

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: NEO-RAY

Report Number: P1010658

Luminaire Tested: S123DIP-B560D365UB2750-4F0-XX-W2A-D\_5000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1010658  
REPORT IS A COMBINATION OF REPORTS P990057 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B560D365UB2750-4F0-XX-W2A-D\_5000K  
Description: Define 3 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

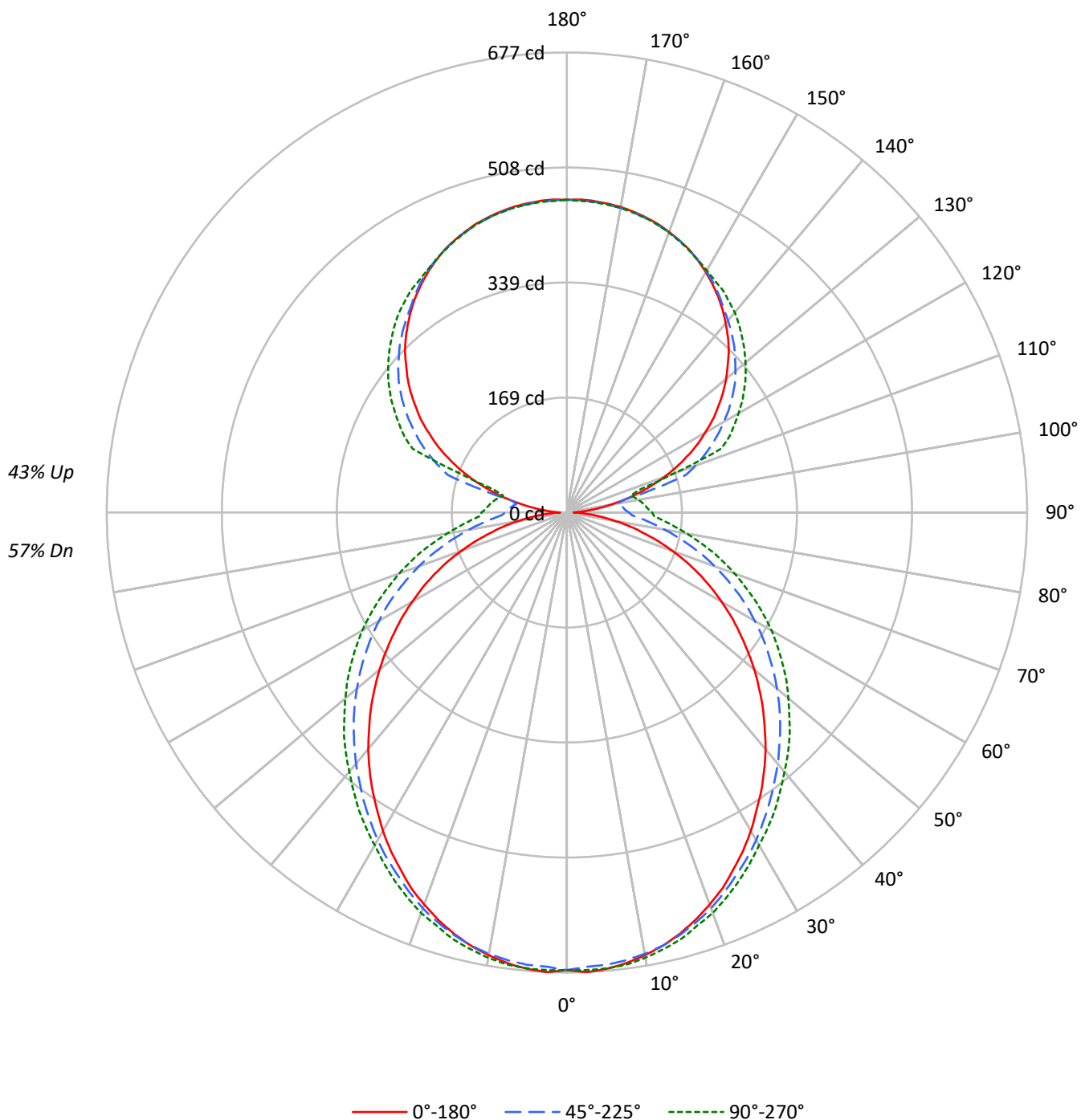
Lumens per Lamp: N/A  
Luminaire Lumens: 3667.0 lumens  
Efficiency: N/A  
Efficacy: 110.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 33.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20 |    |    |    | 20 |    |    |    | 20 |
| RC  | 80  |     |     |     | 70  |     |     |     | 50 |    |    |    | 30 |    |    |    | 10 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |
| 0   | 109 | 109 | 109 | 109 | 101 | 101 | 101 | 101 | 87 | 87 | 87 | 74 | 74 | 74 | 62 | 62 | 62 |
| 1   | 98  | 93  | 89  | 85  | 91  | 87  | 83  | 79  | 75 | 72 | 69 | 63 | 61 | 59 | 53 | 52 | 50 |
| 2   | 89  | 81  | 74  | 68  | 82  | 75  | 69  | 64  | 65 | 60 | 56 | 55 | 52 | 49 | 46 | 44 | 41 |
| 3   | 81  | 71  | 63  | 56  | 75  | 66  | 59  | 53  | 57 | 51 | 47 | 48 | 44 | 41 | 40 | 37 | 35 |
| 4   | 74  | 62  | 54  | 47  | 68  | 58  | 51  | 45  | 50 | 44 | 40 | 43 | 38 | 34 | 36 | 32 | 30 |
| 5   | 68  | 55  | 47  | 40  | 62  | 52  | 44  | 38  | 45 | 39 | 34 | 38 | 33 | 30 | 32 | 29 | 26 |
| 6   | 62  | 50  | 41  | 35  | 58  | 46  | 39  | 33  | 40 | 34 | 29 | 35 | 30 | 26 | 29 | 25 | 22 |
| 7   | 58  | 45  | 36  | 31  | 53  | 42  | 34  | 29  | 36 | 30 | 26 | 31 | 26 | 23 | 27 | 23 | 20 |
| 8   | 53  | 41  | 33  | 27  | 49  | 38  | 31  | 26  | 33 | 27 | 23 | 29 | 24 | 20 | 24 | 21 | 18 |
| 9   | 50  | 37  | 29  | 24  | 46  | 35  | 28  | 23  | 30 | 25 | 21 | 26 | 22 | 18 | 23 | 19 | 16 |
| 10  | 46  | 34  | 26  | 22  | 43  | 32  | 25  | 21  | 28 | 22 | 18 | 24 | 20 | 16 | 21 | 17 | 14 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7248 | 7248 | 7248 |
| 5°  | 7268 | 7035 | 7030 |
| 10° | 7200 | 6845 | 6793 |
| 15° | 7104 | 6634 | 6541 |
| 20° | 6969 | 6400 | 6270 |
| 25° | 6803 | 6136 | 5991 |
| 30° | 6632 | 5896 | 5710 |
| 35° | 6442 | 5646 | 5482 |
| 40° | 6259 | 5416 | 5239 |
| 45° | 6056 | 5195 | 5041 |
| 50° | 5856 | 4974 | 4824 |
| 55° | 5635 | 4748 | 4626 |
| 60° | 5419 | 4518 | 4422 |
| 65° | 5195 | 4272 | 4183 |
| 70° | 4859 | 3996 | 3937 |
| 75° | 4435 | 3681 | 3684 |
| 80° | 3941 | 3363 | 3395 |
| 85° | 3448 | 3105 | 3187 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6056 cd/sqm

TEST NUMBER: P1010658

CATALOG NUMBER: S123DIP-B560D365UB2750-4F0-XX-W2A-D\_5000K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 63.9   | 1.7       |
| 10°-20°   | 182.1  | 5.0       |
| 20°-30°   | 272.3  | 7.4       |
| 30°-40°   | 325.1  | 8.9       |
| 40°-50°   | 340.2  | 9.3       |
| 50°-60°   | 319.2  | 8.7       |
| 60°-70°   | 266.6  | 7.3       |
| 70°-80°   | 190.7  | 5.2       |
| 80°-90°   | 114.4  | 3.1       |
| 90°-100°  | 87.5   | 2.4       |
| 100°-110° | 130.9  | 3.6       |
| 110°-120° | 227.3  | 6.2       |
| 120°-130° | 264.1  | 7.2       |
| 130°-140° | 269.7  | 7.4       |
| 140°-150° | 245.7  | 6.7       |
| 150°-160° | 196.7  | 5.4       |
| 160°-170° | 126.9  | 3.5       |
| 170°-180° | 43.7   | 1.2       |
| 0°-30°    | 518.3  | 14.1      |
| 0°-40°    | 843.4  | 23.0      |
| 0°-60°    | 1502.8 | 41.0      |
| 0°-90°    | 2074.5 | 56.6      |
| 90°-120°  | 445.7  | 12.2      |
| 90°-150°  | 1225.2 | 33.4      |
| 90°-180°  | 1593.0 | 43.4      |
| 0°-180°   | 3667.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 673 | 673   | 673 | 673   | 673 |      |
| 5°   | 674 | 673   | 668 | 674   | 673 | 64   |
| 15°  | 642 | 644   | 643 | 651   | 650 | 181  |
| 25°  | 580 | 587   | 589 | 598   | 598 | 267  |
| 35°  | 499 | 510   | 520 | 531   | 534 | 312  |
| 45°  | 408 | 425   | 444 | 458   | 464 | 314  |
| 55°  | 311 | 335   | 362 | 381   | 387 | 278  |
| 65°  | 215 | 244   | 276 | 298   | 305 | 212  |
| 75°  | 117 | 151   | 188 | 212   | 221 | 125  |
| 85°  | 36  | 73    | 112 | 136   | 144 | 37   |
| 90°  | 10  | 49    | 91  | 117   | 126 | 8    |
| 95°  | 29  | 44    | 83  | 108   | 116 | 31   |
| 105° | 108 | 129   | 130 | 90    | 97  | 114  |
| 115° | 195 | 206   | 235 | 256   | 263 | 193  |
| 125° | 272 | 274   | 297 | 313   | 319 | 243  |
| 135° | 337 | 338   | 348 | 362   | 365 | 259  |
| 145° | 388 | 390   | 390 | 397   | 400 | 243  |
| 155° | 426 | 426   | 426 | 428   | 426 | 196  |
| 165° | 450 | 449   | 448 | 451   | 449 | 127  |
| 175° | 460 | 458   | 459 | 461   | 458 | 44   |
| 180° | 460 | 460   | 460 | 460   | 460 |      |

TEST NUMBER: P1010658

CATALOG NUMBER: S123DIP-B560D365UB2750-4F0-XX-W2A-D\_5000K

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 673.4 | 673.4 | 673.4 | 673.4 | 673.4 |
| 2.5°   | 677.0 | 674.8 | 669.0 | 674.8 | 674.1 |
| 5°     | 674.1 | 672.6 | 668.2 | 674.1 | 673.4 |
| 7.5°   | 669.0 | 669.0 | 664.6 | 671.9 | 671.2 |
| 10°    | 661.6 | 663.1 | 659.4 | 666.8 | 665.3 |
| 12.5°  | 652.8 | 655.0 | 652.8 | 659.4 | 658.0 |
| 15°    | 641.8 | 644.0 | 643.3 | 650.6 | 649.9 |
| 17.5°  | 628.6 | 633.0 | 632.3 | 638.9 | 637.4 |
| 20°    | 613.9 | 618.3 | 619.8 | 626.4 | 627.1 |
| 22.5°  | 598.5 | 602.9 | 605.1 | 613.9 | 613.2 |
| 25°    | 579.5 | 586.8 | 589.0 | 598.5 | 598.5 |
| 27.5°  | 561.1 | 569.2 | 573.6 | 581.7 | 582.4 |
| 30°    | 541.3 | 550.9 | 556.7 | 565.5 | 565.5 |
| 32.5°  | 519.3 | 530.3 | 538.4 | 547.9 | 550.1 |
| 35°    | 498.8 | 510.5 | 520.1 | 531.1 | 534.0 |
| 37.5°  | 476.8 | 490.0 | 501.0 | 513.5 | 515.7 |
| 40°    | 454.8 | 468.0 | 482.6 | 495.1 | 498.0 |
| 42.5°  | 430.6 | 447.4 | 462.8 | 476.8 | 481.2 |
| 45°    | 407.8 | 425.4 | 443.8 | 457.7 | 463.6 |
| 47.5°  | 383.6 | 403.4 | 424.0 | 439.4 | 443.8 |
| 50°    | 360.1 | 380.7 | 403.4 | 420.3 | 425.4 |
| 52.5°  | 335.2 | 357.2 | 382.9 | 400.5 | 407.1 |
| 55°    | 311.0 | 335.2 | 361.6 | 381.4 | 387.3 |
| 57.5°  | 287.5 | 312.5 | 341.1 | 360.9 | 367.5 |
| 60°    | 262.6 | 289.0 | 319.1 | 339.6 | 347.7 |
| 62.5°  | 239.1 | 266.3 | 298.5 | 319.1 | 326.4 |
| 65°    | 214.9 | 243.5 | 275.8 | 297.8 | 305.1 |
| 67.5°  | 190.7 | 220.8 | 253.1 | 277.3 | 283.1 |
| 70°    | 165.0 | 196.6 | 231.8 | 255.3 | 262.6 |
| 72.5°  | 141.6 | 173.1 | 209.8 | 234.0 | 241.3 |
| 75°    | 116.6 | 151.1 | 187.8 | 212.0 | 220.8 |
| 77.5°  | 95.4  | 129.8 | 166.5 | 192.2 | 198.8 |
| 80°    | 72.6  | 108.6 | 146.7 | 171.6 | 179.0 |
| 82.5°  | 52.8  | 89.5  | 128.4 | 153.3 | 160.6 |
| 85°    | 35.9  | 72.6  | 111.5 | 136.4 | 143.8 |
| 87.5°  | 22.0  | 58.7  | 96.1  | 121.0 | 128.4 |
| 90°    | 9.8   | 49.3  | 91.1  | 117.4 | 125.5 |
| 92.5°  | 16.7  | 46.1  | 85.9  | 112.5 | 119.4 |
| 95°    | 29.0  | 43.5  | 83.2  | 108.4 | 115.7 |
| 97.5°  | 45.3  | 62.1  | 79.1  | 103.9 | 111.6 |
| 100°   | 64.4  | 94.7  | 75.1  | 99.1  | 106.8 |
| 102.5° | 86.3  | 111.2 | 84.7  | 94.0  | 102.0 |
| 105°   | 107.8 | 129.2 | 129.9 | 90.0  | 97.2  |
| 107.5° | 129.9 | 148.4 | 183.6 | 150.8 | 112.6 |
| 110°   | 152.1 | 168.0 | 201.1 | 208.9 | 165.9 |



TEST NUMBER: P1010658

CATALOG NUMBER: S123DIP-B560D365UB2750-4F0-XX-W2A-D\_5000K

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 174.0 | 186.7 | 218.3 | 239.7 | 245.6 |
| 115°   | 194.8 | 205.7 | 235.2 | 256.2 | 263.4 |
| 117.5° | 216.0 | 224.2 | 250.9 | 271.3 | 277.4 |
| 120°   | 234.7 | 241.5 | 266.7 | 286.4 | 291.5 |
| 122.5° | 254.6 | 258.5 | 282.5 | 300.4 | 305.9 |
| 125°   | 271.6 | 274.4 | 297.0 | 313.1 | 318.9 |
| 127.5° | 289.4 | 291.5 | 311.5 | 327.2 | 331.6 |
| 130°   | 305.8 | 307.9 | 323.8 | 339.2 | 342.9 |
| 132.5° | 320.9 | 323.6 | 335.6 | 350.2 | 354.3 |
| 135°   | 336.9 | 338.2 | 347.7 | 361.9 | 364.6 |
| 137.5° | 350.6 | 352.5 | 358.4 | 371.8 | 374.9 |
| 140°   | 363.5 | 365.5 | 368.8 | 381.1 | 384.2 |
| 142.5° | 376.1 | 377.5 | 378.5 | 389.0 | 391.7 |
| 145°   | 387.8 | 389.5 | 390.1 | 396.7 | 399.6 |
| 147.5° | 398.4 | 400.1 | 400.7 | 403.6 | 404.8 |
| 150°   | 408.6 | 409.6 | 410.3 | 411.0 | 411.5 |
| 152.5° | 417.8 | 418.2 | 418.5 | 419.9 | 418.2 |
| 155°   | 426.4 | 425.7 | 426.0 | 427.8 | 425.7 |
| 157.5° | 433.2 | 433.2 | 432.9 | 434.9 | 432.2 |
| 160°   | 439.4 | 439.0 | 438.7 | 440.7 | 438.4 |
| 162.5° | 445.2 | 444.2 | 443.8 | 446.2 | 444.2 |
| 165°   | 449.6 | 448.6 | 448.3 | 451.0 | 448.6 |
| 167.5° | 453.4 | 452.0 | 452.0 | 454.8 | 452.0 |
| 170°   | 456.5 | 455.1 | 455.1 | 457.8 | 455.1 |
| 172.5° | 458.5 | 456.8 | 457.2 | 459.9 | 456.8 |
| 175°   | 460.2 | 458.5 | 458.9 | 461.3 | 458.5 |
| 177.5° | 460.9 | 459.2 | 459.6 | 462.3 | 458.9 |
| 180°   | 460.2 | 460.2 | 460.2 | 460.2 | 460.2 |

(END OF REPORT)