

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: P1025168

Luminaire Tested: S124DIP-B1195D590UB27-4F0-XX-W2A-D1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025168  
REPORT IS A COMBINATION OF REPORTS P995603 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B1195D590UB27-4F0-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**

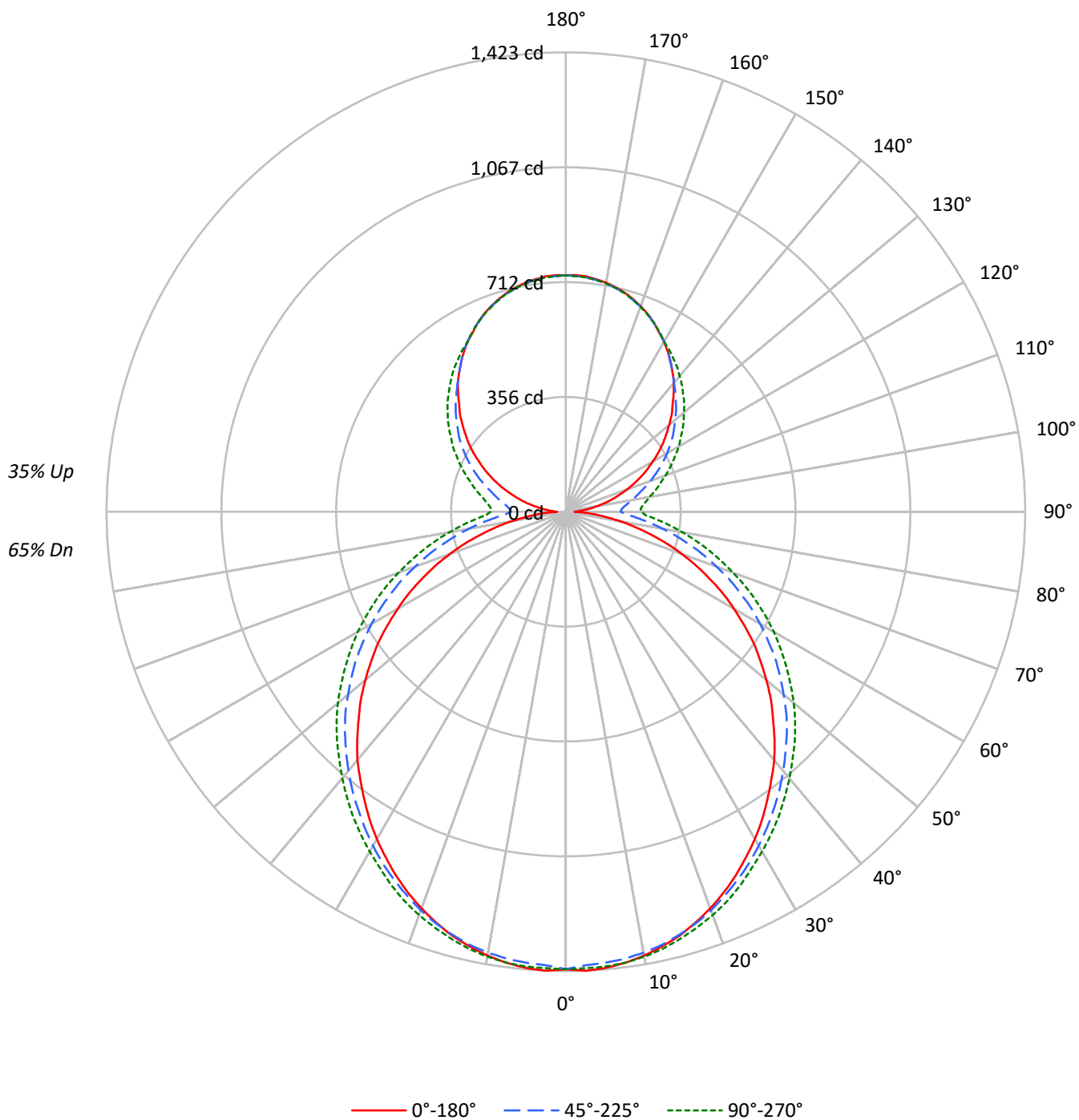
Lumens per Lamp: N/A  
Luminaire Lumens: 6865.0 lumens  
Efficiency: N/A  
Efficacy: 89.5 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 76.7  
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   | 111 | 111 | 111 | 111 | 104 | 104 | 104 | 104 | 92 | 92 | 92 | 80 | 80 | 80 | 70 | 70 | 70 |
| 1   | 100 | 95  | 90  | 86  | 94  | 89  | 85  | 82  | 79 | 76 | 73 | 69 | 67 | 64 | 60 | 58 | 57 |
| 2   | 90  | 82  | 75  | 69  | 85  | 77  | 71  | 66  | 68 | 63 | 59 | 60 | 56 | 53 | 52 | 49 | 47 |
| 3   | 82  | 72  | 64  | 57  | 77  | 68  | 60  | 54  | 60 | 54 | 49 | 52 | 48 | 44 | 45 | 42 | 39 |
| 4   | 75  | 63  | 55  | 48  | 70  | 60  | 52  | 46  | 53 | 46 | 42 | 46 | 41 | 37 | 40 | 36 | 33 |
| 5   | 69  | 56  | 47  | 41  | 64  | 53  | 45  | 39  | 47 | 41 | 36 | 41 | 36 | 32 | 36 | 32 | 29 |
| 6   | 63  | 50  | 42  | 35  | 59  | 48  | 40  | 34  | 42 | 36 | 31 | 37 | 32 | 28 | 33 | 28 | 25 |
| 7   | 59  | 45  | 37  | 31  | 55  | 43  | 35  | 30  | 38 | 32 | 27 | 34 | 29 | 25 | 30 | 26 | 22 |
| 8   | 54  | 41  | 33  | 27  | 51  | 39  | 32  | 26  | 35 | 29 | 24 | 31 | 26 | 22 | 27 | 23 | 20 |
| 9   | 51  | 38  | 30  | 24  | 47  | 36  | 28  | 24  | 32 | 26 | 22 | 29 | 23 | 20 | 25 | 21 | 18 |
| 10  | 47  | 35  | 27  | 22  | 44  | 33  | 26  | 21  | 30 | 24 | 19 | 26 | 21 | 18 | 23 | 19 | 16 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11555 | 11555 | 11555 |
| 5°  | 11586 | 11254 | 11274 |
| 10° | 11511 | 11032 | 11000 |
| 15° | 11403 | 10783 | 10692 |
| 20° | 11244 | 10513 | 10393 |
| 25° | 11064 | 10216 | 10070 |
| 30° | 10869 | 9922  | 9740  |
| 35° | 10649 | 9621  | 9447  |
| 40° | 10472 | 9331  | 9144  |
| 45° | 10211 | 9060  | 8875  |
| 50° | 9988  | 8752  | 8592  |
| 55° | 9758  | 8456  | 8266  |
| 60° | 9401  | 8086  | 7959  |
| 65° | 9008  | 7688  | 7590  |
| 70° | 8531  | 7233  | 7163  |
| 75° | 7864  | 6726  | 6757  |
| 80° | 7115  | 6210  | 6331  |
| 85° | 6120  | 5691  | 5986  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10211 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 134.3  | 2.0       |
| 10°-20°   | 384.7  | 5.6       |
| 20°-30°   | 581.6  | 8.5       |
| 30°-40°   | 703.7  | 10.3      |
| 40°-50°   | 743.9  | 10.8      |
| 50°-60°   | 700.1  | 10.2      |
| 60°-70°   | 581.0  | 8.5       |
| 70°-80°   | 407.7  | 5.9       |
| 80°-90°   | 231.4  | 3.4       |
| 90°-100°  | 184.6  | 2.7       |
| 100°-110° | 244.3  | 3.6       |
| 110°-120° | 310.9  | 4.5       |
| 120°-130° | 358.7  | 5.2       |
| 130°-140° | 376.4  | 5.5       |
| 140°-150° | 357.0  | 5.2       |
| 150°-160° | 297.5  | 4.3       |
| 160°-170° | 197.9  | 2.9       |
| 170°-180° | 69.3   | 1.0       |
| 0°-30°    | 1100.6 | 16.0      |
| 0°-40°    | 1804.2 | 26.3      |
| 0°-60°    | 3248.2 | 47.3      |
| 0°-90°    | 4468.2 | 65.1      |
| 90°-120°  | 739.9  | 10.8      |
| 90°-150°  | 1832.0 | 26.7      |
| 90°-180°  | 2397.0 | 34.9      |
| 0°-180°   | 6865.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1417 | 1417  | 1417 | 1417  | 1417 |      |
| 5°   | 1418 | 1414  | 1403 | 1415  | 1414 | 135  |
| 15°  | 1360 | 1361  | 1357 | 1371  | 1369 | 383  |
| 25°  | 1244 | 1254  | 1258 | 1276  | 1277 | 573  |
| 35°  | 1088 | 1108  | 1123 | 1146  | 1150 | 682  |
| 45°  | 908  | 938   | 968  | 995   | 1003 | 701  |
| 55°  | 711  | 744   | 792  | 824   | 833  | 633  |
| 65°  | 492  | 543   | 597  | 636   | 649  | 488  |
| 75°  | 273  | 332   | 398  | 443   | 457  | 290  |
| 85°  | 84   | 151   | 222  | 270   | 286  | 88   |
| 90°  | 27   | 97    | 170  | 219   | 233  | 20   |
| 95°  | 55   | 112   | 181  | 226   | 240  | 53   |
| 105° | 146  | 179   | 240  | 281   | 295  | 156  |
| 115° | 256  | 271   | 320  | 355   | 365  | 254  |
| 125° | 366  | 364   | 404  | 433   | 441  | 327  |
| 135° | 467  | 471   | 482  | 506   | 514  | 362  |
| 145° | 565  | 566   | 566  | 575   | 580  | 354  |
| 155° | 646  | 646   | 645  | 648   | 645  | 297  |
| 165° | 703  | 701   | 700  | 704   | 701  | 198  |
| 175° | 731  | 728   | 728  | 732   | 728  | 69   |
| 180° | 732  | 732   | 732  | 732   | 732  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1417.0 | 1417.0 | 1417.0 | 1417.0 | 1417.0 |
| 2.5°   | 1423.3 | 1418.5 | 1405.9 | 1417.0 | 1415.4 |
| 5°     | 1418.5 | 1413.8 | 1402.7 | 1415.4 | 1413.8 |
| 7.5°   | 1409.0 | 1405.9 | 1396.3 | 1410.6 | 1409.0 |
| 10°    | 1396.3 | 1394.7 | 1386.8 | 1401.1 | 1399.5 |
| 12.5°  | 1378.9 | 1378.9 | 1374.1 | 1386.8 | 1386.8 |
| 15°    | 1359.8 | 1361.4 | 1356.7 | 1370.9 | 1369.4 |
| 17.5°  | 1334.5 | 1339.2 | 1337.6 | 1351.9 | 1350.3 |
| 20°    | 1307.5 | 1312.2 | 1313.8 | 1329.7 | 1329.7 |
| 22.5°  | 1277.3 | 1283.7 | 1286.8 | 1302.7 | 1305.9 |
| 25°    | 1244.0 | 1253.5 | 1258.3 | 1275.7 | 1277.3 |
| 27.5°  | 1207.5 | 1221.8 | 1228.1 | 1244.0 | 1245.6 |
| 30°    | 1171.0 | 1183.7 | 1194.8 | 1212.3 | 1215.4 |
| 32.5°  | 1131.3 | 1147.2 | 1159.9 | 1180.5 | 1183.7 |
| 35°    | 1088.5 | 1107.5 | 1123.4 | 1145.6 | 1150.4 |
| 37.5°  | 1045.7 | 1067.9 | 1086.9 | 1109.1 | 1113.9 |
| 40°    | 1004.4 | 1025.0 | 1047.2 | 1071.1 | 1077.4 |
| 42.5°  | 956.8  | 980.6  | 1007.6 | 1034.6 | 1039.3 |
| 45°    | 907.6  | 937.8  | 967.9  | 994.9  | 1002.8 |
| 47.5°  | 861.6  | 891.7  | 926.7  | 953.6  | 963.2  |
| 50°    | 810.8  | 845.7  | 880.6  | 912.4  | 921.9  |
| 52.5°  | 760.0  | 795.0  | 836.2  | 867.9  | 877.5  |
| 55°    | 710.9  | 744.2  | 791.8  | 823.5  | 833.0  |
| 57.5°  | 655.3  | 696.6  | 742.6  | 780.7  | 788.6  |
| 60°    | 601.4  | 642.6  | 695.0  | 731.5  | 744.2  |
| 62.5°  | 549.0  | 595.0  | 647.4  | 683.9  | 696.6  |
| 65°    | 491.9  | 542.7  | 596.6  | 636.3  | 649.0  |
| 67.5°  | 437.9  | 491.9  | 549.0  | 588.7  | 601.4  |
| 70°    | 382.4  | 436.4  | 496.7  | 539.5  | 550.6  |
| 72.5°  | 328.5  | 384.0  | 449.0  | 490.3  | 503.0  |
| 75°    | 272.9  | 331.6  | 398.3  | 442.7  | 457.0  |
| 77.5°  | 220.6  | 282.4  | 352.3  | 396.7  | 412.6  |
| 80°    | 173.0  | 236.4  | 306.2  | 353.8  | 366.5  |
| 82.5°  | 125.4  | 192.0  | 261.8  | 311.0  | 325.3  |
| 85°    | 84.1   | 150.7  | 222.1  | 269.7  | 285.6  |
| 87.5°  | 52.4   | 117.4  | 187.2  | 233.3  | 247.5  |
| 90°    | 27.1   | 96.8   | 169.6  | 219.0  | 232.8  |
| 92.5°  | 38.5   | 101.4  | 172.5  | 218.6  | 231.9  |
| 95°    | 54.6   | 112.1  | 181.1  | 225.7  | 240.0  |
| 97.5°  | 73.4   | 124.0  | 193.5  | 237.1  | 251.3  |
| 100°   | 96.8   | 140.3  | 207.3  | 251.2  | 262.3  |
| 102.5° | 122.9  | 158.3  | 223.2  | 266.1  | 279.3  |
| 105°   | 146.3  | 178.6  | 239.5  | 280.9  | 295.3  |
| 107.5° | 174.1  | 201.6  | 257.7  | 299.7  | 310.2  |
| 110°   | 200.8  | 224.1  | 279.0  | 314.4  | 328.8  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 228.6 | 247.6 | 298.9 | 333.8 | 346.5 |
| 115°   | 256.5 | 270.8 | 320.5 | 354.8 | 365.3 |
| 117.5° | 284.3 | 293.8 | 340.8 | 372.5 | 383.5 |
| 120°   | 310.4 | 317.5 | 361.8 | 390.7 | 404.5 |
| 122.5° | 339.3 | 339.9 | 382.2 | 412.2 | 420.5 |
| 125°   | 366.0 | 364.5 | 403.6 | 432.6 | 441.0 |
| 127.5° | 391.5 | 391.7 | 422.3 | 449.8 | 460.3 |
| 130°   | 417.2 | 417.3 | 442.7 | 470.1 | 477.3 |
| 132.5° | 445.0 | 444.5 | 462.9 | 488.8 | 497.8 |
| 135°   | 467.2 | 470.6 | 481.7 | 505.9 | 513.7 |
| 137.5° | 493.8 | 493.9 | 501.3 | 523.4 | 532.0 |
| 140°   | 520.4 | 520.0 | 521.6 | 541.6 | 548.9 |
| 142.5° | 543.2 | 544.3 | 542.2 | 559.7 | 566.0 |
| 145°   | 565.3 | 565.9 | 566.5 | 575.4 | 580.2 |
| 147.5° | 587.9 | 589.2 | 588.6 | 589.6 | 595.4 |
| 150°   | 608.3 | 609.0 | 609.0 | 609.0 | 608.4 |
| 152.5° | 626.0 | 627.1 | 627.7 | 629.4 | 627.7 |
| 155°   | 645.8 | 645.8 | 645.3 | 647.5 | 645.3 |
| 157.5° | 662.8 | 661.7 | 661.7 | 663.4 | 661.7 |
| 160°   | 677.6 | 677.0 | 676.4 | 678.1 | 675.3 |
| 162.5° | 691.2 | 689.5 | 688.9 | 692.3 | 689.5 |
| 165°   | 703.0 | 701.3 | 700.2 | 703.6 | 701.3 |
| 167.5° | 712.7 | 710.4 | 710.4 | 713.8 | 710.4 |
| 170°   | 720.6 | 717.8 | 718.3 | 721.7 | 717.8 |
| 172.5° | 726.3 | 724.0 | 724.0 | 728.0 | 724.0 |
| 175°   | 731.4 | 728.5 | 728.0 | 731.9 | 728.0 |
| 177.5° | 733.6 | 730.8 | 730.8 | 734.8 | 730.2 |
| 180°   | 732.5 | 732.5 | 732.5 | 732.5 | 732.5 |

(END OF REPORT)