

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: P996415

Luminaire Tested: S123RDRP-B560DB50-4F0-XX-W2A-F

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P996415  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-B560DB50-4F0-XX-W2A-F  
Description: Define 3 Regressed Direct Perimeter with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

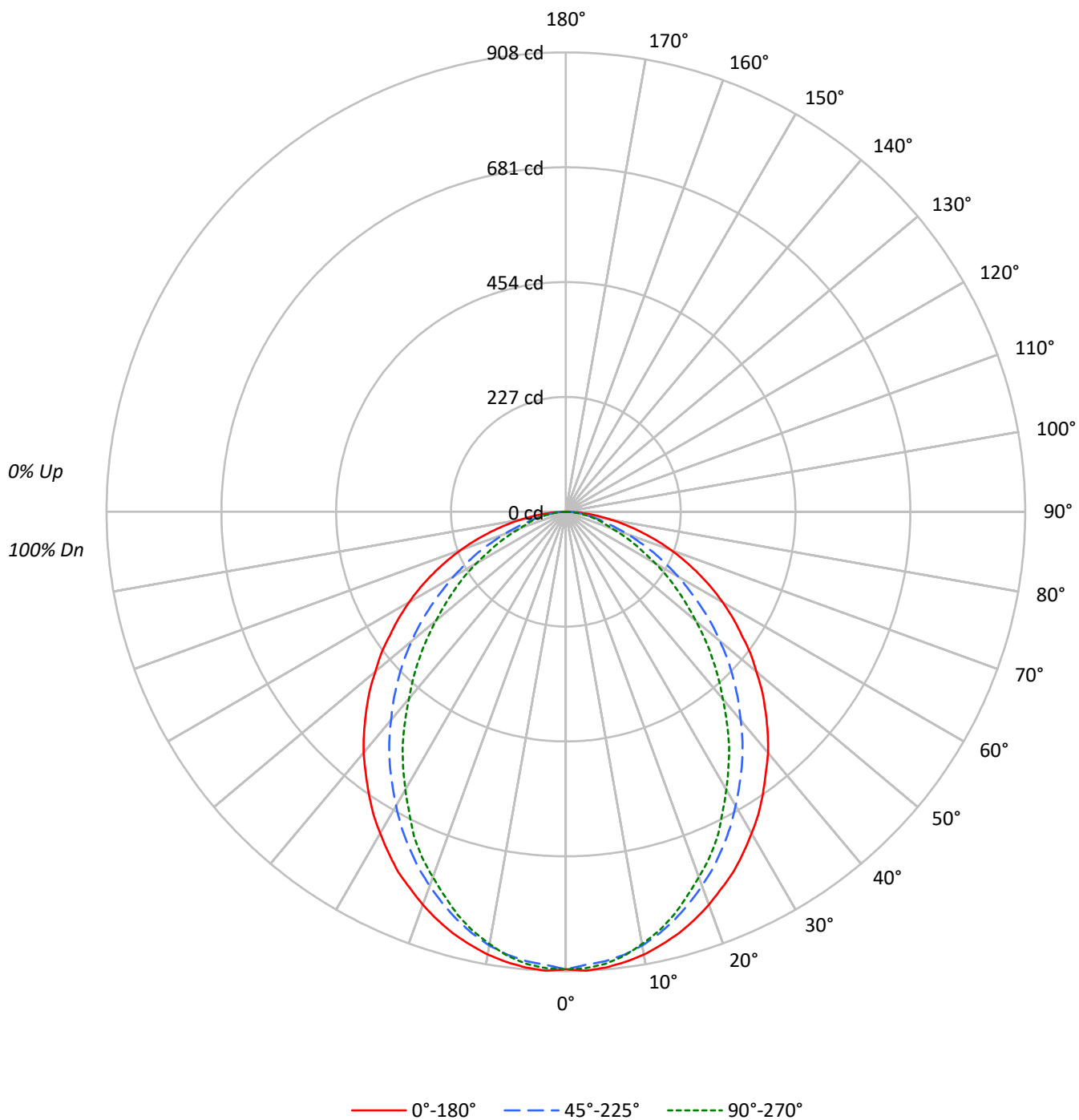
Lumens per Lamp: N/A  
Luminaire Lumens: 2043.0 lumens  
Efficiency: N/A  
Efficacy: 85.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 24  
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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 93  | 90  |  | 91  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  |  | 84  | 80  | 77  |  | 81  |
| 3   | 92  | 82  | 75  | 68  | 90  | 81  | 74  | 68  | 78  | 72  | 67  |  | 75  | 70  | 66  |  | 73  |
| 4   | 85  | 73  | 65  | 59  | 83  | 72  | 64  | 58  | 70  | 63  | 58  |  | 67  | 62  | 57  |  | 65  |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 57  | 51  | 63  | 56  | 50  |  | 61  | 55  | 50  |  | 59  |
| 6   | 73  | 60  | 51  | 45  | 71  | 59  | 51  | 45  | 57  | 50  | 45  |  | 55  | 49  | 44  |  | 54  |
| 7   | 67  | 54  | 46  | 40  | 66  | 54  | 46  | 40  | 52  | 45  | 40  |  | 51  | 44  | 39  |  | 49  |
| 8   | 63  | 50  | 42  | 36  | 61  | 49  | 41  | 36  | 48  | 41  | 36  |  | 47  | 40  | 36  |  | 46  |
| 9   | 59  | 46  | 38  | 33  | 58  | 45  | 38  | 33  | 44  | 37  | 32  |  | 43  | 37  | 32  |  | 42  |
| 10  | 55  | 43  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 34  | 30  |  | 40  | 34  | 29  |  | 39  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9734 | 9734 | 9734 |
| 5°  | 9771 | 9636 | 9692 |
| 10° | 9716 | 9516 | 9483 |
| 15° | 9611 | 9293 | 9195 |
| 20° | 9468 | 9015 | 8804 |
| 25° | 9321 | 8702 | 8423 |
| 30° | 9125 | 8341 | 7885 |
| 35° | 8925 | 7980 | 7391 |
| 40° | 8738 | 7554 | 6781 |
| 45° | 8496 | 7135 | 6231 |
| 50° | 8229 | 6656 | 5613 |
| 55° | 7955 | 6110 | 5037 |
| 60° | 7705 | 5526 | 4405 |
| 65° | 7379 | 4895 | 3775 |
| 70° | 6971 | 4107 | 3046 |
| 75° | 6376 | 3231 | 2865 |
| 80° | 5684 | 2864 | 2634 |
| 85° | 4804 | 2532 | 2359 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8496 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 85.0   | 4.2       |
| 10°-20°   | 236.5  | 11.6      |
| 20°-30°   | 340.5  | 16.7      |
| 30°-40°   | 383.4  | 18.8      |
| 40°-50°   | 366.8  | 18.0      |
| 50°-60°   | 300.2  | 14.7      |
| 60°-70°   | 202.4  | 9.9       |
| 70°-80°   | 101.5  | 5.0       |
| 80°-90°   | 26.5   | 1.3       |
| 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°    | 662.0  | 32.4      |
| 0°-40°    | 1045.4 | 51.2      |
| 0°-60°    | 1712.5 | 83.8      |
| 0°-90°    | 2043.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2043.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 904 | 904   | 904 | 904   | 904 |      |
| 5°  | 904 | 901   | 892 | 898   | 897 | 86   |
| 15° | 862 | 854   | 834 | 830   | 825 | 243  |
| 25° | 785 | 766   | 733 | 717   | 709 | 361  |
| 35° | 679 | 653   | 607 | 576   | 562 | 425  |
| 45° | 558 | 525   | 469 | 427   | 409 | 431  |
| 55° | 424 | 388   | 326 | 283   | 268 | 380  |
| 65° | 290 | 249   | 192 | 156   | 148 | 287  |
| 75° | 153 | 118   | 78  | 70    | 69  | 163  |
| 85° | 39  | 23    | 20  | 19    | 19  | 45   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 904.3 | 904.3 | 904.3 | 904.3 | 904.3 |
| 2.5°  | 908.0 | 905.0 | 896.2 | 904.3 | 902.8 |
| 5°    | 904.3 | 900.6 | 891.8 | 898.4 | 897.0 |
| 7.5°  | 897.7 | 894.0 | 883.0 | 887.4 | 885.2 |
| 10°   | 888.9 | 883.8 | 870.6 | 871.3 | 867.6 |
| 12.5° | 876.4 | 870.6 | 853.7 | 853.0 | 848.6 |
| 15°   | 862.5 | 854.4 | 833.9 | 830.2 | 825.1 |
| 17.5° | 845.6 | 836.8 | 811.2 | 803.8 | 796.5 |
| 20°   | 826.6 | 814.8 | 787.0 | 777.4 | 768.6 |
| 22.5° | 805.3 | 791.4 | 761.3 | 748.8 | 740.8 |
| 25°   | 784.8 | 766.4 | 732.7 | 717.3 | 709.2 |
| 27.5° | 759.8 | 740.0 | 703.4 | 682.8 | 670.3 |
| 30°   | 734.2 | 712.2 | 671.1 | 646.1 | 634.4 |
| 32.5° | 708.5 | 682.8 | 638.8 | 610.9 | 598.5 |
| 35°   | 679.2 | 652.7 | 607.3 | 575.7 | 562.5 |
| 37.5° | 649.8 | 621.2 | 573.5 | 538.3 | 522.2 |
| 40°   | 621.9 | 589.7 | 537.6 | 499.5 | 482.6 |
| 42.5° | 590.4 | 558.1 | 503.9 | 461.3 | 446.7 |
| 45°   | 558.1 | 525.1 | 468.7 | 426.9 | 409.3 |
| 47.5° | 526.6 | 489.9 | 434.2 | 388.7 | 373.3 |
| 50°   | 491.4 | 456.9 | 397.5 | 352.0 | 335.2 |
| 52.5° | 459.9 | 421.7 | 363.0 | 315.4 | 300.7 |
| 55°   | 423.9 | 388.0 | 325.6 | 283.1 | 268.4 |
| 57.5° | 391.6 | 352.8 | 289.7 | 249.4 | 236.9 |
| 60°   | 357.9 | 317.6 | 256.7 | 217.1 | 204.6 |
| 62.5° | 324.2 | 283.8 | 223.0 | 186.3 | 173.1 |
| 65°   | 289.7 | 249.4 | 192.2 | 156.2 | 148.2 |
| 67.5° | 255.2 | 214.2 | 158.4 | 131.3 | 122.5 |
| 70°   | 221.5 | 181.9 | 130.5 | 104.9 | 96.8  |
| 72.5° | 187.8 | 148.9 | 103.4 | 83.6  | 81.4  |
| 75°   | 153.3 | 118.1 | 77.7  | 70.4  | 68.9  |
| 77.5° | 121.7 | 89.5  | 60.9  | 56.5  | 55.0  |
| 80°   | 91.7  | 61.6  | 46.2  | 44.0  | 42.5  |
| 82.5° | 63.1  | 38.1  | 33.0  | 30.8  | 30.8  |
| 85°   | 38.9  | 22.7  | 20.5  | 19.1  | 19.1  |
| 87.5° | 17.6  | 9.5   | 9.5   | 8.8   | 8.1   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)