

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: P1061012

Luminaire Tested: S124RDRP-H795D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1061012
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-H795D940-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

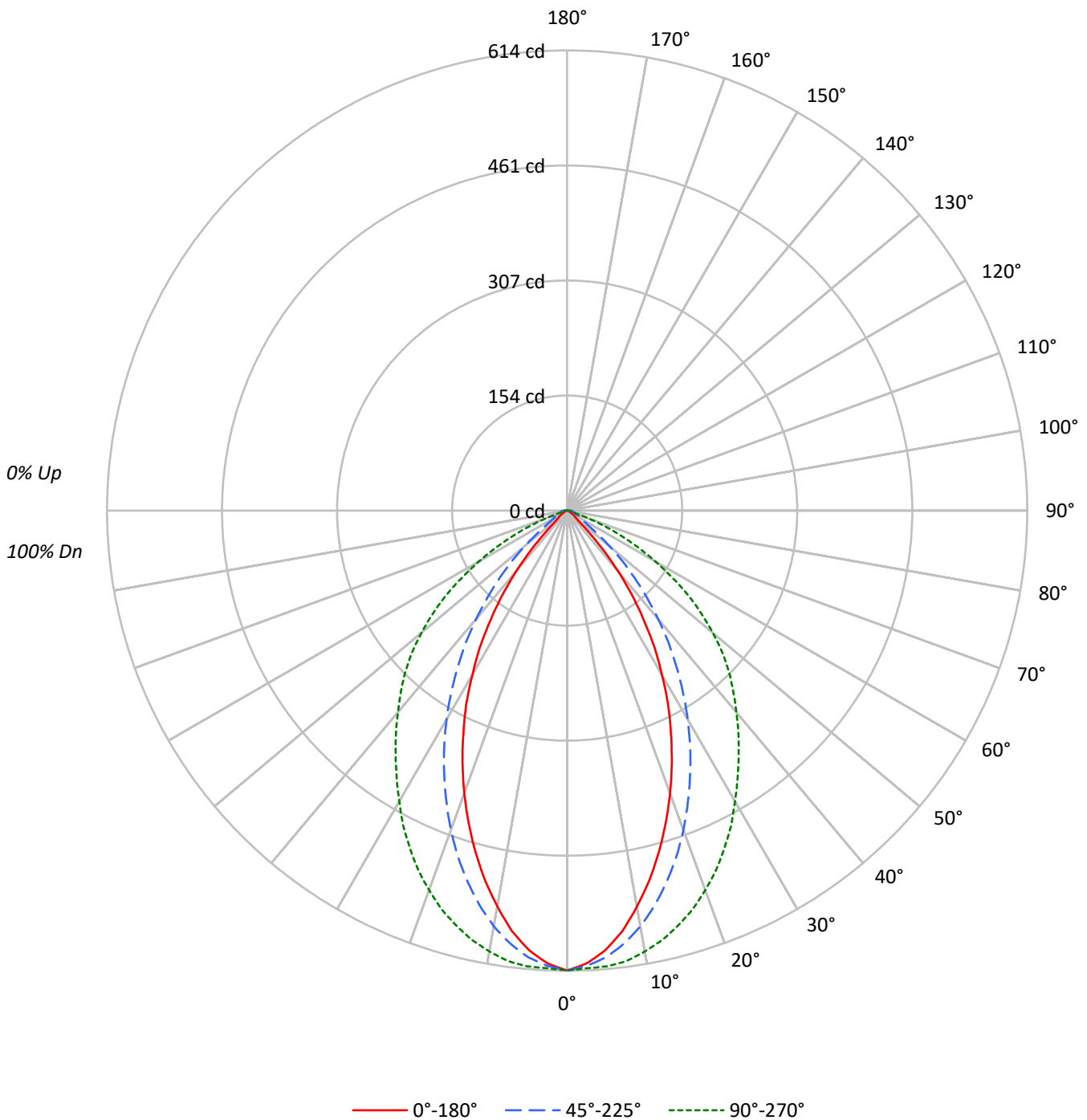
Lumens per Lamp: N/A
Luminaire Lumens: 770.1 lumens
Efficiency: N/A
Efficacy: 32.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
Input Voltage (V): 120
Input Current (A_{in}): 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 | 99 | 94 | 89 | 102 | 97 | 92 | 88 | 93 | 90 | 86 | 90 | 87 | 84 | 87 | 85 | 83 | 81 |
| 3 | 98 | 90 | 84 | 79 | 96 | 88 | 83 | 78 | 86 | 81 | 77 | 83 | 79 | 76 | 81 | 77 | 74 | 73 |
| 4 | 92 | 82 | 75 | 70 | 90 | 81 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 65 |
| 5 | 86 | 76 | 68 | 63 | 84 | 75 | 68 | 63 | 73 | 67 | 62 | 71 | 66 | 62 | 69 | 65 | 61 | 59 |
| 6 | 80 | 70 | 62 | 57 | 79 | 69 | 62 | 57 | 67 | 61 | 57 | 66 | 60 | 56 | 64 | 59 | 56 | 54 |
| 7 | 76 | 64 | 57 | 52 | 74 | 64 | 57 | 52 | 62 | 56 | 52 | 61 | 56 | 51 | 60 | 55 | 51 | 50 |
| 8 | 71 | 60 | 53 | 48 | 70 | 59 | 53 | 48 | 58 | 52 | 48 | 57 | 51 | 47 | 56 | 51 | 47 | 46 |
| 9 | 67 | 56 | 49 | 44 | 66 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 44 | 42 |
| 10 | 64 | 52 | 46 | 41 | 62 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 49 | 44 | 41 | 39 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5284 | 5284 | 5284 |
| 5° | 5086 | 5171 | 5276 |
| 10° | 4690 | 4925 | 5223 |
| 15° | 4210 | 4572 | 5108 |
| 20° | 3679 | 4156 | 4937 |
| 25° | 3112 | 3691 | 4718 |
| 30° | 2514 | 3200 | 4453 |
| 35° | 1871 | 2674 | 4194 |
| 40° | 1188 | 2120 | 3947 |
| 45° | 475 | 1554 | 3722 |
| 50° | 206 | 991 | 3397 |
| 55° | 159 | 512 | 2965 |
| 60° | 112 | 350 | 2351 |
| 65° | 84 | 348 | 1606 |
| 70° | 83 | 307 | 738 |
| 75° | 110 | 326 | 296 |
| 80° | 164 | 362 | 322 |
| 85° | 326 | 642 | 484 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3722 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 56.2 | 7.3 |
| 10°-20° | 144.9 | 18.8 |
| 20°-30° | 183.0 | 23.8 |
| 30°-40° | 168.1 | 21.8 |
| 40°-50° | 114.6 | 14.9 |
| 50°-60° | 62.1 | 8.1 |
| 60°-70° | 26.4 | 3.4 |
| 70°-80° | 9.1 | 1.2 |
| 80°-90° | 5.8 | 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° | 384.0 | 49.9 |
| 0°-40° | 552.1 | 71.7 |
| 0°-60° | 728.8 | 94.6 |
| 0°-90° | 770.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 770.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 614 | 614 | 614 | 614 | 614 | |
| 5° | 588 | 597 | 598 | 603 | 610 | 55 |
| 15° | 472 | 488 | 513 | 549 | 573 | 132 |
| 25° | 328 | 349 | 388 | 449 | 497 | 150 |
| 35° | 178 | 202 | 254 | 334 | 399 | 111 |
| 45° | 39 | 63 | 128 | 226 | 306 | 36 |
| 55° | 11 | 11 | 34 | 124 | 198 | 9 |
| 65° | 4 | 5 | 17 | 39 | 79 | 4 |
| 75° | 3 | 9 | 10 | 9 | 9 | 3 |
| 85° | 3 | 6 | 6 | 6 | 5 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 613.6 | 613.6 | 613.6 | 613.6 | 613.6 |
| 2.5° | 604.7 | 612.0 | 607.9 | 609.5 | 611.2 |
| 5° | 588.4 | 597.3 | 598.2 | 603.0 | 610.4 |
| 7.5° | 565.7 | 576.2 | 582.7 | 594.9 | 606.3 |
| 10° | 536.4 | 549.4 | 563.2 | 582.7 | 597.3 |
| 12.5° | 505.5 | 519.3 | 539.6 | 567.3 | 586.8 |
| 15° | 472.2 | 487.6 | 512.8 | 549.4 | 573.0 |
| 17.5° | 437.2 | 454.3 | 484.4 | 527.5 | 557.5 |
| 20° | 401.5 | 420.2 | 453.5 | 502.3 | 538.8 |
| 22.5° | 364.9 | 384.4 | 421.0 | 476.3 | 519.3 |
| 25° | 327.5 | 348.7 | 388.5 | 448.6 | 496.6 |
| 27.5° | 291.8 | 311.3 | 355.2 | 421.0 | 473.8 |
| 30° | 252.8 | 274.7 | 321.8 | 392.5 | 447.8 |
| 32.5° | 217.0 | 238.1 | 287.7 | 363.3 | 423.4 |
| 35° | 178.0 | 201.6 | 254.4 | 334.0 | 399.0 |
| 37.5° | 141.4 | 164.2 | 221.9 | 306.4 | 375.5 |
| 40° | 105.7 | 129.2 | 188.6 | 278.8 | 351.1 |
| 42.5° | 70.7 | 95.9 | 156.9 | 250.3 | 328.3 |
| 45° | 39.0 | 62.6 | 127.6 | 225.9 | 305.6 |
| 47.5° | 20.3 | 34.1 | 100.0 | 201.6 | 281.2 |
| 50° | 15.4 | 18.7 | 74.0 | 174.7 | 253.6 |
| 52.5° | 13.0 | 13.8 | 50.4 | 147.9 | 225.9 |
| 55° | 10.6 | 11.4 | 34.1 | 124.3 | 197.5 |
| 57.5° | 8.1 | 8.9 | 24.4 | 101.6 | 165.8 |
| 60° | 6.5 | 7.3 | 20.3 | 78.0 | 136.5 |
| 62.5° | 4.9 | 5.7 | 19.5 | 57.7 | 107.3 |
| 65° | 4.1 | 4.9 | 17.1 | 39.0 | 78.8 |
| 67.5° | 3.3 | 4.9 | 14.6 | 25.2 | 52.8 |
| 70° | 3.3 | 6.5 | 12.2 | 16.3 | 29.3 |
| 72.5° | 3.3 | 7.3 | 10.6 | 10.6 | 10.6 |
| 75° | 3.3 | 8.9 | 9.8 | 8.9 | 8.9 |
| 77.5° | 3.3 | 8.1 | 8.1 | 8.1 | 8.1 |
| 80° | 3.3 | 7.3 | 7.3 | 7.3 | 6.5 |
| 82.5° | 3.3 | 6.5 | 7.3 | 7.3 | 5.7 |
| 85° | 3.3 | 6.5 | 6.5 | 6.5 | 4.9 |
| 87.5° | 2.4 | 6.5 | 6.5 | 6.5 | 3.3 |
| 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 | 14.23 | 15.50 | 14.59 | 15.81 | 16.13 |
| | 3H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.58 | 15.71 | 14.96 | 16.04 | 16.41 |
| | 4H | 0.00 | 0.18 | 0.00 | 0.53 | 0.92 | 14.55 | 15.60 | 14.95 | 15.95 | 16.33 |
| | 6H | 0.51 | 1.48 | 0.93 | 1.85 | 2.24 | 14.52 | 15.49 | 14.94 | 15.86 | 16.25 |
| | 8H | 1.20 | 2.11 | 1.63 | 2.50 | 2.91 | 14.51 | 15.42 | 14.94 | 15.81 | 16.22 |
| | 12H | 2.02 | 2.89 | 2.45 | 3.27 | 3.70 | 14.51 | 15.38 | 14.94 | 15.76 | 16.19 |
| 4H | 2H | 0.00 | 0.97 | 0.33 | 1.32 | 1.71 | 14.03 | 15.08 | 14.43 | 15.43 | 15.81 |
| | 3H | 1.35 | 2.21 | 1.76 | 2.61 | 3.01 | 14.42 | 15.28 | 14.84 | 15.68 | 16.09 |
| | 4H | 2.79 | 3.56 | 3.23 | 3.98 | 4.42 | 14.40 | 15.17 | 14.84 | 15.59 | 16.03 |
| | 6H | 4.05 | 4.70 | 4.51 | 5.15 | 5.62 | 14.42 | 15.08 | 14.89 | 15.53 | 16.00 |
| | 8H | 4.62 | 5.24 | 5.09 | 5.68 | 6.16 | 14.43 | 15.05 | 14.90 | 15.49 | 15.97 |
| | 12H | 5.30 | 5.85 | 5.79 | 6.33 | 6.81 | 14.47 | 15.01 | 14.96 | 15.49 | 15.97 |
| 8H | 4H | 3.87 | 4.48 | 4.34 | 4.93 | 5.40 | 14.30 | 14.92 | 14.77 | 15.37 | 15.84 |
| | 6H | 5.48 | 5.98 | 5.99 | 6.48 | 6.96 | 14.35 | 14.86 | 14.86 | 15.35 | 15.84 |
| | 8H | 6.32 | 6.77 | 6.84 | 7.29 | 7.78 | 14.41 | 14.86 | 14.93 | 15.38 | 15.87 |
| | 12H | 7.29 | 7.69 | 7.81 | 8.19 | 8.76 | 14.53 | 14.93 | 15.04 | 15.42 | 15.99 |
| 12H | 4H | 4.06 | 4.60 | 4.54 | 5.08 | 5.56 | 14.27 | 14.81 | 14.75 | 15.29 | 15.77 |
| | 6H | 5.83 | 6.28 | 6.35 | 6.79 | 7.29 | 14.32 | 14.77 | 14.84 | 15.29 | 15.78 |
| | 8H | 6.85 | 7.25 | 7.37 | 7.75 | 8.32 | 14.43 | 14.83 | 14.94 | 15.32 | 15.89 |