

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: P130213

Luminaire Tested: **HL612ICAT - HLM6940 - HL6NFL - 456W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130213
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33471)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL612ICAT - HLM6940 - HL6NFL - 456W
Description: HALO ALLSLOPE 6" 21W, White Coilex Baffle, White Metal Trim Ring using 25 Degree Optic at a 6-12 Pitch
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1680.6 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.91 / 0.72 / 1.18
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

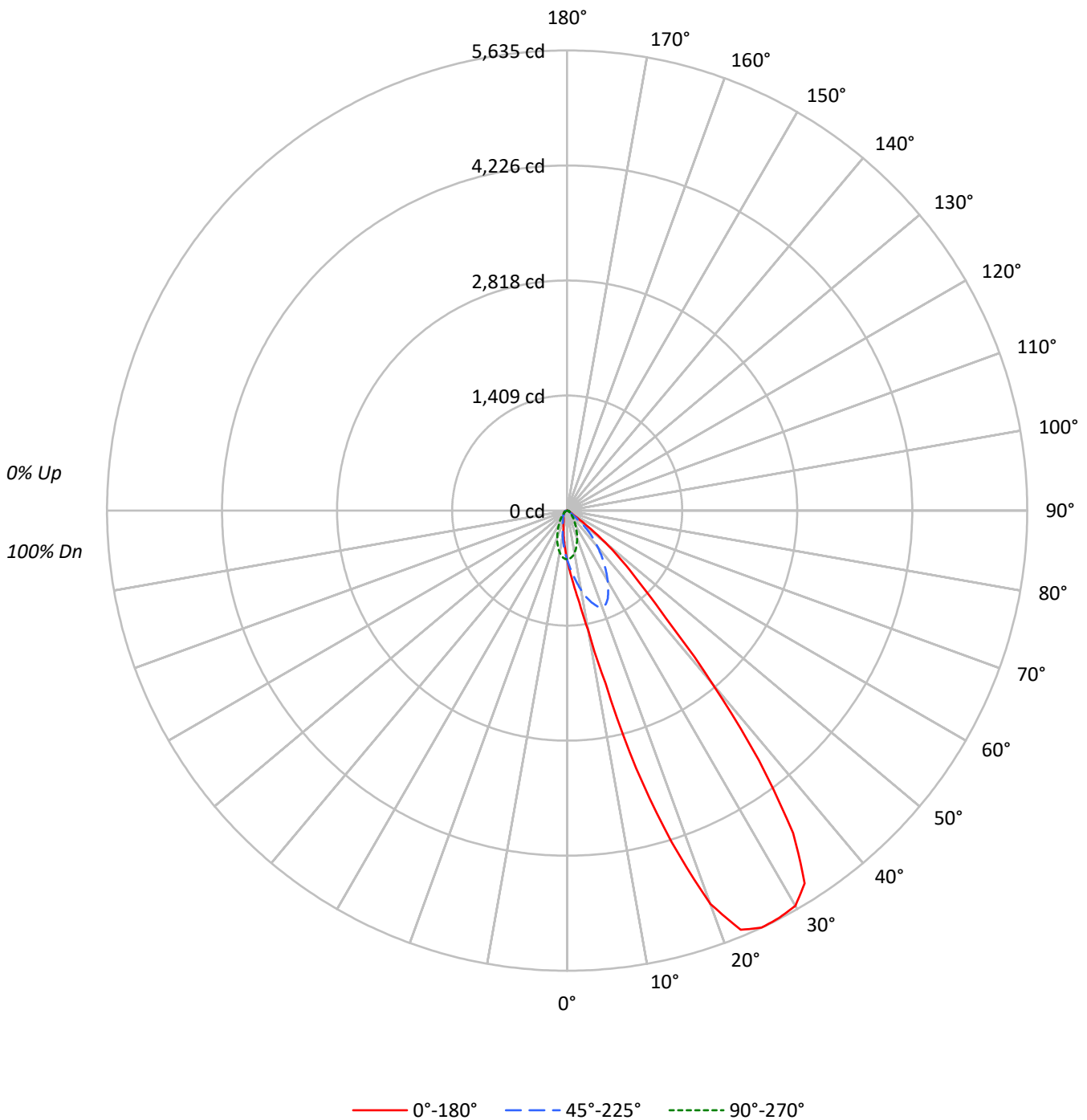
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P130213

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - 456W

Luminous Intensity Polar Plot





TEST NUMBER: P130213

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - 456W

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 | 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 | 103 | 110 | 107 | 104 | 101 | 103 | 100 | 98 | 99 | 97 | 95 | 95 | 94 | 93 | 91 | | | | 91 |
| 2 | 105 | 99 | 94 | 90 | 103 | 97 | 93 | 89 | 94 | 90 | 87 | 91 | 88 | 85 | 88 | 86 | 84 | 82 | | | | 82 |
| 3 | 98 | 91 | 85 | 80 | 96 | 89 | 84 | 79 | 86 | 82 | 78 | 84 | 80 | 77 | 82 | 78 | 75 | 74 | | | | 74 |
| 4 | 92 | 83 | 76 | 71 | 90 | 82 | 76 | 71 | 79 | 74 | 70 | 77 | 73 | 69 | 75 | 71 | 68 | 66 | | | | 66 |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 69 | 64 | 73 | 67 | 63 | 71 | 66 | 62 | 70 | 65 | 62 | 60 | | | | 60 |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 62 | 57 | 67 | 61 | 57 | 66 | 61 | 57 | 65 | 60 | 56 | 54 | | | | 54 |
| 7 | 76 | 65 | 57 | 52 | 74 | 64 | 57 | 52 | 62 | 56 | 52 | 61 | 56 | 51 | 60 | 55 | 51 | 50 | | | | 50 |
| 8 | 71 | 60 | 52 | 48 | 70 | 59 | 52 | 47 | 58 | 52 | 47 | 57 | 51 | 47 | 56 | 51 | 47 | 45 | | | | 45 |
| 9 | 67 | 55 | 48 | 43 | 65 | 55 | 48 | 43 | 54 | 48 | 43 | 53 | 47 | 43 | 52 | 47 | 43 | 41 | | | | 41 |
| 10 | 63 | 51 | 44 | 40 | 62 | 51 | 44 | 40 | 50 | 44 | 40 | 49 | 43 | 40 | 48 | 43 | 39 | 38 | | | | 38 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|-------|-------|
| 0° | 35725 | 35725 | 35725 |
| 5° | 52772 | 33788 | 23013 |
| 10° | 86478 | 30322 | 14689 |
| 15° | 188499 | 25499 | 9824 |
| 20° | 296833 | 20666 | 7321 |
| 25° | 330201 | 15922 | 5995 |
| 30° | 333996 | 12125 | 5342 |
| 35° | 296266 | 9246 | 4804 |
| 40° | 176139 | 7066 | 4218 |
| 45° | 83440 | 4875 | 3728 |
| 50° | 42937 | 3823 | 3456 |
| 55° | 8691 | 3244 | 3372 |
| 60° | 3941 | 2739 | 3589 |
| 65° | 2789 | 2321 | 3635 |
| 70° | 1644 | 1997 | 3470 |
| 75° | 892 | 1887 | 3184 |
| 80° | 713 | 1536 | 2715 |
| 85° | 441 | 1018 | 1747 |



TEST NUMBER: P130213

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - 456W

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 59.9 | 3.6 |
| 10°-20° | 252.1 | 15.0 |
| 20°-30° | 523.6 | 31.2 |
| 30°-40° | 497.8 | 29.6 |
| 40°-50° | 229.8 | 13.7 |
| 50°-60° | 62.1 | 3.7 |
| 60°-70° | 30.5 | 1.8 |
| 70°-80° | 18.1 | 1.1 |
| 80°-90° | 6.7 | 0.4 |
| 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° | 835.6 | 49.7 |
| 0°-40° | 1333.4 | 79.3 |
| 0°-60° | 1625.3 | 96.7 |
| 0°-90° | 1680.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1680.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0° | 598 | 598 | 598 | 598 | 598 | |
| 5° | 901 | 782 | 577 | 445 | 393 | 104 |
| 15° | 3268 | 1166 | 442 | 213 | 170 | 977 |
| 25° | 5635 | 1180 | 272 | 121 | 102 | 2570 |
| 35° | 4822 | 781 | 150 | 87 | 78 | 2833 |
| 45° | 1251 | 396 | 73 | 57 | 56 | 1072 |
| 55° | 115 | 54 | 43 | 42 | 45 | 177 |
| 65° | 31 | 27 | 26 | 35 | 40 | 31 |
| 75° | 8 | 10 | 16 | 24 | 28 | 10 |
| 85° | 3 | 3 | 6 | 10 | 10 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P130213

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - 456W

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 |
| 2.5° | 736.1 | 711.1 | 718.9 | 719.7 | 706.8 | 712.8 | 703.4 | 698.2 | 683.6 | 685.3 | 671.6 |
| 5° | 901.2 | 871.1 | 879.7 | 873.6 | 853.0 | 851.3 | 828.9 | 816.9 | 793.7 | 782.5 | 751.5 |
| 7.5° | 1135.9 | 1095.5 | 1101.5 | 1087.7 | 1045.6 | 1025.8 | 979.4 | 956.2 | 904.6 | 882.2 | 834.9 |
| 10° | 1493.6 | 1431.7 | 1433.4 | 1393.0 | 1318.2 | 1262.3 | 1181.5 | 1122.1 | 1036.2 | 987.1 | 912.3 |
| 12.5° | 2166.9 | 2021.6 | 1956.2 | 1853.0 | 1710.3 | 1571.0 | 1432.6 | 1314.8 | 1178.9 | 1085.2 | 979.4 |
| 15° | 3267.5 | 3006.1 | 2915.0 | 2655.3 | 2341.4 | 2019.0 | 1724.1 | 1509.9 | 1313.9 | 1166.0 | 1030.1 |
| 17.5° | 4257.2 | 4033.7 | 3925.3 | 3627.0 | 3163.5 | 2653.6 | 2106.7 | 1728.4 | 1424.8 | 1230.5 | 1056.8 |
| 20° | 5124.9 | 4952.0 | 4749.1 | 4367.3 | 3812.7 | 3243.5 | 2467.0 | 1899.5 | 1498.8 | 1257.1 | 1055.1 |
| 22.5° | 5555.7 | 5458.5 | 5304.6 | 4908.2 | 4266.7 | 3590.8 | 2706.0 | 1979.4 | 1509.9 | 1239.9 | 1021.5 |
| 25° | 5634.8 | 5590.9 | 5506.6 | 5143.8 | 4468.8 | 3700.0 | 2733.5 | 1986.3 | 1457.5 | 1179.8 | 963.9 |
| 27.5° | 5622.7 | 5589.2 | 5518.7 | 5137.8 | 4407.7 | 3573.6 | 2581.3 | 1810.0 | 1362.9 | 1090.3 | 892.6 |
| 30° | 5589.2 | 5550.5 | 5413.8 | 4927.1 | 4121.4 | 3250.3 | 2246.9 | 1612.3 | 1233.1 | 989.7 | 815.2 |
| 32.5° | 5412.9 | 5357.0 | 5093.0 | 4455.9 | 3627.8 | 2726.7 | 1854.8 | 1389.6 | 1080.9 | 889.1 | 734.3 |
| 35° | 4822.2 | 4873.8 | 4364.7 | 3725.0 | 2926.2 | 2125.6 | 1505.6 | 1182.3 | 933.0 | 780.8 | 650.1 |
| 37.5° | 3855.7 | 3792.9 | 3474.8 | 2879.7 | 2147.1 | 1624.3 | 1248.5 | 1002.6 | 813.4 | 682.7 | 564.1 |
| 40° | 2764.5 | 2773.1 | 2450.6 | 1979.4 | 1552.1 | 1271.8 | 1018.1 | 839.2 | 693.9 | 579.6 | 474.7 |
| 42.5° | 1788.5 | 1768.8 | 1604.5 | 1389.6 | 1194.4 | 1000.0 | 823.8 | 702.5 | 577.8 | 485.0 | 398.1 |
| 45° | 1251.1 | 1234.8 | 1166.9 | 1035.3 | 909.7 | 798.8 | 674.1 | 581.3 | 475.5 | 395.5 | 318.2 |
| 47.5° | 921.8 | 918.3 | 870.2 | 794.5 | 706.8 | 618.3 | 530.5 | 452.3 | 359.4 | 286.3 | 221.8 |
| 50° | 608.8 | 606.2 | 577.8 | 522.8 | 462.6 | 401.6 | 335.4 | 269.1 | 209.0 | 164.2 | 123.8 |
| 52.5° | 303.5 | 292.4 | 288.1 | 253.7 | 227.0 | 190.9 | 158.2 | 120.4 | 98.0 | 80.8 | 67.9 |
| 55° | 115.2 | 119.5 | 112.6 | 100.6 | 91.1 | 80.0 | 72.2 | 63.6 | 57.6 | 54.2 | 51.6 |
| 57.5° | 61.1 | 62.8 | 61.1 | 58.5 | 55.9 | 54.2 | 51.6 | 49.9 | 47.3 | 46.4 | 44.7 |
| 60° | 48.2 | 48.2 | 48.2 | 46.4 | 46.4 | 44.7 | 43.0 | 42.1 | 40.4 | 39.6 | 37.8 |
| 62.5° | 37.8 | 37.8 | 38.7 | 37.8 | 37.0 | 37.0 | 35.3 | 35.3 | 33.5 | 32.7 | 31.8 |
| 65° | 31.0 | 30.1 | 31.0 | 30.1 | 30.1 | 29.2 | 28.4 | 28.4 | 26.7 | 26.7 | 25.8 |
| 67.5° | 23.2 | 22.4 | 23.2 | 23.2 | 22.4 | 23.2 | 21.5 | 21.5 | 20.6 | 21.5 | 20.6 |
| 70° | 16.3 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 |
| 72.5° | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| 75° | 7.7 | 7.7 | 7.7 | 8.6 | 8.6 | 8.6 | 8.6 | 9.5 | 9.5 | 10.3 | 10.3 |
| 77.5° | 6.0 | 6.0 | 6.0 | 6.9 | 6.9 | 6.9 | 7.7 | 7.7 | 7.7 | 8.6 | 8.6 |
| 80° | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 6.0 | 6.0 | 6.0 | 6.9 | 6.9 | 7.7 |
| 82.5° | 3.4 | 3.4 | 3.4 | 4.3 | 4.3 | 4.3 | 4.3 | 5.2 | 5.2 | 5.2 | 5.2 |
| 85° | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 3.4 | 3.4 | 3.4 | 3.4 |
| 87.5° | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| 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: P130213

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - 456W

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 |
| 2.5° | 655.2 | 651.8 | 644.0 | 639.7 | 624.3 | 621.7 | 602.8 | 592.5 | 582.1 | 572.7 | 564.1 |
| 5° | 722.3 | 708.5 | 688.8 | 670.7 | 645.8 | 628.6 | 599.3 | 577.0 | 556.3 | 540.0 | 521.9 |
| 7.5° | 789.4 | 745.5 | 723.2 | 692.2 | 653.5 | 625.1 | 585.6 | 555.5 | 525.4 | 501.3 | 475.5 |
| 10° | 841.0 | 792.8 | 728.3 | 699.9 | 650.1 | 611.4 | 562.4 | 523.7 | 485.8 | 457.5 | 427.4 |
| 12.5° | 884.0 | 813.4 | 753.3 | 696.5 | 635.4 | 584.7 | 530.5 | 486.7 | 443.7 | 412.7 | 378.3 |
| 15° | 908.9 | 819.5 | 744.7 | 678.4 | 608.8 | 552.9 | 490.1 | 442.0 | 399.8 | 364.6 | 331.9 |
| 17.5° | 912.3 | 808.3 | 723.2 | 647.5 | 572.7 | 511.6 | 449.7 | 400.7 | 355.1 | 318.2 | 287.2 |
| 20° | 893.4 | 781.6 | 689.6 | 608.8 | 528.8 | 466.9 | 405.0 | 356.8 | 311.3 | 276.0 | 246.8 |
| 22.5° | 853.9 | 741.2 | 645.8 | 562.4 | 485.8 | 419.6 | 361.1 | 313.0 | 270.9 | 239.9 | 212.4 |
| 25° | 803.1 | 689.6 | 595.0 | 511.6 | 436.8 | 374.0 | 316.4 | 271.7 | 233.9 | 207.2 | 184.0 |
| 27.5° | 742.1 | 632.0 | 538.3 | 459.2 | 381.8 | 327.6 | 273.4 | 235.6 | 207.2 | 179.7 | 159.9 |
| 30° | 676.7 | 569.2 | 480.7 | 403.3 | 334.5 | 283.8 | 236.5 | 202.9 | 176.3 | 155.6 | 142.7 |
| 32.5° | 605.4 | 503.9 | 423.9 | 353.4 | 289.8 | 241.6 | 202.9 | 174.6 | 153.9 | 137.6 | 127.3 |
| 35° | 535.7 | 437.7 | 364.6 | 301.0 | 246.8 | 205.5 | 173.7 | 150.5 | 133.3 | 121.2 | 111.8 |
| 37.5° | 460.9 | 374.9 | 311.3 | 252.8 | 207.2 | 176.3 | 147.9 | 129.8 | 116.9 | 106.6 | 99.7 |
| 40° | 386.9 | 313.9 | 256.2 | 209.8 | 174.6 | 147.9 | 127.3 | 110.9 | 100.6 | 92.9 | 86.0 |
| 42.5° | 316.4 | 259.7 | 209.8 | 171.1 | 142.7 | 121.2 | 104.0 | 91.1 | 83.4 | 77.4 | 73.1 |
| 45° | 253.7 | 201.2 | 159.9 | 129.8 | 109.2 | 92.9 | 80.8 | 73.1 | 68.8 | 66.2 | 64.5 |
| 47.5° | 171.1 | 134.1 | 110.1 | 88.6 | 77.4 | 69.7 | 64.5 | 61.9 | 60.2 | 58.5 | 56.8 |
| 50° | 98.0 | 80.0 | 70.5 | 63.6 | 60.2 | 58.5 | 55.9 | 54.2 | 53.3 | 51.6 | 50.7 |
| 52.5° | 60.2 | 57.6 | 55.9 | 54.2 | 52.5 | 50.7 | 49.0 | 47.3 | 46.4 | 45.6 | 45.6 |
| 55° | 50.7 | 49.0 | 48.2 | 46.4 | 45.6 | 43.9 | 43.0 | 43.0 | 42.1 | 41.3 | 41.3 |
| 57.5° | 43.0 | 42.1 | 41.3 | 40.4 | 39.6 | 38.7 | 37.8 | 37.8 | 37.0 | 37.0 | 37.0 |
| 60° | 37.0 | 36.1 | 35.3 | 34.4 | 34.4 | 34.4 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| 62.5° | 31.0 | 30.1 | 30.1 | 29.2 | 29.2 | 29.2 | 29.2 | 29.2 | 30.1 | 30.1 | 30.1 |
| 65° | 25.8 | 24.9 | 24.9 | 24.9 | 24.9 | 25.8 | 25.8 | 25.8 | 25.8 | 26.7 | 27.5 |
| 67.5° | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | 21.5 | 21.5 | 22.4 | 23.2 | 24.1 | 25.8 |
| 70° | 16.3 | 16.3 | 17.2 | 17.2 | 18.1 | 18.9 | 18.9 | 19.8 | 21.5 | 22.4 | 23.2 |
| 72.5° | 12.9 | 12.9 | 14.6 | 14.6 | 15.5 | 16.3 | 17.2 | 18.1 | 18.9 | 19.8 | 21.5 |
| 75° | 11.2 | 11.2 | 12.0 | 12.9 | 13.8 | 14.6 | 15.5 | 16.3 | 17.2 | 18.1 | 18.9 |
| 77.5° | 9.5 | 10.3 | 10.3 | 11.2 | 12.0 | 12.0 | 12.9 | 13.8 | 14.6 | 15.5 | 15.5 |
| 80° | 7.7 | 7.7 | 8.6 | 9.5 | 9.5 | 10.3 | 10.3 | 11.2 | 12.0 | 12.0 | 12.9 |
| 82.5° | 6.0 | 6.0 | 6.9 | 6.9 | 6.9 | 7.7 | 7.7 | 8.6 | 8.6 | 9.5 | 10.3 |
| 85° | 4.3 | 4.3 | 4.3 | 5.2 | 5.2 | 5.2 | 5.2 | 6.0 | 6.0 | 6.9 | 6.9 |
| 87.5° | 1.7 | 2.6 | 2.6 | 2.6 | 2.6 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 4.3 |
| 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: P130213

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - 456W

CANDELA DISTRIBUTION (continued):

| | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 | 598.5 |
| 2.5° | 558.9 | 541.7 | 547.7 | 529.7 | 532.3 | 524.5 | 518.5 | 515.1 | 508.2 | 496.1 | 497.9 |
| 5° | 506.5 | 484.1 | 485.8 | 459.2 | 453.2 | 444.6 | 430.8 | 425.6 | 419.6 | 409.3 | 402.4 |
| 7.5° | 458.3 | 427.4 | 423.1 | 398.1 | 385.2 | 375.8 | 357.7 | 350.0 | 337.1 | 331.1 | 323.3 |
| 10° | 403.3 | 372.3 | 363.7 | 334.5 | 322.5 | 310.4 | 292.4 | 283.8 | 274.3 | 265.7 | 259.7 |
| 12.5° | 353.4 | 321.6 | 307.8 | 282.0 | 270.0 | 257.1 | 239.0 | 233.9 | 224.4 | 217.5 | 211.5 |
| 15° | 306.1 | 275.2 | 259.7 | 237.3 | 227.0 | 213.2 | 202.9 | 195.2 | 186.6 | 179.7 | 175.4 |
| 17.5° | 263.1 | 234.7 | 223.6 | 202.1 | 191.8 | 179.7 | 171.1 | 163.4 | 157.4 | 152.2 | 147.9 |
| 20° | 225.3 | 200.4 | 190.0 | 172.0 | 163.4 | 155.6 | 146.2 | 141.9 | 140.2 | 132.4 | 129.0 |
| 22.5° | 193.5 | 172.8 | 164.2 | 149.6 | 142.7 | 136.7 | 129.0 | 124.7 | 121.2 | 116.9 | 114.4 |
| 25° | 167.7 | 150.5 | 144.5 | 131.6 | 127.3 | 121.2 | 116.1 | 112.6 | 109.2 | 106.6 | 104.0 |
| 27.5° | 147.9 | 133.3 | 128.1 | 117.8 | 114.4 | 110.1 | 105.8 | 103.2 | 100.6 | 98.0 | 96.3 |
| 30° | 131.6 | 119.5 | 116.1 | 107.5 | 104.9 | 101.5 | 98.0 | 96.3 | 94.6 | 92.0 | 90.3 |
| 32.5° | 117.8 | 107.5 | 104.9 | 98.9 | 97.2 | 94.6 | 92.0 | 90.3 | 87.7 | 86.0 | 84.3 |
| 35° | 104.9 | 98.0 | 96.3 | 90.3 | 89.4 | 86.8 | 84.3 | 82.5 | 80.8 | 79.1 | 78.2 |
| 37.5° | 93.7 | 87.7 | 86.8 | 81.7 | 80.0 | 78.2 | 75.7 | 74.8 | 73.9 | 73.1 | 72.2 |
| 40° | 81.7 | 76.5 | 75.7 | 71.4 | 71.4 | 70.5 | 68.8 | 67.9 | 67.1 | 67.1 | 65.4 |
| 42.5° | 68.8 | 67.1 | 67.1 | 64.5 | 64.5 | 63.6 | 61.9 | 61.9 | 60.2 | 60.2 | 59.3 |
| 45° | 62.8 | 60.2 | 60.2 | 57.6 | 57.6 | 56.8 | 55.9 | 55.9 | 55.9 | 55.9 | 55.0 |
| 47.5° | 55.9 | 53.3 | 54.2 | 52.5 | 52.5 | 52.5 | 52.5 | 52.5 | 51.6 | 51.6 | 51.6 |
| 50° | 49.9 | 48.2 | 49.9 | 48.2 | 49.0 | 49.0 | 48.2 | 49.0 | 49.0 | 48.2 | 48.2 |
| 52.5° | 45.6 | 44.7 | 45.6 | 44.7 | 45.6 | 45.6 | 44.7 | 45.6 | 45.6 | 45.6 | 45.6 |
| 55° | 41.3 | 40.4 | 42.1 | 41.3 | 42.1 | 42.1 | 42.1 | 43.0 | 43.0 | 43.9 | 43.0 |
| 57.5° | 37.8 | 37.0 | 38.7 | 37.8 | 38.7 | 39.6 | 39.6 | 40.4 | 41.3 | 42.1 | 42.1 |
| 60° | 34.4 | 34.4 | 35.3 | 35.3 | 37.0 | 37.8 | 38.7 | 39.6 | 40.4 | 42.1 | 42.1 |
| 62.5° | 31.0 | 31.8 | 33.5 | 32.7 | 35.3 | 37.0 | 37.8 | 38.7 | 39.6 | 40.4 | 40.4 |
| 65° | 29.2 | 29.2 | 31.8 | 32.7 | 34.4 | 35.3 | 36.1 | 37.0 | 37.8 | 38.7 | 38.7 |
| 67.5° | 27.5 | 27.5 | 30.1 | 30.1 | 32.7 | 32.7 | 33.5 | 35.3 | 35.3 | 36.1 | 36.1 |
| 70° | 24.9 | 25.8 | 27.5 | 28.4 | 29.2 | 30.1 | 31.0 | 31.8 | 32.7 | 33.5 | 33.5 |
| 72.5° | 22.4 | 23.2 | 24.9 | 24.9 | 26.7 | 27.5 | 28.4 | 29.2 | 29.2 | 30.1 | 30.1 |
| 75° | 19.8 | 19.8 | 21.5 | 22.4 | 23.2 | 24.1 | 24.9 | 25.8 | 25.8 | 26.7 | 26.7 |
| 77.5° | 16.3 | 17.2 | 18.1 | 18.9 | 19.8 | 20.6 | 21.5 | 22.4 | 22.4 | 23.2 | 23.2 |
| 80° | 13.8 | 13.8 | 14.6 | 15.5 | 16.3 | 17.2 | 17.2 | 18.1 | 18.1 | 18.9 | 18.9 |
| 82.5° | 10.3 | 11.2 | 11.2 | 12.0 | 12.9 | 12.9 | 13.8 | 13.8 | 14.6 | 14.6 | 14.6 |
| 85° | 7.7 | 7.7 | 7.7 | 8.6 | 8.6 | 9.5 | 9.5 | 9.5 | 10.3 | 10.3 | 10.3 |
| 87.5° | 4.3 | 4.3 | 4.3 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 6.0 | 6.0 | 6.0 |
| 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: P130213

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - 456W

CANDELA DISTRIBUTION (continued):

| | 165° | 170° | 175° | 180° |
|-------|-------|-------|-------|-------|
| 0° | 598.5 | 598.5 | 598.5 | 598.5 |
| 2.5° | 498.7 | 492.7 | 499.6 | 492.7 |
| 5° | 402.4 | 393.0 | 399.8 | 393.0 |
| 7.5° | 324.2 | 317.3 | 316.4 | 313.9 |
| 10° | 258.0 | 251.1 | 250.2 | 253.7 |
| 12.5° | 210.7 | 204.7 | 204.7 | 205.5 |
| 15° | 173.7 | 168.5 | 170.3 | 170.3 |
| 17.5° | 147.0 | 146.2 | 144.5 | 144.5 |
| 20° | 129.8 | 125.5 | 125.5 | 126.4 |
| 22.5° | 115.2 | 111.8 | 111.8 | 112.6 |
| 25° | 105.8 | 101.5 | 102.3 | 102.3 |
| 27.5° | 96.3 | 94.6 | 95.4 | 95.4 |
| 30° | 90.3 | 88.6 | 89.4 | 89.4 |
| 32.5° | 85.1 | 82.5 | 83.4 | 84.3 |
| 35° | 79.1 | 77.4 | 78.2 | 78.2 |
| 37.5° | 73.1 | 71.4 | 72.2 | 73.1 |
| 40° | 66.2 | 65.4 | 65.4 | 66.2 |
| 42.5° | 59.3 | 58.5 | 59.3 | 60.2 |
| 45° | 55.9 | 55.0 | 55.0 | 55.9 |
| 47.5° | 52.5 | 51.6 | 51.6 | 52.5 |
| 50° | 49.0 | 48.2 | 49.0 | 49.0 |
| 52.5° | 45.6 | 45.6 | 45.6 | 46.4 |
| 55° | 43.9 | 43.9 | 44.7 | 44.7 |
| 57.5° | 43.9 | 43.9 | 43.9 | 44.7 |
| 60° | 43.0 | 43.0 | 43.9 | 43.9 |
| 62.5° | 41.3 | 42.1 | 42.1 | 42.1 |
| 65° | 39.6 | 38.7 | 40.4 | 40.4 |
| 67.5° | 37.0 | 37.0 | 37.0 | 37.8 |
| 70° | 34.4 | 34.4 | 34.4 | 34.4 |
| 72.5° | 31.0 | 31.0 | 31.0 | 31.0 |
| 75° | 27.5 | 27.5 | 27.5 | 27.5 |
| 77.5° | 23.2 | 23.2 | 23.2 | 24.1 |
| 80° | 18.9 | 18.9 | 18.9 | 19.8 |
| 82.5° | 14.6 | 14.6 | 14.6 | 14.6 |
| 85° | 10.3 | 10.3 | 10.3 | 10.3 |
| 87.5° | 6.0 | 6.0 | 6.0 | 6.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)