

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: P1007174

Luminaire Tested: S125RDR-B375DB35-4F0-XX-W2A-F

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1007174  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-B375DB35-4F0-XX-W2A-F  
Description: Define 5 Regressed Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

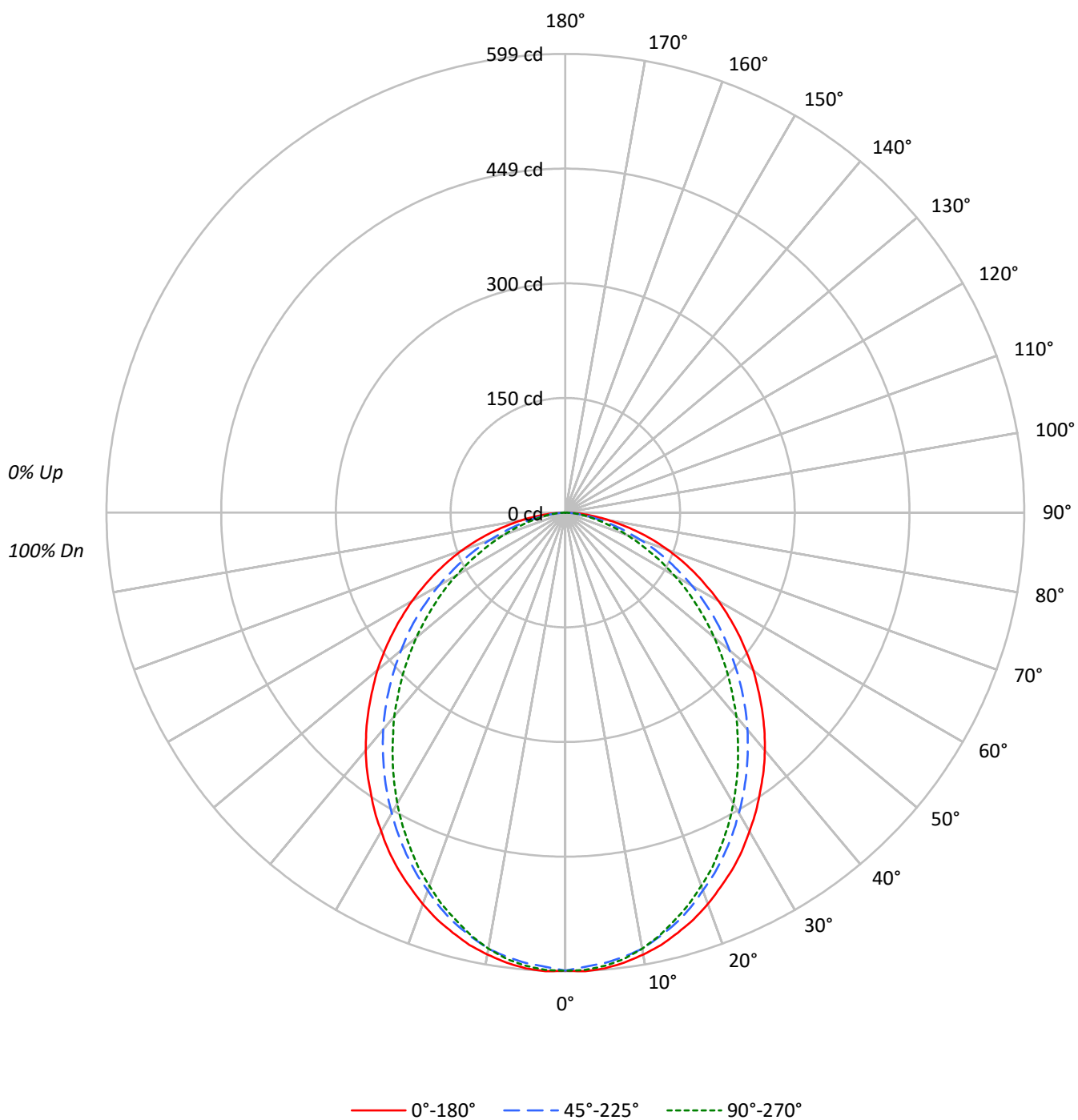
Lumens per Lamp: N/A  
Luminaire Lumens: 1413.0 lumens  
Efficiency: N/A  
Efficacy: 108.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Direct

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  |
| 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   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 92  | 90  |  | 91  |
| 2   | 100 | 92  | 86  | 80  | 98  | 90  | 84  | 79  | 87  | 82  | 78  |  | 84  | 79  | 76  |  | 81  |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  |  | 74  | 69  | 65  |  | 72  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 64  | 57  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 64  |
| 5   | 78  | 65  | 57  | 50  | 76  | 64  | 56  | 50  | 62  | 55  | 49  |  | 60  | 54  | 49  |  | 58  |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 44  |  | 55  | 48  | 43  |  | 53  |
| 7   | 67  | 54  | 45  | 39  | 65  | 53  | 45  | 39  | 51  | 44  | 39  |  | 50  | 43  | 39  |  | 49  |
| 8   | 62  | 49  | 41  | 35  | 61  | 48  | 41  | 35  | 47  | 40  | 35  |  | 46  | 39  | 35  |  | 45  |
| 9   | 58  | 45  | 37  | 32  | 57  | 45  | 37  | 32  | 44  | 37  | 32  |  | 42  | 36  | 31  |  | 41  |
| 10  | 55  | 42  | 34  | 29  | 54  | 41  | 34  | 29  | 40  | 34  | 29  |  | 39  | 33  | 29  |  | 39  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3832 | 3832 | 3832 |
| 5°  | 3841 | 3797 | 3820 |
| 10° | 3812 | 3762 | 3762 |
| 15° | 3766 | 3685 | 3656 |
| 20° | 3708 | 3579 | 3536 |
| 25° | 3640 | 3475 | 3398 |
| 30° | 3556 | 3352 | 3245 |
| 35° | 3470 | 3226 | 3074 |
| 40° | 3389 | 3094 | 2906 |
| 45° | 3291 | 2947 | 2722 |
| 50° | 3193 | 2787 | 2531 |
| 55° | 3077 | 2634 | 2326 |
| 60° | 2964 | 2449 | 2107 |
| 65° | 2829 | 2233 | 1856 |
| 70° | 2673 | 1963 | 1600 |
| 75° | 2461 | 1656 | 1332 |
| 80° | 2166 | 1299 | 1118 |
| 85° | 1823 | 1066 | 1000 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3291 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 56.3   | 4.0       |
| 10°-20°   | 157.3  | 11.1      |
| 20°-30°   | 228.1  | 16.1      |
| 30°-40°   | 259.9  | 18.4      |
| 40°-50°   | 253.3  | 17.9      |
| 50°-60°   | 213.2  | 15.1      |
| 60°-70°   | 149.4  | 10.6      |
| 70°-80°   | 76.6   | 5.4       |
| 80°-90°   | 19.1   | 1.4       |
| 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°    | 441.7  | 31.3      |
| 0°-40°    | 701.5  | 49.6      |
| 0°-60°    | 1168.0 | 82.7      |
| 0°-90°    | 1413.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1413.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 598 | 598   | 598 | 598   | 598 |      |
| 5°  | 597 | 595   | 590 | 595   | 594 | 57   |
| 15° | 568 | 565   | 556 | 555   | 551 | 160  |
| 25° | 515 | 508   | 492 | 486   | 481 | 237  |
| 35° | 444 | 433   | 412 | 399   | 393 | 278  |
| 45° | 363 | 350   | 325 | 307   | 300 | 280  |
| 55° | 276 | 261   | 236 | 216   | 208 | 246  |
| 65° | 187 | 171   | 147 | 129   | 122 | 185  |
| 75° | 99  | 86    | 67  | 57    | 54  | 105  |
| 85° | 25  | 17    | 14  | 14    | 14  | 29   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 598.1 | 598.1 | 598.1 | 598.1 | 598.1 |
| 2.5°  | 599.4 | 598.1 | 593.5 | 598.1 | 597.6 |
| 5°    | 597.2 | 595.3 | 590.4 | 594.9 | 594.0 |
| 7.5°  | 592.6 | 590.8 | 585.0 | 588.6 | 587.7 |
| 10°   | 585.9 | 584.5 | 578.2 | 579.5 | 578.2 |
| 12.5° | 578.2 | 576.4 | 567.3 | 568.2 | 566.0 |
| 15°   | 567.8 | 565.1 | 555.6 | 555.1 | 551.1 |
| 17.5° | 557.0 | 552.9 | 541.6 | 539.3 | 536.2 |
| 20°   | 543.9 | 539.3 | 524.9 | 522.6 | 518.6 |
| 22.5° | 529.4 | 524.9 | 509.5 | 504.6 | 501.4 |
| 25°   | 514.9 | 508.2 | 491.5 | 485.6 | 480.6 |
| 27.5° | 498.7 | 490.6 | 472.9 | 465.3 | 460.3 |
| 30°   | 480.6 | 472.0 | 453.1 | 442.7 | 438.6 |
| 32.5° | 463.0 | 452.6 | 433.2 | 421.4 | 416.0 |
| 35°   | 443.6 | 432.7 | 412.4 | 399.3 | 393.0 |
| 37.5° | 425.1 | 412.0 | 391.2 | 375.8 | 369.5 |
| 40°   | 405.2 | 391.6 | 369.9 | 352.8 | 347.4 |
| 42.5° | 384.4 | 370.4 | 347.8 | 331.6 | 323.0 |
| 45°   | 363.2 | 350.1 | 325.2 | 307.2 | 300.4 |
| 47.5° | 341.0 | 327.5 | 302.6 | 284.1 | 276.4 |
| 50°   | 320.3 | 305.4 | 279.6 | 260.6 | 253.9 |
| 52.5° | 297.7 | 282.3 | 258.4 | 237.6 | 230.8 |
| 55°   | 275.5 | 261.1 | 235.8 | 215.5 | 208.2 |
| 57.5° | 253.0 | 237.6 | 213.2 | 193.3 | 187.0 |
| 60°   | 231.3 | 215.5 | 191.1 | 171.2 | 164.4 |
| 62.5° | 208.2 | 193.3 | 168.5 | 150.4 | 143.6 |
| 65°   | 186.6 | 171.2 | 147.3 | 129.2 | 122.4 |
| 67.5° | 164.9 | 149.5 | 126.5 | 109.3 | 103.9 |
| 70°   | 142.7 | 127.4 | 104.8 | 90.8  | 85.4  |
| 72.5° | 121.1 | 106.2 | 85.4  | 72.7  | 69.6  |
| 75°   | 99.4  | 85.8  | 66.9  | 56.9  | 53.8  |
| 77.5° | 77.2  | 66.4  | 50.6  | 42.9  | 40.2  |
| 80°   | 58.7  | 47.9  | 35.2  | 31.2  | 30.3  |
| 82.5° | 40.7  | 31.2  | 23.5  | 22.1  | 21.7  |
| 85°   | 24.8  | 16.7  | 14.5  | 14.0  | 13.6  |
| 87.5° | 10.4  | 7.2   | 6.8   | 6.8   | 6.3   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)