

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: P1026293

Luminaire Tested: S124RDIP-B350D365UB27-4F0-XX-W2A-F1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1026293  
REPORT IS A COMBINATION OF REPORTS P999303 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-B350D365UB27-4F0-XX-W2A-F1  
Description: Define 4 Regressed Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473}  
{m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

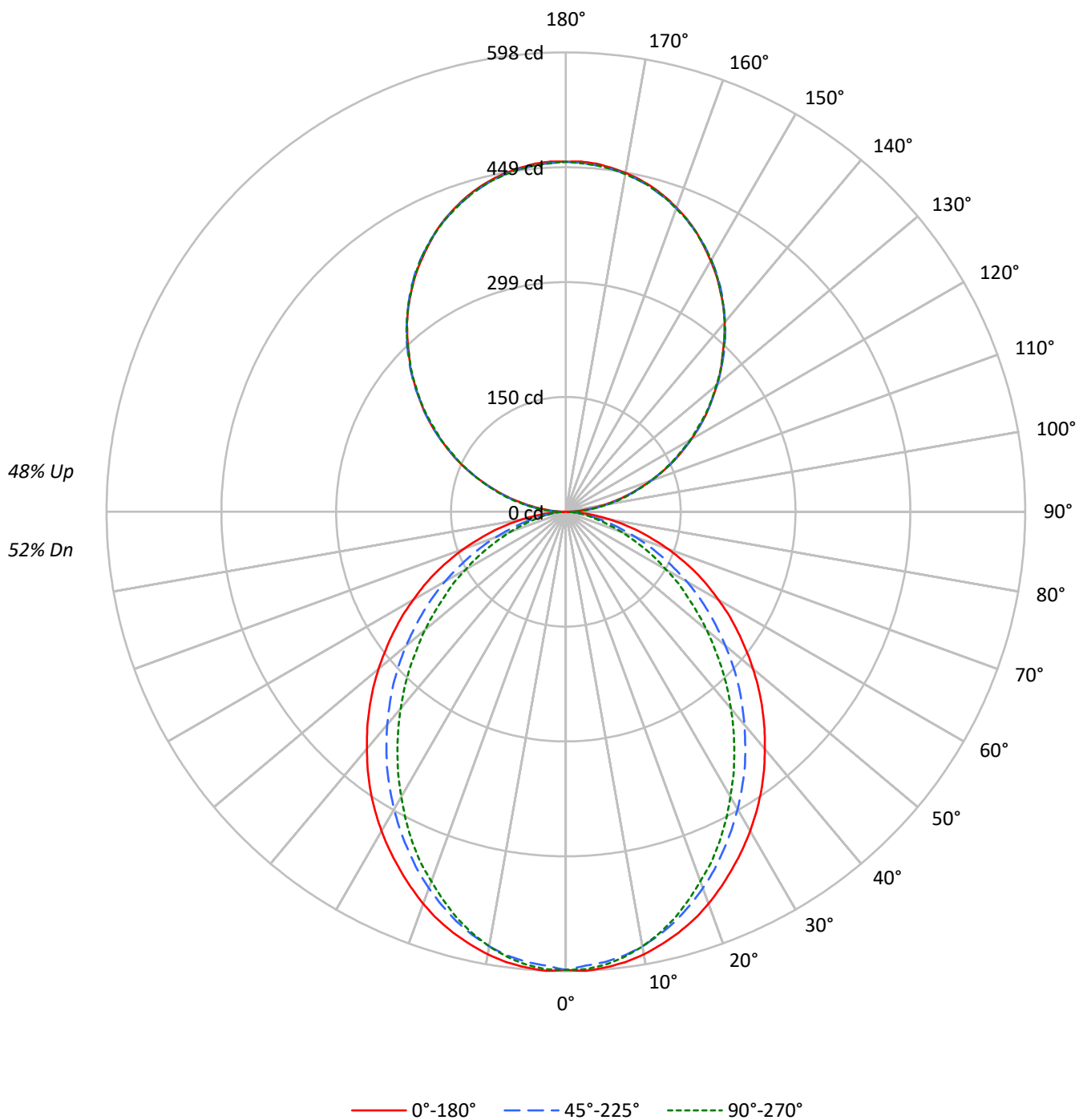
Lumens per Lamp: N/A  
Luminaire Lumens: 2643.0 lumens  
Efficiency: N/A  
Efficacy: 118.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 22.3  
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   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 71 | 71 | 71 | 58 | 58 | 58 |
| 1   | 99  | 94  | 91  | 87  | 91  | 87  | 84  | 81  | 75 | 72 | 70 | 63 | 61 | 60 | 52 | 51 | 50 |
| 2   | 90  | 83  | 77  | 72  | 83  | 77  | 72  | 67  | 66 | 62 | 58 | 55 | 53 | 50 | 46 | 44 | 42 |
| 3   | 82  | 73  | 66  | 60  | 76  | 68  | 61  | 56  | 58 | 53 | 49 | 49 | 46 | 43 | 41 | 38 | 36 |
| 4   | 75  | 65  | 57  | 51  | 69  | 60  | 53  | 48  | 52 | 47 | 42 | 44 | 40 | 37 | 37 | 34 | 31 |
| 5   | 69  | 58  | 50  | 44  | 64  | 54  | 47  | 41  | 46 | 41 | 37 | 40 | 35 | 32 | 33 | 30 | 28 |
| 6   | 64  | 52  | 44  | 38  | 59  | 48  | 41  | 36  | 42 | 36 | 32 | 36 | 32 | 28 | 30 | 27 | 24 |
| 7   | 59  | 47  | 39  | 34  | 55  | 44  | 37  | 32  | 38 | 33 | 28 | 33 | 28 | 25 | 28 | 24 | 22 |
| 8   | 55  | 43  | 35  | 30  | 51  | 40  | 33  | 28  | 35 | 29 | 25 | 30 | 26 | 22 | 25 | 22 | 20 |
| 9   | 51  | 39  | 32  | 27  | 47  | 37  | 30  | 25  | 32 | 27 | 23 | 28 | 23 | 20 | 24 | 20 | 18 |
| 10  | 48  | 36  | 29  | 24  | 44  | 34  | 27  | 23  | 30 | 24 | 21 | 26 | 21 | 18 | 22 | 19 | 16 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4863 | 4863 | 4863 |
| 5°  | 4864 | 4719 | 4719 |
| 10° | 4823 | 4570 | 4516 |
| 15° | 4757 | 4384 | 4275 |
| 20° | 4670 | 4173 | 4001 |
| 25° | 4561 | 3945 | 3733 |
| 30° | 4454 | 3713 | 3432 |
| 35° | 4338 | 3477 | 3139 |
| 40° | 4200 | 3223 | 2837 |
| 45° | 4069 | 2971 | 2538 |
| 50° | 3921 | 2695 | 2234 |
| 55° | 3761 | 2414 | 1921 |
| 60° | 3583 | 2114 | 1612 |
| 65° | 3412 | 1772 | 1313 |
| 70° | 3168 | 1410 | 1004 |
| 75° | 2856 | 1025 | 702  |
| 80° | 2385 | 631  | 504  |
| 85° | 1797 | 364  | 277  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 4069 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 56.1   | 2.1       |
| 10°-20°   | 156.4  | 5.9       |
| 20°-30°   | 225.7  | 8.5       |
| 30°-40°   | 255.9  | 9.7       |
| 40°-50°   | 247.0  | 9.3       |
| 50°-60°   | 205.4  | 7.8       |
| 60°-70°   | 141.8  | 5.4       |
| 70°-80°   | 71.6   | 2.7       |
| 80°-90°   | 19.2   | 0.7       |
| 90°-100°  | 29.7   | 1.1       |
| 100°-110° | 88.9   | 3.4       |
| 110°-120° | 151.1  | 5.7       |
| 120°-130° | 199.3  | 7.5       |
| 130°-140° | 223.8  | 8.5       |
| 140°-150° | 220.0  | 8.3       |
| 150°-160° | 185.0  | 7.0       |
| 160°-170° | 123.1  | 4.7       |
| 170°-180° | 43.1   | 1.6       |
| 0°-30°    | 438.2  | 16.6      |
| 0°-40°    | 694.0  | 26.3      |
| 0°-60°    | 1146.4 | 43.4      |
| 0°-90°    | 1379.0 | 52.2      |
| 90°-120°  | 269.7  | 10.2      |
| 90°-150°  | 912.8  | 34.5      |
| 90°-180°  | 1264.0 | 47.8      |
| 0°-180°   | 2643.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 596 | 596   | 596 | 596   | 596 |      |
| 5°   | 596 | 594   | 588 | 593   | 592 | 57   |
| 15°  | 567 | 563   | 552 | 551   | 548 | 160  |
| 25°  | 513 | 505   | 486 | 478   | 474 | 236  |
| 35°  | 443 | 429   | 406 | 390   | 382 | 277  |
| 45°  | 362 | 345   | 317 | 295   | 287 | 279  |
| 55°  | 274 | 256   | 226 | 202   | 194 | 245  |
| 65°  | 186 | 167   | 138 | 118   | 112 | 184  |
| 75°  | 99  | 82    | 61  | 50    | 48  | 105  |
| 85°  | 25  | 16    | 14  | 13    | 13  | 27   |
| 90°  | 1   | 5     | 8   | 10    | 11  | 3    |
| 95°  | 21  | 24    | 27  | 28    | 28  | 23   |
| 105° | 82  | 82    | 84  | 85    | 86  | 87   |
| 115° | 154 | 154   | 153 | 153   | 152 | 152  |
| 125° | 224 | 224   | 223 | 223   | 222 | 199  |
| 135° | 289 | 291   | 291 | 290   | 289 | 223  |
| 145° | 351 | 352   | 352 | 352   | 351 | 219  |
| 155° | 402 | 402   | 401 | 403   | 401 | 185  |
| 165° | 437 | 436   | 436 | 438   | 436 | 123  |
| 175° | 455 | 453   | 453 | 455   | 453 | 43   |
| 180° | 456 | 456   | 456 | 456   | 456 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 596.4 | 596.4 | 596.4 | 596.4 | 596.4 |
| 2.5°   | 598.2 | 596.4 | 591.4 | 596.4 | 595.9 |
| 5°     | 595.5 | 593.6 | 588.2 | 592.7 | 591.8 |
| 7.5°   | 591.4 | 589.5 | 582.7 | 585.9 | 584.5 |
| 10°    | 585.0 | 582.7 | 574.5 | 576.3 | 574.5 |
| 12.5°  | 576.7 | 574.0 | 564.0 | 564.9 | 562.1 |
| 15°    | 567.2 | 563.0 | 551.6 | 550.7 | 547.5 |
| 17.5°  | 556.2 | 550.3 | 537.0 | 534.7 | 530.2 |
| 20°    | 543.0 | 537.0 | 521.5 | 517.8 | 511.9 |
| 22.5°  | 528.3 | 521.5 | 504.6 | 498.7 | 494.1 |
| 25°    | 512.8 | 504.6 | 485.9 | 478.1 | 473.5 |
| 27.5°  | 496.8 | 486.8 | 467.1 | 458.0 | 451.6 |
| 30°    | 479.9 | 468.5 | 447.1 | 435.6 | 428.3 |
| 32.5°  | 462.1 | 448.9 | 426.5 | 412.8 | 406.0 |
| 35°    | 443.4 | 428.8 | 406.0 | 390.4 | 382.2 |
| 37.5°  | 423.8 | 408.7 | 383.6 | 366.7 | 358.5 |
| 40°    | 402.8 | 387.7 | 361.7 | 342.5 | 334.3 |
| 42.5°  | 382.7 | 366.7 | 339.3 | 319.7 | 311.0 |
| 45°    | 361.7 | 344.8 | 317.4 | 295.0 | 286.8 |
| 47.5°  | 340.2 | 322.8 | 294.5 | 271.2 | 262.1 |
| 50°    | 318.3 | 300.5 | 271.2 | 248.4 | 239.7 |
| 52.5°  | 295.9 | 278.6 | 248.4 | 225.1 | 216.0 |
| 55°    | 274.0 | 255.7 | 226.0 | 202.3 | 193.6 |
| 57.5°  | 252.5 | 233.3 | 204.1 | 179.9 | 173.5 |
| 60°    | 229.2 | 211.0 | 181.7 | 158.0 | 150.7 |
| 62.5°  | 208.2 | 189.1 | 158.9 | 137.5 | 132.0 |
| 65°    | 186.3 | 166.7 | 137.5 | 117.8 | 112.3 |
| 67.5°  | 163.5 | 144.8 | 117.4 | 100.0 | 93.6  |
| 70°    | 142.0 | 122.8 | 96.8  | 81.7  | 77.2  |
| 72.5°  | 119.2 | 102.3 | 78.1  | 65.8  | 61.6  |
| 75°    | 99.1  | 82.2  | 60.7  | 50.2  | 47.5  |
| 77.5°  | 78.1  | 63.5  | 45.2  | 37.9  | 37.0  |
| 80°    | 58.0  | 44.8  | 31.1  | 29.7  | 29.2  |
| 82.5°  | 40.6  | 28.8  | 22.4  | 21.5  | 21.0  |
| 85°    | 24.7  | 15.5  | 14.2  | 13.2  | 13.2  |
| 87.5°  | 10.5  | 6.8   | 6.4   | 5.9   | 6.4   |
| 90°    | 1.1   | 4.9   | 7.8   | 9.9   | 10.6  |
| 92.5°  | 9.2   | 13.7  | 15.5  | 16.6  | 16.9  |
| 95°    | 21.1  | 24.3  | 26.8  | 27.8  | 27.8  |
| 97.5°  | 33.8  | 36.6  | 39.5  | 40.9  | 40.9  |
| 100°   | 49.3  | 50.7  | 53.9  | 54.6  | 54.6  |
| 102.5° | 65.5  | 65.9  | 68.7  | 69.8  | 70.1  |
| 105°   | 82.1  | 82.4  | 83.9  | 84.9  | 86.0  |
| 107.5° | 99.4  | 99.7  | 100.1 | 101.5 | 101.1 |
| 110°   | 117.0 | 117.7 | 117.3 | 116.6 | 117.7 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 135.3 | 135.3 | 134.6 | 134.6 | 134.6 |
| 115°   | 153.6 | 153.6 | 152.9 | 152.6 | 152.2 |
| 117.5° | 170.9 | 170.9 | 170.5 | 169.5 | 168.4 |
| 120°   | 188.1 | 189.6 | 188.5 | 186.7 | 187.4 |
| 122.5° | 206.1 | 206.5 | 206.1 | 205.1 | 203.3 |
| 125°   | 223.7 | 223.7 | 223.4 | 222.7 | 222.0 |
| 127.5° | 239.6 | 240.6 | 239.9 | 239.2 | 238.9 |
| 130°   | 256.5 | 257.6 | 257.6 | 256.9 | 255.4 |
| 132.5° | 273.8 | 274.5 | 274.1 | 273.4 | 273.1 |
| 135°   | 288.6 | 290.7 | 290.7 | 290.0 | 288.9 |
| 137.5° | 305.1 | 306.2 | 306.9 | 305.8 | 306.2 |
| 140°   | 321.7 | 322.4 | 322.4 | 322.0 | 321.7 |
| 142.5° | 336.8 | 337.5 | 337.2 | 337.2 | 337.2 |
| 145°   | 350.6 | 352.0 | 352.3 | 352.0 | 350.9 |
| 147.5° | 364.7 | 366.4 | 366.1 | 365.7 | 365.4 |
| 150°   | 377.3 | 378.8 | 378.8 | 378.8 | 378.4 |
| 152.5° | 389.3 | 390.0 | 390.4 | 391.4 | 390.4 |
| 155°   | 401.7 | 401.7 | 401.3 | 402.7 | 401.3 |
| 157.5° | 412.2 | 411.5 | 411.5 | 412.6 | 411.5 |
| 160°   | 421.4 | 421.0 | 420.7 | 421.7 | 420.0 |
| 162.5° | 429.8 | 428.8 | 428.4 | 430.5 | 428.8 |
| 165°   | 437.2 | 436.2 | 435.5 | 437.6 | 436.2 |
| 167.5° | 443.2 | 441.8 | 441.8 | 443.9 | 441.8 |
| 170°   | 448.2 | 446.4 | 446.8 | 448.9 | 446.4 |
| 172.5° | 451.7 | 450.3 | 450.3 | 452.7 | 450.3 |
| 175°   | 454.9 | 453.1 | 452.7 | 455.2 | 452.7 |
| 177.5° | 456.3 | 454.5 | 454.5 | 457.0 | 454.2 |
| 180°   | 455.6 | 455.6 | 455.6 | 455.6 | 455.6 |

(END OF REPORT)