

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: P1011671

Luminaire Tested: S123DIP-B340D805UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1011671  
REPORT IS A COMBINATION OF REPORTS P989914 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B340D805UB50-4F0-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**

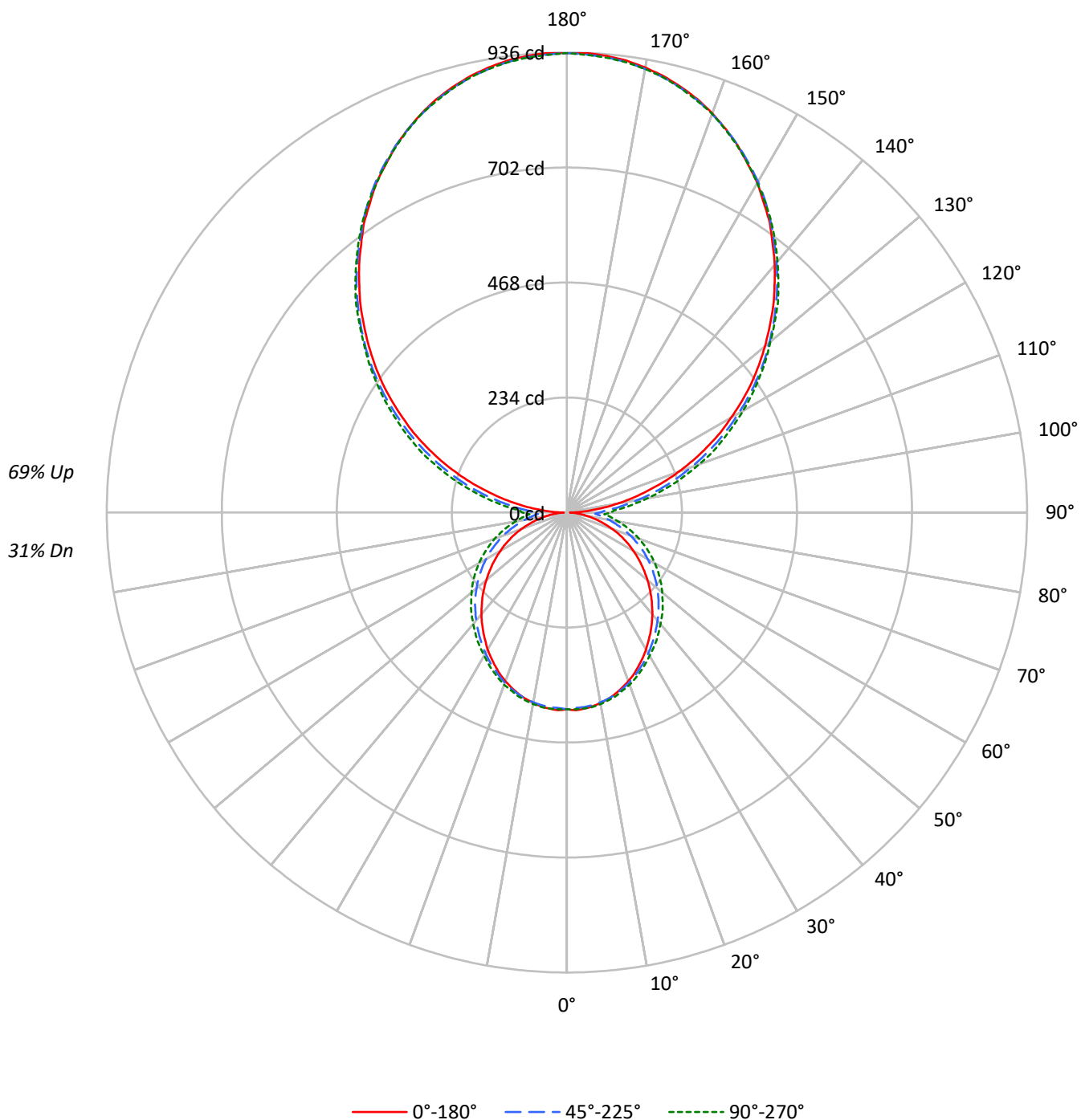
Lumens per Lamp: N/A  
Luminaire Lumens: 3938.0 lumens  
Efficiency: N/A  
Efficacy: 115.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 34.1  
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   | 103 | 103 | 103 | 103 | 92 | 92 | 92 | 92 | 73 | 73 | 73 | 55 | 55 | 55 | 39 | 39 | 39 |
| 1   | 93  | 88  | 84  | 81  | 83 | 80 | 76 | 73 | 63 | 60 | 58 | 48 | 46 | 45 | 33 | 32 | 32 |
| 2   | 84  | 77  | 71  | 65  | 75 | 69 | 64 | 59 | 55 | 51 | 48 | 41 | 39 | 37 | 29 | 27 | 26 |
| 3   | 77  | 67  | 60  | 54  | 69 | 61 | 54 | 49 | 48 | 43 | 40 | 36 | 33 | 31 | 25 | 24 | 22 |
| 4   | 70  | 59  | 51  | 45  | 63 | 53 | 47 | 41 | 42 | 38 | 34 | 32 | 29 | 26 | 23 | 20 | 19 |
| 5   | 64  | 53  | 45  | 39  | 57 | 47 | 41 | 35 | 38 | 33 | 29 | 29 | 25 | 22 | 20 | 18 | 16 |
| 6   | 59  | 47  | 39  | 33  | 53 | 42 | 35 | 30 | 34 | 29 | 25 | 26 | 22 | 19 | 18 | 16 | 14 |
| 7   | 54  | 42  | 34  | 29  | 49 | 38 | 31 | 27 | 31 | 25 | 22 | 23 | 20 | 17 | 17 | 14 | 12 |
| 8   | 50  | 38  | 31  | 25  | 45 | 35 | 28 | 23 | 28 | 23 | 19 | 21 | 18 | 15 | 15 | 13 | 11 |
| 9   | 47  | 35  | 27  | 22  | 42 | 32 | 25 | 21 | 25 | 20 | 17 | 20 | 16 | 13 | 14 | 12 | 10 |
| 10  | 44  | 32  | 25  | 20  | 39 | 29 | 23 | 18 | 23 | 18 | 15 | 18 | 15 | 12 | 13 | 11 | 9  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4311 | 4311 | 4311 |
| 5°  | 4322 | 4184 | 4181 |
| 10° | 4282 | 4071 | 4040 |
| 15° | 4225 | 3946 | 3890 |
| 20° | 4146 | 3807 | 3730 |
| 25° | 4047 | 3649 | 3563 |
| 30° | 3945 | 3507 | 3397 |
| 35° | 3832 | 3358 | 3260 |
| 40° | 3723 | 3222 | 3116 |
| 45° | 3603 | 3089 | 2998 |
| 50° | 3483 | 2959 | 2869 |
| 55° | 3352 | 2824 | 2752 |
| 60° | 3223 | 2687 | 2630 |
| 65° | 3089 | 2540 | 2488 |
| 70° | 2892 | 2377 | 2342 |
| 75° | 2640 | 2190 | 2191 |
| 80° | 2345 | 2001 | 2020 |
| 85° | 2056 | 1846 | 1895 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3603 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 38.0   | 1.0       |
| 10°-20°   | 108.3  | 2.8       |
| 20°-30°   | 162.0  | 4.1       |
| 30°-40°   | 193.4  | 4.9       |
| 40°-50°   | 202.3  | 5.1       |
| 50°-60°   | 189.9  | 4.8       |
| 60°-70°   | 158.6  | 4.0       |
| 70°-80°   | 113.4  | 2.9       |
| 80°-90°   | 69.4   | 1.8       |
| 90°-100°  | 102.6  | 2.6       |
| 100°-110° | 213.3  | 5.4       |
| 110°-120° | 330.9  | 8.4       |
| 120°-130° | 419.8  | 10.7      |
| 130°-140° | 463.8  | 11.8      |
| 140°-150° | 451.9  | 11.5      |
| 150°-160° | 379.5  | 9.6       |
| 160°-170° | 252.6  | 6.4       |
| 170°-180° | 88.5   | 2.2       |
| 0°-30°    | 308.3  | 7.8       |
| 0°-40°    | 501.6  | 12.7      |
| 0°-60°    | 893.8  | 22.7      |
| 0°-90°    | 1235.3 | 31.4      |
| 90°-120°  | 646.7  | 16.4      |
| 90°-150°  | 1982.1 | 50.3      |
| 90°-180°  | 2703.0 | 68.6      |
| 0°-180°   | 3938.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 400 | 400   | 400 | 400   | 400 |      |
| 5°   | 401 | 400   | 397 | 401   | 400 | 38   |
| 15°  | 382 | 383   | 383 | 387   | 386 | 108  |
| 25°  | 345 | 349   | 350 | 356   | 356 | 159  |
| 35°  | 297 | 304   | 309 | 316   | 318 | 186  |
| 45°  | 243 | 253   | 264 | 272   | 276 | 187  |
| 55°  | 185 | 199   | 215 | 227   | 230 | 166  |
| 65°  | 128 | 145   | 164 | 177   | 182 | 126  |
| 75°  | 69  | 90    | 112 | 126   | 131 | 74   |
| 85°  | 21  | 43    | 66  | 81    | 86  | 22   |
| 90°  | 6   | 35    | 67  | 85    | 90  | 7    |
| 95°  | 48  | 70    | 98  | 114   | 118 | 51   |
| 105° | 169 | 181   | 206 | 218   | 224 | 180  |
| 115° | 314 | 322   | 336 | 347   | 350 | 311  |
| 125° | 458 | 460   | 472 | 478   | 478 | 409  |
| 135° | 594 | 597   | 601 | 606   | 607 | 457  |
| 145° | 719 | 720   | 722 | 725   | 724 | 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°     | 400.5 | 400.5 | 400.5 | 400.5 | 400.5 |
| 2.5°   | 402.7 | 401.4 | 397.9 | 401.4 | 400.9 |
| 5°     | 400.9 | 400.1 | 397.4 | 400.9 | 400.5 |
| 7.5°   | 397.9 | 397.9 | 395.3 | 399.6 | 399.2 |
| 10°    | 393.5 | 394.4 | 392.2 | 396.6 | 395.7 |
| 12.5°  | 388.3 | 389.6 | 388.3 | 392.2 | 391.3 |
| 15°    | 381.7 | 383.1 | 382.6 | 387.0 | 386.5 |
| 17.5°  | 373.9 | 376.5 | 376.1 | 380.0 | 379.1 |
| 20°    | 365.2 | 367.8 | 368.7 | 372.6 | 373.0 |
| 22.5°  | 356.0 | 358.6 | 359.9 | 365.2 | 364.7 |
| 25°    | 344.7 | 349.0 | 350.3 | 356.0 | 356.0 |
| 27.5°  | 333.8 | 338.6 | 341.2 | 346.0 | 346.4 |
| 30°    | 322.0 | 327.6 | 331.1 | 336.4 | 336.4 |
| 32.5°  | 308.9 | 315.4 | 320.2 | 325.9 | 327.2 |
| 35°    | 296.7 | 303.6 | 309.3 | 315.9 | 317.6 |
| 37.5°  | 283.6 | 291.4 | 298.0 | 305.4 | 306.7 |
| 40°    | 270.5 | 278.3 | 287.1 | 294.5 | 296.2 |
| 42.5°  | 256.1 | 266.1 | 275.3 | 283.6 | 286.2 |
| 45°    | 242.6 | 253.0 | 263.9 | 272.2 | 275.7 |
| 47.5°  | 228.2 | 240.0 | 252.2 | 261.3 | 263.9 |
| 50°    | 214.2 | 226.4 | 240.0 | 250.0 | 253.0 |
| 52.5°  | 199.4 | 212.5 | 227.7 | 238.2 | 242.1 |
| 55°    | 185.0 | 199.4 | 215.1 | 226.9 | 230.4 |
| 57.5°  | 171.0 | 185.9 | 202.9 | 214.6 | 218.6 |
| 60°    | 156.2 | 171.9 | 189.8 | 202.0 | 206.8 |
| 62.5°  | 142.2 | 158.4 | 177.6 | 189.8 | 194.1 |
| 65°    | 127.8 | 144.8 | 164.0 | 177.1 | 181.5 |
| 67.5°  | 113.4 | 131.3 | 150.5 | 164.9 | 168.4 |
| 70°    | 98.2  | 116.9 | 137.9 | 151.8 | 156.2 |
| 72.5°  | 84.2  | 103.0 | 124.8 | 139.2 | 143.5 |
| 75°    | 69.4  | 89.9  | 111.7 | 126.1 | 131.3 |
| 77.5°  | 56.7  | 77.2  | 99.0  | 114.3 | 118.2 |
| 80°    | 43.2  | 64.6  | 87.3  | 102.1 | 106.5 |
| 82.5°  | 31.4  | 53.2  | 76.3  | 91.2  | 95.5  |
| 85°    | 21.4  | 43.2  | 66.3  | 81.1  | 85.5  |
| 87.5°  | 13.1  | 34.9  | 57.2  | 72.0  | 76.3  |
| 90°    | 6.4   | 35.1  | 66.9  | 84.7  | 90.5  |
| 92.5°  | 27.2  | 50.4  | 76.6  | 93.2  | 95.7  |
| 95°    | 48.1  | 70.3  | 97.5  | 114.0 | 118.4 |
| 97.5°  | 75.6  | 95.0  | 119.9 | 136.7 | 140.2 |
| 100°   | 103.8 | 122.2 | 145.9 | 160.7 | 166.6 |
| 102.5° | 136.4 | 150.8 | 175.5 | 190.1 | 193.6 |
| 105°   | 168.7 | 180.7 | 206.0 | 218.2 | 223.7 |
| 107.5° | 206.5 | 216.3 | 237.2 | 251.2 | 254.3 |
| 110°   | 241.2 | 250.6 | 269.5 | 283.8 | 285.8 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 278.0 | 284.8 | 301.4 | 316.0 | 319.9 |
| 115°   | 314.3 | 321.7 | 335.9 | 347.1 | 349.9 |
| 117.5° | 351.7 | 356.0 | 369.3 | 379.8 | 381.1 |
| 120°   | 385.7 | 392.3 | 403.1 | 412.4 | 414.0 |
| 122.5° | 421.7 | 425.6 | 437.6 | 445.0 | 445.9 |
| 125°   | 458.0 | 460.2 | 471.5 | 477.6 | 477.8 |
| 127.5° | 491.8 | 495.8 | 505.2 | 509.5 | 509.7 |
| 130°   | 525.6 | 531.1 | 537.6 | 542.9 | 540.4 |
| 132.5° | 559.0 | 564.8 | 569.9 | 574.1 | 573.4 |
| 135°   | 593.5 | 597.4 | 601.4 | 606.4 | 607.1 |
| 137.5° | 625.0 | 628.2 | 633.5 | 636.8 | 636.8 |
| 140°   | 657.6 | 661.3 | 663.3 | 669.2 | 666.2 |
| 142.5° | 687.7 | 691.0 | 692.4 | 697.4 | 695.9 |
| 145°   | 719.3 | 720.3 | 722.5 | 725.3 | 724.1 |
| 147.5° | 746.0 | 749.0 | 751.2 | 752.5 | 749.9 |
| 150°   | 774.7 | 776.1 | 777.6 | 777.6 | 774.1 |
| 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)