

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057852

Luminaire Tested: S122RDR-S1005D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057852
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: S122RDR-S1005D940-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

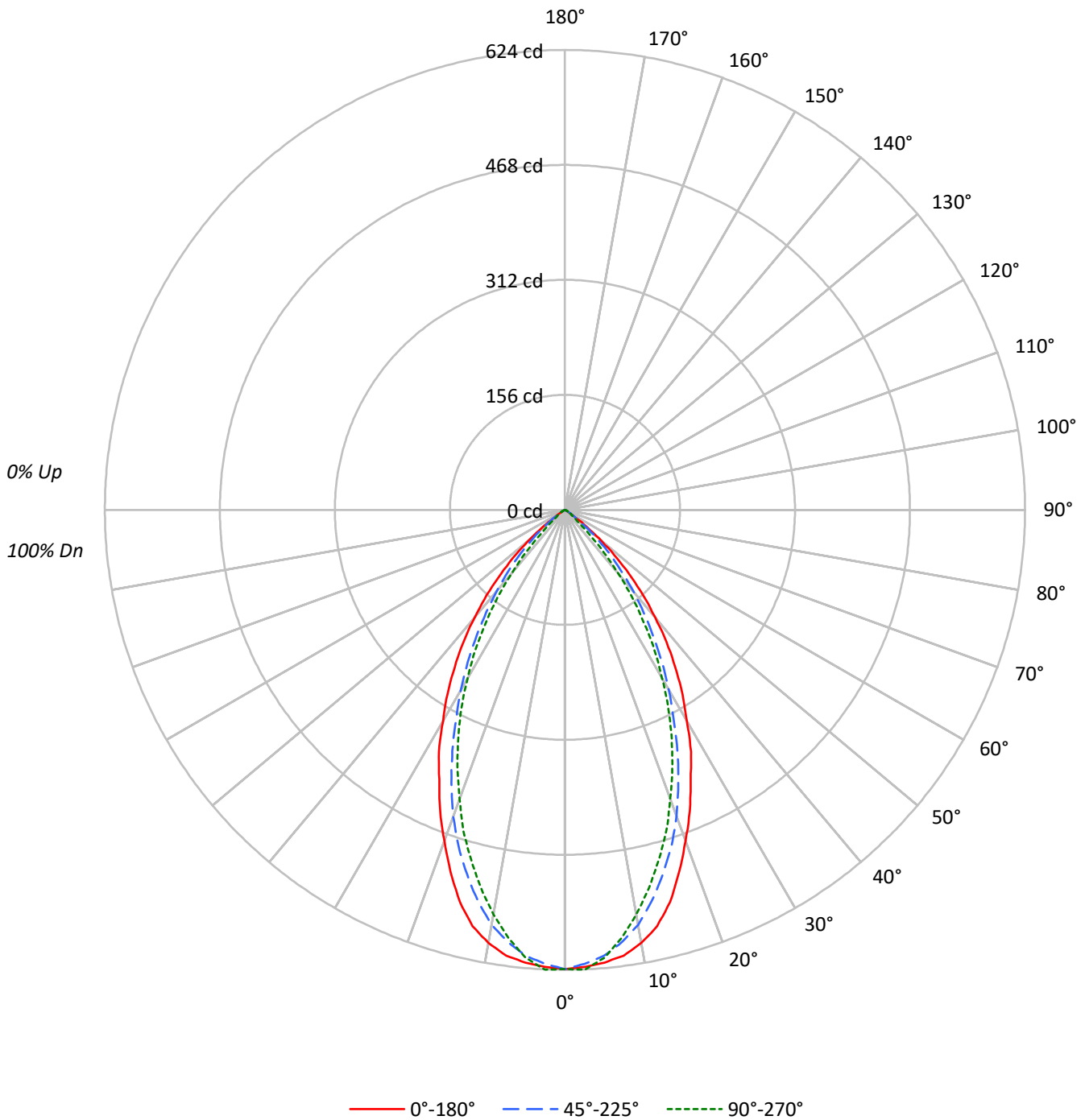
Lumens per Lamp: N/A
Luminaire Lumens: 586.0 lumens
Efficiency: N/A
Efficacy: 14.0 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): 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 | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 95 | 93 |
| 2 | 107 | 102 | 98 | 94 | 105 | 100 | 97 | 93 | 97 | 94 | 91 | 94 | 92 | 89 | 91 | 89 | 87 | 86 |
| 3 | 101 | 95 | 90 | 85 | 99 | 93 | 89 | 85 | 91 | 87 | 83 | 88 | 85 | 82 | 86 | 83 | 81 | 79 |
| 4 | 96 | 88 | 82 | 78 | 94 | 87 | 81 | 77 | 85 | 80 | 76 | 83 | 79 | 75 | 81 | 77 | 75 | 73 |
| 5 | 91 | 82 | 76 | 71 | 89 | 81 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 70 | 76 | 72 | 69 | 67 |
| 6 | 86 | 76 | 70 | 66 | 84 | 76 | 70 | 65 | 74 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 64 | 62 |
| 7 | 81 | 71 | 65 | 61 | 80 | 71 | 65 | 61 | 69 | 64 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 58 |
| 8 | 77 | 67 | 61 | 56 | 76 | 66 | 60 | 56 | 65 | 60 | 56 | 64 | 59 | 56 | 63 | 59 | 56 | 54 |
| 9 | 73 | 63 | 57 | 53 | 72 | 62 | 57 | 52 | 61 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 51 |
| 10 | 69 | 59 | 53 | 49 | 68 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 56 | 52 | 49 | 47 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11498 | 11498 | 11498 |
| 5° | 11419 | 11249 | 11299 |
| 10° | 11182 | 10712 | 10442 |
| 15° | 10520 | 9790 | 9387 |
| 20° | 9390 | 8691 | 8200 |
| 25° | 8207 | 7350 | 6973 |
| 30° | 7046 | 6006 | 5614 |
| 35° | 5875 | 4688 | 4215 |
| 40° | 4569 | 3459 | 2698 |
| 45° | 3197 | 2304 | 1169 |
| 50° | 1740 | 1211 | 416 |
| 55° | 254 | 425 | 296 |
| 60° | 48 | 96 | 196 |
| 65° | 0 | 57 | 114 |
| 70° | 0 | 0 | 70 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3197 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 57.2 | 9.8 |
| 10°-20° | 144.3 | 24.6 |
| 20°-30° | 168.2 | 28.7 |
| 30°-40° | 134.8 | 23.0 |
| 40°-50° | 67.0 | 11.4 |
| 50°-60° | 13.2 | 2.3 |
| 60°-70° | 1.2 | 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° | 369.7 | 63.1 |
| 0°-40° | 504.5 | 86.1 |
| 0°-60° | 584.7 | 99.8 |
| 0°-90° | 586.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 586.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 623 | 623 | 623 | 623 | 623 | |
| 5° | 616 | 616 | 607 | 609 | 610 | 58 |
| 15° | 551 | 540 | 512 | 499 | 491 | 153 |
| 25° | 403 | 383 | 361 | 353 | 342 | 186 |
| 35° | 261 | 234 | 208 | 199 | 187 | 162 |
| 45° | 122 | 108 | 88 | 59 | 45 | 95 |
| 55° | 8 | 16 | 13 | 8 | 9 | 16 |
| 65° | 0 | 0 | 1 | 1 | 3 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P1057852

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 623.1 | 623.1 | 623.1 | 623.1 | 623.1 |
| 2.5° | 620.5 | 623.1 | 616.5 | 623.1 | 624.4 |
| 5° | 616.5 | 616.5 | 607.3 | 608.6 | 610.0 |
| 7.5° | 610.0 | 607.3 | 591.5 | 588.9 | 586.2 |
| 10° | 596.8 | 591.5 | 571.7 | 561.2 | 557.3 |
| 12.5° | 578.3 | 570.4 | 544.1 | 532.2 | 525.6 |
| 15° | 550.7 | 540.1 | 512.5 | 499.3 | 491.4 |
| 17.5° | 515.1 | 505.9 | 479.5 | 465.0 | 457.1 |
| 20° | 478.2 | 465.0 | 442.6 | 428.2 | 417.6 |
| 22.5° | 442.6 | 425.5 | 401.8 | 391.3 | 380.7 |
| 25° | 403.1 | 383.4 | 361.0 | 353.1 | 342.5 |
| 27.5° | 370.2 | 345.2 | 318.8 | 313.5 | 304.3 |
| 30° | 330.7 | 307.0 | 281.9 | 274.0 | 263.5 |
| 32.5° | 296.4 | 270.1 | 245.0 | 235.8 | 226.6 |
| 35° | 260.8 | 234.5 | 208.1 | 198.9 | 187.1 |
| 37.5° | 226.6 | 201.6 | 175.2 | 160.7 | 150.2 |
| 40° | 189.7 | 168.6 | 143.6 | 125.2 | 112.0 |
| 42.5° | 156.8 | 138.3 | 114.6 | 90.9 | 77.7 |
| 45° | 122.5 | 108.0 | 88.3 | 59.3 | 44.8 |
| 47.5° | 90.9 | 80.4 | 64.6 | 34.3 | 23.7 |
| 50° | 60.6 | 56.6 | 42.2 | 17.1 | 14.5 |
| 52.5° | 32.9 | 35.6 | 25.0 | 10.5 | 11.9 |
| 55° | 7.9 | 15.8 | 13.2 | 7.9 | 9.2 |
| 57.5° | 1.3 | 2.6 | 6.6 | 6.6 | 6.6 |
| 60° | 1.3 | 1.3 | 2.6 | 4.0 | 5.3 |
| 62.5° | 1.3 | 0.0 | 1.3 | 2.6 | 4.0 |
| 65° | 0.0 | 0.0 | 1.3 | 1.3 | 2.6 |
| 67.5° | 0.0 | 0.0 | 0.0 | 1.3 | 1.3 |
| 70° | 0.0 | 0.0 | 0.0 | 1.3 | 1.3 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 |
| 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 |

(END OF REPORT)