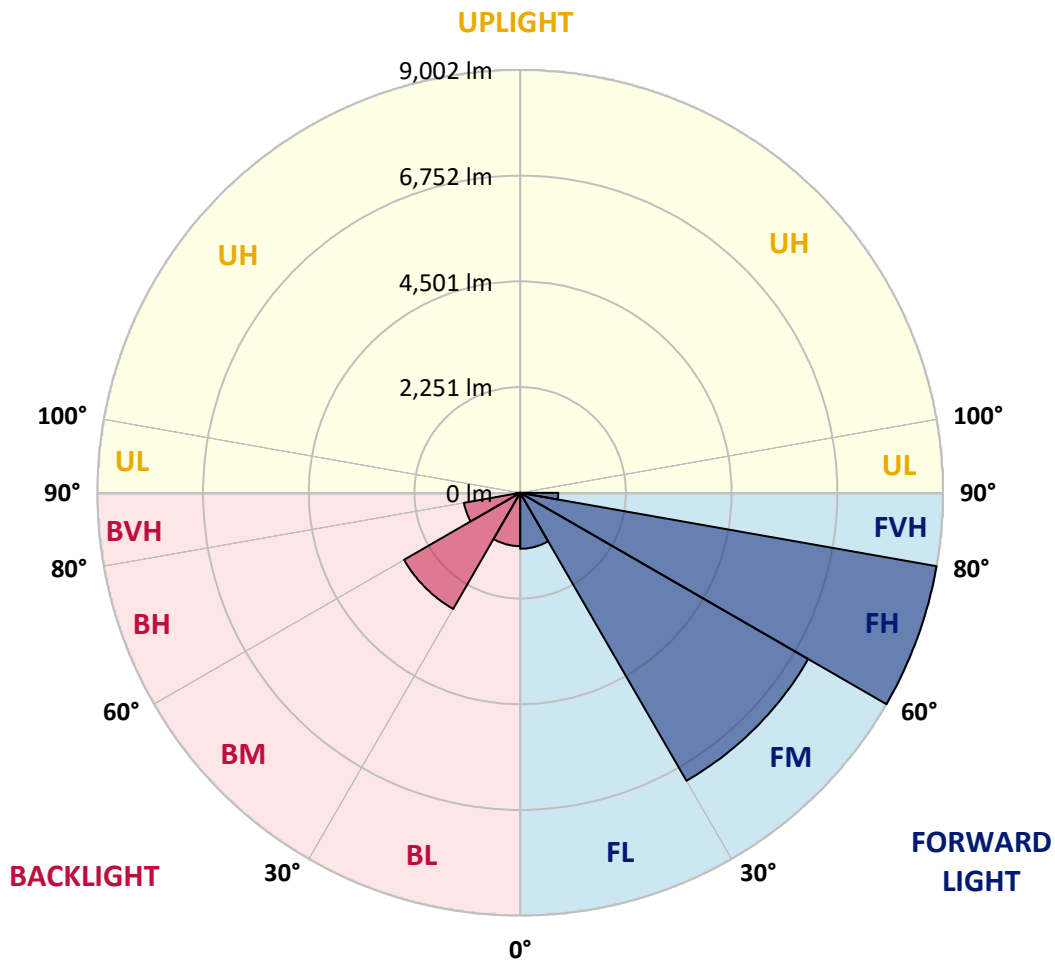
CATALOG NUMBER: VERD-M-CA4-190-727-U-T4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1191.0 | 5.1 | | | |
| FM | (30°-60°) | 7080.1 | 30.3 | | | |
| FH | (60°-80°) | 9002.2 | 38.5 | | | G4/12000 |
| FVH | (80°-90°) | 812.1 | 3.5 | | | G5 |
| BL | (0°-30°) | 1135.7 | 4.9 | B3/2500 | | |
| BM | (30°-60°) | 2854.2 | 12.2 | B3/5000 | | |
| BH | (60°-80°) | 1216.1 | 5.2 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 83.7 | 0.4 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type IV Short





REPORT NUMBER: P510025

CATALOG NUMBER: VERD-M-CA4-190-727-U-T4

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 41° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 0° | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 |
| 2.5° | 2465.0 | 2493.6 | 2489.3 | 2484.0 | 2492.5 | 2493.6 | 2469.2 | 2478.8 | 2484.0 | 2492.5 | 2506.3 |
| 5° | 2471.4 | 2499.9 | 2497.8 | 2488.3 | 2494.6 | 2497.8 | 2475.6 | 2492.5 | 2492.5 | 2495.7 | 2511.6 |
| 7.5° | 2457.6 | 2485.1 | 2485.1 | 2481.9 | 2495.7 | 2508.4 | 2488.3 | 2503.1 | 2511.6 | 2520.0 | 2530.6 |
| 10° | 2444.9 | 2468.2 | 2476.6 | 2474.5 | 2506.3 | 2509.4 | 2495.7 | 2531.7 | 2545.4 | 2553.9 | 2566.6 |
| 12.5° | 2431.1 | 2459.7 | 2471.4 | 2483.0 | 2516.8 | 2528.5 | 2521.1 | 2558.1 | 2586.7 | 2601.5 | 2615.2 |
| 15° | 2424.8 | 2456.5 | 2475.6 | 2492.5 | 2529.5 | 2550.7 | 2550.7 | 2606.8 | 2640.6 | 2659.7 | 2684.0 |
| 17.5° | 2469.2 | 2502.0 | 2516.8 | 2530.6 | 2564.5 | 2593.0 | 2590.9 | 2656.5 | 2706.2 | 2735.8 | 2780.3 |
| 20° | 2579.3 | 2618.4 | 2626.9 | 2632.2 | 2653.3 | 2663.9 | 2660.7 | 2731.6 | 2800.4 | 2856.4 | 2906.2 |
| 22.5° | 2770.7 | 2794.0 | 2798.3 | 2777.1 | 2782.4 | 2790.8 | 2785.6 | 2824.7 | 2903.0 | 2968.6 | 3057.5 |
| 25° | 2927.3 | 2964.4 | 2953.8 | 2923.1 | 2927.3 | 2939.0 | 2923.1 | 2983.4 | 3039.5 | 3125.2 | 3215.1 |
| 27.5° | 3092.4 | 3119.9 | 3108.2 | 3089.2 | 3085.0 | 3076.5 | 3073.3 | 3150.6 | 3233.1 | 3300.8 | 3434.1 |
| 30° | 3293.4 | 3308.2 | 3274.3 | 3265.9 | 3273.3 | 3278.6 | 3258.5 | 3356.8 | 3432.0 | 3529.3 | 3709.1 |
| 32.5° | 3631.9 | 3645.7 | 3597.0 | 3466.9 | 3470.0 | 3494.4 | 3477.5 | 3601.2 | 3743.0 | 3861.5 | 4044.5 |
| 35° | 4063.6 | 4063.6 | 4025.5 | 3842.4 | 3703.9 | 3704.9 | 3709.1 | 3883.7 | 4147.1 | 4412.7 | 4601.0 |
| 37.5° | 4500.5 | 4515.3 | 4443.4 | 4276.2 | 4100.6 | 4007.5 | 3929.2 | 4153.5 | 4498.4 | 5090.8 | 5371.2 |
| 40° | 4955.4 | 4978.7 | 4870.8 | 4717.4 | 4515.3 | 4409.5 | 4318.5 | 4455.0 | 4920.5 | 5762.6 | 5984.8 |
| 42.5° | 5353.2 | 5386.0 | 5274.9 | 5113.0 | 4972.3 | 4852.8 | 4715.2 | 4770.3 | 5384.9 | 6400.5 | 6526.4 |
| 45° | 5723.5 | 5741.4 | 5647.3 | 5514.0 | 5397.6 | 5332.0 | 5235.8 | 5299.2 | 5916.0 | 7024.7 | 7001.5 |
| 47.5° | 5996.4 | 6022.9 | 5937.2 | 5865.2 | 5745.7 | 5706.5 | 5705.5 | 5880.0 | 6513.7 | 7522.0 | 7414.1 |
| 50° | 6439.7 | 6419.6 | 6227.0 | 6139.2 | 6066.2 | 6078.9 | 6109.6 | 6411.1 | 7216.2 | 8001.2 | 7761.1 |
| 52.5° | 7183.4 | 7146.4 | 6719.0 | 6536.0 | 6446.0 | 6487.3 | 6503.2 | 6892.5 | 7925.0 | 8414.9 | 8047.8 |
| 55° | 8145.1 | 8026.6 | 7715.6 | 7224.7 | 6942.2 | 6981.4 | 6963.4 | 7409.8 | 8492.1 | 8809.5 | 8260.4 |
| 57.5° | 8780.9 | 8892.0 | 8742.8 | 8462.5 | 7761.1 | 7633.0 | 7590.7 | 7921.9 | 9016.8 | 9187.2 | 8480.5 |
| 60° | 9333.2 | 9517.2 | 9754.2 | 9574.4 | 9385.0 | 8905.8 | 8511.1 | 8503.7 | 9479.2 | 9439.0 | 8569.3 |
| 62.5° | 9916.1 | 10013.4 | 10378.4 | 10489.5 | 10840.7 | 10752.9 | 10223.9 | 9240.1 | 9941.5 | 9623.0 | 8621.2 |
| 65° | 9326.8 | 9456.9 | 10121.3 | 10727.5 | 12027.7 | 12154.7 | 11982.2 | 10609.0 | 10262.0 | 9717.2 | 8547.1 |
| 67.5° | 8429.7 | 8501.6 | 9253.8 | 10305.4 | 12565.2 | 12757.7 | 12584.2 | 11952.6 | 10439.8 | 9675.9 | 8318.6 |
| 70° | 7279.7 | 7364.3 | 8082.7 | 9517.2 | 12537.7 | 12563.1 | 12495.3 | 12076.4 | 10368.9 | 9482.3 | 7743.1 |
| 72.5° | 5902.3 | 6009.1 | 6640.7 | 8130.3 | 11936.8 | 12046.8 | 11939.9 | 11831.0 | 10170.0 | 8940.7 | 6751.8 |
| 75° | 4465.6 | 4607.3 | 5171.2 | 6482.0 | 10548.7 | 11103.1 | 11116.9 | 11453.3 | 9397.7 | 7664.8 | 4900.4 |
| 77.5° | 3045.8 | 3181.2 | 3715.5 | 4938.5 | 8756.6 | 9642.1 | 9872.7 | 10240.9 | 7852.0 | 5664.2 | 2673.4 |
| 80° | 1714.9 | 1702.2 | 2380.4 | 3528.2 | 6678.8 | 7456.4 | 7746.2 | 7731.4 | 5514.0 | 2908.3 | 544.8 |
| 82.5° | 792.4 | 794.5 | 1217.7 | 2252.4 | 4521.6 | 5034.7 | 5152.2 | 4484.6 | 1935.0 | 493.0 | 173.5 |
| 85° | 394.6 | 398.8 | 586.1 | 1129.9 | 2552.8 | 2949.5 | 2803.5 | 1866.2 | 414.7 | 143.9 | 103.7 |
| 87.5° | 156.6 | 150.2 | 231.7 | 464.4 | 921.5 | 976.5 | 852.7 | 373.5 | 75.1 | 50.8 | 34.9 |
| 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: P510025

CATALOG NUMBER: VERD-M-CA4-190-727-U-T4

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 | 2495.7 |
| 2.5° | 2503.1 | 2505.2 | 2514.7 | 2495.7 | 2501.0 | 2496.7 | 2493.6 | 2510.5 | 2509.4 | 2512.6 | 2507.3 |
| 5° | 2510.5 | 2515.8 | 2525.3 | 2516.8 | 2525.3 | 2521.1 | 2524.2 | 2547.5 | 2550.7 | 2549.6 | 2549.6 |
| 7.5° | 2530.6 | 2535.9 | 2553.9 | 2543.3 | 2562.3 | 2557.0 | 2558.1 | 2580.3 | 2584.6 | 2578.2 | 2576.1 |
| 10° | 2572.9 | 2577.1 | 2602.5 | 2600.4 | 2607.8 | 2603.6 | 2599.4 | 2608.9 | 2606.8 | 2597.2 | 2593.0 |
| 12.5° | 2621.6 | 2633.2 | 2661.8 | 2662.8 | 2672.4 | 2651.2 | 2629.0 | 2625.8 | 2619.5 | 2604.7 | 2601.5 |
| 15° | 2694.6 | 2708.3 | 2751.7 | 2741.1 | 2734.8 | 2689.3 | 2652.3 | 2622.6 | 2597.2 | 2584.6 | 2572.9 |
| 17.5° | 2799.3 | 2822.6 | 2882.9 | 2850.1 | 2803.5 | 2736.9 | 2672.4 | 2607.8 | 2553.9 | 2508.4 | 2490.4 |
| 20° | 2932.6 | 2959.1 | 3009.8 | 2966.5 | 2895.6 | 2796.1 | 2691.4 | 2575.0 | 2457.6 | 2357.1 | 2342.3 |
| 22.5° | 3091.3 | 3133.6 | 3170.7 | 3071.2 | 2966.5 | 2840.6 | 2691.4 | 2524.2 | 2329.6 | 2179.4 | 2142.3 |
| 25° | 3276.4 | 3309.2 | 3297.6 | 3158.0 | 3006.7 | 2848.0 | 2661.8 | 2434.3 | 2159.3 | 1984.7 | 1955.1 |
| 27.5° | 3477.5 | 3492.3 | 3402.3 | 3199.2 | 3010.9 | 2804.6 | 2578.2 | 2274.6 | 1960.4 | 1822.8 | 1794.3 |
| 30° | 3725.0 | 3680.6 | 3509.2 | 3224.6 | 2968.6 | 2708.3 | 2429.0 | 2040.8 | 1798.5 | 1677.9 | 1645.1 |
| 32.5° | 3991.6 | 3910.2 | 3585.4 | 3206.6 | 2875.5 | 2547.5 | 2198.4 | 1875.7 | 1690.6 | 1543.5 | 1516.0 |
| 35° | 4499.4 | 4267.7 | 3696.4 | 3152.7 | 2713.6 | 2332.8 | 1975.2 | 1748.8 | 1576.3 | 1418.7 | 1393.3 |
| 37.5° | 5185.0 | 4781.9 | 3852.0 | 3077.6 | 2522.1 | 2124.3 | 1809.1 | 1613.4 | 1464.2 | 1301.3 | 1261.1 |
| 40° | 5718.2 | 5301.3 | 4101.6 | 2997.1 | 2345.5 | 1926.5 | 1688.5 | 1542.5 | 1390.1 | 1216.6 | 1181.7 |
| 42.5° | 6226.0 | 5776.4 | 4408.4 | 2907.2 | 2163.5 | 1789.0 | 1635.6 | 1526.6 | 1370.0 | 1193.4 | 1160.6 |
| 45° | 6674.6 | 6160.4 | 4672.9 | 2817.3 | 1958.2 | 1662.0 | 1596.4 | 1495.9 | 1341.5 | 1163.7 | 1132.0 |
| 47.5° | 7037.4 | 6490.5 | 4902.5 | 2720.0 | 1772.1 | 1565.8 | 1545.7 | 1439.9 | 1286.5 | 1103.4 | 1065.3 |
| 50° | 7365.4 | 6769.8 | 5061.2 | 2616.3 | 1590.1 | 1487.5 | 1462.1 | 1337.2 | 1177.5 | 1015.6 | 991.3 |
| 52.5° | 7567.5 | 6959.1 | 5156.4 | 2633.2 | 1417.6 | 1399.7 | 1358.4 | 1230.4 | 1082.3 | 943.7 | 911.9 |
| 55° | 7779.0 | 7137.9 | 5155.3 | 2538.0 | 1273.8 | 1267.4 | 1228.3 | 1129.9 | 1013.5 | 897.1 | 878.1 |
| 57.5° | 7865.8 | 7153.8 | 5059.1 | 2090.5 | 1146.8 | 1106.6 | 1098.1 | 1046.3 | 944.7 | 834.7 | 813.6 |
| 60° | 7924.0 | 7084.0 | 4877.1 | 1427.2 | 987.1 | 958.5 | 999.8 | 964.8 | 872.8 | 757.5 | 736.3 |
| 62.5° | 7866.9 | 7007.8 | 4400.0 | 1030.4 | 865.4 | 881.3 | 920.4 | 882.3 | 786.1 | 681.3 | 663.3 |
| 65° | 7730.4 | 6716.9 | 3474.3 | 803.0 | 811.4 | 846.4 | 877.0 | 813.6 | 636.9 | 533.2 | 522.6 |
| 67.5° | 7358.0 | 6163.6 | 2235.4 | 736.3 | 780.8 | 816.7 | 827.3 | 688.7 | 576.6 | 477.1 | 465.5 |
| 70° | 6574.0 | 4948.0 | 861.2 | 694.0 | 750.1 | 765.9 | 722.6 | 631.6 | 530.0 | 444.3 | 433.8 |
| 72.5° | 5142.7 | 3248.9 | 497.2 | 634.8 | 684.5 | 669.7 | 670.7 | 567.1 | 478.2 | 396.7 | 388.3 |
| 75° | 3196.0 | 1176.4 | 442.2 | 564.9 | 579.8 | 607.3 | 572.3 | 491.9 | 411.5 | 362.9 | 352.3 |
| 77.5° | 1056.9 | 334.3 | 409.4 | 486.7 | 519.4 | 499.3 | 479.2 | 420.0 | 352.3 | 314.2 | 308.9 |
| 80° | 256.0 | 250.7 | 367.1 | 380.9 | 407.3 | 373.5 | 371.3 | 349.1 | 297.3 | 275.1 | 269.8 |
| 82.5° | 157.6 | 179.9 | 292.0 | 237.0 | 271.9 | 275.1 | 313.2 | 287.8 | 216.9 | 225.3 | 217.9 |
| 85° | 97.3 | 138.6 | 153.4 | 114.3 | 115.3 | 154.5 | 187.3 | 173.5 | 130.1 | 122.7 | 121.7 |
| 87.5° | 32.8 | 28.6 | 32.8 | 24.3 | 32.8 | 56.1 | 84.6 | 80.4 | 54.0 | 37.0 | 34.9 |
| 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)