

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: P158235

Luminaire Tested: **VST-F05-LED-E-U-SL2**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P158235  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33712)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-F05-LED-E-U-SL2  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL  
Light Source: (35) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12419.1 lumens  
Efficiency: N/A  
Efficacy: 93.2 lumens/watt  
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G2

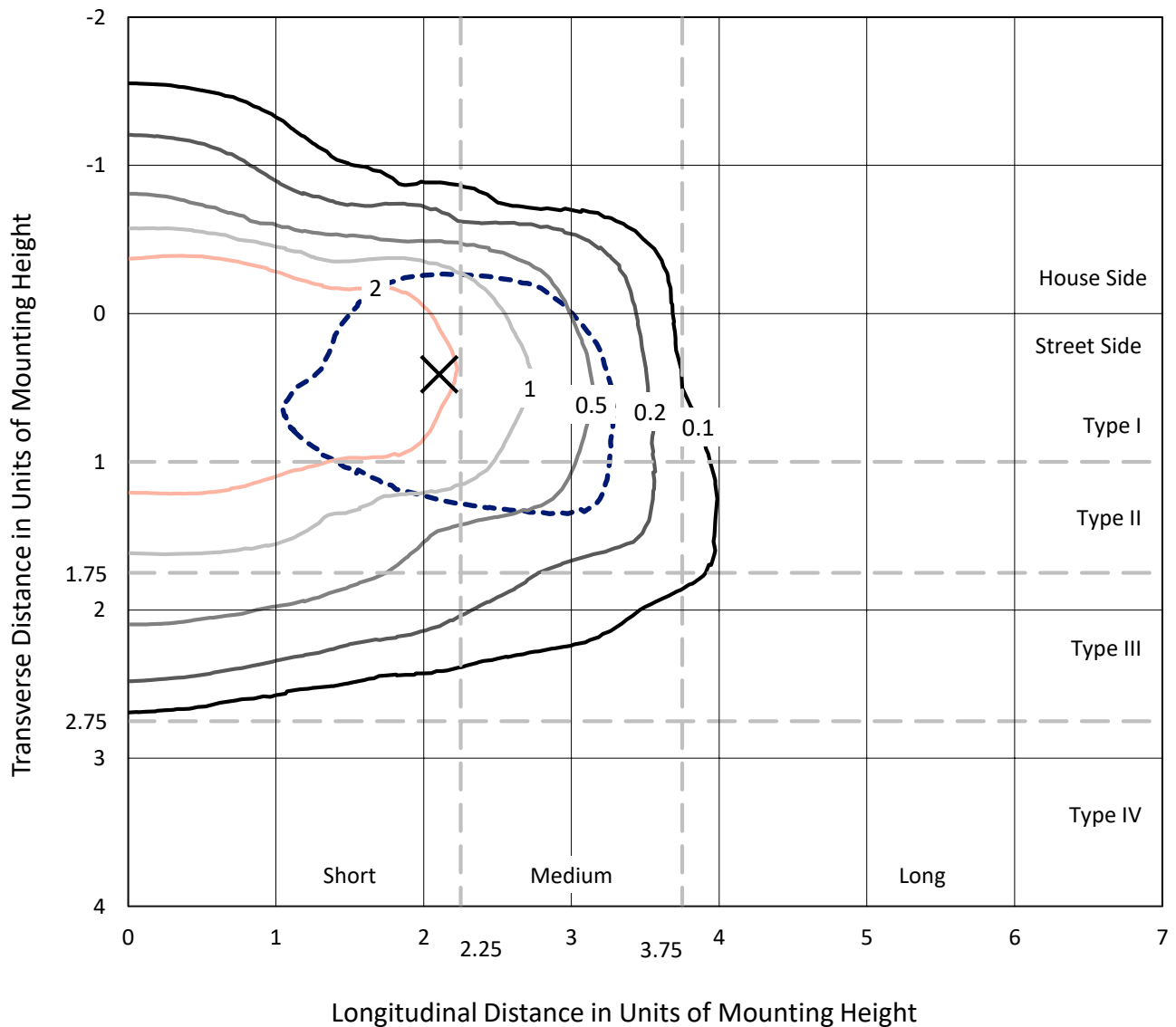
Input Watts (W): 133.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P158235  
 CATALOG NUMBER: VST-F05-LED-E-U-SL2

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

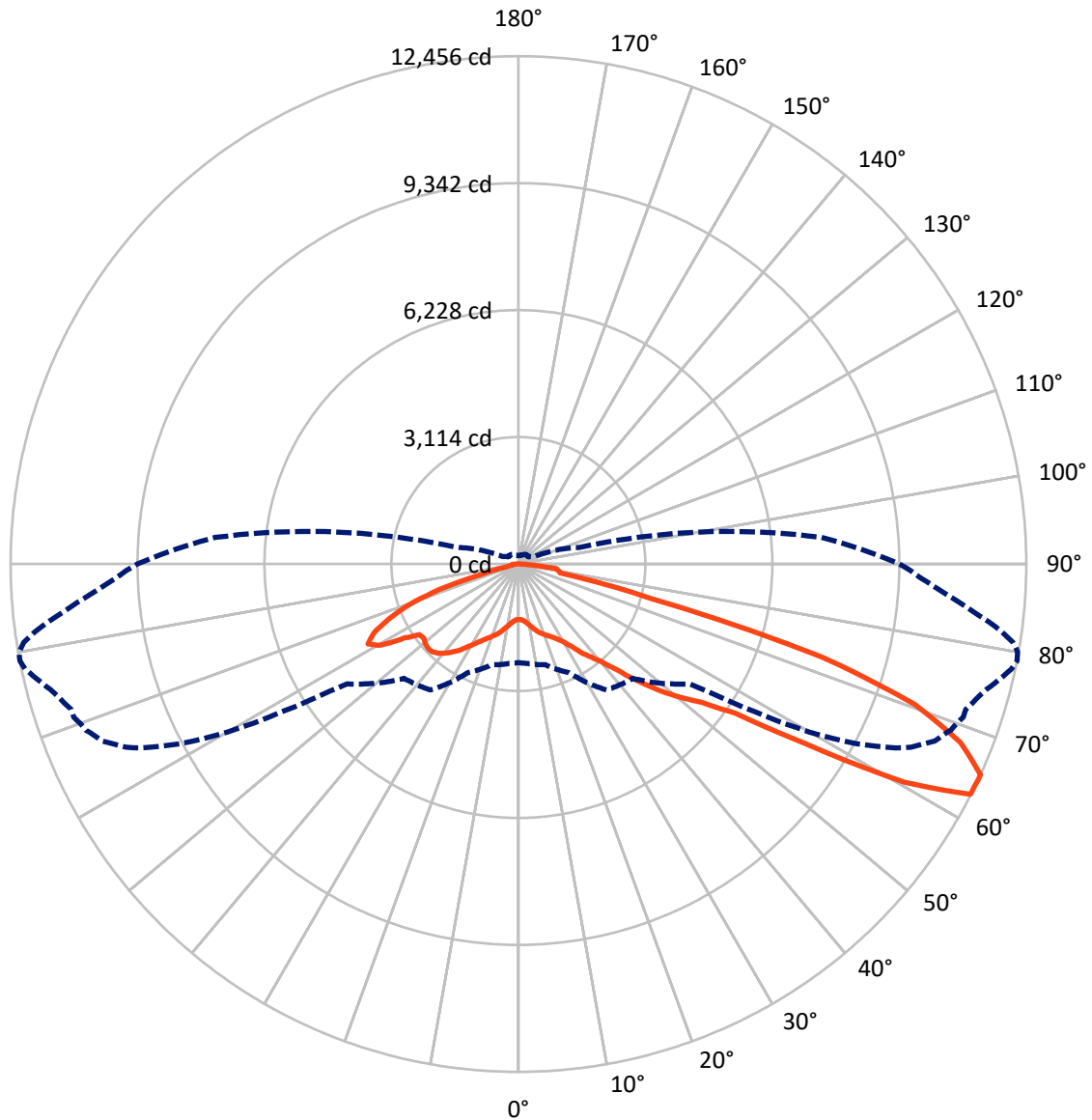


Based on 20 foot mounting height. Maximum calculated value = 4.4 fc  
 Type II - Short - Non-Cutoff

REPORT NUMBER: P158235

CATALOG NUMBER: VST-F05-LED-E-U-SL2

### Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P158235

CATALOG NUMBER: VST-F05-LED-E-U-SL2

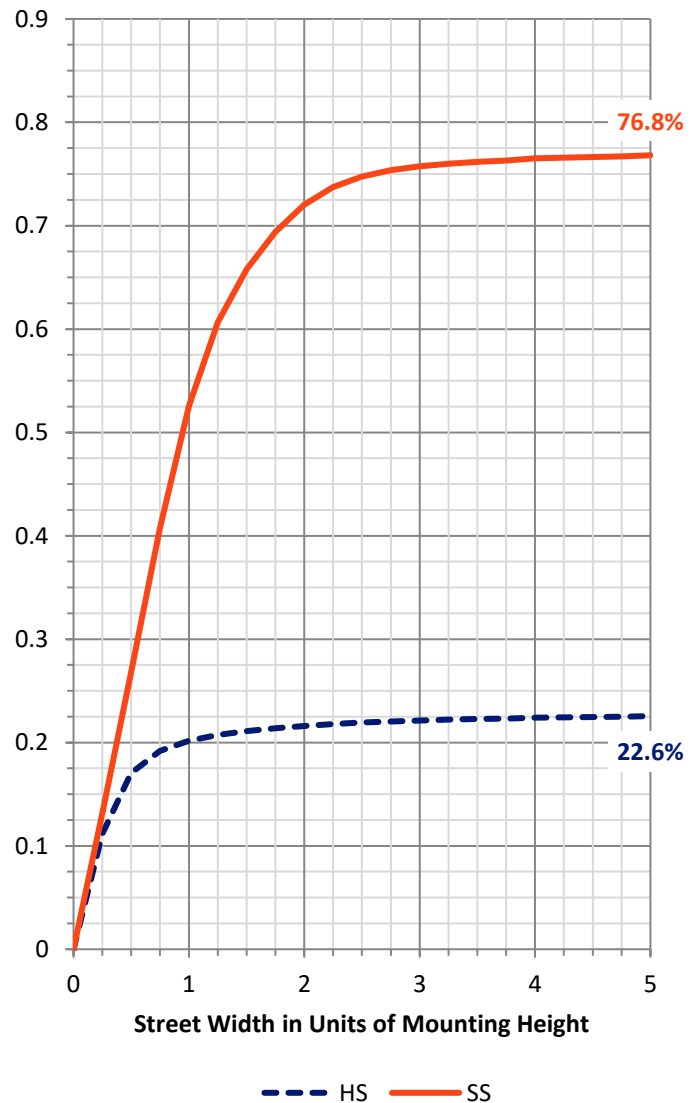
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2853.7   | 0.0    | 2853.7  |
|                    | % Fixture | 23.0     | 0.0    | 23.0    |
| <b>Street Side</b> | Lumens    | 9565.4   | 0.0    | 9565.4  |
|                    | % Fixture | 77.0     | 0.0    | 77.0    |
| <b>Total</b>       | Lumens    | 12419.1  | 0.0    | 12419.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 134.4   | 1.1       |
| 10°-20°   | 436.6   | 3.5       |
| 20°-30°   | 752.7   | 6.1       |
| 30°-40°   | 1232.9  | 9.9       |
| 40°-50°   | 2064.7  | 16.6      |
| 50°-60°   | 2792.8  | 22.5      |
| 60°-70°   | 3439.4  | 27.7      |
| 70°-80°   | 1331.3  | 10.7      |
| 80°-90°   | 234.1   | 1.9       |
| 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°    | 12419.1 | 100.0     |
| 0°-180°   | 12419.1 | 100.0     |



REPORT NUMBER: P158235

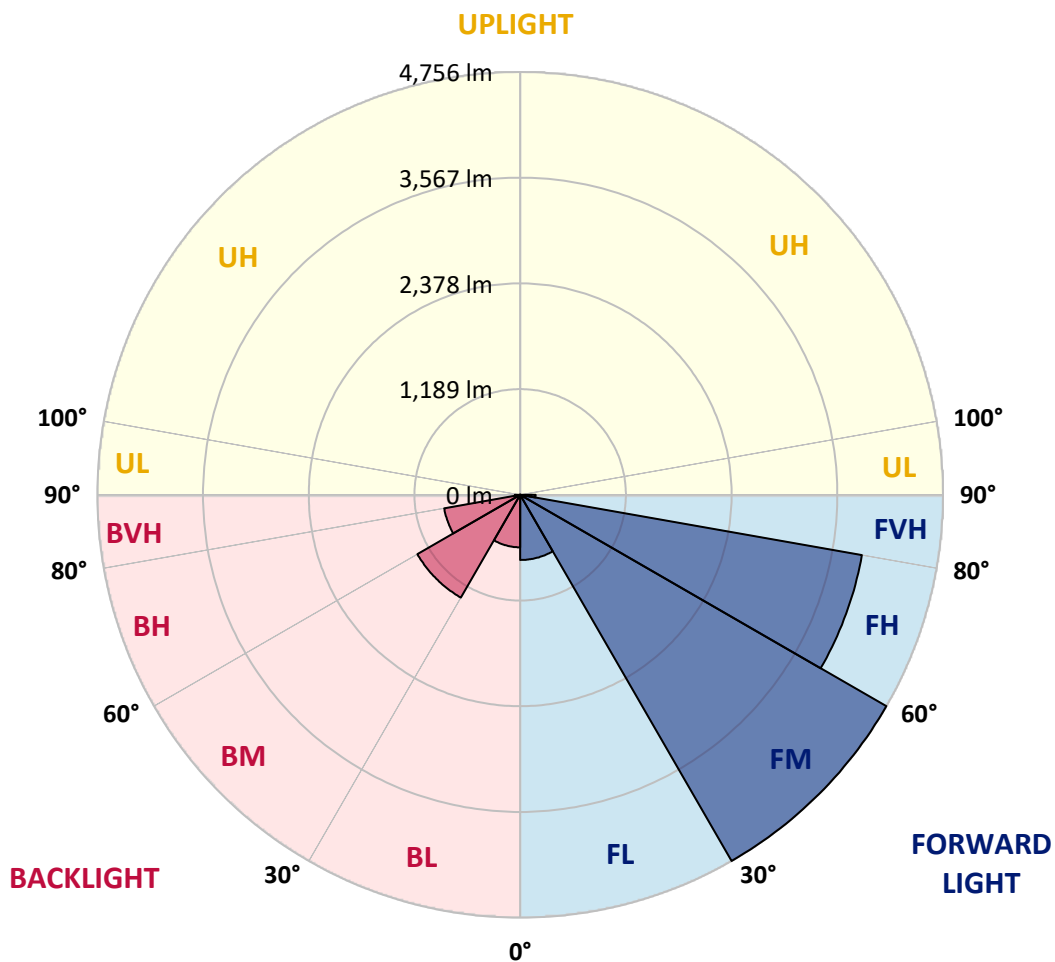
CATALOG NUMBER: VST-F05-LED-E-U-SL2

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 733.2  | 5.9       |                         |      |         |
| FM   | (30°-60°)   | 4756.0 | 38.3      |                         |      |         |
| FH   | (60°-80°)   | 3902.5 | 31.4      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 173.7  | 1.4       |                         |      | G2/225  |
| BL   | (0°-30°)    | 590.6  | 4.8       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1334.5 | 10.7      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 868.2  | 7.0       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 60.4   | 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





REPORT NUMBER: P158235

CATALOG NUMBER: VST-F05-LED-E-U-SL2

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 56°    | 57°    | 58°    | 59°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1358.8 | 1358.8 | 1358.8 | 1358.8 | 1358.8 | 1358.8 | 1358.8 | 1358.8 | 1358.8 | 1358.8 | 1358.8 |
| 2.5°  | 1361.3 | 1357.2 | 1361.3 | 1364.6 | 1367.1 | 1370.4 | 1369.5 | 1368.7 | 1367.9 | 1368.7 | 1368.7 |
| 5°    | 1372.8 | 1372.0 | 1376.2 | 1379.5 | 1385.2 | 1389.4 | 1394.3 | 1394.3 | 1394.3 | 1393.5 | 1395.1 |
| 7.5°  | 1410.0 | 1409.2 | 1413.3 | 1416.6 | 1421.6 | 1429.8 | 1436.4 | 1439.7 | 1438.9 | 1438.9 | 1438.9 |
| 10°   | 1471.1 | 1467.8 | 1467.8 | 1467.8 | 1474.4 | 1480.2 | 1495.0 | 1496.7 | 1500.0 | 1498.3 | 1499.2 |
| 12.5° | 1530.5 | 1531.3 | 1528.9 | 1526.4 | 1527.2 | 1538.8 | 1560.2 | 1564.4 | 1565.2 | 1567.7 | 1569.3 |
| 15°   | 1584.2 | 1583.4 | 1577.6 | 1571.8 | 1579.2 | 1599.0 | 1627.1 | 1634.5 | 1634.5 | 1639.5 | 1642.8 |
| 17.5° | 1633.7 | 1632.1 | 1621.3 | 1611.4 | 1618.9 | 1652.7 | 1696.5 | 1701.4 | 1708.8 | 1711.3 | 1714.6 |
| 20°   | 1692.3 | 1689.0 | 1676.6 | 1650.2 | 1650.2 | 1696.5 | 1754.2 | 1759.2 | 1765.8 | 1767.4 | 1773.2 |
| 22.5° | 1774.1 | 1765.8 | 1739.4 | 1691.5 | 1678.3 | 1732.0 | 1802.9 | 1805.4 | 1810.4 | 1817.0 | 1821.9 |
| 25°   | 1866.5 | 1868.2 | 1825.2 | 1741.9 | 1713.0 | 1769.1 | 1850.0 | 1854.1 | 1863.2 | 1868.2 | 1873.9 |
| 27.5° | 1962.3 | 1964.7 | 1916.9 | 1812.9 | 1764.1 | 1820.3 | 1913.6 | 1918.5 | 1929.3 | 1935.0 | 1944.1 |
| 30°   | 2071.2 | 2074.5 | 2028.3 | 1923.5 | 1849.2 | 1895.4 | 2007.7 | 2020.9 | 2030.0 | 2037.4 | 2052.3 |
| 32.5° | 2332.9 | 2313.1 | 2280.9 | 2169.5 | 2052.3 | 2049.0 | 2159.6 | 2174.4 | 2186.8 | 2202.5 | 2216.5 |
| 35°   | 2662.3 | 2674.7 | 2691.2 | 2616.1 | 2512.9 | 2437.8 | 2446.9 | 2438.6 | 2450.2 | 2473.3 | 2487.3 |
| 37.5° | 2923.2 | 2950.4 | 3022.2 | 3071.0 | 3066.8 | 3052.0 | 2913.3 | 2913.3 | 2920.7 | 2908.3 | 2906.7 |
| 40°   | 3127.9 | 3145.2 | 3292.2 | 3481.2 | 3640.6 | 3719.0 | 3609.2 | 3593.5 | 3601.8 | 3538.2 | 3540.7 |
| 42.5° | 3233.6 | 3259.2 | 3470.5 | 3802.4 | 4118.5 | 4370.3 | 4336.5 | 4325.8 | 4301.0 | 4285.3 | 4275.4 |
| 45°   | 3287.2 | 3317.8 | 3569.6 | 4025.3 | 4485.9 | 4874.7 | 5049.7 | 5048.1 | 5025.8 | 5007.6 | 4999.4 |
| 47.5° | 3260.0 | 3286.4 | 3554.7 | 4093.0 | 4679.1 | 5200.0 | 5587.2 | 5611.1 | 5604.5 | 5630.9 | 5641.6 |
| 50°   | 3081.7 | 3115.5 | 3384.7 | 3946.8 | 4598.2 | 5327.9 | 5959.5 | 6004.0 | 6064.3 | 6102.3 | 6152.6 |
| 52.5° | 2920.7 | 2948.8 | 3191.5 | 3709.9 | 4332.4 | 5223.9 | 6184.0 | 6275.6 | 6358.2 | 6435.8 | 6496.1 |
| 55°   | 2752.3 | 2780.4 | 2993.4 | 3463.9 | 4064.1 | 4916.8 | 6286.4 | 6420.1 | 6548.9 | 6680.1 | 6800.7 |
| 57.5° | 2688.7 | 2718.5 | 2877.0 | 3273.2 | 3844.5 | 4612.2 | 6336.7 | 6556.3 | 6766.0 | 6988.9 | 7220.0 |
| 60°   | 2853.8 | 2880.3 | 3000.8 | 3278.2 | 3676.9 | 4307.6 | 6235.2 | 6580.3 | 6941.0 | 7308.4 | 7663.3 |
| 62.5° | 2803.5 | 2817.5 | 2967.8 | 3397.9 | 3890.7 | 4007.1 | 5795.2 | 6250.9 | 6775.1 | 7313.3 | 7857.3 |
| 65°   | 2418.8 | 2446.0 | 2559.1 | 2937.2 | 3771.0 | 3966.6 | 5124.9 | 5583.0 | 6201.3 | 6837.8 | 7566.8 |
| 67.5° | 1735.3 | 1697.3 | 1784.8 | 2115.8 | 2925.7 | 3960.0 | 4370.3 | 4709.6 | 5194.2 | 5682.1 | 6279.8 |
| 70°   | 788.4  | 770.2  | 838.7  | 1100.4 | 1765.0 | 3129.6 | 3695.0 | 3809.8 | 3989.8 | 4318.3 | 4722.0 |
| 72.5° | 311.2  | 310.4  | 355.0  | 454.9  | 834.6  | 2014.3 | 3107.3 | 3173.3 | 3236.9 | 3379.7 | 3553.9 |
| 75°   | 203.9  | 203.9  | 217.1  | 245.2  | 411.1  | 972.5  | 2628.5 | 2688.7 | 2786.1 | 2826.6 | 2900.9 |
| 77.5° | 153.5  | 154.4  | 160.2  | 166.8  | 227.0  | 511.8  | 1855.0 | 2068.8 | 2233.9 | 2356.9 | 2446.9 |
| 80°   | 109.0  | 113.9  | 124.7  | 128.8  | 147.8  | 291.4  | 1048.4 | 1202.8 | 1389.4 | 1588.3 | 1838.4 |
| 82.5° | 81.7   | 87.5   | 105.7  | 110.6  | 117.2  | 165.9  | 473.0  | 536.6  | 626.6  | 812.3  | 1168.1 |
| 85°   | 38.0   | 42.1   | 72.6   | 79.3   | 85.0   | 95.8   | 240.2  | 268.3  | 304.6  | 333.5  | 388.8  |
| 87.5° | 5.8    | 4.1    | 12.4   | 17.3   | 27.2   | 28.1   | 82.6   | 98.2   | 106.5  | 128.0  | 132.9  |
| 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: P158235

CATALOG NUMBER: VST-F05-LED-E-U-SL2

**CANDELA DISTRIBUTION (continued):**

|       | 60°    | 61°    | 62°    | 64°     | 65°     | 66°     | 67°     | 68°     | 69°     | 70°     | 71°     |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 1358.8 | 1358.8 | 1358.8 | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  |
| 2.5°  | 1368.7 | 1369.5 | 1370.4 | 1368.7  | 1369.5  | 1369.5  | 1367.9  | 1367.1  | 1367.1  | 1367.1  | 1367.9  |
| 5°    | 1395.1 | 1396.8 | 1395.1 | 1396.0  | 1399.3  | 1398.4  | 1396.8  | 1396.0  | 1399.3  | 1400.1  | 1397.6  |
| 7.5°  | 1442.2 | 1443.0 | 1439.7 | 1443.8  | 1445.5  | 1446.3  | 1446.3  | 1448.0  | 1448.0  | 1450.4  | 1448.0  |
| 10°   | 1502.5 | 1502.5 | 1508.2 | 1507.4  | 1508.2  | 1509.9  | 1510.7  | 1514.0  | 1516.5  | 1516.5  | 1518.1  |
| 12.5° | 1571.8 | 1572.6 | 1578.4 | 1579.2  | 1582.5  | 1583.4  | 1588.3  | 1585.0  | 1593.3  | 1593.3  | 1595.7  |
| 15°   | 1643.6 | 1649.4 | 1650.2 | 1658.5  | 1660.1  | 1661.0  | 1667.6  | 1667.6  | 1673.3  | 1674.2  | 1675.8  |
| 17.5° | 1714.6 | 1719.6 | 1722.9 | 1729.5  | 1735.3  | 1737.7  | 1740.2  | 1745.2  | 1749.3  | 1750.9  | 1755.1  |
| 20°   | 1775.7 | 1780.7 | 1784.0 | 1790.6  | 1795.5  | 1799.6  | 1802.1  | 1807.9  | 1812.0  | 1813.7  | 1819.5  |
| 22.5° | 1826.9 | 1830.2 | 1836.0 | 1845.0  | 1846.7  | 1851.7  | 1859.1  | 1863.2  | 1864.9  | 1869.8  | 1876.4  |
| 25°   | 1881.4 | 1886.3 | 1889.6 | 1897.9  | 1904.5  | 1912.7  | 1919.3  | 1925.9  | 1927.6  | 1934.2  | 1940.0  |
| 27.5° | 1954.0 | 1959.0 | 1959.8 | 1976.3  | 1982.9  | 1994.5  | 2001.9  | 2011.8  | 2016.8  | 2022.5  | 2034.1  |
| 30°   | 2061.3 | 2072.9 | 2077.8 | 2096.8  | 2100.1  | 2113.3  | 2126.6  | 2129.9  | 2137.3  | 2138.1  | 2157.1  |
| 32.5° | 2225.6 | 2242.1 | 2248.7 | 2268.5  | 2273.5  | 2285.9  | 2293.3  | 2310.6  | 2311.5  | 2319.7  | 2323.9  |
| 35°   | 2494.7 | 2490.6 | 2516.2 | 2521.2  | 2536.0  | 2546.7  | 2554.2  | 2554.2  | 2569.9  | 2570.7  | 2575.6  |
| 37.5° | 2862.1 | 2853.8 | 2860.4 | 2830.7  | 2838.2  | 2824.9  | 2822.5  | 2825.8  | 2819.2  | 2820.8  | 2820.0  |
| 40°   | 3449.9 | 3412.7 | 3373.9 | 3282.3  | 3262.5  | 3224.5  | 3194.8  | 3170.8  | 3147.7  | 3123.0  | 3106.5  |
| 42.5° | 4187.1 | 4133.4 | 4075.6 | 3928.7  | 3860.2  | 3786.7  | 3714.9  | 3673.6  | 3591.0  | 3540.7  | 3513.4  |
| 45°   | 4959.8 | 4897.0 | 4816.1 | 4693.9  | 4596.5  | 4518.1  | 4386.8  | 4324.9  | 4197.0  | 4133.4  | 4047.5  |
| 47.5° | 5592.9 | 5593.8 | 5528.5 | 5404.7  | 5300.7  | 5248.7  | 5167.0  | 5047.3  | 4902.0  | 4820.2  | 4667.5  |
| 50°   | 6146.9 | 6146.0 | 6141.9 | 6067.6  | 5995.0  | 5938.0  | 5866.2  | 5758.0  | 5639.2  | 5546.7  | 5371.7  |
| 52.5° | 6556.3 | 6610.8 | 6633.9 | 6633.1  | 6624.0  | 6597.6  | 6543.1  | 6449.8  | 6329.3  | 6277.3  | 6137.8  |
| 55°   | 6894.8 | 7013.7 | 7075.6 | 7211.0  | 7223.3  | 7267.1  | 7219.2  | 7220.0  | 7149.0  | 7154.0  | 7109.4  |
| 57.5° | 7407.4 | 7624.5 | 7749.2 | 8048.9  | 8199.1  | 8380.7  | 8348.5  | 8500.4  | 8555.7  | 8625.9  | 8719.2  |
| 60°   | 7989.4 | 8394.8 | 8690.3 | 9286.3  | 9529.0  | 9822.9  | 9984.7  | 10157.3 | 10282.7 | 10411.5 | 10506.5 |
| 62.5° | 8405.5 | 8938.0 | 9423.4 | 10272.8 | 10588.2 | 10897.8 | 11101.7 | 11310.5 | 11451.7 | 11544.1 | 11612.7 |
| 65°   | 8235.4 | 8824.0 | 9397.8 | 10288.5 | 10631.9 | 10856.5 | 11099.2 | 11219.7 | 11360.9 | 11437.6 | 11535.9 |
| 67.5° | 6998.0 | 7588.2 | 8203.2 | 9254.1  | 9613.2  | 9923.6  | 10112.7 | 10268.7 | 10382.6 | 10480.0 | 10593.1 |
| 70°   | 5204.1 | 5849.7 | 6485.3 | 7637.8  | 8091.0  | 8539.2  | 8762.1  | 8955.3  | 9074.2  | 9172.4  | 9297.1  |
| 72.5° | 3745.4 | 4149.9 | 4547.0 | 5837.3  | 6290.5  | 6870.0  | 7101.2  | 7315.8  | 7470.2  | 7465.2  | 7597.3  |
| 75°   | 2981.8 | 3146.1 | 3322.7 | 3988.9  | 4314.2  | 4802.9  | 4932.5  | 5053.0  | 4980.4  | 4840.9  | 4832.6  |
| 77.5° | 2482.4 | 2550.0 | 2609.5 | 2818.3  | 2866.2  | 2982.6  | 2918.2  | 2851.4  | 2635.9  | 2454.3  | 2358.5  |
| 80°   | 2015.1 | 2148.8 | 2236.3 | 2384.9  | 2446.0  | 2480.7  | 2489.8  | 2466.7  | 2387.4  | 2277.6  | 2102.6  |
| 82.5° | 1498.3 | 1752.6 | 1925.9 | 2218.2  | 2325.5  | 2347.8  | 2390.7  | 2364.3  | 2312.3  | 2223.1  | 2097.7  |
| 85°   | 439.2  | 497.0  | 569.6  | 772.7   | 905.6   | 1018.7  | 1134.3  | 1191.2  | 1226.7  | 1177.2  | 1047.6  |
| 87.5° | 154.4  | 174.2  | 194.8  | 268.3   | 285.6   | 345.1   | 338.5   | 399.6   | 402.0   | 419.4   | 401.2   |
| 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: P158235

CATALOG NUMBER: VST-F05-LED-E-U-SL2

**CANDELA DISTRIBUTION (continued):**

|       | 72°     | 73°     | 74°     | 75°     | 76°     | 77°     | 78°     | 79°     | 80°     | 81°     | 82°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  |
| 2.5°  | 1367.1  | 1367.1  | 1367.1  | 1367.9  | 1367.9  | 1367.9  | 1366.2  | 1365.4  | 1366.2  | 1367.9  | 1367.9  |
| 5°    | 1399.3  | 1400.1  | 1401.7  | 1398.4  | 1399.3  | 1401.7  | 1400.1  | 1399.3  | 1400.1  | 1401.7  | 1400.1  |
| 7.5°  | 1451.3  | 1452.1  | 1450.4  | 1453.7  | 1453.7  | 1455.4  | 1457.9  | 1455.4  | 1456.2  | 1457.1  | 1457.9  |
| 10°   | 1519.0  | 1519.8  | 1521.4  | 1523.9  | 1524.7  | 1526.4  | 1528.0  | 1530.5  | 1530.5  | 1528.9  | 1533.0  |
| 12.5° | 1599.9  | 1599.0  | 1600.7  | 1604.0  | 1605.6  | 1608.1  | 1613.1  | 1613.1  | 1616.4  | 1615.6  | 1619.7  |
| 15°   | 1679.1  | 1683.2  | 1684.1  | 1689.8  | 1692.3  | 1696.5  | 1702.2  | 1705.5  | 1705.5  | 1710.5  | 1712.1  |
| 17.5° | 1758.4  | 1761.7  | 1765.0  | 1769.9  | 1773.2  | 1775.7  | 1782.3  | 1786.4  | 1785.6  | 1794.7  | 1794.7  |
| 20°   | 1819.5  | 1826.1  | 1830.2  | 1833.5  | 1839.3  | 1843.4  | 1848.4  | 1853.3  | 1856.6  | 1862.4  | 1864.0  |
| 22.5° | 1878.9  | 1883.0  | 1888.8  | 1892.9  | 1899.5  | 1904.5  | 1910.3  | 1914.4  | 1920.2  | 1927.6  | 1930.1  |
| 25°   | 1944.9  | 1951.5  | 1958.1  | 1963.9  | 1968.9  | 1974.7  | 1984.6  | 1993.6  | 2001.9  | 2008.5  | 2011.0  |
| 27.5° | 2036.6  | 2044.0  | 2053.9  | 2058.0  | 2065.5  | 2070.4  | 2085.3  | 2096.8  | 2101.0  | 2112.5  | 2115.8  |
| 30°   | 2160.4  | 2168.7  | 2178.6  | 2183.5  | 2196.7  | 2203.3  | 2219.0  | 2231.4  | 2235.5  | 2249.6  | 2252.0  |
| 32.5° | 2339.5  | 2344.5  | 2364.3  | 2363.5  | 2381.6  | 2400.6  | 2409.7  | 2419.6  | 2437.8  | 2445.2  | 2447.7  |
| 35°   | 2588.0  | 2599.6  | 2613.6  | 2612.8  | 2635.9  | 2646.6  | 2664.8  | 2675.5  | 2688.7  | 2687.9  | 2701.9  |
| 37.5° | 2828.2  | 2832.4  | 2837.3  | 2848.1  | 2864.6  | 2879.4  | 2886.0  | 2896.8  | 2906.7  | 2921.5  | 2939.7  |
| 40°   | 3089.9  | 3099.8  | 3100.7  | 3106.5  | 3114.7  | 3133.7  | 3146.1  | 3157.6  | 3191.5  | 3212.9  | 3223.7  |
| 42.5° | 3482.1  | 3479.6  | 3463.1  | 3473.8  | 3478.8  | 3507.7  | 3516.7  | 3552.2  | 3590.2  | 3635.6  | 3648.0  |
| 45°   | 3986.5  | 3953.4  | 3943.5  | 3939.4  | 3965.8  | 3980.7  | 4017.8  | 4083.9  | 4123.5  | 4166.4  | 4187.1  |
| 47.5° | 4607.3  | 4504.1  | 4455.4  | 4444.6  | 4471.9  | 4535.4  | 4547.8  | 4613.0  | 4665.0  | 4696.4  | 4717.0  |
| 50°   | 5228.9  | 5148.0  | 5045.6  | 5010.9  | 5003.5  | 5062.1  | 5076.2  | 5130.6  | 5183.5  | 5192.6  | 5181.8  |
| 52.5° | 6009.8  | 5877.7  | 5708.5  | 5647.4  | 5598.7  | 5602.8  | 5614.4  | 5637.5  | 5671.4  | 5657.3  | 5628.4  |
| 55°   | 7008.7  | 6858.5  | 6775.1  | 6659.5  | 6586.0  | 6572.8  | 6522.5  | 6453.1  | 6450.7  | 6459.7  | 6373.1  |
| 57.5° | 8672.1  | 8609.4  | 8644.9  | 8632.5  | 8559.9  | 8603.6  | 8376.6  | 8312.2  | 8261.0  | 8171.9  | 8091.8  |
| 60°   | 10590.7 | 10655.1 | 10728.5 | 10897.8 | 10890.3 | 11060.4 | 10902.7 | 10863.1 | 10815.2 | 10540.3 | 10405.7 |
| 62.5° | 11732.4 | 11758.0 | 11866.1 | 12023.8 | 12179.0 | 12341.6 | 12415.1 | 12440.7 | 12340.8 | 12116.2 | 11835.6 |
| 65°   | 11533.4 | 11646.5 | 11751.3 | 11887.6 | 12046.9 | 12209.5 | 12364.7 | 12455.5 | 12432.4 | 12283.8 | 11975.1 |
| 67.5° | 10629.5 | 10748.3 | 10901.9 | 11044.7 | 11216.4 | 11357.6 | 11527.6 | 11694.4 | 11699.3 | 11625.0 | 11410.4 |
| 70°   | 9310.3  | 9448.1  | 9606.6  | 9686.7  | 9872.5  | 10000.4 | 10141.6 | 10306.7 | 10360.3 | 10369.4 | 10119.3 |
| 72.5° | 7569.2  | 7627.0  | 7704.6  | 7662.5  | 7699.7  | 7781.4  | 7743.4  | 7756.6  | 7552.7  | 7590.7  | 7282.0  |
| 75°   | 4609.7  | 4556.9  | 4322.4  | 4108.6  | 3847.8  | 3647.2  | 3695.0  | 3312.0  | 2934.7  | 2915.8  | 2643.3  |
| 77.5° | 2337.9  | 2253.7  | 2108.4  | 1957.3  | 1736.1  | 1482.6  | 1271.3  | 1043.5  | 851.1   | 741.3   | 636.5   |
| 80°   | 1991.2  | 1931.7  | 1851.7  | 1741.9  | 1580.9  | 1393.5  | 1173.1  | 999.7   | 838.7   | 671.2   | 537.4   |
| 82.5° | 1905.3  | 1723.7  | 1607.3  | 1515.7  | 1341.5  | 1168.1  | 1047.6  | 928.7   | 814.8   | 711.6   | 563.8   |
| 85°   | 945.2   | 836.3   | 707.5   | 627.4   | 482.9   | 378.1   | 354.2   | 291.4   | 271.6   | 209.7   | 176.7   |
| 87.5° | 317.8   | 260.0   | 194.0   | 163.5   | 130.4   | 106.5   | 104.8   | 93.3    | 92.5    | 84.2    | 77.6    |
| 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: P158235

CATALOG NUMBER: VST-F05-LED-E-U-SL2

**CANDELA DISTRIBUTION (continued):**

|       | 83°     | 84°     | 85°     | 86°     | 87°     | 88°     | 89°    | 90°    | 95°    | 105°   | 115°   |
|-------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|
| 0°    | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8  | 1358.8 | 1358.8 | 1358.8 | 1358.8 | 1358.8 |
| 2.5°  | 1367.1  | 1368.7  | 1368.7  | 1367.1  | 1367.9  | 1366.2  | 1367.1 | 1367.9 | 1365.4 | 1364.6 | 1362.1 |
| 5°    | 1400.9  | 1400.1  | 1400.1  | 1400.9  | 1403.4  | 1404.2  | 1400.1 | 1401.7 | 1402.6 | 1398.4 | 1389.4 |
| 7.5°  | 1457.1  | 1457.1  | 1459.5  | 1458.7  | 1463.7  | 1462.0  | 1461.2 | 1461.2 | 1461.2 | 1452.9 | 1438.1 |
| 10°   | 1533.0  | 1533.0  | 1535.5  | 1538.8  | 1539.6  | 1538.0  | 1538.0 | 1538.8 | 1542.9 | 1526.4 | 1503.3 |
| 12.5° | 1618.0  | 1622.2  | 1621.3  | 1621.3  | 1631.2  | 1628.8  | 1625.5 | 1628.8 | 1632.9 | 1609.8 | 1576.8 |
| 15°   | 1713.0  | 1715.4  | 1717.1  | 1722.9  | 1721.2  | 1727.0  | 1728.6 | 1727.0 | 1731.1 | 1701.4 | 1646.1 |
| 17.5° | 1798.8  | 1803.8  | 1805.4  | 1812.0  | 1812.0  | 1812.9  | 1819.5 | 1817.0 | 1817.8 | 1784.0 | 1704.7 |
| 20°   | 1869.8  | 1874.8  | 1877.2  | 1884.7  | 1886.3  | 1889.6  | 1892.1 | 1893.8 | 1897.9 | 1857.4 | 1752.6 |
| 22.5° | 1940.8  | 1944.9  | 1949.1  | 1954.0  | 1960.6  | 1964.7  | 1968.1 | 1969.7 | 1977.1 | 1930.1 | 1798.0 |
| 25°   | 2020.1  | 2029.1  | 2033.3  | 2041.5  | 2048.1  | 2054.7  | 2059.7 | 2060.5 | 2072.9 | 2014.3 | 1835.1 |
| 27.5° | 2125.7  | 2138.1  | 2144.7  | 2157.9  | 2164.5  | 2171.1  | 2169.5 | 2179.4 | 2196.7 | 2110.9 | 1864.0 |
| 30°   | 2264.4  | 2280.1  | 2284.2  | 2297.4  | 2308.2  | 2314.8  | 2322.2 | 2330.5 | 2342.0 | 2218.2 | 1878.1 |
| 32.5° | 2457.6  | 2481.5  | 2487.3  | 2494.7  | 2510.4  | 2522.0  | 2526.9 | 2540.1 | 2543.4 | 2319.7 | 1873.9 |
| 35°   | 2722.6  | 2711.8  | 2739.9  | 2746.5  | 2768.8  | 2777.9  | 2783.7 | 2801.0 | 2787.8 | 2430.3 | 1846.7 |
| 37.5° | 2962.0  | 2958.7  | 2985.9  | 3000.8  | 3029.7  | 3023.1  | 3037.1 | 3048.7 | 3001.6 | 2508.8 | 1796.3 |
| 40°   | 3254.2  | 3250.1  | 3288.1  | 3293.0  | 3337.6  | 3327.7  | 3333.5 | 3342.6 | 3237.7 | 2563.3 | 1704.7 |
| 42.5° | 3662.0  | 3663.7  | 3704.1  | 3709.1  | 3714.9  | 3733.0  | 3703.3 | 3705.0 | 3488.7 | 2578.1 | 1553.6 |
| 45°   | 4199.4  | 4228.3  | 4203.6  | 4204.4  | 4202.7  | 4168.1  | 4130.9 | 4087.2 | 3749.5 | 2526.9 | 1358.8 |
| 47.5° | 4720.4  | 4700.5  | 4669.2  | 4640.3  | 4616.3  | 4561.9  | 4507.4 | 4433.1 | 3974.9 | 2405.6 | 1141.7 |
| 50°   | 5166.1  | 5121.6  | 5093.5  | 5013.4  | 4956.5  | 4885.5  | 4809.5 | 4724.5 | 4159.8 | 2230.6 | 938.6  |
| 52.5° | 5580.5  | 5534.3  | 5429.5  | 5346.1  | 5264.4  | 5170.3  | 5081.9 | 4982.0 | 4323.3 | 2030.8 | 783.4  |
| 55°   | 6269.0  | 6228.6  | 6123.7  | 5971.0  | 5870.3  | 5740.7  | 5624.3 | 5488.9 | 4654.3 | 1869.0 | 681.1  |
| 57.5° | 7871.4  | 7836.7  | 7616.3  | 7519.7  | 7386.8  | 7061.5  | 7013.7 | 6802.3 | 5541.7 | 1850.0 | 620.8  |
| 60°   | 10127.5 | 9978.9  | 9795.7  | 9531.5  | 9220.3  | 9113.0  | 8873.6 | 8592.1 | 6969.9 | 1902.0 | 572.1  |
| 62.5° | 11512.8 | 11174.3 | 10905.2 | 10600.6 | 10314.1 | 10068.1 | 9806.4 | 9528.2 | 7700.5 | 1833.5 | 511.8  |
| 65°   | 11616.8 | 11218.9 | 10863.1 | 10505.6 | 10183.7 | 9877.4  | 9623.1 | 9344.9 | 7462.7 | 1575.9 | 433.4  |
| 67.5° | 11043.9 | 10624.5 | 10236.5 | 9831.2  | 9505.9  | 9229.4  | 8905.8 | 8638.3 | 6792.4 | 1226.7 | 360.8  |
| 70°   | 9862.5  | 9494.4  | 9160.0  | 8723.3  | 8453.4  | 8116.6  | 7911.0 | 7576.7 | 5920.7 | 836.3  | 298.0  |
| 72.5° | 7103.6  | 6826.3  | 6717.3  | 6412.7  | 6059.4  | 5861.2  | 5766.3 | 5441.9 | 4375.3 | 519.3  | 243.5  |
| 75°   | 2399.8  | 2468.3  | 2311.5  | 2071.2  | 2188.5  | 2007.7  | 2081.1 | 1926.8 | 1850.8 | 298.0  | 204.7  |
| 77.5° | 532.5   | 500.3   | 462.3   | 429.3   | 426.8   | 401.2   | 425.1  | 402.0  | 430.1  | 189.9  | 180.8  |
| 80°   | 420.2   | 331.9   | 282.3   | 257.6   | 244.4   | 236.9   | 231.1  | 224.5  | 204.7  | 161.8  | 166.8  |
| 82.5° | 454.0   | 342.6   | 251.0   | 200.6   | 171.7   | 161.0   | 158.5  | 151.9  | 150.2  | 156.8  | 168.4  |
| 85°   | 145.3   | 121.4   | 103.2   | 97.4    | 90.0    | 85.9    | 84.2   | 81.7   | 99.1   | 170.9  | 161.8  |
| 87.5° | 75.9    | 66.9    | 59.4    | 57.0    | 49.5    | 46.2    | 45.4   | 46.2   | 69.3   | 170.9  | 117.2  |
| 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: P158235

CATALOG NUMBER: VST-F05-LED-E-U-SL2

**CANDELA DISTRIBUTION (continued):**

|       | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1358.8 | 1358.8 | 1358.8 | 1358.8 | 1358.8 | 1358.8 | 1358.8 |
| 2.5°  | 1359.6 | 1358.8 | 1357.2 | 1356.3 | 1355.5 | 1351.4 | 1354.7 |
| 5°    | 1385.2 | 1377.0 | 1369.5 | 1360.5 | 1355.5 | 1351.4 | 1351.4 |
| 7.5°  | 1424.0 | 1400.9 | 1381.9 | 1361.3 | 1347.3 | 1336.5 | 1334.9 |
| 10°   | 1472.7 | 1428.2 | 1384.4 | 1347.3 | 1320.8 | 1301.0 | 1298.6 |
| 12.5° | 1519.0 | 1451.3 | 1381.9 | 1320.8 | 1279.6 | 1251.5 | 1249.8 |
| 15°   | 1561.9 | 1463.7 | 1362.9 | 1273.0 | 1211.0 | 1173.9 | 1169.8 |
| 17.5° | 1595.7 | 1456.2 | 1320.0 | 1206.1 | 1121.9 | 1078.1 | 1075.7 |
| 20°   | 1603.2 | 1426.5 | 1258.9 | 1123.5 | 1034.4 | 988.2  | 977.4  |
| 22.5° | 1596.6 | 1372.8 | 1183.0 | 1032.7 | 930.4  | 884.1  | 878.4  |
| 25°   | 1576.8 | 1307.6 | 1088.9 | 927.1  | 832.1  | 785.1  | 773.5  |
| 27.5° | 1541.3 | 1230.9 | 987.3  | 824.7  | 730.6  | 685.2  | 673.6  |
| 30°   | 1488.4 | 1138.4 | 879.2  | 728.9  | 631.5  | 595.2  | 583.6  |
| 32.5° | 1414.9 | 1026.1 | 772.7  | 630.7  | 549.8  | 520.9  | 516.0  |
| 35°   | 1313.4 | 897.3  | 661.2  | 549.8  | 490.4  | 473.0  | 470.5  |
| 37.5° | 1183.8 | 768.6  | 568.0  | 492.0  | 449.1  | 438.4  | 436.7  |
| 40°   | 1014.6 | 636.5  | 501.9  | 450.7  | 419.4  | 410.3  | 408.6  |
| 42.5° | 840.4  | 537.4  | 453.2  | 417.7  | 392.1  | 383.9  | 381.4  |
| 45°   | 687.7  | 470.5  | 416.9  | 390.5  | 366.5  | 357.5  | 356.6  |
| 47.5° | 573.7  | 431.7  | 387.2  | 365.7  | 341.8  | 331.0  | 331.9  |
| 50°   | 490.4  | 396.3  | 362.4  | 344.2  | 317.0  | 307.1  | 307.9  |
| 52.5° | 433.4  | 360.8  | 339.3  | 318.7  | 295.5  | 285.6  | 285.6  |
| 55°   | 388.8  | 331.9  | 317.0  | 294.7  | 276.6  | 267.5  | 266.6  |
| 57.5° | 352.5  | 308.7  | 295.5  | 277.4  | 259.2  | 248.5  | 248.5  |
| 60°   | 330.2  | 292.2  | 281.5  | 265.0  | 243.5  | 232.0  | 231.1  |
| 62.5° | 317.0  | 287.3  | 278.2  | 255.1  | 231.1  | 219.6  | 217.1  |
| 65°   | 307.1  | 298.8  | 287.3  | 249.3  | 221.2  | 208.9  | 206.4  |
| 67.5° | 307.9  | 326.1  | 309.6  | 252.6  | 217.9  | 199.8  | 196.5  |
| 70°   | 312.9  | 347.5  | 325.3  | 260.0  | 232.0  | 195.6  | 188.2  |
| 72.5° | 288.1  | 314.5  | 293.1  | 247.7  | 226.2  | 188.2  | 179.1  |
| 75°   | 240.2  | 229.5  | 210.5  | 201.4  | 203.1  | 170.9  | 167.6  |
| 77.5° | 194.8  | 170.9  | 152.7  | 160.2  | 170.9  | 146.1  | 142.8  |
| 80°   | 169.2  | 138.7  | 129.6  | 142.0  | 155.2  | 124.7  | 116.4  |
| 82.5° | 158.5  | 117.2  | 111.4  | 147.8  | 162.6  | 107.3  | 94.1   |
| 85°   | 139.5  | 95.8   | 87.5   | 174.2  | 162.6  | 80.9   | 75.1   |
| 87.5° | 93.3   | 57.0   | 54.5   | 128.0  | 111.4  | 56.1   | 45.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)