

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: P1026252

Luminaire Tested: S124RDIP-B350D1035UB40-4F0-XX-W2A-F4

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1026252  
REPORT IS A COMBINATION OF REPORTS P999252 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-B350D1035UB40-4F0-XX-W2A-F4  
Description: Define 4 Regressed Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865}  
{m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

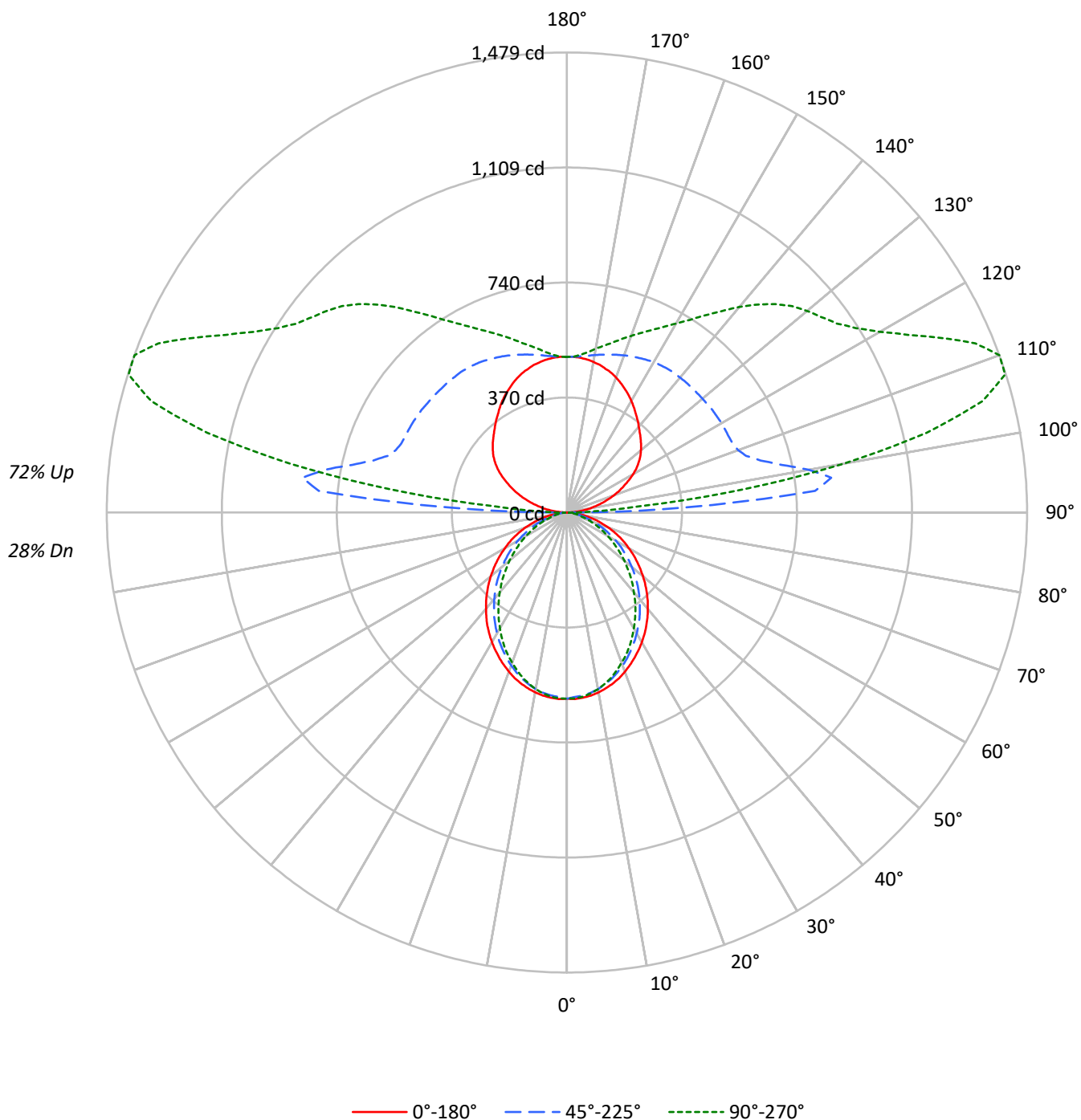
Lumens per Lamp: N/A  
Luminaire Lumens: 5035.3 lumens  
Efficiency: N/A  
Efficacy: 121.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 41.5  
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   | 102 | 102 | 102 | 102 | 91 | 91 | 91 | 91 | 71 | 71 | 71 | 52 | 52 | 52 | 35 | 35 | 35 |
| 1   | 93  | 89  | 85  | 82  | 83 | 80 | 76 | 74 | 62 | 60 | 58 | 46 | 45 | 44 | 32 | 31 | 30 |
| 2   | 85  | 78  | 72  | 67  | 75 | 70 | 65 | 61 | 55 | 51 | 48 | 41 | 39 | 37 | 28 | 27 | 26 |
| 3   | 77  | 68  | 61  | 56  | 69 | 61 | 55 | 51 | 48 | 44 | 41 | 36 | 33 | 31 | 25 | 23 | 22 |
| 4   | 71  | 60  | 53  | 47  | 63 | 54 | 48 | 43 | 43 | 38 | 35 | 32 | 29 | 27 | 22 | 20 | 19 |
| 5   | 65  | 54  | 46  | 40  | 58 | 48 | 42 | 37 | 38 | 34 | 30 | 29 | 26 | 23 | 20 | 18 | 17 |
| 6   | 60  | 48  | 40  | 35  | 53 | 43 | 37 | 32 | 34 | 30 | 26 | 26 | 23 | 20 | 18 | 16 | 15 |
| 7   | 55  | 43  | 36  | 30  | 49 | 39 | 33 | 28 | 31 | 26 | 23 | 24 | 20 | 18 | 17 | 15 | 13 |
| 8   | 51  | 39  | 32  | 27  | 45 | 35 | 29 | 25 | 28 | 24 | 20 | 22 | 18 | 16 | 15 | 13 | 12 |
| 9   | 47  | 36  | 29  | 24  | 42 | 32 | 26 | 22 | 26 | 21 | 18 | 20 | 17 | 14 | 14 | 12 | 11 |
| 10  | 44  | 33  | 26  | 21  | 39 | 30 | 23 | 19 | 24 | 19 | 16 | 18 | 15 | 13 | 13 | 11 | 10 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4880 | 4880 | 4880 |
| 5°  | 4881 | 4736 | 4737 |
| 10° | 4840 | 4586 | 4531 |
| 15° | 4773 | 4400 | 4291 |
| 20° | 4686 | 4188 | 4016 |
| 25° | 4578 | 3959 | 3747 |
| 30° | 4471 | 3726 | 3445 |
| 35° | 4354 | 3489 | 3150 |
| 40° | 4214 | 3235 | 2847 |
| 45° | 4084 | 2981 | 2547 |
| 50° | 3935 | 2705 | 2242 |
| 55° | 3775 | 2423 | 1928 |
| 60° | 3597 | 2122 | 1617 |
| 65° | 3425 | 1777 | 1318 |
| 70° | 3179 | 1415 | 1008 |
| 75° | 2867 | 1030 | 705  |
| 80° | 2394 | 633  | 506  |
| 85° | 1797 | 364  | 279  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4084 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 56.3   | 1.1       |
| 10°-20°   | 156.9  | 3.1       |
| 20°-30°   | 226.6  | 4.5       |
| 30°-40°   | 256.8  | 5.1       |
| 40°-50°   | 247.9  | 4.9       |
| 50°-60°   | 206.1  | 4.1       |
| 60°-70°   | 142.3  | 2.8       |
| 70°-80°   | 71.9   | 1.4       |
| 80°-90°   | 20.2   | 0.4       |
| 90°-100°  | 371.5  | 7.4       |
| 100°-110° | 755.7  | 15.0      |
| 110°-120° | 673.6  | 13.4      |
| 120°-130° | 565.8  | 11.2      |
| 130°-140° | 472.2  | 9.4       |
| 140°-150° | 360.6  | 7.2       |
| 150°-160° | 253.5  | 5.0       |
| 160°-170° | 149.1  | 3.0       |
| 170°-180° | 48.5   | 1.0       |
| 0°-30°    | 439.8  | 8.7       |
| 0°-40°    | 696.6  | 13.8      |
| 0°-60°    | 1150.6 | 22.9      |
| 0°-90°    | 1384.9 | 27.5      |
| 90°-120°  | 1800.8 | 35.8      |
| 90°-150°  | 3199.4 | 63.5      |
| 90°-180°  | 3650.0 | 72.5      |
| 0°-180°   | 5035.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90°  | Flux |
|------|-----|-------|-----|-------|------|------|
| 0°   | 598 | 598   | 598 | 598   | 598  |      |
| 5°   | 598 | 596   | 590 | 595   | 594  | 57   |
| 15°  | 569 | 565   | 554 | 553   | 550  | 160  |
| 25°  | 515 | 506   | 488 | 480   | 475  | 237  |
| 35°  | 445 | 430   | 407 | 392   | 384  | 278  |
| 45°  | 363 | 346   | 318 | 296   | 288  | 280  |
| 55°  | 275 | 257   | 227 | 203   | 194  | 246  |
| 65°  | 187 | 167   | 138 | 118   | 113  | 185  |
| 75°  | 100 | 82    | 61  | 50    | 48   | 105  |
| 85°  | 25  | 16    | 14  | 13    | 13   | 27   |
| 90°  | 1   | 8     | 18  | 20    | 21   | 4    |
| 95°  | 32  | 102   | 801 | 396   | 240  | 36   |
| 105° | 115 | 167   | 645 | 1388  | 1383 | 122  |
| 115° | 202 | 254   | 575 | 1105  | 1328 | 201  |
| 125° | 282 | 335   | 572 | 940   | 1059 | 251  |
| 135° | 335 | 399   | 567 | 834   | 947  | 259  |
| 145° | 386 | 442   | 564 | 704   | 773  | 242  |
| 155° | 439 | 474   | 548 | 621   | 648  | 203  |
| 165° | 479 | 493   | 526 | 557   | 565  | 135  |
| 175° | 499 | 500   | 504 | 511   | 509  | 47   |
| 180° | 500 | 500   | 500 | 500   | 500  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 0°     | 598.5 | 598.5 | 598.5 | 598.5  | 598.5  |
| 2.5°   | 600.4 | 598.5 | 593.5 | 598.5  | 598.1  |
| 5°     | 597.6 | 595.8 | 590.3 | 594.9  | 594.0  |
| 7.5°   | 593.5 | 591.7 | 584.8 | 588.0  | 586.6  |
| 10°    | 587.1 | 584.8 | 576.5 | 578.4  | 576.5  |
| 12.5°  | 578.8 | 576.1 | 566.0 | 566.9  | 564.2  |
| 15°    | 569.2 | 565.1 | 553.6 | 552.7  | 549.5  |
| 17.5°  | 558.2 | 552.3 | 539.0 | 536.7  | 532.1  |
| 20°    | 544.9 | 539.0 | 523.4 | 519.7  | 513.8  |
| 22.5°  | 530.3 | 523.4 | 506.4 | 500.5  | 495.9  |
| 25°    | 514.7 | 506.4 | 487.6 | 479.8  | 475.3  |
| 27.5°  | 498.6 | 488.6 | 468.8 | 459.7  | 453.3  |
| 30°    | 481.7 | 470.2 | 448.7 | 437.2  | 429.9  |
| 32.5°  | 463.8 | 450.5 | 428.1 | 414.3  | 407.4  |
| 35°    | 445.0 | 430.3 | 407.4 | 391.8  | 383.6  |
| 37.5°  | 425.3 | 410.2 | 385.0 | 368.0  | 359.8  |
| 40°    | 404.2 | 389.1 | 363.0 | 343.7  | 335.5  |
| 42.5°  | 384.1 | 368.0 | 340.5 | 320.8  | 312.1  |
| 45°    | 363.0 | 346.0 | 318.5 | 296.1  | 287.8  |
| 47.5°  | 341.4 | 324.0 | 295.6 | 272.2  | 263.1  |
| 50°    | 319.4 | 301.6 | 272.2 | 249.3  | 240.6  |
| 52.5°  | 297.0 | 279.6 | 249.3 | 225.9  | 216.8  |
| 55°    | 275.0 | 256.6 | 226.9 | 203.0  | 194.3  |
| 57.5°  | 253.4 | 234.2 | 204.9 | 180.6  | 174.2  |
| 60°    | 230.1 | 211.7 | 182.4 | 158.6  | 151.2  |
| 62.5°  | 209.0 | 189.7 | 159.5 | 137.9  | 132.4  |
| 65°    | 187.0 | 167.3 | 137.9 | 118.2  | 112.7  |
| 67.5°  | 164.1 | 145.3 | 117.8 | 100.4  | 94.0   |
| 70°    | 142.5 | 123.3 | 97.2  | 82.0   | 77.5   |
| 72.5°  | 119.6 | 102.7 | 78.4  | 66.0   | 61.9   |
| 75°    | 99.5  | 82.5  | 61.0  | 50.4   | 47.7   |
| 77.5°  | 78.4  | 63.7  | 45.4  | 38.0   | 37.1   |
| 80°    | 58.2  | 44.9  | 31.2  | 29.8   | 29.3   |
| 82.5°  | 40.8  | 28.9  | 22.5  | 21.5   | 21.1   |
| 85°    | 24.7  | 15.6  | 14.2  | 13.3   | 13.3   |
| 87.5°  | 10.5  | 6.9   | 6.4   | 6.0    | 6.4    |
| 90°    | 1.0   | 7.9   | 17.7  | 19.7   | 20.6   |
| 92.5°  | 13.8  | 75.6  | 385.2 | 127.2  | 89.4   |
| 95°    | 32.4  | 102.2 | 800.9 | 396.5  | 239.8  |
| 97.5°  | 54.0  | 113.0 | 856.9 | 809.8  | 575.9  |
| 100°   | 74.7  | 127.8 | 790.1 | 1120.2 | 901.1  |
| 102.5° | 94.3  | 145.4 | 706.6 | 1314.8 | 1184.2 |
| 105°   | 115.0 | 166.6 | 644.6 | 1388.1 | 1382.7 |
| 107.5° | 137.6 | 188.2 | 604.4 | 1366.0 | 1477.0 |
| 110°   | 160.2 | 209.8 | 585.7 | 1287.4 | 1479.0 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 181.8 | 231.4 | 576.8 | 1191.0 | 1421.0 |
| 115°   | 202.4 | 254.0 | 574.9 | 1104.6 | 1327.6 |
| 117.5° | 224.1 | 275.2 | 573.9 | 1036.8 | 1236.2 |
| 120°   | 245.7 | 295.8 | 573.9 | 991.0  | 1161.5 |
| 122.5° | 265.3 | 316.0 | 572.9 | 961.1  | 1102.6 |
| 125°   | 282.0 | 335.1 | 571.9 | 940.0  | 1059.3 |
| 127.5° | 297.8 | 352.8 | 570.0 | 919.8  | 1031.8 |
| 130°   | 310.5 | 370.0 | 569.0 | 895.8  | 1008.2 |
| 132.5° | 323.3 | 384.8 | 568.0 | 867.2  | 981.7  |
| 135°   | 335.1 | 399.0 | 567.0 | 834.3  | 947.3  |
| 137.5° | 346.9 | 411.2 | 567.0 | 798.9  | 907.0  |
| 140°   | 359.7 | 422.6 | 566.0 | 764.6  | 862.8  |
| 142.5° | 373.4 | 432.9 | 566.0 | 732.6  | 815.6  |
| 145°   | 386.2 | 442.2 | 564.1 | 703.6  | 773.4  |
| 147.5° | 400.9 | 451.0 | 561.1 | 679.5  | 734.1  |
| 150°   | 414.7 | 459.4 | 558.2 | 657.4  | 701.6  |
| 152.5° | 427.5 | 467.2 | 553.3 | 638.8  | 672.2  |
| 155°   | 439.3 | 474.2 | 548.3 | 621.1  | 647.6  |
| 157.5° | 451.1 | 480.5 | 543.4 | 604.3  | 625.0  |
| 160°   | 461.9 | 485.9 | 537.5 | 587.7  | 604.4  |
| 162.5° | 471.7 | 490.4 | 531.6 | 571.4  | 584.7  |
| 165°   | 478.6 | 493.4 | 525.7 | 556.7  | 565.1  |
| 167.5° | 486.4 | 495.8 | 519.8 | 543.9  | 549.3  |
| 170°   | 491.3 | 497.8 | 514.0 | 531.2  | 534.6  |
| 172.5° | 496.3 | 499.2 | 508.1 | 519.8  | 519.8  |
| 175°   | 499.2 | 500.2 | 504.1 | 511.0  | 509.0  |
| 177.5° | 501.2 | 500.2 | 501.2 | 504.6  | 501.2  |
| 180°   | 500.2 | 500.2 | 500.2 | 500.2  | 500.2  |

(END OF REPORT)