

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: P1061004

Luminaire Tested: S124RDRP-H795D935-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1061004
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-H795D935-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

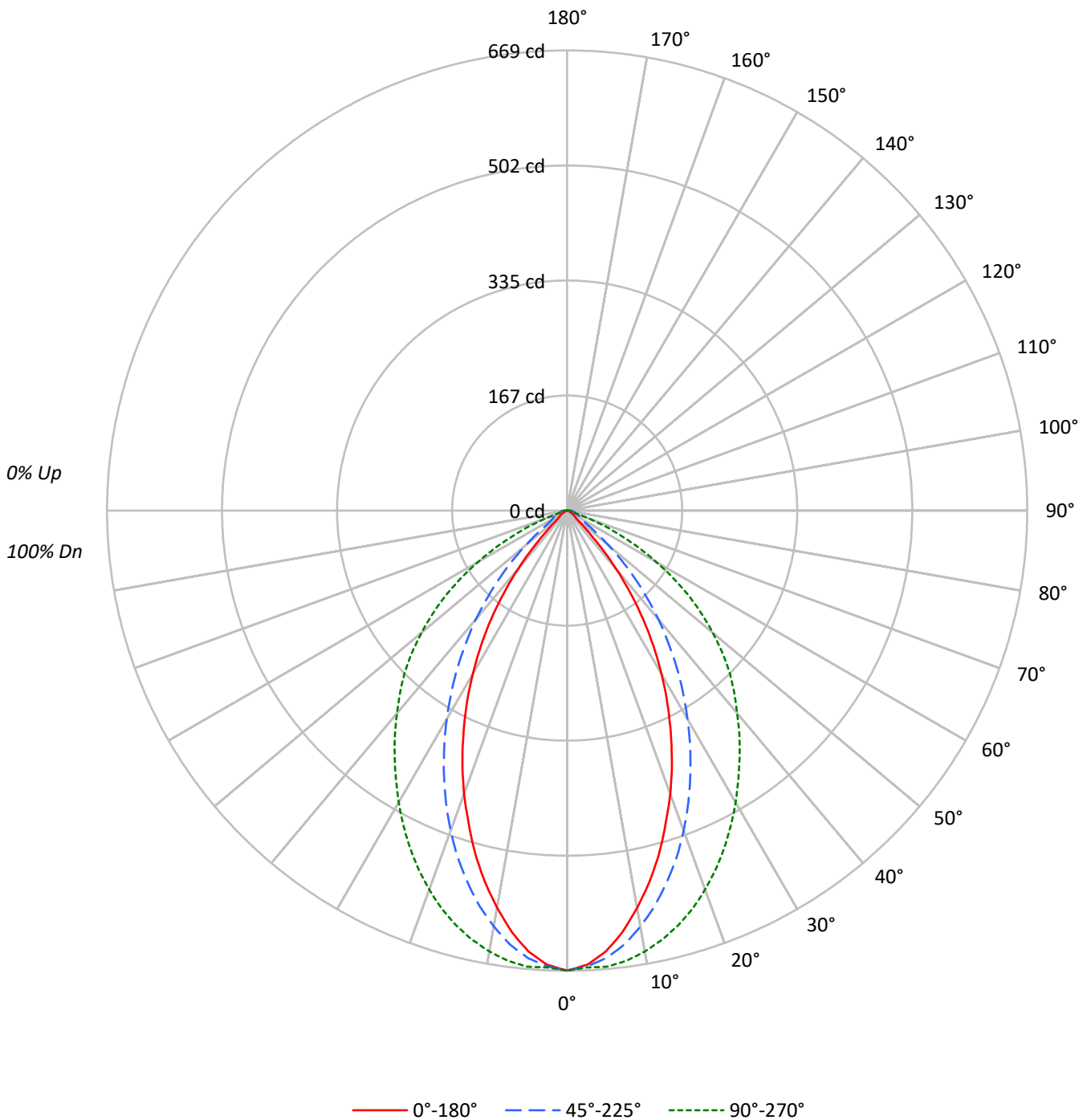
Lumens per Lamp: N/A
Luminaire Lumens: 842.8 lumens
Efficiency: N/A
Efficacy: 35.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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 | | | | 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 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98 | 98 | 96 | 95 | 95 | 93 | 92 | 90 |
| 2 | 105 | 98 | 93 | 89 | 102 | 97 | 92 | 88 | 93 | 89 | 86 | 90 | 87 | 84 | 87 | 85 | 82 | 81 |
| 3 | 98 | 90 | 84 | 79 | 96 | 88 | 83 | 78 | 86 | 81 | 77 | 83 | 79 | 75 | 81 | 77 | 74 | 72 |
| 4 | 91 | 82 | 75 | 70 | 89 | 81 | 75 | 70 | 79 | 73 | 69 | 76 | 72 | 68 | 74 | 70 | 67 | 65 |
| 5 | 86 | 75 | 68 | 63 | 84 | 74 | 68 | 63 | 72 | 67 | 62 | 71 | 66 | 62 | 69 | 65 | 61 | 59 |
| 6 | 80 | 70 | 62 | 57 | 79 | 69 | 62 | 57 | 67 | 61 | 56 | 66 | 60 | 56 | 64 | 59 | 56 | 54 |
| 7 | 75 | 64 | 57 | 52 | 74 | 64 | 57 | 52 | 62 | 56 | 52 | 61 | 55 | 51 | 60 | 55 | 51 | 49 |
| 8 | 71 | 60 | 53 | 48 | 70 | 59 | 52 | 48 | 58 | 52 | 48 | 57 | 51 | 47 | 56 | 51 | 47 | 45 |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 44 | 42 |
| 10 | 63 | 52 | 45 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 44 | 41 | 49 | 44 | 40 | 39 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5758 | 5758 | 5758 |
| 5° | 5563 | 5645 | 5753 |
| 10° | 5127 | 5367 | 5690 |
| 15° | 4605 | 4989 | 5563 |
| 20° | 4014 | 4539 | 5373 |
| 25° | 3385 | 4027 | 5138 |
| 30° | 2731 | 3481 | 4870 |
| 35° | 2022 | 2913 | 4596 |
| 40° | 1253 | 2320 | 4323 |
| 45° | 497 | 1692 | 4072 |
| 50° | 221 | 1062 | 3701 |
| 55° | 177 | 554 | 3240 |
| 60° | 122 | 419 | 2582 |
| 65° | 79 | 416 | 1775 |
| 70° | 78 | 375 | 831 |
| 75° | 103 | 366 | 366 |
| 80° | 154 | 426 | 426 |
| 85° | 306 | 850 | 622 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4072 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 61.3 | 7.3 |
| 10°-20° | 158.3 | 18.8 |
| 20°-30° | 199.8 | 23.7 |
| 30°-40° | 183.4 | 21.8 |
| 40°-50° | 124.9 | 14.8 |
| 50°-60° | 68.0 | 8.1 |
| 60°-70° | 29.4 | 3.5 |
| 70°-80° | 10.7 | 1.3 |
| 80°-90° | 6.9 | 0.8 |
| 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° | 419.5 | 49.8 |
| 0°-40° | 602.9 | 71.5 |
| 0°-60° | 795.8 | 94.4 |
| 0°-90° | 842.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 842.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 669 | 669 | 669 | 669 | 669 | |
| 5° | 644 | 652 | 653 | 660 | 666 | 60 |
| 15° | 516 | 534 | 560 | 600 | 624 | 144 |
| 25° | 356 | 382 | 424 | 491 | 541 | 163 |
| 35° | 192 | 221 | 277 | 365 | 437 | 119 |
| 45° | 41 | 68 | 139 | 246 | 334 | 38 |
| 55° | 12 | 13 | 37 | 136 | 216 | 10 |
| 65° | 4 | 6 | 20 | 42 | 87 | 5 |
| 75° | 3 | 10 | 11 | 11 | 11 | 3 |
| 85° | 3 | 7 | 9 | 9 | 6 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 668.7 | 668.7 | 668.7 | 668.7 | 668.7 |
| 2.5° | 660.9 | 668.7 | 663.2 | 664.8 | 664.8 |
| 5° | 643.6 | 652.2 | 653.0 | 660.1 | 665.6 |
| 7.5° | 617.7 | 630.3 | 636.5 | 650.7 | 660.1 |
| 10° | 586.3 | 601.2 | 613.8 | 638.1 | 650.7 |
| 12.5° | 552.6 | 569.8 | 588.7 | 620.8 | 638.9 |
| 15° | 516.5 | 534.5 | 559.6 | 599.7 | 624.0 |
| 17.5° | 476.4 | 498.4 | 529.0 | 576.9 | 606.7 |
| 20° | 438.0 | 459.9 | 495.3 | 549.4 | 586.3 |
| 22.5° | 397.9 | 420.7 | 459.9 | 520.4 | 564.3 |
| 25° | 356.3 | 381.5 | 423.8 | 491.3 | 540.8 |
| 27.5° | 315.5 | 342.2 | 387.0 | 460.7 | 515.7 |
| 30° | 274.7 | 301.4 | 350.1 | 429.3 | 489.8 |
| 32.5° | 233.1 | 260.6 | 313.2 | 396.4 | 463.1 |
| 35° | 192.3 | 220.6 | 277.1 | 365.0 | 437.2 |
| 37.5° | 150.7 | 180.5 | 241.0 | 334.4 | 411.3 |
| 40° | 111.5 | 141.3 | 206.4 | 303.8 | 384.6 |
| 42.5° | 74.6 | 104.4 | 171.1 | 273.9 | 359.5 |
| 45° | 40.8 | 68.3 | 138.9 | 246.5 | 334.4 |
| 47.5° | 22.0 | 37.7 | 107.5 | 219.8 | 306.1 |
| 50° | 16.5 | 20.4 | 79.3 | 191.5 | 276.3 |
| 52.5° | 14.1 | 15.7 | 54.9 | 161.7 | 246.5 |
| 55° | 11.8 | 12.6 | 36.9 | 135.8 | 215.8 |
| 57.5° | 9.4 | 10.2 | 27.5 | 109.9 | 182.9 |
| 60° | 7.1 | 8.6 | 24.3 | 84.8 | 149.9 |
| 62.5° | 5.5 | 7.1 | 22.8 | 62.0 | 118.5 |
| 65° | 3.9 | 5.5 | 20.4 | 42.4 | 87.1 |
| 67.5° | 3.9 | 6.3 | 17.3 | 27.5 | 58.9 |
| 70° | 3.1 | 8.6 | 14.9 | 18.1 | 33.0 |
| 72.5° | 3.1 | 9.4 | 12.6 | 12.6 | 12.6 |
| 75° | 3.1 | 10.2 | 11.0 | 11.0 | 11.0 |
| 77.5° | 3.1 | 9.4 | 10.2 | 9.4 | 9.4 |
| 80° | 3.1 | 8.6 | 8.6 | 8.6 | 8.6 |
| 82.5° | 3.1 | 7.8 | 8.6 | 8.6 | 7.1 |
| 85° | 3.1 | 7.1 | 8.6 | 8.6 | 6.3 |
| 87.5° | 2.4 | 7.1 | 7.8 | 7.8 | 4.7 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.49 | 15.77 | 14.86 | 16.08 | 16.40 |
| | 3H | 0.00 | 0.00 | 0.00 | 0.00 | 0.36 | 14.87 | 16.00 | 15.25 | 16.33 | 16.70 |
| | 4H | 0.00 | 0.80 | 0.15 | 1.15 | 1.54 | 14.85 | 15.90 | 15.25 | 16.25 | 16.63 |
| | 6H | 0.92 | 1.89 | 1.33 | 2.26 | 2.65 | 14.83 | 15.80 | 15.25 | 16.17 | 16.57 |
| | 8H | 1.50 | 2.42 | 1.93 | 2.81 | 3.21 | 14.84 | 15.75 | 15.27 | 16.14 | 16.55 |
| | 12H | 2.17 | 3.04 | 2.60 | 3.43 | 3.86 | 14.85 | 15.72 | 15.28 | 16.11 | 16.54 |
| 4H | 2H | 0.73 | 1.79 | 1.14 | 2.14 | 2.52 | 14.30 | 15.36 | 14.71 | 15.71 | 16.09 |
| | 3H | 2.31 | 3.17 | 2.73 | 3.58 | 3.98 | 14.72 | 15.58 | 15.14 | 15.99 | 16.39 |
| | 4H | 3.61 | 4.37 | 4.04 | 4.79 | 5.24 | 14.72 | 15.49 | 15.16 | 15.91 | 16.35 |
| | 6H | 4.73 | 5.39 | 5.19 | 5.83 | 6.30 | 14.76 | 15.42 | 15.23 | 15.87 | 16.34 |
| | 8H | 5.23 | 5.85 | 5.70 | 6.29 | 6.77 | 14.79 | 15.41 | 15.26 | 15.85 | 16.33 |
| | 12H | 5.78 | 6.32 | 6.26 | 6.81 | 7.28 | 14.85 | 15.40 | 15.34 | 15.88 | 16.36 |
| 8H | 4H | 4.69 | 5.31 | 5.16 | 5.76 | 6.23 | 14.63 | 15.25 | 15.10 | 15.70 | 16.17 |
| | 6H | 6.23 | 6.73 | 6.73 | 7.23 | 7.71 | 14.71 | 15.21 | 15.21 | 15.71 | 16.19 |
| | 8H | 7.03 | 7.48 | 7.55 | 8.00 | 8.49 | 14.79 | 15.25 | 15.32 | 15.76 | 16.26 |
| | 12H | 7.86 | 8.26 | 8.38 | 8.76 | 9.33 | 14.96 | 15.36 | 15.48 | 15.86 | 16.43 |
| 12H | 4H | 4.88 | 5.43 | 5.37 | 5.91 | 6.39 | 14.60 | 15.14 | 15.08 | 15.62 | 16.10 |
| | 6H | 6.58 | 7.04 | 7.10 | 7.55 | 8.04 | 14.68 | 15.14 | 15.21 | 15.65 | 16.15 |
| | 8H | 7.59 | 7.99 | 8.10 | 8.48 | 9.06 | 14.82 | 15.22 | 15.33 | 15.72 | 16.29 |