

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: P1025303

Luminaire Tested: S124DIP-B350D1205UB27-4F0-XX-W2A-D1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025303  
REPORT IS A COMBINATION OF REPORTS P995783 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B350D1205UB27-4F0-XX-W2A-D1  
Description: Define 4 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

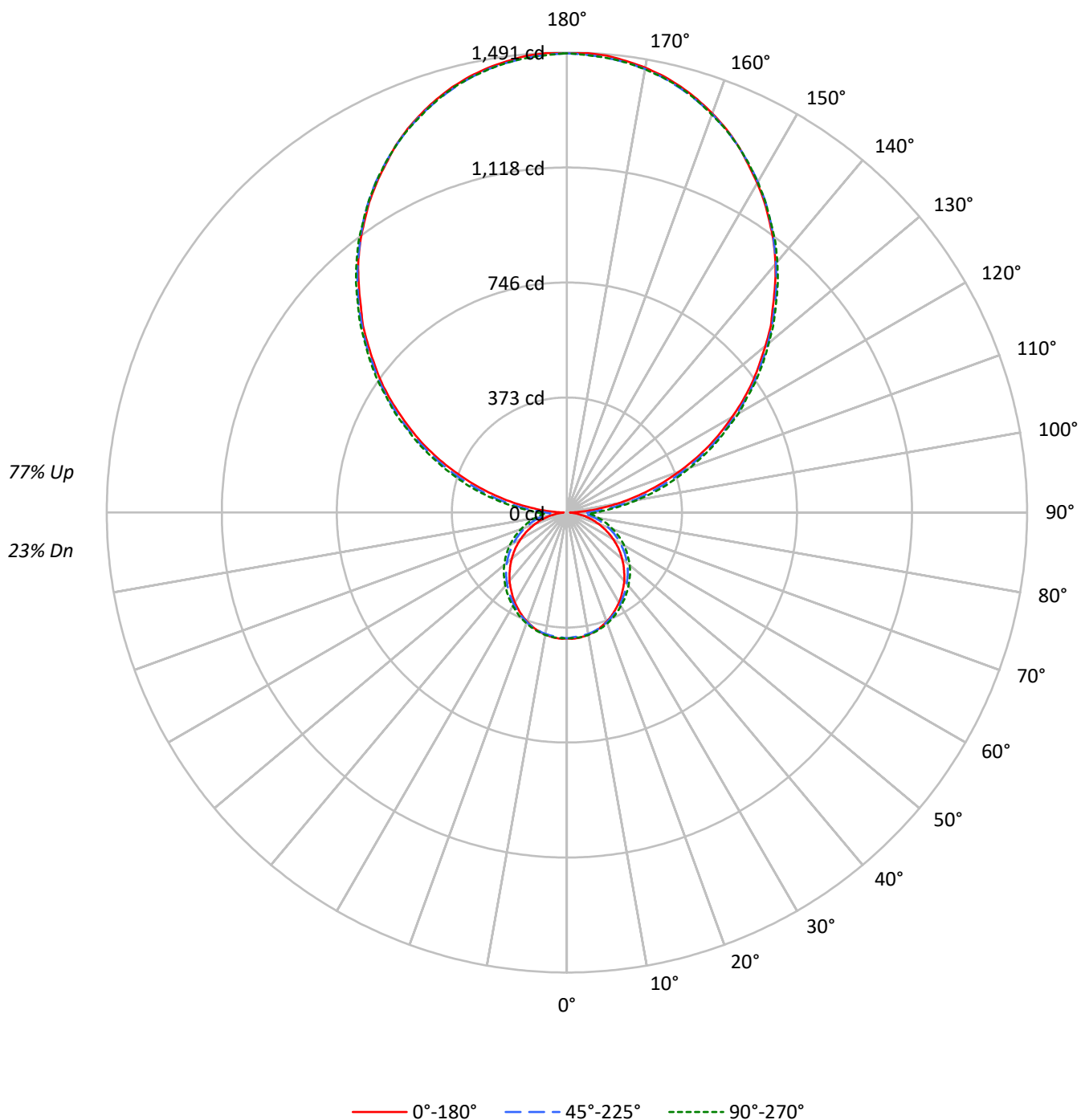
Lumens per Lamp: N/A  
Luminaire Lumens: 5524.0 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 48  
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   | 101 | 101 | 101 | 101 | 90 | 90 | 90 | 90 | 69 | 69 | 69 | 49 | 49 | 49 | 32 | 32 | 32 |
| 1   | 91  | 87  | 83  | 80  | 81 | 77 | 74 | 71 | 59 | 57 | 55 | 42 | 41 | 40 | 27 | 26 | 26 |
| 2   | 83  | 76  | 70  | 64  | 73 | 67 | 62 | 58 | 51 | 48 | 45 | 37 | 35 | 33 | 24 | 22 | 21 |
| 3   | 75  | 66  | 59  | 53  | 67 | 59 | 53 | 48 | 45 | 41 | 38 | 32 | 30 | 28 | 21 | 19 | 18 |
| 4   | 69  | 58  | 51  | 45  | 61 | 52 | 45 | 40 | 40 | 35 | 32 | 29 | 26 | 23 | 18 | 17 | 15 |
| 5   | 63  | 52  | 44  | 38  | 56 | 46 | 39 | 34 | 36 | 31 | 27 | 26 | 22 | 20 | 16 | 15 | 13 |
| 6   | 58  | 46  | 38  | 33  | 51 | 41 | 34 | 30 | 32 | 27 | 23 | 23 | 20 | 17 | 15 | 13 | 11 |
| 7   | 53  | 41  | 34  | 28  | 47 | 37 | 30 | 26 | 29 | 24 | 20 | 21 | 18 | 15 | 14 | 12 | 10 |
| 8   | 49  | 37  | 30  | 25  | 44 | 33 | 27 | 22 | 26 | 21 | 18 | 19 | 16 | 13 | 12 | 10 | 9  |
| 9   | 46  | 34  | 27  | 22  | 41 | 30 | 24 | 20 | 24 | 19 | 16 | 17 | 14 | 12 | 11 | 9  | 8  |
| 10  | 43  | 31  | 24  | 19  | 38 | 28 | 22 | 18 | 22 | 17 | 14 | 16 | 13 | 11 | 10 | 9  | 7  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3327 | 3327 | 3327 |
| 5°  | 3336 | 3240 | 3246 |
| 10° | 3314 | 3176 | 3168 |
| 15° | 3283 | 3105 | 3079 |
| 20° | 3238 | 3027 | 2993 |
| 25° | 3186 | 2942 | 2900 |
| 30° | 3130 | 2857 | 2805 |
| 35° | 3066 | 2770 | 2720 |
| 40° | 3015 | 2687 | 2633 |
| 45° | 2940 | 2609 | 2555 |
| 50° | 2877 | 2520 | 2474 |
| 55° | 2810 | 2435 | 2380 |
| 60° | 2707 | 2328 | 2292 |
| 65° | 2593 | 2214 | 2186 |
| 70° | 2456 | 2082 | 2062 |
| 75° | 2265 | 1937 | 1946 |
| 80° | 2048 | 1789 | 1822 |
| 85° | 1761 | 1640 | 1723 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 90°  
Luminance: 3523 cd/sqm

TEST NUMBER: P1025303

CATALOG NUMBER: S124DIP-B350D1205UB27-4F0-XX-W2A-D1

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 38.7   | 0.7       |
| 10°-20°   | 110.8  | 2.0       |
| 20°-30°   | 167.5  | 3.0       |
| 30°-40°   | 202.6  | 3.7       |
| 40°-50°   | 214.2  | 3.9       |
| 50°-60°   | 201.6  | 3.6       |
| 60°-70°   | 167.3  | 3.0       |
| 70°-80°   | 117.4  | 2.1       |
| 80°-90°   | 69.4   | 1.3       |
| 90°-100°  | 136.4  | 2.5       |
| 100°-110° | 319.8  | 5.8       |
| 110°-120° | 513.2  | 9.3       |
| 120°-130° | 662.1  | 12.0      |
| 130°-140° | 736.0  | 13.3      |
| 140°-150° | 719.7  | 13.0      |
| 150°-160° | 604.5  | 10.9      |
| 160°-170° | 402.2  | 7.3       |
| 170°-180° | 140.8  | 2.5       |
| 0°-30°    | 316.9  | 5.7       |
| 0°-40°    | 519.5  | 9.4       |
| 0°-60°    | 935.3  | 16.9      |
| 0°-90°    | 1289.3 | 23.3      |
| 90°-120°  | 969.4  | 17.5      |
| 90°-150°  | 3087.2 | 55.9      |
| 90°-180°  | 4235.0 | 76.7      |
| 0°-180°   | 5524.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 408  | 408   | 408  | 408   | 408  |      |
| 5°   | 408  | 407   | 404  | 408   | 407  | 39   |
| 15°  | 392  | 392   | 391  | 395   | 394  | 110  |
| 25°  | 358  | 361   | 362  | 367   | 368  | 165  |
| 35°  | 313  | 319   | 324  | 330   | 331  | 196  |
| 45°  | 261  | 270   | 279  | 286   | 289  | 202  |
| 55°  | 205  | 214   | 228  | 237   | 240  | 182  |
| 65°  | 142  | 156   | 172  | 183   | 187  | 140  |
| 75°  | 79   | 96    | 115  | 128   | 132  | 84   |
| 85°  | 24   | 43    | 64   | 78    | 82   | 25   |
| 90°  | 11   | 42    | 70   | 91    | 97   | 10   |
| 95°  | 75   | 100   | 127  | 143   | 147  | 80   |
| 105° | 272  | 283   | 304  | 319   | 326  | 289  |
| 115° | 505  | 509   | 521  | 530   | 532  | 498  |
| 125° | 733  | 732   | 743  | 749   | 749  | 653  |
| 135° | 944  | 951   | 954  | 959   | 958  | 730  |
| 145° | 1146 | 1150  | 1151 | 1153  | 1151 | 717  |
| 155° | 1312 | 1312  | 1311 | 1316  | 1311 | 604  |
| 165° | 1429 | 1425  | 1423 | 1430  | 1425 | 403  |
| 175° | 1486 | 1480  | 1479 | 1487  | 1479 | 141  |
| 180° | 1488 | 1488  | 1488 | 1488  | 1488 |      |

TEST NUMBER: P1025303

CATALOG NUMBER: S124DIP-B350D1205UB27-4F0-XX-W2A-D1

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 408.0 | 408.0 | 408.0 | 408.0 | 408.0 |
| 2.5°   | 409.8 | 408.4 | 404.8 | 408.0 | 407.5 |
| 5°     | 408.4 | 407.1 | 403.9 | 407.5 | 407.1 |
| 7.5°   | 405.7 | 404.8 | 402.0 | 406.2 | 405.7 |
| 10°    | 402.0 | 401.6 | 399.3 | 403.4 | 403.0 |
| 12.5°  | 397.0 | 397.0 | 395.7 | 399.3 | 399.3 |
| 15°    | 391.5 | 392.0 | 390.6 | 394.7 | 394.3 |
| 17.5°  | 384.2 | 385.6 | 385.1 | 389.3 | 388.8 |
| 20°    | 376.5 | 377.8 | 378.3 | 382.9 | 382.9 |
| 22.5°  | 367.8 | 369.6 | 370.5 | 375.1 | 376.0 |
| 25°    | 358.2 | 360.9 | 362.3 | 367.3 | 367.8 |
| 27.5°  | 347.7 | 351.8 | 353.6 | 358.2 | 358.6 |
| 30°    | 337.2 | 340.8 | 344.0 | 349.1 | 350.0 |
| 32.5°  | 325.8 | 330.3 | 334.0 | 339.9 | 340.8 |
| 35°    | 313.4 | 318.9 | 323.5 | 329.9 | 331.2 |
| 37.5°  | 301.1 | 307.5 | 313.0 | 319.4 | 320.7 |
| 40°    | 289.2 | 295.1 | 301.5 | 308.4 | 310.2 |
| 42.5°  | 275.5 | 282.3 | 290.1 | 297.9 | 299.3 |
| 45°    | 261.3 | 270.0 | 278.7 | 286.5 | 288.7 |
| 47.5°  | 248.1 | 256.8 | 266.8 | 274.6 | 277.3 |
| 50°    | 233.5 | 243.5 | 253.6 | 262.7 | 265.4 |
| 52.5°  | 218.8 | 228.9 | 240.8 | 249.9 | 252.7 |
| 55°    | 204.7 | 214.3 | 228.0 | 237.1 | 239.9 |
| 57.5°  | 188.7 | 200.6 | 213.8 | 224.8 | 227.1 |
| 60°    | 173.2 | 185.0 | 200.1 | 210.6 | 214.3 |
| 62.5°  | 158.1 | 171.3 | 186.4 | 196.9 | 200.6 |
| 65°    | 141.6 | 156.3 | 171.8 | 183.2 | 186.9 |
| 67.5°  | 126.1 | 141.6 | 158.1 | 169.5 | 173.2 |
| 70°    | 110.1 | 125.6 | 143.0 | 155.3 | 158.5 |
| 72.5°  | 94.6  | 110.6 | 129.3 | 141.2 | 144.8 |
| 75°    | 78.6  | 95.5  | 114.7 | 127.5 | 131.6 |
| 77.5°  | 63.5  | 81.3  | 101.4 | 114.2 | 118.8 |
| 80°    | 49.8  | 68.1  | 88.2  | 101.9 | 105.5 |
| 82.5°  | 36.1  | 55.3  | 75.4  | 89.5  | 93.7  |
| 85°    | 24.2  | 43.4  | 64.0  | 77.7  | 82.2  |
| 87.5°  | 15.1  | 33.8  | 53.9  | 67.2  | 71.3  |
| 90°    | 10.8  | 41.7  | 70.5  | 90.7  | 96.6  |
| 92.5°  | 36.8  | 67.7  | 93.2  | 109.4 | 114.2 |
| 95°    | 75.0  | 100.4 | 127.2 | 143.0 | 147.1 |
| 97.5°  | 116.0 | 138.4 | 166.4 | 182.8 | 187.0 |
| 100°   | 166.2 | 182.7 | 210.8 | 225.5 | 228.7 |
| 102.5° | 219.1 | 230.4 | 256.9 | 272.2 | 277.1 |
| 105°   | 272.3 | 282.6 | 304.2 | 319.0 | 326.1 |
| 107.5° | 328.7 | 337.7 | 354.8 | 370.8 | 372.9 |
| 110°   | 385.9 | 394.6 | 409.3 | 417.5 | 424.7 |

TEST NUMBER: P1025303

CATALOG NUMBER: S124DIP-B350D1205UB27-4F0-XX-W2A-D1

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 445.2  | 450.7  | 463.5  | 473.5  | 477.2  |
| 115°   | 504.6  | 508.8  | 521.1  | 529.9  | 532.0  |
| 117.5° | 561.0  | 563.8  | 576.4  | 582.5  | 582.6  |
| 120°   | 617.0  | 623.0  | 632.8  | 636.1  | 642.1  |
| 122.5° | 675.7  | 676.9  | 688.0  | 693.8  | 691.2  |
| 125°   | 732.8  | 732.4  | 742.6  | 749.0  | 749.4  |
| 127.5° | 784.6  | 787.6  | 794.4  | 800.3  | 802.4  |
| 130°   | 839.4  | 842.4  | 849.7  | 855.6  | 853.8  |
| 132.5° | 895.8  | 897.6  | 902.0  | 907.5  | 909.0  |
| 135°   | 943.7  | 950.6  | 953.8  | 958.8  | 958.1  |
| 137.5° | 997.8  | 1000.8 | 1004.9 | 1008.3 | 1011.7 |
| 140°   | 1051.9 | 1053.8 | 1054.2 | 1059.0 | 1060.1 |
| 142.5° | 1101.0 | 1103.3 | 1101.6 | 1106.6 | 1108.5 |
| 145°   | 1145.9 | 1150.0 | 1151.1 | 1152.7 | 1151.1 |
| 147.5° | 1191.9 | 1197.2 | 1196.0 | 1195.4 | 1196.0 |
| 150°   | 1233.4 | 1237.5 | 1237.5 | 1237.5 | 1236.3 |
| 152.5° | 1272.0 | 1274.3 | 1275.5 | 1278.9 | 1275.5 |
| 155°   | 1312.3 | 1312.3 | 1311.1 | 1315.7 | 1311.1 |
| 157.5° | 1346.8 | 1344.5 | 1344.5 | 1348.0 | 1344.5 |
| 160°   | 1376.8 | 1375.6 | 1374.5 | 1377.9 | 1372.2 |
| 162.5° | 1404.4 | 1400.9 | 1399.8 | 1406.7 | 1400.9 |
| 165°   | 1428.6 | 1425.1 | 1422.8 | 1429.7 | 1425.1 |
| 167.5° | 1448.1 | 1443.5 | 1443.5 | 1450.4 | 1443.5 |
| 170°   | 1464.2 | 1458.5 | 1459.6 | 1466.5 | 1458.5 |
| 172.5° | 1475.8 | 1471.2 | 1471.2 | 1479.2 | 1471.2 |
| 175°   | 1486.1 | 1480.4 | 1479.2 | 1487.3 | 1479.2 |
| 177.5° | 1490.7 | 1485.0 | 1485.0 | 1493.0 | 1483.8 |
| 180°   | 1488.4 | 1488.4 | 1488.4 | 1488.4 | 1488.4 |

(END OF REPORT)