

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: P1060303

Luminaire Tested: S124RDRP-S1195D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060303
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1195D830-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

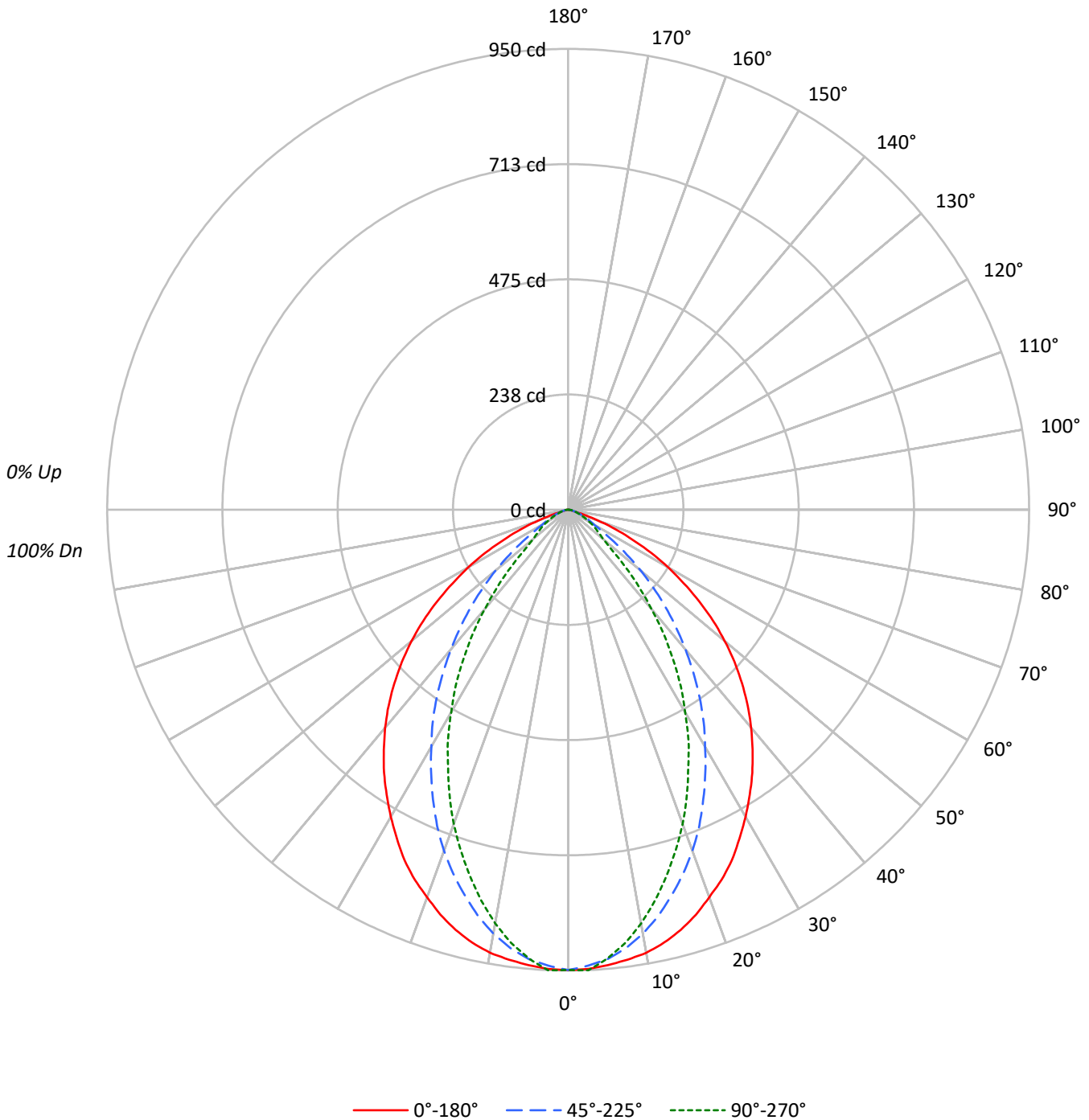
Lumens per Lamp: N/A
Luminaire Lumens: 1399.0 lumens
Efficiency: N/A
Efficacy: 33.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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





TEST NUMBER: P1060303

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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 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 97 | 98 | 96 | 94 | 95 | 93 | 92 | | | | | 90 | | | | |
| 2 | 104 | 98 | 93 | 88 | 102 | 96 | 91 | 87 | 93 | 89 | 85 | 90 | 86 | 83 | 87 | 84 | 82 | | | | | 80 | | | | |
| 3 | 97 | 89 | 82 | 77 | 95 | 87 | 81 | 76 | 84 | 79 | 75 | 82 | 78 | 74 | 79 | 76 | 73 | | | | | 71 | | | | |
| 4 | 90 | 81 | 74 | 68 | 88 | 79 | 73 | 68 | 77 | 71 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | | | | | 63 | | | | |
| 5 | 84 | 74 | 66 | 61 | 82 | 73 | 66 | 60 | 71 | 65 | 60 | 69 | 63 | 59 | 67 | 62 | 59 | | | | | 57 | | | | |
| 6 | 79 | 68 | 60 | 55 | 77 | 67 | 60 | 54 | 65 | 59 | 54 | 63 | 58 | 54 | 62 | 57 | 53 | | | | | 51 | | | | |
| 7 | 74 | 62 | 55 | 50 | 72 | 62 | 54 | 49 | 60 | 54 | 49 | 59 | 53 | 49 | 58 | 52 | 48 | | | | | 47 | | | | |
| 8 | 69 | 58 | 50 | 45 | 68 | 57 | 50 | 45 | 56 | 49 | 45 | 55 | 49 | 45 | 54 | 48 | 44 | | | | | 43 | | | | |
| 9 | 65 | 53 | 46 | 41 | 64 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | | | | | 39 | | | | |
| 10 | 62 | 50 | 43 | 38 | 60 | 49 | 43 | 38 | 48 | 42 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | | | | | 36 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 8171 | 8171 | 8171 |
| 5° | 8144 | 8040 | 8029 |
| 10° | 8110 | 7759 | 7572 |
| 15° | 7994 | 7339 | 6970 |
| 20° | 7789 | 6858 | 6319 |
| 25° | 7580 | 6260 | 5562 |
| 30° | 7269 | 5608 | 4797 |
| 35° | 6954 | 4960 | 3962 |
| 40° | 6595 | 4221 | 3005 |
| 45° | 6168 | 3450 | 2018 |
| 50° | 5640 | 2614 | 1253 |
| 55° | 4956 | 1725 | 1063 |
| 60° | 4097 | 1059 | 875 |
| 65° | 2969 | 817 | 707 |
| 70° | 1614 | 607 | 539 |
| 75° | 356 | 446 | 489 |
| 80° | 263 | 332 | 397 |
| 85° | 267 | 267 | 395 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6168 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 87.9 | 6.3 |
| 10°-20° | 233.5 | 16.7 |
| 20°-30° | 309.3 | 22.1 |
| 30°-40° | 307.0 | 21.9 |
| 40°-50° | 236.2 | 16.9 |
| 50°-60° | 140.8 | 10.1 |
| 60°-70° | 64.0 | 4.6 |
| 70°-80° | 16.6 | 1.2 |
| 80°-90° | 3.7 | 0.3 |
| 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° | 630.7 | 45.1 |
| 0°-40° | 937.7 | 67.0 |
| 0°-60° | 1314.7 | 94.0 |
| 0°-90° | 1399.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1399.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 949 | 949 | 949 | 949 | 949 | |
| 5° | 942 | 944 | 930 | 930 | 929 | 89 |
| 15° | 897 | 874 | 823 | 795 | 782 | 252 |
| 25° | 798 | 740 | 659 | 604 | 585 | 366 |
| 35° | 662 | 579 | 472 | 400 | 377 | 413 |
| 45° | 506 | 408 | 283 | 198 | 166 | 390 |
| 55° | 330 | 235 | 115 | 72 | 71 | 294 |
| 65° | 146 | 87 | 40 | 35 | 35 | 146 |
| 75° | 11 | 13 | 13 | 15 | 15 | 22 |
| 85° | 3 | 3 | 3 | 4 | 4 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 948.9 | 948.9 | 948.9 | 948.9 | 948.9 |
| 2.5° | 947.5 | 948.9 | 940.8 | 947.5 | 950.2 |
| 5° | 942.2 | 943.5 | 930.1 | 930.1 | 928.8 |
| 7.5° | 935.5 | 932.8 | 911.4 | 903.4 | 900.7 |
| 10° | 927.5 | 918.1 | 887.4 | 871.3 | 866.0 |
| 12.5° | 914.1 | 899.4 | 858.0 | 835.3 | 825.9 |
| 15° | 896.7 | 874.0 | 823.2 | 795.2 | 781.8 |
| 17.5° | 875.4 | 847.3 | 787.1 | 751.1 | 736.4 |
| 20° | 850.0 | 812.5 | 748.4 | 703.0 | 689.6 |
| 22.5° | 825.9 | 779.1 | 705.6 | 653.5 | 638.8 |
| 25° | 797.8 | 740.4 | 658.9 | 604.1 | 585.4 |
| 27.5° | 764.4 | 703.0 | 612.1 | 555.9 | 537.2 |
| 30° | 731.0 | 662.9 | 564.0 | 505.2 | 482.4 |
| 32.5° | 696.3 | 621.4 | 519.9 | 453.0 | 431.7 |
| 35° | 661.5 | 578.7 | 471.8 | 399.6 | 376.9 |
| 37.5° | 624.1 | 535.9 | 423.6 | 348.8 | 323.4 |
| 40° | 586.7 | 494.5 | 375.5 | 299.4 | 267.3 |
| 42.5° | 547.9 | 451.7 | 328.8 | 248.6 | 216.5 |
| 45° | 506.5 | 407.6 | 283.3 | 197.8 | 165.7 |
| 47.5° | 465.1 | 366.2 | 237.9 | 148.3 | 118.9 |
| 50° | 421.0 | 322.1 | 195.1 | 108.2 | 93.5 |
| 52.5° | 376.9 | 279.3 | 152.4 | 84.2 | 80.2 |
| 55° | 330.1 | 235.2 | 114.9 | 72.2 | 70.8 |
| 57.5° | 282.0 | 195.1 | 82.9 | 62.8 | 60.1 |
| 60° | 237.9 | 157.7 | 61.5 | 53.5 | 50.8 |
| 62.5° | 192.4 | 118.9 | 50.8 | 44.1 | 41.4 |
| 65° | 145.7 | 86.9 | 40.1 | 34.7 | 34.7 |
| 67.5° | 105.6 | 58.8 | 32.1 | 28.1 | 26.7 |
| 70° | 64.1 | 36.1 | 24.1 | 22.7 | 21.4 |
| 72.5° | 32.1 | 21.4 | 18.7 | 17.4 | 17.4 |
| 75° | 10.7 | 13.4 | 13.4 | 14.7 | 14.7 |
| 77.5° | 8.0 | 9.4 | 9.4 | 10.7 | 10.7 |
| 80° | 5.3 | 6.7 | 6.7 | 8.0 | 8.0 |
| 82.5° | 4.0 | 4.0 | 5.3 | 5.3 | 6.7 |
| 85° | 2.7 | 2.7 | 2.7 | 4.0 | 4.0 |
| 87.5° | 1.3 | 1.3 | 1.3 | 2.7 | 2.7 |
| 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 | 16.42 | 17.75 | 16.78 | 18.06 | 18.38 | 7.96 | 9.30 | 8.33 | 9.61 | 9.93 |
| | 3H | 16.93 | 18.11 | 17.31 | 18.44 | 18.80 | 8.78 | 9.96 | 9.16 | 10.29 | 10.66 |
| | 4H | 16.89 | 17.99 | 17.29 | 18.34 | 18.72 | 9.07 | 10.16 | 9.47 | 10.51 | 10.90 |
| | 6H | 16.83 | 17.83 | 17.24 | 18.21 | 18.60 | 9.24 | 10.24 | 9.65 | 10.61 | 11.01 |
| | 8H | 16.79 | 17.74 | 17.22 | 18.13 | 18.54 | 9.30 | 10.26 | 9.73 | 10.65 | 11.05 |
| | 12H | 16.75 | 17.66 | 17.18 | 18.05 | 18.48 | 9.35 | 10.26 | 9.78 | 10.64 | 11.07 |
| 4H | 2H | 16.26 | 17.36 | 16.66 | 17.71 | 18.09 | 8.41 | 9.50 | 8.81 | 9.86 | 10.24 |
| | 3H | 16.81 | 17.71 | 17.23 | 18.11 | 18.51 | 9.37 | 10.27 | 9.78 | 10.67 | 11.07 |
| | 4H | 16.78 | 17.58 | 17.22 | 18.00 | 18.44 | 9.74 | 10.53 | 10.17 | 10.95 | 11.39 |
| | 6H | 16.73 | 17.41 | 17.19 | 17.86 | 18.33 | 9.99 | 10.67 | 10.45 | 11.12 | 11.58 |
| | 8H | 16.68 | 17.32 | 17.15 | 17.77 | 18.24 | 10.07 | 10.71 | 10.54 | 11.16 | 11.63 |
| | 12H | 16.64 | 17.21 | 17.13 | 17.69 | 18.17 | 10.15 | 10.71 | 10.64 | 11.20 | 11.67 |
| 8H | 4H | 16.67 | 17.31 | 17.14 | 17.76 | 18.23 | 9.82 | 10.46 | 10.29 | 10.91 | 11.38 |
| | 6H | 16.61 | 17.13 | 17.11 | 17.63 | 18.11 | 10.14 | 10.66 | 10.64 | 11.15 | 11.63 |
| | 8H | 16.56 | 17.03 | 17.08 | 17.55 | 18.04 | 10.27 | 10.73 | 10.79 | 11.25 | 11.74 |
| | 12H | 16.53 | 16.94 | 17.05 | 17.44 | 18.01 | 10.40 | 10.81 | 10.92 | 11.31 | 11.88 |
| 12H | 4H | 16.63 | 17.19 | 17.12 | 17.68 | 18.15 | 9.80 | 10.36 | 10.29 | 10.85 | 11.32 |
| | 6H | 16.55 | 17.02 | 17.08 | 17.54 | 18.03 | 10.11 | 10.58 | 10.64 | 11.10 | 11.59 |
| | 8H | 16.53 | 16.94 | 17.04 | 17.44 | 18.01 | 10.28 | 10.70 | 10.80 | 11.19 | 11.76 |