

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: P1058176

Luminaire Tested: S122RDRP-S865D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058176
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S865D940-X4F0-XX-UDD-BVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

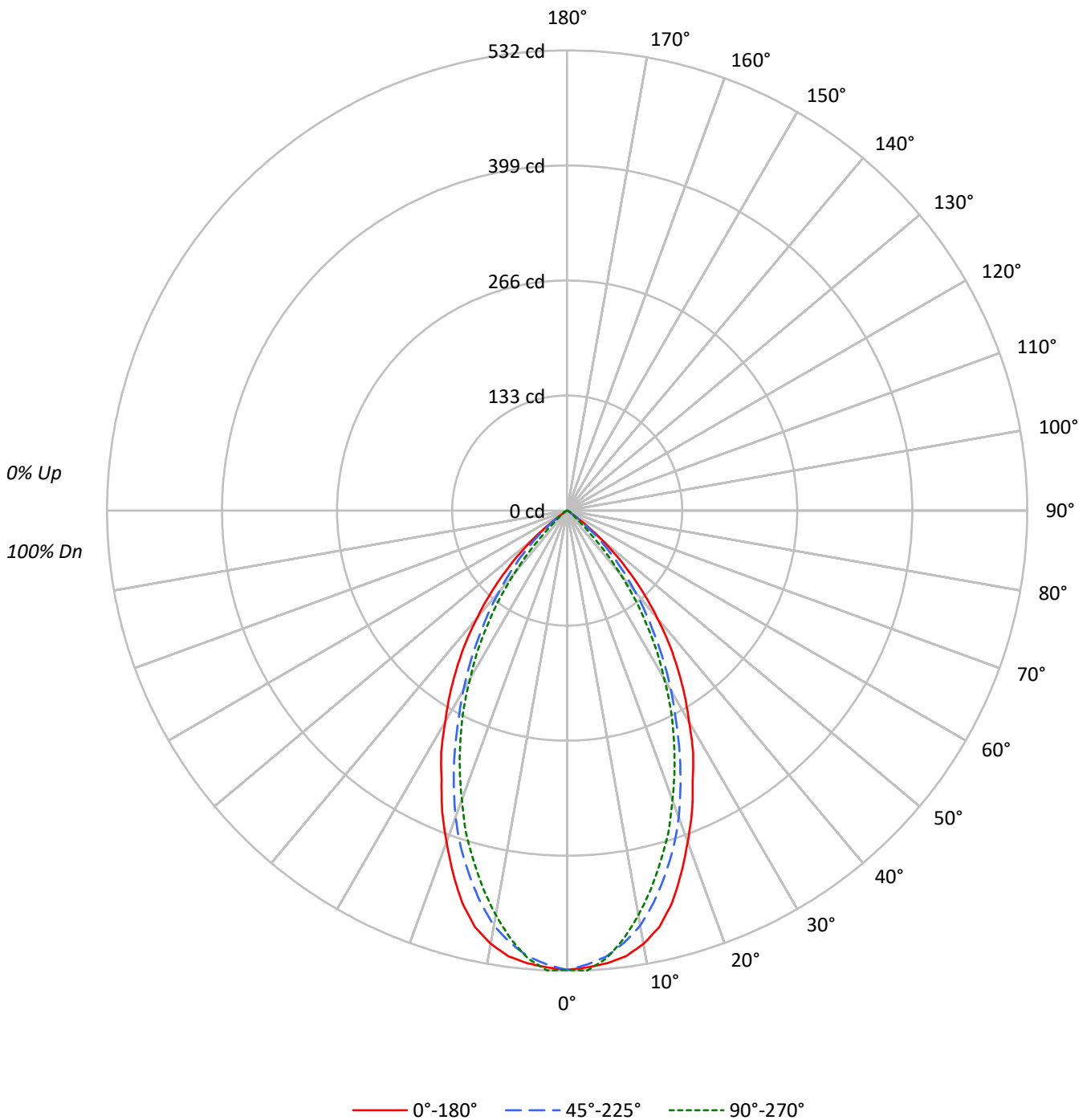
Lumens per Lamp: N/A
Luminaire Lumens: 499.3 lumens
Efficiency: N/A
Efficacy: 14.3 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1 | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 95 |
| 2 | 107 | 102 | 98 | 94 | 105 | 100 | 97 | 93 | 97 | 94 | 91 | 94 | 92 | 89 | 91 | 89 | 87 |
| 3 | 101 | 95 | 90 | 85 | 99 | 93 | 89 | 85 | 91 | 87 | 83 | 88 | 85 | 82 | 86 | 83 | 81 |
| 4 | 96 | 88 | 82 | 78 | 94 | 87 | 81 | 77 | 85 | 80 | 76 | 83 | 79 | 75 | 81 | 77 | 75 |
| 5 | 91 | 82 | 76 | 71 | 89 | 81 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 70 | 76 | 72 | 69 |
| 6 | 86 | 76 | 70 | 66 | 84 | 76 | 70 | 65 | 74 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 64 |
| 7 | 81 | 71 | 65 | 61 | 80 | 71 | 65 | 61 | 69 | 64 | 60 | 68 | 63 | 60 | 67 | 63 | 60 |
| 8 | 77 | 67 | 61 | 56 | 76 | 66 | 60 | 56 | 65 | 60 | 56 | 64 | 59 | 56 | 63 | 59 | 56 |
| 9 | 73 | 63 | 57 | 53 | 72 | 62 | 57 | 52 | 61 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 52 |
| 10 | 69 | 59 | 53 | 49 | 68 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 56 | 52 | 49 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 9798 | 9798 | 9798 |
| 5° | 9730 | 9586 | 9626 |
| 10° | 9528 | 9129 | 8896 |
| 15° | 8963 | 8342 | 7999 |
| 20° | 8002 | 7407 | 6987 |
| 25° | 6994 | 6263 | 5943 |
| 30° | 6004 | 5118 | 4783 |
| 35° | 5008 | 3996 | 3591 |
| 40° | 3893 | 2948 | 2298 |
| 45° | 2724 | 1962 | 997 |
| 50° | 1481 | 1031 | 353 |
| 55° | 216 | 360 | 254 |
| 60° | 41 | 81 | 166 |
| 65° | 0 | 48 | 96 |
| 70° | 0 | 0 | 59 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2724 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 48.8 | 9.8 |
| 10°-20° | 123.0 | 24.6 |
| 20°-30° | 143.3 | 28.7 |
| 30°-40° | 114.9 | 23.0 |
| 40°-50° | 57.1 | 11.4 |
| 50°-60° | 11.2 | 2.3 |
| 60°-70° | 1.0 | 0.2 |
| 70°-80° | 0.1 | 0.0 |
| 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° | 315.0 | 63.1 |
| 0°-40° | 429.9 | 86.1 |
| 0°-60° | 498.2 | 99.8 |
| 0°-90° | 499.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 499.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 531 | 531 | 531 | 531 | 531 | |
| 5° | 525 | 525 | 518 | 519 | 520 | 50 |
| 15° | 469 | 460 | 437 | 425 | 419 | 130 |
| 25° | 344 | 327 | 308 | 301 | 292 | 158 |
| 35° | 222 | 200 | 177 | 170 | 159 | 138 |
| 45° | 104 | 92 | 75 | 50 | 38 | 81 |
| 55° | 7 | 14 | 11 | 7 | 8 | 14 |
| 65° | 0 | 0 | 1 | 1 | 2 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 531.0 | 531.0 | 531.0 | 531.0 | 531.0 |
| 2.5° | 528.7 | 531.0 | 525.3 | 531.0 | 532.1 |
| 5° | 525.3 | 525.3 | 517.5 | 518.6 | 519.7 |
| 7.5° | 519.7 | 517.5 | 504.0 | 501.8 | 499.5 |
| 10° | 508.5 | 504.0 | 487.2 | 478.2 | 474.8 |
| 12.5° | 492.8 | 486.1 | 463.6 | 453.5 | 447.9 |
| 15° | 469.2 | 460.2 | 436.7 | 425.4 | 418.7 |
| 17.5° | 438.9 | 431.0 | 408.6 | 396.2 | 389.5 |
| 20° | 407.5 | 396.2 | 377.2 | 364.8 | 355.8 |
| 22.5° | 377.2 | 362.6 | 342.4 | 333.4 | 324.4 |
| 25° | 343.5 | 326.7 | 307.6 | 300.8 | 291.9 |
| 27.5° | 315.4 | 294.1 | 271.6 | 267.2 | 259.3 |
| 30° | 281.8 | 261.5 | 240.2 | 233.5 | 224.5 |
| 32.5° | 252.6 | 230.1 | 208.8 | 200.9 | 193.1 |
| 35° | 222.3 | 199.8 | 177.4 | 169.5 | 159.4 |
| 37.5° | 193.1 | 171.7 | 149.3 | 136.9 | 128.0 |
| 40° | 161.6 | 143.7 | 122.4 | 106.6 | 95.4 |
| 42.5° | 133.6 | 117.9 | 97.7 | 77.5 | 66.2 |
| 45° | 104.4 | 92.0 | 75.2 | 50.5 | 38.2 |
| 47.5° | 77.5 | 68.5 | 55.0 | 29.2 | 20.2 |
| 50° | 51.6 | 48.3 | 35.9 | 14.6 | 12.3 |
| 52.5° | 28.1 | 30.3 | 21.3 | 9.0 | 10.1 |
| 55° | 6.7 | 13.5 | 11.2 | 6.7 | 7.9 |
| 57.5° | 1.1 | 2.2 | 5.6 | 5.6 | 5.6 |
| 60° | 1.1 | 1.1 | 2.2 | 3.4 | 4.5 |
| 62.5° | 1.1 | 0.0 | 1.1 | 2.2 | 3.4 |
| 65° | 0.0 | 0.0 | 1.1 | 1.1 | 2.2 |
| 67.5° | 0.0 | 0.0 | 0.0 | 1.1 | 1.1 |
| 70° | 0.0 | 0.0 | 0.0 | 1.1 | 1.1 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4H | 2H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H | 4H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12H | 4H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |