

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: P1012109

Luminaire Tested: S123DIP-B775D805UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1012109  
REPORT IS A COMBINATION OF REPORTS P990514 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B775D805UB50-4F0-XX-W2A-D1  
Description: Define 3 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

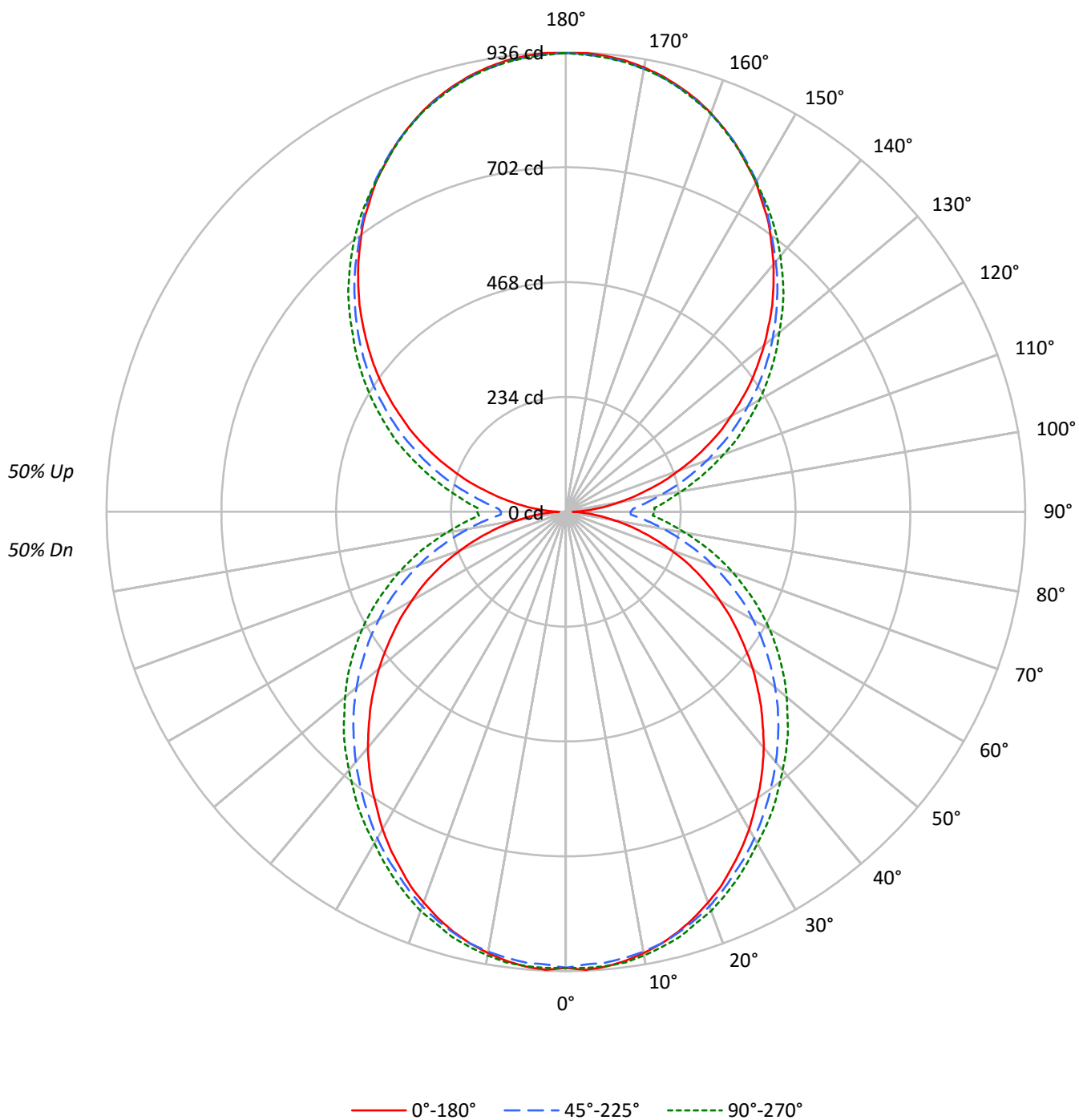
Lumens per Lamp: N/A  
Luminaire Lumens: 5715.0 lumens  
Efficiency: N/A  
Efficacy: 100.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 57  
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 |    |    |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | 69 | 69 | 69 | 56 | 56 | 56 | 56 | 56 | 56 |
| 1   | 97  | 92  | 88  | 84  | 89 | 85 | 81 | 78 | 72 | 69 | 66 | 59 | 57 | 55 | 48 | 47 | 45 | 45 | 45 | 40 |
| 2   | 88  | 80  | 73  | 68  | 80 | 74 | 68 | 63 | 62 | 58 | 54 | 51 | 48 | 46 | 42 | 39 | 37 | 37 | 37 | 33 |
| 3   | 80  | 70  | 62  | 56  | 73 | 64 | 58 | 52 | 54 | 49 | 45 | 45 | 41 | 38 | 37 | 34 | 31 | 31 | 31 | 27 |
| 4   | 73  | 61  | 53  | 47  | 67 | 57 | 50 | 44 | 48 | 42 | 38 | 40 | 36 | 32 | 32 | 29 | 27 | 27 | 27 | 23 |
| 5   | 67  | 55  | 46  | 40  | 61 | 51 | 43 | 37 | 43 | 37 | 33 | 36 | 31 | 28 | 29 | 26 | 23 | 23 | 23 | 20 |
| 6   | 61  | 49  | 41  | 35  | 56 | 45 | 38 | 32 | 39 | 33 | 28 | 32 | 28 | 24 | 26 | 23 | 20 | 20 | 20 | 17 |
| 7   | 57  | 44  | 36  | 30  | 52 | 41 | 34 | 28 | 35 | 29 | 25 | 29 | 25 | 21 | 24 | 21 | 18 | 18 | 18 | 15 |
| 8   | 53  | 40  | 32  | 27  | 48 | 37 | 30 | 25 | 32 | 26 | 22 | 27 | 22 | 19 | 22 | 19 | 16 | 16 | 16 | 14 |
| 9   | 49  | 36  | 29  | 24  | 45 | 34 | 27 | 22 | 29 | 24 | 20 | 25 | 20 | 17 | 20 | 17 | 14 | 14 | 14 | 12 |
| 10  | 46  | 33  | 26  | 21  | 42 | 31 | 24 | 20 | 27 | 21 | 18 | 23 | 18 | 15 | 19 | 15 | 13 | 13 | 13 | 11 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10002 | 10002 | 10002 |
| 5°  | 10030 | 9709  | 9701  |
| 10° | 9936  | 9446  | 9374  |
| 15° | 9804  | 9155  | 9027  |
| 20° | 9618  | 8832  | 8654  |
| 25° | 9388  | 8467  | 8268  |
| 30° | 9152  | 8137  | 7880  |
| 35° | 8889  | 7791  | 7564  |
| 40° | 8637  | 7475  | 7231  |
| 45° | 8358  | 7168  | 6956  |
| 50° | 8082  | 6864  | 6658  |
| 55° | 7777  | 6552  | 6384  |
| 60° | 7478  | 6234  | 6102  |
| 65° | 7170  | 5895  | 5773  |
| 70° | 6708  | 5515  | 5434  |
| 75° | 6121  | 5079  | 5083  |
| 80° | 5440  | 4642  | 4684  |
| 85° | 4764  | 4286  | 4397  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8358 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 88.2   | 1.5       |
| 10°-20°   | 251.3  | 4.4       |
| 20°-30°   | 375.8  | 6.6       |
| 30°-40°   | 448.7  | 7.9       |
| 40°-50°   | 469.4  | 8.2       |
| 50°-60°   | 440.5  | 7.7       |
| 60°-70°   | 368.0  | 6.4       |
| 70°-80°   | 263.1  | 4.6       |
| 80°-90°   | 158.5  | 2.8       |
| 90°-100°  | 158.5  | 2.8       |
| 100°-110° | 254.4  | 4.5       |
| 110°-120° | 358.3  | 6.3       |
| 120°-130° | 435.4  | 7.6       |
| 130°-140° | 470.8  | 8.2       |
| 140°-150° | 453.3  | 7.9       |
| 150°-160° | 379.5  | 6.6       |
| 160°-170° | 252.6  | 4.4       |
| 170°-180° | 88.5   | 1.5       |
| 0°-30°    | 715.2  | 12.5      |
| 0°-40°    | 1163.9 | 20.4      |
| 0°-60°    | 2073.9 | 36.3      |
| 0°-90°    | 2863.5 | 50.1      |
| 90°-120°  | 771.3  | 13.5      |
| 90°-150°  | 2130.9 | 37.3      |
| 90°-180°  | 2851.0 | 49.9      |
| 0°-180°   | 5715.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 929 | 929   | 929 | 929   | 929 |      |
| 5°   | 930 | 928   | 922 | 930   | 929 | 88   |
| 15°  | 886 | 889   | 888 | 898   | 897 | 250  |
| 25°  | 800 | 810   | 813 | 826   | 826 | 369  |
| 35°  | 688 | 704   | 718 | 733   | 737 | 430  |
| 45°  | 563 | 587   | 612 | 632   | 640 | 434  |
| 55°  | 429 | 463   | 499 | 526   | 534 | 384  |
| 65°  | 297 | 336   | 381 | 411   | 421 | 293  |
| 75°  | 161 | 208   | 259 | 292   | 305 | 172  |
| 85°  | 50  | 100   | 154 | 188   | 198 | 51   |
| 90°  | 14  | 71    | 132 | 169   | 181 | 13   |
| 95°  | 54  | 99    | 154 | 189   | 199 | 56   |
| 105° | 173 | 199   | 249 | 278   | 288 | 185  |
| 115° | 317 | 332   | 366 | 391   | 399 | 314  |
| 125° | 460 | 462   | 490 | 508   | 512 | 410  |
| 135° | 595 | 598   | 608 | 624   | 627 | 458  |
| 145° | 720 | 720   | 722 | 730   | 731 | 449  |
| 155° | 823 | 823   | 824 | 827   | 822 | 379  |
| 165° | 897 | 894   | 894 | 899   | 894 | 253  |
| 175° | 932 | 930   | 930 | 934   | 929 | 89   |
| 180° | 935 | 935   | 935 | 935   | 935 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 929.2 | 929.2 | 929.2 | 929.2 | 929.2 |
| 2.5°   | 934.3 | 931.3 | 923.2 | 931.3 | 930.3 |
| 5°     | 930.3 | 928.2 | 922.2 | 930.3 | 929.2 |
| 7.5°   | 923.2 | 923.2 | 917.1 | 927.2 | 926.2 |
| 10°    | 913.1 | 915.1 | 910.0 | 920.1 | 918.1 |
| 12.5°  | 900.9 | 903.9 | 900.9 | 910.0 | 908.0 |
| 15°    | 885.7 | 888.8 | 887.7 | 897.9 | 896.9 |
| 17.5°  | 867.5 | 873.6 | 872.6 | 881.7 | 879.6 |
| 20°    | 847.3 | 853.3 | 855.4 | 864.5 | 865.5 |
| 22.5°  | 826.0 | 832.1 | 835.1 | 847.3 | 846.2 |
| 25°    | 799.7 | 809.8 | 812.8 | 826.0 | 826.0 |
| 27.5°  | 774.4 | 785.5 | 791.6 | 802.7 | 803.7 |
| 30°    | 747.0 | 760.2 | 768.3 | 780.4 | 780.4 |
| 32.5°  | 716.7 | 731.9 | 743.0 | 756.2 | 759.2 |
| 35°    | 688.3 | 704.5 | 717.7 | 732.9 | 736.9 |
| 37.5°  | 658.0 | 676.2 | 691.4 | 708.6 | 711.6 |
| 40°    | 627.6 | 645.8 | 666.1 | 683.3 | 687.3 |
| 42.5°  | 594.2 | 617.5 | 638.7 | 658.0 | 664.0 |
| 45°    | 562.8 | 587.1 | 612.4 | 631.6 | 639.7 |
| 47.5°  | 529.4 | 556.7 | 585.1 | 606.3 | 612.4 |
| 50°    | 497.0 | 525.4 | 556.7 | 580.0 | 587.1 |
| 52.5°  | 462.6 | 493.0 | 528.4 | 552.7 | 561.8 |
| 55°    | 429.2 | 462.6 | 499.0 | 526.4 | 534.5 |
| 57.5°  | 396.8 | 431.2 | 470.7 | 498.0 | 507.1 |
| 60°    | 362.4 | 398.8 | 440.3 | 468.7 | 479.8 |
| 62.5°  | 330.0 | 367.4 | 412.0 | 440.3 | 450.5 |
| 65°    | 296.6 | 336.1 | 380.6 | 411.0 | 421.1 |
| 67.5°  | 263.2 | 304.7 | 349.2 | 382.6 | 390.7 |
| 70°    | 227.8 | 271.3 | 319.9 | 352.3 | 362.4 |
| 72.5°  | 195.4 | 238.9 | 289.5 | 322.9 | 333.0 |
| 75°    | 160.9 | 208.5 | 259.1 | 292.5 | 304.7 |
| 77.5°  | 131.6 | 179.2 | 229.8 | 265.2 | 274.3 |
| 80°    | 100.2 | 149.8 | 202.5 | 236.9 | 247.0 |
| 82.5°  | 72.9  | 123.5 | 177.1 | 211.6 | 221.7 |
| 85°    | 49.6  | 100.2 | 153.9 | 188.3 | 198.4 |
| 87.5°  | 30.4  | 81.0  | 132.6 | 167.0 | 177.1 |
| 90°    | 13.9  | 70.9  | 132.0 | 169.4 | 180.9 |
| 92.5°  | 34.1  | 82.1  | 137.1 | 172.7 | 180.4 |
| 95°    | 54.4  | 99.1  | 154.5 | 188.9 | 199.0 |
| 97.5°  | 81.3  | 121.5 | 173.4 | 207.5 | 216.8 |
| 100°   | 109.0 | 145.8 | 196.0 | 227.5 | 239.1 |
| 102.5° | 141.0 | 171.5 | 222.2 | 252.8 | 262.2 |
| 105°   | 173.3 | 199.1 | 249.2 | 277.6 | 288.2 |
| 107.5° | 210.5 | 232.4 | 276.9 | 306.5 | 314.8 |
| 110°   | 244.7 | 264.4 | 306.4 | 335.6 | 342.2 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 281.5 | 296.3 | 334.8 | 363.8 | 372.9 |
| 115°   | 317.2 | 331.5 | 366.4 | 391.4 | 398.8 |
| 117.5° | 354.6 | 363.5 | 396.4 | 420.7 | 426.6 |
| 120°   | 388.0 | 397.5 | 427.3 | 449.8 | 455.5 |
| 122.5° | 424.0 | 429.1 | 459.0 | 479.0 | 483.9 |
| 125°   | 459.7 | 461.9 | 489.9 | 508.1 | 512.3 |
| 127.5° | 493.5 | 496.9 | 520.7 | 536.6 | 540.8 |
| 130°   | 527.3 | 532.2 | 550.3 | 566.5 | 567.5 |
| 132.5° | 560.1 | 565.9 | 579.7 | 594.2 | 597.6 |
| 135°   | 594.6 | 598.0 | 608.3 | 623.7 | 627.2 |
| 137.5° | 626.1 | 628.8 | 638.1 | 650.6 | 653.5 |
| 140°   | 658.2 | 661.9 | 665.6 | 680.1 | 680.0 |
| 142.5° | 688.3 | 691.0 | 692.4 | 704.9 | 706.2 |
| 145°   | 719.9 | 720.3 | 722.5 | 729.9 | 731.0 |
| 147.5° | 746.0 | 749.0 | 751.2 | 754.2 | 753.9 |
| 150°   | 774.7 | 776.1 | 777.6 | 777.6 | 775.2 |
| 152.5° | 798.2 | 800.4 | 801.1 | 802.6 | 798.9 |
| 155°   | 823.1 | 823.1 | 823.9 | 826.8 | 821.7 |
| 157.5° | 844.4 | 843.7 | 844.4 | 847.4 | 843.0 |
| 160°   | 864.3 | 862.8 | 862.8 | 866.5 | 863.5 |
| 162.5° | 881.9 | 879.7 | 880.4 | 884.1 | 878.9 |
| 165°   | 896.6 | 894.4 | 894.4 | 898.8 | 893.6 |
| 167.5° | 909.1 | 906.1 | 906.8 | 911.3 | 906.8 |
| 170°   | 919.3 | 916.4 | 916.4 | 921.5 | 916.4 |
| 172.5° | 927.4 | 924.5 | 924.5 | 928.9 | 923.7 |
| 175°   | 932.5 | 929.6 | 929.6 | 934.0 | 928.9 |
| 177.5° | 935.5 | 932.5 | 932.5 | 937.0 | 931.8 |
| 180°   | 934.8 | 934.8 | 934.8 | 934.8 | 934.8 |

(END OF REPORT)