

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

Report Number: P130254

Luminaire Tested: **HL612ICAT - HLM6927 - HL6WFL - 456P**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P130254  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33490)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HL612ICAT - HLM6927 - HL6WFL - 456P  
Description: HALO ALLSLOPE 6" 21W, Black Coilex Baffle, White Metal Trim Ring using 55 Degree Optic at a 6-12 Pitch  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1365.0 lumens  
Efficiency: N/A  
Efficacy: 71.5 lumens/watt  
Spacing Criteria (0/90/45): 1.36 / 0.77 / 1.12  
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')  
CIE Type: Direct

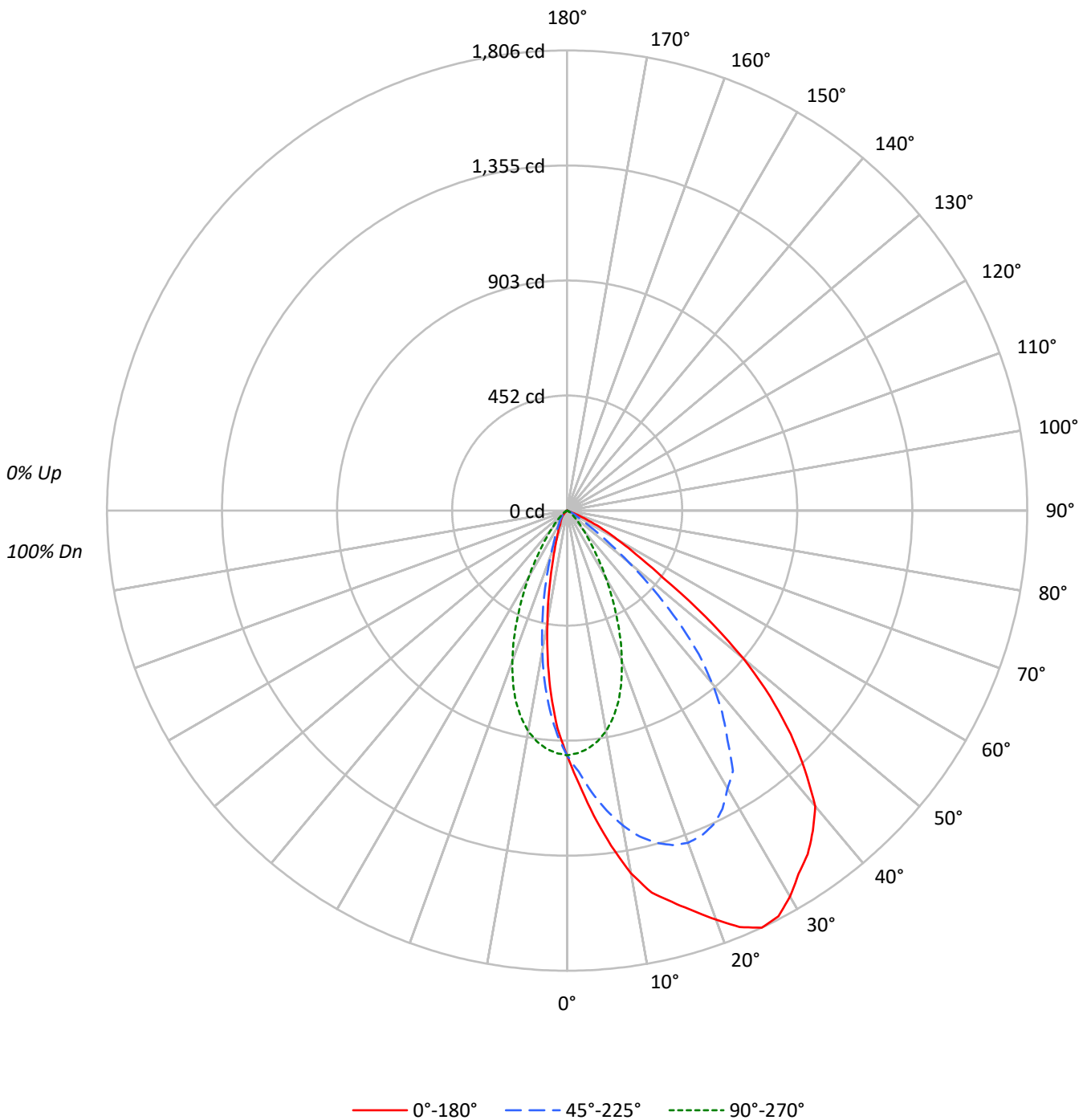
Input Watts (W): 19.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |     |   |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|-----|---|--|---|
| RF  | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |    |    | 20 |    |     |   |  |   |
| RC  | 80  |     |     |     |     | 70  |     |     |     |     | 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 | 50 | 30 | 10  | 0 |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |     |   |  |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    |    | 100 |   |  |   |
| 1   | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 103 | 101 | 99  | 99  | 97  | 96  | 96  | 94  | 93  | 91  |    |    |    |    | 91  |   |  |   |
| 2   | 105 | 100 | 95  | 91  | 103 | 98  | 94  | 90  | 95  | 91  | 88  | 92  | 89  | 86  | 89  | 86  | 84  | 82  |    |    |    |    | 82  |   |  |   |
| 3   | 99  | 91  | 85  | 80  | 97  | 90  | 84  | 80  | 87  | 82  | 78  | 84  | 80  | 77  | 82  | 79  | 76  | 74  |    |    |    |    | 74  |   |  |   |
| 4   | 92  | 83  | 77  | 72  | 90  | 82  | 76  | 71  | 80  | 74  | 70  | 78  | 73  | 69  | 76  | 72  | 69  | 67  |    |    |    |    | 67  |   |  |   |
| 5   | 86  | 76  | 69  | 64  | 85  | 75  | 69  | 64  | 73  | 68  | 63  | 72  | 67  | 63  | 70  | 66  | 62  | 60  |    |    |    |    | 60  |   |  |   |
| 6   | 81  | 70  | 63  | 58  | 79  | 69  | 63  | 58  | 68  | 62  | 57  | 66  | 61  | 57  | 65  | 60  | 57  | 55  |    |    |    |    | 55  |   |  |   |
| 7   | 76  | 65  | 58  | 53  | 74  | 64  | 57  | 53  | 63  | 57  | 52  | 61  | 56  | 52  | 60  | 55  | 52  | 50  |    |    |    |    | 50  |   |  |   |
| 8   | 71  | 60  | 53  | 48  | 70  | 60  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 51  | 47  | 46  |    |    |    |    | 46  |   |  |   |
| 9   | 67  | 56  | 49  | 44  | 66  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 52  | 47  | 44  | 42  |    |    |    |    | 42  |   |  |   |
| 10  | 63  | 52  | 45  | 41  | 62  | 52  | 45  | 41  | 51  | 45  | 41  | 50  | 44  | 41  | 49  | 44  | 40  | 39  |    |    |    |    | 39  |   |  |   |

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

|     | 0°     | 90°   | 180°  |
|-----|--------|-------|-------|
| 0°  | 57351  | 57351 | 57351 |
| 5°  | 70333  | 54921 | 42454 |
| 10° | 83681  | 50899 | 25805 |
| 15° | 91743  | 44772 | 13384 |
| 20° | 98962  | 36374 | 7118  |
| 25° | 105850 | 26874 | 4336  |
| 30° | 104522 | 18011 | 3054  |
| 35° | 101127 | 10739 | 2439  |
| 40° | 96515  | 6270  | 1797  |
| 45° | 82753  | 3715  | 1020  |
| 50° | 63616  | 2313  | 487   |
| 55° | 34717  | 1441  | 113   |
| 60° | 18591  | 752   | 123   |
| 65° | 8304   | 279   | 135   |
| 70° | 1311   | 151   | 81    |
| 75° | 93     | 174   | 93    |
| 80° | 0      | 206   | 0     |
| 85° | 0      | 254   | 0     |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 89.8   | 6.6       |
| 10°-20°   | 238.8  | 17.5      |
| 20°-30°   | 327.7  | 24.0      |
| 30°-40°   | 341.6  | 25.0      |
| 40°-50°   | 252.2  | 18.5      |
| 50°-60°   | 94.5   | 6.9       |
| 60°-70°   | 18.4   | 1.4       |
| 70°-80°   | 1.4    | 0.1       |
| 80°-90°   | 0.7    | 0.1       |
| 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°    | 656.2  | 48.1      |
| 0°-40°    | 997.7  | 73.1      |
| 0°-60°    | 1344.4 | 98.5      |
| 0°-90°    | 1365.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1365.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 961  | 961  | 961 | 961  | 961  |      |
| 5°  | 1201 | 1110 | 938 | 784  | 725  | 122  |
| 15° | 1590 | 1349 | 776 | 348  | 232  | 454  |
| 25° | 1806 | 1360 | 459 | 108  | 74   | 822  |
| 35° | 1646 | 1097 | 175 | 51   | 40   | 1026 |
| 45° | 1241 | 615  | 56  | 24   | 15   | 944  |
| 55° | 460  | 109  | 19  | 5    | 2    | 449  |
| 65° | 92   | 17   | 3   | 2    | 2    | 101  |
| 75° | 1    | 1    | 2   | 1    | 1    | 3    |
| 85° | 0    | 1    | 2   | 1    | 0    | 0    |
| 90° | 0    | 0    | 0   | 0    | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 960.8  | 960.8  | 960.8  | 960.8  | 960.8  | 960.8  | 960.8  | 960.8  | 960.8  | 960.8  | 960.8  |
| 2.5°  | 1073.7 | 1056.9 | 1050.0 | 1063.0 | 1063.0 | 1066.1 | 1060.0 | 1047.8 | 1052.3 | 1024.9 | 1035.5 |
| 5°    | 1201.1 | 1187.4 | 1187.4 | 1186.6 | 1179.8 | 1182.1 | 1171.4 | 1148.5 | 1143.1 | 1109.6 | 1111.9 |
| 7.5°  | 1327.1 | 1312.6 | 1311.0 | 1311.8 | 1293.5 | 1294.2 | 1276.7 | 1243.1 | 1231.7 | 1186.6 | 1178.3 |
| 10°   | 1445.3 | 1428.6 | 1427.8 | 1420.2 | 1404.1 | 1396.5 | 1371.3 | 1329.3 | 1313.3 | 1254.6 | 1232.4 |
| 12.5° | 1536.2 | 1523.2 | 1513.3 | 1517.1 | 1491.9 | 1485.8 | 1449.9 | 1403.4 | 1377.4 | 1309.5 | 1276.7 |
| 15°   | 1590.3 | 1572.8 | 1576.6 | 1572.0 | 1562.1 | 1554.5 | 1520.1 | 1462.9 | 1427.8 | 1349.2 | 1307.2 |
| 17.5° | 1646.8 | 1630.8 | 1620.9 | 1614.0 | 1597.2 | 1593.4 | 1566.7 | 1506.4 | 1463.7 | 1376.7 | 1324.0 |
| 20°   | 1708.6 | 1691.1 | 1681.1 | 1658.3 | 1633.8 | 1620.9 | 1593.4 | 1534.6 | 1483.5 | 1387.3 | 1322.5 |
| 22.5° | 1768.9 | 1744.5 | 1724.6 | 1691.8 | 1660.5 | 1639.9 | 1609.4 | 1547.6 | 1485.8 | 1380.5 | 1305.7 |
| 25°   | 1806.3 | 1780.3 | 1746.8 | 1707.1 | 1672.0 | 1649.1 | 1617.8 | 1546.1 | 1475.9 | 1359.9 | 1272.9 |
| 27.5° | 1795.6 | 1769.7 | 1739.1 | 1699.5 | 1668.2 | 1647.6 | 1609.4 | 1559.8 | 1447.6 | 1320.2 | 1221.0 |
| 30°   | 1749.1 | 1728.5 | 1705.6 | 1674.3 | 1648.3 | 1636.9 | 1578.9 | 1485.8 | 1392.7 | 1259.1 | 1133.2 |
| 32.5° | 1690.3 | 1676.6 | 1662.8 | 1639.9 | 1622.4 | 1605.6 | 1527.0 | 1425.5 | 1320.2 | 1211.1 | 1076.0 |
| 35°   | 1646.0 | 1617.8 | 1614.8 | 1604.1 | 1581.9 | 1535.4 | 1453.0 | 1349.2 | 1236.2 | 1096.6 | 987.5  |
| 37.5° | 1584.2 | 1571.3 | 1565.2 | 1548.4 | 1501.8 | 1449.9 | 1358.3 | 1246.2 | 1138.6 | 998.9  | 884.5  |
| 40°   | 1514.8 | 1498.8 | 1485.0 | 1452.2 | 1400.3 | 1343.1 | 1240.8 | 1128.6 | 1021.8 | 886.0  | 771.5  |
| 42.5° | 1381.2 | 1375.1 | 1346.1 | 1321.0 | 1270.6 | 1207.2 | 1106.5 | 995.9  | 888.3  | 764.6  | 638.7  |
| 45°   | 1240.8 | 1227.9 | 1198.9 | 1175.2 | 1116.4 | 1056.2 | 965.3  | 853.2  | 741.7  | 615.1  | 493.7  |
| 47.5° | 1080.6 | 1072.9 | 1055.4 | 1017.2 | 957.7  | 896.7  | 799.0  | 688.3  | 576.2  | 458.6  | 363.2  |
| 50°   | 902.0  | 896.7  | 873.0  | 834.8  | 776.9  | 717.3  | 614.3  | 510.5  | 410.6  | 315.9  | 240.4  |
| 52.5° | 684.5  | 667.7  | 650.9  | 610.5  | 562.4  | 504.4  | 415.1  | 334.2  | 263.3  | 197.6  | 138.9  |
| 55°   | 460.2  | 447.9  | 428.1  | 405.2  | 367.8  | 319.0  | 257.2  | 207.6  | 162.5  | 109.1  | 76.3   |
| 57.5° | 319.7  | 309.8  | 296.9  | 273.2  | 244.2  | 212.1  | 174.8  | 132.8  | 98.4   | 64.9   | 48.1   |
| 60°   | 227.4  | 224.4  | 215.2  | 196.9  | 173.2  | 145.8  | 109.9  | 80.9   | 56.5   | 40.4   | 32.8   |
| 62.5° | 158.7  | 154.9  | 145.0  | 129.7  | 108.4  | 84.7   | 61.8   | 43.5   | 33.6   | 26.7   | 22.1   |
| 65°   | 92.3   | 88.5   | 81.7   | 69.4   | 54.9   | 42.0   | 32.1   | 24.4   | 20.6   | 16.8   | 14.5   |
| 67.5° | 42.7   | 38.9   | 36.6   | 29.8   | 25.2   | 21.4   | 16.8   | 13.0   | 11.4   | 9.2    | 7.6    |
| 70°   | 13.0   | 12.2   | 12.2   | 10.7   | 9.9    | 8.4    | 6.9    | 5.3    | 5.3    | 4.6    | 3.8    |
| 72.5° | 3.1    | 3.1    | 3.1    | 3.1    | 3.1    | 3.1    | 2.3    | 2.3    | 2.3    | 1.5    | 1.5    |
| 75°   | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    |
| 77.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    |
| 80°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    |
| 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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**CANDELA DISTRIBUTION (continued):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°   | 85°   | 90°   | 95°   | 100°  | 105°  |
|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 0°    | 960.8  | 960.8  | 960.8  | 960.8  | 960.8  | 960.8 | 960.8 | 960.8 | 960.8 | 960.8 | 960.8 |
| 2.5°  | 1009.6 | 1019.5 | 1007.3 | 991.3  | 992.8  | 976.8 | 963.8 | 952.4 | 949.3 | 935.6 | 927.9 |
| 5°    | 1085.9 | 1070.7 | 1048.5 | 1021.8 | 1010.4 | 983.7 | 960.8 | 937.9 | 924.1 | 900.5 | 883.7 |
| 7.5°  | 1142.4 | 1115.7 | 1079.8 | 1040.9 | 1018.0 | 981.4 | 947.8 | 913.4 | 890.6 | 856.2 | 831.0 |
| 10°   | 1185.9 | 1147.0 | 1099.6 | 1048.5 | 1014.9 | 967.6 | 936.3 | 879.1 | 844.8 | 800.5 | 766.2 |
| 12.5° | 1217.9 | 1166.8 | 1107.3 | 1045.5 | 1001.2 | 943.2 | 889.0 | 832.6 | 789.1 | 737.2 | 687.6 |
| 15°   | 1236.2 | 1173.7 | 1101.2 | 1028.7 | 972.2  | 908.1 | 841.7 | 776.1 | 719.6 | 657.8 | 604.4 |
| 17.5° | 1240.1 | 1163.8 | 1079.8 | 1000.4 | 934.8  | 859.3 | 794.4 | 707.4 | 639.5 | 571.6 | 509.0 |
| 20°   | 1227.9 | 1150.0 | 1048.5 | 961.5  | 886.0  | 799.7 | 728.0 | 628.0 | 554.8 | 483.8 | 424.3 |
| 22.5° | 1201.1 | 1103.5 | 1006.5 | 910.4  | 821.9  | 725.0 | 631.9 | 546.4 | 470.8 | 399.1 | 339.6 |
| 25°   | 1154.6 | 1054.6 | 950.1  | 846.3  | 750.9  | 641.8 | 544.1 | 458.6 | 384.6 | 319.7 | 261.7 |
| 27.5° | 1098.9 | 990.5  | 881.4  | 791.4  | 660.9  | 555.5 | 457.9 | 377.7 | 307.5 | 243.4 | 198.4 |
| 30°   | 1030.2 | 919.6  | 802.8  | 676.9  | 566.2  | 468.6 | 380.0 | 301.4 | 238.1 | 188.5 | 151.9 |
| 32.5° | 950.1  | 828.0  | 708.9  | 584.5  | 478.5  | 387.7 | 301.4 | 233.5 | 180.1 | 144.2 | 120.6 |
| 35°   | 857.7  | 731.8  | 605.9  | 489.2  | 393.0  | 303.7 | 232.0 | 174.8 | 140.4 | 115.2 | 97.7  |
| 37.5° | 755.5  | 624.2  | 501.4  | 396.8  | 309.8  | 232.0 | 170.2 | 132.0 | 106.8 | 88.5  | 74.8  |
| 40°   | 635.7  | 511.3  | 402.9  | 306.0  | 221.3  | 162.5 | 122.9 | 98.4  | 81.7  | 70.2  | 61.0  |
| 42.5° | 504.4  | 397.6  | 303.0  | 216.0  | 150.3  | 114.5 | 90.8  | 74.8  | 64.1  | 54.9  | 48.8  |
| 45°   | 378.5  | 286.9  | 206.0  | 145.0  | 106.1  | 82.4  | 66.4  | 55.7  | 48.1  | 42.0  | 38.2  |
| 47.5° | 270.1  | 190.0  | 129.7  | 90.8   | 70.2   | 55.7  | 47.3  | 40.4  | 35.9  | 33.6  | 30.5  |
| 50°   | 168.6  | 113.7  | 75.5   | 57.2   | 47.3   | 39.7  | 35.9  | 32.8  | 29.0  | 25.9  | 23.7  |
| 52.5° | 90.0   | 62.6   | 47.3   | 40.4   | 35.9   | 32.1  | 28.2  | 25.2  | 22.1  | 20.6  | 17.6  |
| 55°   | 51.9   | 43.5   | 35.9   | 32.1   | 28.2   | 24.4  | 21.4  | 19.1  | 17.6  | 15.3  | 13.0  |
| 57.5° | 38.2   | 32.8   | 27.5   | 23.7   | 21.4   | 18.3  | 16.0  | 14.5  | 12.2  | 9.9   | 8.4   |
| 60°   | 26.7   | 22.9   | 20.6   | 18.3   | 15.3   | 13.0  | 11.4  | 9.2   | 7.6   | 6.1   | 5.3   |
| 62.5° | 19.1   | 16.0   | 13.7   | 11.4   | 9.9    | 8.4   | 6.9   | 5.3   | 4.6   | 3.8   | 3.1   |
| 65°   | 11.4   | 9.9    | 8.4    | 6.9    | 6.1    | 4.6   | 3.8   | 3.1   | 2.3   | 2.3   | 1.5   |
| 67.5° | 6.1    | 5.3    | 4.6    | 3.8    | 3.1    | 2.3   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   |
| 70°   | 3.1    | 2.3    | 2.3    | 1.5    | 1.5    | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   |
| 72.5° | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   |
| 75°   | 0.8    | 0.8    | 0.8    | 0.8    | 1.5    | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   |
| 77.5° | 0.8    | 0.8    | 0.8    | 1.5    | 1.5    | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   |
| 80°   | 0.8    | 0.8    | 0.8    | 1.5    | 1.5    | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   |
| 82.5° | 0.8    | 0.8    | 0.8    | 1.5    | 1.5    | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   |
| 85°   | 0.8    | 0.8    | 0.8    | 0.8    | 1.5    | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   |
| 87.5° | 0.8    | 0.8    | 0.8    | 0.8    | 1.5    | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 0.8   |
| 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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**CANDELA DISTRIBUTION (continued):**

|       | 110°  | 115°  | 120°  | 125°  | 130°  | 135°  | 140°  | 145°  | 150°  | 155°  | 160°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 960.8 | 960.8 | 960.8 | 960.8 | 960.8 | 960.8 | 960.8 | 960.8 | 960.8 | 960.8 | 960.8 |
| 2.5°  | 924.9 | 914.2 | 911.9 | 902.0 | 903.5 | 880.6 | 877.6 | 867.7 | 870.0 | 868.4 | 869.2 |
| 5°    | 855.5 | 853.2 | 837.9 | 820.3 | 812.7 | 784.5 | 774.6 | 760.8 | 754.0 | 747.1 | 745.6 |
| 7.5°  | 805.1 | 779.9 | 751.7 | 728.8 | 712.8 | 677.6 | 656.3 | 637.2 | 627.3 | 618.1 | 611.3 |
| 10°   | 729.5 | 694.4 | 657.8 | 630.3 | 611.3 | 562.4 | 538.0 | 510.5 | 499.1 | 481.5 | 475.4 |
| 12.5° | 644.1 | 599.8 | 561.7 | 522.0 | 483.8 | 449.5 | 428.1 | 405.2 | 383.1 | 369.3 | 355.6 |
| 15°   | 547.9 | 500.6 | 458.6 | 419.0 | 388.4 | 348.0 | 324.3 | 298.4 | 277.8 | 262.5 | 249.5 |
| 17.5° | 455.6 | 406.0 | 366.3 | 328.1 | 288.5 | 258.7 | 233.5 | 209.1 | 196.9 | 183.1 | 176.3 |
| 20°   | 367.1 | 320.5 | 274.7 | 235.0 | 211.4 | 186.2 | 164.1 | 150.3 | 143.5 | 135.1 | 130.5 |
| 22.5° | 288.5 | 241.1 | 206.0 | 174.0 | 153.4 | 137.4 | 127.4 | 116.8 | 111.4 | 105.3 | 101.5 |
| 25°   | 216.7 | 179.3 | 152.6 | 135.8 | 122.9 | 108.4 | 100.0 | 91.6  | 86.2  | 82.4  | 79.4  |
| 27.5° | 163.3 | 138.9 | 119.8 | 106.8 | 96.9  | 86.2  | 79.4  | 73.3  | 69.4  | 66.4  | 63.3  |
| 30°   | 129.7 | 111.4 | 96.2  | 87.0  | 78.6  | 70.2  | 64.9  | 59.5  | 57.2  | 55.7  | 54.2  |
| 32.5° | 103.8 | 90.0  | 77.8  | 71.0  | 64.1  | 58.0  | 54.9  | 51.9  | 50.4  | 48.8  | 48.1  |
| 35°   | 83.2  | 72.5  | 63.3  | 58.0  | 54.9  | 51.1  | 48.1  | 45.8  | 44.3  | 43.5  | 42.0  |
| 37.5° | 66.4  | 58.8  | 54.2  | 50.4  | 48.1  | 44.3  | 42.0  | 39.7  | 38.2  | 37.4  | 36.6  |
| 40°   | 54.2  | 49.6  | 45.8  | 42.7  | 39.7  | 37.4  | 34.3  | 32.8  | 32.1  | 30.5  | 29.8  |
| 42.5° | 43.5  | 39.7  | 36.6  | 34.3  | 32.8  | 30.5  | 28.2  | 26.7  | 25.2  | 24.4  | 22.9  |
| 45°   | 35.1  | 32.1  | 29.0  | 27.5  | 25.9  | 23.7  | 21.4  | 19.1  | 19.1  | 17.6  | 16.8  |
| 47.5° | 28.2  | 25.2  | 22.9  | 21.4  | 19.1  | 17.6  | 16.0  | 14.5  | 13.7  | 13.0  | 12.2  |
| 50°   | 20.6  | 19.1  | 16.8  | 16.0  | 14.5  | 12.2  | 11.4  | 9.9   | 9.2   | 8.4   | 7.6   |
| 52.5° | 16.0  | 14.5  | 12.2  | 10.7  | 9.9   | 8.4   | 7.6   | 6.1   | 5.3   | 4.6   | 4.6   |
| 55°   | 11.4  | 9.9   | 8.4   | 6.9   | 6.1   | 4.6   | 3.8   | 3.1   | 3.1   | 2.3   | 2.3   |
| 57.5° | 7.6   | 6.1   | 5.3   | 3.8   | 3.1   | 3.1   | 2.3   | 1.5   | 1.5   | 1.5   | 0.8   |
| 60°   | 4.6   | 3.8   | 3.1   | 2.3   | 1.5   | 1.5   | 1.5   | 1.5   | 0.8   | 0.8   | 1.5   |
| 62.5° | 2.3   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   |
| 65°   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   |
| 67.5° | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 0.8   | 0.8   | 1.5   | 0.8   |
| 70°   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   |
| 72.5° | 1.5   | 1.5   | 1.5   | 1.5   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   |
| 75°   | 1.5   | 1.5   | 1.5   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   |
| 77.5° | 1.5   | 1.5   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   |
| 80°   | 1.5   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   |
| 82.5° | 1.5   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.0   |
| 85°   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.0   | 0.0   |
| 87.5° | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.0   | 0.0   |
| 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: P130254

CATALOG NUMBER: HL612ICAT - HLM6927 - HL6WFL - 456P

**CANDELA DISTRIBUTION (continued):**

|       | 165°  | 170°  | 175°  | 180°  |
|-------|-------|-------|-------|-------|
| 0°    | 960.8 | 960.8 | 960.8 | 960.8 |
| 2.5°  | 846.3 | 843.2 | 853.2 | 856.2 |
| 5°    | 739.5 | 716.6 | 726.5 | 725.0 |
| 7.5°  | 588.4 | 574.6 | 586.8 | 583.8 |
| 10°   | 452.5 | 439.6 | 447.9 | 445.7 |
| 12.5° | 337.3 | 327.4 | 328.1 | 326.6 |
| 15°   | 236.6 | 231.2 | 228.2 | 232.0 |
| 17.5° | 164.1 | 160.3 | 159.5 | 162.5 |
| 20°   | 123.6 | 119.8 | 119.8 | 122.9 |
| 22.5° | 96.9  | 93.1  | 93.1  | 93.9  |
| 25°   | 74.8  | 74.0  | 72.5  | 74.0  |
| 27.5° | 61.0  | 58.8  | 59.5  | 58.8  |
| 30°   | 51.9  | 50.4  | 51.1  | 51.1  |
| 32.5° | 45.8  | 45.0  | 45.0  | 45.0  |
| 35°   | 40.4  | 39.7  | 39.7  | 39.7  |
| 37.5° | 35.1  | 34.3  | 34.3  | 34.3  |
| 40°   | 28.2  | 27.5  | 27.5  | 28.2  |
| 42.5° | 21.4  | 21.4  | 21.4  | 21.4  |
| 45°   | 16.0  | 15.3  | 15.3  | 15.3  |
| 47.5° | 11.4  | 10.7  | 10.7  | 10.7  |
| 50°   | 6.9   | 6.1   | 6.1   | 6.9   |
| 52.5° | 3.8   | 3.1   | 3.1   | 3.8   |
| 55°   | 1.5   | 1.5   | 1.5   | 1.5   |
| 57.5° | 0.8   | 0.8   | 0.8   | 0.8   |
| 60°   | 0.8   | 0.8   | 0.8   | 1.5   |
| 62.5° | 0.8   | 0.8   | 1.5   | 1.5   |
| 65°   | 0.8   | 0.8   | 1.5   | 1.5   |
| 67.5° | 1.5   | 0.8   | 0.8   | 0.8   |
| 70°   | 0.8   | 0.8   | 0.8   | 0.8   |
| 72.5° | 0.8   | 0.8   | 0.8   | 0.8   |
| 75°   | 0.8   | 0.8   | 0.8   | 0.8   |
| 77.5° | 0.0   | 0.0   | 0.0   | 0.8   |
| 80°   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.0   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)