

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: P1060468

Luminaire Tested: S124RDR-S575D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060468  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S575D830-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

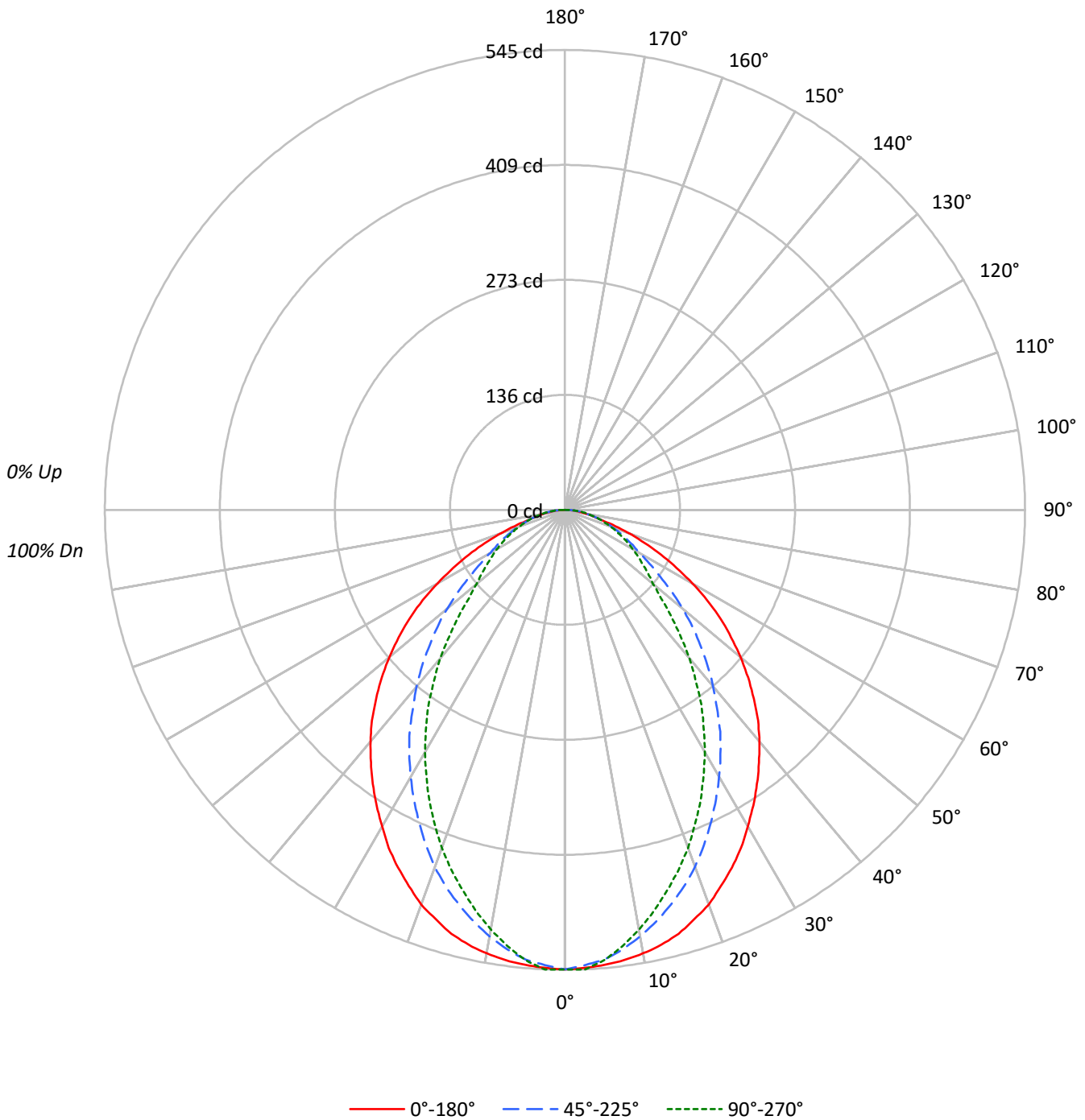
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1050.0 lumens  
Efficiency: N/A  
Efficacy: 53.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
Input Voltage (V): 120  
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 |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 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  | 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   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 88  | 86  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 101 | 94  | 88  | 83  | 99  | 92  | 86  | 82  | 89  | 84  | 80  | 85  | 82  | 78  | 82  | 79  | 76  | 74  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 93  | 84  | 76  | 71  | 91  | 82  | 75  | 70  | 79  | 74  | 69  | 77  | 72  | 68  | 74  | 70  | 66  | 64  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 86  | 75  | 67  | 61  | 84  | 74  | 67  | 61  | 72  | 65  | 60  | 69  | 64  | 59  | 67  | 62  | 58  | 56  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 80  | 68  | 60  | 54  | 78  | 67  | 59  | 53  | 65  | 58  | 53  | 63  | 57  | 52  | 61  | 56  | 52  | 50  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 74  | 62  | 54  | 48  | 72  | 61  | 53  | 47  | 59  | 52  | 47  | 58  | 51  | 47  | 56  | 51  | 46  | 44  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 69  | 57  | 48  | 43  | 68  | 56  | 48  | 43  | 54  | 47  | 42  | 53  | 47  | 42  | 52  | 46  | 42  | 40  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 65  | 52  | 44  | 39  | 63  | 51  | 44  | 39  | 50  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 36  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 61  | 48  | 40  | 35  | 59  | 48  | 40  | 35  | 46  | 40  | 35  | 45  | 39  | 35  | 44  | 39  | 35  | 33  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 57  | 45  | 37  | 32  | 56  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 41  | 36  | 32  | 30  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4690 | 4690 | 4690 |
| 5°  | 4680 | 4625 | 4630 |
| 10° | 4667 | 4487 | 4415 |
| 15° | 4638 | 4318 | 4164 |
| 20° | 4563 | 4128 | 3906 |
| 25° | 4445 | 3885 | 3611 |
| 30° | 4307 | 3633 | 3296 |
| 35° | 4170 | 3370 | 2960 |
| 40° | 4029 | 3071 | 2582 |
| 45° | 3849 | 2758 | 2159 |
| 50° | 3634 | 2434 | 1826 |
| 55° | 3382 | 2066 | 1690 |
| 60° | 2998 | 1752 | 1598 |
| 65° | 2555 | 1616 | 1512 |
| 70° | 1997 | 1498 | 1435 |
| 75° | 1364 | 1384 | 1384 |
| 80° | 1175 | 1299 | 1334 |
| 85° | 1008 | 1265 | 1393 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3849 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 50.7   | 4.8       |
| 10°-20°   | 137.6  | 13.1      |
| 20°-30°   | 191.0  | 18.2      |
| 30°-40°   | 204.8  | 19.5      |
| 40°-50°   | 181.4  | 17.3      |
| 50°-60°   | 136.7  | 13.0      |
| 60°-70°   | 88.5   | 8.4       |
| 70°-80°   | 45.4   | 4.3       |
| 80°-90°   | 13.9   | 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°    | 379.3  | 36.1      |
| 0°-40°    | 584.0  | 55.6      |
| 0°-60°    | 902.1  | 85.9      |
| 0°-90°    | 1050.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1050.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 545 | 545   | 545 | 545   | 545 |      |
| 5°  | 541 | 542   | 535 | 536   | 536 | 51   |
| 15° | 520 | 509   | 484 | 472   | 467 | 146  |
| 25° | 468 | 443   | 409 | 387   | 380 | 215  |
| 35° | 397 | 361   | 321 | 292   | 282 | 248  |
| 45° | 316 | 275   | 226 | 191   | 177 | 244  |
| 55° | 225 | 188   | 138 | 116   | 113 | 200  |
| 65° | 125 | 101   | 79  | 75    | 74  | 124  |
| 75° | 41  | 43    | 42  | 42    | 42  | 48   |
| 85° | 10  | 11    | 13  | 14    | 14  | 12   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 544.6 | 544.6 | 544.6 | 544.6 | 544.6 |
| 2.5°  | 543.3 | 545.2 | 540.1 | 543.9 | 545.2 |
| 5°    | 541.4 | 542.0 | 535.0 | 535.6 | 535.6 |
| 7.5°  | 538.2 | 536.9 | 525.4 | 522.2 | 521.5 |
| 10°   | 533.7 | 529.9 | 513.2 | 506.8 | 504.9 |
| 12.5° | 527.9 | 520.9 | 499.8 | 490.8 | 487.0 |
| 15°   | 520.3 | 508.7 | 484.4 | 472.3 | 467.1 |
| 17.5° | 508.7 | 494.0 | 468.4 | 453.1 | 447.3 |
| 20°   | 497.9 | 478.0 | 450.5 | 431.3 | 426.2 |
| 22.5° | 482.5 | 461.4 | 430.0 | 409.5 | 403.1 |
| 25°   | 467.8 | 442.8 | 408.9 | 387.1 | 380.1 |
| 27.5° | 451.8 | 423.6 | 387.1 | 364.1 | 355.2 |
| 30°   | 433.2 | 403.1 | 365.4 | 341.1 | 331.5 |
| 32.5° | 415.3 | 383.3 | 343.0 | 316.1 | 305.9 |
| 35°   | 396.7 | 360.9 | 320.6 | 291.8 | 281.6 |
| 37.5° | 377.6 | 339.8 | 295.6 | 267.5 | 254.0 |
| 40°   | 358.4 | 318.7 | 273.2 | 241.2 | 229.7 |
| 42.5° | 338.5 | 296.9 | 250.2 | 216.9 | 202.2 |
| 45°   | 316.1 | 275.2 | 226.5 | 191.3 | 177.3 |
| 47.5° | 294.4 | 254.0 | 204.8 | 166.4 | 153.6 |
| 50°   | 271.3 | 231.6 | 181.7 | 144.6 | 136.3 |
| 52.5° | 248.3 | 208.6 | 159.3 | 128.0 | 124.1 |
| 55°   | 225.3 | 187.5 | 137.6 | 115.8 | 112.6 |
| 57.5° | 199.7 | 165.7 | 118.4 | 104.9 | 102.4 |
| 60°   | 174.1 | 142.1 | 101.7 | 94.7  | 92.8  |
| 62.5° | 149.1 | 121.6 | 90.2  | 84.5  | 83.2  |
| 65°   | 125.4 | 101.1 | 79.3  | 74.9  | 74.2  |
| 67.5° | 102.4 | 83.2  | 69.1  | 66.6  | 65.3  |
| 70°   | 79.3  | 66.6  | 59.5  | 58.2  | 57.0  |
| 72.5° | 58.9  | 53.8  | 50.6  | 49.9  | 49.3  |
| 75°   | 41.0  | 42.9  | 41.6  | 41.6  | 41.6  |
| 77.5° | 32.6  | 33.3  | 33.9  | 34.6  | 33.9  |
| 80°   | 23.7  | 25.6  | 26.2  | 27.5  | 26.9  |
| 82.5° | 16.6  | 17.9  | 19.8  | 20.5  | 21.1  |
| 85°   | 10.2  | 10.9  | 12.8  | 14.1  | 14.1  |
| 87.5° | 4.5   | 5.1   | 6.4   | 7.7   | 8.3   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)