

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P584301

Luminaire Tested: **HC830D010-HM82555840-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584301
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC830D010-HM82555840-81WWW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3387.6 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Spacing Criteria (0/90/45): 1.09 / 1.04 / 1.13
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

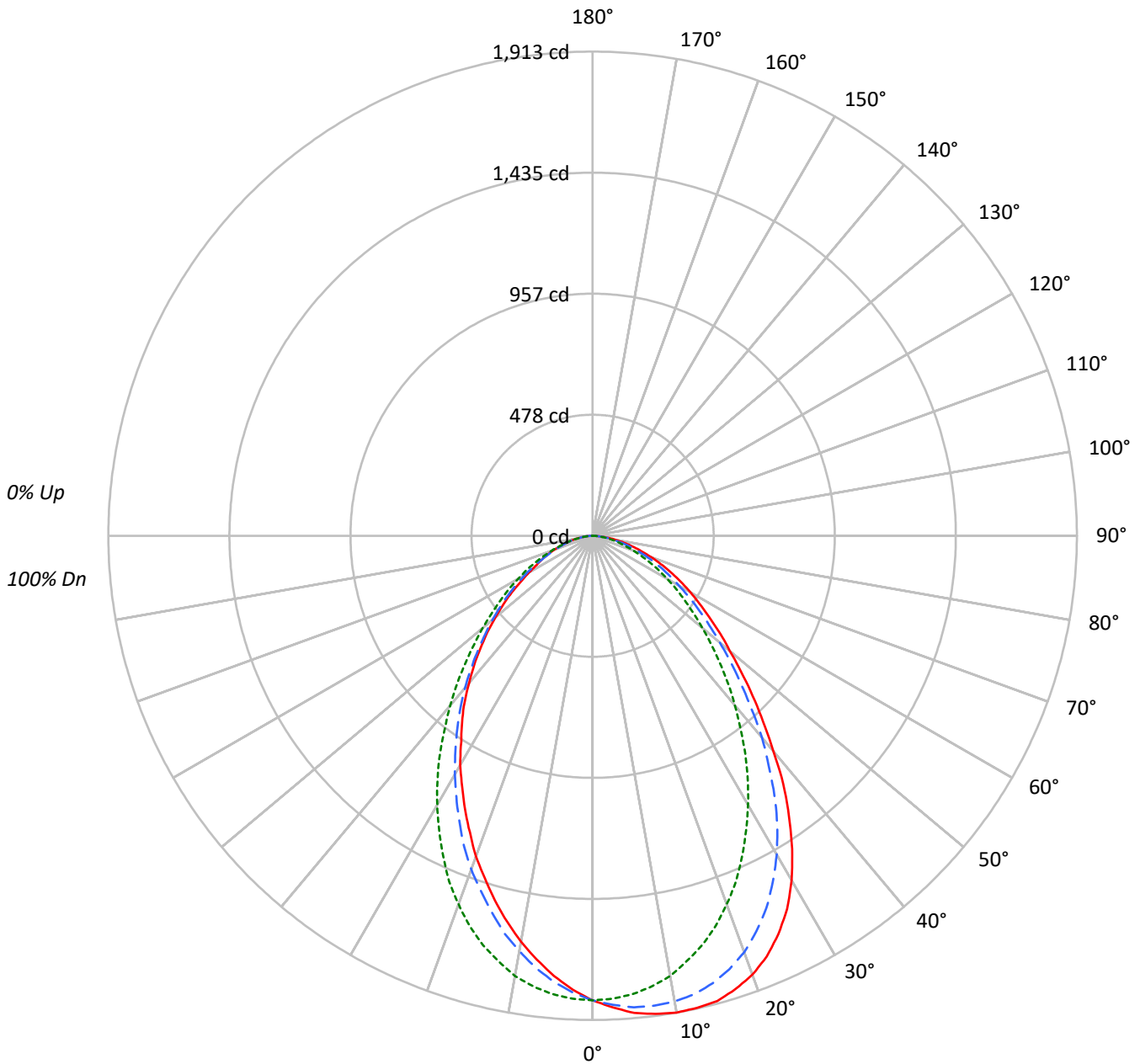
Input Watts (W): 28
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P584301

CATALOG NUMBER: HC830D010-HM82555840-81WWW

Luminous Intensity Polar Plot





TEST NUMBER: P584301

CATALOG NUMBER: HC830D010-HM82555840-81WWW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 50 | | | | | | | | | 30 | | | | | | | | | 10 | | | | | | | | | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | | | | | | | | | | | | | | | |
| 1 | 110 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 | | | | | | | | | | | | | | | | | | | |
| 2 | 102 | 95 | 89 | 84 | 99 | 93 | 88 | 83 | 90 | 85 | 81 | 86 | 83 | 79 | 83 | 80 | 78 | 76 | | | | | | | | | | | | | | | | | | | |
| 3 | 94 | 85 | 78 | 72 | 92 | 83 | 77 | 71 | 81 | 75 | 70 | 78 | 73 | 69 | 75 | 71 | 68 | 66 | | | | | | | | | | | | | | | | | | | |
| 4 | 87 | 76 | 69 | 63 | 85 | 75 | 68 | 62 | 73 | 67 | 62 | 71 | 65 | 61 | 68 | 64 | 60 | 58 | | | | | | | | | | | | | | | | | | | |
| 5 | 81 | 69 | 61 | 55 | 79 | 68 | 61 | 55 | 66 | 60 | 54 | 64 | 59 | 54 | 63 | 57 | 53 | 51 | | | | | | | | | | | | | | | | | | | |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 48 | 57 | 52 | 48 | 46 | | | | | | | | | | | | | | | | | | | |
| 7 | 70 | 58 | 50 | 44 | 69 | 57 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 43 | 41 | | | | | | | | | | | | | | | | | | | |
| 8 | 66 | 53 | 46 | 40 | 64 | 53 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | 49 | 44 | 39 | 38 | | | | | | | | | | | | | | | | | | | |
| 9 | 62 | 49 | 42 | 37 | 60 | 49 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 | | | | | | | | | | | | | | | | | | | |
| 10 | 58 | 46 | 39 | 34 | 57 | 45 | 38 | 34 | 44 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 32 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|-------|-------|-------|
| 0° | 56603 | 56603 | 56603 |
| 5° | 58593 | 56278 | 54043 |
| 10° | 59890 | 55291 | 51001 |
| 15° | 60745 | 53428 | 47624 |
| 20° | 60564 | 50834 | 44215 |
| 25° | 59062 | 47538 | 40591 |
| 30° | 55956 | 43721 | 37248 |
| 35° | 50910 | 39568 | 33846 |
| 40° | 44714 | 35190 | 30581 |
| 45° | 38991 | 30954 | 27264 |
| 50° | 33931 | 27124 | 24015 |
| 55° | 30262 | 23838 | 20892 |
| 60° | 27494 | 20889 | 17817 |
| 65° | 24713 | 18176 | 16169 |
| 70° | 22008 | 15489 | 14597 |
| 75° | 19289 | 13058 | 12462 |
| 80° | 16355 | 10619 | 11063 |
| 85° | 12312 | 7961 | 8810 |



TEST NUMBER: P584301

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 171.9 | 5.1 |
| 10°-20° | 473.7 | 14.0 |
| 20°-30° | 657.6 | 19.4 |
| 30°-40° | 679.8 | 20.1 |
| 40°-50° | 569.2 | 16.8 |
| 50°-60° | 413.2 | 12.2 |
| 60°-70° | 260.8 | 7.7 |
| 70°-80° | 129.2 | 3.8 |
| 80°-90° | 32.1 | 0.9 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1303.2 | 38.5 |
| 0°-40° | 1983.0 | 58.5 |
| 0°-60° | 2965.5 | 87.5 |
| 0°-90° | 3387.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3387.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1836 | 1836 | 1836 | 1836 | 1836 | |
| 5° | 1893 | 1870 | 1818 | 1768 | 1746 | 181 |
| 15° | 1903 | 1831 | 1674 | 1539 | 1492 | 536 |
| 25° | 1736 | 1624 | 1397 | 1245 | 1193 | 795 |
| 35° | 1352 | 1253 | 1051 | 932 | 899 | 842 |
| 45° | 894 | 829 | 710 | 640 | 625 | 692 |
| 55° | 563 | 513 | 443 | 406 | 389 | 508 |
| 65° | 339 | 296 | 249 | 219 | 222 | 338 |
| 75° | 162 | 134 | 110 | 105 | 105 | 174 |
| 85° | 35 | 27 | 22 | 25 | 25 | 42 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P584301

CATALOG NUMBER: HC830D010-HM82555840-81WWW

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 |
| 2.5° | 1865.4 | 1865.4 | 1867.9 | 1865.4 | 1865.4 | 1865.4 | 1862.9 | 1862.9 | 1860.4 | 1860.4 | 1855.4 |
| 5° | 1892.9 | 1887.9 | 1892.9 | 1887.9 | 1887.9 | 1887.9 | 1885.4 | 1880.4 | 1877.9 | 1872.9 | 1870.4 |
| 7.5° | 1905.3 | 1902.8 | 1902.8 | 1900.3 | 1900.3 | 1897.8 | 1895.4 | 1892.9 | 1882.9 | 1880.4 | 1872.9 |
| 10° | 1912.7 | 1910.2 | 1910.2 | 1907.8 | 1902.8 | 1902.8 | 1897.8 | 1895.4 | 1882.9 | 1877.9 | 1867.9 |
| 12.5° | 1910.2 | 1910.2 | 1910.2 | 1907.8 | 1900.3 | 1897.8 | 1892.9 | 1885.4 | 1875.4 | 1865.4 | 1855.4 |
| 15° | 1902.8 | 1902.8 | 1897.8 | 1895.4 | 1887.9 | 1882.9 | 1880.4 | 1867.9 | 1857.9 | 1845.6 | 1830.6 |
| 17.5° | 1877.9 | 1877.9 | 1875.4 | 1870.4 | 1862.9 | 1857.9 | 1852.9 | 1840.6 | 1830.6 | 1810.6 | 1795.7 |
| 20° | 1845.6 | 1843.1 | 1840.6 | 1833.1 | 1825.6 | 1823.1 | 1815.6 | 1798.2 | 1785.8 | 1770.8 | 1750.9 |
| 22.5° | 1798.2 | 1795.7 | 1793.2 | 1788.3 | 1775.8 | 1770.8 | 1765.8 | 1753.4 | 1730.9 | 1716.0 | 1691.1 |
| 25° | 1735.9 | 1735.9 | 1730.9 | 1723.5 | 1711.0 | 1706.1 | 1698.6 | 1686.1 | 1666.1 | 1643.8 | 1623.8 |
| 27.5° | 1663.6 | 1661.3 | 1653.8 | 1648.8 | 1638.8 | 1631.3 | 1618.8 | 1604.0 | 1584.0 | 1566.6 | 1541.7 |
| 30° | 1571.5 | 1571.5 | 1566.6 | 1559.1 | 1546.7 | 1541.7 | 1531.7 | 1514.3 | 1494.3 | 1472.0 | 1454.5 |
| 32.5° | 1467.0 | 1467.0 | 1459.5 | 1454.5 | 1447.0 | 1434.5 | 1432.0 | 1412.2 | 1394.7 | 1377.3 | 1357.4 |
| 35° | 1352.4 | 1354.9 | 1349.9 | 1339.9 | 1327.5 | 1327.5 | 1322.5 | 1305.0 | 1285.2 | 1267.7 | 1252.7 |
| 37.5° | 1237.9 | 1230.4 | 1227.9 | 1222.9 | 1215.4 | 1205.4 | 1200.4 | 1193.0 | 1175.6 | 1163.1 | 1140.7 |
| 40° | 1110.8 | 1113.3 | 1108.3 | 1103.3 | 1100.8 | 1093.4 | 1090.9 | 1078.4 | 1065.9 | 1051.1 | 1041.1 |
| 42.5° | 996.3 | 996.3 | 996.3 | 991.3 | 986.3 | 978.8 | 976.3 | 968.8 | 953.9 | 943.9 | 929.0 |
| 45° | 894.1 | 886.6 | 886.6 | 884.1 | 881.6 | 876.6 | 869.2 | 864.3 | 854.3 | 846.8 | 829.3 |
| 47.5° | 794.5 | 797.0 | 794.5 | 792.0 | 784.5 | 782.0 | 779.5 | 769.6 | 759.7 | 752.2 | 739.7 |
| 50° | 707.3 | 712.3 | 707.3 | 707.3 | 702.3 | 699.8 | 694.9 | 687.4 | 679.9 | 667.5 | 655.0 |
| 52.5° | 635.0 | 635.0 | 632.5 | 630.2 | 622.7 | 617.7 | 615.2 | 612.7 | 600.2 | 590.2 | 580.4 |
| 55° | 562.9 | 565.4 | 565.4 | 557.9 | 555.4 | 550.4 | 547.9 | 540.4 | 535.5 | 520.5 | 513.1 |
| 57.5° | 500.6 | 498.1 | 500.6 | 495.6 | 490.7 | 485.7 | 483.2 | 478.2 | 470.7 | 460.7 | 450.7 |
| 60° | 445.8 | 440.9 | 440.9 | 438.4 | 433.4 | 430.9 | 425.9 | 418.4 | 410.9 | 400.9 | 393.6 |
| 62.5° | 391.1 | 388.6 | 386.1 | 383.6 | 378.6 | 376.1 | 373.6 | 366.1 | 358.6 | 351.1 | 343.7 |
| 65° | 338.7 | 338.7 | 336.2 | 331.3 | 328.8 | 326.3 | 323.8 | 318.8 | 308.8 | 303.9 | 296.4 |
| 67.5° | 291.4 | 288.9 | 288.9 | 283.9 | 278.9 | 276.4 | 276.4 | 271.4 | 264.0 | 256.6 | 251.6 |
| 70° | 244.1 | 246.6 | 244.1 | 241.6 | 236.6 | 236.6 | 231.6 | 229.1 | 219.1 | 216.6 | 209.3 |
| 72.5° | 201.8 | 201.8 | 199.3 | 199.3 | 194.3 | 191.8 | 191.8 | 186.8 | 181.8 | 176.8 | 171.8 |
| 75° | 161.9 | 161.9 | 161.9 | 159.4 | 156.9 | 152.0 | 152.0 | 149.5 | 144.5 | 139.5 | 134.5 |
| 77.5° | 127.0 | 124.5 | 124.5 | 122.0 | 119.5 | 117.0 | 117.0 | 114.6 | 109.6 | 107.1 | 102.1 |
| 80° | 92.1 | 89.7 | 89.7 | 89.7 | 84.7 | 87.2 | 84.7 | 82.2 | 79.7 | 77.2 | 74.7 |
| 82.5° | 59.8 | 62.3 | 62.3 | 59.8 | 57.3 | 57.3 | 57.3 | 54.8 | 54.8 | 52.3 | 49.8 |
| 85° | 34.8 | 34.8 | 34.8 | 34.8 | 32.3 | 32.3 | 32.3 | 29.8 | 29.8 | 29.8 | 27.3 |
| 87.5° | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CATALOG NUMBER: HC830D010-HM82555840-81WWW

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 95° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 |
| 2.5° | 1855.4 | 1850.4 | 1848.1 | 1845.6 | 1845.6 | 1843.1 | 1840.6 | 1835.6 | 1835.6 | 1830.6 | 1828.1 |
| 5° | 1865.4 | 1857.9 | 1852.9 | 1848.1 | 1845.6 | 1840.6 | 1835.6 | 1828.1 | 1825.6 | 1818.1 | 1810.6 |
| 7.5° | 1867.9 | 1855.4 | 1850.4 | 1840.6 | 1835.6 | 1830.6 | 1820.6 | 1813.1 | 1803.1 | 1795.7 | 1785.8 |
| 10° | 1857.9 | 1848.1 | 1835.6 | 1823.1 | 1820.6 | 1813.1 | 1798.2 | 1788.3 | 1775.8 | 1765.8 | 1750.9 |
| 12.5° | 1843.1 | 1828.1 | 1815.6 | 1800.7 | 1793.2 | 1785.8 | 1770.8 | 1755.8 | 1738.4 | 1721.0 | 1706.1 |
| 15° | 1818.1 | 1800.7 | 1783.3 | 1765.8 | 1755.8 | 1748.4 | 1730.9 | 1713.5 | 1696.1 | 1673.6 | 1658.8 |
| 17.5° | 1780.8 | 1760.8 | 1743.4 | 1721.0 | 1711.0 | 1703.6 | 1681.1 | 1661.3 | 1638.8 | 1616.3 | 1601.5 |
| 20° | 1733.4 | 1708.6 | 1688.6 | 1663.6 | 1656.3 | 1643.8 | 1621.3 | 1599.0 | 1574.0 | 1549.1 | 1531.7 |
| 22.5° | 1671.1 | 1646.3 | 1623.8 | 1599.0 | 1586.5 | 1574.0 | 1551.6 | 1524.2 | 1499.3 | 1479.4 | 1462.0 |
| 25° | 1599.0 | 1576.5 | 1549.1 | 1526.7 | 1511.8 | 1496.8 | 1472.0 | 1449.5 | 1427.2 | 1397.2 | 1379.8 |
| 27.5° | 1519.3 | 1491.8 | 1472.0 | 1442.0 | 1427.2 | 1417.2 | 1389.7 | 1359.9 | 1339.9 | 1312.5 | 1292.6 |
| 30° | 1429.5 | 1404.7 | 1382.2 | 1352.4 | 1337.4 | 1327.5 | 1302.5 | 1275.2 | 1255.2 | 1227.9 | 1207.9 |
| 32.5° | 1334.9 | 1307.5 | 1280.2 | 1260.2 | 1242.7 | 1232.9 | 1205.4 | 1188.0 | 1163.1 | 1140.7 | 1118.3 |
| 35° | 1232.9 | 1205.4 | 1185.6 | 1158.1 | 1148.1 | 1138.2 | 1115.8 | 1093.4 | 1070.9 | 1051.1 | 1033.6 |
| 37.5° | 1123.2 | 1103.3 | 1080.9 | 1060.9 | 1053.5 | 1043.6 | 1016.1 | 996.3 | 978.8 | 958.9 | 943.9 |
| 40° | 1016.1 | 998.8 | 983.8 | 963.8 | 951.4 | 943.9 | 924.0 | 906.6 | 886.6 | 874.2 | 859.3 |
| 42.5° | 919.0 | 899.1 | 884.1 | 869.2 | 856.8 | 849.3 | 831.8 | 819.3 | 804.5 | 792.0 | 774.5 |
| 45° | 817.0 | 807.0 | 789.5 | 777.0 | 769.6 | 759.7 | 747.2 | 732.2 | 719.8 | 709.8 | 697.3 |
| 47.5° | 727.2 | 717.3 | 704.8 | 689.9 | 684.9 | 677.5 | 665.0 | 655.0 | 645.0 | 635.0 | 622.7 |
| 50° | 645.0 | 632.5 | 622.7 | 612.7 | 607.7 | 600.2 | 587.7 | 582.8 | 575.4 | 565.4 | 557.9 |
| 52.5° | 570.4 | 560.4 | 550.4 | 538.0 | 535.5 | 530.5 | 523.0 | 513.1 | 505.6 | 500.6 | 495.6 |
| 55° | 503.1 | 493.1 | 485.7 | 475.7 | 473.2 | 468.2 | 458.2 | 453.2 | 448.3 | 443.4 | 438.4 |
| 57.5° | 443.4 | 433.4 | 423.4 | 418.4 | 413.4 | 408.4 | 405.9 | 398.4 | 393.6 | 391.1 | 386.1 |
| 60° | 388.6 | 378.6 | 371.1 | 363.6 | 361.1 | 358.6 | 353.6 | 348.7 | 343.7 | 338.7 | 336.2 |
| 62.5° | 336.2 | 326.3 | 321.3 | 316.3 | 311.3 | 311.3 | 306.3 | 301.4 | 296.4 | 293.9 | 288.9 |
| 65° | 288.9 | 283.9 | 276.4 | 269.0 | 266.5 | 266.5 | 259.0 | 256.6 | 254.1 | 249.1 | 244.1 |
| 67.5° | 244.1 | 239.1 | 231.6 | 229.1 | 226.6 | 224.1 | 221.6 | 216.6 | 211.6 | 209.3 | 204.3 |
| 70° | 204.3 | 199.3 | 194.3 | 191.8 | 189.3 | 186.8 | 181.8 | 179.3 | 174.3 | 171.8 | 169.3 |
| 72.5° | 164.3 | 161.9 | 156.9 | 154.5 | 152.0 | 149.5 | 147.0 | 144.5 | 139.5 | 137.0 | 134.5 |
| 75° | 132.0 | 129.5 | 124.5 | 122.0 | 119.5 | 119.5 | 117.0 | 112.1 | 109.6 | 109.6 | 107.1 |
| 77.5° | 99.6 | 97.1 | 94.6 | 92.1 | 89.7 | 89.7 | 87.2 | 84.7 | 82.2 | 82.2 | 79.7 |
| 80° | 72.2 | 69.8 | 67.3 | 67.3 | 67.3 | 64.8 | 62.3 | 62.3 | 59.8 | 59.8 | 57.3 |
| 82.5° | 47.3 | 47.3 | 44.8 | 44.8 | 44.8 | 42.3 | 42.3 | 39.8 | 39.8 | 39.8 | 39.8 |
| 85° | 27.3 | 27.3 | 27.3 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 22.5 | 24.9 |
| 87.5° | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 10.0 | 10.0 | 10.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P584301

CATALOG NUMBER: HC830D010-HM82555840-81WWW

CANDELA DISTRIBUTION (continued):

| | 100° | 105° | 110° | 112.5° | 115° | 120° | 125° | 130° | 135° | 140° | 145° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 |
| 2.5° | 1825.6 | 1823.1 | 1818.1 | 1818.1 | 1813.1 | 1813.1 | 1810.6 | 1808.1 | 1805.6 | 1803.1 | 1800.7 |
| 5° | 1808.1 | 1798.2 | 1793.2 | 1790.8 | 1785.8 | 1783.3 | 1775.8 | 1770.8 | 1768.3 | 1763.3 | 1758.3 |
| 7.5° | 1775.8 | 1765.8 | 1755.8 | 1753.4 | 1750.9 | 1740.9 | 1733.4 | 1726.0 | 1721.0 | 1716.0 | 1711.0 |
| 10° | 1738.4 | 1728.4 | 1716.0 | 1711.0 | 1706.1 | 1693.6 | 1683.6 | 1676.1 | 1666.1 | 1656.3 | 1653.8 |
| 12.5° | 1693.6 | 1678.6 | 1663.6 | 1658.8 | 1651.3 | 1638.8 | 1628.8 | 1616.3 | 1609.0 | 1596.5 | 1594.0 |
| 15° | 1641.3 | 1623.8 | 1611.5 | 1599.0 | 1594.0 | 1581.5 | 1564.1 | 1554.1 | 1539.2 | 1534.2 | 1521.7 |
| 17.5° | 1579.0 | 1561.6 | 1544.2 | 1539.2 | 1531.7 | 1514.3 | 1496.8 | 1484.3 | 1469.5 | 1462.0 | 1454.5 |
| 20° | 1514.3 | 1491.8 | 1474.5 | 1469.5 | 1459.5 | 1444.5 | 1427.2 | 1414.7 | 1402.2 | 1387.2 | 1379.8 |
| 22.5° | 1439.5 | 1414.7 | 1399.7 | 1387.2 | 1384.7 | 1367.4 | 1347.4 | 1337.4 | 1327.5 | 1315.0 | 1305.0 |
| 25° | 1357.4 | 1334.9 | 1317.5 | 1307.5 | 1302.5 | 1287.6 | 1272.7 | 1260.2 | 1245.2 | 1237.9 | 1225.4 |
| 27.5° | 1272.7 | 1257.7 | 1235.4 | 1225.4 | 1217.9 | 1205.4 | 1188.0 | 1180.6 | 1165.6 | 1155.6 | 1148.1 |
| 30° | 1190.5 | 1168.1 | 1155.6 | 1143.2 | 1135.7 | 1123.2 | 1108.3 | 1100.8 | 1088.4 | 1078.4 | 1070.9 |
| 32.5° | 1100.8 | 1085.9 | 1068.4 | 1063.4 | 1053.5 | 1041.1 | 1031.1 | 1018.6 | 1008.6 | 998.8 | 996.3 |
| 35° | 1018.6 | 998.8 | 981.3 | 976.3 | 968.8 | 956.4 | 951.4 | 943.9 | 931.5 | 929.0 | 919.0 |
| 37.5° | 929.0 | 919.0 | 899.1 | 891.6 | 889.1 | 879.1 | 869.2 | 864.3 | 856.8 | 849.3 | 846.8 |
| 40° | 844.3 | 831.8 | 821.8 | 814.5 | 809.5 | 802.0 | 792.0 | 789.5 | 784.5 | 774.5 | 772.1 |
| 42.5° | 764.6 | 752.2 | 742.2 | 739.7 | 732.2 | 724.8 | 719.8 | 712.3 | 709.8 | 707.3 | 702.3 |
| 45° | 687.4 | 679.9 | 670.0 | 667.5 | 665.0 | 655.0 | 650.0 | 645.0 | 640.0 | 637.5 | 632.5 |
| 47.5° | 617.7 | 610.2 | 602.7 | 600.2 | 595.2 | 592.7 | 585.2 | 582.8 | 575.4 | 572.9 | 570.4 |
| 50° | 550.4 | 545.4 | 540.4 | 538.0 | 533.0 | 530.5 | 525.5 | 520.5 | 515.6 | 513.1 | 510.6 |
| 52.5° | 490.7 | 485.7 | 480.7 | 478.2 | 475.7 | 470.7 | 465.7 | 460.7 | 458.2 | 455.7 | 453.2 |
| 55° | 433.4 | 428.4 | 425.9 | 423.4 | 420.9 | 418.4 | 410.9 | 408.4 | 405.9 | 403.4 | 398.4 |
| 57.5° | 381.1 | 376.1 | 371.1 | 371.1 | 368.6 | 366.1 | 361.1 | 356.1 | 356.1 | 351.1 | 346.2 |
| 60° | 333.8 | 328.8 | 323.8 | 321.3 | 318.8 | 313.8 | 311.3 | 308.8 | 306.3 | 303.9 | 298.9 |
| 62.5° | 283.9 | 281.4 | 276.4 | 276.4 | 271.4 | 269.0 | 266.5 | 264.0 | 261.5 | 256.6 | 254.1 |
| 65° | 241.6 | 239.1 | 234.1 | 231.6 | 231.6 | 229.1 | 224.1 | 221.6 | 219.1 | 219.1 | 216.6 |
| 67.5° | 201.8 | 199.3 | 194.3 | 191.8 | 191.8 | 189.3 | 186.8 | 186.8 | 184.3 | 181.8 | 184.3 |
| 70° | 166.8 | 161.9 | 161.9 | 159.4 | 159.4 | 156.9 | 154.5 | 154.5 | 154.5 | 156.9 | 156.9 |
| 72.5° | 132.0 | 129.5 | 127.0 | 127.0 | 127.0 | 127.0 | 124.5 | 124.5 | 127.0 | 129.5 | 129.5 |
| 75° | 104.6 | 102.1 | 102.1 | 102.1 | 99.6 | 99.6 | 102.1 | 102.1 | 104.6 | 104.6 | 104.6 |
| 77.5° | 77.2 | 77.2 | 77.2 | 77.2 | 77.2 | 77.2 | 79.7 | 79.7 | 82.2 | 82.2 | 82.2 |
| 80° | 57.3 | 57.3 | 57.3 | 57.3 | 57.3 | 59.8 | 59.8 | 59.8 | 59.8 | 59.8 | 62.3 |
| 82.5° | 39.8 | 39.8 | 39.8 | 39.8 | 39.8 | 39.8 | 39.8 | 42.3 | 42.3 | 42.3 | 42.3 |
| 85° | 22.5 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 |
| 87.5° | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P584301

CATALOG NUMBER: HC830D010-HM82555840-81WWW

CANDELA DISTRIBUTION (continued):

| | 150° | 155° | 157.5° | 160° | 165° | 170° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 | 1835.6 |
| 2.5° | 1798.2 | 1798.2 | 1798.2 | 1800.7 | 1795.7 | 1795.7 | 1795.7 | 1795.7 |
| 5° | 1755.8 | 1753.4 | 1750.9 | 1753.4 | 1748.4 | 1748.4 | 1745.9 | 1745.9 |
| 7.5° | 1703.6 | 1701.1 | 1698.6 | 1698.6 | 1693.6 | 1693.6 | 1691.1 | 1688.6 |
| 10° | 1646.3 | 1641.3 | 1643.8 | 1638.8 | 1636.3 | 1633.8 | 1631.3 | 1628.8 |
| 12.5° | 1584.0 | 1579.0 | 1576.5 | 1571.5 | 1566.6 | 1564.1 | 1566.6 | 1561.6 |
| 15° | 1516.8 | 1509.3 | 1506.8 | 1501.8 | 1496.8 | 1494.3 | 1494.3 | 1491.8 |
| 17.5° | 1442.0 | 1437.0 | 1434.5 | 1429.5 | 1427.2 | 1422.2 | 1419.7 | 1417.2 |
| 20° | 1372.3 | 1359.9 | 1362.4 | 1357.4 | 1354.9 | 1344.9 | 1344.9 | 1347.4 |
| 22.5° | 1295.1 | 1287.6 | 1282.7 | 1277.7 | 1275.2 | 1270.2 | 1270.2 | 1267.7 |
| 25° | 1217.9 | 1210.4 | 1207.9 | 1202.9 | 1200.4 | 1195.4 | 1193.0 | 1193.0 |
| 27.5° | 1143.2 | 1133.2 | 1133.2 | 1128.2 | 1123.2 | 1120.8 | 1118.3 | 1115.8 |
| 30° | 1063.4 | 1056.0 | 1053.5 | 1053.5 | 1051.1 | 1051.1 | 1043.6 | 1046.1 |
| 32.5° | 988.8 | 983.8 | 981.3 | 976.3 | 976.3 | 973.8 | 973.8 | 966.3 |
| 35° | 914.0 | 906.6 | 909.1 | 904.1 | 901.6 | 899.1 | 901.6 | 899.1 |
| 37.5° | 841.8 | 836.8 | 836.8 | 831.8 | 831.8 | 829.3 | 826.8 | 831.8 |
| 40° | 769.6 | 767.1 | 764.6 | 762.1 | 764.6 | 762.1 | 757.2 | 759.7 |
| 42.5° | 697.3 | 697.3 | 694.9 | 694.9 | 692.4 | 692.4 | 692.4 | 692.4 |
| 45° | 632.5 | 630.2 | 630.2 | 627.7 | 627.7 | 627.7 | 627.7 | 625.2 |
| 47.5° | 567.9 | 565.4 | 565.4 | 565.4 | 562.9 | 562.9 | 560.4 | 562.9 |
| 50° | 505.6 | 505.6 | 503.1 | 503.1 | 505.6 | 503.1 | 500.6 | 500.6 |
| 52.5° | 448.3 | 448.3 | 445.8 | 445.8 | 443.4 | 440.9 | 443.4 | 443.4 |
| 55° | 396.1 | 393.6 | 391.1 | 391.1 | 388.6 | 386.1 | 386.1 | 388.6 |
| 57.5° | 346.2 | 343.7 | 341.2 | 341.2 | 336.2 | 333.8 | 333.8 | 333.8 |
| 60° | 298.9 | 293.9 | 293.9 | 291.4 | 291.4 | 288.9 | 288.9 | 288.9 |
| 62.5° | 254.1 | 251.6 | 251.6 | 251.6 | 251.6 | 249.1 | 249.1 | 249.1 |
| 65° | 216.6 | 216.6 | 216.6 | 219.1 | 219.1 | 221.6 | 221.6 | 221.6 |
| 67.5° | 186.8 | 189.3 | 189.3 | 189.3 | 191.8 | 191.8 | 191.8 | 189.3 |
| 70° | 159.4 | 159.4 | 159.4 | 161.9 | 161.9 | 161.9 | 161.9 | 161.9 |
| 72.5° | 132.0 | 132.0 | 132.0 | 132.0 | 132.0 | 132.0 | 132.0 | 132.0 |
| 75° | 104.6 | 107.1 | 107.1 | 107.1 | 104.6 | 107.1 | 107.1 | 104.6 |
| 77.5° | 82.2 | 82.2 | 82.2 | 82.2 | 82.2 | 82.2 | 82.2 | 82.2 |
| 80° | 62.3 | 62.3 | 62.3 | 62.3 | 62.3 | 62.3 | 62.3 | 62.3 |
| 82.5° | 42.3 | 42.3 | 42.3 | 42.3 | 42.3 | 42.3 | 42.3 | 42.3 |
| 85° | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 |
| 87.5° | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)