

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: P996161

Luminaire Tested: S123DRP-B340DB2750-4F0-XX-W2A-F\_3500K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P996161  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DRP-B340DB2750-4F0-XX-W2A-F\_3500K  
Description: Define 3 Direct Perimeter with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

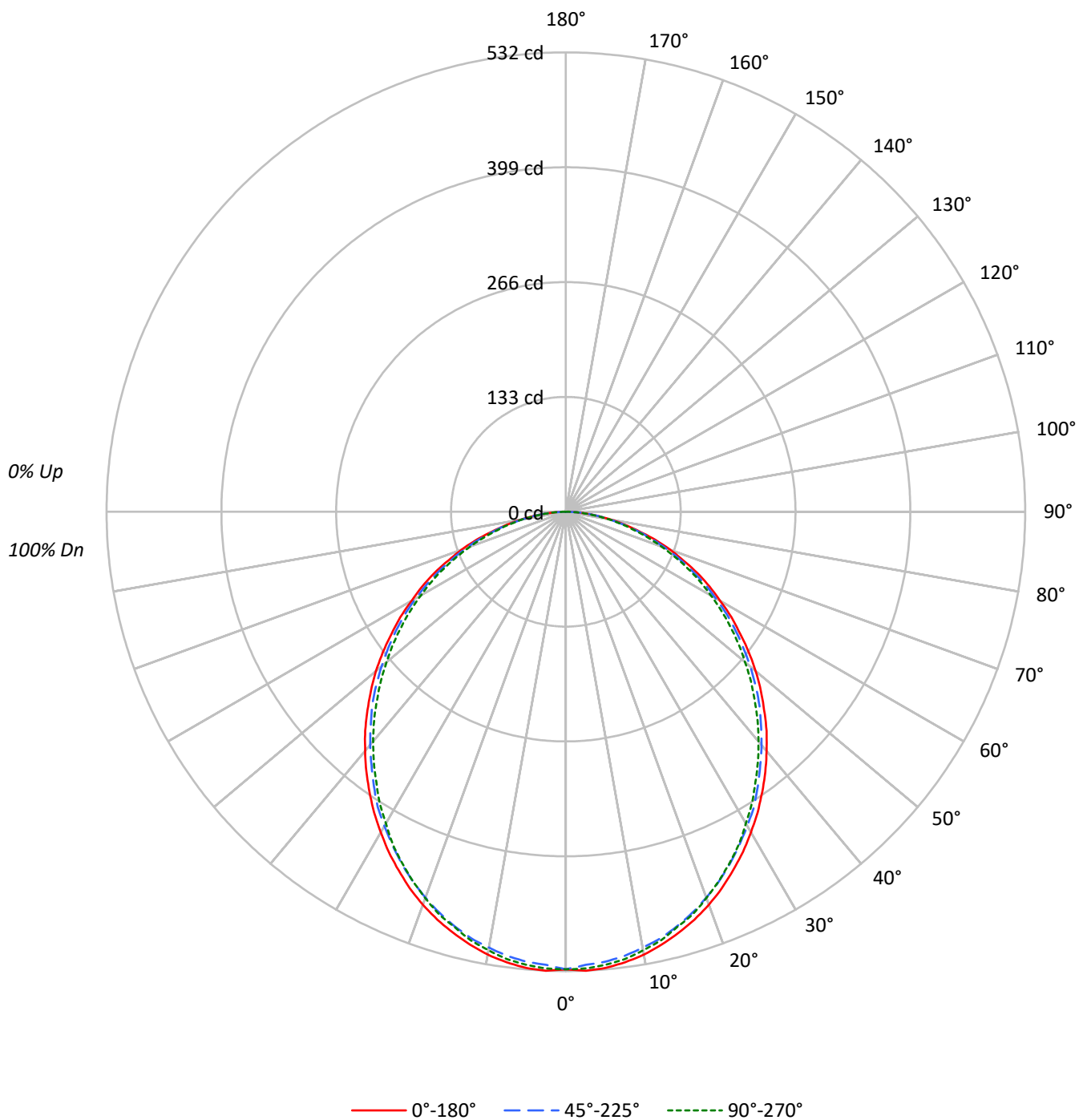
Lumens per Lamp: N/A  
Luminaire Lumens: 1379.0 lumens  
Efficiency: N/A  
Efficacy: 106.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 13  
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  |     |     |  | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30  |     |     |  | 10  |     |     |  | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 |  | 100 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 94  | 92  |  | 94  | 91  | 89  |  | 90  | 88  | 86  |  | 84  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  |  | 82  | 78  | 74  |  | 79  | 76  | 72  |  | 70  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  |  | 73  | 67  | 63  |  | 70  | 66  | 62  |  | 59  |
| 4   | 83  | 71  | 62  | 56  | 81  | 70  | 62  | 55  | 67  | 60  | 55  |  | 65  | 59  | 54  |  | 63  | 58  | 53  |  | 51  |
| 5   | 76  | 64  | 55  | 48  | 74  | 63  | 54  | 48  | 60  | 53  | 47  |  | 58  | 52  | 47  |  | 57  | 51  | 46  |  | 44  |
| 6   | 71  | 57  | 49  | 42  | 69  | 56  | 48  | 42  | 55  | 47  | 42  |  | 53  | 46  | 41  |  | 51  | 46  | 41  |  | 39  |
| 7   | 66  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 50  | 42  | 37  |  | 48  | 42  | 37  |  | 47  | 41  | 36  |  | 34  |
| 8   | 61  | 48  | 39  | 33  | 60  | 47  | 39  | 33  | 46  | 38  | 33  |  | 44  | 38  | 33  |  | 43  | 37  | 33  |  | 31  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  |  | 41  | 34  | 30  |  | 40  | 34  | 30  |  | 28  |
| 10  | 54  | 40  | 33  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  |  | 38  | 32  | 27  |  | 37  | 31  | 27  |  | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5704 | 5704 | 5704 |
| 5°  | 5730 | 5651 | 5691 |
| 10° | 5692 | 5603 | 5637 |
| 15° | 5625 | 5539 | 5550 |
| 20° | 5548 | 5448 | 5454 |
| 25° | 5443 | 5341 | 5330 |
| 30° | 5328 | 5221 | 5182 |
| 35° | 5209 | 5094 | 5029 |
| 40° | 5082 | 4954 | 4879 |
| 45° | 4944 | 4827 | 4710 |
| 50° | 4806 | 4669 | 4540 |
| 55° | 4626 | 4506 | 4369 |
| 60° | 4443 | 4316 | 4179 |
| 65° | 4281 | 4108 | 3981 |
| 70° | 4044 | 3871 | 3698 |
| 75° | 3693 | 3564 | 3410 |
| 80° | 3335 | 3192 | 3161 |
| 85° | 2927 | 2816 | 2705 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4944 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 50.0   | 3.6       |
| 10°-20°   | 141.0  | 10.2      |
| 20°-30°   | 208.3  | 15.1      |
| 30°-40°   | 243.3  | 17.6      |
| 40°-50°   | 244.6  | 17.7      |
| 50°-60°   | 214.8  | 15.6      |
| 60°-70°   | 160.0  | 11.6      |
| 70°-80°   | 91.1   | 6.6       |
| 80°-90°   | 25.9   | 1.9       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 399.3  | 29.0      |
| 0°-40°    | 642.6  | 46.6      |
| 0°-60°    | 1102.0 | 79.9      |
| 0°-90°    | 1379.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1379.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 530 | 530   | 530 | 530   | 530 |      |
| 5°  | 530 | 528   | 523 | 528   | 527 | 50   |
| 15° | 505 | 503   | 497 | 501   | 498 | 142  |
| 25° | 458 | 456   | 450 | 450   | 449 | 211  |
| 35° | 396 | 394   | 388 | 385   | 383 | 248  |
| 45° | 325 | 323   | 317 | 312   | 309 | 251  |
| 55° | 246 | 246   | 240 | 235   | 233 | 221  |
| 65° | 168 | 166   | 161 | 158   | 156 | 166  |
| 75° | 89  | 87    | 86  | 83    | 82  | 95   |
| 85° | 24  | 23    | 23  | 22    | 22  | 27   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 529.9 | 529.9 | 529.9 | 529.9 | 529.9 |
| 2.5°  | 532.1 | 530.3 | 525.3 | 529.9 | 529.4 |
| 5°    | 530.3 | 528.0 | 523.0 | 527.6 | 526.7 |
| 7.5°  | 526.2 | 523.9 | 518.9 | 523.0 | 522.6 |
| 10°   | 520.8 | 518.5 | 512.6 | 516.7 | 515.7 |
| 12.5° | 513.5 | 511.6 | 506.2 | 508.9 | 508.5 |
| 15°   | 504.8 | 503.0 | 497.1 | 500.7 | 498.0 |
| 17.5° | 495.2 | 493.0 | 487.0 | 489.8 | 488.9 |
| 20°   | 484.3 | 481.6 | 475.6 | 477.5 | 476.1 |
| 22.5° | 472.0 | 469.3 | 463.3 | 464.7 | 462.9 |
| 25°   | 458.3 | 455.6 | 449.7 | 450.1 | 448.8 |
| 27.5° | 444.2 | 441.5 | 435.1 | 435.6 | 434.2 |
| 30°   | 428.7 | 426.4 | 420.1 | 420.1 | 416.9 |
| 32.5° | 413.2 | 410.0 | 405.5 | 402.3 | 400.9 |
| 35°   | 396.4 | 393.6 | 387.7 | 385.0 | 382.7 |
| 37.5° | 379.5 | 375.9 | 369.9 | 366.8 | 365.4 |
| 40°   | 361.7 | 359.0 | 352.6 | 349.0 | 347.2 |
| 42.5° | 344.0 | 340.8 | 334.4 | 330.8 | 328.9 |
| 45°   | 324.8 | 323.0 | 317.1 | 311.6 | 309.4 |
| 47.5° | 306.2 | 303.4 | 298.0 | 292.5 | 290.7 |
| 50°   | 287.0 | 284.8 | 278.8 | 273.8 | 271.1 |
| 52.5° | 267.0 | 265.6 | 259.2 | 255.1 | 252.4 |
| 55°   | 246.5 | 246.0 | 240.1 | 235.1 | 232.8 |
| 57.5° | 227.3 | 225.5 | 221.0 | 216.4 | 213.7 |
| 60°   | 206.4 | 205.9 | 200.5 | 196.4 | 194.1 |
| 62.5° | 187.7 | 186.3 | 180.9 | 176.8 | 175.4 |
| 65°   | 168.1 | 165.8 | 161.3 | 157.6 | 156.3 |
| 67.5° | 147.2 | 145.3 | 141.7 | 138.5 | 136.7 |
| 70°   | 128.5 | 125.7 | 123.0 | 119.8 | 117.5 |
| 72.5° | 108.9 | 107.1 | 103.9 | 101.1 | 100.2 |
| 75°   | 88.8  | 87.0  | 85.7  | 83.4  | 82.0  |
| 77.5° | 71.1  | 70.2  | 68.3  | 66.5  | 66.5  |
| 80°   | 53.8  | 52.4  | 51.5  | 51.0  | 51.0  |
| 82.5° | 36.9  | 36.9  | 36.9  | 36.0  | 35.5  |
| 85°   | 23.7  | 22.8  | 22.8  | 21.9  | 21.9  |
| 87.5° | 11.8  | 10.5  | 10.0  | 9.6   | 9.6   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)