

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: P1060561

Luminaire Tested: S124RDRP-S795D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060561
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S795D840-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

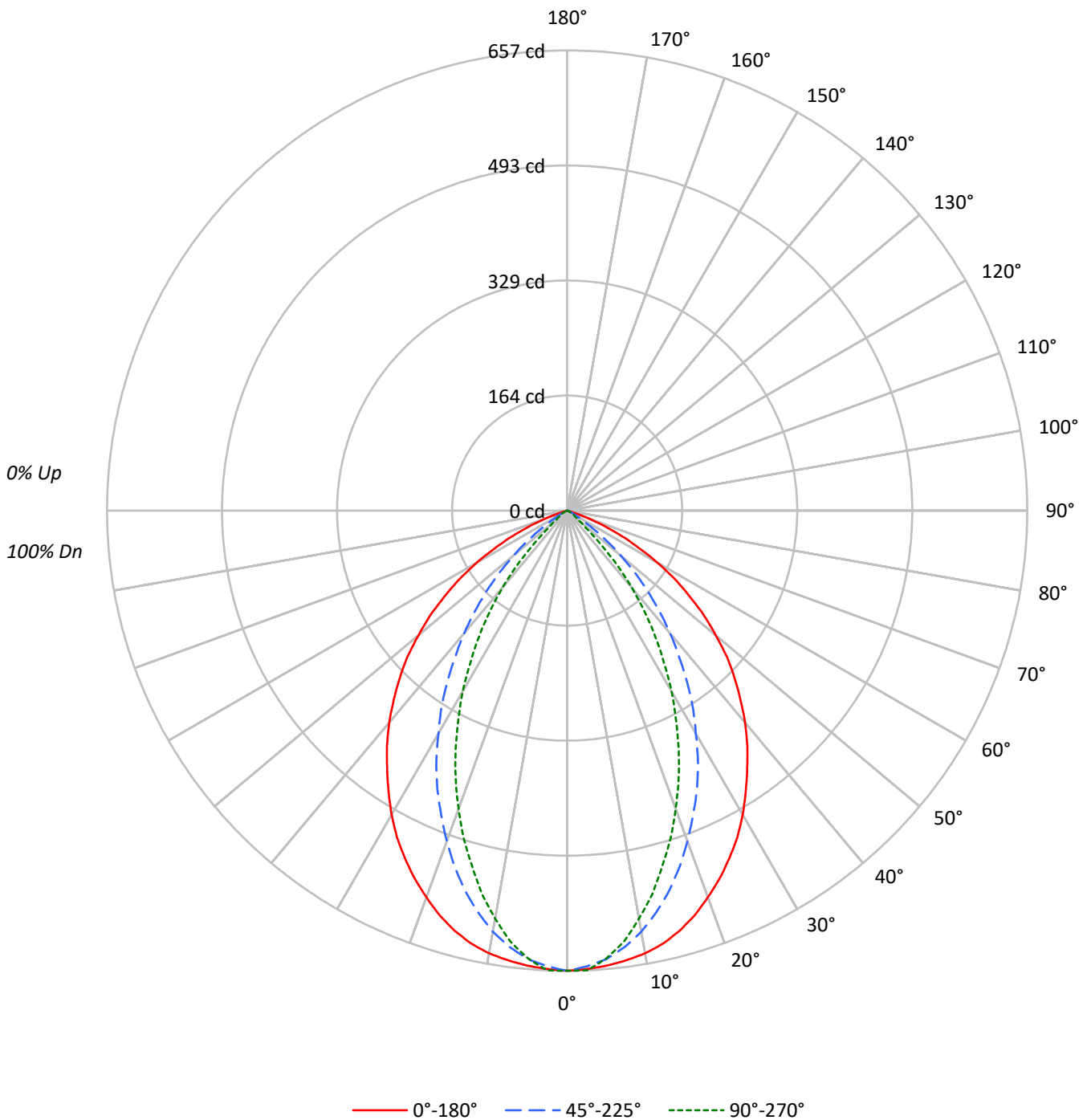
Lumens per Lamp: N/A
Luminaire Lumens: 857.9 lumens
Efficiency: N/A
Efficacy: 33.3 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
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 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 97 | 96 | 96 | 94 | 93 | 91 |
| 2 | 105 | 99 | 95 | 90 | 103 | 98 | 93 | 89 | 94 | 91 | 87 | 91 | 88 | 86 | 88 | 86 | 84 | 82 |
| 3 | 98 | 91 | 85 | 80 | 96 | 89 | 84 | 79 | 86 | 82 | 78 | 84 | 80 | 77 | 82 | 78 | 75 | 74 |
| 4 | 92 | 83 | 76 | 71 | 90 | 82 | 76 | 71 | 79 | 74 | 70 | 77 | 73 | 69 | 75 | 71 | 68 | 66 |
| 5 | 86 | 76 | 69 | 64 | 84 | 75 | 69 | 64 | 73 | 67 | 63 | 71 | 66 | 62 | 70 | 65 | 62 | 60 |
| 6 | 81 | 70 | 63 | 58 | 79 | 69 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 57 | 65 | 60 | 56 | 55 |
| 7 | 76 | 65 | 58 | 53 | 74 | 64 | 57 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 50 |
| 8 | 71 | 60 | 53 | 48 | 70 | 60 | 53 | 48 | 58 | 52 | 48 | 57 | 52 | 48 | 56 | 51 | 47 | 46 |
| 9 | 67 | 56 | 49 | 45 | 66 | 56 | 49 | 44 | 54 | 48 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 42 |
| 10 | 64 | 52 | 46 | 41 | 63 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 49 | 44 | 41 | 39 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5658 | 5658 | 5658 |
| 5° | 5638 | 5556 | 5548 |
| 10° | 5612 | 5338 | 5172 |
| 15° | 5535 | 5011 | 4680 |
| 20° | 5386 | 4602 | 4150 |
| 25° | 5205 | 4167 | 3581 |
| 30° | 4985 | 3653 | 2964 |
| 35° | 4711 | 3134 | 2305 |
| 40° | 4440 | 2572 | 1612 |
| 45° | 4116 | 1978 | 798 |
| 50° | 3714 | 1336 | 267 |
| 55° | 3207 | 685 | 185 |
| 60° | 2568 | 245 | 131 |
| 65° | 1760 | 134 | 57 |
| 70° | 788 | 70 | 48 |
| 75° | 0 | 30 | 30 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4116 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 60.7 | 7.1 |
| 10°-20° | 159.0 | 18.5 |
| 20°-30° | 205.9 | 24.0 |
| 30°-40° | 195.6 | 22.8 |
| 40°-50° | 138.5 | 16.1 |
| 50°-60° | 71.1 | 8.3 |
| 60°-70° | 24.9 | 2.9 |
| 70°-80° | 2.1 | 0.2 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 425.6 | 49.6 |
| 0°-40° | 621.2 | 72.4 |
| 0°-60° | 830.9 | 96.9 |
| 0°-90° | 857.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 857.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 657 | 657 | 657 | 657 | 657 | |
| 5° | 652 | 653 | 643 | 643 | 642 | 62 |
| 15° | 621 | 602 | 562 | 536 | 525 | 175 |
| 25° | 548 | 505 | 439 | 392 | 377 | 252 |
| 35° | 448 | 383 | 298 | 240 | 219 | 280 |
| 45° | 338 | 260 | 162 | 93 | 66 | 260 |
| 55° | 214 | 140 | 46 | 13 | 12 | 191 |
| 65° | 86 | 42 | 7 | 4 | 3 | 86 |
| 75° | 0 | 1 | 1 | 1 | 1 | 7 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P1060561

CATALOG NUMBER: S124RDRP-S795D840-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 657.0 | 657.0 | 657.0 | 657.0 | 657.0 |
| 2.5° | 655.1 | 657.0 | 651.3 | 656.1 | 657.0 |
| 5° | 652.3 | 653.2 | 642.8 | 642.8 | 641.8 |
| 7.5° | 647.5 | 645.6 | 628.5 | 621.9 | 620.9 |
| 10° | 641.8 | 635.2 | 610.5 | 596.2 | 591.5 |
| 12.5° | 633.3 | 620.9 | 587.7 | 566.8 | 561.1 |
| 15° | 620.9 | 601.9 | 562.1 | 535.5 | 525.0 |
| 17.5° | 605.7 | 581.1 | 533.6 | 501.3 | 490.9 |
| 20° | 587.7 | 556.4 | 502.2 | 466.2 | 452.9 |
| 22.5° | 568.7 | 532.6 | 470.0 | 429.1 | 415.9 |
| 25° | 547.8 | 505.1 | 438.6 | 392.1 | 376.9 |
| 27.5° | 526.0 | 475.7 | 404.5 | 356.0 | 336.1 |
| 30° | 501.3 | 446.2 | 367.4 | 317.1 | 298.1 |
| 32.5° | 474.7 | 414.0 | 334.2 | 280.1 | 257.3 |
| 35° | 448.1 | 382.6 | 298.1 | 240.2 | 219.3 |
| 37.5° | 422.5 | 353.2 | 262.0 | 201.3 | 181.3 |
| 40° | 395.0 | 320.9 | 228.8 | 166.2 | 143.4 |
| 42.5° | 366.5 | 289.6 | 194.6 | 130.1 | 105.4 |
| 45° | 338.0 | 260.1 | 162.4 | 93.0 | 65.5 |
| 47.5° | 309.5 | 228.8 | 131.0 | 58.9 | 35.1 |
| 50° | 277.2 | 198.4 | 99.7 | 31.3 | 19.9 |
| 52.5° | 246.9 | 169.9 | 71.2 | 18.0 | 15.2 |
| 55° | 213.6 | 140.5 | 45.6 | 13.3 | 12.3 |
| 57.5° | 182.3 | 112.0 | 25.6 | 10.4 | 9.5 |
| 60° | 149.1 | 86.4 | 14.2 | 8.5 | 7.6 |
| 62.5° | 115.8 | 62.7 | 9.5 | 5.7 | 4.7 |
| 65° | 86.4 | 41.8 | 6.6 | 3.8 | 2.8 |
| 67.5° | 57.0 | 23.7 | 4.7 | 1.9 | 1.9 |
| 70° | 31.3 | 11.4 | 2.8 | 1.9 | 1.9 |
| 72.5° | 11.4 | 3.8 | 1.9 | 0.9 | 0.9 |
| 75° | 0.0 | 0.9 | 0.9 | 0.9 | 0.9 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 | 14.55 | 15.81 | 14.91 | 16.12 | 16.43 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 14.83 | 15.93 | 15.21 | 16.26 | 16.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 14.75 | 15.77 | 15.15 | 16.13 | 16.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 14.66 | 15.60 | 15.08 | 15.97 | 16.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 14.62 | 15.50 | 15.05 | 15.89 | 16.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 14.57 | 15.42 | 15.00 | 15.80 | 16.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4H | 2H | 14.32 | 15.35 | 14.73 | 15.70 | 16.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 14.61 | 15.43 | 15.02 | 15.84 | 16.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 14.51 | 15.25 | 14.95 | 15.67 | 16.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 14.42 | 15.06 | 14.89 | 15.50 | 15.97 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 14.36 | 14.95 | 14.84 | 15.40 | 15.87 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 14.31 | 14.83 | 14.80 | 15.31 | 15.79 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H | 4H | 14.36 | 14.95 | 14.84 | 15.40 | 15.87 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 14.26 | 14.73 | 14.76 | 15.23 | 15.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 14.19 | 14.62 | 14.71 | 15.13 | 15.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 14.14 | 14.52 | 14.66 | 15.01 | 15.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12H | 4H | 14.31 | 14.83 | 14.80 | 15.31 | 15.79 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 14.19 | 14.62 | 14.71 | 15.13 | 15.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 14.14 | 14.52 | 14.66 | 15.01 | 15.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |