

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: P1011225

Luminaire Tested: S123DIP-B1000D805UB40-4F0-XX-W2A-D4

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1011225  
REPORT IS A COMBINATION OF REPORTS P989306 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B1000D805UB40-4F0-XX-W2A-D4  
Description: Define 3 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

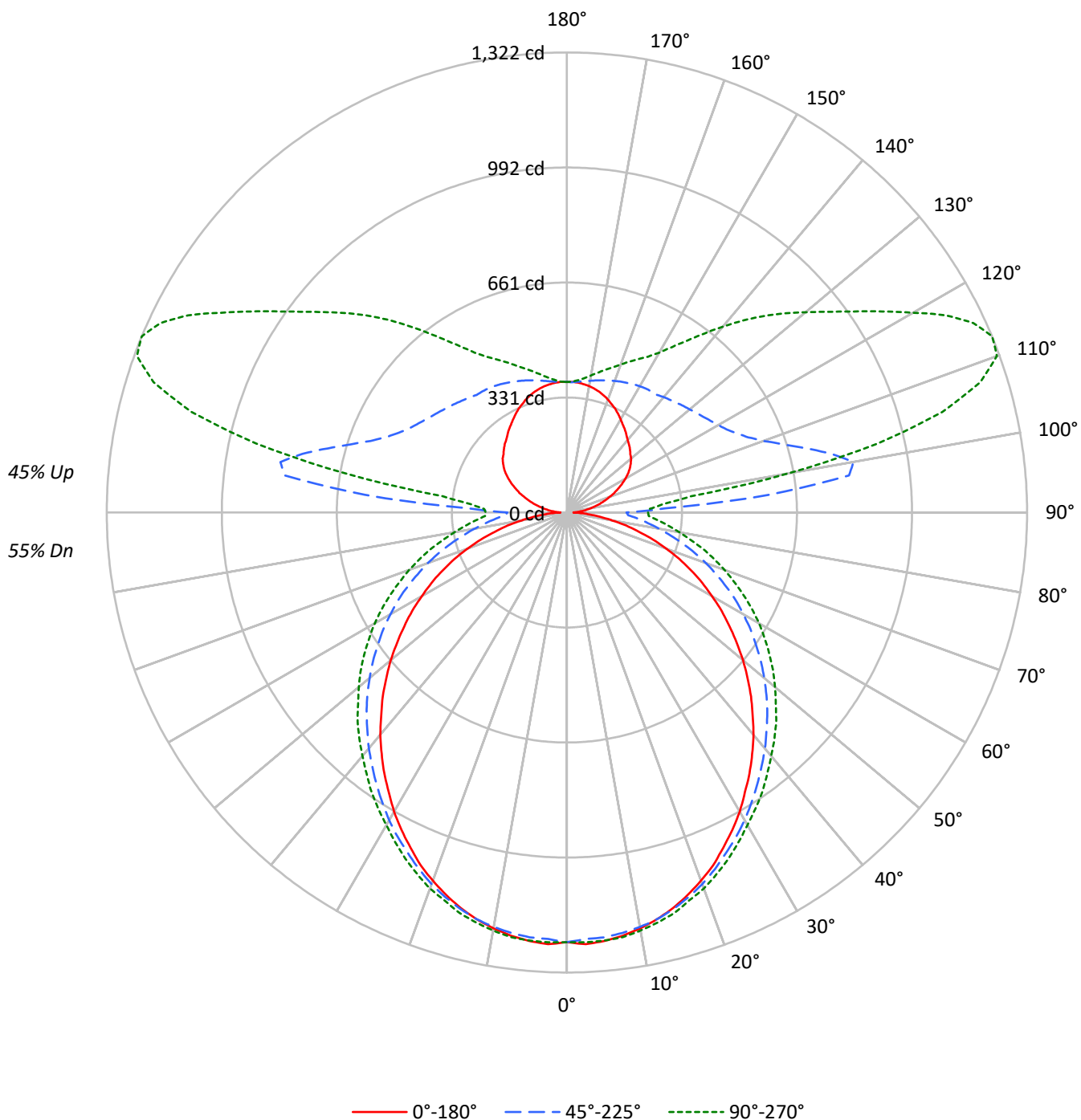
Lumens per Lamp: N/A  
Luminaire Lumens: 6979.6 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 67.9  
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   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 86 | 86 | 86 | 73 | 73 | 73 | 60 | 60 | 60 |
| 1   | 98  | 93  | 88  | 84  | 90  | 86  | 82  | 79  | 74 | 71 | 68 | 62 | 60 | 58 | 51 | 50 | 49 |
| 2   | 88  | 80  | 74  | 68  | 82  | 75  | 69  | 64  | 64 | 59 | 56 | 54 | 51 | 48 | 45 | 42 | 40 |
| 3   | 80  | 70  | 62  | 56  | 74  | 65  | 58  | 53  | 56 | 51 | 46 | 47 | 43 | 40 | 39 | 36 | 34 |
| 4   | 73  | 62  | 54  | 47  | 68  | 58  | 50  | 44  | 49 | 44 | 39 | 42 | 37 | 34 | 35 | 31 | 29 |
| 5   | 67  | 55  | 47  | 40  | 62  | 51  | 44  | 38  | 44 | 38 | 34 | 37 | 33 | 29 | 31 | 28 | 25 |
| 6   | 62  | 49  | 41  | 35  | 57  | 46  | 38  | 33  | 40 | 34 | 29 | 34 | 29 | 25 | 28 | 25 | 22 |
| 7   | 57  | 45  | 36  | 30  | 53  | 42  | 34  | 29  | 36 | 30 | 26 | 31 | 26 | 22 | 26 | 22 | 19 |
| 8   | 53  | 40  | 32  | 27  | 49  | 38  | 30  | 25  | 33 | 27 | 23 | 28 | 23 | 20 | 24 | 20 | 17 |
| 9   | 49  | 37  | 29  | 24  | 46  | 34  | 27  | 23  | 30 | 24 | 20 | 26 | 21 | 18 | 22 | 18 | 15 |
| 10  | 46  | 34  | 26  | 21  | 43  | 32  | 25  | 20  | 28 | 22 | 18 | 24 | 19 | 16 | 20 | 17 | 14 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13291 | 13291 | 13291 |
| 5°  | 13328 | 12901 | 12891 |
| 10° | 13203 | 12552 | 12456 |
| 15° | 13029 | 12166 | 11995 |
| 20° | 12781 | 11736 | 11500 |
| 25° | 12476 | 11251 | 10987 |
| 30° | 12163 | 10814 | 10472 |
| 35° | 11813 | 10353 | 10053 |
| 40° | 11478 | 9932  | 9608  |
| 45° | 11107 | 9525  | 9243  |
| 50° | 10741 | 9122  | 8847  |
| 55° | 10333 | 8708  | 8482  |
| 60° | 9937  | 8284  | 8108  |
| 65° | 9527  | 7834  | 7672  |
| 70° | 8914  | 7328  | 7221  |
| 75° | 8137  | 6751  | 6755  |
| 80° | 7231  | 6166  | 6224  |
| 85° | 6330  | 5695  | 5843  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11107 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 117.1  | 1.7       |
| 10°-20°   | 333.9  | 4.8       |
| 20°-30°   | 499.4  | 7.2       |
| 30°-40°   | 596.2  | 8.5       |
| 40°-50°   | 623.8  | 8.9       |
| 50°-60°   | 585.4  | 8.4       |
| 60°-70°   | 489.0  | 7.0       |
| 70°-80°   | 349.6  | 5.0       |
| 80°-90°   | 210.1  | 3.0       |
| 90°-100°  | 343.9  | 4.9       |
| 100°-110° | 691.8  | 9.9       |
| 110°-120° | 645.0  | 9.2       |
| 120°-130° | 499.1  | 7.2       |
| 130°-140° | 381.5  | 5.5       |
| 140°-150° | 275.8  | 4.0       |
| 150°-160° | 190.0  | 2.7       |
| 160°-170° | 111.6  | 1.6       |
| 170°-180° | 36.3   | 0.5       |
| 0°-30°    | 950.4  | 13.6      |
| 0°-40°    | 1546.6 | 22.2      |
| 0°-60°    | 2755.9 | 39.5      |
| 0°-90°    | 3804.6 | 54.5      |
| 90°-120°  | 1680.6 | 24.1      |
| 90°-150°  | 2837.0 | 40.6      |
| 90°-180°  | 3175.0 | 45.5      |
| 0°-180°   | 6979.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1235 | 1235  | 1235 | 1235  | 1235 |      |
| 5°   | 1236 | 1234  | 1225 | 1236  | 1235 | 117  |
| 15°  | 1177 | 1181  | 1180 | 1193  | 1192 | 332  |
| 25°  | 1063 | 1076  | 1080 | 1098  | 1098 | 490  |
| 35°  | 915  | 936   | 954  | 974   | 979  | 572  |
| 45°  | 748  | 780   | 814  | 839   | 850  | 577  |
| 55°  | 570  | 615   | 663  | 700   | 710  | 511  |
| 65°  | 394  | 447   | 506  | 546   | 560  | 390  |
| 75°  | 214  | 277   | 344  | 389   | 405  | 228  |
| 85°  | 66   | 133   | 204  | 250   | 264  | 68   |
| 90°  | 19   | 93    | 171  | 219   | 233  | 15   |
| 95°  | 41   | 151   | 583  | 306   | 276  | 39   |
| 105° | 99   | 173   | 711  | 1206  | 1116 | 104  |
| 115° | 162  | 217   | 538  | 1127  | 1289 | 161  |
| 125° | 220  | 259   | 479  | 861   | 1007 | 196  |
| 135° | 256  | 304   | 446  | 691   | 798  | 198  |
| 145° | 290  | 331   | 424  | 544   | 603  | 182  |
| 155° | 329  | 354   | 411  | 467   | 487  | 151  |
| 165° | 359  | 369   | 393  | 417   | 424  | 101  |
| 175° | 374  | 375   | 377  | 383   | 382  | 36   |
| 180° | 375  | 375   | 375  | 375   | 375  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1234.8 | 1234.8 | 1234.8 | 1234.8 | 1234.8 |
| 2.5°   | 1241.6 | 1237.5 | 1226.8 | 1237.5 | 1236.2 |
| 5°     | 1236.2 | 1233.5 | 1225.4 | 1236.2 | 1234.8 |
| 7.5°   | 1226.8 | 1226.8 | 1218.7 | 1232.1 | 1230.8 |
| 10°    | 1213.3 | 1216.0 | 1209.3 | 1222.7 | 1220.0 |
| 12.5°  | 1197.2 | 1201.2 | 1197.2 | 1209.3 | 1206.6 |
| 15°    | 1177.0 | 1181.0 | 1179.7 | 1193.1 | 1191.8 |
| 17.5°  | 1152.8 | 1160.8 | 1159.5 | 1171.6 | 1168.9 |
| 20°    | 1125.9 | 1133.9 | 1136.6 | 1148.7 | 1150.1 |
| 22.5°  | 1097.6 | 1105.7 | 1109.7 | 1125.9 | 1124.5 |
| 25°    | 1062.7 | 1076.1 | 1080.1 | 1097.6 | 1097.6 |
| 27.5°  | 1029.0 | 1043.8 | 1051.9 | 1066.7 | 1068.0 |
| 30°    | 992.7  | 1010.2 | 1021.0 | 1037.1 | 1037.1 |
| 32.5°  | 952.4  | 972.5  | 987.3  | 1004.8 | 1008.8 |
| 35°    | 914.7  | 936.2  | 953.7  | 973.9  | 979.3  |
| 37.5°  | 874.3  | 898.5  | 918.7  | 941.6  | 945.6  |
| 40°    | 834.0  | 858.2  | 885.1  | 908.0  | 913.3  |
| 42.5°  | 789.6  | 820.5  | 848.8  | 874.3  | 882.4  |
| 45°    | 747.9  | 780.2  | 813.8  | 839.4  | 850.1  |
| 47.5°  | 703.5  | 739.8  | 777.5  | 805.7  | 813.8  |
| 50°    | 660.5  | 698.1  | 739.8  | 770.8  | 780.2  |
| 52.5°  | 614.7  | 655.1  | 702.2  | 734.4  | 746.5  |
| 55°    | 570.3  | 614.7  | 663.2  | 699.5  | 710.2  |
| 57.5°  | 527.3  | 573.0  | 625.5  | 661.8  | 673.9  |
| 60°    | 481.6  | 530.0  | 585.1  | 622.8  | 637.6  |
| 62.5°  | 438.5  | 488.3  | 547.5  | 585.1  | 598.6  |
| 65°    | 394.1  | 446.6  | 505.8  | 546.1  | 559.6  |
| 67.5°  | 349.7  | 404.9  | 464.1  | 508.5  | 519.2  |
| 70°    | 302.7  | 360.5  | 425.1  | 468.1  | 481.6  |
| 72.5°  | 259.6  | 317.5  | 384.7  | 429.1  | 442.5  |
| 75°    | 213.9  | 277.1  | 344.4  | 388.7  | 404.9  |
| 77.5°  | 174.9  | 238.1  | 305.3  | 352.4  | 364.5  |
| 80°    | 133.2  | 199.1  | 269.0  | 314.8  | 328.2  |
| 82.5°  | 96.8   | 164.1  | 235.4  | 281.1  | 294.6  |
| 85°    | 65.9   | 133.2  | 204.5  | 250.2  | 263.6  |
| 87.5°  | 40.4   | 107.6  | 176.2  | 221.9  | 235.4  |
| 90°    | 19.0   | 92.6   | 171.0  | 219.0  | 233.2  |
| 92.5°  | 27.5   | 119.6  | 282.4  | 233.8  | 237.9  |
| 95°    | 40.6   | 151.2  | 583.4  | 306.2  | 276.4  |
| 97.5°  | 54.5   | 158.0  | 817.4  | 495.8  | 359.6  |
| 100°   | 68.3   | 161.1  | 835.9  | 846.8  | 645.5  |
| 102.5° | 82.9   | 165.7  | 778.6  | 1071.6 | 913.9  |
| 105°   | 98.9   | 173.2  | 711.3  | 1205.8 | 1116.3 |
| 107.5° | 114.2  | 183.1  | 650.8  | 1259.0 | 1245.0 |
| 110°   | 131.1  | 193.2  | 600.8  | 1253.0 | 1314.5 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 147.8 | 204.2 | 563.9 | 1200.6 | 1322.5 |
| 115°   | 162.3 | 216.8 | 538.2 | 1127.3 | 1288.7 |
| 117.5° | 178.3 | 227.4 | 517.2 | 1049.4 | 1227.6 |
| 120°   | 193.7 | 238.0 | 502.1 | 975.2  | 1148.2 |
| 122.5° | 208.1 | 249.2 | 490.1 | 915.2  | 1074.9 |
| 125°   | 220.4 | 259.4 | 478.7 | 860.8  | 1006.9 |
| 127.5° | 231.0 | 271.8 | 469.8 | 814.8  | 947.1  |
| 130°   | 240.9 | 284.0 | 460.8 | 771.8  | 895.2  |
| 132.5° | 247.1 | 295.0 | 453.3 | 731.1  | 846.8  |
| 135°   | 256.3 | 303.8 | 445.8 | 690.6  | 797.9  |
| 137.5° | 264.6 | 312.2 | 439.0 | 650.6  | 748.0  |
| 140°   | 271.6 | 319.8 | 432.8 | 612.8  | 697.3  |
| 142.5° | 280.7 | 325.3 | 425.9 | 576.2  | 648.2  |
| 145°   | 290.5 | 331.4 | 424.4 | 544.1  | 602.9  |
| 147.5° | 299.1 | 337.8 | 422.1 | 517.6  | 564.3  |
| 150°   | 309.0 | 343.2 | 419.0 | 496.1  | 530.3  |
| 152.5° | 318.8 | 348.8 | 415.3 | 480.9  | 504.8  |
| 155°   | 328.7 | 354.5 | 410.7 | 466.8  | 486.6  |
| 157.5° | 336.3 | 359.5 | 406.9 | 453.2  | 469.2  |
| 160°   | 345.4 | 363.6 | 402.3 | 440.6  | 452.5  |
| 162.5° | 352.2 | 366.6 | 397.8 | 428.9  | 437.3  |
| 165°   | 359.1 | 369.4 | 393.2 | 417.2  | 424.4  |
| 167.5° | 364.4 | 371.6 | 388.7 | 406.9  | 411.5  |
| 170°   | 368.9 | 372.8 | 384.1 | 397.8  | 400.1  |
| 172.5° | 372.0 | 373.9 | 380.3 | 389.8  | 389.4  |
| 175°   | 374.3 | 374.6 | 377.3 | 382.6  | 381.9  |
| 177.5° | 375.8 | 375.0 | 375.0 | 378.1  | 376.5  |
| 180°   | 375.0 | 375.0 | 375.0 | 375.0  | 375.0  |

(END OF REPORT)