

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: P1060478

Luminaire Tested: S124RDR-S575D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060478
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S575D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

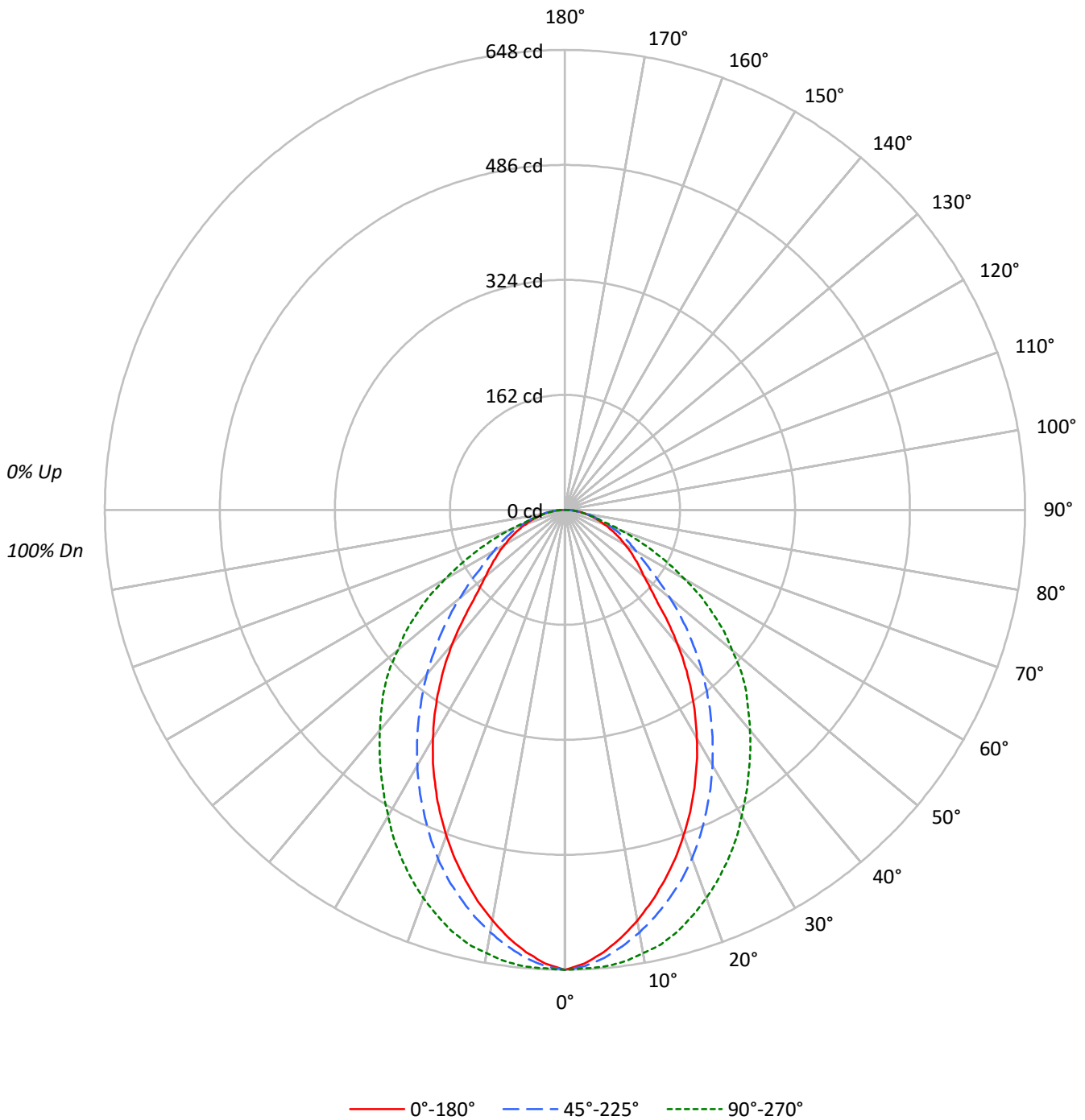
Lumens per Lamp: N/A
Luminaire Lumens: 1179.9 lumens
Efficiency: N/A
Efficacy: 60.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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





TEST NUMBER: P1060478

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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 | 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 | 110 | 106 | 102 | 99 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 87 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 102 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 79 | 83 | 80 | 77 | 75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 94 | 84 | 77 | 71 | 91 | 83 | 76 | 71 | 80 | 74 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 65 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 87 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 72 | 66 | 61 | 70 | 64 | 60 | 68 | 63 | 59 | 57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 80 | 69 | 60 | 54 | 78 | 68 | 60 | 54 | 65 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 75 | 62 | 54 | 48 | 73 | 62 | 54 | 48 | 60 | 53 | 48 | 58 | 52 | 47 | 57 | 51 | 47 | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 70 | 57 | 49 | 43 | 68 | 56 | 49 | 43 | 55 | 48 | 43 | 54 | 47 | 43 | 52 | 47 | 42 | 41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 65 | 53 | 45 | 39 | 64 | 52 | 44 | 39 | 51 | 44 | 39 | 50 | 43 | 39 | 48 | 43 | 39 | 37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 61 | 49 | 41 | 36 | 60 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | 45 | 39 | 35 | 34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 58 | 45 | 38 | 33 | 56 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 33 | 42 | 36 | 32 | 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5581 | 5581 | 5581 |
| 5° | 5408 | 5479 | 5584 |
| 10° | 5138 | 5287 | 5548 |
| 15° | 4820 | 5057 | 5481 |
| 20° | 4476 | 4794 | 5335 |
| 25° | 4099 | 4467 | 5163 |
| 30° | 3695 | 4133 | 4951 |
| 35° | 3257 | 3771 | 4748 |
| 40° | 2772 | 3398 | 4558 |
| 45° | 2250 | 3003 | 4393 |
| 50° | 1948 | 2584 | 4113 |
| 55° | 1805 | 2193 | 3815 |
| 60° | 1684 | 1977 | 3346 |
| 65° | 1577 | 1854 | 2781 |
| 70° | 1470 | 1710 | 2105 |
| 75° | 1401 | 1584 | 1514 |
| 80° | 1314 | 1448 | 1279 |
| 85° | 1205 | 1344 | 1008 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4393 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 59.8 | 5.1 |
| 10°-20° | 160.8 | 13.6 |
| 20°-30° | 219.6 | 18.6 |
| 30°-40° | 230.1 | 19.5 |
| 40°-50° | 199.1 | 16.9 |
| 50°-60° | 149.6 | 12.7 |
| 60°-70° | 96.5 | 8.2 |
| 70°-80° | 49.5 | 4.2 |
| 80°-90° | 14.8 | 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° | 440.3 | 37.3 |
| 0°-40° | 670.3 | 56.8 |
| 0°-60° | 1019.1 | 86.4 |
| 0°-90° | 1179.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1179.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 648 | 648 | 648 | 648 | 648 | |
| 5° | 626 | 635 | 634 | 638 | 646 | 59 |
| 15° | 541 | 554 | 567 | 593 | 615 | 152 |
| 25° | 431 | 448 | 470 | 507 | 543 | 198 |
| 35° | 310 | 327 | 359 | 406 | 452 | 193 |
| 45° | 185 | 204 | 247 | 307 | 361 | 146 |
| 55° | 120 | 124 | 146 | 208 | 254 | 108 |
| 65° | 77 | 79 | 91 | 110 | 136 | 77 |
| 75° | 42 | 47 | 48 | 47 | 46 | 45 |
| 85° | 12 | 14 | 14 | 13 | 10 | 14 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 648.1 | 648.1 | 648.1 | 648.1 | 648.1 |
| 2.5° | 639.9 | 648.1 | 643.3 | 644.7 | 646.7 |
| 5° | 625.6 | 635.2 | 633.8 | 638.5 | 646.0 |
| 7.5° | 608.0 | 618.2 | 620.2 | 631.1 | 641.9 |
| 10° | 587.6 | 599.1 | 604.6 | 620.9 | 634.5 |
| 12.5° | 565.2 | 577.4 | 586.9 | 607.3 | 627.0 |
| 15° | 540.7 | 554.3 | 567.2 | 593.0 | 614.8 |
| 17.5° | 515.6 | 529.2 | 546.2 | 574.7 | 599.1 |
| 20° | 488.4 | 503.4 | 523.1 | 553.0 | 582.2 |
| 22.5° | 460.6 | 476.2 | 497.3 | 529.9 | 563.8 |
| 25° | 431.4 | 447.7 | 470.1 | 506.8 | 543.4 |
| 27.5° | 402.1 | 418.5 | 443.6 | 482.3 | 522.4 |
| 30° | 371.6 | 388.6 | 415.7 | 457.9 | 497.9 |
| 32.5° | 341.0 | 359.4 | 387.2 | 432.0 | 474.8 |
| 35° | 309.8 | 327.4 | 358.7 | 406.2 | 451.7 |
| 37.5° | 278.5 | 296.9 | 330.1 | 381.1 | 428.6 |
| 40° | 246.6 | 265.6 | 302.3 | 356.0 | 405.5 |
| 42.5° | 214.7 | 235.0 | 273.8 | 330.1 | 382.4 |
| 45° | 184.8 | 203.8 | 246.6 | 307.0 | 360.7 |
| 47.5° | 162.4 | 175.3 | 219.4 | 284.6 | 336.3 |
| 50° | 145.4 | 152.2 | 192.9 | 260.2 | 307.0 |
| 52.5° | 132.5 | 137.2 | 168.5 | 233.7 | 283.3 |
| 55° | 120.2 | 124.3 | 146.1 | 208.5 | 254.1 |
| 57.5° | 109.4 | 111.4 | 129.1 | 184.1 | 226.2 |
| 60° | 97.8 | 99.9 | 114.8 | 157.6 | 194.3 |
| 62.5° | 87.6 | 89.0 | 103.3 | 132.5 | 165.1 |
| 65° | 77.4 | 78.8 | 91.0 | 110.0 | 136.5 |
| 67.5° | 67.9 | 70.0 | 79.5 | 89.7 | 108.7 |
| 70° | 58.4 | 62.5 | 67.9 | 72.7 | 83.6 |
| 72.5° | 50.3 | 54.3 | 57.1 | 58.4 | 59.1 |
| 75° | 42.1 | 46.9 | 47.6 | 46.9 | 45.5 |
| 77.5° | 34.0 | 38.0 | 38.0 | 36.7 | 35.3 |
| 80° | 26.5 | 29.9 | 29.2 | 27.9 | 25.8 |
| 82.5° | 19.7 | 21.7 | 21.1 | 19.7 | 17.7 |
| 85° | 12.2 | 14.3 | 13.6 | 12.9 | 10.2 |
| 87.5° | 6.1 | 8.2 | 7.5 | 6.8 | 4.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)