

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: P130179

Luminaire Tested: **HL612ICAT - HLM6935 - HL6FL - 456P**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P130179  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33453)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HL612ICAT - HLM6935 - HL6FL - 456P  
Description: HALO ALLSLOPE 6" 21W, Black Coilex Baffle, White Metal Trim Ring  
using 40 Degree Optic at a 6-12 Pitch  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1555.4 lumens  
Efficiency: N/A  
Efficacy: 81.4 lumens/watt  
Spacing Criteria (0/90/45): 1.62 / 0.66 / 1.08  
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')  
CIE Type: Direct

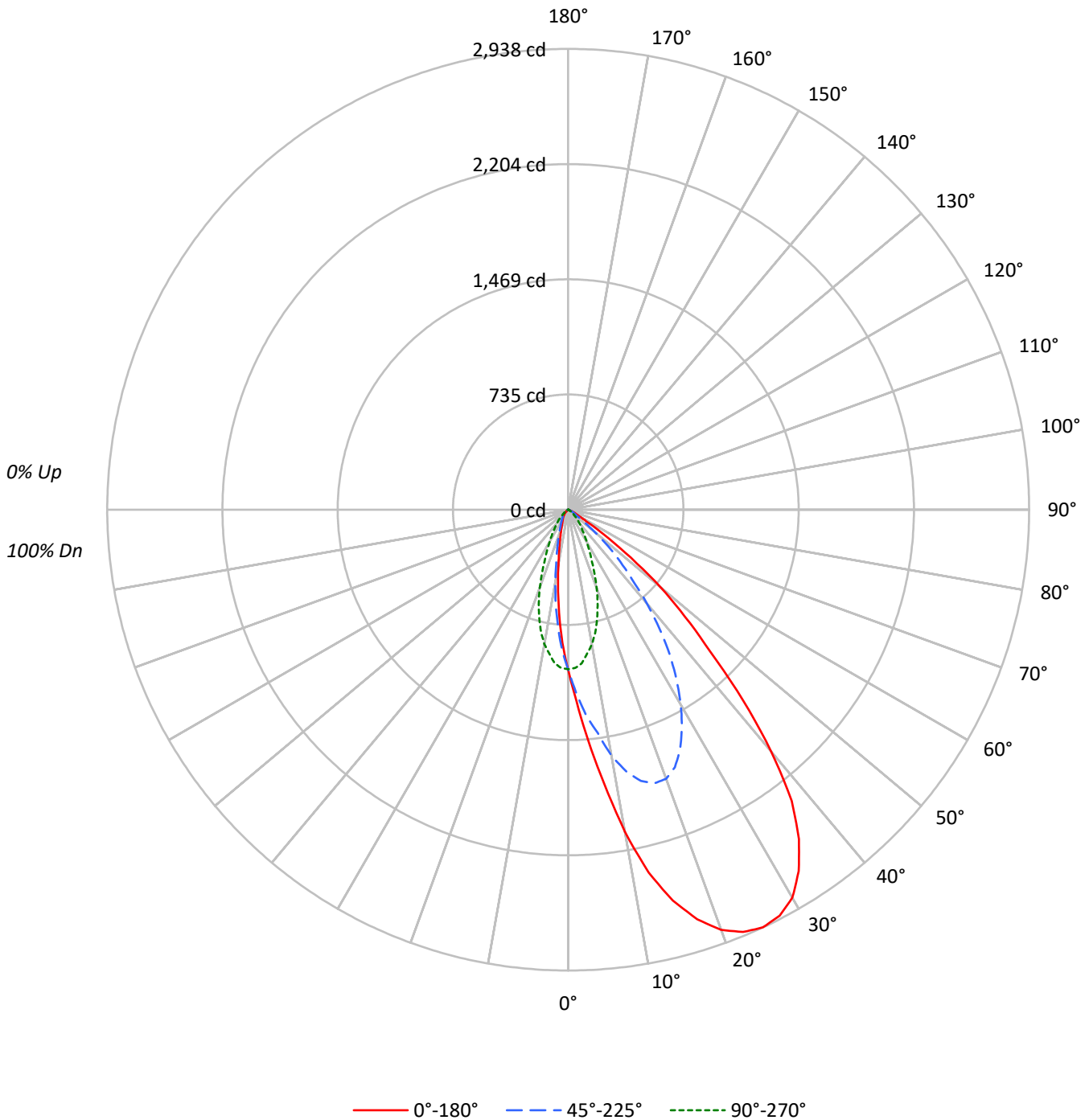
Input Watts (W): 19.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 113 | 110 | 107 | 104 | 110 | 107 | 105 | 103 | 103 | 101 | 99  | 100 | 98  | 96  | 96  | 95  | 94  | 92  |    |    |    |    | 92  |   |  |   |
| 2   | 106 | 100 | 96  | 92  | 104 | 99  | 95  | 91  | 95  | 92  | 89  | 92  | 90  | 87  | 90  | 87  | 85  | 83  |    |    |    |    | 83  |   |  |   |
| 3   | 100 | 92  | 87  | 82  | 97  | 91  | 86  | 81  | 88  | 84  | 80  | 86  | 82  | 79  | 83  | 80  | 77  | 76  |    |    |    |    | 76  |   |  |   |
| 4   | 93  | 85  | 78  | 74  | 92  | 84  | 78  | 73  | 81  | 76  | 72  | 79  | 75  | 71  | 77  | 74  | 70  | 69  |    |    |    |    | 69  |   |  |   |
| 5   | 88  | 78  | 71  | 66  | 86  | 77  | 71  | 66  | 75  | 70  | 66  | 73  | 69  | 65  | 72  | 68  | 64  | 63  |    |    |    |    | 63  |   |  |   |
| 6   | 82  | 72  | 65  | 60  | 81  | 71  | 65  | 60  | 70  | 64  | 60  | 68  | 63  | 59  | 67  | 62  | 59  | 57  |    |    |    |    | 57  |   |  |   |
| 7   | 77  | 67  | 60  | 55  | 76  | 66  | 60  | 55  | 65  | 59  | 55  | 63  | 58  | 54  | 62  | 58  | 54  | 52  |    |    |    |    | 52  |   |  |   |
| 8   | 73  | 62  | 55  | 51  | 72  | 61  | 55  | 50  | 60  | 54  | 50  | 59  | 54  | 50  | 58  | 53  | 50  | 48  |    |    |    |    | 48  |   |  |   |
| 9   | 69  | 58  | 51  | 47  | 68  | 57  | 51  | 46  | 56  | 50  | 46  | 55  | 50  | 46  | 54  | 49  | 46  | 44  |    |    |    |    | 44  |   |  |   |
| 10  | 65  | 54  | 47  | 43  | 64  | 54  | 47  | 43  | 53  | 47  | 43  | 52  | 46  | 43  | 51  | 46  | 43  | 41  |    |    |    |    | 41  |   |  |   |

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

|     | 0°     | 90°   | 180°  |
|-----|--------|-------|-------|
| 0°  | 60735  | 60735 | 60735 |
| 5°  | 86642  | 57574 | 38589 |
| 10° | 120719 | 50412 | 20450 |
| 15° | 148820 | 41057 | 11555 |
| 20° | 165089 | 30634 | 7228  |
| 25° | 172180 | 20545 | 5098  |
| 30° | 170745 | 14019 | 4046  |
| 35° | 157465 | 9664  | 3293  |
| 40° | 128200 | 6996  | 2351  |
| 45° | 85321  | 4515  | 1467  |
| 50° | 54158  | 2913  | 684   |
| 55° | 21010  | 1924  | 136   |
| 60° | 6107   | 1153  | 74    |
| 65° | 3320   | 396   | 162   |
| 70° | 1503   | 182   | 182   |
| 75° | 208    | 208   | 104   |
| 80° | 0      | 247   | 123   |
| 85° | 0      | 305   | 0     |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 98.1   | 6.3       |
| 10°-20°   | 293.8  | 18.9      |
| 20°-30°   | 427.8  | 27.5      |
| 30°-40°   | 413.8  | 26.6      |
| 40°-50°   | 240.7  | 15.5      |
| 50°-60°   | 65.9   | 4.2       |
| 60°-70°   | 12.3   | 0.8       |
| 70°-80°   | 2.1    | 0.1       |
| 80°-90°   | 0.9    | 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°    | 819.7  | 52.7      |
| 0°-40°    | 1233.5 | 79.3      |
| 0°-60°    | 1540.1 | 99.0      |
| 0°-90°    | 1555.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1555.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 1018 | 1018 | 1018 | 1018 | 1018 |      |
| 5°  | 1480 | 1315 | 983  | 746  | 659  | 159  |
| 15° | 2580 | 1791 | 712  | 273  | 200  | 730  |
| 25° | 2938 | 1687 | 351  | 116  | 87   | 1345 |
| 35° | 2563 | 1128 | 157  | 66   | 54   | 1572 |
| 45° | 1279 | 469  | 68   | 31   | 22   | 1019 |
| 55° | 278  | 66   | 26   | 8    | 2    | 294  |
| 65° | 37   | 21   | 4    | 2    | 2    | 39   |
| 75° | 2    | 1    | 2    | 1    | 1    | 4    |
| 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°    | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 |
| 2.5°  | 1223.1 | 1216.0 | 1207.2 | 1218.7 | 1199.3 | 1202.0 | 1187.0 | 1194.1 | 1160.7 | 1166.8 | 1155.4 |
| 5°    | 1479.6 | 1470.8 | 1460.3 | 1448.0 | 1428.7 | 1424.3 | 1390.0 | 1387.4 | 1336.4 | 1315.3 | 1295.1 |
| 7.5°  | 1759.9 | 1755.5 | 1735.3 | 1713.3 | 1679.9 | 1649.2 | 1595.6 | 1580.7 | 1503.3 | 1433.9 | 1412.0 |
| 10°   | 2085.0 | 2079.7 | 2034.0 | 2023.5 | 1969.0 | 1911.9 | 1816.1 | 1766.1 | 1658.0 | 1593.0 | 1516.5 |
| 12.5° | 2368.8 | 2353.9 | 2319.6 | 2300.3 | 2222.9 | 2156.2 | 2041.1 | 1955.8 | 1808.2 | 1708.9 | 1589.4 |
| 15°   | 2579.7 | 2571.8 | 2544.5 | 2518.2 | 2442.6 | 2365.3 | 2222.9 | 2121.0 | 1927.7 | 1790.7 | 1638.7 |
| 17.5° | 2737.8 | 2724.6 | 2702.7 | 2672.8 | 2596.4 | 2498.8 | 2340.7 | 2227.3 | 2006.8 | 1828.4 | 1649.2 |
| 20°   | 2850.3 | 2837.1 | 2870.5 | 2779.1 | 2691.3 | 2594.6 | 2414.5 | 2280.1 | 2031.4 | 1825.8 | 1624.6 |
| 22.5° | 2913.6 | 2849.4 | 2875.8 | 2841.5 | 2744.0 | 2636.8 | 2443.5 | 2280.9 | 2003.3 | 1776.6 | 1565.7 |
| 25°   | 2938.2 | 2875.8 | 2896.9 | 2855.6 | 2751.0 | 2628.9 | 2416.2 | 2225.6 | 1924.2 | 1687.0 | 1477.9 |
| 27.5° | 2917.9 | 2906.5 | 2871.4 | 2823.9 | 2711.5 | 2569.1 | 2382.9 | 2111.4 | 1800.3 | 1569.2 | 1366.3 |
| 30°   | 2857.3 | 2838.0 | 2800.2 | 2749.2 | 2627.1 | 2454.9 | 2185.2 | 1946.2 | 1650.1 | 1435.7 | 1238.0 |
| 32.5° | 2733.4 | 2723.8 | 2686.9 | 2616.6 | 2473.4 | 2271.3 | 1991.9 | 1754.6 | 1485.8 | 1284.6 | 1095.7 |
| 35°   | 2563.0 | 2558.6 | 2511.1 | 2419.8 | 2240.5 | 2023.5 | 1749.4 | 1556.9 | 1311.8 | 1128.2 | 941.9  |
| 37.5° | 2339.8 | 2319.6 | 2259.0 | 2150.0 | 1955.0 | 1752.9 | 1521.8 | 1354.0 | 1137.8 | 955.1  | 790.8  |
| 40°   | 2012.1 | 2014.7 | 1942.7 | 1817.0 | 1651.0 | 1493.7 | 1295.1 | 1143.1 | 940.1  | 778.5  | 627.3  |
| 42.5° | 1652.7 | 1637.8 | 1583.3 | 1480.5 | 1361.9 | 1208.1 | 1026.2 | 898.8  | 726.6  | 601.9  | 481.5  |
| 45°   | 1279.3 | 1252.1 | 1218.7 | 1144.0 | 1052.6 | 949.8  | 807.5  | 707.3  | 572.0  | 469.2  | 361.1  |
| 47.5° | 1009.6 | 989.3  | 968.3  | 904.1  | 834.7  | 738.1  | 630.0  | 547.4  | 434.9  | 343.5  | 260.1  |
| 50°   | 767.9  | 760.9  | 742.4  | 693.2  | 621.2  | 549.1  | 463.0  | 380.4  | 286.4  | 217.0  | 169.6  |
| 52.5° | 502.6  | 533.3  | 482.4  | 458.6  | 395.4  | 334.8  | 270.6  | 206.5  | 151.1  | 117.7  | 94.9   |
| 55°   | 278.5  | 275.0  | 267.1  | 232.0  | 194.2  | 159.0  | 120.4  | 96.6   | 76.4   | 65.9   | 58.0   |
| 57.5° | 136.2  | 137.1  | 127.4  | 109.0  | 88.7   | 77.3   | 65.9   | 59.7   | 52.7   | 48.3   | 44.8   |
| 60°   | 74.7   | 74.7   | 72.0   | 65.9   | 58.9   | 55.4   | 49.2   | 45.7   | 41.3   | 38.7   | 35.1   |
| 62.5° | 51.8   | 51.0   | 50.1   | 47.4   | 44.8   | 41.3   | 37.8   | 35.1   | 31.6   | 29.9   | 26.4   |
| 65°   | 36.9   | 36.9   | 36.0   | 34.3   | 32.5   | 29.9   | 27.2   | 25.5   | 22.8   | 21.1   | 19.3   |
| 67.5° | 25.5   | 24.6   | 24.6   | 24.6   | 22.0   | 21.1   | 18.5   | 17.6   | 14.9   | 13.2   | 12.3   |
| 70°   | 14.9   | 14.9   | 14.1   | 14.1   | 13.2   | 11.4   | 10.5   | 9.7    | 7.9    | 7.0    | 6.2    |
| 72.5° | 6.2    | 6.2    | 6.2    | 6.2    | 5.3    | 5.3    | 4.4    | 3.5    | 3.5    | 2.6    | 2.6    |
| 75°   | 1.8    | 1.8    | 1.8    | 1.8    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    |
| 77.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    |
| 80°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    |
| 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°    | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 |
| 2.5°  | 1144.9 | 1115.0 | 1105.3 | 1068.4 | 1067.5 | 1047.3 | 1023.6 | 1010.4 | 988.5  | 970.0  | 960.3  |
| 5°    | 1269.6 | 1211.6 | 1181.8 | 1121.1 | 1100.9 | 1059.6 | 1015.7 | 983.2  | 943.7  | 907.6  | 880.4  |
| 7.5°  | 1366.3 | 1293.4 | 1235.4 | 1151.9 | 1085.1 | 1049.1 | 985.8  | 925.2  | 882.1  | 832.1  | 796.0  |
| 10°   | 1440.1 | 1344.3 | 1262.6 | 1157.2 | 1095.7 | 1016.6 | 935.7  | 870.7  | 807.5  | 744.2  | 698.5  |
| 12.5° | 1490.2 | 1368.9 | 1265.2 | 1139.6 | 1059.6 | 964.7  | 871.6  | 798.7  | 720.5  | 652.8  | 600.1  |
| 15°   | 1506.9 | 1365.4 | 1241.5 | 1098.3 | 1002.5 | 898.0  | 796.9  | 711.7  | 630.0  | 559.7  | 499.1  |
| 17.5° | 1493.7 | 1332.9 | 1189.7 | 1041.2 | 928.7  | 815.4  | 710.8  | 623.0  | 538.6  | 462.2  | 400.7  |
| 20°   | 1454.1 | 1275.8 | 1119.4 | 961.2  | 847.0  | 726.6  | 620.3  | 528.9  | 444.6  | 370.8  | 319.8  |
| 22.5° | 1384.7 | 1196.7 | 1034.2 | 869.8  | 751.2  | 632.6  | 525.4  | 434.9  | 360.2  | 304.0  | 261.8  |
| 25°   | 1289.0 | 1093.9 | 928.7  | 765.3  | 651.9  | 533.3  | 433.2  | 350.6  | 290.8  | 248.7  | 217.0  |
| 27.5° | 1177.4 | 985.8  | 821.5  | 665.1  | 555.3  | 449.0  | 342.7  | 289.1  | 240.7  | 203.0  | 176.6  |
| 30°   | 1046.5 | 858.4  | 708.2  | 564.1  | 458.6  | 355.0  | 282.9  | 234.6  | 199.5  | 167.8  | 148.5  |
| 32.5° | 911.1  | 740.7  | 601.0  | 467.4  | 366.4  | 286.4  | 232.8  | 194.2  | 163.4  | 140.6  | 123.9  |
| 35°   | 773.2  | 621.2  | 487.6  | 370.8  | 290.8  | 234.6  | 188.9  | 157.3  | 136.2  | 116.9  | 103.7  |
| 37.5° | 637.9  | 499.9  | 384.0  | 285.6  | 230.2  | 187.1  | 153.8  | 130.9  | 113.3  | 99.3   | 88.7   |
| 40°   | 492.0  | 376.1  | 289.9  | 222.3  | 181.9  | 150.2  | 127.4  | 109.8  | 94.9   | 83.5   | 74.7   |
| 42.5° | 370.8  | 284.7  | 225.8  | 179.2  | 146.7  | 123.9  | 104.6  | 90.5   | 77.3   | 67.7   | 61.5   |
| 45°   | 276.8  | 218.8  | 174.8  | 139.7  | 115.1  | 96.6   | 80.0   | 67.7   | 58.9   | 52.7   | 47.4   |
| 47.5° | 202.1  | 160.8  | 129.2  | 99.3   | 81.7   | 68.5   | 58.0   | 51.0   | 46.6   | 42.2   | 38.7   |
| 50°   | 129.2  | 100.2  | 82.6   | 65.0   | 55.4   | 50.1   | 44.8   | 41.3   | 37.8   | 34.3   | 30.8   |
| 52.5° | 73.8   | 61.5   | 53.6   | 47.4   | 43.1   | 40.4   | 36.0   | 32.5   | 29.0   | 26.4   | 23.7   |
| 55°   | 51.0   | 46.6   | 43.1   | 37.8   | 35.1   | 30.8   | 28.1   | 25.5   | 22.8   | 20.2   | 18.5   |
| 57.5° | 41.3   | 37.8   | 33.4   | 29.9   | 26.4   | 24.6   | 22.8   | 19.3   | 17.6   | 14.9   | 13.2   |
| 60°   | 31.6   | 29.0   | 26.4   | 22.8   | 21.1   | 18.5   | 16.7   | 14.1   | 12.3   | 9.7    | 8.8    |
| 62.5° | 23.7   | 22.0   | 19.3   | 16.7   | 14.9   | 12.3   | 10.5   | 8.8    | 7.9    | 6.2    | 4.4    |
| 65°   | 17.6   | 14.9   | 13.2   | 10.5   | 9.7    | 7.9    | 6.2    | 4.4    | 4.4    | 3.5    | 2.6    |
| 67.5° | 10.5   | 8.8    | 7.9    | 6.2    | 5.3    | 4.4    | 3.5    | 2.6    | 1.8    | 1.8    | 1.8    |
| 70°   | 5.3    | 4.4    | 3.5    | 2.6    | 2.6    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    |
| 72.5° | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    |
| 75°   | 0.9    | 0.9    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    |
| 77.5° | 0.9    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    |
| 80°   | 0.9    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    |
| 82.5° | 0.9    | 0.9    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    |
| 85°   | 0.9    | 0.9    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    |
| 87.5° | 0.9    | 0.9    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    |
| 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°    | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 | 1017.5 |
| 2.5°  | 950.7  | 929.6  | 925.2  | 903.2  | 891.8  | 892.7  | 868.1  | 869.0  | 856.7  | 851.4  | 841.7  |
| 5°    | 859.3  | 828.6  | 788.1  | 779.3  | 752.1  | 746.0  | 713.5  | 702.0  | 682.7  | 669.5  | 663.4  |
| 7.5°  | 758.3  | 718.7  | 689.7  | 649.3  | 619.4  | 604.5  | 577.3  | 563.2  | 533.3  | 533.3  | 506.1  |
| 10°   | 649.3  | 604.5  | 571.1  | 527.2  | 492.0  | 470.1  | 442.8  | 417.4  | 398.9  | 378.7  | 369.9  |
| 12.5° | 544.8  | 489.4  | 455.1  | 410.3  | 377.8  | 352.3  | 331.2  | 311.0  | 292.6  | 282.0  | 270.6  |
| 15°   | 442.8  | 388.4  | 356.7  | 319.8  | 292.6  | 273.3  | 251.3  | 238.1  | 224.9  | 216.1  | 211.8  |
| 17.5° | 357.6  | 309.3  | 280.3  | 252.2  | 228.4  | 217.0  | 198.6  | 187.1  | 175.7  | 168.7  | 159.9  |
| 20°   | 283.8  | 248.7  | 225.8  | 202.1  | 183.6  | 171.3  | 159.0  | 148.5  | 142.3  | 135.3  | 131.8  |
| 22.5° | 230.2  | 203.8  | 183.6  | 161.7  | 149.4  | 141.5  | 129.2  | 122.1  | 116.0  | 110.7  | 108.1  |
| 25°   | 188.0  | 165.2  | 150.2  | 135.3  | 123.0  | 116.0  | 109.8  | 101.9  | 97.5   | 93.1   | 90.5   |
| 27.5° | 155.5  | 138.8  | 125.6  | 112.5  | 103.7  | 98.4   | 91.4   | 87.0   | 83.5   | 80.8   | 78.2   |
| 30°   | 130.9  | 116.0  | 106.3  | 96.6   | 88.7   | 85.2   | 80.0   | 76.4   | 72.9   | 71.2   | 69.4   |
| 32.5° | 109.8  | 99.3   | 91.4   | 83.5   | 77.3   | 74.7   | 71.2   | 68.5   | 65.9   | 64.1   | 62.4   |
| 35°   | 93.1   | 83.5   | 79.1   | 73.8   | 68.5   | 65.9   | 62.4   | 60.6   | 58.9   | 56.2   | 55.4   |
| 37.5° | 80.0   | 73.8   | 67.7   | 64.1   | 59.7   | 57.1   | 53.6   | 51.0   | 49.2   | 48.3   | 46.6   |
| 40°   | 67.7   | 62.4   | 58.0   | 53.6   | 49.2   | 47.4   | 43.9   | 42.2   | 41.3   | 39.5   | 37.8   |
| 42.5° | 54.5   | 49.2   | 47.4   | 43.9   | 40.4   | 38.7   | 36.0   | 34.3   | 33.4   | 31.6   | 30.8   |
| 45°   | 43.9   | 40.4   | 38.7   | 35.1   | 32.5   | 30.8   | 28.1   | 26.4   | 25.5   | 23.7   | 22.8   |
| 47.5° | 36.0   | 32.5   | 30.8   | 27.2   | 25.5   | 24.6   | 22.0   | 21.1   | 19.3   | 18.5   | 16.7   |
| 50°   | 27.2   | 25.5   | 23.7   | 21.1   | 20.2   | 18.5   | 16.7   | 14.9   | 13.2   | 12.3   | 11.4   |
| 52.5° | 22.0   | 20.2   | 18.5   | 15.8   | 14.1   | 12.3   | 10.5   | 9.7    | 8.8    | 7.0    | 6.2    |
| 55°   | 16.7   | 14.9   | 12.3   | 10.5   | 9.7    | 7.9    | 6.2    | 5.3    | 4.4    | 3.5    | 2.6    |
| 57.5° | 11.4   | 9.7    | 7.9    | 6.2    | 5.3    | 4.4    | 2.6    | 2.6    | 1.8    | 1.8    | 1.8    |
| 60°   | 7.0    | 5.3    | 4.4    | 3.5    | 2.6    | 1.8    | 1.8    | 1.8    | 1.8    | 0.9    | 0.9    |
| 62.5° | 3.5    | 2.6    | 2.6    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    |
| 65°   | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    |
| 67.5° | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    |
| 70°   | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 0.9    |
| 72.5° | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    |
| 75°   | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    |
| 77.5° | 1.8    | 1.8    | 1.8    | 1.8    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    |
| 80°   | 1.8    | 1.8    | 1.8    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    |
| 82.5° | 1.8    | 1.8    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    |
| 85°   | 1.8    | 1.8    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.0    |
| 87.5° | 1.8    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 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: P130179

CATALOG NUMBER: HL612ICAT - HLM6935 - HL6FL - 456P

**CANDELA DISTRIBUTION (continued):**

|       | 165°   | 170°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|
| 0°    | 1017.5 | 1017.5 | 1017.5 | 1017.5 |
| 2.5°  | 842.6  | 835.6  | 823.3  | 850.5  |
| 5°    | 660.7  | 644.9  | 643.2  | 659.0  |
| 7.5°  | 499.9  | 484.1  | 481.5  | 492.9  |
| 10°   | 364.6  | 353.2  | 351.5  | 353.2  |
| 12.5° | 264.5  | 261.8  | 257.4  | 260.1  |
| 15°   | 204.7  | 197.7  | 197.7  | 200.3  |
| 17.5° | 157.3  | 154.6  | 152.0  | 153.8  |
| 20°   | 127.4  | 124.8  | 122.1  | 124.8  |
| 22.5° | 104.6  | 102.8  | 101.0  | 102.8  |
| 25°   | 88.7   | 87.0   | 85.2   | 87.0   |
| 27.5° | 77.3   | 75.6   | 74.7   | 75.6   |
| 30°   | 68.5   | 66.8   | 66.8   | 67.7   |
| 32.5° | 61.5   | 60.6   | 59.7   | 60.6   |
| 35°   | 54.5   | 53.6   | 52.7   | 53.6   |
| 37.5° | 45.7   | 44.8   | 43.9   | 44.8   |
| 40°   | 37.8   | 36.9   | 36.0   | 36.9   |
| 42.5° | 29.9   | 28.1   | 28.1   | 29.0   |
| 45°   | 22.0   | 21.1   | 21.1   | 22.0   |
| 47.5° | 15.8   | 15.8   | 15.8   | 15.8   |
| 50°   | 10.5   | 9.7    | 9.7    | 9.7    |
| 52.5° | 6.2    | 5.3    | 5.3    | 5.3    |
| 55°   | 2.6    | 1.8    | 1.8    | 1.8    |
| 57.5° | 0.9    | 0.9    | 0.9    | 0.9    |
| 60°   | 0.9    | 0.9    | 0.9    | 0.9    |
| 62.5° | 1.8    | 1.8    | 0.9    | 1.8    |
| 65°   | 1.8    | 1.8    | 1.8    | 1.8    |
| 67.5° | 1.8    | 1.8    | 1.8    | 1.8    |
| 70°   | 1.8    | 1.8    | 0.9    | 1.8    |
| 72.5° | 0.9    | 0.9    | 0.9    | 0.9    |
| 75°   | 0.9    | 0.9    | 0.9    | 0.9    |
| 77.5° | 0.9    | 0.9    | 0.9    | 0.9    |
| 80°   | 0.9    | 0.9    | 0.0    | 0.9    |
| 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)