

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: P1025239

Luminaire Tested: S124DIP-B1195D810UB40-4F0-XX-W2A-D

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025239  
REPORT IS A COMBINATION OF REPORTS P995704 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B1195D810UB40-4F0-XX-W2A-D  
Description: Define 4 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

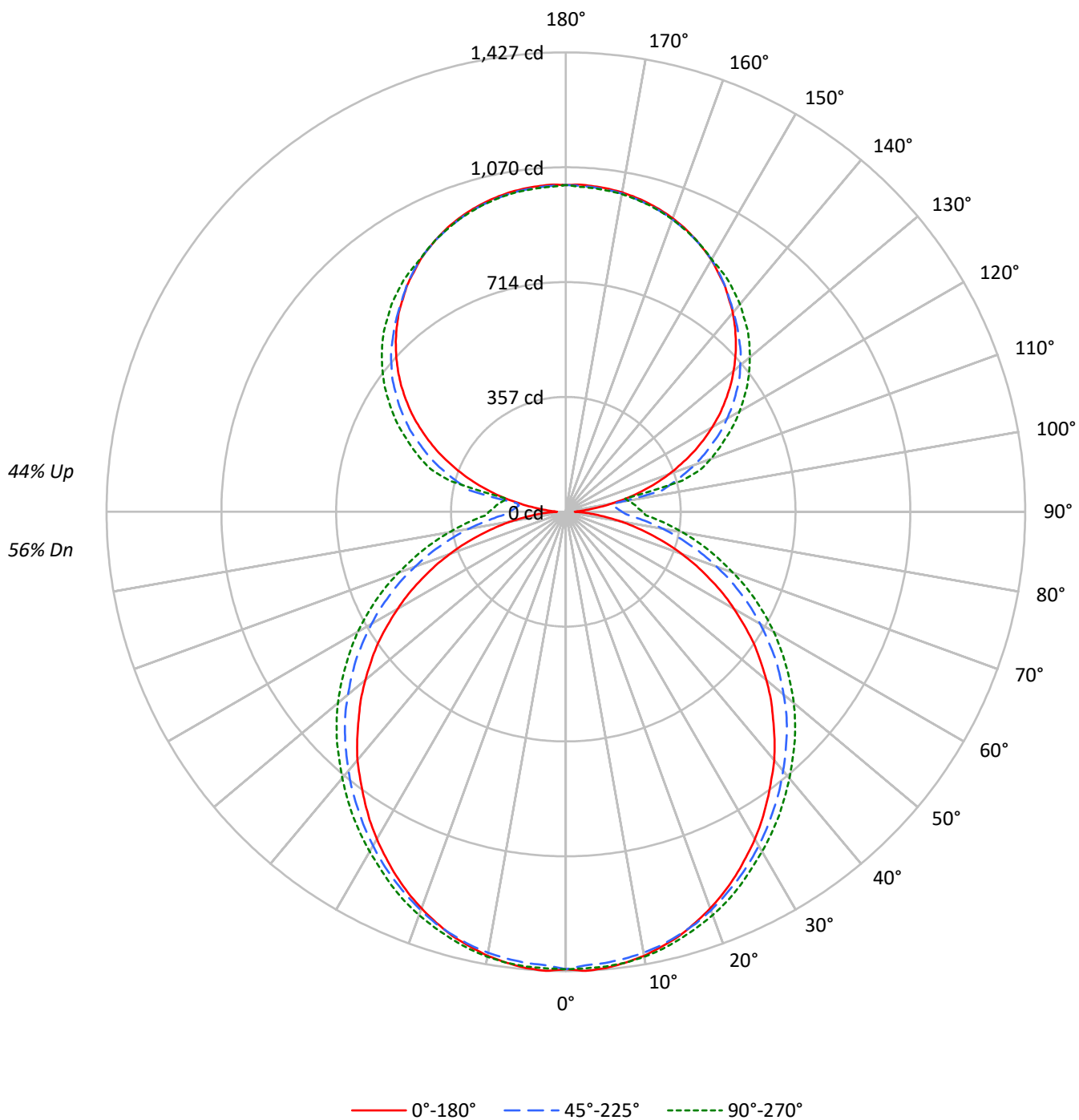
Lumens per Lamp: N/A  
Luminaire Lumens: 7988.0 lumens  
Efficiency: N/A  
Efficacy: 96.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 82.4  
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   | 109 | 109 | 109 | 109 | 101 | 101 | 101 | 101 | 87 | 87 | 87 | 74 | 74 | 74 | 62 | 62 | 62 |
| 1   | 98  | 93  | 89  | 85  | 91  | 87  | 83  | 79  | 74 | 72 | 69 | 63 | 61 | 59 | 53 | 51 | 50 |
| 2   | 89  | 81  | 74  | 68  | 82  | 75  | 69  | 64  | 65 | 60 | 56 | 55 | 51 | 48 | 46 | 43 | 41 |
| 3   | 81  | 71  | 63  | 56  | 75  | 66  | 59  | 53  | 57 | 51 | 47 | 48 | 44 | 40 | 40 | 37 | 34 |
| 4   | 74  | 62  | 54  | 47  | 68  | 58  | 50  | 45  | 50 | 44 | 39 | 43 | 38 | 34 | 36 | 32 | 29 |
| 5   | 68  | 55  | 47  | 40  | 62  | 52  | 44  | 38  | 45 | 38 | 34 | 38 | 33 | 30 | 32 | 28 | 25 |
| 6   | 62  | 49  | 41  | 35  | 57  | 46  | 39  | 33  | 40 | 34 | 29 | 34 | 29 | 26 | 29 | 25 | 22 |
| 7   | 57  | 45  | 36  | 30  | 53  | 42  | 34  | 29  | 36 | 30 | 26 | 31 | 26 | 23 | 26 | 23 | 20 |
| 8   | 53  | 40  | 32  | 27  | 49  | 38  | 31  | 26  | 33 | 27 | 23 | 28 | 24 | 20 | 24 | 20 | 17 |
| 9   | 50  | 37  | 29  | 24  | 46  | 35  | 28  | 23  | 30 | 24 | 20 | 26 | 21 | 18 | 22 | 19 | 16 |
| 10  | 46  | 34  | 26  | 21  | 43  | 32  | 25  | 20  | 28 | 22 | 18 | 24 | 20 | 16 | 21 | 17 | 14 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11588 | 11588 | 11588 |
| 5°  | 11620 | 11286 | 11307 |
| 10° | 11545 | 11064 | 11033 |
| 15° | 11437 | 10814 | 10723 |
| 20° | 11277 | 10544 | 10422 |
| 25° | 11096 | 10246 | 10099 |
| 30° | 10901 | 9951  | 9769  |
| 35° | 10681 | 9649  | 9474  |
| 40° | 10502 | 9359  | 9170  |
| 45° | 10241 | 9087  | 8901  |
| 50° | 10018 | 8778  | 8617  |
| 55° | 9786  | 8480  | 8290  |
| 60° | 9428  | 8109  | 7982  |
| 65° | 9034  | 7709  | 7612  |
| 70° | 8556  | 7253  | 7184  |
| 75° | 7887  | 6745  | 6776  |
| 80° | 7136  | 6228  | 6350  |
| 85° | 6134  | 5709  | 6003  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10241 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 134.6  | 1.7       |
| 10°-20°   | 385.8  | 4.8       |
| 20°-30°   | 583.3  | 7.3       |
| 30°-40°   | 705.7  | 8.8       |
| 40°-50°   | 746.0  | 9.3       |
| 50°-60°   | 702.1  | 8.8       |
| 60°-70°   | 582.6  | 7.3       |
| 70°-80°   | 408.9  | 5.1       |
| 80°-90°   | 232.6  | 2.9       |
| 90°-100°  | 170.9  | 2.1       |
| 100°-110° | 323.5  | 4.0       |
| 110°-120° | 491.9  | 6.2       |
| 120°-130° | 576.3  | 7.2       |
| 130°-140° | 592.0  | 7.4       |
| 140°-150° | 541.4  | 6.8       |
| 150°-160° | 433.9  | 5.4       |
| 160°-170° | 279.8  | 3.5       |
| 170°-180° | 96.4   | 1.2       |
| 0°-30°    | 1103.7 | 13.8      |
| 0°-40°    | 1809.5 | 22.7      |
| 0°-60°    | 3257.6 | 40.8      |
| 0°-90°    | 4481.7 | 56.1      |
| 90°-120°  | 986.3  | 12.3      |
| 90°-150°  | 2696.1 | 33.8      |
| 90°-180°  | 3506.0 | 43.9      |
| 0°-180°   | 7988.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1421 | 1421  | 1421 | 1421  | 1421 |      |
| 5°   | 1423 | 1418  | 1407 | 1420  | 1418 | 135  |
| 15°  | 1364 | 1365  | 1361 | 1375  | 1373 | 384  |
| 25°  | 1248 | 1257  | 1262 | 1279  | 1281 | 575  |
| 35°  | 1092 | 1111  | 1127 | 1149  | 1154 | 684  |
| 45°  | 910  | 940   | 971  | 998   | 1006 | 704  |
| 55°  | 713  | 746   | 794  | 826   | 836  | 635  |
| 65°  | 493  | 544   | 598  | 638   | 651  | 489  |
| 75°  | 274  | 333   | 399  | 444   | 458  | 291  |
| 85°  | 84   | 151   | 223  | 270   | 286  | 88   |
| 90°  | 28   | 100   | 174  | 225   | 239  | 20   |
| 95°  | 62   | 89    | 155  | 203   | 218  | 68   |
| 105° | 243  | 279   | 342  | 388   | 374  | 255  |
| 115° | 436  | 453   | 503  | 540   | 551  | 430  |
| 125° | 606  | 608   | 646  | 678   | 689  | 542  |
| 135° | 747  | 746   | 761  | 788   | 799  | 576  |
| 145° | 860  | 860   | 860  | 870   | 878  | 537  |
| 155° | 941  | 941   | 939  | 942   | 940  | 434  |
| 165° | 992  | 988   | 988  | 994   | 988  | 280  |
| 175° | 1015 | 1010  | 1011 | 1018  | 1009 | 97   |
| 180° | 1015 | 1015  | 1015 | 1015  | 1015 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1421.1 | 1421.1 | 1421.1 | 1421.1 | 1421.1 |
| 2.5°   | 1427.4 | 1422.7 | 1409.9 | 1421.1 | 1419.5 |
| 5°     | 1422.7 | 1417.9 | 1406.7 | 1419.5 | 1417.9 |
| 7.5°   | 1413.1 | 1409.9 | 1400.4 | 1414.7 | 1413.1 |
| 10°    | 1400.4 | 1398.8 | 1390.8 | 1405.2 | 1403.6 |
| 12.5°  | 1382.9 | 1382.9 | 1378.1 | 1390.8 | 1390.8 |
| 15°    | 1363.8 | 1365.4 | 1360.6 | 1374.9 | 1373.3 |
| 17.5°  | 1338.3 | 1343.1 | 1341.5 | 1355.8 | 1354.2 |
| 20°    | 1311.3 | 1316.0 | 1317.6 | 1333.5 | 1333.5 |
| 22.5°  | 1281.0 | 1287.4 | 1290.6 | 1306.5 | 1309.7 |
| 25°    | 1247.6 | 1257.2 | 1261.9 | 1279.4 | 1281.0 |
| 27.5°  | 1211.0 | 1225.3 | 1231.7 | 1247.6 | 1249.2 |
| 30°    | 1174.4 | 1187.1 | 1198.3 | 1215.8 | 1219.0 |
| 32.5°  | 1134.6 | 1150.5 | 1163.3 | 1184.0 | 1187.1 |
| 35°    | 1091.7 | 1110.8 | 1126.7 | 1148.9 | 1153.7 |
| 37.5°  | 1048.7 | 1071.0 | 1090.1 | 1112.3 | 1117.1 |
| 40°    | 1007.3 | 1028.0 | 1050.3 | 1074.2 | 1080.5 |
| 42.5°  | 959.6  | 983.4  | 1010.5 | 1037.6 | 1042.3 |
| 45°    | 910.2  | 940.5  | 970.7  | 997.8  | 1005.7 |
| 47.5°  | 864.1  | 894.3  | 929.3  | 956.4  | 965.9  |
| 50°    | 813.2  | 848.2  | 883.2  | 915.0  | 924.6  |
| 52.5°  | 762.3  | 797.3  | 838.6  | 870.5  | 880.0  |
| 55°    | 712.9  | 746.3  | 794.1  | 825.9  | 835.5  |
| 57.5°  | 657.2  | 698.6  | 744.7  | 782.9  | 790.9  |
| 60°    | 603.1  | 644.5  | 697.0  | 733.6  | 746.3  |
| 62.5°  | 550.6  | 596.8  | 649.3  | 685.9  | 698.6  |
| 65°    | 493.3  | 544.2  | 598.3  | 638.1  | 650.9  |
| 67.5°  | 439.2  | 493.3  | 550.6  | 590.4  | 603.1  |
| 70°    | 383.5  | 437.6  | 498.1  | 541.1  | 552.2  |
| 72.5°  | 329.4  | 385.1  | 450.3  | 491.7  | 504.5  |
| 75°    | 273.7  | 332.6  | 399.4  | 444.0  | 458.3  |
| 77.5°  | 221.2  | 283.3  | 353.3  | 397.8  | 413.7  |
| 80°    | 173.5  | 237.1  | 307.1  | 354.9  | 367.6  |
| 82.5°  | 125.7  | 192.6  | 262.6  | 311.9  | 326.2  |
| 85°    | 84.3   | 151.2  | 222.8  | 270.5  | 286.4  |
| 87.5°  | 52.5   | 117.8  | 187.8  | 233.9  | 248.2  |
| 90°    | 27.8   | 99.7   | 174.2  | 225.0  | 239.2  |
| 92.5°  | 35.3   | 89.5   | 163.9  | 213.1  | 225.8  |
| 95°    | 62.5   | 89.1   | 155.1  | 202.7  | 217.7  |
| 97.5°  | 98.8   | 161.6  | 147.2  | 192.4  | 207.5  |
| 100°   | 142.0  | 197.1  | 154.3  | 184.4  | 196.3  |
| 102.5° | 192.1  | 236.2  | 305.8  | 176.4  | 189.1  |
| 105°   | 242.8  | 279.2  | 341.9  | 388.5  | 373.9  |
| 107.5° | 292.2  | 321.5  | 382.6  | 426.2  | 440.3  |
| 110°   | 340.7  | 365.2  | 425.5  | 463.6  | 478.6  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 387.7  | 411.3  | 465.3  | 499.7  | 515.4  |
| 115°   | 436.2  | 452.8  | 503.0  | 539.5  | 550.6  |
| 117.5° | 481.0  | 493.6  | 543.6  | 576.3  | 589.0  |
| 120°   | 525.0  | 532.7  | 578.2  | 611.5  | 622.7  |
| 122.5° | 567.5  | 569.0  | 613.5  | 646.0  | 655.7  |
| 125°   | 606.2  | 607.6  | 645.9  | 678.4  | 688.6  |
| 127.5° | 644.9  | 644.0  | 679.6  | 707.5  | 717.9  |
| 130°   | 680.5  | 679.6  | 707.3  | 736.8  | 746.3  |
| 132.5° | 714.6  | 714.6  | 736.7  | 764.5  | 773.3  |
| 135°   | 747.2  | 746.5  | 760.6  | 787.6  | 798.6  |
| 137.5° | 777.6  | 776.0  | 786.2  | 811.5  | 818.7  |
| 140°   | 807.2  | 807.1  | 810.2  | 833.2  | 841.9  |
| 142.5° | 832.2  | 835.2  | 834.4  | 853.4  | 859.8  |
| 145°   | 859.5  | 860.2  | 860.2  | 870.4  | 878.3  |
| 147.5° | 880.7  | 883.7  | 882.9  | 885.3  | 892.5  |
| 150°   | 904.3  | 905.7  | 905.0  | 905.0  | 905.7  |
| 152.5° | 922.4  | 924.7  | 923.2  | 924.7  | 923.9  |
| 155°   | 940.6  | 941.4  | 939.1  | 942.2  | 939.9  |
| 157.5° | 956.6  | 956.6  | 953.5  | 957.3  | 953.5  |
| 160°   | 970.3  | 968.0  | 967.2  | 971.8  | 967.2  |
| 162.5° | 982.4  | 979.4  | 978.6  | 983.2  | 977.8  |
| 165°   | 992.3  | 988.5  | 988.5  | 994.5  | 987.7  |
| 167.5° | 1000.6 | 996.8  | 996.1  | 1002.9 | 995.3  |
| 170°   | 1007.5 | 1002.9 | 1003.7 | 1009.7 | 1002.1 |
| 172.5° | 1012.0 | 1007.5 | 1008.2 | 1014.3 | 1005.9 |
| 175°   | 1015.0 | 1010.5 | 1011.2 | 1018.1 | 1009.0 |
| 177.5° | 1017.3 | 1012.0 | 1013.5 | 1019.6 | 1010.5 |
| 180°   | 1015.0 | 1015.0 | 1015.0 | 1015.0 | 1015.0 |

(END OF REPORT)