

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: METALUX

Report Number: P1213705

Luminaire Tested: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

Issue Date: 3/29/2018

**Test Information**

Test Method: LM-79-2019  
Report Number: P1213705  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33519)  
Test Lab: INNOVATIONS CENTER-P3  
Issue Date: 3/29/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U  
Description: 2FT LINEAR SNLED LED FIXTURE  
NARROW LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

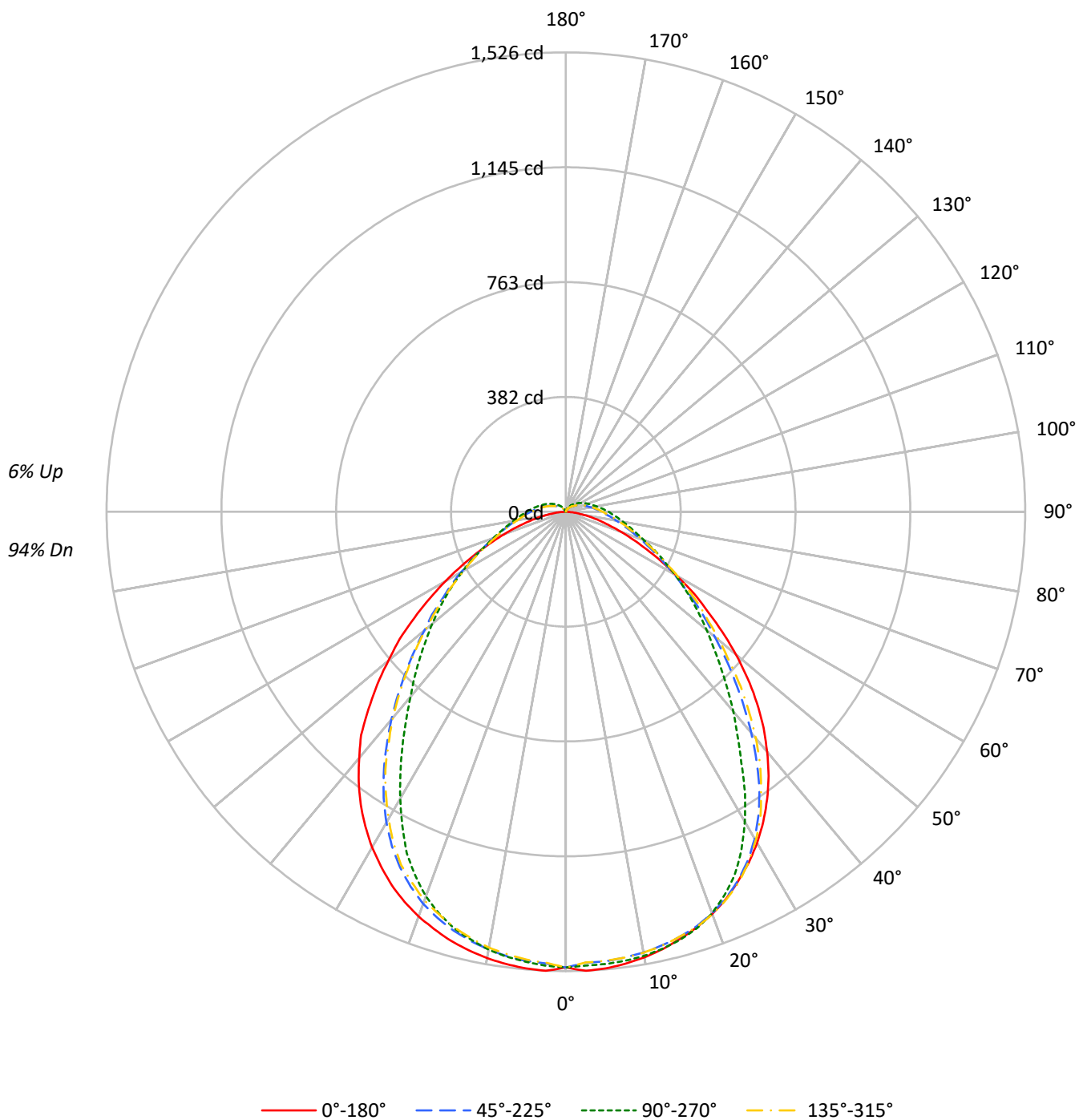
Lumens per Lamp: N/A  
Luminaire Lumens: 3831.0 lumens  
Efficiency: N/A  
Efficacy: 106.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.14 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 36  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

### Luminous Intensity Polar Plot



TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |    |    | 20 |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |     | 30  |     |    |    | 10 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50 | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |
| 0   | 118 | 118 | 118 | 118 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 102 | 102 | 102 | 96 | 96 | 96 |
| 1   | 107 | 103 | 98  | 95  | 104 | 100 | 96  | 92  | 94  | 91  | 88  | 89  | 87  | 85  | 85 | 83 | 81 |
| 2   | 98  | 90  | 84  | 78  | 95  | 88  | 82  | 77  | 83  | 78  | 74  | 79  | 75  | 72  | 75 | 72 | 69 |
| 3   | 90  | 80  | 72  | 66  | 87  | 78  | 71  | 65  | 74  | 68  | 63  | 71  | 66  | 61  | 67 | 63 | 60 |
| 4   | 83  | 72  | 63  | 57  | 80  | 70  | 62  | 56  | 67  | 60  | 55  | 64  | 58  | 53  | 61 | 56 | 52 |
| 5   | 77  | 64  | 56  | 50  | 74  | 63  | 55  | 49  | 60  | 53  | 48  | 58  | 52  | 47  | 55 | 50 | 46 |
| 6   | 71  | 58  | 50  | 44  | 69  | 57  | 49  | 43  | 55  | 48  | 42  | 52  | 46  | 42  | 50 | 45 | 41 |
| 7   | 66  | 53  | 45  | 39  | 64  | 52  | 44  | 39  | 50  | 43  | 38  | 48  | 42  | 37  | 46 | 41 | 37 |
| 8   | 62  | 49  | 41  | 35  | 60  | 48  | 40  | 35  | 46  | 39  | 34  | 44  | 38  | 34  | 43 | 37 | 33 |
| 9   | 58  | 45  | 37  | 32  | 56  | 44  | 37  | 31  | 42  | 36  | 31  | 41  | 35  | 30  | 40 | 34 | 30 |
| 10  | 54  | 42  | 34  | 29  | 53  | 41  | 34  | 29  | 39  | 33  | 28  | 38  | 32  | 28  | 37 | 31 | 27 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 90°   | 180°  | 270°  |
|-----|-------|-------|-------|-------|
| 0°  | 24466 | 24466 | 24466 | 24466 |
| 5°  | 24573 | 23688 | 24573 | 23582 |
| 10° | 24397 | 23058 | 24438 | 22738 |
| 15° | 24171 | 22368 | 24282 | 21786 |
| 20° | 23917 | 21483 | 24056 | 20575 |
| 25° | 23460 | 20168 | 23720 | 18981 |
| 30° | 22886 | 18237 | 23187 | 16884 |
| 35° | 22035 | 15872 | 22460 | 14778 |
| 40° | 20849 | 13880 | 21400 | 12879 |
| 45° | 19309 | 12067 | 19937 | 11375 |
| 50° | 17244 | 10602 | 18004 | 10067 |
| 55° | 14820 | 9363  | 15896 | 8889  |
| 60° | 12361 | 8221  | 13478 | 7747  |
| 65° | 10026 | 7269  | 11034 | 6740  |
| 70° | 7856  | 6451  | 8800  | 5967  |
| 75° | 6031  | 5956  | 6790  | 5480  |
| 80° | 4178  | 5747  | 4920  | 5250  |
| 85° | 2336  | 5780  | 3148  | 5310  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 180°

Vertical Angle: 45°

Luminance: 19937 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 143.5  | 3.7       |
| 10°-20°   | 411.5  | 10.7      |
| 20°-30°   | 609.9  | 15.9      |
| 30°-40°   | 677.6  | 17.7      |
| 40°-50°   | 614.2  | 16.0      |
| 50°-60°   | 475.9  | 12.4      |
| 60°-70°   | 323.2  | 8.4       |
| 70°-80°   | 205.6  | 5.4       |
| 80°-90°   | 131.5  | 3.4       |
| 90°-100°  | 88.6   | 2.3       |
| 100°-110° | 60.7   | 1.6       |
| 110°-120° | 40.5   | 1.1       |
| 120°-130° | 25.2   | 0.7       |
| 130°-140° | 13.9   | 0.4       |
| 140°-150° | 6.5    | 0.2       |
| 150°-160° | 2.4    | 0.1       |
| 160°-170° | 0.1    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1164.9 | 30.4      |
| 0°-40°    | 1842.5 | 48.1      |
| 0°-60°    | 2932.7 | 76.6      |
| 0°-90°    | 3592.9 | 93.8      |
| 90°-120°  | 189.8  | 5.0       |
| 90°-150°  | 235.5  | 6.1       |
| 90°-180°  | 238.0  | 6.2       |
| 0°-180°   | 3831.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 90°  | 180° | 270° | 360° | Flux |
|------|------|------|------|------|------|------|
| 0°   | 1514 | 1514 | 1514 | 1514 | 1514 |      |
| 5°   | 1523 | 1508 | 1523 | 1501 | 1523 | 145  |
| 15°  | 1469 | 1471 | 1476 | 1433 | 1469 | 415  |
| 25°  | 1354 | 1329 | 1369 | 1251 | 1354 | 624  |
| 35°  | 1166 | 1016 | 1188 | 946  | 1166 | 727  |
| 45°  | 898  | 726  | 927  | 684  | 898  | 689  |
| 55°  | 573  | 510  | 614  | 485  | 573  | 516  |
| 65°  | 297  | 343  | 327  | 318  | 297  | 298  |
| 75°  | 119  | 229  | 134  | 211  | 119  | 128  |
| 85°  | 22   | 165  | 29   | 152  | 22   | 26   |
| 90°  | 0    | 142  | 2    | 130  | 0    | 1    |
| 95°  | 1    | 122  | 0    | 113  | 1    | 1    |
| 105° | 1    | 89   | 0    | 84   | 1    | 1    |
| 115° | 1    | 67   | 0    | 62   | 1    | 1    |
| 125° | 1    | 50   | 1    | 44   | 1    | 1    |
| 135° | 1    | 35   | 1    | 28   | 1    | 1    |
| 145° | 1    | 22   | 1    | 16   | 1    | 1    |
| 155° | 1    | 12   | 1    | 6    | 1    | 1    |
| 165° | 0    | 0    | 0    | 0    | 0    | 0    |
| 175° | 0    | 0    | 0    | 0    | 0    | 0    |
| 180° | 0    | 0    | 0    | 0    | 0    | 0    |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 |
| 2.5°   | 1526.3 | 1524.6 | 1522.9 | 1520.4 | 1522.9 | 1529.6 | 1525.4 | 1516.3 | 1514.6 | 1499.6 | 1506.3 |
| 5°     | 1522.9 | 1520.4 | 1518.8 | 1516.3 | 1519.6 | 1527.9 | 1523.8 | 1515.5 | 1513.0 | 1498.8 | 1506.3 |
| 7.5°   | 1514.6 | 1513.0 | 1510.5 | 1510.5 | 1513.8 | 1522.1 | 1518.8 | 1509.6 | 1508.0 | 1493.8 | 1502.1 |
| 10°    | 1503.0 | 1502.1 | 1500.5 | 1500.5 | 1503.8 | 1513.8 | 1509.6 | 1501.3 | 1499.6 | 1486.3 | 1495.5 |
| 12.5°  | 1488.0 | 1488.8 | 1486.3 | 1486.3 | 1491.3 | 1501.3 | 1498.0 | 1488.8 | 1487.1 | 1475.5 | 1484.6 |
| 15°    | 1468.8 | 1469.7 | 1468.0 | 1468.8 | 1473.8 | 1485.5 | 1481.3 | 1473.0 | 1471.3 | 1462.2 | 1469.7 |
| 17.5°  | 1447.2 | 1448.0 | 1448.0 | 1447.2 | 1453.0 | 1464.7 | 1461.3 | 1453.8 | 1451.3 | 1443.8 | 1453.0 |
| 20°    | 1422.2 | 1422.2 | 1422.2 | 1422.2 | 1428.9 | 1440.5 | 1436.4 | 1430.5 | 1425.5 | 1419.7 | 1427.2 |
| 22.5°  | 1391.4 | 1390.6 | 1391.4 | 1393.9 | 1400.5 | 1409.7 | 1407.2 | 1400.5 | 1393.1 | 1389.7 | 1395.5 |
| 25°    | 1353.9 | 1356.4 | 1357.2 | 1359.7 | 1368.1 | 1375.6 | 1373.1 | 1366.4 | 1354.7 | 1352.3 | 1353.9 |
| 27.5°  | 1314.8 | 1316.4 | 1318.9 | 1318.1 | 1329.8 | 1337.3 | 1332.3 | 1326.4 | 1309.8 | 1307.3 | 1305.6 |
| 30°    | 1270.6 | 1273.1 | 1274.8 | 1274.0 | 1283.1 | 1291.5 | 1286.5 | 1279.0 | 1256.5 | 1254.8 | 1241.5 |
| 32.5°  | 1220.7 | 1223.2 | 1224.9 | 1224.9 | 1238.2 | 1241.5 | 1232.3 | 1221.5 | 1197.4 | 1191.5 | 1179.9 |
| 35°    | 1165.7 | 1168.2 | 1169.1 | 1169.1 | 1182.4 | 1181.6 | 1169.9 | 1154.9 | 1128.3 | 1120.8 | 1100.8 |
| 37.5°  | 1106.6 | 1108.3 | 1109.1 | 1114.1 | 1119.9 | 1114.9 | 1100.0 | 1080.8 | 1060.8 | 1040.0 | 1018.4 |
| 40°    | 1040.0 | 1042.5 | 1044.2 | 1047.5 | 1053.3 | 1047.5 | 1025.8 | 1002.5 | 980.9  | 957.6  | 935.9  |
| 42.5°  | 971.7  | 979.2  | 977.6  | 976.7  | 980.0  | 964.2  | 947.6  | 920.9  | 899.3  | 875.1  | 853.5  |
| 45°    | 897.6  | 896.8  | 900.9  | 902.6  | 901.8  | 888.5  | 865.1  | 841.0  | 819.3  | 794.4  | 776.0  |
| 47.5°  | 819.3  | 818.5  | 821.8  | 823.5  | 818.5  | 804.4  | 786.0  | 758.6  | 740.2  | 718.6  | 704.4  |
| 50°    | 736.9  | 736.9  | 741.9  | 736.9  | 734.4  | 720.3  | 705.3  | 677.8  | 663.6  | 644.5  | 636.2  |
| 52.5°  | 654.5  | 662.0  | 657.0  | 655.3  | 652.8  | 638.7  | 627.0  | 604.5  | 592.9  | 584.5  | 574.5  |
| 55°    | 572.9  | 581.2  | 577.9  | 575.4  | 574.5  | 562.9  | 552.1  | 535.4  | 527.9  | 522.1  | 516.3  |
| 57.5°  | 503.8  | 502.9  | 501.3  | 498.8  | 499.6  | 490.4  | 479.6  | 470.5  | 467.1  | 464.6  | 466.3  |
| 60°    | 423.8  | 430.5  | 428.0  | 428.8  | 429.7  | 428.0  | 418.8  | 413.0  | 413.8  | 414.7  | 417.2  |
| 62.5°  | 358.0  | 363.9  | 368.0  | 364.7  | 366.4  | 368.9  | 363.9  | 362.2  | 365.5  | 368.9  | 372.2  |
| 65°    | 297.3  | 303.1  | 307.3  | 306.4  | 311.4  | 316.4  | 315.6  | 317.2  | 324.7  | 328.9  | 333.1  |
| 67.5°  | 242.3  | 248.1  | 254.0  | 254.8  | 262.3  | 269.8  | 273.1  | 278.9  | 287.3  | 293.1  | 298.1  |
| 70°    | 194.8  | 199.8  | 206.5  | 210.7  | 220.7  | 230.6  | 236.5  | 248.1  | 253.1  | 261.5  | 264.8  |
| 72.5°  | 152.4  | 156.5  | 165.7  | 175.7  | 184.0  | 196.5  | 208.2  | 218.2  | 225.7  | 234.8  | 239.0  |
| 75°    | 119.1  | 120.7  | 130.7  | 142.4  | 154.0  | 168.2  | 180.7  | 191.5  | 201.5  | 210.7  | 217.3  |
| 77.5°  | 87.4   | 89.9   | 99.1   | 114.9  | 128.2  | 143.2  | 157.4  | 169.0  | 179.9  | 189.0  | 198.2  |
| 80°    | 60.8   | 65.8   | 75.8   | 91.6   | 106.6  | 123.2  | 136.6  | 149.9  | 161.5  | 170.7  | 179.9  |
| 82.5°  | 39.1   | 43.3   | 57.5   | 73.3   | 89.1   | 105.7  | 119.9  | 133.2  | 145.7  | 155.7  | 164.0  |
| 85°    | 21.6   | 27.5   | 41.6   | 58.3   | 74.1   | 90.8   | 105.7  | 119.1  | 131.6  | 140.7  | 149.0  |
| 87.5°  | 8.3    | 16.7   | 30.0   | 45.8   | 61.6   | 77.4   | 93.3   | 105.7  | 118.2  | 128.2  | 135.7  |
| 90°    | 0.0    | 10.0   | 22.5   | 38.3   | 54.1   | 69.9   | 84.9   | 98.3   | 109.9  | 119.1  | 127.4  |
| 92.5°  | 0.8    | 6.7    | 17.5   | 30.8   | 45.8   | 60.8   | 74.9   | 88.3   | 99.9   | 109.1  | 116.6  |
| 95°    | 0.8    | 5.0    | 14.2   | 26.6   | 40.0   | 54.1   | 67.4   | 79.9   | 90.8   | 99.9   | 107.4  |
| 97.5°  | 0.8    | 3.3    | 11.7   | 23.3   | 35.0   | 49.1   | 61.6   | 73.3   | 83.3   | 92.4   | 98.3   |
| 100°   | 0.8    | 3.3    | 10.0   | 20.0   | 31.6   | 44.1   | 55.8   | 67.4   | 76.6   | 84.1   | 90.8   |
| 102.5° | 0.8    | 2.5    | 8.3    | 17.5   | 28.3   | 39.1   | 50.8   | 61.6   | 69.9   | 77.4   | 84.1   |
| 105°   | 0.8    | 2.5    | 7.5    | 15.0   | 25.0   | 35.8   | 45.8   | 55.8   | 64.9   | 71.6   | 77.4   |
| 107.5° | 0.8    | 1.7    | 6.7    | 12.5   | 21.6   | 32.5   | 42.5   | 50.8   | 59.1   | 65.8   | 71.6   |
| 110°   | 0.8    | 1.7    | 5.8    | 11.7   | 19.2   | 29.1   | 38.3   | 46.6   | 54.1   | 60.8   | 65.8   |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 5°  | 10° | 15°  | 20°  | 25°  | 30°  | 35°  | 40°  | 45°  | 50°  |
|--------|-----|-----|-----|------|------|------|------|------|------|------|------|
| 112.5° | 0.8 | 1.7 | 5.0 | 10.8 | 17.5 | 25.8 | 35.0 | 42.5 | 50.0 | 55.8 | 60.8 |
| 115°   | 0.8 | 1.7 | 5.0 | 10.0 | 15.8 | 22.5 | 30.8 | 39.1 | 45.0 | 51.6 | 55.8 |
| 117.5° | 0.8 | 1.7 | 4.2 | 8.3  | 15.0 | 20.8 | 28.3 | 35.0 | 41.6 | 47.5 | 51.6 |
| 120°   | 0.8 | 1.7 | 4.2 | 7.5  | 13.3 | 19.2 | 25.0 | 31.6 | 38.3 | 42.5 | 46.6 |
| 122.5° | 0.8 | 1.7 | 3.3 | 7.5  | 11.7 | 17.5 | 22.5 | 28.3 | 34.1 | 39.1 | 43.3 |
| 125°   | 0.8 | 1.7 | 3.3 | 6.7  | 10.8 | 15.8 | 20.8 | 25.0 | 30.8 | 35.0 | 39.1 |
| 127.5° | 0.8 | 1.7 | 3.3 | 5.8  | 10.0 | 14.2 | 19.2 | 23.3 | 27.5 | 31.6 | 35.0 |
| 130°   | 0.8 | 1.7 | 2.5 | 5.0  | 9.2  | 12.5 | 16.7 | 21.6 | 25.0 | 28.3 | 31.6 |
| 132.5° | 0.8 | 1.7 | 2.5 | 5.0  | 7.5  | 10.8 | 15.0 | 19.2 | 22.5 | 25.8 | 28.3 |
| 135°   | 0.8 | 1.7 | 2.5 | 4.2  | 6.7  | 10.0 | 12.5 | 16.7 | 20.0 | 23.3 | 25.8 |
| 137.5° | 0.8 | 1.7 | 2.5 | 4.2  | 5.8  | 8.3  | 10.8 | 14.2 | 17.5 | 20.0 | 23.3 |
| 140°   | 0.8 | 1.7 | 2.5 | 3.3  | 5.0  | 7.5  | 10.0 | 11.7 | 15.0 | 17.5 | 20.0 |
| 142.5° | 0.8 | 1.7 | 2.5 | 3.3  | 5.0  | 6.7  | 8.3  | 10.0 | 12.5 | 15.0 | 17.5 |
| 145°   | 0.8 | 1.7 | 2.5 | 3.3  | 4.2  | 5.8  | 7.5  | 9.2  | 10.0 | 12.5 | 14.2 |
| 147.5° | 0.8 | 1.7 | 2.5 | 3.3  | 3.3  | 5.0  | 6.7  | 7.5  | 9.2  | 10.0 | 11.7 |
| 150°   | 0.8 | 1.7 | 2.5 | 2.5  | 3.3  | 4.2  | 5.8  | 6.7  | 7.5  | 9.2  | 10.0 |
| 152.5° | 0.8 | 1.7 | 2.5 | 2.5  | 3.3  | 4.2  | 5.0  | 5.8  | 6.7  | 7.5  | 8.3  |
| 155°   | 0.8 | 1.7 | 2.5 | 2.5  | 2.5  | 3.3  | 4.2  | 5.0  | 5.8  | 6.7  | 7.5  |
| 157.5° | 1.7 | 1.7 | 1.7 | 2.5  | 2.5  | 3.3  | 3.3  | 4.2  | 5.0  | 5.0  | 5.8  |
| 160°   | 1.7 | 1.7 | 1.7 | 2.5  | 2.5  | 2.5  | 3.3  | 3.3  | 4.2  | 4.2  | 5.0  |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 180°   | 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):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    | 95°    | 100°   | 105°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 |
| 2.5°   | 1504.6 | 1507.1 | 1514.6 | 1514.6 | 1513.0 | 1511.3 | 1511.3 | 1508.8 | 1510.5 | 1513.8 | 1512.1 |
| 5°     | 1504.6 | 1507.1 | 1514.6 | 1514.6 | 1513.0 | 1511.3 | 1510.5 | 1508.0 | 1510.5 | 1513.8 | 1512.1 |
| 7.5°   | 1499.6 | 1503.0 | 1510.5 | 1510.5 | 1508.8 | 1508.0 | 1506.3 | 1504.6 | 1507.1 | 1510.5 | 1508.8 |
| 10°    | 1493.0 | 1496.3 | 1503.8 | 1503.8 | 1502.1 | 1502.1 | 1499.6 | 1498.0 | 1501.3 | 1503.8 | 1503.0 |
| 12.5°  | 1483.0 | 1487.1 | 1493.8 | 1493.0 | 1491.3 | 1492.1 | 1489.6 | 1486.3 | 1489.6 | 1492.1 | 1493.0 |
| 15°    | 1468.8 | 1473.8 | 1480.5 | 1478.8 | 1476.3 | 1478.0 | 1473.8 | 1471.3 | 1473.8 | 1478.8 | 1478.0 |
| 17.5°  | 1450.5 | 1453.8 | 1458.8 | 1458.8 | 1456.3 | 1454.7 | 1453.0 | 1450.5 | 1452.2 | 1455.5 | 1456.3 |
| 20°    | 1424.7 | 1428.9 | 1431.4 | 1428.9 | 1428.0 | 1425.5 | 1422.2 | 1419.7 | 1423.0 | 1428.0 | 1428.9 |
| 22.5°  | 1390.6 | 1391.4 | 1397.2 | 1391.4 | 1387.2 | 1386.4 | 1383.1 | 1378.1 | 1383.1 | 1387.2 | 1388.1 |
| 25°    | 1348.1 | 1352.3 | 1349.8 | 1339.8 | 1339.8 | 1333.1 | 1331.4 | 1328.9 | 1329.8 | 1337.3 | 1340.6 |
| 27.5°  | 1294.0 | 1295.6 | 1289.0 | 1280.6 | 1273.1 | 1269.0 | 1263.2 | 1264.0 | 1264.0 | 1274.0 | 1277.3 |
| 30°    | 1234.8 | 1225.7 | 1219.9 | 1206.5 | 1200.7 | 1190.7 | 1189.0 | 1189.0 | 1187.4 | 1192.4 | 1207.4 |
| 32.5°  | 1164.1 | 1151.6 | 1142.4 | 1129.9 | 1119.9 | 1109.9 | 1104.9 | 1107.4 | 1106.6 | 1119.1 | 1124.1 |
| 35°    | 1086.6 | 1079.1 | 1060.0 | 1044.2 | 1038.3 | 1023.3 | 1023.3 | 1015.9 | 1020.8 | 1035.0 | 1040.8 |
| 37.5°  | 1005.0 | 993.4  | 977.6  | 960.1  | 955.9  | 944.2  | 940.1  | 935.9  | 946.7  | 949.2  | 955.1  |
| 40°    | 921.8  | 910.9  | 895.9  | 879.3  | 879.3  | 865.1  | 865.1  | 865.1  | 866.0  | 871.0  | 881.8  |
| 42.5°  | 842.7  | 831.0  | 817.7  | 806.0  | 804.4  | 793.5  | 793.5  | 792.7  | 794.4  | 798.5  | 808.5  |
| 45°    | 766.1  | 756.9  | 742.7  | 736.9  | 737.7  | 726.1  | 728.6  | 726.1  | 729.4  | 733.6  | 736.9  |
| 47.5°  | 695.3  | 689.4  | 683.6  | 675.3  | 672.8  | 672.0  | 667.8  | 664.5  | 670.3  | 670.3  | 675.3  |
| 50°    | 629.5  | 626.2  | 622.8  | 617.8  | 618.7  | 615.3  | 610.3  | 610.3  | 614.5  | 615.3  | 618.7  |
| 52.5°  | 572.0  | 567.9  | 563.7  | 564.5  | 565.4  | 563.7  | 561.2  | 558.7  | 561.2  | 562.9  | 567.0  |
| 55°    | 514.6  | 511.3  | 515.4  | 513.8  | 515.4  | 513.8  | 512.1  | 510.4  | 514.6  | 512.1  | 516.3  |
| 57.5°  | 463.0  | 466.3  | 468.0  | 464.6  | 467.1  | 465.5  | 466.3  | 463.8  | 467.1  | 468.8  | 468.0  |
| 60°    | 415.5  | 420.5  | 418.0  | 418.8  | 422.2  | 420.5  | 417.2  | 419.7  | 423.0  | 423.8  | 423.0  |
| 62.5°  | 372.2  | 378.0  | 380.5  | 378.9  | 379.7  | 378.0  | 380.5  | 377.2  | 381.4  | 383.0  | 380.5  |
| 65°    | 333.1  | 339.7  | 341.4  | 341.4  | 341.4  | 339.7  | 342.2  | 343.1  | 344.7  | 344.7  | 343.1  |
| 67.5°  | 299.8  | 305.6  | 307.3  | 308.9  | 307.3  | 305.6  | 305.6  | 306.4  | 309.8  | 311.4  | 309.8  |
| 70°    | 269.8  | 275.6  | 276.4  | 276.4  | 277.3  | 278.9  | 275.6  | 277.3  | 279.8  | 280.6  | 279.8  |
| 72.5°  | 244.0  | 249.8  | 251.5  | 250.6  | 251.5  | 252.3  | 252.3  | 250.6  | 253.1  | 254.8  | 254.8  |
| 75°    | 223.2  | 226.5  | 228.2  | 228.2  | 229.0  | 229.8  | 229.8  | 229.0  | 230.6  | 231.5  | 232.3  |
| 77.5°  | 204.0  | 206.5  | 209.0  | 209.0  | 209.8  | 209.0  | 210.7  | 210.7  | 211.5  | 212.3  | 213.2  |
| 80°    | 184.9  | 188.2  | 189.8  | 190.7  | 192.3  | 193.2  | 193.2  | 193.2  | 194.0  | 194.8  | 194.8  |
| 82.5°  | 169.9  | 172.4  | 174.9  | 177.4  | 177.4  | 178.2  | 178.2  | 178.2  | 179.0  | 179.0  | 179.9  |
| 85°    | 154.9  | 158.2  | 160.7  | 162.4  | 163.2  | 164.0  | 164.0  | 164.9  | 164.9  | 164.9  | 165.7  |
| 87.5°  | 141.6  | 145.7  | 147.4  | 149.0  | 149.9  | 151.5  | 151.5  | 151.5  | 152.4  | 152.4  | 152.4  |
| 90°    | 132.4  | 136.6  | 138.2  | 139.9  | 140.7  | 141.6  | 141.6  | 142.4  | 142.4  | 143.2  | 143.2  |
| 92.5°  | 121.6  | 125.7  | 129.1  | 129.1  | 129.9  | 131.6  | 130.7  | 130.7  | 131.6  | 132.4  | 132.4  |
| 95°    | 113.2  | 116.6  | 119.1  | 119.9  | 120.7  | 120.7  | 120.7  | 121.6  | 120.7  | 121.6  | 121.6  |
| 97.5°  | 103.3  | 106.6  | 109.1  | 110.7  | 111.6  | 111.6  | 111.6  | 112.4  | 111.6  | 112.4  | 112.4  |
| 100°   | 94.9   | 98.3   | 100.8  | 101.6  | 103.3  | 103.3  | 103.3  | 103.3  | 103.3  | 103.3  | 104.1  |
| 102.5° | 88.3   | 91.6   | 93.3   | 94.1   | 94.9   | 95.8   | 95.8   | 95.8   | 95.8   | 96.6   | 96.6   |
| 105°   | 81.6   | 84.9   | 86.6   | 87.4   | 88.3   | 89.1   | 89.1   | 89.1   | 89.9   | 89.9   | 89.1   |
| 107.5° | 75.8   | 78.3   | 79.9   | 81.6   | 82.4   | 82.4   | 83.3   | 83.3   | 83.3   | 83.3   | 83.3   |
| 110°   | 69.9   | 72.4   | 74.9   | 76.6   | 76.6   | 77.4   | 77.4   | 78.3   | 78.3   | 77.4   | 78.3   |

TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 55°  | 60°  | 65°  | 70°  | 75°  | 80°  | 85°  | 90°  | 95°  | 100° | 105° |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| 112.5° | 64.1 | 67.4 | 69.1 | 70.8 | 71.6 | 72.4 | 72.4 | 72.4 | 72.4 | 72.4 | 72.4 |
| 115°   | 59.1 | 62.5 | 64.1 | 65.8 | 66.6 | 67.4 | 67.4 | 67.4 | 67.4 | 67.4 | 67.4 |
| 117.5° | 55.0 | 58.3 | 60.0 | 60.8 | 61.6 | 62.5 | 63.3 | 63.3 | 63.3 | 63.3 | 62.5 |
| 120°   | 50.8 | 53.3 | 55.0 | 56.6 | 57.5 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 | 58.3 |
| 122.5° | 46.6 | 49.1 | 50.8 | 52.5 | 53.3 | 54.1 | 54.1 | 54.1 | 54.1 | 54.1 | 54.1 |
| 125°   | 42.5 | 45.0 | 46.6 | 48.3 | 49.1 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| 127.5° | 38.3 | 40.8 | 43.3 | 44.1 | 45.0 | 45.8 | 45.8 | 45.8 | 46.6 | 45.8 | 45.8 |
| 130°   | 34.1 | 36.6 | 39.1 | 40.0 | 40.8 | 41.6 | 42.5 | 42.5 | 42.5 | 42.5 | 41.6 |
| 132.5° | 30.8 | 33.3 | 35.0 | 35.8 | 37.5 | 37.5 | 38.3 | 38.3 | 38.3 | 38.3 | 37.5 |
| 135°   | 28.3 | 30.0 | 31.6 | 32.5 | 34.1 | 34.1 | 34.1 | 35.0 | 35.0 | 34.1 | 33.3 |
| 137.5° | 25.0 | 26.6 | 28.3 | 29.1 | 30.0 | 30.8 | 30.8 | 31.6 | 30.8 | 30.8 | 30.8 |
| 140°   | 23.3 | 24.1 | 25.8 | 26.6 | 27.5 | 27.5 | 27.5 | 28.3 | 28.3 | 27.5 | 27.5 |
| 142.5° | 20.0 | 21.6 | 23.3 | 24.1 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| 145°   | 16.7 | 19.2 | 20.0 | 21.6 | 21.6 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 21.6 |
| 147.5° | 14.2 | 15.8 | 18.3 | 19.2 | 19.2 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 19.2 |
| 150°   | 10.8 | 12.5 | 15.0 | 16.7 | 16.7 | 17.5 | 17.5 | 17.5 | 17.5 | 16.7 | 16.7 |
| 152.5° | 9.2  | 10.8 | 11.7 | 13.3 | 14.2 | 14.2 | 14.2 | 15.0 | 14.2 | 14.2 | 14.2 |
| 155°   | 8.3  | 9.2  | 10.0 | 10.8 | 11.7 | 12.5 | 12.5 | 12.5 | 12.5 | 11.7 | 11.7 |
| 157.5° | 6.7  | 7.5  | 8.3  | 9.2  | 10.0 | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 | 10.0 |
| 160°   | 5.0  | 5.8  | 6.7  | 6.7  | 7.5  | 8.3  | 9.2  | 8.3  | 8.3  | 8.3  | 8.3  |
| 162.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 180°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 110°   | 115°   | 120°   | 125°   | 130°   | 135°   | 140°   | 145°   | 150°   | 155°   | 160°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 |
| 2.5°   | 1510.5 | 1509.6 | 1512.1 | 1508.0 | 1495.5 | 1498.8 | 1497.1 | 1504.6 | 1506.3 | 1508.0 | 1515.5 |
| 5°     | 1510.5 | 1509.6 | 1511.3 | 1508.0 | 1494.6 | 1497.1 | 1495.5 | 1503.0 | 1504.6 | 1505.5 | 1513.0 |
| 7.5°   | 1507.1 | 1506.3 | 1508.8 | 1504.6 | 1490.5 | 1493.8 | 1491.3 | 1498.8 | 1499.6 | 1500.5 | 1507.1 |
| 10°    | 1500.5 | 1499.6 | 1501.3 | 1498.0 | 1483.8 | 1487.1 | 1483.8 | 1491.3 | 1491.3 | 1493.0 | 1498.0 |
| 12.5°  | 1490.5 | 1488.8 | 1492.1 | 1488.0 | 1472.2 | 1476.3 | 1474.7 | 1479.6 | 1480.5 | 1481.3 | 1486.3 |
| 15°    | 1476.3 | 1474.7 | 1477.2 | 1474.7 | 1460.5 | 1461.3 | 1458.8 | 1466.3 | 1467.2 | 1465.5 | 1470.5 |
| 17.5°  | 1455.5 | 1453.8 | 1458.8 | 1457.2 | 1443.0 | 1446.3 | 1445.5 | 1447.2 | 1449.7 | 1445.5 | 1452.2 |
| 20°    | 1429.7 | 1431.4 | 1433.0 | 1433.9 | 1423.0 | 1423.0 | 1422.2 | 1425.5 | 1428.0 | 1424.7 | 1429.7 |
| 22.5°  | 1391.4 | 1395.5 | 1400.5 | 1402.2 | 1394.7 | 1393.9 | 1398.9 | 1397.2 | 1399.7 | 1398.0 | 1401.4 |
| 25°    | 1343.1 | 1351.4 | 1356.4 | 1361.4 | 1357.2 | 1358.9 | 1366.4 | 1368.1 | 1368.1 | 1367.2 | 1370.6 |
| 27.5°  | 1283.1 | 1294.0 | 1303.1 | 1313.9 | 1309.8 | 1313.1 | 1325.6 | 1327.3 | 1330.6 | 1327.3 | 1333.9 |
| 30°    | 1211.5 | 1221.5 | 1239.0 | 1254.8 | 1256.5 | 1261.5 | 1279.0 | 1280.6 | 1289.8 | 1286.5 | 1289.0 |
| 32.5°  | 1139.9 | 1144.9 | 1164.9 | 1180.7 | 1190.7 | 1203.2 | 1222.4 | 1225.7 | 1238.2 | 1240.7 | 1240.7 |
| 35°    | 1050.0 | 1064.1 | 1082.5 | 1104.9 | 1117.4 | 1130.8 | 1156.6 | 1161.6 | 1179.9 | 1185.7 | 1192.4 |
| 37.5°  | 974.2  | 987.5  | 999.2  | 1022.5 | 1045.0 | 1060.0 | 1080.8 | 1093.3 | 1112.4 | 1123.3 | 1131.6 |
| 40°    | 893.5  | 904.3  | 916.8  | 940.1  | 959.2  | 981.7  | 1002.5 | 1017.5 | 1041.7 | 1054.2 | 1065.0 |
| 42.5°  | 816.8  | 825.2  | 838.5  | 855.1  | 875.1  | 900.1  | 920.1  | 937.6  | 963.4  | 980.9  | 993.4  |
| 45°    | 748.6  | 753.6  | 765.2  | 777.7  | 795.2  | 821.0  | 840.2  | 862.6  | 883.5  | 901.8  | 916.8  |
| 47.5°  | 684.5  | 691.1  | 696.9  | 705.3  | 721.1  | 736.9  | 759.4  | 781.0  | 801.9  | 821.8  | 836.8  |
| 50°    | 625.3  | 625.3  | 634.5  | 640.3  | 651.1  | 665.3  | 682.8  | 697.8  | 723.6  | 737.7  | 756.9  |
| 52.5°  | 567.9  | 571.2  | 576.2  | 579.5  | 587.9  | 597.0  | 611.2  | 623.7  | 645.3  | 658.6  | 677.0  |
| 55°    | 517.1  | 520.4  | 522.9  | 524.6  | 529.6  | 540.4  | 545.4  | 555.4  | 570.4  | 581.2  | 597.0  |
| 57.5°  | 468.8  | 470.5  | 473.0  | 473.8  | 474.6  | 481.3  | 485.4  | 487.9  | 502.9  | 513.8  | 527.1  |
| 60°    | 424.7  | 424.7  | 427.2  | 426.3  | 425.5  | 428.8  | 428.0  | 430.5  | 439.6  | 446.3  | 452.1  |
| 62.5°  | 383.0  | 383.0  | 383.9  | 382.2  | 381.4  | 381.4  | 378.0  | 380.5  | 383.0  | 383.9  | 388.0  |
| 65°    | 344.7  | 348.9  | 345.6  | 346.4  | 341.4  | 339.7  | 338.1  | 333.1  | 332.2  | 328.9  | 330.6  |
| 67.5°  | 310.6  | 313.9  | 310.6  | 310.6  | 306.4  | 303.1  | 298.9  | 290.6  | 288.1  | 281.4  | 279.8  |
| 70°    | 283.1  | 280.6  | 282.3  | 279.8  | 274.8  | 270.6  | 264.8  | 258.1  | 249.8  | 241.5  | 235.6  |
| 72.5°  | 256.5  | 256.5  | 254.8  | 252.3  | 249.8  | 241.5  | 234.8  | 227.3  | 217.3  | 206.5  | 198.2  |
| 75°    | 230.6  | 231.5  | 231.5  | 229.0  | 224.8  | 217.3  | 209.8  | 199.0  | 188.2  | 175.7  | 164.9  |
| 77.5°  | 212.3  | 212.3  | 212.3  | 208.2  | 204.0  | 197.3  | 188.2  | 176.5  | 164.9  | 149.9  | 137.4  |
| 80°    | 194.8  | 194.0  | 194.0  | 189.0  | 184.9  | 177.4  | 168.2  | 156.5  | 144.1  | 128.2  | 114.1  |
| 82.5°  | 180.7  | 179.9  | 178.2  | 174.0  | 168.2  | 160.7  | 151.5  | 139.1  | 125.7  | 111.6  | 94.1   |
| 85°    | 165.7  | 164.9  | 163.2  | 159.0  | 153.2  | 146.5  | 136.6  | 124.1  | 110.7  | 94.9   | 78.3   |
| 87.5°  | 152.4  | 151.5  | 149.0  | 146.5  | 139.9  | 132.4  | 122.4  | 110.7  | 96.6   | 81.6   | 64.9   |
| 90°    | 143.2  | 141.6  | 139.9  | 136.6  | 130.7  | 122.4  | 112.4  | 99.9   | 85.8   | 70.8   | 54.1   |
| 92.5°  | 132.4  | 131.6  | 129.1  | 125.7  | 120.7  | 112.4  | 102.4  | 90.8   | 76.6   | 62.5   | 46.6   |
| 95°    | 121.6  | 120.7  | 119.1  | 115.7  | 110.7  | 103.3  | 94.1   | 82.4   | 69.1   | 55.0   | 40.8   |
| 97.5°  | 111.6  | 111.6  | 109.1  | 106.6  | 100.8  | 94.9   | 85.8   | 74.9   | 62.5   | 50.0   | 36.6   |
| 100°   | 103.3  | 103.3  | 100.8  | 97.4   | 93.3   | 87.4   | 78.3   | 68.3   | 56.6   | 45.0   | 31.6   |
| 102.5° | 95.8   | 94.9   | 93.3   | 89.9   | 85.8   | 79.9   | 71.6   | 62.5   | 51.6   | 40.0   | 28.3   |
| 105°   | 89.1   | 88.3   | 86.6   | 83.3   | 79.9   | 73.3   | 66.6   | 57.5   | 46.6   | 35.8   | 25.0   |
| 107.5° | 82.4   | 81.6   | 80.8   | 77.4   | 73.3   | 67.4   | 60.8   | 51.6   | 42.5   | 32.5   | 22.5   |
| 110°   | 76.6   | 75.8   | 74.1   | 70.8   | 66.6   | 61.6   | 55.0   | 47.5   | 38.3   | 29.1   | 20.0   |



TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| 112.5° | 71.6 | 70.8 | 69.1 | 65.8 | 62.5 | 56.6 | 50.8 | 42.5 | 35.0 | 26.6 | 17.5 |
| 115°   | 66.6 | 65.8 | 64.1 | 60.8 | 56.6 | 51.6 | 45.8 | 39.1 | 30.8 | 23.3 | 15.8 |
| 117.5° | 61.6 | 60.8 | 59.1 | 56.6 | 52.5 | 47.5 | 41.6 | 35.0 | 27.5 | 21.6 | 14.2 |
| 120°   | 57.5 | 55.8 | 54.1 | 51.6 | 47.5 | 43.3 | 37.5 | 31.6 | 25.0 | 19.2 | 12.5 |
| 122.5° | 53.3 | 51.6 | 50.0 | 47.5 | 43.3 | 39.1 | 33.3 | 28.3 | 23.3 | 17.5 | 11.7 |
| 125°   | 48.3 | 47.5 | 45.8 | 43.3 | 39.1 | 35.0 | 30.8 | 25.8 | 20.8 | 15.8 | 10.0 |
| 127.5° | 44.1 | 43.3 | 41.6 | 38.3 | 35.0 | 31.6 | 27.5 | 23.3 | 18.3 | 13.3 | 9.2  |
| 130°   | 40.8 | 39.1 | 37.5 | 35.0 | 32.5 | 29.1 | 25.0 | 20.8 | 16.7 | 11.7 | 8.3  |
| 132.5° | 36.6 | 35.0 | 33.3 | 31.6 | 29.1 | 25.8 | 22.5 | 18.3 | 15.0 | 10.8 | 7.5  |
| 135°   | 33.3 | 31.6 | 30.0 | 28.3 | 25.8 | 23.3 | 20.0 | 16.7 | 13.3 | 10.0 | 6.7  |
| 137.5° | 29.1 | 28.3 | 27.5 | 25.8 | 23.3 | 20.8 | 18.3 | 14.2 | 11.7 | 9.2  | 5.8  |
| 140°   | 26.6 | 25.8 | 25.0 | 22.5 | 20.8 | 18.3 | 15.8 | 12.5 | 10.0 | 7.5  | 5.0  |
| 142.5° | 24.1 | 23.3 | 21.6 | 20.0 | 18.3 | 16.7 | 13.3 | 11.7 | 9.2  | 6.7  | 5.0  |
| 145°   | 20.8 | 20.0 | 19.2 | 17.5 | 15.8 | 13.3 | 11.7 | 10.0 | 8.3  | 5.8  | 4.2  |
| 147.5° | 19.2 | 18.3 | 16.7 | 15.0 | 13.3 | 11.7 | 10.8 | 9.2  | 6.7  | 5.0  | 3.3  |
| 150°   | 15.8 | 15.0 | 14.2 | 12.5 | 11.7 | 10.8 | 9.2  | 7.5  | 5.8  | 4.2  | 3.3  |
| 152.5° | 13.3 | 12.5 | 11.7 | 11.7 | 10.0 | 9.2  | 7.5  | 6.7  | 5.0  | 4.2  | 2.5  |
| 155°   | 11.7 | 11.7 | 10.8 | 10.0 | 8.3  | 7.5  | 6.7  | 5.0  | 4.2  | 3.3  | 2.5  |
| 157.5° | 10.0 | 9.2  | 8.3  | 8.3  | 7.5  | 6.7  | 5.0  | 4.2  | 3.3  | 3.3  | 2.5  |
| 160°   | 8.3  | 7.5  | 7.5  | 6.7  | 5.8  | 5.0  | 4.2  | 4.2  | 3.3  | 2.5  | 2.5  |
| 162.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 180°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 165°   | 170°   | 175°   | 180°   | 185°   | 190°   | 195°   | 200°   | 205°   | 210°   | 215°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 |
| 2.5°   | 1516.3 | 1507.1 | 1515.5 | 1526.3 | 1526.3 | 1524.6 | 1522.9 | 1526.3 | 1534.6 | 1531.3 | 1521.3 |
| 5°     | 1513.8 | 1504.6 | 1512.1 | 1522.9 | 1522.9 | 1520.4 | 1518.8 | 1521.3 | 1530.4 | 1526.3 | 1517.1 |
| 7.5°   | 1508.8 | 1500.5 | 1505.5 | 1515.5 | 1515.5 | 1513.0 | 1511.3 | 1514.6 | 1522.1 | 1518.0 | 1508.0 |
| 10°    | 1499.6 | 1490.5 | 1496.3 | 1505.5 | 1504.6 | 1503.0 | 1500.5 | 1504.6 | 1511.3 | 1505.5 | 1493.8 |
| 12.5°  | 1488.0 | 1478.8 | 1483.8 | 1492.1 | 1491.3 | 1488.0 | 1486.3 | 1488.8 | 1494.6 | 1491.3 | 1478.8 |
| 15°    | 1472.2 | 1463.0 | 1467.2 | 1475.5 | 1473.0 | 1470.5 | 1467.2 | 1468.0 | 1475.5 | 1469.7 | 1456.3 |
| 17.5°  | 1453.0 | 1443.0 | 1446.3 | 1453.8 | 1451.3 | 1448.8 | 1444.7 | 1445.5 | 1453.8 | 1445.5 | 1431.4 |
| 20°    | 1429.7 | 1418.9 | 1421.4 | 1430.5 | 1426.4 | 1422.2 | 1418.0 | 1418.0 | 1426.4 | 1417.2 | 1401.4 |
| 22.5°  | 1404.7 | 1393.9 | 1395.5 | 1402.2 | 1398.9 | 1391.4 | 1387.2 | 1389.7 | 1393.9 | 1382.2 | 1365.6 |
| 25°    | 1373.9 | 1359.7 | 1362.2 | 1368.9 | 1366.4 | 1356.4 | 1352.3 | 1353.9 | 1352.3 | 1343.1 | 1325.6 |
| 27.5°  | 1338.1 | 1323.1 | 1324.8 | 1328.9 | 1325.6 | 1316.4 | 1311.5 | 1312.3 | 1309.0 | 1297.3 | 1277.3 |
| 30°    | 1293.1 | 1285.6 | 1284.8 | 1287.3 | 1282.3 | 1273.1 | 1267.3 | 1265.7 | 1264.8 | 1248.2 | 1224.0 |
| 32.5°  | 1247.3 | 1240.7 | 1236.5 | 1239.8 | 1234.0 | 1224.9 | 1214.9 | 1214.9 | 1206.5 | 1190.7 | 1169.9 |
| 35°    | 1200.7 | 1189.9 | 1185.7 | 1188.2 | 1181.6 | 1169.9 | 1161.6 | 1157.4 | 1144.9 | 1124.9 | 1102.5 |
| 37.5°  | 1140.8 | 1133.3 | 1128.3 | 1130.8 | 1123.3 | 1114.9 | 1099.1 | 1095.0 | 1081.6 | 1054.2 | 1025.8 |
| 40°    | 1075.8 | 1070.0 | 1065.0 | 1067.5 | 1059.2 | 1046.7 | 1032.5 | 1025.8 | 1010.9 | 980.0  | 957.6  |
| 42.5°  | 1005.9 | 1003.4 | 997.5  | 1006.7 | 990.0  | 977.6  | 963.4  | 952.6  | 937.6  | 904.3  | 878.5  |
| 45°    | 931.8  | 937.6  | 924.3  | 926.8  | 915.9  | 905.1  | 890.1  | 874.3  | 859.3  | 827.7  | 798.5  |
| 47.5°  | 853.5  | 857.6  | 848.5  | 850.2  | 838.5  | 828.5  | 815.2  | 795.2  | 778.5  | 751.1  | 725.3  |
| 50°    | 772.7  | 771.0  | 771.0  | 769.4  | 760.2  | 747.7  | 734.4  | 716.1  | 699.4  | 674.5  | 652.8  |
| 52.5°  | 687.0  | 690.3  | 691.9  | 696.1  | 684.5  | 677.0  | 656.1  | 640.3  | 627.8  | 602.0  | 583.7  |
| 55°    | 604.5  | 616.2  | 612.8  | 614.5  | 601.2  | 595.4  | 578.7  | 566.2  | 547.9  | 532.9  | 521.2  |
| 57.5°  | 529.6  | 532.1  | 533.7  | 536.2  | 530.4  | 518.8  | 505.4  | 495.4  | 481.3  | 468.8  | 460.5  |
| 60°    | 457.1  | 457.1  | 458.0  | 462.1  | 456.3  | 446.3  | 436.3  | 428.8  | 418.8  | 411.3  | 406.3  |
| 62.5°  | 388.9  | 394.7  | 395.5  | 392.2  | 384.7  | 379.7  | 373.0  | 368.9  | 362.2  | 359.7  | 358.0  |
| 65°    | 325.6  | 325.6  | 325.6  | 327.2  | 323.1  | 319.7  | 315.6  | 314.7  | 317.2  | 313.9  | 315.6  |
| 67.5°  | 272.3  | 269.8  | 268.1  | 269.0  | 267.3  | 265.6  | 264.8  | 267.3  | 272.3  | 272.3  | 276.4  |
| 70°    | 226.5  | 221.5  | 218.2  | 218.2  | 218.2  | 219.0  | 221.5  | 226.5  | 234.8  | 238.1  | 244.0  |
| 72.5°  | 189.0  | 178.2  | 173.2  | 173.2  | 174.0  | 177.4  | 184.9  | 194.0  | 201.5  | 208.2  | 215.7  |
| 75°    | 153.2  | 142.4  | 134.9  | 134.1  | 135.7  | 140.7  | 151.5  | 159.9  | 172.4  | 181.5  | 190.7  |
| 77.5°  | 124.1  | 110.7  | 101.6  | 100.8  | 103.3  | 110.7  | 124.1  | 134.9  | 149.0  | 159.0  | 169.0  |
| 80°    | 99.1   | 84.1   | 76.6   | 71.6   | 75.8   | 84.9   | 99.9   | 113.2  | 126.6  | 139.9  | 152.4  |
| 82.5°  | 79.1   | 64.9   | 53.3   | 48.3   | 53.3   | 65.8   | 79.9   | 95.8   | 109.1  | 123.2  | 135.7  |
| 85°    | 62.5   | 47.5   | 34.1   | 29.1   | 35.0   | 48.3   | 64.1   | 79.9   | 94.9   | 109.1  | 121.6  |
| 87.5°  | 49.1   | 34.1   | 20.8   | 14.2   | 21.6   | 35.8   | 50.8   | 66.6   | 82.4   | 96.6   | 109.1  |
| 90°    | 38.3   | 24.1   | 11.7   | 1.7    | 12.5   | 25.8   | 40.8   | 55.8   | 71.6   | 85.8   | 98.3   |
| 92.5°  | 32.5   | 18.3   | 6.7    | 0.0    | 7.5    | 19.2   | 33.3   | 48.3   | 62.5   | 76.6   | 89.1   |
| 95°    | 27.5   | 15.0   | 5.0    | 0.0    | 5.0    | 15.0   | 27.5   | 40.8   | 55.0   | 69.1   | 81.6   |
| 97.5°  | 23.3   | 11.7   | 3.3    | 0.0    | 3.3    | 11.7   | 22.5   | 35.8   | 48.3   | 61.6   | 73.3   |
| 100°   | 20.0   | 10.0   | 2.5    | 0.0    | 2.5    | 9.2    | 19.2   | 30.8   | 43.3   | 55.8   | 66.6   |
| 102.5° | 17.5   | 8.3    | 1.7    | 0.0    | 1.7    | 7.5    | 15.8   | 26.6   | 37.5   | 49.1   | 60.0   |
| 105°   | 15.0   | 6.7    | 1.7    | 0.0    | 0.8    | 5.8    | 13.3   | 23.3   | 33.3   | 44.1   | 54.1   |
| 107.5° | 13.3   | 5.8    | 1.7    | 0.0    | 0.8    | 5.0    | 11.7   | 20.0   | 30.0   | 39.1   | 48.3   |
| 110°   | 11.7   | 5.0    | 1.7    | 0.0    | 0.8    | 3.3    | 10.0   | 17.5   | 25.8   | 35.0   | 44.1   |

TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 165° | 170° | 175° | 180° | 185° | 190° | 195° | 200° | 205° | 210° | 215° |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| 112.5° | 10.0 | 4.2  | 0.8  | 0.0  | 0.0  | 2.5  | 8.3  | 15.0 | 22.5 | 31.6 | 39.1 |
| 115°   | 9.2  | 4.2  | 0.8  | 0.0  | 0.0  | 1.7  | 6.7  | 13.3 | 20.0 | 28.3 | 35.0 |
| 117.5° | 8.3  | 3.3  | 0.8  | 0.0  | 0.8  | 1.7  | 5.8  | 11.7 | 17.5 | 24.1 | 31.6 |
| 120°   | 7.5  | 3.3  | 0.8  | 0.0  | 0.8  | 0.8  | 4.2  | 10.0 | 15.0 | 21.6 | 27.5 |
| 122.5° | 6.7  | 3.3  | 0.8  | 0.0  | 0.8  | 0.8  | 3.3  | 8.3  | 13.3 | 19.2 | 24.1 |
| 125°   | 5.8  | 2.5  | 1.7  | 0.8  | 0.8  | 0.8  | 2.5  | 6.7  | 11.7 | 15.8 | 21.6 |
| 127.5° | 5.8  | 2.5  | 1.7  | 0.8  | 0.8  | 0.8  | 1.7  | 5.8  | 9.2  | 14.2 | 19.2 |
| 130°   | 5.0  | 2.5  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 4.2  | 8.3  | 11.7 | 15.8 |
| 132.5° | 4.2  | 2.5  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 2.5  | 5.8  | 10.0 | 13.3 |
| 135°   | 4.2  | 2.5  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 1.7  | 4.2  | 7.5  | 10.8 |
| 137.5° | 3.3  | 1.7  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 3.3  | 5.8  | 8.3  |
| 140°   | 3.3  | 1.7  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 2.5  | 4.2  | 6.7  |
| 142.5° | 2.5  | 1.7  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 1.7  | 3.3  | 5.0  |
| 145°   | 2.5  | 1.7  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 1.7  | 3.3  |
| 147.5° | 2.5  | 2.5  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 1.7  | 2.5  |
| 150°   | 2.5  | 1.7  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 1.7  |
| 152.5° | 2.5  | 1.7  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 1.7  |
| 155°   | 2.5  | 1.7  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 1.7  | 1.7  |
| 157.5° | 2.5  | 1.7  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 1.7  |
| 160°   | 2.5  | 1.7  | 1.7  | 0.8  | 1.7  | 0.8  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  |
| 162.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 180°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 220°   | 225°   | 230°   | 235°   | 240°   | 245°   | 250°   | 255°   | 260°   | 265°   | 270°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 |
| 2.5°   | 1518.0 | 1502.1 | 1510.5 | 1508.0 | 1511.3 | 1518.0 | 1517.1 | 1515.5 | 1515.5 | 1513.0 | 1509.6 |
| 5°     | 1513.0 | 1498.0 | 1505.5 | 1501.3 | 1505.5 | 1511.3 | 1510.5 | 1508.0 | 1509.6 | 1505.5 | 1501.3 |
| 7.5°   | 1503.0 | 1489.6 | 1496.3 | 1493.0 | 1496.3 | 1502.1 | 1499.6 | 1498.8 | 1500.5 | 1493.8 | 1491.3 |
| 10°    | 1491.3 | 1476.3 | 1483.8 | 1479.6 | 1483.8 | 1488.0 | 1486.3 | 1483.0 | 1486.3 | 1479.6 | 1477.2 |
| 12.5°  | 1473.0 | 1460.5 | 1465.5 | 1463.8 | 1466.3 | 1470.5 | 1467.2 | 1464.7 | 1466.3 | 1460.5 | 1455.5 |
| 15°    | 1453.0 | 1440.5 | 1444.7 | 1442.2 | 1443.8 | 1448.8 | 1443.0 | 1442.2 | 1440.5 | 1434.7 | 1433.0 |
| 17.5°  | 1427.2 | 1415.5 | 1419.7 | 1415.5 | 1418.0 | 1416.4 | 1415.5 | 1411.4 | 1411.4 | 1404.7 | 1399.7 |
| 20°    | 1395.5 | 1385.6 | 1383.1 | 1379.7 | 1383.1 | 1379.7 | 1374.7 | 1371.4 | 1370.6 | 1363.9 | 1359.7 |
| 22.5°  | 1358.9 | 1347.3 | 1348.9 | 1339.8 | 1340.6 | 1335.6 | 1327.3 | 1323.9 | 1320.6 | 1313.1 | 1307.3 |
| 25°    | 1314.8 | 1303.1 | 1294.8 | 1289.0 | 1281.5 | 1280.6 | 1269.8 | 1261.5 | 1260.7 | 1251.5 | 1250.7 |
| 27.5°  | 1264.8 | 1251.5 | 1244.8 | 1230.7 | 1221.5 | 1214.0 | 1204.9 | 1196.5 | 1192.4 | 1182.4 | 1175.7 |
| 30°    | 1207.4 | 1192.4 | 1175.7 | 1165.7 | 1151.6 | 1145.7 | 1129.9 | 1119.9 | 1116.6 | 1105.8 | 1100.8 |
| 32.5°  | 1142.4 | 1126.6 | 1113.3 | 1094.1 | 1078.3 | 1070.0 | 1054.2 | 1044.2 | 1040.0 | 1028.3 | 1021.7 |
| 35°    | 1071.6 | 1054.2 | 1038.3 | 1020.0 | 1007.5 | 993.4  | 974.2  | 964.2  | 955.1  | 950.9  | 945.9  |
| 37.5°  | 997.5  | 978.4  | 960.1  | 941.7  | 930.9  | 914.3  | 897.6  | 891.0  | 880.1  | 876.0  | 871.0  |
| 40°    | 920.9  | 901.8  | 884.3  | 866.8  | 854.3  | 839.3  | 824.3  | 821.8  | 810.2  | 806.0  | 802.7  |
| 42.5°  | 845.2  | 825.2  | 805.2  | 792.7  | 783.5  | 768.6  | 758.6  | 756.1  | 746.1  | 743.6  | 743.6  |
| 45°    | 776.9  | 751.9  | 735.2  | 724.4  | 716.9  | 704.4  | 696.1  | 694.4  | 686.1  | 684.5  | 684.5  |
| 47.5°  | 703.6  | 680.3  | 667.8  | 661.1  | 654.5  | 645.3  | 640.3  | 640.3  | 632.0  | 630.3  | 629.5  |
| 50°    | 635.3  | 613.7  | 604.5  | 597.9  | 597.0  | 590.4  | 586.2  | 584.5  | 584.5  | 578.7  | 579.5  |
| 52.5°  | 570.4  | 559.6  | 552.1  | 547.9  | 542.9  | 538.7  | 535.4  | 535.4  | 532.9  | 528.7  | 530.4  |
| 55°    | 510.4  | 497.9  | 498.8  | 495.4  | 492.9  | 490.4  | 491.3  | 486.3  | 485.4  | 482.1  | 484.6  |
| 57.5°  | 450.5  | 450.5  | 448.8  | 446.3  | 442.1  | 443.8  | 443.8  | 443.8  | 439.6  | 437.2  | 439.6  |
| 60°    | 399.7  | 402.2  | 398.0  | 400.5  | 398.8  | 399.7  | 398.0  | 398.0  | 395.5  | 394.7  | 395.5  |
| 62.5°  | 354.7  | 358.9  | 357.2  | 360.5  | 358.9  | 359.7  | 361.4  | 358.0  | 356.4  | 354.7  | 356.4  |
| 65°    | 314.7  | 319.7  | 318.9  | 321.4  | 322.2  | 323.1  | 323.9  | 322.2  | 320.6  | 318.9  | 318.1  |
| 67.5°  | 279.8  | 284.8  | 288.1  | 288.9  | 289.8  | 292.3  | 291.4  | 289.8  | 288.1  | 285.6  | 284.8  |
| 70°    | 248.1  | 254.8  | 259.0  | 260.6  | 264.0  | 262.3  | 262.3  | 261.5  | 259.8  | 257.3  | 256.5  |
| 72.5°  | 221.5  | 229.0  | 233.1  | 234.8  | 238.1  | 238.1  | 237.3  | 236.5  | 234.8  | 232.3  | 231.5  |
| 75°    | 198.2  | 204.8  | 210.7  | 214.0  | 216.5  | 216.5  | 215.7  | 214.8  | 213.2  | 211.5  | 210.7  |
| 77.5°  | 179.9  | 185.7  | 190.7  | 194.8  | 196.5  | 197.3  | 196.5  | 194.8  | 194.8  | 194.0  | 193.2  |
| 80°    | 161.5  | 168.2  | 173.2  | 177.4  | 179.9  | 179.9  | 179.0  | 179.9  | 178.2  | 177.4  | 176.5  |
| 82.5°  | 145.7  | 153.2  | 159.0  | 163.2  | 164.9  | 165.7  | 164.9  | 165.7  | 164.0  | 164.0  | 164.0  |
| 85°    | 131.6  | 139.1  | 145.7  | 149.0  | 151.5  | 152.4  | 152.4  | 152.4  | 151.5  | 151.5  | 151.5  |
| 87.5°  | 119.9  | 127.4  | 134.1  | 137.4  | 139.9  | 140.7  | 140.7  | 141.6  | 139.9  | 139.9  | 139.9  |
| 90°    | 109.1  | 116.6  | 123.2  | 126.6  | 129.1  | 130.7  | 130.7  | 131.6  | 130.7  | 129.9  | 129.9  |
| 92.5°  | 99.1   | 107.4  | 114.1  | 117.4  | 119.9  | 122.4  | 122.4  | 123.2  | 121.6  | 121.6  | 121.6  |
| 95°    | 90.8   | 99.1   | 104.9  | 109.1  | 111.6  | 113.2  | 114.1  | 114.1  | 113.2  | 113.2  | 113.2  |
| 97.5°  | 83.3   | 90.8   | 96.6   | 100.8  | 103.3  | 104.1  | 104.9  | 105.7  | 104.9  | 104.9  | 104.9  |
| 100°   | 75.8   | 83.3   | 89.1   | 92.4   | 95.8   | 96.6   | 97.4   | 98.3   | 98.3   | 97.4   | 97.4   |
| 102.5° | 69.1   | 76.6   | 81.6   | 85.8   | 88.3   | 89.9   | 90.8   | 90.8   | 90.8   | 90.8   | 90.8   |
| 105°   | 62.5   | 69.9   | 74.9   | 79.1   | 81.6   | 83.3   | 84.1   | 84.9   | 84.9   | 84.1   | 84.1   |
| 107.5° | 56.6   | 63.3   | 69.1   | 72.4   | 75.8   | 77.4   | 78.3   | 78.3   | 79.1   | 78.3   | 78.3   |
| 110°   | 50.8   | 58.3   | 63.3   | 66.6   | 69.9   | 71.6   | 72.4   | 73.3   | 73.3   | 73.3   | 73.3   |

TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 220° | 225° | 230° | 235° | 240° | 245° | 250° | 255° | 260° | 265° | 270° |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| 112.5° | 46.6 | 52.5 | 57.5 | 60.8 | 64.1 | 65.8 | 66.6 | 67.4 | 68.3 | 67.4 | 67.4 |
| 115°   | 41.6 | 47.5 | 52.5 | 55.8 | 58.3 | 60.0 | 61.6 | 62.5 | 62.5 | 63.3 | 62.5 |
| 117.5° | 37.5 | 42.5 | 47.5 | 50.8 | 53.3 | 55.8 | 56.6 | 57.5 | 58.3 | 57.5 | 57.5 |
| 120°   | 33.3 | 38.3 | 42.5 | 45.8 | 48.3 | 50.8 | 51.6 | 52.5 | 53.3 | 52.5 | 52.5 |
| 122.5° | 30.0 | 34.1 | 38.3 | 41.6 | 44.1 | 45.8 | 47.5 | 47.5 | 48.3 | 48.3 | 48.3 |
| 125°   | 26.6 | 30.8 | 34.1 | 37.5 | 40.0 | 41.6 | 42.5 | 43.3 | 43.3 | 44.1 | 44.1 |
| 127.5° | 23.3 | 26.6 | 30.8 | 33.3 | 35.8 | 37.5 | 38.3 | 39.1 | 39.1 | 40.0 | 40.0 |
| 130°   | 20.0 | 23.3 | 26.6 | 29.1 | 31.6 | 33.3 | 34.1 | 35.0 | 35.8 | 35.8 | 35.8 |
| 132.5° | 17.5 | 20.8 | 23.3 | 25.8 | 27.5 | 29.1 | 30.8 | 31.6 | 31.6 | 31.6 | 31.6 |
| 135°   | 14.2 | 17.5 | 20.0 | 22.5 | 24.1 | 25.8 | 26.6 | 28.3 | 28.3 | 28.3 | 28.3 |
| 137.5° | 11.7 | 15.0 | 17.5 | 19.2 | 20.8 | 22.5 | 23.3 | 24.1 | 25.0 | 25.0 | 25.0 |
| 140°   | 9.2  | 11.7 | 14.2 | 16.7 | 18.3 | 19.2 | 20.8 | 20.8 | 21.6 | 21.6 | 21.6 |
| 142.5° | 6.7  | 9.2  | 10.8 | 13.3 | 15.0 | 16.7 | 17.5 | 18.3 | 18.3 | 18.3 | 18.3 |
| 145°   | 5.0  | 6.7  | 8.3  | 10.0 | 12.5 | 13.3 | 14.2 | 15.0 | 15.8 | 15.8 | 15.8 |
| 147.5° | 3.3  | 5.0  | 5.8  | 7.5  | 9.2  | 10.8 | 11.7 | 12.5 | 13.3 | 13.3 | 13.3 |
| 150°   | 2.5  | 3.3  | 5.0  | 5.8  | 6.7  | 8.3  | 10.0 | 10.0 | 10.8 | 10.8 | 10.0 |
| 152.5° | 1.7  | 2.5  | 3.3  | 4.2  | 5.0  | 5.8  | 7.5  | 7.5  | 8.3  | 8.3  | 8.3  |
| 155°   | 1.7  | 1.7  | 1.7  | 2.5  | 3.3  | 4.2  | 5.0  | 5.8  | 5.8  | 5.8  | 5.8  |
| 157.5° | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 2.5  | 3.3  | 4.2  | 4.2  | 4.2  | 4.2  |
| 160°   | 1.7  | 1.7  | 0.8  | 0.8  | 1.7  | 1.7  | 1.7  | 1.7  | 2.5  | 2.5  | 2.5  |
| 162.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 180°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 275°   | 280°   | 285°   | 290°   | 295°   | 300°   | 305°   | 310°   | 315°   | 320°   | 325°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 |
| 2.5°   | 1512.1 | 1513.8 | 1513.8 | 1512.1 | 1511.3 | 1514.6 | 1510.5 | 1494.6 | 1499.6 | 1501.3 | 1506.3 |
| 5°     | 1504.6 | 1506.3 | 1506.3 | 1506.3 | 1504.6 | 1508.0 | 1503.8 | 1488.0 | 1493.8 | 1496.3 | 1499.6 |
| 7.5°   | 1493.8 | 1494.6 | 1496.3 | 1495.5 | 1493.8 | 1498.8 | 1494.6 | 1478.8 | 1483.0 | 1487.1 | 1491.3 |
| 10°    | 1479.6 | 1479.6 | 1480.5 | 1482.1 | 1480.5 | 1484.6 | 1480.5 | 1466.3 | 1470.5 | 1473.0 | 1478.0 |
| 12.5°  | 1460.5 | 1462.2 | 1463.0 | 1462.2 | 1461.3 | 1464.7 | 1463.0 | 1449.7 | 1451.3 | 1456.3 | 1461.3 |
| 15°    | 1434.7 | 1434.7 | 1438.8 | 1437.2 | 1437.2 | 1440.5 | 1442.2 | 1427.2 | 1429.7 | 1437.2 | 1442.2 |
| 17.5°  | 1403.0 | 1403.9 | 1407.2 | 1408.9 | 1408.0 | 1413.9 | 1414.7 | 1403.0 | 1402.2 | 1411.4 | 1416.4 |
| 20°    | 1362.2 | 1363.9 | 1368.1 | 1371.4 | 1371.4 | 1378.1 | 1380.6 | 1373.1 | 1373.9 | 1383.9 | 1385.6 |
| 22.5°  | 1312.3 | 1312.3 | 1319.8 | 1324.8 | 1328.9 | 1333.1 | 1340.6 | 1333.9 | 1333.9 | 1347.3 | 1354.7 |
| 25°    | 1250.7 | 1256.5 | 1259.0 | 1269.0 | 1274.8 | 1286.5 | 1293.1 | 1294.0 | 1294.8 | 1307.3 | 1312.3 |
| 27.5°  | 1182.4 | 1184.1 | 1191.5 | 1203.2 | 1209.9 | 1220.7 | 1233.2 | 1235.7 | 1239.8 | 1256.5 | 1264.0 |
| 30°    | 1104.9 | 1109.9 | 1113.3 | 1129.9 | 1139.1 | 1153.2 | 1169.1 | 1174.9 | 1178.2 | 1200.7 | 1209.9 |
| 32.5°  | 1025.8 | 1027.5 | 1041.7 | 1050.8 | 1061.7 | 1076.6 | 1095.0 | 1105.8 | 1112.4 | 1135.8 | 1149.1 |
| 35°    | 946.7  | 950.1  | 961.7  | 973.4  | 984.2  | 999.2  | 1018.4 | 1033.3 | 1045.0 | 1065.8 | 1083.3 |
| 37.5°  | 874.3  | 882.6  | 885.1  | 896.8  | 905.1  | 920.1  | 933.4  | 955.1  | 966.7  | 988.4  | 1010.9 |
| 40°    | 809.4  | 811.9  | 813.5  | 825.2  | 831.0  | 845.2  | 864.3  | 878.5  | 894.3  | 910.1  | 936.8  |
| 42.5°  | 745.2  | 746.9  | 749.4  | 756.1  | 762.7  | 772.7  | 786.9  | 801.0  | 817.7  | 841.0  | 858.5  |
| 45°    | 686.1  | 687.8  | 689.4  | 693.6  | 699.4  | 708.6  | 717.8  | 727.8  | 744.4  | 764.4  | 782.7  |
| 47.5°  | 631.2  | 634.5  | 634.5  | 635.3  | 639.5  | 647.0  | 653.6  | 666.1  | 675.3  | 686.1  | 706.9  |
| 50°    | 578.7  | 581.2  | 582.0  | 582.0  | 584.5  | 589.5  | 591.2  | 599.5  | 607.8  | 617.8  | 632.8  |
| 52.5°  | 529.6  | 529.6  | 528.7  | 532.1  | 532.1  | 535.4  | 536.2  | 541.2  | 547.1  | 557.9  | 564.5  |
| 55°    | 482.9  | 482.9  | 485.4  | 483.8  | 483.8  | 485.4  | 484.6  | 485.4  | 490.4  | 497.1  | 502.9  |
| 57.5°  | 438.0  | 437.2  | 439.6  | 438.0  | 437.2  | 438.8  | 440.5  | 437.2  | 438.0  | 444.6  | 444.6  |
| 60°    | 393.0  | 393.9  | 396.3  | 394.7  | 394.7  | 394.7  | 393.0  | 391.4  | 389.7  | 393.9  | 395.5  |
| 62.5°  | 357.2  | 354.7  | 357.2  | 354.7  | 356.4  | 355.5  | 353.9  | 350.6  | 351.4  | 349.7  | 348.1  |
| 65°    | 319.7  | 319.7  | 320.6  | 318.1  | 319.7  | 319.7  | 317.2  | 316.4  | 311.4  | 309.8  | 305.6  |
| 67.5°  | 287.3  | 287.3  | 288.1  | 286.4  | 286.4  | 287.3  | 284.8  | 282.3  | 277.3  | 274.8  | 269.0  |
| 70°    | 259.0  | 259.0  | 259.0  | 258.1  | 258.1  | 258.1  | 256.5  | 253.1  | 248.1  | 244.0  | 236.5  |
| 72.5°  | 233.1  | 234.0  | 233.1  | 233.1  | 235.6  | 233.1  | 230.6  | 227.3  | 223.2  | 214.8  | 208.2  |
| 75°    | 212.3  | 213.2  | 212.3  | 212.3  | 212.3  | 211.5  | 210.7  | 205.7  | 200.7  | 194.0  | 184.0  |
| 77.5°  | 194.0  | 194.0  | 194.8  | 194.0  | 194.0  | 193.2  | 190.7  | 186.5  | 180.7  | 174.9  | 163.2  |
| 80°    | 176.5  | 177.4  | 178.2  | 179.0  | 177.4  | 176.5  | 174.0  | 170.7  | 163.2  | 156.5  | 144.9  |
| 82.5°  | 164.0  | 163.2  | 164.0  | 164.9  | 163.2  | 162.4  | 159.9  | 155.7  | 149.9  | 140.7  | 129.1  |
| 85°    | 151.5  | 150.7  | 150.7  | 151.5  | 150.7  | 149.0  | 146.5  | 142.4  | 136.6  | 127.4  | 115.7  |
| 87.5°  | 139.1  | 139.9  | 140.7  | 139.9  | 139.1  | 137.4  | 134.9  | 130.7  | 124.1  | 116.6  | 104.1  |
| 90°    | 129.9  | 129.9  | 129.9  | 129.9  | 129.1  | 127.4  | 124.9  | 119.9  | 114.1  | 104.9  | 94.1   |
| 92.5°  | 121.6  | 121.6  | 121.6  | 121.6  | 120.7  | 118.2  | 115.7  | 111.6  | 104.9  | 95.8   | 85.8   |
| 95°    | 113.2  | 114.1  | 113.2  | 113.2  | 111.6  | 110.7  | 106.6  | 102.4  | 96.6   | 87.4   | 76.6   |
| 97.5°  | 104.1  | 104.9  | 104.1  | 104.1  | 103.3  | 101.6  | 99.1   | 94.1   | 88.3   | 79.9   | 69.9   |
| 100°   | 97.4   | 97.4   | 96.6   | 96.6   | 95.8   | 94.1   | 90.8   | 86.6   | 80.8   | 72.4   | 62.5   |
| 102.5° | 89.9   | 90.8   | 89.9   | 89.9   | 88.3   | 86.6   | 84.1   | 79.9   | 74.1   | 65.8   | 56.6   |
| 105°   | 84.1   | 84.1   | 83.3   | 83.3   | 81.6   | 79.9   | 77.4   | 72.4   | 67.4   | 60.0   | 50.8   |
| 107.5° | 78.3   | 78.3   | 77.4   | 77.4   | 75.8   | 74.1   | 70.8   | 66.6   | 61.6   | 54.1   | 45.8   |
| 110°   | 72.4   | 72.4   | 72.4   | 71.6   | 69.9   | 67.4   | 64.9   | 60.8   | 55.8   | 49.1   | 40.8   |

TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 275° | 280° | 285° | 290° | 295° | 300° | 305° | 310° | 315° | 320° | 325° |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| 112.5° | 68.3 | 67.4 | 66.6 | 65.8 | 64.1 | 62.5 | 59.1 | 55.0 | 50.0 | 44.1 | 36.6 |
| 115°   | 62.5 | 62.5 | 61.6 | 60.8 | 59.1 | 56.6 | 54.1 | 50.8 | 45.8 | 39.1 | 32.5 |
| 117.5° | 57.5 | 57.5 | 56.6 | 55.8 | 54.1 | 51.6 | 49.1 | 45.8 | 40.8 | 35.0 | 29.1 |
| 120°   | 52.5 | 52.5 | 51.6 | 50.8 | 49.1 | 46.6 | 45.0 | 40.8 | 36.6 | 30.8 | 25.8 |
| 122.5° | 48.3 | 47.5 | 47.5 | 45.8 | 45.0 | 42.5 | 40.0 | 36.6 | 32.5 | 27.5 | 22.5 |
| 125°   | 43.3 | 43.3 | 42.5 | 41.6 | 40.8 | 38.3 | 35.8 | 32.5 | 28.3 | 24.1 | 20.0 |
| 127.5° | 39.1 | 39.1 | 38.3 | 37.5 | 36.6 | 34.1 | 31.6 | 29.1 | 25.0 | 20.8 | 16.7 |
| 130°   | 35.0 | 35.0 | 34.1 | 33.3 | 32.5 | 30.0 | 28.3 | 25.0 | 21.6 | 18.3 | 14.2 |
| 132.5° | 31.6 | 31.6 | 30.8 | 30.0 | 28.3 | 26.6 | 25.0 | 21.6 | 19.2 | 15.8 | 12.5 |
| 135°   | 28.3 | 27.5 | 27.5 | 26.6 | 25.0 | 23.3 | 21.6 | 19.2 | 15.8 | 13.3 | 10.0 |
| 137.5° | 25.0 | 24.1 | 23.3 | 22.5 | 21.6 | 20.0 | 18.3 | 16.7 | 14.2 | 10.8 | 8.3  |
| 140°   | 21.6 | 20.8 | 20.8 | 20.0 | 18.3 | 17.5 | 15.8 | 13.3 | 11.7 | 9.2  | 6.7  |
| 142.5° | 18.3 | 18.3 | 17.5 | 16.7 | 15.8 | 15.0 | 13.3 | 11.7 | 9.2  | 7.5  | 5.0  |
| 145°   | 15.8 | 15.0 | 15.0 | 14.2 | 13.3 | 11.7 | 10.8 | 9.2  | 7.5  | 5.8  | 4.2  |
| 147.5° | 12.5 | 12.5 | 12.5 | 11.7 | 10.8 | 10.0 | 9.2  | 7.5  | 5.8  | 4.2  | 2.5  |
| 150°   | 10.0 | 10.0 | 10.0 | 9.2  | 8.3  | 7.5  | 6.7  | 5.8  | 4.2  | 2.5  | 1.7  |
| 152.5° | 8.3  | 8.3  | 7.5  | 7.5  | 6.7  | 5.8  | 5.0  | 4.2  | 2.5  | 1.7  | 1.7  |
| 155°   | 5.8  | 5.8  | 5.8  | 5.0  | 5.0  | 4.2  | 3.3  | 2.5  | 1.7  | 1.7  | 1.7  |
| 157.5° | 4.2  | 4.2  | 4.2  | 3.3  | 3.3  | 2.5  | 2.5  | 1.7  | 1.7  | 1.7  | 1.7  |
| 160°   | 2.5  | 2.5  | 2.5  | 2.5  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  |
| 162.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 180°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 330°   | 335°   | 340°   | 345°   | 350°   | 355°   | 360°   |
|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 | 1513.8 |
| 2.5°   | 1503.8 | 1503.0 | 1509.6 | 1509.6 | 1502.1 | 1513.8 | 1526.3 |
| 5°     | 1498.8 | 1498.0 | 1504.6 | 1504.6 | 1498.0 | 1509.6 | 1522.9 |
| 7.5°   | 1488.8 | 1489.6 | 1496.3 | 1498.0 | 1489.6 | 1500.5 | 1514.6 |
| 10°    | 1478.0 | 1477.2 | 1484.6 | 1486.3 | 1479.6 | 1489.6 | 1503.0 |
| 12.5°  | 1460.5 | 1460.5 | 1468.0 | 1470.5 | 1463.8 | 1475.5 | 1488.0 |
| 15°    | 1442.2 | 1442.2 | 1447.2 | 1451.3 | 1445.5 | 1456.3 | 1468.8 |
| 17.5°  | 1418.9 | 1418.0 | 1423.0 | 1428.0 | 1422.2 | 1433.9 | 1447.2 |
| 20°    | 1388.9 | 1388.9 | 1394.7 | 1400.5 | 1396.4 | 1407.2 | 1422.2 |
| 22.5°  | 1357.2 | 1353.9 | 1363.9 | 1368.1 | 1365.6 | 1376.4 | 1391.4 |
| 25°    | 1317.3 | 1316.4 | 1326.4 | 1332.3 | 1328.9 | 1340.6 | 1353.9 |
| 27.5°  | 1274.0 | 1273.1 | 1283.1 | 1290.6 | 1289.0 | 1299.8 | 1314.8 |
| 30°    | 1221.5 | 1225.7 | 1234.8 | 1247.3 | 1243.2 | 1254.8 | 1270.6 |
| 32.5°  | 1166.6 | 1170.7 | 1181.6 | 1194.9 | 1195.7 | 1204.9 | 1220.7 |
| 35°    | 1100.8 | 1111.6 | 1119.1 | 1136.6 | 1139.9 | 1149.1 | 1165.7 |
| 37.5°  | 1031.7 | 1044.2 | 1060.0 | 1073.3 | 1080.0 | 1087.5 | 1106.6 |
| 40°    | 954.2  | 972.6  | 990.0  | 1005.9 | 1014.2 | 1021.7 | 1040.0 |
| 42.5°  | 884.3  | 898.4  | 915.1  | 930.9  | 945.9  | 952.6  | 971.7  |
| 45°    | 805.2  | 821.8  | 836.8  | 856.0  | 871.0  | 878.5  | 897.6  |
| 47.5°  | 727.8  | 744.4  | 764.4  | 777.7  | 793.5  | 801.0  | 819.3  |
| 50°    | 653.6  | 668.6  | 685.3  | 701.1  | 714.4  | 721.1  | 736.9  |
| 52.5°  | 580.4  | 596.2  | 612.0  | 622.0  | 636.2  | 641.2  | 654.5  |
| 55°    | 515.4  | 526.2  | 540.4  | 546.2  | 560.4  | 563.7  | 572.9  |
| 57.5°  | 453.0  | 460.5  | 465.5  | 475.5  | 485.4  | 492.9  | 503.8  |
| 60°    | 396.3  | 399.7  | 403.0  | 408.8  | 417.2  | 419.7  | 423.8  |
| 62.5°  | 345.6  | 344.7  | 351.4  | 353.1  | 353.9  | 362.2  | 358.0  |
| 65°    | 300.6  | 301.4  | 295.6  | 293.1  | 296.4  | 298.9  | 297.3  |
| 67.5°  | 263.1  | 258.1  | 253.1  | 247.3  | 242.3  | 244.8  | 242.3  |
| 70°    | 226.5  | 222.3  | 214.0  | 205.7  | 202.3  | 197.3  | 194.8  |
| 72.5°  | 197.3  | 187.4  | 179.0  | 168.2  | 162.4  | 156.5  | 152.4  |
| 75°    | 174.9  | 160.7  | 149.0  | 137.4  | 129.1  | 120.7  | 119.1  |
| 77.5°  | 151.5  | 138.2  | 124.9  | 112.4  | 99.9   | 90.8   | 87.4   |
| 80°    | 133.2  | 120.7  | 104.9  | 89.9   | 76.6   | 64.9   | 60.8   |
| 82.5°  | 116.6  | 103.3  | 87.4   | 71.6   | 56.6   | 44.1   | 39.1   |
| 85°    | 102.4  | 88.3   | 72.4   | 56.6   | 41.6   | 28.3   | 21.6   |
| 87.5°  | 91.6   | 75.8   | 60.0   | 45.0   | 29.1   | 15.8   | 8.3    |
| 90°    | 81.6   | 66.6   | 51.6   | 35.8   | 20.8   | 8.3    | 0.0    |
| 92.5°  | 72.4   | 58.3   | 43.3   | 29.1   | 15.8   | 5.0    | 0.8    |
| 95°    | 64.1   | 51.6   | 36.6   | 23.3   | 11.7   | 3.3    | 0.8    |
| 97.5°  | 57.5   | 45.0   | 31.6   | 19.2   | 9.2    | 2.5    | 0.8    |
| 100°   | 51.6   | 39.1   | 27.5   | 15.8   | 7.5    | 1.7    | 0.8    |
| 102.5° | 45.8   | 35.0   | 23.3   | 13.3   | 5.8    | 0.8    | 0.8    |
| 105°   | 40.8   | 30.8   | 20.0   | 11.7   | 5.0    | 0.8    | 0.8    |
| 107.5° | 36.6   | 27.5   | 17.5   | 10.0   | 3.3    | 0.8    | 0.8    |
| 110°   | 32.5   | 23.3   | 15.0   | 8.3    | 2.5    | 0.8    | 0.8    |



TEST NUMBER: P1213705

CATALOG NUMBER: 2SNLED-LD5-45HL-LN-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (continued):**

|        | 330° | 335° | 340° | 345° | 350° | 355° | 360° |
|--------|------|------|------|------|------|------|------|
| 112.5° | 29.1 | 20.8 | 13.3 | 6.7  | 1.7  | 0.8  | 0.8  |
| 115°   | 25.8 | 18.3 | 11.7 | 5.8  | 1.7  | 0.8  | 0.8  |
| 117.5° | 22.5 | 15.8 | 10.0 | 4.2  | 0.8  | 0.8  | 0.8  |
| 120°   | 20.0 | 14.2 | 8.3  | 3.3  | 0.8  | 0.8  | 0.8  |
| 122.5° | 17.5 | 11.7 | 6.7  | 2.5  | 0.8  | 0.8  | 0.8  |
| 125°   | 15.0 | 10.0 | 5.8  | 1.7  | 0.8  | 0.8  | 0.8  |
| 127.5° | 12.5 | 8.3  | 4.2  | 1.7  | 0.8  | 0.8  | 0.8  |
| 130°   | 10.8 | 6.7  | 3.3  | 0.8  | 0.8  | 0.8  | 0.8  |
| 132.5° | 9.2  | 5.0  | 2.5  | 0.8  | 0.8  | 0.8  | 0.8  |
| 135°   | 7.5  | 4.2  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  |
| 137.5° | 5.8  | 3.3  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  |
| 140°   | 4.2  | 2.5  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| 142.5° | 3.3  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| 145°   | 2.5  | 1.7  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| 147.5° | 1.7  | 1.7  | 1.7  | 1.7  | 0.8  | 0.8  | 0.8  |
| 150°   | 1.7  | 1.7  | 0.8  | 0.8  | 1.7  | 0.8  | 0.8  |
| 152.5° | 1.7  | 0.8  | 0.8  | 0.8  | 1.7  | 0.8  | 0.8  |
| 155°   | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 0.8  |
| 157.5° | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  |
| 160°   | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  |
| 162.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 165°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 167.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 170°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 172.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 175°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 177.5° | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 180°   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

(END OF REPORT)