

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: P157042

Luminaire Tested: **UTLD-E02-LED-E-U-SL2-7060**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P157042  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33668)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: UTLD-E02-LED-E-U-SL2-7060  
Description: TRADITIONAIRE LED DOWNLIGHT LUMINAIRE  
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL  
Light Source: (42) 5700K CCT, 70 CRI LEDs  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 5429.7 lumens  
Efficiency: N/A  
Efficacy: 104.2 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 52.1  
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: 28.75 FT

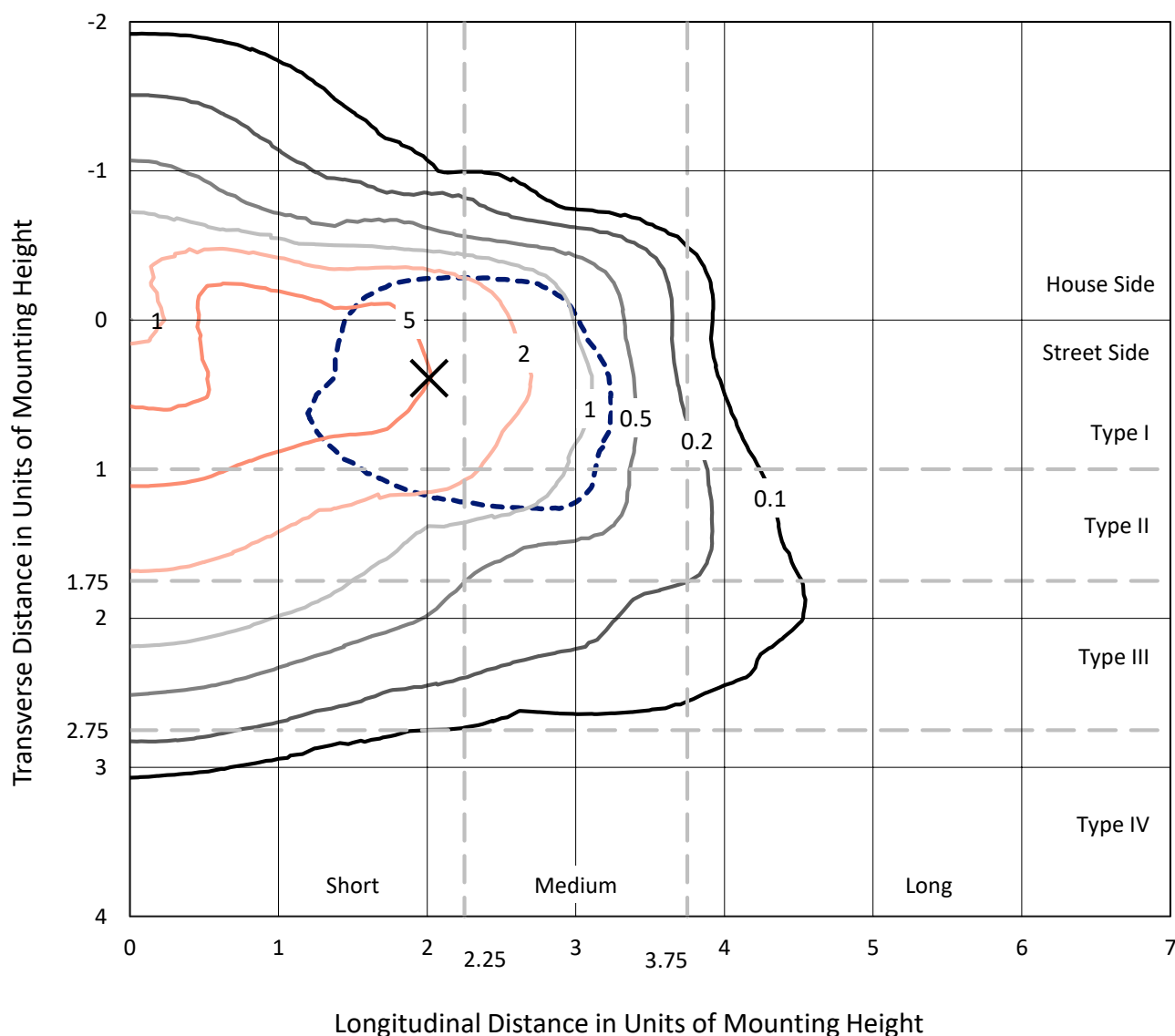


REPORT NUMBER: P157042

CATALOG NUMBER: UTLD-E02-LED-E-U-SL2-7060

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

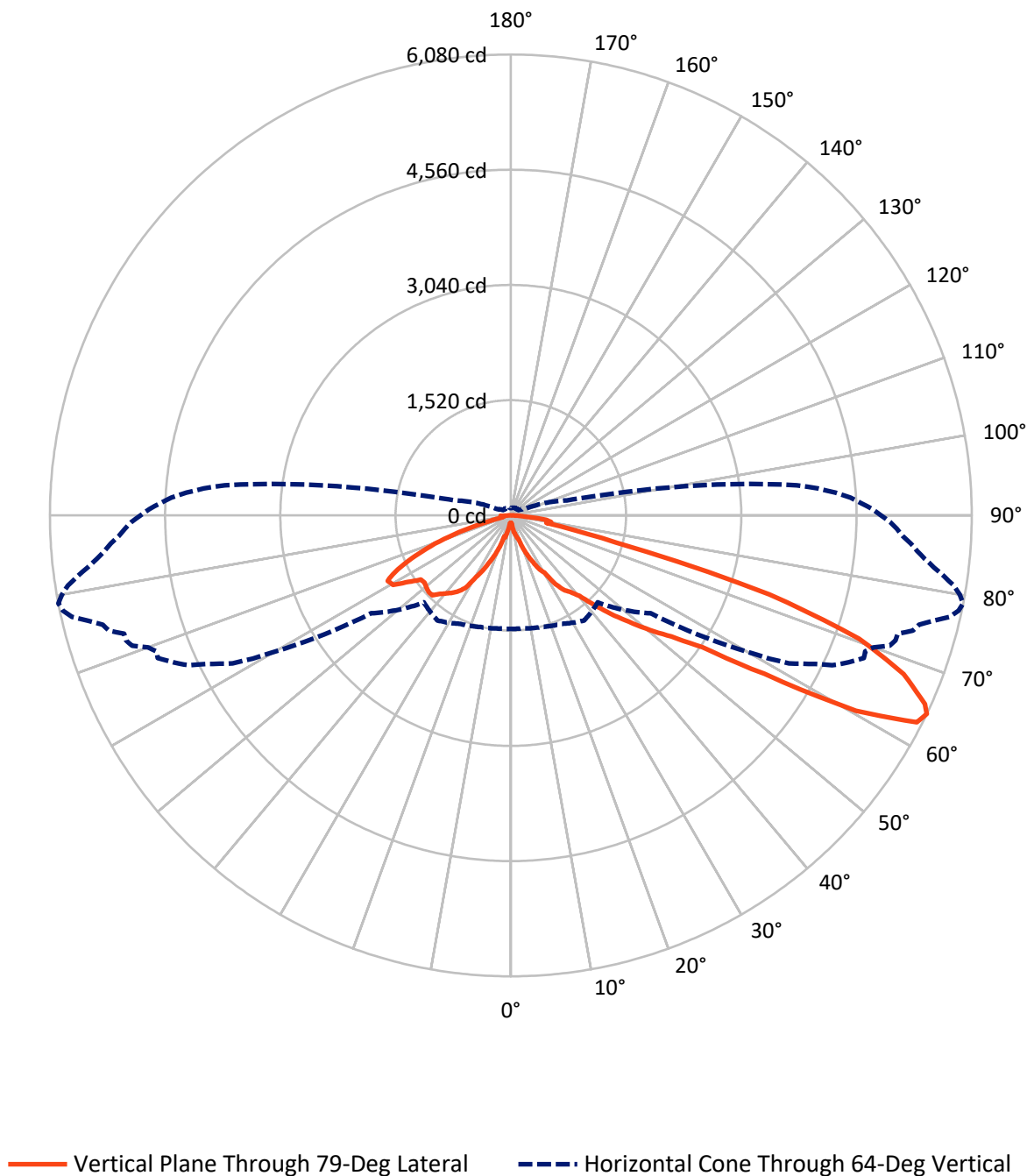


Based on 10 foot mounting height. Maximum calculated value = 7.5 fc  
 Type II - Short - Non-Cutoff

REPORT NUMBER: P157042

CATALOG NUMBER: UTLD-E02-LED-E-U-SL2-7060

## Luminous Intensity Polar Plot



REPORT NUMBER: P157042

CATALOG NUMBER: UTLD-E02-LED-E-U-SL2-7060

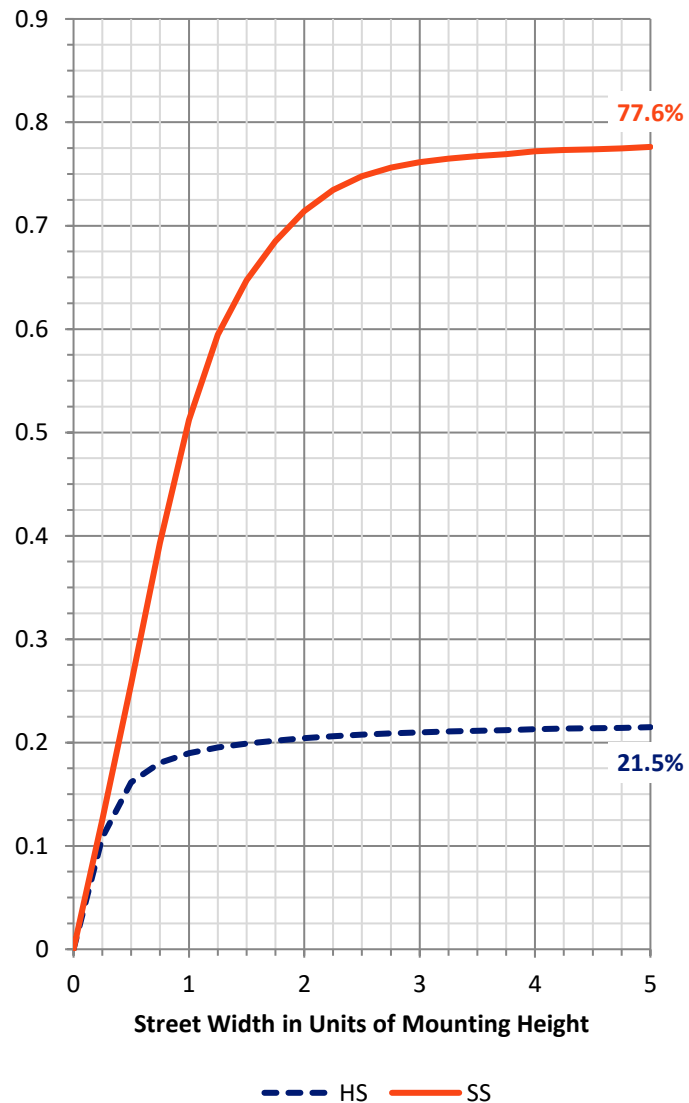
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1192.8   | 0.0    | 1192.8 |
|                    | % Fixture | 22.0     | 0.0    | 22.0   |
| <b>Street Side</b> | Lumens    | 4236.9   | 0.0    | 4236.9 |
|                    | % Fixture | 78.0     | 0.0    | 78.0   |
| <b>Total</b>       | Lumens    | 5429.7   | 0.0    | 5429.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 13.6   | 0.3       |
| 10°-20°   | 79.3   | 1.5       |
| 20°-30°   | 232.2  | 4.3       |
| 30°-40°   | 507.4  | 9.3       |
| 40°-50°   | 922.8  | 17.0      |
| 50°-60°   | 1288.7 | 23.7      |
| 60°-70°   | 1620.4 | 29.8      |
| 70°-80°   | 628.2  | 11.6      |
| 80°-90°   | 137.1  | 2.5       |
| 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°    | 5429.7 | 100.0     |
| 0°-180°   | 5429.7 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P157042

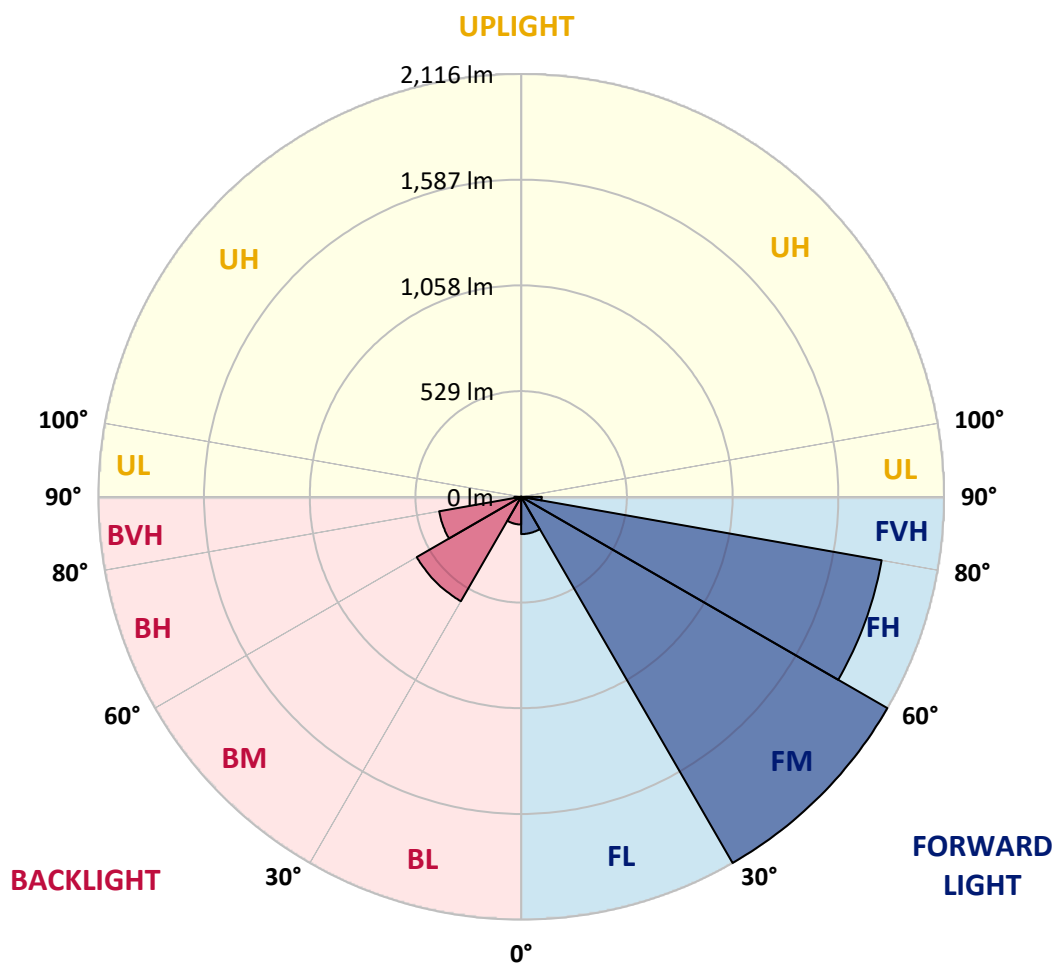
CATALOG NUMBER: UTLD-E02-LED-E-U-SL2-7060

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 186.6  | 3.4       |                         |      |         |
| FM   | (30°-60°)   | 2115.8 | 39.0      |                         |      |         |
| FH   | (60°-80°)   | 1831.6 | 33.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 102.9  | 1.9       |                         |      | G2/225  |
| BL   | (0°-30°)    | 138.5  | 2.6       | B1/500                  |      |         |
| BM   | (30°-60°)   | 603.1  | 11.1      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 417.0  | 7.7       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 34.2   | 0.6       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type II Short





REPORT NUMBER: P157042

CATALOG NUMBER: UTLD-E02-LED-E-U-SL2-7060

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 60°    | 61°    | 62°    | 64°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   |
| 2.5°  | 159.0  | 158.0  | 160.1  | 160.1  | 160.1  | 158.0  | 141.6  | 121.1  | 120.1  | 117.0  | 113.9  |
| 5°    | 131.3  | 131.3  | 131.3  | 132.4  | 133.4  | 135.4  | 143.7  | 153.9  | 159.0  | 160.1  | 161.1  |
| 7.5°  | 191.9  | 193.9  | 193.9  | 193.9  | 161.1  | 138.5  | 137.5  | 139.6  | 137.5  | 135.4  | 132.4  |
| 10°   | 197.0  | 198.0  | 198.0  | 200.1  | 201.1  | 198.0  | 169.3  | 191.9  | 191.9  | 192.9  | 193.9  |
| 12.5° | 269.9  | 271.9  | 270.9  | 261.7  | 213.4  | 261.7  | 274.0  | 256.5  | 239.1  | 220.6  | 209.3  |
| 15°   | 286.3  | 290.4  | 282.2  | 274.0  | 326.3  | 306.8  | 289.4  | 333.5  | 333.5  | 336.6  | 345.8  |
| 17.5° | 369.4  | 370.4  | 364.3  | 354.0  | 338.6  | 346.8  | 354.0  | 353.0  | 359.1  | 364.3  | 361.2  |
| 20°   | 443.3  | 434.0  | 381.7  | 409.4  | 404.3  | 401.2  | 402.2  | 438.1  | 441.2  | 443.3  | 452.5  |
| 22.5° | 467.9  | 467.9  | 446.4  | 468.9  | 447.4  | 452.5  | 493.6  | 541.8  | 539.7  | 531.5  | 519.2  |
| 25°   | 570.5  | 572.6  | 523.3  | 485.3  | 495.6  | 507.9  | 532.5  | 606.4  | 597.2  | 607.5  | 612.6  |
| 27.5° | 616.7  | 620.8  | 576.7  | 566.4  | 516.1  | 571.5  | 658.8  | 679.3  | 686.5  | 698.8  | 698.8  |
| 30°   | 740.8  | 742.9  | 714.2  | 633.1  | 615.7  | 622.8  | 712.1  | 741.9  | 752.1  | 765.5  | 815.8  |
| 32.5° | 928.6  | 929.7  | 860.9  | 726.5  | 692.6  | 719.3  | 825.0  | 858.9  | 878.3  | 859.9  | 881.4  |
| 35°   | 1228.2 | 1219.0 | 1090.8 | 982.0  | 897.8  | 831.1  | 935.8  | 1054.8 | 1042.5 | 1045.6 | 1055.9 |
| 37.5° | 1427.3 | 1439.6 | 1399.6 | 1275.4 | 1217.0 | 1124.6 | 1187.2 | 1202.6 | 1179.0 | 1197.5 | 1203.6 |
| 40°   | 1585.3 | 1602.8 | 1586.4 | 1524.8 | 1468.4 | 1427.3 | 1503.2 | 1449.9 | 1416.0 | 1419.1 | 1395.5 |
| 42.5° | 1644.8 | 1664.3 | 1680.8 | 1716.7 | 1702.3 | 1746.4 | 1852.1 | 1775.2 | 1769.0 | 1739.2 | 1681.8 |
| 45°   | 1685.9 | 1704.4 | 1757.7 | 1829.5 | 1852.1 | 1968.1 | 2150.7 | 2119.9 | 2142.5 | 2077.9 | 2043.0 |
| 47.5° | 1694.1 | 1711.5 | 1772.1 | 1885.0 | 1947.5 | 2115.8 | 2398.0 | 2428.8 | 2446.2 | 2411.3 | 2403.1 |
| 50°   | 1622.3 | 1636.6 | 1701.3 | 1835.7 | 1927.0 | 2180.5 | 2562.2 | 2675.1 | 2690.4 | 2699.7 | 2706.9 |
| 52.5° | 1510.4 | 1527.9 | 1588.4 | 1702.3 | 1818.3 | 2150.7 | 2651.5 | 2869.0 | 2887.5 | 2927.5 | 2975.7 |
| 55°   | 1466.3 | 1480.7 | 1518.6 | 1611.0 | 1699.2 | 2028.6 | 2696.6 | 3033.2 | 3062.9 | 3132.7 | 3215.8 |
| 57.5° | 1460.1 | 1474.5 | 1508.4 | 1539.2 | 1636.6 | 1886.0 | 2716.1 | 3218.9 | 3311.2 | 3424.1 | 3558.5 |
| 60°   | 1513.5 | 1519.7 | 1535.1 | 1536.1 | 1581.2 | 1777.2 | 2656.6 | 3447.7 | 3632.4 | 3797.6 | 4009.0 |
| 62.5° | 1549.4 | 1554.5 | 1578.2 | 1621.2 | 1608.9 | 1668.4 | 2455.5 | 3596.5 | 3871.5 | 4115.7 | 4389.7 |
| 64°   | 1497.1 | 1497.1 | 1524.8 | 1578.2 | 1690.0 | 1622.3 | 2251.3 | 3591.4 | 3893.0 | 4154.7 | 4466.6 |
| 65°   | 1437.6 | 1436.5 | 1462.2 | 1505.3 | 1676.7 | 1615.1 | 2103.5 | 3505.2 | 3817.1 | 4079.8 | 4417.4 |
| 67.5° | 1167.7 | 1127.7 | 1151.3 | 1205.7 | 1414.0 | 1631.5 | 1736.2 | 2949.0 | 3269.2 | 3586.2 | 3975.1 |
| 70°   | 604.4  | 625.9  | 638.2  | 728.5  | 977.9  | 1403.7 | 1457.1 | 2084.0 | 2448.3 | 2764.3 | 3301.0 |
| 72.5° | 255.5  | 239.1  | 268.8  | 332.5  | 514.1  | 994.3  | 1340.1 | 1447.8 | 1637.7 | 1889.1 | 2458.5 |
| 75°   | 138.5  | 139.6  | 145.7  | 165.2  | 267.8  | 549.0  | 1235.4 | 1275.4 | 1292.9 | 1333.9 | 1637.7 |
| 77.5° | 102.6  | 102.6  | 105.7  | 105.7  | 139.6  | 285.3  | 985.1  | 1205.7 | 1208.8 | 1182.1 | 1251.8 |
| 80°   | 77.0   | 81.1   | 86.2   | 82.1   | 87.2   | 162.1  | 576.7  | 1094.9 | 1141.0 | 1150.3 | 1207.7 |
| 82.5° | 63.6   | 65.7   | 77.0   | 73.9   | 68.7   | 97.5   | 270.9  | 829.1  | 958.4  | 1034.3 | 1175.9 |
| 85°   | 43.1   | 46.2   | 69.8   | 67.7   | 62.6   | 65.7   | 157.0  | 268.8  | 324.2  | 374.5  | 477.1  |
| 87.5° | 17.4   | 22.6   | 45.1   | 41.0   | 43.1   | 36.9   | 96.5   | 141.6  | 156.0  | 177.5  | 220.6  |
| 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: P157042

CATALOG NUMBER: UTLD-E02-LED-E-U-SL2-7060

**CANDELA DISTRIBUTION (continued):**

|       | 65°    | 66°    | 67°    | 68°    | 69°    | 70°    | 71°    | 72°    | 73°    | 74°    | 75°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   |
| 2.5°  | 111.8  | 109.8  | 108.8  | 106.7  | 105.7  | 104.7  | 105.7  | 103.6  | 102.6  | 103.6  | 101.6  |
| 5°    | 160.1  | 160.1  | 159.0  | 157.0  | 156.0  | 153.9  | 152.9  | 144.7  | 135.4  | 130.3  | 122.1  |
| 7.5°  | 133.4  | 133.4  | 135.4  | 140.6  | 145.7  | 150.8  | 153.9  | 154.9  | 153.9  | 154.9  | 154.9  |
| 10°   | 193.9  | 197.0  | 197.0  | 199.1  | 199.1  | 200.1  | 201.1  | 203.2  | 205.2  | 217.5  | 226.8  |
| 12.5° | 208.3  | 209.3  | 209.3  | 210.4  | 214.5  | 218.6  | 218.6  | 221.6  | 219.6  | 218.6  | 216.5  |
| 15°   | 340.7  | 335.5  | 311.9  | 308.9  | 307.8  | 304.8  | 296.5  | 293.5  | 293.5  | 295.5  | 294.5  |
| 17.5° | 364.3  | 367.3  | 363.2  | 358.1  | 353.0  | 341.7  | 322.2  | 324.2  | 322.2  | 324.2  | 328.4  |
| 20°   | 455.6  | 446.4  | 452.5  | 475.1  | 490.5  | 495.6  | 500.7  | 503.8  | 493.6  | 478.2  | 476.1  |
| 22.5° | 514.1  | 508.9  | 521.3  | 525.4  | 526.4  | 536.7  | 538.7  | 545.9  | 573.6  | 568.5  | 573.6  |
| 25°   | 613.6  | 667.0  | 668.0  | 671.1  | 676.2  | 682.4  | 678.3  | 687.5  | 685.4  | 693.6  | 693.6  |
| 27.5° | 714.2  | 710.1  | 714.2  | 718.3  | 713.1  | 710.1  | 720.3  | 720.3  | 739.8  | 728.5  | 730.6  |
| 30°   | 810.6  | 813.7  | 822.9  | 831.1  | 837.3  | 834.2  | 835.2  | 849.6  | 839.4  | 847.6  | 859.9  |
| 32.5° | 878.3  | 890.7  | 913.2  | 919.4  | 977.9  | 968.6  | 994.3  | 1006.6 | 1016.9 | 1033.3 | 1048.7 |
| 35°   | 1072.3 | 1081.5 | 1093.8 | 1093.8 | 1087.7 | 1103.1 | 1114.4 | 1122.6 | 1132.8 | 1158.5 | 1150.3 |
| 37.5° | 1206.7 | 1207.7 | 1211.8 | 1185.2 | 1202.6 | 1209.8 | 1209.8 | 1227.2 | 1245.7 | 1246.7 | 1228.2 |
| 40°   | 1385.2 | 1360.6 | 1350.4 | 1326.8 | 1348.3 | 1318.5 | 1341.1 | 1337.0 | 1350.4 | 1333.9 | 1344.2 |
| 42.5° | 1655.1 | 1618.2 | 1560.7 | 1552.5 | 1534.0 | 1517.6 | 1498.1 | 1514.5 | 1485.8 | 1498.1 | 1529.9 |
| 45°   | 1997.8 | 1899.3 | 1873.7 | 1847.0 | 1771.1 | 1758.7 | 1749.5 | 1711.5 | 1674.6 | 1714.6 | 1769.0 |
| 47.5° | 2355.9 | 2247.2 | 2212.3 | 2162.0 | 2111.7 | 2047.1 | 2009.1 | 1930.1 | 1911.6 | 1961.9 | 1997.8 |
| 50°   | 2657.6 | 2574.5 | 2580.7 | 2509.9 | 2447.3 | 2405.2 | 2300.5 | 2221.5 | 2217.4 | 2234.9 | 2217.4 |
| 52.5° | 2922.3 | 2904.9 | 2908.0 | 2863.9 | 2821.8 | 2769.5 | 2643.2 | 2596.0 | 2564.2 | 2537.6 | 2466.8 |
| 55°   | 3186.1 | 3243.5 | 3238.4 | 3272.3 | 3263.0 | 3225.0 | 3135.8 | 3146.0 | 3133.7 | 3046.5 | 2975.7 |
| 57.5° | 3622.2 | 3710.4 | 3765.8 | 3815.1 | 3919.7 | 3908.4 | 3891.0 | 4048.0 | 4041.8 | 3958.7 | 3991.6 |
| 60°   | 4192.7 | 4288.1 | 4428.7 | 4554.9 | 4671.9 | 4703.7 | 4803.2 | 5018.7 | 5000.2 | 5009.4 | 5118.2 |
| 62.5° | 4623.6 | 4743.7 | 4893.5 | 5041.3 | 5039.2 | 5122.3 | 5322.4 | 5431.2 | 5410.7 | 5558.4 | 5644.6 |
| 64°   | 4676.0 | 4803.2 | 4912.0 | 5022.8 | 5007.4 | 5091.5 | 5282.4 | 5334.7 | 5335.7 | 5515.3 | 5573.8 |
| 65°   | 4599.0 | 4734.5 | 4813.5 | 4910.9 | 4892.5 | 4984.8 | 5174.6 | 5172.6 | 5202.4 | 5385.0 | 5436.3 |
| 67.5° | 4127.0 | 4310.7 | 4375.3 | 4411.2 | 4431.7 | 4570.3 | 4673.9 | 4630.8 | 4759.1 | 4834.0 | 4958.1 |
| 70°   | 3480.5 | 3685.8 | 3798.6 | 3814.0 | 3885.9 | 4025.4 | 4101.3 | 4020.3 | 4178.3 | 4128.0 | 4344.5 |
| 72.5° | 2744.8 | 2936.7 | 3106.0 | 3124.5 | 3246.6 | 3318.4 | 3311.2 | 3312.3 | 3336.9 | 3257.9 | 3438.5 |
| 75°   | 1906.5 | 2053.2 | 2182.5 | 2198.9 | 2263.6 | 2200.0 | 2152.8 | 2059.4 | 1951.7 | 1860.3 | 1849.0 |
| 77.5° | 1298.0 | 1346.3 | 1333.9 | 1285.7 | 1233.4 | 1150.3 | 1084.6 | 1066.1 | 997.4  | 968.6  | 909.1  |
| 80°   | 1202.6 | 1219.0 | 1195.4 | 1192.3 | 1153.3 | 1061.0 | 1013.8 | 935.8  | 925.5  | 891.7  | 849.6  |
| 82.5° | 1202.6 | 1210.8 | 1214.9 | 1238.5 | 1186.2 | 1115.4 | 1034.3 | 918.4  | 878.3  | 788.0  | 733.7  |
| 85°   | 570.5  | 605.4  | 663.9  | 715.2  | 713.1  | 693.6  | 604.4  | 557.2  | 473.0  | 405.3  | 343.7  |
| 87.5° | 254.5  | 283.2  | 316.0  | 328.4  | 339.6  | 328.4  | 297.6  | 268.8  | 220.6  | 172.4  | 142.6  |
| 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: P157042

CATALOG NUMBER: UTLD-E02-LED-E-U-SL2-7060

**CANDELA DISTRIBUTION (continued):**

|       | 76°    | 77°    | 78°    | 79°    | 80°    | 81°    | 82°    | 83°    | 84°    | 85°    | 86°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   |
| 2.5°  | 101.6  | 101.6  | 101.6  | 101.6  | 100.6  | 100.6  | 100.6  | 100.6  | 100.6  | 99.5   | 99.5   |
| 5°    | 113.9  | 111.8  | 107.7  | 107.7  | 105.7  | 104.7  | 104.7  | 103.6  | 103.6  | 102.6  | 102.6  |
| 7.5°  | 153.9  | 152.9  | 149.8  | 137.5  | 119.0  | 111.8  | 105.7  | 105.7  | 104.7  | 105.7  | 107.7  |
| 10°   | 230.9  | 230.9  | 228.8  | 225.7  | 224.7  | 220.6  | 200.1  | 182.6  | 171.4  | 169.3  | 167.3  |
| 12.5° | 219.6  | 224.7  | 238.1  | 245.2  | 245.2  | 244.2  | 242.2  | 236.0  | 207.3  | 189.8  | 185.7  |
| 15°   | 295.5  | 297.6  | 298.6  | 302.7  | 315.0  | 317.1  | 315.0  | 317.1  | 315.0  | 295.5  | 268.8  |
| 17.5° | 332.5  | 325.3  | 325.3  | 328.4  | 340.7  | 334.5  | 346.8  | 383.8  | 390.9  | 360.2  | 363.2  |
| 20°   | 472.0  | 472.0  | 474.1  | 466.9  | 472.0  | 481.2  | 482.3  | 486.4  | 494.6  | 492.5  | 480.2  |
| 22.5° | 560.3  | 553.1  | 570.5  | 578.7  | 581.8  | 580.8  | 579.7  | 577.7  | 581.8  | 588.0  | 582.8  |
| 25°   | 681.3  | 687.5  | 688.5  | 684.4  | 675.2  | 671.1  | 678.3  | 685.4  | 707.0  | 720.3  | 711.1  |
| 27.5° | 753.2  | 771.6  | 818.8  | 808.6  | 802.4  | 809.6  | 814.7  | 832.2  | 825.0  | 819.9  | 834.2  |
| 30°   | 877.3  | 874.2  | 864.0  | 873.2  | 885.5  | 900.9  | 896.8  | 884.5  | 878.3  | 892.7  | 888.6  |
| 32.5° | 1043.5 | 1031.2 | 1050.7 | 1078.4 | 1097.9 | 1081.5 | 1070.2 | 1084.6 | 1084.6 | 1069.2 | 1086.6 |
| 35°   | 1135.9 | 1158.5 | 1188.2 | 1206.7 | 1193.4 | 1193.4 | 1204.6 | 1197.5 | 1202.6 | 1220.0 | 1230.3 |
| 37.5° | 1247.7 | 1284.7 | 1303.2 | 1284.7 | 1288.8 | 1313.4 | 1314.4 | 1324.7 | 1335.0 | 1354.5 | 1383.2 |
| 40°   | 1390.4 | 1408.8 | 1395.5 | 1394.5 | 1425.3 | 1433.5 | 1451.9 | 1487.9 | 1503.2 | 1530.9 | 1543.3 |
| 42.5° | 1566.9 | 1572.0 | 1574.0 | 1611.0 | 1616.1 | 1625.4 | 1672.6 | 1705.4 | 1745.4 | 1756.7 | 1741.3 |
| 45°   | 1785.4 | 1782.3 | 1828.5 | 1854.2 | 1860.3 | 1925.0 | 1943.4 | 1968.1 | 1994.7 | 1971.1 | 2010.1 |
| 47.5° | 1984.5 | 2034.8 | 2094.3 | 2096.3 | 2148.7 | 2190.7 | 2207.2 | 2229.7 | 2208.2 | 2232.8 | 2204.1 |
| 50°   | 2219.5 | 2309.8 | 2300.5 | 2375.4 | 2416.5 | 2424.7 | 2458.5 | 2425.7 | 2429.8 | 2406.2 | 2398.0 |
| 52.5° | 2512.9 | 2550.9 | 2546.8 | 2651.5 | 2658.6 | 2687.4 | 2662.7 | 2643.2 | 2640.2 | 2609.4 | 2586.8 |
| 55°   | 3022.9 | 2972.6 | 3026.0 | 3065.0 | 3085.5 | 3096.8 | 3018.8 | 3052.7 | 2974.7 | 2973.7 | 2920.3 |
| 57.5° | 3962.8 | 3953.6 | 3987.4 | 3944.3 | 3999.8 | 3912.5 | 3907.4 | 3838.7 | 3790.4 | 3789.4 | 3758.6 |
| 60°   | 5094.6 | 5238.3 | 5271.1 | 5230.1 | 5124.4 | 5083.3 | 5016.6 | 4958.1 | 4873.0 | 4880.2 | 4816.5 |
| 62.5° | 5732.9 | 5930.9 | 5983.2 | 6009.9 | 5873.4 | 5811.9 | 5659.0 | 5561.5 | 5430.2 | 5388.1 | 5285.5 |
| 64°   | 5744.1 | 5942.2 | 6038.6 | 6079.7 | 6010.9 | 5914.5 | 5769.8 | 5623.1 | 5489.7 | 5379.9 | 5286.5 |
| 65°   | 5659.0 | 5829.3 | 5960.6 | 6001.7 | 5996.6 | 5869.3 | 5749.3 | 5575.9 | 5452.7 | 5300.9 | 5205.4 |
| 67.5° | 5200.3 | 5351.1 | 5522.5 | 5590.2 | 5660.0 | 5615.9 | 5513.3 | 5345.0 | 5197.2 | 5014.6 | 4881.2 |
| 70°   | 4490.2 | 4621.6 | 4774.5 | 4873.0 | 4948.9 | 4985.8 | 4897.6 | 4768.3 | 4656.5 | 4442.0 | 4285.0 |
| 72.5° | 3507.2 | 3528.8 | 3559.6 | 3563.7 | 3533.9 | 3519.5 | 3440.5 | 3449.8 | 3244.5 | 3114.2 | 3023.9 |
| 75°   | 1742.3 | 1670.5 | 1496.1 | 1431.4 | 1283.7 | 1196.4 | 1095.9 | 1055.9 | 951.2  | 921.4  | 841.4  |
| 77.5° | 798.3  | 698.8  | 576.7  | 480.2  | 401.2  | 346.8  | 295.5  | 259.6  | 229.8  | 218.6  | 202.1  |
| 80°   | 781.9  | 702.9  | 608.5  | 537.7  | 454.6  | 379.7  | 308.9  | 242.2  | 195.0  | 166.2  | 147.8  |
| 82.5° | 665.9  | 573.6  | 510.0  | 467.9  | 415.6  | 363.2  | 297.6  | 240.1  | 184.7  | 142.6  | 115.9  |
| 85°   | 272.9  | 222.7  | 188.8  | 171.4  | 152.9  | 134.4  | 115.9  | 99.5   | 89.3   | 75.9   | 68.7   |
| 87.5° | 117.0  | 102.6  | 94.4   | 93.4   | 89.3   | 86.2   | 83.1   | 79.0   | 69.8   | 64.6   | 58.5   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P157042

CATALOG NUMBER: UTLD-E02-LED-E-U-SL2-7060

**CANDELA DISTRIBUTION (continued):**

|       | 87°    | 88°    | 89°    | 90°    | 91°    | 92°    | 93°    | 94°    | 95°    | 96°    | 97°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   |
| 2.5°  | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   |
| 5°    | 102.6  | 102.6  | 101.6  | 101.6  | 101.6  | 101.6  | 102.6  | 101.6  | 101.6  | 101.6  | 101.6  |
| 7.5°  | 108.8  | 108.8  | 108.8  | 108.8  | 108.8  | 108.8  | 108.8  | 109.8  | 108.8  | 108.8  | 109.8  |
| 10°   | 166.2  | 165.2  | 161.1  | 160.1  | 158.0  | 158.0  | 158.0  | 159.0  | 163.2  | 165.2  | 167.3  |
| 12.5° | 181.6  | 183.7  | 185.7  | 181.6  | 183.7  | 178.5  | 181.6  | 183.7  | 182.6  | 183.7  | 181.6  |
| 15°   | 270.9  | 270.9  | 269.9  | 268.8  | 265.8  | 262.7  | 261.7  | 261.7  | 259.6  | 257.6  | 259.6  |
| 17.5° | 359.1  | 359.1  | 354.0  | 349.9  | 349.9  | 328.4  | 343.7  | 338.6  | 341.7  | 327.3  | 366.3  |
| 20°   | 450.5  | 448.4  | 451.5  | 458.7  | 461.7  | 456.6  | 449.4  | 441.2  | 439.2  | 452.5  | 468.9  |
| 22.5° | 581.8  | 577.7  | 566.4  | 552.0  | 550.0  | 549.0  | 562.3  | 562.3  | 563.3  | 569.5  | 579.7  |
| 25°   | 696.7  | 674.2  | 664.9  | 675.2  | 678.3  | 663.9  | 663.9  | 669.0  | 696.7  | 707.0  | 708.0  |
| 27.5° | 837.3  | 830.1  | 824.0  | 811.6  | 806.5  | 827.0  | 838.3  | 826.0  | 821.9  | 837.3  | 837.3  |
| 30°   | 894.8  | 911.2  | 910.2  | 922.5  | 931.7  | 906.1  | 892.7  | 925.5  | 922.5  | 898.9  | 912.2  |
| 32.5° | 1105.1 | 1113.3 | 1124.6 | 1140.0 | 1128.7 | 1145.1 | 1127.7 | 1114.4 | 1135.9 | 1131.8 | 1116.4 |
| 35°   | 1229.3 | 1251.8 | 1251.8 | 1252.9 | 1283.7 | 1277.5 | 1270.3 | 1266.2 | 1249.8 | 1261.1 | 1268.3 |
| 37.5° | 1381.1 | 1366.8 | 1379.1 | 1394.5 | 1400.6 | 1407.8 | 1409.9 | 1415.0 | 1393.5 | 1379.1 | 1358.6 |
| 40°   | 1529.9 | 1547.4 | 1532.0 | 1536.1 | 1548.4 | 1546.3 | 1554.5 | 1565.8 | 1535.1 | 1513.5 | 1484.8 |
| 42.5° | 1753.6 | 1747.5 | 1743.4 | 1737.2 | 1722.8 | 1737.2 | 1722.8 | 1690.0 | 1697.2 | 1665.4 | 1624.3 |
| 45°   | 1988.6 | 1976.3 | 1977.3 | 1957.8 | 1943.4 | 1904.5 | 1893.2 | 1883.9 | 1844.9 | 1821.3 | 1756.7 |
| 47.5° | 2206.1 | 2196.9 | 2164.1 | 2171.2 | 2127.1 | 2080.9 | 2052.2 | 2037.8 | 1984.5 | 1920.9 | 1881.9 |
| 50°   | 2392.9 | 2368.3 | 2369.3 | 2322.1 | 2290.3 | 2254.4 | 2209.2 | 2153.8 | 2095.3 | 2035.8 | 1951.7 |
| 52.5° | 2562.2 | 2560.1 | 2530.4 | 2497.5 | 2450.3 | 2430.8 | 2353.9 | 2274.9 | 2204.1 | 2133.3 | 2038.9 |
| 55°   | 2955.2 | 2919.3 | 2856.7 | 2840.3 | 2817.7 | 2699.7 | 2642.2 | 2545.8 | 2436.0 | 2349.8 | 2223.6 |
| 57.5° | 3767.9 | 3720.7 | 3646.8 | 3639.6 | 3501.1 | 3406.7 | 3274.3 | 3161.4 | 3011.6 | 2864.9 | 2679.2 |
| 60°   | 4737.5 | 4667.8 | 4672.9 | 4566.2 | 4448.2 | 4335.3 | 4170.1 | 4010.0 | 3802.7 | 3551.4 | 3240.4 |
| 62.5° | 5193.1 | 5125.4 | 5066.9 | 4945.8 | 4820.6 | 4696.5 | 4560.0 | 4345.6 | 4145.5 | 3852.0 | 3466.2 |
| 64°   | 5177.7 | 5094.6 | 5005.3 | 4883.2 | 4770.4 | 4625.7 | 4487.2 | 4292.2 | 4066.5 | 3794.5 | 3387.2 |
| 65°   | 5102.8 | 5010.5 | 4895.5 | 4778.6 | 4643.1 | 4508.7 | 4372.2 | 4195.7 | 3946.4 | 3682.7 | 3272.3 |
| 67.5° | 4749.8 | 4630.8 | 4507.7 | 4394.8 | 4252.2 | 4118.8 | 3996.7 | 3837.6 | 3579.1 | 3295.9 | 2927.5 |
| 70°   | 4169.1 | 4022.3 | 3886.9 | 3814.0 | 3710.4 | 3591.4 | 3443.6 | 3310.2 | 3071.1 | 2790.0 | 2455.5 |
| 72.5° | 2862.8 | 2693.5 | 2599.1 | 2629.9 | 2526.3 | 2489.3 | 2454.4 | 2349.8 | 2140.5 | 1938.3 | 1723.9 |
| 75°   | 895.8  | 828.1  | 782.9  | 838.3  | 800.4  | 861.9  | 842.4  | 824.0  | 768.6  | 745.0  | 670.0  |
| 77.5° | 203.2  | 193.9  | 189.8  | 187.8  | 188.8  | 187.8  | 184.7  | 183.7  | 180.6  | 182.6  | 177.5  |
| 80°   | 140.6  | 134.4  | 132.4  | 129.3  | 127.2  | 124.2  | 121.1  | 120.1  | 119.0  | 117.0  | 115.9  |
| 82.5° | 101.6  | 93.4   | 92.3   | 90.3   | 89.3   | 87.2   | 86.2   | 88.2   | 87.2   | 90.3   | 90.3   |
| 85°   | 65.7   | 61.6   | 59.5   | 60.5   | 59.5   | 61.6   | 62.6   | 64.6   | 67.7   | 70.8   | 75.9   |
| 87.5° | 54.4   | 51.3   | 51.3   | 52.3   | 54.4   | 56.4   | 61.6   | 67.7   | 72.9   | 81.1   | 90.3   |
| 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: P157042

CATALOG NUMBER: UTLD-E02-LED-E-U-SL2-7060

**CANDELA DISTRIBUTION (continued):**

|       | 98°    | 99°    | 100°   | 101°   | 102°   | 103°   | 104°   | 105°   | 115°  | 125°  | 135°  |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| 0°    | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5  | 99.5  | 99.5  |
| 2.5°  | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 99.5   | 101.6 | 102.6 | 107.7 |
| 5°    | 101.6  | 102.6  | 101.6  | 102.6  | 102.6  | 102.6  | 103.6  | 103.6  | 130.3 | 158.0 | 110.8 |
| 7.5°  | 108.8  | 109.8  | 108.8  | 107.7  | 106.7  | 105.7  | 110.8  | 115.9  | 145.7 | 103.6 | 101.6 |
| 10°   | 168.3  | 169.3  | 170.3  | 180.6  | 196.0  | 217.5  | 221.6  | 221.6  | 161.1 | 140.6 | 158.0 |
| 12.5° | 181.6  | 188.8  | 219.6  | 230.9  | 230.9  | 230.9  | 228.8  | 216.5  | 170.3 | 222.7 | 221.6 |
| 15°   | 278.1  | 300.6  | 301.7  | 302.7  | 301.7  | 282.2  | 263.7  | 258.6  | 265.8 | 239.1 | 227.8 |
| 17.5° | 356.1  | 315.0  | 343.7  | 287.3  | 270.9  | 275.0  | 279.1  | 285.3  | 324.2 | 302.7 | 280.1 |
| 20°   | 477.1  | 478.2  | 449.4  | 439.2  | 432.0  | 431.0  | 433.0  | 437.1  | 412.5 | 339.6 | 313.0 |
| 22.5° | 569.5  | 554.1  | 559.2  | 566.4  | 560.3  | 545.9  | 539.7  | 532.5  | 488.4 | 448.4 | 330.4 |
| 25°   | 684.4  | 681.3  | 674.2  | 673.1  | 688.5  | 697.8  | 690.6  | 680.3  | 610.5 | 450.5 | 353.0 |
| 27.5° | 835.2  | 841.4  | 839.4  | 817.8  | 807.5  | 821.9  | 807.5  | 776.8  | 684.4 | 559.2 | 364.3 |
| 30°   | 913.2  | 927.6  | 934.8  | 933.8  | 909.1  | 909.1  | 901.9  | 922.5  | 753.2 | 544.9 | 373.5 |
| 32.5° | 1124.6 | 1125.6 | 1122.6 | 1123.6 | 1119.5 | 1084.6 | 1048.7 | 1029.2 | 742.9 | 557.2 | 356.1 |
| 35°   | 1240.6 | 1231.3 | 1233.4 | 1212.9 | 1188.2 | 1162.6 | 1124.6 | 1077.4 | 795.2 | 511.0 | 314.0 |
| 37.5° | 1365.7 | 1331.9 | 1296.0 | 1278.5 | 1242.6 | 1211.8 | 1183.1 | 1126.7 | 769.6 | 473.0 | 268.8 |
| 40°   | 1453.0 | 1442.7 | 1375.0 | 1330.9 | 1306.2 | 1258.0 | 1208.8 | 1172.8 | 721.4 | 393.0 | 227.8 |
| 42.5° | 1556.6 | 1512.5 | 1480.7 | 1394.5 | 1339.1 | 1301.1 | 1231.3 | 1165.7 | 645.4 | 318.1 | 198.0 |
| 45°   | 1685.9 | 1600.7 | 1532.0 | 1476.6 | 1360.6 | 1288.8 | 1223.1 | 1144.1 | 549.0 | 259.6 | 179.6 |
| 47.5° | 1789.5 | 1697.2 | 1579.2 | 1481.7 | 1386.3 | 1244.7 | 1169.8 | 1078.4 | 457.6 | 223.7 | 167.3 |
| 50°   | 1877.8 | 1747.5 | 1614.1 | 1463.2 | 1340.1 | 1193.4 | 1073.3 | 1000.5 | 377.6 | 195.0 | 152.9 |
| 52.5° | 1931.1 | 1786.4 | 1622.3 | 1441.7 | 1268.3 | 1132.8 | 1000.5 | 896.8  | 317.1 | 174.4 | 138.5 |
| 55°   | 2045.0 | 1885.0 | 1673.6 | 1457.1 | 1248.8 | 1083.6 | 962.5  | 835.2  | 281.2 | 156.0 | 127.2 |
| 57.5° | 2428.8 | 2156.9 | 1894.2 | 1606.9 | 1353.4 | 1141.0 | 995.3  | 857.8  | 261.7 | 142.6 | 118.0 |
| 60°   | 2916.2 | 2546.8 | 2172.3 | 1802.9 | 1489.9 | 1234.4 | 1035.3 | 891.7  | 241.1 | 134.4 | 112.9 |
| 62.5° | 3074.2 | 2646.3 | 2216.4 | 1838.8 | 1480.7 | 1206.7 | 1000.5 | 842.4  | 211.4 | 128.3 | 111.8 |
| 64°   | 2967.5 | 2535.5 | 2118.9 | 1735.1 | 1395.5 | 1124.6 | 925.5  | 763.4  | 190.9 | 126.2 | 115.9 |
| 65°   | 2845.4 | 2419.6 | 2027.6 | 1653.1 | 1321.6 | 1052.8 | 856.8  | 706.0  | 177.5 | 125.2 | 120.1 |
| 67.5° | 2492.4 | 2099.4 | 1722.8 | 1371.9 | 1083.6 | 851.7  | 663.9  | 530.5  | 148.8 | 128.3 | 134.4 |
| 70°   | 2093.3 | 1695.1 | 1381.1 | 1069.2 | 822.9  | 625.9  | 470.0  | 363.2  | 129.3 | 136.5 | 145.7 |
| 72.5° | 1484.8 | 1154.4 | 951.2  | 718.3  | 542.8  | 396.1  | 299.6  | 228.8  | 113.9 | 132.4 | 135.4 |
| 75°   | 588.0  | 492.5  | 394.0  | 306.8  | 250.4  | 205.2  | 172.4  | 140.6  | 102.6 | 118.0 | 106.7 |
| 77.5° | 165.2  | 154.9  | 143.7  | 129.3  | 121.1  | 113.9  | 106.7  | 101.6  | 92.3  | 99.5  | 80.0  |
| 80°   | 110.8  | 106.7  | 103.6  | 100.6  | 98.5   | 95.4   | 93.4   | 92.3   | 85.2  | 83.1  | 59.5  |
| 82.5° | 89.3   | 89.3   | 90.3   | 90.3   | 91.3   | 92.3   | 92.3   | 92.3   | 83.1  | 73.9  | 49.3  |
| 85°   | 81.1   | 86.2   | 92.3   | 99.5   | 104.7  | 106.7  | 107.7  | 105.7  | 79.0  | 63.6  | 39.0  |
| 87.5° | 100.6  | 111.8  | 123.1  | 133.4  | 135.4  | 139.6  | 133.4  | 130.3  | 63.6  | 51.3  | 24.6  |
| 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: P157042

CATALOG NUMBER: UTLD-E02-LED-E-U-SL2-7060

**CANDELA DISTRIBUTION (continued):**

|       | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|-------|-------|-------|-------|-------|
| 0°    | 99.5  | 99.5  | 99.5  | 99.5  | 99.5  |
| 2.5°  | 120.1 | 152.9 | 160.1 | 160.1 | 157.0 |
| 5°    | 102.6 | 101.6 | 98.5  | 98.5  | 98.5  |
| 7.5°  | 102.6 | 138.5 | 156.0 | 159.0 | 157.0 |
| 10°   | 157.0 | 162.1 | 161.1 | 158.0 | 157.0 |
| 12.5° | 163.2 | 177.5 | 209.3 | 206.2 | 207.3 |
| 15°   | 266.8 | 202.1 | 199.1 | 192.9 | 192.9 |
| 17.5° | 254.5 | 217.5 | 227.8 | 223.7 | 223.7 |
| 20°   | 281.2 | 253.4 | 214.5 | 213.4 | 208.3 |
| 22.5° | 291.4 | 266.8 | 232.9 | 223.7 | 223.7 |
| 25°   | 299.6 | 246.3 | 215.5 | 228.8 | 228.8 |
| 27.5° | 276.0 | 248.3 | 209.3 | 200.1 | 199.1 |
| 30°   | 282.2 | 224.7 | 208.3 | 197.0 | 196.0 |
| 32.5° | 257.6 | 207.3 | 187.8 | 195.0 | 195.0 |
| 35°   | 229.8 | 196.0 | 183.7 | 185.7 | 185.7 |
| 37.5° | 207.3 | 183.7 | 184.7 | 187.8 | 187.8 |
| 40°   | 186.8 | 177.5 | 186.8 | 190.9 | 189.8 |
| 42.5° | 173.4 | 170.3 | 174.4 | 178.5 | 177.5 |
| 45°   | 161.1 | 159.0 | 163.2 | 165.2 | 164.2 |
| 47.5° | 150.8 | 150.8 | 151.9 | 152.9 | 152.9 |
| 50°   | 140.6 | 142.6 | 142.6 | 142.6 | 141.6 |
| 52.5° | 131.3 | 131.3 | 133.4 | 132.4 | 132.4 |
| 55°   | 122.1 | 123.1 | 126.2 | 124.2 | 123.1 |
| 57.5° | 113.9 | 118.0 | 118.0 | 115.9 | 114.9 |
| 60°   | 109.8 | 113.9 | 111.8 | 107.7 | 106.7 |
| 62.5° | 111.8 | 110.8 | 106.7 | 101.6 | 100.6 |
| 64°   | 114.9 | 110.8 | 104.7 | 98.5  | 98.5  |
| 65°   | 118.0 | 110.8 | 103.6 | 96.5  | 96.5  |
| 67.5° | 130.3 | 117.0 | 109.8 | 95.4  | 93.4  |
| 70°   | 137.5 | 126.2 | 118.0 | 95.4  | 91.3  |
| 72.5° | 125.2 | 119.0 | 118.0 | 93.4  | 88.2  |
| 75°   | 96.5  | 100.6 | 105.7 | 87.2  | 83.1  |
| 77.5° | 73.9  | 85.2  | 98.5  | 75.9  | 69.8  |
| 80°   | 59.5  | 81.1  | 102.6 | 63.6  | 53.4  |
| 82.5° | 51.3  | 97.5  | 105.7 | 52.3  | 44.1  |
| 85°   | 42.1  | 109.8 | 103.6 | 45.1  | 31.8  |
| 87.5° | 30.8  | 52.3  | 69.8  | 41.0  | 25.7  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)