

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: P1011605

Luminaire Tested: S123DIP-B340D585UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1011605  
REPORT IS A COMBINATION OF REPORTS P989830 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B340D585UB30-4F0-XX-W2A-F1  
Description: Define 3 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

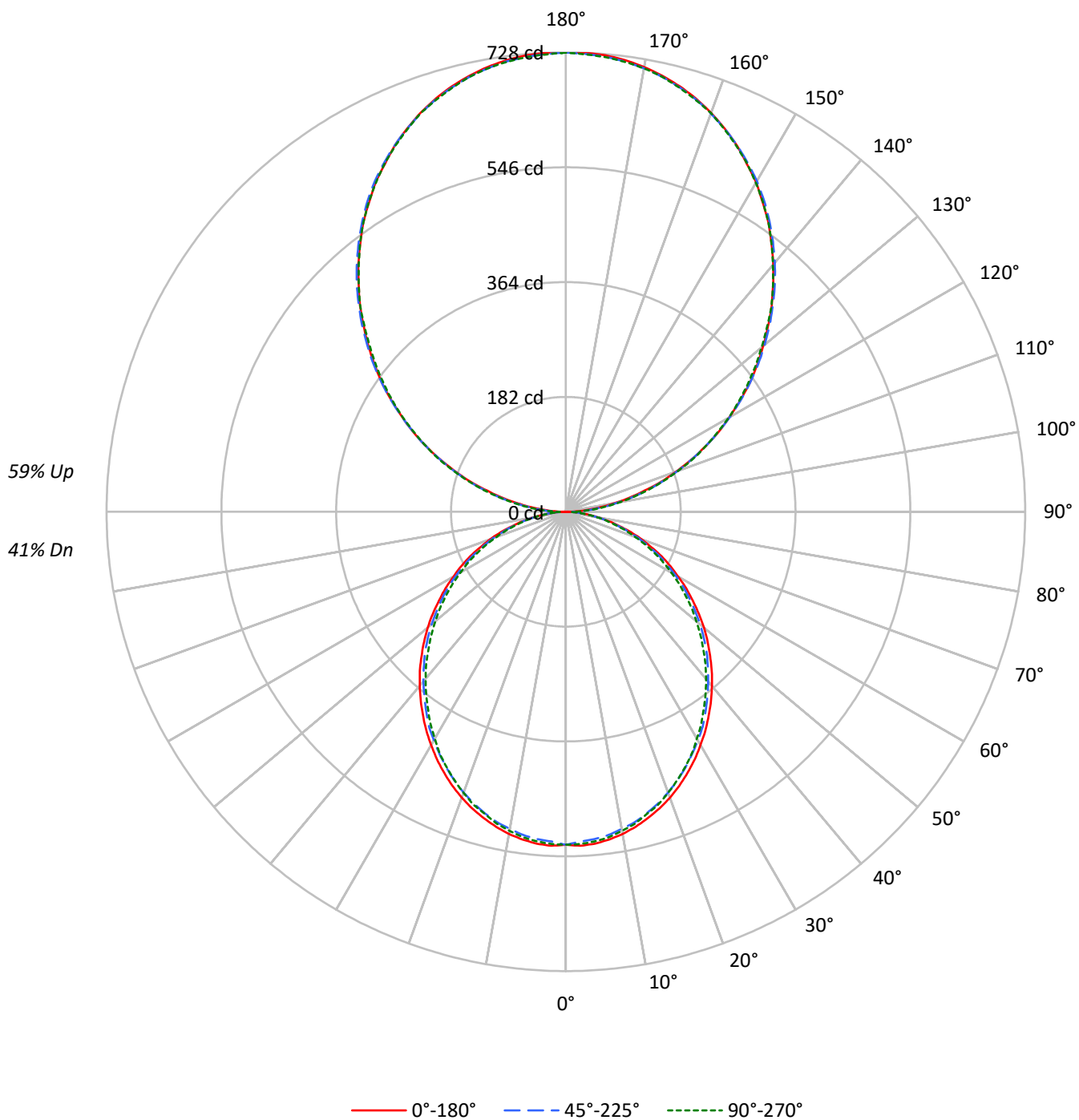
Lumens per Lamp: N/A  
Luminaire Lumens: 3391.0 lumens  
Efficiency: N/A  
Efficacy: 119.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 28.4  
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   | 105 | 105 | 105 | 105 | 96 | 96 | 96 | 96 | 78 | 78 | 78 | 62 | 62 | 62 | 47 | 47 | 47 |
| 1   | 96  | 91  | 87  | 84  | 87 | 83 | 80 | 77 | 68 | 66 | 64 | 55 | 53 | 52 | 42 | 41 | 40 |
| 2   | 87  | 80  | 74  | 69  | 79 | 73 | 68 | 63 | 60 | 56 | 53 | 48 | 45 | 43 | 37 | 35 | 34 |
| 3   | 79  | 70  | 63  | 57  | 72 | 64 | 58 | 53 | 53 | 48 | 44 | 42 | 39 | 36 | 33 | 30 | 29 |
| 4   | 73  | 62  | 54  | 48  | 66 | 57 | 50 | 45 | 47 | 42 | 38 | 38 | 34 | 31 | 29 | 27 | 25 |
| 5   | 67  | 55  | 47  | 41  | 60 | 50 | 43 | 38 | 42 | 37 | 32 | 34 | 30 | 27 | 26 | 24 | 21 |
| 6   | 61  | 49  | 41  | 36  | 56 | 45 | 38 | 33 | 38 | 32 | 28 | 30 | 26 | 23 | 24 | 21 | 19 |
| 7   | 57  | 44  | 37  | 31  | 51 | 41 | 34 | 29 | 34 | 29 | 25 | 28 | 24 | 21 | 22 | 19 | 17 |
| 8   | 52  | 40  | 33  | 27  | 48 | 37 | 30 | 26 | 31 | 26 | 22 | 25 | 21 | 18 | 20 | 17 | 15 |
| 9   | 49  | 37  | 29  | 24  | 44 | 34 | 27 | 23 | 28 | 23 | 20 | 23 | 19 | 17 | 18 | 16 | 13 |
| 10  | 46  | 34  | 26  | 22  | 41 | 31 | 25 | 20 | 26 | 21 | 18 | 21 | 18 | 15 | 17 | 14 | 12 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5679 | 5679 | 5679 |
| 5°  | 5693 | 5483 | 5475 |
| 10° | 5642 | 5297 | 5243 |
| 15° | 5564 | 5104 | 4990 |
| 20° | 5474 | 4890 | 4740 |
| 25° | 5357 | 4664 | 4472 |
| 30° | 5230 | 4429 | 4191 |
| 35° | 5096 | 4190 | 3911 |
| 40° | 4957 | 3940 | 3637 |
| 45° | 4803 | 3695 | 3349 |
| 50° | 4647 | 3423 | 3061 |
| 55° | 4446 | 3140 | 2769 |
| 60° | 4240 | 2826 | 2457 |
| 65° | 4047 | 2487 | 2133 |
| 70° | 3767 | 2112 | 1754 |
| 75° | 3366 | 1672 | 1363 |
| 80° | 2904 | 1176 | 963  |
| 85° | 2267 | 632  | 483  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4803 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 49.7   | 1.5       |
| 10°-20°   | 140.4  | 4.1       |
| 20°-30°   | 207.4  | 6.1       |
| 30°-40°   | 242.2  | 7.1       |
| 40°-50°   | 243.5  | 7.2       |
| 50°-60°   | 213.9  | 6.3       |
| 60°-70°   | 159.3  | 4.7       |
| 70°-80°   | 90.7   | 2.7       |
| 80°-90°   | 27.3   | 0.8       |
| 90°-100°  | 46.8   | 1.4       |
| 100°-110° | 141.8  | 4.2       |
| 110°-120° | 241.4  | 7.1       |
| 120°-130° | 317.6  | 9.4       |
| 130°-140° | 356.9  | 10.5      |
| 140°-150° | 350.9  | 10.3      |
| 150°-160° | 295.4  | 8.7       |
| 160°-170° | 196.7  | 5.8       |
| 170°-180° | 68.9   | 2.0       |
| 0°-30°    | 397.6  | 11.7      |
| 0°-40°    | 639.8  | 18.9      |
| 0°-60°    | 1097.2 | 32.4      |
| 0°-90°    | 1374.5 | 40.5      |
| 90°-120°  | 430.0  | 12.7      |
| 90°-150°  | 1455.5 | 42.9      |
| 90°-180°  | 2016.0 | 59.5      |
| 0°-180°   | 3391.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 528 | 528   | 528 | 528   | 528 |      |
| 5°   | 528 | 526   | 521 | 525   | 524 | 50   |
| 15°  | 503 | 501   | 495 | 498   | 496 | 142  |
| 25°  | 456 | 454   | 448 | 448   | 447 | 210  |
| 35°  | 395 | 392   | 386 | 383   | 381 | 247  |
| 45°  | 323 | 322   | 316 | 310   | 308 | 250  |
| 55°  | 245 | 245   | 239 | 234   | 232 | 220  |
| 65°  | 167 | 165   | 161 | 157   | 156 | 165  |
| 75°  | 88  | 87    | 85  | 83    | 82  | 94   |
| 85°  | 24  | 23    | 23  | 22    | 22  | 25   |
| 90°  | 1   | 6     | 14  | 16    | 17  | 4    |
| 95°  | 34  | 38    | 42  | 45    | 45  | 37   |
| 105° | 129 | 130   | 135 | 135   | 136 | 138  |
| 115° | 243 | 245   | 244 | 244   | 244 | 240  |
| 125° | 356 | 357   | 356 | 354   | 352 | 317  |
| 135° | 461 | 465   | 464 | 462   | 461 | 355  |
| 145° | 560 | 561   | 562 | 562   | 560 | 350  |
| 155° | 641 | 641   | 641 | 644   | 640 | 295  |
| 165° | 698 | 696   | 696 | 700   | 696 | 197  |
| 175° | 726 | 724   | 724 | 727   | 723 | 69   |
| 180° | 728 | 728   | 728 | 728   | 728 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 527.6 | 527.6 | 527.6 | 527.6 | 527.6 |
| 2.5°   | 529.8 | 528.0 | 523.0 | 527.6 | 527.1 |
| 5°     | 528.0 | 525.7 | 520.8 | 525.3 | 524.4 |
| 7.5°   | 523.9 | 521.7 | 516.7 | 520.8 | 520.3 |
| 10°    | 518.5 | 516.2 | 510.3 | 514.4 | 513.5 |
| 12.5°  | 511.2 | 509.4 | 504.0 | 506.7 | 506.2 |
| 15°    | 502.6 | 500.8 | 494.9 | 498.5 | 495.8 |
| 17.5°  | 493.1 | 490.8 | 484.9 | 487.6 | 486.7 |
| 20°    | 482.2 | 479.5 | 473.6 | 475.4 | 474.0 |
| 22.5°  | 469.9 | 467.2 | 461.3 | 462.7 | 460.9 |
| 25°    | 456.3 | 453.6 | 447.7 | 448.2 | 446.8 |
| 27.5°  | 442.3 | 439.6 | 433.2 | 433.7 | 432.3 |
| 30°    | 426.9 | 424.6 | 418.2 | 418.2 | 415.1 |
| 32.5°  | 411.4 | 408.3 | 403.7 | 400.5 | 399.2 |
| 35°    | 394.6 | 391.9 | 386.0 | 383.3 | 381.0 |
| 37.5°  | 377.9 | 374.2 | 368.3 | 365.2 | 363.8 |
| 40°    | 360.2 | 357.5 | 351.1 | 347.5 | 345.7 |
| 42.5°  | 342.5 | 339.3 | 333.0 | 329.3 | 327.5 |
| 45°    | 323.4 | 321.6 | 315.7 | 310.3 | 308.0 |
| 47.5°  | 304.8 | 302.1 | 296.7 | 291.2 | 289.4 |
| 50°    | 285.8 | 283.5 | 277.6 | 272.6 | 269.9 |
| 52.5°  | 265.8 | 264.5 | 258.1 | 254.0 | 251.3 |
| 55°    | 245.4 | 245.0 | 239.1 | 234.1 | 231.8 |
| 57.5°  | 226.4 | 224.5 | 220.0 | 215.5 | 212.7 |
| 60°    | 205.5 | 205.0 | 199.6 | 195.5 | 193.2 |
| 62.5°  | 186.9 | 185.5 | 180.1 | 176.0 | 174.6 |
| 65°    | 167.4 | 165.1 | 160.6 | 157.0 | 155.6 |
| 67.5°  | 146.5 | 144.7 | 141.1 | 137.9 | 136.1 |
| 70°    | 127.9 | 125.2 | 122.5 | 119.3 | 117.0 |
| 72.5°  | 108.4 | 106.6 | 103.4 | 100.7 | 99.8  |
| 75°    | 88.5  | 86.6  | 85.3  | 83.0  | 81.7  |
| 77.5°  | 70.8  | 69.9  | 68.0  | 66.2  | 66.2  |
| 80°    | 53.5  | 52.2  | 51.3  | 50.8  | 50.8  |
| 82.5°  | 36.7  | 36.7  | 36.7  | 35.8  | 35.4  |
| 85°    | 23.6  | 22.7  | 22.7  | 21.8  | 21.8  |
| 87.5°  | 11.8  | 10.4  | 10.0  | 9.5   | 9.5   |
| 90°    | 0.6   | 6.3   | 13.7  | 16.0  | 17.2  |
| 92.5°  | 17.2  | 20.6  | 24.0  | 25.7  | 24.6  |
| 95°    | 33.7  | 37.7  | 42.3  | 44.6  | 44.6  |
| 97.5°  | 55.5  | 58.3  | 61.7  | 64.6  | 64.0  |
| 100°   | 77.7  | 81.2  | 84.0  | 85.8  | 86.9  |
| 102.5° | 103.5 | 105.2 | 109.2 | 110.9 | 110.3 |
| 105°   | 128.6 | 129.8 | 134.9 | 134.9 | 136.1 |
| 107.5° | 158.4 | 158.9 | 161.2 | 162.9 | 162.4 |
| 110°   | 185.8 | 186.9 | 188.1 | 190.4 | 189.2 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 214.4 | 215.0 | 215.0 | 217.8 | 217.8 |
| 115°   | 243.0 | 244.7 | 243.5 | 244.1 | 243.5 |
| 117.5° | 272.1 | 272.7 | 271.5 | 271.5 | 269.8 |
| 120°   | 299.0 | 302.4 | 299.6 | 299.0 | 297.8 |
| 122.5° | 327.0 | 329.3 | 328.1 | 326.4 | 324.7 |
| 125°   | 355.6 | 357.3 | 356.2 | 353.9 | 351.6 |
| 127.5° | 381.9 | 385.3 | 384.2 | 380.7 | 378.5 |
| 130°   | 408.2 | 412.8 | 411.0 | 408.8 | 404.7 |
| 132.5° | 434.5 | 439.1 | 437.9 | 435.0 | 432.2 |
| 135°   | 461.3 | 464.8 | 464.2 | 461.9 | 460.8 |
| 137.5° | 485.9 | 488.8 | 490.5 | 487.6 | 485.9 |
| 140°   | 511.7 | 514.5 | 515.1 | 514.5 | 510.5 |
| 142.5° | 535.1 | 538.0 | 539.1 | 538.5 | 535.7 |
| 145°   | 559.7 | 560.8 | 562.5 | 562.0 | 559.7 |
| 147.5° | 580.8 | 583.1 | 584.8 | 584.8 | 581.4 |
| 150°   | 603.1 | 604.3 | 605.4 | 605.4 | 602.0 |
| 152.5° | 621.4 | 623.1 | 623.7 | 624.8 | 622.0 |
| 155°   | 640.9 | 640.9 | 641.4 | 643.7 | 639.7 |
| 157.5° | 657.4 | 656.9 | 657.4 | 659.7 | 656.3 |
| 160°   | 672.9 | 671.7 | 671.7 | 674.6 | 672.3 |
| 162.5° | 686.6 | 684.9 | 685.4 | 688.3 | 684.3 |
| 165°   | 698.0 | 696.3 | 696.3 | 699.7 | 695.7 |
| 167.5° | 707.7 | 705.5 | 706.0 | 709.5 | 706.0 |
| 170°   | 715.7 | 713.5 | 713.5 | 717.5 | 713.5 |
| 172.5° | 722.0 | 719.7 | 719.7 | 723.2 | 719.2 |
| 175°   | 726.0 | 723.7 | 723.7 | 727.2 | 723.2 |
| 177.5° | 728.3 | 726.0 | 726.0 | 729.5 | 725.5 |
| 180°   | 727.7 | 727.7 | 727.7 | 727.7 | 727.7 |

(END OF REPORT)