

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060488

Luminaire Tested: S124RDRP-S575D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060488  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S575D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

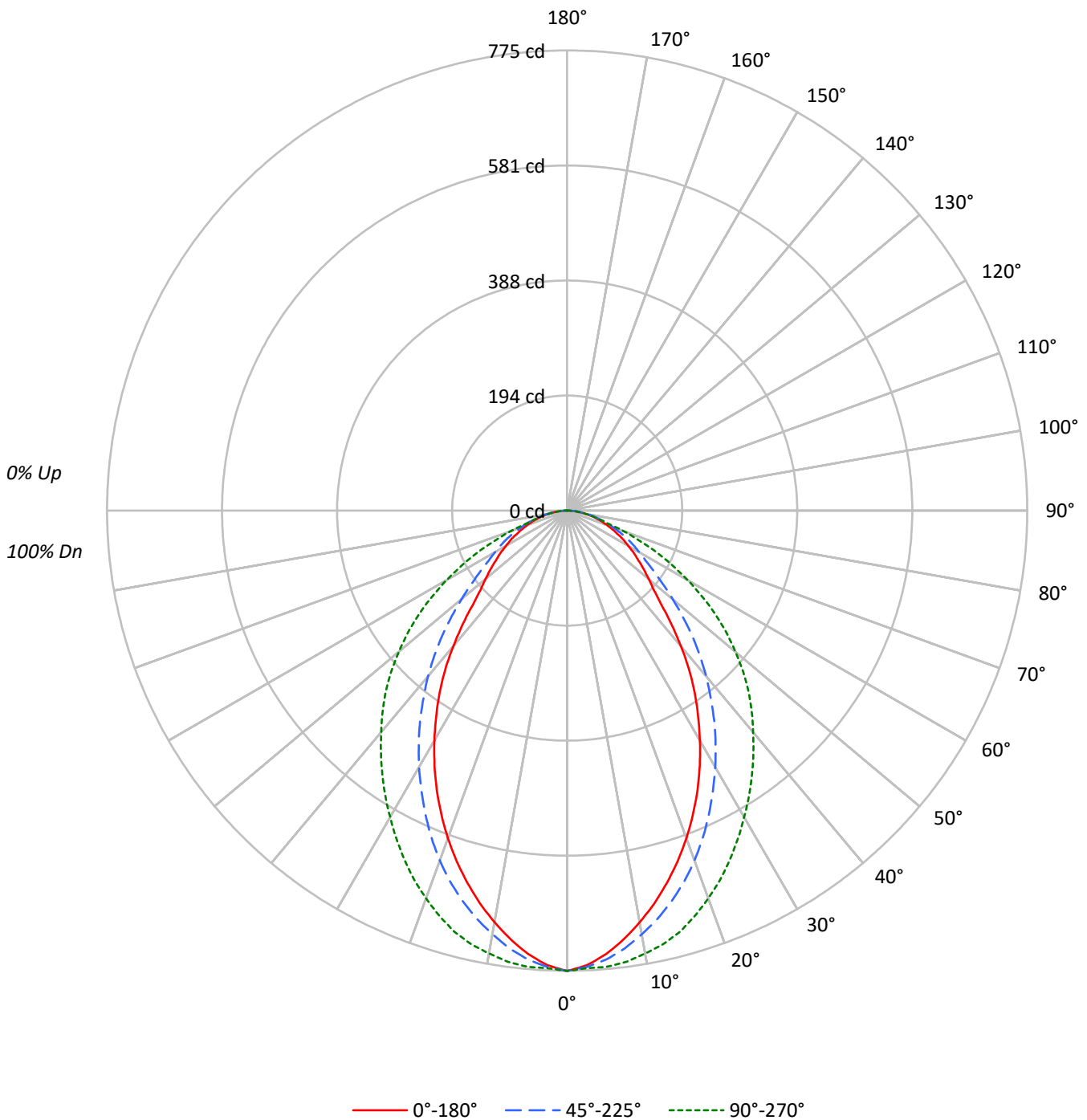
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1422.6 lumens  
Efficiency: N/A  
Efficacy: 72.6 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11  
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 (A<sub>in</sub>): 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  | 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   | 110 | 106 | 102 | 99  | 108 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  | 87  |
| 2   | 101 | 94  | 88  | 83  | 99  | 92  | 87  | 82  | 89  | 84  | 80  | 86  | 82  | 78  | 83  | 80  | 77  | 75  |
| 3   | 94  | 84  | 77  | 71  | 91  | 83  | 76  | 70  | 80  | 74  | 69  | 77  | 72  | 68  | 75  | 70  | 67  | 65  |
| 4   | 86  | 76  | 68  | 62  | 84  | 74  | 67  | 61  | 72  | 66  | 60  | 70  | 64  | 60  | 68  | 63  | 59  | 57  |
| 5   | 80  | 68  | 60  | 54  | 78  | 67  | 60  | 54  | 65  | 59  | 53  | 63  | 58  | 53  | 62  | 56  | 52  | 50  |
| 6   | 75  | 62  | 54  | 48  | 73  | 61  | 54  | 48  | 60  | 53  | 48  | 58  | 52  | 47  | 57  | 51  | 47  | 45  |
| 7   | 70  | 57  | 49  | 43  | 68  | 56  | 49  | 43  | 55  | 48  | 43  | 53  | 47  | 43  | 52  | 47  | 42  | 40  |
| 8   | 65  | 53  | 45  | 39  | 64  | 52  | 44  | 39  | 51  | 44  | 39  | 49  | 43  | 39  | 48  | 43  | 38  | 37  |
| 9   | 61  | 49  | 41  | 36  | 60  | 48  | 41  | 36  | 47  | 40  | 35  | 46  | 40  | 35  | 45  | 39  | 35  | 33  |
| 10  | 58  | 45  | 38  | 33  | 56  | 45  | 38  | 33  | 44  | 37  | 33  | 43  | 37  | 32  | 42  | 36  | 32  | 31  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6676 | 6676 | 6676 |
| 5°  | 6482 | 6559 | 6666 |
| 10° | 6155 | 6335 | 6623 |
| 15° | 5786 | 6067 | 6544 |
| 20° | 5382 | 5747 | 6369 |
| 25° | 4935 | 5365 | 6161 |
| 30° | 4448 | 4960 | 5928 |
| 35° | 3938 | 4537 | 5705 |
| 40° | 3348 | 4095 | 5476 |
| 45° | 2740 | 3618 | 5263 |
| 50° | 2399 | 3107 | 4954 |
| 55° | 2204 | 2678 | 4583 |
| 60° | 2044 | 2411 | 4040 |
| 65° | 1915 | 2264 | 3382 |
| 70° | 1798 | 2072 | 2540 |
| 75° | 1690 | 1893 | 1850 |
| 80° | 1567 | 1736 | 1567 |
| 85° | 1423 | 1699 | 1354 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5263 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 71.6   | 5.0       |
| 10°-20°   | 192.8  | 13.6      |
| 20°-30°   | 263.5  | 18.5      |
| 30°-40°   | 276.9  | 19.5      |
| 40°-50°   | 240.3  | 16.9      |
| 50°-60°   | 181.3  | 12.7      |
| 60°-70°   | 117.5  | 8.3       |
| 70°-80°   | 60.3   | 4.2       |
| 80°-90°   | 18.3   | 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°    | 527.9  | 37.1      |
| 0°-40°    | 804.9  | 56.6      |
| 0°-60°    | 1226.5 | 86.2      |
| 0°-90°    | 1422.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1422.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 775 | 775   | 775 | 775   | 775 |      |
| 5°  | 750 | 760   | 759 | 765   | 771 | 70   |
| 15° | 649 | 665   | 681 | 712   | 734 | 182  |
| 25° | 519 | 538   | 565 | 608   | 648 | 238  |
| 35° | 375 | 395   | 432 | 489   | 543 | 233  |
| 45° | 225 | 246   | 297 | 371   | 432 | 177  |
| 55° | 147 | 151   | 178 | 253   | 305 | 132  |
| 65° | 94  | 96    | 111 | 134   | 166 | 94   |
| 75° | 51  | 57    | 57  | 58    | 56  | 54   |
| 85° | 14  | 18    | 17  | 16    | 14  | 16   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 775.3 | 775.3 | 775.3 | 775.3 | 775.3 |
| 2.5°  | 766.4 | 776.0 | 769.1 | 770.5 | 771.2 |
| 5°    | 749.9 | 760.2 | 758.8 | 765.0 | 771.2 |
| 7.5°  | 728.6 | 741.0 | 743.7 | 756.1 | 766.4 |
| 10°   | 703.9 | 717.7 | 724.5 | 744.4 | 757.4 |
| 12.5° | 677.9 | 691.6 | 703.9 | 729.3 | 747.8 |
| 15°   | 649.0 | 664.8 | 680.6 | 711.5 | 734.1 |
| 17.5° | 618.9 | 635.3 | 655.2 | 688.8 | 715.6 |
| 20°   | 587.3 | 603.8 | 627.1 | 663.5 | 695.0 |
| 22.5° | 553.7 | 572.2 | 596.9 | 636.0 | 673.1 |
| 25°   | 519.4 | 537.9 | 564.7 | 607.9 | 648.4 |
| 27.5° | 483.7 | 502.9 | 531.7 | 579.7 | 623.0 |
| 30°   | 447.3 | 467.9 | 498.8 | 549.6 | 596.2 |
| 32.5° | 410.3 | 432.2 | 465.2 | 519.4 | 570.1 |
| 35°   | 374.6 | 395.2 | 431.6 | 489.2 | 542.7 |
| 37.5° | 337.6 | 358.1 | 397.2 | 459.7 | 515.3 |
| 40°   | 297.8 | 320.4 | 364.3 | 428.8 | 487.1 |
| 42.5° | 260.7 | 283.4 | 330.7 | 399.3 | 460.4 |
| 45°   | 225.0 | 246.3 | 297.1 | 371.2 | 432.2 |
| 47.5° | 197.6 | 212.7 | 263.5 | 343.7 | 402.1 |
| 50°   | 179.1 | 185.9 | 231.9 | 313.5 | 369.8 |
| 52.5° | 162.6 | 168.1 | 203.1 | 283.4 | 338.2 |
| 55°   | 146.8 | 150.9 | 178.4 | 253.2 | 305.3 |
| 57.5° | 133.1 | 135.2 | 156.4 | 223.0 | 269.6 |
| 60°   | 118.7 | 121.4 | 140.0 | 192.1 | 234.6 |
| 62.5° | 107.0 | 108.4 | 125.6 | 162.6 | 199.7 |
| 65°   | 94.0  | 96.1  | 111.1 | 134.5 | 166.0 |
| 67.5° | 82.3  | 85.8  | 96.1  | 109.8 | 131.0 |
| 70°   | 71.4  | 76.2  | 82.3  | 89.2  | 100.9 |
| 72.5° | 61.1  | 66.6  | 70.0  | 72.7  | 70.7  |
| 75°   | 50.8  | 56.9  | 56.9  | 57.6  | 55.6  |
| 77.5° | 41.2  | 46.7  | 46.0  | 45.3  | 42.5  |
| 80°   | 31.6  | 36.4  | 35.0  | 34.3  | 31.6  |
| 82.5° | 23.3  | 26.8  | 25.4  | 24.7  | 21.3  |
| 85°   | 14.4  | 17.8  | 17.2  | 16.5  | 13.7  |
| 87.5° | 6.9   | 10.3  | 9.6   | 8.9   | 6.2   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



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**CIE UGR TABLE:**

| Reflectances:   |      |                  |       |       |       |       |                |       |       |       |       |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling         |      | 0.7              | 0.7   | 0.5   | 0.5   | 0.3   | 0.7            | 0.7   | 0.5   | 0.5   | 0.3   |
| Wall            |      | 0.5              | 0.3   | 0.5   | 0.3   | 0.3   | 0.5            | 0.3   | 0.5   | 0.3   | 0.3   |
| Reference plane |      | 0.2              | 0.2   | 0.2   | 0.2   | 0.2   | 0.2            | 0.2   | 0.2   | 0.2   | 0.2   |
| Room dimensions |      | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X=2H            | Y=2H | 13.10            | 14.59 | 13.47 | 14.90 | 15.22 | 16.84          | 18.32 | 17.20 | 18.64 | 18.95 |
|                 | 3H   | 14.77            | 16.10 | 15.15 | 16.43 | 16.79 | 17.96          | 19.30 | 18.34 | 19.62 | 19.99 |
|                 | 4H   | 15.43            | 16.68 | 15.83 | 17.03 | 17.41 | 18.26          | 19.51 | 18.66 | 19.86 | 20.24 |
|                 | 6H   | 15.94            | 17.10 | 16.36 | 17.46 | 17.86 | 18.46          | 19.61 | 18.87 | 19.98 | 20.37 |
|                 | 8H   | 16.12            | 17.22 | 16.55 | 17.61 | 18.01 | 18.51          | 19.61 | 18.94 | 20.00 | 20.40 |
|                 | 12H  | 16.24            | 17.29 | 16.67 | 17.67 | 18.10 | 18.55          | 19.60 | 18.98 | 19.98 | 20.41 |
| 4H              | 2H   | 13.89            | 15.14 | 14.29 | 15.49 | 15.87 | 17.00          | 18.25 | 17.40 | 18.60 | 18.98 |
|                 | 3H   | 15.76            | 16.80 | 16.17 | 17.20 | 17.60 | 18.33          | 19.37 | 18.74 | 19.77 | 20.17 |
|                 | 4H   | 16.57            | 17.50 | 17.00 | 17.92 | 18.36 | 18.75          | 19.68 | 19.18 | 20.10 | 20.54 |
|                 | 6H   | 17.21            | 18.02 | 17.67 | 18.47 | 18.93 | 19.07          | 19.88 | 19.53 | 20.32 | 20.78 |
|                 | 8H   | 17.44            | 18.19 | 17.90 | 18.64 | 19.10 | 19.17          | 19.92 | 19.63 | 20.37 | 20.84 |
|                 | 12H  | 17.60            | 18.28 | 18.08 | 18.75 | 19.23 | 19.24          | 19.91 | 19.72 | 20.39 | 20.86 |
| 8H              | 4H   | 16.92            | 17.67 | 17.38 | 18.12 | 18.59 | 18.88          | 19.64 | 19.35 | 20.08 | 20.55 |
|                 | 6H   | 17.71            | 18.33 | 18.20 | 18.82 | 19.30 | 19.30          | 19.93 | 19.80 | 20.42 | 20.90 |
|                 | 8H   | 18.03            | 18.59 | 18.54 | 19.10 | 19.59 | 19.46          | 20.02 | 19.97 | 20.53 | 21.02 |
|                 | 12H  | 18.29            | 18.78 | 18.80 | 19.28 | 19.84 | 19.60          | 20.09 | 20.11 | 20.59 | 21.15 |
| 12H             | 4H   | 16.95            | 17.62 | 17.43 | 18.10 | 18.57 | 18.89          | 19.56 | 19.37 | 20.04 | 20.51 |
|                 | 6H   | 17.77            | 18.33 | 18.28 | 18.84 | 19.33 | 19.32          | 19.89 | 19.84 | 20.40 | 20.88 |
|                 | 8H   | 18.15            | 18.65 | 18.66 | 19.14 | 19.71 | 19.53          | 20.03 | 20.04 | 20.52 | 21.09 |