

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: P1059391

Luminaire Tested: S123RDR-S775D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059391
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S775D940-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 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

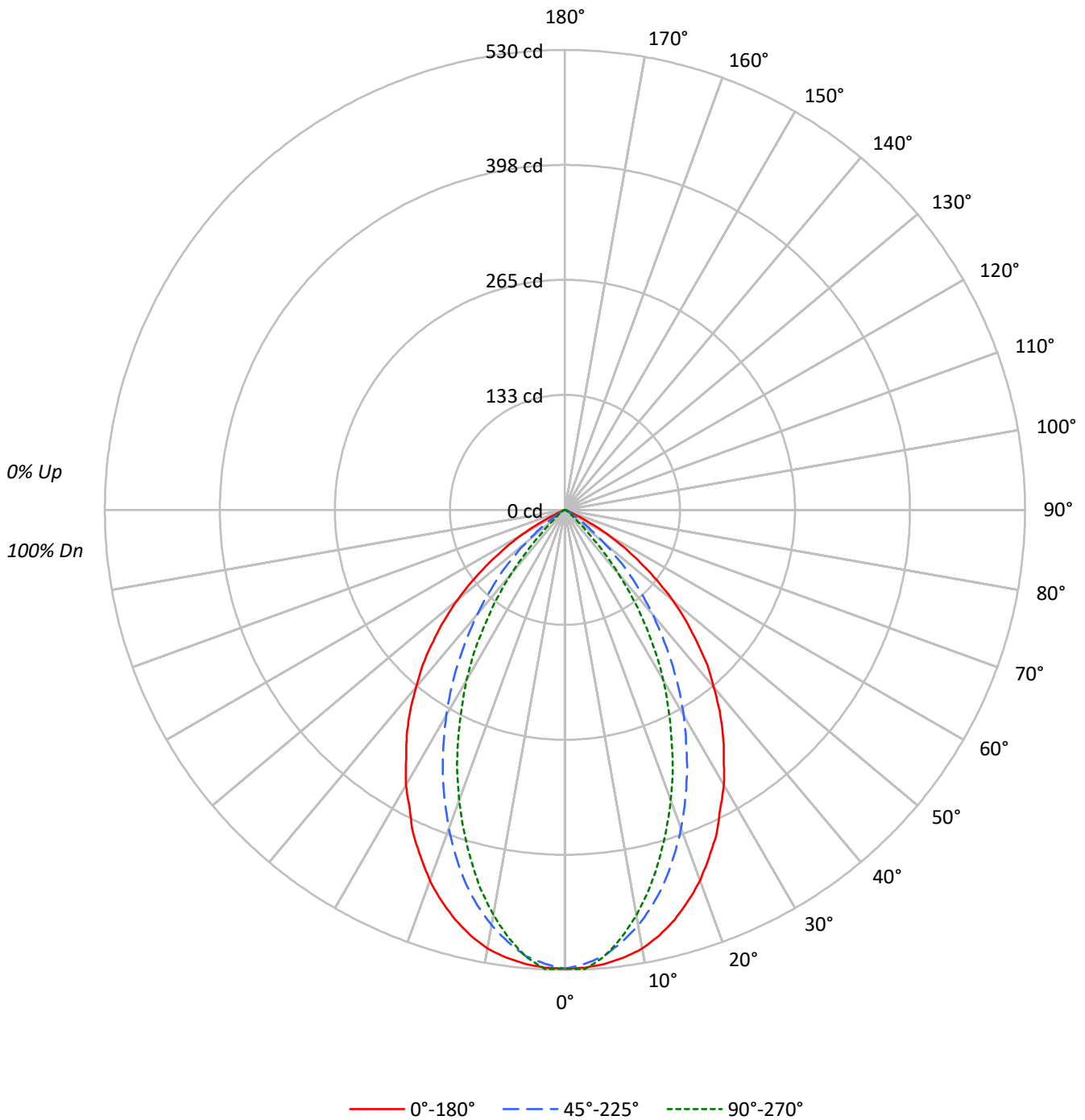
Lumens per Lamp: N/A
Luminaire Lumens: 603.5 lumens
Efficiency: N/A
Efficacy: 23.4 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 113 | 110 | 107 | 104 | 110 | 107 | 105 | 103 | 103 | 101 | 100 | 100 | 98 | 97 | 96 | 95 | 94 | 92 |
| 2 | 106 | 101 | 96 | 92 | 104 | 99 | 95 | 91 | 96 | 92 | 89 | 93 | 90 | 87 | 90 | 87 | 85 | 84 |
| 3 | 100 | 92 | 87 | 82 | 98 | 91 | 86 | 82 | 88 | 84 | 80 | 86 | 82 | 79 | 83 | 80 | 78 | 76 |
| 4 | 94 | 85 | 79 | 74 | 92 | 84 | 78 | 74 | 82 | 77 | 73 | 80 | 75 | 72 | 78 | 74 | 71 | 69 |
| 5 | 88 | 79 | 72 | 67 | 86 | 78 | 71 | 67 | 76 | 70 | 66 | 74 | 69 | 65 | 72 | 68 | 65 | 63 |
| 6 | 83 | 73 | 66 | 61 | 81 | 72 | 66 | 61 | 70 | 65 | 60 | 69 | 64 | 60 | 67 | 63 | 60 | 58 |
| 7 | 78 | 68 | 61 | 56 | 77 | 67 | 60 | 56 | 66 | 60 | 56 | 64 | 59 | 55 | 63 | 58 | 55 | 53 |
| 8 | 74 | 63 | 56 | 52 | 72 | 62 | 56 | 51 | 61 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 51 | 49 |
| 9 | 70 | 59 | 52 | 48 | 68 | 58 | 52 | 48 | 57 | 52 | 47 | 56 | 51 | 47 | 55 | 51 | 47 | 46 |
| 10 | 66 | 55 | 49 | 44 | 65 | 55 | 48 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 44 | 42 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6209 | 6209 | 6209 |
| 5° | 6193 | 6083 | 6093 |
| 10° | 6123 | 5798 | 5655 |
| 15° | 5942 | 5394 | 5083 |
| 20° | 5682 | 4885 | 4449 |
| 25° | 5351 | 4314 | 3763 |
| 30° | 4965 | 3707 | 3071 |
| 35° | 4553 | 3063 | 2282 |
| 40° | 4085 | 2402 | 1462 |
| 45° | 3564 | 1754 | 608 |
| 50° | 2956 | 1043 | 234 |
| 55° | 2178 | 436 | 174 |
| 60° | 1320 | 160 | 101 |
| 65° | 356 | 94 | 47 |
| 70° | 0 | 31 | 31 |
| 75° | 0 | 0 | 41 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3564 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 48.7 | 8.1 |
| 10°-20° | 125.6 | 20.8 |
| 20°-30° | 156.6 | 25.9 |
| 30°-40° | 140.0 | 23.2 |
| 40°-50° | 88.4 | 14.6 |
| 50°-60° | 37.0 | 6.1 |
| 60°-70° | 7.0 | 1.2 |
| 70°-80° | 0.2 | 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° | 330.9 | 54.8 |
| 0°-40° | 470.9 | 78.0 |
| 0°-60° | 596.3 | 98.8 |
| 0°-90° | 603.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 603.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 529 | 529 | 529 | 529 | 529 | |
| 5° | 525 | 525 | 516 | 518 | 517 | 50 |
| 15° | 489 | 477 | 444 | 425 | 418 | 137 |
| 25° | 413 | 380 | 333 | 304 | 290 | 189 |
| 35° | 318 | 272 | 214 | 175 | 159 | 198 |
| 45° | 215 | 167 | 106 | 56 | 37 | 165 |
| 55° | 106 | 73 | 21 | 8 | 8 | 95 |
| 65° | 13 | 9 | 3 | 2 | 2 | 18 |
| 75° | 0 | 0 | 0 | 0 | 1 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1059391

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 528.8 | 528.8 | 528.8 | 528.8 | 528.8 |
| 2.5° | 528.0 | 528.8 | 523.7 | 528.8 | 529.7 |
| 5° | 525.4 | 524.6 | 516.1 | 517.8 | 516.9 |
| 7.5° | 520.3 | 517.8 | 502.4 | 499.0 | 497.3 |
| 10° | 513.5 | 506.7 | 486.3 | 477.7 | 474.3 |
| 12.5° | 502.4 | 493.1 | 466.7 | 453.0 | 447.9 |
| 15° | 488.8 | 476.9 | 443.7 | 424.9 | 418.1 |
| 17.5° | 472.6 | 455.6 | 418.1 | 397.7 | 387.5 |
| 20° | 454.7 | 430.9 | 390.9 | 366.2 | 356.0 |
| 22.5° | 433.5 | 407.1 | 361.9 | 335.5 | 324.5 |
| 25° | 413.0 | 379.8 | 333.0 | 304.0 | 290.4 |
| 27.5° | 387.5 | 352.6 | 302.3 | 272.5 | 258.0 |
| 30° | 366.2 | 326.2 | 273.4 | 240.1 | 226.5 |
| 32.5° | 340.6 | 298.9 | 243.6 | 206.9 | 194.2 |
| 35° | 317.6 | 271.7 | 213.7 | 175.4 | 159.2 |
| 37.5° | 292.9 | 245.3 | 183.9 | 143.9 | 128.6 |
| 40° | 266.5 | 218.9 | 156.7 | 112.4 | 95.4 |
| 42.5° | 242.7 | 192.5 | 129.4 | 83.5 | 66.4 |
| 45° | 214.6 | 166.9 | 105.6 | 56.2 | 36.6 |
| 47.5° | 189.1 | 143.1 | 80.0 | 31.5 | 19.6 |
| 50° | 161.8 | 118.4 | 57.1 | 16.2 | 12.8 |
| 52.5° | 133.7 | 94.5 | 37.5 | 11.1 | 10.2 |
| 55° | 106.4 | 73.2 | 21.3 | 8.5 | 8.5 |
| 57.5° | 80.0 | 52.8 | 11.1 | 6.8 | 6.0 |
| 60° | 56.2 | 34.9 | 6.8 | 5.1 | 4.3 |
| 62.5° | 32.4 | 20.4 | 5.1 | 3.4 | 3.4 |
| 65° | 12.8 | 9.4 | 3.4 | 1.7 | 1.7 |
| 67.5° | 0.9 | 2.6 | 1.7 | 0.9 | 0.9 |
| 70° | 0.0 | 0.0 | 0.9 | 0.9 | 0.9 |
| 72.5° | 0.0 | 0.0 | 0.9 | 0.9 | 0.9 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 |
| 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)