

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 COMMERCIAL

Report Number: P775802

Luminaire Tested: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P775802
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B018)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K
Description: 6 INCH SQUARE MEDIUM LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

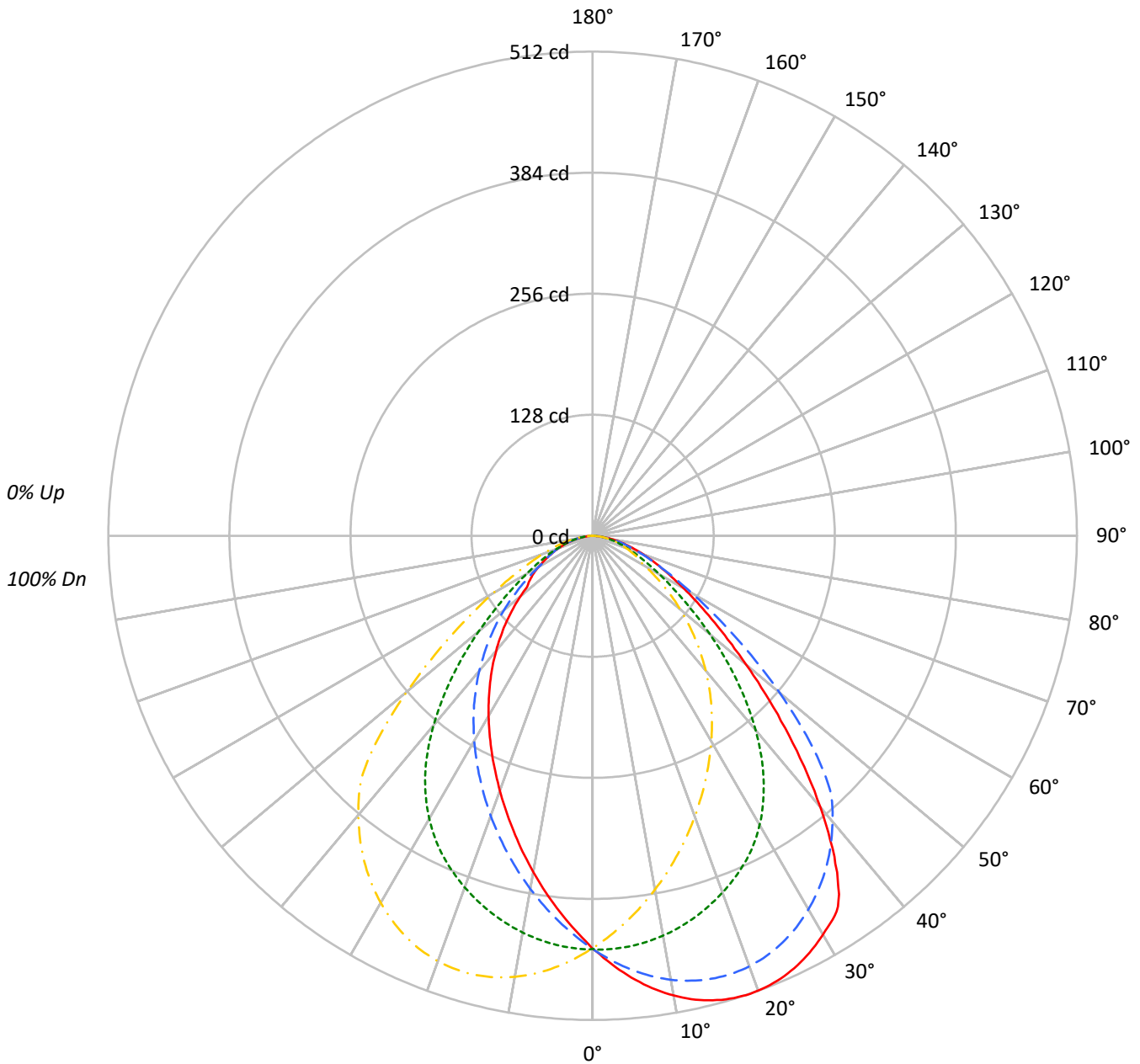
Lumens per Lamp: N/A
Luminaire Lumens: 919.3 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.19 / 1.3
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 10
Input Voltage (V): NR
Input Current (A_{in}): 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: P775802
CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|--|--|--|--|---|
| RF | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | | | | | | | |
| RC | 80 | | | | | 70 | | | | | 50 | | | | | 30 | | | | | 10 | | | | | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | | | | |
| 1 | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 | | | | | | | | |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 86 | 83 | 79 | 83 | 80 | 78 | 76 | | | | | | | | |
| 3 | 94 | 85 | 78 | 72 | 92 | 83 | 77 | 71 | 80 | 75 | 70 | 78 | 73 | 69 | 75 | 71 | 68 | 66 | | | | | | | | |
| 4 | 87 | 76 | 69 | 63 | 85 | 75 | 68 | 62 | 73 | 66 | 61 | 70 | 65 | 61 | 68 | 64 | 60 | 58 | | | | | | | | |
| 5 | 81 | 69 | 61 | 55 | 79 | 68 | 60 | 55 | 66 | 59 | 54 | 64 | 58 | 54 | 62 | 57 | 53 | 51 | | | | | | | | |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 54 | 49 | 60 | 53 | 48 | 59 | 52 | 48 | 57 | 52 | 47 | 45 | | | | | | | | |
| 7 | 70 | 57 | 49 | 44 | 68 | 57 | 49 | 44 | 55 | 48 | 43 | 54 | 48 | 43 | 52 | 47 | 43 | 41 | | | | | | | | |
| 8 | 65 | 53 | 45 | 39 | 64 | 52 | 45 | 39 | 51 | 44 | 39 | 50 | 43 | 39 | 48 | 43 | 39 | 37 | | | | | | | | |
| 9 | 61 | 49 | 41 | 36 | 60 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | 45 | 39 | 35 | 33 | | | | | | | | |
| 10 | 57 | 45 | 38 | 33 | 56 | 45 | 37 | 33 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 31 | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|-------|-------|-------|-------|
| 0° | 18807 | 18807 | 18807 | 18807 |
| 5° | 20266 | 18848 | 17249 | 18775 |
| 10° | 21580 | 18765 | 15787 | 18625 |
| 15° | 22657 | 18614 | 14402 | 18405 |
| 20° | 23455 | 18396 | 13141 | 18126 |
| 25° | 23967 | 18100 | 11986 | 17763 |
| 30° | 24217 | 17555 | 10933 | 17177 |
| 35° | 23805 | 16573 | 9924 | 16226 |
| 40° | 21066 | 15063 | 8914 | 14698 |
| 45° | 17548 | 13085 | 7849 | 12708 |
| 50° | 14194 | 10851 | 6665 | 10510 |
| 55° | 11500 | 8685 | 6050 | 8482 |
| 60° | 9593 | 7044 | 5683 | 6966 |
| 65° | 8160 | 5858 | 5186 | 5899 |
| 70° | 7100 | 5023 | 4771 | 5111 |
| 75° | 6188 | 4342 | 4325 | 4492 |
| 80° | 5083 | 3719 | 3620 | 3918 |
| 85° | 3260 | 2865 | 1976 | 3162 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 20696 cd/sqm



TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 41.3 | 4.5 |
| 10°-20° | 117.1 | 12.7 |
| 20°-30° | 173.7 | 18.9 |
| 30°-40° | 198.6 | 21.6 |
| 40°-50° | 172.6 | 18.8 |
| 50°-60° | 112.3 | 12.2 |
| 60°-70° | 64.0 | 7.0 |
| 70°-80° | 32.1 | 3.5 |
| 80°-90° | 7.6 | 0.8 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 332.1 | 36.1 |
| 0°-40° | 530.7 | 57.7 |
| 0°-60° | 815.6 | 88.7 |
| 0°-90° | 919.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 919.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|-----|-----|------|------|------|------|
| 0° | 437 | 437 | 437 | 437 | 437 | |
| 5° | 469 | 436 | 399 | 434 | 469 | 46 |
| 15° | 508 | 418 | 323 | 413 | 508 | 144 |
| 25° | 504 | 381 | 252 | 374 | 504 | 232 |
| 35° | 453 | 315 | 189 | 309 | 453 | 278 |
| 45° | 288 | 215 | 129 | 209 | 288 | 223 |
| 55° | 153 | 116 | 81 | 113 | 153 | 139 |
| 65° | 80 | 58 | 51 | 58 | 80 | 80 |
| 75° | 37 | 26 | 26 | 27 | 37 | 40 |
| 85° | 7 | 6 | 4 | 6 | 7 | 9 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 0° | 436.8 | 436.8 | 436.8 | 436.8 | 436.8 | 436.8 | 436.8 | 436.8 | 436.8 | 436.8 | 436.8 |
| 0.5° | 439.5 | 439.5 | 439.5 | 439.0 | 437.7 | 436.8 | 433.6 | 432.4 | 432.4 | 432.9 | 434.2 |
| 1° | 442.9 | 442.7 | 441.9 | 440.3 | 437.7 | 435.5 | 431.1 | 429.0 | 428.7 | 429.5 | 431.6 |
| 1.5° | 446.5 | 446.0 | 444.4 | 441.7 | 437.7 | 434.0 | 428.4 | 425.7 | 425.0 | 426.0 | 428.9 |
| 2° | 449.9 | 449.2 | 446.8 | 442.9 | 437.6 | 432.6 | 425.8 | 422.3 | 421.4 | 422.7 | 426.2 |
| 2.5° | 453.2 | 452.3 | 449.2 | 444.2 | 437.5 | 431.0 | 423.2 | 418.9 | 417.6 | 419.2 | 423.4 |
| 3° | 456.5 | 455.4 | 451.5 | 445.3 | 437.3 | 429.6 | 420.4 | 415.5 | 414.0 | 415.8 | 420.6 |
| 3.5° | 459.7 | 458.4 | 453.7 | 446.5 | 437.1 | 428.0 | 417.7 | 412.0 | 410.3 | 412.3 | 417.8 |
| 4° | 462.8 | 461.3 | 456.0 | 447.5 | 436.7 | 426.2 | 414.9 | 408.6 | 406.7 | 408.8 | 415.1 |
| 4.5° | 465.9 | 464.1 | 458.1 | 448.5 | 436.4 | 424.7 | 412.3 | 405.0 | 402.8 | 405.2 | 412.3 |
| 5° | 468.9 | 466.9 | 460.1 | 449.6 | 436.1 | 422.9 | 409.5 | 401.6 | 399.1 | 401.7 | 409.4 |
| 5.5° | 471.7 | 469.6 | 462.2 | 450.4 | 435.6 | 421.2 | 406.6 | 398.1 | 395.4 | 398.2 | 406.4 |
| 6° | 474.5 | 472.2 | 464.1 | 451.2 | 435.1 | 419.3 | 403.7 | 394.5 | 391.6 | 394.5 | 403.4 |
| 6.5° | 477.3 | 474.6 | 465.9 | 452.0 | 434.5 | 417.5 | 400.9 | 391.0 | 387.8 | 391.0 | 400.5 |
| 7° | 479.9 | 477.1 | 467.7 | 452.8 | 433.9 | 415.8 | 398.0 | 387.4 | 384.0 | 387.4 | 397.5 |
| 7.5° | 482.4 | 479.4 | 469.5 | 453.5 | 433.3 | 413.7 | 394.9 | 383.8 | 380.1 | 383.8 | 394.5 |
| 8° | 484.8 | 481.7 | 471.0 | 454.1 | 432.6 | 411.8 | 391.9 | 380.2 | 376.4 | 380.1 | 391.5 |
| 8.5° | 487.2 | 483.8 | 472.6 | 454.6 | 431.8 | 409.8 | 389.0 | 376.6 | 372.6 | 376.6 | 388.4 |
| 9° | 489.5 | 485.9 | 474.0 | 455.1 | 431.0 | 407.8 | 386.0 | 373.1 | 368.6 | 372.9 | 385.4 |
| 9.5° | 491.6 | 487.9 | 475.4 | 455.5 | 430.2 | 405.8 | 383.0 | 369.3 | 364.9 | 369.2 | 382.3 |
| 10° | 493.6 | 489.8 | 476.7 | 455.9 | 429.2 | 403.7 | 379.9 | 365.7 | 361.1 | 365.6 | 379.2 |
| 10.5° | 495.6 | 491.6 | 478.0 | 456.2 | 428.4 | 401.6 | 376.8 | 362.1 | 357.3 | 362.0 | 376.1 |
| 11° | 497.4 | 493.3 | 479.0 | 456.4 | 427.4 | 399.4 | 373.7 | 358.5 | 353.5 | 358.3 | 373.0 |
| 11.5° | 499.2 | 494.8 | 480.1 | 456.6 | 426.3 | 397.1 | 370.6 | 354.9 | 349.6 | 354.7 | 369.9 |
| 12° | 500.9 | 496.4 | 481.1 | 456.6 | 425.2 | 394.8 | 367.5 | 351.1 | 345.8 | 351.0 | 366.7 |
| 12.5° | 502.4 | 497.7 | 481.9 | 456.7 | 424.1 | 392.6 | 364.4 | 347.6 | 342.1 | 347.4 | 363.5 |
| 13° | 503.8 | 499.1 | 482.7 | 456.6 | 422.9 | 390.4 | 361.2 | 344.0 | 338.3 | 343.6 | 360.3 |
| 13.5° | 505.1 | 500.2 | 483.4 | 456.5 | 421.6 | 388.0 | 357.9 | 340.3 | 334.4 | 340.1 | 357.1 |
| 14° | 506.2 | 501.4 | 484.1 | 456.4 | 420.3 | 385.6 | 354.8 | 336.7 | 330.7 | 336.4 | 353.9 |
| 14.5° | 507.4 | 502.3 | 484.6 | 456.2 | 419.0 | 383.2 | 351.5 | 333.0 | 326.9 | 332.8 | 350.7 |
| 15° | 508.3 | 503.2 | 485.0 | 455.9 | 417.6 | 380.7 | 348.3 | 329.3 | 323.1 | 329.1 | 347.5 |
| 15.5° | 509.3 | 504.0 | 485.4 | 455.5 | 416.2 | 378.4 | 345.1 | 325.8 | 319.4 | 325.6 | 344.2 |
| 16° | 510.0 | 504.7 | 485.6 | 455.1 | 414.7 | 375.9 | 341.9 | 322.2 | 315.7 | 321.9 | 341.0 |
| 16.5° | 510.6 | 505.2 | 485.8 | 454.5 | 413.3 | 373.4 | 338.7 | 318.6 | 312.0 | 318.4 | 337.7 |
| 17° | 511.1 | 505.6 | 485.9 | 453.9 | 411.6 | 370.8 | 335.4 | 314.9 | 308.3 | 314.7 | 334.5 |
| 17.5° | 511.5 | 505.9 | 485.9 | 453.3 | 410.1 | 368.3 | 332.1 | 311.4 | 304.7 | 311.1 | 331.2 |
| 18° | 511.8 | 506.1 | 485.8 | 452.7 | 408.4 | 365.8 | 328.9 | 307.8 | 301.0 | 307.6 | 327.9 |
| 18.5° | 512.1 | 506.4 | 485.6 | 451.8 | 406.8 | 363.1 | 325.6 | 304.3 | 297.4 | 304.1 | 324.7 |
| 19° | 512.1 | 506.4 | 485.3 | 451.0 | 405.0 | 360.4 | 322.4 | 300.7 | 293.9 | 300.5 | 321.5 |
| 19.5° | 512.1 | 506.2 | 485.0 | 450.2 | 403.3 | 357.8 | 319.1 | 297.2 | 290.3 | 297.0 | 318.3 |
| 20° | 511.9 | 506.0 | 484.5 | 449.1 | 401.5 | 355.3 | 315.8 | 293.7 | 286.8 | 293.5 | 314.9 |
| 20.5° | 511.6 | 505.7 | 484.0 | 448.2 | 399.7 | 352.6 | 312.6 | 290.2 | 283.1 | 290.1 | 311.6 |
| 21° | 511.3 | 505.3 | 483.2 | 447.1 | 397.7 | 349.8 | 309.2 | 286.8 | 279.7 | 286.5 | 308.4 |



TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 509.5 | 503.3 | 480.8 | 443.4 | 391.8 | 341.6 | 299.5 | 276.5 | 269.2 | 276.4 | 298.6 |
| 23° | 508.7 | 502.5 | 479.7 | 442.1 | 389.9 | 338.8 | 296.2 | 273.1 | 265.8 | 273.0 | 295.4 |
| 23.5° | 507.8 | 501.6 | 478.6 | 440.8 | 387.7 | 336.0 | 293.0 | 269.7 | 262.4 | 269.7 | 292.1 |
| 24° | 506.8 | 500.4 | 477.4 | 439.2 | 385.5 | 333.1 | 289.7 | 266.3 | 259.1 | 266.2 | 288.8 |
| 24.5° | 505.6 | 499.3 | 476.1 | 437.7 | 383.3 | 330.3 | 286.4 | 263.0 | 255.8 | 262.8 | 285.6 |
| 25° | 504.5 | 498.1 | 474.7 | 436.1 | 381.0 | 327.3 | 283.2 | 259.6 | 252.3 | 259.5 | 282.3 |
| 25.5° | 503.1 | 496.6 | 473.3 | 434.4 | 378.7 | 324.5 | 279.9 | 256.3 | 249.0 | 256.3 | 279.2 |
| 26° | 501.7 | 495.3 | 471.7 | 432.6 | 376.2 | 321.5 | 276.7 | 253.0 | 245.7 | 252.9 | 275.9 |
| 26.5° | 500.1 | 493.6 | 470.1 | 430.8 | 373.7 | 318.5 | 273.5 | 249.8 | 242.4 | 249.7 | 272.7 |
| 27° | 498.6 | 492.0 | 468.4 | 428.9 | 371.1 | 315.5 | 270.3 | 246.4 | 239.2 | 246.3 | 269.4 |
| 27.5° | 496.9 | 490.3 | 466.6 | 426.9 | 368.3 | 312.5 | 267.0 | 243.1 | 236.0 | 243.1 | 266.3 |
| 28° | 495.1 | 488.5 | 464.6 | 424.7 | 365.4 | 309.3 | 263.7 | 239.8 | 232.7 | 239.8 | 263.1 |
| 28.5° | 493.2 | 486.6 | 462.7 | 422.5 | 362.6 | 306.1 | 260.6 | 236.6 | 229.4 | 236.6 | 259.9 |
| 29° | 491.2 | 484.5 | 460.6 | 420.1 | 359.5 | 302.9 | 257.3 | 233.4 | 226.3 | 233.4 | 256.7 |
| 29.5° | 489.1 | 482.4 | 458.5 | 417.6 | 356.4 | 299.7 | 254.2 | 230.2 | 223.1 | 230.3 | 253.5 |
| 30° | 487.1 | 480.2 | 456.3 | 415.1 | 353.1 | 296.3 | 250.9 | 227.1 | 219.9 | 227.0 | 250.3 |
| 30.5° | 484.9 | 478.0 | 454.0 | 412.4 | 349.8 | 292.9 | 247.7 | 223.7 | 216.7 | 223.8 | 247.2 |
| 31° | 482.8 | 475.7 | 451.6 | 409.6 | 346.3 | 289.6 | 244.5 | 220.5 | 213.6 | 220.7 | 244.0 |
| 31.5° | 480.8 | 473.3 | 449.1 | 406.4 | 342.8 | 286.0 | 241.3 | 217.5 | 210.5 | 217.5 | 240.7 |
| 32° | 478.7 | 470.8 | 446.7 | 403.3 | 339.2 | 282.5 | 238.0 | 214.3 | 207.4 | 214.4 | 237.5 |
| 32.5° | 476.2 | 468.4 | 444.0 | 400.0 | 335.4 | 279.0 | 234.8 | 211.1 | 204.3 | 211.3 | 234.4 |
| 33° | 473.4 | 465.9 | 441.4 | 396.6 | 331.4 | 275.4 | 231.6 | 208.1 | 201.2 | 208.2 | 231.2 |
| 33.5° | 470.0 | 463.6 | 438.7 | 393.1 | 327.6 | 271.7 | 228.4 | 205.0 | 198.0 | 205.2 | 228.0 |
| 34° | 464.7 | 461.1 | 435.9 | 389.5 | 323.5 | 268.0 | 225.1 | 201.9 | 195.0 | 202.0 | 224.8 |
| 34.5° | 460.0 | 458.4 | 432.9 | 385.5 | 319.5 | 264.3 | 221.9 | 198.7 | 191.9 | 199.0 | 221.6 |
| 35° | 452.9 | 455.2 | 429.9 | 381.5 | 315.3 | 260.4 | 218.7 | 195.7 | 188.8 | 195.9 | 218.5 |
| 35.5° | 446.2 | 451.5 | 426.8 | 377.3 | 311.0 | 256.7 | 215.6 | 192.6 | 185.8 | 192.9 | 215.2 |
| 36° | 439.8 | 446.5 | 423.5 | 373.0 | 306.5 | 252.9 | 212.2 | 189.5 | 182.8 | 189.9 | 212.0 |
| 36.5° | 431.5 | 441.5 | 420.2 | 368.6 | 302.0 | 249.0 | 208.9 | 186.4 | 179.7 | 186.7 | 208.7 |
| 37° | 424.8 | 434.9 | 416.8 | 364.1 | 297.4 | 245.1 | 205.7 | 183.3 | 176.7 | 183.6 | 205.6 |
| 37.5° | 416.6 | 428.0 | 413.3 | 359.2 | 292.8 | 241.2 | 202.4 | 180.3 | 173.7 | 180.6 | 202.3 |
| 38° | 408.1 | 422.2 | 409.8 | 354.2 | 287.8 | 237.2 | 199.2 | 177.2 | 170.7 | 177.6 | 199.1 |
| 38.5° | 400.4 | 414.0 | 406.0 | 349.2 | 283.1 | 233.3 | 195.9 | 174.2 | 167.7 | 174.6 | 195.9 |
| 39° | 391.3 | 407.1 | 402.4 | 344.2 | 278.2 | 229.3 | 192.6 | 171.2 | 164.6 | 171.6 | 192.8 |
| 39.5° | 383.4 | 399.6 | 398.5 | 338.8 | 273.2 | 225.3 | 189.2 | 168.1 | 161.6 | 168.6 | 189.4 |
| 40° | 374.8 | 391.0 | 394.5 | 333.2 | 268.0 | 221.2 | 185.9 | 165.1 | 158.6 | 165.6 | 186.1 |
| 40.5° | 365.3 | 384.2 | 390.5 | 327.6 | 262.9 | 217.1 | 182.7 | 162.1 | 155.7 | 162.6 | 182.9 |
| 41° | 357.5 | 375.4 | 386.8 | 321.9 | 257.7 | 213.1 | 179.3 | 159.1 | 152.7 | 159.6 | 179.8 |
| 41.5° | 348.1 | 367.1 | 382.6 | 315.9 | 252.5 | 208.9 | 176.0 | 156.1 | 149.7 | 156.7 | 176.4 |
| 42° | 339.6 | 359.3 | 378.1 | 309.8 | 247.2 | 204.9 | 172.8 | 153.1 | 146.7 | 153.7 | 173.2 |
| 42.5° | 331.1 | 350.3 | 373.2 | 303.7 | 241.9 | 200.7 | 169.5 | 150.2 | 143.7 | 150.7 | 170.1 |
| 43° | 321.5 | 342.7 | 368.1 | 297.5 | 236.5 | 196.7 | 166.2 | 147.2 | 140.7 | 147.8 | 166.8 |
| 43.5° | 314.0 | 334.1 | 361.5 | 291.1 | 231.1 | 192.6 | 162.8 | 144.2 | 137.8 | 144.8 | 163.5 |



TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 45° | 288.2 | 308.4 | 339.9 | 271.8 | 214.9 | 180.1 | 153.1 | 135.2 | 128.9 | 136.0 | 154.0 |
| 45.5° | 279.1 | 300.7 | 332.8 | 265.2 | 209.4 | 176.1 | 149.9 | 132.2 | 126.0 | 133.1 | 150.8 |
| 46° | 272.1 | 292.5 | 324.6 | 258.7 | 204.2 | 171.9 | 146.5 | 129.3 | 123.0 | 130.1 | 147.6 |
| 46.5° | 263.2 | 283.6 | 316.3 | 251.9 | 198.8 | 167.9 | 143.3 | 126.3 | 120.0 | 127.2 | 144.3 |
| 47° | 255.9 | 276.5 | 308.6 | 245.2 | 193.4 | 163.8 | 140.0 | 123.3 | 117.1 | 124.2 | 141.1 |
| 47.5° | 248.3 | 267.6 | 299.7 | 238.6 | 188.0 | 159.8 | 136.8 | 120.4 | 114.2 | 121.4 | 137.9 |
| 48° | 239.8 | 260.6 | 291.6 | 231.9 | 182.7 | 155.9 | 133.7 | 117.4 | 111.3 | 118.3 | 134.7 |
| 48.5° | 233.7 | 252.8 | 283.3 | 225.2 | 177.4 | 151.7 | 130.5 | 114.5 | 108.4 | 115.4 | 131.5 |
| 49° | 225.1 | 244.7 | 274.4 | 218.6 | 172.1 | 147.8 | 127.2 | 111.5 | 105.4 | 112.5 | 128.4 |
| 49.5° | 219.3 | 238.0 | 266.6 | 211.8 | 167.1 | 143.8 | 124.0 | 108.6 | 102.5 | 109.6 | 125.2 |
| 50° | 211.9 | 229.5 | 257.9 | 205.2 | 162.0 | 140.0 | 120.8 | 105.7 | 99.5 | 106.7 | 122.1 |
| 50.5° | 205.2 | 223.5 | 249.7 | 198.6 | 156.7 | 136.1 | 117.7 | 102.7 | 96.6 | 103.8 | 119.0 |
| 51° | 199.3 | 215.7 | 241.6 | 191.9 | 151.7 | 132.2 | 114.6 | 99.9 | 93.8 | 100.9 | 115.8 |
| 51.5° | 191.7 | 209.4 | 233.0 | 185.5 | 147.0 | 128.6 | 111.5 | 96.9 | 90.8 | 98.0 | 112.8 |
| 52° | 187.0 | 202.9 | 225.6 | 179.1 | 142.2 | 124.8 | 108.4 | 94.0 | 88.1 | 95.2 | 109.6 |
| 52.5° | 179.9 | 195.9 | 217.5 | 172.8 | 137.3 | 121.1 | 105.5 | 91.1 | 86.7 | 92.3 | 106.6 |
| 53° | 175.0 | 190.3 | 209.9 | 166.5 | 132.9 | 117.5 | 102.4 | 88.8 | 85.5 | 90.0 | 103.6 |
| 53.5° | 169.3 | 182.8 | 202.3 | 160.4 | 128.3 | 113.9 | 99.4 | 86.5 | 84.3 | 87.6 | 100.6 |
| 54° | 163.6 | 177.8 | 194.5 | 154.4 | 124.0 | 110.5 | 96.5 | 84.4 | 83.1 | 85.2 | 97.7 |
| 54.5° | 159.0 | 171.1 | 187.8 | 148.6 | 119.8 | 106.9 | 93.6 | 82.1 | 81.9 | 82.8 | 94.9 |
| 55° | 153.2 | 165.9 | 180.3 | 143.0 | 115.7 | 103.6 | 90.7 | 79.9 | 80.6 | 80.4 | 92.0 |
| 55.5° | 149.2 | 160.3 | 173.9 | 137.6 | 111.7 | 100.4 | 87.9 | 78.7 | 79.3 | 79.2 | 89.2 |
| 56° | 143.4 | 154.6 | 166.8 | 132.3 | 107.8 | 97.1 | 85.1 | 77.4 | 77.9 | 78.0 | 86.5 |
| 56.5° | 139.8 | 149.9 | 160.6 | 127.3 | 104.2 | 94.0 | 82.2 | 76.1 | 76.6 | 76.7 | 83.8 |
| 57° | 134.9 | 143.9 | 154.4 | 122.4 | 100.5 | 90.9 | 79.4 | 74.8 | 75.1 | 75.4 | 81.1 |
| 57.5° | 131.1 | 139.8 | 148.1 | 117.6 | 97.1 | 88.1 | 76.9 | 73.5 | 73.7 | 74.1 | 78.3 |
| 58° | 127.0 | 134.2 | 142.4 | 113.2 | 93.8 | 85.2 | 74.2 | 72.1 | 72.2 | 72.8 | 75.9 |
| 58.5° | 122.8 | 130.4 | 136.6 | 108.8 | 90.6 | 82.3 | 71.6 | 70.8 | 70.7 | 71.4 | 73.2 |
| 59° | 119.2 | 125.2 | 131.4 | 104.8 | 87.6 | 79.5 | 69.1 | 69.4 | 69.1 | 70.1 | 70.7 |
| 59.5° | 115.0 | 121.6 | 125.9 | 100.7 | 84.7 | 76.9 | 66.6 | 68.0 | 67.6 | 68.6 | 68.3 |
| 60° | 111.4 | 116.9 | 121.0 | 97.0 | 81.8 | 74.4 | 64.3 | 66.6 | 66.0 | 67.2 | 65.9 |
| 60.5° | 107.7 | 113.4 | 116.1 | 93.4 | 78.8 | 71.9 | 62.0 | 65.1 | 64.5 | 65.7 | 63.6 |
| 61° | 104.2 | 109.0 | 111.6 | 89.8 | 76.1 | 69.5 | 59.9 | 63.7 | 62.9 | 64.3 | 61.5 |
| 61.5° | 100.8 | 105.5 | 106.9 | 86.5 | 73.5 | 67.2 | 58.6 | 62.2 | 61.2 | 62.8 | 59.5 |
| 62° | 97.6 | 101.7 | 103.0 | 83.3 | 71.0 | 65.0 | 57.4 | 60.7 | 59.7 | 61.2 | 58.0 |
| 62.5° | 94.3 | 98.3 | 98.7 | 80.3 | 68.5 | 62.8 | 56.2 | 59.3 | 58.1 | 59.8 | 56.9 |
| 63° | 91.4 | 94.7 | 94.9 | 77.4 | 66.2 | 60.7 | 54.9 | 57.7 | 56.6 | 58.2 | 55.7 |
| 63.5° | 88.3 | 91.6 | 91.1 | 74.5 | 63.9 | 58.7 | 53.8 | 56.3 | 55.1 | 56.8 | 54.5 |
| 64° | 85.6 | 88.2 | 87.6 | 71.8 | 61.8 | 56.7 | 52.5 | 54.8 | 53.7 | 55.2 | 53.4 |
| 64.5° | 82.6 | 85.3 | 84.0 | 69.2 | 59.6 | 54.8 | 51.3 | 53.4 | 52.2 | 53.9 | 52.1 |
| 65° | 80.1 | 82.2 | 80.8 | 66.7 | 57.5 | 53.0 | 50.1 | 51.9 | 50.9 | 52.4 | 51.0 |
| 65.5° | 77.4 | 79.5 | 77.7 | 64.5 | 55.5 | 51.2 | 48.9 | 50.6 | 49.5 | 51.0 | 49.7 |
| 66° | 74.9 | 76.5 | 74.7 | 62.1 | 53.6 | 49.4 | 47.6 | 49.2 | 48.2 | 49.5 | 48.5 |



TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 67.5° | 67.5 | 68.7 | 66.2 | 55.5 | 48.1 | 44.6 | 43.8 | 45.2 | 44.3 | 45.5 | 44.8 |
| 68° | 65.2 | 66.1 | 63.5 | 53.5 | 46.3 | 43.0 | 42.6 | 43.9 | 43.0 | 44.3 | 43.5 |
| 68.5° | 62.9 | 63.7 | 61.1 | 51.5 | 44.7 | 41.6 | 41.3 | 42.7 | 41.7 | 42.9 | 42.3 |
| 69° | 60.6 | 61.5 | 58.6 | 49.5 | 43.1 | 40.1 | 40.1 | 41.3 | 40.4 | 41.7 | 40.9 |
| 69.5° | 58.4 | 59.1 | 56.3 | 47.7 | 41.3 | 38.8 | 38.9 | 40.1 | 39.2 | 40.3 | 39.7 |
| 70° | 56.4 | 56.9 | 54.1 | 45.9 | 39.9 | 37.3 | 37.6 | 38.9 | 37.9 | 39.1 | 38.4 |
| 70.5° | 54.2 | 54.6 | 51.8 | 44.0 | 38.3 | 36.1 | 36.5 | 37.6 | 36.7 | 37.8 | 37.3 |
| 71° | 52.1 | 52.5 | 49.7 | 42.4 | 36.9 | 34.7 | 35.2 | 36.4 | 35.5 | 36.6 | 36.1 |
| 71.5° | 50.2 | 50.5 | 47.7 | 40.7 | 35.4 | 33.5 | 34.0 | 35.2 | 34.3 | 35.3 | 34.8 |
| 72° | 48.2 | 48.4 | 45.6 | 39.1 | 34.0 | 32.2 | 32.9 | 34.0 | 33.1 | 34.1 | 33.6 |
| 72.5° | 46.2 | 46.4 | 43.6 | 37.5 | 32.6 | 31.0 | 31.7 | 32.7 | 31.9 | 32.9 | 32.4 |
| 73° | 44.3 | 44.4 | 41.8 | 36.1 | 31.3 | 29.8 | 30.6 | 31.5 | 30.7 | 31.6 | 31.3 |
| 73.5° | 42.4 | 42.5 | 39.9 | 34.5 | 29.9 | 28.8 | 29.4 | 30.4 | 29.5 | 30.5 | 30.1 |
| 74° | 40.5 | 40.6 | 38.0 | 33.1 | 28.6 | 27.7 | 28.3 | 29.1 | 28.4 | 29.2 | 28.9 |
| 74.5° | 38.7 | 38.8 | 36.4 | 31.6 | 27.4 | 26.7 | 27.2 | 28.0 | 27.2 | 28.1 | 27.8 |
| 75° | 37.2 | 37.2 | 34.7 | 30.2 | 26.1 | 25.8 | 26.0 | 26.7 | 26.0 | 26.8 | 26.6 |
| 75.5° | 35.4 | 35.4 | 33.1 | 28.8 | 25.0 | 24.9 | 24.9 | 25.6 | 24.9 | 25.7 | 25.5 |
| 76° | 33.7 | 33.7 | 31.4 | 27.5 | 23.7 | 23.9 | 23.8 | 24.4 | 23.7 | 24.6 | 24.4 |
| 76.5° | 31.8 | 31.9 | 29.7 | 26.1 | 22.6 | 22.9 | 22.7 | 23.2 | 22.6 | 23.3 | 23.2 |
| 77° | 30.1 | 30.2 | 28.1 | 24.8 | 21.5 | 22.0 | 21.6 | 22.1 | 21.5 | 22.2 | 22.1 |
| 77.5° | 28.5 | 28.6 | 26.5 | 23.4 | 20.3 | 20.9 | 20.4 | 20.9 | 20.3 | 21.0 | 20.9 |
| 78° | 26.8 | 26.9 | 25.1 | 22.2 | 19.2 | 20.0 | 19.4 | 19.7 | 19.1 | 19.9 | 19.9 |
| 78.5° | 25.2 | 25.4 | 23.5 | 20.9 | 18.1 | 19.0 | 18.2 | 18.6 | 17.9 | 18.8 | 18.8 |
| 79° | 23.6 | 23.7 | 22.1 | 19.7 | 17.1 | 17.9 | 17.2 | 17.4 | 16.8 | 17.5 | 17.6 |
| 79.5° | 22.1 | 22.3 | 20.6 | 18.6 | 16.1 | 17.0 | 16.2 | 16.3 | 15.8 | 16.4 | 16.5 |
| 80° | 20.5 | 20.7 | 19.2 | 17.3 | 15.0 | 16.0 | 15.1 | 15.1 | 14.6 | 15.2 | 15.4 |
| 80.5° | 19.1 | 19.3 | 17.8 | 16.2 | 14.0 | 15.0 | 14.1 | 13.9 | 13.5 | 14.1 | 14.4 |
| 81° | 17.6 | 17.8 | 16.5 | 15.0 | 13.1 | 14.0 | 13.1 | 12.9 | 12.4 | 13.0 | 13.3 |
| 81.5° | 16.2 | 16.4 | 15.1 | 13.9 | 12.1 | 13.1 | 12.0 | 11.6 | 11.3 | 11.8 | 12.2 |
| 82° | 14.7 | 14.9 | 13.9 | 12.9 | 11.1 | 12.1 | 11.0 | 10.6 | 10.3 | 10.8 | 11.3 |
| 82.5° | 13.4 | 13.6 | 12.6 | 11.8 | 10.3 | 11.2 | 10.1 | 9.5 | 9.1 | 9.7 | 10.3 |
| 83° | 12.0 | 12.2 | 11.5 | 10.8 | 9.3 | 10.3 | 9.1 | 8.5 | 8.1 | 8.6 | 9.4 |
| 83.5° | 10.6 | 10.8 | 10.3 | 9.7 | 8.5 | 9.3 | 8.2 | 7.6 | 7.0 | 7.6 | 8.5 |
| 84° | 9.2 | 9.4 | 9.2 | 8.7 | 7.6 | 8.4 | 7.4 | 6.5 | 6.0 | 6.5 | 7.7 |
| 84.5° | 7.9 | 8.2 | 8.2 | 7.8 | 6.7 | 7.5 | 6.4 | 5.5 | 5.0 | 5.5 | 6.7 |
| 85° | 6.6 | 6.9 | 7.3 | 6.8 | 5.8 | 6.5 | 5.5 | 4.7 | 4.0 | 4.6 | 5.9 |
| 85.5° | 5.3 | 5.7 | 6.2 | 5.9 | 5.0 | 5.6 | 4.7 | 3.9 | 3.4 | 3.8 | 5.1 |
| 86° | 4.4 | 4.8 | 5.3 | 5.0 | 4.2 | 4.8 | 3.8 | 3.3 | 2.9 | 3.2 | 4.2 |
| 86.5° | 3.6 | 3.9 | 4.4 | 4.1 | 3.4 | 3.8 | 3.0 | 2.7 | 2.4 | 2.6 | 3.5 |
| 87° | 3.0 | 3.2 | 3.5 | 3.2 | 2.7 | 3.0 | 2.3 | 2.1 | 1.8 | 2.1 | 2.8 |
| 87.5° | 2.3 | 2.4 | 2.7 | 2.4 | 2.0 | 2.2 | 1.5 | 1.3 | 1.2 | 1.5 | 2.0 |
| 88° | 1.7 | 1.7 | 1.9 | 1.6 | 1.2 | 1.3 | 0.7 | 0.7 | 0.7 | 0.8 | 1.2 |
| 88.5° | 0.9 | 0.9 | 1.0 | 0.7 | 0.5 | 0.6 | 0.2 | 0.2 | 0.3 | 0.3 | 0.5 |



TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 0° | 436.8 | 436.8 | 436.8 | 436.8 | 436.8 | 436.8 |
| 0.5° | 436.1 | 437.6 | 439.3 | 438.6 | 439.0 | 439.5 |
| 1° | 434.5 | 437.4 | 440.4 | 441.1 | 442.1 | 442.9 |
| 1.5° | 433.0 | 437.2 | 441.7 | 443.3 | 445.3 | 446.5 |
| 2° | 431.3 | 437.0 | 442.7 | 445.6 | 448.4 | 449.9 |
| 2.5° | 429.8 | 436.7 | 443.8 | 447.9 | 451.4 | 453.2 |
| 3° | 428.0 | 436.3 | 444.7 | 450.1 | 454.4 | 456.5 |
| 3.5° | 426.2 | 435.9 | 445.6 | 452.3 | 457.4 | 459.7 |
| 4° | 424.5 | 435.5 | 446.5 | 454.3 | 460.2 | 462.8 |
| 4.5° | 422.6 | 434.9 | 447.4 | 456.3 | 463.0 | 465.9 |
| 5° | 420.8 | 434.4 | 448.1 | 458.3 | 465.7 | 468.9 |
| 5.5° | 418.9 | 433.7 | 448.8 | 460.1 | 468.4 | 471.7 |
| 6° | 416.9 | 433.1 | 449.5 | 462.0 | 470.9 | 474.5 |
| 6.5° | 414.9 | 432.4 | 450.0 | 463.7 | 473.3 | 477.3 |
| 7° | 413.0 | 431.6 | 450.6 | 465.3 | 475.7 | 479.9 |
| 7.5° | 410.9 | 430.8 | 451.0 | 466.9 | 478.0 | 482.4 |
| 8° | 408.8 | 430.0 | 451.4 | 468.4 | 480.1 | 484.8 |
| 8.5° | 406.8 | 429.0 | 451.7 | 469.8 | 482.2 | 487.2 |
| 9° | 404.6 | 428.1 | 452.0 | 471.1 | 484.2 | 489.5 |
| 9.5° | 402.4 | 427.1 | 452.3 | 472.4 | 486.1 | 491.6 |
| 10° | 400.2 | 426.0 | 452.4 | 473.6 | 487.9 | 493.6 |
| 10.5° | 398.0 | 424.9 | 452.5 | 474.6 | 489.6 | 495.6 |
| 11° | 395.7 | 423.8 | 452.5 | 475.7 | 491.2 | 497.4 |
| 11.5° | 393.4 | 422.6 | 452.4 | 476.5 | 492.8 | 499.2 |
| 12° | 391.1 | 421.3 | 452.3 | 477.3 | 494.1 | 500.9 |
| 12.5° | 388.7 | 420.0 | 452.2 | 478.2 | 495.5 | 502.4 |
| 13° | 386.3 | 418.7 | 451.8 | 478.8 | 496.7 | 503.8 |
| 13.5° | 383.9 | 417.3 | 451.5 | 479.4 | 497.9 | 505.1 |
| 14° | 381.4 | 415.9 | 451.1 | 479.9 | 498.8 | 506.2 |
| 14.5° | 378.9 | 414.4 | 450.7 | 480.2 | 499.7 | 507.4 |
| 15° | 376.4 | 412.9 | 450.2 | 480.7 | 500.5 | 508.3 |
| 15.5° | 373.9 | 411.3 | 449.7 | 480.9 | 501.2 | 509.3 |
| 16° | 371.4 | 409.8 | 448.9 | 481.0 | 501.8 | 510.0 |
| 16.5° | 368.8 | 408.1 | 448.2 | 481.0 | 502.2 | 510.6 |
| 17° | 366.1 | 406.4 | 447.5 | 480.9 | 502.5 | 511.1 |
| 17.5° | 363.5 | 404.7 | 446.7 | 480.8 | 502.8 | 511.5 |
| 18° | 361.0 | 402.9 | 445.7 | 480.5 | 502.9 | 511.8 |
| 18.5° | 358.3 | 401.2 | 444.7 | 480.2 | 502.9 | 512.1 |
| 19° | 355.7 | 399.3 | 443.8 | 479.7 | 502.9 | 512.1 |
| 19.5° | 352.9 | 397.4 | 442.6 | 479.2 | 502.7 | 512.1 |
| 20° | 350.2 | 395.6 | 441.5 | 478.7 | 502.4 | 511.9 |
| 20.5° | 347.5 | 393.6 | 440.2 | 478.0 | 502.0 | 511.6 |
| 21° | 344.7 | 391.5 | 439.0 | 477.1 | 501.5 | 511.3 |

TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 336.3 | 385.3 | 434.7 | 474.2 | 499.3 | 509.5 |
| 23° | 333.5 | 383.1 | 433.2 | 473.1 | 498.4 | 508.7 |
| 23.5° | 330.6 | 381.0 | 431.5 | 471.8 | 497.3 | 507.8 |
| 24° | 327.8 | 378.7 | 429.9 | 470.5 | 496.2 | 506.8 |
| 24.5° | 324.8 | 376.3 | 428.1 | 469.1 | 495.0 | 505.6 |
| 25° | 321.9 | 373.9 | 426.3 | 467.6 | 493.6 | 504.5 |
| 25.5° | 319.0 | 371.4 | 424.4 | 466.0 | 492.2 | 503.1 |
| 26° | 316.0 | 368.9 | 422.5 | 464.3 | 490.6 | 501.7 |
| 26.5° | 313.0 | 366.3 | 420.4 | 462.6 | 488.9 | 500.1 |
| 27° | 310.0 | 363.6 | 418.4 | 460.8 | 487.4 | 498.6 |
| 27.5° | 306.9 | 360.7 | 416.1 | 458.8 | 485.5 | 496.9 |
| 28° | 303.6 | 357.9 | 413.8 | 456.8 | 483.7 | 495.1 |
| 28.5° | 300.5 | 354.9 | 411.4 | 454.7 | 481.6 | 493.2 |
| 29° | 297.3 | 351.8 | 408.8 | 452.6 | 479.6 | 491.2 |
| 29.5° | 294.0 | 348.7 | 406.2 | 450.4 | 477.4 | 489.1 |
| 30° | 290.6 | 345.5 | 403.4 | 448.0 | 475.3 | 487.1 |
| 30.5° | 287.3 | 342.1 | 400.5 | 445.6 | 472.9 | 484.9 |
| 31° | 283.9 | 338.8 | 397.5 | 443.1 | 470.5 | 482.8 |
| 31.5° | 280.4 | 335.3 | 394.4 | 440.6 | 468.1 | 480.8 |
| 32° | 277.0 | 331.7 | 391.2 | 438.0 | 465.5 | 478.7 |
| 32.5° | 273.4 | 328.0 | 387.8 | 435.3 | 463.0 | 476.2 |
| 33° | 269.9 | 324.4 | 384.4 | 432.6 | 460.4 | 473.4 |
| 33.5° | 266.3 | 320.6 | 380.7 | 429.8 | 457.9 | 470.0 |
| 34° | 262.7 | 316.7 | 377.0 | 426.9 | 455.5 | 464.7 |
| 34.5° | 259.0 | 312.8 | 373.3 | 423.9 | 452.9 | 460.0 |
| 35° | 255.4 | 308.7 | 369.3 | 420.8 | 449.8 | 452.9 |
| 35.5° | 251.7 | 304.4 | 365.2 | 417.6 | 446.5 | 446.2 |
| 36° | 247.9 | 300.1 | 361.1 | 414.3 | 442.0 | 439.8 |
| 36.5° | 244.2 | 295.6 | 356.8 | 411.0 | 436.6 | 431.5 |
| 37° | 240.4 | 291.0 | 352.2 | 407.6 | 431.4 | 424.8 |
| 37.5° | 236.6 | 286.2 | 347.6 | 404.1 | 424.2 | 416.6 |
| 38° | 232.8 | 281.4 | 342.6 | 400.4 | 418.1 | 408.1 |
| 38.5° | 228.6 | 276.5 | 337.4 | 396.6 | 411.1 | 400.4 |
| 39° | 224.7 | 271.5 | 332.2 | 393.0 | 403.1 | 391.3 |
| 39.5° | 220.7 | 266.5 | 326.8 | 389.2 | 396.9 | 383.4 |
| 40° | 216.7 | 261.5 | 321.0 | 385.3 | 388.7 | 374.8 |
| 40.5° | 212.7 | 256.3 | 315.1 | 381.2 | 380.9 | 365.3 |
| 41° | 208.5 | 251.0 | 309.2 | 377.3 | 373.6 | 357.5 |
| 41.5° | 204.5 | 246.0 | 303.3 | 373.4 | 365.0 | 348.1 |
| 42° | 200.4 | 240.7 | 297.2 | 369.2 | 357.3 | 339.6 |
| 42.5° | 196.3 | 235.4 | 291.1 | 365.0 | 349.1 | 331.1 |
| 43° | 192.2 | 230.1 | 284.8 | 360.4 | 340.4 | 321.5 |
| 43.5° | 188.1 | 224.8 | 278.5 | 355.5 | 333.1 | 314.0 |



TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 45° | 175.9 | 208.7 | 259.1 | 336.7 | 308.4 | 288.2 |
| 45.5° | 171.7 | 203.4 | 252.7 | 328.8 | 299.4 | 279.1 |
| 46° | 167.6 | 198.1 | 246.0 | 321.6 | 292.2 | 272.1 |
| 46.5° | 163.5 | 192.9 | 239.5 | 314.0 | 283.9 | 263.2 |
| 47° | 159.6 | 187.7 | 233.0 | 305.4 | 276.2 | 255.9 |
| 47.5° | 155.7 | 182.3 | 226.3 | 297.7 | 268.5 | 248.3 |
| 48° | 151.6 | 177.1 | 219.8 | 289.3 | 259.9 | 239.8 |
| 48.5° | 147.7 | 172.0 | 213.4 | 280.7 | 253.5 | 233.7 |
| 49° | 143.8 | 166.8 | 206.9 | 273.0 | 245.2 | 225.1 |
| 49.5° | 140.1 | 161.9 | 200.3 | 264.2 | 238.6 | 219.3 |
| 50° | 136.2 | 156.9 | 193.9 | 256.0 | 231.5 | 211.9 |
| 50.5° | 132.2 | 151.9 | 187.5 | 248.0 | 223.6 | 205.2 |
| 51° | 128.6 | 147.2 | 181.2 | 239.6 | 217.6 | 199.3 |
| 51.5° | 125.0 | 142.4 | 175.0 | 232.0 | 209.8 | 191.7 |
| 52° | 121.4 | 137.9 | 169.0 | 223.8 | 204.3 | 187.0 |
| 52.5° | 117.6 | 133.5 | 163.0 | 216.1 | 197.5 | 179.9 |
| 53° | 114.2 | 129.0 | 157.0 | 208.8 | 191.1 | 175.0 |
| 53.5° | 110.8 | 124.8 | 151.5 | 200.9 | 185.3 | 169.3 |
| 54° | 107.4 | 120.7 | 145.9 | 194.0 | 178.4 | 163.6 |
| 54.5° | 104.2 | 116.9 | 140.6 | 186.6 | 173.5 | 159.0 |
| 55° | 100.8 | 113.0 | 135.4 | 179.9 | 166.7 | 153.2 |
| 55.5° | 97.7 | 109.2 | 130.6 | 173.3 | 162.1 | 149.2 |
| 56° | 94.7 | 105.6 | 125.8 | 166.4 | 156.1 | 143.4 |
| 56.5° | 91.7 | 102.3 | 121.3 | 160.5 | 151.2 | 139.8 |
| 57° | 89.0 | 98.9 | 116.8 | 154.2 | 146.1 | 134.9 |
| 57.5° | 86.2 | 95.5 | 112.6 | 148.5 | 140.8 | 131.1 |
| 58° | 83.5 | 92.4 | 108.6 | 142.5 | 136.5 | 127.0 |
| 58.5° | 80.8 | 89.4 | 104.7 | 137.2 | 131.3 | 122.8 |
| 59° | 78.0 | 86.5 | 101.0 | 131.9 | 127.5 | 119.2 |
| 59.5° | 75.5 | 83.6 | 97.5 | 126.7 | 122.6 | 115.0 |
| 60° | 73.2 | 80.9 | 94.1 | 121.9 | 119.1 | 111.4 |
| 60.5° | 70.9 | 78.2 | 90.8 | 117.0 | 114.4 | 107.7 |
| 61° | 68.6 | 75.7 | 87.6 | 112.6 | 111.1 | 104.2 |
| 61.5° | 66.4 | 73.3 | 84.6 | 108.1 | 106.8 | 100.8 |
| 62° | 64.3 | 70.9 | 81.7 | 104.2 | 103.6 | 97.6 |
| 62.5° | 62.2 | 68.5 | 78.9 | 100.1 | 99.7 | 94.3 |
| 63° | 60.2 | 66.2 | 76.2 | 96.3 | 96.6 | 91.4 |
| 63.5° | 58.2 | 64.0 | 73.5 | 92.5 | 93.1 | 88.3 |
| 64° | 56.4 | 62.0 | 70.9 | 89.1 | 90.1 | 85.6 |
| 64.5° | 54.6 | 59.9 | 68.5 | 85.6 | 86.6 | 82.6 |
| 65° | 52.9 | 57.9 | 66.1 | 82.4 | 83.9 | 80.1 |
| 65.5° | 51.1 | 56.0 | 63.8 | 79.3 | 80.7 | 77.4 |
| 66° | 49.4 | 54.1 | 61.6 | 76.3 | 78.2 | 74.9 |



TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 44.7 | 48.7 | 55.3 | 68.0 | 70.1 | 67.5 |
| 68° | 43.2 | 46.9 | 53.3 | 65.4 | 67.7 | 65.2 |
| 68.5° | 41.8 | 45.3 | 51.4 | 62.9 | 65.2 | 62.9 |
| 69° | 40.3 | 43.7 | 49.5 | 60.5 | 62.8 | 60.6 |
| 69.5° | 39.0 | 42.2 | 47.7 | 58.1 | 60.5 | 58.4 |
| 70° | 37.6 | 40.6 | 45.9 | 55.9 | 58.1 | 56.4 |
| 70.5° | 36.3 | 39.1 | 44.1 | 53.7 | 56.0 | 54.2 |
| 71° | 35.0 | 37.5 | 42.5 | 51.5 | 53.8 | 52.1 |
| 71.5° | 33.8 | 36.2 | 40.8 | 49.4 | 51.7 | 50.2 |
| 72° | 32.5 | 34.8 | 39.2 | 47.4 | 49.6 | 48.2 |
| 72.5° | 31.3 | 33.5 | 37.6 | 45.5 | 47.6 | 46.2 |
| 73° | 30.2 | 32.2 | 36.2 | 43.5 | 45.7 | 44.3 |
| 73.5° | 29.0 | 30.9 | 34.7 | 41.6 | 43.6 | 42.4 |
| 74° | 28.0 | 29.5 | 33.3 | 39.8 | 41.8 | 40.5 |
| 74.5° | 26.8 | 28.3 | 31.8 | 37.9 | 39.9 | 38.7 |
| 75° | 25.9 | 27.0 | 30.4 | 36.3 | 38.0 | 37.2 |
| 75.5° | 25.0 | 25.8 | 29.0 | 34.6 | 36.4 | 35.4 |
| 76° | 24.0 | 24.6 | 27.6 | 33.0 | 34.6 | 33.7 |
| 76.5° | 23.0 | 23.4 | 26.3 | 31.3 | 33.0 | 31.8 |
| 77° | 22.1 | 22.3 | 25.0 | 29.6 | 31.2 | 30.1 |
| 77.5° | 21.0 | 21.1 | 23.7 | 28.1 | 29.5 | 28.5 |
| 78° | 20.0 | 20.0 | 22.5 | 26.5 | 27.9 | 26.8 |
| 78.5° | 19.1 | 19.0 | 21.1 | 25.0 | 26.3 | 25.2 |
| 79° | 18.0 | 17.8 | 20.0 | 23.4 | 24.7 | 23.6 |
| 79.5° | 17.0 | 16.8 | 18.8 | 22.0 | 23.1 | 22.1 |
| 80° | 16.1 | 15.8 | 17.6 | 20.5 | 21.6 | 20.5 |
| 80.5° | 15.0 | 14.7 | 16.5 | 19.2 | 20.1 | 19.1 |
| 81° | 14.0 | 13.8 | 15.3 | 17.8 | 18.6 | 17.6 |
| 81.5° | 13.1 | 12.7 | 14.2 | 16.5 | 17.1 | 16.2 |
| 82° | 12.1 | 11.8 | 13.1 | 15.1 | 15.6 | 14.7 |
| 82.5° | 11.2 | 10.9 | 12.0 | 13.9 | 14.3 | 13.4 |
| 83° | 10.3 | 9.9 | 11.0 | 12.6 | 13.0 | 12.0 |
| 83.5° | 9.3 | 9.0 | 9.9 | 11.5 | 11.5 | 10.6 |
| 84° | 8.4 | 8.2 | 8.9 | 10.4 | 10.2 | 9.2 |
| 84.5° | 7.5 | 7.3 | 8.0 | 9.2 | 8.9 | 7.9 |
| 85° | 6.5 | 6.4 | 6.9 | 8.2 | 7.8 | 6.6 |
| 85.5° | 5.6 | 5.6 | 6.0 | 7.2 | 6.6 | 5.3 |
| 86° | 4.7 | 4.8 | 5.1 | 6.2 | 5.6 | 4.4 |
| 86.5° | 3.8 | 3.9 | 4.1 | 5.2 | 4.7 | 3.6 |
| 87° | 3.0 | 3.1 | 3.3 | 4.2 | 3.8 | 3.0 |
| 87.5° | 2.2 | 2.4 | 2.5 | 3.4 | 3.0 | 2.3 |
| 88° | 1.3 | 1.6 | 1.7 | 2.6 | 2.2 | 1.7 |
| 88.5° | 0.6 | 0.8 | 0.7 | 1.8 | 1.5 | 0.9 |



TEST NUMBER: P775802

CATALOG NUMBER: HCDJBL510CSD-HCD6TSQH-HCD6TSQLWW-1000lm-3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





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

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





| | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 21.5° | 510.8 | 504.7 | 482.5 | 445.9 | 395.9 | 347.0 | 306.0 | 283.3 | 276.2 | 283.1 | 305.1 |
| 22° | 510.2 | 504.1 | 481.7 | 444.7 | 393.9 | 344.4 | 302.7 | 279.9 | 272.8 | 279.7 | 301.9 |



| | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 44° | 304.7 | 325.1 | 355.0 | 284.9 | 225.7 | 188.4 | 159.6 | 141.1 | 134.9 | 141.8 | 160.3 |
| 44.5° | 296.6 | 317.4 | 347.9 | 278.3 | 220.3 | 184.3 | 156.4 | 138.1 | 131.9 | 138.9 | 157.1 |



| | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 66.5° | 72.3 | 74.0 | 71.7 | 59.8 | 51.7 | 47.8 | 46.3 | 47.9 | 46.8 | 48.2 | 47.3 |
| 67° | 70.0 | 71.2 | 68.9 | 57.6 | 49.8 | 46.1 | 45.1 | 46.5 | 45.5 | 46.8 | 46.0 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 89° | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 |
| 89.5° | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 21.5° | 341.9 | 389.6 | 437.5 | 476.3 | 500.9 | 510.8 |
| 22° | 339.1 | 387.5 | 436.2 | 475.4 | 500.1 | 510.2 |



| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 44° | 183.9 | 219.5 | 271.9 | 349.5 | 324.2 | 304.7 |
| 44.5° | 180.0 | 214.2 | 265.5 | 342.8 | 316.4 | 296.6 |



| | | | | | | |
|-------|------|------|------|------|------|------|
| 66.5° | 47.8 | 52.2 | 59.5 | 73.5 | 75.2 | 72.3 |
| 67° | 46.2 | 50.5 | 57.3 | 70.6 | 72.9 | 70.0 |

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Peachtree City, GA 30269

Scaled Data Report



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 89° | 0.1 | 0.2 | 0.2 | 0.9 | 0.6 | 0.3 |
| 89.5° | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 |

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)