

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: P157994

Luminaire Tested: **VST-F03-LED-E-U-RW-7030**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P157994  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33711)  
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-RW-7030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE  
Light Source: (21) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 7047 lumens  
Efficiency: N/A  
Efficacy: 90.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type I - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G3

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

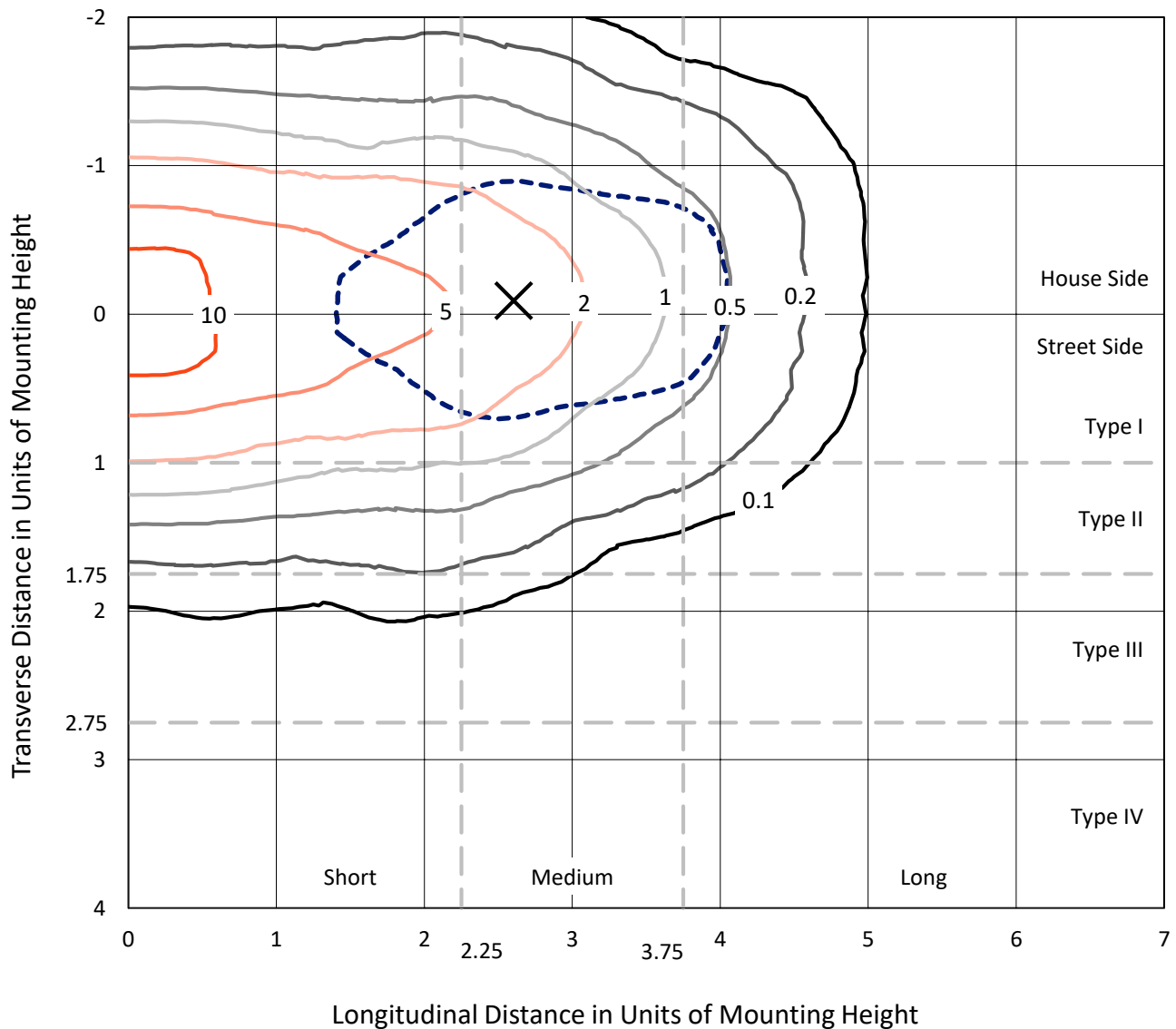


REPORT NUMBER: P157994

CATALOG NUMBER: VST-F03-LED-E-U-RW-7030

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

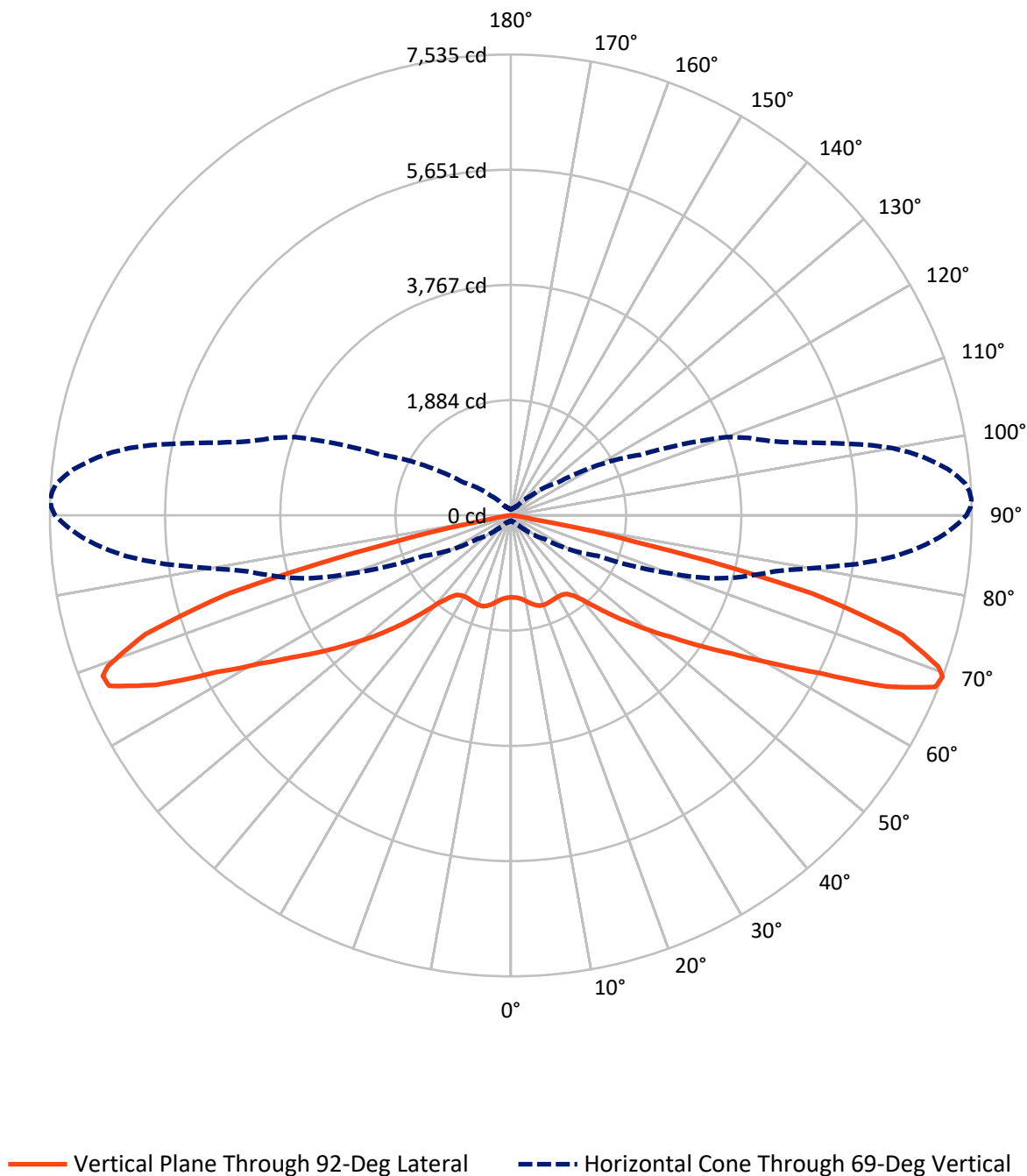


Based on 10 foot mounting height. Maximum calculated value = 13.8 fc  
Type I - Medium - Full Cutoff

REPORT NUMBER: P157994

CATALOG NUMBER: VST-F03-LED-E-U-RW-7030

## Luminous Intensity Polar Plot



REPORT NUMBER: P157994

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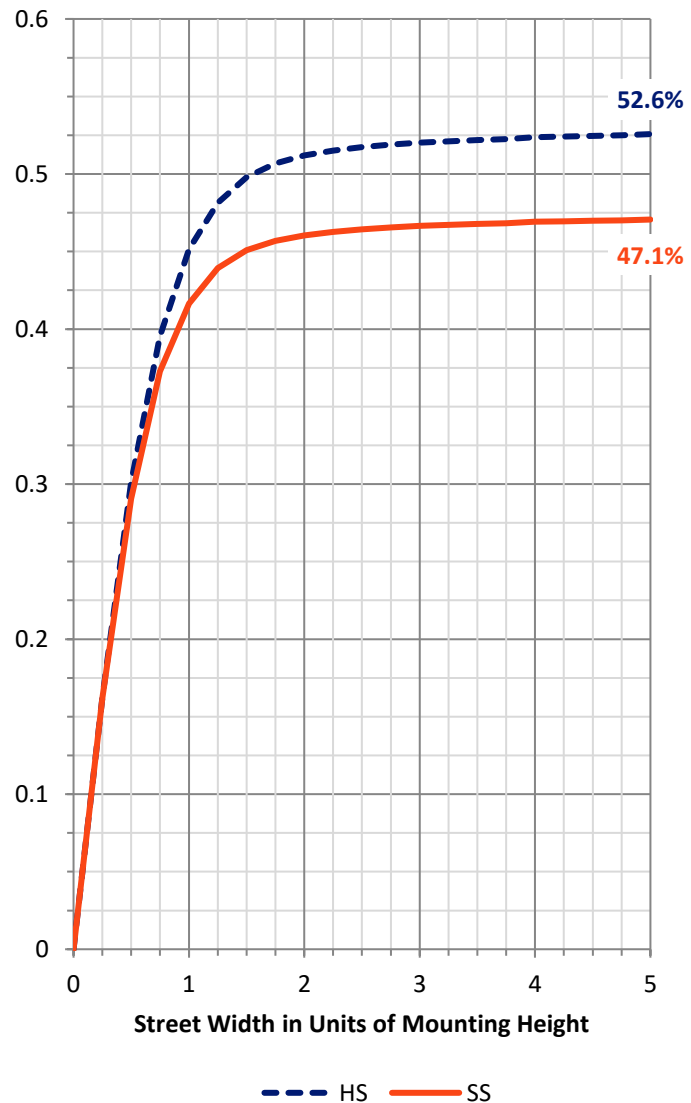
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 3737.4   | 0.0    | 3737.4 |
|                    | % Fixture | 53.0     | 0.0    | 53.0   |
| <b>Street Side</b> | Lumens    | 3309.6   | 0.0    | 3309.6 |
|                    | % Fixture | 47.0     | 0.0    | 47.0   |
| <b>Total</b>       | Lumens    | 7047.0   | 0.0    | 7047.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 131.0  | 1.9       |
| 10°-20°   | 413.8  | 5.9       |
| 20°-30°   | 671.3  | 9.5       |
| 30°-40°   | 836.7  | 11.9      |
| 40°-50°   | 1041.7 | 14.8      |
| 50°-60°   | 1284.7 | 18.2      |
| 60°-70°   | 1595.5 | 22.6      |
| 70°-80°   | 980.4  | 13.9      |
| 80°-90°   | 91.9   | 1.3       |
| 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°    | 7047.0 | 100.0     |
| 0°-180°   | 7047.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P157994

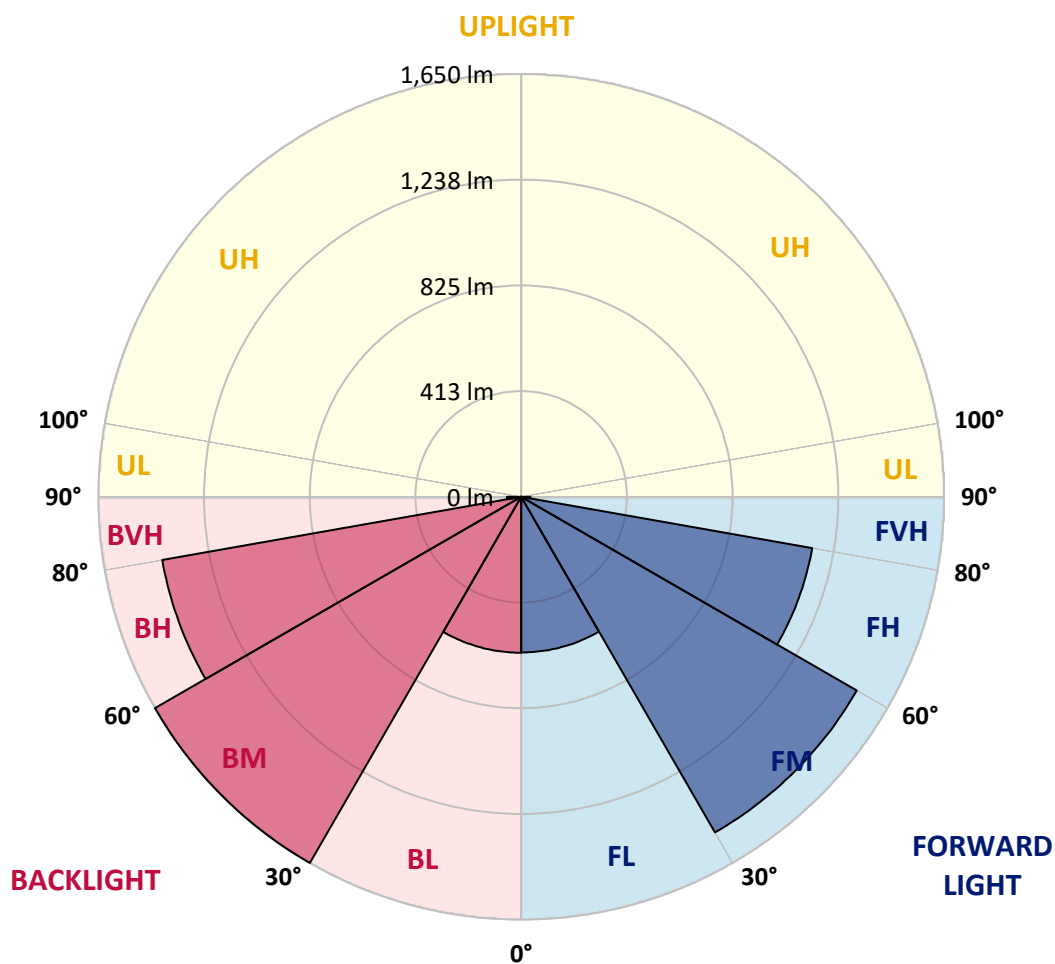
CATALOG NUMBER: VST-F03-LED-E-U-RW-7030

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 607.4  | 8.6       |                         |      |         |
| FM   | (30°-60°)   | 1512.7 | 21.5      |                         |      |         |
| FH   | (60°-80°)   | 1153.5 | 16.4      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 36.0   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 608.7  | 8.6       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1650.4 | 23.4      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1422.4 | 20.2      | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 55.9   | 0.8       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type I Medium





REPORT NUMBER: P157994

CATALOG NUMBER: VST-F03-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 70°    | 71°    | 72°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 |
| 2.5°  | 1359.9 | 1356.3 | 1359.5 | 1359.9 | 1359.5 | 1359.5 | 1355.4 | 1354.5 | 1349.0 | 1350.4 | 1349.9 |
| 5°    | 1378.4 | 1377.1 | 1379.3 | 1380.2 | 1381.1 | 1379.3 | 1376.2 | 1374.8 | 1371.2 | 1369.9 | 1369.4 |
| 7.5°  | 1395.7 | 1393.4 | 1397.0 | 1400.2 | 1402.4 | 1402.9 | 1403.3 | 1401.1 | 1401.1 | 1399.3 | 1399.3 |
| 10°   | 1410.1 | 1408.3 | 1414.2 | 1418.3 | 1425.5 | 1429.6 | 1434.1 | 1437.2 | 1439.1 | 1439.5 | 1439.1 |
| 12.5° | 1416.5 | 1415.1 | 1424.6 | 1436.8 | 1450.4 | 1459.9 | 1471.2 | 1479.4 | 1481.6 | 1481.2 | 1483.4 |
| 15°   | 1405.6 | 1406.5 | 1421.0 | 1445.0 | 1473.9 | 1497.9 | 1513.7 | 1520.5 | 1522.3 | 1523.2 | 1523.7 |
| 17.5° | 1376.2 | 1378.0 | 1398.8 | 1437.7 | 1488.4 | 1531.8 | 1555.3 | 1555.3 | 1551.7 | 1551.7 | 1551.2 |
| 20°   | 1329.1 | 1330.9 | 1358.1 | 1414.2 | 1488.8 | 1555.3 | 1588.8 | 1582.0 | 1568.5 | 1565.8 | 1563.0 |
| 22.5° | 1264.0 | 1271.2 | 1301.1 | 1366.3 | 1469.4 | 1562.1 | 1609.6 | 1599.7 | 1578.4 | 1572.5 | 1568.5 |
| 25°   | 1190.3 | 1189.3 | 1225.1 | 1298.4 | 1422.4 | 1545.8 | 1615.5 | 1613.7 | 1591.1 | 1584.7 | 1577.5 |
| 27.5° | 1106.1 | 1108.8 | 1141.9 | 1216.0 | 1350.4 | 1498.8 | 1605.5 | 1629.5 | 1611.0 | 1604.6 | 1597.9 |
| 30°   | 1019.7 | 1022.4 | 1053.7 | 1140.1 | 1268.5 | 1431.4 | 1585.2 | 1644.9 | 1637.7 | 1632.7 | 1628.2 |
| 32.5° | 932.8  | 933.7  | 970.9  | 1063.6 | 1199.3 | 1350.8 | 1554.4 | 1658.9 | 1668.9 | 1666.6 | 1664.8 |
| 35°   | 851.4  | 852.3  | 892.6  | 986.7  | 1131.0 | 1282.1 | 1517.3 | 1679.3 | 1711.4 | 1714.1 | 1715.9 |
| 37.5° | 772.3  | 773.6  | 814.7  | 913.4  | 1063.6 | 1230.1 | 1476.2 | 1710.5 | 1771.1 | 1781.1 | 1782.9 |
| 40°   | 693.5  | 694.9  | 734.2  | 838.7  | 995.3  | 1184.4 | 1444.5 | 1754.4 | 1851.7 | 1865.2 | 1879.3 |
| 42.5° | 618.4  | 623.4  | 656.9  | 756.8  | 919.3  | 1127.8 | 1430.9 | 1807.8 | 1947.1 | 1968.4 | 1984.2 |
| 45°   | 548.3  | 548.8  | 586.7  | 680.4  | 829.3  | 1051.4 | 1421.9 | 1868.4 | 2053.9 | 2086.0 | 2107.7 |
| 47.5° | 473.2  | 478.6  | 518.5  | 609.4  | 745.1  | 956.8  | 1392.9 | 1939.4 | 2170.1 | 2207.7 | 2251.6 |
| 50°   | 400.4  | 408.1  | 446.5  | 536.5  | 668.2  | 859.1  | 1315.1 | 2022.7 | 2300.9 | 2349.7 | 2400.4 |
| 52.5° | 330.2  | 329.8  | 370.5  | 464.2  | 590.8  | 776.3  | 1188.9 | 2110.0 | 2452.0 | 2504.5 | 2559.2 |
| 55°   | 249.7  | 249.7  | 290.0  | 375.5  | 507.1  | 702.6  | 1053.7 | 2164.3 | 2592.2 | 2655.5 | 2715.3 |
| 57.5° | 171.5  | 176.0  | 214.0  | 287.7  | 419.8  | 635.2  | 950.0  | 2133.1 | 2699.5 | 2778.2 | 2849.2 |
| 60°   | 127.1  | 131.6  | 159.7  | 206.8  | 328.4  | 555.5  | 872.2  | 1986.0 | 2764.1 | 2868.7 | 2960.9 |
| 62.5° | 109.9  | 113.1  | 139.8  | 165.6  | 236.6  | 470.9  | 803.5  | 1799.2 | 2857.3 | 3000.3 | 3128.8 |
| 65°   | 98.2   | 101.3  | 128.0  | 143.0  | 185.0  | 378.7  | 765.0  | 1692.4 | 2968.6 | 3187.1 | 3373.5 |
| 67.5° | 91.0   | 94.6   | 117.2  | 128.0  | 161.5  | 342.5  | 735.1  | 1667.5 | 2967.7 | 3232.8 | 3470.8 |
| 69°   | 87.3   | 90.0   | 108.6  | 120.4  | 156.1  | 331.6  | 670.4  | 1559.4 | 2771.8 | 3056.4 | 3295.3 |
| 70°   | 85.1   | 87.8   | 103.6  | 115.4  | 154.3  | 312.2  | 610.7  | 1416.5 | 2548.8 | 2835.2 | 3077.6 |
| 72.5° | 77.8   | 80.5   | 92.3   | 103.1  | 128.5  | 208.6  | 425.7  | 906.6  | 1821.4 | 2025.8 | 2303.2 |
| 75°   | 68.8   | 71.9   | 81.0   | 90.0   | 97.3   | 120.8  | 245.6  | 470.5  | 1041.4 | 1196.6 | 1443.6 |
| 77.5° | 56.1   | 59.3   | 68.8   | 83.2   | 82.3   | 91.9   | 159.7  | 289.1  | 487.7  | 604.9  | 696.2  |
| 80°   | 46.1   | 48.4   | 56.5   | 84.1   | 67.4   | 76.9   | 129.4  | 237.1  | 343.4  | 379.6  | 401.3  |
| 82.5° | 30.8   | 33.9   | 43.9   | 66.1   | 51.6   | 54.7   | 96.8   | 221.7  | 290.5  | 318.5  | 344.7  |
| 85°   | 14.5   | 15.8   | 26.7   | 35.3   | 31.2   | 29.4   | 55.2   | 156.5  | 216.2  | 229.4  | 239.3  |
| 87.5° | 0.0    | 0.0    | 1.4    | 2.7    | 4.1    | 4.1    | 10.0   | 33.0   | 60.6   | 73.3   | 72.4   |
| 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: P157994

CATALOG NUMBER: VST-F03-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 73°    | 74°    | 75°    | 76°    | 77°    | 78°    | 79°    | 80°    | 81°    | 82°    | 83°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 |
| 2.5°  | 1348.1 | 1348.6 | 1348.1 | 1348.1 | 1347.7 | 1346.8 | 1346.8 | 1345.9 | 1346.3 | 1345.9 | 1346.8 |
| 5°    | 1369.0 | 1369.0 | 1367.6 | 1366.7 | 1368.1 | 1366.7 | 1367.2 | 1364.9 | 1364.9 | 1363.5 | 1361.7 |
| 7.5°  | 1398.8 | 1398.8 | 1399.3 | 1396.6 | 1398.4 | 1398.8 | 1397.5 | 1396.6 | 1395.7 | 1393.4 | 1393.9 |
| 10°   | 1438.6 | 1438.6 | 1440.0 | 1436.3 | 1438.1 | 1439.1 | 1439.5 | 1439.5 | 1438.6 | 1434.5 | 1435.0 |
| 12.5° | 1483.0 | 1482.1 | 1482.5 | 1480.7 | 1482.5 | 1483.4 | 1484.3 | 1483.4 | 1483.4 | 1482.5 | 1482.1 |
| 15°   | 1523.2 | 1522.7 | 1523.7 | 1522.3 | 1522.7 | 1523.7 | 1526.4 | 1525.9 | 1525.5 | 1522.7 | 1522.7 |
| 17.5° | 1550.8 | 1549.4 | 1548.5 | 1548.1 | 1548.1 | 1547.6 | 1548.1 | 1548.1 | 1546.7 | 1546.3 | 1546.3 |
| 20°   | 1561.2 | 1557.6 | 1555.3 | 1554.0 | 1552.2 | 1551.2 | 1550.3 | 1550.8 | 1549.9 | 1548.5 | 1549.0 |
| 22.5° | 1563.0 | 1558.1 | 1553.5 | 1549.4 | 1545.8 | 1543.6 | 1541.3 | 1540.4 | 1538.2 | 1536.8 | 1536.8 |
| 25°   | 1571.6 | 1564.0 | 1556.7 | 1549.9 | 1544.5 | 1539.5 | 1534.5 | 1530.9 | 1528.2 | 1525.0 | 1524.1 |
| 27.5° | 1590.6 | 1582.5 | 1573.9 | 1565.3 | 1558.1 | 1548.1 | 1541.3 | 1534.1 | 1527.7 | 1522.7 | 1519.1 |
| 30°   | 1620.1 | 1611.9 | 1603.3 | 1593.4 | 1583.8 | 1573.4 | 1562.1 | 1553.5 | 1544.5 | 1534.5 | 1529.1 |
| 32.5° | 1658.9 | 1653.5 | 1644.9 | 1635.4 | 1626.8 | 1616.0 | 1602.4 | 1589.3 | 1580.7 | 1568.9 | 1560.3 |
| 35°   | 1714.6 | 1708.3 | 1705.6 | 1701.5 | 1692.8 | 1686.1 | 1671.2 | 1658.9 | 1650.8 | 1634.5 | 1628.2 |
| 37.5° | 1790.6 | 1790.2 | 1792.4 | 1791.1 | 1792.4 | 1783.8 | 1777.0 | 1776.5 | 1764.8 | 1748.9 | 1733.6 |
| 40°   | 1894.2 | 1899.6 | 1911.8 | 1920.4 | 1928.6 | 1929.5 | 1939.0 | 1929.0 | 1930.4 | 1928.1 | 1912.3 |
| 42.5° | 2012.3 | 2030.8 | 2045.3 | 2070.6 | 2090.0 | 2108.2 | 2120.4 | 2137.1 | 2149.8 | 2161.1 | 2163.8 |
| 45°   | 2143.9 | 2171.5 | 2205.0 | 2227.6 | 2265.6 | 2295.9 | 2337.5 | 2369.6 | 2403.1 | 2436.2 | 2447.9 |
| 47.5° | 2286.8 | 2321.2 | 2358.4 | 2400.4 | 2448.4 | 2495.9 | 2560.1 | 2609.4 | 2663.3 | 2708.0 | 2747.9 |
| 50°   | 2444.8 | 2480.5 | 2530.3 | 2578.7 | 2644.7 | 2699.5 | 2783.6 | 2848.3 | 2935.1 | 2994.8 | 3046.4 |
| 52.5° | 2609.4 | 2654.2 | 2709.8 | 2763.2 | 2830.6 | 2900.8 | 2994.4 | 3089.9 | 3194.3 | 3284.8 | 3359.9 |
| 55°   | 2770.5 | 2825.6 | 2879.0 | 2941.5 | 3016.1 | 3097.6 | 3203.4 | 3329.2 | 3459.5 | 3563.1 | 3662.6 |
| 57.5° | 2913.9 | 2977.7 | 3040.6 | 3103.9 | 3180.4 | 3274.9 | 3393.9 | 3529.6 | 3678.9 | 3816.8 | 3953.5 |
| 60°   | 3046.9 | 3123.4 | 3200.2 | 3279.4 | 3367.2 | 3483.9 | 3626.9 | 3793.8 | 3986.9 | 4175.6 | 4354.3 |
| 62.5° | 3257.3 | 3357.7 | 3453.1 | 3555.4 | 3661.3 | 3798.3 | 3967.1 | 4186.0 | 4407.7 | 4643.4 | 4826.6 |
| 65°   | 3542.3 | 3683.4 | 3808.3 | 3940.8 | 4077.9 | 4261.1 | 4462.9 | 4724.8 | 5042.4 | 5284.0 | 5578.0 |
| 67.5° | 3683.9 | 3869.8 | 4030.4 | 4177.9 | 4347.5 | 4532.6 | 4772.3 | 5082.2 | 5421.1 | 5771.2 | 6099.2 |
| 69°   | 3517.4 | 3709.2 | 3887.0 | 4052.1 | 4223.6 | 4403.2 | 4653.8 | 4971.8 | 5330.2 | 5708.8 | 6029.1 |
| 70°   | 3301.6 | 3493.4 | 3683.0 | 3871.1 | 4027.7 | 4202.8 | 4454.3 | 4782.3 | 5140.1 | 5533.7 | 5851.3 |
| 72.5° | 2529.4 | 2760.1 | 2931.5 | 3107.9 | 3289.4 | 3437.8 | 3728.2 | 4004.6 | 4377.4 | 4776.8 | 5126.6 |
| 75°   | 1618.2 | 1830.4 | 2017.7 | 2167.9 | 2345.2 | 2523.0 | 2737.4 | 3044.6 | 3278.0 | 3606.1 | 3889.7 |
| 77.5° | 831.5  | 894.4  | 1074.9 | 1128.7 | 1251.8 | 1348.6 | 1466.6 | 1543.6 | 1733.6 | 1773.8 | 1941.2 |
| 80°   | 394.0  | 355.1  | 334.3  | 315.3  | 320.8  | 318.5  | 309.0  | 296.3  | 312.2  | 305.3  | 302.6  |
| 82.5° | 343.4  | 306.3  | 244.3  | 207.7  | 179.6  | 152.5  | 131.2  | 120.4  | 121.7  | 125.3  | 126.7  |
| 85°   | 240.7  | 226.2  | 176.5  | 133.9  | 104.5  | 81.0   | 65.2   | 62.5   | 64.3   | 69.2   | 67.4   |
| 87.5° | 69.7   | 72.8   | 64.3   | 44.8   | 31.2   | 22.6   | 17.6   | 19.9   | 19.0   | 18.5   | 19.4   |
| 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: P157994

CATALOG NUMBER: VST-F03-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 84°    | 85°    | 86°    | 87°    | 88°    | 89°    | 90°    | 91°    | 92°    | 93°    | 94°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 |
| 2.5°  | 1346.8 | 1346.3 | 1345.0 | 1343.6 | 1343.6 | 1342.7 | 1343.6 | 1344.1 | 1343.6 | 1343.6 | 1342.7 |
| 5°    | 1362.2 | 1362.6 | 1364.0 | 1361.3 | 1360.8 | 1361.3 | 1359.5 | 1359.0 | 1357.6 | 1359.0 | 1357.2 |
| 7.5°  | 1391.6 | 1392.9 | 1392.9 | 1391.1 | 1390.7 | 1392.0 | 1389.3 | 1388.4 | 1387.0 | 1386.6 | 1386.1 |
| 10°   | 1435.4 | 1436.8 | 1434.5 | 1433.2 | 1431.8 | 1433.6 | 1431.4 | 1431.4 | 1430.0 | 1428.7 | 1428.2 |
| 12.5° | 1484.3 | 1483.4 | 1482.5 | 1483.4 | 1482.1 | 1482.1 | 1480.7 | 1479.8 | 1479.4 | 1478.9 | 1478.0 |
| 15°   | 1522.3 | 1525.5 | 1525.5 | 1526.4 | 1525.5 | 1525.5 | 1523.7 | 1524.1 | 1523.2 | 1522.7 | 1523.2 |
| 17.5° | 1546.7 | 1547.6 | 1549.9 | 1551.2 | 1551.2 | 1551.7 | 1550.8 | 1551.7 | 1550.8 | 1550.8 | 1552.6 |
| 20°   | 1549.9 | 1550.8 | 1553.1 | 1555.3 | 1556.7 | 1557.6 | 1557.6 | 1559.0 | 1559.9 | 1560.8 | 1563.0 |
| 22.5° | 1537.3 | 1538.6 | 1541.3 | 1545.4 | 1547.6 | 1548.5 | 1550.3 | 1552.6 | 1554.9 | 1556.7 | 1559.9 |
| 25°   | 1524.1 | 1524.6 | 1527.3 | 1531.4 | 1534.1 | 1536.4 | 1539.5 | 1542.2 | 1545.4 | 1549.0 | 1552.6 |
| 27.5° | 1516.9 | 1516.4 | 1518.7 | 1522.7 | 1525.0 | 1528.2 | 1530.9 | 1535.0 | 1538.6 | 1543.1 | 1546.3 |
| 30°   | 1523.2 | 1519.6 | 1520.0 | 1521.8 | 1523.7 | 1525.9 | 1529.1 | 1532.7 | 1536.8 | 1540.9 | 1544.5 |
| 32.5° | 1551.2 | 1543.1 | 1537.7 | 1536.4 | 1536.8 | 1537.3 | 1539.1 | 1541.3 | 1544.5 | 1547.6 | 1549.0 |
| 35°   | 1611.9 | 1597.9 | 1590.6 | 1584.7 | 1579.7 | 1575.7 | 1576.6 | 1576.1 | 1576.1 | 1578.8 | 1575.7 |
| 37.5° | 1727.2 | 1709.6 | 1701.9 | 1691.5 | 1685.6 | 1670.7 | 1666.6 | 1665.7 | 1659.8 | 1659.8 | 1653.1 |
| 40°   | 1908.2 | 1897.8 | 1891.9 | 1882.4 | 1853.9 | 1857.5 | 1837.2 | 1837.6 | 1820.9 | 1822.7 | 1810.9 |
| 42.5° | 2165.6 | 2167.0 | 2159.8 | 2153.4 | 2131.3 | 2121.3 | 2102.3 | 2075.2 | 2053.9 | 2053.4 | 2029.9 |
| 45°   | 2463.3 | 2479.6 | 2456.5 | 2464.7 | 2445.2 | 2418.5 | 2396.3 | 2361.5 | 2328.5 | 2318.1 | 2294.1 |
| 47.5° | 2774.5 | 2801.2 | 2783.6 | 2786.8 | 2777.3 | 2739.2 | 2709.4 | 2666.4 | 2623.4 | 2594.5 | 2580.0 |
| 50°   | 3107.0 | 3124.7 | 3124.3 | 3115.7 | 3111.1 | 3074.0 | 3026.1 | 2993.5 | 2961.8 | 2923.0 | 2910.2 |
| 52.5° | 3408.4 | 3449.5 | 3477.1 | 3470.8 | 3457.7 | 3435.5 | 3393.0 | 3364.9 | 3318.3 | 3312.9 | 3318.3 |
| 55°   | 3730.9 | 3784.3 | 3812.3 | 3846.3 | 3846.7 | 3842.6 | 3825.0 | 3814.6 | 3771.2 | 3776.2 | 3769.8 |
| 57.5° | 4036.3 | 4114.6 | 4157.5 | 4229.9 | 4254.8 | 4287.8 | 4275.6 | 4289.2 | 4262.9 | 4280.1 | 4275.1 |
| 60°   | 4450.2 | 4558.8 | 4630.3 | 4729.3 | 4775.5 | 4858.3 | 4874.6 | 4884.5 | 4899.0 | 4934.3 | 4914.4 |
| 62.5° | 4970.9 | 5130.2 | 5278.6 | 5413.4 | 5457.7 | 5582.1 | 5602.5 | 5680.3 | 5684.3 | 5708.3 | 5664.5 |
| 65°   | 5823.2 | 6017.3 | 6180.7 | 6342.1 | 6435.4 | 6581.0 | 6639.8 | 6790.9 | 6744.8 | 6764.2 | 6670.6 |
| 67.5° | 6381.5 | 6607.3 | 6826.2 | 6979.1 | 7133.8 | 7282.7 | 7389.9 | 7487.6 | 7486.7 | 7467.7 | 7384.4 |
| 69°   | 6332.2 | 6583.7 | 6799.5 | 7004.5 | 7167.3 | 7320.2 | 7449.2 | 7512.5 | 7534.7 | 7507.1 | 7447.8 |
| 70°   | 6161.6 | 6419.9 | 6684.2 | 6852.9 | 7030.3 | 7198.1 | 7331.1 | 7400.3 | 7415.7 | 7396.2 | 7345.1 |
| 72.5° | 5373.5 | 5621.5 | 5912.8 | 6066.2 | 6280.6 | 6401.9 | 6585.1 | 6674.6 | 6690.5 | 6665.6 | 6632.1 |
| 75°   | 4193.7 | 4238.5 | 4535.3 | 4633.0 | 4788.6 | 4928.4 | 5042.4 | 5013.5 | 5094.4 | 5078.6 | 5065.9 |
| 77.5° | 1975.6 | 1856.2 | 2048.5 | 2138.0 | 2091.0 | 1965.7 | 2148.0 | 2016.3 | 2103.7 | 2217.2 | 2188.3 |
| 80°   | 325.7  | 324.8  | 333.4  | 352.4  | 329.8  | 350.2  | 349.7  | 339.7  | 340.7  | 365.1  | 352.4  |
| 82.5° | 125.3  | 128.0  | 129.4  | 133.0  | 133.0  | 133.4  | 135.7  | 138.4  | 136.2  | 140.7  | 139.8  |
| 85°   | 67.9   | 72.4   | 68.3   | 65.2   | 67.4   | 68.8   | 70.6   | 72.8   | 70.6   | 77.3   | 73.7   |
| 87.5° | 17.6   | 18.5   | 16.3   | 16.3   | 15.8   | 14.5   | 14.5   | 15.4   | 16.7   | 19.9   | 21.7   |
| 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: P157994

CATALOG NUMBER: VST-F03-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 95°    | 96°    | 97°    | 98°    | 99°    | 100°   | 101°   | 102°   | 103°   | 104°   | 105°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 |
| 2.5°  | 1340.9 | 1341.4 | 1341.8 | 1340.5 | 1339.6 | 1339.6 | 1339.1 | 1338.2 | 1337.8 | 1337.8 | 1337.8 |
| 5°    | 1356.3 | 1357.2 | 1354.9 | 1354.5 | 1353.5 | 1352.6 | 1352.6 | 1351.7 | 1352.2 | 1352.2 | 1349.9 |
| 7.5°  | 1387.0 | 1385.7 | 1383.0 | 1381.1 | 1383.0 | 1379.8 | 1378.4 | 1379.3 | 1378.4 | 1378.9 | 1378.0 |
| 10°   | 1428.2 | 1428.2 | 1425.1 | 1426.9 | 1424.6 | 1421.0 | 1422.4 | 1421.0 | 1420.1 | 1416.9 | 1418.7 |
| 12.5° | 1479.4 | 1478.0 | 1476.2 | 1472.1 | 1470.7 | 1470.3 | 1466.2 | 1466.6 | 1465.3 | 1464.4 | 1463.0 |
| 15°   | 1524.1 | 1523.7 | 1519.6 | 1517.3 | 1516.9 | 1515.1 | 1513.3 | 1512.4 | 1510.1 | 1509.7 | 1508.8 |
| 17.5° | 1554.0 | 1552.6 | 1550.8 | 1548.5 | 1548.5 | 1545.8 | 1544.9 | 1542.7 | 1542.2 | 1540.9 | 1539.5 |
| 20°   | 1564.0 | 1564.4 | 1562.6 | 1560.8 | 1559.9 | 1558.1 | 1556.7 | 1554.9 | 1554.0 | 1552.2 | 1550.8 |
| 22.5° | 1561.7 | 1561.7 | 1559.9 | 1559.4 | 1557.6 | 1554.9 | 1553.1 | 1550.8 | 1548.5 | 1546.3 | 1543.6 |
| 25°   | 1554.4 | 1554.0 | 1552.6 | 1550.3 | 1548.1 | 1544.0 | 1540.4 | 1536.8 | 1533.6 | 1530.9 | 1526.8 |
| 27.5° | 1548.1 | 1547.2 | 1544.5 | 1541.3 | 1536.8 | 1532.3 | 1525.5 | 1520.5 | 1516.4 | 1512.8 | 1508.3 |
| 30°   | 1545.8 | 1542.7 | 1538.6 | 1533.6 | 1528.2 | 1521.4 | 1514.2 | 1507.9 | 1503.3 | 1499.7 | 1497.9 |
| 32.5° | 1548.5 | 1544.5 | 1538.2 | 1531.8 | 1525.0 | 1516.9 | 1509.7 | 1504.2 | 1500.1 | 1499.2 | 1499.2 |
| 35°   | 1573.4 | 1566.7 | 1558.1 | 1549.0 | 1540.4 | 1533.6 | 1528.6 | 1528.2 | 1525.5 | 1528.6 | 1533.6 |
| 37.5° | 1646.3 | 1640.4 | 1627.3 | 1615.5 | 1609.6 | 1606.4 | 1601.9 | 1602.8 | 1596.5 | 1606.4 | 1614.6 |
| 40°   | 1801.0 | 1793.8 | 1778.3 | 1768.9 | 1757.1 | 1745.8 | 1754.8 | 1752.1 | 1756.7 | 1754.8 | 1763.5 |
| 42.5° | 2026.7 | 2019.5 | 1995.1 | 1991.5 | 1986.5 | 1981.9 | 1981.9 | 1978.3 | 1976.5 | 1982.9 | 1975.6 |
| 45°   | 2301.4 | 2286.8 | 2277.8 | 2288.7 | 2273.8 | 2278.3 | 2294.1 | 2272.9 | 2277.8 | 2248.4 | 2221.3 |
| 47.5° | 2586.4 | 2585.0 | 2582.7 | 2595.8 | 2598.1 | 2604.9 | 2613.5 | 2591.8 | 2552.4 | 2530.3 | 2475.1 |
| 50°   | 2914.3 | 2928.4 | 2933.8 | 2946.5 | 2951.9 | 2956.9 | 2943.3 | 2911.1 | 2844.7 | 2785.9 | 2720.7 |
| 52.5° | 3312.9 | 3288.5 | 3322.0 | 3334.1 | 3328.7 | 3308.8 | 3260.0 | 3220.6 | 3128.8 | 3044.2 | 2943.3 |
| 55°   | 3777.1 | 3782.9 | 3759.4 | 3749.9 | 3731.3 | 3676.2 | 3608.8 | 3520.1 | 3403.8 | 3293.5 | 3165.8 |
| 57.5° | 4249.8 | 4247.5 | 4210.9 | 4159.3 | 4096.4 | 4030.0 | 3929.5 | 3802.4 | 3666.7 | 3518.3 | 3364.0 |
| 60°   | 4824.8 | 4822.6 | 4748.3 | 4660.1 | 4570.6 | 4463.3 | 4305.9 | 4153.0 | 3971.2 | 3776.2 | 3592.5 |
| 62.5° | 5580.3 | 5483.0 | 5410.2 | 5278.6 | 5140.1 | 4999.9 | 4786.8 | 4583.7 | 4340.8 | 4094.6 | 3880.2 |
| 65°   | 6548.5 | 6388.3 | 6305.5 | 6114.6 | 5900.2 | 5681.2 | 5464.5 | 5197.6 | 4870.5 | 4572.8 | 4310.9 |
| 67.5° | 7264.6 | 7118.0 | 6966.4 | 6776.0 | 6540.7 | 6296.5 | 5999.7 | 5663.5 | 5292.1 | 4958.3 | 4672.8 |
| 69°   | 7327.4 | 7190.4 | 7008.5 | 6817.6 | 6595.0 | 6329.5 | 6005.6 | 5629.1 | 5252.8 | 4914.8 | 4633.9 |
| 70°   | 7232.0 | 7086.4 | 6895.0 | 6696.4 | 6447.5 | 6196.9 | 5857.6 | 5465.4 | 5088.5 | 4749.7 | 4475.6 |
| 72.5° | 6520.0 | 6377.9 | 6174.3 | 5936.8 | 5681.6 | 5467.2 | 5145.1 | 4736.2 | 4326.2 | 4013.2 | 3799.7 |
| 75°   | 4957.8 | 4926.6 | 4782.3 | 4643.8 | 4443.0 | 4203.7 | 3909.2 | 3634.1 | 3298.0 | 2966.8 | 2767.7 |
| 77.5° | 2115.4 | 2187.4 | 2262.4 | 2273.3 | 2280.5 | 2206.8 | 2161.1 | 2091.9 | 1867.0 | 1764.8 | 1659.4 |
| 80°   | 390.9  | 349.3  | 372.8  | 375.5  | 390.9  | 399.0  | 428.9  | 508.5  | 517.6  | 537.0  | 561.0  |
| 82.5° | 138.9  | 141.1  | 144.8  | 146.1  | 147.5  | 152.9  | 173.3  | 207.7  | 238.9  | 279.6  | 333.8  |
| 85°   | 78.7   | 80.1   | 83.2   | 86.0   | 87.8   | 93.2   | 104.5  | 124.9  | 155.6  | 202.2  | 274.1  |
| 87.5° | 24.0   | 27.1   | 29.0   | 32.6   | 33.9   | 34.9   | 39.8   | 53.4   | 68.8   | 101.8  | 148.4  |
| 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: P157994

CATALOG NUMBER: VST-F03-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 106°   | 107°   | 108°   | 109°   | 110°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 | 1338.7 |
| 2.5°  | 1337.8 | 1337.3 | 1336.4 | 1335.5 | 1335.9 | 1335.0 | 1332.3 | 1331.4 | 1328.2 | 1326.0 | 1324.1 |
| 5°    | 1349.9 | 1349.5 | 1347.7 | 1348.1 | 1347.7 | 1343.2 | 1340.0 | 1334.6 | 1331.4 | 1326.4 | 1324.6 |
| 7.5°  | 1375.3 | 1374.8 | 1371.7 | 1373.0 | 1372.1 | 1365.4 | 1359.9 | 1351.3 | 1346.8 | 1340.5 | 1335.5 |
| 10°   | 1413.3 | 1413.3 | 1409.6 | 1410.1 | 1410.1 | 1401.1 | 1391.6 | 1377.1 | 1366.7 | 1356.7 | 1348.1 |
| 12.5° | 1459.4 | 1457.6 | 1457.2 | 1454.9 | 1453.1 | 1443.1 | 1428.7 | 1409.2 | 1389.8 | 1373.5 | 1361.7 |
| 15°   | 1506.0 | 1503.3 | 1502.0 | 1499.2 | 1497.0 | 1487.9 | 1468.5 | 1444.5 | 1418.3 | 1392.0 | 1372.6 |
| 17.5° | 1536.4 | 1534.5 | 1531.8 | 1530.9 | 1527.7 | 1518.7 | 1505.1 | 1481.2 | 1448.6 | 1411.9 | 1382.5 |
| 20°   | 1547.6 | 1544.5 | 1542.7 | 1540.9 | 1539.1 | 1532.7 | 1532.7 | 1517.3 | 1481.2 | 1429.6 | 1384.8 |
| 22.5° | 1540.4 | 1538.6 | 1535.9 | 1534.5 | 1532.7 | 1533.6 | 1551.2 | 1549.0 | 1507.4 | 1433.6 | 1368.5 |
| 25°   | 1523.7 | 1521.4 | 1519.1 | 1519.1 | 1518.7 | 1528.2 | 1570.7 | 1576.6 | 1515.1 | 1413.7 | 1332.8 |
| 27.5° | 1506.5 | 1503.3 | 1504.2 | 1504.7 | 1507.0 | 1527.3 | 1592.0 | 1583.8 | 1494.2 | 1365.8 | 1271.2 |
| 30°   | 1496.1 | 1496.1 | 1498.3 | 1502.0 | 1506.5 | 1542.2 | 1608.7 | 1567.6 | 1440.4 | 1293.4 | 1189.8 |
| 32.5° | 1500.6 | 1505.1 | 1510.1 | 1519.1 | 1525.9 | 1575.2 | 1614.6 | 1525.5 | 1362.2 | 1203.8 | 1104.8 |
| 35°   | 1540.9 | 1546.3 | 1555.8 | 1569.8 | 1577.9 | 1622.8 | 1614.6 | 1463.9 | 1271.2 | 1126.9 | 1017.0 |
| 37.5° | 1628.6 | 1634.0 | 1645.4 | 1656.2 | 1664.3 | 1682.5 | 1607.8 | 1385.7 | 1195.3 | 1047.3 | 938.3  |
| 40°   | 1769.8 | 1777.4 | 1785.6 | 1783.8 | 1778.3 | 1760.7 | 1594.3 | 1312.9 | 1125.1 | 977.6  | 860.9  |
| 42.5° | 1968.4 | 1961.2 | 1960.3 | 1942.6 | 1924.5 | 1849.0 | 1584.3 | 1265.3 | 1064.9 | 904.3  | 784.0  |
| 45°   | 2197.7 | 2168.3 | 2138.0 | 2114.5 | 2086.9 | 1945.7 | 1581.6 | 1226.9 | 998.5  | 822.9  | 700.3  |
| 47.5° | 2428.4 | 2381.4 | 2322.6 | 2285.9 | 2241.2 | 2048.9 | 1589.7 | 1175.3 | 913.0  | 734.2  | 622.0  |
| 50°   | 2654.6 | 2577.8 | 2504.9 | 2461.0 | 2410.4 | 2167.4 | 1602.8 | 1088.5 | 810.7  | 653.7  | 550.6  |
| 52.5° | 2864.1 | 2765.0 | 2690.4 | 2638.8 | 2576.8 | 2305.4 | 1591.1 | 974.5  | 722.0  | 576.4  | 482.7  |
| 55°   | 3063.2 | 2953.7 | 2876.3 | 2822.0 | 2749.2 | 2443.9 | 1506.0 | 870.8  | 637.4  | 500.8  | 406.3  |
| 57.5° | 3237.4 | 3132.4 | 3051.8 | 2978.1 | 2916.6 | 2564.2 | 1338.2 | 785.3  | 556.0  | 414.4  | 323.5  |
| 60°   | 3440.9 | 3322.9 | 3227.4 | 3148.7 | 3076.3 | 2626.1 | 1150.0 | 709.4  | 469.1  | 320.8  | 233.9  |
| 62.5° | 3715.5 | 3579.8 | 3469.4 | 3379.4 | 3284.8 | 2639.8 | 1021.5 | 633.4  | 372.3  | 232.1  | 170.1  |
| 65°   | 4122.7 | 3955.3 | 3817.3 | 3693.4 | 3565.3 | 2583.7 | 958.2  | 550.6  | 276.8  | 172.4  | 142.5  |
| 67.5° | 4446.1 | 4272.4 | 4112.8 | 3953.5 | 3789.7 | 2479.6 | 944.2  | 474.1  | 212.6  | 146.6  | 128.0  |
| 69°   | 4406.8 | 4241.2 | 4094.6 | 3922.3 | 3740.9 | 2348.8 | 930.1  | 444.7  | 194.1  | 136.2  | 121.3  |
| 70°   | 4255.3 | 4098.2 | 3949.4 | 3809.2 | 3587.0 | 2203.1 | 893.0  | 428.4  | 186.8  | 131.2  | 116.3  |
| 72.5° | 3595.6 | 3413.8 | 3269.5 | 3094.9 | 2861.0 | 1637.2 | 677.2  | 346.6  | 171.5  | 119.9  | 104.9  |
| 75°   | 2622.5 | 2471.9 | 2328.1 | 2134.9 | 1907.3 | 947.3  | 421.6  | 198.1  | 125.8  | 108.6  | 95.0   |
| 77.5° | 1531.4 | 1497.4 | 1358.5 | 1231.4 | 1006.1 | 482.3  | 242.0  | 118.5  | 97.7   | 98.6   | 83.7   |
| 80°   | 576.4  | 613.9  | 627.9  | 584.0  | 539.7  | 332.9  | 176.0  | 96.4   | 85.1   | 97.3   | 71.0   |
| 82.5° | 420.3  | 487.7  | 495.8  | 475.0  | 442.0  | 310.3  | 140.7  | 77.3   | 69.2   | 104.5  | 61.1   |
| 85°   | 350.6  | 388.1  | 394.0  | 372.3  | 361.4  | 262.9  | 98.2   | 54.3   | 50.6   | 75.1   | 45.7   |
| 87.5° | 177.4  | 186.8  | 191.8  | 173.7  | 174.6  | 122.6  | 39.4   | 23.1   | 27.6   | 32.1   | 25.3   |
| 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: P157994

CATALOG NUMBER: VST-F03-LED-E-U-RW-7030

**CANDELA DISTRIBUTION (continued):**

|       | 175°   | 180°   |
|-------|--------|--------|
| 0°    | 1338.7 | 1338.7 |
| 2.5°  | 1320.1 | 1322.8 |
| 5°    | 1321.9 | 1321.9 |
| 7.5°  | 1332.3 | 1332.3 |
| 10°   | 1343.6 | 1344.1 |
| 12.5° | 1354.0 | 1353.5 |
| 15°   | 1362.2 | 1360.8 |
| 17.5° | 1367.2 | 1365.8 |
| 20°   | 1362.2 | 1359.9 |
| 22.5° | 1336.9 | 1330.5 |
| 25°   | 1290.7 | 1282.6 |
| 27.5° | 1229.6 | 1224.2 |
| 30°   | 1150.0 | 1141.9 |
| 32.5° | 1056.8 | 1052.7 |
| 35°   | 967.7  | 962.7  |
| 37.5° | 886.3  | 884.9  |
| 40°   | 817.5  | 810.2  |
| 42.5° | 737.0  | 733.8  |
| 45°   | 655.1  | 653.3  |
| 47.5° | 578.2  | 576.4  |
| 50°   | 507.1  | 503.5  |
| 52.5° | 437.5  | 431.6  |
| 55°   | 360.1  | 356.0  |
| 57.5° | 276.4  | 272.8  |
| 60°   | 194.5  | 190.4  |
| 62.5° | 138.4  | 133.9  |
| 65°   | 115.4  | 111.7  |
| 67.5° | 104.5  | 100.4  |
| 69°   | 99.5   | 95.9   |
| 70°   | 96.4   | 93.7   |
| 72.5° | 89.6   | 87.8   |
| 75°   | 81.9   | 80.5   |
| 77.5° | 71.9   | 69.7   |
| 80°   | 60.2   | 57.9   |
| 82.5° | 50.6   | 48.4   |
| 85°   | 33.9   | 30.8   |
| 87.5° | 15.4   | 13.6   |
| 90°   | 0.0    | 0.0    |

(END OF REPORT)