

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: P1026257

Luminaire Tested: S124RDIP-B350D1035UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1026257  
REPORT IS A COMBINATION OF REPORTS P999257 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-B350D1035UB50-4F0-XX-W2A-F1  
Description: Define 4 Regressed Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015}  
{m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

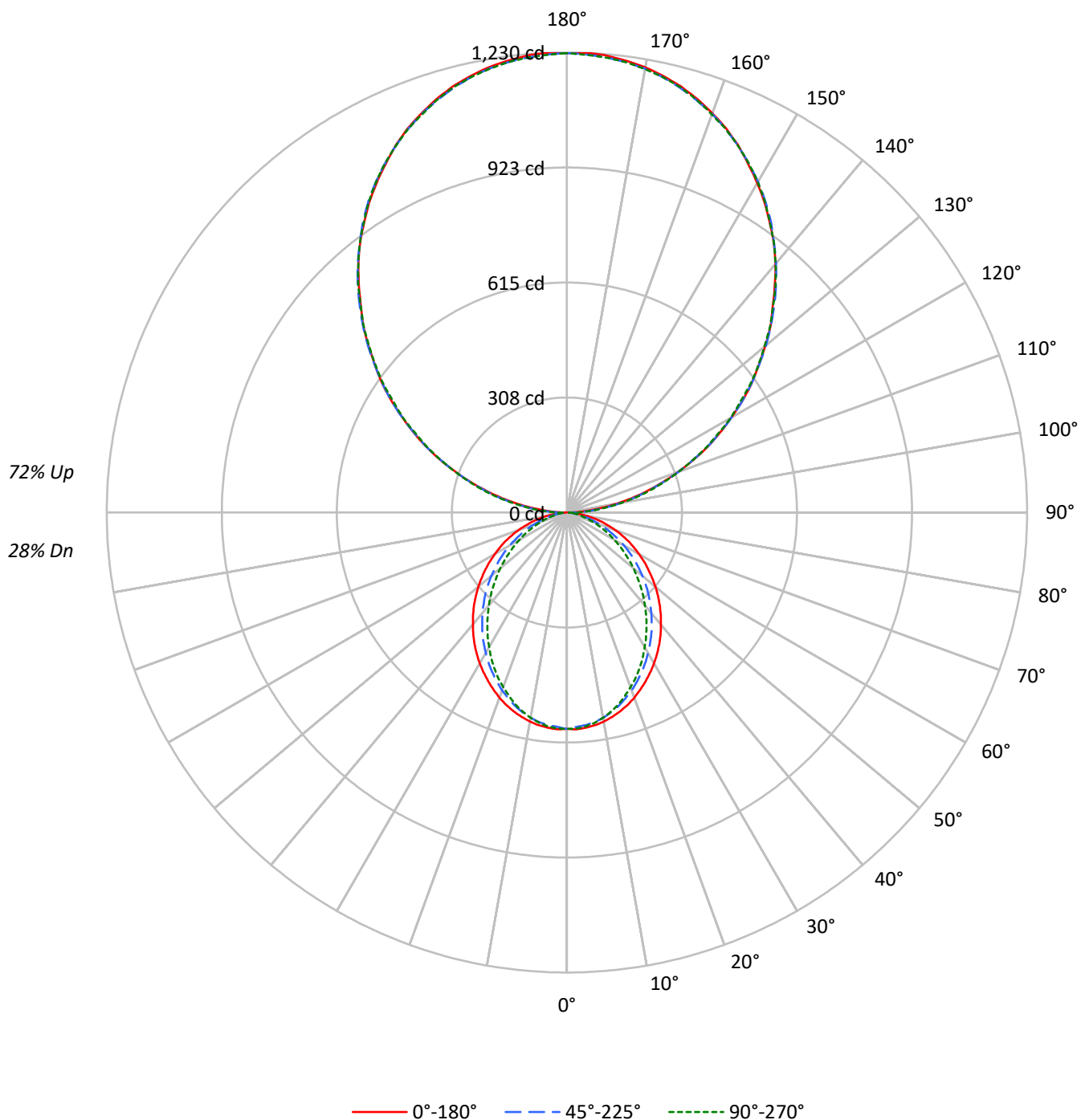
Lumens per Lamp: N/A  
Luminaire Lumens: 4748.0 lumens  
Efficiency: N/A  
Efficacy: 114.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

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 | 53 | 53 | 53 | 36 | 36 | 36 |
| 1   | 93  | 89  | 85  | 82  | 83 | 80 | 77 | 74 | 63 | 60 | 59 | 47 | 45 | 44 | 32 | 31 | 31 |
| 2   | 85  | 78  | 72  | 67  | 76 | 70 | 65 | 61 | 55 | 52 | 49 | 41 | 39 | 37 | 28 | 27 | 26 |
| 3   | 77  | 68  | 61  | 56  | 69 | 62 | 56 | 51 | 48 | 44 | 41 | 36 | 34 | 32 | 25 | 24 | 22 |
| 4   | 71  | 61  | 53  | 47  | 63 | 54 | 48 | 43 | 43 | 39 | 35 | 33 | 29 | 27 | 23 | 21 | 19 |
| 5   | 65  | 54  | 46  | 40  | 58 | 49 | 42 | 37 | 38 | 34 | 30 | 29 | 26 | 23 | 20 | 18 | 17 |
| 6   | 60  | 48  | 40  | 35  | 53 | 44 | 37 | 32 | 35 | 30 | 26 | 26 | 23 | 20 | 19 | 17 | 15 |
| 7   | 55  | 43  | 36  | 30  | 49 | 39 | 33 | 28 | 31 | 26 | 23 | 24 | 21 | 18 | 17 | 15 | 13 |
| 8   | 51  | 39  | 32  | 27  | 46 | 36 | 29 | 25 | 28 | 24 | 20 | 22 | 18 | 16 | 16 | 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  | 40 | 30 | 24 | 20 | 24 | 19 | 16 | 18 | 15 | 13 | 13 | 11 | 10 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4718 | 4718 | 4718 |
| 5°  | 4719 | 4579 | 4579 |
| 10° | 4679 | 4434 | 4381 |
| 15° | 4615 | 4254 | 4148 |
| 20° | 4530 | 4049 | 3882 |
| 25° | 4426 | 3827 | 3622 |
| 30° | 4323 | 3602 | 3331 |
| 35° | 4209 | 3373 | 3045 |
| 40° | 4075 | 3127 | 2752 |
| 45° | 3948 | 2882 | 2462 |
| 50° | 3804 | 2616 | 2168 |
| 55° | 3649 | 2342 | 1864 |
| 60° | 3477 | 2051 | 1564 |
| 65° | 3311 | 1719 | 1275 |
| 70° | 3074 | 1367 | 974  |
| 75° | 2769 | 995  | 682  |
| 80° | 2316 | 610  | 491  |
| 85° | 1739 | 351  | 268  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 3948 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 54.4   | 1.1       |
| 10°-20°   | 151.7  | 3.2       |
| 20°-30°   | 219.0  | 4.6       |
| 30°-40°   | 248.2  | 5.2       |
| 40°-50°   | 239.7  | 5.0       |
| 50°-60°   | 199.3  | 4.2       |
| 60°-70°   | 137.5  | 2.9       |
| 70°-80°   | 69.5   | 1.5       |
| 80°-90°   | 20.3   | 0.4       |
| 90°-100°  | 80.1   | 1.7       |
| 100°-110° | 239.8  | 5.1       |
| 110°-120° | 407.4  | 8.6       |
| 120°-130° | 537.3  | 11.3      |
| 130°-140° | 603.5  | 12.7      |
| 140°-150° | 593.2  | 12.5      |
| 150°-160° | 498.9  | 10.5      |
| 160°-170° | 332.0  | 7.0       |
| 170°-180° | 116.2  | 2.4       |
| 0°-30°    | 425.2  | 9.0       |
| 0°-40°    | 673.4  | 14.2      |
| 0°-60°    | 1112.3 | 23.4      |
| 0°-90°    | 1339.6 | 28.2      |
| 90°-120°  | 727.4  | 15.3      |
| 90°-150°  | 2461.3 | 51.8      |
| 90°-180°  | 3408.0 | 71.8      |
| 0°-180°   | 4748.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 579  | 579   | 579  | 579   | 579  |      |
| 5°   | 578  | 576   | 571  | 575   | 574  | 55   |
| 15°  | 550  | 546   | 535  | 534   | 531  | 155  |
| 25°  | 498  | 490   | 471  | 464   | 460  | 229  |
| 35°  | 430  | 416   | 394  | 379   | 371  | 269  |
| 45°  | 351  | 334   | 308  | 286   | 278  | 271  |
| 55°  | 266  | 248   | 219  | 196   | 188  | 238  |
| 65°  | 181  | 162   | 133  | 114   | 109  | 179  |
| 75°  | 96   | 80    | 59   | 49    | 46   | 101  |
| 85°  | 24   | 15    | 14   | 13    | 13   | 26   |
| 90°  | 3    | 13    | 21   | 27    | 28   | 6    |
| 95°  | 57   | 66    | 72   | 75    | 75   | 62   |
| 105° | 221  | 222   | 226  | 229   | 232  | 235  |
| 115° | 414  | 414   | 412  | 411   | 410  | 409  |
| 125° | 603  | 603   | 602  | 600   | 598  | 538  |
| 135° | 778  | 784   | 784  | 782   | 779  | 602  |
| 145° | 945  | 949   | 950  | 949   | 946  | 592  |
| 155° | 1083 | 1083  | 1082 | 1086  | 1082 | 498  |
| 165° | 1179 | 1176  | 1174 | 1180  | 1176 | 332  |
| 175° | 1226 | 1222  | 1221 | 1228  | 1221 | 116  |
| 180° | 1228 | 1228  | 1228 | 1228  | 1228 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 578.6 | 578.6 | 578.6 | 578.6 | 578.6 |
| 2.5°   | 580.4 | 578.6 | 573.8 | 578.6 | 578.2 |
| 5°     | 577.7 | 576.0 | 570.7 | 575.1 | 574.2 |
| 7.5°   | 573.8 | 572.0 | 565.3 | 568.4 | 567.1 |
| 10°    | 567.6 | 565.3 | 557.4 | 559.1 | 557.4 |
| 12.5°  | 559.6 | 556.9 | 547.2 | 548.1 | 545.4 |
| 15°    | 550.3 | 546.3 | 535.2 | 534.3 | 531.2 |
| 17.5°  | 539.6 | 533.9 | 521.0 | 518.8 | 514.4 |
| 20°    | 526.8 | 521.0 | 506.0 | 502.4 | 496.7 |
| 22.5°  | 512.6 | 506.0 | 489.6 | 483.8 | 479.4 |
| 25°    | 497.6 | 489.6 | 471.4 | 463.9 | 459.5 |
| 27.5°  | 482.0 | 472.3 | 453.3 | 444.4 | 438.2 |
| 30°    | 465.7 | 454.6 | 433.8 | 422.7 | 415.6 |
| 32.5°  | 448.4 | 435.5 | 413.8 | 400.5 | 393.9 |
| 35°    | 430.2 | 416.0 | 393.9 | 378.8 | 370.8 |
| 37.5°  | 411.2 | 396.5 | 372.2 | 355.8 | 347.8 |
| 40°    | 390.8 | 376.2 | 350.9 | 332.3 | 324.3 |
| 42.5°  | 371.3 | 355.8 | 329.2 | 310.1 | 301.7 |
| 45°    | 350.9 | 334.5 | 307.9 | 286.2 | 278.2 |
| 47.5°  | 330.1 | 313.2 | 285.8 | 263.2 | 254.3 |
| 50°    | 308.8 | 291.5 | 263.2 | 241.0 | 232.6 |
| 52.5°  | 287.1 | 270.3 | 241.0 | 218.4 | 209.6 |
| 55°    | 265.8 | 248.1 | 219.3 | 196.3 | 187.9 |
| 57.5°  | 245.0 | 226.4 | 198.0 | 174.6 | 168.4 |
| 60°    | 222.4 | 204.7 | 176.3 | 153.3 | 146.2 |
| 62.5°  | 202.0 | 183.4 | 154.2 | 133.4 | 128.0 |
| 65°    | 180.8 | 161.7 | 133.4 | 114.3 | 109.0 |
| 67.5°  | 158.6 | 140.4 | 113.9 | 97.0  | 90.8  |
| 70°    | 137.8 | 119.2 | 93.9  | 79.3  | 74.9  |
| 72.5°  | 115.6 | 99.2  | 75.8  | 63.8  | 59.8  |
| 75°    | 96.1  | 79.8  | 58.9  | 48.7  | 46.1  |
| 77.5°  | 75.8  | 61.6  | 43.9  | 36.8  | 35.9  |
| 80°    | 56.3  | 43.4  | 30.1  | 28.8  | 28.4  |
| 82.5°  | 39.4  | 27.9  | 21.7  | 20.8  | 20.4  |
| 85°    | 23.9  | 15.1  | 13.7  | 12.8  | 12.8  |
| 87.5°  | 10.2  | 6.6   | 6.2   | 5.8   | 6.2   |
| 90°    | 2.9   | 13.3  | 20.9  | 26.6  | 28.5  |
| 92.5°  | 24.7  | 37.1  | 41.8  | 44.7  | 45.6  |
| 95°    | 57.0  | 65.6  | 72.2  | 75.1  | 75.1  |
| 97.5°  | 91.2  | 98.8  | 106.4 | 110.2 | 110.2 |
| 100°   | 133.0 | 136.8 | 145.4 | 147.3 | 147.3 |
| 102.5° | 176.7 | 177.7 | 185.3 | 188.1 | 189.1 |
| 105°   | 221.4 | 222.3 | 226.1 | 229.0 | 231.8 |
| 107.5° | 267.9 | 268.9 | 269.8 | 273.6 | 272.7 |
| 110°   | 315.4 | 317.3 | 316.4 | 314.5 | 317.3 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 364.8  | 364.8  | 362.9  | 362.9  | 362.9  |
| 115°   | 414.2  | 414.2  | 412.3  | 411.4  | 410.4  |
| 117.5° | 460.8  | 460.8  | 459.8  | 457.0  | 454.1  |
| 120°   | 507.3  | 511.1  | 508.3  | 503.5  | 505.4  |
| 122.5° | 555.8  | 556.7  | 555.8  | 552.9  | 548.2  |
| 125°   | 603.3  | 603.3  | 602.3  | 600.4  | 598.5  |
| 127.5° | 646.0  | 648.9  | 647.0  | 645.1  | 644.1  |
| 130°   | 691.6  | 694.5  | 694.5  | 692.6  | 688.8  |
| 132.5° | 738.2  | 740.1  | 739.1  | 737.2  | 736.3  |
| 135°   | 778.1  | 783.8  | 783.8  | 781.9  | 779.0  |
| 137.5° | 822.7  | 825.6  | 827.5  | 824.6  | 825.6  |
| 140°   | 867.4  | 869.3  | 869.3  | 868.3  | 867.4  |
| 142.5° | 908.2  | 910.1  | 909.2  | 909.2  | 909.2  |
| 145°   | 945.3  | 949.1  | 950.0  | 949.1  | 946.2  |
| 147.5° | 983.3  | 988.0  | 987.1  | 986.1  | 985.2  |
| 150°   | 1017.5 | 1021.3 | 1021.3 | 1021.3 | 1020.3 |
| 152.5° | 1049.8 | 1051.7 | 1052.6 | 1055.5 | 1052.6 |
| 155°   | 1083.0 | 1083.0 | 1082.1 | 1085.9 | 1082.1 |
| 157.5° | 1111.6 | 1109.7 | 1109.7 | 1112.5 | 1109.7 |
| 160°   | 1136.3 | 1135.3 | 1134.4 | 1137.2 | 1132.5 |
| 162.5° | 1159.1 | 1156.2 | 1155.3 | 1161.0 | 1156.2 |
| 165°   | 1179.0 | 1176.2 | 1174.3 | 1180.0 | 1176.2 |
| 167.5° | 1195.2 | 1191.4 | 1191.4 | 1197.1 | 1191.4 |
| 170°   | 1208.5 | 1203.7 | 1204.7 | 1210.4 | 1203.7 |
| 172.5° | 1218.0 | 1214.2 | 1214.2 | 1220.8 | 1214.2 |
| 175°   | 1226.5 | 1221.8 | 1220.8 | 1227.5 | 1220.8 |
| 177.5° | 1230.3 | 1225.6 | 1225.6 | 1232.2 | 1224.6 |
| 180°   | 1228.4 | 1228.4 | 1228.4 | 1228.4 | 1228.4 |

(END OF REPORT)