

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO

Report Number: P473751

Luminaire Tested: **HLB4069BLE40AWH-2700K**

Issue Date: 2/2/2021



Test Information

Test Method: LM-79-08
Report Number: P473751
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2008840A001)
Test Lab: INNOVATION CENTER
Issue Date: 2/2/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HLB4069BLE40AWH-2700K
Description: 4in HALO HOME BLADE
Light Source: -
Ballast/Driver: -

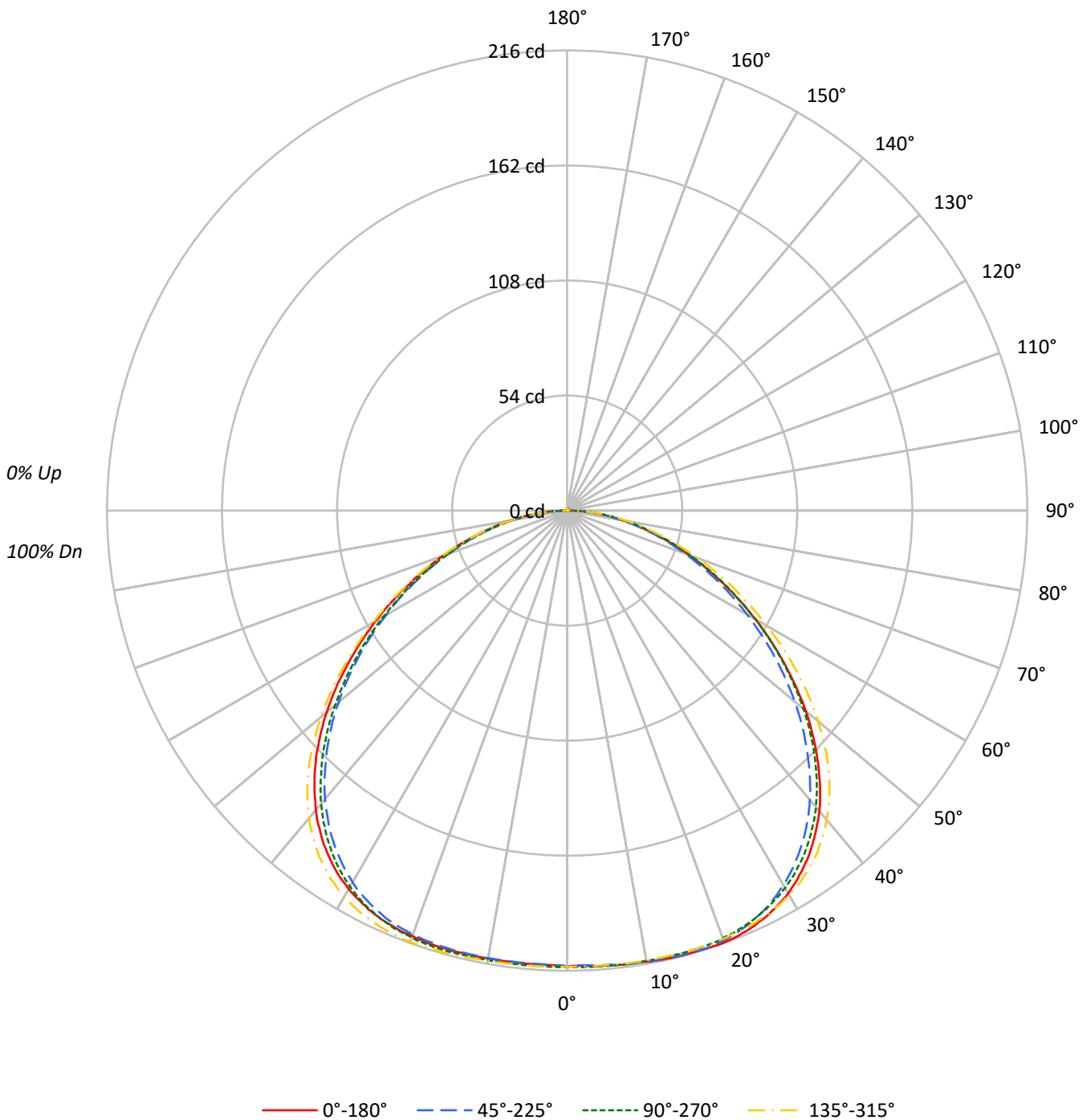
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 683.1 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.4 / 1.47
Luminous Opening: Circular (Dia: 0.33m x H: 0m)
CIE Type: Direct

Input Watts (W): 9.9
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: P473751
CATALOG NUMBER: HLB4069BLE40AWH-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 109 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 89 | 87 | 85 | 83 |
| 2 | 99 | 90 | 83 | 78 | 96 | 88 | 82 | 77 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 69 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 52 | 49 |
| 5 | 75 | 63 | 53 | 47 | 73 | 61 | 53 | 46 | 59 | 52 | 46 | 57 | 51 | 45 | 55 | 49 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 29 |
| 9 | 56 | 42 | 34 | 29 | 54 | 42 | 34 | 28 | 41 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 |
| 10 | 52 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 37 | 30 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|------|------|------|------|
| 0° | 2446 | 2446 | 2446 | 2446 |
| 5° | 2456 | 2458 | 2446 | 2455 |
| 10° | 2493 | 2487 | 2474 | 2484 |
| 15° | 2549 | 2536 | 2524 | 2533 |
| 20° | 2620 | 2594 | 2582 | 2591 |
| 25° | 2684 | 2651 | 2648 | 2647 |
| 30° | 2735 | 2696 | 2703 | 2687 |
| 35° | 2756 | 2717 | 2735 | 2697 |
| 40° | 2744 | 2707 | 2734 | 2676 |
| 45° | 2686 | 2655 | 2694 | 2618 |
| 50° | 2596 | 2569 | 2617 | 2525 |
| 55° | 2471 | 2456 | 2503 | 2410 |
| 60° | 2326 | 2331 | 2369 | 2276 |
| 65° | 2182 | 2196 | 2196 | 2136 |
| 70° | 2032 | 2059 | 2076 | 1992 |
| 75° | 1887 | 1936 | 1927 | 1843 |
| 80° | 1748 | 1840 | 1794 | 1696 |
| 85° | 1650 | 1833 | 1729 | 1532 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 20.4 | 3.0 |
| 10°-20° | 60.8 | 8.9 |
| 20°-30° | 97.4 | 14.3 |
| 30°-40° | 122.4 | 17.9 |
| 40°-50° | 127.4 | 18.7 |
| 50°-60° | 110.8 | 16.2 |
| 60°-70° | 80.4 | 11.8 |
| 70°-80° | 45.9 | 6.7 |
| 80°-90° | 14.4 | 2.1 |
| 90°-100° | 0.4 | 0.1 |
| 100°-110° | 0.4 | 0.1 |
| 110°-120° | 0.4 | 0.1 |
| 120°-130° | 0.4 | 0.1 |
| 130°-140° | 0.4 | 0.1 |
| 140°-150° | 0.4 | 0.1 |
| 150°-160° | 0.4 | 0.1 |
| 160°-170° | 0.3 | 0.0 |
| 170°-180° | 0.1 | 0.0 |
| 0°-30° | 178.6 | 26.1 |
| 0°-40° | 300.9 | 44.1 |
| 0°-60° | 539.1 | 78.9 |
| 0°-90° | 679.8 | 99.5 |
| 90°-120° | 1.3 | 0.2 |
| 90°-150° | 2.5 | 0.4 |
| 90°-180° | 3.0 | 0.4 |
| 0°-180° | 683.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|------|-----|-----|------|------|------|------|
| 0° | 214 | 214 | 214 | 214 | 214 | |
| 5° | 214 | 214 | 214 | 214 | 214 | 20 |
| 15° | 216 | 215 | 214 | 214 | 216 | 61 |
| 25° | 213 | 210 | 210 | 210 | 213 | 98 |
| 35° | 198 | 195 | 196 | 194 | 198 | 123 |
| 45° | 166 | 164 | 167 | 162 | 166 | 128 |
| 55° | 124 | 123 | 126 | 121 | 124 | 111 |
| 65° | 81 | 81 | 81 | 79 | 81 | 80 |
| 75° | 43 | 44 | 44 | 42 | 43 | 45 |
| 85° | 13 | 14 | 13 | 12 | 13 | 13 |
| 90° | 1 | 2 | 1 | 1 | 1 | 1 |
| 95° | 0 | 0 | 0 | 0 | 0 | 0 |
| 105° | 0 | 0 | 0 | 0 | 0 | 0 |
| 115° | 0 | 0 | 0 | 0 | 0 | 0 |
| 125° | 0 | 0 | 1 | 0 | 0 | 0 |
| 135° | 1 | 0 | 1 | 0 | 1 | 0 |
| 145° | 1 | 1 | 0 | 0 | 1 | 1 |
| 155° | 1 | 1 | 1 | 1 | 1 | 0 |
| 165° | 1 | 1 | 1 | 1 | 1 | 0 |
| 175° | 1 | 1 | 1 | 1 | 1 | 0 |
| 180° | 1 | 1 | 1 | 1 | 1 | |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 0° | 214.3 | 214.3 | 214.3 | 214.3 | 214.3 | 214.3 | 214.3 | 214.3 | 214.3 | 214.3 | 214.3 |
| 0.5° | 213.7 | 213.6 | 213.6 | 213.5 | 214.3 | 214.1 | 214.1 | 213.8 | 213.6 | 213.6 | 213.6 |
| 1° | 213.7 | 213.6 | 213.6 | 213.6 | 214.3 | 214.1 | 214.1 | 213.8 | 213.6 | 213.6 | 213.5 |
| 1.5° | 213.7 | 213.6 | 213.6 | 213.6 | 214.3 | 214.3 | 214.1 | 213.8 | 213.5 | 213.6 | 213.3 |
| 2° | 213.7 | 213.6 | 213.6 | 213.6 | 214.4 | 214.3 | 214.1 | 213.8 | 213.5 | 213.6 | 213.3 |
| 2.5° | 213.9 | 213.7 | 213.7 | 213.7 | 214.3 | 214.2 | 214.1 | 213.8 | 213.5 | 213.6 | 213.3 |
| 3° | 214.1 | 213.8 | 213.8 | 213.7 | 214.5 | 214.2 | 214.1 | 213.8 | 213.5 | 213.6 | 213.3 |
| 3.5° | 214.3 | 213.9 | 213.9 | 213.7 | 214.5 | 214.2 | 214.1 | 213.8 | 213.5 | 213.6 | 213.3 |
| 4° | 214.3 | 214.0 | 213.9 | 213.8 | 214.5 | 214.3 | 214.1 | 213.8 | 213.5 | 213.6 | 213.3 |
| 4.5° | 214.3 | 214.0 | 214.0 | 213.9 | 214.5 | 214.5 | 214.1 | 213.8 | 213.5 | 213.6 | 213.3 |
| 5° | 214.4 | 214.3 | 214.1 | 213.9 | 214.5 | 214.5 | 214.1 | 213.8 | 213.5 | 213.6 | 213.3 |
| 5.5° | 214.6 | 214.6 | 214.1 | 214.1 | 214.6 | 214.5 | 214.3 | 213.8 | 213.5 | 213.6 | 213.3 |
| 6° | 214.6 | 214.6 | 214.4 | 214.3 | 214.6 | 214.5 | 214.3 | 213.8 | 213.5 | 213.6 | 213.3 |
| 6.5° | 214.6 | 214.6 | 214.6 | 214.3 | 214.6 | 214.6 | 214.3 | 213.8 | 213.5 | 213.6 | 213.3 |
| 7° | 214.8 | 214.6 | 214.8 | 214.4 | 214.6 | 214.5 | 214.3 | 213.8 | 213.5 | 213.6 | 213.3 |
| 7.5° | 214.8 | 214.7 | 214.8 | 214.5 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.3 |
| 8° | 214.8 | 214.7 | 214.8 | 214.8 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.3 |
| 8.5° | 214.8 | 214.8 | 214.8 | 214.8 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.3 |
| 9° | 214.8 | 215.0 | 214.8 | 214.8 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.3 |
| 9.5° | 214.9 | 215.0 | 214.8 | 214.8 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.3 |
| 10° | 215.1 | 215.0 | 215.0 | 215.0 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.3 |
| 10.5° | 215.3 | 215.3 | 215.0 | 215.0 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.3 |
| 11° | 215.3 | 215.6 | 215.2 | 215.0 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.4 |
| 11.5° | 215.4 | 215.6 | 215.3 | 215.0 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.2 |
| 12° | 215.5 | 215.6 | 215.2 | 215.0 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.2 |
| 12.5° | 215.5 | 215.6 | 215.3 | 215.1 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.2 |
| 13° | 215.6 | 215.6 | 215.4 | 215.2 | 214.7 | 214.5 | 214.4 | 213.8 | 213.5 | 213.6 | 213.2 |
| 13.5° | 215.7 | 215.6 | 215.5 | 215.2 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.4 | 213.1 |
| 14° | 215.7 | 215.6 | 215.5 | 215.1 | 214.6 | 214.5 | 214.4 | 213.8 | 213.5 | 213.4 | 213.1 |
| 14.5° | 215.7 | 215.6 | 215.5 | 215.1 | 214.6 | 214.5 | 214.4 | 213.8 | 213.6 | 213.2 | 213.1 |
| 15° | 215.7 | 215.6 | 215.5 | 215.1 | 214.6 | 214.5 | 214.4 | 213.8 | 213.6 | 213.2 | 213.0 |
| 15.5° | 215.7 | 215.6 | 215.5 | 215.1 | 214.6 | 214.5 | 214.4 | 213.8 | 213.4 | 213.1 | 212.9 |
| 16° | 215.7 | 215.7 | 215.5 | 215.1 | 214.4 | 214.5 | 214.4 | 213.8 | 213.4 | 213.0 | 212.9 |
| 16.5° | 215.7 | 215.7 | 215.5 | 215.1 | 214.5 | 214.5 | 214.4 | 213.8 | 213.4 | 212.9 | 212.8 |
| 17° | 215.7 | 215.7 | 215.5 | 215.1 | 214.5 | 214.5 | 214.4 | 213.7 | 213.4 | 212.9 | 212.7 |
| 17.5° | 215.7 | 215.7 | 215.6 | 215.2 | 214.3 | 214.4 | 214.4 | 213.6 | 213.4 | 212.8 | 212.5 |
| 18° | 215.7 | 215.7 | 215.5 | 215.2 | 214.3 | 214.4 | 214.4 | 213.5 | 213.2 | 212.7 | 212.5 |
| 18.5° | 215.7 | 215.7 | 215.3 | 215.0 | 214.2 | 214.4 | 214.4 | 213.3 | 213.2 | 212.5 | 212.4 |
| 19° | 215.8 | 215.5 | 215.2 | 214.8 | 214.2 | 214.3 | 214.1 | 213.3 | 212.9 | 212.5 | 212.1 |
| 19.5° | 215.8 | 215.3 | 215.0 | 214.7 | 214.0 | 214.3 | 214.1 | 213.3 | 212.8 | 212.4 | 212.0 |
| 20° | 215.7 | 215.1 | 214.7 | 214.5 | 213.6 | 214.4 | 213.9 | 213.3 | 212.6 | 212.3 | 211.7 |
| 20.5° | 215.6 | 215.0 | 214.5 | 214.3 | 213.4 | 214.1 | 213.9 | 213.0 | 212.5 | 211.9 | 211.5 |
| 21° | 215.5 | 214.7 | 214.2 | 214.0 | 213.1 | 213.7 | 213.6 | 212.9 | 212.4 | 211.7 | 211.2 |
| 21.5° | 215.3 | 214.5 | 213.8 | 213.6 | 213.1 | 213.5 | 213.4 | 212.8 | 212.3 | 211.5 | 211.0 |
| 22° | 215.1 | 214.2 | 213.4 | 213.2 | 212.7 | 213.3 | 213.4 | 212.6 | 212.0 | 211.2 | 210.7 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 214.8 | 213.8 | 213.1 | 213.0 | 212.4 | 213.2 | 213.2 | 212.6 | 211.7 | 210.9 | 210.4 |
| 23° | 214.6 | 213.4 | 212.6 | 212.6 | 212.1 | 213.0 | 213.1 | 212.4 | 211.4 | 210.5 | 210.0 |
| 23.5° | 214.2 | 213.0 | 212.2 | 212.1 | 211.7 | 212.7 | 213.1 | 212.2 | 211.2 | 210.2 | 209.8 |
| 24° | 214.0 | 212.5 | 211.7 | 211.6 | 211.4 | 212.5 | 212.7 | 212.2 | 210.9 | 209.7 | 209.4 |
| 24.5° | 213.5 | 212.1 | 211.2 | 211.2 | 211.0 | 212.3 | 212.6 | 211.6 | 210.7 | 209.4 | 208.7 |
| 25° | 213.1 | 211.6 | 210.5 | 210.8 | 210.5 | 212.0 | 212.3 | 211.4 | 210.3 | 208.8 | 208.3 |
| 25.5° | 212.7 | 211.1 | 210.1 | 210.2 | 210.0 | 211.5 | 212.1 | 211.1 | 209.9 | 208.4 | 207.7 |
| 26° | 212.4 | 210.4 | 209.4 | 209.7 | 209.4 | 211.3 | 211.8 | 211.2 | 209.4 | 208.1 | 207.2 |
| 26.5° | 211.8 | 209.9 | 208.7 | 208.8 | 209.1 | 210.8 | 211.4 | 210.5 | 209.2 | 207.4 | 206.6 |
| 27° | 211.2 | 209.3 | 207.9 | 208.1 | 208.4 | 210.3 | 211.1 | 210.1 | 208.5 | 206.8 | 205.9 |
| 27.5° | 210.8 | 208.6 | 207.3 | 207.6 | 207.9 | 210.0 | 210.7 | 210.0 | 208.0 | 206.2 | 205.3 |
| 28° | 210.1 | 207.9 | 206.5 | 206.7 | 207.2 | 209.4 | 210.3 | 209.2 | 207.4 | 205.5 | 204.6 |
| 28.5° | 209.5 | 207.1 | 205.7 | 206.0 | 206.7 | 208.8 | 209.9 | 208.9 | 206.9 | 204.8 | 203.8 |
| 29° | 208.9 | 206.3 | 204.8 | 205.2 | 206.0 | 208.3 | 209.4 | 208.4 | 206.4 | 204.2 | 203.3 |
| 29.5° | 208.2 | 205.4 | 203.9 | 204.3 | 205.2 | 207.7 | 208.9 | 207.9 | 205.8 | 203.6 | 202.3 |
| 30° | 207.5 | 204.5 | 203.1 | 203.4 | 204.6 | 207.2 | 208.3 | 207.3 | 205.1 | 202.7 | 201.4 |
| 30.5° | 206.6 | 203.7 | 202.1 | 202.4 | 203.7 | 206.5 | 207.8 | 206.6 | 204.3 | 202.0 | 200.5 |
| 31° | 205.7 | 202.8 | 201.1 | 201.6 | 202.9 | 205.8 | 207.0 | 206.2 | 203.6 | 201.1 | 199.6 |
| 31.5° | 204.9 | 201.8 | 200.0 | 200.6 | 202.1 | 205.0 | 206.5 | 205.5 | 202.9 | 200.1 | 198.8 |
| 32° | 204.1 | 200.7 | 199.0 | 199.5 | 201.2 | 204.2 | 206.0 | 204.8 | 202.1 | 199.2 | 197.6 |
| 32.5° | 202.9 | 199.7 | 197.9 | 198.5 | 200.2 | 203.4 | 205.3 | 204.0 | 201.2 | 198.3 | 196.6 |
| 33° | 202.1 | 198.6 | 196.7 | 197.4 | 199.2 | 202.5 | 204.4 | 203.2 | 200.3 | 197.3 | 195.5 |
| 33.5° | 201.0 | 197.4 | 195.5 | 196.2 | 198.2 | 201.7 | 203.8 | 202.3 | 199.3 | 196.3 | 194.3 |
| 34° | 199.8 | 196.3 | 194.4 | 194.9 | 197.3 | 200.6 | 202.8 | 201.5 | 198.4 | 195.3 | 193.2 |
| 34.5° | 198.9 | 195.0 | 193.1 | 193.7 | 196.2 | 199.7 | 201.9 | 200.7 | 197.3 | 194.2 | 192.1 |
| 35° | 197.8 | 193.7 | 191.8 | 192.3 | 195.0 | 198.7 | 201.2 | 199.7 | 196.3 | 193.0 | 190.9 |
| 35.5° | 196.5 | 192.5 | 190.6 | 191.0 | 193.8 | 197.9 | 200.2 | 198.7 | 195.1 | 191.9 | 189.6 |
| 36° | 195.3 | 191.1 | 189.2 | 189.9 | 192.6 | 196.7 | 199.3 | 197.8 | 194.1 | 190.6 | 188.4 |
| 36.5° | 194.0 | 189.7 | 187.8 | 188.5 | 191.4 | 195.6 | 198.2 | 196.7 | 192.9 | 189.2 | 187.0 |
| 37° | 192.7 | 188.4 | 186.5 | 187.1 | 190.1 | 194.4 | 196.9 | 195.6 | 191.7 | 187.8 | 185.8 |
| 37.5° | 191.3 | 187.0 | 185.0 | 185.7 | 188.7 | 193.2 | 195.8 | 194.3 | 190.3 | 186.6 | 184.2 |
| 38° | 189.9 | 185.5 | 183.5 | 184.2 | 187.4 | 191.9 | 194.7 | 193.1 | 189.0 | 185.4 | 182.7 |
| 38.5° | 188.5 | 184.0 | 182.1 | 182.8 | 186.1 | 190.6 | 193.5 | 191.9 | 187.8 | 183.8 | 181.2 |
| 39° | 187.1 | 182.6 | 180.5 | 181.2 | 184.6 | 189.4 | 192.2 | 190.5 | 186.5 | 182.3 | 179.8 |
| 39.5° | 185.7 | 181.1 | 178.9 | 179.6 | 183.2 | 188.0 | 190.9 | 189.1 | 185.0 | 180.7 | 178.3 |
| 40° | 184.2 | 179.4 | 177.3 | 178.0 | 181.7 | 186.6 | 189.5 | 187.7 | 183.5 | 179.4 | 176.8 |
| 40.5° | 182.6 | 177.8 | 175.6 | 176.4 | 180.1 | 185.1 | 188.2 | 186.3 | 181.9 | 177.8 | 175.2 |
| 41° | 181.0 | 176.1 | 174.0 | 174.7 | 178.4 | 183.7 | 186.7 | 184.9 | 180.3 | 176.2 | 173.6 |
| 41.5° | 179.2 | 174.4 | 172.1 | 173.1 | 176.9 | 182.1 | 185.5 | 183.5 | 178.9 | 174.6 | 171.9 |
| 42° | 177.4 | 172.5 | 170.4 | 171.2 | 175.1 | 180.5 | 183.8 | 182.0 | 177.3 | 172.9 | 170.2 |
| 42.5° | 175.7 | 170.9 | 168.6 | 169.5 | 173.5 | 178.9 | 182.2 | 180.2 | 175.6 | 171.2 | 168.4 |
| 43° | 174.0 | 169.0 | 166.8 | 167.7 | 171.8 | 177.4 | 180.5 | 178.7 | 173.9 | 169.5 | 166.7 |
| 43.5° | 172.0 | 167.1 | 164.9 | 166.0 | 169.9 | 175.7 | 178.8 | 177.0 | 172.3 | 167.7 | 164.8 |
| 44° | 170.1 | 165.2 | 163.0 | 164.0 | 168.2 | 174.0 | 177.1 | 175.4 | 170.6 | 166.0 | 163.1 |
| 44.5° | 168.4 | 163.4 | 161.1 | 162.2 | 166.3 | 172.0 | 175.4 | 173.7 | 168.7 | 164.1 | 161.3 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 45° | 166.4 | 161.6 | 159.2 | 160.3 | 164.5 | 170.2 | 173.6 | 171.9 | 166.9 | 162.2 | 159.5 |
| 45.5° | 164.5 | 159.5 | 157.3 | 158.4 | 162.6 | 168.2 | 171.8 | 170.0 | 165.2 | 160.3 | 157.6 |
| 46° | 162.6 | 157.6 | 155.4 | 156.5 | 160.8 | 166.3 | 170.0 | 168.1 | 163.3 | 158.5 | 155.8 |
| 46.5° | 160.5 | 155.6 | 153.5 | 154.5 | 158.8 | 164.5 | 168.1 | 166.2 | 161.2 | 156.7 | 153.8 |
| 47° | 158.6 | 153.7 | 151.6 | 152.6 | 156.8 | 162.5 | 166.1 | 164.2 | 159.4 | 154.7 | 152.0 |
| 47.5° | 156.5 | 151.8 | 149.6 | 150.7 | 154.8 | 160.5 | 164.0 | 162.2 | 157.5 | 152.7 | 150.1 |
| 48° | 154.4 | 149.7 | 147.6 | 148.7 | 152.9 | 158.5 | 162.1 | 160.3 | 155.5 | 150.9 | 148.2 |
| 48.5° | 152.6 | 147.6 | 145.6 | 146.6 | 150.9 | 156.5 | 160.2 | 158.3 | 153.4 | 148.9 | 146.2 |
| 49° | 150.4 | 145.6 | 143.6 | 144.6 | 148.9 | 154.4 | 158.0 | 156.3 | 151.5 | 146.9 | 144.2 |
| 49.5° | 148.3 | 143.5 | 141.5 | 142.5 | 146.9 | 152.6 | 155.9 | 154.2 | 149.4 | 144.8 | 142.1 |
| 50° | 146.2 | 141.4 | 139.4 | 140.5 | 144.7 | 150.5 | 153.8 | 152.2 | 147.4 | 142.7 | 140.1 |
| 50.5° | 144.0 | 139.2 | 137.4 | 138.4 | 142.6 | 148.3 | 151.8 | 150.2 | 145.2 | 140.7 | 138.1 |
| 51° | 141.9 | 137.2 | 135.2 | 136.4 | 140.5 | 146.2 | 149.6 | 148.1 | 143.2 | 138.6 | 136.0 |
| 51.5° | 139.6 | 135.0 | 133.1 | 134.2 | 138.4 | 144.2 | 147.4 | 146.0 | 141.1 | 136.5 | 134.0 |
| 52° | 137.4 | 132.9 | 131.1 | 132.1 | 136.2 | 141.9 | 145.2 | 143.7 | 139.0 | 134.4 | 131.9 |
| 52.5° | 135.2 | 130.6 | 129.0 | 129.9 | 134.1 | 139.6 | 142.9 | 141.6 | 136.8 | 132.2 | 129.8 |
| 53° | 133.0 | 128.5 | 126.9 | 127.7 | 132.0 | 137.4 | 140.6 | 139.4 | 134.7 | 130.1 | 127.7 |
| 53.5° | 130.7 | 126.3 | 124.8 | 125.7 | 129.8 | 135.2 | 138.4 | 137.1 | 132.4 | 127.9 | 125.6 |
| 54° | 128.5 | 124.1 | 122.6 | 123.6 | 127.7 | 133.0 | 136.0 | 134.9 | 130.2 | 125.7 | 123.5 |
| 54.5° | 126.3 | 121.9 | 120.8 | 121.5 | 125.5 | 130.9 | 133.8 | 132.6 | 127.9 | 123.6 | 121.4 |
| 55° | 124.2 | 119.9 | 118.5 | 119.5 | 123.4 | 128.7 | 131.5 | 130.3 | 125.8 | 121.3 | 119.4 |
| 55.5° | 121.9 | 117.7 | 116.5 | 117.3 | 121.2 | 126.3 | 129.2 | 128.0 | 123.6 | 119.2 | 117.2 |
| 56° | 119.7 | 115.5 | 114.3 | 115.2 | 119.2 | 124.0 | 126.9 | 125.7 | 121.4 | 117.0 | 115.1 |
| 56.5° | 117.5 | 113.4 | 112.1 | 113.0 | 117.1 | 121.8 | 124.6 | 123.4 | 119.3 | 115.0 | 113.0 |
| 57° | 115.3 | 111.3 | 110.0 | 110.9 | 114.9 | 119.7 | 122.3 | 121.1 | 117.0 | 112.8 | 110.8 |
| 57.5° | 113.0 | 109.0 | 108.1 | 108.7 | 112.7 | 117.4 | 120.0 | 118.9 | 114.9 | 110.7 | 108.7 |
| 58° | 110.8 | 106.9 | 105.8 | 106.7 | 110.5 | 115.2 | 117.7 | 116.6 | 112.6 | 108.5 | 106.7 |
| 58.5° | 108.6 | 104.8 | 103.8 | 104.5 | 108.5 | 113.0 | 115.4 | 114.5 | 110.4 | 106.3 | 104.6 |
| 59° | 106.3 | 102.6 | 101.7 | 102.5 | 106.4 | 110.8 | 113.0 | 112.2 | 108.1 | 104.3 | 102.5 |
| 59.5° | 104.2 | 100.6 | 99.6 | 100.4 | 104.3 | 108.5 | 110.8 | 109.8 | 106.0 | 102.2 | 100.3 |
| 60° | 101.9 | 98.5 | 97.5 | 98.3 | 102.1 | 106.3 | 108.5 | 107.6 | 103.8 | 100.1 | 98.3 |
| 60.5° | 99.9 | 96.3 | 95.4 | 96.1 | 99.9 | 104.0 | 106.2 | 105.3 | 101.6 | 98.0 | 96.2 |
| 61° | 97.6 | 94.3 | 93.4 | 94.2 | 97.9 | 101.7 | 103.9 | 103.1 | 99.5 | 95.9 | 94.2 |
| 61.5° | 95.6 | 92.1 | 91.4 | 92.2 | 95.7 | 99.7 | 101.6 | 100.9 | 97.3 | 93.8 | 92.1 |
| 62° | 93.3 | 90.2 | 89.3 | 90.1 | 93.6 | 97.4 | 99.4 | 98.6 | 95.1 | 91.8 | 90.2 |
| 62.5° | 91.1 | 88.2 | 87.5 | 88.2 | 91.5 | 95.3 | 97.1 | 96.3 | 92.9 | 89.6 | 88.1 |
| 63° | 89.0 | 86.2 | 85.4 | 86.3 | 89.4 | 93.1 | 95.0 | 94.1 | 90.8 | 87.6 | 86.2 |
| 63.5° | 87.1 | 84.2 | 83.7 | 84.3 | 87.3 | 91.0 | 92.7 | 91.9 | 88.6 | 85.7 | 84.2 |
| 64° | 84.9 | 82.2 | 81.5 | 82.3 | 85.5 | 88.7 | 90.6 | 89.8 | 86.7 | 83.8 | 82.2 |
| 64.5° | 82.8 | 80.3 | 79.6 | 80.3 | 83.5 | 86.8 | 88.4 | 87.5 | 84.3 | 81.7 | 80.2 |
| 65° | 80.8 | 78.3 | 77.6 | 78.3 | 81.3 | 84.7 | 86.4 | 85.5 | 81.3 | 79.4 | 78.2 |
| 65.5° | 78.7 | 76.3 | 75.7 | 76.4 | 79.4 | 82.7 | 84.3 | 83.3 | 80.3 | 77.1 | 76.2 |
| 66° | 76.6 | 74.4 | 73.7 | 74.5 | 77.3 | 80.4 | 82.1 | 81.1 | 78.2 | 75.7 | 74.4 |
| 66.5° | 74.5 | 72.4 | 71.8 | 72.8 | 75.3 | 78.3 | 79.9 | 78.9 | 76.1 | 73.7 | 72.4 |
| 67° | 72.5 | 70.5 | 69.9 | 70.7 | 73.3 | 76.3 | 77.9 | 76.9 | 74.1 | 71.7 | 70.5 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 67.5° | 70.6 | 68.6 | 68.0 | 68.9 | 71.4 | 74.3 | 75.8 | 74.8 | 72.1 | 69.8 | 68.5 |
| 68° | 68.7 | 66.6 | 66.2 | 66.9 | 69.4 | 72.1 | 73.6 | 72.6 | 70.1 | 67.8 | 66.6 |
| 68.5° | 66.6 | 64.8 | 64.4 | 65.1 | 67.4 | 70.1 | 71.5 | 70.6 | 68.1 | 66.0 | 64.7 |
| 69° | 64.7 | 63.0 | 62.5 | 63.3 | 65.6 | 68.0 | 69.4 | 68.5 | 66.0 | 64.1 | 62.9 |
| 69.5° | 62.7 | 61.0 | 60.6 | 61.3 | 63.6 | 66.1 | 67.4 | 66.5 | 64.1 | 62.1 | 61.0 |
| 70° | 60.9 | 59.2 | 58.8 | 59.5 | 61.7 | 64.1 | 65.3 | 64.4 | 62.2 | 60.2 | 59.1 |
| 70.5° | 58.9 | 57.3 | 57.1 | 57.7 | 59.9 | 62.2 | 63.3 | 62.4 | 60.3 | 58.4 | 57.3 |
| 71° | 57.0 | 55.5 | 55.2 | 56.0 | 58.0 | 60.2 | 61.2 | 60.4 | 58.3 | 56.5 | 55.5 |
| 71.5° | 55.2 | 53.8 | 53.5 | 54.2 | 56.1 | 58.3 | 59.2 | 58.4 | 56.4 | 54.7 | 53.9 |
| 72° | 53.5 | 52.0 | 51.8 | 52.4 | 54.4 | 56.3 | 57.2 | 56.5 | 54.6 | 52.9 | 52.0 |
| 72.5° | 51.6 | 50.2 | 50.0 | 50.7 | 52.7 | 54.5 | 55.2 | 54.6 | 52.9 | 51.1 | 50.3 |
| 73° | 49.8 | 48.4 | 48.2 | 48.9 | 50.8 | 52.7 | 53.4 | 52.8 | 50.9 | 49.3 | 48.7 |
| 73.5° | 47.9 | 46.7 | 46.6 | 47.2 | 49.0 | 50.9 | 51.6 | 50.8 | 49.1 | 47.7 | 46.8 |
| 74° | 46.2 | 45.0 | 44.9 | 45.6 | 47.3 | 49.0 | 49.8 | 49.0 | 47.3 | 45.8 | 45.1 |
| 74.5° | 44.4 | 43.4 | 43.1 | 43.8 | 45.6 | 47.2 | 47.8 | 47.1 | 45.5 | 44.0 | 43.5 |
| 75° | 42.8 | 41.7 | 41.6 | 42.1 | 43.9 | 45.4 | 45.9 | 45.2 | 43.7 | 42.3 | 41.8 |
| 75.5° | 41.0 | 40.0 | 39.9 | 40.4 | 42.3 | 43.7 | 44.1 | 43.5 | 42.0 | 40.7 | 40.1 |
| 76° | 39.3 | 38.5 | 38.5 | 38.8 | 40.6 | 42.0 | 42.3 | 41.7 | 40.3 | 38.9 | 38.6 |
| 76.5° | 37.6 | 36.8 | 36.7 | 37.2 | 38.9 | 40.2 | 40.5 | 39.9 | 38.6 | 37.5 | 36.9 |
| 77° | 36.0 | 35.2 | 35.2 | 35.5 | 37.4 | 38.5 | 38.7 | 38.2 | 36.8 | 35.7 | 35.4 |
| 77.5° | 34.4 | 33.7 | 33.6 | 34.1 | 35.7 | 36.7 | 37.1 | 36.5 | 35.2 | 34.2 | 33.8 |
| 78° | 32.9 | 32.1 | 32.1 | 32.4 | 34.2 | 35.3 | 35.4 | 34.8 | 33.7 | 32.7 | 32.3 |
| 78.5° | 31.3 | 30.5 | 30.6 | 30.9 | 32.5 | 33.5 | 33.6 | 33.2 | 32.0 | 31.1 | 30.7 |
| 79° | 29.6 | 29.0 | 29.1 | 29.3 | 31.0 | 31.9 | 32.1 | 31.5 | 30.5 | 29.4 | 29.3 |
| 79.5° | 28.1 | 27.5 | 27.6 | 27.8 | 29.4 | 30.5 | 30.4 | 30.0 | 28.8 | 27.9 | 27.7 |
| 80° | 26.6 | 26.1 | 26.2 | 26.4 | 28.0 | 29.0 | 28.8 | 28.4 | 27.3 | 26.4 | 26.3 |
| 80.5° | 25.1 | 24.7 | 24.7 | 25.0 | 26.4 | 27.2 | 27.2 | 26.8 | 25.7 | 25.0 | 24.9 |
| 81° | 23.6 | 23.2 | 23.3 | 23.4 | 24.9 | 25.7 | 25.7 | 25.3 | 24.3 | 23.5 | 23.3 |
| 81.5° | 22.3 | 22.0 | 22.1 | 22.2 | 23.5 | 24.1 | 24.1 | 23.7 | 22.8 | 22.2 | 21.9 |
| 82° | 21.0 | 20.7 | 20.7 | 21.0 | 22.1 | 22.5 | 22.5 | 22.2 | 21.5 | 21.1 | 20.6 |
| 82.5° | 19.5 | 19.3 | 19.4 | 19.4 | 20.8 | 21.4 | 21.3 | 20.9 | 20.1 | 19.6 | 19.3 |
| 83° | 18.1 | 17.9 | 18.0 | 18.1 | 19.4 | 19.9 | 19.9 | 19.5 | 18.7 | 18.0 | 17.9 |
| 83.5° | 16.7 | 16.5 | 16.6 | 16.8 | 18.1 | 18.5 | 18.3 | 18.0 | 17.3 | 16.7 | 16.5 |
| 84° | 15.3 | 15.2 | 15.3 | 15.5 | 16.7 | 17.1 | 17.0 | 16.5 | 16.0 | 15.4 | 15.2 |
| 84.5° | 14.0 | 13.9 | 14.0 | 14.1 | 15.4 | 15.8 | 15.4 | 15.1 | 14.6 | 14.1 | 13.8 |
| 85° | 12.6 | 12.6 | 12.8 | 12.8 | 14.0 | 14.3 | 14.2 | 13.8 | 13.2 | 12.8 | 12.5 |
| 85.5° | 11.4 | 11.4 | 11.5 | 11.6 | 12.7 | 13.1 | 12.8 | 12.4 | 11.9 | 11.5 | 11.2 |
| 86° | 10.1 | 10.2 | 10.3 | 10.4 | 11.4 | 11.7 | 11.4 | 11.0 | 10.6 | 10.2 | 10.0 |
| 86.5° | 8.8 | 9.0 | 9.0 | 9.2 | 10.2 | 10.4 | 10.1 | 9.8 | 9.3 | 8.9 | 8.7 |
| 87° | 7.6 | 7.8 | 7.9 | 8.0 | 8.9 | 9.0 | 8.7 | 8.3 | 8.1 | 7.7 | 7.4 |
| 87.5° | 6.4 | 6.7 | 6.7 | 6.8 | 7.8 | 7.8 | 7.4 | 7.1 | 6.8 | 6.3 | 6.1 |
| 88° | 5.3 | 5.6 | 5.5 | 5.7 | 6.5 | 6.5 | 6.1 | 5.8 | 5.5 | 5.0 | 4.9 |
| 88.5° | 4.0 | 4.4 | 4.5 | 4.5 | 5.3 | 5.1 | 4.8 | 4.8 | 4.3 | 3.8 | 3.6 |
| 89° | 2.9 | 3.3 | 3.5 | 3.4 | 4.0 | 3.8 | 3.4 | 3.3 | 3.0 | 2.6 | 2.3 |
| 89.5° | 1.8 | 2.2 | 2.4 | 2.4 | 2.8 | 2.7 | 2.3 | 2.1 | 1.8 | 1.4 | 1.2 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 90° | 1.1 | 1.4 | 1.6 | 1.7 | 1.7 | 1.6 | 1.4 | 1.1 | 0.9 | 0.6 | 0.6 |
| 90.5° | 0.8 | 1.0 | 1.1 | 1.2 | 0.9 | 0.7 | 0.8 | 0.6 | 0.4 | 0.4 | 0.4 |
| 91° | 0.6 | 0.8 | 0.8 | 0.7 | 0.4 | 0.2 | 0.3 | 0.0 | 0.4 | 0.3 | 0.4 |
| 91.5° | 0.6 | 0.6 | 0.7 | 0.6 | 0.3 | 0.1 | 0.3 | 0.0 | 0.5 | 0.3 | 0.3 |
| 92° | 0.6 | 0.6 | 0.5 | 0.5 | 0.3 | 0.1 | 0.3 | 0.0 | 0.4 | 0.3 | 0.3 |
| 92.5° | 0.5 | 0.6 | 0.6 | 0.5 | 0.3 | 0.1 | 0.2 | 0.0 | 0.4 | 0.3 | 0.3 |
| 93° | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 | 0.1 | 0.2 | 0.0 | 0.4 | 0.3 | 0.3 |
| 93.5° | 0.5 | 0.4 | 0.5 | 0.4 | 0.3 | 0.1 | 0.2 | 0.0 | 0.4 | 0.3 | 0.3 |
| 94° | 0.5 | 0.4 | 0.5 | 0.4 | 0.3 | 0.1 | 0.2 | 0.0 | 0.4 | 0.3 | 0.3 |
| 94.5° | 0.4 | 0.4 | 0.5 | 0.4 | 0.3 | 0.1 | 0.2 | 0.0 | 0.4 | 0.3 | 0.3 |
| 95° | 0.4 | 0.4 | 0.4 | 0.5 | 0.3 | 0.1 | 0.2 | 0.0 | 0.4 | 0.4 | 0.3 |
| 95.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.1 | 0.2 | 0.0 | 0.4 | 0.5 | 0.3 |
| 96° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.1 | 0.2 | 0.0 | 0.4 | 0.4 | 0.3 |
| 96.5° | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.2 | 0.0 | 0.4 | 0.4 | 0.3 |
| 97° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.0 | 0.4 | 0.4 | 0.3 |
| 97.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.0 | 0.4 | 0.4 | 0.3 |
| 98° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.0 | 0.4 | 0.4 | 0.3 |
| 98.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.0 | 0.4 | 0.4 | 0.3 |
| 99° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.0 | 0.4 | 0.4 | 0.3 |
| 99.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.0 | 0.4 | 0.4 | 0.3 |
| 100° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.0 | 0.4 | 0.4 | 0.3 |
| 100.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.4 | 0.3 | 0.2 | 0.1 | 0.4 | 0.4 | 0.3 |
| 101° | 0.4 | 0.4 | 0.4 | 0.3 | 0.4 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.3 |
| 101.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.5 | 0.4 | 0.4 | 0.3 |
| 102° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.4 | 0.4 | 0.4 | 0.3 |
| 102.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 |
| 103° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 |
| 103.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.3 |
| 104° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.3 |
| 104.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 |
| 105° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.4 | 0.3 |
| 105.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.4 | 0.3 |
| 106° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.4 | 0.3 |
| 106.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.4 | 0.3 |
| 107° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.4 | 0.3 |
| 107.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.4 | 0.4 |
| 108° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.4 | 0.4 |
| 108.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.4 | 0.4 |
| 109° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.5 | 0.4 |
| 109.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.5 | 0.4 |
| 110° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.5 | 0.4 |
| 110.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |
| 111° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.5 | 0.4 |
| 111.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.5 | 0.4 |
| 112° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 112.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |
| 113° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |
| 113.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.8 | 0.5 | 0.4 |
| 114° | 0.4 | 0.4 | 0.4 | 0.3 | 0.4 | 0.3 | 0.5 | 0.5 | 0.4 | 0.5 | 0.4 |
| 114.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.4 | 0.5 | 0.4 |
| 115° | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.4 | 0.5 | 0.4 |
| 115.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.4 | 0.5 | 0.5 | 0.4 | 0.5 | 0.4 |
| 116° | 0.4 | 0.4 | 0.4 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.4 | 0.5 | 0.4 |
| 116.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.4 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |
| 117° | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |
| 117.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |
| 118° | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |
| 118.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |
| 119° | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |
| 119.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.6 | 0.5 | 0.5 | 0.5 | 0.4 |
| 120° | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |
| 120.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.4 |
| 121° | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.4 |
| 121.5° | 0.4 | 0.4 | 0.4 | 0.3 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.6 | 0.4 |
| 122° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.5 | 0.6 | 0.6 | 0.6 | 0.4 |
| 122.5° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.5 | 0.6 | 0.6 | 0.6 | 0.4 |
| 123° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.2 | 0.5 | 0.6 | 0.6 | 0.6 | 0.4 |
| 123.5° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.2 | 0.5 | 0.6 | 0.6 | 0.6 | 0.4 |
| 124° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.2 | 0.5 | 0.6 | 0.6 | 0.6 | 0.4 |
| 124.5° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.2 | 0.5 | 0.6 | 0.6 | 0.6 | 0.4 |
| 125° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.2 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 |
| 125.5° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 |
| 126° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 |
| 126.5° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 |
| 127° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 |
| 127.5° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 |
| 128° | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 |
| 128.5° | 0.5 | 0.4 | 0.5 | 0.3 | 0.5 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 |
| 129° | 0.5 | 0.4 | 0.5 | 0.3 | 0.5 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 |
| 129.5° | 0.5 | 0.4 | 0.5 | 0.4 | 0.5 | 0.4 | 0.6 | 0.7 | 0.6 | 0.6 | 0.4 |
| 130° | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 | 0.4 | 0.6 | 0.7 | 0.6 | 0.6 | 0.5 |
| 130.5° | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 |
| 131° | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 |
| 131.5° | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 |
| 132° | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 |
| 132.5° | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 |
| 133° | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 |
| 133.5° | 0.6 | 0.5 | 0.6 | 0.5 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.5 |
| 134° | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 |
| 134.5° | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 135° | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 |
| 135.5° | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.6 | 0.5 |
| 136° | 0.7 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.6 | 0.4 |
| 136.5° | 0.6 | 0.7 | 0.6 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 |
| 137° | 0.8 | 0.6 | 0.7 | 0.5 | 0.6 | 0.5 | 0.7 | 0.6 | 0.6 | 0.6 | 0.4 |
| 137.5° | 0.8 | 0.6 | 0.7 | 0.5 | 0.6 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.4 |
| 138° | 0.8 | 0.6 | 0.7 | 0.5 | 0.6 | 0.5 | 0.3 | 0.6 | 0.6 | 0.6 | 0.5 |
| 138.5° | 0.8 | 0.6 | 0.8 | 0.5 | 0.6 | 0.5 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 |
| 139° | 0.8 | 0.7 | 0.8 | 0.5 | 0.6 | 0.5 | 0.3 | 0.6 | 0.6 | 0.6 | 0.5 |
| 139.5° | 0.8 | 0.8 | 0.7 | 0.5 | 0.6 | 0.5 | 0.4 | 0.6 | 0.6 | 0.6 | 0.5 |
| 140° | 0.8 | 0.6 | 0.7 | 0.5 | 0.6 | 0.5 | 0.4 | 0.6 | 0.6 | 0.6 | 0.5 |
| 140.5° | 0.7 | 0.7 | 0.7 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.4 |
| 141° | 0.7 | 0.8 | 0.7 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.7 | 0.6 | 0.6 |
| 141.5° | 1.0 | 1.0 | 0.7 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.7 | 0.6 | 0.6 |
| 142° | 1.0 | 0.8 | 0.7 | 0.5 | 0.6 | 0.5 | 0.7 | 0.6 | 0.7 | 0.6 | 0.5 |
| 142.5° | 0.8 | 0.6 | 0.7 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.5 |
| 143° | 0.9 | 0.6 | 0.7 | 0.5 | 0.6 | 0.5 | 0.7 | 0.6 | 0.8 | 0.7 | 0.5 |
| 143.5° | 0.7 | 0.6 | 0.7 | 0.5 | 0.6 | 0.5 | 0.5 | 0.6 | 0.8 | 0.7 | 0.5 |
| 144° | 0.8 | 0.7 | 0.7 | 0.5 | 0.6 | 0.5 | 0.5 | 0.7 | 0.5 | 0.7 | 0.5 |
| 144.5° | 0.8 | 0.7 | 0.7 | 0.5 | 0.6 | 0.5 | 0.6 | 0.8 | 0.5 | 0.7 | 0.5 |
| 145° | 0.8 | 0.8 | 0.7 | 0.5 | 0.6 | 0.5 | 0.6 | 0.8 | 0.3 | 0.7 | 0.5 |
| 145.5° | 0.8 | 0.7 | 0.7 | 0.5 | 0.6 | 0.5 | 0.6 | 0.8 | 0.6 | 0.7 | 0.5 |
| 146° | 0.8 | 0.8 | 0.7 | 0.6 | 0.6 | 0.5 | 0.8 | 0.9 | 0.8 | 0.7 | 0.5 |
| 146.5° | 0.8 | 0.8 | 0.7 | 0.6 | 0.6 | 0.5 | 0.8 | 1.4 | 0.7 | 0.7 | 0.6 |
| 147° | 0.8 | 0.8 | 0.7 | 0.6 | 0.6 | 0.5 | 0.7 | 0.5 | 0.7 | 0.7 | 0.7 |
| 147.5° | 0.8 | 0.8 | 0.8 | 0.6 | 0.7 | 0.6 | 0.7 | 0.5 | 0.5 | 0.8 | 0.6 |
| 148° | 0.8 | 0.8 | 0.8 | 0.6 | 0.7 | 0.6 | 0.8 | 0.5 | 0.5 | 0.8 | 0.6 |
| 148.5° | 0.8 | 0.9 | 0.8 | 0.6 | 0.7 | 0.6 | 0.8 | 0.5 | 0.8 | 0.8 | 0.7 |
| 149° | 0.7 | 0.9 | 0.8 | 0.6 | 0.8 | 0.6 | 0.8 | 0.5 | 0.5 | 0.8 | 0.8 |
| 149.5° | 0.8 | 1.0 | 0.8 | 0.6 | 0.7 | 0.6 | 0.8 | 0.6 | 0.5 | 0.8 | 0.7 |
| 150° | 1.1 | 0.9 | 0.8 | 0.6 | 0.7 | 0.6 | 0.8 | 0.6 | 0.5 | 0.8 | 0.7 |
| 150.5° | 0.8 | 1.0 | 0.8 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.5 | 0.8 | 0.7 |
| 151° | 0.8 | 0.9 | 0.8 | 0.6 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 |
| 151.5° | 0.8 | 1.0 | 0.8 | 0.6 | 0.7 | 0.6 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 152° | 0.8 | 0.9 | 0.9 | 0.6 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 |
| 152.5° | 0.9 | 0.9 | 0.9 | 0.6 | 0.7 | 0.6 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 |
| 153° | 0.9 | 0.9 | 0.9 | 0.7 | 0.7 | 0.6 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 |
| 153.5° | 0.7 | 0.9 | 0.8 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 |
| 154° | 0.7 | 0.9 | 1.0 | 0.8 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 |
| 154.5° | 0.8 | 1.0 | 0.9 | 0.8 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 0.8 | 0.6 |
| 155° | 0.8 | 1.0 | 0.9 | 0.8 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 0.8 | 0.6 |
| 155.5° | 0.8 | 1.1 | 0.9 | 0.8 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 0.6 |
| 156° | 0.8 | 1.0 | 0.9 | 0.8 | 0.7 | 0.8 | 0.8 | 0.7 | 0.9 | 0.9 | 0.6 |
| 156.5° | 0.8 | 0.9 | 0.9 | 0.8 | 0.7 | 0.8 | 0.8 | 0.7 | 1.0 | 0.9 | 0.6 |
| 157° | 0.9 | 0.8 | 1.0 | 0.8 | 0.7 | 0.8 | 0.8 | 0.8 | 1.0 | 1.0 | 0.6 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 157.5° | 0.9 | 1.0 | 1.0 | 0.8 | 0.7 | 0.8 | 0.8 | 0.7 | 1.0 | 1.0 | 0.8 |
| 158° | 0.9 | 1.0 | 0.9 | 0.8 | 0.7 | 0.8 | 0.8 | 0.7 | 1.0 | 0.9 | 0.8 |
| 158.5° | 0.9 | 1.0 | 0.8 | 0.8 | 0.7 | 0.8 | 0.8 | 0.7 | 0.8 | 0.9 | 0.8 |
| 159° | 0.9 | 1.0 | 0.8 | 0.8 | 0.7 | 0.8 | 0.8 | 0.7 | 0.6 | 0.9 | 0.8 |
| 159.5° | 0.8 | 1.0 | 0.8 | 0.8 | 0.7 | 1.0 | 0.8 | 0.7 | 0.8 | 1.0 | 0.9 |
| 160° | 0.8 | 0.9 | 0.8 | 0.8 | 0.7 | 0.9 | 0.9 | 0.8 | 0.9 | 1.0 | 0.7 |
| 160.5° | 0.8 | 0.9 | 0.8 | 0.9 | 0.7 | 0.8 | 0.9 | 0.8 | 1.1 | 1.0 | 0.7 |
| 161° | 0.8 | 0.9 | 0.8 | 0.8 | 0.7 | 0.8 | 0.9 | 0.9 | 0.7 | 1.0 | 0.7 |
| 161.5° | 0.8 | 0.9 | 0.8 | 0.8 | 0.7 | 0.8 | 0.9 | 0.8 | 0.6 | 1.0 | 0.7 |
| 162° | 0.8 | 0.9 | 1.0 | 0.9 | 0.7 | 0.7 | 0.9 | 0.8 | 0.7 | 1.0 | 0.6 |
| 162.5° | 0.9 | 0.9 | 1.0 | 0.9 | 0.7 | 0.7 | 0.9 | 0.8 | 0.8 | 1.0 | 0.7 |
| 163° | 0.9 | 0.9 | 0.8 | 0.9 | 0.7 | 0.7 | 0.9 | 0.8 | 0.8 | 1.0 | 1.0 |
| 163.5° | 0.9 | 0.9 | 0.8 | 0.9 | 0.7 | 0.7 | 0.9 | 0.6 | 0.7 | 1.1 | 0.9 |
| 164° | 0.9 | 0.8 | 0.9 | 0.9 | 0.7 | 0.7 | 0.9 | 0.8 | 1.0 | 0.8 | 0.9 |
| 164.5° | 0.9 | 0.8 | 0.9 | 0.9 | 0.7 | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 | 0.9 |
| 165° | 1.0 | 0.8 | 1.0 | 0.9 | 0.7 | 0.8 | 0.9 | 1.0 | 0.8 | 0.8 | 0.9 |
| 165.5° | 1.0 | 0.8 | 1.0 | 0.9 | 0.7 | 1.0 | 0.9 | 0.9 | 0.8 | 0.7 | 0.9 |
| 166° | 0.9 | 0.9 | 0.9 | 0.9 | 0.7 | 1.0 | 0.9 | 1.0 | 0.8 | 0.7 | 0.9 |
| 166.5° | 1.0 | 0.8 | 0.9 | 0.9 | 0.8 | 1.0 | 0.9 | 1.0 | 0.8 | 0.6 | 0.9 |
| 167° | 1.0 | 0.9 | 1.0 | 0.9 | 0.8 | 1.0 | 1.0 | 1.0 | 0.8 | 1.0 | 0.9 |
| 167.5° | 1.0 | 1.0 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 0.8 | 1.0 | 1.0 |
| 168° | 1.0 | 1.0 | 0.9 | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 0.9 | 1.2 | 1.0 |
| 168.5° | 1.3 | 1.0 | 0.9 | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 | 0.9 | 0.9 | 1.0 |
| 169° | 1.2 | 1.0 | 1.0 | 1.0 | 0.8 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 |
| 169.5° | 1.2 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.8 | 0.8 | 0.9 |
| 170° | 1.2 | 1.3 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.8 | 0.9 |
| 170.5° | 1.2 | 1.2 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 | 1.0 |
| 171° | 1.1 | 1.2 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.8 | 0.9 |
| 171.5° | 1.1 | 1.2 | 1.0 | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 0.8 | 1.0 |
| 172° | 1.1 | 1.2 | 1.0 | 1.0 | 0.9 | 1.0 | 1.1 | 1.0 | 1.0 | 1.2 | 1.1 |
| 172.5° | 1.1 | 1.2 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.0 | 0.9 | 1.1 | 1.0 |
| 173° | 1.1 | 1.2 | 1.2 | 1.0 | 0.8 | 1.0 | 1.0 | 1.0 | 0.9 | 0.8 | 1.0 |
| 173.5° | 1.1 | 1.1 | 0.7 | 1.0 | 0.8 | 1.0 | 1.0 | 1.0 | 1.0 | 0.7 | 1.0 |
| 174° | 1.1 | 1.1 | 0.9 | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 0.9 | 1.0 | 1.0 |
| 174.5° | 1.1 | 1.2 | 0.9 | 1.0 | 0.8 | 1.0 | 1.0 | 1.0 | 0.9 | 1.0 | 1.0 |
| 175° | 1.0 | 1.1 | 0.8 | 1.0 | 0.8 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 1.0 |
| 175.5° | 0.8 | 1.1 | 0.8 | 1.0 | 0.8 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 1.0 |
| 176° | 0.9 | 1.1 | 0.8 | 1.0 | 0.8 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 1.0 |
| 176.5° | 0.9 | 1.1 | 0.8 | 1.0 | 0.8 | 1.0 | 1.1 | 0.9 | 0.9 | 0.9 | 1.0 |
| 177° | 0.9 | 1.0 | 0.8 | 1.0 | 1.0 | 1.0 | 1.1 | 0.9 | 0.9 | 0.9 | 1.0 |
| 177.5° | 0.9 | 1.0 | 0.8 | 1.0 | 0.8 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 1.0 |
| 178° | 0.9 | 1.0 | 0.8 | 1.0 | 0.8 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 1.0 |
| 178.5° | 1.0 | 1.0 | 0.8 | 1.0 | 0.8 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 1.0 |
| 179° | 1.0 | 1.0 | 0.8 | 1.0 | 0.8 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 1.0 |
| 179.5° | 1.0 | 1.0 | 0.8 | 1.0 | 1.0 | 1.0 | 1.1 | 0.8 | 1.0 | 0.9 | 1.0 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | | | | | | | | | | | |
|------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
| 180° | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 0° | 214.3 | 214.3 | 214.3 | 214.3 | 214.3 | 214.3 |
| 0.5° | 213.5 | 214.3 | 214.1 | 214.1 | 213.8 | 213.7 |
| 1° | 213.5 | 214.3 | 214.1 | 214.1 | 213.8 | 213.7 |
| 1.5° | 213.5 | 214.3 | 214.1 | 214.1 | 213.8 | 213.7 |
| 2° | 213.5 | 214.3 | 214.1 | 214.1 | 213.8 | 213.7 |
| 2.5° | 213.5 | 214.3 | 214.1 | 214.1 | 213.8 | 213.9 |
| 3° | 213.5 | 214.3 | 214.1 | 214.2 | 213.9 | 214.1 |
| 3.5° | 213.5 | 214.3 | 214.1 | 214.3 | 213.9 | 214.3 |
| 4° | 213.5 | 214.3 | 214.1 | 214.3 | 214.1 | 214.3 |
| 4.5° | 213.5 | 214.3 | 214.1 | 214.3 | 214.2 | 214.3 |
| 5° | 213.5 | 214.3 | 214.1 | 214.3 | 214.2 | 214.4 |
| 5.5° | 213.5 | 214.3 | 214.1 | 214.4 | 214.3 | 214.6 |
| 6° | 213.5 | 214.3 | 214.1 | 214.5 | 214.4 | 214.6 |
| 6.5° | 213.5 | 214.3 | 214.1 | 214.5 | 214.4 | 214.6 |
| 7° | 213.5 | 214.3 | 214.1 | 214.4 | 214.4 | 214.8 |
| 7.5° | 213.5 | 214.3 | 214.1 | 214.4 | 214.5 | 214.8 |
| 8° | 213.5 | 214.3 | 214.3 | 214.4 | 214.6 | 214.8 |
| 8.5° | 213.5 | 214.3 | 214.3 | 214.5 | 214.7 | 214.8 |
| 9° | 213.5 | 214.3 | 214.3 | 214.5 | 214.7 | 214.8 |
| 9.5° | 213.5 | 214.3 | 214.4 | 214.6 | 214.9 | 214.9 |
| 10° | 213.5 | 214.3 | 214.3 | 214.5 | 215.0 | 215.1 |
| 10.5° | 213.5 | 214.3 | 214.3 | 214.6 | 214.9 | 215.3 |
| 11° | 213.4 | 214.4 | 214.3 | 214.6 | 215.1 | 215.3 |
| 11.5° | 213.3 | 214.4 | 214.3 | 214.7 | 215.2 | 215.4 |
| 12° | 213.3 | 214.3 | 214.3 | 214.8 | 215.3 | 215.5 |
| 12.5° | 213.3 | 214.3 | 214.3 | 214.9 | 215.3 | 215.5 |
| 13° | 213.2 | 214.3 | 214.3 | 215.0 | 215.4 | 215.6 |
| 13.5° | 213.1 | 214.3 | 214.4 | 215.2 | 215.4 | 215.7 |
| 14° | 213.0 | 214.3 | 214.4 | 215.2 | 215.4 | 215.7 |
| 14.5° | 213.0 | 214.3 | 214.5 | 215.3 | 215.4 | 215.7 |
| 15° | 213.0 | 214.4 | 214.5 | 215.4 | 215.5 | 215.7 |
| 15.5° | 212.8 | 214.4 | 214.5 | 215.4 | 215.6 | 215.7 |
| 16° | 212.8 | 214.3 | 214.5 | 215.4 | 215.6 | 215.7 |
| 16.5° | 212.7 | 214.2 | 214.5 | 215.4 | 215.6 | 215.7 |
| 17° | 212.6 | 214.3 | 214.5 | 215.4 | 215.7 | 215.7 |
| 17.5° | 212.6 | 214.0 | 214.5 | 215.4 | 215.7 | 215.7 |
| 18° | 212.3 | 214.0 | 214.5 | 215.5 | 215.6 | 215.7 |
| 18.5° | 212.1 | 213.8 | 214.5 | 215.5 | 215.6 | 215.7 |
| 19° | 212.0 | 213.8 | 214.5 | 215.4 | 215.6 | 215.8 |
| 19.5° | 211.9 | 213.6 | 214.5 | 215.4 | 215.6 | 215.8 |
| 20° | 211.6 | 213.3 | 214.5 | 215.4 | 215.8 | 215.7 |
| 20.5° | 211.3 | 213.0 | 214.4 | 215.4 | 215.8 | 215.6 |
| 21° | 211.0 | 212.9 | 214.3 | 215.4 | 215.7 | 215.5 |
| 21.5° | 210.8 | 212.6 | 213.9 | 215.3 | 215.7 | 215.3 |
| 22° | 210.5 | 212.4 | 213.8 | 215.0 | 215.6 | 215.1 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 210.1 | 212.2 | 213.6 | 215.0 | 215.4 | 214.8 |
| 23° | 209.7 | 211.8 | 213.4 | 214.8 | 215.1 | 214.6 |
| 23.5° | 209.4 | 211.4 | 212.9 | 214.5 | 215.1 | 214.2 |
| 24° | 208.9 | 211.1 | 212.8 | 214.3 | 214.8 | 214.0 |
| 24.5° | 208.4 | 210.7 | 212.4 | 214.0 | 214.5 | 213.5 |
| 25° | 208.0 | 210.2 | 212.1 | 213.7 | 214.2 | 213.1 |
| 25.5° | 207.4 | 209.7 | 211.7 | 213.4 | 213.9 | 212.7 |
| 26° | 206.9 | 209.1 | 211.3 | 213.0 | 213.5 | 212.4 |
| 26.5° | 206.4 | 208.8 | 210.9 | 212.7 | 213.2 | 211.8 |
| 27° | 205.6 | 208.2 | 210.3 | 212.3 | 212.8 | 211.2 |
| 27.5° | 205.0 | 207.5 | 209.8 | 212.0 | 212.4 | 210.8 |
| 28° | 204.4 | 206.8 | 209.1 | 211.4 | 211.9 | 210.1 |
| 28.5° | 203.5 | 206.1 | 208.4 | 211.0 | 211.4 | 209.5 |
| 29° | 202.8 | 205.4 | 207.9 | 210.4 | 210.8 | 208.9 |
| 29.5° | 202.0 | 204.6 | 207.3 | 209.9 | 210.2 | 208.2 |
| 30° | 201.2 | 203.9 | 206.7 | 209.3 | 209.7 | 207.5 |
| 30.5° | 200.3 | 203.0 | 205.9 | 208.8 | 209.0 | 206.6 |
| 31° | 199.3 | 202.1 | 205.2 | 208.0 | 208.3 | 205.7 |
| 31.5° | 198.5 | 201.2 | 204.3 | 207.2 | 207.5 | 204.9 |
| 32° | 197.4 | 200.2 | 203.4 | 206.4 | 206.7 | 204.1 |
| 32.5° | 196.4 | 199.3 | 202.7 | 205.8 | 205.9 | 202.9 |
| 33° | 195.4 | 198.2 | 201.6 | 204.9 | 205.0 | 202.1 |
| 33.5° | 194.4 | 197.1 | 200.7 | 204.0 | 204.1 | 201.0 |
| 34° | 193.2 | 196.0 | 199.7 | 203.0 | 203.2 | 199.8 |
| 34.5° | 191.9 | 194.9 | 198.6 | 202.0 | 202.2 | 198.9 |
| 35° | 190.8 | 193.6 | 197.5 | 201.0 | 201.1 | 197.8 |
| 35.5° | 189.7 | 192.5 | 196.4 | 200.1 | 200.1 | 196.5 |
| 36° | 188.3 | 191.1 | 195.2 | 198.9 | 198.8 | 195.3 |
| 36.5° | 186.9 | 189.8 | 194.1 | 197.7 | 197.7 | 194.0 |
| 37° | 185.8 | 188.4 | 192.7 | 196.6 | 196.4 | 192.7 |
| 37.5° | 184.3 | 187.0 | 191.3 | 195.3 | 195.2 | 191.3 |
| 38° | 182.9 | 185.7 | 190.0 | 193.9 | 193.9 | 189.9 |
| 38.5° | 181.6 | 184.2 | 188.6 | 192.6 | 192.5 | 188.5 |
| 39° | 179.8 | 182.7 | 187.2 | 191.4 | 191.1 | 187.1 |
| 39.5° | 178.3 | 181.2 | 185.8 | 190.0 | 189.7 | 185.7 |
| 40° | 176.7 | 179.6 | 184.3 | 188.4 | 188.2 | 184.2 |
| 40.5° | 175.4 | 178.1 | 182.8 | 186.9 | 186.7 | 182.6 |
| 41° | 173.7 | 176.4 | 181.3 | 185.4 | 185.3 | 181.0 |
| 41.5° | 171.9 | 174.7 | 179.5 | 183.7 | 183.6 | 179.2 |
| 42° | 170.2 | 172.9 | 177.8 | 182.2 | 182.1 | 177.4 |
| 42.5° | 168.4 | 171.2 | 176.2 | 180.6 | 180.4 | 175.7 |
| 43° | 166.6 | 169.4 | 174.5 | 178.9 | 178.6 | 174.0 |
| 43.5° | 164.9 | 167.6 | 172.8 | 177.0 | 176.7 | 172.0 |
| 44° | 163.0 | 165.9 | 171.1 | 175.3 | 174.9 | 170.1 |
| 44.5° | 161.3 | 164.0 | 169.2 | 173.4 | 173.0 | 168.4 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 45° | 159.4 | 162.2 | 167.3 | 171.6 | 171.2 | 166.4 |
| 45.5° | 157.5 | 160.3 | 165.3 | 169.7 | 169.3 | 164.5 |
| 46° | 155.7 | 158.3 | 163.4 | 167.7 | 167.3 | 162.6 |
| 46.5° | 153.8 | 156.4 | 161.4 | 165.7 | 165.4 | 160.5 |
| 47° | 152.1 | 154.4 | 159.4 | 163.6 | 163.3 | 158.6 |
| 47.5° | 149.9 | 152.5 | 157.3 | 161.6 | 161.2 | 156.5 |
| 48° | 147.9 | 150.5 | 155.4 | 159.4 | 159.2 | 154.4 |
| 48.5° | 145.9 | 148.5 | 153.5 | 157.4 | 157.1 | 152.6 |
| 49° | 143.9 | 146.5 | 151.3 | 155.2 | 155.0 | 150.4 |
| 49.5° | 141.9 | 144.4 | 149.2 | 153.2 | 153.1 | 148.3 |
| 50° | 139.9 | 142.2 | 147.1 | 151.0 | 150.8 | 146.2 |
| 50.5° | 137.8 | 140.1 | 145.0 | 148.9 | 148.6 | 144.0 |
| 51° | 135.8 | 138.1 | 142.8 | 146.6 | 146.4 | 141.9 |
| 51.5° | 133.6 | 136.0 | 140.7 | 144.3 | 144.2 | 139.6 |
| 52° | 131.6 | 133.9 | 138.5 | 142.1 | 142.0 | 137.4 |
| 52.5° | 129.5 | 131.7 | 136.5 | 139.8 | 139.7 | 135.2 |
| 53° | 127.3 | 129.6 | 134.1 | 137.5 | 137.3 | 133.0 |
| 53.5° | 125.1 | 127.6 | 131.9 | 135.2 | 135.1 | 130.7 |
| 54° | 123.1 | 125.3 | 129.7 | 133.0 | 132.9 | 128.5 |
| 54.5° | 120.9 | 123.3 | 127.5 | 130.5 | 130.6 | 126.3 |
| 55° | 118.9 | 121.1 | 125.2 | 128.1 | 128.1 | 124.2 |
| 55.5° | 116.7 | 118.9 | 123.0 | 125.7 | 125.9 | 121.9 |
| 56° | 114.6 | 116.7 | 120.8 | 123.5 | 123.7 | 119.7 |
| 56.5° | 112.4 | 114.7 | 118.6 | 121.3 | 121.3 | 117.5 |
| 57° | 110.5 | 112.4 | 116.4 | 119.0 | 119.1 | 115.3 |
| 57.5° | 108.3 | 110.2 | 114.1 | 116.7 | 116.8 | 113.0 |
| 58° | 106.2 | 108.2 | 111.8 | 114.4 | 114.5 | 110.8 |
| 58.5° | 104.0 | 106.0 | 109.7 | 112.1 | 112.1 | 108.6 |
| 59° | 102.1 | 104.0 | 107.4 | 109.8 | 109.8 | 106.3 |
| 59.5° | 100.0 | 101.7 | 105.2 | 107.6 | 107.6 | 104.2 |
| 60° | 98.0 | 99.7 | 103.0 | 105.3 | 105.3 | 101.9 |
| 60.5° | 95.8 | 97.4 | 100.7 | 103.0 | 103.1 | 99.9 |
| 61° | 93.8 | 95.3 | 98.6 | 100.8 | 100.7 | 97.6 |
| 61.5° | 91.7 | 93.2 | 96.3 | 98.6 | 98.5 | 95.6 |
| 62° | 89.8 | 91.2 | 94.3 | 96.4 | 96.2 | 93.3 |
| 62.5° | 87.7 | 89.0 | 92.0 | 94.2 | 94.1 | 91.1 |
| 63° | 85.8 | 87.1 | 89.9 | 92.0 | 91.9 | 89.0 |
| 63.5° | 83.8 | 85.1 | 88.0 | 89.8 | 89.6 | 87.1 |
| 64° | 81.9 | 83.1 | 85.8 | 87.7 | 87.6 | 84.9 |
| 64.5° | 79.9 | 81.1 | 83.7 | 85.6 | 85.4 | 82.8 |
| 65° | 77.9 | 79.1 | 81.6 | 83.5 | 83.3 | 80.8 |
| 65.5° | 76.0 | 77.1 | 79.5 | 81.3 | 81.2 | 78.7 |
| 66° | 74.0 | 75.1 | 77.4 | 79.1 | 79.0 | 76.6 |
| 66.5° | 72.0 | 73.0 | 75.4 | 77.0 | 76.9 | 74.5 |
| 67° | 70.1 | 71.1 | 73.3 | 75.0 | 74.8 | 72.5 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 68.3 | 69.1 | 71.3 | 72.9 | 72.7 | 70.6 |
| 68° | 66.4 | 67.2 | 69.3 | 70.9 | 70.7 | 68.7 |
| 68.5° | 64.5 | 65.3 | 67.3 | 68.7 | 68.5 | 66.6 |
| 69° | 62.7 | 63.4 | 65.3 | 66.7 | 66.6 | 64.7 |
| 69.5° | 60.8 | 61.5 | 63.3 | 64.7 | 64.5 | 62.7 |
| 70° | 58.9 | 59.7 | 61.4 | 62.7 | 62.6 | 60.9 |
| 70.5° | 57.3 | 57.8 | 59.4 | 60.6 | 60.5 | 58.9 |
| 71° | 55.4 | 55.9 | 57.5 | 58.7 | 58.7 | 57.0 |
| 71.5° | 53.7 | 54.2 | 55.6 | 56.7 | 56.7 | 55.2 |
| 72° | 52.0 | 52.3 | 53.8 | 55.0 | 55.0 | 53.5 |
| 72.5° | 50.2 | 50.6 | 51.8 | 52.9 | 52.9 | 51.6 |
| 73° | 48.5 | 48.7 | 50.2 | 50.9 | 51.0 | 49.8 |
| 73.5° | 46.7 | 47.0 | 48.2 | 49.1 | 49.2 | 47.9 |
| 74° | 45.0 | 45.3 | 46.5 | 47.2 | 47.3 | 46.2 |
| 74.5° | 43.4 | 43.5 | 44.7 | 45.4 | 45.6 | 44.4 |
| 75° | 41.7 | 41.8 | 43.0 | 43.5 | 43.7 | 42.8 |
| 75.5° | 40.1 | 40.1 | 41.2 | 41.8 | 41.9 | 41.0 |
| 76° | 38.4 | 38.5 | 39.6 | 40.1 | 40.2 | 39.3 |
| 76.5° | 36.8 | 36.8 | 37.8 | 38.4 | 38.6 | 37.6 |
| 77° | 35.2 | 35.2 | 36.1 | 36.6 | 36.8 | 36.0 |
| 77.5° | 33.7 | 33.5 | 34.5 | 34.9 | 35.2 | 34.4 |
| 78° | 32.1 | 32.0 | 32.9 | 33.2 | 33.4 | 32.9 |
| 78.5° | 30.6 | 30.3 | 31.3 | 31.6 | 31.9 | 31.3 |
| 79° | 29.1 | 28.8 | 29.7 | 30.0 | 30.3 | 29.6 |
| 79.5° | 27.6 | 27.3 | 28.1 | 28.4 | 28.7 | 28.1 |
| 80° | 26.0 | 25.8 | 26.5 | 26.9 | 27.1 | 26.6 |
| 80.5° | 24.6 | 24.2 | 25.1 | 25.3 | 25.6 | 25.1 |
| 81° | 23.1 | 22.9 | 23.5 | 23.8 | 24.1 | 23.6 |
| 81.5° | 21.7 | 21.5 | 22.2 | 22.4 | 22.6 | 22.3 |
| 82° | 20.4 | 20.1 | 20.8 | 20.9 | 21.2 | 21.0 |
| 82.5° | 19.1 | 18.7 | 19.3 | 19.4 | 19.7 | 19.5 |
| 83° | 17.7 | 17.3 | 17.8 | 18.0 | 18.3 | 18.1 |
| 83.5° | 16.3 | 15.8 | 16.3 | 16.5 | 16.9 | 16.7 |
| 84° | 15.0 | 14.5 | 14.9 | 15.1 | 15.5 | 15.3 |
| 84.5° | 13.7 | 13.1 | 13.6 | 13.7 | 14.1 | 14.0 |
| 85° | 12.3 | 11.7 | 12.1 | 12.3 | 12.7 | 12.6 |
| 85.5° | 11.0 | 10.4 | 10.7 | 11.1 | 11.3 | 11.4 |
| 86° | 9.8 | 9.1 | 9.4 | 9.6 | 10.0 | 10.1 |
| 86.5° | 8.5 | 7.7 | 8.1 | 8.2 | 8.6 | 8.8 |
| 87° | 7.1 | 6.5 | 6.7 | 6.9 | 7.3 | 7.6 |
| 87.5° | 5.7 | 5.2 | 5.5 | 5.6 | 6.0 | 6.4 |
| 88° | 4.6 | 3.7 | 4.0 | 4.3 | 4.7 | 5.3 |
| 88.5° | 3.1 | 2.4 | 2.6 | 2.8 | 3.5 | 4.0 |
| 89° | 1.9 | 1.6 | 1.6 | 1.7 | 2.3 | 2.9 |
| 89.5° | 1.0 | 1.0 | 1.0 | 1.1 | 1.5 | 1.8 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 90° | 0.6 | 0.8 | 0.7 | 0.8 | 1.1 | 1.1 |
| 90.5° | 0.4 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 |
| 91° | 0.3 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 |
| 91.5° | 0.3 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 |
| 92° | 0.3 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 |
| 92.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 93° | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 93.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 94° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 94.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 95° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 95.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 96° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 96.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 97° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 97.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 98° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 98.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 99° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 99.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 100° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 100.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 101° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 101.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 102° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 102.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 103° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 103.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 104° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 104.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 105° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 105.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 106° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 106.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 107° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 107.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 108° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 108.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 109° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 109.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 110° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 110.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 111° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 111.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 112° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 112.5° | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| 113° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 113.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 114° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 114.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 115° | 0.3 | 0.5 | 0.5 | 0.6 | 0.4 | 0.4 |
| 115.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 116° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 116.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 117° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 117.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 118° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 118.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 119° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 119.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 120° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 120.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 121° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 121.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 |
| 122° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 122.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 123° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 123.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 124° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 124.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 125° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 125.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 126° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 126.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 127° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 127.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 128° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 128.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 129° | 0.3 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 |
| 129.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 130° | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 130.5° | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 131° | 0.3 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 |
| 131.5° | 0.4 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 |
| 132° | 0.4 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 |
| 132.5° | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 |
| 133° | 0.7 | 0.5 | 0.6 | 0.5 | 0.8 | 0.6 |
| 133.5° | 0.6 | 0.5 | 0.6 | 0.6 | 0.7 | 0.6 |
| 134° | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.6 |
| 134.5° | 0.6 | 0.5 | 0.6 | 0.6 | 0.7 | 0.6 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 135° | 0.6 | 0.5 | 0.6 | 0.6 | 0.7 | 0.6 |
| 135.5° | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.6 |
| 136° | 0.6 | 0.5 | 0.6 | 0.7 | 0.7 | 0.7 |
| 136.5° | 0.6 | 0.5 | 0.6 | 0.6 | 0.8 | 0.6 |
| 137° | 0.5 | 0.5 | 0.8 | 0.8 | 0.8 | 0.8 |
| 137.5° | 0.5 | 0.5 | 0.8 | 0.8 | 0.8 | 0.8 |
| 138° | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 |
| 138.5° | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 |
| 139° | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 |
| 139.5° | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 |
| 140° | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 |
| 140.5° | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.7 |
| 141° | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.7 |
| 141.5° | 0.6 | 0.5 | 0.7 | 0.7 | 0.8 | 1.0 |
| 142° | 0.5 | 0.5 | 0.7 | 0.7 | 0.7 | 1.0 |
| 142.5° | 0.5 | 0.5 | 0.7 | 0.7 | 0.6 | 0.8 |
| 143° | 0.6 | 0.5 | 0.7 | 0.7 | 0.8 | 0.9 |
| 143.5° | 0.6 | 0.5 | 0.7 | 0.7 | 0.8 | 0.7 |
| 144° | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 |
| 144.5° | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 |
| 145° | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 |
| 145.5° | 0.6 | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 |
| 146° | 0.7 | 0.5 | 0.7 | 0.8 | 0.8 | 0.8 |
| 146.5° | 0.7 | 0.5 | 0.7 | 0.8 | 0.8 | 0.8 |
| 147° | 0.8 | 0.5 | 0.7 | 0.8 | 0.8 | 0.8 |
| 147.5° | 0.7 | 0.5 | 0.7 | 0.8 | 0.8 | 0.8 |
| 148° | 0.6 | 0.5 | 0.8 | 0.8 | 0.8 | 0.8 |
| 148.5° | 0.6 | 0.5 | 0.8 | 0.8 | 0.8 | 0.8 |
| 149° | 0.5 | 0.5 | 0.7 | 0.8 | 0.8 | 0.7 |
| 149.5° | 0.6 | 0.5 | 0.9 | 0.8 | 0.8 | 0.8 |
| 150° | 0.6 | 0.6 | 0.9 | 0.8 | 0.8 | 1.1 |
| 150.5° | 0.6 | 0.6 | 0.9 | 0.8 | 0.8 | 0.8 |
| 151° | 0.7 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 |
| 151.5° | 0.6 | 0.8 | 0.9 | 0.8 | 0.9 | 0.8 |
| 152° | 0.6 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 |
| 152.5° | 0.8 | 0.8 | 0.9 | 0.8 | 0.8 | 0.9 |
| 153° | 0.5 | 0.8 | 0.9 | 0.8 | 1.1 | 0.9 |
| 153.5° | 0.7 | 0.8 | 0.9 | 0.8 | 1.0 | 0.7 |
| 154° | 0.7 | 0.8 | 0.9 | 0.8 | 1.0 | 0.7 |
| 154.5° | 0.6 | 0.8 | 0.9 | 0.8 | 0.9 | 0.8 |
| 155° | 0.9 | 0.8 | 0.9 | 0.8 | 0.9 | 0.8 |
| 155.5° | 0.8 | 0.8 | 0.9 | 0.8 | 1.0 | 0.8 |
| 156° | 0.6 | 0.8 | 0.9 | 0.8 | 1.0 | 0.8 |
| 156.5° | 0.6 | 0.8 | 0.9 | 0.8 | 1.0 | 0.8 |
| 157° | 0.7 | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 157.5° | 0.6 | 0.8 | 0.9 | 0.8 | 0.9 | 0.9 |
| 158° | 0.5 | 0.8 | 0.9 | 0.8 | 0.9 | 0.9 |
| 158.5° | 0.7 | 0.8 | 0.9 | 1.0 | 0.9 | 0.9 |
| 159° | 0.7 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| 159.5° | 0.7 | 0.8 | 0.9 | 0.9 | 0.9 | 0.8 |
| 160° | 0.6 | 0.8 | 0.9 | 0.9 | 0.9 | 0.8 |
| 160.5° | 0.6 | 0.8 | 0.9 | 0.9 | 0.9 | 0.8 |
| 161° | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.8 |
| 161.5° | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.8 |
| 162° | 0.7 | 0.8 | 0.9 | 0.9 | 0.9 | 0.8 |
| 162.5° | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 0.9 |
| 163° | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| 163.5° | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| 164° | 0.8 | 0.8 | 1.0 | 0.9 | 1.0 | 0.9 |
| 164.5° | 0.9 | 0.8 | 0.9 | 0.9 | 1.0 | 0.9 |
| 165° | 0.8 | 0.9 | 1.0 | 0.9 | 1.0 | 1.0 |
| 165.5° | 0.7 | 0.9 | 1.0 | 0.9 | 1.0 | 1.0 |
| 166° | 0.7 | 0.9 | 1.0 | 0.9 | 1.0 | 0.9 |
| 166.5° | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 167° | 0.8 | 1.0 | 1.0 | 0.9 | 1.0 | 1.0 |
| 167.5° | 0.8 | 0.9 | 1.0 | 0.9 | 1.1 | 1.0 |
| 168° | 0.8 | 0.9 | 1.0 | 1.2 | 1.1 | 1.0 |
| 168.5° | 0.8 | 0.9 | 1.0 | 1.2 | 1.0 | 1.3 |
| 169° | 0.9 | 0.9 | 1.0 | 1.2 | 1.0 | 1.2 |
| 169.5° | 0.8 | 0.9 | 1.0 | 1.1 | 1.0 | 1.2 |
| 170° | 1.2 | 0.9 | 1.0 | 1.1 | 1.0 | 1.2 |
| 170.5° | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 1.2 |
| 171° | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 |
| 171.5° | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 |
| 172° | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 |
| 172.5° | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 |
| 173° | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 |
| 173.5° | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 |
| 174° | 0.8 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 |
| 174.5° | 0.8 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 |
| 175° | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 175.5° | 0.8 | 1.0 | 1.0 | 1.0 | 1.0 | 0.8 |
| 176° | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 | 0.9 |
| 176.5° | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 |
| 177° | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 |
| 177.5° | 1.0 | 1.0 | 1.3 | 0.9 | 1.0 | 0.9 |
| 178° | 1.1 | 1.0 | 1.1 | 0.9 | 1.0 | 0.9 |
| 178.5° | 1.1 | 1.0 | 1.1 | 0.8 | 1.0 | 1.0 |
| 179° | 0.9 | 1.0 | 1.2 | 0.8 | 1.0 | 1.0 |
| 179.5° | 0.9 | 1.0 | 1.0 | 0.8 | 1.0 | 1.0 |



TEST NUMBER: P473751

CATALOG NUMBER: HLB4069BLE40AWH-2700K

CANDELA DISTRIBUTION (continued):

| | | | | | | |
|------|--------|------|--------|------|--------|------|
| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
| 180° | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |

(END OF REPORT)