

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: P1060576

Luminaire Tested: S124RDRP-S795D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060576
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: S124RDRP-S795D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

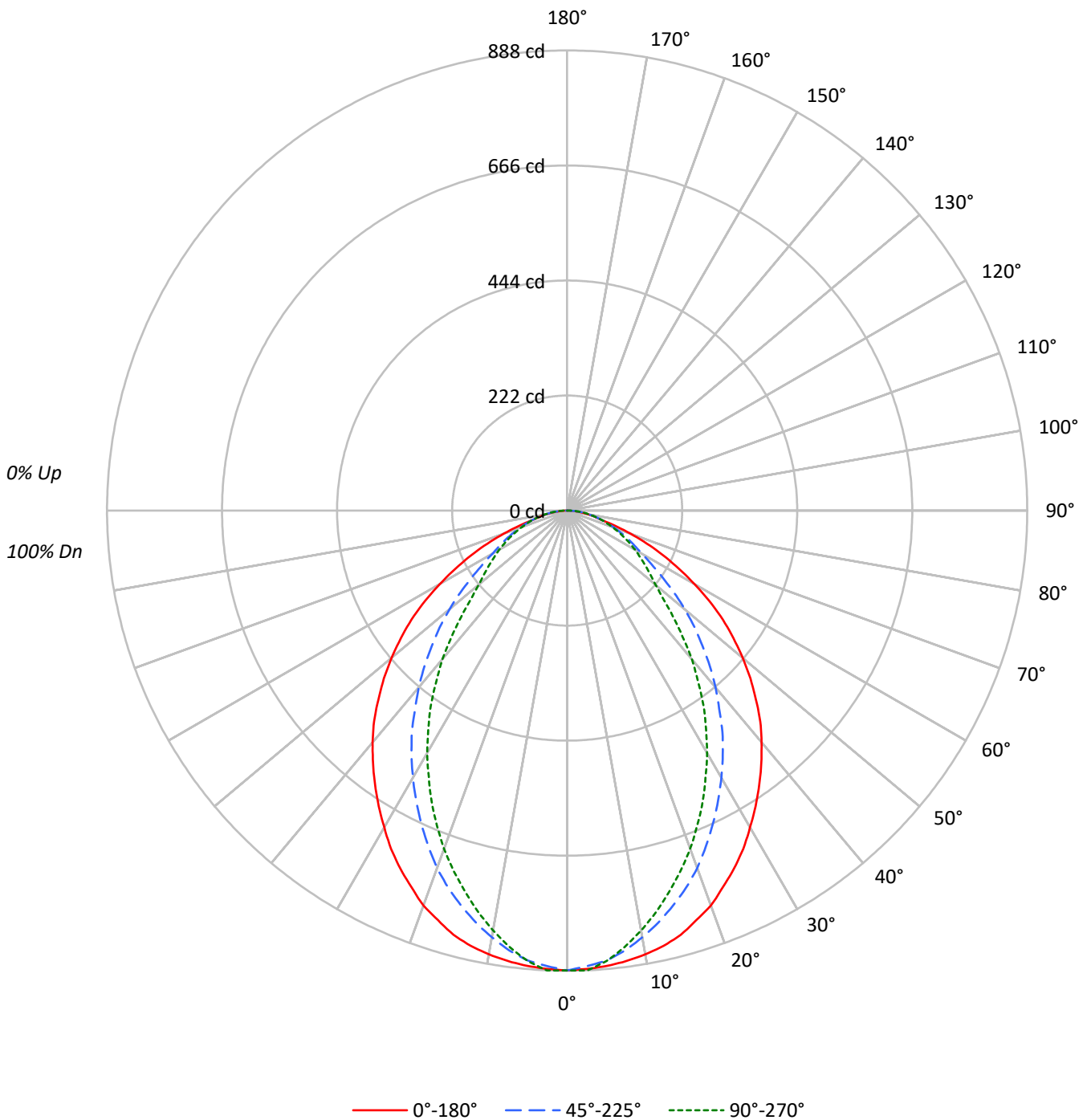
Lumens per Lamp: N/A
Luminaire Lumens: 1710.8 lumens
Efficiency: N/A
Efficacy: 66.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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 | 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 | | | | | 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° | 7641 | 7641 | 7641 |
| 5° | 7625 | 7534 | 7544 |
| 10° | 7604 | 7312 | 7193 |
| 15° | 7557 | 7037 | 6785 |
| 20° | 7434 | 6726 | 6363 |
| 25° | 7242 | 6330 | 5884 |
| 30° | 7019 | 5919 | 5370 |
| 35° | 6795 | 5492 | 4823 |
| 40° | 6564 | 5005 | 4208 |
| 45° | 6273 | 4495 | 3517 |
| 50° | 5923 | 3967 | 2975 |
| 55° | 5510 | 3366 | 2755 |
| 60° | 4884 | 2855 | 2604 |
| 65° | 4165 | 2635 | 2463 |
| 70° | 3255 | 2442 | 2336 |
| 75° | 2219 | 2256 | 2256 |
| 80° | 1914 | 2117 | 2172 |
| 85° | 1650 | 2065 | 2263 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6273 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 82.5 | 4.8 |
| 10°-20° | 224.2 | 13.1 |
| 20°-30° | 311.2 | 18.2 |
| 30°-40° | 333.6 | 19.5 |
| 40°-50° | 295.6 | 17.3 |
| 50°-60° | 222.7 | 13.0 |
| 60°-70° | 144.2 | 8.4 |
| 70°-80° | 74.0 | 4.3 |
| 80°-90° | 22.7 | 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° | 618.0 | 36.1 |
| 0°-40° | 951.6 | 55.6 |
| 0°-60° | 1469.9 | 85.9 |
| 0°-90° | 1710.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1710.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 887 | 887 | 887 | 887 | 887 | |
| 5° | 882 | 883 | 872 | 873 | 873 | 84 |
| 15° | 848 | 829 | 789 | 770 | 761 | 238 |
| 25° | 762 | 722 | 666 | 631 | 619 | 351 |
| 35° | 646 | 588 | 522 | 475 | 459 | 404 |
| 45° | 515 | 448 | 369 | 312 | 289 | 397 |
| 55° | 367 | 306 | 224 | 189 | 184 | 326 |
| 65° | 204 | 165 | 129 | 122 | 121 | 203 |
| 75° | 67 | 70 | 68 | 68 | 68 | 79 |
| 85° | 17 | 18 | 21 | 23 | 23 | 19 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1060576

CATALOG NUMBER: S124RDRP-S795D850-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 887.3 | 887.3 | 887.3 | 887.3 | 887.3 |
| 2.5° | 885.2 | 888.3 | 880.0 | 886.2 | 888.3 |
| 5° | 882.1 | 883.1 | 871.6 | 872.7 | 872.7 |
| 7.5° | 876.9 | 874.8 | 856.0 | 850.8 | 849.7 |
| 10° | 869.6 | 863.3 | 836.2 | 825.8 | 822.6 |
| 12.5° | 860.2 | 848.7 | 814.3 | 799.7 | 793.4 |
| 15° | 847.7 | 828.9 | 789.3 | 769.5 | 761.1 |
| 17.5° | 828.9 | 804.9 | 763.2 | 738.2 | 728.8 |
| 20° | 811.2 | 778.8 | 734.0 | 702.7 | 694.4 |
| 22.5° | 786.1 | 751.7 | 700.6 | 667.3 | 656.9 |
| 25° | 762.2 | 721.5 | 666.2 | 630.8 | 619.3 |
| 27.5° | 736.1 | 690.2 | 630.8 | 593.3 | 578.7 |
| 30° | 705.9 | 656.9 | 595.3 | 555.7 | 540.1 |
| 32.5° | 676.7 | 624.5 | 558.9 | 515.1 | 498.4 |
| 35° | 646.4 | 588.0 | 522.4 | 475.4 | 458.8 |
| 37.5° | 615.2 | 553.6 | 481.7 | 435.8 | 413.9 |
| 40° | 583.9 | 519.2 | 445.2 | 393.1 | 374.3 |
| 42.5° | 551.6 | 483.8 | 407.7 | 353.5 | 329.5 |
| 45° | 515.1 | 448.3 | 369.1 | 311.7 | 288.8 |
| 47.5° | 479.6 | 413.9 | 333.6 | 271.1 | 250.2 |
| 50° | 442.1 | 377.4 | 296.1 | 235.6 | 222.1 |
| 52.5° | 404.5 | 339.9 | 259.6 | 208.5 | 202.3 |
| 55° | 367.0 | 305.5 | 224.2 | 188.7 | 183.5 |
| 57.5° | 325.3 | 270.0 | 192.9 | 171.0 | 166.8 |
| 60° | 283.6 | 231.5 | 165.8 | 154.3 | 151.2 |
| 62.5° | 242.9 | 198.1 | 147.0 | 137.6 | 135.5 |
| 65° | 204.4 | 164.7 | 129.3 | 122.0 | 120.9 |
| 67.5° | 166.8 | 135.5 | 112.6 | 108.4 | 106.3 |
| 70° | 129.3 | 108.4 | 97.0 | 94.9 | 92.8 |
| 72.5° | 95.9 | 87.6 | 82.4 | 81.3 | 80.3 |
| 75° | 66.7 | 69.9 | 67.8 | 67.8 | 67.8 |
| 77.5° | 53.2 | 54.2 | 55.3 | 56.3 | 55.3 |
| 80° | 38.6 | 41.7 | 42.7 | 44.8 | 43.8 |
| 82.5° | 27.1 | 29.2 | 32.3 | 33.4 | 34.4 |
| 85° | 16.7 | 17.7 | 20.9 | 22.9 | 22.9 |
| 87.5° | 7.3 | 8.3 | 10.4 | 12.5 | 13.6 |
| 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 | 17.50 | 19.00 | 17.87 | 19.32 | 19.63 | 14.07 | 15.57 | 14.43 | 15.88 | 16.20 |
| | 3H | 18.71 | 20.05 | 19.09 | 20.38 | 20.74 | 15.76 | 17.11 | 16.14 | 17.43 | 17.80 |
| | 4H | 19.01 | 20.27 | 19.41 | 20.62 | 21.00 | 16.44 | 17.70 | 16.84 | 18.05 | 18.43 |
| | 6H | 19.22 | 20.38 | 19.63 | 20.75 | 21.14 | 16.99 | 18.15 | 17.40 | 18.52 | 18.91 |
| | 8H | 19.28 | 20.38 | 19.70 | 20.77 | 21.17 | 17.21 | 18.32 | 17.64 | 18.71 | 19.11 |
| | 12H | 19.31 | 20.37 | 19.74 | 20.75 | 21.18 | 17.38 | 18.44 | 17.81 | 18.82 | 19.25 |
| 4H | 2H | 17.65 | 18.90 | 18.05 | 19.25 | 19.63 | 14.73 | 15.99 | 15.13 | 16.34 | 16.72 |
| | 3H | 19.05 | 20.09 | 19.46 | 20.49 | 20.89 | 16.64 | 17.68 | 17.05 | 18.08 | 18.49 |
| | 4H | 19.47 | 20.41 | 19.91 | 20.83 | 21.27 | 17.44 | 18.38 | 17.87 | 18.80 | 19.24 |
| | 6H | 19.80 | 20.62 | 20.26 | 21.06 | 21.52 | 18.13 | 18.95 | 18.59 | 19.39 | 19.85 |
| | 8H | 19.90 | 20.66 | 20.36 | 21.11 | 21.57 | 18.40 | 19.17 | 18.87 | 19.61 | 20.08 |
| | 12H | 19.97 | 20.65 | 20.45 | 21.13 | 21.60 | 18.63 | 19.31 | 19.11 | 19.79 | 20.26 |
| 8H | 4H | 19.60 | 20.37 | 20.07 | 20.81 | 21.28 | 17.76 | 18.52 | 18.22 | 18.97 | 19.43 |
| | 6H | 20.02 | 20.65 | 20.52 | 21.15 | 21.62 | 18.59 | 19.22 | 19.08 | 19.71 | 20.19 |
| | 8H | 20.18 | 20.75 | 20.69 | 21.26 | 21.75 | 18.95 | 19.52 | 19.47 | 20.03 | 20.52 |
| | 12H | 20.31 | 20.81 | 20.82 | 21.30 | 21.87 | 19.29 | 19.79 | 19.80 | 20.28 | 20.84 |
| 12H | 4H | 19.61 | 20.29 | 20.09 | 20.77 | 21.24 | 17.79 | 18.47 | 18.27 | 18.95 | 19.42 |
| | 6H | 20.05 | 20.62 | 20.56 | 21.13 | 21.61 | 18.65 | 19.21 | 19.16 | 19.72 | 20.21 |
| | 8H | 20.26 | 20.76 | 20.77 | 21.25 | 21.82 | 19.08 | 19.58 | 19.59 | 20.07 | 20.64 |