

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: P1061827

Luminaire Tested: S125RDR-S850D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061827
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-46)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-S850D940-X4F0-XX-UDD-WVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

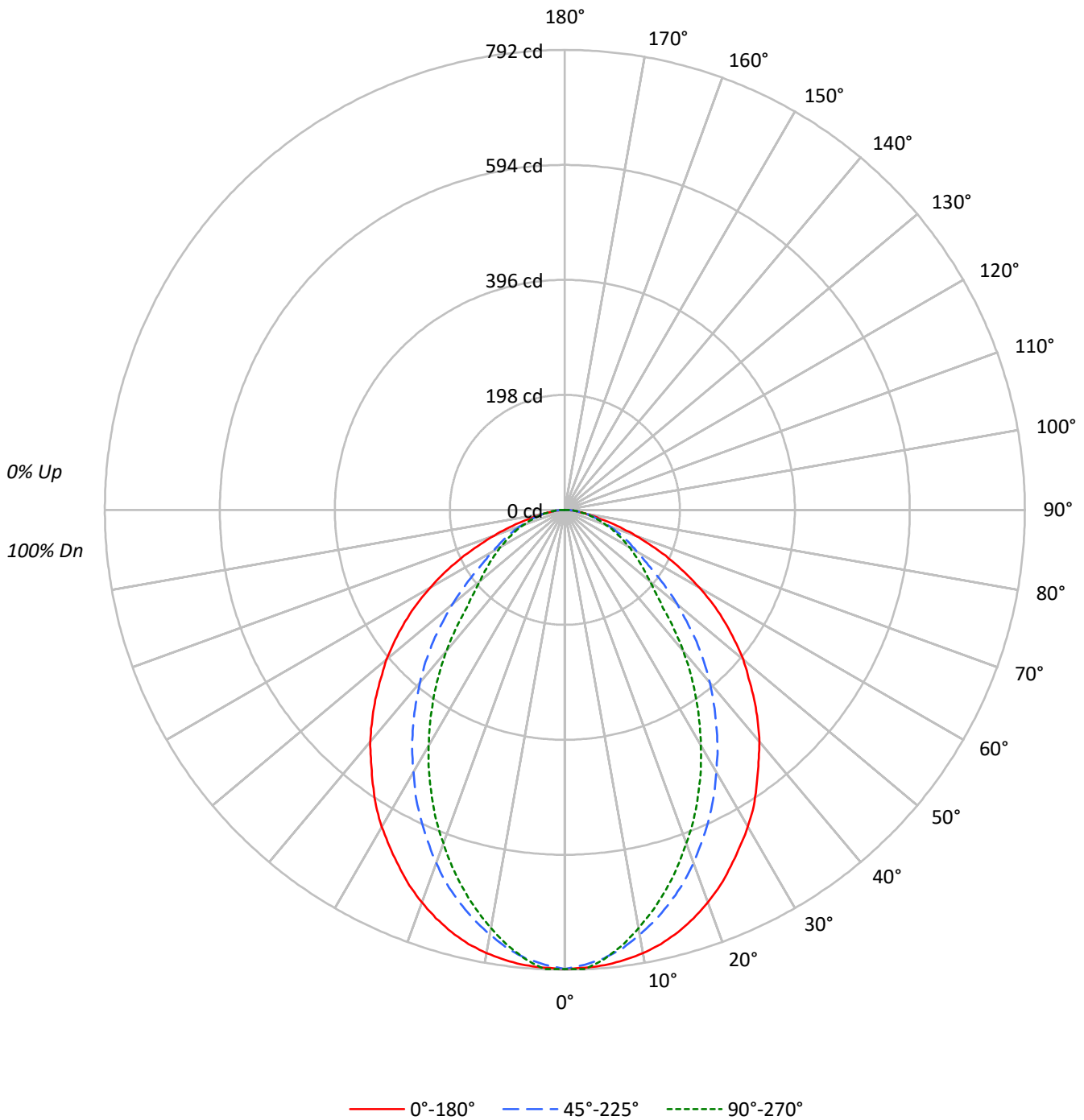
Lumens per Lamp: N/A
Luminaire Lumens: 1498.0 lumens
Efficiency: N/A
Efficacy: 58.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
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 | 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 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 87 | | | 87 | |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 78 | 83 | 80 | 77 | 75 | | | 75 | |
| 3 | 93 | 84 | 77 | 71 | 91 | 82 | 76 | 70 | 80 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 67 | 65 | | | 65 | |
| 4 | 86 | 76 | 68 | 61 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 70 | 64 | 59 | 67 | 63 | 59 | 57 | | | 57 | |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 59 | 54 | 65 | 58 | 53 | 63 | 57 | 53 | 61 | 56 | 52 | 50 | | | 50 | |
| 6 | 74 | 62 | 54 | 48 | 73 | 61 | 53 | 48 | 59 | 53 | 47 | 58 | 52 | 47 | 56 | 51 | 47 | 45 | | | 45 | |
| 7 | 69 | 57 | 49 | 43 | 68 | 56 | 48 | 43 | 55 | 48 | 43 | 53 | 47 | 42 | 52 | 46 | 42 | 40 | | | 40 | |
| 8 | 65 | 52 | 44 | 39 | 63 | 52 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 38 | 48 | 42 | 38 | 36 | | | 36 | |
| 9 | 61 | 48 | 41 | 35 | 60 | 48 | 40 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 33 | | | 33 | |
| 10 | 57 | 45 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 42 | 36 | 32 | 30 | | | 30 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5445 | 5445 | 5445 |
| 5° | 5441 | 5359 | 5370 |
| 10° | 5420 | 5193 | 5114 |
| 15° | 5367 | 4988 | 4816 |
| 20° | 5272 | 4744 | 4479 |
| 25° | 5140 | 4462 | 4122 |
| 30° | 5010 | 4144 | 3727 |
| 35° | 4842 | 3825 | 3305 |
| 40° | 4685 | 3488 | 2847 |
| 45° | 4490 | 3119 | 2333 |
| 50° | 4295 | 2704 | 2042 |
| 55° | 4030 | 2257 | 1886 |
| 60° | 3677 | 1975 | 1761 |
| 65° | 3218 | 1805 | 1637 |
| 70° | 2609 | 1625 | 1522 |
| 75° | 1873 | 1484 | 1415 |
| 80° | 1293 | 1328 | 1328 |
| 85° | 948 | 1153 | 1224 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4490 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 73.5 | 4.9 |
| 10°-20° | 198.9 | 13.3 |
| 20°-30° | 274.9 | 18.3 |
| 30°-40° | 292.8 | 19.5 |
| 40°-50° | 257.2 | 17.2 |
| 50°-60° | 195.0 | 13.0 |
| 60°-70° | 126.6 | 8.5 |
| 70°-80° | 62.7 | 4.2 |
| 80°-90° | 16.4 | 1.1 |
| 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° | 547.3 | 36.5 |
| 0°-40° | 840.0 | 56.1 |
| 0°-60° | 1292.2 | 86.3 |
| 0°-90° | 1498.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1498.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 791 | 791 | 791 | 791 | 791 | |
| 5° | 787 | 786 | 775 | 778 | 777 | 75 |
| 15° | 753 | 736 | 700 | 684 | 676 | 212 |
| 25° | 677 | 640 | 587 | 557 | 543 | 312 |
| 35° | 576 | 523 | 455 | 414 | 393 | 361 |
| 45° | 461 | 397 | 320 | 263 | 240 | 355 |
| 55° | 336 | 270 | 188 | 162 | 157 | 299 |
| 65° | 198 | 147 | 111 | 102 | 100 | 195 |
| 75° | 70 | 62 | 56 | 54 | 53 | 79 |
| 85° | 12 | 14 | 15 | 15 | 16 | 15 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1061827

CATALOG NUMBER: S125RDR-S850D940-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 790.8 | 790.8 | 790.8 | 790.8 | 790.8 |
| 2.5° | 789.1 | 790.8 | 783.9 | 789.9 | 791.6 |
| 5° | 787.3 | 785.6 | 775.3 | 777.9 | 777.0 |
| 7.5° | 782.2 | 778.8 | 761.6 | 759.9 | 756.4 |
| 10° | 775.3 | 766.7 | 742.7 | 736.7 | 731.5 |
| 12.5° | 765.9 | 752.1 | 722.9 | 710.9 | 704.9 |
| 15° | 753.0 | 735.8 | 699.8 | 683.5 | 675.7 |
| 17.5° | 737.5 | 713.5 | 675.7 | 653.4 | 644.8 |
| 20° | 719.5 | 691.2 | 647.4 | 621.6 | 611.3 |
| 22.5° | 699.8 | 666.3 | 617.3 | 589.9 | 578.7 |
| 25° | 676.6 | 639.7 | 587.3 | 557.2 | 542.6 |
| 27.5° | 653.4 | 612.2 | 555.5 | 522.0 | 506.6 |
| 30° | 630.2 | 583.0 | 521.2 | 485.1 | 468.8 |
| 32.5° | 605.3 | 552.9 | 489.4 | 449.9 | 431.0 |
| 35° | 576.1 | 522.9 | 455.1 | 413.8 | 393.2 |
| 37.5° | 547.8 | 491.1 | 421.6 | 375.2 | 355.5 |
| 40° | 521.2 | 461.1 | 388.1 | 337.4 | 316.8 |
| 42.5° | 491.1 | 429.3 | 354.6 | 301.4 | 278.2 |
| 45° | 461.1 | 396.7 | 320.3 | 262.7 | 239.6 |
| 47.5° | 429.3 | 365.8 | 284.2 | 227.5 | 212.1 |
| 50° | 401.0 | 334.0 | 252.4 | 200.9 | 190.6 |
| 52.5° | 368.3 | 303.1 | 219.8 | 180.3 | 173.4 |
| 55° | 335.7 | 269.6 | 188.0 | 162.3 | 157.1 |
| 57.5° | 302.2 | 239.6 | 163.1 | 146.8 | 141.7 |
| 60° | 267.0 | 208.6 | 143.4 | 130.5 | 127.9 |
| 62.5° | 231.8 | 176.9 | 126.2 | 116.8 | 113.3 |
| 65° | 197.5 | 146.8 | 110.8 | 102.2 | 100.5 |
| 67.5° | 162.3 | 119.3 | 95.3 | 89.3 | 88.4 |
| 70° | 129.6 | 97.0 | 80.7 | 77.3 | 75.6 |
| 72.5° | 99.6 | 77.3 | 67.8 | 65.3 | 64.4 |
| 75° | 70.4 | 61.8 | 55.8 | 54.1 | 53.2 |
| 77.5° | 47.2 | 47.2 | 44.6 | 42.9 | 43.8 |
| 80° | 32.6 | 34.3 | 33.5 | 33.5 | 33.5 |
| 82.5° | 21.5 | 23.2 | 24.0 | 24.0 | 24.0 |
| 85° | 12.0 | 13.7 | 14.6 | 14.6 | 15.5 |
| 87.5° | 4.3 | 5.2 | 6.0 | 6.9 | 6.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)