

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: P776845

Luminaire Tested: HCDJBL510CSD-HCD42TRMW-500lm-2700K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776845
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-2700K
Description: 4 INCH ROUND NARROW MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 502.0 lumens
Efficiency: N/A
Efficacy: 100.4 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

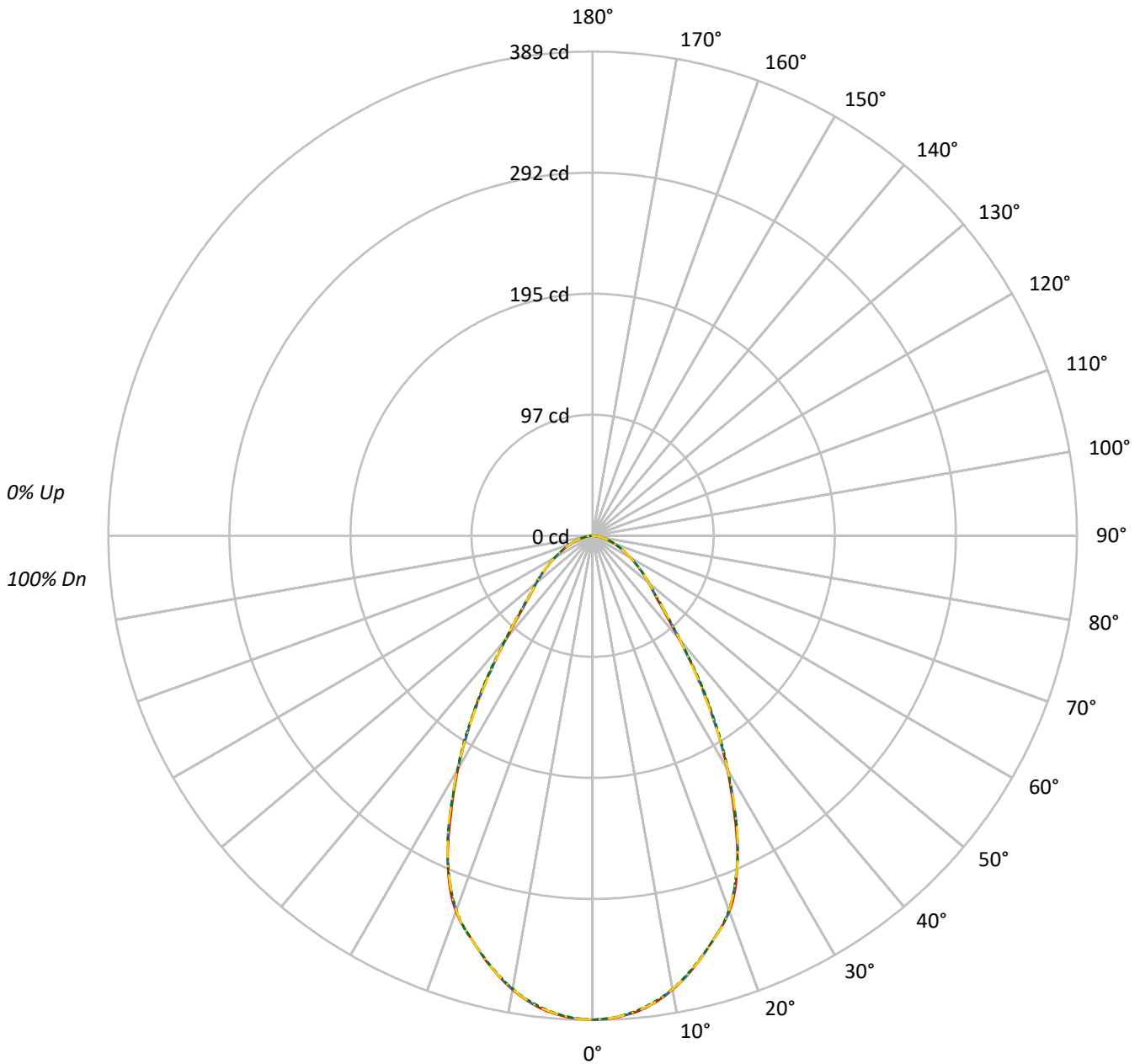
Input Watts (W): 5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

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° | 48930 | 48930 | 48930 | 48930 |
| 5° | 48587 | 48473 | 48587 | 48473 |
| 10° | 47321 | 47219 | 47321 | 47219 |
| 15° | 45236 | 45184 | 45236 | 45184 |
| 20° | 43004 | 42856 | 43004 | 42856 |
| 25° | 38173 | 38298 | 38173 | 38298 |
| 30° | 31403 | 31578 | 31403 | 31578 |
| 35° | 24366 | 24628 | 24366 | 24628 |
| 40° | 17694 | 18006 | 17694 | 18006 |
| 45° | 13402 | 13740 | 13402 | 13740 |
| 50° | 11532 | 11630 | 11532 | 11630 |
| 55° | 10027 | 10137 | 10027 | 10137 |
| 60° | 8759 | 8835 | 8759 | 8835 |
| 65° | 7713 | 7772 | 7713 | 7772 |
| 70° | 6807 | 6844 | 6807 | 6844 |
| 75° | 5981 | 5981 | 5981 | 5981 |
| 80° | 5146 | 5146 | 5146 | 5146 |
| 85° | 4187 | 4187 | 4187 | 4187 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13740 cd/sqm



TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 36.2 | 7.2 |
| 10°-20° | 97.5 | 19.4 |
| 20°-30° | 124.9 | 24.9 |
| 30°-40° | 99.0 | 19.7 |
| 40°-50° | 60.6 | 12.1 |
| 50°-60° | 41.4 | 8.3 |
| 60°-70° | 25.9 | 5.2 |
| 70°-80° | 13.1 | 2.6 |
| 80°-90° | 3.3 | 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° | 258.6 | 51.5 |
| 0°-40° | 357.6 | 71.2 |
| 0°-60° | 459.6 | 91.6 |
| 0°-90° | 502.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 502.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|-----|-----|------|------|------|------|
| 0° | 389 | 389 | 389 | 389 | 389 | |
| 5° | 385 | 384 | 385 | 384 | 385 | 36 |
| 15° | 347 | 347 | 347 | 347 | 347 | 98 |
| 25° | 275 | 276 | 275 | 276 | 275 | 125 |
| 35° | 159 | 160 | 159 | 160 | 159 | 99 |
| 45° | 75 | 77 | 75 | 77 | 75 | 60 |
| 55° | 46 | 46 | 46 | 46 | 46 | 41 |
| 65° | 26 | 26 | 26 | 26 | 26 | 26 |
| 75° | 12 | 12 | 12 | 12 | 12 | 13 |
| 85° | 3 | 3 | 3 | 3 | 3 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 0° | 388.8 | 388.8 | 388.8 | 388.8 | 388.8 | 388.8 | 388.8 | 388.8 | 388.8 | 388.8 | 388.8 |
| 0.5° | 388.8 | 388.8 | 388.7 | 388.6 | 388.5 | 388.6 | 388.7 | 388.8 | 388.8 | 388.8 | 388.7 |
| 1° | 388.7 | 388.6 | 388.6 | 388.5 | 388.3 | 388.5 | 388.6 | 388.6 | 388.7 | 388.6 | 388.6 |
| 1.5° | 388.5 | 388.4 | 388.4 | 388.2 | 388.1 | 388.2 | 388.4 | 388.4 | 388.5 | 388.4 | 388.4 |
| 2° | 388.1 | 388.1 | 388.0 | 387.9 | 387.7 | 387.9 | 388.0 | 388.1 | 388.1 | 388.1 | 388.0 |
| 2.5° | 387.8 | 387.7 | 387.6 | 387.5 | 387.3 | 387.5 | 387.6 | 387.7 | 387.8 | 387.7 | 387.6 |
| 3° | 387.3 | 387.2 | 387.0 | 386.9 | 386.7 | 386.9 | 387.0 | 387.2 | 387.3 | 387.2 | 387.0 |
| 3.5° | 386.7 | 386.6 | 386.4 | 386.3 | 386.2 | 386.3 | 386.4 | 386.6 | 386.7 | 386.6 | 386.4 |
| 4° | 386.0 | 386.0 | 385.7 | 385.6 | 385.4 | 385.6 | 385.7 | 386.0 | 386.0 | 386.0 | 385.7 |
| 4.5° | 385.3 | 385.2 | 385.0 | 384.9 | 384.6 | 384.9 | 385.0 | 385.2 | 385.3 | 385.2 | 385.0 |
| 5° | 384.6 | 384.4 | 384.2 | 384.1 | 383.7 | 384.1 | 384.2 | 384.4 | 384.6 | 384.4 | 384.2 |
| 5.5° | 383.8 | 383.4 | 383.1 | 383.0 | 382.7 | 383.0 | 383.1 | 383.4 | 383.8 | 383.4 | 383.1 |
| 6° | 382.6 | 382.4 | 382.1 | 381.9 | 381.5 | 381.9 | 382.1 | 382.4 | 382.6 | 382.4 | 382.1 |
| 6.5° | 381.4 | 381.2 | 380.9 | 380.7 | 380.3 | 380.7 | 380.9 | 381.2 | 381.4 | 381.2 | 380.9 |
| 7° | 380.1 | 379.9 | 379.8 | 379.5 | 379.1 | 379.5 | 379.8 | 379.9 | 380.1 | 379.9 | 379.8 |
| 7.5° | 378.7 | 378.5 | 378.3 | 378.2 | 377.8 | 378.2 | 378.3 | 378.5 | 378.7 | 378.5 | 378.3 |
| 8° | 377.2 | 377.1 | 376.8 | 376.7 | 376.5 | 376.7 | 376.8 | 377.1 | 377.2 | 377.1 | 376.8 |
| 8.5° | 375.6 | 375.4 | 375.2 | 375.1 | 374.9 | 375.1 | 375.2 | 375.4 | 375.6 | 375.4 | 375.2 |
| 9° | 374.0 | 373.8 | 373.6 | 373.4 | 373.2 | 373.4 | 373.6 | 373.8 | 374.0 | 373.8 | 373.6 |
| 9.5° | 372.2 | 372.1 | 371.8 | 371.6 | 371.4 | 371.6 | 371.8 | 372.1 | 372.2 | 372.1 | 371.8 |
| 10° | 370.3 | 370.2 | 370.0 | 369.8 | 369.5 | 369.8 | 370.0 | 370.2 | 370.3 | 370.2 | 370.0 |
| 10.5° | 368.3 | 368.2 | 367.9 | 367.8 | 367.6 | 367.8 | 367.9 | 368.2 | 368.3 | 368.2 | 367.9 |
| 11° | 366.3 | 366.2 | 366.0 | 365.8 | 365.5 | 365.8 | 366.0 | 366.2 | 366.3 | 366.2 | 366.0 |
| 11.5° | 364.1 | 364.0 | 363.8 | 363.6 | 363.4 | 363.6 | 363.8 | 364.0 | 364.1 | 364.0 | 363.8 |
| 12° | 362.0 | 361.9 | 361.7 | 361.4 | 361.2 | 361.4 | 361.7 | 361.9 | 362.0 | 361.9 | 361.7 |
| 12.5° | 359.7 | 359.6 | 359.4 | 359.1 | 358.9 | 359.1 | 359.4 | 359.6 | 359.7 | 359.6 | 359.4 |
| 13° | 357.3 | 357.2 | 357.1 | 356.9 | 356.6 | 356.9 | 357.1 | 357.2 | 357.3 | 357.2 | 357.1 |
| 13.5° | 354.9 | 354.8 | 354.7 | 354.5 | 354.2 | 354.5 | 354.7 | 354.8 | 354.9 | 354.8 | 354.7 |
| 14° | 352.4 | 352.3 | 352.2 | 352.0 | 351.8 | 352.0 | 352.2 | 352.3 | 352.4 | 352.3 | 352.2 |
| 14.5° | 349.8 | 349.7 | 349.7 | 349.5 | 349.3 | 349.5 | 349.7 | 349.7 | 349.8 | 349.7 | 349.7 |
| 15° | 347.2 | 347.2 | 347.1 | 347.0 | 346.8 | 347.0 | 347.1 | 347.2 | 347.2 | 347.2 | 347.1 |
| 15.5° | 344.5 | 344.5 | 344.6 | 344.5 | 344.4 | 344.5 | 344.6 | 344.5 | 344.5 | 344.5 | 344.6 |
| 16° | 341.9 | 341.9 | 342.1 | 342.0 | 341.9 | 342.0 | 342.1 | 341.9 | 341.9 | 341.9 | 342.1 |
| 16.5° | 339.3 | 339.4 | 339.6 | 339.6 | 339.5 | 339.6 | 339.6 | 339.4 | 339.3 | 339.4 | 339.6 |
| 17° | 336.8 | 336.9 | 337.1 | 337.1 | 337.1 | 337.1 | 337.1 | 336.9 | 336.8 | 336.9 | 337.1 |
| 17.5° | 334.4 | 334.5 | 334.7 | 334.6 | 334.6 | 334.6 | 334.7 | 334.5 | 334.4 | 334.5 | 334.7 |
| 18° | 332.1 | 332.1 | 332.2 | 332.1 | 332.0 | 332.1 | 332.2 | 332.1 | 332.1 | 332.1 | 332.2 |
| 18.5° | 329.6 | 329.6 | 329.6 | 329.5 | 329.3 | 329.5 | 329.6 | 329.6 | 329.6 | 329.6 | 329.6 |
| 19° | 327.0 | 326.9 | 326.8 | 326.6 | 326.4 | 326.6 | 326.8 | 326.9 | 327.0 | 326.9 | 326.8 |
| 19.5° | 324.2 | 324.0 | 323.7 | 323.6 | 323.4 | 323.6 | 323.7 | 324.0 | 324.2 | 324.0 | 323.7 |
| 20° | 321.1 | 320.9 | 320.3 | 320.4 | 320.0 | 320.4 | 320.3 | 320.9 | 321.1 | 320.9 | 320.3 |
| 20.5° | 317.8 | 317.3 | 316.7 | 316.9 | 316.4 | 316.9 | 316.7 | 317.3 | 317.8 | 317.3 | 316.7 |
| 21° | 314.2 | 313.6 | 312.8 | 313.1 | 312.5 | 313.1 | 312.8 | 313.6 | 314.2 | 313.6 | 312.8 |



TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 301.2 | 300.6 | 300.1 | 300.0 | 299.8 | 300.0 | 300.1 | 300.6 | 301.2 | 300.6 | 300.1 |
| 23° | 296.3 | 295.8 | 295.7 | 295.3 | 295.2 | 295.3 | 295.7 | 295.8 | 296.3 | 295.8 | 295.7 |
| 23.5° | 291.3 | 290.8 | 291.0 | 290.4 | 290.7 | 290.4 | 291.0 | 290.8 | 291.3 | 290.8 | 291.0 |
| 24° | 286.0 | 285.6 | 286.3 | 285.4 | 285.9 | 285.4 | 286.3 | 285.6 | 286.0 | 285.6 | 286.3 |
| 24.5° | 280.6 | 280.4 | 281.2 | 280.4 | 281.0 | 280.4 | 281.2 | 280.4 | 280.6 | 280.4 | 281.2 |
| 25° | 274.9 | 275.0 | 275.9 | 275.3 | 275.8 | 275.3 | 275.9 | 275.0 | 274.9 | 275.0 | 275.9 |
| 25.5° | 269.0 | 269.7 | 270.5 | 270.3 | 270.4 | 270.3 | 270.5 | 269.7 | 269.0 | 269.7 | 270.5 |
| 26° | 263.0 | 264.2 | 265.0 | 265.0 | 264.6 | 265.0 | 265.0 | 264.2 | 263.0 | 264.2 | 265.0 |
| 26.5° | 256.8 | 258.6 | 259.2 | 259.5 | 258.6 | 259.5 | 259.2 | 258.6 | 256.8 | 258.6 | 259.2 |
| 27° | 250.7 | 252.7 | 253.3 | 253.9 | 252.5 | 253.9 | 253.3 | 252.7 | 250.7 | 252.7 | 253.3 |
| 27.5° | 244.8 | 246.7 | 247.4 | 248.1 | 246.3 | 248.1 | 247.4 | 246.7 | 244.8 | 246.7 | 247.4 |
| 28° | 238.9 | 240.6 | 241.4 | 242.1 | 240.1 | 242.1 | 241.4 | 240.6 | 238.9 | 240.6 | 241.4 |
| 28.5° | 233.1 | 234.5 | 235.3 | 236.0 | 234.1 | 236.0 | 235.3 | 234.5 | 233.1 | 234.5 | 235.3 |
| 29° | 227.4 | 228.3 | 229.3 | 229.7 | 228.5 | 229.7 | 229.3 | 228.3 | 227.4 | 228.3 | 229.3 |
| 29.5° | 221.7 | 222.2 | 223.3 | 223.5 | 222.9 | 223.5 | 223.3 | 222.2 | 221.7 | 222.2 | 223.3 |
| 30° | 216.1 | 216.0 | 217.2 | 217.2 | 217.3 | 217.2 | 217.2 | 216.0 | 216.1 | 216.0 | 217.2 |
| 30.5° | 210.3 | 209.9 | 211.1 | 211.2 | 212.0 | 211.2 | 211.1 | 209.9 | 210.3 | 209.9 | 211.1 |
| 31° | 204.5 | 203.7 | 204.9 | 205.1 | 206.3 | 205.1 | 204.9 | 203.7 | 204.5 | 203.7 | 204.9 |
| 31.5° | 198.6 | 197.8 | 198.8 | 199.1 | 200.7 | 199.1 | 198.8 | 197.8 | 198.6 | 197.8 | 198.8 |
| 32° | 192.5 | 191.8 | 192.7 | 193.3 | 194.8 | 193.3 | 192.7 | 191.8 | 192.5 | 191.8 | 192.7 |
| 32.5° | 186.7 | 186.1 | 186.7 | 187.4 | 189.0 | 187.4 | 186.7 | 186.1 | 186.7 | 186.1 | 186.7 |
| 33° | 180.8 | 180.4 | 180.6 | 181.6 | 183.1 | 181.6 | 180.6 | 180.4 | 180.8 | 180.4 | 180.6 |
| 33.5° | 175.6 | 174.6 | 174.5 | 175.8 | 177.1 | 175.8 | 174.5 | 174.6 | 175.6 | 174.6 | 174.5 |
| 34° | 169.9 | 168.9 | 168.4 | 170.0 | 171.4 | 170.0 | 168.4 | 168.9 | 169.9 | 168.9 | 168.4 |
| 34.5° | 164.3 | 163.2 | 162.5 | 164.3 | 165.8 | 164.3 | 162.5 | 163.2 | 164.3 | 163.2 | 162.5 |
| 35° | 158.6 | 157.7 | 157.0 | 158.7 | 160.3 | 158.7 | 157.0 | 157.7 | 158.6 | 157.7 | 157.0 |
| 35.5° | 153.1 | 152.2 | 151.5 | 153.2 | 154.9 | 153.2 | 151.5 | 152.2 | 153.1 | 152.2 | 151.5 |
| 36° | 147.7 | 146.8 | 146.1 | 147.9 | 149.7 | 147.9 | 146.1 | 146.8 | 147.7 | 146.8 | 146.1 |
| 36.5° | 142.3 | 141.5 | 140.9 | 142.6 | 144.3 | 142.6 | 140.9 | 141.5 | 142.3 | 141.5 | 140.9 |
| 37° | 136.9 | 136.3 | 135.8 | 137.5 | 139.0 | 137.5 | 135.8 | 136.3 | 136.9 | 136.3 | 135.8 |
| 37.5° | 131.6 | 131.3 | 130.9 | 132.6 | 133.7 | 132.6 | 130.9 | 131.3 | 131.6 | 131.3 | 130.9 |
| 38° | 126.4 | 126.4 | 126.2 | 127.8 | 128.4 | 127.8 | 126.2 | 126.4 | 126.4 | 126.4 | 126.2 |
| 38.5° | 121.5 | 121.6 | 121.7 | 123.1 | 123.4 | 123.1 | 121.7 | 121.6 | 121.5 | 121.6 | 121.7 |
| 39° | 116.8 | 117.0 | 117.2 | 118.6 | 118.6 | 118.6 | 117.2 | 117.0 | 116.8 | 117.0 | 117.2 |
| 39.5° | 112.1 | 112.6 | 113.0 | 114.1 | 114.0 | 114.1 | 113.0 | 112.6 | 112.1 | 112.6 | 113.0 |
| 40° | 107.7 | 108.2 | 108.9 | 109.8 | 109.6 | 109.8 | 108.9 | 108.2 | 107.7 | 108.2 | 108.9 |
| 40.5° | 103.6 | 104.1 | 104.9 | 105.6 | 105.5 | 105.6 | 104.9 | 104.1 | 103.6 | 104.1 | 104.9 |
| 41° | 99.5 | 100.1 | 101.2 | 101.6 | 101.8 | 101.6 | 101.2 | 100.1 | 99.5 | 100.1 | 101.2 |
| 41.5° | 95.7 | 96.3 | 97.6 | 97.8 | 98.3 | 97.8 | 97.6 | 96.3 | 95.7 | 96.3 | 97.6 |
| 42° | 92.2 | 92.8 | 94.1 | 94.3 | 94.9 | 94.3 | 94.1 | 92.8 | 92.2 | 92.8 | 94.1 |
| 42.5° | 88.9 | 89.4 | 90.9 | 91.0 | 91.6 | 91.0 | 90.9 | 89.4 | 88.9 | 89.4 | 90.9 |
| 43° | 85.7 | 86.3 | 87.7 | 87.8 | 88.5 | 87.8 | 87.7 | 86.3 | 85.7 | 86.3 | 87.7 |
| 43.5° | 82.8 | 83.4 | 84.8 | 84.8 | 85.4 | 84.8 | 84.8 | 83.4 | 82.8 | 83.4 | 84.8 |



TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 45° | 75.3 | 75.8 | 76.6 | 76.9 | 77.2 | 76.9 | 76.6 | 75.8 | 75.3 | 75.8 | 76.6 |
| 45.5° | 73.1 | 73.5 | 74.3 | 74.6 | 74.8 | 74.6 | 74.3 | 73.5 | 73.1 | 73.5 | 74.3 |
| 46° | 71.0 | 71.4 | 72.1 | 72.4 | 72.5 | 72.4 | 72.1 | 71.4 | 71.0 | 71.4 | 72.1 |
| 46.5° | 69.1 | 69.4 | 69.9 | 70.3 | 70.4 | 70.3 | 69.9 | 69.4 | 69.1 | 69.4 | 69.9 |
| 47° | 67.3 | 67.5 | 68.0 | 68.4 | 68.6 | 68.4 | 68.0 | 67.5 | 67.3 | 67.5 | 68.0 |
| 47.5° | 65.5 | 65.7 | 66.2 | 66.6 | 66.9 | 66.6 | 66.2 | 65.7 | 65.5 | 65.7 | 66.2 |
| 48° | 63.9 | 64.1 | 64.6 | 65.0 | 65.2 | 65.0 | 64.6 | 64.1 | 63.9 | 64.1 | 64.6 |
| 48.5° | 62.6 | 62.7 | 63.1 | 63.5 | 63.7 | 63.5 | 63.1 | 62.7 | 62.6 | 62.7 | 63.1 |
| 49° | 61.4 | 61.4 | 61.7 | 62.1 | 62.2 | 62.1 | 61.7 | 61.4 | 61.4 | 61.4 | 61.7 |
| 49.5° | 60.2 | 60.2 | 60.4 | 60.7 | 60.8 | 60.7 | 60.4 | 60.2 | 60.2 | 60.2 | 60.4 |
| 50° | 58.9 | 59.0 | 59.1 | 59.4 | 59.4 | 59.4 | 59.1 | 59.0 | 58.9 | 59.0 | 59.1 |
| 50.5° | 57.7 | 57.7 | 57.8 | 58.1 | 58.1 | 58.1 | 57.8 | 57.7 | 57.7 | 57.7 | 57.8 |
| 51° | 56.3 | 56.4 | 56.5 | 56.8 | 56.8 | 56.8 | 56.5 | 56.4 | 56.3 | 56.4 | 56.5 |
| 51.5° | 54.9 | 55.0 | 55.2 | 55.4 | 55.5 | 55.4 | 55.2 | 55.0 | 54.9 | 55.0 | 55.2 |
| 52° | 53.5 | 53.6 | 53.8 | 54.1 | 54.1 | 54.1 | 53.8 | 53.6 | 53.5 | 53.6 | 53.8 |
| 52.5° | 52.1 | 52.2 | 52.5 | 52.7 | 52.8 | 52.7 | 52.5 | 52.2 | 52.1 | 52.2 | 52.5 |
| 53° | 50.8 | 50.9 | 51.1 | 51.3 | 51.4 | 51.3 | 51.1 | 50.9 | 50.8 | 50.9 | 51.1 |
| 53.5° | 49.5 | 49.6 | 49.8 | 50.0 | 50.1 | 50.0 | 49.8 | 49.6 | 49.5 | 49.6 | 49.8 |
| 54° | 48.2 | 48.3 | 48.5 | 48.7 | 48.8 | 48.7 | 48.5 | 48.3 | 48.2 | 48.3 | 48.5 |
| 54.5° | 47.0 | 47.0 | 47.2 | 47.4 | 47.5 | 47.4 | 47.2 | 47.0 | 47.0 | 47.0 | 47.2 |
| 55° | 45.7 | 45.8 | 46.0 | 46.2 | 46.2 | 46.2 | 46.0 | 45.8 | 45.7 | 45.8 | 46.0 |
| 55.5° | 44.5 | 44.6 | 44.8 | 45.0 | 45.0 | 45.0 | 44.8 | 44.6 | 44.5 | 44.6 | 44.8 |
| 56° | 43.4 | 43.5 | 43.6 | 43.8 | 43.8 | 43.8 | 43.6 | 43.5 | 43.4 | 43.5 | 43.6 |
| 56.5° | 42.2 | 42.3 | 42.5 | 42.6 | 42.7 | 42.6 | 42.5 | 42.3 | 42.2 | 42.3 | 42.5 |
| 57° | 41.1 | 41.2 | 41.3 | 41.5 | 41.5 | 41.5 | 41.3 | 41.2 | 41.1 | 41.2 | 41.3 |
| 57.5° | 39.9 | 40.1 | 40.2 | 40.4 | 40.5 | 40.4 | 40.2 | 40.1 | 39.9 | 40.1 | 40.2 |
| 58° | 38.9 | 39.0 | 39.2 | 39.3 | 39.4 | 39.3 | 39.2 | 39.0 | 38.9 | 39.0 | 39.2 |
| 58.5° | 37.9 | 38.0 | 38.1 | 38.2 | 38.3 | 38.2 | 38.1 | 38.0 | 37.9 | 38.0 | 38.1 |
| 59° | 36.9 | 36.9 | 37.0 | 37.1 | 37.2 | 37.1 | 37.0 | 36.9 | 36.9 | 36.9 | 37.0 |
| 59.5° | 35.8 | 35.9 | 36.0 | 36.1 | 36.2 | 36.1 | 36.0 | 35.9 | 35.8 | 35.9 | 36.0 |
| 60° | 34.8 | 34.9 | 35.0 | 35.1 | 35.1 | 35.1 | 35.0 | 34.9 | 34.8 | 34.9 | 35.0 |
| 60.5° | 33.8 | 33.9 | 34.0 | 34.1 | 34.2 | 34.1 | 34.0 | 33.9 | 33.8 | 33.9 | 34.0 |
| 61° | 32.9 | 33.0 | 33.1 | 33.2 | 33.2 | 33.2 | 33.1 | 33.0 | 32.9 | 33.0 | 33.1 |
| 61.5° | 32.0 | 32.0 | 32.1 | 32.2 | 32.3 | 32.2 | 32.1 | 32.0 | 32.0 | 32.0 | 32.1 |
| 62° | 31.1 | 31.1 | 31.2 | 31.3 | 31.3 | 31.3 | 31.2 | 31.1 | 31.1 | 31.1 | 31.2 |
| 62.5° | 30.1 | 30.2 | 30.2 | 30.4 | 30.4 | 30.4 | 30.2 | 30.2 | 30.1 | 30.2 | 30.2 |
| 63° | 29.3 | 29.3 | 29.4 | 29.5 | 29.5 | 29.5 | 29.4 | 29.3 | 29.3 | 29.3 | 29.4 |
| 63.5° | 28.4 | 28.4 | 28.5 | 28.6 | 28.6 | 28.6 | 28.5 | 28.4 | 28.4 | 28.4 | 28.5 |
| 64° | 27.5 | 27.6 | 27.6 | 27.7 | 27.8 | 27.7 | 27.6 | 27.6 | 27.5 | 27.6 | 27.6 |
| 64.5° | 26.7 | 26.8 | 26.8 | 26.9 | 26.9 | 26.9 | 26.8 | 26.8 | 26.7 | 26.8 | 26.8 |
| 65° | 25.9 | 25.9 | 26.0 | 26.0 | 26.1 | 26.0 | 26.0 | 25.9 | 25.9 | 25.9 | 26.0 |
| 65.5° | 25.1 | 25.1 | 25.1 | 25.3 | 25.3 | 25.3 | 25.1 | 25.1 | 25.1 | 25.1 | 25.1 |
| 66° | 24.3 | 24.3 | 24.4 | 24.4 | 24.5 | 24.4 | 24.4 | 24.3 | 24.3 | 24.3 | 24.4 |



TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 67.5° | 22.0 | 22.0 | 22.1 | 22.1 | 22.1 | 22.1 | 22.1 | 22.0 | 22.0 | 22.0 | 22.1 |
| 68° | 21.2 | 21.3 | 21.3 | 21.4 | 21.4 | 21.4 | 21.3 | 21.3 | 21.2 | 21.3 | 21.3 |
| 68.5° | 20.5 | 20.6 | 20.6 | 20.6 | 20.7 | 20.6 | 20.6 | 20.6 | 20.5 | 20.6 | 20.6 |
| 69° | 19.8 | 19.8 | 19.8 | 19.9 | 19.9 | 19.9 | 19.8 | 19.8 | 19.8 | 19.8 | 19.8 |
| 69.5° | 19.1 | 19.2 | 19.2 | 19.2 | 19.3 | 19.2 | 19.2 | 19.2 | 19.1 | 19.2 | 19.2 |
| 70° | 18.5 | 18.5 | 18.5 | 18.5 | 18.6 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| 70.5° | 17.8 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.8 | 17.9 | 17.9 |
| 71° | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 |
| 71.5° | 16.5 | 16.5 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.5 | 16.5 | 16.5 | 16.6 |
| 72° | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 |
| 72.5° | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 |
| 73° | 14.6 | 14.6 | 14.6 | 14.7 | 14.7 | 14.7 | 14.6 | 14.6 | 14.6 | 14.6 | 14.6 |
| 73.5° | 14.0 | 14.0 | 14.1 | 14.1 | 14.1 | 14.1 | 14.1 | 14.0 | 14.0 | 14.0 | 14.1 |
| 74° | 13.4 | 13.4 | 13.4 | 13.5 | 13.5 | 13.5 | 13.4 | 13.4 | 13.4 | 13.4 | 13.4 |
| 74.5° | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 |
| 75° | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 |
| 75.5° | 11.7 | 11.7 | 11.7 | 11.7 | 11.8 | 11.7 | 11.7 | 11.7 | 11.7 | 11.7 | 11.7 |
| 76° | 11.2 | 11.1 | 11.1 | 11.2 | 11.2 | 11.2 | 11.1 | 11.1 | 11.2 | 11.1 | 11.1 |
| 76.5° | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 |
| 77° | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 |
| 77.5° | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 |
| 78° | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 |
| 78.5° | 8.6 | 8.6 | 8.5 | 8.5 | 8.6 | 8.5 | 8.5 | 8.6 | 8.6 | 8.6 | 8.5 |
| 79° | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 |
| 79.5° | 7.6 | 7.6 | 7.5 | 7.6 | 7.6 | 7.6 | 7.5 | 7.6 | 7.6 | 7.6 | 7.5 |
| 80° | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 |
| 80.5° | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| 81° | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 |
| 81.5° | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 |
| 82° | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 |
| 82.5° | 4.9 | 4.9 | 4.9 | 4.9 | 4.8 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |
| 83° | 4.5 | 4.5 | 4.5 | 4.4 | 4.4 | 4.4 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 83.5° | 4.1 | 4.1 | 4.1 | 4.0 | 4.0 | 4.0 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 |
| 84° | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| 84.5° | 3.3 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.3 | 3.2 | 3.2 |
| 85° | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |
| 85.5° | 2.5 | 2.4 | 2.5 | 2.4 | 2.5 | 2.4 | 2.5 | 2.4 | 2.5 | 2.4 | 2.5 |
| 86° | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 86.5° | 1.8 | 1.7 | 1.7 | 1.7 | 1.8 | 1.7 | 1.7 | 1.7 | 1.8 | 1.7 | 1.7 |
| 87° | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 87.5° | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 88° | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| 88.5° | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.5 |



TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

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: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 0° | 388.8 | 388.8 | 388.8 | 388.8 | 388.8 | 388.8 |
| 0.5° | 388.6 | 388.5 | 388.6 | 388.7 | 388.8 | 388.8 |
| 1° | 388.5 | 388.3 | 388.5 | 388.6 | 388.6 | 388.7 |
| 1.5° | 388.2 | 388.1 | 388.2 | 388.4 | 388.4 | 388.5 |
| 2° | 387.9 | 387.7 | 387.9 | 388.0 | 388.1 | 388.1 |
| 2.5° | 387.5 | 387.3 | 387.5 | 387.6 | 387.7 | 387.8 |
| 3° | 386.9 | 386.7 | 386.9 | 387.0 | 387.2 | 387.3 |
| 3.5° | 386.3 | 386.2 | 386.3 | 386.4 | 386.6 | 386.7 |
| 4° | 385.6 | 385.4 | 385.6 | 385.7 | 386.0 | 386.0 |
| 4.5° | 384.9 | 384.6 | 384.9 | 385.0 | 385.2 | 385.3 |
| 5° | 384.1 | 383.7 | 384.1 | 384.2 | 384.4 | 384.6 |
| 5.5° | 383.0 | 382.7 | 383.0 | 383.1 | 383.4 | 383.8 |
| 6° | 381.9 | 381.5 | 381.9 | 382.1 | 382.4 | 382.6 |
| 6.5° | 380.7 | 380.3 | 380.7 | 380.9 | 381.2 | 381.4 |
| 7° | 379.5 | 379.1 | 379.5 | 379.8 | 379.9 | 380.1 |
| 7.5° | 378.2 | 377.8 | 378.2 | 378.3 | 378.5 | 378.7 |
| 8° | 376.7 | 376.5 | 376.7 | 376.8 | 377.1 | 377.2 |
| 8.5° | 375.1 | 374.9 | 375.1 | 375.2 | 375.4 | 375.6 |
| 9° | 373.4 | 373.2 | 373.4 | 373.6 | 373.8 | 374.0 |
| 9.5° | 371.6 | 371.4 | 371.6 | 371.8 | 372.1 | 372.2 |
| 10° | 369.8 | 369.5 | 369.8 | 370.0 | 370.2 | 370.3 |
| 10.5° | 367.8 | 367.6 | 367.8 | 367.9 | 368.2 | 368.3 |
| 11° | 365.8 | 365.5 | 365.8 | 366.0 | 366.2 | 366.3 |
| 11.5° | 363.6 | 363.4 | 363.6 | 363.8 | 364.0 | 364.1 |
| 12° | 361.4 | 361.2 | 361.4 | 361.7 | 361.9 | 362.0 |
| 12.5° | 359.1 | 358.9 | 359.1 | 359.4 | 359.6 | 359.7 |
| 13° | 356.9 | 356.6 | 356.9 | 357.1 | 357.2 | 357.3 |
| 13.5° | 354.5 | 354.2 | 354.5 | 354.7 | 354.8 | 354.9 |
| 14° | 352.0 | 351.8 | 352.0 | 352.2 | 352.3 | 352.4 |
| 14.5° | 349.5 | 349.3 | 349.5 | 349.7 | 349.7 | 349.8 |
| 15° | 347.0 | 346.8 | 347.0 | 347.1 | 347.2 | 347.2 |
| 15.5° | 344.5 | 344.4 | 344.5 | 344.6 | 344.5 | 344.5 |
| 16° | 342.0 | 341.9 | 342.0 | 342.1 | 341.9 | 341.9 |
| 16.5° | 339.6 | 339.5 | 339.6 | 339.6 | 339.4 | 339.3 |
| 17° | 337.1 | 337.1 | 337.1 | 337.1 | 336.9 | 336.8 |
| 17.5° | 334.6 | 334.6 | 334.6 | 334.7 | 334.5 | 334.4 |
| 18° | 332.1 | 332.0 | 332.1 | 332.2 | 332.1 | 332.1 |
| 18.5° | 329.5 | 329.3 | 329.5 | 329.6 | 329.6 | 329.6 |
| 19° | 326.6 | 326.4 | 326.6 | 326.8 | 326.9 | 327.0 |
| 19.5° | 323.6 | 323.4 | 323.6 | 323.7 | 324.0 | 324.2 |
| 20° | 320.4 | 320.0 | 320.4 | 320.3 | 320.9 | 321.1 |
| 20.5° | 316.9 | 316.4 | 316.9 | 316.7 | 317.3 | 317.8 |
| 21° | 313.1 | 312.5 | 313.1 | 312.8 | 313.6 | 314.2 |

TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 300.0 | 299.8 | 300.0 | 300.1 | 300.6 | 301.2 |
| 23° | 295.3 | 295.2 | 295.3 | 295.7 | 295.8 | 296.3 |
| 23.5° | 290.4 | 290.7 | 290.4 | 291.0 | 290.8 | 291.3 |
| 24° | 285.4 | 285.9 | 285.4 | 286.3 | 285.6 | 286.0 |
| 24.5° | 280.4 | 281.0 | 280.4 | 281.2 | 280.4 | 280.6 |
| 25° | 275.3 | 275.8 | 275.3 | 275.9 | 275.0 | 274.9 |
| 25.5° | 270.3 | 270.4 | 270.3 | 270.5 | 269.7 | 269.0 |
| 26° | 265.0 | 264.6 | 265.0 | 265.0 | 264.2 | 263.0 |
| 26.5° | 259.5 | 258.6 | 259.5 | 259.2 | 258.6 | 256.8 |
| 27° | 253.9 | 252.5 | 253.9 | 253.3 | 252.7 | 250.7 |
| 27.5° | 248.1 | 246.3 | 248.1 | 247.4 | 246.7 | 244.8 |
| 28° | 242.1 | 240.1 | 242.1 | 241.4 | 240.6 | 238.9 |
| 28.5° | 236.0 | 234.1 | 236.0 | 235.3 | 234.5 | 233.1 |
| 29° | 229.7 | 228.5 | 229.7 | 229.3 | 228.3 | 227.4 |
| 29.5° | 223.5 | 222.9 | 223.5 | 223.3 | 222.2 | 221.7 |
| 30° | 217.2 | 217.3 | 217.2 | 217.2 | 216.0 | 216.1 |
| 30.5° | 211.2 | 212.0 | 211.2 | 211.1 | 209.9 | 210.3 |
| 31° | 205.1 | 206.3 | 205.1 | 204.9 | 203.7 | 204.5 |
| 31.5° | 199.1 | 200.7 | 199.1 | 198.8 | 197.8 | 198.6 |
| 32° | 193.3 | 194.8 | 193.3 | 192.7 | 191.8 | 192.5 |
| 32.5° | 187.4 | 189.0 | 187.4 | 186.7 | 186.1 | 186.7 |
| 33° | 181.6 | 183.1 | 181.6 | 180.6 | 180.4 | 180.8 |
| 33.5° | 175.8 | 177.1 | 175.8 | 174.5 | 174.6 | 175.6 |
| 34° | 170.0 | 171.4 | 170.0 | 168.4 | 168.9 | 169.9 |
| 34.5° | 164.3 | 165.8 | 164.3 | 162.5 | 163.2 | 164.3 |
| 35° | 158.7 | 160.3 | 158.7 | 157.0 | 157.7 | 158.6 |
| 35.5° | 153.2 | 154.9 | 153.2 | 151.5 | 152.2 | 153.1 |
| 36° | 147.9 | 149.7 | 147.9 | 146.1 | 146.8 | 147.7 |
| 36.5° | 142.6 | 144.3 | 142.6 | 140.9 | 141.5 | 142.3 |
| 37° | 137.5 | 139.0 | 137.5 | 135.8 | 136.3 | 136.9 |
| 37.5° | 132.6 | 133.7 | 132.6 | 130.9 | 131.3 | 131.6 |
| 38° | 127.8 | 128.4 | 127.8 | 126.2 | 126.4 | 126.4 |
| 38.5° | 123.1 | 123.4 | 123.1 | 121.7 | 121.6 | 121.5 |
| 39° | 118.6 | 118.6 | 118.6 | 117.2 | 117.0 | 116.8 |
| 39.5° | 114.1 | 114.0 | 114.1 | 113.0 | 112.6 | 112.1 |
| 40° | 109.8 | 109.6 | 109.8 | 108.9 | 108.2 | 107.7 |
| 40.5° | 105.6 | 105.5 | 105.6 | 104.9 | 104.1 | 103.6 |
| 41° | 101.6 | 101.8 | 101.6 | 101.2 | 100.1 | 99.5 |
| 41.5° | 97.8 | 98.3 | 97.8 | 97.6 | 96.3 | 95.7 |
| 42° | 94.3 | 94.9 | 94.3 | 94.1 | 92.8 | 92.2 |
| 42.5° | 91.0 | 91.6 | 91.0 | 90.9 | 89.4 | 88.9 |
| 43° | 87.8 | 88.5 | 87.8 | 87.7 | 86.3 | 85.7 |
| 43.5° | 84.8 | 85.4 | 84.8 | 84.8 | 83.4 | 82.8 |



TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 45° | 76.9 | 77.2 | 76.9 | 76.6 | 75.8 | 75.3 |
| 45.5° | 74.6 | 74.8 | 74.6 | 74.3 | 73.5 | 73.1 |
| 46° | 72.4 | 72.5 | 72.4 | 72.1 | 71.4 | 71.0 |
| 46.5° | 70.3 | 70.4 | 70.3 | 69.9 | 69.4 | 69.1 |
| 47° | 68.4 | 68.6 | 68.4 | 68.0 | 67.5 | 67.3 |
| 47.5° | 66.6 | 66.9 | 66.6 | 66.2 | 65.7 | 65.5 |
| 48° | 65.0 | 65.2 | 65.0 | 64.6 | 64.1 | 63.9 |
| 48.5° | 63.5 | 63.7 | 63.5 | 63.1 | 62.7 | 62.6 |
| 49° | 62.1 | 62.2 | 62.1 | 61.7 | 61.4 | 61.4 |
| 49.5° | 60.7 | 60.8 | 60.7 | 60.4 | 60.2 | 60.2 |
| 50° | 59.4 | 59.4 | 59.4 | 59.1 | 59.0 | 58.9 |
| 50.5° | 58.1 | 58.1 | 58.1 | 57.8 | 57.7 | 57.7 |
| 51° | 56.8 | 56.8 | 56.8 | 56.5 | 56.4 | 56.3 |
| 51.5° | 55.4 | 55.5 | 55.4 | 55.2 | 55.0 | 54.9 |
| 52° | 54.1 | 54.1 | 54.1 | 53.8 | 53.6 | 53.5 |
| 52.5° | 52.7 | 52.8 | 52.7 | 52.5 | 52.2 | 52.1 |
| 53° | 51.3 | 51.4 | 51.3 | 51.1 | 50.9 | 50.8 |
| 53.5° | 50.0 | 50.1 | 50.0 | 49.8 | 49.6 | 49.5 |
| 54° | 48.7 | 48.8 | 48.7 | 48.5 | 48.3 | 48.2 |
| 54.5° | 47.4 | 47.5 | 47.4 | 47.2 | 47.0 | 47.0 |
| 55° | 46.2 | 46.2 | 46.2 | 46.0 | 45.8 | 45.7 |
| 55.5° | 45.0 | 45.0 | 45.0 | 44.8 | 44.6 | 44.5 |
| 56° | 43.8 | 43.8 | 43.8 | 43.6 | 43.5 | 43.4 |
| 56.5° | 42.6 | 42.7 | 42.6 | 42.5 | 42.3 | 42.2 |
| 57° | 41.5 | 41.5 | 41.5 | 41.3 | 41.2 | 41.1 |
| 57.5° | 40.4 | 40.5 | 40.4 | 40.2 | 40.1 | 39.9 |
| 58° | 39.3 | 39.4 | 39.3 | 39.2 | 39.0 | 38.9 |
| 58.5° | 38.2 | 38.3 | 38.2 | 38.1 | 38.0 | 37.9 |
| 59° | 37.1 | 37.2 | 37.1 | 37.0 | 36.9 | 36.9 |
| 59.5° | 36.1 | 36.2 | 36.1 | 36.0 | 35.9 | 35.8 |
| 60° | 35.1 | 35.1 | 35.1 | 35.0 | 34.9 | 34.8 |
| 60.5° | 34.1 | 34.2 | 34.1 | 34.0 | 33.9 | 33.8 |
| 61° | 33.2 | 33.2 | 33.2 | 33.1 | 33.0 | 32.9 |
| 61.5° | 32.2 | 32.3 | 32.2 | 32.1 | 32.0 | 32.0 |
| 62° | 31.3 | 31.3 | 31.3 | 31.2 | 31.1 | 31.1 |
| 62.5° | 30.4 | 30.4 | 30.4 | 30.2 | 30.2 | 30.1 |
| 63° | 29.5 | 29.5 | 29.5 | 29.4 | 29.3 | 29.3 |
| 63.5° | 28.6 | 28.6 | 28.6 | 28.5 | 28.4 | 28.4 |
| 64° | 27.7 | 27.8 | 27.7 | 27.6 | 27.6 | 27.5 |
| 64.5° | 26.9 | 26.9 | 26.9 | 26.8 | 26.8 | 26.7 |
| 65° | 26.0 | 26.1 | 26.0 | 26.0 | 25.9 | 25.9 |
| 65.5° | 25.3 | 25.3 | 25.3 | 25.1 | 25.1 | 25.1 |
| 66° | 24.4 | 24.5 | 24.4 | 24.4 | 24.3 | 24.3 |



TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 22.1 | 22.1 | 22.1 | 22.1 | 22.0 | 22.0 |
| 68° | 21.4 | 21.4 | 21.4 | 21.3 | 21.3 | 21.2 |
| 68.5° | 20.6 | 20.7 | 20.6 | 20.6 | 20.6 | 20.5 |
| 69° | 19.9 | 19.9 | 19.9 | 19.8 | 19.8 | 19.8 |
| 69.5° | 19.2 | 19.3 | 19.2 | 19.2 | 19.2 | 19.1 |
| 70° | 18.5 | 18.6 | 18.5 | 18.5 | 18.5 | 18.5 |
| 70.5° | 17.9 | 17.9 | 17.9 | 17.9 | 17.9 | 17.8 |
| 71° | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 |
| 71.5° | 16.6 | 16.6 | 16.6 | 16.6 | 16.5 | 16.5 |
| 72° | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 |
| 72.5° | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 |
| 73° | 14.7 | 14.7 | 14.7 | 14.6 | 14.6 | 14.6 |
| 73.5° | 14.1 | 14.1 | 14.1 | 14.1 | 14.0 | 14.0 |
| 74° | 13.5 | 13.5 | 13.5 | 13.4 | 13.4 | 13.4 |
| 74.5° | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 |
| 75° | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 | 12.3 |
| 75.5° | 11.7 | 11.8 | 11.7 | 11.7 | 11.7 | 11.7 |
| 76° | 11.2 | 11.2 | 11.2 | 11.1 | 11.1 | 11.2 |
| 76.5° | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 | 10.6 |
| 77° | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 |
| 77.5° | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 | 9.6 |
| 78° | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 | 9.1 |
| 78.5° | 8.5 | 8.6 | 8.5 | 8.5 | 8.6 | 8.6 |
| 79° | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 |
| 79.5° | 7.6 | 7.6 | 7.6 | 7.5 | 7.6 | 7.6 |
| 80° | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 |
| 80.5° | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 |
| 81° | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 |
| 81.5° | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 |
| 82° | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 | 5.3 |
| 82.5° | 4.9 | 4.8 | 4.9 | 4.9 | 4.9 | 4.9 |
| 83° | 4.4 | 4.4 | 4.4 | 4.5 | 4.5 | 4.5 |
| 83.5° | 4.0 | 4.0 | 4.0 | 4.1 | 4.1 | 4.1 |
| 84° | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| 84.5° | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.3 |
| 85° | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |
| 85.5° | 2.4 | 2.5 | 2.4 | 2.5 | 2.4 | 2.5 |
| 86° | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 86.5° | 1.7 | 1.8 | 1.7 | 1.7 | 1.7 | 1.8 |
| 87° | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 87.5° | 1.0 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 |
| 88° | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 |
| 88.5° | 0.5 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 |



TEST NUMBER: P776845

CATALOG NUMBER: HCDJBL510CSD-HCD42TRMW-500lm-2700K

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°

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° | 310.1 | 309.6 | 308.7 | 309.0 | 308.4 | 309.0 | 308.7 | 309.6 | 310.1 | 309.6 | 308.7 |
| 22° | 305.8 | 305.3 | 304.5 | 304.6 | 304.1 | 304.6 | 304.5 | 305.3 | 305.8 | 305.3 | 304.5 |



| | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 44° | 80.1 | 80.7 | 81.9 | 82.0 | 82.5 | 82.0 | 81.9 | 80.7 | 80.1 | 80.7 | 81.9 |
| 44.5° | 77.6 | 78.2 | 79.2 | 79.4 | 79.8 | 79.4 | 79.2 | 78.2 | 77.6 | 78.2 | 79.2 |



| | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 66.5° | 23.5 | 23.5 | 23.6 | 23.6 | 23.7 | 23.6 | 23.6 | 23.5 | 23.5 | 23.5 | 23.6 |
| 67° | 22.8 | 22.8 | 22.8 | 22.9 | 22.9 | 22.9 | 22.8 | 22.8 | 22.8 | 22.8 | 22.8 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 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 |

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

Scaled Data Report





| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 21.5° | 309.0 | 308.4 | 309.0 | 308.7 | 309.6 | 310.1 |
| 22° | 304.6 | 304.1 | 304.6 | 304.5 | 305.3 | 305.8 |



| | | | | | | |
|-------|------|------|------|------|------|------|
| 44° | 82.0 | 82.5 | 82.0 | 81.9 | 80.7 | 80.1 |
| 44.5° | 79.4 | 79.8 | 79.4 | 79.2 | 78.2 | 77.6 |

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



| | | | | | | |
|-------|------|------|------|------|------|------|
| 66.5° | 23.6 | 23.7 | 23.6 | 23.6 | 23.5 | 23.5 |
| 67° | 22.9 | 22.9 | 22.9 | 22.8 | 22.8 | 22.8 |



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 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 |

Signify Classified - Internal
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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)