

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: P1011201

Luminaire Tested: S123DIP-B1000D805UB27-4F0-XX-W2A-D4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1011201  
REPORT IS A COMBINATION OF REPORTS P989264 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B1000D805UB27-4F0-XX-W2A-D4  
Description: Define 3 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

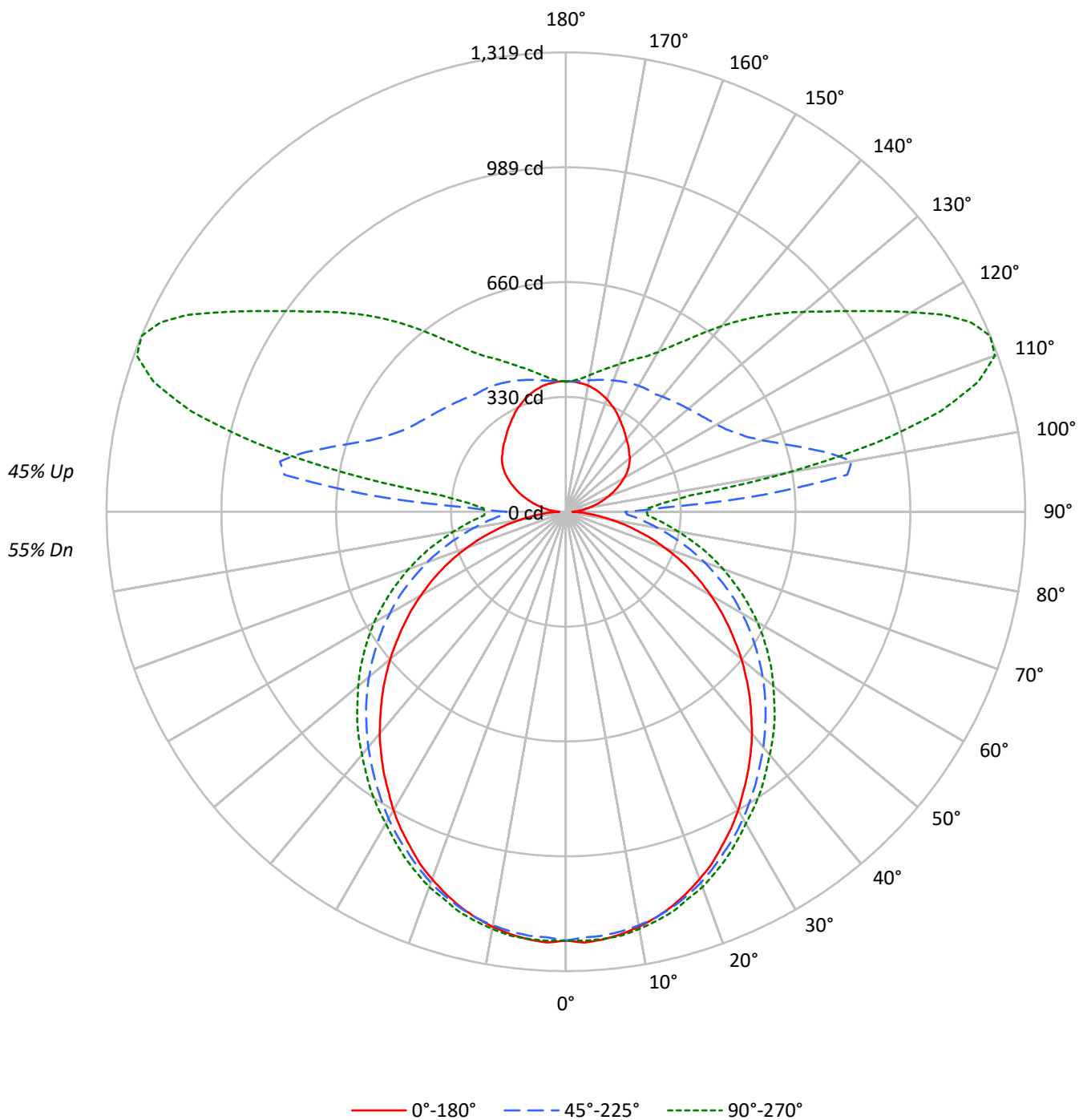
Lumens per Lamp: N/A  
Luminaire Lumens: 6959.5 lumens  
Efficiency: N/A  
Efficacy: 102.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

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°  | 13254 | 13254 | 13254 |
| 5°  | 13289 | 12864 | 12854 |
| 10° | 13165 | 12516 | 12420 |
| 15° | 12991 | 12131 | 11960 |
| 20° | 12743 | 11702 | 11467 |
| 25° | 12439 | 11219 | 10956 |
| 30° | 12127 | 10782 | 10442 |
| 35° | 11778 | 10323 | 10023 |
| 40° | 11445 | 9903  | 9581  |
| 45° | 11075 | 9499  | 9217  |
| 50° | 10708 | 9096  | 8821  |
| 55° | 10304 | 8682  | 8458  |
| 60° | 9909  | 8260  | 8084  |
| 65° | 9500  | 7811  | 7650  |
| 70° | 8888  | 7306  | 7200  |
| 75° | 8114  | 6732  | 6735  |
| 80° | 7210  | 6147  | 6207  |
| 85° | 6311  | 5678  | 5827  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11075 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 116.8  | 1.7       |
| 10°-20°   | 333.0  | 4.8       |
| 20°-30°   | 497.9  | 7.2       |
| 30°-40°   | 594.5  | 8.5       |
| 40°-50°   | 622.0  | 8.9       |
| 50°-60°   | 583.7  | 8.4       |
| 60°-70°   | 487.5  | 7.0       |
| 70°-80°   | 348.6  | 5.0       |
| 80°-90°   | 209.5  | 3.0       |
| 90°-100°  | 342.9  | 4.9       |
| 100°-110° | 689.8  | 9.9       |
| 110°-120° | 643.2  | 9.2       |
| 120°-130° | 497.7  | 7.2       |
| 130°-140° | 380.4  | 5.5       |
| 140°-150° | 275.0  | 4.0       |
| 150°-160° | 189.5  | 2.7       |
| 160°-170° | 111.3  | 1.6       |
| 170°-180° | 36.2   | 0.5       |
| 0°-30°    | 947.7  | 13.6      |
| 0°-40°    | 1542.2 | 22.2      |
| 0°-60°    | 2747.9 | 39.5      |
| 0°-90°    | 3793.6 | 54.5      |
| 90°-120°  | 1675.8 | 24.1      |
| 90°-150°  | 2828.9 | 40.6      |
| 90°-180°  | 3166.0 | 45.5      |
| 0°-180°   | 6959.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1231 | 1231  | 1231 | 1231  | 1231 |      |
| 5°   | 1233 | 1230  | 1222 | 1233  | 1231 | 117  |
| 15°  | 1174 | 1178  | 1176 | 1190  | 1188 | 331  |
| 25°  | 1060 | 1073  | 1077 | 1094  | 1094 | 488  |
| 35°  | 912  | 934   | 951  | 971   | 976  | 570  |
| 45°  | 746  | 778   | 812  | 837   | 848  | 575  |
| 55°  | 569  | 613   | 661  | 697   | 708  | 509  |
| 65°  | 393  | 445   | 504  | 544   | 558  | 388  |
| 75°  | 213  | 276   | 343  | 388   | 404  | 228  |
| 85°  | 66   | 133   | 204  | 250   | 263  | 68   |
| 90°  | 19   | 92    | 170  | 218   | 233  | 14   |
| 95°  | 40   | 151   | 582  | 305   | 276  | 39   |
| 105° | 98   | 173   | 709  | 1202  | 1113 | 104  |
| 115° | 162  | 216   | 537  | 1124  | 1285 | 161  |
| 125° | 220  | 259   | 477  | 858   | 1004 | 196  |
| 135° | 256  | 303   | 445  | 689   | 796  | 197  |
| 145° | 290  | 330   | 423  | 542   | 601  | 181  |
| 155° | 328  | 354   | 410  | 466   | 485  | 151  |
| 165° | 358  | 368   | 392  | 416   | 423  | 101  |
| 175° | 373  | 374   | 376  | 382   | 381  | 35   |
| 180° | 374  | 374   | 374  | 374   | 374  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1231.3 | 1231.3 | 1231.3 | 1231.3 | 1231.3 |
| 2.5°   | 1238.0 | 1233.9 | 1223.2 | 1233.9 | 1232.6 |
| 5°     | 1232.6 | 1229.9 | 1221.9 | 1232.6 | 1231.3 |
| 7.5°   | 1223.2 | 1223.2 | 1215.2 | 1228.6 | 1227.2 |
| 10°    | 1209.8 | 1212.5 | 1205.8 | 1219.2 | 1216.5 |
| 12.5°  | 1193.7 | 1197.7 | 1193.7 | 1205.8 | 1203.1 |
| 15°    | 1173.6 | 1177.6 | 1176.3 | 1189.7 | 1188.3 |
| 17.5°  | 1149.4 | 1157.5 | 1156.2 | 1168.2 | 1165.5 |
| 20°    | 1122.6 | 1130.7 | 1133.3 | 1145.4 | 1146.8 |
| 22.5°  | 1094.5 | 1102.5 | 1106.5 | 1122.6 | 1121.3 |
| 25°    | 1059.6 | 1073.0 | 1077.0 | 1094.5 | 1094.5 |
| 27.5°  | 1026.1 | 1040.8 | 1048.9 | 1063.6 | 1064.9 |
| 30°    | 989.8  | 1007.3 | 1018.0 | 1034.1 | 1034.1 |
| 32.5°  | 949.6  | 969.7  | 984.5  | 1001.9 | 1005.9 |
| 35°    | 912.0  | 933.5  | 950.9  | 971.1  | 976.4  |
| 37.5°  | 871.8  | 895.9  | 916.1  | 938.9  | 942.9  |
| 40°    | 831.6  | 855.7  | 882.5  | 905.3  | 910.7  |
| 42.5°  | 787.3  | 818.2  | 846.3  | 871.8  | 879.9  |
| 45°    | 745.7  | 777.9  | 811.5  | 836.9  | 847.7  |
| 47.5°  | 701.5  | 737.7  | 775.2  | 803.4  | 811.5  |
| 50°    | 658.5  | 696.1  | 737.7  | 768.5  | 777.9  |
| 52.5°  | 612.9  | 653.2  | 700.1  | 732.3  | 744.4  |
| 55°    | 568.7  | 612.9  | 661.2  | 697.4  | 708.2  |
| 57.5°  | 525.8  | 571.4  | 623.7  | 659.9  | 672.0  |
| 60°    | 480.2  | 528.4  | 583.4  | 621.0  | 635.7  |
| 62.5°  | 437.2  | 486.9  | 545.9  | 583.4  | 596.9  |
| 65°    | 393.0  | 445.3  | 504.3  | 544.5  | 558.0  |
| 67.5°  | 348.7  | 403.7  | 462.7  | 507.0  | 517.7  |
| 70°    | 301.8  | 359.5  | 423.8  | 466.8  | 480.2  |
| 72.5°  | 258.9  | 316.5  | 383.6  | 427.9  | 441.3  |
| 75°    | 213.3  | 276.3  | 343.4  | 387.6  | 403.7  |
| 77.5°  | 174.4  | 237.4  | 304.5  | 351.4  | 363.5  |
| 80°    | 132.8  | 198.5  | 268.2  | 313.9  | 327.3  |
| 82.5°  | 96.6   | 163.6  | 234.7  | 280.3  | 293.7  |
| 85°    | 65.7   | 132.8  | 203.9  | 249.5  | 262.9  |
| 87.5°  | 40.2   | 107.3  | 175.7  | 221.3  | 234.7  |
| 90°    | 18.9   | 92.2   | 170.5  | 218.4  | 232.6  |
| 92.5°  | 27.5   | 119.2  | 281.6  | 233.2  | 237.3  |
| 95°    | 40.5   | 150.8  | 581.7  | 305.4  | 275.6  |
| 97.5°  | 54.3   | 157.4  | 815.1  | 494.2  | 358.6  |
| 100°   | 68.1   | 160.6  | 833.6  | 844.4  | 643.6  |
| 102.5° | 82.6   | 165.2  | 776.3  | 1068.6 | 911.3  |
| 105°   | 98.5   | 172.8  | 709.2  | 1202.4 | 1113.1 |
| 107.5° | 113.9  | 182.5  | 648.9  | 1255.6 | 1241.5 |
| 110°   | 130.6  | 192.7  | 599.0  | 1249.4 | 1310.8 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 147.3 | 203.6 | 562.3 | 1197.2 | 1318.7 |
| 115°   | 161.9 | 216.2 | 536.7 | 1124.1 | 1285.1 |
| 117.5° | 177.8 | 226.7 | 515.7 | 1046.4 | 1224.1 |
| 120°   | 193.1 | 237.3 | 500.7 | 972.5  | 1145.0 |
| 122.5° | 207.5 | 248.4 | 488.7 | 912.6  | 1071.8 |
| 125°   | 219.7 | 258.7 | 477.4 | 858.4  | 1004.0 |
| 127.5° | 230.3 | 271.0 | 468.4 | 812.4  | 944.5  |
| 130°   | 240.2 | 283.2 | 459.5 | 769.6  | 892.7  |
| 132.5° | 246.5 | 294.2 | 452.0 | 728.9  | 844.3  |
| 135°   | 255.5 | 303.0 | 444.6 | 688.6  | 795.6  |
| 137.5° | 263.9 | 311.3 | 437.6 | 648.8  | 745.9  |
| 140°   | 270.8 | 318.8 | 431.6 | 611.0  | 695.3  |
| 142.5° | 279.9 | 324.4 | 424.7 | 574.6  | 646.3  |
| 145°   | 289.7 | 330.4 | 423.2 | 542.5  | 601.3  |
| 147.5° | 298.3 | 336.8 | 420.9 | 516.2  | 562.8  |
| 150°   | 308.1 | 342.2 | 417.9 | 494.7  | 528.8  |
| 152.5° | 317.9 | 347.8 | 414.1 | 479.6  | 503.4  |
| 155°   | 327.8 | 353.5 | 409.5 | 465.6  | 485.2  |
| 157.5° | 335.3 | 358.5 | 405.7 | 451.9  | 467.8  |
| 160°   | 344.4 | 362.6 | 401.2 | 439.4  | 451.2  |
| 162.5° | 351.2 | 365.6 | 396.7 | 427.7  | 436.0  |
| 165°   | 358.1 | 368.2 | 392.1 | 416.0  | 423.2  |
| 167.5° | 363.4 | 370.5 | 387.6 | 405.8  | 410.3  |
| 170°   | 367.9 | 371.6 | 383.0 | 396.6  | 398.9  |
| 172.5° | 370.9 | 372.8 | 379.3 | 388.7  | 388.3  |
| 175°   | 373.2 | 373.6 | 376.2 | 381.5  | 380.8  |
| 177.5° | 374.7 | 374.0 | 374.0 | 377.0  | 375.5  |
| 180°   | 374.0 | 374.0 | 374.0 | 374.0  | 374.0  |

(END OF REPORT)