

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: HALO

Report Number: P640252

Luminaire Tested: LCR208RD9FSE020-10W-3000K

Issue Date: 2/13/2023

Test Information

Test Method: LM-79-2019
Report Number: P640252
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2208047A001)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: LCR208RD9FSE020-10W-3000K
Description: LCR 2
Light Source: 3000K CCT, 93 CRI LEDS
Ballast/Driver: -

Summary

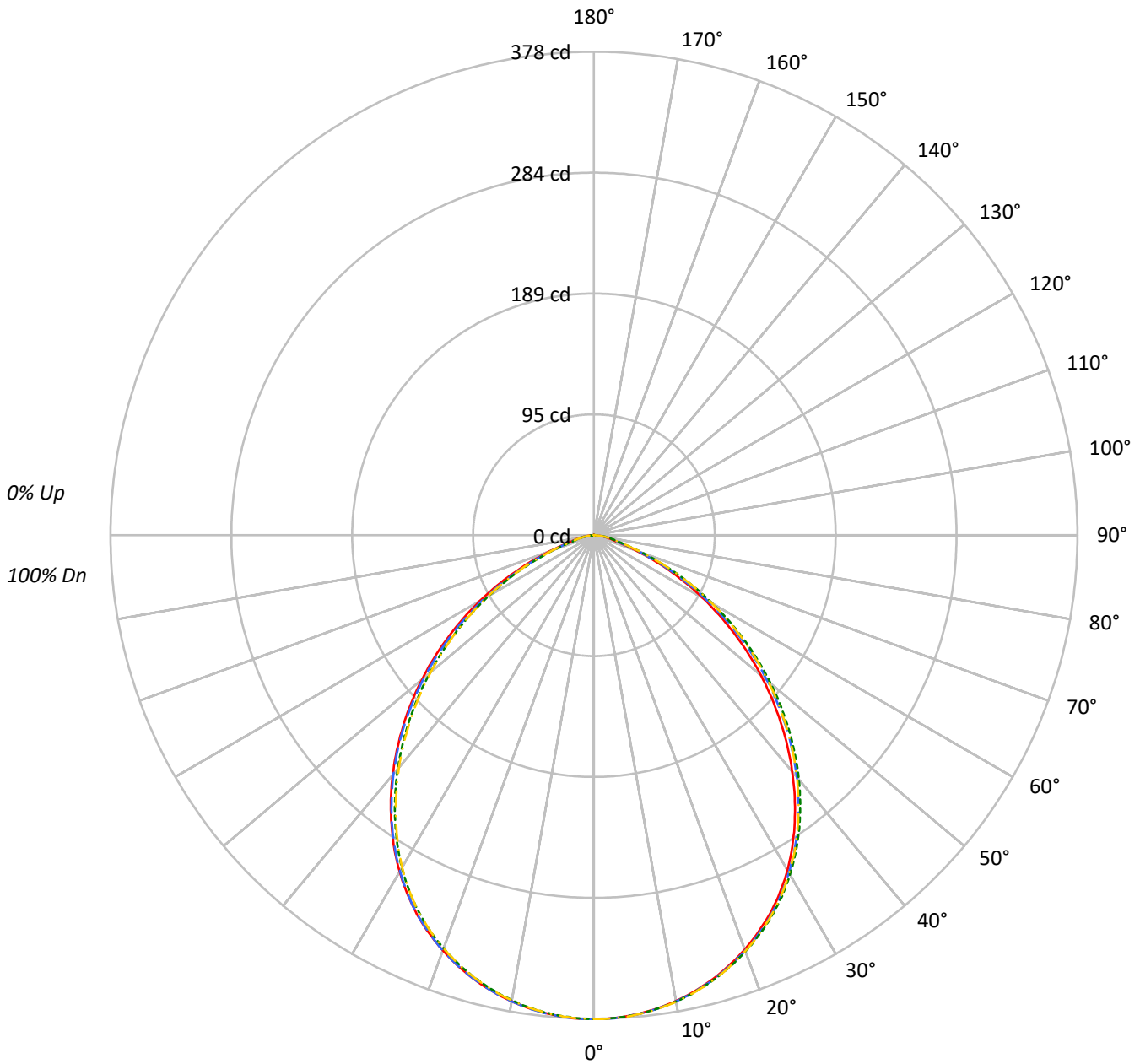
Lumens per Lamp: N/A
Luminaire Lumens: 835.0 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.27
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
Input Voltage (V): 120
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: 24 FT



TEST NUMBER: P640252
CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



TEST NUMBER: P640252
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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 |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 |
| 1 | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 | 87 | 87 |
| 2 | 102 | 95 | 89 | 84 | 99 | 93 | 88 | 83 | 89 | 85 | 81 | 86 | 83 | 79 | 83 | 80 | 77 | 75 | 75 | 75 |
| 3 | 94 | 84 | 77 | 72 | 91 | 83 | 76 | 71 | 80 | 74 | 70 | 77 | 73 | 68 | 75 | 71 | 67 | 65 | 65 | 65 |
| 4 | 87 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 72 | 66 | 61 | 70 | 64 | 60 | 68 | 63 | 59 | 57 | 57 | 57 |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 59 | 54 | 65 | 58 | 53 | 63 | 57 | 53 | 61 | 56 | 52 | 50 | 50 | 50 |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 46 | 44 | 44 | 44 |
| 7 | 69 | 56 | 48 | 43 | 67 | 56 | 48 | 42 | 54 | 47 | 42 | 53 | 46 | 42 | 51 | 46 | 41 | 40 | 40 | 40 |
| 8 | 64 | 52 | 44 | 38 | 63 | 51 | 43 | 38 | 50 | 43 | 38 | 49 | 42 | 38 | 47 | 42 | 37 | 36 | 36 | 36 |
| 9 | 60 | 48 | 40 | 35 | 59 | 47 | 40 | 35 | 46 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 | 32 | 32 |
| 10 | 57 | 44 | 37 | 32 | 55 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 29 | 29 | 29 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|--------|--------|--------|--------|
| 0° | 186645 | 186645 | 186645 | 186645 |
| 5° | 186269 | 186318 | 186318 | 186170 |
| 10° | 185216 | 185417 | 185367 | 184966 |
| 15° | 183474 | 183933 | 183780 | 183167 |
| 20° | 180983 | 181823 | 181350 | 180457 |
| 25° | 177578 | 178885 | 178122 | 176707 |
| 30° | 172279 | 174558 | 173077 | 171083 |
| 35° | 164791 | 168525 | 166236 | 163345 |
| 40° | 155283 | 160500 | 157666 | 153673 |
| 45° | 143945 | 150503 | 147224 | 142130 |
| 50° | 130793 | 138545 | 134707 | 128567 |
| 55° | 115350 | 124038 | 119909 | 112684 |
| 60° | 97097 | 106175 | 101735 | 93841 |
| 65° | 75650 | 84522 | 79619 | 71681 |
| 70° | 51499 | 58856 | 53663 | 47315 |
| 75° | 33169 | 38316 | 33741 | 28785 |
| 80° | 28697 | 33811 | 29549 | 24435 |
| 85° | 21511 | 29437 | 22644 | 15851 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 150503 cd/sqm



TEST NUMBER: P640252
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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 35.7 | 4.3 |
| 10°-20° | 101.3 | 12.1 |
| 20°-30° | 150.2 | 18.0 |
| 30°-40° | 171.7 | 20.6 |
| 40°-50° | 161.1 | 19.3 |
| 50°-60° | 122.4 | 14.7 |
| 60°-70° | 66.4 | 7.9 |
| 70°-80° | 20.8 | 2.5 |
| 80°-90° | 4.6 | 0.6 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.1 | 0.0 |
| 110°-120° | 0.1 | 0.0 |
| 120°-130° | 0.1 | 0.0 |
| 130°-140° | 0.1 | 0.0 |
| 140°-150° | 0.1 | 0.0 |
| 150°-160° | 0.1 | 0.0 |
| 160°-170° | 0.1 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 287.3 | 34.4 |
| 0°-40° | 459.0 | 55.0 |
| 0°-60° | 742.5 | 88.9 |
| 0°-90° | 834.3 | 99.9 |
| 90°-120° | 0.2 | 0.0 |
| 90°-150° | 0.5 | 0.1 |
| 90°-180° | 1.0 | 0.1 |
| 0°-180° | 835.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|------|-----|-----|------|------|------|------|
| 0° | 378 | 378 | 378 | 378 | 378 | |
| 5° | 376 | 376 | 376 | 376 | 376 | 36 |
| 15° | 359 | 360 | 360 | 359 | 359 | 101 |
| 25° | 326 | 329 | 327 | 325 | 326 | 150 |
| 35° | 274 | 280 | 276 | 271 | 274 | 171 |
| 45° | 206 | 216 | 211 | 204 | 206 | 159 |
| 55° | 134 | 144 | 139 | 131 | 134 | 120 |
| 65° | 65 | 72 | 68 | 61 | 65 | 65 |
| 75° | 17 | 20 | 18 | 15 | 17 | 20 |
| 85° | 4 | 5 | 4 | 3 | 4 | 4 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |
| 95° | 0 | 0 | 0 | 0 | 0 | 0 |
| 105° | 0 | 0 | 0 | 0 | 0 | 0 |
| 115° | 0 | 0 | 0 | 0 | 0 | 0 |
| 125° | 0 | 0 | 0 | 0 | 0 | 0 |
| 135° | 0 | 0 | 0 | 0 | 0 | 0 |
| 145° | 0 | 0 | 0 | 0 | 0 | 0 |
| 155° | 0 | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P640252

CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 0° | 378.3 | 378.3 | 378.3 | 378.3 | 378.3 | 378.3 | 378.3 | 378.3 | 378.3 | 378.3 | 378.3 |
| 0.5° | 378.3 | 378.3 | 378.4 | 378.3 | 378.2 | 378.4 | 378.4 | 378.3 | 378.4 | 378.3 | 378.3 |
| 1° | 378.3 | 378.3 | 378.3 | 378.2 | 378.2 | 378.4 | 378.3 | 378.3 | 378.2 | 378.3 | 378.4 |
| 1.5° | 378.1 | 378.2 | 378.1 | 378.1 | 378.1 | 378.3 | 378.1 | 378.1 | 378.2 | 378.2 | 378.1 |
| 2° | 377.9 | 377.9 | 378.1 | 377.9 | 377.8 | 378.2 | 378.1 | 378.0 | 378.0 | 378.0 | 378.1 |
| 2.5° | 377.7 | 377.8 | 377.9 | 377.7 | 377.8 | 378.0 | 377.9 | 377.9 | 377.9 | 377.9 | 377.8 |
| 3° | 377.5 | 377.7 | 377.5 | 377.4 | 377.5 | 377.7 | 377.8 | 377.6 | 377.6 | 377.7 | 377.7 |
| 3.5° | 377.2 | 377.3 | 377.4 | 377.2 | 377.3 | 377.6 | 377.4 | 377.2 | 377.4 | 377.3 | 377.4 |
| 4° | 376.9 | 376.9 | 377.0 | 376.8 | 376.9 | 377.2 | 377.2 | 377.1 | 377.0 | 377.0 | 377.1 |
| 4.5° | 376.5 | 376.7 | 376.5 | 376.6 | 376.6 | 376.8 | 376.9 | 376.6 | 376.7 | 376.7 | 376.7 |
| 5° | 376.1 | 376.1 | 376.4 | 376.2 | 376.2 | 376.4 | 376.3 | 376.2 | 376.2 | 376.3 | 376.4 |
| 5.5° | 375.7 | 375.8 | 375.8 | 375.7 | 375.7 | 376.0 | 376.0 | 375.8 | 375.8 | 375.9 | 375.9 |
| 6° | 375.1 | 375.3 | 375.4 | 375.2 | 375.3 | 375.6 | 375.5 | 375.4 | 375.4 | 375.4 | 375.5 |
| 6.5° | 374.6 | 374.7 | 374.8 | 374.6 | 374.8 | 375.0 | 375.1 | 374.8 | 374.8 | 374.9 | 375.0 |
| 7° | 374.0 | 374.2 | 374.3 | 374.2 | 374.3 | 374.5 | 374.5 | 374.4 | 374.2 | 374.3 | 374.3 |
| 7.5° | 373.4 | 373.5 | 373.7 | 373.6 | 373.6 | 374.0 | 373.9 | 373.8 | 373.7 | 373.7 | 373.8 |
| 8° | 372.8 | 373.0 | 373.0 | 372.9 | 373.1 | 373.3 | 373.3 | 373.0 | 373.1 | 373.1 | 373.1 |
| 8.5° | 372.0 | 372.2 | 372.3 | 372.3 | 372.5 | 372.7 | 372.5 | 372.3 | 372.3 | 372.4 | 372.5 |
| 9° | 371.3 | 371.5 | 371.6 | 371.6 | 371.7 | 371.9 | 371.9 | 371.7 | 371.6 | 371.7 | 371.6 |
| 9.5° | 370.6 | 370.7 | 370.8 | 370.6 | 371.0 | 371.2 | 371.2 | 370.9 | 370.9 | 370.9 | 370.8 |
| 10° | 369.7 | 369.9 | 370.0 | 370.0 | 370.1 | 370.4 | 370.4 | 370.1 | 370.0 | 370.1 | 370.1 |
| 10.5° | 368.8 | 369.0 | 369.2 | 369.1 | 369.4 | 369.6 | 369.5 | 369.3 | 369.2 | 369.3 | 369.3 |
| 11° | 368.0 | 368.0 | 368.2 | 368.2 | 368.5 | 368.7 | 368.6 | 368.5 | 368.3 | 368.4 | 368.4 |
| 11.5° | 367.0 | 367.3 | 367.4 | 367.3 | 367.6 | 367.8 | 367.8 | 367.5 | 367.5 | 367.5 | 367.4 |
| 12° | 365.9 | 366.2 | 366.4 | 366.3 | 366.8 | 366.9 | 366.7 | 366.5 | 366.5 | 366.5 | 366.5 |
| 12.5° | 365.0 | 365.2 | 365.4 | 365.3 | 365.7 | 365.8 | 365.8 | 365.5 | 365.4 | 365.5 | 365.5 |
| 13° | 363.9 | 364.1 | 364.2 | 364.2 | 364.7 | 365.0 | 364.7 | 364.4 | 364.4 | 364.5 | 364.3 |
| 13.5° | 362.7 | 363.0 | 363.3 | 363.3 | 363.6 | 363.7 | 363.7 | 363.4 | 363.3 | 363.3 | 363.3 |
| 14° | 361.5 | 362.0 | 362.1 | 362.1 | 362.5 | 362.7 | 362.6 | 362.3 | 362.2 | 362.3 | 362.2 |
| 14.5° | 360.5 | 360.8 | 361.0 | 361.0 | 361.5 | 361.6 | 361.4 | 361.1 | 361.1 | 361.0 | 360.9 |
| 15° | 359.2 | 359.5 | 359.8 | 359.7 | 360.1 | 360.3 | 360.2 | 359.9 | 359.8 | 359.8 | 359.7 |
| 15.5° | 358.0 | 358.3 | 358.6 | 358.4 | 359.0 | 359.2 | 358.9 | 358.7 | 358.7 | 358.6 | 358.5 |
| 16° | 356.6 | 356.9 | 357.2 | 357.2 | 357.8 | 357.8 | 357.7 | 357.5 | 357.2 | 357.3 | 357.3 |
| 16.5° | 355.3 | 355.6 | 355.9 | 355.9 | 356.5 | 356.6 | 356.4 | 356.1 | 355.9 | 356.0 | 355.9 |
| 17° | 353.8 | 354.3 | 354.6 | 354.5 | 355.2 | 355.2 | 355.1 | 354.8 | 354.5 | 354.6 | 354.5 |
| 17.5° | 352.4 | 352.7 | 353.1 | 353.1 | 353.7 | 353.9 | 353.5 | 353.3 | 353.2 | 353.1 | 353.1 |
| 18° | 350.9 | 351.4 | 351.8 | 351.7 | 352.4 | 352.5 | 352.0 | 351.9 | 351.7 | 351.6 | 351.6 |
| 18.5° | 349.4 | 349.9 | 350.2 | 350.4 | 350.9 | 350.9 | 350.7 | 350.4 | 350.1 | 350.1 | 350.2 |
| 19° | 347.8 | 348.3 | 348.8 | 348.8 | 349.4 | 349.5 | 349.1 | 348.8 | 348.7 | 348.7 | 348.5 |
| 19.5° | 346.3 | 346.8 | 347.3 | 347.2 | 347.9 | 347.9 | 347.7 | 347.4 | 347.1 | 347.1 | 347.1 |
| 20° | 344.7 | 345.3 | 345.7 | 345.7 | 346.3 | 346.3 | 346.0 | 345.8 | 345.4 | 345.5 | 345.4 |
| 20.5° | 342.9 | 343.6 | 344.1 | 344.0 | 344.8 | 344.8 | 344.4 | 344.1 | 343.8 | 343.8 | 343.8 |
| 21° | 341.3 | 341.9 | 342.4 | 342.4 | 343.2 | 343.2 | 342.7 | 342.4 | 342.0 | 342.1 | 342.1 |
| 21.5° | 339.5 | 340.2 | 340.6 | 340.7 | 341.5 | 341.4 | 341.1 | 340.7 | 340.4 | 340.4 | 340.2 |
| 22° | 337.7 | 338.3 | 338.9 | 338.9 | 339.7 | 339.7 | 339.3 | 339.0 | 338.6 | 338.6 | 338.5 |



TEST NUMBER: P640252

CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 335.9 | 336.6 | 337.1 | 337.1 | 338.0 | 337.9 | 337.5 | 337.2 | 336.8 | 336.8 | 336.7 |
| 23° | 333.8 | 334.7 | 335.2 | 335.3 | 336.2 | 336.1 | 335.7 | 335.2 | 335.0 | 334.9 | 334.8 |
| 23.5° | 332.0 | 332.8 | 333.4 | 333.5 | 334.4 | 334.2 | 333.7 | 333.4 | 333.0 | 333.0 | 332.8 |
| 24° | 330.1 | 331.0 | 331.4 | 331.6 | 332.6 | 332.4 | 331.9 | 331.3 | 331.1 | 331.1 | 330.8 |
| 24.5° | 328.0 | 328.8 | 329.6 | 329.6 | 330.7 | 330.3 | 330.0 | 329.5 | 329.1 | 329.1 | 328.9 |
| 25° | 326.2 | 326.9 | 327.6 | 327.6 | 328.6 | 328.4 | 328.0 | 327.5 | 327.2 | 327.1 | 326.9 |
| 25.5° | 323.9 | 324.8 | 325.6 | 325.7 | 326.8 | 326.4 | 325.9 | 325.4 | 325.0 | 324.9 | 324.7 |
| 26° | 321.7 | 322.7 | 323.4 | 323.7 | 324.6 | 324.4 | 323.9 | 323.3 | 322.8 | 322.8 | 322.7 |
| 26.5° | 319.6 | 320.6 | 321.3 | 321.5 | 322.6 | 322.3 | 321.7 | 321.2 | 320.6 | 320.6 | 320.3 |
| 27° | 317.2 | 318.3 | 319.1 | 319.3 | 320.4 | 320.0 | 319.5 | 318.7 | 318.4 | 318.2 | 318.0 |
| 27.5° | 314.8 | 316.0 | 316.8 | 317.1 | 318.3 | 318.0 | 317.2 | 316.5 | 316.0 | 315.9 | 315.7 |
| 28° | 312.4 | 313.6 | 314.5 | 314.8 | 316.0 | 315.5 | 314.9 | 314.2 | 313.7 | 313.5 | 313.2 |
| 28.5° | 310.0 | 311.2 | 312.1 | 312.4 | 313.7 | 313.2 | 312.5 | 311.8 | 311.2 | 311.2 | 310.8 |
| 29° | 307.6 | 308.8 | 309.7 | 310.1 | 311.3 | 310.8 | 310.1 | 309.3 | 308.8 | 308.6 | 308.4 |
| 29.5° | 305.0 | 306.3 | 307.3 | 307.6 | 308.9 | 308.4 | 307.7 | 306.8 | 306.3 | 306.2 | 305.8 |
| 30° | 302.4 | 303.8 | 304.7 | 305.1 | 306.4 | 306.0 | 305.2 | 304.4 | 303.8 | 303.7 | 303.4 |
| 30.5° | 299.8 | 301.1 | 302.3 | 302.6 | 303.9 | 303.5 | 302.5 | 301.8 | 301.2 | 301.0 | 300.7 |
| 31° | 297.1 | 298.6 | 299.6 | 300.1 | 301.4 | 300.8 | 300.0 | 299.2 | 298.6 | 298.4 | 298.0 |
| 31.5° | 294.2 | 295.9 | 296.9 | 297.5 | 298.9 | 298.3 | 297.4 | 296.6 | 295.9 | 295.8 | 295.4 |
| 32° | 291.5 | 293.2 | 294.5 | 294.8 | 296.3 | 295.5 | 294.9 | 293.8 | 293.2 | 292.9 | 292.6 |
| 32.5° | 288.6 | 290.5 | 291.7 | 292.2 | 293.6 | 293.0 | 292.1 | 291.1 | 290.5 | 290.2 | 289.8 |
| 33° | 285.7 | 287.6 | 289.1 | 289.7 | 290.9 | 290.3 | 289.3 | 288.4 | 287.6 | 287.5 | 287.0 |
| 33.5° | 282.7 | 284.8 | 286.4 | 286.8 | 288.2 | 287.5 | 286.5 | 285.5 | 284.8 | 284.5 | 284.1 |
| 34° | 279.8 | 281.9 | 283.5 | 284.1 | 285.4 | 284.7 | 283.8 | 282.6 | 281.9 | 281.6 | 281.3 |
| 34.5° | 276.7 | 279.0 | 280.6 | 281.3 | 282.6 | 281.9 | 280.9 | 279.7 | 279.0 | 278.7 | 278.3 |
| 35° | 273.6 | 276.0 | 277.7 | 278.4 | 279.8 | 279.0 | 277.9 | 276.8 | 276.0 | 275.7 | 275.4 |
| 35.5° | 270.5 | 272.9 | 274.8 | 275.6 | 276.9 | 276.1 | 274.9 | 273.8 | 273.0 | 272.8 | 272.3 |
| 36° | 267.4 | 269.9 | 271.7 | 272.6 | 274.0 | 273.1 | 271.9 | 270.7 | 270.0 | 269.8 | 269.3 |
| 36.5° | 264.2 | 266.8 | 268.8 | 269.6 | 271.1 | 270.1 | 268.9 | 267.7 | 267.0 | 266.8 | 266.3 |
| 37° | 261.0 | 263.6 | 265.7 | 266.4 | 268.0 | 267.0 | 265.8 | 264.6 | 263.9 | 263.6 | 263.0 |
| 37.5° | 257.8 | 260.5 | 262.7 | 263.5 | 265.0 | 264.0 | 262.7 | 261.5 | 260.8 | 260.4 | 260.0 |
| 38° | 254.5 | 257.3 | 259.5 | 260.4 | 261.9 | 260.8 | 259.4 | 258.4 | 257.6 | 257.3 | 256.8 |
| 38.5° | 251.2 | 254.0 | 256.3 | 257.3 | 258.7 | 257.7 | 256.4 | 255.2 | 254.4 | 254.2 | 253.6 |
| 39° | 247.9 | 250.8 | 253.2 | 254.1 | 255.7 | 254.5 | 253.1 | 252.0 | 251.4 | 251.0 | 250.3 |
| 39.5° | 244.6 | 247.5 | 250.0 | 250.9 | 252.5 | 251.3 | 250.0 | 248.7 | 248.0 | 247.7 | 247.1 |
| 40° | 241.1 | 244.2 | 246.7 | 247.7 | 249.2 | 248.1 | 246.8 | 245.5 | 244.8 | 244.4 | 243.8 |
| 40.5° | 237.7 | 240.8 | 243.3 | 244.5 | 246.0 | 244.9 | 243.4 | 242.1 | 241.4 | 241.1 | 240.4 |
| 41° | 234.4 | 237.5 | 240.0 | 241.2 | 242.7 | 241.5 | 240.2 | 238.8 | 238.1 | 237.8 | 237.1 |
| 41.5° | 230.8 | 234.0 | 236.7 | 237.9 | 239.5 | 238.3 | 236.9 | 235.6 | 234.8 | 234.4 | 233.8 |
| 42° | 227.5 | 230.6 | 233.4 | 234.5 | 236.0 | 234.9 | 233.6 | 232.3 | 231.5 | 231.1 | 230.4 |
| 42.5° | 224.0 | 227.3 | 230.0 | 231.2 | 232.8 | 231.6 | 230.2 | 228.9 | 228.2 | 227.7 | 227.0 |
| 43° | 220.5 | 223.7 | 226.6 | 227.9 | 229.4 | 228.2 | 226.9 | 225.6 | 224.7 | 224.3 | 223.6 |
| 43.5° | 217.0 | 220.3 | 223.2 | 224.4 | 226.0 | 224.7 | 223.4 | 222.2 | 221.4 | 220.8 | 220.0 |
| 44° | 213.5 | 216.8 | 219.8 | 221.0 | 222.6 | 221.4 | 219.9 | 218.7 | 217.9 | 217.4 | 216.6 |
| 44.5° | 209.9 | 213.2 | 216.2 | 217.6 | 219.1 | 217.9 | 216.6 | 215.3 | 214.4 | 213.9 | 213.0 |



TEST NUMBER: P640252

CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 45° | 206.3 | 209.7 | 212.8 | 214.1 | 215.7 | 214.6 | 213.2 | 211.9 | 211.0 | 210.4 | 209.5 |
| 45.5° | 202.8 | 206.2 | 209.2 | 210.6 | 212.3 | 211.0 | 209.7 | 208.4 | 207.5 | 206.9 | 205.9 |
| 46° | 199.3 | 202.6 | 205.7 | 207.2 | 208.7 | 207.6 | 206.3 | 205.0 | 204.0 | 203.3 | 202.4 |
| 46.5° | 195.6 | 198.9 | 202.1 | 203.6 | 205.3 | 204.1 | 202.7 | 201.4 | 200.5 | 199.8 | 198.7 |
| 47° | 192.1 | 195.4 | 198.6 | 200.0 | 201.7 | 200.6 | 199.2 | 198.0 | 196.9 | 196.2 | 195.1 |
| 47.5° | 188.5 | 191.8 | 194.9 | 196.5 | 198.2 | 197.1 | 195.7 | 194.4 | 193.4 | 192.6 | 191.5 |
| 48° | 184.9 | 188.2 | 191.4 | 192.8 | 194.7 | 193.6 | 192.3 | 190.9 | 189.9 | 189.1 | 187.8 |
| 48.5° | 181.2 | 184.6 | 187.7 | 189.3 | 191.2 | 190.0 | 188.6 | 187.4 | 186.3 | 185.5 | 184.2 |
| 49° | 177.7 | 180.9 | 184.1 | 185.6 | 187.6 | 186.5 | 185.1 | 183.9 | 182.7 | 181.8 | 180.5 |
| 49.5° | 174.1 | 177.3 | 180.5 | 182.2 | 184.0 | 182.9 | 181.5 | 180.4 | 179.2 | 178.1 | 176.9 |
| 50° | 170.4 | 173.6 | 176.8 | 178.4 | 180.5 | 179.3 | 178.1 | 176.7 | 175.5 | 174.5 | 173.1 |
| 50.5° | 166.7 | 169.9 | 173.1 | 174.8 | 176.8 | 175.8 | 174.4 | 173.2 | 171.9 | 170.8 | 169.4 |
| 51° | 163.1 | 166.2 | 169.5 | 171.1 | 173.2 | 172.1 | 170.9 | 169.6 | 168.3 | 167.2 | 165.7 |
| 51.5° | 159.5 | 162.6 | 165.8 | 167.5 | 169.6 | 168.6 | 167.4 | 166.0 | 164.8 | 163.5 | 162.0 |
| 52° | 155.8 | 158.9 | 162.1 | 163.8 | 165.9 | 165.0 | 163.8 | 162.5 | 161.2 | 159.8 | 158.4 |
| 52.5° | 152.2 | 155.3 | 158.4 | 160.2 | 162.3 | 161.4 | 160.1 | 158.9 | 157.5 | 156.1 | 154.6 |
| 53° | 148.6 | 151.5 | 154.7 | 156.4 | 158.7 | 157.8 | 156.6 | 155.3 | 153.9 | 152.5 | 150.7 |
| 53.5° | 144.9 | 147.9 | 150.9 | 152.7 | 155.0 | 154.1 | 153.0 | 151.6 | 150.3 | 148.8 | 147.0 |
| 54° | 141.3 | 144.1 | 147.1 | 148.9 | 151.4 | 150.5 | 149.4 | 148.1 | 146.7 | 145.1 | 143.3 |
| 54.5° | 137.7 | 140.5 | 143.6 | 145.3 | 147.7 | 146.9 | 145.8 | 144.5 | 143.0 | 141.3 | 139.6 |
| 55° | 134.1 | 136.8 | 139.8 | 141.6 | 144.2 | 143.3 | 142.3 | 140.9 | 139.4 | 137.7 | 135.9 |
| 55.5° | 130.4 | 133.2 | 136.0 | 138.0 | 140.4 | 139.7 | 138.7 | 137.3 | 135.7 | 134.0 | 132.1 |
| 56° | 126.8 | 129.5 | 132.4 | 134.2 | 136.8 | 136.0 | 135.1 | 133.7 | 132.1 | 130.2 | 128.4 |
| 56.5° | 123.3 | 125.9 | 128.7 | 130.5 | 133.1 | 132.4 | 131.5 | 130.1 | 128.4 | 126.6 | 124.6 |
| 57° | 119.6 | 122.1 | 124.9 | 126.8 | 129.4 | 128.9 | 127.9 | 126.5 | 124.8 | 122.9 | 120.9 |
| 57.5° | 116.0 | 118.5 | 121.2 | 123.0 | 125.8 | 125.3 | 124.3 | 123.0 | 121.2 | 119.2 | 117.2 |
| 58° | 112.5 | 114.9 | 117.5 | 119.3 | 122.1 | 121.7 | 120.7 | 119.4 | 117.6 | 115.5 | 113.4 |
| 58.5° | 108.9 | 111.3 | 113.8 | 115.7 | 118.6 | 118.1 | 117.2 | 115.8 | 114.0 | 111.8 | 109.9 |
| 59° | 105.4 | 107.6 | 110.1 | 112.0 | 114.8 | 114.6 | 113.6 | 112.2 | 110.4 | 108.2 | 106.1 |
| 59.5° | 102.0 | 104.0 | 106.4 | 108.3 | 111.2 | 110.9 | 110.1 | 108.7 | 106.8 | 104.5 | 102.4 |
| 60° | 98.4 | 100.4 | 102.8 | 104.7 | 107.6 | 107.4 | 106.6 | 105.1 | 103.1 | 100.9 | 98.7 |
| 60.5° | 94.9 | 96.9 | 99.1 | 101.0 | 104.0 | 103.8 | 103.0 | 101.6 | 99.7 | 97.3 | 95.1 |
| 61° | 91.5 | 93.3 | 95.4 | 97.3 | 100.4 | 100.2 | 99.5 | 98.1 | 96.1 | 93.7 | 91.6 |
| 61.5° | 88.0 | 89.8 | 91.9 | 93.7 | 96.8 | 96.8 | 96.1 | 94.6 | 92.6 | 90.1 | 88.0 |
| 62° | 84.6 | 86.3 | 88.3 | 90.1 | 93.3 | 93.3 | 92.6 | 91.1 | 89.1 | 86.6 | 84.5 |
| 62.5° | 81.2 | 82.9 | 84.7 | 86.5 | 89.8 | 89.8 | 89.2 | 87.7 | 85.6 | 83.2 | 81.0 |
| 63° | 77.8 | 79.4 | 81.2 | 83.0 | 86.2 | 86.3 | 85.6 | 84.2 | 82.1 | 79.7 | 77.5 |
| 63.5° | 74.5 | 76.0 | 77.7 | 79.5 | 82.8 | 82.9 | 82.2 | 80.8 | 78.6 | 76.2 | 74.0 |
| 64° | 71.2 | 72.5 | 74.2 | 75.9 | 79.4 | 79.5 | 78.8 | 77.4 | 75.1 | 72.7 | 70.6 |
| 64.5° | 68.0 | 69.3 | 70.8 | 72.4 | 75.9 | 76.1 | 75.4 | 74.0 | 71.7 | 69.2 | 67.1 |
| 65° | 64.8 | 66.0 | 67.5 | 69.1 | 72.4 | 72.7 | 72.1 | 70.6 | 68.2 | 65.7 | 63.8 |
| 65.5° | 61.6 | 62.7 | 64.1 | 65.7 | 69.0 | 69.3 | 68.7 | 67.2 | 64.9 | 62.4 | 60.5 |
| 66° | 58.5 | 59.5 | 60.8 | 62.4 | 65.6 | 65.9 | 65.4 | 63.8 | 61.5 | 59.1 | 57.2 |
| 66.5° | 55.4 | 56.3 | 57.6 | 59.0 | 62.2 | 62.6 | 62.2 | 60.6 | 58.3 | 55.9 | 54.0 |
| 67° | 52.3 | 53.2 | 54.4 | 55.8 | 59.0 | 59.4 | 58.9 | 57.4 | 55.1 | 52.7 | 51.0 |



TEST NUMBER: P640252
 CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 67.5° | 49.4 | 50.2 | 51.3 | 52.7 | 55.9 | 56.3 | 55.8 | 54.3 | 52.0 | 49.6 | 48.0 |
| 68° | 46.5 | 47.2 | 48.2 | 49.7 | 52.7 | 53.2 | 52.6 | 51.0 | 48.8 | 46.6 | 45.0 |
| 68.5° | 43.7 | 44.4 | 45.3 | 46.7 | 49.6 | 50.1 | 49.5 | 48.1 | 45.8 | 43.6 | 42.2 |
| 69° | 40.9 | 41.5 | 42.5 | 43.7 | 46.6 | 47.1 | 46.6 | 45.0 | 42.9 | 40.8 | 39.4 |
| 69.5° | 38.3 | 38.8 | 39.7 | 40.9 | 43.7 | 44.2 | 43.7 | 42.2 | 40.0 | 38.1 | 36.7 |
| 70° | 35.7 | 36.3 | 37.1 | 38.2 | 40.8 | 41.3 | 40.8 | 39.3 | 37.2 | 35.3 | 34.1 |
| 70.5° | 33.0 | 33.8 | 34.5 | 35.7 | 38.1 | 38.6 | 38.1 | 36.6 | 34.6 | 32.8 | 31.7 |
| 71° | 30.9 | 31.7 | 32.4 | 33.0 | 35.5 | 35.9 | 35.4 | 34.0 | 32.1 | 30.4 | 29.4 |
| 71.5° | 28.7 | 29.6 | 30.3 | 30.9 | 33.0 | 33.4 | 32.9 | 31.5 | 29.6 | 28.0 | 27.1 |
| 72° | 26.6 | 27.5 | 28.2 | 28.9 | 30.6 | 31.0 | 30.4 | 29.1 | 27.4 | 25.9 | 25.1 |
| 72.5° | 24.4 | 25.4 | 26.1 | 26.8 | 28.5 | 28.8 | 28.2 | 26.9 | 25.2 | 23.9 | 23.1 |
| 73° | 22.6 | 23.3 | 24.0 | 24.8 | 26.4 | 26.6 | 26.1 | 24.9 | 23.3 | 22.1 | 21.4 |
| 73.5° | 21.0 | 21.7 | 22.4 | 23.2 | 24.5 | 24.7 | 24.2 | 23.0 | 21.6 | 20.5 | 19.7 |
| 74° | 19.6 | 20.3 | 21.0 | 21.6 | 22.9 | 23.0 | 22.6 | 21.4 | 20.1 | 19.0 | 18.4 |
| 74.5° | 18.4 | 19.0 | 19.7 | 20.3 | 21.5 | 21.5 | 21.1 | 20.1 | 18.8 | 17.8 | 17.1 |
| 75° | 17.4 | 18.0 | 18.6 | 19.2 | 20.1 | 20.2 | 19.8 | 18.9 | 17.7 | 16.7 | 16.0 |
| 75.5° | 16.5 | 17.1 | 17.7 | 18.1 | 19.0 | 19.1 | 18.7 | 17.9 | 16.8 | 15.8 | 15.2 |
| 76° | 15.8 | 16.3 | 16.8 | 17.2 | 18.0 | 18.1 | 17.7 | 17.0 | 16.0 | 15.1 | 14.5 |
| 76.5° | 15.0 | 15.5 | 16.0 | 16.4 | 17.1 | 17.2 | 16.9 | 16.2 | 15.3 | 14.5 | 13.8 |
| 77° | 14.3 | 14.8 | 15.3 | 15.7 | 16.3 | 16.4 | 16.1 | 15.4 | 14.6 | 13.8 | 13.2 |
| 77.5° | 13.6 | 14.1 | 14.6 | 15.0 | 15.6 | 15.6 | 15.3 | 14.7 | 13.9 | 13.1 | 12.5 |
| 78° | 12.9 | 13.4 | 13.9 | 14.2 | 14.8 | 14.9 | 14.5 | 13.9 | 13.2 | 12.4 | 11.9 |
| 78.5° | 12.2 | 12.7 | 13.1 | 13.5 | 14.1 | 14.1 | 13.8 | 13.2 | 12.5 | 11.8 | 11.2 |
| 79° | 11.5 | 12.0 | 12.4 | 12.8 | 13.3 | 13.4 | 13.0 | 12.5 | 11.8 | 11.1 | 10.6 |
| 79.5° | 10.8 | 11.3 | 11.7 | 12.1 | 12.6 | 12.6 | 12.3 | 11.8 | 11.1 | 10.4 | 9.9 |
| 80° | 10.1 | 10.6 | 11.1 | 11.4 | 11.9 | 11.9 | 11.6 | 11.1 | 10.4 | 9.8 | 9.3 |
| 80.5° | 9.5 | 10.0 | 10.4 | 10.7 | 11.2 | 11.2 | 10.9 | 10.4 | 9.7 | 9.1 | 8.7 |
| 81° | 8.8 | 9.3 | 9.7 | 10.1 | 10.5 | 10.5 | 10.2 | 9.7 | 9.1 | 8.5 | 8.1 |
| 81.5° | 8.1 | 8.6 | 9.0 | 9.4 | 9.8 | 9.8 | 9.5 | 9.0 | 8.4 | 7.9 | 7.4 |
| 82° | 7.5 | 8.0 | 8.4 | 8.7 | 9.1 | 9.1 | 8.8 | 8.3 | 7.8 | 7.2 | 6.8 |
| 82.5° | 6.9 | 7.3 | 7.7 | 8.0 | 8.5 | 8.4 | 8.1 | 7.7 | 7.1 | 6.6 | 6.2 |
| 83° | 6.2 | 6.7 | 7.1 | 7.4 | 7.8 | 7.8 | 7.5 | 7.0 | 6.5 | 6.0 | 5.6 |
| 83.5° | 5.6 | 6.0 | 6.4 | 6.7 | 7.1 | 7.1 | 6.8 | 6.4 | 5.9 | 5.4 | 5.0 |
| 84° | 5.0 | 5.4 | 5.8 | 6.1 | 6.5 | 6.4 | 6.2 | 5.7 | 5.2 | 4.8 | 4.4 |
| 84.5° | 4.4 | 4.8 | 5.2 | 5.4 | 5.8 | 5.8 | 5.5 | 5.1 | 4.6 | 4.2 | 3.8 |
| 85° | 3.8 | 4.2 | 4.5 | 4.8 | 5.2 | 5.1 | 4.9 | 4.5 | 4.0 | 3.6 | 3.3 |
| 85.5° | 3.2 | 3.6 | 3.9 | 4.2 | 4.5 | 4.5 | 4.2 | 3.8 | 3.4 | 3.0 | 2.7 |
| 86° | 2.6 | 3.0 | 3.3 | 3.6 | 3.9 | 3.9 | 3.6 | 3.2 | 2.8 | 2.4 | 2.1 |
| 86.5° | 2.1 | 2.4 | 2.7 | 3.0 | 3.3 | 3.3 | 3.0 | 2.6 | 2.2 | 1.9 | 1.6 |
| 87° | 1.5 | 1.8 | 2.2 | 2.4 | 2.7 | 2.7 | 2.4 | 2.1 | 1.7 | 1.4 | 1.1 |
| 87.5° | 0.9 | 1.3 | 1.6 | 1.8 | 2.1 | 2.1 | 1.8 | 1.5 | 1.1 | 0.8 | 0.6 |
| 88° | 0.5 | 0.7 | 1.0 | 1.2 | 1.5 | 1.5 | 1.3 | 1.0 | 0.6 | 0.4 | 0.3 |
| 88.5° | 0.2 | 0.3 | 0.5 | 0.7 | 1.0 | 0.9 | 0.7 | 0.5 | 0.2 | 0.1 | 0.1 |
| 89° | 0.1 | 0.1 | 0.2 | 0.3 | 0.5 | 0.5 | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 |
| 89.5° | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P640252
 CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P640252
 CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 112.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 113° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 113.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 114° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 114.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 115° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 115.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 116° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 116.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 117° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 117.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 118° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 118.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 119° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 119.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 120° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 120.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 121° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 121.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 122° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 122.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 123° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 123.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 124° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 124.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 125° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 125.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 126° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 126.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 127° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 127.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 128° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 128.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 129° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 129.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 130° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 130.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 131° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 131.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 132° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 132.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 133° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 133.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 134° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 134.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |



TEST NUMBER: P640252

CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 135° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 135.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 136° | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 136.5° | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 137° | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 137.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| 138° | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| 138.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| 139° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 |
| 139.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 140° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 140.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 141° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 141.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 142° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 142.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 143° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 143.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 144° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 144.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 145° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 145.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 146° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 146.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 147° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 147.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 148° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 148.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 149° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 149.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 150° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 150.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 151° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 151.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 152° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 152.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 153° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 153.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 154° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 154.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 155° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 155.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 156° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 156.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 157° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |



TEST NUMBER: P640252

CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 157.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 158° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 158.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 159° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 159.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 160° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 160.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 161° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 161.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 162° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 162.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 163° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 163.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 164° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 164.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 165° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 165.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 166° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 166.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 167° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 167.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 |
| 168° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 |
| 168.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 |
| 169° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 |
| 169.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 |
| 170° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 |
| 170.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 171° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 171.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 172° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 172.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 173° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 173.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 174° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 174.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 175° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 175.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 176° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 176.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 177° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 177.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 178° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 178.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 179° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 179.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |



TEST NUMBER: P640252
CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 180° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |



TEST NUMBER: P640252

CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 0° | 378.3 | 378.3 | 378.3 | 378.3 | 378.3 | 378.3 |
| 0.5° | 378.3 | 378.2 | 378.4 | 378.3 | 378.3 | 378.3 |
| 1° | 378.2 | 378.1 | 378.3 | 378.2 | 378.2 | 378.3 |
| 1.5° | 378.1 | 378.0 | 378.2 | 377.9 | 377.9 | 378.1 |
| 2° | 378.0 | 377.8 | 377.9 | 377.9 | 377.8 | 377.9 |
| 2.5° | 377.8 | 377.5 | 377.8 | 377.7 | 377.8 | 377.7 |
| 3° | 377.5 | 377.2 | 377.6 | 377.3 | 377.3 | 377.5 |
| 3.5° | 377.3 | 377.0 | 377.2 | 377.2 | 377.2 | 377.2 |
| 4° | 377.0 | 376.7 | 376.9 | 376.7 | 376.8 | 376.9 |
| 4.5° | 376.5 | 376.2 | 376.5 | 376.4 | 376.5 | 376.5 |
| 5° | 376.2 | 375.9 | 376.0 | 375.9 | 375.9 | 376.1 |
| 5.5° | 375.8 | 375.2 | 375.6 | 375.5 | 375.5 | 375.7 |
| 6° | 375.2 | 375.0 | 375.0 | 374.9 | 375.1 | 375.1 |
| 6.5° | 374.7 | 374.2 | 374.5 | 374.3 | 374.6 | 374.6 |
| 7° | 374.2 | 373.8 | 373.9 | 373.9 | 374.0 | 374.0 |
| 7.5° | 373.6 | 373.1 | 373.3 | 373.2 | 373.3 | 373.4 |
| 8° | 373.0 | 372.4 | 372.6 | 372.6 | 372.7 | 372.8 |
| 8.5° | 372.3 | 371.7 | 371.9 | 371.8 | 371.9 | 372.0 |
| 9° | 371.5 | 370.9 | 371.1 | 371.0 | 371.2 | 371.3 |
| 9.5° | 370.8 | 370.1 | 370.3 | 370.2 | 370.3 | 370.6 |
| 10° | 369.9 | 369.2 | 369.5 | 369.3 | 369.5 | 369.7 |
| 10.5° | 369.1 | 368.2 | 368.6 | 368.4 | 368.6 | 368.8 |
| 11° | 368.2 | 367.5 | 367.6 | 367.7 | 367.6 | 368.0 |
| 11.5° | 367.1 | 366.5 | 366.7 | 366.6 | 366.6 | 367.0 |
| 12° | 366.2 | 365.4 | 365.7 | 365.6 | 365.8 | 365.9 |
| 12.5° | 365.2 | 364.4 | 364.5 | 364.5 | 364.7 | 365.0 |
| 13° | 364.2 | 363.4 | 363.5 | 363.4 | 363.6 | 363.9 |
| 13.5° | 363.1 | 362.2 | 362.4 | 362.2 | 362.5 | 362.7 |
| 14° | 362.0 | 361.0 | 361.1 | 361.1 | 361.3 | 361.5 |
| 14.5° | 360.8 | 359.6 | 360.0 | 359.9 | 360.1 | 360.5 |
| 15° | 359.5 | 358.6 | 358.7 | 358.6 | 358.7 | 359.2 |
| 15.5° | 358.3 | 357.2 | 357.3 | 357.3 | 357.5 | 358.0 |
| 16° | 357.0 | 355.8 | 356.0 | 355.9 | 356.2 | 356.6 |
| 16.5° | 355.7 | 354.5 | 354.7 | 354.5 | 354.7 | 355.3 |
| 17° | 354.3 | 353.1 | 353.2 | 353.2 | 353.3 | 353.8 |
| 17.5° | 352.8 | 351.6 | 351.7 | 351.7 | 351.9 | 352.4 |
| 18° | 351.3 | 350.1 | 350.2 | 350.2 | 350.5 | 350.9 |
| 18.5° | 349.8 | 348.6 | 348.7 | 348.5 | 348.8 | 349.4 |
| 19° | 348.3 | 346.9 | 347.1 | 347.1 | 347.3 | 347.8 |
| 19.5° | 346.6 | 345.3 | 345.5 | 345.3 | 345.7 | 346.3 |
| 20° | 345.1 | 343.7 | 343.7 | 343.7 | 343.9 | 344.7 |
| 20.5° | 343.4 | 341.9 | 342.1 | 342.0 | 342.2 | 342.9 |
| 21° | 341.7 | 340.2 | 340.3 | 340.2 | 340.6 | 341.3 |
| 21.5° | 339.9 | 338.5 | 338.5 | 338.3 | 338.8 | 339.5 |
| 22° | 338.1 | 336.6 | 336.7 | 336.6 | 336.9 | 337.7 |



TEST NUMBER: P640252

CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 336.3 | 334.7 | 334.7 | 334.7 | 335.1 | 335.9 |
| 23° | 334.3 | 332.8 | 332.8 | 332.8 | 333.2 | 333.8 |
| 23.5° | 332.4 | 330.9 | 330.8 | 330.8 | 331.2 | 332.0 |
| 24° | 330.5 | 328.8 | 328.8 | 328.8 | 329.2 | 330.1 |
| 24.5° | 328.5 | 326.7 | 326.7 | 326.8 | 327.2 | 328.0 |
| 25° | 326.4 | 324.6 | 324.6 | 324.6 | 325.0 | 326.2 |
| 25.5° | 324.4 | 322.5 | 322.3 | 322.4 | 323.0 | 323.9 |
| 26° | 322.1 | 320.2 | 320.1 | 320.1 | 320.7 | 321.7 |
| 26.5° | 319.9 | 317.8 | 317.8 | 317.7 | 318.5 | 319.6 |
| 27° | 317.5 | 315.5 | 315.3 | 315.3 | 316.1 | 317.2 |
| 27.5° | 315.1 | 313.0 | 312.8 | 313.0 | 313.6 | 314.8 |
| 28° | 312.8 | 310.6 | 310.4 | 310.5 | 311.2 | 312.4 |
| 28.5° | 310.4 | 308.1 | 307.9 | 307.9 | 308.7 | 310.0 |
| 29° | 307.9 | 305.5 | 305.4 | 305.3 | 306.2 | 307.6 |
| 29.5° | 305.3 | 302.9 | 302.7 | 302.6 | 303.6 | 305.0 |
| 30° | 302.7 | 300.3 | 299.9 | 299.9 | 300.9 | 302.4 |
| 30.5° | 300.1 | 297.6 | 297.3 | 297.1 | 298.1 | 299.8 |
| 31° | 297.4 | 294.8 | 294.4 | 294.2 | 295.3 | 297.1 |
| 31.5° | 294.5 | 292.0 | 291.5 | 291.3 | 292.5 | 294.2 |
| 32° | 291.8 | 289.1 | 288.5 | 288.4 | 289.6 | 291.5 |
| 32.5° | 289.0 | 286.2 | 285.7 | 285.4 | 286.6 | 288.6 |
| 33° | 286.2 | 283.3 | 282.6 | 282.4 | 283.6 | 285.7 |
| 33.5° | 283.3 | 280.3 | 279.6 | 279.4 | 280.6 | 282.7 |
| 34° | 280.3 | 277.2 | 276.6 | 276.3 | 277.6 | 279.8 |
| 34.5° | 277.4 | 274.2 | 273.4 | 273.1 | 274.4 | 276.7 |
| 35° | 274.4 | 271.2 | 270.3 | 270.0 | 271.2 | 273.6 |
| 35.5° | 271.3 | 268.0 | 267.1 | 266.7 | 268.1 | 270.5 |
| 36° | 268.3 | 264.9 | 264.0 | 263.7 | 264.9 | 267.4 |
| 36.5° | 265.1 | 261.7 | 260.8 | 260.4 | 261.7 | 264.2 |
| 37° | 262.0 | 258.4 | 257.5 | 257.1 | 258.4 | 261.0 |
| 37.5° | 258.8 | 255.3 | 254.2 | 253.8 | 255.1 | 257.8 |
| 38° | 255.6 | 251.9 | 250.9 | 250.6 | 251.9 | 254.5 |
| 38.5° | 252.4 | 248.7 | 247.5 | 247.2 | 248.6 | 251.2 |
| 39° | 249.0 | 245.4 | 244.2 | 243.9 | 245.3 | 247.9 |
| 39.5° | 245.7 | 242.0 | 240.8 | 240.5 | 241.8 | 244.6 |
| 40° | 242.4 | 238.6 | 237.5 | 237.1 | 238.5 | 241.1 |
| 40.5° | 239.0 | 235.2 | 234.1 | 233.7 | 235.0 | 237.7 |
| 41° | 235.7 | 231.8 | 230.6 | 230.2 | 231.6 | 234.4 |
| 41.5° | 232.2 | 228.3 | 227.1 | 226.7 | 228.2 | 230.8 |
| 42° | 228.9 | 224.9 | 223.7 | 223.3 | 224.6 | 227.5 |
| 42.5° | 225.4 | 221.4 | 220.3 | 219.9 | 221.3 | 224.0 |
| 43° | 221.9 | 217.9 | 216.7 | 216.4 | 217.8 | 220.5 |
| 43.5° | 218.4 | 214.4 | 213.2 | 212.8 | 214.2 | 217.0 |
| 44° | 214.9 | 210.8 | 209.6 | 209.3 | 210.7 | 213.5 |
| 44.5° | 211.3 | 207.3 | 206.1 | 205.8 | 207.2 | 209.9 |

TEST NUMBER: P640252

CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 45° | 207.8 | 203.7 | 202.6 | 202.3 | 203.6 | 206.3 |
| 45.5° | 204.2 | 200.2 | 198.9 | 198.7 | 200.1 | 202.8 |
| 46° | 200.7 | 196.6 | 195.5 | 195.2 | 196.5 | 199.3 |
| 46.5° | 196.9 | 193.0 | 191.9 | 191.6 | 193.0 | 195.6 |
| 47° | 193.3 | 189.4 | 188.4 | 188.1 | 189.3 | 192.1 |
| 47.5° | 189.7 | 185.7 | 184.6 | 184.5 | 185.8 | 188.5 |
| 48° | 186.0 | 182.1 | 181.2 | 180.9 | 182.2 | 184.9 |
| 48.5° | 182.5 | 178.5 | 177.6 | 177.3 | 178.6 | 181.2 |
| 49° | 178.7 | 174.8 | 174.0 | 173.7 | 174.9 | 177.7 |
| 49.5° | 175.1 | 171.2 | 170.3 | 170.1 | 171.4 | 174.1 |
| 50° | 171.3 | 167.5 | 166.7 | 166.5 | 167.8 | 170.4 |
| 50.5° | 167.6 | 163.9 | 163.1 | 162.9 | 164.2 | 166.7 |
| 51° | 163.9 | 160.2 | 159.5 | 159.3 | 160.6 | 163.1 |
| 51.5° | 160.2 | 156.6 | 155.9 | 155.8 | 157.1 | 159.5 |
| 52° | 156.5 | 152.8 | 152.2 | 152.1 | 153.4 | 155.8 |
| 52.5° | 152.8 | 149.3 | 148.7 | 148.6 | 149.8 | 152.2 |
| 53° | 149.0 | 145.6 | 145.1 | 145.0 | 146.2 | 148.6 |
| 53.5° | 145.3 | 141.9 | 141.5 | 141.4 | 142.7 | 144.9 |
| 54° | 141.5 | 138.2 | 137.8 | 137.8 | 139.0 | 141.3 |
| 54.5° | 137.9 | 134.7 | 134.2 | 134.4 | 135.5 | 137.7 |
| 55° | 134.2 | 131.0 | 130.7 | 130.8 | 131.8 | 134.1 |
| 55.5° | 130.5 | 127.3 | 127.1 | 127.2 | 128.4 | 130.4 |
| 56° | 126.8 | 123.7 | 123.5 | 123.6 | 124.7 | 126.8 |
| 56.5° | 123.0 | 120.0 | 120.0 | 120.1 | 121.3 | 123.3 |
| 57° | 119.3 | 116.4 | 116.4 | 116.6 | 117.7 | 119.6 |
| 57.5° | 115.7 | 112.9 | 112.8 | 113.1 | 114.2 | 116.0 |
| 58° | 112.0 | 109.3 | 109.4 | 109.6 | 110.6 | 112.5 |
| 58.5° | 108.4 | 105.7 | 105.8 | 106.1 | 107.2 | 108.9 |
| 59° | 104.7 | 102.1 | 102.3 | 102.7 | 103.6 | 105.4 |
| 59.5° | 101.1 | 98.6 | 98.8 | 99.2 | 100.2 | 102.0 |
| 60° | 97.5 | 95.1 | 95.4 | 95.8 | 96.7 | 98.4 |
| 60.5° | 93.9 | 91.6 | 91.9 | 92.4 | 93.4 | 94.9 |
| 61° | 90.4 | 88.0 | 88.5 | 88.9 | 90.0 | 91.5 |
| 61.5° | 86.8 | 84.7 | 85.1 | 85.6 | 86.5 | 88.0 |
| 62° | 83.4 | 81.2 | 81.7 | 82.2 | 83.2 | 84.6 |
| 62.5° | 79.9 | 77.9 | 78.4 | 78.9 | 79.9 | 81.2 |
| 63° | 76.4 | 74.5 | 75.1 | 75.6 | 76.6 | 77.8 |
| 63.5° | 73.0 | 71.1 | 71.8 | 72.3 | 73.3 | 74.5 |
| 64° | 69.5 | 67.8 | 68.5 | 69.1 | 70.0 | 71.2 |
| 64.5° | 66.3 | 64.6 | 65.2 | 65.9 | 66.8 | 68.0 |
| 65° | 63.0 | 61.4 | 62.1 | 62.8 | 63.7 | 64.8 |
| 65.5° | 59.8 | 58.2 | 58.9 | 59.6 | 60.6 | 61.6 |
| 66° | 56.6 | 55.1 | 55.8 | 56.5 | 57.5 | 58.5 |
| 66.5° | 53.4 | 52.0 | 52.8 | 53.5 | 54.4 | 55.4 |
| 67° | 50.4 | 49.0 | 49.8 | 50.5 | 51.4 | 52.3 |



TEST NUMBER: P640252

CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 47.5 | 46.1 | 46.9 | 47.6 | 48.5 | 49.4 |
| 68° | 44.5 | 43.2 | 44.0 | 44.7 | 45.7 | 46.5 |
| 68.5° | 41.7 | 40.5 | 41.2 | 41.9 | 42.9 | 43.7 |
| 69° | 38.9 | 37.8 | 38.5 | 39.2 | 40.2 | 40.9 |
| 69.5° | 36.4 | 35.1 | 35.8 | 36.6 | 37.5 | 38.3 |
| 70° | 33.7 | 32.8 | 33.2 | 34.1 | 35.0 | 35.7 |
| 70.5° | 31.4 | 30.6 | 31.0 | 31.9 | 33.0 | 33.0 |
| 71° | 29.0 | 28.3 | 28.8 | 29.6 | 30.7 | 30.9 |
| 71.5° | 26.8 | 26.0 | 26.7 | 27.4 | 28.4 | 28.7 |
| 72° | 24.7 | 23.7 | 24.5 | 25.2 | 26.1 | 26.6 |
| 72.5° | 22.8 | 21.8 | 22.3 | 22.9 | 23.7 | 24.4 |
| 73° | 21.0 | 20.1 | 20.5 | 21.2 | 22.0 | 22.6 |
| 73.5° | 19.4 | 18.6 | 18.9 | 19.6 | 20.3 | 21.0 |
| 74° | 18.0 | 17.2 | 17.5 | 18.2 | 18.9 | 19.6 |
| 74.5° | 16.7 | 16.0 | 16.4 | 17.0 | 17.7 | 18.4 |
| 75° | 15.6 | 15.1 | 15.5 | 16.0 | 16.7 | 17.4 |
| 75.5° | 14.8 | 14.4 | 14.7 | 15.2 | 15.9 | 16.5 |
| 76° | 14.1 | 13.8 | 14.1 | 14.5 | 15.1 | 15.8 |
| 76.5° | 13.5 | 13.1 | 13.4 | 13.8 | 14.4 | 15.0 |
| 77° | 12.8 | 12.5 | 12.7 | 13.1 | 13.7 | 14.3 |
| 77.5° | 12.2 | 11.8 | 12.1 | 12.5 | 13.0 | 13.6 |
| 78° | 11.6 | 11.2 | 11.4 | 11.8 | 12.3 | 12.9 |
| 78.5° | 10.9 | 10.5 | 10.8 | 11.1 | 11.6 | 12.2 |
| 79° | 10.3 | 9.9 | 10.2 | 10.4 | 11.0 | 11.5 |
| 79.5° | 9.7 | 9.3 | 9.5 | 9.8 | 10.3 | 10.8 |
| 80° | 9.1 | 8.6 | 8.9 | 9.1 | 9.6 | 10.1 |
| 80.5° | 8.5 | 8.0 | 8.2 | 8.5 | 9.0 | 9.5 |
| 81° | 7.9 | 7.4 | 7.6 | 7.9 | 8.3 | 8.8 |
| 81.5° | 7.2 | 6.8 | 7.0 | 7.2 | 7.7 | 8.1 |
| 82° | 6.6 | 6.2 | 6.4 | 6.6 | 7.0 | 7.5 |
| 82.5° | 6.0 | 5.6 | 5.8 | 6.0 | 6.4 | 6.9 |
| 83° | 5.4 | 5.0 | 5.2 | 5.4 | 5.8 | 6.2 |
| 83.5° | 4.8 | 4.4 | 4.6 | 4.8 | 5.2 | 5.6 |
| 84° | 4.2 | 3.9 | 4.0 | 4.2 | 4.6 | 5.0 |
| 84.5° | 3.7 | 3.3 | 3.4 | 3.6 | 4.0 | 4.4 |
| 85° | 3.1 | 2.8 | 2.9 | 3.0 | 3.4 | 3.8 |
| 85.5° | 2.6 | 2.2 | 2.3 | 2.5 | 2.8 | 3.2 |
| 86° | 2.0 | 1.7 | 1.8 | 1.9 | 2.2 | 2.6 |
| 86.5° | 1.5 | 1.1 | 1.2 | 1.3 | 1.7 | 2.1 |
| 87° | 1.0 | 0.6 | 0.7 | 0.8 | 1.1 | 1.5 |
| 87.5° | 0.5 | 0.3 | 0.4 | 0.4 | 0.6 | 0.9 |
| 88° | 0.2 | 0.1 | 0.1 | 0.2 | 0.3 | 0.5 |
| 88.5° | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 |
| 89° | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 |
| 89.5° | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P640252
 CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 90.5° | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 91° | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 91.5° | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 92° | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 92.5° | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 93° | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 93.5° | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 94° | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 94.5° | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 95° | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 95.5° | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| 96° | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| 96.5° | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| 97° | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| 97.5° | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| 98° | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| 98.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| 99° | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| 99.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| 100° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| 100.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| 101° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| 101.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| 102° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| 102.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 103° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 103.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 104° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 104.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 105° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 105.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 106° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 106.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 107° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 107.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 108° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 108.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 109° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 109.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 110° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 110.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 111° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 111.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 112° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |



TEST NUMBER: P640252

CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 112.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 113° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 113.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 114° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 114.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 115° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 115.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 116° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 116.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 117° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 117.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 118° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 118.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 119° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 119.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 120° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 120.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 121° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 121.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 122° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 122.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 123° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 123.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 124° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 124.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 125° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 125.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 126° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 126.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 127° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 127.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 128° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 128.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 129° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 129.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 130° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 130.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 131° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 131.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 132° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 132.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 133° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 133.5° | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 |
| 134° | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| 134.5° | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |



TEST NUMBER: P640252
 CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 135° | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| 135.5° | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| 136° | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 136.5° | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 137° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 137.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 138° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 138.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 139° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 139.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 140° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 140.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 141° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 141.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 142° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 142.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 143° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 143.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 144° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 144.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 145° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 145.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 146° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 146.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 147° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 147.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 148° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 148.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 149° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 149.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 150° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 150.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 151° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 151.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 152° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 152.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 153° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 153.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 154° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 154.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 155° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 155.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 156° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 156.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 157° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |



TEST NUMBER: P640252

CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 157.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 158° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 158.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 159° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 159.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 160° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 160.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 161° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 161.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 162° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 162.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 163° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 163.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 164° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 164.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 165° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 165.5° | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 166° | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 166.5° | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 167° | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 167.5° | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 168° | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 168.5° | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 169° | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 169.5° | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 170° | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 170.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 171° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 171.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 172° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 172.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 173° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 173.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 174° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 174.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 175° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 175.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 176° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 176.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 177° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 177.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 178° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 178.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 179° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| 179.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |



TEST NUMBER: P640252
CATALOG NUMBER: LCR208RD9FSE020-10W-3000K

CANDELA DISTRIBUTION (continued):

| | | | | | | |
|------|--------|------|--------|------|--------|------|
| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
| 180° | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |

(END OF REPORT)