

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: P159313

Luminaire Tested: **VST-F03-LED-E-U-T2-8030**

Issue Date: 3/3/2020

#### Test Information

Test Method: LM-79-08  
Report Number: P159313  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33705)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-F03-LED-E-U-T2-8030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA  
Light Source: (21) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

#### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 6451.9 lumens  
Efficiency: N/A  
Efficacy: 82.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 78.3  
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



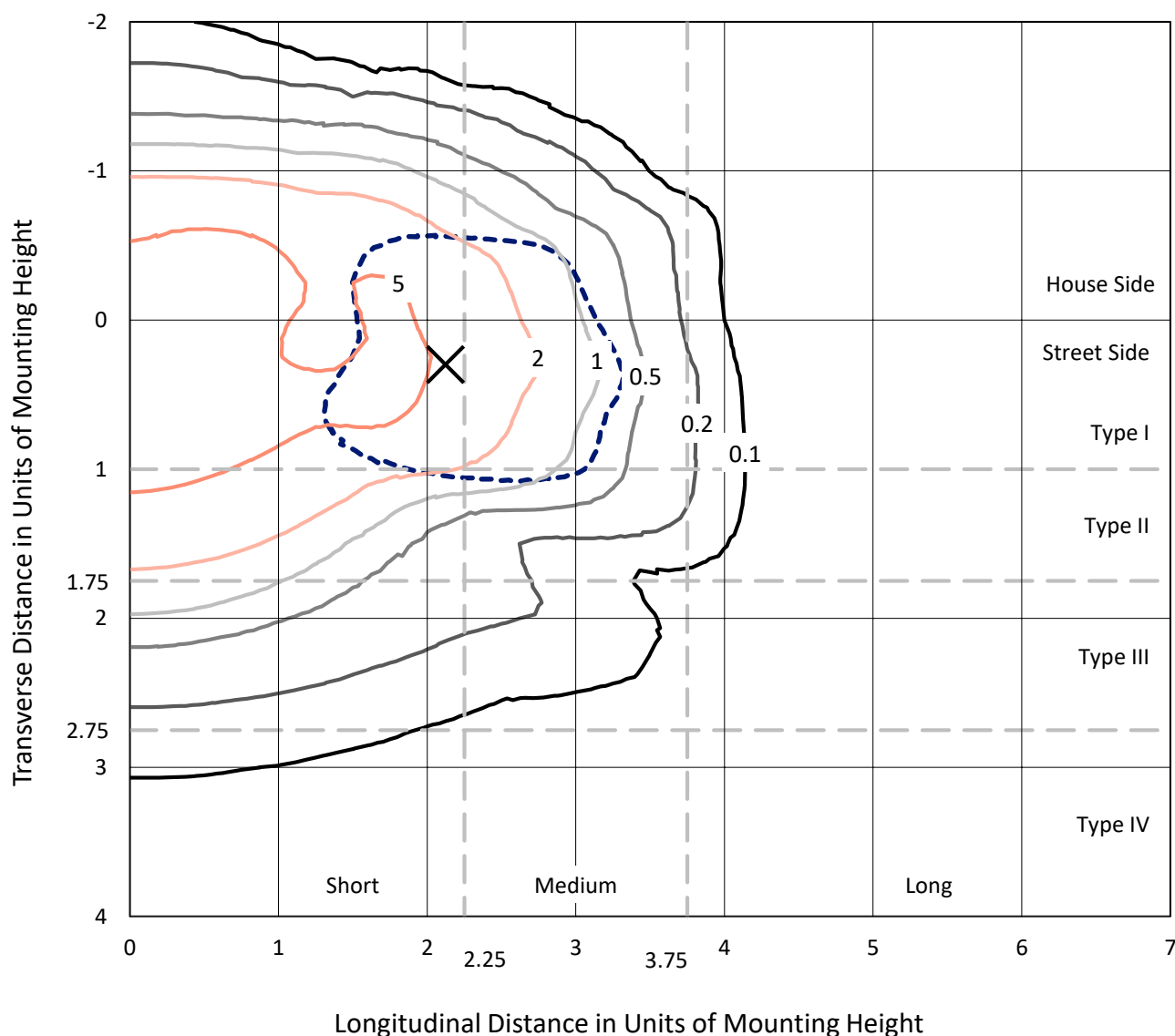
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

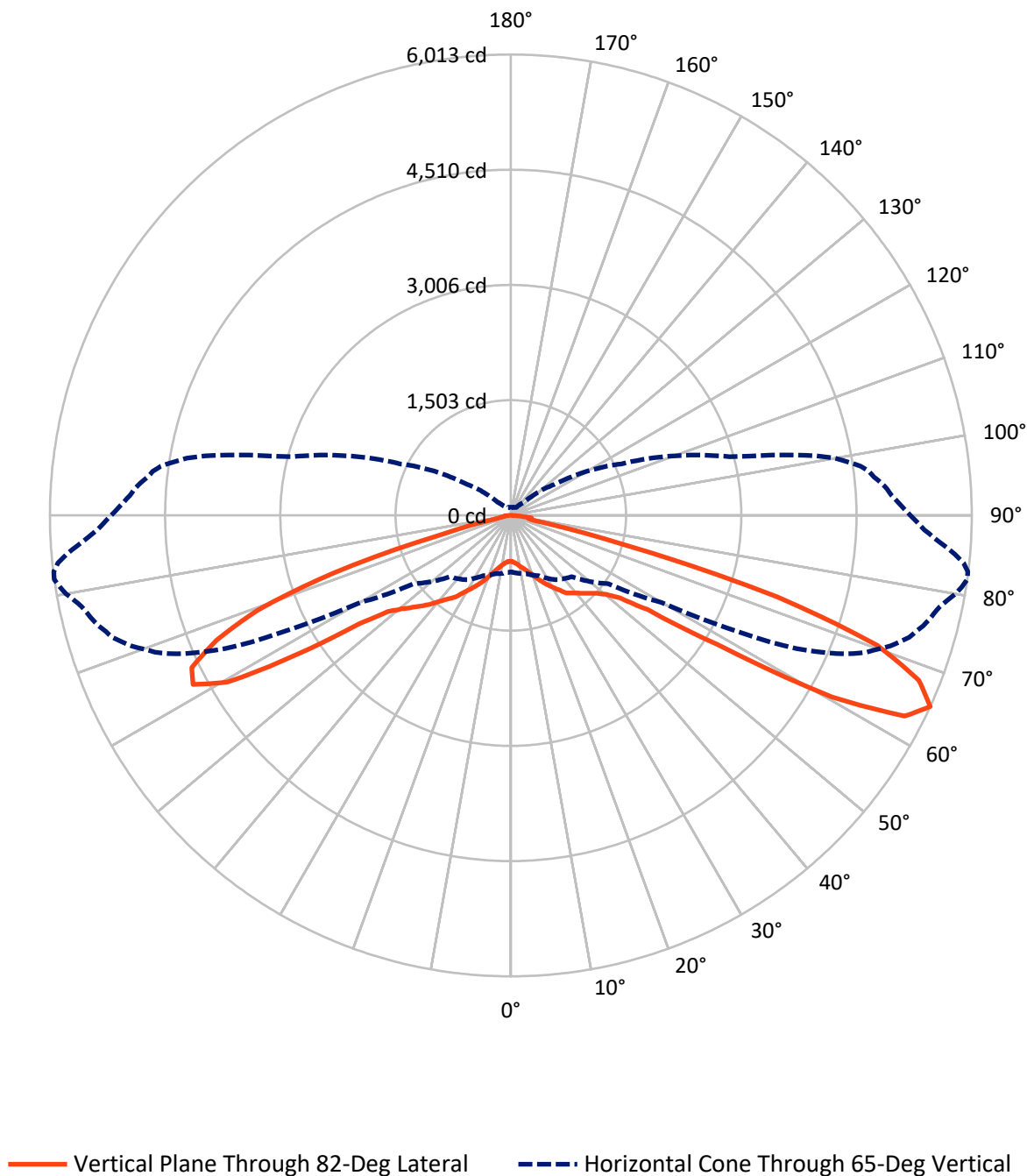


Based on 10 foot mounting height. Maximum calculated value = 7.6 fc  
 Type II - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2402.2   | 0.0    | 2402.2 |
|                    | % Fixture | 37.2     | 0.0    | 37.2   |
| <b>Street Side</b> | Lumens    | 4049.6   | 0.0    | 4049.6 |
|                    | % Fixture | 62.8     | 0.0    | 62.8   |
| <b>Total</b>       | Lumens    | 6451.9   | 0.0    | 6451.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 60.8   | 0.9       |
| 10°-20°   | 213.5  | 3.3       |
| 20°-30°   | 423.1  | 6.6       |
| 30°-40°   | 725.3  | 11.2      |
| 40°-50°   | 1089.6 | 16.9      |
| 50°-60°   | 1513.8 | 23.5      |
| 60°-70°   | 1727.0 | 26.8      |
| 70°-80°   | 594.9  | 9.2       |
| 80°-90°   | 103.7  | 1.6       |
| 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°    | 6451.9 | 100.0     |
| 0°-180°   | 6451.9 | 100.0     |

**Coefficient of Utilization**



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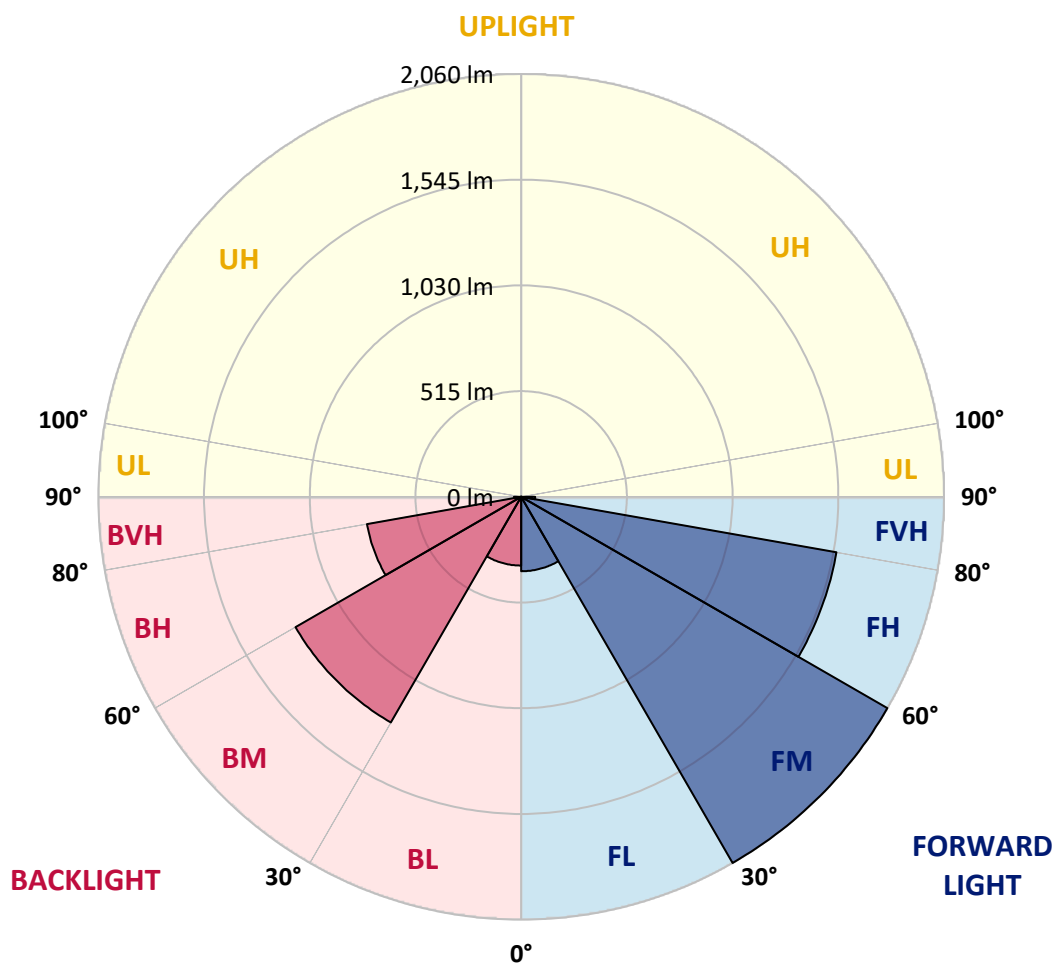
CATALOG NUMBER: VST-F03-LED-E-U-T2-8030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 362.5  | 5.6       |                         |      |         |
| FM   | (30°-60°)   | 2059.6 | 31.9      |                         |      |         |
| FH   | (60°-80°)   | 1559.3 | 24.2      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 68.3   | 1.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 335.0  | 5.2       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1269.2 | 19.7      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 762.6  | 11.8      | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 35.4   | 0.5       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 60°    | 61°    | 62°    | 64°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  |
| 2.5°  | 632.9  | 633.4  | 632.9  | 631.7  | 631.3  | 627.5  | 623.3  | 621.2  | 620.8  | 619.1  | 619.6  |
| 5°    | 672.2  | 671.0  | 669.3  | 667.2  | 665.1  | 658.9  | 651.7  | 647.9  | 646.7  | 645.5  | 643.8  |
| 7.5°  | 707.3  | 708.2  | 707.3  | 704.4  | 698.9  | 691.0  | 681.8  | 676.0  | 675.5  | 674.3  | 673.0  |
| 10°   | 752.5  | 754.6  | 749.5  | 744.5  | 737.0  | 724.9  | 714.4  | 706.9  | 705.7  | 704.0  | 703.1  |
| 12.5° | 801.4  | 801.8  | 800.2  | 788.8  | 776.3  | 759.6  | 744.5  | 737.0  | 735.4  | 733.3  | 732.4  |
| 15°   | 853.6  | 854.0  | 844.9  | 834.0  | 814.7  | 794.7  | 773.8  | 765.4  | 763.3  | 763.7  | 760.4  |
| 17.5° | 895.0  | 895.9  | 887.1  | 873.3  | 850.3  | 826.4  | 803.9  | 797.2  | 796.0  | 796.4  | 794.7  |
| 20°   | 913.0  | 914.3  | 908.8  | 898.4  | 876.7  | 855.7  | 839.4  | 835.3  | 834.8  | 834.0  | 837.4  |
| 22.5° | 912.2  | 912.6  | 910.5  | 906.3  | 893.3  | 881.2  | 879.1  | 881.6  | 881.2  | 882.1  | 885.0  |
| 25°   | 904.6  | 905.9  | 905.5  | 907.1  | 905.0  | 909.7  | 919.3  | 928.1  | 929.3  | 931.0  | 936.4  |
| 27.5° | 923.9  | 926.4  | 923.5  | 925.1  | 928.4  | 943.9  | 963.6  | 977.0  | 979.5  | 984.1  | 988.7  |
| 30°   | 999.1  | 995.8  | 992.0  | 987.8  | 989.9  | 999.5  | 1021.7 | 1033.4 | 1034.6 | 1038.0 | 1044.2 |
| 32.5° | 1110.7 | 1107.0 | 1103.6 | 1096.9 | 1095.2 | 1091.1 | 1098.6 | 1101.5 | 1101.1 | 1104.5 | 1106.2 |
| 35°   | 1236.5 | 1237.0 | 1236.1 | 1241.2 | 1245.4 | 1224.0 | 1197.7 | 1190.6 | 1193.5 | 1189.7 | 1190.6 |
| 37.5° | 1344.0 | 1345.3 | 1367.4 | 1395.0 | 1402.9 | 1389.5 | 1331.9 | 1303.4 | 1293.8 | 1292.6 | 1283.0 |
| 40°   | 1463.2 | 1463.2 | 1496.6 | 1530.4 | 1552.6 | 1569.3 | 1500.8 | 1450.6 | 1430.1 | 1424.3 | 1400.5 |
| 42.5° | 1594.0 | 1587.3 | 1617.8 | 1655.0 | 1696.0 | 1734.1 | 1698.5 | 1642.1 | 1612.8 | 1602.4 | 1560.5 |
| 45°   | 1701.4 | 1697.2 | 1712.3 | 1747.0 | 1813.4 | 1887.9 | 1892.9 | 1864.0 | 1846.5 | 1824.8 | 1786.3 |
| 47.5° | 1767.5 | 1765.4 | 1774.1 | 1811.8 | 1895.0 | 2015.4 | 2082.7 | 2097.3 | 2086.9 | 2070.1 | 2032.9 |
| 50°   | 1793.4 | 1790.5 | 1796.8 | 1838.5 | 1931.8 | 2090.6 | 2239.4 | 2308.4 | 2313.4 | 2317.2 | 2305.5 |
| 52.5° | 1784.2 | 1780.4 | 1793.4 | 1828.5 | 1925.5 | 2117.0 | 2362.0 | 2494.4 | 2516.6 | 2535.4 | 2573.9 |
| 55°   | 1696.0 | 1690.1 | 1725.2 | 1791.3 | 1898.3 | 2107.3 | 2451.4 | 2673.4 | 2720.2 | 2770.4 | 2855.6 |
| 57.5° | 1561.0 | 1555.9 | 1606.6 | 1697.2 | 1850.3 | 2081.0 | 2511.6 | 2899.6 | 3004.9 | 3095.2 | 3337.2 |
| 60°   | 1430.9 | 1426.8 | 1456.4 | 1544.2 | 1694.3 | 1952.7 | 2437.2 | 2975.6 | 3152.5 | 3347.3 | 3789.1 |
| 62.5° | 1198.5 | 1187.2 | 1226.9 | 1300.9 | 1395.8 | 1615.3 | 2112.4 | 2806.3 | 3078.9 | 3365.2 | 3964.3 |
| 65°   | 736.6  | 752.9  | 787.2  | 869.1  | 1024.6 | 1129.1 | 1551.4 | 2270.4 | 2629.9 | 2989.0 | 3766.1 |
| 67.5° | 467.8  | 472.4  | 497.9  | 554.8  | 675.1  | 780.1  | 940.2  | 1424.7 | 1701.8 | 2055.1 | 2956.8 |
| 70°   | 400.9  | 403.8  | 425.6  | 484.9  | 568.1  | 697.3  | 711.5  | 744.1  | 843.6  | 1068.5 | 1738.2 |
| 72.5° | 316.0  | 321.1  | 338.2  | 389.6  | 490.0  | 628.7  | 878.3  | 588.2  | 568.1  | 586.9  | 848.2  |
| 75°   | 188.1  | 194.0  | 208.2  | 236.2  | 314.8  | 480.7  | 920.1  | 684.4  | 637.9  | 601.6  | 585.2  |
| 77.5° | 99.5   | 95.3   | 104.9  | 121.3  | 161.8  | 256.3  | 691.4  | 838.6  | 806.0  | 762.5  | 670.1  |
| 80°   | 49.3   | 51.0   | 53.9   | 57.3   | 72.3   | 104.1  | 345.7  | 867.4  | 961.5  | 1003.3 | 921.4  |
| 82.5° | 19.6   | 22.1   | 31.4   | 33.4   | 39.7   | 44.3   | 111.2  | 480.7  | 688.5  | 933.9  | 1219.4 |
| 85°   | 10.0   | 9.6    | 16.7   | 20.0   | 23.4   | 20.9   | 39.3   | 179.3  | 322.7  | 502.9  | 814.7  |
| 87.5° | 1.3    | 1.7    | 3.8    | 5.0    | 7.1    | 6.7    | 11.3   | 38.9   | 61.9   | 87.8   | 123.3  |
| 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):**

|       | 65°    | 66°    | 67°    | 68°    | 69°    | 70°    | 71°    | 72°    | 73°    | 74°    | 75°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  |
| 2.5°  | 617.5  | 617.0  | 617.0  | 615.4  | 615.4  | 615.8  | 614.5  | 613.7  | 613.7  | 614.1  | 612.4  |
| 5°    | 642.5  | 641.3  | 641.3  | 639.6  | 637.5  | 637.5  | 635.8  | 635.4  | 634.6  | 632.9  | 631.7  |
| 7.5°  | 671.8  | 670.6  | 668.5  | 667.2  | 666.4  | 665.1  | 663.0  | 662.2  | 660.5  | 658.9  | 657.2  |
| 10°   | 701.9  | 700.2  | 699.4  | 697.3  | 696.5  | 694.0  | 692.7  | 693.1  | 689.8  | 688.5  | 688.9  |
| 12.5° | 732.0  | 730.3  | 727.4  | 726.5  | 726.1  | 723.6  | 722.4  | 721.6  | 719.0  | 718.6  | 717.4  |
| 15°   | 758.8  | 759.6  | 758.3  | 756.2  | 754.6  | 754.1  | 752.9  | 752.0  | 750.4  | 748.7  | 747.1  |
| 17.5° | 793.4  | 794.7  | 793.0  | 790.1  | 790.1  | 789.7  | 790.1  | 789.7  | 786.8  | 788.0  | 787.2  |
| 20°   | 837.8  | 838.6  | 834.4  | 835.7  | 836.5  | 836.1  | 837.4  | 838.6  | 837.8  | 837.8  | 839.0  |
| 22.5° | 888.8  | 890.0  | 887.5  | 889.2  | 891.7  | 889.6  | 893.3  | 892.9  | 893.8  | 895.0  | 895.4  |
| 25°   | 941.0  | 943.5  | 941.4  | 946.0  | 944.3  | 946.0  | 950.6  | 949.4  | 951.5  | 954.8  | 956.0  |
| 27.5° | 993.2  | 994.9  | 995.3  | 998.3  | 1001.2 | 1003.7 | 1009.6 | 1009.6 | 1011.2 | 1017.1 | 1017.1 |
| 30°   | 1048.0 | 1049.7 | 1051.4 | 1055.6 | 1057.2 | 1061.8 | 1067.7 | 1069.3 | 1068.5 | 1076.9 | 1079.4 |
| 32.5° | 1111.1 | 1112.8 | 1115.8 | 1120.7 | 1122.8 | 1127.5 | 1127.5 | 1132.1 | 1135.4 | 1142.5 | 1142.9 |
| 35°   | 1195.2 | 1196.5 | 1195.2 | 1194.8 | 1197.7 | 1204.0 | 1204.4 | 1211.0 | 1214.0 | 1221.1 | 1223.2 |
| 37.5° | 1279.2 | 1278.8 | 1273.4 | 1267.5 | 1267.9 | 1265.4 | 1263.7 | 1266.7 | 1267.9 | 1268.3 | 1273.0 |
| 40°   | 1392.5 | 1381.6 | 1373.3 | 1358.6 | 1351.9 | 1341.5 | 1335.2 | 1334.8 | 1328.1 | 1327.3 | 1328.5 |
| 42.5° | 1540.9 | 1528.4 | 1508.7 | 1484.0 | 1465.3 | 1446.0 | 1431.8 | 1423.4 | 1408.8 | 1401.3 | 1395.0 |
| 45°   | 1748.2 | 1717.3 | 1693.9 | 1664.6 | 1628.3 | 1594.8 | 1559.7 | 1543.8 | 1515.8 | 1498.7 | 1479.4 |
| 47.5° | 2001.6 | 1971.1 | 1935.1 | 1905.0 | 1857.4 | 1811.0 | 1762.9 | 1720.7 | 1671.7 | 1632.8 | 1601.1 |
| 50°   | 2276.6 | 2258.7 | 2232.8 | 2204.8 | 2143.3 | 2112.8 | 2052.2 | 1994.9 | 1942.2 | 1872.8 | 1812.2 |
| 52.5° | 2558.8 | 2569.3 | 2563.4 | 2553.4 | 2514.5 | 2502.8 | 2450.6 | 2380.7 | 2327.6 | 2280.0 | 2174.6 |
| 55°   | 2906.6 | 2919.2 | 2944.3 | 2958.9 | 2954.3 | 2984.0 | 2971.0 | 2916.7 | 2895.4 | 2873.2 | 2798.3 |
| 57.5° | 3438.8 | 3528.2 | 3624.0 | 3708.0 | 3727.7 | 3833.0 | 3810.4 | 3864.8 | 3903.2 | 3875.6 | 3851.4 |
| 60°   | 4006.1 | 4186.7 | 4349.3 | 4519.4 | 4657.8 | 4761.5 | 4898.6 | 4991.0 | 5049.1 | 5153.6 | 5162.0 |
| 62.5° | 4234.7 | 4480.1 | 4686.7 | 4884.0 | 5048.3 | 5192.1 | 5315.8 | 5443.3 | 5547.8 | 5642.3 | 5710.4 |
| 65°   | 4109.3 | 4365.6 | 4616.0 | 4816.3 | 4974.3 | 5098.0 | 5232.6 | 5333.8 | 5436.6 | 5497.3 | 5568.7 |
| 67.5° | 3416.2 | 3755.7 | 4063.8 | 4289.5 | 4505.6 | 4631.5 | 4790.8 | 4890.2 | 4999.4 | 5063.3 | 5109.3 |
| 70°   | 2227.3 | 2669.2 | 3090.2 | 3432.5 | 3724.3 | 3871.1 | 4063.4 | 4199.2 | 4330.5 | 4333.9 | 4410.4 |
| 72.5° | 1201.9 | 1571.4 | 1923.8 | 2273.7 | 2606.5 | 2801.7 | 2991.5 | 3156.7 | 3287.0 | 3231.5 | 3307.6 |
| 75°   | 669.3  | 842.3  | 1035.1 | 1245.4 | 1448.1 | 1559.7 | 1701.4 | 1702.3 | 1769.6 | 1663.8 | 1690.6 |
| 77.5° | 643.8  | 635.8  | 638.8  | 644.6  | 654.7  | 633.4  | 632.9  | 620.0  | 599.9  | 563.5  | 569.8  |
| 80°   | 845.7  | 744.5  | 671.8  | 557.6  | 449.0  | 366.2  | 343.2  | 348.7  | 365.0  | 397.6  | 439.0  |
| 82.5° | 1222.8 | 1137.5 | 1015.4 | 835.7  | 655.9  | 505.9  | 415.6  | 368.7  | 366.6  | 399.2  | 461.9  |
| 85°   | 890.4  | 941.8  | 933.9  | 779.6  | 643.0  | 522.1  | 380.0  | 321.1  | 265.9  | 252.9  | 275.1  |
| 87.5° | 131.3  | 108.7  | 122.5  | 102.4  | 74.4   | 57.7   | 50.6   | 40.6   | 38.9   | 39.7   | 43.5   |
| 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):**

|       | 76°    | 77°    | 78°    | 79°    | 80°    | 81°    | 82°    | 83°    | 84°    | 85°    | 86°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  |
| 2.5°  | 612.8  | 611.2  | 609.5  | 610.7  | 609.5  | 609.1  | 607.9  | 607.0  | 606.6  | 606.6  | 606.6  |
| 5°    | 631.7  | 629.6  | 628.3  | 627.9  | 626.6  | 625.4  | 625.0  | 622.9  | 622.4  | 622.4  | 621.2  |
| 7.5°  | 657.2  | 655.5  | 653.4  | 652.1  | 651.3  | 649.2  | 647.1  | 646.7  | 646.3  | 644.6  | 643.4  |
| 10°   | 686.8  | 684.4  | 681.8  | 681.8  | 680.2  | 679.7  | 677.6  | 674.7  | 674.3  | 671.8  | 671.0  |
| 12.5° | 714.8  | 714.0  | 711.1  | 710.3  | 709.0  | 707.8  | 706.5  | 705.2  | 704.0  | 701.9  | 702.7  |
| 15°   | 748.3  | 746.2  | 743.7  | 744.1  | 743.7  | 742.0  | 740.3  | 739.1  | 738.2  | 737.4  | 737.4  |
| 17.5° | 788.4  | 787.6  | 787.2  | 785.1  | 783.4  | 784.7  | 784.7  | 784.7  | 782.6  | 783.0  | 783.4  |
| 20°   | 839.4  | 840.2  | 839.4  | 837.8  | 837.4  | 838.6  | 835.7  | 840.2  | 837.8  | 836.1  | 836.9  |
| 22.5° | 895.9  | 898.8  | 895.4  | 895.9  | 898.0  | 898.8  | 895.9  | 899.6  | 898.4  | 895.9  | 898.0  |
| 25°   | 957.3  | 959.4  | 957.7  | 957.3  | 958.6  | 961.5  | 961.1  | 960.7  | 963.6  | 961.1  | 962.3  |
| 27.5° | 1020.4 | 1021.7 | 1022.5 | 1023.8 | 1024.6 | 1024.2 | 1025.9 | 1025.9 | 1027.6 | 1024.6 | 1025.9 |
| 30°   | 1083.1 | 1083.1 | 1084.8 | 1086.5 | 1086.5 | 1086.5 | 1089.8 | 1090.3 | 1087.7 | 1088.6 | 1085.6 |
| 32.5° | 1150.0 | 1150.4 | 1152.1 | 1152.1 | 1155.5 | 1155.9 | 1159.6 | 1154.6 | 1159.6 | 1155.5 | 1156.3 |
| 35°   | 1228.6 | 1234.1 | 1234.9 | 1239.1 | 1242.4 | 1243.7 | 1243.7 | 1244.1 | 1248.7 | 1245.4 | 1246.6 |
| 37.5° | 1274.6 | 1275.8 | 1279.2 | 1281.3 | 1281.3 | 1283.0 | 1284.2 | 1283.0 | 1284.2 | 1283.8 | 1285.1 |
| 40°   | 1328.9 | 1327.7 | 1331.5 | 1332.3 | 1330.6 | 1332.7 | 1332.3 | 1331.0 | 1334.4 | 1331.9 | 1333.6 |
| 42.5° | 1395.0 | 1387.9 | 1387.5 | 1390.8 | 1387.5 | 1389.2 | 1388.8 | 1385.8 | 1390.0 | 1391.2 | 1390.0 |
| 45°   | 1465.7 | 1461.9 | 1454.3 | 1454.3 | 1451.0 | 1449.8 | 1450.2 | 1449.8 | 1450.2 | 1455.2 | 1456.9 |
| 47.5° | 1580.6 | 1557.6 | 1544.6 | 1532.5 | 1522.5 | 1522.1 | 1517.5 | 1520.0 | 1523.3 | 1531.7 | 1539.2 |
| 50°   | 1773.4 | 1720.3 | 1687.6 | 1657.6 | 1635.8 | 1628.3 | 1619.5 | 1618.7 | 1621.6 | 1631.2 | 1644.2 |
| 52.5° | 2117.0 | 2043.4 | 1974.0 | 1909.6 | 1853.6 | 1810.6 | 1789.2 | 1777.9 | 1773.7 | 1783.4 | 1795.9 |
| 55°   | 2745.7 | 2606.9 | 2509.1 | 2443.9 | 2304.7 | 2245.7 | 2170.1 | 2135.3 | 2101.5 | 2104.9 | 2126.2 |
| 57.5° | 3820.1 | 3745.3 | 3663.3 | 3549.2 | 3463.9 | 3361.1 | 3172.1 | 3066.8 | 3071.3 | 3096.0 | 3019.1 |
| 60°   | 5228.0 | 5152.4 | 5118.5 | 5014.8 | 4955.5 | 4914.1 | 4813.7 | 4639.0 | 4577.2 | 4565.4 | 4424.2 |
| 62.5° | 5762.7 | 5780.7 | 5807.5 | 5836.7 | 5835.0 | 5853.0 | 5765.2 | 5708.3 | 5636.9 | 5544.1 | 5404.4 |
| 65°   | 5623.1 | 5668.6 | 5723.0 | 5801.6 | 5891.0 | 5957.1 | 6012.7 | 6006.0 | 5939.1 | 5815.4 | 5667.8 |
| 67.5° | 5150.3 | 5195.4 | 5235.1 | 5340.5 | 5487.2 | 5621.4 | 5740.1 | 5820.8 | 5776.1 | 5673.7 | 5501.4 |
| 70°   | 4439.6 | 4472.2 | 4497.3 | 4588.9 | 4749.8 | 4913.6 | 5068.7 | 5204.2 | 5190.4 | 5066.2 | 4928.7 |
| 72.5° | 3216.8 | 3295.9 | 3338.5 | 3332.2 | 3431.7 | 3615.2 | 3637.0 | 3752.8 | 3784.9 | 3651.2 | 3432.1 |
| 75°   | 1567.3 | 1568.5 | 1519.1 | 1502.9 | 1507.9 | 1539.7 | 1479.1 | 1482.8 | 1461.9 | 1367.0 | 1288.8 |
| 77.5° | 547.6  | 532.6  | 496.6  | 454.0  | 392.9  | 335.7  | 277.6  | 252.5  | 244.1  | 219.5  | 202.3  |
| 80°   | 472.0  | 494.1  | 487.0  | 451.9  | 387.5  | 308.9  | 230.8  | 171.0  | 145.9  | 137.1  | 128.8  |
| 82.5° | 535.9  | 621.2  | 675.5  | 672.6  | 584.4  | 439.0  | 273.8  | 157.2  | 112.0  | 98.2   | 90.3   |
| 85°   | 298.9  | 321.5  | 327.7  | 298.5  | 247.9  | 169.3  | 94.5   | 66.5   | 56.5   | 51.4   | 46.4   |
| 87.5° | 47.6   | 43.5   | 42.7   | 37.2   | 35.1   | 32.2   | 28.4   | 26.8   | 24.7   | 23.4   | 23.4   |
| 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: P159313

CATALOG NUMBER: VST-F03-LED-E-U-T2-8030

**CANDELA DISTRIBUTION (continued):**

|       | 87°    | 88°    | 89°    | 90°    | 91°    | 92°    | 93°    | 94°    | 95°    | 96°    | 97°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  |
| 2.5°  | 606.2  | 605.8  | 604.5  | 603.2  | 602.4  | 602.0  | 601.6  | 600.7  | 600.3  | 599.9  | 599.0  |
| 5°    | 620.4  | 619.6  | 617.5  | 615.4  | 614.5  | 613.3  | 612.0  | 611.2  | 610.3  | 609.9  | 608.3  |
| 7.5°  | 642.5  | 641.7  | 639.2  | 637.5  | 637.1  | 633.8  | 633.4  | 632.1  | 630.0  | 629.6  | 627.1  |
| 10°   | 669.3  | 668.9  | 666.8  | 665.5  | 664.7  | 663.0  | 660.5  | 658.4  | 656.3  | 656.3  | 654.7  |
| 12.5° | 700.2  | 698.5  | 699.8  | 696.9  | 696.1  | 694.4  | 693.1  | 692.7  | 690.2  | 688.1  | 687.7  |
| 15°   | 736.6  | 734.5  | 734.5  | 733.7  | 732.8  | 731.2  | 730.7  | 731.2  | 728.6  | 729.5  | 727.0  |
| 17.5° | 781.7  | 782.6  | 782.2  | 782.2  | 780.1  | 780.1  | 776.7  | 780.9  | 778.0  | 780.1  | 779.2  |
| 20°   | 838.2  | 838.6  | 837.8  | 839.0  | 839.8  | 839.4  | 839.0  | 838.6  | 839.8  | 841.5  | 840.2  |
| 22.5° | 898.4  | 898.4  | 898.0  | 902.6  | 897.5  | 901.3  | 902.6  | 900.1  | 906.7  | 905.9  | 907.1  |
| 25°   | 963.6  | 963.6  | 966.9  | 970.7  | 971.5  | 968.6  | 970.3  | 968.2  | 972.4  | 975.7  | 976.6  |
| 27.5° | 1024.2 | 1029.7 | 1032.1 | 1029.7 | 1031.7 | 1036.3 | 1035.9 | 1035.9 | 1038.8 | 1038.0 | 1045.9 |
| 30°   | 1086.5 | 1089.8 | 1093.2 | 1091.5 | 1092.4 | 1098.2 | 1098.6 | 1099.0 | 1102.8 | 1108.2 | 1114.1 |
| 32.5° | 1157.6 | 1160.9 | 1159.2 | 1164.7 | 1164.2 | 1171.4 | 1172.6 | 1173.8 | 1185.5 | 1183.5 | 1195.6 |
| 35°   | 1244.9 | 1248.3 | 1246.6 | 1252.4 | 1251.6 | 1254.1 | 1258.7 | 1263.7 | 1265.8 | 1277.9 | 1287.5 |
| 37.5° | 1285.9 | 1285.9 | 1289.6 | 1296.4 | 1298.9 | 1303.0 | 1310.2 | 1316.4 | 1326.8 | 1339.8 | 1354.9 |
| 40°   | 1335.2 | 1336.5 | 1341.5 | 1348.6 | 1353.2 | 1362.8 | 1375.8 | 1384.6 | 1400.5 | 1414.7 | 1432.2 |
| 42.5° | 1395.0 | 1400.5 | 1406.3 | 1415.9 | 1426.0 | 1441.0 | 1459.4 | 1470.7 | 1491.6 | 1510.0 | 1531.7 |
| 45°   | 1464.8 | 1470.2 | 1484.0 | 1501.6 | 1516.3 | 1532.9 | 1548.0 | 1574.8 | 1593.6 | 1612.8 | 1631.6 |
| 47.5° | 1549.3 | 1565.2 | 1576.4 | 1597.3 | 1615.3 | 1637.5 | 1656.3 | 1681.4 | 1701.8 | 1725.2 | 1741.1 |
| 50°   | 1657.6 | 1677.2 | 1691.8 | 1719.0 | 1736.5 | 1761.2 | 1785.1 | 1803.8 | 1824.8 | 1847.8 | 1860.7 |
| 52.5° | 1813.0 | 1833.1 | 1851.5 | 1885.4 | 1907.1 | 1923.8 | 1955.6 | 1979.0 | 1998.2 | 2015.0 | 2029.2 |
| 55°   | 2150.0 | 2144.2 | 2195.2 | 2260.7 | 2268.3 | 2328.9 | 2340.2 | 2359.9 | 2395.4 | 2400.4 | 2440.1 |
| 57.5° | 3112.7 | 3082.6 | 3156.7 | 3252.8 | 3236.0 | 3205.6 | 3333.1 | 3341.0 | 3323.0 | 3371.1 | 3316.7 |
| 60°   | 4445.0 | 4392.4 | 4412.4 | 4438.7 | 4400.7 | 4382.8 | 4389.0 | 4407.0 | 4389.4 | 4370.2 | 4317.5 |
| 62.5° | 5334.6 | 5253.5 | 5195.4 | 5146.5 | 5084.6 | 5039.9 | 4989.7 | 4927.9 | 4911.1 | 4840.9 | 4782.0 |
| 65°   | 5524.4 | 5398.1 | 5306.2 | 5213.8 | 5128.6 | 5049.5 | 4973.9 | 4920.8 | 4850.5 | 4767.4 | 4705.9 |
| 67.5° | 5315.8 | 5159.5 | 5024.9 | 4890.7 | 4794.1 | 4677.9 | 4621.0 | 4534.5 | 4448.0 | 4352.6 | 4296.2 |
| 70°   | 4709.6 | 4546.6 | 4377.3 | 4246.0 | 4114.8 | 3971.0 | 3943.0 | 3840.5 | 3790.8 | 3660.8 | 3638.2 |
| 72.5° | 3250.7 | 3142.0 | 3066.4 | 2904.1 | 2824.3 | 2750.7 | 2727.3 | 2632.4 | 2642.5 | 2499.9 | 2551.7 |
| 75°   | 1155.9 | 1140.4 | 1118.3 | 1026.7 | 1010.4 | 982.0  | 974.5  | 967.7  | 1035.5 | 941.4  | 1009.6 |
| 77.5° | 198.5  | 197.3  | 186.0  | 180.6  | 191.0  | 184.4  | 186.0  | 182.7  | 202.3  | 205.3  | 200.6  |
| 80°   | 123.3  | 120.0  | 116.2  | 113.7  | 114.1  | 111.6  | 112.0  | 112.9  | 114.1  | 113.7  | 115.0  |
| 82.5° | 84.4   | 81.5   | 79.9   | 78.2   | 80.7   | 81.5   | 83.6   | 85.7   | 89.0   | 91.1   | 93.7   |
| 85°   | 46.0   | 42.2   | 42.2   | 41.8   | 45.1   | 47.6   | 51.0   | 55.2   | 61.0   | 66.1   | 71.5   |
| 87.5° | 23.4   | 22.6   | 23.0   | 23.8   | 26.8   | 28.9   | 33.0   | 36.8   | 41.8   | 47.2   | 52.3   |
| 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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CATALOG NUMBER: VST-F03-LED-E-U-T2-8030

**CANDELA DISTRIBUTION (continued):**

|       | 98°    | 99°    | 100°   | 101°   | 102°   | 103°   | 104°   | 105°   | 115°   | 125°   | 135°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  | 600.3  |
| 2.5°  | 598.6  | 598.6  | 598.2  | 598.2  | 597.8  | 597.4  | 596.9  | 595.7  | 591.1  | 586.9  | 584.0  |
| 5°    | 607.9  | 606.6  | 606.2  | 604.9  | 604.5  | 603.7  | 602.4  | 601.1  | 592.8  | 585.2  | 579.8  |
| 7.5°  | 626.6  | 625.0  | 624.1  | 622.9  | 621.6  | 620.0  | 618.3  | 617.0  | 607.0  | 598.2  | 591.5  |
| 10°   | 651.3  | 650.5  | 650.0  | 648.4  | 648.4  | 645.9  | 645.5  | 642.5  | 631.7  | 623.7  | 617.9  |
| 12.5° | 685.6  | 683.9  | 683.5  | 681.4  | 682.3  | 681.4  | 680.6  | 678.9  | 671.0  | 661.7  | 653.8  |
| 15°   | 728.2  | 728.2  | 726.1  | 724.4  | 724.9  | 724.0  | 725.7  | 723.6  | 718.6  | 710.3  | 697.3  |
| 17.5° | 779.6  | 778.8  | 779.6  | 778.4  | 779.2  | 780.1  | 778.0  | 778.4  | 775.9  | 765.4  | 746.2  |
| 20°   | 839.4  | 838.2  | 843.2  | 841.1  | 845.7  | 841.5  | 842.3  | 843.6  | 843.6  | 829.8  | 803.9  |
| 22.5° | 908.0  | 907.1  | 907.1  | 911.3  | 913.0  | 913.4  | 915.1  | 916.3  | 919.7  | 902.2  | 860.8  |
| 25°   | 976.6  | 979.5  | 979.9  | 985.3  | 987.8  | 987.8  | 989.1  | 993.7  | 1003.7 | 979.5  | 926.0  |
| 27.5° | 1046.3 | 1053.5 | 1055.2 | 1058.9 | 1062.7 | 1066.4 | 1069.3 | 1072.7 | 1089.0 | 1062.7 | 992.8  |
| 30°   | 1116.2 | 1124.1 | 1130.0 | 1134.1 | 1138.7 | 1147.9 | 1149.6 | 1156.3 | 1183.5 | 1151.3 | 1056.4 |
| 32.5° | 1198.1 | 1209.4 | 1216.9 | 1222.4 | 1229.5 | 1238.2 | 1243.3 | 1251.6 | 1277.9 | 1225.3 | 1102.8 |
| 35°   | 1295.9 | 1302.6 | 1313.5 | 1322.7 | 1326.8 | 1341.9 | 1349.9 | 1351.9 | 1372.0 | 1289.2 | 1137.1 |
| 37.5° | 1363.7 | 1375.0 | 1393.7 | 1406.7 | 1414.3 | 1422.6 | 1436.0 | 1444.7 | 1464.0 | 1347.4 | 1154.2 |
| 40°   | 1449.8 | 1466.9 | 1481.9 | 1501.2 | 1513.3 | 1519.6 | 1532.9 | 1540.1 | 1542.6 | 1397.1 | 1148.8 |
| 42.5° | 1554.7 | 1570.1 | 1590.2 | 1605.7 | 1614.9 | 1622.0 | 1632.8 | 1635.8 | 1603.2 | 1420.5 | 1119.5 |
| 45°   | 1653.4 | 1677.2 | 1694.3 | 1705.6 | 1712.3 | 1716.1 | 1722.7 | 1723.1 | 1653.4 | 1408.8 | 1069.3 |
| 47.5° | 1759.6 | 1776.7 | 1792.6 | 1800.5 | 1799.6 | 1800.5 | 1798.0 | 1796.3 | 1678.4 | 1368.2 | 1005.0 |
| 50°   | 1877.0 | 1888.3 | 1895.0 | 1898.8 | 1900.9 | 1892.9 | 1881.6 | 1874.1 | 1680.5 | 1310.6 | 939.8  |
| 52.5° | 2034.6 | 2048.8 | 2047.6 | 2047.1 | 2030.4 | 2022.9 | 1992.8 | 1977.4 | 1668.4 | 1242.8 | 866.2  |
| 55°   | 2433.8 | 2420.0 | 2392.9 | 2406.2 | 2338.1 | 2302.6 | 2255.8 | 2212.3 | 1684.3 | 1178.5 | 780.9  |
| 57.5° | 3338.5 | 3343.9 | 3266.6 | 3225.2 | 3110.2 | 2966.4 | 2850.6 | 2738.2 | 1827.2 | 1139.2 | 669.7  |
| 60°   | 4282.4 | 4211.3 | 4113.1 | 3963.4 | 3815.5 | 3601.9 | 3395.8 | 3200.9 | 1969.8 | 1098.2 | 538.0  |
| 62.5° | 4694.6 | 4593.4 | 4445.0 | 4251.5 | 4019.0 | 3757.8 | 3501.1 | 3263.6 | 1900.9 | 965.7  | 391.3  |
| 65°   | 4611.0 | 4456.3 | 4292.5 | 4065.8 | 3783.3 | 3496.9 | 3197.2 | 2954.7 | 1590.2 | 720.3  | 241.2  |
| 67.5° | 4173.7 | 4042.4 | 3869.4 | 3600.6 | 3298.3 | 3000.3 | 2725.6 | 2453.9 | 1181.4 | 449.0  | 135.0  |
| 70°   | 3522.8 | 3394.5 | 3218.9 | 2943.8 | 2642.0 | 2356.9 | 2066.0 | 1844.4 | 752.9  | 216.5  | 97.4   |
| 72.5° | 2443.9 | 2339.8 | 2215.6 | 2019.5 | 1754.9 | 1495.7 | 1298.9 | 1128.7 | 417.2  | 115.0  | 89.0   |
| 75°   | 992.5  | 992.8  | 970.3  | 887.5  | 749.9  | 646.7  | 551.4  | 467.8  | 174.3  | 97.8   | 87.8   |
| 77.5° | 224.9  | 228.7  | 250.0  | 237.0  | 213.6  | 199.8  | 178.9  | 158.0  | 106.2  | 100.7  | 88.6   |
| 80°   | 113.7  | 114.1  | 112.9  | 113.3  | 112.0  | 112.4  | 110.8  | 109.5  | 99.5   | 103.7  | 88.6   |
| 82.5° | 94.9   | 97.0   | 96.5   | 96.5   | 97.0   | 97.0   | 97.0   | 96.5   | 103.3  | 109.1  | 85.7   |
| 85°   | 75.2   | 79.4   | 82.8   | 86.1   | 89.9   | 92.4   | 93.7   | 94.9   | 100.3  | 107.5  | 77.8   |
| 87.5° | 56.9   | 61.9   | 66.1   | 69.4   | 75.2   | 75.2   | 79.4   | 82.4   | 82.4   | 84.0   | 41.0   |
| 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: P159313

CATALOG NUMBER: VST-F03-LED-E-U-T2-8030

**CANDELA DISTRIBUTION (continued):**

|       | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|-------|-------|-------|-------|-------|
| 0°    | 600.3 | 600.3 | 600.3 | 600.3 | 600.3 |
| 2.5°  | 579.8 | 578.2 | 576.5 | 575.6 | 574.0 |
| 5°    | 575.6 | 572.3 | 570.2 | 570.2 | 568.6 |
| 7.5°  | 587.8 | 586.5 | 583.6 | 581.9 | 583.6 |
| 10°   | 613.7 | 611.6 | 608.3 | 605.8 | 607.0 |
| 12.5° | 648.4 | 640.0 | 633.4 | 630.4 | 628.3 |
| 15°   | 684.4 | 667.6 | 654.2 | 646.7 | 644.6 |
| 17.5° | 722.8 | 693.5 | 673.4 | 662.2 | 660.1 |
| 20°   | 762.1 | 725.7 | 697.3 | 682.7 | 682.3 |
| 22.5° | 809.3 | 760.9 | 724.4 | 705.2 | 704.0 |
| 25°   | 859.1 | 792.2 | 744.1 | 719.5 | 716.9 |
| 27.5° | 902.2 | 817.3 | 756.2 | 727.0 | 724.4 |
| 30°   | 938.1 | 836.1 | 766.3 | 732.4 | 729.1 |
| 32.5° | 964.0 | 847.0 | 770.5 | 734.1 | 730.3 |
| 35°   | 972.4 | 842.8 | 758.8 | 719.0 | 714.8 |
| 37.5° | 961.1 | 815.6 | 726.1 | 682.3 | 677.2 |
| 40°   | 927.2 | 767.9 | 673.0 | 627.9 | 621.6 |
| 42.5° | 875.4 | 709.4 | 609.1 | 566.0 | 558.1 |
| 45°   | 811.4 | 643.4 | 545.5 | 497.5 | 493.7 |
| 47.5° | 744.5 | 574.0 | 474.1 | 430.6 | 426.0 |
| 50°   | 672.2 | 493.7 | 404.2 | 357.0 | 357.0 |
| 52.5° | 586.1 | 415.6 | 323.2 | 287.6 | 284.7 |
| 55°   | 487.0 | 327.3 | 257.5 | 230.3 | 226.6 |
| 57.5° | 380.4 | 251.6 | 205.7 | 189.8 | 185.6 |
| 60°   | 279.7 | 188.9 | 165.5 | 156.8 | 155.1 |
| 62.5° | 189.8 | 143.8 | 133.4 | 129.6 | 129.2 |
| 65°   | 128.3 | 112.0 | 109.1 | 107.9 | 108.3 |
| 67.5° | 98.6  | 93.2  | 92.0  | 91.6  | 91.6  |
| 70°   | 85.7  | 82.4  | 81.1  | 81.5  | 81.1  |
| 72.5° | 80.7  | 76.1  | 76.5  | 77.3  | 76.9  |
| 75°   | 79.0  | 73.1  | 74.8  | 75.2  | 73.6  |
| 77.5° | 77.8  | 69.8  | 74.0  | 75.2  | 70.6  |
| 80°   | 75.2  | 66.9  | 76.9  | 77.3  | 69.4  |
| 82.5° | 69.0  | 59.3  | 76.9  | 71.0  | 62.7  |
| 85°   | 58.5  | 45.1  | 86.9  | 61.9  | 46.4  |
| 87.5° | 37.2  | 26.8  | 58.9  | 42.2  | 28.0  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)