

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: P776849

Luminaire Tested: HCDJBL510CSD-HCD42TRMW-500lm-5000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156A001)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD42TRMW-500lm-5000K
Description: 4 INCH ROUND NARROW MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 534.8 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.97 / 0.95
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

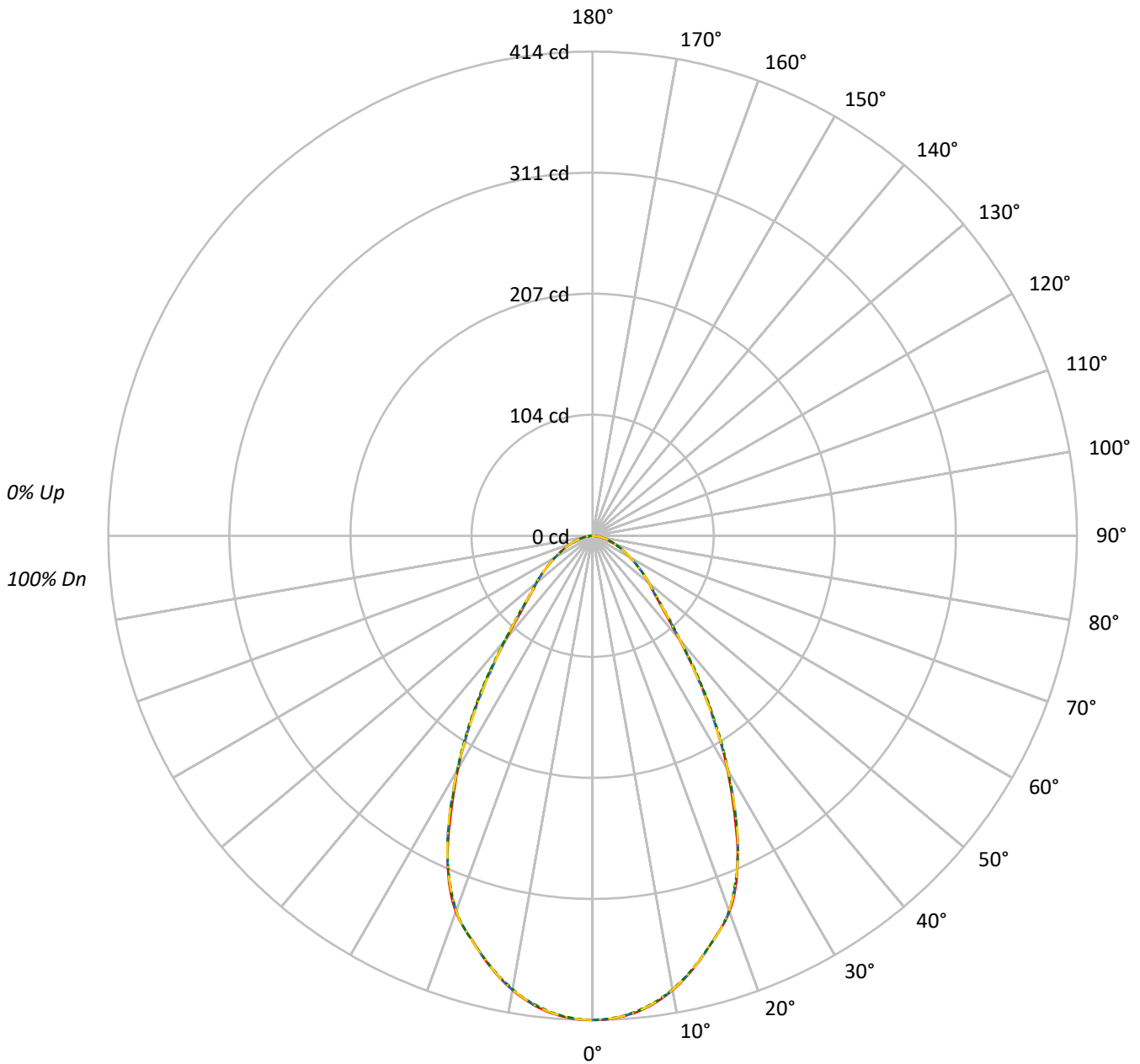
Input Watts (W): 5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 102 | 99 | 97 | 98 | 96 | 94 | 94 | 93 | 91 | 89 | | | | | | | | | | | | | | | | | | | |
| 2 | 104 | 98 | 93 | 88 | 102 | 96 | 91 | 87 | 93 | 89 | 85 | 90 | 86 | 83 | 87 | 84 | 82 | 80 | | | | | | | | | | | | | | | | | | | |
| 3 | 97 | 89 | 83 | 78 | 95 | 88 | 82 | 77 | 85 | 80 | 76 | 82 | 78 | 74 | 80 | 76 | 73 | 71 | | | | | | | | | | | | | | | | | | | |
| 4 | 91 | 81 | 74 | 69 | 89 | 80 | 74 | 69 | 78 | 72 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 | | | | | | | | | | | | | | | | | | | |
| 5 | 85 | 75 | 68 | 62 | 83 | 74 | 67 | 62 | 72 | 66 | 61 | 70 | 65 | 61 | 68 | 64 | 60 | 58 | | | | | | | | | | | | | | | | | | | |
| 6 | 80 | 69 | 62 | 57 | 78 | 68 | 61 | 56 | 67 | 60 | 56 | 65 | 60 | 55 | 64 | 59 | 55 | 53 | | | | | | | | | | | | | | | | | | | |
| 7 | 75 | 64 | 57 | 52 | 74 | 63 | 56 | 52 | 62 | 56 | 51 | 61 | 55 | 51 | 59 | 54 | 51 | 49 | | | | | | | | | | | | | | | | | | | |
| 8 | 71 | 60 | 52 | 48 | 70 | 59 | 52 | 47 | 58 | 52 | 47 | 57 | 51 | 47 | 56 | 51 | 47 | 45 | | | | | | | | | | | | | | | | | | | |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 48 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 43 | 42 | | | | | | | | | | | | | | | | | | | |
| 10 | 63 | 52 | 45 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 44 | 41 | 49 | 44 | 40 | 39 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|-------|-------|-------|-------|
| 0° | 52114 | 52114 | 52114 | 52114 |
| 5° | 51758 | 51644 | 51758 | 51644 |
| 10° | 50414 | 50299 | 50414 | 50299 |
| 15° | 48181 | 48129 | 48181 | 48129 |
| 20° | 45816 | 45656 | 45816 | 45656 |
| 25° | 40658 | 40797 | 40658 | 40797 |
| 30° | 33452 | 33641 | 33452 | 33641 |
| 35° | 25949 | 26241 | 25949 | 26241 |
| 40° | 18860 | 19189 | 18860 | 19189 |
| 45° | 14274 | 14630 | 14274 | 14630 |
| 50° | 12295 | 12393 | 12295 | 12393 |
| 55° | 10685 | 10817 | 10685 | 10817 |
| 60° | 9338 | 9414 | 9338 | 9414 |
| 65° | 8219 | 8278 | 8219 | 8278 |
| 70° | 7249 | 7286 | 7249 | 7286 |
| 75° | 6370 | 6370 | 6370 | 6370 |
| 80° | 5508 | 5436 | 5508 | 5436 |
| 85° | 4476 | 4476 | 4476 | 4476 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14630 cd/sqm



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 38.6 | 7.2 |
| 10°-20° | 103.9 | 19.4 |
| 20°-30° | 133.0 | 24.9 |
| 30°-40° | 105.4 | 19.7 |
| 40°-50° | 64.6 | 12.1 |
| 50°-60° | 44.1 | 8.3 |
| 60°-70° | 27.6 | 5.2 |
| 70°-80° | 14.0 | 2.6 |
| 80°-90° | 3.5 | 0.7 |
| 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° | 275.5 | 51.5 |
| 0°-40° | 380.9 | 71.2 |
| 0°-60° | 489.6 | 91.6 |
| 0°-90° | 534.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 534.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|-----|-----|------|------|------|------|
| 0° | 414 | 414 | 414 | 414 | 414 | |
| 5° | 410 | 409 | 410 | 409 | 410 | 39 |
| 15° | 370 | 369 | 370 | 369 | 370 | 104 |
| 25° | 293 | 294 | 293 | 294 | 293 | 133 |
| 35° | 169 | 171 | 169 | 171 | 169 | 105 |
| 45° | 80 | 82 | 80 | 82 | 80 | 64 |
| 55° | 49 | 49 | 49 | 49 | 49 | 44 |
| 65° | 28 | 28 | 28 | 28 | 28 | 28 |
| 75° | 13 | 13 | 13 | 13 | 13 | 14 |
| 85° | 3 | 3 | 3 | 3 | 3 | 4 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 0° | 414.1 | 414.1 | 414.1 | 414.1 | 414.1 | 414.1 | 414.1 | 414.1 | 414.1 | 414.1 | 414.1 |
| 0.5° | 414.2 | 414.1 | 414.0 | 414.0 | 413.8 | 414.0 | 414.0 | 414.1 | 414.2 | 414.1 | 414.0 |
| 1° | 414.0 | 414.0 | 413.9 | 413.9 | 413.6 | 413.9 | 413.9 | 414.0 | 414.0 | 414.0 | 413.9 |
| 1.5° | 413.8 | 413.7 | 413.7 | 413.6 | 413.4 | 413.6 | 413.7 | 413.7 | 413.8 | 413.7 | 413.7 |
| 2° | 413.5 | 413.4 | 413.3 | 413.3 | 413.0 | 413.3 | 413.3 | 413.4 | 413.5 | 413.4 | 413.3 |
| 2.5° | 413.1 | 413.0 | 412.9 | 412.8 | 412.5 | 412.8 | 412.9 | 413.0 | 413.1 | 413.0 | 412.9 |
| 3° | 412.5 | 412.4 | 412.3 | 412.2 | 411.9 | 412.2 | 412.3 | 412.4 | 412.5 | 412.4 | 412.3 |
| 3.5° | 411.9 | 411.8 | 411.7 | 411.5 | 411.4 | 411.5 | 411.7 | 411.8 | 411.9 | 411.8 | 411.7 |
| 4° | 411.2 | 411.2 | 410.9 | 410.8 | 410.5 | 410.8 | 410.9 | 411.2 | 411.2 | 411.2 | 410.9 |
| 4.5° | 410.4 | 410.3 | 410.1 | 410.0 | 409.7 | 410.0 | 410.1 | 410.3 | 410.4 | 410.3 | 410.1 |
| 5° | 409.7 | 409.5 | 409.3 | 409.2 | 408.8 | 409.2 | 409.3 | 409.5 | 409.7 | 409.5 | 409.3 |
| 5.5° | 408.8 | 408.4 | 408.2 | 408.0 | 407.7 | 408.0 | 408.2 | 408.4 | 408.8 | 408.4 | 408.2 |
| 6° | 407.5 | 407.3 | 407.0 | 406.9 | 406.4 | 406.9 | 407.0 | 407.3 | 407.5 | 407.3 | 407.0 |
| 6.5° | 406.3 | 406.1 | 405.8 | 405.6 | 405.2 | 405.6 | 405.8 | 406.1 | 406.3 | 406.1 | 405.8 |
| 7° | 404.9 | 404.7 | 404.6 | 404.3 | 403.9 | 404.3 | 404.6 | 404.7 | 404.9 | 404.7 | 404.6 |
| 7.5° | 403.4 | 403.2 | 403.0 | 402.9 | 402.5 | 402.9 | 403.0 | 403.2 | 403.4 | 403.2 | 403.0 |
| 8° | 401.8 | 401.7 | 401.4 | 401.3 | 401.1 | 401.3 | 401.4 | 401.7 | 401.8 | 401.7 | 401.4 |
| 8.5° | 400.2 | 399.9 | 399.7 | 399.6 | 399.3 | 399.6 | 399.7 | 399.9 | 400.2 | 399.9 | 399.7 |
| 9° | 398.4 | 398.2 | 398.0 | 397.8 | 397.6 | 397.8 | 398.0 | 398.2 | 398.4 | 398.2 | 398.0 |
| 9.5° | 396.5 | 396.3 | 396.1 | 395.9 | 395.7 | 395.9 | 396.1 | 396.3 | 396.5 | 396.3 | 396.1 |
| 10° | 394.5 | 394.3 | 394.1 | 393.9 | 393.6 | 393.9 | 394.1 | 394.3 | 394.5 | 394.3 | 394.1 |
| 10.5° | 392.4 | 392.2 | 392.0 | 391.8 | 391.6 | 391.8 | 392.0 | 392.2 | 392.4 | 392.2 | 392.0 |
| 11° | 390.2 | 390.1 | 389.9 | 389.6 | 389.4 | 389.6 | 389.9 | 390.1 | 390.2 | 390.1 | 389.9 |
| 11.5° | 387.9 | 387.8 | 387.6 | 387.4 | 387.1 | 387.4 | 387.6 | 387.8 | 387.9 | 387.8 | 387.6 |
| 12° | 385.6 | 385.5 | 385.3 | 385.0 | 384.8 | 385.0 | 385.3 | 385.5 | 385.6 | 385.5 | 385.3 |
| 12.5° | 383.1 | 383.0 | 382.9 | 382.6 | 382.3 | 382.6 | 382.9 | 383.0 | 383.1 | 383.0 | 382.9 |
| 13° | 380.6 | 380.5 | 380.4 | 380.1 | 379.9 | 380.1 | 380.4 | 380.5 | 380.6 | 380.5 | 380.4 |
| 13.5° | 378.0 | 377.9 | 377.8 | 377.6 | 377.4 | 377.6 | 377.8 | 377.9 | 378.0 | 377.9 | 377.8 |
| 14° | 375.4 | 375.3 | 375.2 | 375.0 | 374.8 | 375.0 | 375.2 | 375.3 | 375.4 | 375.3 | 375.2 |
| 14.5° | 372.6 | 372.6 | 372.5 | 372.3 | 372.1 | 372.3 | 372.5 | 372.6 | 372.6 | 372.6 | 372.5 |
| 15° | 369.8 | 369.8 | 369.7 | 369.6 | 369.4 | 369.6 | 369.7 | 369.8 | 369.8 | 369.8 | 369.7 |
| 15.5° | 366.9 | 366.9 | 367.1 | 366.9 | 366.8 | 366.9 | 367.1 | 366.9 | 366.9 | 366.9 | 367.1 |
| 16° | 364.2 | 364.2 | 364.4 | 364.3 | 364.2 | 364.3 | 364.4 | 364.2 | 364.2 | 364.2 | 364.4 |
| 16.5° | 361.4 | 361.5 | 361.7 | 361.7 | 361.7 | 361.7 | 361.7 | 361.5 | 361.4 | 361.5 | 361.7 |
| 17° | 358.8 | 358.9 | 359.1 | 359.1 | 359.1 | 359.1 | 359.1 | 358.9 | 358.8 | 358.9 | 359.1 |
| 17.5° | 356.2 | 356.4 | 356.5 | 356.5 | 356.4 | 356.5 | 356.5 | 356.4 | 356.2 | 356.4 | 356.5 |
| 18° | 353.7 | 353.8 | 353.9 | 353.8 | 353.7 | 353.8 | 353.9 | 353.8 | 353.7 | 353.8 | 353.9 |
| 18.5° | 351.1 | 351.1 | 351.1 | 351.0 | 350.8 | 351.0 | 351.1 | 351.1 | 351.1 | 351.1 | 351.1 |
| 19° | 348.4 | 348.2 | 348.1 | 347.9 | 347.8 | 347.9 | 348.1 | 348.2 | 348.4 | 348.2 | 348.1 |
| 19.5° | 345.4 | 345.2 | 344.8 | 344.7 | 344.5 | 344.7 | 344.8 | 345.2 | 345.4 | 345.2 | 344.8 |
| 20° | 342.1 | 341.8 | 341.2 | 341.3 | 340.9 | 341.3 | 341.2 | 341.8 | 342.1 | 341.8 | 341.2 |
| 20.5° | 338.5 | 338.1 | 337.3 | 337.6 | 337.1 | 337.6 | 337.3 | 338.1 | 338.5 | 338.1 | 337.3 |
| 21° | 334.7 | 334.1 | 333.2 | 333.5 | 332.9 | 333.5 | 333.2 | 334.1 | 334.7 | 334.1 | 333.2 |



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 320.9 | 320.2 | 319.7 | 319.6 | 319.4 | 319.6 | 319.7 | 320.2 | 320.9 | 320.2 | 319.7 |
| 23° | 315.6 | 315.1 | 315.0 | 314.6 | 314.5 | 314.6 | 315.0 | 315.1 | 315.6 | 315.1 | 315.0 |
| 23.5° | 310.3 | 309.8 | 310.0 | 309.4 | 309.7 | 309.4 | 310.0 | 309.8 | 310.3 | 309.8 | 310.0 |
| 24° | 304.7 | 304.3 | 304.9 | 304.1 | 304.6 | 304.1 | 304.9 | 304.3 | 304.7 | 304.3 | 304.9 |
| 24.5° | 298.9 | 298.7 | 299.6 | 298.7 | 299.3 | 298.7 | 299.6 | 298.7 | 298.9 | 298.7 | 299.6 |
| 25° | 292.8 | 293.0 | 294.0 | 293.3 | 293.8 | 293.3 | 294.0 | 293.0 | 292.8 | 293.0 | 294.0 |
| 25.5° | 286.6 | 287.3 | 288.2 | 287.9 | 288.0 | 287.9 | 288.2 | 287.3 | 286.6 | 287.3 | 288.2 |
| 26° | 280.1 | 281.4 | 282.3 | 282.3 | 281.9 | 282.3 | 282.3 | 281.4 | 280.1 | 281.4 | 282.3 |
| 26.5° | 273.5 | 275.4 | 276.1 | 276.5 | 275.5 | 276.5 | 276.1 | 275.4 | 273.5 | 275.4 | 276.1 |
| 27° | 267.1 | 269.2 | 269.9 | 270.5 | 269.0 | 270.5 | 269.9 | 269.2 | 267.1 | 269.2 | 269.9 |
| 27.5° | 260.8 | 262.8 | 263.6 | 264.3 | 262.4 | 264.3 | 263.6 | 262.8 | 260.8 | 262.8 | 263.6 |
| 28° | 254.5 | 256.4 | 257.1 | 257.9 | 255.8 | 257.9 | 257.1 | 256.4 | 254.5 | 256.4 | 257.1 |
| 28.5° | 248.3 | 249.8 | 250.7 | 251.4 | 249.4 | 251.4 | 250.7 | 249.8 | 248.3 | 249.8 | 250.7 |
| 29° | 242.2 | 243.2 | 244.3 | 244.7 | 243.4 | 244.7 | 244.3 | 243.2 | 242.2 | 243.2 | 244.3 |
| 29.5° | 236.2 | 236.7 | 237.9 | 238.1 | 237.4 | 238.1 | 237.9 | 236.7 | 236.2 | 236.7 | 237.9 |
| 30° | 230.2 | 230.1 | 231.3 | 231.4 | 231.5 | 231.4 | 231.3 | 230.1 | 230.2 | 230.1 | 231.3 |
| 30.5° | 224.0 | 223.6 | 224.9 | 225.0 | 225.8 | 225.0 | 224.9 | 223.6 | 224.0 | 223.6 | 224.9 |
| 31° | 217.9 | 217.0 | 218.3 | 218.5 | 219.8 | 218.5 | 218.3 | 217.0 | 217.9 | 217.0 | 218.3 |
| 31.5° | 211.5 | 210.7 | 211.8 | 212.1 | 213.8 | 212.1 | 211.8 | 210.7 | 211.5 | 210.7 | 211.8 |
| 32° | 205.1 | 204.3 | 205.3 | 205.9 | 207.5 | 205.9 | 205.3 | 204.3 | 205.1 | 204.3 | 205.3 |
| 32.5° | 198.9 | 198.2 | 198.9 | 199.7 | 201.3 | 199.7 | 198.9 | 198.2 | 198.9 | 198.2 | 198.9 |
| 33° | 192.6 | 192.1 | 192.3 | 193.5 | 195.0 | 193.5 | 192.3 | 192.1 | 192.6 | 192.1 | 192.3 |
| 33.5° | 187.0 | 186.0 | 185.9 | 187.2 | 188.6 | 187.2 | 185.9 | 186.0 | 187.0 | 186.0 | 185.9 |
| 34° | 181.0 | 179.9 | 179.4 | 181.1 | 182.6 | 181.1 | 179.4 | 179.9 | 181.0 | 179.9 | 179.4 |
| 34.5° | 175.0 | 173.9 | 173.2 | 175.0 | 176.6 | 175.0 | 173.2 | 173.9 | 175.0 | 173.9 | 173.2 |
| 35° | 168.9 | 168.0 | 167.2 | 169.1 | 170.8 | 169.1 | 167.2 | 168.0 | 168.9 | 168.0 | 167.2 |
| 35.5° | 163.1 | 162.2 | 161.3 | 163.2 | 165.1 | 163.2 | 161.3 | 162.2 | 163.1 | 162.2 | 161.3 |
| 36° | 157.3 | 156.4 | 155.6 | 157.5 | 159.5 | 157.5 | 155.6 | 156.4 | 157.3 | 156.4 | 155.6 |
| 36.5° | 151.6 | 150.8 | 150.1 | 151.9 | 153.7 | 151.9 | 150.1 | 150.8 | 151.6 | 150.8 | 150.1 |
| 37° | 145.8 | 145.2 | 144.6 | 146.5 | 148.1 | 146.5 | 144.6 | 145.2 | 145.8 | 145.2 | 144.6 |
| 37.5° | 140.2 | 139.8 | 139.4 | 141.3 | 142.4 | 141.3 | 139.4 | 139.8 | 140.2 | 139.8 | 139.4 |
| 38° | 134.7 | 134.6 | 134.4 | 136.2 | 136.8 | 136.2 | 134.4 | 134.6 | 134.7 | 134.6 | 134.4 |
| 38.5° | 129.5 | 129.6 | 129.7 | 131.2 | 131.4 | 131.2 | 129.7 | 129.6 | 129.5 | 129.6 | 129.7 |
| 39° | 124.4 | 124.7 | 124.9 | 126.3 | 126.3 | 126.3 | 124.9 | 124.7 | 124.4 | 124.7 | 124.9 |
| 39.5° | 119.5 | 120.0 | 120.4 | 121.6 | 121.4 | 121.6 | 120.4 | 120.0 | 119.5 | 120.0 | 120.4 |
| 40° | 114.8 | 115.3 | 116.0 | 117.0 | 116.8 | 117.0 | 116.0 | 115.3 | 114.8 | 115.3 | 116.0 |
| 40.5° | 110.3 | 110.9 | 111.8 | 112.5 | 112.4 | 112.5 | 111.8 | 110.9 | 110.3 | 110.9 | 111.8 |
| 41° | 106.0 | 106.6 | 107.8 | 108.3 | 108.4 | 108.3 | 107.8 | 106.6 | 106.0 | 106.6 | 107.8 |
| 41.5° | 102.0 | 102.6 | 103.9 | 104.2 | 104.7 | 104.2 | 103.9 | 102.6 | 102.0 | 102.6 | 103.9 |
| 42° | 98.2 | 98.8 | 100.3 | 100.4 | 101.1 | 100.4 | 100.3 | 98.8 | 98.2 | 98.8 | 100.3 |
| 42.5° | 94.7 | 95.3 | 96.8 | 96.9 | 97.6 | 96.9 | 96.8 | 95.3 | 94.7 | 95.3 | 96.8 |
| 43° | 91.3 | 92.0 | 93.5 | 93.6 | 94.2 | 93.6 | 93.5 | 92.0 | 91.3 | 92.0 | 93.5 |
| 43.5° | 88.2 | 88.9 | 90.3 | 90.4 | 91.0 | 90.4 | 90.3 | 88.9 | 88.2 | 88.9 | 90.3 |



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 45° | 80.2 | 80.8 | 81.6 | 81.9 | 82.2 | 81.9 | 81.6 | 80.8 | 80.2 | 80.8 | 81.6 |
| 45.5° | 77.9 | 78.3 | 79.1 | 79.4 | 79.6 | 79.4 | 79.1 | 78.3 | 77.9 | 78.3 | 79.1 |
| 46° | 75.7 | 76.0 | 76.8 | 77.2 | 77.3 | 77.2 | 76.8 | 76.0 | 75.7 | 76.0 | 76.8 |
| 46.5° | 73.6 | 73.9 | 74.5 | 74.9 | 75.0 | 74.9 | 74.5 | 73.9 | 73.6 | 73.9 | 74.5 |
| 47° | 71.7 | 71.9 | 72.4 | 72.9 | 73.0 | 72.9 | 72.4 | 71.9 | 71.7 | 71.9 | 72.4 |
| 47.5° | 69.8 | 70.0 | 70.5 | 71.0 | 71.2 | 71.0 | 70.5 | 70.0 | 69.8 | 70.0 | 70.5 |
| 48° | 68.1 | 68.3 | 68.8 | 69.3 | 69.5 | 69.3 | 68.8 | 68.3 | 68.1 | 68.3 | 68.8 |
| 48.5° | 66.7 | 66.8 | 67.2 | 67.7 | 67.8 | 67.7 | 67.2 | 66.8 | 66.7 | 66.8 | 67.2 |
| 49° | 65.4 | 65.4 | 65.8 | 66.1 | 66.3 | 66.1 | 65.8 | 65.4 | 65.4 | 65.4 | 65.8 |
| 49.5° | 64.1 | 64.2 | 64.4 | 64.7 | 64.7 | 64.7 | 64.4 | 64.2 | 64.1 | 64.2 | 64.4 |
| 50° | 62.8 | 62.8 | 63.0 | 63.2 | 63.3 | 63.2 | 63.0 | 62.8 | 62.8 | 62.8 | 63.0 |
| 50.5° | 61.5 | 61.5 | 61.6 | 61.8 | 61.8 | 61.8 | 61.6 | 61.5 | 61.5 | 61.5 | 61.6 |
| 51° | 60.0 | 60.1 | 60.2 | 60.5 | 60.5 | 60.5 | 60.2 | 60.1 | 60.0 | 60.1 | 60.2 |
| 51.5° | 58.5 | 58.6 | 58.8 | 59.1 | 59.1 | 59.1 | 58.8 | 58.6 | 58.5 | 58.6 | 58.8 |
| 52° | 57.0 | 57.1 | 57.3 | 57.6 | 57.7 | 57.6 | 57.3 | 57.1 | 57.0 | 57.1 | 57.3 |
| 52.5° | 55.5 | 55.6 | 55.9 | 56.1 | 56.2 | 56.1 | 55.9 | 55.6 | 55.5 | 55.6 | 55.9 |
| 53° | 54.1 | 54.2 | 54.5 | 54.7 | 54.8 | 54.7 | 54.5 | 54.2 | 54.1 | 54.2 | 54.5 |
| 53.5° | 52.7 | 52.8 | 53.0 | 53.3 | 53.4 | 53.3 | 53.0 | 52.8 | 52.7 | 52.8 | 53.0 |
| 54° | 51.4 | 51.4 | 51.6 | 51.9 | 52.0 | 51.9 | 51.6 | 51.4 | 51.4 | 51.4 | 51.6 |
| 54.5° | 50.0 | 50.1 | 50.3 | 50.5 | 50.6 | 50.5 | 50.3 | 50.1 | 50.0 | 50.1 | 50.3 |
| 55° | 48.7 | 48.8 | 49.0 | 49.2 | 49.3 | 49.2 | 49.0 | 48.8 | 48.7 | 48.8 | 49.0 |
| 55.5° | 47.4 | 47.5 | 47.8 | 47.9 | 48.0 | 47.9 | 47.8 | 47.5 | 47.4 | 47.5 | 47.8 |
| 56° | 46.2 | 46.3 | 46.5 | 46.6 | 46.7 | 46.6 | 46.5 | 46.3 | 46.2 | 46.3 | 46.5 |
| 56.5° | 45.0 | 45.1 | 45.3 | 45.4 | 45.5 | 45.4 | 45.3 | 45.1 | 45.0 | 45.1 | 45.3 |
| 57° | 43.8 | 43.9 | 44.0 | 44.2 | 44.3 | 44.2 | 44.0 | 43.9 | 43.8 | 43.9 | 44.0 |
| 57.5° | 42.5 | 42.7 | 42.9 | 43.0 | 43.1 | 43.0 | 42.9 | 42.7 | 42.5 | 42.7 | 42.9 |
| 58° | 41.5 | 41.5 | 41.7 | 41.9 | 41.9 | 41.9 | 41.7 | 41.5 | 41.5 | 41.5 | 41.7 |
| 58.5° | 40.4 | 40.4 | 40.6 | 40.7 | 40.8 | 40.7 | 40.6 | 40.4 | 40.4 | 40.4 | 40.6 |
| 59° | 39.3 | 39.3 | 39.4 | 39.5 | 39.7 | 39.5 | 39.4 | 39.3 | 39.3 | 39.3 | 39.4 |
| 59.5° | 38.2 | 38.2 | 38.3 | 38.5 | 38.5 | 38.5 | 38.3 | 38.2 | 38.2 | 38.2 | 38.3 |
| 60° | 37.1 | 37.2 | 37.3 | 37.4 | 37.4 | 37.4 | 37.3 | 37.2 | 37.1 | 37.2 | 37.3 |
| 60.5° | 36.1 | 36.1 | 36.2 | 36.3 | 36.4 | 36.3 | 36.2 | 36.1 | 36.1 | 36.1 | 36.2 |
| 61° | 35.1 | 35.1 | 35.2 | 35.3 | 35.4 | 35.3 | 35.2 | 35.1 | 35.1 | 35.1 | 35.2 |
| 61.5° | 34.1 | 34.1 | 34.2 | 34.3 | 34.4 | 34.3 | 34.2 | 34.1 | 34.1 | 34.1 | 34.2 |
| 62° | 33.1 | 33.1 | 33.2 | 33.3 | 33.3 | 33.3 | 33.2 | 33.1 | 33.1 | 33.1 | 33.2 |
| 62.5° | 32.1 | 32.2 | 32.2 | 32.3 | 32.4 | 32.3 | 32.2 | 32.2 | 32.1 | 32.2 | 32.2 |
| 63° | 31.2 | 31.2 | 31.3 | 31.4 | 31.4 | 31.4 | 31.3 | 31.2 | 31.2 | 31.2 | 31.3 |
| 63.5° | 30.2 | 30.3 | 30.3 | 30.4 | 30.5 | 30.4 | 30.3 | 30.3 | 30.2 | 30.3 | 30.3 |
| 64° | 29.3 | 29.4 | 29.5 | 29.5 | 29.6 | 29.5 | 29.5 | 29.4 | 29.3 | 29.4 | 29.5 |
| 64.5° | 28.5 | 28.5 | 28.6 | 28.6 | 28.7 | 28.6 | 28.6 | 28.5 | 28.5 | 28.5 | 28.6 |
| 65° | 27.6 | 27.6 | 27.7 | 27.7 | 27.8 | 27.7 | 27.7 | 27.6 | 27.6 | 27.6 | 27.7 |
| 65.5° | 26.7 | 26.7 | 26.8 | 26.9 | 26.9 | 26.9 | 26.8 | 26.7 | 26.7 | 26.7 | 26.8 |
| 66° | 25.8 | 25.9 | 26.0 | 26.0 | 26.1 | 26.0 | 26.0 | 25.9 | 25.8 | 25.9 | 26.0 |



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 67.5° | 23.4 | 23.5 | 23.5 | 23.6 | 23.6 | 23.6 | 23.5 | 23.5 | 23.4 | 23.5 | 23.5 |
| 68° | 22.6 | 22.7 | 22.7 | 22.8 | 22.8 | 22.8 | 22.7 | 22.7 | 22.6 | 22.7 | 22.7 |
| 68.5° | 21.9 | 21.9 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 21.9 | 21.9 | 21.9 | 22.0 |
| 69° | 21.1 | 21.1 | 21.1 | 21.2 | 21.2 | 21.2 | 21.1 | 21.1 | 21.1 | 21.1 | 21.1 |
| 69.5° | 20.4 | 20.4 | 20.4 | 20.5 | 20.5 | 20.5 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 |
| 70° | 19.7 | 19.7 | 19.7 | 19.7 | 19.8 | 19.7 | 19.7 | 19.7 | 19.7 | 19.7 | 19.7 |
| 70.5° | 19.0 | 19.0 | 19.0 | 19.0 | 19.1 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 |
| 71° | 18.3 | 18.3 | 18.3 | 18.3 | 18.4 | 18.3 | 18.3 | 18.3 | 18.3 | 18.3 | 18.3 |
| 71.5° | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 |
| 72° | 16.9 | 16.9 | 16.9 | 17.0 | 17.0 | 17.0 | 16.9 | 16.9 | 16.9 | 16.9 | 16.9 |
| 72.5° | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 |
| 73° | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 |
| 73.5° | 14.9 | 14.9 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | 14.9 | 14.9 | 14.9 | 15.0 |
| 74° | 14.3 | 14.3 | 14.3 | 14.4 | 14.4 | 14.4 | 14.3 | 14.3 | 14.3 | 14.3 | 14.3 |
| 74.5° | 13.7 | 13.7 | 13.7 | 13.7 | 13.7 | 13.7 | 13.7 | 13.7 | 13.7 | 13.7 | 13.7 |
| 75° | 13.1 | 13.1 | 13.1 | 13.1 | 13.1 | 13.1 | 13.1 | 13.1 | 13.1 | 13.1 | 13.1 |
| 75.5° | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| 76° | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 76.5° | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 |
| 77° | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 |
| 77.5° | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 |
| 78° | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 |
| 78.5° | 9.2 | 9.2 | 9.1 | 9.1 | 9.2 | 9.1 | 9.1 | 9.2 | 9.2 | 9.2 | 9.1 |
| 79° | 8.6 | 8.6 | 8.6 | 8.6 | 8.6 | 8.6 | 8.6 | 8.6 | 8.6 | 8.6 | 8.6 |
| 79.5° | 8.1 | 8.1 | 8.0 | 8.1 | 8.1 | 8.1 | 8.0 | 8.1 | 8.1 | 8.1 | 8.0 |
| 80° | 7.6 | 7.6 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.6 | 7.6 | 7.6 | 7.5 |
| 80.5° | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 |
| 81° | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 |
| 81.5° | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 |
| 82° | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 |
| 82.5° | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| 83° | 4.8 | 4.8 | 4.8 | 4.7 | 4.7 | 4.7 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| 83.5° | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 |
| 84° | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 |
| 84.5° | 3.5 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.5 | 3.4 | 3.4 |
| 85° | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 |
| 85.5° | 2.7 | 2.6 | 2.7 | 2.6 | 2.7 | 2.6 | 2.7 | 2.6 | 2.7 | 2.6 | 2.7 |
| 86° | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 86.5° | 1.9 | 1.8 | 1.8 | 1.8 | 1.9 | 1.8 | 1.8 | 1.8 | 1.9 | 1.8 | 1.8 |
| 87° | 1.5 | 1.5 | 1.5 | 1.4 | 1.5 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| 87.5° | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 88° | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 | 0.8 | 0.8 |
| 88.5° | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 | 0.6 | 0.5 | 0.4 | 0.4 | 0.4 | 0.5 |



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-----|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 |



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 0° | 414.1 | 414.1 | 414.1 | 414.1 | 414.1 | 414.1 |
| 0.5° | 414.0 | 413.8 | 414.0 | 414.0 | 414.1 | 414.2 |
| 1° | 413.9 | 413.6 | 413.9 | 413.9 | 414.0 | 414.0 |
| 1.5° | 413.6 | 413.4 | 413.6 | 413.7 | 413.7 | 413.8 |
| 2° | 413.3 | 413.0 | 413.3 | 413.3 | 413.4 | 413.5 |
| 2.5° | 412.8 | 412.5 | 412.8 | 412.9 | 413.0 | 413.1 |
| 3° | 412.2 | 411.9 | 412.2 | 412.3 | 412.4 | 412.5 |
| 3.5° | 411.5 | 411.4 | 411.5 | 411.7 | 411.8 | 411.9 |
| 4° | 410.8 | 410.5 | 410.8 | 410.9 | 411.2 | 411.2 |
| 4.5° | 410.0 | 409.7 | 410.0 | 410.1 | 410.3 | 410.4 |
| 5° | 409.2 | 408.8 | 409.2 | 409.3 | 409.5 | 409.7 |
| 5.5° | 408.0 | 407.7 | 408.0 | 408.2 | 408.4 | 408.8 |
| 6° | 406.9 | 406.4 | 406.9 | 407.0 | 407.3 | 407.5 |
| 6.5° | 405.6 | 405.2 | 405.6 | 405.8 | 406.1 | 406.3 |
| 7° | 404.3 | 403.9 | 404.3 | 404.6 | 404.7 | 404.9 |
| 7.5° | 402.9 | 402.5 | 402.9 | 403.0 | 403.2 | 403.4 |
| 8° | 401.3 | 401.1 | 401.3 | 401.4 | 401.7 | 401.8 |
| 8.5° | 399.6 | 399.3 | 399.6 | 399.7 | 399.9 | 400.2 |
| 9° | 397.8 | 397.6 | 397.8 | 398.0 | 398.2 | 398.4 |
| 9.5° | 395.9 | 395.7 | 395.9 | 396.1 | 396.3 | 396.5 |
| 10° | 393.9 | 393.6 | 393.9 | 394.1 | 394.3 | 394.5 |
| 10.5° | 391.8 | 391.6 | 391.8 | 392.0 | 392.2 | 392.4 |
| 11° | 389.6 | 389.4 | 389.6 | 389.9 | 390.1 | 390.2 |
| 11.5° | 387.4 | 387.1 | 387.4 | 387.6 | 387.8 | 387.9 |
| 12° | 385.0 | 384.8 | 385.0 | 385.3 | 385.5 | 385.6 |
| 12.5° | 382.6 | 382.3 | 382.6 | 382.9 | 383.0 | 383.1 |
| 13° | 380.1 | 379.9 | 380.1 | 380.4 | 380.5 | 380.6 |
| 13.5° | 377.6 | 377.4 | 377.6 | 377.8 | 377.9 | 378.0 |
| 14° | 375.0 | 374.8 | 375.0 | 375.2 | 375.3 | 375.4 |
| 14.5° | 372.3 | 372.1 | 372.3 | 372.5 | 372.6 | 372.6 |
| 15° | 369.6 | 369.4 | 369.6 | 369.7 | 369.8 | 369.8 |
| 15.5° | 366.9 | 366.8 | 366.9 | 367.1 | 366.9 | 366.9 |
| 16° | 364.3 | 364.2 | 364.3 | 364.4 | 364.2 | 364.2 |
| 16.5° | 361.7 | 361.7 | 361.7 | 361.7 | 361.5 | 361.4 |
| 17° | 359.1 | 359.1 | 359.1 | 359.1 | 358.9 | 358.8 |
| 17.5° | 356.5 | 356.4 | 356.5 | 356.5 | 356.4 | 356.2 |
| 18° | 353.8 | 353.7 | 353.8 | 353.9 | 353.8 | 353.7 |
| 18.5° | 351.0 | 350.8 | 351.0 | 351.1 | 351.1 | 351.1 |
| 19° | 347.9 | 347.8 | 347.9 | 348.1 | 348.2 | 348.4 |
| 19.5° | 344.7 | 344.5 | 344.7 | 344.8 | 345.2 | 345.4 |
| 20° | 341.3 | 340.9 | 341.3 | 341.2 | 341.8 | 342.1 |
| 20.5° | 337.6 | 337.1 | 337.6 | 337.3 | 338.1 | 338.5 |
| 21° | 333.5 | 332.9 | 333.5 | 333.2 | 334.1 | 334.7 |



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 319.6 | 319.4 | 319.6 | 319.7 | 320.2 | 320.9 |
| 23° | 314.6 | 314.5 | 314.6 | 315.0 | 315.1 | 315.6 |
| 23.5° | 309.4 | 309.7 | 309.4 | 310.0 | 309.8 | 310.3 |
| 24° | 304.1 | 304.6 | 304.1 | 304.9 | 304.3 | 304.7 |
| 24.5° | 298.7 | 299.3 | 298.7 | 299.6 | 298.7 | 298.9 |
| 25° | 293.3 | 293.8 | 293.3 | 294.0 | 293.0 | 292.8 |
| 25.5° | 287.9 | 288.0 | 287.9 | 288.2 | 287.3 | 286.6 |
| 26° | 282.3 | 281.9 | 282.3 | 282.3 | 281.4 | 280.1 |
| 26.5° | 276.5 | 275.5 | 276.5 | 276.1 | 275.4 | 273.5 |
| 27° | 270.5 | 269.0 | 270.5 | 269.9 | 269.2 | 267.1 |
| 27.5° | 264.3 | 262.4 | 264.3 | 263.6 | 262.8 | 260.8 |
| 28° | 257.9 | 255.8 | 257.9 | 257.1 | 256.4 | 254.5 |
| 28.5° | 251.4 | 249.4 | 251.4 | 250.7 | 249.8 | 248.3 |
| 29° | 244.7 | 243.4 | 244.7 | 244.3 | 243.2 | 242.2 |
| 29.5° | 238.1 | 237.4 | 238.1 | 237.9 | 236.7 | 236.2 |
| 30° | 231.4 | 231.5 | 231.4 | 231.3 | 230.1 | 230.2 |
| 30.5° | 225.0 | 225.8 | 225.0 | 224.9 | 223.6 | 224.0 |
| 31° | 218.5 | 219.8 | 218.5 | 218.3 | 217.0 | 217.9 |
| 31.5° | 212.1 | 213.8 | 212.1 | 211.8 | 210.7 | 211.5 |
| 32° | 205.9 | 207.5 | 205.9 | 205.3 | 204.3 | 205.1 |
| 32.5° | 199.7 | 201.3 | 199.7 | 198.9 | 198.2 | 198.9 |
| 33° | 193.5 | 195.0 | 193.5 | 192.3 | 192.1 | 192.6 |
| 33.5° | 187.2 | 188.6 | 187.2 | 185.9 | 186.0 | 187.0 |
| 34° | 181.1 | 182.6 | 181.1 | 179.4 | 179.9 | 181.0 |
| 34.5° | 175.0 | 176.6 | 175.0 | 173.2 | 173.9 | 175.0 |
| 35° | 169.1 | 170.8 | 169.1 | 167.2 | 168.0 | 168.9 |
| 35.5° | 163.2 | 165.1 | 163.2 | 161.3 | 162.2 | 163.1 |
| 36° | 157.5 | 159.5 | 157.5 | 155.6 | 156.4 | 157.3 |
| 36.5° | 151.9 | 153.7 | 151.9 | 150.1 | 150.8 | 151.6 |
| 37° | 146.5 | 148.1 | 146.5 | 144.6 | 145.2 | 145.8 |
| 37.5° | 141.3 | 142.4 | 141.3 | 139.4 | 139.8 | 140.2 |
| 38° | 136.2 | 136.8 | 136.2 | 134.4 | 134.6 | 134.7 |
| 38.5° | 131.2 | 131.4 | 131.2 | 129.7 | 129.6 | 129.5 |
| 39° | 126.3 | 126.3 | 126.3 | 124.9 | 124.7 | 124.4 |
| 39.5° | 121.6 | 121.4 | 121.6 | 120.4 | 120.0 | 119.5 |
| 40° | 117.0 | 116.8 | 117.0 | 116.0 | 115.3 | 114.8 |
| 40.5° | 112.5 | 112.4 | 112.5 | 111.8 | 110.9 | 110.3 |
| 41° | 108.3 | 108.4 | 108.3 | 107.8 | 106.6 | 106.0 |
| 41.5° | 104.2 | 104.7 | 104.2 | 103.9 | 102.6 | 102.0 |
| 42° | 100.4 | 101.1 | 100.4 | 100.3 | 98.8 | 98.2 |
| 42.5° | 96.9 | 97.6 | 96.9 | 96.8 | 95.3 | 94.7 |
| 43° | 93.6 | 94.2 | 93.6 | 93.5 | 92.0 | 91.3 |
| 43.5° | 90.4 | 91.0 | 90.4 | 90.3 | 88.9 | 88.2 |



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 45° | 81.9 | 82.2 | 81.9 | 81.6 | 80.8 | 80.2 |
| 45.5° | 79.4 | 79.6 | 79.4 | 79.1 | 78.3 | 77.9 |
| 46° | 77.2 | 77.3 | 77.2 | 76.8 | 76.0 | 75.7 |
| 46.5° | 74.9 | 75.0 | 74.9 | 74.5 | 73.9 | 73.6 |
| 47° | 72.9 | 73.0 | 72.9 | 72.4 | 71.9 | 71.7 |
| 47.5° | 71.0 | 71.2 | 71.0 | 70.5 | 70.0 | 69.8 |
| 48° | 69.3 | 69.5 | 69.3 | 68.8 | 68.3 | 68.1 |
| 48.5° | 67.7 | 67.8 | 67.7 | 67.2 | 66.8 | 66.7 |
| 49° | 66.1 | 66.3 | 66.1 | 65.8 | 65.4 | 65.4 |
| 49.5° | 64.7 | 64.7 | 64.7 | 64.4 | 64.2 | 64.1 |
| 50° | 63.2 | 63.3 | 63.2 | 63.0 | 62.8 | 62.8 |
| 50.5° | 61.8 | 61.8 | 61.8 | 61.6 | 61.5 | 61.5 |
| 51° | 60.5 | 60.5 | 60.5 | 60.2 | 60.1 | 60.0 |
| 51.5° | 59.1 | 59.1 | 59.1 | 58.8 | 58.6 | 58.5 |
| 52° | 57.6 | 57.7 | 57.6 | 57.3 | 57.1 | 57.0 |
| 52.5° | 56.1 | 56.2 | 56.1 | 55.9 | 55.6 | 55.5 |
| 53° | 54.7 | 54.8 | 54.7 | 54.5 | 54.2 | 54.1 |
| 53.5° | 53.3 | 53.4 | 53.3 | 53.0 | 52.8 | 52.7 |
| 54° | 51.9 | 52.0 | 51.9 | 51.6 | 51.4 | 51.4 |
| 54.5° | 50.5 | 50.6 | 50.5 | 50.3 | 50.1 | 50.0 |
| 55° | 49.2 | 49.3 | 49.2 | 49.0 | 48.8 | 48.7 |
| 55.5° | 47.9 | 48.0 | 47.9 | 47.8 | 47.5 | 47.4 |
| 56° | 46.6 | 46.7 | 46.6 | 46.5 | 46.3 | 46.2 |
| 56.5° | 45.4 | 45.5 | 45.4 | 45.3 | 45.1 | 45.0 |
| 57° | 44.2 | 44.3 | 44.2 | 44.0 | 43.9 | 43.8 |
| 57.5° | 43.0 | 43.1 | 43.0 | 42.9 | 42.7 | 42.5 |
| 58° | 41.9 | 41.9 | 41.9 | 41.7 | 41.5 | 41.5 |
| 58.5° | 40.7 | 40.8 | 40.7 | 40.6 | 40.4 | 40.4 |
| 59° | 39.5 | 39.7 | 39.5 | 39.4 | 39.3 | 39.3 |
| 59.5° | 38.5 | 38.5 | 38.5 | 38.3 | 38.2 | 38.2 |
| 60° | 37.4 | 37.4 | 37.4 | 37.3 | 37.2 | 37.1 |
| 60.5° | 36.3 | 36.4 | 36.3 | 36.2 | 36.1 | 36.1 |
| 61° | 35.3 | 35.4 | 35.3 | 35.2 | 35.1 | 35.1 |
| 61.5° | 34.3 | 34.4 | 34.3 | 34.2 | 34.1 | 34.1 |
| 62° | 33.3 | 33.3 | 33.3 | 33.2 | 33.1 | 33.1 |
| 62.5° | 32.3 | 32.4 | 32.3 | 32.2 | 32.2 | 32.1 |
| 63° | 31.4 | 31.4 | 31.4 | 31.3 | 31.2 | 31.2 |
| 63.5° | 30.4 | 30.5 | 30.4 | 30.3 | 30.3 | 30.2 |
| 64° | 29.5 | 29.6 | 29.5 | 29.5 | 29.4 | 29.3 |
| 64.5° | 28.6 | 28.7 | 28.6 | 28.6 | 28.5 | 28.5 |
| 65° | 27.7 | 27.8 | 27.7 | 27.7 | 27.6 | 27.6 |
| 65.5° | 26.9 | 26.9 | 26.9 | 26.8 | 26.7 | 26.7 |
| 66° | 26.0 | 26.1 | 26.0 | 26.0 | 25.9 | 25.8 |



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 23.6 | 23.6 | 23.6 | 23.5 | 23.5 | 23.4 |
| 68° | 22.8 | 22.8 | 22.8 | 22.7 | 22.7 | 22.6 |
| 68.5° | 22.0 | 22.0 | 22.0 | 22.0 | 21.9 | 21.9 |
| 69° | 21.2 | 21.2 | 21.2 | 21.1 | 21.1 | 21.1 |
| 69.5° | 20.5 | 20.5 | 20.5 | 20.4 | 20.4 | 20.4 |
| 70° | 19.7 | 19.8 | 19.7 | 19.7 | 19.7 | 19.7 |
| 70.5° | 19.0 | 19.1 | 19.0 | 19.0 | 19.0 | 19.0 |
| 71° | 18.3 | 18.4 | 18.3 | 18.3 | 18.3 | 18.3 |
| 71.5° | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 |
| 72° | 17.0 | 17.0 | 17.0 | 16.9 | 16.9 | 16.9 |
| 72.5° | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 |
| 73° | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 |
| 73.5° | 15.0 | 15.0 | 15.0 | 15.0 | 14.9 | 14.9 |
| 74° | 14.4 | 14.4 | 14.4 | 14.3 | 14.3 | 14.3 |
| 74.5° | 13.7 | 13.7 | 13.7 | 13.7 | 13.7 | 13.7 |
| 75° | 13.1 | 13.1 | 13.1 | 13.1 | 13.1 | 13.1 |
| 75.5° | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| 76° | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 76.5° | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 | 11.3 |
| 77° | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 |
| 77.5° | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 | 10.2 |
| 78° | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 |
| 78.5° | 9.1 | 9.2 | 9.1 | 9.1 | 9.2 | 9.2 |
| 79° | 8.6 | 8.6 | 8.6 | 8.6 | 8.6 | 8.6 |
| 79.5° | 8.1 | 8.1 | 8.1 | 8.0 | 8.1 | 8.1 |
| 80° | 7.5 | 7.5 | 7.5 | 7.5 | 7.6 | 7.6 |
| 80.5° | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 |
| 81° | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 |
| 81.5° | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 |
| 82° | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 |
| 82.5° | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 |
| 83° | 4.7 | 4.7 | 4.7 | 4.8 | 4.8 | 4.8 |
| 83.5° | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 |
| 84° | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 |
| 84.5° | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.5 |
| 85° | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 |
| 85.5° | 2.6 | 2.7 | 2.6 | 2.7 | 2.6 | 2.7 |
| 86° | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 86.5° | 1.8 | 1.9 | 1.8 | 1.8 | 1.8 | 1.9 |
| 87° | 1.4 | 1.5 | 1.4 | 1.5 | 1.5 | 1.5 |
| 87.5° | 1.1 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 |
| 88° | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 |
| 88.5° | 0.6 | 0.7 | 0.6 | 0.5 | 0.4 | 0.4 |



TEST NUMBER: P776849

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-5000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-----|--------|------|--------|------|--------|------|
| 90° | 0.1 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 |



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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°

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Cooper Lighting Solutions Photometric Lab
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Peachtree City, GA 30269

Scaled Data Report



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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





| | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 21.5° | 330.3 | 329.8 | 328.8 | 329.1 | 328.6 | 329.1 | 328.8 | 329.8 | 330.3 | 329.8 | 328.8 |
| 22° | 325.7 | 325.2 | 324.4 | 324.5 | 323.9 | 324.5 | 324.4 | 325.2 | 325.7 | 325.2 | 324.4 |



| | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 44° | 85.3 | 86.0 | 87.2 | 87.4 | 87.9 | 87.4 | 87.2 | 86.0 | 85.3 | 86.0 | 87.2 |
| 44.5° | 82.6 | 83.3 | 84.4 | 84.6 | 85.0 | 84.6 | 84.4 | 83.3 | 82.6 | 83.3 | 84.4 |



| | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 66.5° | 25.0 | 25.1 | 25.1 | 25.2 | 25.2 | 25.2 | 25.1 | 25.1 | 25.0 | 25.1 | 25.1 |
| 67° | 24.2 | 24.2 | 24.3 | 24.3 | 24.4 | 24.3 | 24.3 | 24.2 | 24.2 | 24.2 | 24.3 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 89° | 0.2 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 |
| 89.5° | 0.0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.1 | 0.0 | 0.1 | 0.2 |

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Peachtree City, GA 30269

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Peachtree City, GA 30269

Scaled Data Report



| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 21.5° | 329.1 | 328.6 | 329.1 | 328.8 | 329.8 | 330.3 |
| 22° | 324.5 | 323.9 | 324.5 | 324.4 | 325.2 | 325.7 |



| | | | | | | |
|-------|------|------|------|------|------|------|
| 44° | 87.4 | 87.9 | 87.4 | 87.2 | 86.0 | 85.3 |
| 44.5° | 84.6 | 85.0 | 84.6 | 84.4 | 83.3 | 82.6 |

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Peachtree City, GA 30269

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| | | | | | | |
|-------|------|------|------|------|------|------|
| 66.5° | 25.2 | 25.2 | 25.2 | 25.1 | 25.1 | 25.0 |
| 67° | 24.3 | 24.4 | 24.3 | 24.3 | 24.2 | 24.2 |



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 89° | 0.4 | 0.4 | 0.4 | 0.3 | 0.2 | 0.2 |
| 89.5° | 0.2 | 0.3 | 0.2 | 0.2 | 0.1 | 0.0 |

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(END OF REPORT)