

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: P1057824

Luminaire Tested: S122RDR-S1005D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1057824
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-S1005D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

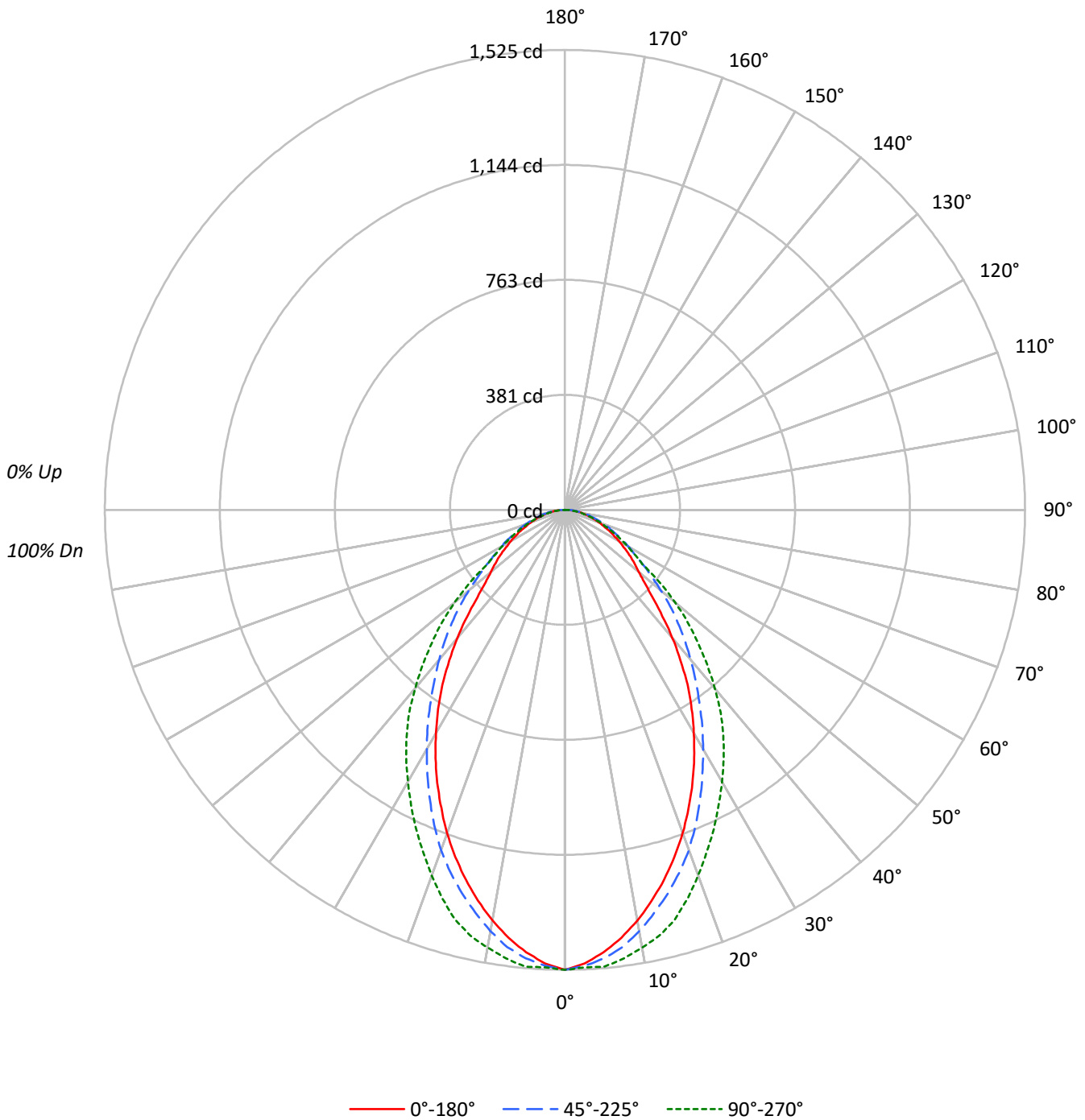
Lumens per Lamp: N/A
Luminaire Lumens: 2486.1 lumens
Efficiency: N/A
Efficacy: 59.5 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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 | 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 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 | | | | 87 |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 80 | 84 | 81 | 78 | 76 | | | | 76 |
| 3 | 94 | 85 | 78 | 73 | 92 | 84 | 77 | 72 | 81 | 75 | 71 | 78 | 74 | 70 | 76 | 72 | 68 | 67 | | | | 67 |
| 4 | 88 | 77 | 69 | 64 | 85 | 76 | 69 | 63 | 73 | 67 | 62 | 71 | 66 | 62 | 69 | 65 | 61 | 59 | | | | 59 |
| 5 | 81 | 70 | 62 | 56 | 80 | 69 | 62 | 56 | 67 | 60 | 55 | 65 | 59 | 55 | 63 | 58 | 54 | 52 | | | | 52 |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 56 | 50 | 61 | 55 | 50 | 60 | 54 | 49 | 58 | 53 | 49 | 47 | | | | 47 |
| 7 | 71 | 59 | 51 | 46 | 69 | 58 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 44 | 43 | | | | 43 |
| 8 | 67 | 54 | 47 | 41 | 65 | 54 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 | | | | 39 |
| 9 | 63 | 50 | 43 | 38 | 61 | 50 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 37 | 47 | 41 | 37 | 36 | | | | 36 |
| 10 | 59 | 47 | 40 | 35 | 58 | 46 | 39 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 44 | 38 | 34 | 33 | | | | 33 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 28138 | 28138 | 28138 |
| 5° | 27275 | 27640 | 28155 |
| 10° | 25900 | 26577 | 27620 |
| 15° | 24244 | 25153 | 26877 |
| 20° | 22411 | 23570 | 25341 |
| 25° | 20364 | 21567 | 23770 |
| 30° | 18203 | 19496 | 22185 |
| 35° | 15958 | 17471 | 20612 |
| 40° | 13350 | 15602 | 18603 |
| 45° | 10697 | 13820 | 16260 |
| 50° | 9178 | 11911 | 13650 |
| 55° | 8387 | 10127 | 10076 |
| 60° | 7625 | 8957 | 8776 |
| 65° | 6947 | 8016 | 7663 |
| 70° | 6372 | 7343 | 6814 |
| 75° | 5960 | 6780 | 5960 |
| 80° | 5579 | 6270 | 5228 |
| 85° | 5547 | 6606 | 4510 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 16260 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 140.8 | 5.7 |
| 10°-20° | 372.7 | 15.0 |
| 20°-30° | 491.6 | 19.8 |
| 30°-40° | 495.0 | 19.9 |
| 40°-50° | 402.9 | 16.2 |
| 50°-60° | 274.7 | 11.0 |
| 60°-70° | 178.3 | 7.2 |
| 70°-80° | 98.2 | 3.9 |
| 80°-90° | 32.0 | 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° | 1005.0 | 40.4 |
| 0°-40° | 1500.0 | 60.3 |
| 0°-60° | 2177.6 | 87.6 |
| 0°-90° | 2486.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2486.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1525 | 1525 | 1525 | 1525 | 1525 | |
| 5° | 1472 | 1500 | 1492 | 1505 | 1520 | 138 |
| 15° | 1269 | 1302 | 1317 | 1371 | 1407 | 356 |
| 25° | 1000 | 1033 | 1059 | 1107 | 1168 | 459 |
| 35° | 708 | 744 | 776 | 843 | 915 | 440 |
| 45° | 410 | 461 | 530 | 576 | 623 | 323 |
| 55° | 261 | 287 | 315 | 316 | 313 | 233 |
| 65° | 159 | 189 | 184 | 174 | 176 | 158 |
| 75° | 84 | 103 | 95 | 85 | 84 | 89 |
| 85° | 26 | 34 | 31 | 25 | 21 | 29 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1057824

CATALOG NUMBER: S122RDR-S1005D850-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1524.9 | 1524.9 | 1524.9 | 1524.9 | 1524.9 |
| 2.5° | 1505.3 | 1529.9 | 1513.5 | 1515.1 | 1518.4 |
| 5° | 1472.5 | 1500.4 | 1492.2 | 1505.3 | 1520.0 |
| 7.5° | 1431.5 | 1459.4 | 1462.6 | 1482.3 | 1500.4 |
| 10° | 1382.3 | 1413.4 | 1418.4 | 1447.9 | 1474.1 |
| 12.5° | 1328.2 | 1362.6 | 1369.2 | 1411.8 | 1446.2 |
| 15° | 1269.1 | 1301.9 | 1316.7 | 1370.8 | 1406.9 |
| 17.5° | 1206.8 | 1238.0 | 1261.0 | 1310.1 | 1351.1 |
| 20° | 1141.3 | 1170.8 | 1200.3 | 1244.6 | 1290.5 |
| 22.5° | 1070.7 | 1103.5 | 1131.4 | 1175.7 | 1228.2 |
| 25° | 1000.2 | 1033.0 | 1059.3 | 1106.8 | 1167.5 |
| 27.5° | 928.1 | 960.9 | 987.1 | 1037.9 | 1103.5 |
| 30° | 854.3 | 888.7 | 915.0 | 972.4 | 1041.2 |
| 32.5° | 782.2 | 816.6 | 846.1 | 906.8 | 978.9 |
| 35° | 708.4 | 744.4 | 775.6 | 842.8 | 915.0 |
| 37.5° | 629.7 | 670.6 | 710.0 | 777.2 | 847.7 |
| 40° | 554.2 | 600.1 | 647.7 | 710.0 | 772.3 |
| 42.5° | 478.8 | 529.6 | 588.7 | 641.1 | 698.5 |
| 45° | 409.9 | 460.8 | 529.6 | 575.5 | 623.1 |
| 47.5° | 355.8 | 398.5 | 472.2 | 510.0 | 552.6 |
| 50° | 319.7 | 349.3 | 414.9 | 444.4 | 475.5 |
| 52.5° | 290.2 | 314.8 | 360.7 | 380.4 | 396.8 |
| 55° | 260.7 | 287.0 | 314.8 | 316.5 | 313.2 |
| 57.5° | 231.2 | 260.7 | 275.5 | 264.0 | 270.6 |
| 60° | 206.6 | 236.1 | 242.7 | 231.2 | 237.8 |
| 62.5° | 180.4 | 213.2 | 213.2 | 201.7 | 205.0 |
| 65° | 159.1 | 188.6 | 183.6 | 173.8 | 175.5 |
| 67.5° | 137.7 | 167.3 | 159.1 | 149.2 | 149.2 |
| 70° | 118.1 | 145.9 | 136.1 | 126.3 | 126.3 |
| 72.5° | 100.0 | 123.0 | 116.4 | 104.9 | 103.3 |
| 75° | 83.6 | 103.3 | 95.1 | 85.3 | 83.6 |
| 77.5° | 67.2 | 83.6 | 77.1 | 68.9 | 65.6 |
| 80° | 52.5 | 67.2 | 59.0 | 52.5 | 49.2 |
| 82.5° | 39.4 | 50.8 | 44.3 | 37.7 | 34.4 |
| 85° | 26.2 | 34.4 | 31.2 | 24.6 | 21.3 |
| 87.5° | 13.1 | 23.0 | 19.7 | 16.4 | 13.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)